



TEST REPORT

Application No.: GZEM2007013771CR
Applicant: Greater Goods, LLC
Address of Applicant: 4427 Chouteau Ave.St.Louis, Mo, 63110, Unite States
Manufacturer: Zhongshan Transtek Electronics Co., Ltd
Address of Manufacturer: No.23, Jin'an Road, Minzhong, Zhongshan, Guangdong, China
Factory: Zhongshan Transtek Electronics Co., Ltd
Address of Factory: No.23, Jin'an Road, Minzhong, Zhongshan, Guangdong, China
Equipment Under Test (EUT):
FCC ID: 2ADUL0385
EUT Name: WIFI Smart Scale
Model No.: 0385, 0396 □
□ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Standard(s): 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2020-07-16
Date of Test: 2020-07-20 to 2020-07-22
Date of Issue: 2020-07-28

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		2020-07-28		Original

Authorized for issue by:			
Tested By	 Jackson_Yuan /Project Engineer	2020-07-20 to 2020-07-22 Date	
Checked By	 Ricky_Liu /Reviewer	2020-07-28 Date	



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
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.: 0385, 0396

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 the outer appearance and model name.

Therefore only one model 0385 was tested in this report.



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4 General Information

4.1 Details of E.U.T.

Power Supply: DC 6 V (4 x 1.5V AAA size battery)
 Test Voltage: DC 6 V
 Cable: None
 Antenna Gain: 3 dBi
 Antenna Type: Integral 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
 Operation Frequency: 802.11b/g/n(HT20): 2412MHz to 2462MHz
 SN: FA1280418C00001M
 Hardware: TSF1270-3 Rev0
 Firmware: 1.0
 Test Software: KM22.exe
 Power Setting: 0(18 dBm)

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Notebook	IBM	T30	S/N78-3VMLX 06/01
Wi-Fi test board	SGS EMC	RF 07	RF 07



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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	$\pm 3\%$

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

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

Conducted Band Edges Measurement					
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 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
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



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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	2020-07-09	2021-07-08
DMM	Fluke	73	EMC0007	2020-07-09	2021-07-08



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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 (Please refer to Appendix A):

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 3dBi.



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7 Radio Spectrum Matter Test Results

7.1 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

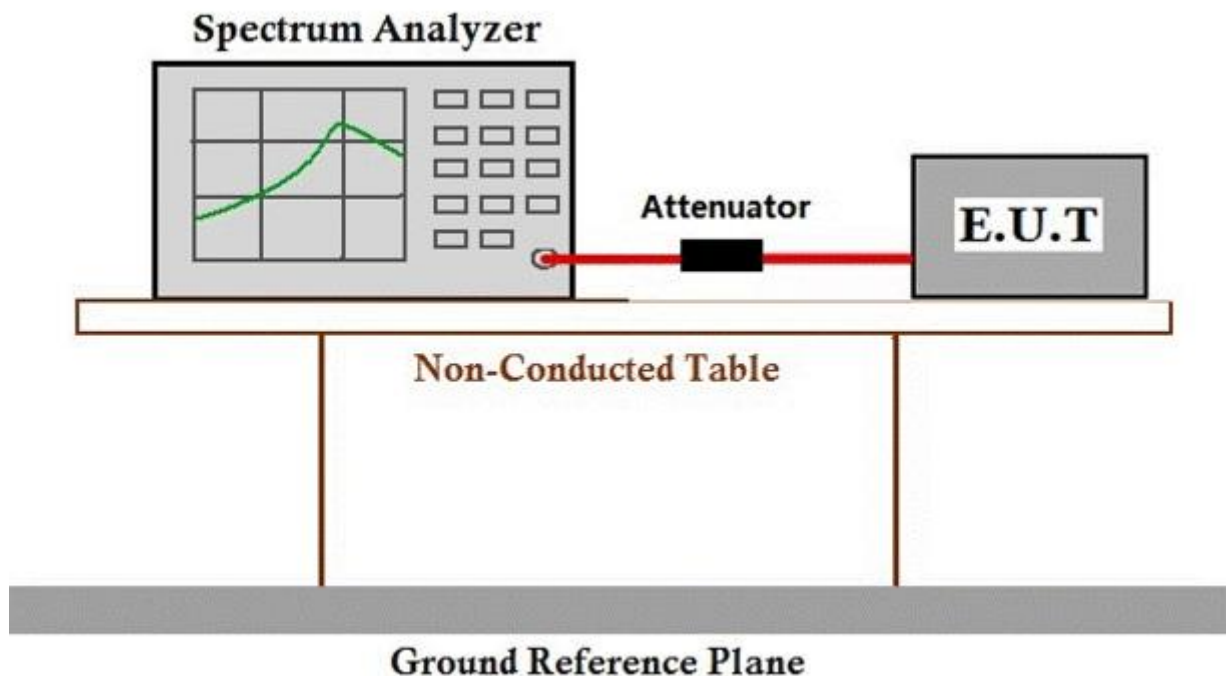
7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 50.4 % 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). Only the data of worst case is recorded in the report.

7.1.2 Test Setup Diagram



7.1.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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7.2 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

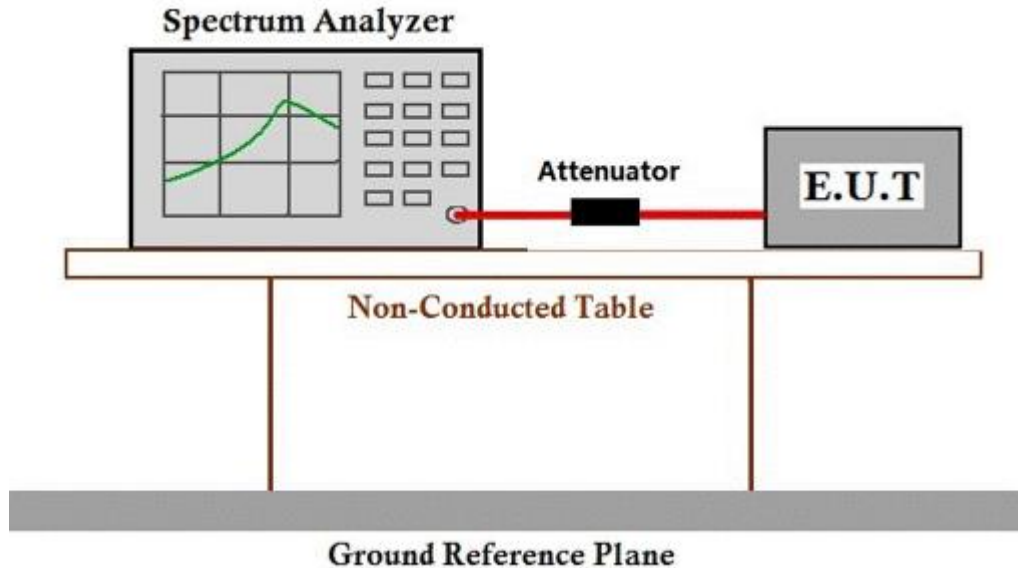
7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 50.4 % 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). 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



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7.3 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

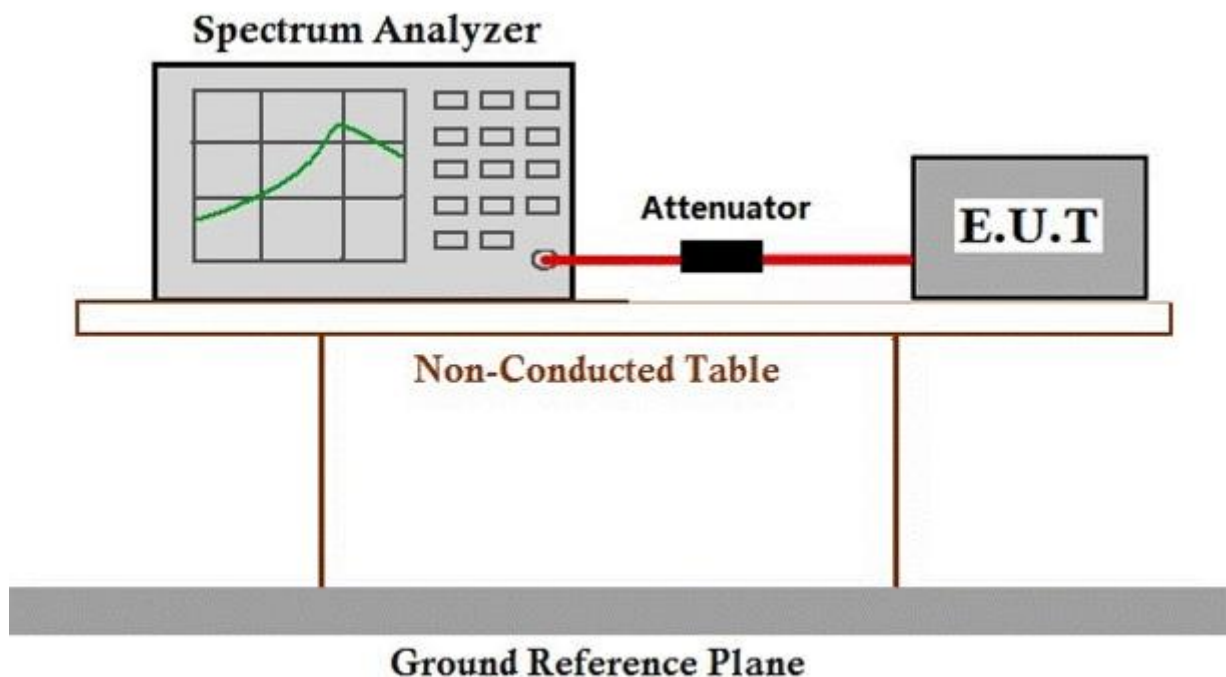
7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 50.4 % 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). 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 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))

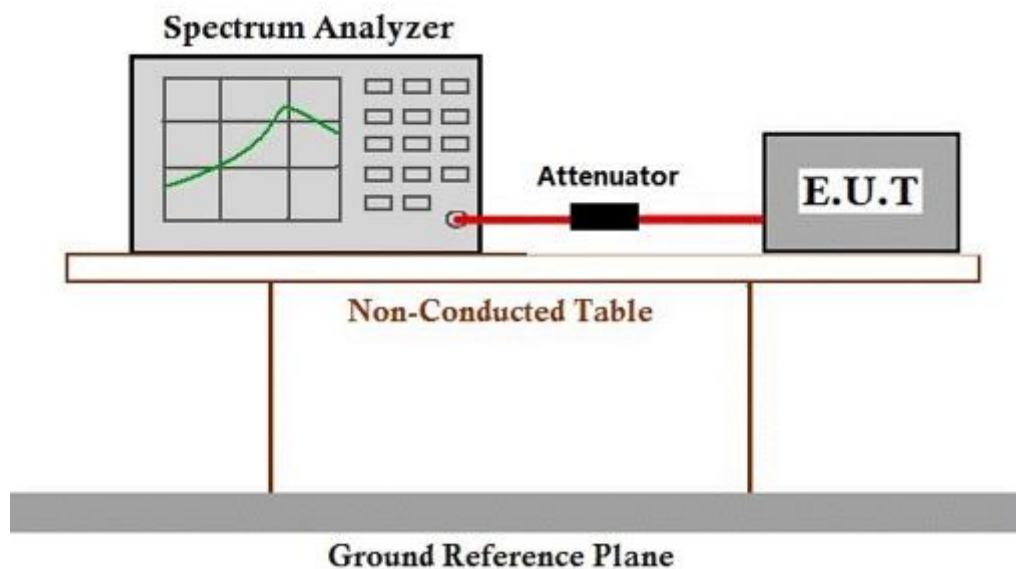
7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C **Humidity:** 50.4 % 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). 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 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))

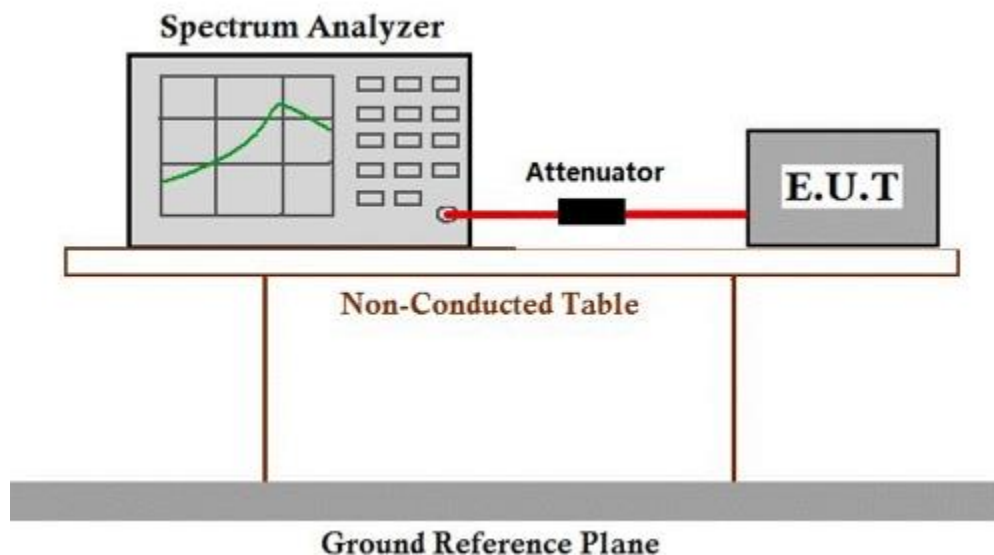
7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 50.4 % 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). 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 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.

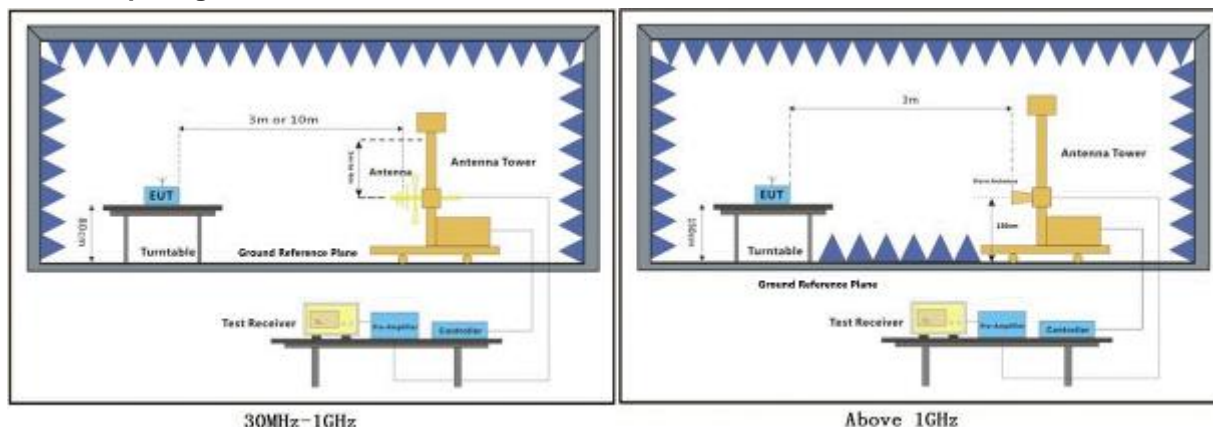
7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 26.2 °C Humidity: 62.7 % 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). Only the data of worst case is recorded in the report.

7.6.2 Test Setup Diagram



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7.6.3 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.

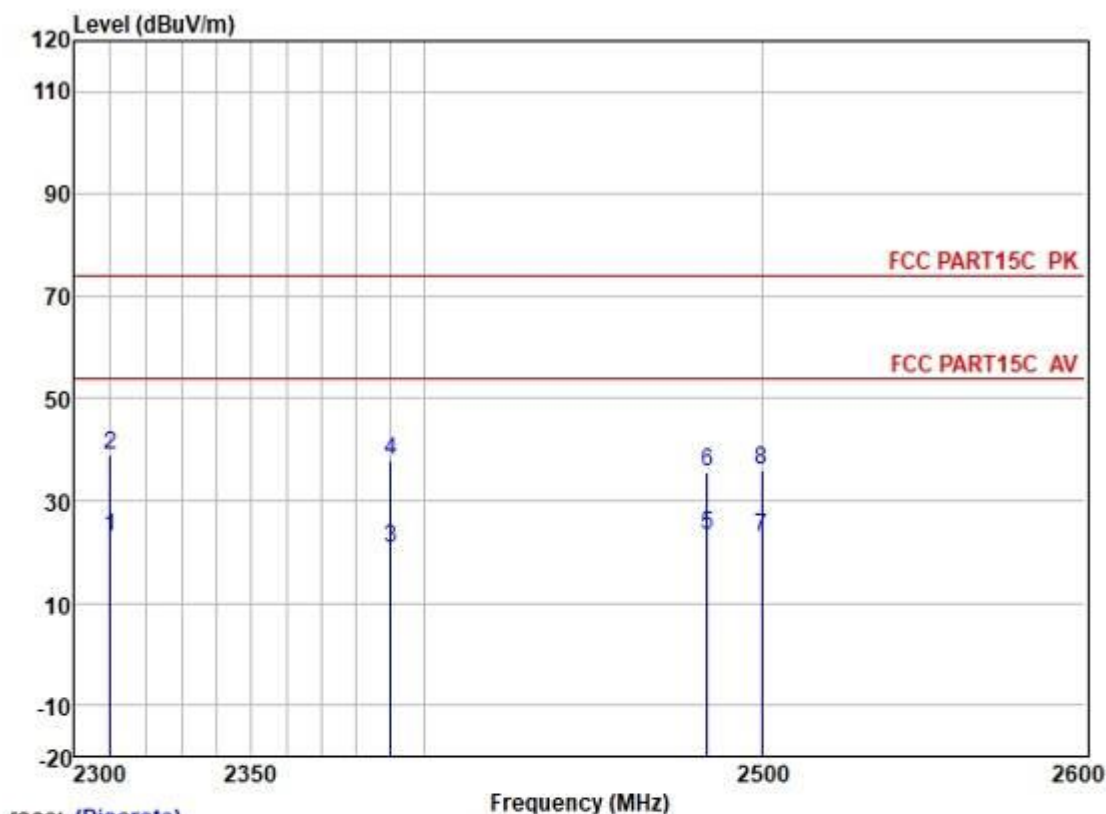
Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor



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



race: (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	29.33	27.15	3.32	36.94	22.86	54.00	-31.14	HORIZONTAL Average
2	2310.000	45.54	27.15	3.32	36.94	39.07	74.00	-34.93	HORIZONTAL Peak
3	2390.000	26.99	27.33	3.48	36.92	20.88	54.00	-33.12	HORIZONTAL Average
4	2390.000	44.11	27.33	3.48	36.92	38.00	74.00	-36.00	HORIZONTAL Peak
5	2483.500	29.24	27.48	3.53	36.90	23.35	54.00	-30.65	HORIZONTAL Average
6	2483.500	41.59	27.48	3.53	36.90	35.70	74.00	-38.30	HORIZONTAL Peak
7	2500.000	28.79	27.50	3.40	36.89	22.80	54.00	-31.20	HORIZONTAL Average
8	2500.000	42.17	27.50	3.40	36.89	36.18	74.00	-37.82	HORIZONTAL Peak



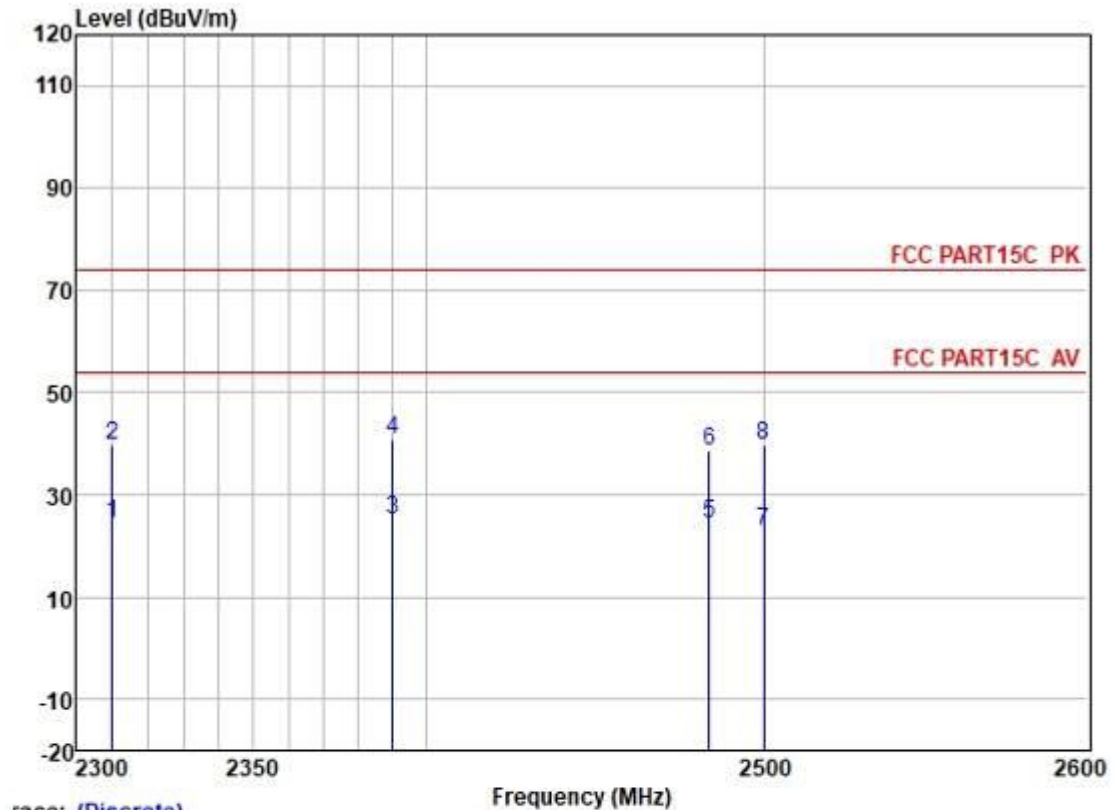
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Mode:b; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

