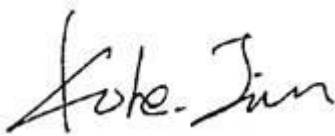


TEST REPORT

Application No.: GZEM1908014833CR
Applicant: COMFORT OFFICE FURNITURE CO., LTD GUANGDONG
Address of Applicant: NO.3 PARK, LUJING INDUSTRY ZONE, NANSHA ECONOMIC DEVELOPMENT DISTRICT, GUANG ZHOU CITY, GUANG DONG PROVINCE-511458, CHINA
Manufacturer: ERGONOR OFFICE FURNITURE CO., LTD.
Address of Manufacturer: 11/12B HONGCHANG INDUSTRY AREA, NO.16 NORTH OF MINZHONG AVENUE, MINZHONG TOWN, ZHONGSHAN CITY, GUANGDONG PROVINCE, CHINA
Factory: The same as manufacturer
Address of Factory: The same as manufacturer
Equipment Under Test (EUT):
FCC ID: 2AZEN-UPPER
EUT Name: UPPER
Model No.: UT, UA, US, MCI-UT, MCI-UTA, MCI-UTSA, MCI-2UTSA, MCI-4-UTSA
 Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark: UPPER
Standard(s): 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2019-08-06
Date of Test: 2019-09-18 to 2020-08-06
Date of Issue: 2021-03-01

Test Result:	Pass*
---------------------	--------------

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

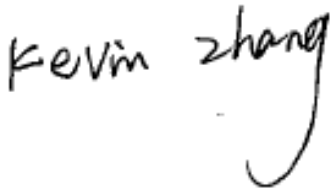


Kobe Jian
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2021-03-01		Original

Authorized for issue by:			
Tested By		2019-09-18 to 2020-08-06	
Checked By		2021-03-01	



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**

** : The EUT passed Radiated Emissions which fall in the restricted bands and Radiated Spurious Emissions test after modifications.

■ Declaration of EUT Family Grouping:

Model No.: UT, UA, US, MCI-UT, MCI-UTA, MCI-UTSA, MCI-2UTSA, MCI-4-UTSA

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 appearance and colour.

Therefore only one model MCI-UTSA was tested in this report.

Remark: As there is not any electrical/electronic component in the table unit, just the electrical parts of table, including main control board, control panel and DC motors, were tested in this report.



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 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

3 Contents

	Page
1 Cover Page	1
2 Test Summary	3
3 Contents	4
4 General Information	6
4.1 Details of E.U.T.....	6
4.2 Description of Support Units.....	6
4.3 Measurement Uncertainty.....	7
4.4 Test Location.....	7
4.5 Test Facility.....	8
4.6 Deviation from Standards.....	9
4.7 Abnormalities from Standard Conditions.....	9
5 Equipment List	10
6 Radio Spectrum Technical Requirement	13
6.1 Antenna Requirement.....	13
6.1.1 Test Requirement:.....	13
6.1.2 Conclusion.....	13
7 Radio Spectrum Matter Test Results	14
7.1 Conducted Emissions at AC Power Line (150kHz-30MHz).....	14
7.1.1 E.U.T. Operation.....	14
7.1.2 Test Setup Diagram.....	14
7.1.3 Measurement Procedure and Data.....	15
7.2 Minimum 6dB Bandwidth.....	18
7.2.1 E.U.T. Operation.....	18
7.2.2 Test Setup Diagram.....	18
7.2.3 Measurement Procedure and Data.....	18
7.3 Conducted Peak Output Power.....	19
7.3.1 E.U.T. Operation.....	20
7.3.2 Test Setup Diagram.....	20
7.3.3 Measurement Procedure and Data.....	20
7.4 Power Spectrum Density.....	21
7.4.1 E.U.T. Operation.....	21
7.4.2 Test Setup Diagram.....	21
7.4.3 Measurement Procedure and Data.....	21
7.5 Conducted Band Edges Measurement.....	22
7.5.1 E.U.T. Operation.....	23
7.5.2 Test Setup Diagram.....	23
7.5.3 Measurement Procedure and Data.....	23
7.6 Conducted Spurious Emissions.....	24
7.6.1 E.U.T. Operation.....	25
7.6.2 Test Setup Diagram.....	25
7.6.3 Measurement Procedure and Data.....	25



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7.7	Radiated Emissions which fall in the restricted bands.....	26
7.7.1	E.U.T. Operation.....	26
7.7.2	Test Setup Diagram.....	26
7.7.3	Measurement Procedure and Data	27
7.8	Radiated Spurious Emissions	44
7.8.1	E.U.T. Operation.....	45
7.8.2	Test Setup Diagram.....	45
7.8.3	Measurement Procedure and Data	46
8	Appendix	73
8.1	Appendix 15.247.....	73



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4 General Information

4.1 Details of E.U.T.

Power Supply:	AC 120-264V 50/60Hz
Test Voltage:	AC 120V 60Hz
Cable:	AC mains cable (unshielded, 1m)
Function:	UPPER with Wi-Fi function
Antenna Gain	0dBi declared by applicant
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
S/N	45632804
Hardware:	WT18578_V1.4
Firmware:	UPPER_W1.2
Test Software:	MXCHIP_MP_TOOLS_V1.1
Power Setting:	5 for 802.11b (16dBm) can not changed by user 10 for 802.11g/n(HT20)/ n(HT40) (18dBm) can not changed by user

4.2 Description of Support Units

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



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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	0.68dB
5	RF Power Density	1.50dB
6	Conducted Spurious Emissions	1.04dB
7	RF Radiated Power	4.5dB (below 1GHz)
		4.8dB (above 1GHz)
8	Radiated Spurious Emission Test	4.5dB (30MHz-1GHz)
		4.8dB (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

The EUT passed Radiated Emissions which fall in the restricted bands and Radiated Spurious Emissions test after modifications.



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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	2021-01-08	2022-01-07
LISN	Rohde & Schwarz	ENV216	EMC2135	2020-09-25	2021-09-24
EMI Test Receiver	Rohde & Schwarz	ESCS30	EMC0506	2020-11-13	2021-11-12
Coaxial Cable	HangTianXing	2m	EMC0107	2020-09-09	2022-09-08
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	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Conducted Peak Output Power					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Power Spectrum Density					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01



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Conducted Band Edges Measurement

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Conducted Spurious Emissions

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01

Radiated Emissions which fall in the restricted bands

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2021-01-08	2022-01-07
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2021-01-03	2022-01-02
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	2021-01-08	2022-01-07
Amplifier	HP	8447F	EMC2065	2020-05-26	2021-05-25
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2020-11-13	2021-11-12
Active Loop Antenna	EMCO	6502	EMC0523	2018-03-05	2021-03-04
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2021-01-08	2022-01-07
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2021-01-08	2022-01-07
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	2020-12-19	2023-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2020-11-13	2021-11-12
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16



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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	2021-01-08	2022-01-07
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2021-01-03	2022-01-02
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	2021-01-08	2022-01-07
Amplifier	HP	8447F	EMC2065	2020-05-26	2021-05-25
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2020-11-13	2021-11-12
Active Loop Antenna	EMCO	6502	EMC0523	2018-03-05	2021-03-04
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2021-01-08	2022-01-07
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2021-01-08	2022-01-07
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	2020-12-19	2023-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2020-11-13	2021-11-12
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2020-09-17	2021-09-16
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)

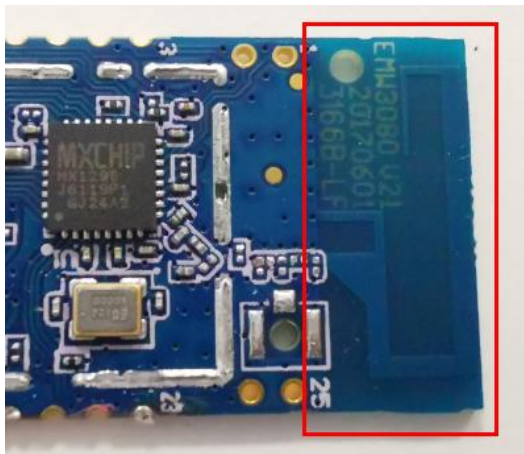
6.1.2 Conclusion

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:

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

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.

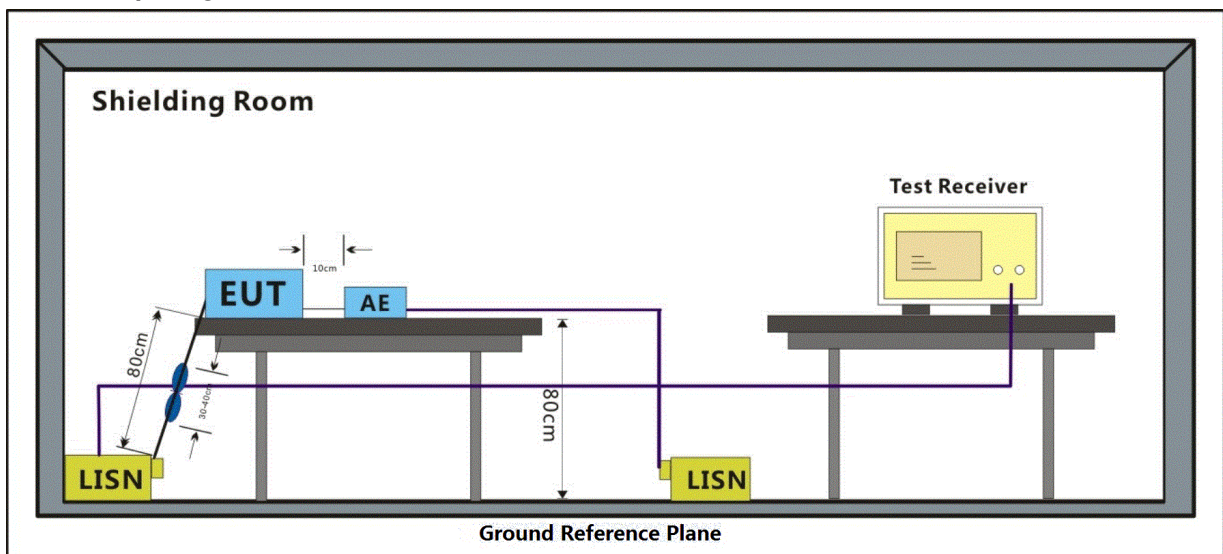
7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.8 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar

Test Mode: c:TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 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.

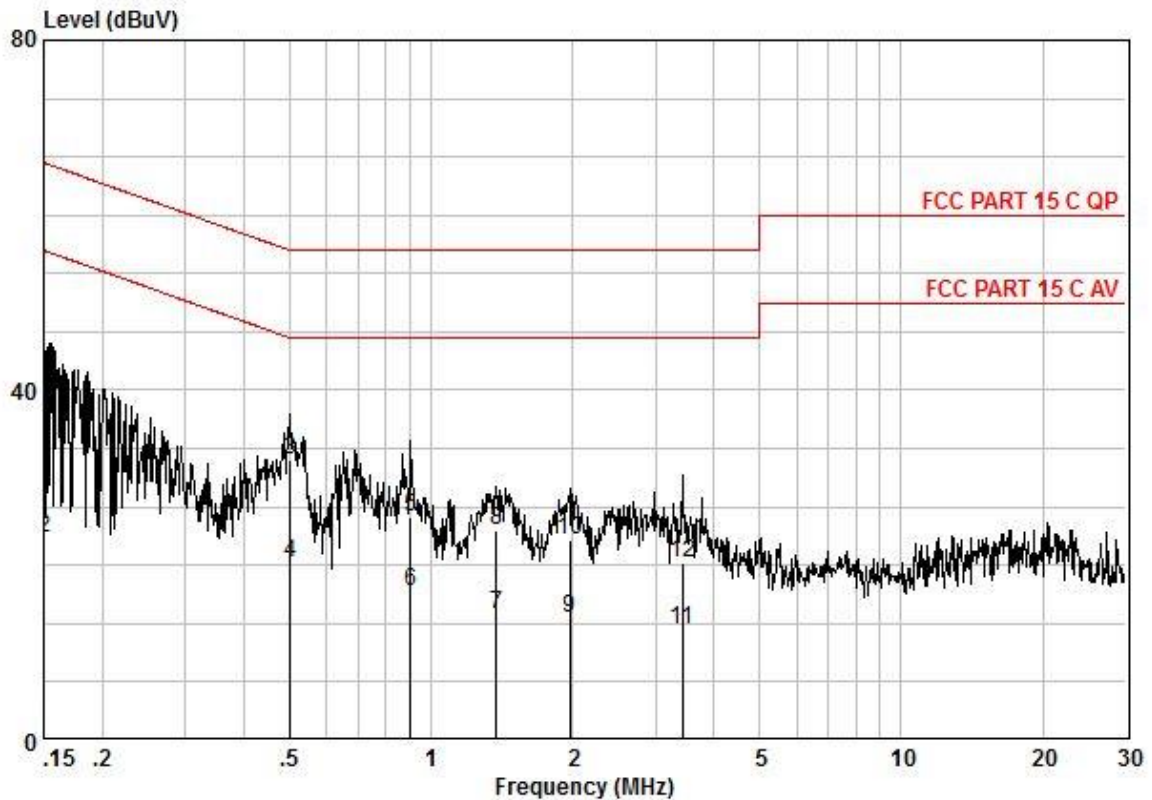
Remark: LISN=Read Level+ Cable Loss+ LISN Factor



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Mode:c; Line:Live Line



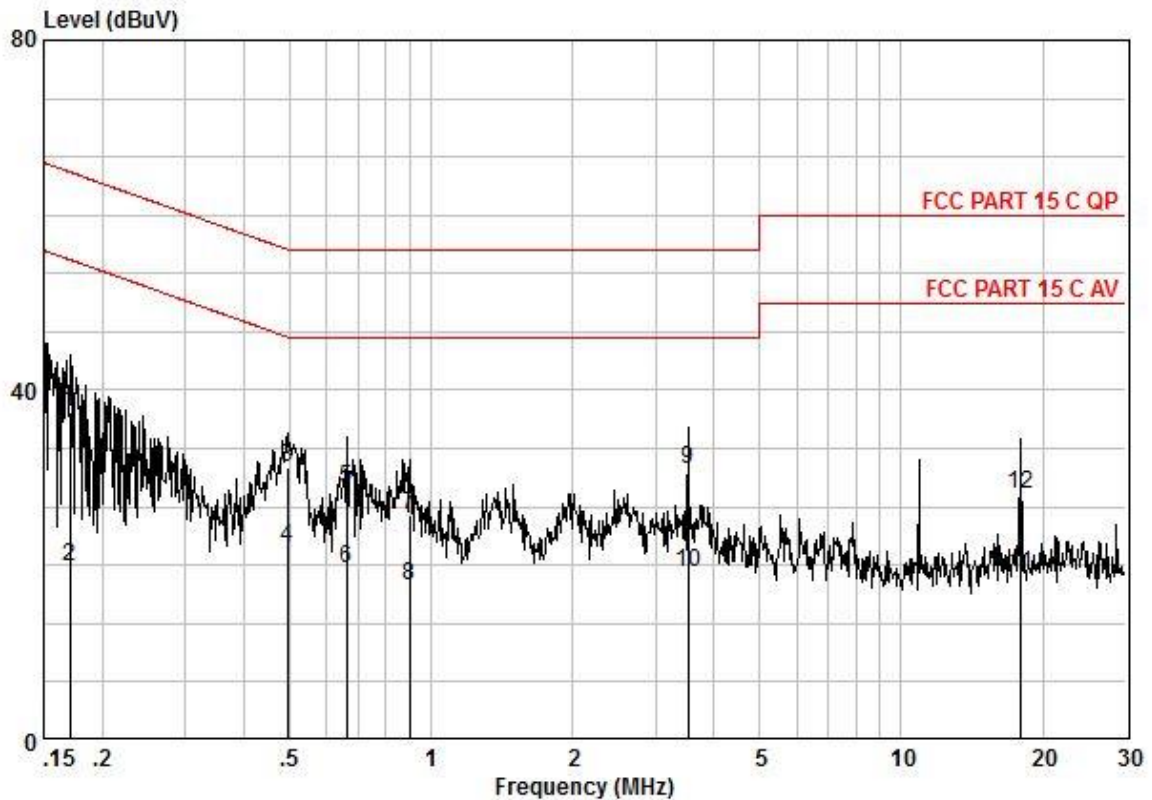
Pol	:LIVE							
No	:							
Model	:							
Frequency MHz	read level dBuV	Cable Loss dB	LISN Factor dB	Measured level dBuV	Limit Line dBuV	Over limit dB	Remark	
0,15	30,52	0,10	9,67	40,29	66,00	-25,71	QP	
0,15	13,24	0,10	9,67	23,01	56,00	-32,99	AVERAGE	
0,50	22,35	0,10	9,67	32,12	56,00	-23,88	QP	
0,50	10,46	0,10	9,67	20,23	46,00	-25,77	AVERAGE	
0,90	15,83	0,10	9,67	25,60	56,00	-30,40	QP	
0,90	7,14	0,10	9,67	16,91	46,00	-29,09	AVERAGE	
1,37	4,70	0,10	9,68	14,48	46,00	-31,52	AVERAGE	
1,37	14,12	0,10	9,68	23,90	56,00	-32,10	QP	
1,97	4,15	0,10	9,69	13,94	46,00	-32,06	AVERAGE	
1,97	13,03	0,10	9,69	22,82	56,00	-33,18	QP	
3,42	2,79	0,20	9,69	12,68	46,00	-33,32	AVERAGE	
3,42	10,44	0,20	9,69	20,33	56,00	-35,67	QP	



