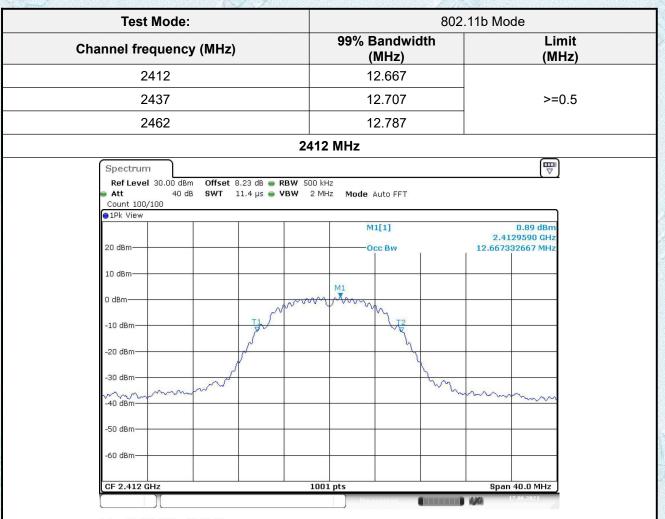
Page 31 of 77

		2437 MH	Z			
Spectrum						₽
Ref Level 30.00	dBm Offset 8.23 dB 🧉	RBW 100 kHz				
	0 dB SWT 94.8 µs 🖷	VBW 300 kHz M	ode Auto FFT			
Count 100/100						
TEK VIEW			M1[1]		-1	15.69 dBm
20 dBm					2.419	90000 GHz
20 0011			M2[1]			-9.21 dBm
10 dBm					2.42.	19600 GHz
0 dBm						
o dom	M2					
-10 dBm	M Lubalu 100	who manufactured protocology	appening hundred at	Jul []3		
-20 dBm-	.206 dBm			4		
		Y				
-30 dBm						
-40 dBmlth	hallow we what have			Y didate	the star	
				. o anye	allowerballan	Muralikennen
-50 dBm						
-60 dBm						
CF 2.437 GHz		1001 pts			Span	80.0 MHz
Marker						
Type Ref Trc M1 1		-15.69 dBm	Function	Fund	ction Result	
M1 1 M2 1		-9.21 dBm				
D3 M1 1	35.68 MHz	0.13 dB				
					4.9/4	7.06.2021
					ily li	
Data: 17 UN 2021	00.17.26				ayar	
	09:17:26				1944	
Date: 17.JUN.2021	09:17:26	2452 MH	Measuring		iyas	60.3226 <i>///</i>
	09:17:26	2452 MH	Measuring			
Date: 17.JUN.2021	09:17:26	2452 MH	Neasuring			
Spectrum Ref Level 30.00	dBm Offset 8.23 dB 🖷	RBW 100 kHz				
Spectrum Ref Level 30.00		RBW 100 kHz				
Spectrum Ref Level 30.00	dBm Offset 8.23 dB 🖷	RBW 100 kHz			ugan	
Spectrum Ref Level 30.00 Att 40 Count 100/100	dBm Offset 8.23 dB 🖷	RBW 100 kHz				-18.52 dBn
Spectrum Ref Level 30.00 Att 40 Count 100/100	dBm Offset 8.23 dB 🖷	RBW 100 kHz	ode Auto FFT M1[1]		2.43	-18.52 dBn 337600 GH:
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm	dBm Offset 8.23 dB 🖷	RBW 100 kHz	ode Auto FFT		2.43	-18.52 dBn
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View	dBm Offset 8.23 dB 🖷	RBW 100 kHz	ode Auto FFT M1[1]		2.43	-18.52 dBn 37600 GH: -12.41 dBn
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm	dBm Offset 8.23 dB 🖷	RBW 100 kHz	ode Auto FFT M1[1]		2.43	-18.52 dBn 37600 GH: -12.41 dBn
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm 10 dBm 0 dBm	dBm Offset 8.23 dB 🖷	RBW 100 kHz VBW 300 kHz M	ode Auto FFT M1[1]		2.43	-18.52 dBn 37600 GH: -12.41 dBn
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm 10 dBm	dBm Offset 8.23 dB 🖷	RBW 100 kHz VBW 300 kHz M	ode Auto FFT M1[1]		2.43	-18.52 dBn 37600 GH: -12.41 dBn
Spectrum Ref Level 30.00 (Att 40 Count 100/100 1Pk View 20 dBm 10 dBm 0 dBm	dBm Offset 8.23 dB) dB SWT 94.8 μs 	RBW 100 kHz VBW 300 kHz M	M1[1] M2[1]		2.43	-18.52 dBn 37600 GH: -12.41 dBn
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm 10 dBm -10 dBm -20 dBm 01 -18,-	dBm Offset 8.23 dB 0 dB SWT 94.8 μs 	RBW 100 kHz VBW 300 kHz M	M1[1] M2[1]		2.43	-18.52 dBn 37600 GH: -12.41 dBn
Spectrum Ref Level 30.00 (Att 40 Count 100/100 PIPk View 20 dBm 10 dBm -10 dBm	dBm Offset 8.23 dB 0 dB SWT 94.8 μs 	RBW 100 kHz VBW 300 kHz M	M1[1] M2[1]		2.43	-18.52 dBn 37600 GH: -12.41 dBn
Spectrum Ref Level 30.00 (Att 40 Count 100/100 1Pk View 20 dBm 10 dBm -10 dBm -20 dBm D1 -18. -30 dBm	dBm Offset 8.23 dB ● 0 dB SWT 94.8 μs ● 409 dBm	RBW 100 kHz VBW 300 kHz M	M1[1] M2[1]	Montes 3	2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH:
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm 10 dBm -10 dBm -20 dBm -20 dBm -40 dBm -40 dBm	dBm Offset 8.23 dB ● 0 dB SWT 94.8 μs ● 409 dBm	RBW 100 kHz VBW 300 kHz M	M1[1] M2[1]	Montes 3	2.43	18.52 dBn 37600 GH: 12.41 dBn 86400 GH:
Spectrum Ref Level 30.00 (Att 40 Count 100/100 1Pk View 20 dBm 10 dBm -10 dBm -20 dBm D1 -18. -30 dBm	dBm Offset 8.23 dB ● 0 dB SWT 94.8 μs ● 409 dBm	RBW 100 kHz VBW 300 kHz M	M1[1] M2[1]	Montes 3	2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH:
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm 10 dBm -10 dBm -20 dBm -20 dBm -40 dBm -40 dBm	dBm Offset 8.23 dB ● 0 dB SWT 94.8 μs ● 409 dBm	RBW 100 kHz VBW 300 kHz M	M1[1] M2[1]	Montes 3	2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH:
Spectrum Ref Level 30.00 (Att 40 Count 100/100 IPk View 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm	dBm Offset 8.23 dB ● 0 dB SWT 94.8 μs ● 409 dBm	RBW 100 kHz VBW 300 kHz M	M1[1] M2[1]	Montes 3	2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH:
Spectrum Ref Level 30.00 (Att 40 Count 100/100 IPk View 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm	dBm Offset 8.23 dB ● 0 dB SWT 94.8 μs ● 409 dBm	RBW 100 kHz VBW 300 kHz M	M1[1] M2[1]	Montes 3	2.44 2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH:
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm	28m Offset 8.23 dB 0 dB SWT 94.8 μs 409 dBm Mbagenterwork 409 dBm J	RBW 100 kHz VBW 300 kHz Mi	m1[1] m2[1]	www.ta3	2.43 2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH: 000 GH
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -60 dBm -60 dBm -60 dBm -70 dBm -70 dBm	dBm Offset 8.23 dB 0 dB SWT 94.8 μs 409 dBm 409 dBm 409 dBm 409 dBm 409 dBm 409 dBm 409 dBm 400 400 400 400 400 400 400 400 400 40	RBW 100 kHz VBW 300 kHz M2 M3 M3 <td< td=""><td>M1[1] M2[1]</td><td>www.ta3</td><td>2.44 2.44</td><td>18.52 dBn 37600 GH: 12.41 dBn 86400 GH: 000 GH</td></td<>	M1[1] M2[1]	www.ta3	2.44 2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH: 000 GH
Spectrum Ref Level 30.00 (Att 40 Count 100/100 IPk View 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.452 GHz Marker Type Ref M1 1	2Bm Offset 8.23 dB 0 dB SWT 94.8 μs 409 dBm 409 dBm	RBW 100 kHz M VBW 300 kHz M	m1[1] m2[1]	www.ta3	2.43 2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH: 000 GH
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -60 dBm -60 dBm -60 dBm -70 dBm -70 dBm	dBm Offset 8.23 dB 0 dB SWT 94.8 μs 409 dBm 409 dBm 409 dBm 409 dBm 409 dBm 409 dBm 409 dBm 400 400 400 400 400 400 400 400 400 40	RBW 100 kHz VBW 300 kHz M2 M3 M3 <td< td=""><td>m1[1] m2[1]</td><td>www.ta3</td><td>2.43 2.44</td><td>18.52 dBn 37600 GH: 12.41 dBn 86400 GH: 000 GH</td></td<>	m1[1] m2[1]	www.ta3	2.43 2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH: 000 GH
Spectrum Ref Level 30.00 Att 40 Count 100/100 1Pk View 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -10 dBm -10 dBm	dBm Offset 8.23 dB 6 0 dB SWT 94.8 μs 6 409 dBm	RBW 100 kHz M VBW 300 kHz M M2 M M3 M M4 M M3 M M3 M M4 M M3 M M4 M M3 M M4 M M4 M M3 M M4 M M4 M	m1[1] m2[1]	www.ta3	2.43 2.44	18.52 dBn 37600 GH: 12.41 dBn 86400 GH: 000 GH

TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



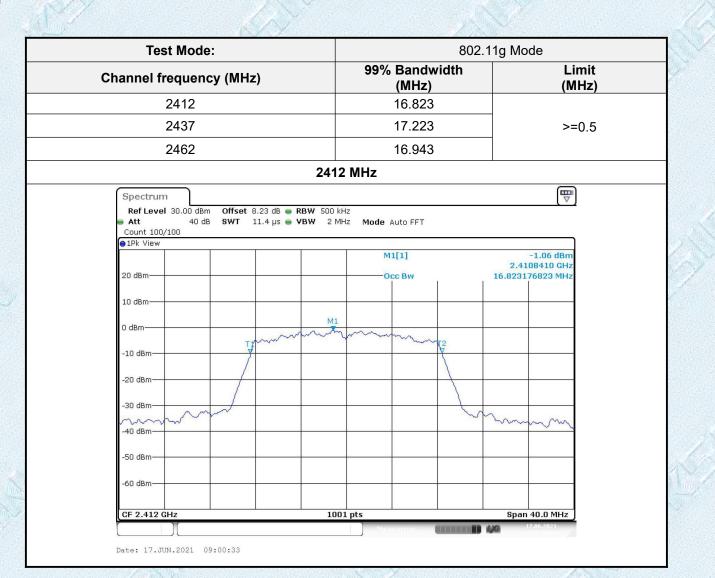
Date: 17.JUN.2021 08:52:58

Page 33 of 77



TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China





Page 35 of 77



TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

Test Mode:	802	2.11n(HT20) Mode
nnel frequency (MHz)	99% Bandwidth (MHz)	Limit (MHz
2412	17.862	
2437	17.822	>=0.5
2462	17.862	
	2412 MHz	
Spectrum		
Att 40 dB SWT 11.4 μs Count 100/100 IPk View	VBW 2 MHz Mode Auto FFT M1[1]	-0.63 dBm
20 dBm	Occ Bw	2.4128390 GHz 17.862137862 MHz
10 dBm		
0 dBm	M1	
0 dBm	man man	A5
TX	man man	AL2
-10 dBm	man man	
-10 dBm	man man	T2
-10 dBm	man man	
-10 dBm	man man	



Page 37 of 77



TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

Test Mode:	80	2.11n(HT40) Mode
hannel frequency (MHz)	99% Bandwidth (MHz)	Limit (MHz)
2422	36.364	
2437	36.284	>=0.5
2452	36.204	
	2422 MHz	
Spectrum		
Ref Level 30.00 dBm Offset 8.23 dB Att 40 dB SWT 11.4 µs	● RBW 1 MHz ● VBW 3 MHz Mode Auto FFT	(*)
Count 100/100	WEN STATE MODE AUTOTT	
20 dBm	M1[1]	-0.15 dBm 2.4164860 GHz 36.363636364 MHz
10 dBm		
	M1	
0 dBm	man man	
-10 dBm		
-20 dBm		
-30 dBm		Limmin
-40 dBm		
-50 dBm		
-50 dBm		
	1001 pts	Span 80.0 MHz



TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

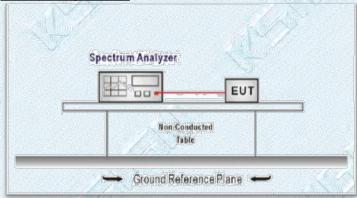
3.5. Band edge and Spurious Emission (Conducted)

Limit

FCC CFR Title 47 Part 15 Subpart C Section15.247 (d):

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator 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.

