

# CTC Laboratories, Inc.

1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Shenzhen, Guangdong, China Tel: +86-755- 27521059 Fax: +86-755- 27521011 Http://www.sz-ctc.org.cn

Т	EST REPORT		
Report No. ·····:	CTC20221707E02		
FCC ID······:	2APPZ-X303W		
Applicant······	Fanvil Technology Co., LTD.		
Address	10/F Block A, Dualshine Global Sciend Honglang North 2nd Road, Bao'an Dis		
Manufacturer	Fanvil Technology Co., LTD.		
Address	10/F Block A, Dualshine Global Scient Honglang North 2nd Road, Bao'an Dis	-	
Product Name·····:	IP Phone		
Trade Mark······	Fanvil		
Model/Type reference······:	X303W		
Listed Model(s) ······	X301W		
Standard·····:	FCC CFR Title 47 Part 15 Subpart C Section 15.247		
Date of receipt of test sample:	Sep. 15, 2022		
Date of testing	Sep. 16, 2022 ~ Oct. 14, 2022		
Date of issue	Oct. 15, 2022		
Result:	PASS		
Compiled by:			
(Printed name+signature)	Terry Su	Perry Ju	
Supervised by:		Trac zhang	
(Printed name+signature)	Eric Zhang		
Approved by:		Jerry Su Zic zhang Jerras	
(Printed name+signature)	Totti Zhao	/*	
Testing Laboratory Name:	CTC Laboratories, Inc.		
Address	1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Shenzhen, Guangdong, China		
This test report may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by CTC. The test results in the report only apply to the tested sample. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver. Any objections must be raised to CTC within 15 days since the date when the			

report is received. It will not be taken into consideration beyond this limit. The test report merely

correspond to the test sample.



### **Table of Contents**

### Page

1. TI	EST SUMMARY	
1.1.	Test Standards	
1.2.		
1.3.	TEST DESCRIPTION	4
1.4.	TEST FACILITY	5
1.5.	Measurement Uncertainty	5
1.6.	ENVIRONMENTAL CONDITIONS	6
2. G	SENERAL INFORMATION	
2.1.	CLIENT INFORMATION	7
2.2.	GENERAL DESCRIPTION OF EUT	7
2.3.	ACCESSORY EQUIPMENT INFORMATION	
2.4.	• = = = = = = = = = = = = = = = = = = =	
2.5.	Measurement Instruments List	
3. т	EST ITEM AND RESULTS	12
3.1.	Conducted Emission	
3.2.	Radiated Emission	
3.3.	BAND EDGE EMISSIONS (RADIATED)	43
3.4.		
3.5.	DTS BANDWIDTH	78
3.6.		
3.7.		
3.8.		
3.9.	ANTENNA REQUIREMENT	97



# 1. TEST SUMMARY

# 1.1. Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.247: Operation within the bands of 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz.

<u>RSS 247 Issue 2:</u> Standard Specifications for Frequency Hopping Systems (FHSs) and Digital Transmission Systems (DTSs) Operating in the Bands 902-928MHz, 2400-2483.5MHz and 5725-5850MHz.

ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.

# 1.2. Report version

Revised No.	Date of issue	Description
01	Oct. 15, 2022	Original



# 1.3. Test Description

FCC Part 15 Subpart C (15.247) / RSS 247 Issue 2					
Test Item	Standard Section		Result	Test	
rest item	FCC	IC	Result	Engineer	
Antenna Requirement	15.203	/	Pass	Alicia Liu	
Conducted Emission	15.207	RSS-Gen 8.8	Pass	Curry Ye	
Radiated Band Edge and Spurious Emissions	15.205&15.209& 15.247(d)	RSS 247 5.5	Pass	Alicia Liu	
Conducted Band Edge and Spurious Emissions	15.247(d)	RSS 247 5.5	Pass	Alicia Liu	
6dB Bandwidth	15.247(a)(2)	RSS 247 5.2 (a)	Pass	Alicia Liu	
Conducted Max Output Power	15.247(b)(3)	RSS 247 5.4 (d)	Pass	Alicia Liu	
Power Spectral Density	15.247(e)	RSS 247 5.2 (b)	Pass	Alicia Liu	
Transmitter Radiated Spurious	15.209&15.247(d)	RSS 247 5.5& RSS-Gen 8.9	Pass	Alicia Liu	

Note: The measurement uncertainty is not included in the test result.



# 1.4. Test Facility

### CTC Laboratories, Inc.

Add: 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Shenzhen, Guangdong, China

### Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

### A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

### Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

### FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained inour files. Registration 951311, Aug 26, 2017.

# 1.5. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties radio equipment characteristics; Part 2" and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Below is the best measurement capability for CTC Laboratories, Inc.



Test Items	Measurement Uncertainty	Notes
Transmitter power conducted	0.42 dB	(1)
Transmitter power Radiated	2.14 dB	(1)
Conducted spurious emissions 9kHz~40GHz	1.60 dB	(1)
Radiated spurious emissions 9kHz~40GHz	2.20 dB	(1)
Conducted Emissions 9kHz~30MHz	3.08 dB	(1)
Radiated Emissions 30~1000MHz	4.51 dB	(1)
Radiated Emissions 1~18GHz	5.84 dB	(1)
Radiated Emissions 18~40GHz	6.12 dB	(1)
Occupied Bandwidth		(1)

**Note (1):** This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

# 1.6. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	21°C ~ 27°C
Relative Humidity:	40% ~ 60%
Air Pressure:	101kPa



ΕN

# 2. GENERAL INFORMATION

# 2.1. Client Information

Applicant:	Fanvil Technology Co., LTD.
Address:	10/F Block A, Dualshine Global Science Innovation Center, Honglang North 2nd Road, Bao'an District, Shenzhen, China
Manufacturer:	Fanvil Technology Co., LTD.
Address:	10/F Block A, Dualshine Global Science Innovation Center, Honglang North 2nd Road, Bao'an District, Shenzhen, China

# 2.2. General Description of EUT

Product Name:	IP Phone
Trade Mark:	Fanvil
Model/Type reference:	X303W
Listed Model(s):	X301W
Model Different:	All these models are identical in the same PCB, layout and electrical circuit, The difference is that: Color screens: X303W Black and white screens: X301W Screens size 240*320: X303W Screens size 128*48: X301W
Power supply:	5Vdc/1A from external power supply 48Vdc/0.3A from POE
Hardware version:	/
Software version:	/
WIFI 802.11b/ g/ n(HT20)	/ n(HT40)
Modulation:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK, QPSK, 16QAM, 64QAM)
Operation frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz
Channel number:	802.11b/g/n(HT20):11channels 802.11n(HT40): 7channels
Channel separation:	5MHz
Antenna type:	FPC Antenna
Antenna gain:	4.3dBi Max



EN

# 2.3. Accessory Equipment information

Equipment Information					
Name	Model	S/N	Manufacturer		
Notebook	ThinkBook 14G3 ACL	MP246QDR	Lenovo		
AC/DC Adapter	TPA-97H050100UW01		TIANYIN		
Cable Information	Cable Information				
Name	Shielded Type	Ferrite Core	Length		
1	1	1	1		
Test Software Information					
Name	Versions	1	1		
SecureCRT.exe	8.7.1	1	1		



# 2.4. Operation state

Operation Frequency List: The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing.

