

FCC Radio TEST Report FCC ID: RFAARW51

This report concerns (check one): Original Grant Class II Change

Issued Date: Nov. 19, 2008 Report No.: 0807C103

Equipment : Digital Wireless Audio Transceiver module

Model Name: DWAM80

Applicant : Eastech Electronics (Taiwan) Inc

Address: 13F,NO.99,Sec.1,Nankan Rd,Luchu

Shiang, Taoyuan Hsien 338, Taiwan, R.O.C

Tested by:

Neutron Engineering Inc. EMC Laboratory

Date of Test:

Jul. 18, 2008 ~ Nov. 18, 2008

Testing Engineer

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Technical Manager

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Authorized Signatory

(Steven Lu)

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Declaration

Neutron represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C.**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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1. CERTIFICATION

Equipment: Digital Wireless Audio Transceiver module

Trade Name: N/A Model Name: DWAM80

Applicant: Eastech Electronics (Taiwan) Inc Date of Test: Jul. 18, 2008 ~ Nov. 18, 2008 Test Item: ENGINEERING SAMPLE

Standards: FCC Part15, Subpart C(15.247)/ ANSI C63.4: 2003

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-0807C103) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and TAF according to the ISO-17025 quality assessment standard and technical standard(s).

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2. SUMMARY OF TEST RESULTS

<u>Test procedures according to the technical standards:</u>

FCC Part15, Subpart C						
Standard Section	Test Item	Judgment	Remark			
15.207	Conducted Emission	PASS				
15.247 (c)	Antenna conducted Spurious Emission	PASS				
15.247 (a)(2)	6dB Bandwidth	PASS				
15.247 (b)	Peak Output Power	PASS				
15.247 (c)	Radiated Spurious Emission	PASS				
15.247 (d)	Power Spectral Density	PASS				
15.203	Antenna Requirement	PASS				
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	PASS				

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

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2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **C01/OS02** at the location of No.132-1, Lane 329, Sec. 2, Palain Road, Shijr City, Taipei, Taiwan.

Neurtron's test firm number is: 95335.

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expended uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k=2}$, providing a level of confidence of approximately 95 % $^{\circ}$

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
C01	ANSI	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement:

Test Site Method		Measurement Frequency Range	Ant. H / V	U , (dB)	NOTE
OS-01	ANSI	30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	Η	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	Н	3.94	
OS-02	ANSI	30MHz ~ 200MHz	V	2.48	
		30MHz ~ 200MHz	Η	2.16	
		200MHz ~ 1,000MHz	V	2.50	
		200MHz ~ 1,000MHz	Н	2.66	

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3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Digital Wireless Audio Transceiver module			
Trade Name	N/A			
Model Name	DWAM80			
OEM Brand/Model No.	N/A			
Model Difference	N/A			
	The EUT is a Digital Wir	reless Audio Transceiver module.		
	Operation Frequency:	2412~2464 MHz		
	Modulation Type:	QPSK		
	Bit Rate of Transmitter	22Mbps		
	Number Of Channel	3CH, Please see Note 2.		
Product Description	Antenna Designation:	Please see Note 3.		
1 Toddet Description	Antenna Gain(Peak)	Tiease see Note 5.		
	Output Power:	16.90 dBm		
	Based on the application, features, or specification exhibited			
	in User's Manual, the EUT is considered as an			
	ITE/Computing Device. More details of EUT technical			
	specification, please refe	er to the User's Manual.		
Channel List	Please refer to the Note 2.			
Power Source	DC Voltage supplied from AC/DC adapter			
Power Rating	I/P 100-240VAC~ 50/60	Hz, 0.4A O/P 12V 1.2A		

Note:

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

2.

	Channel List							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	
01	2412							
02	2438							
03	2464							

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PIFA Antenna	N/A	0.0

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3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	TX CH01
Mode 2	TX CH02
Mode 3	TX CH03

For Conducted Test		
Final Test Mode	Description	
Mode 4	Operating mode	

For Radiated Test				
Final Test Mode	Description			
Mode 1	TX CH01			
Mode 2	TX CH02			
Mode 3	TX CH03			

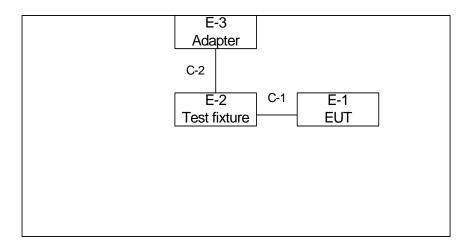
Note:

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

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3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



C-1 Control line C-2 DC power line

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3.4 DESCRIPTION OF SUPPORT UNITS

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

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	Digital Wireless Audio Transceiver module	N/A	DWAM80	RFAARW51	N/A	EUT
E-2	Test fixture	N/A	N/A	N/A	N/A	
E-3	AC/DC Adapter	Ktec	KSAD1200120W1US	DOC	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	ОИ	0.1M	
C-2	NO	NO	1.5M	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in <code>"Length_"</code> column.

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4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION LIMITS (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A	Class A (dBuV)		Class B (dBuV)	
PREQUENCT (MITZ)	Quasi-peak	Average	Quasi-peak	Average	Standard
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

4.1.2 MEASUREMENT INSTRUMENTS LIST

I	tem	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
	1	Test Cable	N/A	C01	N/A	Oct. 10, 2008
	2	LISN (SR03)	EMCO	3816/2	00042991	Jan. 29, 2009
	3	50Ω Terminator	N/A	N/A	N/A	May.13, 2009
	4	EMI Test Receiver	R&S	ESCI	100080	Mar. 08, 2009

Remark: "N/A" denotes No Model No., Serial No. or No Calibration specified.

