

Shenzhen Toby Technology Co., Ltd.

Report No.: TB-FCC143967
Page: 1 of 91

FCC Radio Test Report FCC ID: 2AENWAMK3W602B

Original Grant

Report No. : TB-IC143969

Applicant : GOAL ZERO

Equipment Under Test (EUT)

EUT Name : ROCK OUT 2 WIRELESS

Model No. : AMK-3W6-02B

Brand Name : GOAL ZERO

Receipt Date : 2015-04-22

Test Date : 2015-04-23 to 2015-04-28

Issue Date : 2015-04-30

Standards : FCC Part 15: 2014, Subpart C(15.247)

RSS 210 Issue 8: 2010

Test Method : ANSI C63.10:2013

Conclusions : PASS

In the configuration tested, the EUT complied with the standards specified above,

The EUT technically complies with the FCC requirements

Test/Witness Engineer :

Approved& Authorized :

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

TB-RF-074-1.0



Contents

NTENTS	
GENERAL INFORMATION ABOUT EUT	4
·	
·	
1.8 Test Facility	8
TEST SUMMARY	9
CONDUCTED EMISSION TEST	10
3.1 Test Standard and Limit	10
3.2 Test Setup	10
3.3 Test Procedure	10
3.4 Test Equipment Used	11
3.5 EUT Operating Mode	11
3.6 Test Data	11
RADIATED EMISSION TEST	14
4.1 Test Standard and Limit	14
4.2 Test Setup	15
4.4 EUT Operating Condition	17
4.5 Test Equipment	17
RESTRICTED BANDS REQUIREMENT	36
5.1 Test Standard and Limit	36
5.2 Test Setup	36
5.3 Test Procedure	36
,	
5.5 Test Equipment	37
NUMBER OF HOPPING CHANNEL	50
6.1 Test Standard and Limit	50
6.2 Test Setup	50
6.3 Test Procedure	50
·	
6.6 Test Data	50
AVERAGE TIME OF OCCUPANCY	52
7.1 Test Standard and Limit	52
7.2 Test Setup	52
	GENERAL INFORMATION ABOUT EUT 1.1 Client Information 1.2 General Description of EUT (Equipment Under Test) 1.3 Block Diagram Showing the Configuration of System Tested 1.4 Description of Support Units 1.5 Description of Test Mode 1.6 Description of Test Software Setting 1.7 Measurement Uncertainty 1.8 Test Facility TEST SUMMARY CONDUCTED EMISSION TEST 3.1 Test Standard and Limit 3.2 Test Setup 3.3 Test Procedure 3.4 Test Equipment Used 3.5 EUT Operating Mode 3.6 Test Data RADIATED EMISSION TEST 4.1 Test Standard and Limit. 4.2 Test Setup 4.3 Test Procedure 4.4 EUT Operating Condition 4.5 Test Equipment RESTRICTED BANDS REQUIREMENT 5.1 Test Standard and Limit. 5.2 Test Setup 5.3 Test Procedure 5.4 EUT Operating Condition 5.5 Test Equipment NUMBER OF HOPPING CHANNEL 6.1 Test Standard and Limit. 6.2 Test Setup 6.3 Test Procedure 6.4 EUT Operating Condition 6.5 Test Equipment CONDUCTED BANDS CHANNEL 6.1 Test Standard and Limit. 6.2 Test Setup 6.3 Test Procedure 6.4 EUT Operating Condition 6.5 Test Equipment CONDUCTED CONDUC



Page: 3 of 91

	7.3 Test Procedure	52
	7.4 EUT Operating Condition	
	7.5 Test Equipment	
	7.6 Test Data	
8.	CHANNEL SEPARATION AND BANDWIDTH TEST	71
	8.1 Test Standard and Limit	
	8.2 Test Setup	
	8.3 Test Procedure	
	8.4 EUT Operating Condition	
	8.5 Test Equipment	
	8.6 Test Data	
9.	PEAK OUTPUT POWER TEST	84
	9.1 Test Standard and Limit	84
	9.2 Test Setup	
	9.3 Test Procedure	
	9.4 EUT Operating Condition	84
	9.5 Test Equipment	
	9.6 Test Data	84
10.	ANTENNA REQUIREMENT	91
	10.1 Standard Requirement	
	10.2 Antenna Connected Construction	



Page: 4 of 91

1. General Information about EUT

1.1 Client Information

Applicant: GOAL ZERO

Address : 675 WEST 14600 SOUTH BLUFFDALE US

Manufacturer : Dongguan Meiluodi Electronics Co.,Ltd

Address: No.16 Zhenxing Road, Shangjiao, Chang'an, Dongguan, Guangdong,

523878, China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	ROCK OUT 2 WIRELESS		
Models No.	:	AMK-3W6-02B		
Model	:	N/A		
Difference				
		Operation Frequency: Bluetooth:2402~2480MHz		
		Number of Channel:	Bluetooth:79 Channels see note (2)	
Product Description	:	Max Peak Output Power:	GFSK:3.699 dBm (Conducted Power)	
2000		Antenna Gain:	0 dBi PCB Antenna	
		Modulation Type:	GFSK 1Mbps(1 Mbps)	
			π /4-DQPSK(2 Mbps)	
		8-DPSK(3 Mbps)		
Power Supply	:	DC Voltage supplied from Host System by USB cable		
		DC power by Li-ion Battery		
Power Rating	:	DC 5.0V by USB cable.		
		DC 3.7V 800mAh Li-ion Ba	attery.	
Product HW/SW	:	AMK-3W6-02B		
Radio HW/SW	:	AMK-3W6-02B		
Test Software	:	RF Control Kit v1.0		
Connecting I/O Port(S)	:	Please refer to the User's Manual		

Note:

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

(2) Channel List

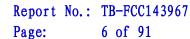
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456



Page: 5 of 91

01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		

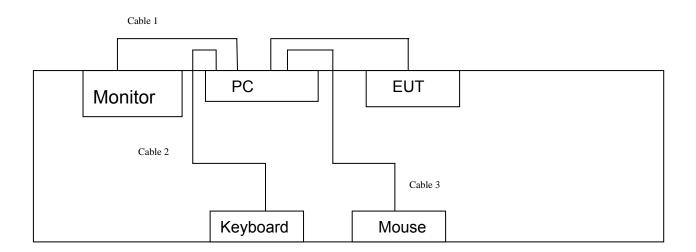
⁽³⁾ The Antenna information about the equipment is provided by the applicant.





1.3 Block Diagram Showing the Configuration of System Tested

TX Mode



1.4 Description of Support Units

Equipment Information						
Name Model		FCC ID/DOC	Manufacturer	Used "√"		
LCD Monitor	E170Sc	DOC	DELL	√		
PC	OPTIPLEX380	DOC	DELL	√		
Keyboard	L100	DOC	DELL	√		
Mouse	M-UARDEL7	DOC	DELL	√		
	Cable Information					
Number	Shielded Type	Ferrite Core	Length	Note		
Cable 1	YES	YES	1.5M			
Cable 2	YES	YES	1.5M			
Cable 3	YES	NO	1.5M			

1.5 Description of Test Mode

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 follow was evaluated respectively.



Page: 7 of 91

For Conducted Test		
Final Test Mode Description		
Mode 1	USB Charging with TX GFSK Mode	

For Radiated Test			
Final Test Mode	Description		
Mode 1	USB Charging with TX GFSK Mode		
Mode 2	TX Mode(GFSK) Channel 00/39/78		
Mode 3	TX Mode(IT /4-DQPSK) Channel 00/39/78		
Mode 4	TX Mode(8-DPSK) Channel 00/39/78		
Mode 5	Hopping Mode(GFSK)		
Mode 6	Hopping Mode(π /4-DQPSK)		
Mode 7	Hopping Mode(8-DPSK)		

Note:

(1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate. We have pretested all the test mode above.

According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

TX Mode: GFSK (1 Mbps)
TX Mode: 8-DPSK (3 Mbps)

(2) The EUT is considered a portable unit; it was pre-tested on the positioned of each 3 axis, X-plane, Y-plane and Z-plane. The worst case was found positioned on X-plane as the normal use. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.6 Description of Test Software Setting

During testing channel& Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of Bluetooth mode.

Test Software Version	RF Control Kit v1.0		
Frequency	2402 MHz	2441MHz	2480 MHz
GFSK	DEF	DEF	DEF
π /4-DQPSK	DEF	DEF	DEF
8-DPSK	DEF	DEF	DEF



Page: 8 of 91

1.7 Measurement Uncertainty

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

Test Item	Parameters	Expanded Uncertainty (U _{Lab})
	Level Accuracy:	
Conducted Emission	9kHz~150kHz	±3.42 dB
	150kHz to 30MHz	±3.42 dB
Radiated Emission	Level Accuracy:	±4.60 dB
Radiated Emission	9kHz to 30 MHz	±4.60 db
Radiated Emission	Level Accuracy:	±4.40 dB
Radiated Emission	30MHz to 1000 MHz	±4.40 UB
Radiated Emission	Level Accuracy:	+4.20 dB
Radiated Emission	Above 1000MHz	±4.20 UD

1.8 Test Facility

The testing was performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at:

1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China.

At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

FCC List No.: (811562)

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 811562.

IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.



Page: 9 of 91

2. Test Summary

FCC Part 15 Subpart C(15.247)/ RSS 210 Issue 8				
Standard Section				_
FCC	IC	Test Item	Judgment	Remark
15.203		Antenna Requirement	PASS	N/A
15.207	RSS-GEN 7.2.2	Conducted Emission	PASS	N/A
15.205	RSS-Gen 7.2.3	Restricted Bands	PASS	N/A
15.247(a)(1)	RSS-210 Annex 8 (A8.1d)	Hopping Channel Separation	PASS	N/A
15.247(a)(1)	RSS-210 Annex 8 (A8.5)	Dwell Time	PASS	N/A
15.247(b)(1)	RSS-210 Annex 8 (A8.1(b))	Peak Output Power	PASS	N/A
15.247(b)(1)	RSS-210 Annex 8 (A8.4(2))	Number of Hopping Frequency	PASS	N/A
15.247(c)	RSS-210 Annex 8 (A8.1a)	Radiated Spurious Emission	PASS	N/A
15.247(a)	RSS-210 Annex 8 (A8.1a)	99% Occupied Bandwidth & 20dB Bandwidth	PASS	99%OBW GFSK:840.6225kHz π /4-DQPSK: 1151.2kHz 8-DPSK:1136.30kHz

Note: N/A is an abbreviation for Not Applicable.



Page: 10 of 91

3. Conducted Emission Test

3.1 Test Standard and Limit

3.1.1Test Standard RSS-Gen

3.1.2 Test Limit

Conducted Emission Test Limit

Fraguency	Maximum RF Line Voltage (dBμV)		
Frequency	Quasi-peak Level	Average Level	
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *	
500kHz~5MHz	56	46	
5MHz~30MHz	60	50	

Notes:

- (1) *Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3.2 Test Setup



3.3 Test Procedure

The EUT was placed 0.8 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.

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.



Report No.: TB-FCC143967 Page: 11 of 91

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.

LISN at least 80 cm from nearest part of EUT chassis

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

3.4 Test Equipment Used

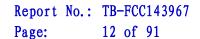
Description	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due Date	
EMI Test	ROHDE&		400004	Aug. 08, 2014	Aug. 07, 2015	
Receiver	SCHWARZ	ESCI	100321	Aug. 00, 2014	Aug. 07, 2015	
50ΩCoaxial	Anritsu	MP59B	X10321	Aug. 08, 2014	Aug. 07, 2015	
Switch	Aiiiisu	MESSE	X10321	Aug. 08, 2014	Aug. 07, 2013	
L.I.S.N	Rohde & Schwarz	ENV216	101131	Aug. 08, 2014	Aug. 07, 2015	
L.I.S.N	SCHWARZBECK	NNBL 8226-2	8226-2/164	Aug. 08, 2014	Aug. 07, 2015	

3.5 EUT Operating Mode

Please refer to the description of test mode.

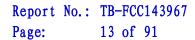
3.6 Test Data

Please see the next page.





