Test Report

Verified code: 839196

Report No.: E20220309137001-2

Customer:	Lumi United Technology Co., Ltd.
Address:	Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No.3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China
Sample Name:	Curtain Driver E1
Sample Model:	CM-M01
Receive Sample Date:	Mar.11,2022
Test Date:	Mar.12,2022 ~ May.16,2022
Reference Document:	ETSI EN 300 328 V2.2.2 (2019-07)Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz band; Harmonised Standard for access to radio spectrum
Test Result:	Pass

Prepared by: Yang Zhaoyun Reviewed by: Jiang Tao Approved by: Xiao Liang

GUANGZHOU GRG METROLOGY & TEST CO., LTD

Issued Date: 2022-05-19

GUANGZHOU GRG METROLOGY & TEST CO., LTD.
Address: No.163, Pingyun Road, West of Huangpu Avenue, Guangzhou, Guangdong, China
Tel：（+86）400-602-0999 FAX：（+86）020-38698685 Web：http://www.grgtest.com

Statement

1. The report is invalid without "special seal for inspection and testing"; some copies are invalid; The report is invalid if it is altered or missing; The report is invalid without the signature of the person who prepared, reviewed and approved it.

2. The sample information is provided by the client and responsible for its authenticity; The content of the report is only valid for the samples sent this time.

3. When there are reports in both Chinese and English, the Chinese version will prevail when the language problems are inconsistent.

4. If there is any objection concerning the report, please inform us within 15 days from the date of receiving the report.

5. Without the agreement of the laboratory, the client is not authorized to use the test results for unapproved propaganda.

---------- **The following blanks** ----------

Table of Contents

---------- The following blanks ----------

REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E20220309137001-2	Original Issue	2022/05/16

---------- The following blanks ----------

1. TEST RESULT SUMMARY

Test Item	Test mode	Test Requirement	Test Method	Class / Severity	Test Result
1. Transmitter Part					
RF Output Power	TX mode	EN300 328 V2.2.2/ 4.3.2.2	EN300 328 V2.2.2/5.4.2.2.1	Meet requirements: EN300 328 V2.2.2/ 4.3.2.2	PASS
Power Spectral Density	TX mode	EN300 328 V2.2.2/4.3.2.3	EN300 328 V2.2.2/5.4.3.2.1	Meet requirements: EN300 328 V2.2.2/4.3.2.3	PASS
Duty Cycle, Tx-sequence, Tx-gap	TX mode	EN300 328 V2.2.2/4.3.2.4	EN300 328 V2.2.2/5.4.2.2.1	Meet requirements: EN300 328 V2.2.2/4.3.2.4	N/A[1)]
Medium Utilisation (MU) factor	TX mode	EN300 328 V2.2.2/ 4.3.2.5	EN300 328 V2.2.2/5.4.2.2	Meet requirements: EN300 328 V2.2.2/ 4.3.2.5	N/A[2)]
Adaptivity	Normal mode	EN300 328 V2.2.2/ 4.3.2.6	EN300 328 V2.2.2/5.4.6.2.1	Meet requirements: EN300 328 V2.2.2/ 4.3.2.6	N/A[1)]
Occupied Channel Bandwidth	TX mode	EN300 328 V2.2.2/ 4.3.2.7	EN300 328 V2.2.2/5.4.7.2.1	Meet requirements: EN300 328 V2.2.2/ 4.3.2.7	PASS
Transmitter unwanted emissions in the out-of-band domain	TX mode	EN300 328 V2.2.2/ 4.3.2.8	EN300 328 V2.2.2/5.4.8.2.1	Meet requirements: EN300 328 V2.2.2/ 4.3.2.8	PASS
Transmitter unwanted emissions in the spurious domain	TX mode	EN300 328 V2.2.2/ 4.3.2.9	EN300 328 V2.2.2/5.4.9.2.2	Meet requirements: EN300 328 V2.2.2/ 4.3.2.9	PASS
2. Receiver Part					
Receiver spurious emissions	RX mode	EN300 328 V2.2.2/ 4.3.2.10	EN300 328 V2.2.2/5.4.10.2.2	Meet requirements: EN300 328 V2.2.2/ 4.3.2.10	PASS
Receiver Blocking	RX mode	EN300 328 V2.2.2/ 4.3.2.11	EN300 328 V2.2.2/5.4.11.2.1	Meet requirements: EN300 328 V2.2.2/ 4.3.2.11	PASS

Note:
1. This item does not apply for equipment with a declared RF Output power level of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p, but the EUT power is less than 10dBm, so it is not applied.
2. This requirement does not apply for non-FHSS equipment with a maximum declared RF Output power level of less than 10 dBm e.i.r.p. or for non-FHSS equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

2. GENERAL DESCRIPTION OF EUT

2.1 APPLICANT INFORMATION

Name:	Lumi United Technology Co., Ltd.
Address:	Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No.3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.2 MANUFACTURER

Name:	Lumi United Technology Co., Ltd.
Address:	Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No.3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.3 FACTORY

Name:	SHENZHEN 3NORD DIGITAL TECHNOLOGY CO., LTD.
Address:	401, ZONE 101A, WORKSHOP 15, ZHONGFU ROAD, TANGXIAYONG COMMUNITY, YANLUO STREET, BAOAN DISTRICT, SHENZHEN CITY, GUANGDONG PROVINCE, P.R.C.

2.4 BASIC DESCRIPTION OF EUT

Product Name:	Curtain Driver E1
Product Model:	CM-M01
Adding Model:	/
Trade Name:	Aqara
Power Supply:	5V ⎓1.5A power from USB cable or DC 3.70V power from battery
Battery specification:	Rechargeable Lithium-ion Battery Product Model: DH0406CLM Nominal Voltage: 3.70Vdc, Rated Capacity:6000mAh, Rated Energy: 22.2Wh Charging Voltage Limit: 4.20Vdc
Frequency Band:	2405MHz-2475MHz
Modulation Type:	O-QPSK
Antenna Specification:	FPC antenna 1dBi gain (Max.)
Sample submitting way:	■Provided by customer □Sampling
Sample No:	E20220309137001-0001, E20220309137001-0004
Temperature Range:	0℃ ~ 25℃
Hardware Version:	T0
Software Version:	V0.0.0_2424
Note1:	Motor1: Manufacturer: SHENZHEN WEIZHEN MOTOR DEVELOPMENT CO.,LTD. Model: WRK-500CA-17280B Technical data: DC9.0V,720mA Max.5500±10% rpm/min.

Note2:	Motor2: Manufacturer: Peak Industrial Ltd. Model: PR-500EV-17280 Technical data: DC9.0V,500mA Max.5500±10% rpm/min.
Note3:	This report records motor 1 (WRK-500CA-17280B) maximum current 720mA data .

---------- **The following blanks** ----------

2.5 TEST MODE

Test mode 1: TX mode

Test mode 2: RX mode

Test mode 3: Normal mode

2.6 DESCRIPTION OF ADAPTIVE EQUIPMENT

The type of the equipment	□	FHSS	√	other forms of modulation	□	Non-FHSS	
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	
The equipment has an implemented	□	Frame Based equipment	□	Load Based equipment	□	non-LBT based DAA mechanism	√ other
Device Class	□	Wi-Fi	□	Bluetooth Low Energy	□	Bluetooth EDR/BR	□ BT 5.2
Wi-Fi Channel Bandwidth	□	20MHz	□	40MHz	□	80MHz	□ 160MHz
Antenna Gain	√	Antenna1 1dBi	□	Antenna 2 dBi	□	Antenna 3 dBi	□ Antenna 4 dBi
Beamforming Gain	□	Yes, dBi	√	No			
Extreme operating conditions	√	Operating temperature range:	√	Min 0℃	√	Max 25℃	
Blocking	√	PER	□	The manufacturer may declare alternative performance criteria			
Geo-location capability supported by the equipment	□	Yes	√	No			

The maximum RF output power is 9.62dBm, so the EUT is Receiver Category 2 equipment.

3. LABORATORY

The tests and measurements refer to this report were performed by Shenzhen EMC Laboratory of Guangzhou GRG Metrology & Test Co., Ltd.

Add. :	No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District Shenzhen, 518110, People's Republic of China
P.C. :	518000
Telephone:	0755-61180008
Fax:	0755-61180008

4. ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	A2LA(Certificate#:2861.01)
China	CNAS(L0446)

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	ISED (Company Number: 24897, CAB identifier:CN0069)
USA	FCC (Registration Number: 759402, Designation Number:CN1198)

Copies of granted accreditation certificates are available for downloading from our web site, http://www.grgtest.com

5. MEASUREMENTS UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in ETSI EN TR 100 028-1 (i.15) and ETSI EN 100 028-2 (i 8):

Measurement		Frequency	Uncertainty
Radiated Emission	Horizontal	30MHz～1000MHz	4.3dB
		1GHz～18GHz	5.6dB
	Vertical	30MHz～1000MHz	4.3dB
		1GHz～18GHz	5.6dB

Measurement	Uncertainty
RF frequency	6.0×10^{-6}
RF power conducted	0.78 dB
Occupied channel bandwidth	0.4 dB
Unwanted emission, conducted	0.68 dB
Humidity	6 %
Temperature	2℃

This uncertainty represents an expanded uncertainty factor of k=2.

6. EQUIPMENT AND TOOLS USED DURING TEST

6.1 TEST EQUIPMENT AND TOOLS

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Maximum transmit power & Maximum e.i.r.p. spectral density & Medium Utilisation (MU) factor &occupied channel bandwidth& Transmitter unwanted emissions in the out-of-band domain				
Simultaneous sampling DAQ	TONSCEND	JS0806-2	186060020	2022-09-04
High and low temperature humid heat test chamber	HOSON	HS01060SDF	201013401	2022-09-02
Pulse power sensor	TONSCEND	u2021A	/	2022-09-04
Spectrum Analyzer	Agilent	N9020A	MY50510140	2022-11-08
BT/WIFI System	TONSCEND	JS1120-3		
Transmitter unwanted emissions in the spurious domain & Receiver spurious emissions				
Spectrum Analyzer	Agilent	N9020B	MY5712019	2022-08-08
Bi-log Antenna	Schwarzbeck	VULB9163	01279	2023-03-15
Horn Antenna	Schwarzbeck	BBHA9120D(1201)	02143	2022-10-22
Amplifier	Tonscend	TAP 037030	AP20E8060081	2022-06-03
Amplifier	Tonscend	TAP01018048	AP20E8060075	2022-05-09
Test software	tonscend	JS36-RSE/2.5.1.5		
Receiver Blocking				
Vector Signal Generator	Agilent	N5182A	MY50142870	2022-09-04
BT/WIFI System	tonscend	Js1120-3		

6.2 LOCAL SUPPORTIVE INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Note
Notebook	LENOVO	TianYi 310-14ISK	MP18DLC6	Unshielded, 1m (AC Cable) Shielded, 1.8m (DC Cable)

Note :The notebook is just used to produce fixed frequency transmitting.

