TEST REPORT

Application No.:	GZCR2105020317AT
Applicant:	Echelon Fitness Multimedia, LLC
Address of Applicant:	605 Chestnut Street, Suite 700, Chattanooga, TN 37450 USA
Manufacturer:	Echelon Fitness Multimedia, LLC
Address of Manufacturer:	605 Chestnut Street, Suite 700, Chattanooga, TN 37450 USA
Factory:	TES Touch Embedded Solutions (Xiamen) Co., Ltd.
Address of Factory:	No. 60, Xinglin South Rd., Jimei District, Xiamen, Fujian 361022, China
Equipment Under Test (EUT):	
EUT Name:	ECHELON TOUCH SCREEN
Model No.:	ECHTES-101
Trade Mark:	ECHELON
Standard(s) :	47 CFR Part 15, Subpart E 15.407
Date of Receipt:	2021-05-25
Date of Test:	2021-05-27 to 2021-07-12
Date of Issue:	2021-07-22
Test Result:	**Pass***

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

Kobe Jian
EMC Laboratory Manager

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		*2021-07-22*		*Original*

Authorized for issue by				
Tested By		Jim Li **Jim Li/Project Engineer**		
Reviewed By		Ricky Liu **Ricky Liu/Reviewer**		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	**Standard**	**Method**	**Requirement**	**Result**
Transmission in the Absence of Data	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.407 (c)	Pass
Antenna Requirement		N/A	47 CFR Part 15, Subpart C 15.203	Pass
Frequency Stability		KDB 789033 II A 3	47 CFR Part 15, Subpart C 15.407 (g)	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 & 15.407 b(6)	Pass
Band Edge		KDB 789033 D02 II	47 CFR Part 15, Subpart C 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 C 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 C 15.407 (e)	Pass
Maximum Conducted output power		KDB 789033 D02 II E	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Peak Power spectrum density		KDB 789033 D02 II F	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Radiated Emissions		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
Radiated Emissions which fall in the restricted bands		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply:	DC 12V powered by SWITCHING POWER SUPPLY as below:
	MODEL: XH1200-3000
	INPUT:100-240VAC, 50/60Hz, 0.8A
	OUTPUT:12.0V, 3.0A, 36.0W
Cable(s):	AC mains for adapter:1.8m, unshielded
	DC input for main unit:1.2m, with ferrite bead
	DC IN Jack
	USB Port
	USB/OTG Port
	TF Card Slot
	HDMI Port
	LAN Port
	LINE OUT Port
	3.5mm Headphone Jack
Operation Frequency (20MHz):	U-NII-1: 5180-5240MHz
	U-NII-2A: 5260-5320MHz
	U-NII-2C: 5500-5700MHz
	U-NII-3: 5745-5825MHz
Operation Frequency (40MHz):	U-NII-1: 5190-5230MHz
	U-NII-2A: 5270-5310MHz
	U-NII-2C: 5510-5670MHz
	U-NII-3: 5755-5795MHz
Operation Frequency (80MHz):	U-NII-1: 5210MHz
	U-NII-2A: 5290MHz
	U-NII-2C: 5530-5610MHz
	U-NII-3: 5775MHz
Modulation Type:	802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK)
	802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM)
	802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Channel Spacing:	802.11a/n(HT20)/ac(HT20): 20MHz
	802.11n(HT40)/ac(HT40): 40MHz
	802.11ac(HT80): 80MHz
DFS Function:	Slave without Radar detection
TPC Function:	Support TPC function
Antenna Type:	Integral Antenna
Antenna Gain(Max):	Antenna 1: 2dBi and Antenna 2: 2dBi declared by applicant.
Remark:	Two antennas can simultaneous transmission
Firmware Version:	MTB-818 V1-2 C002B002-20210610
Hardware Version:	rk3288_mtb818
Testing Software:	WLAN Test
Sample NO.:	117C102350

Power Setting: 6dBm can not be changed by user.
Function: Media PAD with 5G Wi-Fi Classic function.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Mobile Phone	SAMSUNG	SM-G9810	RFCN309Q9QF
Note Book PC	LENOVO	Lenovo Xiaoxinchao 5000	PF0TLJX7
Wireless Router	Honor	HiRouter-CD30	AWTEQ20C04001295

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	3.12dB
Duty Cycle	± 0.37%
99% Bandwidth	± 3%
26dB Emission bandwidth	± 3%
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	± 3%
Maximum Conducted output power	± 0.75dB
Peak Power spectrum density	± 2.84dB
Radiated Emissions	5.06dB （30MHz-1GHz；3m） 4.46dB （30MHz-1GHz；10m） 5.08dB (1GHz-6GHz) 5.14dB (above 6GHz)
Radiated Emissions which fall in the restricted bands	5.06dB （30MHz-1GHz；3m） 4.46dB （30MHz-1GHz；10m） 5.08dB (1GHz-6GHz) 5.14dB (above 6GHz)
Frequency Stability	± 7.25 x 10^{-8}

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

4.5 Test Facility

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

- **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

- **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

- **ISED (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

- **VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)**

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

- **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Shielding Room	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	N/A	N/A
Two-Line V-Network	Rohde & Schwarz	ENV216	EMC0118	2021-01-08	2022-01-06
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2020-09-25	2021-09-24
Coaxial Cable	HangTianXing	2m	EMC0107	2020-09-09	2022-09-08
Test Software E3c	Audix	Ver. 5.4.1221b	GZE100-62	N/A	N/A
EMI Test Receiver(9kHz-3.6GHz)	Rohde & Schwarz	ESR4	EMC2221	2021-06-01	2022-05-31

Band Edge					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2020-07-15	2021-07-14
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Duty Cycle					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2020-07-15	2021-07-14
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18

EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

99% Bandwidth

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2020-07-15	2021-07-14
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

26dB Emission bandwidth

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2020-07-15	2021-07-14
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14

Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2020-07-15	2021-07-14
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Maximum Conducted output power

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2020-07-15	2021-07-14
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Peak Power spectrum density					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz-6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal Generator(9kHz-3GHz)	Agilent Technologies	N5171B	SEM006-04	2020-07-15	2021-07-14
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Radiated Emissions					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EMI Test Receiver(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-01-08	2022-01-07
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020/9/9	2022/9/8
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-01-08	2022-01-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2020-11-13	2021-11-12
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2020-07-29	2021-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27

Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2020-09-09	2021-09-08

Radiated Emissions which fall in the restricted bands					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EMI Test Receiver(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-01-08	2022-01-07
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020/9/9	2022/9/8
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-01-08	2022-01-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2020-11-13	2021-11-12
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2020-07-29	2021-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2020-09-09	2021-09-08

General used equipment					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
DMM	Fluke	73	EMC0006	2021-07-05	2022-07-05
DMM	Fluke	73	EMC0007	2021-07-05	2022-07-05

6 Radio Spectrum Technical Requirement

6.1 Transmission in the Absence of Data

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (c)

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 an 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 1: 2 dBi; Antenna 2: 2 dBi.

EUT support 2x2 MIMO for 802.11a/n/ac, any transmit signals are correlated with each other, as unequal antenna gains for antenna 1 and antenna 2 but with equal transmit power, therefore,

$$\text{Directional gain} = G_{\text{ANT}} + 10 \log (N_{\text{ANT}}) \text{ dBi}$$

Directional gain= 2+10log (2) dBi=**5.01 dBi**

6.2 Antenna Requirement

6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

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 signaling 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:

Wi-Fi chip (RTL8822CS) 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.

6.3 Frequency Stability

6.3.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (g)

6.3.2 Conclusion

The grantee declared that the emissions are maintained within the band of operation under all conditions of normal operation as specified in the user's manual, it comply the frequency stability requirement.

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 & 15.407 b(6)
Test Method: ANSI C63.10 (2013) Section 6.2
Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	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

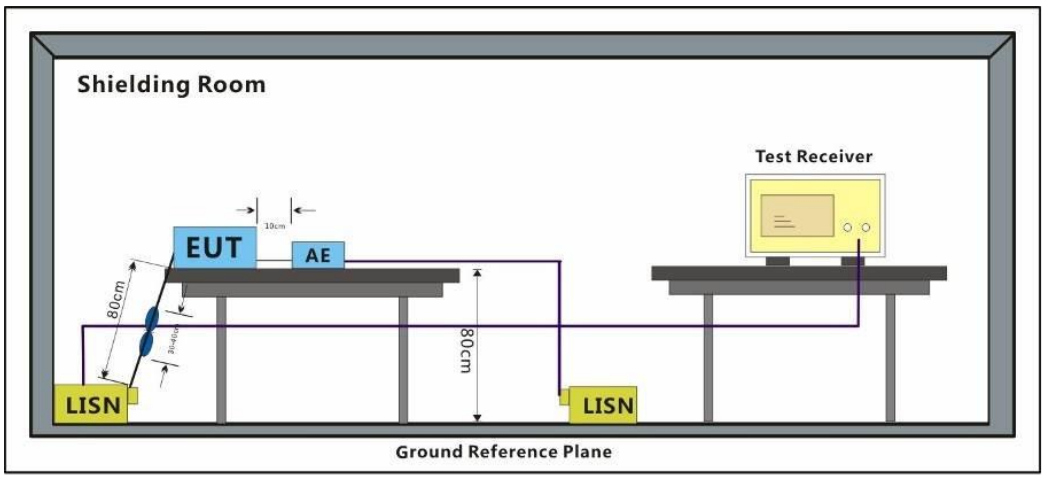
Operating Environment:

Temperature: 22.9 °C Humidity: 52 % RH Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Pre-scan	07	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Pre-scan	08	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Pre-scan	09	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

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.

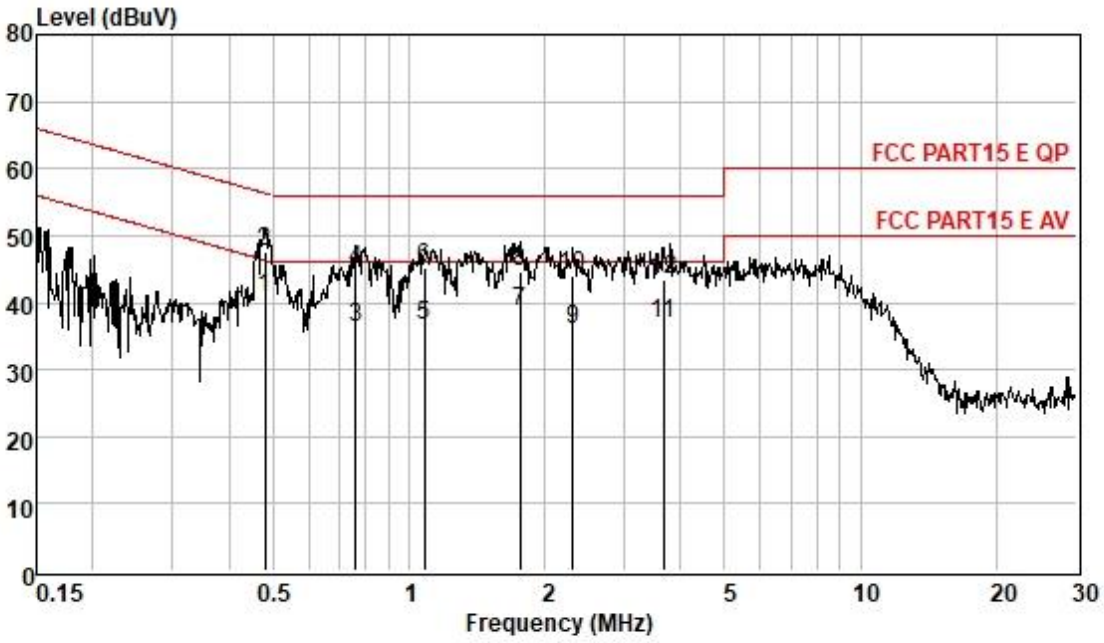
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

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: LISN=Read Level+ Cable Loss+ LISN Factor

Test Mode: 06; Line: Live line



Pol :LINE
Mode :
Model :

Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
0.48	31.17	0.07	9.63	40.87	46.32	-5.45	Average
0.48	37.85	0.07	9.63	47.55	56.32	-8.77	QP
0.76	26.54	0.07	9.63	36.24	46.00	-9.76	Average
0.76	35.22	0.07	9.63	44.92	56.00	-11.08	QP
1.08	26.79	0.08	9.62	36.49	46.00	-9.51	Average
1.08	35.49	0.08	9.62	45.19	56.00	-10.81	QP
1.76	28.85	0.11	9.62	38.58	46.00	-7.42	Average
1.76	34.98	0.11	9.62	44.71	56.00	-11.29	QP
2.31	26.38	0.13	9.62	36.13	46.00	-9.87	Average
2.31	34.12	0.13	9.62	43.87	56.00	-12.13	QP
3.66	27.00	0.16	9.62	36.78	46.00	-9.22	Average
3.66	33.54	0.16	9.62	43.32	56.00	-12.68	QP

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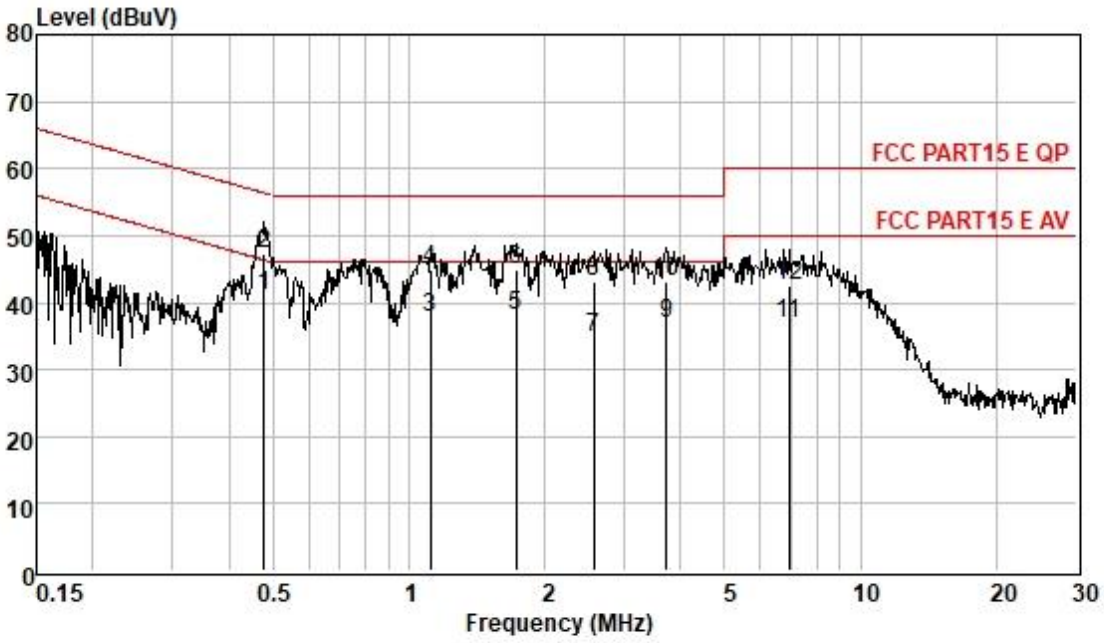
Test Mode: 06; Line: Neutral Line



Pol :NEUTRAL
Mode :
Model :

Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
0.48	31.55	0.07	9.55	41.17	46.36	-5.19	Average
0.48	37.68	0.07	9.55	47.30	56.36	-9.06	QP
1.12	28.13	0.08	9.55	37.76	46.00	-8.24	Average
1.12	35.28	0.08	9.55	44.91	56.00	-11.09	QP
1.73	28.51	0.11	9.55	38.17	46.00	-7.83	Average
1.73	35.35	0.11	9.55	45.01	56.00	-10.99	QP
2.57	25.04	0.14	9.54	34.72	46.00	-11.28	Average
2.57	33.46	0.14	9.54	43.14	56.00	-12.86	QP
3.72	27.10	0.16	9.56	36.82	46.00	-9.18	Average
3.72	33.50	0.16	9.56	43.22	56.00	-12.78	QP
6.95	27.15	0.20	9.58	36.93	50.00	-13.07	Average
6.95	32.88	0.20	9.58	42.66	60.00	-17.34	QP

7.2 Band Edge

Test Requirement 47 CFR Part 15, Subpart C 15.407(b)
Test Method: KDB 789033 D02 II
Limit:

Frequency band(MHz)	Limit
5150-5250	-27dBm/MHz
5250-5350	-27dBm/MHz
5470-5725	-27dBm/MHz
5725-5850	Below 5650MHz & above 5925MHz, -27dBm/MHz 5650-5700MHz & 5875-5925MHz, 10dBm/MHz 5700-5720MHz & 5855-5875MHz,15.6dBm/MHz 5720-5725MHz & 5850-5855MHz,27dBm/MHz

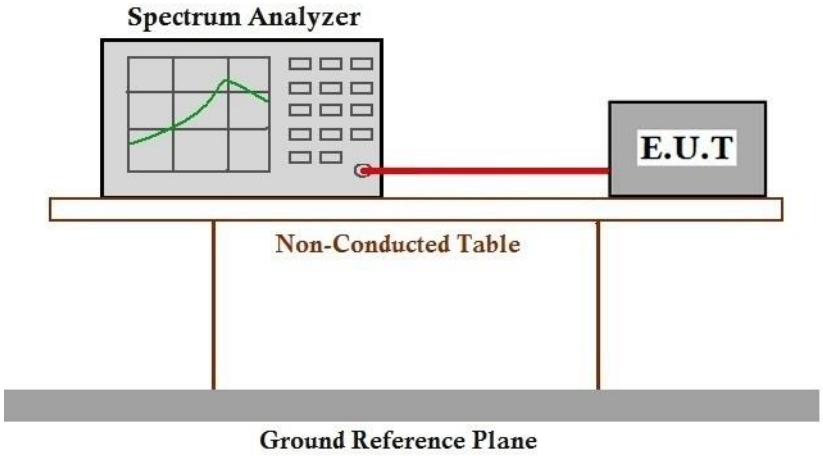
7.2.1 E.U.T. Operation

Operating Environment:
Temperature: 29.8 °C Humidity: 51.5 % RH Atmospheric Pressure: 1005 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	08	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	09	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

Please Refer To Appendix For Details

7.3 Duty Cycle

Test Requirement KDB 789033 D02 II B 1

Test Method: KDB 789033 II B 1

7.3.1 E.U.T. Operation

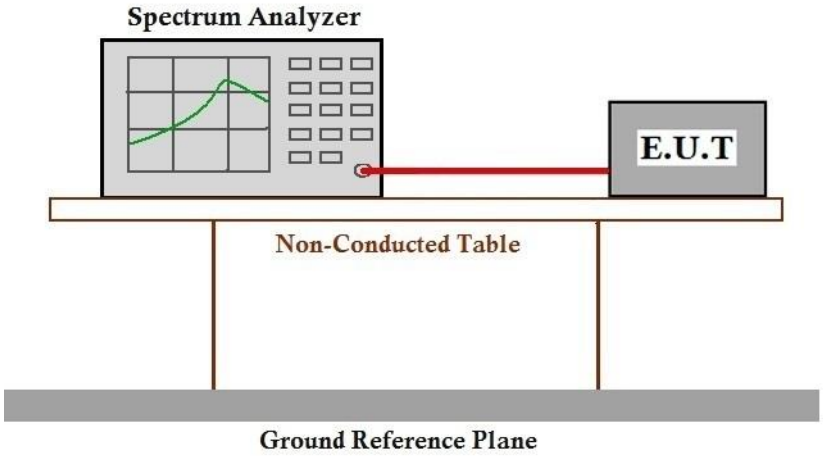
Operating Environment:

Temperature: 29.8 °C Humidity: 51.5 % RH Atmospheric Pressure: 1005 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	08	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	09	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

