

Global United Technology Services Co., Ltd.

Report No.: GTSE13100166403

FCC REPORT

Applicant: Shenzhen Autel Intelligent Technology Co., Ltd.

Address of Applicant: East Gate, the 1st Floor of SZICC Bldg, Chaguang Road

1089, Xili Town, Nanshan District, Shenzhen, China

Equipment Under Test (EUT)

Product Name: MaxiSys Mini

Model No.: MaxiSys Mini

اعا الحد

FCC ID: WQ8MAXISYSMY905

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247:2012

Date of sample receipt: November 11, 2013

Date of Test: November 11-22, 2013

Date of report issued: November 25, 2013

Test Result: PASS *

Authorized Signature:

Trade Mark:



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.

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



2 Version

Version No.	Date	Description
00	November 25, 2013	Original

Prepared By:	hank yan.	Date:	November 25, 2013	
	Project Engineer			
Check By:	Homs. Hu	Date:	November 25, 2013	
	Reviewer	<u> </u>		

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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.

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5 General Information

5.1 Client Information

Applicant:	Shenzhen Autel Intelligent Technology Co., Ltd.		
Address of Applicant:	East Gate, the 1st Floor of SZICC Bldg, Chaguang Road 1089, Xili Town, Nanshan District, Shenzhen, China		
Manufacturer:	Shenzhen Autel Intelligent Technology Co., Ltd.		
Address of Manufacturer:	East Gate, the 1st Floor of SZICC Bldg, Chaguang Road 1089, Xili Town, Nanshan District, Shenzhen, China		

5.2 General Description of EUT

Product Name:	MaxiSys Mini
Model No.:	MaxiSys Mini
Operation Frequency:	802.11b/802.11g/802.11n(HT20) @2.4G Band: 2412MHz~2462MHz
	802.11n(HT40) @2.4G Band: 2422MHz~2452MHz
	802.11a/802.11n(HT20) @5G Band: 5745MHz ~ 5825MHz
	802.11n(HT40) @ 5G Band: 5745MHz ~ 5785MHz
Channel numbers:	802.11b/802.11g/802.11n(HT20) @2.4G Band: 11
	802.11n(HT40) @2.4G Band: 7
	802.11a/802.11n(HT20) @5G Band: 5
	802.11n(HT40) @ 5G Band: 2
Channel separation:	802.11b/802.11g/802.11n(HT20)/ 802.11n(HT40) @2.4G Band: 5MHz
	802.11a/802.11n(HT20) @5G Band: 20MHz
	802.11n(HT40) @ 5G Band: 40MHz
Modulation technology:	802.11b: Direct Sequence Spread Spectrum (DSSS)
	802.11a/802.11g/802.11n(H20)/802.11n(H40):
	Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	Integral Antenna
A.1	0.68dBi for 2.4G band(declare by Applicant)
Antenna gain:	0.85dBi for 5G band(declare by Applicant)
Power supply:	Model No.:HK-AJ-120A200-DH
	Input: AC 100~240V~50/60Hz 0.8A
	Output: DC 12.0V 2.0A
	DC 3.7V Li-ion Battery



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		

Operation Frequency each of channel @ 5G Band							
Channel	Channel Frequency Channel Frequency Channel Frequency Channel Frequency						
149	5745MHz	153	5765MHz	157	5785MHz	161	5805MHz
165 5825MHz							

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 E	Band	5G Band			
rest sharmer	802.11b/802.11g/ 802.11n(HT20)	802.11n(HT40)	802.11a/ 802.11n(HT20)	802.11n(HT40)		
Lowest channel	2412	2422	5745	5745		
Middle channel	2437	2437	5785			
Highest channel	2462	2452	5825	5785		



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, 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
802.11a	6Mbps
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:

• CNAS —Registration No.: CNAS L5775

CNAS has accredited Global United Technology Services Co., Ltd. To ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• 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 28, 2013.

• 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, June 26, 2013.

5.6 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China

Tel: 0755-27798480 Fax: 0755-27798960

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

Shenzhen, China 518102

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6 Test Instruments list

Radi	ated 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	Mar. 29 2013	Mar. 28 2015
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 02 2013	Jul. 01 2014
4	Spectrum Analyzer	Agilent	E4446A	GTS514	Jul. 02 2013	Jul. 01 2014
5	Spectrum Analyzer	Agilent	E4440A	GTS533	Dec. 6 2012	Dec. 5 2013
6	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 24 2013	Feb. 23 2014
7	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 28 2013	June 27 2014
8	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 29 2013	Mar. 28 2014
9	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
10	Coaxial Cable	GTS	N/A	GTS213	Mar. 30 2013	Mar. 29 2014
11	Coaxial Cable	GTS	N/A	GTS211	Mar. 30 2013	Mar. 29 2014
12	Coaxial cable	GTS	N/A	GTS210	Mar. 30 2013	Mar. 29 2014
13	Coaxial Cable	GTS	N/A	GTS212	Mar. 30 2013	Mar. 29 2014
14	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 02 2013	Jul. 01 2014
15	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 02 2013	Jul. 01 2014
16	Amplifier (18-40GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 28 2013	June 27 2014
17	Band filter	Amindeon	82346	GTS219	Mar. 30 2013	Mar. 29 2014
18	Constant temperature and humidity box	Oregon Scientific	BA-888	GTS248	May 10 2013	May 09 2015
19	D.C. Power Supply	Instek	PS-3030	GTS232	May 10 2013	May 09 2015
20	Universal radio communication tester	Rohde & Schwarz	CMU200	GTS235	May 10 2013	May 09 2015
21	Splitter	Agilent	11636B	GTS237	May 10 2013	May 09 2015
22	Power Meter	Anritsu	ML2495A	GTS263	May 10 2013	May 09 2015

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Cond	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	7.0(L)x3.0(W)x3.0(H)	GTS264	Sep. 07 2013	Sep. 06 2015				
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS223	Jul. 02 2013	Jul. 01 2014				
3	10dB Pulse Limita	Rohde & Schwarz	N/A	GTS224	Jul. 02 2013	Jul. 01 2014				
4	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	Jul. 02 2013	Jul. 01 2014				
5	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	Jul. 02 2013	Jul. 01 2014				
6	Coaxial Cable	GTS	N/A	GTS227	Jul. 02 2013	Jul. 01 2014				
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A				

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	July 09 2013	July 08 2014				



7 Test results and Measurement Data

7.1 Antenna requirement:

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

15.203 requirement:

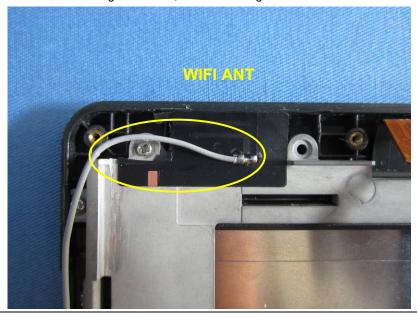
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit 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 Integral antenna, the best case gain of the antenna is 0.68dBi



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7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207						
Test Method:	ANSI C63.4:2003						
Test Frequency Range:	150KHz to 30MHz						
Class / Severity:							
Receiver setup:		Class B RBW=9KHz, VBW=30KHz, Sweep time=auto					
Limit:	Limit (dRu\/)						
Littiit.	Frequency range (MHz)	Quasi-peak	Average				
	0.15-0.5	66 to 56*	56 to 46*				
	0.5-5	56	46				
	5-30	60	50				
	* Decreases with the logarithm of the frequency.						
Test setup:	Reference Plane		_				
	AUX Equipment Test table/Insulation plane Remark E.U.T EMI Receiver Receiver LISN Line Impedence Stabilization Network Test table height=0.8m						
Test procedure:	The E.U.T and simulators a line impedance stabilization 50ohm/50uH coupling impe	n network (L.I.S.N.). Th	nis provides a				
	2. 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).						
	3. 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 chang according to ANSI C63.4: 2003 on conducted measurement.						
Test Instruments:	Refer to section 6.0 for details	·					
Test mode:	Refer to section 5.3 for details						
Test results:	Pass						

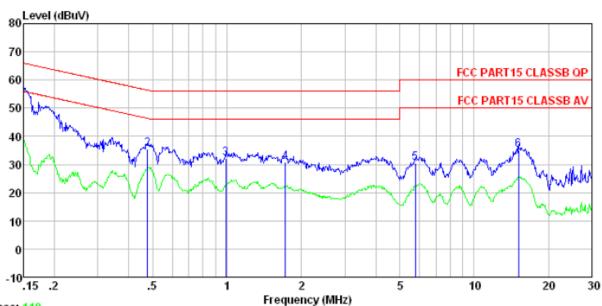
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Measurement data

Line:



Trace: 110

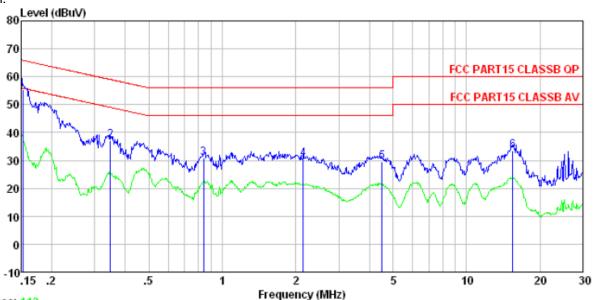
Condition : FCC PART15 CLASSB QP LISN-2013 LINE

Job No. : 1664RF Test mode : WiFi mode Test Engineer: Bing

MHz dBuV dB dB dBuV dBuV dB 1 0.150 55.01 0.15 0.12 55.28 66.00 -10.72 QP 2 0.476 35.38 0.12 0.11 35.61 56.41 -20.80 QP 3 0.989 32.07 0.14 0.13 32.34 56.00 -23.66 QP 4 1.725 30.45 0.12 0.14 30.71 56.00 -25.29 QP 5 5.774 30.14 0.22 0.15 30.51 60.00 -29.49 QP		Freq	Read	LISN Factor				Over Limit	Remark	
2 0.476 35.38 0.12 0.11 35.61 56.41 -20.80 QP 3 0.989 32.07 0.14 0.13 32.34 56.00 -23.66 QP		MHz	dBu√	dB	dB	dBu₹	dBuV	dB		-
6 15.146 34.81 0.28 0.22 35.31 60.00 -24.69 QP	3 4 5	0. 476 0. 989 1. 725 5. 774	35.38 32.07 30.45 30.14	0.12 0.14 0.12 0.22	0.11 0.13 0.14 0.15	35. 61 32. 34 30. 71 30. 51	56. 41 56. 00 56. 00 60. 00	-20.80 -23.66 -25.29 -29.49	QP QP QP QP	



Neutral:



Trace: 112

Condition : FCC PART15 CLASSB QP LISN-2013 NEUTRAL

Job No. : 1664RF Test mode : WiFi mode Test Engineer: Bing

	Freq		LISN Factor					Remark
	MHz	dBuV	dB	d₿	dBu₹	dBuV	dB	
1	0.152	55.21	0.07	0.12	55.40	65.87	-10.47	QP
2	0.348	36.91	0.06	0.10	37.07	59.00	-21.93	QP
3	0.839	30.74	0.07	0.13	30.94	56.00	-25.06	QP
4	2.144	30.29	0.09	0.15	30.53	56.00	-25.47	QP
5	4.501	29.21	0.15	0.15	29.51	56.00	-26.49	QP
6	15.470	33.08	0.34	0.22	33.64	60.00	-26.36	QP

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.