The following table is the setting of the receiver

Receiver Parameters	Setting	
Attenuation	10 dB	
Start Frequency	0.15 MHz	
Stop Frequency	30 MHz	
IF Bandwidth	9 kHz	

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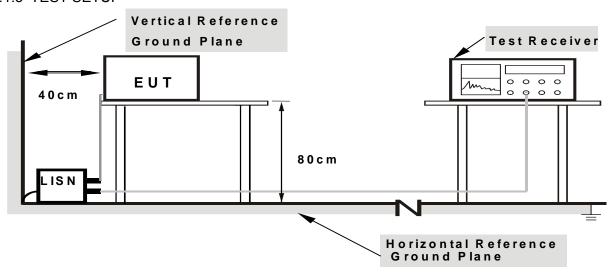
4.1.3 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80

from other units and other metal planes

4.1.6 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

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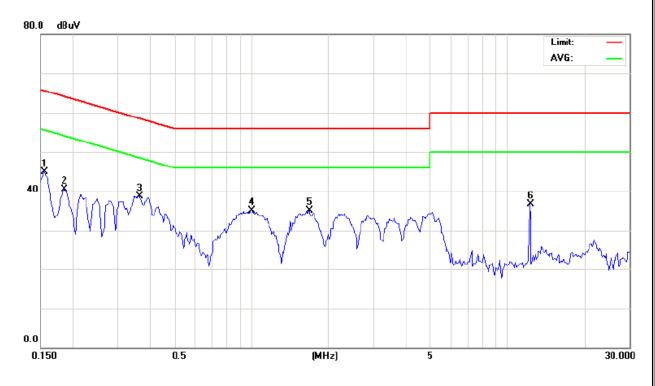
4.1.7 TEST RESULTS

EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature:	25 ℃	Relative Humidity:	60%
Pressure:	1008hPa	Test Voltage :	AC 120V/60Hz
Test Mode:	Mode 4		

Freq.	Terminal	Measure	d(dBuV)	Limits((dBuV)	Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	NOLE
0.16	Line	44.92	*	65.73	55.73	-20.81	(QP)
0.19	Line	40.45	*	64.26	54.26	-23.81	(QP)
0.37	Line	38.79	*	58.61	48.61	-19.82	(QP)
1.00	Line	35.20	*	56.00	46.00	-20.80	(QP)
1.68	Line	35.19	*	56.00	46.00	-20.81	(QP)
12.29	Line	36.66	*	60.00	50.00	-23.34	(QP)

Remark

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note ... If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform In this case, a " * " marked in AVG Mode column of Interference Voltage Measured In the Note of Interference Voltage Measured Interference Voltage Measu
- (2) Measuring frequency range from 150KHz to 30MHz ${\scriptstyle \circ}$



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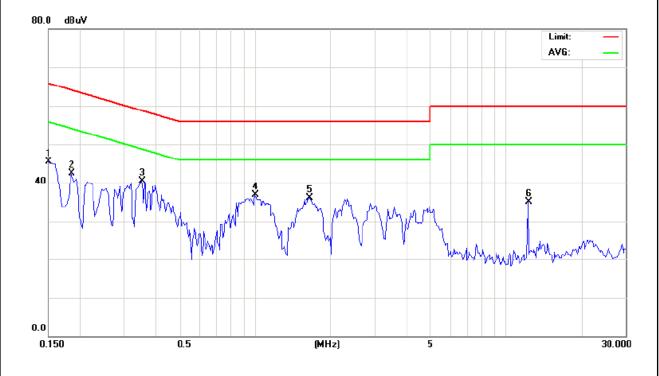


EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature :	25 ℃	Relative Humidity:	60%
Pressure:	1008hPa	Test Voltage :	AC 120V/60Hz
Test Mode:	Mode 4		

Freq.	Terminal	Measure	d(dBuV)	Limits((dBuV)	Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	NOLE
0.15	Neutral	45.50	*	66.00	56.00	-20.50	(QP)
0.19	Neutral	42.41	*	64.26	54.26	-21.85	(QP)
0.36	Neutral	40.57	*	58.85	48.85	-18.28	(QP)
1.00	Neutral	36.81	*	56.00	46.00	-19.19	(QP)
1.65	Neutral	36.20	*	56.00	46.00	-19.80	(QP)
12.29	Neutral	35.05	*	60.00	50.00	-24.95	(QP)

Remark

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note I. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform In this case, a " * " marked in AVG Mode column of Interference Voltage Measured In the North AVG Mode column of Interference Voltage Measured In the North AVG Mode column of Interference Voltage Measured In the North AVG Mode column of Interference Voltage Measured In the North AVG Mode column of Interference Voltage Measured In the North AVG Mode column of Interference Voltage Measured In the North AVG Mode column of Interference Voltage Measured In the North AVG Mode column of Interference Voltage Measured In the North AVG Mode column of Interference Voltage Measured In the North AVG Mode column of Interference Voltage Measured In the North AVG Mode Column of Interference Voltage Measured In the North AVG Mode Column of Interference Voltage Measured In the North AVG Mode Column of Interference Voltage Measured In the North AVG Mode Column of Interference Voltage Measured I
- (2) Measuring frequency range from 150KHz to 30MHz ${\scriptstyle \circ}$



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4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/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
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBu	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
PREQUENCT (WITZ)	PEAK	AVERAGE	PEAK	AVERAGE	
Above 1000	80	60	74	54	

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

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4.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Log-Bicon Antenna	Schwarzbeck	VULB 9160	3058	Nov. 27, 2008	
2	Test Cable	N/A	10M_OS02	N/A	Nov. 27, 2008	
3	Test Cable	N/A	OS02-1/-2/-3	N/A	Nov. 27, 2008	
4	Pre-Amplifier	Anritsu	MH648A	M09961	Nov. 27, 2008	
5	EMI Test Receiver	R&S	ESCI	100082	Jan. 30, 2009	
6	Antenna Mast	Chance Most	CMTB-1.5	N/A	N/A	
7	Turn Table	Chance Most	CMTB-1.5	N/A	N/A	
8	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 07, 2009	
9	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-325	Oct. 23, 2009	
10	Horn Antenna	Schwarzbeck	BBHA9170	9170187	Oct. 23, 2009	
11	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Mar. 09, 2009	
12	Microflex Cable	United Microwave	57793	1m	Mar. 09, 2009	
13	Microflex Cable	United Microwave	A30A30-500 6	10M	Jul. 06, 2009	

