

**TEST REPORT****Application No.:**

SZCR2408003234AT

**Applicant:**

ZK Technology LLC DBA ZK Teco

**Address of Applicant:**

200 Centennial Ave, Suite 211 Piscataway New Jersey 08854 United States

**Manufacturer:**

ZK Technology LLC DBA ZK Teco

**Address of Manufacturer:**

200 Centennial Ave, Suite 211 Piscataway New Jersey 08854 United States

**Equipment Under Test (EUT):****EUT Name:** DATA COLLECTION TERMINAL**Model No.:**

Please refer to section 2

♦

\* Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.**Trade mark:****FCC ID:**

2AUC7-ULT0G2

**Standard(s) :**

47 CFR Part 15, Subpart E 15.407

**Date of Receipt:**

2024-08-20

**Date of Test:**

2024-08-29 to 2024-10-21

**Date of Issue:**

2024-10-24

<b>Test Result:</b>	Pass*
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\* In the configuration tested, the EUT complied with the standards specified above.

Keny Xu

EMC Laboratory Manager

SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch Testing Services Laboratory

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SZEMC-TRF-01 Rev. A/1

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2024-10-24		Original

Authorized for issue by:			
		Edison Li/Project Engineer	
		Eric Fu/Reviewer	

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## 2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass
Transmission in the Absence of Data		N/A	47 CFR Part 15, Subpart E 15.407 (c)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)	Pass
Radiated Emissions which fall in the restricted bands		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions (Below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions (Above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Duty Cycle		KDB 789033 II B 1	KDB 789033 D02 II B 1	Pass
99% Bandwidth		KDB 789033 II D	N/A	Pass
26dB Emission bandwidth		KDB 789033 D02 II C 1	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)		KDB 789033 D02 II C 2	47 CFR Part 15, Subpart E 15.407 (e)	Pass
Maximum Conducted output power		KDB 789033 D02 II E	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Peak Power spectrum density		KDB 789033 D02 II F	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart E 15.407 (g)	Pass
Channel Move Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Non-occupancy period		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Closing Transmission Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass

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SZEMC-TRF-01 Rev. A/1

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### Remark:

Model No.: ULTIMA 10, ULTIMA 10 BASE, ULTIMA 10 Face, ULTIMA 10 Portable, ULTIMA 10 G2, ULTIMA 10 G3, ULTIMA 10 Pro, ULTIMA 10 FAM33, ULTIMA 10 Face VL Pro, ULTIMA 1000, CRNOUS 10, CRNOUS 10 BASE, CRNOUS 10 Face, CRNOUS 10 Portable, CRNOUS 10 G2, CRNOUS 10 G3, CRNOUS 10 Pro, CRNOUS 10 FAM33, CRNOUS 10 Face VL Pro, CRNOUS 1000, ULT10, ULT10 BASE, ULT10 LFP, ULT10 LUM, ULT10 M210, ULT10 ZFP, ULT10 FP, ULT10 MT30, ULT10 MT30F, ULT10 MTR30, ULT10 MTR30P, ULT10 PRO, ULT10 MTPRO, ULT10 MTR10, ULT10 ID, ULT10 RFID, ULT10 MAG, ULT10 BAR, ULT10 POE+, ULT10 RELAY, ULT10 CAMERA, ULT10 BATTERY, ULT10 FACE, ULT10 FACE VL PRO, ULT10 F33, ULT10 FAM33, ULT10 P, ULT10 PORTABLE, ULT10 G3, ULT10 G2, ULT1000, ULT1000-G3, FLEXTOUCH, FLEXTOUCH4.0, WTPURULT10, TCPTC10, ORION10, OEMTC10

Only the model ULTIMA 10 was tested, since according to the declaration from the applicant, the electrical circuit design, layout, components used, internal wiring and functions were identical for all the above models, with only difference on color, appearance and model No..



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## 4 General Information

### 4.1 Details of E.U.T.

Power supply:	Powered by Lithium-ion Polymer Battery Model: 786166P Capacity: 7.4V, 7600mAh, 56.24Wh Charging by DC 12V from external power supply Model: ADS-40SI-12-3 12036E Input: AC 100-240V, 50/60Hz, Max 1.0A Output: DC 12V, 3.0A, 36W
Cable(s):	DC Cable from adapter 1.8m unshielded with one core AC Cable from adapter 1.8m unshielded
Operation Frequency / Number of channels (20MHz):	U-NII-1: 5180-5240MHz (4 Channels); U-NII-2A: 5260-5320MHz (4 Channels); U-NII-2C: 5500-5700MHz (11 Channels); U-NII-3: 5745-5825MHz (5 Channels)
Operation Frequency / Number of channels (40MHz):	U-NII-1: 5190-5230MHz (2 Channels); U-NII-2A: 5270-5310MHz (2 Channels); U-NII-2C: 5510-5670MHz (5 Channels); U-NII-3: 5755-5795MHz (2 Channels)
Modulation Type:	802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Bandwidth:	802.11a/n/ac 20: 20MHz 802.11n/ac 40: 40MHz 802.11ac 80: 80MHz
DFS Function:	Slave without Radar detection
TPC Function:	Without TPC function
Antenna Type:	FPC Antenna
Antenna Gain:	3.18dBi

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### 4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
RF cable	SGS	N/A(Cable loss:0.6dB)	N/A

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### 4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	± 3.1dB
Radiated Emissions which fall in the restricted bands	± 6.0dB (below 1GHz); ± 4.6dB (above 1GHz);
Radiated Emissions (Below 1GHz)	± 6.0dB for 3m; ± 5.0dB for 10m
Radiated Emissions (Above 1GHz)	± 4.6dB (1-18GHz);± 4.8dB (18-40GHz)
Maximum Conducted output power	± 0.75dB
Duty Cycle	± 0.37%
99% Bandwidth	± 3%
26dB Emission bandwidth	± 3%
Minimum 6 dB bandwidth (5.725-5.85 GHz band )	± 3%
Peak Power spectrum density	± 2.84dB
Frequency Stability	± 7.25 x 10-8

Remark:

The  $U_{lab}$  (lab Uncertainty) is less than  $U_{cispr/ETSI}$  (CISPR/ETSI Uncertainty), so the test results  
– compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;  
– non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

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SZEMC-TRF-01 Rev. A/1

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### 4.4 Test Location

All tests were performed at:

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Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

### 4.5 Test Facility

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

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI (Member No. 1937)**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1336**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

### 4.6 Deviation from Standards

None

### 4.7 Abnormalities from Standard Conditions

None

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## 5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2022-05-14	2025-05-13
EMI Test Receiver	Rohde&Schwarz	ESCI	SEM004-02	2024-03-14	2025-03-13
Matching Pad	N/A	N/A	SEM021-23	2024-03-20	2025-03-19
Matching Pad	N/A	N/A	SEM021-24	2024-03-20	2025-03-19
Measurement Software	AUDIX	e3 V8.2014-6-27a	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM024-01	2024-07-06	2025-07-05
LISN	Rohde&Schwarz	ENV216	SEM007-01	2024-08-15	2025-08-14
LISN	ETS-LINDGREN	3816/2	SEM007-02	2024-03-14	2025-03-13

Radiated Emissions which fall in the restricted bands					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2024-05-11	2027-05-10
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2024-03-15	2025-03-14
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2023-07-23	2025-07-22
Microwave system amplifier	Agilent	83017A	SEM005-25	2024-09-14	2025-09-13
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2024-07-06	2025-07-05

Radiated Emissions (Below 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2023-11-20	2025-11-19
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2024-08-14	2025-08-13
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2023-09-16	2025-09-15
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2024-03-14	2025-03-13
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2024-07-06	2025-07-05



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Radiated Emissions (Above 1GHz)						
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date	
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2024-05-11	2027-05-10	
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2024-03-15	2025-03-14	
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2023-07-23	2025-07-22	
Microwave system amplifier	Agilent	83017A	SEM005-25	2024-09-14	2025-09-13	
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A	
Coaxial Cable	SGS	N/A	SEM026-01	2024-07-06	2025-07-05	
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	SEM003-15	2024-08-10	2025-08-09	
Pre-Amplifier	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2024-03-15	2025-03-14	

RF Conducted Test						
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date	
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2024-08-14	2025-08-13	
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2024-03-14	2025-03-13	
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2024-09-14	2025-09-13	
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A	
Coaxial Cable	SGS	N/A	SEM031-01	2024-07-06	2025-07-05	
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2024-03-27	2025-03-26	
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2024-03-19	2025-03-18	
Manual Step Attenuator	KEYSIGHT	8494B	SEM021-05	2024-03-27	2025-03-26	
Manual Step Attenuator	KEYSIGHT	8496B	SEM021-06	2024-03-27	2025-03-26	
MXG Vector Signal Generator	Agilent	N5182A	SEM006-21	2024-03-27	2025-03-26	
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-22	2024-03-14	2025-03-13	

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## DFS

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Manual Step Attenuator	KEYSIGHT	8494B	SEM021-05	2024-03-27	2025-03-26
Manual Step Attenuator	KEYSIGHT	8496B	SEM021-06	2024-03-27	2025-03-26
Measurement Software	KEYSIGHT	Signal Studio for DFS Radar Profiles V2.2.0.0	N/A	N/A	N/A
Measurement Software	Agilent	ISMonitor10	N/A	N/A	N/A
MXG Vector Signal Generator	Agilent	N5182A	SEM006-21	2024-03-27	2025-03-26
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-22	2024-03-14	2025-03-13

## General used equipment

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2024-07-24	2025-07-23
Humidity/ Temperature Indicator	deli	8838	SEM002-33	2024-07-24	2025-07-23
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2024-03-18	2025-03-17

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## 6 Radio Spectrum Technical Requirement

### 6.1 Antenna Requirement

#### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

#### 6.1.2 Conclusion

Standard 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 antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 3.18dBi.

Antenna location: Refer to internal photo.

### 6.2 Transmission in the Absence of Data

#### 6.2.1 Test Requirement:

47 CFR Part 15, Subpart E 15.407 (c)

#### 6.2.2 Conclusion

Standard Requirement:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

Applicants shall include in their application for equipment authorization a description of how this requirement is met.

EUT Details:

WIFI chip support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.

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## 7 Radio Spectrum Matter Test Results

### 7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207 &amp; Subpart E 15.407 b(9)

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dB $\mu$ V)	
	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.

#### 7.1.1 E.U.T. Operation

Operating Environment:

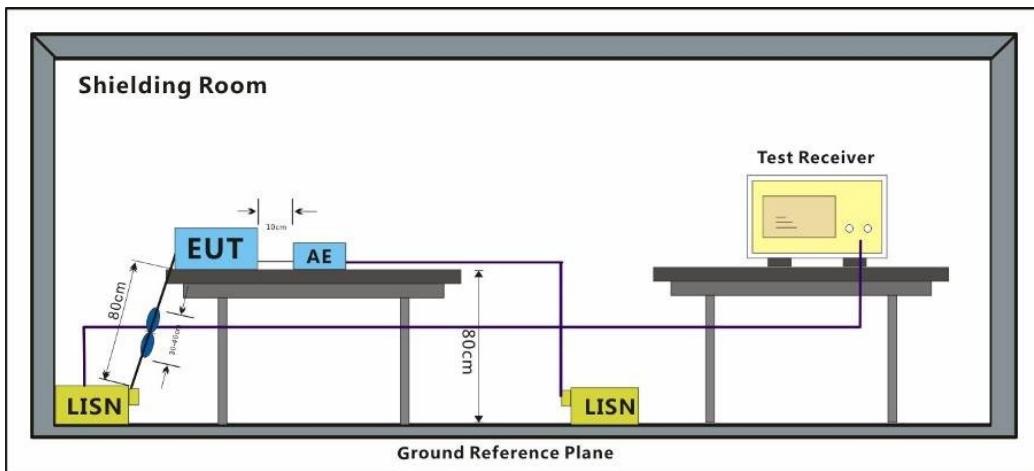
Temperature: 23.5 °C      Humidity: 45.5 % RH      Atmospheric Pressure: 1020 mbar

#### 7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

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**7.1.3 Test Setup Diagram****7.1.4 Measurement Procedure and Data**

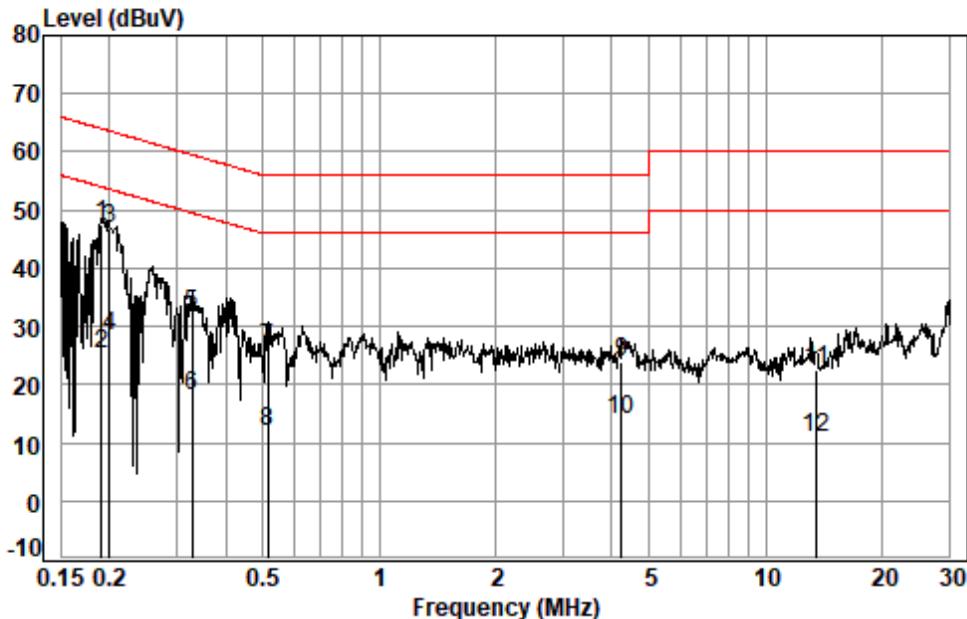
- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor

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Test Mode: 02; Line: Live line



Site : Shielding Room

Condition: Line

Job No. : 03234AT

Test mode: 02

Freq	Cable	LISN	Read	Limit	Over	Remark	
	Freq	Loss	Factor				
	MHz	dB	dB	dBuV	dBuV	dBuV	dB
1 *	0.1914	0.06	9.92	37.68	47.66	63.98	-16.32 QP
2	0.1914	0.06	9.92	15.31	25.29	53.98	-28.69 Average
3	0.2007	0.06	9.93	36.76	46.75	63.58	-16.83 QP
4 *	0.2007	0.06	9.93	18.36	28.35	53.58	-25.23 Average
5	0.3286	0.07	10.02	21.84	31.93	59.49	-27.56 QP
6	0.3286	0.07	10.02	8.07	18.16	49.49	-31.33 Average
7	0.5155	0.08	9.99	16.21	26.28	56.00	-29.72 QP
8	0.5155	0.08	9.99	1.71	11.78	46.00	-34.22 Average
9	4.2466	0.12	10.03	13.80	23.95	56.00	-32.05 QP
10	4.2466	0.12	10.03	3.96	14.11	46.00	-31.89 Average
11	13.5509	0.24	10.23	12.14	22.61	60.00	-37.39 QP
12	13.5509	0.24	10.23	0.42	10.89	50.00	-39.11 Average

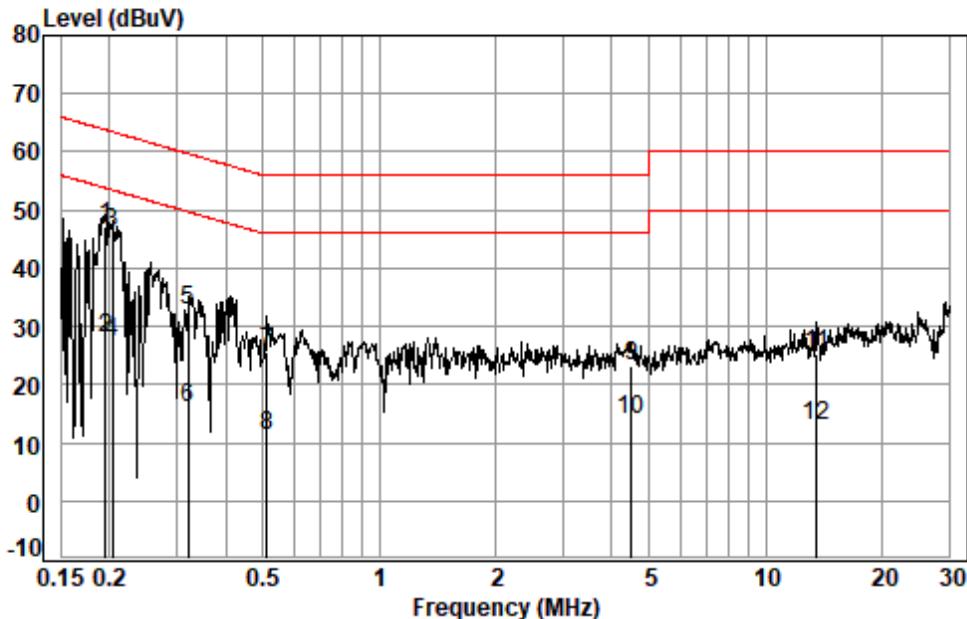
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Test Mode: 02; Line: Neutral Line



Site : Shielding Room

Condition: Neutral

Job No. : 03234AT

Test mode: 02

Freq	Cable	LISN	Read	Limit	Over	Remark	
	Freq	Loss	Factor				
	MHz	dB	dB	dBuV	dBuV	dBuV	dB
1 *	0.1955	0.06	9.92	37.25	47.23	63.80	-16.57 QP
2 *	0.1955	0.06	9.92	18.09	28.07	53.80	-25.73 Average
3	0.2040	0.06	9.92	36.09	46.07	63.45	-17.38 QP
4	0.2040	0.06	9.92	17.47	27.45	53.45	-26.00 Average
5	0.3200	0.07	9.91	22.70	32.68	59.71	-27.03 QP
6	0.3200	0.07	9.91	6.00	15.98	49.71	-33.73 Average
7	0.5128	0.08	9.93	15.73	25.74	56.00	-30.26 QP
8	0.5128	0.08	9.93	1.29	11.30	46.00	-34.70 Average
9	4.5015	0.12	10.00	13.19	23.31	56.00	-32.69 QP
10	4.5015	0.12	10.00	3.96	14.08	46.00	-31.92 Average
11	13.5509	0.24	10.25	14.92	25.41	60.00	-34.59 QP
12	13.5509	0.24	10.25	2.38	12.87	50.00	-37.13 Average

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## 7.2 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

\*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

### 7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C      Humidity: 53.5 % RH      Atmospheric Pressure: 1020 mbar

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**7.2.2 Test Mode Description**

Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	22	TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	23	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

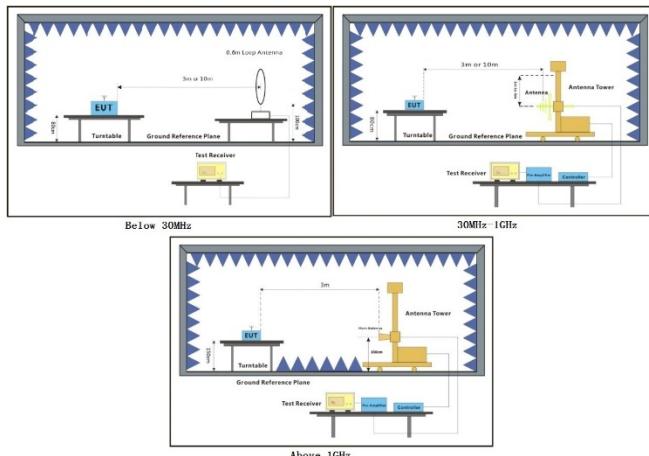
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No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)



SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch Inspection & Testing Services Laboratory

**7.2.3 Test Setup Diagram****7.2.4 Measurement Procedure and Data**

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. 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.
- e. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. 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, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

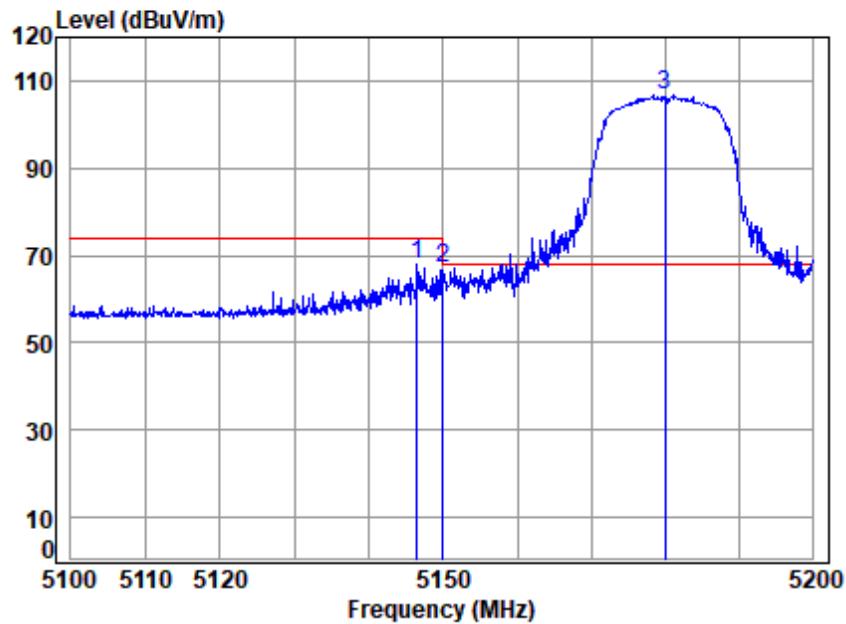
Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5180 Band edge  
: 5GWIFI 11A

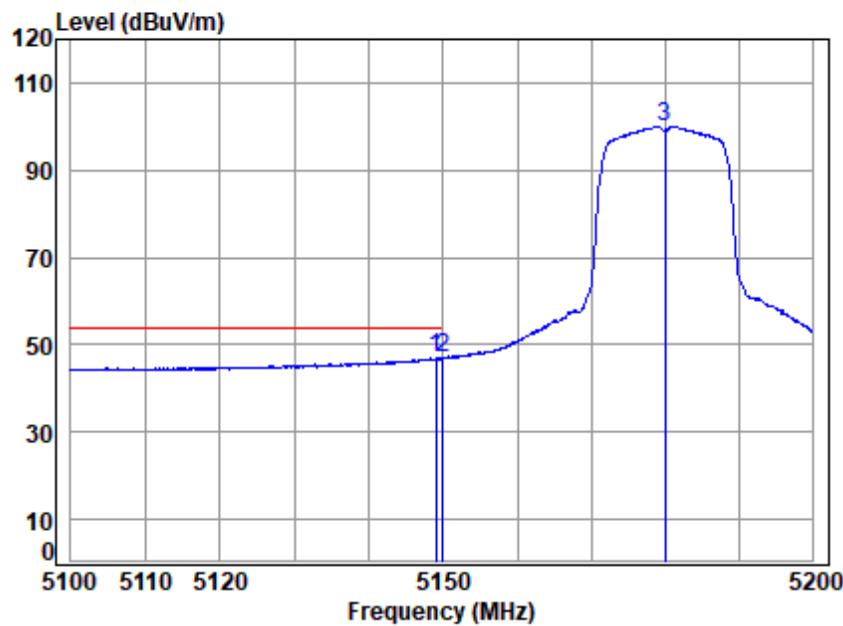
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5146.458	10.13	32.39	30.84	56.22	67.90	74.00	-6.10	peak
2	5149.980	10.14	32.40	30.84	55.22	66.92	74.00	-7.08	peak
3 pp	5180.000	10.25	32.46	30.83	94.88	106.76	68.20	38.56	peak

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Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5180 Band edge  
: 5GWIFI 11A

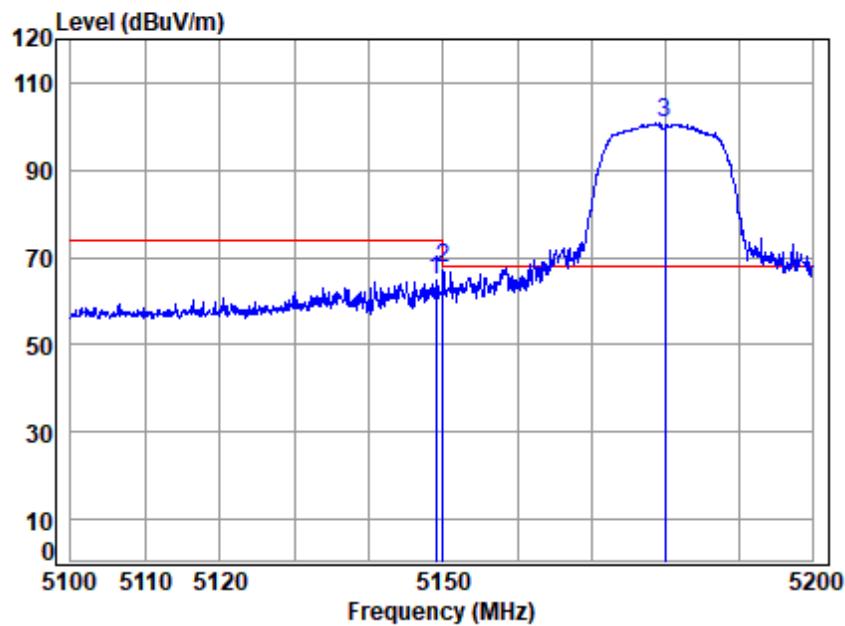
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5149.057	10.14	32.40	30.84	35.17	46.87	54.00 -7.13 Average
2 pp	5149.980	10.14	32.40	30.84	35.45	47.15	54.00 -6.85 Average
3	5180.000	10.25	32.46	30.83	88.13	100.01	----- ----- Average



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Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5180 Band edge  
: 5GWIFI 11A

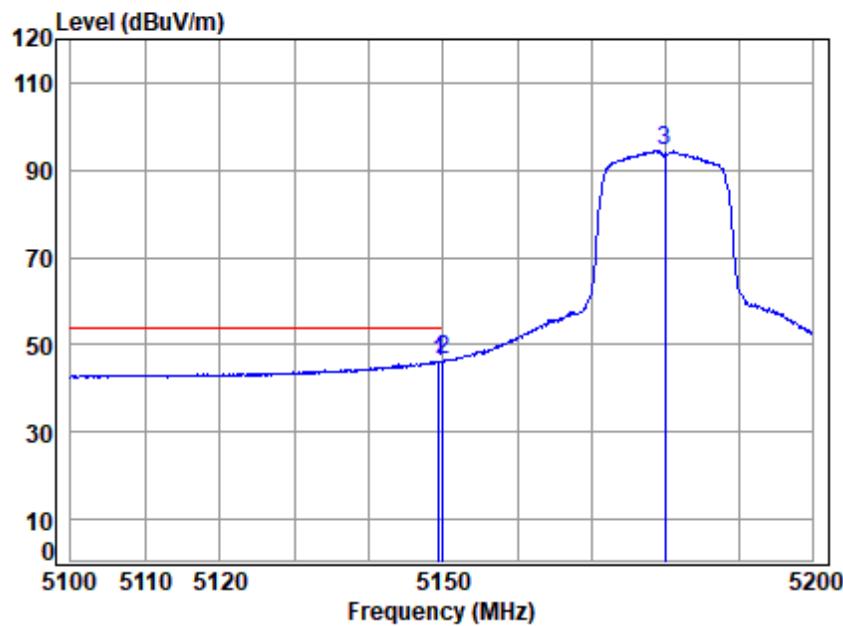
Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	MHz	Loss	Factor	Factor	Level	Level	Line	
1	5148.958	10.14	32.40	30.84	53.04	64.74	74.00	-9.26 peak
2	5149.980	10.14	32.40	30.84	56.05	67.75	74.00	-6.25 peak
3 pp	5180.000	10.25	32.46	30.83	88.94	100.82	68.20	32.62 peak

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Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

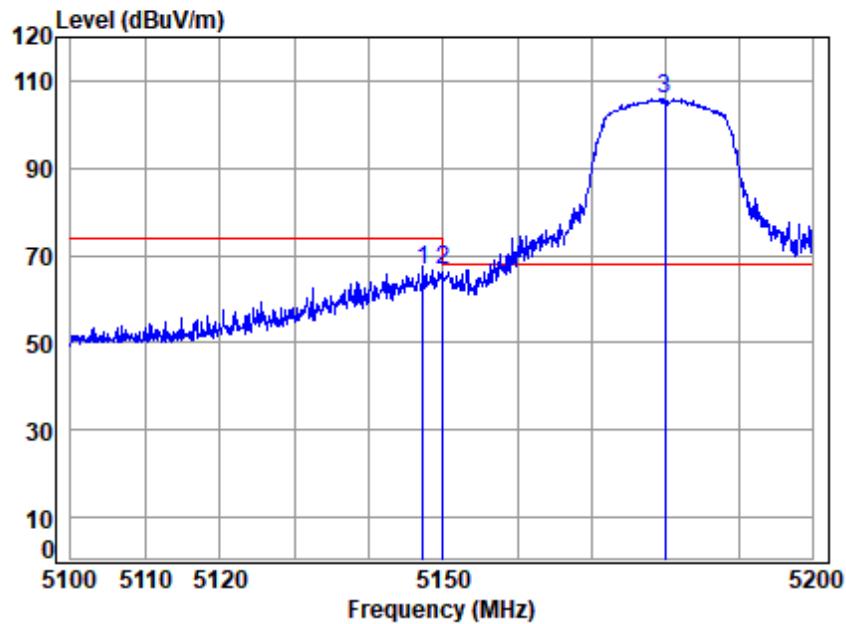
Mode : 5180 Band edge  
: 5GWIFI 11A

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5149.458	10.14	32.40	30.84	34.42	46.12	54.00 -7.88 Average
2 pp	5149.980	10.14	32.40	30.84	34.64	46.34	54.00 -7.66 Average
3	5180.000	10.25	32.46	30.83	82.48	94.36	----- ----- Average

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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

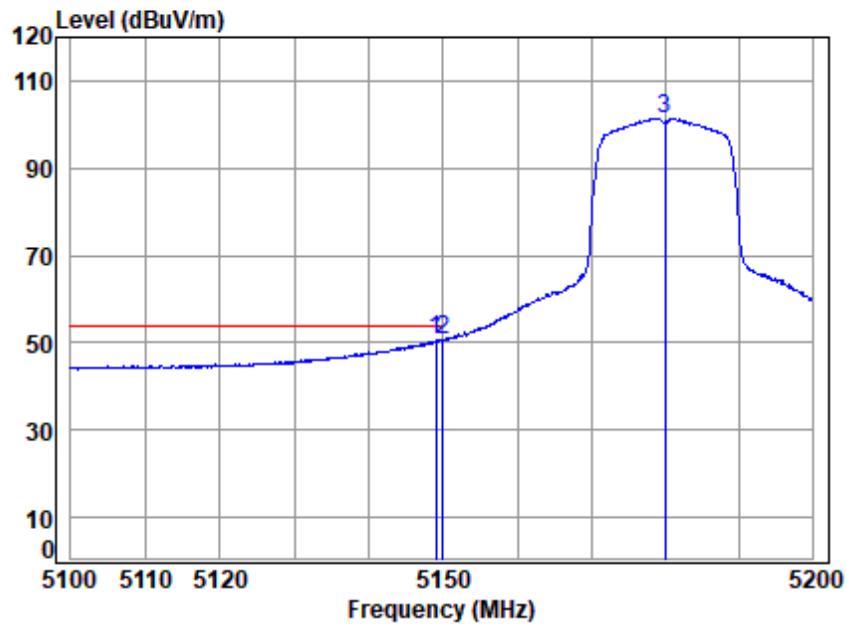
Mode : 5180 Band edge  
: 5GWIFI 11AC20

Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	MHz	Loss	Factor	Factor	Level	Level	Line	
1	5147.258	10.13	32.39	30.84	54.82	66.50	74.00	-7.50 peak
2	5149.980	10.14	32.40	30.84	54.96	66.66	74.00	-7.34 peak
3 pp	5180.000	10.25	32.46	30.83	94.19	106.07	68.20	37.87 peak

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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5180 Band edge  
: 5GWIFI 11AC20

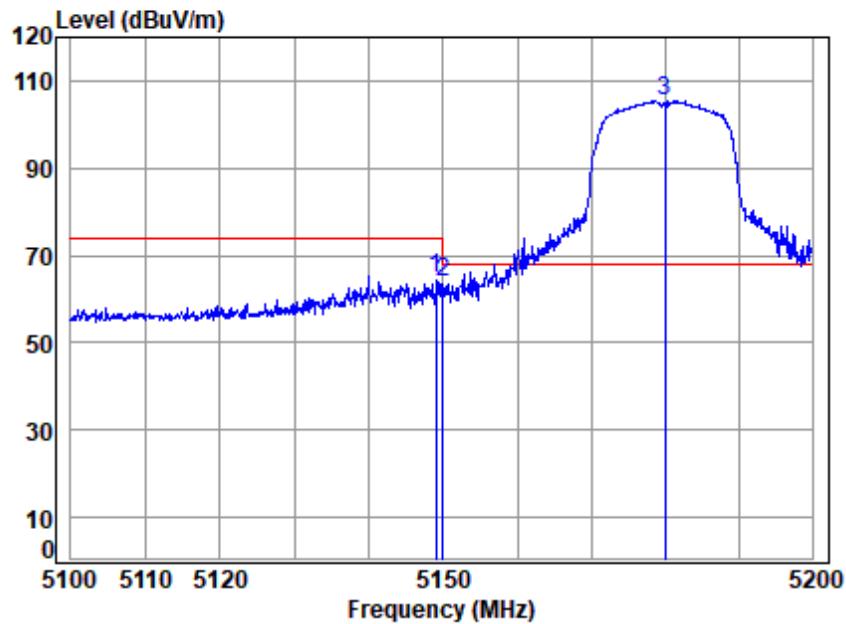
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5148.958	10.14	32.40	30.84	38.94	50.64	54.00 -3.36 Average
2 pp	5149.980	10.14	32.40	30.84	39.13	50.83	54.00 -3.17 Average
3	5180.000	10.25	32.46	30.83	89.54	101.42	----- ----- Average

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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5180 Band edge  
: 5GWIFI 11AC20

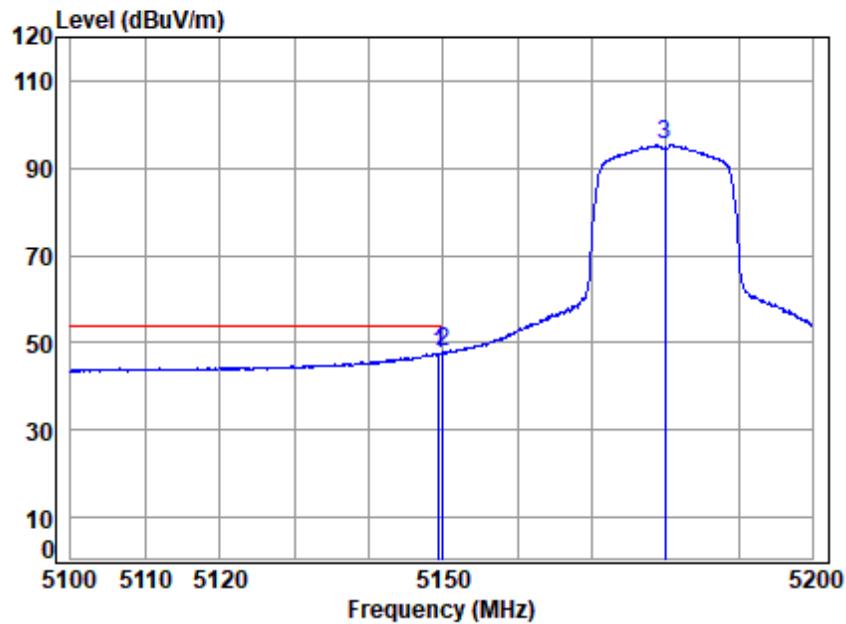
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5148.958	10.14	32.40	30.84	52.96	64.66	74.00 -9.34 peak
2	5149.980	10.14	32.40	30.84	51.96	63.66	74.00 -10.34 peak
3 pp	5180.000	10.25	32.46	30.83	93.65	105.53	68.20 37.33 peak

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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5180 Band edge  
: 5GWIFI 11AC20

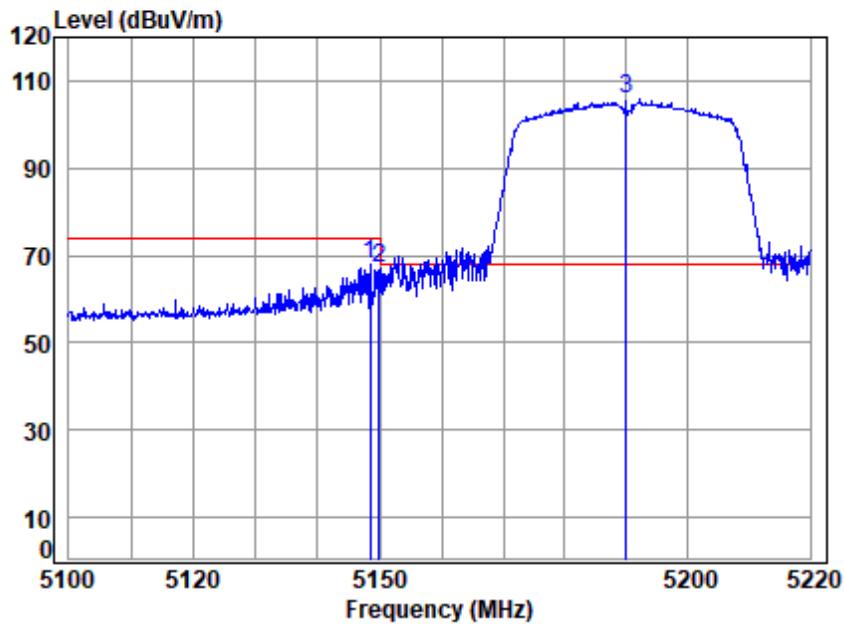
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5149.458	10.14	32.40	30.84	35.86	47.56	54.00 -6.44 Average
2 pp	5149.980	10.14	32.40	30.84	36.19	47.89	54.00 -6.11 Average
3	5180.000	10.25	32.46	30.83	83.44	95.32	----- ----- Average



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5190 Band edge  
: 5GWIFI 11AC40

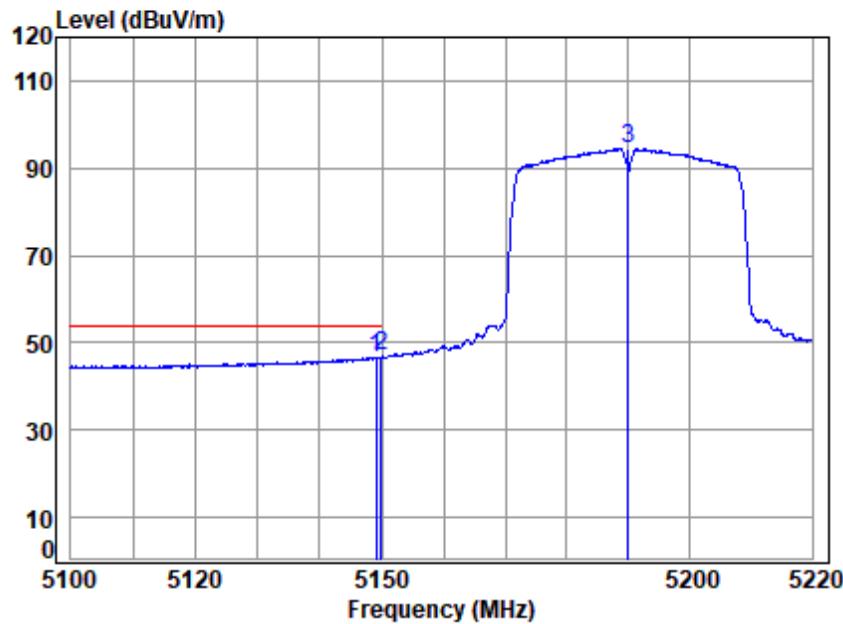
Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Loss	Factor	Factor	Level	Level	Line	Limit	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5148.503	10.13	32.40	30.84	56.50	68.19	74.00	-5.81 peak
2	5149.980	10.14	32.40	30.84	55.40	67.10	74.00	-6.90 peak
3 pp	5190.000	10.29	32.48	30.82	93.94	105.89	68.20	37.69 peak



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

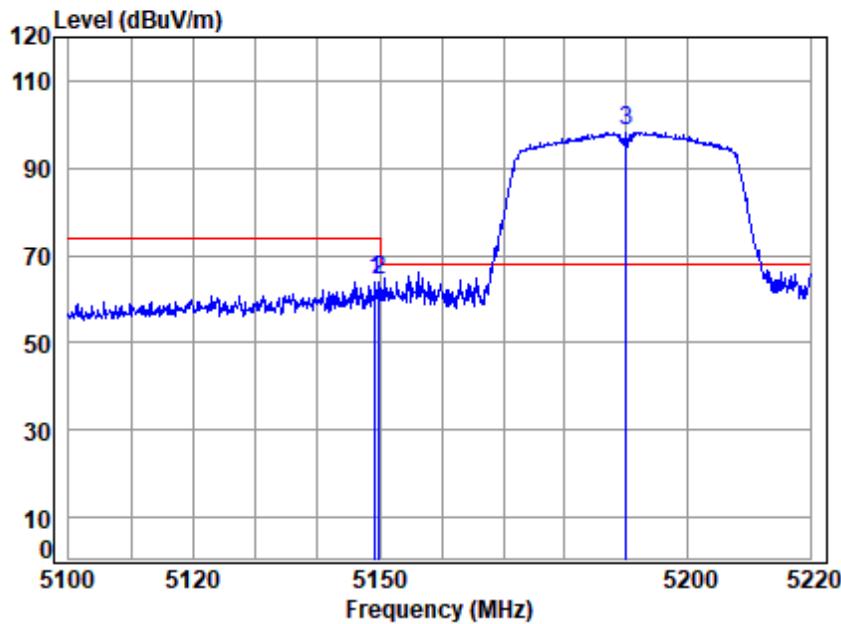
Mode : 5190 Band edge  
: 5GWIFI 11AC40

		Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5149.102	5149.102	10.14	32.40	30.84	34.98	46.68	54.00	-7.32 Average
2 pp	5149.980	5149.980	10.14	32.40	30.84	35.09	46.79	54.00	-7.21 Average
3	5190.000	5190.000	10.29	32.48	30.82	82.43	94.38	-----	----- Average

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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5190 Band edge  
: 5GWIFI 11AC40

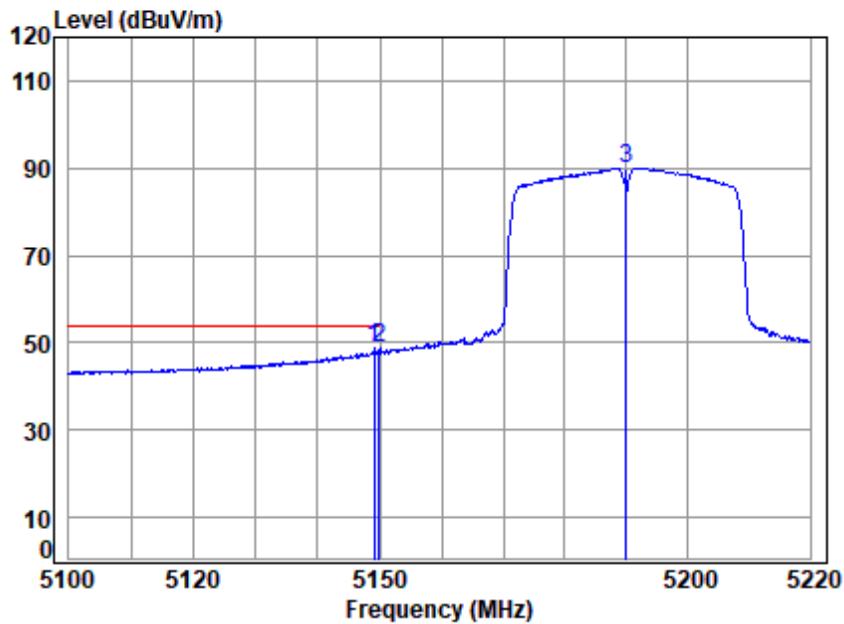
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5149.342	10.14	32.40	30.84	52.80	64.50	74.00 -9.50 peak
2	5149.980	10.14	32.40	30.84	52.63	64.33	74.00 -9.67 peak
3 pp	5190.000	10.29	32.48	30.82	86.43	98.38	68.20 30.18 peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5190 Band edge  
: 5GWIFI 11AC40

