TEST REPORT

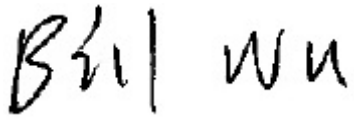
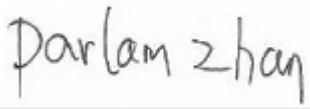
Application No.:	SHEM2007006140CR
FCC ID:	2AW3F-W0001F
IC:	26506-W0001C
Applicant:	Wristcam Inc
Address of Applicant:	16 North San Mateo Drive, San Mateo, CA 94401., USA.
Manufacturer:	Asteelflash Suzhou Co., ltd.
Address of Manufacturer:	N0.8 Gutang road,Wujiang economic&technology development zone, Wujiang District,Suzhou city,Jiangsu Province,P.R. China
Factory:	Asteelflash Suzhou Co., ltd.
Address of Factory:	N0.8 Gutang road,Wujiang economic&technology development zone, Wujiang District,Suzhou city,Jiangsu Province,P.R. China
Equipment Under Test (EUT):	
EUT Name:	Wristcam
Model No.:	W1027,W1031,W1222,W1235 ¤
¤	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Trade mark:	Wristcam, CMRA
Standard(s) :	47 CFR Part 15, Subpart E 15.407
	RSS-247 Issue 2, February 2017
	RSS-Gen Issue 5, March 2019 Amendment 1
Date of Receipt:	2020-07-23
Date of Test:	2020-08-13 to 2020-11-03
Date of Issue:	2020-11-05
Test Result:	

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

Parlam Zhan
E&E Section Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

Revision Record			
Version	**Description**	**Date**	**Remark**
00	Original	2020-11-05	/

Authorized for issue by:				
				
		Bill Wu / Project Engineer		
				
		Parlam Zhan / Reviewer		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	**FCC Requirement**	**IC Requirement**	**Method**	**Result**
Antenna Requirement	47 CFR Part 15, Subpart C 15.203	RSS-Gen Clause 6.8	N/A	Pass
Transmission in the Absence of Data	47 CFR Part 15, Subpart C 15.407 (c)	RSS-247 Section 6.4(a)	N/A	Pass

N/A: Not applicable

Radio Spectrum Matter Part				
Item	**FCC Requirement**	**IC Requirement**	**Method**	**Result**
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.207 & 15.407 b(6)	RSS-Gen Section 8.8	ANSI C63.10 (2013) Section 6.2	Pass
99% Bandwidth	N/A	RSS-Gen Section 6.7	KDB 789033 II D	Pass
26dB Emission bandwidth	47 CFR Part 15, Subpart C 15.407 (a)	RSS-247 Section 6.2.1(1)	KDB 789033 D02 II C 1	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	47 CFR Part 15, Subpart C 15.407 (e)	RSS-247 Section 6.2.4	KDB 789033 D02 II C 2	Pass
Maximum Conducted output power	47 CFR Part 15, Subpart C 15.407 (a)	RSS-247 Section 6.2.1&6.2.2&6.2.3&6.2.4	KDB 789033 D02 II E	Pass
Peak Power spectrum density	47 CFR Part 15, Subpart C 15.407 (a)	RSS-247 Section 6.2.1&6.2.2&6.2.3& 6.2.4	KDB 789033 D02 II F	Pass
Radiated Emissions	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	RSS-247 Section 3.3 & RSS-Gen Section 8.9	KDB 789033 D02 II G	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	RSS-247 Section 3.3 & RSS-Gen Section 8.9	KDB 789033 D02 II G	Pass

Declaration of EUT Family Grouping:

Note: There are series models mentioned in this report, and they are the similar in electrical and electronic characters. Only the model W1027 was tested since their differences were the model name, structure, appearance and color.

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply: DC 3.85V 160mAh rechargeable battery
Adapter1:
Model:A1443
Input:AC 100-240V~50/60Hz
Output:5V 1A
Adapter 2:
Model:SOY-0500200US-392
Input:100-240V~50/60Hz
Output:5V 1A
Adapter 3:
Model:IN-CA-1804D
Input:100-240V~50/60Hz
Output:5V 2.4A

Test voltage: AC 120V/60Hz

Antenna Gain: 3.68dBi

SN: D4V201000135

Firmware: V 0.2.776

Hardware Version: W1

Software Version: 1.0

RF Test software： Wirstcam

Operation Frequency:	Band	Mode	Frequency Range(MHz)	Number of channels
	Band 1	802.11a/n(HT20)/ac(HT20)	5180-5240	4
	Band 2A	802.11a/n(HT20)/ac(HT20)	5260-5320	4
	Band 2C	802.11a/n(HT20)/ac(HT20)	5500-5700	11
	Band 3	802.11a/n(HT20)/ac(HT20)	5745-5825	5
	5600-5650MHz was not used for IC			
Modulation Type:	802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)			
Data Rate:	802.11a:6/9/12/18/24/36/48/54Mbps 802.11n:MSC0-15 802.11ac:MSC0-9			
Channel Spacing:	802.11a/n(HT20)/ac(HT20): 20MHz			
Antenna Type	Integral Antenna			
DFS Function	Slave without Radar detection			

4.2 Description of Support Units

The EUT has been tested as an independent unit.

4.3 Power level setting using in test:

Band	802.11 a	802.11 n (HT20)	802.11 ac (VHT20)
NII 1	15	14	12
NII 2A	15	14	12
NII 2C	15	14	12
NII 3	15	14	12

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.1dB (Below 1GHz)
		4.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

4.6 Test Facility

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

• CNAS (No. CNAS L0599)

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• NVLAP (LAB CODE: 201034-0)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

• FCC (Designation Number: CN5033)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

• ISED (CAB Identifier: CN0020)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

• VCCI (Member No.: 3061)

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None

5 Equipment List

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Conducted Emissions at Mains Terminals (150kHz-30MHz)					
EMI test receiver	Rohde & Schwarz	ESR7	SHEM162-1	2019-12-20	2020-12-19
Line impedance stabilization network	SCHWARZBECK	NSLK8127	SHEM061-1	2019-12-20	2020-12-19
Line impedance stabilization network	EMCO	3816/2	SHEM019-1	2019-12-20	2020-12-19
Pulse limiter	Rohde & Schwarz	ESH3-Z2	SHEM029-1	2019-12-20	2020-12-19
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2017-12-20	2020-12-19
CE test Cable	/	/	CE01	2019-12-26	2020-12-25
RF Conducted Test					
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2019-12-20	2020-12-19
Spectrum Analyzer	Agilent	N9020A	SHEM181-1	2020-08-13	2021-08-12
Signal Generator	R&S	SMR20	SHEM006-1	2020-08-13	2021-08-12
Signal Generator	Agilent	N5182A	SHEM182-1	2020-08-13	2021-08-12
Communication Tester	R&S	CMW270	SHEM183-1	2020-08-13	2021-08-12
Switcher	Tonscend	JS0806	SHEM184-1	2020-08-13	2021-08-12
Power Sensor	Keysight	U2021XA * 4	SHEM184-1	2020-08-13	2021-08-12
Splitter	Anritsu	MA1612A	SHEM185-1	/	/
Coupler	e-meca	803-S-1	SHEM186-1	/	/
High-low Temp Cabinet	Suzhou Zhihe	TL-40	SHEM087-1	2018-09-25	2021-09-24
AC Power Stabilizer	APC	KDF-31020T-V0-F0	SHEM216-1	2019-12-20	2020-12-19
DC Power Supply	MCH	MCH-303A	SHEM210-1	2019-12-20	2020-12-19
Conducted test Cable	/	RF01~RF04	/	2019-12-20	2020-12-19
RF Radiated Test					
EMI test Receiver	R&S	ESU40	SHEM051-1	2019-12-20	2020-12-19
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2019-12-20	2020-12-19
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2019-12-20	2020-12-19
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2019-10-14	2021-10-13
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM202-1	2019-04-30	2021-04-29
Horn Antenna (1-18GHz)	Schwarzbeck	HF906	SHEM009-1	2018-10-24	2021-10-23
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2019-10-14	2021-10-13
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2018-10-31	2021-10-30
Pre-amplifier (9KHz-2GHz)	CLAVIIO	BDLNA-0001	SHEM164-1	2020-08-13	2021-08-12
Pre-amplifier (1-18GHz)	CLAVIIO	BDLNA-0118	SHEM050-2	2020-08-13	2021-08-12
High-amplifier (14-40GHz)	Schwarzbeck	10001	SHEM049-2	2019-12-20	2020-12-19
Signal Generator	R&S	SMR40	SHEM058-1	2020-08-13	2021-08-12
Band Filter	LORCH	9BRX-875/X150	SHEM156-1	/	/
Band Filter	LORCH	13BRX-1950/X500	SHEM083-2	/	/
Band Filter	LORCH	5BRX-2400/X200	SHEM155-1	/	/
Band Filter	LORCH	5BRX-5500/X1000	SHEM157-2	/	/
High pass Filter	Wainwright	WHK3.0/18G	SHEM157-1	/	/
High pass Filter	Wainwright	WHKS1700	SHEM157-3	/	/
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2020-05-25	2023-05-24
RE test Cable	/	RE01, RE02, RE06	/	2019-12-20	2020-12-19

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integral antenna and no consideration of replacement. The best case gain of the antenna is 3.68dBi.

Antenna location: Refer to Appendix (Internal Photos)

6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (c)

6.2.2 Conclusion

Standard Requirement:

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

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

EUT Details:

WIFI chip (LBEE59B1LV) support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.

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: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

Prescan test mode: e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

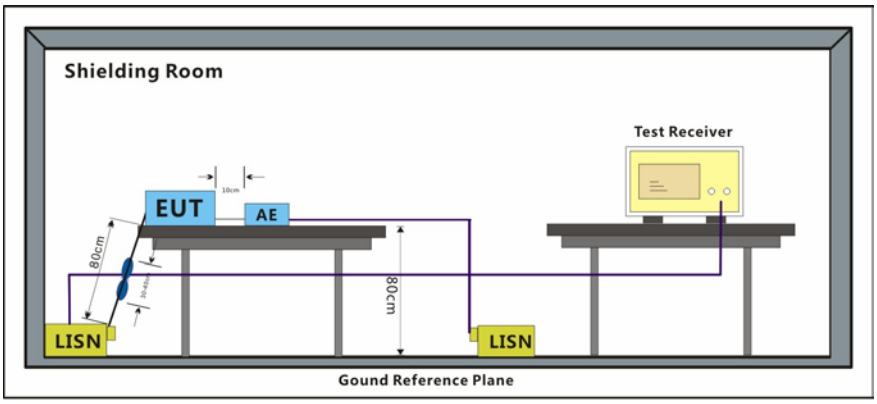
f:TX+charging mode (Band 2A)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

g:TX+charging mode (Band 2C)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

Worst case test mode: e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(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

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,

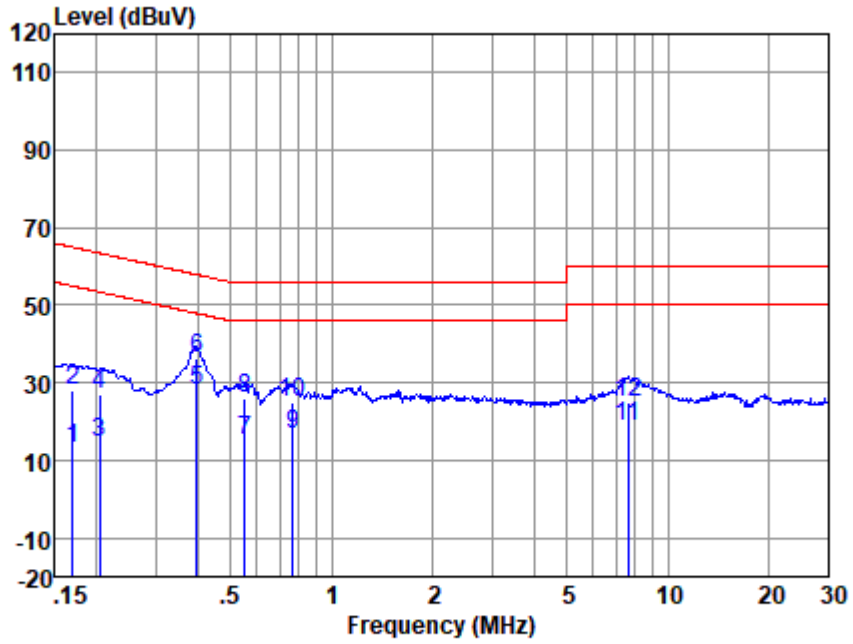
4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test 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: 1)LISN=Read Level+ Cable Loss+ LISN Factor

2)Prescan for each adapter only the worst case adapter (Model: IN-CA-1804D) data was show in the test report

Mode:e; Line:Live Line

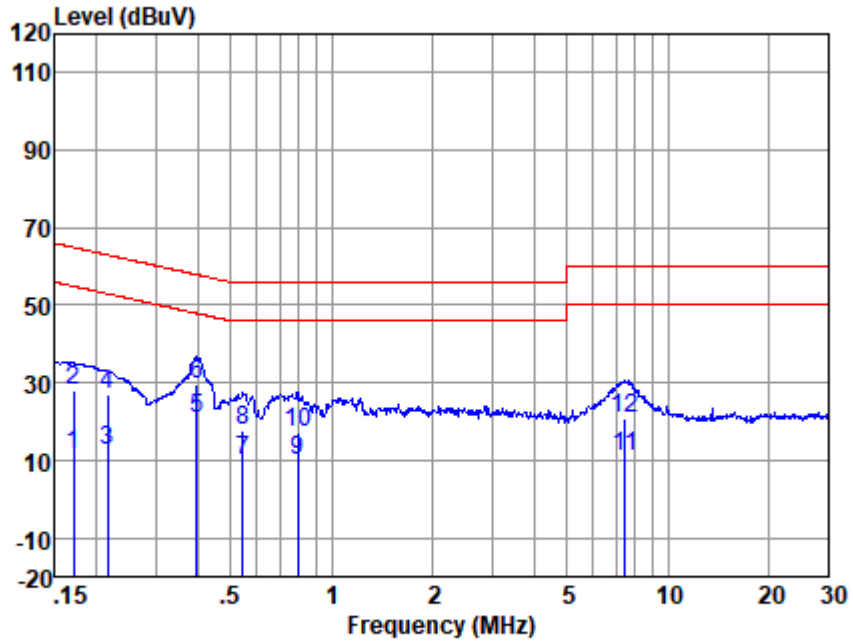


LISN : LINE
EUT/Project No : 6139CR
Test Mode : e

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.17	3.03	0.08	9.98	13.09	54.99	-41.90	Average
2	0.17	17.76	0.08	9.98	27.82	64.99	-37.17	QP
3	0.20	4.46	0.07	10.00	14.53	53.45	-38.92	Average
4	0.20	17.03	0.07	10.00	27.10	63.45	-36.35	QP
5	0.40	17.86	0.08	10.04	27.98	47.95	-19.97	Average
6	0.40	26.44	0.08	10.04	36.56	57.95	-21.39	QP
7	0.55	5.00	0.08	10.06	15.14	46.00	-30.86	Average
8	0.55	15.60	0.08	10.06	25.74	56.00	-30.26	QP
9	0.77	6.33	0.09	10.08	16.50	46.00	-29.50	Average
10	0.77	14.69	0.09	10.08	24.86	56.00	-31.14	QP
11	7.65	8.28	0.20	10.36	18.84	50.00	-31.16	Average
12	7.65	14.41	0.20	10.36	24.97	60.00	-35.03	QP

Notes: Emission Level = Read Level +LISN Factor + Cable loss

Mode:e; Line:Neutral Line



LISN : NEUTRAL
EUT/Project No : 6139CR
Test Mode : e

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.17	1.46	0.07	9.98	11.51	54.94	-43.43	Average
2	0.17	18.09	0.07	9.98	28.14	64.94	-36.80	QP
3	0.22	2.38	0.06	10.00	12.44	53.01	-40.57	Average
4	0.22	17.15	0.06	10.00	27.21	63.01	-35.80	QP
5	0.40	10.77	0.06	10.04	20.87	47.90	-27.03	Average
6	0.40	19.35	0.06	10.04	29.45	57.90	-28.45	QP
7	0.54	-0.11	0.06	10.06	10.01	46.00	-35.99	Average
8	0.54	7.46	0.06	10.06	17.58	56.00	-38.42	QP
9	0.79	-0.42	0.07	10.08	9.73	46.00	-36.27	Average
10	0.79	6.92	0.07	10.08	17.07	56.00	-38.93	QP
11	7.49	0.37	0.16	10.36	10.89	50.00	-39.11	Average
12	7.49	10.48	0.16	10.36	21.00	60.00	-39.00	QP

Notes: Emission Level = Read Level +LISN Factor + Cable loss

7.2 Duty Cycle

Test Requirement KDB 789033 D02 II B 1

Test Method: KDB 789033 II B 1

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

Test mode

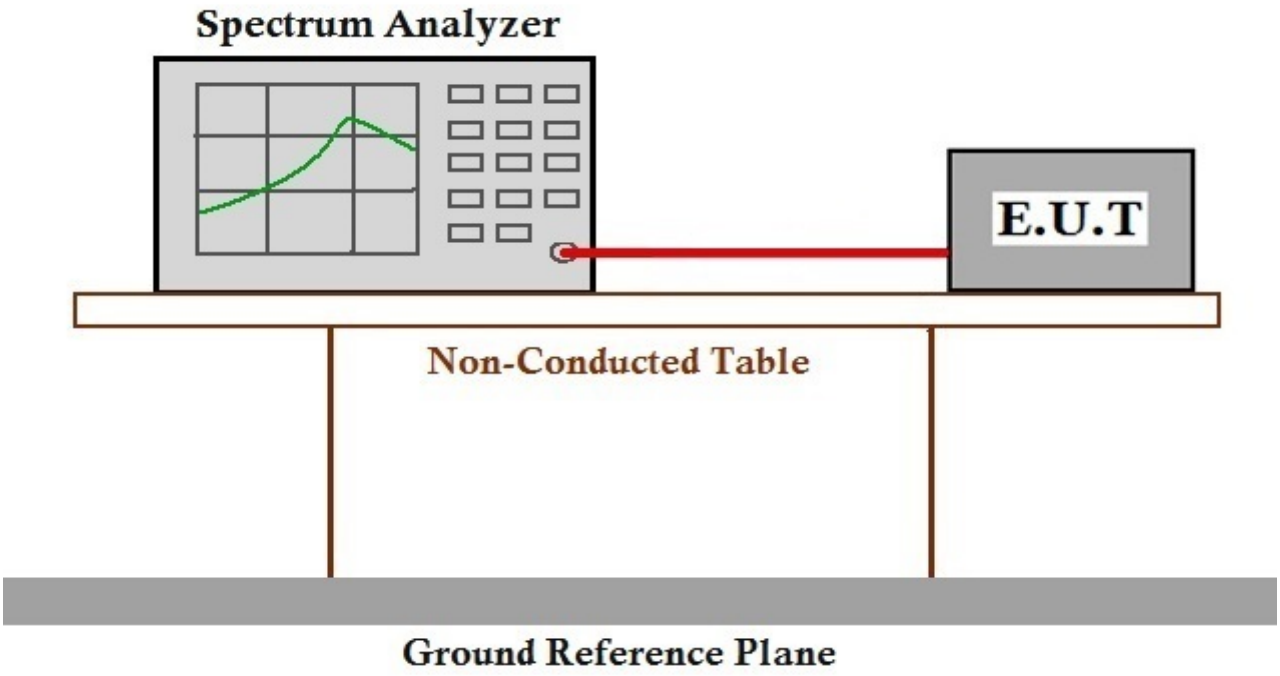
e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

f:TX+charging mode (Band 2A)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

g:TX+charging mode (Band 2C)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). 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 D for SHEM200700614004

7.3 99% Bandwidth

Test Requirement N/A

Test Method: KDB 789033 II D

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

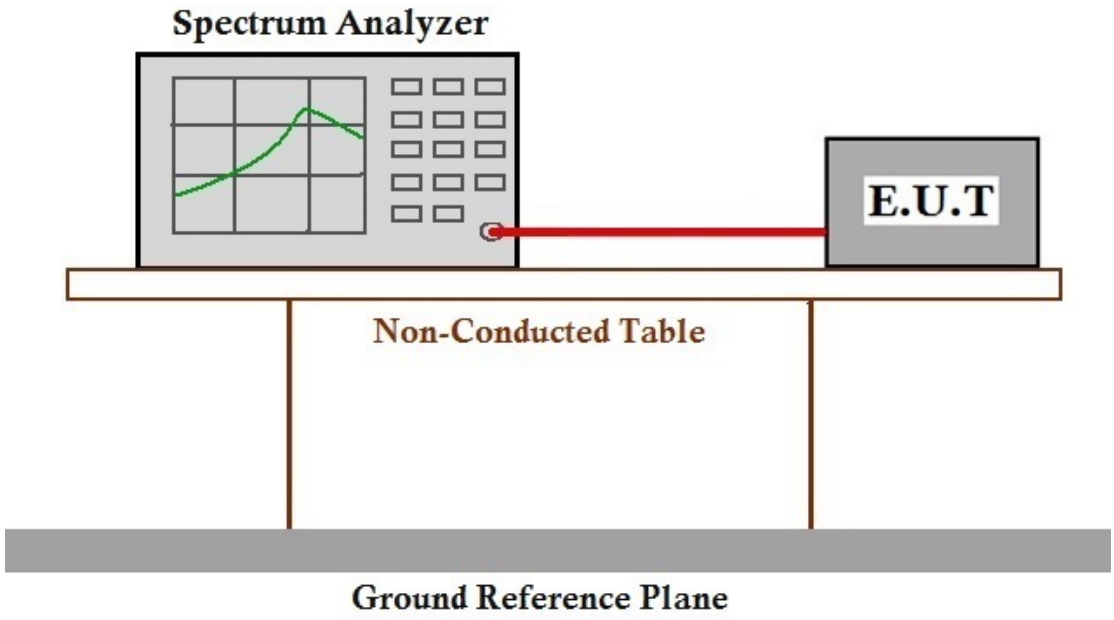
Test mode: e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

f:TX+charging mode (Band 2A)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

g:TX+charging mode (Band 2C)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). 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 D for SHEM200700614004

7.4 26dB Emission bandwidth

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

Test Method: KDB 789033 D02 II C 1

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

Test mode

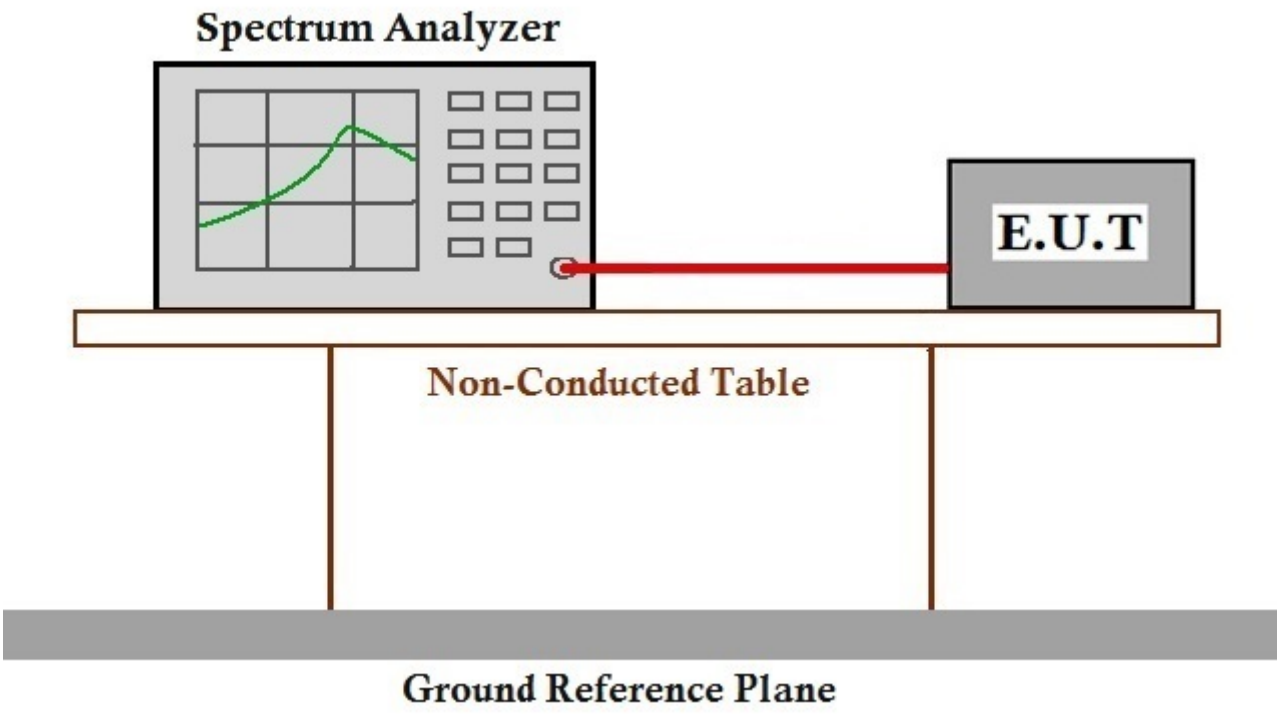
e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

f:TX+charging mode (Band 2A)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

g:TX+charging mode (Band 2C)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). 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 D for SHEM200700614004

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

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

Test Method: KDB 789033 D02 II C 2

Limit: ≥500 kHz

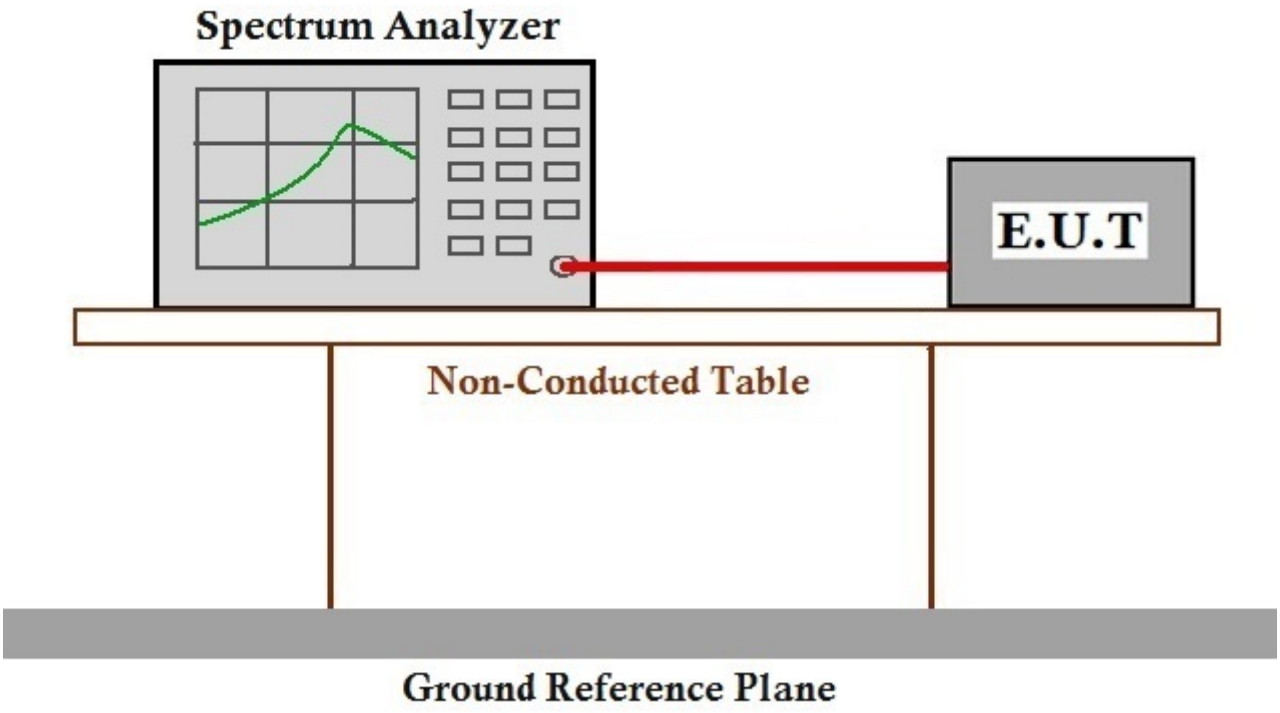
7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

Test mode h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). 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 D for SHEM200700614004

7.6 Maximum Conducted output power

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

Test Method: KDB 789033 D02 II E

Limit:

Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) for client device or 11dBm+10logB*
5470-5725	≤250mW(24dBm) for client device or 11dBm+10logB*
5725-5850	≤1W(30dBm)
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. For IC 5150MHz to 5250MHz limit is EIRP≤200mW(23dBm)

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

Test mode

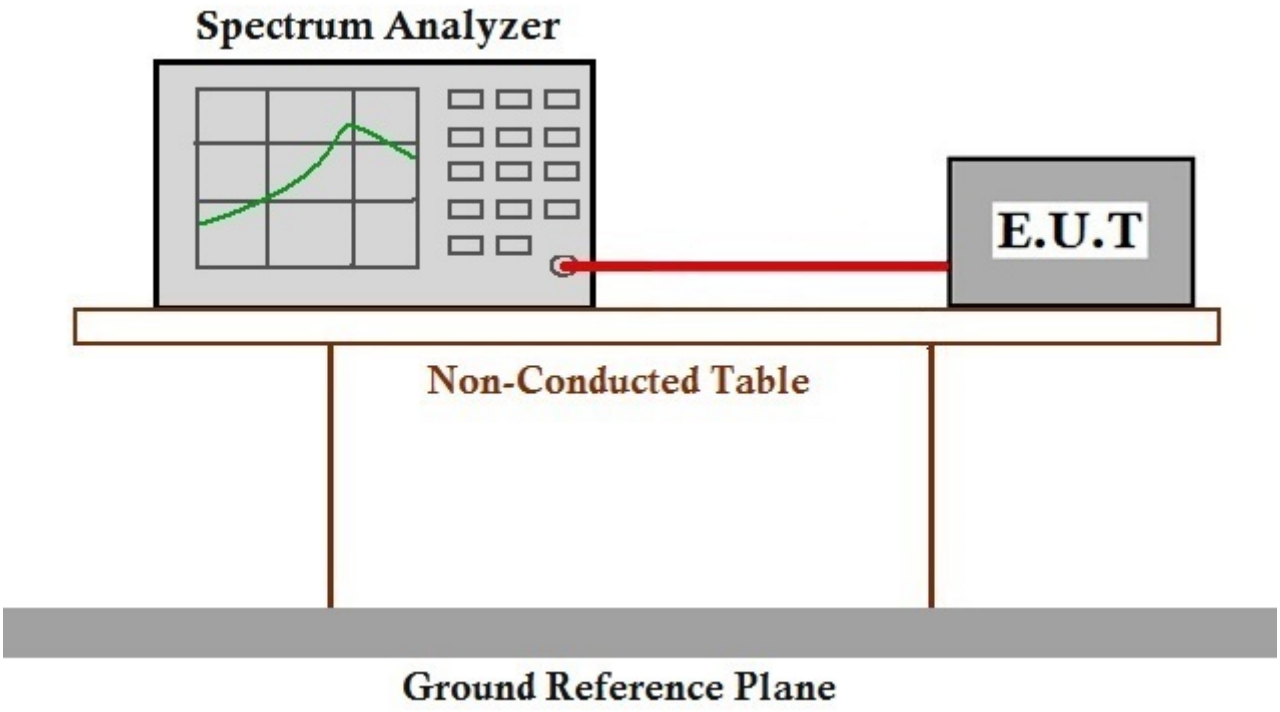
e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

f:TX+charging mode (Band 2A)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

g:TX+charging mode (Band 2C)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). 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 D for SHEM200700614004

