

**Shenzhen Global Test Service Co.,Ltd.**

1F, Building No. 13A, Zhonghaixin Science and Technology City, No.12,6 Road, Ganli Industrial Park, Buji Street, Longgang District, Shenzhen, Guangdong

FCC PART 15 SUBPART C TEST REPORT

FCC PART 15.247

Report Reference No......: **GTSR15120054-2.4G****FCC ID**.....: **2AG5D-XZ3-AMP50**

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Date of issue.....: Jan. 04, 2016

Representative Laboratory Name .: **Shenzhen Global Test Service Co.,Ltd.**Address: 1F, Building No. 13A, Zhonghaixin Science and Technology City,
No.12,6 Road, Ganli Industrial Park, Buji Street, Longgang District,
Shenzhen, Guangdong**Applicant's name**.....: **Wi Digital Systems,Inc.**

Address: Spectrum Cneter Drive,4th Floor,Suite 400 Irvine,CA 92618

Test specificationStandard: **FCC Part 15.247: Operation within the bands 902-928 MHz,
2400-2483.5 MHz and 5725-5850 MHz**

TRF Originator.....: Shenzhen Global Test Service Co.,Ltd.

Master TRF: Dated 2014-12

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Test item description: Stereo Digital Wireless Audio System Loudspeakers & DJ Gear

Trade Mark: /

Manufacturer: **SOYO Technology Development Co.,Ltd.**

Model/Type reference.....: XZ3-AMP50 (Transmitter)

Listed Models: /

Operation Frequency.....: From 2403MHz to 2479MHz

Hardware Version: WI-AMP50-M-V1.6

Software Version: SOYO-WM24G09-V1.3

Rating: DC 5.0V from Adapter AC 120V/60Hz
Battery 3.7VResult.....: **PASS**

TEST REPORT

Test Report No. : GTSR15120054-2.4G	Jan. 04, 2016 Date of issue
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Equipment under Test : Stereo Digital Wireless Audio System Loudspeakers & DJ Gear

Model /Type : XZ3-AMP50 (Transmitter)

Listed Models : /

Applicant : **Wi Digital Systems,Inc.**

Address : Spectrum Center Drive,4th Floor,Suite 400 Irvine,CA 92618

Manufacturer : **SOYO Technology Development Co.,Ltd.**

Address : 4F,9Bldg,Longbi Industry Zone, Longgang Dist, Shenzhen City,
Guangdong Pro, China

Test Result:	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

<u>1.</u>	<u>TEST STANDARDS</u>	<u>4</u>
<u>2.</u>	<u>SUMMARY</u>	<u>5</u>
2.1.	General Remarks	5
2.2.	Product Description	5
2.3.	Equipment Under Test	5
2.4.	Short description of the Equipment under Test (EUT)	5
2.5.	EUT operation mode	5
2.6.	Block Diagram of Test Setup	6
2.7.	Related Submittal(s) / Grant (s)	6
2.8.	Modifications	6
2.9.	NOTE	6
<u>3.</u>	<u>TEST ENVIRONMENT</u>	<u>7</u>
3.1.	Address of the test laboratory	7
3.2.	Test Facility	7
3.3.	Environmental conditions	7
3.4.	Test Description	8
3.5.	Statement of the measurement uncertainty	8
3.6.	Equipments Used during the Test	9
<u>4.</u>	<u>TEST CONDITIONS AND RESULTS</u>	<u>10</u>
4.1.	AC Power Conducted Emission	10
4.2.	Radiated Emission.....	13
4.3.	Maximum Peak Output Power.....	18
4.4.	Power Spectral Density	19
4.5.	6dB Bandwidth	21
4.6.	Band Edge Compliance of RF Emission	23
4.7.	Spurious RF Conducted Emission	25
4.8.	Antenna Requirement.....	32
<u>5.</u>	<u>TEST SETUP PHOTOS OF THE EUT</u>	<u>33</u>
<u>6.</u>	<u>EXTERNAL AND INTERNAL PHOTOS OF THE EUT</u>	<u>34</u>

1. TEST STANDARDS

The tests were performed according to following standards:

[FCC Rules Part 15.247](#): Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.

[ANSI C63.10-2013](#): American National Standard for Testing Unlicensed Wireless Devices

[KDB558074 D01 V03r04](#): Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247

2. SUMMARY

2.1. General Remarks

Date of receipt of test sample	:	Dec. 21, 2015
Testing commenced on	:	Dec. 21, 2015
Testing concluded on	:	Jan. 04, 2016

2.2. Product Description

Name of EUT	Stereo Digital Wireless Audio System Loudspeakers & DJ Gear
Trade Mark:	/
Model Number	XZ3-AMP50 (Transmitter)
List Model:	/
FCC ID	2AG5D-XZ3-AMP50
Antenna Type	External antenna
Operation frequency	2403MHz to 2479MHz
Modulation	GFSK

2.3. Equipment Under Test

Power supply system utilised

Power supply voltage	:	☐ 230V / 50 Hz	☐ 120V / 60Hz
		☐ 12 V DC	☐ 24 V DC
		☒ Other (specified in blank below)	

DC 5.0V from Adapter AC 120V/60Hz

2.4. Short description of the Equipment under Test (EUT)

This is a Stereo Digital Wireless Audio System Loudspeakers & DJ Gear.

For more details, refer to the user's manual of the EUT.

2.5. EUT operation mode

The application provider specific test software to control sample in continuous TX (Duty Cycle >98%)

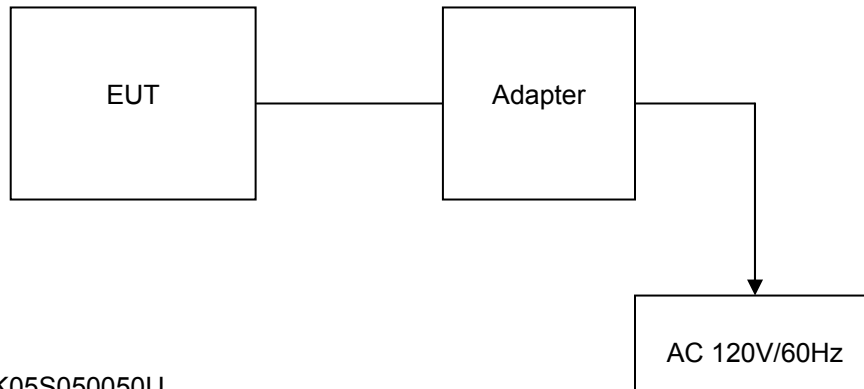
for testing meet KDB558074 test requirement.

Thirty channels are provided to the EUT.

Channel	Frequency(MHz)	Channel	Frequency(MHz)
0	2403	15	2447
1	2406	16	2450
2	2409	17	2453
3	2412	18	2455
4	2415	19	2458
5	2418	20	2461
6	2421	21	2463
7	2424	22	2465

8	2427	23	2467
9	2430	24	2469
10	2433	25	2471
11	2436	26	2473
12	2438	27	2475
13	2441	28	2477
14	2444	29	2479

2.6. Block Diagram of Test Setup



Adapter:

Model: K05S050050U

Input: 100-240V~50/60Hz 0.2A

Output: 5.0V DC 0.5A

Power Cable: 120cm

◇ Shielded

◆ Unshielded

2.7. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for **FCC ID: 2AG5D-XZ3-AMP50** filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

2.8. Modifications

No modifications were implemented to meet testing criteria.

2.9. NOTE

	Test Standards	Reference Report
2.4GHz	FCC Part 15 Subpart C	GTSR15120054-2.4G
MPE	FCC Per 47 CFR 2.1093(d)	GTSR15120054-MPE

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Shenzhen Global Test Service Co.,Ltd.
1F, Building No. 13A, Zhonghaixin Science and Technology City, No.12,6 Road, Ganli Industrial Park,
Buji Street, Longgang District, Shenzhen, Guangdong

Shenzhen CTL Testing Technology Co., Ltd.
1/F.-A, Baisha Technology Park, No.3011, Shahexi Road, Nanshan District, Shenzhen, Guangdong,
China

3.2. Test Facility

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

FCC-Registration No.: 964637

Shenzhen Global Test Service Co.,Ltd 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 964637, Jul 24, 2015.

CNAS-Lab Code: L8169

Shenzhen Global Test Service Co.,Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories. Date of Registration: Dec. 11, 2015. Valid time is until Dec. 10, 2018.

FCC-Registration No.: 970318

Shenzhen CTL Testing Technology Co., Ltd. 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 970318, December 19, 2013.

