

## Shenzhen Toby Technology Co., Ltd.



Report No.: TBR-C-202312-0065-25

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# **Radio Test Report**

FCC ID: 2A8TU-TH01

**Report No.** : TBR-C-202312-0065-25

**Applicant**: Shenzhen Forever Young Technology Co.,Ltd

**Equipment Under Test (EUT)** 

**EUT Name**: WiFi Temperature & Humidity Sensor

Model No. : TH01

Series Model No. : TH11, TH13, TH13Pro

Brand Name : Zitech

Sample ID : 202312-0065-10-1# & 202312-0065-10-2#

**Receipt Date** : 2023-12-22

Test Date : 2023-12-22 to 2024-04-28

Issue Date : 2024-04-29

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.

Test By :

Reviewed By : Wall-W

Approved By : WAW SV

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-202312-0065-25	Rev.01	Initial issue of report	2024-04-29
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## 1. General Information about EUT

#### 1.1 Client Information

Applicant : Shenzhen Forever Young Technology Co.,Ltd		Shenzhen Forever Young Technology Co.,Ltd
Address : 2/F, No B2 Bldg, Fuyuan Industrial Park, Fu yong Town, Bao'an Distri Shenzhen, China		
Manufacturer	:	Shenzhen Forever Young Technology Co.,Ltd
Address	13	2/F, No B2 Bldg, Fuyuan Industrial Park, Fu yong Town, Bao'an District, Shenzhen, China

## 1.2 General Description of EUT (Equipment Under Test)

<b>EUT Name</b>	1	WiFi Temperature & Hu	WiFi Temperature & Humidity Sensor				
Models No.		TH01, TH11, TH13, TH	TH01, TH11, TH13, TH13Pro				
Model Different		All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name.					
			802.11b/g/n(HT20): 2412MHz~2462MHz				
		Operation Frequency:	802.11b/g/n(HT40): 2422MHz~2452MHz				
		Number of Channel:	802.11b/g/n(HT20):11 channels				
			802.11n(HT40): 7 channels				
Product		Antenna Gain:	2.21dBi PCB Antenna				
Description	1		802.11b: DSSS(CCK, DQPSK, DBPSK)				
	1	Modulation Type:	802.11g/n:OFDM(BPSK,QPSK,16QAM,64QAM)				
			802.11b:11/5.5/2/1 Mbps				
		Bit Rate of	802.11g:54/48/36/24/18/12/9/6 Mbps				
		Transmitter:	802.11n:up to 150Mbps				
Power Rating		Input: DC 1.5V AAA*2	TO THE REAL PROPERTY OF THE PARTY OF THE PAR				
<b>Software Version</b>	1:	V5.7.1					
Hardware Version	1	V2.1.5					

#### Remark:

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

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

(3) EUT with two kinds of PCB, the only different is the sensor and RF Module (One with a shield, the other without a shield).





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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 1	1 for 802.11b/g/n(HT	20)/n(HT40)			•

## 1.3 Block Diagram Showing the Configuration of System Tested

EUT	





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## 1.4 Description of Support Units

Equipment Information									
Name	Name Model FCC ID/SDOC Manufacturer Used "√"								
		WUTTY 3							
Cable Information									
Number Shielded Type Ferrite Core Length Note									
<b>M</b>		1100							

## 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 Radiated and RF Conducted Test					
Final Test Mode	Final Test Mode Description				
Mode 1	TX Mode b Mode Channel 01				
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				





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#### 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 802.11g Mode: OFDM

802.11n (HT20) Mode: MCS0 802.11n (HT40) Mode: MCS0

- (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: Beken wifi test tool 1.6.0						
Test Mode: Continuously transmitting						
Mode	Data Rate	Channel	Parameters			
	CCK/ 1Mbps	01	3			
802.11b	CCK/ 1Mbps	06	3			
0.37	CCK/ 1Mbps	11	3			
ww.	OFDM/ 6Mbps	01	3			
802.11g	OFDM/ 6Mbps	06	3			
	OFDM/ 6Mbps	11	3			
902 44 n/UT20	MCS 0	01	3			
802.11n(HT20	MCS 0	06	3			
	MCS 0	11	3			
802.11n(HT40	MCS 0	03	3			
002.1111(1140	MCS 0	06	3			
	MCS 0	09	5			

