

Shenzhen Toby Technology Co., Ltd.



Report No.: TBR-C-202408-0012-11

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Radio Test Report FCC ID: 2AMM6EWN8822CSS3DA

Report No.	:	TBR-C-202408-0012-11		
Applicant		Earda Technologies Co.,Ltd		
Equipment Under Te	st (EU	IT)		
EUT Name		WiFi & BT combo module		
Model No.		EWN-8822CSS3DA		
Series Model No.	:			
Brand Name	3) 3:	EARDATEK		
Sample ID	6	HC-C-202408-0012-01-01&HC-C-202408-0012-01-02		
Receipt Date	3	2024-08-19		
Test Date		2024-08-20 to 2024-09-10		
Issue Date		2024-09-10		
Standards	·	FCC Part 15 Subpart C 15.247		
Test Method	M :	ANSI C63.10: 2013 KDB 558074 D01 15.247 Meas Guidance v05r02		
Conclusions	:	PASS		
	13	In the configuration tested, the EUT complied with the standards specified above.		
Test By		: John Lee		
Reviewed By	13	: Henry Huang		
Approved By	U	: WAN SU Nan Su		

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



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Revision History

Report No.	Version	Description	Issued Date
TBR-C-202408-0012-11	Rev.01	Initial issue of report	2024-09-10
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1. General Information about EUT

1.1 Client Information

Applicant		Earda Technologies Co.,Ltd	
Address		ock A, LianFeng Creative Industry Park,2 JiSheng Road., langGe Town, NanSha District, Guangzhou, PRC.	
Manufacturer		arda Technologies Co.,Ltd	
Address	P	Block A, LianFeng Creative Industry Park,2 JiSheng Road., HuangGe Town, NanSha District, Guangzhou, PRC.	

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	WiFi & BT combo module			
Models No.):	EWN-8822CSS3DA			
Model Different	æ	N/A			
MOBE	1/1	Operation Frequency:	Bluetooth(BR+EDR): 2402MHz~2480MHz		
		Number of Channel:	79 channels		
Product Description		Antenna Gain:	5.25dBi PCB Antenna		
Description	5	Modulation Type:	GFSK(1Mbps) π/4-DQPSK(2Mbps) 8DPSK(3Mbps)		
Power Rating		DC 3.3V			
Software Version	1	V1.0	V1.0		
Hardware Version		A1.0	A1.0		
		- 111111L			

Remark

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



⁽¹⁾ The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.

⁽²⁾ The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

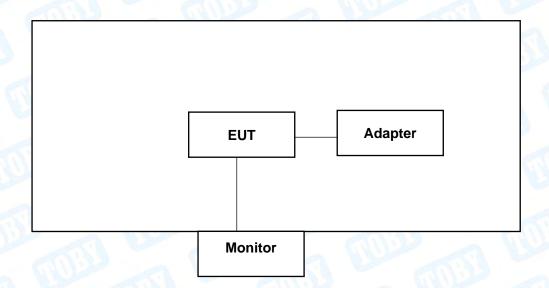


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(4) Channel List:

	Bluetooth Channel List						
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)		
00	2402	27	2429	54	2456		
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		NA TO		

1.3 Block Diagram Showing the Configuration of System Tested







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1.4 Description of Support Units

Equipment Information					
Name	Model	S/N	Manufacturer	Used "√"	
Flat Panel Monitor	S2722QC	CN-05DNJ6	Dell	√	
Adapter	X552	25707	UGREEN	√	
Keyboard	K120	1511MG01BS78	Logitech	√	
Mouse	M-UARDEL7		DELL	√	

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.

For Co	onducted Test(AC POWER)
Final Test Mode	Description
Mode 1	TX GFSK Mode Channel 00
For Radi	ated and RF Conducted Test
Final Test Mode	Description
Mode 1	TX GFSK Mode Channel 00
Mode 2	TX Mode(GFSK) Channel 00/39/78
Mode 3	TX Mode(π/4-DQPSK) Channel 00/39/78
Mode 4	TX Mode(8DPSK) Channel 00/39/78
Mode 5	Hopping Mode(GFSK)
Mode 6	Hopping Mode(π/4-DQPSK)
Mode 7	Hopping Mode(8DPSK)

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.

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:π/4-DQPSK (2 Mbps)
TX Mode: 8DPSK (3 Mbps)

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a Mobile unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.





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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 RF setting.

Test Software Version		Command	
Frequency	2402 MHz	2441MHz	2480 MHz
GFSK	DEF	DEF	DEF
π/4-DQPSK	DEF	DEF	DEF
8DPSK	DEF	DEF	DEF

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})
Conducted Emission	Level Accuracy: 9kHz~150kHz 150kHz to 30MHz	±3.50 dB ±3.10 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	±4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±4.50 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.20 dB





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1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F., Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, 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: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

IC Registration No.: (11950A)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.





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2. Test Summary

Standard Section	Test Item	Test Sample(s)	Judgment	Remark
FCC 15.207(a)	Conducted Emission	HC-C-202408-0012-11-02	PASS	N/A
FCC 15.209 & 15.247(d)	Radiated Unwanted Emissions	HC-C-202408-0012-11-02	PASS	N/A
FCC 15.203	Antenna Requirement	HC-C-202408-0012-11-01	PASS	N/A
FCC 15.247(a)	99% Occupied Bandwidth & 20dB Bandwidth	HC-C-202408-0012-11-01	PASS	N/A
FCC 15.247(b)(1)	Peak Output Power	HC-C-202408-0012-11-01	PASS	N/A
FCC 15.247(a)(1)	Carrier frequency separation	HC-C-202408-0012-11-01	PASS	N/A
FCC 15.247(a)(1)	Time of occupancy	HC-C-202408-0012-11-01	PASS	N/A
FCC 15.247(b)(1)	Number of Hopping Frequency	HC-C-202408-0012-11-01	PASS	N/A
FCC 15.247(d)	Band Edge	HC-C-202408-0012-11-01	PASS	N/A
FCC 15.207(a)	Conducted Unwanted Emissions	HC-C-202408-0012-11-01	PASS	N/A
FCC 15.205	Emissions in Restricted Bands	HC-C-202408-0012-11-01	PASS	N/A
(1)	On Time and Duty Cycle	HC-C-202408-0012-11-01	1 60	N/A

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

3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Conducted Emission	EZ-EMC	EZ	CDI-03A2
Radiation Emission	EZ-EMC	EZ	FA-03A2RE
Radiation Emission	EZ-EMC	EZ	FA-03A2RE+
RF Conducted Measurement	MTS-8310	MWRFtest	V2.0.0.0
RF Test System	JS1120	Tonscend	V3.2.22





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4. Test Equipment and Test Site

Test Site				
No.	Test Site	Manufacturer	Specification	Used
TB-EMCSR001	Shielding Chamber #1	YIHENG	7.5*4.0*3.0 (m)	√
TB-EMCSR002	Shielding Chamber #2	YIHENG	8.0*4.0*3.0 (m)	\checkmark
TB-EMCCA001	3m Anechoic Chamber #A	ETS	9.0*6.0*6.0 (m)	X
TB-EMCCB002	3m Anechoic Chamber #B	YIHENG	9.0*6.0*6.0 (m)	√