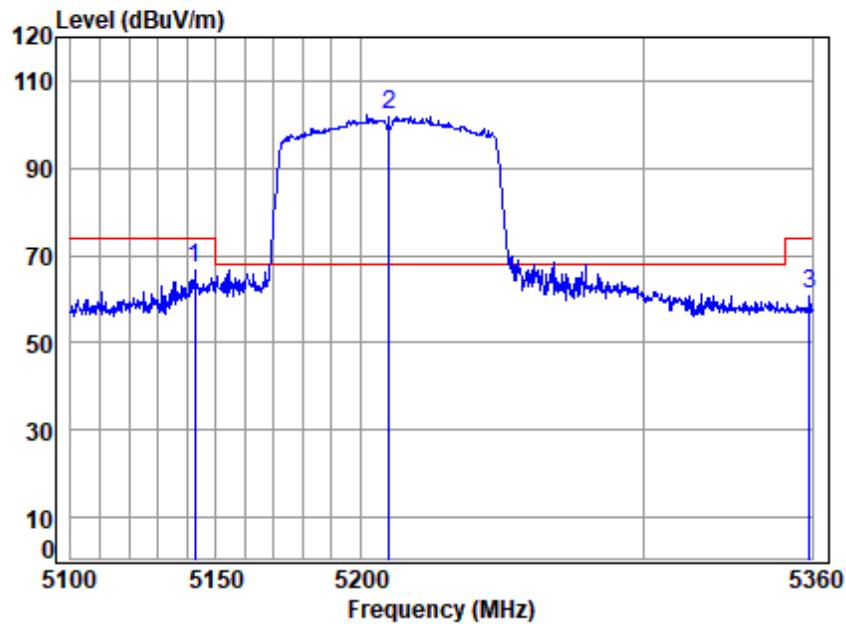
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	dBuV			
1 pp	5149.102	10.14	32.40	30.84	37.29	48.99	54.00	-5.01 Average
2	5149.980	10.14	32.40	30.84	37.26	48.96	54.00	-5.04 Average
3	5190.000	10.29	32.48	30.82	78.05	90.00	-----	----- Average



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5210 Band edge  
: 5GWIFI 11AC80

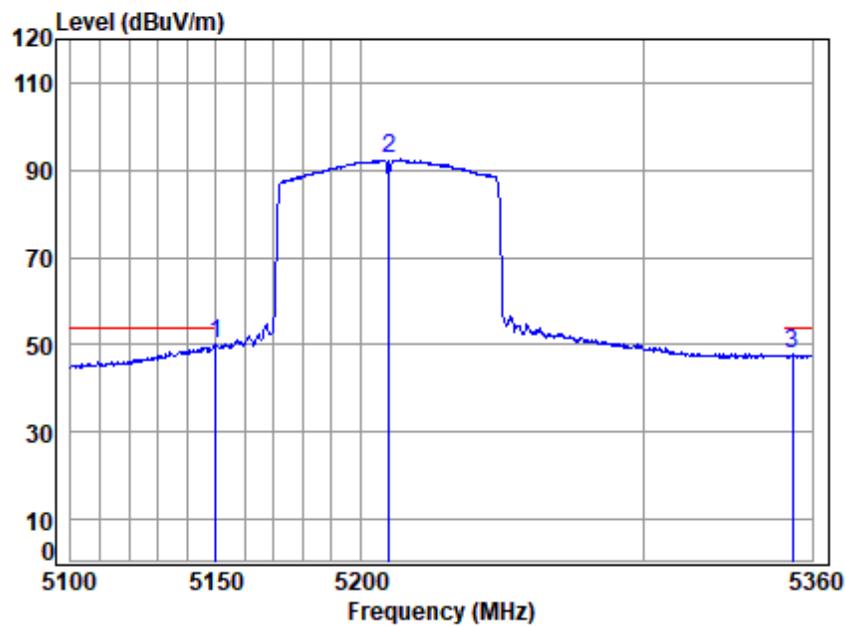
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5142.526	10.11	32.39	30.84	55.60	67.26	74.00 -6.74 peak
2 pp	5210.000	10.32	32.52	30.82	90.08	102.10	68.20 33.90 peak
3	5359.201	10.48	32.80	30.76	48.48	61.00	74.00 -13.00 peak



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5210 Band edge  
: 5GWIFI 11AC80

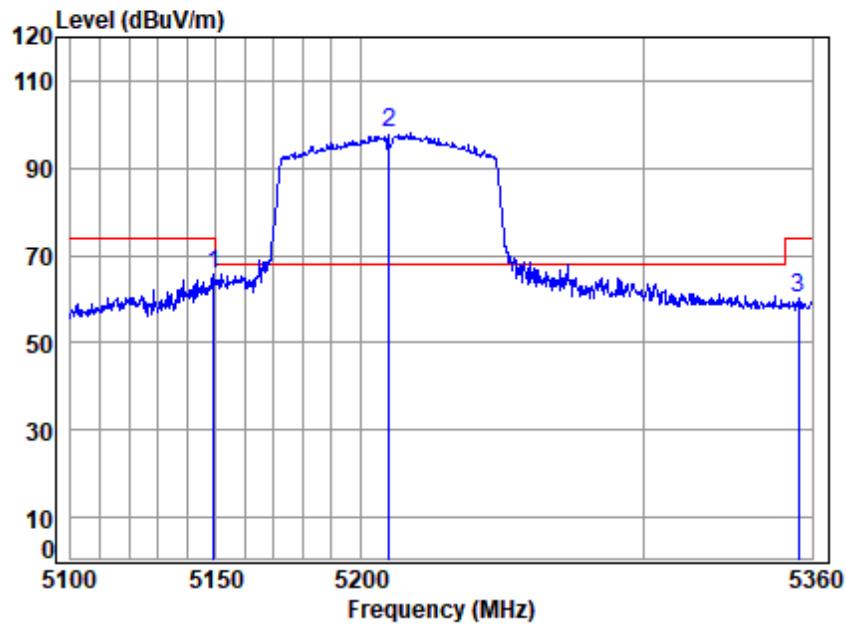
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1 pp	5149.947	10.14	32.40	30.84	38.37	50.07	54.00 -3.93 Average
2	5210.000	10.32	32.52	30.82	80.40	92.42	----- ----- Average
3	5353.075	10.46	32.80	30.76	35.19	47.69	54.00 -6.31 Average



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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5210 Band edge  
: 5GWIFI 11AC80

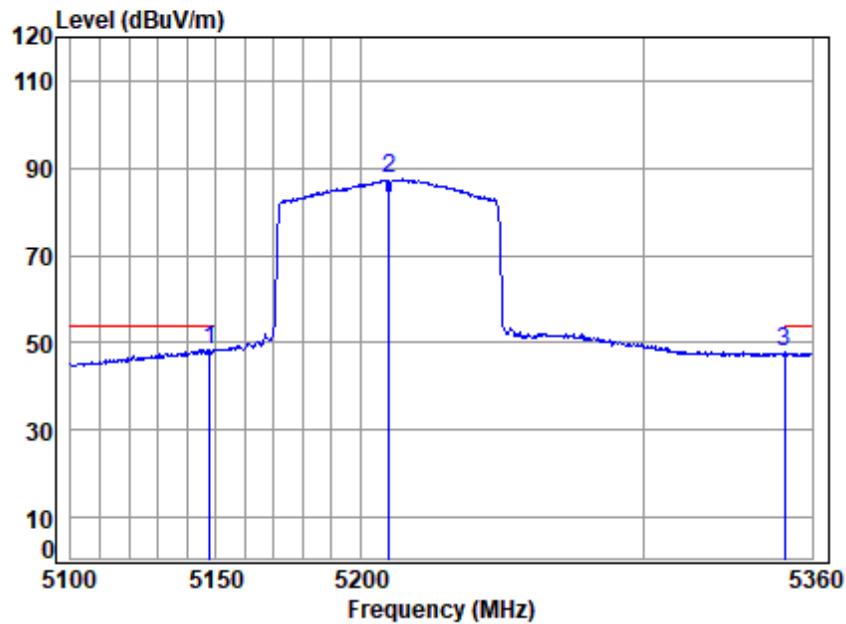
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5149.178	10.14	32.40	30.84	53.93	65.63	74.00 -8.37 peak
2 pp	5210.000	10.32	32.52	30.82	86.16	98.18	68.20 29.98 peak
3	5355.205	10.47	32.80	30.76	47.86	60.37	74.00 -13.63 peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5210 Band edge  
: 5GWIFI 11AC80

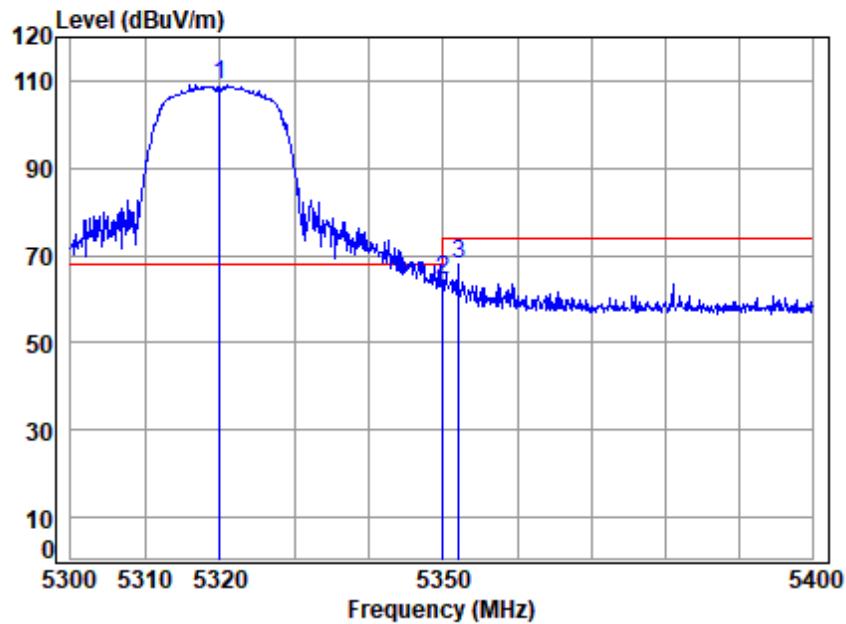
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	dBuV			
1 pp	5147.643	10.13	32.40	30.84	36.77	48.46	54.00	-5.54 Average
2	5210.000	10.32	32.52	30.82	75.46	87.48	-----	----- Average
3	5350.148	10.45	32.80	30.76	35.32	47.81	54.00	-6.19 Average



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

**Condition:** 3m HORIZONTAL**Job No :** 03234AT**Mode :** 5320 Band edge  
: 5GWIFI 11A

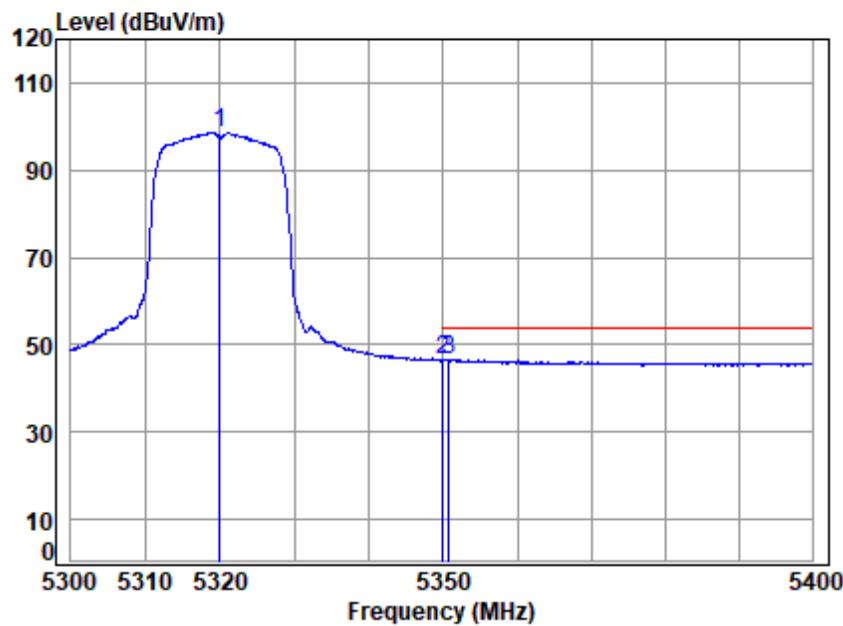
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	dBuV			
1 pp	5320.000	10.35	32.74	30.77	96.84	109.16	68.20	40.96 peak
2	5350.020	10.45	32.80	30.76	51.94	64.43	74.00	-9.57 peak
3	5352.067	10.46	32.80	30.76	55.45	67.95	74.00	-6.05 peak

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Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

**Condition:** 3m HORIZONTAL**Job No :** 03234AT**Mode :** 5320 Band edge  
: 5GWIFI 11A

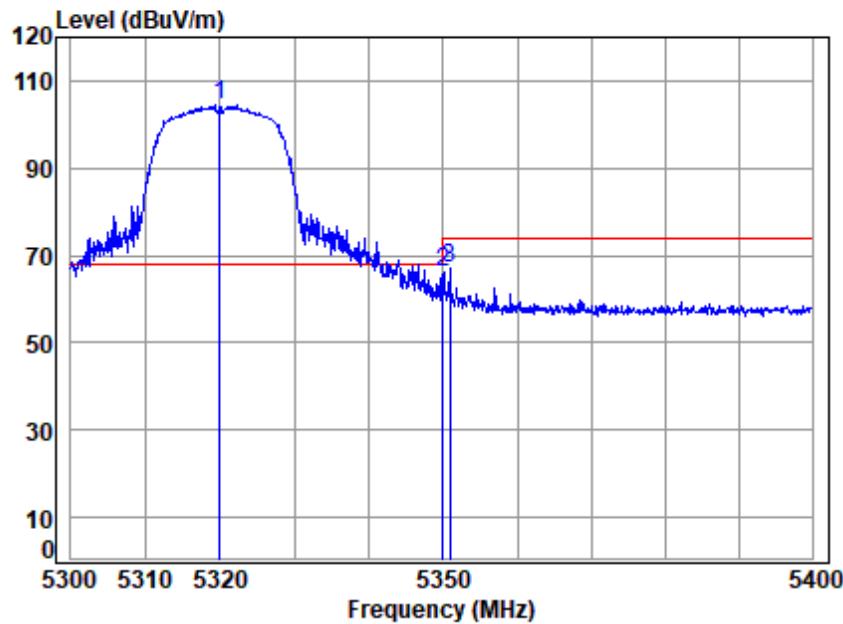
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5320.000	10.35	32.74	30.77	86.29	98.61	-----	-----	Average
2	5350.020	10.45	32.80	30.76	34.02	46.51	54.00	-7.49	Average
3 pp	5350.767	10.45	32.80	30.76	34.11	46.60	54.00	-7.40	Average

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Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5320 Band edge  
: 5GWIFI 11A

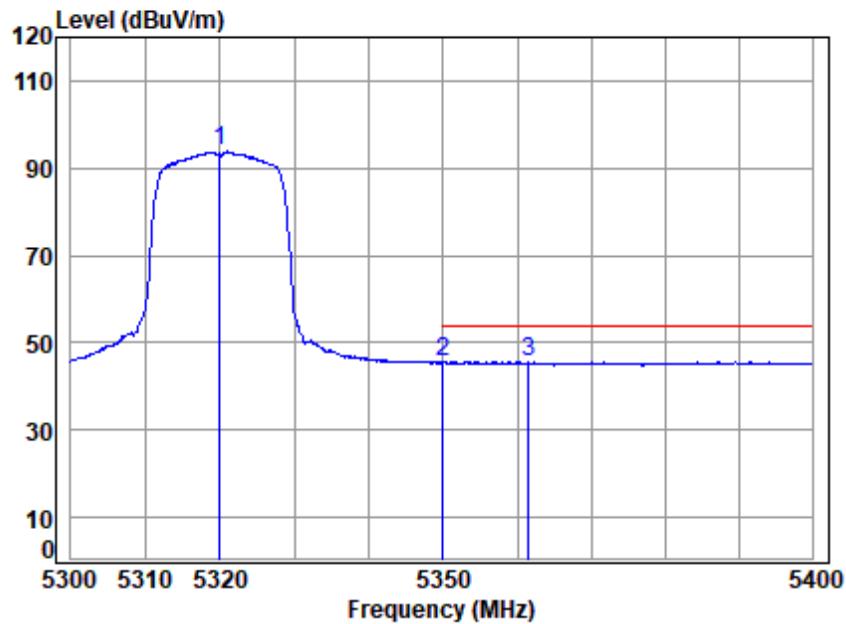
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	dBuV			
1 pp	5320.000	10.35	32.74	30.77	92.37	104.69	68.20	36.49 peak
2	5350.020	10.45	32.80	30.76	53.55	66.04	74.00	-7.96 peak
3	5350.866	10.45	32.80	30.76	54.56	67.05	74.00	-6.95 peak

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Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High

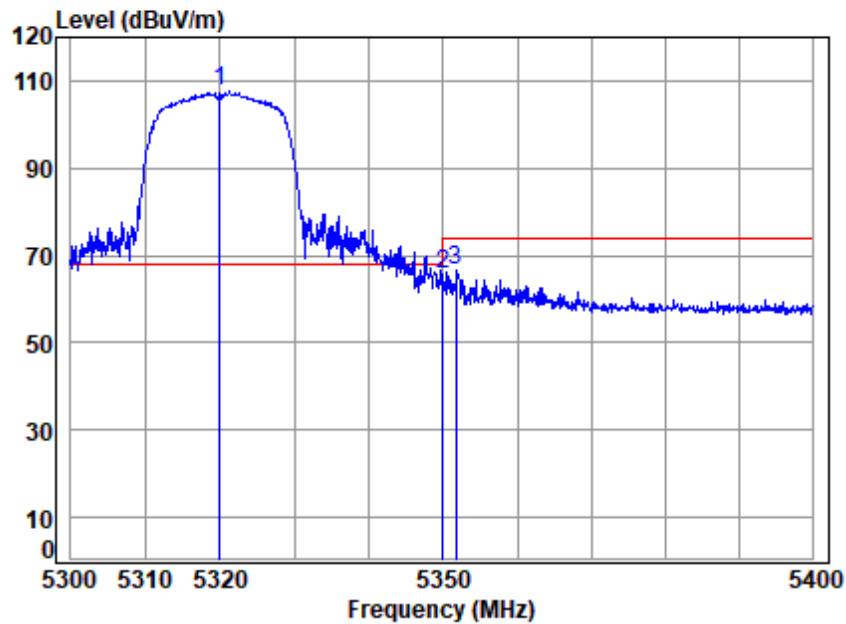
**Condition:** 3m VERTICAL**Job No :** 03234AT**Mode :** 5320 Band edge  
: 5GWIFI 11A

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5320.000	10.35	32.74	30.77	81.51	93.83	----- Average
2	5350.020	10.45	32.80	30.76	33.12	45.61	54.00 -8.39 Average
3 pp	5361.579	10.49	32.80	30.76	33.21	45.74	54.00 -8.26 Average

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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

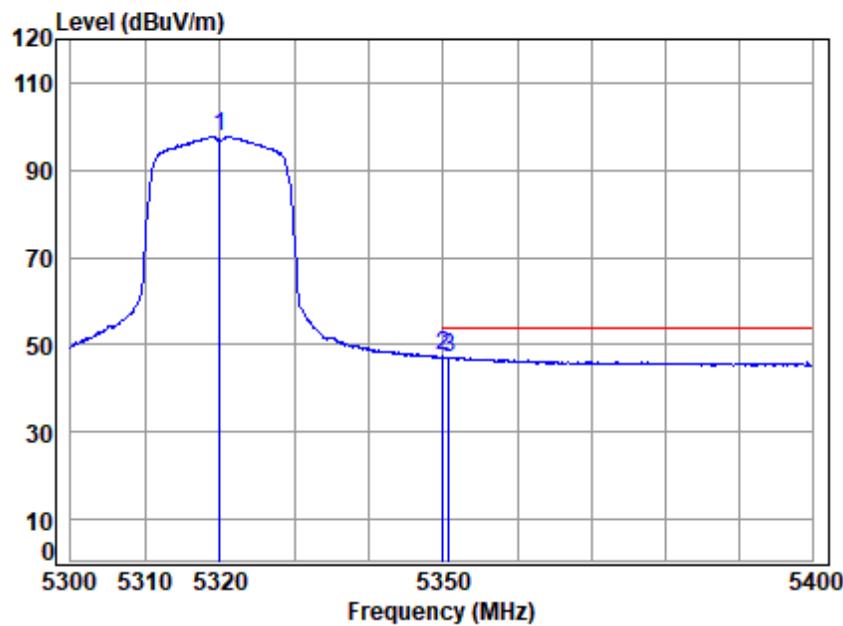
Mode : 5320 Band edge  
: 5GWIFI 11AC20

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	dBuV			
1 pp	5320.000	10.35	32.74	30.77	95.50	107.82	68.20	39.62 peak
2	5350.020	10.45	32.80	30.76	53.18	65.67	74.00	-8.33 peak
3	5351.767	10.46	32.80	30.76	53.89	66.39	74.00	-7.61 peak

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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5320 Band edge  
: 5GWIFI 11AC20

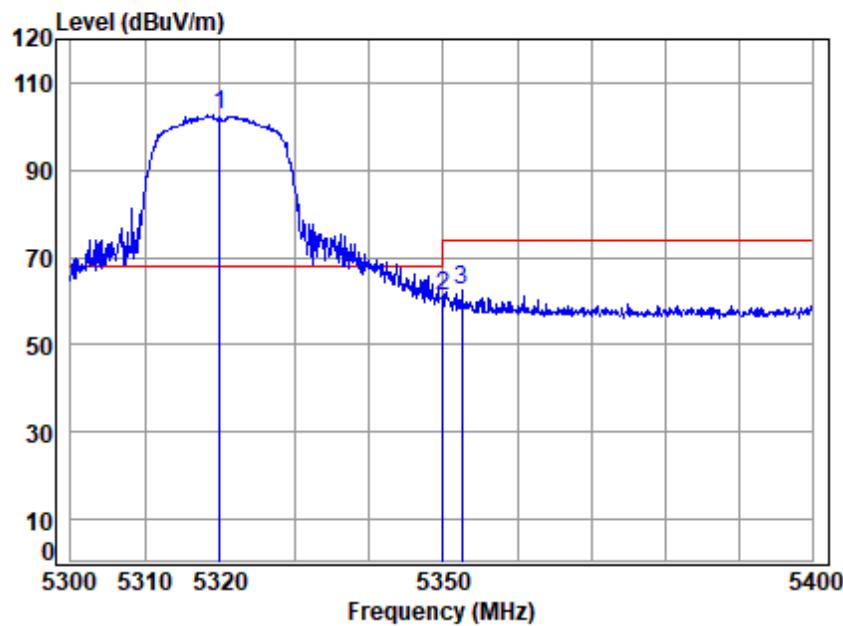
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5320.000	10.35	32.74	30.77	85.45	97.77	----- Average
2 pp	5350.020	10.45	32.80	30.76	34.83	47.32	54.00 -6.68 Average
3	5350.767	10.45	32.80	30.76	34.65	47.14	54.00 -6.86 Average

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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5320 Band edge  
: 5GWIFI 11AC20

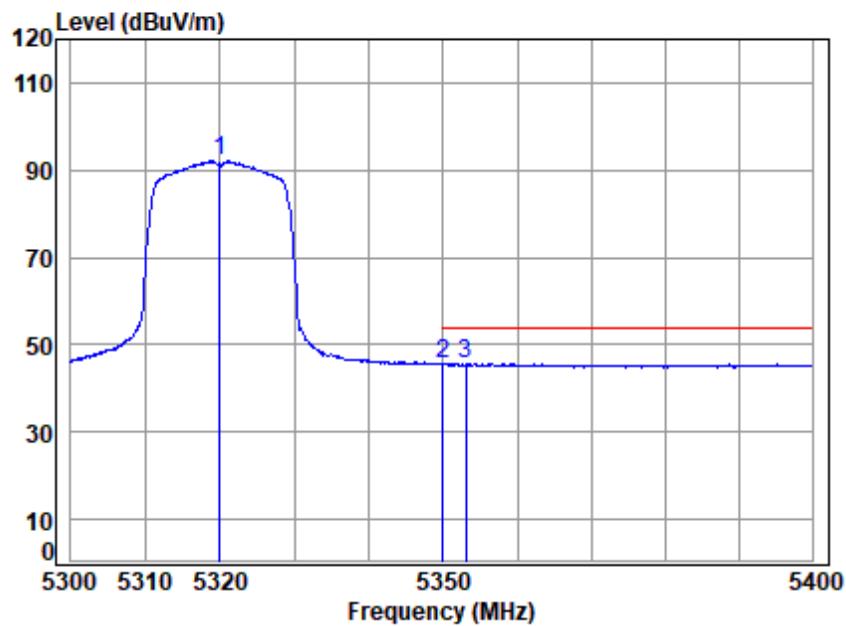
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	dBuV			
1 pp	5320.000	10.35	32.74	30.77	90.49	102.81	68.20	34.61 peak
2	5350.020	10.45	32.80	30.76	48.77	61.26	74.00	-12.74 peak
3	5352.467	10.46	32.80	30.76	50.17	62.67	74.00	-11.33 peak



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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5320 Band edge  
: 5GWIFI 11AC20

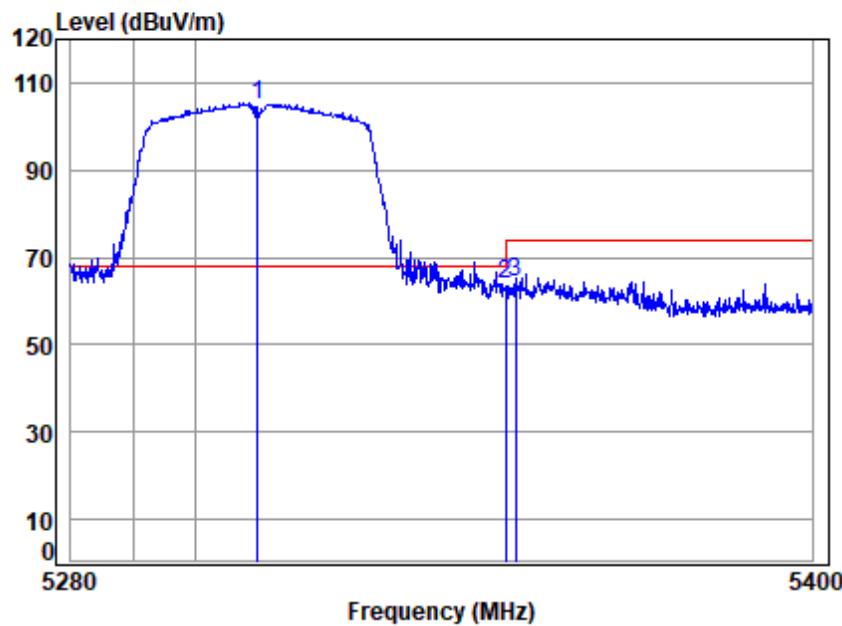
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5320.000	10.35	32.74	30.77	79.76	92.08	----- Average
2	5350.020	10.45	32.80	30.76	33.12	45.61	54.00 -8.39 Average
3 pp	5353.067	10.46	32.80	30.76	33.28	45.78	54.00 -8.22 Average



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5310 Band edge  
: 5GWIFI 11AC40

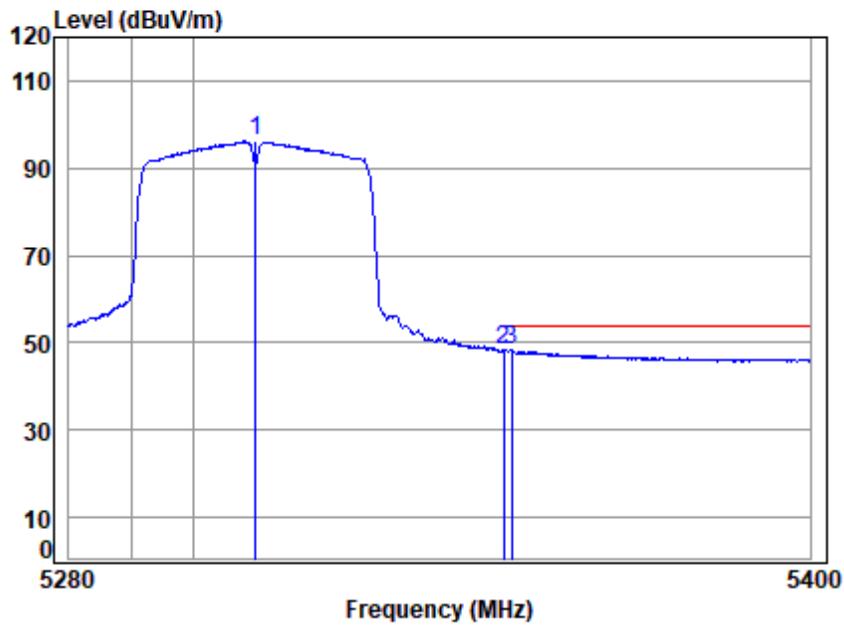
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark	
	MHz	Loss	Factor	Level	Level	Line		
1 pp	5310.000	10.31	32.72	30.78	92.79	105.04	68.20	36.84 peak
2	5350.020	10.45	32.80	30.76	51.55	64.04	74.00	-9.96 peak
3	5351.676	10.46	32.80	30.76	51.78	64.28	74.00	-9.72 peak

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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5310 Band edge  
: 5GWIFI 11AC40

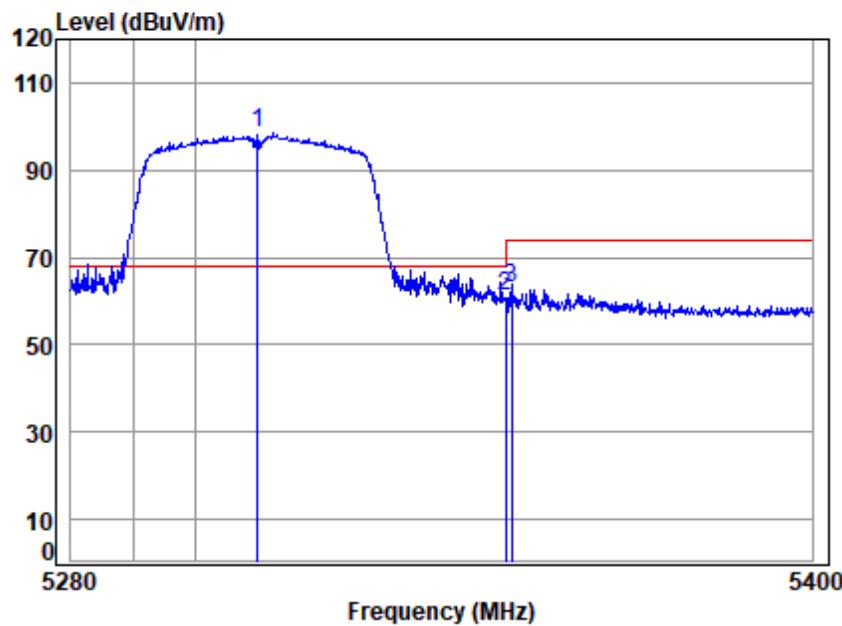
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5310.000	10.31	32.72	30.78	83.94	96.19	----- Average
2	5350.020	10.45	32.80	30.76	35.73	48.22	54.00 -5.78 Average
3 pp	5351.315	10.45	32.80	30.76	36.04	48.53	54.00 -5.47 Average

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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5310 Band edge  
: 5GWIFI 11AC40

Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Loss	Factor	Factor	Level	Level	Line	Limit	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5310.000	10.31	32.72	30.78	86.25	98.50	68.20	30.30 peak
2	5350.020	10.45	32.80	30.76	48.65	61.14	74.00	-12.86 peak
3	5351.075	10.45	32.80	30.76	50.40	62.89	74.00	-11.11 peak

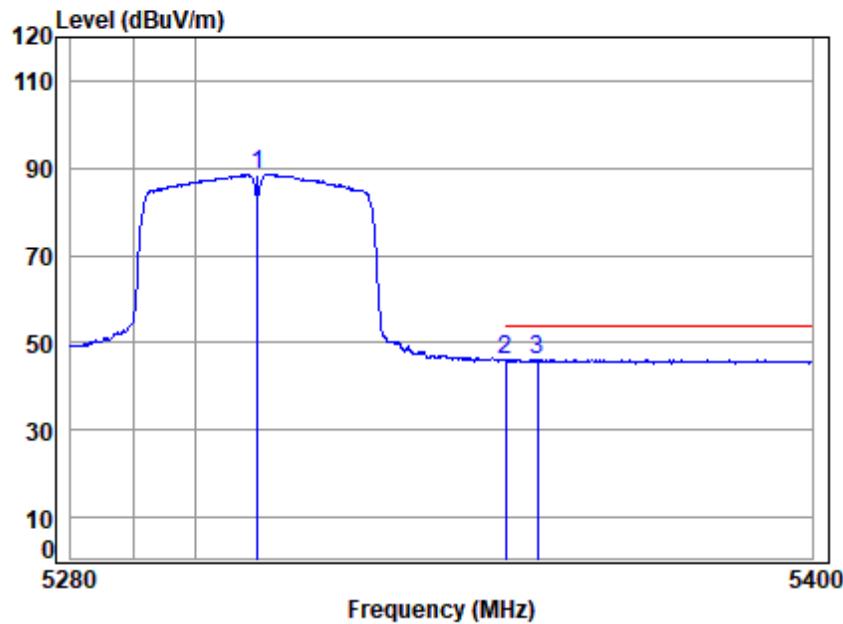
SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch No. 10, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057

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No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)  
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t (86-755) 26012053 f (86-755) 26710594 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5310 Band edge  
: 5GWIFI 11AC40

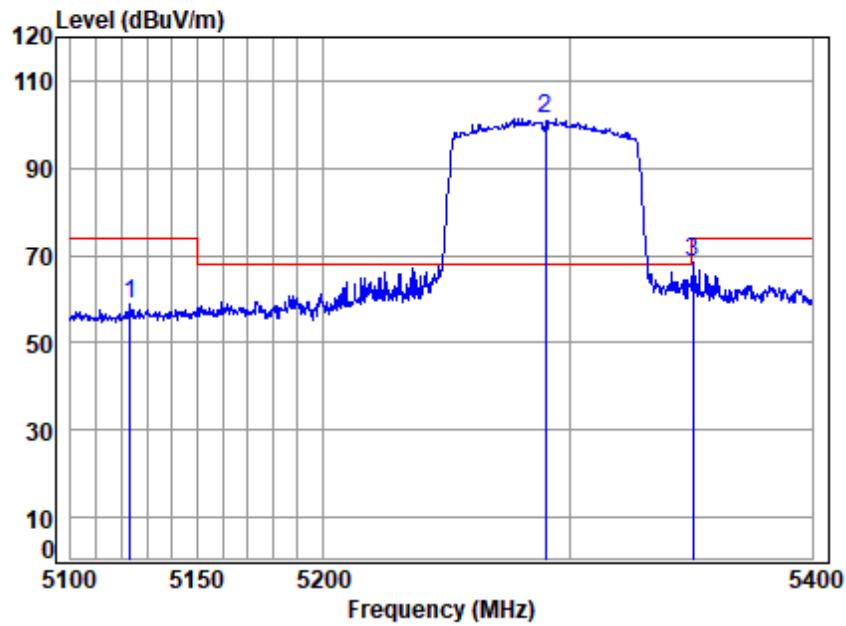
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5310.000	10.31	32.72	30.78	76.46	88.71	----- Average
2	5350.020	10.45	32.80	30.76	33.50	45.99	54.00 -8.01 Average
3 pp	5355.285	10.47	32.80	30.76	33.65	46.16	54.00 -7.84 Average



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5290 Band edge  
: 5GWIFI 11AC80

Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Loss	Factor	Factor	Level	Level	Line	Limit	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5123.374	10.04	32.35	30.85	47.48	59.02	74.00	-14.98 peak
2 pp	5290.000	10.28	32.68	30.78	89.05	101.23	68.20	33.03 peak
3	5350.535	10.45	32.80	30.76	55.81	68.30	74.00	-5.70 peak

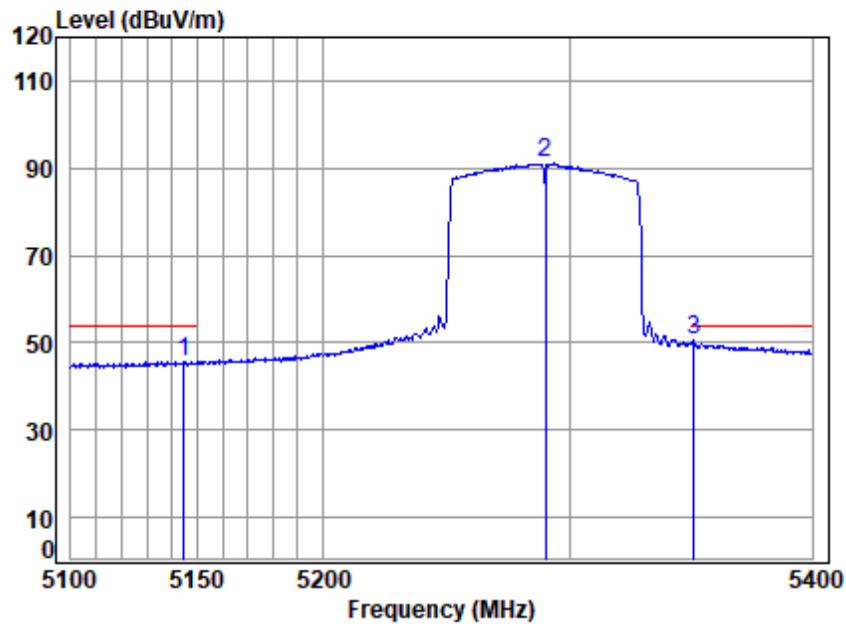
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SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch is a member of SGS Group LLC Laboratory.

Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

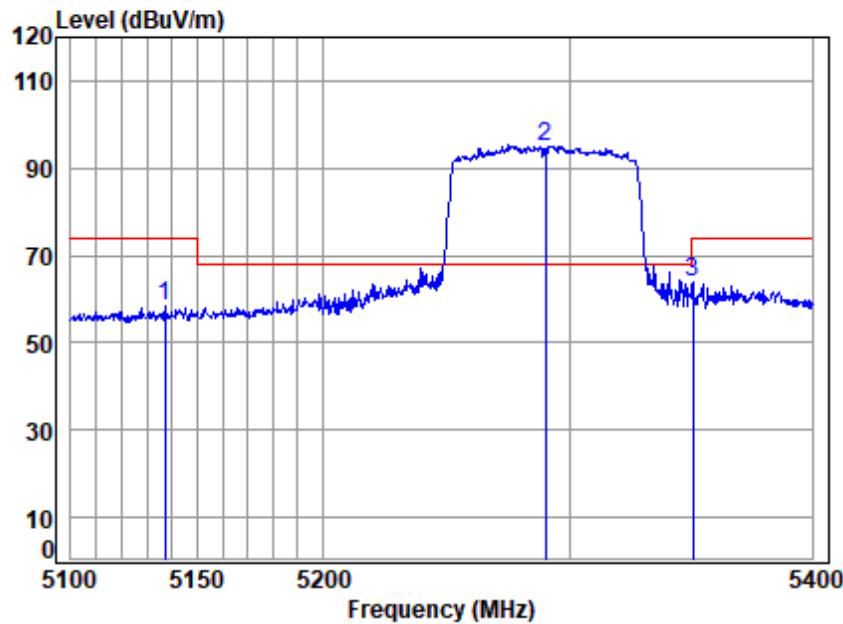
Mode : 5290 Band edge  
: 5GWIFI 11AC80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5144.796	10.12	32.39	30.84	34.09	45.76	54.00	-8.24	Average
2	5290.000	10.28	32.68	30.78	78.91	91.09	-----	-----	Average
3 pp	5350.840	10.45	32.80	30.76	38.14	50.63	54.00	-3.37	Average

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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5290 Band edge  
: 5GWIFI 11AC80

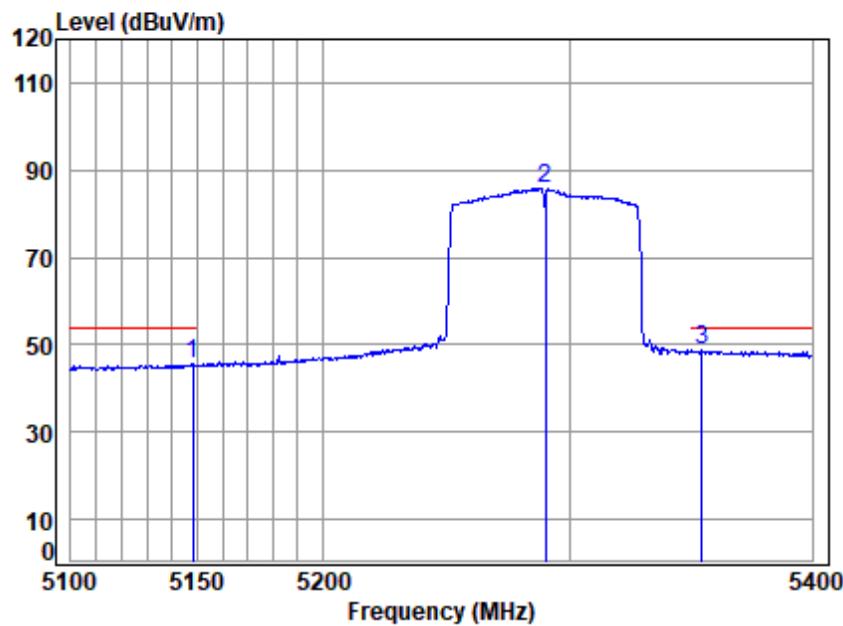
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5137.156	10.09	32.37	30.85	46.83	58.44	74.00 -15.56 peak
2 pp	5290.000	10.28	32.68	30.78	82.66	94.84	68.20 26.64 peak
3	5350.535	10.45	32.80	30.76	51.59	64.08	74.00 -9.92 peak

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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5290 Band edge  
: 5GWIFI 11AC80

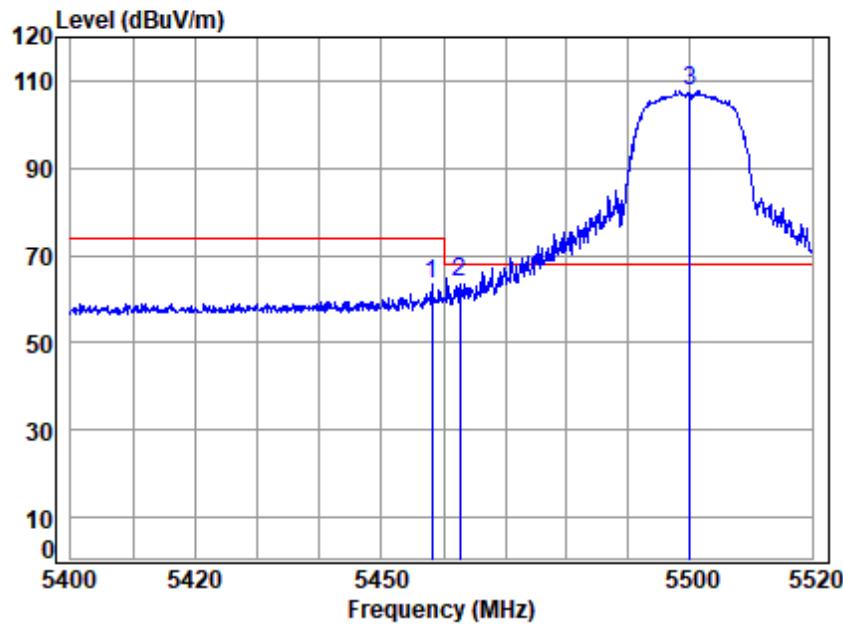
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5148.326	10.13	32.40	30.84	33.94	45.63	54.00 -8.37 Average
2	5290.000	10.28	32.68	30.78	73.71	85.89	----- ----- Average
3 pp	5354.512	10.47	32.80	30.76	36.17	48.68	54.00 -5.32 Average



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5500 Band edge  
: 5GWIFI 11A