## 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 <sub>Lab</sub> )
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	Toot Sample(a)	ludament	Domori
FCC	Test item	Test Sample(s)	Judgment	Remark
FCC 15.207(a)	Conducted Emission	1	N/A	
FCC 15.209 & 15.247(d)	Radiated Unwanted Emissions	202312-0065-10-1#	PASS	N/A
FCC 15.203	Antenna Requirement	202312-0065-10-2#	PASS	N/A
FCC 15.247(a)(2)	6dB Bandwidth	202312-0065-10-2#	PASS	N/A
	99% Occupied bandwidth	202312-0065-10-2#	PASS	N/A
FCC 15.247(b)(3)	Peak Output Power and E.I.R.P	202312-0065-10-2#	PASS	N/A
FCC 15.247(e)	Power Spectral Density	202312-0065-10-2#	PASS	N/A
FCC 15.247(d)	Band Edge Measurements	202312-0065-10-2#	PASS	N/A
FCC 15.207(a)	Conducted Unwanted Emissions	202312-0065-10-2#	PASS	N/A
FCC 15.247(d)	Emissions in Restricted Bands	202312-0065-10-2#	PASS	N/A
	On Time and Duty Cycle	202312-0065-10-2#	1	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	Manufactu rer	Specification	Used
TB-EMCSR001	Shielding Chamber #1	YIHENG	7.5*4.0*3.0 ( m )	X
TB-EMCSR002	Shielding Chamber #2	YIHENG	8.0*4.0*3.0 ( m )	<b>√</b>
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 )	$\checkmark$

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jun. 20, 2023	Jun. 19, 2024
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jun. 20, 2023	Jun. 19, 2024
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jun. 20, 2023	Jun. 19, 2024
LISN	Rohde & Schwarz	ENV216	101131	Jun. 20, 2023	Jun. 19, 2024
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. 20, 2023	Jun. 19, 2024
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. 26, 2022	Jun.25, 2024
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Feb. 27, 2024	Feb.26, 2026
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 26, 2022	Jun.25, 2024
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		N/A	N/A
Highpass Filter	XINBO	XBLBQ-HTA67(8-25G)	22052702-1	N/A	N/A
Antenna Condu	ucted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 20, 2023	Jun. 19, 2024
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 Canaar	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Aug. 30, 2023	Aug. 29, 2024
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Aug. 30, 2023	Aug. 29, 2024
3 1	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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## 5. Conducted Emission Test

#### 5.1 Test Standard and Limit

5.1.1 Test Standard

FCC Part 15.207

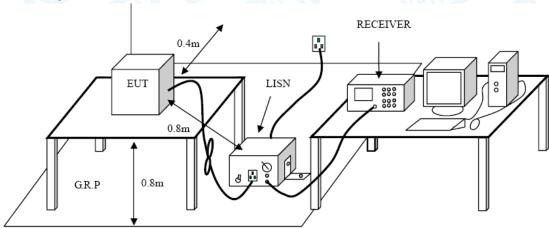
5.1.2 Test Limit

Eroguanov	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

Not Applicable.





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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

Genera	al field strength limits at frequencie	es 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

Frequency	Distance of	3m (dBuV/m)
(MHz)	Peak	Average
Above 1000	74	54

(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. Attenuation below the general field strength limits specified in RSS-Gen is not required.

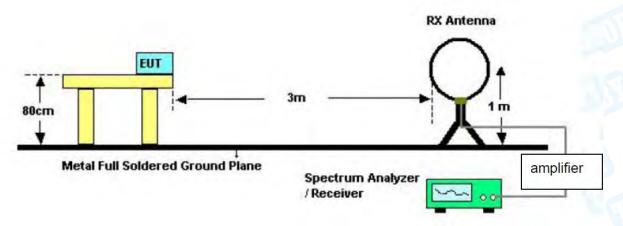




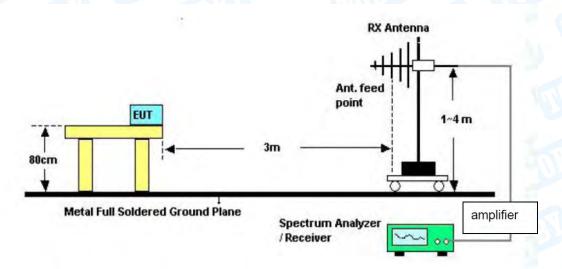
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## 6.2 Test Setup