6.3 CONFIGURATION OF SYSTEM UNDER TEST

EUT

6.4 TEST SOFTWARE

Software version	Test level
QCOM_V1.0	8.0

---------- The following blanks ----------

7. RADIO TECHNICAL REQUIREMENT SPECIFICATION

7.1 RF OUTPUT POWER

Test Requirement: EN300 328 V2.2.2/ 4.3.2.2

Test Method: EN300 328 V2.2.2/5.4.2.2.1

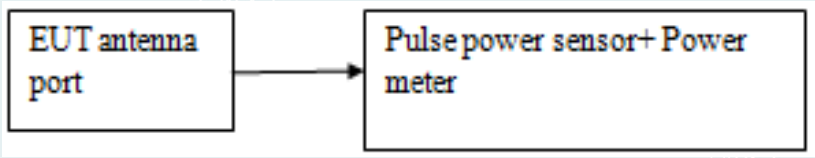
7.1.1 LIMIT

For adaptive equipment, the maximum RF output power shall be 20 dBm.

The maximum RF output power for non-adaptive equipment shall be declared by the manufacturer and shall not exceed 20 dBm. See clause 5.4.1 m). For non-adaptive equipment, the maximum RF output power shall be equal to or less than the value declared by the manufacturer.

This limit shall apply for any combination of power level and intended antenna assembly.

7.1.2 TEST CONFIGURATION



7.1.3 TEST PROCEDURES

Test procedure: Test procedure is according to EN 300 328 V2.2.2/5.4.2.2.1

Test channel: 2405MHz,2440MHz and 2475MHz for Zigbee

Test condition: Normal and extreme test conditions

7.1.4 TEST RESULTS

Test Date (yy-mm-dd): 2022-04-02 to 2022-05-16

Test environment: Normal condition: Temp: 24.6℃, Humid:43%RH

Extreme test conditions: Low Temp: 0℃

High Temp: +25℃

Test Mode	Test Frequency(MHz)	Measurement Conditions	Test Data			Max. e.i.r.p. Limit(dBm)	Conclusion
			Conducted Power (dBm)	Antenna Gain (dBi)	e.i.r.p. (dBm)		
Zigbee	2405	Normal temperature/ Normal voltage	8.53	1	9.53	20	PASS
	2440		8.62	1	9.62	20	PASS
	2475		8.62	1	9.62	20	PASS

Test Mode	Test Frequency(MHz)	Measurement Conditions	Test Data			Max. e.i.r.p. Limit(dBm)	Conclusion
			Conducted Power (dBm)	Antenna Gain (dBi)	e.i.r.p. (dBm)		
Zigbee	2405	Low temperature/ Normal voltage	8.53	1	9.53	20	PASS
	2440		8.62	1	9.62	20	PASS
	2475		8.62	1	9.62	20	PASS

Test Mode	Test Frequency(MHz)	Measurement Conditions	Test Data			Max. e.i.r.p. Limit(dBm)	Conclusion
			Conducted Power (dBm)	Antenna Gain (dBi)	e.i.r.p. (dBm)		
Zigbee	2405	High temperature/ Normal voltage	8.50	1	9.50	20	PASS
	2440		8.61	1	9.61	20	PASS
	2475		8.57	1	9.57	20	PASS

Note: The extreme high temperature of this Zigbee product is within the standard normal test temperature range conditions(+15℃ to +35℃).

7.2 POWER SPECTRAL DENSITY

Test Requirement: EN300 328 V2.2.2/4.3.2.3

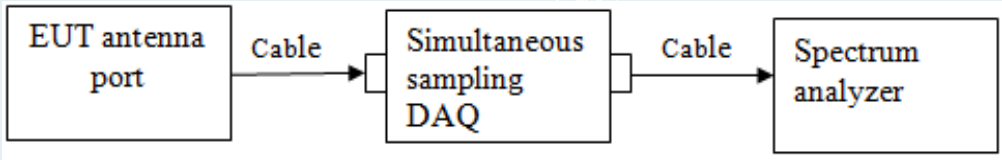
Test Method: EN300 328 V2.2.2/5.4.3.2.1

7.2.1 LIMIT

This requirement applies to all types of equipment using wide band modulations other than FHSS.

For equipment using wide band modulations other than FHSS, the maximum Power Spectral Density is limited to 10 dBm per MHz.

7.2.2 TEST CONFIGURATION



7.2.3 TEST PROCEDURES

Test condition: Normal test conditions

Test channel: 2405MHz,2440MHz and 2475MHz for Zigbee

Test procedure: Test procedure is according to EN 300 328 V2.2.2/5.4.3.2.1

7.2.4 TEST RESULTS

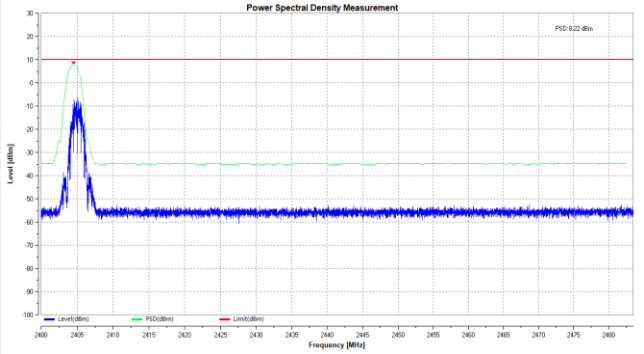
Test Date (yy-mm-dd): 2022-04-02

Test environment: Normal condition:

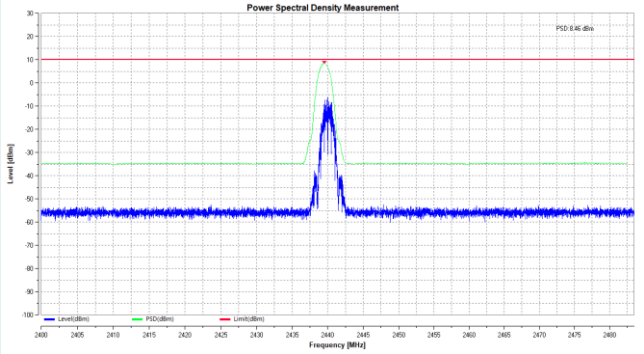
Temp: 24.6℃, Humid:43%RH

Test Mode	Frequency [MHz]	PSD[dBm/MHz]	Limit[dBm/MHz]	Verdict
Zigbee	2405	8.22	10	PASS
	2440	8.46	10	PASS
	2475	8.26	10	PASS

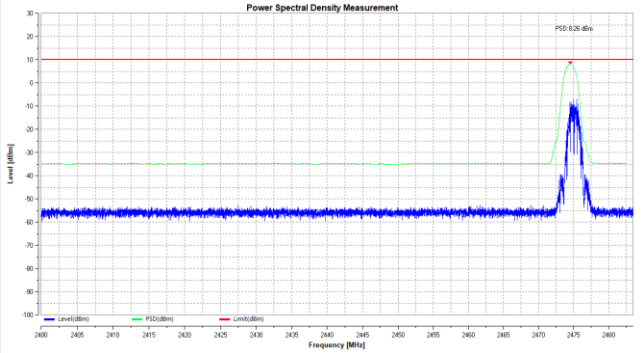
7.2.5 TEST SCREENSHOTS



Lowest Frequency: 2405MHz



Middle Frequency: 2440MHz



Highest Frequency: 2475MHz

7.3 OCCUPIED CHANNEL BANDWIDTH

Test Requirement: EN300 328 V2.2.2/ 4.3.2.7

Test Method: EN300 328 V2.2.2/5.4.7.2.1

7.3.1 LIMIT

This requirement applies to all types of non-FHSS equipment.

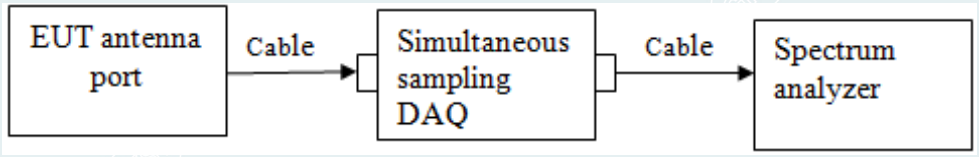
The Occupied Channel Bandwidth shall fall completely within the band given in table 2.

In addition, for non-adaptive equipment using wide band modulations other than FHSS and with e.i.r.p. greater than 10 dBm, the occupied channel bandwidth shall be less than 20 MHz.

Table 2: Service frequency bands

	Service frequency bands
Transmit	2 400 MHz to 2 483,5 MHz
Receive	2 400 MHz to 2 483,5 MHz

7.3.2 TEST CONFIGURATION



7.3.3 TEST PROCEDURES

Test condition: Normal test conditions.

