

Global United Technology Services Co., Ltd.

Report No.: GTS201608000121E02

FCC REPORT

Applicant: Quantum Creations LLC.

Address of Applicant: 16410 NE 19th Avenue Suite 102 North, Miami Beach, Florida

United States 33162

Equipment Under Test (EUT)

Product Name: PC Stick

Model No.: A-1063-AAP, A-1063-AAP-1, A-1063-AAP-2, A-1063-AAP-3,

A-1063-AAP-4, A-1063-AAP-5, A-1063-AAP-6,

A-1063-AAP-7, A-1063-AAP-8

Trade Mark: Azulle

FCC ID: 2AFJI20161063

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247:2015

Date of sample receipt: August 25, 2016

Date of Test: August 26-September 02, 2016

Date of report issued: September 07, 2016

Test Result: PASS *

Authorized Signature:

Robinson Lo Laboratory Manager

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 and does not permit the use of the GTS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of GTS or testing done by GTS in connection with, distribution or use of the product described in this report must be approved by GTS in writing.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

^{*} In the configuration tested, the EUT complied with the standards specified above.



2 Version

Version No.	Date	Description
00	September 07, 2016	Original

Prepared By:	Tiger. Chen	Date:	September 07, 2016	
	Project Engineer			
Check By:	Andy W	Date:	September 07, 2016	



3 Contents

			Page
1	COV	ER PAGE	1
2	VER	SION	2
3	CON	TENTS	3
4	TES.	T SUMMARY	4
	4.1	MEASUREMENT UNCERTAINTY	4
5		ERAL INFORMATION	
	5.1		
	5.1 5.2	CLIENT INFORMATION	
	5.2	TEST MODE	
	5.4	DESCRIPTION OF SUPPORT UNITS	
	5.5	TEST FACILITY	
	5.6	TEST LOCATION	
6	TES	T INSTRUMENTS LIST	8
7	TES.	T RESULTS AND MEASUREMENT DATA	9
	7.1	ANTENNA REQUIREMENT	
	7.2	CONDUCTED EMISSIONS	10
	7.3	CONDUCTED PEAK OUTPUT POWER	
	7.4	CHANNEL BANDWIDTH	
	7.5	Power Spectral Density	
	7.6	BAND EDGES	
	7.6.1		
	7.6.2		
	7.7	SPURIOUS EMISSION	
	7.7.1 7.7.2		
8	TES	T SETUP PHOTO	60
9	FUT	CONSTRUCTIONAL DETAILS	61



4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Peak Output Power	15.247 (b)(3)	Pass
Channel Bandwidth	15.247 (a)(2)	Pass
Power Spectral Density	15.247 (e)	Pass
Band Edge	15.247(d)	Pass
Spurious Emission	15.205/15.209	Pass

Pass: The EUT complies with the essential requirements in the standard.

Test according to ANSI C63.4-2014 ANSI C63.10-2013

4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	9kHz ~ 30MHz	± 4.34dB	(1)
Radiated Emission	30MHz ~ 1000MHz	± 4.24dB	(1)
Radiated Emission	1GHz ~ 26.5GHz	± 4.68dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	± 3.45dB	(1)
Note (1): The measurement u	ncertainty is for coverage factor of	of k=2 and a level of confidence	of 95%.



5 General Information

5.1 Client Information

Applicant:	Quantum Creations LLC.			
Address of Applicant:	16410 NE 19th Avenue Suite 102 North, Miami Beach, Florida United States 33162			
Manufacturer:	SHENZHEN MELE STAR TECHNOLOGY LIMITED			
Address of Manufacturer:	3F,Bldg#1,28 Cuijing Road, Pingshan New District, Shenzhen, PR China.			
Factory:	Shenzhen MeLE Precision Technology Limited			
Address of Factory:	3F East,Bldg#1,28 Cuijing Road, Pingshan New District, Shenzhen, PR China.			

5.2 General Description of EUT

Product Name:	PC Stick
Model No.:	A-1063-AAP, A-1063-AAP-1, A-1063-AAP-2, A-1063-AAP-3,
	A-1063-AAP-4, A-1063-AAP-5, A-1063-AAP-6, A-1063-AAP-7,
	A-1063-AAP-8
Operation Frequency:	802.11b/802.11g/802.11n(HT20)(MIMO only): 2412MHz~2462MHz
	802.11n(HT40)(MIMO only): 2422MHz~2452MHz
Channel numbers:	802.11b/802.11g/802.11n(HT20): 11
	802.11n(HT40): 7
Channel bandwidth:	802.11b/802.11g/802.11n(HT20) : 20MHz
	802.11n(HT40): 40MHz
Modulation technology:	802.11b: Direct Sequence Spread Spectrum (DSSS)
	802.11g/802.11n(H20)/802.11n(H40):
	Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	ANT 1: FPCB Antenna
	ANT 2: Integral Antenna
Antenna gain:	ANT 1: 0.5dBi
	ANT 2: 3.7dBi
Power supply:	SWITCHING ADAPTER:
	Model No.:FJ-SW0503000N
	Input: AC 100~240V~50/60Hz 0.6A Max
	Output: DC 5V 3A



	Operation Frequency each of channel @ 2.4G Band							
Channel Frequency Channel Frequency Channel Frequency Channel Frequency								
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz	
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz	
3	2422MHz	6	2437MHz	9	2452MHz			

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

	Frequency (MHz)					
Test channel	2.4G Band					
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)		
Lowest channel	2412	2412	2412	2422		
Middle channel	2437	2437	2437	2437		
Highest channel	2462	2462	2462	2452		



5.3 Test mode

Transmitting mode Keep the EUT in continuously transmitting mode

Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, the dutycycle>98%,and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate
802.11b	1Mbps
802.11g	6Mbps
802.11n(HT20)	6.5Mbps
802.11n(HT40)	13Mbps

5.4 Description of Support Units

None.

5.5 Test Facility

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

• FCC —Registration No.: 600491

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fuly described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, June 22, 2016.

• Industry Canada (IC) —Registration No.: 9079A-2

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. Has been

Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, August 15, 2016.

5.6 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone,

Xixiang Road, Baoan District, Shenzhen, Guangdong, China

Tel: 0755-27798480 Fax: 0755-27798960

Global United Technology Services Co., Ltd.

No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone,

Xixiang Road, Baoan District, Shenzhen, Guangdong, China

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



6 Test Instruments list

Radi	Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 03 2015	July. 02 2020	
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A	
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 29 2016	June. 28 2017	
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 29 2016	June. 28 2017	
5	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 29 2016	June. 28 2017	
6	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June. 29 2016	June. 28 2017	
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 29 2016	June. 28 2017	
8	EMI Test Software	AUDIX	E3	N/A	June. 29 2016	June. 28 2017	
9	Coaxial Cable	GTS	N/A	GTS213	June. 29 2016	June. 28 2017	
10	Coaxial Cable	GTS	N/A	GTS211	June. 29 2016	June. 28 2017	
11	Coaxial cable	GTS	N/A	GTS210	June. 29 2016	June. 28 2017	
12	Coaxial Cable	GTS	N/A	GTS212	June. 29 2016	June. 28 2017	
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 29 2016	June. 28 2017	
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	June. 29 2016	June. 28 2017	
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 29 2016	June. 28 2017	
16	Band filter	Amindeon	82346	GTS219	June. 29 2016	June. 28 2017	
17	Power Meter	Anritsu	ML2495A	GTS540	June. 29 2016	June. 28 2017	
18	Power Sensor	Anritsu	MA2411B	GTS541	June. 29 2016	June. 28 2017	

Con	Conducted Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May 16 2014	May 15 2019	
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June 29 2016	June 28 2017	
3	Pulse Limiter	R&S	ESH3-Z2	GTS224	June 29 2016	June 28 2017	
4	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June 29 2016	June 28 2017	
5	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	June 29 2016	June 28 2017	
6	Coaxial Cable	GTS	N/A	GTS227	June 29 2016	June 28 2017	
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A	
8	Thermo meter	KTJ	TA328	GTS233	June 29 2016	June 28 2017	

Gen	General used equipment:							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	Barometer	ChangChun	DYM3	GTS257	June 29 2016	June 28 2017		

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement: FCC Part15 C Section 15.203 /247(c)

15.203 requirement:

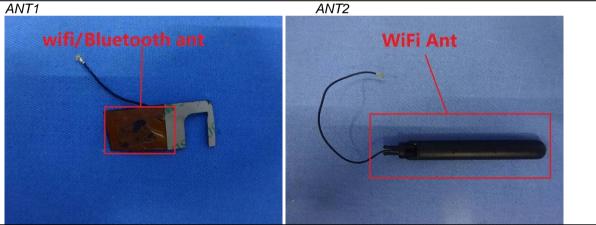
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

E.U.T Antenna:

The antenna is FPCB antenna, the best case gain of the antenna is 6.71dBi



Note: Directional Gain=Gant+10log(2)dBi=3.7dBi+3.01dBi=6.71dBi



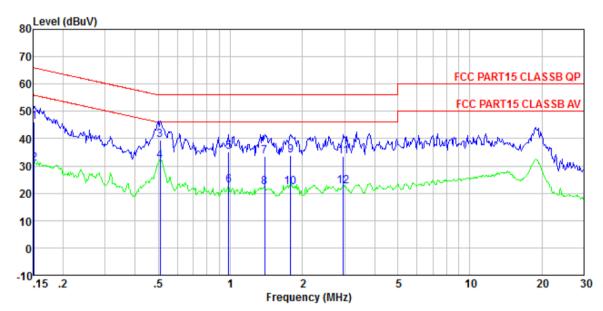
7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207	,		
Test Method:	ANSI C63.10:2013			
Test Frequency Range:	150KHz to 30MHz			
Class / Severity:	Class B			
Receiver setup:	RBW=9KHz, VBW=30KHz, Sv	weep time=auto		
Limit:	Frequency range (MHz)	Limit (c	dBuV)	
		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 logarithn	n of the frequency.		
Test setup:	Reference Plane		_	
	AUX Equipment E.U.T Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m	Filter — AC pow		
Test procedure:	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement. 			
Test Instruments:	Refer to section 6.0 for details			
Test mode:	Refer to section 5.3 for details	i		
Test results:	Pass			



Measurement data

Line:



Site : Shielded room

Condition : FCC PART15 CLASSB QP LISN-2013 LINE

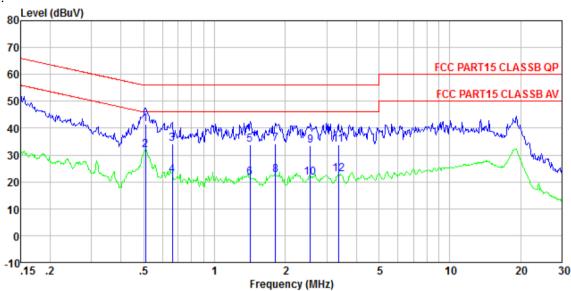
Job No. : 0121 Test mode : WiFi mode Test Engineer: Boy

