

Room 101 Building B, No. 7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel: +86-755-27521059 Fax: +86-755-27521011 Http://www.sz-ctc.org.cn

TEST REPORT					
Report No: CTC20231666E11					
FCC ID:	2AR24-XBOX				
Applicant:	Shenzhen Absen Optoelectronic Co.,Ltd				
Address	18-20/F, Tower A, Building 3, Phase I, Tian An Cloud Park, N0.2018, Xuegang Rd, Bantian, Longgang District, Shenzhen, Guangdong, P.R. China				
Manufacturer	Shenzhen Absen Optoelectronic C	o.,Ltd			
Address	18-20/F, Tower A, Building 3, Phase N0.2018, Xuegang Rd, Bantian, Lo Guangdong, P.R. China				
Product Name:	LED Multimedia Processor				
Trade Mark:	Abyen				
Model/Type reference:	X-Box				
Listed Model(s):	/				
Standard:	FCC CFR Title 47 Part 15 Subpart C Section 15.247				
Date of receipt of test sample:	Aug. 18, 2023				
Date of testing	Aug. 19, 2023 ~ Dec. 3, 2023				
Date of issue	Aug. 09, 2024				
Result	PASS				
Compiled by:		lundlan			
(Printed name+signature)	Lucy Lan	luey lan			
Supervised by:		Zich Thoma			
(Printed name+signature)	Eric Zhang	Zric Zhang Jemas			
Approved by:		Lemas			
(Printed name+signature)	Totti Zhao	<i>I</i> *			
Testing Laboratory Name:	CTC Laboratories, Inc.				
Address Room 101 Building B, No. 7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China					
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Table of Contents

Page

1.	TEST	SUMMARY	3
1	.1.	TEST STANDARDS	3
1	.2.	REPORT VERSION	3
1	.3.	TEST DESCRIPTION	3
1	.4.	TEST FACILITY	
1	.5.	Measurement Uncertainty	5
1	.6.	ENVIRONMENTAL CONDITIONS	5
2.	GEN	ERAL INFORMATION	6
2	.1.	CLIENT INFORMATION	6
2	.2.	GENERAL DESCRIPTION OF EUT	6
2	.3.	ACCESSORY EQUIPMENT INFORMATION	7
2	.4.	OPERATION STATE	8
2	.5.	Measurement Instruments List	9
3.	TEST	ITEM AND RESULTS	10
3	.1.	CONDUCTED EMISSION	10
3	.2.	RADIATED EMISSION	13
3	.3.	BAND EDGE EMISSIONS (RADIATED)	21
3	.4.	BAND EDGE AND SPURIOUS EMISSIONS (CONDUCTED)	
3	.5.	DTS BANDWIDTH	30
3	.6.	PEAK OUTPUT POWER	
3	.7.	POWER SPECTRAL DENSITY	
3	.8.	DUTY CYCLE	
3	.9.	ANTENNA REQUIREMENT	39



1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.247: Operation within the bands 902–928MHz, 2400–2483.5MHz, and 5725-5850MHz.

ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

1.2. Report Version

Revised No.	Report No.	Date of issue	Description
01	CTC20231666E11	Aug. 09, 2024	Original

1.3. Test Description

FCC Part 15 Subpart C (15.247)					
Test Item Standard Section			Test Engineer		
Antenna Requirement	15.203	Pass	Lucy Lan		
Conducted Emission	15.207	Pass	Lucy Lan		
Conducted Band Edge and Spurious Emissions	15.247(d)	Pass	Lucy Lan		
Radiated Band Edge and Spurious Emissions	15.205&15.209& 15.247(d)	Pass	Lucy Lan		
6dB Bandwidth	15.247(a)(2)	Pass	Lucy Lan		
Conducted Max Output Power	15.247(b)(3)	Pass	Lucy Lan		
Power Spectral Density	15.247(e)	Pass	Lucy Lan		
Transmitter Radiated Spurious	15.209&15.247(d)	Pass	Lucy Lan		

Note:

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The measurement uncertainty is not included in the test result. 1.

2. N/A: means this test item is not applicable for this device according to the technology characteristic of device.

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1.4. Test Facility

Address of the report laboratory

CTC Laboratories, Inc.

Add: Room 101 of Building B, Room 107, 108, 207, 208 of Building A, No. 7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China

Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 951311, Aug 26, 2017.



1.5. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Test Items	Measurement Uncertainty	Notes
DTS Bandwidth	±0.0196%	(1)
Maximum Conducted Output Power	±0.686 dB	(1)
Maximum Power Spectral Density Level	±0.743 dB	(1)
Band-edge Compliance	±1.328 dB	(1)
Unwanted Emissions In Non-restricted Freq Bands	9kHz-1GHz: ±0.746dB 1GHz-26GHz: ±1.328dB	(1)
Conducted Emissions 9kHz~30MHz	±3.08 dB	(1)
Radiated Emissions 30~1000MHz	±4.51 dB	(1)
Radiated Emissions 1~18GHz	±5.84 dB	(1)
Radiated Emissions 18~40GHz	±6.12 dB	(1)

Below is the best measurement capability for CTC Laboratories, Inc.

Note (1): This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.6. Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15 °C to 35 °C
Relative Humidity:	20 % to 75 %
Air Pressure:	101 kPa

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2. GENERAL INFORMATION

2.1. Client Information

Applicant:	Shenzhen Absen Optoelectronic Co.,Ltd	
Address:	18-20/F, Tower A, Building 3, Phase I, Tian An Cloud Park, N0.2018, Xuegang Rd, Bantian, Longgang District, Shenzhen, Guangdong, P.R. China	
Manufacturer:	Shenzhen Absen Optoelectronic Co.,Ltd	
Address:	18-20/F, Tower A, Building 3, Phase I, Tian An Cloud Park, N0.2018, Xuegang Rd, Bantian, Longgang District, Shenzhen, Guangdong, P.R. China	
Factory:	Huizhou Absen Optoelectronic Limited.	
Address:	No. 03, Donghua South road, Dongjiang Hi-tech Industry Park, Huizhou. Guangdong, China	

2.2. General Description of EUT

Product Name:	LED Multimedia Processor
Trade Mark:	Abyen
Model/Type reference:	X-Box
Listed Model(s):	/
Model Difference:	/
Power Supply:	AC 100-240V~2.6A 50/60Hz
RF Module Model:	AP6275S
Hardware Version:	/
Software Version:	/
Bluetooth 5.1 / BLE	
Modulation:	GFSK
Operation Frequency:	2402MHz~2480MHz
Channel Number:	40
Channel Separation:	2MHz
Data Rate:	1Mbps
Antenna Type:	PCB Antenna
Antenna Gain:	3.52dBi

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2.3. Accessory Equipment Information

Equipment Information					
Name	Model	S/N	Manufacturer		
Notebook	ThinkPad T460s	/	Lenovo		
Cable Information					
Name	Shielded Type	Ferrite Core	Length		
USB Cable	Unshielded	NO	150cm		
Test Software Information					
Name	Version	/	/		
adb.exe	1	/	/		

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2.4. Operation State

Operation Frequency List: The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing. BT BLE, 40 channels are provided to the EUT. Channels 00/19/39 were selected for testing.