Please Refer To Appendix For Details

7.4 99% Bandwidth

Test Requirement N/A

Test Method: KDB 789033 II D

7.4.1 E.U.T. Operation

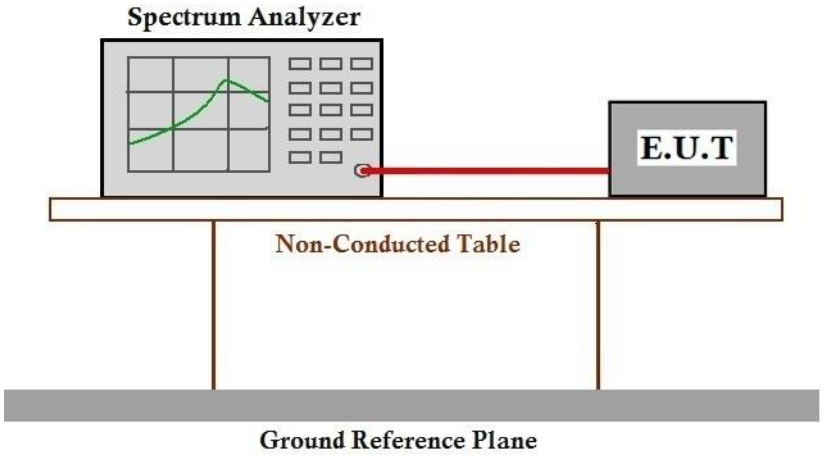
Operating Environment:

Temperature: 29.8 °C Humidity: 51.5 % RH Atmospheric Pressure: 1005 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	08	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	09	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

Please Refer To Appendix For Details

7.5 26dB Emission bandwidth

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

Test Method: KDB 789033 D02 II C 1

7.5.1 E.U.T. Operation

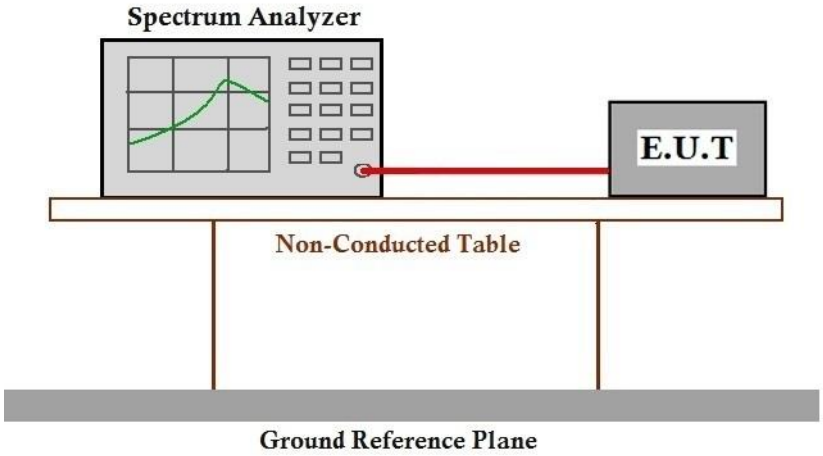
Operating Environment:

Temperature: 29.8 °C Humidity: 51.5 % RH Atmospheric Pressure: 1005 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	08	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	09	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

Please Refer To Appendix For Details

7.6 Minimum 6 dB bandwidth (5.725-5.85 GHz band)

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

Test Method: KDB 789033 D02 II C 2

Limit:

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

7.6.1 E.U.T. Operation

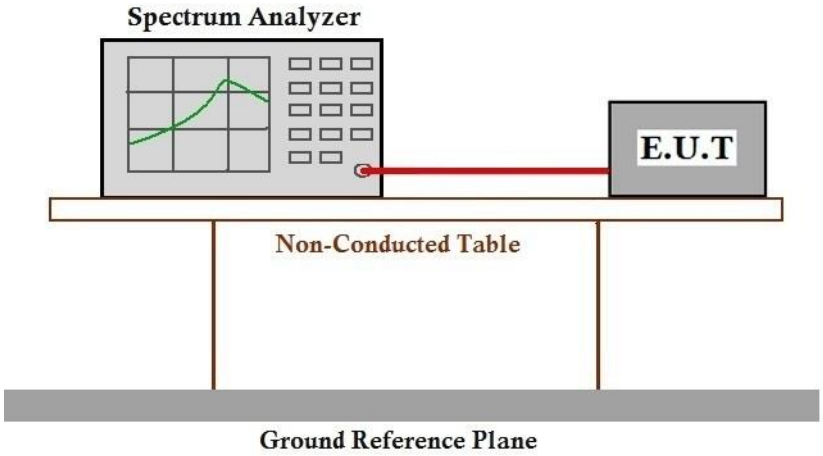
Operating Environment:

Temperature: 29.8 °C Humidity: 51.5 % RH Atmospheric Pressure: 1005 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	08	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	09	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer To Appendix For Details

7.7 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)
Test Method: KDB 789033 D02 II E
Limit:

Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) for client device or 11dBm+10logB*
5470-5725	≤250mW(24dBm) for client device or 11dBm+10logB*
5725-5850	≤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.

7.7.1 E.U.T. Operation

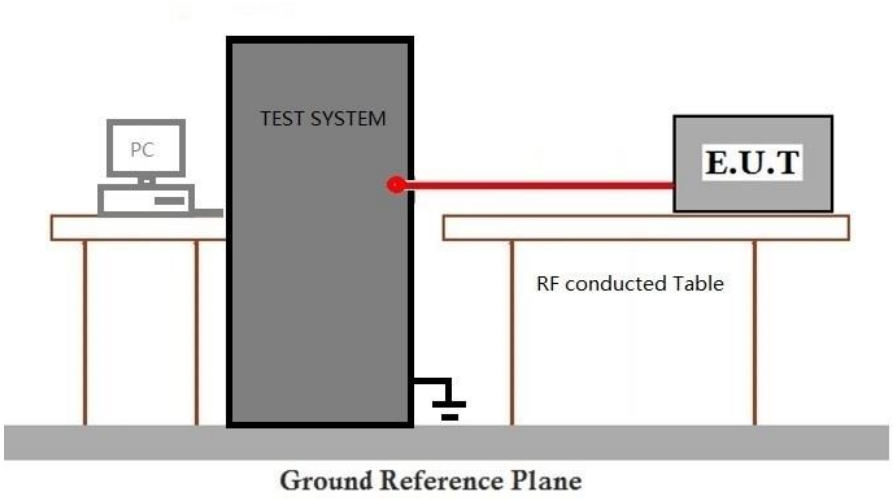
Operating Environment:
Temperature: 29.8 °C Humidity: 51.5 % RH Atmospheric Pressure: 1005 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	08	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	09	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(HT20); data rate @ MCS0 is the

worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data

Please Refer To Appendix For Details

7.8 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart C 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.

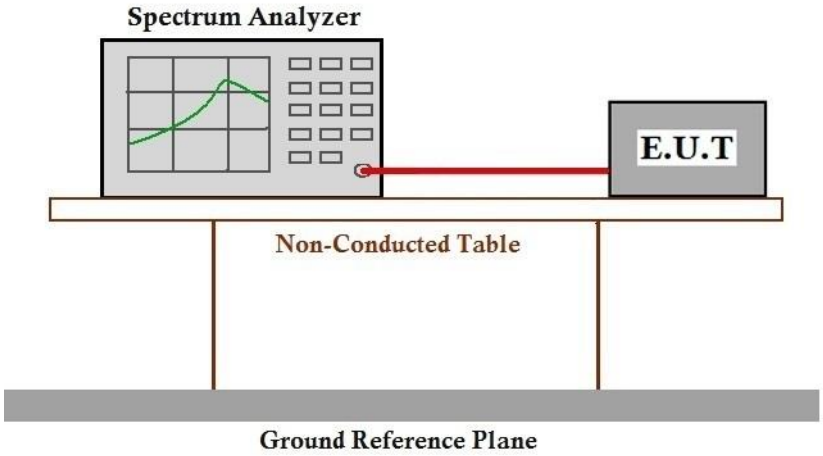
7.8.1 E.U.T. Operation

Operating Environment:
Temperature: 29.8 °C Humidity: 51.5 % RH Atmospheric Pressure: 1005 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	08	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	09	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.8.3 Test Setup Diagram



7.8.4 Measurement Procedure and Data

Please Refer To Appendix For Details

7.9 Radiated Emissions

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

Test Method: KDB 789033 D02 II G

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.

7.9.1 E.U.T. Operation

Operating Environment:

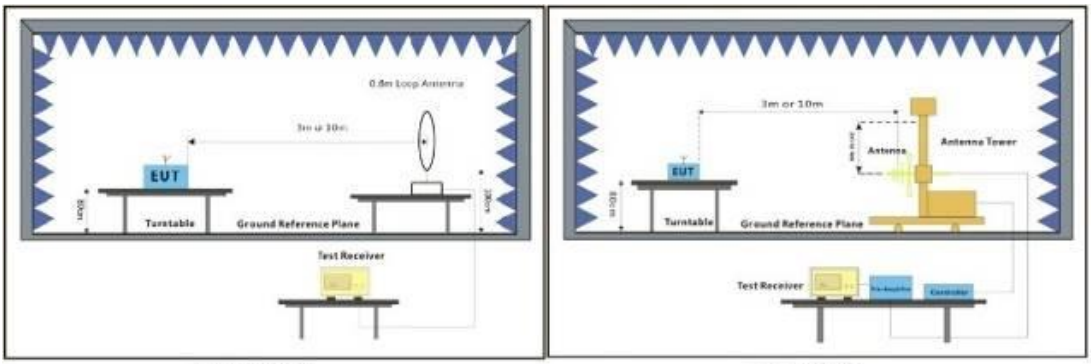
Temperature: 26.1 °C Humidity: 70.2 % RH Atmospheric Pressure: 1010 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE

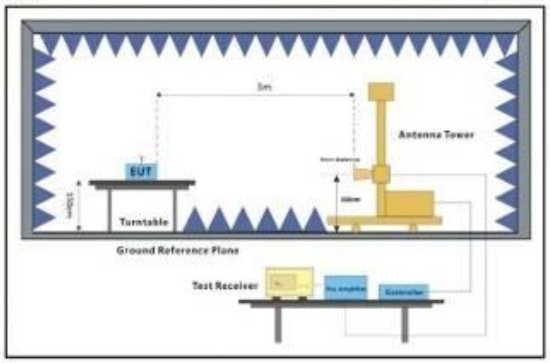
Final test	07	802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report. TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	08	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	09	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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



Below 30MHz

30MHz-1GHz



Above 1GHz

7.9.4 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 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:

1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

3) Scan from 9kHz to 25GHz, the disturbance above 18GHz and 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.

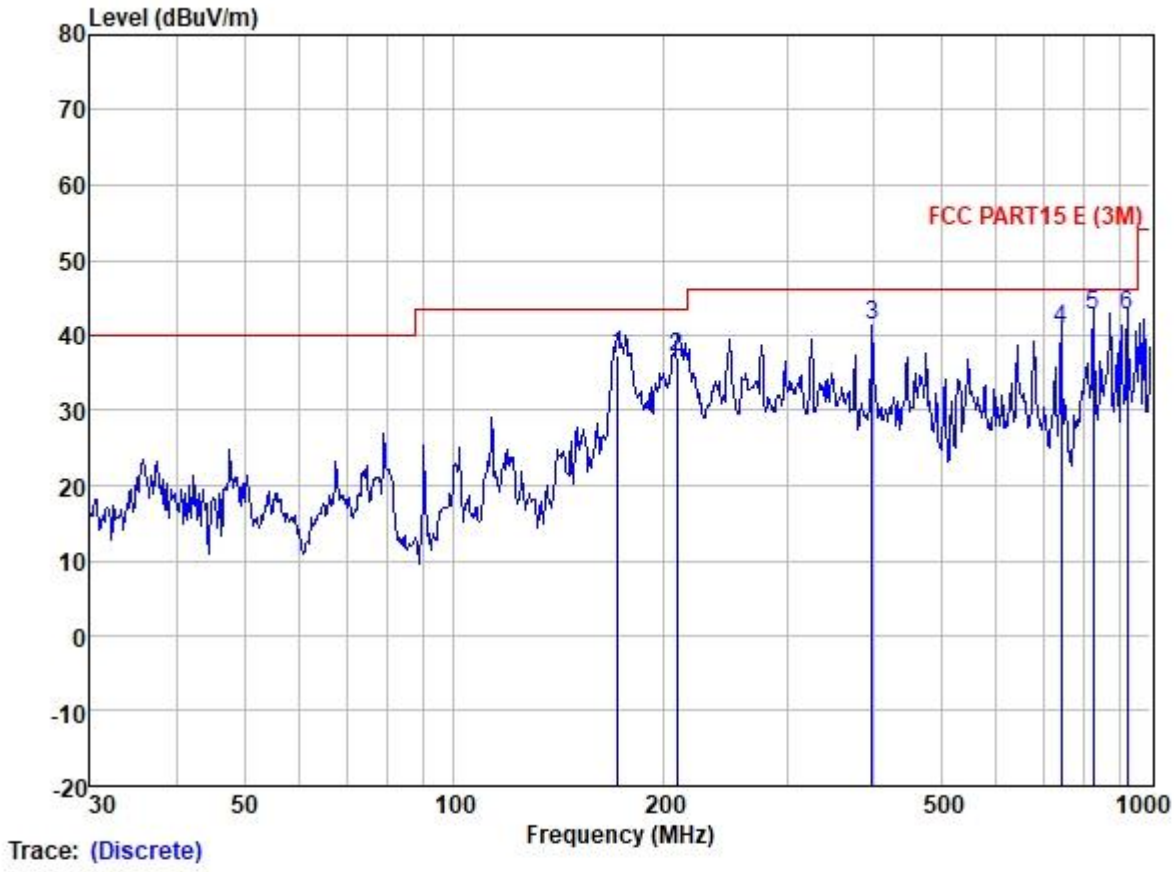
4) For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

5) Pretest the EUT at antenna 1 and antenna 2 and MIMO mode find the worst case is MIMO mode.

6) Pretest the EUT in 802.11a/ n(20)/ n(40)/ ac (20)/ ac (40)/ ac(80) find the worst case are 802.11a /n(40)/ ac(80), only record the worst case test data 802.11a /n(40)/ ac(80) in this report.

7) For the emission 30MHz to 1Ghz, lowest, middle, highest channel test performed at band U-NII-1, U-NII-2A, U-NII-2C, U-NII-3, find the worst case is band U-NII-1 802.11a mode lowest channel, only record the worst case.

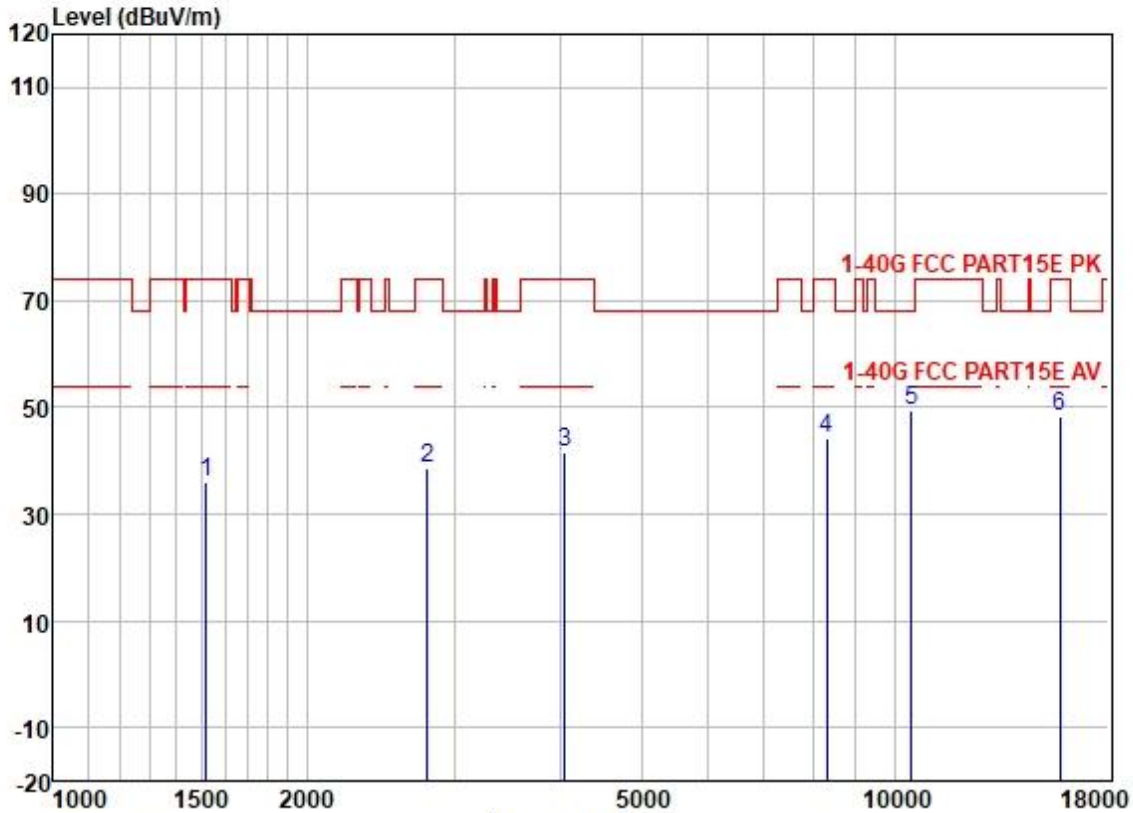
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low




```
Site        : SGS
Condition   : FCC PART15 E (3M)
Job         :
Model       : 156
Power       :
Test Mode   :
```

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dBuV		
1	171.99	48.64	13.00	2.40	26.77	37.27	43.50	-6.23	HORIZONTAL	QP
2	208.58	51.37	9.80	2.57	26.72	37.02	43.50	-6.48	HORIZONTAL	QP
3	397.63	49.07	15.65	3.93	27.32	41.33	46.00	-4.67	HORIZONTAL	QP
4	744.87	40.88	22.10	5.97	28.10	40.85	46.00	-5.15	HORIZONTAL	QP
5	827.49	41.43	22.72	6.38	27.99	42.54	46.00	-3.46	HORIZONTAL	QP
6	925.76	39.82	23.73	7.01	27.81	42.75	46.00	-3.25	HORIZONTAL	QP

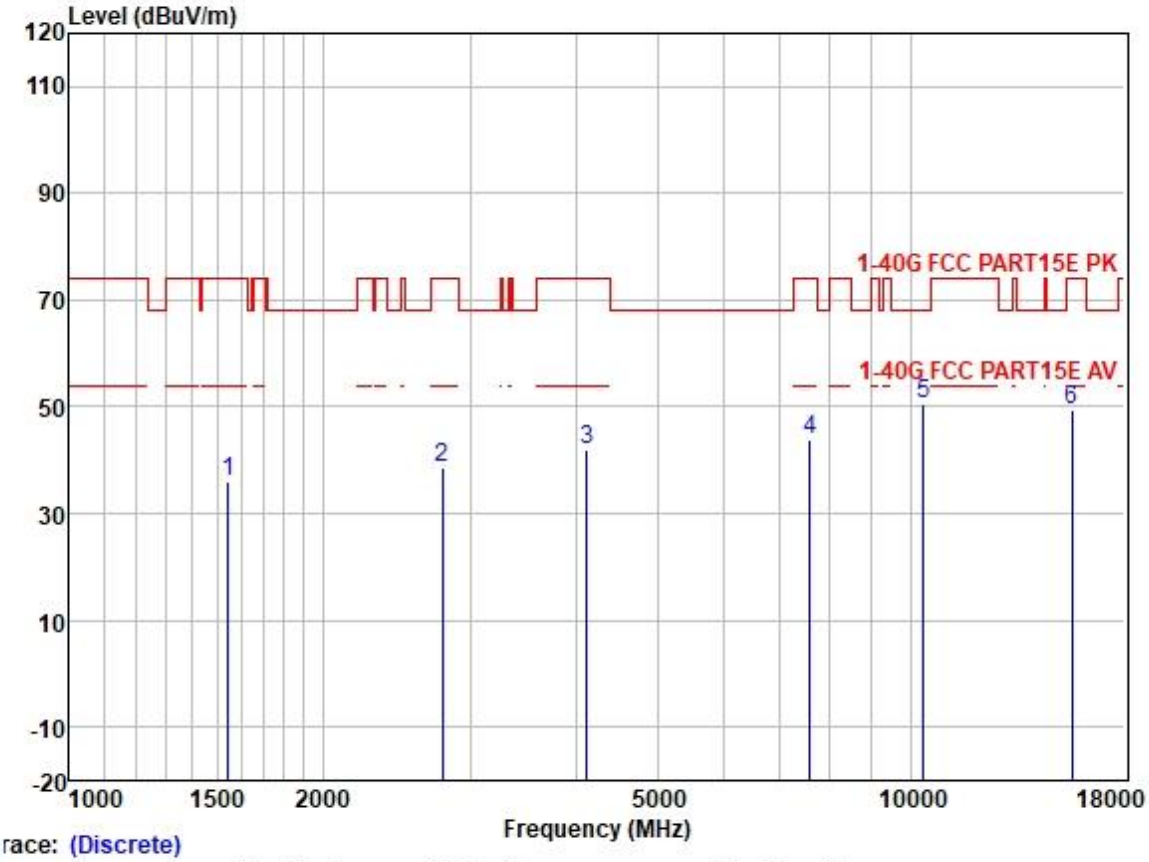
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1520.598	45.77	25.51	2.80	38.07	36.01	74.00	-37.99	HORIZONTAL	Peak
2	2782.060	44.12	28.10	3.69	37.43	38.48	74.00	-35.52	HORIZONTAL	Peak
3	4050.904	44.08	29.87	4.60	36.80	41.75	74.00	-32.25	HORIZONTAL	Peak
4	8319.836	38.40	37.03	6.53	37.58	44.38	74.00	-29.62	HORIZONTAL	Peak
5	10480.010	39.80	39.46	7.40	37.36	49.30	68.20	-18.90	HORIZONTAL	Peak
6	15720.660	35.03	38.78	9.87	35.39	48.29	74.00	-25.71	HORIZONTAL	Peak

