



TEST REPORT

Application No.: GZEM2006013084CR
Applicant: Shenzhen Longtour Photology Co., Ltd
Address of Applicant: 202, Ying'an Building, Shangtang Intersection, Minzhi Ave., Minzhi St., Longhua New Dist., Shenzhen China
Manufacturer: The same as applicant
Address of Manufacturer: The same as applicant
Factory: SHENZHEN TIANYIN ELECTRONICS CO., LTD
Address of Factory: BUILDING 9, SANZHULI INDUSTRIAL AREA, SHIYAN TOWN, BAO'AN DISTRICT, SHENZHEN, CHINA 518108
Equipment Under Test (EUT):
EUT Name: Smart Outlet
Model No.: SS36, SS31, SS32, SS33, SS34, SS35, SS37, SS38, SS39
Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
FCC ID: 2AQN-SS36
Trade Mark: Teckin
Standard(s): 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2020-06-15
Date of Test: 2020-06-28 to 2020-07-06
Date of Issue: 2020-07-08

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

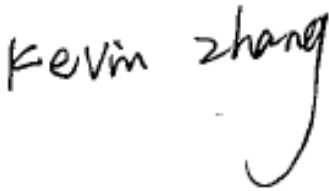
Kobe Jian
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2020-07-08		Original

Authorized for issue by:			
Tested By		2020-06-28 to 2020-07-06 Date	
Checked By		2020-07-08 Date	



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2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(c)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Minimum 6dB Bandwidth	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.9.1	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass
Power Spectrum Density	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	Pass
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.13.3.2	47 CFR Part 15, Subpart C 15.247(d)	Pass
Conducted Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass
Radiated Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass

■ Declaration of EUT Family Grouping:

Model No.: SS36, SS31, SS32, SS33, SS34, SS35, SS37, SS38, SS39

According to the declaration from the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference on appearance and color.

Therefore only one model SS36 was tested in this report.



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4 General Information

4.1 Details of E.U.T.

Power Supply:	AC 125V, 50-60Hz
Test Voltage:	AC 120V 60Hz
Cable:	AC mains (unshielded, 30cm)
Antenna Gain	0dBi
Antenna Type	Integrated Antenna
Channel Spacing	5MHz
Modulation Type	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Number of Channels	802.11b/g/n(HT20):11 802.11n(HT40):7
Operation Frequency	802.11b/g/n(HT20): 2412MHz to 2462MHz 802.11n(HT40): 2422MHz to 2452MHz
SN:	2020000X
Hardware:	AF-003 v01
Firmware:	1.0
Test Software:	UI_mptool_1V15
Power Setting:	42 (19dBm max)

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	Lenovo	T430u	REF. No.SEA1800

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 5.5 \times 10^{-8}$
2	Duty cycle	$\pm 0.57\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF Conducted power	$\pm 0.68\text{dB}$
5	RF Power Density	$\pm 1.50\text{dB}$
6	Conducted Spurious Emissions	$\pm 1.04\text{dB}$
7	RF Radiated Power	$\pm 4.5\text{dB}$ (below 1GHz)
		$\pm 4.8\text{dB}$ (above 1GHz)
8	Radiated Spurious Emission Test	$\pm 4.5\text{dB}$ (30MHz-1GHz)
		$\pm 4.8\text{dB}$ (1GHz-18GHz)
9	Temperature	$\pm 0.4^{\circ}\text{C}$
10	Humidity	$\pm 1.3\%$
11	Supply Voltages	$\pm 1.5\%$
12	Time	$\pm 3\%$



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4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
 198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
 Guangzhou, China 510663

Tel: +86 20 82155555

Fax: +86 20 82075059

No tests were sub-contracted.



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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 C-Tick mark as a result of our NVLAP accreditation.

● **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 2.948 Listed Test Firm(Registration No.: 282399)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.

● **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, Jul 13, 2017.

● **Industry Canada (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-10449 and T-11179)**

The 10m Semi-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-10449 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 17025:2005, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.



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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	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	N/A	N/A
Two-Line V-Network	Rohde & Schwarz	ENV216	EMC0118	2020-01-10	2021-01-09
LISN	Rohde & Schwarz	ENV216	EMC2135	2019-09-16	2020-09-15
EMI Test Receiver	Rohde & Schwarz	ESCS30	EMC0506	2019-11-18	2020-11-17
Coaxial Cable	HangTianXing	2m	EMC0107	2018-09-20	2020-09-19
Voltage Probe	SGS-EMC	N/A	EMC0106	2019-05-10	2021-05-09
Conical Metal Housing	SGS-EMC	N/A	EMC0167	2020-04-19	2022-04-18
Test Software E3c	Audix	Ver. 5.4.1221b	GZE100-62	N/A	N/A

Minimum 6dB Bandwidth					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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

Conducted Peak Output Power					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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

Power Spectrum Density					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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



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Conducted Band Edges Measurement

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer	AgilentTechnologies	N9020A	SEM004-10	2020-03-02	2021-03-01
ESG Vector Signal Generator	Keysight	E4438C	SEM006-03	2020-03-31	2021-03-30
EXG Analog Signal Generator	AgilentTechnologies	N5171B	SEM006-04	2017-07-26	2020-07-25
Power Meter	AgilentTechnologies	U2021XA_Ch2	SEM009-02	2020-05-26	2021-05-25
Power Meter	AgilentTechnologies	U2021XA_Ch3	SEM009-03	2020-05-26	2021-05-25
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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

Conducted Spurious Emissions

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2019-11-18	2020-11-17
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 which fall in the restricted bands

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2020-01-10	2021-01-09
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2020-01-10	2021-01-09
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 25MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	EMC2174	2018-09-06	2021-09-05
Bi-log Type Antenna	Schaffner Chase	CBL6143	EMC0519	2020-06-08	2023-06-07
Horn Antenna	SCHWARZBECKME SS-ELEKTRONIK	BBHA 9120D	EMC2016	2019-09-25	2022-09-24
Horn Antenna 1GHz-18GHz	Rohde & Schwarz	HF906	EMC0518	2018-09-02	2021-09-01
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2020-01-10	2021-01-09
Amplifier	HP	8447F	EMC2065	2020-05-26	2021-05-25
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2019-11-18	2020-11-17
Active Loop Antenna	EMCO	6502	EMC0523	2018-03-05	2021-03-04
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2020-01-10	2021-01-09



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2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2020-01-10	2021-01-09
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2017-12-19	2020-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2019-11-18	2020-11-17
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2019-11-18	2020-11-17
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

Radiated Spurious Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2020-01-10	2021-01-09
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2020-01-10	2021-01-09
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 25MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	EMC2174	2018-09-06	2021-09-05
Bi-log Type Antenna	Schaffner Chase	CBL6143	EMC0519	2020-06-08	2023-06-07
Horn Antenna	SCHWARZBECKME SS-ELEKTRONIK	BBHA 9120D	EMC2016	2019-09-25	2022-09-24
Horn Antenna 1GHz-18GHz	Rohde & Schwarz	HF906	EMC0518	2018-09-02	2021-09-01
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2020-01-10	2021-01-09
Amplifier	HP	8447F	EMC2065	2020-05-26	2021-05-25
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2019-11-18	2020-11-17
Active Loop Antenna	EMCO	6502	EMC0523	2018-03-05	2021-03-04
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2020-01-10	2021-01-09
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2020-01-10	2021-01-09
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2017-12-19	2020-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2019-11-18	2020-11-17
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2019-11-18	2020-11-17
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2019-07-16	2020-07-15
DMM	Fluke	73	EMC0007	2019-07-16	2020-07-15



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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 & 15.247(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 a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.



EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 0dBi.



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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

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.

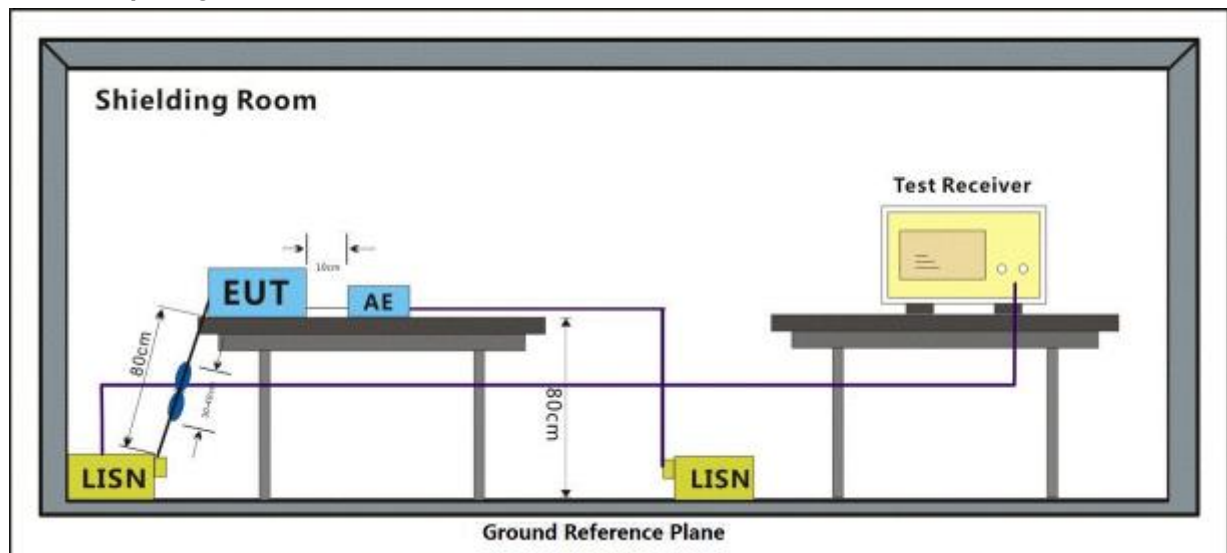
7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C Humidity: 59 % RH Atmospheric Pressure: 1020 mbar

Test Mode: b: TX mode_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 @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.1.2 Test Setup Diagram



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7.1.3 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.

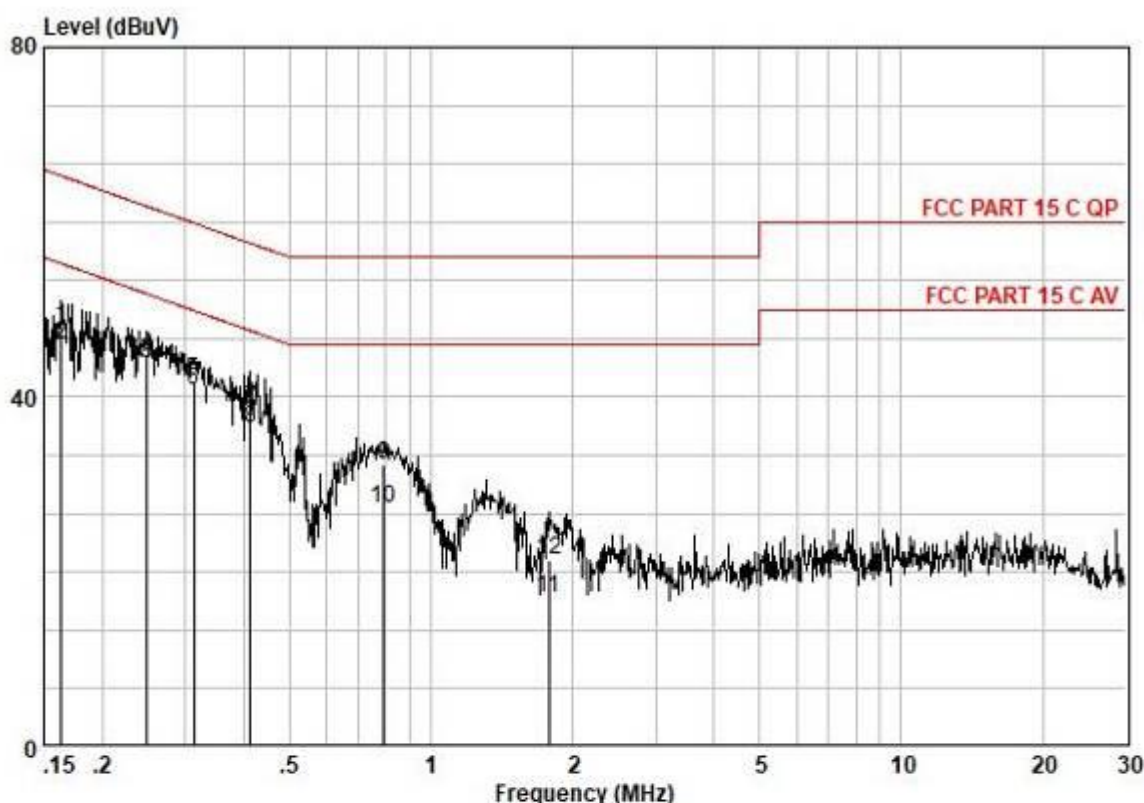
Remark: LISN=Read Level+ Cable Loss+ LISN Factor



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Mode:b; Line:Live Line



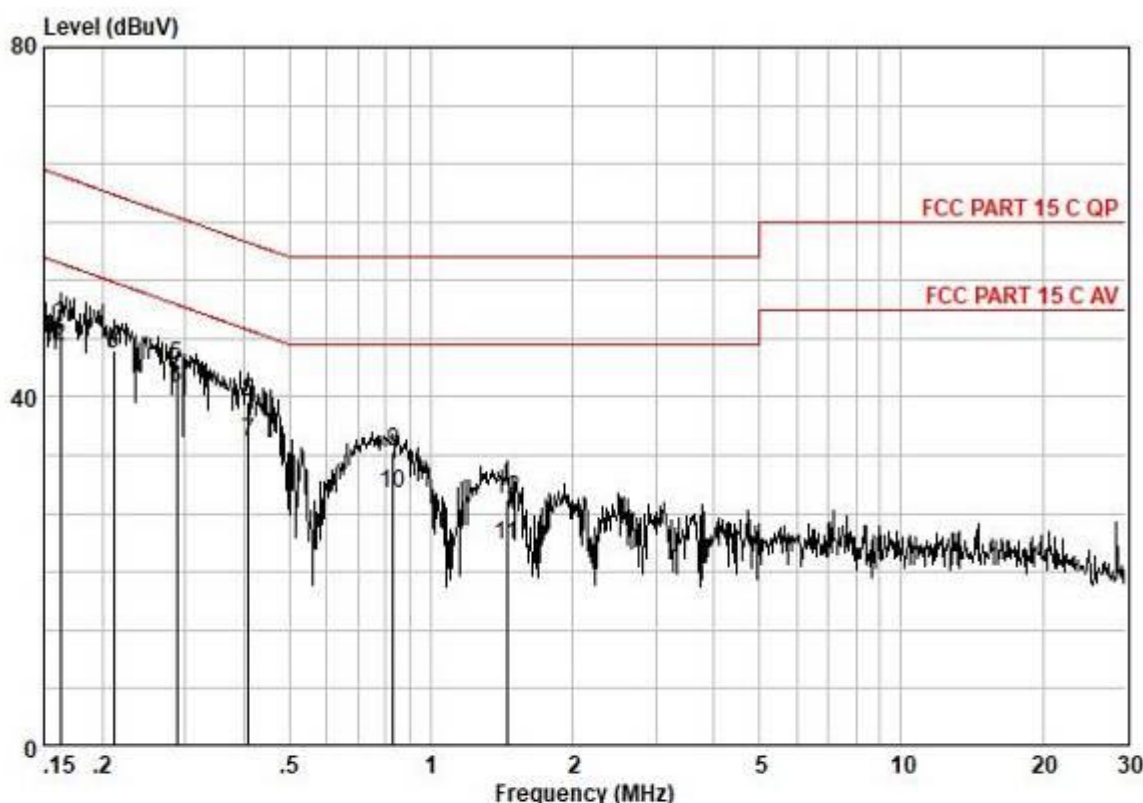
Pol	:LIVE						
No	:						
Model	:						
Frequency	read	Cable	LISN	Measured	Limit	Over	
MHz	level	Loss	Factor	level	Line	limit	Remark
	dBuV	dB	dB	dBuV	dBuV	dB	
0.16	38.11	0.10	9.66	47.87	65.30	-17.42	QP
0.16	36.27	0.10	9.66	46.03	55.30	-9.26	AVERAGE
0.25	34.04	0.10	9.67	43.81	51.78	-7.97	AVERAGE
0.25	35.02	0.10	9.67	44.79	61.78	-16.99	QP
0.31	32.09	0.10	9.67	41.86	59.88	-18.03	QP
0.31	30.89	0.10	9.67	40.66	49.88	-9.23	AVERAGE
0.41	28.91	0.10	9.66	38.67	57.59	-18.92	QP
0.41	26.67	0.10	9.66	36.43	47.59	-11.16	AVERAGE
0.79	22.41	0.10	9.68	32.19	56.00	-23.81	QP
0.79	17.50	0.10	9.68	27.28	46.00	-18.72	AVERAGE
1.78	7.14	0.10	9.69	16.93	46.00	-29.07	AVERAGE
1.78	11.57	0.10	9.69	21.36	56.00	-34.64	QP



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Mode:b; Line:Neutral Line


Pol : NEUTRAL
No :
Model :

Frequency MHz	read level dBuV	Cable Loss dB	LISN Factor dB	Measured level dBuV	Limit Line dBuV	Over limit dB	Remark
0.16	38.66	0.10	9.59	48.35	65.34	-16.99	QP
0.16	35.98	0.10	9.59	45.67	55.34	-9.67	AVERAGE
0.21	35.15	0.10	9.60	44.85	53.14	-8.29	AVERAGE
0.21	35.75	0.10	9.60	45.45	63.14	-17.69	QP
0.29	33.95	0.10	9.59	43.84	60.59	-16.95	QP
0.29	31.27	0.10	9.59	40.96	50.59	-9.63	AVERAGE
0.41	25.12	0.10	9.59	34.81	47.68	-12.87	AVERAGE
0.41	29.67	0.10	9.59	39.36	57.68	-18.32	QP
0.83	24.08	0.10	9.61	33.79	56.00	-22.21	QP
0.83	19.23	0.10	9.61	28.94	46.00	-17.06	AVERAGE
1.45	13.30	0.10	9.61	23.01	46.00	-22.99	AVERAGE
1.45	18.61	0.10	9.61	28.32	56.00	-27.68	QP



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7.2 Minimum 6dB Bandwidth

Test Requirement: 47 CFR Part 15, Subpart C 15.247a(2)
 Test Method: ANSI C63.10 (2013) Section 11.8.1
 Limit: ≥ 500 kHz

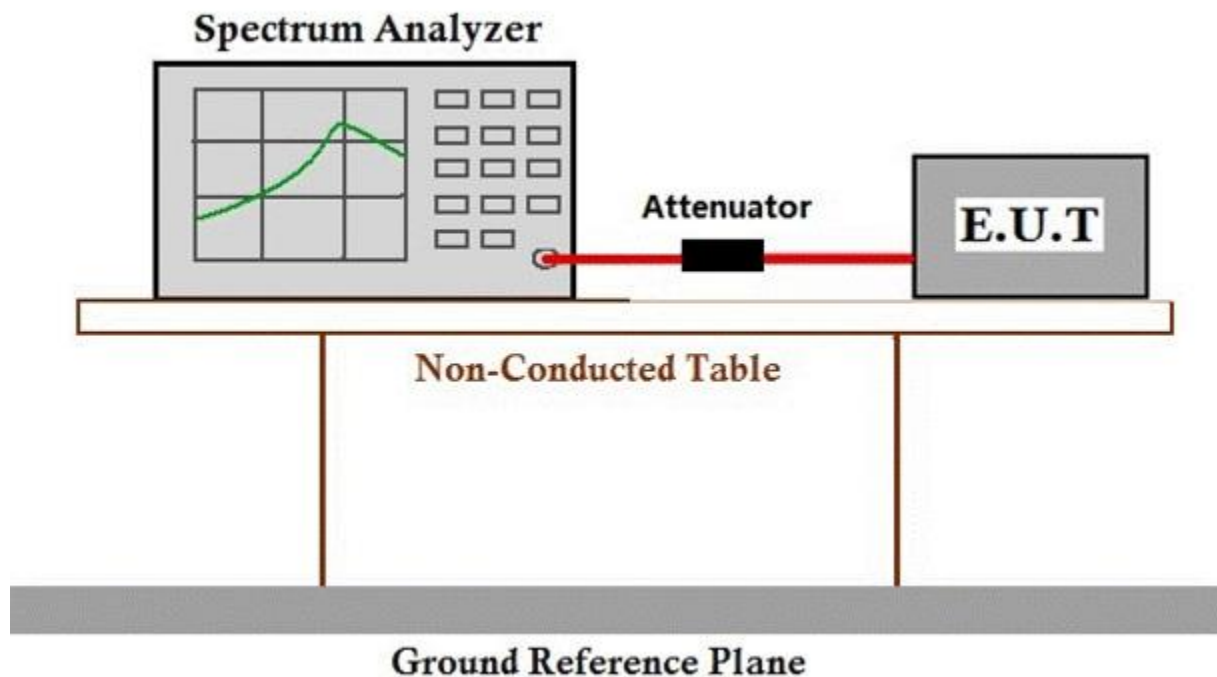
7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 26.3 °C Humidity: 51 % RH Atmospheric Pressure: 1020 mbar

Test Mode: b: TX mode_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 @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.2.2 Test Setup Diagram



7.2.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

7.3 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)

Test Method: ANSI C63.10 (2013) Section 11.9.1

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥ 50 hopping channels
	0.25 for $25 \leq$ hopping channels < 50
	1 for digital modulation
2400-2483.5	1 for ≥ 75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

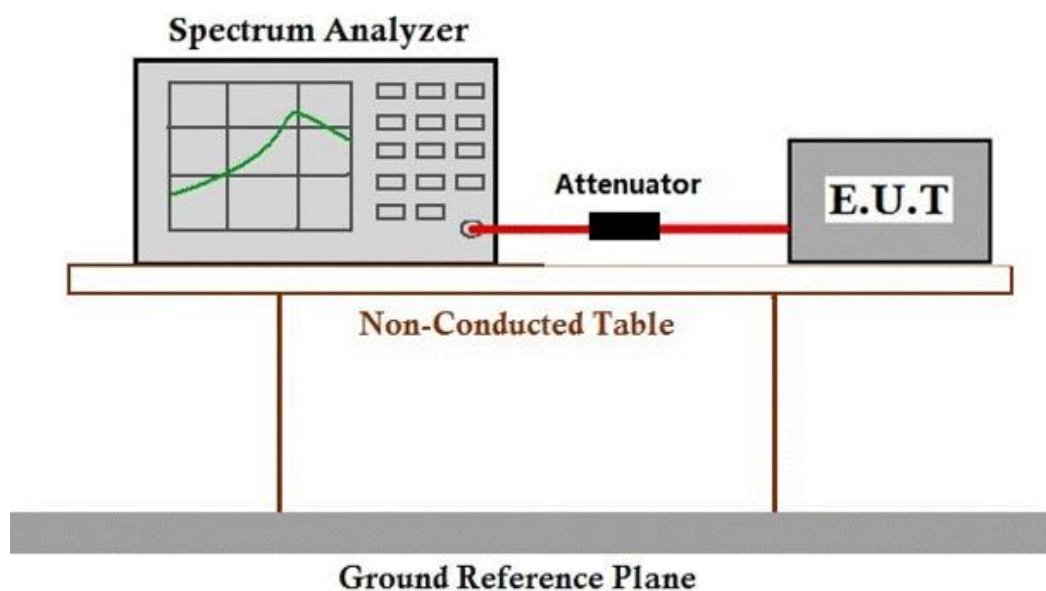
7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 26.3 °C Humidity: 51 % RH Atmospheric Pressure: 1020 mbar

Test Mode: b: TX mode_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 @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.3.2 Test Setup Diagram



7.3.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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7.4 Power Spectrum Density

Test Requirement: 47 CFR Part 15, Subpart C 15.247(e)
 Test Method: ANSI C63.10 (2013) Section 11.10.2
 Limit: $\leq 8\text{dBm}$ in any 3 kHz band during any time interval of continuous transmission

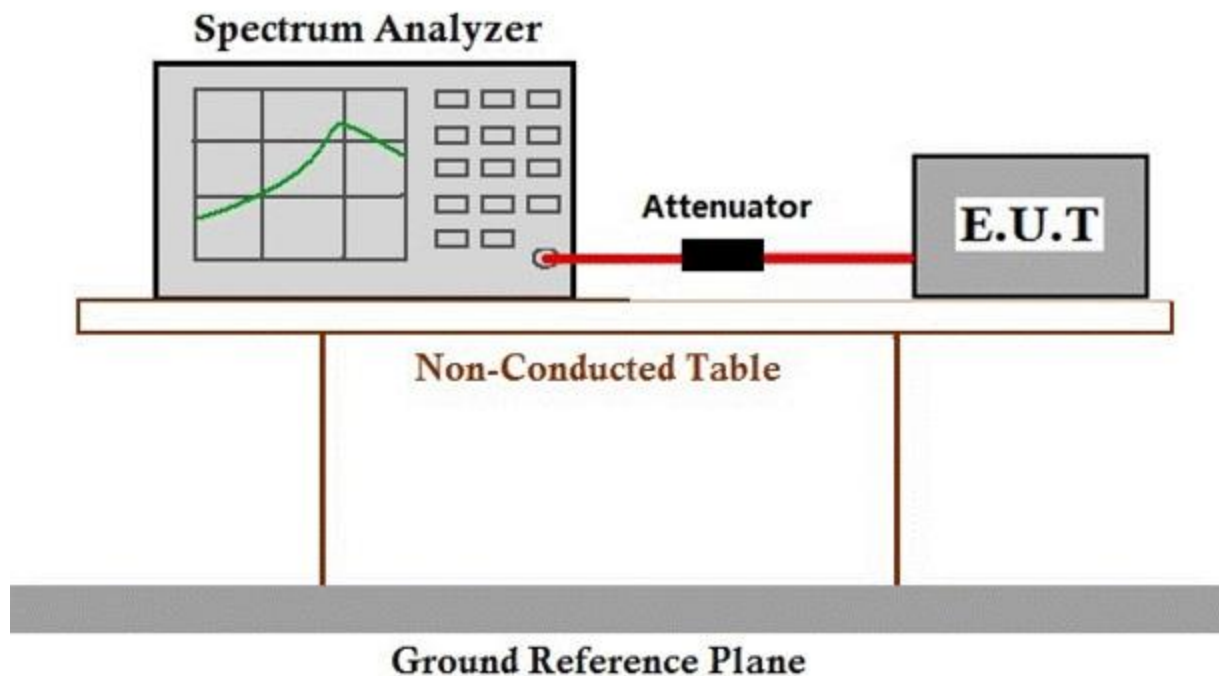
7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 26.3 °C Humidity: 51 % RH Atmospheric Pressure: 1020 mbar

Test Mode: b: TX mode_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 @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.4.2 Test Setup Diagram



7.4.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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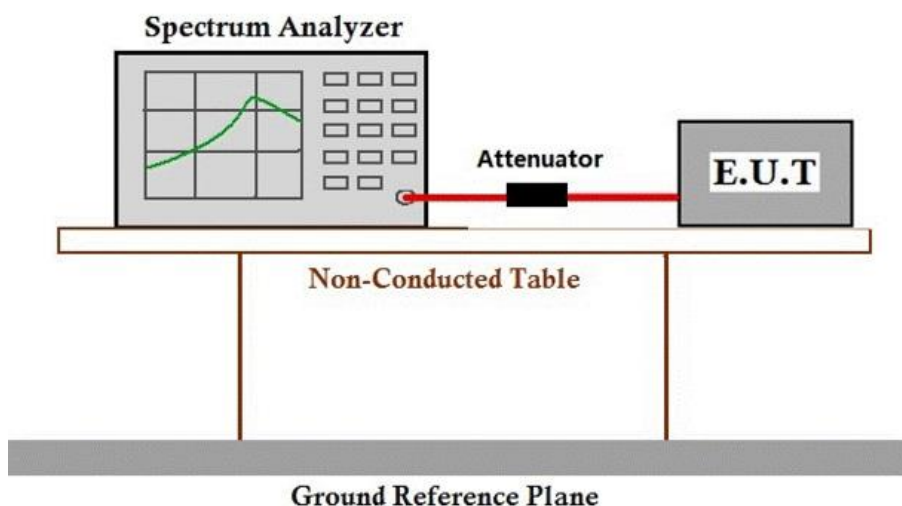
7.5 Conducted Band Edges Measurement

Test Requirement	47 CFR Part 15, Subpart C 15.247(d)
Test Method:	ANSI C63.10 (2013) Section 11.13.3.2
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c))

7.5.1 E.U.T. Operation

Operating Environment:					
Temperature:	26.3 °C	Humidity:	51 % RH	Atmospheric Pressure:	1020 mbar
Test Mode:	b: TX mode_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 @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.				

7.5.2 Test Setup Diagram



7.5.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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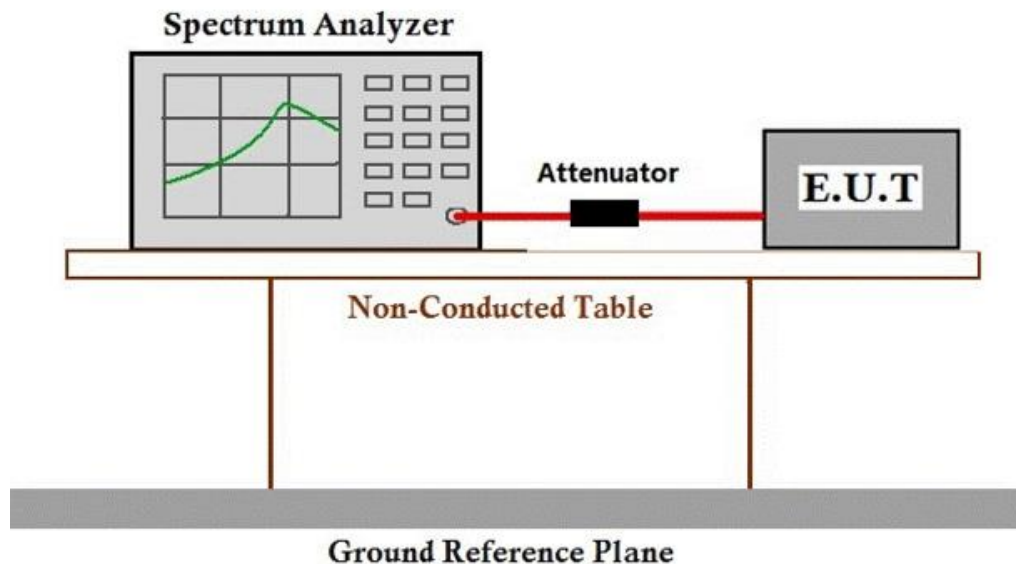
7.6 Conducted Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
Test Method: ANSI C63.10 (2013) Section 11.11
Limit: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c))

7.6.1 E.U.T. Operation

Operating Environment:
Temperature: 26.3 °C **Humidity:** 51 % RH **Atmospheric Pressure:** 1020 mbar
Test Mode: b: TX mode_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 @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.6.2 Test Setup Diagram



7.6.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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7.7 Radiated Emissions which fall in the restricted bands

Test Requirement: 47 CFR Part 15, Subpart C 15.209 & 15.247(d)
 Test Method: ANSI C63.10 (2013) Section 6.10.5
 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

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.