3.3. Environmental conditions

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

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

3.4. Test Description

Test Specification clause	Test case	Test Mode	Test Channel	Recorded In Report		Pass	Fail	NA	NP	Remark
§15.247(b)(4)	Antenna gain	GFSK	☒ Lowest ☒ Middle ☒ Highest	GFSK	☒ Lowest ☒ Middle ☒ Highest	☒	☐	☐	☐	complies
§15.247(e)	Power spectral density	GFSK	☒ Lowest ☒ Middle ☒ Highest	GFSK	☒ Lowest ☒ Middle ☒ Highest	☒	☐	☐	☐	complies
§15.247(a)(1)	Spectrum bandwidth – 6 dB bandwidth	GFSK	☒ Lowest ☒ Middle ☒ Highest	GFSK	☒ Lowest ☒ Middle ☒ Highest	☒ ☒	☐	☐	☐	complies
§15.247(b)(1)	Maximum output power	GFSK	☒ Lowest ☒ Middle ☒ Highest	GFSK	☒ Lowest ☒ Middle ☒ Highest	☒ ☒ ☒	☐	☐	☐	complies
§15.247(d)	Band edge compliance conducted	GFSK	☒ Lowest ☒ Highest	GFSK	☒ Lowest ☒ Highest	☒ ☒	☐	☐	☐	complies
§15.205	Band edge compliance radiated	GFSK	☒ Lowest ☒ Highest	GFSK	☒ Lowest ☒ Highest	☒	☐	☐	☐	complies
§15.247(d)	TX spurious emissions conducted	GFSK	☒ Lowest ☒ Middle ☒ Highest	GFSK	☒ Lowest ☒ Middle ☒ Highest	☒ ☒	☐	☐	☐	complies
§15.247(d)	TX spurious emissions radiated	GFSK	☒ Lowest ☒ Middle ☒ Highest	GFSK	☒ Lowest ☒ Middle ☒ Highest	☒	☐	☐	☐	complies
§15.109	RX spurious emissions radiated	-/-	-/-	-/-	-/-	☒	☐	☐	☐	complies
§15.209(a)	TX spurious Emissions radiated < 30 MHz	GFSK	-/-	GFSK	-/-	☒	☐	☐	☐	complies
§15.107(a) §15.207	Conducted Emissions < 30 MHz	GFSK	-/-	GFSK	-/-	☒	☐	☐	☐	complies

Remark:

1. The measurement uncertainty is not included in the test result.
2. NA = Not Applicable; NP = Not Performed

3.5. Statement of the 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 CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Global Test Service Co.,Ltd. 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.

Hereafter the best measurement capability for Shenzhen GTS laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10 dB	(1)
Radiated Emission	1~18GHz	4.32 dB	(1)
Radiated Emission	18-40GHz	5.54 dB	(1)
Conducted Disturbance	0.15~30MHz	3.12 dB	(1)

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

3.6. Equipments Used during the Test

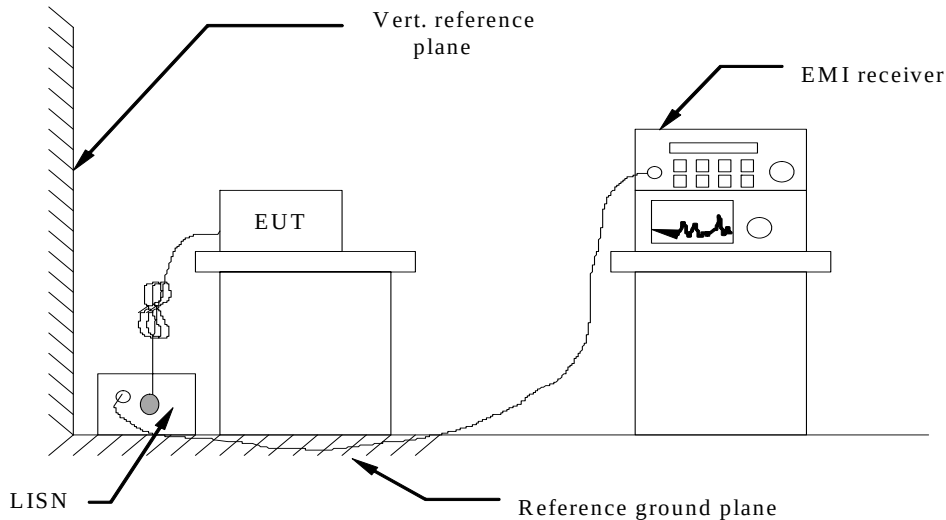
Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	3560.6550.08	2015/05/28	2016/05/27
LISN	R&S	ESH2-Z5	893606/008	2015/05/27	2016/05/26
Bilog Antenna	Sunol Sciences Corp.	JB1	A061713	2015/06/02	2016/06/01
EMI Test Receiver	R&S	ESCI	101102	2015/06/26	2016/06/25
Spectrum Analyzer	Agilent	N9020A	MY48010425	2015/06/17	2016/06/16
Controller	EM Electronics	Controller EM 1000	N/A	2015/05/21	2016/05/20
Horn Antenna	Sunol Sciences Corp.	DRH-118	A062013	2015/05/19	2016/05/18
Active Loop Antenna	SCHWARZBEC K	FMZB1519	1519-037	2015/05/19	2016/05/18
Amplifier	Agilent	8349B	3008A02306	2015/05/19	2016/05/18
Amplifier	Agilent	8447D	2944A10176	2015/05/19	2016/05/18
Temperature/Humidity Meter	Gangxing	CTH-608	02	2015/05/20	2016/05/19
High-Pass Filter	K&L	9SH10-2700/X12750-O/O	N/A	2015/05/20	2016/05/19
High-Pass Filter	K&L	41H10-1375/U12750-O/O	N/A	2015/05/20	2016/05/19
RF Cable	HUBER+SUHNER	RG214	N/A	2015/05/20	2016/05/19

Note: The Cal.Interval was one year.

4. TEST CONDITIONS AND RESULTS

4.1. AC Power Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

- 1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2013.
- 2 Support equipment, if needed, was placed as per ANSI C63.10-2013
- 3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2013
- 4 The EUT received DC5V power from PC, the adapter of PC received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5 All support equipments received AC power from a second LISN, if any.
- 6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
- 8 During the above scans, the emissions were maximized by cable manipulation.

AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following :

Frequency range (MHz)	Limit (dBuV)	
	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 RESULTS

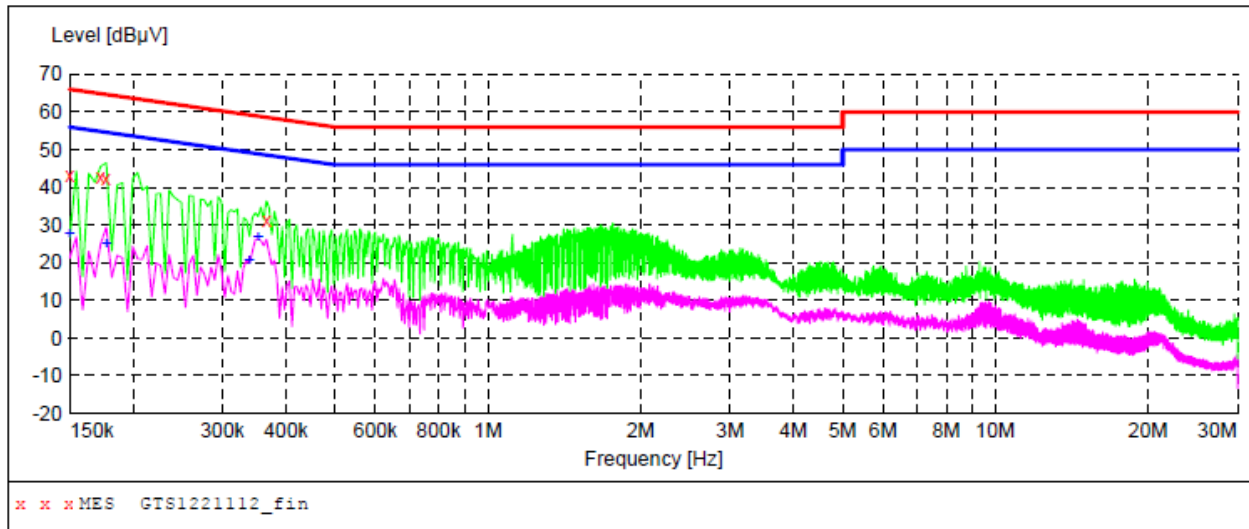
Remark: We tested three positions in AC 120V/60Hz and AC 240V/60Hz, the worst case was recorded .