7.3 Conducted Peak Output Power

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)		
Test Method:	ANSI C63.4:2003 and KDB558074 D01 DTS Meas Guidance V03		
Limit:	30dBm		
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

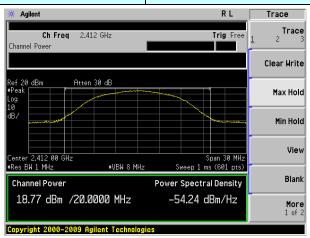
2.4G Band									
Test CH	Peak Output Power (dBm)					Result			
1631 011	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	(dBm)	Result			
Lowest	18.77	18.41	18.22	18.41					
Middle	18.89	18.52	18.38	18.39	30.00	Pass			
Highest	18.92	18.65	18.51	18.62					

	5G Band									
Test CH	Р	Limit	Result							
1631 011	802.11a	802.11n(HT20)	802.11n(HT40)	(dBm)	Nesuit					
Lowest	16.14	16.19	16.75							
Middle	15.82	16.17		30.00	Pass					
Highest	15.53	15.54	16.50							

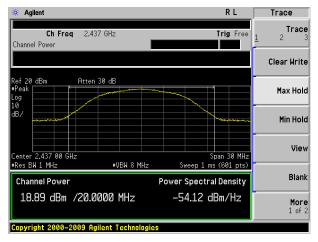


Test plot as follows:

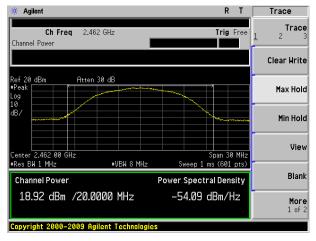
Test mode: 802.11b



Lowest channel



Middle channel

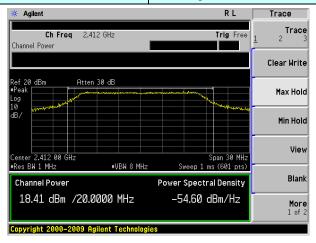


Highest channel

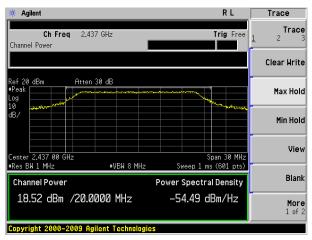
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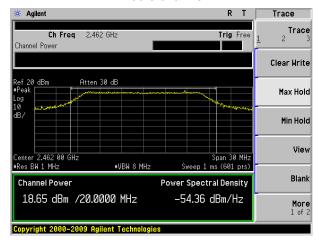
Test mode: 802.11g



Lowest channel



Middle channel



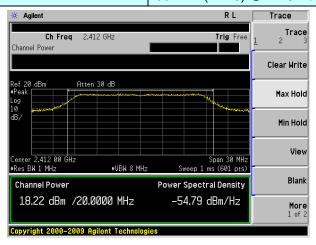
Highest channel

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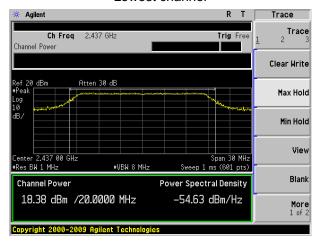


Test mode:

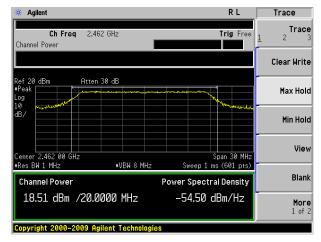
802.11n(HT20) @ 2.4G Band



Lowest channel



Middle channel



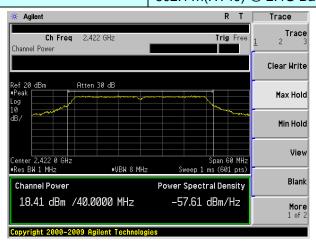
Highest channel

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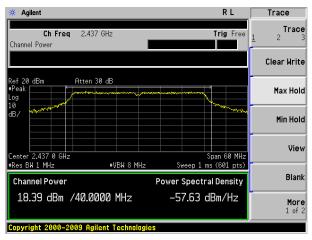


Test mode:

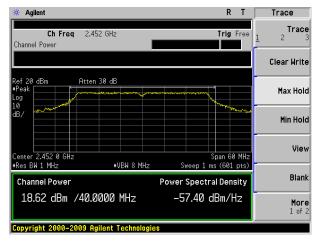
802.11n(HT40) @ 2.4G Band



Lowest channel



Middle channel

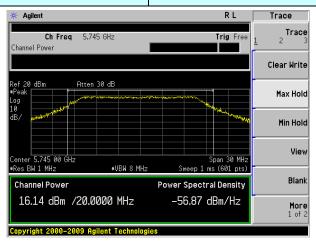


Highest channel

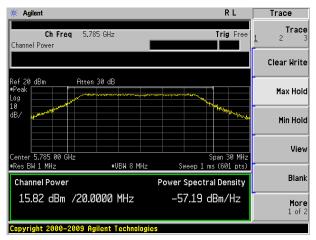
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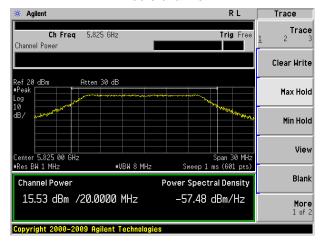
Test mode: 802.11a



Lowest channel



Middle channel



Highest channel

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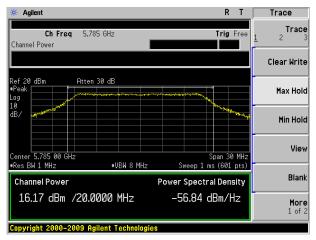


Test mode:

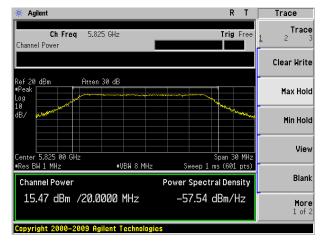
802.11n(HT20) @ 5G Band



Lowest channel



Middle channel



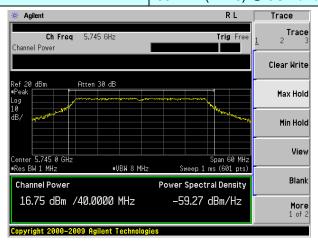
Highest channel

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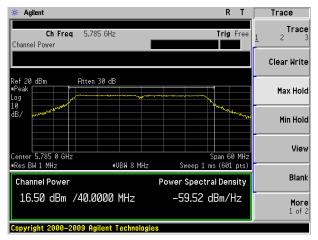


Test mode:

802.11n(HT40) @ 5G Band



Lowest channel



Highest channel

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7.4 Channel Bandwidth

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)		
Test Method:	ANSI C63.4:2003 and KDB558074 D01 DTS Meas Guidance V03		
Limit:	>500KHz		
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

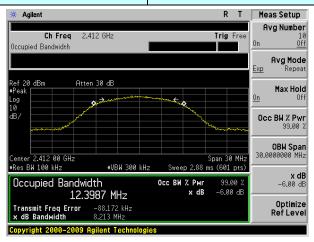
	2.4G Band									
Test CH	Channel Bandwidth (MHz)					Result				
1631 011	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	(KHz)	Nesuit				
Lowest	8.213	16.575	17.762	36.520						
Middle	8.444	16.588	17.769	36.582	>500	Pass				
Highest	8.288	16.549	17.787	36.571						

5G Band									
Test CH	С	Limit	Result						
1631 011	802.11a	802.11n(HT20)	802.11n(HT40)	(KHz)	Nesuit				
Lowest	16.46	17.69	36.49						
Middle	16.43	17.68		>500	Pass				
Highest	16.48	17.67	36.44						

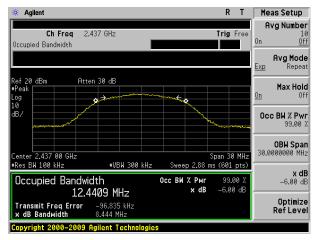
Test plot as follows:



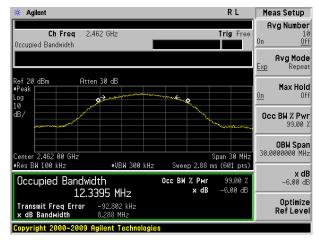
Test mode: 802.11b



Lowest channel



Middle channel

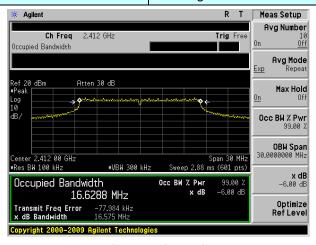


Highest channel

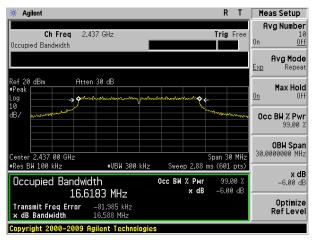
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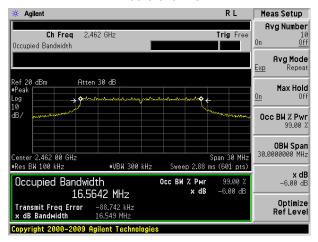
Test mode: 802.11g



Lowest channel



Middle channel



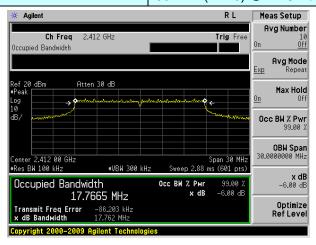
Highest channel

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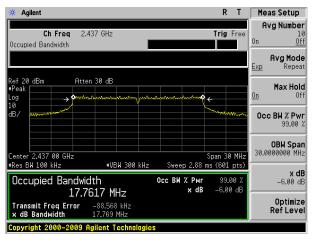


Test mode:

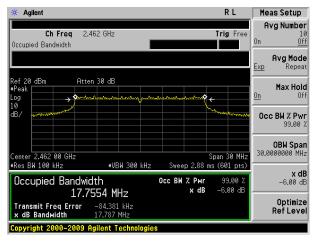
802.11n(HT20) @ 2.4G Band



Lowest channel



Middle channel



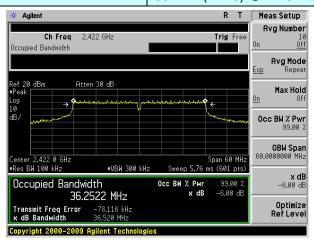
Highest channel

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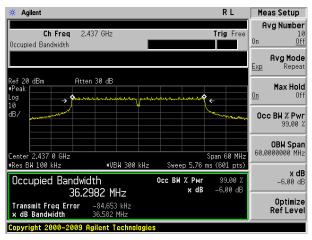


Test mode:

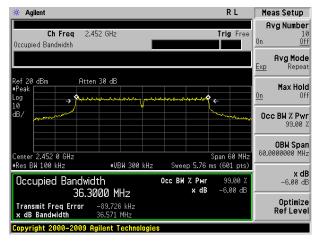
802.11n(HT40) @ 2.4G Band



Lowest channel



Middle channel

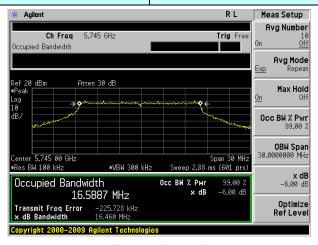


Highest channel

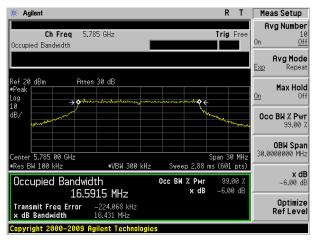
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



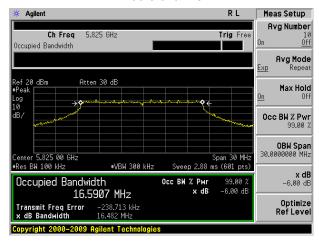
Test mode: 802.11a



Lowest channel



Middle channel



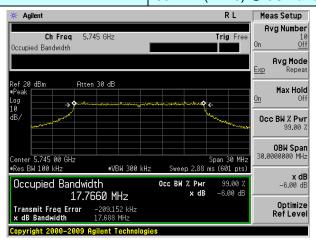
Highest channel

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

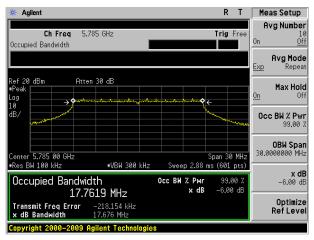


Test mode:

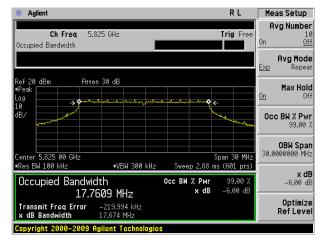
802.11n(HT20) @ 5G Band



Lowest channel



Middle channel



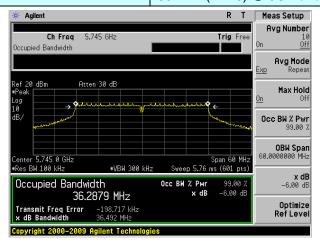
Highest channel

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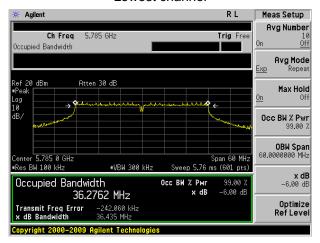


Test mode:

802.11n(HT40) @ 5G Band



Lowest channel



Highest channel

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7.5 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)		
Test Method:	ANSI C63.4:2003 and 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

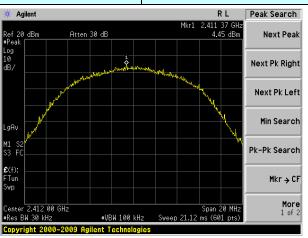
2.4G Band									
Total OII		Limit	Dogult						
Test CH	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)	(dBm/3kHz)	Result			
Lowest	4.45	4.91	5.01	2.73					
Middle	4.71	5.10	5.19	2.88	8.00	Pass			
Highest	4.68	5.14	5.15	3.01					