EUT: AMK-3W6-02B **ROCK OUT 2 WIRELESS Model Name:** 25 ℃ **Relative Humidity:** Temperature: 55% **Test Voltage:** AC 120V/60 Hz Terminal: Line **Test Mode:** USB Charging with TX GFSK Mode 2402 MHz Remark: Only worse case is reported 90.0 dBuV QP: AVG: AVG -10 0.150 0.5 (MHz) 30.000 Reading Correct Measure-Limit Over No. Mk. Freq. Level Factor ment MHz dBuV dΒ dBuV dBuV dΒ Detector 0.1700 38.27 9.96 48.23 64.96 -16.73 QΡ 1 2 0.1700 35.86 9.96 45.82 54.96 -9.14 AVG 3 0.2072 38.22 48.24 63.31 -15.07 QΡ 10.02 0.2072 35.16 AVG 10.02 45.18 53.31 -8.13 4 5 0.5740 31.93 10.06 41.99 56.00 -14.01 QΡ 0.5740 24.89 10.06 34.95 46.00 -11.05 AVG 6 7 38.39 56.00 -17.61 QΡ 0.9660 28.32 10.07 22.44 32.51 46.00 -13.49 AVG 8 0.9660 10.07 QΡ 9 2.1980 26.04 10.05 36.09 56.00 -19.91 2.1980 21.30 10.05 31.35 46.00 -14.65 AVG 10 QΡ 11 5.1740 25.61 9.97 35.58 60.00 -24.42 AVG 12 5.1740 21.63 9.97 31.60 50.00 -18.40 **Emission Level= Read Level+ Correct Factor**





EUT: ROCK OUT 2 WIRELESS Model Name: AMK-3W6-02B
Temperature: 25 °C Relative Humidity: 55%

Test Voltage: AC 120V/60 Hz

Terminal: Neutral
Test Mode: USB Charging with TX GFSK Mode 2402 MHz



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBu∀	dB	dBuV	dBuV	dB	Detector
1	0.1740	34.84	9.97	44.81	64.76	-19.95	QP
2	0.1740	33.50	9.97	43.47	54.76	-11.29	AVG
3	0.2060	34.29	10.02	44.31	63.36	-19.05	QP
4	0.2060	32.06	10.02	42.08	53.36	-11.28	AVG
5	0.5780	33.99	10.06	44.05	56.00	-11.95	QP
6 *	0.5780	26.85	10.06	36.91	46.00	-9.09	AVG
7	0.9660	28.40	10.07	38.47	56.00	-17.53	QP
8	0.9660	22.76	10.07	32.83	46.00	-13.17	AVG
9	2.1500	25.48	10.05	35.53	56.00	-20.47	QP
10	2.1500	20.90	10.05	30.95	46.00	-15.05	AVG
11	5.3100	25.15	9.98	35.13	60.00	-24.87	QP
12	5.3100	20.78	9.98	30.76	50.00	-19.24	AVG



Page: 14 of 91

4. Radiated Emission Test

4.1 Test Standard and Limit

4.1.1 Test Standard RSS-Gen

4.1.2 Test Limit

Radiated Emission Limit (9 kHz~1000MHz)

130	Nadiated Emission Emit (6 KHZ 1000MHZ)								
Frequency (MHz	Field Strength (microvolt/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							

Radiated Emission Limit (Above 1000MHz)

Frequency	(dBuV/m)(a	nt 3m)
(MHz)	Peak	Average
Above 1000	74	54

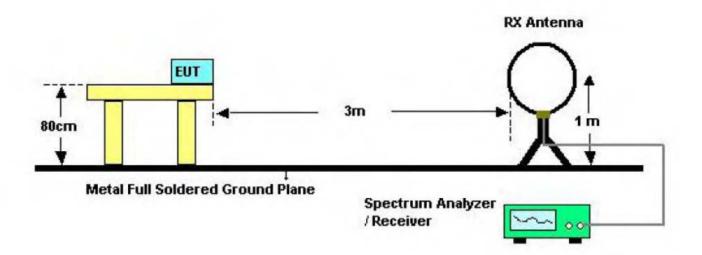
Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)=20log Emission Level (uV/m)

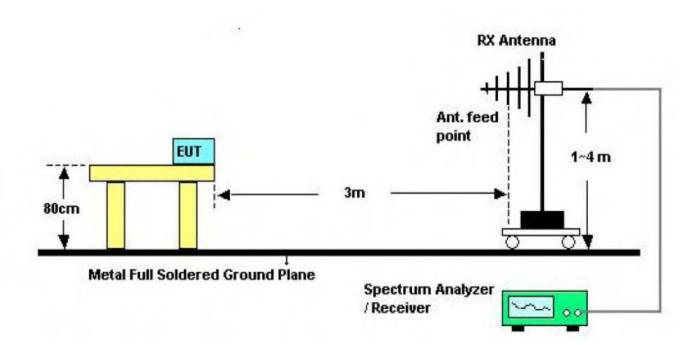


Page: 15 of 91

4.2 Test Setup

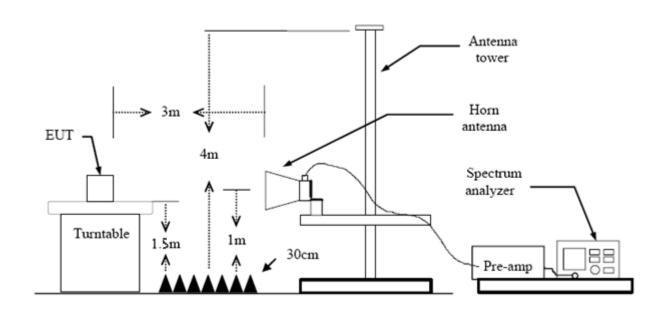


Bellow 30MHz Test Setup



Bellow 1000MHz Test Setup





Above 1GHz Test Setup

4.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz. The EUT was placed on a rotating 0.8m high above the ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) 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.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.



Page: 17 of 91

4.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power in TX mode.

4.5 Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Aug. 08, 2014	Aug.07, 2015
Spectrum Analyzer	Rohde & Schwarz	FSP30	DE25181	Aug. 08, 2014	Aug.07, 2015
EMI Test Receiver	Rohde & Schwarz	ESCI	101165	Aug. 08, 2014	Aug.07, 2015
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar. 06, 2015	Mar.05, 2016
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar. 06, 2015	Mar.05, 2016
Pre-amplifier	HP	11909A	185903	Mar. 06, 2015	Mar.05, 2016
Pre-amplifier	HP	8447B	3008A00849	Mar. 06, 2015	Mar.05, 2016
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar. 06, 2015	Mar.05, 2016
Signal Generator	Rohde & Schwarz	SML03	IKW682-054	Feb. 10, 2015	Feb.09, 2016
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A

4.6 Test Data

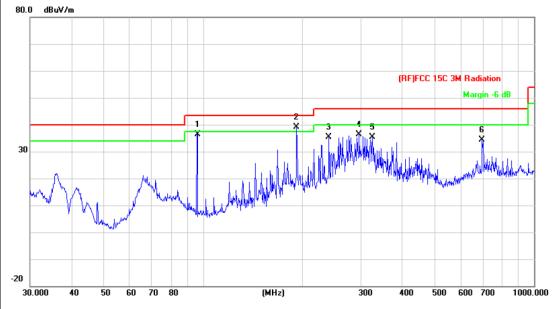
Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=1 KHz with Peak Detector for Average Values.

Test data please refer the following pages.



Page: 18 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX GFSK Mode 2402MHz		
Remark:	Only worse case is reported		
80.0 dBuV/m			



No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		96.0986	58.44	-22.16	36.28	43.50	-7.22	peak
2	*	191.7450	59.84	-20.81	39.03	43.50	-4.47	peak
3		239.9874	53.92	-18.59	35.33	46.00	-10.67	peak
4		296.1836	53.43	-17.16	36.27	46.00	-9.73	peak
5		324.4561	51.52	-16.16	35.36	46.00	-10.64	peak
6		696.8567	41.43	-6.95	34.48	46.00	-11.52	peak

^{*:}Maximum data x:Over limit !:over margin



Page: 19 of 91

EUT:	ROCK OUT 2 WI	RELESS	Model Name	:	AMK-3W	/6-02B
Temperature:	25 ℃		Relative Hum	idity:	55%	
Test Voltage:	DC 5V					
Ant. Pol.	Vertical					
Test Mode:	TX GFSK Mode 2	2402MHz				
Remark:	Only worse case	is reported				
80.0 dBuV/m						
-20 30.000 40 50	60 70 80	(MHz)	300		C 3M Radiation Margin -6	dB
	Reading eq. Level	Correct Factor	mone	imit	Over	
	Hz dBuV	dB/m		dBuV/m	dB	Detector
1 36.1	272 48.59	-17.75	30.84	40.00	-9.16	peak
2 45.2	166 48.04	-22.37	25.67	40.00	-14.33	peak
3 66.0	342 54.65	-23.98	30.67	40.00	-9.33	peak
4 * 96.0	986 60.98	-22.16	38.82	43.50	-4.68	peak
5 167.8	3243 50.61	-21.04	29.57	43.50	-13.93	peak
6 191.7	7450 55.26	-20.81	34.45	43.50	-9.05	peak
*:Maximum data x:O Emission Level=	ver limit !:over margin	ect Factor	,			



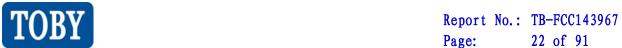
Report No.: TB-FCC143967 Page: 20 of 91

EUT:	ROCK OUT 2	WIRELESS	Model Nam	e:	AMK-3W	6-02B
Temperature:	25 ℃		Relative Hu	ımidity:	55%	
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	TX π /4-DQPS	K Mode 2402	MHz			
Remark:	Only worse ca	ase is reported				
30 dBuV/m	60 70 80	(MHz)	2 3 X X X X X X X X X X X X X X X X X X	(RF)FCC 15	SC 3M Radiation Margin -6 6 X	1000,000
No. Mk. Fr	Readir eq. Level	g Correct Factor	Measure- ment	Limit	Over	
MI		dB/m	dBuV/m	dBuV/m	dB	Detector
1 * 96.0	986 62.19	-22.16	40.03	43.50	-3.47	peak
2 216.0	0240 51.88	-19.70	32.18	46.00	-13.82	peak
3 239.9	9874 52.31	-18.59	33.72	46.00	-12.28	peak
4 307.8	3312 52.60	-16.79	35.81	46.00	-10.19	peak
5 383.9	318 48.24	-13.87	34.37	46.00	-11.63	peak
6 701.7	7610 40.35	-6.88	33.47	46.00	-12.53	peak
*:Maximum data x:O	ver limit !:over ma					



Page: 21 of 91

EUT:	ROCK OUT 2 W	'IRELESS	Model Nam	е:	AMK-3W	/6-02B
Temperature:	25 ℃		Relative Hu	midity:	55%	
Test Voltage:	DC 5V					
Ant. Pol.	Vertical					
Test Mode:	TX π /4-DQPSK	Mode 2402I	MHz			
Remark:	Only worse case	e is reported				
80.0 dBuV/m						
				(RF)FCC 1	5C 3M Radiation	
	4				Margin -6	gr dr
	X	5		6		
30 2	3 X	Ť	1. 1.4	, Ă,		. (1)
	Market And Land				Mand ^{ha} anda mada ka	oddlyn M ^{r. y} h
1 1 1	Market	May Miller Labert	No. althirlithina a	A. A. Mahara		
h halfale	M. Wash	atrafficht land				
-20 30.000 40 50	60 70 80	(MHz)	300	400 50	0 600 700	1000.000
No Mic En	Reading	Correct	Measure-	Limit	Over	
	eq. Level	Factor	ment			<u> </u>
MI		dB/m	dBuV/m	dBuV/m	dB	Detector
1 36.3	814 47.92	-17.91	30.01	40.00	-9.99	peak
2 45.3	755 47.61	-22.44	25.17	40.00	-14.83	peak
3 83.8	156 51.65	-23.06	28.59	40.00	-11.41	peak
4 * 95.7	622 63.47	-22.19	41.28	43.50	-2.22	peak
5 191.7		-20.81	31.16	43.50	-12.34	peak
6 483.9		-11.63	31.34		-14.66	
403.8	9094 42.97	-11.03	31.34	46.00	-14.00	peak
		_				
*:Maximum data x:O	ver limit !:over margin					
Emission Level=	Read I evel+ Cor	rect Factor	•			



Page: 22 of 91

EUT:	ROCK OUT 2 W	'IRELESS	Model Name	e :	AMK-3W	6-02B
Temperature:	25 ℃		Relative Hu	midity:	55%	
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	TX 8-DPSK Mod	le 2402MHz				
Remark:	Only worse case	e is reported				
30 1 1 1 1 2 2 2 2 3 3 0 0 0 0 4 0 5 0	3 2 X 3 60 70 80	(MHz)	300	*	5C 3M Radiation 6 Margin 6	
	Reading eq. Level	Correct Factor	Measure- ment	Limit	Over	
MI	Hz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detecto
1 36.1	272 40.19	-17.75	22.44	40.00	-17.56	peak
2 83.8	156 47.47	-23.06	24.41	40.00	-15.59	peak
3 * 96.0	986 58.19	-22.16	36.03	43.50	-7.47	peak
4 239.9		-18.59	33.22	46.00	-12.78	peak
5 307.8		-16.79	36.81	46.00	-9.19	peak
6 383.9		-13.87	36.37	46.00	-9.63	peak
	over limit !:over margin					



Report No.: TB-FCC143967
Page: 23 of 91

EUT:	ROCK OUT 2 W	IRELESS	Model Name	:	AMK-3W	/6-02B
Temperature:	25 ℃		Relative Hun	nidity:	55%	
Гest Voltage:	DC 5V					
Ant. Pol.	Vertical					
Test Mode:	TX 8-DPSK Mod	e 2402MHz				
Remark:	Only worse case	is reported				
80.0 dBuV/m						
20 30.000 40 50	60 70 80	(MHz)	300	(RF)FCC 1	SC 3M Radiation Margin -6	
No. Mk. Fr	Reading eq. Level	Correct Factor	Measure- ment	Limit	Over	
M	Hz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detecto
1 36.3	813 48.42	-17.91	30.51	40.00	-9.49	peak
2 83.8	156 51.65	-23.06	28.59	40.00	-11.41	peak
3 * 95.7	622 57.47	-22.19	35.28	43.50	-8.22	peak
4 191.7	7450 52.97	-20.81	32.16	43.50	-11.34	peak
5 287.9	9904 46.68	-17.32	29.36	46.00	-16.64	peak
6 483.9	9094 41.97	-11.63	30.34	46.00	-15.66	peak
	Over limit !:over margin	rect Factor				



Page: 24 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 3.7V						
Ant. Pol.	Horizontal						
Test Mode:	TX GFSK Mode 2402MHz						
Remark:	No report for the emission which more than 10 dB below the prescribed limit.						

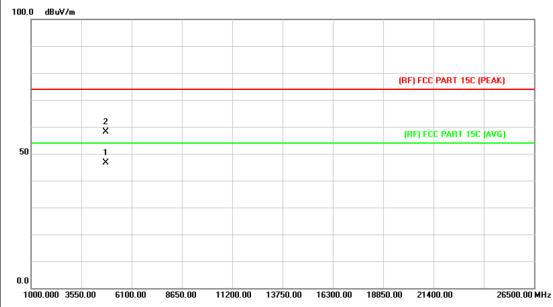


No	o. Mk	. Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4803.982	31.15	13.44	44.59	54.00	-9.41	AVG
2		4804.612	42.84	13.44	56.28	74.00	-17.72	peak



Page: 25 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	Test Voltage: DC 3.7V					
Ant. Pol.	Vertical					
Test Mode:	TX GFSK Mode 2402MHz					
Remark: No report for the emission which more than 10 dB below the prescribed limit.						