Power supply:

DC 5V from Adapter

Polarization

L

**MEASUREMENT RESULT: "GTS1221112_fin"**

12/21/2015 3:00PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	43.20	10.1	66	22.8	QP	L1	GND
0.172500	42.70	10.0	65	22.1	QP	L1	GND
0.177000	42.30	10.0	65	22.3	QP	L1	GND
0.366000	31.40	9.9	59	27.2	QP	L1	GND

MEASUREMENT RESULT: "GTS1221112_fin2"

12/21/2015 3:00PM

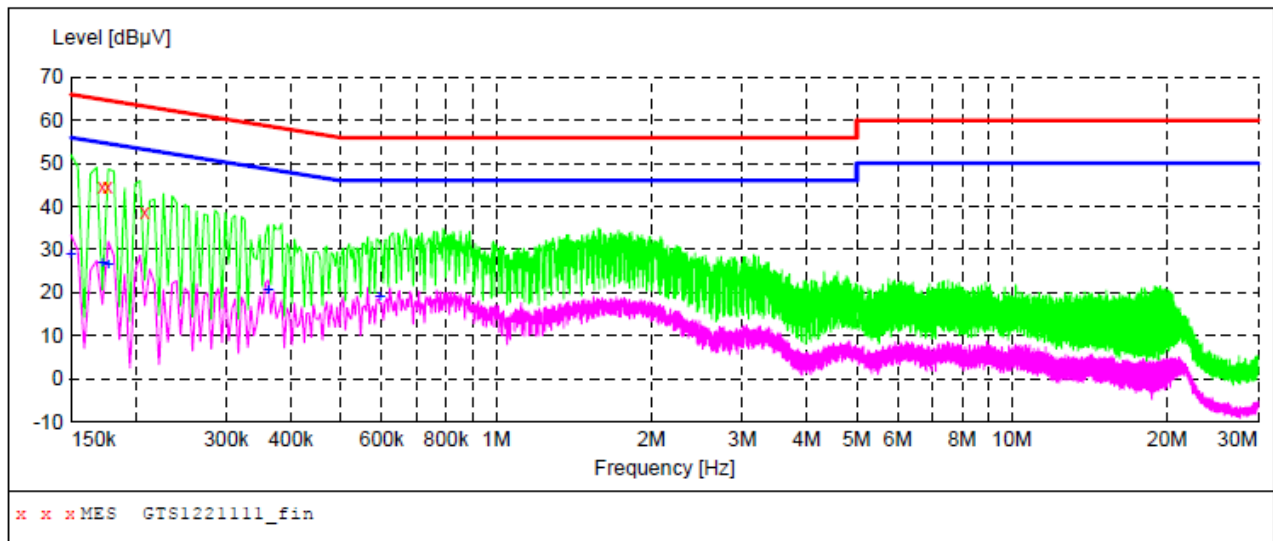
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	27.50	10.1	56	28.5	AV	L1	GND
0.177000	25.20	10.0	55	29.4	AV	L1	GND
0.339000	20.50	9.9	49	28.7	AV	L1	GND
0.352500	26.70	9.9	49	22.2	AV	L1	GND

Power supply:

DC 5V from Adapter

Polarization

N

**MEASUREMENT RESULT: "GTS1221111_fin"**

12/21/2015 2:57PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.172500	44.50	10.0	65	20.3	QP	N	GND
0.177000	44.50	10.0	65	20.1	QP	N	GND
0.208500	38.50	10.0	63	24.8	QP	N	GND

MEASUREMENT RESULT: "GTS1221111_fin2"

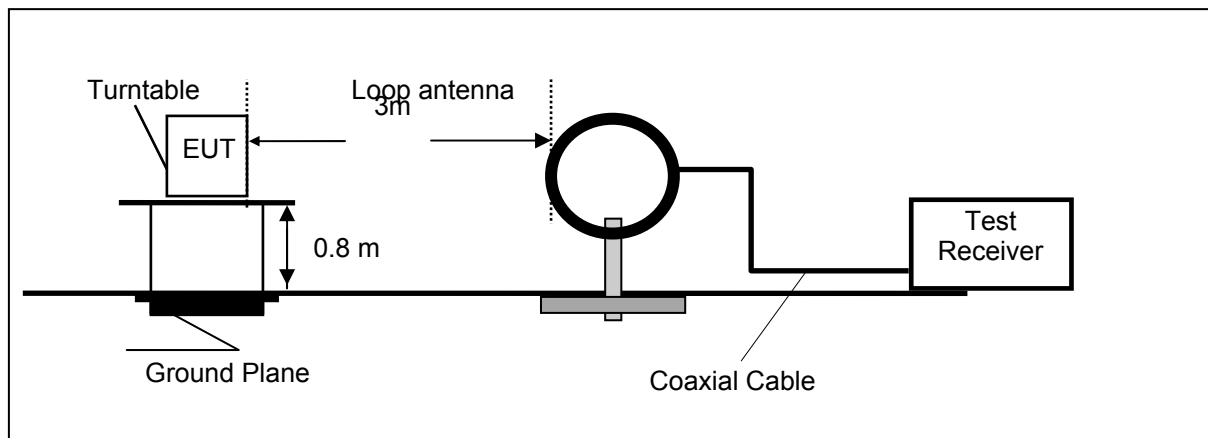
12/21/2015 2:57PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	28.90	10.1	56	27.1	AV	N	GND
0.172500	26.90	10.0	55	27.9	AV	N	GND
0.177000	26.40	10.0	55	28.2	AV	N	GND
0.361500	20.50	9.9	49	28.2	AV	N	GND
0.595500	18.90	9.7	46	27.1	AV	N	GND

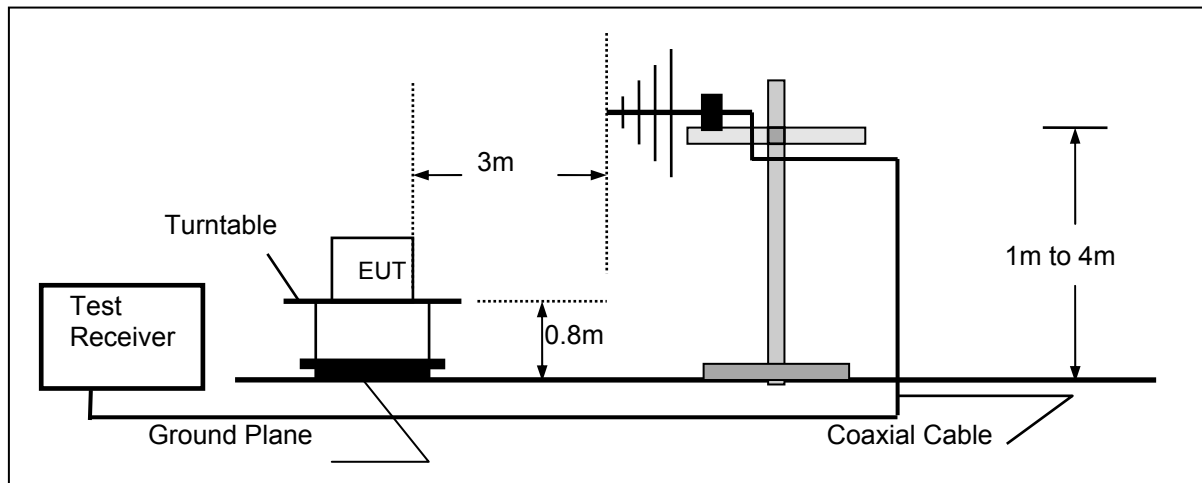
4.2. Radiated Emission

TEST CONFIGURATION

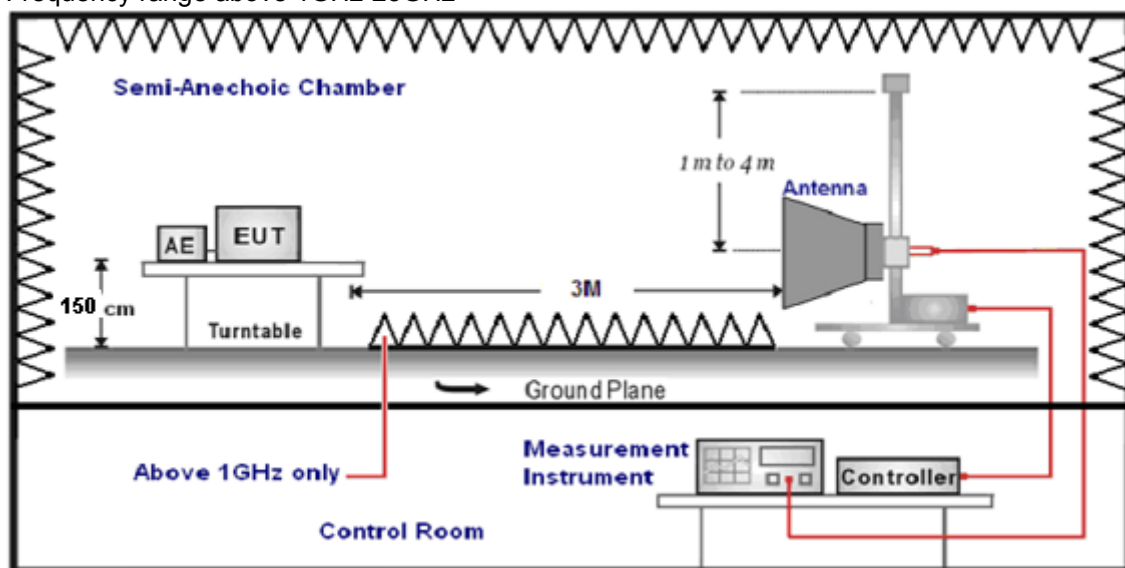
Frequency range 9 KHz – 30MHz



Frequency range 30MHz – 1000MHz



Frequency range above 1GHz-25GHz



TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane when testing frequency range 9 KHz –1GHz;the EUT was placed on a turn table which is 1.5m above ground plane when testing frequency range 1GHz – 25GHz.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0°C to 360°C to acquire the highest emissions from EUT.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. The EUT minimum operation frequency was 32.768KHz and maximum operation frequency was 2480MHz.so radiated emission test frequency band from 9KHz to 25GHz.
6. The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Ultra-Broadband Antenna	3
1GHz-18GHz	Double Ridged Horn Antenna	3
18GHz-25GHz	Horn Antenna	1

7. Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

$$\text{Transd}=AF +CL-AG$$

RADIATION LIMIT

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission from intentional radiators at a distance of 3 meters shall not exceed the following table. According to § 15.247(d), in any 100kHz bandwidth outside the frequency band in which the EUT is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of desired power.