		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	2310.000	30.95	27.15	3.32	36.94	24.48	54.00	-29.52	VERTICAL	Average
2	2310.000	46.16	27.15	3.32	36.94	39.69	74.00	-34.31	VERTICAL	Peak
3	2390.000	31.11	27.33	3.48	36.92	25.00	54.00	-29.00	VERTICAL	Average
4	2390.000	46.78	27.33	3.48	36.92	40.67	74.00	-33.33	VERTICAL	Peak
5	2483.500	30.26	27.48	3.53	36.90	24.37	54.00	-29.63	VERTICAL	Average
6	2483.500	44.55	27.48	3.53	36.90	38.66	74.00	-35.34	VERTICAL	Peak
7	2500.000	28.83	27.50	3.40	36.89	22.84	54.00	-31.16	VERTICAL	Average
8	2500.000	45.78	27.50	3.40	36.89	39.79	74.00	-34.21	VERTICAL	Peak



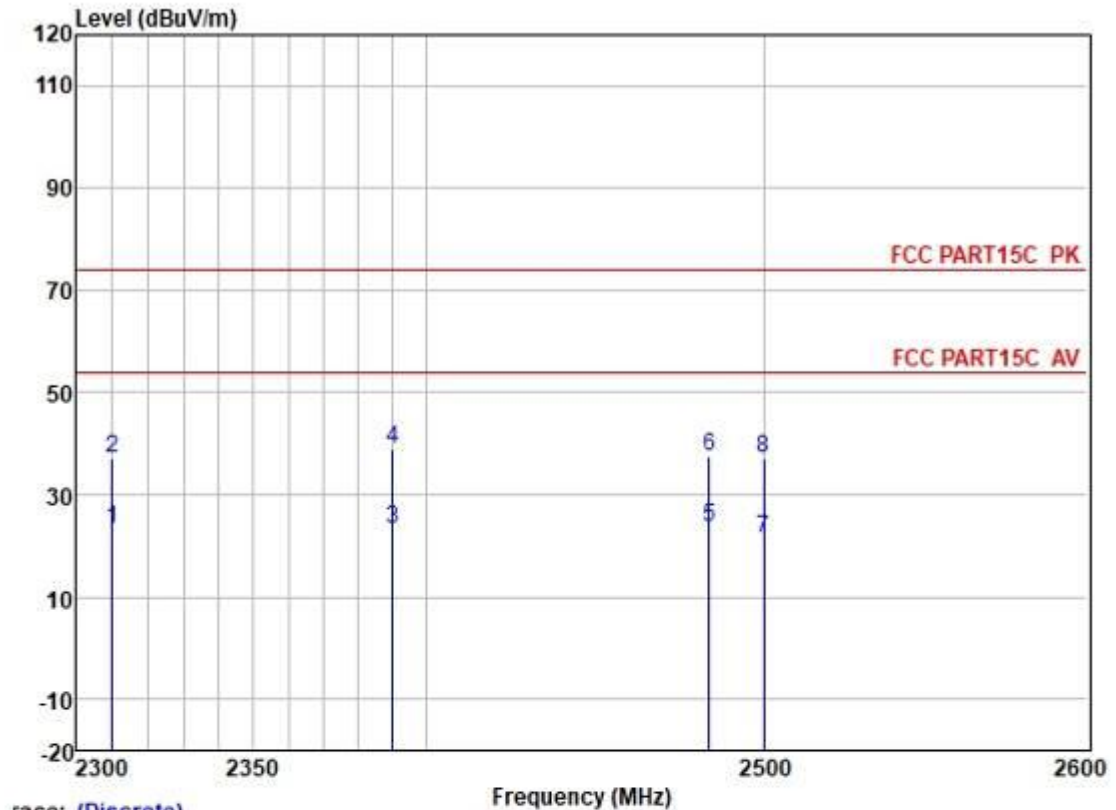
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Mode:b; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:High



Trace: (Discrete)

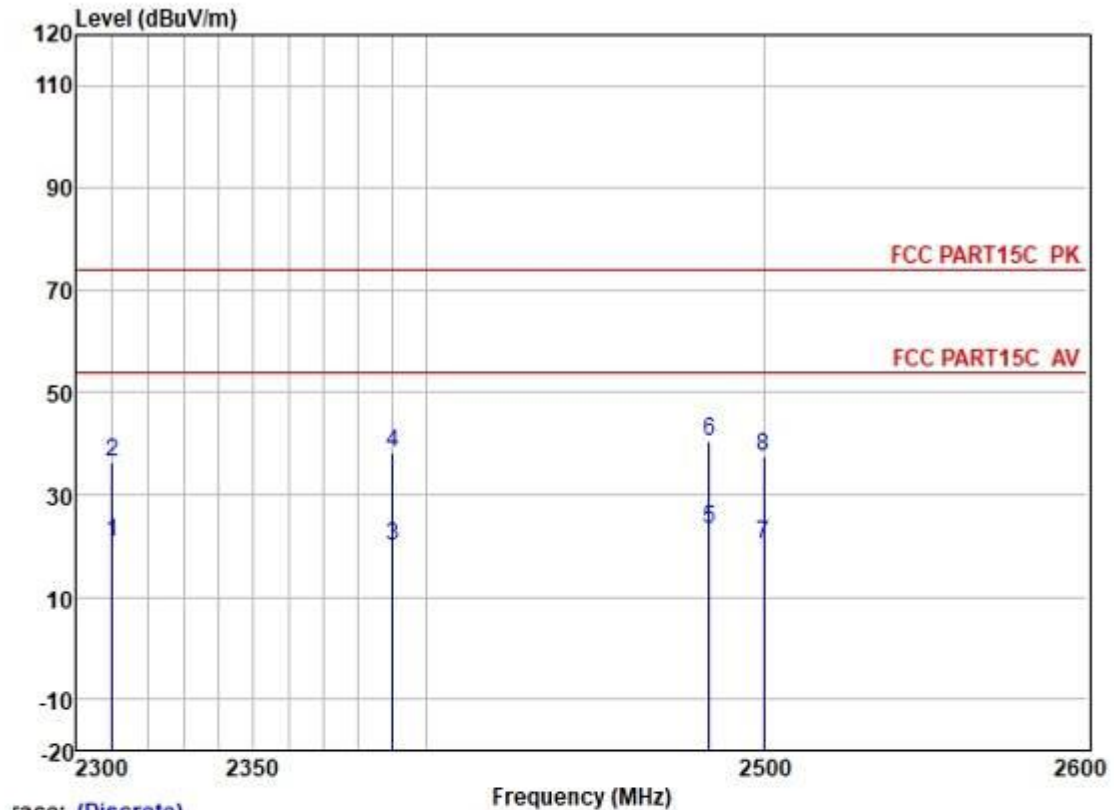
	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 2310.000	29.61	27.15	3.32	36.94	23.14	54.00	-30.86	HORIZONTAL	Average
2 2310.000	43.61	27.15	3.32	36.94	37.14	74.00	-36.86	HORIZONTAL	Peak
3 2390.000	29.39	27.33	3.48	36.92	23.28	54.00	-30.72	HORIZONTAL	Average
4 2390.000	44.97	27.33	3.48	36.92	38.86	74.00	-35.14	HORIZONTAL	Peak
5 2483.500	29.57	27.48	3.53	36.90	23.68	54.00	-30.32	HORIZONTAL	Average
6 2483.500	43.25	27.48	3.53	36.90	37.36	74.00	-36.64	HORIZONTAL	Peak
7 2500.000	27.61	27.50	3.40	36.89	21.62	54.00	-32.38	HORIZONTAL	Average
8 2500.000	43.11	27.50	3.40	36.89	37.12	74.00	-36.88	HORIZONTAL	Peak



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



Trace: (Discrete)

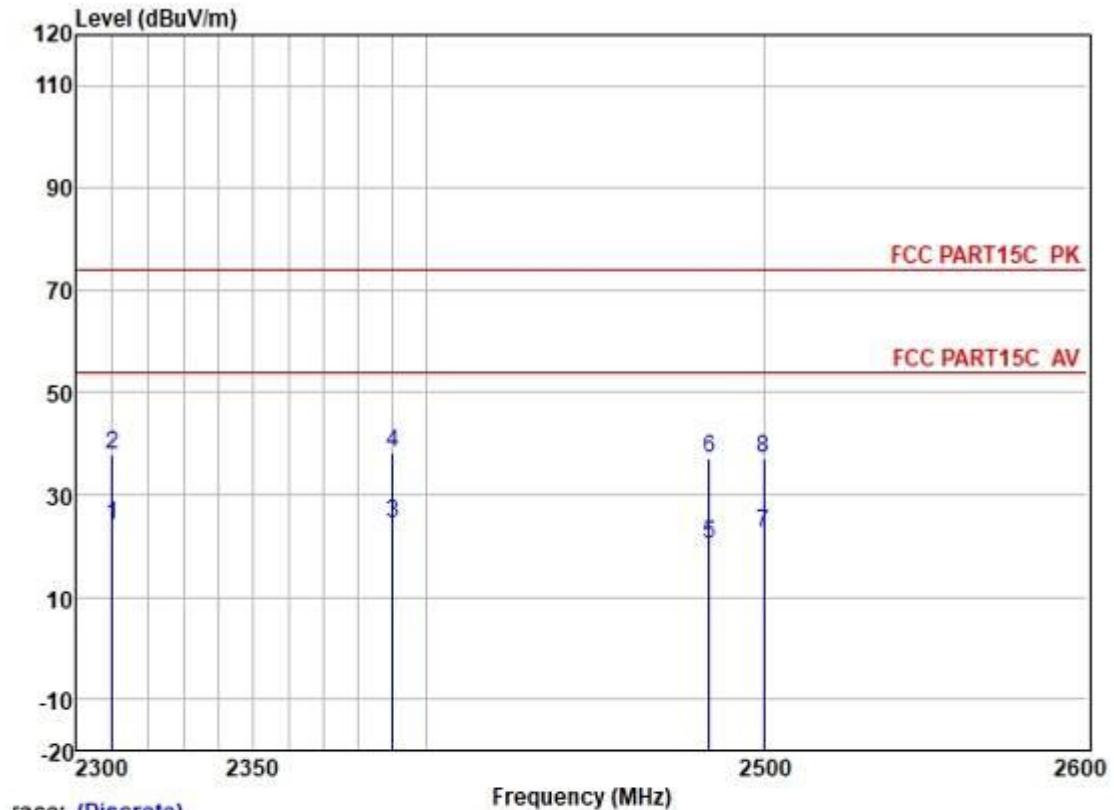
	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	27.21	27.15	3.32	36.94	20.74	54.00	-33.26	VERTICAL
2	2310.000	42.70	27.15	3.32	36.94	36.23	74.00	-37.77	VERTICAL
3	2390.000	26.11	27.33	3.48	36.92	20.00	54.00	-34.00	VERTICAL
4	2390.000	44.22	27.33	3.48	36.92	38.11	74.00	-35.89	VERTICAL
5	2483.500	29.24	27.48	3.53	36.90	23.35	54.00	-30.65	VERTICAL
6	2483.500	46.41	27.48	3.53	36.90	40.52	74.00	-33.48	VERTICAL
7	2500.000	26.25	27.50	3.40	36.89	20.26	54.00	-33.74	VERTICAL
8	2500.000	43.42	27.50	3.40	36.89	37.43	74.00	-36.57	VERTICAL



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



Trace: (Discrete)

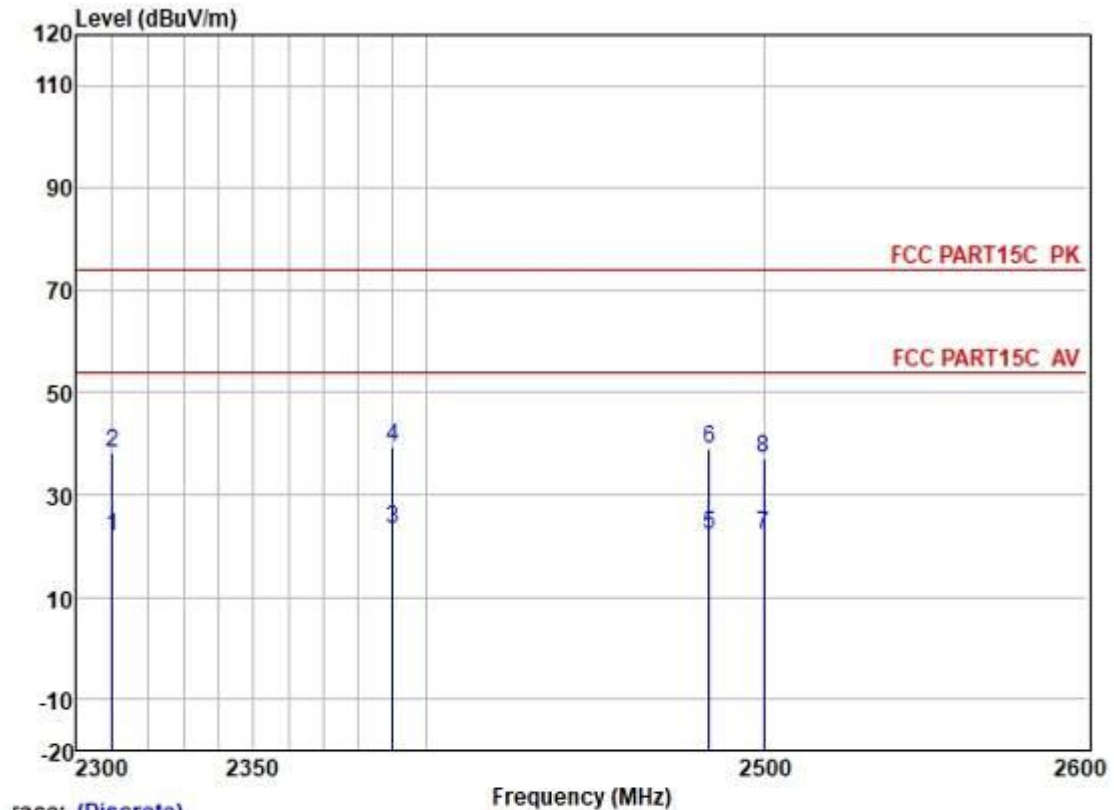
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	30.67	27.15	3.32	36.94	24.20	54.00	-29.80	HORIZONTAL Average
2	2310.000	44.17	27.15	3.32	36.94	37.70	74.00	-36.30	HORIZONTAL Peak
3	2390.000	30.69	27.33	3.48	36.92	24.58	54.00	-29.42	HORIZONTAL Average
4	2390.000	44.40	27.33	3.48	36.92	38.29	74.00	-35.71	HORIZONTAL Peak
5	2483.500	26.28	27.48	3.53	36.90	20.39	54.00	-33.61	HORIZONTAL Average
6	2483.500	43.18	27.48	3.53	36.90	37.29	74.00	-36.71	HORIZONTAL Peak
7	2500.000	28.71	27.50	3.40	36.89	22.72	54.00	-31.28	HORIZONTAL Average
8	2500.000	43.11	27.50	3.40	36.89	37.12	74.00	-36.88	HORIZONTAL Peak



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



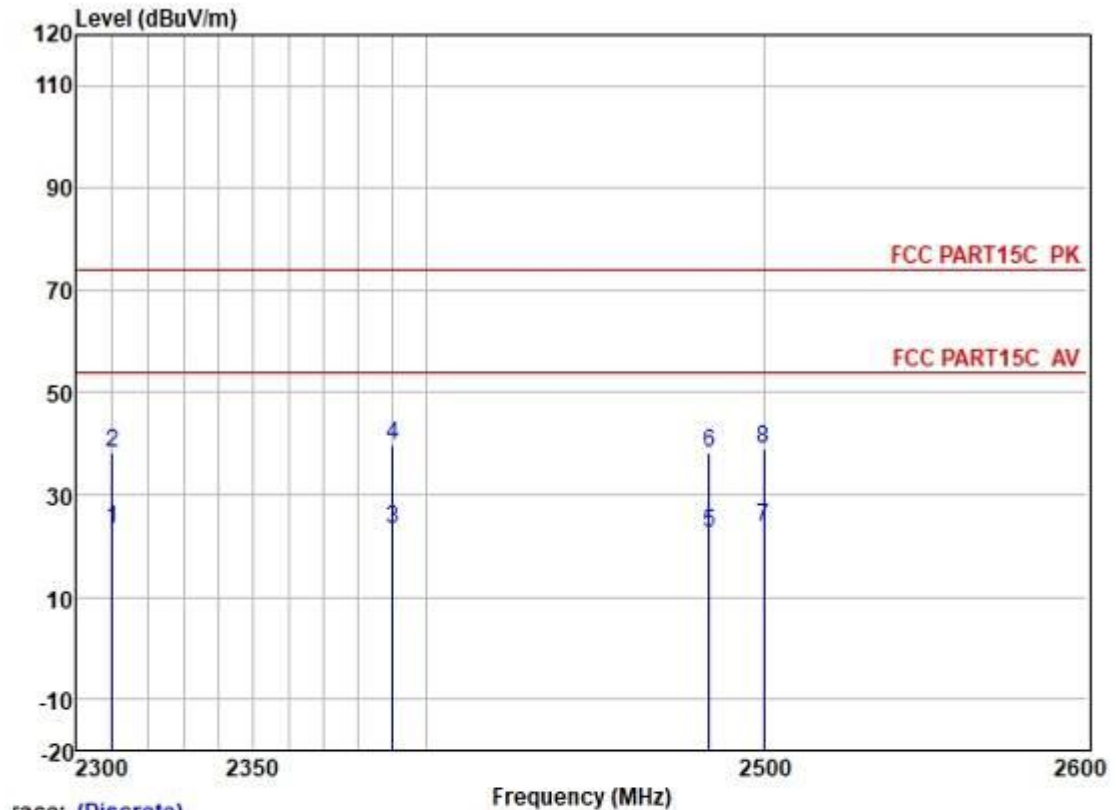
	ReadAntenna	Cable	Preamp	Limit	Over				
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 2310.000	28.39	27.15	3.32	36.94	21.92	54.00	-32.08	VERTICAL	Average
2 2310.000	44.77	27.15	3.32	36.94	38.30	74.00	-35.70	VERTICAL	Peak
3 2390.000	29.42	27.33	3.48	36.92	23.31	54.00	-30.69	VERTICAL	Average
4 2390.000	45.35	27.33	3.48	36.92	39.24	74.00	-34.76	VERTICAL	Peak
5 2483.500	28.18	27.48	3.53	36.90	22.29	54.00	-31.71	VERTICAL	Average
6 2483.500	44.73	27.48	3.53	36.90	38.84	74.00	-35.16	VERTICAL	Peak
7 2500.000	28.32	27.50	3.40	36.89	22.33	54.00	-31.67	VERTICAL	Average
8 2500.000	43.29	27.50	3.40	36.89	37.30	74.00	-36.70	VERTICAL	Peak



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



race: (Discrete)

		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	2310.000	29.79	27.15	3.32	36.94	23.32	54.00	-30.68	HORIZONTAL	Average
2	2310.000	44.52	27.15	3.32	36.94	38.05	74.00	-35.95	HORIZONTAL	Peak
3	2390.000	29.33	27.33	3.48	36.92	23.22	54.00	-30.78	HORIZONTAL	Average
4	2390.000	45.94	27.33	3.48	36.92	39.83	74.00	-34.17	HORIZONTAL	Peak
5	2483.500	28.29	27.48	3.53	36.90	22.40	54.00	-31.60	HORIZONTAL	Average
6	2483.500	44.25	27.48	3.53	36.90	38.36	74.00	-35.64	HORIZONTAL	Peak
7	2500.000	29.61	27.50	3.40	36.89	23.62	54.00	-30.38	HORIZONTAL	Average
8	2500.000	44.89	27.50	3.40	36.89	38.90	74.00	-35.10	HORIZONTAL	Peak