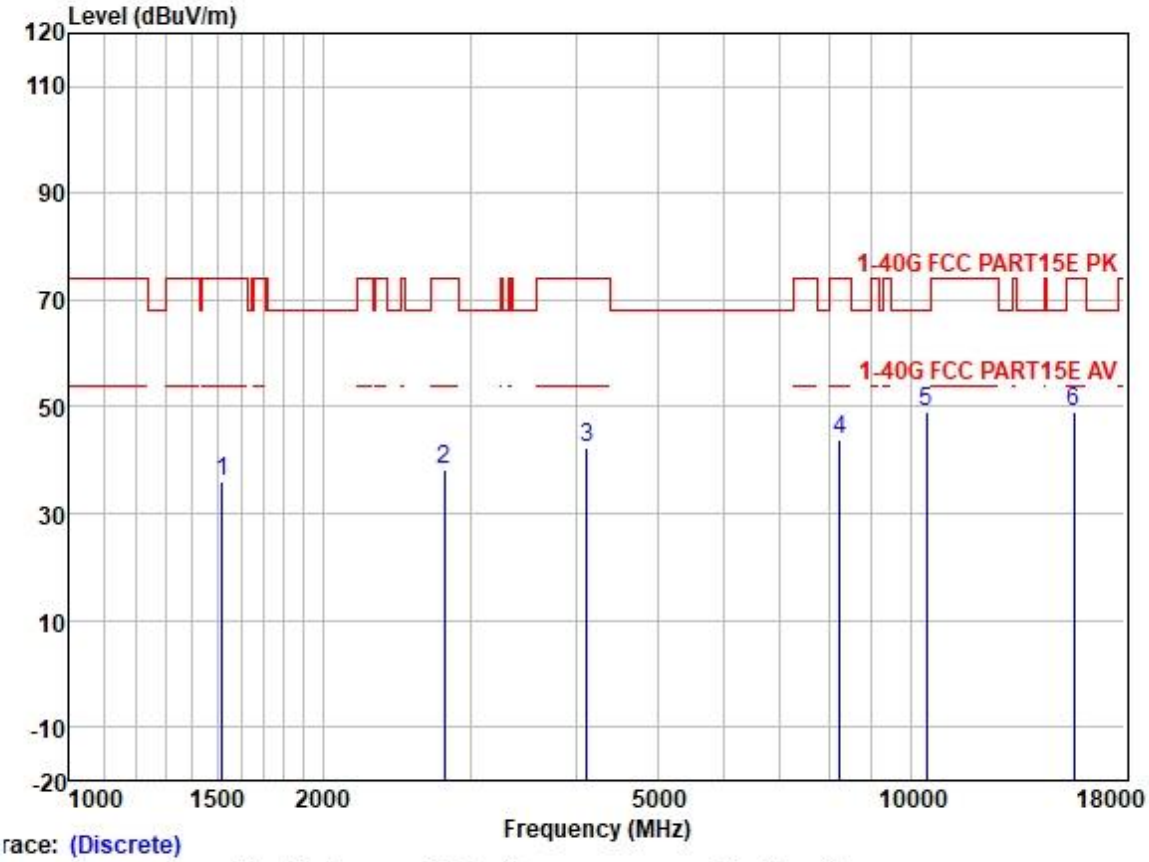
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1542.733	45.71	25.53	2.80	38.03	36.01	74.00	-37.99	HORIZONTAL	Peak
2	2774.030	44.29	28.08	3.68	37.43	38.62	74.00	-35.38	HORIZONTAL	Peak
3	4121.768	44.21	29.98	4.60	36.80	41.99	74.00	-32.01	HORIZONTAL	Peak
4	7584.833	38.74	36.47	6.24	37.51	43.94	74.00	-30.06	HORIZONTAL	Peak
5	10360.670	41.27	39.28	7.29	37.37	50.47	68.20	-17.73	HORIZONTAL	Peak
6	15540.210	35.92	39.05	9.88	35.39	49.46	74.00	-24.54	HORIZONTAL	Peak

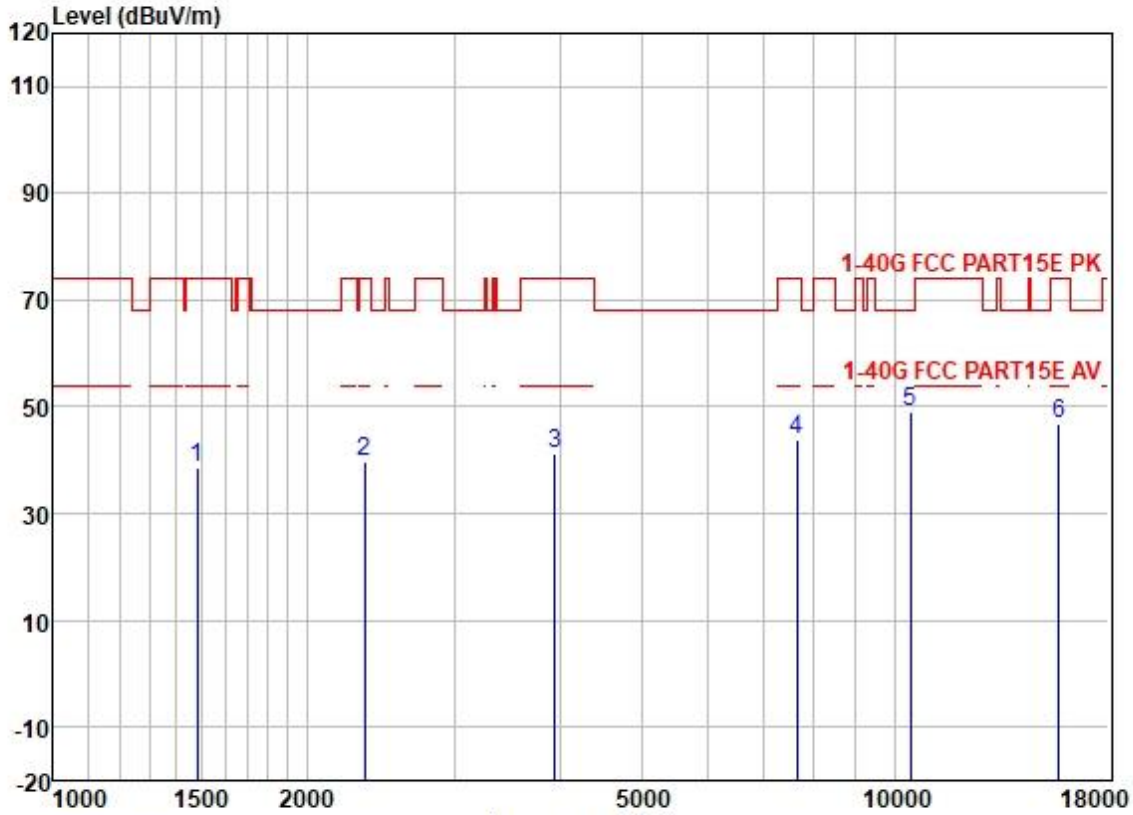
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1520.598	45.83	25.51	2.80	38.07	36.07	74.00	-37.93	HORIZONTAL	Peak
2	2790.113	43.98	28.12	3.69	37.41	38.38	74.00	-35.62	HORIZONTAL	Peak
3	4121.768	44.56	29.98	4.60	36.80	42.34	74.00	-31.66	HORIZONTAL	Peak
4	8248.005	37.94	37.00	6.43	37.59	43.78	74.00	-30.22	HORIZONTAL	Peak
5	10440.510	39.48	39.42	7.37	37.36	48.91	68.20	-19.29	HORIZONTAL	Peak
6	15660.210	35.71	38.86	9.87	35.39	49.05	74.00	-24.95	HORIZONTAL	Peak

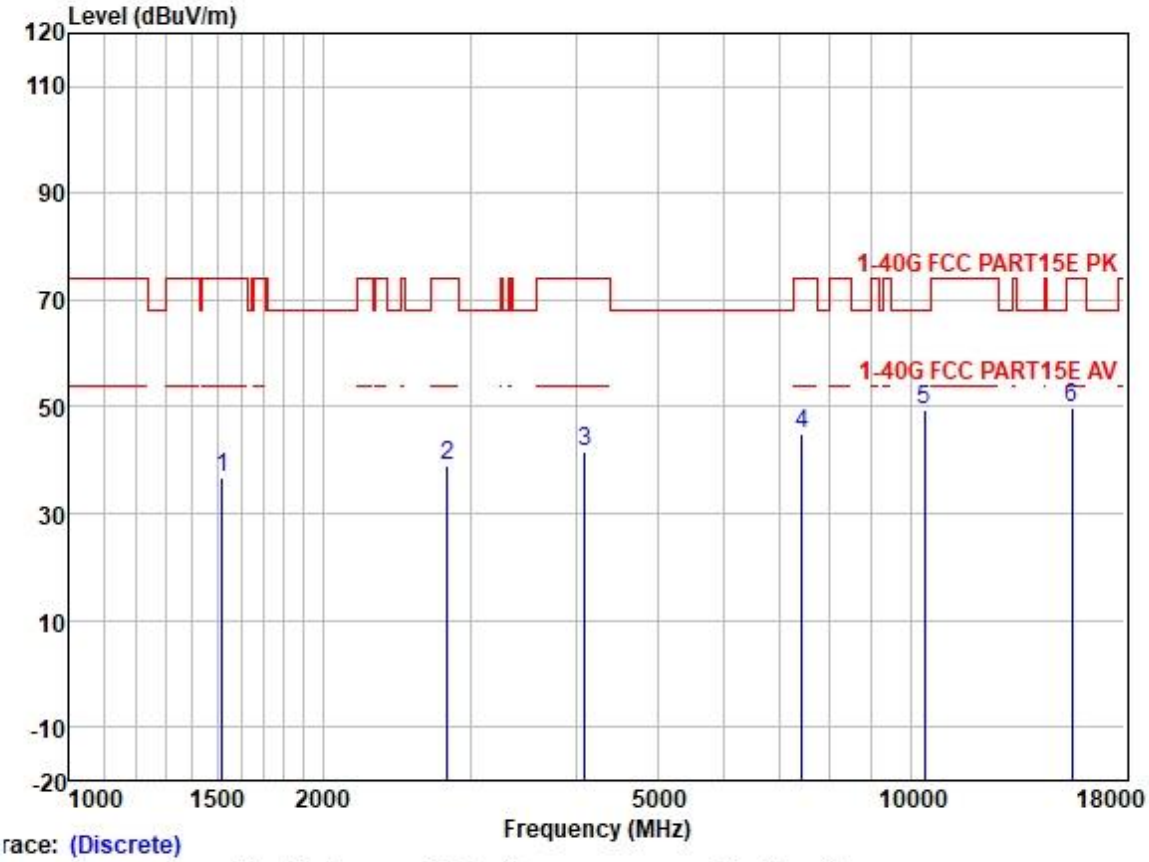
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1481.553	48.64	25.48	2.77	38.13	38.76	74.00	-35.24	HORIZONTAL	Peak
2	2345.878	46.75	27.24	3.38	37.61	39.76	74.00	-34.24	HORIZONTAL	Peak
3	3946.885	43.68	29.74	4.60	36.81	41.21	74.00	-32.79	HORIZONTAL	Peak
4	7650.888	38.44	36.54	6.23	37.53	43.68	74.00	-30.32	HORIZONTAL	Peak
5	10460.800	39.62	39.42	7.37	37.36	49.05	68.20	-19.15	HORIZONTAL	Peak
6	15690.410	33.48	38.86	9.87	35.39	46.82	74.00	-27.18	HORIZONTAL	Peak

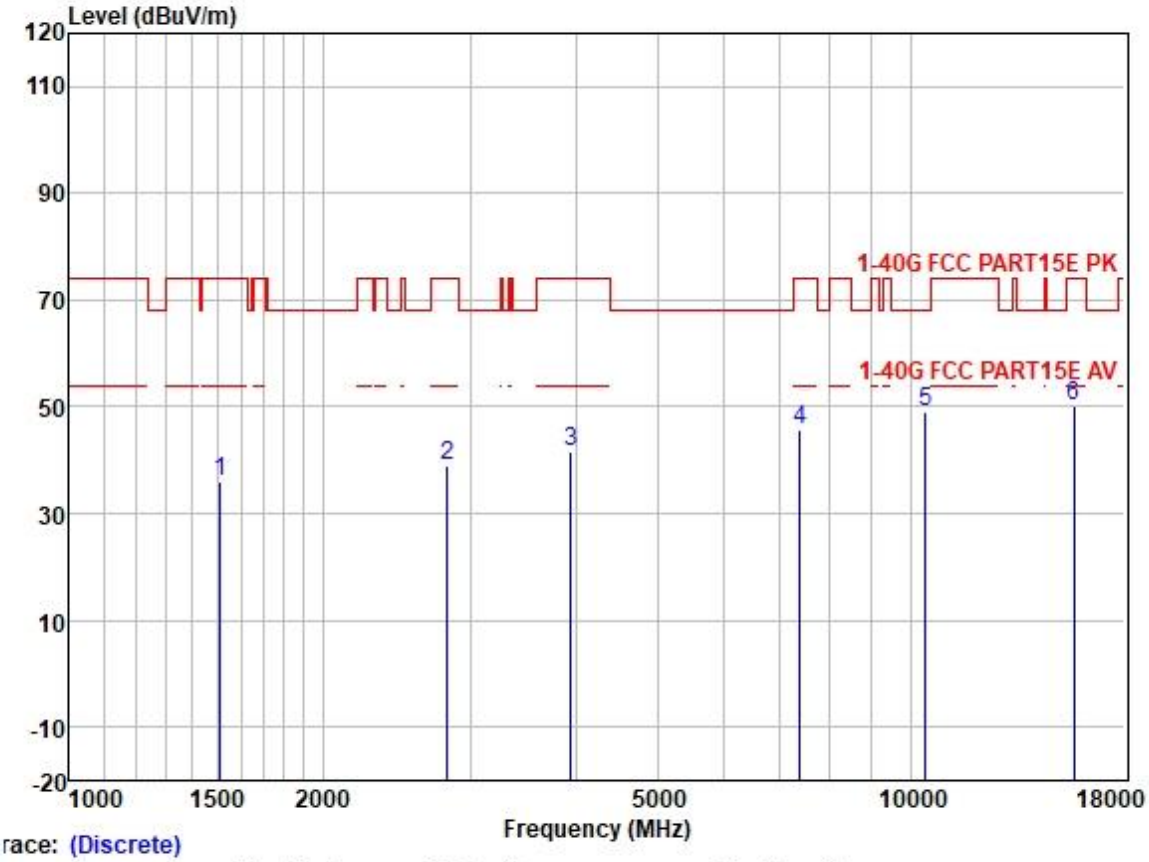
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1520.598	46.59	25.51	2.80	38.07	36.83	74.00	-37.17	HORIZONTAL	Peak
2	2814.411	44.53	28.17	3.70	37.40	39.00	74.00	-35.00	HORIZONTAL	Peak
3	4098.010	43.93	29.94	4.60	36.80	41.67	74.00	-32.33	HORIZONTAL	Peak
4	7432.914	39.91	36.27	6.22	37.47	44.93	74.00	-29.07	HORIZONTAL	Peak
5	10380.710	40.05	39.33	7.32	37.37	49.33	68.20	-18.87	HORIZONTAL	Peak
6	15570.990	36.28	38.99	9.88	35.39	49.76	74.00	-24.24	HORIZONTAL	Peak

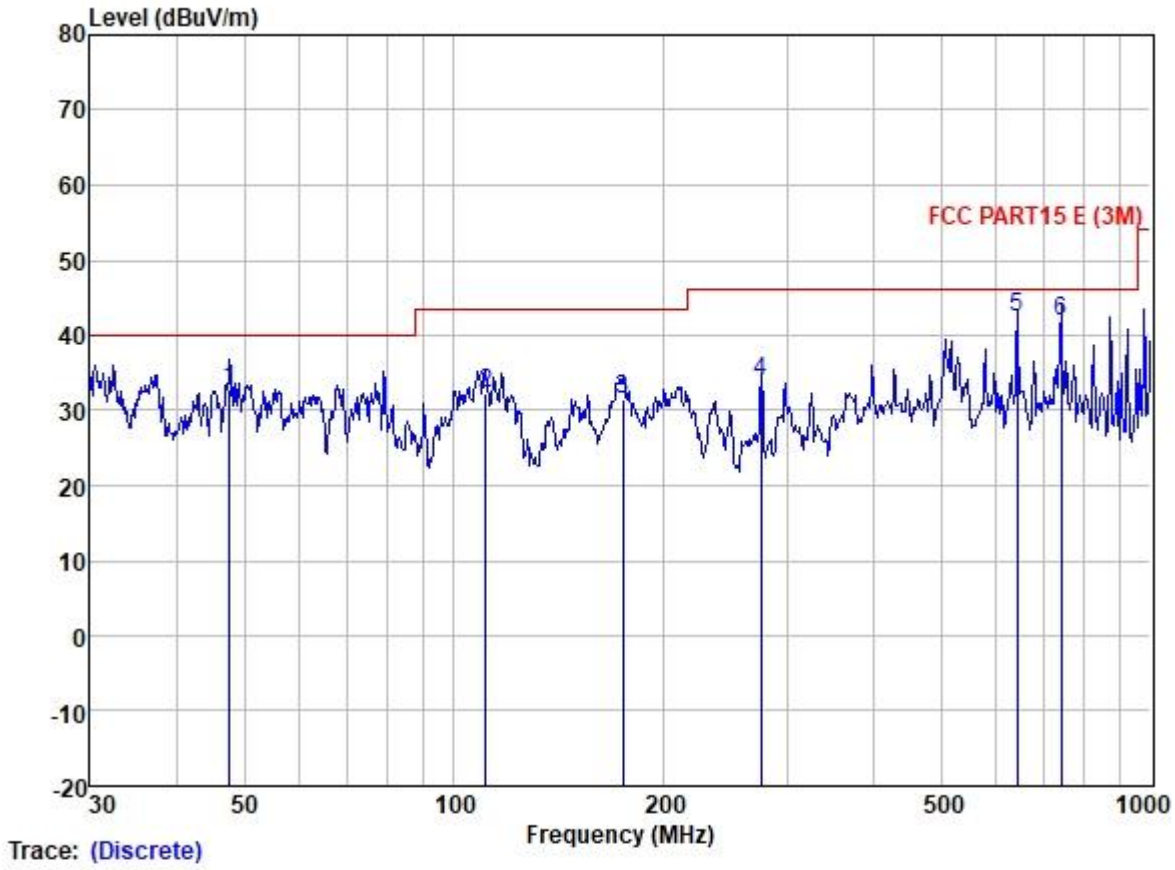
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1511.833	45.95	25.51	2.80	38.10	36.16	74.00	-37.84	HORIZONTAL	Peak
2	2814.411	44.34	28.17	3.70	37.40	38.81	74.00	-35.19	HORIZONTAL	Peak
3	3946.885	43.94	29.74	4.60	36.81	41.47	74.00	-32.53	HORIZONTAL	Peak
4	7390.070	40.78	36.17	6.19	37.46	45.68	74.00	-28.32	HORIZONTAL	Peak
5	10420.800	39.57	39.38	7.35	37.36	48.94	68.20	-19.26	HORIZONTAL	Peak
6	15630.070	36.94	38.92	9.87	35.39	50.34	74.00	-23.66	HORIZONTAL	Peak