5G Band					
Test CH	Power Spectral Density (dBm)			Limit	Result
	802.11a	802.11n(HT20)	802.11n(HT40)	(dBm/3kHz)	Nesult
Lowest	1.36	1.55	-0.95		
Middle	0.96	1.02		8.00	Pass
Highest	0.84	0.62	-0.89		

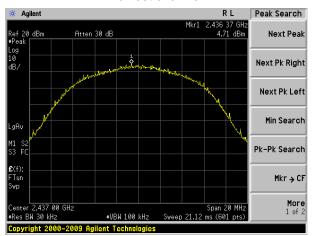


Test plot as follows:

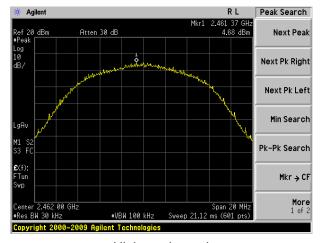
Test mode: 802.11b



Lowest channel



Middle channel

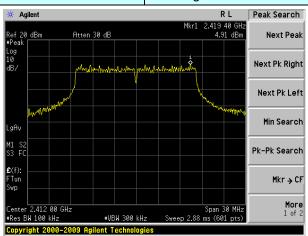


Highest channel

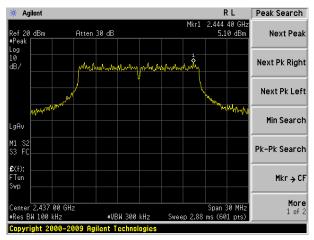
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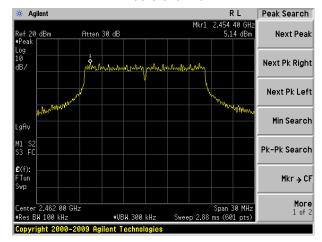
Test mode: 802.11g



Lowest channel



Middle channel



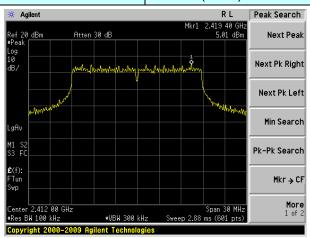
Highest channel

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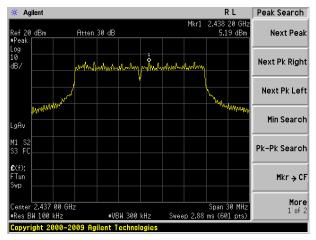


Test mode:

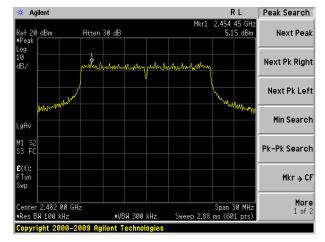
802.11n(HT20) @ 2.4G Band



Lowest channel



Middle channel



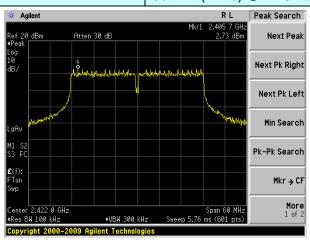
Highest channel

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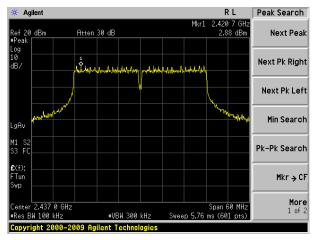


Test mode:

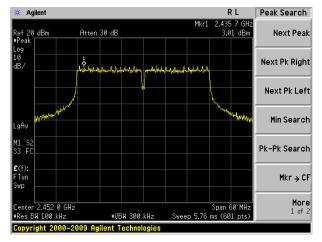
802.11n(HT40) @ 2.4G Band



Lowest channel



Middle channel

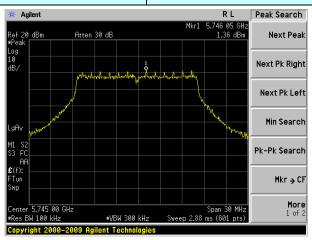


Highest channel

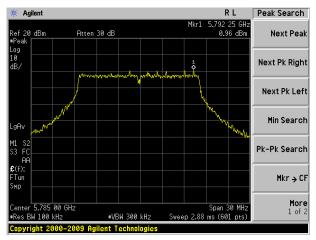
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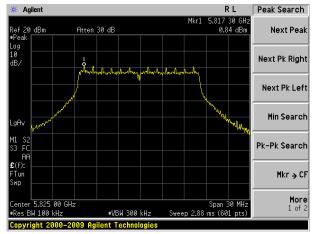
Test mode: 802.11a



Lowest channel



Middle channel



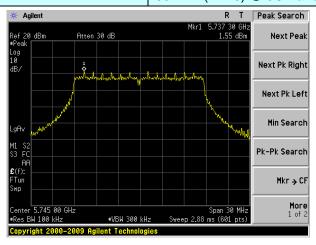
Highest channel

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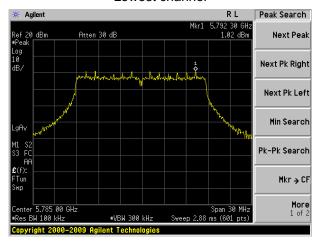


Test mode:

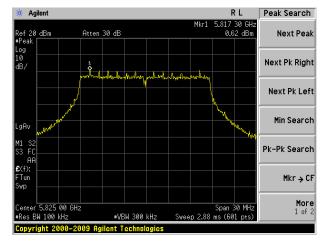
802.11n(HT20) @ 5G Band



Lowest channel



Middle channel

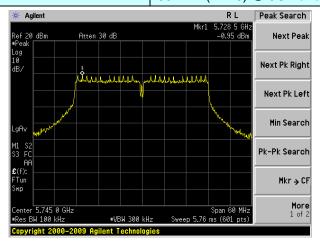


Highest channel

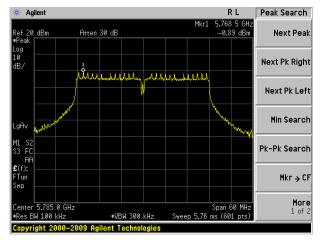


Test mode:

802.11n(HT40) @ 5G Band



Lowest channel



Highest channel

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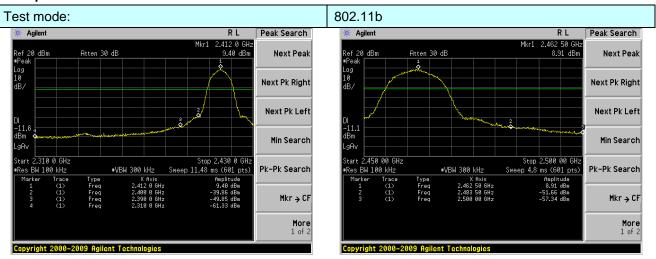
7.6 Band edges

7.6.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)						
Test Method:	ANSI C63.4:2003 and 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 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:



Lowest channel

Highest channel

Test mode: 802.11g ** Agilent R T Peak Search Mkr1 2.419 4 GHz ** Agilent



Lowest channel



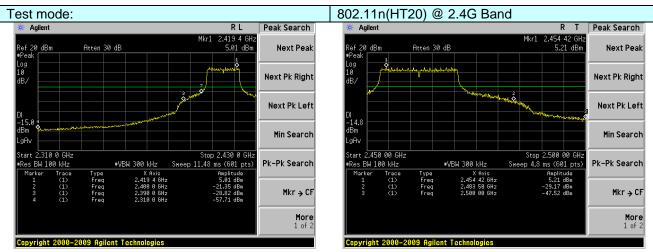
Highest channel

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Project No.: GTSE131001664RF

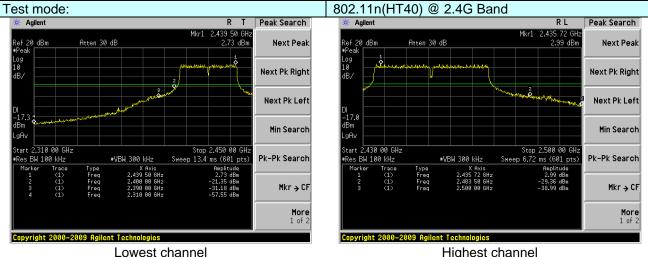
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Lowest channel

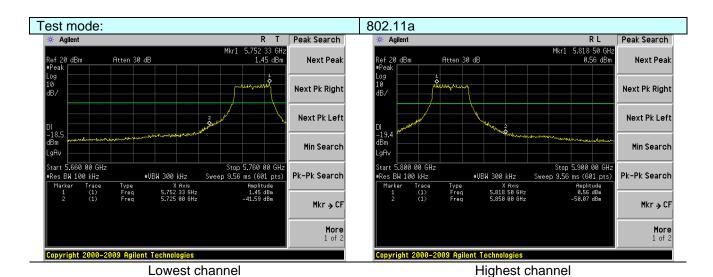
Highest channel

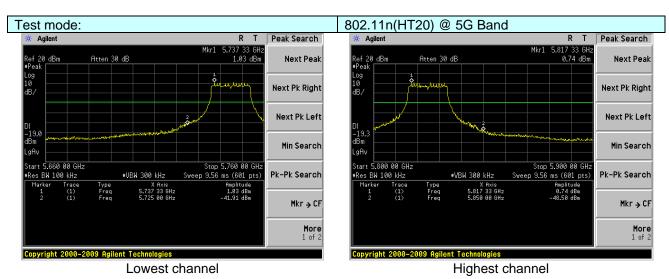


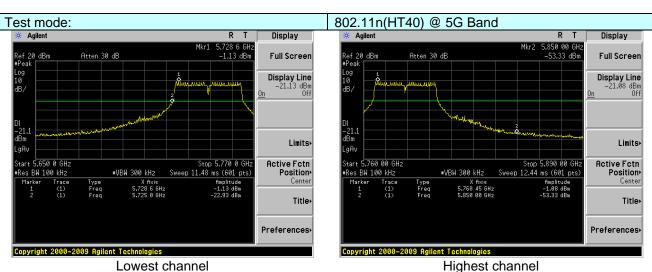
Highest channel

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7.6.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205							
Test Method:	ANSI C63.4: 20							
Test Frequency Range:	30MHz to 40GH	lz, only worse	case is repor	ted				
Test site:	Measurement D	istance: 3m						
Receiver setup:	Frequency	Detector	RBW	VBW	Value			
	Above 1GHz	Peak	1MHz	3MHz	Peak			
	Above Toriz	Peak	1MHz	10Hz	Average			
Limit:	Freque	ncy	Limit (dBuV/	m @3m)	Value			
	Above 1	GHz	54.0		Average			
	7,0000	01.12	74.0	0	Peak			
Test setup:	Antenna Tower Horn Antenna Spectrum Analyzer Turn Table Amplifier							
Test Procedure:	Analyzer Turn Table 0.8m lm							
Test Instruments:	Refer to section							
Test mode:	Refer to section	5.3 for details	5					
Test results:	Pass							



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.

Test mode:	802.11b	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	48.09	27.59	5.38	30.18	50.88	74.00	-23.12	Horizontal
2400.00	65.05	27.58	5.39	30.18	67.84	74.00	-6.16	Horizontal
2390.00	49.51	27.59	5.38	30.18	52.30	74.00	-21.70	Vertical
2400.00	67.01	27.58	5.39	30.18	69.80	74.00	-4.20	Vertical

Average 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	35.66	27.59	5.38	30.18	38.45	54.00	-15.55	Horizontal
2400.00	47.54	27.58	5.39	30.18	50.33	54.00	-3.67	Horizontal
2390.00	37.19	27.59	5.38	30.18	39.98	54.00	-14.02	Vertical
2400.00	49.19	27.58	5.39	30.18	51.98	54.00	-2.02	Vertical

Test mode: 802.11b	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
2483.50	47.54	27.53	5.47	29.93	50.61	74.00	-23.39	Horizontal
2500.00	44.16	27.55	5.49	29.93	47.27	74.00	-26.73	Horizontal
2483.50	49.16	27.53	5.47	29.93	52.23	74.00	-21.77	Vertical
2500.00	46.06	27.55	5.49	29.93	49.17	74.00	-24.83	Vertical

Average 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	35.60	27.53	5.47	29.93	38.67	54.00	-15.33	Horizontal
2500.00	32.13	27.55	5.49	29.93	35.24	54.00	-18.76	Horizontal
2483.50	37.23	27.53	5.47	29.93	40.30	54.00	-13.70	Vertical
2500.00	33.82	27.55	5.49	29.93	36.93	54.00	-17.07	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.