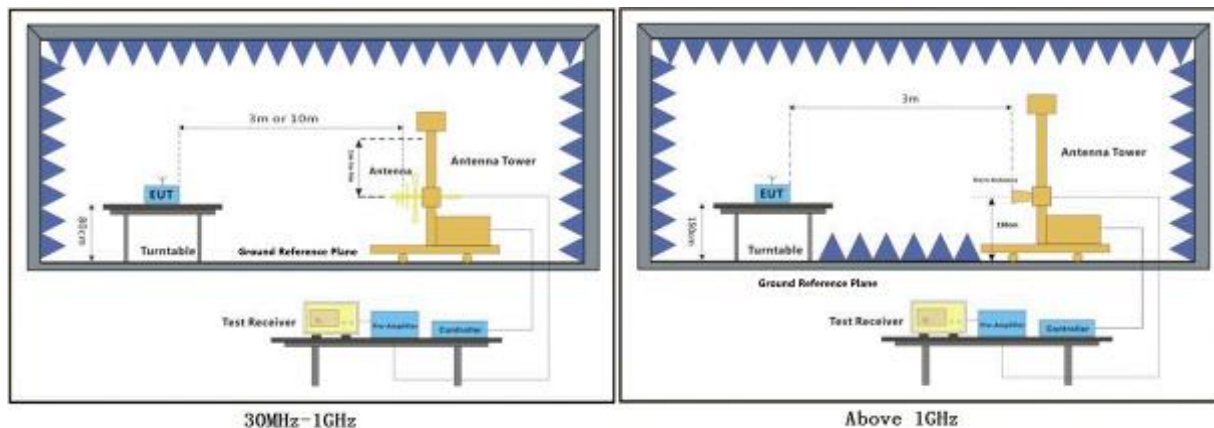
7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 25.9 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar

Test Mode: b: TX mode_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 @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.7.2 Test Setup Diagram



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7.7.3 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 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 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: 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.

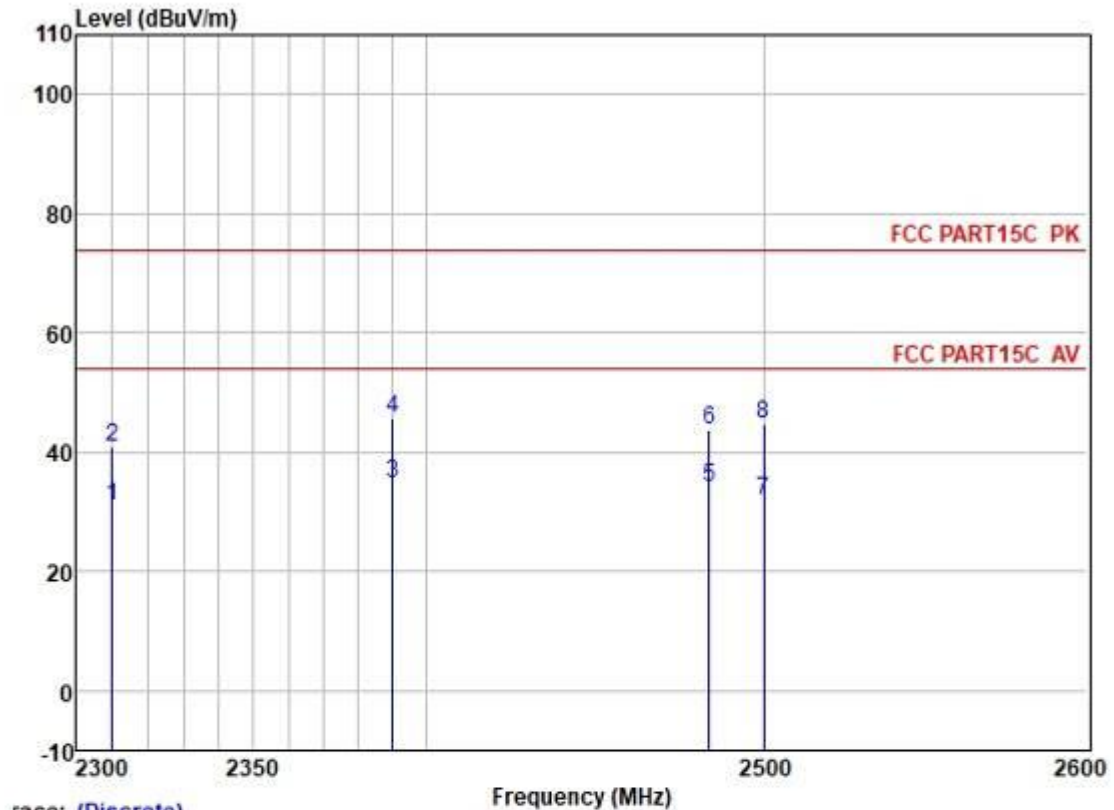
Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor



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Mode:b; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

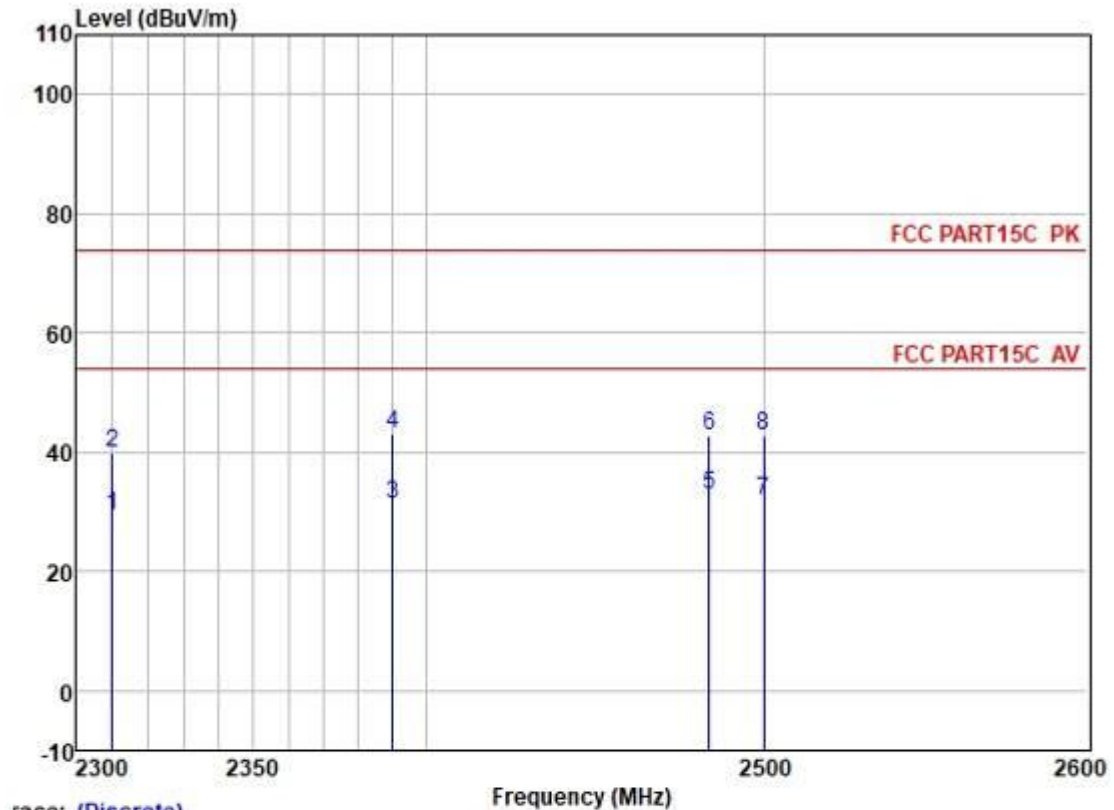
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	37.56	27.15	3.32	36.94	31.09	54.00	-22.91	HORIZONTAL Average
2	2310.000	47.48	27.15	3.32	36.94	41.01	74.00	-32.99	HORIZONTAL Peak
3	2390.000	40.81	27.33	3.48	36.92	34.70	54.00	-19.30	HORIZONTAL Average
4	2390.000	51.68	27.33	3.48	36.92	45.57	74.00	-28.43	HORIZONTAL Peak
5	2483.500	40.09	27.48	3.53	36.90	34.20	54.00	-19.80	HORIZONTAL Average
6	2483.500	49.67	27.48	3.53	36.90	43.78	74.00	-30.22	HORIZONTAL Peak
7	2500.000	38.00	27.50	3.40	36.89	32.01	54.00	-21.99	HORIZONTAL Average
8	2500.000	50.56	27.50	3.40	36.89	44.57	74.00	-29.43	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadAntenna Level	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	2310.000	35.96	27.15	3.32	36.94	29.49	54.00	-24.51	VERTICAL	Average
2	2310.000	46.30	27.15	3.32	36.94	39.83	74.00	-34.17	VERTICAL	Peak
3	2390.000	37.43	27.33	3.48	36.92	31.32	54.00	-22.68	VERTICAL	Average
4	2390.000	49.23	27.33	3.48	36.92	43.12	74.00	-30.88	VERTICAL	Peak
5	2483.500	38.74	27.48	3.53	36.90	32.85	54.00	-21.15	VERTICAL	Average
6	2483.500	48.81	27.48	3.53	36.90	42.92	74.00	-31.08	VERTICAL	Peak
7	2500.000	37.87	27.50	3.40	36.89	31.88	54.00	-22.12	VERTICAL	Average
8	2500.000	48.83	27.50	3.40	36.89	42.84	74.00	-31.16	VERTICAL	Peak



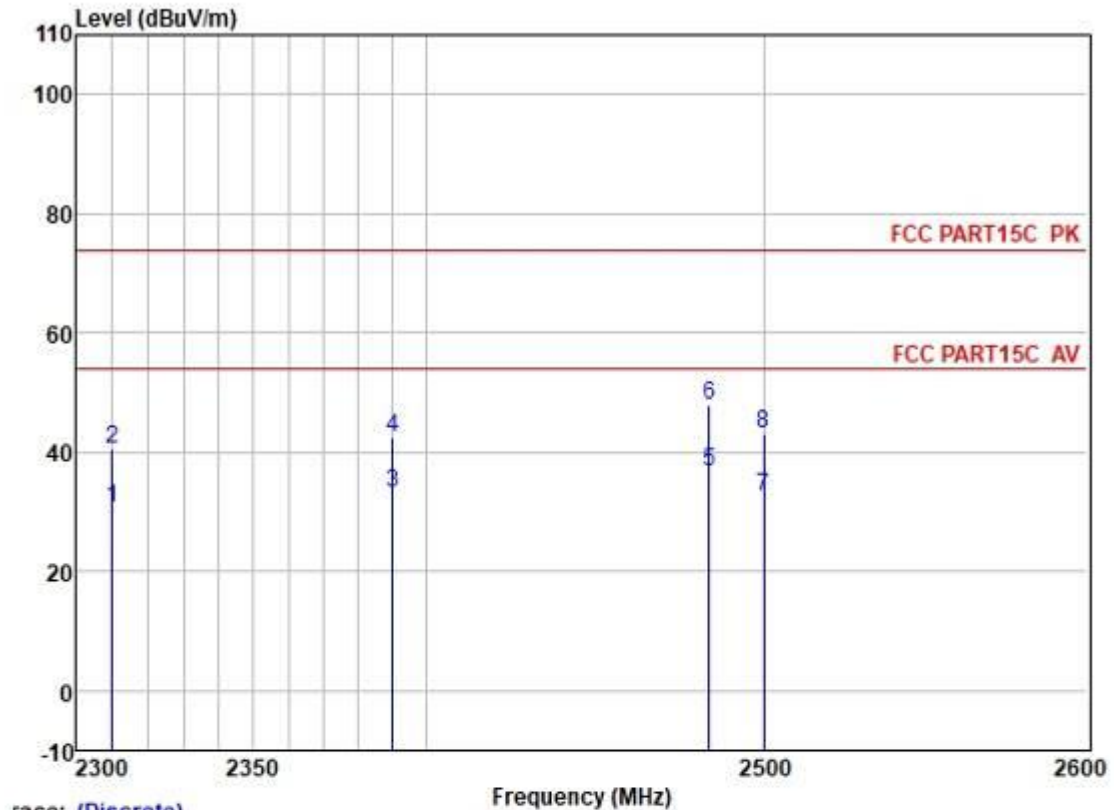
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Mode:b; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	37.17	27.15	3.32	36.94	30.70	54.00	-23.30	HORIZONTAL Average
2	2310.000	47.07	27.15	3.32	36.94	40.60	74.00	-33.40	HORIZONTAL Peak
3	2390.000	39.18	27.33	3.48	36.92	33.07	54.00	-20.93	HORIZONTAL Average
4	2390.000	48.45	27.33	3.48	36.92	42.34	74.00	-31.66	HORIZONTAL Peak
5	2483.500	42.70	27.48	3.53	36.90	36.81	54.00	-17.19	HORIZONTAL Average
6	2483.500	53.83	27.48	3.53	36.90	47.94	74.00	-26.06	HORIZONTAL Peak
7	2500.000	38.43	27.50	3.40	36.89	32.44	54.00	-21.56	HORIZONTAL Average
8	2500.000	49.10	27.50	3.40	36.89	43.11	74.00	-30.89	HORIZONTAL Peak



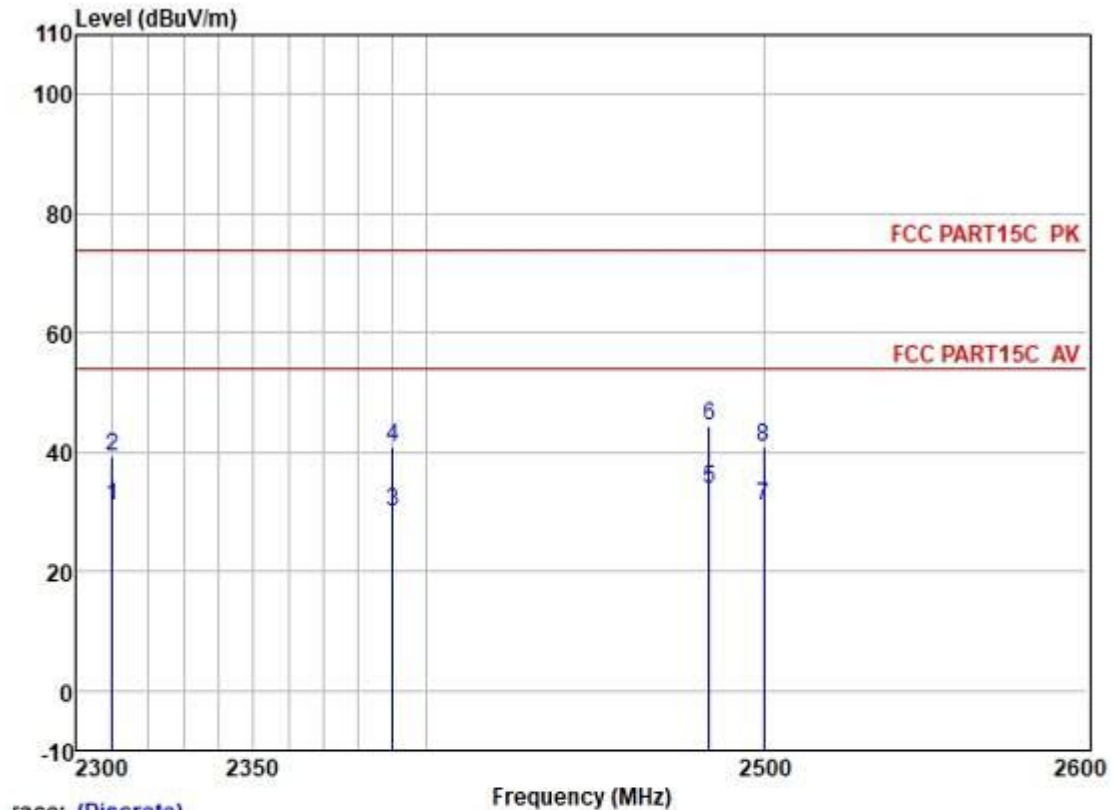
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Mode:b; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Read	Antenna	Cable	Preamp	Level	Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 2310.000	37.42	27.15	3.32	36.94	30.95	54.00	-23.05	VERTICAL	Average
2 2310.000	45.81	27.15	3.32	36.94	39.34	74.00	-34.66	VERTICAL	Peak
3 2390.000	36.23	27.33	3.48	36.92	30.12	54.00	-23.88	VERTICAL	Average
4 2390.000	47.03	27.33	3.48	36.92	40.92	74.00	-33.08	VERTICAL	Peak
5 2483.500	39.69	27.48	3.53	36.90	33.80	54.00	-20.20	VERTICAL	Average
6 2483.500	50.40	27.48	3.53	36.90	44.51	74.00	-29.49	VERTICAL	Peak
7 2500.000	37.10	27.50	3.40	36.89	31.11	54.00	-22.89	VERTICAL	Average
8 2500.000	46.89	27.50	3.40	36.89	40.90	74.00	-33.10	VERTICAL	Peak



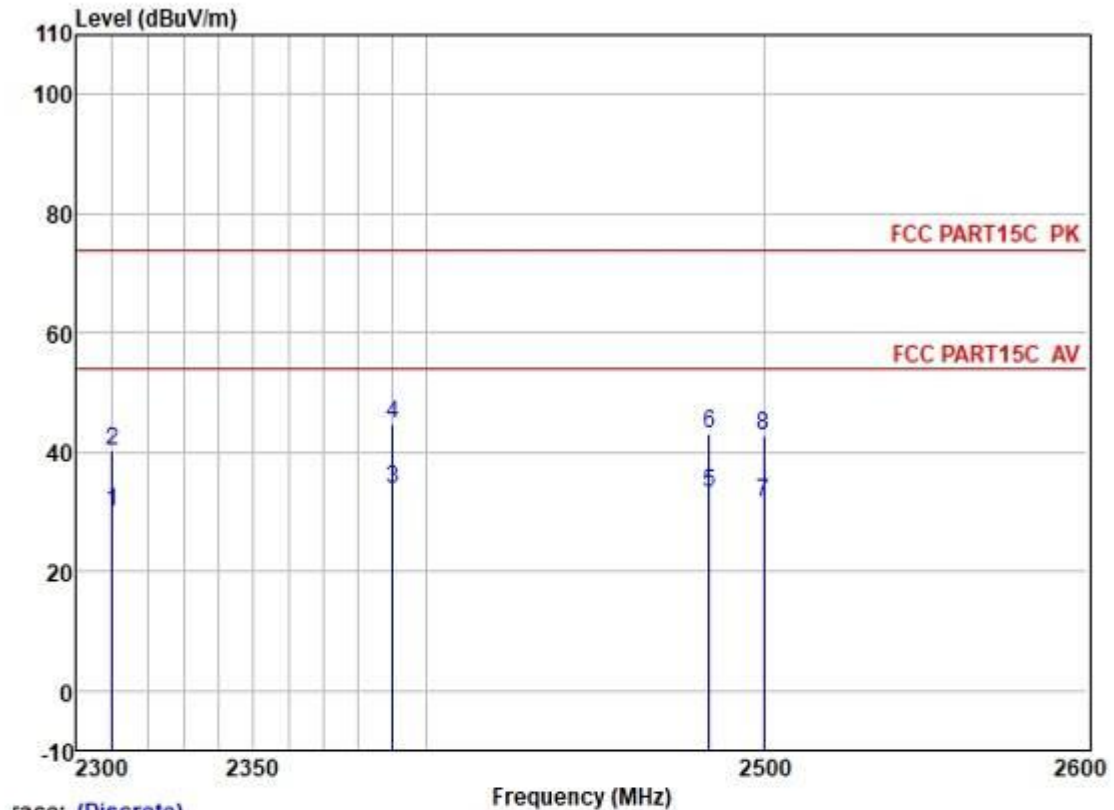
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Mode:b; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	36.60	27.15	3.32	36.94	30.13	54.00	-23.87	HORIZONTAL	Average
2	2310.000	46.61	27.15	3.32	36.94	40.14	74.00	-33.86	HORIZONTAL	Peak
3	2390.000	39.94	27.33	3.48	36.92	33.83	54.00	-20.17	HORIZONTAL	Average
4	2390.000	50.69	27.33	3.48	36.92	44.58	74.00	-29.42	HORIZONTAL	Peak
5	2483.500	39.17	27.48	3.53	36.90	33.28	54.00	-20.72	HORIZONTAL	Average
6	2483.500	49.14	27.48	3.53	36.90	43.25	74.00	-30.75	HORIZONTAL	Peak
7	2500.000	37.66	27.50	3.40	36.89	31.67	54.00	-22.33	HORIZONTAL	Average
8	2500.000	48.82	27.50	3.40	36.89	42.83	74.00	-31.17	HORIZONTAL	Peak



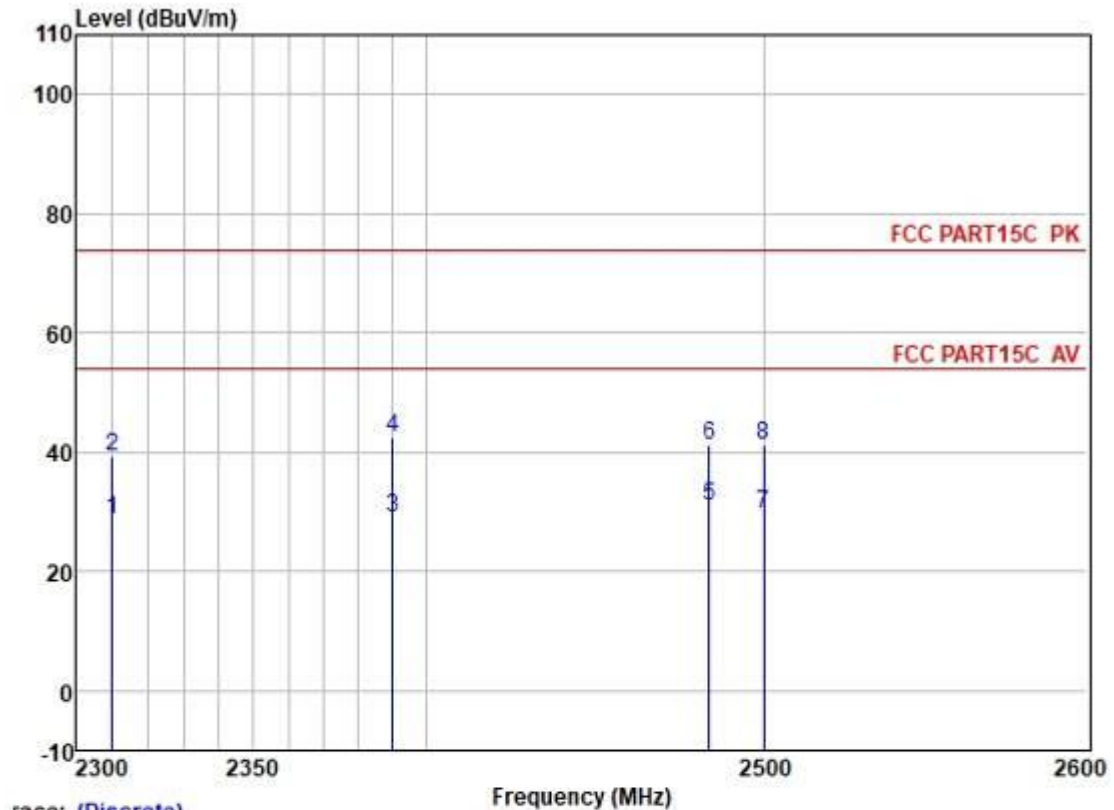
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Mode:b; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	35.26	27.15	3.32	36.94	28.79	54.00	-25.21	VERTICAL Average
2	2310.000	45.64	27.15	3.32	36.94	39.17	74.00	-34.83	VERTICAL Peak
3	2390.000	35.13	27.33	3.48	36.92	29.02	54.00	-24.98	VERTICAL Average
4	2390.000	48.67	27.33	3.48	36.92	42.56	74.00	-31.44	VERTICAL Peak
5	2483.500	36.97	27.48	3.53	36.90	31.08	54.00	-22.92	VERTICAL Average
6	2483.500	47.06	27.48	3.53	36.90	41.17	74.00	-32.83	VERTICAL Peak
7	2500.000	35.67	27.50	3.40	36.89	29.68	54.00	-24.32	VERTICAL Average
8	2500.000	47.22	27.50	3.40	36.89	41.23	74.00	-32.77	VERTICAL Peak



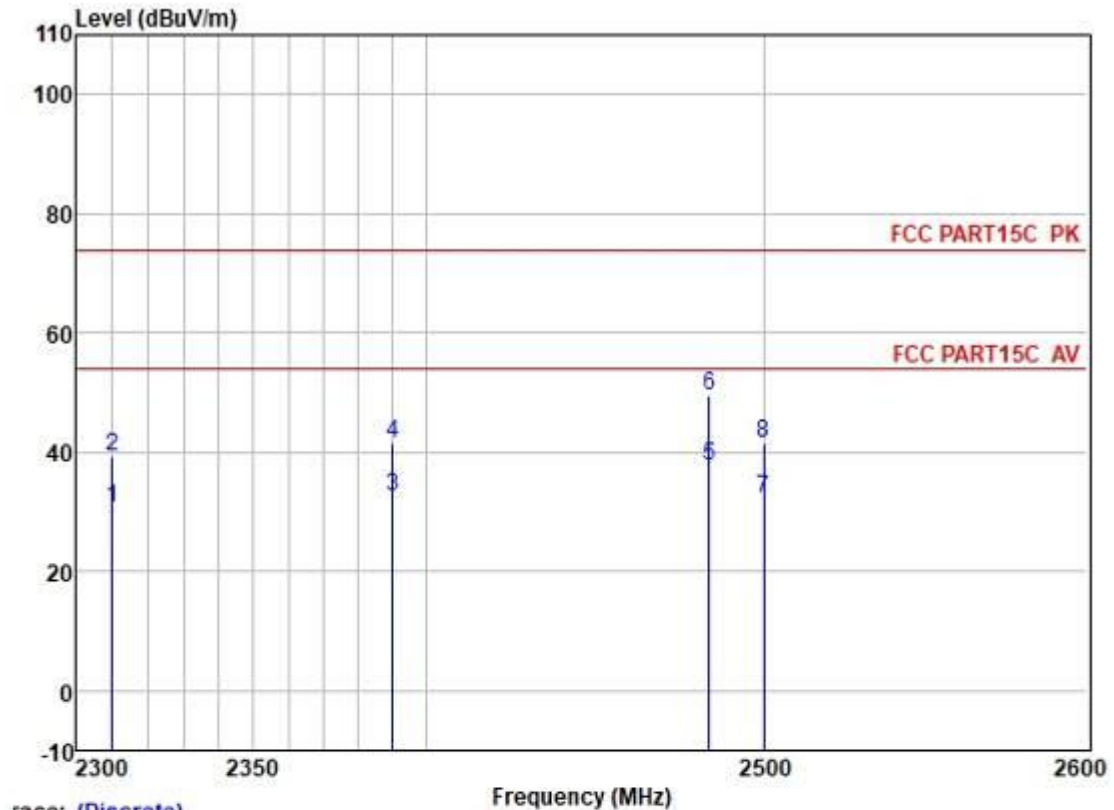
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Mode:b; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:High



Trace: (Discrete)

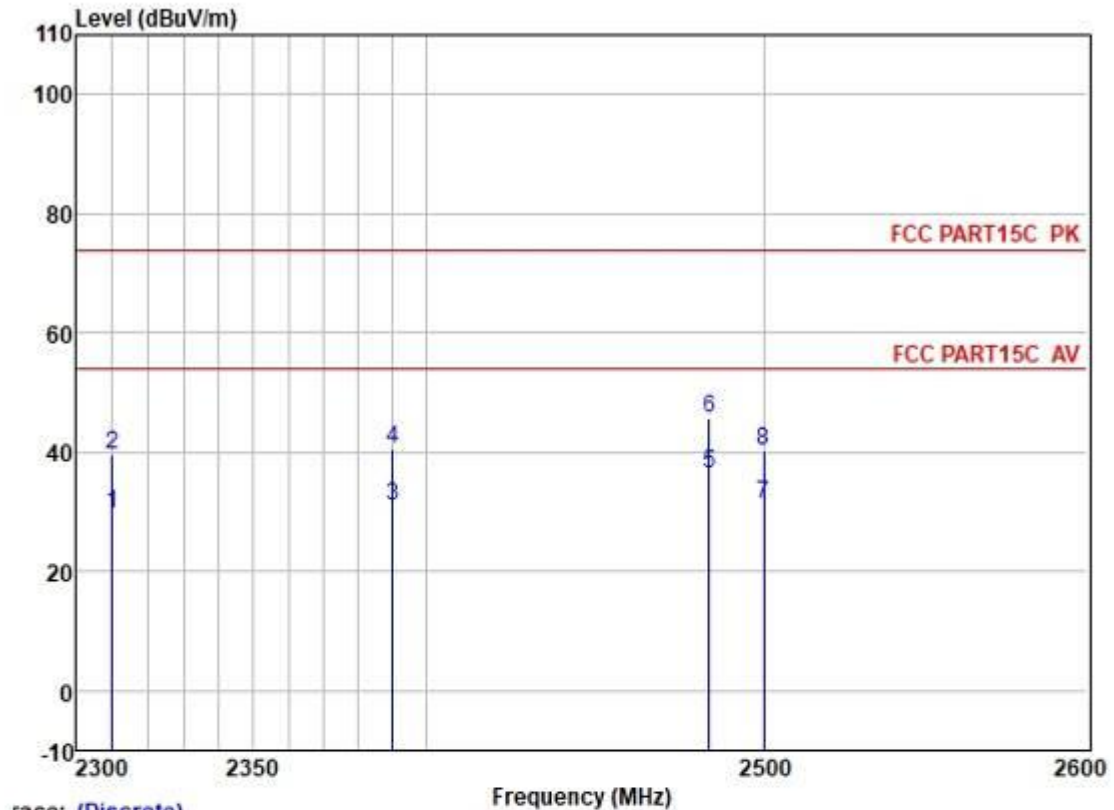
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	37.23	27.15	3.32	36.94	30.76	54.00	-23.24	HORIZONTAL Average
2	2310.000	45.70	27.15	3.32	36.94	39.23	74.00	-34.77	HORIZONTAL Peak
3	2390.000	38.77	27.33	3.48	36.92	32.66	54.00	-21.34	HORIZONTAL Average
4	2390.000	47.64	27.33	3.48	36.92	41.53	74.00	-32.47	HORIZONTAL Peak
5	2483.500	43.56	27.48	3.53	36.90	37.67	54.00	-16.33	HORIZONTAL Average
6	2483.500	55.25	27.48	3.53	36.90	49.36	74.00	-24.64	HORIZONTAL Peak
7	2500.000	38.20	27.50	3.40	36.89	32.21	54.00	-21.79	HORIZONTAL Average
8	2500.000	47.39	27.50	3.40	36.89	41.40	74.00	-32.60	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:High