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

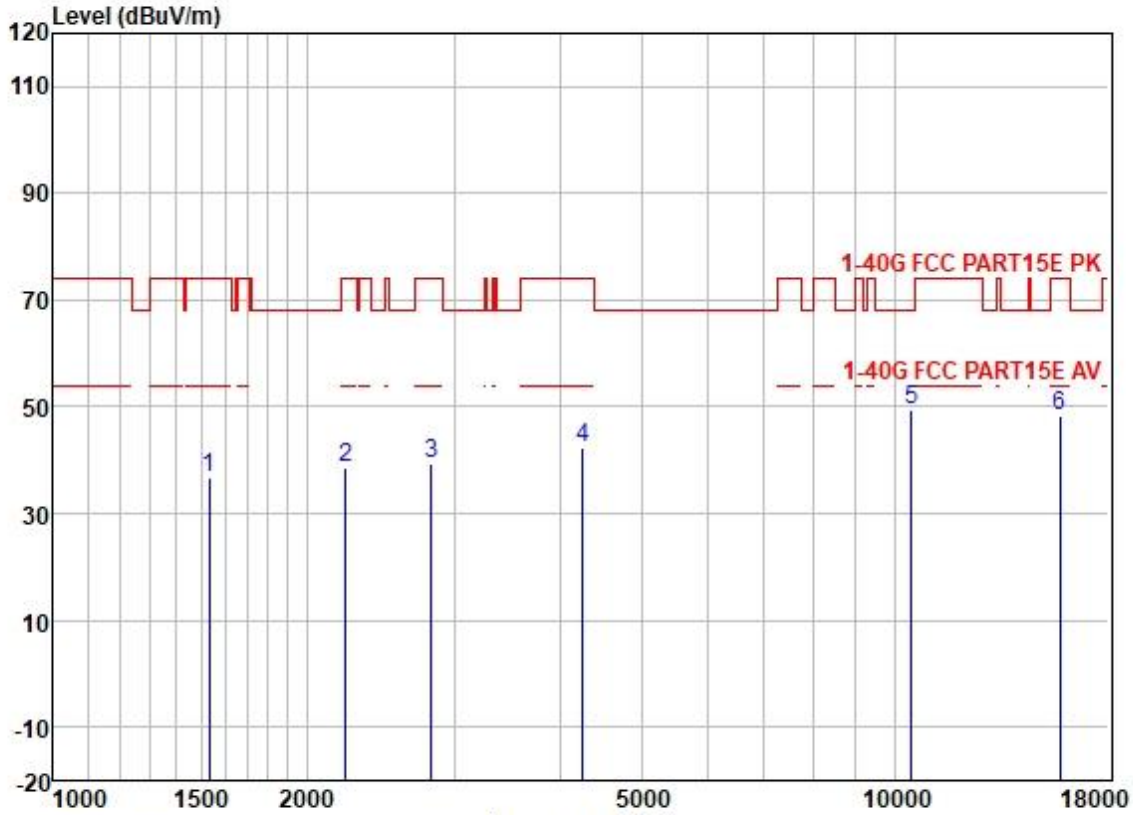


Trace: (Discrete)

Site : SGS
Condition : FCC PART15 E (3M)
Job :
Model : 156
Power :
Test Mode :

	Freq	Read Level	Anterna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dBuV		
1	47.66	44.77	13.99	1.13	27.17	32.72	40.00	-7.28	VERTICAL	QP
2	110.96	47.08	10.43	1.80	27.06	32.25	43.50	-11.25	VERTICAL	QP
3	174.42	43.18	12.65	2.42	26.76	31.49	43.50	-12.01	VERTICAL	QP
4	276.12	44.34	13.05	3.07	26.57	33.89	46.00	-12.11	VERTICAL	QP
5	642.86	44.59	20.42	5.45	28.19	42.27	46.00	-3.73	VERTICAL	QP
6	744.87	42.01	22.10	5.97	28.10	41.98	46.00	-4.02	VERTICAL	QP

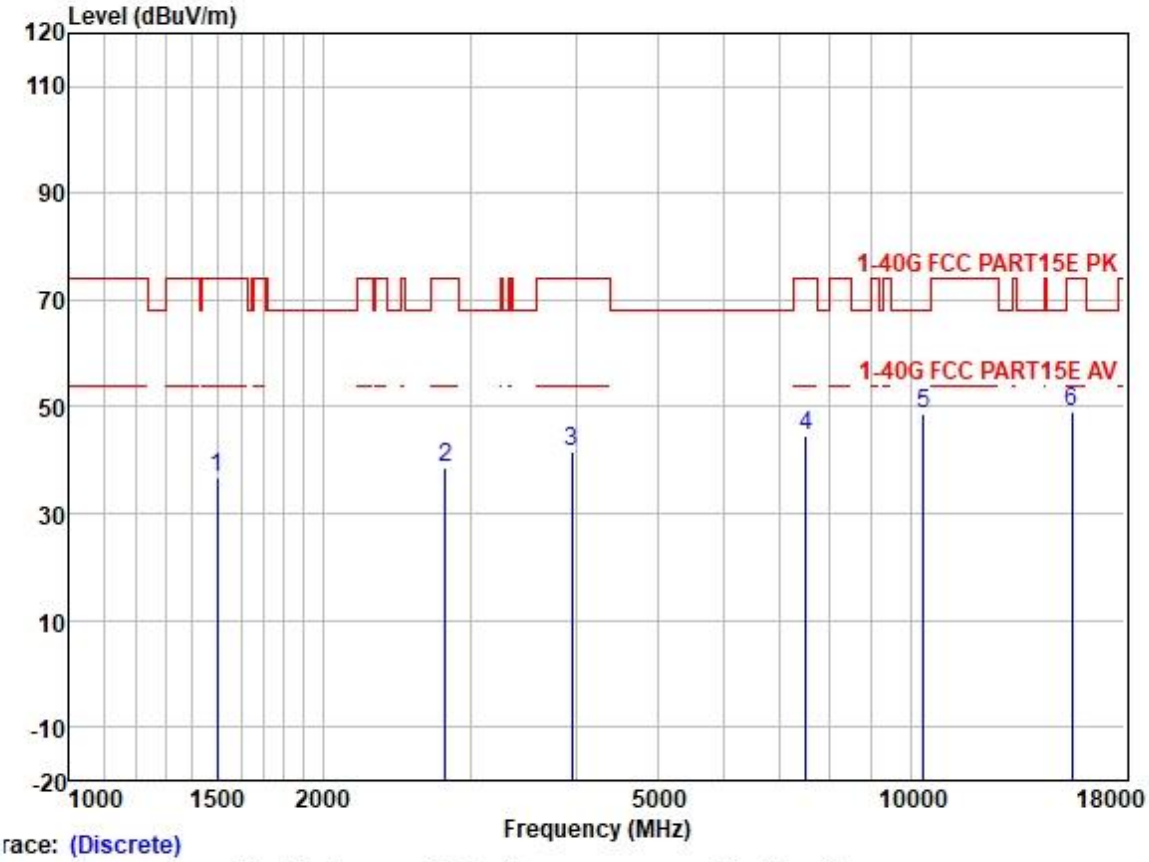
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1533.841	46.67	25.52	2.80	38.07	36.92	74.00	-37.08	VERTICAL	Peak
2	2226.950	46.38	26.76	3.23	37.64	38.73	74.00	-35.27	VERTICAL	Peak
3	2814.411	44.71	28.17	3.70	37.40	39.18	74.00	-34.82	VERTICAL	Peak
4	4254.921	44.22	30.34	4.62	36.81	42.37	74.00	-31.63	VERTICAL	Peak
5	10480.020	39.99	39.46	7.40	37.36	49.49	68.20	-18.71	VERTICAL	Peak
6	15720.660	35.21	38.78	9.87	35.39	48.47	74.00	-25.53	VERTICAL	Peak

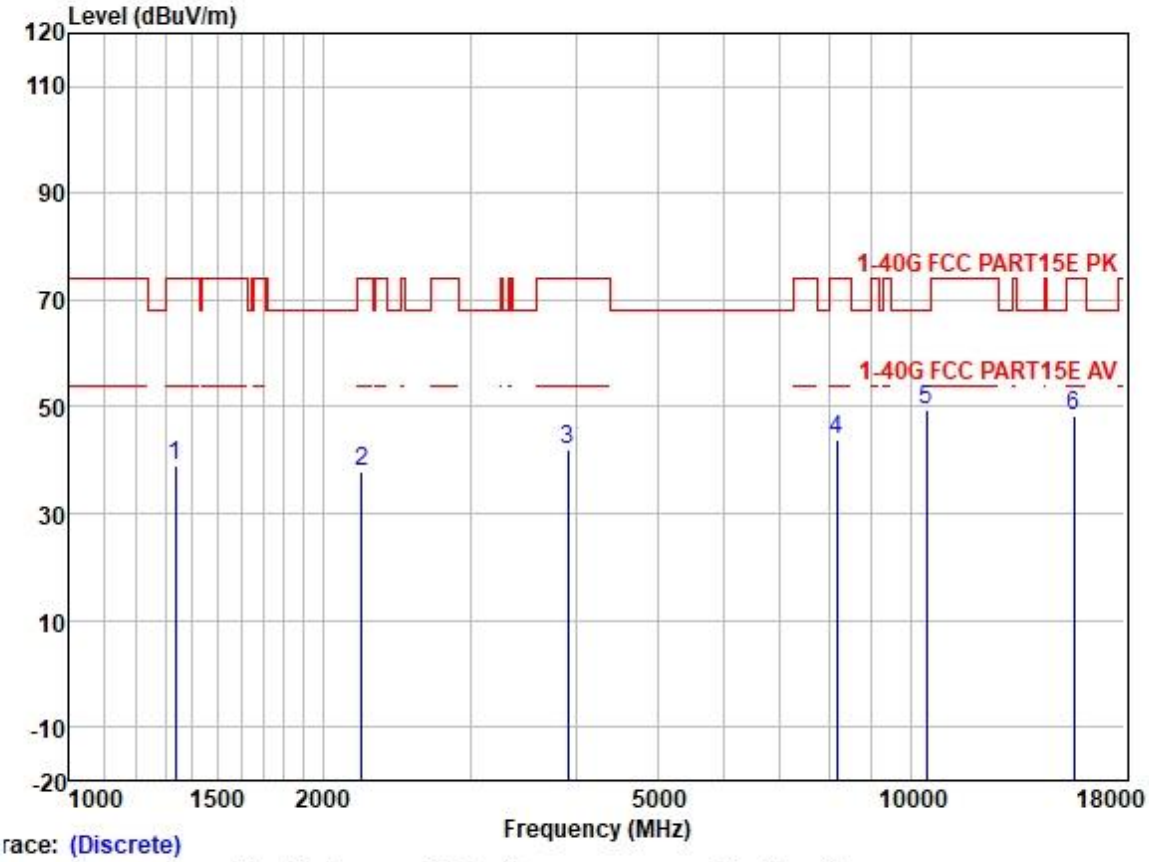
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1498.781	46.44	25.50	2.80	38.10	36.64	74.00	-37.36	VERTICAL	Peak
2	2798.189	44.02	28.13	3.70	37.41	38.44	74.00	-35.56	VERTICAL	Peak
3	3958.309	44.12	29.75	4.60	36.81	41.66	74.00	-32.34	VERTICAL	Peak
4	7519.349	39.25	36.42	6.26	37.50	44.43	74.00	-29.57	VERTICAL	Peak
5	10360.070	39.62	39.28	7.29	37.37	48.82	68.20	-19.38	VERTICAL	Peak
6	15540.210	35.41	39.05	9.88	35.39	48.95	74.00	-25.05	VERTICAL	Peak

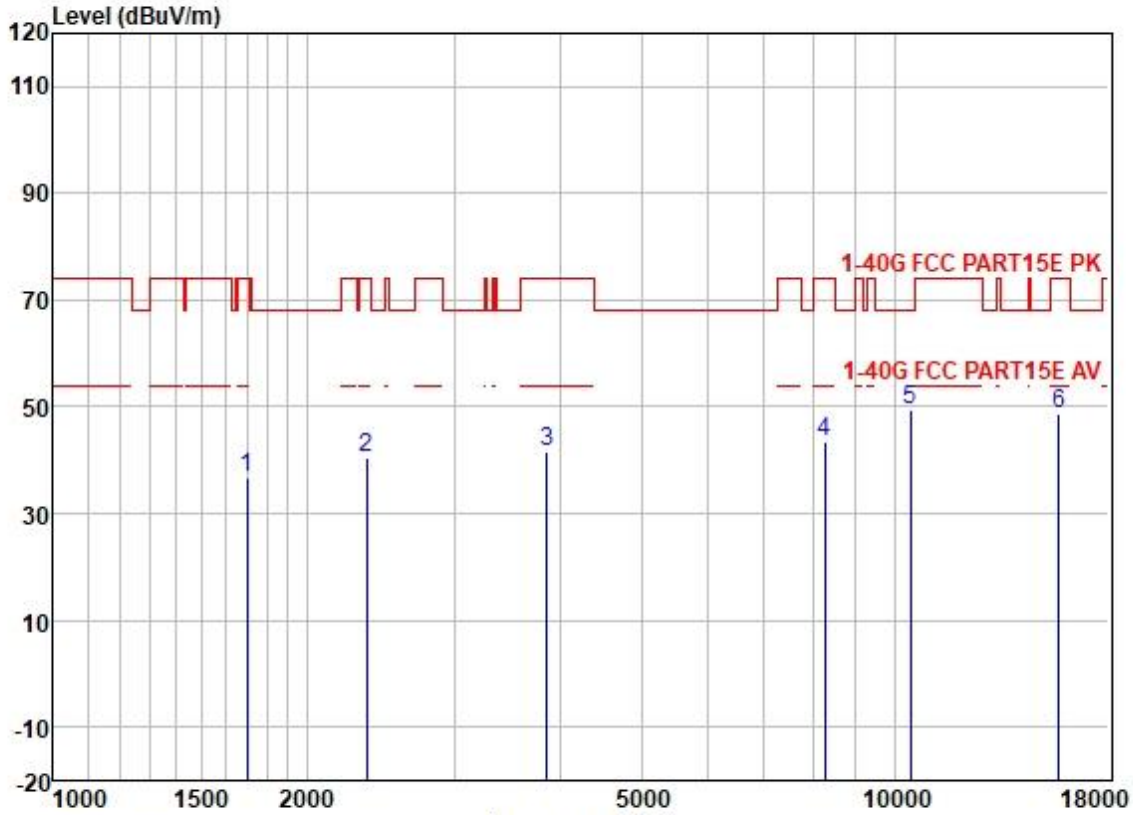
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1335.141	49.54	25.28	2.60	38.29	39.13	74.00	-34.87	VERTICAL	Peak
2	2226.950	45.56	26.76	3.23	37.64	37.91	74.00	-36.09	VERTICAL	Peak
3	3912.809	44.42	29.70	4.60	36.82	41.90	74.00	-32.10	VERTICAL	Peak
4	8176.795	38.24	36.97	6.33	37.59	43.95	74.00	-30.05	VERTICAL	Peak
5	10440.010	39.95	39.42	7.37	37.36	49.38	68.20	-18.82	VERTICAL	Peak
6	15660.940	35.01	38.86	9.87	35.39	48.35	74.00	-25.65	VERTICAL	Peak

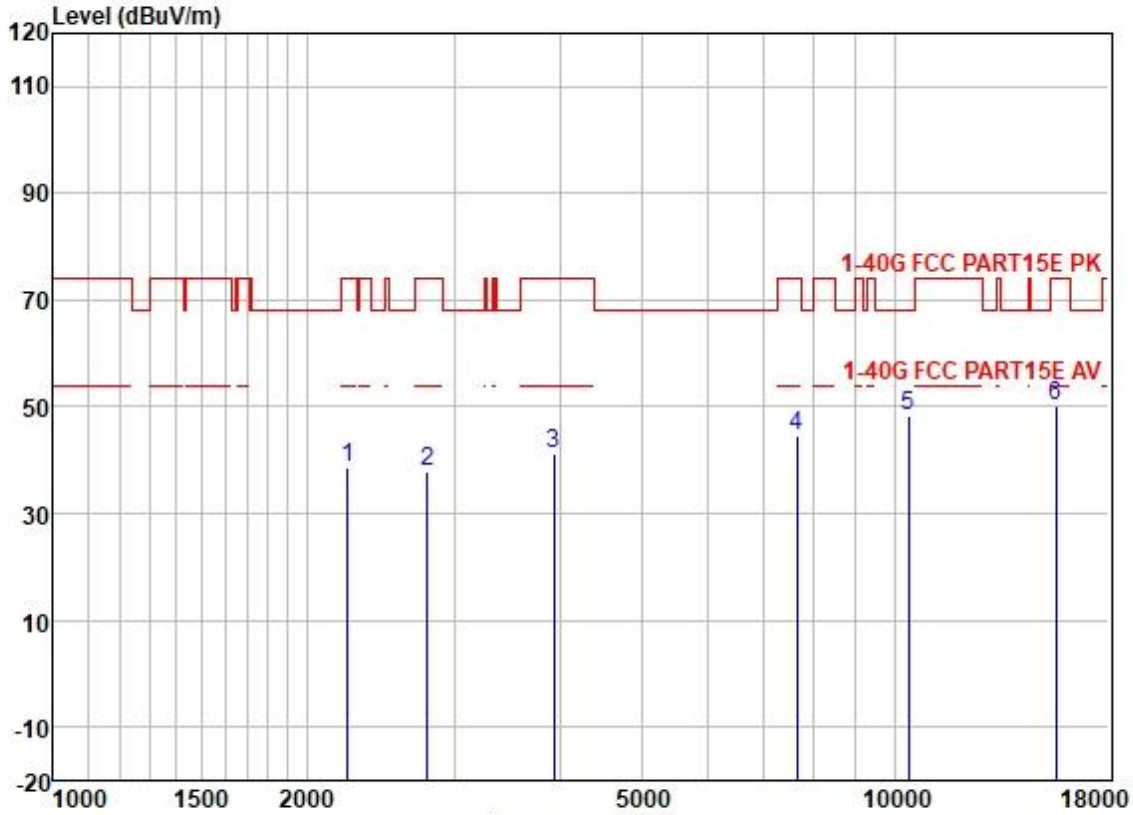
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1697.129	46.03	25.71	2.80	37.89	36.65	74.00	-37.35	VERTICAL	Peak
2	2359.478	47.25	27.27	3.42	37.61	40.33	74.00	-33.67	VERTICAL	Peak
3	3856.668	44.41	29.62	4.60	36.84	41.79	74.00	-32.21	VERTICAL	Peak
4	8271.880	37.75	37.01	6.46	37.58	43.64	74.00	-30.36	VERTICAL	Peak
5	10460.230	39.98	39.42	7.37	37.36	49.41	68.20	-18.79	VERTICAL	Peak
6	15690.050	35.45	38.86	9.87	35.39	48.79	74.00	-25.21	VERTICAL	Peak