Operation Frequency List:

Channel	Frequency (MHz)
00	2402
01	2404
:	:
18	2438
19	2440
20	2442
:	:
38	2478
39	2480

Note: The display in grey were the channel selected for testing.

Test Mode:

For RF test items:

The engineering test program was provided and enabled to make EUT continuous transmit.

For AC power line conducted emissions:

The EUT was set to connect with the Bluetooth instrument under large package sizes transmission.

For Radiated spurious emissions test item:

The engineering test program was provided and enabled to make EUT continuous transmit. The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

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2.5. Measurement Instruments List

RF Tes	RF Test System					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until	
1	MXA Signal Analyzer	Keysight	N9020A	MY46471737	Dec. 16, 2023	
2	High and low temperature test chamber	ESPEC	MT3035	/	Mar. 24, 2024	
3	Test Software	WCS	WCS-WCN	2023.08.04	/	

Radiate	Radiated Emission (3m chamber 3)					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until	
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9163	01026	Dec. 18, 2024	
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-647	Dec. 01, 2024	
3	Test Receiver	Keysight	N9038A	MY56400071	Dec. 16, 2023	
4	Broadband Amplifier	SCHWARZBECK	BBV9743B	259	Dec. 16, 2023	
5	Mirowave Broadband Amplifier	SCHWARZBECK	BBV9718C	111	Dec. 16, 2023	
6	3m chamber 3	YIHENG	EE106	/	Aug. 28, 2026	
7	Test Software	FARA	EZ-EMC	FA-03A2	/	

Conduc	Conducted Emission									
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until					
1	LISN	R&S	ENV216	101112	Dec. 16, 2023					
2	LISN	R&S	ENV216	101113	Dec. 16, 2023					
3	EMI Test Receiver	R&S	ESCS30	100353	Dec. 16, 2023					
4	ISN CAT6	Schwarzbeck	NTFM 8158	CAT6-8158-0046	Dec. 16, 2023					
5	ISN CAT5	Schwarzbeck	NTFM 8158	CAT5-8158-0046	Dec. 16, 2023					
6	Test Software	R&S	EMC32	6.10.10	/					

Note: 1. The Cal. Interval was one year.

2. The Cal. Interval was three years of the antenna.

3. The cable loss has been calculated in test result which connection between each test instruments.

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3. TEST ITEM AND RESULTS

3.1. Conducted Emission

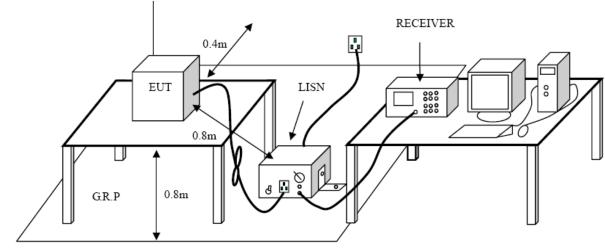
<u>Limit</u>

FCC CFR Title 47 Part 15 Subpart C Section 15.207

Frequency (MHz)	Conducted Limit (dBµV)				
	Quasi-peak	Average			
0.15 - 0.5	66 to 56 *	56 to 46 *			
0.5 - 5	56	46			
5 - 30	60	50			

* Decreases with the logarithm of the frequency.

Test Configuration



Test Procedure

1. The EUT was setup according to ANSI C63.10:2013 requirements.

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting 2. ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.

The EUT and simulators are connected to the main power through a line impedance stabilization 3 network (LISN). The LISN provides a 50 ohm / 50 µH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the 4. block diagram of the test setup and photographs)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was 5. individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and 6. forth at the center of the lead to form a bundle not exceeding 40 cm in length.

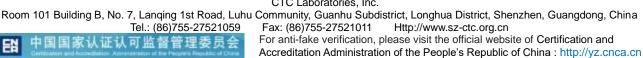
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a 7. receiver bandwidth of 9 kHz.

During the above scans, the emissions were maximized by cable manipulation. 8.

Test Mode

Please refer to the clause 2.4.

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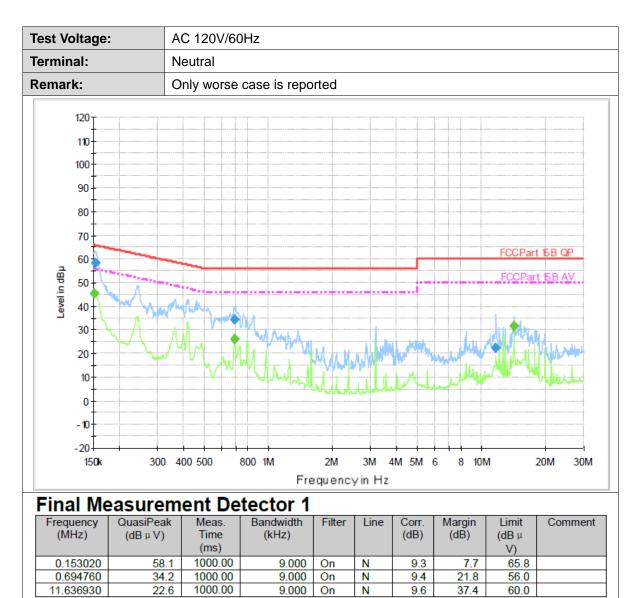