Trace: (Discrete)

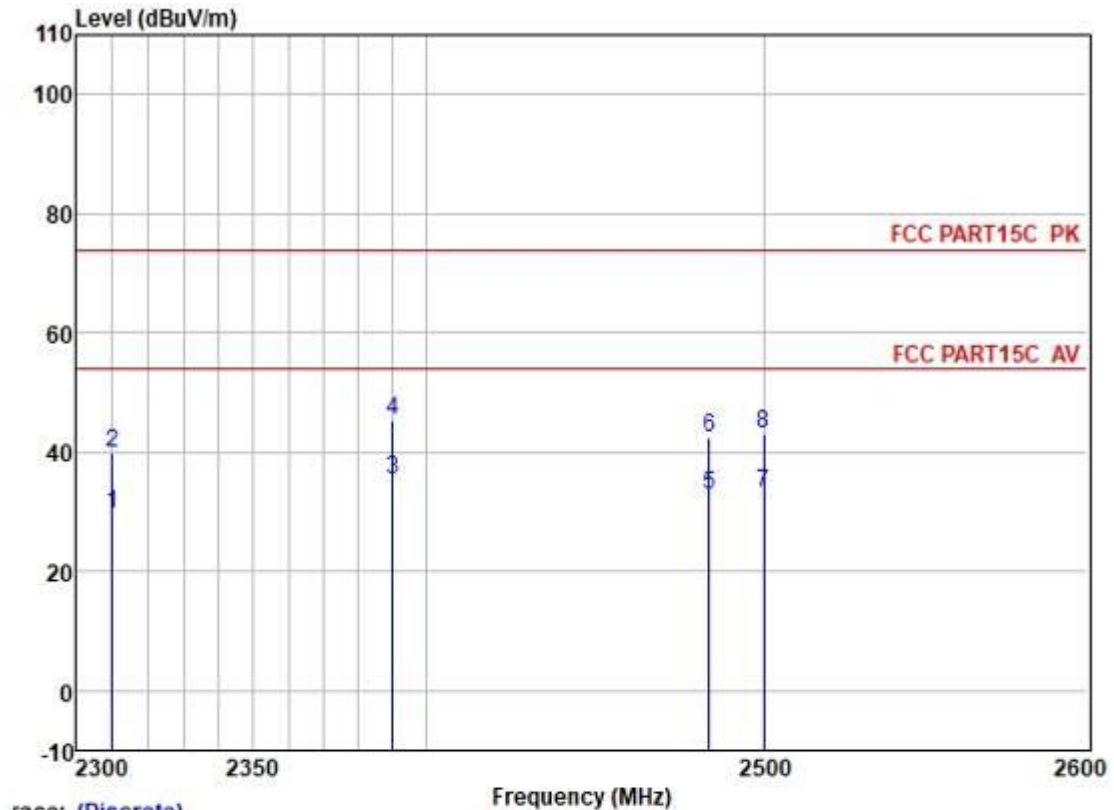
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	36.05	27.15	3.32	36.94	29.58	54.00	-24.42	VERTICAL Average
2	2310.000	45.96	27.15	3.32	36.94	39.49	74.00	-34.51	VERTICAL Peak
3	2390.000	37.06	27.33	3.48	36.92	30.95	54.00	-23.05	VERTICAL Average
4	2390.000	46.68	27.33	3.48	36.92	40.57	74.00	-33.43	VERTICAL Peak
5	2483.500	42.28	27.48	3.53	36.90	36.39	54.00	-17.61	VERTICAL Average
6	2483.500	51.46	27.48	3.53	36.90	45.57	74.00	-28.43	VERTICAL Peak
7	2500.000	37.20	27.50	3.40	36.89	31.21	54.00	-22.79	VERTICAL Average
8	2500.000	46.30	27.50	3.40	36.89	40.31	74.00	-33.69	VERTICAL Peak



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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

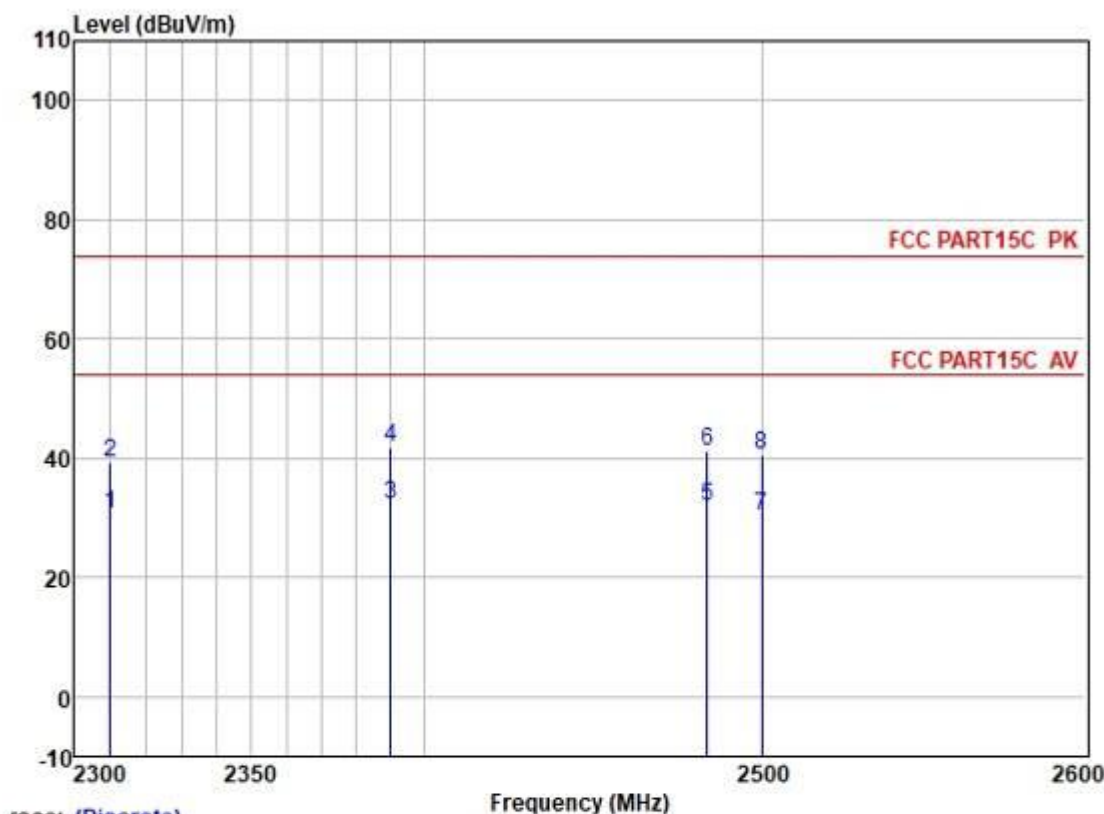
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	36.00	27.15	3.32	36.94	29.53	54.00	-24.47	HORIZONTAL Average
2	2310.000	46.25	27.15	3.32	36.94	39.78	74.00	-34.22	HORIZONTAL Peak
3	2390.000	41.47	27.33	3.48	36.92	35.36	54.00	-18.64	HORIZONTAL Average
4	2390.000	51.34	27.33	3.48	36.92	45.23	74.00	-28.77	HORIZONTAL Peak
5	2483.500	38.71	27.48	3.53	36.90	32.82	54.00	-21.18	HORIZONTAL Average
6	2483.500	48.27	27.48	3.53	36.90	42.38	74.00	-31.62	HORIZONTAL Peak
7	2500.000	39.33	27.50	3.40	36.89	33.34	54.00	-20.66	HORIZONTAL Average
8	2500.000	49.27	27.50	3.40	36.89	43.28	74.00	-30.72	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

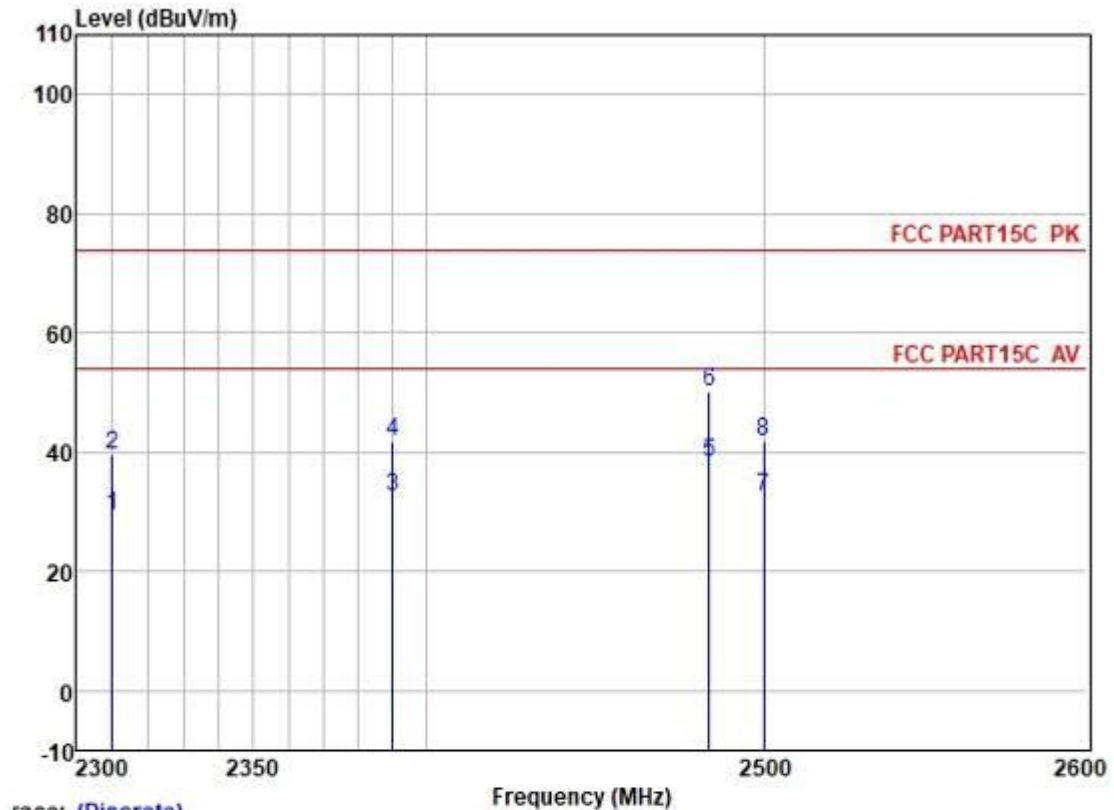
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	37.03	27.15	3.32	36.94	30.56	54.00	-23.44	VERTICAL Average
2	2310.000	45.64	27.15	3.32	36.94	39.17	74.00	-34.83	VERTICAL Peak
3	2390.000	38.49	27.33	3.48	36.92	32.38	54.00	-21.62	VERTICAL Average
4	2390.000	48.03	27.33	3.48	36.92	41.92	74.00	-32.08	VERTICAL Peak
5	2483.500	37.75	27.48	3.53	36.90	31.86	54.00	-22.14	VERTICAL Average
6	2483.500	47.22	27.48	3.53	36.90	41.33	74.00	-32.67	VERTICAL Peak
7	2500.000	36.16	27.50	3.40	36.89	30.17	54.00	-23.83	VERTICAL Average
8	2500.000	46.40	27.50	3.40	36.89	40.41	74.00	-33.59	VERTICAL Peak



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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	35.87	27.15	3.32	36.94	29.40	54.00	-24.60	HORIZONTAL Average
2	2310.000	46.11	27.15	3.32	36.94	39.64	74.00	-34.36	HORIZONTAL Peak
3	2390.000	38.65	27.33	3.48	36.92	32.54	54.00	-21.46	HORIZONTAL Average
4	2390.000	48.04	27.33	3.48	36.92	41.93	74.00	-32.07	HORIZONTAL Peak
5	2483.500	44.10	27.48	3.53	36.90	38.21	54.00	-15.79	HORIZONTAL Average
6	2483.500	56.09	27.48	3.53	36.90	50.20	74.00	-23.80	HORIZONTAL Peak
7	2500.000	38.59	27.50	3.40	36.89	32.60	54.00	-21.40	HORIZONTAL Average
8	2500.000	47.88	27.50	3.40	36.89	41.89	74.00	-32.11	HORIZONTAL Peak



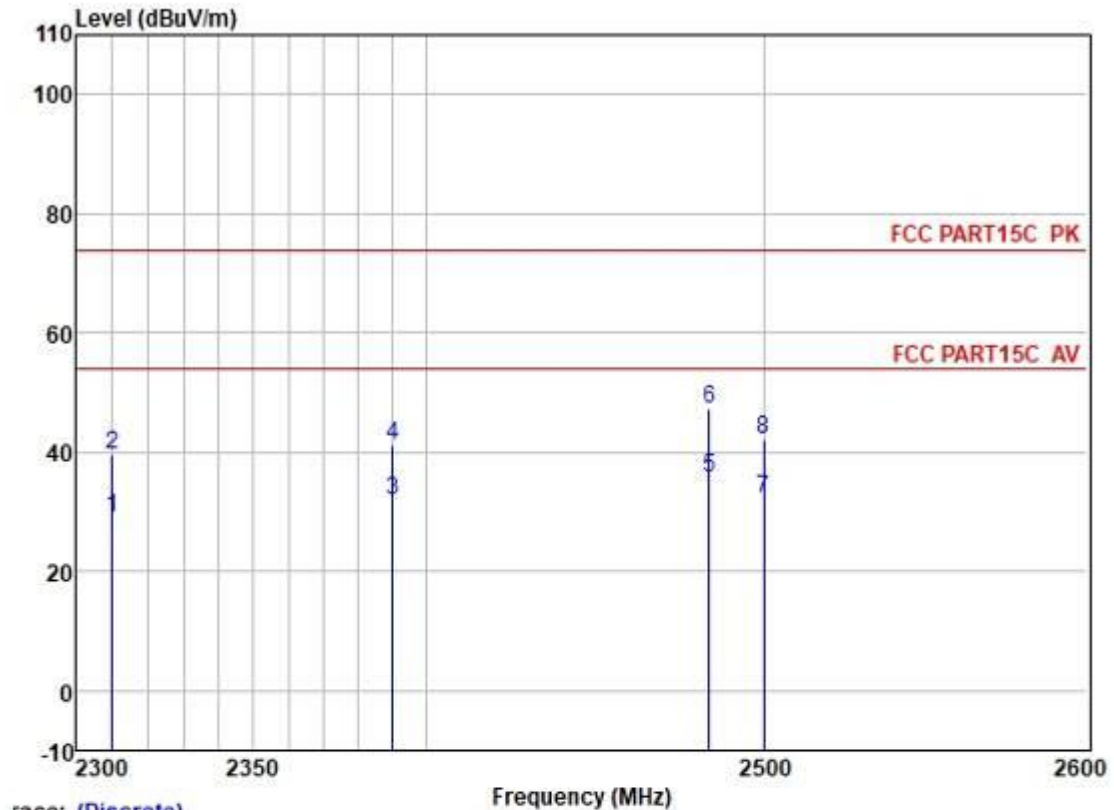
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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	35.61	27.15	3.32	36.94	29.14	54.00	-24.86	VERTICAL	Average
2	2310.000	46.20	27.15	3.32	36.94	39.73	74.00	-34.27	VERTICAL	Peak
3	2390.000	38.09	27.33	3.48	36.92	31.98	54.00	-22.02	VERTICAL	Average
4	2390.000	47.37	27.33	3.48	36.92	41.26	74.00	-32.74	VERTICAL	Peak
5	2483.500	41.69	27.48	3.53	36.90	35.80	54.00	-18.20	VERTICAL	Average
6	2483.500	53.11	27.48	3.53	36.90	47.22	74.00	-26.78	VERTICAL	Peak
7	2500.000	38.28	27.50	3.40	36.89	32.29	54.00	-21.71	VERTICAL	Average
8	2500.000	48.08	27.50	3.40	36.89	42.09	74.00	-31.91	VERTICAL	Peak



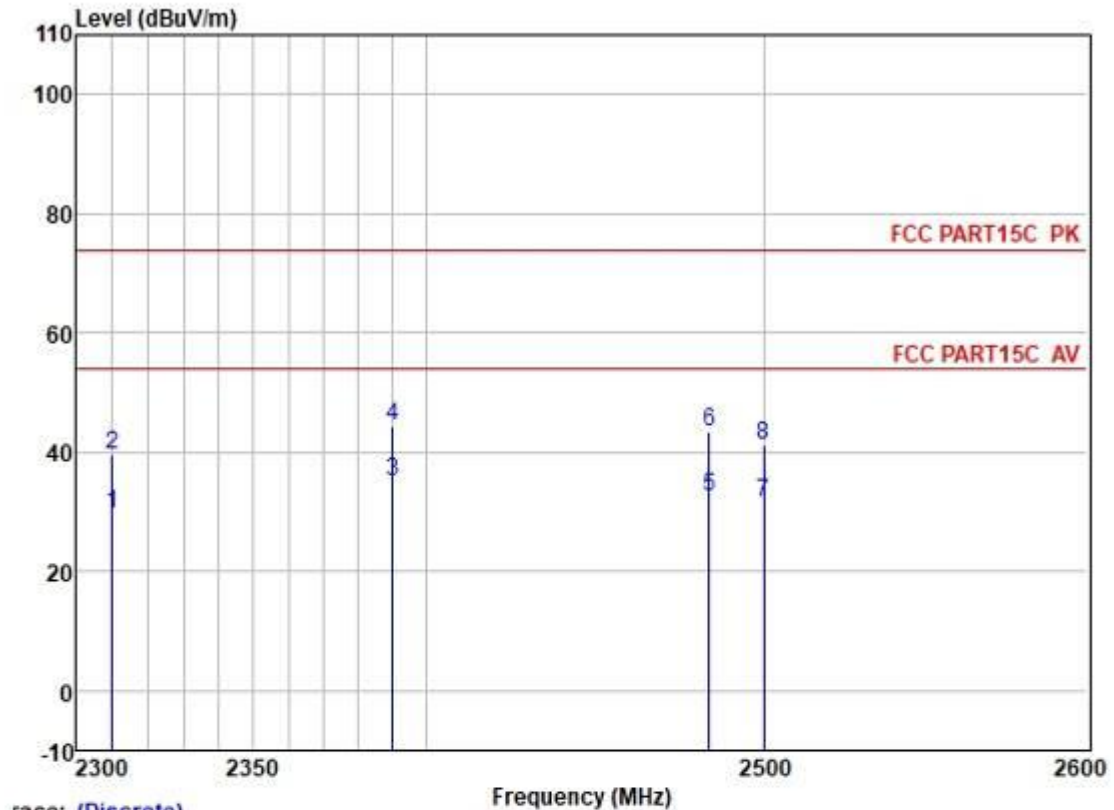
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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:Low



Trace: (Discrete)

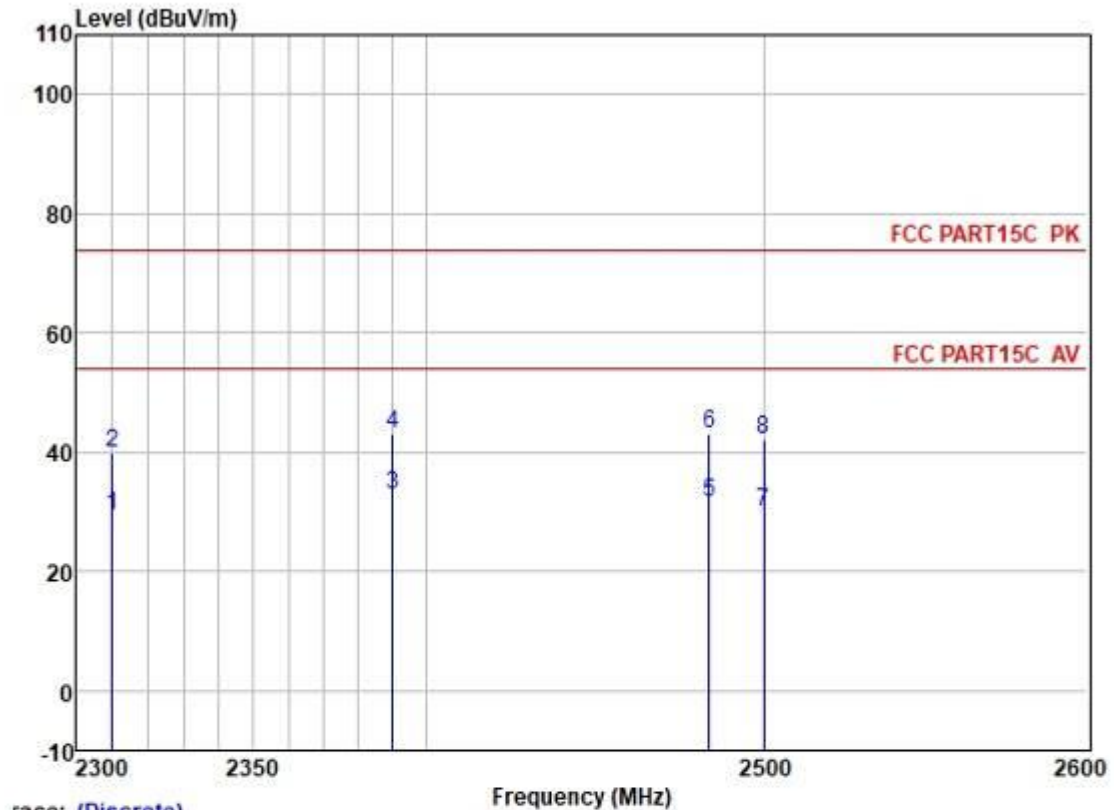
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	36.28	27.15	3.32	36.94	29.81	54.00	-24.19	HORIZONTAL Average
2	2310.000	46.20	27.15	3.32	36.94	39.73	74.00	-34.27	HORIZONTAL Peak
3	2390.000	41.34	27.33	3.48	36.92	35.23	54.00	-18.77	HORIZONTAL Average
4	2390.000	50.44	27.33	3.48	36.92	44.33	74.00	-29.67	HORIZONTAL Peak
5	2483.500	38.39	27.48	3.53	36.90	32.50	54.00	-21.50	HORIZONTAL Average
6	2483.500	49.43	27.48	3.53	36.90	43.54	74.00	-30.46	HORIZONTAL Peak
7	2500.000	37.73	27.50	3.40	36.89	31.74	54.00	-22.26	HORIZONTAL Average
8	2500.000	47.25	27.50	3.40	36.89	41.26	74.00	-32.74	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low



Trace: (Discrete)

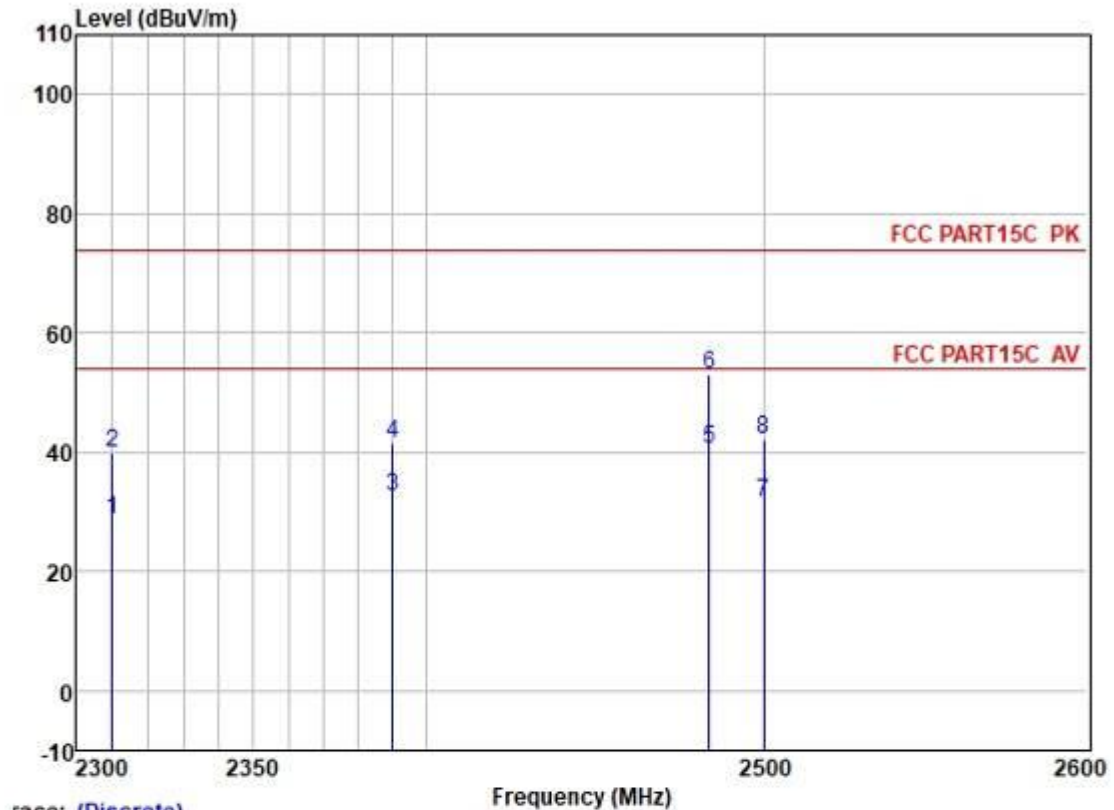
	Read	Antenna	Cable	Preamp	Level	Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 2310.000	35.81	27.15	3.32	36.94	29.34	54.00	-24.66	VERTICAL	Average
2 2310.000	46.34	27.15	3.32	36.94	39.87	74.00	-34.13	VERTICAL	Peak
3 2390.000	39.03	27.33	3.48	36.92	32.92	54.00	-21.08	VERTICAL	Average
4 2390.000	49.17	27.33	3.48	36.92	43.06	74.00	-30.94	VERTICAL	Peak
5 2483.500	37.57	27.48	3.53	36.90	31.68	54.00	-22.32	VERTICAL	Average
6 2483.500	48.95	27.48	3.53	36.90	43.06	74.00	-30.94	VERTICAL	Peak
7 2500.000	35.87	27.50	3.40	36.89	29.88	54.00	-24.12	VERTICAL	Average
8 2500.000	48.11	27.50	3.40	36.89	42.12	74.00	-31.88	VERTICAL	Peak



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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	35.27	27.15	3.32	36.94	28.80	54.00	-25.20	HORIZONTAL	Average
2	2310.000	46.53	27.15	3.32	36.94	40.06	74.00	-33.94	HORIZONTAL	Peak
3	2390.000	38.83	27.33	3.48	36.92	32.72	54.00	-21.28	HORIZONTAL	Average
4	2390.000	47.60	27.33	3.48	36.92	41.49	74.00	-32.51	HORIZONTAL	Peak
5	2483.500	46.32	27.48	3.53	36.90	40.43	54.00	-13.57	HORIZONTAL	Average
6	2483.500	58.93	27.48	3.53	36.90	53.04	74.00	-20.96	HORIZONTAL	Peak
7	2500.000	37.53	27.50	3.40	36.89	31.54	54.00	-22.46	HORIZONTAL	Average
8	2500.000	48.26	27.50	3.40	36.89	42.27	74.00	-31.73	HORIZONTAL	Peak



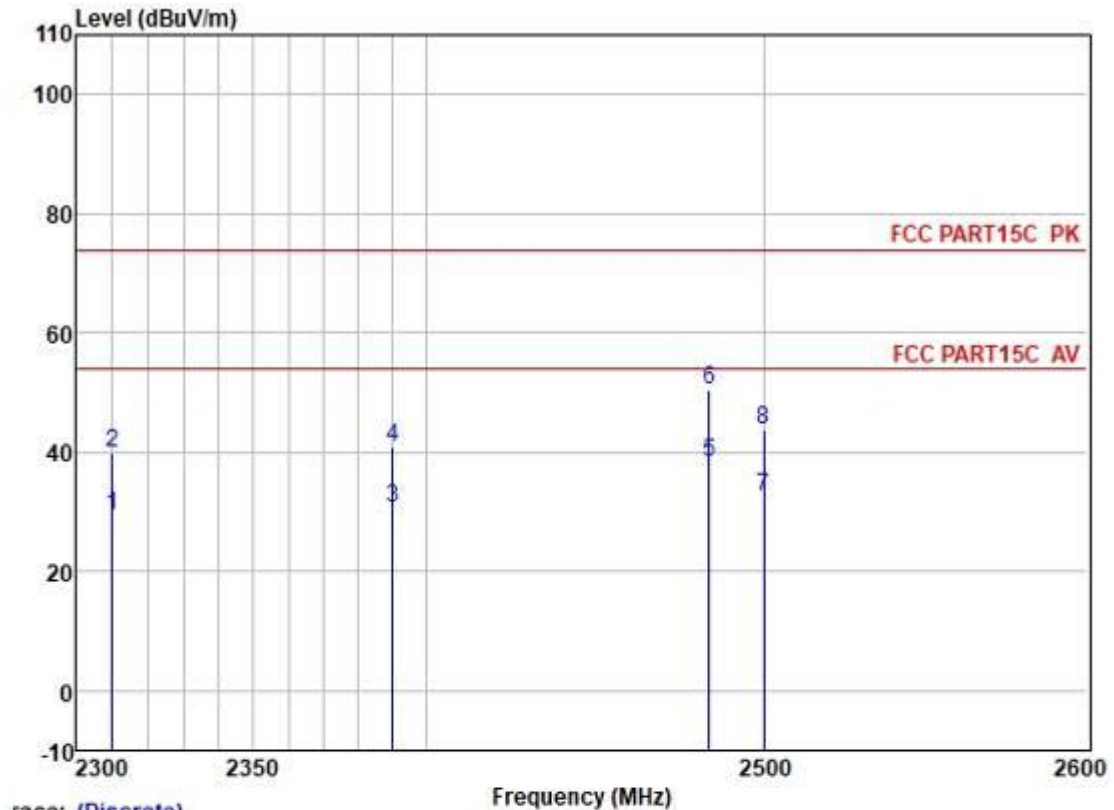
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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	35.82	27.15	3.32	36.94	29.35	54.00	-24.65	VERTICAL Average
2	2310.000	46.26	27.15	3.32	36.94	39.79	74.00	-34.21	VERTICAL Peak
3	2390.000	36.90	27.33	3.48	36.92	30.79	54.00	-23.21	VERTICAL Average
4	2390.000	46.93	27.33	3.48	36.92	40.82	74.00	-33.18	VERTICAL Peak
5	2483.500	44.35	27.48	3.53	36.90	38.46	54.00	-15.54	VERTICAL Average
6	2483.500	56.32	27.48	3.53	36.90	50.43	74.00	-23.57	VERTICAL Peak
7	2500.000	38.57	27.50	3.40	36.89	32.58	54.00	-21.42	VERTICAL Average
8	2500.000	49.63	27.50	3.40	36.89	43.64	74.00	-30.36	VERTICAL Peak



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7.8 Radiated Spurious Emissions

Test Requirement: 47 CFR Part 15, Subpart C 15.209 & 15.247(d)
 Test Method: ANSI C63.10 (2013) Section 6.4,6.5,6.6
 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

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.