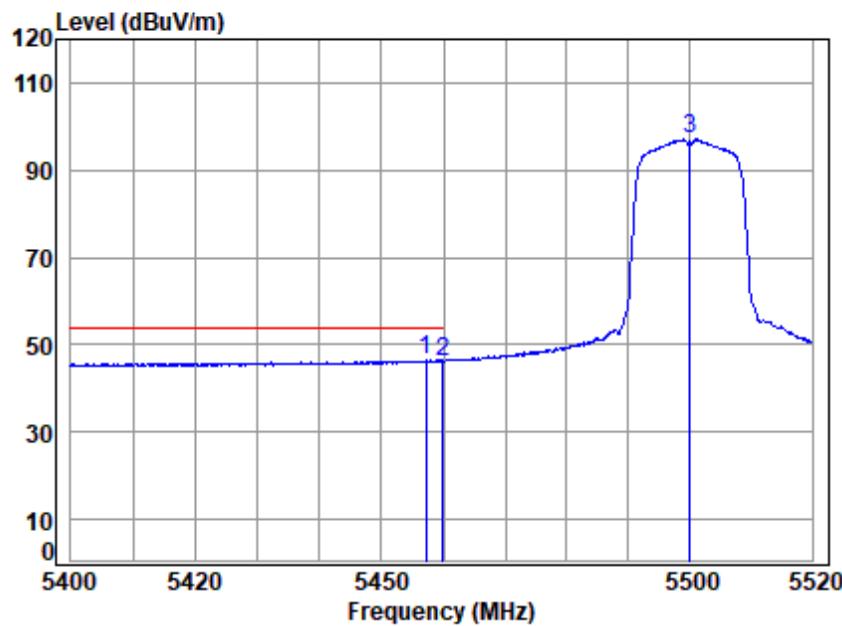
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark	
	Loss	Factor	Factor	Level	Level	Line		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5458.110	10.60	32.90	30.72	50.67	63.45	74.00	-10.55 peak
2	5462.671	10.59	32.90	30.71	50.98	63.76	68.20	-4.44 peak
3 pp	5500.000	10.58	32.90	30.70	94.93	107.71	68.20	39.51 peak

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5500 Band edge  
: 5GWIFI 11A

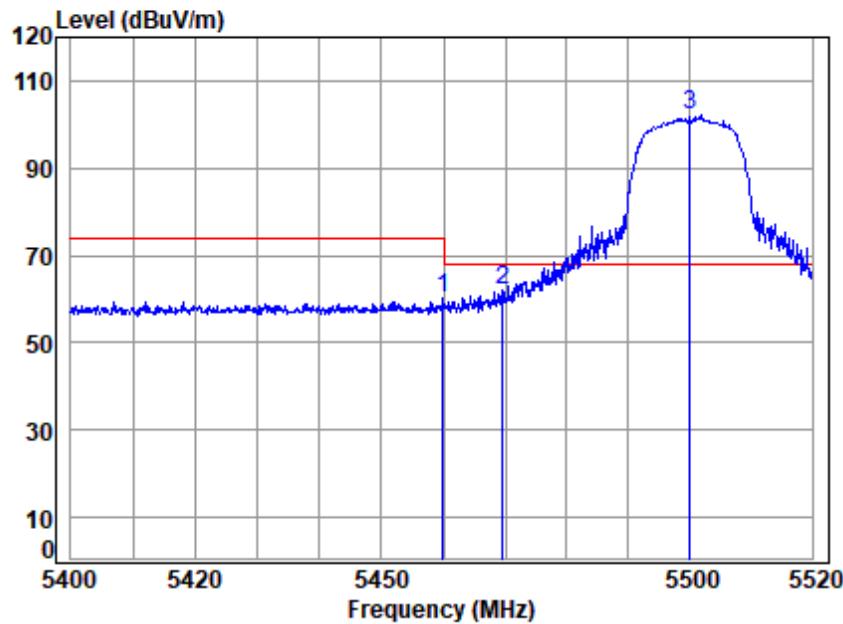
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				dB	dB/m			
1 pp	5457.151	10.60	32.90	30.72	33.71	46.49	54.00	-7.51 Average
2	5459.990	10.60	32.89	30.72	33.23	46.00	54.00	-8.00 Average
3	5500.000	10.58	32.90	30.70	84.22	97.00	-----	----- Average

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Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

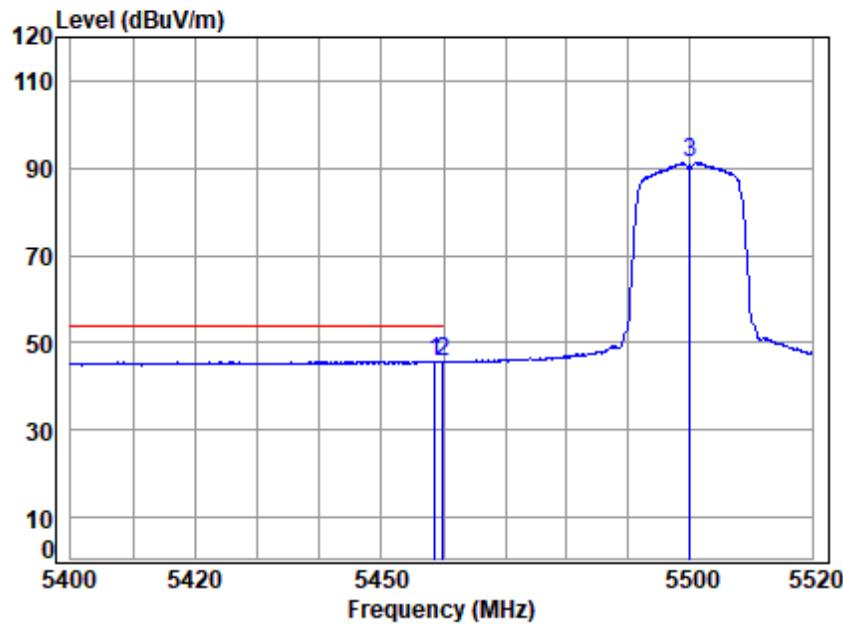
Mode : 5500 Band edge  
: 5GWIFI 11A

		Cable Freq	Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Line Level	Over Limit	Remark
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5459.910	10.60	32.90	30.72	47.39	60.17	74.00	-13.83	peak	
2	5469.519	10.59	32.90	30.71	49.10	61.88	68.20	-6.32	peak	
3 pp	5500.000	10.58	32.90	30.70	89.24	102.02	68.20	33.82	peak	

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Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5500 Band edge  
: 5GWIFI 11A

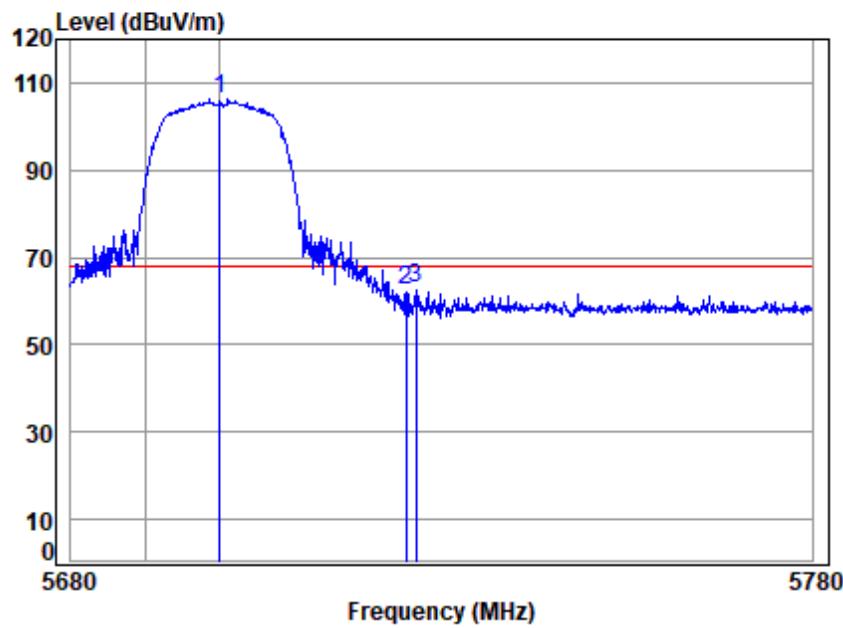
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5458.590	10.60	32.90	30.72	33.04	45.82	54.00 -8.18 Average
2 pp	5459.910	10.60	32.90	30.72	33.05	45.83	54.00 -8.17 Average
3	5500.000	10.58	32.90	30.70	78.52	91.30	----- ----- Average



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5700 Band edge  
: 5GWIFI 11A

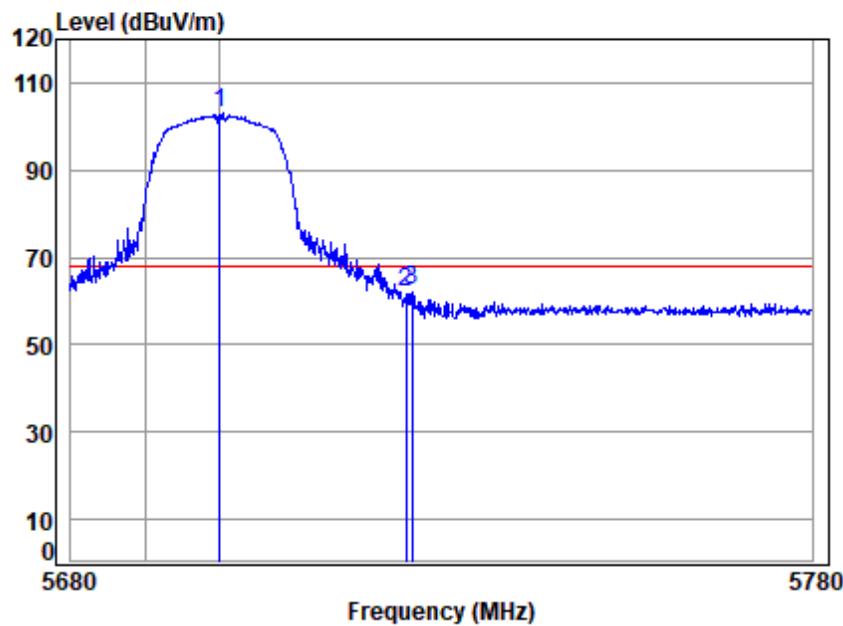
Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	MHz	Loss	Factor	Factor	Level	Level	Line	
1 pp	5700.000	10.56	33.20	30.62	93.09	106.23	68.20	38.03 peak
2	5725.000	10.68	33.25	30.61	49.29	62.61	68.20	-5.59 peak
3	5726.383	10.68	33.25	30.61	49.44	62.76	68.20	-5.44 Peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High

**Condition:** 3m VERTICAL**Job No :** 03234AT**Mode :** 5700 Band edge  
: 5GWIFI 11A

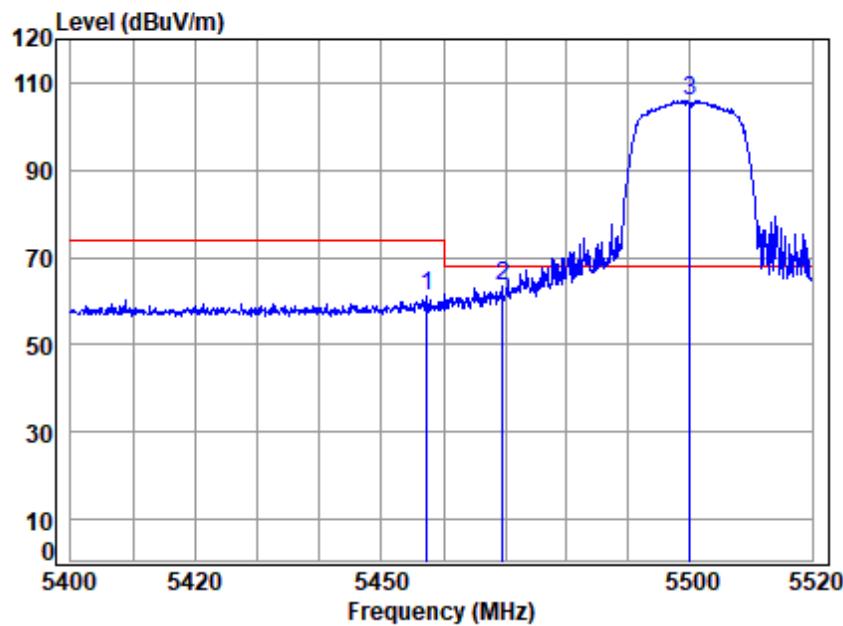
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	dBuV			
1 pp	5700.000	10.56	33.20	30.62	90.10	103.24	68.20	35.04 peak
2	5725.000	10.68	33.25	30.61	48.83	62.15	68.20	-6.05 peak
3	5725.783	10.68	33.25	30.61	49.11	62.43	68.20	-5.77 peak

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SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch (CN) SGS Laboratory

Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5500 Band edge  
: 5GWIFI 11AC20

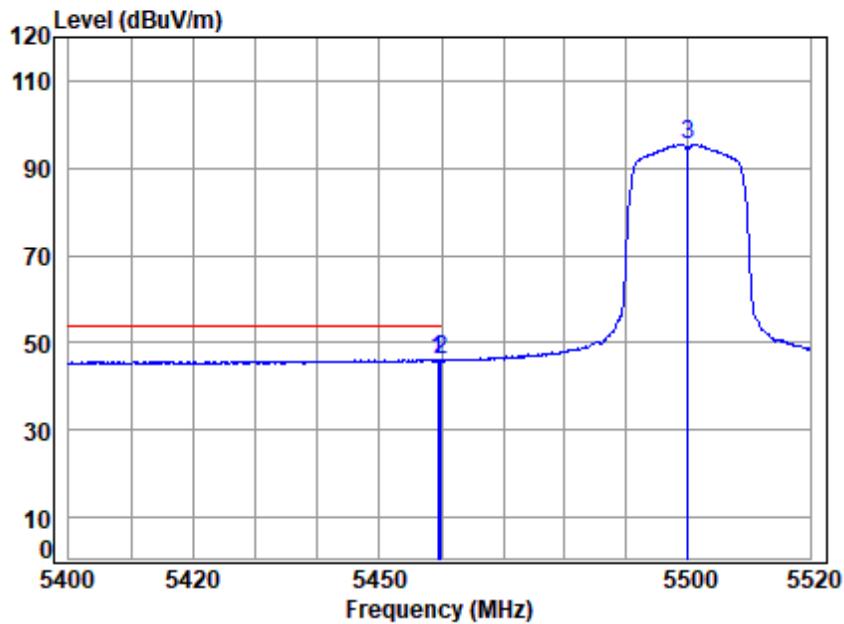
Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Loss	Factor	Factor	Level	Level	Line	Limit	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5457.391	10.60	32.90	30.72	48.17	60.95	74.00	-13.05 peak
2	5469.519	10.59	32.90	30.71	50.43	63.21	68.20	-4.99 peak
3 pp	5500.000	10.58	32.90	30.70	93.27	106.05	68.20	37.85 peak

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5500 Band edge  
: 5GWIFI 11AC20

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	dBuV			
1 pp	5459.430	10.60	32.90	30.72	33.44	46.22	54.00	-7.78 Average
2	5459.910	10.60	32.90	30.72	33.26	46.04	54.00	-7.96 Average
3	5500.000	10.58	32.90	30.70	82.79	95.57	-----	----- Average

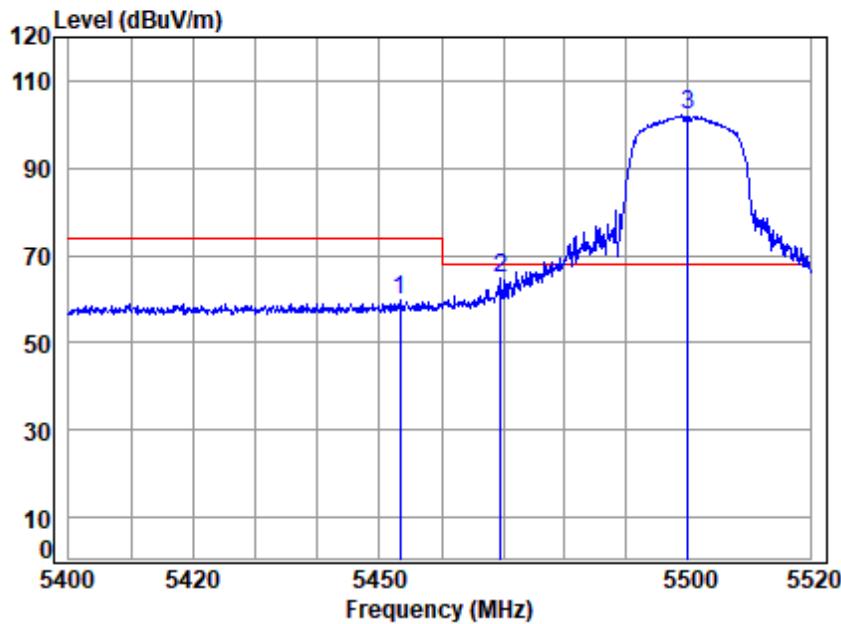
SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch (SGS-CSTC) Laboratory

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中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t (86-755) 26012053 f (86-755) 26710594 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5500 Band edge  
: 5GWIFI 11AC20

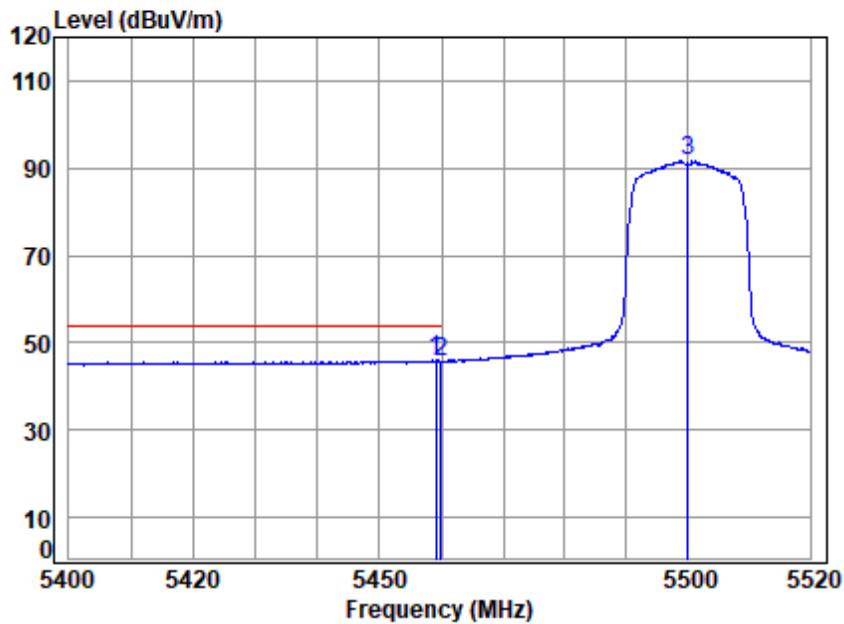
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5453.314	10.60	32.90	30.72	47.03	59.81	74.00 -14.19 peak
2	5469.519	10.59	32.90	30.71	52.02	64.80	68.20 -3.40 peak
3 pp	5500.000	10.58	32.90	30.70	89.39	102.17	68.20 33.97 peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5500 Band edge  
: 5GWIFI 11AC20

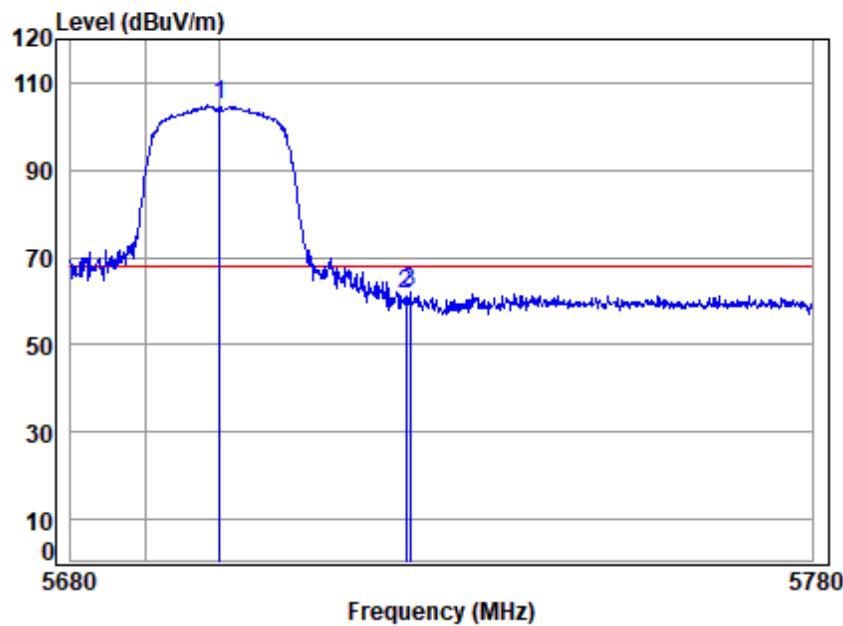
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	dBuV			
1 pp	5459.070	10.60	32.90	30.72	33.16	45.94	54.00	-8.06 Average
2	5459.910	10.60	32.90	30.72	33.01	45.79	54.00	-8.21 Average
3	5500.000	10.58	32.90	30.70	78.83	91.61	-----	----- Average



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5700 Band edge  
: 5GWIFI 11AC20

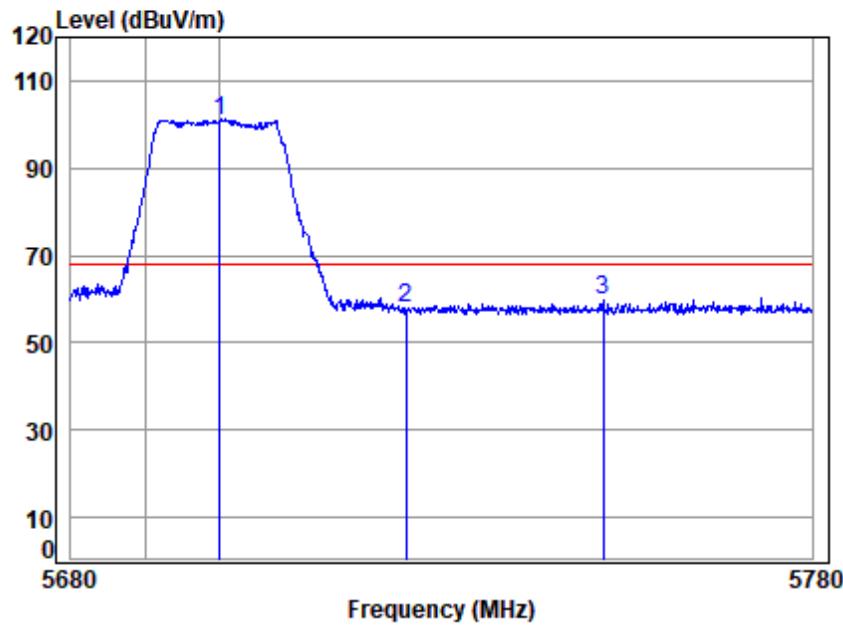
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark	
	MHz	Loss	Factor	Level	Level	Line		
1 pp	5700.000	10.56	33.20	30.62	92.01	105.15	68.20	36.95 peak
2	5725.000	10.68	33.25	30.61	48.38	61.70	68.20	-6.50 peak
3	5725.583	10.68	33.25	30.61	48.60	61.92	68.20	-6.28 peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5700 Band edge  
: 5GWIFI 11AC20

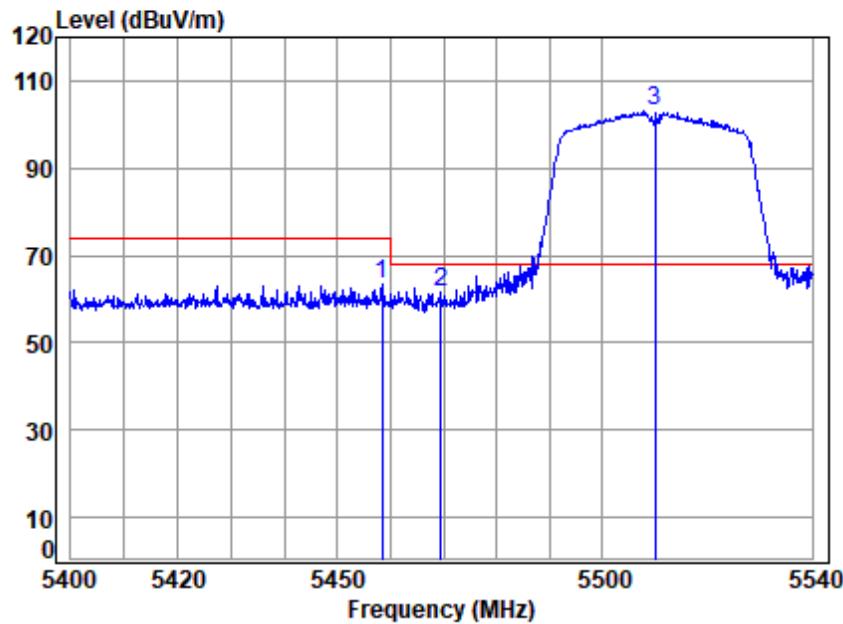
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark	
	MHz	Loss	Factor	Level	Level	Line		
1 pp	5700.000	10.56	33.20	30.62	87.69	100.83	68.20	32.63 peak
2	5725.000	10.68	33.25	30.61	44.78	58.10	68.20	-10.10 peak
3	5751.623	10.80	33.30	30.60	46.18	59.68	68.20	-8.52 peak



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5510 Band edge  
: 5GWIFI 11AC40

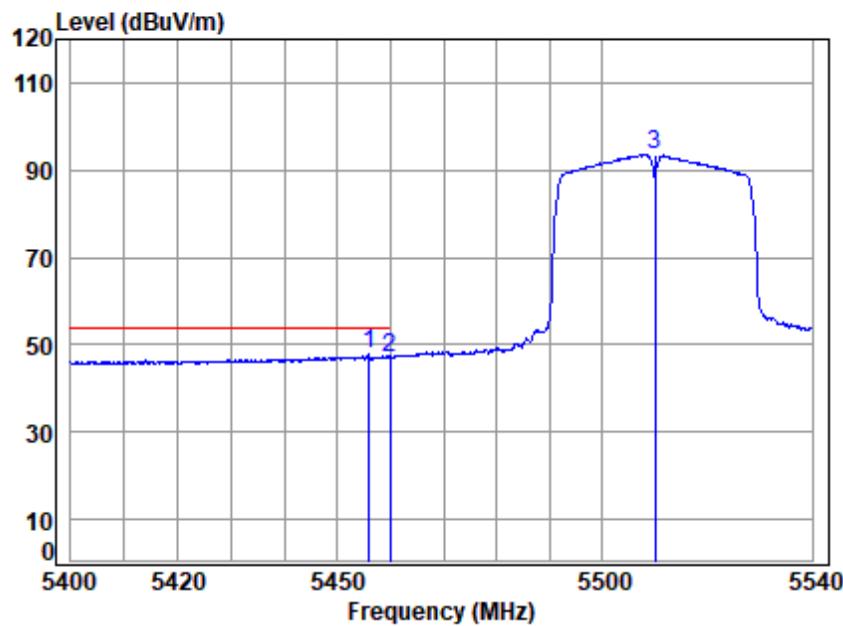
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5458.364	10.60	32.90	30.72	50.47	63.25	74.00 -10.75 peak
2	5469.552	10.59	32.90	30.71	48.97	61.75	68.20 -6.45 peak
3 pp	5510.000	10.56	32.90	30.70	90.27	103.03	68.20 34.83 peak

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5510 Band edge  
: 5GWIFI 11AC40

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1 pp	5455.850	10.60	32.90	30.72	34.94	47.72	54.00 -6.28 Average
2	5459.901	10.60	32.90	30.72	34.42	47.20	54.00 -6.80 Average
3	5510.000	10.56	32.90	30.70	80.83	93.59	----- Average

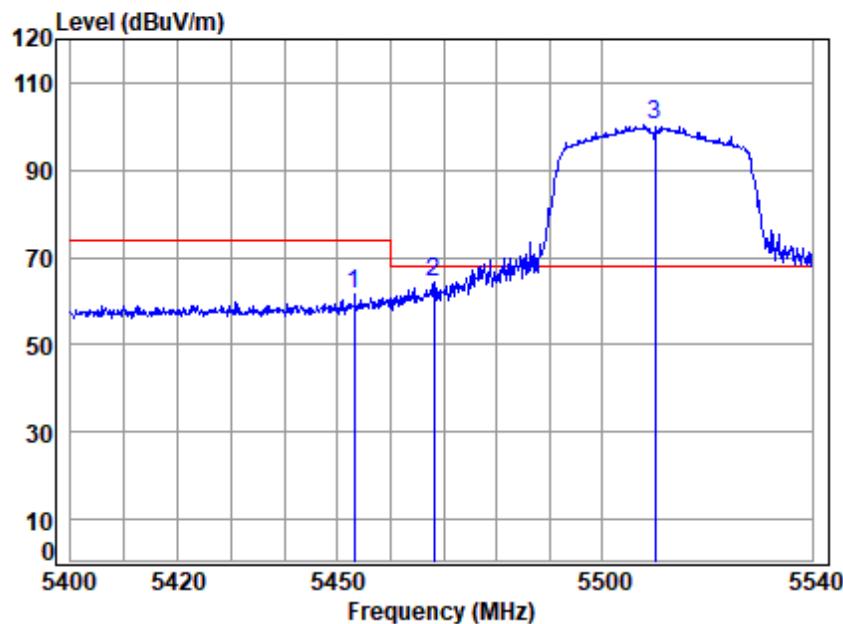
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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5510 Band edge  
: 5GWIFI 11AC40

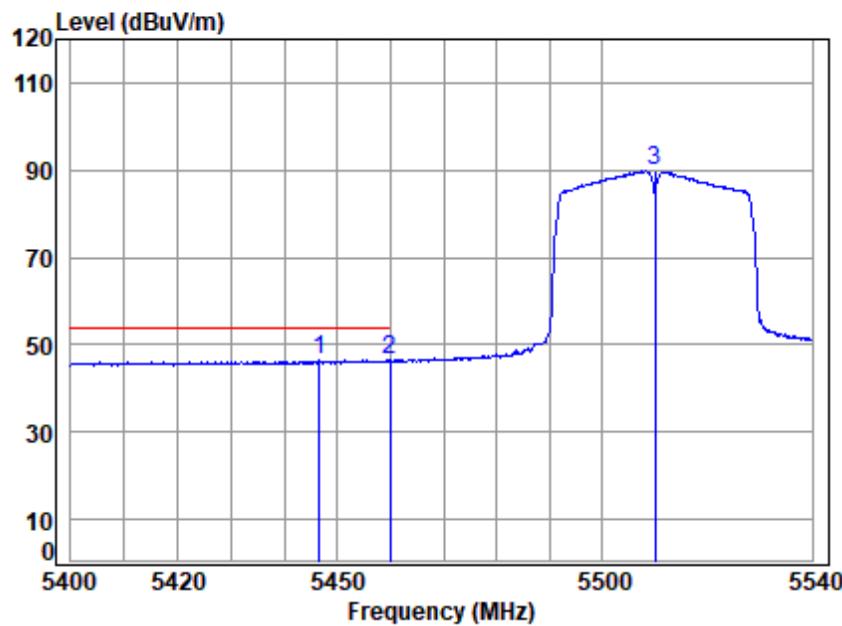
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5453.197	10.60	32.90	30.72	48.87	61.65	74.00 -12.35 peak
2	5468.152	10.59	32.90	30.71	51.78	64.56	68.20 -3.64 peak
3 pp	5510.000	10.56	32.90	30.70	87.55	100.31	68.20 32.11 peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5510 Band edge  
: 5GWIFI 11AC40

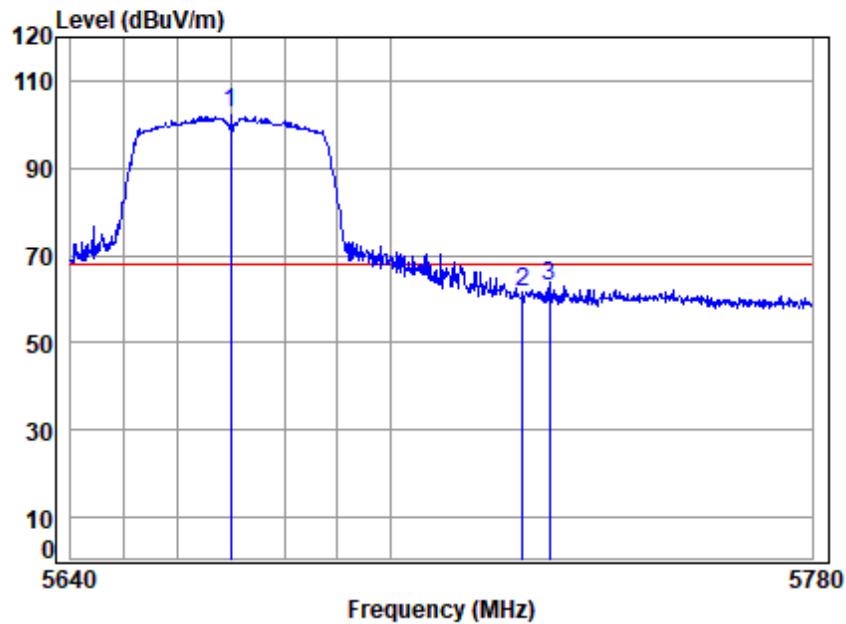
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5446.641	10.60	32.89	30.72	33.60	46.37	54.00 -7.63 Average
2 pp	5459.901	10.60	32.90	30.72	33.70	46.48	54.00 -7.52 Average
3	5510.000	10.56	32.90	30.70	76.92	89.68	----- Average



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5670 Band edge  
: 5GWIFI 11AC40

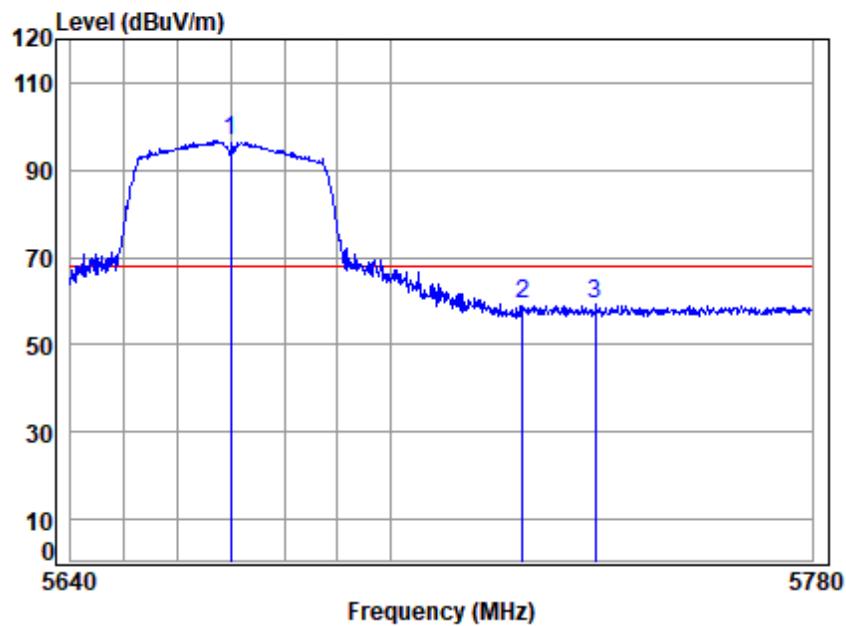
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1 pp	5670.000	10.52	33.14	30.63	89.47	102.50	68.20 34.30 peak
2	5725.000	10.68	33.25	30.61	48.35	61.67	68.20 -6.53 peak
3	5730.047	10.70	33.26	30.61	49.70	63.05	68.20 -5.15 peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5670 Band edge  
: 5GWIFI 11AC40

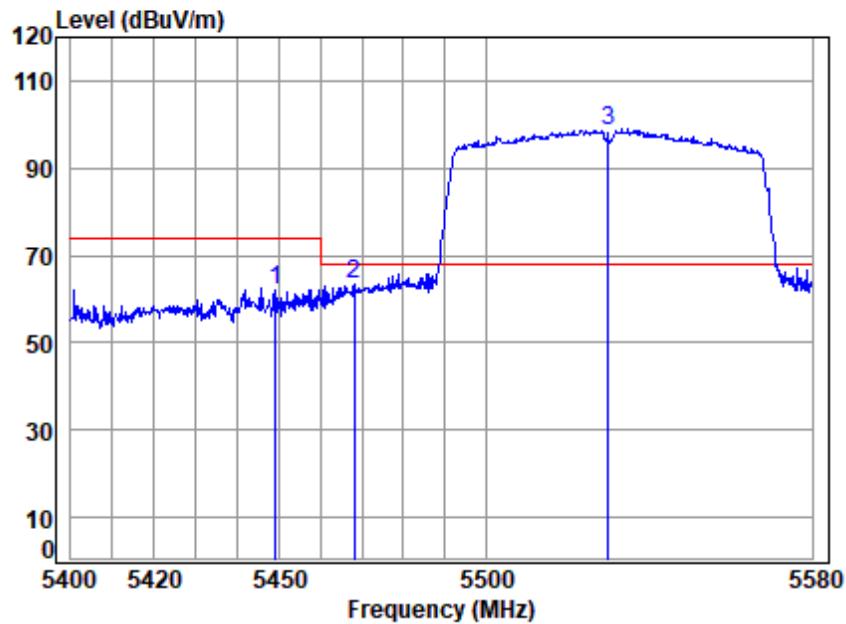
Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Loss	Factor	Factor	Level	Level	Line	Limit	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	5670.000	10.52	33.14	30.63	83.60	96.63	68.20	28.43 peak
2	5725.000	10.68	33.25	30.61	45.90	59.22	68.20	-8.98 peak
3	5738.765	10.74	33.28	30.60	45.74	59.16	68.20	-9.04 peak

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5530 Band edge  
: 5GWIFI 11AC80

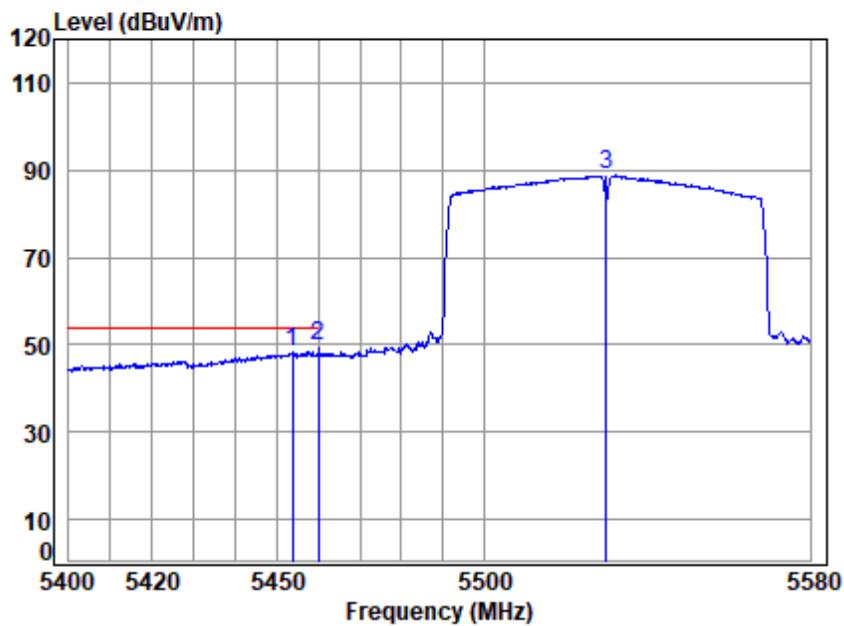
Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Loss	Factor	Factor	Level	Level	Line	Limit	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5449.092	10.60	32.90	30.72	49.32	62.10	74.00	-11.90 peak
2	5468.064	10.59	32.90	30.71	50.62	63.40	68.20	-4.80 peak
3 pp	5530.000	10.53	32.90	30.69	85.85	98.59	68.20	30.39 peak

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

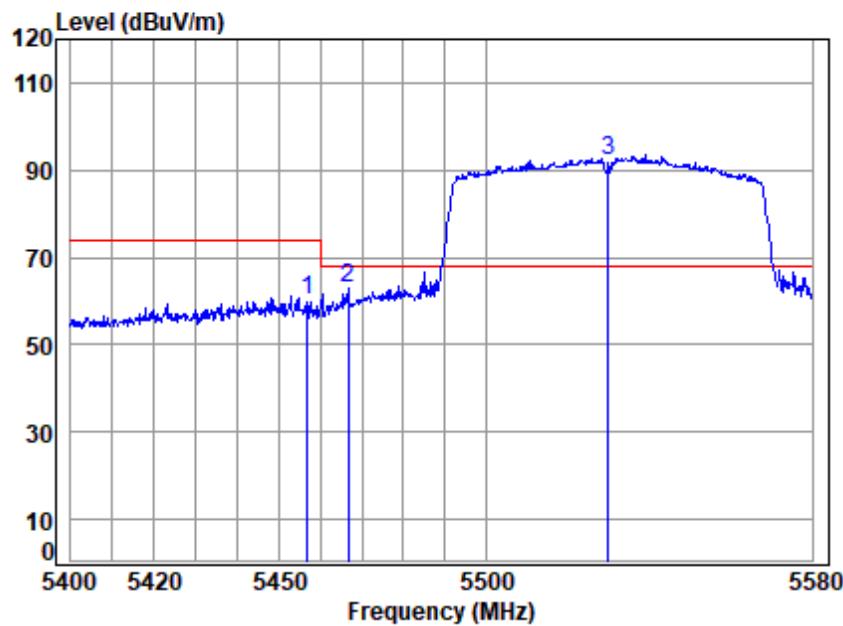
Mode : 5530 Band edge  
: 5GWIFI 11AC80

Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Loss	Factor	Factor	Level	Level	Line	Limit	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5453.739	10.60	32.90	30.72	35.48	48.26	54.00	-5.74 Average
2 pp	5459.901	10.60	32.90	30.72	36.73	49.51	54.00	-4.49 Average
3	5530.000	10.53	32.90	30.69	76.04	88.78	-----	----- Average

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5530 Band edge  
: 5GWIFI 11AC80

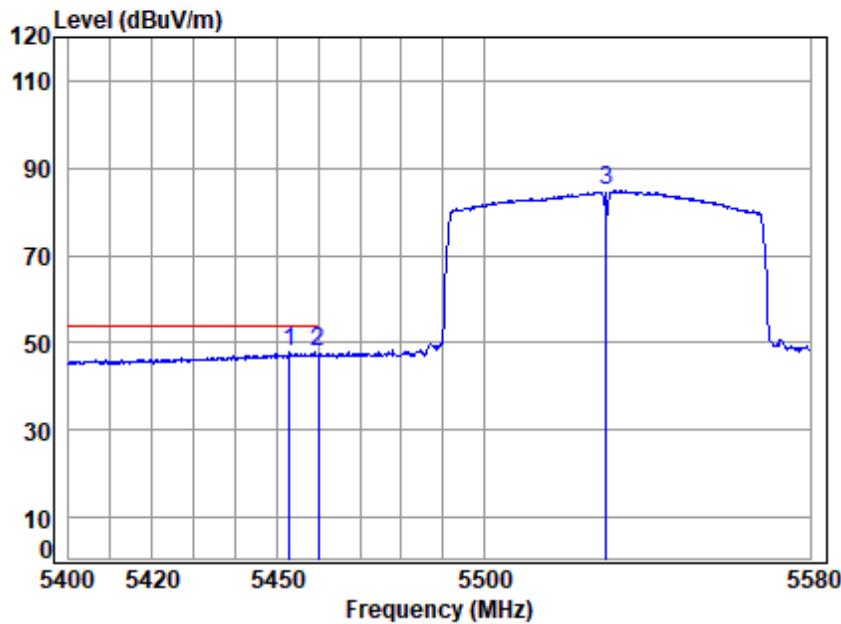
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5456.780	10.60	32.90	30.72	47.65	60.43	74.00 -13.57 peak
2	5466.630	10.59	32.90	30.71	50.25	63.03	68.20 -5.17 peak
3 pp	5530.000	10.53	32.90	30.69	79.59	92.33	68.20 24.13 peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5530 Band edge  
: 5GWIFI 11AC80

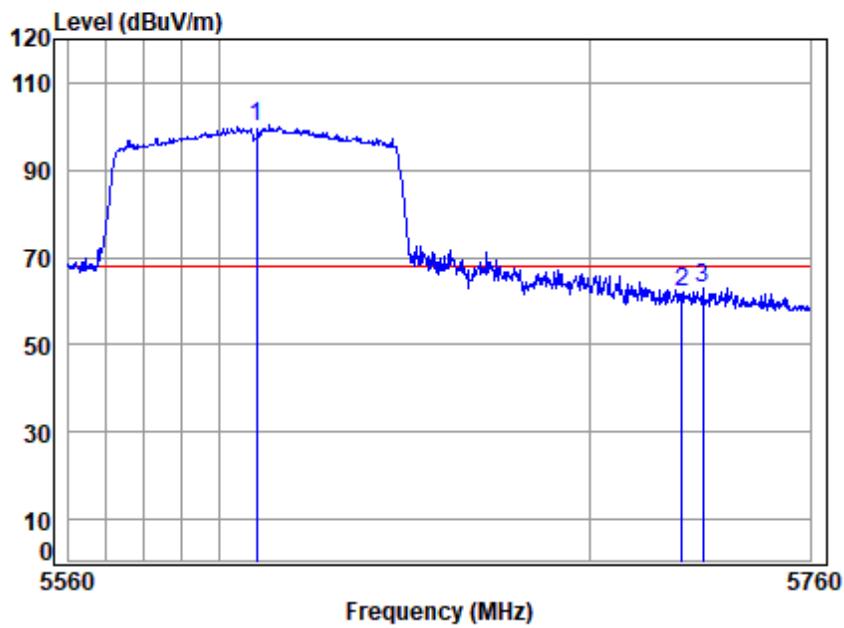
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5453.024	10.60	32.90	30.72	34.93	47.71	54.00 -6.29 Average
2 pp	5459.901	10.60	32.90	30.72	34.94	47.72	54.00 -6.28 Average
3	5530.000	10.53	32.90	30.69	72.04	84.78	----- Average