. 0.0 0	Freq	Read Level	Leve1	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	₫B	
1	0.152	45.91	46. 18	0.15	0.12		-19.73	-
2	0.152	30.60	30.87	0.15	0.12	55.91	-25.04	Average
3	0.510	39.41	39.64	0.12	0.11	56.00	-16.36	QP
4 5	0.510	31.55	31.78	0.12	0.11	46.00	-1 4. 22	Average
5	0.984	34.89	35.16	0.14	0.13	56.00	-20.84	QP
6	0.984	22.49	22.76	0.14	0.13	46.00	-23.24	Average
7	1.388	33.37	33.62	0.12	0.13	56.00	-22.38	QP
8	1.388	21.88	22.13	0.12	0.13	46.00	-23.87	Average
9	1.781	33.59	33.85	0.12	0.14		-22.15	
10	1.781	21.99	22.25	0.12	0.14			Average
11	2.962	33. 12	33.42	0.15	0.15		-22.58	
12	2, 962	22, 22	22, 52	0. 15	0. 15			Average

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



Neutral:



Site : Shielded room

Condition : FCC PART15 CLASSB QP LISN-2013 NEUTRAL

Job No. : 0121 Test mode : WiFi mode Test Engineer: Boy

000	Freq	Read Level	Leve1	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	d₿	dBuV	dB	
1	0.510	41.28	41. 45	0.06	0.11		-14.55	-
2 3	0.510 0.661	31.63 34.01	31. 80 34. 21	0.06 0.07	0. 11 0. 13		-14. 20 -21. 79	Average QP
4 5	0.661	22.50	22.70	0.07	0.13			Average
6	1. 418 1. 418	33.65 21.19	33. 87 21. 41	0.09 0.09	0. 13 0. 13		-22. 13 -24. 59	Qr Average
7	1. 819 1. 819	34. 09 22. 29	34. 32 22. 52	0.09	0.14		-21.68	-
8 9	2.554	33. 42	33.67	0.09 0.10	0. 14 0. 15		-22.33	Average QP
10	2.554	21.43	21.68	0.10	0. 15			Average
11 12	3.364 3.364	33.67 22.61	33. 95 22. 89	0. 13 0. 13	0. 15 0. 15		-22. 05 -23. 11	QP Average

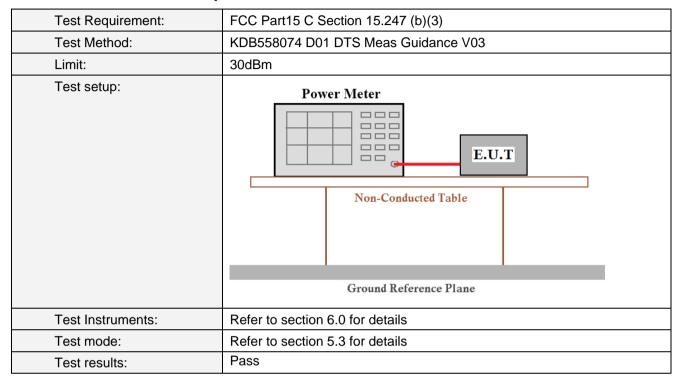
Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level = Receiver Read level + LISN Factor + Cable Loss
- 4. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



7.3 Conducted Peak Output Power



Measurement Data

Page 13 of 61



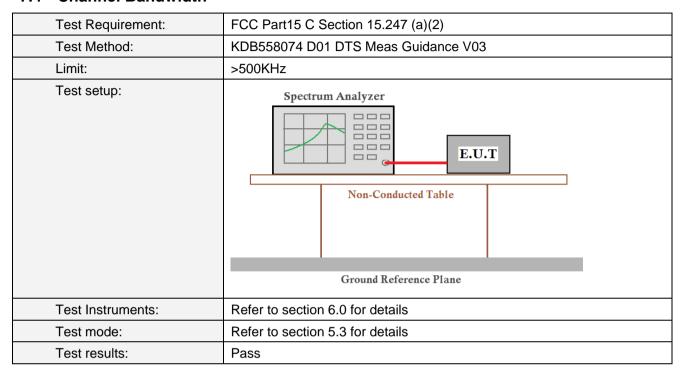
ANT1 + ANT2:

Test mode	Channel	Read Le	vel (dBm)	Read Level (mW)	Total Peak Output Power (mW)	Total Peak Output Power (dBm)	Limit (dBm)	Result	
	Lowest	ANT1	12.67	18.49	36.44	15.62			
	Lowest	ANT2	12.54	17.94	30.44	15.62			
В	Middle	ANT1	13.01	19.99	39.45	15.96			
Б	Middle	ANT2	12.89	19.45	39.43	10.00			
	Lighoot	ANT1	13.31	21.43	42.18	16.25			
	Highest	ANT2	13.17	20.75	42.10	16.25			
	Lowest	ANT1	11.64	14.59	29.45	14.69			
	Lowest	ANT2	11.72	14.86	29.45	14.09			
G	Middle	ANT1	12.76	18.88	18.88 35.71	15.53			
G	Middle	ANT2	12.26	16.83	35.71	15.55			
	Highest	ANT1	10.15	10.35	21.47	13.32			
	nignesi	ANT2	10.46	11.12	21.47		30	Pass	
	Lowest	ANT1	11.11	12.91	26.65	14.26	_	30	rass
	Lowest	ANT2	11.38	13.74	20.05				
802.11n	Middle	ANT1	11.71	14.83	30.72	14.87			
(HT20)	ivildale	ANT2	12.01	15.89	30.72	14.07			
	Highest	ANT1	9.86	9.68	19.70	12.95			
	nignesi	ANT2	10.01	10.02	19.70	12.95			
	Lowest	ANT1	10.18	10.42	22.11	13.45			
	Lowest	ANT2	10.68	11.69	22.11	13.45	-		
802.11n	Middle	ANT1	10.93	12.39	25.45	14.06			
(HT40)	ivildale	ANT2	11.16	13.06	25.45	14.00			
	Highost	ANT1	9.33	8.57	17.99	12.55			
	Highest	ANT2	9.74	9.42	17.55	12.00			

Page 14 of 61



7.4 Channel Bandwidth



Measurement Data



Antenna 1:

Test		Channel Bandwidth (MHz)				
СН	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	(KHz)	Result
Lowest	9.584	16.299	15.767	35.214		
Middle	9.940	16.021	17.537	35.405	>500	Pass
Highest	9.410	16.288	17.322	35.718		

Antenna 2:

Test		Limit	Result			
СН	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	(KHz)	Result
Lowest	9.500	15.747	17.190	35.199		
Middle	9.608	15.720	17.262	35.212	>500	Pass
Highest	9.544	16.353	17.160	35.226		

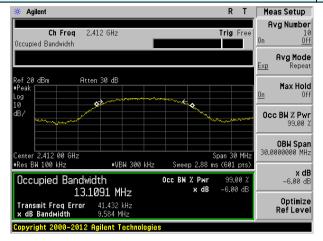
Test plot as follows:

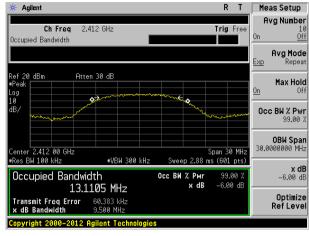


Test mode: 802.11b

Antenna 1:

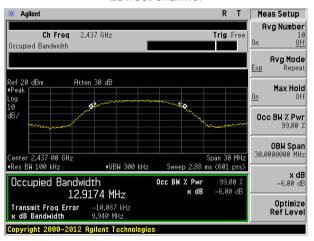
Antenna 2:

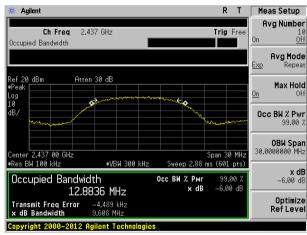




Lowest channel

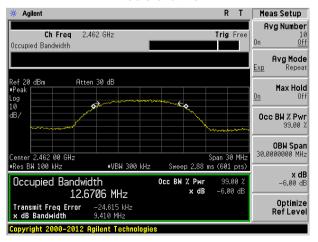
Lowest channel

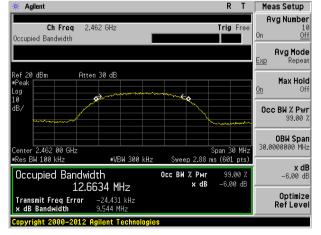




Middle channel

Middle channel





Highest channel

Highest channel

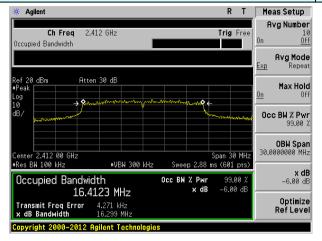
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

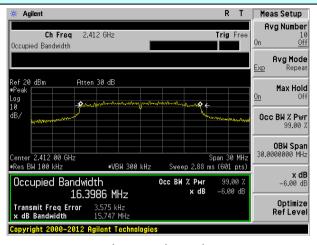


Test mode: 802.11g

Antenna 1:

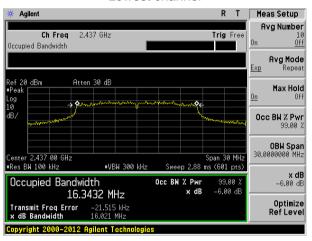
Antenna 2:

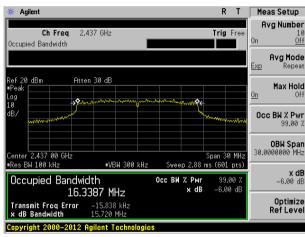




Lowest channel

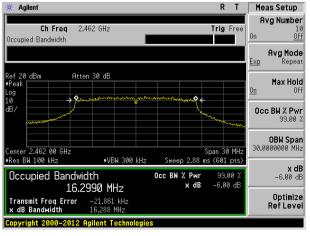
Lowest channel

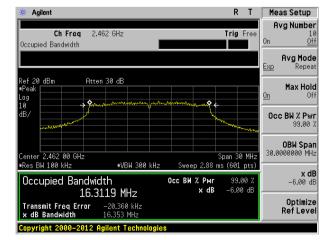




Middle channel

Middle channel





Highest channel

Highest channel

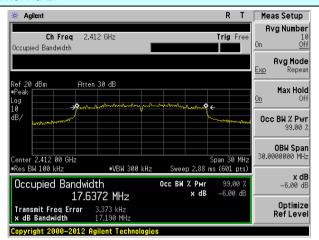


Test mode: 802.11n(HT20)

