

# RADIO TEST REPORT ETSI EN 300 328 V2.2.2 (2019-07)

Product: 4G Tablet

Trade Mark: Blackview

Model Name: Tab 16

Family Model: N/A

Report No.: STR221031005001E

# **Prepared for**

DOKE COMMUNICATION (HK) LIMITED

RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD WANCHAI HK CHINA

# Prepared by

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**TEST RESULT CERTIFICATION** 

Report No.: STR221031005001E

|                                                                                                                                      | : DOKE COMMUNICATION (HK) LIMITED                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
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|                                                                                                                                      | : Shenzhen DOKE Electronic Co.,Ltd                                                                                             |
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| Product description                                                                                                                  |                                                                                                                                |
| Product name                                                                                                                         | .: 4G Tablet                                                                                                                   |
| Trademark                                                                                                                            | : Blackview                                                                                                                    |
| Model Name                                                                                                                           | : Tab 16                                                                                                                       |
| Family Model                                                                                                                         | : N/A                                                                                                                          |
| Standards                                                                                                                            | : ETSI EN 300 328 V2.2.2 (2019-07)                                                                                             |
| requirements. And it is applicate This report shall not be reproduced document may be altered or rethe document.  Test Sample Number |                                                                                                                                |
| Date of Test                                                                                                                         |                                                                                                                                |
| Date (s) of performance of tes                                                                                                       | ts Nov 02. 2022 ~ Dec 01. 2022                                                                                                 |
| Date of Issue                                                                                                                        | Dec 02. 2022                                                                                                                   |
| Test Result                                                                                                                          | Pass                                                                                                                           |
| Testing Engi                                                                                                                         | neer: 1) Wen lin                                                                                                               |
|                                                                                                                                      | (Allen Liu)                                                                                                                    |
|                                                                                                                                      |                                                                                                                                |
| Authorized S                                                                                                                         | Signatory:                                                                                                                     |
|                                                                                                                                      | (Alex Li)                                                                                                                      |
| - 41/11 41/11                                                                                                                        |                                                                                                                                |



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# **Revision History**

| Report No.       | Version | Description             | Issued Date  |
|------------------|---------|-------------------------|--------------|
| STR221031005001E | Rev.01  | Initial issue of report | Dec 02. 2022 |
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# 1. GENERAL INFORMATION

# 1.1 GENERAL DESCRIPTION OF EUT

| Equipment           | 4G Tablet                                                                                                                                                                                                          |                       |  |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--|
| Trade Mark          | Blackview                                                                                                                                                                                                          |                       |  |
| Model Name.         | Tab 16                                                                                                                                                                                                             |                       |  |
| Family Model        | N/A                                                                                                                                                                                                                |                       |  |
| Model Difference    | N/A                                                                                                                                                                                                                |                       |  |
|                     | The EUT is 4G Tablet                                                                                                                                                                                               |                       |  |
|                     | Operation Frequency:                                                                                                                                                                                               | 2402~2480 MHz         |  |
|                     | Modulatin Type:                                                                                                                                                                                                    | GFSK,π/4-DQPSK,8-DPSK |  |
|                     | Modulation Technology:                                                                                                                                                                                             | FHSS                  |  |
|                     | Adaptive/non-adaptive                                                                                                                                                                                              | Adaptive equipment    |  |
|                     | Receiver categories                                                                                                                                                                                                | 2                     |  |
| Product Description | Number Of Channel                                                                                                                                                                                                  | 79CH                  |  |
|                     | Antenna Designation:                                                                                                                                                                                               | PIFA Antenna          |  |
|                     | Antenna Gain(Peak)                                                                                                                                                                                                 | -0.1dBi               |  |
|                     | Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual. |                       |  |
| Channel List        | Refer to below Table                                                                                                                                                                                               |                       |  |
| Adapter             | Model: QZ-01800EA00<br>Input: 100-240V~50/60Hz 0.5A<br>Output: 5.0V==3.0A<br>or 7.0V==2.0A<br>or 9.0V==2.0A<br>or 12.0V==1.5A (18.0W)                                                                              |                       |  |
| Battery             | DC 3.8V, 7680mAh                                                                                                                                                                                                   |                       |  |
| Rating              | DC 3.8V from battery or DC 5V from Adapter.                                                                                                                                                                        |                       |  |
| I/O Ports           | Refer to users manual                                                                                                                                                                                              |                       |  |
| Hardware Version    | P30-T616-V1.0-221112-Q                                                                                                                                                                                             |                       |  |
| Software Version    | Tab_16_NEU_P30_V1.0_20221122V01                                                                                                                                                                                    |                       |  |
|                     | <u> </u>                                                                                                                                                                                                           |                       |  |

### Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



2.

79 channels are provided to (GFSK,  $\pi/4$ -DQPSK, 8-DPSK)

| Channel | Frequency<br>(MHz                     |  |
|---------|---------------------------------------|--|
| 00      | 2402                                  |  |
| 01      | 2403                                  |  |
|         |                                       |  |
|         |                                       |  |
| A       | 1                                     |  |
|         | · · · · · · · · · · · · · · · · · · · |  |
| 77      | 2479                                  |  |
| 78      | 2480                                  |  |

# 1.2 INFORMATION ABOUT THE EUT

| a) The type of modulation used by the equipment:                                    |
|-------------------------------------------------------------------------------------|
|                                                                                     |
| other forms of modulation                                                           |
| b) In case of FHSS modulation:                                                      |
| In case of non-Adaptive Frequency Hopping equipment:                                |
| The number of Hopping Frequencies:                                                  |
| In case of Adaptive Frequency Hopping Equipment:                                    |
| The maximum number of Hopping Frequencies: 79                                       |
| The minimum number of Hopping Frequencies: 79                                       |
| The (average) Dwell Time: 311.904ms Maximum                                         |
| c) Adaptive / non-adaptive equipment:                                               |
| non-adaptive Equipment                                                              |
| adaptive Equipment without the possibility to switch to a non-adaptive mode         |
| adaptive Equipment which can also operate in a non-adaptive mode                    |
| d) In case of adaptive equipment:                                                   |
| The maximum Channel Occupancy Time implemented by the equipment:/ ms                |
| ☐ The equipment has implemented an LBT based DAA mechanism                          |
| In case of equipment using modulation different from FHSS:                          |
| The equipment is Frame Based equipment                                              |
| The equipment is Load Based equipment                                               |
| ☐ The equipment can switch dynamically between Frame Based and Load Based equipment |
| The CCA time implemented by the equipment:/ µs                                      |
| The equipment has implemented a non-LBT based DAA mechanism                         |
| The equipment can operate in more than one adaptive mode                            |
|                                                                                     |



| The maximum RF Output Power (e.i.r.p.):                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------|
| The maximum (corresponding) Duty Cycle:                                                                                                 |
| Equipment with dynamic behaviour, that behaviour is described here. (e.g. the different combinations                                    |
|                                                                                                                                         |
| of duty cycle and corresponding power levels to be declared):                                                                           |
| The worst case operational mode for each of the following tests:                                                                        |
| RF Output Power                                                                                                                         |
| GFSK                                                                                                                                    |
| Power Spectral Density                                                                                                                  |
| N/A                                                                                                                                     |
| Duty cycle, Tx-Sequence, Tx-gap                                                                                                         |
| N/A                                                                                                                                     |
| <ul> <li>Accumulated Transmit time, Frequency Occupation &amp; Hopping Sequence (only for FHSS equipment)</li> <li>π/4-DQPSK</li> </ul> |
| Hopping Frequency Separation (only for FHSS equipment)  8-DPSK                                                                          |
| Medium Utilization                                                                                                                      |
| N/A                                                                                                                                     |
| Adaptivity                                                                                                                              |
| N/A                                                                                                                                     |
| Receiver Blocking                                                                                                                       |
| GFSK                                                                                                                                    |
| Nominal Channel Bandwidth                                                                                                               |
| 8-DPSK                                                                                                                                  |
| Transmitter unwanted emissions in the OOB domain                                                                                        |
| 8-DPSK                                                                                                                                  |
| Transmitter unwanted emissions in the spurious domain                                                                                   |
| GFSK                                                                                                                                    |
| Receiver spurious emissions                                                                                                             |
|                                                                                                                                         |
| GFSK                                                                                                                                    |
| g) The different transmit operating modes (tick all that apply):                                                                        |
| Operating mode 1: Single Antenna Equipment                                                                                              |
| Equipment with only one antenna                                                                                                         |
| Equipment with two diversity antennas but only one antenna active at any moment in time                                                 |
| Smart Antenna Systems with two or more antennas, but operating in a (legacy) mode where only                                            |
| one antenna is used (e.g. IEEE 802.11™ [i.3] legacy mode in smart antenna systems)                                                      |
| Operating mode 2: Smart Antenna Systems - Multiple Antennas without beam forming                                                        |
| ☐ Single spatial stream / Standard throughput / (e.g. IEEE 802.11™ [i.3] legacy mode)                                                   |
| High Throughput (> 1 spatial stream) using Nominal Channel Bandwidth 1                                                                  |
| High Throughput (> 1 spatial stream) using Nominal Channel Randwidth 2                                                                  |



NOTE 1: Add more lines if more channel bandwidths are supported. Operating mode 3: Smart Antenna Systems - Multiple Antennas with beam forming Single spatial stream / Standard throughput (e.g. IEEE 802.11™ [i.3] legacy mode) High Throughput (> 1 spatial stream) using Nominal Channel Bandwidth 1 High Throughput (> 1 spatial stream) using Nominal Channel Bandwidth 2 NOTE 2: Add more lines if more channel bandwidths are supported. h) In case of Smart Antenna Systems: • The number of Receive chains: ..... The number of Transmit chains: ... symmetrical power distribution asymmetrical power distribution In case of beam forming, the maximum (additional) beam forming gain: ...... dB NOTE: The additional beam forming gain does not include the basic gain of a single antenna. i) Operating Frequency Range(s) of the equipment: Operating Frequency Range 1: 2402 MHz to 2480 MHz Operating Frequency Range 2: ..... MHz to ..... MHz NOTE: Add more lines if more Frequency Ranges are supported. i) Nominal Channel Bandwidth(s): Nominal Channel Bandwidth 1: 1.197MHz • Nominal Channel Bandwidth 2: ...../..... MHz NOTE: Add more lines if more channel bandwidths are supported. k) Type of Equipment (stand-alone, combined, plug-in radio device, etc.): X Stand-alone Combined Equipment (Equipment where the radio part is fully integrated within another type of equipment) Plug-in radio device (Equipment intended for a variety of host systems) The normal and the extreme operating conditions that apply to the equipment: Normal operating conditions (if applicable): Operating temperature: 15 °C ~35 °C Other (please specify if applicable): ...... Extreme operating conditions: Operating temperature range: Minimum: -10°C Maximum 40°C Other (please specify if applicable): ..... Minimum: ..... Maximum . Details provided are for the: stand-alone equipment combined (or host) equipment test jig



|                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                     | gs and one or more antenna                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| The intended combin                                                                                                                                                                                          | nation(s) of the radio e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | equipment power settin                                                                                                              | J                                                                                                                      |
| assemblies and their                                                                                                                                                                                         | corresponding e.i.r.p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | . levels:                                                                                                                           |                                                                                                                        |
| Antenna Type: PIFA                                                                                                                                                                                           | Antenna                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                     |                                                                                                                        |
| Integral Antenna (                                                                                                                                                                                           | information to be provide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ded in case of conducted                                                                                                            | I measurements)                                                                                                        |
| Antenna Gain: -0                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                     |                                                                                                                        |
| If applicable, addition                                                                                                                                                                                      | onal beamforming gain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | (excluding basic antenna                                                                                                            | a gain):/ dB                                                                                                           |
|                                                                                                                                                                                                              | F connector provided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                     |                                                                                                                        |
|                                                                                                                                                                                                              | y RF connector provide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ed S                                                                                                                                |                                                                                                                        |
|                                                                                                                                                                                                              | ntennas (equipment wit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                     |                                                                                                                        |
|                                                                                                                                                                                                              | level with corresponding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | •                                                                                                                                   |                                                                                                                        |
|                                                                                                                                                                                                              | er settings and correspond                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                     |                                                                                                                        |
|                                                                                                                                                                                                              | rent Power Levels:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                     |                                                                                                                        |
| Power Level 1:                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | •                                                                                                                                   |                                                                                                                        |
| Power Level 2:                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                     |                                                                                                                        |
| Power Level 3:                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                     |                                                                                                                        |
|                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | quipment has more powe                                                                                                              | er levels.                                                                                                             |
|                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ucted power levels (at ar                                                                                                           |                                                                                                                        |
| NOTE 2. THESE                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ucteu power levels (at al                                                                                                           | iterina connector).                                                                                                    |
| For each of the Davier                                                                                                                                                                                       | I aviala muavida tha int                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | anded antenne coccabi                                                                                                               | an their corresponding going                                                                                           |
|                                                                                                                                                                                                              | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                     | es, their corresponding gains                                                                                          |
| G) and the resulting e.i                                                                                                                                                                                     | .r.p. levels also taking i                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                     | es, their corresponding gains ming gain (Y) if applicable                                                              |
| G) and the resulting e.i  Power Level 1:                                                                                                                                                                     | .r.p. levels also taking i                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                     | ming gain (Y) if applicable                                                                                            |
| 6) and the resulting e.i  Power Level 1:  Number of ante                                                                                                                                                     | .r.p. levels also taking i                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | into account the beamfor                                                                                                            | ming gain (Y) if applicable                                                                                            |
| 6) and the resulting e.i  Power Level 1:  Number of ante  Assembly #                                                                                                                                         | .r.p. levels also taking i<br>dBm<br>nna assemblies provide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | into account the beamfor                                                                                                            | ming gain (Y) if applicable                                                                                            |
| G) and the resulting e.i  Power Level 1:  Number of ante  Assembly #                                                                                                                                         | r.p. levels also taking in the control of the contr | ed for this power level: e.i.r.p. (dBm)                                                                                             | ming gain (Y) if applicable                                                                                            |
| G) and the resulting e.i  Power Level 1:  Number of ante  Assembly #  1                                                                                                                                      | r.p. levels also taking in the control of the contr | ed for this power level: e.i.r.p. (dBm)                                                                                             | ming gain (Y) if applicable                                                                                            |
| 6) and the resulting e.i  Power Level 1:  Number of ante  Assembly #  1  2                                                                                                                                   | r.p. levels also taking in the control of the contr | ed for this power level:  e.i.r.p. (dBm)  3.49                                                                                      | ming gain (Y) if applicable                                                                                            |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m                                                                                                                                            | .r.p. levels also taking in the control of the cont | ed for this power level:  e.i.r.p. (dBm)  3.49                                                                                      | ming gain (Y) if applicable  Part number or model name                                                                 |
| Power Level 1: Number of ante  Assembly #  NOTE 3: Add m                                                                                                                                                     | .r.p. levels also taking in the control of the cont | ed for this power level:  e.i.r.p. (dBm)  3.49                                                                                      | Part number or model name                                                                                              |
| Power Level 1: Number of ante  Assembly #  NOTE 3: Add m  Power Level 2: Number of ante                                                                                                                      | .r.p. levels also taking in the control of the cont | ed for this power level: e.i.r.p. (dBm) 3.49 antenna assemblies are                                                                 | Part number or model name                                                                                              |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m                                                                                                                                            | .r.p. levels also taking in the control of the cont | ed for this power level:  e.i.r.p. (dBm)  3.49  antenna assemblies are                                                              | Part number or model name supported for this power level                                                               |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m  Power Level 2: Number of ante  Assembly #  1                                                                                              | .r.p. levels also taking in the control of the cont | ed for this power level:  e.i.r.p. (dBm)  3.49  antenna assemblies are                                                              | Part number or model name supported for this power level                                                               |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m  Power Level 2: Number of ante  Assembly #  1  2                                                                                           | .r.p. levels also taking in the control of the cont | ed for this power level:  e.i.r.p. (dBm)  3.49  antenna assemblies are                                                              | Part number or model name supported for this power level                                                               |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m  Power Level 2: Number of ante  Assembly #  1  2  3  1  2  3  1  2  3  1  2  3  4  3  4  4  5  5  6  7  8  8  8  8  8  8  8  8  8  8  8  8 | .r.p. levels also taking in the control of the cont | ed for this power level:  e.i.r.p. (dBm)  3.49  antenna assemblies are  ed for this power level:  e.i.r.p. (dBm)                    | Part number or model name supported for this power level.  Part number or model name                                   |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m  Power Level 2: Number of ante  Assembly #  1  2  3  1  2  3  1  2  3  1  2  3  4  3  4  4  5  5  6  7  8  8  8  8  8  8  8  8  8  8  8  8 | .r.p. levels also taking in the control of the cont | ed for this power level:  e.i.r.p. (dBm)  3.49  antenna assemblies are  ed for this power level:  e.i.r.p. (dBm)                    | Part number or model name supported for this power level                                                               |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m  Power Level 2: Number of ante  Assembly #  1  2  3  NOTE 4: Add m  Power Level 3:                                                         | .r.p. levels also taking in the control of the cont | ed for this power level:  e.i.r.p. (dBm)  3.49  antenna assemblies are  ed for this power level:  e.i.r.p. (dBm)                    | Part number or model name  supported for this power level.  Part number or model name  supported for this power level. |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m  Power Level 2: Number of ante  Assembly #  1  2  3  NOTE 4: Add m  Power Level 3: Number of ante                                          | .r.p. levels also taking in the control of the cont | e.i.r.p. (dBm)  3.49  antenna assemblies are ed for this power level: e.i.r.p. (dBm)  antenna assemblies are antenna assemblies are | Part number or model name  supported for this power level.  Part number or model name  supported for this power level. |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m  Power Level 2: Number of ante  Assembly #  1  2  3  NOTE 4: Add m  Power Level 3: Number of ante                                          | .r.p. levels also taking in the control of the cont | e.i.r.p. (dBm)  antenna assemblies are  e.i.r.p. (dBm)  antenna assemblies are  ed for this power level:  e.i.r.p. (dBm)            | Part number or model name supported for this power level.  Part number or model name supported for this power level.   |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m  Power Level 2: Number of ante  Assembly #  1  2  3  NOTE 4: Add m  Power Level 3: Number of ante  Assembly #  1  2                        | .r.p. levels also taking in the control of the cont | e.i.r.p. (dBm)  antenna assemblies are  e.i.r.p. (dBm)  antenna assemblies are  ed for this power level:  e.i.r.p. (dBm)            | Part number or model name supported for this power level.  Part number or model name supported for this power level.   |
| Power Level 1: Number of ante  Assembly #  1  2  3  NOTE 3: Add m  Power Level 2: Number of ante  Assembly #  1  2  3  NOTE 4: Add m  Power Level 3: Number of ante  Assembly #                              | .r.p. levels also taking in the control of the cont | e.i.r.p. (dBm)  antenna assemblies are  e.i.r.p. (dBm)  antenna assemblies are  ed for this power level:  e.i.r.p. (dBm)            | Part number or model name supported for this power level.  Part number or model name supported for this power level.   |



Page 12 of 85 Report No.: STR221031005001E n) The nominal voltages of the stand-alone radio equipment or the nominal voltages of the combined (host) equipment or test jig in case of plug-in devices: Details provided are for the: stand-alone equipment combined (or host) equipment test jig Supply Voltage AC mains State AC voltage .......... V DC State DC voltage: DC 3.8V In case of DC, indicate the type of power source Internal Power Supply External Power Supply or AC/DC adapter: DC 5V Battery: DC 3.8V Other: ..... o) Describe the test modes available which can facilitate testing: See clause 1.4 p) The equipment type (e.g. Bluetooth®, IEEE 802.11™ [i.3], IEEE 802.15.4™ [i.4], proprietary, etc.): Bluetooth® q) If applicable, the statistical analysis referred to in clause 5.4.1 q) (to be provided as separate attachment) r) If applicable, the statistical analysis referred to in clause 5.4.1 r) (to be provided as separate attachment) s) Geo-location capability supported by the equipment: Yes The geographical location determined by the equipment as defined in clause 4.3.1.13.2 or clause 4.3.2.12.2 is not accessible to the user t) Describe the minimum performance criteria that apply to the equipment (see clause 4.3.1.12.3 or clause 4.3.2.11.3): GFSK(CH00) = 0.94%



1.3 TEST CONDITIONS

| A- 8              | Normal Test Conditions | Extreme Test Conditions |
|-------------------|------------------------|-------------------------|
| Temperature       | 15℃ - 35℃              | -10℃ ~ 40℃ Note: (1)    |
| Relative Humidity | 20% - 75%              | N/A                     |
| Supply Voltage    | DC 3.8V                | 1                       |

#### Note:

- (2) The measurements are performed at the highest, middle, lowest available channels.