Conducted Emissio	n Test				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jun. 17, 2024	Jun. 16, 2025
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jun. 17, 2024	Jun. 16, 2025
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jun. 17, 2024	Jun. 16, 2025
LISN	Rohde & Schwarz	ENV216	101131	Jun. 17, 2024	Jun. 16, 2025
Radiation Emission	Test(B Site)				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	N9020A	MY49100060	Aug. 30, 2023	Aug. 29, 2024
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 17, 2024	Jun. 16, 2025
EMI Test Receiver	Rohde & Schwarz	ESU-8	100472/008	Feb. 23, 2024	Feb.22, 2025
Bilog Antenna	SCHWARZBECK	VULB 9168	1225	Nov. 13, 2023	Nov. 12, 2025
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2463	Jun. 14, 2024	Jun. 13, 2026
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Feb. 27, 2024	Feb.26, 2026
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 14, 2024	Jun. 13, 2026
HF Amplifier	Tonscend	TAP9E6343	AP21C806117	Aug. 30, 2023	Aug. 29, 2024
HF Amplifier	Tonscend	TAP051845	AP21C806141	Aug. 30, 2023	Aug. 29, 2024
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Aug. 30, 2023	Aug. 29, 2024
Pre-amplifier	HP	8449B	3008A00849	Feb. 23, 2024	Feb.22, 2025
Highpass Filter	CD	HPM-6.4/18G		N/A	N/A
Highpass Filter	CD	HPM-2.8/18G	(A) (1) (b)	N/A	N/A
Highpass Filter	XINBO	XBLBQ-HTA67(8-25G)	22052702-1	N/A	N/A
Antenna Conducted	l Emission				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 17, 2024	Jun. 16, 2025
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Aug. 30, 2023	Aug. 29, 2024
Spectrum Analyzer	KEYSIGHT	N9020B	MY60110172	Aug. 30, 2023	Aug. 29, 2024
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Aug. 30, 2023	Aug. 29, 2024
DE Dawer Career	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Aug. 30, 2023	Aug. 29, 2024
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Aug. 30, 2023	Aug. 29, 2024
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Aug. 30, 2023	Aug. 29, 2024
RF Control Unit	Tonsced	JS0806-2	21F8060439	Aug. 30, 2023	Aug. 29, 2024
Power Control Box	Tonsced	JS0806-4ADC	21C8060387	N/A	N/A





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Conducted Emissio	n Test				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jun. 17, 2024	Jun. 16, 2025
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jun. 17, 2024	Jun. 16, 2025
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jun. 17, 2024	Jun. 16, 2025
LISN	Rohde & Schwarz	ENV216	101131	Jun. 17, 2024	Jun. 16, 2025
Radiation Emission	Test(B Site)				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	N9020A	MY49100060	Aug. 29, 2024	Aug. 28, 2025
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 17, 2024	Jun. 16, 2025
EMI Test Receiver	Rohde & Schwarz	ESU-8	100472/008	Feb. 23, 2024	Feb.22, 2025
Bilog Antenna	SCHWARZBECK	VULB 9168	1225	Nov. 13, 2023	Nov. 12, 2025
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2463	Jun. 14, 2024	Jun. 13, 2026
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Feb. 27, 2024	Feb.26, 2026
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 14, 2024	Jun. 13, 2026
HF Amplifier	Tonscend	TAP9E6343	AP21C806117	Aug. 29, 2024	Aug. 28, 2025
HF Amplifier	Tonscend	TAP051845	AP21C806141	Aug. 29, 2024	Aug. 28, 2025
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Aug. 29, 2024	Aug. 28, 2025
Pre-amplifier	HP	8449B	3008A00849	Feb. 23, 2024	Feb.22, 2025
Highpass Filter	CD	HPM-6.4/18G		N/A	N/A
Highpass Filter	CD	HPM-2.8/18G	1111	N/A	N/A
Highpass Filter	XINBO	XBLBQ-HTA67(8-25G)	22052702-1	N/A	N/A
Antenna Conducted	Emission				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 17, 2024	Jun. 16, 2025
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Aug. 29, 2024	Aug. 28, 2025
Spectrum Analyzer	KEYSIGHT	N9020B	MY60110172	Aug. 29, 2024	Aug. 28, 2025
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Aug. 29, 2024	Aug. 28, 2025
DE D 0	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Aug. 29, 2024	Aug. 28, 2025
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Aug. 29, 2024	Aug. 28, 2025
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Aug. 29, 2024	Aug. 28, 2025
RF Control Unit	Tonsced	JS0806-2	21F8060439	Aug. 29, 2024	Aug. 28, 2025
Power Control Box	Tonsced	JS0806-4ADC	21C8060387	N/A	N/A



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5. Conducted Emission

5.1 Test Standard and Limit

5.1.1 Test Standard

FCC Part 15.207

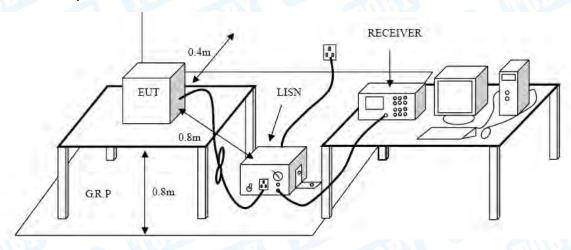
5.1.2 Test Limit

Fraguenov	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.

5.2 Test Setup



5.3 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.
- ●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 9 kHz, and the test frequency band is from 0.15MHz to 30MHz.

5.4 Deviation From Test Standard

No deviation





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5.5 EUT Operating Mode

Please refer to the description of test mode.

5.6 Test Data

Please refer to the Attachment A inside test report.





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6. Radiated and Conducted Unwanted Emissions

6.1 Test Standard and Limit

6.1.1 Test Standard

FCC Part 15.209 & FCC Part 15.247(d)

6.1.2 Test Limit

General field strength limits at frequencies Below 30MHz		
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

Note: 1, The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

General field strength limits at frequencies above 30 MHz		
Frequency (MHz)	Field strength (μV/m at 3 m)	Measurement Distance (meters)
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

General field strength limits at frequencies Above 1000MHz			
Frequency	Distance of 3m (dBuV/m)		
(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)

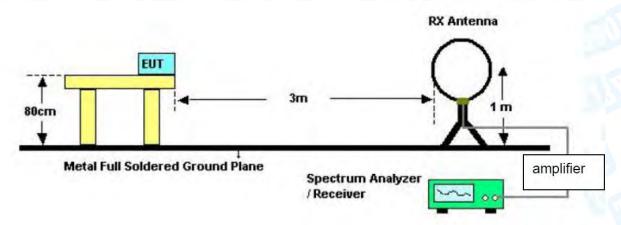
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB.



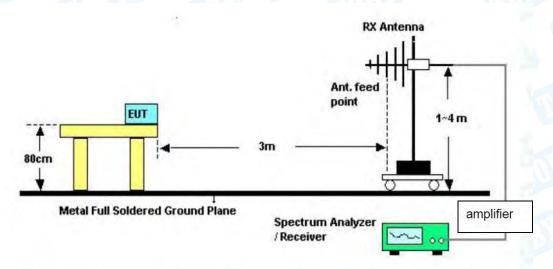


6.2 Test Setup

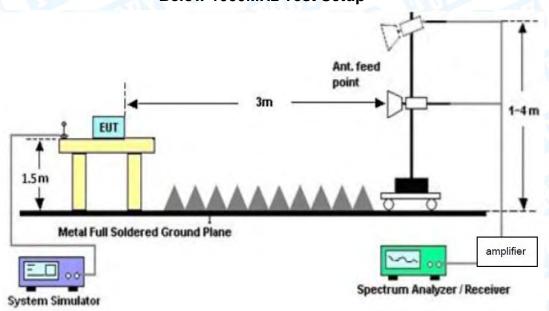
Radiated measurement



Below 30MHz Test Setup



Below 1000MHz Test Setup



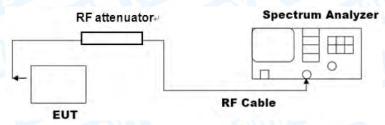
Above 1GHz Test Setup





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Conducted measurement



6.3 Test Procedure

---Radiated measurement

- The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- 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.
- The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- 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.
- If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit

Below 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.

● Testing frequency range 30MHz-1GHz the measuring instrument use VBW=120 kHz with

Quasi-peak detection. Testing frequency range 9KHz-150Hz the measuring instrument use VBW=200Hz with Quasi-peak detection. Testing frequency range 9KHz-30MHz the measuring instrument use VBW=9kHz with Quasi-peak detection.

● 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.

● For the actual test configuration, please see the test setup photo.





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--- Conducted measurement

Reference level measurement

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency.
- b) Set the span to≥1.5 times the DTS bandwidth.
- c) Set the RBW = 100 kHz.
- d) Set the VBW≥[3*RBW].
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum PSD level.

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Emission level measurement

Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW≥[3*RBW].
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

6.4 Deviation From Test Standard

No deviation

6.5 EUT Operating Mode

Please refer to the description of test mode.

6.6 Test Data

Radiated measurement please refer to the Attachment B inside test report. Conducted measurement please refer to the external appendix report of BT.