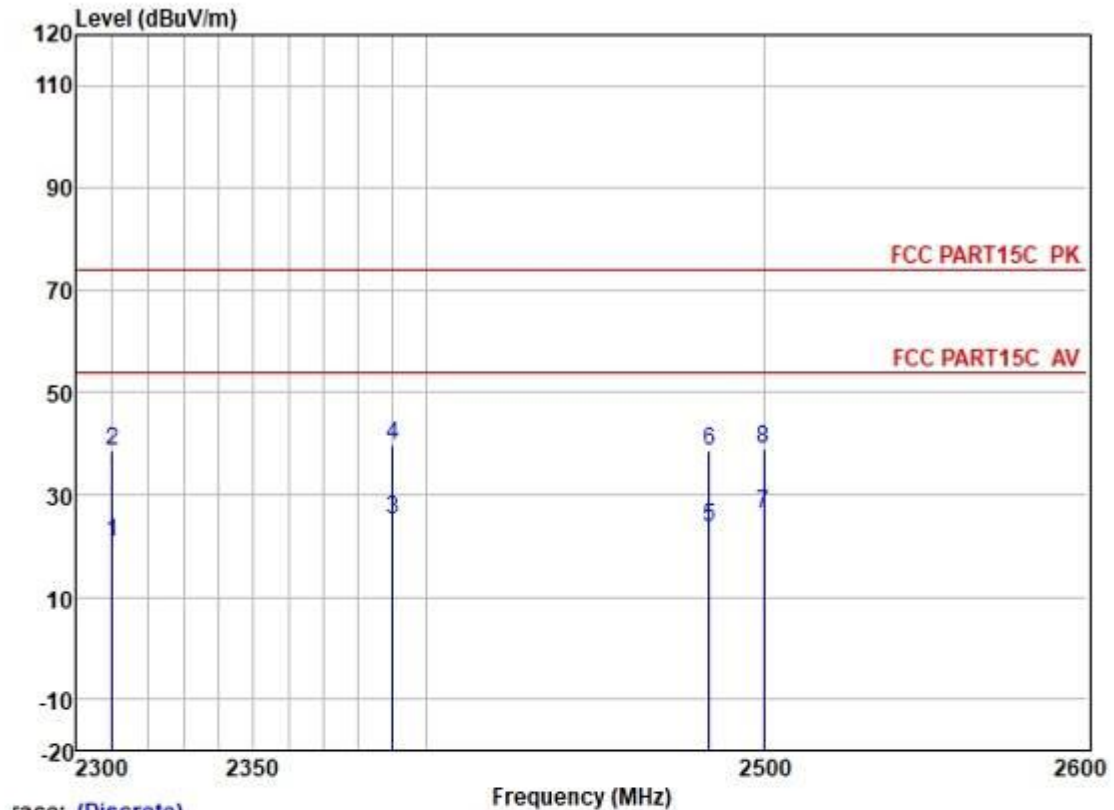
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Mode:b; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:High



Trace: (Discrete)

	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 2310.000	27.27	27.15	3.32	36.94	20.80	54.00	-33.20	VERTICAL	Average
2 2310.000	44.98	27.15	3.32	36.94	38.51	74.00	-35.49	VERTICAL	Peak
3 2390.000	31.31	27.33	3.48	36.92	25.20	54.00	-28.80	VERTICAL	Average
4 2390.000	45.94	27.33	3.48	36.92	39.83	74.00	-34.17	VERTICAL	Peak
5 2483.500	29.58	27.48	3.53	36.90	23.69	54.00	-30.31	VERTICAL	Average
6 2483.500	44.56	27.48	3.53	36.90	38.67	74.00	-35.33	VERTICAL	Peak
7 2500.000	32.28	27.50	3.40	36.89	26.29	54.00	-27.71	VERTICAL	Average
8 2500.000	45.01	27.50	3.40	36.89	39.02	74.00	-34.98	VERTICAL	Peak



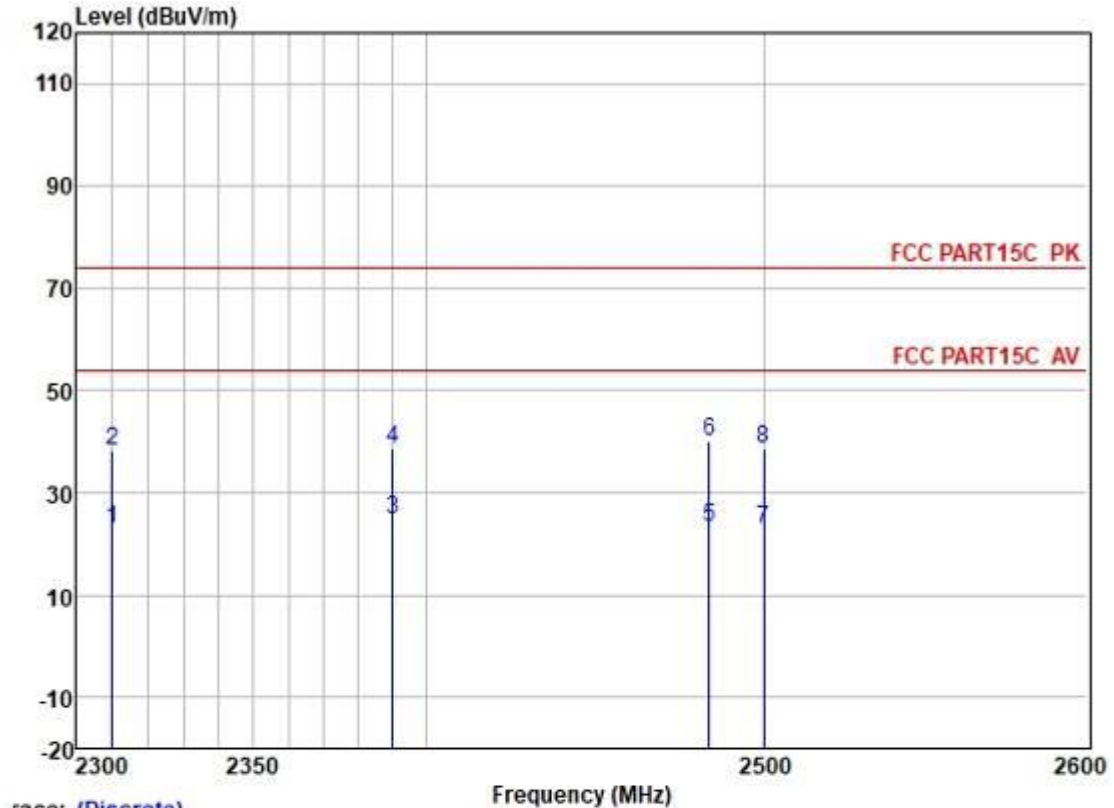
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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

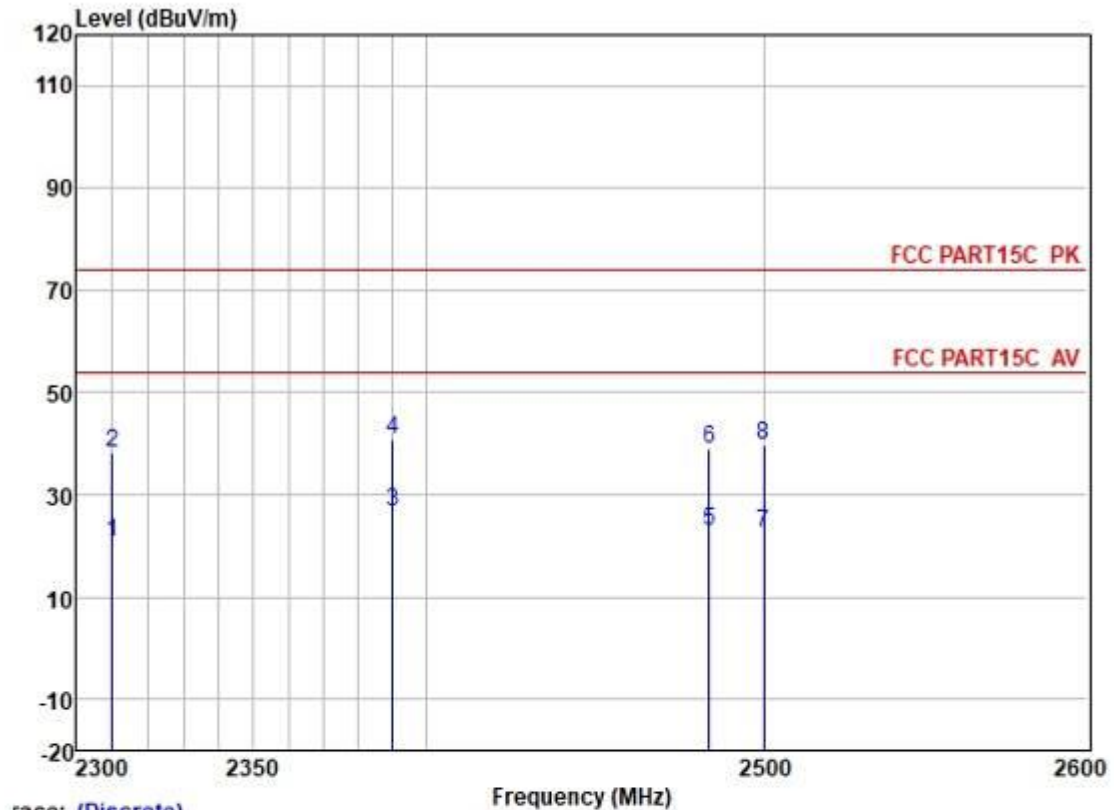
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	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	29.54	27.15	3.32	36.94	23.07	54.00	-30.93	HORIZONTAL Average
2	2310.000	44.59	27.15	3.32	36.94	38.12	74.00	-35.88	HORIZONTAL Peak
3	2390.000	31.07	27.33	3.48	36.92	24.96	54.00	-29.04	HORIZONTAL Average
4	2390.000	44.61	27.33	3.48	36.92	38.50	74.00	-35.50	HORIZONTAL Peak
5	2483.500	29.22	27.48	3.53	36.90	23.33	54.00	-30.67	HORIZONTAL Average
6	2483.500	46.08	27.48	3.53	36.90	40.19	74.00	-33.81	HORIZONTAL Peak
7	2500.000	29.10	27.50	3.40	36.89	23.11	54.00	-30.89	HORIZONTAL Average
8	2500.000	44.65	27.50	3.40	36.89	38.66	74.00	-35.34	HORIZONTAL Peak



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



race: (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	27.21	27.15	3.32	36.94	20.74	54.00	-33.26	VERTICAL Average
2	2310.000	44.82	27.15	3.32	36.94	38.35	74.00	-35.65	VERTICAL Peak
3	2390.000	32.63	27.33	3.48	36.92	26.52	54.00	-27.48	VERTICAL Average
4	2390.000	46.87	27.33	3.48	36.92	40.76	74.00	-33.24	VERTICAL Peak
5	2483.500	28.93	27.48	3.53	36.90	23.04	54.00	-30.96	VERTICAL Average
6	2483.500	44.94	27.48	3.53	36.90	39.05	74.00	-34.95	VERTICAL Peak
7	2500.000	28.61	27.50	3.40	36.89	22.62	54.00	-31.38	VERTICAL Average
8	2500.000	45.76	27.50	3.40	36.89	39.77	74.00	-34.23	VERTICAL Peak



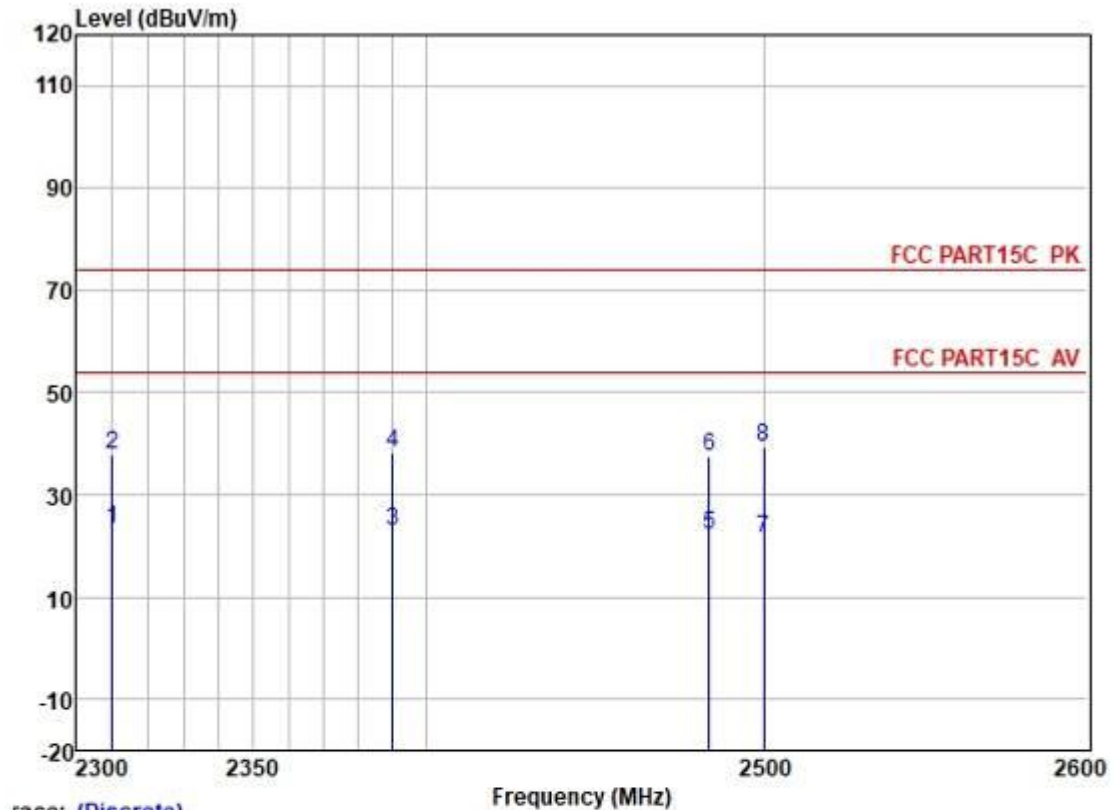
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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:High



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	29.91	27.15	3.32	36.94	23.44	54.00	-30.56	HORIZONTAL Average
2	2310.000	44.32	27.15	3.32	36.94	37.85	74.00	-36.15	HORIZONTAL Peak
3	2390.000	29.11	27.33	3.48	36.92	23.00	54.00	-31.00	HORIZONTAL Average
4	2390.000	44.38	27.33	3.48	36.92	38.27	74.00	-35.73	HORIZONTAL Peak
5	2483.500	28.21	27.48	3.53	36.90	22.32	54.00	-31.68	HORIZONTAL Average
6	2483.500	43.23	27.48	3.53	36.90	37.34	74.00	-36.66	HORIZONTAL Peak
7	2500.000	27.28	27.50	3.40	36.89	21.29	54.00	-32.71	HORIZONTAL Average
8	2500.000	45.21	27.50	3.40	36.89	39.22	74.00	-34.78	HORIZONTAL Peak



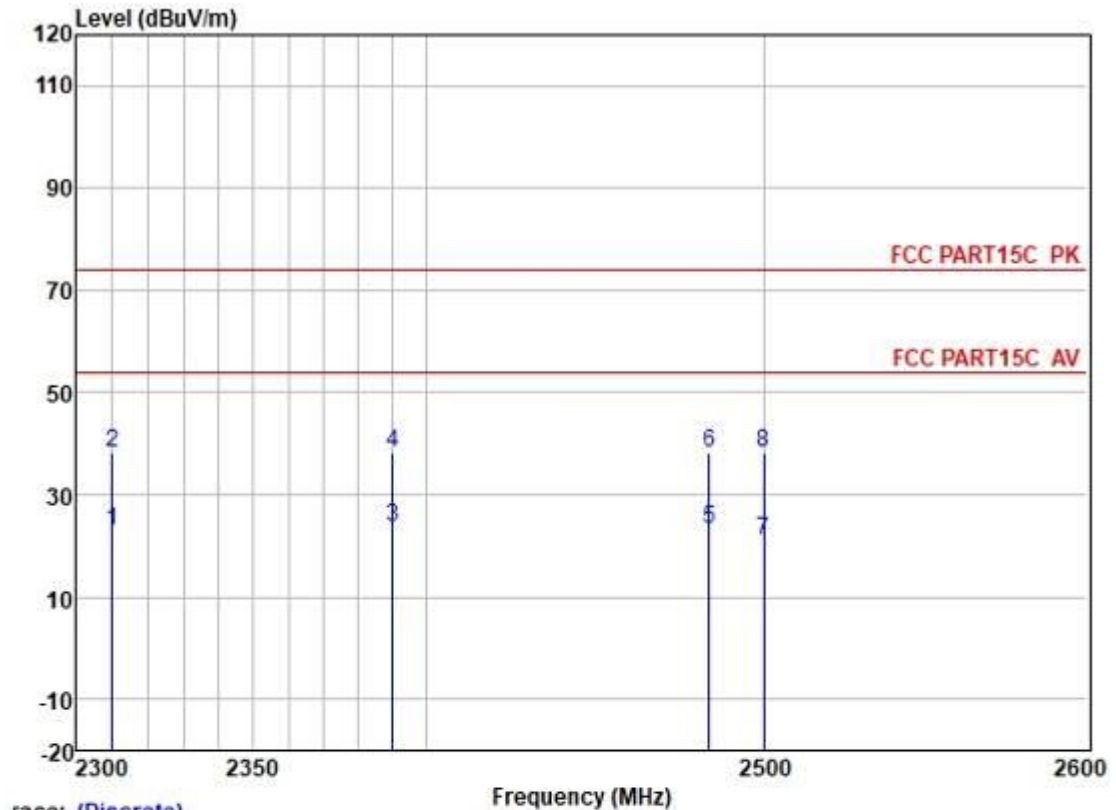
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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:High



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	29.34	27.15	3.32	36.94	22.87	54.00	-31.13	VERTICAL
2	2310.000	44.86	27.15	3.32	36.94	38.39	74.00	-35.61	VERTICAL
3	2390.000	29.83	27.33	3.48	36.92	23.72	54.00	-30.28	VERTICAL
4	2390.000	44.19	27.33	3.48	36.92	38.08	74.00	-35.92	VERTICAL
5	2483.500	29.38	27.48	3.53	36.90	23.49	54.00	-30.51	VERTICAL
6	2483.500	44.23	27.48	3.53	36.90	38.34	74.00	-35.66	VERTICAL
7	2500.000	26.96	27.50	3.40	36.89	20.97	54.00	-33.03	VERTICAL
8	2500.000	44.17	27.50	3.40	36.89	38.18	74.00	-35.82	VERTICAL



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7.7 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.

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 26.2 °C Humidity: 52.9 % 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). Only the data of worst case is recorded in the report.