## 1.4 TEST CONFIGURATION OF EUT

| Modulation Used For Conformance Testing |           |                 |  |
|-----------------------------------------|-----------|-----------------|--|
| Bluetooth mode                          | Data rate | Modulation type |  |
| BR                                      | 1Mbps     | GFSK            |  |
| EDR                                     | 2Mbps     | π/4-DQPSK       |  |
| EDR                                     | 3Mbps     | 8-DPSK          |  |

| Test Channel Frequencies Configuration |             |                      |  |  |  |
|----------------------------------------|-------------|----------------------|--|--|--|
| Test Channel                           | EUT Channel | Test Frequency (MHz) |  |  |  |
| Lowest                                 | CH00        | 2402                 |  |  |  |
| Middle                                 | CH39        | 2441                 |  |  |  |
| Highest                                | CH78        | 2480                 |  |  |  |



| 1.5 | DESCRIPTION | OF TEST | CONDITIONS |  |
|-----|-------------|---------|------------|--|
|     |             |         |            |  |

E-1 EUT



#### 1.6 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Item         | Equipment | Model/Type No. | Series No. | Note |
|--------------|-----------|----------------|------------|------|
| E-1          | 4G Tablet | Tab 16         | N/A        | EUT  |
|              | 4.        | <b>%</b> -     | 140        |      |
|              |           | 4 30           |            |      |
|              | *         |                |            |      |
| <del>_</del> | 4         |                |            | 4    |
|              |           |                | 3          |      |
|              | 4         | J 4            |            |      |

| Item | Shielded Type | Ferrite Core | Length | Note |    |
|------|---------------|--------------|--------|------|----|
|      |               |              |        |      |    |
|      |               | *            | 3      | ,L   |    |
|      | * 3           |              | 4      |      | 4  |
|      |               |              |        |      | ,L |
|      |               |              |        |      |    |

#### Note:

- (1)
- The support equipment was authorized by Declaration of Confirmation. For detachable type I/O cable should be specified the length in cm in  $\lceil$  Length  $\rfloor$  column. (2)



# 1.7 EQUIPMENTS LIST FOR ALL TEST ITEMS

| EQUIPMENT<br>TYPE                                        | Manufacturer          | Type No.          | Serial No.        | Last calibration | Calibrated until | Calibration period |
|----------------------------------------------------------|-----------------------|-------------------|-------------------|------------------|------------------|--------------------|
| EMI Test Receiver                                        | R&S                   | ESPI7             | 101318            | 2022.04.06       | 2023.04.05       | 1 year             |
| Bilog Antenna                                            | TESEQ                 | CBL6111D          | 31216             | 2022.03.30       | 2023.03.29       | 1 year             |
| Turn Table                                               | EM                    | SC100_1           | 60531             | N/A              | N/A              | N/A                |
| Antnna Mast                                              | EM                    | SC100             | N/A               | N/A              | N/A              | N/A                |
| Horn Antenna                                             | EM                    | EM-AH-10180       | 2011071402        | 2022.03.31       | 2023.03.30       | 1 year             |
| Horn Ant                                                 | Schwarzbeck           | BBHA 9170         | 9170-181          | 2022.04.01       | 2023.03.31       | 1 year             |
| Test Cable<br>(30MHz-1GHz)                               | N/A                   | R-01              | N/A               | 2022.06.17       | 2025.06.16       | 3 year             |
| Test Cable<br>(1-18GHz)                                  | N/A                   | R-02              | N/A               | 2022.06.17       | 2025.06.16       | 3 year             |
| 50Ω Coaxial Switch                                       | Anritsu               | MP59B             | 6200983705        | 2020.05.11       | 2023.05.10       | 3 year             |
| Pre-Amplifier                                            | EMC                   | EMC051835SE       | 980246            | 2022.06.17       | 2023.06.16       | 1 year             |
| Spectrum Analyzer                                        | Agilent               | E4407B            | MY45108040        | 2022.04.01       | 2023.03.31       | 1 year             |
| Filter                                                   | TRILTHIC              | 2400MHz           | 29                | 2020.04.07       | 2023.04.06       | 3 year             |
| Attenuator                                               | Weinschel             | 33-10-33          | AR4010            | 2020.04.07       | 2023.04.06       | 3 year             |
| Attenuator                                               | Weinschel             | 24-20-34          | BP4485            | 2020.04.07       | 2023.04.06       | 3 year             |
| MXA Signal<br>Analyzer                                   | Agilent               | N9020A            | MY49100060        | 2022.06.17       | 2023.06.16       | 1 year             |
| ESG VETCTOR<br>SIGNAL<br>GENERAROR                       | Agilent               | E4438C            | MY45093347        | 2022.04.01       | 2023.03.31       | 1 year             |
| PSG Analog Signal<br>Generator                           | Agilent               | E8257D            | MY51110112        | 2022.06.17       | 2023.06.16       | 1 year             |
| Power Splitter                                           | Mini-Circuits/<br>USA | ZN2PD-63-S+       | SF025101428       | 2020.04.07       | 2023.04.06       | 3 year             |
| Coupler                                                  | Mini-Circuits         | ZADC-10-63-S<br>+ | SF794101410       | 2020.04.07       | 2023.04.06       | 3 year             |
| Directional Coupler                                      | MCLI/USA              | CB11-20           | 0D2L51502         | 2020.07.17       | 2023.07.16       | 3 year             |
| Attenuator                                               | Agilent               | 8495B             | MY42147029        | 2020.04.13       | 2023.04.12       | 3 year             |
| Power Meter                                              | DARE                  | RPR3006W          | 15I00041SNO<br>84 | 2022.06.17       | 2023.06.16       | 1 year             |
| MXG Vector Signal<br>Generator                           | Agilent               | N5182A            | MY47070317        | 2022.04.01       | 2023.03.31       | 1 year             |
| Wideband Radio<br>Communication<br>Tester Specifications | R&S                   | CMW500            | 148500            | 2022.04.01       | 2023.03.31       | 1 year             |
| temporary antenna<br>connector<br>(Note)                 | NTS                   | R001              | N/A               | N/A              | N/A              | N/A                |



#### 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

|          | ETSI EN 300 328 V2.2.2 (2019-07)                                     |                                  |
|----------|----------------------------------------------------------------------|----------------------------------|
| Clause   | Test Item                                                            | Results                          |
|          | TRANSMITTER PARAMETERS                                               |                                  |
| 4.3.1.2  | RF Output Power                                                      | Pass                             |
| 4.3.1.3  | Duty cycle, Tx-Sequence, Tx-gap                                      | Not Applicable<br>(See Note 1/2) |
| 4.3.1.4  | Accumulated Transmit Time, Frequency Occupation and Hopping Sequence | Pass                             |
| 4.3.1.5  | Hopping Frequency Separation                                         | Pass                             |
| 4.3.1.6  | Medium Utilization (MU) factor                                       | Not Applicable<br>(See Note 1/2) |
| 4.3.1.7  | Adaptivity                                                           | Not Applicable<br>(See Note 1)   |
| 4.3.1.8  | Occupied Channel Bandwidth                                           | Pass                             |
| 4.3.1.9  | Transmitter unwanted emission in the OOB domain                      | Pass                             |
| 4.3.1.10 | Transmitter unwanted emissions in the spurious domain                | Pass                             |
| l        | RECEIVER PARAMETERS                                                  |                                  |
| 4.3.1.11 | Receiver Spurious Emissions                                          | Pass                             |
| 4.3.1.12 | Receiver Blocking                                                    | Pass                             |

#### Note:

- 1. These requirements do not apply for equipment with a maximum declared RF output power of less than 10 dBm EIRP or for equipment when operating in a mode where the RF output power is less than 10 dBm EIRP.
- 2. These requirements apply to non-adaptive frequency hopping equipment or to adaptive frequency hopping equipment operating in a non-adaptive mode
- 3. The antenna gain provided by customer is used to calculate the EIRP result. NTEK is not responsible for the accuracy of antenna gain parameter.



#### 2.1 TEST FACILITY

Shenzhen NTEK Testing Technology Co., Ltd.

Add.: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District,

Shenzhen 518126 P.R. China

FCC Registered No.: 463705 IC Registered No.:9270A-1

CNAS Registration No.:L5516

#### 2.2 MAXIMUM MEASUREMENT UNCERTAINTY

For the test methods, according to ETSI EN 300 328 standard, the measurement uncertainty figures shall be calculated in accordance with ETR 100 028-1[4] and shall correspond to an expansion factor(coverage factor) k=1.96 or k=2 (which provide confidence levels of respectively 95 % and 95.45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

Maximum measurement uncertainty

| No. | Item                              | Uncertainty |
|-----|-----------------------------------|-------------|
| 1 . | Occupied Channel Bandwidth        | ± 5%        |
| 2   | RF output Power,conducted         | ±1.5dB      |
| 3   | Power Spectral Density, conducted | ± 3dB       |
| 4   | Unwanted emissions, conducted     | ± 3dB       |
| 5   | All emissions,radiated            | ± 6dB       |
| 6   | Temperature                       | ±3°C        |
| 7   | Humidity                          | ± 3%        |
| 9   | Time                              | ± 5%        |



# TRANSMITTER PARAMETERS

### 3. RF OUTPUT POWER

#### 3.1 LIMITS OF RF OUTPUT POWER

Refer to chapter 4.3.1.2.3 of ETSI EN 300 328 V2.2.2 (2019-07)

| RF OUTPUT POWER                          |                                                                                                                      |  |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--|
| Condition                                | Limit                                                                                                                |  |
| ☐ Non-adaptive frequency hopping systems | Equal to or less than the value declared by the supplier. This declared value shall be equal to or less than 20 dBm. |  |
| Adaptive frequency hopping systems       | equal to or less than 20 dBm.                                                                                        |  |

#### 3.2 TEST PROCEDURE

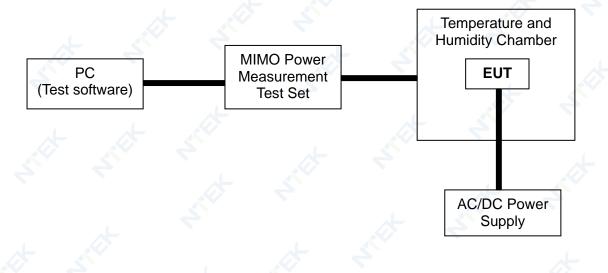
Refer to chapter 5.4.2.2 of ETSI EN 300 328 V2.2.2 (2019-07)

| Measurement |                      |  |
|-------------|----------------------|--|
|             | Radiated measurement |  |

#### 3.3 DEVIATION FROM TEST STANDARD

No deviation

#### 3.4 TEST SETUP







# 3.5 TEST RESULTS

| EUT:         | 4G Tablet                 | Model Name :       | Tab 16  |
|--------------|---------------------------|--------------------|---------|
| Temperature: | 20°C                      | Relative Humidity: | 55 %    |
| Pressure:    | 1012 hPa                  | Test Voltage :     | DC 3.8V |
| Test Mode :  | BT-GFSK/π/4-DQPSK /8-DPSK | 7                  | * <     |

Test data reference attachment



4. ACCUMULATED TRANSMIT TIME, FREQUENCY OCCUPATION AND HOPPING SEQUENCE

4.1 LIMITS OF ACCUMULATED TRANSMIT TIME, FREQUENCY OCCUPATION AND HOPPING SEQUENCE

Refer to chapter 4.3.1.4.3 of ETSI EN 300 328 V2.2.2 (2019-07)

| Accumulated Transmit Time              |                                                                                                    |  |  |
|----------------------------------------|----------------------------------------------------------------------------------------------------|--|--|
| Condition                              | Limit                                                                                              |  |  |
| Non-adaptive frequency hopping systems | ≤ 15 ms[15 ms * the minimum number of hopping frequencies (N)]                                     |  |  |
| Adaptive frequency hopping systems     | ≤ 400 ms in [400 ms * the minimum number of hopping frequencies (N)]                               |  |  |
| MINIMUM                                | FREQUENCY OCCUPATION TIME                                                                          |  |  |
| Condition                              | Limit                                                                                              |  |  |
| Non-adaptive frequency hopping systems | Each hopping frequency of the hopping sequence shall be occupied at least once within a period not |  |  |
| Adaptive frequency hopping systems     | exceeding four times the product of the dwell time and the number of hopping frequencies in use.   |  |  |
| , C                                    | OPPING SEQUENCE (S)                                                                                |  |  |
| Condition                              | Limit                                                                                              |  |  |
| Non-adaptive frequency hopping systems | ≥15 hopping frequencies or 15/minimum                                                              |  |  |
|                                        | Operating over a minimum of 70% of the Operating in the band 2.4 GHz to 2.4835 GHz                 |  |  |
| hopping systems                        | ≥15 hopping frequencies or 15/minimum                                                              |  |  |

#### 4.2 TEST PROCEDURE

Refer to chapter 5.4.4 of ETSI EN 300 328 V2.2.2 (2019-07)

| Me | easurement           |
|----|----------------------|
|    | Radiated measurement |

#### 4.3 DEVIATION FROM TEST STANDARD

No deviation



#### 4.4 TEST SETUP



The measurements only were performed at normal test conditions. The equipment was configured to operate at its maximun Dwell time and maximum Duty Cycle. The measurement was performed on a minimum of 2 hopping frequencies chosen arbitrary from the actual hopping sequence. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator. Controlling software (Button Function) has been activated to set the EUT on specific status.

#### 4.5 TEST RESULTS

| EUT:                                               | 4G Tablet                       | Model Name :      | Tab 16 |
|----------------------------------------------------|---------------------------------|-------------------|--------|
| Temperature:                                       | 26°C                            | Relative Humidity | 60 %   |
| Pressure:                                          | 1012 hPa Test Voltage : DC 3.8V |                   |        |
| Test Mode : BT-GFSK/π/4-DQPSK /8-DPSK-Hopping Mode |                                 |                   |        |

Test data reference attachment



5. OCCUPIED CHANNEL BANDWIDTH

# 5.1 LIMITS OF OCCUPIED CHANNEL BANDWIDTH Refer to chapter 4.3.1.8.3 of ETSI EN 300 328 V2.2.2 (2019-07)

|             |                                                                                      | 4                                                        |
|-------------|--------------------------------------------------------------------------------------|----------------------------------------------------------|
|             | OCCUPIED CHANNEL BA                                                                  | NDWIDTH                                                  |
| .07         | Condition                                                                            | Limit                                                    |
| A           | Il types of equipment                                                                | Shall fall completely within the band 2400 to 2483.5 MHz |
| Additional  | For non-adaptive using wide band modulations other than FHSS system and EIRP >10 dBm | Less than 20 MHz                                         |
| requirement | For non-adaptive frequency hopping system and EIRP >10 dBm                           | Less than 5 MHz                                          |

#### 5.2 TEST PROCEDURE

Refer to chapter 5.4.7.2 of ETSI EN 300 328 V2.2.2 (2019-07)

|                           | Me                   | easurement                   |         |
|---------------------------|----------------------|------------------------------|---------|
| ⊠Conducted n              | neasurement          | Radiated measu               | urement |
| The setting of the Specti | rum Analyzer         | 300                          |         |
| Center Frequency          | The centre frequence | cy of the channel under test |         |
| Frequency Span            | 2 x Nominal Channe   | el Bandwidth                 |         |
| Detector                  | RMS                  | A 30 3                       |         |
| RBW                       | ~ 1 % of the span w  | ithout going below 1 %       |         |
| VBW                       | 3 × RBW              |                              | 4       |
| Trace                     | Max hold             | 4                            |         |
| Sweep time                | 1s                   |                              | ,L &    |



#### 5.3 DEVIATION FROM TEST STANDARD

No deviation

## 5.4 TEST SETUP



These measurements only were performed at normal test conditions. The measurement shall be performed only on the lowest and the highest frequency within the ststed frequency range. Using software to force the EUT to hop or transmit on a single Hopping frequency. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator. Controlling software (Button Function) has been activated to set the EUT on specific status.

#### 5.5 TEST RESULTS

| EUT:         | 4G Tablet                                         | Model Name :       | Tab 16  |
|--------------|---------------------------------------------------|--------------------|---------|
| Temperature: | 26°C                                              | Relative Humidity: | 60 %    |
| Pressure:    | 1012 hPa                                          | Test Voltage :     | DC 3.8V |
| Test Mode :  | Test Mode : BT-GFSK/π/4-DQPSK /8-DPSK-(CH00/CH78) |                    |         |

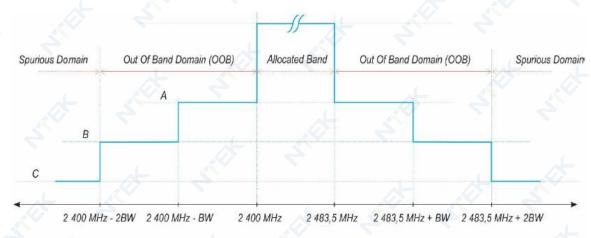
Test data reference attachment



#### 6. TRANSMITTER UNWANTED EMISSIONS IN THE OUT-OF-BAND DOMAIN

6.1 LIMITS OF TRANSMITTER UNWANTED EMISSIONS IN THE OUT-OF-BAND DOMAIN Refer to chapter 4.3.1.9.3 of ETSI EN 300 328 V2.2.2 (2019-07)

| TRANSMITTER UNWANTED EMISSIONS IN THE OUT-OF-BAND DOMAIN |                                                                                                                                                                |  |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Condition Limit                                          |                                                                                                                                                                |  |
| Under all test conditions                                | The transmitter unwanted emissions in the out-of-band domain but outside the allocated band, shall not exceed the values provided by the mask in below figure. |  |



- A: -10 dBm/MHz e.i.r.p.
- B: -20 dBm/MHz e.i.r.p.
- C: Spurious Domain limits

BW = Occupied Channel Bandwidth in MHz or 1 MHz whichever is greater

Figure 1: Transmit mask

#### 6.2 TEST PROCEDURE

Refer to chapter 5.4.8.2of ETSI EN 300 328 V2.2.2 (2019-07)

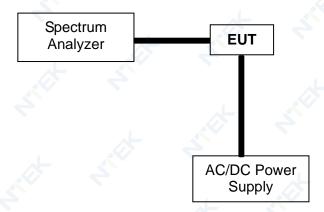
| Measurement                     |                           |  |  |  |
|---------------------------------|---------------------------|--|--|--|
|                                 | ment Radiated measurement |  |  |  |
| The setting of the Spectrum Ana | alyzer                    |  |  |  |
| Span                            | 0Hz                       |  |  |  |
| Filter Mode                     | Channel Filter            |  |  |  |
| Trace Mode                      | Clear/Write               |  |  |  |
| Trigger Mode                    | Video Trigger             |  |  |  |
| Detector                        | RMS                       |  |  |  |
| Sweep Point / Sweep Mode        | 5000 / Continuous         |  |  |  |
| RBW / VBW                       | 1MHz / 3MHz               |  |  |  |



#### 6.3 DEVIATION FROM TEST STANDARD

No deviation

#### 6.4 TEST SETUP



According to the EN 300328 V2.2.2 clause 5.4.8.1: These measurements shall only be performed at normal test conditions. For equipment using FHSS modulation, the measurements shall be performed during normal operation (hopping).

For equipment using wide band modulations other than FHSS, the measurement shall be performed at the lowest and the highest channel on which the equipment can operate. These operating channels shall be recorded.

The equipment shall be configured to operate under its worst case situation with respect to output power.

If the equipment can operate with different Nominal Channel Bandwidths (e.g. 20 MHz and 40 MHz), then each channel bandwidth shall be tested separately.

#### 6.5 TEST RESULTS

| EUT:         | 4G Tablet                        | Model Name :       | Tab 16 |
|--------------|----------------------------------|--------------------|--------|
| Temperature: | 26°C                             | Relative Humidity: | 60 %   |
| Pressure :   | 1012 hPa Test Voltage : DC 3.8V  |                    |        |
| Test Mode :  | BT-GFSK/π/4-DQPSK /8-DPSK-(CH78) |                    |        |

Test data reference attachment



7. HOPPING FREQUENCY SEPARATION

# 7.1 LIMITS OF HOPPING FREQUENCY SEPARATION Refer to chapter 4.3.1.5.3 of ETSI EN 300 328 V2.2.2 (2019-07)

| HOPPING FREQUENCY SEPARATION             |                                                                                                                                                              |  |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Condition                                | Limit                                                                                                                                                        |  |
| ☐ Non-adaptive frequency hopping systems | The minimum Hopping Frequency Separation shall be equal to or greater than occupide channel bandwidth of a single hop, with a minimum separation of 100 kHz. |  |
| Adaptive frequency hopping systems       | The minimum Hopping Frequency Separation shall be 100 kHz.                                                                                                   |  |

#### 7.2 TEST PROCEDURE

Refer to chapter 5.4.5.2 of ETSI EN 300 328 V2.2.2 (2019-07)

|                         | Me                                                                        | easurement           |
|-------------------------|---------------------------------------------------------------------------|----------------------|
| ⊠Conducted n            | neasurement                                                               | Radiated measurement |
| he setting of the Spect | rum Analyzer                                                              |                      |
| Center Frequency        | Centre of the two adjacent hopping frequencies                            |                      |
| Frequency Span          | Sufficient to see the complete power envelope of both hopping frequencies |                      |
| Detector                | Max Peak                                                                  | 5. 5.                |
| RBW                     | ~ 1 % of the span                                                         | <i>.</i> ₽ ₹,        |
| VBW                     | 3 × RBW                                                                   | <u> </u>             |
| Trace                   | Max hold                                                                  |                      |
| Sweep Time              | Auto                                                                      |                      |

## 7.3 DEVIATION FROM TEST STANDARD

No deviation



#### 7.4 TEST SETUP



The measurements were performed at normal test conditions. The measurement was performed on 2 adjacent hopping frequencies. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator. Controlling software (Button Function) has been activated to set the EUT on specific status.