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Mode:c; 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
0,17	27,90	0,10	9,60	37,60	64,94	-27,34	QP
0,17	10,19	0,10	9,60	19,89	54,94	-35,05	AVERAGE
0,49	21,57	0,10	9,60	31,27	56,10	-24,83	QP
0,49	12,22	0,10	9,60	21,92	46,10	-24,18	AVERAGE
0,66	19,07	0,10	9,60	28,77	56,00	-27,23	QP
0,66	9,83	0,10	9,60	19,53	46,00	-26,47	AVERAGE
0,90	15,93	0,10	9,61	25,64	56,00	-30,36	QP
0,90	7,85	0,10	9,61	17,56	46,00	-28,44	AVERAGE
3,53	21,13	0,20	9,63	30,96	56,00	-25,04	QP
3,53	9,41	0,20	9,63	19,24	46,00	-26,76	AVERAGE
17,94	8,65	0,40	9,91	18,96	50,00	-31,04	AVERAGE
17,94	17,90	0,40	9,91	28,21	60,00	-31,79	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

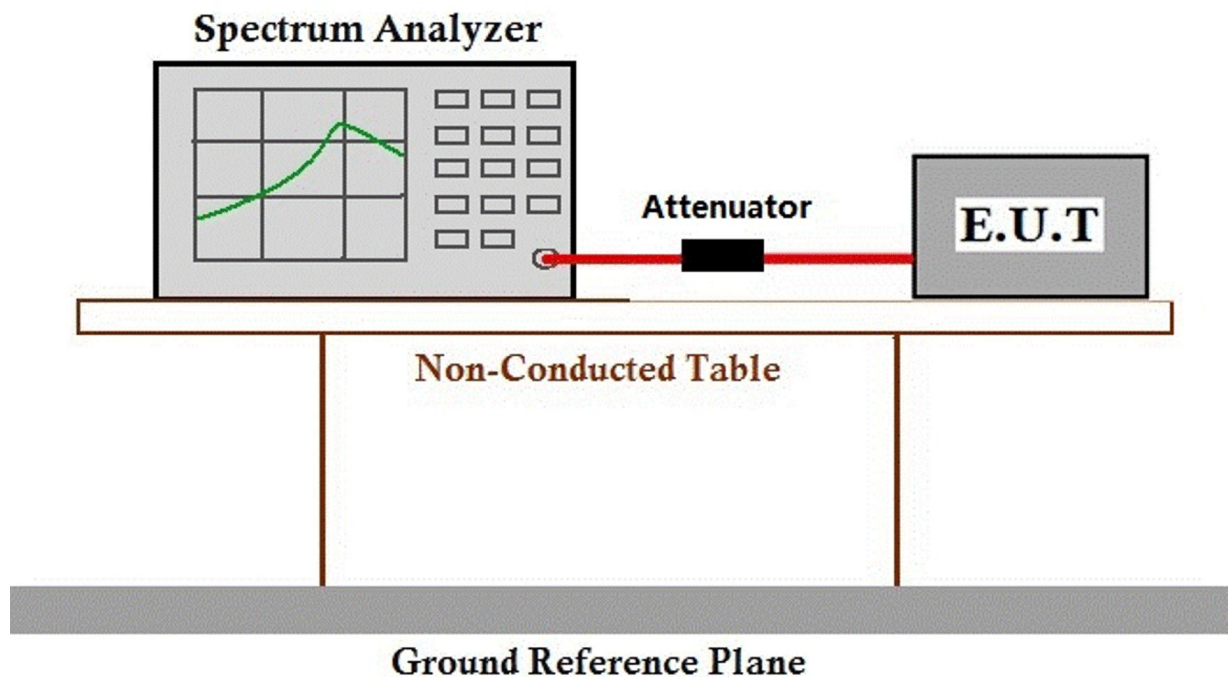
7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C Humidity: 56.7 % RH Atmospheric Pressure: 1020 mbar

Test Mode: c:TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 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



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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



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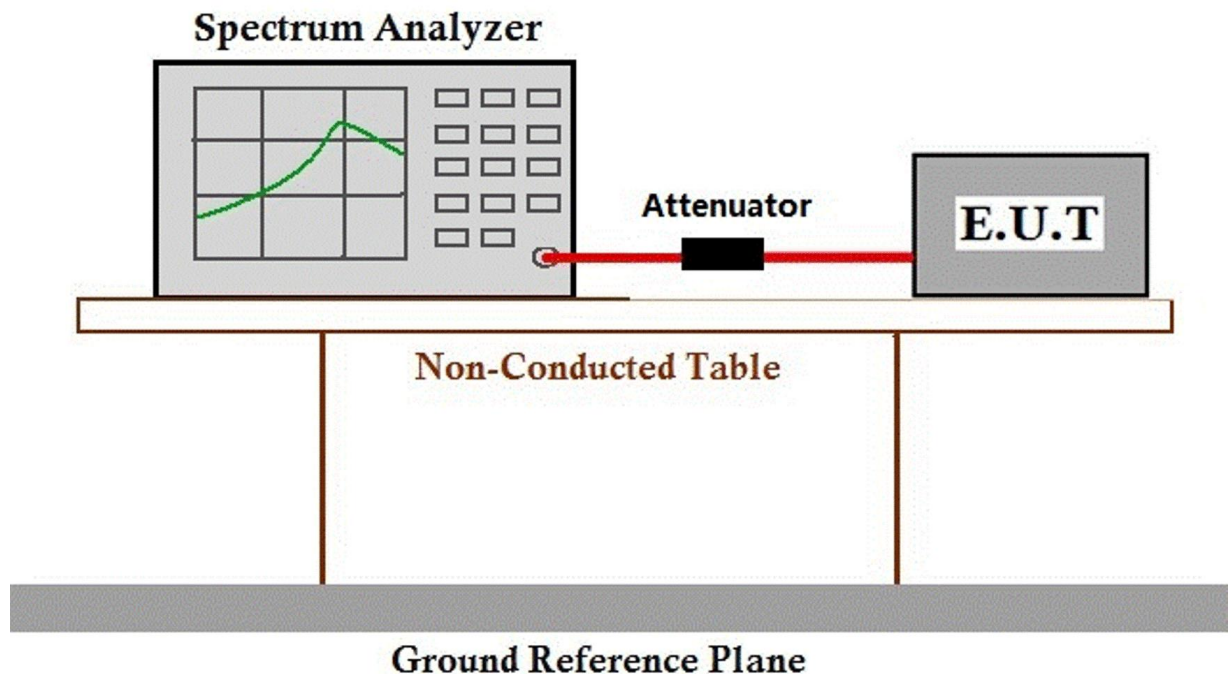
7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C Humidity: 56.7 % RH Atmospheric Pressure: 1020 mbar

Test Mode: c:TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 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



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

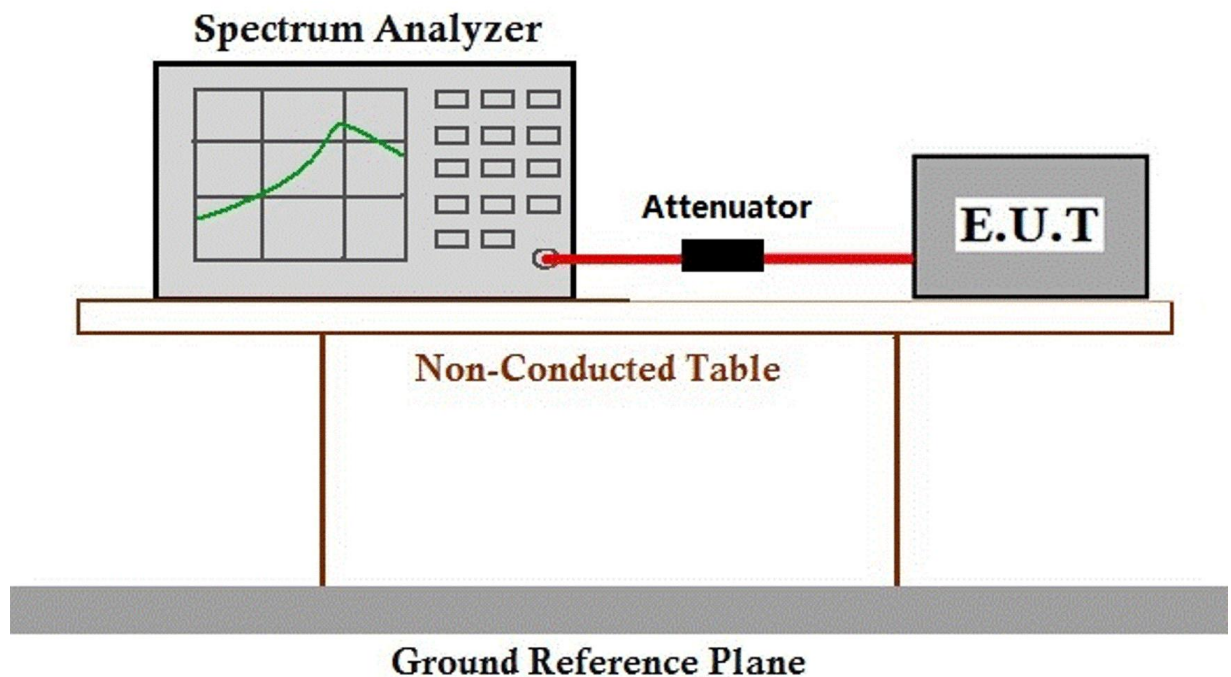
7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C Humidity: 56.7 % RH Atmospheric Pressure: 1020 mbar

Test Mode: c:TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 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))



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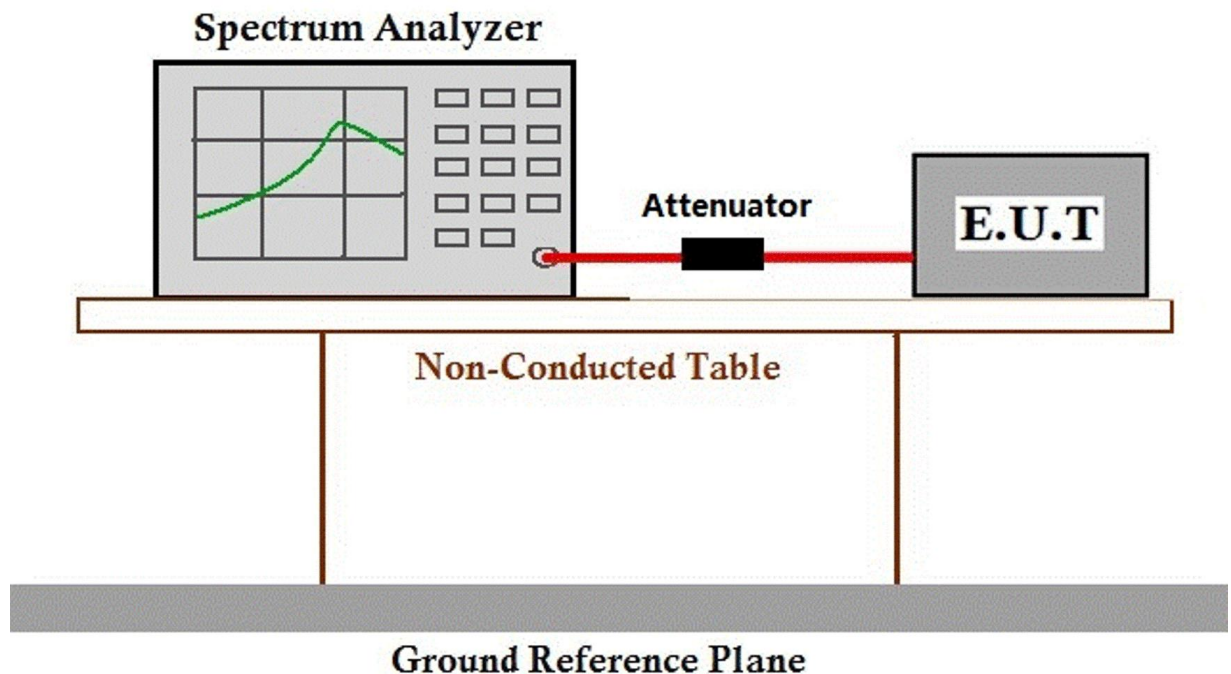
7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C Humidity: 56.7 % RH Atmospheric Pressure: 1020 mbar

Test Mode: c:TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 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



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))



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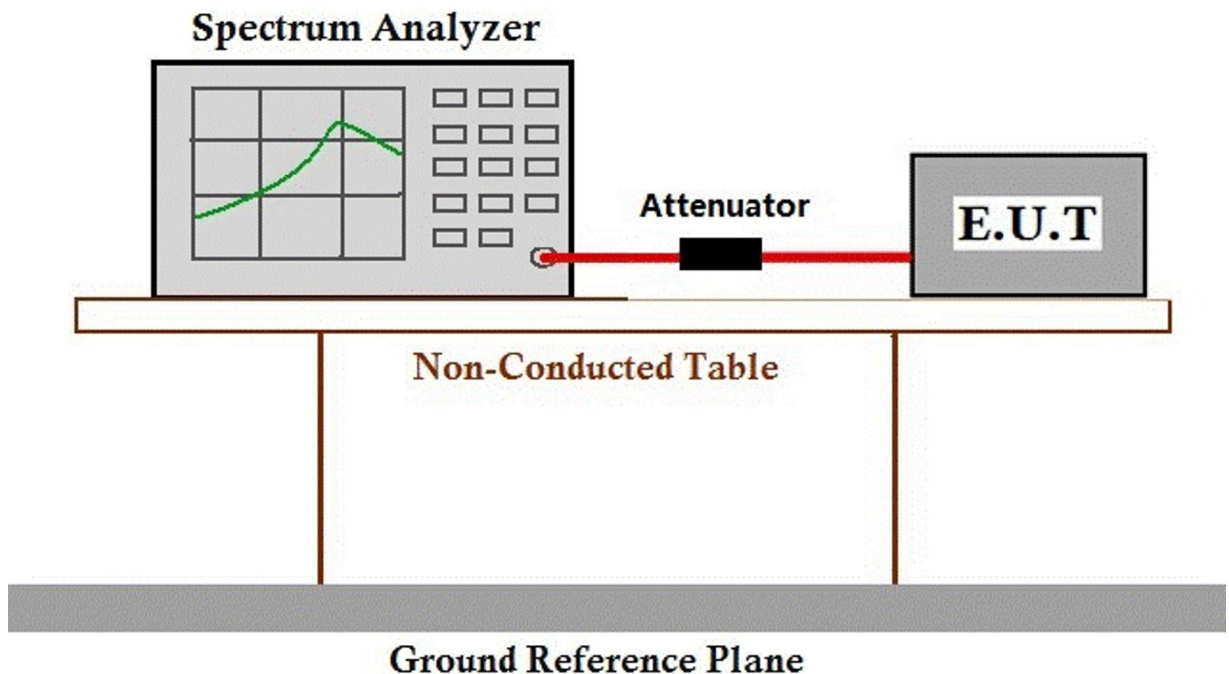
7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C Humidity: 56.7 % RH Atmospheric Pressure: 1020 mbar

Test Mode: c:TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 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



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.

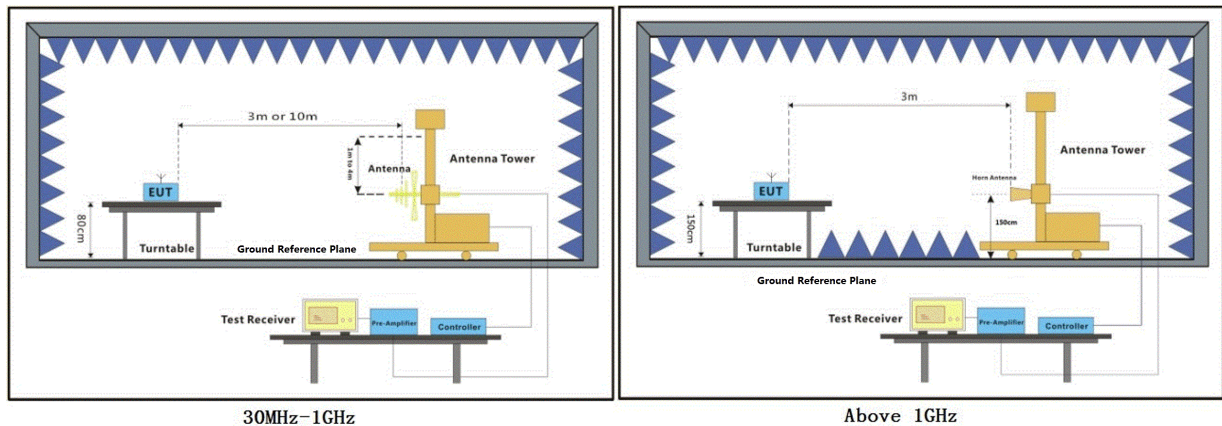
7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C Humidity: 55.6 % RH Atmospheric Pressure: 1020 mbar

Test Mode: c:TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 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.

