

Shenzhen Toby Technology Co., Ltd.



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Radio Test Report

FCC ID:2A4DV-D1221

Original Grant

Report No. : TBR-C-202302-0086-52

Applicant : HUNAN ETOE Technology Co., Ltd

Equipment Under Test (EUT)

EUT Name : ETOE TV

Model No. : D1221

Series Model No. : ----

Brand Name : ETOE

Sample ID : 202302-0086_01-01 & 202302-0086_01-02

Receipt Date : 2023-02-23

Test Date : 2023-02-23 to 2023-03-24

Issue Date : 2023-03-24

Standards : FCC Part 15 Subpart C 15.247

Test Method : ANSI C63.10: 2013

KDB 558074 D01 15.247 Meas Guidance v05r02

Conclusions : PASS

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

Witness Engineer :

Engineer Supervisor : WW SV

Engineer Manager :

Camille Li Ivan Su Ray Lai

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-202302-0086-52	Rev.01	Initial issue of report	2023-03-24
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1. General Information about EUT

1.1 Client Information

Applicant		HUNAN ETOE Technology Co., Ltd
Address : Room 603, Building 3, Zone A, Jindaoyuan, NO.1 Road, High-tech District, Changsha, China		Room 603, Building 3, Zone A, Jindaoyuan, NO.169, Huizhi Zhong Road, High-tech District, Changsha, China
Manufacturer : HUNAN ETOE Tech		HUNAN ETOE Technology Co., Ltd
Address :		Room 603, Building 3, Zone A, Jindaoyuan, NO.169, Huizhi Zhong Road, High-tech District, Changsha, China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	4.	ETOE TV			
Model(s) No.	:	D1221			
Model Difference):				
1003	1	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz		
		Number of Channel:	802.11b/g/n(HT20):11 channels 802.11n(HT40): 7 channels		
Product		Antenna Gain: 2.14dBi PCB For Antenna 1(A) 1.87dBi PCB For Antenna 2(B)			
Description		Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n:OFDM(BPSK,QPSK,16QAM,64 QAM)		
		Bit Rate of Transmitter: 802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n:up to 150Mbps			
Power Rating		For Adapter (Model: TPA-46B050100UU) Input: 100-240V~50/60Hz 0.2A Output: 5.0V=1000mA			
Software Version		- Com			
Hardware Version		DV6071Z-LD4-V2	TODAY TODAY		

Remark:

- (1) The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.
- (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (3) Antenna information provided by the applicant.





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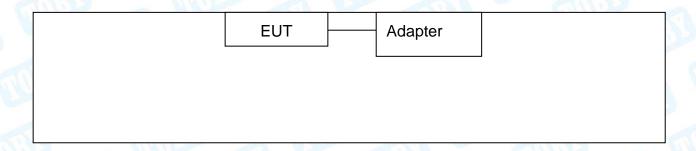
(4) Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	05	2432	09	2452
02	2417	06	2437	10	2457
03	2422	07	2442	11	2462
04	2427	08	2447		

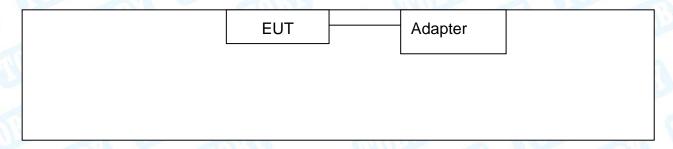
Note: CH 01~CH 11 for 802.11b/g/n(HT20) CH 03~CH 09 for 802.11n(HT40)

1.3 Block Diagram Showing the Configuration of System Tested

Conducted Test



Radiated Test







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1.4 Description of Support Units

Equipment Information						
Name Model FCC ID/VOC Manufacturer Used "√"						
Adapter	TPA-46B050100UU	(A)	UI UI	1		
Cable Information						
Number Shielded Type Ferrite Core Length Note						
Cable			1.0M	Accessory		

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 Conducted Emission Test							
Final Test Mode Description							
Mode 1	Charging with TX b Mode Channel 01						
Fo	For Radiated and RF Conducted Test						
Final Test Mode Description							
Mode 2	TX Mode b Mode Channel 01/06/11						
Mode 3	TX Mode g Mode Channel 01/06/11						
Mode 4	TX Mode n(HT20) Mode Channel 01/06/11						
Mode 5 TX Mode n(HT40) Mode Channel 03/06/09							

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:

802.11b Mode: CCK 802.11q Mode: OFDM

802.11n (HT20) Mode: MCS 0 802.11n (HT40) Mode: MCS 0





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(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 So	ftware: CMD.EX	Œ	
	Test N	Mode: Continue	ously transmittir	ng
Mada	Data Data	Channal	Parameters	
Mode	Data Rate	Channel	ANT. 1	ANT. 2
	CCK/ 1Mbps	01	83	94
802.11b	CCK/ 1Mbps	06	83	103
U) II	CCK/ 1Mbps	11	83	103
CHOD:	OFDM/ 6Mbps	01	76	94
802.11g	OFDM/ 6Mbps	06	76	94
	OFDM/ 6Mbps	11	76	94
THUE	MCS 0	01	68	78
802.11n(HT20)	MCS 0	06	68	78
	MCS 0	11	68	78
N. C.	MCS 0	03	64	76
802.11n(HT40)	MCS 0	06	64	76
	MCS 0	09	64	76





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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	$\pm 3.50~\mathrm{dB}$ $\pm 3.10~\mathrm{dB}$
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	Took Itom			
FCC	Test Item	Test Sample(s)	Judgment	Remark
FCC 15.207(a)	Conducted Emission	202302-0086_01-01	PASS	N/A
FCC 15.209 & 15.247(d)	Radiated Unwanted Emissions	202302-0086_01-01	PASS	N/A
FCC 15.203	Antenna Requirement	202302-0086_01-02	PASS	N/A
FCC 15.247(a)(2)	6dB Bandwidth	202302-0086_01-02	PASS	N/A
	99% Occupied bandwidth	202302-0086_01-02	PASS	N/A
FCC 15.247(b)(3)	Peak Output Power and E.I.R.P	202302-0086_01-02	PASS	N/A
FCC 15.247(e)	Power Spectral Density	202302-0086_01-02	PASS	N/A
FCC 15.247(d)	Band Edge Measurements	202302-0086_01-02	PASS	N/A
FCC 15.247(d)	Conducted Unwanted Emissions	202302-0086_01-02	PASS	N/A
FCC 15.205&15.209	Emissions in Restricted Bands	202302-0086_01-02	PASS	N/A
	On Time and Duty Cycle	202302-0086_01-02	1	N/A

3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Conducted Emission	EZ-EMC	EZ	CDI-03A2
Radiation Emission	EZ-EMC	EZ	FA-03A2RE
RF Conducted Measurement	MTS-8310	MWRFtest	V2.0.0.0
RF Test System	JS1120	Tonscend	V2.6.88.0336





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4. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jun. 23, 2022	Jun. 22, 2023
Livii Test Neceivei	Compliance	Loci	100321	Juli. 23, 2022	Juli. 22, 2023
RF Switching Unit	Direction Systems	RSU-A4	34403	Jun. 23, 2022	Jun. 22, 2023
TO Switching Offic	Inc	NSO-A4	34403	Juli. 23, 2022	Juli. 22, 2023
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jun. 22, 2022	Jun. 21, 2023
LISN	Rohde & Schwarz	ENV216	101131	Jun. 22, 2022	Jun. 21, 2023
ISN	SCHWARZBECK	NTFM 8131	8131-193	Jun. 22, 2022	Jun. 21, 2023
ISN	SCHWARZBECK	CAT3 8158	cat3 5158-0094	Jun. 22, 2022	Jun. 21, 2023
ISN	SCHWARZBECK	NTFM5158	NTFM5158 0145		
ISN	SCHWARZBECK	CAT 8158	cat5 8158-179	Jun. 22, 2022	Jun. 21, 2023 Jun. 21, 2023
Radiation Emissio	ENTINE	CAT 8138	Cat5 6156-179	Jun. 22, 2022	Juli. 21, 2023
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
		EVANA			
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep.01.2022	Aug. 31, 2023
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 23, 2022	Jun. 22, 2023
EMI Test Receiver	Rohde & Schwarz	ESU-8	100472/008	Feb. 23, 2023	Feb.22, 2024
Bilog Antenna	SCHWARZBECK	VULB 9168	1225	Dec. 05, 2021	Dec. 04, 2023
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2463	Feb. 26, 2022	Feb.25, 2024
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Jun. 26, 2022	Jun.25, 2024
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 26, 2022	Jun.25, 2024
HF Amplifier	Tonscend	TAP9E6343	AP21C806117	Sep.01.2022	Aug. 31, 2023
HF Amplifier	Tonscend	TAP051845	AP21C806141	Sep.01.2022	Aug. 31, 2023
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Sep.01.2022	Aug. 31, 2023
Antenna Conducte	d Emission				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jun. 23, 2022	Jun. 22, 2023
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 23, 2022	Jun. 22, 2023
MXA Signal Analyzer	KEYSIGT	N9020B	MY60110172	Sep.01.2022	Aug. 31, 2023
MXA Signal Analyzer	Agilent	N9020A	MY47380425	Sep.01.2022	Aug. 31, 2023
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep.01.2022	Aug. 31, 2023
Analog Signal Generator	Agilent	N5181A	MY48180463	Sep.01.2022	Aug. 31, 2023