7.7 Peak Power spectrum density

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

Test Method: KDB 789033 D02 II F

Limit:

Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz for client device
5470-5725	≤11dBm in 1MHz for client device
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. For IC 5150MHz to 5250MHz limit is EIRP PSD≤10dBm/MHz

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

Test mode

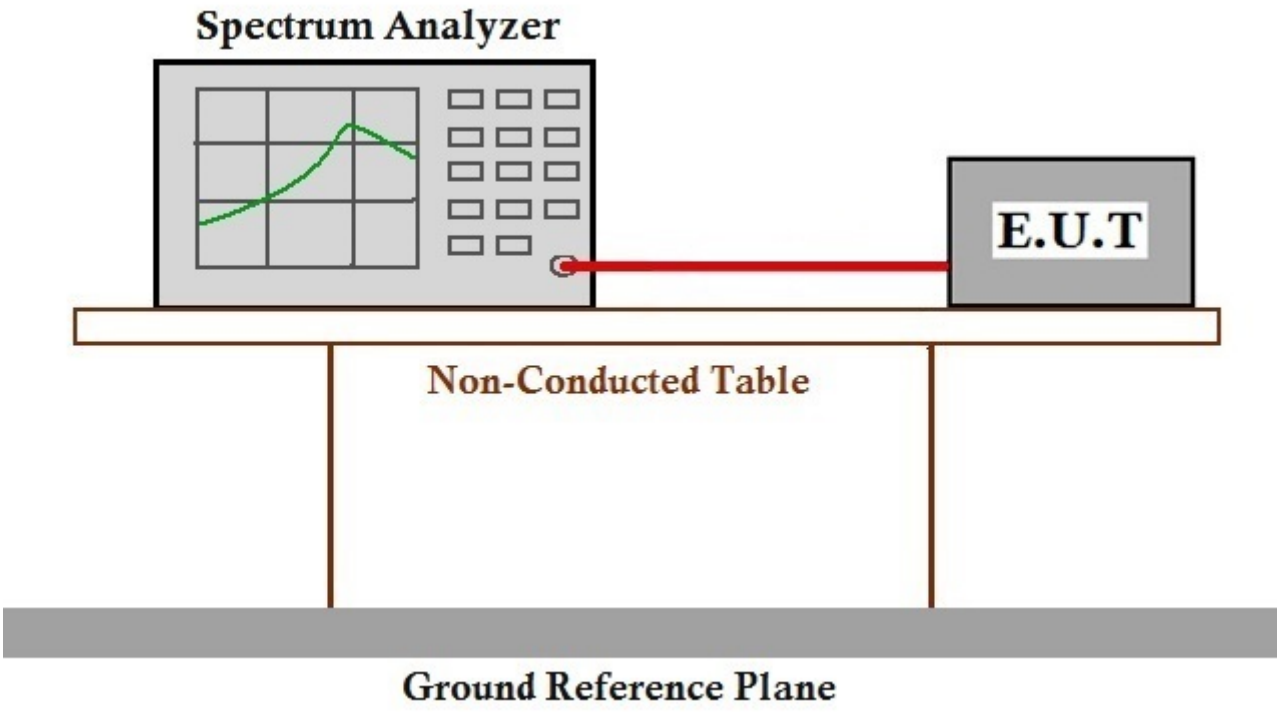
e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

f:TX+charging mode (Band 2A)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

g:TX+charging mode (Band 2C)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

7.7.2 Test Setup Diagram



7.7.3 Measurement Procedure and Data

The detailed test data see: Appendix D for SHEM200700614004

7.8 Radiated Emissions

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

Test Method: KDB 789033 D02 II G

Limit:

Limit:

For transmitters operating in the 5.15-5.25 GHz band:	All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.25-5.35 GHz band:	All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.47-5.725 GHz band:	All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.725-5.85 GHz band:	(i) All emissions shall be limited to a level of −27 dBm/MHz (68.2dBuV/m) at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz (105.2dBuV/m) at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz (110.8dBuV/m) at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz (122.2dBuV/m) at the band edge.

7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

Test mode

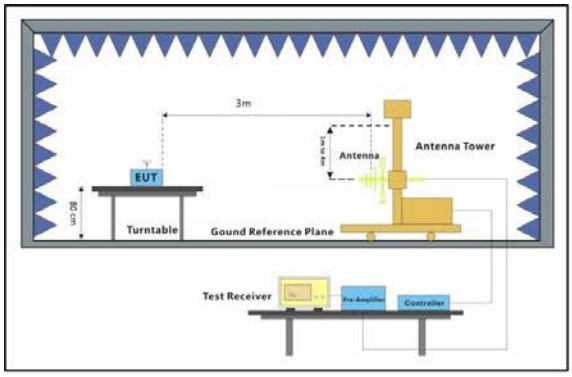
e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

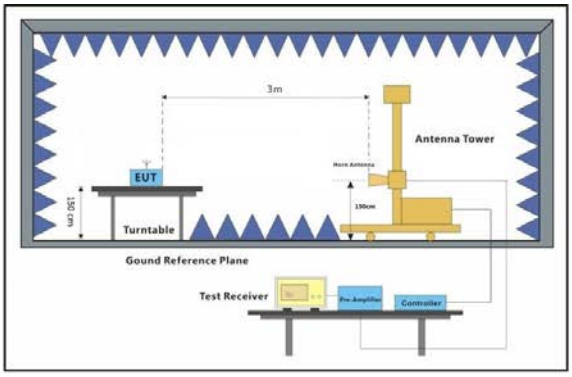
f:TX+charging mode (Band 2A)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

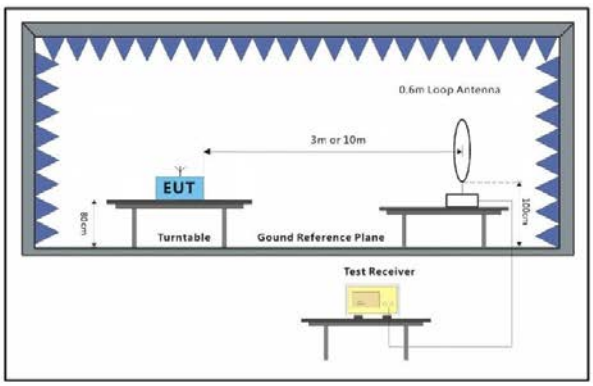
g:TX+charging mode (Band 2C)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

7.8.2 Test Setup Diagram







7.8.3 Measurement Procedure and Data

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

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

c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

j. Repeat above procedures until all frequencies measured was complete.

Remark:

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

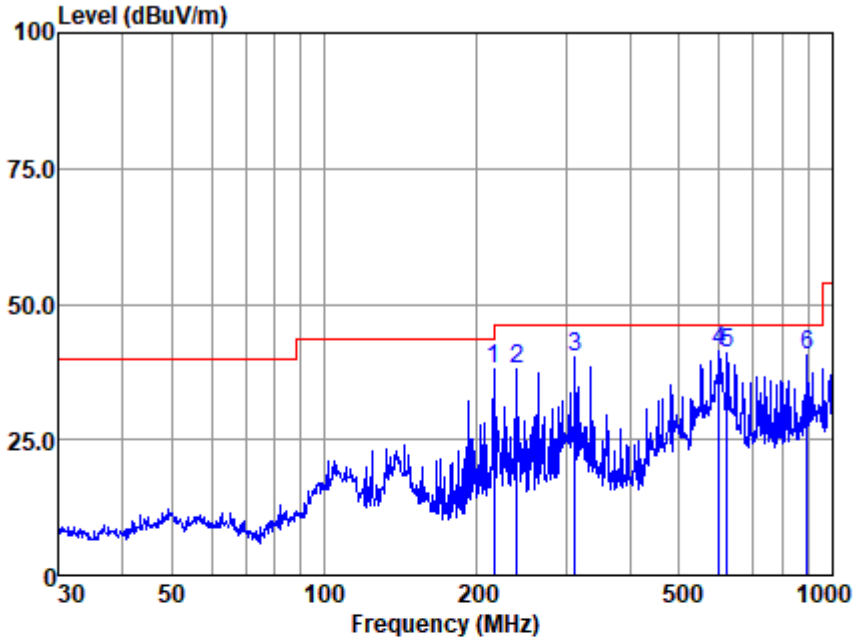
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.

3. Scan from 9kHz to 40GHz, 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. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

5. Prescan for each adapter only the worst case adapter (Model: IN-CA-1804D) data was show in the test report.

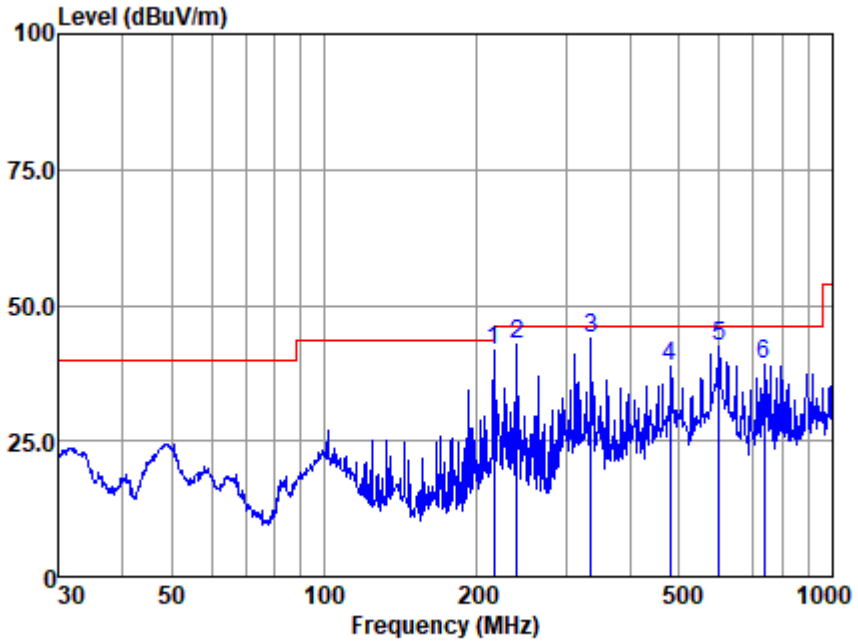
Below 1GHz



Antenna Polarity :HORIZONTAL
EUT/Project :6139CR
Test mode :e

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	216.024	68.56	9.71	2.07	42.15	38.19	46.00	-7.81	QP
2	239.987	66.93	10.86	2.16	42.12	37.83	46.00	-8.17	QP
3	312.179	66.25	13.65	2.44	42.07	40.27	46.00	-5.73	QP
4	599.321	60.07	19.60	3.18	41.67	41.18	46.00	-4.82	QP
5	620.710	59.51	19.90	3.27	41.69	40.99	46.00	-5.01	QP
6	893.857	55.07	23.30	3.90	41.69	40.58	46.00	-5.42	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

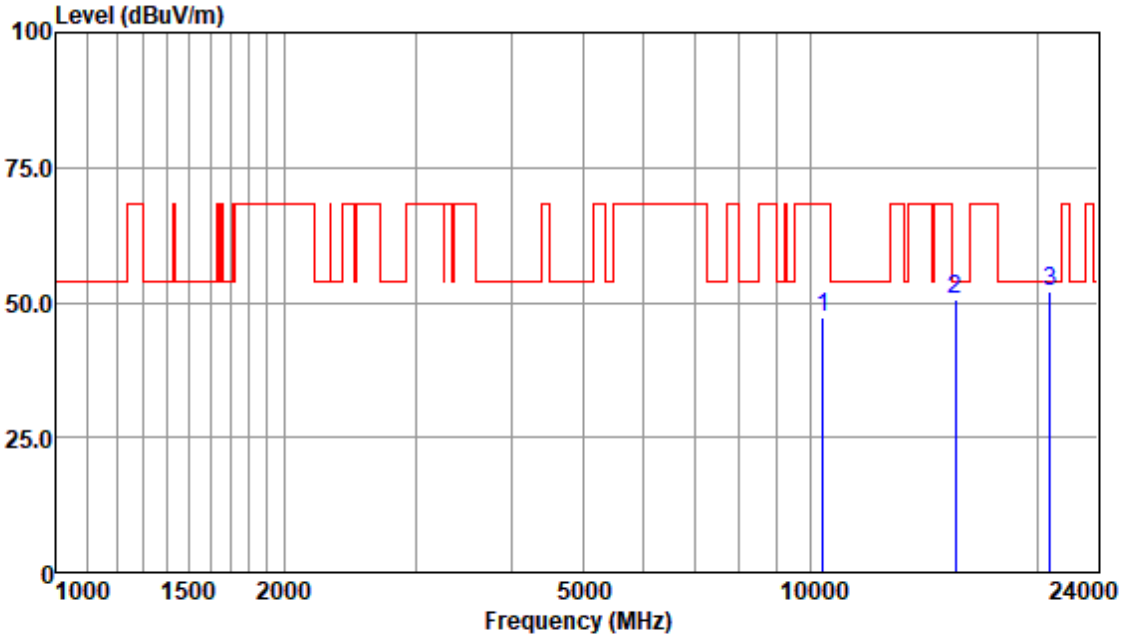


Antenna Polarity :VERTICAL
EUT/Project :6139CR
Test mode :e

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	216.024	71.98	9.71	2.07	42.15	41.61	46.00	-4.39	QP
2	239.987	71.74	10.86	2.16	42.12	42.64	46.00	-3.36	QP
3	336.035	69.25	14.14	2.51	41.99	43.91	46.00	-2.09	QP
4	480.528	60.37	17.31	2.85	41.71	38.82	46.00	-7.18	QP
5	599.321	61.25	19.60	3.18	41.67	42.36	46.00	-3.64	QP
6	734.491	55.67	21.71	3.57	41.92	39.03	46.00	-6.97	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:Low

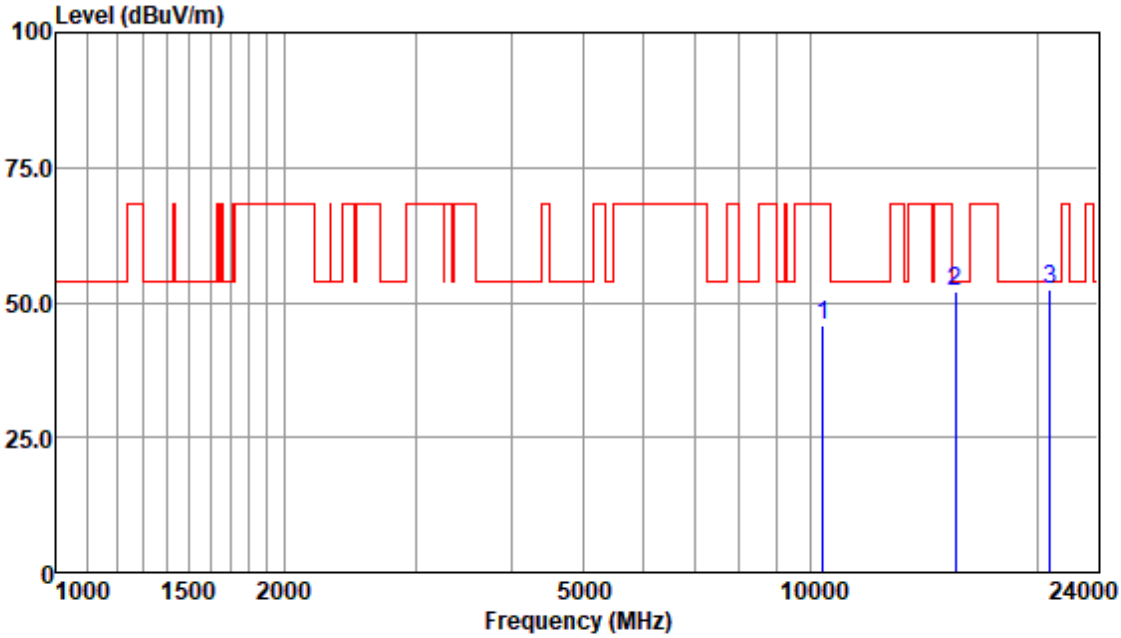


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.00	40.28	34.93	6.53	34.40	47.34	68.20	-20.86	Peak
15540.00	39.99	37.43	9.99	36.78	50.63	54.00	-3.37	Peak
20720.00	32.68	43.41	11.90	36.05	51.94	54.00	-2.06	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:Low

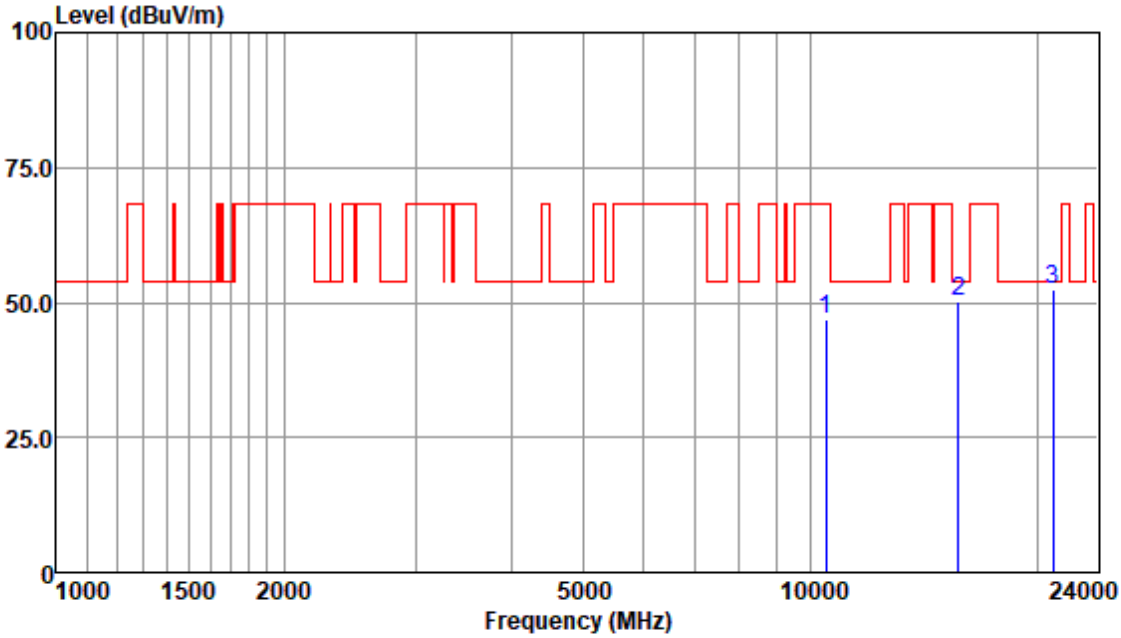


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.00	38.85	34.93	6.53	34.40	45.91	68.20	-22.29	Peak
15540.00	41.29	37.43	9.99	36.78	51.93	54.00	-2.07	Peak
20720.00	33.06	43.41	11.90	36.05	52.32	54.00	-1.68	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:middle

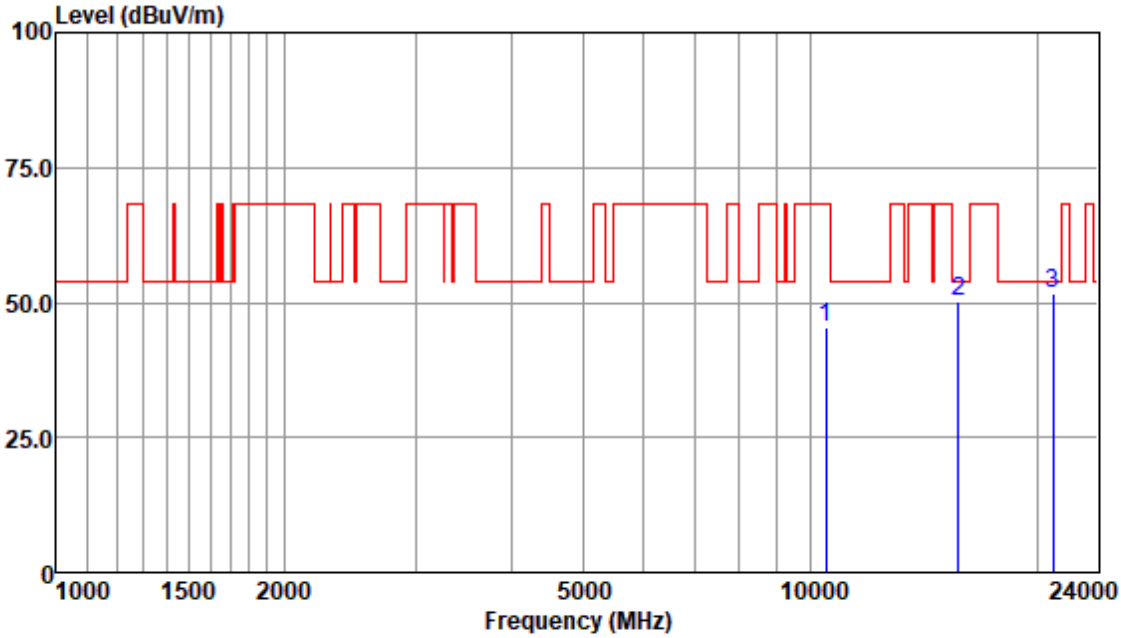


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10440.00	39.70	34.92	6.56	34.46	46.72	68.20	-21.48	Peak
15660.00	39.29	37.51	10.11	36.63	50.28	54.00	-3.72	Peak
20880.00	33.02	43.48	11.97	36.05	52.42	54.00	-1.58	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:middle

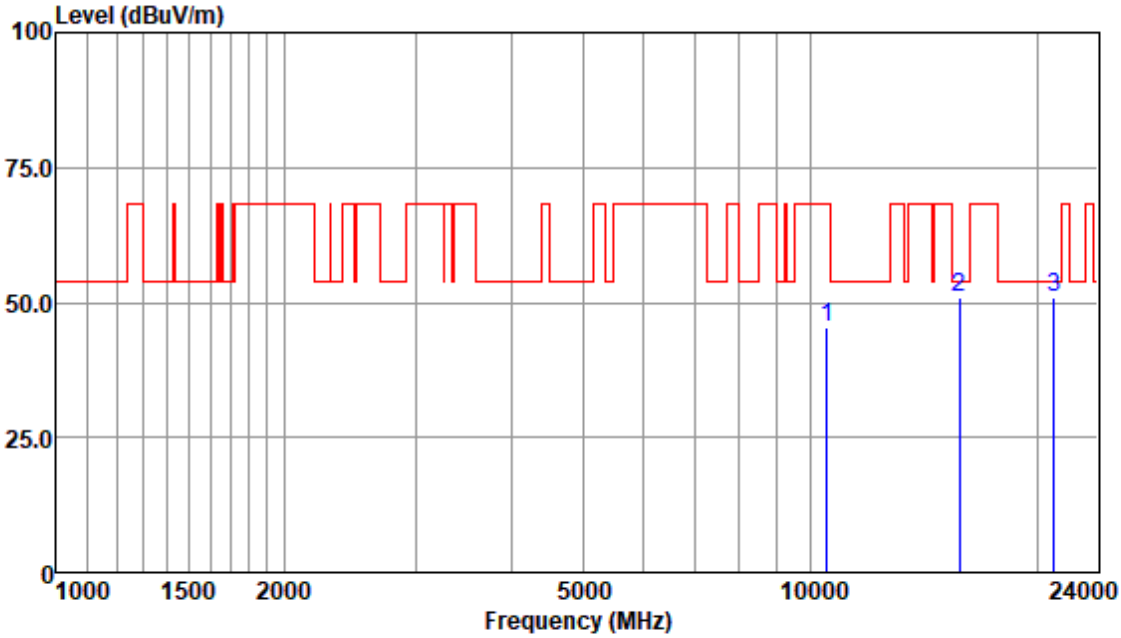


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10440.00	38.20	34.92	6.56	34.46	45.22	68.20	-22.98	Peak
15660.00	39.25	37.51	10.11	36.63	50.24	54.00	-3.76	Peak
20880.00	32.27	43.48	11.97	36.05	51.67	54.00	-2.33	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:High

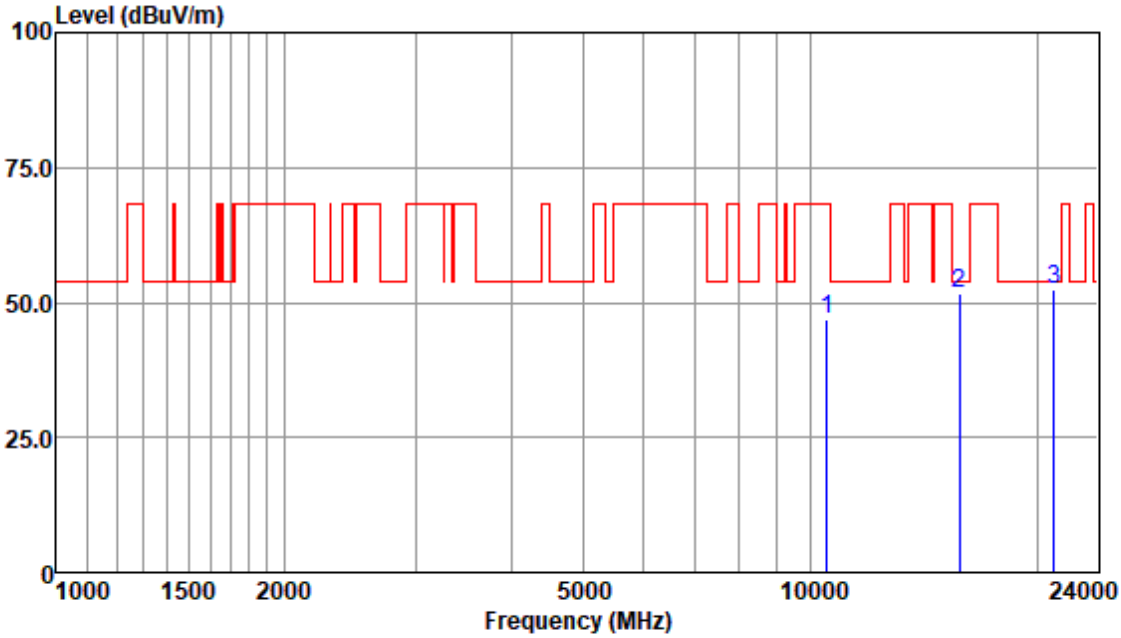


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.00	38.43	34.95	6.58	34.48	45.48	68.20	-22.72	Peak
15720.00	40.12	37.54	9.80	36.58	50.88	54.00	-3.12	Peak
20960.00	31.63	43.52	12.00	36.06	51.09	54.00	-2.91	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:High

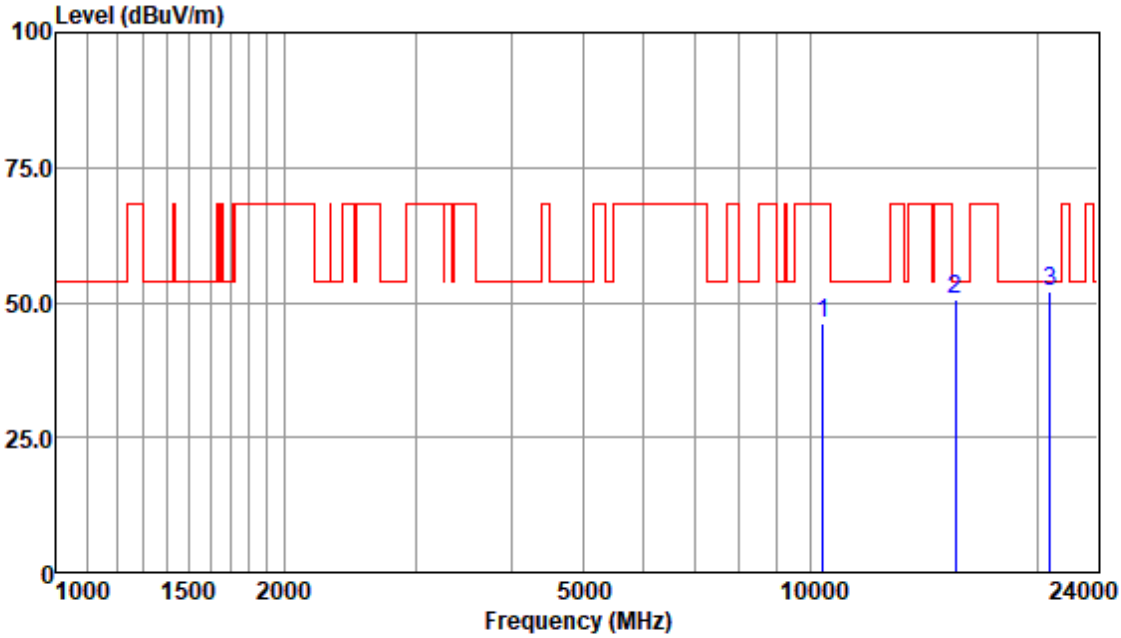


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.00	39.92	34.95	6.58	34.48	46.97	68.20	-21.23	Peak
15720.00	40.84	37.54	9.80	36.58	51.60	54.00	-2.40	Peak
20960.00	32.77	43.52	12.00	36.06	52.23	54.00	-1.77	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