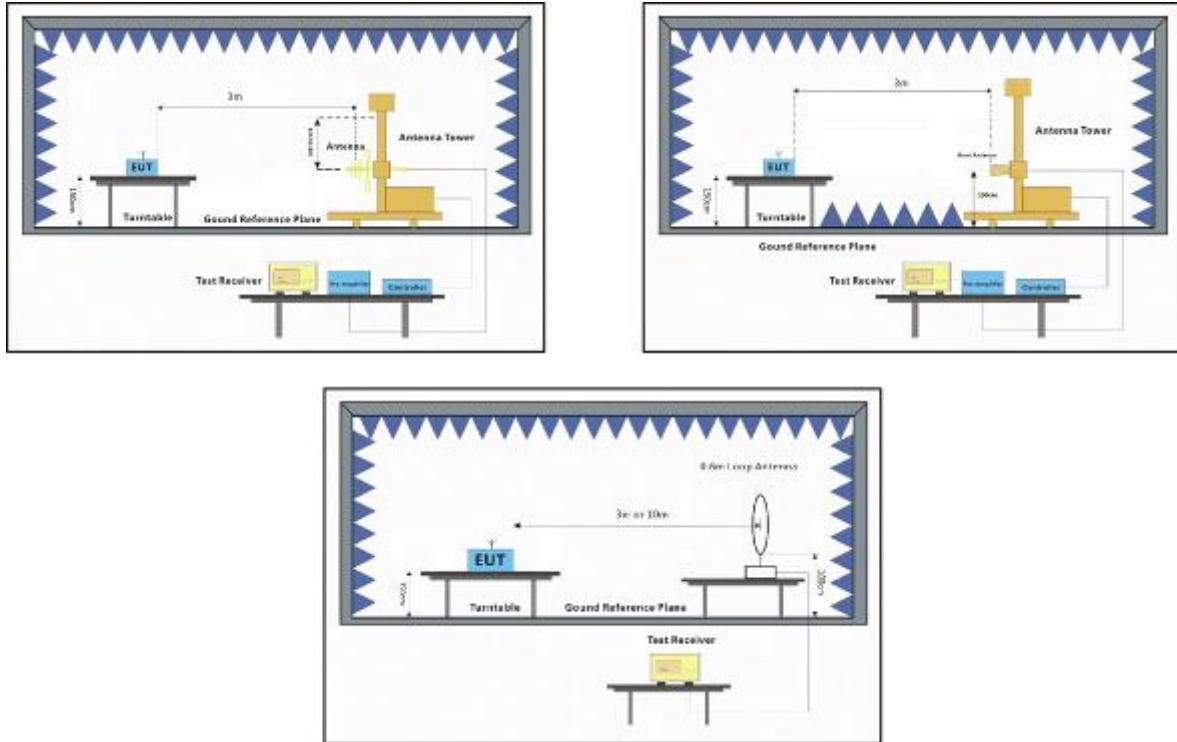
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7.7.2 Test Setup Diagram



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) 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



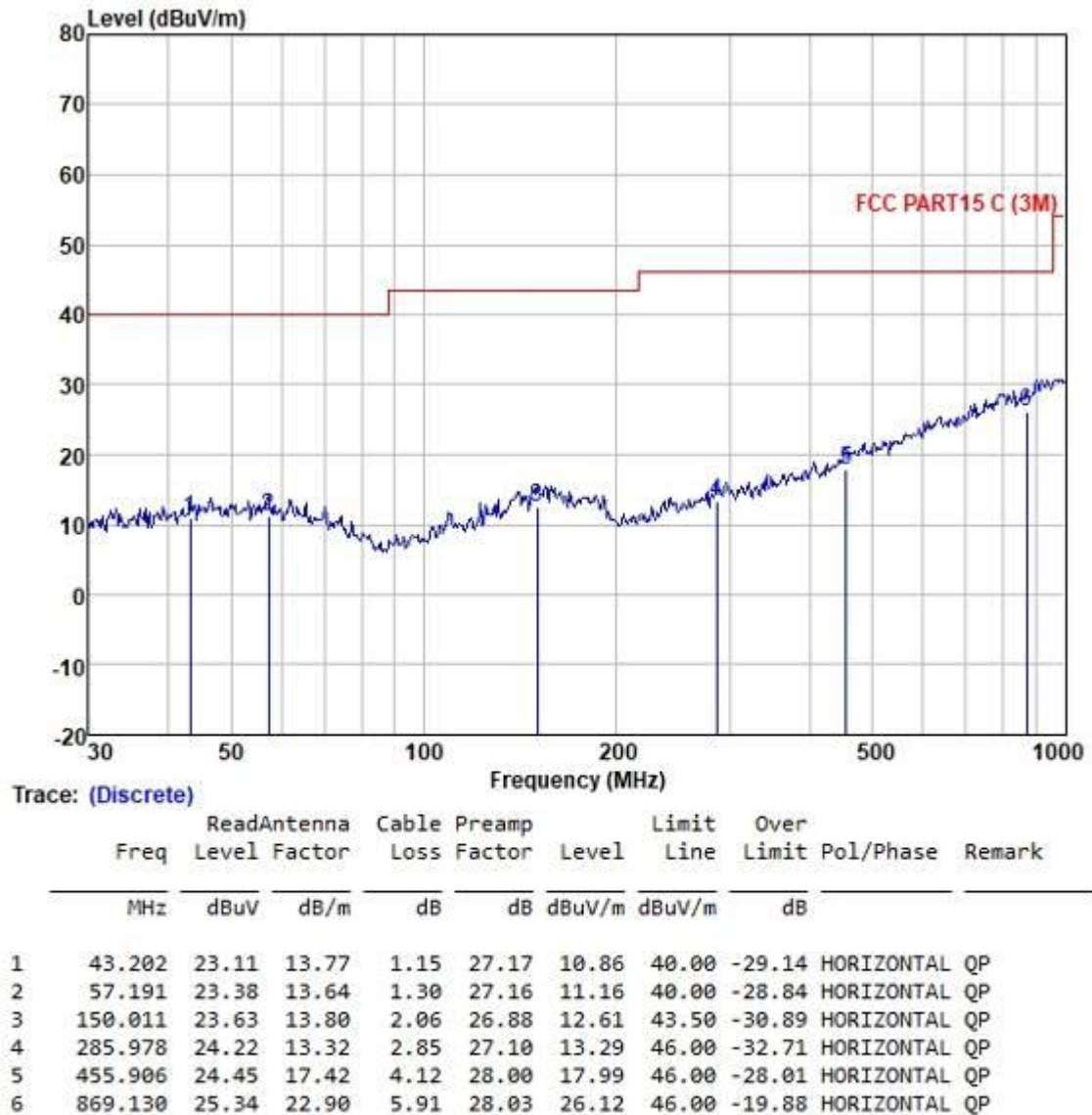
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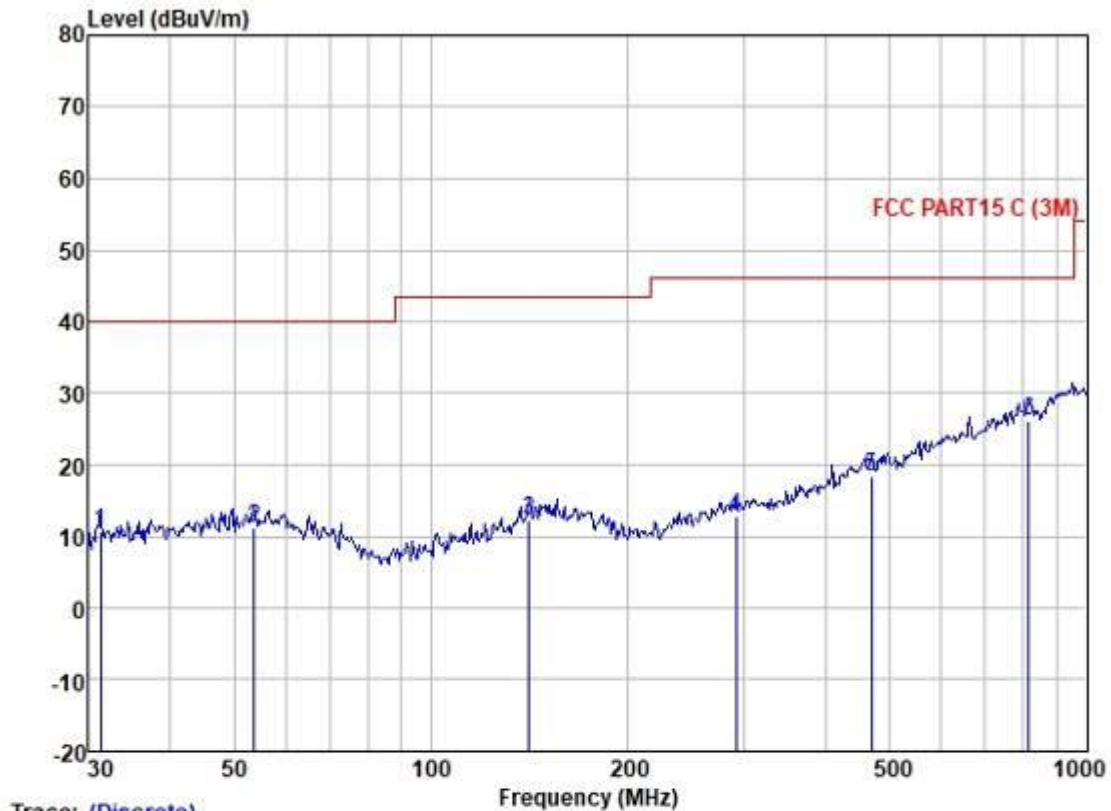
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Mode:b; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:Low



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	31.289	24.19	12.61	1.01	27.20	10.61	40.00	-29.39	VERTICAL	QP
2	53.693	23.39	13.83	1.25	27.17	11.30	40.00	-28.70	VERTICAL	QP
3	140.835	23.81	13.40	1.97	26.95	12.23	43.50	-31.27	VERTICAL	QP
4	292.058	23.64	13.43	2.91	27.14	12.84	46.00	-33.16	VERTICAL	QP
5	468.876	24.71	17.47	4.13	28.01	18.30	46.00	-27.70	VERTICAL	QP
6	815.968	25.55	22.77	5.90	28.10	26.12	46.00	-19.88	VERTICAL	QP



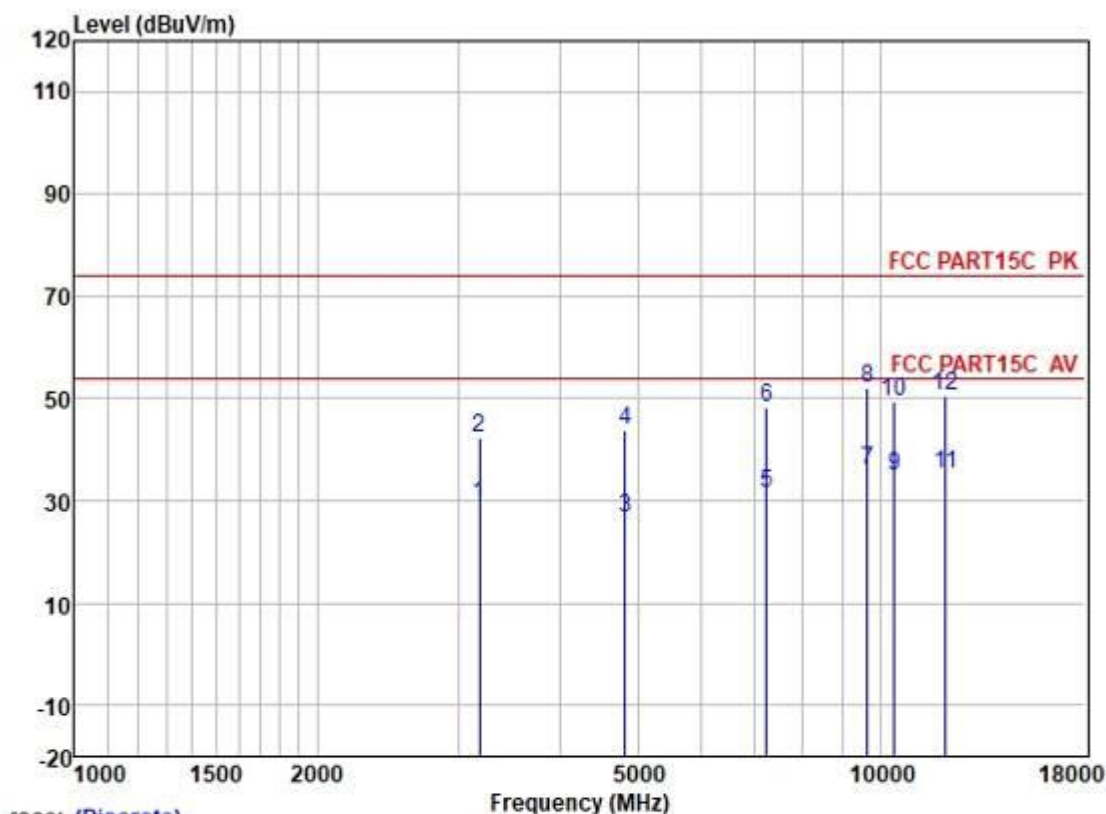
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Mode:b; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:Low



race: (Discrete)

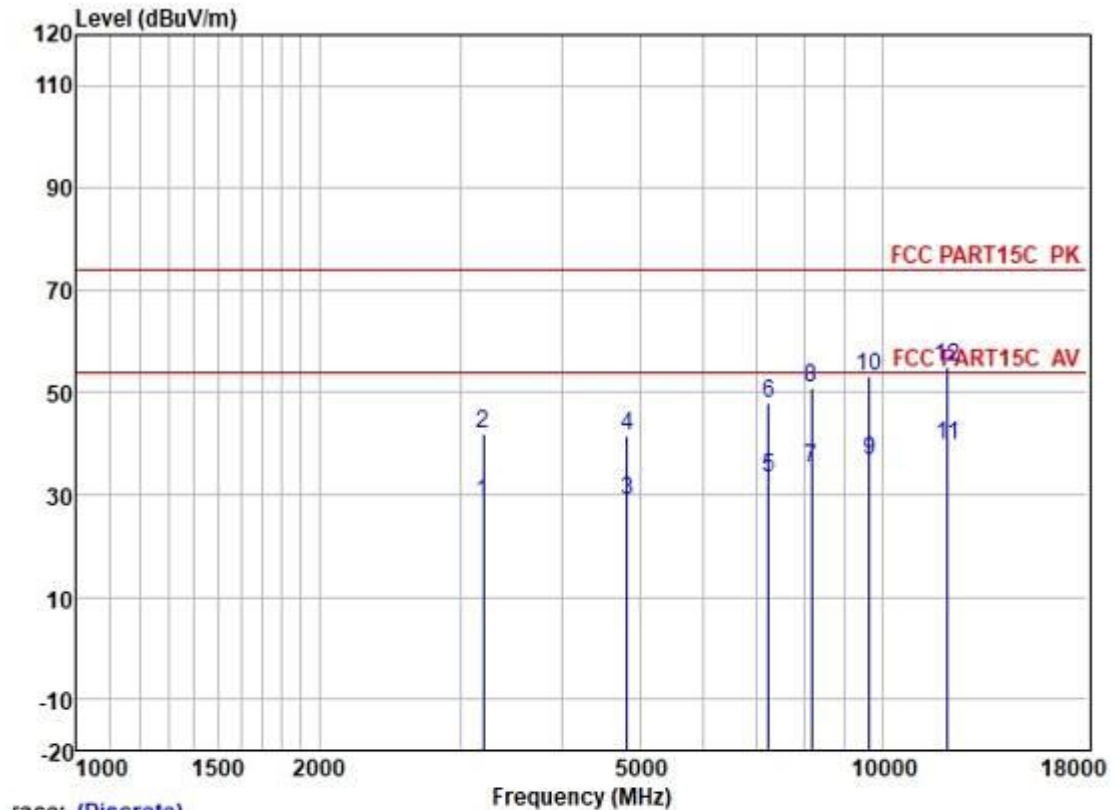
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	3177.672	33.13	28.56	3.99	36.51	29.17	54.00	-24.83	HORIZONTAL Average
2	3177.672	46.21	28.56	3.99	36.51	42.25	74.00	-31.75	HORIZONTAL Peak
3	4824.887	26.16	31.45	5.42	36.48	26.55	54.00	-27.45	HORIZONTAL Average
4	4824.887	43.44	31.45	5.42	36.48	43.83	74.00	-30.17	HORIZONTAL Peak
5	7236.122	26.63	35.70	6.03	36.75	31.61	54.00	-22.39	HORIZONTAL Average
6	7236.122	43.29	35.70	6.03	36.75	48.27	74.00	-25.73	HORIZONTAL Peak
7	9648.972	27.03	38.40	7.06	36.35	36.14	54.00	-17.86	HORIZONTAL Average
8	9648.972	43.02	38.40	7.06	36.35	52.13	74.00	-21.87	HORIZONTAL Peak
9	10423.800	24.47	39.38	7.35	36.31	34.89	54.00	-19.11	HORIZONTAL Average
10	10423.800	39.05	39.38	7.35	36.31	49.47	74.00	-24.53	HORIZONTAL Peak
11	12060.130	24.73	38.88	8.17	36.38	35.40	54.00	-18.60	HORIZONTAL Average
12	12060.130	39.86	38.88	8.17	36.38	50.53	74.00	-23.47	HORIZONTAL Peak



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



race: (Discrete)

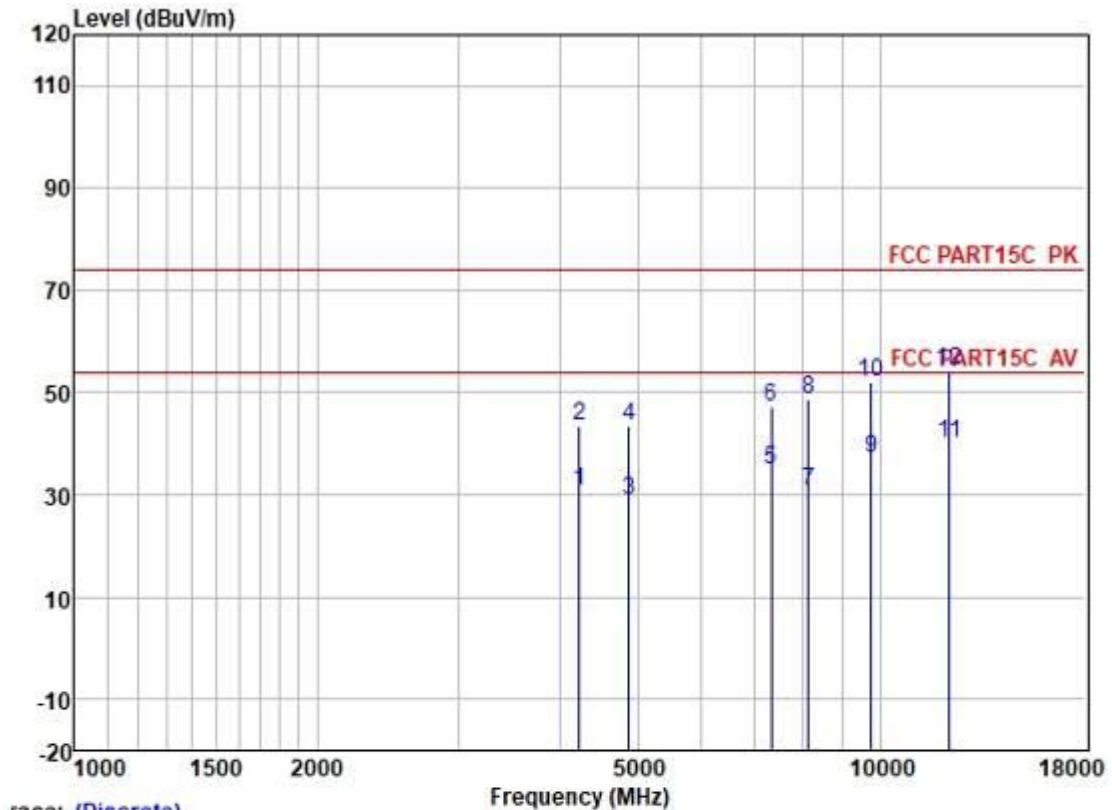
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	3196.094	32.50	28.58	4.00	36.51	28.57	54.00	-25.43	VERTICAL Average
2	3196.094	45.90	28.58	4.00	36.51	41.97	74.00	-32.03	VERTICAL Peak
3	4824.396	28.39	31.45	5.42	36.48	28.78	54.00	-25.22	VERTICAL Average
4	4824.396	41.29	31.45	5.42	36.48	41.68	74.00	-32.32	VERTICAL Peak
5	7236.015	28.54	35.70	6.03	36.75	33.52	54.00	-20.48	VERTICAL Average
6	7236.015	43.02	35.70	6.03	36.75	48.00	74.00	-26.00	VERTICAL Peak
7	8176.795	28.55	36.97	6.33	36.77	35.08	54.00	-18.92	VERTICAL Average
8	8176.795	44.54	36.97	6.33	36.77	51.07	74.00	-22.93	VERTICAL Peak
9	9648.710	27.57	38.40	7.06	36.35	36.68	54.00	-17.32	VERTICAL Average
10	9648.710	44.17	38.40	7.06	36.35	53.28	74.00	-20.72	VERTICAL Peak
11	12060.470	28.89	38.88	8.17	36.38	39.56	54.00	-14.44	VERTICAL Average
12	12060.470	44.26	38.88	8.17	36.38	54.93	74.00	-19.07	VERTICAL Peak



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



race: (Discrete)

	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	4240.339	32.23	30.30	4.62	36.41	30.74	54.00	-23.26	HORIZONTAL Average
2	4240.339	45.04	30.30	4.62	36.41	43.55	74.00	-30.45	HORIZONTAL Peak
3	4884.617	28.36	31.56	5.52	36.50	28.94	54.00	-25.06	HORIZONTAL Average
4	4884.617	42.92	31.56	5.52	36.50	43.50	74.00	-30.50	HORIZONTAL Peak
5	7326.150	29.66	36.00	6.13	36.76	35.03	54.00	-18.97	HORIZONTAL Average
6	7326.150	42.01	36.00	6.13	36.76	47.38	74.00	-26.62	HORIZONTAL Peak
7	8156.140	24.35	36.96	6.30	36.78	30.83	54.00	-23.17	HORIZONTAL Average
8	8156.140	42.21	36.96	6.30	36.78	48.69	74.00	-25.31	HORIZONTAL Peak
9	9768.274	28.00	38.53	7.01	36.33	37.21	54.00	-16.79	HORIZONTAL Average
10	9768.274	42.91	38.53	7.01	36.33	52.12	74.00	-21.88	HORIZONTAL Peak
11	12210.130	29.52	38.74	8.08	36.30	40.04	54.00	-13.96	HORIZONTAL Average
12	12210.130	43.86	38.74	8.08	36.30	54.38	74.00	-19.62	HORIZONTAL Peak