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Vector Signal Generator	KEYSIGT	N5182B	MY59101429	Sep.01.2022	Aug. 31, 2023
Analog Signal Generator	KEYSIGHT	N5173B	MY61252685	Dec. 15, 2022	Dec. 14, 2023
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Sep.01.2022	Aug. 31, 2023
DE Dawar Caraca	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Sep.01.2022	Aug. 31, 2023
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Sep.01.2022	Aug. 31, 2023
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Sep.01.2022	Aug. 31, 2023
RF Control Unit	Tonsced	JS0806-1	21C8060380	N/A	N/A
RF Control Unit	Tonsced	JS0806-2	21F8060439	Sep.01.2022	Aug. 31, 2023
Band Reject Filter Group	Tonsced	JS0806-F	21D8060414	Jun. 23, 2022	Jun. 22, 2023
Power Control Box	Tonsced	JS0806-4ADC	21C8060387	N/A	N/A
Wideband Radio Comunication Tester	Rohde & Schwarz	CMW500	144382	Sep.01.2022	Aug. 31, 2023
Universal Radio Communication Tester	Rohde&Schwarz	CMW500	168796	Jun. 23, 2022	Jun. 22, 2023
Temperature and Humidity Chamber	ZhengHang	ZH-QTH-1500	ZH2107264	Jun. 22, 2022	Jun. 21, 2023





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5. Conducted Emission Test

5.1 Test Standard and Limit

5.1.1 Test Standard

FCC Part 15.207

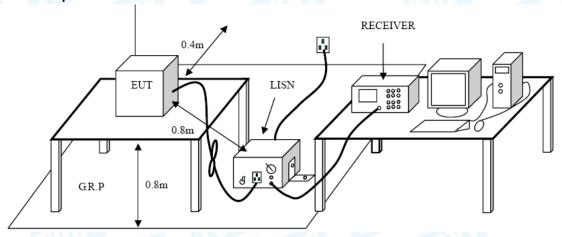
5.1.2 Test Limit

Fraguanay	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.





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● 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

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 Field Strength Measurement Distance				
(MHz)	(microvolt/meter)**	(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 Field strength Measurement Distance				
(MHz)	(µV/m at 3 m)	(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



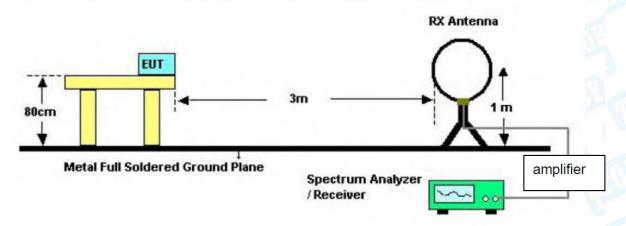


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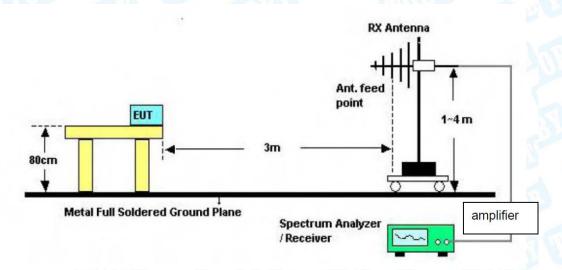
transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

6.2 Test Setup

Radiated measurement



Below 30MHz Test Setup

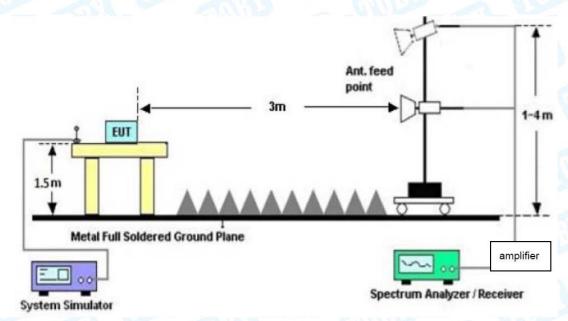


Below 1000MHz Test Setup

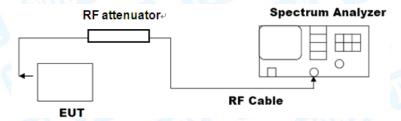




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Above 1GHz Test Setup Conducted measurement



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





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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 Appendix C.



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7. Restricted Bands Requirement

7.1 Test Standard and Limit

7.1.1 Test Standard

FCC Part 15.205 & FCC Part 15.249

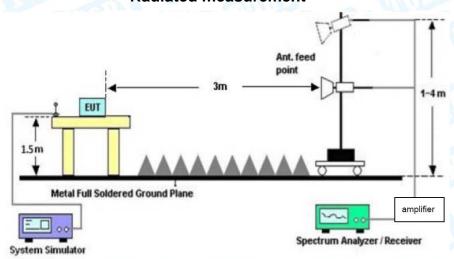
7.1.2 Test Limit

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	-41.20	-21.20		
2483.5 ~2500	-41.20	-21.20		

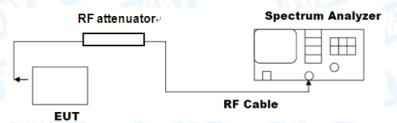
Note: According the ANSI C63.10 11.12.2 antenna-port conducted measurements may also be used as an alternative to radiated measurements for determining compliance in the restricted frequency bands requirements. If conducted measurements are performed, then proper impedance matching must be ensured and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





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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.





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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

Remark: The test uses antenna-port conducted measurements as an alternative to radiated measurements for determining compliance in the restricted frequency bands requirements.





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8. Bandwidth Test

8.1 Test Standard and Limit

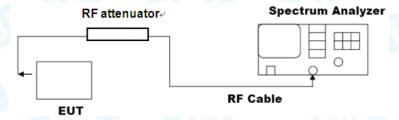
8.1.1 Test Standard

FCC Part 15.205 & FCC Part 15.247(d)

8.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)	
-6dB bandwidth	>=500 KHz	2400~2483.5	
(DTS bandwidth)	>=500 KHZ		
99% occupied bandwidth		2400~2483.5	

8.2 Test Setup



8.3 Test Procedure

--- DTS bandwidth

- The steps for the first option are as follows:
- a) Set RBW = 100 kHz.
- b) Set the VBW≥[3*RBW].
- c) Detector = peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

---occupied bandwidth

- 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.





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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).
- 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





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9. Peak Output Power

9.1 Test Standard and Limit

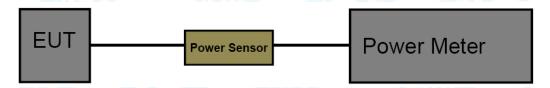
9.1.1 Test Standard

FCC Part 15.247(b)(3)

9.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Peak Output Power	not exceed 1 W or 30dBm	2400~2483.5

9.2 Test Setup



9.3 Test Procedure

● The EUT was connected to RF power meter via a broadband power sensor as show the block above. The power sensor video bandwidth is greater than or equal to the DTS bandwidth of the equipment.

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





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10. Power Spectral Density

10.1 Test Standard and Limit

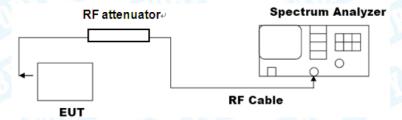
10.1.1 Test Standard

FCC Part 15.247(e)

10.1.2 Test Limit

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

10.2 Test Setup



10.3 Test Procedure

- The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:
- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to 3 kHz≤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 amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

10.4 Deviation From Test Standard

No deviation

10.5 Antenna Connected Construction

Please refer to the description of test mode.

10.6 Test Data





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11. Antenna Requirement

11.1 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.

11.2 Deviation From Test Standard

No deviation

11.3 Antenna Connected Construction

The gains of the antenna used for transmitting is 2.14dBi and 1.87dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

11.4 Test Data

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

Antenna Type		
⊠Permanent attached antenna		
Unique connector antenna		
☐Professional installation antenna	100	

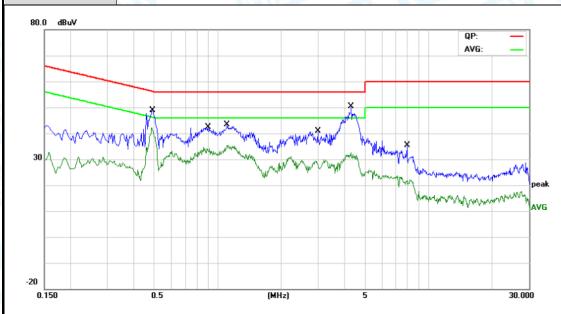




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Attachment A-- Conducted Emission Test Data

Temperature:	26℃	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	My C	1000
Terminal:	Line		
Test Mode:	Mode 1	THU.	
Remark:	Only worse case is reporte	d.	