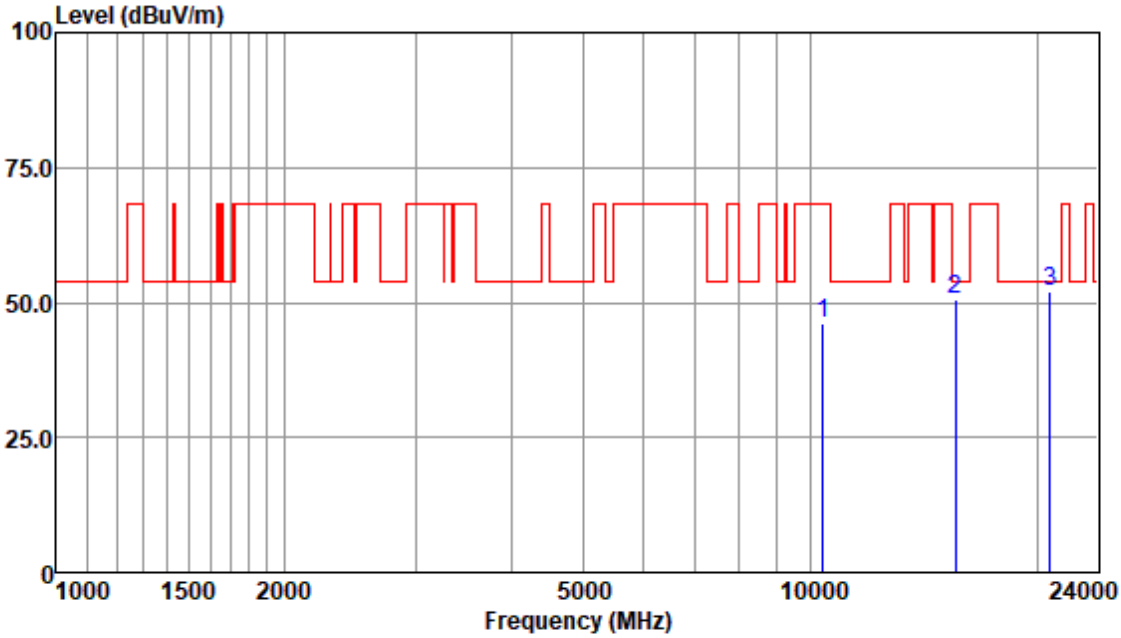


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.00	39.25	34.93	6.53	34.40	46.31	68.20	-21.89	Peak
15540.00	39.93	37.43	9.99	36.78	50.57	54.00	-3.43	Peak
20720.00	32.67	43.41	11.90	36.05	51.93	54.00	-2.07	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

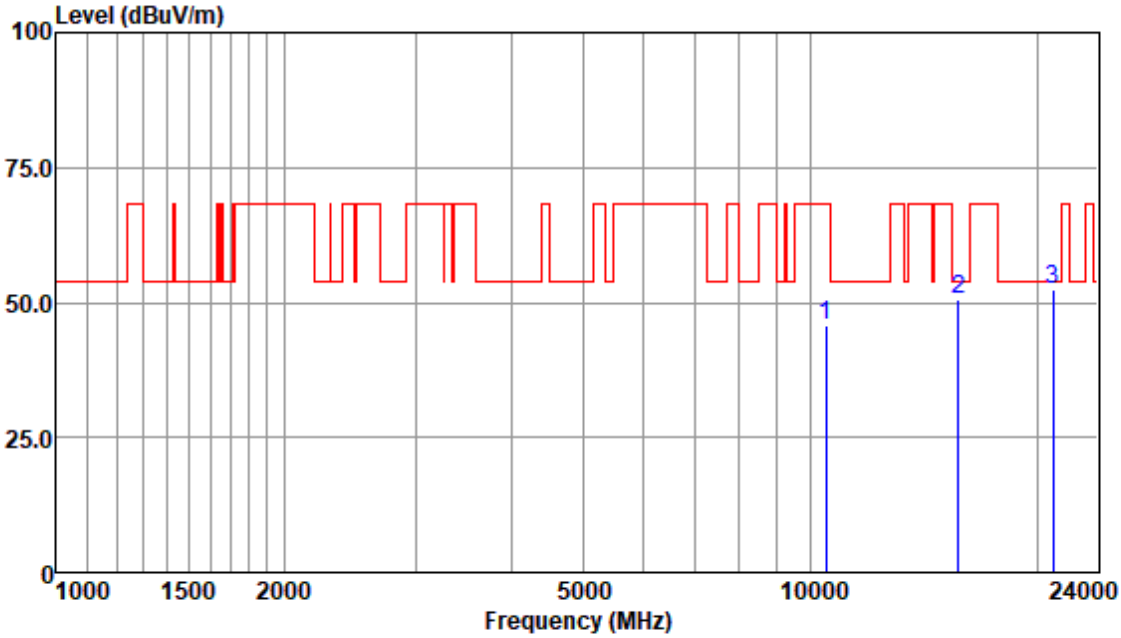


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.00	38.99	34.93	6.53	34.40	46.05	68.20	-22.15	Peak
15540.00	39.74	37.43	9.99	36.78	50.38	54.00	-3.62	Peak
20720.00	32.69	43.41	11.90	36.05	51.95	54.00	-2.05	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

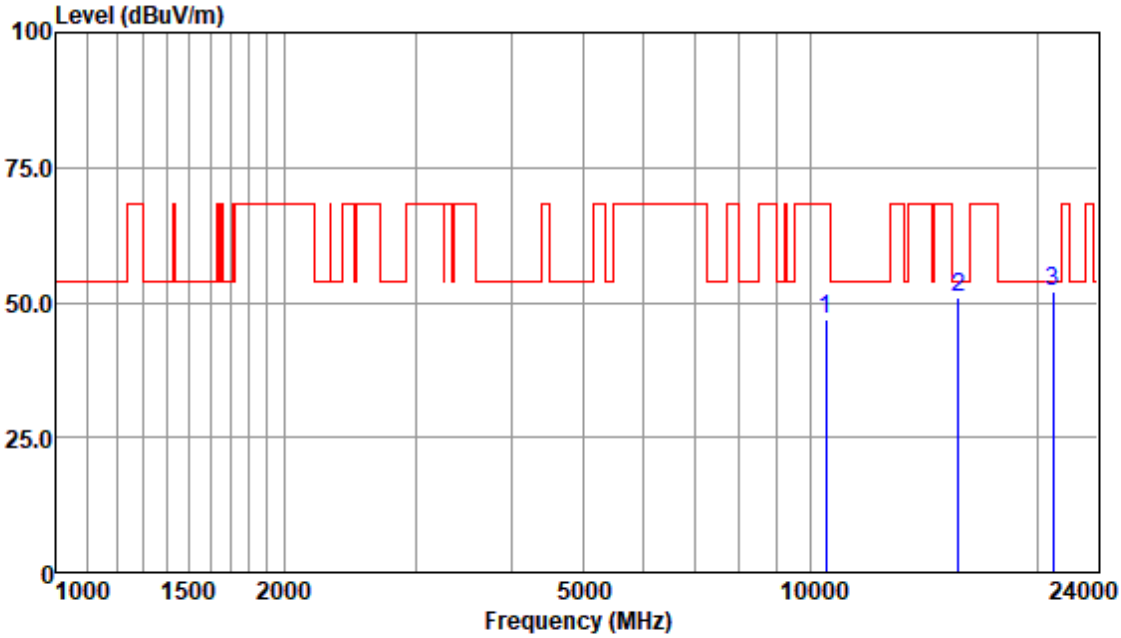


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10440.00	38.63	34.92	6.56	34.46	45.65	68.20	-22.55	Peak
15660.00	39.72	37.51	10.11	36.63	50.71	54.00	-3.29	Peak
20880.00	33.12	43.48	11.97	36.05	52.52	54.00	-1.48	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

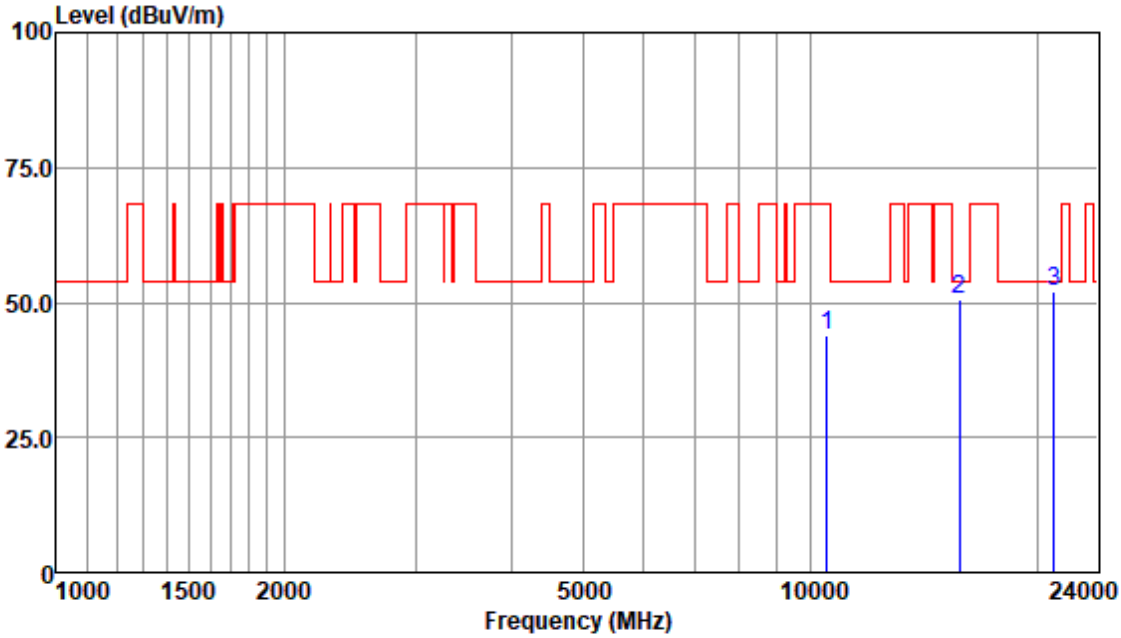


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10440.00	39.89	34.92	6.56	34.46	46.91	68.20	-21.29	Peak
15660.00	39.82	37.51	10.11	36.63	50.81	54.00	-3.19	Peak
20880.00	32.79	43.48	11.97	36.05	52.19	54.00	-1.81	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

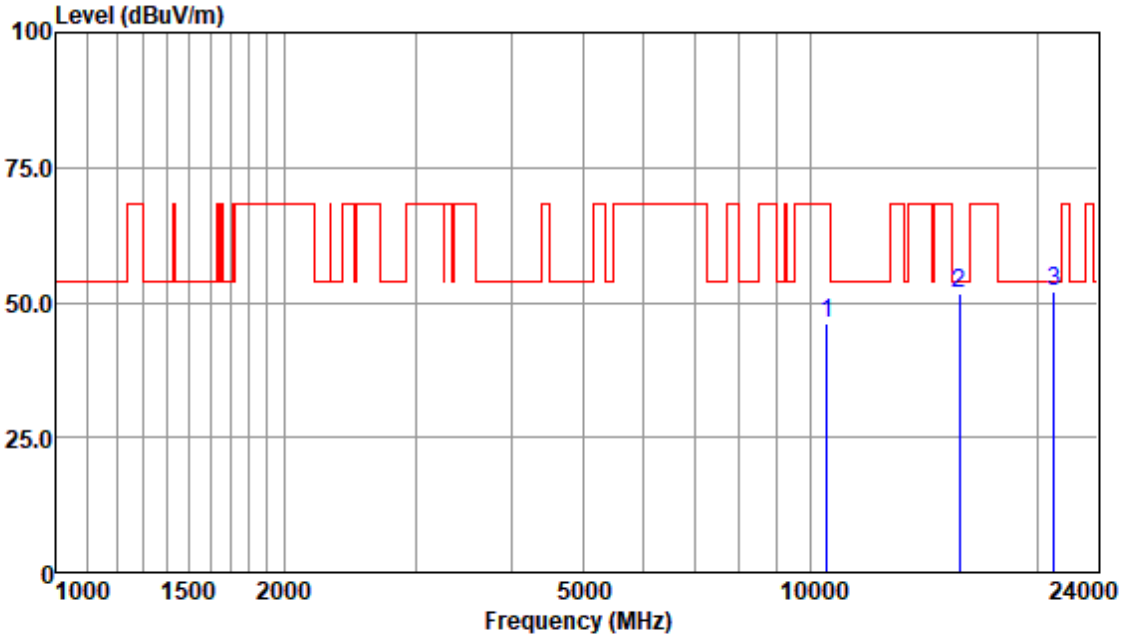


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.00	36.68	34.95	6.58	34.48	43.73	68.20	-24.47	Peak
15720.00	39.94	37.54	9.80	36.58	50.70	54.00	-3.30	Peak
20960.00	32.66	43.52	12.00	36.06	52.12	54.00	-1.88	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

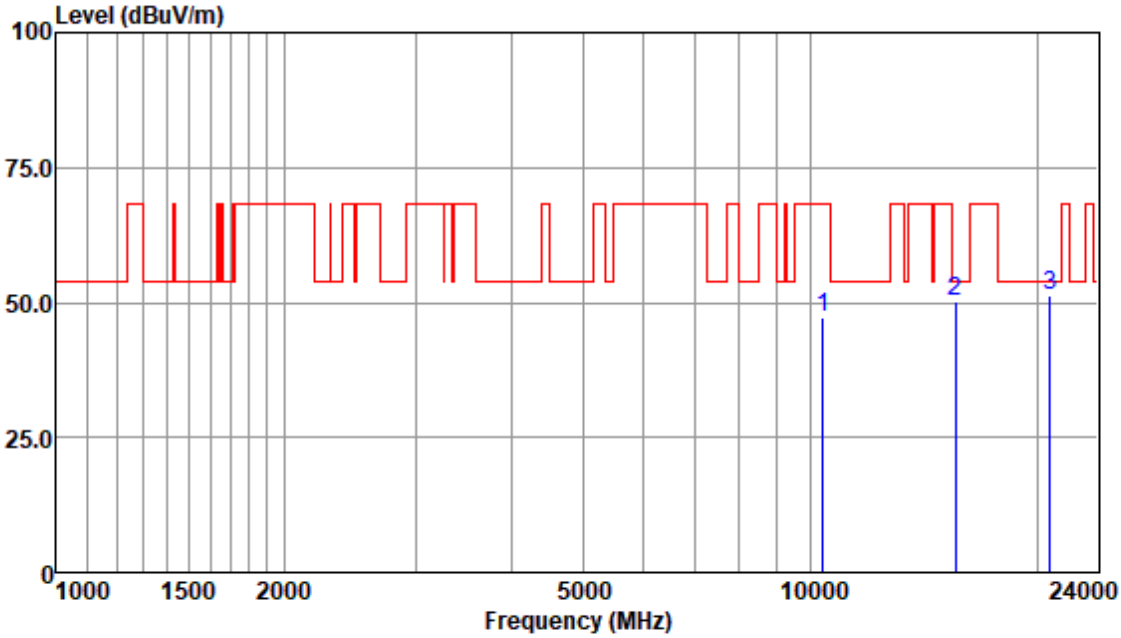


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.00	39.08	34.95	6.58	34.48	46.13	68.20	-22.07	Peak
15720.00	40.95	37.54	9.80	36.58	51.71	54.00	-2.29	Peak
20960.00	32.61	43.52	12.00	36.06	52.07	54.00	-1.93	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

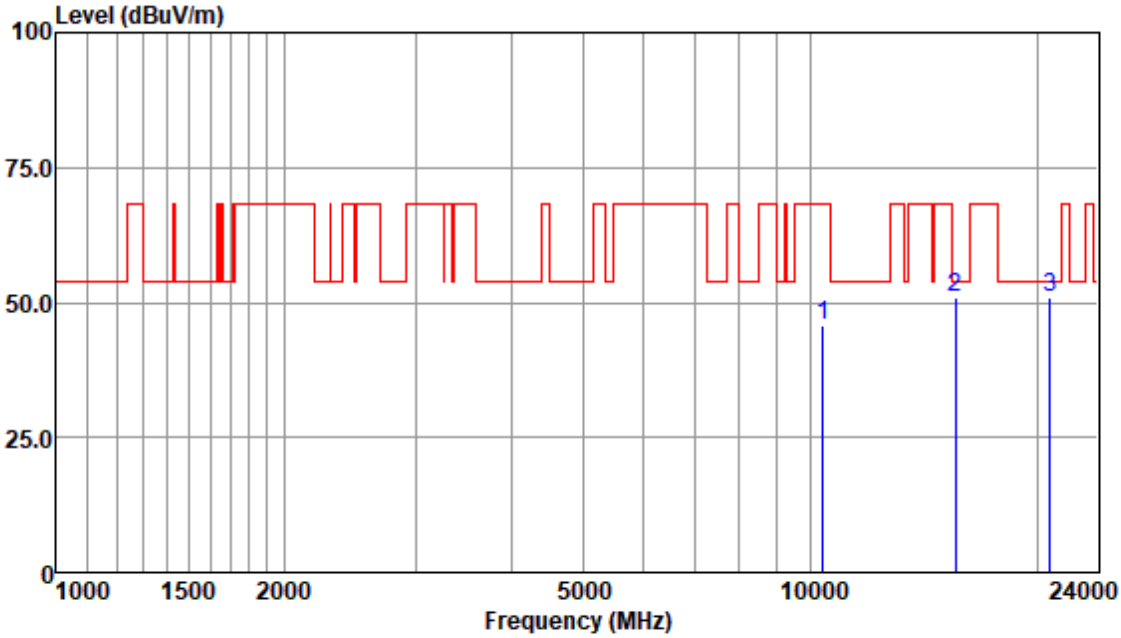


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.00	40.05	34.93	6.53	34.40	47.11	68.20	-21.09	Peak
15540.00	39.43	37.43	9.99	36.78	50.07	54.00	-3.93	Peak
20720.00	32.08	43.41	11.90	36.05	51.34	54.00	-2.66	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

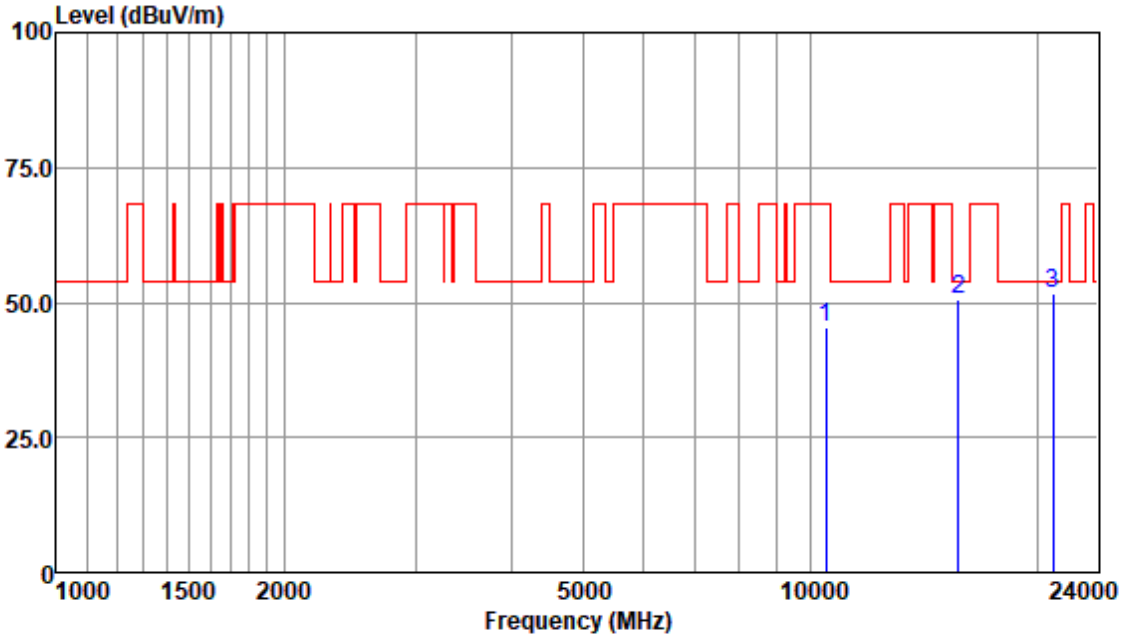


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.00	38.60	34.93	6.53	34.40	45.66	68.20	-22.54	Peak
15540.00	40.24	37.43	9.99	36.78	50.88	54.00	-3.12	Peak
20720.00	31.77	43.41	11.90	36.05	51.03	54.00	-2.97	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

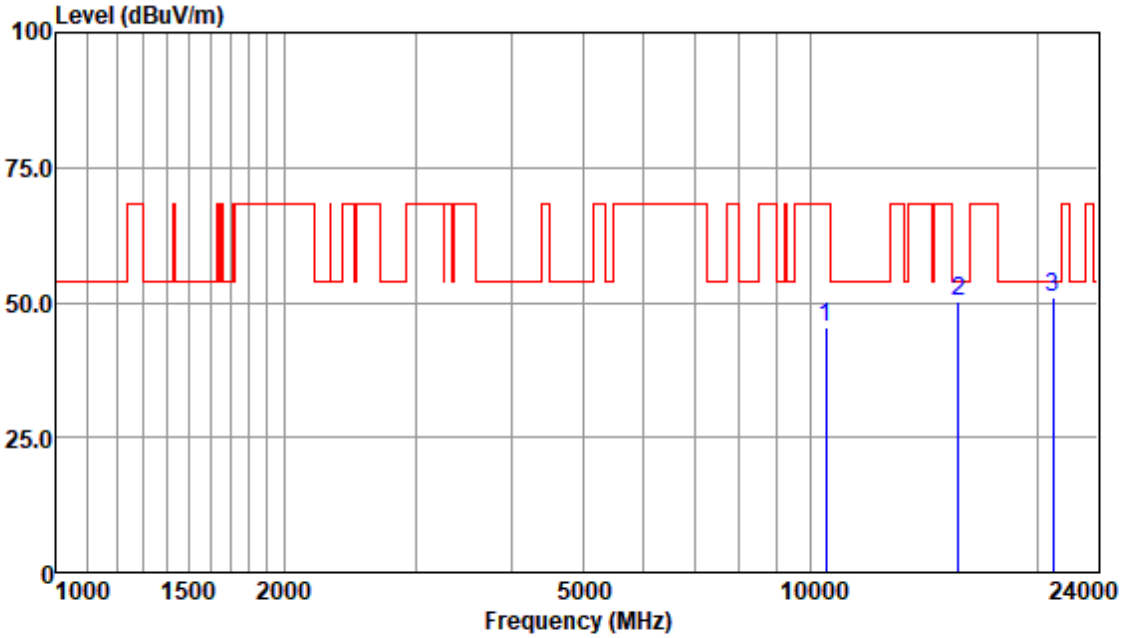


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10440.00	38.25	34.92	6.56	34.46	45.27	68.20	-22.93	Peak
15660.00	39.48	37.51	10.11	36.63	50.47	54.00	-3.53	Peak
20880.00	32.10	43.48	11.97	36.05	51.50	54.00	-2.50	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

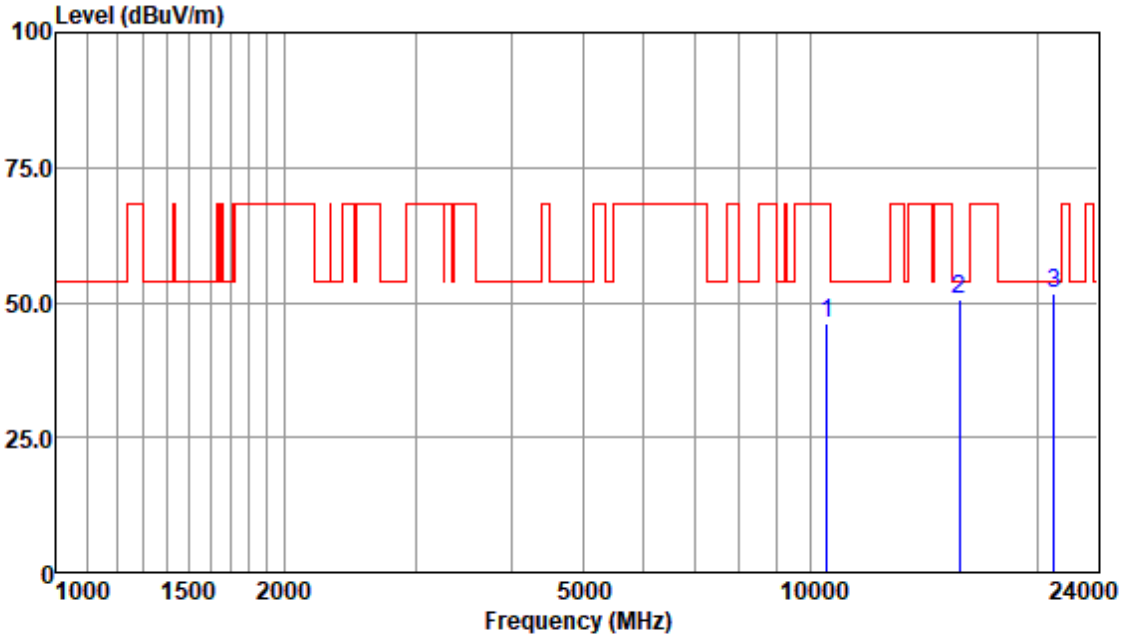


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10440.00	38.44	34.92	6.56	34.46	45.46	68.20	-22.74	Peak
15660.00	39.33	37.51	10.11	36.63	50.32	54.00	-3.68	Peak
20880.00	31.62	43.48	11.97	36.05	51.02	54.00	-2.98	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

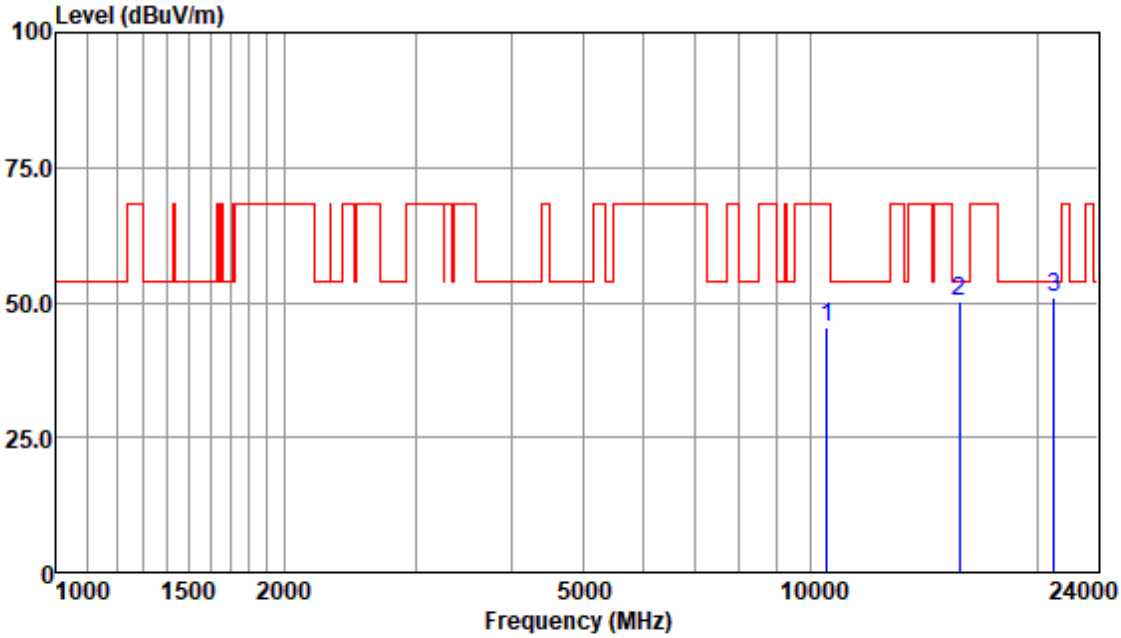


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.00	39.22	34.95	6.58	34.48	46.27	68.20	-21.93	Peak
15720.00	39.71	37.54	9.80	36.58	50.47	54.00	-3.53	Peak
20960.00	32.04	43.52	12.00	36.06	51.50	54.00	-2.50	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

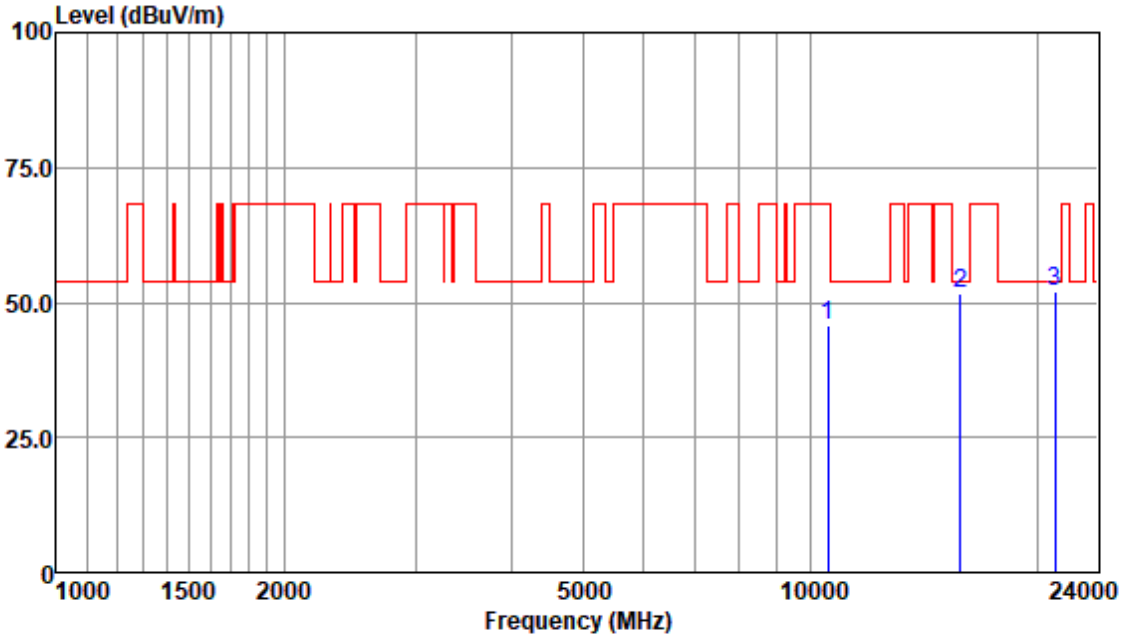


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.00	38.41	34.95	6.58	34.48	45.46	68.20	-22.74	Peak
15720.00	39.56	37.54	9.80	36.58	50.32	54.00	-3.68	Peak
20960.00	31.56	43.52	12.00	36.06	51.02	54.00	-2.98	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:f; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:Low