Test Configuration



Test Procedure

- 1. Connect EUT RF Output port to the Spectrum Analyzer through an RF attenuator.
- 2. Spectrum Setting:
 - RBW=100KHz
 - VBW=300KHz.

Detector function: Peak. Trace: Max hold. Sweep = Auto couple.

Allow the trace to stabilize.

Test Mode

Please refer to the clause 2.2.

Test Results



-10 dB

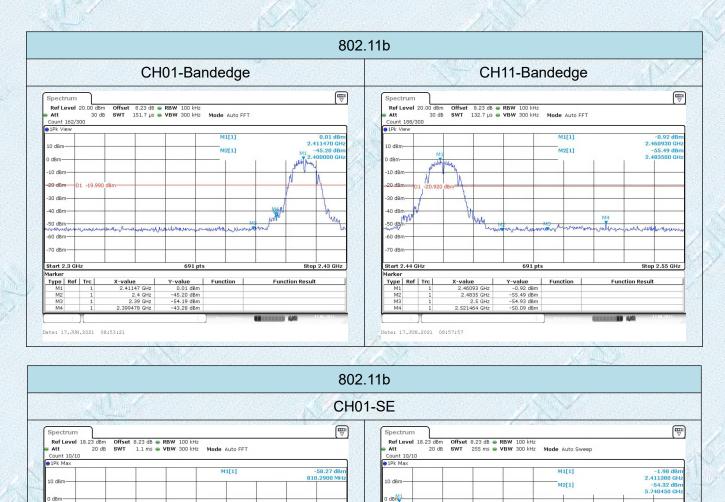
30 dBr

40 dBr 50 dBr 60 d**B**r

Date: 17.JUN.2021 08:54:25

Stop 26.5 GHz

30001 p



CH06-SE

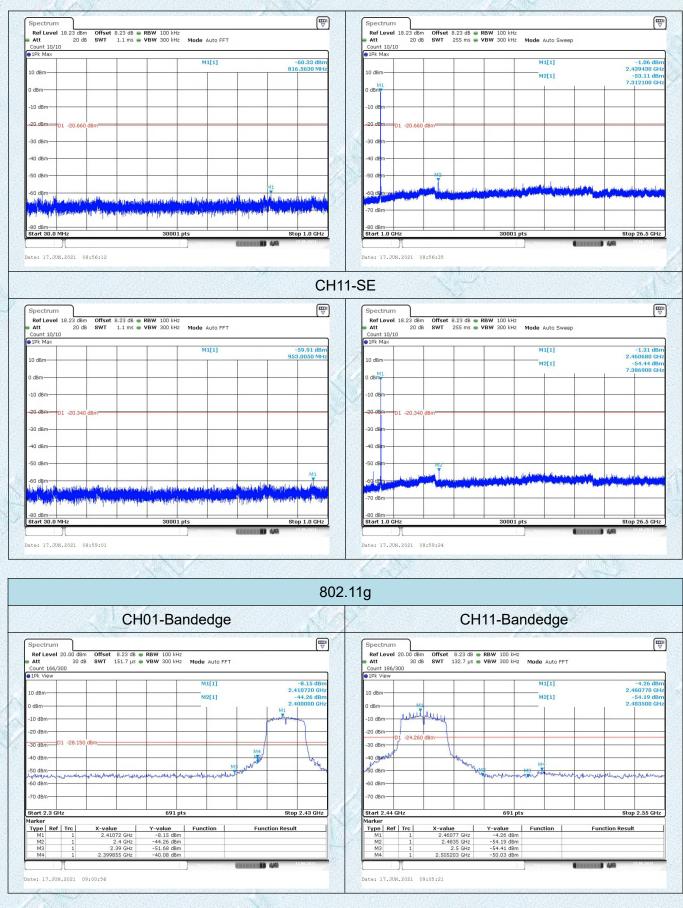
-10 d

30

Date: 17.JUN.2021 08:54:48



Page 42 of 77



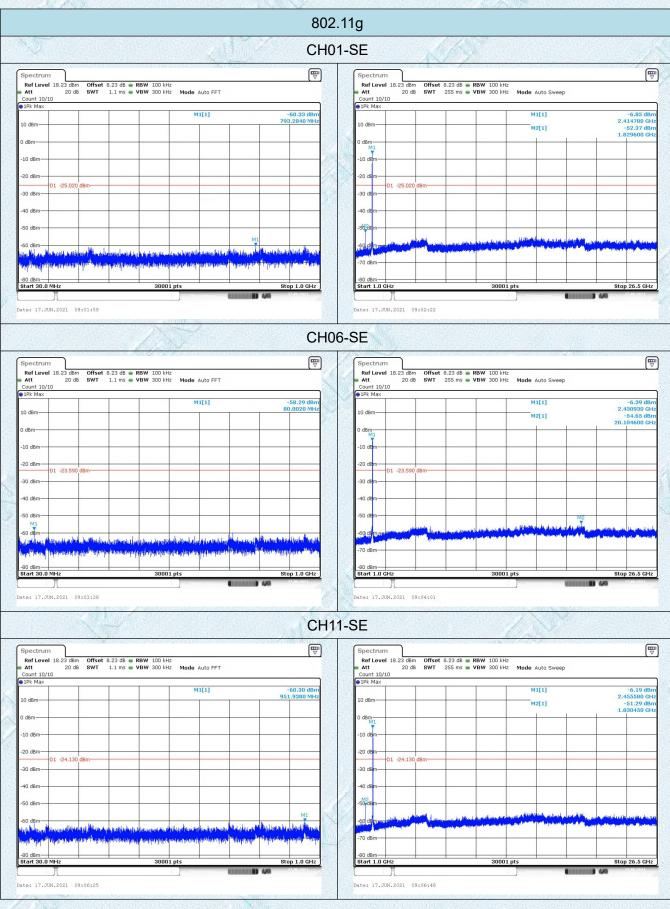
TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