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.4859	31.21	10.93	42.14	46.24	-4.10	AVG
2		0.4899	37.84	10.93	48.77	56.17	-7.40	QP
3		0.9020	31.64	10.74	42.38	56.00	-13.62	QP
4		0.9020	23.88	10.74	34.62	46.00	-11.38	AVG
5		1.1060	32.76	10.66	43.42	56.00	-12.58	QP
6		1.1060	24.67	10.66	35.33	46.00	-10.67	AVG
7		2.9820	30.56	10.20	40.76	56.00	-15.24	QP
8		2.9820	21.04	10.20	31.24	46.00	-14.76	AVG
9		4.3059	40.30	10.07	50.37	56.00	-5.63	QP
10		4.3059	22.62	10.07	32.69	46.00	-13.31	AVG
11		7.9099	25.38	10.06	35.44	60.00	-24.56	QP
12		7.9099	13.17	10.06	23.23	50.00	-26.77	AVG

- 1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
- 2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)





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Temperature:	26℃		a 113	Relative Hu	umidity:	54%	CAN'
Test Voltage:	AC 12	0V/60Hz	13)	a Cilli	1)		Alle
Terminal:	Neutra	al				MARIA	
Test Mode:	Mode	1	Alle		1 6	6	2013
Remark:	Only v	vorse case i	s reported.	CHOS			
30 dBuV	V-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M-M	**	hard for the state of the state		Maranger R	QP: AVG	
0.150 No. Mk.	o.5	Reading Level	(MHz) Correct Factor	Measure- ment	Limit	Over	30.000
1	MHz	dBuV	dB	49.35	dBuV	dB	Detector
7				4935		-6.89	QP
	0.4859	38.44	10.91		56.24	14.00	
2	0.4859	21.10	10.91	32.01	46.24	-14.23	AVG
2 3 *	0.4859 0.5100	21.10 40.48	10.91 10.92	32.01 51.40	46.24 56.00	-4.60	AVG QP
3 *	0.4859 0.5100 0.5100	21.10 40.48 18.78	10.91 10.92 10.92	32.01 51.40 29.70	46.24 56.00 46.00	-4.60 -16.30	AVG QP AVG
2 3 * 4 5	0.4859 0.5100 0.5100 2.8420	21.10 40.48 18.78 33.93	10.91 10.92 10.92 10.25	32.01 51.40 29.70 44.18	46.24 56.00 46.00 56.00	-4.60 -16.30 -11.82	AVG QP AVG QP
2 3 * 4 5 6	0.4859 0.5100 0.5100 2.8420 2.8420	21.10 40.48 18.78 33.93 15.49	10.91 10.92 10.92 10.25 10.25	32.01 51.40 29.70 44.18 25.74	46.24 56.00 46.00 56.00 46.00	-4.60 -16.30 -11.82 -20.26	AVG QP AVG QP AVG
2 3 * 4 5 6 7	0.4859 0.5100 0.5100 2.8420 2.8420 3.2219	21.10 40.48 18.78 33.93 15.49 37.09	10.91 10.92 10.92 10.25 10.25 10.18	32.01 51.40 29.70 44.18 25.74 47.27	46.24 56.00 46.00 56.00 46.00 56.00	-4.60 -16.30 -11.82 -20.26 -8.73	AVG QP AVG QP AVG QP
2 3 * 4 5 6 7	0.4859 0.5100 0.5100 2.8420 2.8420 3.2219 3.2219	21.10 40.48 18.78 33.93 15.49 37.09 14.16	10.91 10.92 10.92 10.25 10.25 10.18 10.18	32.01 51.40 29.70 44.18 25.74 47.27 24.34	46.24 56.00 46.00 56.00 46.00 46.00	-4.60 -16.30 -11.82 -20.26 -8.73 -21.66	AVG QP AVG QP AVG QP AVG
2 3 * 4 5 6 7 8	0.4859 0.5100 0.5100 2.8420 2.8420 3.2219 3.2219 4.3619	21.10 40.48 18.78 33.93 15.49 37.09 14.16 40.18	10.91 10.92 10.92 10.25 10.25 10.18 10.18	32.01 51.40 29.70 44.18 25.74 47.27 24.34 50.25	46.24 56.00 46.00 56.00 46.00 46.00 56.00	-4.60 -16.30 -11.82 -20.26 -8.73 -21.66 -5.75	AVG QP AVG QP AVG QP AVG QP
2 3 * 4 5 6 7 8 9	0.4859 0.5100 0.5100 2.8420 2.8420 3.2219 3.2219 4.3619	21.10 40.48 18.78 33.93 15.49 37.09 14.16 40.18 22.87	10.91 10.92 10.92 10.25 10.25 10.18 10.18 10.07	32.01 51.40 29.70 44.18 25.74 47.27 24.34 50.25 32.94	46.24 56.00 46.00 56.00 46.00 46.00 56.00 46.00	-4.60 -16.30 -11.82 -20.26 -8.73 -21.66 -5.75 -13.06	AVG QP AVG QP AVG QP AVG QP AVG
2 3 * 4 5 6 7 8	0.4859 0.5100 0.5100 2.8420 2.8420 3.2219 3.2219 4.3619	21.10 40.48 18.78 33.93 15.49 37.09 14.16 40.18	10.91 10.92 10.92 10.25 10.25 10.18 10.18	32.01 51.40 29.70 44.18 25.74 47.27 24.34 50.25	46.24 56.00 46.00 56.00 46.00 56.00 46.00 56.00	-4.60 -16.30 -11.82 -20.26 -8.73 -21.66 -5.75	AVG QP AVG QP AVG QP AVG QP

- Remark:
 1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
- 2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)





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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

empe	rature	24.3℃		11/1	Relative	Humidity:	45	%
est Vo	oltage	: AC 120\	V/60Hz	U				
nt. Po	ol.	Horizont	tal	_ [Milian		AND	
est M	ode:	Mode 2				TURE		2 Lin
emar	k:	Only wo	rse case is	reported				N.B.
80.0	dBuV/n	1		200-0 5				
70								
60								
						1 '	15C 3M Radi	iation
50						Margin -		
40							5	Š.
30				2 X	4		. 1	peal
				الريا≪ر	\ \ <u>*</u>		L. Walle	Myhor
20		*		holyman marally and the state of the state o	hamman ha	water Mary Norwand	January Portugues 47	Mahara
20 10	wayVigalgul	recurred hadron providing	longer and such the second of the second	later and the second	Market	group grant by Maringo	Mary Sal Production of the	6 X Myles (Mary Deal
	wanterphysical	range of the second	den garant des sin a description de servicio	lagure mystyd de Rich ydd	Marin Marin	growth of the world	Jan Jar Lorden	MA CONTRACTOR
10	wastrophyell	man a salaha mara	horacon described and a second a	Mayuran Parka Rangal	Mark Land Hill	geography Alberton	January or Constitution of the	MALA
10 0 -10 -20			language de proposition de la company de				Jan Jarlandari	
10 0 -10 -20		60.00		(MHz)	30	00.00		1000.00
10 0 -10 -20			Reading (dBuV)		Jack Level		Margin (dB)	
10 0 -10 -20	0.000	60.00 Frequency	Reading	(MHz)	Jack Level	oo.oo Limit	Margin	1000.00
10 0 -10 -20	No. 1 2	Frequency (MHz)	Reading (dBuV)	(MHz) Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	1000.00 Detector
10 0 -10 -20	No.	Frequency (MHz) 69.8450 164.3301 186.4409	Reading (dBuV) 43.70 48.19 53.03	(MHz) Factor (dB/m) -24.41 -22.51 -24.21	Level (dBuV/m) 19.29 25.68 28.82	Limit (dBuV/m) 40.00 43.50 43.50	Margin (dB) -20.71 -17.82 -14.68	Detector peak
10 0 -10 -20	No. 1 2	60.00 Frequency (MHz) 69.8450 164.3301 186.4409 278.0668	Reading (dBuV) 43.70 48.19	Factor (dB/m) -24.41 -22.51 -24.21 -21.49	Level (dBuV/m) 19.29 25.68 28.82 26.05	Limit (dBuV/m) 40.00 43.50	Margin (dB) -20.71 -17.82 -14.68 -19.95	Detector peak peak peak peak
10 0 -10 -20	No. 1 2 3	Frequency (MHz) 69.8450 164.3301 186.4409	Reading (dBuV) 43.70 48.19 53.03	(MHz) Factor (dB/m) -24.41 -22.51 -24.21	Level (dBuV/m) 19.29 25.68 28.82	Limit (dBuV/m) 40.00 43.50 43.50	Margin (dB) -20.71 -17.82 -14.68	Detector peak peak peak