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5610 Band edge  
: 5GWIFI 11AC80

Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Loss	Factor	Factor	Level	Level	Line	Limit	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5610.000	10.43	33.02	30.66	86.96	99.75	68.20	31.55 peak
2	5725.000	10.68	33.25	30.61	48.78	62.10	68.20	-6.10 Peak
3	5730.763	10.70	33.26	30.61	49.53	62.88	68.20	-5.32 peak

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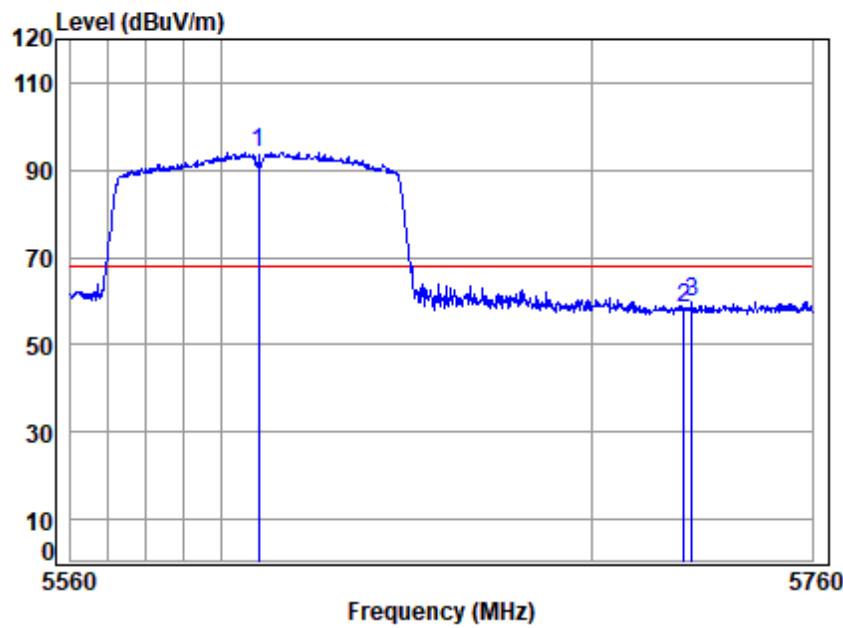
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Shenzhen Branch (CN) SGS Quality System Laboratory  
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t (86-755) 26012053 f (86-755) 26710594 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)



Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5610 Band edge  
: 5GWIFI 11AC80

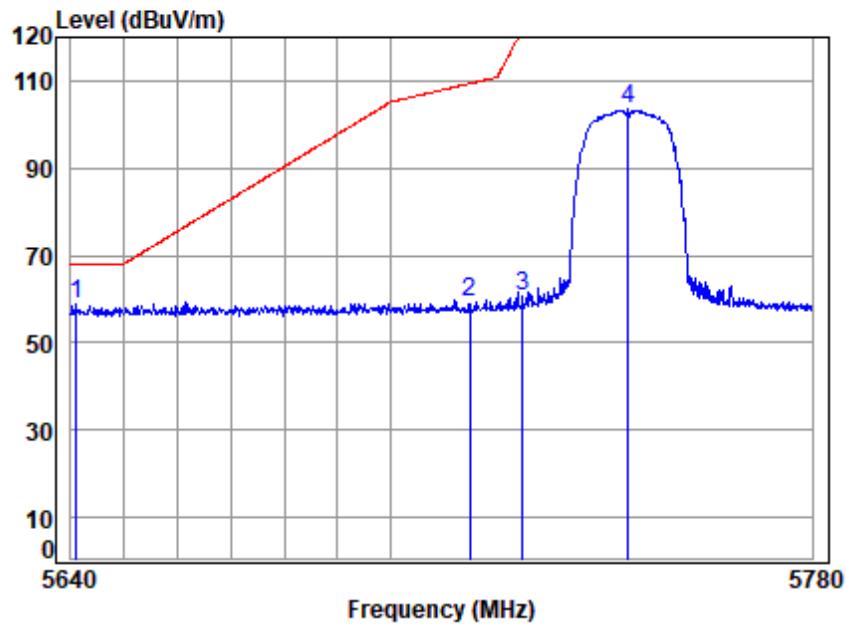
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark	
	MHz	Loss	Factor	Level	Level	Line		
1 pp	5610.000	10.43	33.02	30.66	81.28	94.07	68.20	25.87 peak
2	5725.000	10.68	33.25	30.61	45.00	58.32	68.20	-9.88 Peak
3	5727.118	10.68	33.25	30.61	46.63	59.95	68.20	-8.25 peak



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Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5745 Band edge  
: 5GWIFI 11A

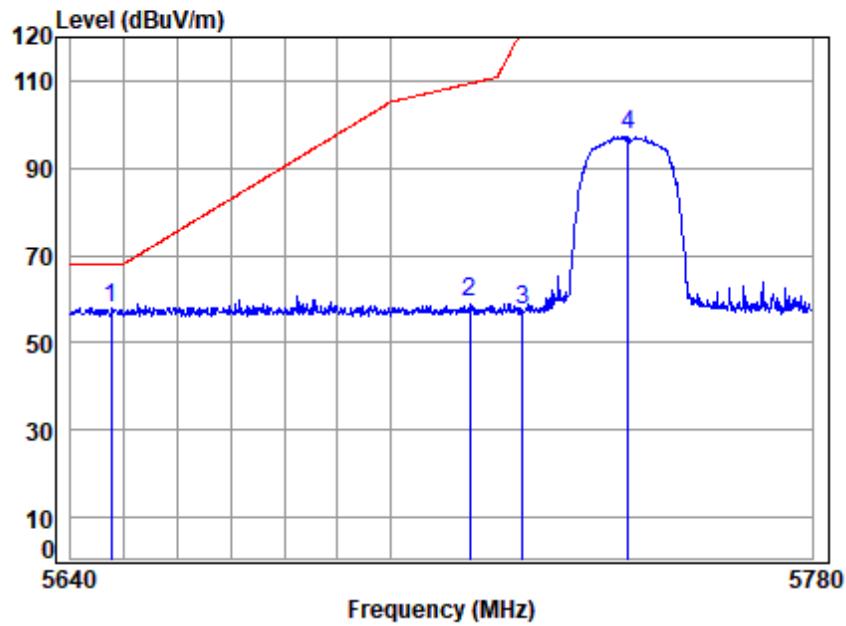
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark	
	MHz	Loss	Factor	Level	Level	Line		
1 pp	5641.106	10.47	33.08	30.64	46.00	58.91	68.20	-9.29 peak
2	5715.000	10.63	33.23	30.61	46.13	59.38	109.40	-50.02 peak
3	5725.000	10.68	33.25	30.61	47.56	60.88	122.20	-61.32 peak
4	5745.000	10.77	33.29	30.60	90.17	103.63	-----	peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5745 Band edge  
: 5GWIFI 11A

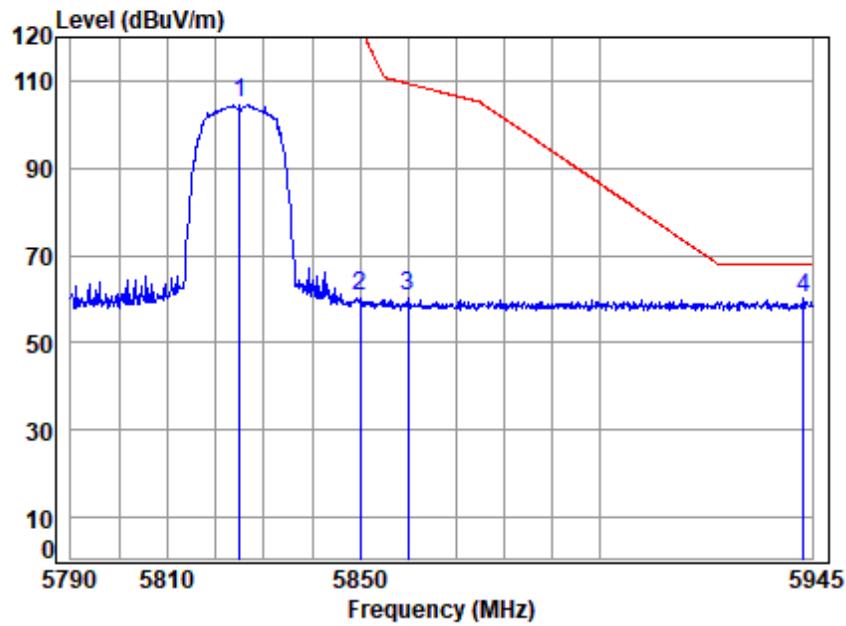
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1 pp	5647.611	10.48	33.10	30.64	44.99	57.93	68.20 -10.27 peak
2	5715.000	10.63	33.23	30.61	46.21	59.46	109.40 -49.94 peak
3	5725.000	10.68	33.25	30.61	43.97	57.29	122.20 -64.91 peak
4	5745.000	10.77	33.29	30.60	84.23	97.69	----- peak

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Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5825 Band edge  
: 5GWIFI 11A

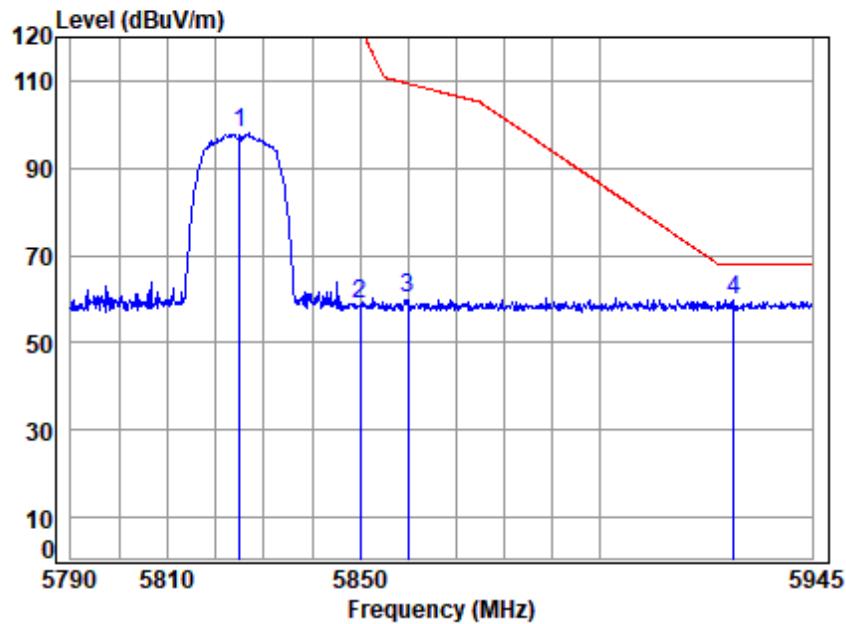
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5825.000	10.99	33.50	30.57	90.84	104.76	-----	-----	peak
2	5850.000	10.95	33.60	30.56	46.60	60.59	122.20	-61.61	peak
3	5860.000	10.94	33.58	30.56	46.57	60.53	109.40	-48.87	peak
4 pp	5943.272	10.86	33.59	30.52	46.17	60.10	68.20	-8.10	peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5825 Band edge  
: 5GWIFI 11A

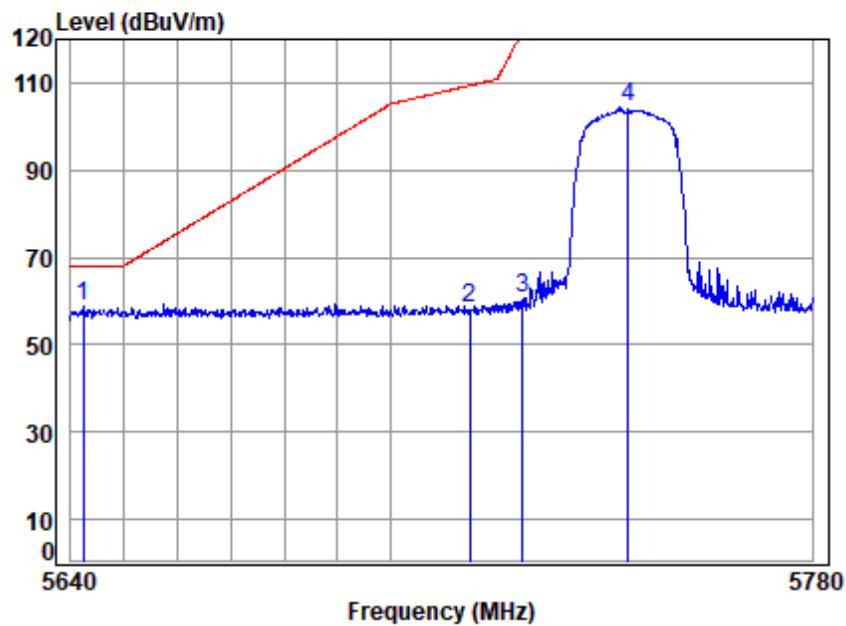
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5825.000	10.99	33.50	30.57	84.05	97.97	----- peak
2	5850.000	10.95	33.60	30.56	44.82	58.81	122.20 -63.39 peak
3	5860.000	10.94	33.58	30.56	46.05	60.01	109.40 -49.39 peak
4 pp	5928.532	10.87	33.56	30.53	45.76	59.66	68.20 -8.54 peak

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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

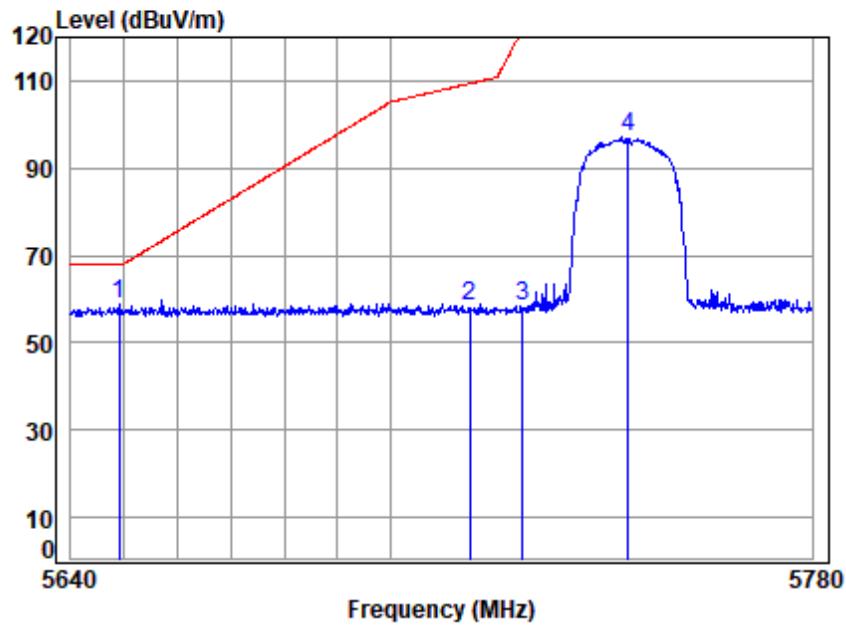
Mode : 5745 Band edge  
: 5GWIFI 11AC20

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1 pp	5642.352	10.47	33.08	30.64	45.77	58.68	68.20 -9.52 peak
2	5715.000	10.63	33.23	30.61	45.16	58.41	109.40 -50.99 peak
3	5725.000	10.68	33.25	30.61	47.27	60.59	122.20 -61.61 peak
4	5745.000	10.77	33.29	30.60	90.86	104.32	----- peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

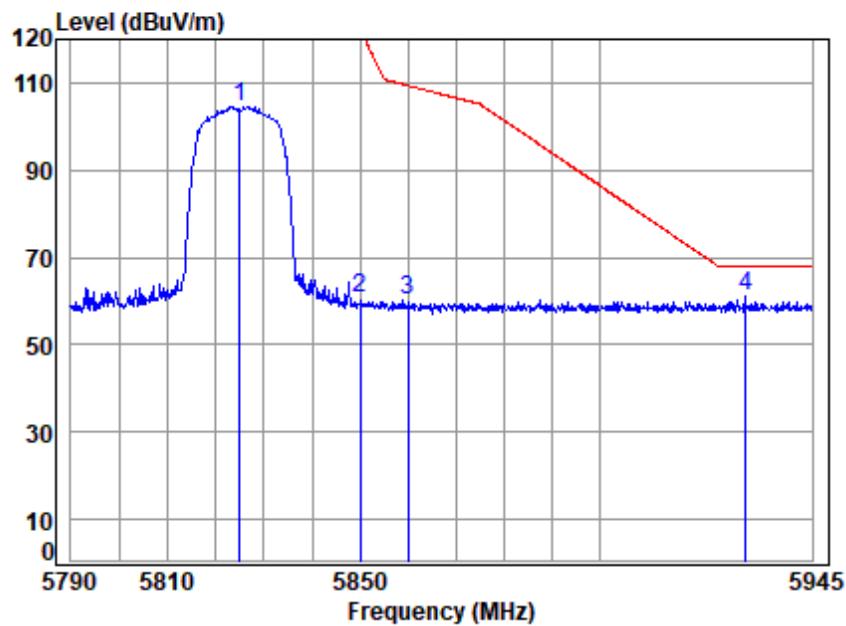
Mode : 5745 Band edge  
: 5GWIFI 11AC20

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1 pp	5648.996	10.48	33.10	30.64	45.80	58.74	68.20 -9.46 peak
2	5715.000	10.63	33.23	30.61	45.28	58.53	109.40 -50.87 peak
3	5725.000	10.68	33.25	30.61	44.98	58.30	122.20 -63.90 peak
4	5745.000	10.77	33.29	30.60	83.65	97.11	----- ----- peak

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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

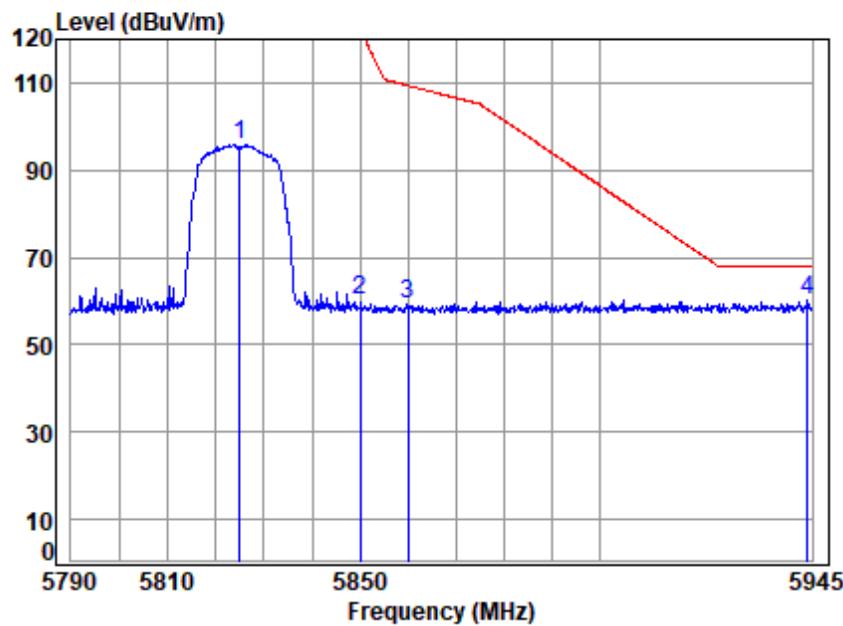
Mode : 5825 Band edge  
: 5GWIFI 11AC20

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5825.000	10.99	33.50	30.57	90.79	104.71	----- peak
2	5850.000	10.95	33.60	30.56	46.55	60.54	122.20 -61.66 peak
3	5860.000	10.94	33.58	30.56	46.26	60.22	109.40 -49.18 peak
4 pp	5930.882	10.87	33.56	30.53	47.06	60.96	68.20 -7.24 peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5825 Band edge  
: 5GWIFI 11AC20

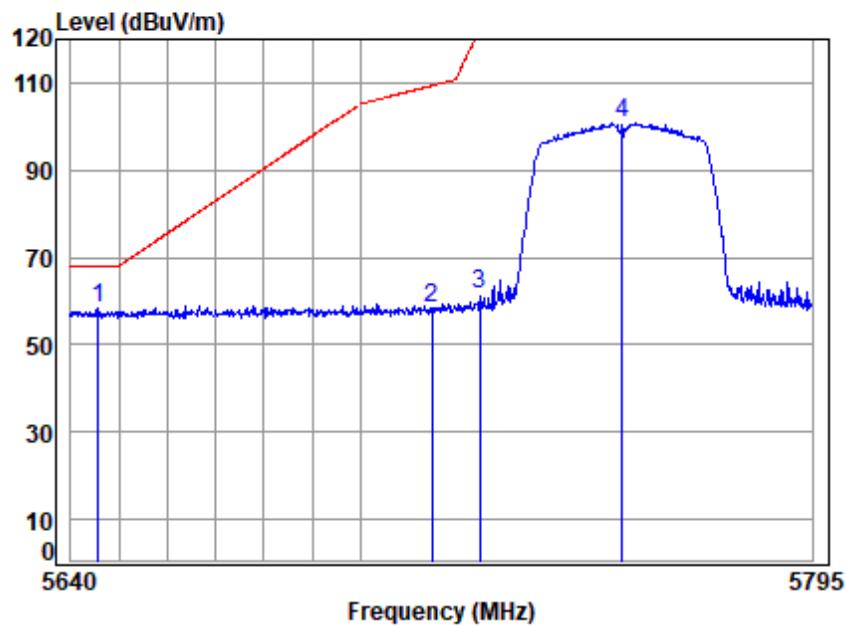
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5825.000	10.99	33.50	30.57	81.96	95.88	----- peak
2	5850.000	10.95	33.60	30.56	46.38	60.37	122.20 -61.83 peak
3	5860.000	10.94	33.58	30.56	45.49	59.45	109.40 -49.95 peak
4 pp	5944.058	10.85	33.59	30.52	46.17	60.09	68.20 -8.11 peak

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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5755 Band edge  
: 5GWIFI 11AC40

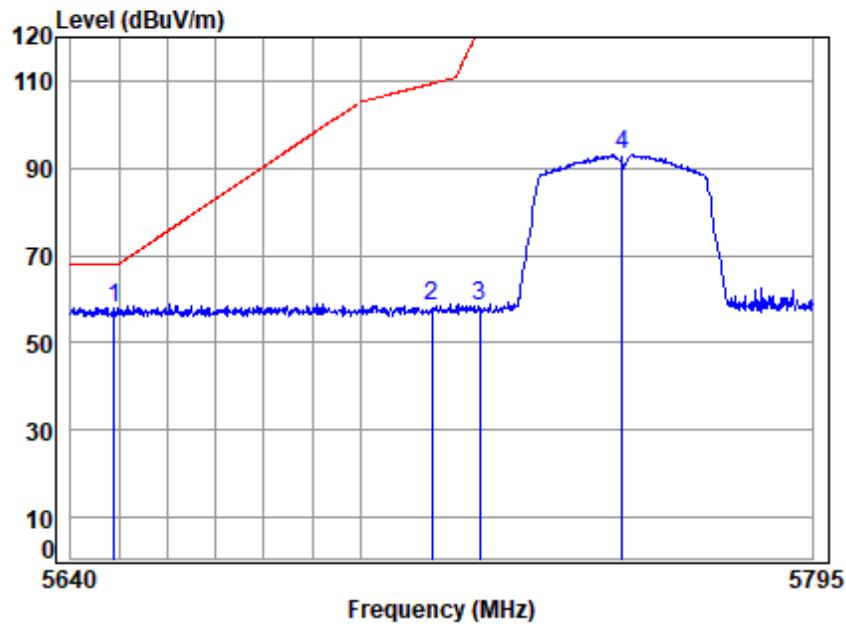
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1 pp	5645.661	10.48	33.09	30.64	45.70	58.63	68.20 -9.57 peak
2	5715.000	10.63	33.23	30.61	44.95	58.20	109.40 -51.20 peak
3	5725.000	10.68	33.25	30.61	48.14	61.46	122.20 -60.74 peak
4	5755.000	10.81	33.31	30.60	87.11	100.63	----- peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

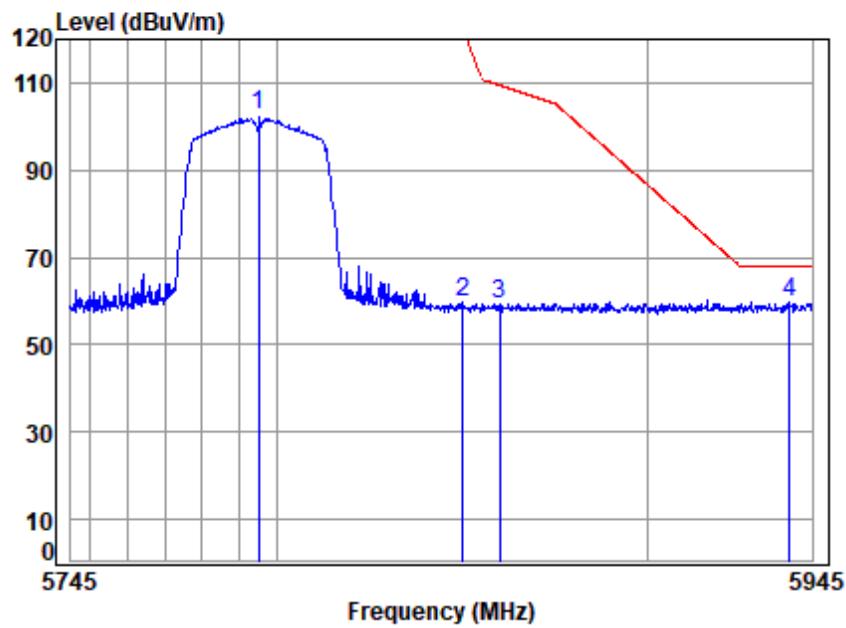
Mode : 5755 Band edge  
: 5GWIFI 11AC40

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1 pp	5649.029	10.48	33.10	30.64	45.22	58.16	68.20 -10.04 peak
2	5715.000	10.63	33.23	30.61	45.00	58.25	109.40 -51.15 peak
3	5725.000	10.68	33.25	30.61	45.16	58.48	122.20 -63.72 peak
4	5755.000	10.81	33.31	30.60	79.40	92.92	----- peak

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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5795 Band edge  
: 5GWIFI 11AC40

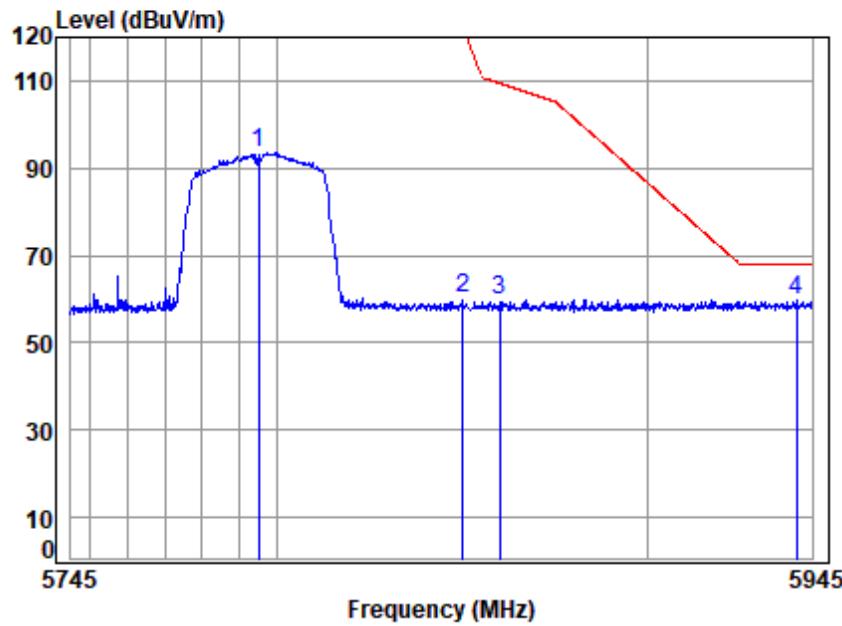
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5795.000	11.00	33.39	30.58	88.68	102.49	----- peak
2	5850.000	10.95	33.60	30.56	45.78	59.77	122.20 -62.43 peak
3	5860.000	10.94	33.58	30.56	45.38	59.34	109.40 -50.06 peak
4 pp	5938.900	10.86	33.58	30.52	45.86	59.78	68.20 -8.42 peak

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Shenzhen Branch (CN) SGS Laboratory

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5795 Band edge  
: 5GWIFI 11AC40

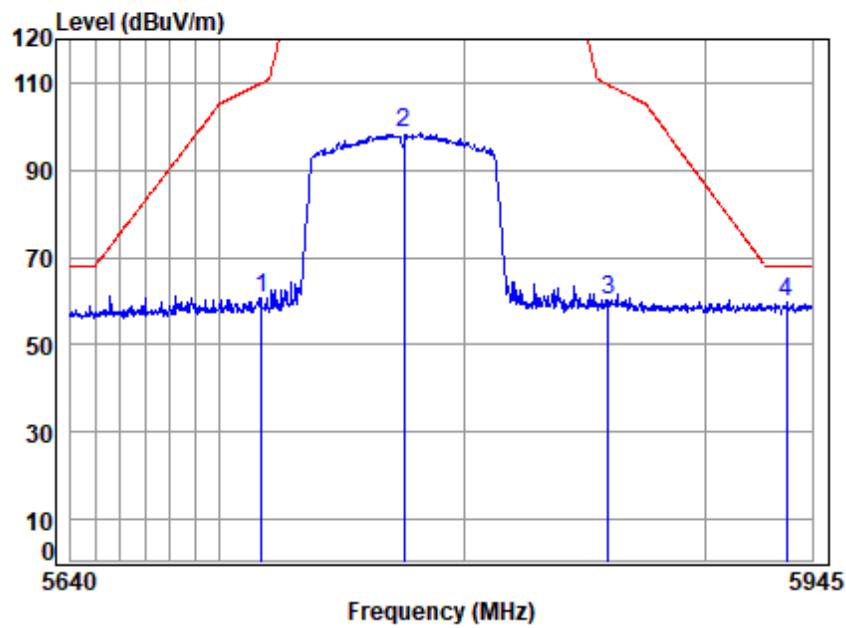
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5795.000	11.00	33.39	30.58	79.66	93.47	----- peak
2	5850.000	10.95	33.60	30.56	46.13	60.12	122.20 -62.08 peak
3	5860.000	10.94	33.58	30.56	45.94	59.90	109.40 -49.50 peak
4 pp	5940.729	10.86	33.58	30.52	45.64	59.56	68.20 -8.64 peak

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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5775 Band edge  
: 5GWIFI 11AC80

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
1	5716.858	10.64	33.23	30.61	47.42	60.68	109.92 -49.24 peak
2	5775.000	10.91	33.35	30.59	84.72	98.39	----- ----- peak
3	5859.518	10.94	33.58	30.56	46.43	60.39	109.53 -49.14 peak
4 pp	5934.052	10.86	33.57	30.53	45.97	59.87	68.20 -8.33 peak

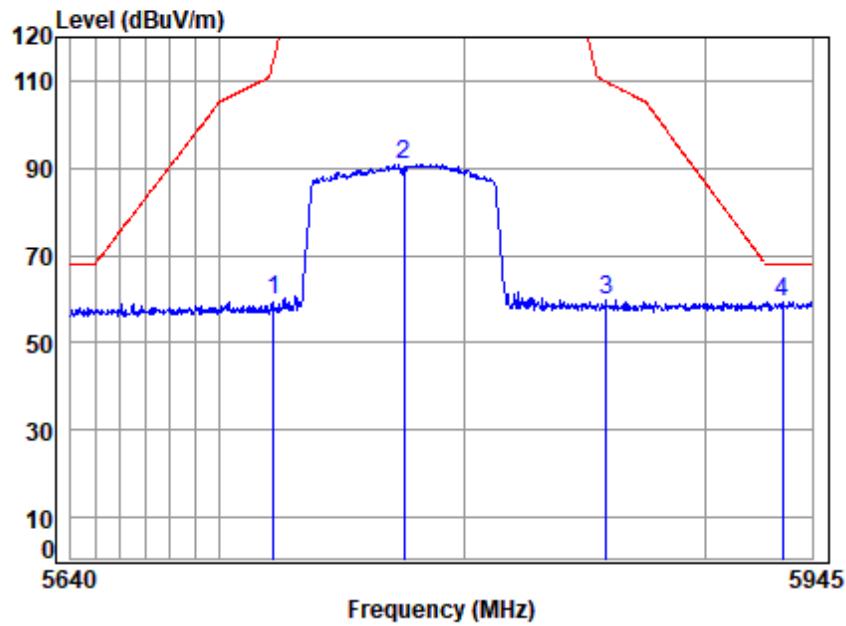
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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5775 Band edge  
: 5GWIFI 11AC80

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	MHz	Loss	Factor	Level	Level	Line	
	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5721.677	10.66	33.24	30.61	46.57	59.86	114.62 -54.76 peak
2	5775.000	10.91	33.35	30.59	76.97	90.64	----- ----- peak
3	5858.592	10.94	33.58	30.56	46.03	59.99	109.79 -49.80 peak
4 pp	5932.489	10.86	33.56	30.53	45.63	59.52	68.20 -8.68 peak

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Shenzhen Branch (CN) SGS Laboratory

### 7.3 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

#### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23.2 °C

Humidity: 45.8 % RH

Atmospheric Pressure: 1020 mbar

#### 7.3.1 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	22	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and

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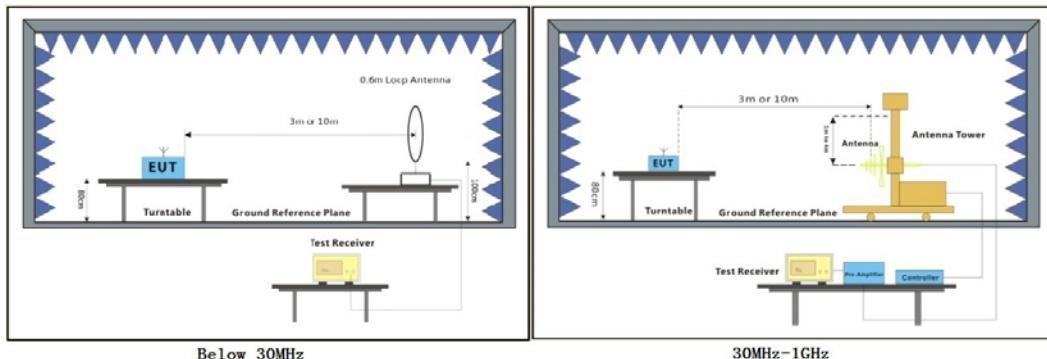


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		found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	23	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

### 7.3.2 Test Setup Diagram



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**7.3.3 Measurement Procedure and Data**

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. 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.
- d. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. 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 quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

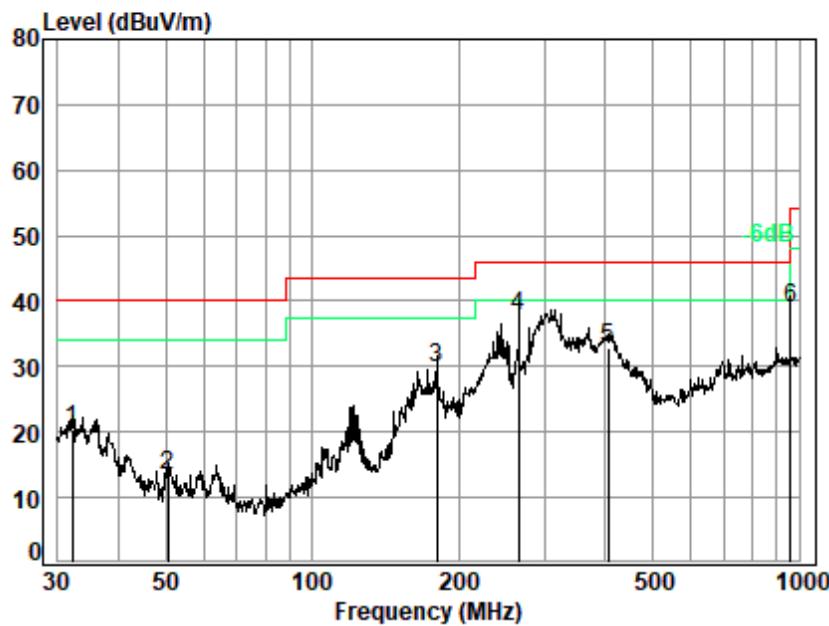
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Shenzhen Branch / Shenzhen SGS Laboratory

Test Mode: 02; Polarity: Horizontal



Site : chamber  
Condition: 3m HORIZONTAL  
Job No. : 03234AT  
Test Mode: 02

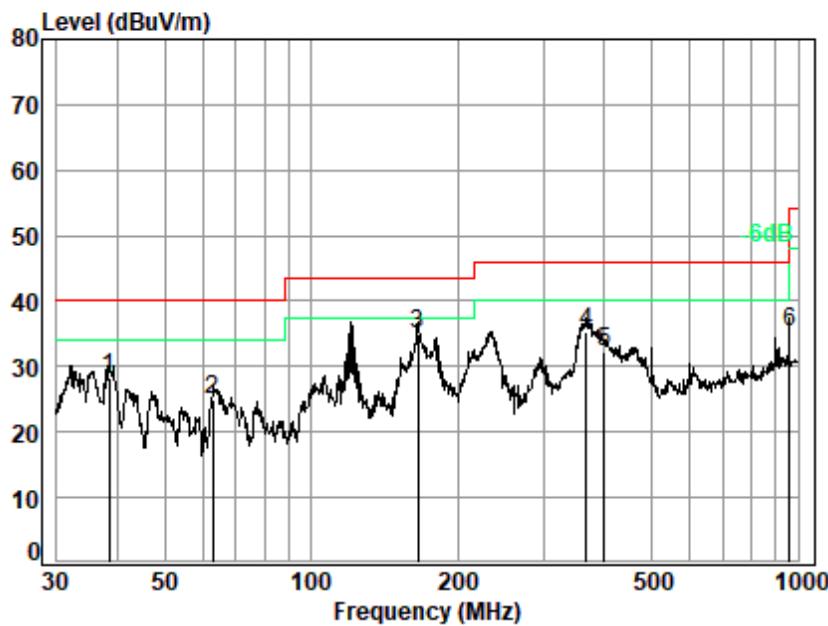
Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark	
								MHz	dB/m
1	32.18	20.20	0.70	27.79	27.38	20.49	40.00	-19.51	QP
2	50.41	12.69	0.86	27.73	27.51	13.33	40.00	-26.67	QP
3	180.02	14.10	1.68	27.25	41.20	29.73	43.50	-13.77	QP
4	265.68	17.07	2.07	26.89	45.51	37.76	46.00	-8.24	QP
5	404.67	20.54	2.60	27.18	36.91	32.87	46.00	-13.13	QP
6 q	958.79	28.10	4.28	26.34	32.77	38.81	46.00	-7.19	QP

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Test Mode: 02; Polarity: Vertical



Site : chamber  
Condition: 3m VERTICAL  
Job No. : 03234AT  
Test Mode: 02

Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Over Limit Remark	
								MHz	dB/m
1	38.48	17.07	0.77	27.77	38.10	28.17	40.00	-11.83	QP
2	62.87	11.18	0.97	27.70	40.47	24.92	40.00	-15.08	QP
3 q	165.49	13.18	1.61	27.31	47.47	34.95	43.50	-8.55	QP
4	366.82	20.35	2.47	27.02	39.54	35.34	46.00	-10.66	QP
5	400.43	20.60	2.58	27.16	36.19	32.21	46.00	-13.79	QP
6	958.79	28.10	4.28	26.34	29.24	35.28	46.00	-10.72	QP

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**7.4 Radiated Emissions (Above 1GHz)**

Test Requirement 47 CFR Part 15, Subpart C 15.209 &amp; Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1GHz	500	3

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

**7.4.1 E.U.T. Operation**

Operating Environment:

Temperature: 23.6 °C      Humidity: 53.5 % RH      Atmospheric Pressure: 1020 mbar

**7.4.2 Test Mode Description**

Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

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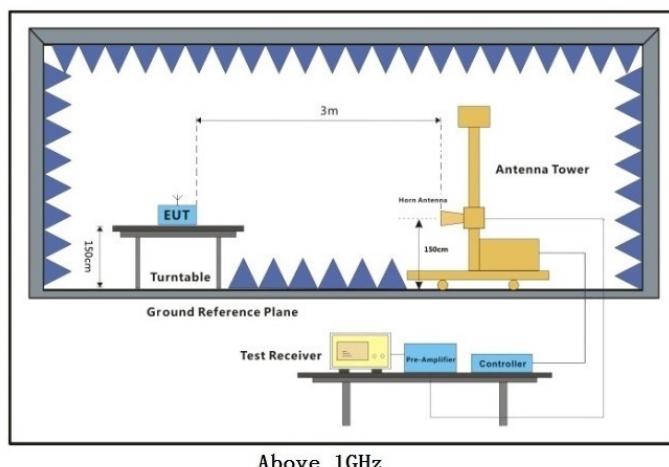
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Shenzhen Branch Inspection & Testing Services Laboratory

Final test	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	22	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	23	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

#### 7.4.3 Test Setup Diagram



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**7.4.4 Measurement Procedure and Data**

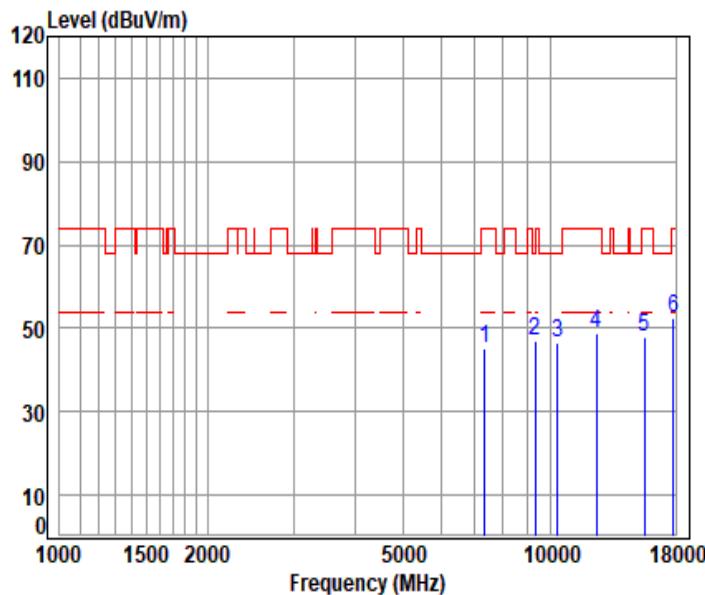
- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. 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.
- d. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. 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 or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
5. For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst case mode with the highest output power and the mode with the highest output power spectral density for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.



Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5180 TX RSE

: 5G WIFI 11A

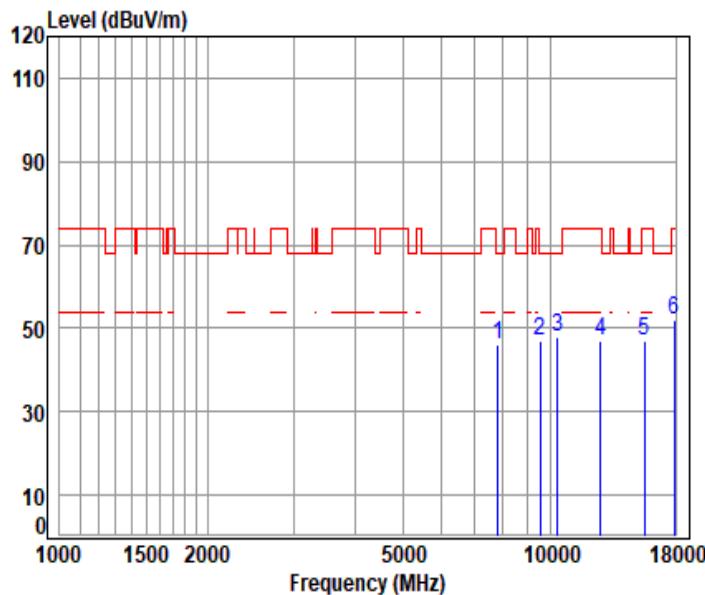
Freq	Cable Loss		Ant Factor		Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	Factor	dB	dBuV	dBuV/m	dBuV/m	dB
1	7347.474	11.51	36.79	56.42	53.28	45.16	74.00	-28.84	Peak
2	9312.588	12.19	38.80	54.72	50.73	47.00	74.00	-27.00	Peak
3	10360.000	13.60	39.00	53.88	47.81	46.53	68.20	-21.67	peak
4	12433.620	15.38	39.90	54.10	47.46	48.64	74.00	-25.36	Peak
5	15540.000	17.00	38.56	54.14	46.69	48.11	74.00	-25.89	peak
6	pp17844.590	18.62	42.77	54.47	45.52	52.44	74.00	-21.56	Peak

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Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5180 TX RSE

: 5G WIFI 11A

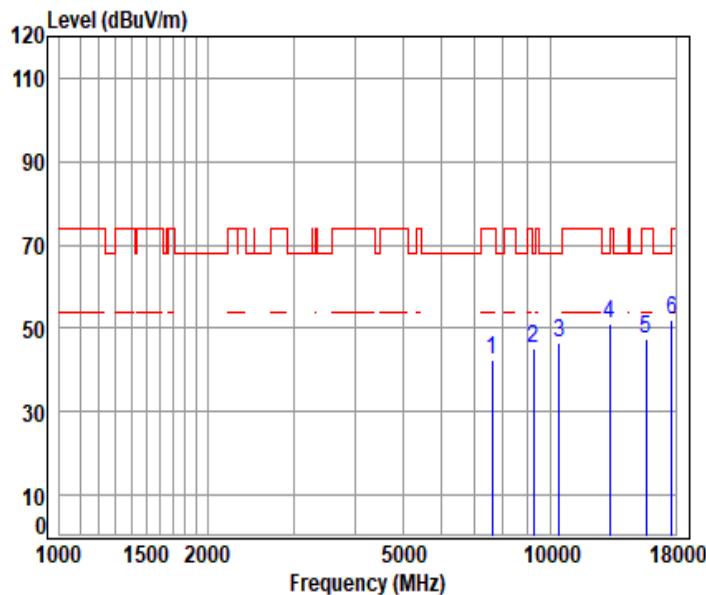
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1	7829.860	11.38	37.32	56.04	53.45	46.11	68.20	-22.09 Peak
2	9530.432	12.52	38.84	54.52	50.00	46.84	68.20	-21.36 Peak
3	pp10360.000	13.60	39.00	53.88	48.97	47.69	68.20	-20.51 peak
4	12651.130	15.23	40.15	54.26	46.01	47.13	74.00	-26.87 Peak
5	15540.000	17.00	38.56	54.14	45.64	47.06	74.00	-26.94 peak
6	17896.250	18.69	43.08	54.48	44.70	51.99	74.00	-22.01 Peak



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5220 TX RSE

: 5G WIFI 11A

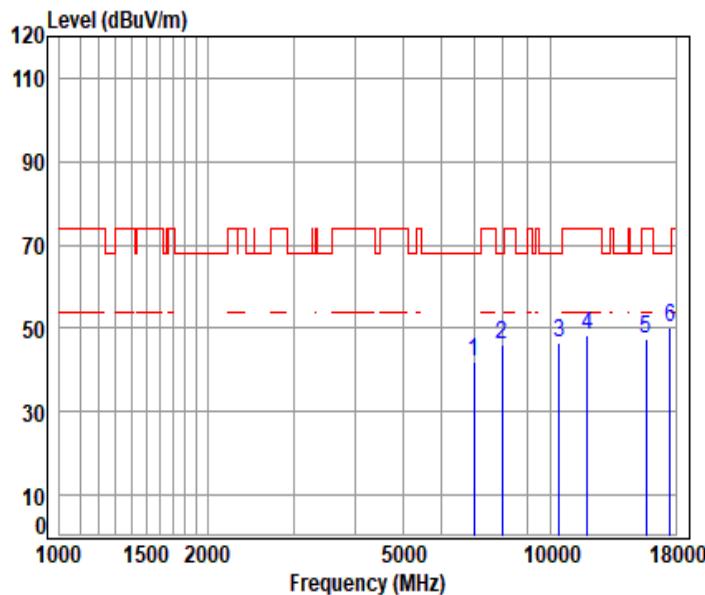
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 7603.905	11.10	36.81	56.22	50.77	42.46	74.00	-31.54 Peak
2 9255.758	12.24	37.83	54.77	49.99	45.29	68.20	-22.91 Peak
3 10440.000	13.63	39.04	53.84	47.81	46.64	68.20	-21.56 peak
4 13233.660	15.96	40.23	54.48	49.29	51.00	68.20	-17.20 Peak
5 15660.000	17.23	38.56	54.10	45.81	47.50	74.00	-26.50 peak
6 pp17691.000	19.15	41.67	54.44	45.65	52.03	68.20	-16.17 Peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5220 TX RSE

: 5G WIFI 11A

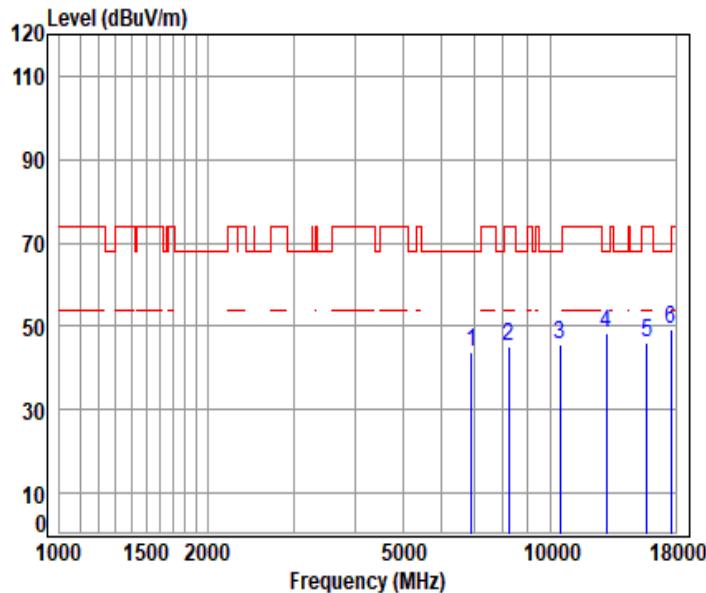
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Loss	Factor	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 6987.484	11.37	36.17	56.70	51.00	41.84	68.20	-26.36 Peak
2 7960.545	11.55	37.72	55.93	52.54	45.88	68.20	-22.32 Peak
3 10440.000	13.63	39.04	53.84	47.88	46.71	68.20	-21.49 peak
4 11903.500	14.90	39.70	53.77	47.54	48.37	74.00	-25.63 Peak
5 15660.000	17.23	38.56	54.10	45.64	47.33	74.00	-26.67 peak
6 pp17529.570	18.83	40.72	54.41	45.17	50.31	68.20	-17.89 Peak



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5240 TX RSE

: 5G WIFI 11A

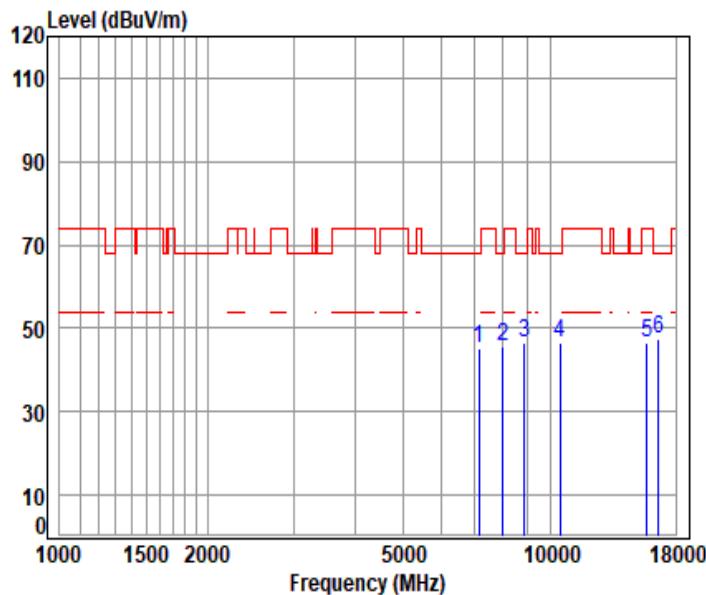
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
1	6902.598	11.37	36.19	56.72	52.77	43.61	68.20 -24.59 Peak
2	8232.670	11.63	37.87	55.69	51.46	45.27	74.00 -28.73 Peak
3	10480.000	13.64	39.08	53.81	46.86	45.77	68.20 -22.43 peak
4	13006.480	15.87	40.30	54.50	46.69	48.36	68.20 -19.84 Peak
5	15720.000	17.22	38.58	54.08	44.38	46.10	74.00 -27.90 peak
6	pp17601.130	19.79	40.32	54.42	43.61	49.30	68.20 -18.90 Peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

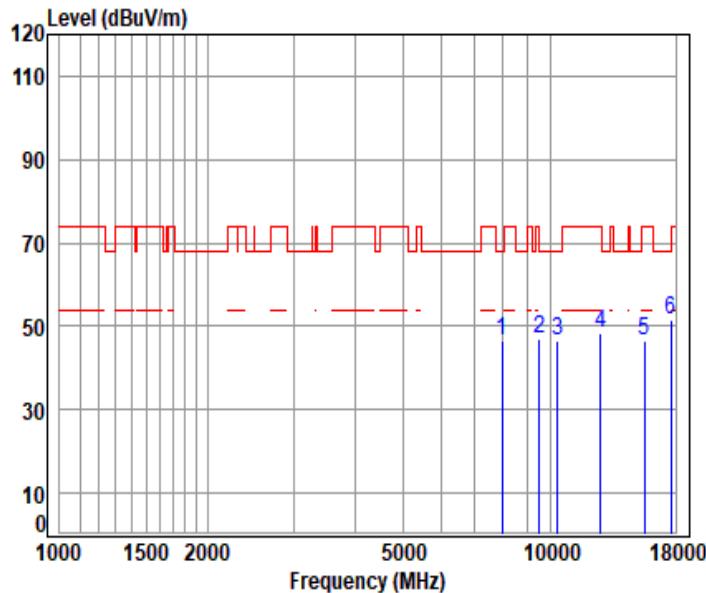
Mode : 5240 TX RSE

: 5G WIFI 11A

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7153.113	11.74	36.51	56.58	53.38	45.05	68.20 -23.15 peak
2	8009.345	11.55	37.80	55.89	52.09	45.55	68.20 -22.65 peak
3	8859.119	12.23	38.52	55.13	50.99	46.61	68.20 -21.59 peak
4	10480.000	13.64	39.08	53.81	47.41	46.32	68.20 -21.88 peak
5	15720.000	17.22	38.58	54.08	44.73	46.45	74.00 -27.55 peak
6	pp16608.340	17.64	39.22	54.18	44.92	47.60	68.20 -20.60 peak



Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5180 TX RSE

: 5G WIFI 11AC20

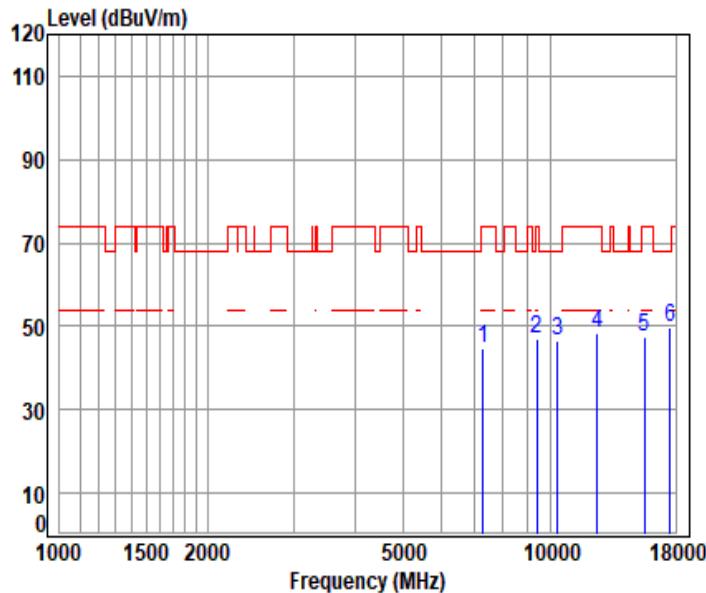
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
1	7968.658	11.55	37.74	55.93	52.96	46.32	68.20 -21.88 Peak
2	9504.150	12.55	38.89	54.55	50.09	46.98	68.20 -21.22 Peak
3	10360.000	13.60	39.00	53.88	47.88	46.60	68.20 -21.60 peak
4	12666.560	15.34	40.17	54.27	47.26	48.50	74.00 -25.50 Peak
5	15540.000	17.00	38.56	54.14	45.08	46.50	74.00 -27.50 peak
6	pp17637.030	19.54	40.86	54.43	45.39	51.36	68.20 -16.84 Peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5180 TX RSE

: 5G WIFI 11AC20

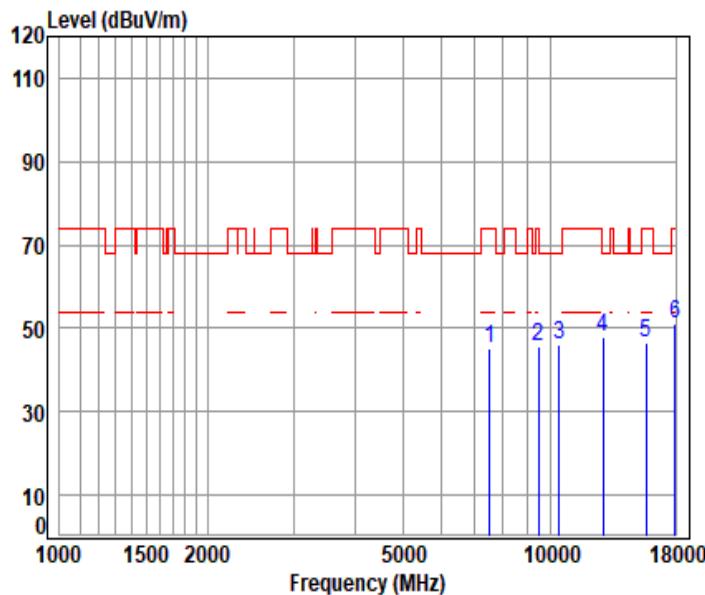
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
1	7292.895	11.51	36.69	56.47	53.12	44.85	74.00 -29.15 Peak
2	9398.258	12.30	38.80	54.64	50.35	46.81	74.00 -27.19 Peak
3	10360.000	13.60	39.00	53.88	47.90	46.62	68.20 -21.58 peak
4	12474.500	15.44	39.90	54.13	47.19	48.40	74.00 -25.60 Peak
5	15540.000	17.00	38.56	54.14	46.17	47.59	74.00 -26.41 peak
6	pp17529.570	18.83	40.72	54.41	44.56	49.70	68.20 -18.50 Peak



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5220 TX RSE

: 5G WIFI 11AC20

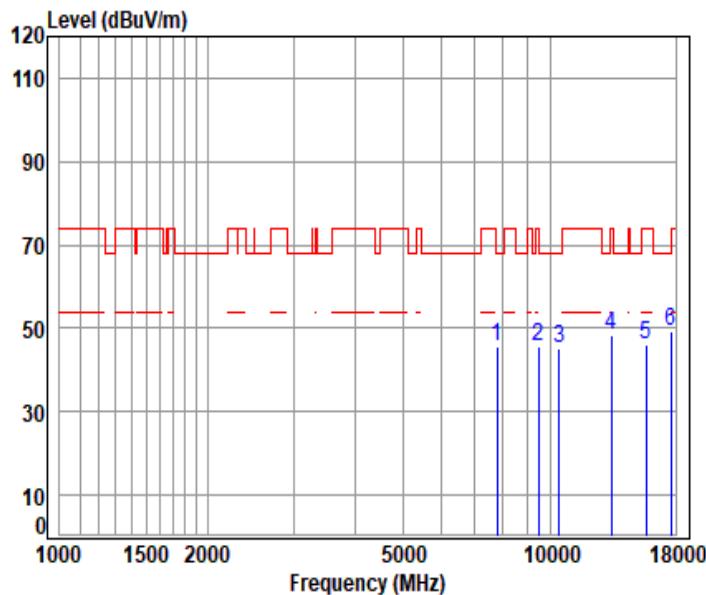
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7526.847	11.19	36.80	56.28	53.44	45.15	74.00 -28.85 Peak
2	9455.871	12.45	38.81	54.59	48.99	45.66	74.00 -28.34 Peak
3	10440.000	13.63	39.04	53.84	47.10	45.93	68.20 -22.27 peak
4	pp12796.230	15.43	40.30	54.36	46.31	47.68	68.20 -20.52 Peak
5	15660.000	17.23	38.56	54.10	44.95	46.64	74.00 -27.36 peak
6	17945.080	18.90	43.42	54.49	43.39	51.22	74.00 -22.78 Peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5220 TX RSE

: 5G WIFI 11AC20

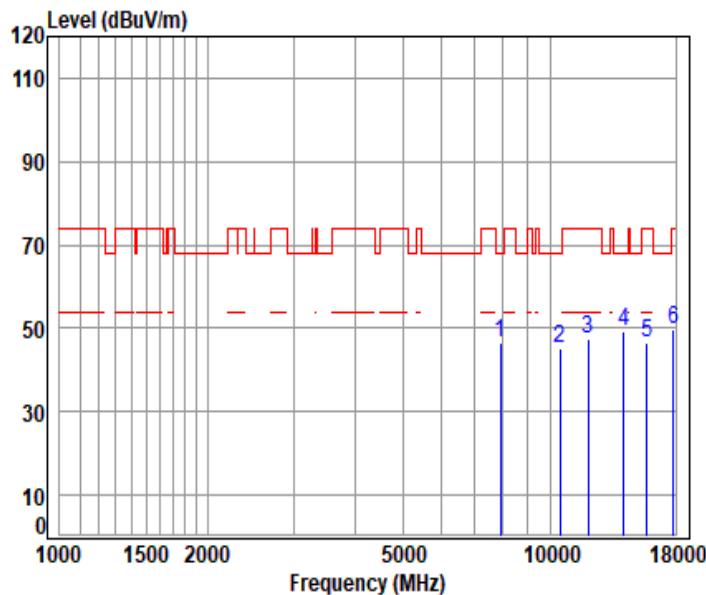
Freq	Cable	Ant	Preamp	Read	Limit	Over	Limit	Remark
	Freq	Loss	Factor	Level				
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	7776.221	11.34	37.10	56.08	53.06	45.42	68.20	-22.78 Peak
2	9455.871	12.45	38.81	54.59	48.99	45.66	74.00	-28.34 Peak
3	10440.000	13.63	39.04	53.84	46.14	44.97	68.20	-23.23 peak
4	13301.230	16.53	40.30	54.47	45.79	48.15	74.00	-25.85 Peak
5	15660.000	17.23	38.56	54.10	44.47	46.16	74.00	-27.84 peak
6	pp17637.030	19.54	40.86	54.43	43.45	49.42	68.20	-18.78 Peak



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5240 TX RSE

: 5G WIFI 11AC20

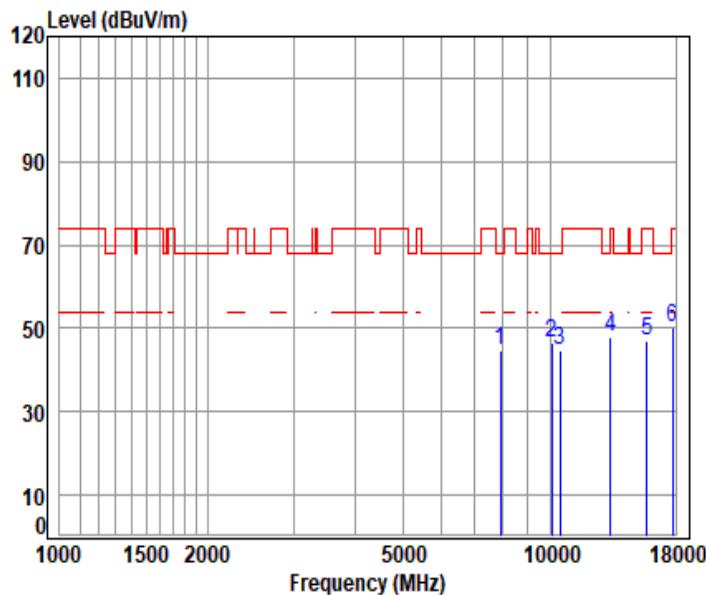
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1 7912.043	11.54	37.62	55.97	53.37	46.56	68.20	-21.64	Peak
2 10480.000	13.64	39.08	53.81	46.46	45.37	68.20	-22.83	peak
3 11939.930	14.77	39.74	53.78	46.70	47.43	74.00	-26.57	Peak
4 pp14096.340	16.58	39.90	54.39	46.98	49.07	68.20	-19.13	Peak
5 15720.000	17.22	38.58	54.08	44.96	46.68	74.00	-27.32	peak
6 17799.450	18.57	42.50	54.46	43.32	49.93	74.00	-24.07	Peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5240 TX RSE

: 5G WIFI 11AC20

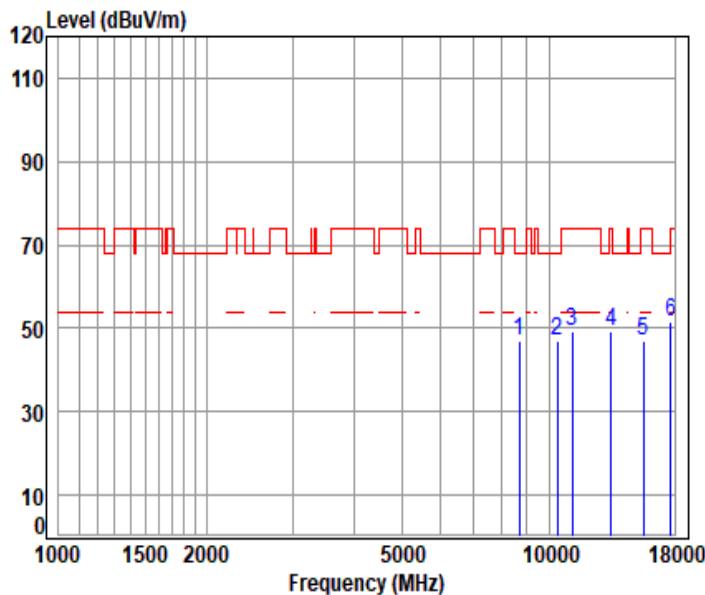
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 7928.178	11.55	37.66	55.96	51.51	44.76	68.20	-23.44 Peak
2 10051.780	13.14	39.00	54.07	48.34	46.41	68.20	-21.79 Peak
3 10480.000	13.64	39.08	53.81	45.94	44.85	68.20	-23.35 peak
4 13287.690	16.43	40.29	54.47	45.66	47.91	74.00	-26.09 Peak
5 15720.000	17.22	38.58	54.08	45.08	46.80	74.00	-27.20 peak
6 17781.330	18.67	42.37	54.46	43.77	50.35	74.00	-23.65 Peak



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5190 TX RSE

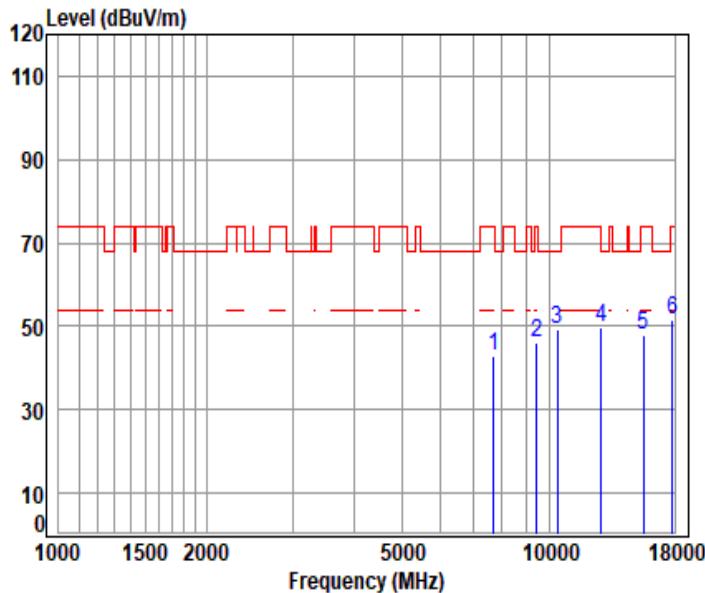
: 5G WIFI 11AC40

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 8671.635	12.05	38.49	55.30	51.72	46.96	68.20	-21.24 Peak
2 10380.000	13.61	39.00	53.87	48.24	46.98	68.20	-21.22 peak
3 11129.580	14.69	39.53	53.54	48.48	49.16	74.00	-24.84 Peak
4 13369.140	16.10	40.30	54.46	47.36	49.30	74.00	-24.70 Peak
5 15570.000	17.09	38.53	54.13	45.38	46.87	74.00	-27.13 peak
6 17709.030	19.04	41.86	54.44	44.97	51.43	74.00	-22.57 Peak

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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5190 TX RSE

: 5G WIFI 11AC40

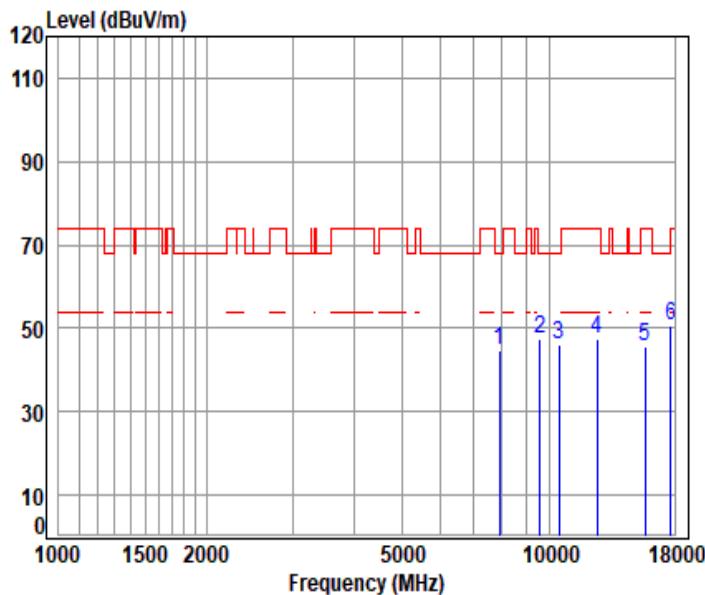
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7697.417	11.44	36.90	56.14	50.64	42.84	74.00 -31.16 Peak
2	9436.627	12.40	38.80	54.61	49.40	45.99	74.00 -28.01 Peak
3	10380.000	13.61	39.00	53.87	50.56	49.30	68.20 -18.90 peak
4	pp12744.210	15.50	40.24	54.32	48.15	49.57	68.20 -18.63 Peak
5	15570.000	17.09	38.53	54.13	46.59	48.08	74.00 -25.92 peak
6	17835.750	18.61	42.71	54.47	44.53	51.38	74.00 -22.62 Peak



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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5230 TX RSE

: 5G WIFI 11AC40

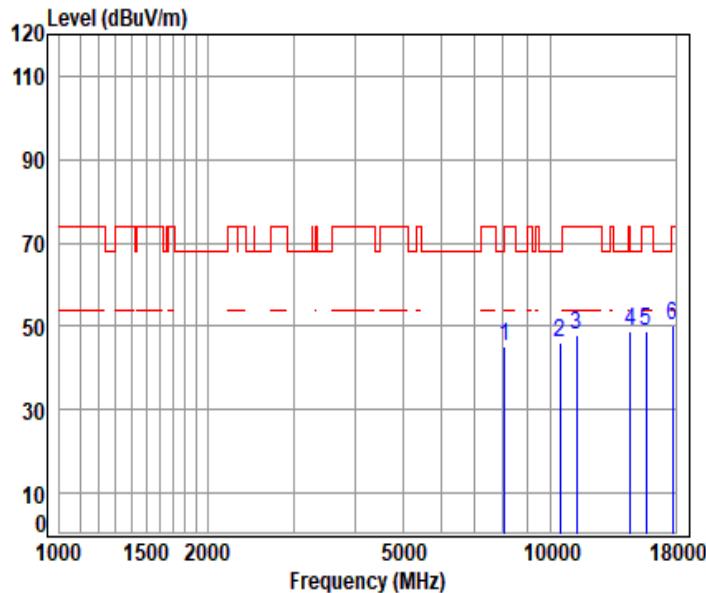
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	
1 7912.043	11.54	37.62	55.97	51.48	44.67	68.20	-23.53 Peak
2 9562.412	12.48	38.80	54.49	50.62	47.41	68.20	-20.79 Peak
3 10460.000	13.63	39.06	53.82	47.18	46.05	68.20	-22.15 peak
4 12499.940	15.48	39.90	54.15	46.36	47.59	74.00	-26.41 Peak
5 15690.000	17.26	38.59	54.09	44.07	45.83	74.00	-28.17 peak
6 pp17672.990	19.28	41.39	54.43	44.41	50.65	68.20	-17.55 Peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5230 TX RSE

: 5G WIFI 11AC40

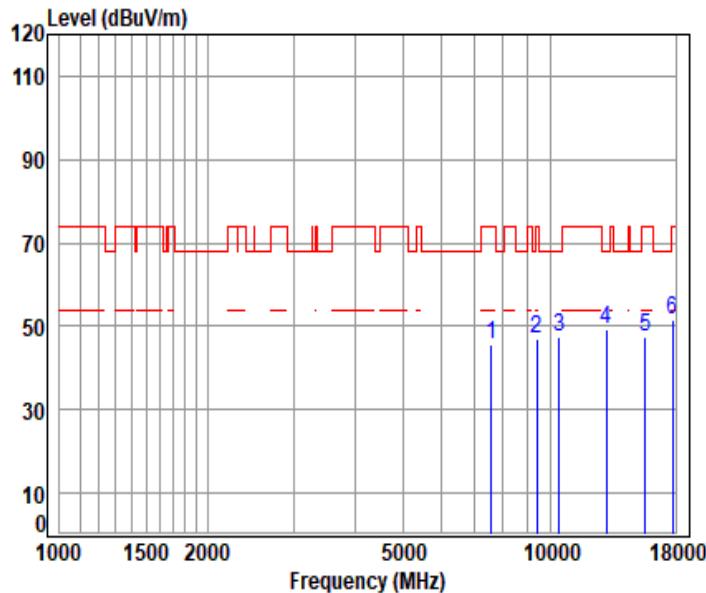
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	
1 8066.655	11.49	37.80	55.84	51.87	45.32	74.00	-28.68 Peak
2 10460.000	13.63	39.06	53.82	47.10	45.97	68.20	-22.23 peak
3 11300.930	14.64	39.70	53.59	47.10	47.85	74.00	-26.15 Peak
4 pp14533.730	16.79	39.43	54.35	47.07	48.94	68.20	-19.26 Peak
5 15690.000	17.26	38.59	54.09	46.88	48.64	74.00	-25.36 peak
6 17763.230	18.76	42.24	54.45	43.70	50.25	74.00	-23.75 Peak

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Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5210 TX RSE

: 5G WIFI 11AC80

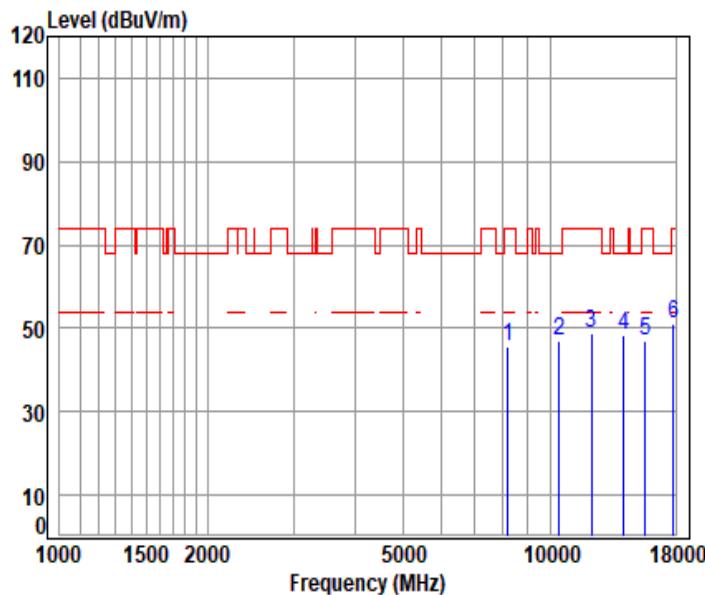
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
1	7572.987	11.13	36.80	56.24	53.96	45.65	74.00 -28.35 Peak
2	9379.132	12.27	38.80	54.66	50.66	47.07	74.00 -26.93 Peak
3	10420.000	13.62	39.02	53.85	48.46	47.25	68.20 -20.95 peak
4	13019.740	15.83	40.30	54.50	47.86	49.49	68.20 -18.71 Peak
5	15630.000	17.20	38.53	54.11	45.86	47.48	74.00 -26.52 peak
6	17763.230	18.76	42.24	54.45	44.91	51.46	74.00 -22.54 Peak



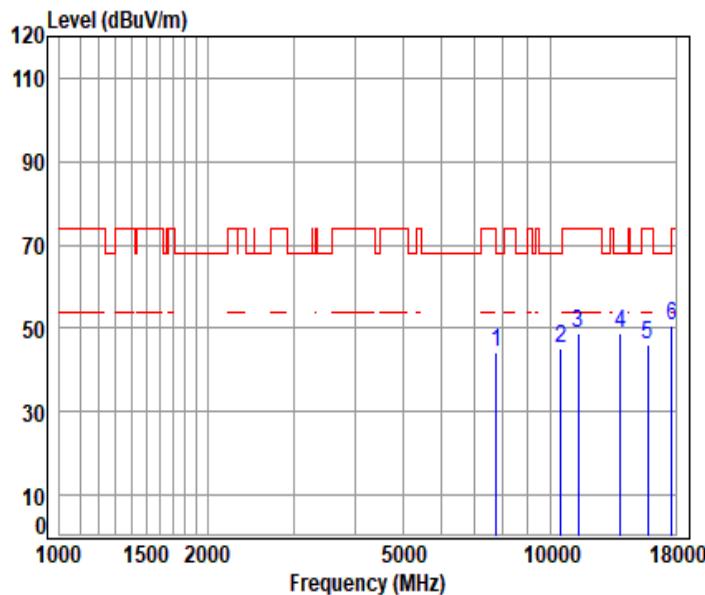
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Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5260 TX RSE

: 5G WIFI 11A

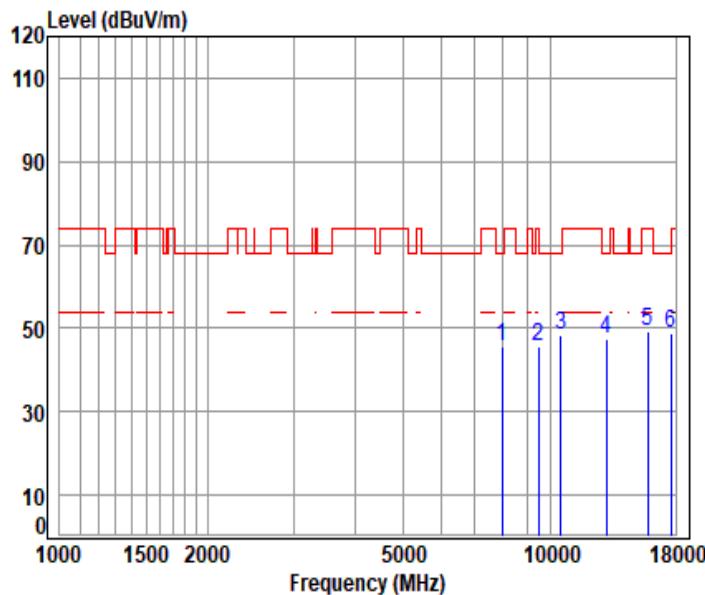
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	
1 7752.495	11.38	37.01	56.10	52.17	44.46	68.20	-23.74 Peak
2 10520.000	13.63	39.14	53.79	46.36	45.34	68.20	-22.86 peak
3 11381.800	14.29	39.70	53.61	48.44	48.82	74.00	-25.18 Peak
4 13910.910	16.00	39.90	54.41	47.55	49.04	68.20	-19.16 Peak
5 15780.000	17.08	38.52	54.07	44.54	46.07	74.00	-27.93 peak
6 pp17691.000	19.15	41.67	54.44	44.04	50.42	68.20	-17.78 Peak



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Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5260 TX RSE

: 5G WIFI 11A

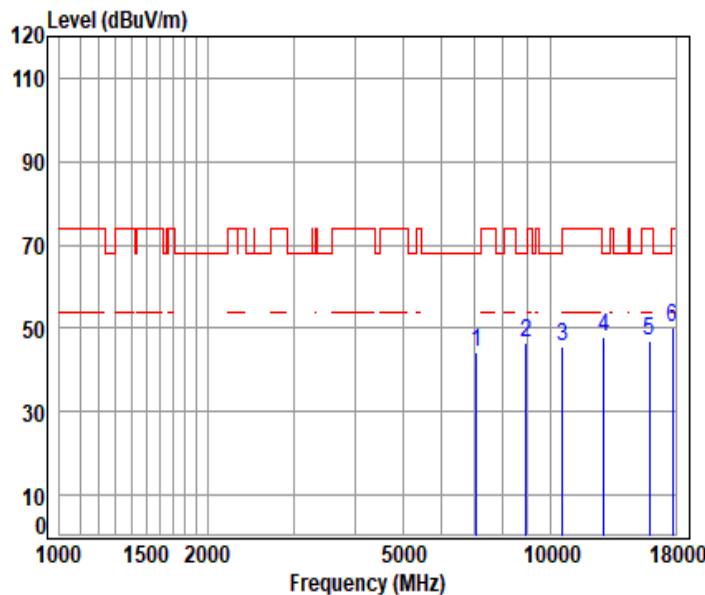
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1	7968.658	11.55	37.74	55.93	52.15	45.51	68.20	-22.69 Peak
2	9475.153	12.50	38.85	54.57	48.88	45.66	74.00	-28.34 Peak
3	10520.000	13.63	39.14	53.79	49.28	48.26	68.20	-19.94 peak
4	13006.480	15.87	40.30	54.50	45.71	47.38	68.20	-20.82 Peak
5	15780.000	17.08	38.52	54.07	47.68	49.21	74.00	-24.79 peak
6	pp17601.130	19.79	40.32	54.42	43.32	49.01	68.20	-19.19 Peak



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5300 TX RSE

: 5G WIFI 11A

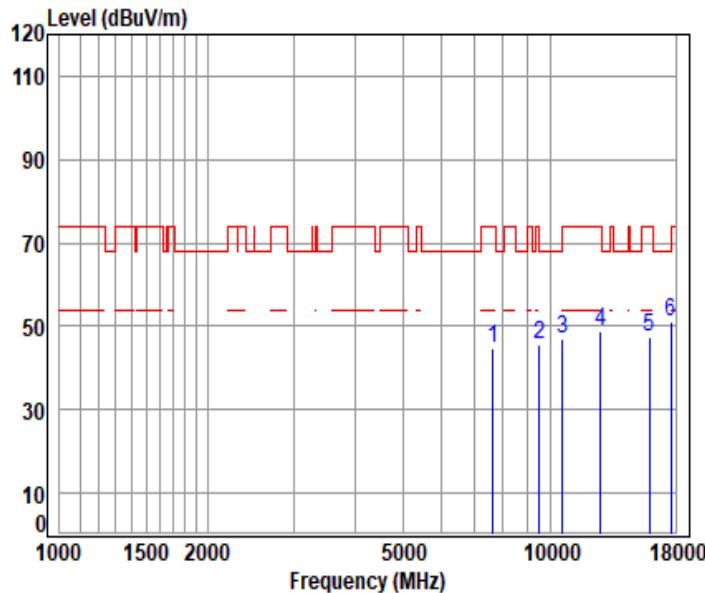
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 7066.214	11.78	36.33	56.65	53.01	44.47	68.20	-23.73 Peak
2 8913.427	12.21	38.57	55.08	50.93	46.63	68.20	-21.57 Peak
3 10600.000	13.59	39.30	53.74	46.42	45.57	68.20	-22.63 peak
4 pp12848.480	15.60	40.35	54.39	46.54	48.10	68.20	-20.10 Peak
5 15900.000	17.28	38.70	54.03	45.25	47.20	74.00	-26.80 peak
6 17781.330	18.67	42.37	54.46	43.76	50.34	74.00	-23.66 Peak



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Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5300 TX RSE

: 5G WIFI 11A

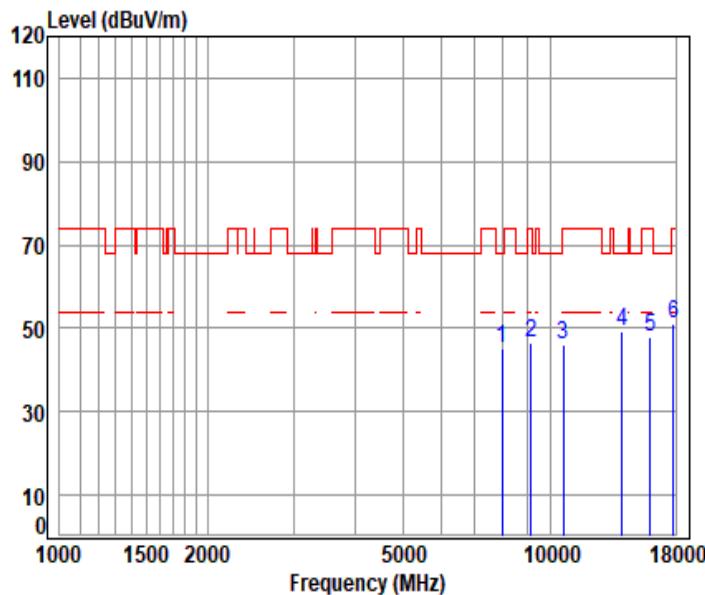
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Limit	Over	Remark
				Level				
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	7650.518	11.27	36.90	56.18	52.77	44.76	74.00	-29.24 Peak
2	9494.476	12.55	38.89	54.55	48.79	45.68	74.00	-28.32 Peak
3	10600.000	13.59	39.30	53.74	47.66	46.81	68.20	-21.39 peak
4	12666.560	15.34	40.17	54.27	47.80	49.04	74.00	-24.96 Peak
5	15900.000	17.28	38.70	54.03	45.54	47.49	74.00	-26.51 peak
6	pp17637.030	19.54	40.86	54.43	45.00	50.97	68.20	-17.23 Peak



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5320 TX RSE

: 5G WIFI 11A

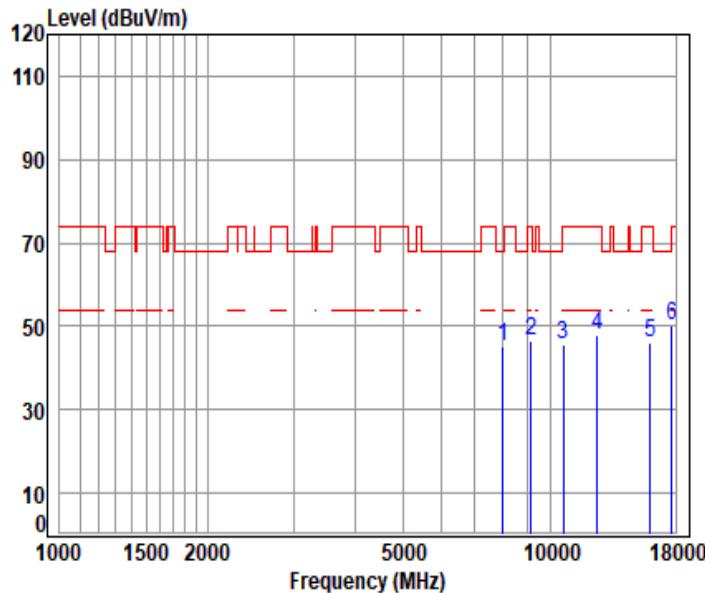
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1	7968.658	11.55	37.74	55.93	51.82	45.18	68.20	-23.02 Peak
2	9143.314	12.21	38.69	54.87	50.39	46.42	74.00	-27.58 Peak
3	10640.000	13.77	39.34	53.72	46.54	45.93	74.00	-28.07 peak
4	pp14024.730	16.50	39.90	54.40	47.30	49.30	68.20	-18.90 Peak
5	15960.000	17.20	38.64	54.01	45.90	47.73	74.00	-26.27 peak
6	17817.590	18.59	42.61	54.46	44.48	51.22	74.00	-22.78 Peak



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Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5320 TX RSE