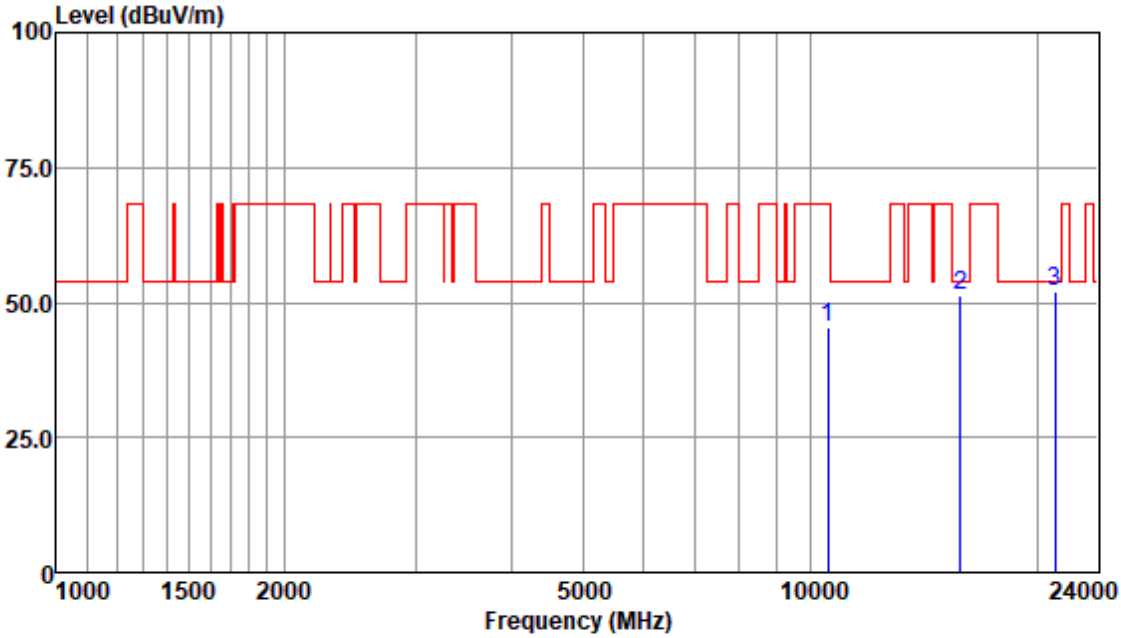


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10520.00	38.56	34.98	6.60	34.51	45.63	68.20	-22.57	Peak
15780.00	41.11	37.56	9.48	36.55	51.60	54.00	-2.40	Peak
21040.00	32.51	43.58	12.07	36.06	52.10	54.00	-1.90	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:f; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:Low

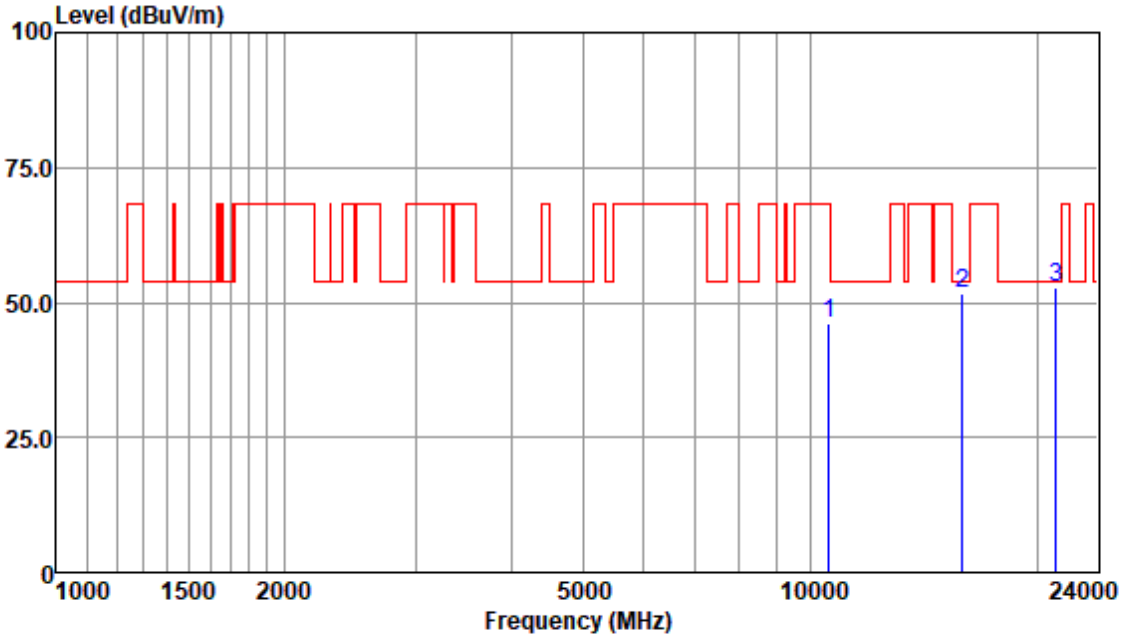


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10520.00	38.30	34.98	6.60	34.51	45.37	68.20	-22.83	Peak
15780.00	40.83	37.56	9.48	36.55	51.32	54.00	-2.68	Peak
21040.00	32.42	43.58	12.07	36.06	52.01	54.00	-1.99	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:f; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:middle

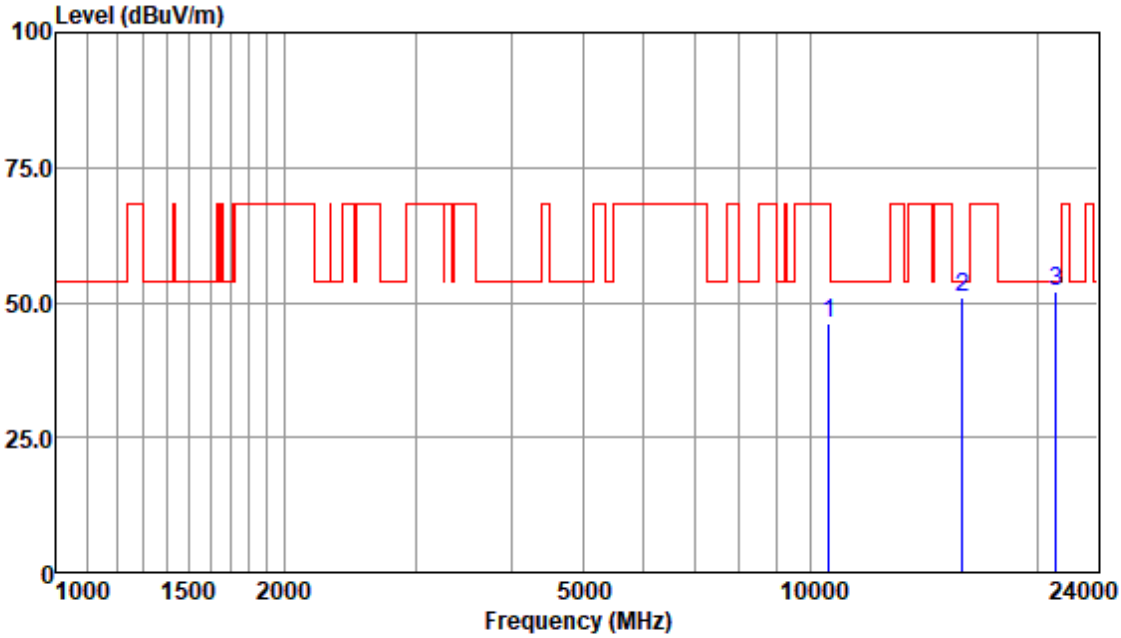


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10560.00	38.91	35.04	6.64	34.56	46.03	68.20	-22.17	Peak
15840.00	41.45	37.61	9.16	36.51	51.71	54.00	-2.29	Peak
21120.00	33.03	43.62	12.11	36.07	52.69	54.00	-1.31	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:f; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:middle

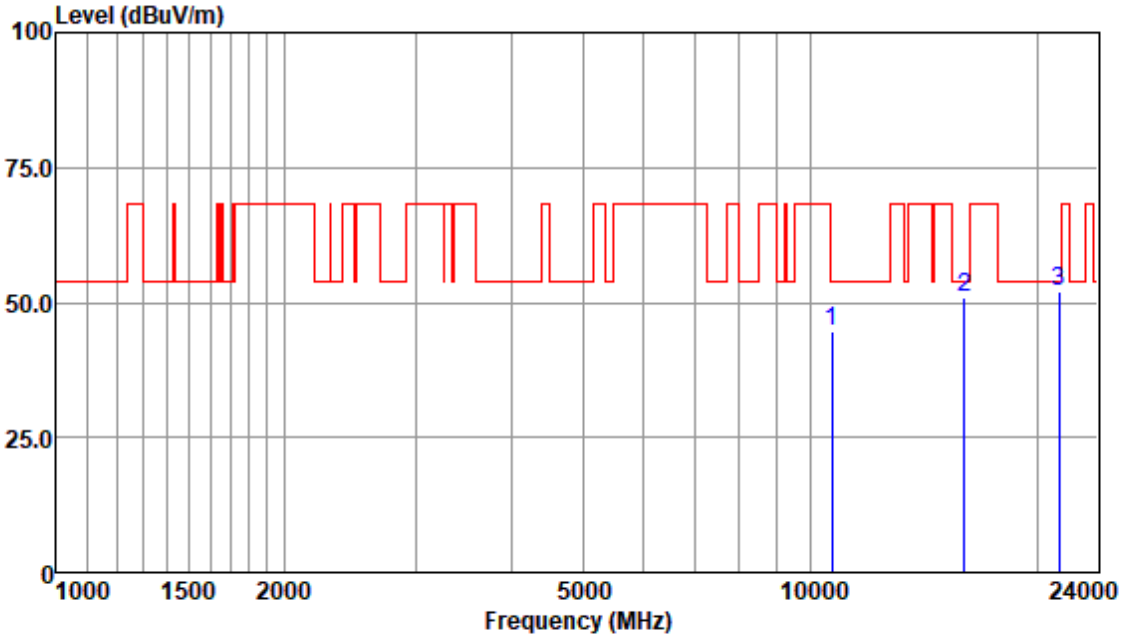


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10560.00	39.07	35.04	6.64	34.56	46.19	68.20	-22.01	Peak
15840.00	40.63	37.61	9.16	36.51	50.89	54.00	-3.11	Peak
21120.00	32.36	43.62	12.11	36.07	52.02	54.00	-1.98	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:f; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:High

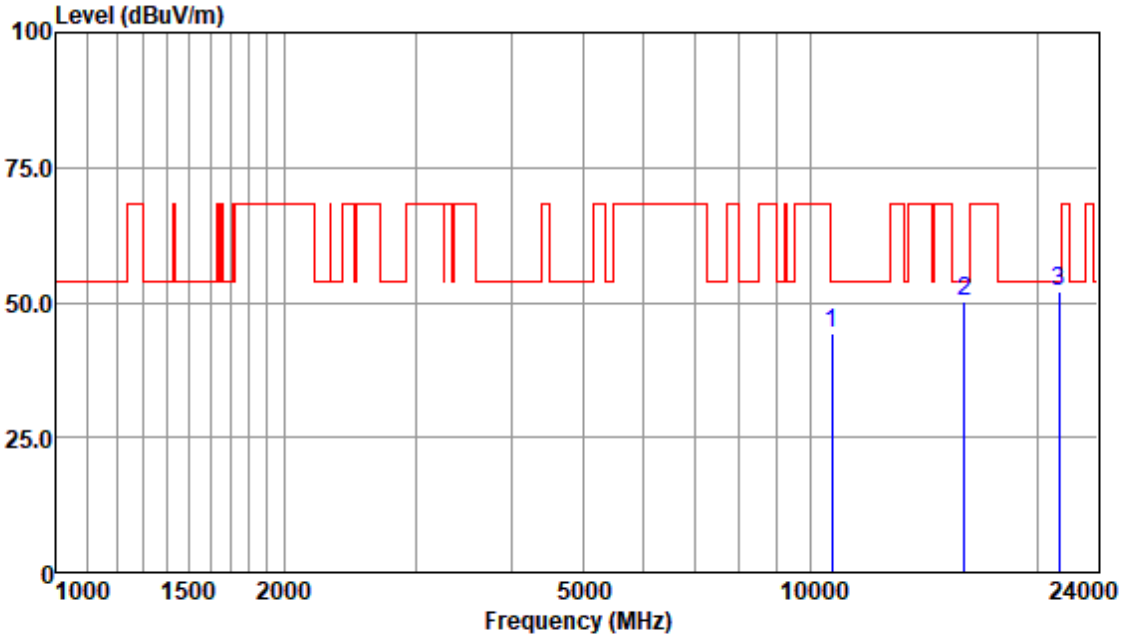


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10640.00	37.43	35.10	6.68	34.61	44.60	54.00	-9.40	Peak
15960.00	40.89	37.74	8.60	36.42	50.81	54.00	-3.19	Peak
21280.00	32.07	43.69	12.18	36.07	51.87	54.00	-2.13	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:f; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:High

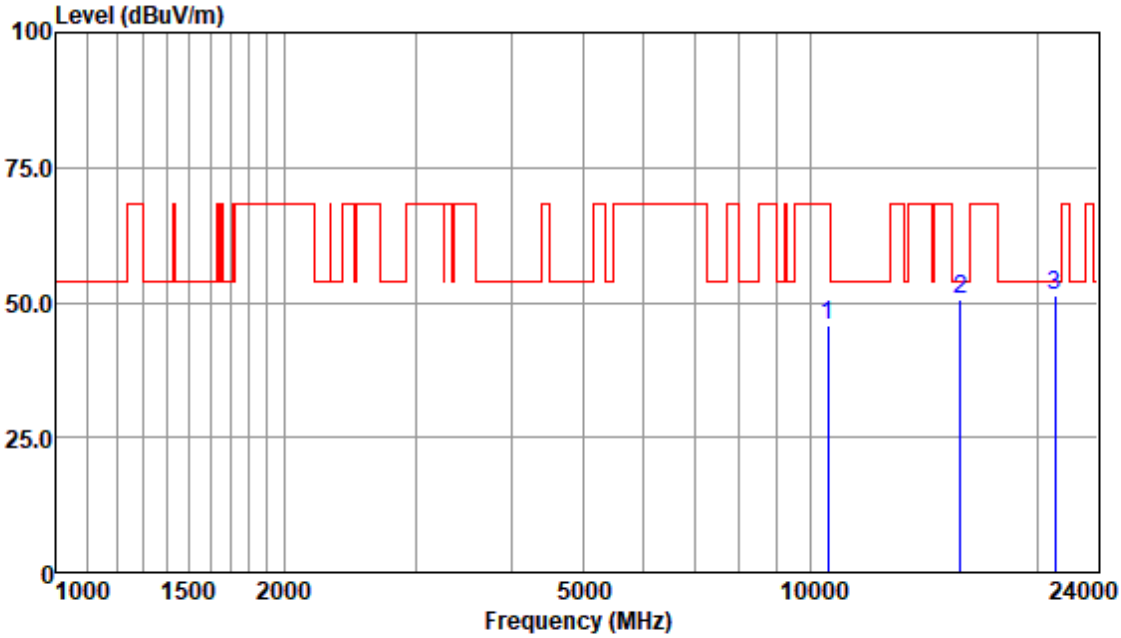


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10640.00	37.26	35.10	6.68	34.61	44.43	54.00	-9.57	Peak
15960.00	40.19	37.74	8.60	36.42	50.11	54.00	-3.89	Peak
21280.00	32.13	43.69	12.18	36.07	51.93	54.00	-2.07	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

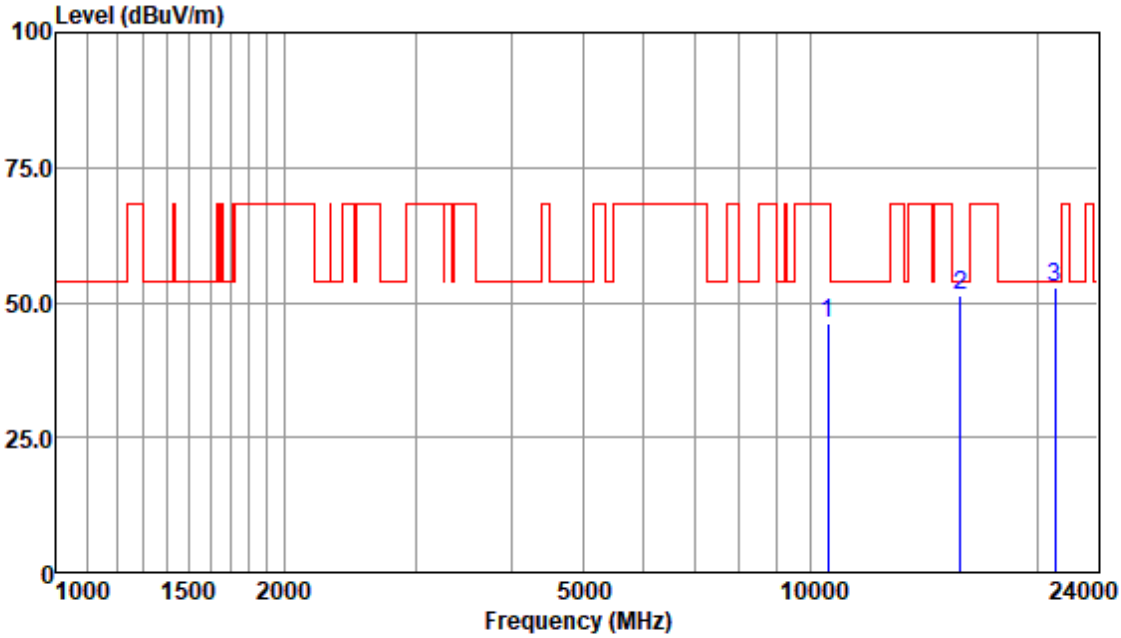


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10520.00	38.51	34.98	6.60	34.51	45.58	68.20	-22.62	Peak
15780.00	39.97	37.56	9.48	36.55	50.46	54.00	-3.54	Peak
21040.00	31.85	43.58	12.07	36.06	51.44	54.00	-2.56	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

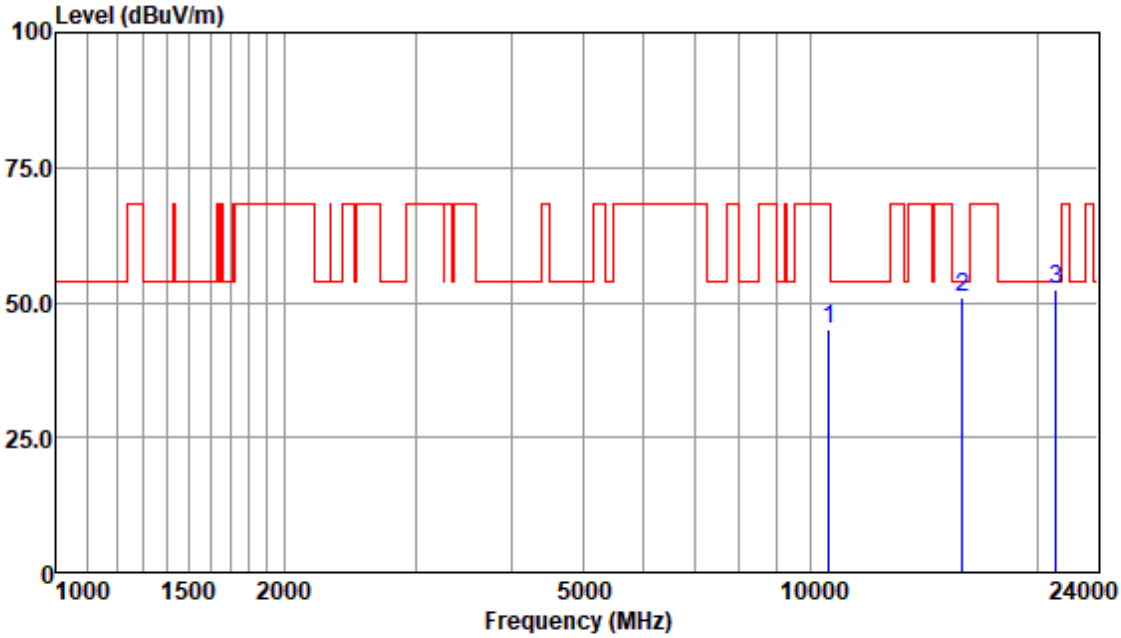


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10520.00	39.02	34.98	6.60	34.51	46.09	68.20	-22.11	Peak
15780.00	40.70	37.56	9.48	36.55	51.19	54.00	-2.81	Peak
21040.00	33.26	43.58	12.07	36.06	52.85	54.00	-1.15	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

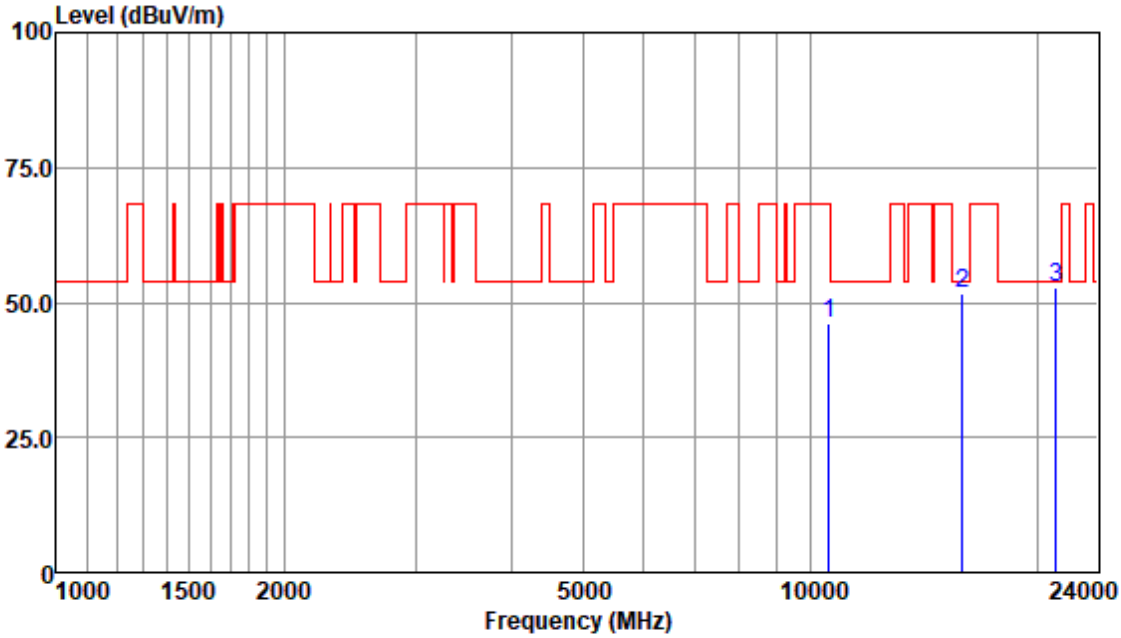


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10560.00	37.82	35.04	6.64	34.56	44.94	68.20	-23.26	Peak
15840.00	40.77	37.61	9.16	36.51	51.03	54.00	-2.97	Peak
21120.00	32.75	43.62	12.11	36.07	52.41	54.00	-1.59	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

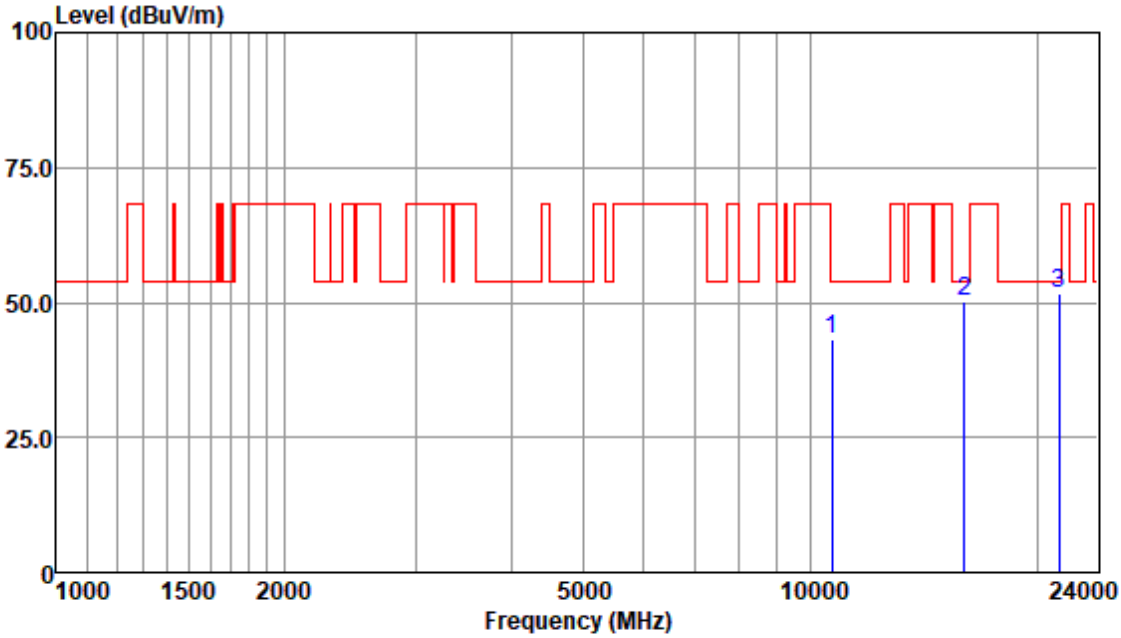


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10560.00	38.93	35.04	6.64	34.56	46.05	68.20	-22.15	Peak
15840.00	41.38	37.61	9.16	36.51	51.64	54.00	-2.36	Peak
21120.00	32.95	43.62	12.11	36.07	52.61	54.00	-1.39	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

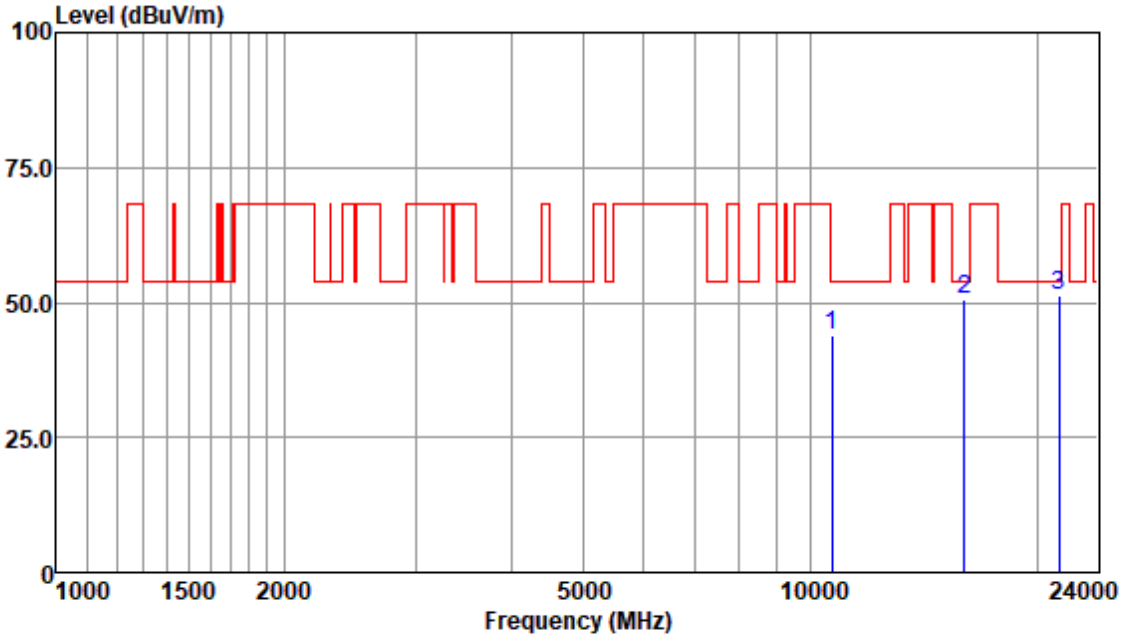


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10640.00	35.83	35.10	6.68	34.61	43.00	54.00	-11.00	Peak
15960.00	40.22	37.74	8.60	36.42	50.14	54.00	-3.86	Peak
21280.00	31.68	43.69	12.18	36.07	51.48	54.00	-2.52	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

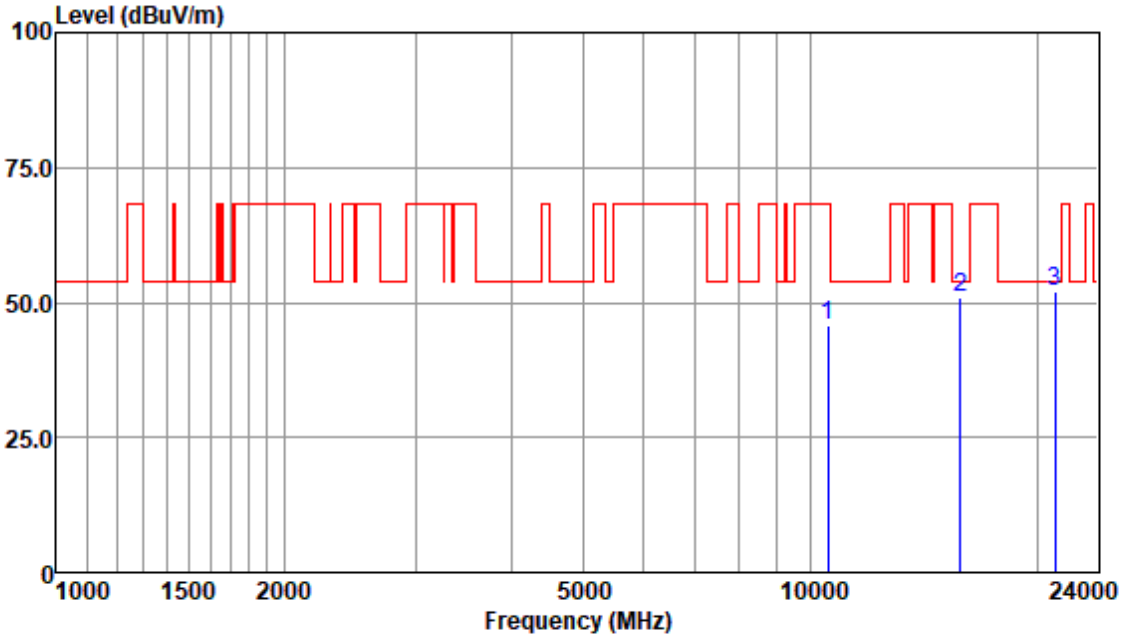


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10640.00	36.67	35.10	6.68	34.61	43.84	54.00	-10.16	Peak
15960.00	40.47	37.74	8.60	36.42	50.39	54.00	-3.61	Peak
21280.00	31.43	43.69	12.18	36.07	51.23	54.00	-2.77	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