Page 43 of 77

Report No.: KS2105S1418E01

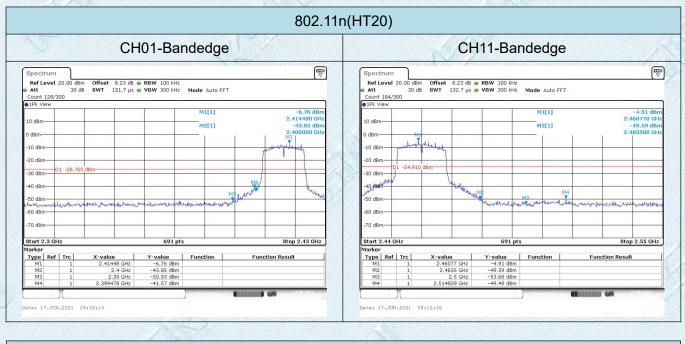


TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



Page 44 of 77



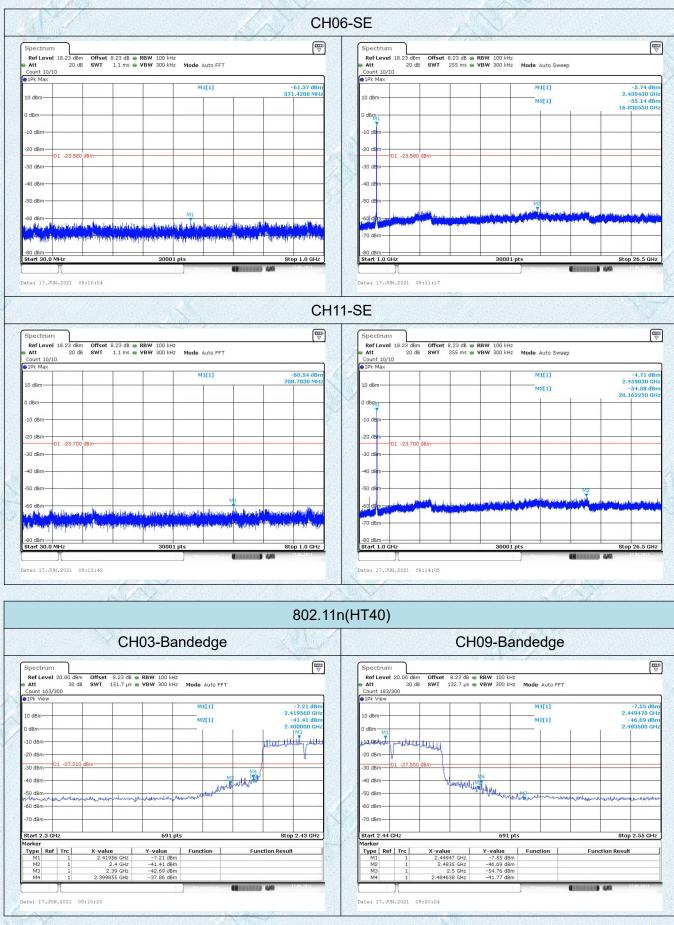
802.11n(HT20) CH01-SE Spectrum Spectrum Ref Level 18.23 dBm Offset 8.23 dB RBW 100 kHz Att 20 dB SWT 255 ms VBW 300 kHz Offset 8.23 dB ● RBW 100 kHz SWT 1.1 ms ● VBW 300 kHz Ref Level 18.23 dBm Att 20 dB Mode Auto FFT Mode Auto Swee ount 10/10 unt 10/10 1Pk Ma ●1Pk Ma M1[1] 60.60 M1[1] 7.63 d 810.4840 MH 2.419 880 GH 0 dBr LO dBr M2[1] -54.93 dE 15.773850 G 0 dB -10 dB -10 d 20 d8 20 30 di 40 dB 40 1.0 GHz 30001 pt Stop 26.5 GHz Date: 17.JUN.2021 09:09:14 Date: 17.JUN.2021 09:09:3

TRF No. Part 15 Subpart C Section 15.247_R1 Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



Page 45 of 77

Report No.: KS2105S1418E01

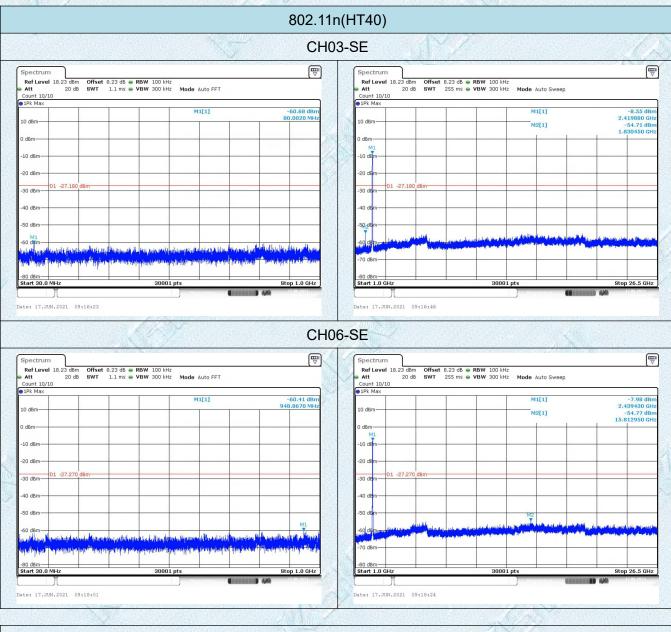


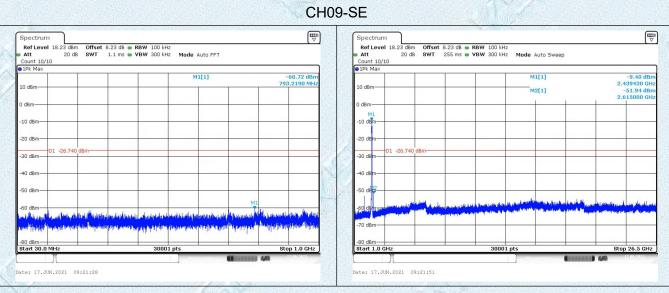
TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



Page 46 of 77





TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



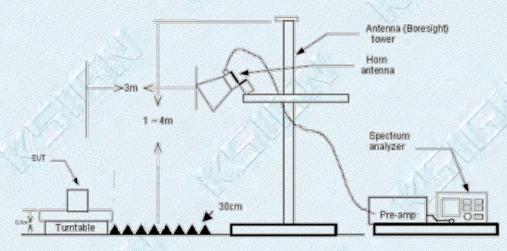
3.6. Band Edge Emissions(Radiated)

	n		

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

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

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=10Hz with PEAK detector for Average Value.