The pre-test have done for the EUT in three axes and found the worst emission at position shown in test setup photos.

Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
0.009-0.49	3	$20\log(2400/F(\text{KHz}))+40\log(300/3)$	$2400/F(\text{KHz})$
0.49-1.705	3	$20\log(24000/F(\text{KHz}))+40\log(30/3)$	$24000/F(\text{KHz})$
1.705-30	3	$20\log(30)+40\log(30/3)$	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

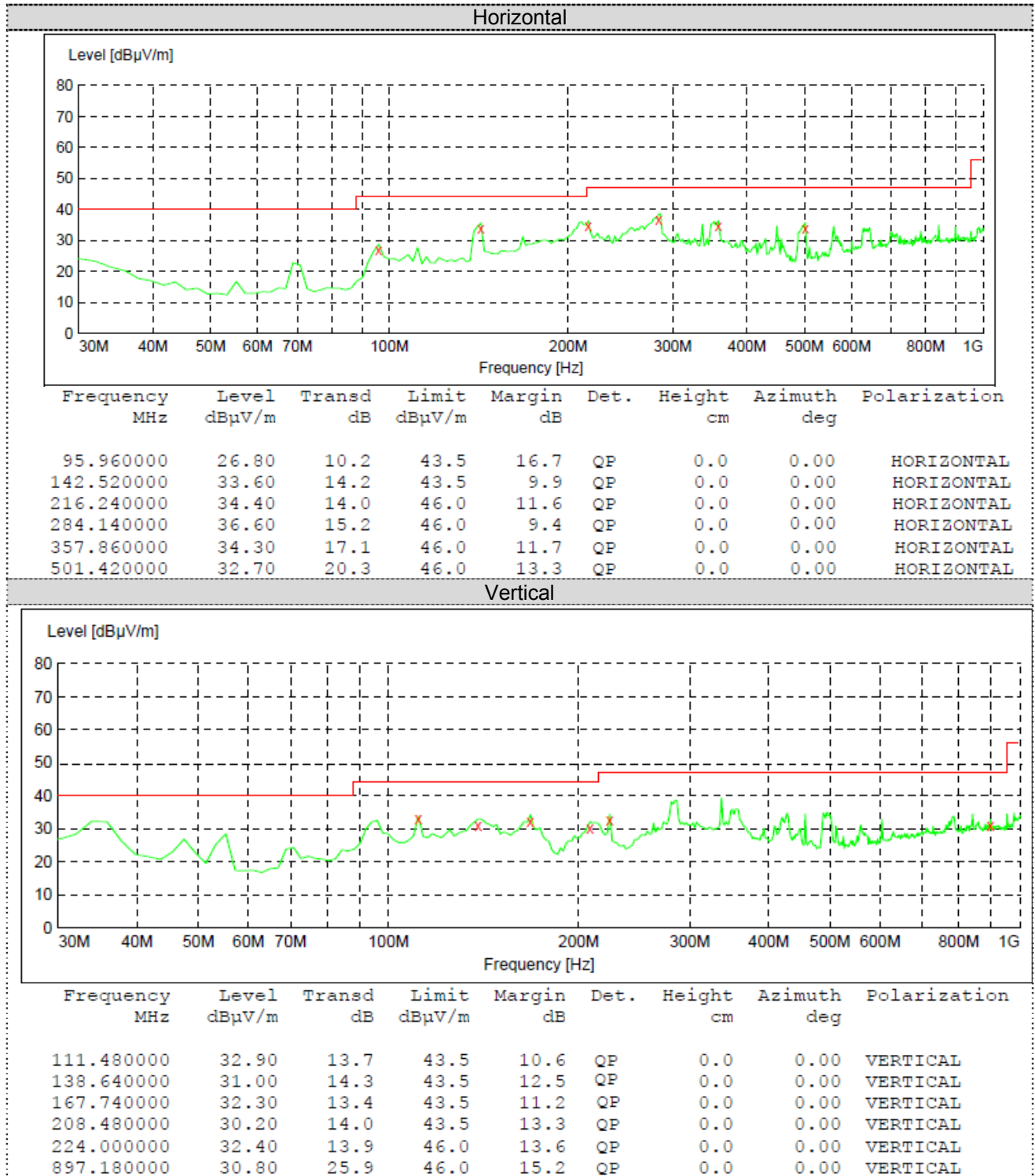
TEST RESULTS

Remark: We tested three positions in AC 120V/60Hz and AC 240V/60Hz, the worst case was recorded.

Test site: Shenzhen CTL Testing Technology Co., Ltd

For 9 KHz-30MHz

Frequency (MHz)	Corrected Reading (dBuV/m)@3m	FCC Limit (dBuV/m) @3m	Margin (dB)	Detector	Result
0.36	54.26	96.48	42.22	QP	PASS
1.65	42.57	63.25	20.68	QP	PASS
20.51	53.34	69.54	16.20	QP	PASS
25.77	50.78	69.54	18.76	QP	PASS

For 30MHz-1GHz

For 1GHz to 25GHz

Frequency(MHz):				2403			Polarity:			HORIZONTAL		
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4806.00	62.47	PK	74	11.53	1.00	86	64.57	31.6	7.00	36.5	2.10
1	4806.00	45.56	AV	54	8.44	1.00	86	47.66	31.6	7.00	36.5	2.10
2	7209.00	58.24	PK	74	15.76	1.00	162	69.17	37.33	8.90	35.3	10.93
2	7209.00	39.56	AV	54	14.44	1.00	162	50.49	37.33	8.90	35.3	10.93

Frequency(MHz):				2403			Polarity:			VERTICAL		
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4806.00	63.52	PK	74	10.48	1.00	116	65.62	31.60	7.00	36.50	2.10
1	4806.00	43.24	AV	54	10.76	1.00	116	45.34	31.60	7.00	36.50	2.10
2	7209.00	55.25	PK	74	18.76	1.00	185	66.18	37.33	8.90	35.30	10.93
2	7209.00	40.53	AV	54	13.47	1.00	185	51.46	37.33	8.90	35.30	10.93

Frequency(MHz):				2447			Polarity:			HORIZONTAL		
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4894.00	62.24	PK	74.00	11.76	1.00	110	64.36	31.02	7.60	36.5	2.12
1	4894.00	43.42	AV	54.00	10.58	1.00	110	45.54	31.02	7.60	36.5	2.12
2	7341.00	58.34	PK	74.00	15.66	1.00	181	69.42	37.28	8.60	34.8	11.08
2	7341.00	40.65	AV	54.00	13.35	1.00	181	51.73	37.28	8.60	34.8	11.08

Frequency(MHz):				2447			Polarity:			VERTICAL		
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4894.00	63.58	PK	74.00	10.42	1.00	105	65.70	31.02	7.60	36.5	2.12
1	4894.00	42.64	AV	54.00	11.36	1.00	105	44.76	31.02	7.60	36.5	2.12
2	7341.00	58.05	PK	74.00	68.95	1.00	75	69.13	37.28	8.60	34.8	11.08
2	7341.00	42.52	AV	54.00	11.48	1.00	75	53.60	37.28	8.60	34.8	11.08

Frequency(MHz):				2479			Polarity:			HORIZONTAL		
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4958.00	57.58	PK	74.00	16.42	1.00	130	60.78	31.58	7.82	36.2	3.20
1	4958.00	43.25	AV	54.00	10.75	1.00	130	46.45	31.58	7.82	36.2	3.20
2	7437.00	56.45	PK	74.00	17.55	1.00	120	68.39	38.51	8.73	35.3	11.94
2	7437.00	42.69	AV	54.00	11.31	1.00	120	54.63	38.51	8.73	35.3	11.94

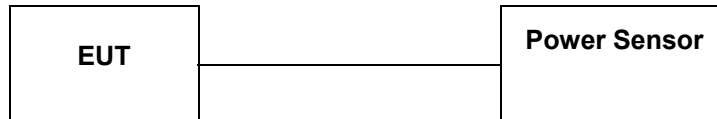
Frequency(MHz):				2479			Polarity:			VERTICAL		
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4958.00	56.84	PK	74.00	17.16	1.00	36	60.04	31.58	7.82	36.2	3.20
1	4958.00	42.71	AV	54.00	12.29	1.00	36	45.91	31.58	7.82	36.2	3.20
2	7437.00	57.02	PK	74.00	16.98	1.00	98	68.96	38.51	8.73	35.3	11.94
2	7437.00	41.65	AV	54.00	12.35	1.00	98	53.59	38.51	8.73	35.3	11.94

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) - Pre-amplifier Factor
3. Margin value = Limit value - Emission level.
4. -- Mean the PK detector measured value is below average limit.
5. The other emission levels were very low against the limit.