Test channel: 2405MHz,2440MHz and 2475MHz for Zigbee

Test procedure: Test procedure is according to EN 300 328 V2.2.2/5.4.7.2.1

7.3.4 TEST RESULTS

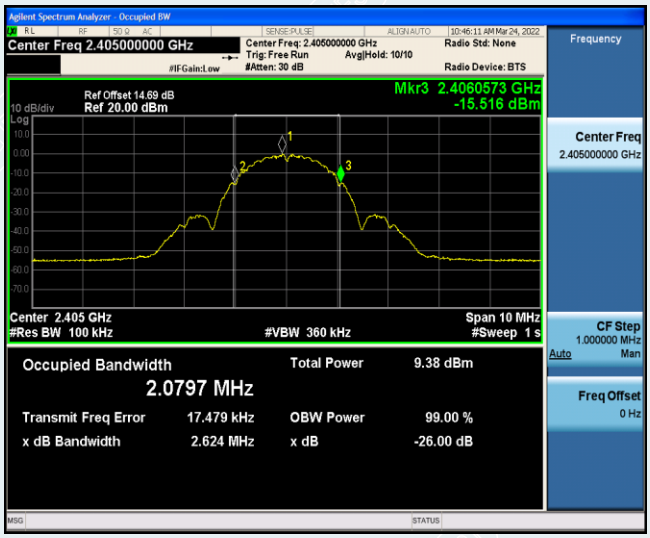
Test Date (yy-mm-dd): 2022-03-24

Test environment: Normal condition:

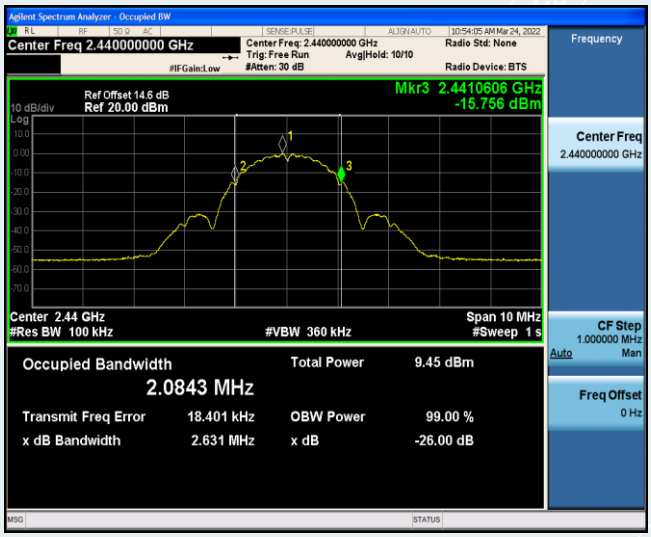
Temp: 24.6℃, Humid:43%RH

Test Mode	Frequency [MHz]	OCB[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
Zigbee	2405	2.0797	2403.9776	2406.0573	2400 to 2483.5	PASS
	2440	2.0843	2438.9763	2441.0606	2400 to 2483.5	PASS
	2475	2.0844	2473.9755	2476.0599	2400 to 2483.5	PASS

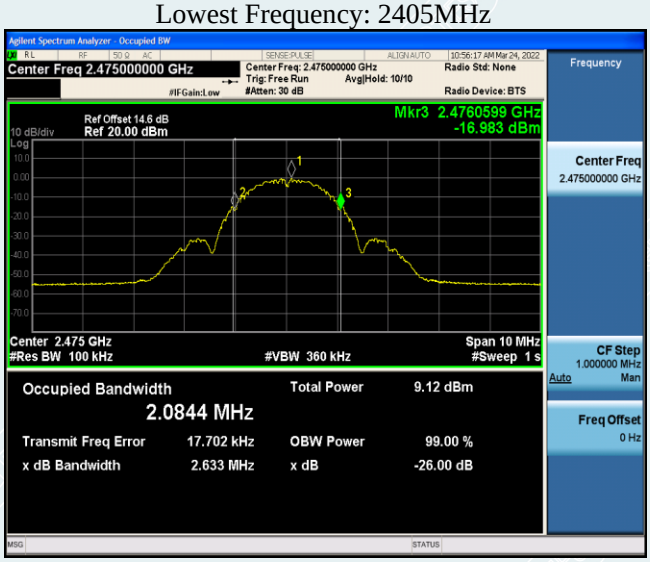
7.3.5 TEST SCREENSHOTS



Lowest Frequency: 2405MHz



Middle Frequency: 2440MHz



Highest Frequency: 2475MHz

7.4 TRANSMITTER UNWANTED EMISSIONS IN THE OUT-OF-BAND DOMAIN

Test Requirement: EN300 328 V2.2.2/ 4.3.2.8

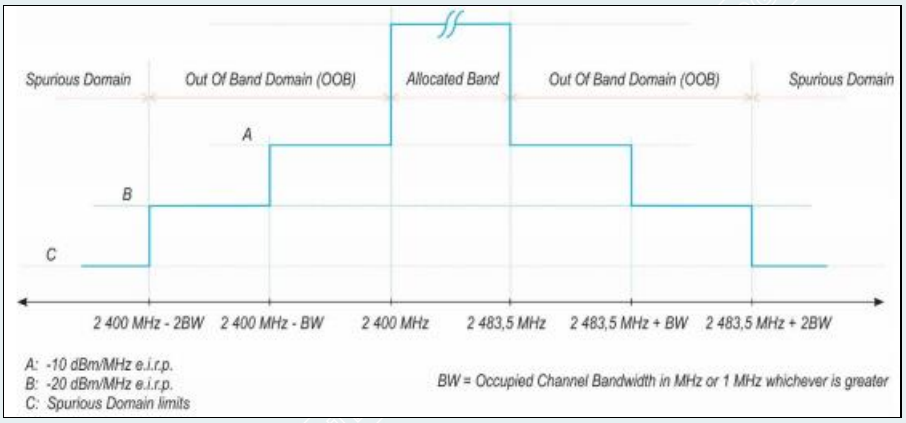
Test Method: EN300 328 V2.2.2/5.4.8.2.1

7.4.1 LIMIT

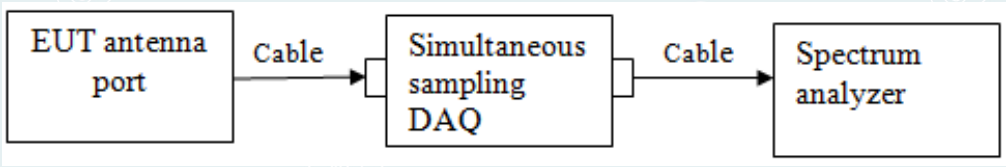
This requirement applies to all types of FHSS equipment and all types of non-FHSS equipment.

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 figure 3.

The Out-of-band emissions are fulfilled by compliance with the Occupied Channel Bandwidth requirement.



7.4.2 TEST CONFIGURATION



7.4.3 TEST PROCEDURES

Test condition: Normal test conditions.

Test channel: 2405MHz, 2475MHz for Zigbee

Test procedure: Test procedure is according to EN 300 328 V2.2.2/5.4.8.2.1

7.4.4 TEST RESULTS

Test Date (yy-mm-dd): 2022-03-24

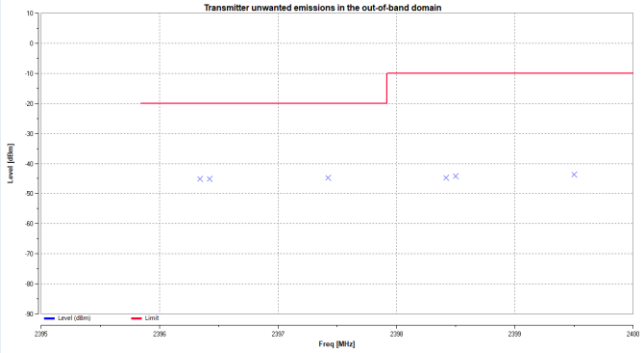
Test environment: Normal condition:

Temp: 24.6℃, Humid:43%RH

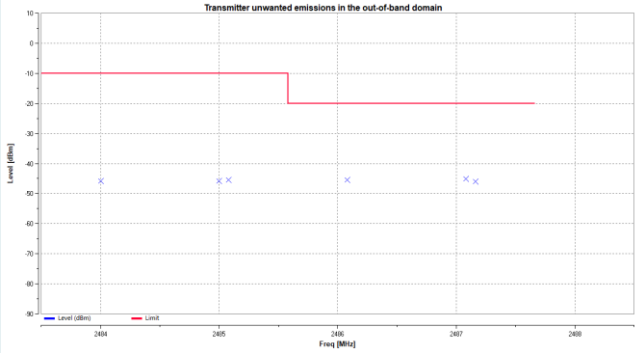
Test Mode	Frequency [MHz]	Freq. [MHz]	Level[dBm]	Limit[dBm]	Verdict
Zigbee	2405	2396.3406	-45.13	-20.00	PASS
		2396.4203	-45.13	-20.00	PASS
		2397.4203	-44.81	-20.00	PASS
		2398.4203	-44.67	-10.00	PASS
		2398.5	-44.26	-10.00	PASS
		2399.5	-43.74	-10.00	PASS
		2484	-45.74	-10.00	PASS
		2485	-45.74	-10.00	PASS
		2485.0797	-45.54	-10.00	PASS
		2486.0797	-45.53	-20.00	PASS
		2487.0797	-45.13	-20.00	PASS
		2487.1594	-45.92	-20.00	PASS
	2475	2396.3312	-45.40	-20.00	PASS
		2396.4156	-45.56	-20.00	PASS
		2397.4156	-46.21	-20.00	PASS
		2398.4156	-46.15	-10.00	PASS
		2398.5	-45.27	-10.00	PASS
		2399.5	-45.96	-10.00	PASS
		2484	-44.69	-10.00	PASS
		2485	-44.74	-10.00	PASS
		2485.0844	-45.36	-10.00	PASS
		2486.0844	-45.31	-20.00	PASS
		2487.0844	-45.18	-20.00	PASS
		2487.1688	-44.87	-20.00	PASS

7.4.5 TEST SCREENSHOTS

Modulation Type: Zigbee (2405MHz)

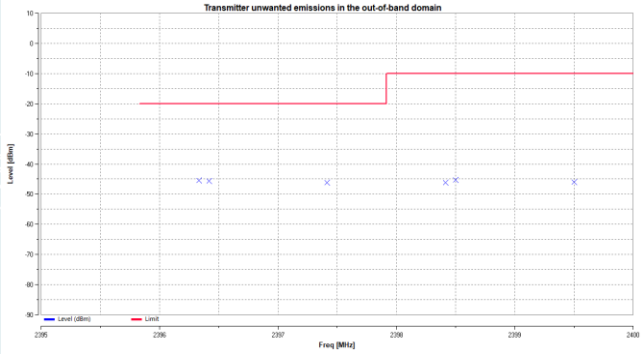


Left side of working frequency band

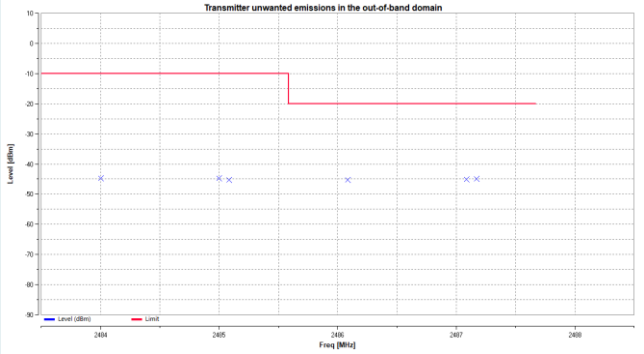


Right side of working frequency band

Modulation Type: Zigbee (2475MHz)



Left side of working frequency band



Right side of working frequency band

7.5 TRANSMITTER UNWANTED EMISSIONS IN THE SPURIOUS DOMAIN

Test Requirement: EN300 328 V2.2.2/ 4.3.2.9

Test Method: EN300 328 V2.2.2/5.4.9.2.2

7.5.1 LIMIT

This requirement applies to all types of non-FHSS equipment.