**Operation Frequency List:** 

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

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

### Data Rated

Preliminary tests were performed in different data rate, and found which the below bit rate is worst case mode, so only show data which it is a worst case mode.

Mode	Data rate (worst mode)
802.11b	1Mbps
802.11g	6Mbps
802.11n(HT20)	HT-MCS0
802.11n(HT40)	HT-MCS0

### Test mode

For RF test items: The engineering test program was provided and enabled to make EUT continuous transmit. For AC power line conducted emissions:

The EUT was set to connect with the WLAN AP under large package sizes transmission.

For Radiated spurious emissions test item:

The engineering test program was provided and enabled to make EUT continuous transmit. The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data Recorded in the report.



# 2.5. Measurement Instruments List

Tonsce	Tonscend JS0806-2 Test system				
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	Spectrum Analyzer	KEYSIGHT	N9020A	100231	Dec. 23, 2022
2	Spectrum Analyzer	Rohde & Schwarz	FUV40-N	101331	Mar. 15, 2023
3	MXG Vector Signal Generator	Agilent	N5182A	MY47420864	Dec. 23, 2022
4	Signal Generator	Agilent	E8257D	MY46521908	Dec. 23, 2022
5	Power Sensor	Agilent	U2021XA	MY5365004	Mar. 15, 2023
6	Power Sensor	Agilent	U2021XA	MY5365006	Mar. 15, 2023
7	High and low temperature box	ESPEC	MT3035	N/A	Mar. 15, 2023
8	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	102414	Dec. 23, 2022
9	300328 v2.2.2 test system	TONSCEND	v2.6	/	1

3. F											
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until						
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-1013	Jan. 12, 2023						
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-647	Dec. 23, 2022						
3	Spectrum Analyzer	R&S	FSU26	100105	Dec. 23, 2022						
4	Spectrum Analyzer	R&S	FSV40-N	101331	Mar. 15, 2023						
5	Pre-Amplifier	SONOMA	310	186194	Dec. 23, 2022						
6	Low Noise Pre-Amplifier	EMCI	EMC051835	980075	Dec. 23, 2022						
7	Loop Antenna	ETS	6507	1446	Dec. 23, 2022						
8	Test Receiver	R&S	ESCI7	100967	Dec. 23, 2022						

Radiate	d emission(3m chamber 3)				
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-759	Nov. 09, 2022
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-647	Dec. 23, 2022
3	Test Receiver	Keysight	N9038A	MY56400071	Dec. 23, 2022
4	Broadband Premplifier	SCHWARZBECK	BBV9743B	259	Dec. 23, 2022
5	Mirowave Broadband Amplifier	SCHWARZBECK	BBV9718C	111	Dec. 23, 2022
6	Pre-Amplifier	R&S	SCU-26	10033	Dec. 23, 2022
7	Pre-Amplifier	R&S	SCU-40	10030	Dec. 23, 2022
8	Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	BBHA 9170-497	Dec. 23, 2022



EN

Condu	Conducted Emission											
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated until							
1	LISN	R&S	ENV216	101112	Dec. 23, 2022							
2	LISN	R&S	ENV216	101113	Dec. 23, 2022							
3	EMI Test Receiver	R&S	ESCS30	100353	Dec. 23, 2022							

Note: 1. The Cal. Interval was one year.

2. The Cal. Interval was three year of the chamber

3. The cable loss has calculated in test result which connection between each test instruments.



# **3.TEST ITEM AND RESULTS**

# 3.1. Conducted Emission

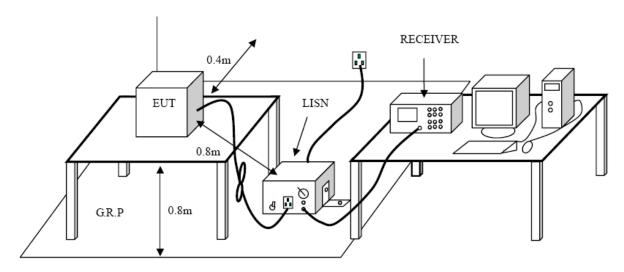
### <u>Limit</u>

### FCC CFR Title 47 Part 15 Subpart C Section 15.207/ RSS - Gen 8.8:

	Limit (dBuV)						
Frequency range (MHz)	Quasi-peak	Average					
0.15-0.5	66 to 56*	56 to 46*					
0.5-5	56	46					
5-30	60	50					

\* Decreases with the logarithm of the frequency.

### Test Configuration



### Test Procedure

1. The EUT was setup according to ANSI C63.10:2013 requirements.

2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.

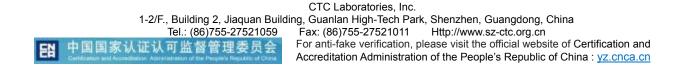
3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)

4. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

5. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

6. Conducted Emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

7. During the above scans, the emissions were maximized by cable manipulation.

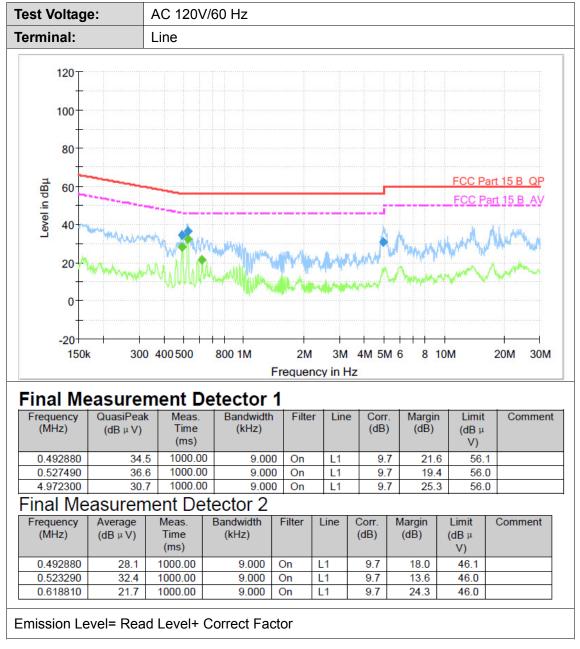




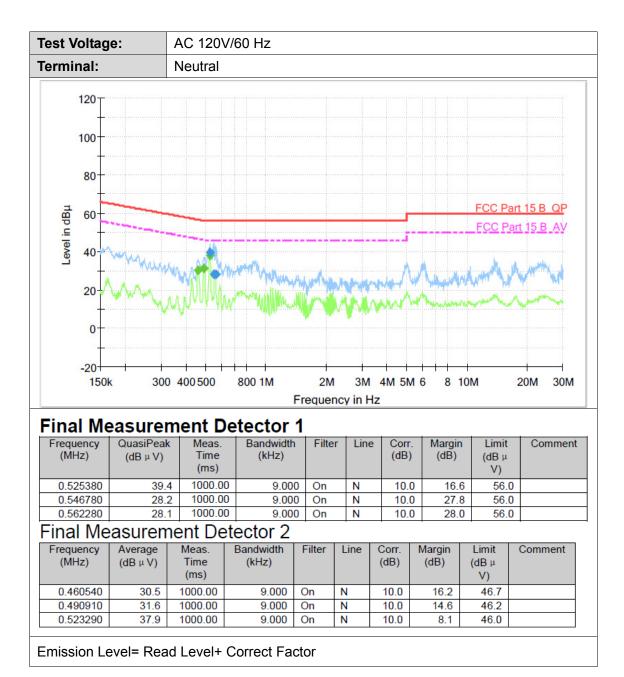
### Test Mode:

Please refer to the clause 2.4.