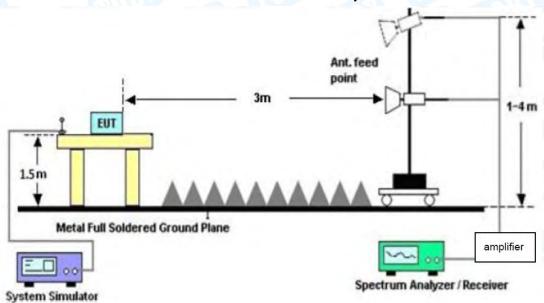
#### Radiated measurement



### **Below 30MHz Test Setup**



#### **Below 1000MHz Test Setup**

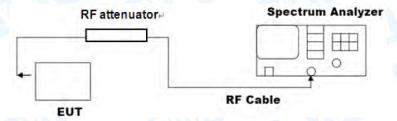






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# Above 1GHz Test Setup Conducted measurement



#### 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 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 A inside test report.

Conducted measurement please refer to the external appendix report of 2.4G Wi-Fi.



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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 15.247(d)

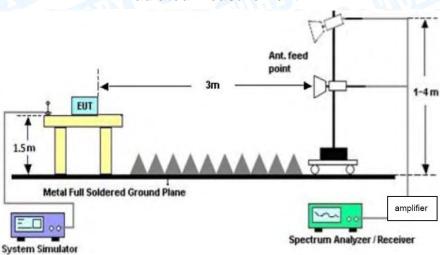
7.1.2 Test Limit

Restricted Frequency	Distance M	leters(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

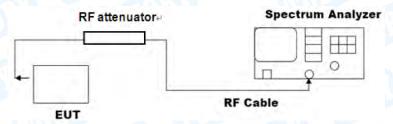
Note: According the ANSI C63.10 11.12.2 antenna-port conducted measurements may also be used as an alternative to radiated measurements for determining compliance in the restricted frequency bands requirements. If conducted measurements are performed, then proper impedance matching must be ensured and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





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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.

#### 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

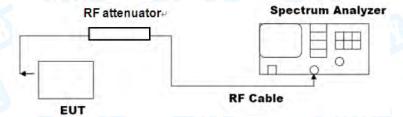
8.1.1 Test Standard

#### 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	2400~2463.3
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. Conducted Output Power

#### 9.1 Test Standard and Limit

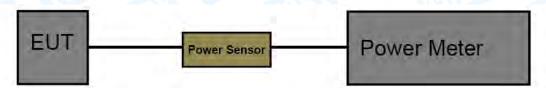
9.1.1 Test Standard

FCC Part 15.247(b)(3)

9.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Conducted 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

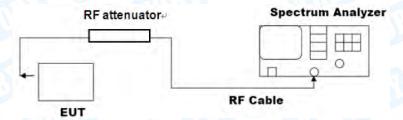
10.1.1 Test Standard

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 2.21dBi, 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
3	☐Unique connector antenna
	☐Professional installation antenna





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## **Attachment A--Unwanted Emissions Data**

#### ---Radiated Unwanted Emissions

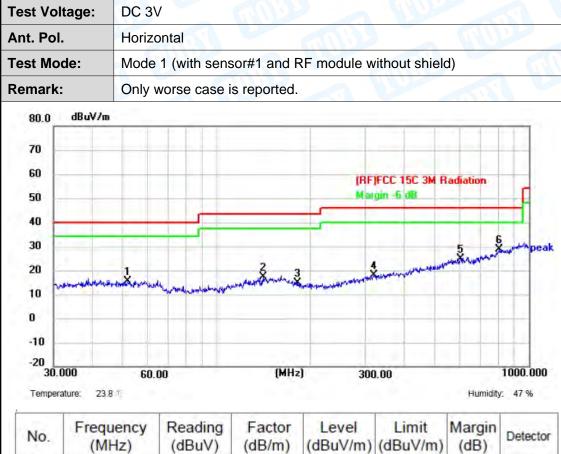
#### 9 KHz~30 MHz

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
1	52.0251	39.01	-23.45	15.56	40.00	-24.44	peak
2	140.8351	39.22	-21.93	17.29	43.50	-26.21	peak
3	181.9202	38.56	-23.88	14.68	43.50	-28.82	peak
4	318.8170	38.37	-20.18	18.19	46.00	-27.81	peak
5	603.5392	38.39	-13.48	24.91	46.00	-21.09	peak
6 *	804.6028	38.28	-9.53	28.75	46.00	-17.25	peak