The transmitter unwanted emissions in the spurious domain shall not exceed the values given in table 2. In case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted). For emissions radiated by the cabinet or emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p. for emissions up to 1 GHz and as e.i.r.p. for emissions above 1 GHz.

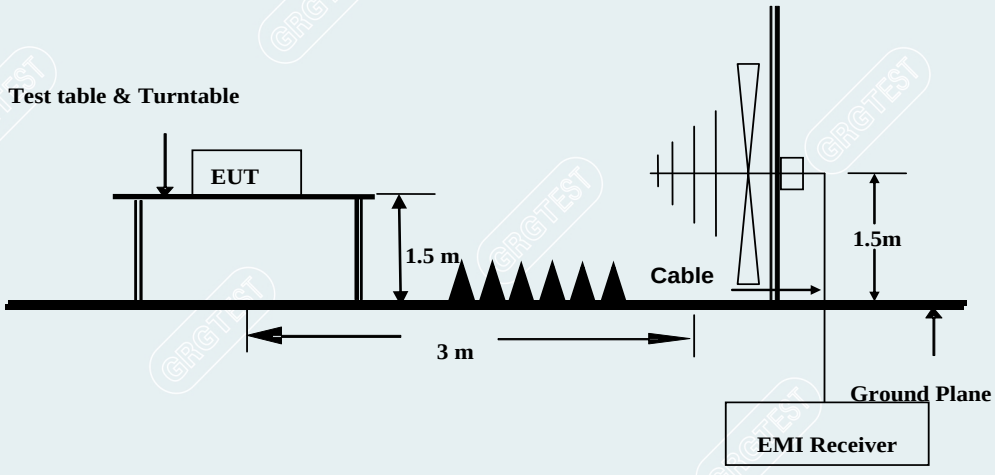
Note: This test uses conducted emissions measurement and Radiated emissions measurement.

Table 2: Transmitter limits for spurious emissions

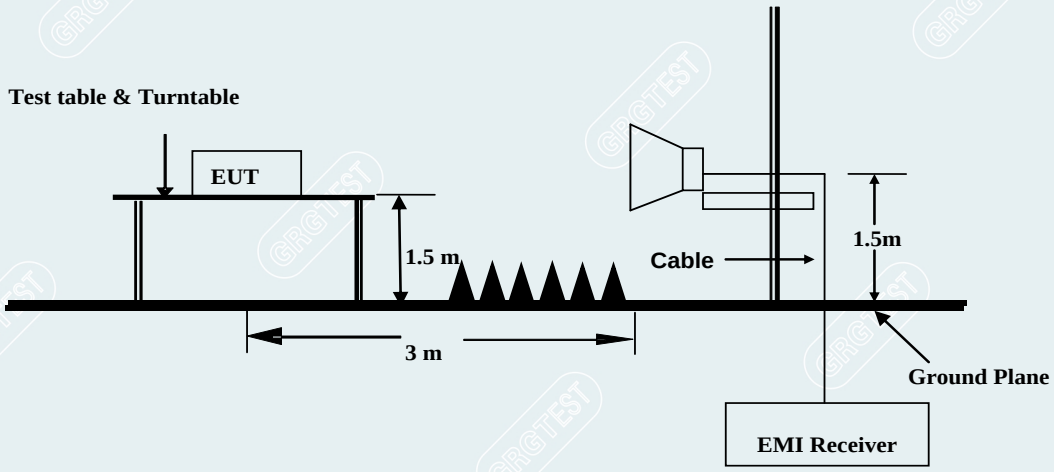
Frequency range	Maximum power	Bandwidth
30 MHz to 47 MHz	-36 dBm	100 kHz
47 MHz to 74 MHz	-54 dBm	100 kHz
74 MHz to 87,5 MHz	-36 dBm	100 kHz
87,5 MHz to 118 MHz	-54 dBm	100 kHz
118 MHz to 174 MHz	-36 dBm	100 kHz
174 MHz to 230 MHz	-54 dBm	100 kHz
230 MHz to 470 MHz	-36 dBm	100 kHz
470 MHz to 694 MHz	-54 dBm	100 kHz
694 MHz to 1 GHz	-36 dBm	100 kHz
1 GHz to 12,75 GHz	-30 dBm	1 MHz

7.5.2 TEST CONFIGURATION

30MHz~1000MHz



1000MHz~12750MHz



7.5.3 TEST PROCEDURES

Test condition: Normal test conditions.

Test channel: Lowest channel: (2405MHz), Highest channel: (2475MHz)

Test procedure: Test procedure is according to Clause 5.4.9.2.2 of EN 300 328 V2.2.2

7.5.4 DATA SAMPLE

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB/m]	Detector	Polarity
XXX	-49.71	-57.90	-30.00	27.90	-8.19	RMS	Horizontal

Frequency (MHz) = Emission frequency in MHz

Reading (dBm) = Uncorrected Analyzer / Receiver reading

Correct Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain

Result (dBm) = Reading (dBm) + Corr. Factor (dB/m)

Limit (dBm) = Limit stated in standard

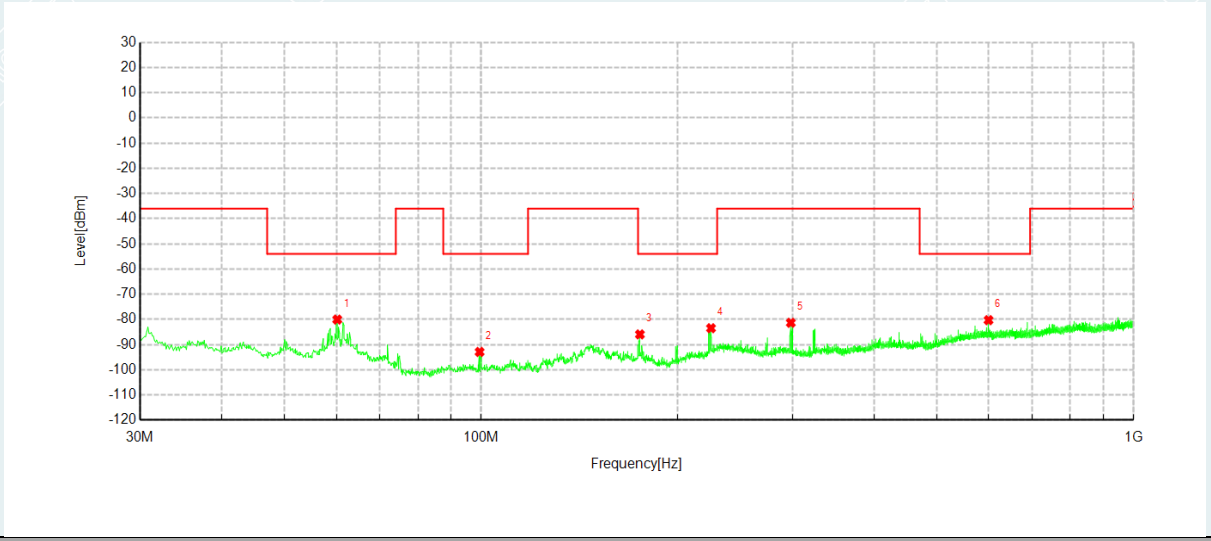
Margin (dB) = Result (dBm) – Limit(dBm)

RMS = Root Mean Square

7.5.5 TEST RESULTS

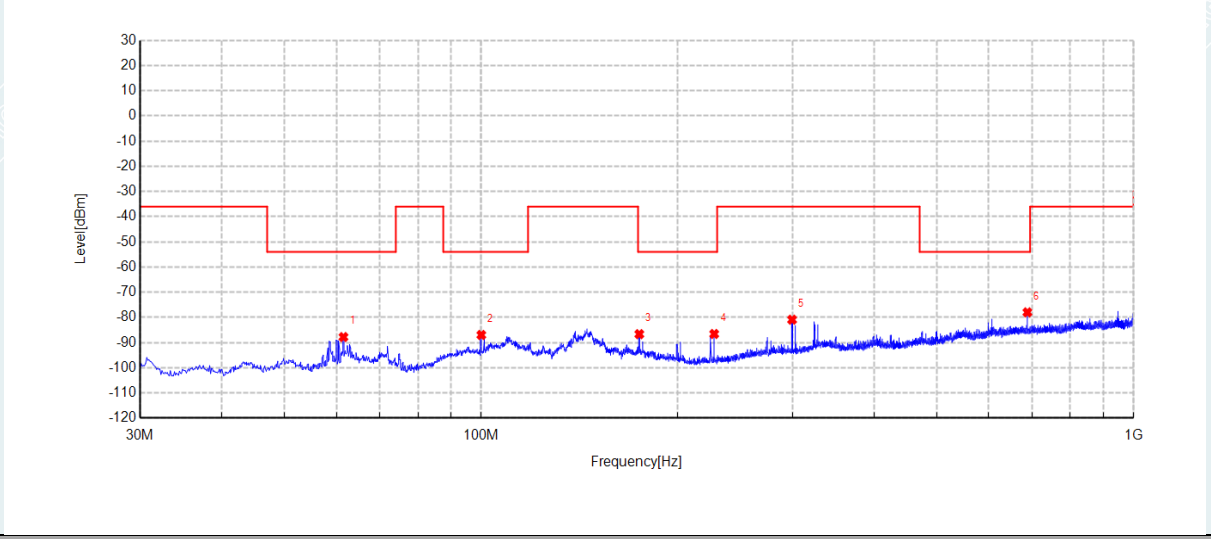
Below 1GHz

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	TX Zigbee_2405MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Date:	2022-03-27	/	/