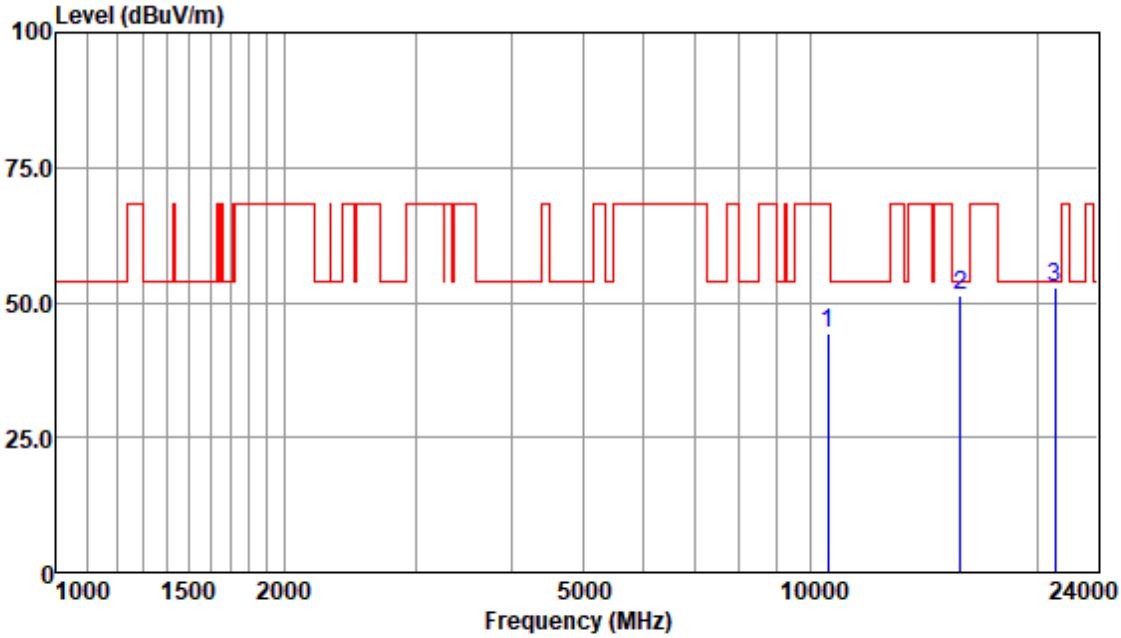


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10520.00	38.83	34.98	6.60	34.51	45.90	68.20	-22.30	Peak
15780.00	40.56	37.56	9.48	36.55	51.05	54.00	-2.95	Peak
21040.00	32.43	43.58	12.07	36.06	52.02	54.00	-1.98	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

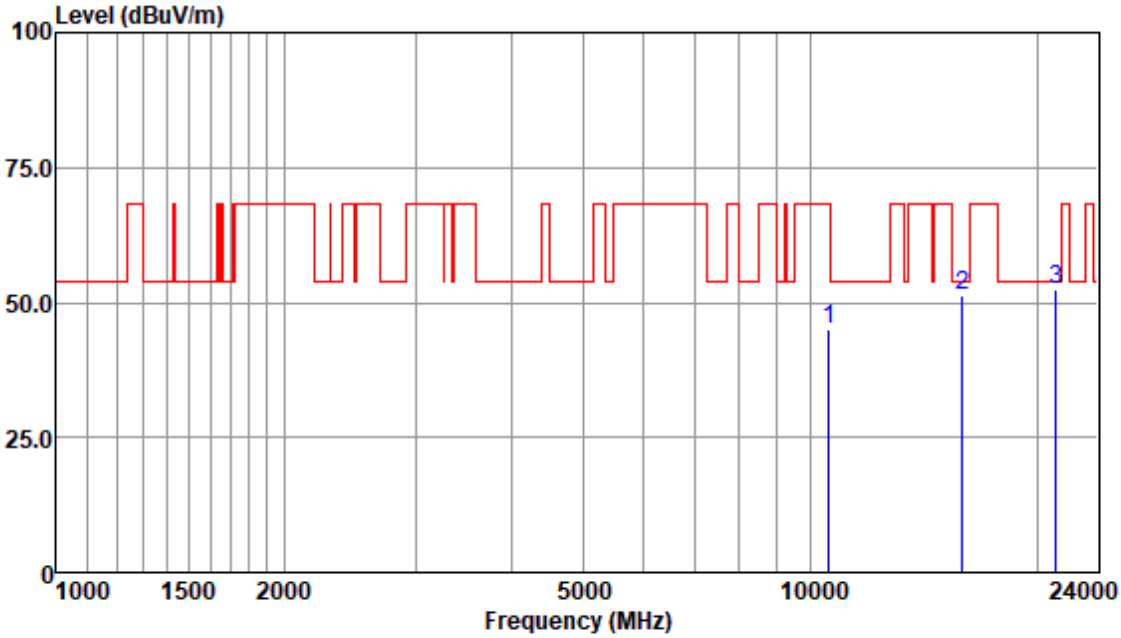


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10520.00	37.36	34.98	6.60	34.51	44.43	68.20	-23.77	Peak
15780.00	40.95	37.56	9.48	36.55	51.44	54.00	-2.56	Peak
21040.00	33.21	43.58	12.07	36.06	52.80	54.00	-1.20	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

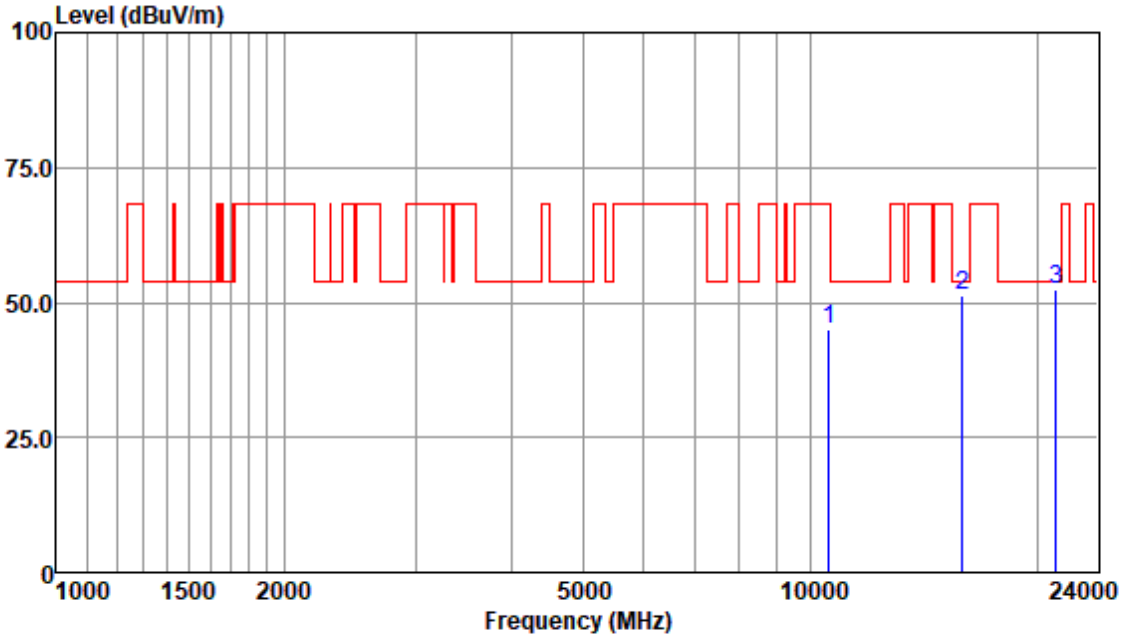


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10560.00	37.91	35.04	6.64	34.56	45.03	68.20	-23.17	Peak
15840.00	41.19	37.61	9.16	36.51	51.45	54.00	-2.55	Peak
21120.00	32.60	43.62	12.11	36.07	52.26	54.00	-1.74	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

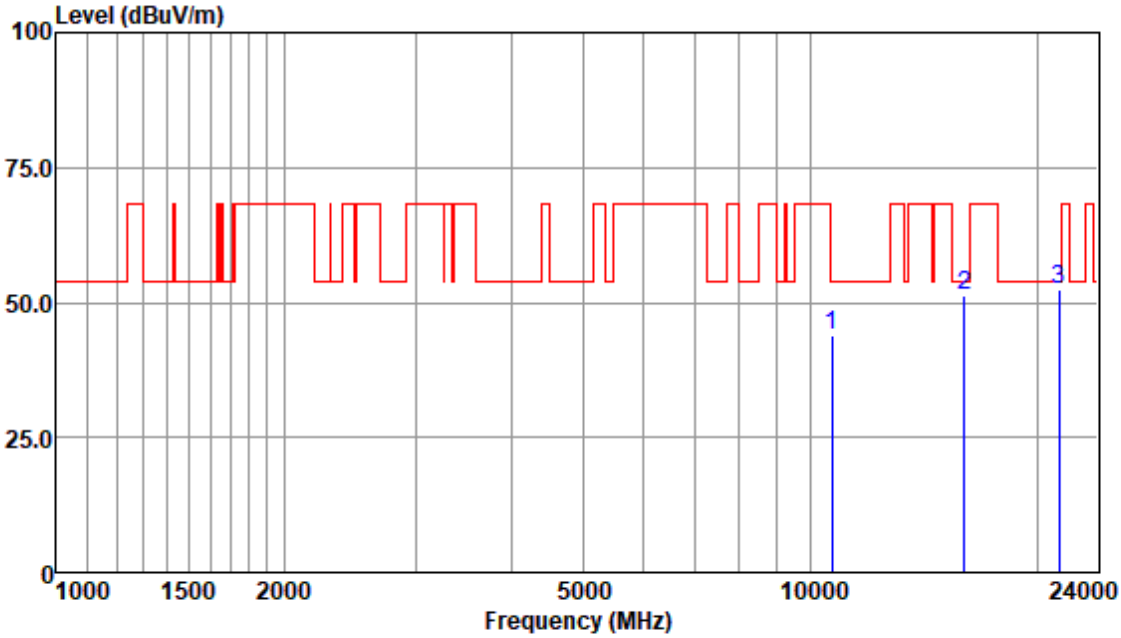


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10560.00	38.00	35.04	6.64	34.56	45.12	68.20	-23.08	Peak
15840.00	41.16	37.61	9.16	36.51	51.42	54.00	-2.58	Peak
21120.00	32.57	43.62	12.11	36.07	52.23	54.00	-1.77	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

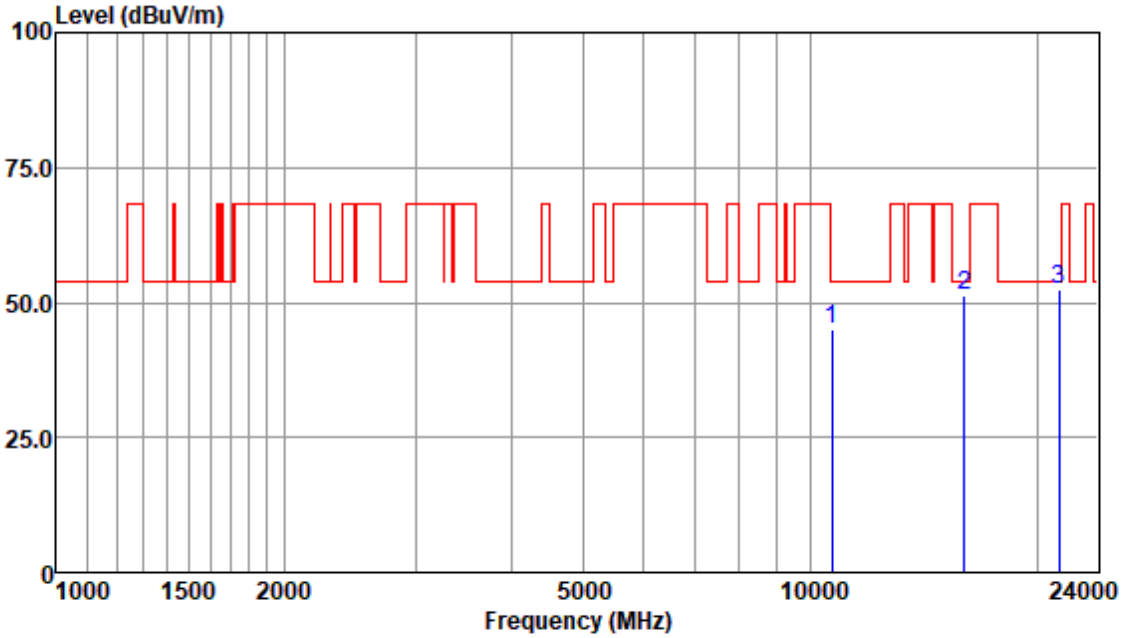


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10640.00	36.86	35.10	6.68	34.61	44.03	54.00	-9.97	Peak
15960.00	41.53	37.74	8.60	36.42	51.45	54.00	-2.55	Peak
21280.00	32.46	43.69	12.18	36.07	52.26	54.00	-1.74	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

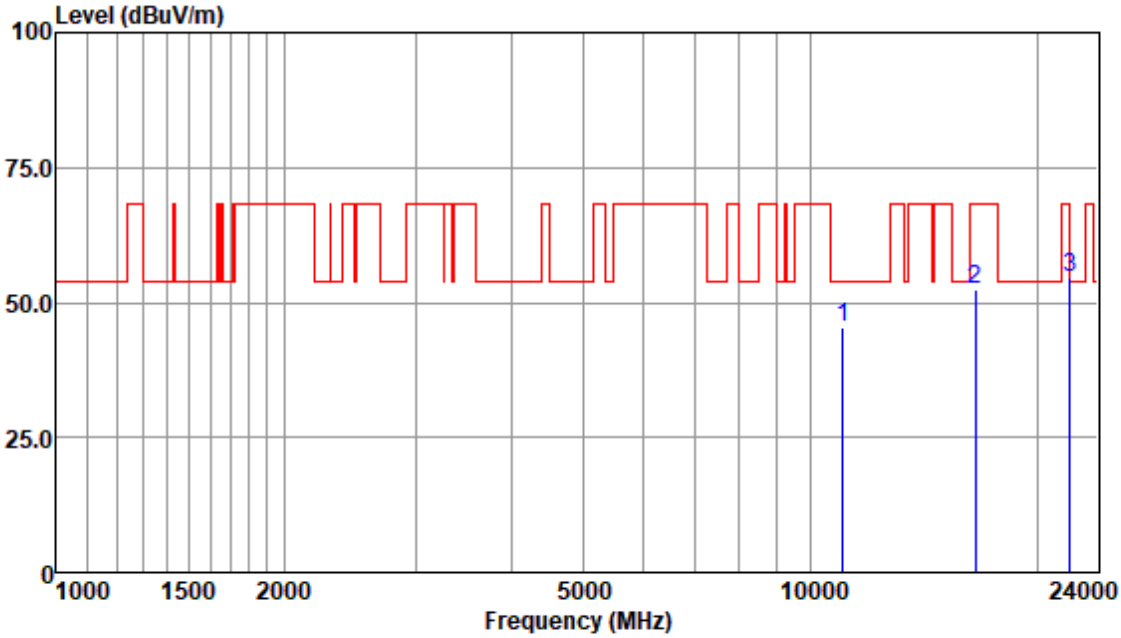


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10640.00	37.95	35.10	6.68	34.61	45.12	54.00	-8.88	Peak
15960.00	41.50	37.74	8.60	36.42	51.42	54.00	-2.58	Peak
21280.00	32.43	43.69	12.18	36.07	52.23	54.00	-1.77	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

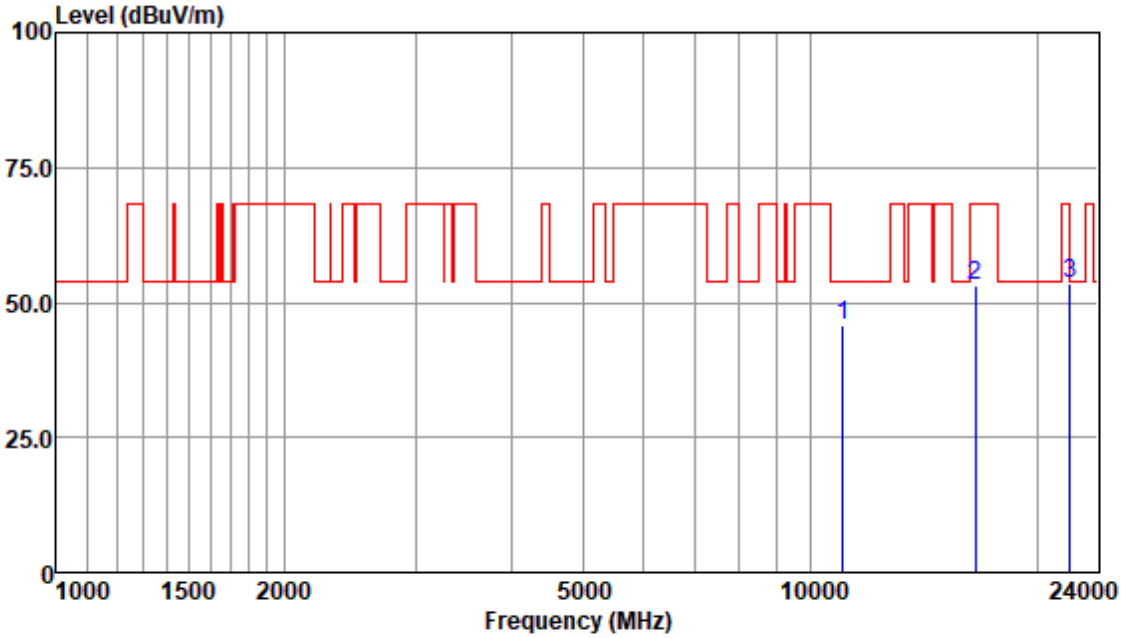


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11000.00	38.03	35.42	6.89	35.08	45.26	54.00	-8.74	Peak
16500.00	40.78	38.47	9.26	36.11	52.40	68.20	-15.80	Peak
22000.00	34.09	44.07	12.56	36.11	54.61	68.20	-13.59	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

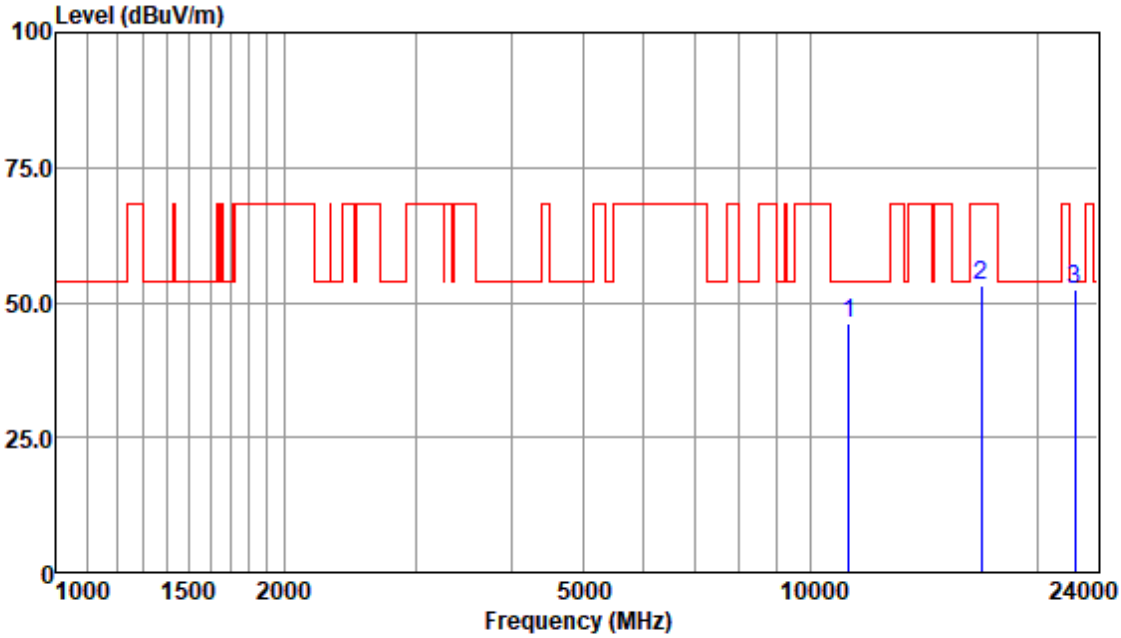


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11000.00	38.52	35.42	6.89	35.08	45.75	54.00	-8.25	Peak
16500.00	41.58	38.47	9.26	36.11	53.20	68.20	-15.00	Peak
22000.00	33.00	44.07	12.56	36.11	53.52	68.20	-14.68	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

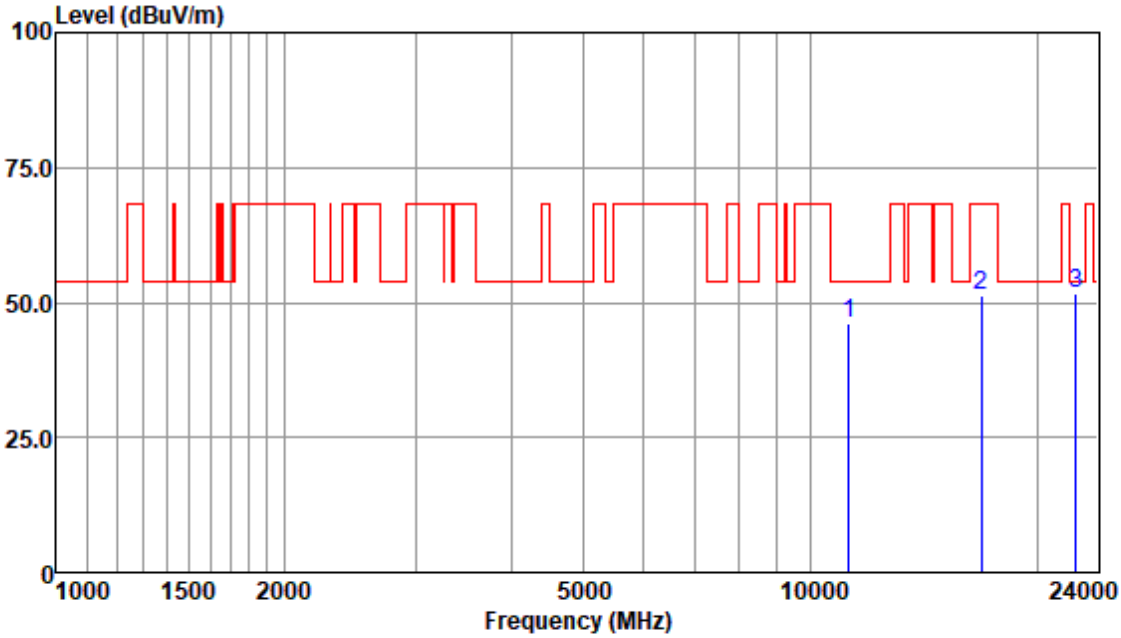


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11200.00	38.83	35.56	7.04	35.33	46.10	54.00	-7.90	Peak
16800.00	40.37	39.31	9.66	36.03	53.31	68.20	-14.89	Peak
22379.30	31.45	44.24	12.73	36.13	52.29	54.00	-1.71	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

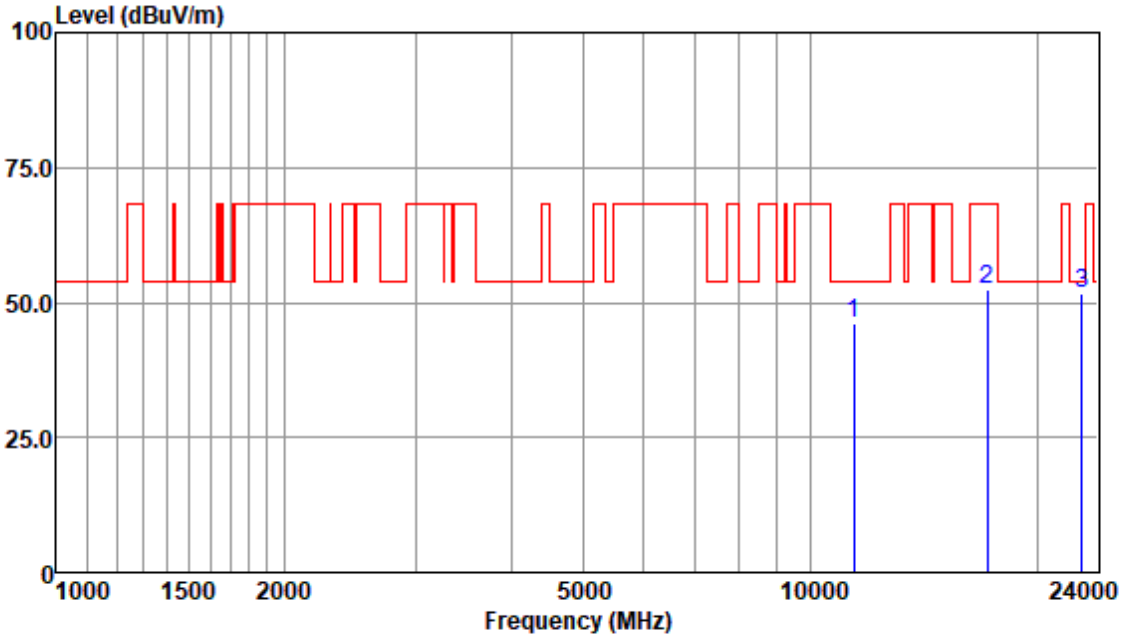


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11200.00	38.95	35.56	7.04	35.33	46.22	54.00	-7.78	Peak
16800.00	38.35	39.31	9.66	36.03	51.29	68.20	-16.91	Peak
22400.00	30.83	44.24	12.73	36.13	51.67	54.00	-2.33	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

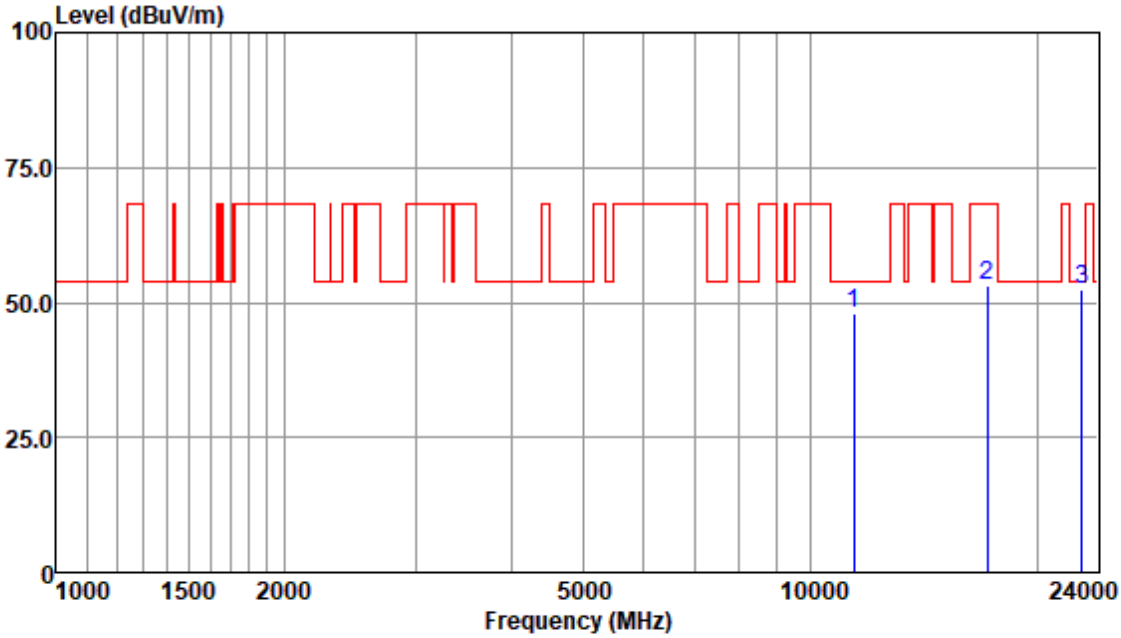


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11400.00	38.69	35.73	7.28	35.74	45.96	54.00	-8.04	Peak
17100.00	38.38	40.12	9.99	36.03	52.46	68.20	-15.74	Peak
22800.00	30.52	44.45	12.94	36.15	51.76	54.00	-2.24	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

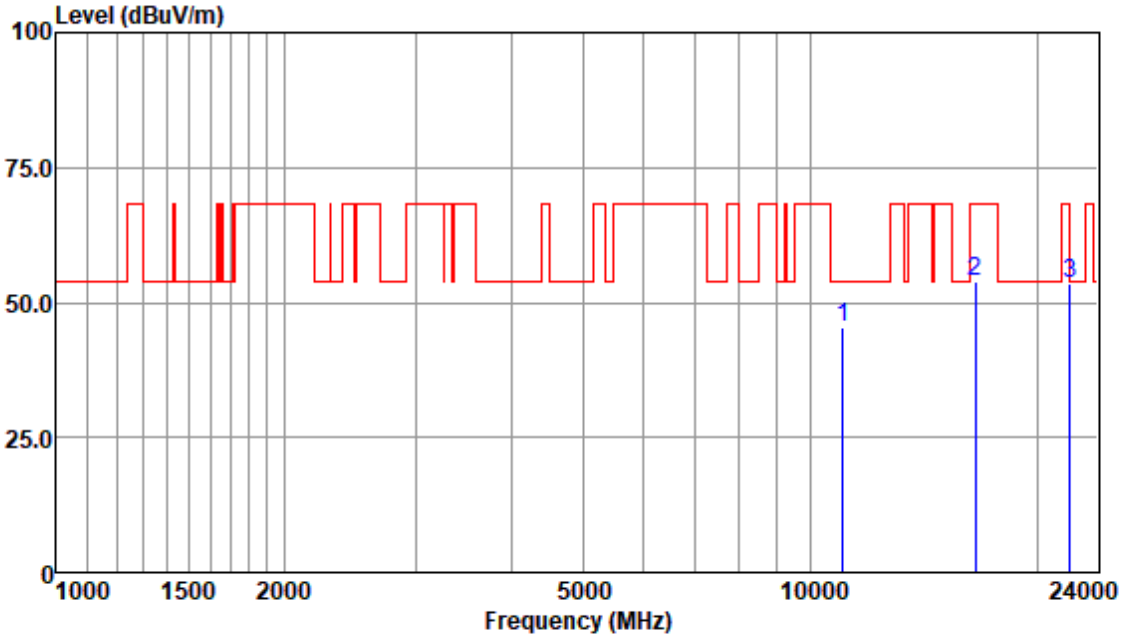


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11400.00	40.87	35.73	7.28	35.74	48.14	54.00	-5.86	Peak
17100.00	39.05	40.12	9.99	36.03	53.13	68.20	-15.07	Peak
22800.00	31.33	44.45	12.94	36.15	52.57	54.00	-1.43	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