#### 7.5 TEST RESULTS

| EUT:         | 4G Tablet                                        | Model Name :       | Tab 16  |
|--------------|--------------------------------------------------|--------------------|---------|
| Temperature: | 26°C                                             | Relative Humidity: | 60 %    |
| Pressure:    | 1012 hPa                                         | Test Voltage :     | DC 3.8V |
| Test Mode :  | ode : BT-GFSK/π/4-DQPSK /8-DPSK-(CH00/CH39/CH78) |                    |         |

#### Test data reference attachment

Note: 1.The limitation is from OCB of a single hop and this value must greater and equal to 100kHz. 2.The device will never "hop" to its neighbour channel, therefore the "effective" channel separation becomes 2x the "normal" channel separation.



8. TRANSMITTER UNWANTED EMISSIONS IN THE SPURIOUS DOMAIN

# 8.1 LIMITS OF TRANSMITTER TRANSMITTER UNWANTED EMISSIONS IN THE SPURIOUS DOMAIN

Refer to chapter 4.3.1.10.3 of ETSI EN 300 328 V2.2.2 (2019-07)

| TRANSMITTER UNWANTED E | MISSIONS IN THE SPURIOUS DO                                  | OMAIN     |
|------------------------|--------------------------------------------------------------|-----------|
| Frequency Range        | Maximum Power Limit<br>(E.R.P.(≤1 GHz)<br>E.I.R.P.(> 1 GHz)) | Bandwidth |
| 30 MHz to 47 MHz       | -36dBm                                                       | 100 kHz   |
| 47 MHz to 74 MHz       | -54dBm                                                       | 100 kHz   |
| 74 MHz to 87.5 MHz     | -36dBm                                                       | 100 kHz   |
| 87.5 MHz to 118 MHz    | -54dBm                                                       | 100 kHz   |
| 118 MHz to 174 MHz     | -36dBm                                                       | 100 kHz   |
| 174 MHz to 230 MHz     | -54dBm                                                       | 100 kHz   |
| 230 MHz to 470 MHz     | -36dBm                                                       | 100 kHz   |
| 470 MHz to 694 MHz     | -54dBm                                                       | 100 kHz   |
| 694 MHz to 1 GHz       | -36dBm                                                       | 100 kHz   |
| 1 GHz ~ 12.75 GHz      | -30dBm                                                       | 1 MHz     |

#### 8.2 TEST PROCEDURE

Refer to chapter 5.4.9.2 of ETSI EN 300 328 V2.2.2 (2019-07)

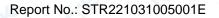
| M M | easurement |
|-----|------------|
|     |            |

The setting of the Spectrum Analyzer

| RBW | 100K(<1GHz) / 1M(>1GHz) |
|-----|-------------------------|
| VBW | 300K(<1GHz) / 3M(>1GHz) |

## 8.3 DEVIATION FROM TEST STANDARD

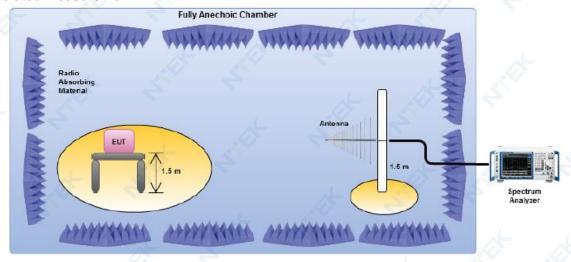
No deviation



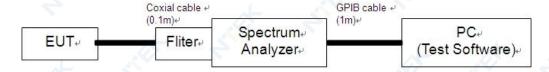


#### 8.4 TEST SETUP

#### Radiated measurement:



#### Conducted measurement:



- 1. For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Configuration).
- 2. The measurements were performed when normal hopping was disabled. In this case measurements were performed when operating at the lowest and the highest hopping frequency.
- 3. The equipment was configured to operate under its worst case situation with respect to output power.
- 4. The test setup has been constructed as the normal use condition. Controlling software (Button Function) has been activated to set the EUT on specific status.



54%

Relative Humidity



8.5 TEST RESULTS (Radiated measurement)

BELOW 1 GHz WORST- CASE DATA (30 MHz ~ 1GHz)

EUT: 4G Tablet Model Name: Tab 16

Pressure: 1010 hPa Test Power: DC 3.8V

Test Mode : BT-GFSK (CH00)

24 °C

| Polar | Frequency | Meter<br>Reading | Factor    | Emission<br>Level | Limits | Margin | Remark |
|-------|-----------|------------------|-----------|-------------------|--------|--------|--------|
| (H/V) | (MHz)     | (dBm)            | (dB)      | (dBm)             | (dBm)  | (dB)   | Roman  |
| V     | 38.89     | -72.32           | 10.77     | -61.55            | -36    | -25.55 | peak   |
| V     | 97.128    | -74.93           | 11.26     | -63.67            | -54    | -9.67  | peak   |
| V     | 212.717   | -72.56           | 11.22     | -61.34            | -54    | -7.34  | peak   |
| V     | 249.534   | -75.1            | 11.19     | -63.91            | -36    | -27.91 | peak   |
| V     | 514.785   | -75.9            | 9.53      | -66.37            | -54    | -12.37 | peak   |
| Н     | 38.815    | -73.09           | 10.45     | -62.64            | -36    | -26.64 | peak   |
| Н     | 97.58     | -73.98           | 10.20     | -63.78            | -54    | -9.78  | peak   |
| Н     | 211.177   | -70.76           | 10.83     | -59.93            | -54    | -5.93  | peak   |
| Н     | 451.049   | -72.02           | _ 11.11 < | -60.91            | -36    | -24.91 | peak   |
| Н     | 522.346   | -71.71           | 11.03     | -60.68            | -54    | -6.68  | peak   |

#### Remark:

Temperature:

1. Emission Level= Meter Reading+ Factor, Margin= Limit- Emission Level.

2. All the modes had been tested, but only the worst data recorded in the report.



## ABOVE 1 GHz WORST- CASE DATA (1GHz ~ 12.75GHz)

Report No.: STR221031005001E

| EUT:         | 4G Tablet             | Model Name :      | Tab 16  |
|--------------|-----------------------|-------------------|---------|
| Temperature: | <b>24</b> ℃           | Relative Humidity | 54%     |
| Pressure:    | 1010 hPa              | Test Power :      | DC 3.8V |
| Test Mode :  | GFSK (CH00/CH39/CH78) | 7                 | * 4     |

| Polar | Frequency | Meter<br>Reading | Factor        | Emission<br>Level | Limits   | Margin | Remark |
|-------|-----------|------------------|---------------|-------------------|----------|--------|--------|
| (H/V) | (MHz)     | (dBm)            | (dB)          | (dBm)             | (dBm)    | (dB)   |        |
|       | 4         | ор               | eration frequ | uency:2402        | <i>*</i> |        | - 2    |
| V     | 2064.137  | -52.78           | 10.22         | -42.56            | -30      | -12.56 | peak   |
| V     | 5161.064  | -56.47           | 9.68          | -46.79            | -30      | -16.79 | peak   |
| V     | 2929.968  | -53.56           | 10.95         | -42.61            | -30      | -12.61 | peak   |
| V     | 3869.534  | -56.02           | 9.85          | -46.17            | -30      | -16.17 | peak   |
| Н     | 2218.09   | -56.26           | 10.50         | -45.76            | -30      | -15.76 | peak   |
| Н     | 3804.88   | -54.57           | 11.22         | -43.35            | -30      | -13.35 | peak   |
| Н     | 2555.505  | -52.69           | 10.13         | -42.56            | -30      | -12.56 | peak   |
| Н     | 5412.432  | -54.71           | 10.38         | -44.33            | -30      | -14.33 | peak   |
|       | •         | ор               | eration frequ | uency:2441        |          |        |        |
| V     | 2607.309  | -55.46           | 10.17         | -45.29            | -30      | -15.29 | peak   |
| V     | 4523.143  | -54.59           | 10.22         | -44.37            | -30      | -14.37 | peak   |
| V     | 2735.184  | -54.18           | 10.42         | -43.76            | -30      | -13.76 | peak   |
| V     | 4433.255  | -55.19           | 10.79         | -44.40            | -30      | -14.40 | peak   |
| Н     | 2206.534  | -56.17           | 9.82          | -46.35            | -30      | -16.35 | peak   |
| Н     | 3013.187  | -55.89           | 9.57          | -46.32            | -30      | -16.32 | peak   |
| Н     | 2044.078  | -54.69           | 9.66          | -45.03            | -30      | -15.03 | peak   |
| H_    | 3364.63   | -52.72           | 11.33         | -41.39            | -30      | -11.39 | peak   |
|       |           | •                | eration frequ | uency:2480        |          |        |        |
| V     | 2641.447  | -54.37           | 10.13         | -44.24            | -30      | -14.24 | peak   |
| V     | 5744.488  | -52.02           | 9.68          | -42.34            | -30      | -12.34 | peak   |
| V     | 2984.565  | -55.86           | 10.78         | -45.08            | -30      | -15.08 | peak   |
| V     | 4523.404  | -53.65           | 10.82         | -42.83            | -30      | -12.83 | peak   |
| Н     | 2144.011  | -56.91           | 11.38         | -45.53            | -30      | -15.53 | peak   |
| Н     | 5379.036  | -55.68           | 10.36         | -45.32            | -30      | -15.32 | peak   |
| Н     | 2591.067  | -57.07           | 10.60         | -46.47            | -30      | -16.47 | peak   |
| Н     | 3258.756  | -57.9            | 10.51         | -47.39            | -30      | -17.39 | peak   |

#### Remark:

- 1. Emission Level= Meter Reading+ Factor, Margin= Limit- Emission Level.
- 2. All the modes had been tested, but only the worst data recorded in the report.

8.6 TEST RESULTS (Conducted measurement)

Test data reference attachment



9. RECEIVER SPURIOUS EMISSIONS

# 9.1 LIMITS OF RECEIVER SPURIOUS RADIATION

Refer to chapter 4.3.1.11.3 of ETSI EN 300 328 V2.2.2 (2019-07)

| RECEIVER SPURIOUS EMISSIONS |                                                              |                          |  |  |  |
|-----------------------------|--------------------------------------------------------------|--------------------------|--|--|--|
| Frequency Range             | Maximum Power Limit<br>(E.R.P.(≤1 GHz)<br>E.I.R.P.(> 1 GHz)) | Measurement<br>Bandwidth |  |  |  |
| 30 MHz ~ 1 GHz              | -57dBm                                                       | 100KHz                   |  |  |  |
| 1 GHz ~ 12.75 GHz           | -47dBm                                                       | 1MHz                     |  |  |  |

## 9.2 TEST PROCEDURE

Refer to chapter 5.4.10.2 of ETSI EN 300 328 V2.2.2 (2019-07)

| M       | easurement            |
|---------|-----------------------|
|         | ⊠Radiated measurement |
| <u></u> | Zi,                   |

The setting of the Spectrum Analyzer

| RBW | 100K(<1GHz) / 1M(>1GHz) | * |  |
|-----|-------------------------|---|--|
| VBW | 300K(<1GHz) / 3M(>1GHz) |   |  |

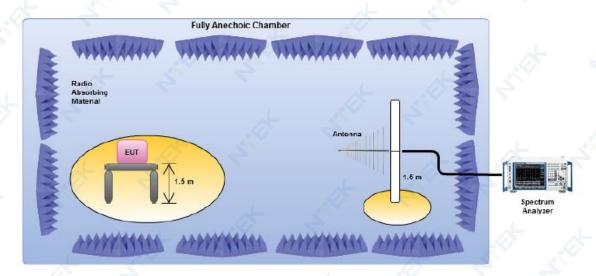
#### 9.3 DEVIATION FROM TEST STANDARD

No deviation

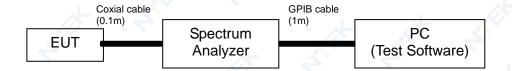


#### 9.4 TEST SETUP

#### Radiated measurement:



#### Conducted measurement:



- 1. For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Configuration ).
- 2. Testing was performed when the equipment was in a receive-only mode.
- 3. The measurements were performed when normal hopping was disabled. In this case measurements were performed when operating at the lowest and the highest hopping frequency.
- 4. The test setup has been constructed as the normal use condition. Controlling software (Button Function) has been activated to set the EUT on specific status.





# 9.5 TEST RESULTS (Radiated measurement)

# RX BELOW 1 GHz WORST- CASE DATA (30 MHz ~ 1GHz)

| EUT:         | 4G Tablet  | Model Name :      | Tab 16  |
|--------------|------------|-------------------|---------|
| Temperature: | 24 ℃       | Relative Humidity | 54%     |
| Pressure:    | 1010 hPa   | Test Power :      | DC 3.8V |
| Test Mode :  | GFSK(CH00) |                   |         |

| Polar<br>(H/V) | Frequency | Meter Reading | Factor | Emission<br>Level | Limits | Margin | Remark |
|----------------|-----------|---------------|--------|-------------------|--------|--------|--------|
|                | (MHz)     | (dBm)         | (dB)   | (dBm)             | (dBm)  | (dB)   | 3      |
| V              | 43.096    | -77.72        | 12.25  | -65.47            | -57    | -8.47  | peak   |
| _ V            | 89.252    | -80.67        | 16.13  | -64.54            | -57    | -7.54  | peak   |
| V              | 219.97    | -82.79        | 14.05  | -68.74            | -57    | -11.74 | peak   |
| V              | 446.722   | -83.02        | 17.01  | -66.01            | -57    | -9.01  | peak   |
| V              | 613.197   | -84.28        | 15.51  | -68.77            | -57    | -11.77 | peak   |
| Н              | 46.037    | -82.6         | 14.62  | -67.98            | -57    | -10.98 | peak   |
| Н              | 90.825    | -82.25        | 17.87  | -64.38            | -57    | -7.38  | peak   |
| H              | 226.673   | -79.08        | 16.70  | -62.38            | -57    | -5.38  | peak   |
| Н              | 397.244   | -80.31        | 15.79  | -64.52            | -57    | -7.52  | peak   |
| Н              | 523.829   | -80.79        | 17.54  | -63.25            | -57    | -6.25  | peak   |

#### Remark:

- Emission Level= Meter Reading+ Factor, Margin= Limit- Emission Level.
   All the modes had been tested, but only the worst data recorded in the report.



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# RX ABOVE 1 GHz WORST- CASE DATA (1GHz ~ 12.75GHz)

Report No.: STR221031005001E

| EUT:         | 4G Tablet   | Model Name :      | Tab 16  |
|--------------|-------------|-------------------|---------|
| Temperature: | <b>24</b> ℃ | Relative Humidity | 54%     |
| Pressure:    | 1010 hPa    | Test Power :      | DC 3.8V |
| Test Mode :  | GFSK (CH00) |                   | 2       |

| Polar | Frequency | Meter<br>Reading | Factor | Emission<br>Level | Limits | Margin | Remark |
|-------|-----------|------------------|--------|-------------------|--------|--------|--------|
| (H/V) | (MHz)     | (dBm)            | (dB)   | (dBm)             | (dBm)  | (dB)   | /      |
| V     | 2535.937  | -81.43           | 10.46  | -70.97            | -47    | -23.97 | peak   |
| V     | 4059.071  | -83.89           | 10.21  | -73.68            | -47    | -26.68 | peak   |
| V     | 2941.501  | -81.78           | 10.57  | -71.21            | -47    | -24.21 | peak   |
| V     | 5122.545  | -79.52           | 16.88  | -62.64            | -47    | -15.64 | peak   |
| Н     | 2420.126  | -80.84           | 10.29  | -70.55            | -47    | -23.55 | peak   |
| Н     | 5335.567  | -78.2            | 11.29  | -66.91            | -47    | -19.91 | peak   |
| Н     | 2395.915  | -77.16           | 6.79   | -70.37            | -47    | -23.37 | peak   |
| Н     | 3512.84   | -83.21           | 15.06  | -68.15            | -47    | -21.15 | peak   |

9.6 TEST RESULTS (Conducted measurement)

Test data reference attachment

Emission Level= Meter Reading+ Factor, Margin= Limit- Emission Level.
 All the modes had been tested, but only the worst data recorded in the report.



10. RECEIVER BLOCKING

### 10.1 PERFORMANCE CRITERIA

The minimum performance criterion shall be a PER less than or equal to 10 %. The manufacturer may declare alternative performance criteria as long as that is appropriate for the intended use of the equipment (see clause 5.4.1.t)).

### 10.2 LIMITS OF RECEIVER BLOCKING

While maintaining the minimum performance criteria as defined in clause 4.3.1.12.3, the blocking levels at specified frequency offsets shall be equal to or greater than the limits defined for the applicable receiver category provided in table 6, table 7 or table 8.

☐ Table 6: Receiver Blocking parameters for Receiver Category 1 equipment

| Wanted signal mean power from companion device (dBm) (see notes 1 and 4)                   | Blocking signal Frequency (MHz) | Blocking signal power (dBm) (see note 4) | Type of blocking signal |
|--------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------|-------------------------|
| (-133 dBm + 10 × log <sub>10</sub> (OCBW))<br>or -68 dBm whichever is less<br>(see note 2) | 2 380<br>2 504                  | -34                                      | CW                      |
| (-139 dBm + 10 x log₁₀(OCBW))<br>or -74 dBm whichever is less<br>(see note 3)              | 2 300<br>2 330<br>2 360<br>2524 | 4, 4,                                    |                         |
| (SEE HOLE S)                                                                               | 2584<br>2574                    | 4                                        |                         |

NOTE 1: OCBW is in Hz.

NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P<sub>min</sub> + 26 dB where P<sub>min</sub> is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

NOTE 3: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P<sub>min</sub> + 20 dB where P<sub>min</sub> is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

NOTE 4: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.



| Blocking parameters | receiver category 2 equi | pment |
|---------------------|--------------------------|-------|
|                     |                          |       |

| Wanted signal mean power from companion device (dBm) (see notes 1 and 3) | Blocking signal<br>Frequency (MHz) | Blocking signal power (dBm) (see note 3) | Type of blocking signal |
|--------------------------------------------------------------------------|------------------------------------|------------------------------------------|-------------------------|
| (-139 dBm + 10 × log <sub>10</sub> (OCBW) + 10 dB)                       | 2 380                              | -34                                      | CW                      |
| or (-74 dBm + 10 dB) whichever is less                                   | 2 504                              |                                          | 1 x S                   |
| (see note 2)                                                             | 2 300                              | *                                        |                         |
|                                                                          | 2 584                              |                                          |                         |

NOTE 1: OCBW is in Hz.

NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to Pmin + 26 dB where Pmin is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

NOTE 3: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.

Table 8: Receiver Blocking parameters receiver category 3 equipment

| Wanted signal mean power from                      | Blocking signal | Blocking signal power | Type of blocking |
|----------------------------------------------------|-----------------|-----------------------|------------------|
| companion device (dBm)                             | Frequency (MHz) | (dBm) (see note 2)    | signal           |
| (-139 dBm + 10 × log <sub>10</sub> (OCBW) + 20 dB) | 2 380           | -34                   | cw               |
| or (-74 dBm + 20 dB) whichever is less             | 2 504           | *                     |                  |
| (see note 2)                                       | 2 300           | * *                   |                  |
| (11111111111111111111111111111111111111            | 2 584           | 1 4 4 A               | *                |

NOTE 1: OCBW is in Hz.

NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative the test may be performed using a wanted signal up to Pmin + 30 dB where Pmin is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

NOTE 3: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.