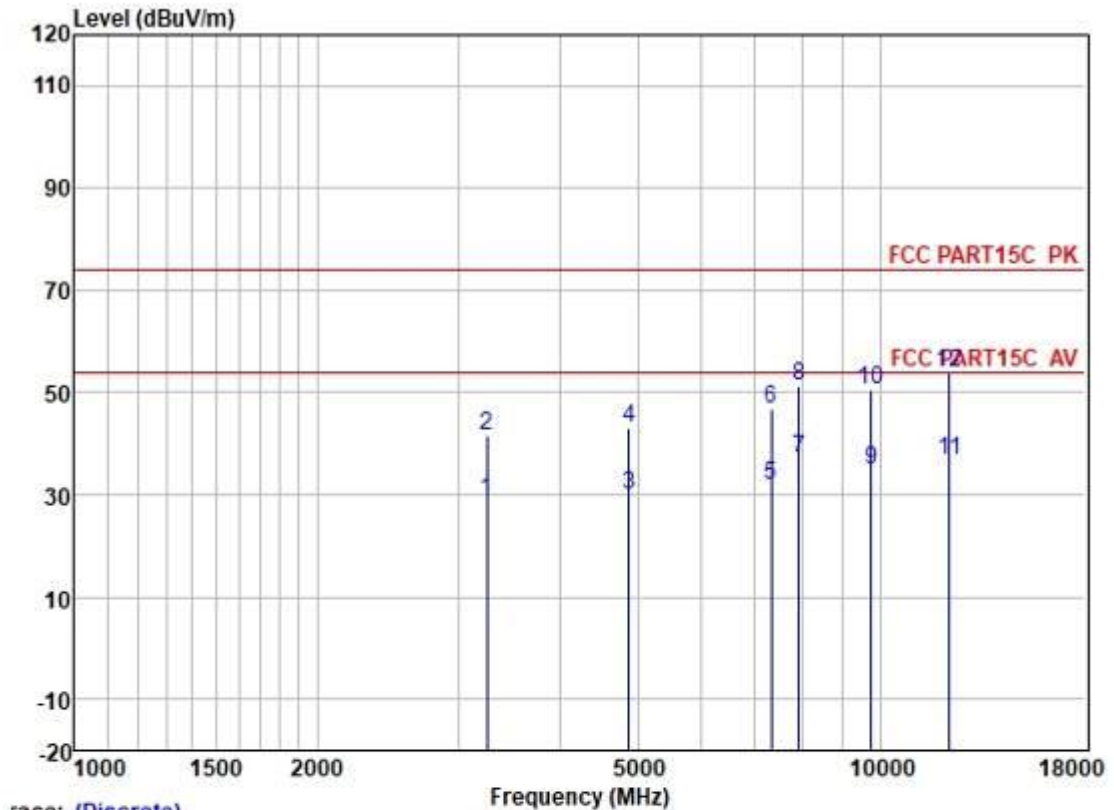
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Mode:b; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:middle



Trace: (Discrete)

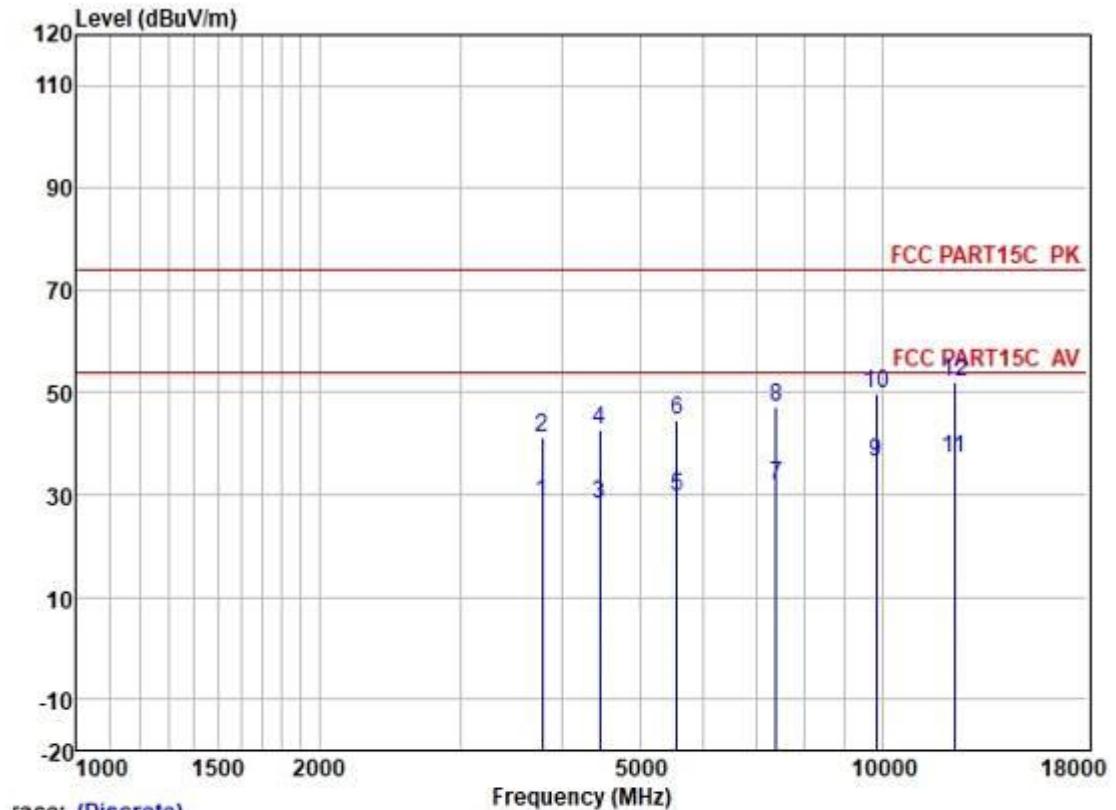
	Freq	ReadAntenna Level Factor	Cable Preamp Loss Factor	Limit Line	Over Limit	Pol/Phase	Remark			
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3252.005	32.69	28.68	4.03	36.50	28.90	54.00	-25.10	VERTICAL	Average
2	3252.005	45.35	28.68	4.03	36.50	41.56	74.00	-32.44	VERTICAL	Peak
3	4884.136	29.56	31.56	5.52	36.50	30.14	54.00	-23.86	VERTICAL	Average
4	4884.136	42.39	31.56	5.52	36.50	42.97	74.00	-31.03	VERTICAL	Peak
5	7326.999	26.35	36.00	6.13	36.76	31.72	54.00	-22.28	VERTICAL	Average
6	7326.999	41.59	36.00	6.13	36.76	46.96	74.00	-27.04	VERTICAL	Peak
7	7943.838	31.07	36.87	6.16	36.80	37.30	54.00	-16.70	VERTICAL	Average
8	7943.838	45.22	36.87	6.16	36.80	51.45	74.00	-22.55	VERTICAL	Peak
9	9768.479	25.66	38.53	7.01	36.33	34.87	54.00	-19.13	VERTICAL	Average
10	9768.479	41.35	38.53	7.01	36.33	50.56	74.00	-23.44	VERTICAL	Peak
11	12210.600	26.08	38.74	8.08	36.30	36.60	54.00	-17.40	VERTICAL	Average
12	12210.600	43.42	38.74	8.08	36.30	53.94	74.00	-20.06	VERTICAL	Peak



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



race: (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	3790.361	30.94	29.50	4.60	36.42	28.62	54.00	-25.38	HORIZONTAL Average
2	3790.361	43.67	29.50	4.60	36.42	41.35	74.00	-32.65	HORIZONTAL Peak
3	4456.315	29.02	30.75	4.88	36.43	28.22	54.00	-25.78	HORIZONTAL Average
4	4456.315	43.62	30.75	4.88	36.43	42.82	74.00	-31.18	HORIZONTAL Peak
5	5567.137	28.21	31.86	6.33	36.58	29.82	54.00	-24.18	HORIZONTAL Average
6	5567.137	43.13	31.86	6.33	36.58	44.74	74.00	-29.26	HORIZONTAL Peak
7	7386.015	26.28	36.17	6.19	36.77	31.87	54.00	-22.13	HORIZONTAL Average
8	7386.015	41.68	36.17	6.19	36.77	47.27	74.00	-26.73	HORIZONTAL Peak
9	9848.018	26.97	38.58	6.99	36.32	36.22	54.00	-17.78	HORIZONTAL Average
10	9848.018	40.56	38.58	6.99	36.32	49.81	74.00	-24.19	HORIZONTAL Peak
11	12310.930	26.57	38.63	8.01	36.23	36.98	54.00	-17.02	HORIZONTAL Average
12	12310.930	41.71	38.63	8.01	36.23	52.12	74.00	-21.88	HORIZONTAL Peak



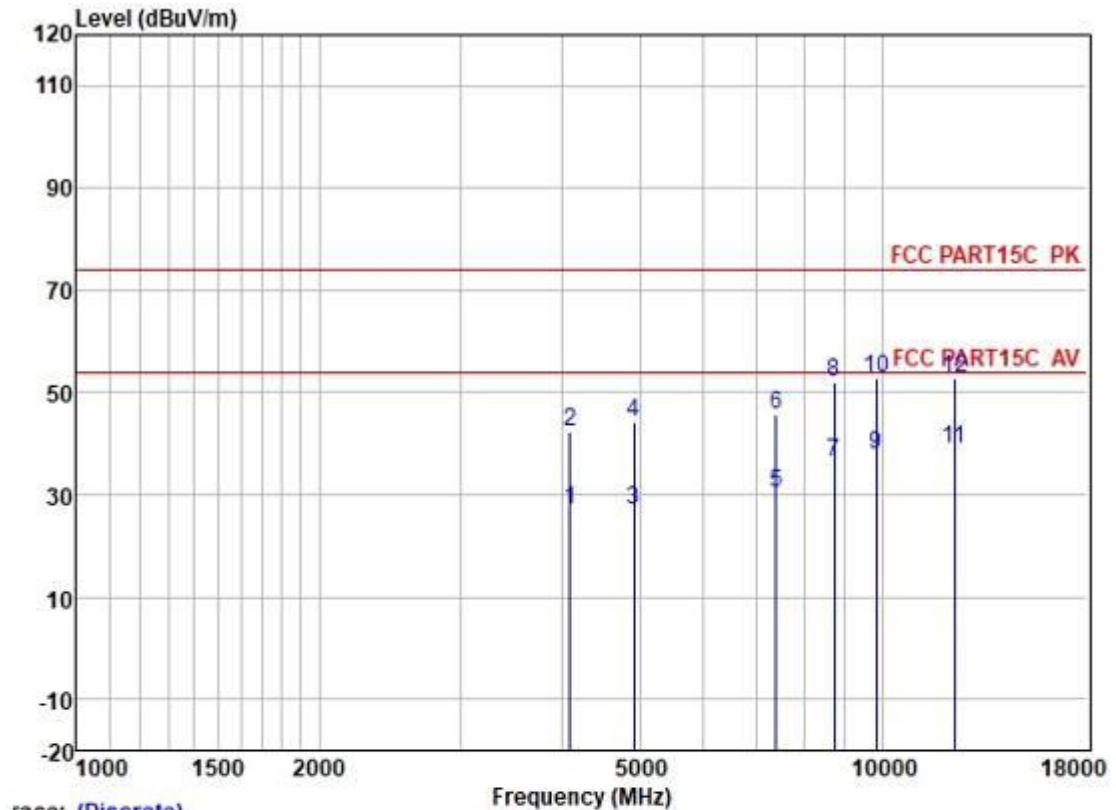
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Mode:b; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:High



race: (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	4098.010	28.97	29.94	4.60	36.41	27.10	54.00	-26.90	VERTICAL Average
2	4098.010	44.31	29.94	4.60	36.41	42.44	74.00	-31.56	VERTICAL Peak
3	4924.490	26.28	31.62	5.60	36.50	27.00	54.00	-27.00	VERTICAL Average
4	4924.490	43.53	31.62	5.60	36.50	44.25	74.00	-29.75	VERTICAL Peak
5	7386.542	24.85	36.17	6.19	36.77	30.44	54.00	-23.56	VERTICAL Average
6	7386.542	40.24	36.17	6.19	36.77	45.83	74.00	-28.17	VERTICAL Peak
7	8738.852	28.63	37.31	7.13	36.64	36.43	54.00	-17.57	VERTICAL Average
8	8738.852	44.09	37.31	7.13	36.64	51.89	74.00	-22.11	VERTICAL Peak
9	9848.151	28.57	38.58	6.99	36.32	37.82	54.00	-16.18	VERTICAL Average
10	9848.151	43.57	38.58	6.99	36.32	52.82	74.00	-21.18	VERTICAL Peak
11	12310.210	28.72	38.63	8.01	36.23	39.13	54.00	-14.87	VERTICAL Average
12	12310.210	42.30	38.63	8.01	36.23	52.71	74.00	-21.29	VERTICAL Peak



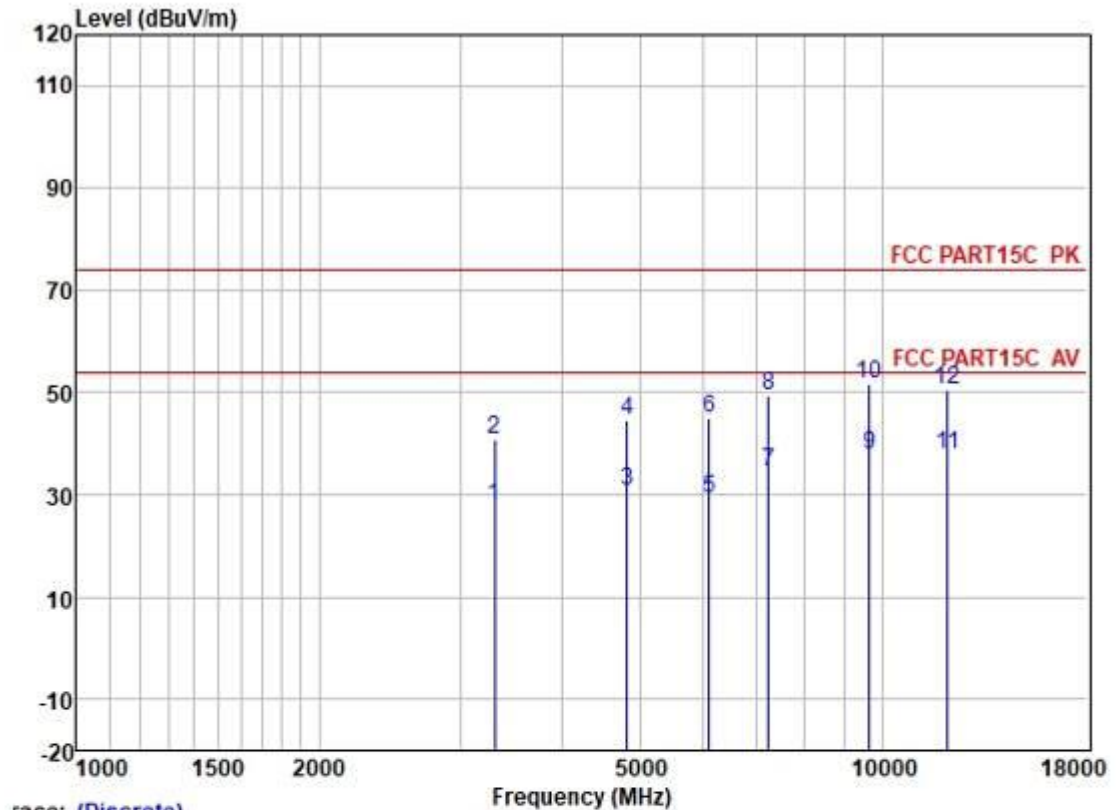
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Mode:b; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:Low



race: (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	3308.894	31.52	28.76	4.06	36.48	27.86	54.00	-26.14	HORIZONTAL Average
2	3308.894	44.46	28.76	4.06	36.48	40.80	74.00	-33.20	HORIZONTAL Peak
3	4824.760	30.22	31.45	5.42	36.48	30.61	54.00	-23.39	HORIZONTAL Average
4	4824.760	44.11	31.45	5.42	36.48	44.50	74.00	-29.50	HORIZONTAL Peak
5	6106.616	27.20	32.66	6.14	36.61	29.39	54.00	-24.61	HORIZONTAL Average
6	6106.616	42.65	32.66	6.14	36.61	44.84	74.00	-29.16	HORIZONTAL Peak
7	7236.006	29.36	35.70	6.03	36.75	34.34	54.00	-19.66	HORIZONTAL Average
8	7236.006	44.55	35.70	6.03	36.75	49.53	74.00	-24.47	HORIZONTAL Peak
9	9648.600	28.81	38.40	7.06	36.35	37.92	54.00	-16.08	HORIZONTAL Average
10	9648.600	42.75	38.40	7.06	36.35	51.86	74.00	-22.14	HORIZONTAL Peak
11	12060.740	27.29	38.88	8.17	36.38	37.96	54.00	-16.04	HORIZONTAL Average
12	12060.740	40.06	38.88	8.17	36.38	50.73	74.00	-23.27	HORIZONTAL Peak



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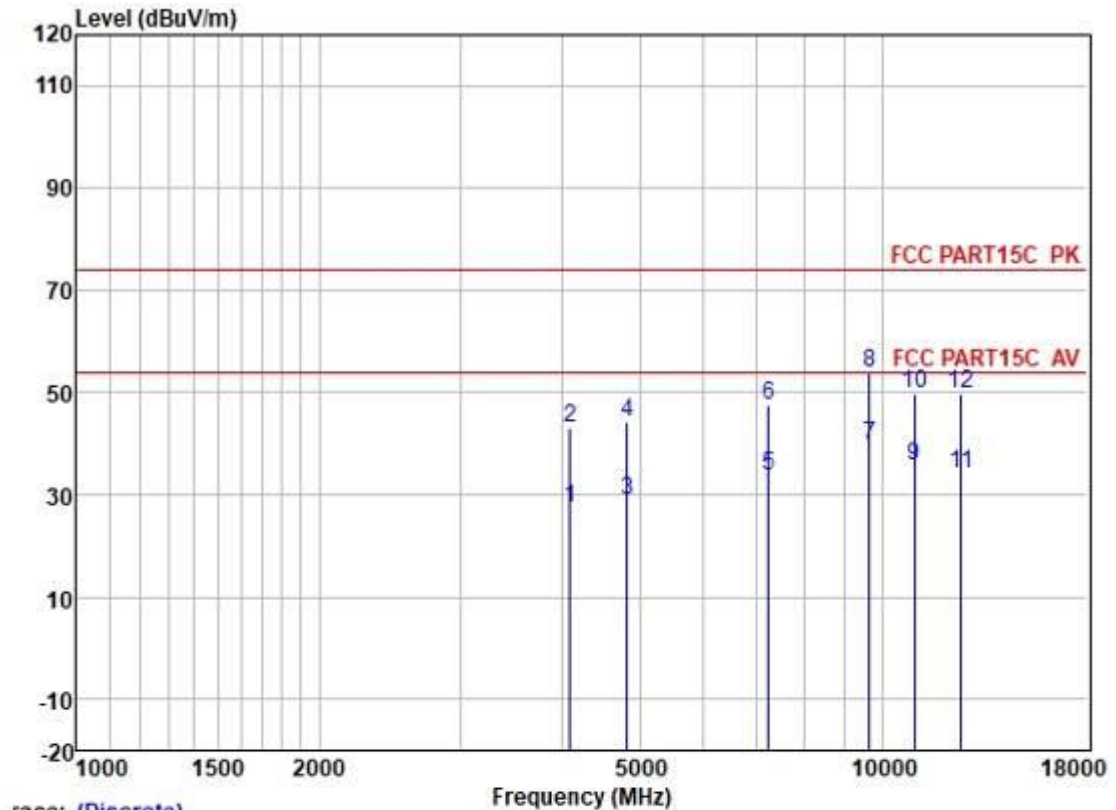
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t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

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



		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	4098.010	29.35	29.94	4.60	36.41	27.48	54.00	-26.52	VERTICAL	Average
2	4098.010	45.15	29.94	4.60	36.41	43.28	74.00	-30.72	VERTICAL	Peak
3	4824.490	28.36	31.45	5.42	36.48	28.75	54.00	-25.25	VERTICAL	Average
4	4824.490	43.87	31.45	5.42	36.48	44.26	74.00	-29.74	VERTICAL	Peak
5	7236.150	28.78	35.70	6.03	36.75	33.76	54.00	-20.24	VERTICAL	Average
6	7236.150	42.71	35.70	6.03	36.75	47.69	74.00	-26.31	VERTICAL	Peak
7	9648.497	30.59	38.40	7.06	36.35	39.70	54.00	-14.30	VERTICAL	Average
8	9648.497	44.94	38.40	7.06	36.35	54.05	74.00	-19.95	VERTICAL	Peak
9	10980.470	24.21	40.07	7.70	36.35	35.63	54.00	-18.37	VERTICAL	Average
10	10980.470	38.32	40.07	7.70	36.35	49.74	74.00	-24.26	VERTICAL	Peak
11	12541.900	23.58	38.55	7.96	36.09	34.00	54.00	-20.00	VERTICAL	Average
12	12541.900	39.44	38.55	7.96	36.09	49.86	74.00	-24.14	VERTICAL	Peak