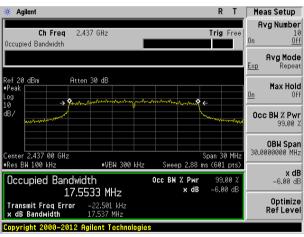
Antenna 1:

Meas Setup Avg Number Ch Freq 2.412 GHz **Trig** Free Occupied Bandwidth Avg Mode Repeat Atten 30 dB Max Hold Occ BW % Pwr 0BW Span 30,0000000 MHz *VBW 300 kHz **x dB** -6.00 dB Occ BW % Pwr x dB Occupied Bandwidth 17.6257 MHz Transmit Freq Error x dB Bandwidth Copyright 2000-2012 Agilent Tec

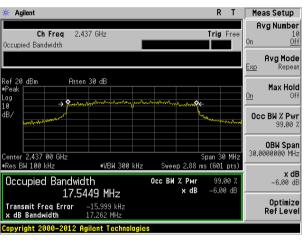
Antenna 2:



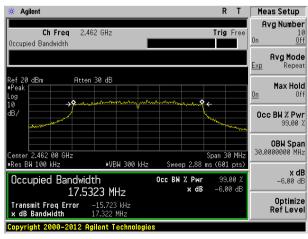
Lowest channel



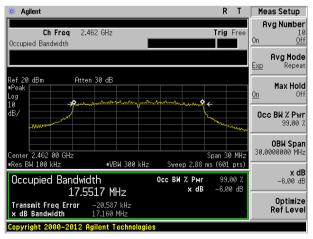
Lowest channel



Middle channel



Middle channel



Highest channel Highest channel

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



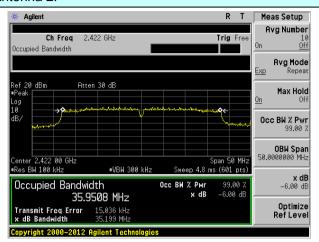
Test mode: 802.11n(HT40)

Antenna 1:

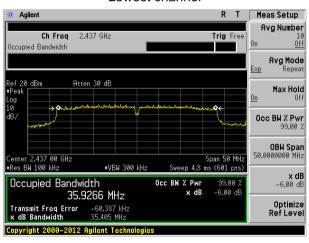
Copyright 2000-2012 Agilent Technologies

Meas Setup Avg Number Ch Freq 2.422 GHz **Trig** Free Occupied Bandwidth Avg Mode Repeat Ехр Atten 30 dB Max Hold Occ BW % Pwr 0BW Span 50,0000000 MHz Span 50 MHz *VBW 300 kHz **x dB** -6.00 dB Occ BW % Pwr x dB Occupied Bandwidth 35.9725 MHz Optimize Ref Level Transmit Freq Error x dB Bandwidth

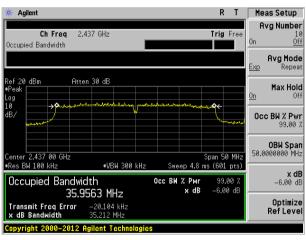
Antenna 2:



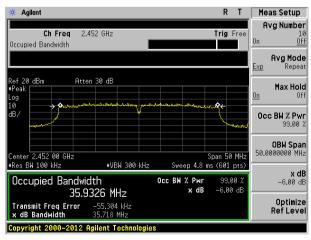
Lowest channel



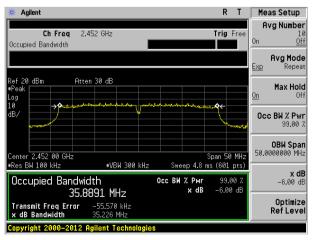
Lowest channel



Middle channel



Middle channel



Highest channel Highest channel

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



7.5 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)	
Test Method:	KDB558074 D01 DTS Meas Guidance V03	
Limit:	8dBm	
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane	
Test Instruments:	Refer to section 6.0 for details	
Test mode:	Refer to section 5.3 for details	
Test results:	Pass	

Measurement Data

Antenna 1:

Test		Limit	Daguit			
СН	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	(dBm/3kHz)	Result
Lowest	1.17	-1.98	-2.17	-5.32		
Middle	0.80	-1.12	-1.77	-4.75	8.00	Pass
Highest	0.75	-3.10	-3.45	-6.08		

Antenna 2:

Test		Limit	Decula			
СН	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	(dBm/3kHz)	Result
Lowest	1.19	-1.50	-1.90	-5.33		
Middle	1.38	-1.11	-1.37	-4.32	8.00	Pass
Highest	0.72	-2.97	-3.40	-5.91		

AN1+AN2:

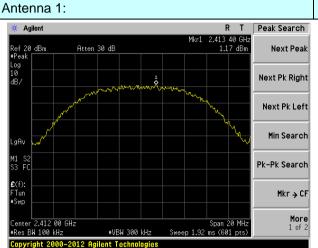
Test		Limit	Dogula			
СН	В	G	802.11n(HT20)	802.11n(HT40)	(dBm/3kHz)	Result
Lowest	4.20	1.28	0.96	-2.32		
Middle	4.11	1.89	1.44	-1.61	8.00	Pass
Highest	3.75	-0.02	0.91	-2.99		

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

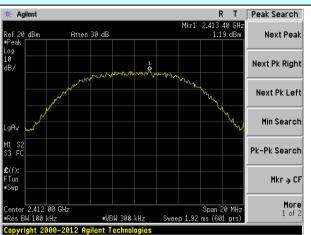


Test plot as follows:

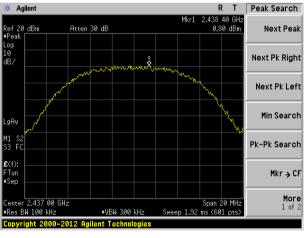
Test mode: 802.11b



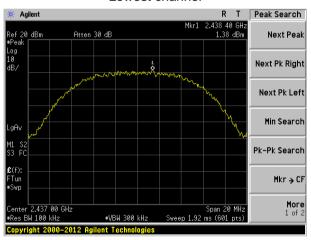
Antenna 2:



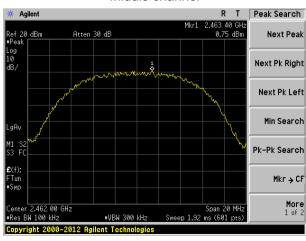
Lowest channel



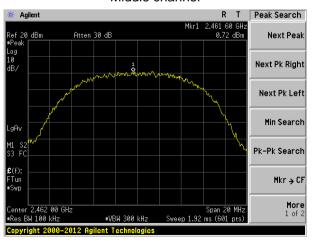
Lowest channel



Middle channel



Middle channel



Highest channel Highest channel

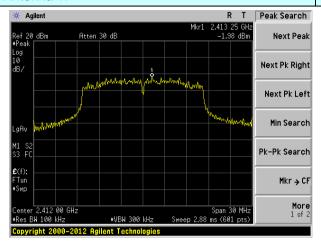
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

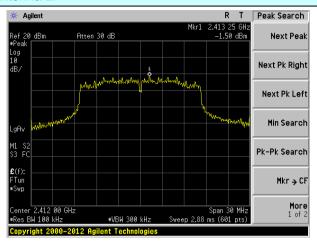


Test mode: 802.11g

Antenna 1:

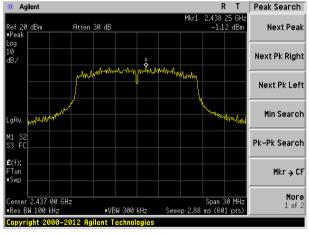
Antenna 2:

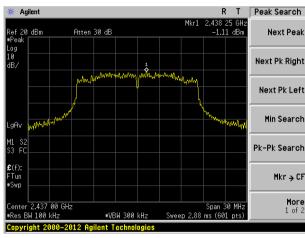




Lowest channel

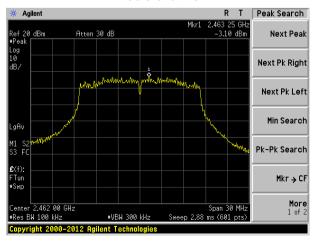
Lowest channel

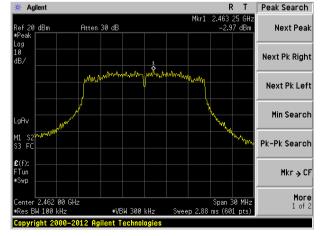




Middle channel

Middle channel





Highest channel

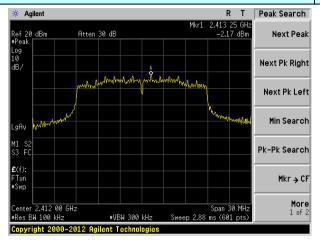
Highest channel

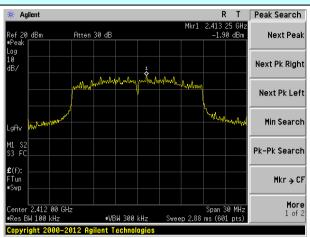
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



Test mode: 802.11n(HT20)

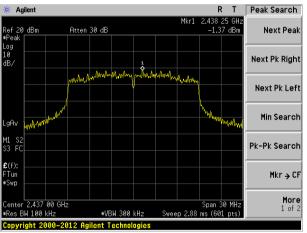
Antenna 1: Antenna 2:



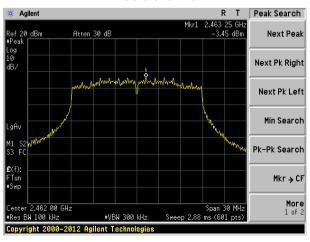


Lowest channel

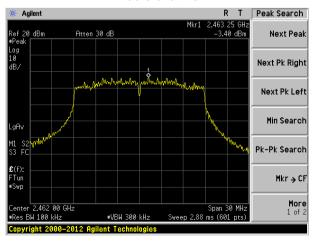
Lowest channel



Middle channel



Middle channel



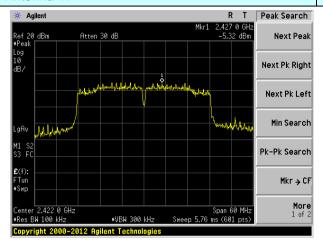
Highest channel Highest channel

Xixiang Road, Baoan District, Shenzhen, Guangdong, China Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

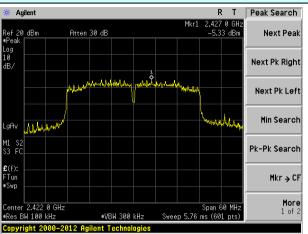


Test mode: 802.11n(HT40)