Remark: "N/A" denotes No Model Name / Serial No. and No Calibration specified.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 3MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

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4.2.3 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

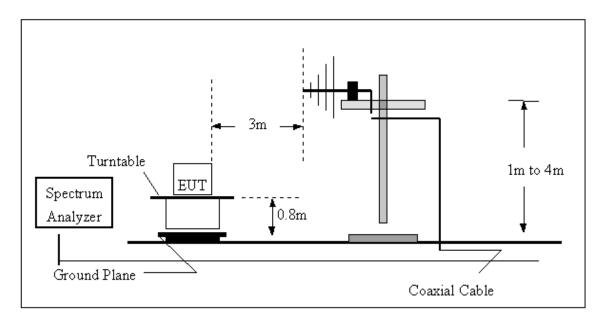
4.2.4	DEVIATION FROM TEST STANDARD
No de	viation

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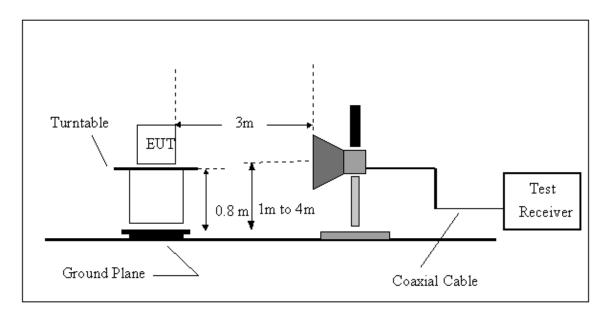


4.2.5 TEST SETUP

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



4.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **4.1.6** Unless otherwise a special operating condition is specified in the follows during the testing.

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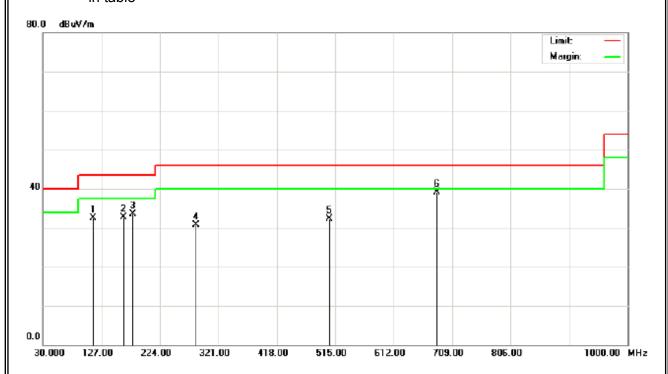
4.2.7 TEST RESULTS (Between 30 – 1000 MHz)

EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature :	26 ℃	Relative Humidity:	60%
Pressure:	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH02-2438MHz		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
113.40	V	53.50	-21.05	32.45	43.50	-11.05	(QP)
162.34	V	52.48	-19.71	32.77	43.50	-10.73	(QP)
179.23	V	52.98	-19.40	33.58	43.50	-9.92	(QP)
283.64	V	46.33	-15.72	30.61	46.00	-15.39	(QP)
505.25	V	42.87	-10.55	32.32	46.00	-13.68	(QP)
683.78	V	45.56	-6.46	39.10	46.00	-6.90	(QP)

Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (3) Measuring frequency range from 30MHz to 1000MHz •
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table \circ



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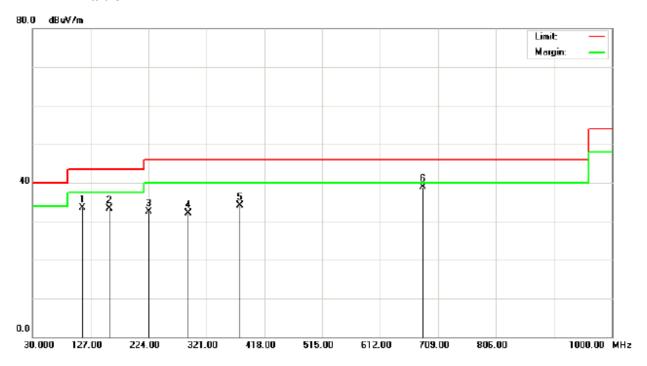


EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature :	26 ℃	Relative Humidity:	60%
Pressure :	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH02-2438MHz		

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Noto
(MHz)	H/V	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Note
113.40	Н	54.50	-21.05	33.45	43.50	- 10.05	QP
157.24	Н	53.21	-19.83	33.38	43.50	- 10.12	QP
223.56	Н	50.30	-17.72	32.58	46.00	- 13.42	QP
288.83	Н	47.57	-15.46	32.11	46.00	- 13.89	QP
376.37	Н	46.76	-12.68	34.08	46.00	- 11.92	QP
683.78	Н	45.38	-6.46	38.92	46.00	- 7.08	QP

Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (3) Measuring frequency range from 30MHz to 1000MHz •
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table $^{\circ}$



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4.2.8 TEST RESULTS (Above 1000 MHz)

EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature:	26℃	Relative Humidity:	60%
Pressure:	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH01-2412MHz		

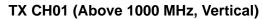
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	26.58	13.25	32.05	58.63	45.30	74.00	54.00	X/E
2411.07	V	69.98	61.80	32.12	102.10	93.93			X/F
1066.00	V	48.33	33.84	-9.18	39.15	24.66	74.00	54.00	X/H
4824.00	V	40.91	29.16	3.57	44.48	32.73	74.00	54.00	X/H