<sup>\*:</sup>Maximum data x:Over limit !:over margin

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





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46.00

-15.99

peak

	oltage:	DC 3/						
Ant. Po	ol.	Vertica	al	33				Alle
Test M	ode:	Mode	1 (with sens	or#1 and F	RF module w	ithout shield	d)	
Remarl	<b>K</b> :	Only v	vorse case is	s reported.			a	11:35
80.0	dBuV/m							
70								
60						FCC 15C 3M R	ladiation	d
50						gar -e uio		-
40					-			6
30						24	5	6 pea
10	despertanesses	Athenia S	Emperor	water water	energy representations	34 Marian		
0								
-10 -20 30.	000	60.0	0	(MHz	300	.00		1000.000
-10 -20			0	(MHz	300	.00	Humidity	<b>1000.000</b>
-10 -20 30.	rature: 23,8	iency	Reading (dBuV)	(MHz Factor (dB/m)	Level	Limit (dBuV/m)	Humidity Margin (dB)	r. 47%
-10 -20 30. Temper	ature: 23,8	uency Hz)	Reading	Factor	Level	Limit	Margin	r. 47%
-10 -20 30. Temper	Frequ (Mh	uency Hz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	. 47 % Detector
-10 -20 30. Temper No.	Frequ (Mi 66.4	uency Hz) 1990	Reading (dBuV) 42.16	Factor (dB/m) -24.71	Level (dBuV/m) 17.45	Limit (dBuV/m) 40.00	Margin (dB) -22.55	Detector
-10 -20 -30. Temper No.	Frequ (Mi 66.4	ency Hz) 1990 19664 1860	Reading (dBuV) 42.16 39.59	Factor (dB/m) -24.71 -21.70	Level (dBuV/m) 17.45 17.89	Limit (dBuV/m) 40.00 43.50	Margin (dB) -22.55 -25.61	Detector peak peak

-8.45

30.01

887.6097

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
  2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)

38.46

3. Margin (dB) = QuasiPeak (dB $\mu$ V/m)-Limit QPK(dB $\mu$ V/m)



<sup>\*:</sup>Maximum data x:Over limit !:over margin



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Test Voltage:	DC 3V			
Ant. Pol.	Horizontal			
Гest Mode:	Mode 1 (with	sensor#2 and RF m	odule with shield	1)
Remark:	Only worse ca	ase is reported.		U.S.
80.0 dBuV/m		- A A A A A A A A A A A A A A A A A A A		
70 60 50			(RF)FCC 15C 3M Margin -6 dB	d Radiation
40 30 20 10	Approximately the second	MAN TO THE MENT OF THE PARTY OF	According to the second	5 6 mm peal
0 -10 -20 30.000	60.00	(MHz)	300.00	1000,000

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	48.5016	38.38	-24.44	13.94	40.00	-26.06	peak	P
2	66.0342	39.57	-24.94	14.63	40.00	-25.37	peak	Р
3	149.4857	37.65	-21.05	16.60	43.50	-26.90	peak	Р
4	273.2341	37.84	-22.35	15.49	46.00	-30.51	peak	Р
5	554.8254	37.83	-14.29	23.54	46.00	-22.46	peak	Р
6 *	763.3757	37.32	-11.57	25.75	46.00	-20.25	peak	Р

<sup>\*:</sup>Maximum data x:Over limit !:over margin

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





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Test Vol	tage:	DC:	C 3V								
Ant. Pol.		Vert	ical								
Test Mod	de:	Mod	Mode 1 (with sensor#2 and RF module with shield)								
Remark: 80.0 dl	BuV/m	Only	wor	se ca	se is reported.			_			137
70 60 50						1.7	RF)FCC 1 largin -6		Radia	tion	E
40	1 Line of the second	andria and	3,,,	nd white any	4 May serias halfrageneras hay	pary sales	Was and the same of the same o	6	ad have don	and and an a	<sub>W</sub> Madupea
10 20 30.000	: 24.6 C	60.0	00		(MHz)		300.00			Humidity:	1000.000 47 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	39.8542	39.36	-23.39	15.97	40.00	-24.03	peak	Р
2	65.1145	39.98	-24.94	15.04	40.00	-24.96	peak	Р
3	72.8466	38.49	-26.08	12.41	40.00	-27.59	peak	Р
4	107.8877	40.43	-24.55	15.88	43.50	-27.62	peak	Р
5	252.9482	36.57	-23.40	13.17	46.00	-32.83	peak	Р
6	463.9696	37.60	-17.29	20.31	46.00	-25.69	peak	Р

<sup>\*:</sup>Maximum data x:Over limit !:over margin

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





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#### **Above 1GHz**

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Took Mode.	TX B Mode 2412MHz		
Test Mode:	(with sensor#1 and RF	module without shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11761.000	43.62	0.29	43.91	74.00	-30.09	peak
2 *	14234.500	43.57	2.60	46.17	74.00	-27.83	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 (dBμV/m)-Limit PK/AVG(dBμV/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.