: 5G WIFI 11A

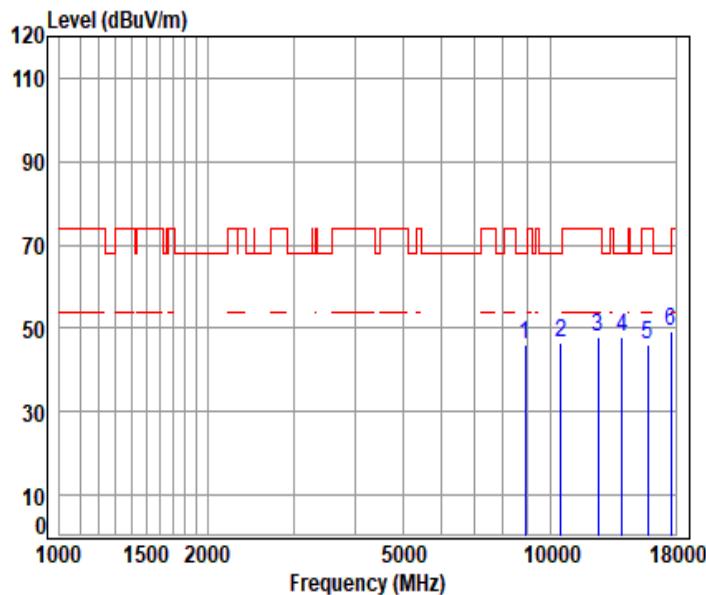
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dB/m	dB	dBuV	dBuV/m
1 8001.191	11.56	37.80	55.90	51.55	45.01	68.20	-23.19	Peak
2 9152.633	12.23	38.65	54.86	50.35	46.37	74.00	-27.63	Peak
3 10640.000	13.77	39.34	53.72	46.12	45.51	74.00	-28.49	peak
4 12487.210	15.46	39.90	54.14	46.74	47.96	74.00	-26.04	Peak
5 15960.000	17.20	38.64	54.01	44.45	46.28	74.00	-27.72	peak
6 pp17691.000	19.15	41.67	54.44	43.96	50.34	68.20	-17.86	Peak

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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5260 TX RSE

: 5G WIFI 11AC20

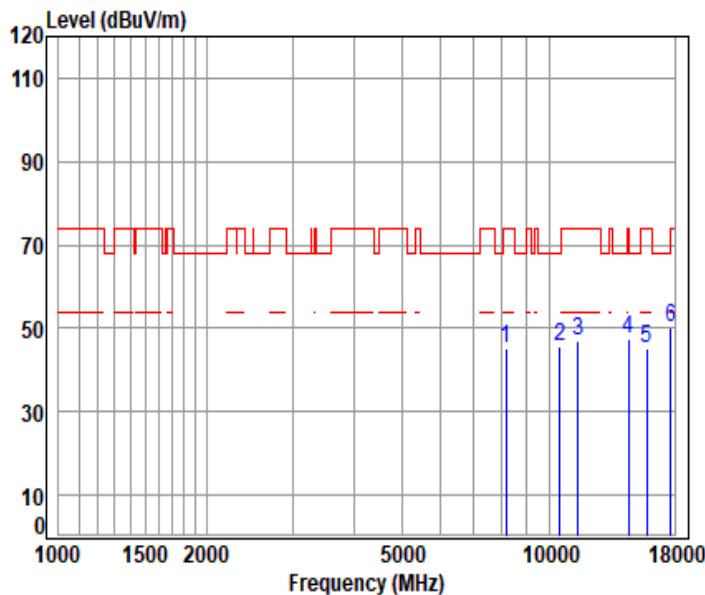
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	
1 8895.287	12.22	38.59	55.09	50.22	45.94	68.20	-22.26 Peak
2 10520.000	13.63	39.14	53.79	47.47	46.45	68.20	-21.75 peak
3 12525.430	15.33	39.95	54.17	46.86	47.97	74.00	-26.03 Peak
4 14024.730	16.50	39.90	54.40	45.81	47.81	68.20	-20.39 Peak
5 15780.000	17.08	38.52	54.07	44.72	46.25	74.00	-27.75 peak
6 pp17619.070	19.66	40.59	54.42	43.54	49.37	68.20	-18.83 Peak

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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5260 TX RSE

: 5G WIFI 11AC20

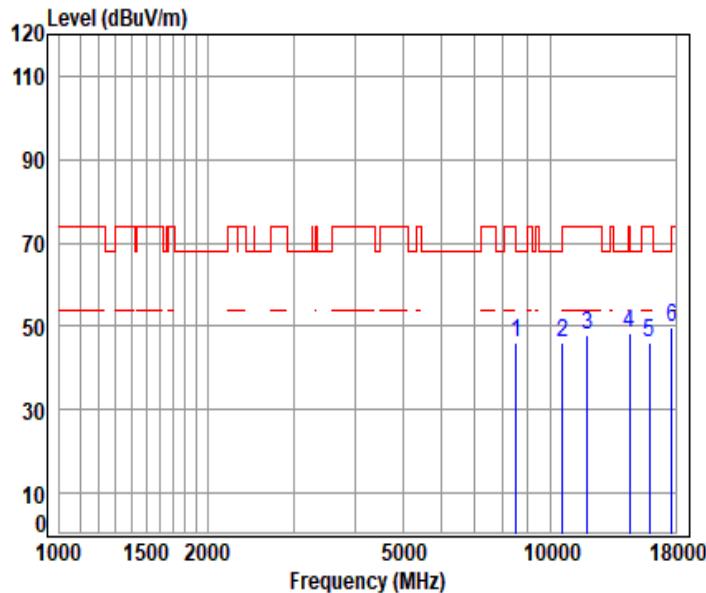
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	
1 8157.544	11.52	37.92	55.76	51.29	44.97	74.00	-29.03 Peak
2 10520.000	13.63	39.14	53.79	46.48	45.46	68.20	-22.74 peak
3 11439.910	14.55	39.66	53.63	46.36	46.94	74.00	-27.06 Peak
4 14489.390	17.07	39.51	54.35	45.32	47.55	74.00	-26.45 Peak
5 15780.000	17.08	38.52	54.07	43.56	45.09	74.00	-28.91 peak
6 pp17691.000	19.15	41.67	54.44	43.76	50.14	68.20	-18.06 Peak

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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5300 TX RSE

: 5G WIFI 11AC20

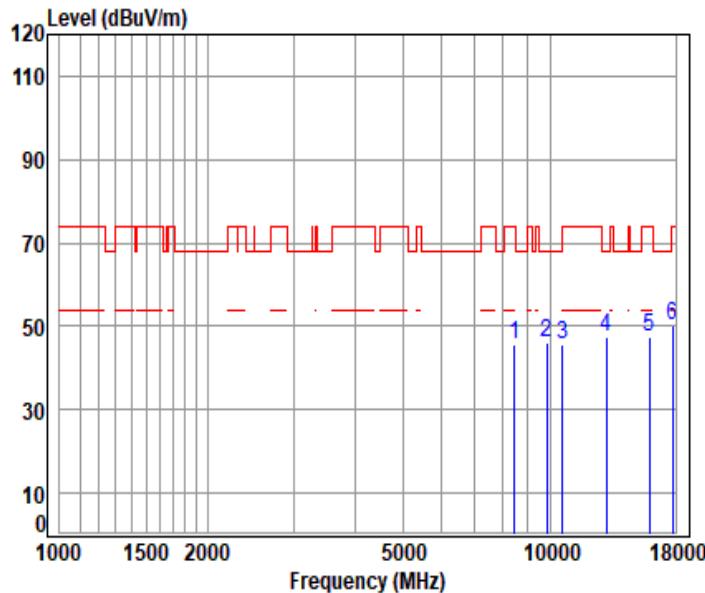
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 8514.096	12.26	38.30	55.44	50.83	45.95	68.20	-22.25 Peak
2 10600.000	13.59	39.30	53.74	46.75	45.90	68.20	-22.30 peak
3 11891.380	14.88	39.69	53.77	47.15	47.95	74.00	-26.05 Peak
4 14504.150	17.05	39.49	54.35	46.11	48.30	68.20	-19.90 Peak
5 15900.000	17.28	38.70	54.03	44.01	45.96	74.00	-28.04 peak
6 pp17691.000	19.15	41.67	54.44	43.30	49.68	68.20	-18.52 Peak

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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5300 TX RSE

: 5G WIFI 11AC20

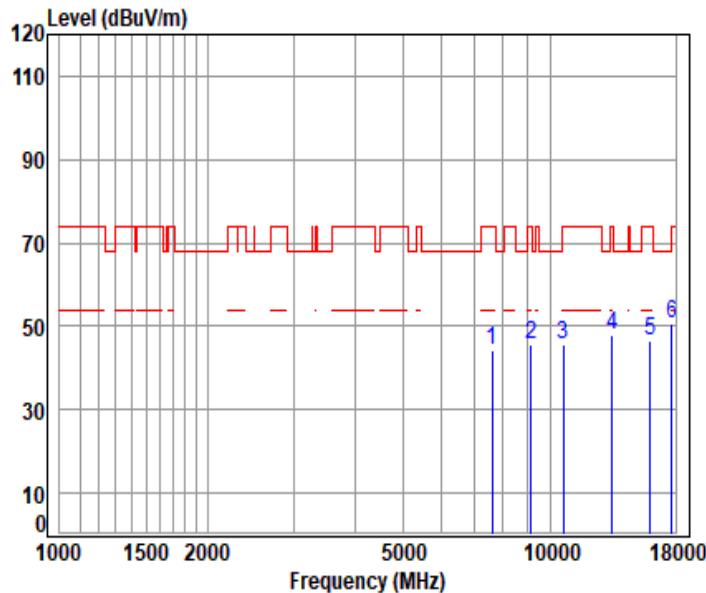
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1	8453.606	11.99	38.39	55.49	50.84	45.73	74.00	-28.27 peak
2	9819.035	13.03	38.30	54.26	49.05	46.12	68.20	-22.08 Peak
3	10600.000	13.59	39.30	53.74	46.48	45.63	68.20	-22.57 peak
4	pp13006.480	15.87	40.30	54.50	45.80	47.47	68.20	-20.73 Peak
5	15900.000	17.28	38.70	54.03	45.69	47.64	74.00	-26.36 peak
6	17763.230	18.76	42.24	54.45	43.57	50.12	74.00	-23.88 Peak



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5320 TX RSE

: 5G WIFI 11AC20

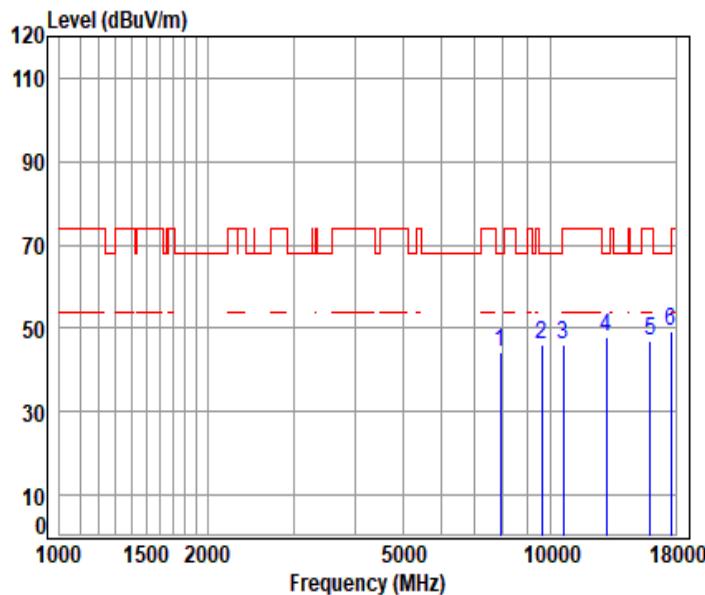
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7603.905	11.10	36.81	56.22	52.64	44.33	74.00 -29.67 Peak
2	9143.314	12.21	38.69	54.87	49.38	45.41	74.00 -28.59 Peak
3	10640.000	13.77	39.34	53.72	46.19	45.58	74.00 -28.42 peak
4	13369.140	16.10	40.30	54.46	46.03	47.97	74.00 -26.03 Peak
5	15960.000	17.20	38.64	54.01	44.89	46.72	74.00 -27.28 peak
6	pp17655.000	19.41	41.12	54.43	44.37	50.47	68.20 -17.73 Peak



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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5320 TX RSE

: 5G WIFI 11AC20

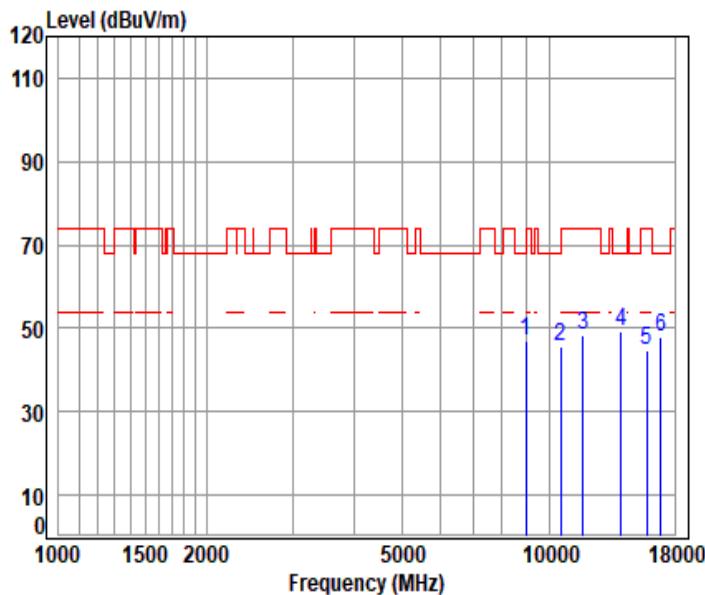
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7928.178	11.55	37.66	55.96	51.18	44.43	68.20 -23.77 Peak
2	9621.031	12.49	38.76	54.44	49.18	45.99	68.20 -22.21 Peak
3	10640.000	13.77	39.34	53.72	46.83	46.22	74.00 -27.78 peak
4	12993.240	15.88	40.31	54.50	46.20	47.89	68.20 -20.31 Peak
5	15960.000	17.20	38.64	54.01	45.30	47.13	74.00 -26.87 peak
6	pp17601.130	19.79	40.32	54.42	43.79	49.48	68.20 -18.72 Peak



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

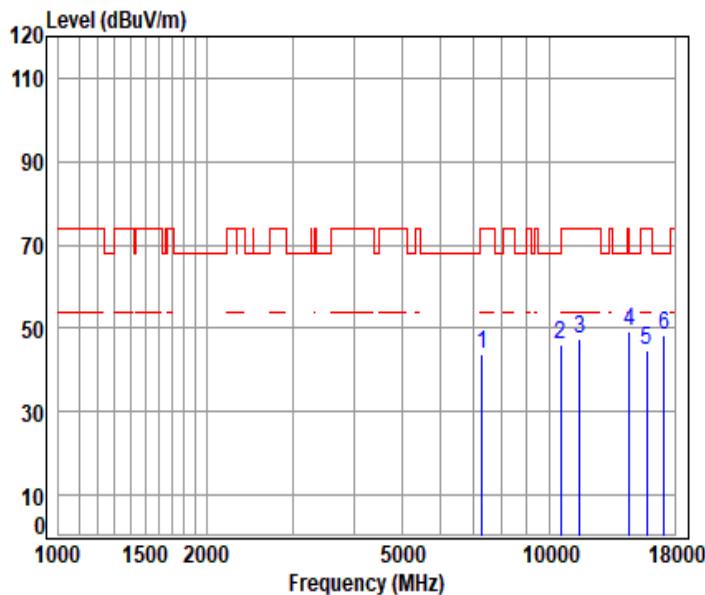
Mode : 5270 TX RSE

: 5G WIFI 11AC40

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 8949.816	12.19	38.50	55.05	51.15	46.79	68.20	-21.41 Peak
2 10540.000	13.62	39.18	53.78	46.72	45.74	68.20	-22.46 peak
3 11711.080	14.71	39.51	53.71	47.79	48.30	74.00	-25.70 Peak
4 pp13981.940	16.37	39.90	54.40	47.27	49.14	68.20	-19.06 Peak
5 15810.000	17.06	38.52	54.06	43.28	44.80	74.00	-29.20 peak
6 16898.430	18.17	39.60	54.27	44.19	47.69	68.20	-20.51 peak



Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5270 TX RSE

: 5G WIFI 11AC40

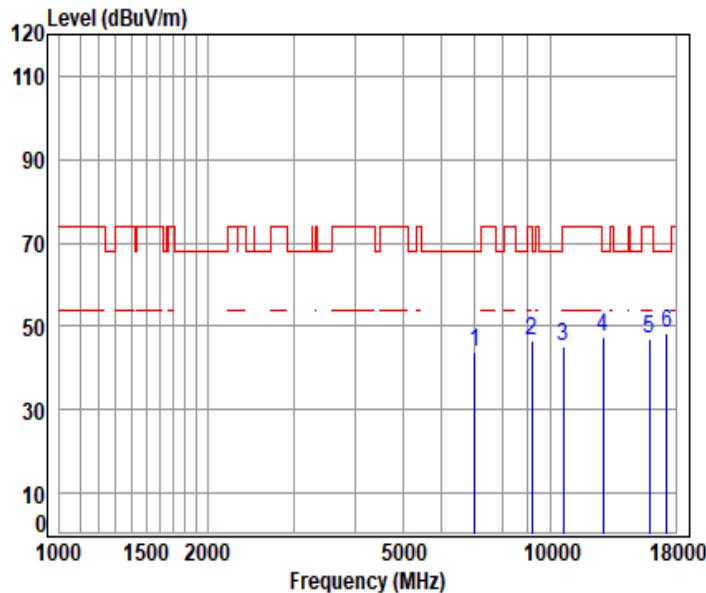
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
1	7292.895	11.51	36.69	56.47	52.12	43.85	74.00 -30.15 peak
2	10540.000	13.62	39.18	53.78	47.15	46.17	68.20 -22.03 peak
3	11545.270	14.87	39.60	53.66	46.50	47.31	74.00 -26.69 Peak
4	pp14533.730	16.79	39.43	54.35	47.42	49.29	68.20 -18.91 Peak
5	15810.000	17.06	38.52	54.06	43.20	44.72	74.00 -29.28 peak
6	17106.240	18.43	39.81	54.32	44.58	48.50	68.20 -19.70 Peak



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5310 TX RSE

: 5G WIFI 11AC40

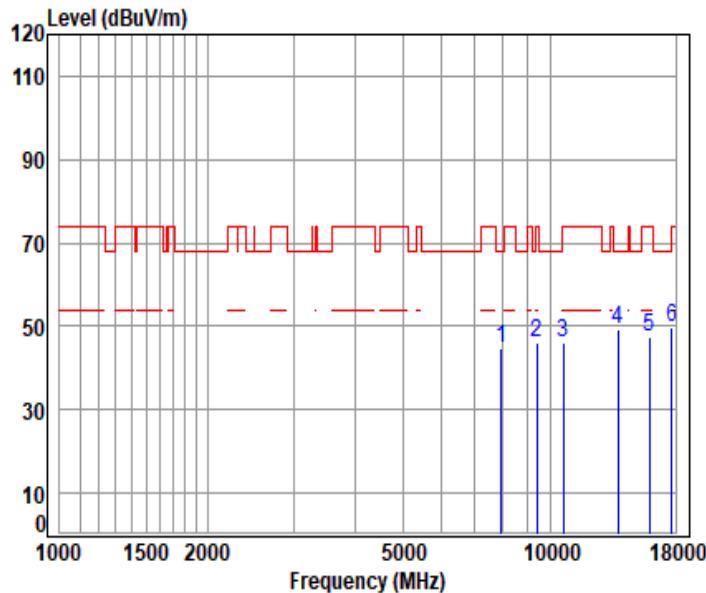
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 7008.869	11.42	36.22	56.69	52.94	43.89	68.20	-24.31 Peak
2 9171.297	12.26	38.27	54.85	50.86	46.54	74.00	-27.46 Peak
3 10620.000	13.68	39.32	53.73	46.11	45.38	74.00	-28.62 peak
4 12796.230	15.43	40.30	54.36	46.24	47.61	68.20	-20.59 Peak
5 15930.000	17.24	38.67	54.02	44.93	46.82	74.00	-27.18 peak
6 pp17263.780	17.83	40.09	54.35	44.67	48.24	68.20	-19.96 Peak



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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5310 TX RSE

: 5G WIFI 11AC40

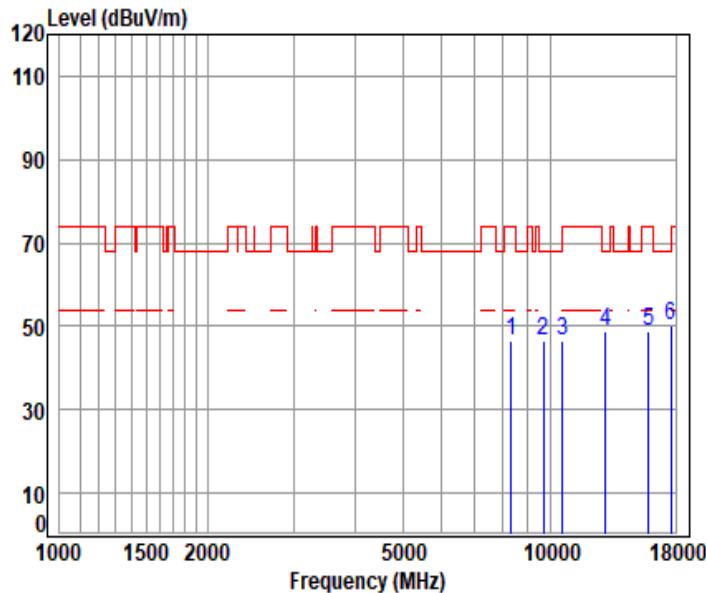
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 7952.441	11.55	37.70	55.94	51.62	44.93	68.20	-23.27 Peak
2 9388.690	12.29	38.80	54.65	49.45	45.89	74.00	-28.11 Peak
3 10620.000	13.68	39.32	53.73	47.01	46.28	74.00	-27.72 peak
4 13713.950	16.35	39.99	54.43	47.23	49.14	68.20	-19.06 Peak
5 15930.000	17.24	38.67	54.02	45.56	47.45	74.00	-26.55 peak
6 pp17691.000	19.15	41.67	54.44	43.50	49.88	68.20	-18.32 Peak



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5290 TX RSE

: 5G WIFI 11AC80

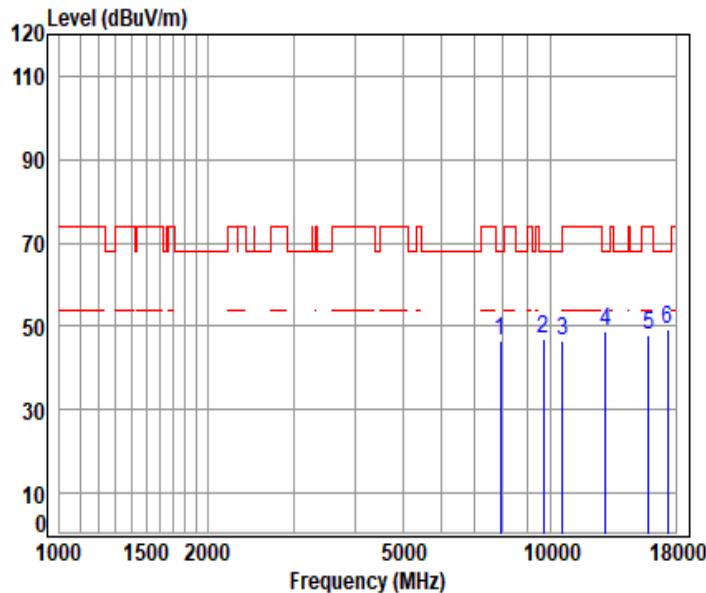
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
1	8316.953	11.74	38.17	55.61	52.23	46.53	74.00 -27.47 Peak
2	9689.874	12.67	38.70	54.38	49.40	46.39	68.20 -21.81 Peak
3	10580.000	13.60	39.26	53.75	47.51	46.62	68.20 -21.58 peak
4	12980.020	15.87	40.32	54.49	47.31	49.01	68.20 -19.19 Peak
5	15870.000	17.20	38.64	54.04	47.16	48.96	74.00 -25.04 peak
6	pp17619.070	19.66	40.59	54.42	44.41	50.24	68.20 -17.96 Peak



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Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5290 TX RSE

: 5G WIFI 11AC80

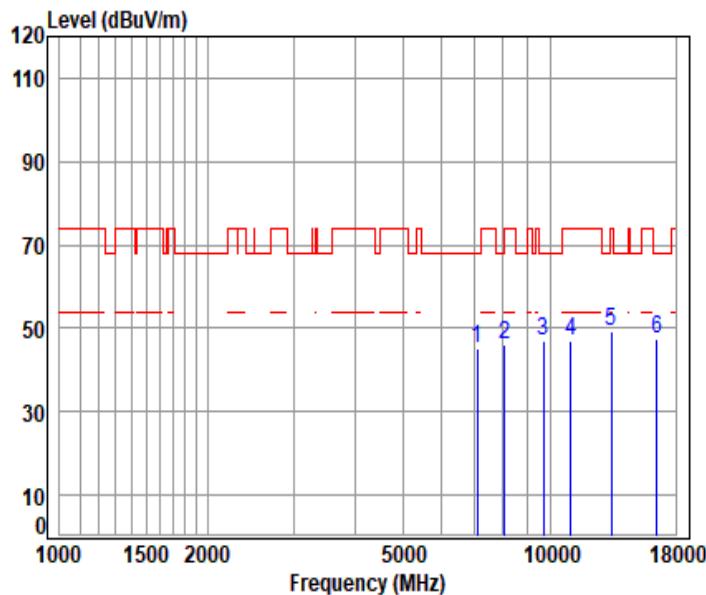
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7903.989	11.54	37.61	55.98	53.14	46.31	68.20 -21.89 Peak
2	9689.874	12.67	38.70	54.38	49.86	46.85	68.20 -21.35 Peak
3	10580.000	13.60	39.26	53.75	47.47	46.58	68.20 -21.62 peak
4	12953.600	15.85	40.35	54.47	47.12	48.85	68.20 -19.35 Peak
5	15870.000	17.20	38.64	54.04	46.20	48.00	74.00 -26.00 peak
6	pp17351.920	18.00	40.30	54.37	45.45	49.38	68.20 -18.82 Peak



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5500 TX RSE

: 5G WIFI 11A

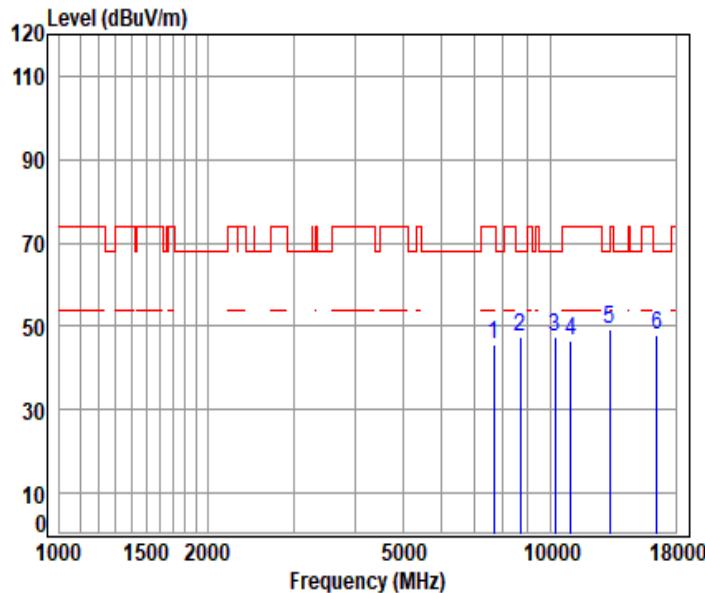
Freq	Cable Loss		Ant Factor		Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	Factor	dB	dBuV	dBuV/m	dBuV/m	dB
1	7109.531	11.95	36.42	56.61	53.40	45.16	68.20	-23.04	Peak
2	8066.655	11.49	37.80	55.84	52.66	46.11	74.00	-27.89	Peak
3	9689.874	12.67	38.70	54.38	50.01	47.00	68.20	-21.20	Peak
4	11000.000	14.17	39.40	53.50	46.83	46.90	74.00	-27.10	peak
5	13314.790	16.45	40.30	54.47	46.79	49.07	74.00	-24.93	Peak
6	pp16500.000	17.74	38.90	54.15	44.83	47.32	68.20	-20.88	peak



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Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5500 TX RSE

: 5G WIFI 11A

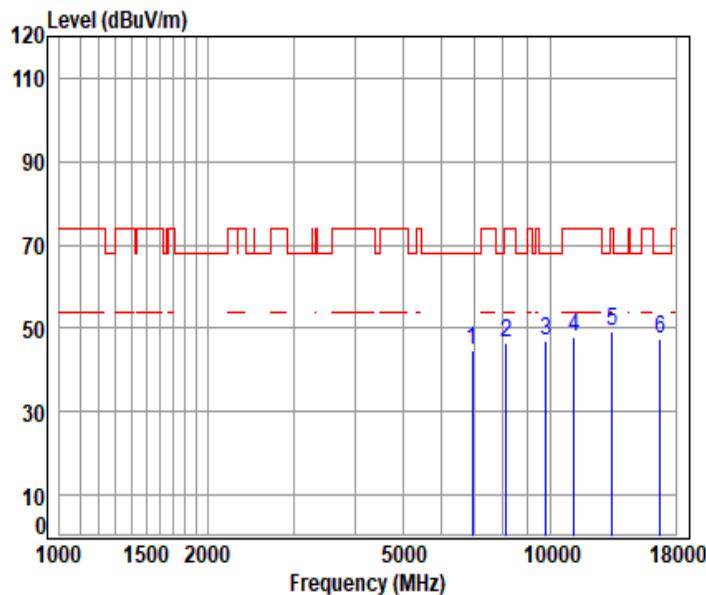
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7681.751	11.38	36.90	56.15	53.59	45.72	74.00 -28.28 Peak
2	8689.318	12.08	38.56	55.28	52.17	47.53	68.20 -20.67 Peak
3	10206.540	13.12	39.09	53.98	49.17	47.40	68.20 -20.80 Peak
4	11000.000	14.17	39.40	53.50	46.50	46.57	74.00 -27.43 peak
5	13206.730	15.73	40.21	54.48	47.67	49.13	68.20 -19.07 Peak
6	16500.000	17.74	38.90	54.15	45.20	47.69	68.20 -20.51 peak



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5580 TX RSE

: 5G WIFI 11A

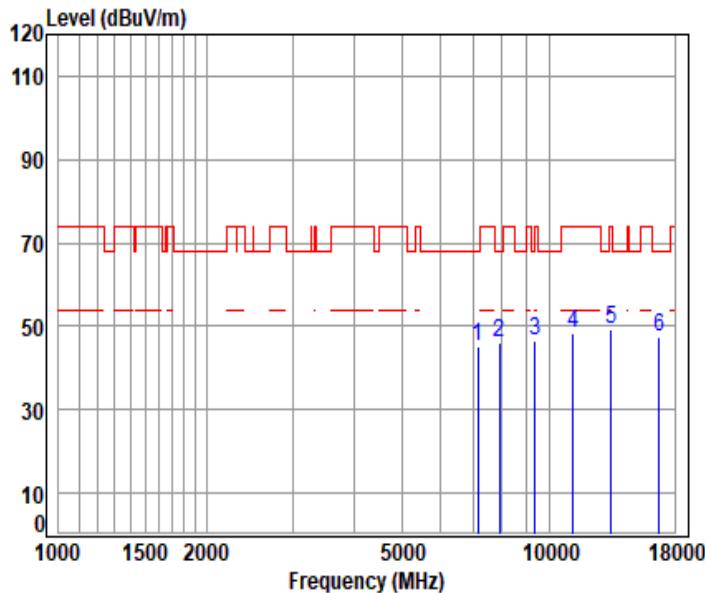
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	6937.841	11.37	36.12	56.71	54.08	44.86	68.20 -23.34 Peak
2	8132.655	11.49	37.87	55.78	52.91	46.49	74.00 -27.51 Peak
3	9799.053	13.09	38.60	54.28	49.46	46.87	68.20 -21.33 Peak
4	11160.000	14.72	39.56	53.55	47.24	47.97	74.00 -26.03 peak
5	13369.140	16.10	40.30	54.46	47.25	49.19	74.00 -24.81 Peak
6	pp16740.000	17.54	39.48	54.22	44.75	47.55	68.20 -20.65 peak



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Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5580 TX RSE

: 5G WIFI 11A

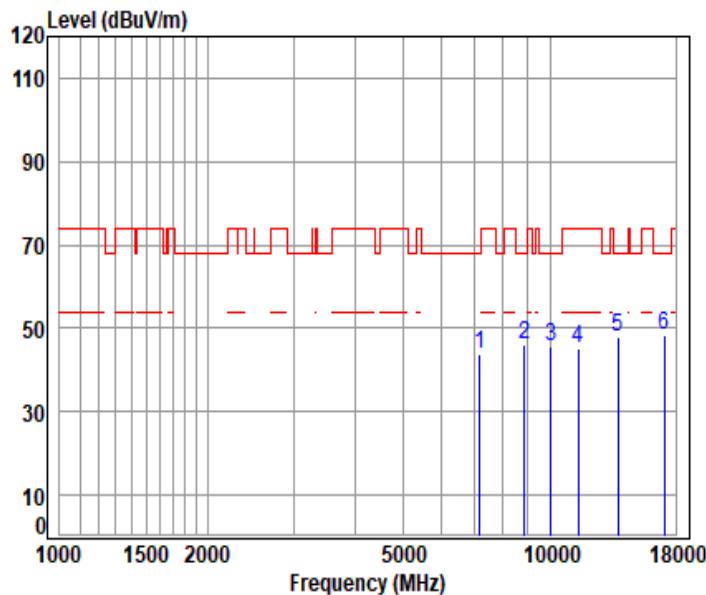
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1	7145.831	11.77	36.49	56.58	53.62	45.30	68.20	-22.90 Peak
2	7912.043	11.54	37.62	55.97	53.00	46.19	68.20	-22.01 Peak
3	9360.045	12.25	38.80	54.68	50.19	46.56	74.00	-27.44 Peak
4	11160.000	14.72	39.56	53.55	47.61	48.34	74.00	-25.66 peak
5	13382.770	16.02	40.30	54.46	47.52	49.38	74.00	-24.62 Peak
6	pp16740.000	17.54	39.48	54.22	44.63	47.43	68.20	-20.77 peak

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5700 TX RSE

: 5G WIFI 11A

Freq	Cable Loss		Ant Factor		Read Level		Limit Level	Line	Over Limit	Remark
	MHz	dB	dB/m	Factor	dB	dBuV	dBuV/m	dBuV/m	dB	
1	7167.700	11.67	36.54	56.57	52.35	43.99	68.20	-24.21	Peak	
2	8850.100	12.23	38.50	55.13	50.57	46.17	68.20	-22.03	Peak	
3	10041.550	13.12	38.98	54.08	47.82	45.84	68.20	-22.36	Peak	
4	11400.000	14.21	39.70	53.62	44.96	45.25	74.00	-28.75	peak	
5	13727.930	16.28	39.97	54.43	46.03	47.85	68.20	-20.35	Peak	
6	pp17100.000	18.47	39.80	54.32	44.28	48.23	68.20	-19.97	peak	

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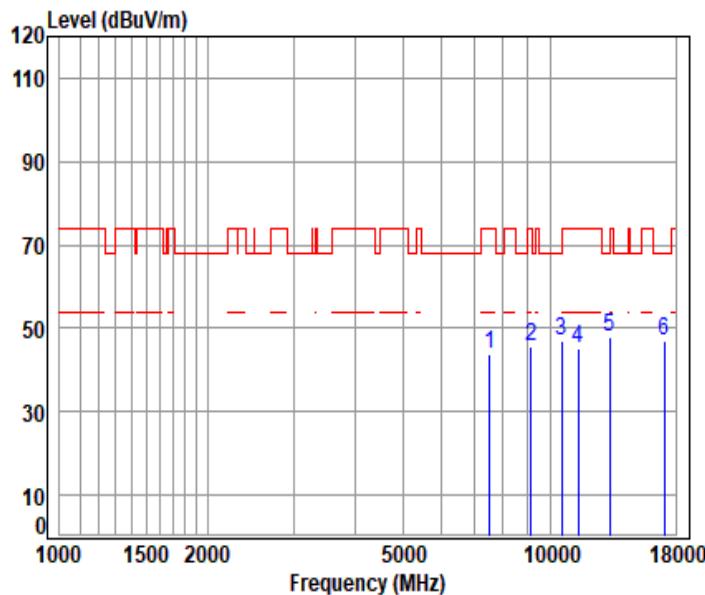
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Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5700 TX RSE

: 5G WIFI 11A

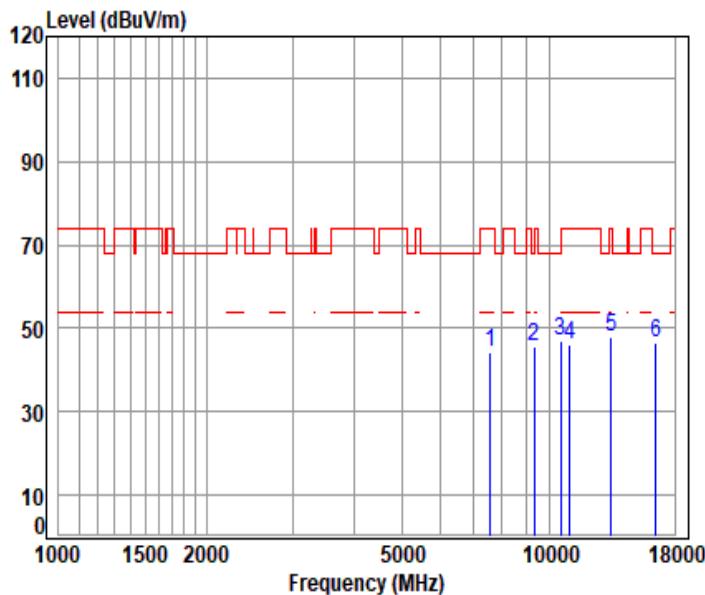
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1 7526.847	11.19	36.80	56.28	52.12	43.83	74.00	-30.17	Peak
2 9124.708	12.17	38.65	54.89	49.47	45.40	74.00	-28.60	Peak
3 10555.440	13.61	39.21	53.77	47.86	46.91	68.20	-21.29	Peak
4 11400.000	14.21	39.70	53.62	44.67	44.96	74.00	-29.04	peak
5 pp13233.660	15.96	40.23	54.48	46.12	47.83	68.20	-20.37	Peak
6 17100.000	18.47	39.80	54.32	43.22	47.17	68.20	-21.03	peak



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5500 TX RSE

: 5G WIFI 11AC20

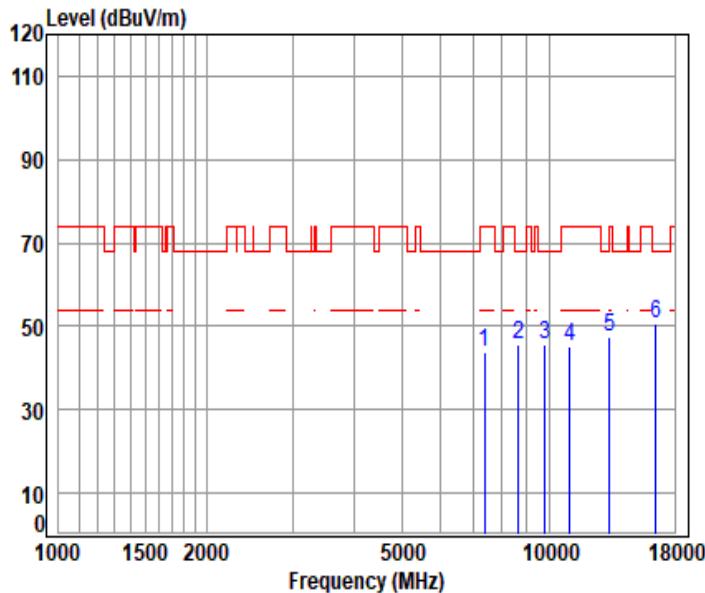
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Limit	Over	Remark
				Level				
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	7596.164	11.10	36.80	56.22	52.72	44.40	74.00	-29.60 Peak
2	9321.987	12.20	38.80	54.71	49.24	45.53	74.00	-28.47 Peak
3	pp10533.960	13.62	39.17	53.78	47.88	46.89	68.20	-21.31 Peak
4	11000.000	14.17	39.40	53.50	46.01	46.08	74.00	-27.92 peak
5	13355.530	16.19	40.30	54.46	45.91	47.94	74.00	-26.06 Peak
6	16500.000	17.74	38.90	54.15	44.25	46.74	68.20	-21.46 peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

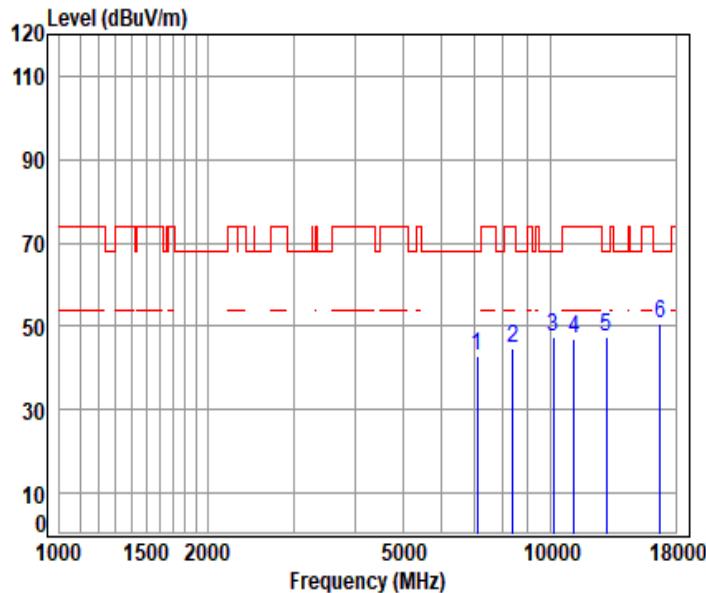
Mode : 5500 TX RSE

: 5G WIFI 11AC20

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	
1	7375.065	11.50	36.75	56.40	51.78	43.63	74.00 -30.37 Peak
2	8662.807	12.04	38.45	55.30	50.27	45.46	68.20 -22.74 Peak
3	9779.111	13.01	38.60	54.30	48.53	45.84	68.20 -22.36 Peak
4	11000.000	14.17	39.40	53.50	44.97	45.04	74.00 -28.96 peak
5	13274.160	16.32	40.27	54.47	45.39	47.51	74.00 -26.49 Peak
6	pp16500.000	17.74	38.90	54.15	48.37	50.86	68.20 -17.34 peak



Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5580 TX RSE

: 5G WIFI 11AC20

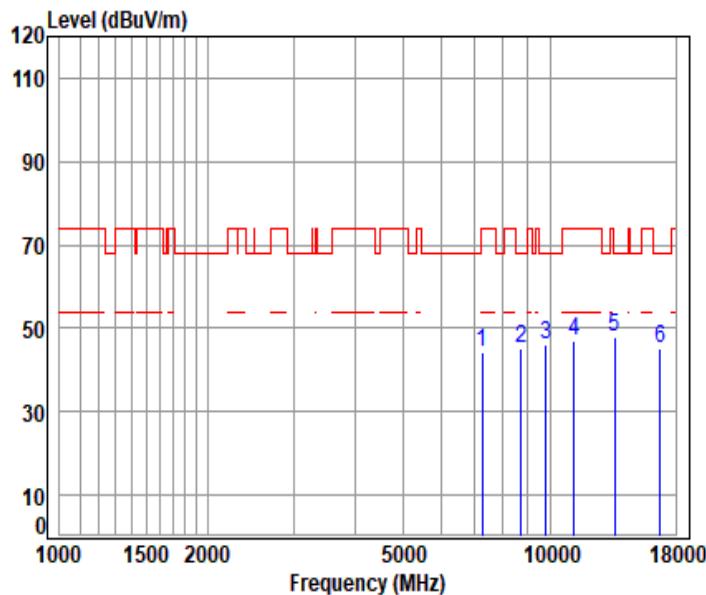
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 7095.063	11.96	36.39	56.62	51.00	42.73	68.20	-25.47 Peak
2 8393.547	11.64	38.61	55.55	50.01	44.71	74.00	-29.29 Peak
3 10144.350	13.19	39.10	54.01	49.00	47.28	68.20	-20.92 Peak
4 11160.000	14.72	39.56	53.55	46.19	46.92	74.00	-27.08 peak
5 13019.740	15.83	40.30	54.50	45.99	47.62	68.20	-20.58 Peak
6 pp16740.000	17.54	39.48	54.22	47.83	50.63	68.20	-17.57 peak



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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5580 TX RSE