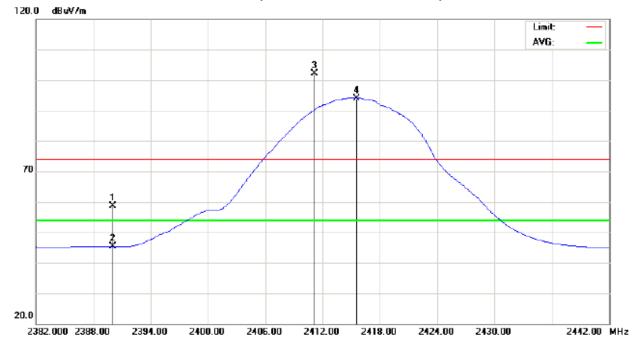
Remark:

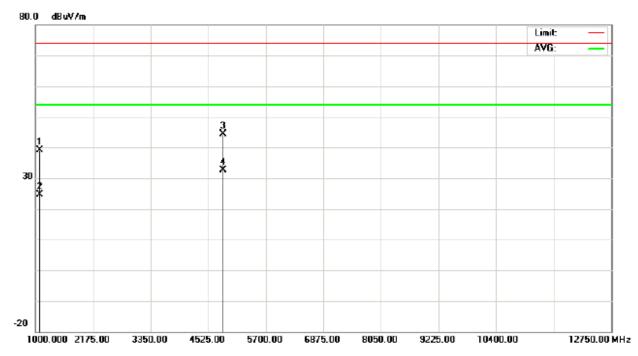
- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature :	26℃	Relative Humidity:	60%
Pressure :	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH01-2412MHz		

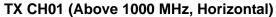
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2412.98	Н	67.03	61.04	32.12	99.15	93.17			X/F
2390.00	Н	25.69	12.97	32.05	57.74	45.02	74.00	54.00	X/E
1046.00	Н	46.60	32.20	-9.28	37.32	22.92	74.00	54.00	X/H
4824.00	Н	41.52	29.23	3.57	45.09	32.80	74.00	54.00	X/H

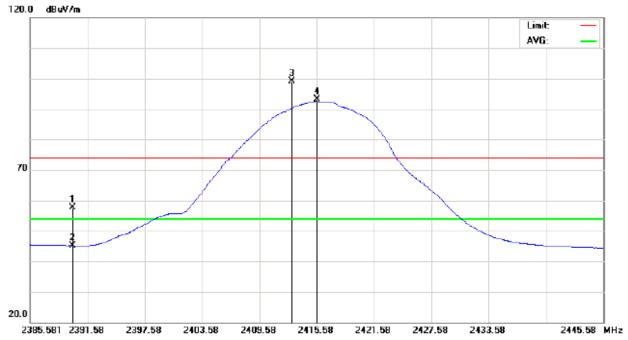
Remark

- (1) All readings are Peak unless otherwise stated QP in column of $^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission •
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature :	26 ℃	Relative Humidity:	60%
Pressure :	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH02-2438MHz		

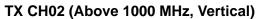
Freq.	Ant.Pol.	Rea	ding	Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2439.07	V	68.64	62.53	32.20	100.84	94.74			X/F
1808.89	V	52.00	31.50	-5.31	46.69	26.19	74.00	54.00	X/H
4876.00	V	44.18	28.92	3.73	47.91	32.65	74.00	54.00	X/H

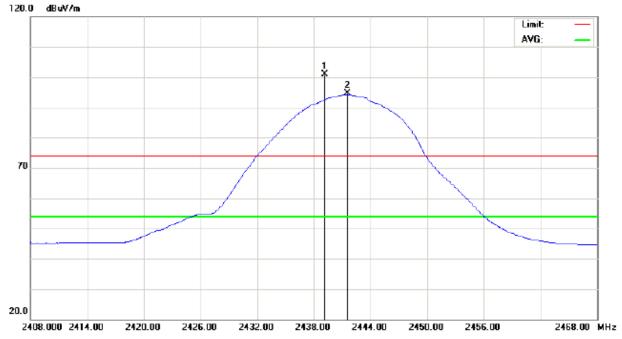
Remark:

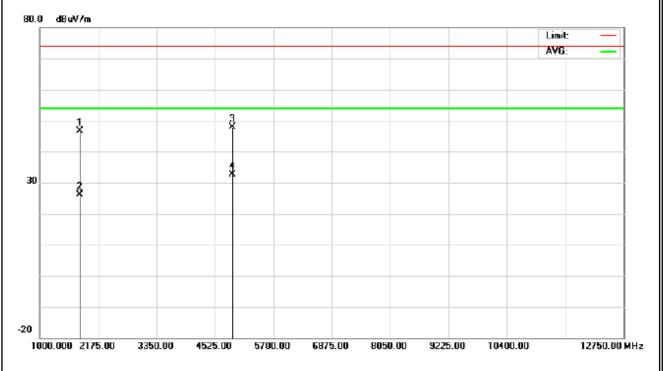
- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency. "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission •
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature :	26℃	Relative Humidity:	60%
Pressure :	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH02-2438MHz		

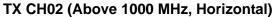
Freq.	Ant.Pol.	Rea	Reading		g Ant./CF Act.		Lir	Limit		
		Peak	AV		Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)		
2439.07	Н	68.94	62.13	32.20	101.14	94.34			X/F	
1808.89	Н	47.63	31.43	-5.31	42.32	26.12	74.00	54.00	X/H	
4877.11	Н	42.72	31.79	3.73	46.45	35.52	74.00	54.00	X/H	