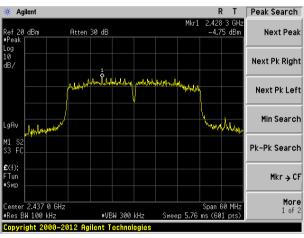
Antenna 1:



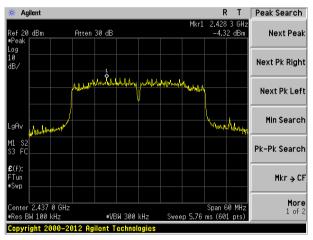
Antenna 2:



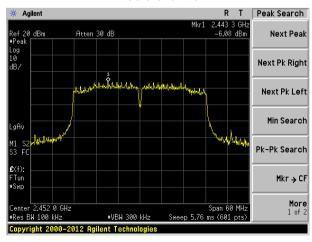
Lowest channel



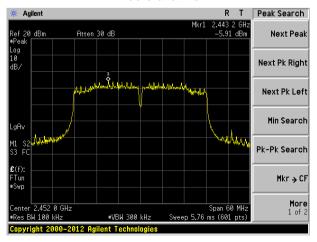
Lowest channel



Middle channel



Middle channel



Highest channel Highest channel

Xixiang Road, Baoan District, Shenzhen, Guangdong, China Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



7.6 Band edges

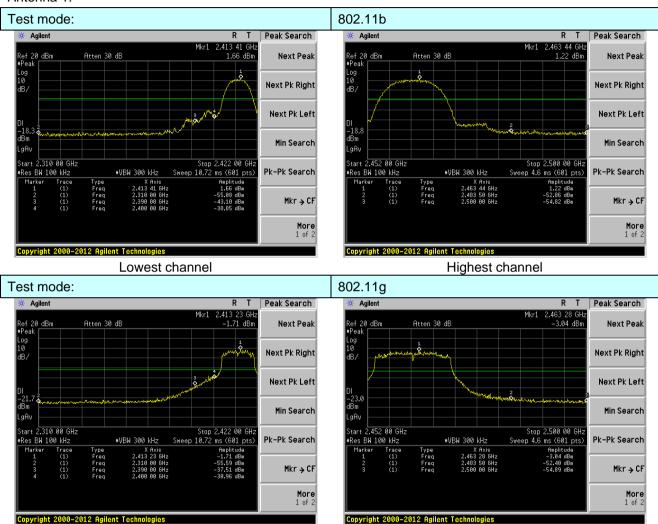
7.6.1 Conducted Emission Method

Took Dogwing month	FCC Double C Continue 45 047 (d)			
Test Requirement:	FCC Part15 C Section 15.247 (d)			
Test Method:	ANSI C63.10:2013 and KDB558074 D01 DTS Meads Guidance V03			
Limit:	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 setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane			
Test Instruments:	Refer to section 6.0 for details			
Test mode:	Refer to section 5.3 for details			
Test results:	Pass			



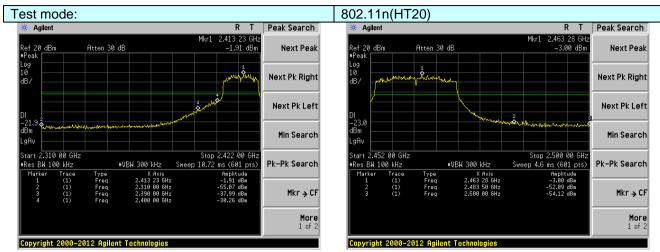
Test plot as follows:

Antenna 1:



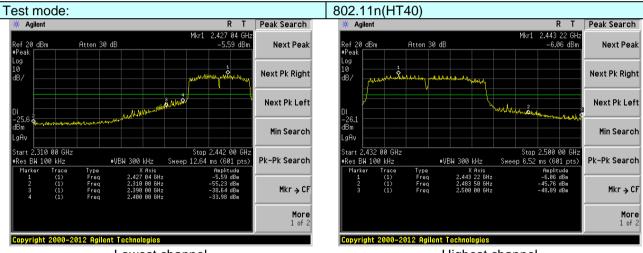
Lowest channel Highest channel





Lowest channel

Highest channel

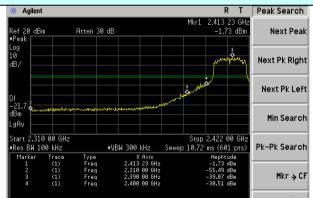


Lowest channel

Highest channel







Start 2.452 00 GHz •Res BW 100 kHz More 1 of 2 Copyright 2000-2012 Agilent Technologies Lowest channel

Next Pk Right Next Pk Left Min Search Stop 2.500 00 GH: Sweep 4.6 ms (601 pts) *VBW 300 kHz Pk-Pk Search Mkr → CF More 1 of 2 Copyright 2000-2012 Agilent Technologies

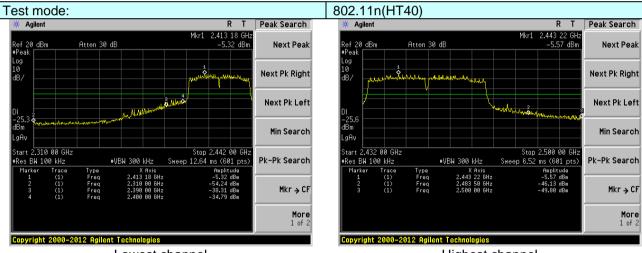
Highest channel





Lowest channel

Highest channel



Lowest channel

Highest channel



7.6.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205						
Test Method:	ANSI C63.10: 2013						
Test Frequency Range:	30MHz to 40GHz, only worse case is reported						
Test site:	Measurement Distance: 3m						
Receiver setup:	Frequency	Detector	RBW	VBW	Value		
	Above 1GHz	Peak	1MHz	3MHz	Peak		
	Above IGHZ	RMS	1MHz	3MHz	AV		
Limit:	Freque	ncy	Limit (dBuV/	m @3m)	Value		
	Above 1	CH-z	54.0	0	Average		
	Above	GHZ	74.0	0	PK		
Test setup:	EUTTurn Table	4m		Antenna Tower Horn Antenna Spectrum Analyzer Amplifier			
Test Procedure:	 The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasipeak or average method as specified and then reported in a data sheet. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test 						
Test Instruments:			ded in the repo	/I L.			
Test mode:	Refer to section 6.0 for details Refer to section 5.3 for details						
Test mode. Test results:	Pass						
. 55. 755416.							



Measurement data:

Remark: The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.

ANT1 + ANT2:

Test mode:		802.1	1b	Test channel:		Lowest		
Peak value:	:							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	51.17	27.59	5.38	34.01	50.13	74.00	-23.87	Horizontal
2400.00	60.02	27.58	5.39	34.01	58.98	74.00	-15.02	Horizontal
2390.00	52.82	27.59	5.38	34.01	51.78	74.00	-22.22	Vertical
2400.00	61.69	27.58	5.39	34.01	60.65	74.00	-13.35	Vertical
RMS value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	38.07	27.59	5.38	34.01	37.03	54.00	-16.97	Horizontal
2400.00	46.31	27.58	5.39	34.01	45.27	54.00	-8.73	Horizontal
2390.00	39.85	27.59	5.38	34.01	38.81	54.00	-15.19	Vertical
2400.00	47.40	27.58	5.39	34.01	46.36	54.00	-7.64	Vertical
								_
Test mode:		802.1	1b	Te	st channel:		Highest	
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	I I imit	Polarization
2483.50	51.62	27.53	5.47	33.92	50.70	74.00	-23.30	Horizontal
2500.00	47.60	27.55	5.49	29.93	50.71	74.00	-23.29	Horizontal
2483.50	53.78	27.53	5.47	33.92	52.86	74.00	-21.14	Vertical
2500.00	50.02	27.55	5.49	29.93	53.13	74.00	-20.87	Vertical
RMS value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	I I imit	Polarization
2483.50	38.36	27.53	5.47	33.92	37.44	54.00	-16.56	Horizontal
2500.00	34.55	27.55	5.49	29.93	37.66	54.00	-16.34	Horizontal

2500.00 Remark:

2483.50

Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

5.47

5.49

The emission levels of other frequencies are very lower than the limit and not show in test report.

33.92

29.93

39.34

39.53

54.00

54.00

40.26

36.42

Xixiang Road, Baoan District, Shenzhen, Guangdong, China

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

27.53

27.55

-14.66

-14.47

Vertical

Vertical



Test mode:		802.1	1g	Te	st channel:	L	owest	
Peak value:	1							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	50.52	27.59	5.38	34.01	49.48	74.00	-24.52	Horizontal
2400.00	59.15	27.58	5.39	34.01	58.11	74.00	-15.89	Horizontal
2390.00	52.12	27.59	5.38	34.01	51.08	74.00	-22.92	Vertical
2400.00	60.64	27.58	5.39	34.01	59.60	74.00	-14.40	Vertical
RMS value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	37.60	27.59	5.38	34.01	36.56	54.00	-17.44	Horizontal
2400.00	45.78	27.58	5.39	34.01	44.74	54.00	-9.26	Horizontal
2390.00	39.33	27.59	5.38	34.01	38.29	54.00	-15.71	Vertical
2400.00	46.81	27.58	5.39	34.01	45.77	54.00	-8.23	Vertical
Test mode:		802.1	1g	Te	st channel:	ŀ	Highest	
Peak value:	1	I		1	T	1	1	,
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	50.69	27.53	5.47	33.92	49.77	74.00	-24.23	Horizontal
2500.00	46.88	27.55	5.49	29.93	49.99	74.00	-24.01	Horizontal
2483.50	52.71	27.53	5.47	33.92	51.79	74.00	-22.21	Vertical
2500.00	49.17	27.55	5.49	29.93	52.28	74.00	-21.72	Vertical
RMS value:				•	•	•	•	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.80	27.53	5.47	33.92	36.88	54.00	-17.12	Horizontal
2500.00	34.12	27.55	5.49	29.93	37.23	54.00	-16.77	Horizontal
2483.50	39.64	27.53	5.47	33.92	38.72	54.00	-15.28	Vertical
2500.00	35.95	27.55	5.49	29.93	39.06	54.00	-14.94	Vertical