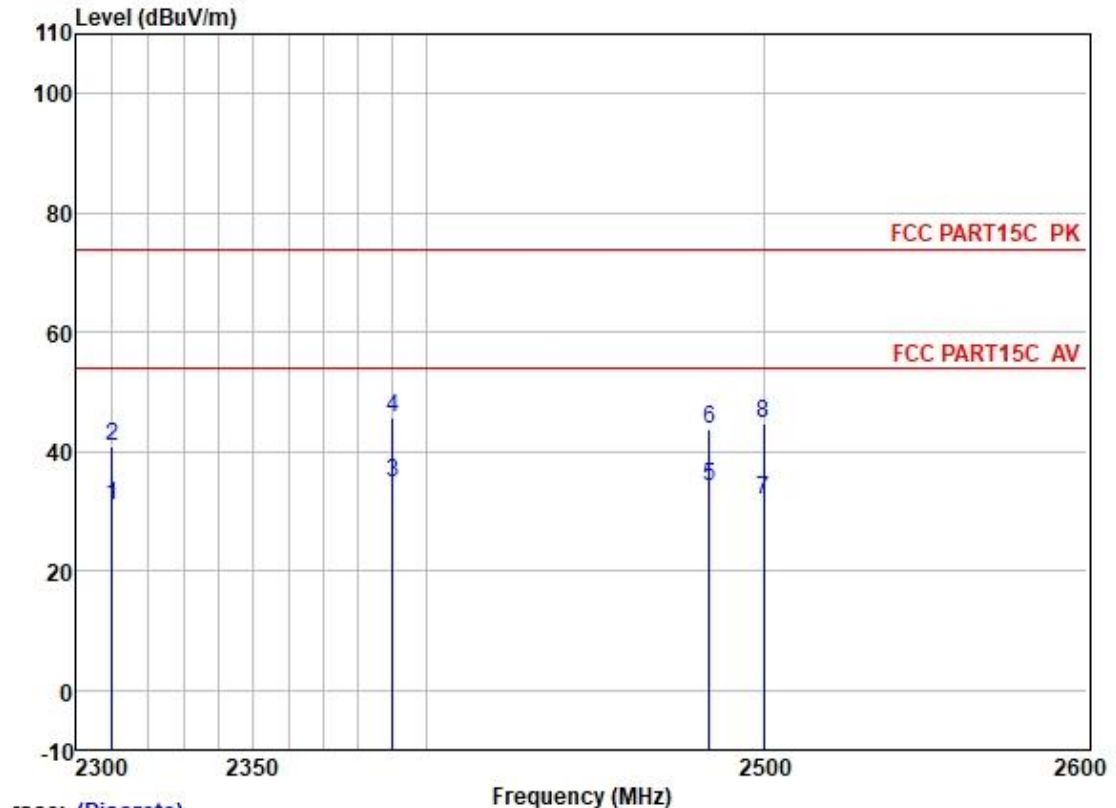
Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor



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



Trace: (Discrete)

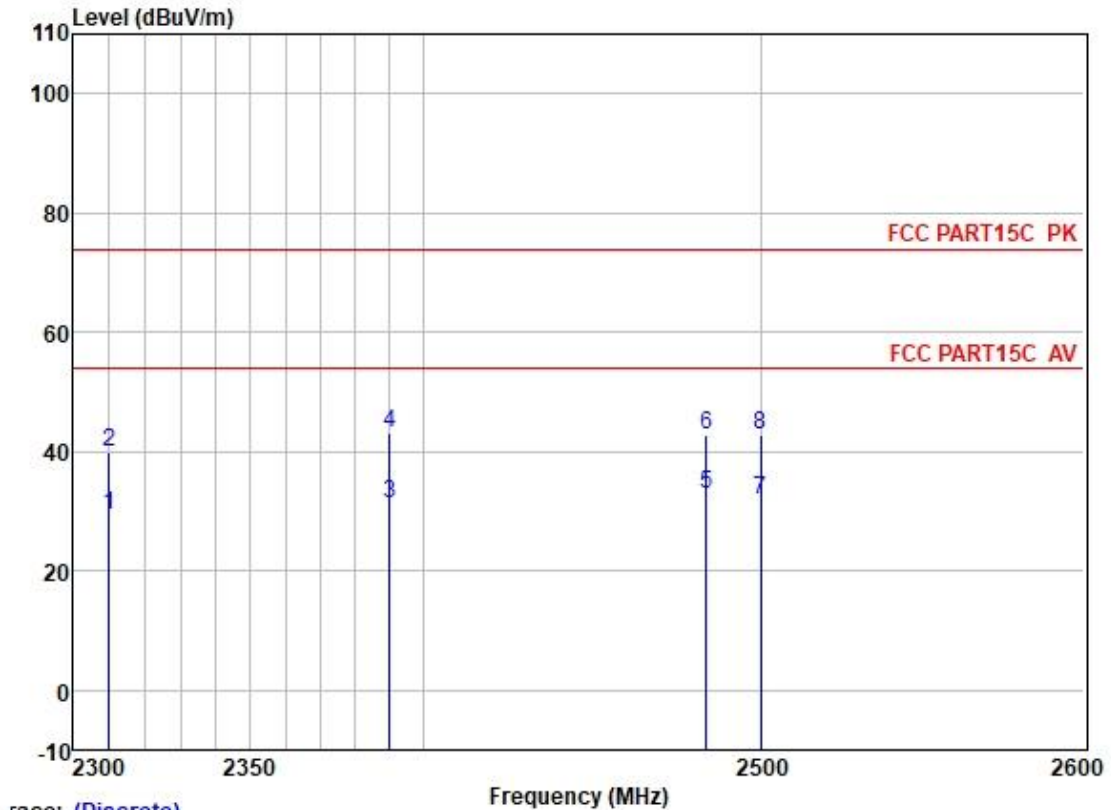
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	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	37.56	27.15	3.32	36.94	31.09	54.00	-22.91	HORIZONTAL Average
2	2310.000	47.48	27.15	3.32	36.94	41.01	74.00	-32.99	HORIZONTAL Peak
3	2390.000	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:c; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

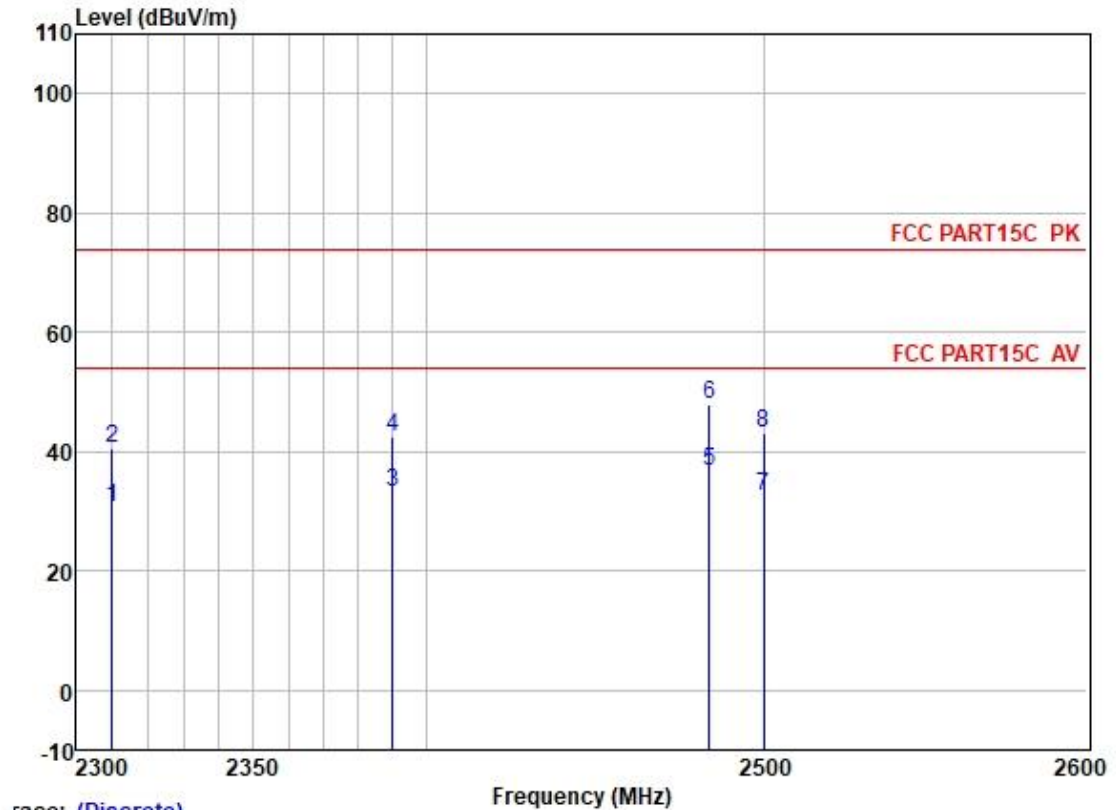
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Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	35.96	27.15	3.32	36.94	29.49	54.00	-24.51	VERTICAL
2	2310.000	46.30	27.15	3.32	36.94	39.83	74.00	-34.17	VERTICAL
3	2390.000	37.43	27.33	3.48	36.92	31.32	54.00	-22.68	VERTICAL
4	2390.000	49.23	27.33	3.48	36.92	43.12	74.00	-30.88	VERTICAL
5	2483.500	38.74	27.48	3.53	36.90	32.85	54.00	-21.15	VERTICAL
6	2483.500	48.81	27.48	3.53	36.90	42.92	74.00	-31.08	VERTICAL
7	2500.000	37.87	27.50	3.40	36.89	31.88	54.00	-22.12	VERTICAL
8	2500.000	48.83	27.50	3.40	36.89	42.84	74.00	-31.16	VERTICAL



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



Trace: (Discrete)

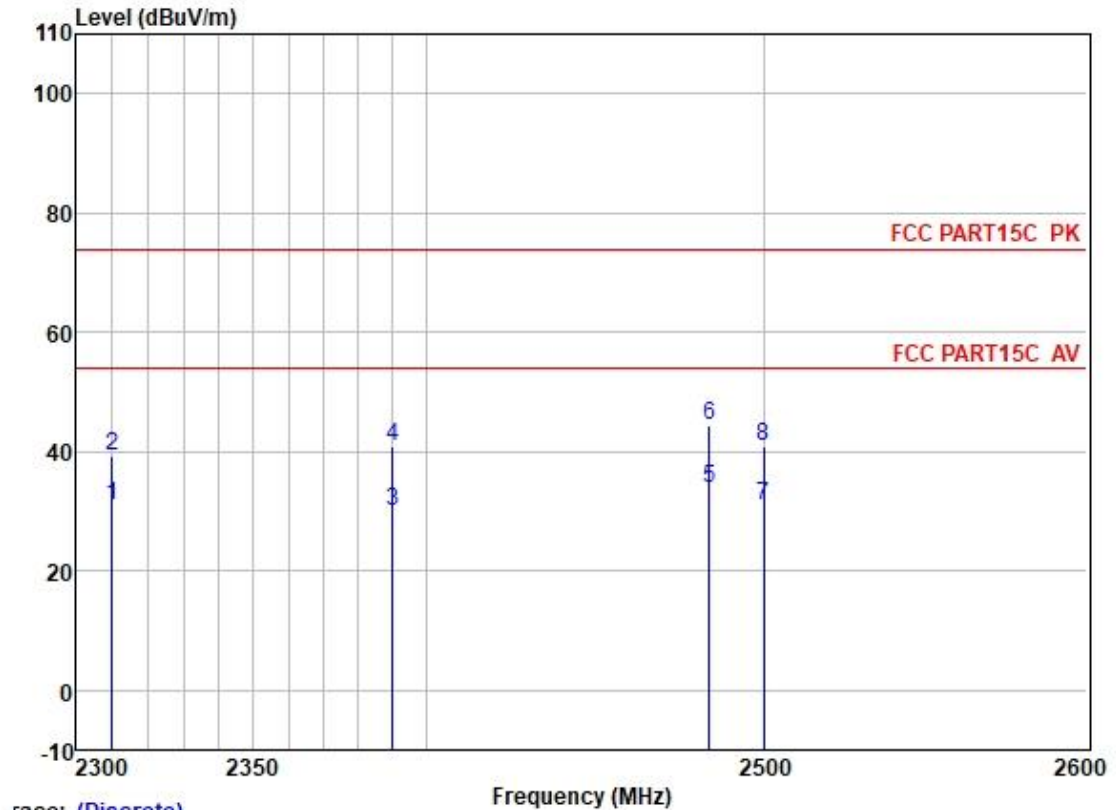
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Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	37.17	27.15	3.32	36.94	30.70	54.00	-23.30	HORIZONTAL Average
2	2310.000	47.07	27.15	3.32	36.94	40.60	74.00	-33.40	HORIZONTAL Peak
3	2390.000	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:c; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:High



Trace: (Discrete)

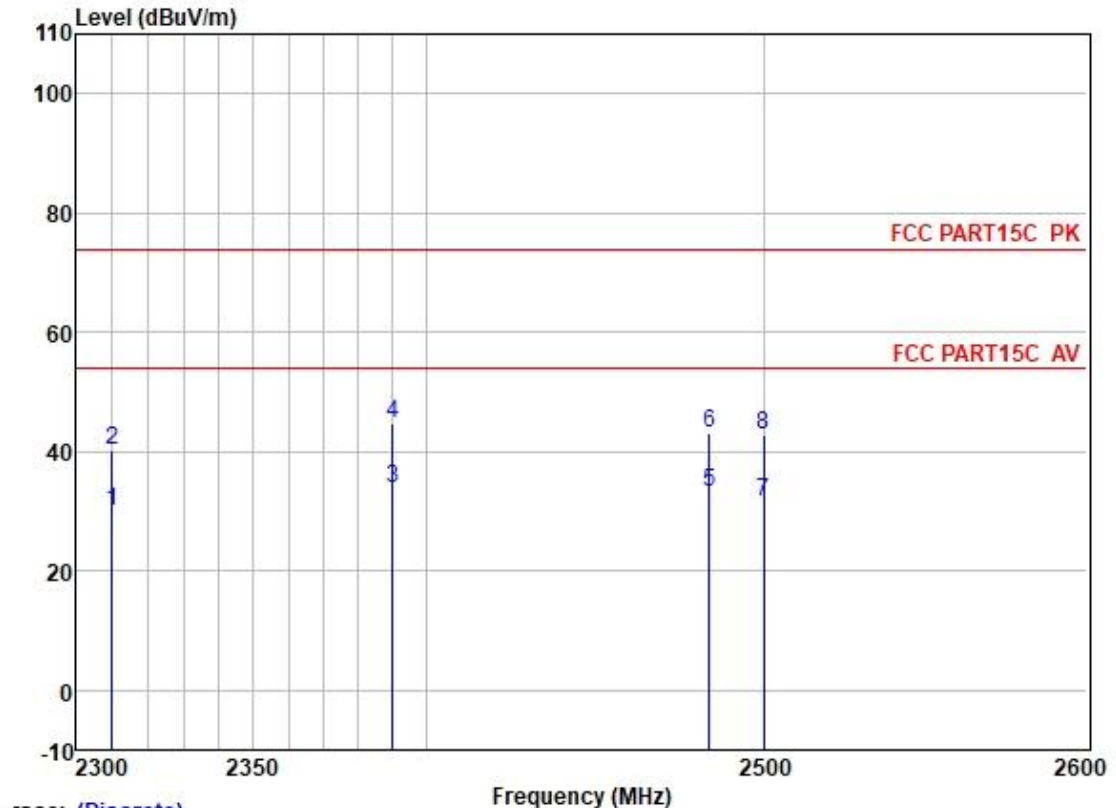
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Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	37.42	27.15	3.32	36.94	30.95	54.00	-23.05	VERTICAL
2	2310.000	45.81	27.15	3.32	36.94	39.34	74.00	-34.66	VERTICAL
3	2390.000	36.23	27.33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



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



Trace: (Discrete)