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

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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emper	ature:	24.3°	C		R	elative Hun	nidity:	15%	
est Vo	ltage:	AC 12	20V/60H	lz			100		RAIN
nt. Po	l.	Vertic	cal			(E)		1919	
Test Mode:			2		HALL				The same
Remark	ί:	Only	worse ca	ase is ı	reported.	ONO.		J. 16	
30.0 dB	ıV/m								
70									
50									
50							(RF)FCC 150 Margin -6 dB	C 3M Radiation	, L
10									
							5	;	X I
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10	W When	And the second	Lun	المراجع المحاجبين المحاجبين	and Samuelle	* william which we will have	of work of the Comment	and a second	
20	Who we	And Andrews		Joseph Control of the	(MHz)			and the second of the second	1000.00
10		60.00			(MHz)	300.	00		1000.00
10	Frequ (MI	60.00 Jency	Readii (dBu\	ng	(MHz) Factor (dB/m)	300.		Margin	1000.00
10 20 30.000	Frequ	60.00 Jency Hz)	Readii	ng V) (Factor	300.	00 Limit	Margin	
10 10 20 30.000	Frequ (Mł	60.00 Jency Hz)	Readii (dBu\	ng (// (// 7 // // // // // // // // // // // //	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
10 10 20 30.000 No.	Frequ (Mi 39.0	sency Hz) 1245 1356	Readii (dBu\	ng (7 - 1 - 1	Factor (dB/m)	Level (dBuV/m) 26.25	Limit (dBuV/m) 40.00	Margin (dB) -13.75	Detector
10 10 20 30.000 No.	Frequ (MI 39.0	60.00 Jency Hz) 0245 6356 3243	Readii (dBu\ 49.17	ng V) (77 - 133 - 134 -	Factor (dB/m) -22.92 -23.92	Level (dBuV/m) 26.25 25.09	Limit (dBuV/m) 40.00 40.00	Margin (dB) -13.75 -14.91	Detector peak peak
No. 1 2 3	Frequ (MI 39.0 63.5 142.3	60.00 Hency Hz) 1245 1356 13243 19856	Readii (dBu\ 49.17 49.0° 43.43	ng (/) ((77 - 433	Factor (dB/m) -22.92 -23.92 -22.62	26.25 25.09 20.81	Limit (dBuV/m) 40.00 40.00 43.50	Margin (dB) -13.75 -14.91 -22.69	Detector peak peak peak

*:Maximum data

- Remark: 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. QuasiPeak (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V)

x:Over limit !:over margin

3. Margin (dB) = QuasiPeak (dB μ V/m)-Limit QPK(dB μ V/m)

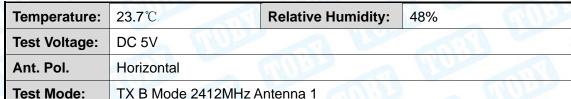




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16300.00 18850.00 21400.00 23950.00 26500.00

Above 1GHz





No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10894.000	45.63	-1.80	43.83	74.00	-30.17	peak
2 *	14107.000	44.44	0.16	44.60	74.00	-29.40	peak

(MHz)

11200.00

Remark:

1000.000 3550.00

- 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)

8650.00

6100.00

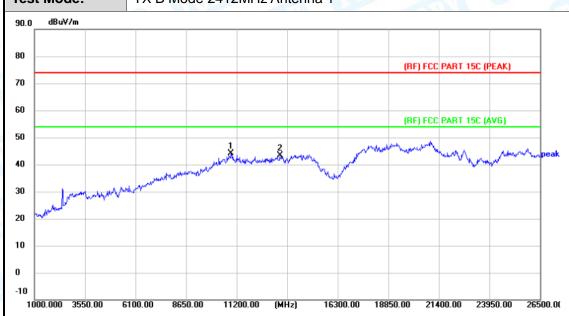
- 4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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Þ	Temperature:	23.7℃	Relative Humidity:	48%
ø	Test Voltage:	DC 5V		
1	Ant. Pol.	Vertical		COUNTY OF
	Test Mode:	TX B Mode 2412MHz An	tenna 1	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	10919.500	45.84	-1.79	44.05	74.00	-29.95	peak
2	13393.000	43.31	0.16	43.47	74.00	-30.53	peak

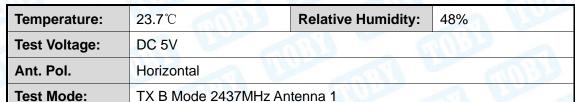
Remark

- 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 evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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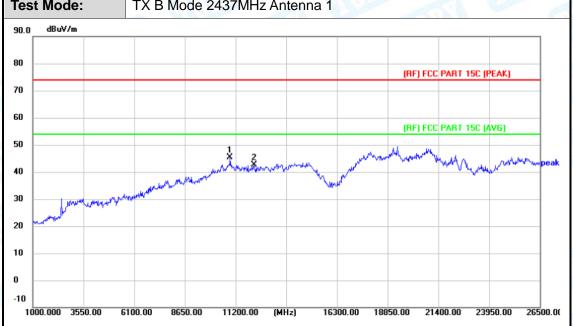
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10868.500	45.20	-1.93	43.27	74.00	-30.73	peak
2 *	14132.500	43.75	0.19	43.94	74.00	-30.06	peak

- 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 evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





Temperature:	23.7℃	Relative Humidity:	48%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Toot Mode:	TV P Mode 2427MHz	Antonno 1	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	10919.500	47.05	-1.79	45.26	74.00	-28.74	peak
2	12118.000	43.19	-0.66	42.53	74.00	-31.47	peak

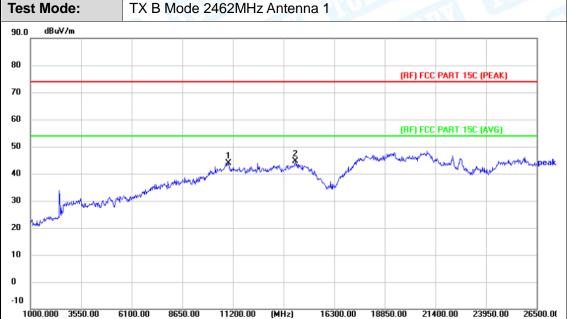
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V) 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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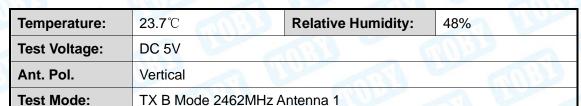
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10970.500	45.76	-1.82	43.94	74.00	-30.06	peak
2 *	14336.500	44.07	0.55	44.62	74.00	-29.38	peak

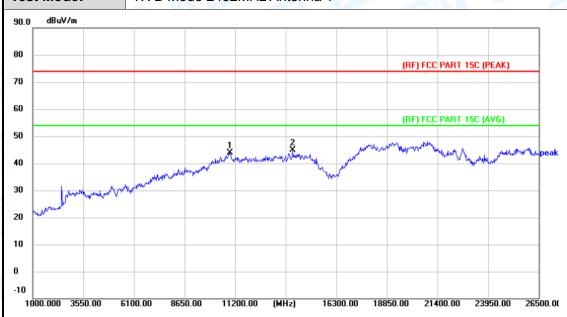
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10945.000	45.60	-1.80	43.80	74.00	-30.20	peak
2 *	14107.000	44.78	0.16	44.94	74.00	-29.06	peak

- 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 evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





16300.00 18850.00 21400.00 23950.00



Temperature:	23.7℃	Relative Humidity:	48%
Test Voltage:	DC 5V		0.000
Ant. Pol.	Horizontal	The same of the sa	mil's
Test Mode:	TX G Mode 2412M	1Hz Antenna 1	
90.0 dBuV/m			
80		(DI	F) FCC PART 15C (PEAK)
70			JTCCTAIT ISC (LAK)
60		(RF	F) FCC PART 15C (AVG)
50	1	3 April 100 March 100 Marc	www.pea
40	and the state of t	was the form the state of the s	Tana V Commission V and the
30 January	and the state of t		
20			
10			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	10919.500	46.48	-1.79	44.69	74.00	-29.31	peak
2	14413.000	42.55	0.94	43.49	74.00	-30.51	peak

11200.00 (MHz)

-10

1000.000 3550.00

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

6100.00

8650.00

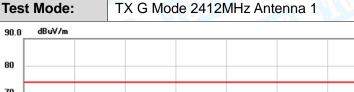
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V) 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.