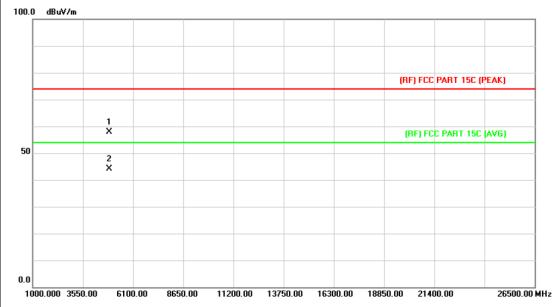


N	o. M	k. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4803.973	33.10	13.44	46.54	54.00	-7.46	AVG
2		4804.723	44.81	13.44	58.25	74.00	-15.75	peak



Page: 26 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B		
Temperature:	25 ℃	Relative Humidity: 55°			
Test Voltage: DC 3.7V					
Ant. Pol.	Horizontal				
Test Mode:	TX GFSK Mode 2441MHz				
Remark: No report for the emission which more than 10 dB below the prescribed limit.					

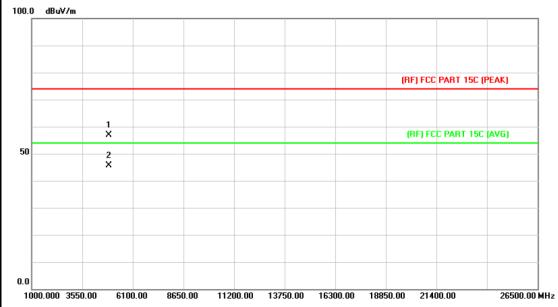


N	lo. N	Иk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4	4881.361	43.86	13.90	57.76	74.00	-16.24	peak
2	*	4	4881.718	30.14	13.90	44.04	54.00	-9.96	AVG



Page: 27 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 3.7V					
Ant. Pol.	Vertical					
Test Mode:	TX GFSK Mode 2441MHz					
Remark:	No report for the emission which more than 10 dB below the prescribed limit.					
	processing a service s					

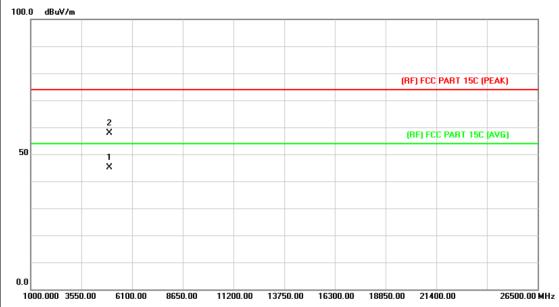


N	No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		,	4881.241	43.05	13.90	56.95	74.00	-17.05	peak
2	×	k	4882.003	31.81	13.90	45.71	54.00	-8.29	AVG



Page: 28 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage: DC 3.7V					
Ant. Pol.	Horizontal				
Test Mode:	TX GFSK Mode 2480MHz				
Remark: No report for the emission which more than 10 dB below the prescribed limit.					

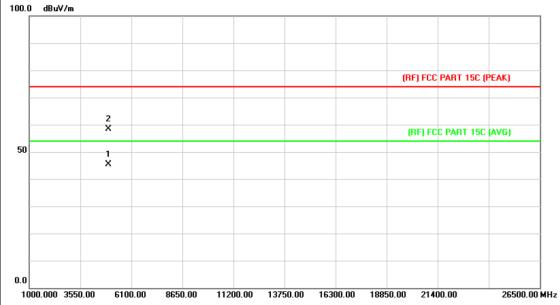


No	. M	k. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4959.244	30.76	14.36	45.12	54.00	-8.88	AVG
2		4959.322	43.59	14.36	57.95	74.00	-16.05	peak



Page: 29 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 3.7V						
Ant. Pol.	Vertical						
Test Mode:	TX GFSK Mode 2480MHz						
Remark:	Remark: No report for the emission which more than 10 dB below the prescribed limit.						
400 0 ID 111							

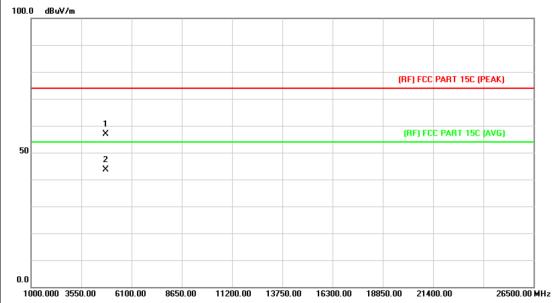


No	. Mk	. Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4959.682	31.07	14.36	45.43	54.00	-8.57	AVG
2		4960.834	43.97	14.36	58.33	74.00	-15.67	peak



Page: 30 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 3.7V						
Ant. Pol.	Horizontal						
Test Mode:	TX 8-DPSK Mode 2402MHz	-					
Remark:	No report for the emission w	hich more than 10 dB	below the				
	prescribed limit.						
	·						

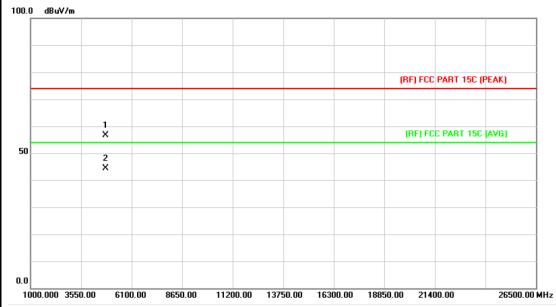


No.	. Mk.	. Freq.	•	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4803.187	43.39	13.44	56.83	74.00	-17.17	peak
2	*	4804.027	30.30	13.44	43.74	54.00	-10.26	AVG



Page: 31 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 3.7V						
Ant. Pol.	Vertical						
Test Mode:	TX 8-DPSK Mode 2402MHz	2					
Remark:	: No report for the emission which more than 10 dB below the						
	prescribed limit.						
100.0 40.47-	100 p. 10 U.						

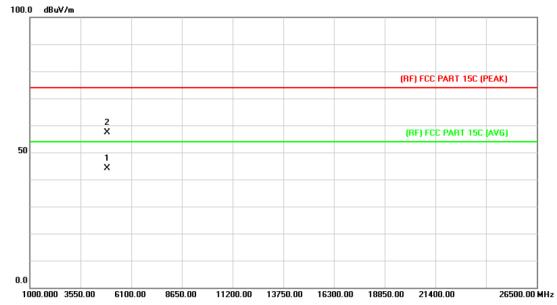


No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4803.643	43.17	13.44	56.61	74.00	-17.39	peak
2	*	4803.727	30.82	13.44	44.26	54.00	-9.74	AVG



Page: 32 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	Test Voltage: DC 3.7V					
Ant. Pol.	Horizontal					
Test Mode:	TX 8-DPSK Mode 2441MHz	2				
Remark: No report for the emission which more than 10 dB below the prescribed limit.						

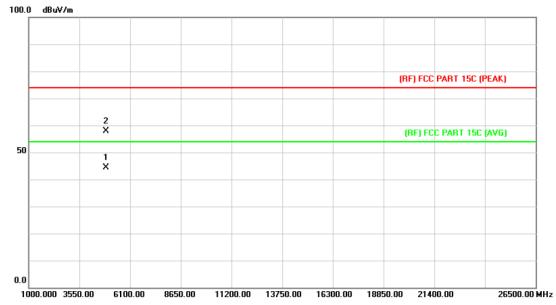


N	lo.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4881.184	30.24	13.90	44.14	54.00	-9.86	AVG
2			4881.739	43.42	13.90	57.32	74.00	-16.68	peak



Page: 33 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 3.7V					
Ant. Pol.	Vertical					
Test Mode:	TX 8-DPSK Mode 2441MHz					
Remark:	No report for the emission wh	ich more than 10 dB be	elow the			
	prescribed limit.					

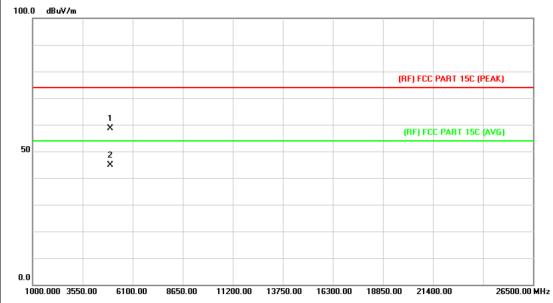


No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4882.042	30.60	13.90	44.50	54.00	-9.50	AVG
2		4882.897	43.96	13.90	57.86	74.00	-16.14	peak



Page: 34 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 3.7V						
Ant. Pol.	Horizontal						
Test Mode:	TX 8-DPSK Mode 2480MHz						
Remark:	No report for the emission which more than 10 dB below the prescribed limit.						
P. 555							



No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4959.409	44.17	14.36	58.53	74.00	-15.47	peak
2	*	4959.628	30.64	14.36	45.00	54.00	-9.00	AVG



Page: 35 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 3.7V						
Ant. Pol.	Vertical						
Test Mode:	TX 8-DPSK Mode 2480MHz						
Remark:	mark: No report for the emission which more than 10 dB below the prescribed limit.						



No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4959.640	43.77	14.36	58.13	74.00	-15.87	peak
2	*	4959.694	30.74	14.36	45.10	54.00	-8.90	AVG



Page: 36 of 91

5. Restricted Bands Requirement

5.1 Test Standard and Limit

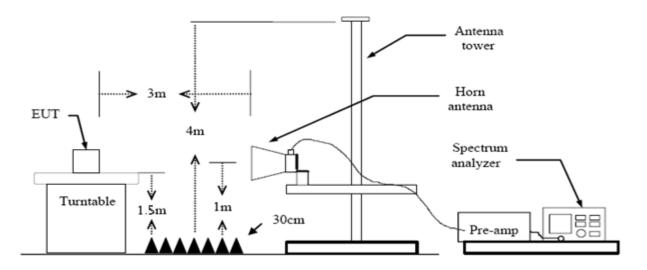
5.1.1 Test Standard FCC Part 15.209 FCC Part 15.205

5.1.2 Test Limit

Class B (dBuV/m)(at 3m)	
Peak	Average
74	54
74	54
	Peak 74

Note: All restriction bands have been tested, only the worst case is reported.

5.2 Test Setup



5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz. The EUT was placed on a rotating 0.8m high above the ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.



Report No.: TB-FCC143967 Page: 37 of 91

(4) 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.

- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

5.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

5.5 Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Aug. 08, 2014	Aug.07, 2015
Spectrum Analyzer	Rohde & Schwarz	FSP30	DE25181	Aug. 08, 2014	Aug.07, 2015
EMI Test Receiver	Rohde & Schwarz	ESCI	101165	Aug. 08, 2014	Aug.07, 2015
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar. 06, 2015	Mar.05, 2016
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar. 06, 2015	Mar.05, 2016
Pre-amplifier	HP	11909A	185903	Mar. 06, 2015	Mar.05, 2016
Pre-amplifier	HP	8447B	3008A00849	Mar. 06, 2015	Mar.05, 2016
Cable	HUBER+SUHNE R	100	SUCOFLEX	Mar. 06, 2015	Mar.05, 2016
Signal Generator	Rohde & Schwarz	SML03	IKW682-054	Feb. 10, 2015	Feb.09, 2016
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A

5.6 Test Data

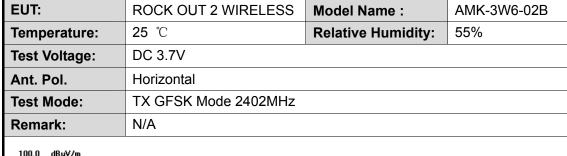
Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=1 KHz with Peak Detector for Average Values.

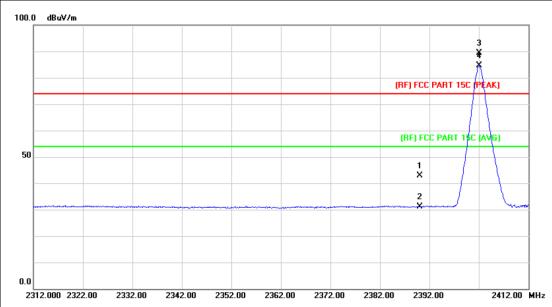
All restriction bands have been tested, only the worst case is reported.