7.8.1 E.U.T. Operation

Operating Environment:

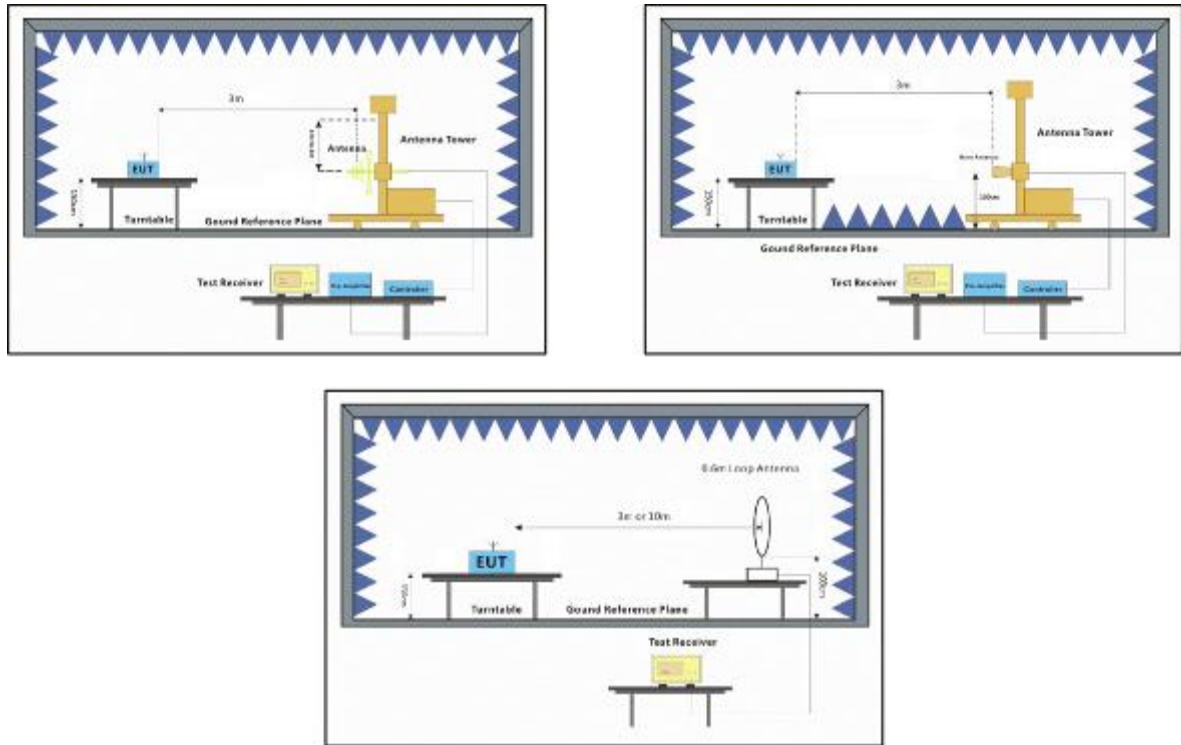
Temperature: 25.9 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar

Test Mode: b: TX mode_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 @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.



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7.8.2 Test Setup Diagram



7.8.3 Measurement Procedure and Data

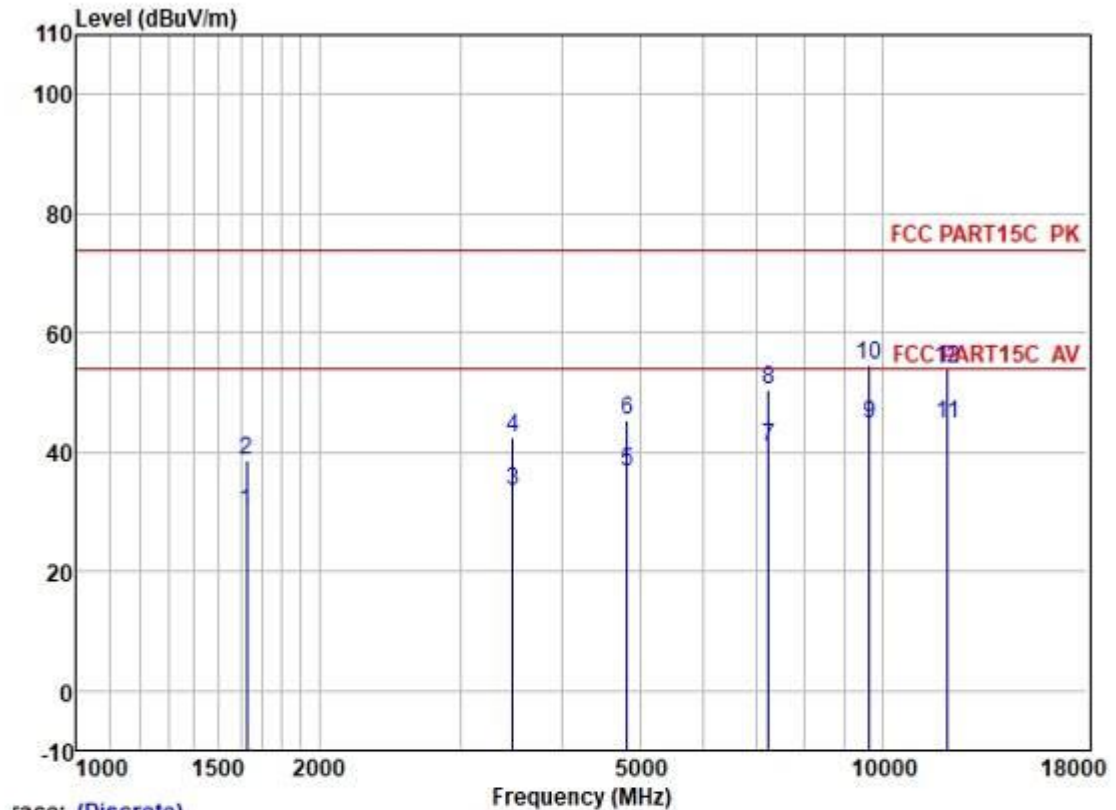
- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 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:

- 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



Mode:b; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

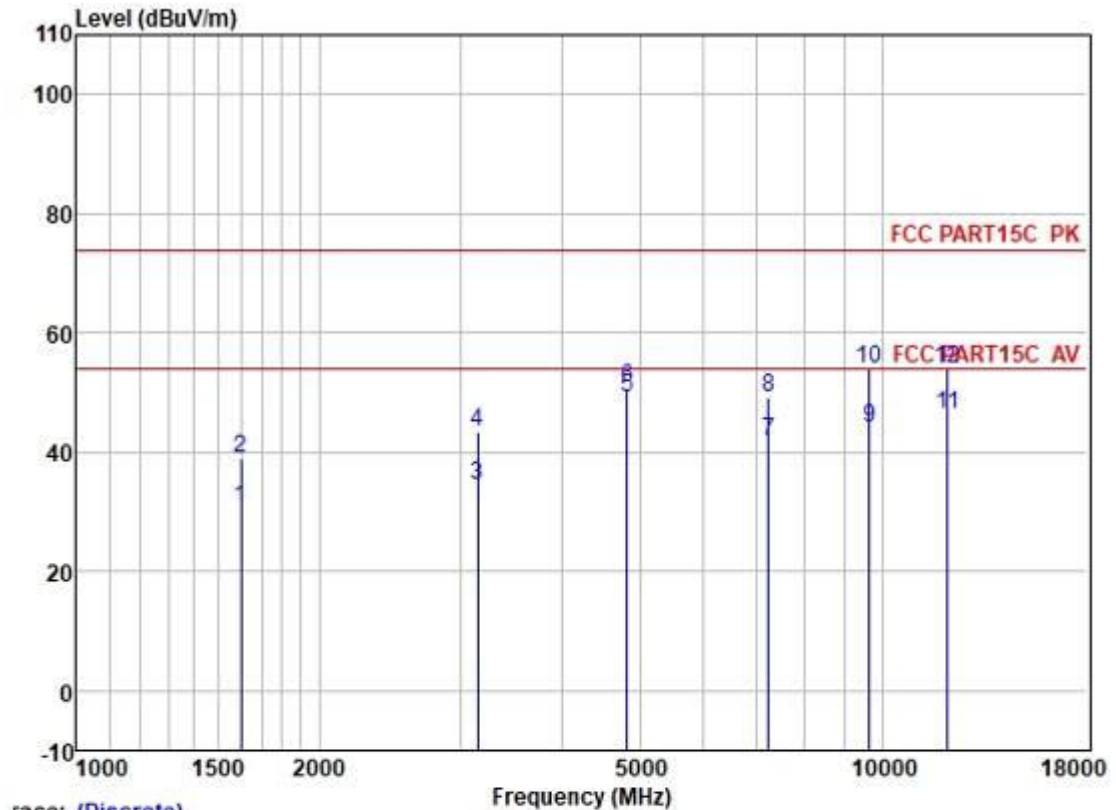
	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1625.121	38.68	25.61	2.80	37.06	30.03	54.00	-23.97	HORIZONTAL	Average
2	1625.121	47.43	25.61	2.80	37.06	38.78	74.00	-35.22	HORIZONTAL	Peak
3	3485.601	36.79	28.89	4.27	36.46	33.49	54.00	-20.51	HORIZONTAL	Average
4	3485.601	45.88	28.89	4.27	36.46	42.58	74.00	-31.42	HORIZONTAL	Peak
5	4824.335	36.22	31.45	5.42	36.48	36.61	54.00	-17.39	HORIZONTAL	Average
6	4824.335	45.00	31.45	5.42	36.48	45.39	74.00	-28.61	HORIZONTAL	Peak
7	7236.475	35.89	35.70	6.03	36.75	40.87	54.00	-13.13	HORIZONTAL	Average
8	7236.475	45.42	35.70	6.03	36.75	50.40	74.00	-23.60	HORIZONTAL	Peak
9	9648.670	35.49	38.40	7.06	36.35	44.60	54.00	-9.40	HORIZONTAL	Average
10	9648.670	45.56	38.40	7.06	36.35	54.67	74.00	-19.33	HORIZONTAL	Peak
11	12060.130	34.01	38.88	8.17	36.38	44.68	54.00	-9.32	HORIZONTAL	Average
12	12060.130	43.34	38.88	8.17	36.38	54.01	74.00	-19.99	HORIZONTAL	Peak



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Mode:b; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1601.804	39.34	25.58	2.80	37.07	30.65	54.00	-23.35	VERTICAL Average
2	1601.804	47.72	25.58	2.80	37.07	39.03	74.00	-34.97	VERTICAL Peak
3	3150.237	38.50	28.52	3.96	36.52	34.46	54.00	-19.54	VERTICAL Average
4	3150.237	47.38	28.52	3.96	36.52	43.34	74.00	-30.66	VERTICAL Peak
5	4824.505	48.70	31.45	5.42	36.48	49.09	54.00	-4.91	VERTICAL Average
6	4824.505	50.55	31.45	5.42	36.48	50.94	74.00	-23.06	VERTICAL Peak
7	7236.015	36.92	35.70	6.03	36.75	41.90	54.00	-12.10	VERTICAL Average
8	7236.015	44.28	35.70	6.03	36.75	49.26	74.00	-24.74	VERTICAL Peak
9	9648.925	35.02	38.40	7.06	36.35	44.13	54.00	-9.87	VERTICAL Average
10	9648.925	44.77	38.40	7.06	36.35	53.88	74.00	-20.12	VERTICAL Peak
11	12060.420	35.61	38.88	8.17	36.38	46.28	54.00	-7.72	VERTICAL Average
12	12060.420	43.34	38.88	8.17	36.38	54.01	74.00	-19.99	VERTICAL Peak



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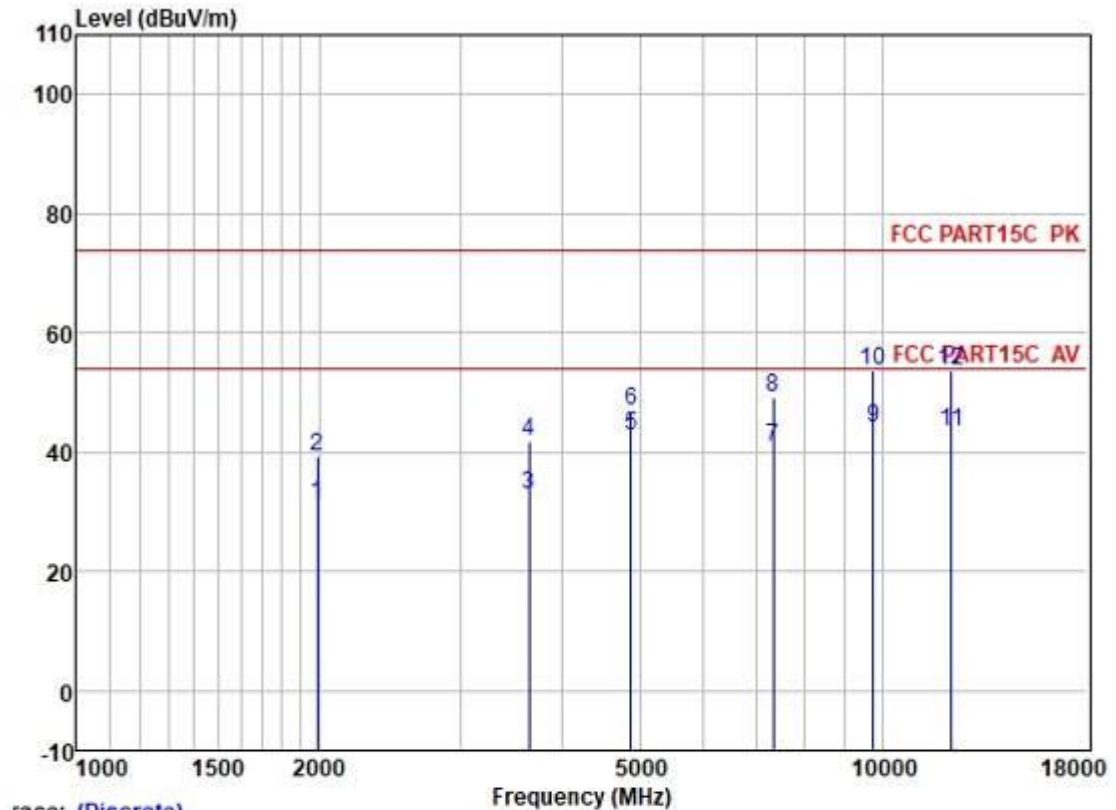
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Mode:b; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:middle



Trace: (Discrete)

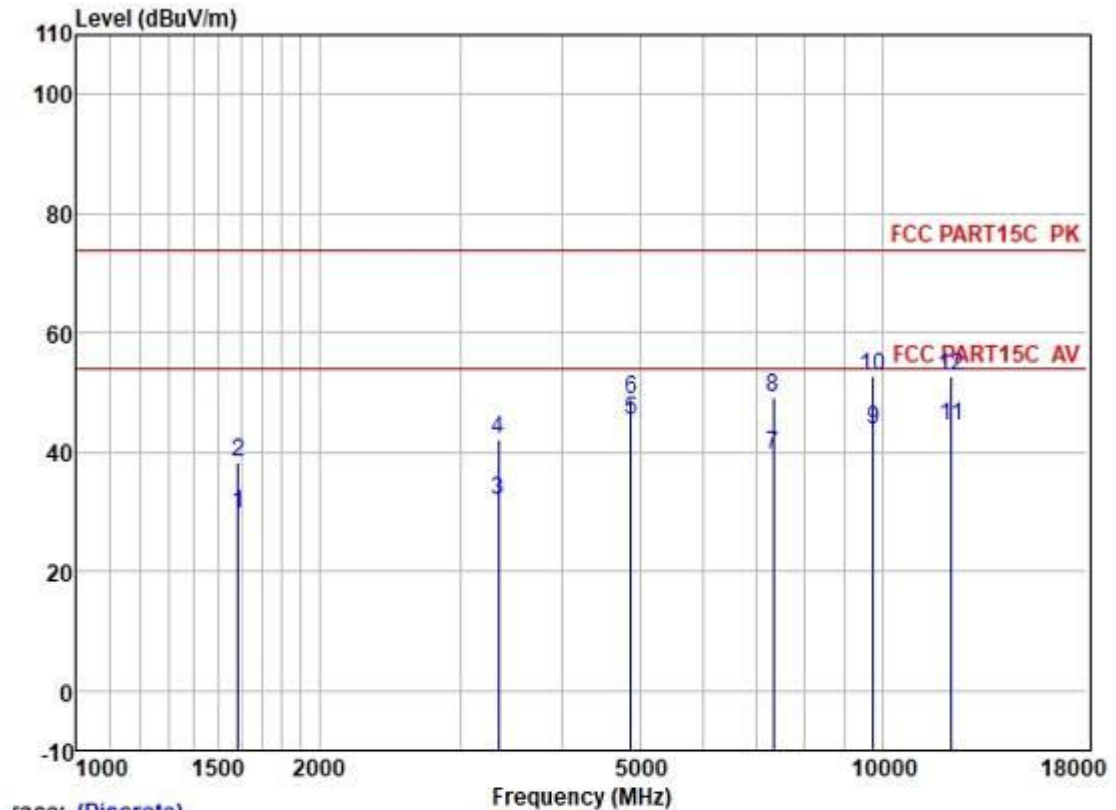
	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Level	Limit	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1989.550	38.97	26.09	3.08	37.00	31.14	54.00	-22.86	HORIZONTAL	Average
2	1989.550	47.12	26.09	3.08	37.00	39.29	74.00	-34.71	HORIZONTAL	Peak
3	3650.582	35.66	29.13	4.52	36.43	32.88	54.00	-21.12	HORIZONTAL	Average
4	3650.582	44.63	29.13	4.52	36.43	41.85	74.00	-32.15	HORIZONTAL	Peak
5	4884.975	42.29	31.56	5.52	36.50	42.87	54.00	-11.13	HORIZONTAL	Average
6	4884.975	46.23	31.56	5.52	36.50	46.81	74.00	-27.19	HORIZONTAL	Peak
7	7326.267	35.64	36.00	6.13	36.76	41.01	54.00	-12.99	HORIZONTAL	Average
8	7326.267	43.90	36.00	6.13	36.76	49.27	74.00	-24.73	HORIZONTAL	Peak
9	9768.221	34.78	38.53	7.01	36.33	43.99	54.00	-10.01	HORIZONTAL	Average
10	9768.221	44.41	38.53	7.01	36.33	53.62	74.00	-20.38	HORIZONTAL	Peak
11	12210.420	32.95	38.74	8.08	36.30	43.47	54.00	-10.53	HORIZONTAL	Average
12	12210.420	43.10	38.74	8.08	36.30	53.62	74.00	-20.38	HORIZONTAL	Peak



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Mode:b; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:middle



Trace: (Discrete)

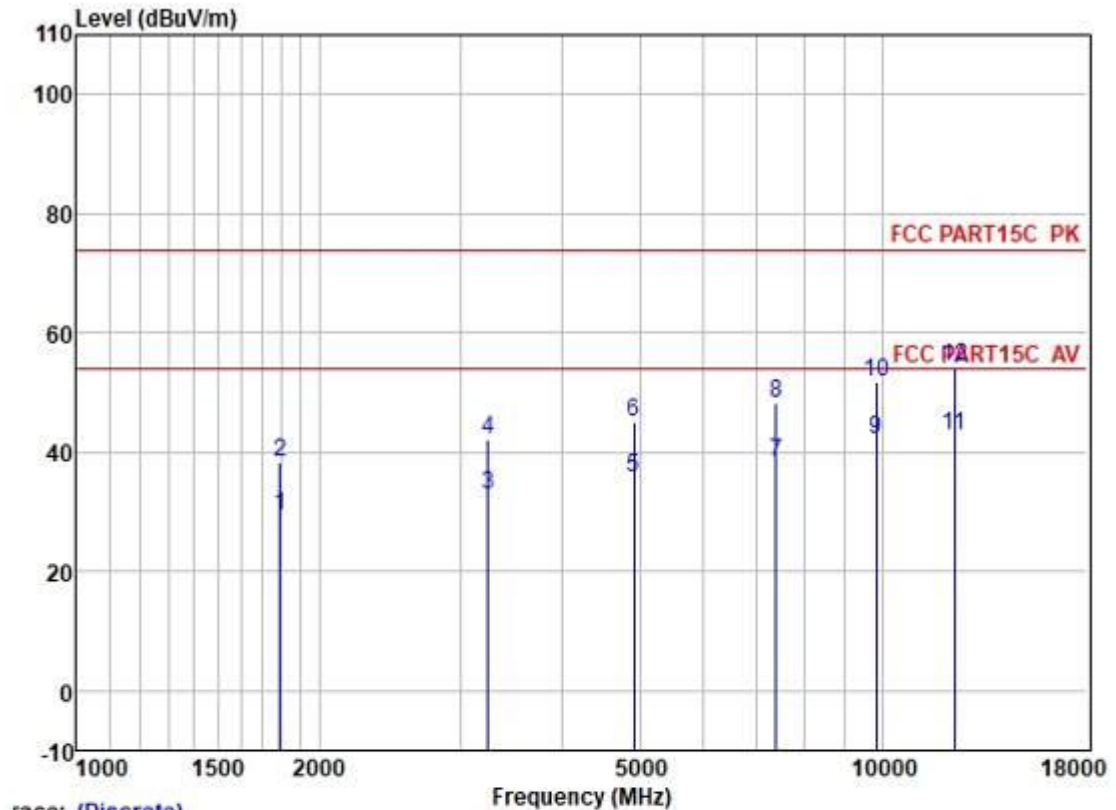
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1587.975	38.49	25.57	2.80	37.08	29.78	54.00	-24.22	VERTICAL Average
2	1587.975	47.18	25.57	2.80	37.08	38.47	74.00	-35.53	VERTICAL Peak
3	3337.710	35.66	28.79	4.08	36.48	32.05	54.00	-21.95	VERTICAL Average
4	3337.710	45.66	28.79	4.08	36.48	42.05	74.00	-31.95	VERTICAL Peak
5	4884.946	44.77	31.56	5.52	36.50	45.35	54.00	-8.65	VERTICAL Average
6	4884.946	48.20	31.56	5.52	36.50	48.78	74.00	-25.22	VERTICAL Peak
7	7326.122	34.29	36.00	6.13	36.76	39.66	54.00	-14.34	VERTICAL Average
8	7326.122	43.79	36.00	6.13	36.76	49.16	74.00	-24.84	VERTICAL Peak
9	9768.710	34.56	38.53	7.01	36.33	43.77	54.00	-10.23	VERTICAL Average
10	9768.710	43.63	38.53	7.01	36.33	52.84	74.00	-21.16	VERTICAL Peak
11	12210.220	33.84	38.74	8.08	36.30	44.36	54.00	-9.64	VERTICAL Average
12	12210.220	42.21	38.74	8.08	36.30	52.73	74.00	-21.27	VERTICAL Peak



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Mode:b; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:High



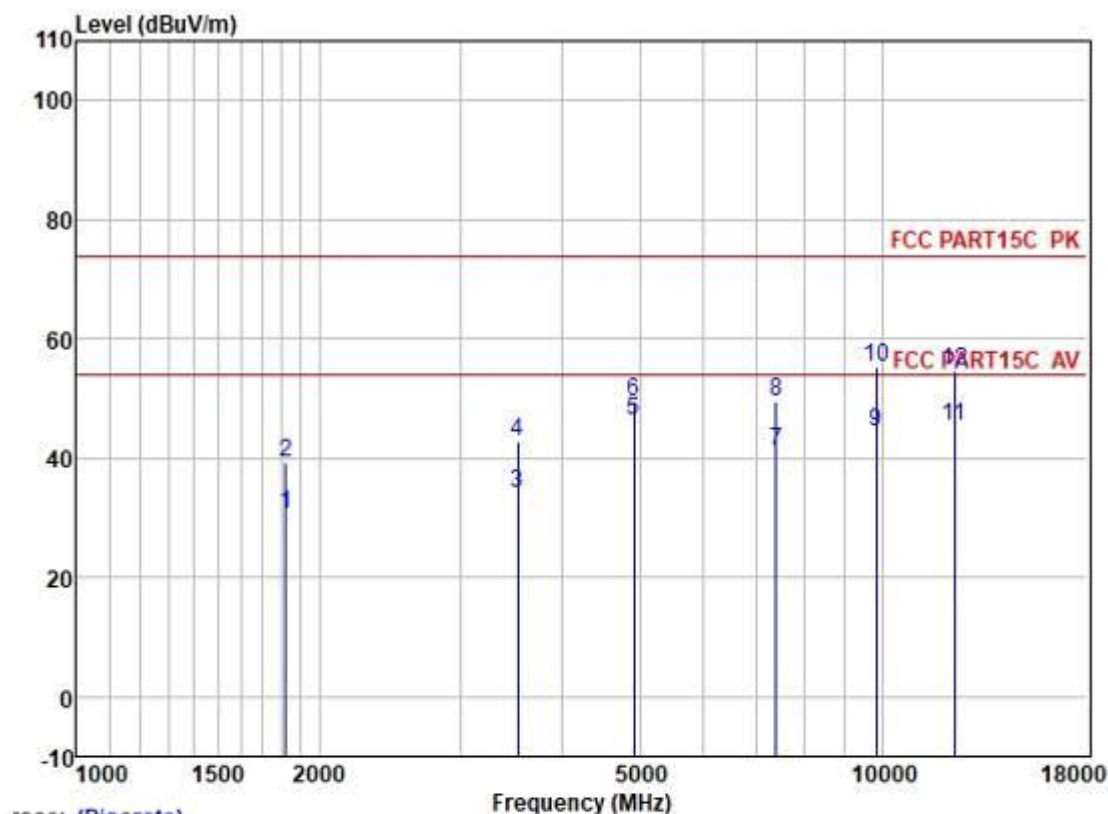
	ReadAntenna	Cable	Preamp	Limit	Over				
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1787.762	37.50	25.92	2.98	37.03	29.37	54.00	-24.63	HORIZONTAL Average
2	1787.762	46.39	25.92	2.98	37.03	38.26	74.00	-35.74	HORIZONTAL Peak
3	3242.619	36.82	28.67	4.02	36.50	33.01	54.00	-20.99	HORIZONTAL Average
4	3242.619	45.95	28.67	4.02	36.50	42.14	74.00	-31.86	HORIZONTAL Peak
5	4924.396	35.16	31.62	5.60	36.50	35.88	54.00	-18.12	HORIZONTAL Average
6	4924.396	44.45	31.62	5.60	36.50	45.17	74.00	-28.83	HORIZONTAL Peak
7	7386.542	32.74	36.17	6.19	36.77	38.33	54.00	-15.67	HORIZONTAL Average
8	7386.542	42.62	36.17	6.19	36.77	48.21	74.00	-25.79	HORIZONTAL Peak
9	9848.161	32.96	38.58	6.99	36.32	42.21	54.00	-11.79	HORIZONTAL Average
10	9848.161	42.57	38.58	6.99	36.32	51.82	74.00	-22.18	HORIZONTAL Peak
11	12310.480	32.47	38.63	8.01	36.23	42.88	54.00	-11.12	HORIZONTAL Average
12	12310.480	43.90	38.63	8.01	36.23	54.31	74.00	-19.69	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:High



Trace: (Discrete)