### 10.3 TEST PROCEDURE

Refer to chapter 5.4.11.2 of ETSI EN 300 328 V2.2.2 (2019-07)

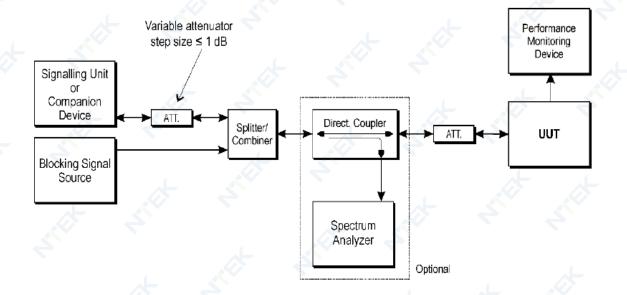
| Measurement          |
|----------------------|
| Radiated measurement |
|                      |



### 10.4 DEVIATION FROM TEST STANDARD

No deviation

### 10.5 TEST SETUP





## 10.6 TEST RESULTS

| EUT:         | 4G Tablet              | Model Name :      | Tab 16  |
|--------------|------------------------|-------------------|---------|
| Temperature: | <b>24</b> ℃            | Relative Humidity | 54%     |
| Pressure:    | 1010 hPa               | Test Power :      | DC 3.8V |
| Test Mode :  | GFSK Hopping mode (RX) |                   | * 2     |

receiver category 2

|                 | 30.7 =                                             |                                                                 |                                                   |
|-----------------|----------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------|
| Blocking signal | Blocking signal                                    |                                                                 | PER                                               |
| Frequency (MHz) | power(dBm) (see note 3)                            | PER %                                                           | Limit                                             |
|                 |                                                    |                                                                 | %                                                 |
| 2 380           | <i>∞ ←</i> .                                       | 0.37%                                                           | /10                                               |
| 2 504           | 24                                                 | 0.54%                                                           | ≤10                                               |
| 2 300           | -34                                                | 0.23%                                                           | <10                                               |
| 2 584           |                                                    | 0.26%                                                           | ≤10                                               |
|                 | Blocking signal Frequency (MHz)  2 380 2 504 2 300 | Frequency (MHz) power(dBm) (see note 3)  2 380 2 504 2 300  -34 | Blocking signal   power(dBm) (see note 3)   PER % |

| EUT:                                       | 4G Tablet   | Model Name :      | Tab 16  |  |
|--------------------------------------------|-------------|-------------------|---------|--|
| Temperature:                               | <b>24</b> ℃ | Relative Humidity | 54%     |  |
| Pressure:                                  | 1010 hPa    | Test Power :      | DC 3.8V |  |
| Test Mode : BT-∏/4-DQPSK Hopping mode (RX) |             |                   |         |  |

receiver category 2

| Wanted signal mean power from companion device (dBm) | Blocking signal<br>Frequency (MHz) | Blocking signal power(dBm) (see note 3) | PER % | PER<br>Limit |
|------------------------------------------------------|------------------------------------|-----------------------------------------|-------|--------------|
| (see notes 1 and 3)                                  |                                    | *                                       |       | %            |
| \(\frac{1}{2}\) \(\frac{1}{2}\) \(\frac{1}{2}\)      | 2 380                              |                                         | 0.61% | ≤10          |
| -68.25                                               | 2 504                              | -34                                     | 0.80% | 210          |
|                                                      | 2 300                              |                                         | 0.26% | ≤10          |
|                                                      | 2 584                              | ×                                       | 0.28% | ≥10          |





EUT: 4G Tablet Model Name: Tab 16

Temperature: 24 °C Relative Humidity 54%

Pressure: 1010 hPa Test Power: DC 3.8V

Test Mode: BT-8-DPSK Hopping mode (RX)

receiver category 2

| Wanted signal mean power    | Blocking signal | Blocking signal         | 4.    | PER        |
|-----------------------------|-----------------|-------------------------|-------|------------|
| from companion device (dBm) | Frequency (MHz) | power(dBm) (see note 3) | PER % | Limit      |
| (see notes 1 and 3)         |                 |                         |       | %          |
| -68.22                      | 2 380           | -34                     | 0.48% | ≤10        |
|                             | 2 504           |                         | 0.14% |            |
|                             | 2 300           |                         | 0.62% | <b>/10</b> |
| *                           | 2 584           |                         | 0.69% | ≤10        |

Note: (1) The above results were obtained from laboratory tests.

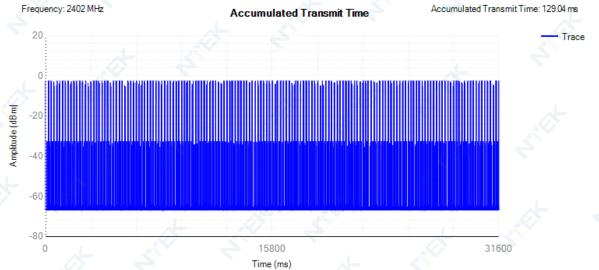


### 11. TEST RESULTS

### 11.1 ACCUMULATED TRANSMIT TIME

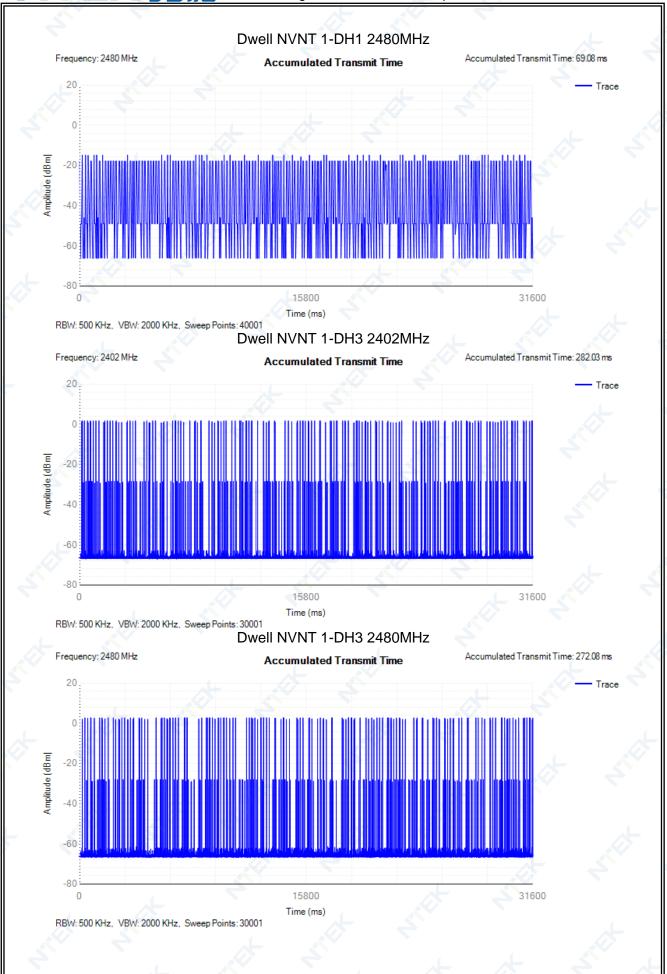
| Condition | Mode  | Frequency | Accumulated        | Limit | Sweep     | Burst  | Verdict |
|-----------|-------|-----------|--------------------|-------|-----------|--------|---------|
|           |       | (MHz)     | Transmit Time (ms) | (ms)  | Time (ms) | Number |         |
| NVNT      | 1-DH1 | 2402      | 129.042            | 400   | 31600     | 321    | Pass    |
| NVNT      | 1-DH1 | 2480      | 69.084             | 400   | 31600     | 171    | Pass    |
| NVNT      | 1-DH3 | 2402      | 282.03             | 400   | 31600     | 170    | Pass    |
| NVNT      | 1-DH3 | 2480      | 272.076            | 400   | 31600     | 164    | Pass    |
| NVNT      | 1-DH5 | 2441      | 293.304            | 400   | 31600     | 101    | Pass    |
| NVNT      | 1-DH5 | 2480      | 220.78             | 400   | 31600     | 76     | Pass    |
| NVNT      | 2-DH1 | 2402      | 125.76             | 400   | 31600     | 320    | Pass    |
| NVNT      | 2-DH1 | 2480      | 125.367            | 400   | 31600     | 319    | Pass    |
| NVNT      | 2-DH3 | 2402      | 255.285            | 400   | 31600     | 155    | Pass    |
| NVNT      | 2-DH3 | 2480      | 260.226            | 400   | 31600     | 158    | Pass    |
| NVNT      | 2-DH5 | 2402      | 297.464            | 400   | 31600     | 103    | Pass    |
| NVNT      | 2-DH5 | 2480      | 311.904            | 400   | 31600     | 108    | Pass    |
| NVNT      | 3-DH1 | 2402      | 120.96             | 400   | 31600     | 320    | Pass    |
| NVNT      | 3-DH1 | 2480      | 126.153            | 400   | 31600     | 321    | Pass    |
| NVNT      | 3-DH3 | 2402      | 200.49             | 400   | 31600     | 123    | Pass    |
| NVNT      | 3-DH3 | 2480      | 271.26             | 400   | 31600     | 165    | Pass    |
| NVNT      | 3-DH5 | 2402      | 304.08             | 400   | 31600     | 105    | Pass    |
| NVNT      | 3-DH5 | 2480      | 225.264            | 400   | 31600     | 78     | Pass    |
|           |       |           |                    |       |           |        |         |