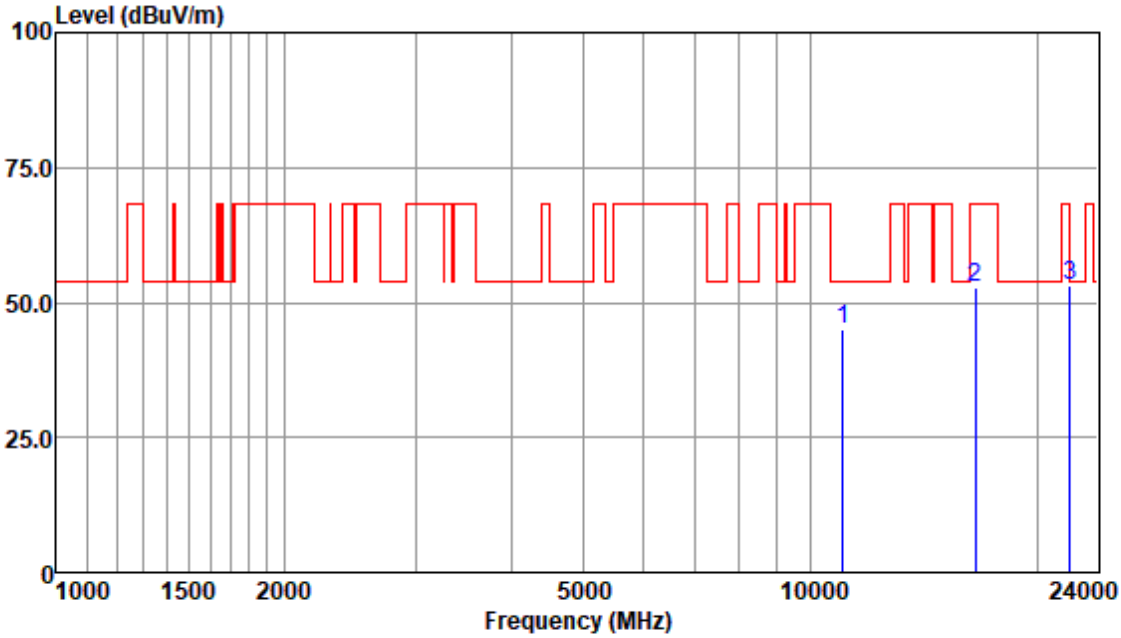


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11000.00	38.26	35.42	6.89	35.08	45.49	54.00	-8.51	Peak
16500.00	42.07	38.47	9.26	36.11	53.69	68.20	-14.51	Peak
22000.00	32.81	44.07	12.56	36.11	53.33	68.20	-14.87	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

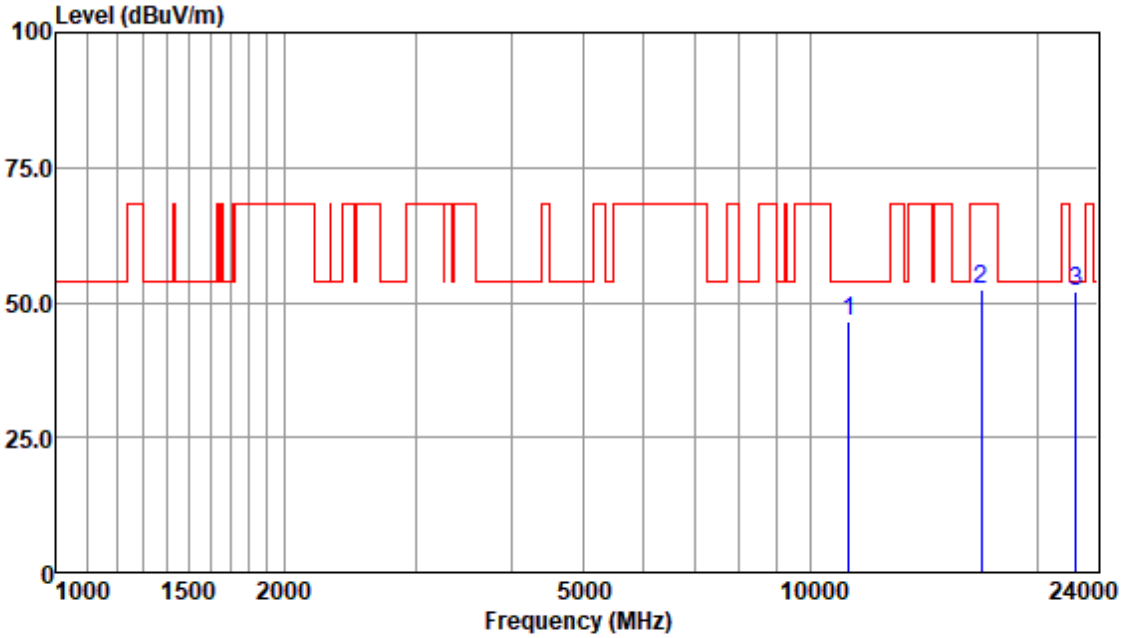


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11000.00	37.92	35.42	6.89	35.08	45.15	54.00	-8.85	Peak
16500.00	41.22	38.47	9.26	36.11	52.84	68.20	-15.36	Peak
22000.00	32.80	44.07	12.56	36.11	53.32	68.20	-14.88	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

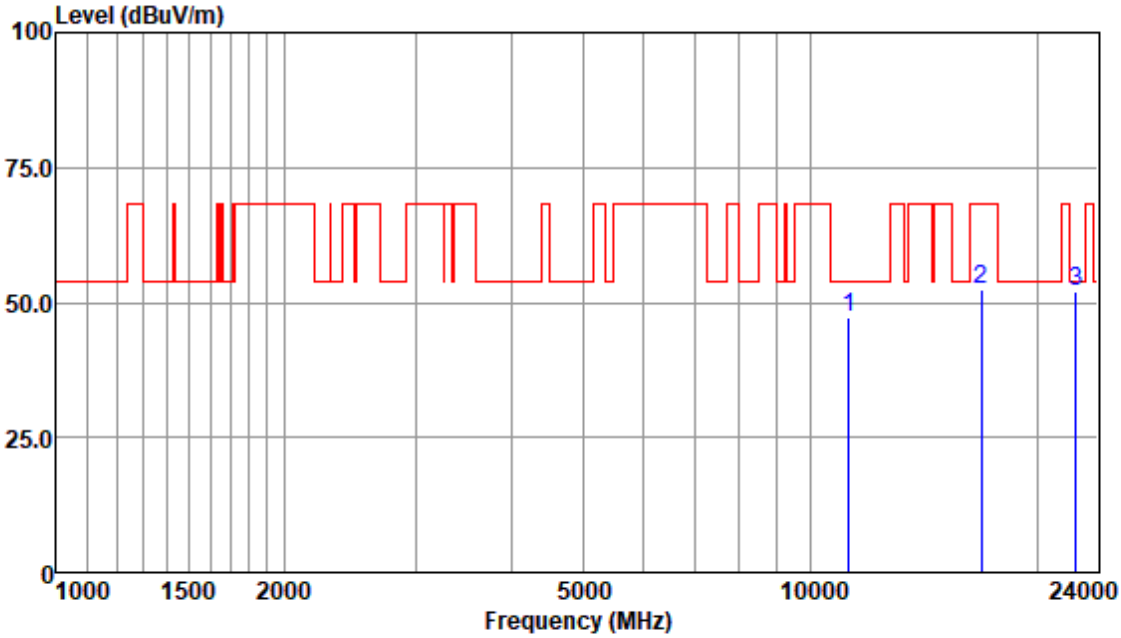


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11200.00	39.08	35.56	7.04	35.33	46.35	54.00	-7.65	Peak
16800.00	39.48	39.31	9.66	36.03	52.42	68.20	-15.78	Peak
22400.00	31.22	44.24	12.73	36.13	52.06	54.00	-1.94	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

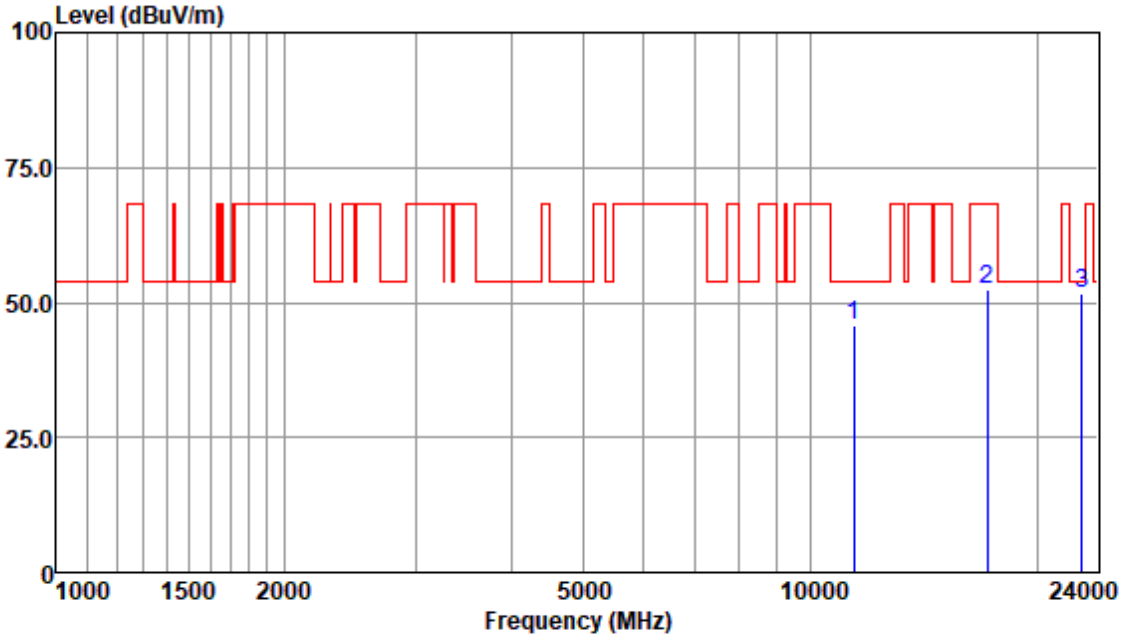


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11200.00	39.95	35.56	7.04	35.33	47.22	54.00	-6.78	Peak
16800.00	39.58	39.31	9.66	36.03	52.52	68.20	-15.68	Peak
22400.00	31.26	44.24	12.73	36.13	52.10	54.00	-1.90	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

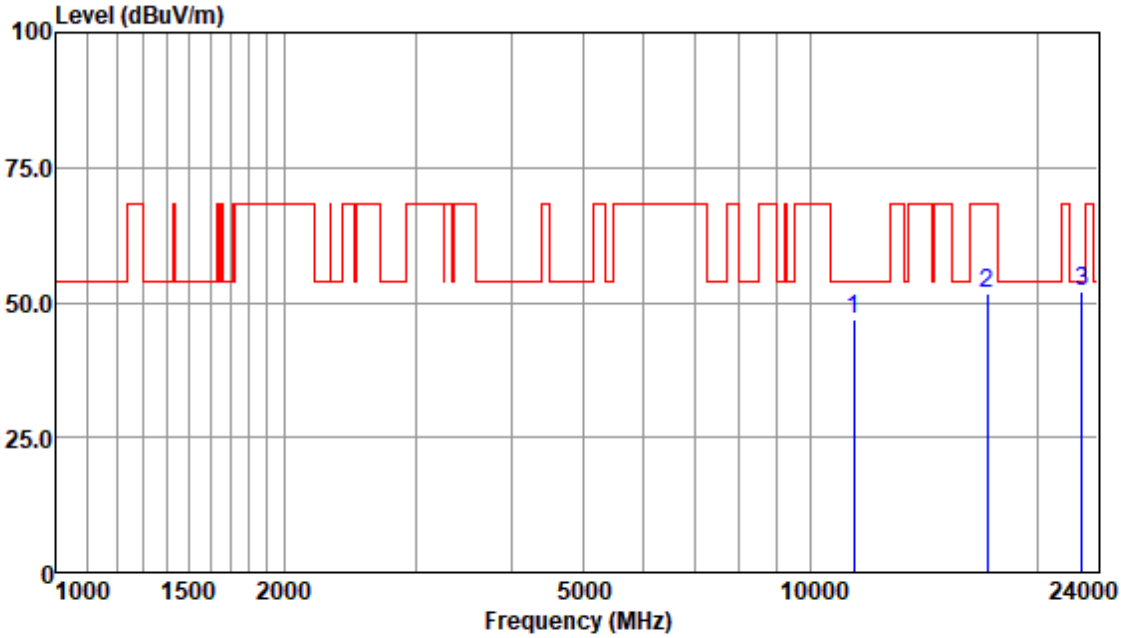


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11400.00	38.52	35.73	7.28	35.74	45.79	54.00	-8.21	Peak
17100.00	38.32	40.12	9.99	36.03	52.40	68.20	-15.80	Peak
22800.00	30.29	44.45	12.94	36.15	51.53	54.00	-2.47	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

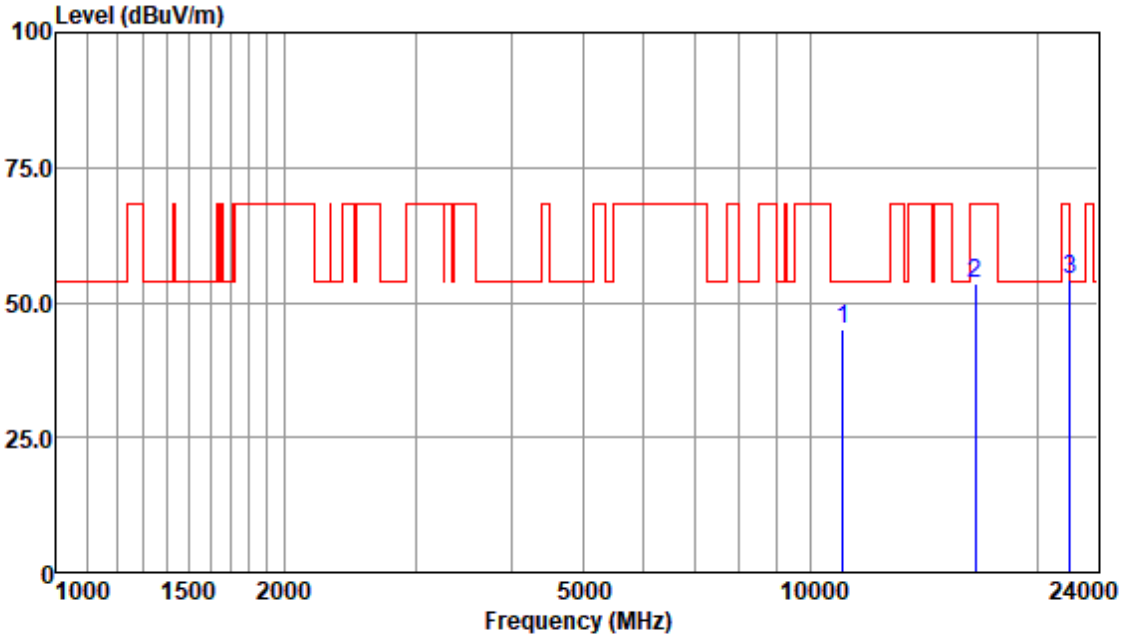


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11400.00	39.57	35.73	7.28	35.74	46.84	54.00	-7.16	Peak
17100.00	37.41	40.12	9.99	36.03	51.49	68.20	-16.71	Peak
22800.00	30.74	44.45	12.94	36.15	51.98	54.00	-2.02	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

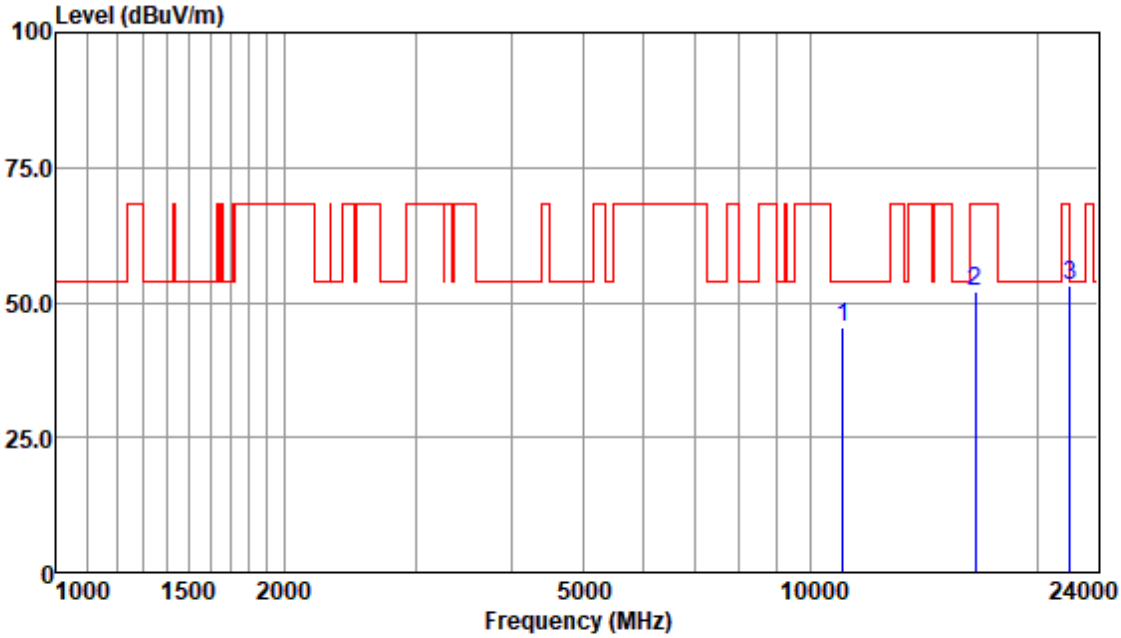


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11000.00	37.83	35.42	6.89	35.08	45.06	54.00	-8.94	Peak
16500.00	42.02	38.47	9.26	36.11	53.64	68.20	-14.56	Peak
22000.00	33.61	44.07	12.56	36.11	54.13	68.20	-14.07	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

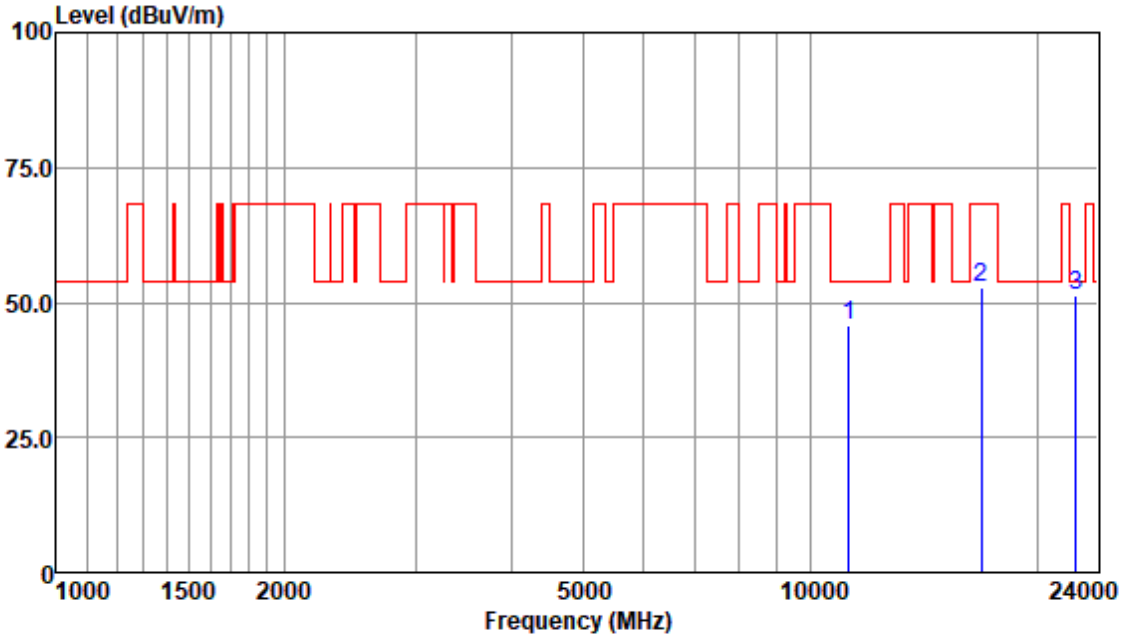


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11000.00	38.17	35.42	6.89	35.08	45.40	54.00	-8.60	Peak
16500.00	40.59	38.47	9.26	36.11	52.21	68.20	-15.99	Peak
22000.00	32.46	44.07	12.56	36.11	52.98	68.20	-15.22	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

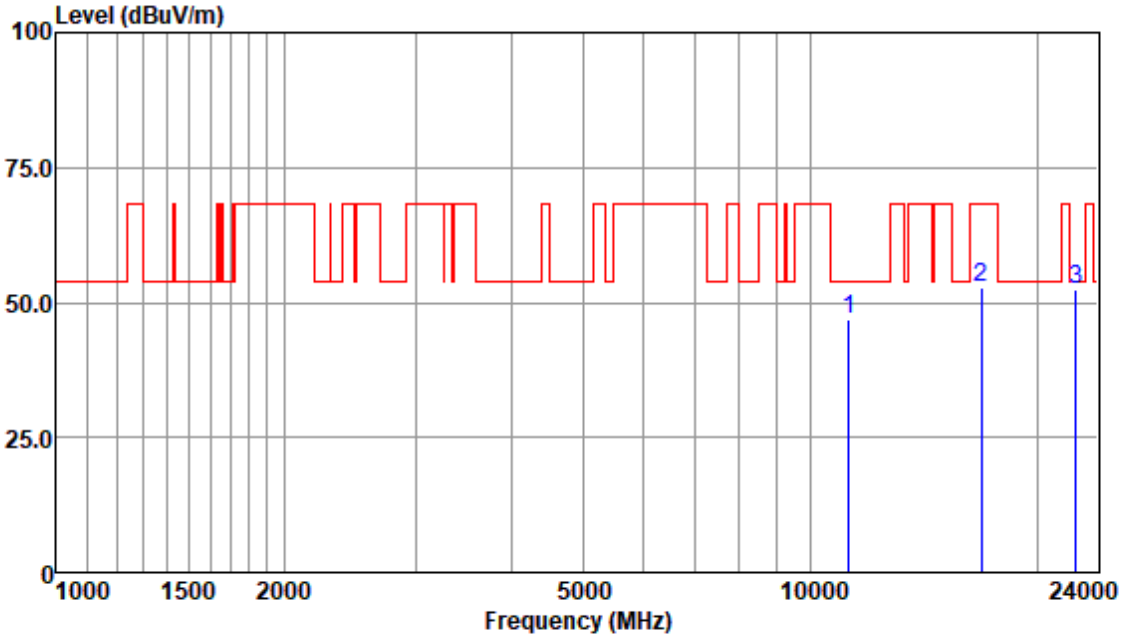


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11200.00	38.54	35.56	7.04	35.33	45.81	54.00	-8.19	Peak
16800.00	39.94	39.31	9.66	36.03	52.88	68.20	-15.32	Peak
22400.00	30.57	44.24	12.73	36.13	51.41	54.00	-2.59	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

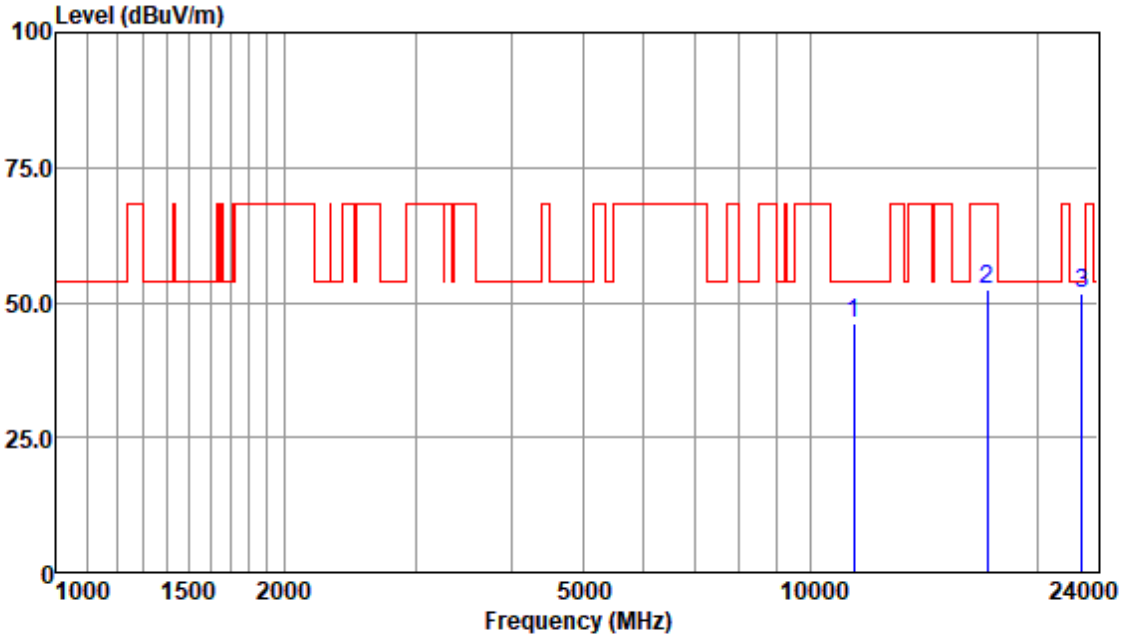


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11200.00	39.42	35.56	7.04	35.33	46.69	54.00	-7.31	Peak
16800.00	39.94	39.31	9.66	36.03	52.88	68.20	-15.32	Peak
22400.00	31.51	44.24	12.73	36.13	52.35	54.00	-1.65	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

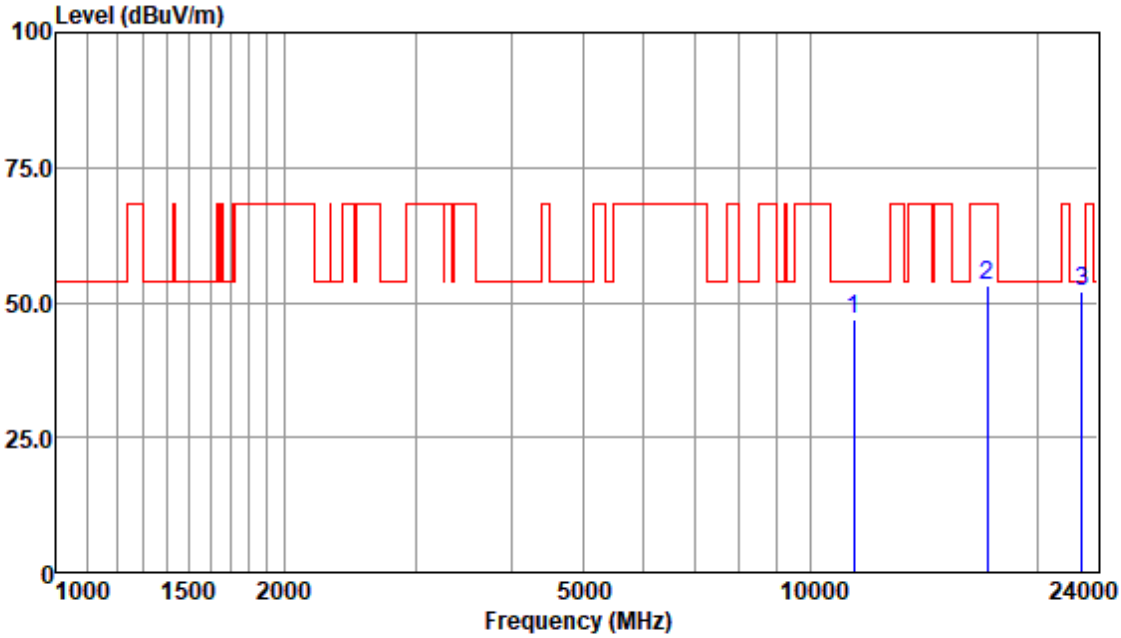


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11400.00	38.86	35.73	7.28	35.74	46.13	54.00	-7.87	Peak
17100.00	38.50	40.12	9.99	36.03	52.58	68.20	-15.62	Peak
22800.00	30.55	44.45	12.94	36.15	51.79	54.00	-2.21	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

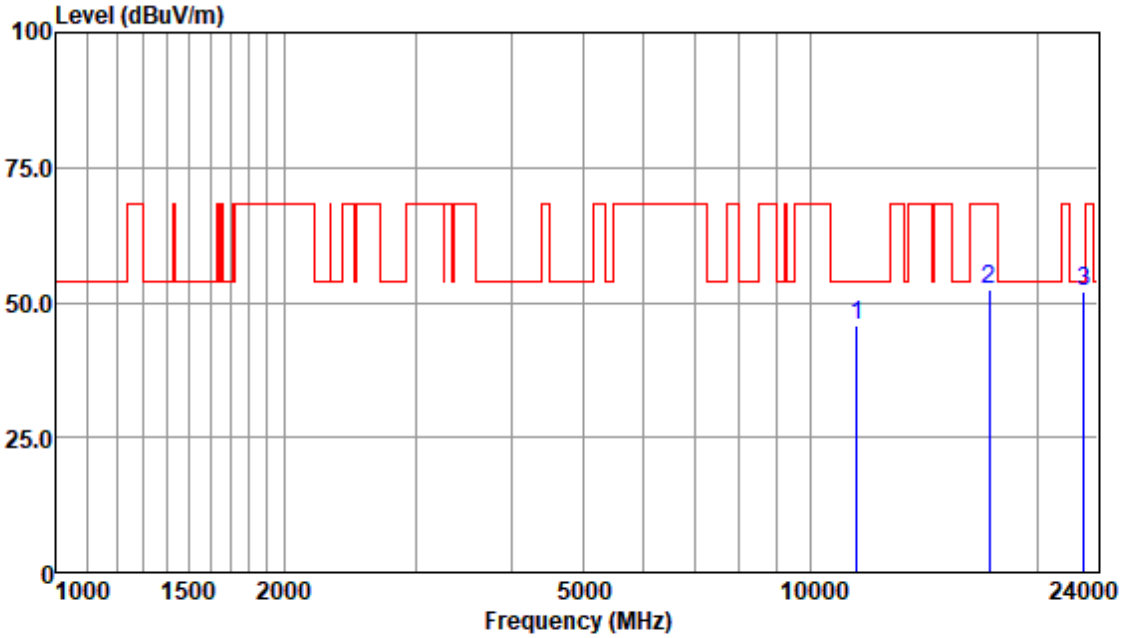


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11400.00	39.62	35.73	7.28	35.74	46.89	54.00	-7.11	Peak
17100.00	38.99	40.12	9.99	36.03	53.07	68.20	-15.13	Peak
22800.00	30.64	44.45	12.94	36.15	51.88	54.00	-2.12	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:Low