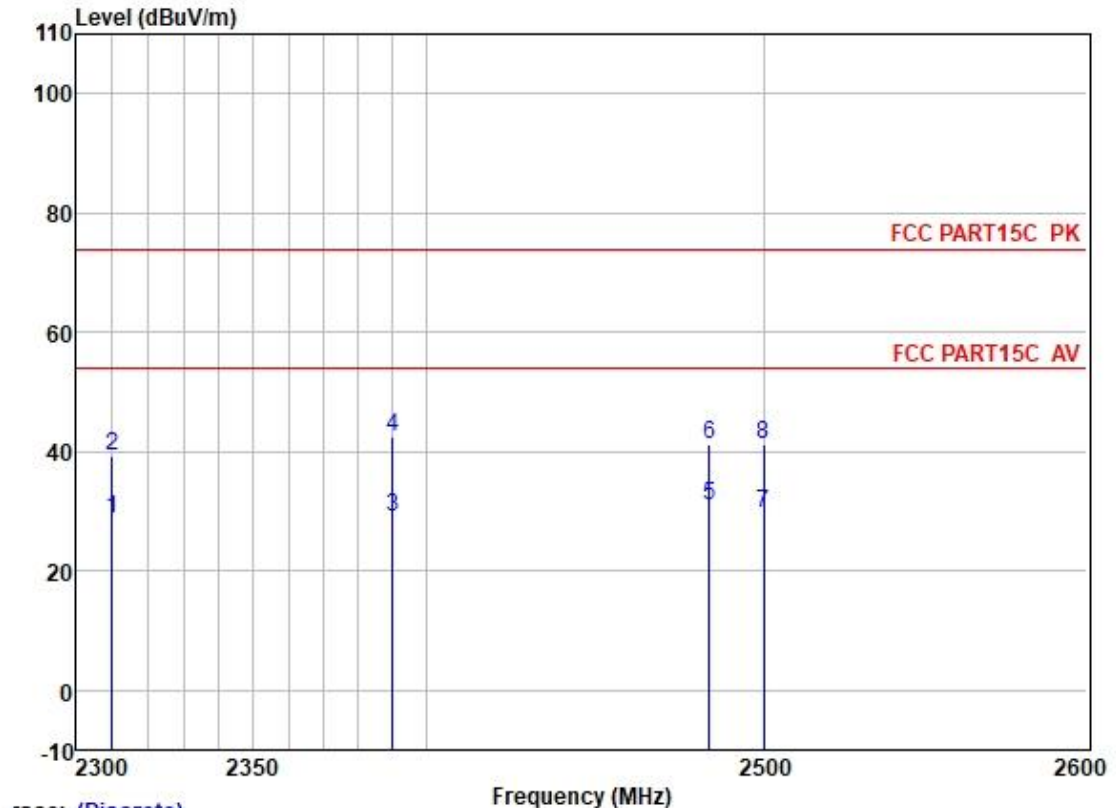
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	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	36.60	27.15	3.32	36.94	30.13	54.00	-23.87	HORIZONTAL Average
2	2310.000	46.61	27.15	3.32	36.94	40.14	74.00	-33.86	HORIZONTAL Peak
3	2390.000	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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 Guangzhou Branch Testing Center EEC Laboratory. 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

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



Trace: (Discrete)

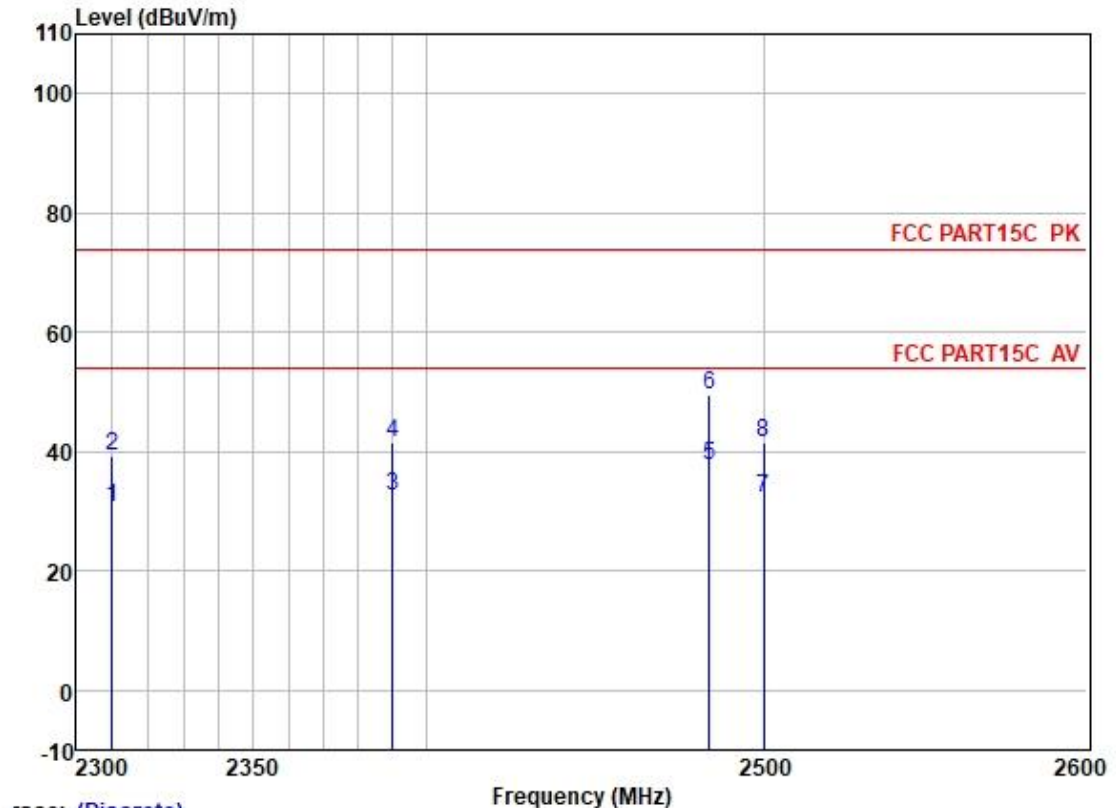
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	35.26	27.15	3.32	36.94	28.79	54.00	-25.21	VERTICAL Average
2	2310.000	45.64	27.15	3.32	36.94	39.17	74.00	-34.83	VERTICAL Peak
3	2390.000	35.13	27.33	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:c; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:High



Trace: (Discrete)

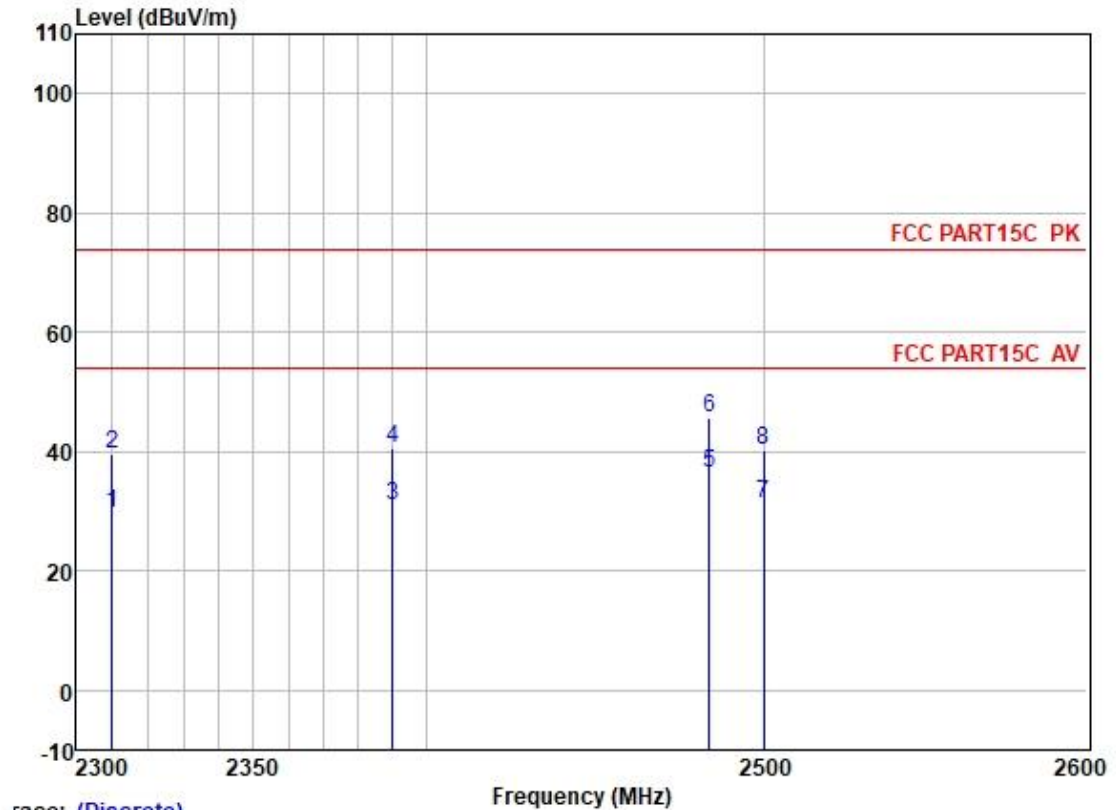
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	37.23	27.15	3.32	36.94	30.76	54.00	-23.24	HORIZONTAL Average
2	2310.000	45.70	27.15	3.32	36.94	39.23	74.00	-34.77	HORIZONTAL Peak
3	2390.000	38.77	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:c; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:High



Trace: (Discrete)

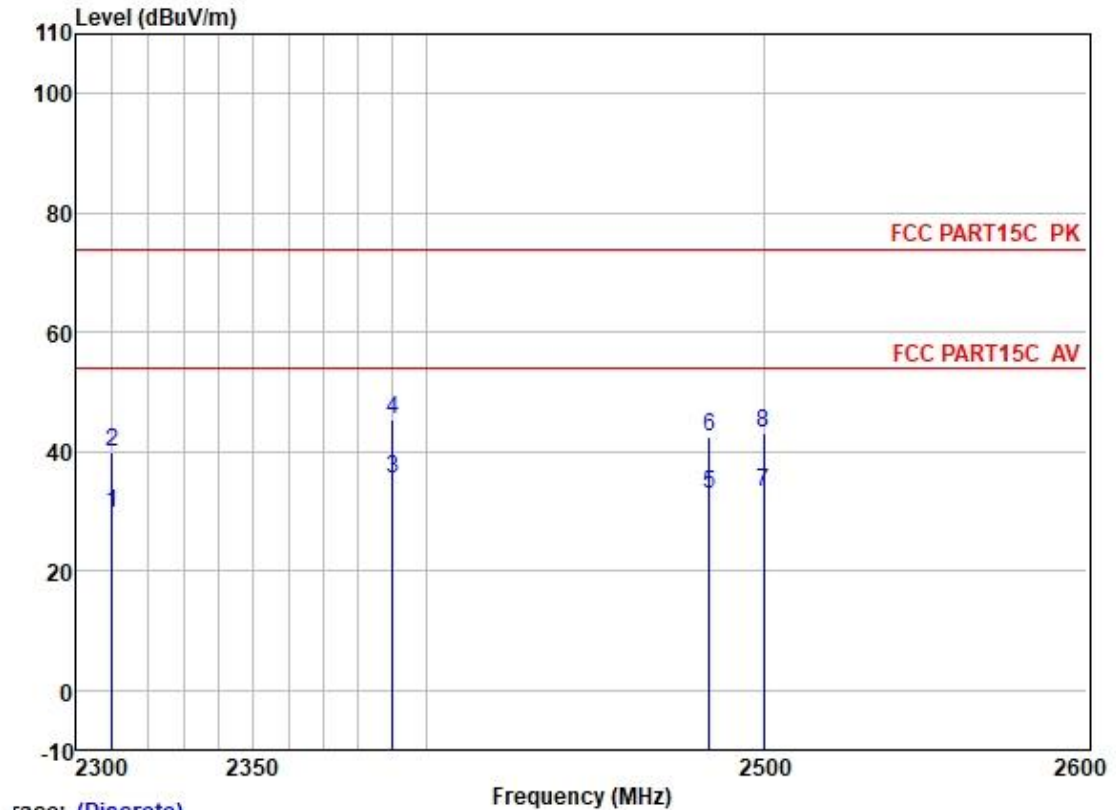
	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	36.05	27.15	3.32	36.94	29.58	54.00	-24.42	VERTICAL
2	2310.000	45.96	27.15	3.32	36.94	39.49	74.00	-34.51	VERTICAL
3	2390.000	37.06	27.33	3.48	36.92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



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



Trace: (Discrete)

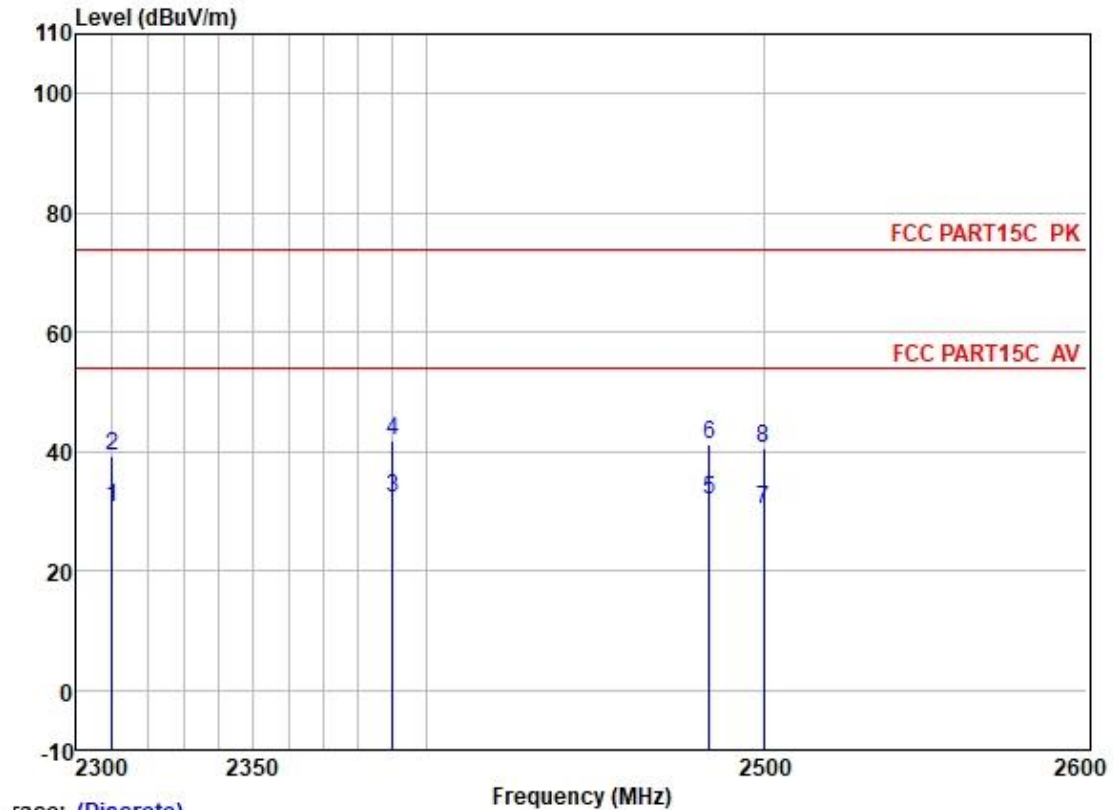
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	36.00	27.15	3.32	36.94	29.53	54.00	-24.47	HORIZONTAL Average
2	2310.000	46.25	27.15	3.32	36.94	39.78	74.00	-34.22	HORIZONTAL Peak
3	2390.000	41.47	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:c; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

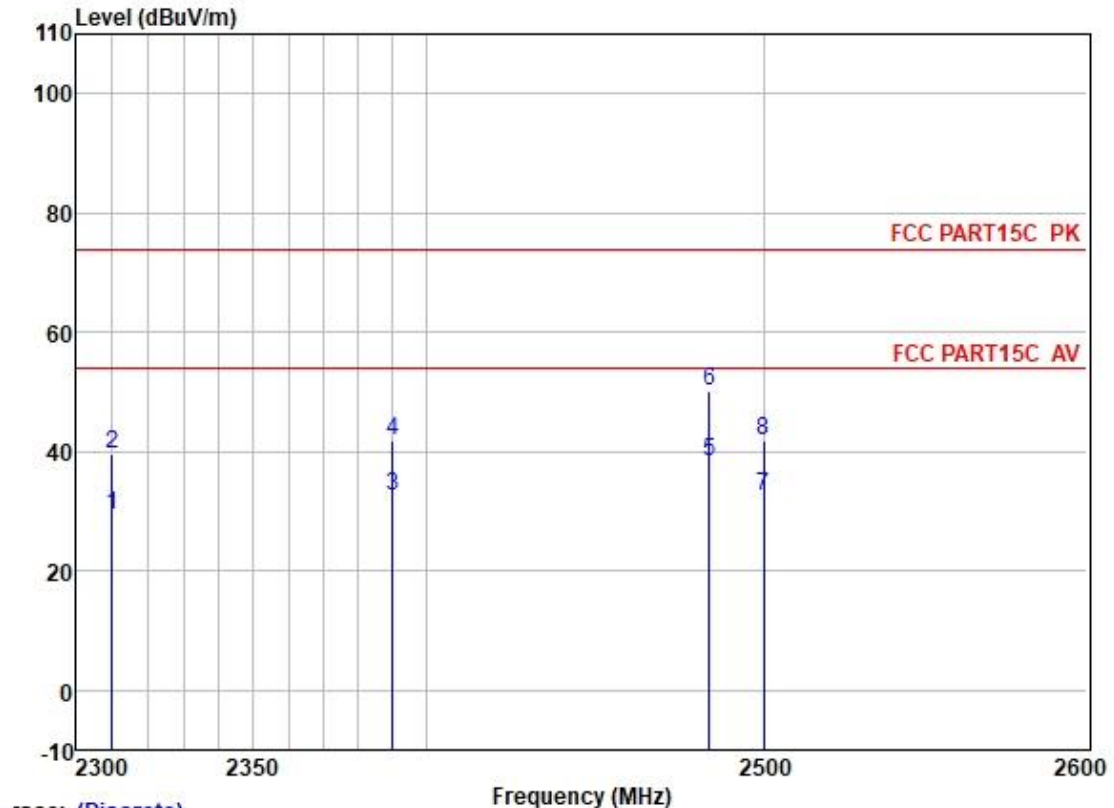
	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	37.03	27.15	3.32	36.94	30.56	54.00	-23.44	VERTICAL
2	2310.000	45.64	27.15	3.32	36.94	39.17	74.00	-34.83	VERTICAL
3	2390.000	38.49	27.33	3.48	36.92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