Test Vo	oltage:		AC 120V/	60Hz							
Termin	al:		Line								
Remar	k:		Only wors	e case is rep	oortee	t					
	120 T										
	+										
	110										
	100			<u>+</u>							
	90										
	80										
	+			+							
	70									FCCI	Part 15B QP
д.	60										
ab n	50	Λ								FCC	Part 15B AV
Level in dBµ	40	Mar La	n 1.								
۲	- +	1	mul A							1.	
	30			May Auto	AL A		•				
	20	- Yw	ĨМ		WWW W	1.4			Proposed in the second	¥	
	10		- hall	MULLI	A.t.			H.A.	للمراجل		Willington
	0				24000	A Ma	4.04.0m				
										_	
	- 10			<u> </u>						_	
	-20- 150k	300	400 500	+ + - + 800 1M	21	4	3M	4M 5M		10M	20M 30M
	IOUK	500	400 500		reque				10 0		20101 3010
Fina	al Me	asurer	nent D	etector	1						
	uency	QuasiPeak		Bandwidth		ter	Line	Corr	. Margir	n Limit	Comment
(M	Hz)	(dB µ V)	Time	(kHz)				(dB)	(dB)	(dB µ	
0 1	53020	57.8	(ms) 3 1000.00	9.00) Or		L1	9.4	4 8.	V) 0 65.	8
0.6	86490	27.	7 1000.00	9.00) Or		L1	9.(5 28.	3 56.	0
14.6	68780	23.0	0 1000.00	9.00) Or		L1	9.	7 37.	0 60.	0
Fina	l Me	asurem	nent De	tector 2							
Frequ	uency	Average	Meas.	Bandwidth	Filter	L	ine	Corr.	Margin	Limit	Comment
(M	Hz)	(dB	Time (ms)	(kHz)				(dB)	(dB)	(dB µ V)	
0.1	50000	45.2	1000.00	9.000	On	L	1	9.4	10.8	56.0	
3.1	67000	27.8	1000.00	9.000	On	L	1	9.5	18.2	46.0	
	51110	31.5	1000.00	9.000	On	L	4	9.8	18.5	50.0	

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Final Measurement Detector 2

Frequency	Average	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit	Comment
(MHz)	(dB µ V)	Time	(kHz)			(dB)	(dB)	(d Β μ	
		(ms)						V)	
0.151200	45.5	1000.00	9.000	On	Ν	9.3	10.5	55.9	
0.692000	25.8	1000.00	9.000	On	Ν	9.4	20.2	46.0	
14.151110	31.5	1000.00	9.000	On	N	9.6	18.5	50.0	
14.151110	31.5	1000.00	9.000	On	N	9.6	18.5	50.0	

Emission Level = Read Level + Correct Factor

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3.2. Radiated Emission

<u>Limit</u>

FCC CFR Title 47 Part 15 Subpart C Section 15.209

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
0.009~0.490	2400/F (kHz)	300
0.490~1.705	24000/F (kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

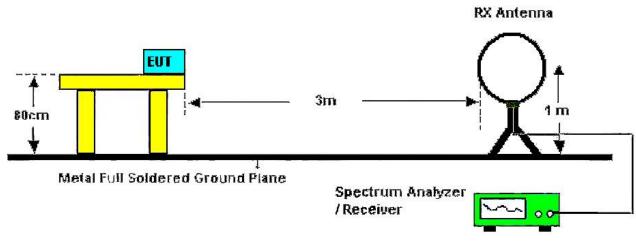
Frequency Range (MHz)	dBµV/m (at 3 meters)				
	Peak	Average			
Above 1000	74	54			

Note:

(1) The tighter limit applies at the band edges.

(2) Emission Level ($dB\mu V/m$)=20log Emission Level ($\mu V/m$).

Test Configuration

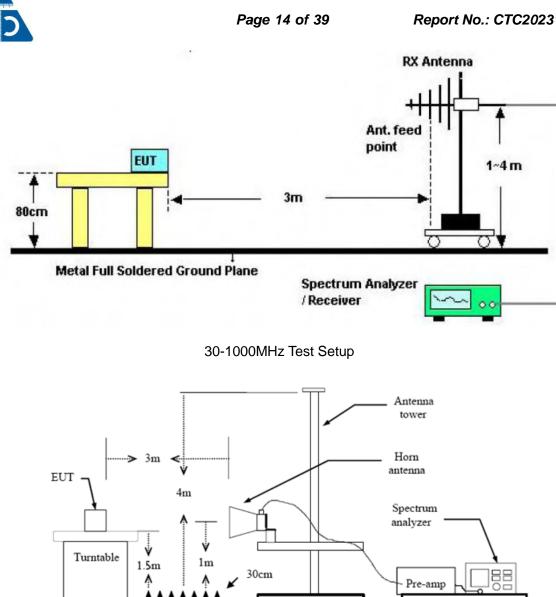


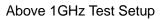
Below 30MHz Test Setup

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Test Procedure

1. The EUT was setup and tested according to ANSI C63.10:2013.

The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for 2. above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.

3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.

For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna 4. tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.

- 5. Set to the maximum power setting and enable the EUT transmit continuously.
- Use the following spectrum analyzer settings 6.
- Span shall wide enough to fully capture the emission being measured; (1)
- (2) 9k 150kHz:

RBW=300 Hz, VBW=1 kHz, Sweep=auto, Detector function=peak, Trace=max hold (3) 0.15M – 30MHz:

RBW=10 kHz, VBW=30 kHz, Sweep=auto, Detector function=peak, Trace=max hold (4) 30M - 1 GHz:

RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the

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peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

(5) From 1 GHz to 10th harmonic:

RBW=1MHz, VBW=3MHz Peak detector for Peak value.

RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.

Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 3.8 Duty Cycle.

Test Mode

Please refer to the clause 2.4.

Test Result

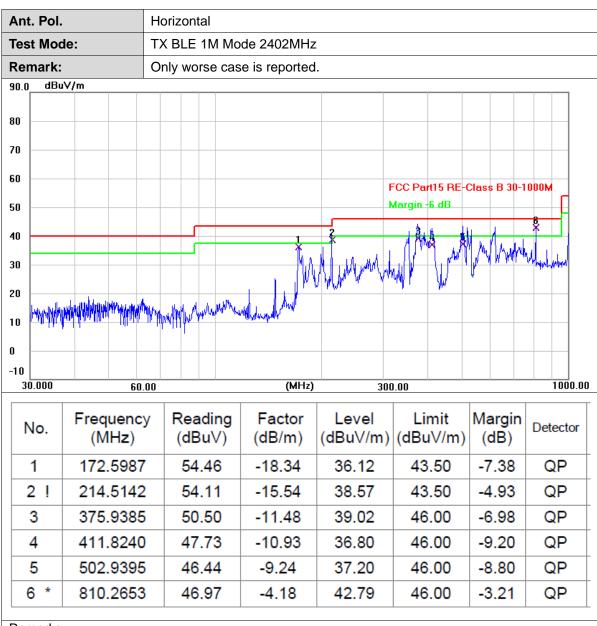
9 kHz~30 MHz

From 9 kHz to 30 MHz: The conclusion is PASS.