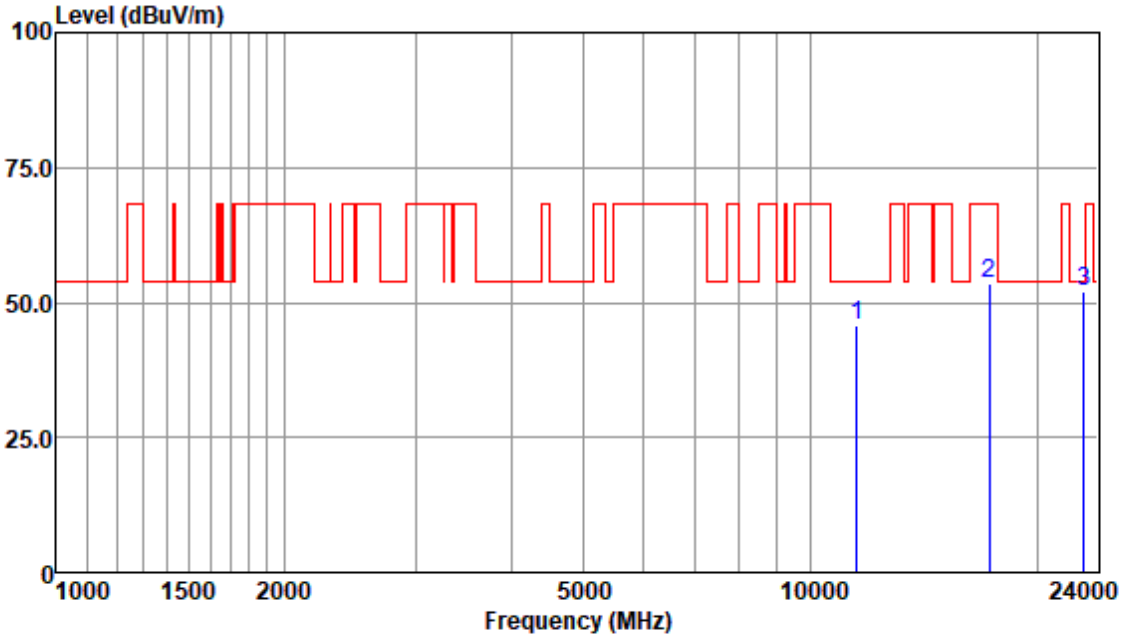


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.00	38.32	35.79	7.36	35.88	45.59	54.00	-8.41	Peak
17235.00	37.90	40.60	10.19	36.14	52.55	68.20	-15.65	Peak
22980.00	30.51	44.52	13.01	36.15	51.89	54.00	-2.11	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:Low

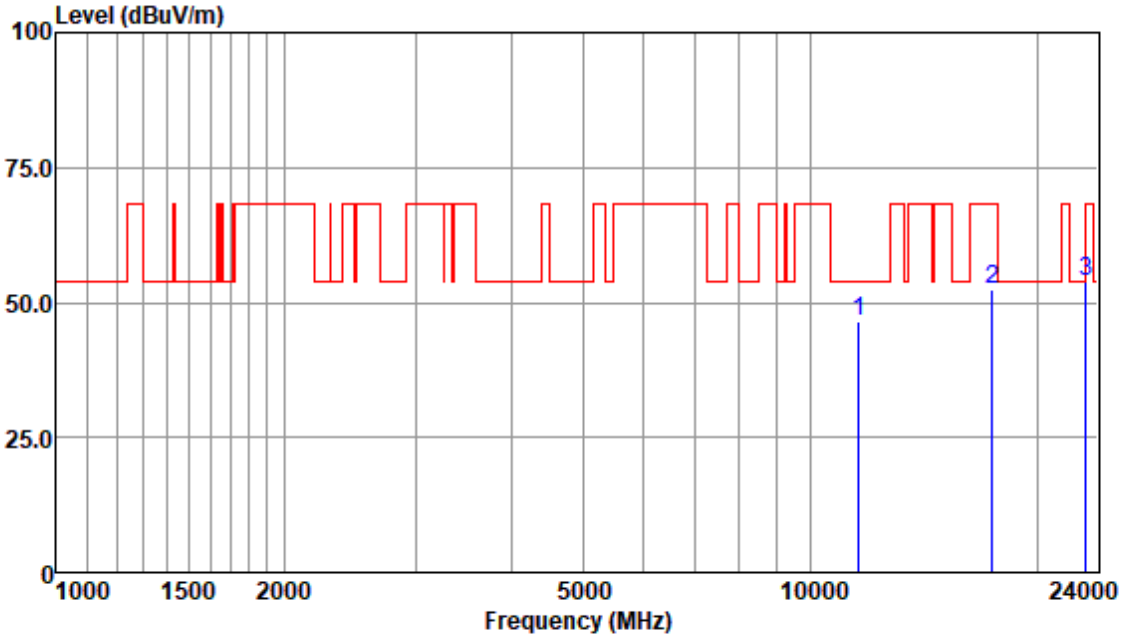


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.00	38.33	35.79	7.36	35.88	45.60	54.00	-8.40	Peak
17235.00	38.79	40.60	10.19	36.14	53.44	68.20	-14.76	Peak
22980.00	30.75	44.52	13.01	36.15	52.13	54.00	-1.87	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:middle

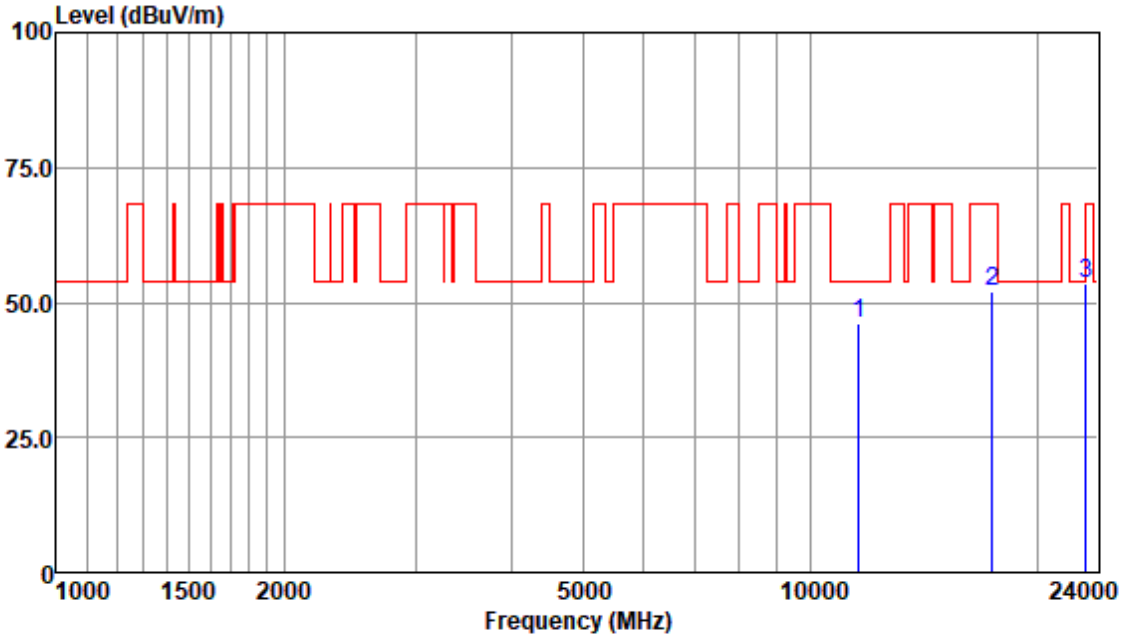


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.00	39.36	35.78	7.44	36.02	46.56	54.00	-7.44	Peak
17355.00	37.47	40.95	10.32	36.25	52.49	68.20	-15.71	Peak
23140.00	32.21	44.62	13.12	36.16	53.79	68.20	-14.41	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:middle

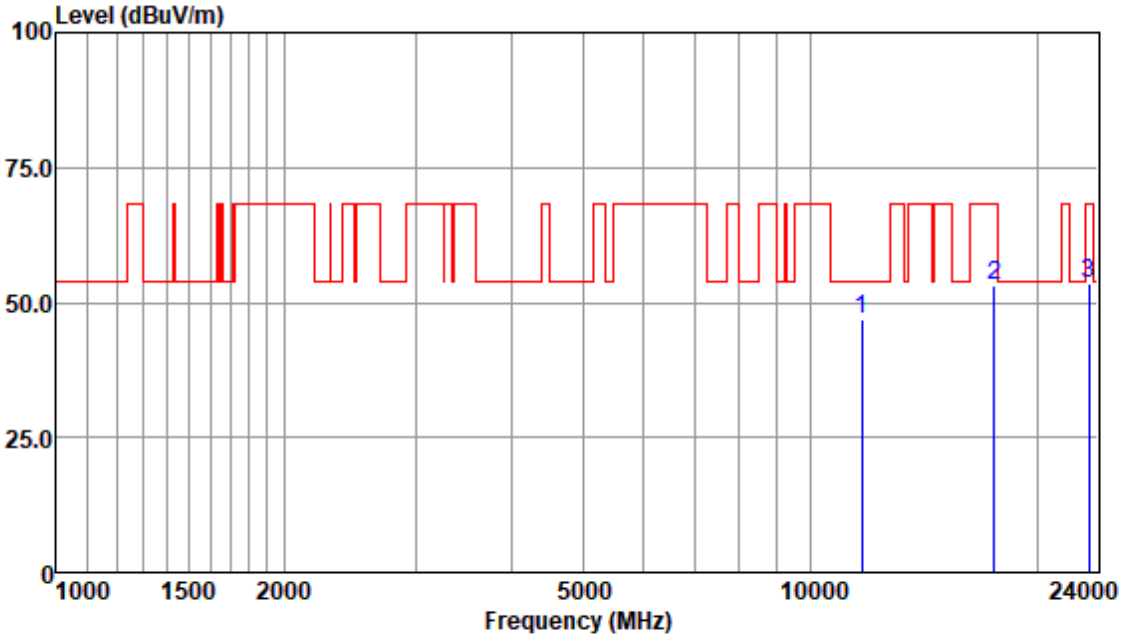


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.00	38.96	35.78	7.44	36.02	46.16	54.00	-7.84	Peak
17355.00	37.14	40.95	10.32	36.25	52.16	68.20	-16.04	Peak
23140.00	31.96	44.62	13.12	36.16	53.54	68.20	-14.66	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:High

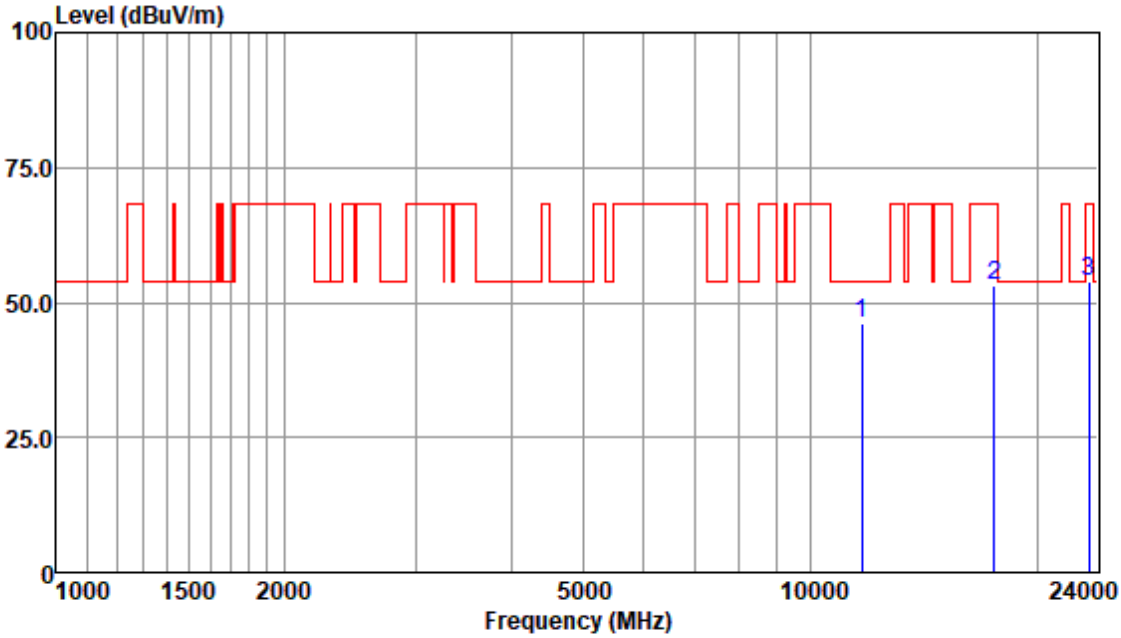


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.00	39.75	35.77	7.56	36.23	46.85	54.00	-7.15	Peak
17475.00	37.65	41.30	10.45	36.37	53.03	68.20	-15.17	Peak
23300.00	31.78	44.69	13.19	36.17	53.49	68.20	-14.71	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:High

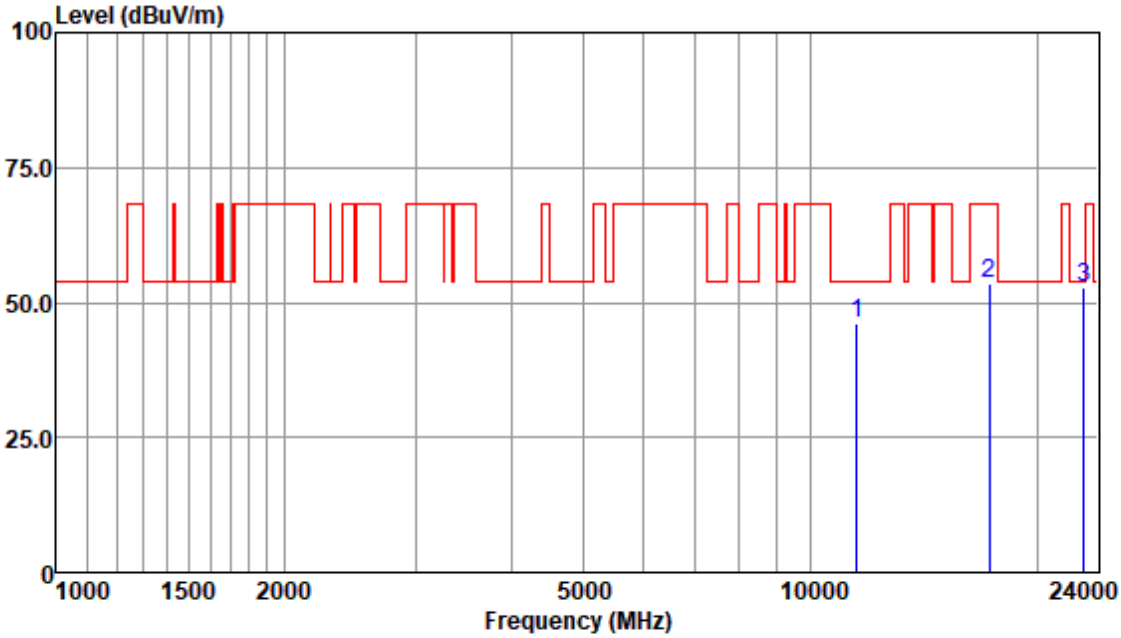


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.00	39.05	35.77	7.56	36.23	46.15	54.00	-7.85	Peak
17475.00	37.58	41.30	10.45	36.37	52.96	68.20	-15.24	Peak
23300.00	32.17	44.69	13.19	36.17	53.88	68.20	-14.32	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

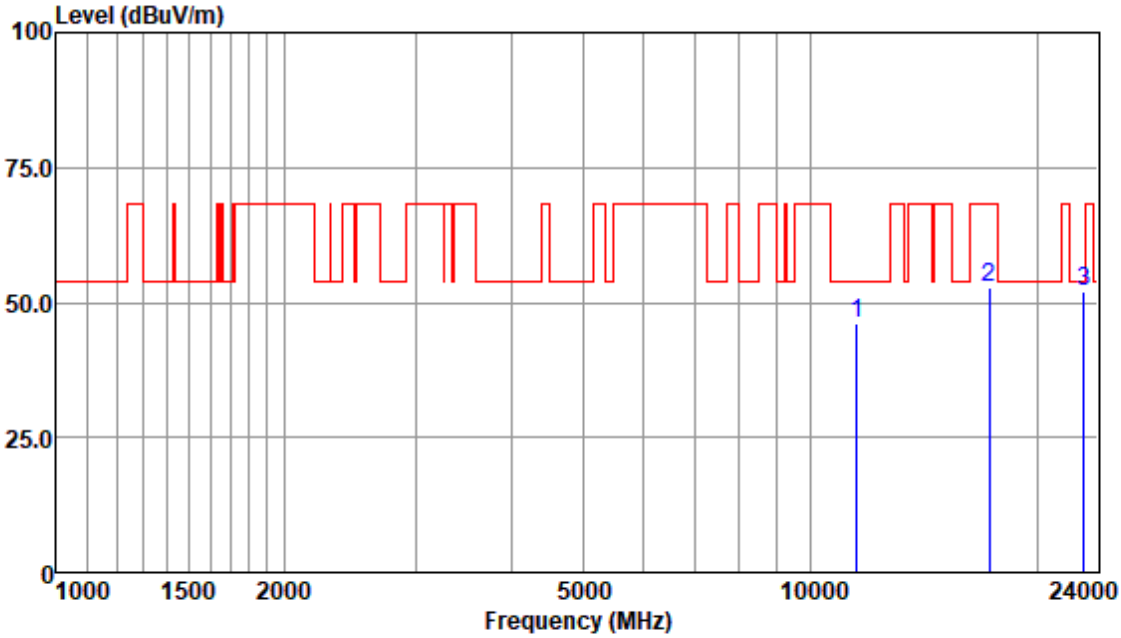


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.00	38.85	35.79	7.36	35.88	46.12	54.00	-7.88	Peak
17235.00	38.73	40.60	10.19	36.14	53.38	68.20	-14.82	Peak
22980.00	31.32	44.52	13.01	36.15	52.70	54.00	-1.30	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

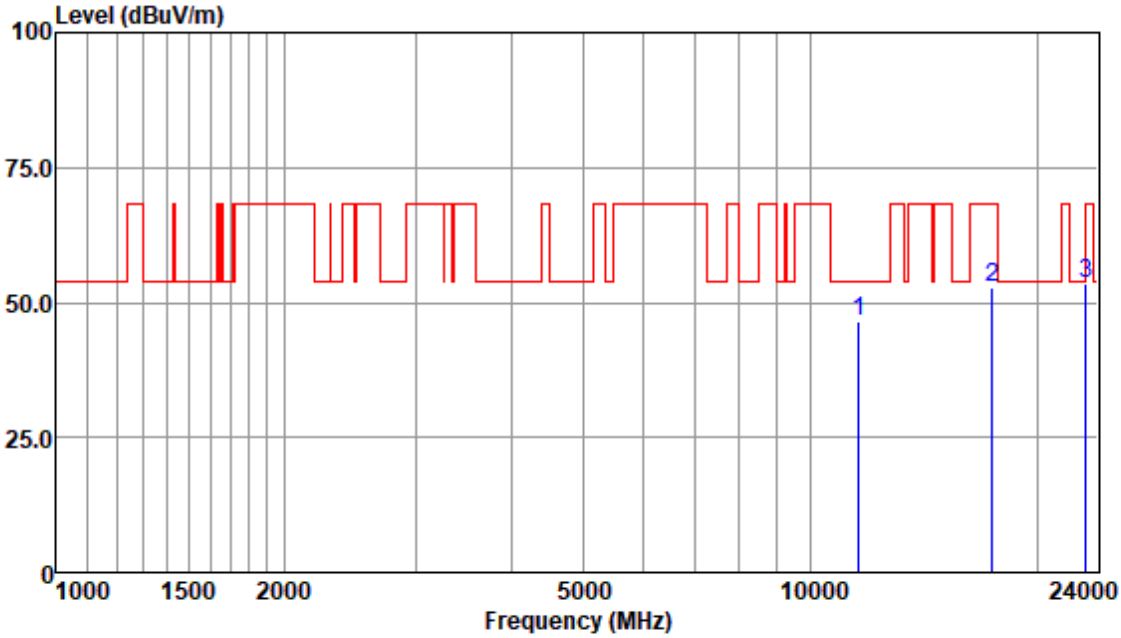


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.00	38.92	35.79	7.36	35.88	46.19	54.00	-7.81	Peak
17235.00	37.98	40.60	10.19	36.14	52.63	68.20	-15.57	Peak
22980.00	30.69	44.52	13.01	36.15	52.07	54.00	-1.93	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

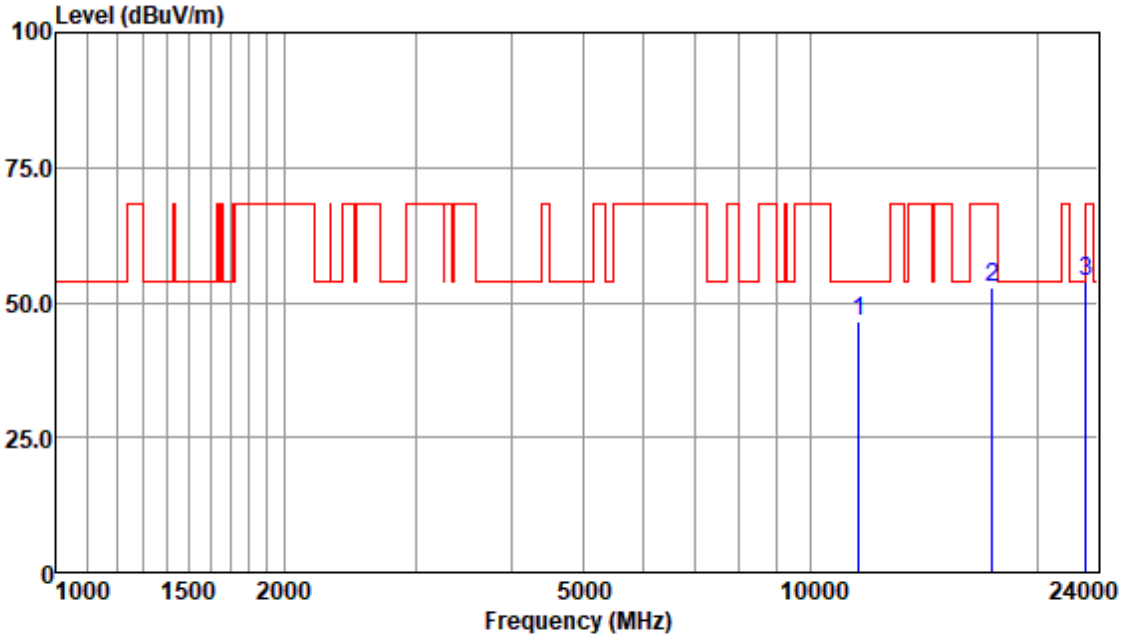


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.00	39.20	35.78	7.44	36.02	46.40	54.00	-7.60	Peak
17355.00	37.89	40.95	10.32	36.25	52.91	68.20	-15.29	Peak
23140.00	31.83	44.62	13.12	36.16	53.41	68.20	-14.79	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

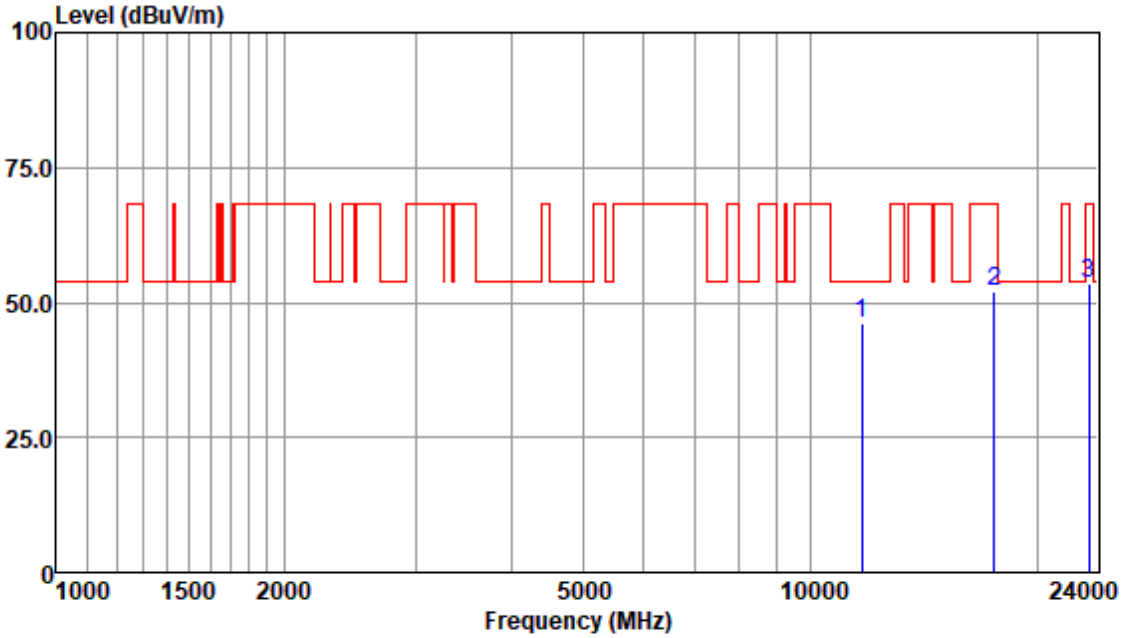


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.00	39.25	35.78	7.44	36.02	46.45	54.00	-7.55	Peak
17355.00	37.92	40.95	10.32	36.25	52.94	68.20	-15.26	Peak
23140.00	32.23	44.62	13.12	36.16	53.81	68.20	-14.39	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

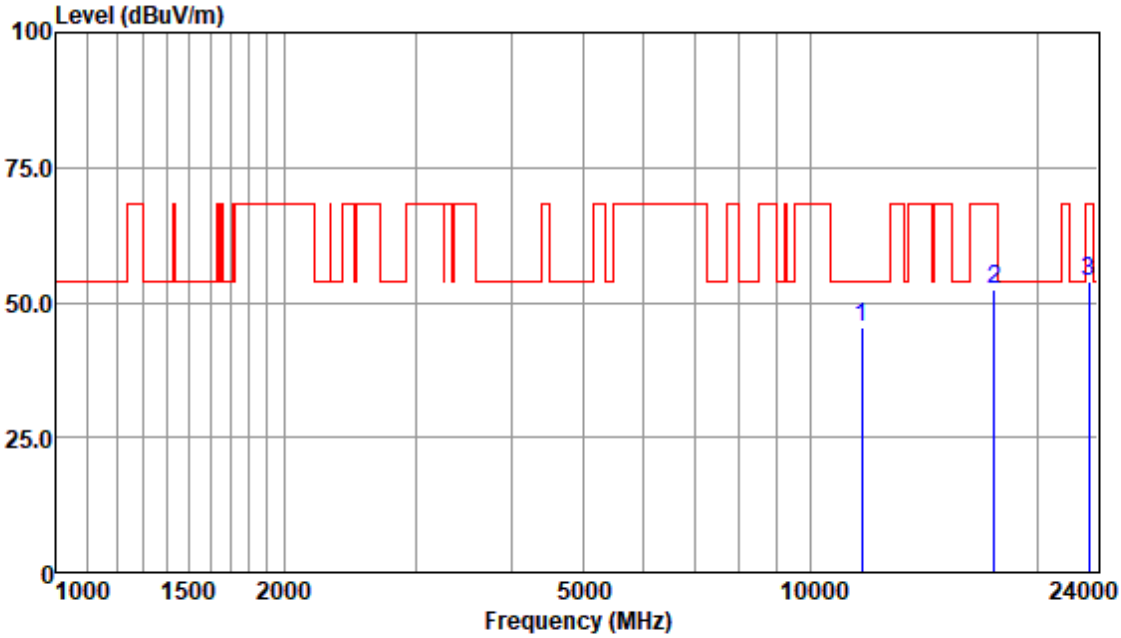


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.00	39.09	35.77	7.56	36.23	46.19	54.00	-7.81	Peak
17475.00	36.83	41.30	10.45	36.37	52.21	68.20	-15.99	Peak
23300.00	31.94	44.69	13.19	36.17	53.65	68.20	-14.55	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

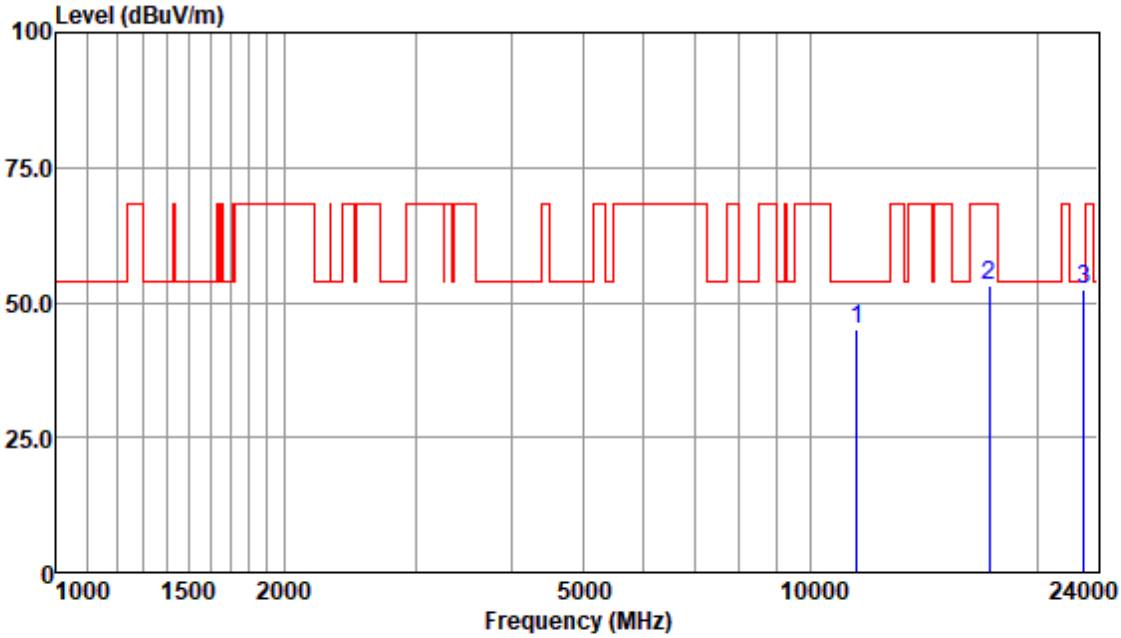


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.00	38.13	35.77	7.56	36.23	45.23	54.00	-8.77	Peak
17475.00	36.99	41.30	10.45	36.37	52.37	68.20	-15.83	Peak
23300.00	32.18	44.69	13.19	36.17	53.89	68.20	-14.31	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