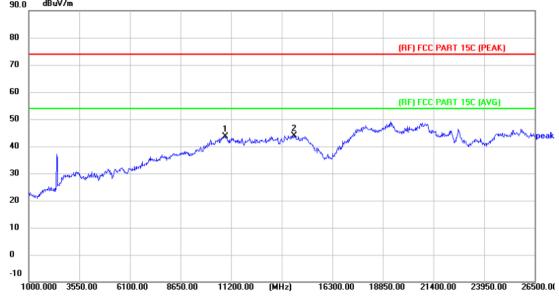
 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





23.7°C Temperature: **Relative Humidity:** 48% **Test Voltage:** DC 5V Ant. Pol. Vertical





No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10894.000	45.33	-1.80	43.53	74.00	-30.47	peak
2 *	14387.500	43.05	0.91	43.96	74.00	-30.04	peak

- 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 evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





Temperature:	23.7°C	Relative Humidity:	48%
Test Voltage:	DC 5V		NID OF
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2437MHz A	ntenna 1	1
90 0 dBuV/m			



No.	Frequency (MHz)	Reading (dBuV)		Level (dBuV/m)		Margin (dB)	Detector
1	10894.000	44.83	-1.80	43.03	74.00	-30.97	peak
2 *	14056.000	42.81	0.27	43.08	74.00	-30.92	peak

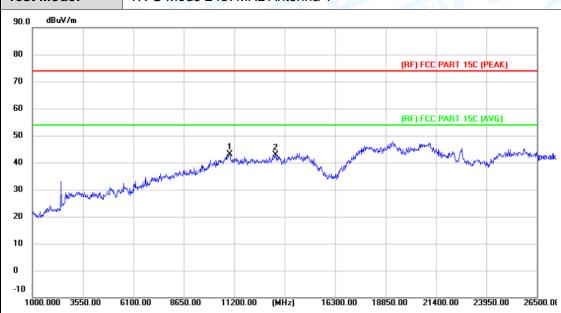
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V) 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.

 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





Temperature:	23.7℃	Relative Humidity:	48%
Test Voltage:	DC 5V		000
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2437MHz A	ntenna 1	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	10970.500	44.87	-1.82	43.05	74.00	-30.95	peak
2	13291.000	43.19	-0.21	42.98	74.00	-31.02	peak

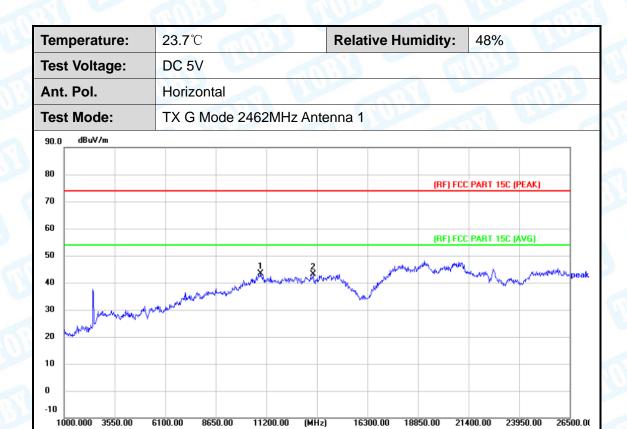
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.

 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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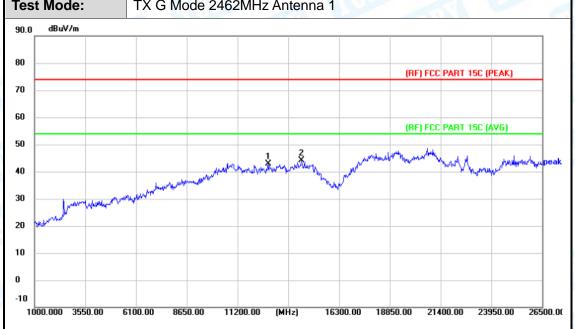
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	10919.500	45.12	-1.79	43.33	74.00	-30.67	peak
2	13571.500	43.12	-0.02	43.10	74.00	-30.90	peak

- 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 evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





		The State of the S		
Ter	mperature:	23.7℃	Relative Humidity:	48%
Tes	st Voltage:	DC 5V		1773
An	t. Pol.	Vertical		mn33
Too	et Modo:	TX G Mode 2462MHz Ante	enna 1	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	12730.000	43.21	-0.44	42.77	74.00	-31.23	peak
2 *	14413.000	43.26	0.94	44.20	74.00	-29.80	peak

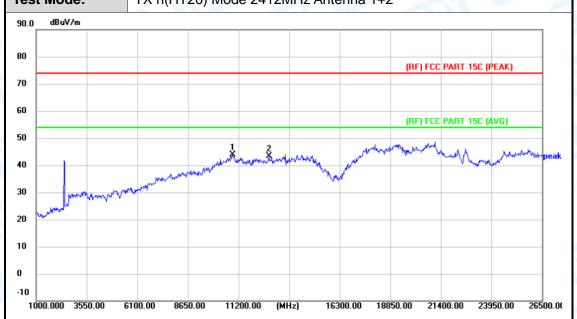
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V) 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10894.000	45.57	-1.80	43.77	74.00	-30.23	peak
2	12730.000	43.91	-0.44	43.47	74.00	-30.53	peak

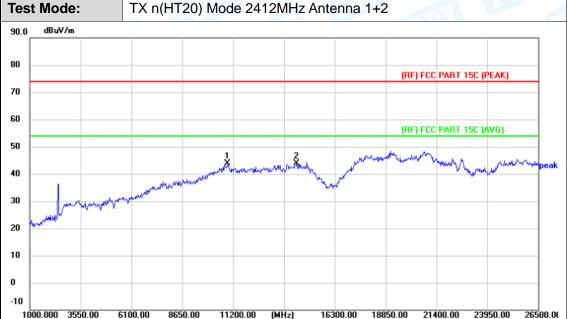
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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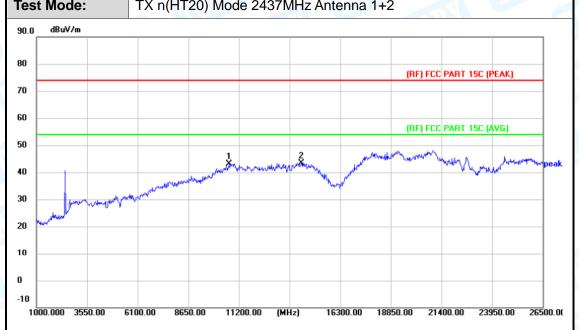
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10919.500	45.55	-1.79	43.76	74.00	-30.24	peak
2 *	14387.500	42.91	0.91	43.82	74.00	-30.18	peak

- 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 evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





A North Control of the Control of th			
Temperature:	23.7℃	Relative Humidity:	48%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Tost Mode:	TV n/UT20) Mada 2427N	ALIZ Antonno 1 1 2	



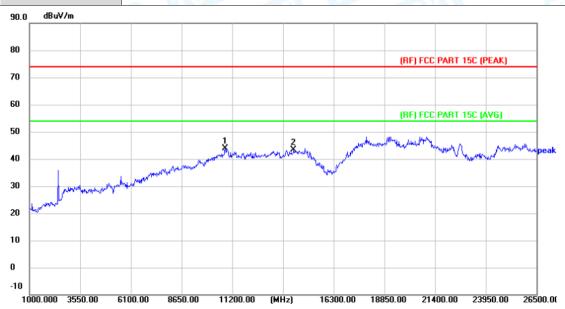
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10715.500	46.08	-2.87	43.21	74.00	-30.79	peak
2 *	14336.500	42.94	0.55	43.49	74.00	-30.51	peak

- 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 evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





Temperature:	23.7℃	Relative Humidity:	48%
Test Voltage:	DC 5V		000
Ant. Pol.	Vertical		CONTRACTOR OF THE PARTY OF THE
Test Mode:	TX n(HT20) Mode 2437Mh	Hz Antenna 1+2	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	10843.000	45.91	-2.04	43.87	74.00	-30.13	peak
2	14285.500	43.00	0.30	43.30	74.00	-30.70	peak

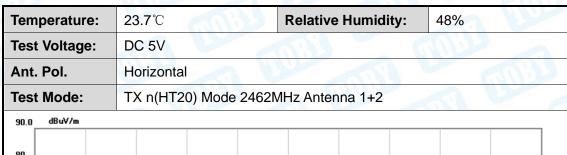
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V) 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.

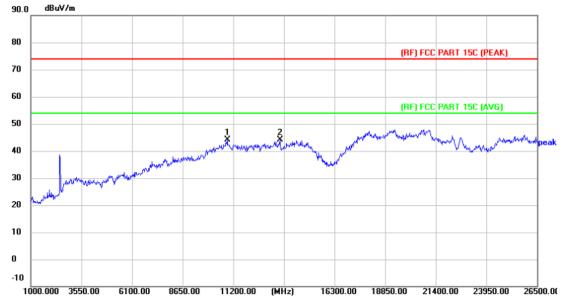
 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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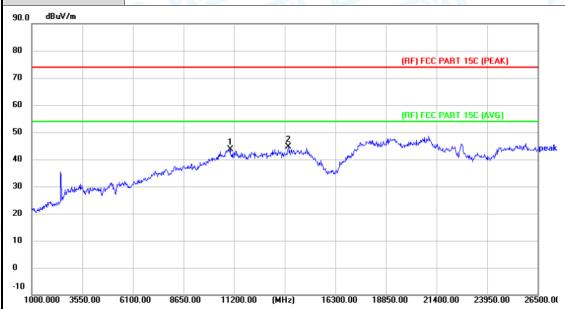
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10894.000	45.87	-1.80	44.07	74.00	-29.93	peak
2 *	13546.000	44.07	0.02	44.09	74.00	-29.91	peak

- 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 evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





Temperature:	23.7℃	Relative Humidity:	48%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		COUNTY OF
Test Mode:	TX n(HT20) Mode 2462Mh	Hz Antenna 1+2	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10996.000	45.37	-1.82	43.55	74.00	-30.45	peak
2 *	13928.500	43.66	0.85	44.51	74.00	-29.49	peak

- 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 evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.