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7. Restricted Bands and Band Edge Requirement

7.1 Test Standard and Limit

7.1.1 Test Standard

FCC Part 15.205 & FCC Part 15.247(d)

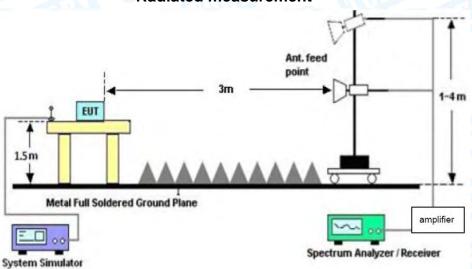
7.1.2 Test Limit

Restricted Frequency	Distance Meters(at 3m)		
Band (MHz)	Peak (dBuV/m)	Average (dBuV/m)	
2310 ~2390	74	54	
2483.5 ~2500	74	54	
	Peak (dBm)see 7.3 e)	Average (dBm) see 7.3 e)	
2310 ~2390	-21.20	-41.20	
2483.5 ~2500	-21.20	-41.20	

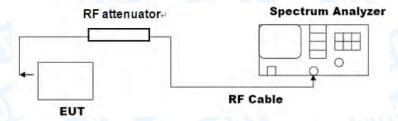
Note: According the ANSI C63.10 11.12.2 antenna-port conducted measurements may also be used as an alternative to radiated measurements for determining compliance in the restricted frequency bands requirements. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test forcabinet/case emissions is required.

7.2 Test Setup

Radiated measurement



Conducted measurement







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7.3 Test Procedure

---Radiated measurement

- 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.
- The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- ◆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.
- The Peak Value and average value both need to comply with applicable limit above 1 GHz.
- 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.
- For the actual test configuration, please see the test setup photo.

--- Conducted measurement

- a) Measure the conducted output power (in dBm) using the detector specified by the appropriate regulatory agency (see 11.12.2.3 through 11.12.2.5 for guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP (see 11.12.2.6 for guidance on determining the applicable antenna gain).
- c) Add the appropriate maximum ground reflection factor to the EIRP (6 dB for frequencies ≤30 MHz; 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive; and 0 dB for frequencies > 1000 MHz).
- d) For MIMO devices, measure the power of each chain and sum the EIRP of all chains in linear terms (i.e., watts and mW).
- e) Convert the resultant EIRP to an equivalent electric field strength using the following relationship:

 $E = EIRP-20 \log d + 104.8$

where

E is the electric field strength in dBuV/m

EIRP is the equivalent isotropically radiated power in dBm

d is the specified measurement distance in m

- f) Compare the resultant electric field strength level with the applicable regulatory limit.
- g) Perform the radiated spurious emission test.

7.4 Deviation From Test Standard

No deviation

7.5 EUT Operating Mode

Please refer to the description of test mode.

7.6 Test Data

Please refer to the Attachment C inside test report.





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8. 99% Occupied and 20dB Bandwidth

8.1 Test Standard and Limit

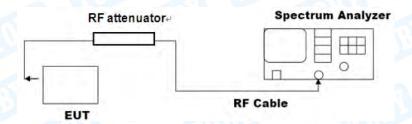
8.1.1 Test Standard

FCC Part 15.205 & FCC Part 15.247(a)

8.1.2 Test Limit

For an FHSS system operating in the 2400 to 2483.5 MHz band, there are no limits for 20dB bandwidth and 99% occupied bandwidth.

8.2 Test Setup



8.3 Test Procedure

- The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:
- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).





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8.4 Deviation From Test Standard

No deviation

8.5 EUT Operating Mode

Please refer to the description of test mode.

8.6 Test Data

Please refer to the external appendix report of BT.





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9. Peak Output Power Test

9.1 Test Standard and Limit

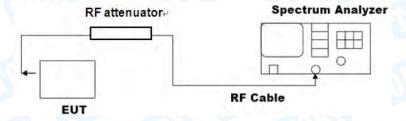
9.1.1 Test Standard

FCC Part 15.247(b)(1)

9.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Peak Output Power	$P_{\text{max-pk}} \le 1 \text{ W}$ $N_{\text{ch}} \ge 75$ f ≥ MAX { 25 kHz, BW20dB } max. BW20dB not specified $t\text{ch} \le 0.4 \text{ s for } T = 0.4*N_{\text{ch}}$ $P_{\text{max-pk}} \le 0.125 \text{ W}$ $N_{\text{ch}} \ge 15$ f ≥ [MAX{25 kHz, 0.67*BW20dB} OR MAX{25 kHz, BW20dB}] max. BW20dB not specified $t\text{ch} \le 0.4 \text{ s for } T = 0.4*N_{\text{ch}}$	2400~2483.5
t_{ch} = average time of occupancy; T = period; N_{ch} = # hopping frequencies; BW = bandwidth; \Box		
f = hopping channel carrier frequency separation		

9.2 Test Setup



9.3 Test Procedure

- This is an RF-conducted test to evaluate maximum peak output power. Use a direct connection between the antenna port of the unlicensed wireless device and the spectrum analyzer, through suitable attenuation. The hopping shall be disabled for this test:
- a) Use the following spectrum analyzer settings:
 - 1) Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel.
 - 2) RBW > 20 dB bandwidth of the emission being measured.
 - 3) VBW≥ RBW.
 - 4) Sweep: Auto.
 - 5) Detector function: Peak.
 - 6) Trace: Max hold.
- b) Allow trace to stabilize.
- c) Use the marker-to-peak function to set the marker to the peak of the emission.
- d) The indicated level is the peak output power, after any corrections for external attenuators and cables.
- e) A plot of the test results and setup description shall be included in the test report.

NOTE-A peak responding power meter may be used, where the power meter and sensor system video bandwidth is greater than the occupied bandwidth of the unlicensed wireless device, rather than a spectrum analyzer.





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9.4 Deviation From Test Standard

No deviation

9.5 EUT Operating Mode

Please refer to the description of test mode.

9.6 Test Data

Please refer to the external appendix report of BT.



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10. Carrier frequency separation

10.1 Test Standard and Limit

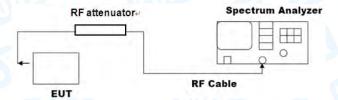
10.1.1 Test Standard

FCC Part 15.247(a)(1)

10.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Carrier frequency separation	$P_{\text{max-pk}} \le 1 \text{ W}$ $N_{\text{ch}} \ge 75$ f ≥ MAX { 25 kHz, BW20dB } max. BW20dB not specified $t\text{ch} \le 0.4 \text{ s for } T = 0.4^*N\text{ch}$ $P_{\text{max-pk}} \le 0.125 \text{ W}$ $N_{\text{ch}} \ge 15$ f ≥ [MAX{25 kHz, 0.67*BW20dB} OR MAX{25 kHz, BW20dB}] max. BW20dB not specified $t\text{ch} \le 0.4 \text{ s for } T = 0.4^*N\text{ch}$	2400~2483.5
t_{ch} = average time of occupancy; T = period; N_{ch} = # hopping frequencies; BW = bandwidth; \Box		
f = hopping channel carrier frequency separation		

10.2 Test Setup



10.3 Test Procedure

• The EUT shall have its hopping function enabled. Use the following spectrum analyzer

settings:

- a) Span: Wide enough to capture the peaks of two adjacent channels.
- b) RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel.
- c) Video (or average) bandwidth (VBW) ≥ RBW.
- d) Sweep: Auto.
- e) Detector function: Peak.
- f) Trace: Max hold.
- g) Allow the trace to stabilize.

Use the marker-delta function to determine the separation between the peaks of the adjacent channels.

Compliance of an EUT with the appropriate regulatory limit shall be determined. A plot of the data shall be included in the test report.

10.4 Deviation From Test Standard

No deviation





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10.5 Antenna Connected Construction

Please refer to the description of test mode.

10.6 Test Data

Please refer to the external appendix report of BT.