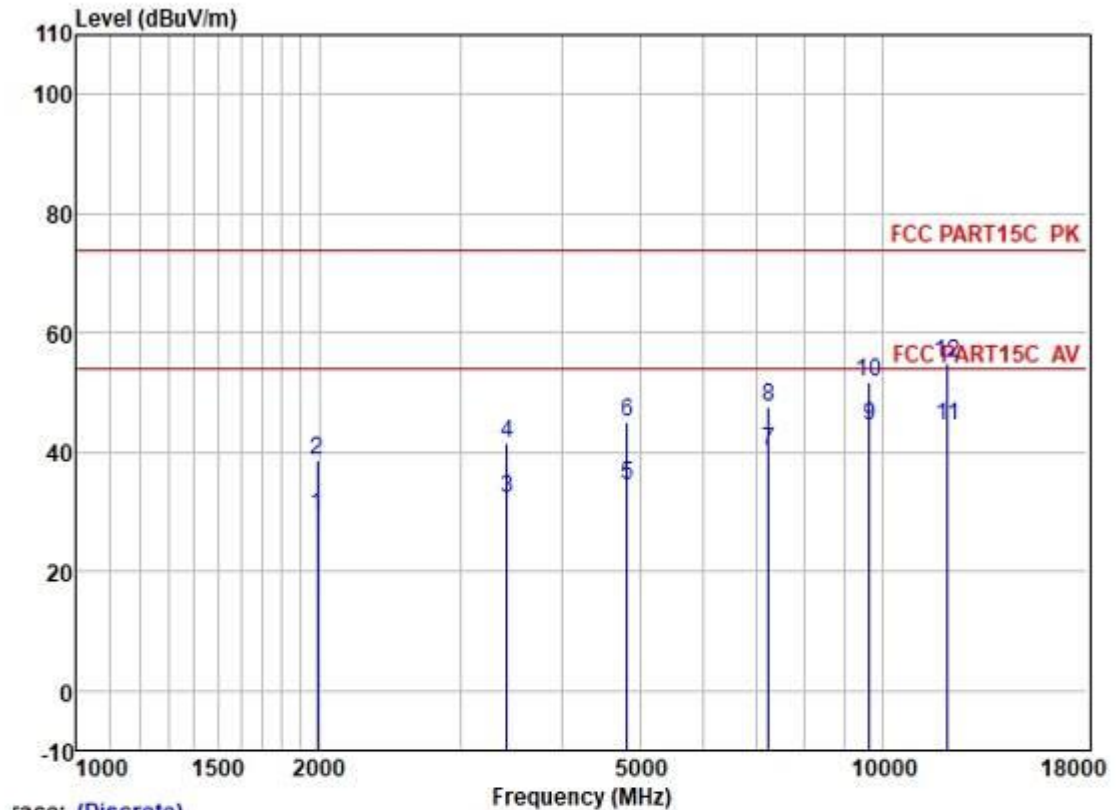
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1819.036	38.68	25.97	2.98	37.02	30.61	54.00	-23.39 VERTICAL	Average
2	1819.036	47.23	25.97	2.98	37.02	39.16	74.00	-34.84 VERTICAL	Peak
3	3526.134	37.17	28.94	4.38	36.45	34.04	54.00	-19.96 VERTICAL	Average
4	3526.134	46.05	28.94	4.38	36.45	42.92	74.00	-31.08 VERTICAL	Peak
5	4924.490	45.62	31.62	5.60	36.50	46.34	54.00	-7.66 VERTICAL	Average
6	4924.490	48.81	31.62	5.60	36.50	49.53	74.00	-24.47 VERTICAL	Peak
7	7386.052	35.69	36.17	6.19	36.77	41.28	54.00	-12.72 VERTICAL	Average
8	7386.052	44.00	36.17	6.19	36.77	49.59	74.00	-24.41 VERTICAL	Peak
9	9848.789	35.18	38.58	6.99	36.32	44.43	54.00	-9.57 VERTICAL	Average
10	9848.789	46.00	38.58	6.99	36.32	55.25	74.00	-18.75 VERTICAL	Peak
11	12310.760	34.90	38.63	8.01	36.23	45.31	54.00	-8.69 VERTICAL	Average
12	12310.760	44.25	38.63	8.01	36.23	54.66	74.00	-19.34 VERTICAL	Peak



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Mode:b; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

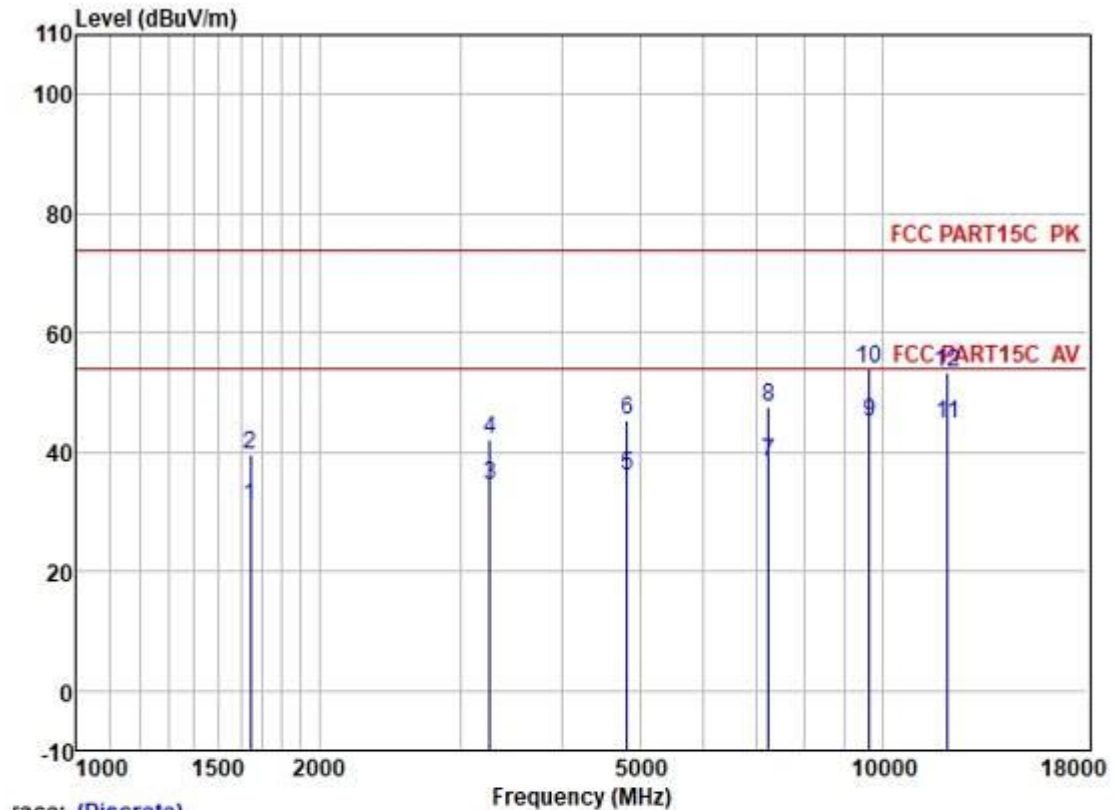
	Freq	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1989.550	37.19	26.09	3.08	37.00	29.36	54.00	-24.64	HORIZONTAL Average
2	1989.550	46.39	26.09	3.08	37.00	38.56	74.00	-35.44	HORIZONTAL Peak
3	3425.675	35.67	28.86	4.15	36.46	32.22	54.00	-21.78	HORIZONTAL Average
4	3425.675	44.97	28.86	4.15	36.46	41.52	74.00	-32.48	HORIZONTAL Peak
5	4824.633	34.19	31.45	5.42	36.48	34.58	54.00	-19.42	HORIZONTAL Average
6	4824.633	44.60	31.45	5.42	36.48	44.99	74.00	-29.01	HORIZONTAL Peak
7	7236.373	35.40	35.70	6.03	36.75	40.38	54.00	-13.62	HORIZONTAL Average
8	7236.373	42.49	35.70	6.03	36.75	47.47	74.00	-26.53	HORIZONTAL Peak
9	9648.123	35.17	38.40	7.06	36.35	44.28	54.00	-9.72	HORIZONTAL Average
10	9648.123	42.70	38.40	7.06	36.35	51.81	74.00	-22.19	HORIZONTAL Peak
11	12060.470	33.85	38.88	8.17	36.38	44.52	54.00	-9.48	HORIZONTAL Average
12	12060.470	44.45	38.88	8.17	36.38	55.12	74.00	-18.88	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Limit	Over				
	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1644.019	39.66	25.63	2.80	37.06	31.03	54.00	-22.97	VERTICAL	Average
2	1644.019	48.38	25.63	2.80	37.06	39.75	74.00	-34.25	VERTICAL	Peak
3	3261.418	38.17	28.70	4.03	36.49	34.41	54.00	-19.59	VERTICAL	Average
4	3261.418	46.03	28.70	4.03	36.49	42.27	74.00	-31.73	VERTICAL	Peak
5	4824.151	35.69	31.45	5.42	36.48	36.08	54.00	-17.92	VERTICAL	Average
6	4824.151	44.92	31.45	5.42	36.48	45.31	74.00	-28.69	VERTICAL	Peak
7	7236.373	33.19	35.70	6.03	36.75	38.17	54.00	-15.83	VERTICAL	Average
8	7236.373	42.76	35.70	6.03	36.75	47.74	74.00	-26.26	VERTICAL	Peak
9	9648.540	35.77	38.40	7.06	36.35	44.88	54.00	-9.12	VERTICAL	Average
10	9648.540	44.77	38.40	7.06	36.35	53.88	74.00	-20.12	VERTICAL	Peak
11	12060.700	34.14	38.88	8.17	36.38	44.81	54.00	-9.19	VERTICAL	Average
12	12060.700	42.62	38.88	8.17	36.38	53.29	74.00	-20.71	VERTICAL	Peak



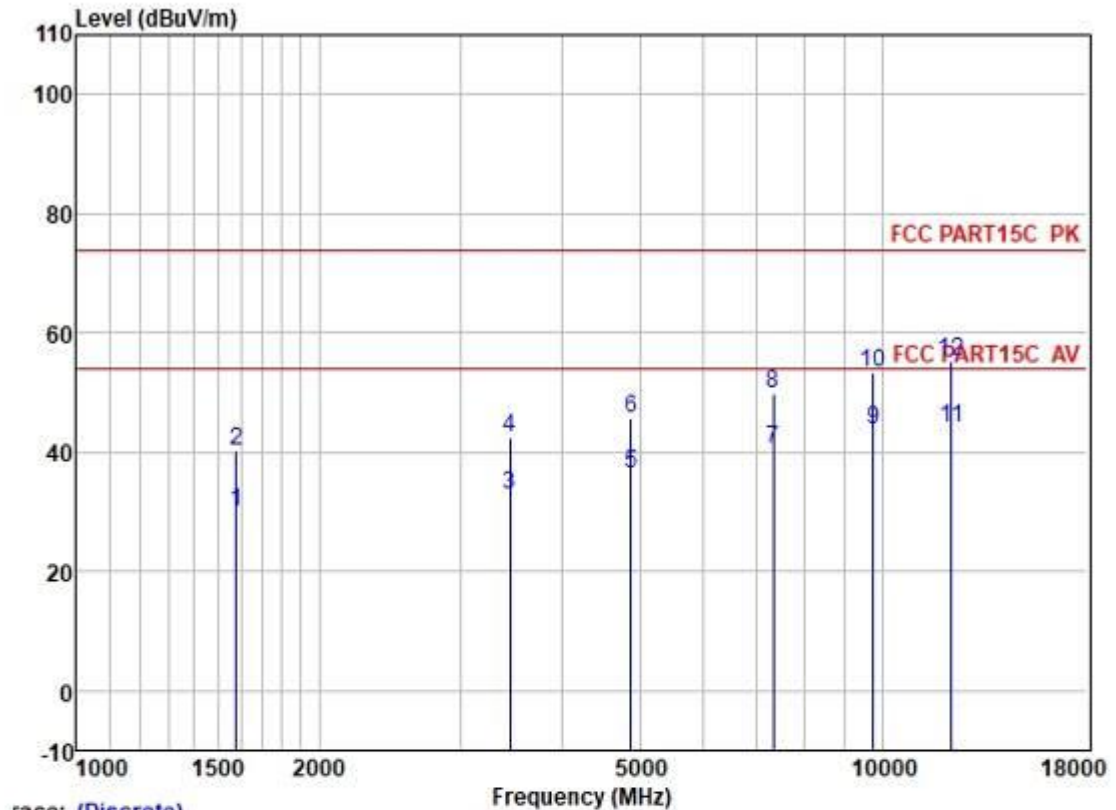
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Mode:b; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:middle



Trace: (Discrete)

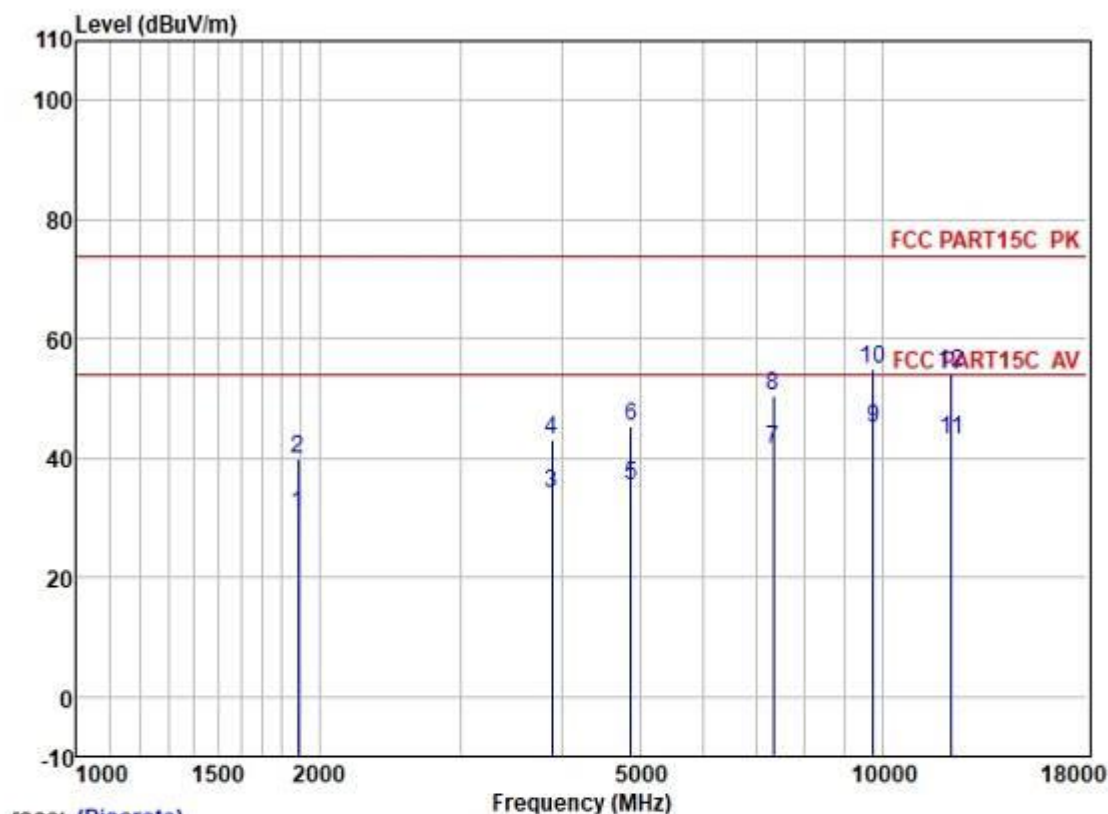
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1578.822	38.69	25.56	2.80	37.08	29.97	54.00	-24.03	HORIZONTAL Average
2	1578.822	48.93	25.56	2.80	37.08	40.21	74.00	-33.79	HORIZONTAL Peak
3	3455.508	36.17	28.88	4.20	36.46	32.79	54.00	-21.21	HORIZONTAL Average
4	3455.508	45.75	28.88	4.20	36.46	42.37	74.00	-31.63	HORIZONTAL Peak
5	4884.888	35.95	31.56	5.52	36.50	36.53	54.00	-17.47	HORIZONTAL Average
6	4884.888	45.13	31.56	5.52	36.50	45.71	74.00	-28.29	HORIZONTAL Peak
7	7326.015	35.16	36.00	6.13	36.76	40.53	54.00	-13.47	HORIZONTAL Average
8	7326.015	44.46	36.00	6.13	36.76	49.83	74.00	-24.17	HORIZONTAL Peak
9	9768.149	34.71	38.53	7.01	36.33	43.92	54.00	-10.08	HORIZONTAL Average
10	9768.149	44.20	38.53	7.01	36.33	53.41	74.00	-20.59	HORIZONTAL Peak
11	12210.760	33.65	38.74	8.08	36.30	44.17	54.00	-9.83	HORIZONTAL Average
12	12210.760	44.64	38.74	8.08	36.30	55.16	74.00	-18.84	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:middle



Trace: (Discrete)

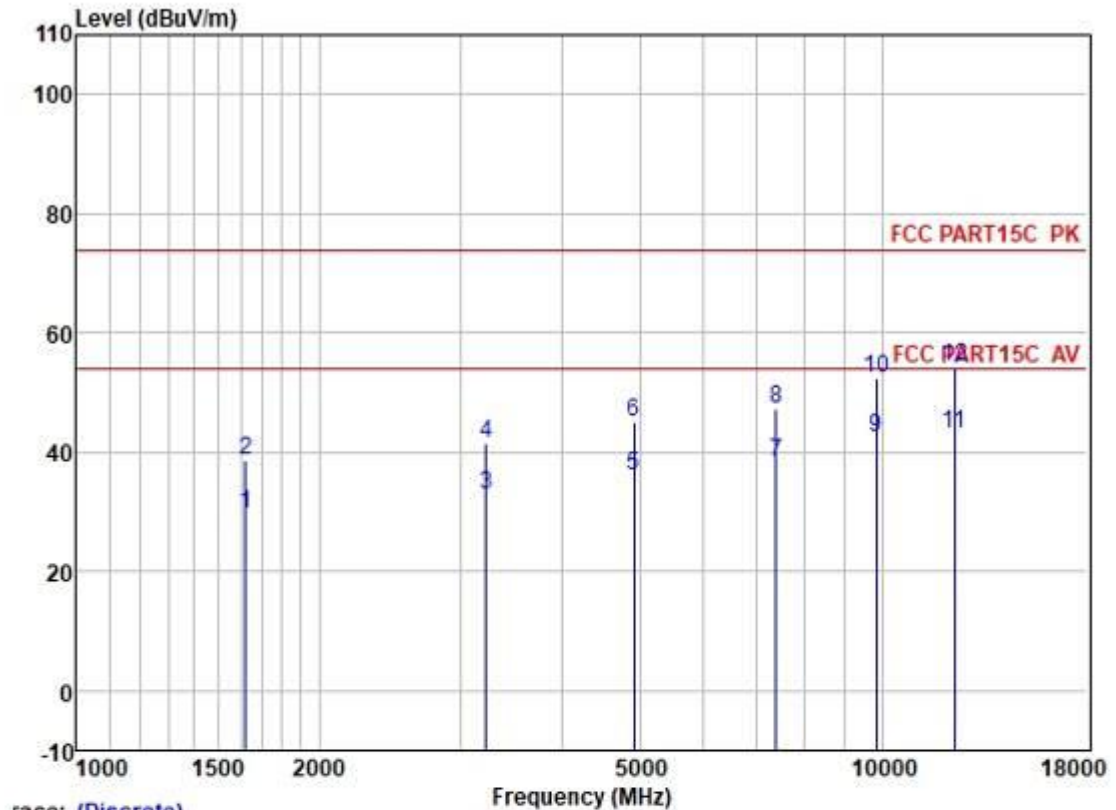
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1883.236	38.62	26.03	2.91	37.01	30.55	54.00	-23.45	VERTICAL Average
2	1883.236	47.91	26.03	2.91	37.01	39.84	74.00	-34.16	VERTICAL Peak
3	3890.255	36.28	29.67	4.60	36.41	34.14	54.00	-19.86	VERTICAL Average
4	3890.255	45.15	29.67	4.60	36.41	43.01	74.00	-30.99	VERTICAL Peak
5	4884.069	34.72	31.56	5.52	36.50	35.30	54.00	-18.70	VERTICAL Average
6	4884.069	44.69	31.56	5.52	36.50	45.27	74.00	-28.73	VERTICAL Peak
7	7326.646	36.29	36.00	6.13	36.76	41.66	54.00	-12.34	VERTICAL Average
8	7326.646	45.08	36.00	6.13	36.76	50.45	74.00	-23.55	VERTICAL Peak
9	9768.430	35.71	38.53	7.01	36.33	44.92	54.00	-9.08	VERTICAL Average
10	9768.430	45.67	38.53	7.01	36.33	54.88	74.00	-19.12	VERTICAL Peak
11	12210.850	32.49	38.74	8.08	36.30	43.01	54.00	-10.99	VERTICAL Average
12	12210.850	43.65	38.74	8.08	36.30	54.17	74.00	-19.83	VERTICAL Peak



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Mode:b; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1620.431	38.29	25.60	2.80	37.07	29.62	54.00	-24.38	HORIZONTAL Average
2	1620.431	47.30	25.60	2.80	37.07	38.63	74.00	-35.37	HORIZONTAL Peak
3	3223.928	36.71	28.63	4.01	36.50	32.85	54.00	-21.15	HORIZONTAL Average
4	3223.928	45.33	28.63	4.01	36.50	41.47	74.00	-32.53	HORIZONTAL Peak
5	4924.190	35.28	31.62	5.60	36.50	36.00	54.00	-18.00	HORIZONTAL Average
6	4924.190	44.18	31.62	5.60	36.50	44.90	74.00	-29.10	HORIZONTAL Peak
7	7386.375	32.64	36.17	6.19	36.77	38.23	54.00	-15.77	HORIZONTAL Average
8	7386.375	41.85	36.17	6.19	36.77	47.44	74.00	-26.56	HORIZONTAL Peak
9	9848.123	33.17	38.58	6.99	36.32	42.42	54.00	-11.58	HORIZONTAL Average
10	9848.123	43.04	38.58	6.99	36.32	52.29	74.00	-21.71	HORIZONTAL Peak
11	12310.710	32.69	38.63	8.01	36.23	43.10	54.00	-10.90	HORIZONTAL Average
12	12310.710	43.98	38.63	8.01	36.23	54.39	74.00	-19.61	HORIZONTAL Peak



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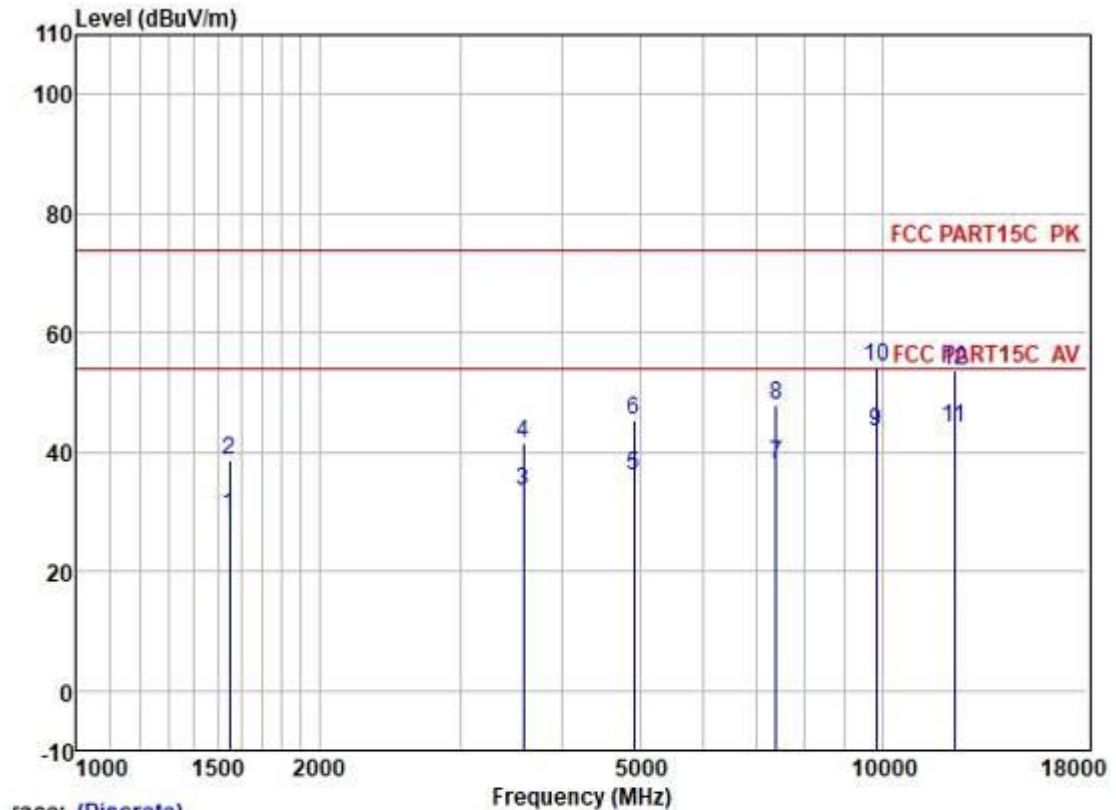
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Mode:b; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:High



Trace: (Discrete)

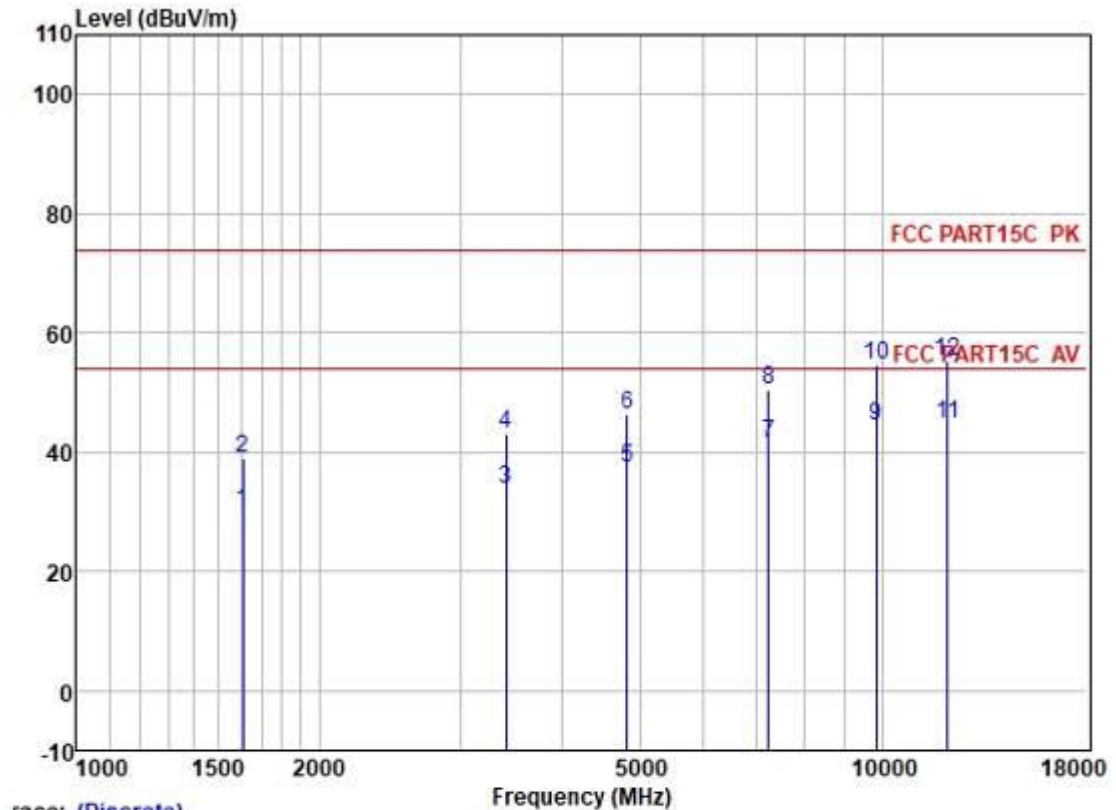
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1547.199	38.16	25.53	2.80	37.09	29.40	54.00	-24.60	VERTICAL Average
2	1547.199	47.45	25.53	2.80	37.09	38.69	74.00	-35.31	VERTICAL Peak
3	3587.818	36.48	29.02	4.49	36.44	33.55	54.00	-20.45	VERTICAL Average
4	3587.818	44.54	29.02	4.49	36.44	41.61	74.00	-32.39	VERTICAL Peak
5	4924.440	35.27	31.62	5.60	36.50	35.99	54.00	-18.01	VERTICAL Average
6	4924.440	44.66	31.62	5.60	36.50	45.38	74.00	-28.62	VERTICAL Peak
7	7386.727	32.47	36.17	6.19	36.77	38.06	54.00	-15.94	VERTICAL Average
8	7386.727	42.31	36.17	6.19	36.77	47.90	74.00	-26.10	VERTICAL Peak
9	9848.717	34.17	38.58	6.99	36.32	43.42	54.00	-10.58	VERTICAL Average
10	9848.717	44.98	38.58	6.99	36.32	54.23	74.00	-19.77	VERTICAL Peak
11	12310.270	33.68	38.63	8.01	36.23	44.09	54.00	-9.91	VERTICAL Average
12	12310.270	43.23	38.63	8.01	36.23	53.64	74.00	-20.36	VERTICAL Peak



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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

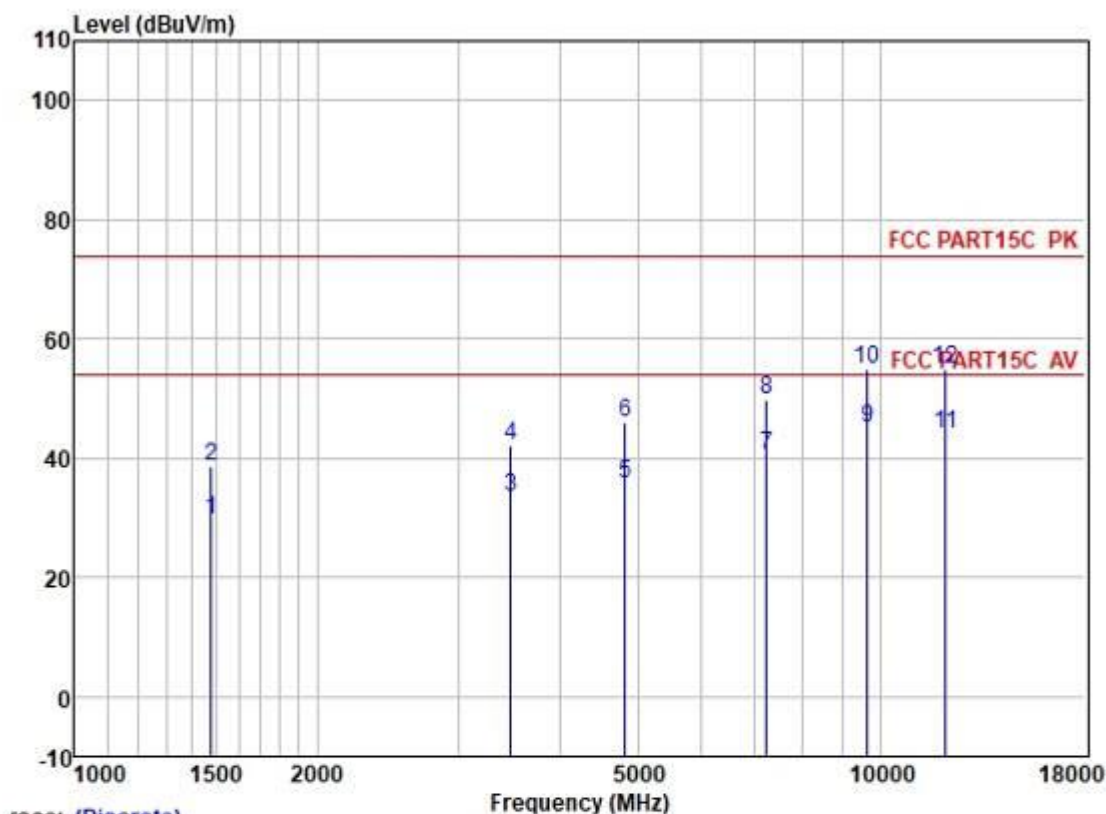
	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Level	Limit	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1611.091	38.69	25.59	2.80	37.07	30.01	54.00	-23.99	HORIZONTAL	Average
2	1611.091	47.65	25.59	2.80	37.07	38.97	74.00	-35.03	HORIZONTAL	Peak
3	3415.787	37.19	28.85	4.13	36.47	33.70	54.00	-20.30	HORIZONTAL	Average
4	3415.787	46.53	28.85	4.13	36.47	43.04	74.00	-30.96	HORIZONTAL	Peak
5	4824.440	36.95	31.45	5.42	36.48	37.34	54.00	-16.66	HORIZONTAL	Average
6	4824.440	45.90	31.45	5.42	36.48	46.29	74.00	-27.71	HORIZONTAL	Peak
7	7236.461	36.48	35.70	6.03	36.75	41.46	54.00	-12.54	HORIZONTAL	Average
8	7236.461	45.46	35.70	6.03	36.75	50.44	74.00	-23.56	HORIZONTAL	Peak
9	9848.525	35.29	38.58	6.99	36.32	44.54	54.00	-9.46	HORIZONTAL	Average
10	9848.525	45.53	38.58	6.99	36.32	54.78	74.00	-19.22	HORIZONTAL	Peak
11	12060.470	34.17	38.88	8.17	36.38	44.84	54.00	-9.16	HORIZONTAL	Average
12	12060.470	44.59	38.88	8.17	36.38	55.26	74.00	-18.74	HORIZONTAL	Peak