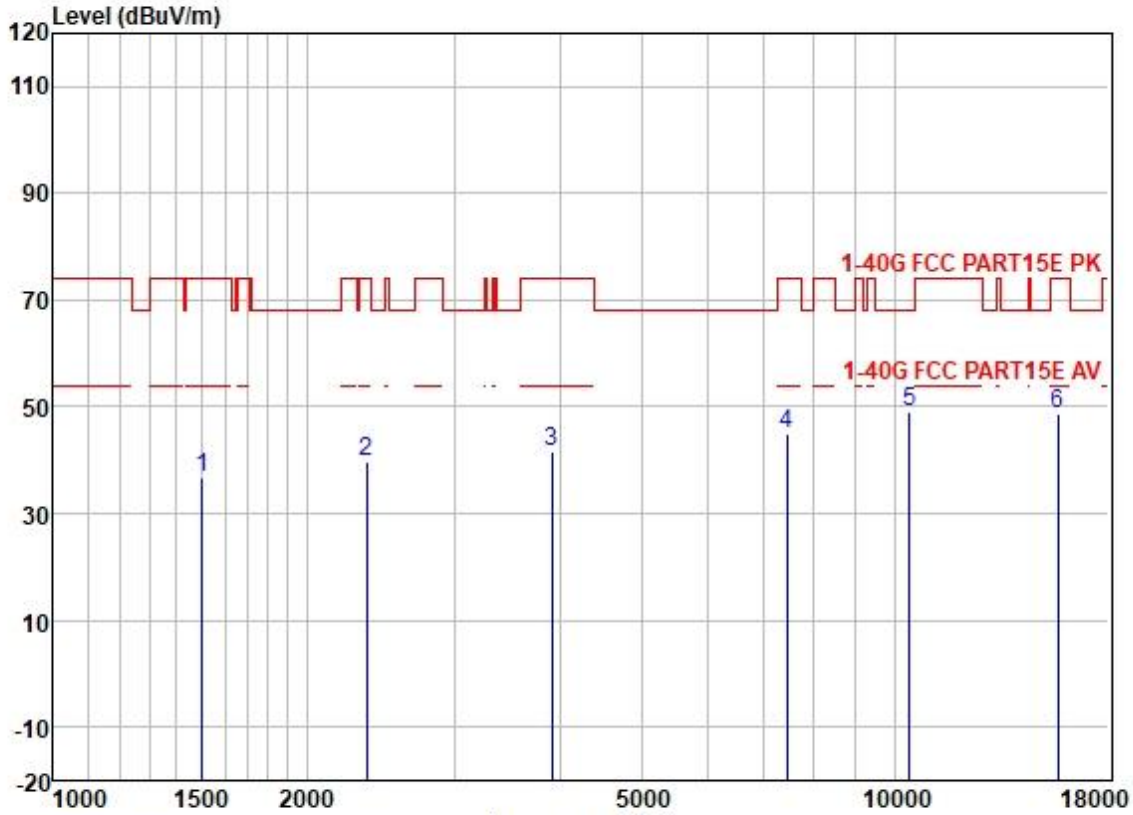
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2239.861	46.05	26.84	3.24	37.64	38.49	74.00	-35.51	VERTICAL	Peak
2	2782.060	43.49	28.10	3.69	37.43	37.85	74.00	-36.15	VERTICAL	Peak
3	3935.493	43.88	29.73	4.60	36.82	41.39	74.00	-32.61	VERTICAL	Peak
4	7650.888	39.28	36.54	6.23	37.53	44.52	74.00	-29.48	VERTICAL	Peak
5	10380.710	39.22	39.33	7.32	37.37	48.50	68.20	-19.70	VERTICAL	Peak
6	15570.210	36.66	38.99	9.88	35.39	50.14	74.00	-23.86	VERTICAL	Peak

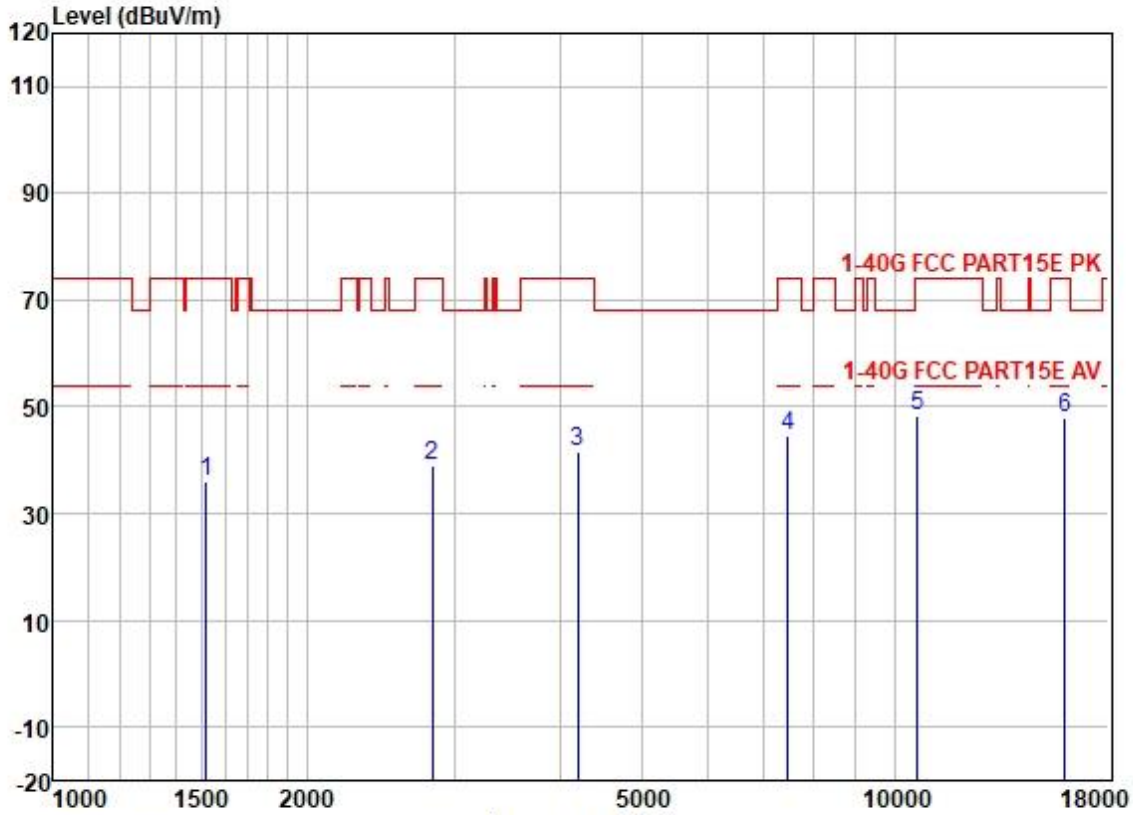
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1503.119	46.65	25.50	2.80	38.10	36.85	74.00	-37.15	VERTICAL	Peak
2	2359.478	46.69	27.27	3.42	37.61	39.77	74.00	-34.23	VERTICAL	Peak
3	3912.809	43.99	29.70	4.60	36.82	41.47	74.00	-32.53	VERTICAL	Peak
4	7454.429	39.96	36.32	6.23	37.47	45.04	74.00	-28.96	VERTICAL	Peak
5	10420.010	39.61	39.38	7.35	37.36	48.98	68.20	-19.22	VERTICAL	Peak
6	15630.900	35.48	38.92	9.87	35.39	48.88	74.00	-25.12	VERTICAL	Peak

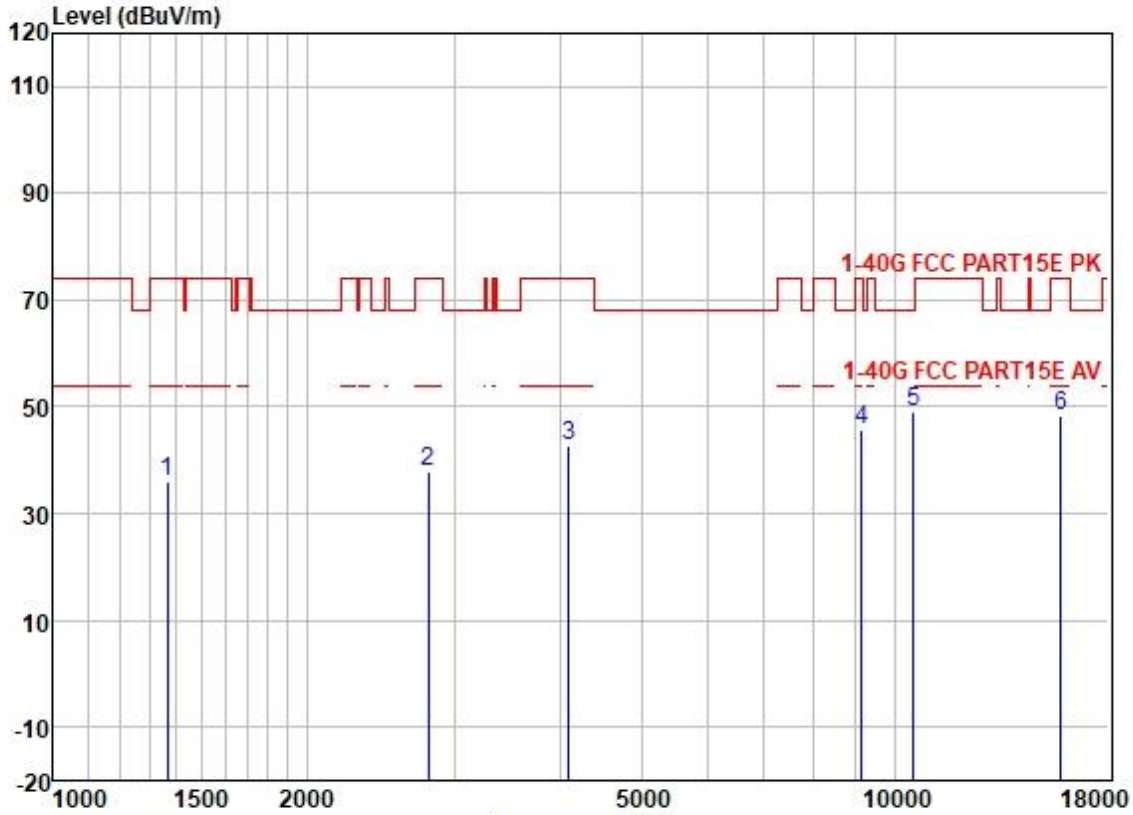
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1520.598	45.77	25.51	2.80	38.07	36.01	74.00	-37.99	HORIZONTAL	Peak
2	2822.558	44.66	28.18	3.70	37.40	39.14	74.00	-34.86	HORIZONTAL	Peak
3	4206.011	43.73	30.18	4.60	36.81	41.70	74.00	-32.30	HORIZONTAL	Peak
4	7476.006	39.52	36.36	6.25	37.48	44.65	74.00	-29.35	HORIZONTAL	Peak
5	10640.850	38.61	39.63	7.48	37.33	48.39	74.00	-25.61	HORIZONTAL	Peak
6	15960.410	35.11	38.37	9.85	35.40	47.93	74.00	-26.07	HORIZONTAL	Peak

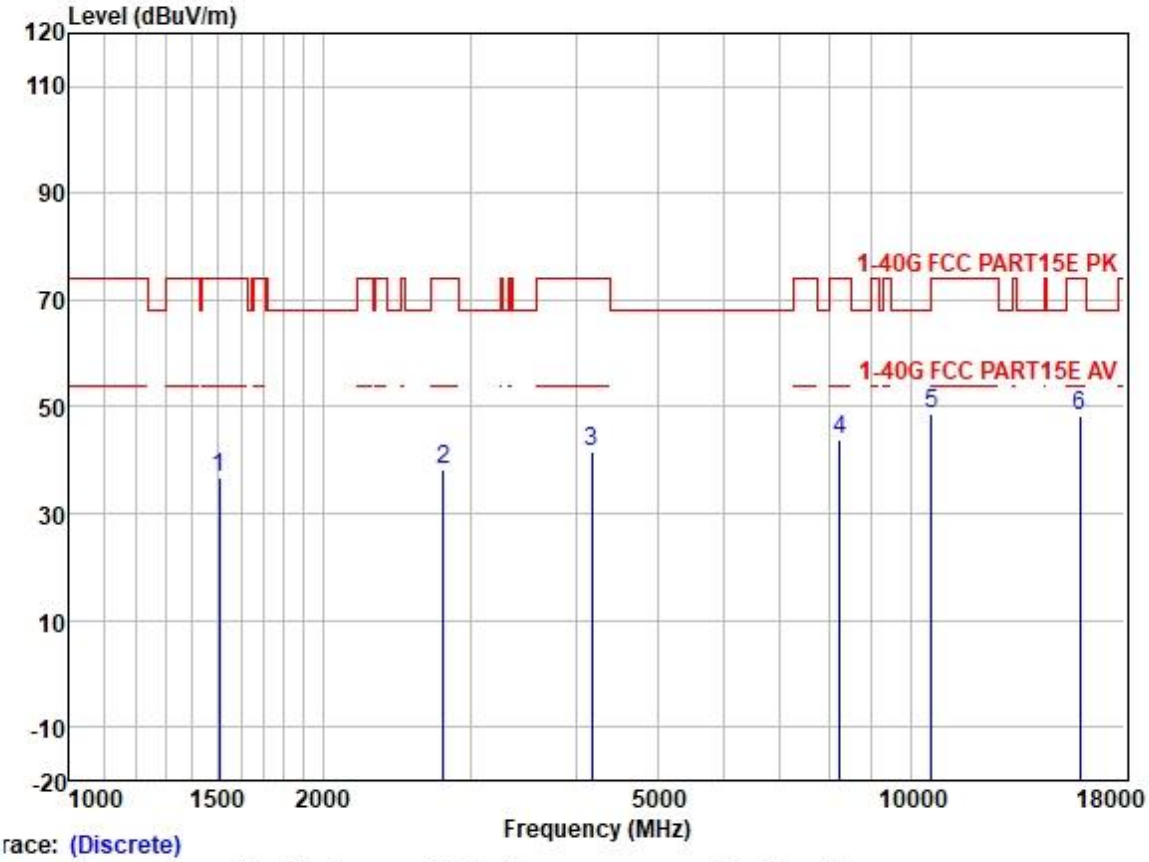
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1366.374	46.36	25.34	2.60	38.25	36.05	74.00	-37.95	HORIZONTAL	Peak
2	2790.113	43.38	28.12	3.69	37.41	37.78	74.00	-36.22	HORIZONTAL	Peak
3	4098.010	44.82	29.94	4.60	36.80	42.56	74.00	-31.44	HORIZONTAL	Peak
4	9152.479	38.03	37.63	7.44	37.47	45.63	74.00	-28.37	HORIZONTAL	Peak
5	10520.580	39.57	39.50	7.42	37.35	49.14	68.20	-19.06	HORIZONTAL	Peak
6	15780.660	35.00	38.70	9.86	35.39	48.17	74.00	-25.83	HORIZONTAL	Peak

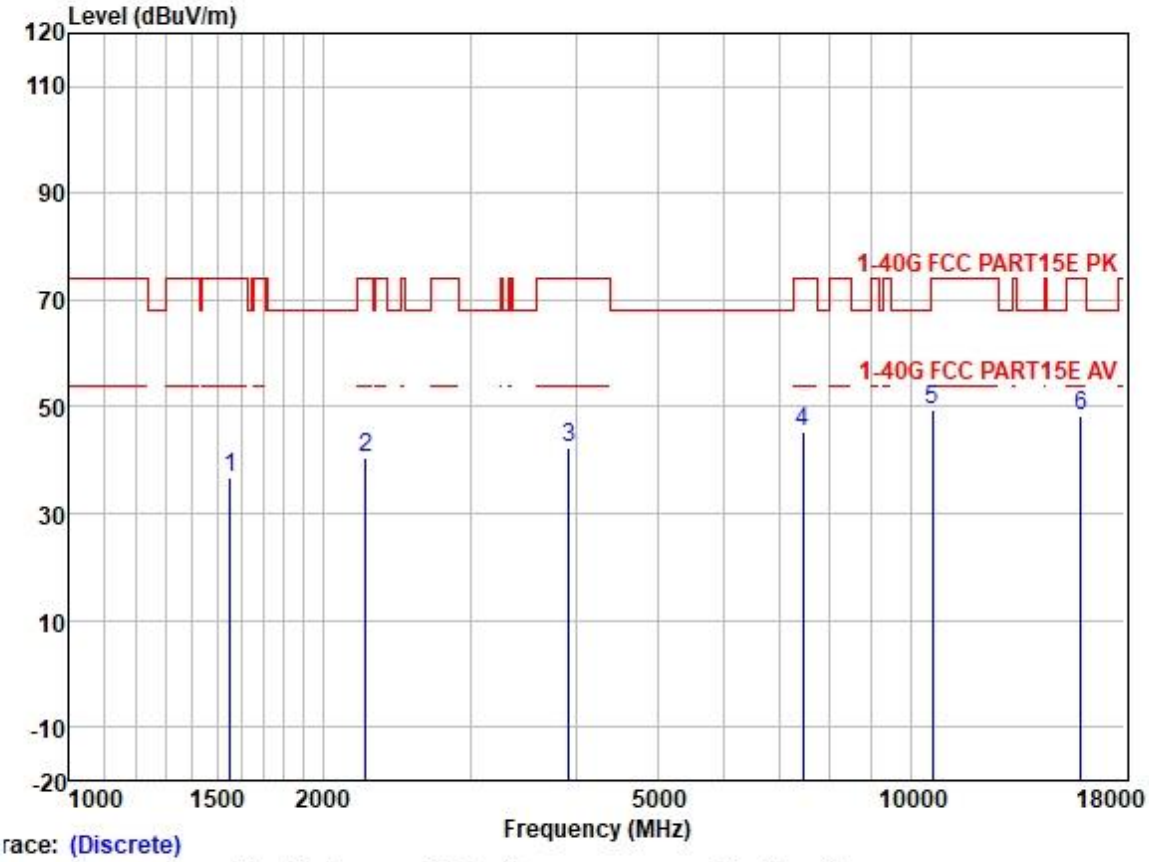
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1507.470	46.70	25.51	2.80	38.10	36.91	74.00	-37.09	HORIZONTAL	Peak
2	2782.060	43.99	28.10	3.69	37.43	38.35	74.00	-35.65	HORIZONTAL	Peak
3	4181.768	43.72	30.12	4.60	36.80	41.64	74.00	-32.36	HORIZONTAL	Peak
4	8248.005	37.94	37.00	6.43	37.59	43.78	74.00	-30.22	HORIZONTAL	Peak
5	10600.640	39.02	39.59	7.46	37.34	48.73	74.00	-25.27	HORIZONTAL	Peak
6	15900.660	35.28	38.44	9.86	35.40	48.18	74.00	-25.82	HORIZONTAL	Peak