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11. Time of occupancy (dwell time)

11.1 Test Standard and Limit

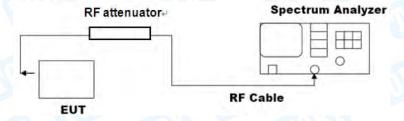
11.1.1 Test Standard

FCC Part 15.247(a)(1)

11.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Time of occupancy (dwell time)	$P_{\text{max-pk}} \le 1 \text{ W}$ $N_{ch} \ge 75$ f ≥ MAX { 25 kHz, BW20dB } max. BW20dB not specified $t\text{ch} \le 0.4 \text{ s for } T = 0.4*N\text{ch}$ $P_{\text{max-pk}} \le 0.125 \text{ W}$ $N_{ch} \ge 15$ f ≥ [MAX{25 kHz, 0.67*BW20dB} OR MAX{25 kHz, BW20dB}] max. BW20dB not specified $t\text{ch} \le 0.4 \text{ s for } T = 0.4*N\text{ch}$	2400~2483.5
t_{ch} = average time of occupancy; T = period; N_{ch} = # hopping frequencies; BW = bandwidth; \Box		
f = hopping channel carrier frequency separation		

11.2 Test Setup



11.3 Test Procedure

- ●The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:
- a) Span: Zero span, centered on a hopping channel.
- b) RBW shall be \Box channel spacing and where possible RBW should be set >> 1 / T, where T is the expected dwell time per channel.
- c) Sweep: As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment to prevent triggering when the system hops on an adjacent channel; a second plot might be needed with a longer sweep time to show two successive hops on a channel.
- d) Detector function: Peak.
- e) Trace: Max hold.

Use the marker-delta function to determine the transmit time per hop. If this value varies with different modes of operation (data rate, modulation format, number of hopping channels, etc.), then repeat this test for each variation in transmit time.

Repeat the measurement using a longer sweep time to determine the number of hops





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over the period specified in the requirements. The sweep time shall be equal to, or less than, the period specified in the requirements. Determine the number of hops over the sweep time and calculate the total number of hops in the period specified in the requirements, using the following equation:

(Number of hops in the period specified in the requirements) =

(number of hops on spectrum analyzer)x(period specified in the requirements / analyzer sweep time)

The average time of occupancy is calculated from the transmit time per hop multiplied by the number of hops in the period specified in the requirements. If the number of hops in a specific time varies with different modes of operation (data rate, modulation format, number of hopping channels, etc.), then repeat this test for each variation.

The measured transmit time and time between hops shall be consistent with the values described in the operational description for the EUT.

11.4 Deviation From Test Standard

No deviation

11.5 Antenna Connected Construction

Please refer to the description of test mode.

11.6 Test Data

Please refer to the external appendix report of BT.





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12. Number of hopping frequencies

12.1 Test Standard and Limit

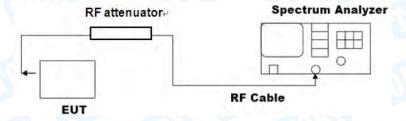
12.1.1 Test Standard

FCC Part 15.247(b)(1)

12.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Carrier frequency separation	$P_{\text{max-pk}} \le 1 \text{ W}$ $N_{ch} \ge 75$ f ≥ MAX { 25 kHz, BW20dB } max. BW20dB not specified $t\text{ch} \le 0.4 \text{ s for } T = 0.4^*N\text{ch}$ $P_{\text{max-pk}} \le 0.125 \text{ W}$ $N_{ch} \ge 15$ f ≥ [MAX{25 kHz, 0.67*BW20dB} OR MAX{25 kHz, BW20dB}] max. BW20dB not specified $t\text{ch} \le 0.4 \text{ s for } T = 0.4^*N\text{ch}$	2400~2483.5
	ccupancy; $T = period$; $N_{ch} = \# hopping$	
	f = hopping channel carrier frequency s	separation

12.2 Test Setup



12.3 Test Procedure

- The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:
- a) Span: The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen.
- b) RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
- c) VBW ≥ RBW.
- d) Sweep: Auto.
- e) Detector function: Peak.
- f) Trace: Max hold.
- g) Allow the trace to stabilize.

It might prove necessary to break the span up into subranges to show clearly all of the hopping frequencies.

Compliance of an EUT with the appropriate regulatory limit shall be determined for the number of hopping channels. A plot of the data shall be included in the test report.

12.4 Deviation From Test Standard

No deviation





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12.5 Antenna Connected Construction

Please refer to the description of test mode.

12.6 Test Data

Please refer to the external appendix report of BT.





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13. Antenna Requirement

13.1 Test Standard and Limit

11.1.1 Test Standard

FCC Part 15.203

11.1.2 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.

13.2 Deviation From Test Standard

No deviation

13.3 Antenna Connected Construction

The gains of the antenna used for transmitting is 5.25dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

13.4 Test Data

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

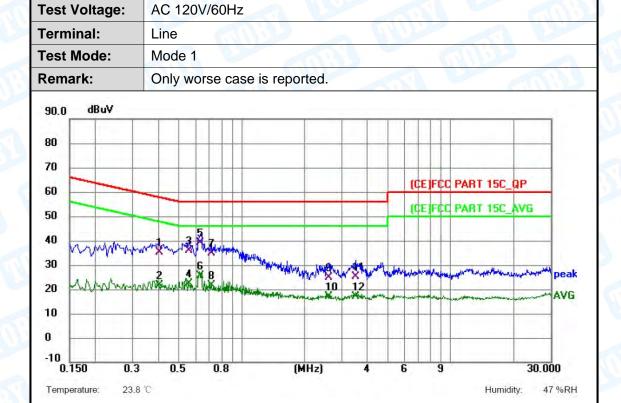
Antenna Type	
⊠Permanent attached antenna	
Unique connector antenna	33
☐Professional installation antenna	





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Attachment A-- Conducted Emission Test Data



No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBu∨	dBuV	dB	Detector
1	0.402	25.19	9.92	35.11	57.81	-22.70	QP
2	0.402	11.52	9.92	21.44	47.81	-26.37	AVG
3	0.559	26.08	9.92	36.00	56.00	-20.00	QP
4	0.559	12.52	9.92	22.44	46.00	-23.56	AVG
5 *	0.636	29.23	9.91	39.14	56.00	-16.86	QP
6	0.636	15.66	9.91	25.57	46.00	-20.43	AVG
7	0.722	24.93	9.90	34.83	56.00	-21.17	QP
8	0.722	11.80	9.90	21.70	46.00	-24.30	AVG
9	2.616	14.63	10.08	24.71	56.00	-31.29	QP
10	2.616	6.75	10.08	16.83	46.00	-29.17	AVG
11	3.525	14.97	10.05	25.02	56.00	-30.98	QP
12	3.525	6.76	10.05	16.81	46.00	-29.19	AVG

Remark:

1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)

2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)