### **Test Results**









# 3.2. Radiated Emission

<u>Limit</u>

### FCC CFR Title 47 Part 15 Subpart C Section 15.209/ RSS – Gen 8.9:

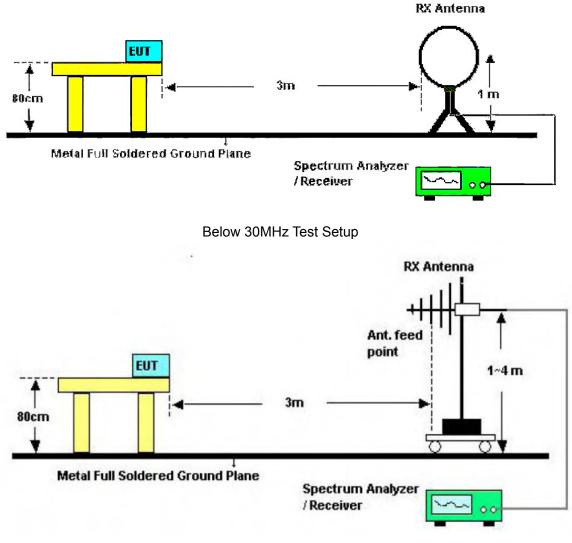
Frequency	Limit (dBuV/m @3m)	Value
30 MHz ~ 88 MHz	40.00	Quasi-peak
88 MHz ~ 216 MHz	43.50	Quasi-peak
216 MHz ~ 960 MHz	46.00	Quasi-peak
960 MHz ~ 1 GHz	54.00	Quasi-peak
Above 1 GHz	54.00	Average
Above i Grz	74.00	Peak

### Note:

(1) The tighter limit applies at the band edges.

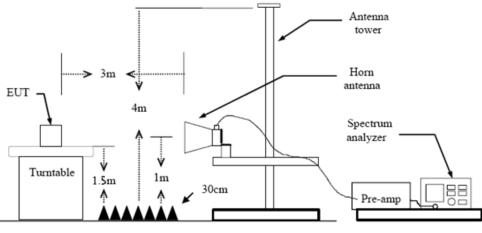
(2) Emission Level (dBuV/m)=20log Emission Level (uV/m).

### Test Configuration



Below 1000MHz Test Setup





Above 1GHz Test Setup

### **Test Procedure**

1. The EUT was setup and tested according to ANSI C63.10:2013

2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable 3. height antenna tower.

4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.

Set to the maximum power setting and enable the EUT transmit continuously. 5.

- Use the following spectrum analyzer settings 6.
- (1) Span shall wide enough to fully capture the emission being measured;

(2) Below 1 GHz:

RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;

If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

(3) From 1 GHz to 10<sup>th</sup> harmonic:

RBW=1MHz, VBW=3MHz Peak detector for Peak value.

RBW=1MHz, VBW≥1/T Peak detector for Average value.

Note 1: For the 1/T& Duty Cycle please refer to clause 3.8 Duty Cycle.

### **Test Mode**

Please refer to the clause 2.4.

### **Test Result**

### 9 KHz~30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

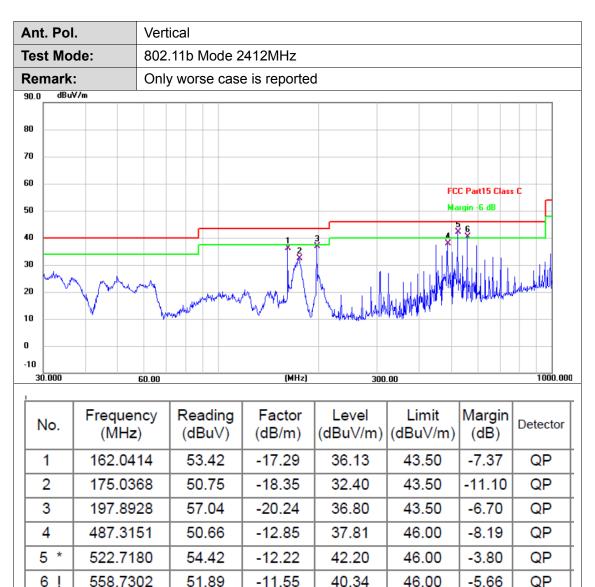
Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



Ant. Po	ol.	Hori	izonta	al								
est Mo	ode:	802.11b Mode 2412MHz										
Remarl		Only worse case is reported										
0.0 dB	uV/m											
·o												
							FCC	C Part15 Class	: C			
io							Mai	rgin -6 dB				
0			<u> </u>					5.6				
0					2	× 4		××				
					170	a			L L L L L L L L			
:0								white white white	- Andred State - Andre			
0 ••••	the general market	un hu	v me . chud	werken	and V	N. M.	MPANANPHAT	Apple Lideblander	le de la secter			
	Mynum	which have	rankahu	windows	www.			ANANG LANGUNAN	Jen Denhé Diteren en			
0	the way	60.00	rangenter	weinder	(MHz)	300		hand the transfer	1000.0			
	John John Marine	60.00	han han har	wennen		300			1000.0			
	Freque (MHz	ncy	Rea	ading BuV)		300 Level (dBuV/m)	Limit	Margin (dB)	1			
		ncy ː)	Rea (dE	ading	(MH2) Factor	Level	Limit					
0 441/44 10 30.000 No.	(MHz	ncy 2)	Rea (dE	ading BuV)	(MHz) Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	(dB)	Detector			
0 ************************************	(MHz 162.04	ncy 2) 13 67	Rea (dE 49 44	ading 3u∨) 9.05	(мн <sub>2</sub> ) Factor (dB/m) -17.29	Level (dBuV/m) 31.76	Limit (dBuV/m) 43.50	(dB) -11.74	Detector QP			
0 **** 30.000 No. 1 2	(MHz 162.04 175.03	ncy 2) 13 67 28	Rea (dE 49 44 54	ading 3u∨) 9.05	(мн <sub>2</sub> ) Factor (dB/m) -17.29 -18.35	Level (dBuV/m) 31.76 26.49	Limit (dBuV/m) 43.50 43.50	(dB) -11.74 -17.01	Detector QP QP			
0 **** 30.000 No. 1 2 3 *	(MHz 162.04 175.03 197.89	ncy :) :13 :67 :28 :48	Rea (dE 49 44 54 51	ading 3uV) 9.05 1.84 1.99	(мнz) Factor (dB/m) -17.29 -18.35 -20.24	Level (dBuV/m) 31.76 26.49 34.75	Limit (dBuV/m) 43.50 43.50 43.50	(dB) -11.74 -17.01 -8.75	Detector QP QP QP			