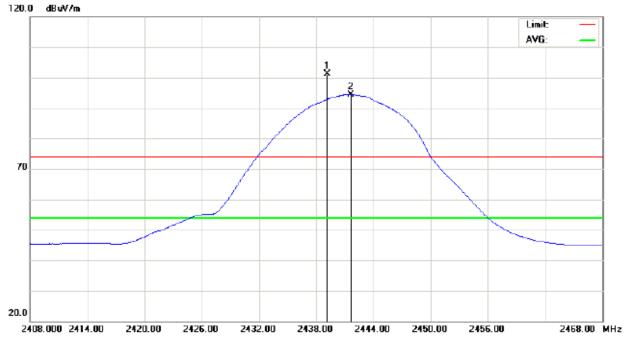
Remark:

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature :	26 ℃	Relative Humidity:	60%
Pressure :	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH03-2464MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2463.07	V	64.84	56.34	32.28	97.12	88.64			X/F
2483.50	V	27.09	16.20	32.35	59.44	48.55	74.00	54.00	X/E
1070.00	V	48.23	33.45	-9.16	39.07	24.29	74.00	54.00	X/H
4924.33	V	42.18	28.90	3.87	46.05	32.77	74.00	54.00	X/H

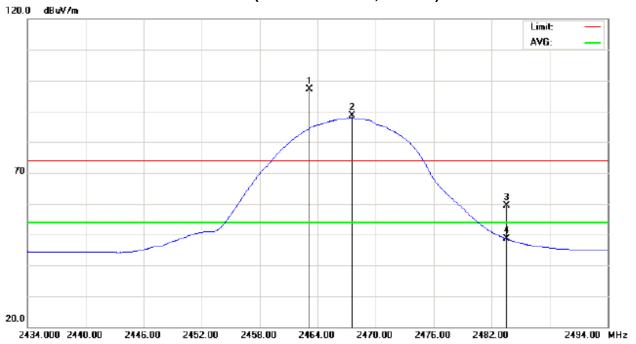
Remark

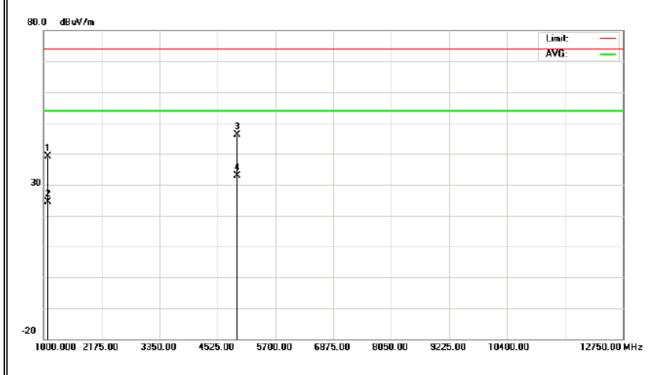
- (1) All readings are Peak unless otherwise stated QP in column of $^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature:	26℃	Relative Humidity:	60%
Pressure:	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH03-2464MHz		

Freq.	Ant.Pol.	Rea	Reading		Act.		Lir	mit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2463.07	Н	67.26	59.56	32.28	99.54	91.86			X/F
2483.47	Н	27.21	17.45	32.35	59.56	49.80	74.00	54.00	X/E
1021.11	Н	47.49	33.77	-9.40	38.11	24.37	74.00	54.00	X/H
4928.00	Н	42.33	29.05	3.88	46.21	32.93	74.00	54.00	X/H

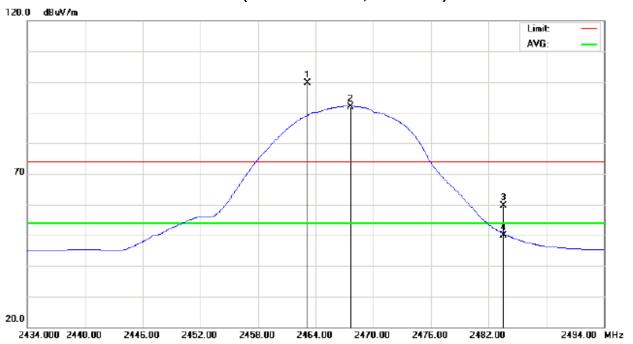
Remark

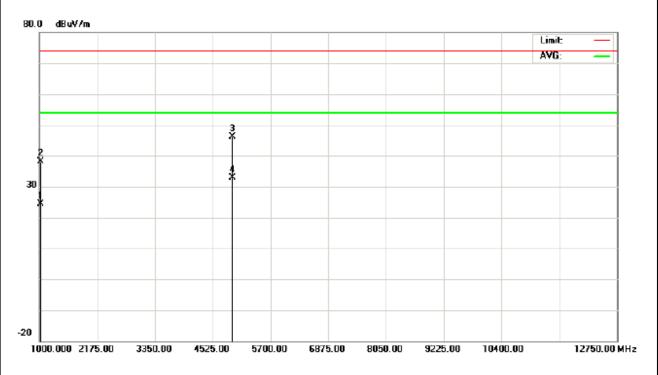
- (1) All readings are Peak unless otherwise stated QP in column of $^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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TX CH03 (Above 1000 MHz, Horizontal)





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4.2.9 TEST RESULTS (Restricted Bands Requirements)

EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80				
Temperature:	26 ℃	Relative Humidity:	60%				
Pressure:	1009 hPa	Test Voltage :	AC 120V/60HZ				
Test Mode :	TX CH01/CH03 (Vertical)						
Note:	The emission of the carrier radi (Peak and AV) as following: 1. The transmitter was then cor to transmit at the lowest char measured at 2310-2390 MH; 2. The transmitter was configur transmit at the highest chanr measured at 2483.5-2500 M	nfigured with the wor nnel (CH01). Then th z. red with the worst can nel (CH03). Then the	st case antenna and setup ne field strength was se antenna and setup to				

Freq.	Ant.Pol.	Rea	Reading		Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	26.58	13.25	32.05	58.63	45.30	74.00	54.00	CH01
2483.50	V	27.09	16.20	32.35	59.44	48.55	74.00	54.00	CH03