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



Trace: (Discrete)

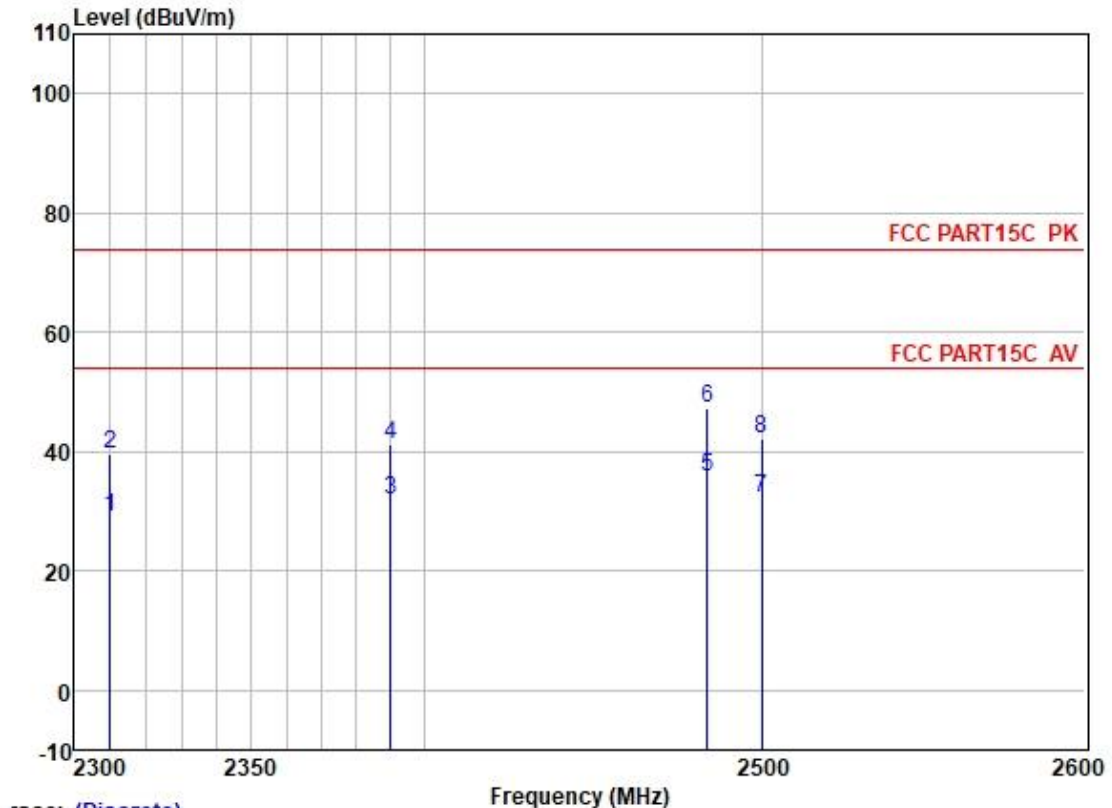
	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	35.87	27.15	3.32	36.94	29.40	54.00	-24.60	HORIZONTAL Average
2	2310.000	46.11	27.15	3.32	36.94	39.64	74.00	-34.36	HORIZONTAL Peak
3	2390.000	38.65	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:c; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:High



Trace: (Discrete)

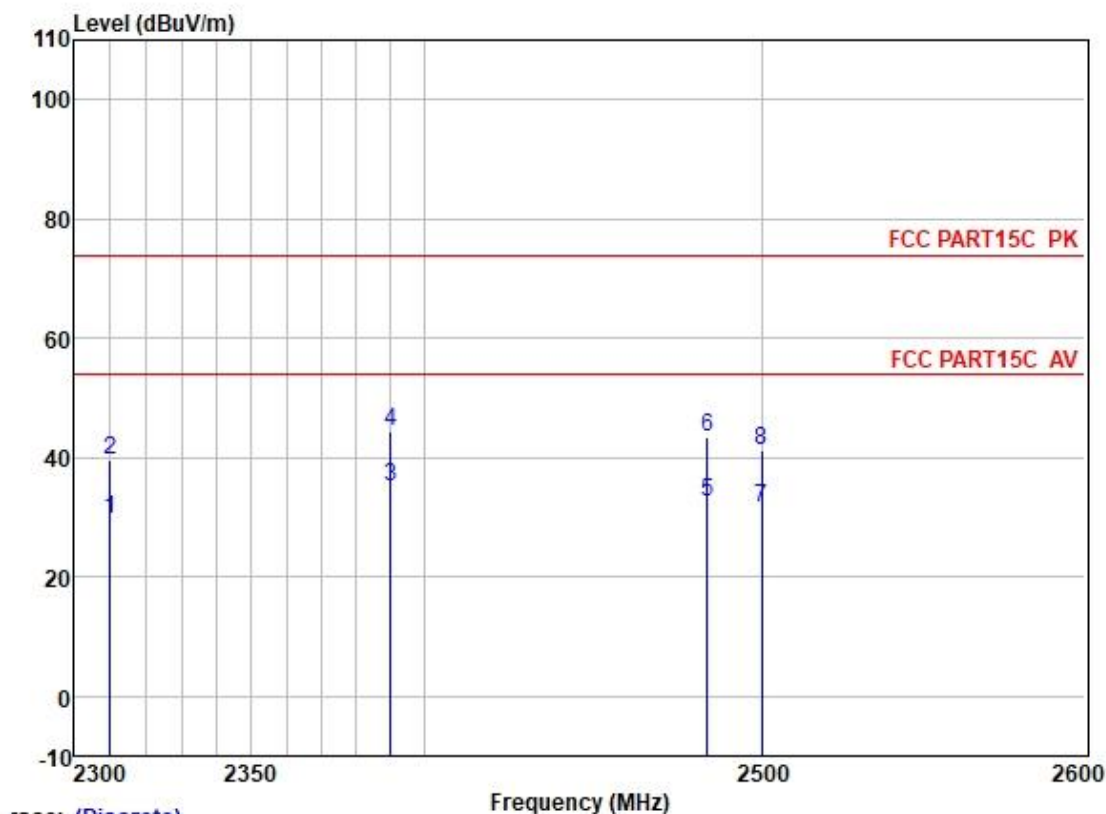
	Freq	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	35.61	27.15	3.32	36.94	29.14	54.00	-24.86	VERTICAL	Average
2	2310.000	46.20	27.15	3.32	36.94	39.73	74.00	-34.27	VERTICAL	Peak
3	2390.000	38.09	27.33	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:c; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:Low



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	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



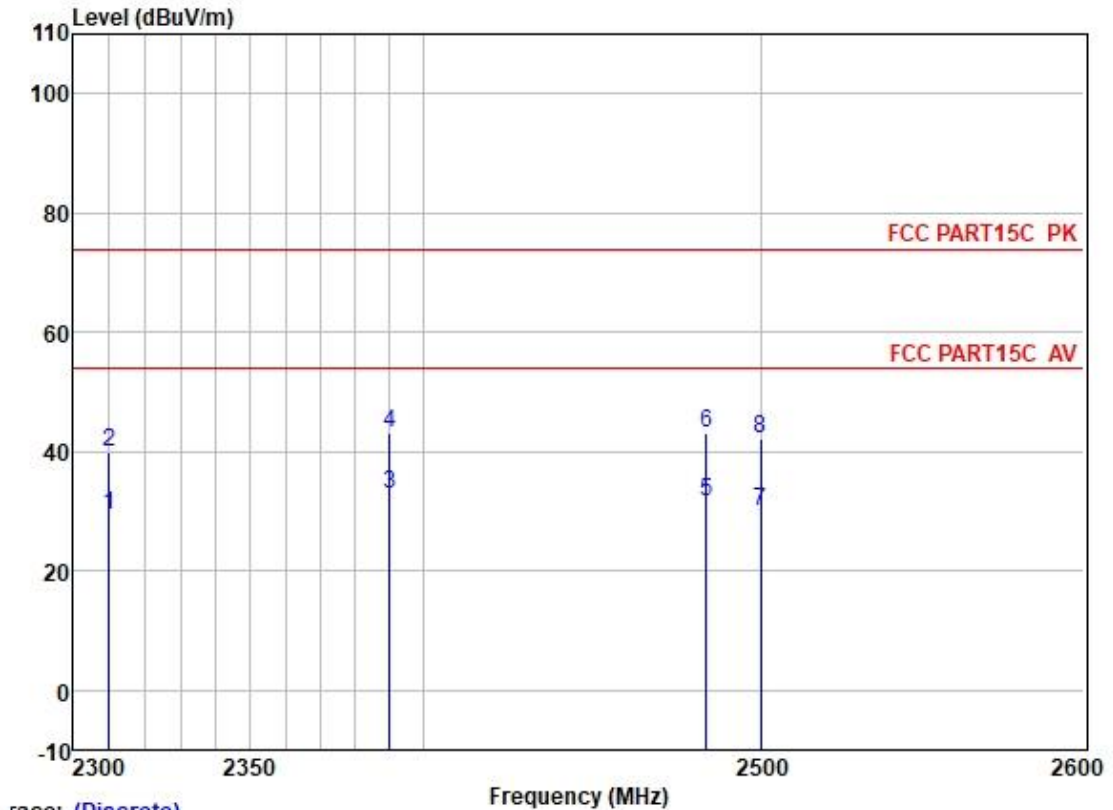
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Guangzhou Branch Testing Center EEC Laboratory

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



Trace: (Discrete)

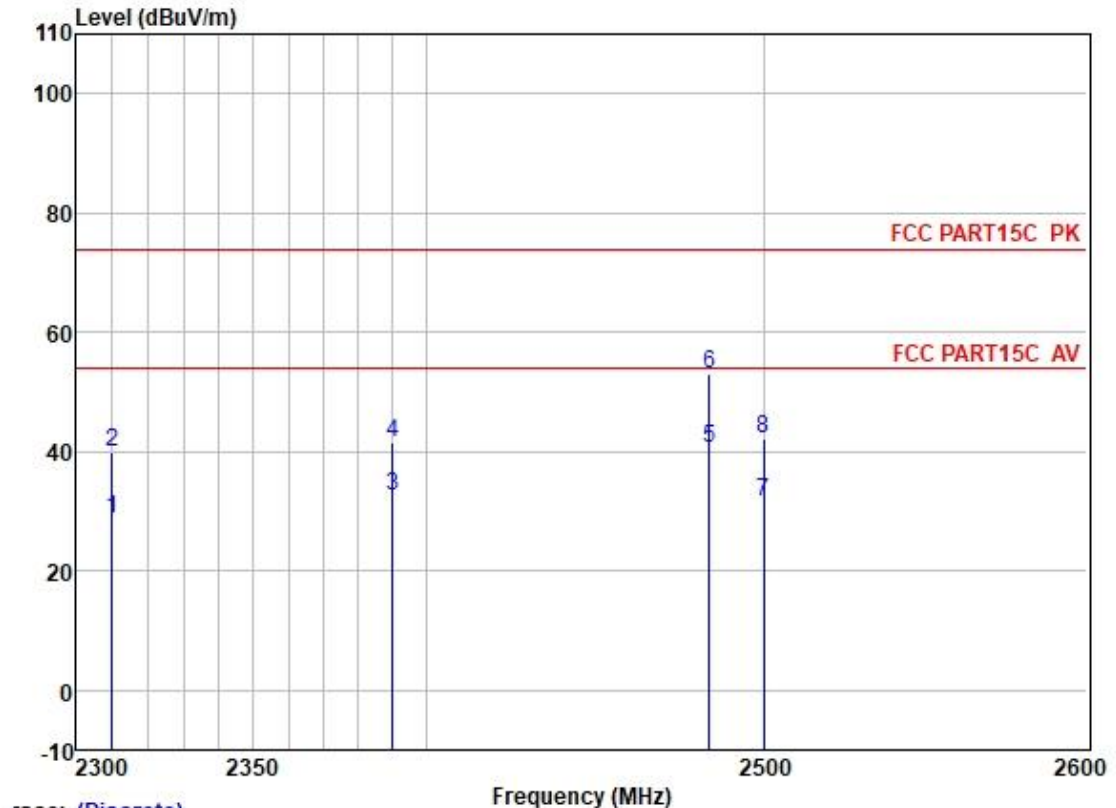
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	35.81	27.15	3.32	36.94	29.34	54.00	-24.66	VERTICAL Average
2	2310.000	46.34	27.15	3.32	36.94	39.87	74.00	-34.13	VERTICAL Peak
3	2390.000	39.03	27.33	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:c; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High



Trace: (Discrete)

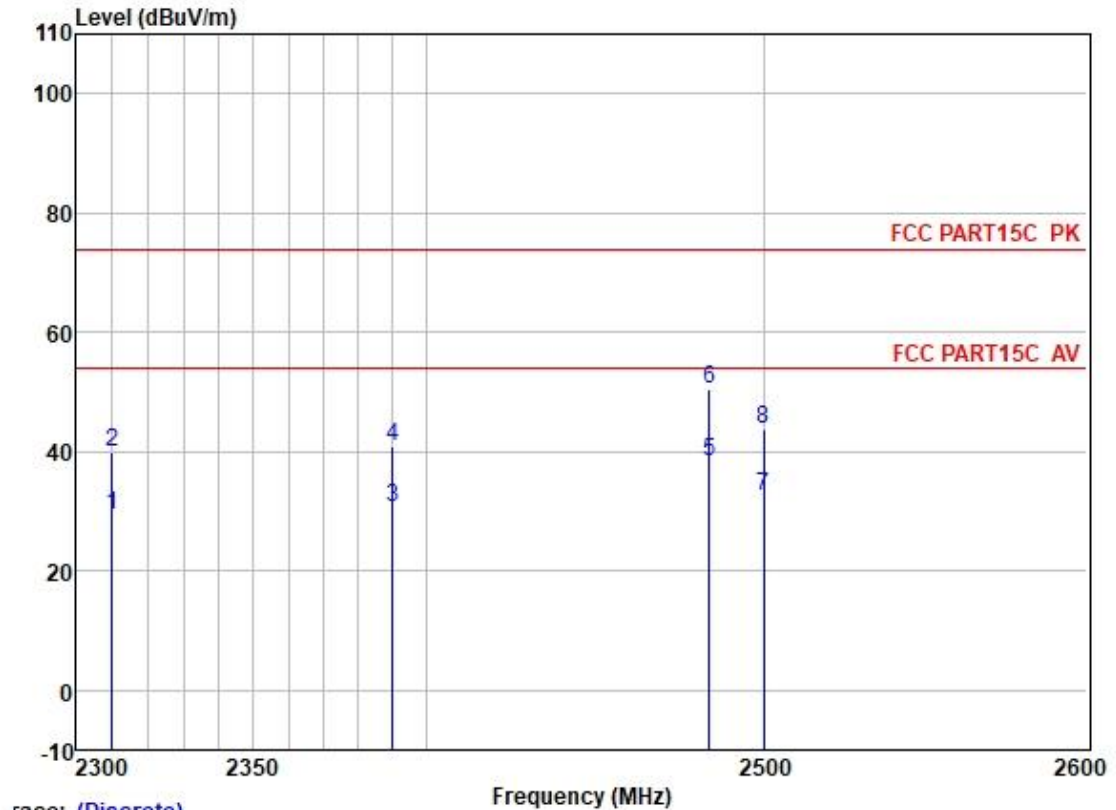
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2310.000	35.27	27.15	3.32	36.94	28.80	54.00	-25.20	HORIZONTAL Average
2	2310.000	46.53	27.15	3.32	36.94	40.06	74.00	-33.94	HORIZONTAL Peak
3	2390.000	38.83	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:c; Polarization:Vertical; Modulation:n; bandwidth:40MHz; 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	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.



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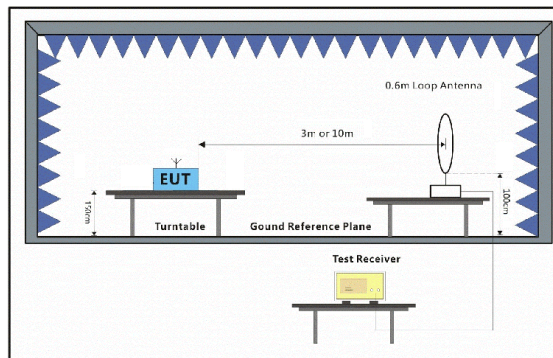
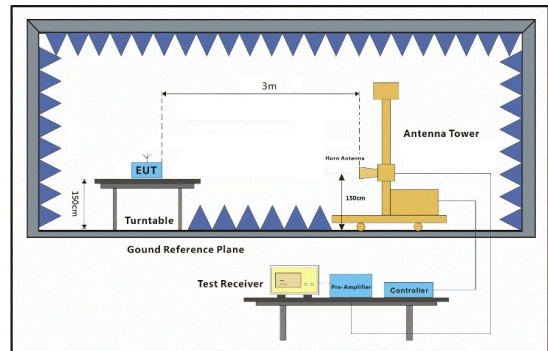
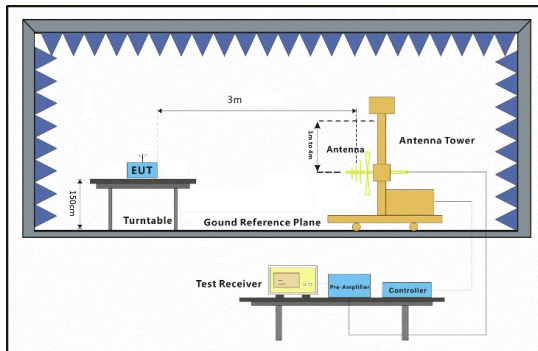
7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C Humidity: 55.6 % RH Atmospheric Pressure: 1020 mbar

Test Mode: c:TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 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.