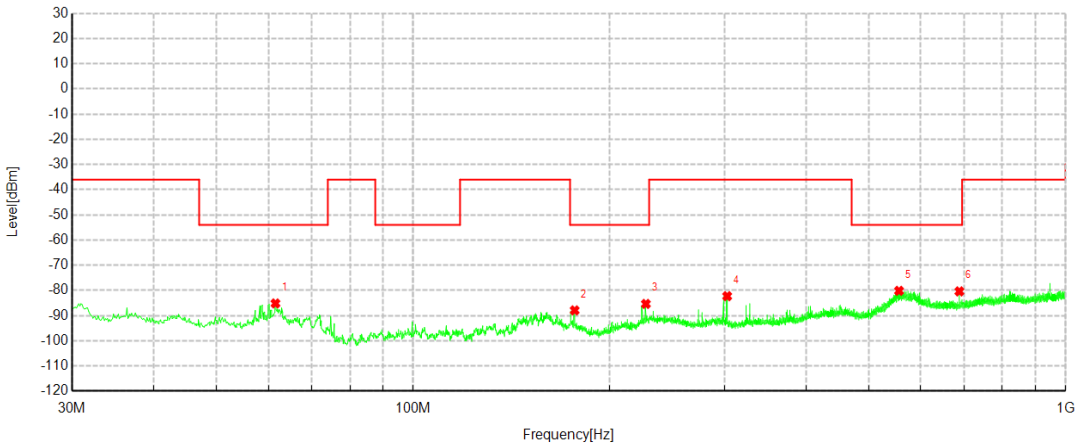
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	60.1913	-65.99	-80.05	-54.00	26.05	-14.06	RMS	Horizontal
2	99.4763	-71.89	-92.90	-54.00	38.90	-21.01	RMS	Horizontal
3	175.1363	-69.00	-85.94	-54.00	31.94	-16.94	RMS	Horizontal
4	225.0913	-69.33	-83.49	-54.00	29.49	-14.16	RMS	Horizontal
5	298.3263	-67.65	-81.34	-36.00	45.34	-13.69	RMS	Horizontal
6	599.3900	-73.60	-80.29	-54.00	26.29	-6.69	RMS	Horizontal

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	TX Zigbee_2405MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Date:	2022-03-27	/	/



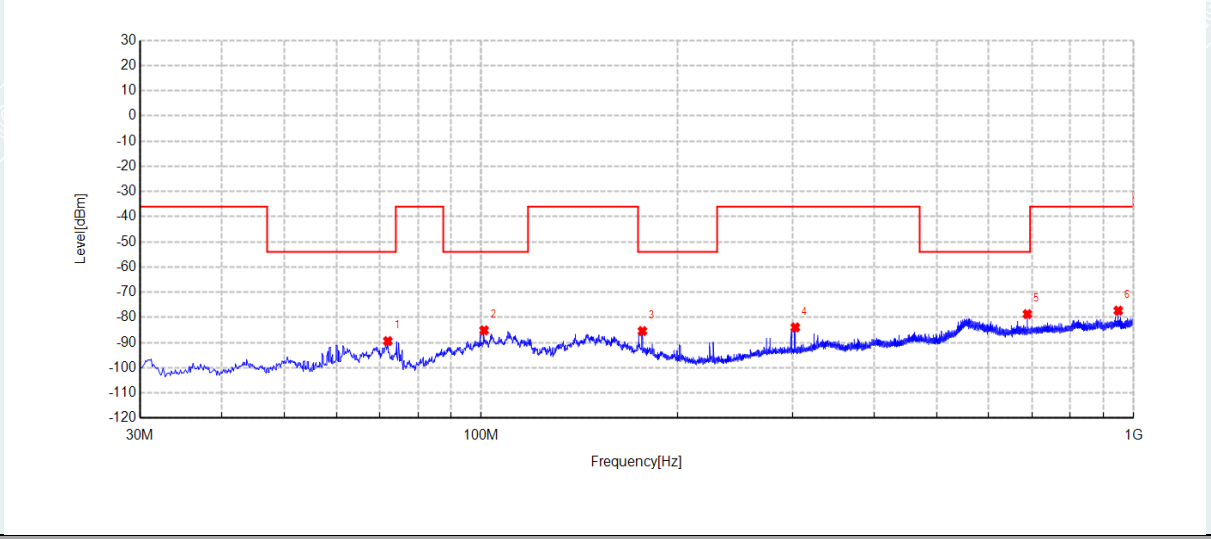
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	61.5250	-66.99	-87.78	-54.00	33.78	-20.79	RMS	Vertical
2	100.0825	-72.28	-86.96	-54.00	32.96	-14.68	RMS	Vertical
3	174.7725	-71.02	-86.63	-54.00	32.63	-15.61	RMS	Vertical
4	227.6375	-68.10	-86.56	-54.00	32.56	-18.46	RMS	Vertical
5	299.6600	-66.44	-80.90	-36.00	44.90	-14.46	RMS	Vertical
6	687.5388	-72.07	-77.97	-54.00	23.97	-5.90	RMS	Vertical

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	TX Zigbee_2475MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Date:	2022-03-27	/	/



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	61.5250	-70.32	-85.16	-54.00	31.16	-14.84	RMS	Horizontal
2	176.8338	-70.83	-87.91	-54.00	33.91	-17.08	RMS	Horizontal
3	227.3950	-71.87	-85.35	-54.00	31.35	-13.48	RMS	Horizontal
4	302.9338	-68.18	-82.27	-36.00	46.27	-14.09	RMS	Horizontal
5	555.6188	-72.04	-80.15	-54.00	26.15	-8.11	RMS	Horizontal
6	687.5388	-73.87	-80.38	-54.00	26.38	-6.51	RMS	Horizontal

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	TX Zigbee_2475MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Date:	2022-03-27	/	/



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	71.9525	-68.91	-89.39	-54.00	35.39	-20.48	RMS	Vertical
2	101.0525	-70.75	-85.11	-54.00	31.11	-14.36	RMS	Vertical
3	176.7125	-69.64	-85.42	-54.00	31.42	-15.78	RMS	Vertical
4	303.0550	-69.59	-83.95	-36.00	47.95	-14.36	RMS	Vertical
5	687.5388	-72.78	-78.68	-54.00	24.68	-5.90	RMS	Vertical
6	947.6200	-74.91	-77.30	-36.00	41.30	-2.39	RMS	Vertical

Above 1GHz

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	TX Zigbee_2405MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Date:	2022-03-27	/	/

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	1937.500	-55.98	-68.40	-30.00	38.40	-12.42	RMS	Horizontal
2	2125.000	-57.82	-68.72	-30.00	38.72	-10.90	RMS	Horizontal
3	3378.300	-63.31	-69.92	-30.00	39.92	-6.61	RMS	Horizontal
4	4810.575	-64.56	-66.26	-30.00	36.26	-1.70	RMS	Horizontal
5	7202.250	-70.19	-63.89	-30.00	33.89	6.30	RMS	Horizontal
6	9465.225	-71.85	-61.06	-30.00	31.06	10.79	RMS	Horizontal

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	1937.600	-56.65	-69.05	-30.00	39.05	-12.40	RMS	Vertical
2	2905.200	-61.45	-69.00	-30.00	39.00	-7.55	RMS	Vertical
3	4810.575	-64.43	-66.13	-30.00	36.13	-1.70	RMS	Vertical
4	7203.225	-70.33	-63.64	-30.00	33.64	6.69	RMS	Vertical
5	8437.575	-70.29	-61.71	-30.00	31.71	8.58	RMS	Vertical
6	10181.85	-72.99	-61.08	-30.00	31.08	11.91	RMS	Vertical

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	TX Zigbee_2475MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Date:	2022-03-27	/	/

Suspected Data List

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	1307.200	-60.10	-72.92	-30.00	42.92	-12.82	RMS	Horizontal
2	2124.900	-58.81	-69.71	-30.00	39.71	-10.90	RMS	Horizontal
3	4960.725	-60.14	-59.97	-30.00	29.97	0.17	RMS	Horizontal
4	7204.200	-70.04	-63.82	-30.00	33.82	6.22	RMS	Horizontal
5	9124.950	-71.60	-61.17	-30.00	31.17	10.43	RMS	Horizontal
6	12398.02	-74.93	-60.88	-30.00	30.88	14.05	RMS	Horizontal

Suspected Data List

NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	1509.600	-59.86	-72.00	-30.00	42.00	-12.14	RMS	Vertical
2	2918.100	-61.81	-69.38	-30.00	39.38	-7.57	RMS	Vertical
3	4960.725	-59.80	-59.86	-30.00	29.86	-0.06	RMS	Vertical
4	7201.275	-70.20	-63.39	-30.00	33.39	6.81	RMS	Vertical
5	9469.125	-71.71	-60.60	-30.00	30.60	11.11	RMS	Vertical
6	11252.40	-75.34	-60.46	-30.00	30.46	14.88	RMS	Vertical

7.6 RECEIVER SPURIOUS EMISSIONS

Test Requirement: EN300 328 V2.2.2

Test Method: EN300 328 V2.2.2

7.6.1 LIMIT

The spurious emissions of the receiver shall not exceed the values given in table 3.

In case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted).

For emissions radiated by the cabinet or for emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p for emissions up to 1 GHz and e.i.r.p for emissions above 1 GHz.