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Report No.: GTSE13100166403

Test mode:		802.1	1g		Test channel:		Lowest	
Peak value:		•				<u> </u>		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	. I EVEL	Limit Line (dBuV/m)	I I imit	Polarization
2390.00	59.46	27.59	5.38	30.18	62.25	74.00	-11.75	Horizontal
2400.00	67.12	27.58	5.39	30.18	69.91	74.00	-4.09	Horizontal
2390.00	61.08	27.59	5.38	30.18	63.87	74.00	-10.13	Vertical
2400.00	69.02	27.58	5.39	30.18	71.81	74.00	-2.19	Vertical
Average va	lue:							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	'	Limit Line (dBuV/m)	I I imit	Polarization
2390.00	40.43	27.59	5.38	30.18	43.22	54.00	-10.78	Horizontal
2400.00	46.79	27.58	5.39	30.18	49.58	54.00	-4.42	Horizontal
2390.00	42.06	27.59	5.38	30.18	44.85	54.00	-9.15	Vertical
2400.00	48.48	27.58	5.39	30.18	51.27	54.00	-2.73	Vertical
Test mode:		802.1	1g	-	Test channel:		Highest	
Peak value:	!					_		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	' i revei	Limit Line (dBuV/m)	I I imit	Polarization
2483.50	64.66	27.53	5.47	29.93	67.73	74.00	-6.27	Horizontal
2500.00	46.22	27.55	5.49	29.93	49.33	74.00	-24.67	Horizontal
2483.50	66.28	27.53	5.47	29.93	69.35	74.00	-4.65	Vertical
2500.00	48.12	27.55	5.49	29.93	51.23	74.00	-22.77	Vertical
Average va	lue:					_	_	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	' i revei	Limit Line (dBuV/m)	I I imit	Polarization
2483.50	39.00	27.53	5.47	29.93	42.07	54.00	-11.93	Horizontal
2500.00	32.66	27.55	5.49	29.93	35.77	54.00	-18.23	Horizontal
2483.50	40.63	27.53	5.47	29.93	43.70	54.00	-10.30	Vertical
2500.00	34.35	27.55	5.49	29.93	37.46	54.00	-16.54	Vertical
Remark: 1. Final L	aval Pagai	var Pood la	al . Antoni	na Factor	+ Cable Loss	– Proamplif	ior Factor	

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

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802.11n(HT20) @ 2.4G Band

Test mode:

Report No.: GTSE13100166403

Lowest

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	60.81	27.59	5.38	30.18	63.60	74.00	-10.40	Horizontal		
2400.00	67.39	27.58	5.39	30.18	70.18	74.00	-3.82	Horizontal		
2390.00	62.43	27.59	5.38	30.18	65.22	74.00	-8.78	Vertical		
2400.00	69.29	27.58	5.39	30.18	72.08	74.00	-1.92	Vertical		
Average 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	39.66	27.59	5.38	30.18	42.45	54.00	-11.55	Horizontal		
2400.00	45.19	27.58	5.39	30.18	47.98	54.00	-6.02	Horizontal		
2390.00	41.29	27.59	5.38	30.18	44.08	54.00	-9.92	Vertical		
2400.00	46.88	27.58	5.39	30.18	49.67	54.00	-4.33	Vertical		
Test mode:	802.1	1n(HT20) @	2.4G Band	d Tes	t channel:	H	Highest			
Peak 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		
2483.50	60.77	27.53	5.47	29.93	63.84	74.00	-10.16	Horizontal		
2500.00	47.99	27.55	5.49	29.93	E4.40	74.00	-22.90	Harizantal		
				2	51.10	74.00	-22.90	Horizontal		
2483.50	62.39	27.53	5.47	29.93	65.46	74.00	-8.54	Vertical		
2483.50 2500.00	62.39 49.89	27.53 27.55								
	49.89		5.47	29.93	65.46	74.00	-8.54	Vertical		
2500.00	49.89		5.47	29.93	65.46	74.00	-8.54	Vertical		
2500.00 Average va Frequency	49.89 lue: Read Level	27.55 Antenna Factor	5.47 5.49 Cable Loss	29.93 29.93 Preamp Factor	65.46 53.00 Level	74.00 74.00 Limit Line	-8.54 -21.00 Over Limit	Vertical Vertical		
2500.00 Average va Frequency (MHz)	49.89 Iue: Read Level (dBuV)	27.55 Antenna Factor (dB/m)	5.47 5.49 Cable Loss (dB)	29.93 29.93 Preamp Factor (dB)	65.46 53.00 Level (dBuV/m)	74.00 74.00 Limit Line (dBuV/m)	-8.54 -21.00 Over Limit (dB)	Vertical Vertical Polarization		
2500.00 Average va Frequency (MHz) 2483.50	49.89 Iue: Read Level (dBuV) 38.45	27.55 Antenna Factor (dB/m) 27.53	5.47 5.49 Cable Loss (dB) 5.47	29.93 29.93 Preamp Factor (dB) 29.93	65.46 53.00 Level (dBuV/m) 41.52	74.00 74.00 Limit Line (dBuV/m) 54.00	-8.54 -21.00 Over Limit (dB) -12.48	Vertical Vertical Polarization Horizontal		

Test channel:

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

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

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

Shenzhen, China 518102

1.



802.11n(HT40) @ 2.4G Band

Test mode:

Report No.: GTSE13100166403

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	64.19	27.59	5.38	30.18	66.98	74.00	-7.02	Horizontal
2400.00	67.09	27.58	5.39	30.18	69.88	74.00	-4.12	Horizontal
2390.00	65.81	27.59	5.38	30.18	68.60	74.00	-5.40	Vertical
2400.00	68.99	27.58	5.39	30.18	71.78	74.00	-2.22	Vertical
Average va	lue:							
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	41.54	27.59	5.38	30.18	44.33	54.00	-9.67	Horizontal
2400.00	43.04	27.58	5.39	30.18	45.83	54.00	-8.17	Horizontal
2390.00	43.17	27.59	5.38	30.18	45.96	54.00	-8.04	Vertical
2400.00	44.73	27.58	5.39	30.18	47.52	54.00	-6.48	Vertical
Test mode:	802.1	1n(HT40) @	2.4G Band	d Tes	t channel:	ŀ	Highest	
Peak value	:							
Frequency	Read	Antenna	Cable	Preamp				
(MHz)	Level (dBuV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
(MHz) 2483.50				Factor			Limit	Polarization Horizontal
	(dBuV)	(dB/m)	(dB)	Factor (dB)	(dBuV/m)	(dBuV/m)	Limit (dB)	
2483.50	(dBuV) 65.74	(dB/m) 27.53	(dB) 5.47	Factor (dB) 29.93	(dBuV/m) 68.81	(dBuV/m) 74.00	Limit (dB) -5.19	Horizontal
2483.50 2500.00	(dBuV) 65.74 54.78	(dB/m) 27.53 27.55	(dB) 5.47 5.49	Factor (dB) 29.93 29.93	(dBuV/m) 68.81 57.89	74.00 74.00	Limit (dB) -5.19 -16.11	Horizontal Horizontal
2483.50 2500.00 2483.50	(dBuV) 65.74 54.78 67.36 56.68	(dB/m) 27.53 27.55 27.53	(dB) 5.47 5.49 5.47	Factor (dB) 29.93 29.93 29.93	(dBuV/m) 68.81 57.89 70.43	74.00 74.00 74.00 74.00	Limit (dB) -5.19 -16.11 -3.57	Horizontal Horizontal Vertical
2483.50 2500.00 2483.50 2500.00	(dBuV) 65.74 54.78 67.36 56.68	(dB/m) 27.53 27.55 27.53	(dB) 5.47 5.49 5.47	Factor (dB) 29.93 29.93 29.93	(dBuV/m) 68.81 57.89 70.43	74.00 74.00 74.00 74.00	Limit (dB) -5.19 -16.11 -3.57	Horizontal Horizontal Vertical
2483.50 2500.00 2483.50 2500.00 Average va Frequency	(dBuV) 65.74 54.78 67.36 56.68 Ilue: Read Level	(dB/m) 27.53 27.55 27.53 27.55 Antenna Factor	(dB) 5.47 5.49 5.47 5.49 Cable Loss	Factor (dB) 29.93 29.93 29.93 29.93 Preamp Factor	(dBuV/m) 68.81 57.89 70.43 59.79	74.00 74.00 74.00 74.00 74.00	Limit (dB) -5.19 -16.11 -3.57 -14.21 Over Limit	Horizontal Horizontal Vertical Vertical
2483.50 2500.00 2483.50 2500.00 Average va Frequency (MHz)	(dBuV) 65.74 54.78 67.36 56.68 Ilue: Read Level (dBuV)	(dB/m) 27.53 27.55 27.53 27.55 Antenna Factor (dB/m)	(dB) 5.47 5.49 5.47 5.49 Cable Loss (dB)	Factor (dB) 29.93 29.93 29.93 Preamp Factor (dB)	(dBuV/m) 68.81 57.89 70.43 59.79 Level (dBuV/m)	74.00 74.00 74.00 74.00 Limit Line (dBuV/m)	Limit (dB) -5.19 -16.11 -3.57 -14.21 Over Limit (dB)	Horizontal Horizontal Vertical Vertical Polarization
2483.50 2500.00 2483.50 2500.00 Average va Frequency (MHz) 2483.50	(dBuV) 65.74 54.78 67.36 56.68 Ilue: Read Level (dBuV) 39.99	(dB/m) 27.53 27.55 27.55 27.55 Antenna Factor (dB/m) 27.53	(dB) 5.47 5.49 5.47 5.49 Cable Loss (dB) 5.47	Factor (dB) 29.93 29.93 29.93 Preamp Factor (dB) 29.93	(dBuV/m) 68.81 57.89 70.43 59.79 Level (dBuV/m) 43.06	74.00 74.00 74.00 74.00 Limit Line (dBuV/m) 54.00	Limit (dB) -5.19 -16.11 -3.57 -14.21 Over Limit (dB) -10.94	Horizontal Horizontal Vertical Vertical Polarization Horizontal

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

Test channel:

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

Shenzhen, China 518102



802.11a

Test mode:

Report No.: GTSE13100166403

Lowest

rest mode.		002.1	ıa	16	si channei.	-	-owesi	
Peak value:	ı i							
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
5725.00	42.15	32.68	9.97	23.86	60.94	74.00	-13.06	Horizontal
5743.26	78.98	32.56	9.86	23.85	97.55	N/A	N/A	Horizontal
5725.00	43.26	32.68	9.97	23.86	62.05	74.00	-11.95	Vertical
5742.19	80.68	32.56	9.86	23.85	99.25	N/A	N/A	Vertical
Average va	lue:			•	•	•	•	
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
5725.00	29.64	32.68	9.97	23.86	48.43	54.00	-5.57	Horizontal
5743.26	69.94	32.56	9.86	23.85	88.51	N/A	N/A	Horizontal
5725.00	30.21	32.68	9.97	23.86	49.00	54.00	-5.00	Vertical
5742.19	70.51	32.56	9.86	23.85	89.08	N/A	N/A	Vertical
Test mode:		802.1	1a	Te	st channel:	ŀ	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
5824.80	73.57	32.68	9.97	23.86	92.36	N/A	N/A	Horizontal
5850.00	41.84	32.70	9.99	23.87	60.66	74.00	-13.34	Horizontal
5826.20	74.96	32.68	9.97	23.86	93.75	N/A	N/A	Vertical
5850.00	42.03	32.70	9.99	23.87	60.85	74.00	-13.15	Vertical
Average va	lue:			_			_	
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
5824.80	64.63	32.68	9.97	23.86	83.42	N/A	N/A	Horizontal
5850.00	30.74	32.70	9.99	23.87	49.56	54.00	-4.44	Horizontal
5826.20	65.77	32.68	9.97	23.86	84.56	N/A	N/A	Vertical
5850.00 Remark:	30.96	32.70	9.99	23.87	49.78	54.00	-4.22	Vertical

Test channel:

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

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

Shenzhen, China 518102



802.11n(HT20) @ 5G Band

Test mode:

Report No.: GTSE13100166403

Lowest

rest mode.	002.1	111(11120) @	3G Banu	162	t Charmer.	, i	-owesi	
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
5725.00	42.54	32.68	9.97	23.86	61.33	74.00	-12.67	Horizontal
5748.82	79.80	32.56	9.86	23.85	98.37	N/A	N/A	Horizontal
5725.00	43.71	32.68	9.97	23.86	62.50	74.00	-11.50	Vertical
5738.35	81.67	32.56	9.86	23.85	100.24	N/A	N/A	Vertical
Average 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
5725.00	29.95	32.68	9.97	23.86	48.74	54.00	-5.26	Horizontal
5748.82	70.59	32.56	9.86	23.85	89.16	N/A	N/A	Horizontal
5725.00	30.57	32.68	9.97	23.86	49.36	54.00	-4.64	Vertical
5738.35	71.30	32.56	9.86	23.85	89.87	N/A	N/A	Vertical
Test mode:	802.1	1n(HT20) @	5G Band	Tes	t channel:	ŀ	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
5818.73	74.05	32.68	9.97	23.86	92.84	N/A	N/A	Horizontal
5850.00	42.13	32.70	9.99	23.87	60.95	74.00	-13.05	Horizontal
5827.44	75.57	32.68	9.97	23.86	94.36	N/A	N/A	Vertical
5850.00	42.35	32.70	9.99	23.87	61.17	74.00	-12.83	Vertical
Average va	lue:							
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
5818.73	65.07	32.68	9.97	23.86	83.86	N/A	N/A	Horizontal
5850.00	31.01	32.70	9.99	23.87	49.83	54.00	-4.17	Horizontal
5827.44	66.32	32.68	9.97	23.86	85.11	N/A	N/A	Vertical
5850.00	31.25	32.70	9.99	23.87	50.07	54.00	-3.93	Vertical
Remark:								

Test channel:

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

Shenzhen, China 518102

^{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.