Page: 38 of 91

(1) Radiation Test





No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	42.04	0.77	42.81	74.00	-31.19	peak
2		2390.000	30.27	0.77	31.04	54.00	-22.96	AVG
3	Χ	2402.000	88.56	0.82	89.38	Fundamental	Frequeny	peak
4	*	2402.100	83.71	0.82	84.53	Fundamental	Frequeny	AVG

Emission Level= Read Level+ Correct Factor



Page: 39 of 91

EU1	Γ:		ROC	CK OU	Γ2 W	/IRELES	SS	Mo	odel N	lame :		AMŁ	<-3W	/6-0)2B
Ten	peratu	re:	25 °	25 ℃ Relative Humidity: 59					55%)					
Tes	t Voltaç	ge:	DC:	C 3.7V											
Ant	. Pol.		Vert	ical											
Tes	t Mode	:	TX	GFSK N	Лode	2402MF	Ηz								
Ren	nark:		N/A												
100.	0 dBuV/m	ı													
												4	ļ		
												3 ×	.		
										(RF)	FCC P	ART 15C (P	EAK)		
50										(H)	JFLL	PART 15C (AVG		
											1 X				
											2				
											Х		,	Manne	
0.0															
23	312.000 23	22.00 2	332.00	2342.00	235	52.00 236	62.00	2372	2.00 2	2382.00	2392.0	10	241	2.00	MHz
	I - NAI-	Г		Read		Corre			sure-	Lim	i+	Ove			
	lo. Mk		•	Lev		Fact	or		ent						
		MH		dΒι		dB/m	١		uV/m	dBu'	V/m	dB)ete	ctor
1		2390.	000	41.	29	0.77	•	42	2.06	74.	00	-31.9	94	ре	ak
2		2390.	000	30.	34	0.77	,	31	1.11	54.	00	-22.8	39	А٧	/G
3	*	2401.	900	83.	82	0.82		84	1.64	Funda	menta	I Frequer	ıy	А٧	/G
4	Х	2402.	200	89.	no	0.82	,	90	9.90			I Frequer		no.	ak

Emission Level= Read Level+ Correct Factor

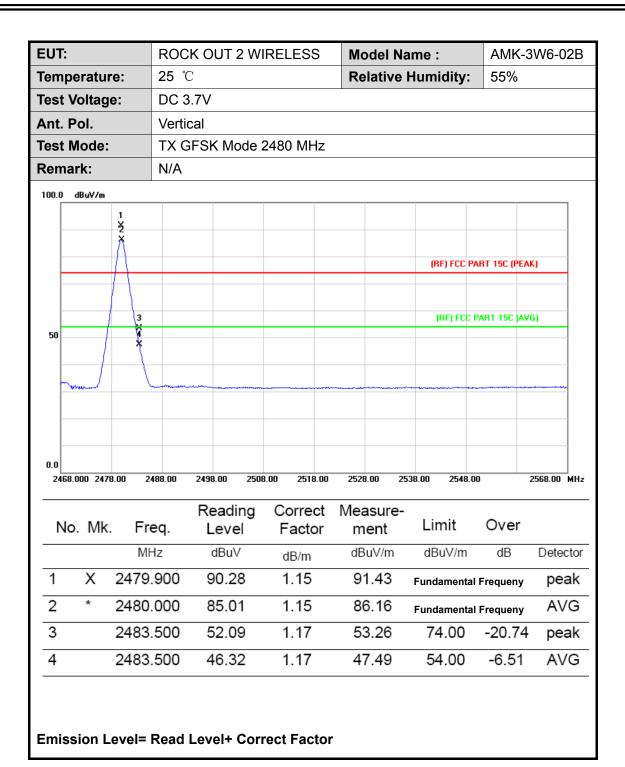


Page: 40 of 91

EUT	:		ROC	CK OL	JT 2 W	'IREL	ESS	M	odel	Nam	e :	AMK	(-3W6-	02B
Tem	peratu	re:	25 °	25 ℃				R	elativ	e Hu	midity	: 55%	ı	
Test	Voltag	e:	DC:	C 3.7V										
Ant.	Pol.		Hori	orizontal										
Test	Mode:		TX	3FSK	Mode	2480	MHz							
Rem	nark:		N/A											
100.0) dBuV/m													
		2 X												
		χ												
		+									(RF) FCC	PART 15C (P	EAK)	
		\mathcal{A}												
		3									(BE) EC	C PART 15C (AVG)	
50		· ·									(111)10	CTAIT 13C	ATU)	_
		1												
			<u></u>											
	- Appendix			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										
														-
0.0	168.000 247	79 00 3	2488.00	2498.	00 250	D8.00	2518.00	253	8.00	2538.0	0 2548	0.00	2568.00	
	100.000 24	70.00 2	.400.00								0 2540		2300.00	MIIZ
N	o. Mk.	Fre	eq.		ading vel		rrect actor		asure nent		₋imit	Over	-	
		MH	łz	dE	Bu∨	dE	3/m	dE	BuV/m	(dBuV/m	dB	Dete	ector
1	*	2479.	800	85	.82	1.	15	8	6.97	Fui	ndament	al Frequeny	, A	VG
2	Χ	2480.	200	91	.43	1.	15	9	2.58	Fui	ndamenta	al Frequeny	, ре	eak
3		2483.	500	52	2.80	1.	17	5	3.97		74.00	-20.0)3 pe	eak
4		2483.	500	46	6.68	1.	17	4	7.85		54.00	-6.1	5 A'	VG
Emi	ssion L	.evel=	Read	Leve	l+ Cor	rect	Facto	r						



Page: 41 of 91





Page: 42 of 91

2 2390.000 30.07 0.77 30.84 54.00 -23.16 AVG 3 X 2402.200 90.21 0.82 91.03 Fundamental Frequeny peak	EU1	Γ:		ROC	K OUT	2 W	IRELES	S	Mo	odel N	ame :		AMK	(-3W	/6-02I	В
Ant. Pol. Horizontal Test Mode: TX 8-DPSK Mode 2402MHz Remark: N/A 100.0 dBw//m 100.0 dw//m 100.0	Tem	peratu	ıre:	25 °	C				Re	lative	Humi	dity:	55%			
TX 8-DPSK Mode 2402MHz	Tes	t Volta	ge:	DC 3	3.7V											
No. Mk. Freq. Reading Correct Measure Limit Over	Ant	. Pol.		Horiz	zontal											
100.0 dBuV/m 3	Tes	t Mode	:	TX 8	-DPSK	Mod	e 2402N	ИHz								
No. Mk. Freq. Reading Level Factor ment Limit Over	Ren	nark:		N/A												
No. Mk. Freq. Reading Correct Measure Limit Over	100.	0 dBu∀/n	n													
No. Mk. Freq. Reading Correct Measure Limit Over													3			
No. Mk. Freq. Reading Correct Measure Limit Over													4			
No. Mk. Freq. Reading Correct Measure Limit Over											(RF) FCC P	ART 15C P	EAK)		
No. Mk. Freq. Reading Correct Measure Limit Over																
No. Mk. Freq. Reading Correct Measure Limit Over											10	E) FCC	PART 15C (AVG	_	
No. Mk. Freq. Reading Correct Measure— No. Mk. Freq. Level Factor ment Limit Over	50											,,,,,		,		
No. Mk. Freq. Reading Correct Measure- Factor ment Limit Over MHz dBuV dB/m dBuV/m dBuV/m dBuV/m dB Detector 1 2390.000 30.07 0.77 42.13 74.00 -31.87 peal 2 2390.000 30.07 0.77 30.84 54.00 -23.16 AVG 3 X 2402.200 90.21 0.82 91.03 Fundamental Frequeny peal																
No. Mk. Freq. Reading Level Correct Factor Measure-ment Limit Limit Over 1 2390.000 41.36 0.77 42.13 74.00 -31.87 peal 2 2390.000 30.07 0.77 30.84 54.00 -23.16 AVG 3 X 2402.200 90.21 0.82 91.03 Fundamental Frequeny peal												2		1	house	
No. Mk. Freq. Reading Level Correct Factor Measure-ment Limit Limit Over 1 2390.000 41.36 0.77 42.13 74.00 -31.87 peal 2 2390.000 30.07 0.77 30.84 54.00 -23.16 AVG 3 X 2402.200 90.21 0.82 91.03 Fundamental Frequeny peal																
No. Mk. Freq. Reading Level Correct Factor Measure-ment Limit Limit Over 1 2390.000 41.36 0.77 42.13 74.00 -31.87 peal 2 2390.000 30.07 0.77 30.84 54.00 -23.16 AVG 3 X 2402.200 90.21 0.82 91.03 Fundamental Frequeny peal																
No. Mk. Freq. Reading Level Correct Factor Measure-ment Limit Limit Over 1 2390.000 41.36 0.77 42.13 74.00 -31.87 peal 2 2390.000 30.07 0.77 30.84 54.00 -23.16 AVG 3 X 2402.200 90.21 0.82 91.03 Fundamental Frequeny peal																
No. Mk. Freq. Level Factor ment Limit Over MHz dBuV dBuV dBuV/m d			322.00 2	2332.00	2342.00	235	2.00 236	2.00	2372	2.00 2	2382.00	2392.0	00	241	2.00 MH	Ηz
No. Mk. Freq. Level Factor ment Limit Over MHz dBuV dBuV dBuV/m d																
No. Mk. Freq. Level Factor ment Limit Over MHz dBuV dBuV dBuV/m d					Read	ina	Corre	ct	Mes	eura.						—
1 2390.000 41.36 0.77 42.13 74.00 -31.87 peal 2 2390.000 30.07 0.77 30.84 54.00 -23.16 AVG 3 X 2402.200 90.21 0.82 91.03 Fundamental Frequeny peal	Ν	lo. Mk	. Fre	eq.		_						nit	Over	•		
2 2390.000 30.07 0.77 30.84 54.00 -23.16 AVG 3 X 2402.200 90.21 0.82 91.03 Fundamental Frequeny peak			MH	łz	dBu	V	dB/m		dB	uV/m	dBu	ıV/m	dB	С	etecto	or
3 X 2402.200 90.21 0.82 91.03 Fundamental Frequeny peal	1		2390.	000	41.3	36	0.77		42	2.13	74	.00	-31.8	7	peak	(
	2		2390.	000	30.0)7	0.77		30	0.84	54	.00	-23.1	6	AVG	;
4 * 2402.200 82.47 0.82 83.29 Fundamental Frequeny AVC	3	Χ	2402.	200	90.2	21	0.82		91	1.03	Fundar	nental	Frequeny		peak	(
	4	*	2402.	200	82.4	17	0.82		83	3.29	Fundan	nental	Frequeny	_	AVG	;
																_

Emission Level= Read Level+ Correct Factor



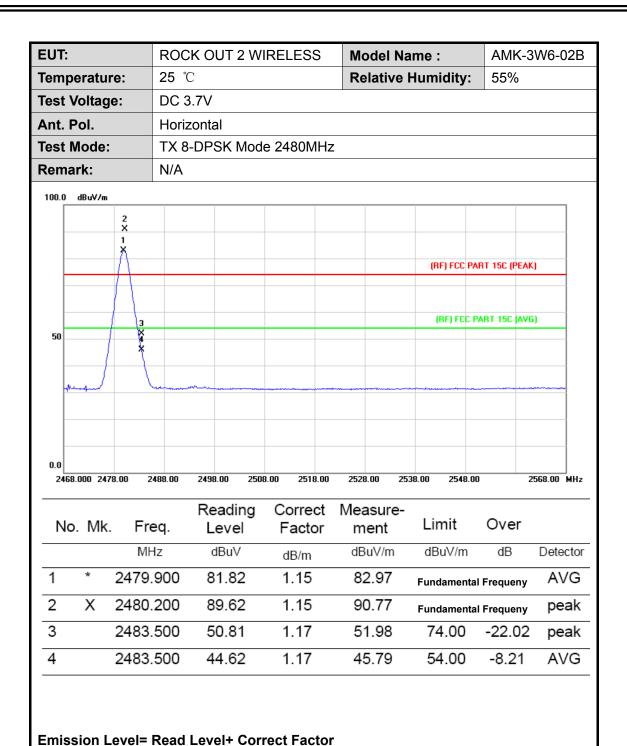
Page: 43 of 91

EUT			ROC	K OUT	2 W	IRELES	S	Mc	del N	ame :		AMK	(-3V	V6-02E
ſem	peratu	e:	25 °	С	Relative Humidity: 55%									
Test	Voltag	e:	DC 3	3.7V								•		
۱nt.	Pol.		Verti	cal										
Test	Mode:		TX 8	B-DPSK	Mod	e 2402N	ЛНz							
₹em	nark:		N/A											
100.0	dBuV/m													
												3		
												×		
-										(RF) FCC PA	ART 15C (P	EAK)	
-											E) ECC !	DADT 100	110	
50										Н	FJFLL	PART 15C (AVGJ	
											1 X		1	
											2		1	آ
<u> </u>		~~~~~									_X			- Annahara
-														
-														
0.0														
231	12.000 232	2.00 23	332.00	2342.00	235	2.00 236	2.00	2372	2.00 2	382.00	2392.0	00	24	12.00 MH
					ı:		-4	N 4						
Ν	lo. Mk	Fre	eq.	Read Lev	_	Corre Fact			asure- ent	Lin	nit	Ove	r	
		MH	•	dBu					uV/m		ıV/m	dB		Detecto
1						dB/m								
1		2390.		41.4		0.77			2.23		.00	-31.7		peak
2		2390.	.000	30.0	00	0.77		30	0.77	54	.00	-23.2	23	AVG
3	Χ	2401.	900	88.4	11	0.82	2	89	9.23	Funda	mental	l Frequen	у	peak
4	*	2402.	100	79.8	39	0.82	,	80	0.71	Eunda	montal	I Frequen	·	AVG