4.3. Maximum Peak Output Power

TEST CONFIGURATION



TEST PROCEDURE

According to KDB558074 D01 DTS Measurement Guidance Section 9.1 Maximum peak conducted output power, 9.1.1. The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

LIMIT

The Maximum Peak Output Power Measurement is 30dBm.

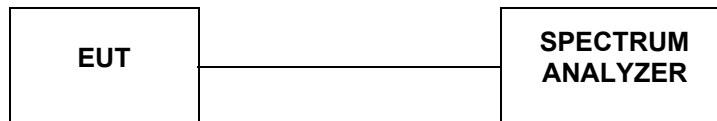
TEST RESULTS

Type	Channel	Output power PK (dBm)	Output power AV (dBm)	Limit (dBm)	Result
GFSK	00	4.152	2.536	30.00	Pass
	15	4.468	2.817		
	29	4.136	2.498		

Note: 1. The test results including the cable loss.

4.4. Power Spectral Density

TEST CONFIGURATION



TEST PROCEDURE

According to KDB 558074 D01 V03 Method PKPSD (peak PSD) This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance, and is optional if the maximum conducted (average) output power was used to demonstrate compliance.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \text{ RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

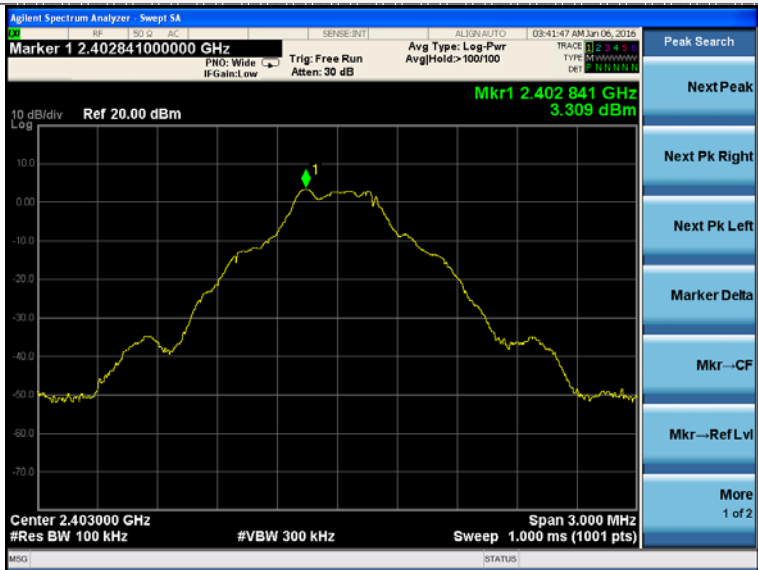
LIMIT

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

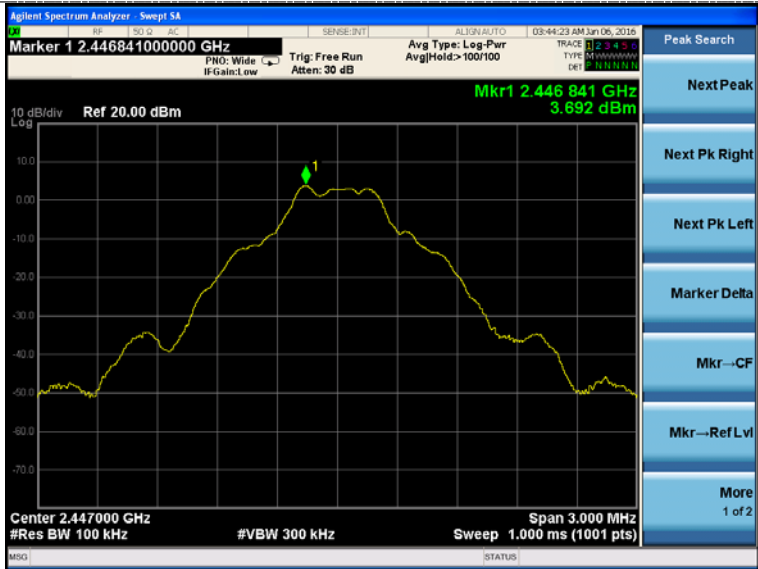
TEST RESULTS

Type	Channel	Power Spectral Density (dBm/100KHz)	Limit (dBm/3KHz)	Result
GFSK	00	3.309	8.00	Pass
	15	3.692		
	29	3.292		

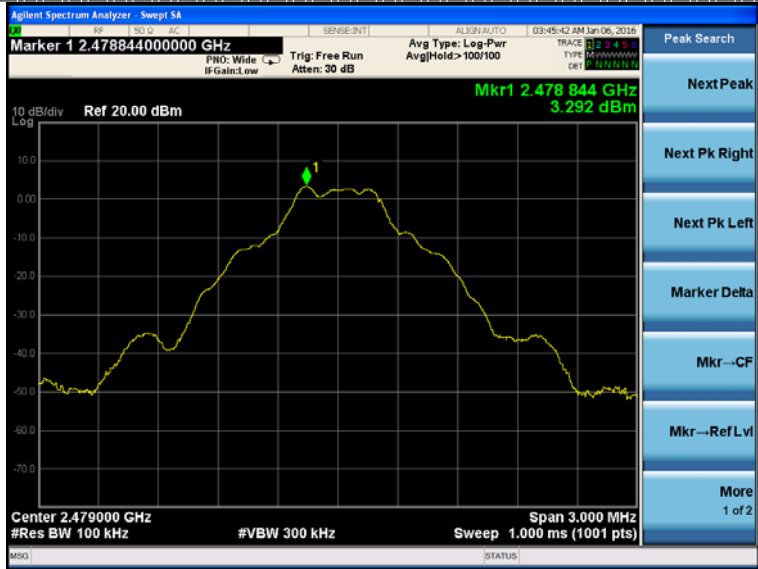
GFSK



CH00



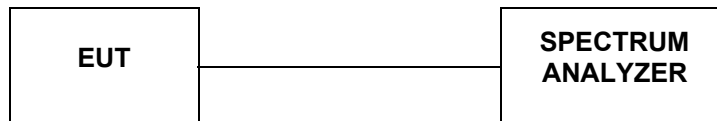
CH15



CH29

4.5. 6dB Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with RBW=100 KHz and VBW=300KHz. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB. According to KDB558074 D01 for one of the following procedures may be used to determine the modulated DTS device signal bandwidth.