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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1477.276	38.46	25.48	2.77	37.13	29.58	54.00	-24.42	VERTICAL Average
2	1477.276	47.54	25.48	2.77	37.13	38.66	74.00	-35.34	VERTICAL Peak
3	3485.601	36.95	28.89	4.27	36.46	33.65	54.00	-20.35	VERTICAL Average
4	3485.601	45.52	28.89	4.27	36.46	42.22	74.00	-31.78	VERTICAL Peak
5	4824.007	35.47	31.45	5.42	36.48	35.86	54.00	-18.14	VERTICAL Average
6	4824.007	45.51	31.45	5.42	36.48	45.90	74.00	-28.10	VERTICAL Peak
7	7236.122	35.65	35.70	6.03	36.75	40.63	54.00	-13.37	VERTICAL Average
8	7236.122	44.75	35.70	6.03	36.75	49.73	74.00	-24.27	VERTICAL Peak
9	9648.525	35.82	38.40	7.06	36.35	44.93	54.00	-9.07	VERTICAL Average
10	9648.525	45.77	38.40	7.06	36.35	54.88	74.00	-19.12	VERTICAL Peak
11	12060.520	33.49	38.88	8.17	36.38	44.16	54.00	-9.84	VERTICAL Average
12	12060.520	44.45	38.88	8.17	36.38	55.12	74.00	-18.88	VERTICAL Peak



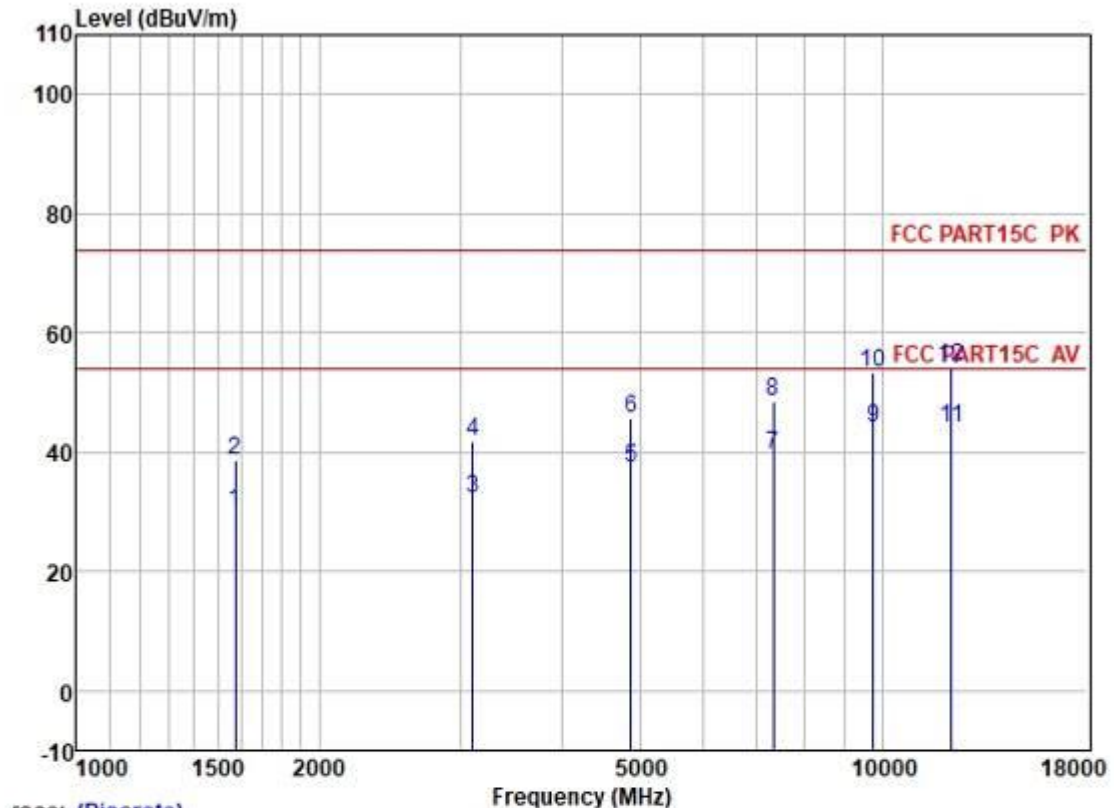
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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:middle



Trace: (Discrete)

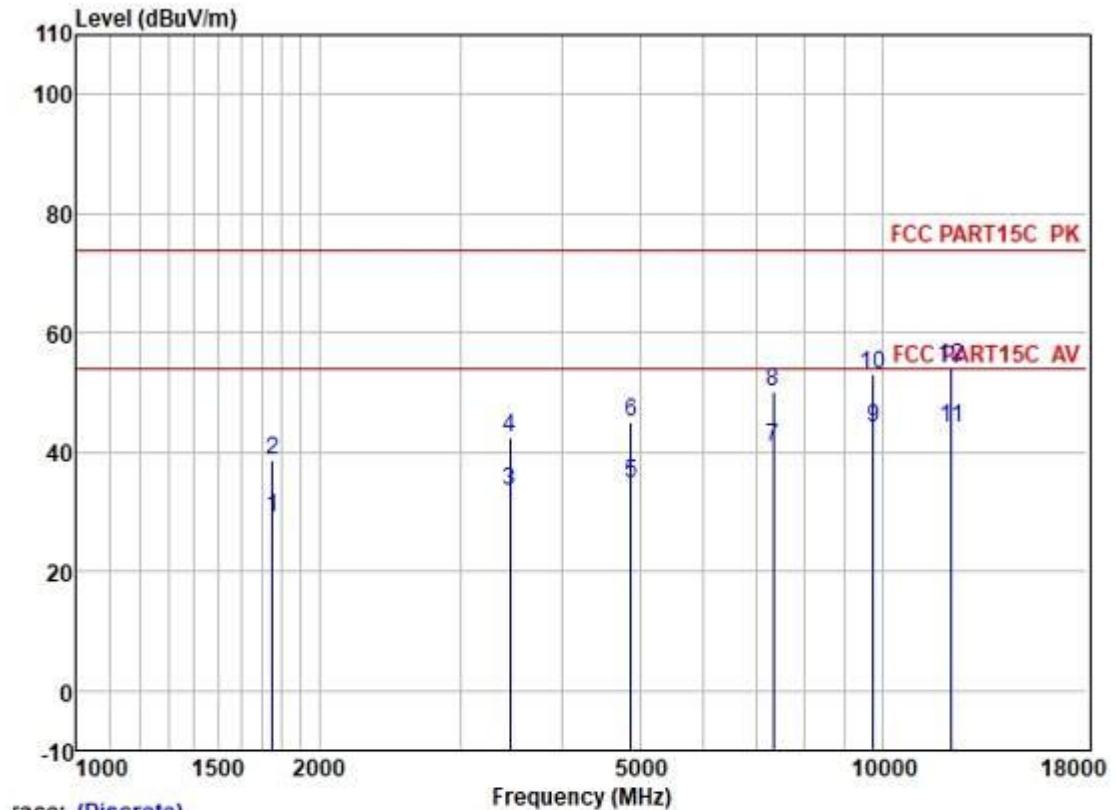
	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1574.265	38.66	25.56	2.80	37.08	29.94	54.00	-24.06	HORIZONTAL	Average
2	1574.265	47.46	25.56	2.80	37.08	38.74	74.00	-35.26	HORIZONTAL	Peak
3	3105.037	36.49	28.48	3.91	36.53	32.35	54.00	-21.65	HORIZONTAL	Average
4	3105.037	45.95	28.48	3.91	36.53	41.81	74.00	-32.19	HORIZONTAL	Peak
5	4884.300	36.83	31.56	5.52	36.50	37.41	54.00	-16.59	HORIZONTAL	Average
6	4884.300	45.09	31.56	5.52	36.50	45.67	74.00	-28.33	HORIZONTAL	Peak
7	7326.052	34.16	36.00	6.13	36.76	39.53	54.00	-14.47	HORIZONTAL	Average
8	7326.052	43.13	36.00	6.13	36.76	48.50	74.00	-25.50	HORIZONTAL	Peak
9	9768.020	34.84	38.53	7.01	36.33	44.05	54.00	-9.95	HORIZONTAL	Average
10	9768.020	44.22	38.53	7.01	36.33	53.43	74.00	-20.57	HORIZONTAL	Peak
11	12210.750	33.64	38.74	8.08	36.30	44.16	54.00	-9.84	HORIZONTAL	Average
12	12210.750	43.75	38.74	8.08	36.30	54.27	74.00	-19.73	HORIZONTAL	Peak



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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:middle



		Read	Antenna	Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1751.955	37.18	25.86	2.90	37.04	28.90	54.00	-25.10	VERTICAL	Average
2	1751.955	46.93	25.86	2.90	37.04	38.65	74.00	-35.35	VERTICAL	Peak
3	3455.508	36.95	28.88	4.20	36.46	33.57	54.00	-20.43	VERTICAL	Average
4	3455.508	45.71	28.88	4.20	36.46	42.33	74.00	-31.67	VERTICAL	Peak
5	4884.016	34.18	31.56	5.52	36.50	34.76	54.00	-19.24	VERTICAL	Average
6	4884.016	44.53	31.56	5.52	36.50	45.11	74.00	-28.89	VERTICAL	Peak
7	7326.461	35.46	36.00	6.13	36.76	40.83	54.00	-13.17	VERTICAL	Average
8	7326.461	44.82	36.00	6.13	36.76	50.19	74.00	-23.81	VERTICAL	Peak
9	9768.149	34.74	38.53	7.01	36.33	43.95	54.00	-10.05	VERTICAL	Average
10	9768.149	43.90	38.53	7.01	36.33	53.11	74.00	-20.89	VERTICAL	Peak
11	12210.750	33.61	38.74	8.08	36.30	44.13	54.00	-9.87	VERTICAL	Average
12	12210.750	43.80	38.74	8.08	36.30	54.32	74.00	-19.68	VERTICAL	Peak



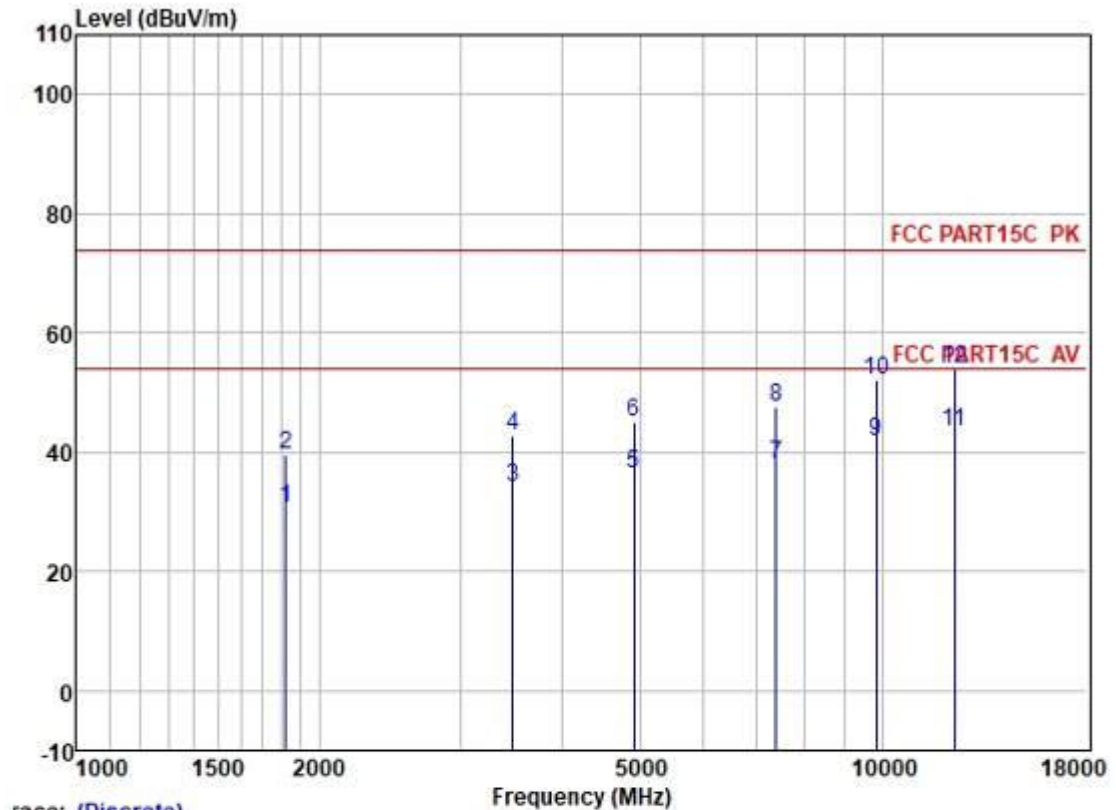
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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:High



Trace: (Discrete)

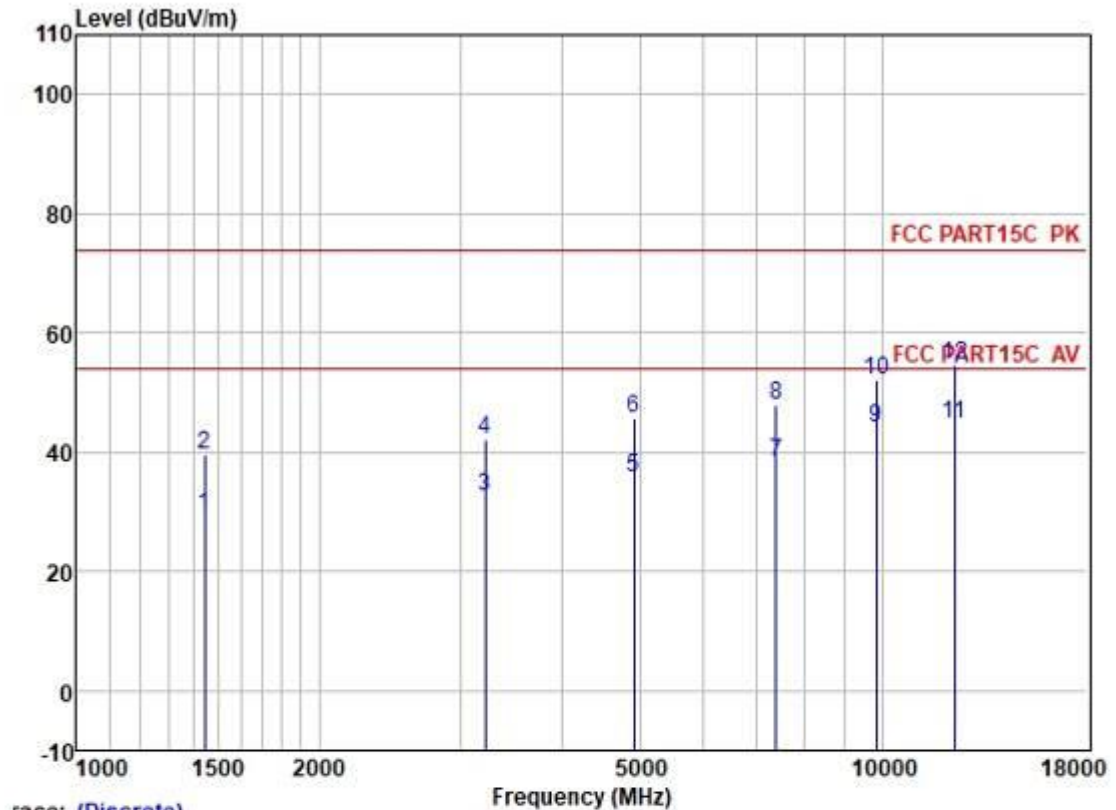
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1819.036	38.68	25.97	2.98	37.02	30.61	54.00	-23.39	HORIZONTAL Average
2	1819.036	47.55	25.97	2.98	37.02	39.48	74.00	-34.52	HORIZONTAL Peak
3	3485.601	37.46	28.89	4.27	36.46	34.16	54.00	-19.84	HORIZONTAL Average
4	3485.601	46.10	28.89	4.27	36.46	42.80	74.00	-31.20	HORIZONTAL Peak
5	4924.007	35.69	31.62	5.60	36.50	36.41	54.00	-17.59	HORIZONTAL Average
6	4924.007	44.32	31.62	5.60	36.50	45.04	74.00	-28.96	HORIZONTAL Peak
7	7386.763	32.47	36.17	6.19	36.77	38.06	54.00	-15.94	HORIZONTAL Average
8	7386.763	42.13	36.17	6.19	36.77	47.72	74.00	-26.28	HORIZONTAL Peak
9	9848.480	32.66	38.58	6.99	36.32	41.91	54.00	-12.09	HORIZONTAL Average
10	9848.480	42.77	38.58	6.99	36.32	52.02	74.00	-21.98	HORIZONTAL Peak
11	12310.070	33.17	38.63	8.01	36.23	43.58	54.00	-10.42	HORIZONTAL Average
12	12310.070	43.68	38.63	8.01	36.23	54.09	74.00	-19.91	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:High



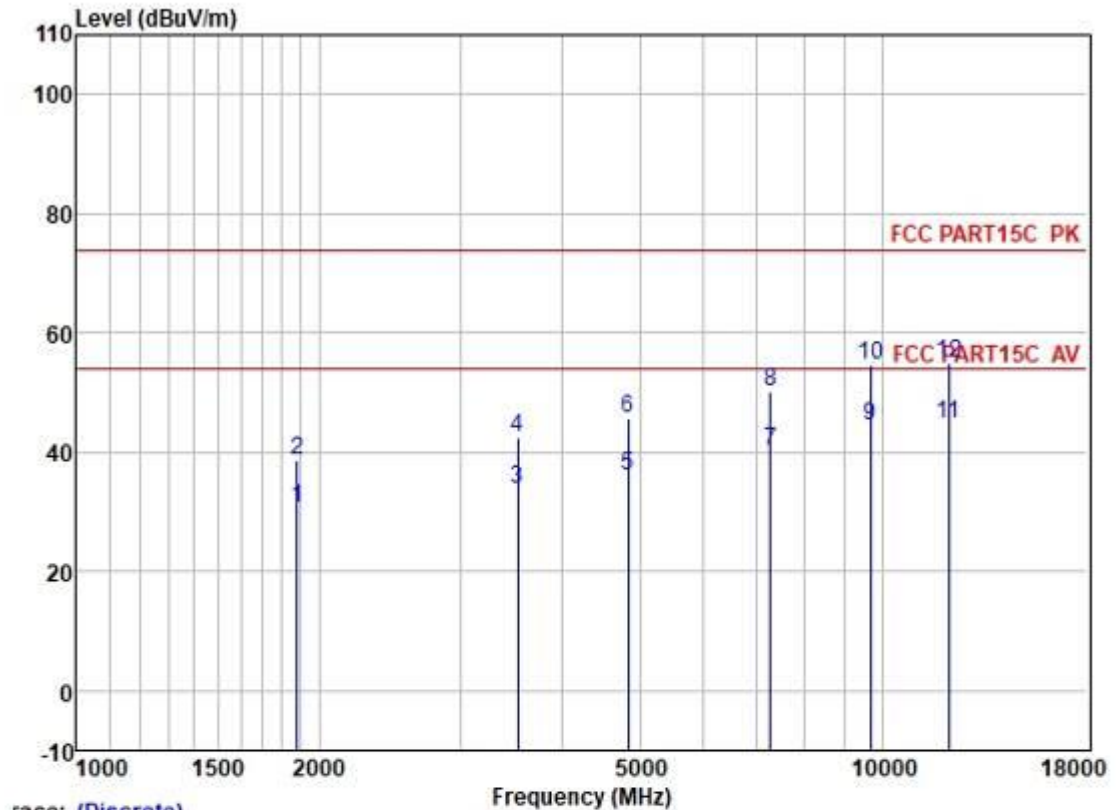
		Read	Antenna	Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1443.509	38.50	25.44	2.69	37.16	29.47	54.00	-24.53	VERTICAL	Average
2	1443.509	48.60	25.44	2.69	37.16	39.57	74.00	-34.43	VERTICAL	Peak
3	3214.623	36.38	28.61	4.01	36.51	32.49	54.00	-21.51	VERTICAL	Average
4	3214.623	46.00	28.61	4.01	36.51	42.11	74.00	-31.89	VERTICAL	Peak
5	4924.751	35.17	31.62	5.60	36.50	35.89	54.00	-18.11	VERTICAL	Average
6	4924.751	44.81	31.62	5.60	36.50	45.53	74.00	-28.47	VERTICAL	Peak
7	7386.373	32.69	36.17	6.19	36.77	38.28	54.00	-15.72	VERTICAL	Average
8	7386.373	42.25	36.17	6.19	36.77	47.84	74.00	-26.16	VERTICAL	Peak
9	9848.852	34.78	38.58	6.99	36.32	44.03	54.00	-9.97	VERTICAL	Average
10	9848.852	42.94	38.58	6.99	36.32	52.19	74.00	-21.81	VERTICAL	Peak
11	12310.870	34.17	38.63	8.01	36.23	44.58	54.00	-9.42	VERTICAL	Average
12	12310.870	44.35	38.63	8.01	36.23	54.76	74.00	-19.24	VERTICAL	Peak



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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1877.800	38.74	26.02	2.92	37.02	30.66	54.00	-23.34	HORIZONTAL Average
2	1877.800	46.81	26.02	2.92	37.02	38.73	74.00	-35.27	HORIZONTAL Peak
3	3526.134	36.98	28.94	4.38	36.45	33.85	54.00	-20.15	HORIZONTAL Average
4	3526.134	45.50	28.94	4.38	36.45	42.37	74.00	-31.63	HORIZONTAL Peak
5	4844.299	35.46	31.50	5.45	36.48	35.93	54.00	-18.07	HORIZONTAL Average
6	4844.299	45.28	31.50	5.45	36.48	45.75	74.00	-28.25	HORIZONTAL Peak
7	7266.788	35.28	35.78	6.06	36.75	40.37	54.00	-13.63	HORIZONTAL Average
8	7266.788	44.93	35.78	6.06	36.75	50.02	74.00	-23.98	HORIZONTAL Peak
9	9688.450	35.41	38.44	7.04	36.34	44.55	54.00	-9.45	HORIZONTAL Average
10	9688.450	45.60	38.44	7.04	36.34	54.74	74.00	-19.26	HORIZONTAL Peak
11	12110.470	34.17	38.83	8.14	36.36	44.78	54.00	-9.22	HORIZONTAL Average
12	12110.470	44.32	38.83	8.14	36.36	54.93	74.00	-19.07	HORIZONTAL Peak



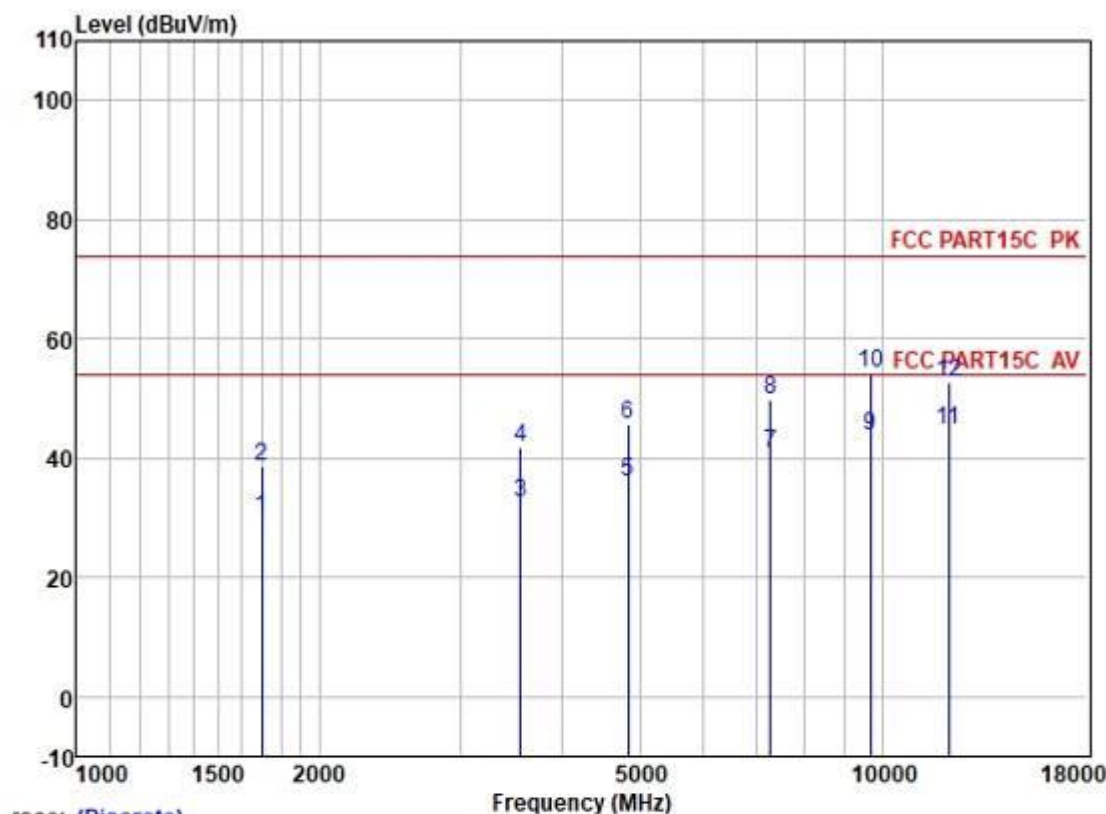
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Guangzhou Branch (SGS-CSTC EEC Laboratory)

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中国·广州·经济技术开发区科学城科珠路196号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

Mode:b; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low



Trace: (Discrete)

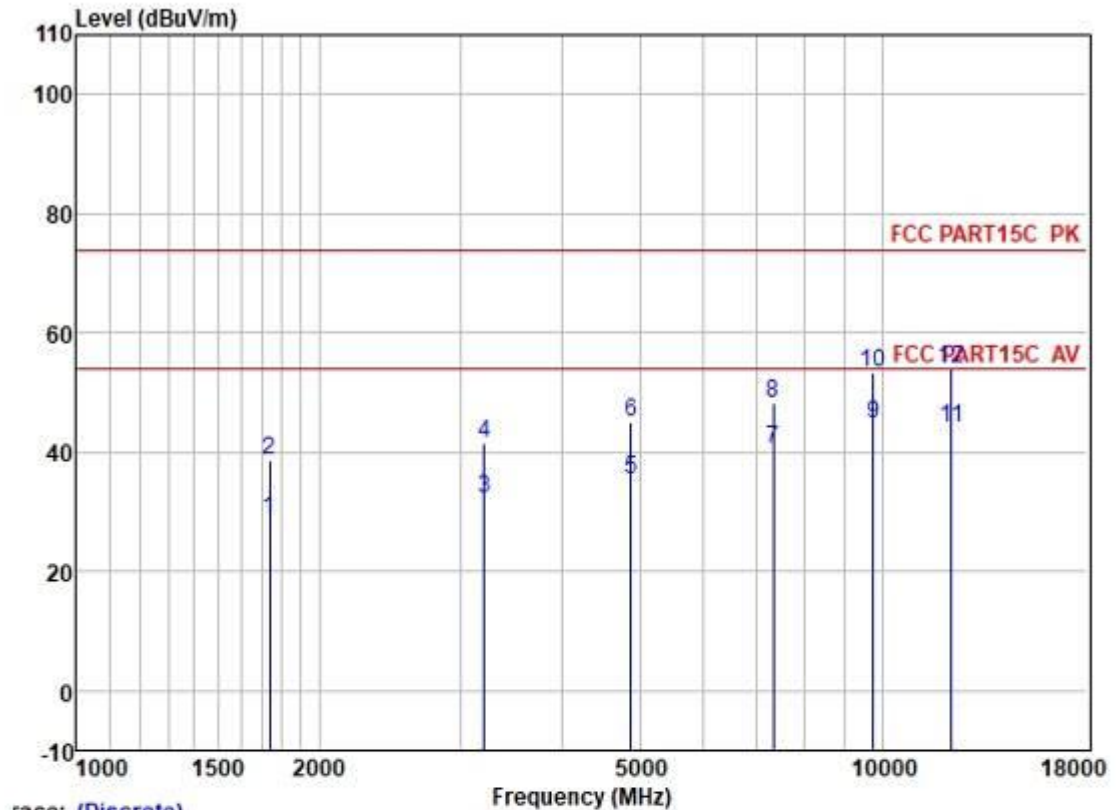
	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1697.129	38.64	25.71	2.80	37.05	30.10	54.00	-23.90	VERTICAL	Average
2	1697.129	47.13	25.71	2.80	37.05	38.59	74.00	-35.41	VERTICAL	Peak
3	3556.843	35.69	28.98	4.44	36.45	32.66	54.00	-21.34	VERTICAL	Average
4	3556.843	44.87	28.98	4.44	36.45	41.84	74.00	-32.16	VERTICAL	Peak
5	4844.274	35.74	31.50	5.45	36.48	36.21	54.00	-17.79	VERTICAL	Average
6	4844.274	45.34	31.50	5.45	36.48	45.81	74.00	-28.19	VERTICAL	Peak
7	7266.038	35.66	35.78	6.06	36.75	40.75	54.00	-13.25	VERTICAL	Average
8	7266.038	44.70	35.78	6.06	36.75	49.79	74.00	-24.21	VERTICAL	Peak
9	9688.371	34.77	38.44	7.04	36.34	43.91	54.00	-10.09	VERTICAL	Average
10	9688.371	45.12	38.44	7.04	36.34	54.26	74.00	-19.74	VERTICAL	Peak
11	12110.700	34.19	38.83	8.14	36.34	44.82	54.00	-9.18	VERTICAL	Average
12	12110.700	42.21	38.83	8.14	36.34	52.84	74.00	-21.16	VERTICAL	Peak