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.







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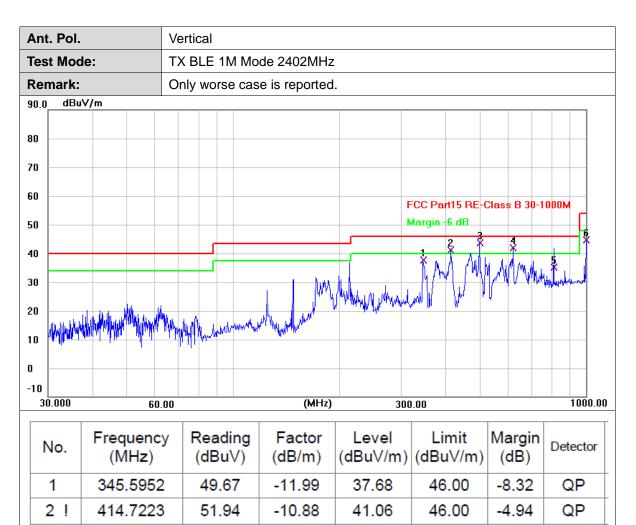
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value

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4 !	622.8900	48.66	-6.83	41.83
5	810.2653	39.33	-4.18	35.15
6	1000.0000	46.67	-1.97	44.70
			~ 	-
Remarks	:			

53.04

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

-9.30

43.74

46.00

46.00

46.00

54.00

-2.26

-4.17

-10.85

-9.30

QP

QP

QP

QP

2.Margin value = Level -Limit value

499.4246

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Ant. Pol.	Horizontal
Test Mode:	TX BLE 1M Mode 2402MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4960.314	39.03	2.30	41.33	74.00	-32.67	peak
2 *	4960.723	23.48	2.30	25.78	54.00	-28.22	AVG

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol.	Vertical
Test Mode:	TX BLE 1M Mode 2402MHz
Remark:	No report for the emission which more than 20 dB below the prescribed limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4803.263	40.39	2.07	42.46	74.00	-31.54	peak
2 *	4804.847	24.86	2.08	26.94	54.00	-27.06	AVG

Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

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Ant. Pol.		Horizontal					
Test Mod	le:	TX BLE 1M N	lode 2440MH	Ηz			
Remark:		No report for t limit.	the emission	which more t	han 20 dB be	low the p	rescribed
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4879.213	24.09	2.18	26.27	54.00	-27.73	AVG
2	4879.501	39.94	2.18	42.12	74.00	-31.88	peak
							. <u> </u>

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

nt. Pol		Vertical					
est Mo	de:	TX BLE 1M M	lode 2440MF	Ηz			
emark:		No report for t limit.	the emission	which more t	han 20 dB be	low the p	rescribed
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4879.248	39.25	2.18	41.43	74.00	-32.57	peak
2 *	4880.371	23.91	2.18	26.09	54.00	-27.91	AVG

2.Margin value = Level -Limit value

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Ant. Pol.		Horizontal					
Test Mod	le:	TX BLE 1M M	lode 2480Mł	Ηz			
Remark:		No report for limit.	the emission	which more t	han 20 dB be	elow the p	rescribed
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4959.779	23.33	2.30	25.63	54.00	-28.37	AVG
2	4960.682	41.05	2.30	43.35	74.00	-30.65	peak
		,		·			<u> </u>

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

Ant. Pol		Vertical					
est Mo	de:	TX BLE 1M N	/lode 2480Ml	Ηz			
Remark		No report for limit.	the emission	which more t	han 20 dB be	elow the p	rescribed
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4959.386	23.51	2.30	25.81	54.00	-28.19	AVG
2	4960.171	40.26	2.30	42.56	74.00	-31.44	peak

2.Margin value = Level -Limit value

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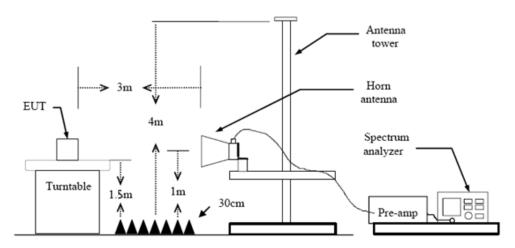
3.3. Band Edge Emissions (Radiated)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d)

Restricted Frequency Band	(dBµV/m) (at 3m)
(MHz)	Peak	Average
2310 ~ 2390	74	54
2483.5 ~ 2500	74	54

Test Configuration



Test Procedure

1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 2. degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters. 3.

4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement. The receiver set as follow: 5

RBW=1MHz, VBW=3MHz Peak detector for Peak value.

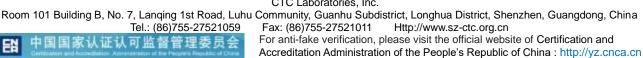
RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.

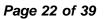
Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 3.8 Duty Cycle.

Test Mode

Please refer to the clause 2.4.

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Ant. Pol	-		Horizontal					
est Mo	de:		TX BLE 1M	Mode 2402M	Hz			
20.0 dBu	iV/m				ĺ		1	
10								
00								
o								Λ
						FCC Part15 C	- Above 1G P	ĸ
						FCC Part15 C		v
0							1 X	++
D	and and a start and a start and a start	muner	un manda non manimu	redendelanden sonderster ander solder ander	mannanananataraha	and made march and	2	and he
D								
0								
o								
0.0 2305.500	2315.50	2325.50	2335.50	2345.50 (MHz)	2365.50	2375.50 2385.	.50 2395.	50 2405
	1				1	1		
	Frequ	encv	Reading	Factor	Level	Limit	Margin	Detecto
No.	(MF		(dBuV)			(dBuV/m)		Deiteit
No. 1		lz)				(dBuV/m) 74.00		peak

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1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value