: 5G WIFI 11AC20

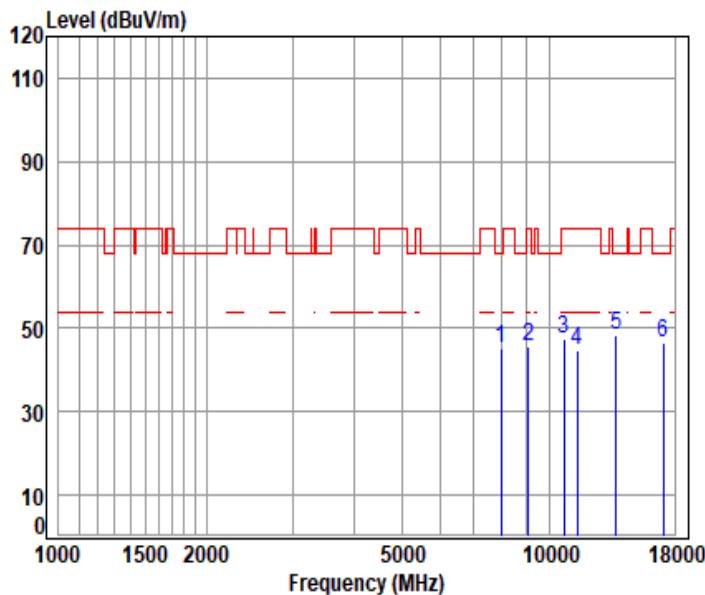
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7270.644	11.51	36.64	56.48	52.62	44.29	74.00 -29.71 Peak
2	8707.038	12.10	38.59	55.26	49.91	45.34	68.20 -22.86 Peak
3	9779.111	13.01	38.60	54.30	48.64	45.95	68.20 -22.25 Peak
4	11160.000	14.72	39.56	53.55	46.38	47.11	74.00 -26.89 peak
5	pp13519.780	15.80	40.08	54.45	46.35	47.78	68.20 -20.42 Peak
6	16740.000	17.54	39.48	54.22	42.23	45.03	68.20 -23.17 peak

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5700 TX RSE

: 5G WIFI 11AC20

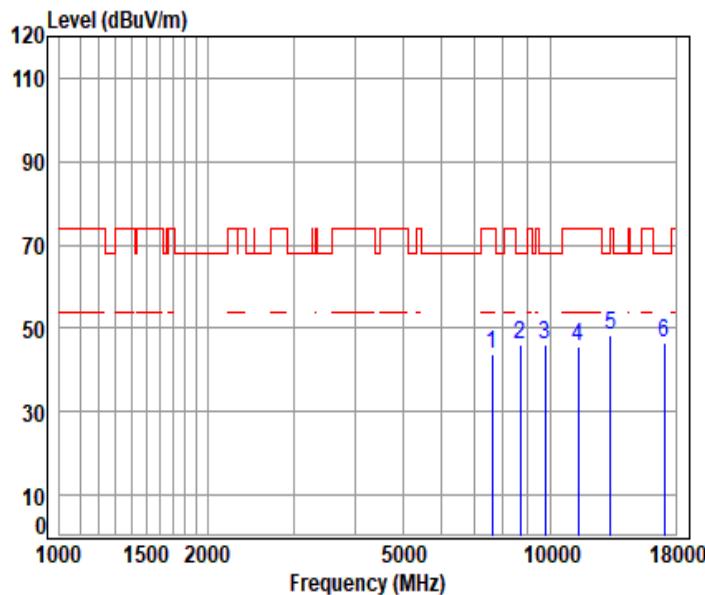
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Loss	Factor	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 7960.545	11.55	37.72	55.93	51.80	45.14	68.20	-23.06 Peak
2 9069.112	12.13	38.60	54.94	49.87	45.66	74.00	-28.34 Peak
3 10707.040	14.01	39.39	53.68	47.76	47.48	74.00	-26.52 Peak
4 11400.000	14.21	39.70	53.62	44.42	44.71	74.00	-29.29 peak
5 pp13686.040	16.32	40.00	54.43	46.41	48.30	68.20	-19.90 Peak
6 17100.000	18.47	39.80	54.32	42.42	46.37	68.20	-21.83 peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5700 TX RSE

: 5G WIFI 11AC20

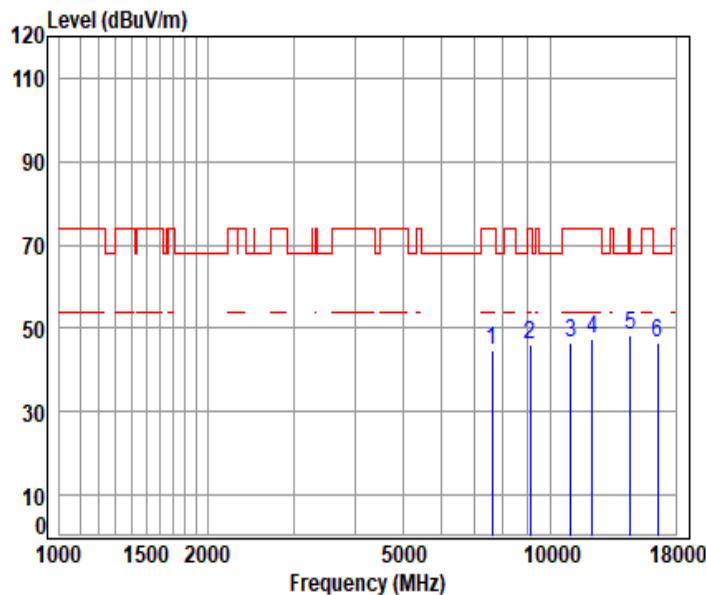
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7603.905	11.10	36.81	56.22	52.22	43.91	74.00 -30.09 Peak
2	8689.318	12.08	38.56	55.28	50.70	46.06	68.20 -22.14 Peak
3	9759.210	12.93	38.60	54.32	48.71	45.92	68.20 -22.28 Peak
4	11400.000	14.21	39.70	53.62	45.21	45.50	74.00 -28.50 peak
5	13260.650	16.20	40.26	54.47	46.15	48.14	74.00 -25.86 Peak
6	pp17100.000	18.47	39.80	54.32	42.70	46.65	68.20 -21.55 peak

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5510 TX RSE

: 5G WIFI 11AC40

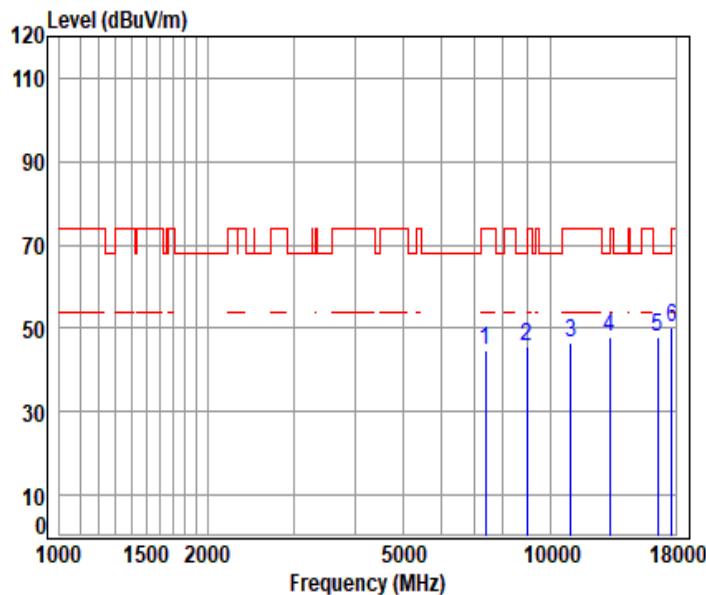
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7611.654	11.13	36.82	56.21	52.80	44.54	74.00 -29.46 Peak
2	9106.138	12.13	38.61	54.90	50.10	45.94	74.00 -28.06 Peak
3	11020.000	14.27	39.42	53.51	46.26	46.44	74.00 -27.56 peak
4	12198.080	14.52	39.90	53.94	46.87	47.35	74.00 -26.65 Peak
5	pp14533.730	16.79	39.43	54.35	46.34	48.21	68.20 -19.99 Peak
6	16530.000	17.71	38.99	54.16	44.08	46.62	68.20 -21.58 peak



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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5510 TX RSE

: 5G WIFI 11AC40

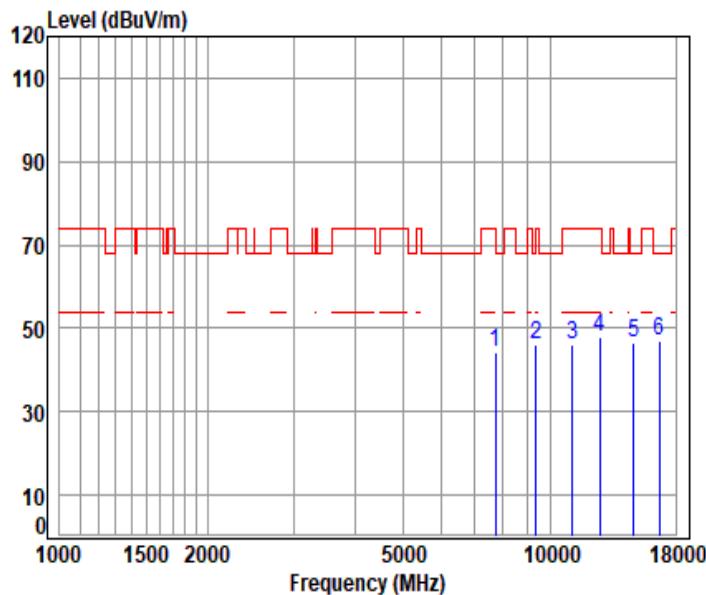
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7375.065	11.50	36.75	56.40	52.64	44.49	74.00 -29.51 Peak
2	8958.938	12.18	38.52	55.04	50.08	45.74	68.20 -22.46 Peak
3	11020.000	14.27	39.42	53.51	46.56	46.74	74.00 -27.26 peak
4	13233.660	15.96	40.23	54.48	46.24	47.95	68.20 -20.25 Peak
5	16530.000	17.71	38.99	54.16	45.21	47.75	68.20 -20.45 peak
6	pp17691.000	19.15	41.67	54.44	43.90	50.28	68.20 -17.92 Peak

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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5550 TX RSE

: 5G WIFI 11AC40

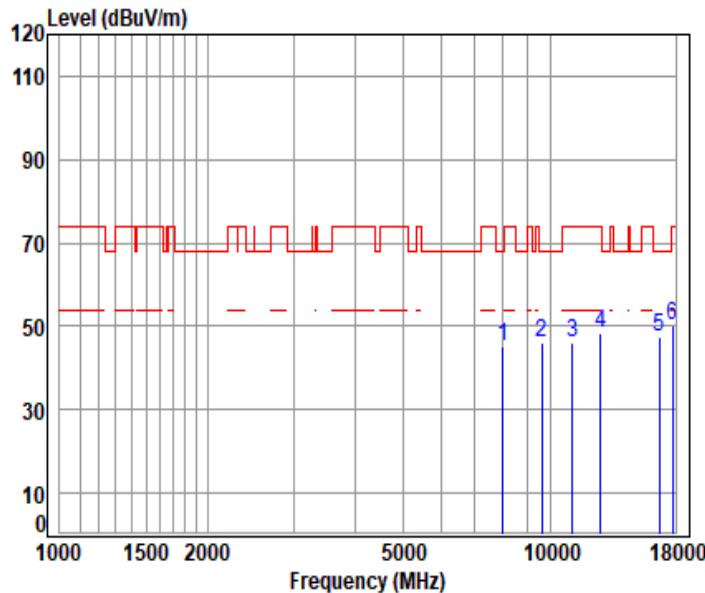
Freq	Cable Loss		Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	7728.842	11.41	36.96	56.12	52.12	44.37	74.00	-29.63	Peak
2	9340.997	12.22	38.80	54.69	49.76	46.09	74.00	-27.91	Peak
3	11100.000	14.66	39.50	53.53	45.65	46.28	74.00	-27.72	peak
4	12627.910	15.07	40.13	54.24	46.76	47.72	74.00	-26.28	Peak
5	14802.650	16.52	39.09	54.32	45.33	46.62	68.20	-21.58	Peak
6	pp16650.000	17.62	39.30	54.19	44.21	46.94	68.20	-21.26	peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5550 TX RSE

: 5G WIFI 11AC40

Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1 8017.507	11.54	37.80	55.88	51.82	45.28	68.20	-22.92	Peak
2 9591.677	12.44	38.80	54.47	49.37	46.14	68.20	-22.06	Peak
3 11100.000	14.66	39.50	53.53	45.49	46.12	74.00	-27.88	peak
4 12666.560	15.34	40.17	54.27	47.15	48.39	74.00	-25.61	Peak
5 pp16650.000	17.62	39.30	54.19	44.90	47.63	68.20	-20.57	peak
6 17763.230	18.76	42.24	54.45	43.43	49.98	74.00	-24.02	Peak

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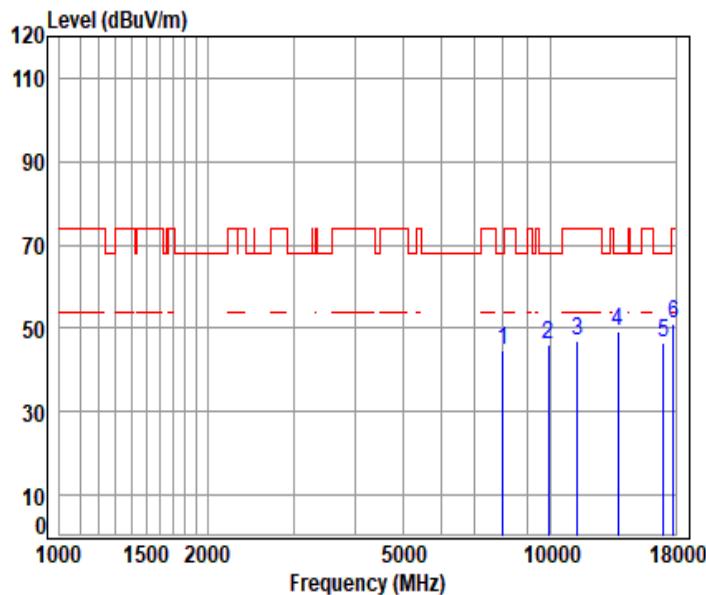
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SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch (SGS-CSTC Laboratory)



Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5670 TX RSE

: 5G WIFI 11AC40

Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1 8009.345	11.55	37.80	55.89	51.04	44.50	68.20	-23.70	Peak
2 9899.373	12.80	38.89	54.19	48.45	45.95	68.20	-22.25	Peak
3 11340.000	14.47	39.70	53.60	46.36	46.93	74.00	-27.07	peak
4 pp13755.920	16.16	39.94	54.42	47.56	49.24	68.20	-18.96	Peak
5 17010.000	18.11	39.71	54.30	43.23	46.75	68.20	-21.45	peak
6 17835.750	18.61	42.71	54.47	44.21	51.06	74.00	-22.94	Peak

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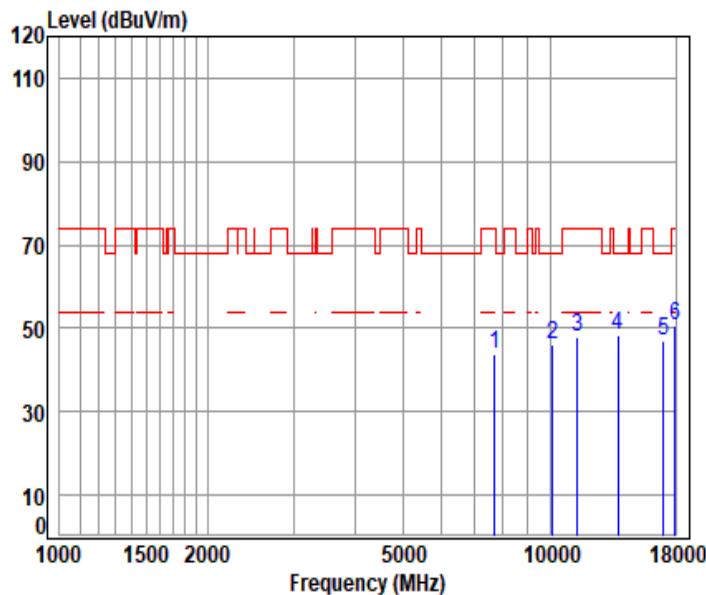
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SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch (SGS-CSTC) Laboratory  
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t (86-755) 26012053 f (86-755) 26710594 [sgs.china@sgs.com](mailto:sgs.china@sgs.com)



Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5670 TX RSE

: 5G WIFI 11AC40

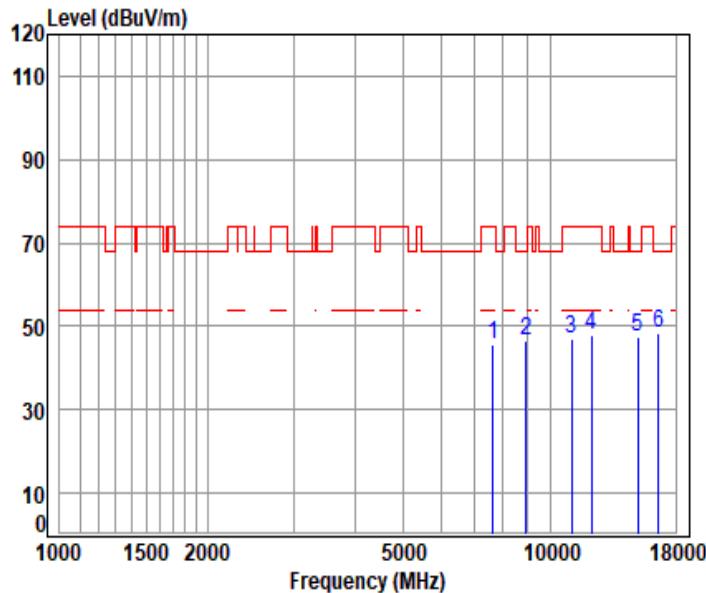
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 7697.417	11.44	36.90	56.14	51.70	43.90	74.00	-30.10 Peak
2 10113.400	13.25	39.10	54.03	47.65	45.97	68.20	-22.23 Peak
3 11340.000	14.47	39.70	53.60	47.12	47.69	74.00	-26.31 peak
4 pp13713.950	16.35	39.99	54.43	46.55	48.46	68.20	-19.74 Peak
5 17010.000	18.11	39.71	54.30	43.27	46.79	68.20	-21.41 peak
6 17945.080	18.90	43.42	54.49	43.02	50.85	74.00	-23.15 Peak



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5530 TX RSE

: 5G WIFI 11AC80

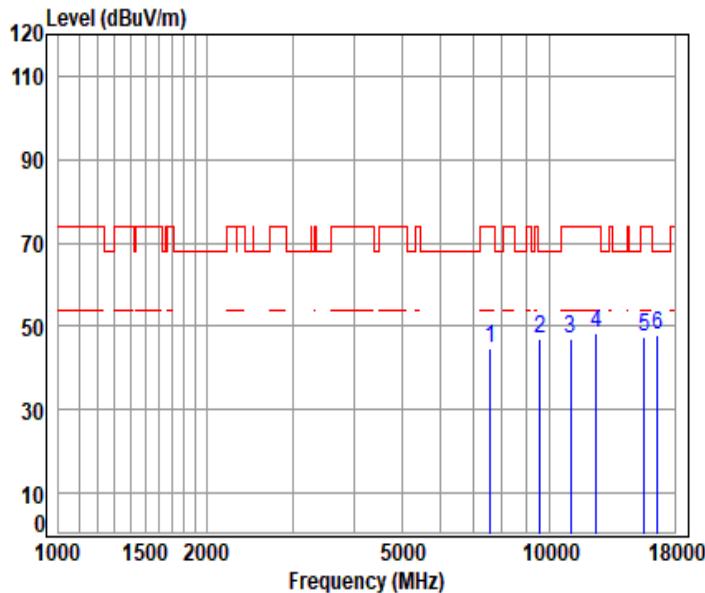
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7634.948	11.22	36.87	56.19	53.87	45.77	74.00 -28.23 Peak
2	8913.427	12.21	38.57	55.08	50.80	46.50	68.20 -21.70 Peak
3	11060.000	14.46	39.46	53.52	46.76	47.16	74.00 -26.84 peak
4	12111.410	14.69	39.72	53.88	47.60	48.13	74.00 -25.87 Peak
5	15091.920	16.70	38.71	54.27	46.51	47.65	68.20 -20.55 Peak
6	pp16590.000	17.66	39.17	54.18	45.63	48.28	68.20 -19.92 peak



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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5530 TX RSE

: 5G WIFI 11AC80

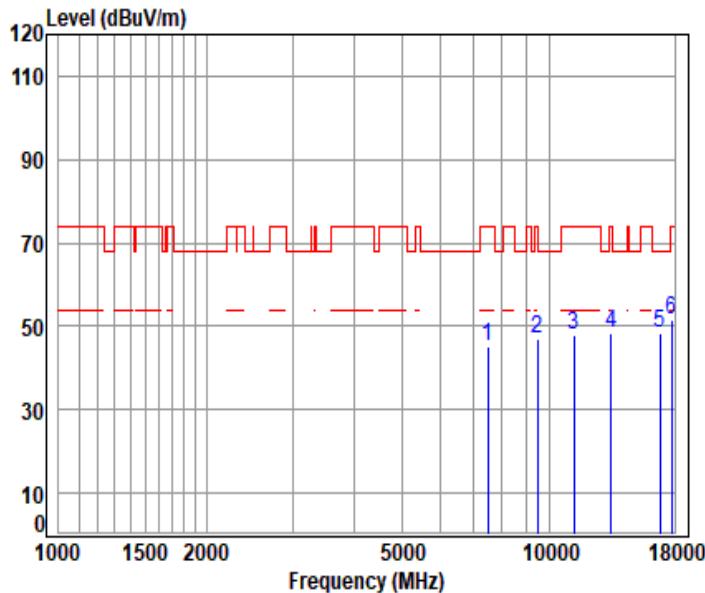
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Loss	Factor	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7596.164	11.10	36.80	56.22	52.86	44.54	74.00 -29.46 Peak
2	9562.412	12.48	38.80	54.49	50.14	46.93	68.20 -21.27 Peak
3	11060.000	14.46	39.46	53.52	46.82	47.22	74.00 -26.78 peak
4	12474.500	15.44	39.90	54.13	47.20	48.41	74.00 -25.59 Peak
5	15591.930	17.15	38.51	54.12	45.94	47.48	74.00 -26.52 Peak
6	pp16590.000	17.66	39.17	54.18	45.28	47.93	68.20 -20.27 peak



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5610 TX RSE

: 5G WIFI 11AC80

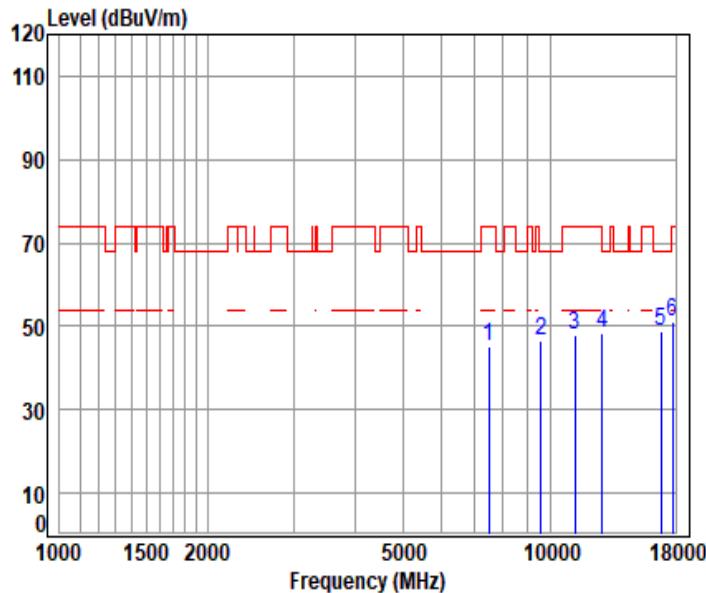
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Loss	Factor	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7503.882	11.22	36.80	56.30	53.30	45.02	74.00 -28.98 Peak
2	9465.507	12.47	38.83	54.58	50.14	46.86	74.00 -27.14 Peak
3	11220.000	14.74	39.62	53.57	47.08	47.87	74.00 -26.13 peak
4	13341.940	16.28	40.30	54.47	46.28	48.39	74.00 -25.61 Peak
5	pp16830.000	17.68	39.60	54.25	45.36	48.39	68.20 -19.81 peak
6	17745.140	18.86	42.12	54.45	45.21	51.74	74.00 -22.26 Peak

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Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5610 TX RSE

: 5G WIFI 11AC80

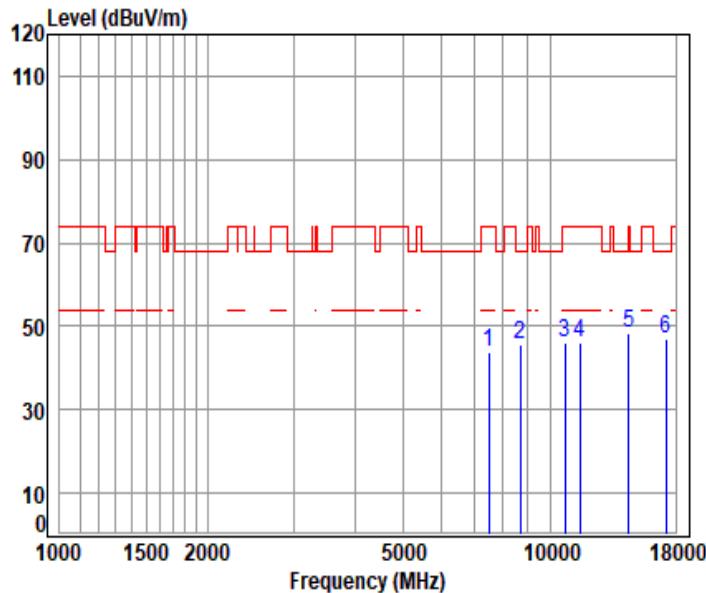
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7503.882	11.22	36.80	56.30	53.26	44.98	74.00 -29.02 Peak
2	9581.912	12.45	38.80	54.48	49.93	46.70	68.20 -21.50 Peak
3	11220.000	14.74	39.62	53.57	47.33	48.12	74.00 -25.88 peak
4	12770.190	15.46	40.27	54.34	46.93	48.32	68.20 -19.88 Peak
5	16830.000	17.68	39.60	54.25	45.64	48.67	68.20 -19.53 peak
6	17727.080	18.95	41.99	54.45	44.58	51.07	74.00 -22.93 Peak

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Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5745 TX RSE

: 5G WIFI 11A

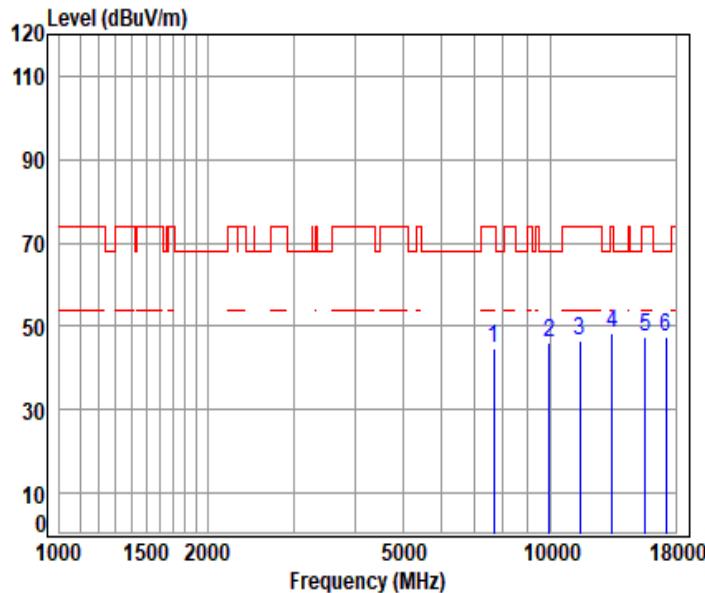
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1	7503.882	11.22	36.80	56.30	52.15	43.87	74.00	-30.13 Peak
2	8671.635	12.05	38.49	55.30	50.36	45.60	68.20	-22.60 Peak
3	10696.140	14.02	39.40	53.68	46.29	46.03	74.00	-27.97 Peak
4	11490.000	14.97	39.61	53.65	45.03	45.96	74.00	-28.04 peak
5	pp14445.180	16.96	39.55	54.36	46.13	48.28	68.20	-19.92 Peak
6	17235.000	17.83	40.01	54.35	43.73	47.22	68.20	-20.98 peak



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Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5745 TX RSE

: 5G WIFI 11A

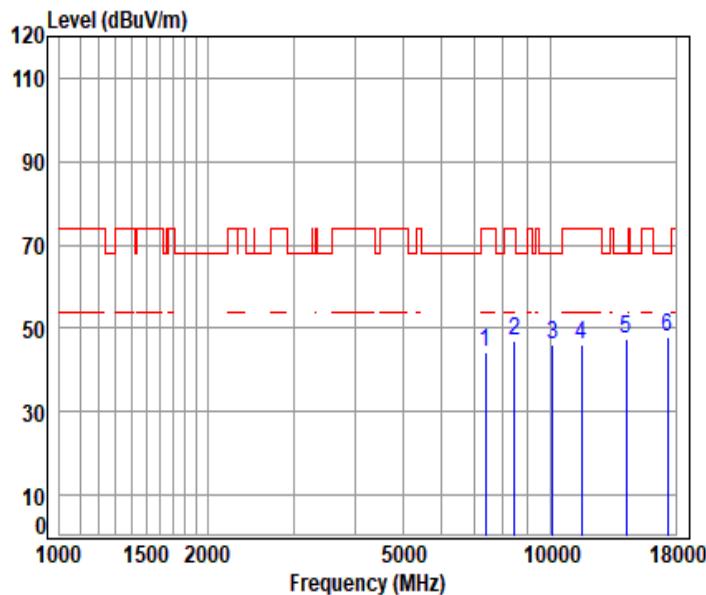
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 7673.931	11.36	36.90	56.16	52.79	44.89	74.00	-29.11 Peak
2 9939.788	12.88	38.90	54.15	48.45	46.08	68.20	-22.12 Peak
3 11490.000	14.97	39.61	53.65	45.51	46.44	74.00	-27.56 peak
4 13355.530	16.19	40.30	54.46	46.13	48.16	74.00	-25.84 Peak
5 15591.930	17.15	38.51	54.12	46.02	47.56	74.00	-26.44 Peak
6 pp17235.000	17.83	40.01	54.35	43.90	47.39	68.20	-20.81 peak



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Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5785 TX RSE

: 5G WIFI 11A

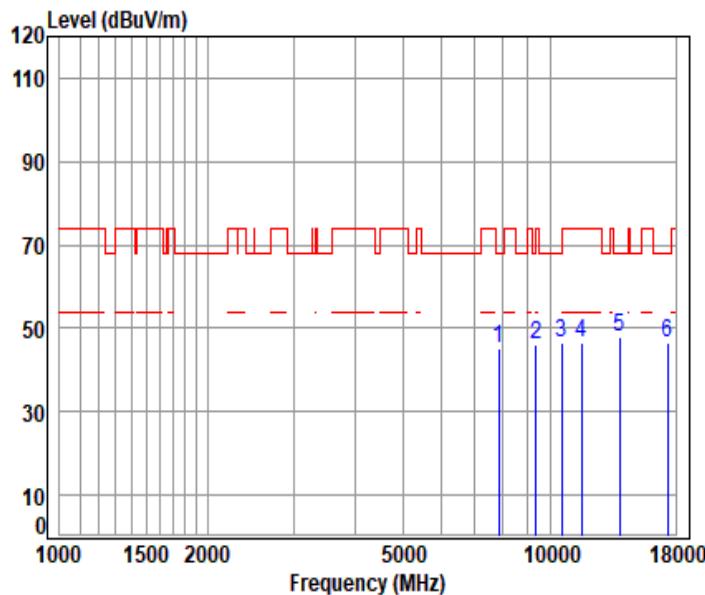
Freq	Cable Loss		Ant Factor		Read Level		Limit Level	Line Limit	Over Remark
	MHz	dB	dB/m	Factor	Factor	dBuV	dBuV/m	dBuV/m	dB
1	7375.065	11.50	36.75	56.40	52.32	44.17	74.00	-29.83	Peak
2	8462.222	12.05	38.38	55.48	52.10	47.05	74.00	-26.95	Peak
3	10123.710	13.23	39.10	54.03	47.85	46.15	68.20	-22.05	Peak
4	11570.000	14.78	39.60	53.67	45.32	46.03	74.00	-27.97	peak
5	14269.690	16.25	39.80	54.37	45.91	47.59	68.20	-20.61	Peak
6	pp17355.000	18.00	40.31	54.37	43.81	47.75	68.20	-20.45	peak



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Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5785 TX RSE

: 5G WIFI 11A

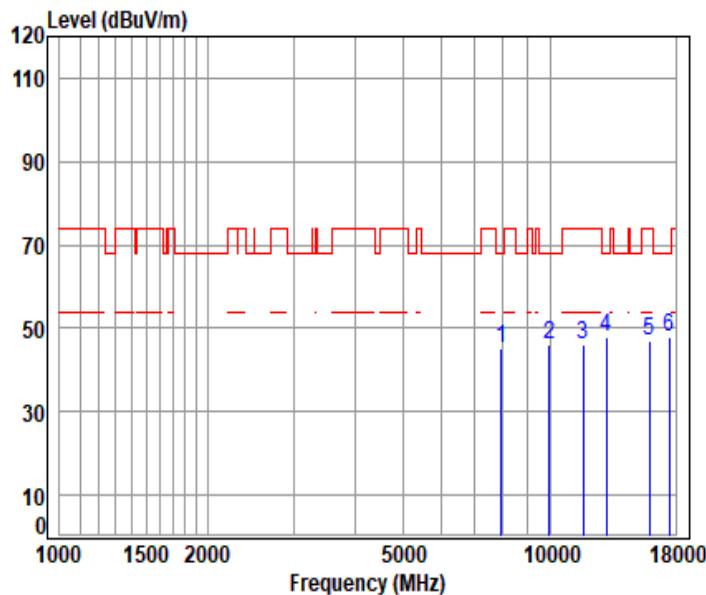
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7847.834	11.42	37.39	56.02	52.27	45.06	68.20 -23.14 Peak
2	9340.997	12.22	38.80	54.69	49.76	46.09	74.00 -27.91 Peak
3	10566.200	13.61	39.23	53.76	47.33	46.41	68.20 -21.79 Peak
4	11570.000	14.78	39.60	53.67	45.71	46.42	74.00 -27.58 peak
5	pp13868.470	15.95	39.90	54.41	46.44	47.88	68.20 -20.32 Peak
6	17355.000	18.00	40.31	54.37	42.68	46.62	68.20 -21.58 peak



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Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5825 TX RSE

: 5G WIFI 11A

Freq	Cable Loss		Ant Factor		Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	Factor	dB	dBuV	dBuV/m	dBuV/m	dB
1	7936.257	11.55	37.67	55.95	52.05	45.32	68.20	-22.88	Peak
2	9960.058	12.93	38.90	54.14	48.29	45.98	68.20	-22.22	Peak
3	11650.000	14.69	39.55	53.69	45.63	46.18	74.00	-27.82	peak
4	13019.740	15.83	40.30	54.50	46.28	47.91	68.20	-20.29	Peak
5	15896.620	17.27	38.69	54.03	45.28	47.21	74.00	-26.79	Peak
6	pp17475.000	18.35	40.78	54.40	43.20	47.93	68.20	-20.27	peak

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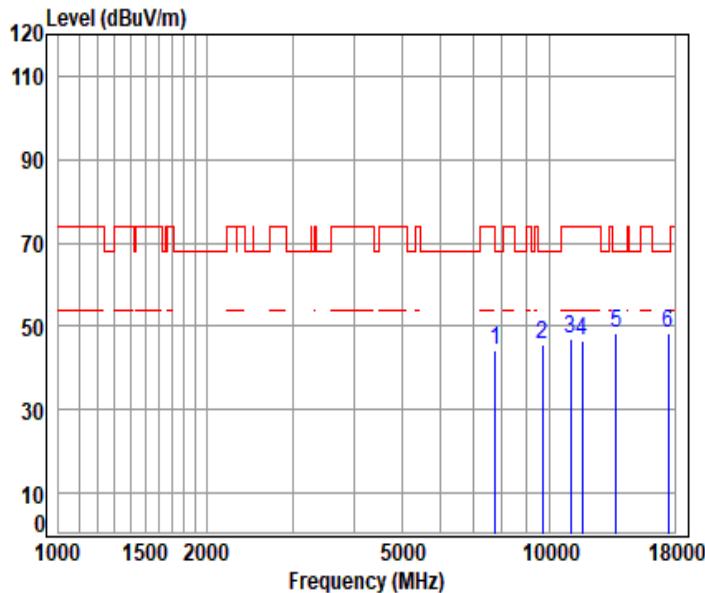
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No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 [www.sgsgroup.com.cn](http://www.sgsgroup.com.cn)

SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch (SGS-CSTC Laboratory)



Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5825 TX RSE

: 5G WIFI 11A

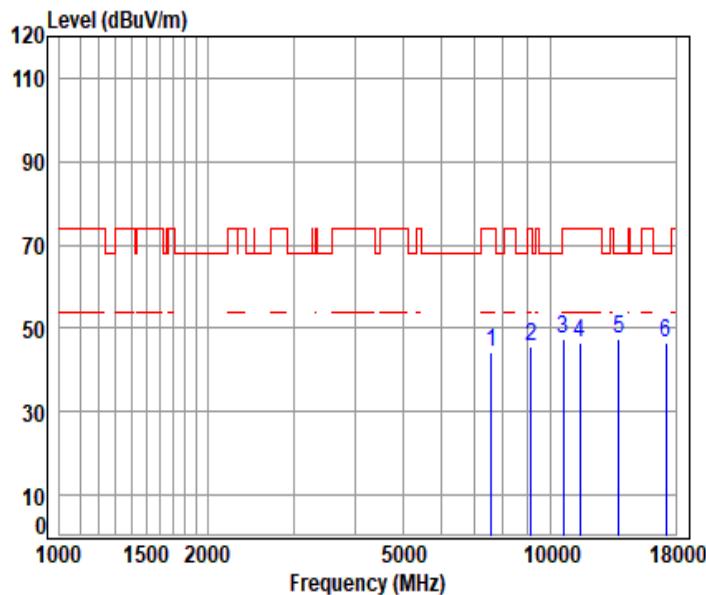
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
1	7768.304	11.35	37.07	56.09	51.89	44.22	68.20 -23.98 Peak
2	9670.154	12.62	38.70	54.40	48.85	45.77	68.20 -22.43 Peak
3	11039.260	14.36	39.44	53.51	46.84	47.13	74.00 -26.87 Peak
4	11650.000	14.69	39.55	53.69	45.86	46.41	74.00 -27.59 peak
5	13699.990	16.41	40.00	54.43	46.24	48.22	68.20 -19.98 Peak
6	pp17475.000	18.35	40.78	54.40	43.56	48.29	68.20 -19.91 peak



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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5745 TX RSE

: 5G WIFI 11AC20

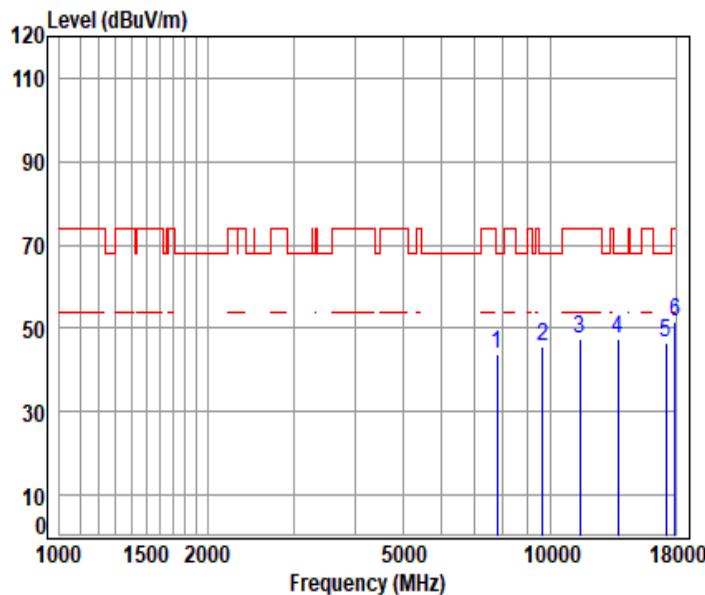
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7572.987	11.13	36.80	56.24	52.45	44.14	74.00 -29.86 Peak
2	9134.007	12.19	38.67	54.88	49.74	45.72	74.00 -28.28 Peak
3	10641.800	13.78	39.34	53.71	47.97	47.38	74.00 -26.62 Peak
4	11490.000	14.97	39.61	53.65	45.74	46.67	74.00 -27.33 peak
5	pp13783.970	16.03	39.92	54.42	46.01	47.54	68.20 -20.66 Peak
6	17235.000	17.83	40.01	54.35	42.89	46.38	68.20 -21.82 peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5745 TX RSE

: 5G WIFI 11AC20

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7800.019	11.31	37.20	56.06	51.45	43.90	68.20 -24.30 Peak
2	9630.836	12.51	38.74	54.43	48.70	45.52	68.20 -22.68 Peak
3	11490.000	14.97	39.61	53.65	46.31	47.24	74.00 -26.76 peak
4	pp13727.930	16.28	39.97	54.43	45.63	47.45	68.20 -20.75 Peak
5	17235.000	17.83	40.01	54.35	42.97	46.46	68.20 -21.74 peak
6	17945.080	18.90	43.42	54.49	43.63	51.46	74.00 -22.54 Peak

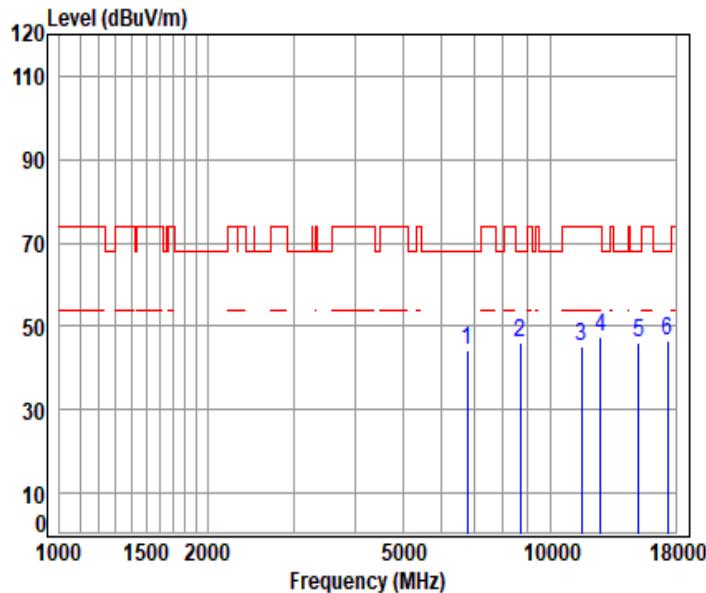
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SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch No. 10, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5785 TX RSE

: 5G WIFI 11AC20

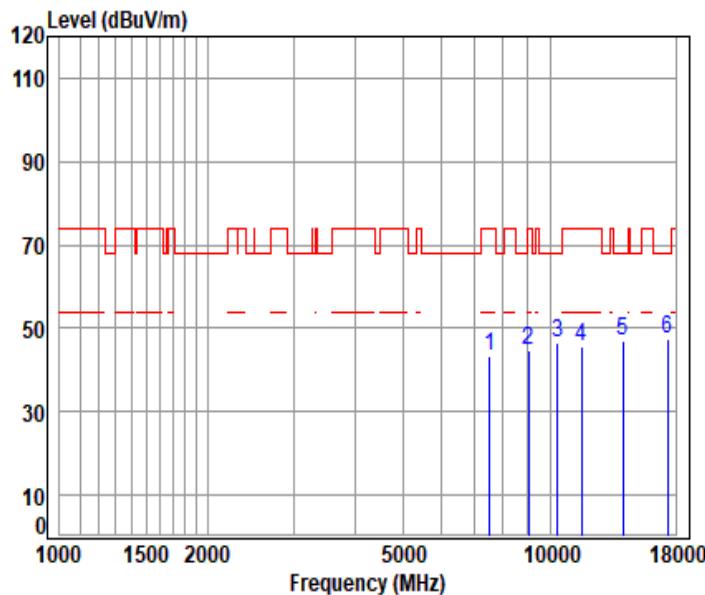
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level	Level	Line	
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 6763.404	11.38	35.75	56.75	54.03	44.41	68.20	-23.79 peak
2 8689.318	12.08	38.56	55.28	50.74	46.10	68.20	-22.10 Peak
3 11570.000	14.78	39.60	53.67	44.66	45.37	74.00	-28.63 peak
4 12653.660	15.25	40.15	54.26	46.29	47.43	74.00	-26.57 Peak
5 15122.690	16.71	38.72	54.26	45.08	46.25	68.20	-21.95 Peak
6 pp17355.000	18.00	40.31	54.37	42.69	46.63	68.20	-21.57 peak