7.8.2 Test Setup Diagram



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 Guangzhou Branch Testing Center EEC Laboratory. 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

7.8.3 Measurement Procedure and Data

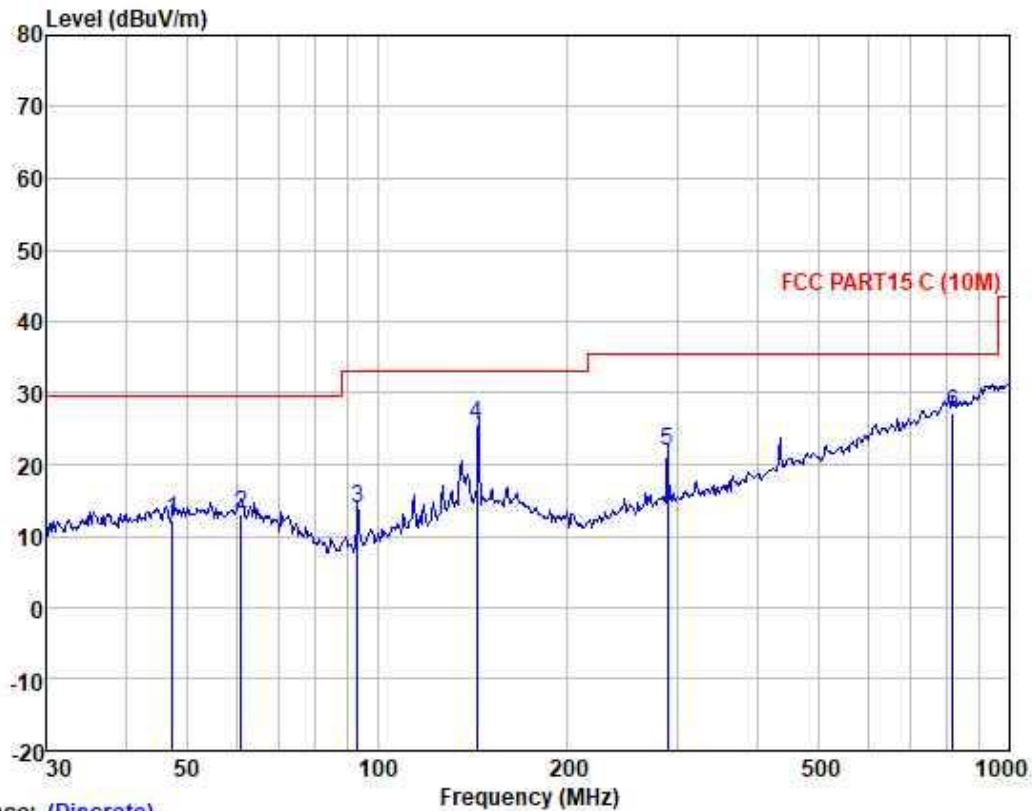
- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 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:c; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:Low



Trace: (Discrete)

Site : SGS

Condition: FCC PART15 C (10M) 10m HORIZONTAL

Job :

Power :

Test Mode: WIFI

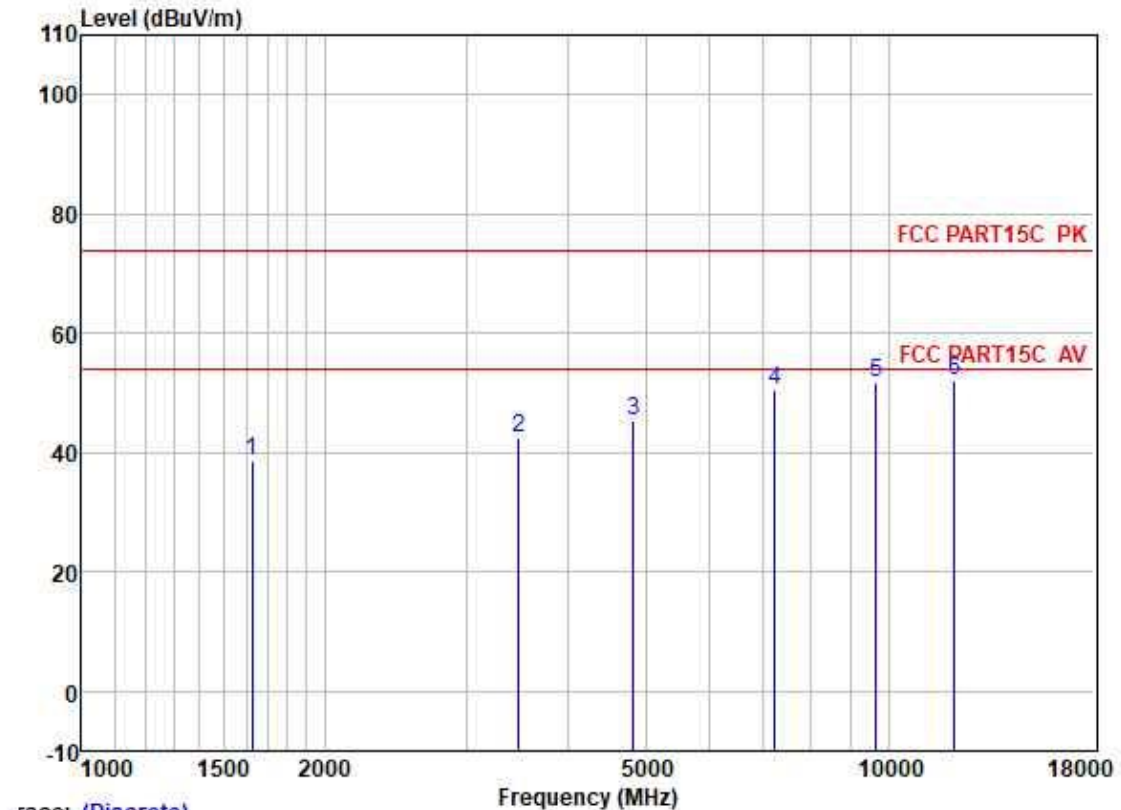
		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	47.326	24.28	13.97	1.19	27.17	12.27	29.50	-17.23	HORIZONTAL	QP
2	60.918	25.78	13.25	1.32	27.16	13.19	29.50	-16.31	HORIZONTAL	QP
3	93.113	31.26	8.20	1.59	27.10	13.95	33.10	-19.15	HORIZONTAL	QP
4	144.003	36.90	13.60	2.01	26.92	25.59	33.10	-7.51	HORIZONTAL	QP
5	287.990	32.86	13.37	2.88	27.12	21.99	35.60	-13.61	HORIZONTAL	QP
6	815.968	26.70	22.77	5.90	28.10	27.27	35.60	-8.33	HORIZONTAL	QP



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



Trace: (Discrete)

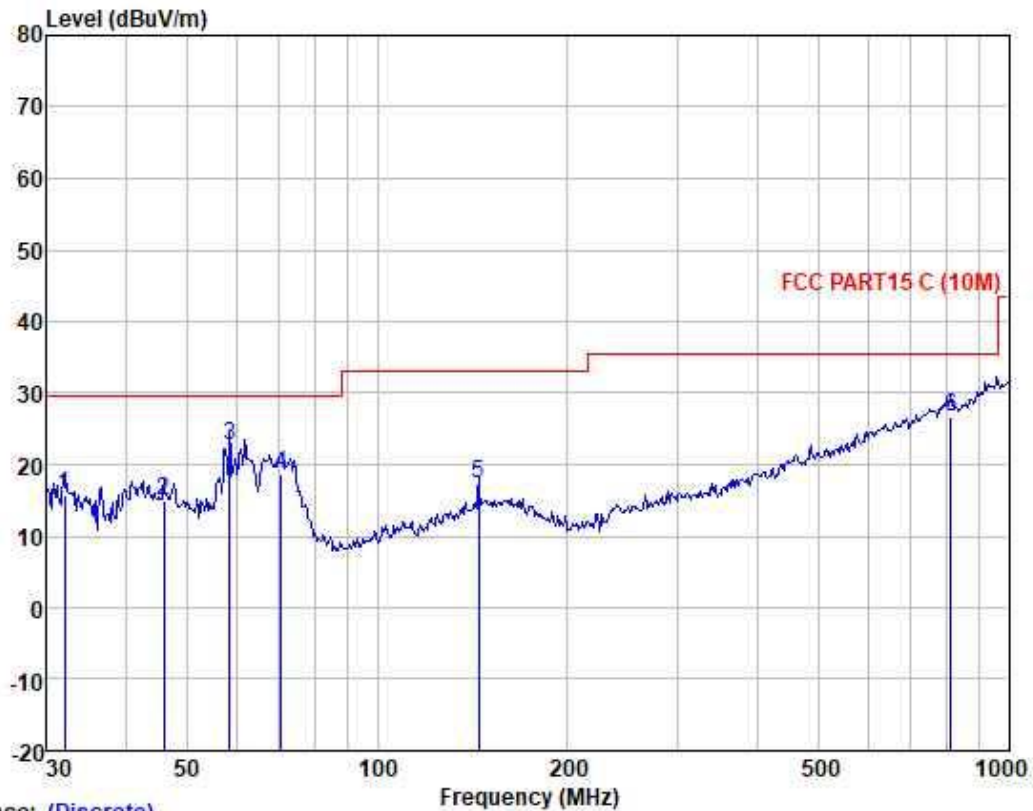
	Freq	ReadAntenna	Cable	Preamplifier	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1625.121	47.43	25.61	2.80	37.06	38.78	74.00	-35.22	HORIZONTAL Peak
2	3485.601	45.88	28.89	4.27	36.46	42.58	74.00	-31.42	HORIZONTAL Peak
3	4824.335	45.00	31.45	5.42	36.48	45.39	74.00	-28.61	HORIZONTAL Peak
4	7236.475	45.42	35.70	6.03	36.75	50.40	74.00	-23.60	HORIZONTAL Peak
5	9648.670	42.56	38.40	7.06	36.35	51.67	74.00	-22.33	HORIZONTAL Peak
6	12060.130	41.34	38.88	8.17	36.38	52.01	74.00	-21.99	HORIZONTAL Peak



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



Trace: (Discrete)

Site : SGS

Condition: FCC PART15 C (10M) 10m VERTICAL

Job :

Power :

Test Mode: WIFI

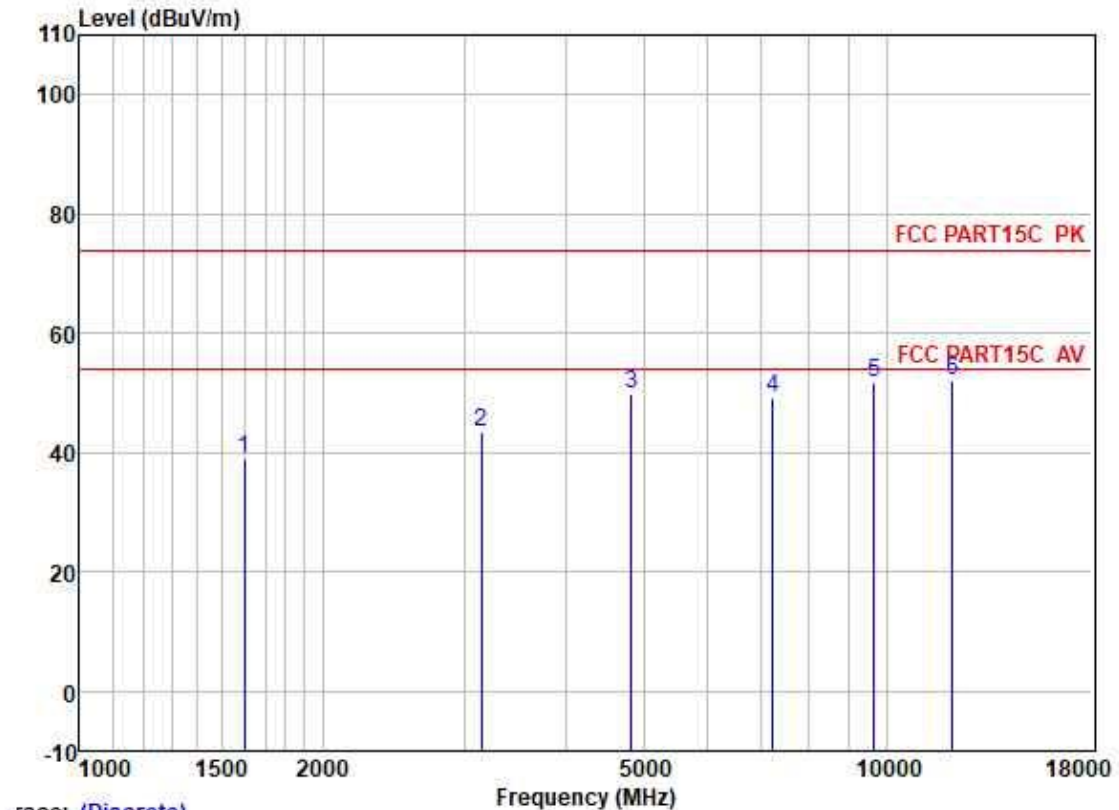
		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	31.955	29.17	12.70	1.01	27.19	15.69	29.50	-13.81	VERTICAL	QP
2	46.016	27.03	13.90	1.19	27.17	14.95	29.50	-14.55	VERTICAL	QP
3	58.407	34.92	13.56	1.32	27.16	22.64	29.50	-6.86	VERTICAL	QP
4	70.584	32.53	11.81	1.41	27.14	18.61	29.50	-10.89	VERTICAL	QP
5	144.842	28.50	13.65	2.02	26.91	17.26	33.10	-15.84	VERTICAL	QP
6	810.265	26.06	22.70	5.90	28.11	26.55	35.60	-9.05	VERTICAL	QP



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



Trace: (Discrete)

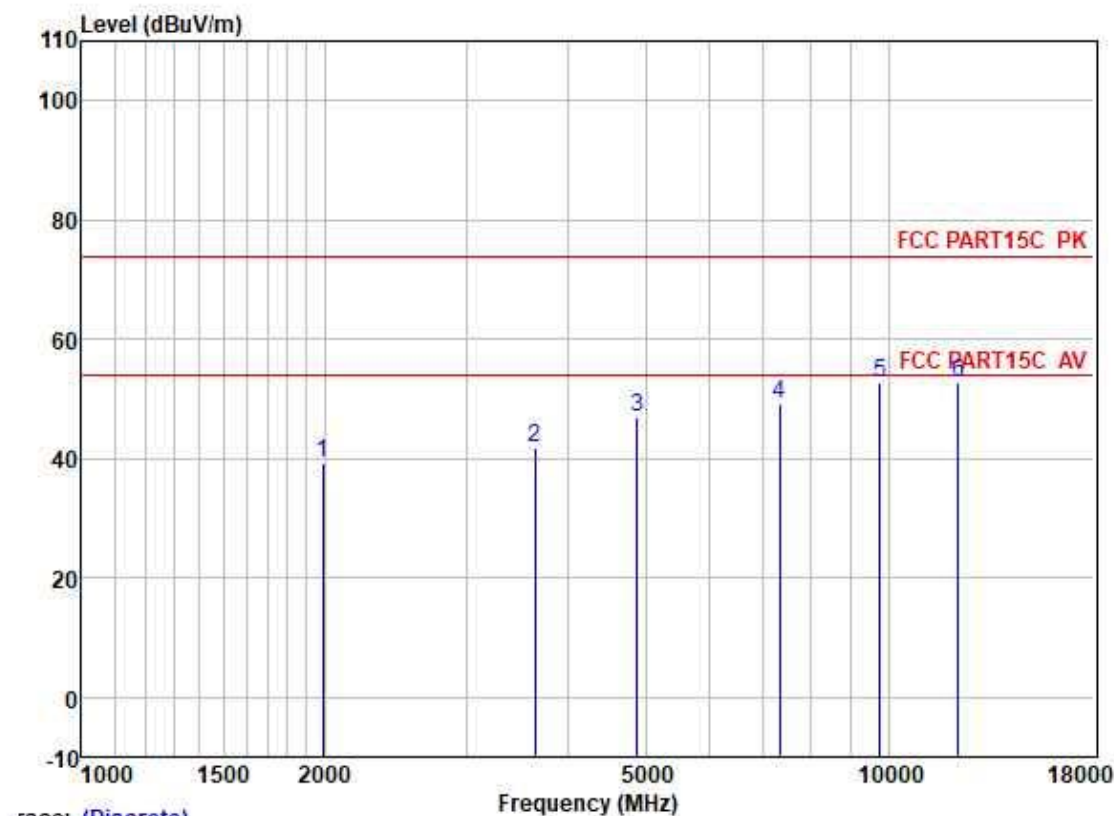
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1601.804	47.72	25.58	2.80	37.07	39.03	74.00	-34.97	VERTICAL Peak
2	3150.237	47.38	28.52	3.96	36.52	43.34	74.00	-30.66	VERTICAL Peak
3	4824.505	49.55	31.45	5.42	36.48	49.94	74.00	-24.06	VERTICAL Peak
4	7236.015	44.28	35.70	6.03	36.75	49.26	74.00	-24.74	VERTICAL Peak
5	9648.925	42.77	38.40	7.06	36.35	51.88	74.00	-22.12	VERTICAL Peak
6	12060.420	41.34	38.88	8.17	36.38	52.01	74.00	-21.99	VERTICAL Peak