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Ant. P	ol.	Vertical					
Test M	ode:	TX BLE 1M N	Mode 2402MH	Ηz			
120.0	Bu¥/m						
110							
100							
90							_A
80							
70					FCC Part15 C	- Above 1G Pl	
60							
50					FCC Part15 C	- Above 16 A	
40						2	
30	Hander Inderson of the Source Sources		wardnasa through furtures	www.anticepren.com/net/fil/control	water frequencies and the second states and the	2	und bee
20							
10							
0.0							
2305.5	00 2315.50 2325.	50 2335.50 23	345.50 (MHz)	2365.50	2375.50 2385.	50 2395.5	0 2405.50
No.	Frequency (MHz)	v Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	18.91	31.31	50.22	74.00	-23.78	peak
2 *	2390.000	5.55	31.31	36.86	54.00	-17.14	AVG
Remar	ks:						

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value

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Ant	. Pol.				Horiz	ontal											
Tes	t Mod	le:			ТХ В	LE 1N	ΛМ	ode 2	480	ЛH	z						
120.0) dBu\	//m						1								1	
110																	
100																	
90	<u>م</u>																
80													FC	C Part15 C	- Above 1G	РК	
70																	
60													FC	C Part15 C	- Above 16	AV	
50		X															
40	nut	2	-	-		g	Anna		the state of the s	Linnen	Manum	historidan	makh	hathan internet the start of the	mbarneymen	a sedented	rennymonde
30																	
20																	
10																	
0.0	75.500	2485.50	240	5.50	250	5.50	251	5.50	(MHz	.)	253	5.50	2545.5	0 2555	50 250	5.50	2575.50
										.,							
N	lo.		queno /IHz)	су		adin BuV)			ctor 8/m)			vel V/m)	1	.imit uV/m)	Margi (dB)	n (Detector
	1	248	3.50	0	1	7.74		31	.48		49	.22	7	4.00	-24.7	8	peak
2	2 *	248	3.50	0	5	5.59		31	.48		37	.07	5	4.00	-16.9	3	AVG

Page 24 of 39

Remarks:

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1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value

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	BLE 1M Mo	ode 2480MH	Hz		- Above 16 Pl	
				FCC Part15 C		
				FCC Part15 C		
				FCC Part15 C		
	Managara and Anglana ang			FCC Part15 C		
Marey na ficint de la construir a plas, que				FCC Part15 C		
Mangenetic Marine Brustryle sides op	Markedon on the first of the fi		, Miller March March	FCC Part15 C		
elleren en e			when the second		- Above 16 A	V Minute-increases
Mary sector Marine Treatment and the spec	attalan an a	, and the second second	wateres to move the second		- Above 1G A	V
Warnerstein Warnerstein seine seine	and with the many main that the sector	, and the second se				Nove-manual
dinese territori entre antista a desenar	arrandadan na mandrada ana ma	, and my approximately a second se	unterest and the second s	the second s	and the second state of th	Minute-ingeniensk
alline og de de de leine de le		and a second			******	11.4 8
50 2496.50 25	506.50 2516	6.50 (MHz)	2536.50 2	2546.50 2556.	.50 2566.5	50 2576.
		Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
483.500 1	17.78	31.48	49.26	74.00	-24.74	peak
183.500	4.99	31.48	36.47	54.00	-17.53	AVG
() 18	MHz) (0 33.500	MHz) (dBu∨) 33.500 17.78	MHz) (dBuV) (dB/m) 33.500 17.78 31.48	MHz) (dBuV) (dB/m) (dBuV/m) 33.500 17.78 31.48 49.26	MHz) (dBuV) (dB/m) (dBuV/m) (dBuV/m) 33.500 17.78 31.48 49.26 74.00	MHz) (dBuV) (dB/m) (dBuV/m) (dBuV/m) (dB) 33.500 17.78 31.48 49.26 74.00 -24.74

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

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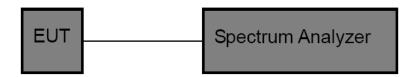
3.4. Band Edge and Spurious Emissions (Conducted)

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d) / RSS-247 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Test Configuration



Test Procedure

- The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss 1. was compensated to the results for each measurement.
- Set to the maximum power setting and enable the EUT transmit continuously. 2.
- Use the following spectrum analyzer settings: 3. RBW = 100 kHz, VBW \geq RBW, scan up through 10th harmonic. Sweep = auto, Detector function = peak, Trace = max hold.
- Measure and record the results in the test report. 4.

Test Mode

Please refer to the clause 2.4.

Test Result

(1) Band Edge Conducted Test & Conducted Spurious Emissions Test

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
	0	2400.00	-57.765	-24.02	-34	PASS
	0	3202.52	-46.368	-24.02	-22.348	PASS
LE	19	3253.08	-50.828	-24.73	-26.098	PASS
	39	2483.50	-61.483	-24.76	-37	PASS
		3306.77	-52.587	-24.76	-27.827	PASS

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lest plot as follows:		
	Aglient Spectrum Analyzer - Swegd SA 20 R T RF S0 Q AC SENSE:INT ALISHAUTO 11:17:59AM Sep01, 2023	
	Center Freq 2.402000000 GHz Avg Type:Leg+Pwr 1944 [18 ar 55] PHO:Wide →→ Trig:Free Run Avg[Hold::100/100 Tret Handward IFGaint.tew #Atten:26 dB term	
	Ref offset 1.5 dB Mkr3 2.402 259 5 GHz	
	Log	
	5.00	
	Am	
	150) (50)	
	-45.0	
	-66.0	
	46.0	
	Center 2.4020000 GHz Span 1.500 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts)	
	NSG STATUS	
	In-Band Reference Level	
	LE_Channel 0	
	Agilent Spectrum Analyzer Swingt SA Qr R T RF 50:02 AC SENGEINT ALIENAUTO 11:18:20:MH Sept01, 2023	
	Center Freq 2.352500000 GHz Avg Type:Log-Pwr PN0: Fast →→ Trig: Free Run Avg Hold: 100/100 Tret Homework IFGeinitew #Atten: 26 dB cer Paperar	
	I CONTROL INCOME IN CONTROL OF	
	5.00	
	-15.0	
	45.0	
	550 monte de contra de con	
	350	
	Start 2.30000 GHz Stop 2.40500 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10.07 ms (1001 pts)	
	MIR MODE THE SEL X Y FUNCTION FUNCTION WOTH FUNCTION VALUE	
	2 N 1 f 2.400.000 GHz 57.765 dBm	
	Out Of Band Emission	
	LE_Channel 0	
	Agilent Spectrum Analyzer - Swept SA	
	OR R T PR 50.0 4C SEDEEDUT ALDRANTOPS:Log-Pair Two Total Pairs Antereon, 2023 Center Freq 12.515000000 GHzz →→ Trig: Free Run Avg/Hold: 10/10 Trice Pairs and Pairs Avg/Hold: 10/10 Trice Pairs and Pairs Avg/Hold: 10/10 Trice Pairs and Pairs Avg/Hold: 10/10 Trice Pairs Avg/Hold: 10	
	IFGain:Low Atten: 24 dB	
	Ref Offset 15 dB Mkr1 3, 202 5 GHz 10 dB/div/ Ref 15.00 dBm - 46.368 dBm	
	5.00	
	Start 30 MHz Stop 25.00 GHz	
	Start 30 MHz Stop 25.00 CHz #Res BW 100 kHz #VEW 300 kHz Sweep 2.387 § (40000 pts) MRR Mode FIRE Stol. X Y RANCTON RANCTON WIDTH RANCTON WIDTH	
	MRR MODE TRC SQL X Y Ranction Ranction worth Ranction walle 1 1 1 2 46,308,40m 46,308,40m 46,308,40m	
	NSG STATUS	
	Spurious Emission	
	LE_Channel 0	