### Remarks:





Remarks:



nt. Po			Horizontal										
est Mo			TX 802.11b Mode 2412MHz										
emark	<b>c</b> :	No report for the emission which more than 10 dB below the prescribed limit.											
10.0 dBu	ıV/m												
ı													
.													
, ⊨					FUC Part	15 Class C 3M Abo	ve-16 Peak						
, —					FCC Part	15 Class C 3M Abo	ve-1G AV						
	1 X												
	2 X												
,													
0.0 1000.000	) 3500.00 6	000.00	8500.00 11	000.00 (MHz)	16000.00 1	8500.00 21000.	.00 23500.0	0 26000.0					
			-										
No.	Frequer (MHz		Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector					
1	4823.5	66	47.87	-2.36	45.51	74.00	-28.49	peak					
2 *	4823.6	45	33.67	-2.36	31.31	54.00	-22.69	AVG					

Remarks:



Test Mode:   TX 802.11b Mode 2412MHz     Remark:   No report for the emission which more than 10 dB below prescribed limit.     110.0   dBuV/m     100   90     90   90     80   FCC Part15 Class C 3M Above-16     70   90	w the
prescribed limit.       110.0     dBuV/m       100	w the
110.0   dBuV/m     100	
90 80 FCC Part15 Class C 3M Above-16	
80 FCC Part15 Class C 3M Above-16	
FCC Part15 Class C 3M Above-16	
70	i Peak
60 FCC Part 15 Class C 3M Above-16	AV
50	
40	
30	
20	
10.0 1000.000 3500.00 6000.00 8500.00 11000.00 (MHz) 16000.00 18500.00 21000.00	23500.00 26000.00
·	
	argin dB) Detector
1 *     4824.031     33.58     -2.36     31.22     54.00     -22	2.78 AVG
2 4824.409 46.57 -2.36 44.21 74.00 -29	9.79 peak
Remarks:	

Page 20 of 97

Remarks:



Ant	. Pol		Hori	zonta	al							
ſes	t Mo	de:	TX 8	302.1	11b Moo	de 243	7MH	z				
Rer	nark	:			t for the	e emis	sion v	which	more t	han 10 dB t	below the	;
110.0 	) dBu⁄	//m										
100												
0												
									FCC Part	15 Class C 3M Abo	ove-1G Peak	
0												
0									FCC Part	15 Class C 3M Abo	ove-16 AV	
0		1	_									
10		^										
:0		2 X										
20												
0.0												
10	00.000	3500.00 6	000.00	850	0.00 11	000.00	(MHz)	160	100.00 1	8500.00 21000	.00 23500.0	00 26000
Ν	lo.	Freque			ading		ctor		evel	Limit	Margin	Detecto
		(MHz	<u> </u>		BuV)	(dB	<u> </u>	<u> </u>		(dBuV/m)		
	1	4873.9			7.51	-2.			.37	74.00	-28.63	peak
2	2 *	4874.0	39	3	3.84	-2.	14	31	.70	54.00	-22.30	AVG

Page 21 of 97

Remarks:



Ant	t. Pol		Vertical										
Tes	t Mo	de:	TX 80	02.11b Mod	de 2437MHz	Z							
Rei	nark	:		port for the ribed limit.	e emission v	vhich more t	than 10 dB below the						
110.0	) dBu¥	/m											
100													
90													
80						FCC Part	15 Class C 3M Abo	ve-16 Peak					
70													
60						FCC P-4	15 Class C 3M Abo						
50		2 X					TO Class C 3M ADO	VE-TO AV					
40													
30		×											
20													
10.0	00.000	3500.00 6	000.00	8500.00 11	000.00 (MHz)	16000.00 1	8500.00 21000	.00 23500.	00 26000.00				
1	۷o.	Freque (MHz											
	1 *	4874.2	62	2 33.96 -2.14 31.82 54.00 -22.18 AVG									
	2	4874.3	365 47.27 -2.14 45.13 74.00 -28.87 peak										
Rer	marks	61											

Page 22 of 97



EN

nt. Po	It. Pol. Horizontal   st Mode: TX 802.11b Mode 2462MHz												
est Mo	de:	TX 8	802.11	o Moc	le 24621	ИНz	2						
Remark	<b>K:</b>		eport f cribed		e emissio	on v	hich ı	more t	han 1	) dB l	pelow th	ie	
10.0 dBu	V/m												7
		_											
·		_						FCC Part	15 Class (	: 3M Abo	ve-1G Peak		-
) <u> </u>													
								FCC Part	15 Class (	3M Abo	ve-1G AV		-
	2 X												
)	1 X	_											
)	×												-
D													_
0.0 1000.000	3500.00 6	000.00	8500.00		)00.00 (M	Hz)		0.00 1	8500.00	21000	.00 2350		6000.0
No.	Freque		Read		Facto	or		vel	Lin		Margir	1 Dete	eter
	(MHz	<u> </u>	(dBı	· ·	(dB/n	<u> </u>		V/m)			· · /		
1 *	4923.9		33.		-1.93			.77	54.		-22.23		/G
2	4924.4	64	47.	11	-1.93	3	45	.18	74.	00	-28.82	2 pe	ak



Ant.	Pol.		Vertical										
Test	t Mod	de:	TX 802.11b Mode 2462MHz										
Ren	nark:		No report for the emission which more than 10 dB below the prescribed limit.										
110.0	∣ dBu\	//m											
100													
90													
80									ECC Par	t15 Class C 3M Ab	ove-16 Peak		
70									TCC T d				
60													
									FCC Par	t15 Class C 3M Ab	ove-1G AV		
50		2 X											
40		1 X	_										
30		×											
20													
10.0	00.000	3500.00 6	000.00	950	0.00 11	000.00 (MH	-)	1600	0.00	18500.00 2100	0.00 23500	.00 26000.00	
<u> </u>											I		
N	lo.	Frequer (MHz			ading BuV)	Factor (dB/m)		Le\ dBu	/el √/m)	Limit (dBuV/m)	Margin (dB)	Detector	
1	*	4923.7	40	3	4.00	-1.93		32.	07	54.00	-21.93	AVG	
2	2	4924.4	92	4	6.93	-1.93		45.	00	74.00	-29.00	peak	
	narke						-						

Page 24 of 97

Remarks:

EN

26000.00



D\				F	Page	25 of 9	7		Re	port N	o.: CTC2
Ant	. Pol.		Horiz	ontal							
Tes	t Mode:		TX 8	02.11g l	Mode	2412N	1Hz				
Rer	nark:		No re		the e		n which	more t	han 10	dB belo	ow the
110.0	) dBuV/m				-		1	1	1		
100											
90											
80								500 D			
70								FCC Part	15 Class C 3	M Above-1	li Peak
10											
60								FCC Part	15 Class C 3	M Above-1	G AV
50		2 X									
40		~									
30		1 X									
20											
10.0											
10	00.000 3500.0	)0 6	000.00	8500.00	1100	0.00 (MI	lz) 160	000.00 1	8500.00	21000.00	23500.00

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	4823.613	33.52	-2.36	31.16	54.00	-22.84	AVG
2	4823.927	46.85	-2.36	44.49	74.00	-29.51	peak

Remarks:

EN



Δn	t. Pol.		Vertic	al					
	st Mod				le 2412MHz	7			
	mark:		No re	-		- vhich more t	han 10 dB t	pelow the	9
110.) 100	0 dBuV	/m							
90									
80						FCC Part	15 Class C 3M Abo	ve-1G Peak	
70									
60									
50						FUC Part	15 Class C 3M Abo	ve-1ti AV	
40		2 X							
30		1×							
20									
10.0	000.000	3500.00 6	000.00	8500.00 11	000.00 (MHz)	16000.00 1	8500.00 21000.	00 23500.1	00 26000.00
	No.	Freque (MHz		Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1 *	4823.9	84	33.43	-2.36	31.07	54.00	-22.93	AVG
	2	4824.3	325	46.70	-2.36	44.34	74.00	-29.66	peak
Rei	marks								

Page 26 of 97



Page 27 of 97
---------------

	No re		e 2437MHz emission w	z /hich more t	han 10 dB b	elow the	
			emission w	/hich more t	han 10 dB b	elow the	
			-				
				FCC Part	15 Class C 3M Abo	ve-1G Peak	
				ECC Part	15 Class C 3M Abo	ve 16 AV	
2				Teeran			
2 X							
1							
~							
	00.00	0000.00	555.55 [MILZ]	10000.00		00 2000.0	DO 26000.
reque	ncv	Reading	Factor		Limit	Margin	
		(dBuV)	(dB/m)			(dB)	Detector
873.9	11	33.90	-2.14	31.76	54.00	-22.24	AVG
873.9	18	47.24	-2.14	45.10	74.00	-28.90	peak
	1 1.00 6 reque (MHz 1873.9	1×	1 1.00 6000.00 8500.00 110 requency (MHz) Reading (MHz) (dBuV) 1873.911 33.90	1     1       1.00     6000.00     8500.00     11000.00     (MHz)       requency (MHz)     Reading (dBuV)     Factor (dB/m)       1873.911     33.90     -2.14	1/x     1       1.00     6000.00     8500.00     11000.00     (MHz)     16000.00     1       1.00     6000.00     8500.00     11000.00     (MHz)     16000.00     1       requency (MHz)     Reading (dBuV)     Factor (dB/m)     Level (dBuV/m)       1873.911     33.90     -2.14     31.76	1     1     1       1     1000     6000.00     8500.00     11000.00     (MHz)     16000.00     18500.00     21000.       requency (MHz)     Reading (dBuV)     Factor (dB/m)     Level (dBuV/m)     Limit (dBuV/m)       1873.911     33.90     -2.14     31.76     54.00	1     1     1       1



			1										1
Ant	. Pol		Verti	cal									
Tes	t Moo	de:			-	le 24371							
Rer	nark:				t for the ed limit.	e emissio	on v	vhich	more t	han 10	) dB t	pelow the	9
110.0	) dBuV	7m				1							
100													
90													
80									FCC Part	15 Class (	: 3M Abo	ve-16 Peak	
70													
60													
50									FCC Part	15 Class (	3M Abo	we-1G AV	
40		×											
30		2 X											
20													
20 10.0													
10	000.000	3500.00	6000.00	850	0.00 11	000.00 (M	IHz)	160	00.00 1	8500.00	21000	.00 23500.	00 26000.00
N	lo.	Freque (MHz	-		ading BuV)	Facto (dB/n			vel iV/m)	Lin (dBu)		Margin (dB)	Detector
	1	4873.5	98	4	6.86	-2.14	1	44	.72	74.	00	-29.28	peak
2	2 *	4874.1	69	3	4.00	-2.14	1	31	.86	54.	00	-22.14	AVG
	narks actor	: (dB/m) =	Anten	na F	actor (c	lB/m)+C	abl	e Fac	tor (dB	)-Pre-	ampli	fier Fact	or

Page 28 of 97



Ant	t. Pol		Hori	zontal					
Tes	st Mo	de:	TX 8	302.11g Mod	de 2462MHz	Ζ			
Rei	mark			eport for the cribed limit.		vhich more t	han 10 dB b	elow the	;
110.0 	) dBuV	//m							
100									
30									
						FCC Part	15 Class C 3M Abov	ve-1G Peak	
'O									
50						FCC Part	15 Class C 3M Abov	ve-1G AV	
i0		1							
io									
30		2 X							
20									
10.0									
10	00.000	3500.00 6	000.00	8500.00 11	000.00 (MHz)	16000.00 1	8500.00 21000.	00 23500.0	0 26000.00
١	No.	Freque (MHz		Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	4923.6	68	46.90	-1.93	44.97	74.00	-29.03	peak
1	2 *	4924.4	55	33.81	-1.93	31.88	54.00	-22.12	AVG
	2 *	4924.4	55	33.81	-1.93	31.88	54.00	-22.12	AVG

Page 29 of 97

Remarks:



۸nt	. Pol		Verti	cal										
	t Mod				a Mod	le 2462N	/니っ	,						
	nark:				•				more t	han 10 dE	3 belo	w the	1	
					l limit.									
110.0	dBuV	/m												
100														
90														
30														
80									FCC Part	15 Class C 3M	Above-1	G Peak		
70														
60														
50									FCC Part	15 Class C 3M	Above-1	G AV		
50		2×												
40		1												
30		1 X												
20														
10.0														
10	00.000	3500.00 6	000.00	8500.0	0 11	000.00 (MI	Hz)	160	00.00 1	8500.00 21	000.00	23500.	00 26000	.0(
i														Т
1	No.	Freque			ding	Facto			vel			argin	Detector	r
		(MHz			8uV)	(dB/m	·		ıV/m)			dB)		
	1 *	4923.7	68	33	.89	-1.93	}	31	.96	54.00	-2	2.04	AVG	
	2	4924.3	38	46	.69	-1.93	3	44	.76	74.00	-2	9.24	peak	
	narks		<b>A 1</b> a .		- <b>1</b>		- 1-1-					E a a lu		
		(dB/m) = /				IB/m)+Ca	able	e Faci	tor (dB	)-Pre-am	Dilfier	Facto	or	