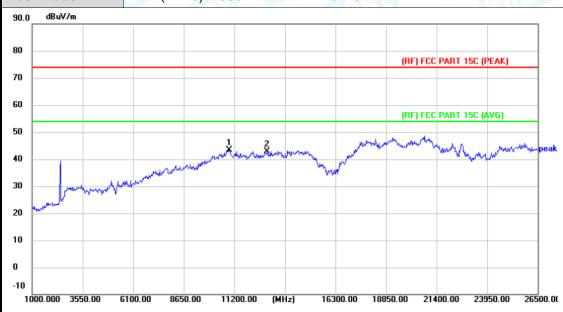
 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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Í	Temperature:	23.7℃	Relative Humidity:	48%
	Test Voltage:	DC 5V	MUDE	THE PERSON NAMED IN
	Ant. Pol.	Horizontal		100
١	Test Mode:	TX n(HT40) Mode 2422MF	Iz Antenna 1+2	



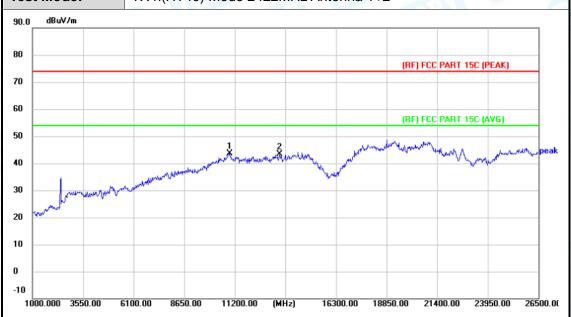
No.	Frequency (MHz)	Reading (dBuV)		Level (dBuV/m)		Margin (dB)	Detector
1 *	10945.000	45.15	-1.80	43.35	74.00	-30.65	peak
2	12857.500	43.71	-0.82	42.89	74.00	-31.11	peak

- 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 evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





Temperature:	23.7℃	Relative Humidity:	48%
Test Voltage:	DC 5V		000
Ant. Pol.	Vertical		CONTRACTOR OF THE PARTY OF THE
Test Mode:	TX n(HT40) Mode 2422M	Hz Antenna 1+2	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	10945.000	45.47	-1.80	43.67	74.00	-30.33	peak
2	13469.500	43.24	0.13	43.37	74.00	-30.63	peak

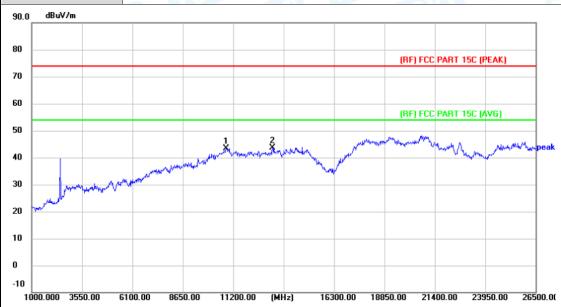
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V) 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.

 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





Temperature:	23.7℃	Relative Humidity:	48%			
Test Voltage:	DC 5V		000			
Ant. Pol.	Horizontal					
Test Mode:	TX n(HT40) Mode 2437N	TX n(HT40) Mode 2437MHz Antenna 1+2				



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10843.000	45.46	-2.04	43.42	74.00	-30.58	peak
2 *	13189.000	43.81	-0.19	43.62	74.00	-30.38	peak

- 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 evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.

 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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Ten	nperature:	23.7℃		5	Relative Hu	umidity:	48%	
Tes	t Voltage:	DC 5V	Contract of the second		13	67	UPP	
Ant	. Pol.	Vertical		Alla		11 6	6	TO STATE
Tes	t Mode:	TX n(HT4	0) Mode	2437MHz	Antenna 1	+2		
90.0	dBuV/m							
80								
70						(RF) FCC	PART 15C (F	PEAK)
60						(BE) ECC	PART 15C (/	vei
50				2				
40		free for the second	Control of the State of the Sta	Markey James	The second	north "Killywahran"	Mayor Vayan	pea purchase a property of the pea
30	Harry or world for the	and or Walder and Market and Mark			****			
20	hup-aller Jur							
10								

No).	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1		10792.000	45.63	-2.31	43.32	74.00	-30.68	peak
2	*	14209.000	43.74	0.26	44.00	74.00	-30.00	peak

11200.00 (MHz)

16300.00 18850.00

21400.00 23950.00

26500.00

-10

1000.000 3550.00

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

6100.00

8650.00

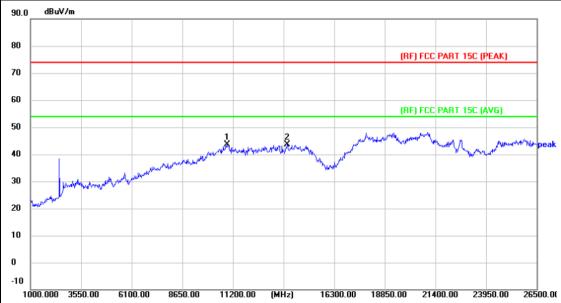
- 2. Peak/AVG (dB μ V/m)= Corr. (dB/m)+ Read Level (dB μ V) 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.

 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





	Vi.2. Vii. 1 3.4507		
Temperature:	23.7℃	Relative Humidity:	48%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX n(HT40) Mode 2452N	/IHz Antenna 1+2	
oo o dPul/m			



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10894.000	45.40	-1.80	43.60	74.00	-30.40	peak
2 *	13928.500	42.78	0.85	43.63	74.00	-30.37	peak

- 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 evaluated1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.

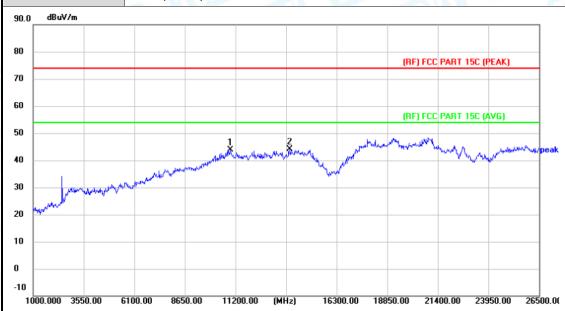
 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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Temperature:	23.7℃	Relative Humidity:	48%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		military in the second
Test Mode:	TX n(HT40) Mode 2452Mi	Hz Antenna 1+2	



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	10945.000	45.77	-1.80	43.97	74.00	-30.03	peak
2 *	13928.500	43.23	0.85	44.08	74.00	-29.92	peak

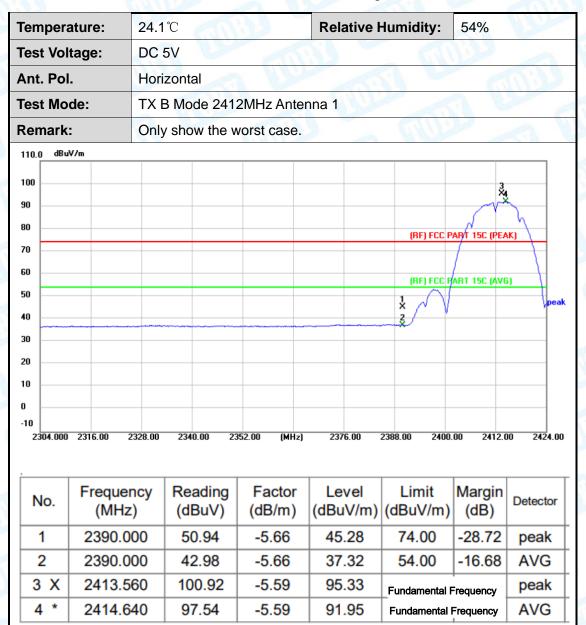
- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)
- 4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
- 5. No report for the emission which more than 20dB below the prescribed limit.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.