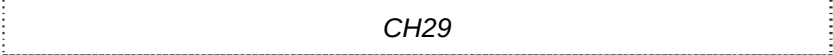
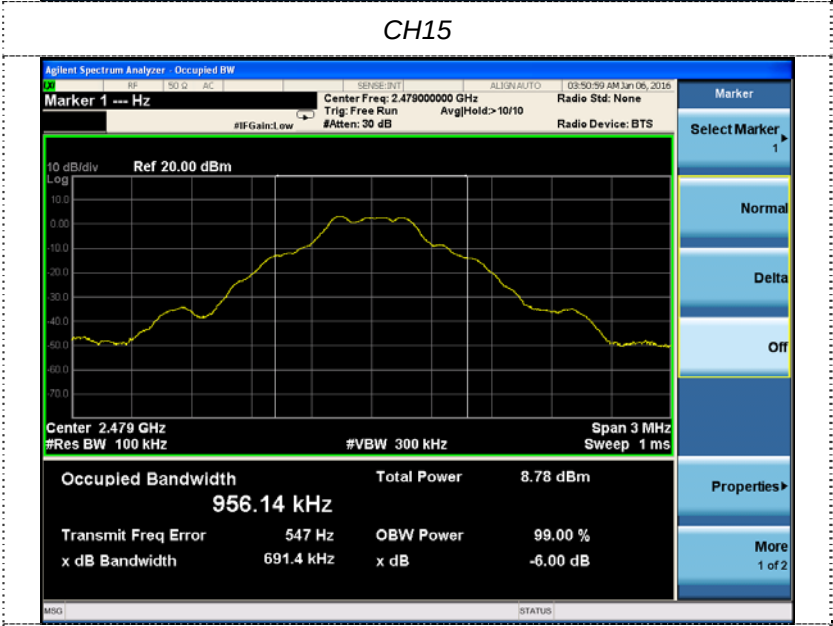
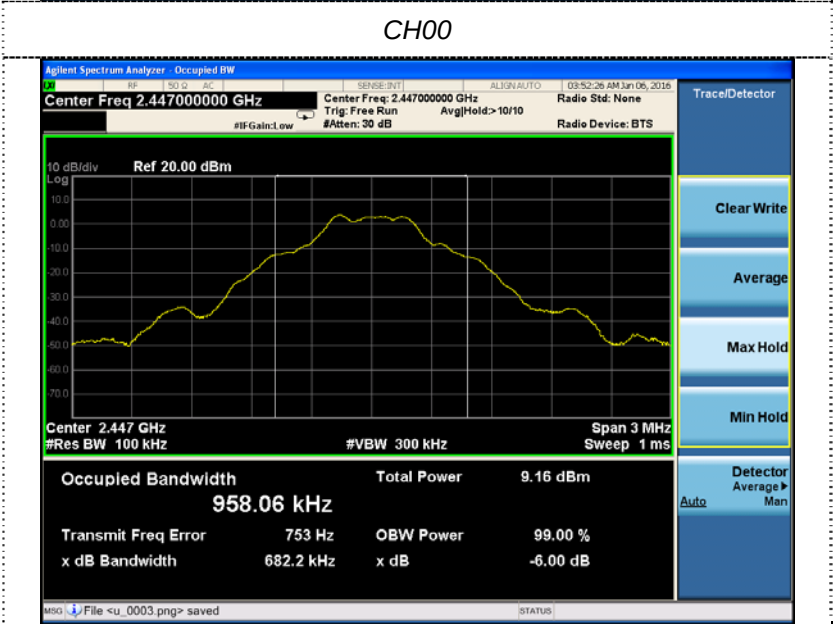
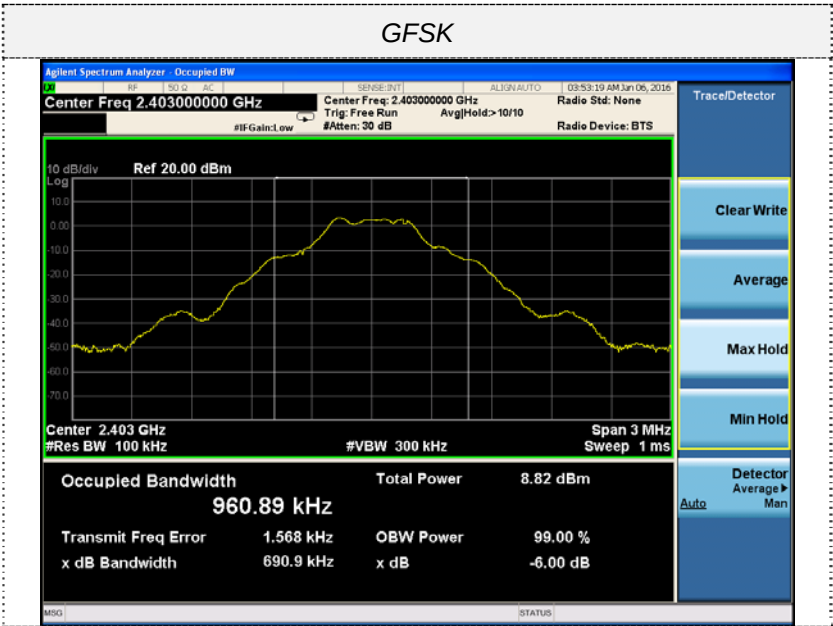
1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

LIMIT

For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz

TEST RESULTS

Type	Channel	6dB Bandwidth (MHz)	Limit (KHz)	Result
GFSK	00	0.6909	≥ 500	Pass
	15	0.6822		
	29	0.6914		



4.6. Band Edge Compliance of RF Emission

TEST REQUIREMENT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

TEST PROCEDURE

According to KDB 558074 D01 for Antenna-port conducted measurement. Antenna-port conducted measurements may also be used as an alternative to radiated measurements for demonstrating compliance in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case spurious emissions is required.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100kHz bandwidth from band edge, for Radiated emissions restricted band RBW=1MHz, VBW=3MHz for peak detector and RBW=1MHz, VBW=10Hz for average detector.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.
6. Measure the conducted output power (in dBm) using the detector specified by the appropriate regulatory agency (see 12.2.2, 12.2.3, and 12.2.4 for guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
7. Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP level (see 12.2.5 for guidance on determining the applicable antenna gain)
8. Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies ≤ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).
9. For devices with multiple antenna-ports, measure the power of each individual chain and sum the EIRP of all chains in linear terms (e.g., Watts, mW).
10. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20\log D + 104.8$$

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

11. Since the out-of-band characteristics of the EUT transmit antenna will often be unknown, the use of a conservative antenna gain value is necessary. Thus, when determining the EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple frequency bands while using the same transmit antenna, the highest gain of the antenna within the operating band nearest in frequency to the restricted band emission being measured may be used in lieu of the overall highest gain when the emission is at a frequency that is within 20 percent of the nearest band edge frequency, but in no case shall a value less than 2 dBi be used.
12. Compare the resultant electric field strength level to the applicable regulatory limit.
13. Perform radiated spurious emission test dures until all measured frequencies were complete.

LIMIT

Below -20dB of the highest emission level in operating band.

Radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)

TEST RESULTS**4.6.1 For Radiated Bandedge Measurement**

Frequency(MHz):			2403			Polarity:			HORIZONTAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
2390.00	60.52	PK	74.00	13.48	1.00	135	55.21	27.49	3.32	36.12	-5.31
2390.00	41.06	AV	54.00	12.94	1.00	135	35.75	27.49	3.32	36.12	-5.31
Frequency(MHz):			2403			Polarity:			VERTICAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
2390.00	62.41	PK	74.00	11.59	1.00	50	57.10	27.49	3.32	36.12	-5.31
2390.00	43.15	AV	54.00	10.85	1.00	50	37.84	27.49	3.32	36.12	-5.31
Frequency(MHz):			2479			Polarity:			HORIZONTAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
2483.50	63.25	PK	74.00	10.75	1.00	175	57.53	27.45	3.38	36.55	-5.72
2483.50	44.08	AV	54.00	9.92	1.00	175	38.36	27.45	3.38	36.55	-5.72
Frequency(MHz):			2479			Polarity:			VERTICAL		
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
2483.50	64.32	PK	74.00	9.68	1.00	138	58.60	27.45	3.38	36.55	-5.72
2483.50	43.27	AV	54.00	10.73	1.00	138	37.55	27.45	3.38	36.55	-5.72

4.6.2 For Conducted Bandedge Measurement

Frequency (MHz)	Delta Peak to Band emission (dBc)	Limit (dBc)	Verdict
2390.00	-59.39	-20	PASS
2400.00	-49.42	-20	PASS
2483.50	-60.74	-20	PASS

Agilent Spectrum Analyzer - Sweep 34

Marker 3 2.400000000000 GHz

Mkr3 2.400 00 GHz -42.196 dBm

Start 2.30000 GHz #Res BW 300 kHz Stop 2.43000 GHz Sweep 12.47 ms (1001 pts)

Marker	Freq (GHz)	Level (dBm)
1	2.409 33 GHz	7.236 dBm
2	2.390 00 GHz	-52.168 dBm
3	2.400 00 GHz	-42.196 dBm

Agilent Spectrum Analyzer - Sweep 34

Marker 2 2.483500000000 GHz

Mkr2 2.483 50 GHz -57.329 dBm

Start 2.45000 GHz #Res BW 300 kHz Stop 2.60000 GHz Sweep 14.40 ms (1001 pts)

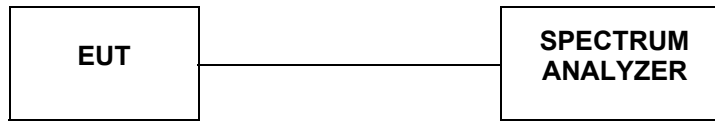
Marker	Freq (GHz)	Level (dBm)
1	2.478 90 GHz	3.406 dBm
2	2.483 50 GHz	-57.329 dBm

2403

2479

4.7. Spurious RF Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBW= 300KHz to measure the peak field strength , and measure frequency range from 9KHz to 25GHz.

LIMIT

1. Below -20dB of the highest emission level in operating band.
2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

TEST RESULTS

Remark: The measurement frequency range is from 9KHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and band edge measurement data.

Test Mode:	GFSK	Test channel :	00
Agilent Spectrum Analyzer - Swept SA Display Line -23.50 dBm Ref 20.00 dBm Mkr1 2.402 844 GHz 3.473 dBm Center 2.403000 GHz #Res BW 100 kHz #VBW 300 kHz Span 3.000 MHz Sweep 1.000 ms (1001 pts) Display Annotation▶ Title▶ Graticule On Off Display Line -23.50 dBm On Off System Display▶ Settings			
Channel 00			
Agilent Spectrum Analyzer - Swept SA Marker 1 368.892000 kHz Ref 20.00 dBm Mkr1 369 kHz -37.190 dBm Start 9 kHz #Res BW 100 kHz #VBW 300 kHz Stop 30.00 MHz Sweep 2.867 ms (1001 pts) Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
9KHz~30MHz			
Agilent Spectrum Analyzer - Swept SA Marker 1 444.190000000 MHz Ref 20.00 dBm Mkr1 444.19 MHz -59.112 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Stop 1.0000 GHz Sweep 92.73 ms (1001 pts) Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
30M Hz~1GHz			