Page 30 of 97

2.Margin value = Level -Limit value

EN



Ant.	Pol.		Horiz	ontal									
Test	Мос	le:	TX 80	)2.11n	(HT2	0) Mode	e 24	12MI	Ηz				
Rem	nark:			port fo ribed l		emissio	on w	/hich	more t	han 10	dB b	elow the	Э
110.0	dBuV	/m	1		-								
100													
90 -													
80 -									FCC Part	15 Class C	3M Abo	ve-1G Peak	
70													
60													
50									FCC Part	15 Class C	3M Abo	ve-1G AV	
40		2 X											
30		1 X											
20 10.0													
	0.000	3500.00 6	000.00	8500.00	11(	) 00.00 (M	Hz)	160	00.00 1	8500.00	21000.	00 23500.	00 26000.00
N	lo.	Freque (MHz		Read (dBu		Fact (dB/n			evel uV/m)	Lim (dBu\		Margin (dB)	Detector
1	*	4824.0	59	33.4	1	-2.3	6	31	.05	54.0	00	-22.95	AVG
2	2	4824.4	81	46.7	'1	-2.3	6	44	.35	74.(	00	-29.65	peak
Rem	arks					-		·				-	· · · ·

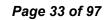
Page 31 of 97



Ant	. Pol		Verti	cal										
Tes	t Moo	de:	TX 8	02.1	1n(HT2	20) Mod	e 24	12MF	Ηz					
Rer	nark:				t for the ed limit.	emissi	on v	vhich	more t	han 10	) dB k	pelow th	ne	
110.0	) dBuV	'/m												
100							_							
90														
80							_		FCC Part	15 Class (	3M Abr	ve-1G Peak		
70									- CO T UN				·	
60														
50									FCC Part	15 Class (	C 3M Abo	ove-1G AV		
40		1 X												
30		2 X												
20														
10.0														
10	00.000	3500.00 6	000.00	850	0.00 11	000.00 (1	Hz)	160	00.00 1	8500.00	21000	.00 2350	10.00 26000	).0(
. <u> </u>														_
N	lo.	Freque (MHz	-		ading BuV)	Fact (dB/r			evel iV/m)	Lin (dBu)		Margii (dB)	n Detecto	or
	1	4823.8	70	4	6.87	-2.3	6	44	.51	74.	00	-29.49	9 peak	
2	2 *	4824.0	52	3	3.53	-2.3	6	31	.17	54.	00	-22.83	3 AVG	

Page 32 of 97

Remarks:

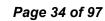




Ant. Po	ol.	Hori	zonta	al						
Test Mo	ode:	ТХ 8	302.1	1n(HT2	20) Mode 2	2437	MHz			
Remarl	<b>K</b> :			t for the ed limit.	emission	whi	ch more t	han 10 dB t	pelow the	;
110.0 dB	uV/m									
100										
90										
80							FCC Parl	t15 Class C 3M Abo	ove-1G Peak	
70										
60							FCC Parl	t15 Class C 3M Abo	ve-1G AV	
50	2									
40										
30	X									
20										
10.0	0 3500.00 6	000.00	850	0.00 11	000.00 (MHz		16000.00 1	8500.00 21000	.00 23500.	00 26000.00
No.	Freque (MHz	-		ading BuV)	Factor (dB/m)		Level BuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4873.6	71	33	3.98	-2.14		31.84	54.00	-22.16	AVG
2	4874.3	86	4	7.10	-2.14		44.96	74.00	-29.04	peak
Remark 1.Facto	(S:									

2.Margin value = Level -Limit value

EN





EN

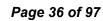
Ant. Po	ol.	Vert	ical										
est Mo	ode:	TX	802.1	1n(HT2	20) Mode	24	137MH	Ηz					
Remarl	<b>K</b> :			t for the ed limit.	e emissio	n v	vhich	more t	han 10	) dB k	pelow th	е	
110.0 dB	uV/m				1								1
100													
									_				
0								FCC Part	15 Class (	C 3M Abo	ove-1G Peak		
ro 📃													
:0													
io								FCC Parl	15 Class (	C 3M Abo	ove-1G AV		
	ŝ	2 Z											
10		L							_				
30		<							_				
20													
10.0	0 3500.00	6000.00	950	0.00 11	000.00 (MI	1-1	160	00.00 1	8500.00	21000	.00 23500	1 00 200	 000.0
No.	Frequ (Mł			ading BuV)	Facto (dB/m			vel iV/m)	Lin (dBu)		Margin (dB)	Detec	tor
1 *	4874	.330	3	3.87	-2.14		31	.73	54.	00	-22.27	AVO	3
2	4874	.422	4	7.17	-2.14		45	.03	74.	00	-28.97	pea	k
Remark													



1	<b>D</b> .1		11.2										
	. Pol.			Horizontal									
Test Mode:		TX 802.11n(HT20) Mode 2462MHz No report for the emission which more than 10 dB below the											
Rer	nark:				for the d limit.	emissic	n w	hich	more t	han 10 d	dB b	elow the	;
110.0	) dBuV/	/m	prest	ישמווי	u innit.								
100													
90													
80									FCC Part	15 Class C 3I	4 Abo	ve-1G Peak	
70											_		
60									FCC Part	15 Class C 3I	4 Abo	ve-1G AV	
50		1 X											
40		2									-		
30		2 X									_		
20											_		
10.0	00.000	3500.00 6	000.00	8500.	00 110	)00.00 (MI	Hz)	100	00.00 1	8500.00 2	21000.	00 23500.	00 26000.00
<u> </u>													
1	No.	Frequency (MHz)		Reading (dBuV)		Factor (dB/m)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	Detector
	1	4923.5	578	47.16		-1.93		45.23		74.00		-28.77	peak
	2 *	4923.5	593	33	3.81	-1.93	3	31	.88	54.0	D	-22.12	AVG
								-					

Page 35 of 97

Remarks:





EN

Ant. Pol. Test Mode:		Vertical TX 802.11n(HT20) Mode 2462MHz										
0.0 dBu	i¥7m											
, 📃												
'								FCC Part15 Class C 3M Abo			ove-1G Peak	
·									_			
۱								FCC Parl	t15 Class (	: 3M Ab	ove-1G AV	
	2 X											
,	^											
,	1 X											
, 1.0												
1000.000	3500.00 6	000.00	8500	0.00 11	000.00	(MHz)	160	00.00 1	8500.00	21000	0.00 23500.	00 26000.
No. Freque			y Reading (dBuV)		Factor (dB/m)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	Detecto
1 *	4923.548		33.91		-1.93		31.98		54.00		-22.02	AVG
2	4924.127		47.23		-1.93		45.30		74.00		-28.70	peak



Ant	. Pol.		Hori	zonta	al								
Tes	t Mod	de:	тх в	02.1	1n(HT4	0) Mod	e 24	22MF	Ηz				
Ren	nark:				t for the ed limit.	emissi	on v	/hich	more t	han 10	) dB k	pelow th	е
110.0	dBu¥	//m											
100													
90													
80													
70									FUC Part	15 Class (	3M Abo	ve-1G Peak	
60													
									FCC Part	15 Class (	3M Abo	ve-1G AV	
50		2 X											
40			_										
30		1 X	_										
20													
10.0		0500.00						100					
10	00.000	3500.00 (	6000.00	850	0.00 11	000.00 (N	(Hz)	160	00.00 1	8500.00	21000	.00 2350	0.00 26000.00
	lo.	Freque			ading	Fact			vel	Lin		Margir	Detector
	0.	(MHz	:)	(d	BuV)	(dB/n	n)	(dBu	ıV/m)	(dBu	√/m)	(dB)	Detector
1	*	4843.5	10	3	3.71	-2.2	7	31	.44	54.	00	-22.56	AVG
	2	4843.6	60	4	6.43	-2.2	7	44	.16	74.	00	-29.84	peak
Don	narke	•											