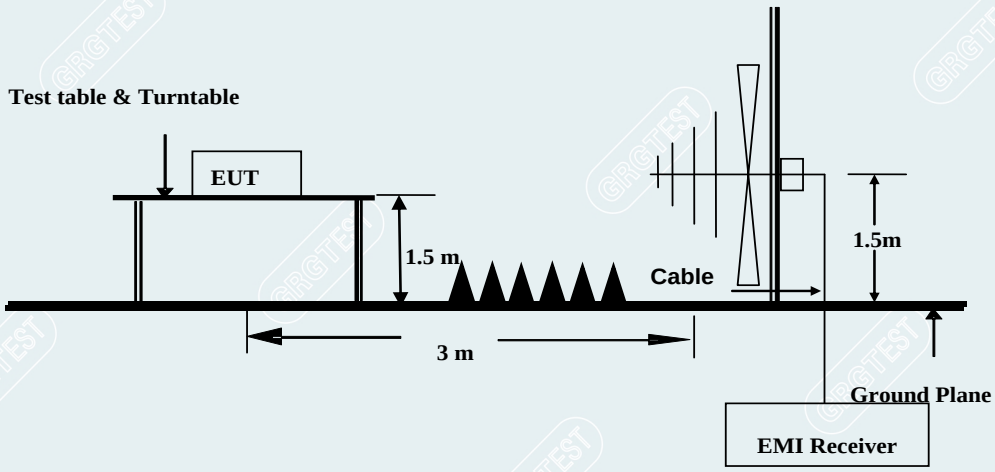
This device uses Radiated measurement.

Table 3: Spurious emission limits for receivers

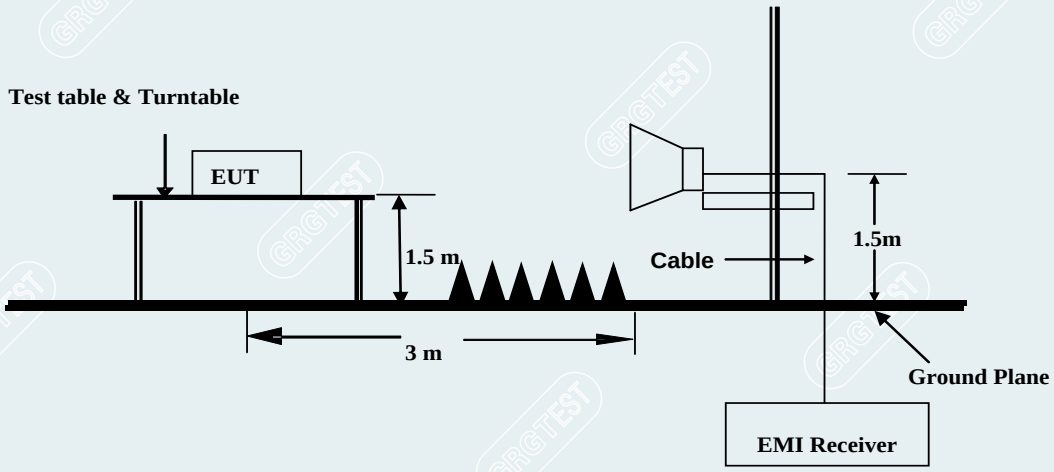
Frequency range	Maximum power	Bandwidth
30 MHz to 1 GHz	-57 dBm	100 kHz
1 GHz to 12,75 GHz	-47 dBm	1 MHz

7.6.2 TEST CONFIGURATION

30MHz-1000MHz



1000MHz-12750MHz



7.6.3 TEST PROCEDURES

Test channel: Lowest channel: (2405MHz), Highest channel: (2475MHz)

Test condition: Normal test conditions.

Test procedure: Test procedure is according to Clause 5.4.10.2.2 of EN 300 328 V2.2.2

7.6.4 DATA SAMPLE

Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB/m]	Detector	Polarity
XXX	-58.02	-73.33	-57.00	16.33	-15.31	RMS	Horizontal

Frequency (MHz) = Emission frequency in MHz

Reading (dBm) = Uncorrected Analyzer / Receiver reading

Correct Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain

Result (dBm) = Reading (dBm) + Corr. Factor (dB/m)

Limit (dBm) = Limit stated in standard

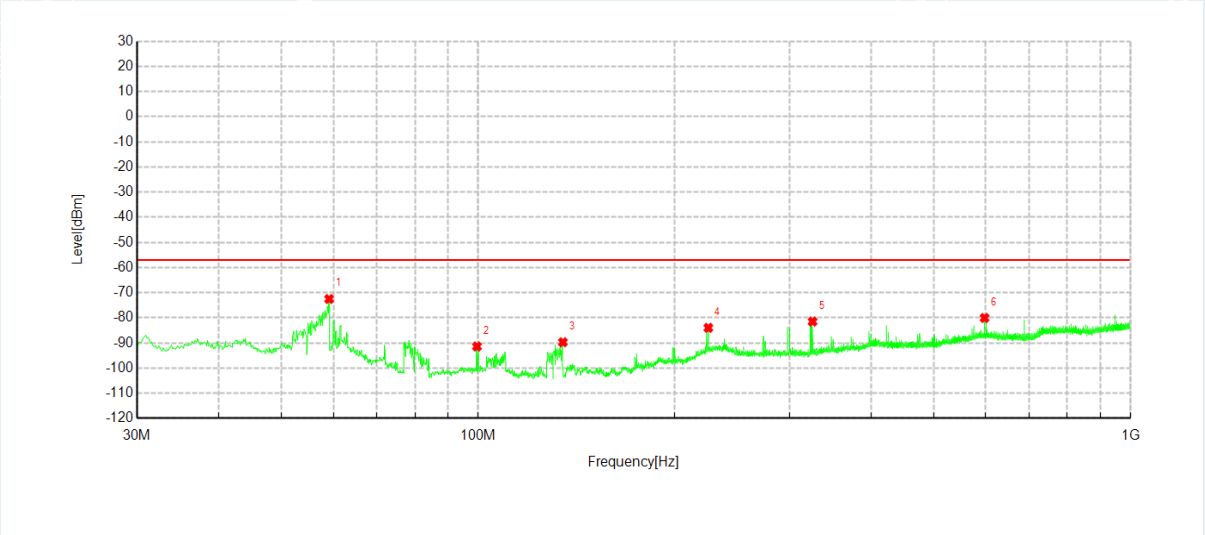
Margin (dB) = Result (dBm) – Limit(dBm)

RMS = Root Mean Square

7.6.5 TEST RESULTS

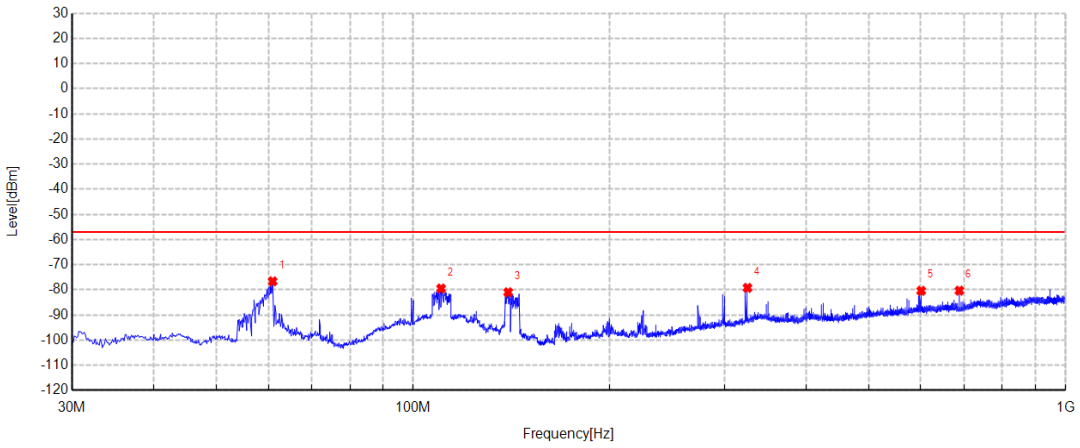
Below 1GHz

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	RX Zigbee_2405MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Data:	2022-03-27	/	/



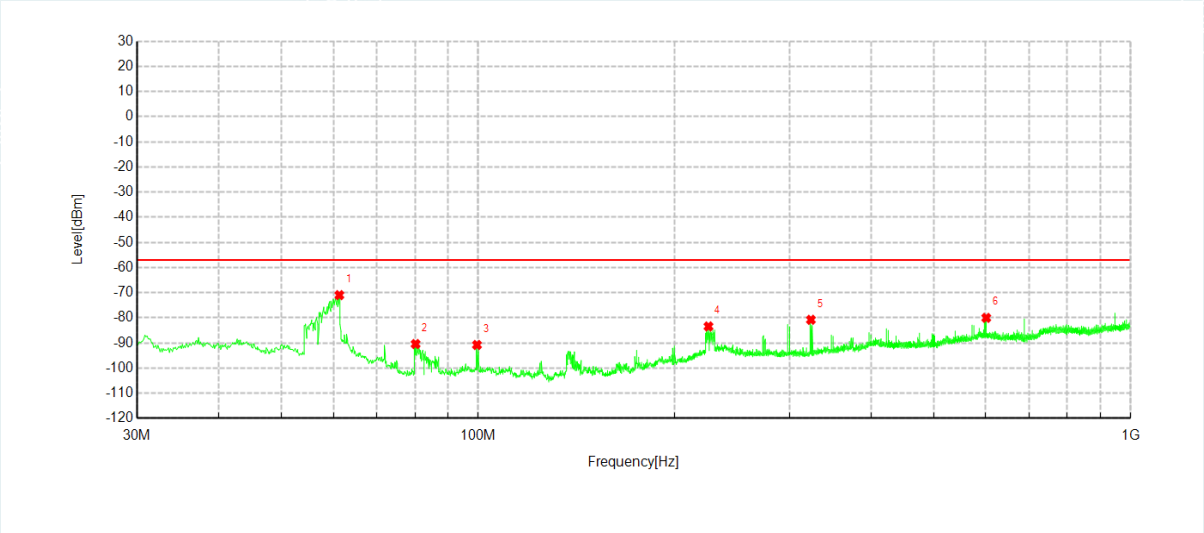
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	59.1000	-58.45	-72.51	-57.00	15.51	-14.06	RMS	Horizontal
2	99.5975	-70.54	-91.39	-57.00	34.39	-20.85	RMS	Horizontal
3	134.8813	-65.59	-89.71	-57.00	32.71	-24.12	RMS	Horizontal
4	225.3338	-70.78	-83.97	-57.00	26.97	-13.19	RMS	Horizontal
5	325.6075	-67.07	-81.49	-57.00	24.49	-14.42	RMS	Horizontal
6	597.4500	-73.82	-80.05	-57.00	23.05	-6.23	RMS	Horizontal