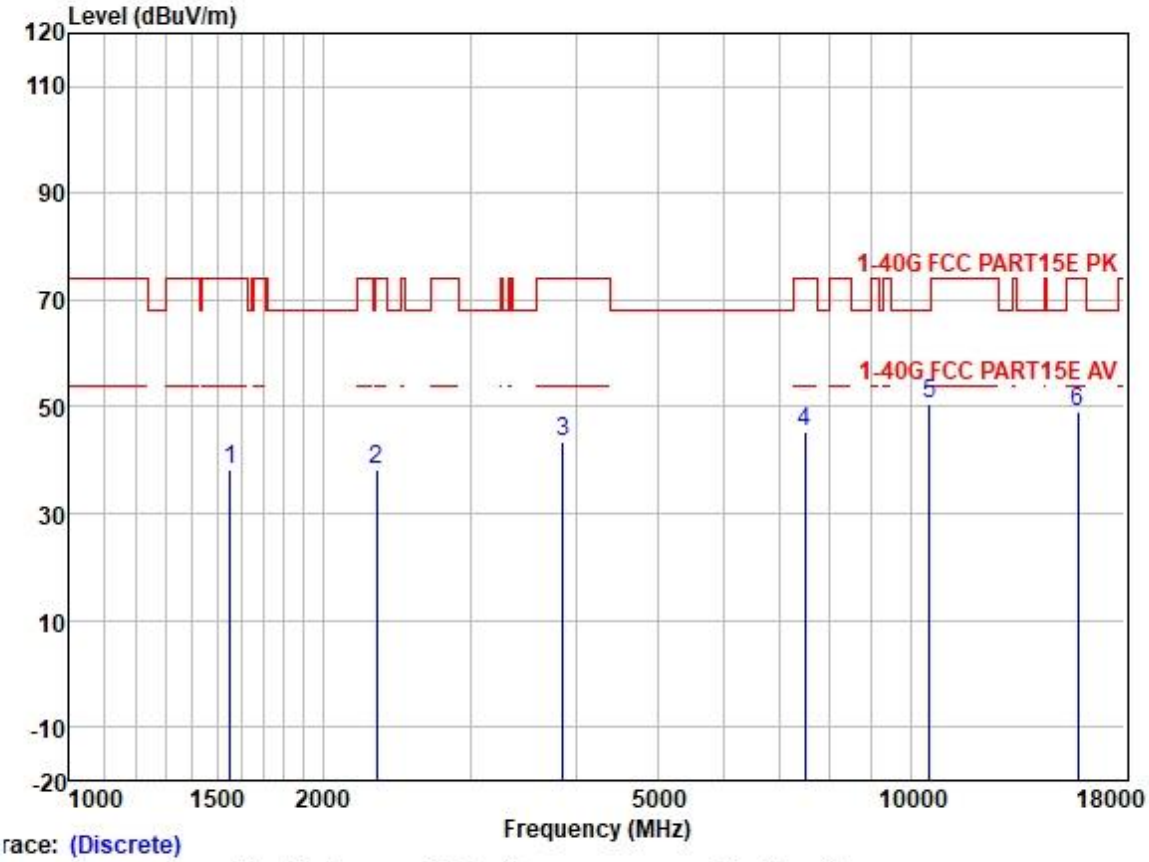
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1551.677	46.62	25.54	2.80	38.03	36.93	74.00	-37.07	HORIZONTAL	Peak
2	2252.846	48.10	26.92	3.26	37.64	40.64	74.00	-33.36	HORIZONTAL	Peak
3	3924.135	45.01	29.72	4.60	36.82	42.51	74.00	-31.49	HORIZONTAL	Peak
4	7454.429	40.20	36.32	6.23	37.47	45.28	74.00	-28.72	HORIZONTAL	Peak
5	10620.800	39.77	39.59	7.46	37.34	49.48	74.00	-24.52	HORIZONTAL	Peak
6	15930.210	35.68	38.37	9.85	35.40	48.50	74.00	-25.50	HORIZONTAL	Peak

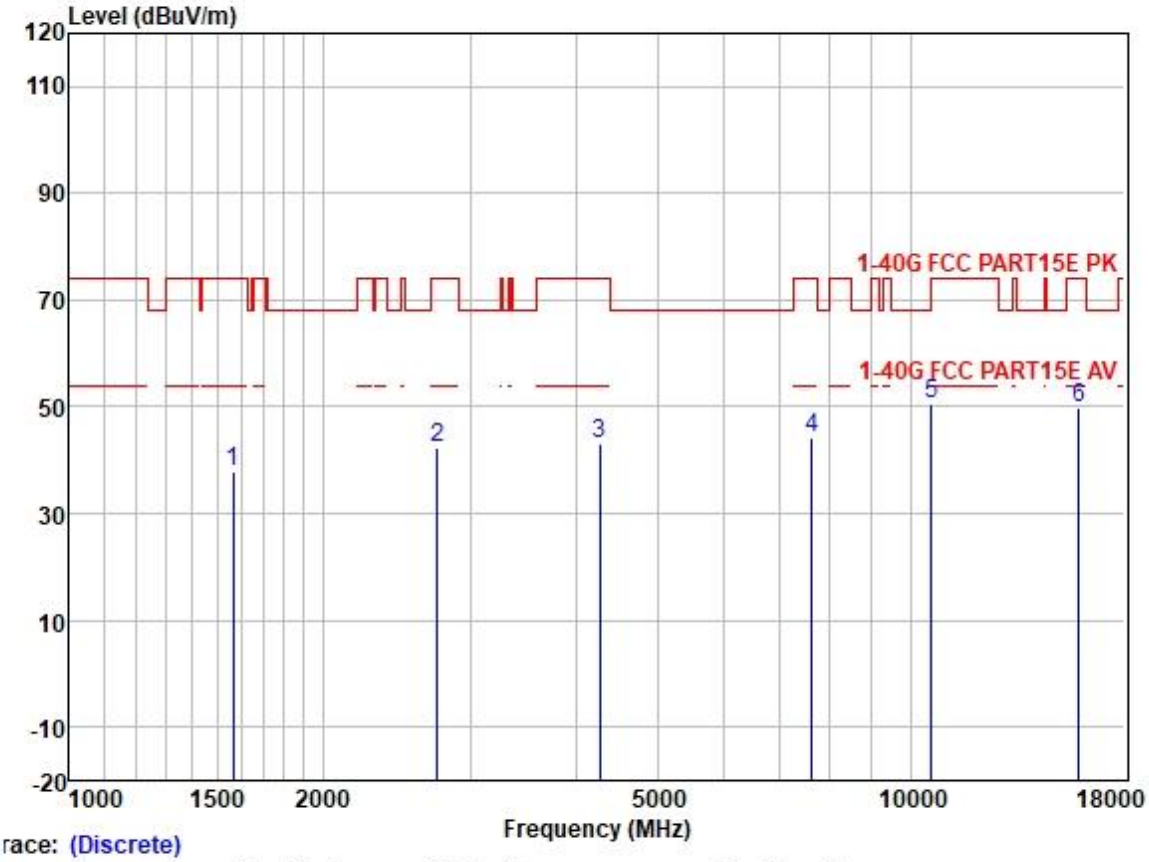
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1551.677	47.91	25.54	2.80	38.03	38.22	74.00	-35.78	HORIZONTAL	Peak
2	2318.912	45.52	27.17	3.33	37.62	38.40	74.00	-35.60	HORIZONTAL	Peak
3	3856.668	46.11	29.62	4.60	36.84	43.49	74.00	-30.51	HORIZONTAL	Peak
4	7497.646	40.05	36.40	6.26	37.49	45.22	74.00	-28.78	HORIZONTAL	Peak
5	10540.780	40.97	39.53	7.43	37.35	50.58	68.20	-17.62	HORIZONTAL	Peak
6	15810.560	36.13	38.61	9.86	35.39	49.21	74.00	-24.79	HORIZONTAL	Peak

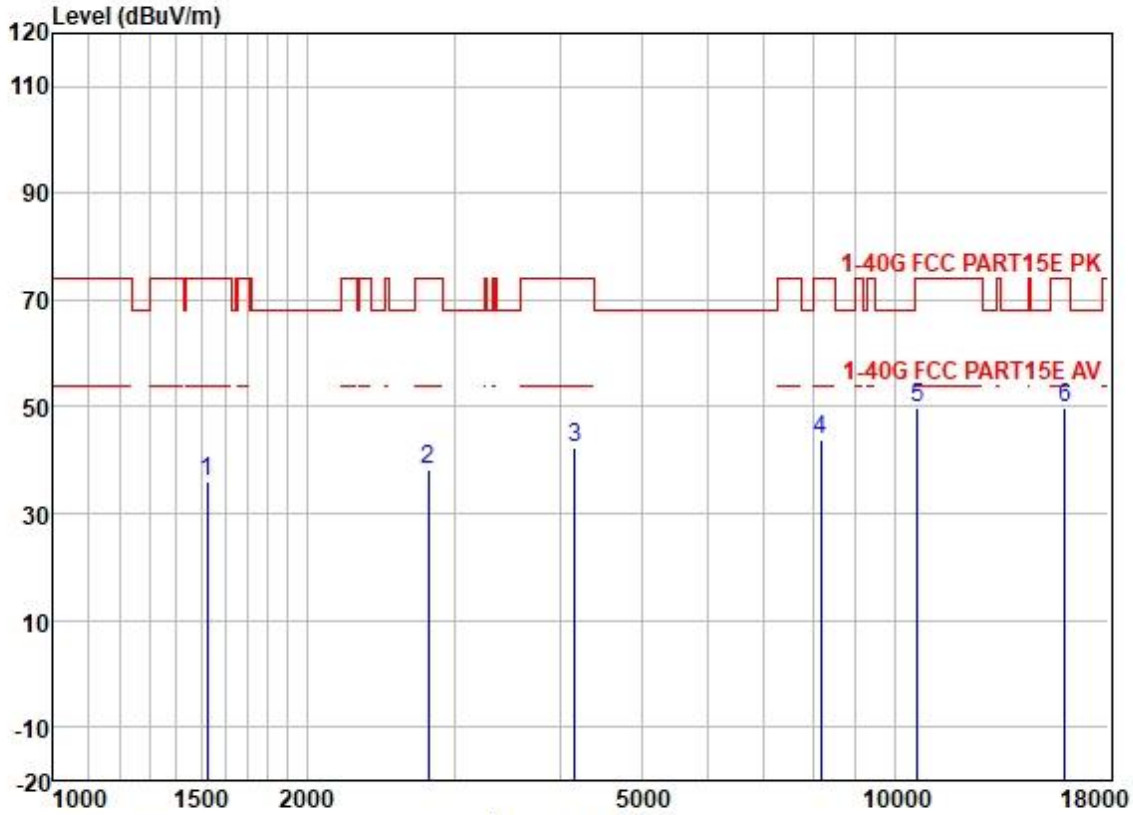
Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1565.191	47.43	25.55	2.80	38.00	37.78	74.00	-36.22	HORIZONTAL	Peak
2	2742.143	48.17	27.98	3.64	37.44	42.35	74.00	-31.65	HORIZONTAL	Peak
3	4267.237	44.73	30.38	4.63	36.81	42.93	74.00	-31.07	HORIZONTAL	Peak
4	7628.806	39.09	36.51	6.24	37.52	44.32	74.00	-29.68	HORIZONTAL	Peak
5	10580.150	40.84	39.56	7.45	37.34	50.51	68.20	-17.69	HORIZONTAL	Peak
6	15870.900	36.69	38.52	9.86	35.40	49.67	74.00	-24.33	HORIZONTAL	Peak

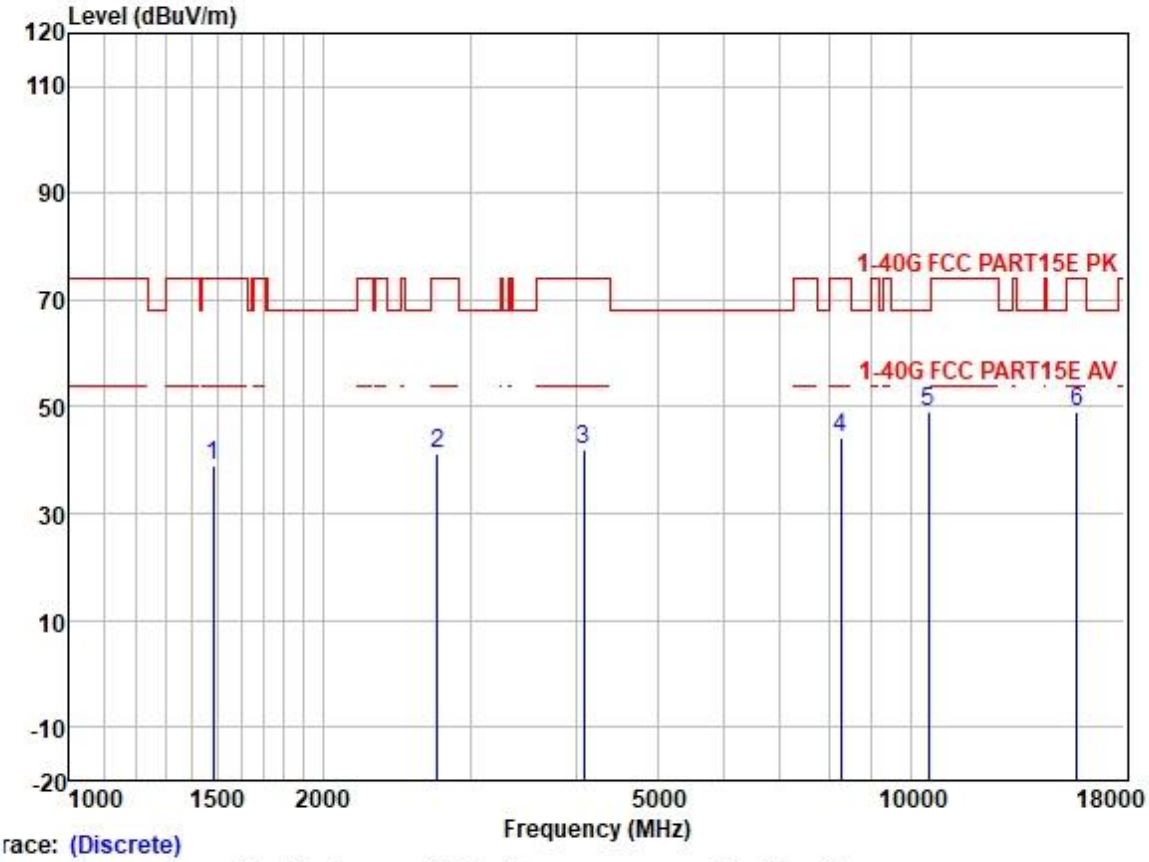
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1525.000	45.83	25.52	2.80	38.07	36.08	74.00	-37.92	VERTICAL	Peak
2	2790.113	43.87	28.12	3.69	37.41	38.27	74.00	-35.73	VERTICAL	Peak
3	4169.698	44.32	30.09	4.60	36.80	42.21	74.00	-31.79	VERTICAL	Peak
4	8176.795	37.95	36.97	6.33	37.59	43.66	74.00	-30.34	VERTICAL	Peak
5	10640.710	40.03	39.63	7.48	37.33	49.81	74.00	-24.19	VERTICAL	Peak
6	15960.820	36.89	38.37	9.85	35.40	49.71	74.00	-24.29	VERTICAL	Peak

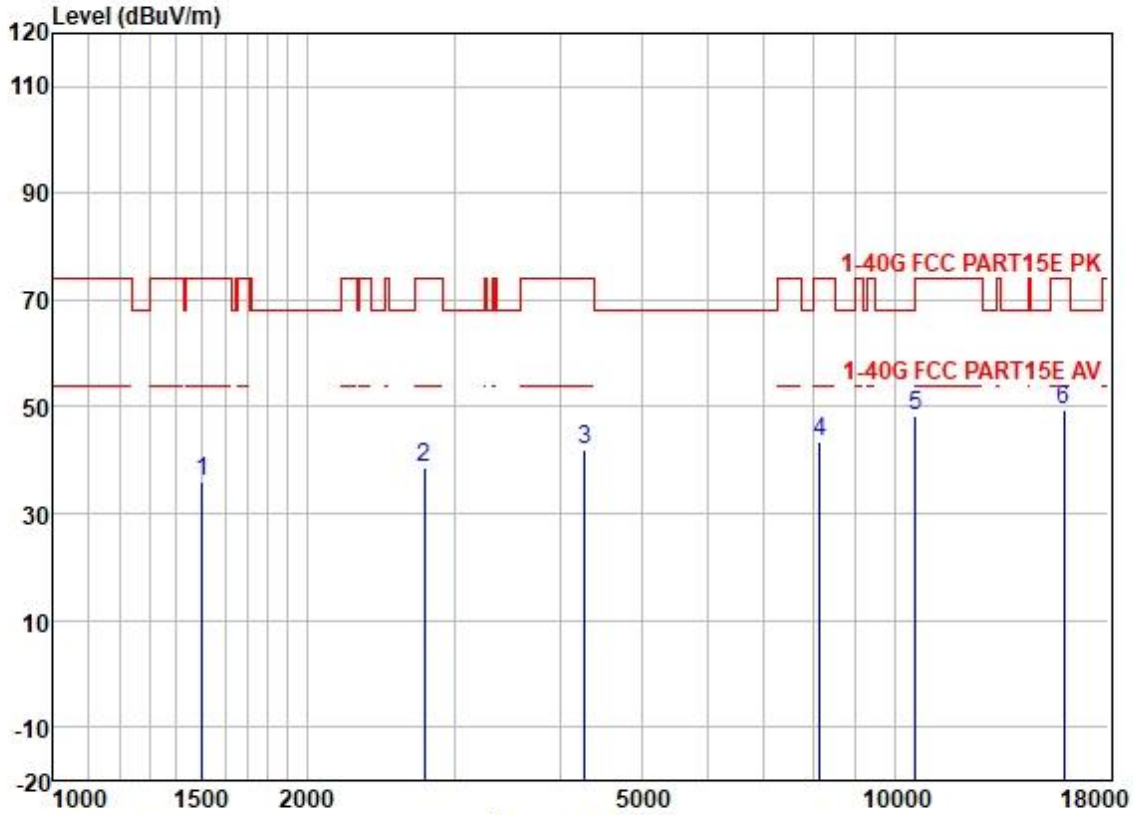
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1481.553	48.88	25.48	2.77	38.13	39.00	74.00	-35.00	VERTICAL	Peak
2	2742.143	47.01	27.98	3.64	37.44	41.19	74.00	-32.81	VERTICAL	Peak
3	4086.182	44.29	29.92	4.60	36.80	42.01	74.00	-31.99	VERTICAL	Peak
4	8271.880	38.23	37.01	6.46	37.58	44.12	74.00	-29.88	VERTICAL	Peak
5	10520.230	39.67	39.50	7.42	37.35	49.24	68.20	-18.96	VERTICAL	Peak
6	15780.900	35.87	38.70	9.86	35.39	49.04	74.00	-24.96	VERTICAL	Peak

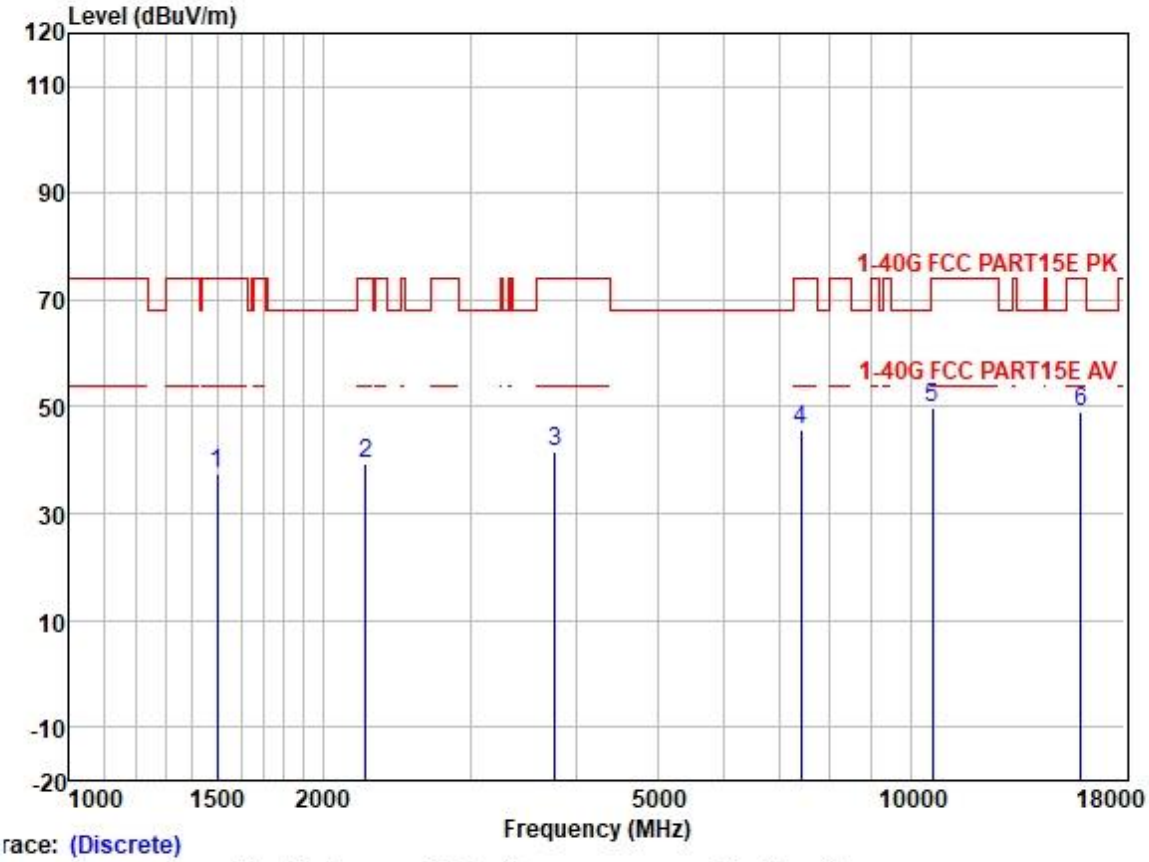
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1503.119	45.91	25.50	2.80	38.10	36.11	74.00	-37.89	VERTICAL	Peak
2	2758.041	44.38	28.03	3.66	37.44	38.63	74.00	-35.37	VERTICAL	Peak
3	4279.589	43.71	30.42	4.63	36.81	41.95	74.00	-32.05	VERTICAL	Peak
4	8153.195	37.79	36.96	6.30	37.59	43.46	74.00	-30.54	VERTICAL	Peak
5	10600.850	38.66	39.59	7.46	37.34	48.37	74.00	-25.63	VERTICAL	Peak
6	15900.640	36.63	38.44	9.86	35.40	49.53	74.00	-24.47	VERTICAL	Peak