24.5°C	Relative Humidity:	49%				
DC 3V		C. L. C.				
Vertical						
TX B Mode 2412MHz						
(with sensor#1 and RF module without shield)						
	DC 3V Vertical TX B Mode 2412MHz	DC 3V Vertical TX B Mode 2412MHz				

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11786.500	45.07	0.28	45.35	74.00	-28.65	peak
2 *	13724.500	43.72	2.23	45.95	74.00	-28.05	peak

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





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Temperature:	24.5°C	Relative Humidity:	49%				
Test Voltage:	DC 3V						
Ant. Pol.	Horizontal						
Toot Mode.	TX B Mode 2437MHz						
Test Mode:	(with sensor#1 and RF module without shield)						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	11735.500	45.53	0.30	45.83	74.00	-28.17	peak
2	13724.500	43.34	2.23	45.57	74.00	-28.43	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2437MHz		
	(with sensor#1 and RF	module without shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11786.500	43.67	0.28	43.95	74.00	-30.05	peak
2 *	13546.000	44.68	1.22	45.90	74.00	-28.10	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%					
Test Voltage:	DC 3V							
Ant. Pol.	Horizontal	Horizontal						
Test Mode:	TX B Mode 2462MHz							
	(with sensor#1 and RF	module without shield)						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11837.500	44.94	0.21	45.15	74.00	-28.85	peak
2 *	14209.000	43.28	2.68	45.96	74.00	-28.04	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%				
Test Voltage:	DC 3V						
Ant. Pol.	Vertical	All U.					
Test Mode:	TX B Mode 2462MHz	THU !					
	(with sensor#1 and RF	module without shield)					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11633.500	44.55	0.22	44.77	74.00	-29.23	peak
2 *	13163.500	44.42	1.56	45.98	74.00	-28.02	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2412MHz		
	(with sensor#1 and RF m	nodule without shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	12398.500	43.19	1.10	44.29	74.00	-29.71	peak
2 *	14617.000	43.02	2.92	45.94	74.00	-28.06	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical	ALL STATES	
Test Mode:	TX G Mode 2412MHz		
	(with sensor#1 and RF mo	dule without shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10817.500	46.94	-1.09	45.85	74.00	-28.15	peak
2	12781.000	44.37	1.00	45.37	74.00	-28.63	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2437MHz		(M)
	(with sensor#1 and RF mo	odule without shield)	2

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	12118.000	44.09	0.60	44.69	74.00	-29.31	peak
2 *	14413.000	43.27	2.74	46.01	74.00	-27.99	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical	ALTO STATE OF THE PARTY OF THE	
Test Mode:	TX G Mode 2437MHz	THU .	
	(with sensor#1 and RF m	odule without shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	10639.000	46.79	-1.63	45.16	74.00	-28.84	peak
2	12602.500	43.90	0.84	44.74	74.00	-29.26	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		000
Test Mode:	TX G Mode 2462MHz		
	(with sensor#1 and RF mo	odule without shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	12067.000	44.63	0.54	45.17	74.00	-28.83	peak
2 *	14260.000	43.90	2.54	46.44	74.00	-27.56	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical	N. C.	
Test Mode:	TX G Mode 2462MHz	THU .	
	(with sensor#1 and RF mo	odule without shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	12679.000	44.06	1.04	45.10	74.00	-28.90	peak
2 *	14387.500	43.62	2.73	46.35	74.00	-27.65	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%				
Test Voltage:	DC 3V						
Ant. Pol.	Horizontal						
Toot Made:	TX n(HT20) Mode 2412M	Hz	mn33				
Test Mode:	(with sensor#1 and RF module without shield)						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11276.500	45.45	-0.60	44.85	74.00	-29.15	peak
2 *	14260.000	43.32	2.54	45.86	74.00	-28.14	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical		
Test Mode:	TX n(HT20) Mode 2412MF	<del>l</del> z	
	(with sensor#1 and RF mo	dule without shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	12092.500	44.47	0.60	45.07	74.00	-28.93	peak
2 *	13138.000	45.21	1.43	46.64	74.00	-27.36	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%					
Test Voltage:	DC 3V							
Ant. Pol.	Horizontal	Horizontal						
Took Mode.	TX n(HT20) Mode 2437N	ИНz						
Test Mode:	(with sensor#1 and RF module without shield)							

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11735.500	45.29	0.30	45.59	74.00	-28.41	peak
2 *	14387.500	43.48	2.73	46.21	74.00	-27.79	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m) 4. The tests evaluated1-26.5GHz,The testing as 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.