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Attachment C-- Restricted Bands Requirement Test Data

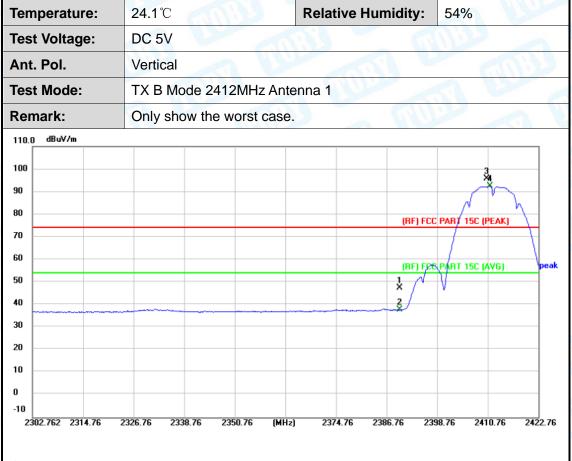


- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)





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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	53.25	-5.66	47.59	74.00	-26.41	peak
2	2390.000	43.48	-5.66	37.82	54.00	-16.18	AVG
3 X	2410.522	101.48	-5.60	95.88	Fundamental F	requency	peak
4 *	2411.242	98.12	-5.60	92.52	Fundamental F	requency	AVG

- 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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Fundamental Frequency

-28.20

-16.51

74.00

54.00

AVG

peak

AVG

Temperature:	24.1℃	333	Relative Humidity:	54%	Altre
Test Voltage:	DC 5V		33 6	Miles	
Ant. Pol.	Horizontal	Alle			THE
Гest Mode:	TX B Mode 246	2MHz Anter	nna 1	A V	
Remark:	Only show the w	vorst case.		100	
110.0 dBuV/m					
90					
70			(RF) F	FCC PART 15C (PEA	K)
60			(RF) I	FCC PART 15C (AVG	i)
10	3 4				pea
20					
10					
0 -10 -2450.000 2462.00 2	2474.00 2486.00 24	198.00 (MHz)	2522.00 2534.00	2546.00 2558.0	0 2570.0
No. Frequer		Factor (dB/m)	Level Limit (dBuV/m)		Detector
1 X 2463.3	20 102.91	-5.42	97.49 Fundament	al Frequency	peak

2 *

3

4

2464.280

2483.500

2483.500

- 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)

99.20

51.15

42.84

-5.42

-5.35

-5.35

93.78

45.80

37.49





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Ten	npera	ture:	24.1	$^{\circ}$ C		Relative Hu	umidity:	54%	Giron
Tes	t Volt	age:	DC :	5V					
Ant	. Pol	,	Vert	ical	1 10		A P		THE STATE OF THE S
Tes	t Mod	de:	TX E	B Mode 246	62MHz Ante	enna 1		A F	
Rer	nark:		Only	show the	worst case.	3	W.		
110.0) dBuV	7/m							
100		1							
90 80	N								
70	+	1					(RF) FCC	PART 15C (PEA	AK)
60	+		$ar{}$				(RF) FCC	PART 15C (AVI	G)
50	V			×					
40 30				*					peak
20									
10									
0 -10									
	149.200	2461.20	2473.20	2485.20 2	2497.20 (MHz	2521.20	2533.20 254	5.20 2557.	20 2569.20
N	lo.	Freque (MHz		Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector

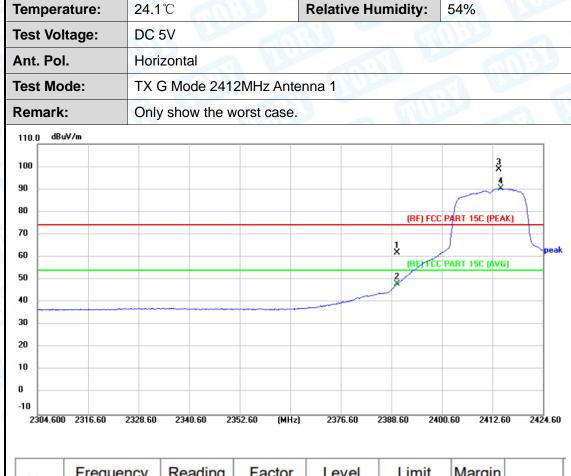
No.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1 X	2460.480	97.52	-5.43	92.09	Fundamental Fi	equency	peak
2 *	2461.320	94.26	-5.42	88.84	Fundamental Fr	equency	AVG
3	2483.500	52.80	-5.35	47.45	74.00	-26.55	peak
4	2483.500	42.54	-5.35	37.19	54.00	-16.81	AVG

- 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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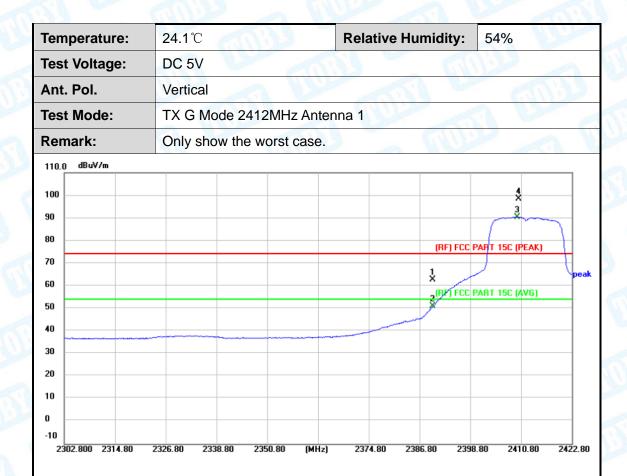
	No.	(MHz)	(dBuV)	(dB/m)	Level (dBuV/m)	(dBuV/m)	(dB)	Detector
	1	2390.000	67.63	-5.66	61.97	74.00	-12.03	peak
	2	2390.000	53.78	-5.66	48.12	54.00	-5.88	AVG
	3 X	2414.160	104.26	-5.59	98.67	Fundamental F	requency	peak
	4 *	2414.520	95.91	-5.59	90.32	Fundamental F	reauencv	AVG
L	•	21111020	00.01	0.00	00.02	runuamentai r	requency	7

- 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
1	2390.000	68.32	-5.66	62.66	74.00	-11.34	peak
2	2390.000	56.66	-5.66	51.00	54.00	-3.00	AVG
3 *	2409.960	96.02	-5.61	90.41	Fundamental	Frequency	AVG
4 X	2410.200	104.09	-5.61	98.48	Fundamental	Frequency	peak

- 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)

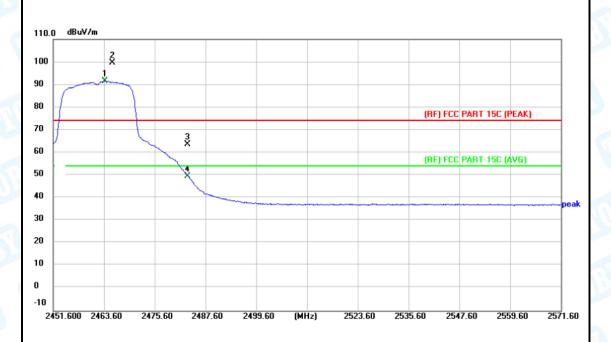








	VILLY TRANSPORT OF THE PROPERTY OF THE PROPERT		
Temperature:	24.1℃	Relative Humidity:	54%
Test Voltage:	DC 5V		000
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2462MHz Ant	enna 1	
Remark:	Only show the worst case		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	2463.840	97.02	-5.42	91.60	_Fundamental F	requency	AVG
2 X	2465.640	105.08	-5.40	99.68	Fundamental F	requency	peak
3	2483.500	68.91	-5.35	63.56	74.00	-10.44	peak
4	2483.500	54.98	-5.35	49.63	54.00	-4.37	AVG

- 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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Tem	pera	ture:	2	24.1	$^{\circ}\!$						Rela	tive F	łum	idity	:	54	%			
Test	t Volt	age:	[DC !	5V	1/8					17			6		1				
Ant.	. Pol.		١	/erti	ical				12	Ass			A	1				M	1	
Test	t Moc	le:		ГΧ (Э Мо	ode 2	2462	2MHz	z Ant	en	na 1	MAR			K	1	1	The same of		e de
Rem	nark:		(Only	sho	w th	e w	orst	case				1							1/1
110.0) dBuV	7m																		
100 90		ž																		
80														(RF) F	CC PA	ART 1	15C (PE	AK)		
70 60					3									(BF) F	CC P	ART 1	15C (AV	/G1		
50				1	× .									,.						
40					*					_									_	peak
30															\dagger				\exists	
20																				
0 -10																				
24	52.400	2464.40	247	6.40	24	88.40	25	00.40	(МН	z)	252	4.40	2536.4	10 2	548.	40	2560	.40	257	2.40
N	lo.	Frequ (Mł		у	l .	adir BuV	-		ctor 3/m)	- 1	Lev (dBu	vel V/m)		imit BuV/r			rgin B)	Def	tecto	or
1	*	2460	.56	0	9	2.16		-5	.42		86.	74	Fun	damen	tal F	requ	ency	Α	VG	•

2 X

3

4

2463.440

2483.500

2483.500

- 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)

100.88

60.30

45.53

-5.42

-5.35

-5.35

95.46

54.95

40.18



peak

peak AVG

Fundamental Frequency

-19.05

-13.82

74.00

54.00



Report No.: TBR-C-202302-0086-52 Page: 67 of 74

Temper	ature:	24.1	$^{\circ}$ C	1:33	Relative	Humidity:	54%	A War
Test Vo	Itage:	DC :	5V			CIV)	100	
Ant. Po	l.	Hori	zontal	3 117		M P		WP 1
Test Mc	de:	1 XT	N(HT20) M	ode 2412M	Hz Antenna	1 +2	A K	
Remark	(:	Only	show the	worst case	3	- Mills		
110.0 dBu	iV/m							
90							3	*
30						(RF) FCC	PART 15C (PEA	AK)
70 50						\$ (RF) FCC.	PART 15C (AVI	pea
50						3		
80								
0								
10								
2303.400	2315.40	2327.40	2339.40	2351.40 (MHz) 2375.40	2387.40 2399	3.40 2411. <i>4</i>	40 2423.40
No	Freque	ency	Reading	Factor	Level	Limit	Margin	Detector