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Agilent Spectrum Analyzer - Swept SA			
02 R T RF 50 Q AC Center Freq 2.440000000 GHz PN0: Wide IFGaint.ov	SENSE:INT AI	Avg Type: Log-Pwr Avg Hold: 100/100	11:21:25 AM Sep01, 2023 TRACE 2:3 4 5 6 TYPE DET P P P P P P
Ref Offset 1.5 dB 10 dB/div Ref 15.00 dBm		Mkr3 2.	440 244 5 GHz 5.272 dBm
500		→ ³	
500			
-15.0			
-25.0			
-36.0			
-45.0			
-56.0			
-65.0			
-75.0			
Center 2.4400000 GHz #Res BW 100 kHz			Span 1.500 MHz .000 ms (1001 pts)
#Res BW 100 kHz	#VBW 300 kHz	Sweep 1.	.000 ms (1001 pts)
In-Bar	nd Reference	Level	
L	.E_Channel 1	9	
Agilent Spectrum Analyzer - Swept SA Δ2 R T RF S0 Ω AC	SENSE:INT AI	LIGN AUTO	11:22:01 AM Sep 01, 2023
Center Freq 12.515000000 GHz PNO: Fast IFGain:Low	Trig: Free Run Atten: 24 dB	Avg Type: Log-Pwr Avg Hold: 10/10	TRACE 23455 TYPE MUMMUM DET PPPPP
10 dB/div Ref Offset 1.5 dB		Mk	r1 3.253 1 GHz -50.827 dBm
500			
5.00			
-15.0			
-25.0			-24.73 dBm
-36.0			
-45.0			
-55.0		and the state of the	des tits and states as
		an Aliman de	أنتقالهم بشبق
-75.0			
Start 30 MHz #Res BW 100 kHz	#VBW 300 kHz	Surger - 2	Stop 25.00 GHz 2.387 s (40000 pts)
MSG		STATUS	
Spu	irious Emiss	ions	
L	E_Channel 1	9	

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Aglent Synctrom Analyser, Swyng SA D R T RF 500 AC SERVERNT AL32(AUTO 11:2928 AM Sep01, 2023 Center Freq 2.4800000000 GHz Avg Type: Log-Pwr 1x432	
PNO: Wide ++ Ing. Free Run Avgineta: 100/100 The map and IFGaint.low #Atten: 26 dB ter Pap pap	
Ref Offset 15 dB Mkr3 2.480 246 0 GHz to dBldiv Ref 15.00 dBm	
500	
500	
-15.0	
-250 m²/	
45.0	
/56.0	
66.0	
-350	
Center 2.4800000 GHz Span 1.500 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts)	
 ISIG STATUS	
In-Band Reference Level LE_Channel 39	
Auflent Societzim Analyzer - Sweet SA	
0 € 1 87 500 46 0 00000 000 000 0000 0000 0000 0	
Ref Offset 15 dB Mkr2 2,483 50 GHz 10 dB/div Ref 15.00 dBm -61,483 dBm	
750	
Start 2.47000 GHz Storp 2.55000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 7.667 ms (1001 pts)	
MIR MODE TRO SCI. X Y RUNCTION WOTH RUNCTION WIDTH	
2 N 1 1 7 2.483 50 GHz 51.483 dBm	
 M56 (STATU6)	
Out Of Band Emission LE_Channel 39	
Agitent Spectrum Analyzer - Swept SA III & T RF Sto Jul Strate and July 11:20:22 AM Second 2023	
Center Freq 12,515000000 GHz Avg Type: Log-Pwr Trig: Free Run Avg Type: Log-Pwr Trig: Free Run Avg Type: Log-Pwr Trig: Free Run Avg Hold: 10/10 trig: Free	
Ref Officet 15 dB Mkr1 3.306 8 GHz 10 dB/div Ref 15.00 dBm -52.587 dBm -52.587 dBm	
5 00	
7150	
Start 30 MHz Stop 25.00 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.387 s (40000 pts)	
MRR MODE TRC SCL X Y FINITION RINCTION WOTH RINCTION WALLE	
K STATUS	
Spurious Emission	
LE_Channel 39	

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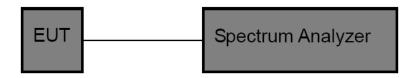
3.5. DTS Bandwidth

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(2)

Test Item	Limit	Frequency Range (MHz)
DTS Bandwidth	≥500 kHz (6dB bandwidth)	2400~2483.5

Test Configuration



Test Procedure

- 1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- DTS Spectrum Setting: 2.
 - (1) Set RBW = 100 kHz.
 - (2) Set the video bandwidth (VBW) \geq 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.
 - **OCB Spectrum Setting:**
 - (1) Set RBW = 1% ~ 5% occupied bandwidth.
 - (2) Set the video bandwidth (VBW) \geq 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.

NOTE: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

Test Mode

Please refer to the clause 2.4.

Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
	0	2402	0.6551	1.0521		PASS
LE	19	2440	0.6546	1.0477	0.5	PASS
	39	2480	0.6532	1.0497		PASS

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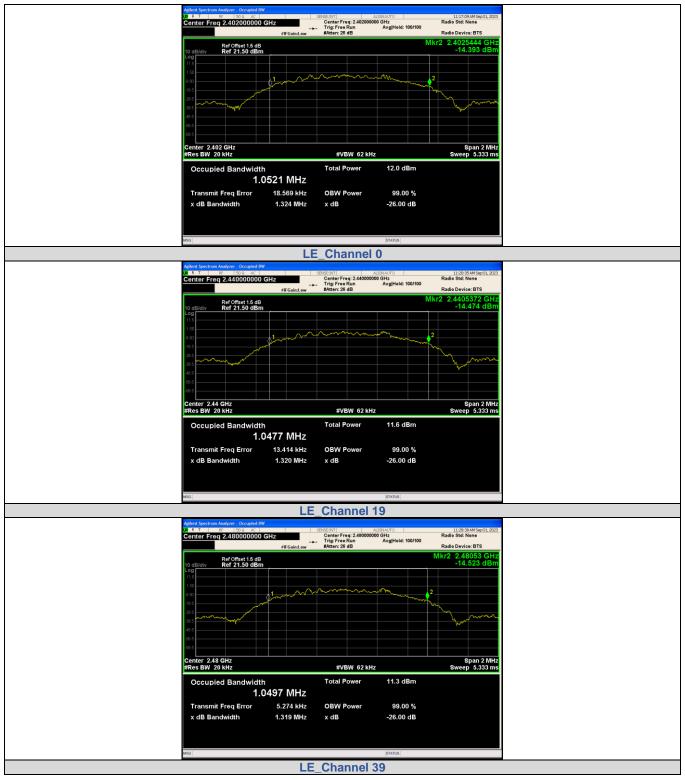


Aglent Spectram Analyzer - Occupied BW 0 R T RF 500 AC 500 AC 500 AC 100 SPICE DRT ALIZIALATO 1117-20.M56p01,2022	
Center Freq 2.402000000 GHz Center Freq: 2.40200000 GHz Radio Std: None	
#IFGainLow #Atten: 28 dB Radio Device: BTS	
Ref Offset 1.5 dB 10 dB/div Ref 16.50 dBm	
390	
315	
335	
435	
Center 2.402 GHz Span 2 MHz	
Center 2.402 GHz Span 2 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.333 ms	
Occupied Bandwidth Total Power 12.3 dBm	
1.0670 MHz	
Transmit Freq Error 8.373 kHz OBW Power 99.00 %	
x dB Bandwidth 655.1 kHz x dB -6.00 dB	
 NSO	
LE_Channel 0	
Aglent Spectrum Analyzer - Occupied BW	
It T FF S00 AC SPEREART AUS/NATO 1120-45.4M See01,2027 Center Freq: 24.400000000 GHz Center Freq: 24.400 Center Freq: 24.400 Radie Static Nee #IFGain.tew #IFGain.tew Attain: 26 40 Radie Device: BTS	
Trig: Free Run Avgihold: 100/100 #IFGainLow #Atten: 25 dB Radio Device: BTS	
Ref Offset 1.5 dB 10 dB/div Ref 16.50 dBm	
lo abidiy Ref 16,50 aBm Log	
39	
135	
236 mm	
815	
Center 2.44 GHz Span 2 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.333 ms	
Occupied Bandwidth Total Power 11.7 dBm	
1.0693 MHz	
Transmit Freq Error 980 Hz OBW Power 99.00 %	
x dB Bandwidth 654.6 kHz x dB -6.00 dB	
MSG STATIC	
LE_Channel 19	
LE_Channel 19 Agterd Spectrum Analyzer - Occupied BW # K T MS Spectrum Analyzer - Occupied BW	
Agenet Spectrum Analyzer - Occupied BW SENEE.htt Al30AUTO 11.2849AM Sec01, 2023 Center Freq 2.4800000000 GHz Center Freq 2.4800000000 GHz Radie Std: None	
LE_Channel 19 Agled Sectrum Analyzer Occupied BW Center Freq 2.480000000 GHz Center Freq 2.48000000 GHz Freq 2.4800000 GHz Freq 2.48000000 GHz Freq 2.48000000 GHz Freq 2.4800000 GHz Freq 2.48000000 GHZ Freq 2.480000000 GHZ Freq 2.480000000 GHZ Freq 2.480000000 GHZ Freq 2.48000000 GHZ Freq 2.48000000 GHZ Freq 2.480000000 GHZ Freq 2.4800000000 GHZ Freq 2.4800000000000 GHZ Freq 2.4800000000 GHZ Freq 2.48000000000 GHZ Freq 2.48000000000000 GHZ Freq 2.4800000000000	
LE_Channel 19 Aglend Spectrum Analyzer Occupied BW Astrono 1288-90.40 Spectrum (2022) Center Freq 2.480000000 GHz Center Freq 2.48000000 GHz Radio Std: None Freq 2.480000000 GHz Freq 3.48000000 GHz Radio Std: None Ref Offset 1.6 dB Ref Offset 5.6 dB Radio Std: None	
LE_Channel 19 Agled Sectrum Analyzer Occupied BW Center Freq 2.480000000 GHz Center Freq 2.48000000 GHz Freq 2.4800000 GHz Freq 2.48000000 GHz Freq 2.48000000 GHz Freq 2.4800000 GHz Freq 2.48000000 GHZ Freq 2.480000000 GHZ Freq 2.480000000 GHZ Freq 2.480000000 GHZ Freq 2.48000000 GHZ Freq 2.48000000 GHZ Freq 2.480000000 GHZ Freq 2.4800000000 GHZ Freq 2.4800000000000 GHZ Freq 2.4800000000 GHZ Freq 2.48000000000 GHZ Freq 2.48000000000000 GHZ Freq 2.4800000000000	
LE_Channel 19 Aglerd Spectrum Analyzer Occupied BW Astrono 1288-90.40 Spectrum (2022) Center Freq 2.480000000 GHz Center Freq 2.48000000 GHz Radio Std: None Freq 2.480000000 GHz Freq 3.48000000 GHz Radio Std: None Ref Offset 1.6 dB Ref Offset 5.6 dB Radio Std: None	
LE_Channel 19 Aglerd Spectrum Analyzer Occupied BW Astrono 1288-90.40 Spectrum (2022) Center Freq 2.480000000 GHz Center Freq 2.48000000 GHz Radio Std: None Freq 2.480000000 GHz Freq 3.48000000 GHz Radio Std: None Ref Offset 1.6 dB Ref Offset 5.6 dB Radio Std: None	
LE_Channel 19 Aglerd Spectrum Analyzer Occupied BW Astrono 1288-90.40 Spectrum (2022) Center Freq 2.480000000 GHz Center Freq 2.48000000 GHz Radio Std: None Freq 2.480000000 GHz Freq 3.48000000 GHz Radio Std: None Ref Offset 1.6 dB Ref Offset 5.6 dB Radio Std: None	
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99% Bandwidth:



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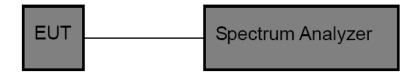
3.6. Peak Output Power

<u>Limit</u>

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (b)(3)

Section	Test Item	Limit	Frequency Range (MHz)
FCC CFR 47 Part15.247 (b)(3)	Maximum Conducted Output Power	1 Watt or 30dBm	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.