Temperature:	24.5°C	Relative Humidity:	49%				
Test Voltage:	DC 3V						
Ant. Pol.	Vertical						
Took Mode.	TX n(HT20) Mode 2437MF	·lz					
Test Mode:	(with sensor#1 and RF module without shield)						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	12704.500	44.76	1.10	45.86	74.00	-28.14	peak
2 *	14438.500	43.56	2.66	46.22	74.00	-27.78	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%				
Test Voltage:	DC 3V						
Ant. Pol.	Horizontal	Horizontal					
Took Mode.	TX n(HT20) Mode 2462MHz						
Test Mode:	(with sensor#1 and RF module without shield)						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11225.500	45.42	-0.55	44.87	74.00	-29.13	peak
2 *	13316.500	44.31	1.41	45.72	74.00	-28.28	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

24.5°C	Relative Humidity:	49%				
DC 3V						
Vertical						
TX n(HT20) Mode 2462MF	·lz					
(with sensor#1 and RF module without shield)						
	DC 3V Vertical TX n(HT20) Mode 2462MH	DC 3V Vertical TX n(HT20) Mode 2462MHz				

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	12041.500	43.86	0.50	44.36	74.00	-29.64	peak
2 *	14132.500	43.09	2.49	45.58	74.00	-28.42	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%			
Test Voltage:	DC 3V					
Ant. Pol.	Horizontal					
Took Mode.	TX n(HT40) Mode 2422Mi	-lz				
Test Mode:	(with sensor#1 and RF module without shield)					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
-1	11225.500	44.61	-0.55	44.06	74.00	-29.94	peak
2 *	14183.500	43.05	2.65	45.70	74.00	-28.30	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%					
Test Voltage:	DC 3V							
Ant. Pol.	Vertical	Vertical						
Test Mode:	TX n(HT40) Mode 2422MH	TX n(HT40) Mode 2422MHz						
	(with sensor#1 and RF mo	dule without shield)						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	12449.500	43.41	0.74	44.15	74.00	-29.85	peak
2 *	13775.500	43.43	2.36	45.79	74.00	-28.21	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	22°C	Relative Humidity:	49%					
Test Voltage:	DC 3V							
Ant. Pol.	Horizontal	Horizontal						
Toot Mode.	TX n(HT40) Mode 2437N	ИНz						
Test Mode:	(with sensor#1 and RF module without shield)							

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11225.500	45.34	-0.55	44.79	74.00	-29.21	peak
2 *	12755.500	44.22	1.03	45.25	74.00	-28.75	peak

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. Peak/AVG (dB $\mu$ V/m)= Corr. (dB/m)+ Read Level (dB $\mu$ V)
- 3. Margin (dB) = Peak/AVG (dB $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m) 4. The tests evaluated1-26.5GHz,The testing as 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.

Temperature:	24.5℃	Relative Humidity:	49%			
Test Voltage:	DC 3V	WURN.				
Ant. Pol.	Vertical					
Toot Made:	TX n(HT40) Mode 2437M	Hz				
Test Mode:	(with sensor#1 and RF module without shield)					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	12755.500	44.01	1.03	45.04	74.00	-28.96	peak
2	14285.500	44.14	2.46	46.60	74.00	-27.40	peak
3 *	26219.500	47.78	0.00	47.78	74.00	-26.22	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5℃	Relative Humidity:	49%					
Test Voltage:	DC 3V							
Ant. Pol.	Horizontal	Horizontal						
Toot Mode.	TX n(HT40) Mode 2452MHz							
Test Mode:	(with sensor#1 and RF module without shield)							

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11710.000	44.29	0.32	44.61	74.00	-29.39	peak
2 *	14336.500	43.84	2.55	46.39	74.00	-27.61	peak