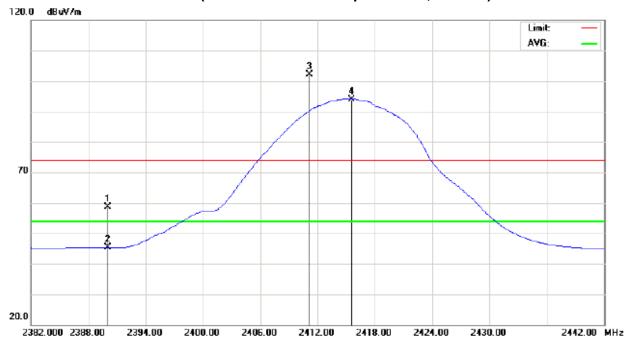
Remark:

- (1) Spectrum Setting: 30MHz 1000MHz, RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = 200 ms
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission
- (3) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (4) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

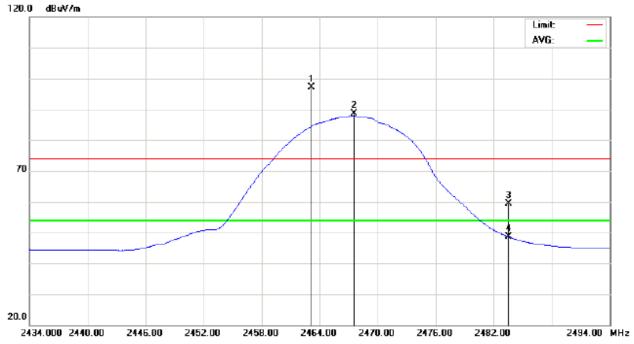
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TX CH03 (Restricted Bands Requirements, Vertical)



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EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80			
Temperature :	26℃	Relative Humidity:	60%			
Pressure :	1009 hPa	Test Voltage :	AC 120V/60HZ			
Test Mode :	TX CH01/CH03 (Horizontal)					
Note:	The emission of the carrier radi (Peak and AV) as following: 1. The transmitter was then cor to transmit at the lowest charmeasured at 2310-2390 MH; 2. The transmitter was configur transmit at the highest chanr measured at 2483.5-2500 M	nfigured with the wor nnel (CH01). Then th z. red with the worst can nel (CH03). Then the	st case antenna and setup ne field strength was se antenna and setup to			

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	25.69	12.97	32.05	57.74	45.02	74.00	54.00	CH01
2483.47	Н	27.21	17.45	32.35	59.56	49.80	74.00	54.00	CH03

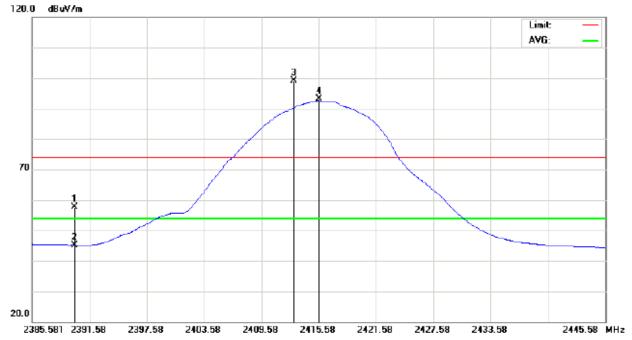
Remark:

- (1) Spectrum Setting: 30MHz 1000MHz, RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = 200 ms
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission
- (3) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (4) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

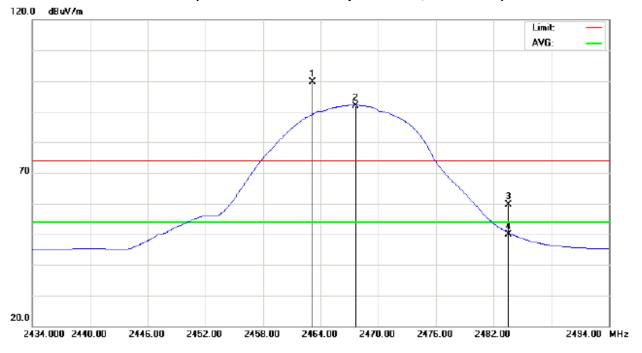
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TX CH03 (Restricted Bands Requirements, Horizontal)



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5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section Test Item Limit Frequency Range (MHz) Result				Result
15.247 (a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

5.1.1 MEASUREMENT INSTRUMENTS LIST

Ī	Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
	1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 07, 2009

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

5.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = 20 ms.

5.1.3 DEVIATION FROM STANDARD

No deviation.