- 2. Spectrum Setting:
 - (1) Set RBW \geq DTS Bandwidth.
 - (2) Set VBW \geq 3*RBW.
 - (3) Set Span \geq 3*RBW.
 - (4) Sweep time = Auto couple.
 - (5) Detector = Peak.
 - (6) Trace mode = Max hold.

Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.4.

Test Result

Test Mode	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Verdict
	2402	6.474	≤30	Pass
BLE_1M	2440	5.879	≤30	Pass
	2480	5.639	≤30	Pass

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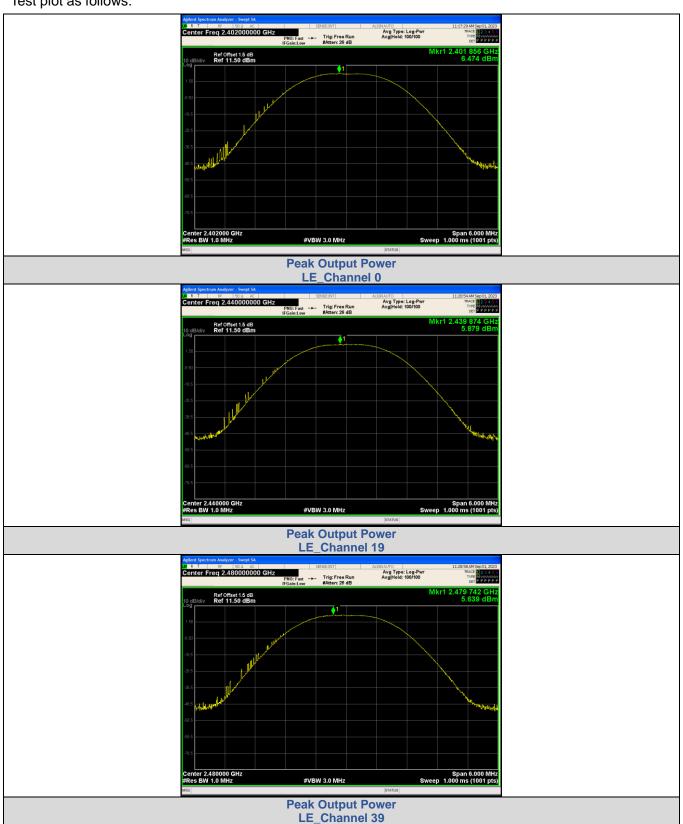
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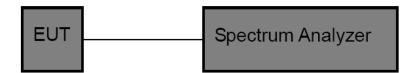
Power Spectral Density 3.7.

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (e)

Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	8 dBm (in any 3 kHz)	2400~2483.5

Test Configuration



Test Procedure

- 1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- 2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.

3. Spectrum Setting:

Set analyzer center frequency to DTS channel center frequency.

Set the span to 1.5 times the DTS bandwidth.

Set the RBW:3 kHz.

Set the VBW≥3RBW

Detector: peak.

Sweep time: auto.

Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.4.

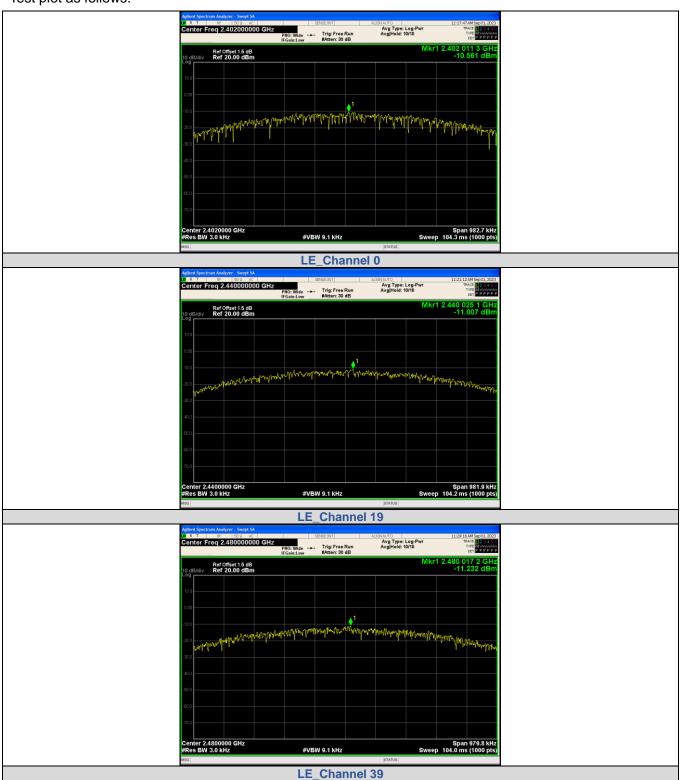
Test Result

Test Mode	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
	2402	-10.561	≤8	Pass
BLE_1M	2440	-11.007	≤8	Pass
	2480	-11.232	≤8	Pass

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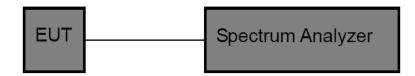


3.8. Duty Cycle

<u>Limit</u>

None, for report purposes only.

Test Configuration



Test Procedure

- 1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- 2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.

3. Spectrum Setting:
Set analyzer center frequency to test channel center frequency.
Set the span to 0Hz.
Set the RBW to 10MHz.
Set the VBW to 10MHz.
Detector: Peak.
Sweep time: Auto.
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.4.

Test Result

Test Mode	Frequency (MHz)	Transmission Duration (ms)	Transmission Period (ms)	Duty Cycle (%)	1/T Minimum VBW (kHz)	Final Setting for VBW (kHz)
	2402	2.122	2.499	84.90	0.47	1
BLE_1M	2440	2.122	2.499	84.90	0.47	1
	2480	2.122	2.498	84.94	0.47	1

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3.9. Antenna Requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i)

(i) Systems operating in the 2400~2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Test Result

The directional gain of the antenna is less than 6dBi, please refer to the EUT internal photographs antenna photo.

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