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



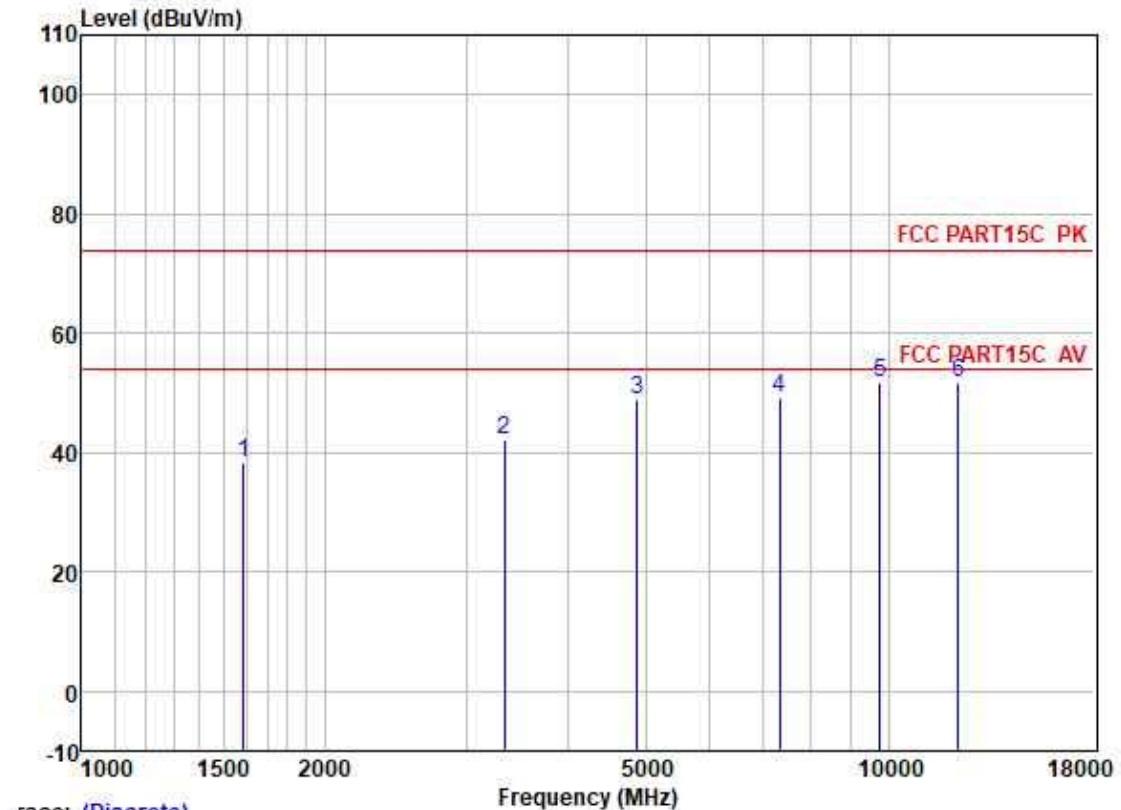
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1989.550	47.12	26.09	3.08	37.00	39.29	74.00	-34.71	HORIZONTAL Peak
2	3650.582	44.63	29.13	4.52	36.43	41.85	74.00	-32.15	HORIZONTAL Peak
3	4884.975	46.23	31.56	5.52	36.50	46.81	74.00	-27.19	HORIZONTAL Peak
4	7326.267	43.90	36.00	6.13	36.76	49.27	74.00	-24.73	HORIZONTAL Peak
5	9768.221	43.41	38.53	7.01	36.33	52.62	74.00	-21.38	HORIZONTAL Peak
6	12210.420	42.10	38.74	8.08	36.30	52.62	74.00	-21.38	HORIZONTAL Peak



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



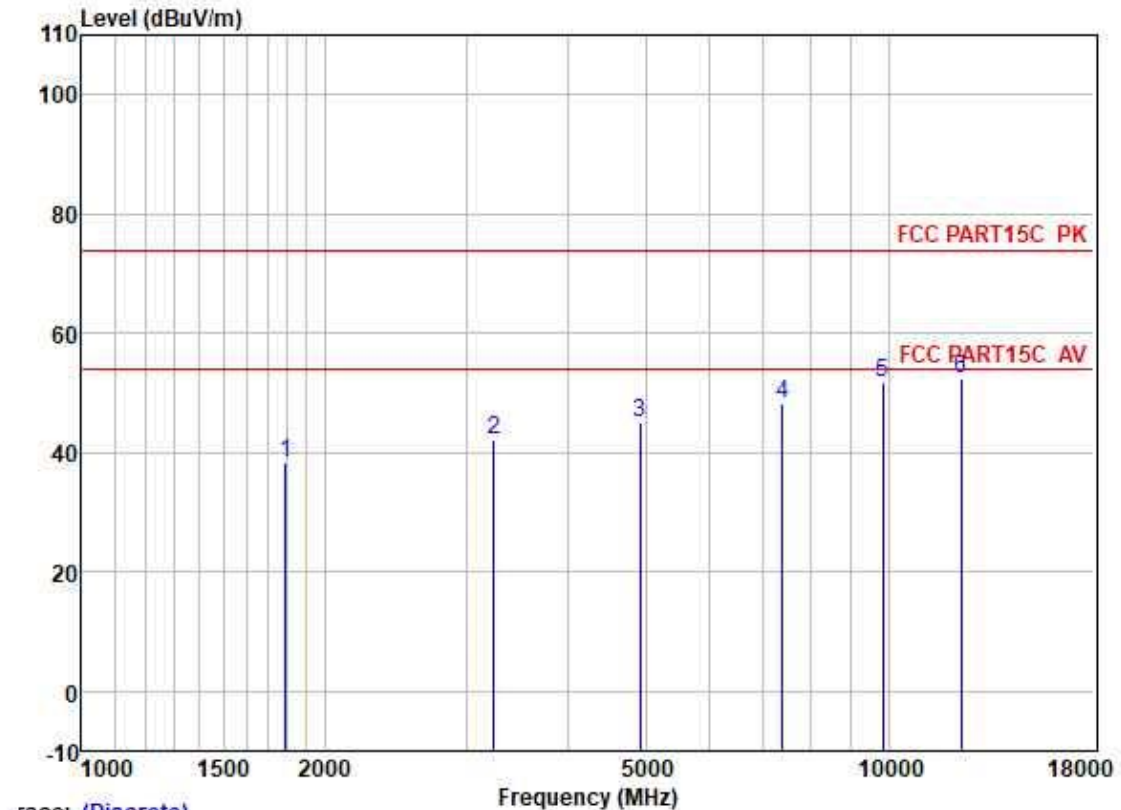
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1587.975	47.18	25.57	2.80	37.08	38.47	74.00	-35.53	VERTICAL Peak
2	3337.710	45.66	28.79	4.08	36.48	42.05	74.00	-31.95	VERTICAL Peak
3	4884.946	48.20	31.56	5.52	36.50	48.78	74.00	-25.22	VERTICAL Peak
4	7326.122	43.79	36.00	6.13	36.76	49.16	74.00	-24.84	VERTICAL Peak
5	9768.710	42.63	38.53	7.01	36.33	51.84	74.00	-22.16	VERTICAL Peak
6	12210.220	41.21	38.74	8.08	36.30	51.73	74.00	-22.27	VERTICAL Peak



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



Trace: (Discrete)

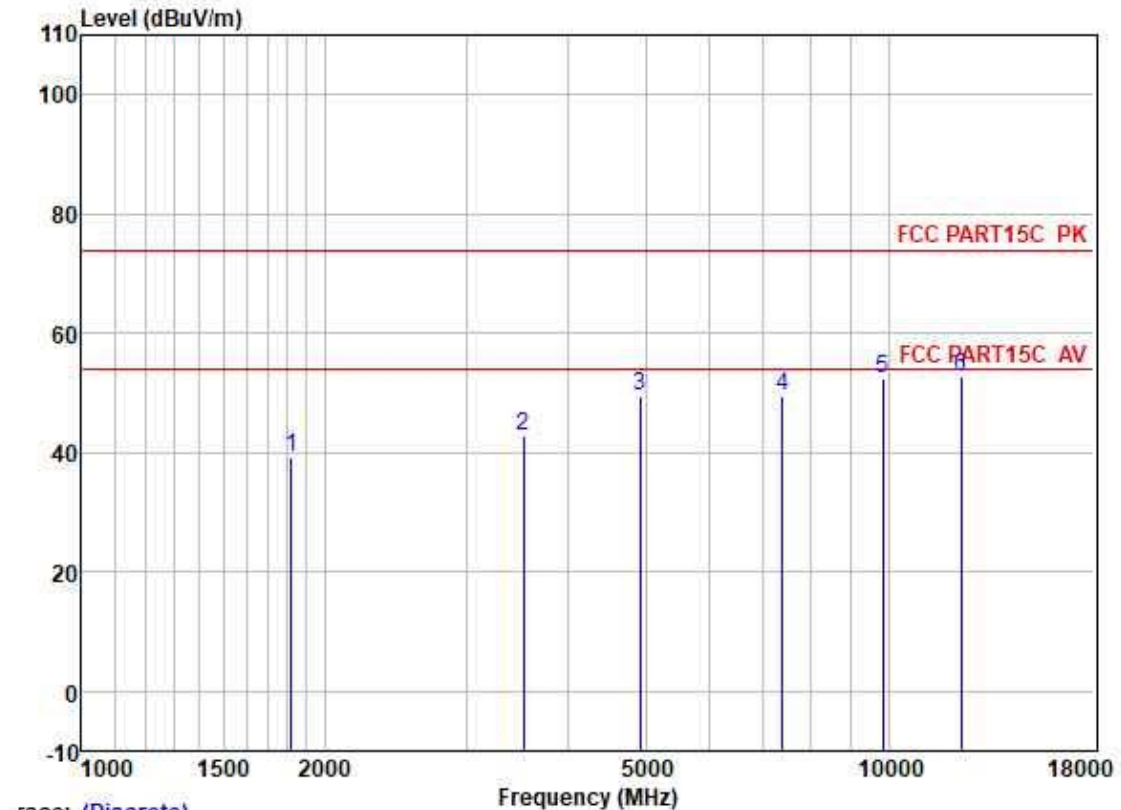
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1787.762	46.39	25.92	2.98	37.03	38.26	74.00	-35.74	HORIZONTAL Peak
2	3242.619	45.95	28.67	4.02	36.50	42.14	74.00	-31.86	HORIZONTAL Peak
3	4924.396	44.45	31.62	5.60	36.50	45.17	74.00	-28.83	HORIZONTAL Peak
4	7386.542	42.62	36.17	6.19	36.77	48.21	74.00	-25.79	HORIZONTAL Peak
5	9848.161	42.57	38.58	6.99	36.32	51.82	74.00	-22.18	HORIZONTAL Peak
6	12310.480	41.90	38.63	8.01	36.23	52.31	74.00	-21.69	HORIZONTAL Peak



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



Trace: (Discrete)

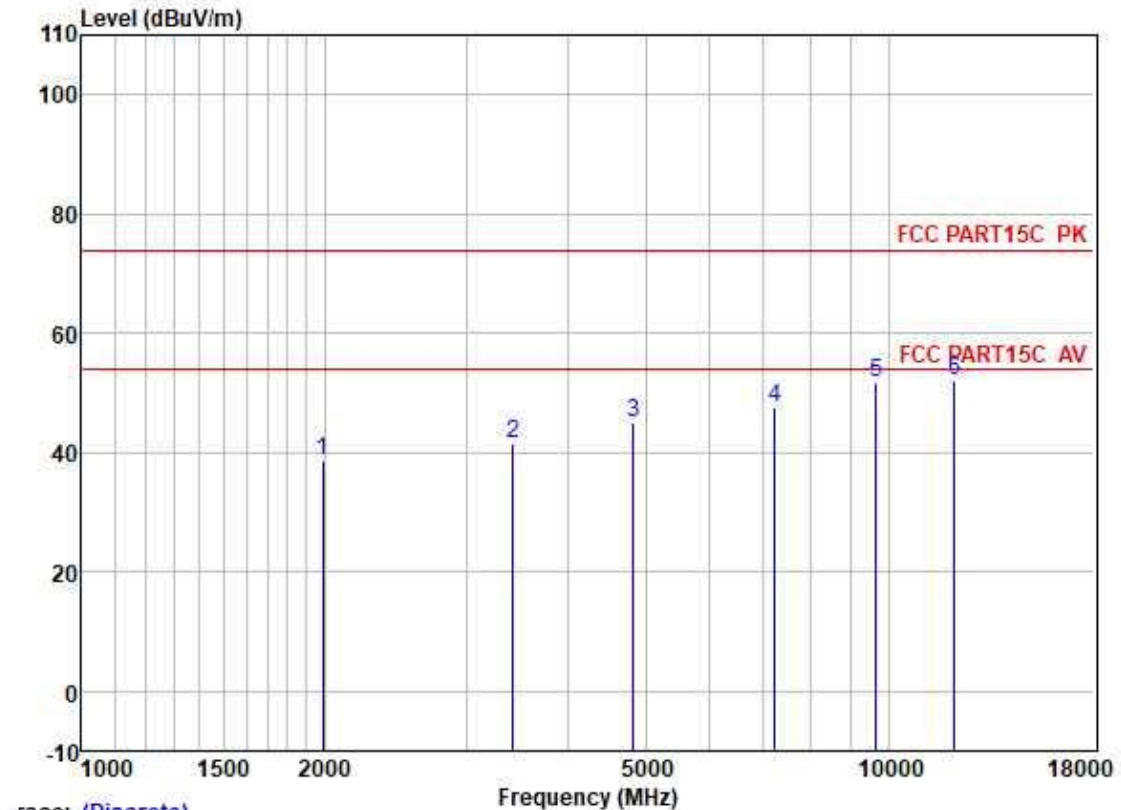
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1819.036	47.23	25.97	2.98	37.02	39.16	74.00	-34.84	VERTICAL Peak
2	3526.134	46.05	28.94	4.38	36.45	42.92	74.00	-31.08	VERTICAL Peak
3	4924.490	48.81	31.62	5.60	36.50	49.53	74.00	-24.47	VERTICAL Peak
4	7386.052	44.00	36.17	6.19	36.77	49.59	74.00	-24.41	VERTICAL Peak
5	9848.789	43.00	38.58	6.99	36.32	52.25	74.00	-21.75	VERTICAL Peak
6	12310.760	42.25	38.63	8.01	36.23	52.66	74.00	-21.34	VERTICAL Peak



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



Trace: (Discrete)