5.1.4 TEST SETUP

EUT	•	SPECTRUM
		ANALYZER

5.1.5 EUT OPERATION CONDITIONS

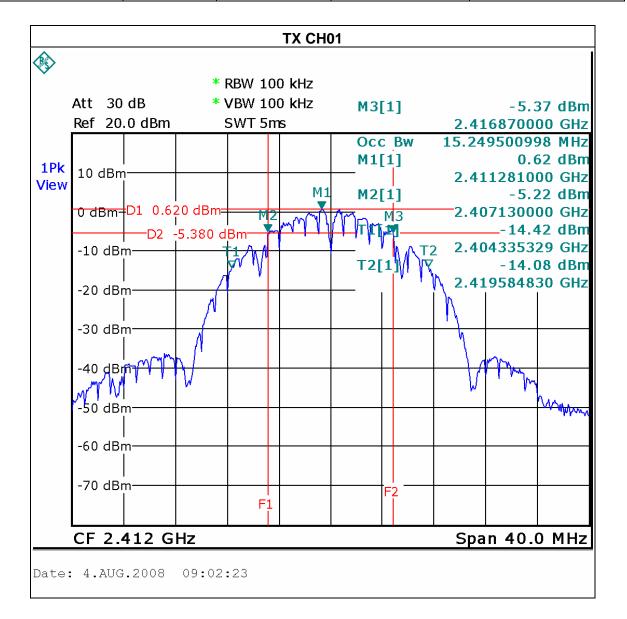
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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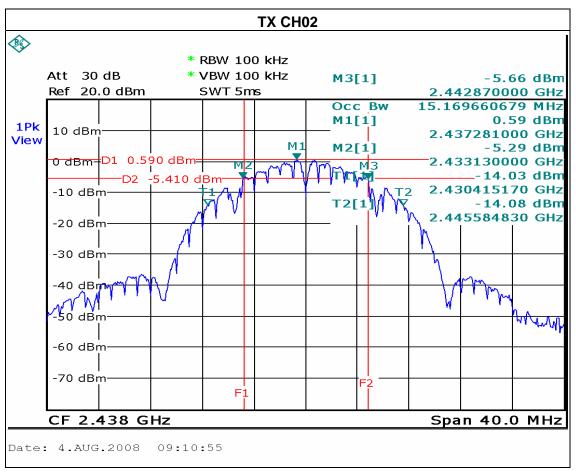
EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature:	26 ℃	Relative Humidity:	60%
Pressure :	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH01, CH02, CH03		

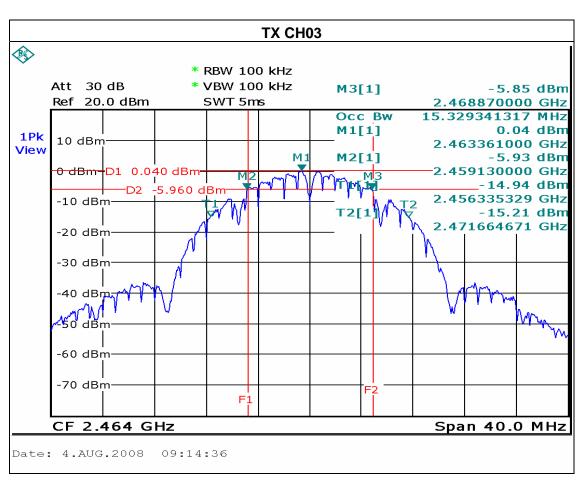
Test Channel	Frequency (MHz)	Bandwidth (MHz)	99% Occupied BW (MHz)	LIMIT (MHz)
CH01	2412	9.74	15.25	>=500KHz
CH02	2438	9.74	15.17	>=500KHz
CH03	2464	9.74	15.33	>=500KHz



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6. PEAK OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247 (b)(1)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

6.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	Anritsu	ML2487A	6K00004714	Feb. 12, 2009
2	Power Meter Sensor	Anritsu	MA2491A	34138	Feb. 12, 2009

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

6.1.2 TEST PROCEDURE

a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,

6.1.3 DEVIATION FROM STANDARD

No deviation.

6.1.4 TEST SETUP

EUT	POWER	METED
	POWLK	MLILIX

6.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature :	26 ℃	Relative Humidity:	60%
Pressure :	1009 hPa	Test Voltage :	AC 120V/60HZ
Test Mode :	TX CH01, CH02, CH03		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	16.45	30	1
CH02	2438	16.56	30	1
CH03	2464	16.90	30	1

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7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a)limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (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
Above 960	500	3

7.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 07, 2009

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (other emission)	100 KHz /100 KHz for Peak

7.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms.

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

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MEUTRUM	Neutron Engineering inc.
7.1.5 EUT OPERATION CONDITIONS	
The EUT tested system was configured as the statement operating condition is specified in the follows during the to	es of 4.1.6 Unless otherwise a special esting.

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EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature:	26 ℃	Relative Humidity:	60%
Pressure:	1004 hPa	Test Power :	AC 120V/60HZ
Test Mode :	TX CH01, CH03		

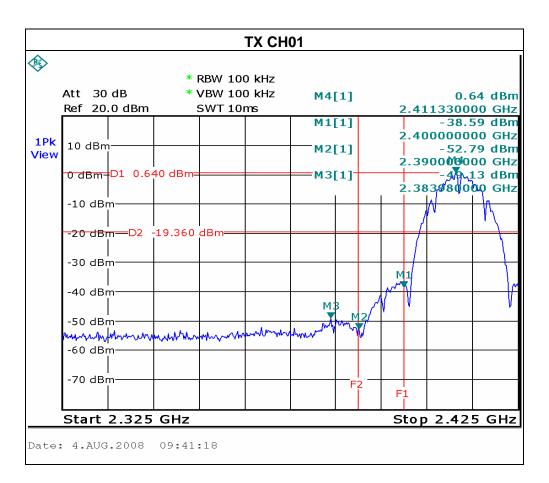
Channel of Worst Data: CH01					
The max. radio frequency power in any 100kHz The max. radio frequency power in any 100 kHz					
bandwidth outside the frequency band		bandwidth within the frequency band.			
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)		
2383.98 -49.13 2490.42 -52.60					
	Posult				

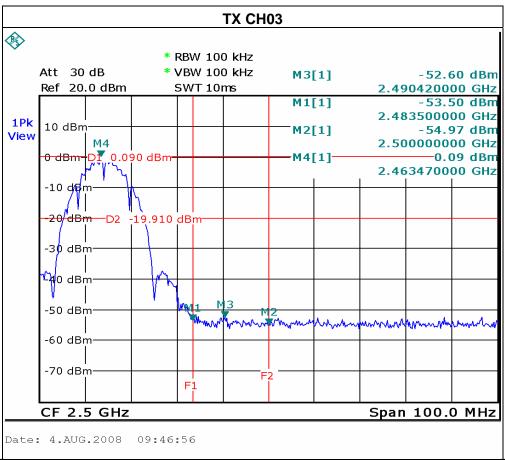
Result

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247 (d)	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

8.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 07, 2009

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

8.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW=3KHz, VBW=30 KHz, Sweep time = 500s.