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



Test mode:	802.1	1n(HT20)		Tes	t channel:		Lowest	
Peak value:				•		•		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	50.42	27.59	5.38	34.01	49.38	74.00	-24.62	Horizontal
2400.00	59.02	27.58	5.39	34.01	57.98	74.00	-16.02	Horizontal
2390.00	52.02	27.59	5.38	34.01	50.98	74.00	-23.02	Vertical
2400.00	60.49	27.58	5.39	34.01	59.45	74.00	-14.55	Vertical
RMS value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	37.54	27.59	5.38	34.01	36.50	54.00	-17.50	Horizontal
2400.00	45.70	27.58	5.39	34.01	44.66	54.00	-9.34	Horizontal
2390.00	39.26	27.59	5.38	34.01	38.22	54.00	-15.78	Vertical
2400.00	46.73	27.58	5.39	34.01	45.69	54.00	-8.31	Vertical
Test mode:		1n(HT20)		Tes	t channel:		Highest	
Peak value:		<u> </u>		I _		<u> </u>	_	T 1
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	50.55	27.53	5.47	33.92	49.63	74.00	-24.37	Horizontal
2500.00	46.77	27.55	5.49	29.93	49.88	74.00	-24.12	Horizontal
2483.50	52.56	27.53	5.47	33.92	51.64	74.00	-22.36	Vertical
2500.00	49.05	27.55	5.49	29.93	52.16	74.00	-21.84	Vertical
RMS value:				1	•	1	•	1
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.72	27.53	5.47	33.92	36.80	54.00	-17.20	Horizontal
2500.00	34.05	27.55	5.49	29.93	37.16	54.00	-16.84	Horizontal
2483.50	39.55	27.53	5.47	33.92	38.63	54.00	-15.37	Vertical
2500.00	35.88	27.55	5.49	29.93	38.99	54.00	-15.01	Vertical

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



Test mode:	802.1	1n(HT40)		Tes	t channel:	I	_owest	
Peak value:				•				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	49.79	27.59	5.38	34.01	48.75	74.00	-25.25	Horizontal
2400.00	58.18	27.58	5.39	34.01	57.14	74.00	-16.86	Horizontal
2390.00	51.34	27.59	5.38	34.01	50.30	74.00	-23.70	Vertical
2400.00	59.47	27.58	5.39	34.01	58.43	74.00	-15.57	Vertical
RMS value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	37.09	27.59	5.38	34.01	36.05	54.00	-17.95	Horizontal
2400.00	45.18	27.58	5.39	34.01	44.14	54.00	-9.86	Horizontal
2390.00	38.76	27.59	5.38	34.01	37.72	54.00	-16.28	Vertical
2400.00	46.16	27.58	5.39	34.01	45.12	54.00	-8.88	Vertical
Test mode:	802.1	1n(HT40)		Tes	t channel:	ŀ	Highest	
Peak value:		· · · · · · · · · · · · · · · · · · ·		T	T		1	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	49.65	27.53	5.47	33.92	48.73	74.00	-25.27	Horizontal
2500.00	46.07	27.55	5.49	29.93	49.18	74.00	-24.82	Horizontal
2483.50	51.52	27.53	5.47	33.92	50.60	74.00	-23.40	Vertical
2500.00	48.23	27.55	5.49	29.93	51.34	74.00	-22.66	Vertical
RMS value:					1			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.17	27.53	5.47	33.92	36.25	54.00	-17.75	Horizontal
2500.00	33.63	27.55	5.49	29.93	36.74	54.00	-17.26	Horizontal
2483.50	38.95	27.53	5.47	33.92	38.03	54.00	-15.97	Vertical
2500.00	35.43	27.55	5.49	29.93	38.54	54.00	-15.46	Vertical

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



7.7 Spurious Emission

7.7.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)					
Test Method:	KDB558074 D01 DTS Meas Guidance V03					
Limit:	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 setup:	Spectrum Analyzer Non-Conducted Table Ground Reference Plane					
Test Instruments:	Refer to section 6.0 for details					
Test mode:	Refer to section 5.3 for details					
Test results:	Pass					

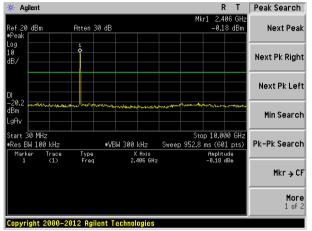
Test plot as follows:



Antenna 1:

Test mode: 802.11b

Lowest channel

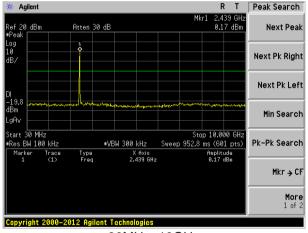


30MHz~10GHz

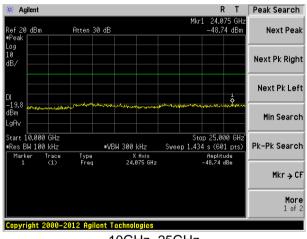
R T Peak Search Agilent 13.750 GH: -49.11 dBm Ref 20 dBm Next Peak Atten 30 dB Next Pk Right Next Pk Left Min Search Stop 25.000 GH2 Sweep 1.434 s (601 pts) Start 10.000 GHz #VBW 300 kHz Pk-Pk Search Res BM 100 kHz Type Freq Trace (1) X Axis 13.750 GHz Amplitude -49.11 dBm Mkr → CF More 1 of 2 Copyright 2000-2012 Agilent Technologies

10GHz~25GHz

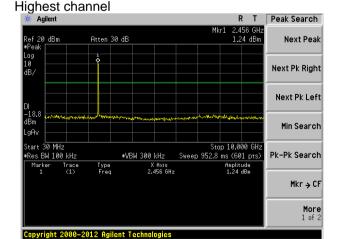
Middle channel



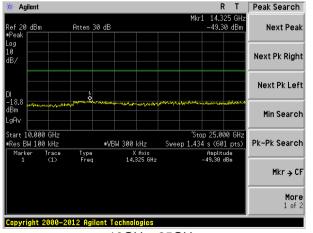
30MHz~10GHz



10GHz~25GHz



30MHz~10GHz



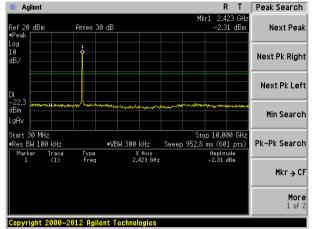
10GHz~25GHz



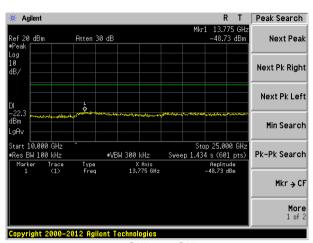
Test mode:

802.11g

Lowest channel

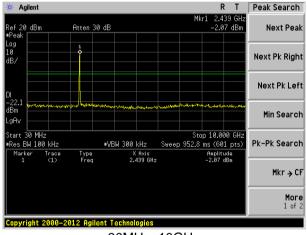


30MHz~10GHz

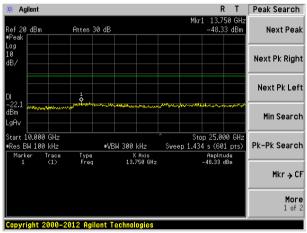


10GHz~25GHz

Middle channel

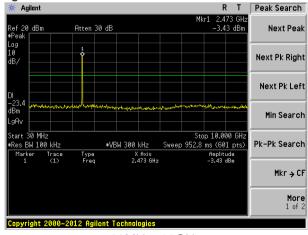


30MHz~10GHz

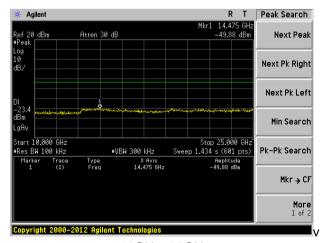


10GHz~25GHz

Highest channel



30MHz~10GHz



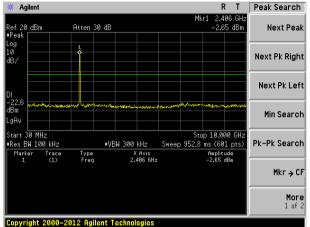
10GHz~25GHz



Test mode:

802.11n(HT20)

Lowest channel

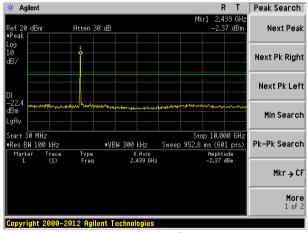


30MHz~10GHz

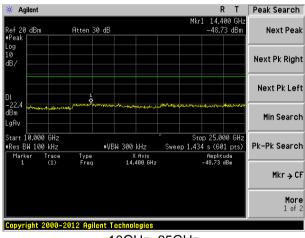
R T Peak Search 🔆 Agilent Next Peak Atten 30 dB Next Pk Right Next Pk Left Min Search Start 10.000 GHz •Res BW 100 kHz Stop 25.000 GH: Sweep 1.434 s (601 pts) Pk-Pk Search #VBW 300 kHz Amplitude -48.83 dBm X Axis 13.500 GHz Mkr → CF More 1 of 2 Copyright 2000-2012 Agilent Technologies

10GHz~25GHz

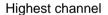
Middle channel

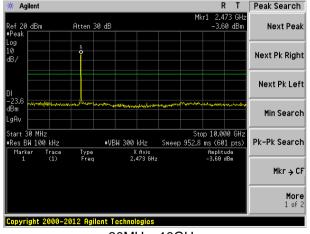


30MHz~10GHz

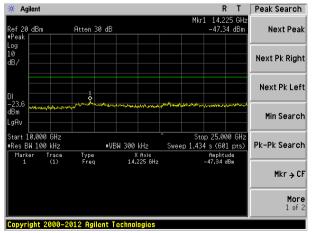


10GHz~25GHz





30MHz~10GHz



10GHz~25GHz

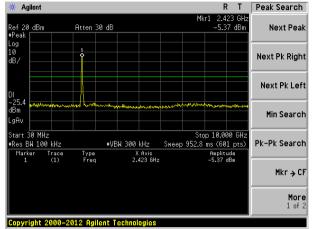
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



Test mode:

802.11n(HT40)

Lowest channel

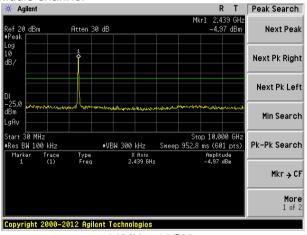


30MHz~10GHz

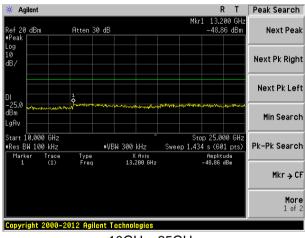
* Agilent R T Peak Search 13.825 GHz -49.77 dBm Atten 30 dB Next Peak ef 20 dBm Next Pk Right Next Pk Left Min Search Start 10.000 GHz •Res BW 100 kHz Stop 25.000 GH: Sweep 1.434 s (601 pts) Pk-Pk Search #VBW 300 kHz Type Frea Amplitude -49.77 dBm X Axis 13.825 GHz Mkr → CF Copyright 2000-2012 Agilent Technologies