### Dwell NVNT 1-DH1 2402MHz

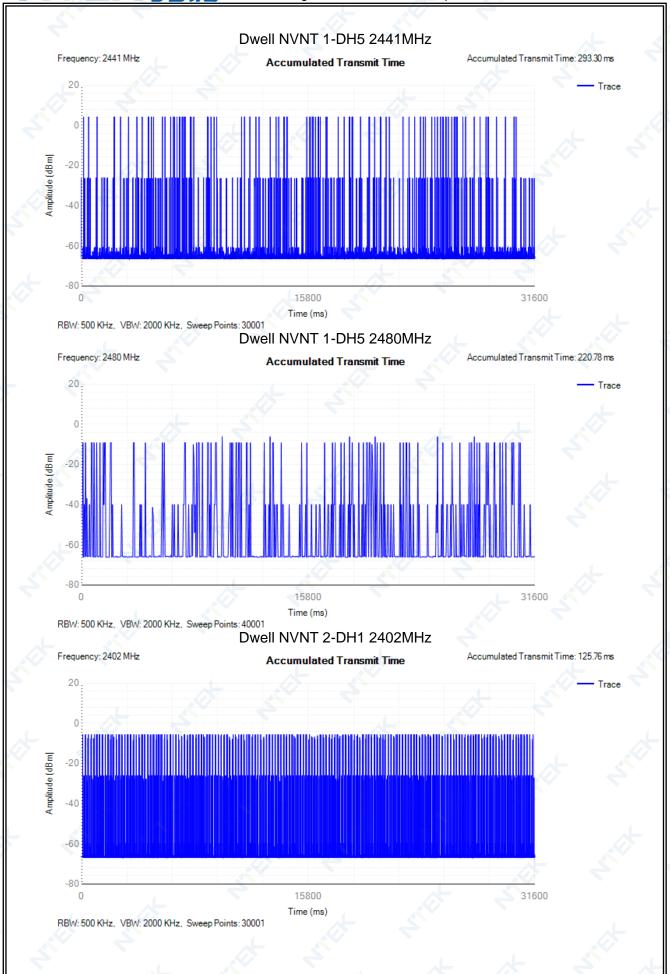


RBW: 500 KHz, VBW: 2000 KHz, Sweep Points: 30001

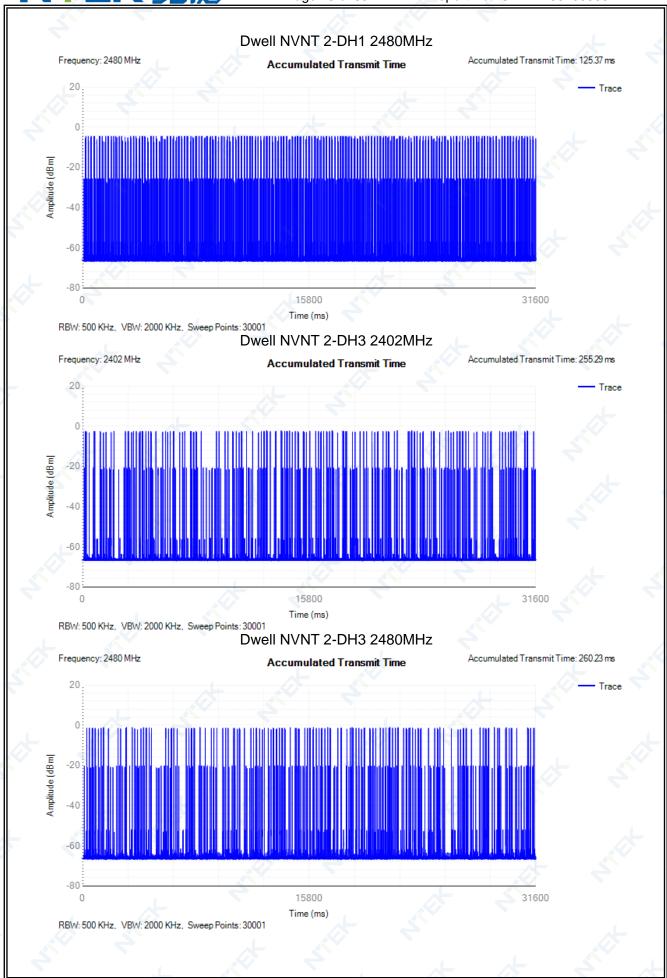




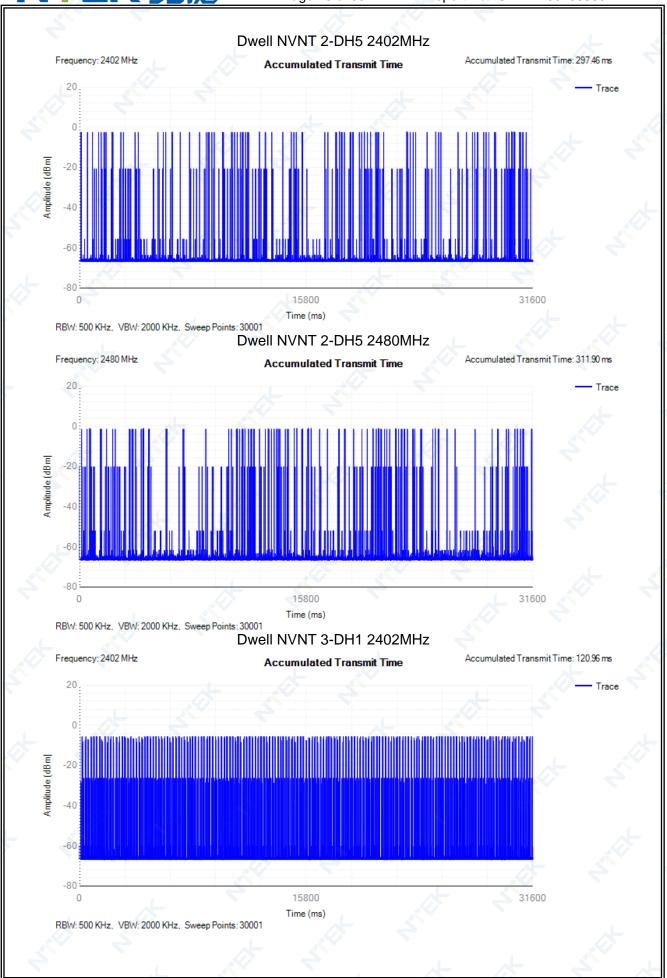


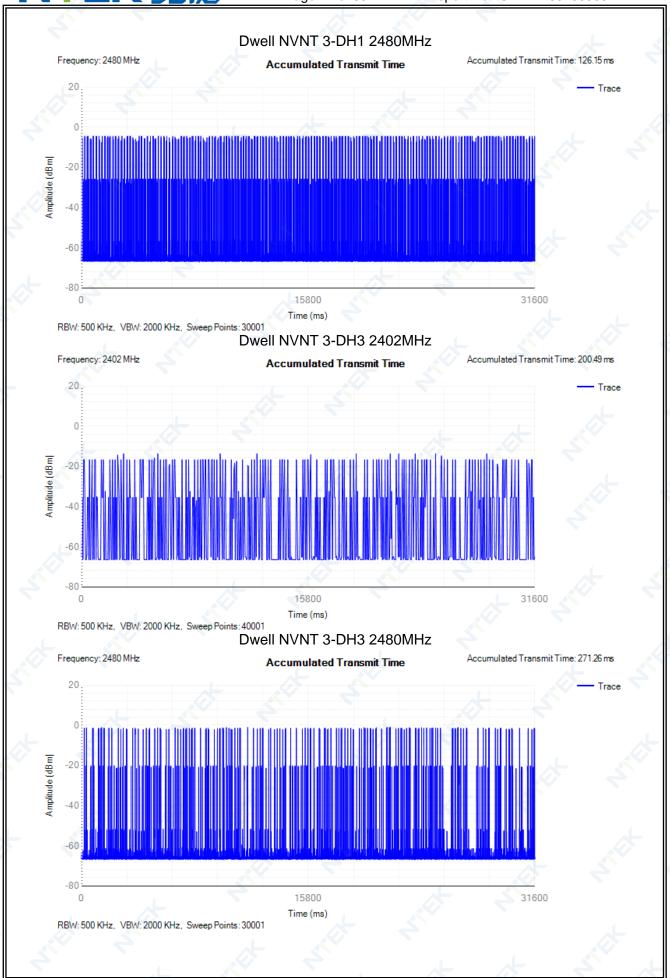




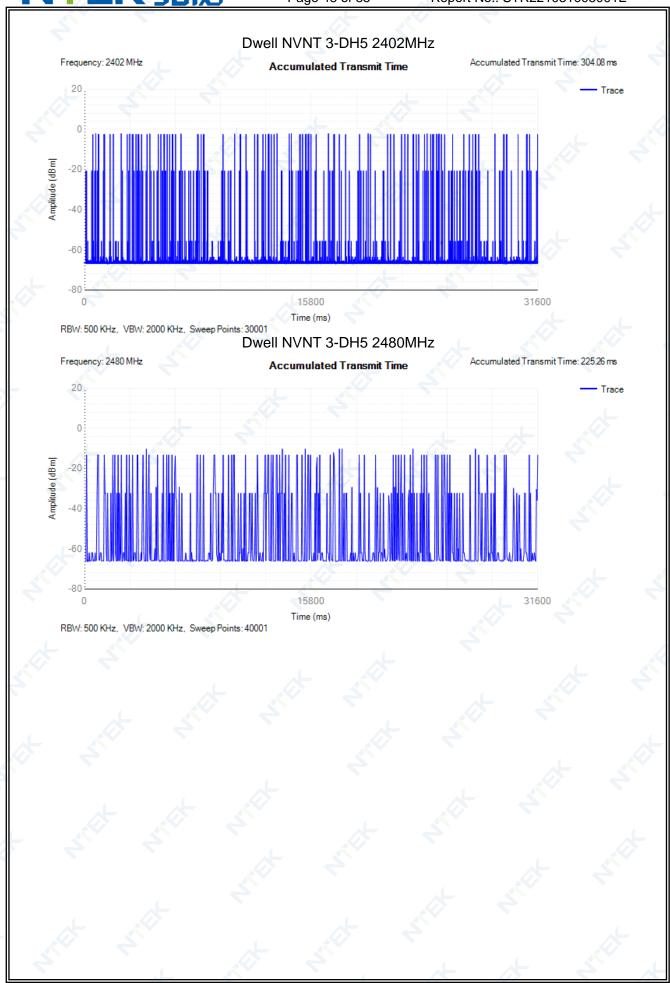










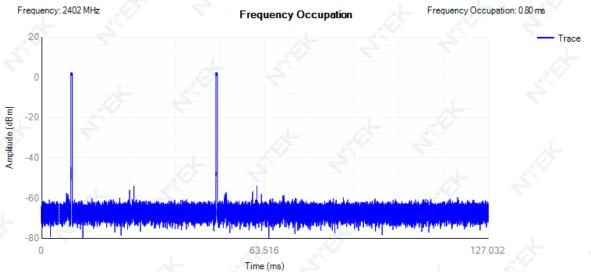




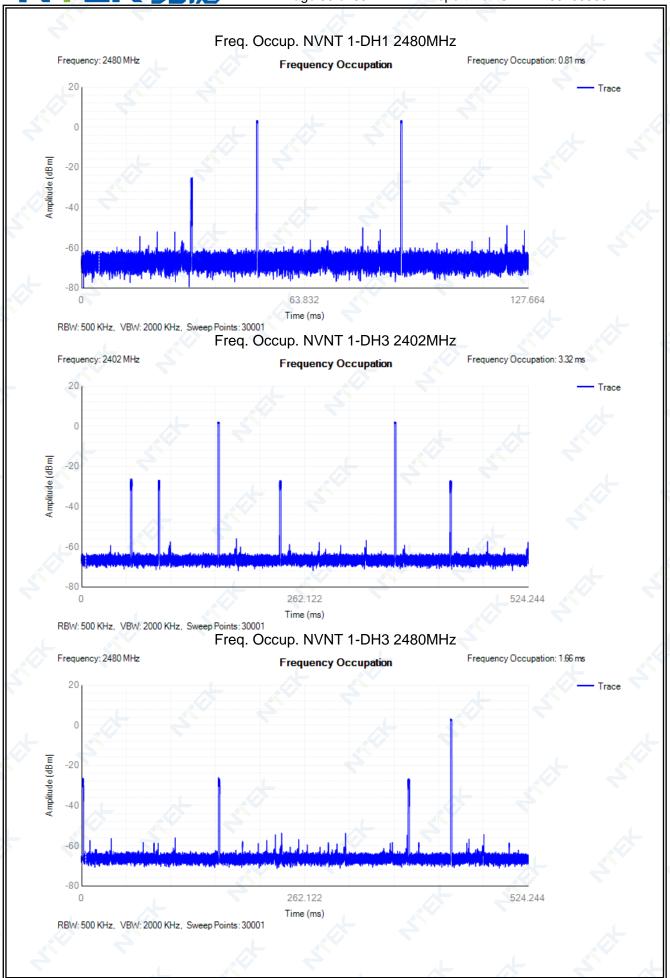
| ON |
|----|
|    |
|    |

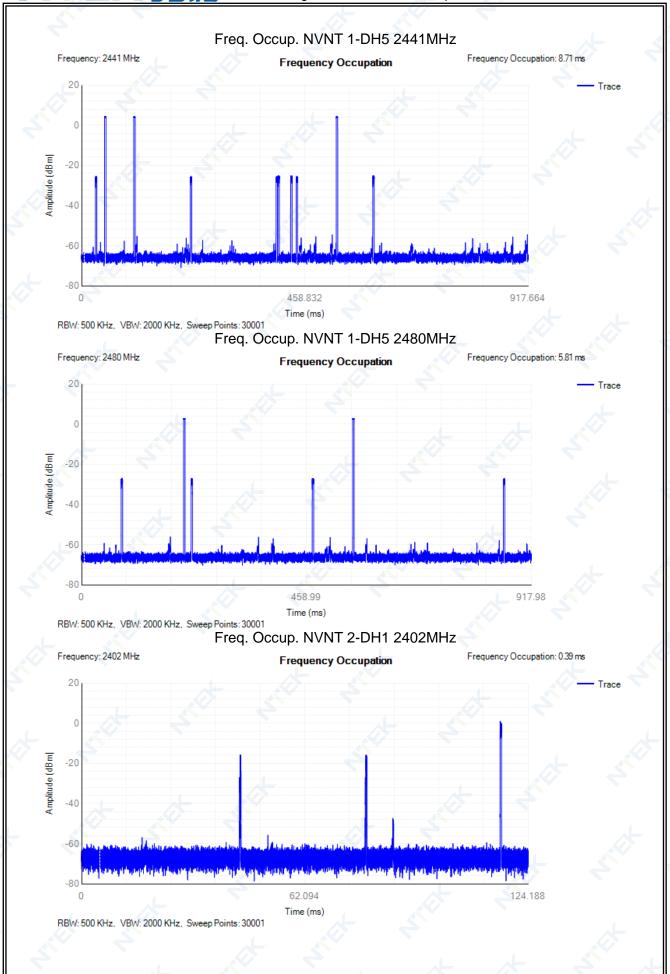
| Condition | Mode  | Frequency | Frequency       | Limit | Sweep     | Burst  | Verdict |
|-----------|-------|-----------|-----------------|-------|-----------|--------|---------|
|           |       | (MHz)     | Occupation (ms) | (ms)  | Time (ms) | Number |         |
| NVNT      | 1-DH1 | 2402      | 0.804           | 0     | 127.032   | 2      | Pass    |
| NVNT      | 1-DH1 | 2480      | 0.808           | 0     | 127.664   | 2      | Pass    |
| NVNT      | 1-DH3 | 2402      | 3.318           | 0     | 524.244   | 2      | Pass    |
| NVNT      | 1-DH3 | 2480      | 1.659           | 0     | 524.244   | 1      | Pass    |
| NVNT      | 1-DH5 | 2441      | 8.712           | 0     | 917.664   | 3      | Pass    |
| NVNT      | 1-DH5 | 2480      | 5.81            | 0     | 917.98    | 2      | Pass    |
| NVNT      | 2-DH1 | 2402      | 0.393           | 0     | 124.188   | 1      | Pass    |
| NVNT      | 2-DH1 | 2480      | 0.786           | 0     | 124.188   | 2      | Pass    |
| NVNT      | 2-DH3 | 2402      | 4.941           | 0     | 520.452   | 3      | Pass    |
| NVNT      | 2-DH3 | 2480      | 3.294           | 0     | 520.452   | 2      | Pass    |
| NVNT      | 2-DH5 | 2402      | 20.216          | 0     | 912.608   | 7      | Pass    |
| NVNT      | 2-DH5 | 2480      | 11.552          | 0     | 912.608   | 4      | Pass    |
| NVNT      | 3-DH1 | 2402      | 0.756           | 0     | 119.448   | 2      | Pass    |
| NVNT      | 3-DH1 | 2480      | 0.786           | 0     | 124.188   | 2      | Pass    |
| NVNT      | 3-DH3 | 2402      | 3.26            | 0     | 515.08    | 2      | Pass    |
| NVNT      | 3-DH3 | 2480      | 3.288           | 0     | 519.504   | 2      | Pass    |
| NVNT      | 3-DH5 | 2402      | 8.688           | 0     | 915.136   | 3      | Pass    |
| NVNT      | 3-DH5 | 2480      | 5.776           | 0     | 912.608   | 2      | Pass    |

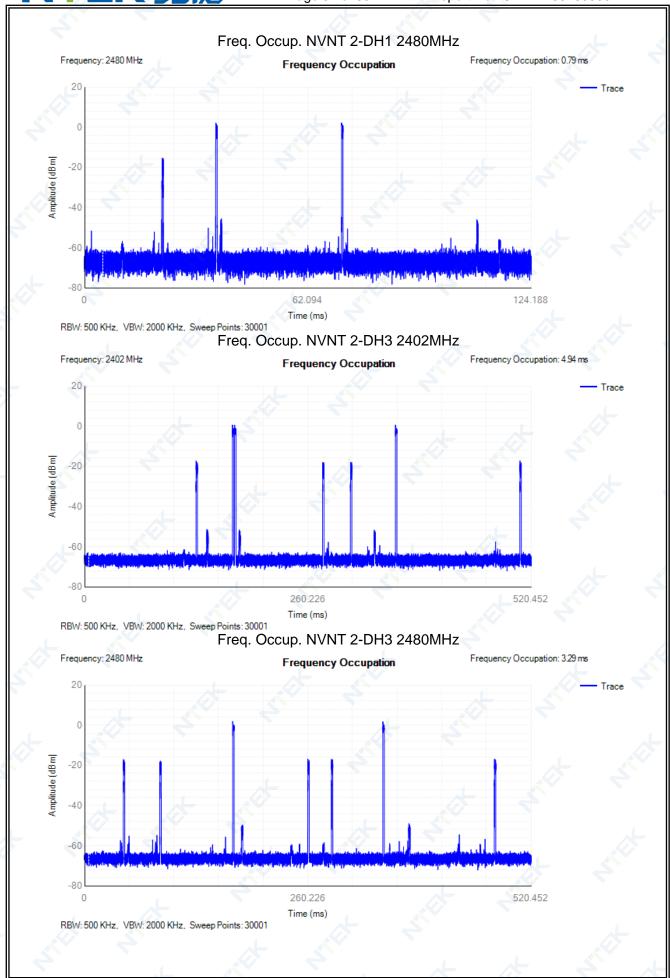
Freq. Occup. NVNT 1-DH1 2402MHz

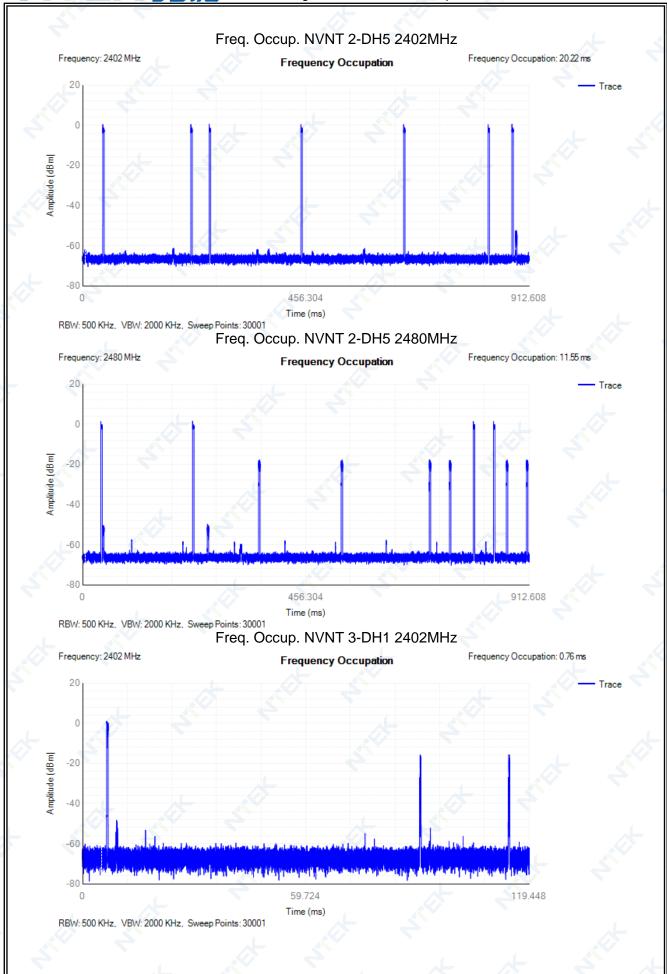


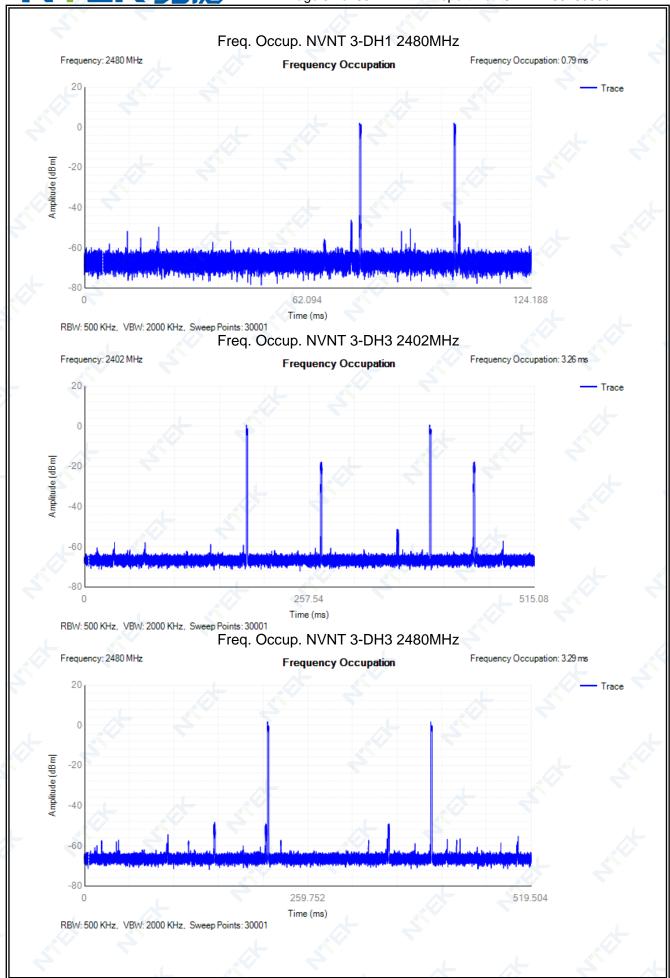
RBW: 500 KHz, VBW: 2000 KHz, Sweep Points: 30001



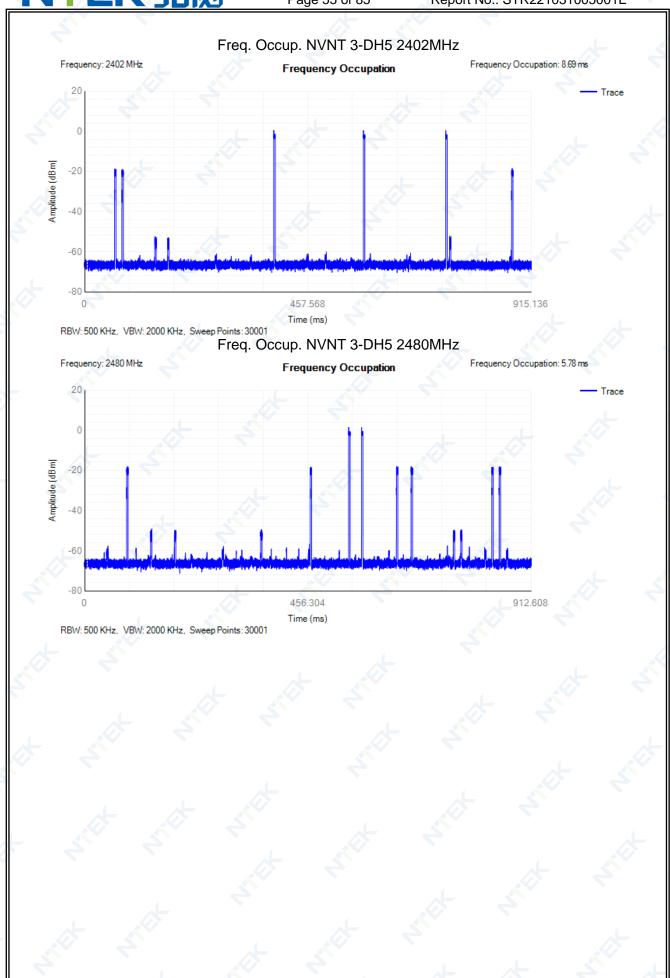










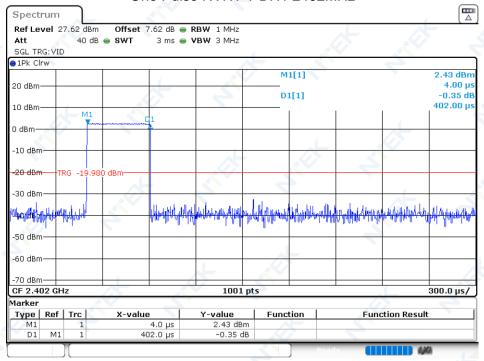




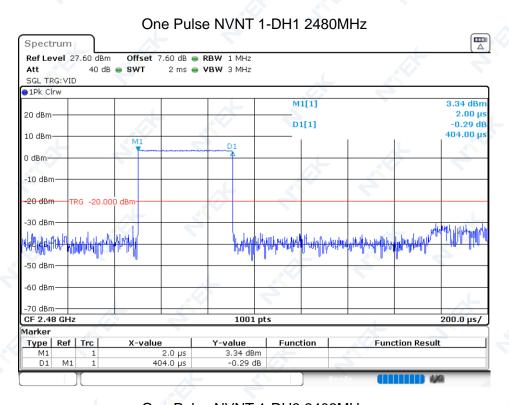
### 11.3 ONE PULSE DWELL TIME

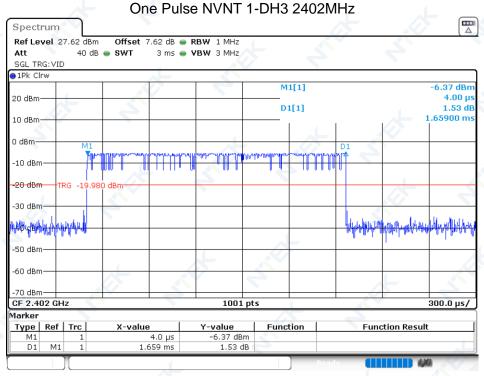
| Condition | Mode  | Frequency (MHz) | Pulse Time (ms) |
|-----------|-------|-----------------|-----------------|
| NVNT      | 1-DH1 | 2402            | 0.402           |
| NVNT      | 1-DH1 | 2480            | 0.404           |
| NVNT      | 1-DH3 | 2402            | 1.659           |
| NVNT      | 1-DH3 | 2480            | 1.659           |
| NVNT      | 1-DH5 | 2402            | 2.904           |
| NVNT      | 1-DH5 | 2480            | 2.905           |
| NVNT      | 2-DH1 | 2402            | 0.393           |
| NVNT      | 2-DH1 | 2480            | 0.393           |
| NVNT      | 2-DH3 | 2402            | 1.647           |
| NVNT      | 2-DH3 | 2480            | 1.647           |
| NVNT      | 2-DH5 | 2402            | 2.888           |
| NVNT      | 2-DH5 | 2480            | 2.888           |
| _NVNT _   | 3-DH1 | 2402            | 0.378           |
| NVNT      | 3-DH1 | 2480            | 0.393           |
| NVNT      | 3-DH3 | 2402            | 1.63            |
| NVNT      | 3-DH3 | 2480            | 1.644           |
| NVNT      | 3-DH5 | 2402            | 2.896           |
| NVNT      | 3-DH5 | 2480            | 2.888           |

### One Pulse NVNT 1-DH1 2402MHz

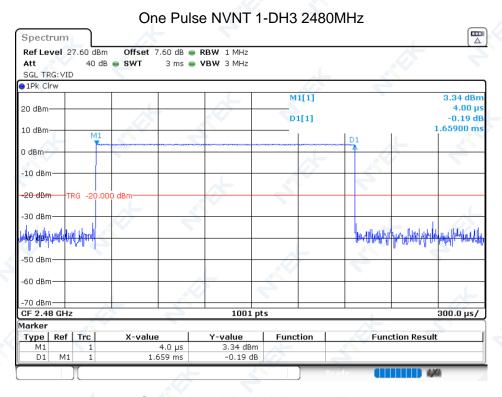


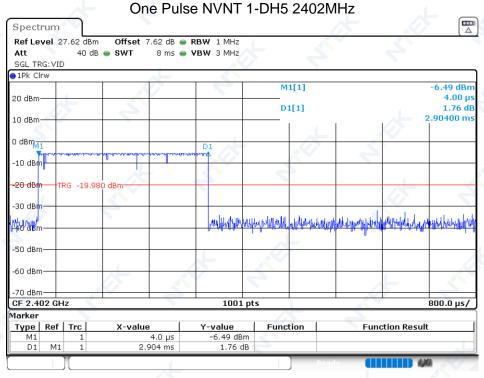














Spectrum

SGL TRG: VID 1Pk Clrw

10 dBm 0 dBm

-70 dBm CF 2.48 GHz

Marker

M1 D1

Type | Ref | Trc |

One Pulse NVNT 1-DH5 2480MHz Ref Level 27.60 dBm Offset 7.60 dB @ RBW 1 MHz 40 dB 🅌 SWT 5 ms 🍅 **VBW** 3 MHz M1[1] 5.00 µ D1[1] . -0.16 dB .90500 ms 1001 pts 500.0 μs/

Report No.: STR221031005001E

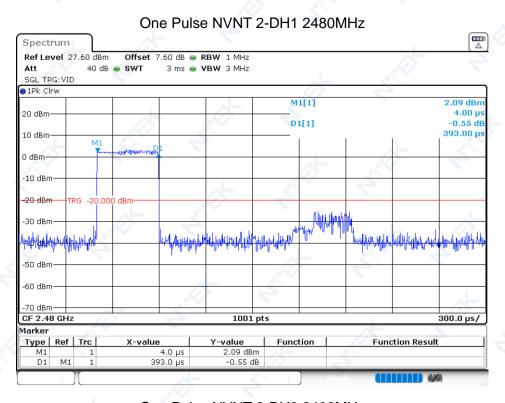
### One Pulse NVNT 2-DH1 2402MHz Spectrum Ref Level 27.62 dBm Offset 7.62 dB @ RBW 1 MHz 40 dB 🅌 SWT 3 ms 🌞 VBW 3 MHz Att SGL TRG: VID ●1Pk Clrw M1[1] 1.14 dBn D1[1] -0.53 dB 393.00 µs -10 dBm -20 d0m -50 dBm -60 dBm -70 dBm-CF 2.402 GHz 1001 pts 300.0 µs/ Marker Type Ref Trc **Y-value** 1.14 dBm -0.53 dB Function **Function Result** X-value 4.0 µs 393.0 µs