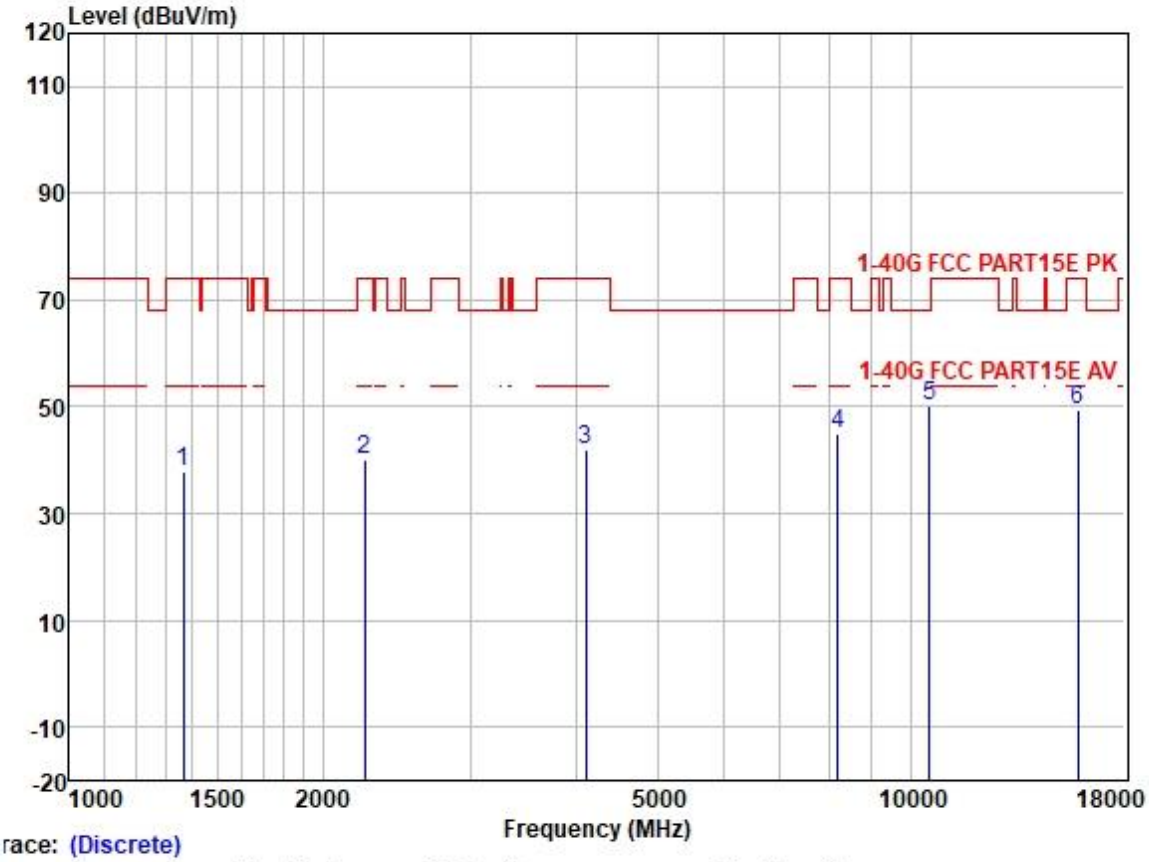
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1498.781	47.26	25.50	2.80	38.10	37.46	74.00	-36.54	VERTICAL	Peak
2	2252.846	46.73	26.92	3.26	37.64	39.27	74.00	-34.73	VERTICAL	Peak
3	3779.422	44.27	29.47	4.59	36.86	41.47	74.00	-32.53	VERTICAL	Peak
4	7411.461	40.83	36.22	6.20	37.46	45.79	74.00	-28.21	VERTICAL	Peak
5	10620.010	39.92	39.59	7.46	37.34	49.63	74.00	-24.37	VERTICAL	Peak
6	15930.660	36.15	38.37	9.85	35.40	48.97	74.00	-25.03	VERTICAL	Peak

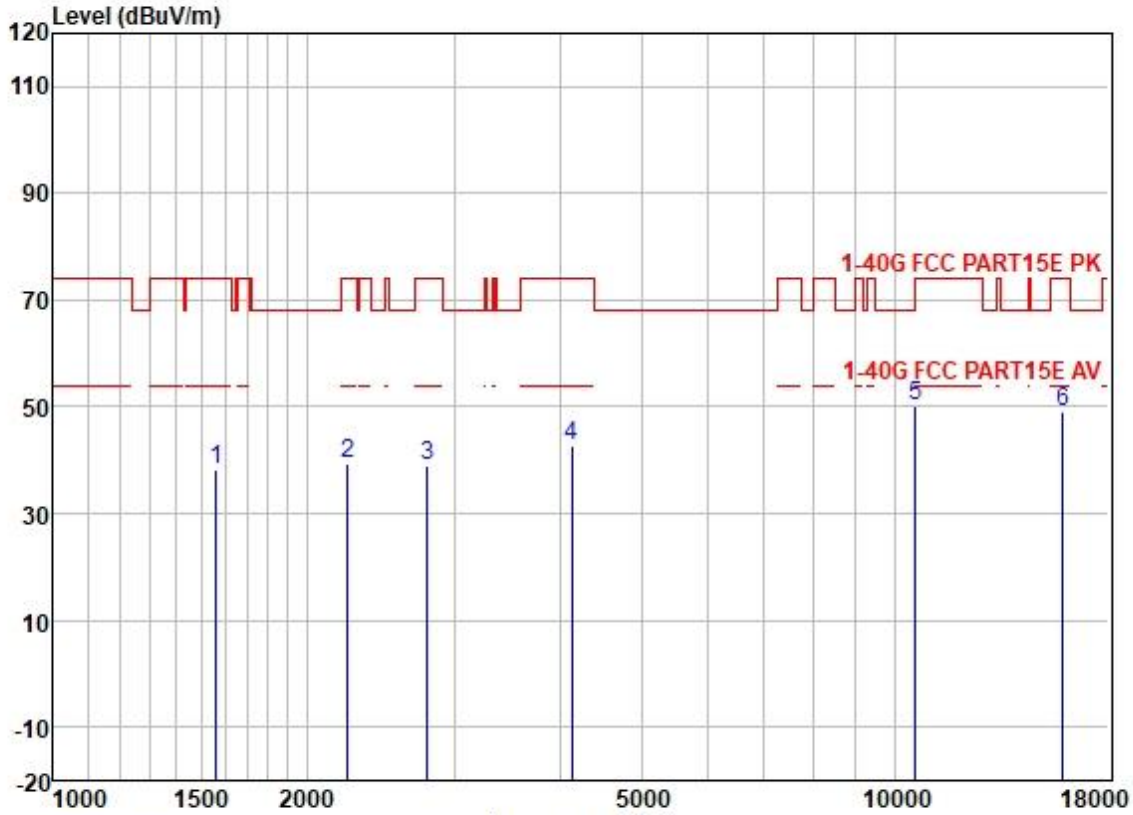
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1366.374	48.25	25.34	2.60	38.25	37.94	74.00	-36.06	VERTICAL	Peak
2	2246.344	47.69	26.88	3.25	37.64	40.18	74.00	-33.82	VERTICAL	Peak
3	4109.872	44.21	29.96	4.60	36.80	41.97	74.00	-32.03	VERTICAL	Peak
4	8200.463	39.09	36.98	6.36	37.59	44.84	74.00	-29.16	VERTICAL	Peak
5	10540.530	40.72	39.53	7.43	37.35	50.33	68.20	-17.87	VERTICAL	Peak
6	15810.210	36.18	38.61	9.86	35.39	49.26	74.00	-24.74	VERTICAL	Peak

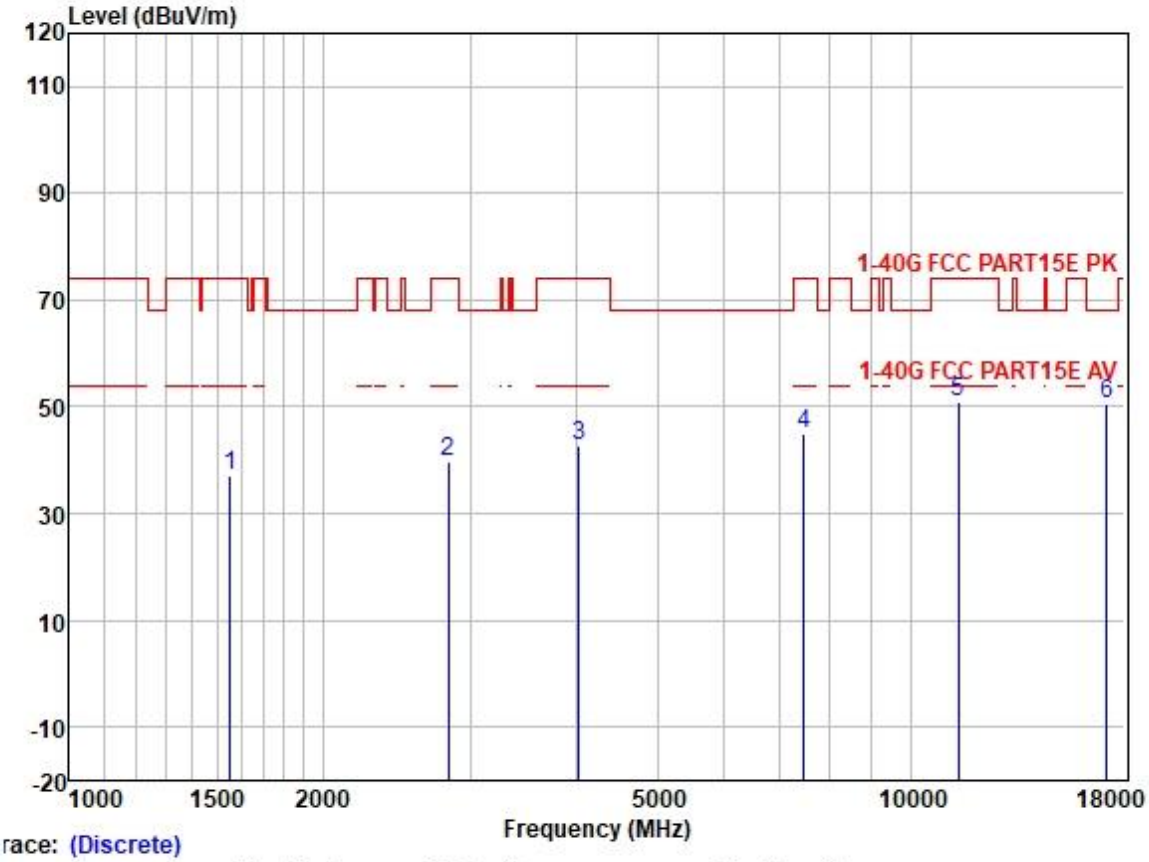
Test Mode: 07; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1560.673	47.75	25.54	2.80	38.03	38.06	74.00	-35.94	VERTICAL	Peak
2	2239.861	46.85	26.84	3.24	37.64	39.29	74.00	-34.71	VERTICAL	Peak
3	2782.060	44.46	28.10	3.69	37.43	38.82	74.00	-35.18	VERTICAL	Peak
4	4133.699	45.09	30.01	4.60	36.80	42.90	74.00	-31.10	VERTICAL	Peak
5	10580.600	40.65	39.56	7.45	37.34	50.32	68.20	-17.88	VERTICAL	Peak
6	15870.050	36.06	38.52	9.86	35.40	49.04	74.00	-24.96	VERTICAL	Peak

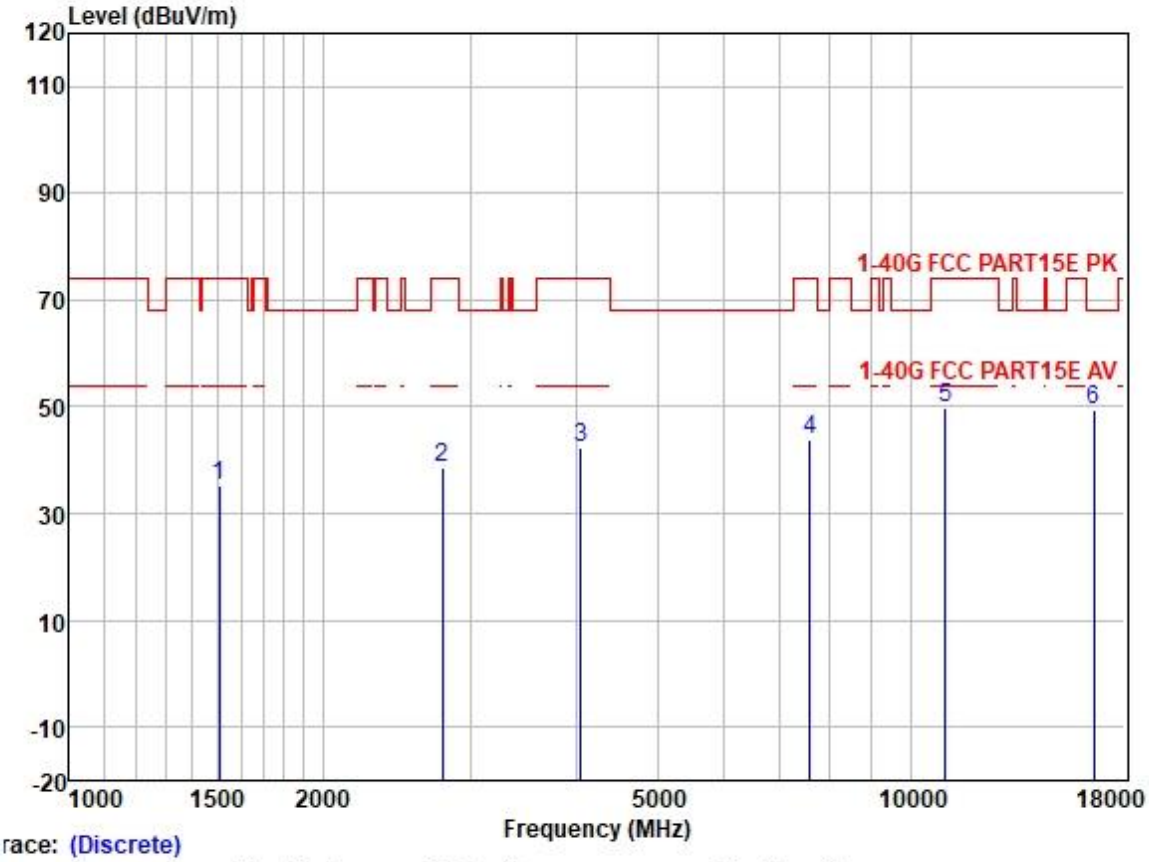
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1551.677	46.95	25.54	2.80	38.03	37.26	74.00	-36.74	HORIZONTAL	Peak
2	2822.558	45.14	28.18	3.70	37.40	39.62	74.00	-34.38	HORIZONTAL	Peak
3	4039.212	45.09	29.85	4.60	36.80	42.74	74.00	-31.26	HORIZONTAL	Peak
4	7476.006	39.88	36.36	6.25	37.48	45.01	74.00	-28.99	HORIZONTAL	Peak
5	11400.250	39.97	39.94	8.28	37.16	51.03	74.00	-22.97	HORIZONTAL	Peak
6	17100.290	34.09	42.32	9.63	35.34	50.70	68.20	-17.50	HORIZONTAL	Peak

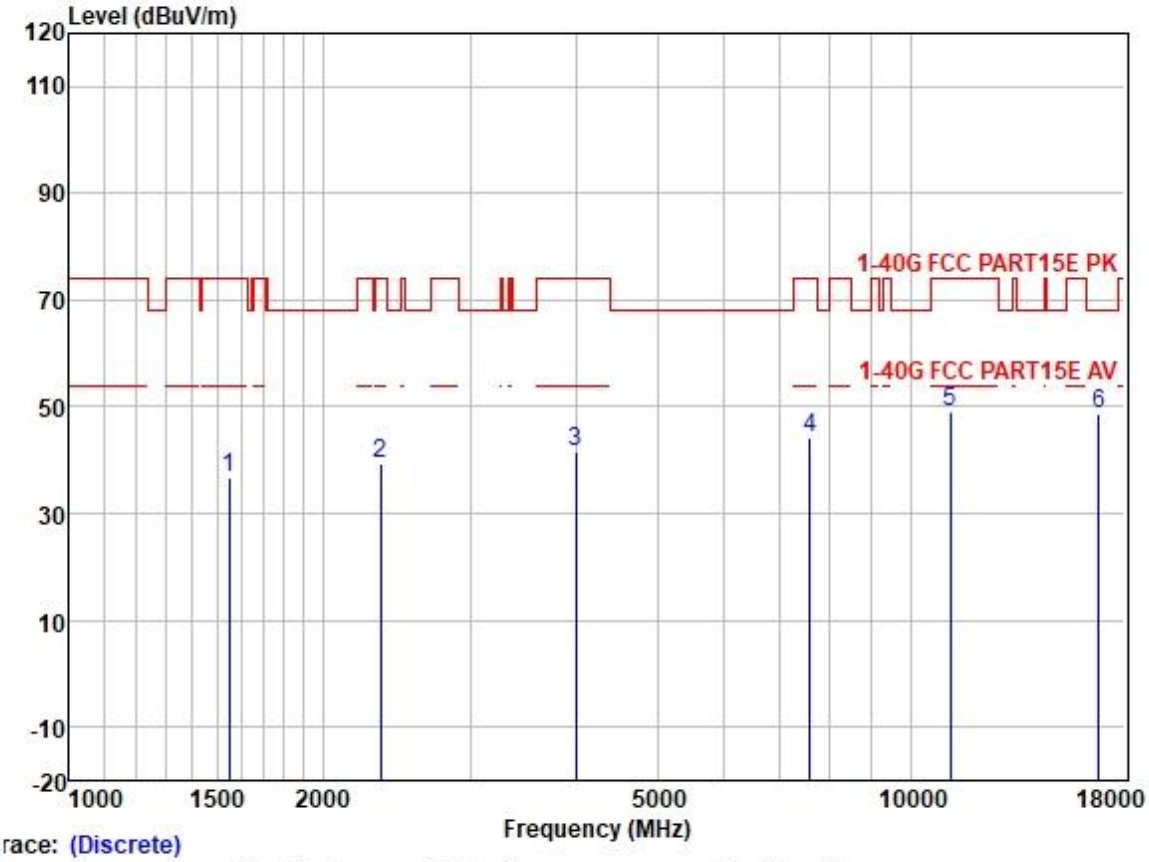
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1507.470	45.07	25.51	2.80	38.10	35.28	74.00	-38.72	HORIZONTAL	Peak
2	2774.030	44.29	28.08	3.68	37.43	38.62	74.00	-35.38	HORIZONTAL	Peak
3	4050.904	44.59	29.87	4.60	36.80	42.26	74.00	-31.74	HORIZONTAL	Peak
4	7584.833	38.74	36.47	6.24	37.51	43.94	74.00	-30.06	HORIZONTAL	Peak
5	11000.180	39.44	40.10	7.71	37.25	50.00	74.00	-24.00	HORIZONTAL	Peak
6	16500.210	35.80	39.60	9.44	35.38	49.46	68.20	-18.74	HORIZONTAL	Peak