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Test Volta	ge:	AC 120\	V/60Hz			1133				THIE		4
Terminal:		Neutral Mode 1										
Test Mode):											
Remark:		Only wo	rse cas	e is repo	rted	13				111		A
90.0 dBu	N.											
80												
70												
60								(CE)FC	C PA	ART 15C_G	ĮP.	
50								(CE)FC	C PA	ART 15C_	VG	
40									-			
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10										Andrew College Confession		
0									-			
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				_			14.0					_
No. Mk.	Fred	l. Le	ading evel	Corre Factor		Measu ment		Lim	20.	Over	Detec	tor
No. Mk.		J. Le	evel	Fact	or	ment		dBu	ı۷	- 50933	Detec	
	MHz	d. Le	evel BuV	Factor dB	or S	ment dBu∀		dBu	ı∨ 34	dB	Detec	5
1	МНz 0.26	1. Le d 3 22 3 10	BuV 2.29	9.96	or S	ment dBu∀ 32.25	t	61.3 51.3	ı∨ 34 34	dB -29.09	Detec QF AV) (G
1 2	0.26 0.26	1. Le d 3 22 3 10 6 20	BuV 2.29 0.28	9.96	or S	ment dBuV 32.25 20.24		61.3 51.3	34 34 73	dB -29.09 -31.10	Detec QF A\	/G
1 2 3	0.26 0.26 0.40	3 22 3 10 6 20 6 10	BuV 2.29 0.28 0.41	9.96 9.93	or 6 8 8	dBuV 32.25 20.24 30.34		61.3 51.3 57.3 47.3	34 34 73 73	dB -29.09 -31.10 -27.39	Detec QF A\ QF A\	/G
1 2 3 4	0.26 0.26 0.40 0.40	1. Le d 3 22 3 10 6 20 6 10 8 26	2.29 0.28 0.41	9.96 9.96 9.93 9.93	or 6 8 8 8	ment dBuV 32.25 20.24 30.34 20.67		61.3 51.3 57.3 47.3 56.0	34 34 73 73	dB -29.09 -31.10 -27.39 -27.06	Detection QF)(G
1 2 3 4 5	0.26 0.26 0.40 0.40 0.61	1. Le d 3 22 3 10 6 20 6 10 8 26 8 17	2.29 0.28 0.41 0.74 6.78	9.96 9.96 9.93 9.93 9.93	or 6 8 8 8 2	ment dBuV 32.25 20.24 30.34 20.67 36.70		61.3 51.3 57.3 47.3 56.0	34 34 73 73 00	dB -29.09 -31.10 -27.39 -27.06 -19.30	Detection Detect	/(G
1 2 3 4 5	0.26 0.26 0.40 0.40 0.61	1. Le d 3 22 3 10 6 20 6 10 8 26 8 17 6 22	2.29 0.28 0.41 0.74 6.78	9.96 9.96 9.93 9.93 9.92 9.92	or 65 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	ment dBuV 32.25 20.24 30.34 20.67 36.70 27.20		61.3 51.3 57.3 47.3 56.0 46.0	34 34 73 73 00 00	-29.09 -31.10 -27.39 -27.06 -19.30 -18.80	Detection Detect	/(3
1 2 3 4 5 6 *	0.26 0.26 0.40 0.40 0.61 0.61	1. Le d 3 22 3 10 6 20 6 10 8 26 8 17 6 22 6 11	2.29 0.28 0.41 0.74 6.78 7.28	9.96 9.96 9.93 9.93 9.92 9.92	or 65 65 65 65 65 65 65 65 65 65 65 65 65	ment dBuV 32.25 20.24 30.34 20.67 36.70 27.20 32.48		61.3 51.3 57.3 47.3 56.0 46.0	34 34 73 73 00 00 00	-29.09 -31.10 -27.39 -27.06 -19.30 -18.80 -23.52	Detect QF AV QF AV AV	/(3
1 2 3 4 5 6 * 7	0.26 0.26 0.40 0.40 0.61 0.61 0.86	1. Le d d d d d d d d d d d d d d d d d d	2.29 0.28 0.41 0.74 6.78 7.28 2.61	9.96 9.96 9.93 9.93 9.92 9.92 9.87	or 65 65 65 65 65 65 65 65 65 65 65 65 65	ment dBuV 32.25 20.24 30.34 20.67 36.70 27.20 32.48 21.62		dBu 61.3 51.3 57.3 47.3 56.0 46.0 56.0	34 34 73 73 00 00 00	-29.09 -31.10 -27.39 -27.06 -19.30 -18.80 -23.52 -24.38	Detect QF AV QF AV QF AV	/G
1 2 3 4 5 6 * 7 8	0.26 0.26 0.40 0.40 0.61 0.61 0.86 0.86	1. Le d d 3 22 3 10 6 20 6 10 8 26 6 11 0 12 0 7	2.29 0.28 0.41 0.74 6.78 7.28 2.61 1.75	9.96 9.96 9.93 9.93 9.92 9.87 9.87	or 65 65 65 65 65 65 65 65 65 65 65 65 65	ment dBuV 32.25 20.24 30.34 20.67 36.70 27.20 32.48 21.62 22.98		dBu 61.3 51.3 57.3 47.3 56.0 46.0 56.0 46.0	34 34 73 73 00 00 00 00	-29.09 -31.10 -27.39 -27.06 -19.30 -18.80 -23.52 -24.38 -33.02	Detect QF AV QF AV QF AV	/(3





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Attachment B--Unwanted Emissions Data

--- Radiated Unwanted Emissions

9 KHz~30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB

Below the permissible value has no need to be reported.

30MHz~1GHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	149.4857	41.41	-21.05	20.36	43.50	-23.14	peak	Р
2	272.2776	58.76	-22.27	36.49	46.00	-9.51	peak	Р
3 *	306.7537	60.94	-20.78	40.16	46.00	-5.84	peak	Р
4	425.0280	49.90	-18.06	31.84	46.00	-14.16	peak	Р
5	530.1014	49.31	-16.19	33.12	46.00	-12.88	peak	Р
6	782.3453	41.95	-11.33	30.62	46.00	-15.38	peak	Р

Remark

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. QuasiPeak (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = QuasiPeak (dB μ V/m)-Limit QPK(dB μ V/m)





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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	42.3022	43.19	-23.83	19.36	40.00	-20.64	peak	Р
2	135.5062	48.44	-22.28	26.16	43.50	-17.34	peak	Р
3	153.7385	44.96	-21.33	23.63	43.50	-19.87	peak	Р
4 *	311.0867	55.53	-20.82	34.71	46.00	-11.29	peak	Р
5	473.8347	45.43	-16.82	28.61	46.00	-17.39	peak	Р
6	554.8254	46.71	-14.29	32.42	46.00	-13.58	peak	Р

Remark:

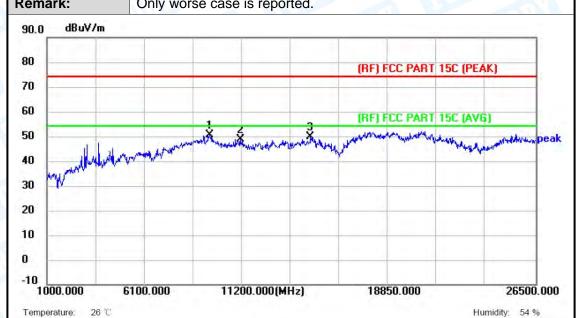
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = QuasiPeak (dB μ V/m)-Limit QPK(dB μ V/m)



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Above 1GHz

Test Voltage:	DC 3.3V
Ant. Pol.	Horizontal
Test Mode:	1DH5 Mode TX 2402 MHz
Remark:	Only worse case is reported



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9491.500	43.96	6.44	50.40	74.00	-23.60	peak	Р
2	11098.000	43.13	5.58	48.71	74.00	-25.29	peak	Р
3	14744.500	40.22	9.53	49.75	74.00	-24.25	peak	Р

Remark:

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V			
Ant. Pol.	Vertical		THE STATE OF THE S	
Test Mode:	1DH5 Mode	TX 2402 MHz	III III	
Remark:	Only worse	case is reported.		III
90.0 dBuV/m				
70			(RF) FCC PART	15C (PEAK)
50	your property with	+ manument of the state of the	(RF) FCC PART	15C (AVG)
30	40-4-7-4 · · ·			
10				
-10 1000.000	6100.000	11200.000(MHz)	18850.000	26500.000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9440.500	44.83	6.16	50.99	74.00	-23.01	peak	Р
2	14897.500	39.73	10.16	49.89	74.00	-24.11	peak	Р
3	15688.000	38.71	10.64	49.35	74.00	-24.65	peak	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V			
Ant. Pol.	Horizontal	3	THE STATE OF THE S	
Test Mode:	1DH5 Mode TX 24	l41MHz	Million	
Remark:	Only worse case is	s reported.		MODE OF
90.0 dBuV/m				
80			(RF) FCC PART	15C (PEAK)
50	, <u>3</u>		(RF) FCC PART	
30 20	Mayor Marine Marine	and have been a fine of the second		hyle Millian III in supecial
10				
-10 1000.000	6100.000 11200	0.000(MHz)	18850.000	26500.000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	8522.500	47.89	1.20	49.09	74.00	-24.91	peak	Р
2 *	9364.000	45.24	5.41	50.65	74.00	-23.35	peak	Р
3	14923.000	39.91	10.02	49.93	74.00	-24.07	peak	Р