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

Temperature:	24.5°C	Relative Humidity:	49%			
Test Voltage:	DC 3V	WUR I				
Ant. Pol.	Vertical					
Toot Mode.	TX n(HT40) Mode 2452Ml	Hz				
Test Mode:	(with sensor#1 and RF module without shield)					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	12806.500	44.72	0.96	45.68	74.00	-28.32	peak
2	13979.500	43.11	1.94	45.05	74.00	-28.95	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Took Mode:	TX B Mode 2412MHz	W. Commission	
Test Mode:	(with sensor#2 and RF	module with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	12704.500	43.43	1.10	44.53	74.00	-29.47	peak	Р
2 *	14362.000	44.41	2.65	47.06	74.00	-26.94	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

24.5°C	Relative Humidity:	49%
DC 3V		
Vertical	ALTO STATE OF THE PARTY OF THE	
TX B Mode 2412MHz	THUE	
(with sensor#2 and RF m	odule with shield)	
	DC 3V Vertical TX B Mode 2412MHz	DC 3V Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	11786.500	44.57	0.28	44.85	74.00	-29.15	peak	Р
2 *	14260.000	44.08	2.54	46.62	74.00	-27.38	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Toot Mode.	TX B Mode 2437MHz		
Test Mode:	(with sensor#2 and RF m	nodule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	11735.500	46.03	0.30	46.33	74.00	-27.67	peak	Р
2 *	13010.500	44.98	1.49	46.47	74.00	-27.53	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5℃	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical	Alm.	
Test Mode:	TX B Mode 2437MHz		
	(with sensor#2 and RF	module with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	11251.000	45.62	-0.59	45.03	74.00	-28.97	peak	Р
2 *	14132.500	43.92	2.49	46.41	74.00	-27.59	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2462MHz		
	(with sensor#2 and RF	module with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	11837.500	45.44	0.21	45.65	74.00	-28.35	peak	Р
2 *	14464.000	43.70	2.59	46.29	74.00	-27.71	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical	Alto.	
Test Mode:	TX B Mode 2462MHz		
	(with sensor#2 and RF	module with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	11633.500	44.05	0.22	44.27	74.00	-29.73	peak	Р
2 *	13163.500	43.92	1.56	45.48	74.00	-28.52	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2412MHz		
	(with sensor#2 and RF m	nodule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	11735.500	44.43	0.30	44.73	74.00	-29.27	peak	Р
2 *	13571.500	44.37	1.51	45.88	74.00	-28.12	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical	ALIAN STATE	
Test Mode:	TX G Mode 2412MHz	MULL	
	(with sensor#2 and RF mo	odule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	11761.000	45.33	0.29	45.62	74.00	-28.38	peak	Р
2 *	14209.000	43.36	2.68	46.04	74.00	-27.96	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2437MHz		mn333
	(with sensor#2 and RF mo	odule with shield)	1

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	11684.500	45.54	0.30	45.84	74.00	-28.16	peak	Р
2 *	13189.000	44.82	1.70	46.52	74.00	-27.48	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical	MAN.	
Test Mode:	TX G Mode 2437MHz		
	(with sensor#2 and RF m	odule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1 *	11327.500	46.74	-0.47	46.27	74.00	-27.73	peak	Р
2	13036.000	44.14	1.40	45.54	74.00	-28.46	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5℃	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		000
Test Mode:	TX G Mode 2462MHz		
	(with sensor#2 and RF mo	dule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	12067.000	46.13	0.54	46.67	74.00	-27.33	peak	Р
2	13214.500	44.84	1.71	46.55	74.00	-27.45	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5℃	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2462MHz		
	(with sensor#2 and RF mo	dule with shield)	Win a

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	12143.500	44.80	0.56	45.36	74.00	-28.64	peak	Р
2 *	14387.500	43.62	2.73	46.35	74.00	-27.65	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5℃	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Toot Mode.	TX n(HT20) Mode 2412Mł	<del>l</del> z	(1817)
Test Mode:	(with sensor#2 and RF mo	dule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	12653.500	45.02	0.97	45.99	74.00	-28.01	peak	Р
2	14260.000	43.32	2.54	45.86	74.00	-28.14	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical	MAN TO SERVICE STATE OF THE PARTY OF THE PAR	
Test Mode:	TX n(HT20) Mode 2412MI	Нz	
	(with sensor#2 and RF mo	odule with shield)	10:33

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	11659.000	44.50	0.26	44.76	74.00	-29.24	peak	Р
2 *	13138.000	45.21	1.43	46.64	74.00	-27.36	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Toot Mode.	TX n(HT20) Mode 2437N	ИНz	
Test Mode:	(with sensor#2 and RF m	nodule with shield)	N W

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	11735.500	45.29	0.30	45.59	74.00	-28.41	peak	Р
2 *	14107.000	44.58	2.42	47.00	74.00	-27.00	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m) 4. The tests evaluated1-26.5GHz,The testing as 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.