10GHz~25GHz

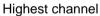
Middle channel

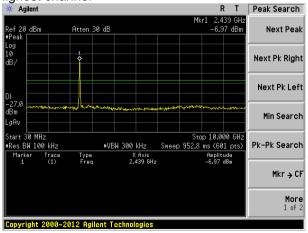


30MHz~10GHz

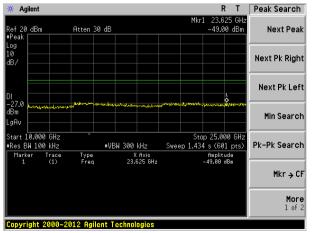


10GHz~25GHz





30MHz~10GHz



10GHz~25GHz

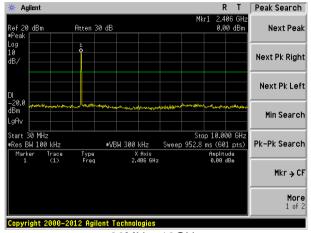
The land of (a) 755 0770 0400 F



Antenna 2:

Test mode: 802.11b

Lowest channel



30MHz~10GHz

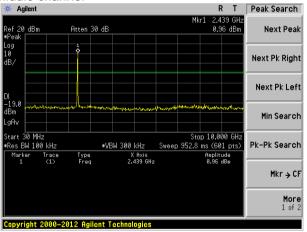
R T Peak Search Agilent 🖈 14.325 GHz -49.44 dBm Next Peak Atten 30 dB Ref 20 dBm Next Pk Right Next Pk Left Min Search .aAv Start 10.000 GHz •Res BW 100 kHz Stop 25.000 GHz Sweep 1.434 s (601 pts) Pk-Pk Search *VBW 300 kHz Trace (1) Type Freq X Axis 14.325 GHz Amplitude -49.44 dBm Mkr → CF

10GHz~25GHz

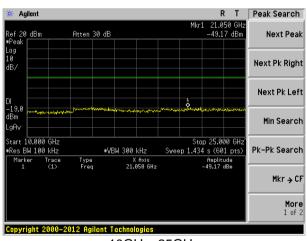
Copyright 2000-2012 Agilent Technologies

More 1 of 2

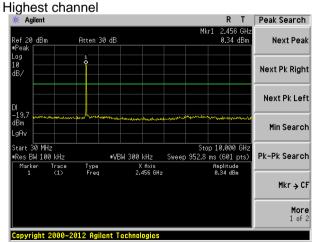
Middle channel



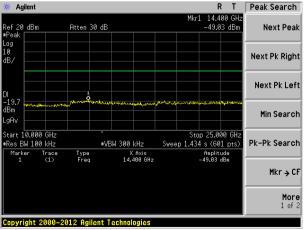
30MHz~10GHz



10GHz~25GHz



30MHz~10GHz



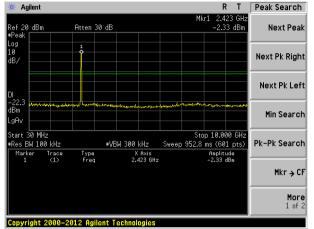
10GHz~25GHz



Test mode:

802.11g

Lowest channel

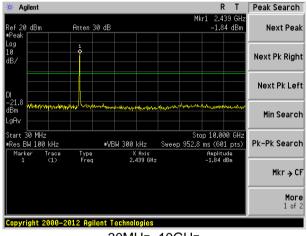


30MHz~10GHz

10GHz~25GHz

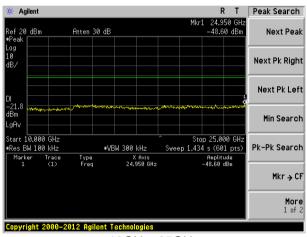
Middle channel

Highest channel

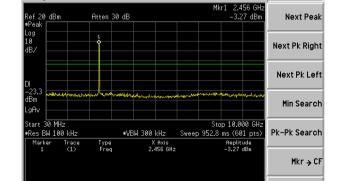


30MHz~10GHz

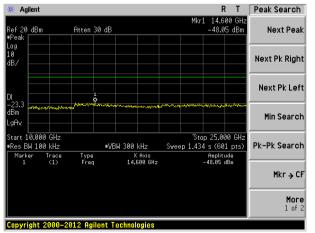
R T Peak Search



10GHz~25GHz



30MHz~10GHz



10GHz~25GHz

Copyright 2000-2012 Agilent Technologies

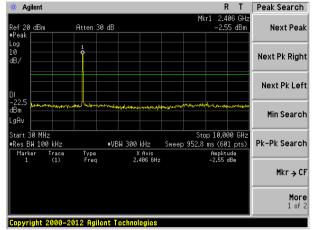
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



Test mode:

802.11n(HT20)

Lowest channel



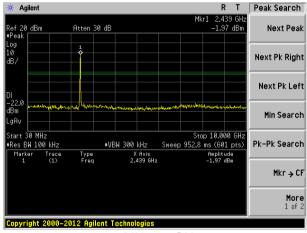
30MHz~10GHz

R T Peak Search 🔆 Agilent 14.275 GH -49.17 dBm Next Peak Atten 30 dB Next Pk Right Next Pk Left Min Search Start 10.000 GHz •Res BW 100 kHz Stop 25.000 GH: Sweep 1.434 s (601 pts) Pk-Pk Search #VBW 300 kHz Amplitude -49.17 dBm X Axis 14.275 GHz Mkr → CF More 1 of 2

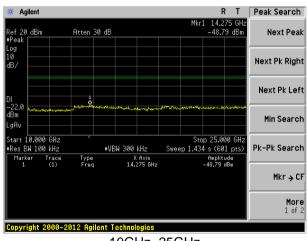
10GHz~25GHz

Copyright 2000-2012 Agilent Technologies

Middle channel

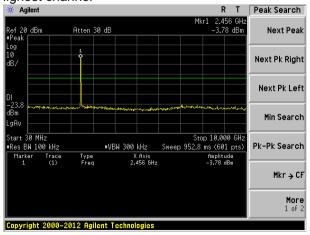


30MHz~10GHz

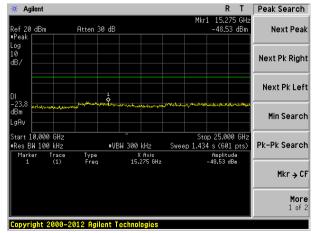


10GHz~25GHz

Highest channel



30MHz~10GHz



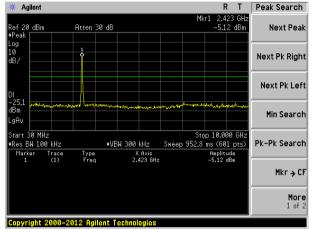
10GHz~25GHz



Test mode:

802.11n(HT40)

Lowest channel

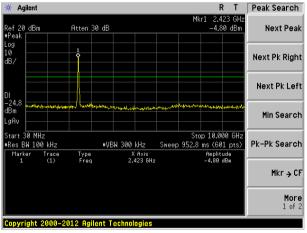


30MHz~10GHz

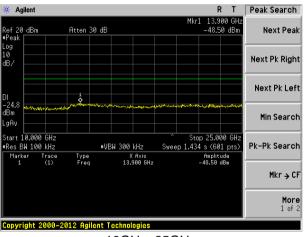
* Agilent R T Peak Search 14.225 GHz -48.30 dBm Atten 30 dB Next Peak ef 20 dBm Next Pk Right Next Pk Left Min Search Start 10.000 GHz •Res BW 100 kHz Stop 25.000 GH: Sweep 1.434 s (601 pts) Pk-Pk Search #VBW 300 kHz X Axis 14.225 GHz Amplitude -48.30 dBm Mkr → CF Copyright 2000-2012 Agilent Technologies

10GHz~25GHz

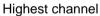
Middle channel

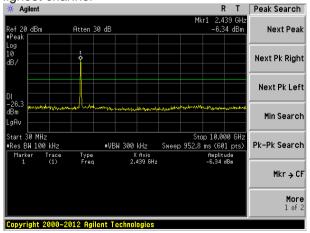


30MHz~10GHz

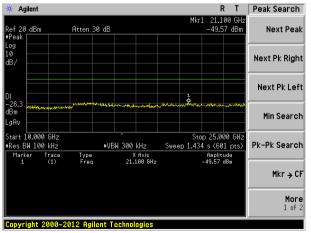


10GHz~25GHz





30MHz~10GHz



10GHz~25GHz



7.7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Se	ection 15.209								
Test Method:	ANSI C63.10:201	FCC Part15 C Section 15.209 ANSI C63.10:2013								
Test Frequency Range:	30MHz to 40GHz	30MHz to 40GHz								
Test site:	Measurement Dis	Measurement Distance: 3m								
Receiver setup:	Frequency									
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak					
	Above 1CHz	Above 1GHz Peak 1MHz 3MHz Peak								
	Above IGHZ	Above 1GHz RMS 1MHz 3MHz AV								
Limit:	Frequen	Frequency Limit (dBuV/m @3m) Value								
	30MHz-88	30MHz-88MHz 40.00 Quasi-peak								
	88MHz-216	6MHz	43.5	0	Quasi-peak					
	216MHz-96	216MHz-960MHz 46.00 Quasi-peak								
	960MHz-1	960MHz-1GHz 54.00 Quasi-peak								
	Above 10	Above 1GHz 54.00 AV								
	Above 10	ארוב	74.0	0	Peak					
	Below 1GHz	EUT+		Test Antenna. < 1m 4m >	amplifier.					
	Above 1GHz									



	Tum Table+ < 1m 4m > 0 Receiver+ Preamplifier+
Test Procedure:	The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
	2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
	3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
	4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
	The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasipeak or average method as specified and then reported in a data sheet.
	7. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass



Measurement Data

■ Below 1GHz

ANT1 + ANT2:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
36.64	43.21	14.73	0.63	30.06	28.51	40.00	-11.49	Vertical
49.53	44.32	15.28	0.77	30.00	30.37	40.00	-9.63	Vertical
104.54	38.91	14.73	1.23	29.67	25.20	43.50	-18.30	Vertical
134.09	49.13	10.61	1.47	29.49	31.72	43.50	-11.78	Vertical
219.85	42.11	13.17	1.96	29.39	27.85	46.00	-18.15	Vertical
399.03	41.82	17.06	2.85	29.51	32.22	46.00	-13.78	Vertical
57.59	41.44	14.85	0.84	29.94	27.19	40.00	-12.81	Horizontal
124.13	40.55	11.80	1.39	29.54	24.20	43.50	-19.30	Horizontal
217.54	45.04	13.10	1.95	29.37	30.72	46.00	-15.28	Horizontal
389.36	49.12	16.83	2.80	29.55	39.20	46.00	-6.80	Horizontal
465.60	47.90	17.71	3.16	29.37	39.40	46.00	-6.60	Horizontal
684.75	45.75	20.75	4.04	29.21	41.33	46.00	-4.67	Horizontal