Emission Level= Read Level+ Correct Factor

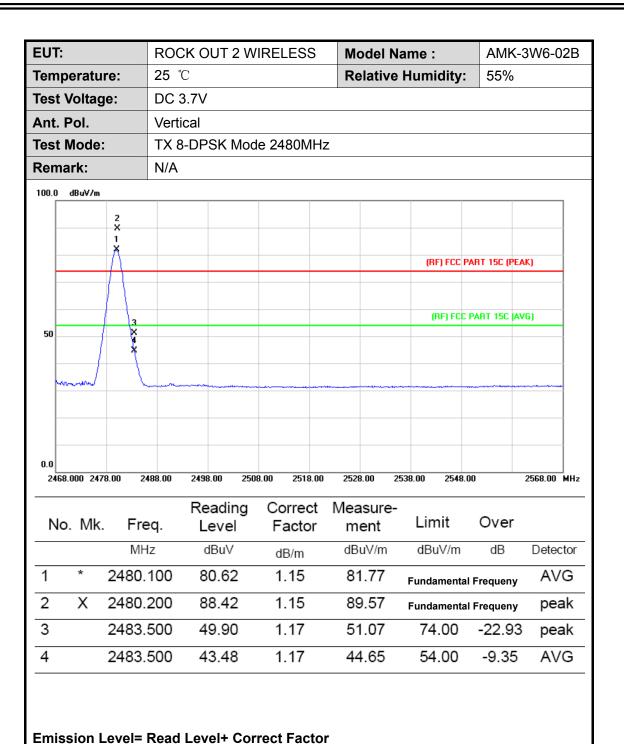


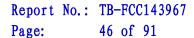
Page: 44 of 91





Page: 45 of 91

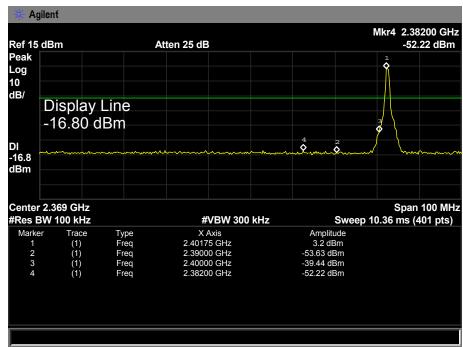


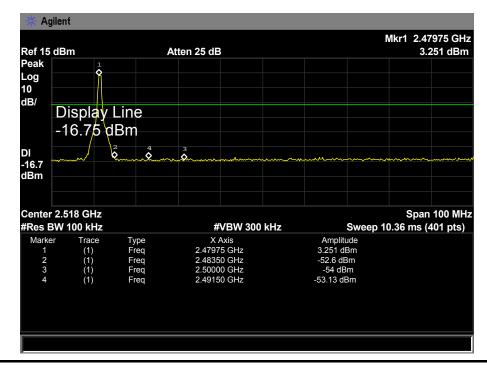


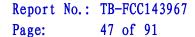


(2) Conducted Test

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 3.7V					
Test Mode:	TX GFSK Mode 2402MHz / 2480 MHz					
Remark:	N/A					









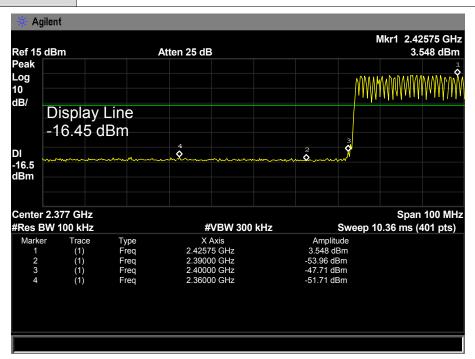
EUT: ROCK OUT 2 WIRELESS Model Name: AMK-3W6-02B

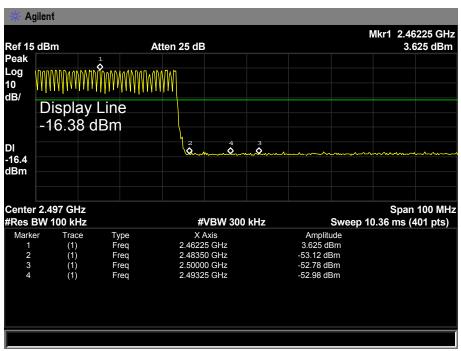
Temperature: 25 ℃ Relative Humidity: 55%

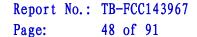
Test Voltage: DC 3.7V

Test Mode: GFSK Hopping Mode

Remark: N/A

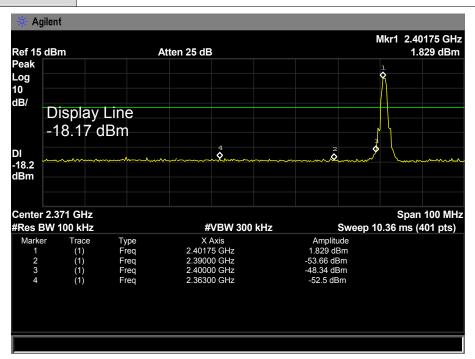


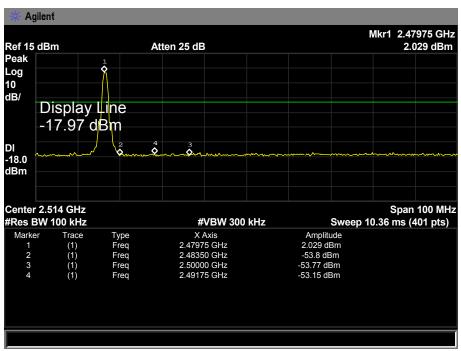


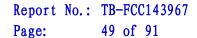




EUT: ROCK OUT 2 WIRELESS Model Name: AMK-3W6-02B
Temperature: 25 ℃ Relative Humidity: 55%
Test Voltage: DC 3.7V
Test Mode: TX 8-DPSK Mode 2402MHz / 2480 MHz
Remark: N/A

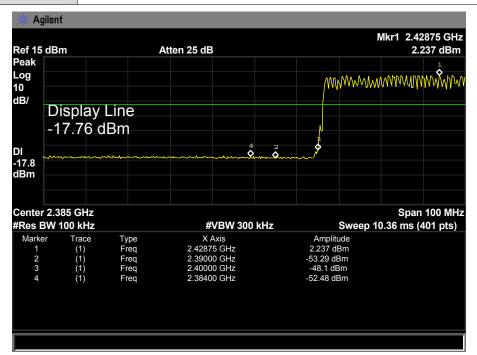


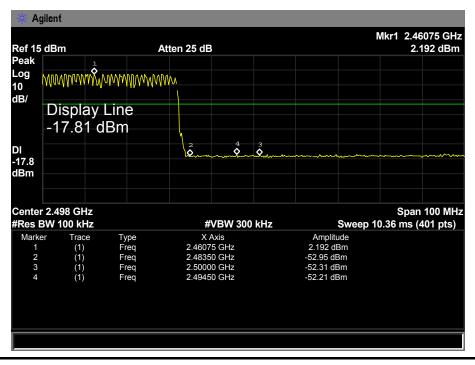






EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	8-DPSK Hopping Mode		
Remark:	N/A		







Page: 50 of 91

6. Number of Hopping Channel

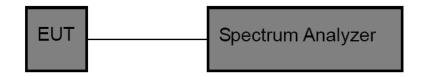
6.1 Test Standard and Limit

6.1.1 Test Standard FCC Part 15.247 (a)(1)

6.1.2 Test Limit

Section	Test Item	Limit
15.247	Number of Hopping Channel	>15

6.2 Test Setup



6.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting: RBW=100 KHz, VBW=100 KHz, Sweep time= Auto.

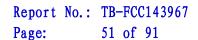
6.4 EUT Operating Condition

The EUT was set to the Hopping Mode by the Customer.

6.5 Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Aug. 08, 2014	Aug.07, 2015

6.6 Test Data



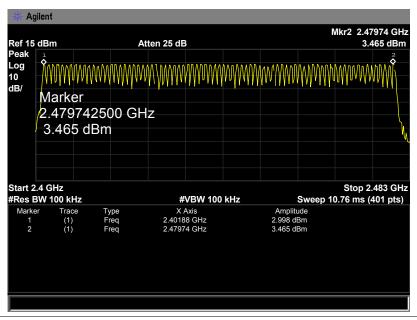


EUT:ROCK OUT 2 WIRELESSModel Name :AMK-3W6-02BTemperature:25 °CRelative Humidity:55%Test Voltage:DC 3.7V

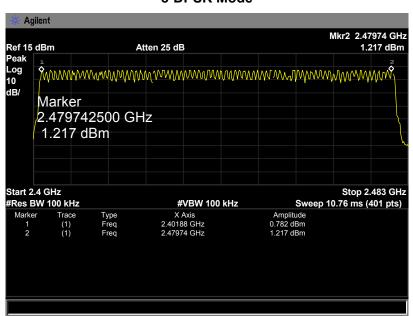
Test Mode: Hopping Mode (GFSK/ 8-DPSK)

Frequency Range	Quantity of Hopping Channel	Limit
2402MU=-2490MU=	79	>15
2402MHz~2480MHz	79	>15

GFSK Mode



8-DPSK Mode





Page: 52 of 91

7. Average Time of Occupancy

7.1 Test Standard and Limit

5.1.1 Test Standard FCC Part 15.247 (a)(1)

5.1.2 Test Limit

Section	Test Item	Limit
15.247(a)(1)/ RSS-210	Average Time of	0.4.000
Annex 8(A8.1d)	Occupancy	0.4 sec

7.2 Test Setup



7.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting: RBW=1MHz, VBW=1MHz.
- (3) Use video trigger with the trigger level set to enable triggering only on full pulses.
- (4) Sweep Time is more than once pulse time.
- (5) Set the center frequency on any frequency would be measure and set the frequency span to zero.
- (6) Measure the maximum time duration of one single pulse.
- (7) Set the EUT for packet transmitting.
- (8) Measure the maximum time duration of one single pulse.

7.4 EUT Operating Condition

The EUT was set to the Hopping Mode by the Customer.

7.5 Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Aug. 08, 2014	Aug.07, 2015

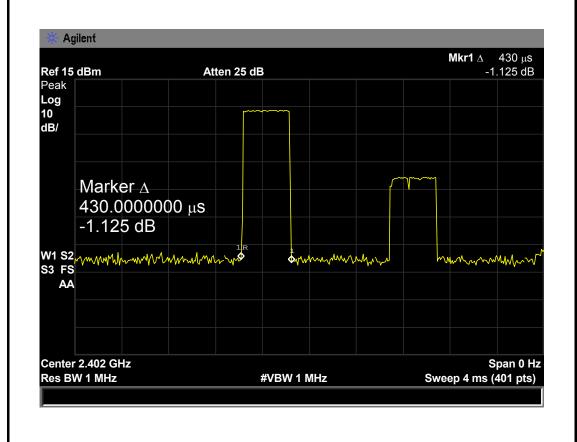


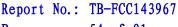
Report No.: TB-FCC143967 Page: 53 of 91

7.6 Test Data

EUT:	ROCK OUT 2 WIRELESS		Model Name :		AMK-3W6-02B	
Temperature:	Temperature: 25 ℃			Relative Humidity: 55%		
Test Voltage: DC 3.7V						
Test Mode: Hopping Mode (GFSK DH1)						
Channel	Pu	Ise Time	Total of Dwell	of Dwell Period Time Limit		Result
(MHz)		(ms)	(ms)	(s)	(ms)	Result
2402		0.430	137.60		400	PASS
2441		0.430	137.60	31.60		
2480		0.430	137.60			
			GESK Honning	Modo DU1		•

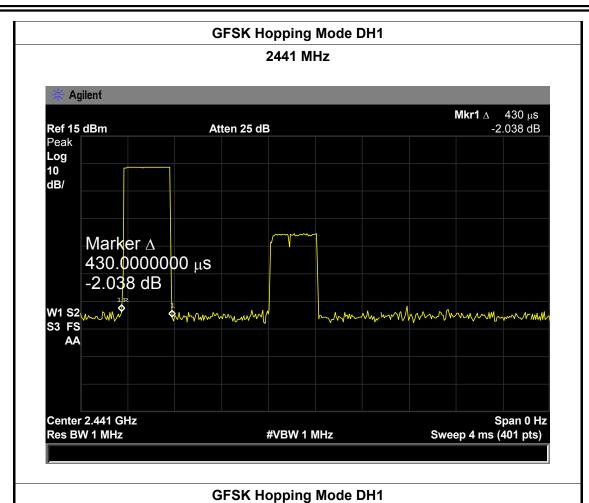
GFSK Hopping Mode DH1







Page: 54 of 91

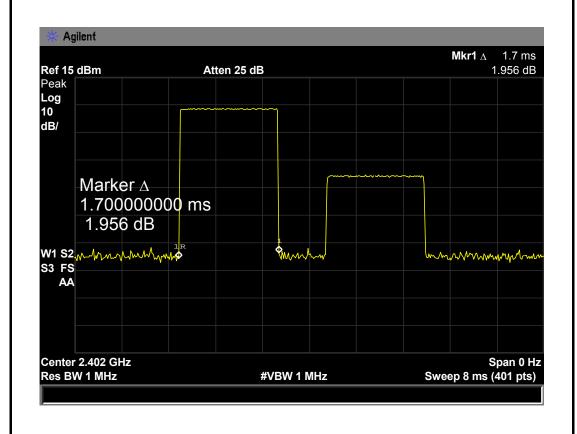


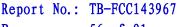
2480 MHz Agilent **Mkr1** Δ 430 μs Ref 15 dBm Atten 25 dB -0.271 dB Peak Log 10 dB/ Marker ∆ $430.0000000 \, \mu s$ -0.271 dB W1 S2 way More many man which was how which was the &mmmuluhum M S3 FS AΑ Center 2.48 GHz Span 0 Hz Res BW 1 MHz #VBW 1 MHz Sweep 4 ms (401 pts)



Page: 55 of 91

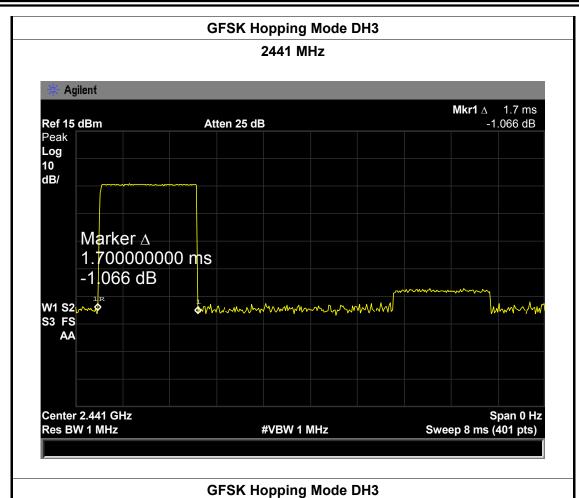
EUT:		ROCK OL	JT 2 WIRELESS	Model Name :		AMK-3W6-02B
Temperature:	•	25 ℃		Relative Hum	idity:	55%
Test Voltage:		DC 3.7V				
Test Mode: Hopping Mode (GFSK DH3))			
Channel	Pu	lse Time	Total of Dwell	Period Time	Limit	Result
(MHz)		(ms)	(ms)	(s)	(ms)	Result
2402		1.700	272.00			
2441		1.700	272.00	31.60	400	PASS
2480		1.700	272.00			
GFSK Hopping Mode DH3						