Test Mode

Please refer to the clause 2.2.

Test Results

Note:

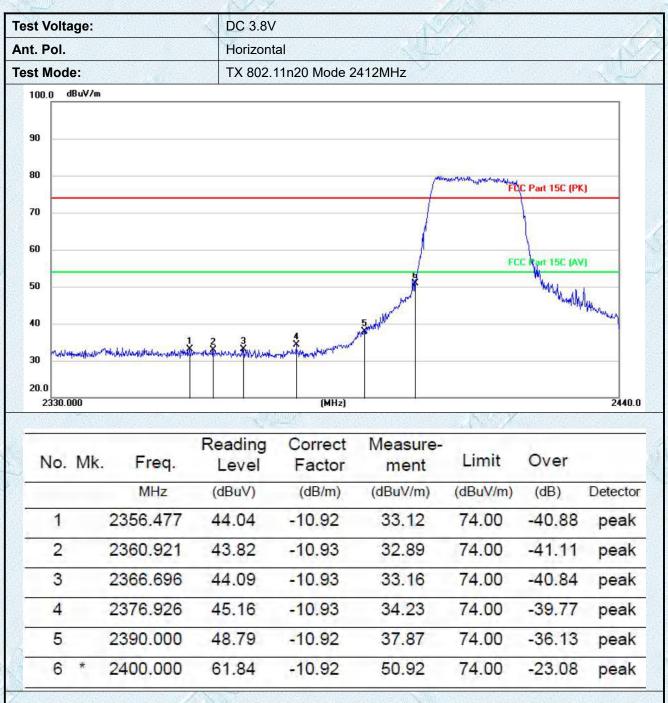
1.Measurement = Reading level + Correct Factor

Correct Factor=Antenna Factor + Cable Loss -Preamplifier Factor 2.Pre-scan 802.11b, 802.11g, 802.11n(HT20) and 802.11n(HT40) mode, and found the 802.11n20 mode which it is worse case, so only show the test data for worse case.

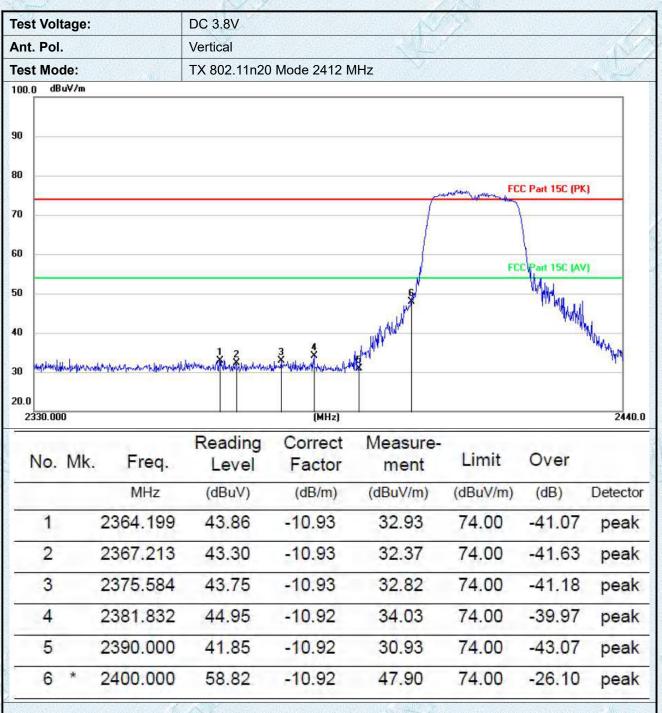
TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China









TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



est Vo	ltage:	DC 3.8V			A AN			
nt. Po	ol.	Horizont	al					
est Mo	ode:	TX 802.1	11n20 Mode 24	62MHz				Contraction of the second
90	dBu¥/m	6						
80 -			munity				C D-+ 15C (DK	
70		1				FL	C Part 15C (PK	-J
60		/				FC	C Part 15C (AV	n
50	mand		hulling	l.				
40				and the second second				
30				New York	ารี้ไประการการการการการการการการการการการการการก	ulah Munana keta M	5 Alexandrewaldhama	n h
20.0).000			(MHz)	Man and a start an	aduka Maraka Maka Maka Maka Ma	5 X Internetienen	6 000000000000000000000000000000000000
20.0 2440	0.000 Mk.	Freq.	Reading Level	(MHz) Correct Factor	Measure- ment	Limit	S Aller And Aller And Aller Over	2550.1
20.0 2440		Freq. MHz	Reading	Correct	Measure-	The set	10	2550.1
20.0 2440			Reading Level	Correct Factor	Measure- ment	Limit	Over	Detecto
20.0 2440 No.	Mk.	MHz	Reading Level (dBuV)	Correct Factor (dB/m)	Measure- ment (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detecto
20.0 2440 No.	Mk.	MHz 2483.500	Reading Level (dBuV) 54.05	Correct Factor (dB/m) -10.88	Measure- ment (dBuV/m) 43.17	Limit (dBuV/m) 74.00	Over (dB) -30.83	Detecto peak peak
^{20.0} 2440 No. 1 2	Mk.	MHz 2483.500 2493.240	Reading Level (dBuV) 54.05 50.77	Correct Factor (dB/m) -10.88 -10.89	Measure- ment (dBuV/m) 43.17 39.88	Limit (dBuV/m) 74.00 74.00	Over (dB) -30.83 -34.12	Detecto peak peak
^{20.0} 2440 No. 1 2 3	Mk.	MHz 2483.500 2493.240 2500.000	Reading Level (dBuV) 54.05 50.77 45.40	Correct Factor (dB/m) -10.88 -10.89 -10.88	Measure- ment (dBuV/m) 43.17 39.88 34.52	Limit (dBuV/m) 74.00 74.00 74.00	Over (dB) -30.83 -34.12 -39.48	Detecto peak peak peak

TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

KSIGN®

	Itage:	DC 3.8V		dun-				
Ant. Po	d. 👘	Vertical					diam's second	
Test Mo	1000	TX 802.1	11n20 Mode 24	62MHz		$\sim D$	NT.	
100.0 d	lBu¥/m							
90								
80		where the strend	ww			FCC	C Part 15C (PK)	
70		1						
		1						
60	Mu	/	M.			FCC	Part 15C (AV)	11
50	phonether		Marine .					
MAYIY	¥		"T'MAN	3		2413 8555	c	
40				Martin	21.1.0.2	¥ ×	×.	
1								
30					Stational and the second second and a second se	with manufality of	monopern Allast	munture
					#MANUMANA MANUMA	who and a providence	water-you green de last	have made
30 20.0 2440.0	100			(MHz)	Shippine and the second se	selles was about the	vormon allah	2550.0
20.0			Reading	(MHz)	Measure-			2550.0
20.0	Mk.	Freq.				Limit	Over	2550.0
20.0		Freq. MHz	Reading	Correct	Measure-			2550.0 Detecto
20.0			Reading Level	Correct Factor	Measure- ment	Limit	Over	
20.0 2440.0 No.	Mk.	MHz	Reading Level (dBuV)	Correct Factor (dB/m)	Measure- ment (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detecto peak
20.0 2440.0 No.	Mk.	MHz 2483.500	Reading Level (dBuV) 53.94	Correct Factor (dB/m) -10.88	Measure- ment (dBuV/m) 43.06	Limit (dBuV/m) 74.00	Over (dB) -30.94	Detecto peak peak
20.0 2440.0 No. 1 2	Mk.	MHz 2483.500 2491.216	Reading Level (dBuV) 53.94 51.83	Correct Factor (dB/m) -10.88 -10.89	Measure- ment (dBuV/m) 43.06 40.94	Limit (dBuV/m) 74.00 74.00	Over (dB) -30.94 -33.06	Detecto peak peak peak
20.0 2440.0 No. 1 2 3	Mk.	MHz 2483.500 2491.216 2500.000	Reading Level (dBuV) 53.94 51.83 43.73	Correct Factor (dB/m) -10.88 -10.89 -10.88	Measure- ment (dBuV/m) 43.06 40.94 32.85	Limit (dBuV/m) 74.00 74.00 74.00	Over (dB) -30.94 -33.06 -41.15	Detecto peak peak peak
20.0 2440.0 No. 1 2 3 4	Mk.	MHz 2483.500 2491.216 2500.000 2519.838	Reading Level (dBuV) 53.94 51.83 43.73 49.45	Correct Factor (dB/m) -10.88 -10.89 -10.88 -10.87	Measure- ment (dBuV/m) 43.06 40.94 32.85 38.58	Limit (dBuV/m) 74.00 74.00 74.00 74.00	Over (dB) -30.94 -33.06 -41.15 -35.42	Detecto

TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

3.7. Spurious Emission (Radiated)

<u>Limit</u>

Radiated Emission Limits (9 kHz~1000 MHz)

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

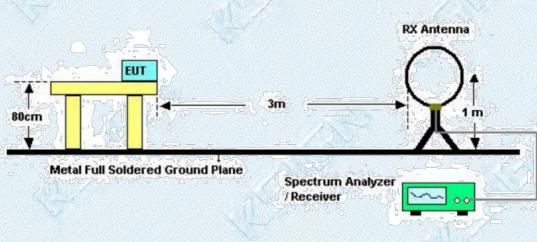
Radiated Emission Limit (Above 1000MHz)

Frequency	Distance Me	eters(at 3m)
(MHz)	Peak	Average
Above 1000	74	54

Note:

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

Test Configuration

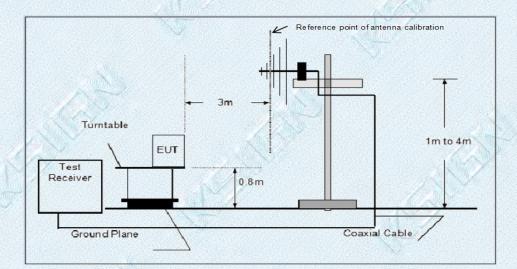


Below 30MHz Test Setup

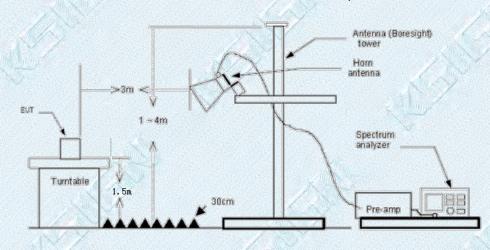
TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China





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.
- 3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable 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.
- 5. Set to the maximum power setting and enable the EUT transmit continuously.
- 6. Use the following spectrum analyzer settings
 - (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 10th harmonic:

TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



RBW=1MHz, VBW=1MHz Peak detector for Peak value. RBW=1MHz, VBW=10Hz Peak detector for Average value.

Test Mode

Please refer to the clause 2.2

Test Result

9 KHz~30 MHz and 18GHz~25GHz

From 9 KHz~30 MHz and 18GHz~25GHz: Conclusion: PASS

Note:

- Measurement = Reading level + Correct Factor
 Correct Factor=Antenna Factor + Cable Loss -Preamplifier Factor
- 2) The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
- 3) The emission levels of other frequencies are very lower than the limit and not show in test report.
- 4) The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
- 5) Pre-scan 802.11b/g/n(HT20/HT40) modulation, found 802.11n20_2412MHz which it is worse case for
 30MHz-1GHz , the 802.11n20 modulation which it is worse case for above 1GHz, so only show the test data for worse case.

BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.