Test Mode:	GFSK	Test channel :	00
Agilent Spectrum Analyzer - Swept SA Marker 1 2.400000000000 GHz RP: 100 dB AC SENSE: INT ALIGN: AUTO 04:07:36 AM Jun 06, 2016 PN0: Fast IF Gain: Low Trig: Free Run Atten: 30 dB Avg Type: Log-Pwr Avg/Hold: 10/100 TRACE 1 TYPE: MWWWWWW DET: 1.1.1.1.1.1 Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2 10 dB/div Ref 20.00 dBm Log Mkr1 2.400 GHz 1.494 dBm Start 1.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 669.0 ms (1001 pts) MSG STATUS			
1GHz~8GHz			
Agilent Spectrum Analyzer - Swept SA Marker 1 15.736000000000 GHz RP: 100 dB AC SENSE: INT ALIGN: AUTO 04:07:50 AM Jun 06, 2016 PN0: Fast IF Gain: Low Trig: Free Run Atten: 30 dB Avg Type: Log-Pwr Avg/Hold: 6/100 TRACE 1 TYPE: MWWWWWW DET: 1.1.1.1.1.1 Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2 10 dB/div Ref 20.00 dBm Log Mkr1 15.736 GHz -54.578 dBm Start 8.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 764.6 ms (1001 pts) MSG STATUS			
8GHz~16GHz			
Agilent Spectrum Analyzer - Swept SA Marker 1 24.496000000000 GHz RP: 100 dB AC SENSE: INT ALIGN: AUTO 04:08:08 AM Jun 06, 2016 PN0: Fast IF Gain: Low Trig: Free Run Atten: 30 dB Avg Type: Log-Pwr Avg/Hold: 10/100 TRACE 1 TYPE: MWWWWWW DET: 1.1.1.1.1.1 Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2 10 dB/div Ref 20.00 dBm Log Mkr1 24.496 GHz -47.104 dBm Start 16.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 880.1 ms (1001 pts) MSG STATUS			
16GHz~25GHz			

Test Mode:	GFSK	Test channel :	15
Agilent Spectrum Analyzer - Swept SA Display Line -23.70 dBm 10 dB/div Log Ref 20.00 dBm Mkr1 2.446 841 GHz 3.679 dBm Center 2.447000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) Display Annotation▶ Title▶ Graticule On Off Display Line -23.70 dBm On Off System Display▶ Settings			
Channel 15			
Agilent Spectrum Analyzer - Swept SA Marker 1 368.892000 kHz 10 dB/div Log Ref 20.00 dBm Mkr1 369 kHz -35.988 dBm Start 9 kHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.867 ms (1001 pts) Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
9KHz~30MHz			
Agilent Spectrum Analyzer - Swept SA Marker 1 211.390000000 MHz 10 dB/div Log Ref 20.00 dBm Mkr1 211.39 MHz -60.172 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
30M Hz~1GHz			

Test Mode:	GFSK	Test channel :	15
Agilent Spectrum Analyzer - Swept SA Marker 1 2.449000000000 GHz Ref 20.00 dBm 10 dB/div Log Mkr1 2.449 GHz 1.240 dBm Start 1.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 669.0 ms (1001 pts) Marker 1 2.449000000000 GHz PNO: Fast IF Gain: Low Trig: Free Run Atten: 30 dB Avg Type: Log-Pwr Avg/Hold: 5/100 TRAC 2 3 4 5 6 TYPE M W W W W W W W DET 1 1 1 1 1 1 1 Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
1GHz~8GHz			
Agilent Spectrum Analyzer - Swept SA Marker 1 15.584000000000 GHz Ref 20.00 dBm 10 dB/div Log Mkr1 15.584 GHz -54.132 dBm Start 8.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 764.6 ms (1001 pts) Marker 1 15.584000000000 GHz PNO: Fast IF Gain: Low Trig: Free Run Atten: 30 dB Avg Type: Log-Pwr Avg/Hold: 5/100 TRAC 2 3 4 5 6 TYPE M W W W W W W W DET 1 1 1 1 1 1 1 Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
8GHz~16GHz			
Agilent Spectrum Analyzer - Swept SA Marker 1 24.496000000000 GHz Ref 20.00 dBm 10 dB/div Log Mkr1 24.496 GHz -48.296 dBm Start 16.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 860.1 ms (1001 pts) Marker 1 24.496000000000 GHz PNO: Fast IF Gain: Low Trig: Free Run Atten: 30 dB Avg Type: Log-Pwr Avg/Hold: 3/100 TRAC 2 3 4 5 6 TYPE M W W W W W W W DET 1 1 1 1 1 1 1 Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
16GHz~25GHz			

Test Mode:	GFSK	Test channel :	29
Agilent Spectrum Analyzer - Swept SA Display Line -23.40 dBm 10 dB/div Log Ref 20.00 dBm Mkr1 2.478 841 GHz 3.325 dBm Center 2.479000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) Display Annotation▶ Title▶ Graticule On Off Display Line -23.40 dBm On Off System Display▶ Settings			
Channel 29			
Agilent Spectrum Analyzer - Swept SA Marker 1 368.892000 kHz 10 dB/div Log Ref 20.00 dBm Mkr1 369 kHz -35.697 dBm Start 9 kHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.867 ms (1001 pts) Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
9KHz~30MHz			
Agilent Spectrum Analyzer - Swept SA Marker 1 892.330000000 MHz 10 dB/div Log Ref 20.00 dBm Mkr1 892.33 MHz -58.828 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
30M Hz~1GHz			

Test Mode:	GFSK	Test channel :	29
Agilent Spectrum Analyzer - Swept SA Marker 1 2.477000000000 GHz Ref 20.00 dBm 10 dB/div Log Start 1.000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 8.000 GHz Sweep 669.0 ms (1001 pts) Trig: Free Run Atten: 30 dB Avg Type: Log-Pwr Avg/Hold: 4/100 Mkr1 2.477 GHz 0.951 dBm Trace/Detector Select Trace Clear Write Trace Average Max Hold Min Hold View Blank Trace On More 1 of 3			
1GHz~8GHz			
Agilent Spectrum Analyzer - Swept SA Marker 1 15.496000000000 GHz Ref 20.00 dBm 10 dB/div Log Start 8.000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 16.000 GHz Sweep 764.6 ms (1001 pts) Trig: Free Run Atten: 30 dB Avg Type: Log-Pwr Avg/Hold: 6/100 Mkr1 15.496 GHz -54.015 dBm Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
8GHz~16GHz			
Agilent Spectrum Analyzer - Swept SA Marker 1 24.550000000000 GHz Ref 20.00 dBm 10 dB/div Log Start 16.000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 25.000 GHz Sweep 860.1 ms (1001 pts) Trig: Free Run Atten: 30 dB Avg Type: Log-Pwr Avg/Hold: 6/100 Mkr1 24.550 GHz -47.538 dBm Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr--CF Mkr--Ref Lvl More 1 of 2			
16GHz~25GHz			

4.8. Antenna Requirement

Standard Applicable

For intentional device, according to FCC 47 CFR 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.

And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Refer to statement below for compliance.

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Measurement

The antenna gain of the complete system is calculated by the difference of radiated power in EIRP and the conducted power of the module. For normal WLAN devices, the DSSS mode is used.

Measurement parameters

Measurement parameter	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	1MHz
Video bandwidth:	3MHz
Trace-Mode:	Max hold