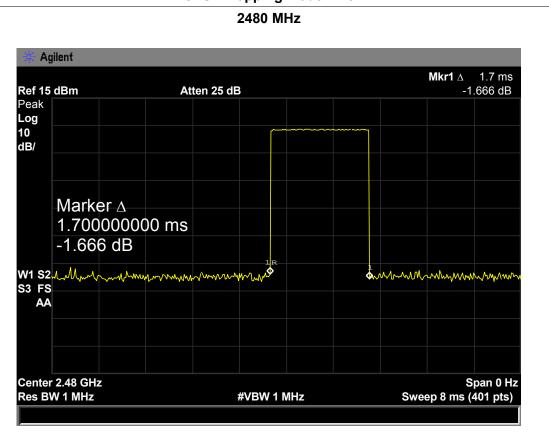






Page: 56 of 91

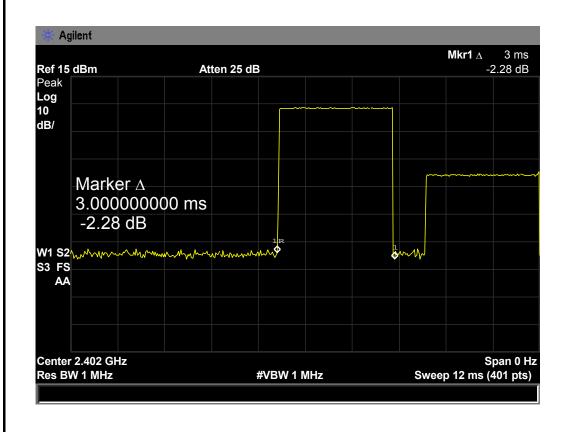


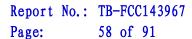




Page: 57 of 91

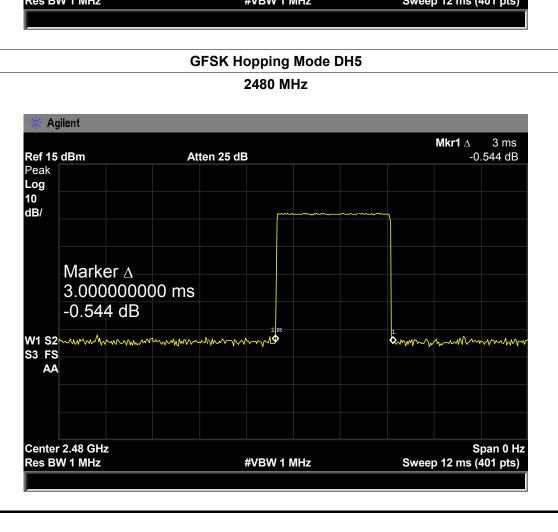
EUT:	ROCK OUT 2 WIRELESS		Model Name :		AMK-3W6-02B		
Temperature:		25 ℃		Relative Hum	idity:	55%	
Test Voltage: DC 3.7V							
Test Mode: Hopping Mode (GFSK DH5)							
Channel	Pu	lse Time	Total of Dwell	Period Time	Limit	Result	
(MHz)		(ms)	(ms)	(s)	(ms)	Result	
2402		3.000	320.00				
2441		3.000	320.00	31.60	400	PASS	
2480		3.000	320.00				
	GFSK Hopping Mode DH5						







GFSK Hopping Mode DH5 2441 MHz Agilent Mkr1 Δ 3 ms 1.255 dB Ref 15 dBm Atten 25 dB Peak Log 10 dB/ Marker ∆ 3.000000000 ms 1.255 dB S3 FS AA Center 2.441 GHz Span 0 Hz Res BW 1 MHz #VBW 1 MHz Sweep 12 ms (401 pts) **GFSK Hopping Mode DH5** 2480 MHz Agilent Mkr1 Δ 3 ms -0.544 dB Ref 15 dBm Atten 25 dB Peak

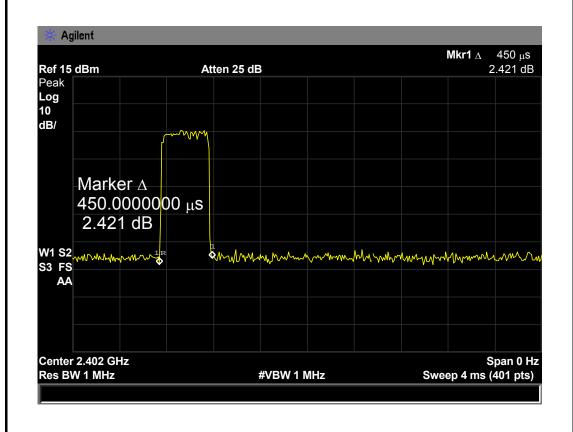


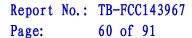


Report No.: TB-FCC143967 Page: 59 of 91

EUT:		ROCK OL	JT 2 WIRELESS	Model Name	AMK-3W6-02B	
Temperature:	e: 25 °C			Relative Hum	idity:	55%
Test Voltage:	t Voltage: DC 3.7V					
Test Mode: Hopping Mode (π /4-DQPSK DH1)						
Channel	Pu	Ise Time	Total of Dwell	Period Time	Limit	Result
(MHz)		(ms)	(ms)	(s)	(ms)	Result
2402		0.450	144.00			
2441		0.440	140.80	31.60	400	PASS
2480		0.450	144.00			
		π	// DODSK Honni	na Modo DU1		

π /4-DQPSK Hopping Mode DH1







AΑ

Center 2.48 GHz

Res BW 1 MHz

π /4-DQPSK Hopping Mode DH1 2441 MHz Agilent Mkr1 Δ 440 μs 0.843 dB Ref 15 dBm Atten 25 dB Peak Log 10 dB/ Marker ∆ $440.0000000 \, \mu s$ 0.843 dB W1 S2 mynymynn S3 FS AA Center 2.441 GHz Span 0 Hz Res BW 1 MHz #VBW 1 MHz Sweep 4 ms (401 pts) π/4-DQPSK Hopping Mode DH1 2480 MHz Agilent Mkr1 Δ 450 μ s Ref 15 dBm Atten 25 dB -2.332 dB Peak Log 10 dB/ Marker ∆ 450.000000 μs -2.33² dB W1 S2 & manufrage may make the way and the second way of the second way S3 FS

#VBW 1 MHz

Span 0 Hz

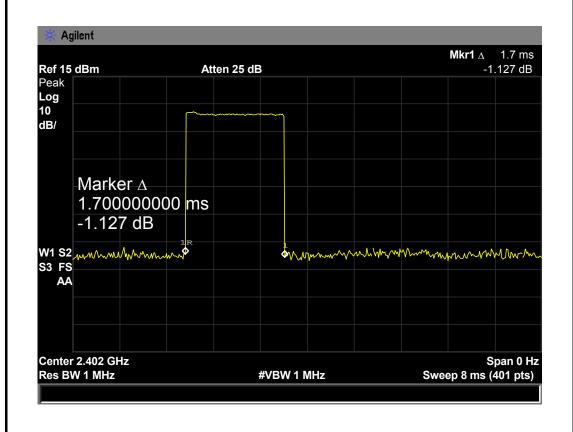
Sweep 4 ms (401 pts)

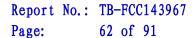


Report No.: TB-FCC143967 Page: 61 of 91

EUT:	ROCK OUT 2 WIRELESS		Model Name :		AMK-3W6-02B	
Temperature		25 ℃		Relative Hum	idity:	55%
Test Voltage:	Test Voltage: DC 3.7V					
Test Mode: Hopping Mode (π /4-DQPSK DH3)						
Channel	Pu	Ilse Time		Limit	Result	
(MHz)		(ms)	(ms)	(s)	(ms)	Result
2402		1.700	272.00		400	PASS
2441		1.740	278.40	31.60		
		1.720	275.20			
2480		1.720	213.20			

π /4-DQPSK Hopping Mode DH3







Center 2.48 GHz

Res BW 1 MHz

 π /4-DQPSK Hopping Mode DH3 2441 MHz Agilent **Mkr1** Δ 1.74 ms 2.225 dB Ref 15 dBm Atten 25 dB Peak Log 10 dB/ Marker ∆ 1.740000000 ms 2.225 dB W1 S2 Mmy many Mn Mn mm my &v.mmy,hmy,nMM,mhhm S3 FS AA Center 2.441 GHz Span 0 Hz Res BW 1 MHz #VBW 1 MHz Sweep 8 ms (401 pts) π/4-DQPSK Hopping Mode DH3 2480 MHz Agilent **Mkr1** \triangle 1.72 ms Ref 15 dBm Atten 25 dB 0.302 dB Peak Log 10 dB/ Marker ∆ 1.72<mark>0</mark>000000 ms 0.302 dB W1 S2, W S3 FS AΑ

#VBW 1 MHz

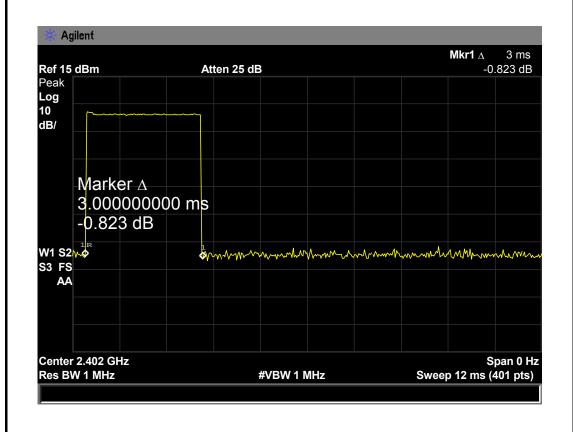
Span 0 Hz

Sweep 8 ms (401 pts)



Page: 63 of 91

EUT:		ROCK OL	JT 2 WIRELESS	Model Name :		AMK-3W6-02B	
Temperature:		25 ℃		Relative Hum	idity:	55%	
Test Voltage:		DC 3.7V					
Test Mode: Hopping Mode (π /4-DQPSK DH5)							
Channel	Pu	Ise Time	Total of Dwell	Period Time	Limit	Result	
(MHz)		(ms)	(ms)	(s)	(ms)	Result	
2402		3.000	320.00				
2441		3.030	323.20	31.60	400	PASS	
2480		3.030	323.20				
	π /4-DQPSK Hopping Mode DH5						





Sweep 12 ms (401 pts)



Res BW 1 MHz

Center 2.48 GHz

Res BW 1 MHz

 π /4-DQPSK Hopping Mode DH5 2441 MHz Agilent **Mkr1** Δ 3.03 ms 0.038 dB Ref 15 dBm Atten 25 dB Peak Log 10 dB/ Marker ∆ 3.030000000 ms 0.038 dB W1 S2 & warmen amount of the warmen and th S3 FS AA Center 2.441 GHz Span 0 Hz

#VBW 1 MHz

π /4-DQPSK Hopping Mode DH5

Agilent

Mkr1 Δ 3.03 ms

Ref 15 dBm
 Atten 25 dB

-1.322 dB

Peak
Log
10
dB/

Marker Δ
3.030000000 ms
-1.322 dB

W1 \$2
S3 FS
AA

#VBW 1 MHz

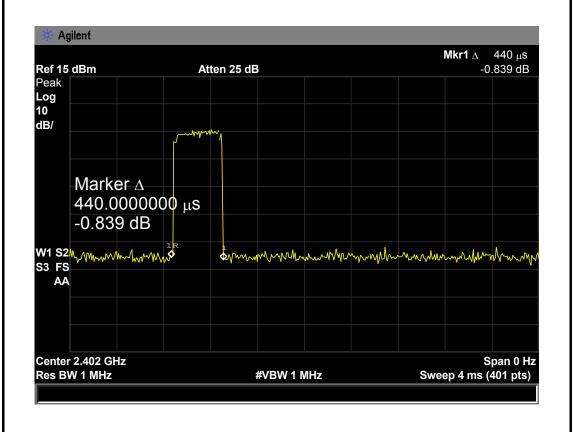
Span 0 Hz

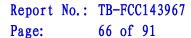
Sweep 12 ms (401 pts)



Page: 65 of 91

EUT:		ROCK O	JT 2 WIRELESS	Model Name :		AMK-3W6-02B	
Temperature	mperature: 25 ℃			Relative Hum	55%		
Test Voltage:		DC 3.7V					
Test Mode: Hopping Mode (8-DPSK DH1)							
Channel	Pu	lse Time	Total of Dwell	Period Time	Limit	Result	
(MHz)		(ms)	(ms)	(s)	(ms)	Result	
2402		0.440	140.80				
2441		0.450	144.00	31.60	400	PASS	
2480		0.440	140.80				







S3 FS AA

Center 2.48 GHz

Res BW 1 MHz

8-DPSK Hopping Mode DH1 2441 MHz Agilent Mkr1 Δ 450 μ s -0.526 dB Ref 15 dBm Atten 25 dB Peak Log 10 dB/ Marker ∆ $450.0000000 \, \mu s$ -0.526 dB \$~mmymmmm S3 FS AA Center 2.441 GHz Span 0 Hz Res BW 1 MHz #VBW 1 MHz Sweep 4 ms (401 pts) 8-DPSK Hopping Mode DH1 2480 MHz Agilent Mkr1 A 440 μs 0.49 dB Ref 15 dBm Atten 25 dB Peak Log 10 dB/ Marker A 440.00000000 μ s 0.49 dB W1 S2,