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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5785 TX RSE

: 5G WIFI 11AC20

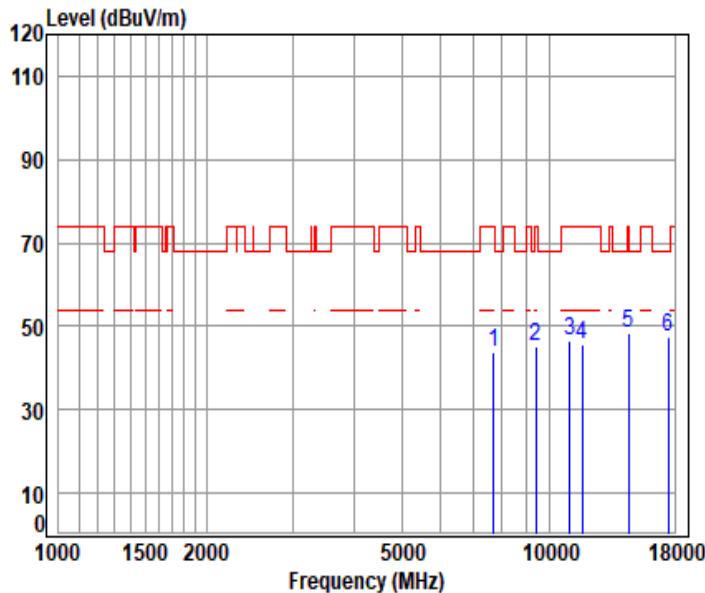
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7511.529	11.21	36.80	56.29	51.65	43.37	74.00 -30.63 Peak
2	9032.237	12.14	38.60	54.97	49.09	44.86	74.00 -29.14 Peak
3	10363.680	13.61	39.00	53.88	47.64	46.37	68.20 -21.83 Peak
4	11570.000	14.78	39.60	53.67	44.83	45.54	74.00 -28.46 peak
5	14067.650	16.54	39.90	54.39	45.13	47.18	68.20 -21.02 Peak
6	pp17355.000	18.00	40.31	54.37	43.56	47.50	68.20 -20.70 peak



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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5825 TX RSE

: 5G WIFI 11AC20

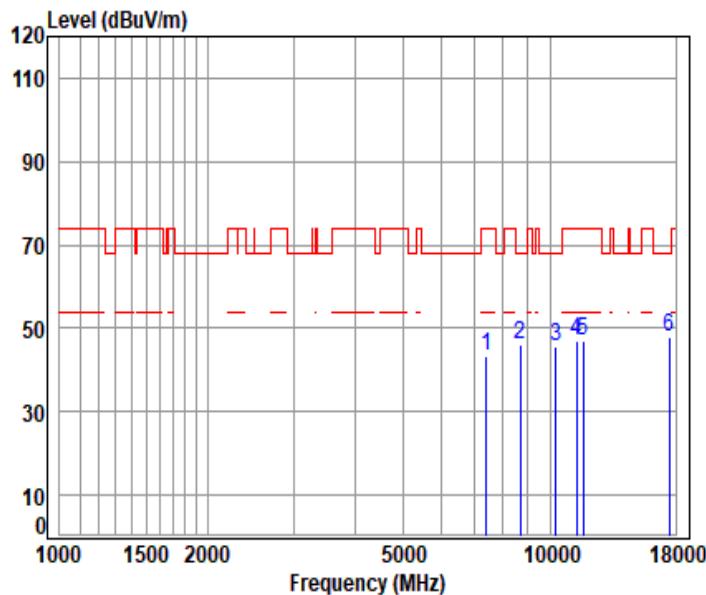
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Limit	Over	Remark
				Level				
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1 7705.261	11.44	36.91	56.14	51.71	43.92	74.00	-30.08	Peak
2 9398.258	12.30	38.80	54.64	48.59	45.05	74.00	-28.95	Peak
3 11016.800	14.25	39.42	53.51	46.19	46.35	74.00	-27.65	Peak
4 11650.000	14.69	39.55	53.69	45.15	45.70	74.00	-28.30	peak
5 14489.390	17.07	39.51	54.35	46.14	48.37	74.00	-25.63	Peak
6 pp17475.000	18.35	40.78	54.40	42.80	47.53	68.20	-20.67	peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5825 TX RSE

: 5G WIFI 11AC20

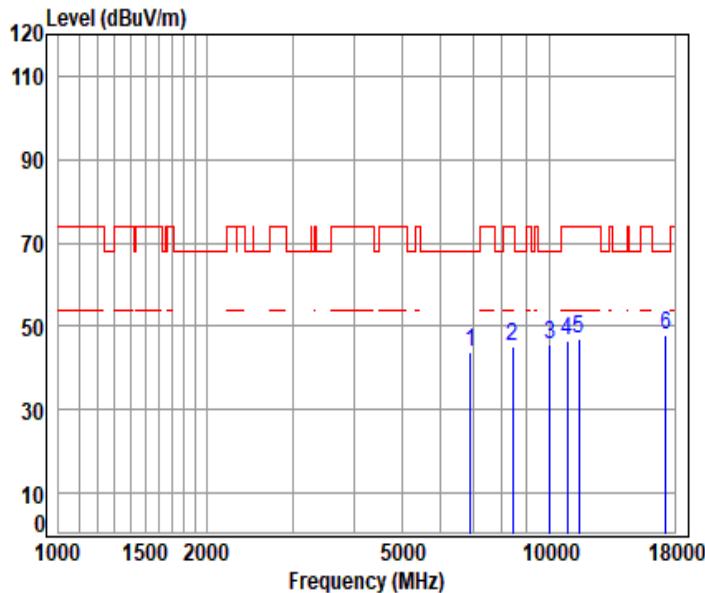
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1	7397.636	11.50	36.70	56.38	51.57	43.39	74.00	-30.61 Peak
2	8698.174	12.09	38.59	55.27	50.57	45.98	68.20	-22.22 Peak
3	10279.570	13.48	39.02	53.93	47.25	45.82	68.20	-22.38 Peak
4	11300.930	14.64	39.70	53.59	46.26	47.01	74.00	-26.99 Peak
5	11650.000	14.69	39.55	53.69	46.29	46.84	74.00	-27.16 peak
6	pp17475.000	18.35	40.78	54.40	43.18	47.91	68.20	-20.29 peak



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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5755 TX RSE

: 5G WIFI 11AC40

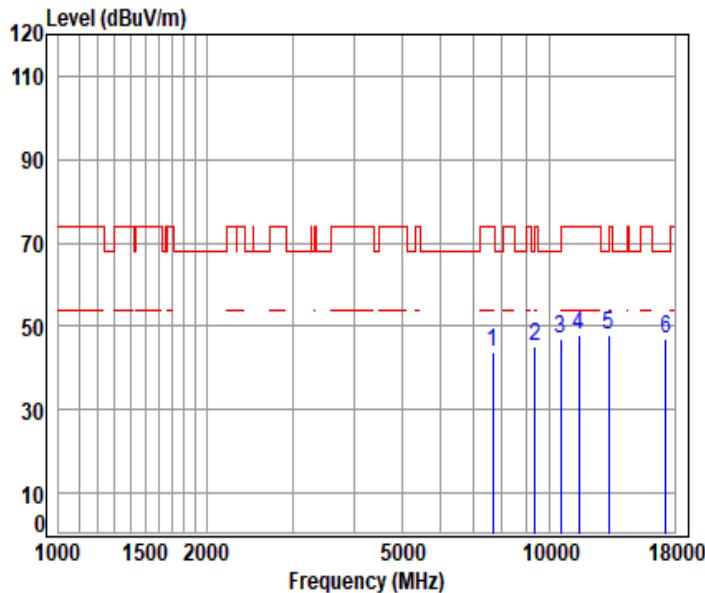
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Limit Line	Over Limit	Remark
				Level				
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 6902.598	11.37	36.19	56.72	52.83	43.67	68.20	-24.53	Peak
2 8410.663	11.70	38.56	55.53	50.30	45.03	74.00	-28.97	Peak
3 10010.910	13.04	38.92	54.09	47.61	45.48	68.20	-22.72	Peak
4 10860.810	13.85	39.30	53.58	47.15	46.72	74.00	-27.28	Peak
5 11510.000	15.01	39.60	53.65	46.13	47.09	74.00	-26.91	peak
6 pp17265.000	17.83	40.10	54.35	44.30	47.88	68.20	-20.32	peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5755 TX RSE

: 5G WIFI 11AC40

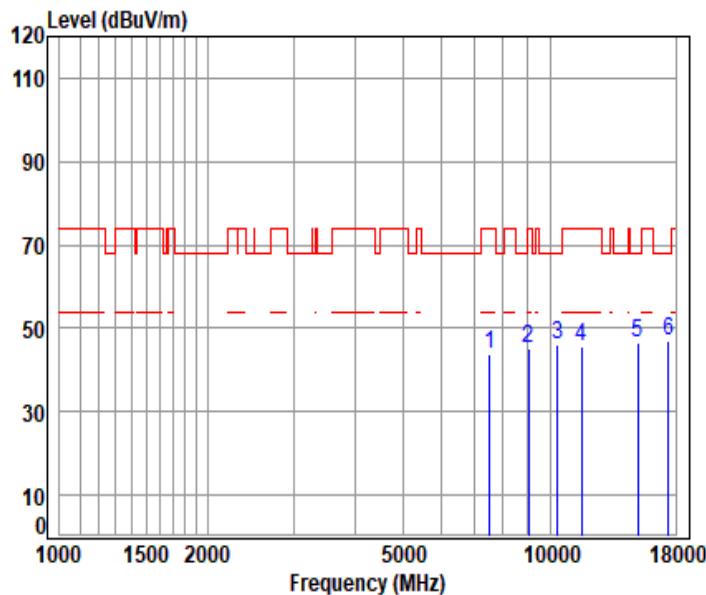
Freq	Cable Loss		Ant Factor		Read Level		Limit Level	Line Limit	Over Remark
	MHz	dB	dB/m	Factor	Factor	dBuV	dBuV/m	dBuV/m	dB
1	7673.931	11.36	36.90	56.16	51.93	44.03	74.00	-29.97	Peak
2	9340.997	12.22	38.80	54.69	48.65	44.98	74.00	-29.02	Peak
3	10544.690	13.62	39.19	53.77	47.92	46.96	68.20	-21.24	Peak
4	11510.000	15.01	39.60	53.65	46.82	47.78	74.00	-26.22	peak
5	pp13193.290	15.66	40.21	54.48	46.35	47.74	68.20	-20.46	Peak
6	17265.000	17.83	40.10	54.35	43.35	46.93	68.20	-21.27	peak

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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5795 TX RSE

: 5G WIFI 11AC40

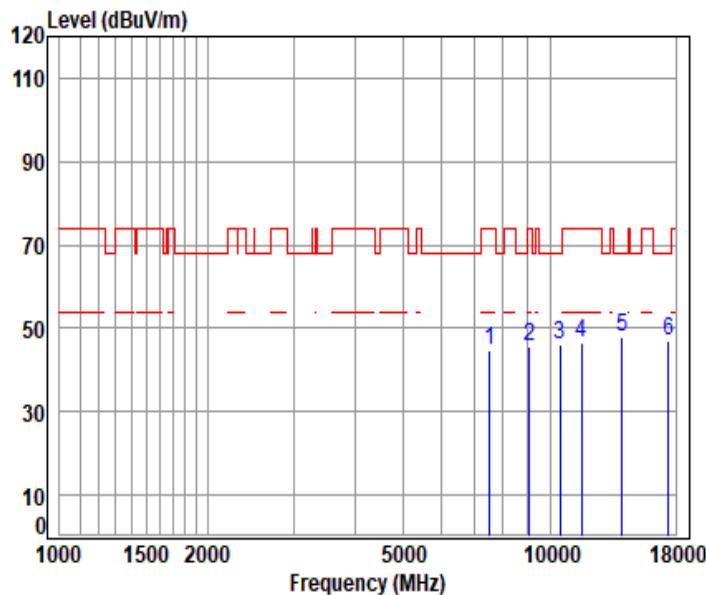
Freq	Cable Loss		Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	7526.847	11.19	36.80	56.28	52.04	43.75	74.00	-30.25	Peak
2	9023.043	12.14	38.60	54.98	49.47	45.23	74.00	-28.77	Peak
3	10363.680	13.61	39.00	53.88	47.21	45.94	68.20	-22.26	Peak
4	11590.000	14.70	39.60	53.68	44.95	45.57	74.00	-28.43	peak
5	15076.550	16.68	38.72	54.28	45.49	46.61	68.20	-21.59	Peak
6	pp17385.000	18.09	40.37	54.38	42.74	46.82	68.20	-21.38	peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5795 TX RSE

: 5G WIFI 11AC40

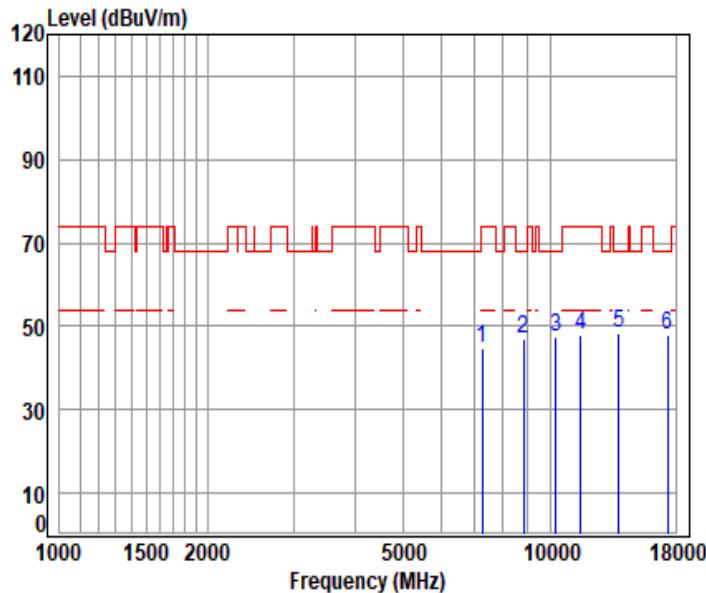
Freq	Cable Loss	Ant Factor	Preamp Factor	Read	Limit Level	Line Level	Over Limit	Remark
				dB	dBuV	dBuV/m	dBuV/m	
MHz	dB	dB/m	dB	dB	dBuV	dBuV/m	dB	
1	7534.517	11.18	36.80	56.27	52.82	44.53	74.00	-29.47 Peak
2	9069.112	12.13	38.60	54.94	49.64	45.43	74.00	-28.57 Peak
3	10448.470	13.63	39.05	53.83	47.32	46.17	68.20	-22.03 Peak
4	11590.000	14.70	39.60	53.68	46.12	46.74	74.00	-27.26 peak
5	pp13981.940	16.37	39.90	54.40	46.04	47.91	68.20	-20.29 Peak
6	17385.000	18.09	40.37	54.38	42.78	46.86	68.20	-21.34 peak



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Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m HORIZONTAL

Job No : 03234AT

Mode : 5775 TX RSE

: 5G WIFI 11AC80

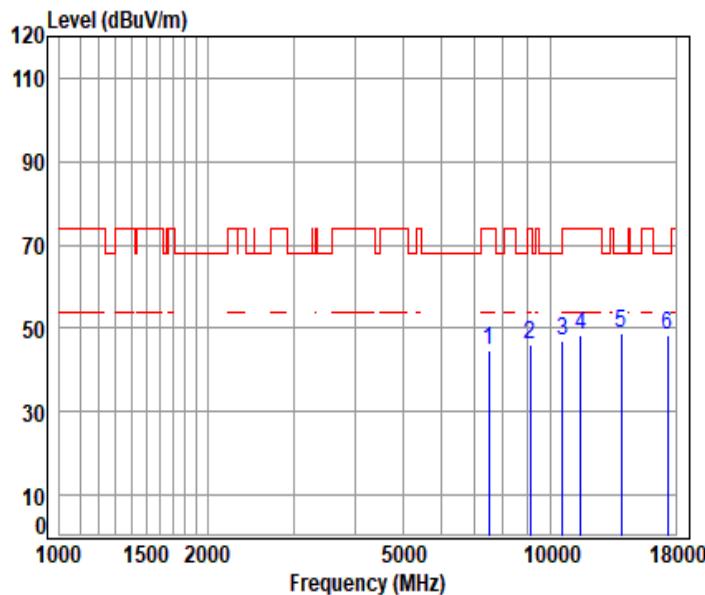
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	7270.644	11.51	36.64	56.48	53.23	44.90	74.00 -29.10 Peak
2	8832.090	12.24	38.50	55.15	51.60	47.19	68.20 -21.01 Peak
3	10279.570	13.48	39.02	53.93	48.88	47.45	68.20 -20.75 Peak
4	11550.000	14.85	39.60	53.67	46.97	47.75	74.00 -26.25 peak
5	13798.020	15.97	39.90	54.42	47.07	48.52	68.20 -19.68 Peak
6	17325.000	17.92	40.25	54.36	44.12	47.93	68.20 -20.27 peak

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Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



Condition: 3m VERTICAL

Job No : 03234AT

Mode : 5775 TX RSE

: 5G WIFI 11AC80

Freq	Cable		Ant	Preamp	Read	Limit	Over	Limit	Remark
	Freq	Loss	Factor	Factor	Level				
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
1	7503.882	11.22	36.80	56.30	52.88	44.60	74.00	-29.40	Peak
2	9087.606	12.12	38.60	54.92	50.44	46.24	74.00	-27.76	Peak
3	10587.740	13.60	39.28	53.75	48.08	47.21	68.20	-20.99	Peak
4	11550.000	14.85	39.60	53.67	47.47	48.25	74.00	-25.75	peak
5	pp13939.280	16.15	39.90	54.41	47.07	48.71	68.20	-19.49	Peak
6	17325.000	17.92	40.25	54.36	44.42	48.23	68.20	-19.97	peak

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## 7.5 Duty Cycle

Test Requirement KDB 789033 D02 II B 1

Test Method: KDB 789033 II B 1

### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 22.6 °C      Humidity: 53.4 % RH      Atmospheric Pressure: 1020 mbar

### 7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	22	TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	23	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

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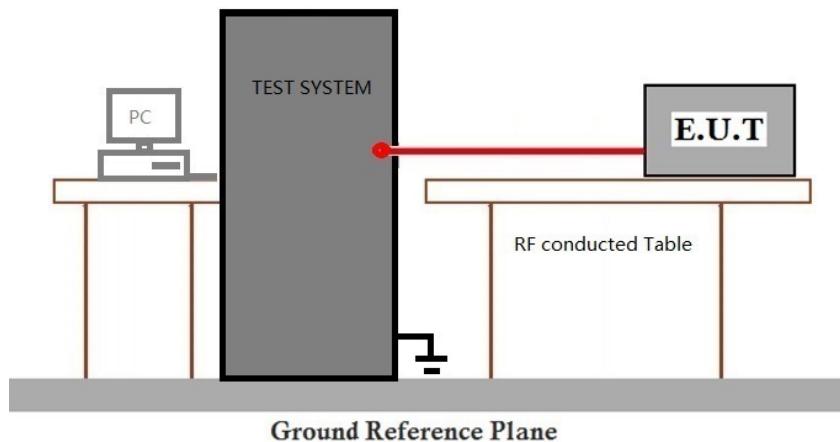
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Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
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### 7.5.3 Test Setup Diagram



### 7.5.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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## 7.6 99% Bandwidth

Test Requirement N/A  
Test Method: KDB 789033 II D

### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 22.6 °C      Humidity: 53.4 % RH      Atmospheric Pressure: 1020 mbar

### 7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	22	TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	23	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

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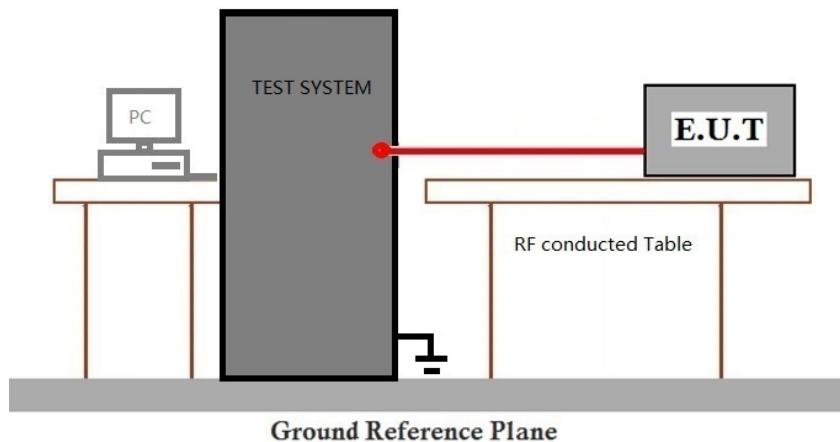
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Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
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### 7.6.3 Test Setup Diagram



### 7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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## 7.7 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II C 1

### 7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 22.6 °C      Humidity: 53.4 % RH      Atmospheric Pressure: 1020 mbar

### 7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	22	TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	23	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

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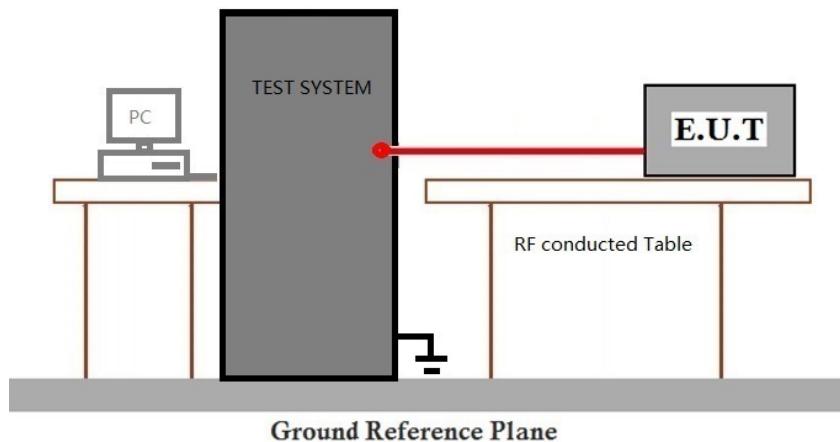
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Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
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### 7.7.3 Test Setup Diagram



### 7.7.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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## 7.8 Minimum 6 dB bandwidth (5.725-5.85 GHz band )

Test Requirement 47 CFR Part 15, Subpart E 15.407 (e)

Test Method: KDB 789033 D02 II C 2

Limit:

Frequency band(MHz)	Limit
5725-5850	≥500 kHz

### 7.8.1 E.U.T. Operation

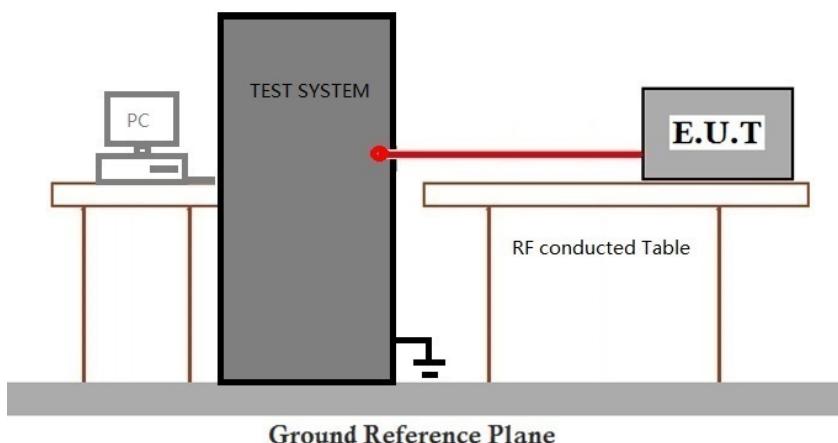
Operating Environment:

Temperature: 22.6 °C      Humidity: 53.4 % RH      Atmospheric Pressure: 1020 mbar

### 7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

### 7.8.3 Test Setup Diagram



### 7.8.4 Measurement Procedure and Data

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## 7.9 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

Frequency band(MHz)	Limit
5150-5250	$\leq 1W(30dBm)$ for master device
	$\leq 250mW(24dBm)$ for client device
5250-5350	$\leq 250mW(24dBm)$ or $11dBm+10\log B^*$
5470-5725	$\leq 250mW(24dBm)$ or $11dBm+10\log B^*$
5725-5850	$\leq 1W(30dBm)$
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

### 7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 22.6 °C      Humidity: 53.4 % RH      Atmospheric Pressure: 1020 mbar

### 7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	22	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and

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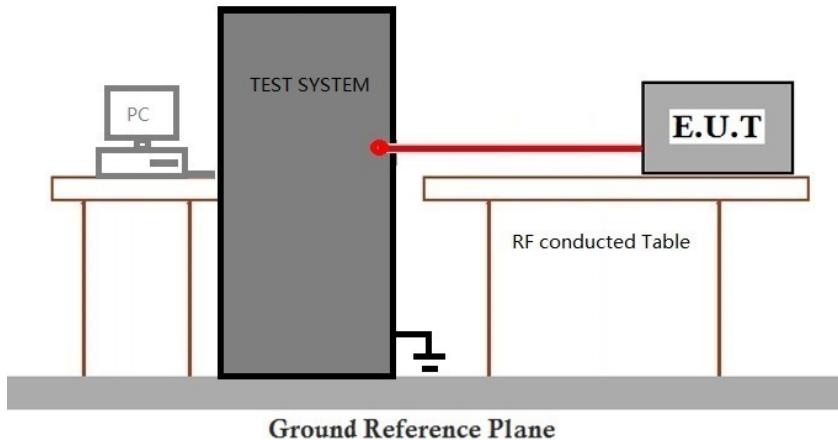
SZEMC-TRF-01 Rev. A/1

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		found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	23	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

### 7.9.3 Test Setup Diagram



### 7.9.4 Measurement Procedure and Data

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## 7.10 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II F

Limit:

Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz for client device
5470-5725	≤11dBm in 1MHz for client device
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

### 7.10.1 E.U.T. Operation

Operating Environment:

Temperature: 22.6 °C      Humidity: 53.4 % RH      Atmospheric Pressure: 1020 mbar

### 7.10.2 Test Mode Description

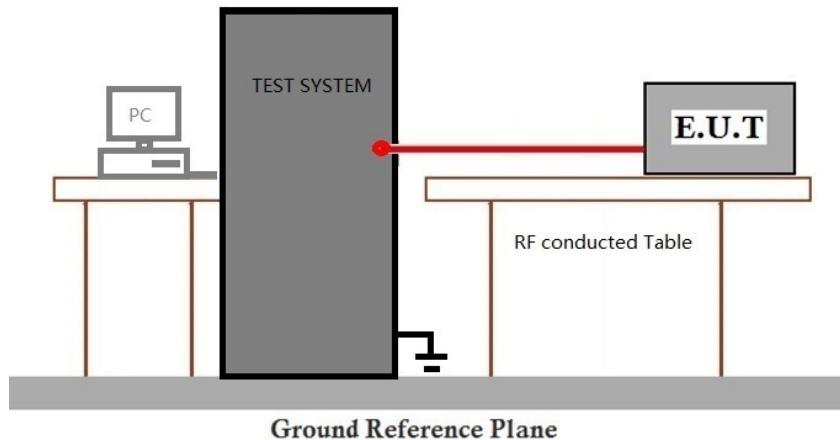
Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	22	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is

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		recorded in the report.
Pre-scan	23	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

#### 7.10.3 Test Setup Diagram



#### 7.10.4 Measurement Procedure and Data

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## 7.11 Frequency Stability

Test Requirement 47 CFR Part 15, Subpart E 15.407 (g)

Test Method: ANSI C63.10 (2013) Section 6.8

### 7.11.1 E.U.T. Operation

Operating Environment:

Temperature: 22.6 °C      Humidity: 53.4 % RH      Atmospheric Pressure: 1020 mbar

### 7.11.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	Charge + TX mode (U-NII-1) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	Charge + TX mode (U-NII-2A) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	Charge + TX mode (U-NII-2C) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	05	Charge + TX mode (U-NII-3) _Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	22	TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	23	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	24	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

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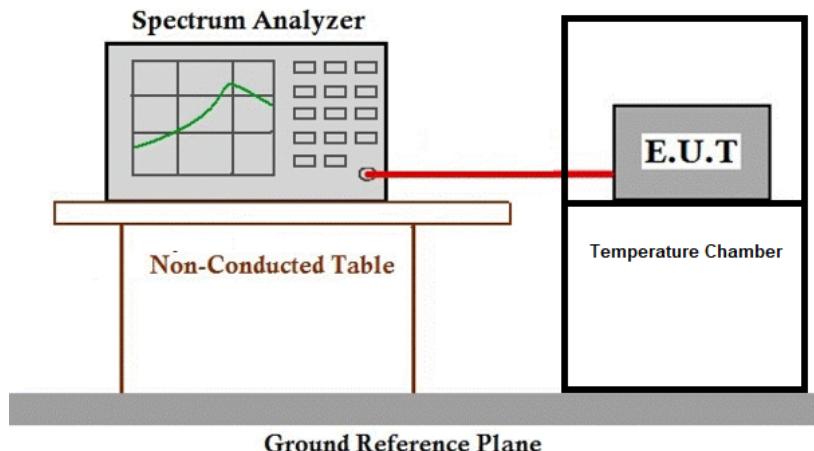
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Pre-scan	25	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
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#### 7.11.3 Test Setup Diagram



#### 7.11.4 Measurement Procedure and Data

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## 7.12 Channel Move Time

Test Requirement KDB 905462 D02 Section 5.1

Test Method: KDB 905462 D02 Section 7.8.3

Limit:

Test item	Limit	Applicability	
		Master Device or client with Radar Detection	Client without Radar Detection
Non-occupancy period	Minimum 30 minutes	Yes	Not required
Channel Availability Check Time	60 seconds	Yes	Not required
Channel Move Time	10 seconds See Note 1.	Yes	Yes
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

### 7.12.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C      Humidity: 53.5 % RH      Atmospheric Pressure: 1020 mbar

### 7.12.2 Test Mode Description

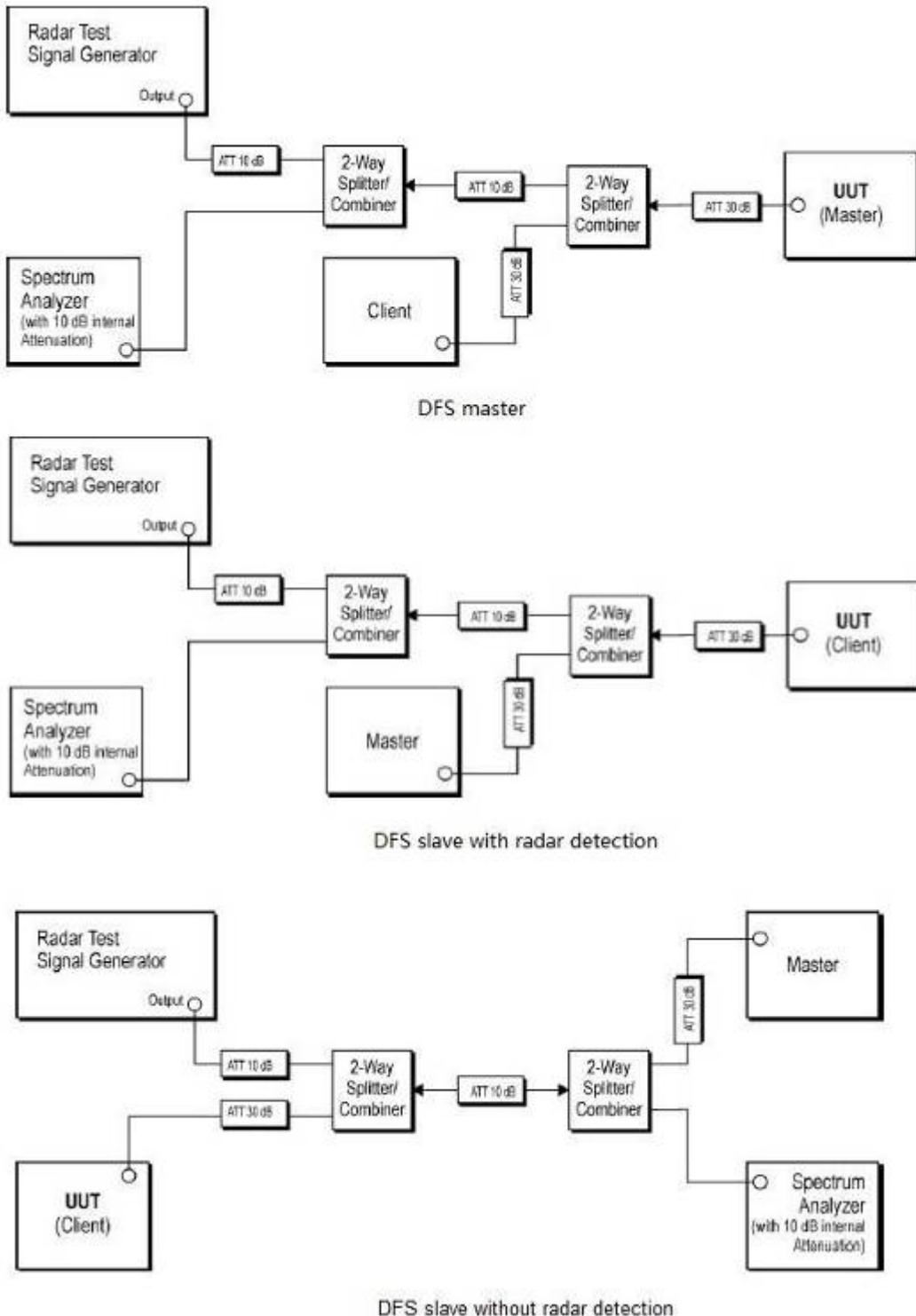
Pre-scan / Final test	Mode Code	Description
Final test	06	Normal operating_Keep the EUT communication with the companion device.

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**7.12.3 Test Setup Diagram**


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**7.12.4 Measurement Procedure and Data**

- 1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- 2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- 3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- 4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- 5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- 6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- 7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =  $S$  (12000ms) /  $B$  (4000); where Dwell is the dwell time per spectrum analyzer sampling bin,  $S$  is sweep time and  $B$  is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by:  $C$  (ms) =  $N$  X Dwell (0.3ms); where  $C$  is the Closing Time,  $N$  is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
- 8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer to Appendix for Details



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### 7.13 Non-occupancy period

Test Requirement KDB 905462 D02 Section 5.1

Test Method: KDB 905462 D02 Section 7.8.3

Limit:

Test item	Limit	Applicability	
		Master Device or client with Radar Detection	Client without Radar Detection
Non-occupancy period	Minimum 30 minutes	Yes	Not required
Channel Availability Check Time	60 seconds	Yes	Not required
Channel Move Time	10 seconds See Note 1.	Yes	Yes
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

#### 7.13.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C      Humidity: 53.5 % RH      Atmospheric Pressure: 1020 mbar

#### 7.13.2 Test Mode Description

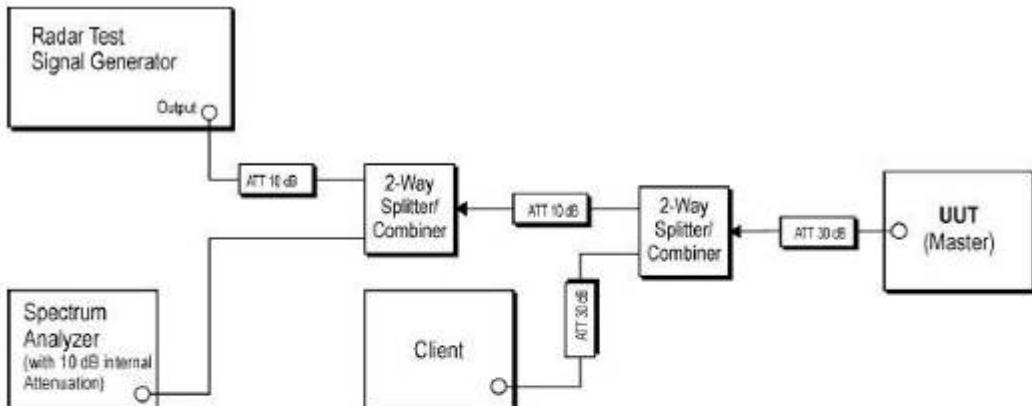
Pre-scan / Final test	Mode Code	Description
Final test	06	Normal operating_Keep the EUT communication with the companion device.

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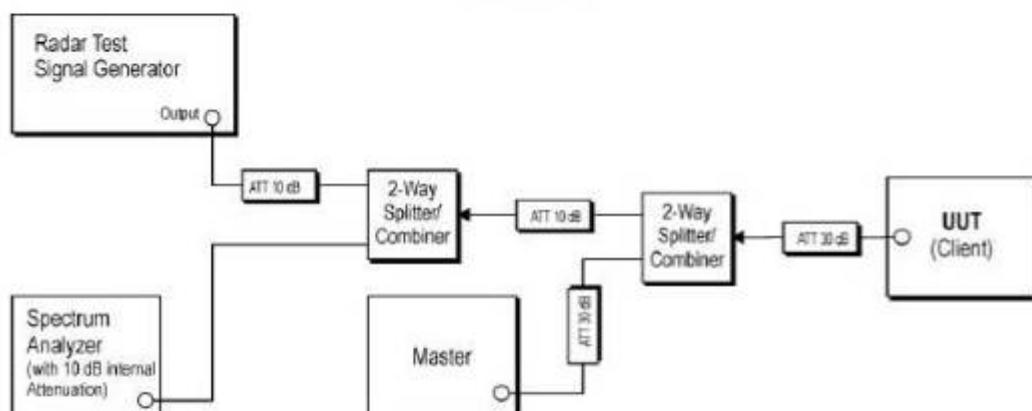
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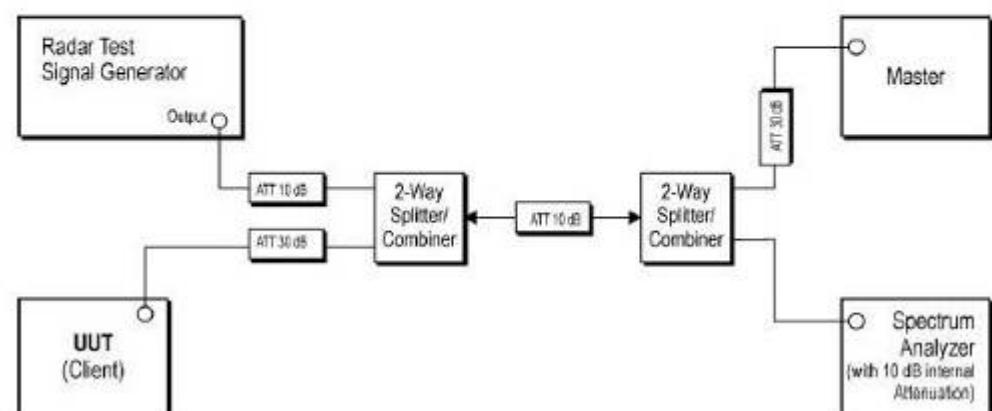
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**7.13.3 Test Setup Diagram**


DFS master



DFS slave with radar detection



DFS slave without radar detection

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**7.13.4 Measurement Procedure and Data**

- 1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- 2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- 3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- 4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- 5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- 6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- 7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =  $S$  (12000ms) /  $B$  (4000); where Dwell is the dwell time per spectrum analyzer sampling bin,  $S$  is sweep time and  $B$  is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by:  $C$  (ms) =  $N$  X Dwell (0.3ms); where  $C$  is the Closing Time,  $N$  is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
- 8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer to Appendix for Details



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## 7.14 Channel Closing Transmission Time

Test Requirement KDB 905462 D02 Section 5.1

Test Method: KDB 905462 D02 Section 7.8.3

Limit:

Test item	Limit	Applicability	
		Master Device or client with Radar Detection	Client without Radar Detection
Non-occupancy period	Minimum 30 minutes	Yes	Not required
Channel Availability Check Time	60 seconds	Yes	Not required
Channel Move Time	10 seconds See Note 1.	Yes	Yes
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

### 7.14.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C

Humidity: 53.5 % RH

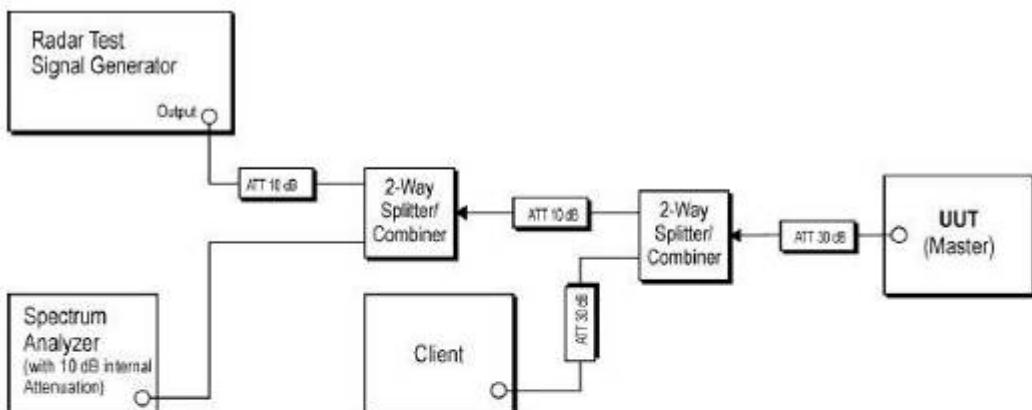
Atmospheric Pressure: 1020 mbar

### 7.14.2 Test Mode Description

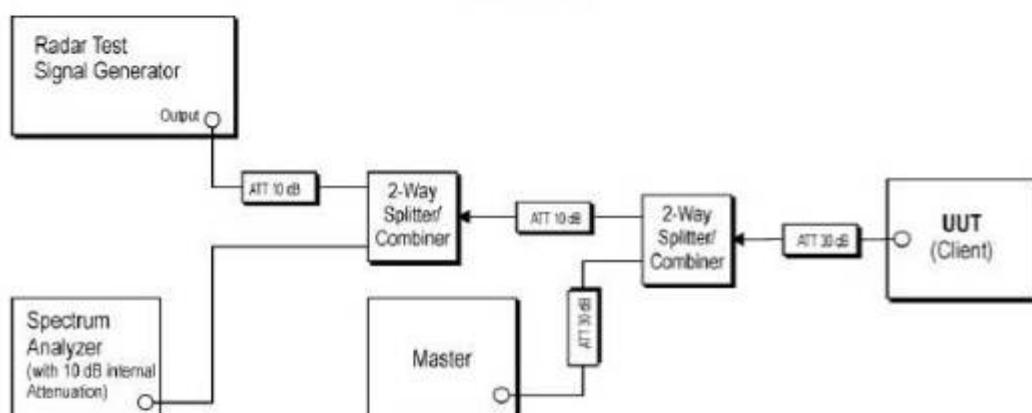
Pre-scan / Final test	Mode Code	Description
Final test	06	Normal operating_Keep the EUT communication with the companion device.

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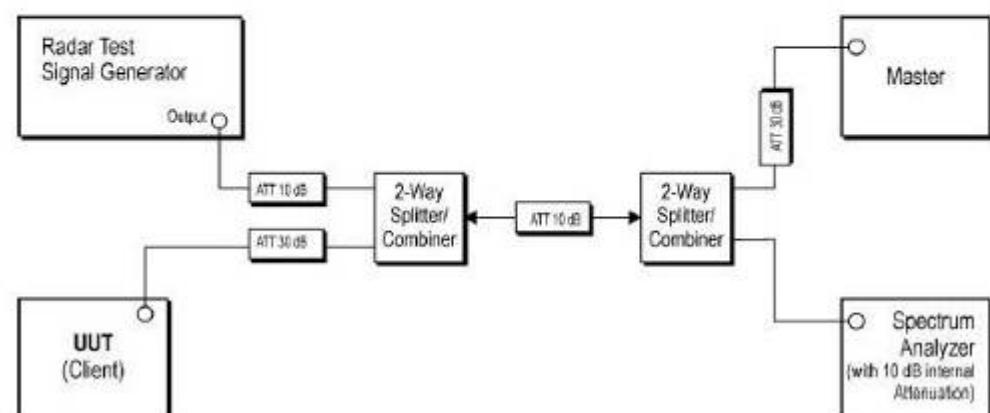
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**7.14.3 Test Setup Diagram**


DFS master



DFS slave with radar detection



DFS slave without radar detection

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**7.14.4 Measurement Procedure and Data**

- 1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- 2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- 3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- 4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- 5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- 6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- 7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =  $S$  (12000ms) /  $B$  (4000); where Dwell is the dwell time per spectrum analyzer sampling bin,  $S$  is sweep time and  $B$  is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by:  $C$  (ms) =  $N$  X Dwell (0.3ms); where  $C$  is the Closing Time,  $N$  is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
- 8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer to Appendix for Details



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## 8 Test Setup Photo

Refer to Appendix - Test Setup Photo for SZCR2408003234AT

## 9 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for SZCR2408003234AT



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