30MHz-1GHz

est Voltage:	: DC 3.8\			and the second	A PORT A		
nt. Pol.	Horizon	tal					
est Mode:	TX 802.	11n20 Mode 2	412MHz	NT.			
0.0 dBuV/m							
0							
0					FCC Part 15C (3	30MHz-1GHz)	
0						Margin -6 dB	
0					*	5 \$	
0				2 3			
				X 84.			
			AN.	. ALLANDA.	J. A. H. L.	WIMMIN WV	These laster
0			NM	WW WWWWWW	HAN HANDALAN	ANNA AN	had looker
		M	MM	WW WWWWW	story Williams	ANNAN AV	mil lutur
	man Manuan Marka Marka	Manan	NM	WW MANNA	ring ya blackad	AN MARKAN	ma lodur
0 Anthony and	Manusung way	100	(MHz)	the state of the s	//////////////////////////////////////		1000.0
0 h-Alpuhaunau 0.0	60			Measure- ment	500 Limit	Over	1000.C
0 0.0 30.000	60	100 Reading	(MHz) Correct			Over (dB)	
0 0.0 30.000	. Freq.	Reading Level	(MHz) Correct Factor	ment	Limit	1111 11	Detecto
0 0.0 30.000 No. Mk.	. Freq. MHz	100 Reading Level (dBuV)	(MHz) Correct Factor (dB/m)	ment (dBuV/m)	Limit (dBuV/m)	(dB)	Detecto
0 0.0 30.000 No. Mk.	60 Freq. МНz 164.7340	100 Reading Level (dBuV) 45.07	(MHz) Correct Factor (dB/m) -21.03	ment (dBuV/m) 24.04	Limit (dBuV/m) 43.50	(dB) -19.46	Detecto QP QP
0.0 30.000 No. Mk. 1 2	Б0 Freq. МНz 164.7340 239.9873	100 Reading Level (dBuV) 45.07 44.38	(MH2) Correct Factor (dB/m) -21.03 -16.13	ment (dBuV/m) 24.04 28.25	Limit (dBuV/m) 43.50 46.00	(dB) -19.46 -17.75	Detecto QP QP QP
0 0.0 30.000 No. Mk. 1 2 3	60 Freq. МНz 164.7340 239.9873 304.0763	100 Reading Level (dBuV) 45.07 44.38 42.38	(MHz) Correct Factor (dB/m) -21.03 -16.13 -14.49	ment (dBuV/m) 24.04 28.25 27.89	Limit (dBuV/m) 43.50 46.00 46.00	(dB) -19.46 -17.75 -18.11	Detecto QP QP QP QP

Measurement = Reading Level+ Correct Factor



	ltores		,		de la companya de la	The second second		
est Vo	<u></u>	DC 3.8\			1	e7		
nt. Po		Vertical				66		
est Mo	ode: BuV/m	TX 802.	11n20 Mode 2	2412MHz				
0.0 dl	5 4 7711							
<i>'</i> 0								
o						FCC Part 15C	(30MHz-1GHz	a
。							Margin -6	
0						1		<u>§</u>
0			nky		2	Å	\$	×
		2 14			L at My		uth A.A	America
0			W M	A ALAN		MANNEL MAY	wolk N No.	10-
N.	and the second	mpm -	γ	101011	MUAL VS KIL	A CONTRACT OF A		
	Weller Harris	N.	Y	I WW.	W W			
0	Marked June	V.	V Manua	utry WW.	W V			
0	Mary June	60	100		WW XV	500		1000
0		60		A.A.	Measure-			1000
0.0	Mk.	60 Freq.	100	(MHz)	Measure- ment	500 Limit	Over	1000
0.0			100 Reading	(MHz) Correct				
0		Freq.	100 Reading Level	(MHz) Correct Factor	ment	Limit	Over	
0 0.0 30.000 No.	Mk.	Freq.	100 Reading Level (dBuV)	(MHz) Correct Factor (dB/m)	ment (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detecto
0 0.0 30.000 No.	Mk.	Freq. MHz 85.3878	100 Reading Level (dBuV) 49.38	(MHz) Correct Factor (dB/m) -20.51	ment (dBuV/m) 28.87	Limit (dBuV/m) 40.00	Over (dB) -11.13	Detecto QP
0 0.0 30.000 No. 1 2	Mk.	Freq. MHz 85.3878 305.2515	100 Reading Level (dBuV) 49.38 40.21	(мн ₂) Correct Factor (dB/m) -20.51 -14.44	ment (dBuV/m) 28.87 25.77	Limit (dBuV/m) 40.00 46.00	Over (dB) -11.13 -20.23	Detecto QP QP
0 30.000 No. 1 2 3	Mk.	Freq. MHz 85.3878 305.2515 400.0108	100 Reading Level (dBuV) 49.38 40.21 50.13	(MHz) Correct Factor (dB/m) -20.51 -14.44 -10.91	ment (dBuV/m) 28.87 25.77 39.22	Limit (dBuV/m) 40.00 46.00 46.00	Over (dB) -11.13 -20.23 -6.78	Detecto QP QP QP



Adobe 1GHz

est Volt	tage:	DC 3.8\				1		
nt. Pol		Horizor	ntal			Kar -		
est Mo	de:	TX 802	.11n20 Mode	2412MHz				
no o dR	uV/m							
30.0 dBi							FCC Part 15C (Pl	K)
70								
50							FCC Part 15C (A	vi
50							_ 6	ALLEN
				2	3 John war Marton Wall	* unit	man Son All	UNVAR .
io			1	X A	Chown when for when black	North Marthalts		
0	mark, shiki	millionspectration	. I	homenen manufactures				
whether a	Annual services and the services of the servic	tubleton a s des sa	And the state of the					
20								
20								
0								
0	0			(MHz)		8000		1800
0 0.0 1000.000	200		Reading	(MHz) Correct	Measure-			1800
0	200	Freq.	Reading		Measure- ment	8000 Limit	Over	1800
0 0.0 1000.000	200	Freq. MHz		Correct	100.00000000000000000000000000000000000			
0 0.0 1000.000	Mk.		Level	Correct Factor	ment	Limit		Detecto
0 0.0 1000.000	Mk. 24	MHz	Level (dBuV)	Correct Factor (dB/m)	ment (dBuV/m)	Limit (dBuV/m)) (dB)	Detecto peak
0 0.0 1000.000 No.	Mk. 24 33	MHz 404.200	Level (dBuV) 47.06	Correct Factor (dB/m) -10.92	ment (dBuV/m) 36.14	Limit (dBuV/m) 74.00) (dB) -37.86	Detecto peak peak
0 0.0 1000.000 No. 1 2	Mk. 24 33 48	MHz 404.200 374.900	Level (dBuV) 47.06 50.66	Correct Factor (dB/m) -10.92 -9.91	ment (dBuV/m) 36.14 40.75	Limit (dBuV/m) 74.00 74.00) (dB) -37.86 -33.25	Detecto peak peak peak
0 0.0 1000.000 No. 1 2 3	Mk. 24 33 48 79	MHz 404.200 374.900 328.400	Level (dBuV) 47.06 50.66 47.46	Correct Factor (dB/m) -10.92 -9.91 -5.86	ment (dBuV/m) 36.14 40.75 41.60	Limit (dBuV/m) 74.00 74.00 74.00) (dB) -37.86 -33.25 -32.40	Detecto peak peak peak