#VBW 1 MHz

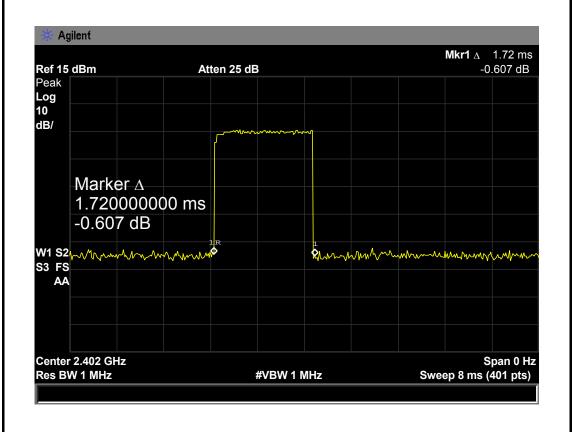
Span 0 Hz

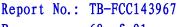
Sweep 4 ms (401 pts)



Report No.: TB-FCC143967 Page: 67 of 91

EUT:		ROCK OUT 2 WIRELESS		Model Name :		AMK-3W6-02B	
Temperature:		25 ℃		Relative Hum	idity:	55%	
Test Voltage:		DC 3.7V					
Test Mode: Hopping Mode (8-DPSK DH3)							
Channel	Pu	lse Time	Total of Dwell	Period Time	Limit	Result	
(MHz)		(ms)	(ms)	(s)	(ms)	Result	
2402		1.720	275.20				
2441		1.720	275.20	31.60	400	PASS	
2480		1.740	278.40				
	8-DPSK Hopping Mode DH3						







Page: 68 of 91

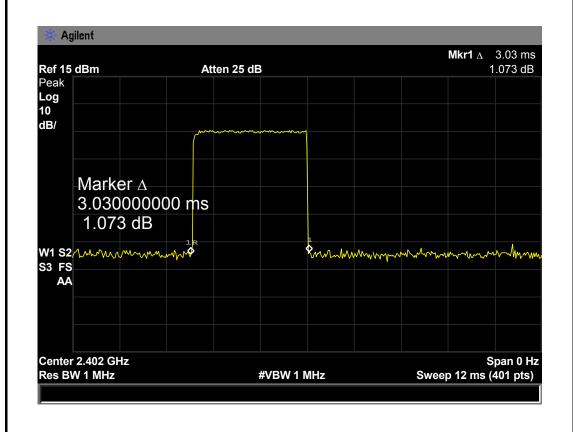


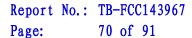
2480 MHz Agilent **Mkr1** Δ 1.74 ms -0.607 dB Ref 15 dBm Atten 25 dB Peak Log 10 dB/ Marker A 1.740000000 ms -0.607 dB W1 S2mm S3 FS AA Center 2.48 GHz Span 0 Hz Res BW 1 MHz #VBW 1 MHz Sweep 8 ms (401 pts)



Report No.: TB-FCC143967 Page: 69 of 91

EUT:		ROCK OL	JT 2 WIRELESS	Model Name	AMK-3W6-02B			
Temperature:		25 ℃		Relative Hum	idity:	55%		
Test Voltage:		DC 3.7V						
Test Mode: Hopping Mode (8-DPSK DH5)								
Channel	Pu	Ise Time	e Time		Limit	Result		
(MHz)		(ms)	(ms)	(s)	(ms)	Result		
2402		3.030	323.20					
2441		3.030	323.20	31.60	400	PASS		
2480		3.060	326.40					
	,	8-DPSK Hopping Mode DH5						







S3 FS AΑ

Center 2.48 GHz

Res BW 1 MHz

2441 MHz Agilent **Mkr1** Δ 3.03 ms -0.215 dB Ref 15 dBm Atten 25 dB Peak Log 10 dB/ Marker ∆ 3.030000000 ms -0.215 dB S3 FS AA Center 2.441 GHz Span 0 Hz Res BW 1 MHz #VBW 1 MHz Sweep 12 ms (401 pts) 8-DPSK Hopping Mode DH5 2480 MHz Agilent **Mkr1** Δ 3.06 ms Ref 15 dBm Atten 25 dB -1.02 dB Peak Log 10 dB/ Marker ∆ 3.060000000 ms -1.02 dB W1 S2~~

#VBW 1 MHz

walnymahyr maynamana

8-DPSK Hopping Mode DH5

Span 0 Hz

Sweep 12 ms (401 pts)



Page: 71 of 91

8. Channel Separation and Bandwidth Test

8.1 Test Standard and Limit

8.1.1 Test Standard FCC Part 15.247

8.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Bandwidth	<=1 MHz (20dB bandwidth)	2400~2483.5
	>25KHz or >two-thirds of	
Channel Separation	the 20 dB bandwidth	2400~2483.5
	Which is greater	

8.2 Test Setup



8.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting:

Channel Separation: RBW=30 kHz, VBW=100 kHz.

Bandwidth: RBW=30 kHz, VBW=100 kHz.

- (3) The bandwidth is measured at an amplitude level reduced 20dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.
- (4) Measure the channel separation the spectrum analyzer was set to Resolution Bandwidth:30 kHz, and Video Bandwidth:100 kHz. Sweep Time set auto.

8.4 EUT Operating Condition

The EUT was set to the Hopping Mode for Channel Separation Test and continuously transmitting for the Bandwidth Test.



Page: 72 of 91

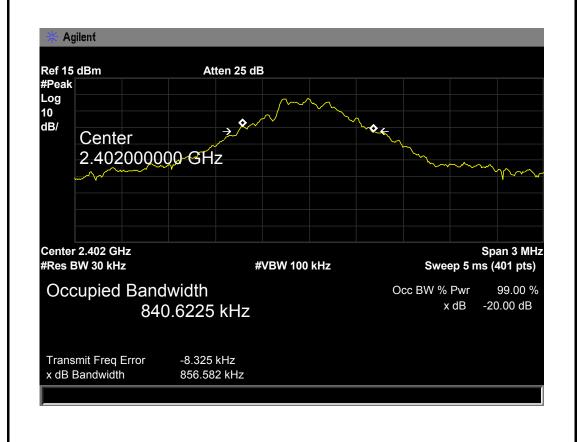
8.5 Test Equipment

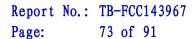
Description	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Aug. 08, 2014	Aug.07, 2015

8.6 Test Data

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B
Temperature:	25 ℃	Relative Humidity	: 55%
Test Voltage:	DC 3.7V		
Test Mode:	TX Mode (GFSK)		
Channel frequence	cy 99% OBW	20dB Bandwidth	20dB Bandwidth
(MHz)	(kHz)	(kHz)	*2/3 (kHz)
2402	840.6225	856.582	
2441	838.7580	861.276	
2480	837.7272	922.500	
OFOK TV Mada			

GFSK TX Mode







GFSK TX Mode 2441 MHz Agilent Ref 15 dBm Atten 25 dB #Peak Log 10 20 dB/ Center 2.441000000 GHz Center 2.441 GHz Span 3 MHz #Res BW 30 kHz **#VBW 100 kHz** Sweep 5 ms (401 pts) Occupied Bandwidth 99.00 % Occ BW % Pwr -20.00 dB 838.7580 kHz x dB Transmit Freq Error -9.608 kHz x dB Bandwidth 861.276 kHz

GFSK TX Mode 2480 MHz Agilent Ref 15 dBm Atten 25 dB #Peak Log 10 dB/ 7 0 **♦**~~ ← Center 2.480000000 GHz Center 2.48 GHz Span 3 MHz #Res BW 30 kHz **#VBW 100 kHz** Sweep 5 ms (401 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % x dB -20.00 dB 837.7272 kHz Transmit Freq Error -9.938 kHz x dB Bandwidth 922.500 kHz



Page: 74 of 91

810.67

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		KY.
	U	T T

2480

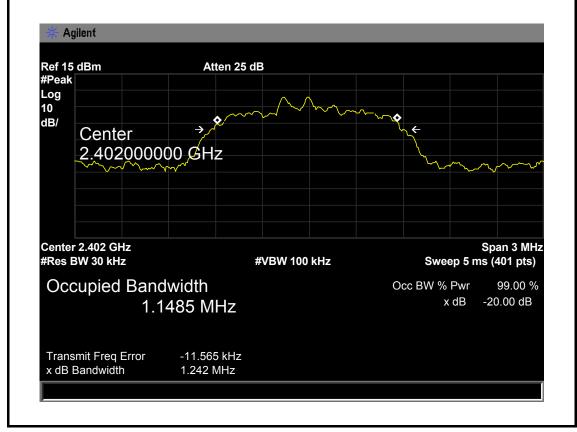
EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX Mode (π /4-DQPSK)		
Channel frequence	99% OBW	20dB Bandwidth	20dB
(MHz)	(kHz)	(kHz)	Bandwidth
			*2/3 (kHz)
2402	1148.500	1242.00	* 2/3 (kHz) 828.00

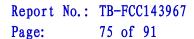
π/4-DQPSK TX Mode

1216.00

2402 MHz

1151.200







π/4-DQPSK TX Mode 2441 MHz Agilent Ref 15 dBm Atten 25 dB #Peak Log 10 dB/ Center 2.441000000 GHz Center 2.441 GHz Span 3 MHz #Res BW 30 kHz **#VBW 100 kHz** Sweep 5 ms (401 pts) Occupied Bandwidth 99.00 % Occ BW % Pwr -20.00 dB 1.1482 MHz x dB Transmit Freq Error -11.355 kHz x dB Bandwidth 1.208 MHz π/4-DQPSK TX Mode 2480 MHz

Agilent Ref 15 dBm Atten 25 dB #Peak Log 10 dB/ Center 2.480000000 GHz Center 2.48 GHz Span 3 MHz #Res BW 30 kHz **#VBW 100 kHz** Sweep 5 ms (401 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % -20.00 dB x dB 1.1512 MHz Transmit Freq Error -13.100 kHz x dB Bandwidth 1.216 MHz



EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B	
Temperature:	25 ℃	Relative Humidity	: 55%	
Test Voltage:	DC 3.7V			
Test Mode:	TX Mode (8-DPSK)			
Channel frequence	ey 99% OBW	20dB Bandwidth	20dB Bandwidth	
(MHz)	(kHz)	(kHz)	*2/3 (kHz)	
2402	1136.30	1216.00	810.67	

8-DPSK TX Mode 2402 MHz

1213.00

1216.00

808.67

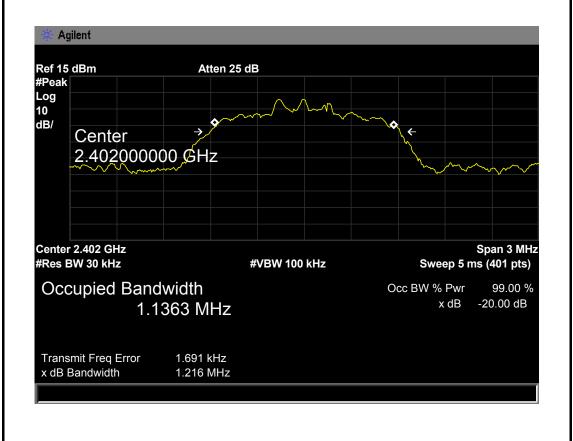
810.67

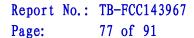
1135.10

1128.10

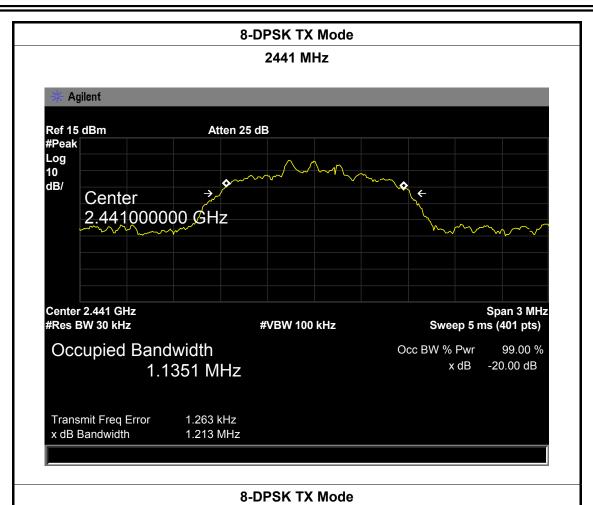
2441

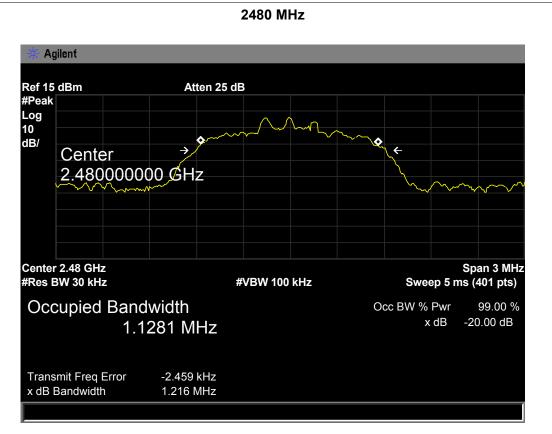
2480













Page: 78 of 91

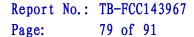
EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: Hopping Mode (GFSK)

	, ,	
Channel frequency	Separation Read Value	Separation Limit
(MHz)	(kHz)	(kHz)
2402	1005.00	856.582
2441	1005.00	861.276
2480	1005.00	922.500