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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:middle



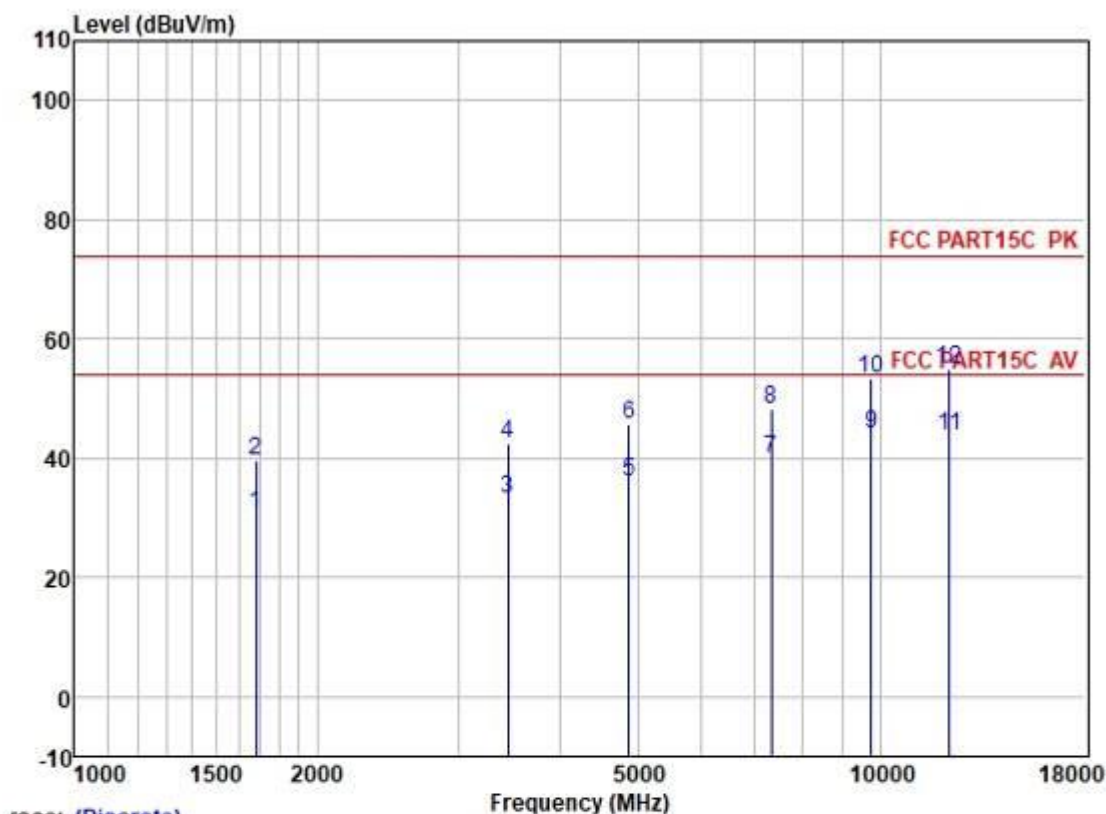
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1736.829	37.18	25.82	2.86	37.04	28.82	54.00	-25.18	HORIZONTAL Average
2	1736.829	46.91	25.82	2.86	37.04	38.55	74.00	-35.45	HORIZONTAL Peak
3	3205.345	36.20	28.60	4.00	36.51	32.29	54.00	-21.71	HORIZONTAL Average
4	3205.345	45.29	28.60	4.00	36.51	41.38	74.00	-32.62	HORIZONTAL Peak
5	4884.490	34.75	31.56	5.52	36.50	35.33	54.00	-18.67	HORIZONTAL Average
6	4884.490	44.55	31.56	5.52	36.50	45.13	74.00	-28.87	HORIZONTAL Peak
7	7326.708	35.28	36.00	6.13	36.76	40.65	54.00	-13.35	HORIZONTAL Average
8	7326.708	43.01	36.00	6.13	36.76	48.38	74.00	-25.62	HORIZONTAL Peak
9	9768.925	35.64	38.53	7.01	36.33	44.85	54.00	-9.15	HORIZONTAL Average
10	9768.925	44.30	38.53	7.01	36.33	53.51	74.00	-20.49	HORIZONTAL Peak
11	12210.270	33.47	38.74	8.08	36.30	43.99	54.00	-10.01	HORIZONTAL Average
12	12210.270	43.35	38.74	8.08	36.30	53.87	74.00	-20.13	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle



Trace: (Discrete)

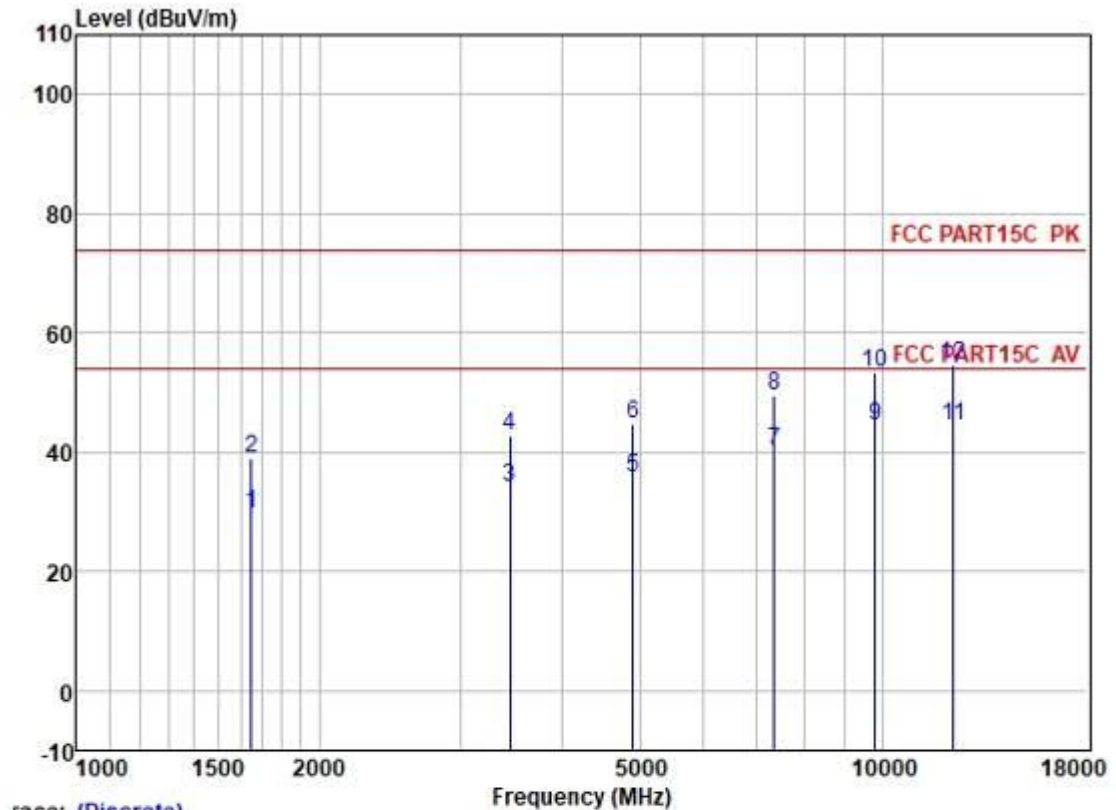
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1682.477	39.17	25.68	2.80	37.05	30.60	54.00	-23.40	VERTICAL Average
2	1682.477	48.01	25.68	2.80	37.05	39.44	74.00	-34.56	VERTICAL Peak
3	3455.508	36.67	28.88	4.20	36.46	33.29	54.00	-20.71	VERTICAL Average
4	3455.508	45.79	28.88	4.20	36.46	42.41	74.00	-31.59	VERTICAL Peak
5	4884.151	35.48	31.56	5.52	36.50	36.06	54.00	-17.94	VERTICAL Average
6	4884.151	45.14	31.56	5.52	36.50	45.72	74.00	-28.28	VERTICAL Peak
7	7326.763	34.64	36.00	6.13	36.76	40.01	54.00	-13.99	VERTICAL Average
8	7326.763	42.74	36.00	6.13	36.76	48.11	74.00	-25.89	VERTICAL Peak
9	9768.473	34.77	38.53	7.01	36.33	43.98	54.00	-10.02	VERTICAL Average
10	9768.473	44.12	38.53	7.01	36.33	53.33	74.00	-20.67	VERTICAL Peak
11	12210.270	33.19	38.74	8.08	36.30	43.71	54.00	-10.29	VERTICAL Average
12	12210.270	44.49	38.74	8.08	36.30	55.01	74.00	-18.99	VERTICAL Peak



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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High



Trace: (Discrete)

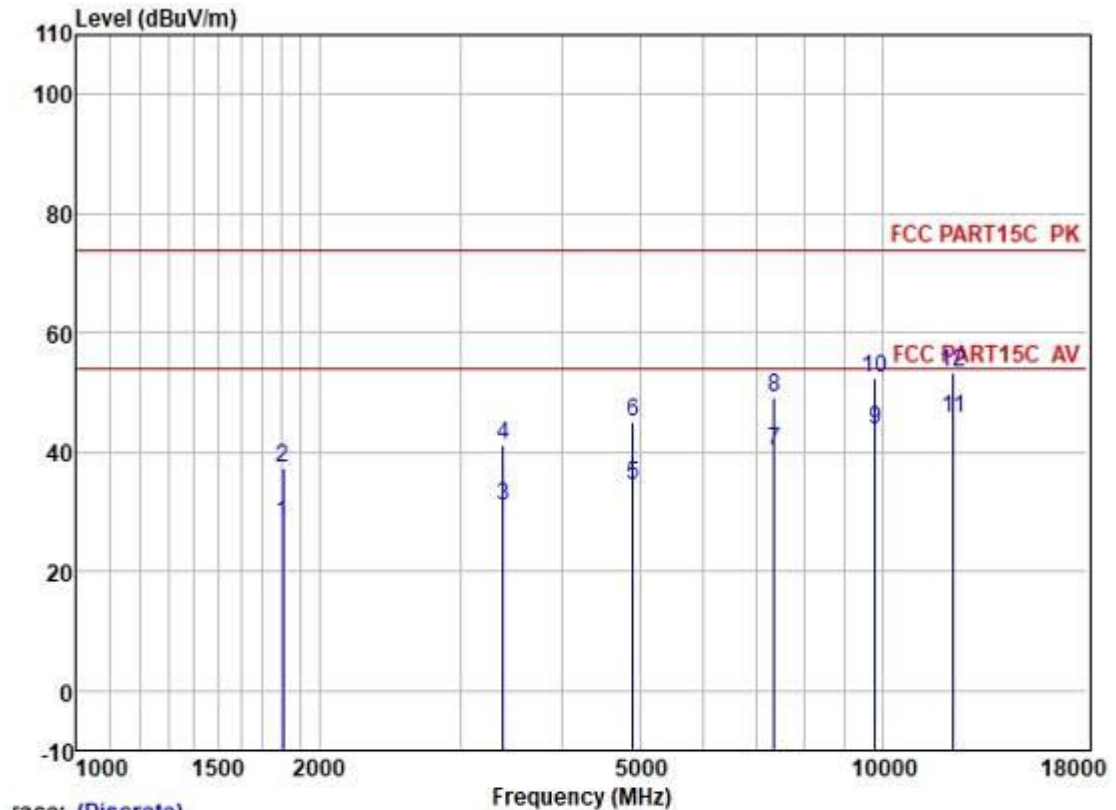
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1648.778	38.18	25.63	2.80	37.06	29.55	54.00	-24.45	HORIZONTAL Average
2	1648.778	47.64	25.63	2.80	37.06	39.01	74.00	-34.99	HORIZONTAL Peak
3	3455.508	37.48	28.88	4.20	36.46	34.10	54.00	-19.90	HORIZONTAL Average
4	3455.508	46.11	28.88	4.20	36.46	42.73	74.00	-31.27	HORIZONTAL Peak
5	4904.151	35.28	31.58	5.55	36.50	35.91	54.00	-18.09	HORIZONTAL Average
6	4904.151	44.06	31.58	5.55	36.50	44.69	74.00	-29.31	HORIZONTAL Peak
7	7356.763	34.69	36.06	6.15	36.76	40.14	54.00	-13.86	HORIZONTAL Average
8	7356.763	44.03	36.06	6.15	36.76	49.48	74.00	-24.52	HORIZONTAL Peak
9	9808.972	35.16	38.56	7.00	36.32	44.40	54.00	-9.60	HORIZONTAL Average
10	9808.972	44.18	38.56	7.00	36.32	53.42	74.00	-20.58	HORIZONTAL Peak
11	12260.610	33.84	38.70	8.06	36.27	44.33	54.00	-9.67	HORIZONTAL Average
12	12260.610	44.23	38.70	8.06	36.27	54.72	74.00	-19.28	HORIZONTAL Peak



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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:High



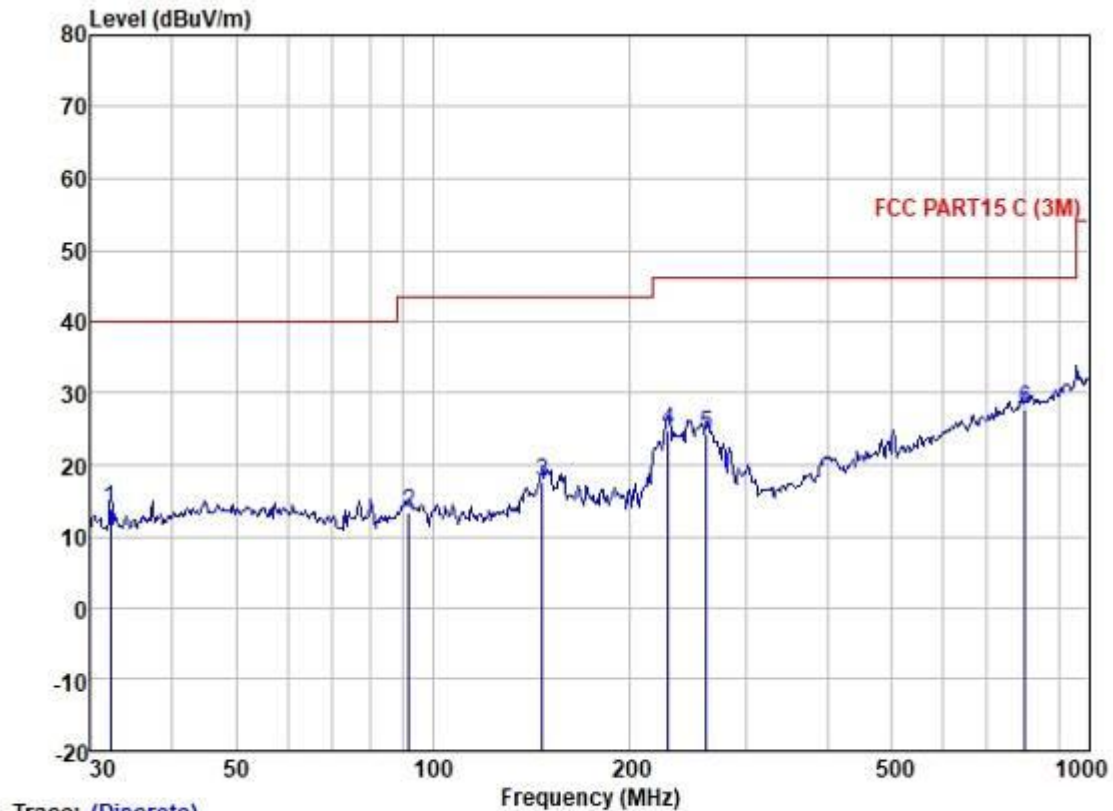
	ReadAntenna	Cable	Preamp	Limit	Over				
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1803.332	36.05	25.95	3.00	37.03	27.97	54.00	-26.03	VERTICAL
2	1803.332	45.59	25.95	3.00	37.03	37.51	74.00	-36.49	VERTICAL
3	3386.297	34.46	28.83	4.10	36.47	30.92	54.00	-23.08	VERTICAL
4	3386.297	44.85	28.83	4.10	36.47	41.31	74.00	-32.69	VERTICAL
5	4904.043	33.82	31.58	5.55	36.50	34.45	54.00	-19.55	VERTICAL
6	4904.043	44.37	31.58	5.55	36.50	45.00	74.00	-29.00	VERTICAL
7	7356.806	34.74	36.06	6.15	36.76	40.19	54.00	-13.81	VERTICAL
8	7356.806	43.65	36.06	6.15	36.76	49.10	74.00	-24.90	VERTICAL
9	9808.460	34.63	38.56	7.00	36.32	43.87	54.00	-10.13	VERTICAL
10	9808.460	43.03	38.56	7.00	36.32	52.27	74.00	-21.73	VERTICAL
11	12260.760	35.17	38.70	8.06	36.27	45.66	54.00	-8.34	VERTICAL
12	12260.760	42.97	38.70	8.06	36.27	53.46	74.00	-20.54	VERTICAL



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Mode:b; Polarization:Horizontal; Modulation:b; Bandwidth:20MHz ; Channel:Low



Trace: (Discrete)

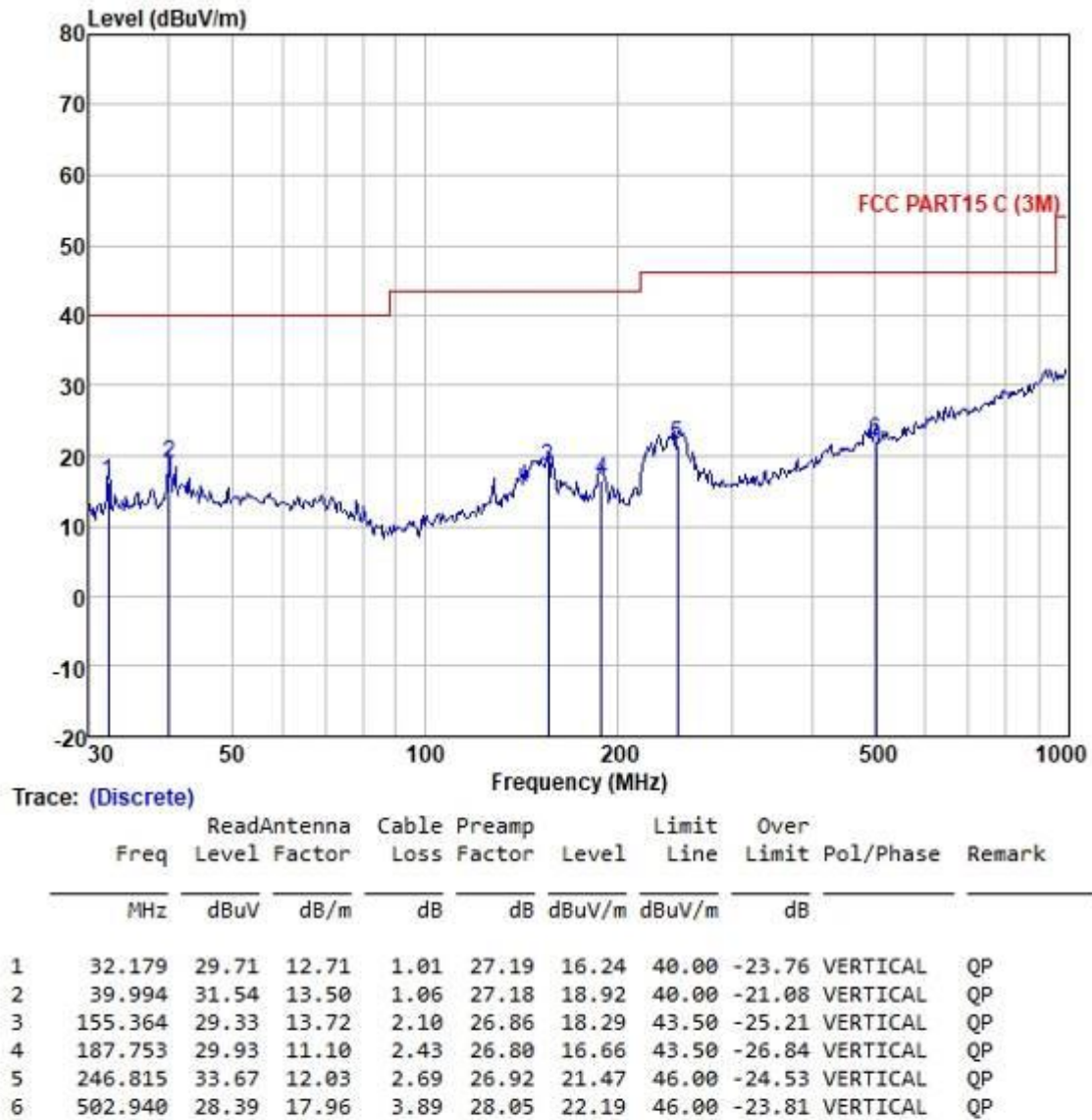
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	32.179	27.39	12.71	1.01	27.19	13.92	40.00	-26.08	HORIZONTAL	QP
2	91.816	30.74	8.07	1.61	27.10	13.32	43.50	-30.18	HORIZONTAL	QP
3	146.888	28.83	13.70	2.03	26.90	17.66	43.50	-25.84	HORIZONTAL	QP
4	228.490	38.79	10.31	2.65	26.87	24.88	46.00	-21.12	HORIZONTAL	QP
5	261.058	36.27	12.25	2.71	26.98	24.25	46.00	-21.75	HORIZONTAL	QP
6	798.980	27.31	22.60	5.99	28.12	27.78	46.00	-18.22	HORIZONTAL	QP



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Mode:b; Polarization:Vertical; Modulation:b; Bandwidth:20MHz ; Channel:Low



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8 Appendix

8.1 Appendix 15.247

Cable Loss=0.9dB

1. 6dB Bandwidth

Test Mode	Test Channel	Ant	6dB Bandwidth [MHz]	Limit	Verdict
11B	2412	Ant1	10.06	0.5	PASS
11B	2442	Ant1	10.07	0.5	PASS
11B	2462	Ant1	10.07	0.5	PASS
11G	2412	Ant1	16.52	0.5	PASS
11G	2442	Ant1	16.52	0.5	PASS
11G	2462	Ant1	16.52	0.5	PASS
11N20SISO	2412	Ant1	17.76	0.5	PASS
11N20SISO	2442	Ant1	17.76	0.5	PASS
11N20SISO	2462	Ant1	17.76	0.5	PASS
11N40SISO	2422	Ant1	36.35	0.5	PASS
11N40SISO	2442	Ant1	36.37	0.5	PASS
11N40SISO	2452	Ant1	36.35	0.5	PASS

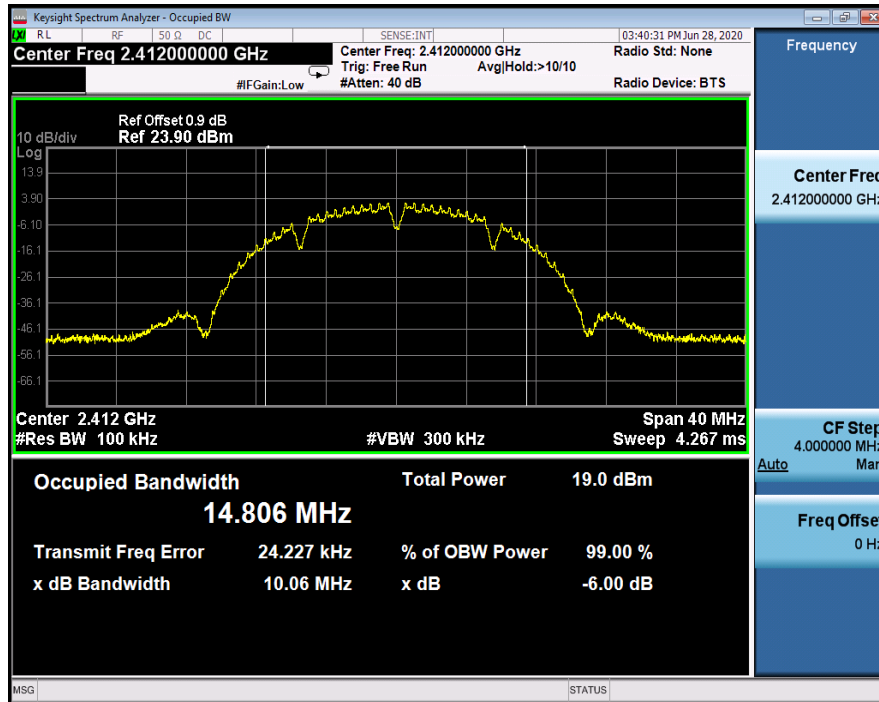


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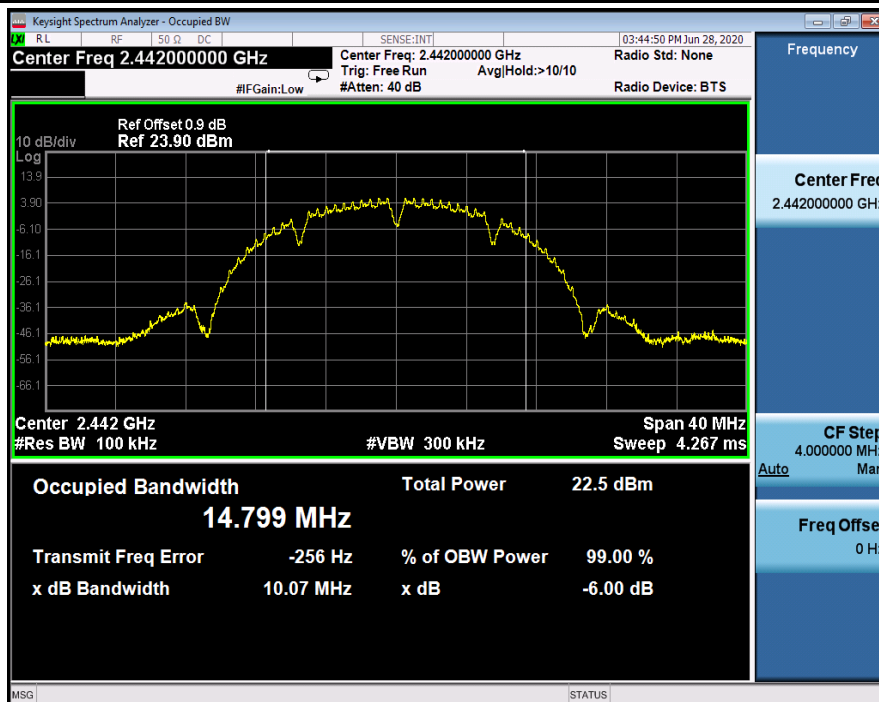
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TEST PLOT

6dB Bandwidth_11B_2412_Ant1



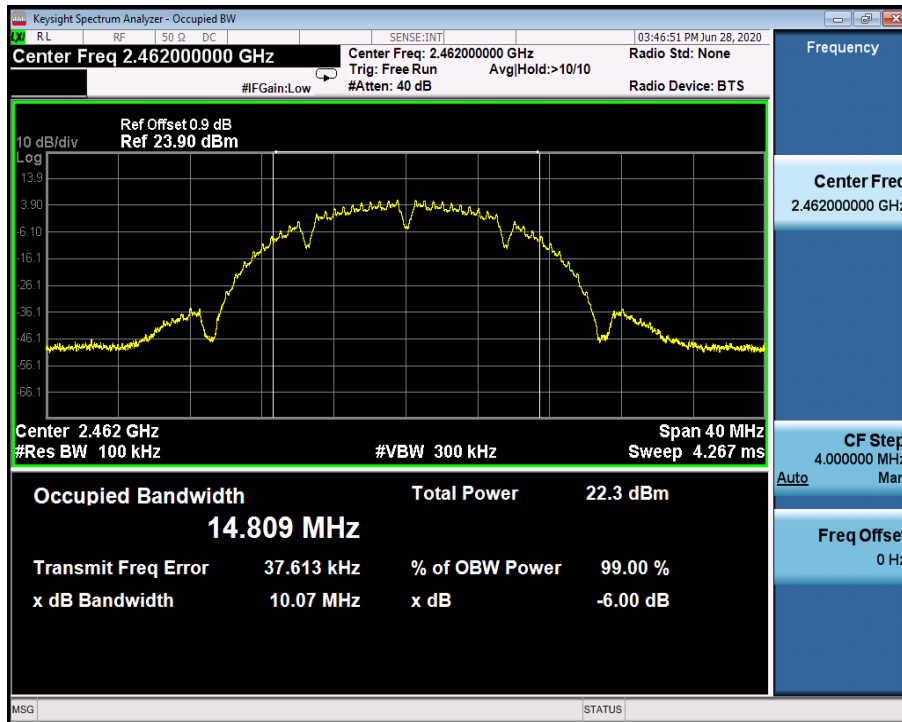
6dB Bandwidth_11B_2442_Ant1



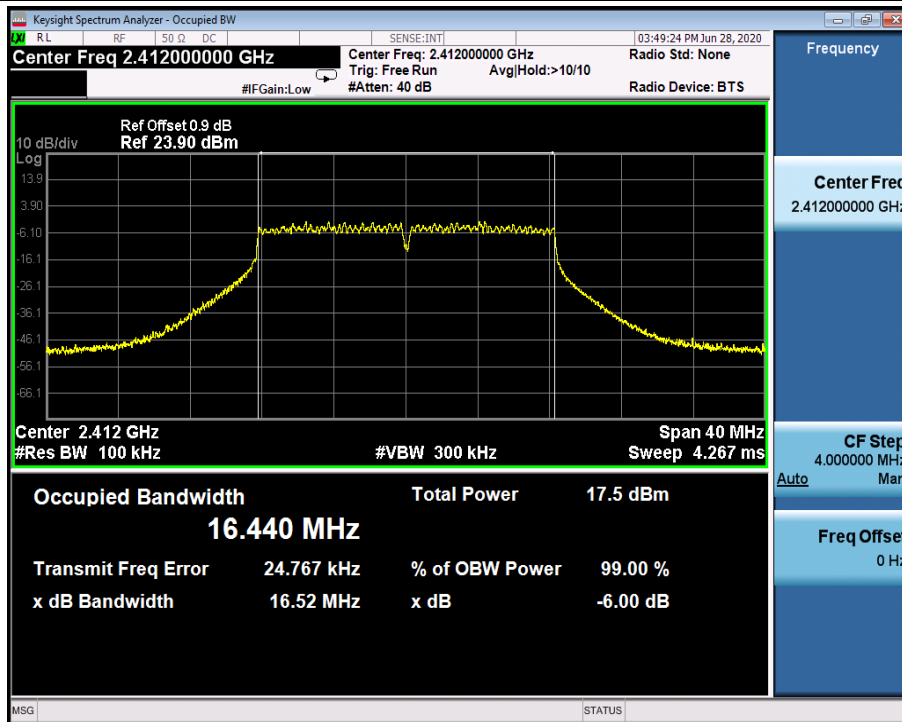
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6dB Bandwidth_11B_2462_Ant1