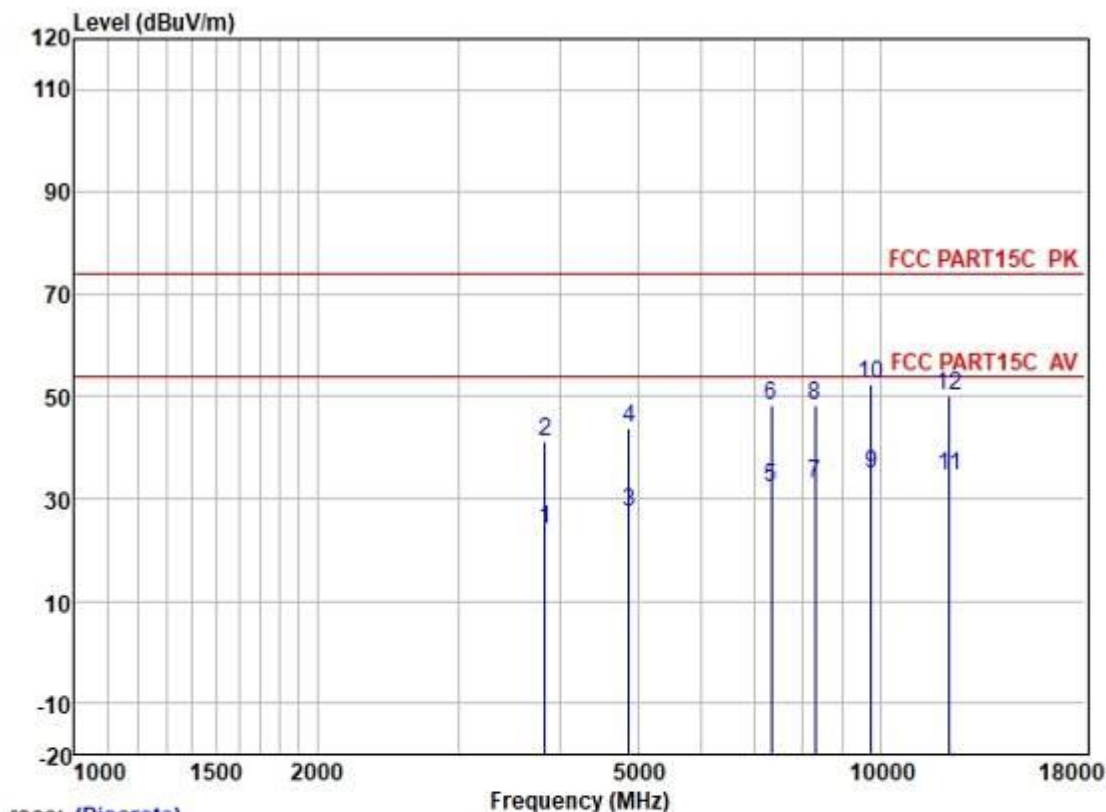
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Mode:b; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:middle



race: (Discrete)

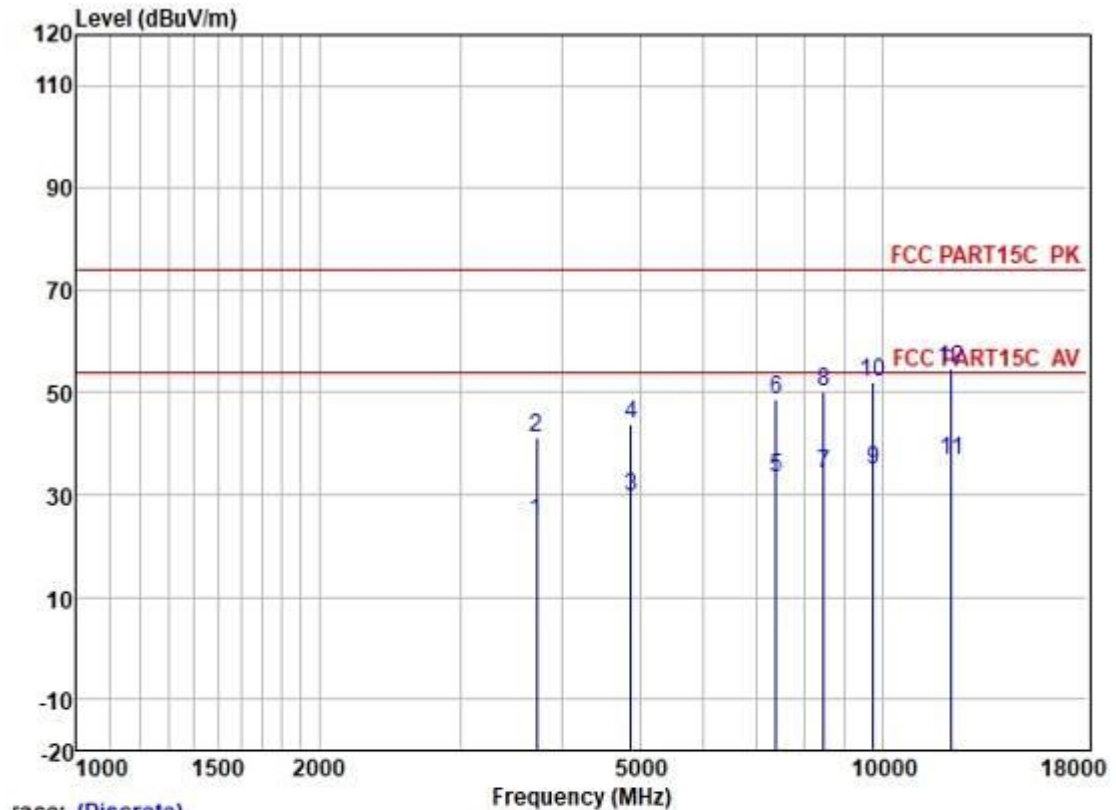
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	3845.537	26.22	29.60	4.60	36.41	24.01	54.00	-29.99	HORIZONTAL Average
2	3845.537	43.45	29.60	4.60	36.41	41.24	74.00	-32.76	HORIZONTAL Peak
3	4884.751	26.92	31.56	5.52	36.50	27.50	54.00	-26.50	HORIZONTAL Average
4	4884.751	43.29	31.56	5.52	36.50	43.87	74.00	-30.13	HORIZONTAL Peak
5	7326.267	26.82	36.00	6.13	36.76	32.19	54.00	-21.81	HORIZONTAL Average
6	7326.267	42.90	36.00	6.13	36.76	48.27	74.00	-25.73	HORIZONTAL Peak
7	8303.980	26.23	37.02	6.50	36.75	33.00	54.00	-21.00	HORIZONTAL Average
8	8303.980	41.38	37.02	6.50	36.75	48.15	74.00	-25.85	HORIZONTAL Peak
9	9768.540	25.83	38.53	7.01	36.33	35.04	54.00	-18.96	HORIZONTAL Average
10	9768.540	43.15	38.53	7.01	36.33	52.36	74.00	-21.64	HORIZONTAL Peak
11	12210.710	24.03	38.74	8.08	36.30	34.55	54.00	-19.45	HORIZONTAL Average
12	12210.710	39.78	38.74	8.08	36.30	50.30	74.00	-23.70	HORIZONTAL Peak



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



Trace: (Discrete)

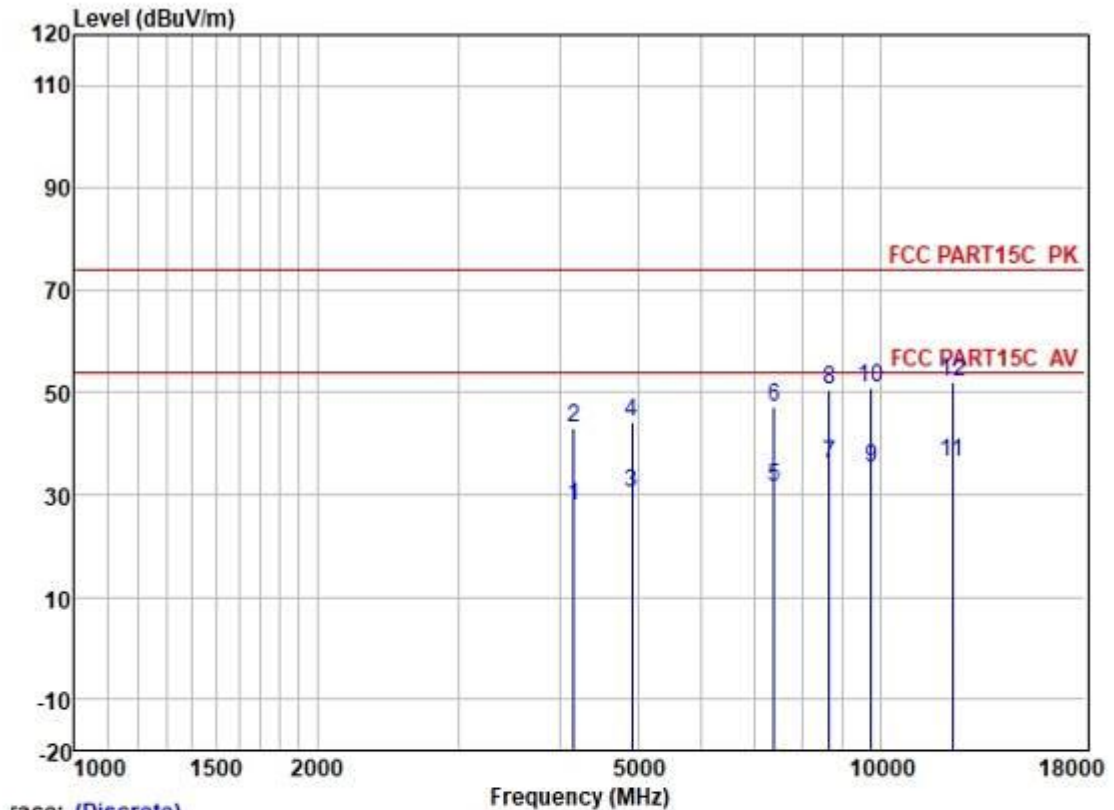
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	3725.195	27.39	29.31	4.57	36.42	24.85	54.00	-29.15	VERTICAL Average
2	3725.195	43.60	29.31	4.57	36.42	41.06	74.00	-32.94	VERTICAL Peak
3	4884.396	28.92	31.56	5.52	36.50	29.50	54.00	-24.50	VERTICAL Average
4	4884.396	43.35	31.56	5.52	36.50	43.93	74.00	-30.07	VERTICAL Peak
5	7386.052	27.91	36.17	6.19	36.77	33.50	54.00	-20.50	VERTICAL Average
6	7386.052	43.02	36.17	6.19	36.77	48.61	74.00	-25.39	VERTICAL Peak
7	8465.379	26.97	37.13	6.68	36.71	34.07	54.00	-19.93	VERTICAL Average
8	8465.379	43.11	37.13	6.68	36.71	50.21	74.00	-23.79	VERTICAL Peak
9	9768.149	25.68	38.53	7.01	36.33	34.89	54.00	-19.11	VERTICAL Average
10	9768.149	42.75	38.53	7.01	36.33	51.96	74.00	-22.04	VERTICAL Peak
11	12210.300	26.21	38.74	8.08	36.30	36.73	54.00	-17.27	VERTICAL Average
12	12210.300	44.02	38.74	8.08	36.30	54.54	74.00	-19.46	VERTICAL Peak



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



race: (Discrete)

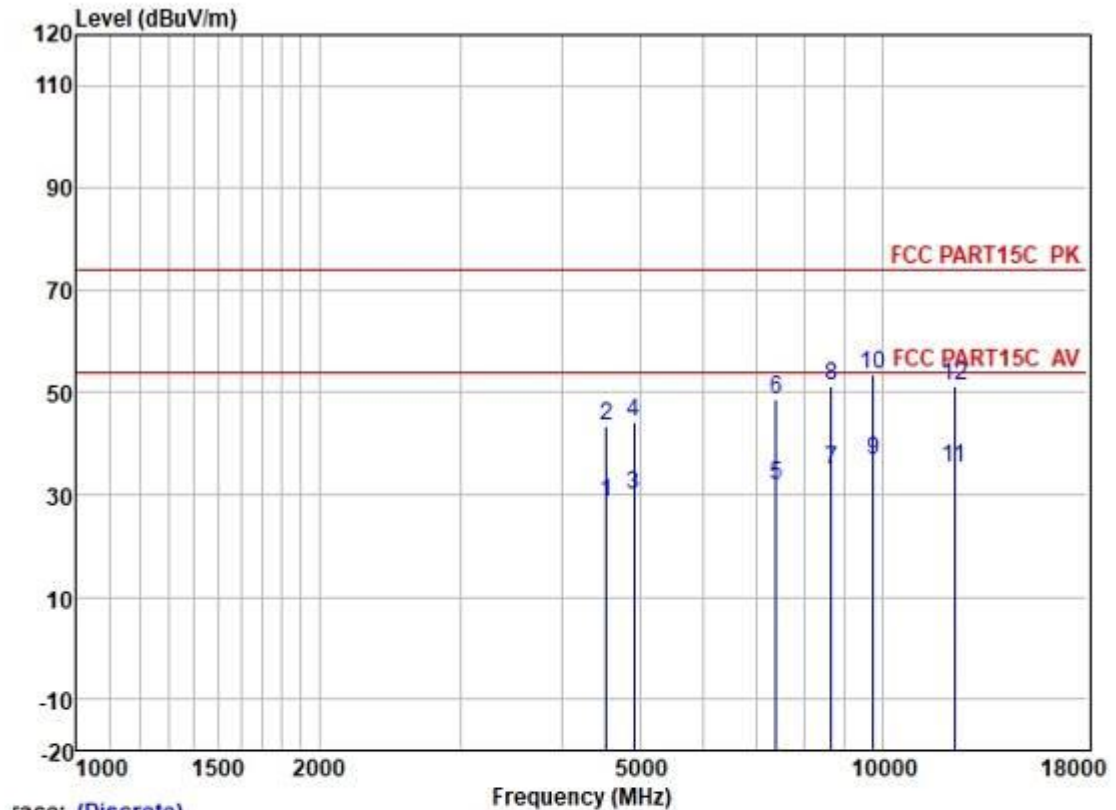
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4169.698	29.53	30.09	4.60	36.41	27.81	54.00	-26.19	HORIZONTAL Average
2	4169.698	44.77	30.09	4.60	36.41	43.05	74.00	-30.95	HORIZONTAL Peak
3	4924.977	29.70	31.62	5.60	36.50	30.42	54.00	-23.58	HORIZONTAL Average
4	4924.977	43.66	31.62	5.60	36.50	44.38	74.00	-29.62	HORIZONTAL Peak
5	7386.309	25.96	36.17	6.19	36.77	31.55	54.00	-22.45	HORIZONTAL Average
6	7386.309	41.44	36.17	6.19	36.77	47.03	74.00	-26.97	HORIZONTAL Peak
7	8663.404	28.60	37.27	6.97	36.66	36.18	54.00	-17.82	HORIZONTAL Average
8	8663.404	43.01	37.27	6.97	36.66	50.59	74.00	-23.41	HORIZONTAL Peak
9	9768.540	25.93	38.53	7.01	36.33	35.14	54.00	-18.86	HORIZONTAL Average
10	9768.540	41.57	38.53	7.01	36.33	50.78	74.00	-23.22	HORIZONTAL Peak
11	12310.910	26.08	38.63	8.01	36.23	36.49	54.00	-17.51	HORIZONTAL Average
12	12310.910	41.53	38.63	8.01	36.23	51.94	74.00	-22.06	HORIZONTAL Peak



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



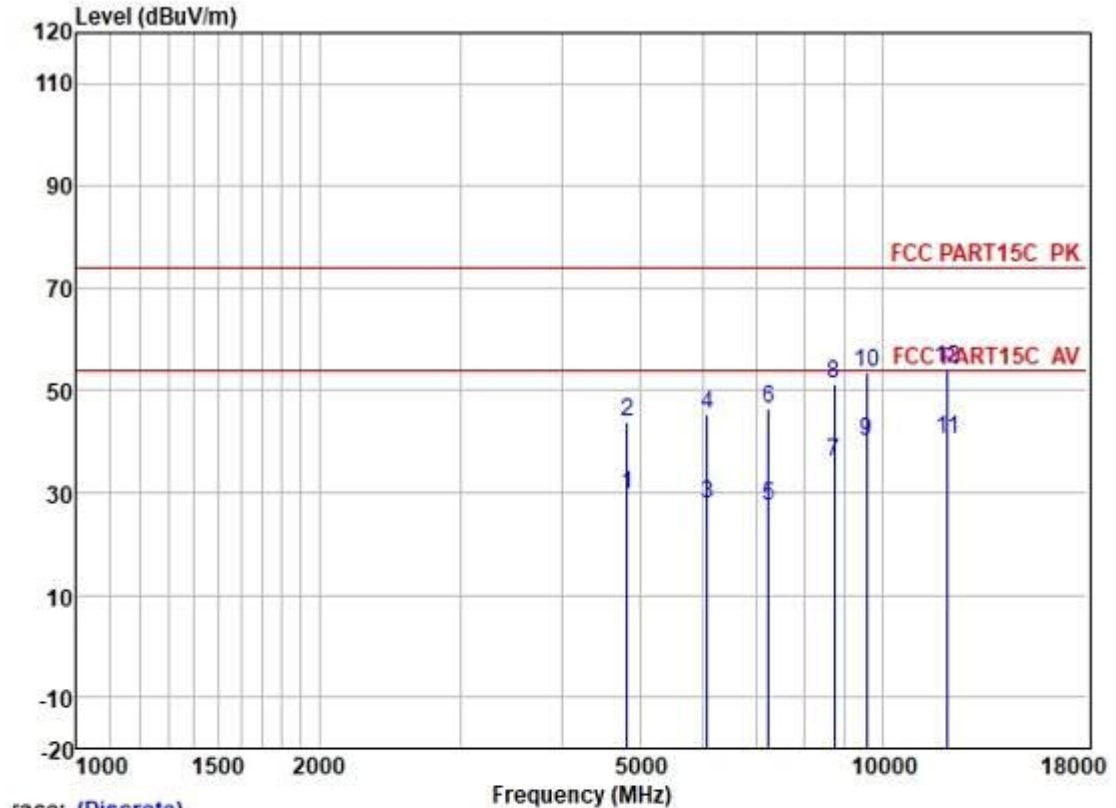
		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	4547.396	28.88	30.87	5.25	36.44	28.56	54.00	-25.44	VERTICAL	Average
2	4547.396	43.66	30.87	5.25	36.44	43.34	74.00	-30.66	VERTICAL	Peak
3	4924.136	29.35	31.62	5.60	36.50	30.07	54.00	-23.93	VERTICAL	Average
4	4924.136	43.57	31.62	5.60	36.50	44.29	74.00	-29.71	VERTICAL	Peak
5	7386.741	26.49	36.17	6.19	36.77	32.08	54.00	-21.92	VERTICAL	Average
6	7386.741	43.06	36.17	6.19	36.77	48.65	74.00	-25.35	VERTICAL	Peak
7	8663.404	27.31	37.27	6.97	36.66	34.89	54.00	-19.11	VERTICAL	Average
8	8663.404	43.67	37.27	6.97	36.66	51.25	74.00	-22.75	VERTICAL	Peak
9	9768.151	27.61	38.53	7.01	36.33	36.82	54.00	-17.18	VERTICAL	Average
10	9768.151	44.37	38.53	7.01	36.33	53.58	74.00	-20.42	VERTICAL	Peak
11	12310.470	24.82	38.63	8.01	36.23	35.23	54.00	-18.77	VERTICAL	Average
12	12310.470	40.96	38.63	8.01	36.23	51.37	74.00	-22.63	VERTICAL	Peak



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



race: (Discrete)

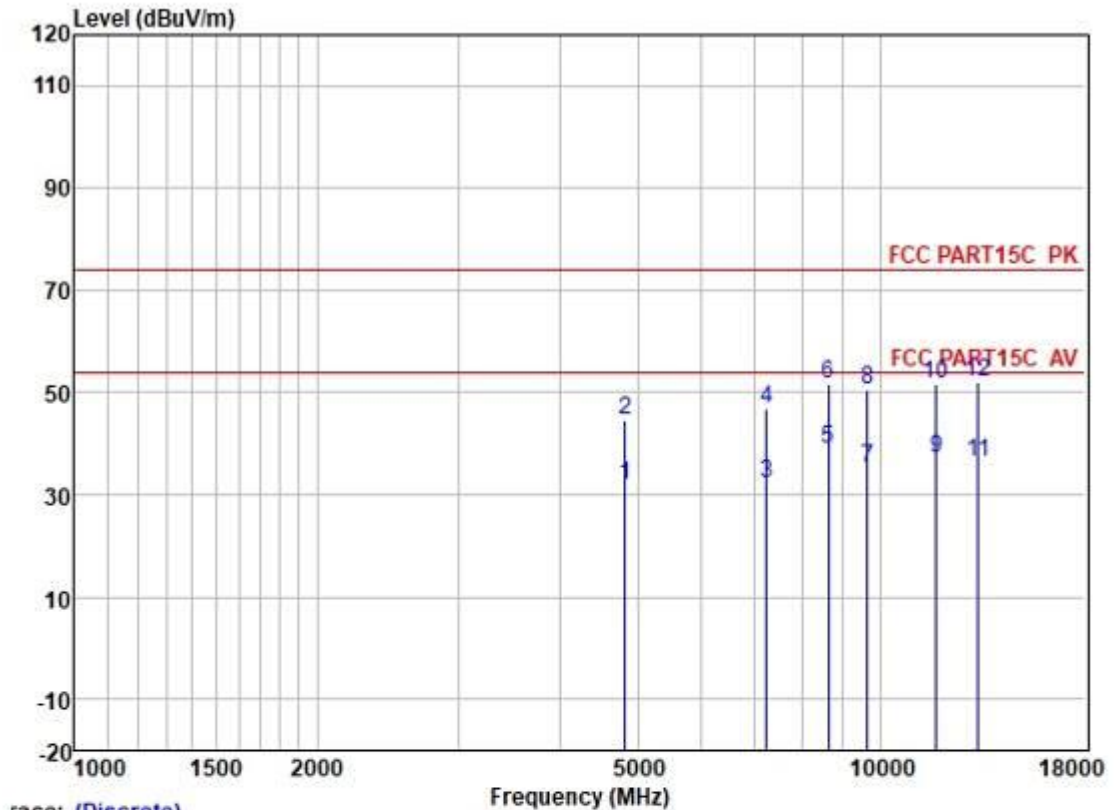
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4824.887	29.24	31.45	5.42	36.48	29.63	54.00	-24.37	HORIZONTAL Average
2	4824.887	43.37	31.45	5.42	36.48	43.76	74.00	-30.24	HORIZONTAL Peak
3	6071.417	25.73	32.57	6.16	36.60	27.86	54.00	-26.14	HORIZONTAL Average
4	6071.417	43.32	32.57	6.16	36.60	45.45	74.00	-28.55	HORIZONTAL Peak
5	7236.006	22.47	35.70	6.03	36.75	27.45	54.00	-26.55	HORIZONTAL Average
6	7236.006	41.41	35.70	6.03	36.75	46.39	74.00	-27.61	HORIZONTAL Peak
7	8738.852	28.29	37.31	7.13	36.64	36.09	54.00	-17.91	HORIZONTAL Average
8	8738.852	43.42	37.31	7.13	36.64	51.22	74.00	-22.78	HORIZONTAL Peak
9	9585.684	30.97	38.35	7.08	36.36	40.04	54.00	-13.96	HORIZONTAL Average
10	9585.684	44.44	38.35	7.08	36.36	53.51	74.00	-20.49	HORIZONTAL Peak
11	12060.470	29.79	38.88	8.17	36.38	40.46	54.00	-13.54	HORIZONTAL Average
12	12060.470	43.73	38.88	8.17	36.38	54.40	74.00	-19.60	HORIZONTAL Peak