Page 37 of 97

Remarks:



Ant	t. Pol		Verti	cal										
Tes	st Moo	de:	TX 8	02.1	1n(HT4	0) Mode	e 24	22MF	Ηz					
Rei	mark:				t for the ed limit.	e emissio	on v	vhich	more t	han 1	0 dB k	pelow the	e	
110.0	) dBu¥	/m												
100														
90														
80									FCC Part	15 Class	C 3M Abo	ve-1G Peak		
70														
60														
									FCC Part	15 Class	C 3M Abo	ve-1G AV		
50		1												
40														
		2												
30		- î												
20														
10.0														
10	00.000	3500.00 6	000.00	8500	0.00 11	000.00 (M	Hz)	160	00.00 1	8500.00	21000	.00 23500	.00 260	00.00
1	No.	Freque (MHz	-		ading BuV)	Facto (dB/m			vel iV/m)	Lir (dBu	nit V/m)	Margin (dB)	Detect	tor
	1	4843.8	51	48	8.31	-2.27	7	46	.04	74.	00	-27.96	pea	k
	2 *	4844.4	70	3	3.57	-2.26	6	31	.31	54.	00	-22.69	AVG	5
	narks	: (dB/m) =	Anton		actor (c		abl	- Eac	tor (dB		ampli	fior Eact	or	

Page 38 of 97



	l.	Horiz	ontal					
est Mo				40) Mode 24				
Remarl	<b>(</b> :		eport for the cribed limit.		which more t	han 10 dB t	pelow the	;
10.0 dBu	V/m							
00								
o								
D					FCC Parl	15 Class C 3M Abo	ve-16 Peak	
0					ECC Part	15 Class C 3M Abo	ve-16 AV	
0	2 X							
D								
D	1 X							
D								
D.0 1000.000	3500.00 6	000.00	8500.00 11	000.00 (MHz)	16000.00 1	8500.00 21000	.00 23500.0	00 26000.
No.	Freque (MHz		Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
No.		z)		1				Detector



Ant	. Po	I.	Verti	cal									
Tes	t Mo	de:	TX 8	802.1	1n(HT4	0) Mod	e 24	37M	Hz				
Rer	nark	:			t for the d limit.	e emissio	on v	vhich	more t	han 1	0 dB b	pelow th	ne
110.0	dBu	//m				1							
100													
90													
80									FCC Part	15 Class (	: 3M Abo	ve-1G Peak	
70													
60													
50									FCC Part	15 Class (	C 3M Abo	ve-1G AV	
		2 X											
40		1 ×											
30		×											
20													
10.0	00.000	3500.00 6	000.00	8500	00 11	)00.00 (M	Hz)	160	00.00 1	8500.00	21000.	00 2350	0.00 26000.00
10	00.000	5555.00	000.00	0000		700.00 (IN		100	00.00	0000.00	21000.	00 2000	0.00 20000.00
	_	Freque	ncv	Rea	ading	Facto	or	Le	evel	Lir	nit	Margir	n
	lo.	(MHz			BuV)	(dB/n			uV/m)			(dB)	Detector
	*	4874.2	52	33	3.93	-2.14	1	31	.79	54.	00	-22.21	I AVG
	2	4874.3			6.78	-2.14			.64	74.		-29.36	
									-				
Ren	nark	s.											

Page 40 of 97

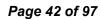
Remarks:



Ant	. Pol		Hori	zonta	al									
Tes	t Mo	de:	ТХ 8	802.1	1n(HT4	10) Mod	e 24	152MF	Ιz					
Ren	nark:	:			t for the d limit.	e emissi	on v	vhich	more t	han 10	) dB k	pelow the	e	
110.0	dBu¥	//m												
100														
90														
80							_		ECC Par	15 Class (	- 2M AL	ove-1G Peak		
70							-		recra		, JM 740	DVC-TUT Cak		
60														
60									FCC Par	t15 Class (	: ЗМ АЬ	ove-1G AV		
50		1												
40		^	_											
30		2 X												
20														
10.0														
10	00.000	3500.00	000.00	8500	.00 11	000.00 (1	Hz)	160	00.00	18500.00	21000	).00 23500	.00 26000.	00
. <u> </u>														_
N	lo.	Freque (MHz	-		ading BuV)	Fact (dB/n			vel V/m)	Lin (dBu\		Margin (dB)	Detector	•
-	1	4903.5	51	46	6.58	-2.0	1	44	.57	74.	00	-29.43	peak	†
2	2 *	4904.3	85	33	3.87	-2.0	1	31	.86	54.	00	-22.14	AVG	1
Ren	narks													-

Page 41 of 97

Remarks:





nt. Po	ol.	Vert	ical							
est Mo	ode:	TX 8	302.1	1n(HT4	40) Mode	245	52MHz			
emarl				t for the d limit.		on wł	hich more t	han 10 dB I	below the	9
10.0 dB	u¥/m	-								
00										
)										
)							FCC Part	15 Class C 3M Abo	ove-16 Peak	
)										
							FCC Part	15 Class C 3M Abo	ove-1G AV	
)	2 X									
)	1 X									
)	×									
0										
าก										
0.0 1000.00	0 3500.00 6	000.00	8500	.00 11	000.00 (M	Hz)	16000.00 1	8500.00 21000	.00 23500.0	00 26000.
	Freque	ncy	Rea	ading BuV)	Facto	or	Level (dBuV/m)	Limit	Margin	Detector
1000.00	Freque	ncy :)	Rea (dE	ading	Facto	or 1) (	Level	Limit	Margin	

EN



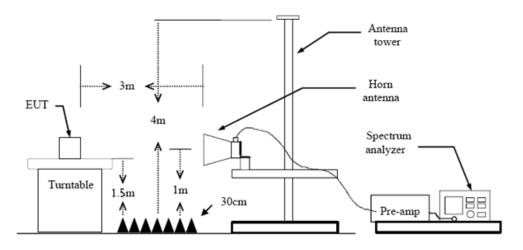
# 3.3. Band Edge Emissions (Radiated)

<u>Limit</u>

# FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d)/ RSS 247 5.5:

Restricted Frequency Band	(dBuV/m	n)(at 3m)
(MHz)	Peak	Average
2310 ~2390	74	54
2483.5 ~2500	74	54

# **Test Configuration**



### Test Procedure

- 1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
- 2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
- 3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
- 4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
- 5. The receiver set as follow:
  - RBW=1MHz, VBW=3MHz Peak detector for Peak value.

RBW=1MHz, VBW see note 1 with Peak Detector for Average Value.