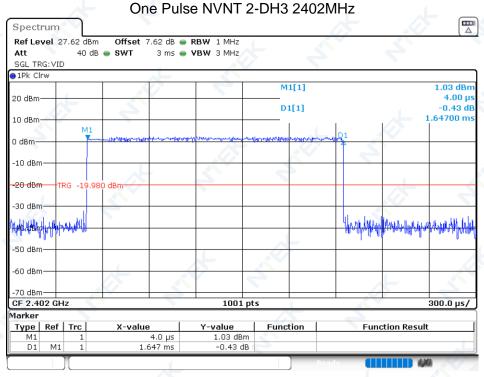
value

3.35 dBm -0.16 dB

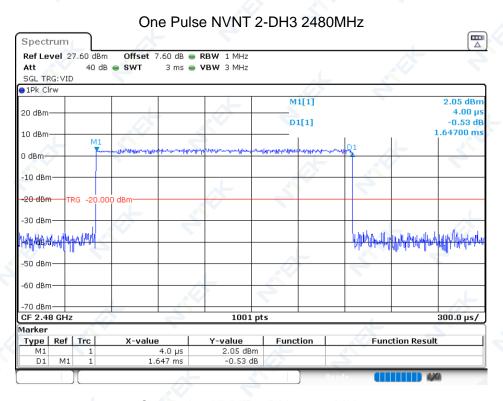
5.0 µs 2.905 ms

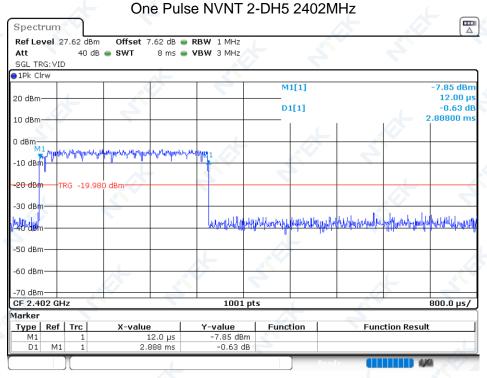




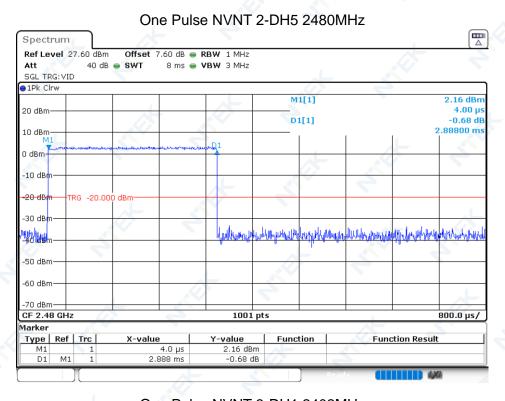


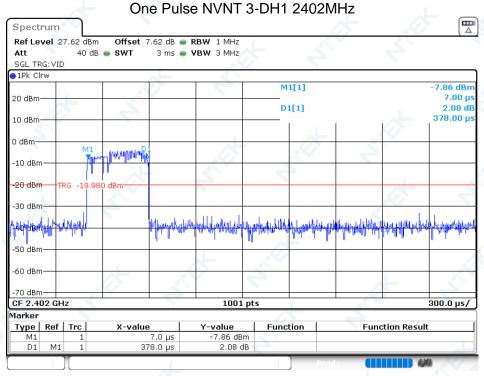




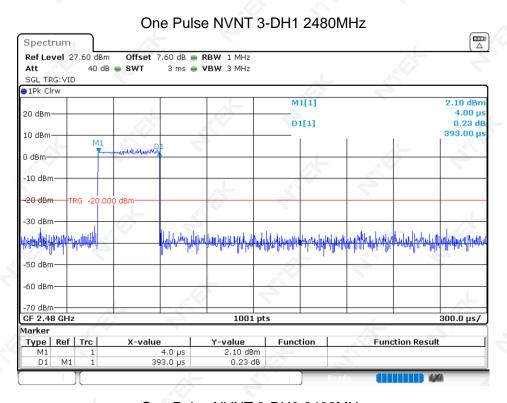


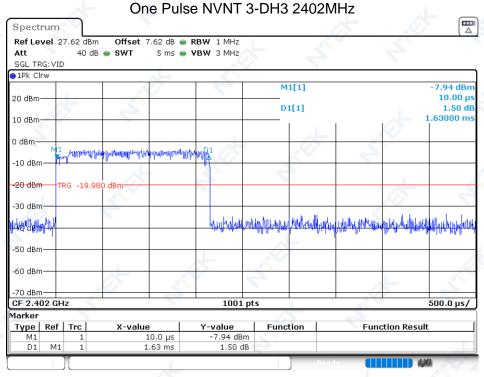








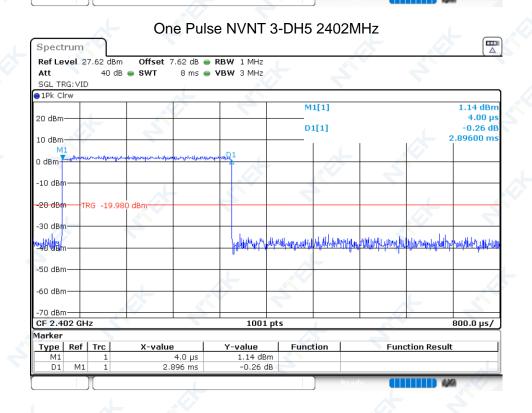




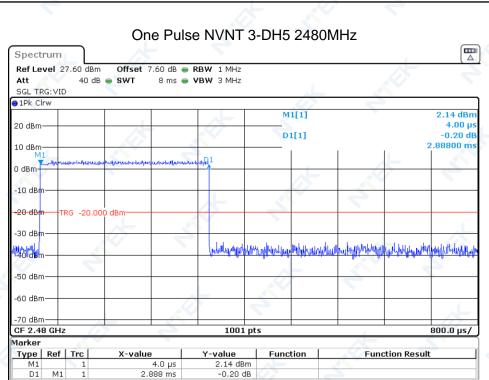


M1 D1

One Pulse NVNT 3-DH3 2480MHz Spectrum Ref Level 27.60 dBm Offset 7.60 dB @ RBW 1 MHz 40 dB 🅌 SWT 3 ms 🍅 **VBW** 3 MHz SGL TRG: VID 1Pk Clrw M1[1] 4.00 µ D1[1] 0.36 dB .64400 m 10 dBm-0 dBm--70 dBm CF 2.48 GHz 1001 pts 300.0 µs/ Marker Type | Ref | Trc | value 4.0 μs 1.644 ms 2.05 dBm 0.36 dB



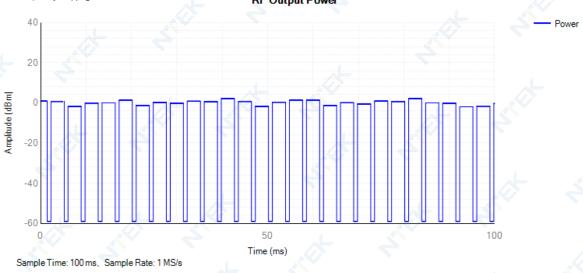




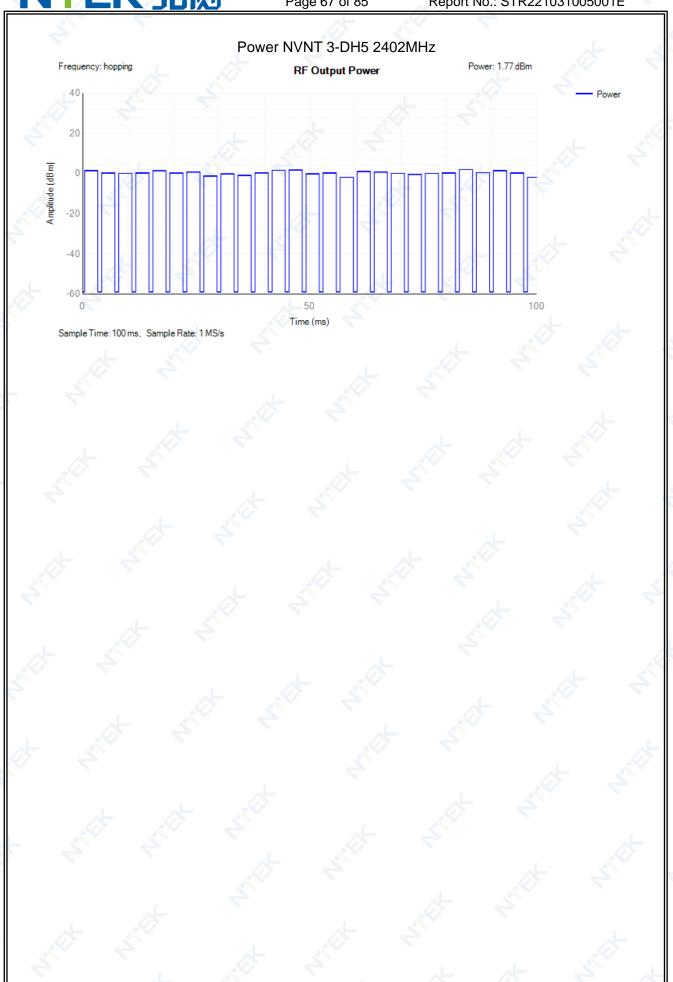


| 11.4 RF OUTPUT POWER |       |           |               |        |          |       |         |  |  |
|----------------------|-------|-----------|---------------|--------|----------|-------|---------|--|--|
| Condition Mode       |       | Frequency | Max Burst RMS | Burst  | Max EIRP | Limit | Verdict |  |  |
| .∐                   |       | (MHz)     | Power (dBm)   | Number | (dBm)    | (dBm) |         |  |  |
| NVNT                 | 1-DH5 | hopping   | 3.59          | 27     | 3.49     | 20    | Pass    |  |  |
| NVNT                 | 2-DH5 | hopping   | 2.13          | 28     | 2.03     | 20    | Pass    |  |  |
| NVNT                 | 3-DH5 | hopping   | 1.87          | 27     | 1.77     | 20    | Pass    |  |  |
| NVLT                 | 1-DH5 | hopping   | 2.91          | 28     | 2.81     | 20    | Pass    |  |  |
| NVLT                 | 2-DH5 | hopping   | 1.54          | 27     | 1.44     | 20    | Pass    |  |  |
| NVLT                 | 3-DH5 | hopping   | 1.3           | 27     | 1.2      | 20    | Pass    |  |  |
| NVHT                 | 1-DH5 | hopping   | 2.88          | 28     | 2.78     | 20    | Pass    |  |  |
| NVHT                 | 2-DH5 | hopping   | 1.44          | 27     | 1.34     | 20    | Pass    |  |  |
| NVHT                 | 3-DH5 | hopping   | 1.1           | 27     | 1        | 20    | Pass    |  |  |

# Power NVNT 1-DH5 2402MHz Frequency: hopping RF Output Power Power: 3.49 dBm Power 2.03 dBm Power Power









3-DH5

**NVNT** 

Report No.: STR221031005001E

0.8481

HFS: 1.0014

| 11.5 HOPPING FREQUENCY SEPARATION |       |               |               |        |       |         |  |  |  |
|-----------------------------------|-------|---------------|---------------|--------|-------|---------|--|--|--|
| Condition                         | Mode  | Hopping Freq1 | Hopping Freq2 | HFS    | Limit | Verdict |  |  |  |
|                                   |       | (MHz)         | (MHz)         | (MHz)  | (MHz) |         |  |  |  |
| NVNT                              | 1-DH5 | 2401.8334     | 2402.8348     | 1.0014 | 0.1   | Pass    |  |  |  |
| NVNT                              | 1-DH5 | 2440.0188     | 2440.9704     | 0.9516 | 0.1   | Pass    |  |  |  |
| NVNT                              | 1-DH5 | 2479.0548     | 2480.0538     | 0.999  | 0.1   | Pass    |  |  |  |
| NVNT                              | 2-DH5 | 2402.1601     | 2403.0232     | 0.8631 | 0.1   | Pass    |  |  |  |
| NVNT                              | 2-DH5 | 2441.023      | 2442.0226     | 0.9996 | 0.1   | Pass    |  |  |  |
| NVNT                              | 2-DH5 | 2479.023      | 2480.0037     | 0.9807 | 0.1   | Pass    |  |  |  |
| NVNT                              | 3-DH5 | 2402.0224     | 2403.1606     | 1.1382 | 0.1   | Pass    |  |  |  |
| NIV/NIT                           | 3-DH5 | 2441 0146     | 2442 016      | 1 0014 | 0.1   | Pass    |  |  |  |

2480.0076

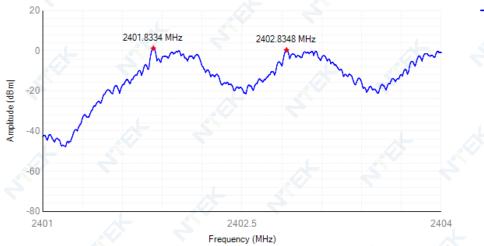
# Center Frequency: 2402.50 MHz HFS NVNT 1-DH5 2402MHz Hopping Frequency Separation

2479.1595



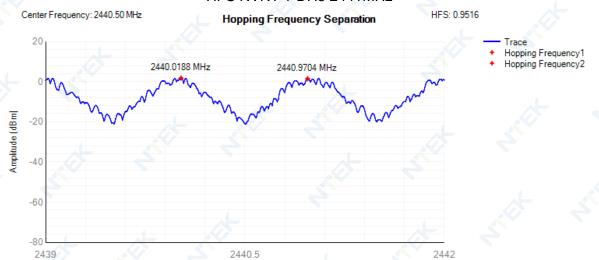
0.1

**Pass** 



RBW: 30 KHz, VBW: 100 KHz, Sweep Points: 10001

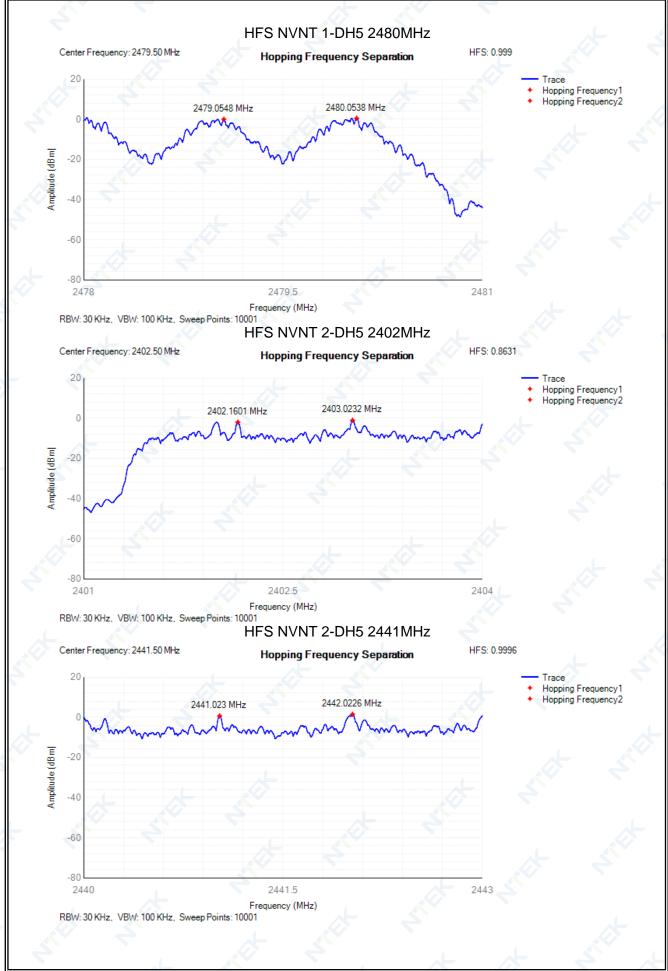
### HFS NVNT 1-DH5 2441MHz

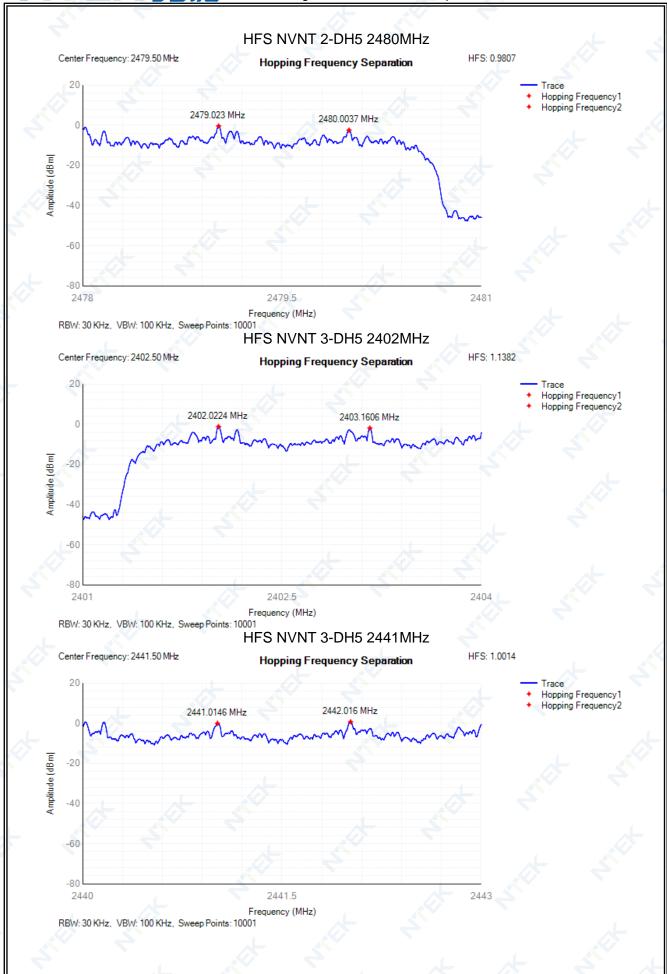


Frequency (MHz) RBW: 30 KHz, VBW: 100 KHz, Sweep Points: 10001

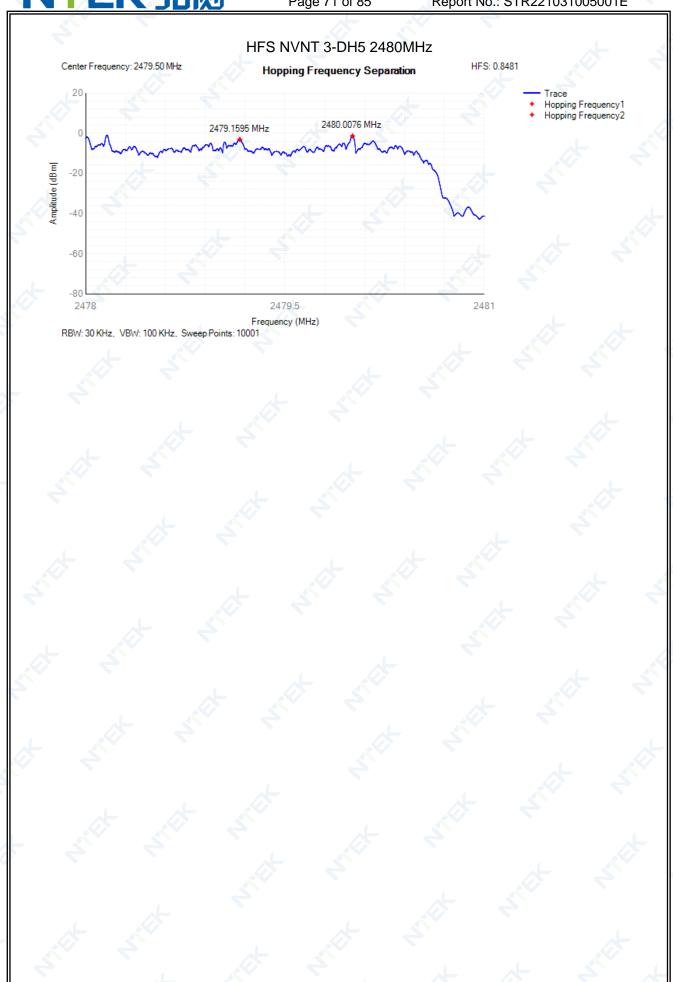










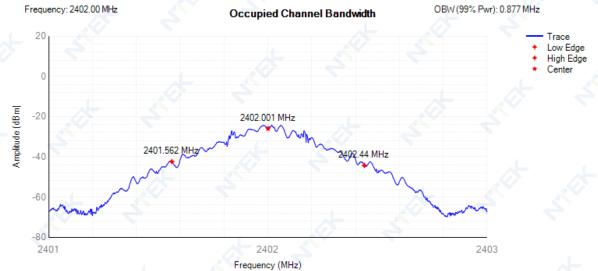




### 11.6 OCCUPIED CHANNEL BANDWIDTH

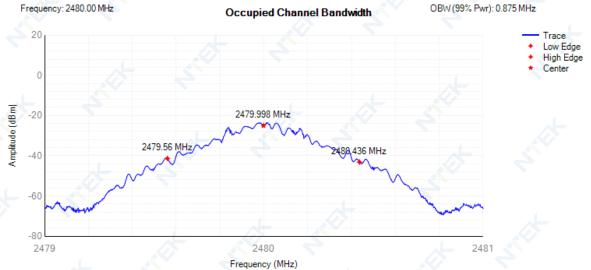
| Condition | Mode  | Frequency (MHz) | Center Frequency (MHz) | OBW (MHz) | Lower Edge (MHz) | Upper Edge (MHz) | Limit OBW (MHz)  | Verdict |
|-----------|-------|-----------------|------------------------|-----------|------------------|------------------|------------------|---------|
| NVNT      | 1-DH5 | 2402            | 2402.001               | 0.877     | 2401.562         | 2402.44          | 2400 - 2483.5MHz | Pass    |
| NVNT      | 1-DH5 | 2480            | 2479.998               | 0.875     | 2479.56          | 2480.436         | 2400 - 2483.5MHz | Pass    |
| NVNT      | 2-DH5 | 2402            | 2401.997               | 1.189     | 2401.403         | 2402.591         | 2400 - 2483.5MHz | Pass    |
| NVNT      | 2-DH5 | 2480            | 2479.996               | 1.179     | 2479.407         | 2480.585         | 2400 - 2483.5MHz | Pass    |
| NVNT      | 3-DH5 | 2402            | 2401.995               | 1.197     | 2401.397         | 2402.593         | 2400 - 2483.5MHz | Pass    |
| NVNT      | 3-DH5 | 2480            | 2479.995               | 1.197     | 2479.397         | 2480.593         | 2400 - 2483.5MHz | Pass    |