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



race: (Discrete)

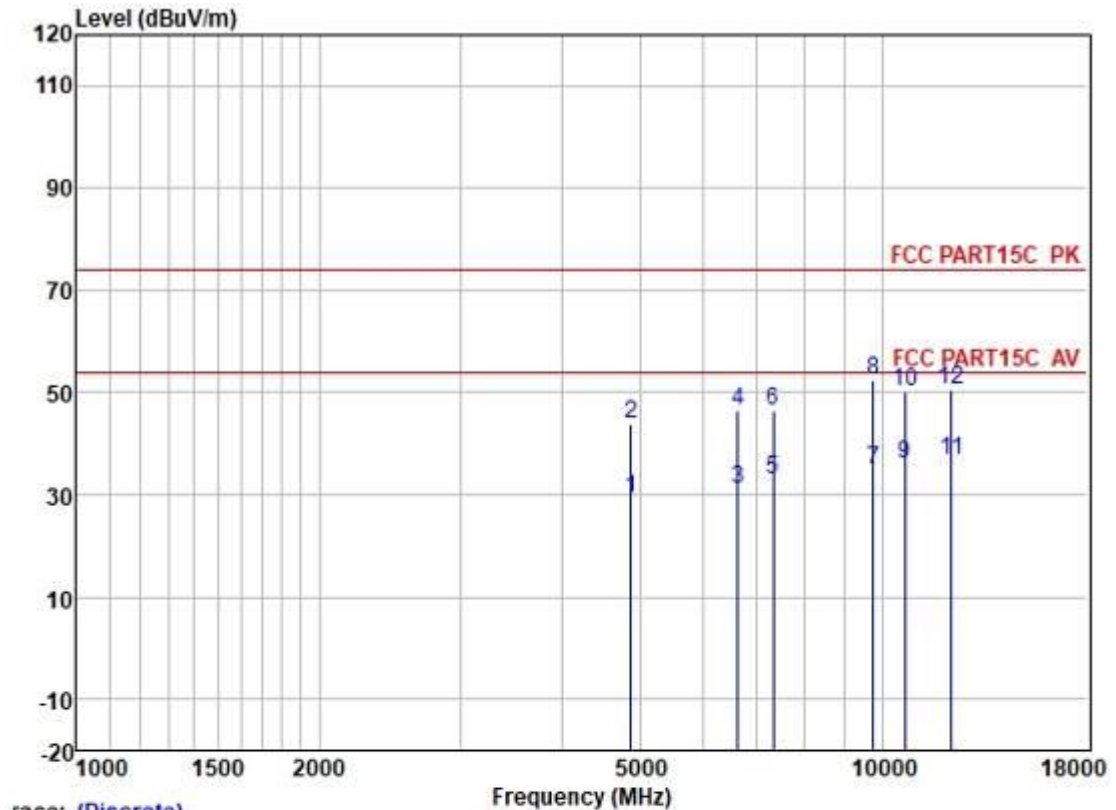
	Freq	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	4824.977	31.63	31.45	5.42	36.48	32.02	54.00	-21.98	VERTICAL	Average
2	4824.977	44.16	31.45	5.42	36.48	44.55	74.00	-29.45	VERTICAL	Peak
3	7236.857	27.15	35.70	6.03	36.75	32.13	54.00	-21.87	VERTICAL	Average
4	7236.857	41.85	35.70	6.03	36.75	46.83	74.00	-27.17	VERTICAL	Peak
5	8638.399	31.59	37.26	6.92	36.67	39.10	54.00	-14.90	VERTICAL	Average
6	8638.399	44.09	37.26	6.92	36.67	51.60	74.00	-22.40	VERTICAL	Peak
7	9648.980	26.18	38.40	7.06	36.35	35.29	54.00	-18.71	VERTICAL	Average
8	9648.980	41.45	38.40	7.06	36.35	50.56	74.00	-23.44	VERTICAL	Peak
9	11735.250	25.83	39.40	8.30	36.39	37.14	54.00	-16.86	VERTICAL	Average
10	11735.250	40.23	39.40	8.30	36.39	51.54	74.00	-22.46	VERTICAL	Peak
11	13249.930	23.83	39.60	8.44	35.32	36.55	54.00	-17.45	VERTICAL	Average
12	13249.930	39.30	39.60	8.44	35.32	52.02	74.00	-21.98	VERTICAL	Peak



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



Trace: (Discrete)

	Read	Antenna	Cable	Preamp	Level	Limit	Over		
	Freq	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4884.058	28.73	31.56	5.52	36.50	29.31	54.00	-24.69	HORIZONTAL Average
2	4884.058	43.34	31.56	5.52	36.50	43.92	74.00	-30.08	HORIZONTAL Peak
3	6621.375	27.73	34.20	5.83	36.65	31.11	54.00	-22.89	HORIZONTAL Average
4	6621.375	42.97	34.20	5.83	36.65	46.35	74.00	-27.65	HORIZONTAL Peak
5	7326.006	27.67	36.00	6.13	36.76	33.04	54.00	-20.96	HORIZONTAL Average
6	7326.006	41.10	36.00	6.13	36.76	46.47	74.00	-27.53	HORIZONTAL Peak
7	9768.543	25.71	38.53	7.01	36.33	34.92	54.00	-19.08	HORIZONTAL Average
8	9768.543	43.11	38.53	7.01	36.33	52.32	74.00	-21.68	HORIZONTAL Peak
9	10682.480	25.10	39.67	7.50	36.33	35.94	54.00	-18.06	HORIZONTAL Average
10	10682.480	39.53	39.67	7.50	36.33	50.37	74.00	-23.63	HORIZONTAL Peak
11	12210.130	26.18	38.74	8.08	36.30	36.70	54.00	-17.30	HORIZONTAL Average
12	12210.130	39.90	38.74	8.08	36.30	50.42	74.00	-23.58	HORIZONTAL Peak



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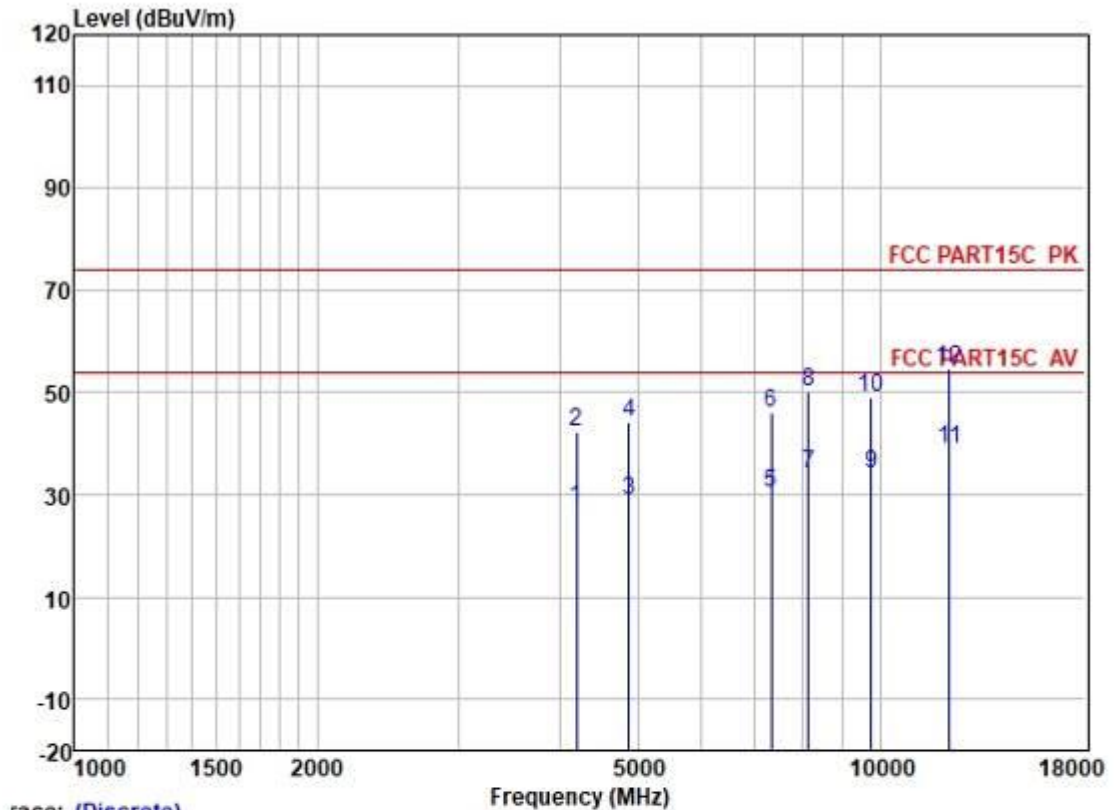
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Mode:b; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:middle



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	4206.011	28.96	30.18	4.60	36.41	27.33	54.00	-26.67	VERTICAL
2	4206.011	44.07	30.18	4.60	36.41	42.44	74.00	-31.56	VERTICAL
3	4884.058	28.50	31.56	5.52	36.50	29.08	54.00	-24.92	VERTICAL
4	4884.058	43.69	31.56	5.52	36.50	44.27	74.00	-29.73	VERTICAL
5	7326.542	25.12	36.00	6.13	36.76	30.49	54.00	-23.51	VERTICAL
6	7326.542	40.82	36.00	6.13	36.76	46.19	74.00	-27.81	VERTICAL
7	8153.195	27.80	36.96	6.30	36.78	34.28	54.00	-19.72	VERTICAL
8	8153.195	43.73	36.96	6.30	36.78	50.21	74.00	-23.79	VERTICAL
9	9768.540	24.95	38.53	7.01	36.33	34.16	54.00	-19.84	VERTICAL
10	9768.540	39.86	38.53	7.01	36.33	49.07	74.00	-24.93	VERTICAL
11	12210.470	28.35	38.74	8.08	36.30	38.87	54.00	-15.13	VERTICAL
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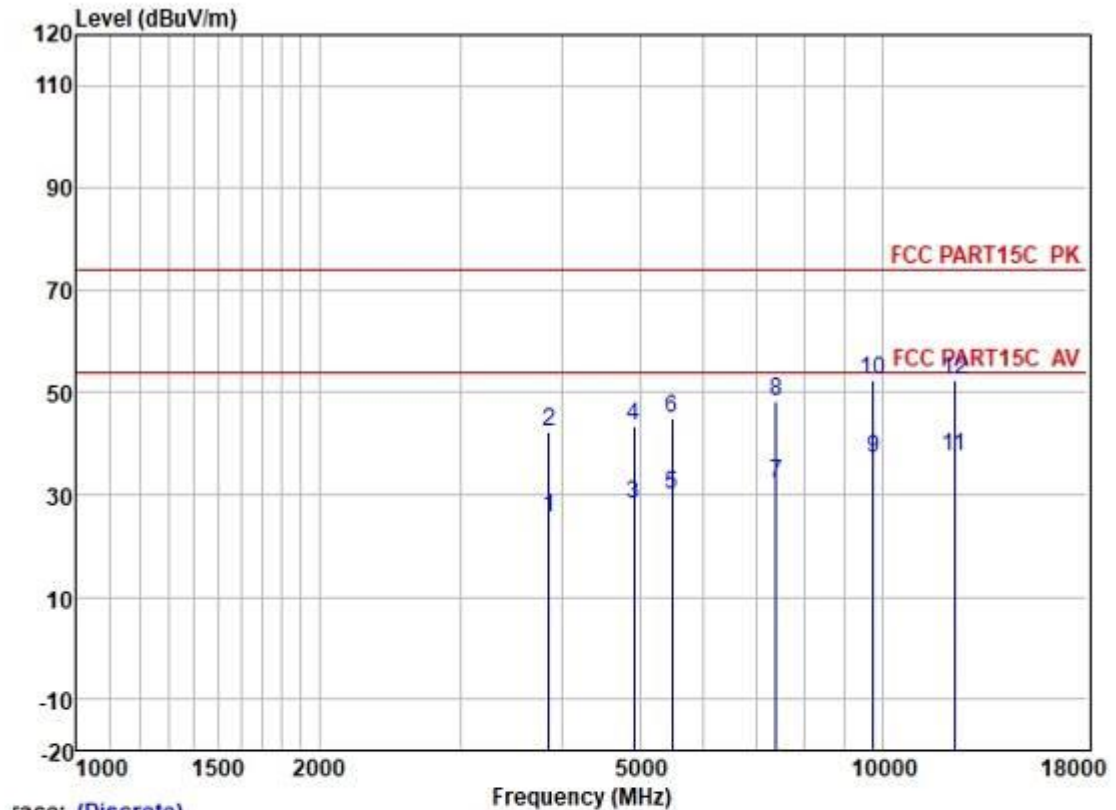
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Mode:b; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:High



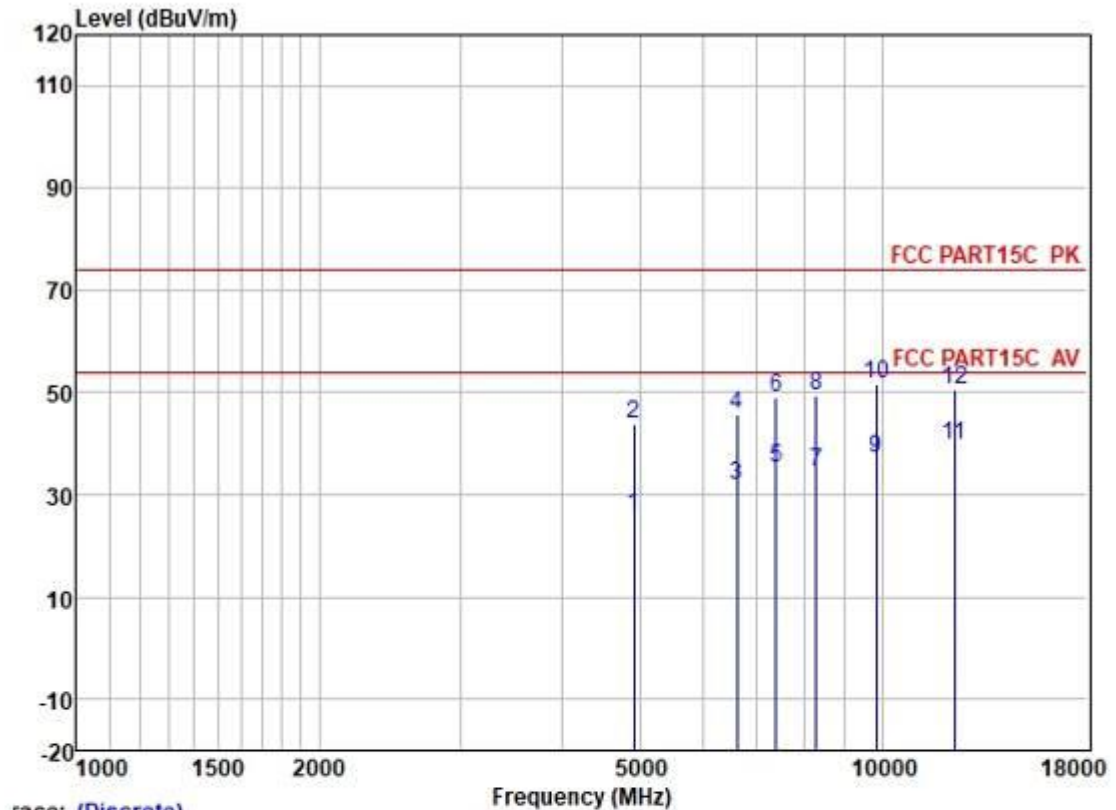
	ReadAntenna	Cable	Preamp		Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3856.668	27.57	29.62	4.60	36.41	25.38	54.00	-28.62	VERTICAL Average
2	3856.668	44.44	29.62	4.60	36.41	42.25	74.00	-31.75	VERTICAL Peak
3	4924.760	27.34	31.62	5.60	36.50	28.06	54.00	-25.94	VERTICAL Average
4	4924.760	42.68	31.62	5.60	36.50	43.40	74.00	-30.60	VERTICAL Peak
5	5487.260	28.41	31.80	6.36	36.58	29.99	54.00	-24.01	VERTICAL Average
6	5487.260	43.33	31.80	6.36	36.58	44.91	74.00	-29.09	VERTICAL Peak
7	7386.741	26.68	36.17	6.19	36.77	32.27	54.00	-21.73	VERTICAL Average
8	7386.741	42.81	36.17	6.19	36.77	48.40	74.00	-25.60	VERTICAL Peak
9	9768.710	27.74	38.53	7.01	36.33	36.95	54.00	-17.05	VERTICAL Average
10	9768.710	43.28	38.53	7.01	36.33	52.49	74.00	-21.51	VERTICAL Peak
11	12310.930	27.20	38.63	8.01	36.23	37.61	54.00	-16.39	VERTICAL Average
12	12310.930	41.89	38.63	8.01	36.23	52.30	74.00	-21.70	VERTICAL Peak



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Mode:b; Polarization:Vertical; 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	4924.760	25.24	31.62	5.60	36.50	25.96	54.00	-28.04	HORIZONTAL Average
2	4924.760	42.98	31.62	5.60	36.50	43.70	74.00	-30.30	HORIZONTAL Peak
3	6602.265	28.42	34.16	5.84	36.65	31.77	54.00	-22.23	HORIZONTAL Average
4	6602.265	42.54	34.16	5.84	36.65	45.89	74.00	-28.11	HORIZONTAL Peak
5	7386.034	29.57	36.17	6.19	36.77	35.16	54.00	-18.84	HORIZONTAL Average
6	7386.034	43.32	36.17	6.19	36.77	48.91	74.00	-25.09	HORIZONTAL Peak
7	8285.710	27.74	37.02	6.50	36.75	34.51	54.00	-19.49	HORIZONTAL Average
8	8285.710	42.49	37.02	6.50	36.75	49.26	74.00	-24.74	HORIZONTAL Peak
9	9848.230	28.02	38.58	6.99	36.32	37.27	54.00	-16.73	HORIZONTAL Average
10	9848.230	42.57	38.58	6.99	36.32	51.82	74.00	-22.18	HORIZONTAL Peak
11	12310.750	29.26	38.63	8.01	36.23	39.67	54.00	-14.33	HORIZONTAL Average
12	12310.750	40.20	38.63	8.01	36.23	50.61	74.00	-23.39	HORIZONTAL Peak