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	61.32	-5.66	55.66	74.00	-18.34	peak
2	2390.000	50.69	-5.66	45.03	54.00	-8.97	AVG
3 *	2413.440	95.98	-5.59	90.39	Fundamental F	requency	AVG
4 X	2414.880	102.29	-5.58	96.71	Fundamental F	requency	peak

- 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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Tem	pera	ture:		24.1	$^{\circ}$		N	35			Relat	ive Hu	umi	dity:	5	4%		R. P.	Name of the last
Test	Volt	age:		DC :	5V	P.			1		13								2
Ant.	Pol.			Vert	ical					N. Ba		-	113	1		7	1	11	
Test	Mod	le:		1 XT	V(HT	20) N	/loc	le 24	12N	1H	z Ante	enna 1	+2		1				
Rem	nark:			Only	shc	w the	e w	orst o	case	.			1	1//	V	1			1
110.0	dBu∀	/m																	_
100 90																	3 [*]		
80														(RF) F	CC PA	RT 15C	(PEA	K)	pea
70														1 ×		_			
60															ec PA	RT 15C	(AVG)	
50													٦,	×					
40																			
30																			
10																			
0																			
-10	01.000	2313.00	D 23	25.00	233	7.00	234	9.00	(МН	lz)	237	3.00	2385.0	00 2	2397.0	D 24	109.0	0 2	4 21.00
N	o.		quen MHz)	-	l .	adin BuV)	- 1		ctor 3/m)			vel V/m)		_imit BuV/r		Marg (dB		Dete	ctor
1	ı	239	90.00	00	6	7.28	\exists	-5	.66		61	.62	7	4.00)	-12.3	88	pea	ak
_				_			\rightarrow				4								_

-5.66

-5.61

-5.60

49.63

91.94

97.14

54.00

Fundamental Frequency

Fundamental Frequency

-4.37

AVG

AVG

peak

3 *

4 X

TOBY

2390.000

2409.600

2410.800

- 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)

55.29

97.55

102.74





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emperature:	24.1	ľC	ALC:	4915		Rela	ative	Hur	nidity	/:	54%	- No	
est Voltage:	DC	5V											
nt. Pol.	Hor	X N(HT20) Mode 2462MHz Antenna 1 +2								13			
est Mode:	TX												
lemark:	Only show the worst case.							1					
110.0 dBuV/m			,										
100		3 X 4									RT 15C (p
20 10 10 2451,800 2463,80	2475.80	248	37.80	2499.80	(MHz)	252	3.80	2535	i.80	2547.8	0 25:	59.80	2571

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Margin (dBuV/m)		Detector
1 *	2460.560	95.91	-5.42	90.49	Fundamental Fr	AVG	
2 X	2460.800	100.63	-5.42	95.21	Fundamental F	peak	
3	2483.500	56.94	-5.35	51.59	74.00 -22.41		peak
4	2483.500	49.74	-5.35	44.39	54.00	-9.61	AVG

- 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)





Report No.: TBR-C-202302-0086-52 Page: 70 of 74

Temperature:	24.1℃	Relative Humidity:	54%
Test Voltage:	DC 5V		000
Ant. Pol.	Vertical		anti-
Test Mode:	TX N(HT20) Mode 2462MH	łz Antenna 1 +2	1
Remark:	Only show the worst case.		
110.0 dBuV/m			
100	3 _X		C PART 15C (PEAK)
30	*		pe
0			
10 2451.200 2463.20 2	2475.20 2487.20 2499.20 (MHz)	2523.20 2535.20 25	47.20 2559.20 2571.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m) Margin (dB)		Detector
1 *	2460.560	93.81	-5.42	88.39	Fundamental Frequency Fundamental Frequency		AVG
2 X	2460.680	101.32	-5.42	95.90			peak
3	2483.500	50.88	-5.35	45.53	74.00	-28.47	peak
4	2483.500	44.09	-5.35	38.74	54.00	-15.26	AVG

- 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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Tempe	rature:	24.1	$^{\circ}$ C		Relative H	tive Humidity: 54%					
Test Vo	oltage:	DC :	5V		23		1777				
Ant. Po	ol.	Hori	zontal	I Am				MB J			
Test M	ode:	1 XT	N(HT40) Mo	de 2422MH	z Antenna 1	+2	1				
Remar	k:	Only	show the v	vorst case.							
110.0 dE	BuV/m										
100								4 ×			
90 80						(BE) ECC P	PART 15C (PE/	AKI			
70						(,					
60						1(BF) FCC P	PART 15C (AVI	G)			
50 40						3		рег			
30											
20											
10											
0 -10											
2245.08	80 2265.08	2285.08	2305.08 2	325.08 (MHz)	2365.08	2385.08 2405.	.08 2425.0	08 2445.0			
No.	Frequ (MF		Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector			
1	2390.	000	60.87	-5.66	55.21	74.00	-18.79	peak			

43.59

86.42

93.68

54.00

2

3 *

4 X

2390.000

2418.880

2431.080

- 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)

49.25

91.99

99.22

-5.66

-5.57

-5.54



AVG

AVG

peak

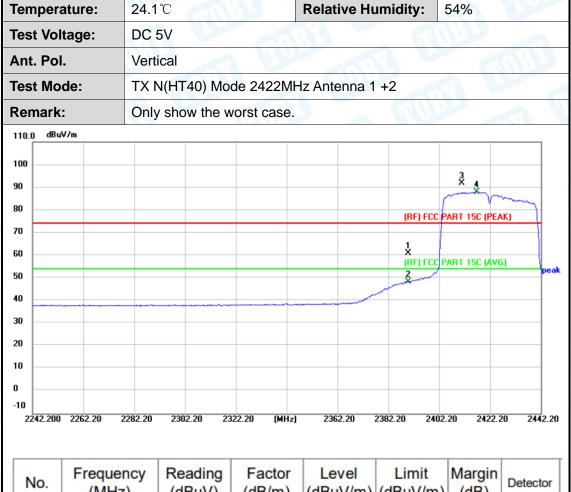
-10.41

Fundamental Frequency

Fundamental Frequency



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No.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1	2390.000	66.70	-5.66	61.04	74.00 -12.96		peak
2	2390.000	54.11	-5.66	48.45	54.00	-5.55	AVG
3 X	2411.200	97.37	-5.60	91.77	Fundamental Frequency		peak
4 *	2417.000	93.60	-5.58	88.02	Fundamental Frequency		AVG

- 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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Temperature:	24.1℃	Relati	ve Humidity:	54%
Test Voltage:	DC 5V		CIVI)	100
Ant. Pol.	Horizontal	A ROOM		CONTRACTOR OF THE PARTY OF THE
Test Mode:	TX N(HT40) Mo	de 2462MHz Anteni	na 1 +2	1
Remark:	Only show the v	vorst case.		
110.0 dBuV/m				
100				
90 X				
80	~		(DE) 500 D	ADT 150 (05AV)
70			(RF) FCC P	ART 15C (PEAK)
60	3		(DE) FCC D	ART 15C (AVG)
50	3		(nr) reer	Ant Tac (Ava)
40	Man man			pea
30				
20				
10				
0				
-10 2428.080 2448.08 2	2468.08 2488.08 25	508.08 (MHz) 2548.08	B 2568.08 2588.	08 2608.08 2628.08
No. Frequer		Factor Leve	l Limit	Margin Detector

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Margin (dBuV/m) (dB)		Detector
1 *	2458.480	91.74	-5.43	86.31	Fundamental F	AVG	
2 X	2460.880	98.25	-5.42	92.83	Fundamental F	peak	
3	2483.500	62.58	-5.35	57.23	74.00	-16.77	peak
4	2483.500	51.01	-5.35	45.66	54.00	-8.34	AVG

- 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)







Tempe	rature:	24.1	$^{\circ}$		33		Relat	ive H	umidity	': 5	54%		N. Ass
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Test Mo	ode:	TXN	N(HT40) Mo	de 24	152MF	Iz Ante	enna 1	1 +2				
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-10 2 4 32.20	0 2452.20	2472.20	2492.20	n 20	12.20	(MHz)	255	2.20	2572.20	2592.2	on ac-	12.20	2632.2
2702.20	. 2402.2U	2412.20	2702.20			(1-1112)	233		2012.20	2002.2	20	. 2. 20	2002.2
No.	Freque	ency	Read	ling	Fa	ctor	Le	vel	Lim	it	Margi	n _D	etector

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m) (dB)		Detector
1 X	2445.000	96.31	-5.48	90.83	Fundamental F	peak	
2 *	2445.200	91.72	-5.48	86.24	Fundamental Frequency		AVG
3	2483.500	53.77	-5.35	48.42	74.00 -25.58		peak
4	2483.500	45.20	-5.35	39.85	54.00	-14.15	AVG

- 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 REPORT--