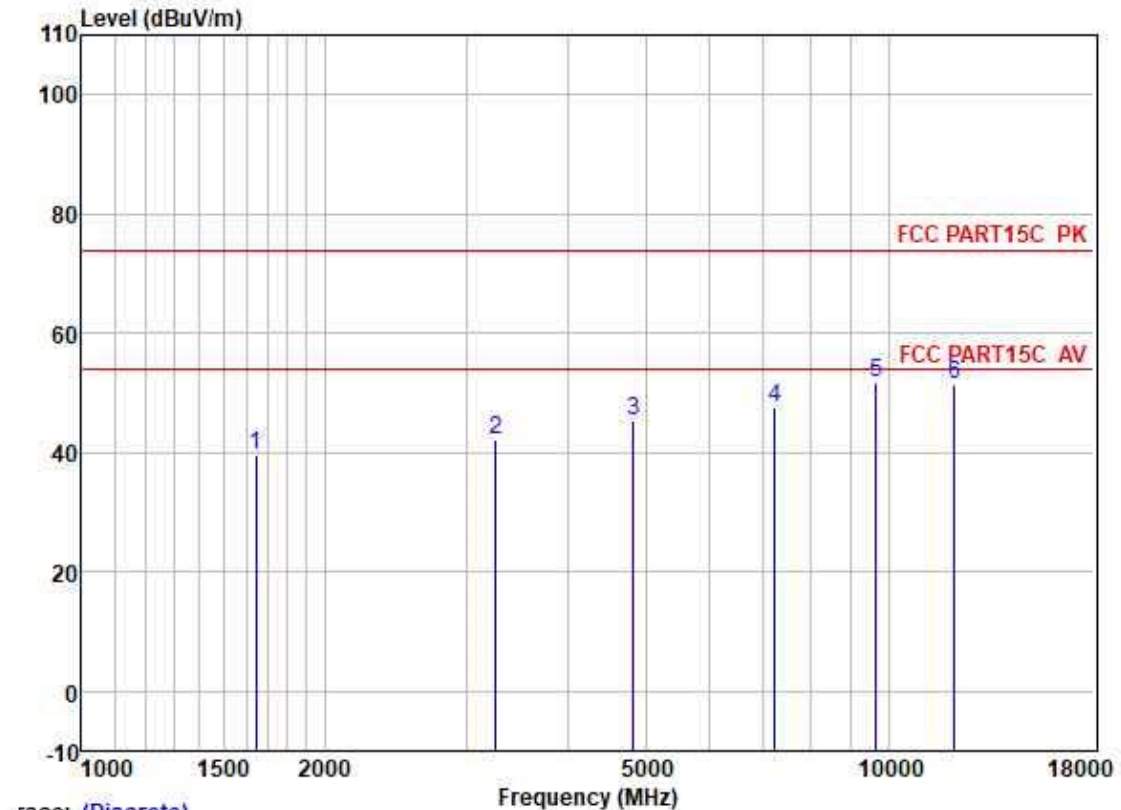
	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1989.550	46.39	26.09	3.08	37.00	38.56	74.00	-35.44	HORIZONTAL Peak
2	3425.675	44.97	28.86	4.15	36.46	41.52	74.00	-32.48	HORIZONTAL Peak
3	4824.633	44.60	31.45	5.42	36.48	44.99	74.00	-29.01	HORIZONTAL Peak
4	7236.373	42.49	35.70	6.03	36.75	47.47	74.00	-26.53	HORIZONTAL Peak
5	9648.123	42.70	38.40	7.06	36.35	51.81	74.00	-22.19	HORIZONTAL Peak
6	12060.470	41.45	38.88	8.17	36.38	52.12	74.00	-21.88	HORIZONTAL Peak



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



Trace: (Discrete)

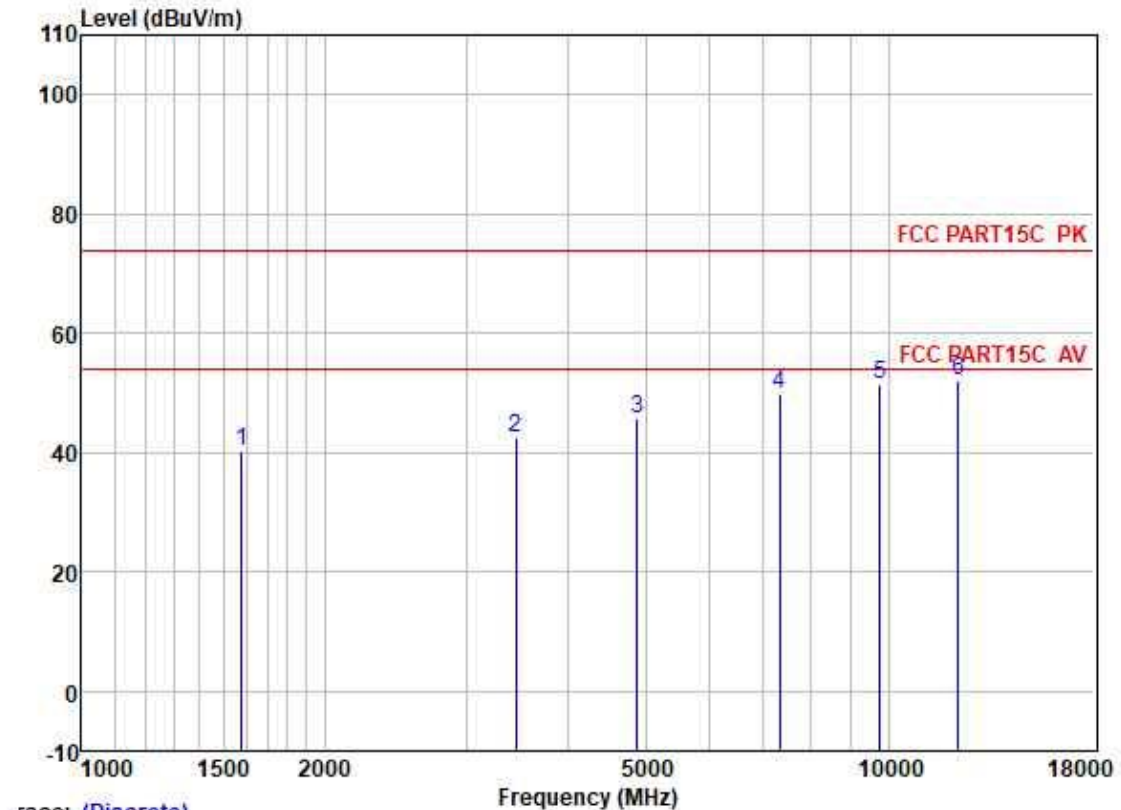
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1644.019	48.38	25.63	2.80	37.06	39.75	74.00	-34.25	VERTICAL	Peak
2	3261.418	46.03	28.70	4.03	36.49	42.27	74.00	-31.73	VERTICAL	Peak
3	4824.151	44.92	31.45	5.42	36.48	45.31	74.00	-28.69	VERTICAL	Peak
4	7236.373	42.76	35.70	6.03	36.75	47.74	74.00	-26.26	VERTICAL	Peak
5	9648.540	42.77	38.40	7.06	36.35	51.88	74.00	-22.12	VERTICAL	Peak
6	12060.700	40.62	38.88	8.17	36.38	51.29	74.00	-22.71	VERTICAL	Peak



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



Trace: (Discrete)

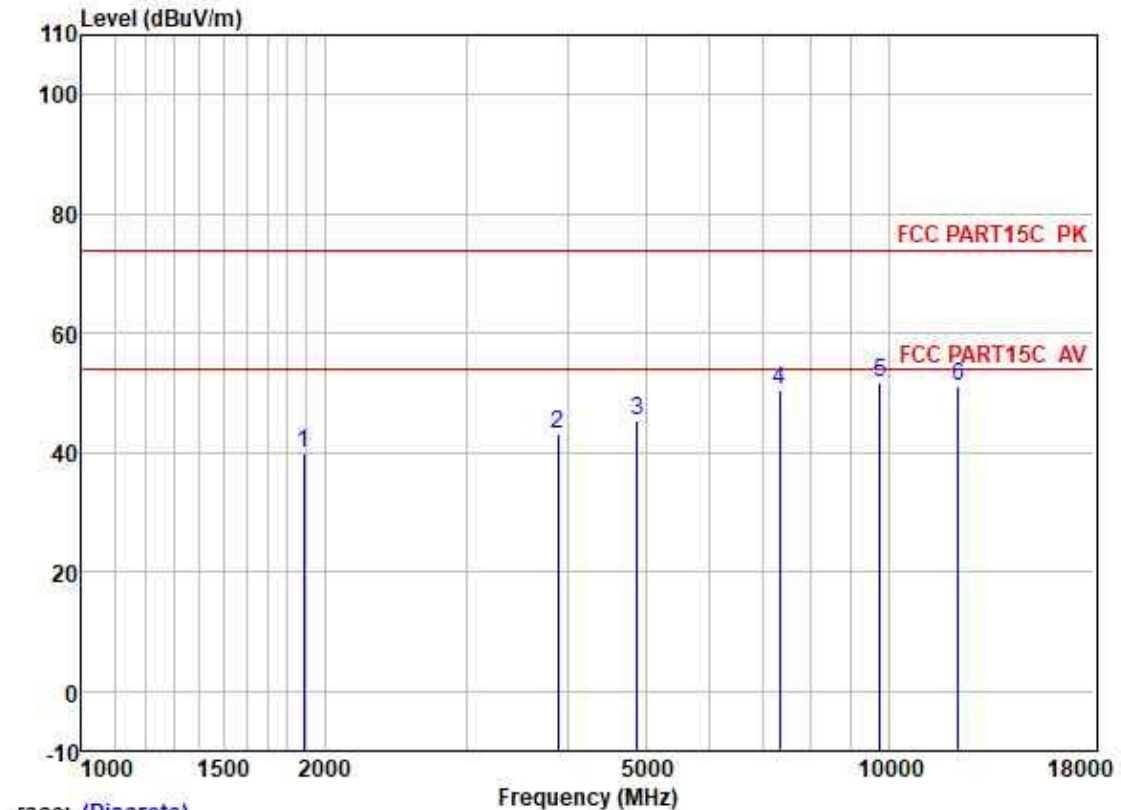
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1578.822	48.93	25.56	2.80	37.08	40.21	74.00	-33.79	HORIZONTAL Peak
2	3455.508	45.75	28.88	4.20	36.46	42.37	74.00	-31.63	HORIZONTAL Peak
3	4884.888	45.13	31.56	5.52	36.50	45.71	74.00	-28.29	HORIZONTAL Peak
4	7326.015	44.46	36.00	6.13	36.76	49.83	74.00	-24.17	HORIZONTAL Peak
5	9768.149	42.20	38.53	7.01	36.33	51.41	74.00	-22.59	HORIZONTAL Peak
6	12210.760	41.64	38.74	8.08	36.30	52.16	74.00	-21.84	HORIZONTAL Peak



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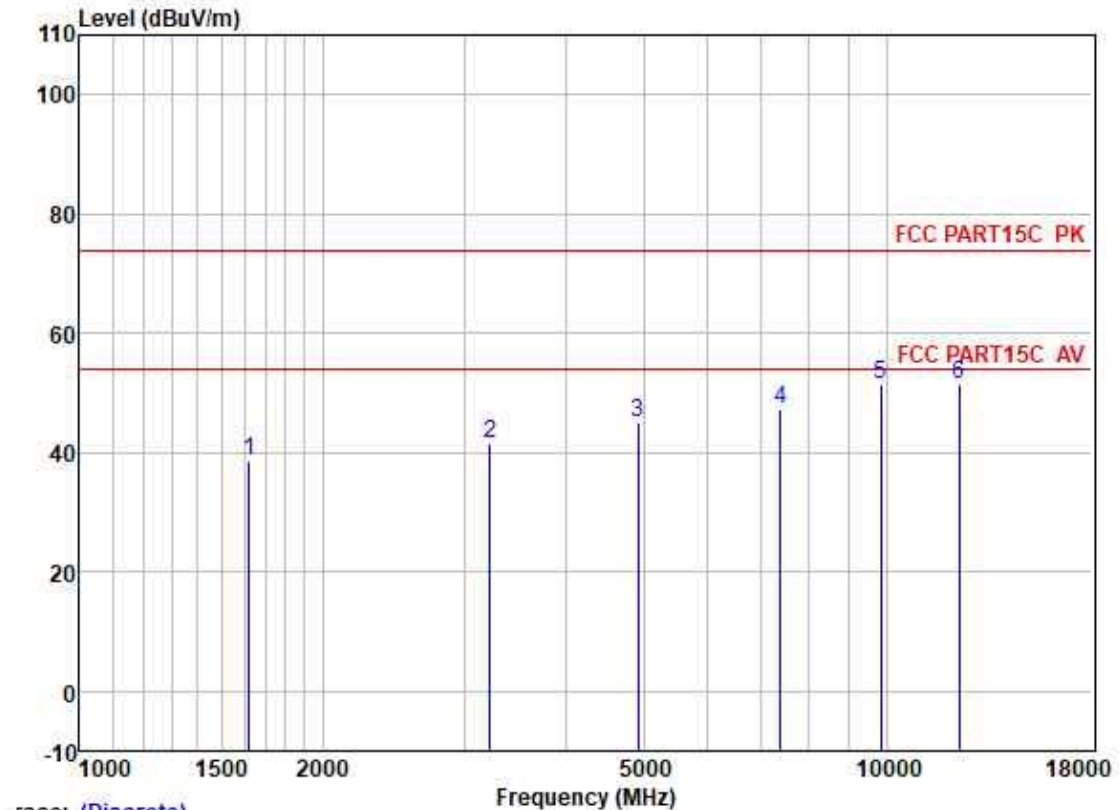
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1883.236	47.91	26.03	2.91	37.01	39.84	74.00	-34.16	VERTICAL Peak
2	3890.255	45.15	29.67	4.60	36.41	43.01	74.00	-30.99	VERTICAL Peak
3	4884.069	44.69	31.56	5.52	36.50	45.27	74.00	-28.73	VERTICAL Peak
4	7326.646	45.08	36.00	6.13	36.76	50.45	74.00	-23.55	VERTICAL Peak
5	9768.430	42.67	38.53	7.01	36.33	51.88	74.00	-22.12	VERTICAL Peak
6	12210.850	40.65	38.74	8.08	36.30	51.17	74.00	-22.83	VERTICAL Peak



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Trace: (Discrete)

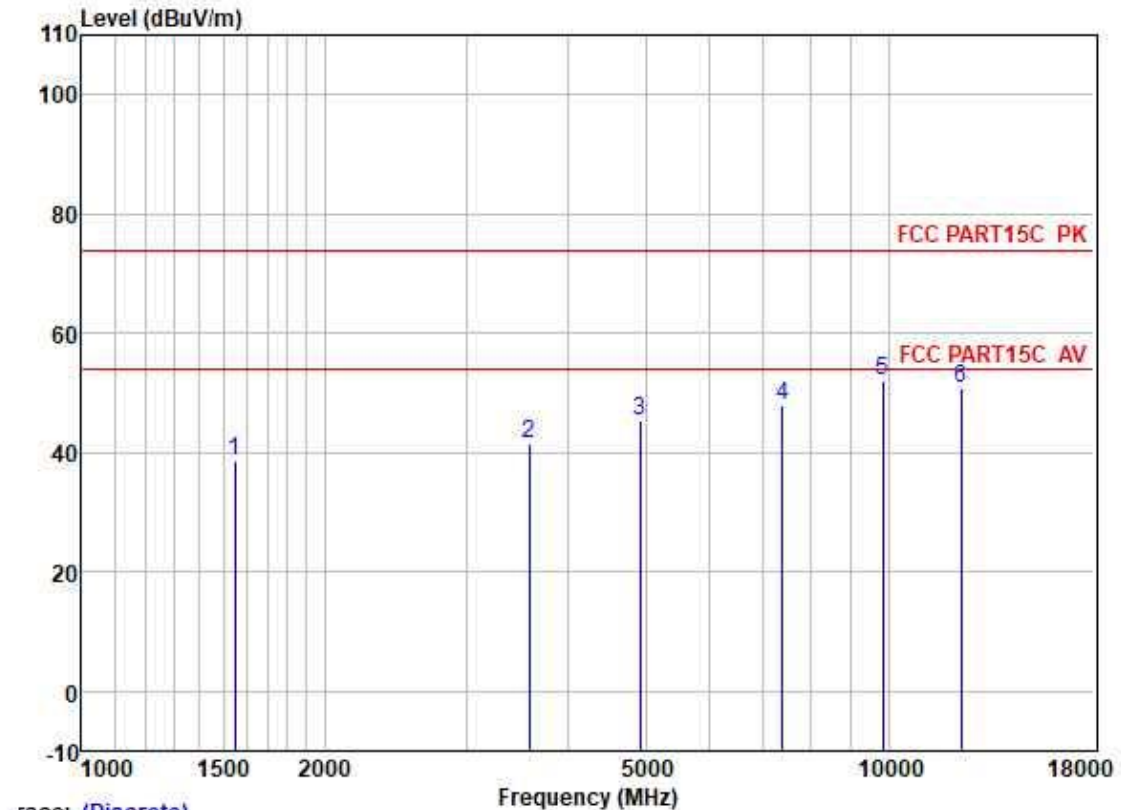
	Freq	ReadAntenna	Cable	Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor	Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1620.431	47.30	25.60	2.80	37.07	38.63	74.00	-35.37	HORIZONTAL Peak
2	3223.928	45.33	28.63	4.01	36.50	41.47	74.00	-32.53	HORIZONTAL Peak
3	4924.190	44.18	31.62	5.60	36.50	44.90	74.00	-29.10	HORIZONTAL Peak
4	7386.375	41.85	36.17	6.19	36.77	47.44	74.00	-26.56	HORIZONTAL Peak
5	9848.123	42.04	38.58	6.99	36.32	51.29	74.00	-22.71	HORIZONTAL Peak
6	12310.710	40.98	38.63	8.01	36.23	51.39	74.00	-22.61	HORIZONTAL Peak



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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	47.45	25.53	2.80	37.09	38.69	74.00	-35.31	VERTICAL Peak
2	3587.818	44.54	29.02	4.49	36.44	41.61	74.00	-32.39	VERTICAL Peak
3	4924.440	44.66	31.62	5.60	36.50	45.38	74.00	-28.62	VERTICAL Peak
4	7386.727	42.31	36.17	6.19	36.77	47.90	74.00	-26.10	VERTICAL Peak
5	9848.717	42.98	38.58	6.99	36.32	52.23	74.00	-21.77	VERTICAL Peak
6	12310.270	40.23	38.63	8.01	36.23	50.64	74.00	-23.36	VERTICAL Peak



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