802.11n(HT40) @ 5G Band

Test mode:

Report No.: GTSE13100166403

Lowest

rest mode.	002.1	111(11140) @	JO Danu	163	t Grianniei.		LOWESI		
Peak value	<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	
5725.00	41.81	32.53	9.83	23.84	60.33	74.00	-13.67	Horizontal	
5736.34	78.27	32.56	9.83	23.84	96.82	N/A	N/A	Horizontal	
5725.00	42.87	32.53	9.83	23.84	61.39	74.00	-12.61	Vertical	
5738.49	79.82	32.56	9.83	23.84	98.37	N/A	N/A	Vertical	
Average 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	
5725.00	29.35	32.53	9.83	23.84	47.87	54.00	-6.13	Horizontal	
5736.34	69.32	32.56	9.83	23.84	87.87	N/A	N/A	Horizontal	
5725.00	29.88	32.53	9.83	23.84	48.40	54.00	-5.60	Vertical	
5738.49	69.77	32.56	9.83	23.84	88.32	N/A	N/A	Vertical	
Test mode:	802.1	1n(HT40) @	5G Band	Tes	t 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	
5788.62	73.12	32.62	9.92	23.85	91.81	N/A	N/A	Horizontal	
5850.00	41.56	32.70	9.99	23.87	60.38	74.00	-13.62	Horizontal	
5791.31	74.40	32.62	9.92	23.85	93.09	N/A	N/A	Vertical	
5850.00	41.73	32.70	9.99	23.87	60.55	74.00	-13.45	Vertical	
Average va	lue:								
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	
5788.62	64.25	32.62	9.92	23.85	82.94	N/A	N/A	Horizontal	
5850.00	30.50	32.70	9.99	23.87	49.32	54.00	-4.68	Horizontal	
5791.31	65.28	32.62	9.92	23.85	83.97	N/A	N/A	Vertical	
5850.00	30.71	32.70	9.99	23.87	49.53	54.00	-4.47	Vertical	
Remark:		-			-	-	-	-	

Test channel:

Global United Technology Services Co., Ltd.

2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District,

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

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

Shenzhen, China 518102

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7.7 Spurious Emission

7.7.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)							
Test Method:	ANSI C63.4:2003 and 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 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							

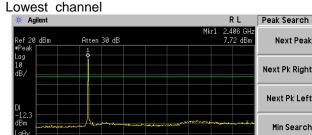
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

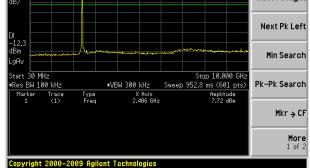


Test plot as follows:

Test mode:

802.11b

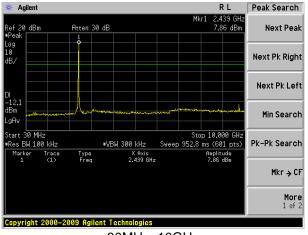




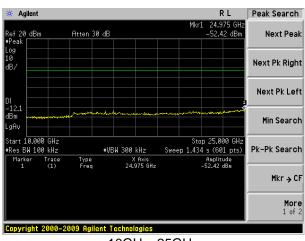
30MHz~10GHz

10GHz~25GHz

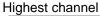
Middle channel

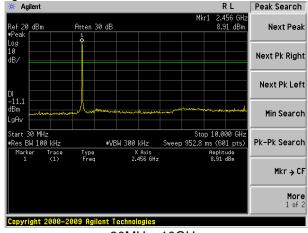


30MHz~10GHz

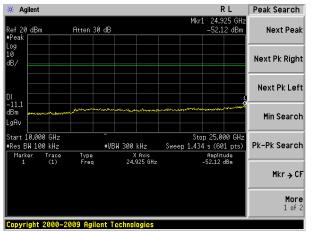


10GHz~25GHz





30MHz~10GHz



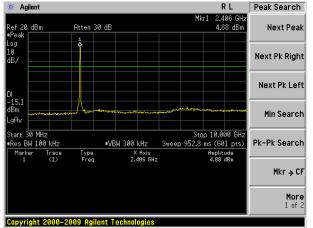
10GHz~25GHz



Test mode:

802.11g

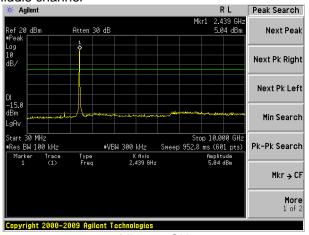
Lowest channel



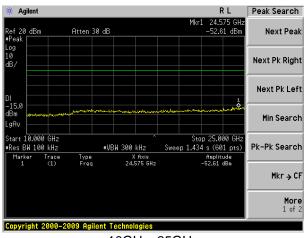
30MHz~10GHz

10GHz~25GHz

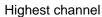
Middle channel

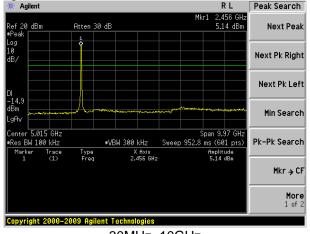


30MHz~10GHz

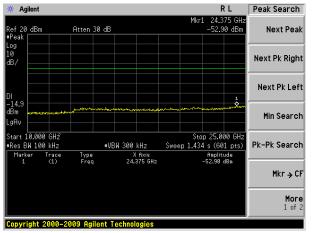


10GHz~25GHz





30MHz~10GHz



10GHz~25GHz



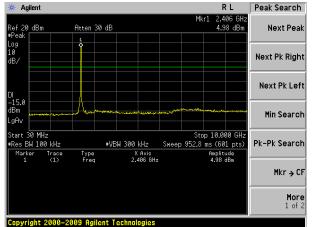
Mkr → CF

More 1 of 2

Test mode:

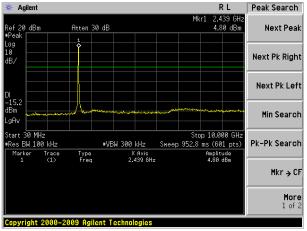
802.11n(HT20) @ 2.4G Band

Lowest channel



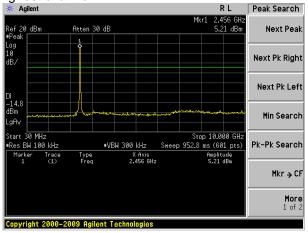
30MHz~10GHz

Middle channel

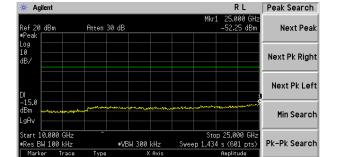


30MHz~10GHz

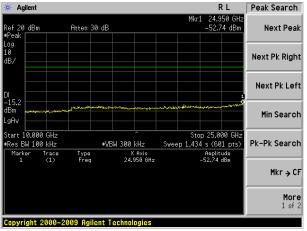
Highest channel



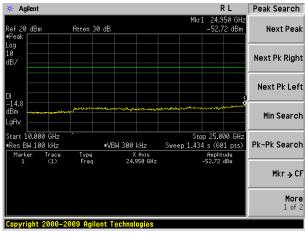
30MHz~10GHz



10GHz~25GHz



10GHz~25GHz



10GHz~25GHz



 $\mathsf{R}\,\mathsf{L}$

Peak Search

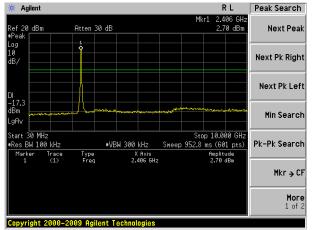
More 1 of 2

Test mode:

802.11n(HT40) @ 2.4G Band

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Lowest channel

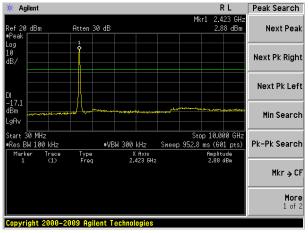


30MHz~10GHz

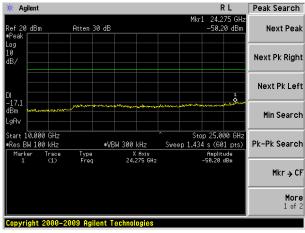
24.850 GH: -49.94 dBm Atten 30 dB Next Peak Ref 20 dBm Next Pk Right Next Pk Left Min Search Stop 25.000 GH: Sweep 1.434 s (601 pts) Start 10.000 GHz #VBW 300 kHz Pk-Pk Search Res BW 100 kHz Type Freq Amplitude -49.94 dBm X Axis 24.850 GHz Mkr → CF

10GHz~25GHz

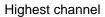
Middle channel

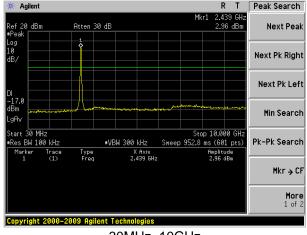


30MHz~10GHz

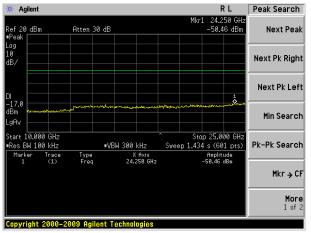


10GHz~25GHz





30MHz~10GHz



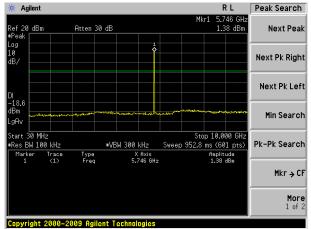
10GHz~25GHz

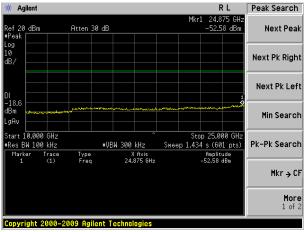


Test mode:

802.11a

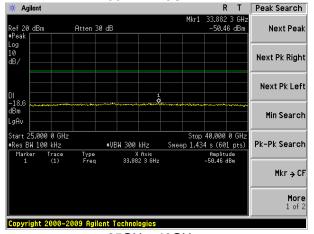
Lowest channel





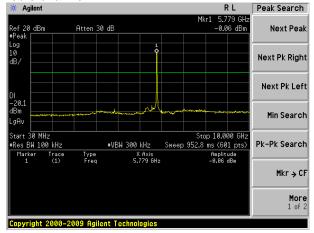
10GHz~25GHz

30MHz~10GHz

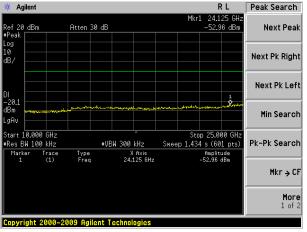


25GHz~40GHz

Middle channel



30MHz~10GHz

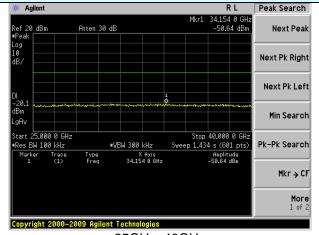


10GHz~25GHz



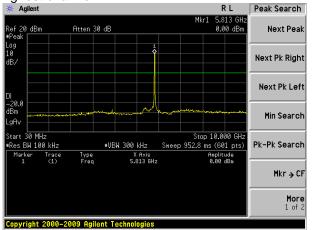
Test mode:

802.11a

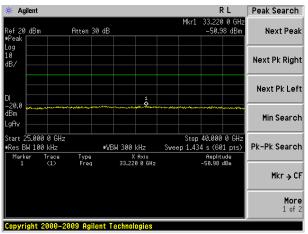


25GHz~40GHz

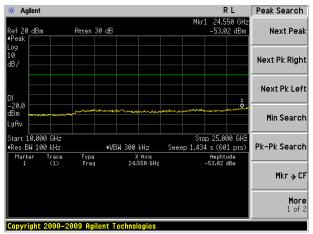
Highest channel



30MHz~10GHz



25GHz~40GHz



10GHz~25GHz

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Project No.: GTSE131001664RF