24.5°C	Relative Humidity:	49%
DC 3V		
Vertical		
TX n(HT20) Mode 2437MF	·lz	
(with sensor#2 and RF mo	dule with shield)	
	DC 3V Vertical TX n(HT20) Mode 2437MH	DC 3V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	11761.000	43.55	0.29	43.84	74.00	-30.16	peak	Р
2 *	14413.000	43.42	2.74	46.16	74.00	-27.84	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V	MULL	
Ant. Pol.	Horizontal		
Took Mode.	TX n(HT20) Mode 2462N	ИНz	
Test Mode:	(with sensor#2 and RF m	nodule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1	11761.000	44.36	0.29	44.65	74.00	-29.35	peak	Р
2 *	14362.000	45.49	2.65	48.14	74.00	-25.86	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

24.5℃	Relative Humidity:	49%
DC 3V		
Vertical	T.O.	
TX n(HT20) Mode 2462MH	-lz	
(with sensor#2 and RF mo	dule with shield)	4000
	DC 3V Vertical TX n(HT20) Mode 2462MH	DC 3V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1 *	11684.500	46.34	0.30	46.64	74.00	-27.36	peak	Р
2	14132.500	43.59	2.49	46.08	74.00	-27.92	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Took Mode.	TX n(HT40) Mode 2422M	Hz	
Test Mode:	(with sensor#2 and RF mo	odule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	10843.000	45.97	-1.19	44.78	74.00	-29.22	peak	Р
2 *	13265.500	44.10	1.53	45.63	74.00	-28.37	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated 1-26.5 GHz, 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.

Temperature:	24.5°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Vertical		
Test Mode:	TX n(HT40) Mode 2422MF	·lz	
	(with sensor#2 and RF mo	dule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F
1 *	11327.500	46.61	-0.47	46.14	74.00	-27.86	peak	Р
2	14617.000	42.60	2.92	45.52	74.00	-28.48	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	22°C	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Toot Mode.	TX n(HT40) Mode 2437N	ИНz	
Test Mode:	(with sensor#2 and RF m	nodule with shield)	TO US

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	10766.500	46.08	-1.13	44.95	74.00	-29.05	peak	Р
2 *	13724.500	43.53	2.23	45.76	74.00	-28.24	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ V/m)
- 4. The tests evaluated1-26.5GHz, The testing as 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.

Temperature:	24.5°C	Relative Humidity:	49%			
Test Voltage:	DC 3V	WUR I				
Ant. Pol.	Vertical					
Toot Mode.	TX n(HT40) Mode 2437Mi	-lz				
Test Mode:	(with sensor#2 and RF module with shield)					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	11786.500	44.91	0.28	45.19	74.00	-28.81	peak	Р
2 *	14770.000	42.43	3.19	45.62	74.00	-28.38	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.





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Temperature:	24.5℃	Relative Humidity:	49%
Test Voltage:	DC 3V		
Ant. Pol.	Horizontal		
Toot Mode.	TX n(HT40) Mode 2452N	ИНz	
Test Mode:	(with sensor#2 and RF m	nodule with shield)	

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	10715.500	46.34	-1.30	45.04	74.00	-28.96	peak	Р
2 *	14336.500	44.34	2.55	46.89	74.00	-27.11	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 $\mu$ V/m)-Limit PK/AVG(dB $\mu$ 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.

Temperature:	24.5°C	Relative Humidity:	49%			
Test Voltage:	DC 3V	WUR T				
Ant. Pol.	Vertical					
Toot Mode.	TX n(HT40) Mode 2452Mi	-lz				
Test Mode:	(with sensor#2 and RF module with shield)					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	11327.500	47.50	-0.47	47.03	74.00	-26.97	peak	Р
2	14770.000	43.64	3.19	46.83	74.00	-27.17	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 $\mu V/m$ )-Limit PK/AVG(dB $\mu V/m$ )
- 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.

----END OF THE REPORT-----