GFSK Hopping Mode









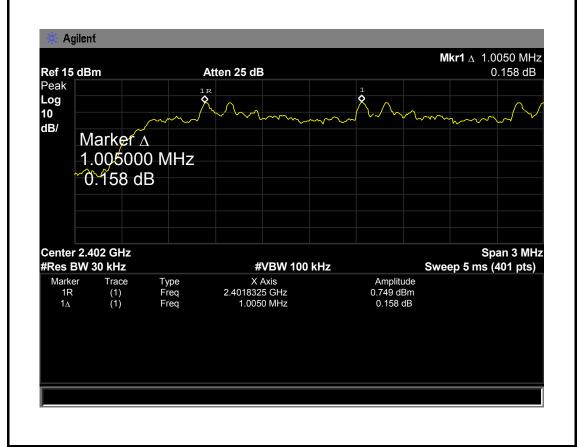


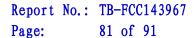
Page: 80 of 91

Channel frequ	hannel frequency Separation Read Value Separation Lim			ration Limit		
Test Mode:	Hopping Mode (π /4-DQPSK)					
Test Voltage:	DC 3.7V	DC 3.7V				
Temperature:	25 ℃		Relative	Humidity:	55%	
EUT:	ROCK OL	JT 2 WIRELESS	Model Na	ame :	AMK-3W6-02B	

Channel frequency	Separation Read Value	Separation Limit
(MHz)	(kHz)	(kHz)
2402	1005.00	828.00
2441	1005.00	805.33
2480	1005.00	810.67

π /4-DQPSK Hopping Mode











2480

Report No.: TB-FCC143967

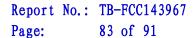
Page: 82 of 91

810.67

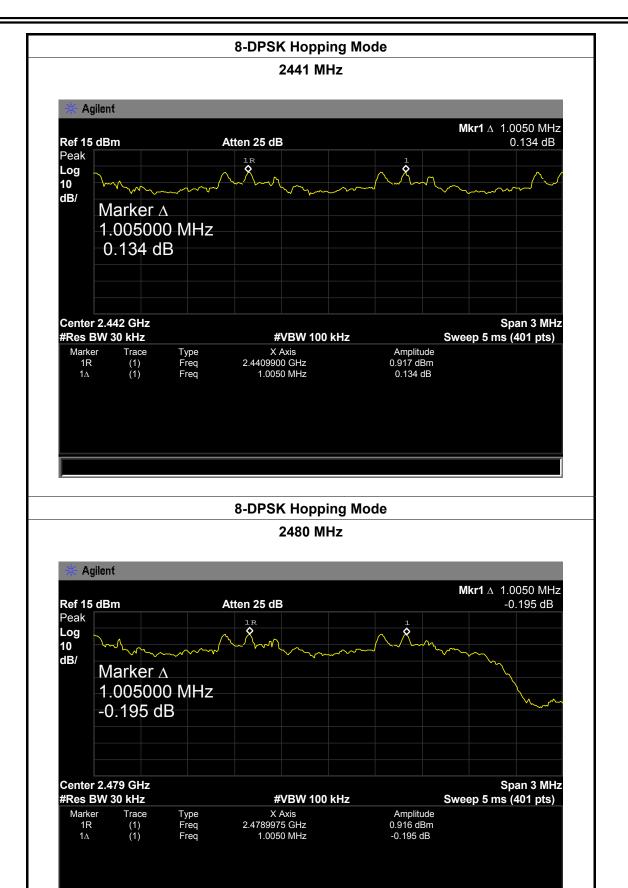
EUT:	ROCK O	OUT 2 WIRELESS Model Name :		AMK-3W6-02B	
Temperature:	25 ℃		Relative Humidity:		55%
Test Voltage:	DC 3.7V				
Test Mode:	Hopping Mode (8-DPSK)				
Channel frequ	Channel frequency Separation Read Value Separation			ration Limit	
(MHz)	(MHz)				(kHz)
2402		1005.00	1005.00		310.67
2441	1005.00			8	308.67

1005.00 8-DPSK Hopping Mode











Page: 84 of 91

9. Peak Output Power Test

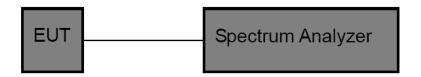
9.1 Test Standard and Limit

9.1.1 Test Standard FCC Part 15.247 (b) (1)

9.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Peak Output Power	Hopping Channels>75 Power<1W(30dBm)	2400~2483.5
	Other <125 mW(21dBm)	

9.2 Test Setup



9.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting:

Peak Detector: RBW=1 MHz, VBW=3 MHz for bandwidth less than 1MHz. RBW=3 MHz, VBW=3 MHz for bandwidth more than 1MHz.

9.4 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.

9.5 Test Equipment

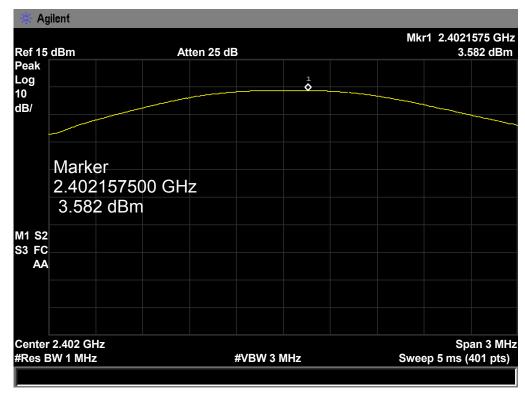
Description	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Aug. 08, 2014	Aug.07, 2015

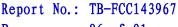
9.6 Test Data



Page: 85 of 91

EUT:	ROCK OUT 2 WIRELESS Model Na				VMK SWE USD
EUI.	ROCK OL	JI Z WIKELESS	Model Na	ame :	AMK-3W6-02B
Temperature:	25 ℃		Relative	Humidity:	55%
Test Voltage:	DC 3.7V				
Test Mode:	TX Mode	(GFSK)			
Channel frequen	cy (MHz)	Test Result (d	dBm)	Lin	nit (dBm)
2402		3.582	582		
2441	2441 3.699		3		30
2480		3.582			
		GFSK TX M	ode		
		2402 MH	Z		
* Agilent					

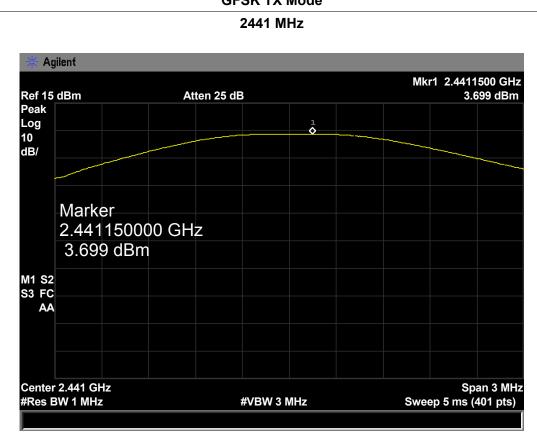




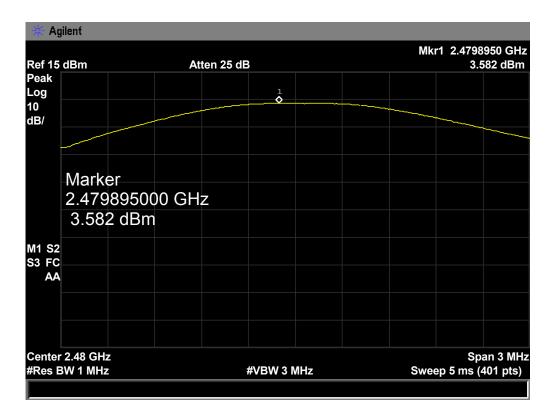


Page: 86 of 91

GFSK TX Mode



GFSK TX Mode



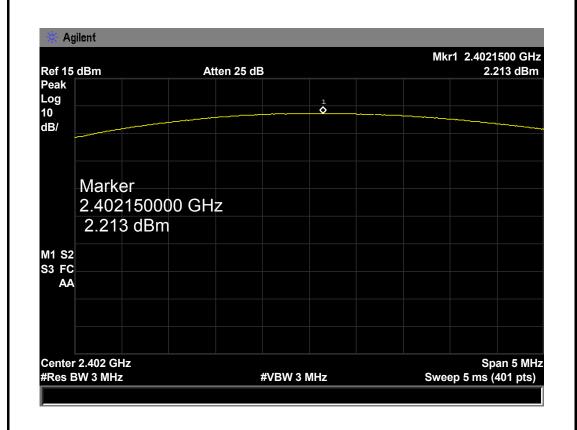


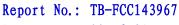
Page: 87 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX Mode (π/4-DQPSK)		

	,	
Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)
2402	2.213	
2441	2.389	21
2480	2.273	

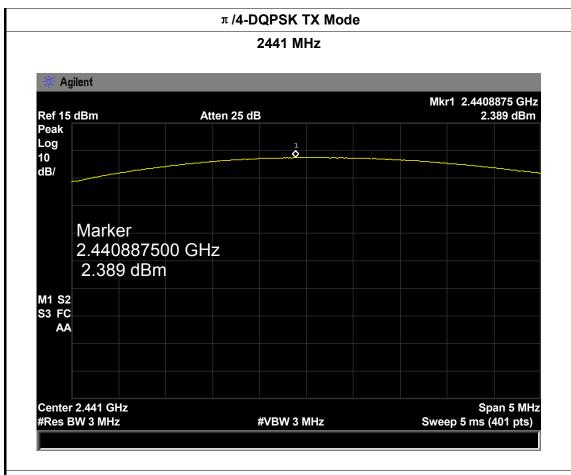
π /4-DQPSK TX Mode



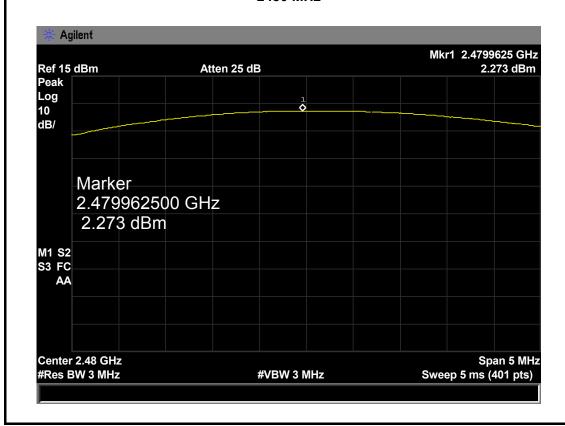




Page: 88 of 91







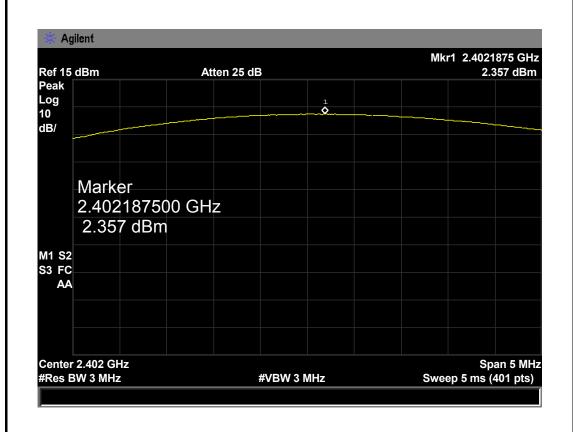


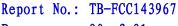
Page: 89 of 91

EUT:	ROCK OUT 2 WIRELESS	Model Name :	AMK-3W6-02B
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Test Mode:	TX Mode (8-DPSK)		

	,	
Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)
2402	2.357	
2441	2.521	21
2480	2.395	

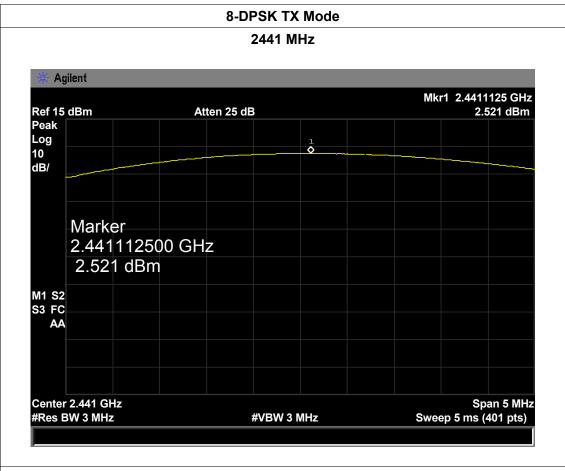
8-DPSK TX Mode



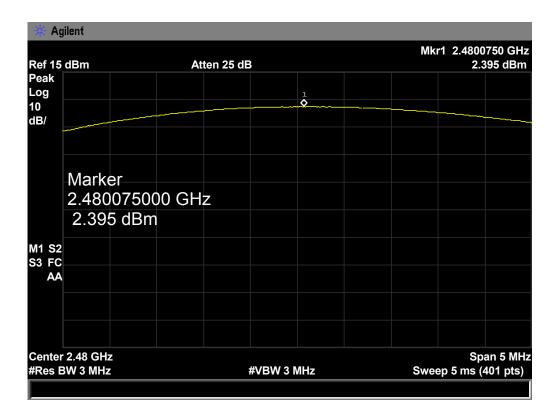




Page: 90 of 91



8-DPSK TX Mode





Page: 91 of 91

10. Antenna Requirement

10.1 Standard Requirement

10.1.1 Standard FCC Part 15.203

10.1.2 Requirement

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

10.2 Antenna Connected Construction

The directional gains of the antenna used for transmitting is 0 dBi, and the antenna connector is de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

Result

The EUT antenna is a PCB Antenna. It complies with the standard requirement.

Antenna Type	
▶ Permanent attached antenna	
□ Unique connector antenna	
☐ Professional installation antenna	