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	RX Zigbee_2405MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Data:	2022-03-27	/	/



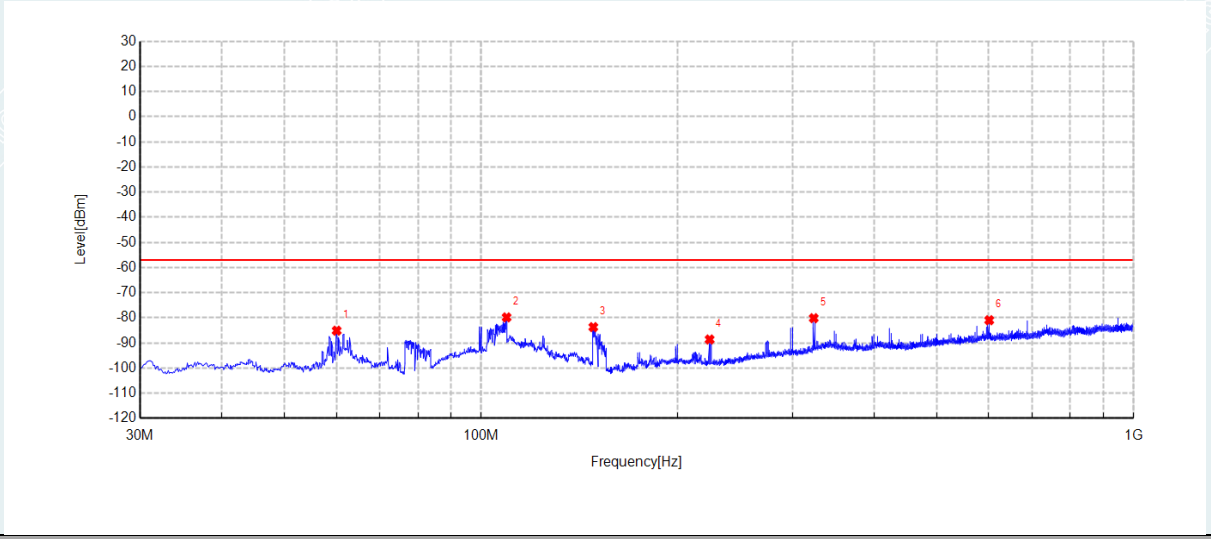
Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	60.9188	-58.20	-76.62	-57.00	19.62	-18.42	RMS	Vertical
2	110.3888	-69.69	-79.47	-57.00	22.47	-9.78	RMS	Vertical
3	139.8525	-62.32	-80.97	-57.00	23.97	-18.65	RMS	Vertical
4	325.4863	-66.69	-79.21	-57.00	22.21	-12.52	RMS	Vertical
5	600.8450	-73.32	-80.38	-57.00	23.38	-7.06	RMS	Vertical
6	687.5388	-73.47	-80.32	-57.00	23.32	-6.85	RMS	Vertical

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	RX Zigbee_2475MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Data:	2022-03-27	/	/



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	61.2825	-56.04	-70.97	-57.00	13.97	-14.93	RMS	Horizontal
2	80.1975	-67.59	-90.41	-57.00	33.41	-22.82	RMS	Horizontal
3	99.5975	-69.93	-90.78	-57.00	33.78	-20.85	RMS	Horizontal
4	225.4550	-70.25	-83.42	-57.00	26.42	-13.17	RMS	Horizontal
5	323.6675	-66.29	-80.77	-57.00	23.77	-14.48	RMS	Horizontal
6	600.9663	-73.78	-80.01	-57.00	23.01	-6.23	RMS	Horizontal

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	RX Zigbee_2475MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Data:	2022-03-27	/	/



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	60.0700	-66.91	-85.11	-57.00	28.11	-18.20	RMS	Vertical
2	109.4188	-69.91	-79.81	-57.00	22.81	-9.90	RMS	Vertical
3	148.5825	-63.75	-83.68	-57.00	26.68	-19.93	RMS	Vertical
4	224.0000	-70.59	-88.61	-57.00	31.61	-18.02	RMS	Vertical
5	323.4250	-67.43	-80.13	-57.00	23.13	-12.70	RMS	Vertical
6	600.8450	-73.88	-80.94	-57.00	23.94	-7.06	RMS	Vertical

Above 1GHz

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	RX Zigbee_2405MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Data:	2022-03-27	/	/

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	1295.218	-59.41	-72.37	-47.00	25.37	-12.96	RMS	Horizontal
2	2000.218	-59.63	-70.06	-47.00	23.06	-10.43	RMS	Horizontal
3	3092.968	-62.07	-68.89	-47.00	21.89	-6.82	RMS	Horizontal
4	4965.625	-65.99	-65.44	-47.00	18.44	0.55	RMS	Horizontal
5	6694.343	-67.26	-63.05	-47.00	16.05	4.21	RMS	Horizontal
6	8944.468	-70.30	-59.76	-47.00	12.76	10.54	RMS	Horizontal

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	1687.375	-54.71	-68.53	-47.00	21.53	-13.82	RMS	Vertical
2	2125.062	-55.38	-66.45	-47.00	19.45	-11.07	RMS	Vertical
3	2499.593	-56.87	-67.07	-47.00	20.07	-10.20	RMS	Vertical
4	3836.156	-63.28	-68.47	-47.00	21.47	-5.19	RMS	Vertical
5	5871.843	-66.32	-64.37	-47.00	17.37	1.95	RMS	Vertical
6	8098.468	-70.62	-60.87	-47.00	13.87	9.75	RMS	Vertical

Project No	E20220309137001	EUT:	Curtain Driver E1
Model:	CM-M01	Sample No:	E20220309137001-0001
Mode:	RX Zigbee_2475MHz	Voltage:	DC3.7V
Environment:	Temp:23.5℃; Humi:56%RH	Engineer:	Zhang Zishan
Test Data:	2022-03-27	/	/

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	1337.812	-58.95	-72.03	-47.00	25.03	-13.08	RMS	Horizontal
2	1937.062	-57.42	-70.22	-47.00	23.22	-12.80	RMS	Horizontal
3	2786.000	-61.69	-70.22	-47.00	23.22	-8.53	RMS	Horizontal
4	3708.375	-61.69	-67.77	-47.00	20.77	-6.08	RMS	Horizontal
5	5857.156	-67.00	-64.99	-47.00	17.99	2.01	RMS	Horizontal
6	7076.218	-67.73	-62.74	-47.00	15.74	4.99	RMS	Horizontal

Suspected Data List								
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Detector	Polarity
1	1687.375	-55.09	-68.91	-47.00	21.91	-13.82	RMS	Vertical
2	2125.062	-55.23	-66.30	-47.00	19.30	-11.07	RMS	Vertical
3	2499.593	-56.21	-66.41	-47.00	19.41	-10.20	RMS	Vertical
4	3203.125	-61.83	-68.76	-47.00	21.76	-6.93	RMS	Vertical
5	4807.000	-64.58	-65.76	-47.00	18.76	-1.18	RMS	Vertical
6	7074.750	-67.56	-62.21	-47.00	15.21	5.35	RMS	Vertical

7.7 RECEIVER BLOCKING

Test Requirement: EN300 328 V2.2.2/ 5.4.11.1

Test Method: EN300 328 V2.2.2/ 5.4.11.2

7.7.1 LIMIT

For equipment that supports a PER or FER test to be performed, the minimum performance criterion shall be a PER or FER less than or equal to 10 %.
For equipment that does not support a PER or a FER test to be performed, the minimum performance criterion shall be no loss of the wireless transmission function needed for the intended use of the equipment.
The blocking levels at specified frequency offsets shall be equal to or greater than the limits defined for.

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**
(-133dBm+10 × $\log_{10}$(OCBW)) or -68dBm whichever is less (see note 2)	2380 2504	-34	CW
(-139dBm+10 × $\log_{10}$(OCBW)) or -74dBm whichever is less (see note 3)	2300 2330 2360 2524 2584 2674		

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_{min} + 26 dB where P_{min} 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_{min} + 20 dB where P_{min} 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.

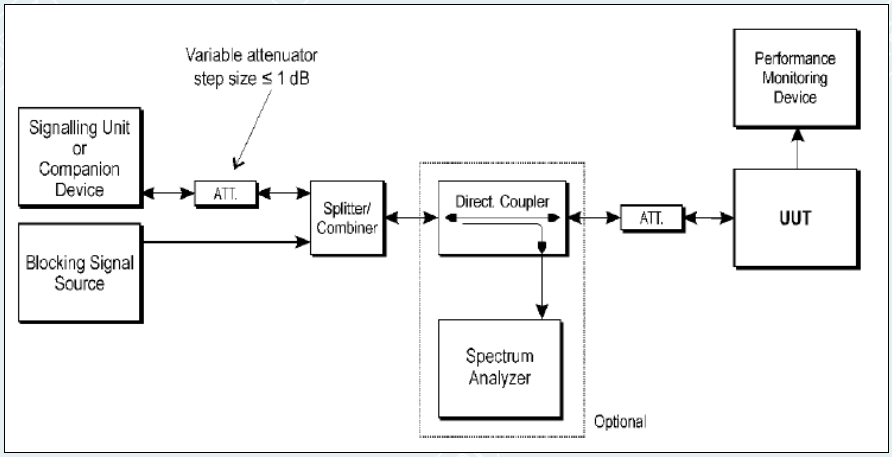
Receiver Blocking parameters for Receiver Category 2 equipment

Wanted signal mean power from companion device (dBm) (see notes 1 and 3)	Blocking Signal frequency (MHz)	Blocking signal power (dBm) (see note 3)	Type of blocking signal
(-139dBm+10 ×$\log_{10}$(OCBW)+10dBm) or (-74dBm+10dBm) whichever is less (see note 2)	2380 2504 2300 2584	-34	CW
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_{min} + 26 dB where P_{min} 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.			