### OBW NVNT 1-DH5 2402MHz

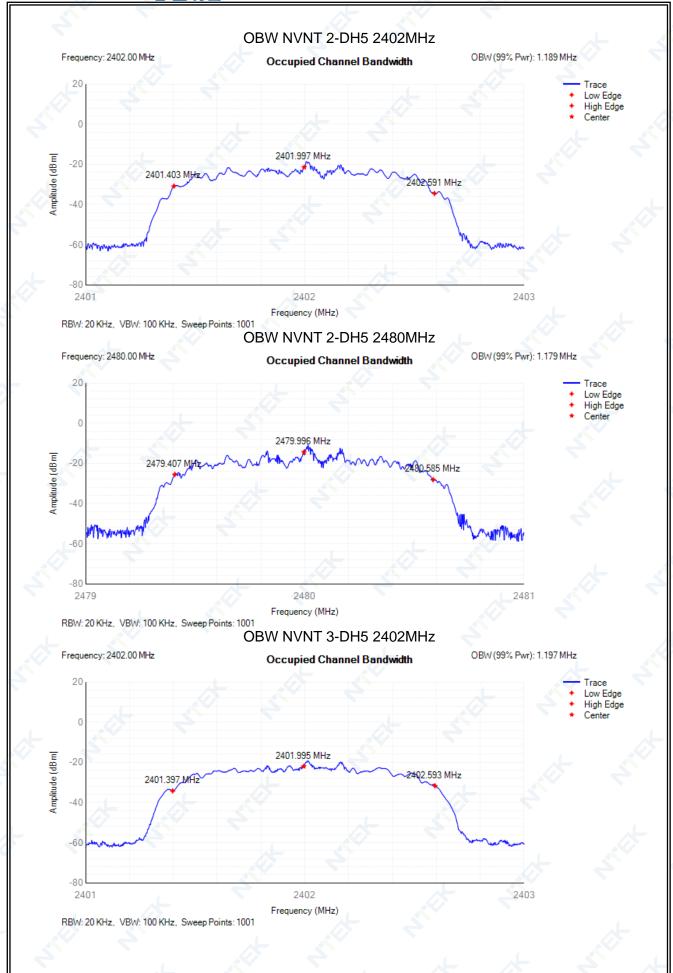


RBW: 20 KHz, VBW: 100 KHz, Sweep Points: 1001

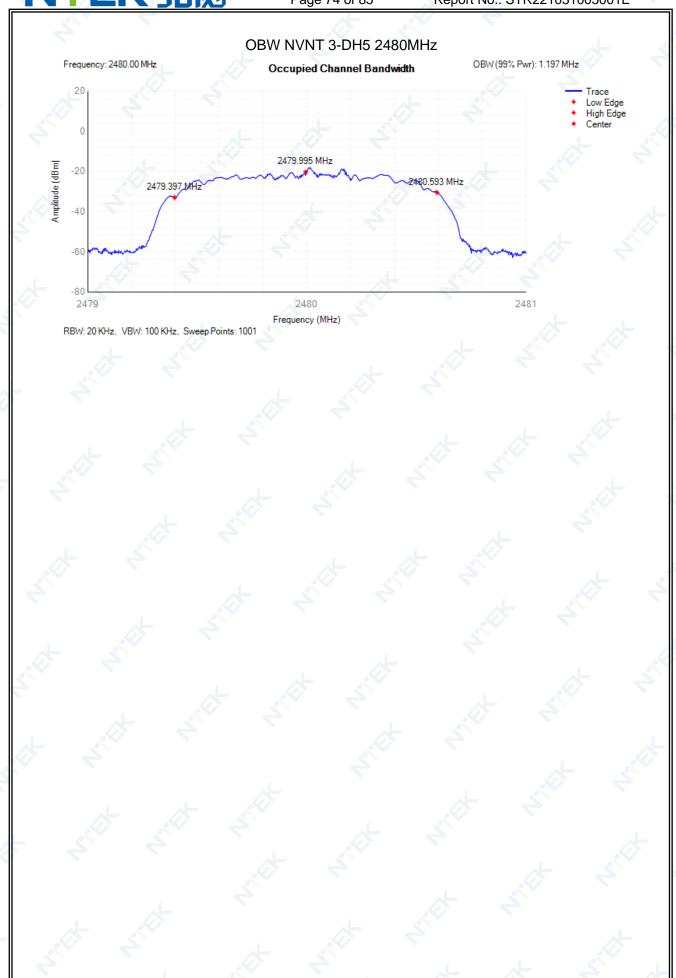
### OBW NVNT 1-DH5 2480MHz



RBW: 20 KHz, VBW: 100 KHz, Sweep Points: 1001



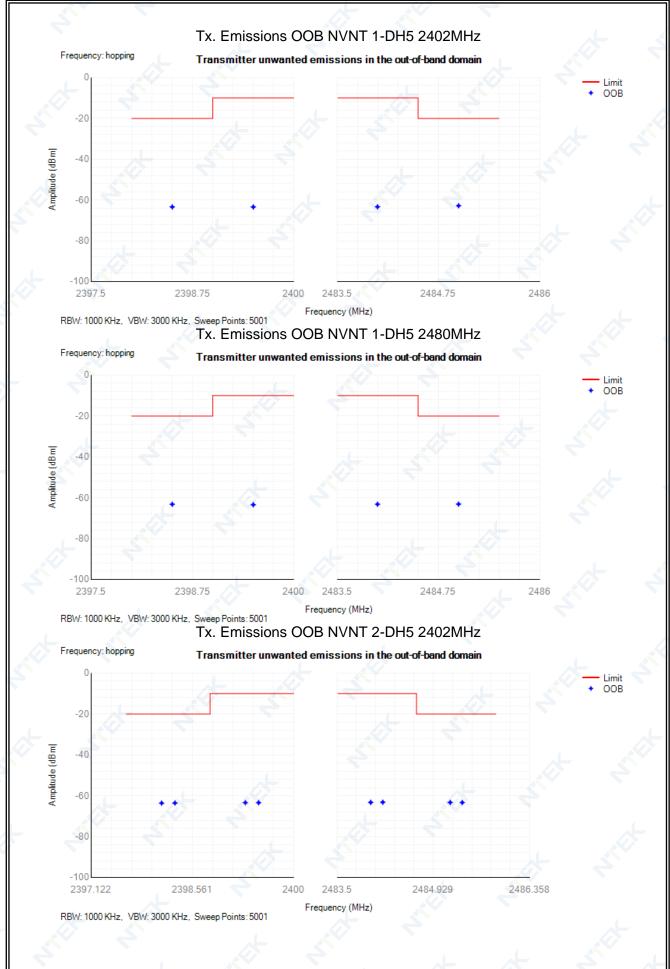




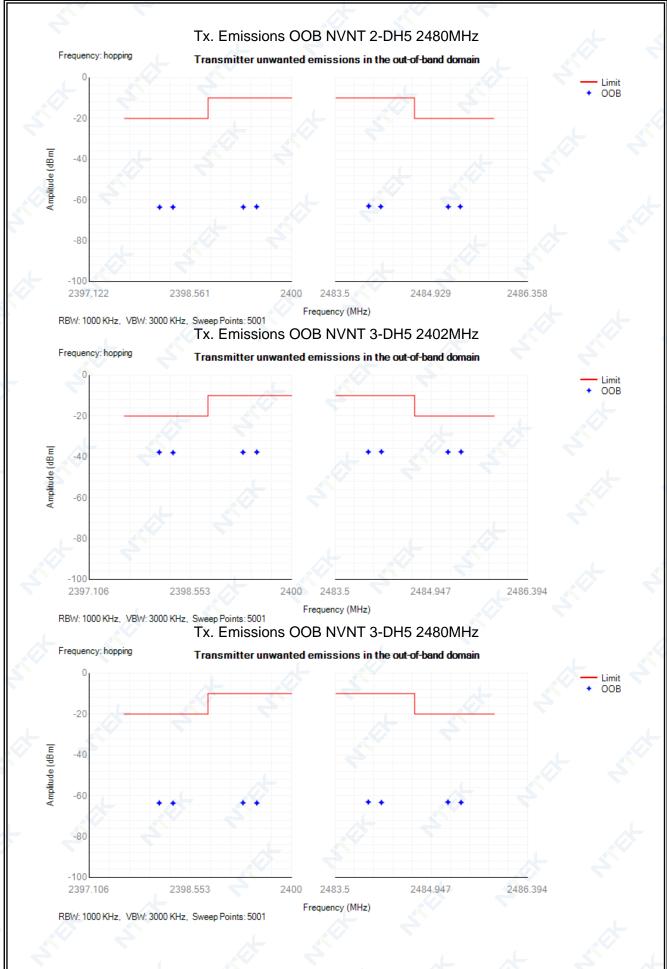


| Condition Mode Frequency (MHz) |       | OOB Frequency<br>(MHz) | Level<br>(dBm/MHz) | Limit<br>(dBm/MHz) | Verdict |      |
|--------------------------------|-------|------------------------|--------------------|--------------------|---------|------|
| NVNT                           | 1-DH5 | hopping                | 2399.5             | -63.43             | -10     | Pass |
| NVNT                           | 1-DH5 | hopping                | 2398.5             | -63.41             | -20     | Pass |
| NVNT                           | 1-DH5 | hopping                | 2484               | -63.34             | -10     | Pass |
| NVNT                           | 1-DH5 | hopping                | 2485               | -62.83             | -20     | Pass |
| NVNT                           | 1-DH5 | hopping                | 2399.5             | -63.42             | -10     | Pass |
| NVNT                           | 1-DH5 | hopping                | 2398.5             | -63.19             | -20     | Pass |
| NVNT                           | 1-DH5 | hopping                | 2484               | -63.18             | -10     | Pass |
| NVNT                           | 1-DH5 | hopping                | 2485               | -63.11             | -20     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2399.5             | -63.4              | -10     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2399.311           | -63.38             | -10     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2398.311           | -63.54             | -20     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2398.122           | -63.59             | -20     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2484               | -63.24             | -10     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2484.179           | -63.17             | -10     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2485.179           | -63.28             | -20     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2485.358           | -63.3              | -20     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2399.5             | -63.3              | -10     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2399.311           | -63.47             | -10     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2398.311           | -63.5              | -20     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2398.122           | -63.54             | -20     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2484               | -63.02             | -10     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2484.179           | -63.27             | -10     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2485.179           | -63.36             | -20     | Pass |
| NVNT                           | 2-DH5 | hopping                | 2485.358           | -63.26             | -20     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2399.5             | -37.65             | -10     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2399.303           | -37.75             | -10     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2398.303           | -37.93             | -20     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2398.106           | -37.74             | -20     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2484               | -37.57             | -10     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2484.197           | -37.49             | -10     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2485.197           | -37.61             | -20     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2485.394           | -37.53             | -20     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2399.5             | -63.54             | -10     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2399.303           | -63.44             | -10     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2398.303           | -63.62             | -20     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2398.106           | -63.54             | -20     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2484               | -63.07             | -10     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2484.197           | -63.3              | -10     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2485.197           | -63.11             | -20     | Pass |
| NVNT                           | 3-DH5 | hopping                | 2485.394           | -63.27             | -20     | Pass |











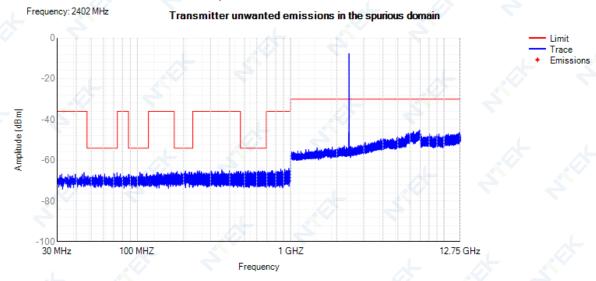
# 11.8 TRANSMITTER UNWANTED EMISSIONS IN THE SPURIOUS DOMAIN

|   | Condition    | Mode           | Frequency (MHz) | Range                                       | Spur Freq (MHz)                      | Spur Level Peak(dBm) | Spur Level RMS(dBm) | Limit (dBm) | Verdict      |
|---|--------------|----------------|-----------------|---------------------------------------------|--------------------------------------|----------------------|---------------------|-------------|--------------|
|   | NVNT<br>NVNT | 1-DH5<br>1-DH5 | 2402<br>2402    | 30 MHz -47 MHz<br>47 MHz -74 MHz            | 44.9<br>73.65                        | -65.96<br>-66.01     | NA<br>NA            | -36<br>-54  | Pass<br>Pass |
|   | NVNT         | 1-DH5          | 2402            | 74 MHz -87.5 MHz                            | 77.45                                | -66.68               | NA NA               | -36         | Pass         |
|   | NVNT         | 1-DH5          | 2402            | 87.5 MHz -118 MHz                           | 103.9                                | -65.88               | NA NA               | -54         | Pass         |
|   | NVNT<br>NVNT | 1-DH5<br>1-DH5 | 2402<br>2402    | 118 MHz -174 MHz<br>174 MHz -230 MHz        | 166.65<br>205.65                     | -65.73<br>-65.2      | NA<br>NA            | -36<br>-54  | Pass<br>Pass |
|   | NVNT         | 1-DH5          | 2402            | 230 MHz -470 MHz                            | 355.45                               | -64.74               | NA<br>NA            | -36         | Pass         |
|   | NVNT         | 1-DH5          | 2402            | 470 MHz -694 MHz                            | 528.65                               | -64.95               | NA                  | -54         | Pass         |
|   | NVNT<br>NVNT | 1-DH5<br>1-DH5 | 2402<br>2402    | 694 MHz -1000 MHz<br>1000 MHz -2398 MHz     | 972.1<br>2397                        | -63.94<br>-46.37     | NA<br>NA            | -36<br>-30  | Pass<br>Pass |
|   | NVNT         | 1-DH5          | 2402            | 2485.5 MHz -12750 MHz                       | 6984.5                               | -44.73               | NA NA               | -30         | Pass         |
|   | NVNT         | 1-DH5          | 2441            | 30 MHz -47 MHz                              | 38.05                                | -65.12               | NA NA               | -36         | Pass         |
|   | NVNT<br>NVNT | 1-DH5<br>1-DH5 | 2441<br>2441    | 47 MHz -74 MHz<br>74 MHz -87.5 MHz          | 66.35<br>82.8                        | -65.91<br>-66.58     | NA<br>NA            | -54<br>-36  | Pass<br>Pass |
|   | NVNT         | 1-DH5          | 2441            | 87.5 MHz -118 MHz                           | 93.9                                 | -65.71               | NA<br>NA            | -54         | Pass         |
|   | NVNT         | 1-DH5          | 2441            | 118 MHz -174 MHz                            | 145.45                               | -64.87               | NA                  | -36         | Pass         |
|   | NVNT         | 1-DH5          | 2441            | 174 MHz -230 MHz                            | 200.4                                | -64.5                | NA<br>NA            | -54         | Pass         |
|   | NVNT<br>NVNT | 1-DH5<br>1-DH5 | 2441<br>2441    | 230 MHz -470 MHz<br>470 MHz -694 MHz        | 416.8<br>495.35                      | -64.57<br>-64.97     | NA<br>NA            | -36<br>-54  | Pass<br>Pass |
|   | NVNT         | 1-DH5          | 2441            | 694 MHz -1000 MHz                           | 969.25                               | -63.3                | NA                  | -36         | Pass         |
|   | NVNT         | 1-DH5          | 2441            | 1000 MHz -2398 MHz                          | 2218.5                               | -53.48               | NA NA               | -30         | Pass         |
|   | NVNT         | 1-DH5<br>1-DH5 | 2441<br>2480    | 2485.5 MHz -12750 MHz<br>30 MHz -47 MHz     | 6977.5<br>33.8335329341317           | -45.12<br>-66.7      | NA<br>NA            | -30<br>-36  | Pass<br>Pass |
|   | NVNT         | 1-DH5          | 2480            | 47 MHz -74 MHz                              | 67.8706586826347                     | -66.2                | NA                  | -54         | Pass         |
|   | NVNT         | 1-DH5          | 2480            | 74 MHz -87.5 MHz                            | 83.2047904191617                     | -66.72               | NA                  | -36         | Pass         |
|   | NVNT<br>NVNT | 1-DH5<br>1-DH5 | 2480<br>2480    | 87.5 MHz -118 MHz<br>118 MHz -174 MHz       | 110.852694610778<br>137.57125748503  | -66.45<br>-65.86     | NA<br>NA            | -54<br>-36  | Pass<br>Pass |
|   | NVNT         | 1-DH5          | 2480            | 174 MHz -230 MHz                            | 200.766467065868                     | -64.97               | NA NA               | -54         | Pass         |
|   | NVNT         | 1-DH5          | 2480            | 230 MHz -470 MHz                            | 327.505389221557                     | -64.77               | NA                  | -36         | Pass         |
|   | NVNT<br>NVNT | 1-DH5<br>1-DH5 | 2480<br>2480    | 470 MHz -694 MHz<br>694 MHz -1000 MHz       | 619.550898203593<br>907.298203592814 | -64.21<br>-63.91     | NA<br>NA            | -54<br>-36  | Pass<br>Pass |
|   | NVNT         | 1-DH5          | 2480            | 1000 MHz -2398 MHz                          | 2061.01796407186                     | -53.44               | NA NA               | -30         | Pass         |
|   | NVNT         | 1-DH5          | 2480            | 2485.5 MHz -12750 MHz                       | 6894.70059880239                     | -44.96               | NA                  | -30         | Pass         |
|   | NVNT<br>NVNT | 2-DH5<br>2-DH5 | 2402<br>2402    | 30 MHz -47 MHz<br>47 MHz -74 MHz            | 33<br>59.1                           | -66.41<br>-66.74     | NA<br>NA            | -36<br>-54  | Pass<br>Pass |
|   | NVNT         | 2-DH5          | 2402            | 74 MHz -87.5 MHz                            | 74.95                                | -66.76               | NA<br>NA            | -36         | Pass         |
|   | NVNT         | 2-DH5          | 2402            | 87.5 MHz -118 MHz                           | 94.05                                | -65.6                | NA                  | -54         | Pass         |
|   | NVNT<br>NVNT | 2-DH5<br>2-DH5 | 2402<br>2402    | 118 MHz -174 MHz<br>174 MHz -230 MHz        | 127.5<br>202.35                      | -65.38<br>-65.34     | NA<br>NA            | -36<br>-54  | Pass<br>Pass |
|   | NVNT         | 2-DH5          | 2402            | 230 MHz -470 MHz                            | 230.35                               | -64.53               | NA NA               | -36         | Pass         |
|   | NVNT         | 2-DH5          | 2402            | 470 MHz -694 MHz                            | 549.15                               | -65.01               | NA                  | -54         | Pass         |
|   | NVNT<br>NVNT | 2-DH5<br>2-DH5 | 2402<br>2402    | 694 MHz -1000 MHz<br>1000 MHz -2398 MHz     | 980.5<br>2361.5                      | -62.34<br>-53.45     | NA<br>NA            | -36<br>-30  | Pass         |
|   | NVNT         | 2-DH5          | 2402            | 2485.5 MHz -12750 MHz                       | 6886.5                               | -44.88               | NA<br>NA            | -30         | Pass<br>Pass |
|   | NVNT         | 2-DH5          | 2441            | 30 MHz -47 MHz                              | 43.7                                 | -66.62               | NA                  | -36         | Pass         |
|   | NVNT<br>NVNT | 2-DH5          | 2441<br>2441    | 47 MHz -74 MHz                              | 51.3                                 | -66.42               | NA<br>NA            | -54<br>-36  | Pass         |
|   | NVNT         | 2-DH5<br>2-DH5 | 2441            | 74 MHz -87.5 MHz<br>87.5 MHz -118 MHz       | 76.3<br>100.6                        | -66.16<br>-65.68     | NA<br>NA            | -54         | Pass<br>Pass |
|   | NVNT         | 2-DH5          | 2441            | 118 MHz -174 MHz                            | 164.95                               | -65.31               | NA                  | -36         | Pass         |
|   | NVNT         | 2-DH5          | 2441            | 174 MHz -230 MHz                            | 205.35                               | -65.48               | NA<br>NA            | -54         | Pass         |
|   | NVNT<br>NVNT | 2-DH5<br>2-DH5 | 2441<br>2441    | 230 MHz -470 MHz<br>470 MHz -694 MHz        | 411.05<br>554.35                     | -64.34<br>-64.61     | NA<br>NA            | -36<br>-54  | Pass<br>Pass |
|   | NVNT         | 2-DH5          | 2441            | 694 MHz -1000 MHz                           | 966.05                               | -64.32               | NA                  | -36         | Pass         |
|   | NVNT         | 2-DH5          | 2441            | 1000 MHz -2398 MHz                          | 2345.5                               | -52.97               | NA<br>NA            | -30         | Pass         |
|   | NVNT<br>NVNT | 2-DH5<br>2-DH5 | 2441<br>2480    | 2485.5 MHz -12750 MHz<br>30 MHz -47 MHz     | 6940.5<br>45.1017964071856           | -44.47<br>-67.22     | NA<br>NA            | -30<br>-36  | Pass<br>Pass |
|   | NVNT         | 2-DH5          | 2480            | 47 MHz -74 MHz                              | 67.1736526946108                     | -66.86               | NA NA               | -54         | Pass         |
|   | NVNT         | 2-DH5          | 2480            | 74 MHz -87.5 MHz                            | 80.0682634730539                     | -66.32               | NA                  | -36         | Pass         |
|   | NVNT<br>NVNT | 2-DH5<br>2-DH5 | 2480<br>2480    | 87.5 MHz -118 MHz<br>118 MHz -174 MHz       | 112.711377245509<br>153.37005988024  | -66.36<br>-64.83     | NA<br>NA            | -54<br>-36  | Pass<br>Pass |
|   | NVNT         | 2-DH5          | 2480            | 174 MHz -230 MHz                            | 219.004790419162                     | -65.22               | NA<br>NA            | -54         | Pass         |
|   | NVNT         | 2-DH5          | 2480            | 230 MHz -470 MHz                            | 442.162874251497                     | -65.1                | NA                  | -36         | Pass         |
|   | NVNT<br>NVNT | 2-DH5<br>2-DH5 | 2480<br>2480    | 470 MHz -694 MHz<br>694 MHz -1000 MHz       | 656.376047904192<br>897.307784431138 | -65.01<br>-63.99     | NA<br>NA            | -54<br>-36  | Pass<br>Pass |
|   | NVNT         | 2-DH5          | 2480            | 1000 MHz -2398 MHz                          | 2211.58682634731                     | -52.75               | NA<br>NA            | -30         | Pass         |
|   | NVNT         | 2-DH5          | 2480            | 2485.5 MHz -12750 MHz                       | 2487.39520958084                     | -44.16               | NA                  | -30         | Pass         |
|   | NVNT<br>NVNT | 3-DH5<br>3-DH5 | 2402<br>2402    | 30 MHz -47 MHz<br>47 MHz -74 MHz            | 32.55<br>71.35                       | -67.02<br>-65.76     | NA<br>NA            | -36<br>-54  | Pass<br>Pass |
|   | NVNT         | 3-DH5          | 2402            | 74 MHz -87.5 MHz                            | 81.65                                | -67.37               | NA<br>NA            | -36         | Pass         |
|   | NVNT         | 3-DH5          | 2402            | 87.5 MHz -118 MHz                           | 104.9                                | -65.85               | NA                  | -54         | Pass         |
|   | NVNT<br>NVNT | 3-DH5<br>3-DH5 | 2402<br>2402    | 118 MHz -174 MHz<br>174 MHz -230 MHz        | 155.15<br>182.05                     | -65.39<br>-65.51     | NA<br>NA            | -36<br>-54  | Pass         |
|   | NVNT         | 3-DH5          | 2402            | 230 MHz -470 MHz                            | 295.6                                | -65.09               | NA<br>NA            | -36         | Pass<br>Pass |
| X | NVNT         | 3-DH5          | 2402            | 470 MHz -694 MHz                            | 677.9                                | -64.96               | NA                  | -54         | Pass         |
|   | NVNT<br>NVNT | 3-DH5<br>3-DH5 | 2402<br>2402    | 694 MHz -1000 MHz                           | 931.1<br>2190.5                      | -64.12<br>-52.95     | NA<br>NA            | -36<br>-30  | Pass         |
|   | NVNT         | 3-DH5<br>3-DH5 | 2402            | 1000 MHz -2398 MHz<br>2485.5 MHz -12750 MHz | 6994                                 | -52.95<br>-45.03     | NA<br>NA            | -30         | Pass<br>Pass |
|   | NVNT         | 3-DH5          | 2441            | 30 MHz -47 MHz                              | 34.05                                | -66.73               | NA NA               | -36         | Pass         |
|   | NVNT         | 3-DH5          | 2441            | 47 MHz -74 MHz                              | 59.7                                 | -66.01               | NA<br>NA            | -54<br>36   | Pass         |
|   | NVNT<br>NVNT | 3-DH5<br>3-DH5 | 2441<br>2441    | 74 MHz -87.5 MHz<br>87.5 MHz -118 MHz       | 86.85<br>113.05                      | -66.63<br>-66.45     | NA<br>NA            | -36<br>-54  | Pass<br>Pass |
|   | NVNT         | 3-DH5          | 2441            | 118 MHz -174 MHz                            | 157.95                               | -65.43               | NA                  | -36         | Pass         |
|   | NVNT         | 3-DH5          | 2441            | 174 MHz -230 MHz                            | 217.35                               | -64.31               | NA<br>NA            | -54         | Pass         |
|   | NVNT<br>NVNT | 3-DH5<br>3-DH5 | 2441<br>2441    | 230 MHz -470 MHz<br>470 MHz -694 MHz        | 275.95<br>657.35                     | -64.27<br>-65.19     | NA<br>NA            | -36<br>-54  | Pass<br>Pass |
|   | NVNT         | 3-DH5          | 2441            | 694 MHz -1000 MHz                           | 898.65                               | -64.34               | NA                  | -36         | Pass         |
|   | NVNT         | 3-DH5          | 2441            | 1000 MHz -2398 MHz                          | 2324                                 | -52.76               | NA<br>NA            | -30         | Pass         |
|   | NVNT         | 3-DH5          | 2441            | 2485.5 MHz -12750 MHz                       | 6973.5                               | -44.73               | NA                  | -30         | Pass         |