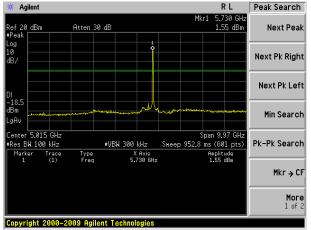
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Test mode:

802.11n(HT20) @ 5G Band

Lowest channel

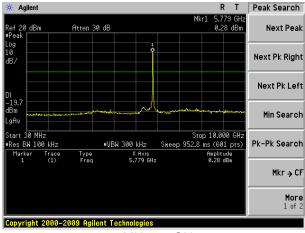


30MHz~10GHz

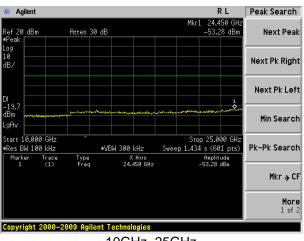
R T Peak Search Agilent Atten 30 dB Next Pk Right Next Pk Left Min Search Start 10.000 GHz •Res BW 100 kHz Stop 25.000 GH: Sweep 1.434 s (601 pts) Pk-Pk Search #VBW 300 kHz Mkr → CF More 1 of 2 Copyright 2000-2009 Agilent Technologies

10GHz~25GHz

Middle channel

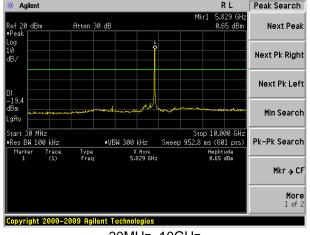


30MHz~10GHz

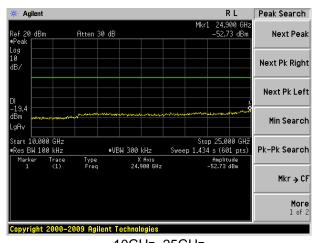


10GHz~25GHz

Highest channel



30MHz~10GHz



10GHz~25GHz

Remark: The test trace is same as the base noise (the test frequency range: 25GHz~40GHz), therefore no data appear in the report.

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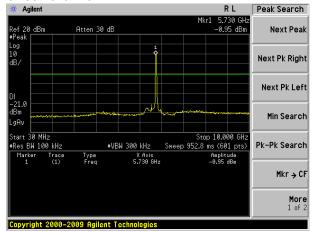
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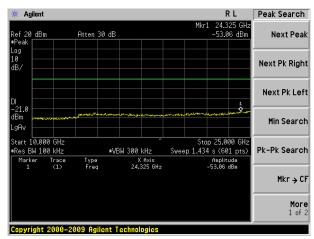
Test mode:

802.11n(HT40) @ 5G Band

Lowest channel

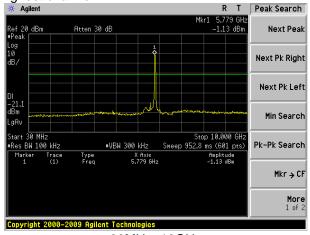


30MHz~10GHz

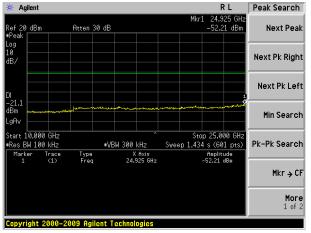


10GHz~25GHz

Highest channel



30MHz~10GHz



10GHz~25GHz

Remark: The test trace is same as the base noise (the test frequency range: 25GHz~40GHz), therefore no data appear in the report.

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7.7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Se	ection 15.209							
Test Method:	ANSI C63.4: 200	3							
Test Frequency Range:	30MHz to 40GHz	• -							
Test site:	Measurement Dis	stance: 3m							
Receiver setup:	Frequency	Detector	RBW	VBW	Value				
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak				
	Above 1GHz	Peak	1MHz	3MHz	Peak				
	Above 1GHz	Peak 1MHz 10Hz							
Limit:	Frequen	cy l	_imit (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 Qu							
	960MHz-1	960MHz-1GHz 54.00 Quasi-							
	Above 10	`U-	54.0	0	Average				
	Above 10	Above 1GHz 74.00							
	Antenna Tower Search Antenna RF T est Receiver Ground Plane Above 1GHz Antenna Tower Antenna Tower Antenna Tower Antenna Tower Antenna Tower Antenna Tower								

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Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters 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

Remark:

Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the X-axis which it is worse case.



Measurement Data

■ Below 1GHz

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
33.21	53.36	14.31	0.59	32.06	36.20	40.00	-3.80	Vertical
75.18	51.66	9.86	0.99	31.82	30.69	40.00	-9.31	Vertical
135.03	56.33	10.56	1.47	31.92	36.44	43.50	-7.06	Vertical
165.49	58.39	10.82	1.66	32.04	38.83	43.50	-4.67	Vertical
225.31	54.68	13.41	1.99	32.15	37.93	46.00	-8.07	Vertical
766.06	42.94	21.63	4.33	31.28	37.62	46.00	-8.38	Vertical
32.86	53.10	14.31	0.58	32.06	35.93	40.00	-4.07	Horizontal
75.18	55.60	9.86	0.99	31.82	34.63	40.00	-5.37	Horizontal
134.56	58.45	10.56	1.47	31.92	38.56	43.50	-4.94	Horizontal
165.49	59.40	10.82	1.66	32.04	39.84	43.50	-3.66	Horizontal
226.10	58.63	13.46	1.99	32.15	41.93	46.00	-4.07	Horizontal
647.39	47.62	20.62	3.91	31.11	41.04	46.00	-4.96	Horizontal

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■ Above 1GHz

Test mode:		802.11b		Test	channel:	Lo	west	
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
4824.00	36.71	31.79	8.62	32.10	45.02	74.00	-28.98	Vertical
7236.00	30.59	36.19	11.68	31.97	46.49	74.00	-27.52	Vertical
9648.00	30.87	38.07	14.16	31.56	51.54	74.00	-22.47	Vertical
12060.00	*					74.00		Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	35.91	31.79	8.62	32.10	44.22	74.00	-29.79	Horizontal
7236.00	30.26	36.19	11.68	31.97	46.16	74.00	-27.84	Horizontal
9648.00	30.08	38.07	14.16	31.56	50.75	74.00	-23.25	Horizontal
12060.00	*					74.00		Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal
Average val	ue:							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line	I I imit	polarization
4824.00	25.33	31.79	8.62	32.10	33.64	54.00	-20.36	Vertical
7236.00	19.47	36.19	11.68	31.97	35.37	54.00	-18.63	Vertical
9648.00	19.74	38.07	14.16	31.56	40.41	54.00	-13.59	Vertical
12060.00	*					54.00		Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4824.00	24.57	31.79	8.62	32.10	32.88	54.00	-21.12	Horizontal
7236.00	18.93	36.19	11.68	31.97	34.83	54.00	-19.17	Horizontal
9648.00	18.61	38.07	14.16	31.56	39.28	54.00	-14.73	Horizontal
12060.00	*					54.00		Horizontal
14472.00	*					54.00		Horizontal
	I .	I	I		1		1	

Remark:

16884.00

Horizontal

54.00

^{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		Tes	t 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	37.06	31.85	8.66	32.12	45.45	74.00	-28.55	Vertical
7311.00	31.71	36.37	11.71	31.91	47.88	74.00	-26.13	Vertical
9748.00	30.97	38.27	14.25	31.56	51.93	74.00	-22.08	Vertical
12185.00	*					74.00		Vertical
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertical
4874.00	37.52	31.85	8.66	32.12	45.91	74.00	-28.10	Horizontal
7311.00	30.27	36.37	11.71	31.91	46.44	74.00	-27.56	Horizontal
9748.00	30.54	38.27	14.25	31.56	51.50	74.00	-22.50	Horizontal
12185.00	*					74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*					74.00		Horizontal
Average val	ue:							
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	26.76	31.85	8.66	32.12	35.15	54.00	-18.85	Vertical
7311.00	19.39	36.37	11.71	31.91	35.56	54.00	-18.44	Vertical
9748.00	19.95	38.27	14.25	31.56	40.91	54.00	-13.09	Vertical
12185.00	*					54.00		Vertical
14622.00	*					54.00		Vertical
17059.00	*					54.00		Vertical
4874.00	26.53	31.85	8.66	32.12	34.92	54.00	-19.08	Horizontal
7311.00	18.75	36.37	11.71	31.91	34.92	54.00	-19.08	Horizontal
9748.00	20.17	38.27	14.25	31.56	41.13	54.00	-12.88	Horizontal
12185.00	*					54.00		Horizontal
14622.00	*					54.00		Horizontal
17059.00	*					54.00		Horizontal

Remark:

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^{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		Tes	t channel:	High	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	40.32	31.90	8.70	32.15	48.77	74.00	-25.23	Vertical
7386.00	30.95	36.49	11.76	31.83	47.37	74.00	-26.64	Vertical
9848.00	33.24	38.62	14.31	31.77	54.40	74.00	-19.61	Vertical
12310.00	*					74.00		Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4924.00	39.96	31.90	8.70	32.15	48.41	74.00	-25.60	Horizontal
7386.00	29.95	36.49	11.76	31.83	46.37	74.00	-27.63	Horizontal
9848.00	29.17	38.62	14.31	31.77	50.33	74.00	-23.67	Horizontal
12310.00	*					74.00		Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal
Average val	ue:							
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	30.26	31.90	8.70	32.15	38.71	54.00	-15.29	Vertical
7386.00	20.28	36.49	11.76	31.83	36.70	54.00	-17.30	Vertical
9848.00	21.51	38.62	14.31	31.77	42.67	54.00	-11.33	Vertical
12310.00	*					54.00		Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4924.00	29.34	31.90	8.70	32.15	37.79	54.00	-16.21	Horizontal
7386.00	18.77	36.49	11.76	31.83	35.19	54.00	-18.81	Horizontal
9848.00	18.38	38.62	14.31	31.77	39.54	54.00	-14.47	Horizontal
12310.00	*					54.00		Horizontal
14772.00	*					54.00		Horizontal
17234.00	*					54.00		Horizontal

Remark:

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^{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	37.32	31.79	8.62	32.10	45.63	74.00	-28.37	Vertical
7236.00	31.17	36.19	11.68	31.97	47.07	74.00	-26.94	Vertical
9648.00	31.55	38.07	14.16	31.56	52.22	74.00	-21.79	Vertical
12060.00	*					74.00		Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	36.46	31.79	8.62	32.10	44.77	74.00	-29.24	Horizontal
7236.00	30.90	36.19	11.68	31.97	46.80	74.00	-27.20	Horizontal
9648.00	30.67	38.07	14.16	31.56	51.34	74.00	-22.66	Horizontal
12060.00	*					74.00		Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal
Average val	ue:		•					
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	25.87	31.79	8.62	32.10	34.18	54.00	-19.82	Vertical
7236.00	19.96	36.19	11.68	31.97	35.86	54.00	-18.14	Vertical
9648.00	20.35	38.07	14.16	31.56	41.02	54.00	-12.98	Vertical
12060.00	*					54.00		Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertica
4824.00	25.19	31.79	8.62	32.10	33.50	54.00	-20.50	Horizontal
7236.00	19.48	36.19	11.68	31.97	35.38	54.00	-18.62	Horizontal
9648.00	19.24	38.07	14.16	31.56	39.91	54.00	-14.10	Horizontal
12060.00	*					54.00		Horizontal
14472.00	*					54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

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^{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:	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	37.60	31.85	8.66	32.12	45.99	74.00	-28.01	Vertical
7311.00	32.20	36.37	11.71	31.91	48.37	74.00	-25.64	Vertical
9748.00	31.58	38.27	14.25	31.56	52.54	74.00	-21.47	Vertical
12185.00	*					74.00		Vertical
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertical
4874.00	38.14	31.85	8.66	32.12	46.53	74.00	-27.48	Horizontal
7311.00	30.82	36.37	11.71	31.91	46.99	74.00	-27.01	Horizontal
9748.00	31.17	38.27	14.25	31.56	52.13	74.00	-21.87	Horizontal
12185.00	*					74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*					74.00		Horizontal
Average val	ue:							
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	27.37	31.85	8.66	32.12	35.76	54.00	-18.24	Vertical
7311.00	19.97	36.37	11.71	31.91	36.14	54.00	-17.86	Vertical
9748.00	20.63	38.27	14.25	31.56	41.59	54.00	-12.41	Vertical
12185.00	*					54.00		Vertical
14622.00	*					54.00		Vertical
17059.00	*					54.00		Vertical
4874.00	27.08	31.85	8.66	32.12	35.47	54.00	-18.53	Horizontal
7311.00	19.39	36.37	11.71	31.91	35.56	54.00	-18.44	Horizontal
9748.00	20.76	38.27	14.25	31.56	41.72	54.00	-12.29	Horizontal
12185.00	*					54.00		Horizontal
14622.00	*					54.00		Horizontal
17059.00	*					54.00		Horizontal