Receiver Blocking parameters for Receiver Category 3 equipment

Wanted signal mean power from companion device (dBm) (see notes 1 and 3)	Blocking Signal frequency (MHz)	Blocking signal power (dBm) (see note 3)	Type of blocking signal
(-139dBm+10 ×$\log_{10}$(OCBW)+20dBm) or (-74dBm+20dBm) whichever is less (see note 2)	2380 2504 2300 2584	-34	CW
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_{min} + 30 dB where P_{min} 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.			

7.7.2 TEST CONFIGURATION



7.7.3 TEST PROCEDURES

Test condition: Keep the EUT on the lowest and Highest channel working mode.

Test procedure: Step1：

Test condition: For non-FHSS equipment, the UUT shall be set to the lowest operating channel on which the blocking test has to be performed (see clause 5.4.11.1).

Step 2:

The blocking signal generator is set to the first frequency as defined in the appropriate table corresponding to the receiver category and type of equipment.

Step 3:

With the blocking signal generator switched off, a communication link is established between the UUT and the associated companion device using the test setup shown in figure 6.

Unless the option provided in note 2 of the applicable table referred to in clause 5.4.11.2.1 is used, the level of the wanted signal shall be set to the value provided in the table corresponding to the receiver category and type of equipment. The test procedure defined in clause 5.4.2, and more in particular clause 5.4.2.2.1.2, can be used to measure the (conducted) level of the wanted signal however no correction shall be made for antenna gain of

the companion device (step 6 in clause 5.4.2.2.1.2 shall be ignored). This level may be measured directly at the output of the companion device and a correction is made for the coupling loss into the UUT. The actual level for the wanted signal shall be recorded in the test report.

When the option provided in note 2 of the applicable table referred to in clause 5.4.11.2.1 is used, the attenuation of the variable attenuator shall be increased in 1 dB steps to a value at which the minimum performance criteria as specified in clause 4.3.1.12.3 or clause 4.3.2.11.3 is still met. The resulting level for the wanted signal at the input of the UUT is Pmin. This signal level (Pmin) is increased by the value provided in note 2 of the applicable table corresponding to the receiver category and type of equipment.

Step 4:

The blocking signal at the UUT is set to the level provided in the table corresponding to the receiver category and type of equipment.

If the performance criteria as specified in clause 4.3.1.12.3 or clause 4.3.2.11.3 are met then proceed to step 6.

Step 5:

If the performance criteria as specified in clause 4.3.1.12.3 or clause 4.3.2.11.3 is not met, step 3 and step 4 shall be repeated after that the frequency of the blocking signal set in step 2 has been increased with a value equal to the Occupied Channel Bandwidth except:

- For the blocking frequency 2 380 MHz, where this frequency offset shall be less than or equal to 10 MHz. If this frequency offset is more than 7 MHz, the level of the wanted

signal shall be increased by 3 dB.
- For the blocking frequency 2 503,5 MHz, where this frequency offset shall be less than or equal to 10 MHz. If this frequency offset is more than 7 MHz, the level of the wanted signal shall be decreased by 3 dB.
If the performance criteria as specified in clause 4.3.1.12.3 or clause 4.3.2.11.3 is still not met, step 3 and step 4 shall be repeated after that the frequency of the blocking signal set in step 2 has been decreased with a value equal to the Occupied Channel Bandwidth except:
- For the blocking frequency 2 380 MHz, where this frequency offset shall be less than or equal to 10 MHz. If this frequency offset is more than 7 MHz, the level of the wanted signal shall be decreased by 3 dB.
- For the blocking frequency 2 503,5 MHz, where this frequency offset shall be less than or equal to 10 MHz. If this frequency offset is more than 7 MHz, the level of the wanted signal shall be increased by 3 dB.
If the performance criteria as specified in clause 4.3.1.12.3 or clause 4.3.2.11.3 is still not met, the UUT fails to comply with the Receiver Blocking requirement and step 6 and step 7 are no longer required.
It shall be recorded in the test report whether the shift of blocking frequencies as described in the present step was used.
Step 6:
Repeat step 4 and step 5 for each remaining combination of frequency and level for the blocking signal as provided in the table corresponding to the receiver category and type of equipment.
Step 7
For non-FHSS equipment, repeat step 2 to step 6 with the UUT operating at the Highest operating channel on which the blocking test has to be performed (see clause 5.4.11.1).
Step 8
It shall be assessed and recorded in the test report whether the UUT complies with the Receiver Blocking requirement.
Keep the EUT on the lowest and Highest channel working mode.

Remark: If the equipment can be configured to operate with different Nominal Channel Bandwidths (e.g. 20 MHz and 40 MHz) and different data rates, then the combination of the smallest channel bandwidth and the lowest data rate for this channel bandwidth which still allows the equipment to operate as intended shall be used.

Test channel: Lowest channel: (2405MHz), Highest channel: (2475MHz)

7.7.4 TEST RESULTS

Test Date (yy-mm-dd): 2022-04-02

Test environment: Normal condition:

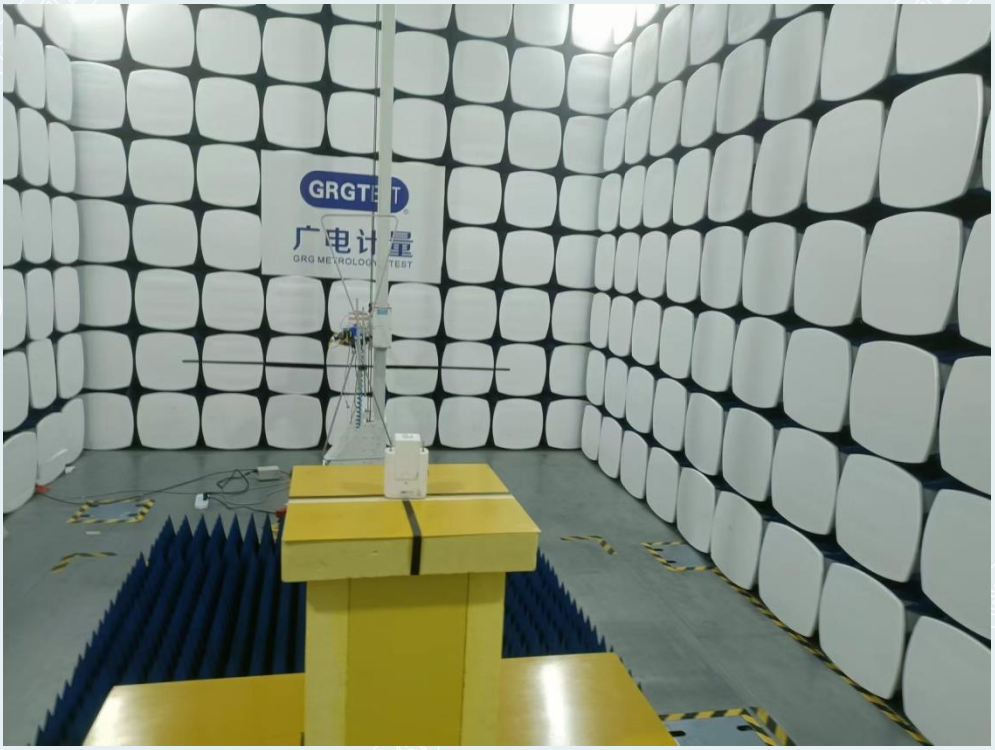
Temp: 23.4℃, Humid:49%RH

Receiver Blocking							
Receiver Category 2							
Test Mode	Frequency (MHz)	Wanted signal (dBm)	Blocking signal frequency (MHz)	Blocking signal power (dBm)	PER(%)	limit(%)	Test Result
Zigbee	2405	-64.82	2300	-33	0.00	10	Pass
			2380		0.00	10	Pass
	2475	-64.81	2504		0.10	10	Pass
			2584		0.20	10	Pass

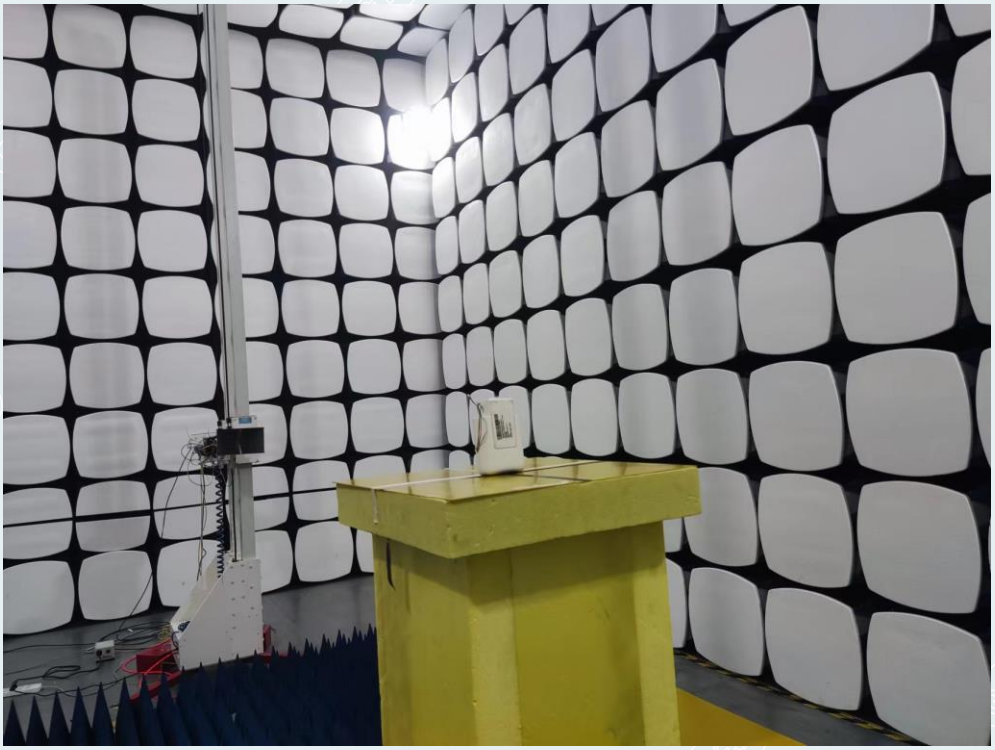
Remark: CW=signal power(-34dBm) + Antenna Gain(1dBi).

APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM

Below 1GHz



Above 1GHz



APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the attached document E20220309137001-1-EUT Photo.

---------- End of Report ----------