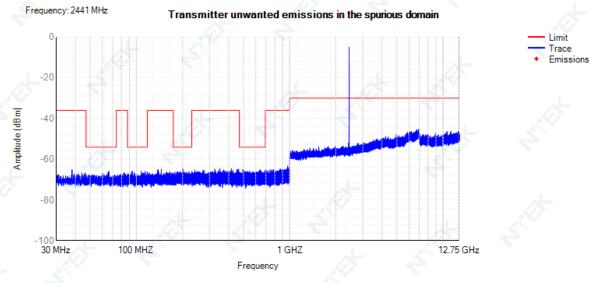


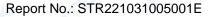
| NVNT | 3-DH5 | 2480 | 30 MHz -47 MHz        | 33.7   | -66.64 | NA | -36 | Pass |
|------|-------|------|-----------------------|--------|--------|----|-----|------|
| NVNT | 3-DH5 | 2480 | 47 MHz -74 MHz        | 52.5   | -66.22 | NA | -54 | Pass |
| NVNT | 3-DH5 | 2480 | 74 MHz -87.5 MHz      | 78.5   | -66.92 | NA | -36 | Pass |
| NVNT | 3-DH5 | 2480 | 87.5 MHz -118 MHz     | 109.35 | -65.38 | NA | -54 | Pass |
| NVNT | 3-DH5 | 2480 | 118 MHz -174 MHz      | 171.35 | -65.3  | NA | -36 | Pass |
| NVNT | 3-DH5 | 2480 | 174 MHz -230 MHz      | 214.4  | -64.1  | NA | -54 | Pass |
| NVNT | 3-DH5 | 2480 | 230 MHz -470 MHz      | 316.55 | -64.54 | NA | -36 | Pass |
| NVNT | 3-DH5 | 2480 | 470 MHz -694 MHz      | 472.4  | -65.03 | NA | -54 | Pass |
| NVNT | 3-DH5 | 2480 | 694 MHz -1000 MHz     | 751.7  | -64.36 | NA | -36 | Pass |
| NVNT | 3-DH5 | 2480 | 1000 MHz -2398 MHz    | 2063   | -52.55 | NA | -30 | Pass |
| NVNT | 3-DH5 | 2480 | 2485.5 MHz -12750 MHz | 6912.5 | -44.85 | NA | -30 | Pass |

## Tx. Spurious NVNT 1-DH5 2402MHz

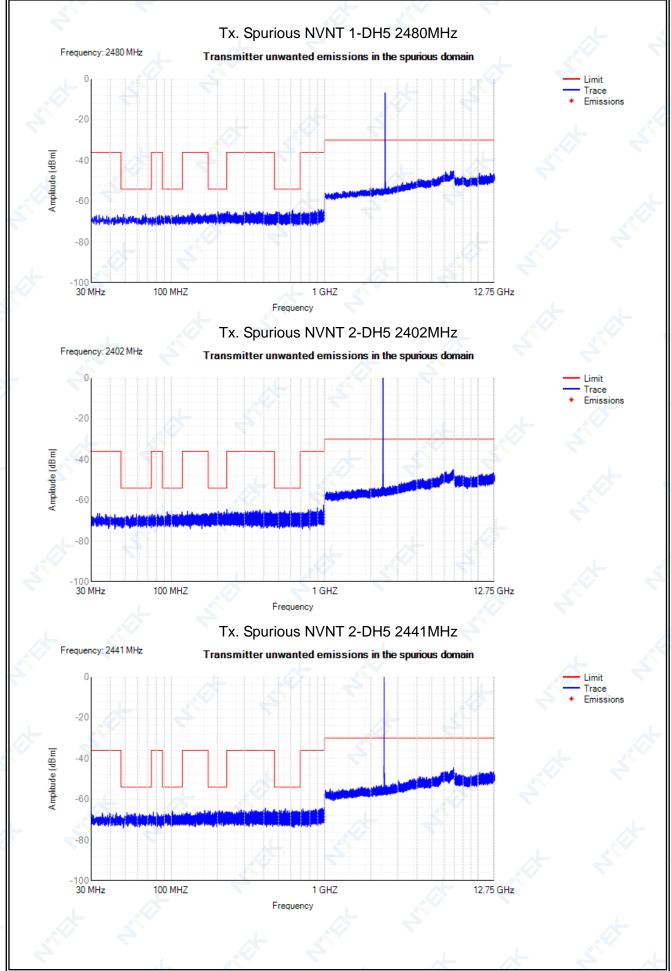


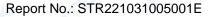
### Tx. Spurious NVNT 1-DH5 2441MHz



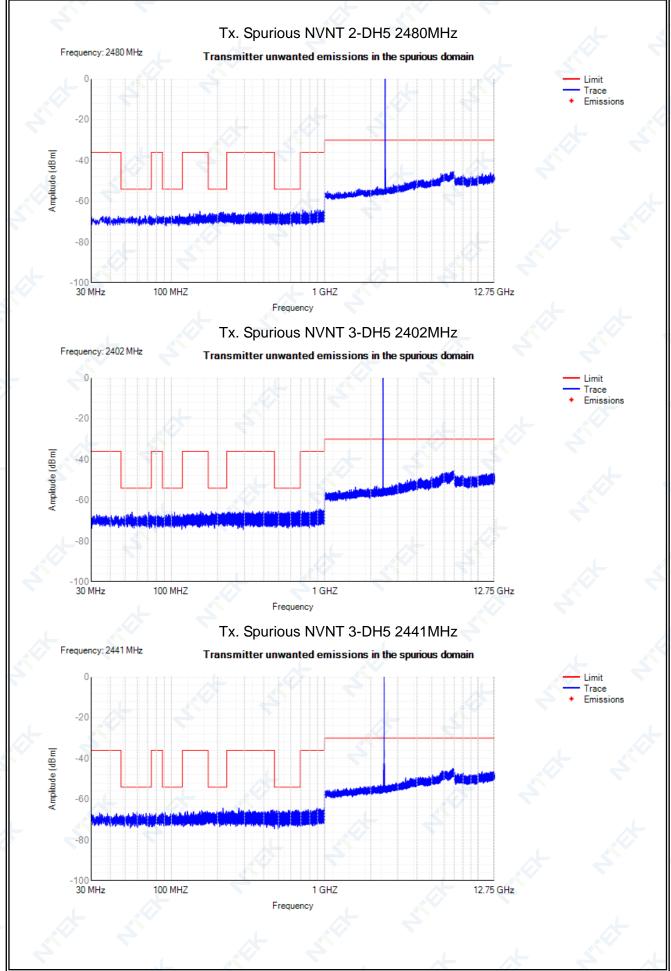




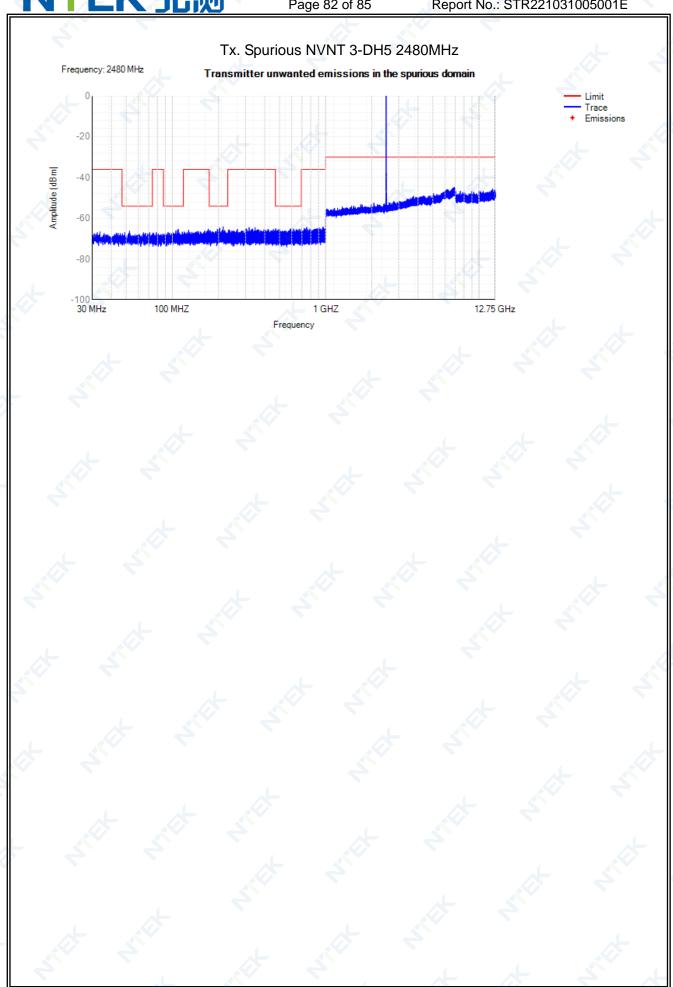










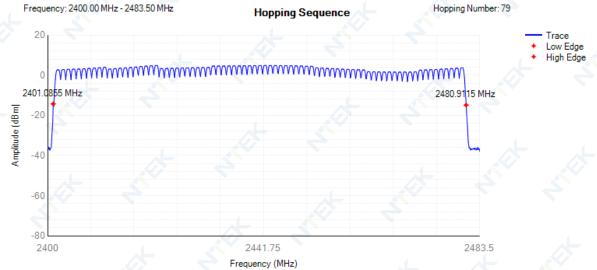




# 11.9 HOPPING SEQUENCE

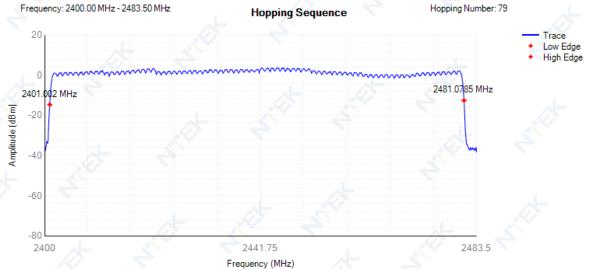
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|---------------------------------------|-------|---------|-------|-----------------|-----------------------|---------|--|--|--|--|--|
| Condition                             | Mode  | Hopping | Limit | Band Allocation | Limit Band Allocation | Verdict |  |  |  |  |  |
|                                       |       | Number  |       | (%)             | (%)                   |         |  |  |  |  |  |
| NVNT                                  | 1-DH5 | 79      | 15    | 95.6            | 70                    | Pass    |  |  |  |  |  |
| NVNT                                  | 2-DH5 | 79      | 15    | 95.9            | 70                    | Pass    |  |  |  |  |  |
| NVNT                                  | 3-DH5 | 79      | 15    | 95.9            | 70                    | Pass    |  |  |  |  |  |

## Hopping Seq. NVNT 1-DH5 2441MHz



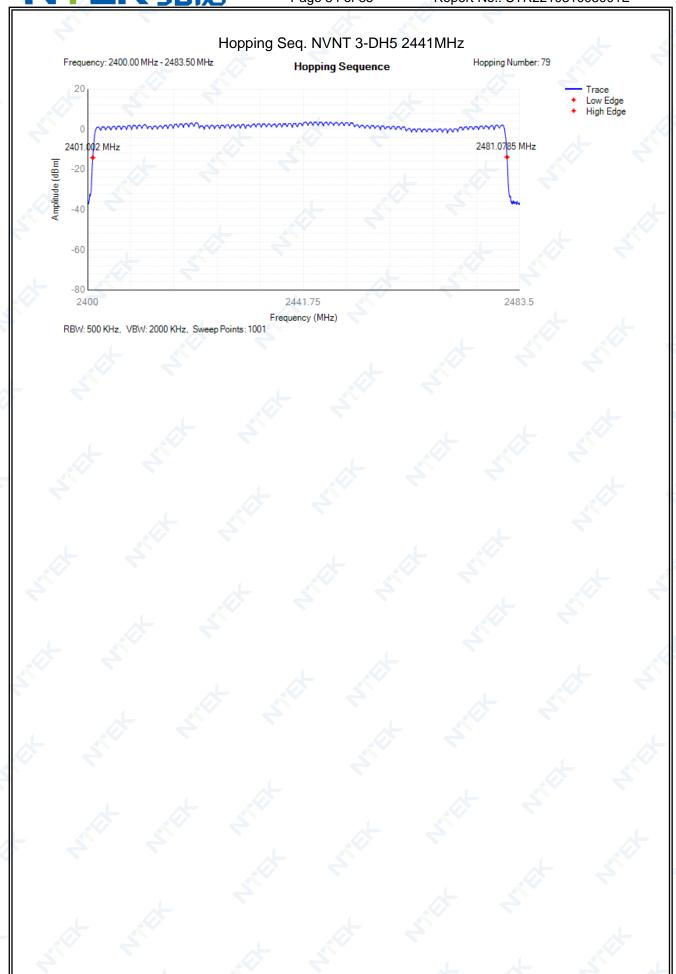
RBW: 500 KHz, VBW: 2000 KHz, Sweep Points: 1001

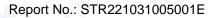
# Hopping Seq. NVNT 2-DH5 2441MHz



RBW: 500 KHz, VBW: 2000 KHz, Sweep Points: 1001





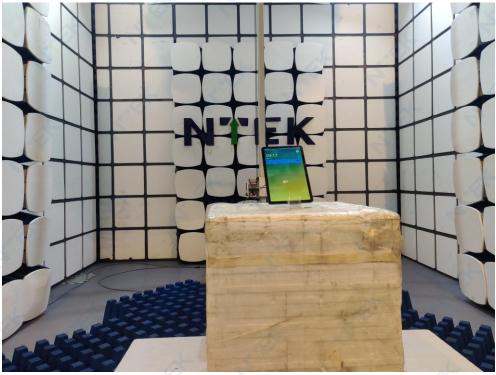




### **12. EUT TEST PHOTO**

# **SPURIOUS EMISSIONS MEASUREMENT PHOTOS**





**END OF REPORT**