■ Above 1GHz

ANT1 + ANT2:

Test mode:	802.11b			Test	Lowe	Lowest		
Peak value:		T	T	Ī	1			1
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	40.64	31.79	8.62	32.10	48.95	74.00	-25.05	Vertical
7236.00	34.44	36.19	11.68	31.97	50.34	74.00	-23.66	Vertical
9648.00	32.87	38.07	14.16	31.56	53.54	74.00	-20.46	Vertical
12060.00	*					74.00		Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	39.26	31.79	8.62	32.10	47.57	74.00	-26.43	Horizontal
7236.00	34.16	36.19	11.68	31.97	50.06	74.00	-23.94	Horizontal
9648.00	32.44	38.07	14.16	31.56	53.11	74.00	-20.89	Horizontal
12060.00	*					74.00		Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal
AV value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	29.70	31.79	8.62	32.10	38.01	54.00	-15.99	Vertical
7236.00	23.30	36.19	11.68	31.97	39.20	54.00	-14.80	Vertical
9648.00	23.21	38.07	14.16	31.56	43.88	54.00	-10.12	Vertical
12060.00	*					54.00		Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4824.00	28.78	31.79	8.62	32.10	37.09	54.00	-16.91	Horizontal
7236.00	22.74	36.19	11.68	31.97	38.64	54.00	-15.36	Horizontal
9648.00	22.18	38.07	14.16	31.56	42.85	54.00	-11.15	Horizontal
12060.00	*					54.00		Horizontal
14472.00	*					54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2. &}quot;*", means this data is the too weak instrument of signal is unable to test.



Test mode:		802.11b		Test	channel:	Midd	le	
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	39.64	31.85	8.66	32.12	48.03	74.00	-25.97	Vertical
7311.00	34.47	36.37	11.71	31.91	50.64	74.00	-23.36	Vertical
9748.00	33.86	38.27	14.25	31.56	54.82	74.00	-19.18	Vertical
12185.00	*					74.00		Vertical
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertical
4874.00	40.07	31.85	8.66	32.12	48.46	74.00	-25.54	Horizontal
7311.00	33.09	36.37	11.71	31.91	49.26	74.00	-24.74	Horizontal
9748.00	33.74	38.27	14.25	31.56	54.70	74.00	-19.30	Horizontal
12185.00	*					74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*					74.00		Horizontal
AV value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	30.47	31.85	8.66	32.12	38.86	54.00	-15.14	Vertical
7311.00	22.78	36.37	11.71	31.91	38.95	54.00	-15.05	Vertical
9748.00	23.11	38.27	14.25	31.56	44.07	54.00	-9.93	Vertical
12185.00	*					54.00		Vertical
14622.00	*					54.00		Vertical
17059.00	*					54.00		Vertical
4874.00	30.17	31.85	8.66	32.12	38.56	54.00	-15.44	Horizontal
7311.00	22.17	36.37	11.71	31.91	38.34	54.00	-15.66	Horizontal
9748.00	23.45	38.27	14.25	31.56	44.41	54.00	-9.59	Horizontal
12185.00	*					54.00		Horizontal
14622.00	*					54.00		Horizontal
17059.00	*					54.00		Horizontal

Remark:

Xixiang Road, Baoan District, Shenzhen, Guangdong, China Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2. &}quot;*", means this data is the too weak instrument of signal is unable to test.



Test mode:		802.11b		Test	channel:	Highe	est	
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	45.38	31.90	8.70	32.15	53.83	74.00	-20.17	Vertical
7386.00	35.28	36.49	11.76	31.83	51.70	74.00	-22.30	Vertical
9848.00	37.25	38.62	14.31	31.77	58.41	74.00	-15.59	Vertical
12310.00	*					74.00		Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4924.00	44.60	31.90	8.70	32.15	53.05	74.00	-20.95	Horizontal
7386.00	34.14	36.49	11.76	31.83	50.56	74.00	-23.44	Horizontal
9848.00	33.41	38.62	14.31	31.77	54.57	74.00	-19.43	Horizontal
12310.00	*					74.00		Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal
AV value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	36.26	31.90	8.70	32.15	44.71	54.00	-9.29	Vertical
7386.00	25.19	36.49	11.76	31.83	41.61	54.00	-12.39	Vertical
9848.00	25.75	38.62	14.31	31.77	46.91	54.00	-7.09	Vertical
12310.00	*					54.00		Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4924.00	34.95	31.90	8.70	32.15	43.40	54.00	-10.60	Horizontal
7386.00	23.52	36.49	11.76	31.83	39.94	54.00	-14.06	Horizontal
9848.00	22.66	38.62	14.31	31.77	43.82	54.00	-10.18	Horizontal
12310.00	*					54.00		Horizontal
14772.00	*	_				54.00		Horizontal
17234.00	*					54.00		Horizontal

Remark:

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2. &}quot;*", means this data is the too weak instrument of signal is unable to test.



Test mode:		802.11g		Test	channel:	lowes	st	
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	40.38	31.79	8.62	32.10	48.69	74.00	-25.31	Vertical
7236.00	34.27	36.19	11.68	31.97	50.17	74.00	-23.83	Vertical
9648.00	32.75	38.07	14.16	31.56	53.42	74.00	-20.58	Vertical
12060.00	*					74.00		Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	39.04	31.79	8.62	32.10	47.35	74.00	-26.65	Horizontal
7236.00	34.02	36.19	11.68	31.97	49.92	74.00	-24.08	Horizontal
9648.00	32.33	38.07	14.16	31.56	53.00	74.00	-21.00	Horizontal
12060.00	*					74.00		Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal
AV value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	29.46	31.79	8.62	32.10	37.77	54.00	-16.23	Vertical
7236.00	23.14	36.19	11.68	31.97	39.04	54.00	-14.96	Vertical
9648.00	23.10	38.07	14.16	31.56	43.77	54.00	-10.23	Vertical
12060.00	*					54.00		Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4824.00	28.57	31.79	8.62	32.10	36.88	54.00	-17.12	Horizontal
7236.00	22.60	36.19	11.68	31.97	38.50	54.00	-15.50	Horizontal
9648.00	22.07	38.07	14.16	31.56	42.74	54.00	-11.26	Horizontal
12060.00	*					54.00		Horizontal
14472.00	*					54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2. &}quot;*", means this data is the too weak instrument of signal is unable to test.



Test mode:		802.11g		Tes	st channel:	Midd	le	
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	39.42	31.85	8.66	32.12	47.81	74.00	-26.19	Vertical
7311.00	34.33	36.37	11.71	31.91	50.50	74.00	-23.50	Vertical
9748.00	33.76	38.27	14.25	31.56	54.72	74.00	-19.28	Vertical
12185.00	*					74.00		Vertical
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertical
4874.00	39.89	31.85	8.66	32.12	48.28	74.00	-25.72	Horizontal
7311.00	32.97	36.37	11.71	31.91	49.14	74.00	-24.86	Horizontal
9748.00	33.65	38.27	14.25	31.56	54.61	74.00	-19.39	Horizontal
12185.00	*					74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*					74.00		Horizontal
AV value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	30.27	31.85	8.66	32.12	38.66	54.00	-15.34	Vertical
7311.00	22.65	36.37	11.71	31.91	38.82	54.00	-15.18	Vertical
9748.00	23.02	38.27	14.25	31.56	43.98	54.00	-10.02	Vertical
12185.00	*					54.00		Vertical
14622.00	*					54.00		Vertical
17059.00	*					54.00		Vertical
4874.00	30.00	31.85	8.66	32.12	38.39	54.00	-15.61	Horizontal
7311.00	22.06	36.37	11.71	31.91	38.23	54.00	-15.77	Horizontal
9748.00	23.37	38.27	14.25	31.56	44.33	54.00	-9.67	Horizontal
12185.00	*					54.00		Horizontal
14622.00	*					54.00		Horizontal
17059.00	*					54.00		Horizontal

Remark:

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2. &}quot;*", means this data is the too weak instrument of signal is unable to test.



Test mode:		802.11g		Test	channel:	Highe		
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	45.00	31.90	8.70	32.15	53.45	74.00	-20.55	Vertical
7386.00	35.04	36.49	11.76	31.83	51.46	74.00	-22.54	Vertical
9848.00	37.08	38.62	14.31	31.77	58.24	74.00	-15.76	Vertical
12310.00	*					74.00		Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4924.00	44.29	31.90	8.70	32.15	52.74	74.00	-21.26	Horizontal
7386.00	33.93	36.49	11.76	31.83	50.35	74.00	-23.65	Horizontal
9848.00	33.25	38.62	14.31	31.77	54.41	74.00	-19.59	Horizontal
12310.00	*					74.00		Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal
AV value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	35.91	31.90	8.70	32.15	44.36	54.00	-9.64	Vertical
7386.00	24.96	36.49	11.76	31.83	41.38	54.00	-12.62	Vertical
9848.00	25.58	38.62	14.31	31.77	46.74	54.00	-7.26	Vertical
12310.00	*					54.00		Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4924.00	34.65	31.90	8.70	32.15	43.10	54.00	-10.90	Horizontal
7386.00	23.32	36.49	11.76	31.83	39.74	54.00	-14.26	Horizontal
9848.00	22.51	38.62	14.31	31.77	43.67	54.00	-10.33	Horizontal
12310.00	*					54.00		Horizontal
14772.00	*					54.00		Horizontal
17234.00	*					54.00		Horizontal

Remark:

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2. &}quot;*", means this data is the too weak instrument of signal is unable to test.



Test mode:	802.11	n(HT20)		Test	channel:	Lowe	est est	
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	40.11	31.79	8.62	32.10	48.42	74.00	-25.58	Vertical
7236.00	34.11	36.19	11.68	31.97	50.01	74.00	-23.99	Vertical
9648.00	32.63	38.07	14.16	31.56	53.30	74.00	-20.70	Vertical
12060.00	*					74.00		Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	38.81	31.79	8.62	32.10	47.12	74.00	-26.88	Horizontal
7236.00	33.87	36.19	11.68	31.97	49.77	74.00	-24.23	Horizontal
9648.00	32.22	38.07	14.16	31.56	52.89	74.00	-21.11	Horizontal
12060.00	*					74.00		Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal
AV value:				1			•	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	29.21	31.79	8.62	32.10	37.52	54.00	-16.48	Vertical
7236.00	22.98	36.19	11.68	31.97	38.88	54.00	-15.12	Vertical
9648.00	22.98	38.07	14.16	31.56	43.65	54.00	-10.35	Vertical
12060.00	*					54.00		Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4824.00	28.36	31.79	8.62	32.10	36.67	54.00	-17.33	Horizontal
7236.00	22.45	36.19	11.68	31.97	38.35	54.00	-15.65	Horizontal
9648.00	21.97	38.07	14.16	31.56	42.64	54.00	-11.36	Horizontal
12060.00	*					54.00		Horizontal
14472.00	*					54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "*", means this data is the too weak instrument of signal is unable to test.