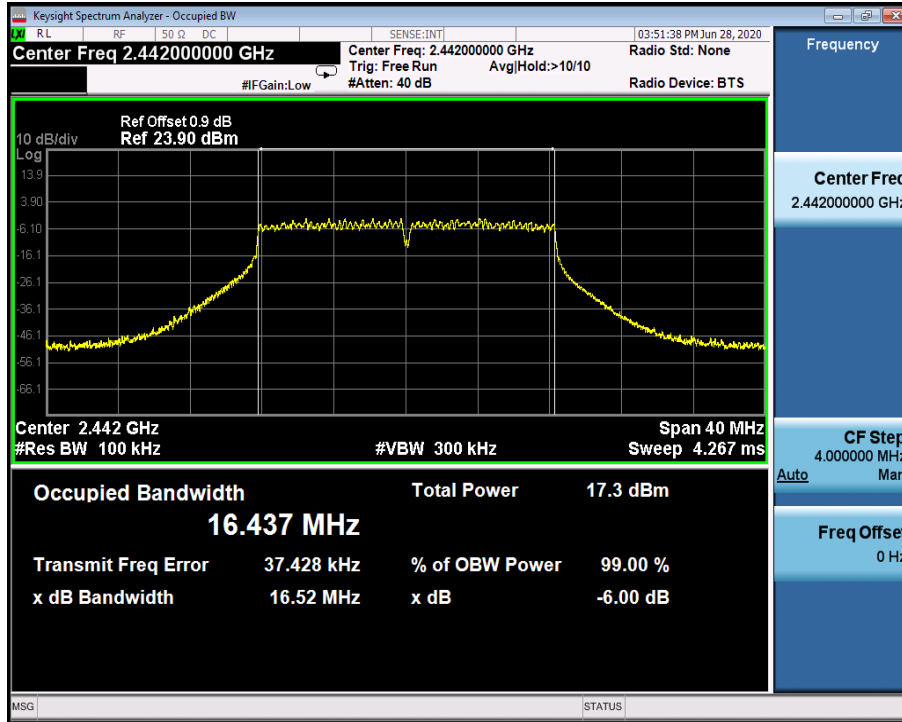
6dB Bandwidth_11G_2412_Ant1



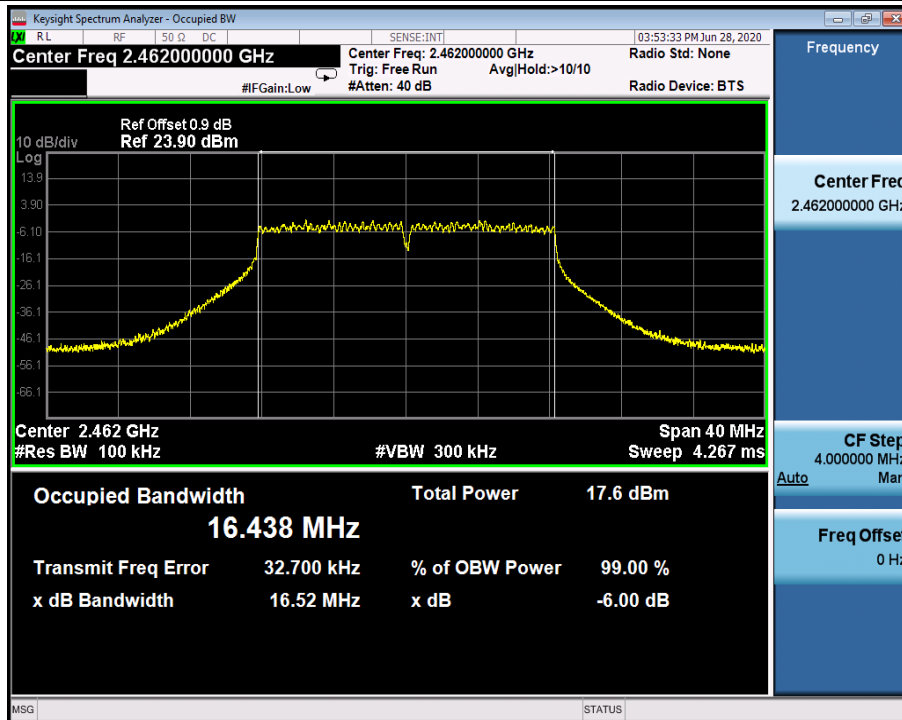
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6dB Bandwidth_11G_2442_Ant1



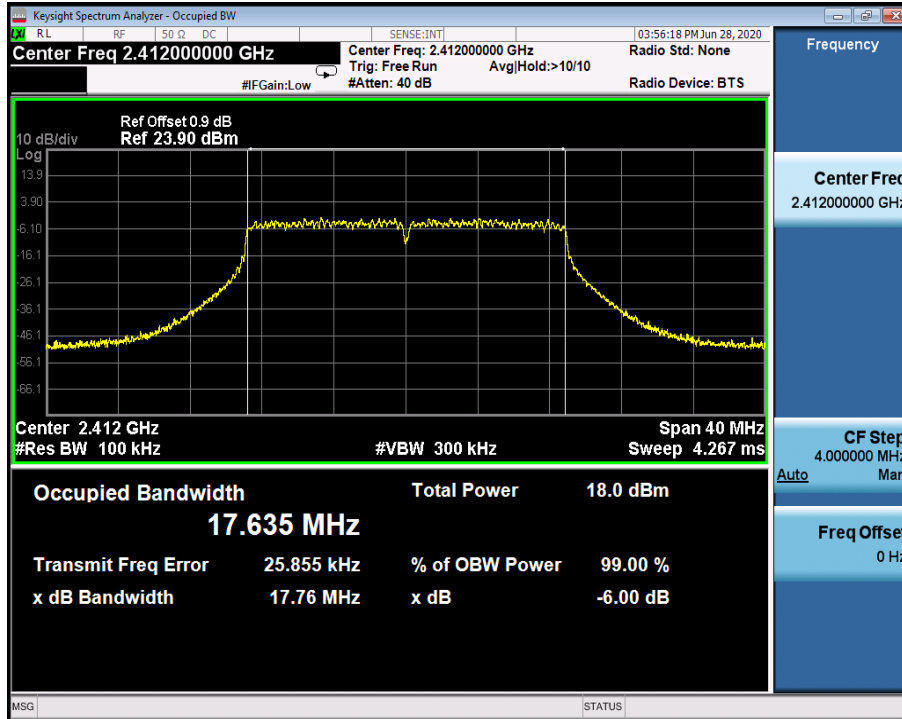
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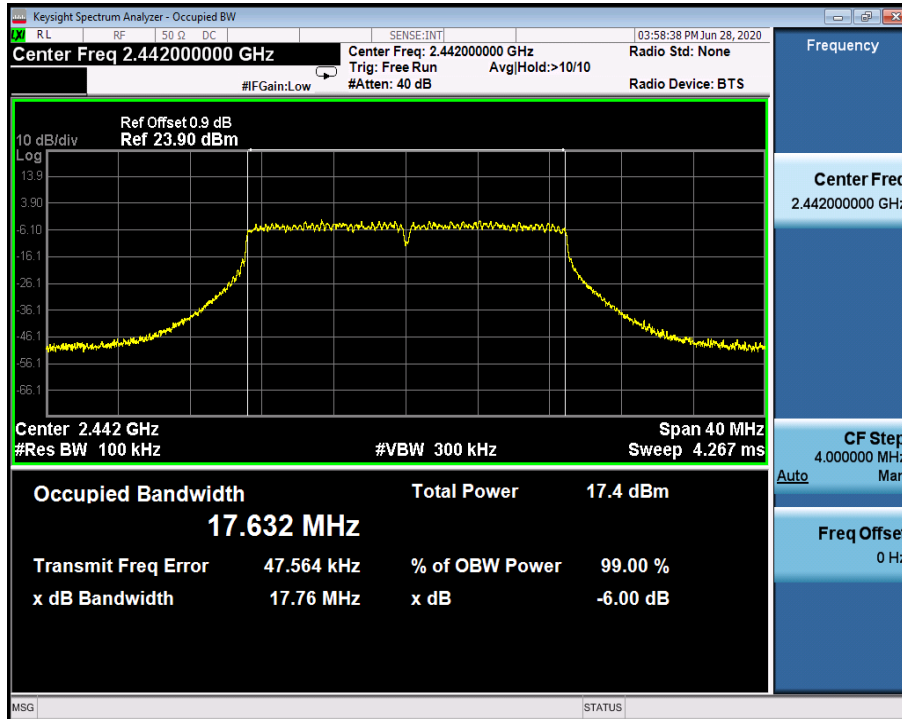
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6dB Bandwidth_11N20SISO_2412_Ant1



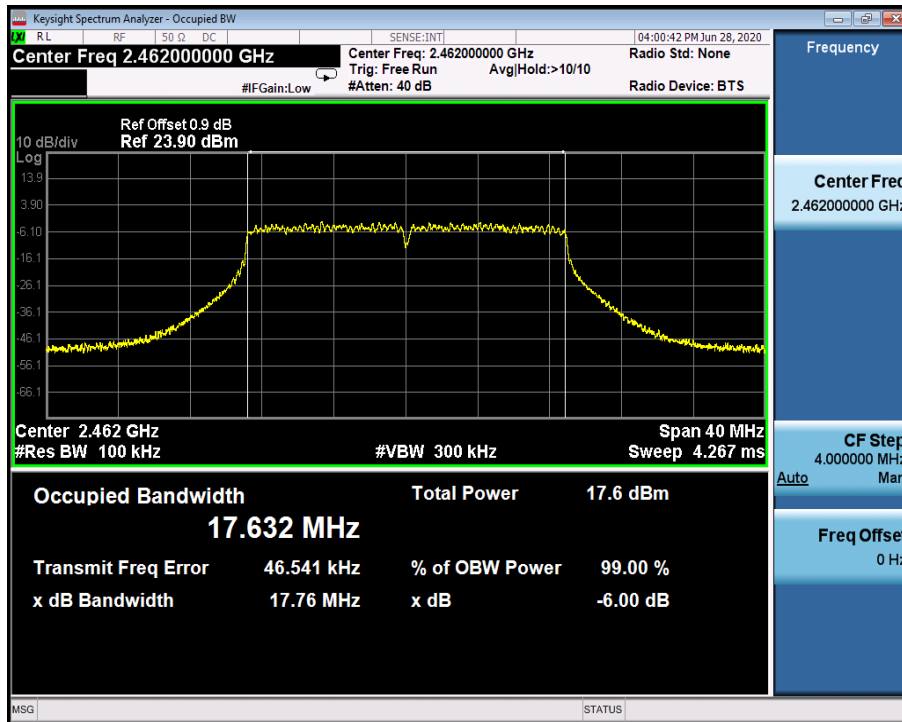
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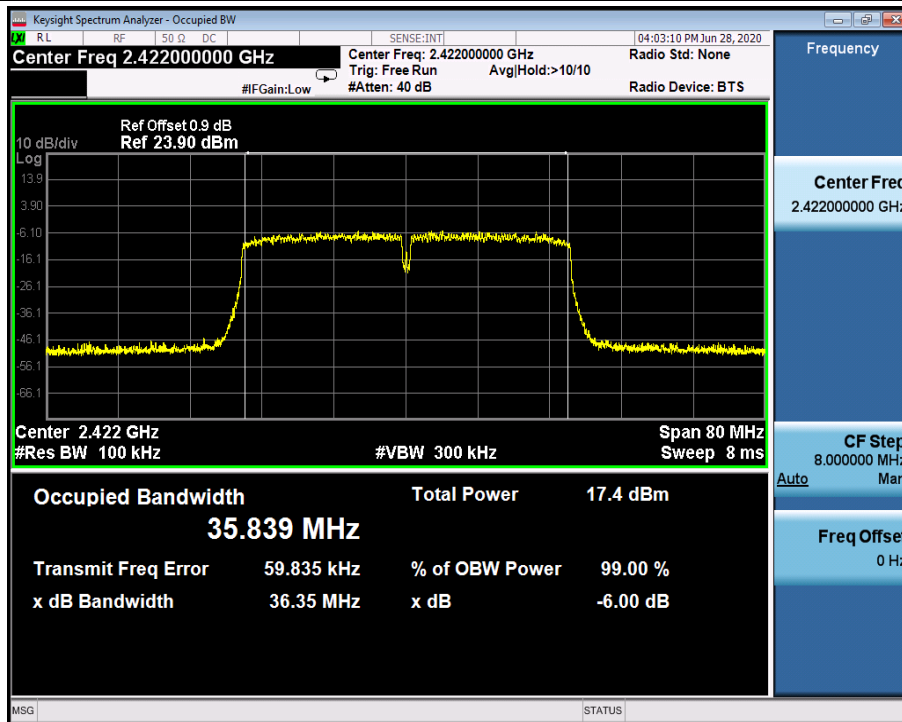
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6dB Bandwidth_11N20SISO_2462_Ant1



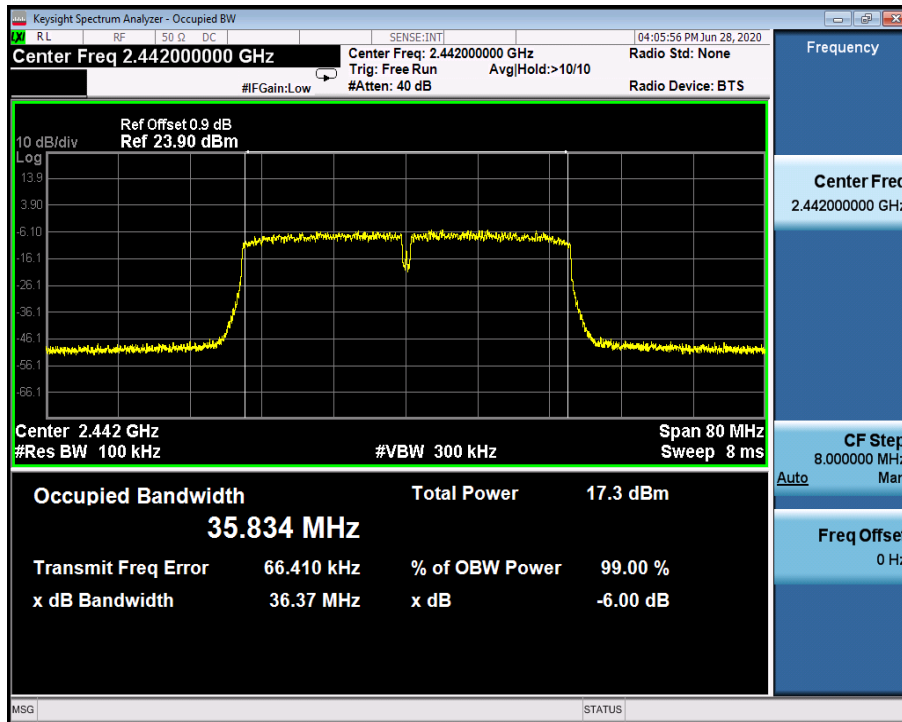
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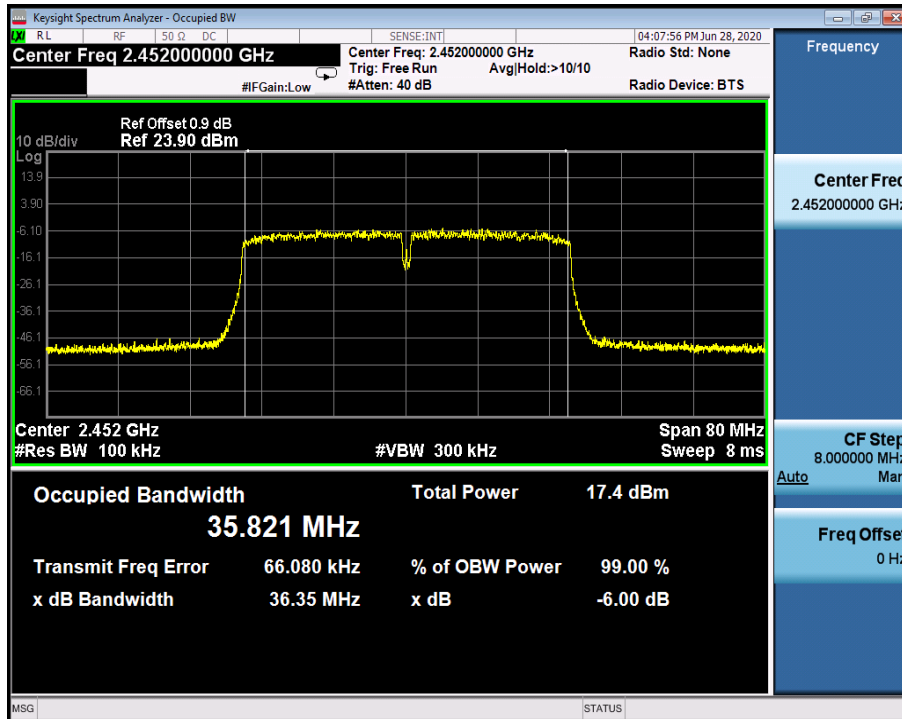
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6dB Bandwidth_11N40SISO_2442_Ant1



6dB Bandwidth_11N40SISO_2452_Ant1



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2.Maximum peak conducted output power

Test Mode	Test Channel	Ant	Power[dBm]	Limit[dBm]	Verdict
11B	2412	Ant1	14.81	30	PASS
11B	2442	Ant1	18.14	30	PASS
11B	2462	Ant1	17.99	30	PASS
11G	2412	Ant1	18.78	30	PASS
11G	2442	Ant1	18.73	30	PASS
11G	2462	Ant1	18.91	30	PASS
11N20SISO	2412	Ant1	18.81	30	PASS
11N20SISO	2442	Ant1	18.48	30	PASS
11N20SISO	2462	Ant1	18.59	30	PASS
11N40SISO	2422	Ant1	18.62	30	PASS
11N40SISO	2442	Ant1	18.62	30	PASS
11N40SISO	2452	Ant1	18.72	30	PASS



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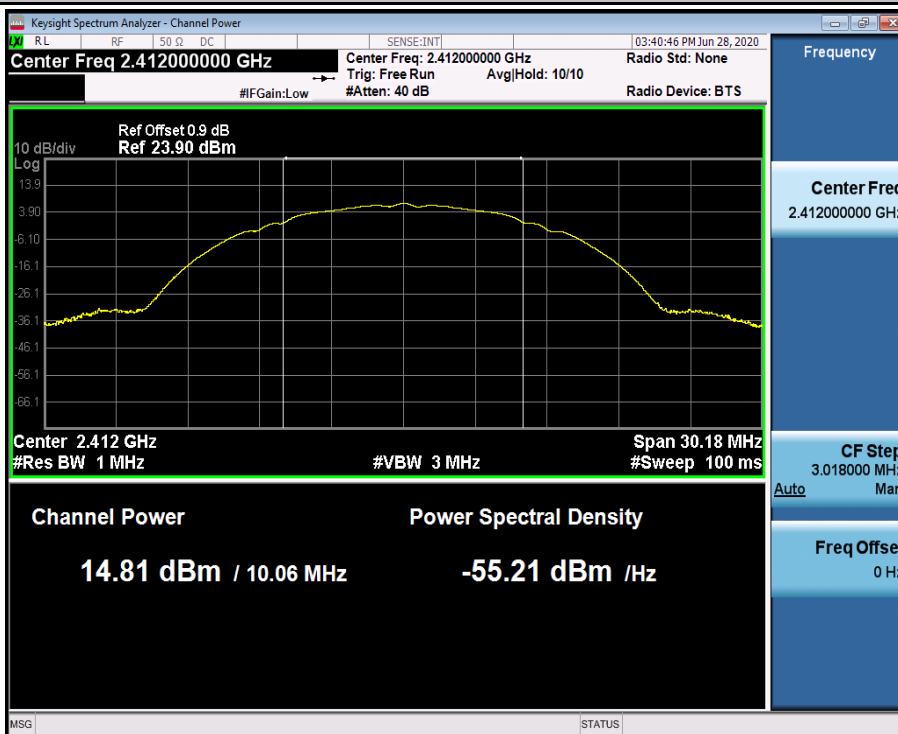
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TEST PLOT

Maximum peak conducted output power_11B_2412_Ant1



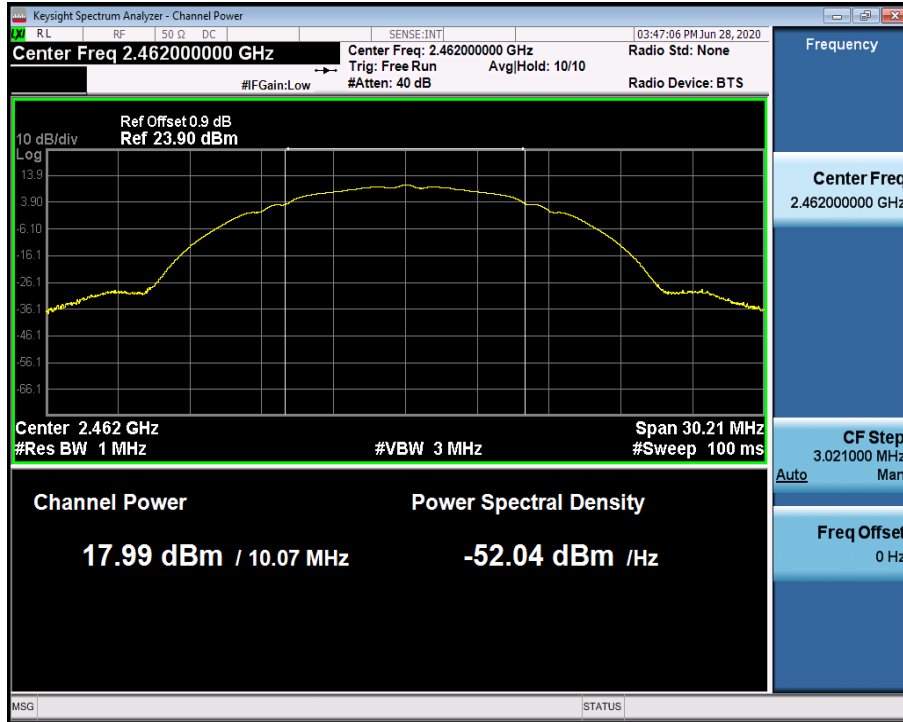
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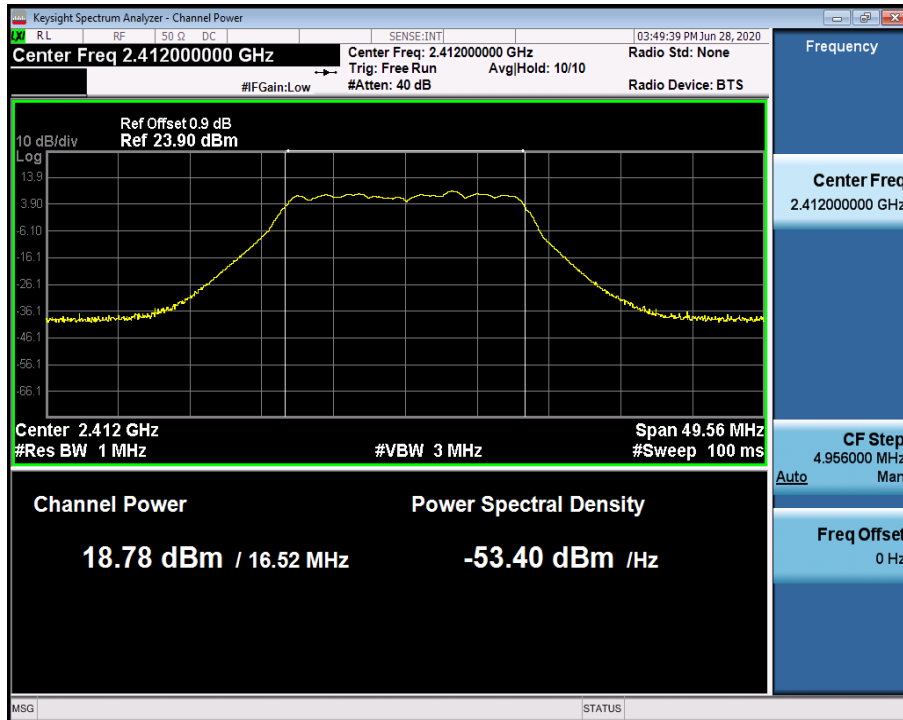
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Maximum peak conducted output power_11B_2462_Ant1



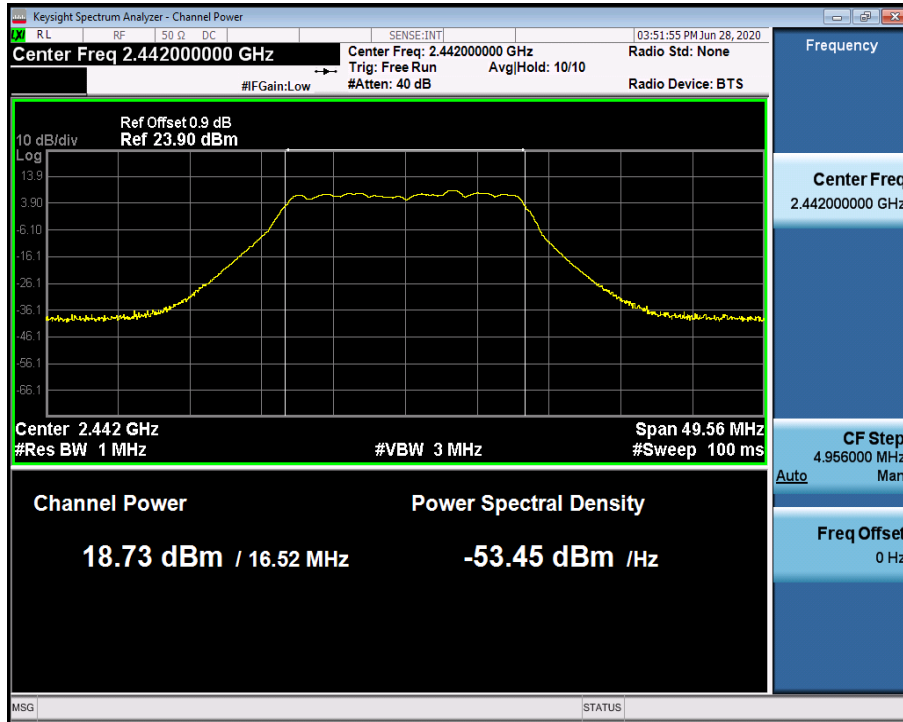
Maximum peak conducted output power_11G_2412_Ant1



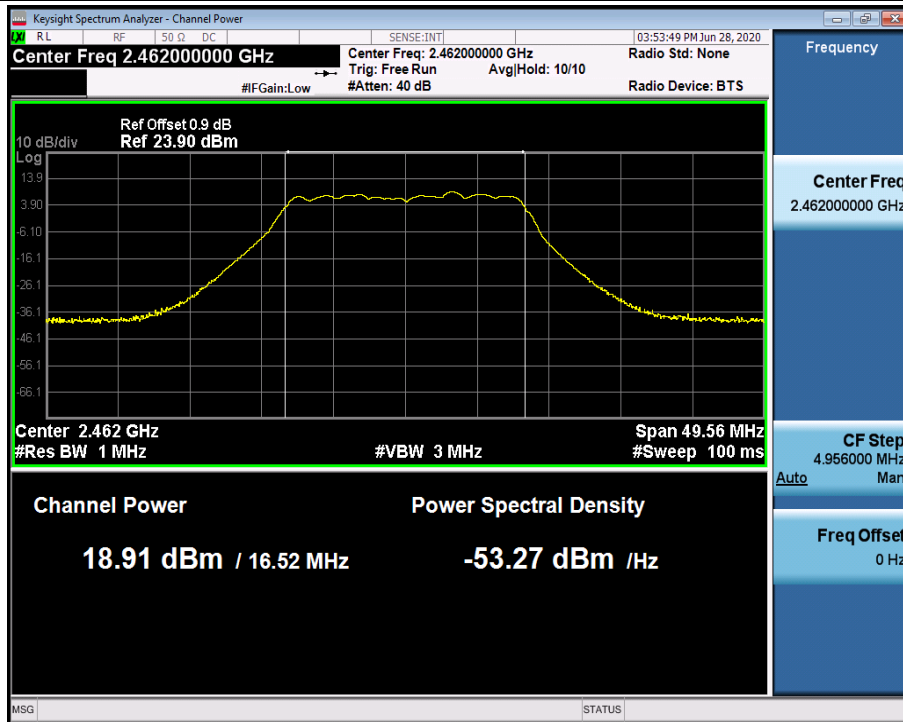
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Maximum peak conducted output power_11G_2442_Ant1



Maximum peak conducted output power_11G_2462_Ant1



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