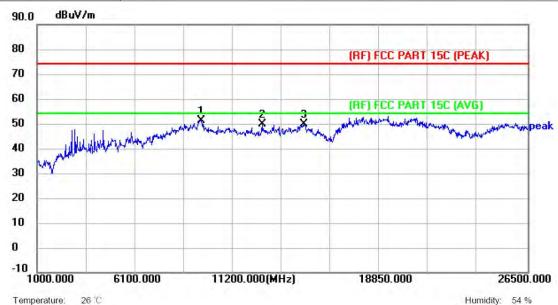
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V
Ant. Pol.	Vertical
Test Mode:	1DH5 Mode TX 2441MHz
Remark:	Only worse case is reported.
onn dRuV/m	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9517.000	44.99	6.35	51.34	74.00	-22.66	peak	Р
2	12704.500	43.14	6.86	50.00	74.00	-24.00	peak	Р
3	14872.000	39.89	10.11	50.00	74.00	-24.00	peak	Р

Remark:

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





26500.000

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Test \	/oltage:	DC 3.3	V								
Ant. F	Pol.	Horizor	ntal		F. B. W.		AV.	100	CUI	10	
Test N	/lode:	1DH5 N	DH5 Mode TX 2480MHz								
Rema	rk:	Only wo	Only worse case is reported.								
90.0	dBuV/m										
80 70						(RF)	FCC PART	15C (PEA	aK)		
60			4		-	(RF)	FCC PART	15C (AV	i)		
50 40 30	my made lands	Marine Market	HAT PARTY PA	Mary market	with	- January Comment	and whom and	phones of the state of the s	different de la company	peak	
20											
10											

Temperature: 26 ℃ Humidity: 54 %

18850.000

11200.000(MHz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9134.500	46.51	4.05	50.56	74.00	-23.44	peak	Р
2	12781.000	41.56	7.19	48.75	74.00	-25.25	peak	Р
3	14846.500	39.85	10.07	49.92	74.00	-24.08	peak	Р

Remark:

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)

6100.000

- 2. Peak/AVG (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





Humidity: 54 %

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Test Voltage:	DC 3.3V							
Ant. Pol.	Vertical		A Branch		18.0	1	CI	
Test Mode:	1DH5 M	ode TX 2480M	1Hz	P. M.			100	
Remark:	Only wo	rse case is rep	orted.			1110		
90.0 dBuV/m	-							
80 70				(RF) F	CC PART	15C (PEA	K)	
60	_	3	3	(RF) F	CC PART	15C (AVG)	
50 40 30	Horas was	Mark Commence	and the state of t	of the same of the	hadan yan sarkan washing	property of the second	a high pick as high way in	peak
20								
-10								

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	4442.500	55.28	-7.41	47.87	74.00	-26.13	peak	Р
2 *	9491.500	45.33	6.44	51.77	74.00	-22.23	peak	Р
3	14795.500	40.27	9.94	50.21	74.00	-23.79	peak	Р

Remark:

Temperature: 26 ℃

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.

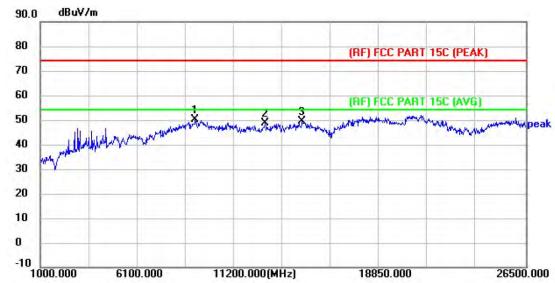




Humidity: 54 %

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Test Voltage:	DC 3.3V				
Ant. Pol.	Horizontal				
Test Mode:	2DH5 Mode TX 2402MHz				
Remark:	Only worse case is reported.				
90.0 dBuV/m					



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9134.500	46.05	4.05	50.10	74.00	-23.90	peak	Р
2	12806.500	41.40	7.23	48.63	74.00	-25.37	peak	Р
3	14744.500	39.90	9.53	49.43	74.00	-24.57	peak	Р

Remark:

Temperature: 26 ℃

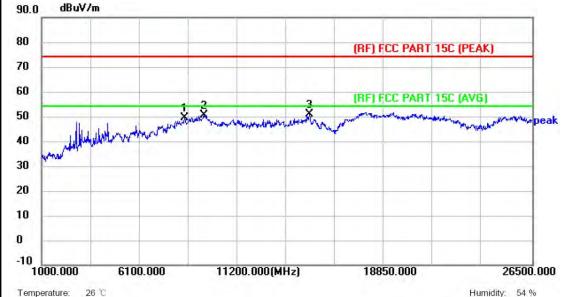
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V							
Ant. Pol.	Vertical							
Test Mode:	Mode: 2DH5 Mode TX 2402MHz							
Remark:	Only worse case is reported.							
90.0 dBuV/m								
80	(RF) FCC PART 15C (PEAK)							



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	8446.000	48.12	1.52	49.64	74.00	-24.36	peak	Р
2	9440.500	44.51	6.16	50.67	74.00	-23.33	peak	Р
3 *	14923.000	40.71	10.02	50.73	74.00	-23.27	peak	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V							
Ant. Pol.	Horizonta	al	13.4		11/10	0.5	(III)	10
Test Mode:	2DH5 Mc	ode TX 2441MH	Z	M.W.			100	
Remark:	Only wor	se case is repor	ted.		6	Mes		3
90.0 dBuV/m								
80 70				(RF) F	CC PART	15C (PEAK	()	
50		1	3	(BF) F	apple from	15C (AV6)	o ordense property of the	eak
	Harry Mary Property	29				4.4.04		
10								
-10 1000.000 Temperature: 26 °C	6100.000	11200.000(MI	lz)	188	50.000		26500.0 idity: 54 %	300

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9440.500	44.43	6.16	50.59	74.00	-23.41	peak	Р
2	11072.500	43.41	5.61	49.02	74.00	-24.98	peak	Р
3	14744.500	40.44	9.53	49.97	74.00	-24.03	peak	Р

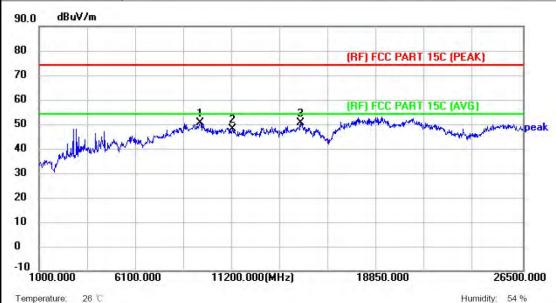
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V
Ant. Pol.	Vertical
Test Mode:	2DH5 Mode TX 2441MHz
Remark:	Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	9491.500	44.06	6.44	50.50	74.00	-23.50	peak	Р
2	11200.000	42.29	5.79	48.08	74.00	-25.92	peak	P
3 *	14770.000	40.83	9.73	50.56	74.00	-23.44	peak	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





Humidity: 54 %

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Test Voltage:	DC 3.3V								
Ant. Pol.	Horizonta	d	3 1	N. A.	1	180	0	CIL	10
Test Mode:	2DH5 Mc	de TX 2	480MHz		MAY.			62	
Remark:	Only wor	se case i	is reporte	ed.			110		2
90.0 dBuV/m									
80					(RF) I	CC PART	15C (PEA	KJ	
60		-	,	3	(RF) I	CC PART	15C (AVG)	
40	the graphing systems to	MANA	ware the same of t	Market Mary	A STATE OF THE STA	of the second second	Mary Mysikes	adder frage for the supply	peak
20									
0									
-10 1000.000	6100.000	1120	00.000(MH	a)	100	50.000		26500	000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	9517.000	44.20	6.35	50.55	74.00	-23.45	peak	Р
2	12832.000	42.75	7.03	49.78	74.00	-24.22	peak	Р
3 *	14846.500	41.14	10.07	51.21	74.00	-22.79	peak	Р

Remark:

Temperature: 26 °C

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test	Voltage:	DC	3.3V	100				(A)					
۱nt.	Pol.	Ver	ertical										
est	Mode:	2DH	DH5 Mode TX 2480MHz										
Rema	ark:	Onl	y worse ca	ase is rep	orted.			1110		-			
90.0	dBuV/m												
80													
						(RF)	FCC PART	15C (PE	AK)				
70													
60			1			(RF) I	FCC PART	15C (AV	6)				
50	11 1	0.5	part production	mi thakan	Walante William	profession and	white water to	mam more	and high and the good	peak			
40	LIJA WALL	MANAGER	James C.	7 222		/							
30	MAN TO SERVICE STATE OF THE SE												
20													
10													
0													
-10 10	000.000	6100.00	00	11200.000(MHz)	188	350.000		26500)).000			
Tempe	erature: 26°	C						Н	umidity: 54 9	%			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9389.500	45.46	5.50	50.96	74.00	-23.04	peak	Р
2	10894.000	43.62	5.42	49.04	74.00	-24.96	peak	Р
3	14948.500	39.88	9.87	49.75	74.00	-24.25	peak	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V						
Ant. Pol.	Horizonta		13.00		1180	11-2	
Test Mode:	3DH5 Mo	de TX 2402	ИНz	M. M.			1
Remark:	Only wors	se case is re	ported.		6	Miles	
90.0 dBuV/m							
80				(RF) F	CC PART	15C (PEA	K)
60		1 2	3	(RF) F	CC PART	15C (AVG	
50 40 30	enfection in animal	Man Maria	had been the	Market Market Market	- A	and market	peal
10							
0 -10 1000.000	6100.000	11200.000	(MHz)	188	50.000		26500.000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	9491.500	43.66	6.44	50.10	74.00	-23.90	peak	Р
2	12169.000	40.94	6.65	47.59	74.00	-26.41	peak	Р
3 *	14795.500	40.40	9.94	50.34	74.00	-23.66	peak	Р

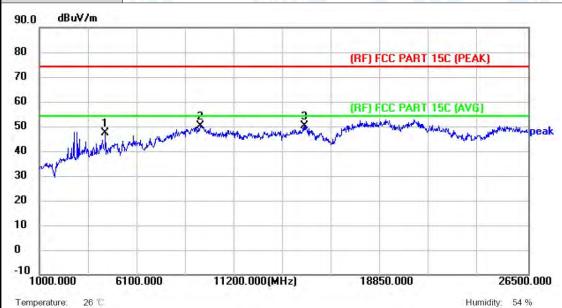
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V
Ant. Pol.	Vertical
Test Mode:	3DH5 Mode TX 2402MHz
Remark:	Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	4442.500	54.86	-7.41	47.45	74.00	-26.55	peak	Р
2 *	9415.000	44.53	5.76	50.29	74.00	-23.71	peak	Р
3	14821.000	40.06	10.01	50.07	74.00	-23.93	peak	Р

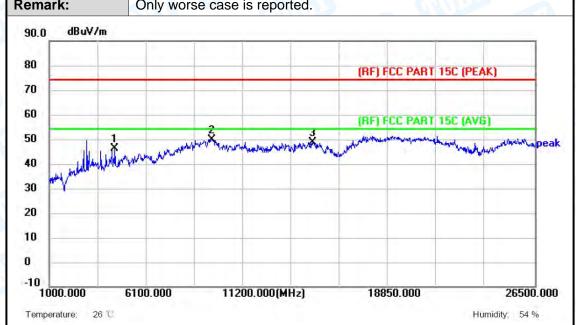
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V
Ant. Pol.	Horizontal
Test Mode:	3DH5 Mode TX 2441MHz
Remark:	Only worse case is reported



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	4442.500	53.71	-7.41	46.30	74.00	-27.70	peak	Р
2 *	9542.500	43.74	6.19	49.93	74.00	-24.07	peak	Р
3	14846.500	38.69	10.07	48.76	74.00	-25.24	peak	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





Humidity: 54 %

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Test Voltage:	DC 3.3V								
Ant. Pol.	Vertical		2	1		18.80	1000	Cil	10
Test Mode:	3DH5 Mo	de TX 2	441MH	<u>z</u>	B. W.			63	
Remark:	Only wors	se case	is repor	ted.			Mar		2
90.0 dBuV/m									
80					(RF) I	CC PART	15C (PEA	K)	
70									
60				2	(RF) I	CC PART	15C (AVG)	
50 40 30	garage parallers, may response from marile	a sand the same of	more and	water	partelling	Mary Mary March Marky	and well freehold fre	philipping.	peal
30									
20									
10									
0									
-10 1000,000	6100.000)0.000(MF			50.000		26500	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9338.500	46.07	5.00	51.07	74.00	-22.93	peak	Р
2	12143.500	41.69	6.67	48.36	74.00	-25.64	peak	Р
3	14770.000	40.74	9.73	50.47	74.00	-23.53	peak	Р

Remark:

Temperature:

26 °C

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Vol	tage:	DC 3.3\	1							
Ant. Pol.		Horizon	tal				11		CI	100
Test Mo	de:	3DH5 M	lode TX	(2480MH	Z	P. W.			63	
Remark:		Only wo	rse cas	se is repor	ted.		6	MILE		
90.0 d	BuV/m									
80						(DE)	CC DART	150 0054		
70						(HF) F	CC PART	15C (PEA	ik j	
60						(BF) F	CC PART	15C (AVE	i	
50	مرياد بالدرادر	man grande	MAN MAN	manny son	mys man	والهرجع المدمس ومجلل	adden by hear of the fifty	and the	Agranda de marca de la contraction de la contrac	peak
40 30	Milwak									
20			1							
10										
0 —										
-10 1000.0	00	6100.000	11	200.000(MF	lz)	188	50.000		26500	.000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9440.500	44.54	6.16	50.70	74.00	-23.30	peak	Р
2	13291.000	41.94	6.91	48.85	74.00	-25.15	peak	Р
3	14846.500	40.24	10.07	50.31	74.00	-23.69	peak	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Test Voltage:	DC 3.3V						
Ant. Pol.	Vertical		13.00	1	1180	0.5	
Test Mode:	3DH5 Mo	de TX 2480N	ИНz	P. P.			100
Remark:	Only wors	se case is re	ported.			1100	
90.0 dBuV/m							
80				(RF) I	CC PART	15C (PEA	K)
50		1 X	3	(RF) I	CC PART	15C (AVG) January (Indiana)
30 20	the water received						W Tool
10							
-10 1000.000 Temperature: 26 °C	6100.000	11200.000	(MHz)	188	50.000	Hur	26500.000 nidity: 54 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	9338.500	45.78	5.00	50.78	74.00	-23.22	peak	Р
2	10919.500	43.36	5.51	48.87	74.00	-25.13	peak	Р
3	14923.000	39.84	10.02	49.86	74.00	-24.14	peak	Р

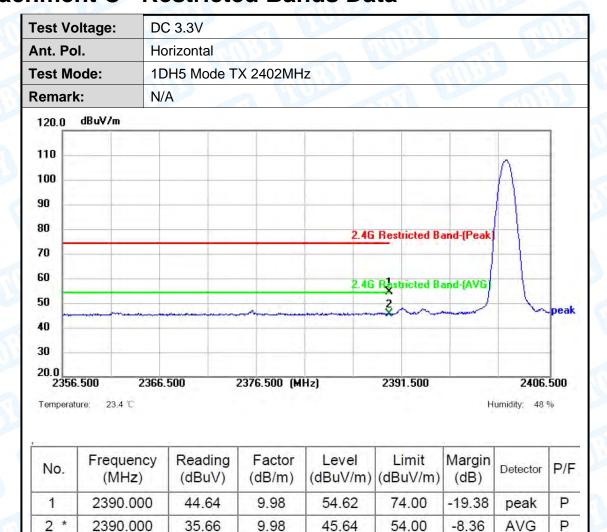
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency. Test with highpass filter (Pass Frequency: 2.8-18G and 8-25G), and 18GHz-26.5GHz is the noise, No other signals were detected.
- 5. No report for the emission which below the prescribed limit.
- 6. The peak value < average limit, So only show the peak value.