Remark:

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^{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	t channel:	High	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	40.74	31.90	8.70	32.15	49.19	74.00	-24.81	Vertical
7386.00	31.54	36.49	11.76	31.83	47.96	74.00	-26.05	Vertical
9848.00	33.72	38.62	14.31	31.77	54.88	74.00	-19.13	Vertical
12310.00	*					74.00		Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4924.00	40.42	31.90	8.70	32.15	48.87	74.00	-25.14	Horizontal
7386.00	30.56	36.49	11.76	31.83	46.98	74.00	-27.02	Horizontal
9848.00	29.70	38.62	14.31	31.77	50.86	74.00	-23.14	Horizontal
12310.00	*					74.00		Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal
Average val	ue:							
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	30.77	31.90	8.70	32.15	39.22	54.00	-14.78	Vertical
7386.00	20.85	36.49	11.76	31.83	37.27	54.00	-16.73	Vertical
9848.00	22.00	38.62	14.31	31.77	43.16	54.00	-10.84	Vertical
12310.00	*					54.00		Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4924.00	29.82	31.90	8.70	32.15	38.27	54.00	-15.73	Horizontal
7386.00	19.33	36.49	11.76	31.83	35.75	54.00	-18.25	Horizontal
9848.00	18.85	38.62	14.31	31.77	40.01	54.00	-14.00	Horizontal
12310.00	*					54.00		Horizontal
14772.00	*					54.00		Horizontal
17234.00	*					54.00		Horizontal

Remark:

Shenzhen, China 518102

^{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) @ 2.	4G Band		Test	channel:		Lowe	st	
Peak value:										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Fa	amp ctor B)	Level (dBuV/m)	Limit (dBu		Over Limit (dB)	polarization
4824.00	37.22	31.79	8.62	32	.10	45.53	74.	00	-28.47	Vertical
7236.00	31.16	36.19	11.68	31	.97	47.06	74.	00	-26.95	Vertical
9648.00	31.36	38.07	14.16	31	.56	52.03	74.	00	-21.98	Vertical
12060.00	*						74.	00		Vertical
14472.00	*						74.	00		Vertical
16884.00	*						74.	00		Vertical
4824.00	36.39	31.79	8.62	32	.10	44.70	74.	00	-29.31	Horizontal
7236.00	30.82	36.19	11.68	31	.97	46.72	74.	00	-27.28	Horizontal
9648.00	30.55	38.07	14.16	31	.56	51.22	74.	00	-22.78	Horizontal
12060.00	*						74.	00		Horizontal
14472.00	*						74.	00		Horizontal
16884.00	*						74.	00		Horizontal
Average val				1						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Fac	amp ctor B)	Level (dBuV/m)	Limit (dBu		Over Limit (dB)	polarization
4824.00	25.75	31.79	8.62	32	.10	34.06	54.	00	-19.94	Vertical
7236.00	20.06	36.19	11.68	31	.97	35.96	54.	00	-18.04	Vertical
9648.00	20.22	38.07	14.16	31	.56	40.89	54.	00	-13.11	Vertical
12060.00	*						54.	00		Vertical
14472.00	*						54.	00		Vertical
16884.00	*						54.	00		Vertical
4824.00	25.03	31.79	8.62	32	.10	33.34	54.	00	-20.66	Horizontal
7236.00	19.54	36.19	11.68	31	.97	35.44	54.	00	-18.56	Horizontal
9648.00	19.14	38.07	14.16	31	.56	39.81	54.	00	-14.20	Horizontal
12060.00	*	_					54.	00		Horizontal
14472.00	*						54.	00		Horizontal
16884.00	*						54.	00		Horizontal

Remark:

Shenzhen, China 518102

^{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) @ 2.	4G Band	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	37.61	31.85	8.66	32.12	46.00	74.00	-28.00	Vertical
7311.00	32.14	36.37	11.71	31.91	48.31	74.00	-25.70	Vertical
9748.00	31.55	38.27	14.25	31.56	52.51	74.00	-21.50	Vertical
12185.00	*					74.00		Vertical
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertical
4874.00	37.98	31.85	8.66	32.12	46.37	74.00	-27.64	Horizontal
7311.00	30.76	36.37	11.71	31.91	46.93	74.00	-27.07	Horizontal
9748.00	31.07	38.27	14.25	31.56	52.03	74.00	-21.97	Horizontal
12185.00	*					74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*					74.00		Horizontal
Average val			,				,	
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	27.27	31.85	8.66	32.12	35.66	54.00	-18.34	Vertical
7311.00	19.86	36.37	11.71	31.91	36.03	54.00	-17.97	Vertical
9748.00	20.49	38.27	14.25	31.56	41.45	54.00	-12.55	Vertical
12185.00	*					54.00		Vertical
14622.00	*					54.00		Vertical
17059.00	*					54.00		Vertical
4874.00	27.01	31.85	8.66	32.12	35.40	54.00	-18.60	Horizontal
7311.00	19.35	36.37	11.71	31.91	35.52	54.00	-18.48	Horizontal
9748.00	20.72	38.27	14.25	31.56	41.68	54.00	-12.33	Horizontal
12185.00	*					54.00		Horizontal
14622.00	*					54.00		Horizontal
17059.00	*					54.00		Horizontal

Remark:

Shenzhen, China 518102

^{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) @ 2.	4G Band	I Test		channel:	Highest			
Peak 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	40.83	31.90	8.70	32	.15	49.28	74.	00	-24.72	4924.00
7386.00	31.42	36.49	11.76	31	.83	47.84	74.	00	-26.17	7386.00
9848.00	33.78	38.62	14.31	31	.77	54.94	74.	00	-19.07	9848.00
12310.00	*						74.	00		Vertical
14772.00	*						74.	00		Vertical
17234.00	*						74.	00		Vertical
4924.00	40.44	31.90	8.70	32	.15	48.89	74.	00	-25.12	Horizontal
7386.00	30.55	36.49	11.76	31	.83	46.97	74.	00	-27.03	Horizontal
9848.00	29.72	38.62	14.31	31	.77	50.88	74.	00	-23.12	Horizontal
12310.00	*						74.	00		Horizontal
14772.00	*						74.	00		Horizontal
17234.00	*						74.	00		Horizontal
Average val	ue:									
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	30.81	31.90	8.70	32	.15	39.26	54.	00	-14.74	Vertical
7386.00	20.71	36.49	11.76	31	.83	37.13	54.	00	-16.87	Vertical
9848.00	22.09	38.62	14.31	31	.77	43.25	54.	00	-10.75	Vertical
12310.00	*						54.	00		Vertical
14772.00	*						54.	00		Vertical
17234.00	*						54.	00		Vertical
4924.00	29.80	31.90	8.70	32	.15	38.25	54.	00	-15.75	Horizontal
7386.00	19.26	36.49	11.76	31	.83	35.68	54.	00	-18.32	Horizontal
9848.00	18.91	38.62	14.31	31	.77	40.07	54.	00	-13.94	Horizontal
12310.00	*						54.	00		Horizontal
14772.00	*						54.	00		Horizontal
17234.00	*						54.	00		Horizontal

Remark:

Shenzhen, China 518102

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(HT40) @ 2.	4G Band	-	Test	channel:	_owest		
Peak value:	•			<u> </u>			•		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Prea Fact (dE	tor	Level (dBuV/m)	Limit Li (dBuV/	I I imit	polarization
4844.00	37.06	31.81	8.63	32.11		45.39	74.00	-28.61	Vertical
7266.00	31.00	36.28	11.69	31.9	94	47.03	74.00	-26.98	Vertical
9688.00	31.33	38.13	14.21	31.5	52	52.15	74.00	-21.86	Vertical
12060.00	*						74.00)	Vertical
14472.00	*						74.00)	Vertical
16884.00	*						74.00)	Vertical
4844.00	36.32	31.81	8.63	32.1	11	44.65	74.00	-29.36	Horizontal
7266.00	30.63	36.28	11.69	31.9	94	46.66	74.00	-27.34	Horizontal
9688.00	30.55	38.13	14.21	31.5	52	51.37	74.00	-22.63	Horizontal
12060.00	*						74.00)	Horizontal
14472.00	*						74.00)	Horizontal
16884.00	*				•		74.00)	Horizontal
Average val		<u> </u>				· · · · · · · · · · · · · · · · · · ·			

Average value:

Average var								
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	25.73	31.81	8.63	32.11	34.06	54.00	-19.94	Vertical
7266.00	19.85	36.28	11.69	31.94	35.88	54.00	-18.12	Vertical
9688.00	20.20	38.13	14.21	31.52	41.02	54.00	-12.98	Vertical
12060.00	*					54.00		Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4844.00	24.99	31.81	8.63	32.11	33.32	54.00	-20.68	Horizontal
7266.00	19.29	36.28	11.69	31.94	35.32	54.00	-18.68	Horizontal
9688.00	19.06	38.13	14.21	31.52	39.88	54.00	-14.13	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(HT40) @ 2.	4G Band	Test channel		channel:	nannel: Middle			
Peak value:										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Fa	amp ctor lB)	Level (dBuV/m)	Limit (dBu)		Over Limit (dB)	polarization
4874.00	37.46	31.85	8.66	32	.12	45.85	74.	00	-28.15	Vertical
7311.00	32.09	36.37	11.71	31	.91	48.26	74.	00	-25.75	Vertical
9748.00	31.43	38.27	14.25	31.56		52.39	74.00		-21.62	Vertical
12185.00	*						74.00			Vertical
14622.00	*						74.	00		Vertical
17059.00	*						74.	00		Vertical
4874.00	37.94	31.85	8.66	32	.12	46.33	74.	00	-27.68	Horizontal
7311.00	30.63	36.37	11.71	31	.91	46.80	74.	00	-27.20	Horizontal
9748.00	30.99	38.27	14.25	31	.56	51.95	74.	00	-22.05	Horizontal
12185.00	*						74.	00		Horizontal
14622.00	*						74.	00		Horizontal
17059.00	*						74.	00		Horizontal
Average val										
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
4874.00	27.11	31.85	8.66	32	2.12	35.50	54.	00	-18.50	Vertical
7311.00	19.80	36.37	11.71	31	.91	35.97	54.	00	-18.03	Vertical
9748.00	20.41	38.27	14.25	31	.56	41.37	54.	00	-12.63	Vertical
12185.00	*						54.	00		Vertical
14622.00	*						54.	00		Vertical
17059.00	*						54.	00		Vertical
4874.00	26.94	31.85	8.66	32	.12	35.33	54.	00	-18.67	Horizontal
7311.00	19.12	36.37	11.71	31	.91	35.29	54.	00	-18.71	Horizontal
9748.00	20.64	38.27	14.25	31	.56	41.60	54.	00	-12.41	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	n(HT40) @ 2.	4G Band	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
4904.00	40.79	31.88	8.68	32.13	49.22	74.00	-24.78	Vertical
7356.00	31.48	36.45	11.75	31.86	47.82	74.00	-26.19	Vertical
9808.00	33.59	38.43	14.29	31.68	54.63	74.00	-19.38	Vertical
12310.00	*					74.00		Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4904.00	40.32	31.88	8.68	32.13	48.75	74.00	-25.26	Horizontal
7356.00	30.36	36.45	11.75	31.86	46.70	74.00	-27.30	Horizontal
9808.00	29.45	38.43	14.29	31.68	50.49	74.00	-23.51	Horizontal
12310.00	*					74.00		Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal
Average val								
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	30.62	31.88	8.68	32.13	39.05	54.00	-14.95	Vertical
7356.00	20.69	36.45	11.75	31.86	37.03	54.00	-16.97	Vertical
9808.00	21.79	38.43	14.29	31.68	42.83	54.00	-11.17	Vertical
12310.00	*					54.00		Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4904.00	29.81	31.88	8.68	32.13	38.24	54.00	-15.76	Horizontal
7356.00	19.30	36.45	11.75	31.86	35.64	54.00	-18.36	Horizontal
9808.00	18.73	38.43	14.29	31.68	39.77	54.00	-14.24	Horizontal
12310.00	*					54.00		Horizontal
14772.00	*					54.00		Horizontal
17234.00	*					54.00		Horizontal

Remark:

Shenzhen, China 518102

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:		802.11a			Test channel: lowest			st		
Peak value:		•								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Fa	amp ctor B)	Level (dBuV/m)	Limit (dBu		Over Limit (dB)	polarization
11490.00	24.69	39.89	14.97	34	.54	45.01	74.	00	-28.99	Vertical
17235.00	23.45	45.14	18.98	33	.66	53.91	74.00		-20.09	Vertical
22980.00	*						74.	00		Vertical
28725.00	*						74.00			Vertical
34470.00	*						74.00			Vertical
11490.00	24.52	39.89	14.97	34	.54	44.84	74.	00	-29.16	Horizontal
17235.00	23.30	45.14	18.98	33	.66	53.76	74.	00	-20.24	Horizontal
22980.00	*						74.	00		Horizontal
28725.00	*						74.	00		Horizontal
34470.00	*						74.	00		Horizontal
Average val	ue:									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Fa	amp ctor B)	Level (dBuV/m)	Limit (dBu)		Over Limit (dB)	polarization
11490.00	16.04	39.89	14.97	34	.54	36.36	54.	00	-17.64	Vertical
17235.00	13.79	45.14	18.98	33	.66	44.25	54.	00	-9.75	Vertical
22980.00	*						54.	00		Vertical
28725.00	*						54.	00		Vertical
34470.00	*						54.	00		Vertical
11490.00	14.86	39.89	14.97	34	.54	35.18	54.	00	-18.82	Horizontal
17235.00	13.51	45.14	18.98	33	.66	43.97	54.	00	-10.03	Horizontal
22980.00	*						54.	00		Horizontal
28725.00	*						54.	00		Horizontal
				l						

Remark:

34470.00

- 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:		802.11a T		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
11570.00	26.52	39.76	14.99	34.75	46.52	74.00	-27.48	Vertical
17355.00	24.93	46.19	18.98	34.45	55.65	74.00	-18.35	Vertical
23140.00	*					74.00		Vertical
28925.00	*					74.00		Vertical
34710.00	*					74.00		Vertical
11570.00	24.49	39.76	14.99	34.75	44.49	74.00	-29.51	Horizontal
17355.00	23.74	46.19	18.98	34.45	54.46	74.00	-19.54	Horizontal
23140.00	*					74.00		Horizontal
28925.00	*					74.00		Horizontal
34710.00	*					74.00		Horizontal
Average val	ue:							
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
11570.00	17.20	39.76	14.99	34.75	37.20	54.00	-16.80	Vertical
17355.00	14.70	46.19	18.98	34.45	45.42	54.00	-8.58	Vertical
23140.00	*					54.00		Vertical
28925.00	*					54.00		Vertical
34710.00	*					54.00		Vertical
11570.00	15.86	39.76	14.99	34.75	35.86	54.00	-18.14	Horizontal
17355.00	14.32	46.19	18.98	34.45	45.04	54.00	-8.96	Horizontal
23140.00	*					54.00		Horizontal

Remark:

28925.00

34710.00

- 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.

54.00

Horizontal



Test mode:		802.11a		Test channel:		High	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
11650.00	26.11	39.61	14.99	34.86	45.85	74.00	-28.15	Vertical
17475.00	24.60	46.78	18.97	34.95	55.40	74.00	-18.60	Vertical
23300.00	*					74.00		Vertical
29125.00	*					74.00		Vertical
34950.00	*					74.00		Vertical
11650.00	24.43	39.61	14.99	34.86	44.17	74.00	-29.83	Horizontal
17475.00	23.42	46.78	18.97	34.95	54.22	74.00	-19.78	Horizontal
23300.00	*					74.00		Horizontal
29125.00	*					74.00		Horizontal
34950.00	*					74.00		Horizontal
Average val	ue:							
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
11650.00	16.87	39.61	14.99	34.86	36.61	54.00	-17.39	Vertical
17475.00	14.44	46.78	18.97	34.95	45.24	54.00	-8.76	Vertical
23300.00	*					54.00		Vertical
29125.00	*					54.00		Vertical
34950.00	*					54.00		Vertical
11650.00	15.58	39.61	14.99	34.86	35.32	54.00	-18.68	Horizontal
17475.00	14.09	46.78	18.97	34.95	44.89	54.00	-9.11	Horizontal
23300.00	*					54.00		Horizontal
29125.00	*					54.00		Horizontal

Remark:

34950.00

- 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) @ 5	G Band	Test channe		channel:		Lowe	est	
Peak value:	1									
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
11490.00	27.79	39.89	14.97	34	.54	48.11	74.0	00	-25.89	Vertical
17235.00	25.96	45.14	18.98	33	.66	56.42	74.0	00	-17.58	Vertical
22980.00	*						74.0	00		Vertical
28725.00	*						74.0	00		Vertical
34470.00	*						74.0	00		Vertical
11490.00	26.03	39.89	14.97	34	.54	46.35	74.0	00	-27.65	Horizontal
17235.00	24.94	45.14	18.98	33	.66	55.40	74.0	00	-18.60	Horizontal
22980.00	*						74.0	00		Horizontal
28725.00	*						74.0	00		Horizontal
34470.00	*						74.0	00		Horizontal
Average val	ue:									
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
11490.00	17.94	39.89	14.97	34	.54	38.26	54.0	00	-15.74	Vertical
17235.00	15.28	45.14	18.98	33	.66	45.74	54.0	00	-8.26	Vertical
22980.00	*						54.0	00		Vertical
28725.00	*						54.0	00		Vertical
34470.00	*						54.0	00		Vertical
11490.00	16.50	39.89	14.97	34	.54	36.82	54.0	00	-17.18	Horizontal
17235.00	14.83	45.14	18.98	33	.66	45.29	54.0	00	-8.71	Horizontal
22980.00	*						54.0	00		Horizontal
28725.00	*						54.0	00		Horizontal

Remark:

34470.00

- 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) @ 5	G Band	Test channel:		Middle				
Peak value:										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Prea Fac (dl	tor	Level (dBuV/m)	Limit (dBu\		Over Limit (dB)	polarization
11570.00	27.99	39.76	14.99	34.	75	47.99	74.0	00	-26.01	Vertical
17355.00	26.13	46.19	18.98	34.45		56.85	74.00		-17.15	Vertical
23140.00	*						74.0	00		Vertical
28925.00	*						74.0	00		Vertical
34710.00	*						74.0	00		Vertical
11570.00	26.27	39.76	14.99	34.	75	46.27	74.0	00	-27.73	Horizontal
17355.00	25.13	46.19	18.98	34.	45	55.85	74.0	00	-18.15	Horizontal
23140.00	*						74.0	00		Horizontal
28925.00	*						74.0	00		Horizontal
34710.00	*						74.0	00		Horizontal
Average val	ue:									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Prea Fac (dl	tor	Level (dBuV/m)	Limit (dBu\		Over Limit (dB)	polarization
11570.00	18.04	39.76	14.99	34.	75	38.04	54.0	00	-15.96	Vertical
17355.00	15.36	46.19	18.98	34.	45	46.08	54.0	00	-7.92	Vertical
23140.00	*						54.0	00		Vertical
28925.00	*						54.0	00		Vertical
34710.00	*					_	54.0	00		Vertical
11570.00	16.59	39.76	14.99	34.	75	36.59	54.0	00	-17.41	Horizontal
17355.00	14.90	46.19	18.98	34.	45	45.62	54.0	00	-8.38	Horizontal
23140.00	*						54.0	00		Horizontal
28925.00	*						54.0	00		Horizontal

Remark:

34710.00

- 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	2.11n(HT20) @ 5G Band			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	I I imit	polarization	
11650.00	26.76	39.61	14.99	34.86		46.50	74.00	-27.50	Vertical	
17475.00	25.12	46.78	18.97	34.95		55.92	74.00	-18.08	Vertical	
23300.00	*						74.00		Vertical	
29125.00	*						74.00		Vertical	
34950.00	*						74.00		Vertical	
11650.00	25.21	39.61	14.99	34.86		44.95	74.00	-29.05	Horizontal	
17475.00	24.03	46.78	18.97	34.95		54.83	74.00	-19.17	Horizontal	
23300.00	*						74.00		Horizontal	
29125.00	*						74.00		Horizontal	
34950.00	*						74.00		Horizontal	
Average val	ue:									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Prear Fact (dB	or	Level (dBuV/m)	Limit Line (dBuV/m	I I imit	polarization	
11650.00	17.30	39.61	14.99	34.8	36	37.04	54.00	-16.96	Vertical	
17475.00	14.78	46.78	18.97	34.9	95	45.58	54.00	-8.42	Vertical	
23300.00	*						54.00		Vertical	
29125.00	*						54.00		Vertical	
34950.00	*						54.00		Vertical	
11650.00	15.95	39.61	14.99	34.8	36	35.69	54.00	-18.31	Horizontal	
17475.00	14.39	46.78	18.97	34.9	95	45.19	54.00	-8.81	Horizontal	
23300.00	*						54.00		Horizontal	
29125.00	*						54.00		Horizontal	
								1		

Remark:

34950.00

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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) @ 5G Band			Test channel:			Lowest		
Peak value:										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level Limit Li (dBuV/m) (dBuV/			Over Limit (dB)	polarization
11490.00	23.95	39.89	14.97	34.54		44.27	74.00		-29.73	Vertical
17235.00	22.84	45.14	18.98	33.66		53.30	74.00		-20.70	Vertical
22980.00	*						74.00			Vertical
28725.00	*						74.00			Vertical
34470.00	*						74.00			Vertical
11490.00	23.62	39.89	14.97	34.54		43.94	74.00		-30.06	Horizontal
17235.00	22.60	45.14	18.98	33.66		53.06	3.06 74.00		-20.94	Horizontal
22980.00	*						74.0	00		Horizontal
28725.00	*						74.0	00		Horizontal
34470.00	*						74.0	00		Horizontal
Average val	ue:									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit (dBu\		Over Limit (dB)	polarization
11490.00	15.53	39.89	14.97	34.	54	35.85	54.0	00	-18.15	Vertical
17235.00	13.39	45.14	18.98	33.	66	43.85	54.0	00	-10.15	Vertical
22980.00	*						54.0	00		Vertical
28725.00	*						54.0	00		Vertical
34470.00	*						54.0	00		Vertical
11490.00	14.41	39.89	14.97	34.54		34.73	54.0	00	-19.27	Horizontal
17235.00	13.15	45.14	18.98	33.	66	43.61	54.0	00	-10.39	Horizontal
22980.00	*						54.0	00		Horizontal
28725.00	*						54.0	00		Horizontal

Remark:

34470.00

- 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.

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Test mode:	802.11n(HT40) @ 5G Band			,	Test	channel:	High	nest	
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
11570.00	25.56	39.76	14.99	34.75		45.56	74.00	-28.44	Vertical
17355.00	24.15	46.19	18.98	34.45		54.87	74.00	-19.13	Vertical
23140.00	*						74.00		Vertical
28925.00	*						74.00		Vertical
34710.00	*						74.00		Vertical
11570.00	23.33	39.76	14.99	34.75		43.33	74.00	-30.67	Horizontal
17355.00	22.83	46.19	18.98	34.45		53.55	74.00	-20.45	Horizontal
23140.00	*						74.00		Horizontal
28925.00	*						74.00		Horizontal
34710.00	*						74.00		Horizontal
Average val	ue:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Prea Fact (dE	tor	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11570.00	16.58	39.76	14.99	34.7	75	36.58	54.00	-17.42	Vertical
17355.00	14.21	46.19	18.98	34.4	4 5	44.93	54.00	-9.07	Vertical
23140.00	*						54.00		Vertical
28925.00	*						54.00		Vertical
34710.00	*						54.00		Vertical
11570.00	15.32	39.76	14.99	34.7	75	35.32	54.00	-18.68	Horizontal
17355.00	13.88	46.19	18.98	34.4	45	44.60	54.00	-9.40	Horizontal
23140.00	*						54.00		Horizontal
28925.00	*				•		54.00		Horizontal

Remark:

34710.00

- 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.

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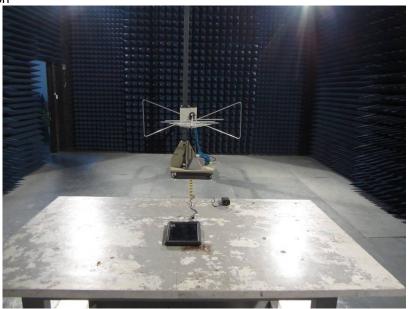
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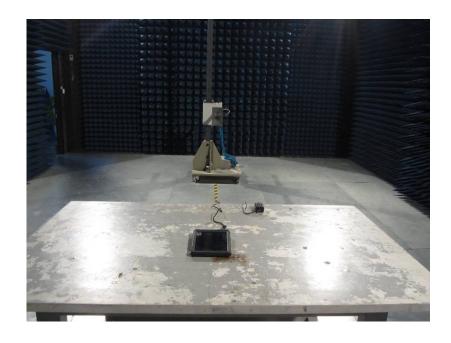
54.00



8 Test Setup Photo

Radiated Emission







Conducted Emission



9 EUT Constructional Details

Reference to the test report No. GTSE13100166401

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