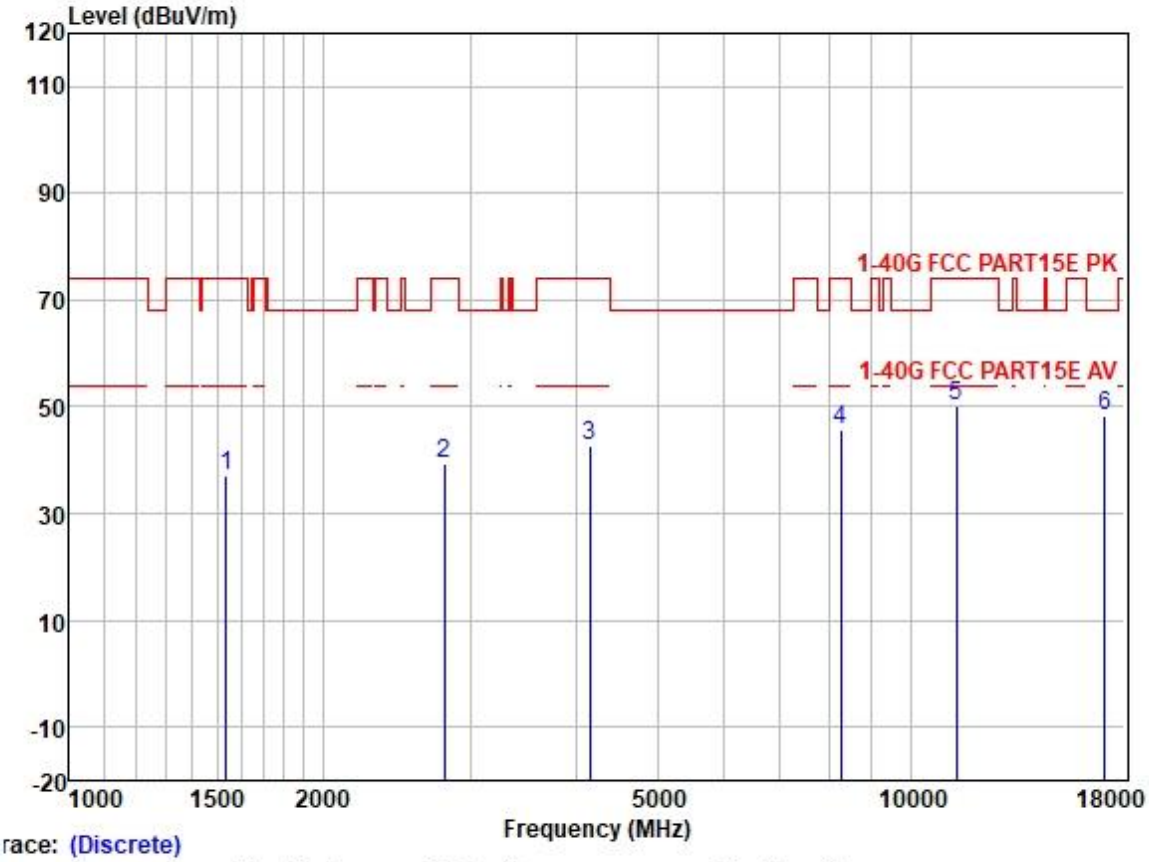
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1547.199	46.48	25.53	2.80	38.03	36.78	74.00	-37.22	HORIZONTAL	Peak
2	2345.878	46.24	27.24	3.38	37.61	39.25	74.00	-34.75	HORIZONTAL	Peak
3	4004.339	44.11	29.80	4.60	36.80	41.71	74.00	-32.29	HORIZONTAL	Peak
4	7584.833	39.20	36.47	6.24	37.51	44.40	74.00	-29.60	HORIZONTAL	Peak
5	11160.710	38.19	40.04	7.90	37.21	48.92	74.00	-25.08	HORIZONTAL	Peak
6	16740.940	34.03	40.49	9.41	35.37	48.56	68.20	-19.64	HORIZONTAL	Peak

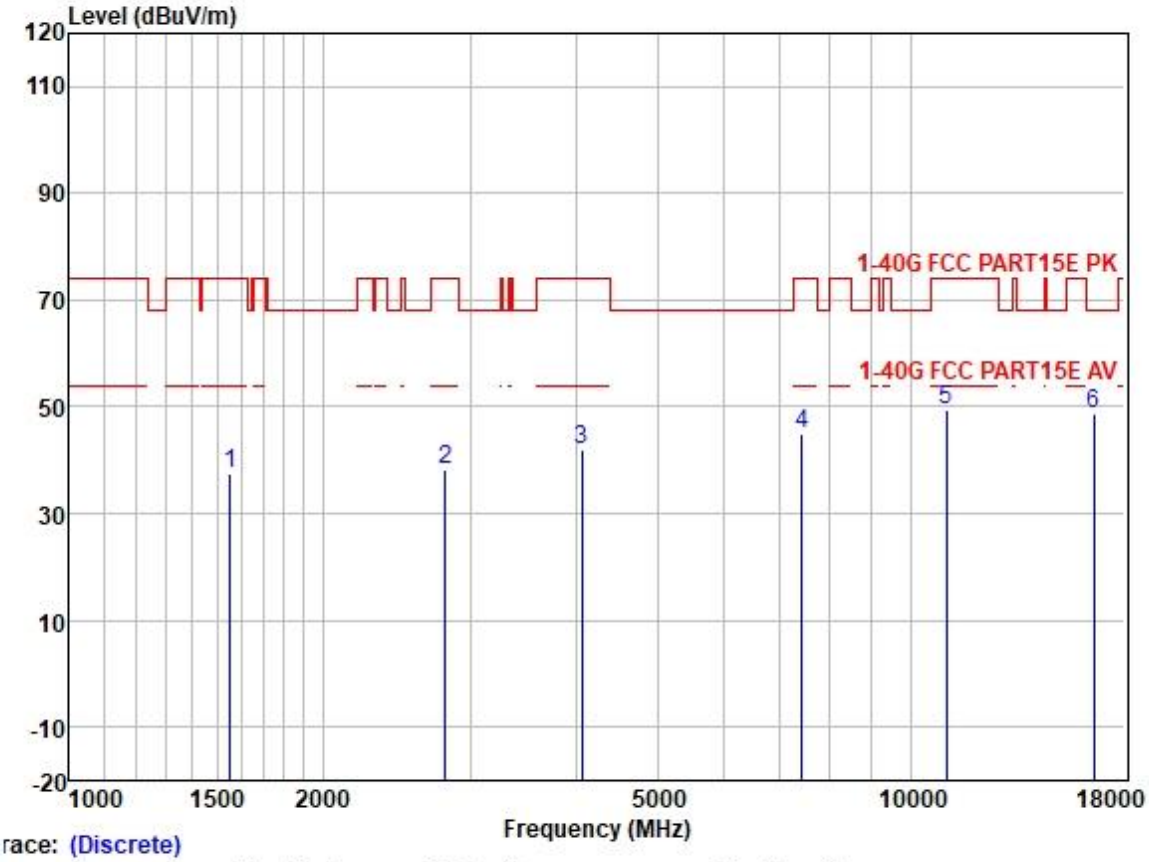
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1538.281	46.79	25.53	2.80	38.03	37.09	74.00	-36.91	HORIZONTAL	Peak
2	2790.113	44.96	28.12	3.69	37.41	39.36	74.00	-34.64	HORIZONTAL	Peak
3	4157.664	44.87	30.06	4.60	36.80	42.73	74.00	-31.27	HORIZONTAL	Peak
4	8271.880	39.88	37.01	6.46	37.58	45.77	74.00	-28.23	HORIZONTAL	Peak
5	11340.380	39.25	39.97	8.18	37.17	50.23	74.00	-23.77	HORIZONTAL	Peak
6	17010.660	32.48	41.75	9.39	35.35	48.27	68.20	-19.93	HORIZONTAL	Peak

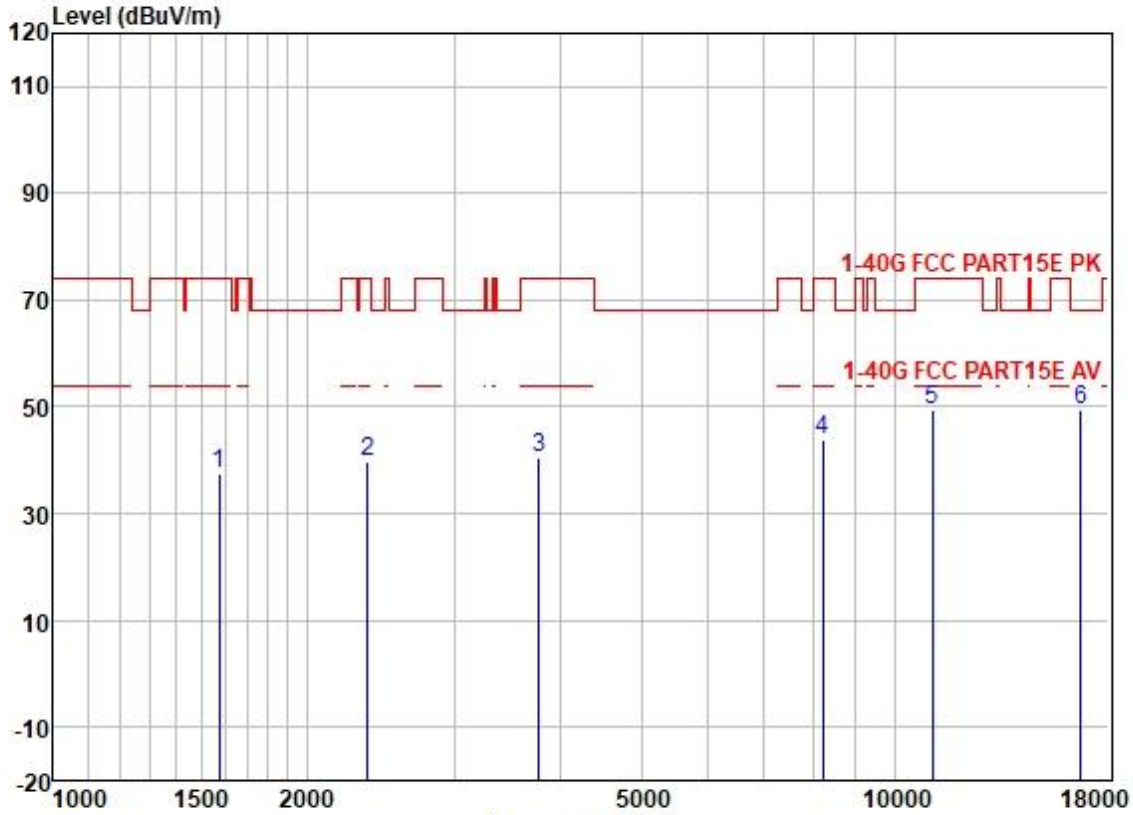
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1551.677	47.05	25.54	2.80	38.03	37.36	74.00	-36.64	HORIZONTAL	Peak
2	2798.189	43.98	28.13	3.70	37.41	38.40	74.00	-35.60	HORIZONTAL	Peak
3	4062.629	44.27	29.88	4.60	36.80	41.95	74.00	-32.05	HORIZONTAL	Peak
4	7432.914	40.02	36.27	6.22	37.47	45.04	74.00	-28.96	HORIZONTAL	Peak
5	11020.210	38.81	40.10	7.71	37.24	49.38	74.00	-24.62	HORIZONTAL	Peak
6	16530.050	34.79	39.76	9.44	35.38	48.61	68.20	-19.59	HORIZONTAL	Peak

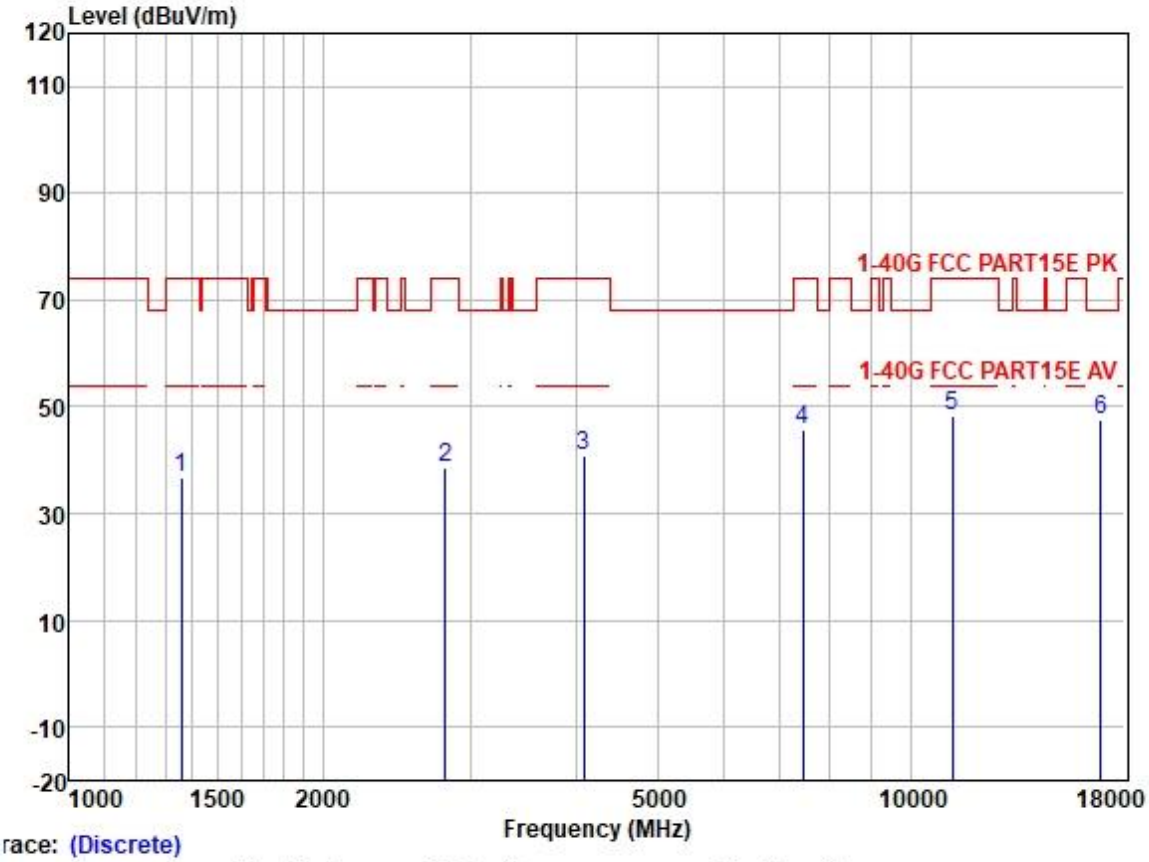
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:middle;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1574.265	47.28	25.56	2.80	38.00	37.64	74.00	-36.36	HORIZONTAL	Peak
2	2366.308	46.60	27.28	3.43	37.60	39.71	74.00	-34.29	HORIZONTAL	Peak
3	3779.422	43.38	29.47	4.59	36.86	40.58	74.00	-33.42	HORIZONTAL	Peak
4	8224.200	37.99	36.99	6.39	37.59	43.78	74.00	-30.22	HORIZONTAL	Peak
5	11100.860	38.68	40.07	7.82	37.22	49.35	74.00	-24.65	HORIZONTAL	Peak
6	16650.290	35.38	40.10	9.43	35.38	49.53	68.20	-18.67	HORIZONTAL	Peak

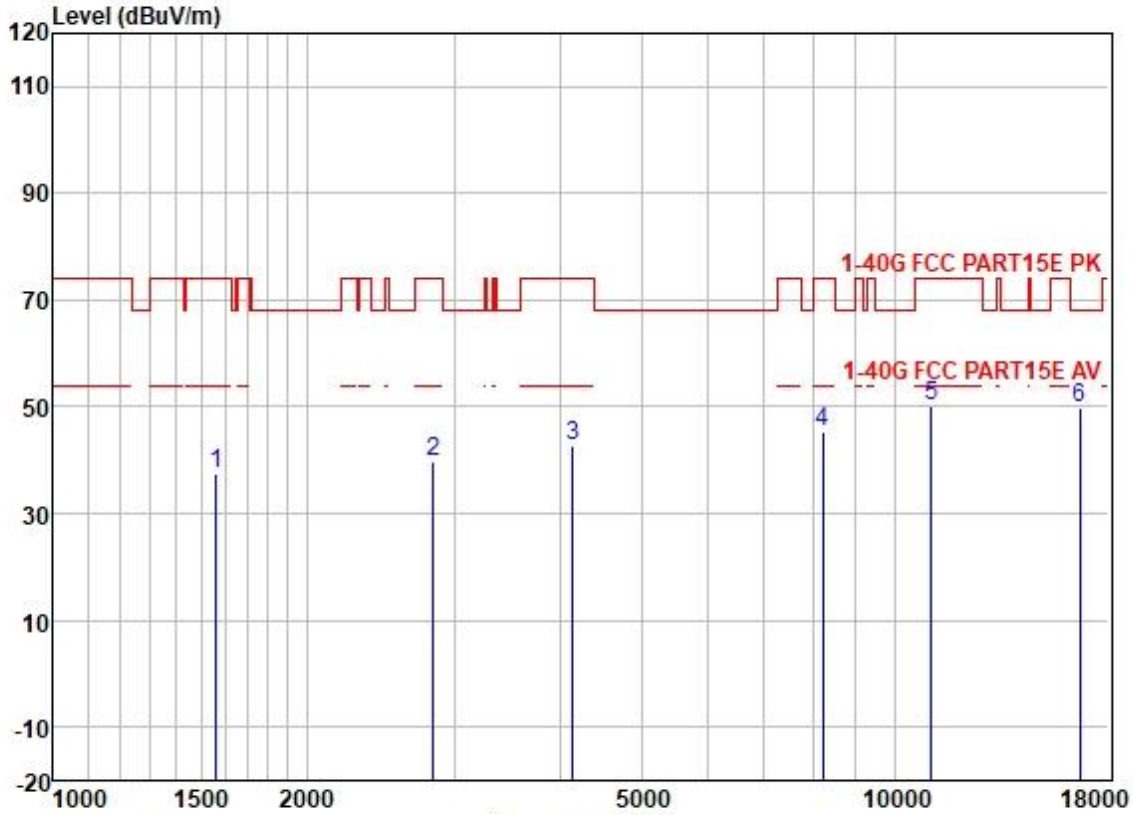
Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1358.498	47.25	25.33	2.60	38.27	36.91	74.00	-37.09	HORIZONTAL	Peak
2	2798.189	44.36	28.13	3.70	37.41	38.78	74.00	-35.22	HORIZONTAL	Peak
3	4086.182	43.16	29.92	4.60	36.80	40.88	74.00	-33.12	HORIZONTAL	Peak
4	7454.429	40.70	36.32	6.23	37.47	45.78	74.00	-28.22	HORIZONTAL	Peak
5	11220.280	37.41	40.03	7.95	37.19	48.20	74.00	-25.80	HORIZONTAL	Peak
6	16830.050	32.78	40.94	9.40	35.37	47.75	68.20	-20.45	HORIZONTAL	Peak

Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low;



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1560.673	47.32	25.54	2.80	38.03	37.63	74.00	-36.37	HORIZONTAL	Peak
2	2830.728	45.26	28.20	3.70	37.40	39.76	74.00	-34.24	HORIZONTAL	Peak
3	4145.664	44.73	30.03	4.60	36.80	42.56	74.00	-31.44	HORIZONTAL	Peak
4	8224.200	39.61	36.99	6.39	37.59	45.40	74.00	-28.60	HORIZONTAL	Peak
5	11060.210	39.68	40.08	7.78	37.23	50.31	74.00	-23.69	HORIZONTAL	Peak
6	16590.050	35.75	39.93	9.43	35.38	49.73	68.20	-18.47	HORIZONTAL	Peak