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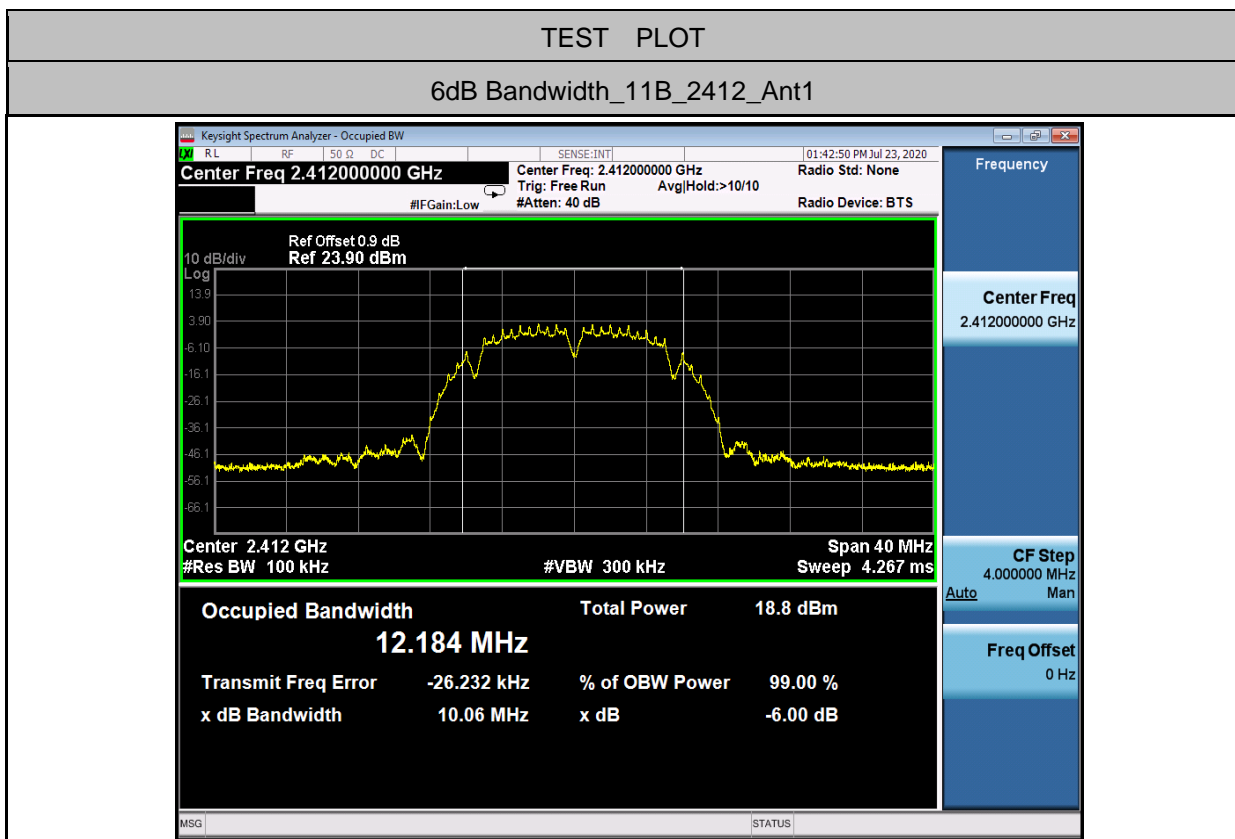
8 Appendix

8.1 Appendix 15.247

Cable Loss=0.9dB

1. 6dB Bandwidth

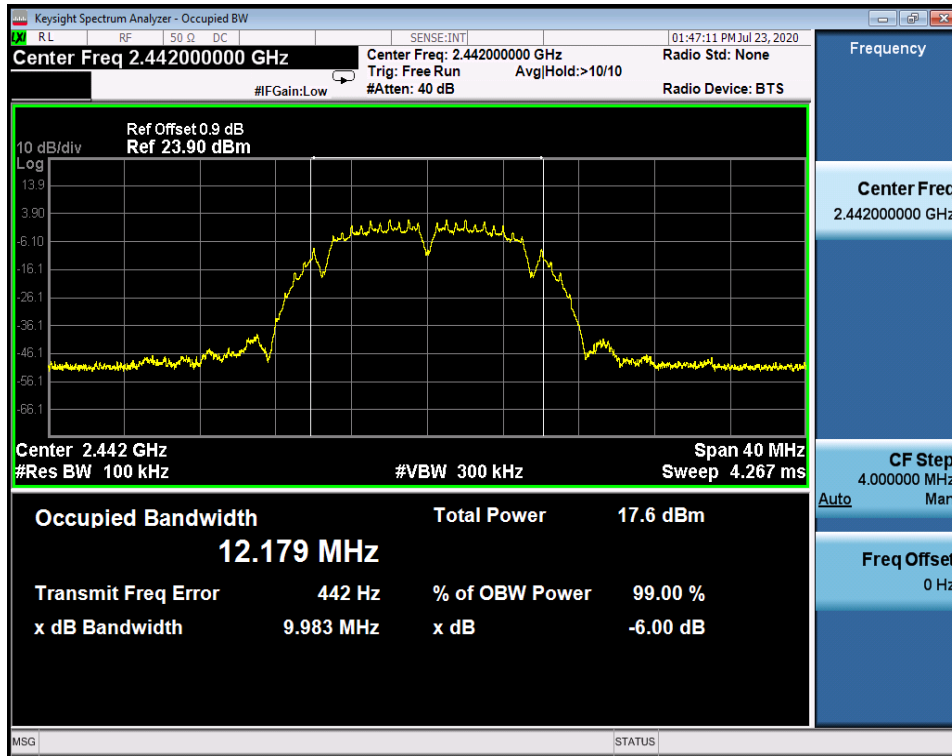
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11B	2462	Ant1	10.06	0.5	PASS
11G	2412	Ant1	16.45	0.5	PASS
11G	2442	Ant1	16.43	0.5	PASS
11G	2462	Ant1	16.41	0.5	PASS
11N20SISO	2412	Ant1	17.58	0.5	PASS
11N20SISO	2442	Ant1	17.54	0.5	PASS
11N20SISO	2462	Ant1	17.56	0.5	PASS



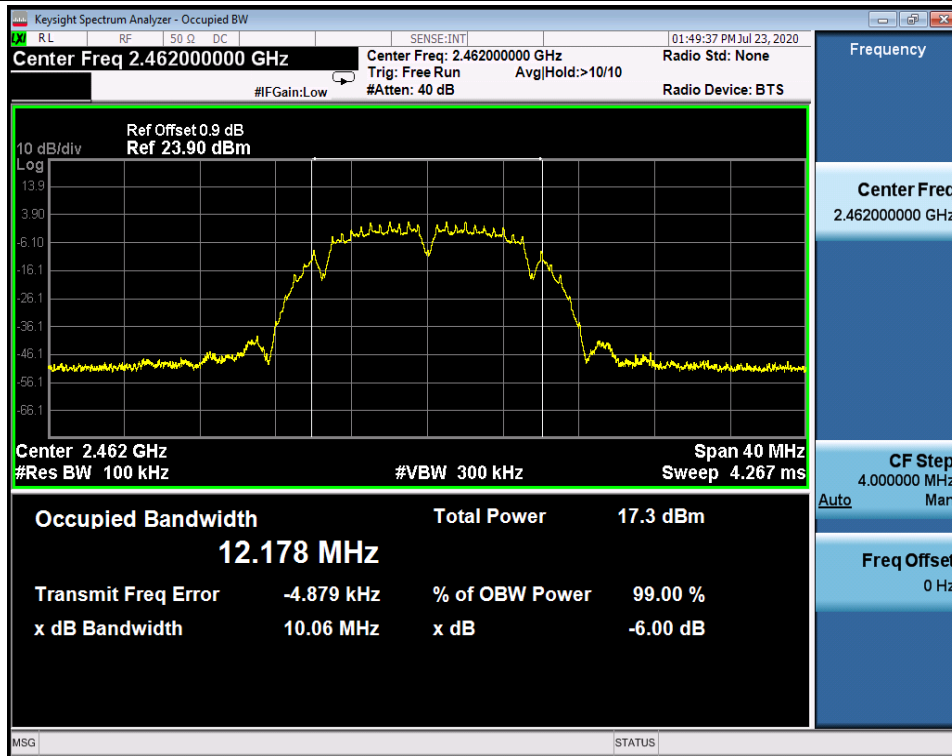
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6dB Bandwidth_11B_2442_Ant1



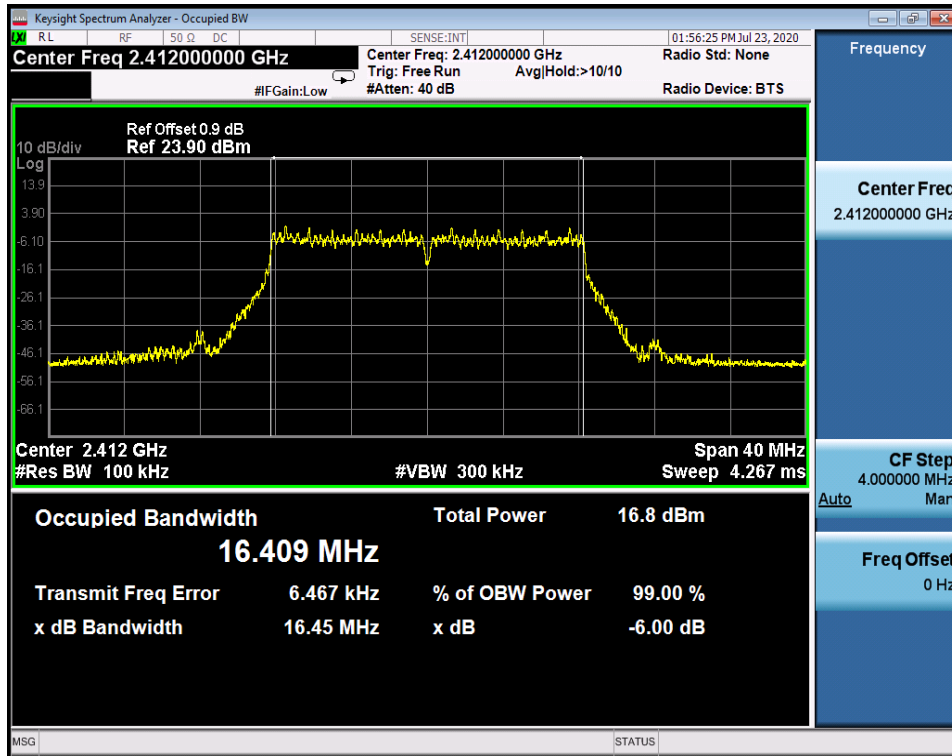
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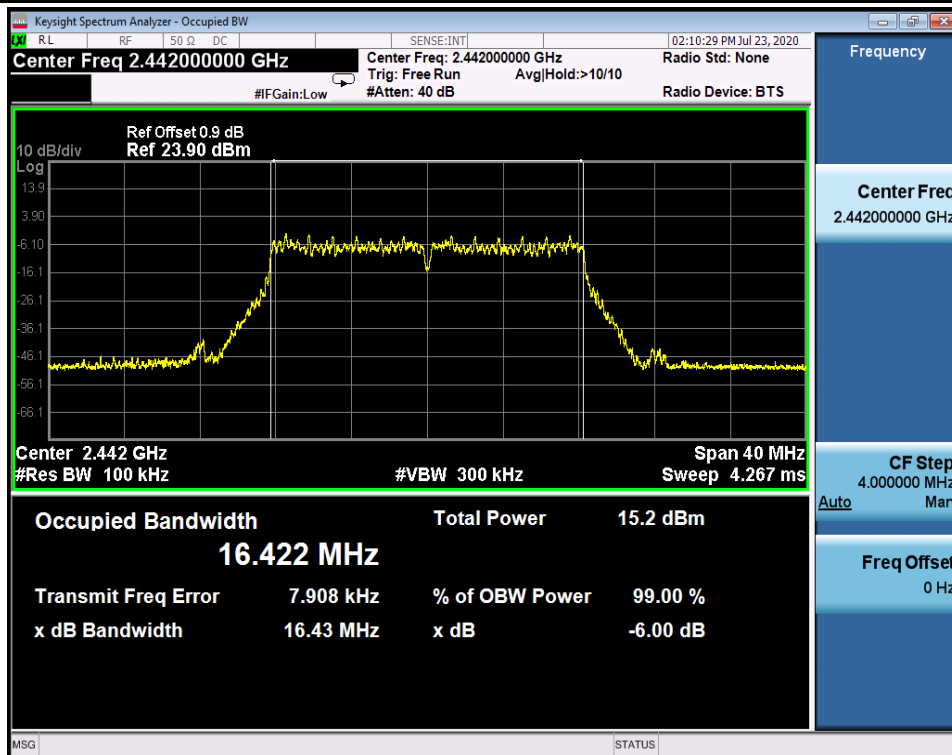
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6dB Bandwidth_11G_2412_Ant1



6dB Bandwidth_11G_2442_Ant1



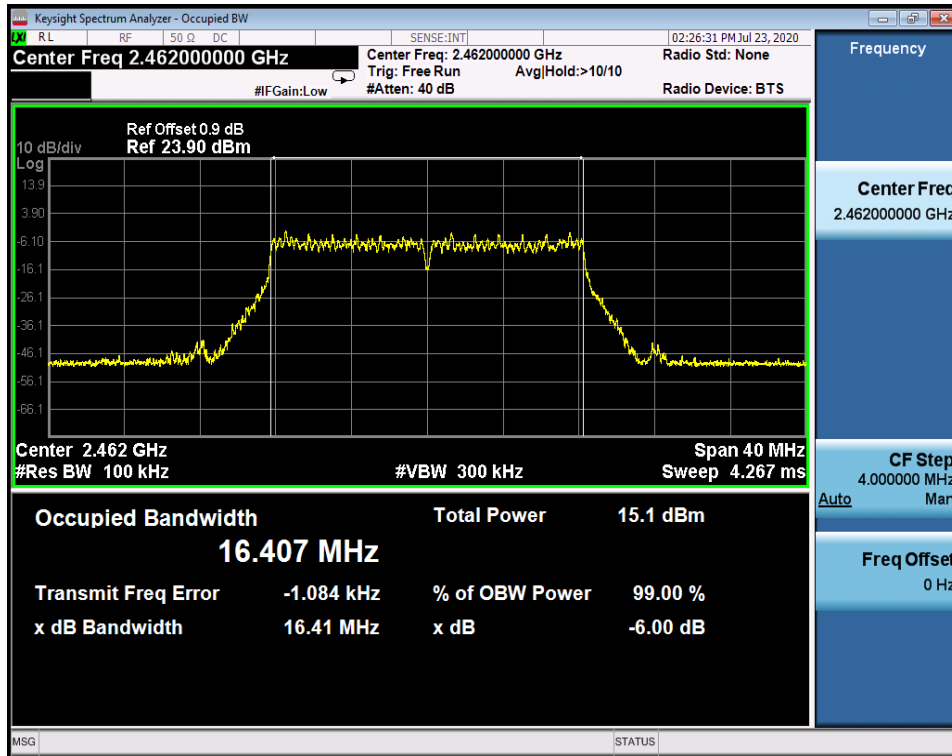
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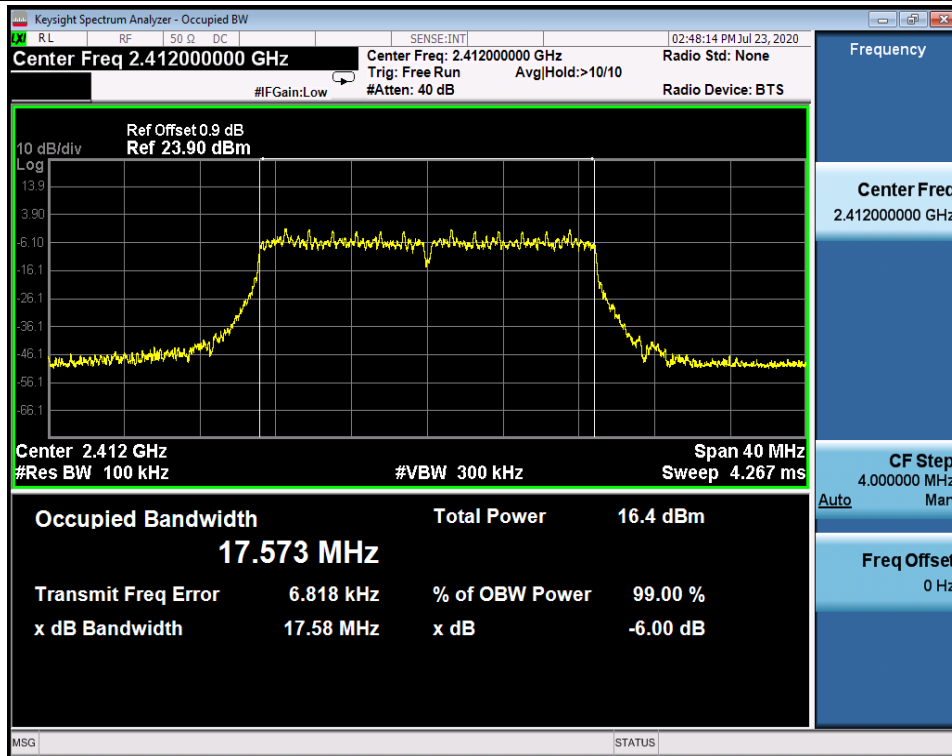
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6dB Bandwidth_11G_2462_Ant1



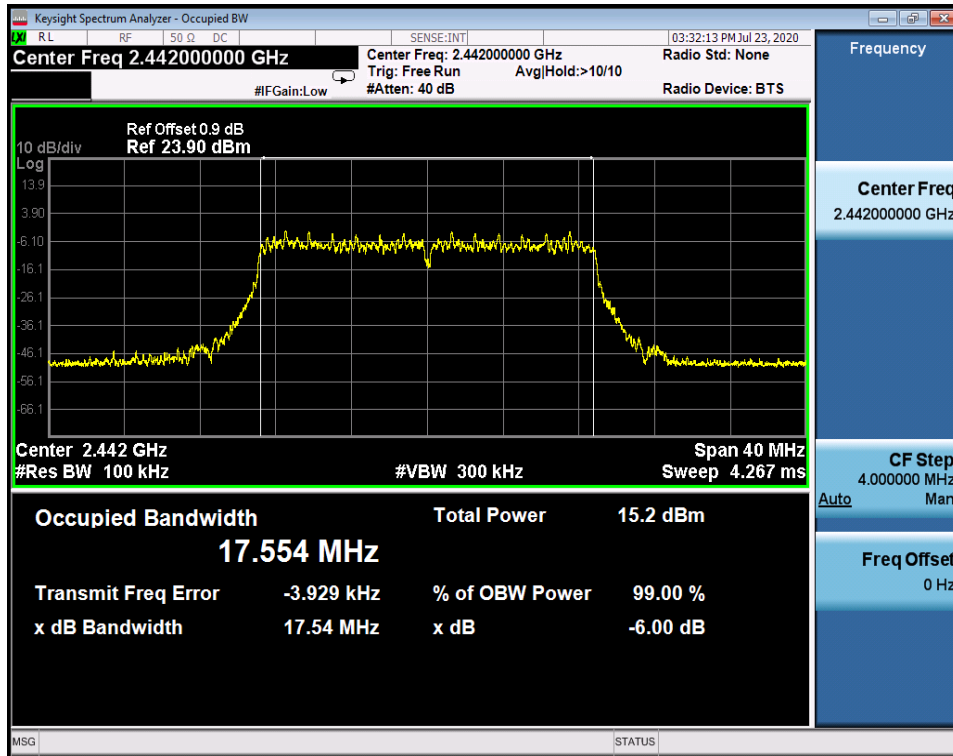
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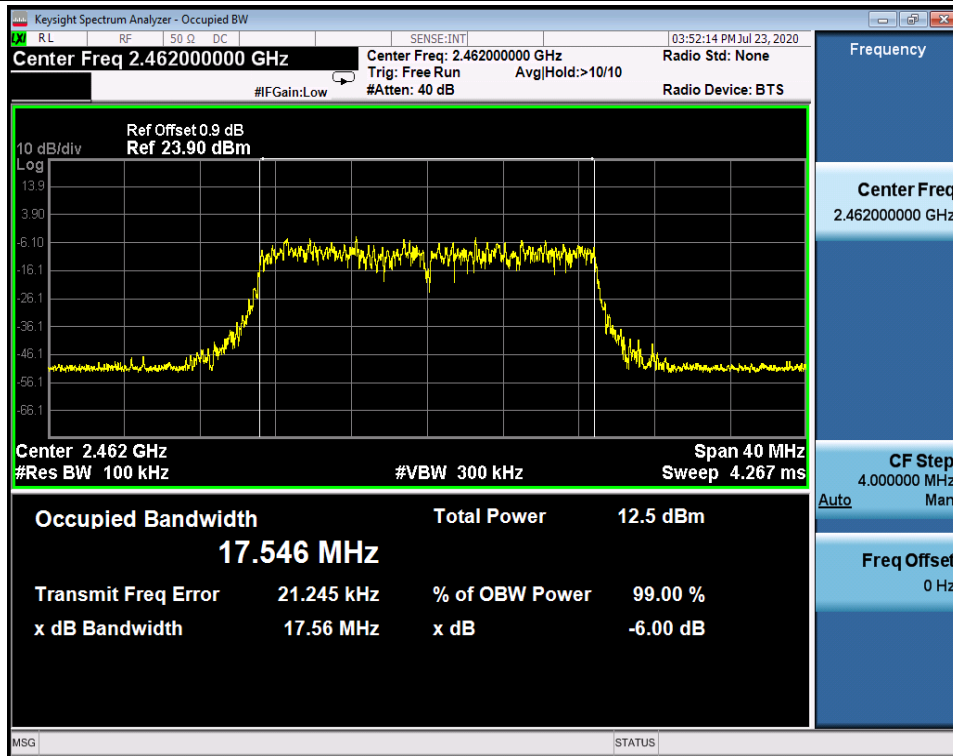
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6dB Bandwidth_11N20SISO_2442_Ant1



6dB Bandwidth_11N20SISO_2462_Ant1



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