Test mode:	802.11	n(HT20)		Test	channel:	Midd	le	
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	39.20	31.85	8.66	32.12	47.59	74.00	-26.41	Vertical
7311.00	34.20	36.37	11.71	31.91	50.37	74.00	-23.63	Vertical
9748.00	33.67	38.27	14.25	31.56	54.63	74.00	-19.37	Vertical
12185.00	*					74.00		Vertical
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertical
4874.00	39.70	31.85	8.66	32.12	48.09	74.00	-25.91	Horizontal
7311.00	32.85	36.37	11.71	31.91	49.02	74.00	-24.98	Horizontal
9748.00	33.56	38.27	14.25	31.56	54.52	74.00	-19.48	Horizontal
12185.00	*					74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*					74.00		Horizontal
AV value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	30.07	31.85	8.66	32.12	38.46	54.00	-15.54	Vertical
7311.00	22.52	36.37	11.71	31.91	38.69	54.00	-15.31	Vertical
9748.00	22.92	38.27	14.25	31.56	43.88	54.00	-10.12	Vertical
12185.00	*					54.00		Vertical
14622.00	*					54.00		Vertical
17059.00	*					54.00		Vertical
4874.00	29.82	31.85	8.66	32.12	38.21	54.00	-15.79	Horizontal
7311.00	21.94	36.37	11.71	31.91	38.11	54.00	-15.89	Horizontal
9748.00	23.28	38.27	14.25	31.56	44.24	54.00	-9.76	Horizontal
12185.00	*					54.00		Horizontal
14622.00	*					54.00		Horizontal
17059.00	*					54.00		Horizontal

Remark:

Xixiang Road, Baoan District, Shenzhen, Guangdong, China Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2. &}quot;*", means this data is the too weak instrument of signal is unable to test.



Test mode:	802.11	302.11n(HT20)			Test channel: Highe			est		
Peak value:										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Fa	amp ctor IB)	Level (dBuV/m)	Limit Line (dBuV/m)		Over Limit (dB)	polarization
4924.00	44.63	31.90	8.70	32	.15	53.08	74.00		-20.92	Vertical
7386.00	34.80	36.49	11.76	31	.83	51.22	74.	00	-22.78	Vertical
9848.00	36.91	38.62	14.31	31	.77	58.07	74.	00	-15.93	Vertical
12310.00	*						74.	00		Vertical
14772.00	*						74.	00		Vertical
17234.00	*						74.	00		Vertical
4924.00	43.97	31.90	8.70	32	.15	52.42	74.	00	-21.58	Horizontal
7386.00	33.73	36.49	11.76	31	.83	50.15	74.	00	-23.85	Horizontal
9848.00	33.09	38.62	14.31	31	.77	54.25	74.	00	-19.75	Horizontal
12310.00	*						74.	00		Horizontal
14772.00	*						74.	00		Horizontal
17234.00	*						74.	00		Horizontal
AV value:										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Fa	amp ctor IB)	Level (dBuV/m)	Limit (dBu		Over Limit (dB)	polarization
4924.00	35.56	31.90	8.70	32	.15	44.01	54.	00	-9.99	Vertical
7386.00	24.73	36.49	11.76	31	.83	41.15	54.	00	-12.85	Vertical
9848.00	25.42	38.62	14.31	31	.77	46.58	54.	00	-7.42	Vertical
12310.00	*						54.	00		Vertical
14772.00	*						54.	00		Vertical
17234.00	*						54.	00		Vertical
4924.00	34.35	31.90	8.70	32	.15	42.80	54.	00	-11.20	Horizontal
7386.00	23.12	36.49	11.76	31	.83	39.54	54.	00	-14.46	Horizontal
9848.00	22.36	38.62	14.31	31	.77	43.52	54.	00	-10.48	Horizontal
12310.00	*						54.	00		Horizontal
14772.00	*						54.	00		Horizontal
17234.00	*						54.	00		Horizontal

Remark:

Xixiang Road, Baoan District, Shenzhen, Guangdong, China Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

¹ Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2 &}quot;*", means this data is the too weak instrument of signal is unable to test.



Test mode:	802.11n(HT40)			Test	Test channel: Lowest			
Peak value:				l e e e e e e e e e e e e e e e e e e e		<u> </u>		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4844.00	39.85	31.81	8.63	32.11	48.18	74.00	-25.82	Vertical
7266.00	33.94	36.28	11.69	31.94	49.97	74.00	-24.03	Vertical
9688.00	32.51	38.13	14.21	31.52	53.33	74.00	-20.67	Vertical
12060.00	*					74.00		Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4844.00	38.59	31.81	8.63	32.11	46.92	74.00	-27.08	Horizontal
7266.00	33.72	36.28	11.69	31.94	49.75	74.00	-24.25	Horizontal
9688.00	32.11	38.13	14.21	31.52	52.93	74.00	-21.07	Horizontal
12060.00	*					74.00		Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal
AV value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4844.00	28.97	31.81	8.63	32.11	37.30	54.00	-16.70	Vertical
7266.00	22.82	36.28	11.69	31.94	38.85	54.00	-15.15	Vertical
9688.00	22.87	38.13	14.21	31.52	43.69	54.00	-10.31	Vertical
12060.00	*					54.00		Vertical

32.11

31.94

31.52

36.48

38.34

42.68

Remark:

14472.00

16884.00

4844.00

7266.00

9688.00

12060.00

14472.00

16884.00

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

8.63

11.69

14.21

2. "*", means this data is the too weak instrument of signal is unable to test.

28.15

22.31

21.86

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

31.81

36.28

38.13

Vertical

Vertical

Horizontal

Horizontal

Horizontal

Horizontal

Horizontal

Horizontal

54.00

54.00

54.00

54.00

54.00

54.00

54.00

54.00

-17.52

-15.66

-11.32



Test mode:	802.11	802.11n(HT40)			channel:	Middle		
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	38.98	31.85	8.66	32.12	47.37	74.00	-26.63	Vertical
7311.00	34.06	36.37	11.71	31.91	50.23	74.00	-23.77	Vertical
9748.00	33.57	38.27	14.25	31.56	54.53	74.00	-19.47	Vertical
12185.00	*					74.00		Vertical
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertical
4874.00	39.52	31.85	8.66	32.12	47.91	74.00	-26.09	Horizontal
7311.00	32.73	36.37	11.71	31.91	48.90	74.00	-25.10	Horizontal
9748.00	33.47	38.27	14.25	31.56	54.43	74.00	-19.57	Horizontal
12185.00	*					74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*					74.00		Horizontal
AV value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	29.87	31.85	8.66	32.12	38.26	54.00	-15.74	Vertical
7311.00	22.38	36.37	11.71	31.91	38.55	54.00	-15.45	Vertical
9748.00	22.83	38.27	14.25	31.56	43.79	54.00	-10.21	Vertical
12185.00	*					54.00		Vertical
14622.00	*					54.00		Vertical
17059.00	*					54.00		Vertical
4874.00	29.65	31.85	8.66	32.12	38.04	54.00	-15.96	Horizontal
7311.00	21.82	36.37	11.71	31.91	37.99	54.00	-16.01	Horizontal
9748.00	23.19	38.27	14.25	31.56	44.15	54.00	-9.85	Horizontal
12185.00	*					54.00		Horizontal
14622.00	*					54.00		Horizontal
17059.00	*					54.00		Horizontal

Remark:

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

^{2. &}quot;*", means this data is the too weak instrument of signal is unable to test.



Test mode:	802.11	802.11n(HT40)		Test channel:		Highest		
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4904.00	44.25	31.88	8.68	32.13	52.68	74.00	-21.32	Vertical
7356.00	34.57	36.45	11.75	31.86	50.91	74.00	-23.09	Vertical
9808.00	36.74	38.43	14.29	31.68	57.78	74.00	-16.22	Vertical
12310.00	*					74.00		Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4904.00	43.65	31.88	8.68	32.13	52.08	74.00	-21.92	Horizontal
7356.00	33.52	36.45	11.75	31.86	49.86	74.00	-24.14	Horizontal
9808.00	32.94	38.43	14.29	31.68	53.98	74.00	-20.02	Horizontal
12310.00	*					74.00		Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal
AV value:			1	1				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4904.00	35.21	31.88	8.68	32.13	43.64	54.00	-10.36	Vertical
7356.00	24.50	36.45	11.75	31.86	40.84	54.00	-13.16	Vertical
9808.00	25.26	38.43	14.29	31.68	46.30	54.00	-7.70	Vertical
12310.00	*					54.00		Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4904.00	34.05	31.88	8.68	32.13	42.48	54.00	-11.52	Horizontal
7356.00	22.92	36.45	11.75	31.86	39.26	54.00	-14.74	Horizontal
9808.00	22.20	38.43	14.29	31.68	43.24	54.00	-10.76	Horizontal
12310.00	*					54.00		Horizontal
14772.00	*					54.00		Horizontal
17234.00	*					54.00		Horizontal

Remark:

Xixiang Road, Baoan District, Shenzhen, Guangdong, China Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

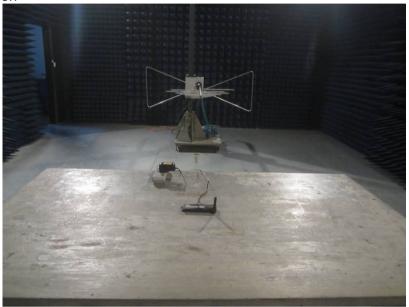
¹ Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor

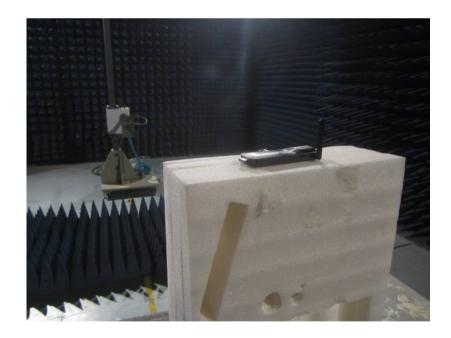
^{2 &}quot;*", means this data is the too weak instrument of signal is unable to test.



8 Test Setup Photo

Radiated Emission





Project No.: GTS201608000121

Page 60 of 61



Conducted Emission



9 EUT Constructional Details

Reference to the test report No. GTS201608000121E01

-----END-----