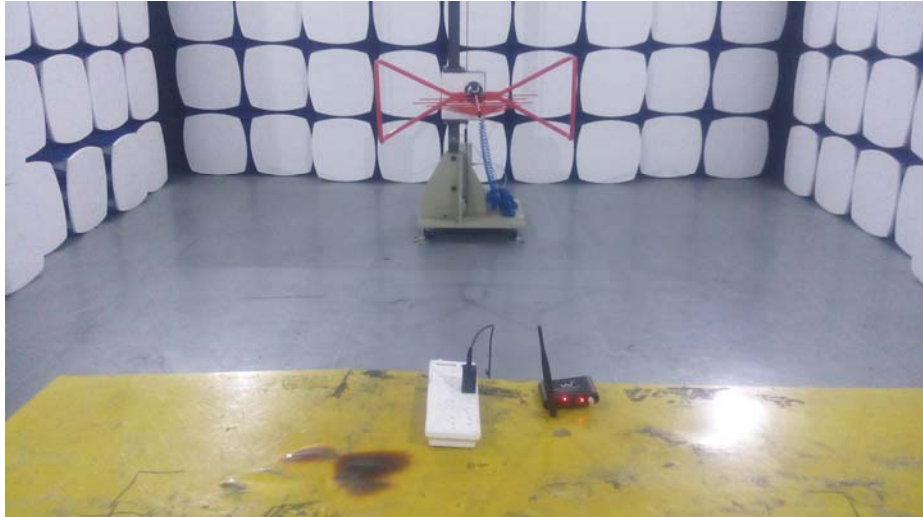
Limits

Antenna Gain	6 dBi
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Results

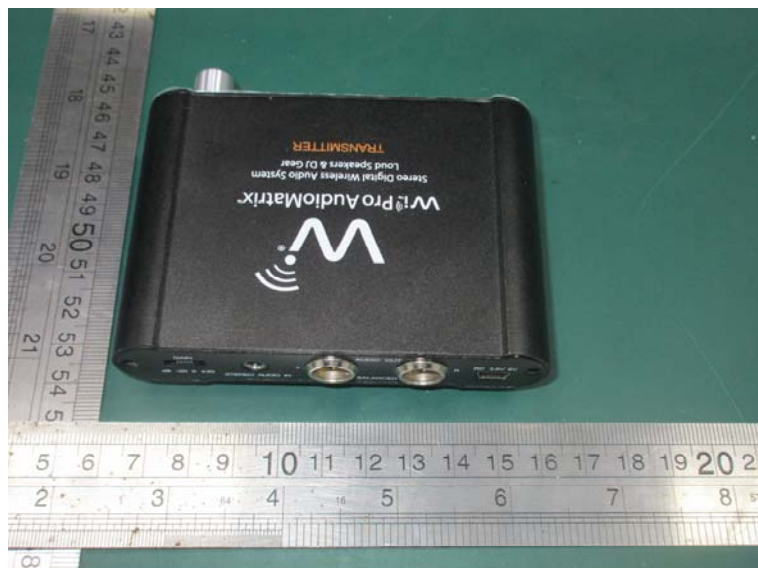
T _{nom}	V _{nom}	Lowest Channel 2403 MHz	Middle Channel 2447 MHz	Highest Channel 2479 MHz
Conducted power [dBm] Measured with DSSS modulation		4.15	4.47	4.14
Radiated power [dBm] Measured with DSSS modulation		6.91	7.39	7.01
Gain [dBi] Calculated		2.76	2.92	2.87
Measurement uncertainty		± 0.6 dB (cond.) / ± 4.32 dB (rad.)		

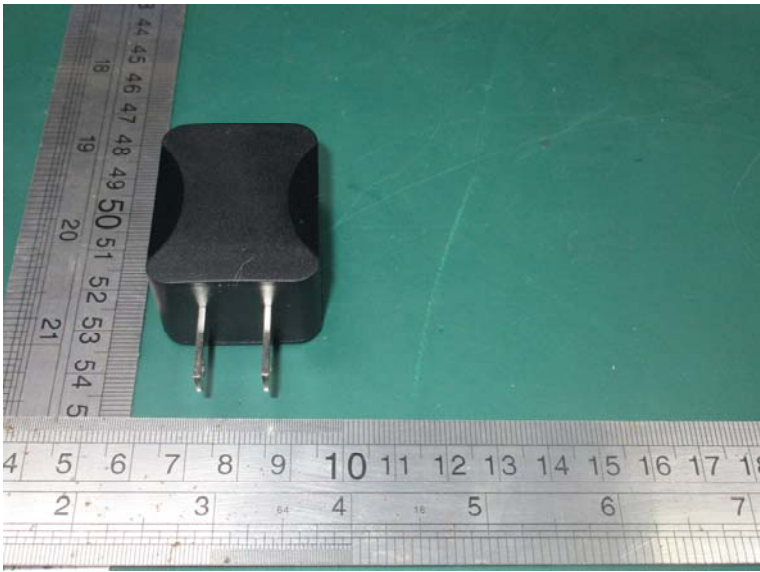
5. Test Setup Photos of the EUT



6. External and Internal Photos of the EUT

External Photos

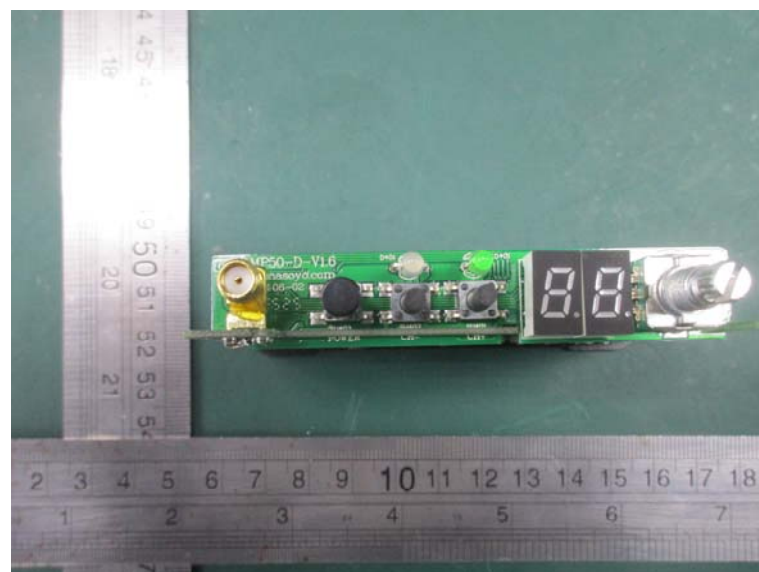
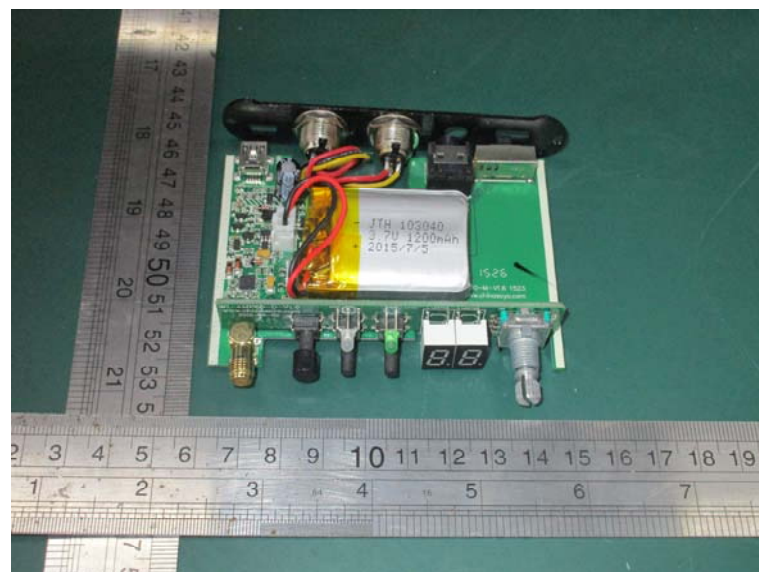




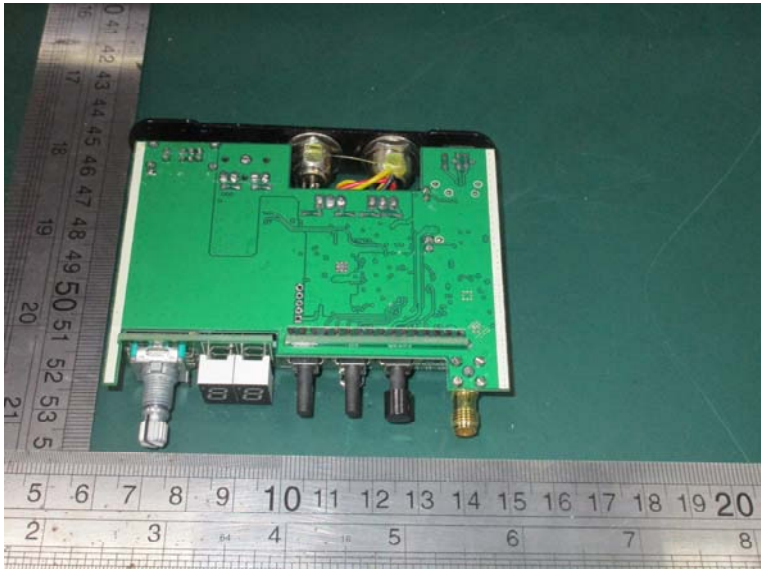
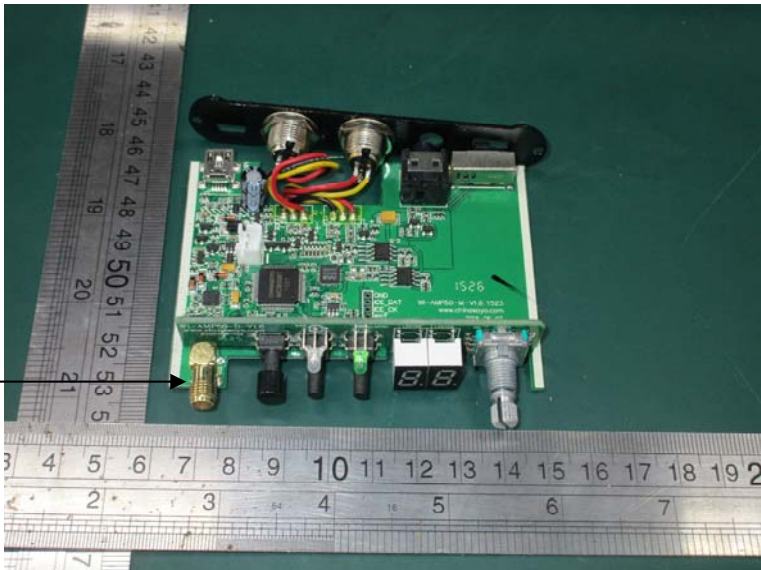
ADAPTER

Model:K05S050050U

INPUT:AC100-240V,50/60Hz,0.2A

OUTPUT: 5.0V $\overline{\text{---}}$ 0.5A**Internal Photos**

Antenna



.....End of Report.....