Note 1: For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 3.8 Duty Cycle.

### Test Mode

Please refer to the clause 2.4.

#### Test Results

CTC Laboratories, Inc.



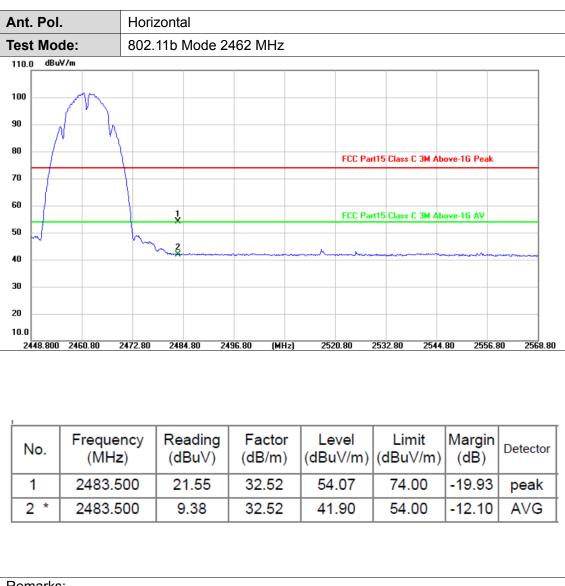
nt. Po	I.	Ho	rizontal										
est Mo	ode:	802	2.11b Mc	de 24	412MHz								
0.0 dBu	iV/m												_
0											N	<u> </u>	
·											N	-b	
								FCC Par	t15 Class C	ЗМ АЬ	ove-1G Peal	k	
								FCC Par	t15 Class C	зм Ар	ove-1G AV		$\left\{ \right\}$
									× z ⁄	~			6
·			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-~					~~~~~				_
.0	2317.20	2329.20	2341.20	23	53.20 (M	Hz)	237	7.20	2389.20	2401.	20 2413	3.20	2425.
No.	(N	juency 1Hz)	Read (dBu	V)	Facto (dB/m	)	(dBu	· · ·	Lim (dBu√	/m)			tecto
1	239	0.000	19.6	60	32.08	3	51	.68	74.0	0	-22.32	2 p	eak
2 *	239	0.000	10.2	23	32.08	3	42	.31	54.0	0	-11.69	) A	VG



EN

Ant.	Pol.		Verti	cal										
<b>fest</b>	Mod	e:	802.	11b M	ode 24	412MH	z							
10.0	dBuV∕ı	n												7
												10		
0														
0									FCC Parl	15 Class (	3M Ab	N ove-1G Peak	h	-
0									Tee Tu					
									FCC Par		: ЭМ Аф	ove-1G AV		
io										×			$\rightarrow$	
0										_ <u>2</u>	and the second s		~~	
0														
0.0														
2305.	.200 2	317.20	2329.20	2341.20	) 235	53.20 (1	Hz)	237	7.20 2	2389.20	2401.	20 2413	.20 24	25.2
N	o.	Freque (MH		Read (dB		Fact (dB/r			vel iV/m)	Lin (dBu <sup>v</sup>		Margir (dB)	Detec	tor
1		2390.	000	19.	52	32.0	8	51	.60	74.	00	-22.40	pea	k
2	*	2390.	000	8.8	33	32.0	8	40	.91	54.	00	-13.09	AVO	3
	ctor (	dB/m) = /alue =				B/m)+C	Cable	e Fact	or (dB	)-Pre-a	ampli	fier Fact	or	







nt. Pol		Vert	ical								
est Mo	de:	802.	11b Mo	de 24	462 MHz	Z					
0.0 dBu	V/m										
	M										
	ſ.							FCC Pa	rt15 Class C 3M	Above-1G Pea	ık
	V V										
			1					FCC Pa	rt15 Class C 3M	Above-1G AV	
			1 X								
$\square$		l	2 X					-			
2448.800	2460.80	2472.80	2484.80	249	96.80 (M	Hz)	252	0.80	2532.80 2	544.80 255	6.80 2568.8
No.	Freque		Readi	ng	Facto	r	Le	vel	Limit	Margi	n Detector
INO.	(MH	lz)	(dBu\	/)	(dB/m	)	(dBu	V/m)	(dBuV/n	n) (dB)	Delector
1	2483.	500	19.0	7	32.52		51.	.59	74.00	-22.4	1 peak
2 *	2483.	500	8.77	'	32.52		41.	.29	54.00	-12.7	1 AVG
	S:										

Page 47 of 97



nt. Po	l <b>.</b>		Horiz	zont	al													
est Mo	de:		802.	11g	Mod	le 24	412N	1Hz										
0.0 dBu	V/m																	
												+		~		L		
·												_			· ·		}	
. –											FCC Part	15 0	lass C 3M /	Above	e-16 Pe	ak		
												1 X						
·											FCC Part	_	lass C 3M	Above	-16 AV		$\rightarrow$	
												2						
												~						
·												-						
2306.400	2318.4	n 93	330.40	224	2.40	22	54.40	(MHz)		2378	240 2	390.	40 24	02.40	24	14.40	242	
No.		quer MHz			eadii IBu∖			actor 3/m)	(d		vel V/m)	(d	Limit BuV/m		/larg (dB)		Detec	to
1	23	90.0	00	3	1.43	3	32	2.08		63	.51		74.00	-	10.4	9	pea	k
2 *	23	90.0	00	1	3.94	4	32	2.08		46	.02		54.00		-7.9	8	AV	3



EN

nt. Po	ol.	Vert	ical					
est M	ode:	802.	11g Mode 2	412MHz				
0.0 dB	i∀/m							
0								
·								
·					FCC Par	t15 Class C 3M Ab	ove-1G Peak	$\rightarrow$
					FCC Par	t15 Class C 3M Ab	ove-1G AV	
·						2		
·								
.0								
2305.200	2317.20 2	329.20	2341.20 23	53.20 (MHz)	2377.20	2389.20 2401.	20 2413.3	20 2425.2
No.	Frequer (MHz		Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.0	00	22.02	32.08	54.10	74.00	-19.90	peak
2 *	2390.0	00	10.07	32.08	42.15	54.00	-11.85	AVG



Ant. Pol.		Hori	Horizontal							
est Mo	de:	802	802.11g Mode 2462MHz							
10.0 dBu	//m									
00										
10										
:0						FCC Part15 C	lass C 3M Abo	ve-1G Peak		
0			1 X							
:0			×			FCC Part15 C	lass C 3M Abo	ve-1G AV		
0			2 X							
0						~~~~~		~~~~~		
o										
0										
0.0 2448.800	2460.80	2472.80	2484.80	2496.80 (M	Hz) 2520	.80 2532.	80 2544.8	0 2556.8	30 2568.1	
	Freau	ency	Readir	ng Facto	or Lev	/el	Limit	Margin	-	
No.	Frequ (MH		Readir (dBu∀		) (dBu\	//m) (dl	3uV/m)	Margin (dB)	Detector	
No.		Hz)		′) (dB/m	) (dBu\	//m) (dl			Detector peak	