Measurement = Reading level + Correct Factor

TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



est Vol	Itage:	DC 3.8	V		1	67				
Ant. Pol.		Vertical								
est Mo	ode:	TX 802.11n20 Mode 2412MHz								
80.0 dE	Bu¥/m									
						1	FCC Part 15C (Pl	K)		
70										
50										
							FCC Part 15C (A)	C		
50					3 4		man manine	and hoursen of		
40			1	2 X	× ····	manth phoper man	Stranger V			
			T u	monorman	Municipal					
0	webelaninewebye	moundulation	approximately was a stately was							
o										
	00			(MHz)		8000		1800		
0.0	00		Reading	42.25 	Measure-	8000		1800		
0.0		Freq.	Reading	(MHz) Correct Factor	Measure- ment	8000 Limit	Over	1800		
0.0		Freq. MHz	-	Correct			1.			
0.0	Mk.	•	Level	Correct Factor	ment	Limit	1.	Detecto		
No.	Mk. 24	MHz	Level (dBuV)	Correct Factor (dB/m)	ment (dBuV/m)	Limit (dBuV/m)) (dB)	Detector		
0.0 1000.00 No.	Mk. 24 37	MHz 04.200	Level (dBuV) 49.98	Correct Factor (dB/m) -10.92	ment (dBuV/m) 39.06	Limit (dBuV/m) 74.00) (dB) -34.94	Detecto		
0.0 1000.00 No. 1 2	Mk. 24 37 59	MHz 04.200 31.900	Level (dBuV) 49.98 49.27	Correct Factor (dB/m) -10.92 -9.09	ment (dBuV/m) 39.06 40.18	Limit (dBuV/m) 74.00 74.00) (dB) -34.94 -33.82	Detecto peak peak		
0.0 1000.00 No. 1 2 3	Mk. 24 37 59 72	MHz 04.200 31.900 89.500	Level (dBuV) 49.98 49.27 46.51	Correct Factor (dB/m) -10.92 -9.09 -3.82	ment (dBuV/m) 39.06 40.18 42.69	Limit (dBuV/m) 74.00 74.00 74.00) (dB) -34.94 -33.82 -31.31	Detecto peak peak peak		

TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



est Vol	tage:	DC 3.8\			1					
Ant. Pol.		Horizontal								
est Mo	de:	TX 802.11n20 Mode 2437MHz								
10.0 dB	uV/m									
-						F	CC Part 15C (P)	()		
0										
:0							CC 8-4 150 (A)			
							CC Part 15C (A)			
io						4	- where the man with	walk wards		
o				2 X	3 Marchard Marcard	mannam				
			1 *	hand warman approximately	Which days and a					
o when	ulformatic houses	hand a second second second	All the stand and the stand							
, 📃										
0										
0.0										
	0			(MHz)		8000		180		
0.0	0		Reading		Measure-	8000		180		
0.0		Freq.	Reading	(MHz) Correct Factor	Measure- ment	sooo	Over	180		
0.0		Freq. MHz	-	Correct			- Contract			
0.0	Mk.	1	Level	Correct Factor	ment	Limit	- Contract	Detecto		
No.	Mk. 243	MHz	Level (dBuV)	Correct Factor (dB/m)	ment (dBuV/m)	Limit (dBuV/m)	(dB)	Detecto		
No.	Mk. 243 340	MHz 33.100	Level (dBuV) 43.11	Correct Factor (dB/m) -10.90	ment (dBuV/m) 32.21	Limit (dBuV/m) 74.00	(dB) -41.79	Detector peal peal		
No.	Mk. 243 340 486	MHz 33.100 05.500	Level (dBuV) 43.11 49.55	Correct Factor (dB/m) -10.90 -9.86	ment (dBuV/m) 32.21 39.69	Limit (dBuV/m) 74.00 74.00	(dB) -41.79 -34.31	Detecto peal peal peal		
No.	Mk. 243 340 480 802	MHz 33.100 05.500 69.200	Level (dBuV) 43.11 49.55 45.06	Correct Factor (dB/m) -10.90 -9.86 -5.75	ment (dBuV/m) 32.21 39.69 39.31	Limit (dBuV/m) 74.00 74.00 74.00	(dB) -41.79 -34.31 -34.69	Detector peal peal peal peal		

TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China



fest Vo	Itage:	DC 3.8	V					
Ant. Po	ol.	Vertica	1		No.			
fest Mo	ode:	TX 802	2.11n20 Mode	2437MHz				
80.0 d	Bu¥/m						CC Part 15C (P	K)
70								
50				1		F	CC Part 15C (A	V)
50						5		whether maker
40				3	1	5 mmmun	www.	*
			Ť "	1 Julion months	Manager Marth			
30 Martin	minute applicate	rappendential and an	wanter and when the the					
20								
		17						
10								
0.0	00			(MHz)		8000		180
0.0	00		Pooding		Maaaura	8000		180
0.0	oo Mk.	Freq.	Reading	(MH2) Correct Factor	Measure- ment	8000 Limit	Over	180
0.0		Freq. MHz	-	Correct			Over (dB)	
0.0	Mk.		Level	Correct Factor	ment	Limit		Detecto
0.0 1000.0	Mk.	MHz	Level (dBuV)	Correct Factor (dB/m)	ment (dBuV/m)	Limit (dBuV/m)	(dB)	Detector peak
0.0 1000.0 No.	Mk. 2 3	MHz 433.100	Level (dBuV) 47.72	Correct Factor (dB/m) -10.90	ment (dBuV/m) 36.82	Limit (dBuV/m) 74.00	(dB) -37.18	Detecto
0.0 1000.00 No. 1 2	Mk. 2 3 4	MHz 433.100 323.900	Level (dBuV) 47.72 45.49	Correct Factor (dB/m) -10.90 -10.01	ment (dBuV/m) 36.82 35.48	Limit (dBuV/m) 74.00 74.00	(dB) -37.18 -38.52	Detecto peak
0.0 1000.00 No. 1 2 3	Mk. 2 3 4 5	MHz 433.100 323.900 663.500	Level (dBuV) 47.72 45.49 44.65	Correct Factor (dB/m) -10.90 -10.01 -6.31	ment (dBuV/m) 36.82 35.48 38.34	Limit (dBuV/m) 74.00 74.00 74.00	(dB) -37.18 -38.52 -35.66	Detecto peak peak

TRF No. Part 15 Subpart C Section 15.247_R1

Add : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China