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Attachment C-- Restricted Bands Data

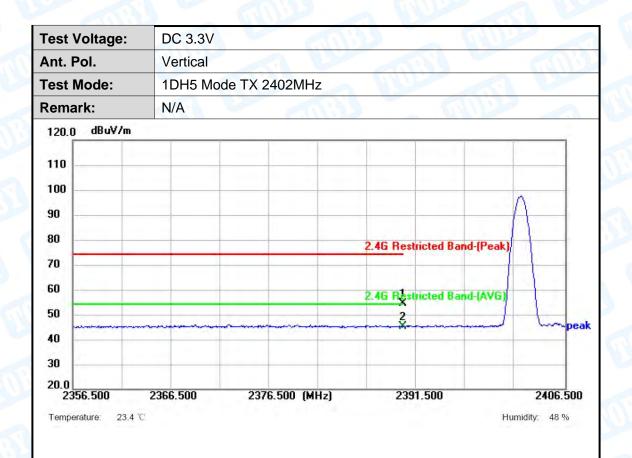


- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	2390.000	44.32	9.98	54.30	74.00	-19.70	peak	Р
2 *	2390.000	35.29	9.98	45.27	54.00	-8.73	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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Test Voltage:	DC 3.3V			
Ant. Pol.	Horizonta			Vann.
Test Mode:	1DH5 Mo	de TX 2480MHz	III.	
Remark:	N/A			
120.0 dBuV/m				
110 100 90 80 70			2.4G Restricted Band-(F	Peak]
60 50 40 30	1 X 2		2.4G Restricted Band-[/	pea
20.0 2475.000 Temperature: 23.4 (2485.000	2495.000 (MHz)	2510.000	2525.000 Humidity: 48 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	2483.500	45.35	10.20	55.55	74.00	-18.45	peak	Р
2 *	2483.500	36.64	10.20	46.84	54.00	-7.16	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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Test Voltage:	age: DC 3.3V								
Ant. Pol.	Vertical	Vertical							
Test Mode:	1DH5 Mod	le TX 2480MHz	MINO.						
Remark:	N/A								
120.0 dBuV/m									
110									
100									
90									
80									
70			2.4G Restricted Band	I-(Peak)					
60	1		2.4G Restricted Bank	I-(AVG)					
50	3	ATT -		pea					
40									
30									
20.0									
2473.750 Temperature: 23.4 °C	2483.750	2493.750 (MHz)	2508.750	2523.750 Humidity: 48 %					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	2483.500	43.75	10.20	53.95	74.00	-20.05	peak	Р
2 *	2483.500	35.52	10.20	45.72	54.00	-8.28	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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Test Voltage:	DC 3.3V			
Ant. Pol.	Horizonta			
Гest Mode:	2DH5 Mo	de TX 2402MHz	THU.	1
Remark:	N/A			
120.0 dBuV/m				
110				
100				Λ
90				
80				
70			2.4G Restricted Band-(Peak	
60				
50			2.4G Restricted Band-(AVG)	
40				peal
30				
20.0				
2356.500	2366.500	2376.500 (MHz)	2391.500	2406.500

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	2390.000	42.48	9.98	52.46	74.00	-21.54	peak	Р
2 *	2390.000	35.36	9.98	45.34	54.00	-8.66	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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Test Voltage:	DC 3.3V						
Ant. Pol.	Vertical						
est Mode:	2DH5 Mo	de TX 2402MHz	MAG				
emark:	N/A						
120.0 dBuV/m							
110							
90 80			2.4G Restricted	Band-(Peak)			
70			2.4G Pastricted	Band-(AVG)			
50 40			<u> </u>	peal			
20.0 2356.500	2366.500	2376.500 (MHz)	2391.500	2406.500			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	2390.000	46.09	9.98	56.07	74.00	-17.93	peak	Р
2 *	2390.000	35.21	9.98	45.19	54.00	-8.81	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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Test Voltage:	DC 3.3V
Ant. Pol.	Horizontal
Test Mode:	2DH5 Mode TX 2480MHz
Remark:	N/A



Temperature: 23.4 °C Humidity: 48 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	2483.500	45.12	10.20	55.32	74.00	-18.68	peak	Р
2 *	2483.500	36.65	10.20	46.85	54.00	-7.15	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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Test Voltage:	DC 3.3V
Ant. Pol.	Vertical
Test Mode:	2DH5 Mode TX 2480MHz
Remark:	N/A
120.0 dBuV/m	
110	
6.2	
100	
90	
80	2.46 Restricted Band-(Peak)
70	
60	1 2.46 Restricted Band-(AVG)
50	3
40	La company of the second of th
30	
20.0	
2473.750	2483.750 2493.750 (MHz) 2508.750 2523.750

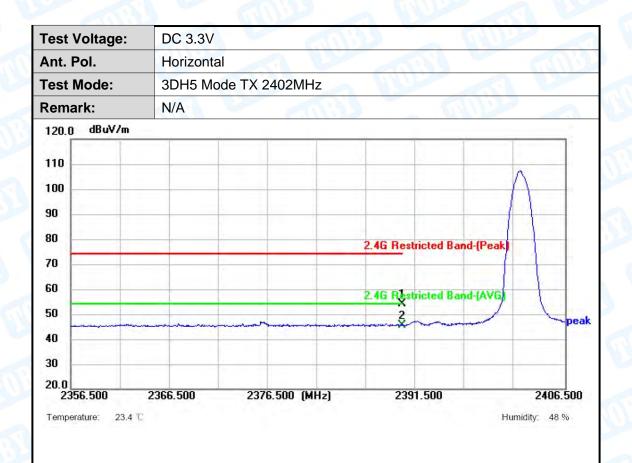
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	2483.500	42.80	10.20	53.00	74.00	-21.00	peak	Р
2 *	2483.500	35.33	10.20	45.53	54.00	-8.47	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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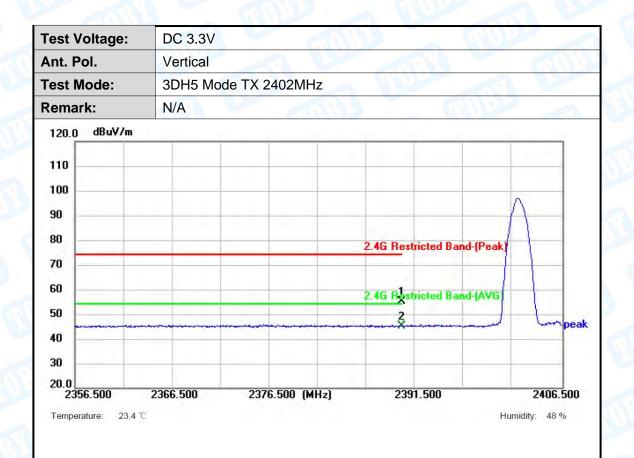
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	2390.000	43.96	9.98	53.94	74.00	-20.06	peak	Р
2 *	2390.000	35.69	9.98	45.67	54.00	-8.33	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	2390.000	45.08	9.98	55.06	74.00	-18.94	peak	Р
2 *	2390.000	35.33	9.98	45.31	54.00	-8.69	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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est Voltage:	DC 3.3V							
nt. Pol.	Horizontal	Horizontal 3DH5 Mode TX 2480MHz N/A						
est Mode:	3DH5 Mode TX 2480MHz							
emark:	N/A							
20.0 dBuV/m								
10 00 00 00 00 00		2.4G Restricted Band-(Peak)						
0	1	2.4G Restricted Band-(AVG)						
60 60 20.0 2475.000	2 2485.000 2495.000 (MHz)	2510.000 252	pea					

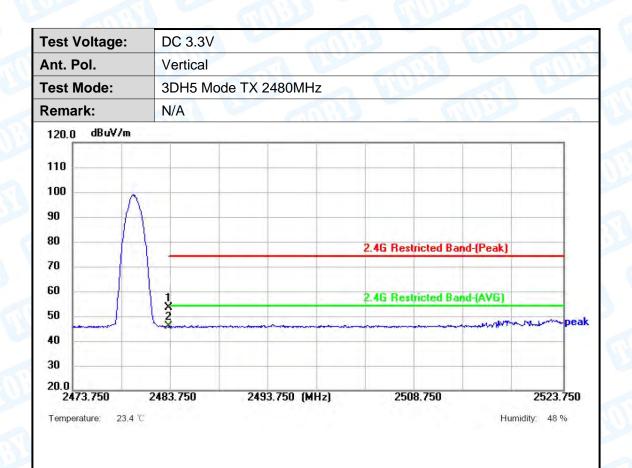
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	2483.500	44.53	10.20	54.73	74.00	-19.27	peak	Р
2 *	2483.500	36.69	10.20	46.89	54.00	-7.11	AVG	Р

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	2483.500	43.18	10.20	53.38	74.00	-20.62	peak	Р
2 *	2483.500	35.66	10.20	45.86	54.00	-8.14	AVG	Р

Remark:

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)

END OF THE REPORT-----