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

8.1.5 EUT OPERATION CONDITIONS

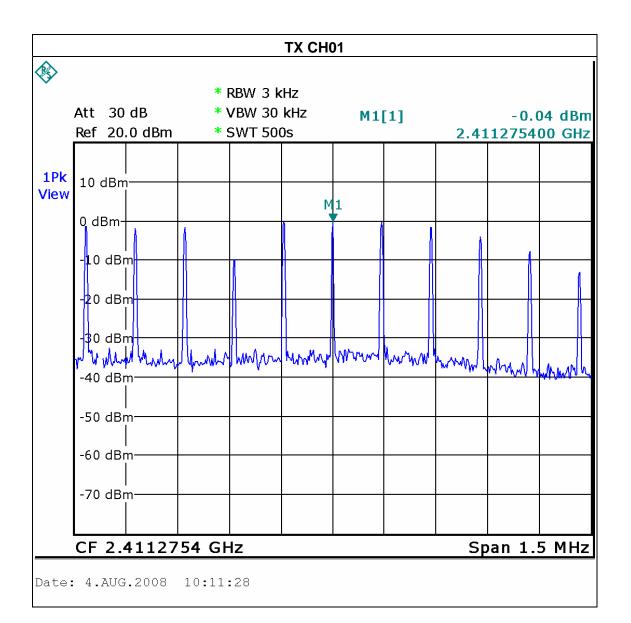
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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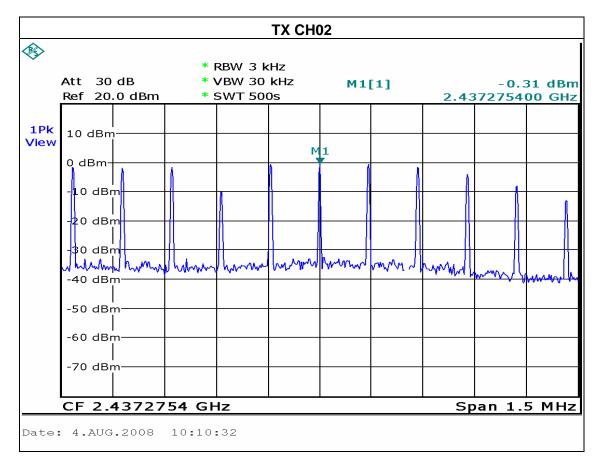
EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature :	26 ℃	Relative Humidity:	60%
Pressure:	1004 hPa	Test Power :	AC 120V/60HZ
Test Mode :	TX CH01, CH02, CH03		

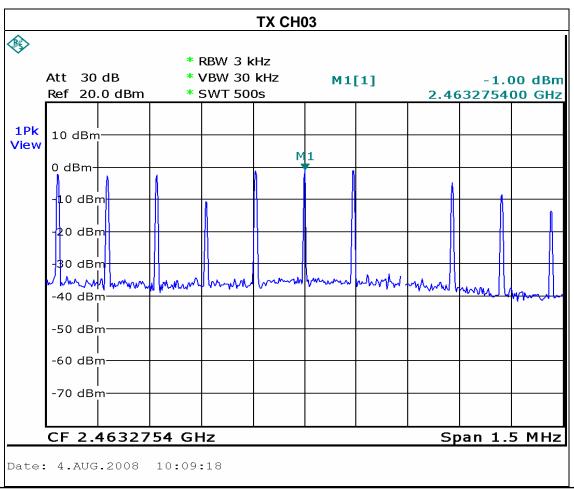
Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)
CH01	2412	-0.04	8
CH02	2438	-0.31	8
CH03	2464	-1.00	8



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9. RF EXPOSURE TEST

9.1 APPLIED PROCEDURES / LIMIT

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	9
3.0-30	1842 / f	4.89 / f	(900 / f)*	9
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz; *Plane-wave equivalent power density

9.1.1 MEASUREMENT INSTRUMENTS LIST

	Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
-	1	Spectrum Analyzer	R&S	FSP_40	100129	Jan. 07, 2009	

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

9.1.2 MPE CALCULATION METHOD

$$\mathsf{E} \, (\mathsf{V/m}) \, = \frac{\sqrt{30 \times P \times G}}{d} \qquad \qquad \mathsf{Power \, Density:} \quad \mathit{Pd} \, (\mathsf{W/m^2}) \, = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

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9.1.3 DEVIATION FROM STANDARD

No deviation.

9.1.4 TEST SETUP

EUT	SPECTRUM		
	ANALYZER		

9.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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EUT:	Digital Wireless Audio Transceiver module	Model Name :	DWAM80
Temperature:	26℃	Relative Humidity:	60%
Pressure :	1004 hPa	Test Power :	AC 120V/60HZ
Test Mode :	TX CH01, CH02, CH03		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
0.0	1.0000	16.45	44.1570	0.008789	1	Complies
0.0	1.0000	16.56	45.2898	0.009015	1	Complies
0.0	1.0000	16.90	48.9779	0.009749	1	Complies

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10. EUT TEST PHOTO

Conducted Measurement Photos





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Radiated Measurement Photos



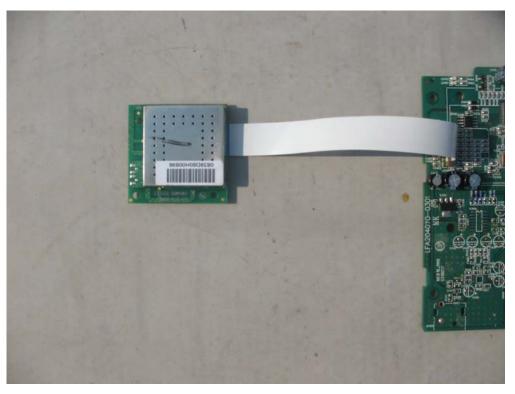


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Radiated Measurement Photos





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