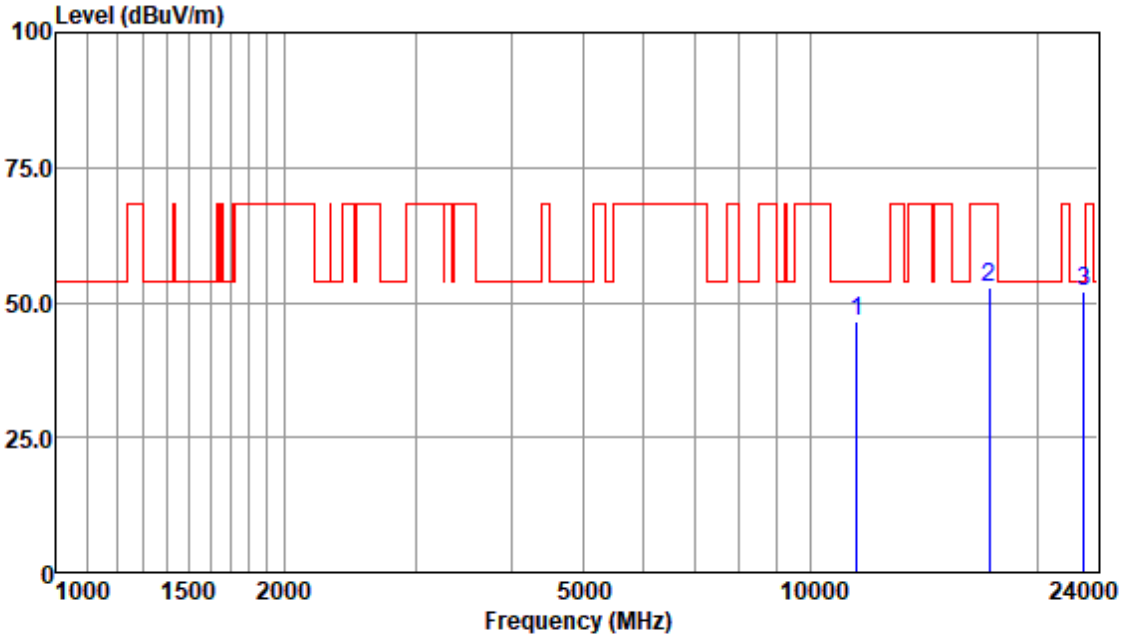


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.00	37.91	35.79	7.36	35.88	45.18	54.00	-8.82	Peak
17235.00	38.32	40.60	10.19	36.14	52.97	68.20	-15.23	Peak
22980.00	30.91	44.52	13.01	36.15	52.29	54.00	-1.71	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

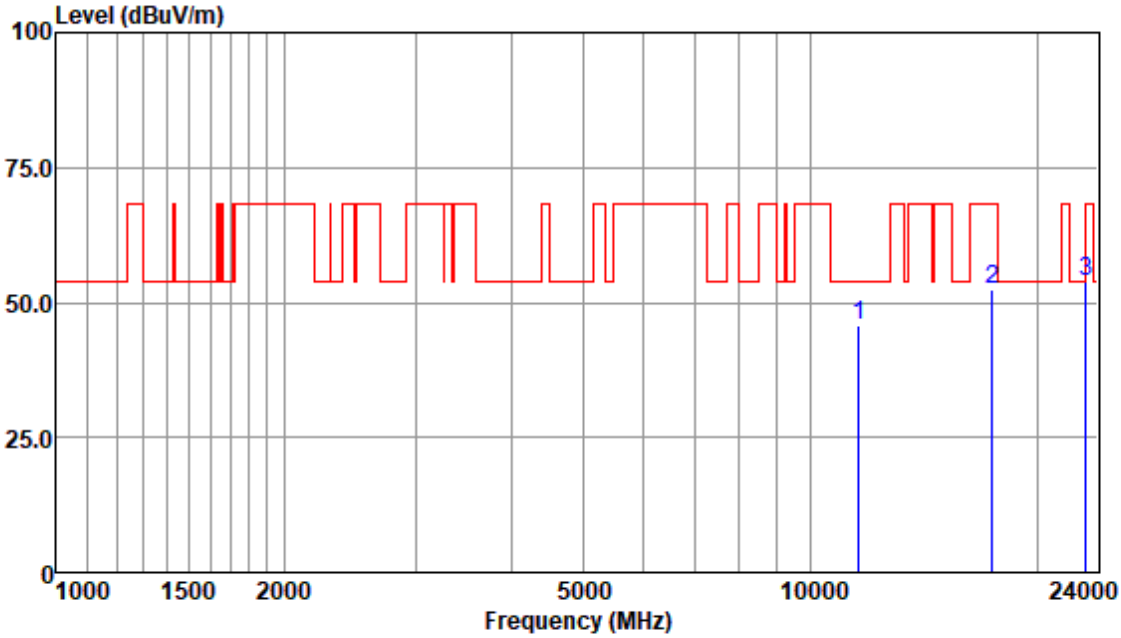


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.00	39.18	35.79	7.36	35.88	46.45	54.00	-7.55	Peak
17235.00	38.17	40.60	10.19	36.14	52.82	68.20	-15.38	Peak
22980.00	30.83	44.52	13.01	36.15	52.21	54.00	-1.79	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

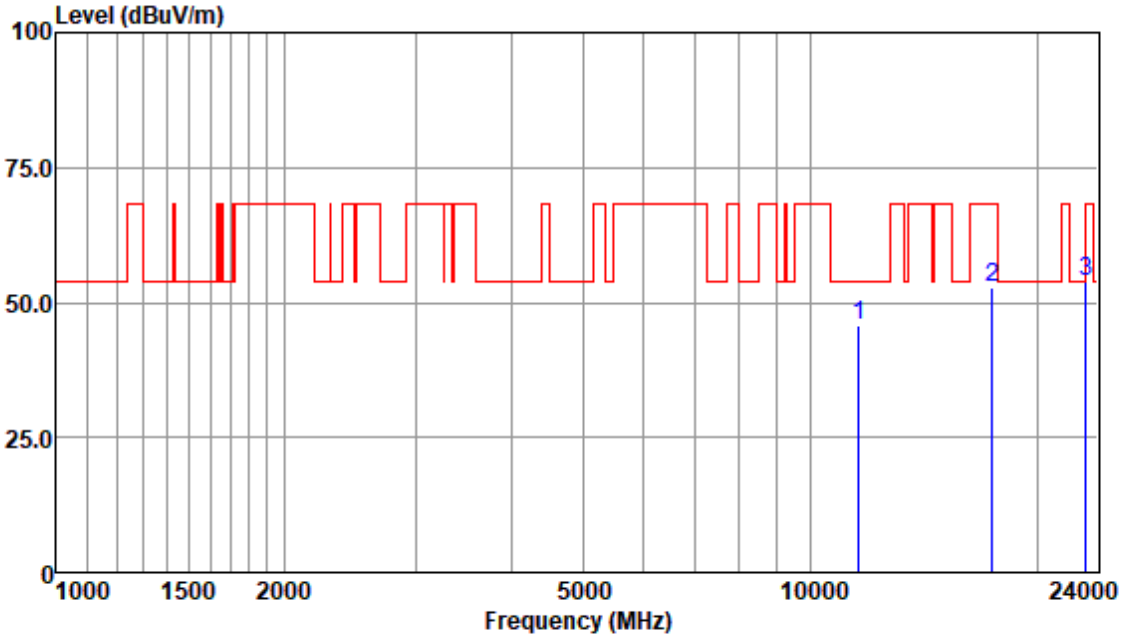


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.00	38.72	35.78	7.44	36.02	45.92	54.00	-8.08	Peak
17355.00	37.50	40.95	10.32	36.25	52.52	68.20	-15.68	Peak
23140.00	32.37	44.62	13.12	36.16	53.95	68.20	-14.25	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

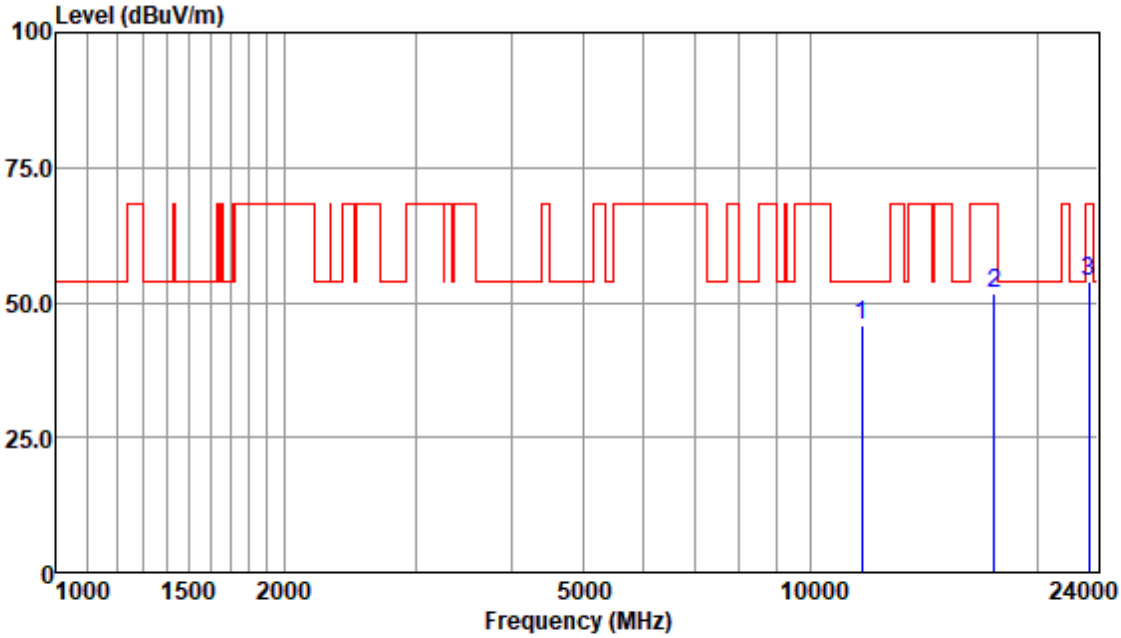


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.00	38.68	35.78	7.44	36.02	45.88	54.00	-8.12	Peak
17355.00	37.92	40.95	10.32	36.25	52.94	68.20	-15.26	Peak
23140.00	32.42	44.62	13.12	36.16	54.00	68.20	-14.20	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

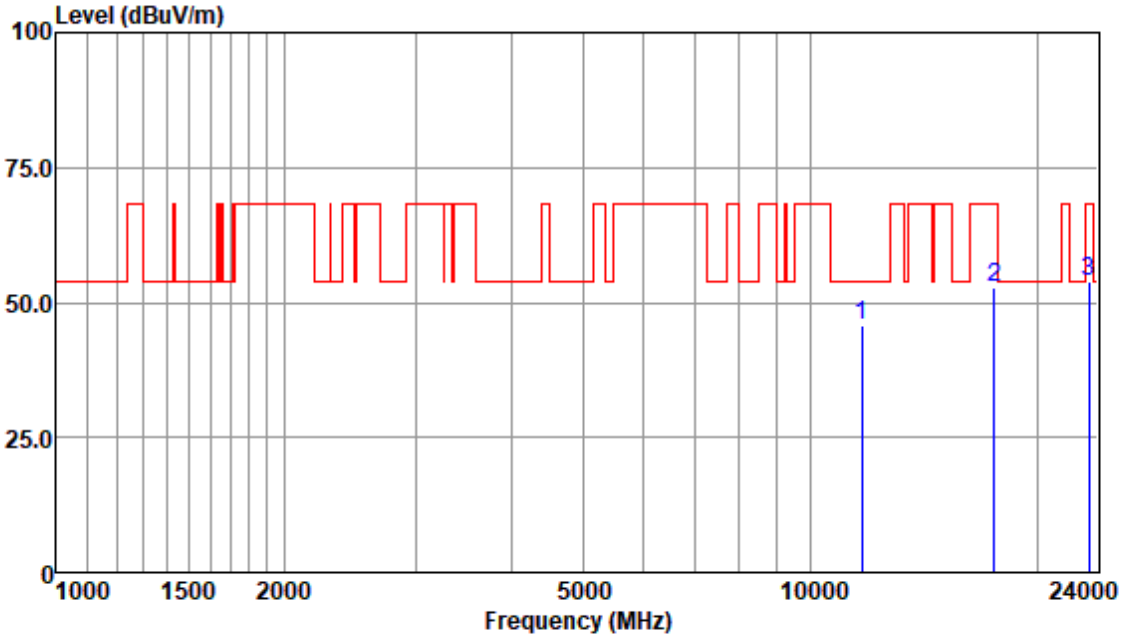


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.00	38.82	35.77	7.56	36.23	45.92	54.00	-8.08	Peak
17475.00	36.14	41.30	10.45	36.37	51.52	68.20	-16.68	Peak
23300.00	32.24	44.69	13.19	36.17	53.95	68.20	-14.25	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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



Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.00	38.78	35.77	7.56	36.23	45.88	54.00	-8.12	Peak
17475.00	37.52	41.30	10.45	36.37	52.90	68.20	-15.30	Peak
23300.00	32.12	44.69	13.19	36.17	53.83	68.20	-14.37	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

7.9 Radiated Emissions which fall in the restricted bands

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

Test Method: KDB 789033 D02 II G

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3
Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.		

7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

Test mode

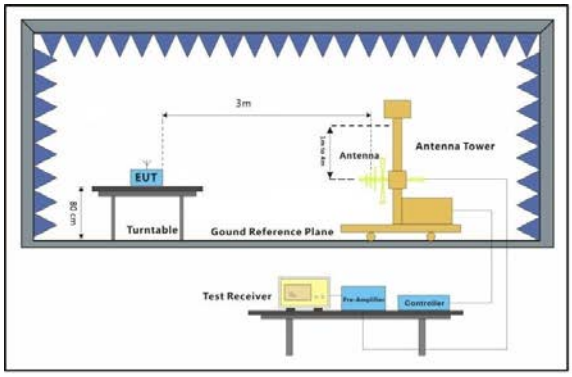
e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

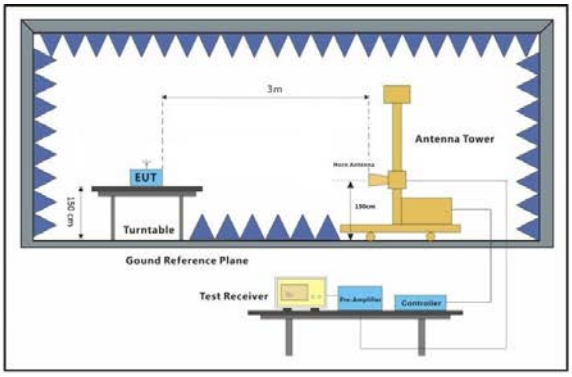
f:TX+charging mode (Band 2A)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

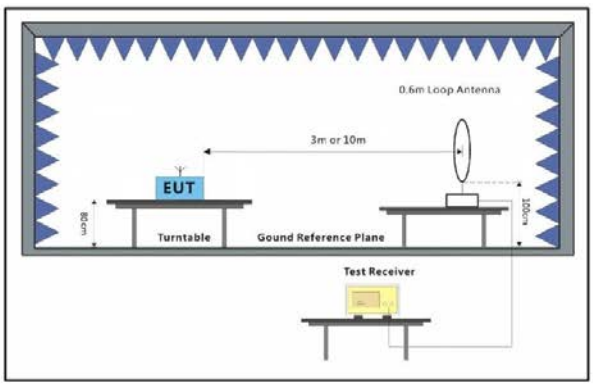
g:TX+charging mode (Band 2C)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

7.9.2 Test Setup Diagram







7.9.3 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.

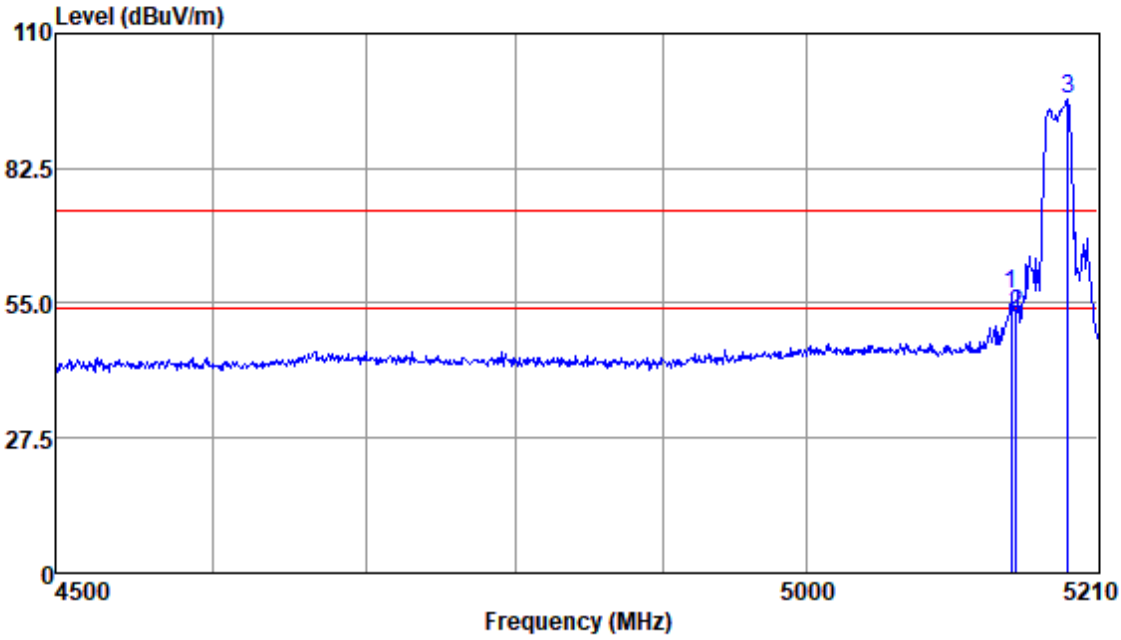
j. Repeat above procedures until all frequencies measured was complete.

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

2) Prescan for each adapter only the worst case adapter (Model: IN-CA-1804D) data was show in the test report

Above 1GHz

Mode:e; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:Low

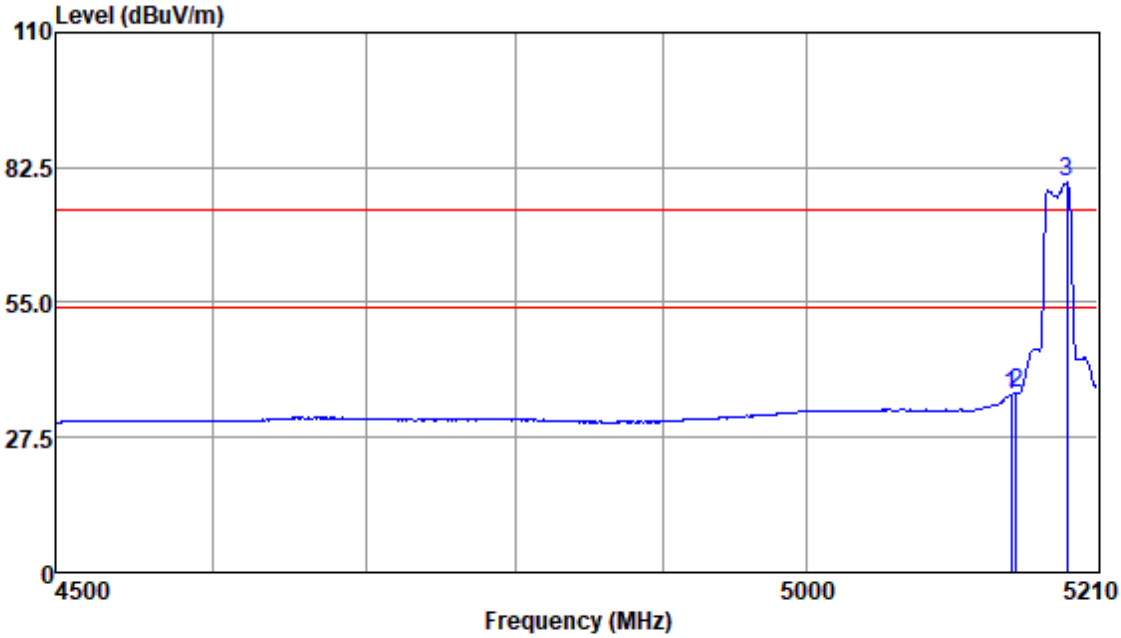


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5146.28	56.56	34.13	5.06	38.81	56.94	74.00	-17.06	Peak
5150.00	52.19	34.13	5.06	38.81	52.57	74.00	-21.43	Peak
5187.91	96.14	34.13	4.96	38.79	96.44	74.00	22.44	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:Low

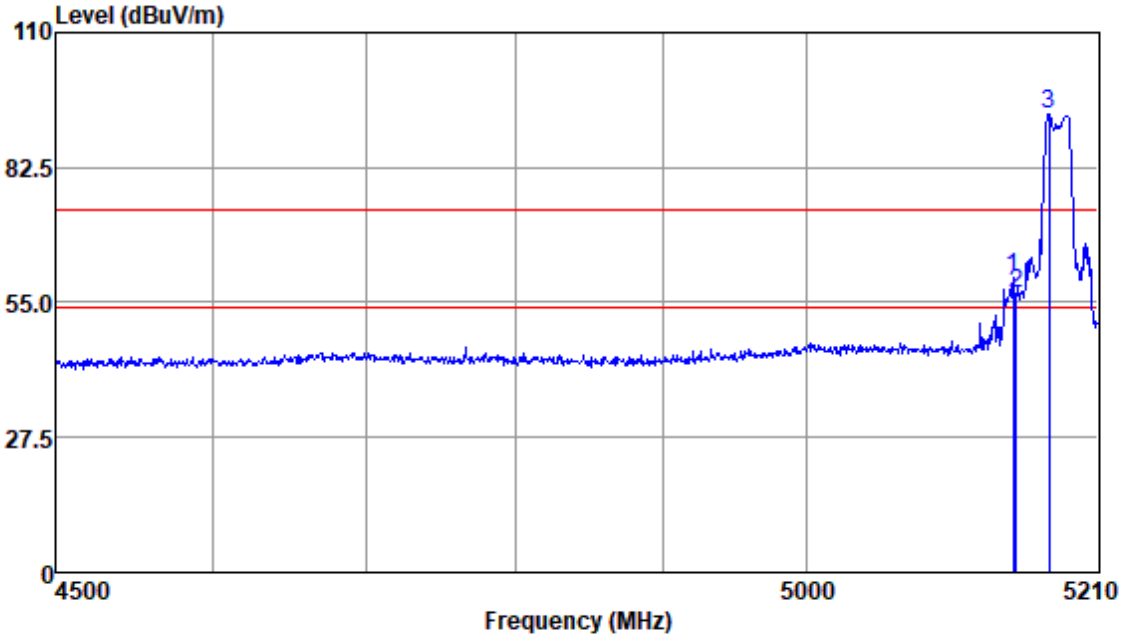


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5146.28	35.94	34.13	5.06	38.81	36.32	74.00	-37.68	Average
5150.00	36.23	34.13	5.06	38.81	36.61	74.00	-37.39	Average
5187.15	79.08	34.13	4.96	38.79	79.38	74.00	5.38	Average

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:Low

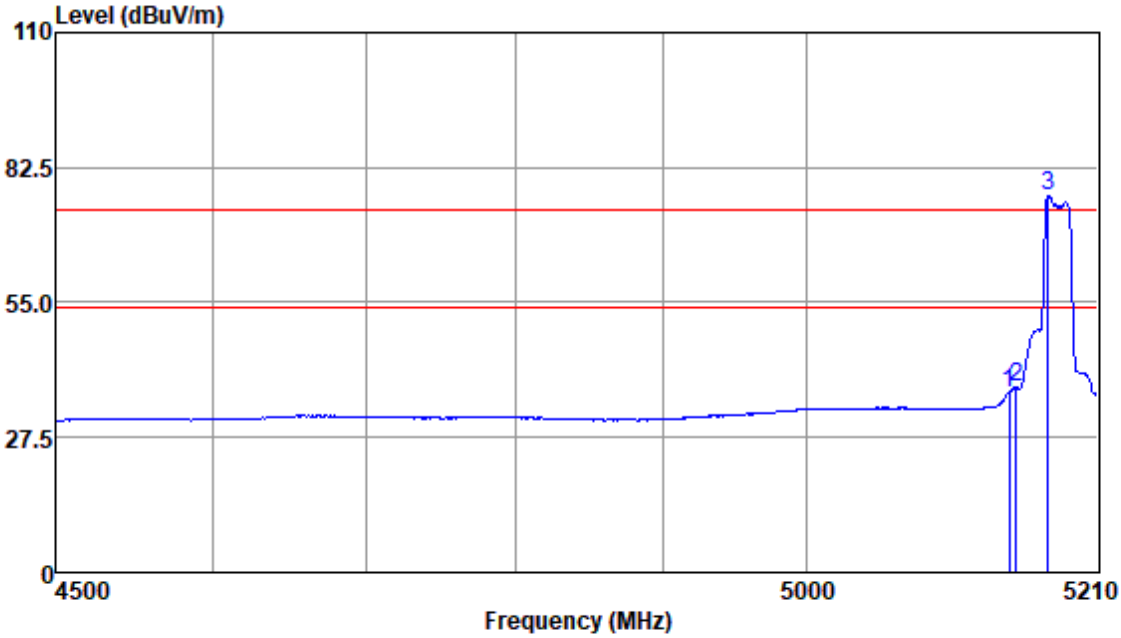


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5147.79	59.63	34.13	5.06	38.81	60.01	74.00	-13.99	Peak
5150.00	56.44	34.13	5.06	38.81	56.82	74.00	-17.18	Peak
5174.25	93.18	34.13	5.00	38.79	93.52	74.00	19.52	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:e; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:Low

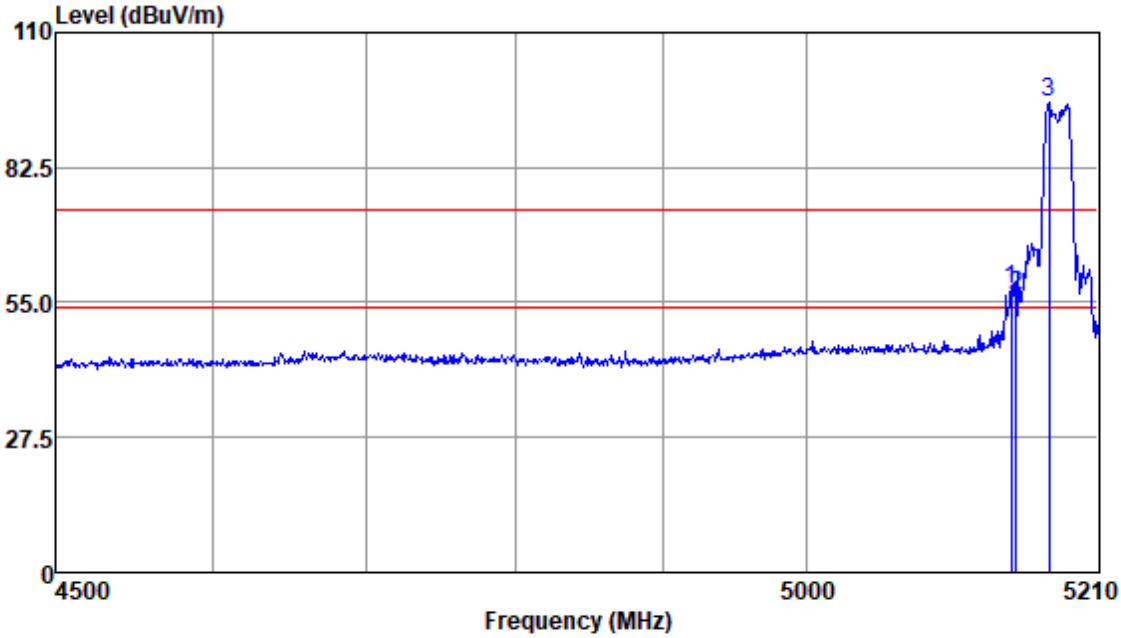


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5144.77	36.35	34.13	5.06	38.81	36.73	74.00	-37.27	Average
5150.00	37.43	34.13	5.06	38.81	37.81	74.00	-36.19	Average
5173.49	76.40	34.13	5.00	38.80	76.73	74.00	2.73	Average

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

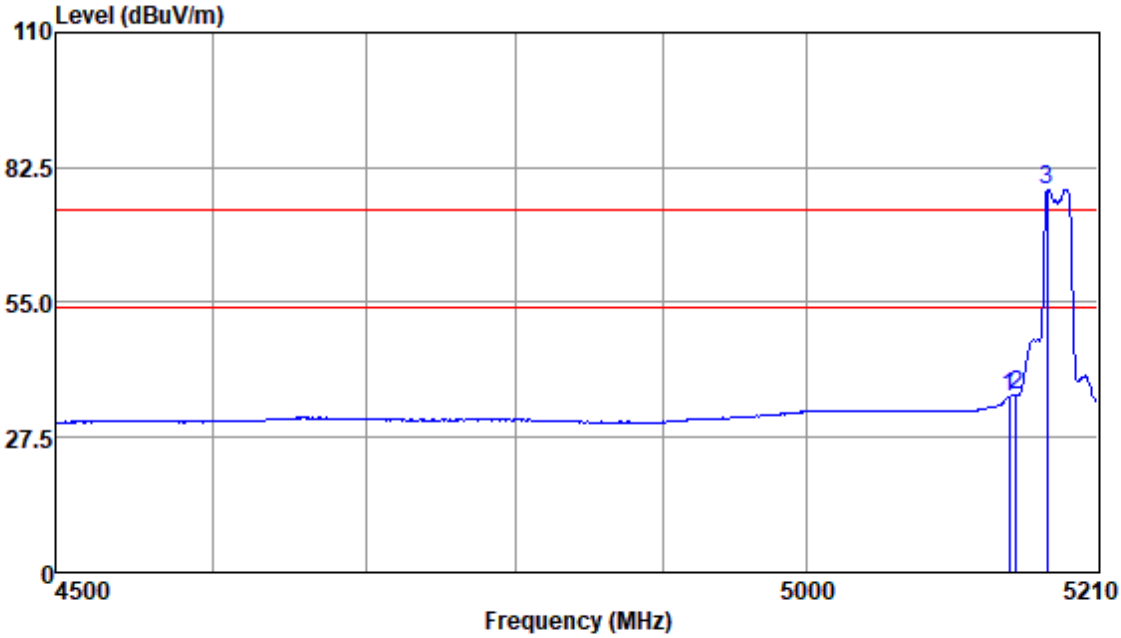


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5146.28	57.33	34.13	5.06	38.81	57.71	74.00	-16.29	Peak
5150.00	56.11	34.13	5.06	38.81	56.49	74.00	-17.51	Peak
5174.25	95.33	34.13	5.00	38.79	95.67	74.00	21.67	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

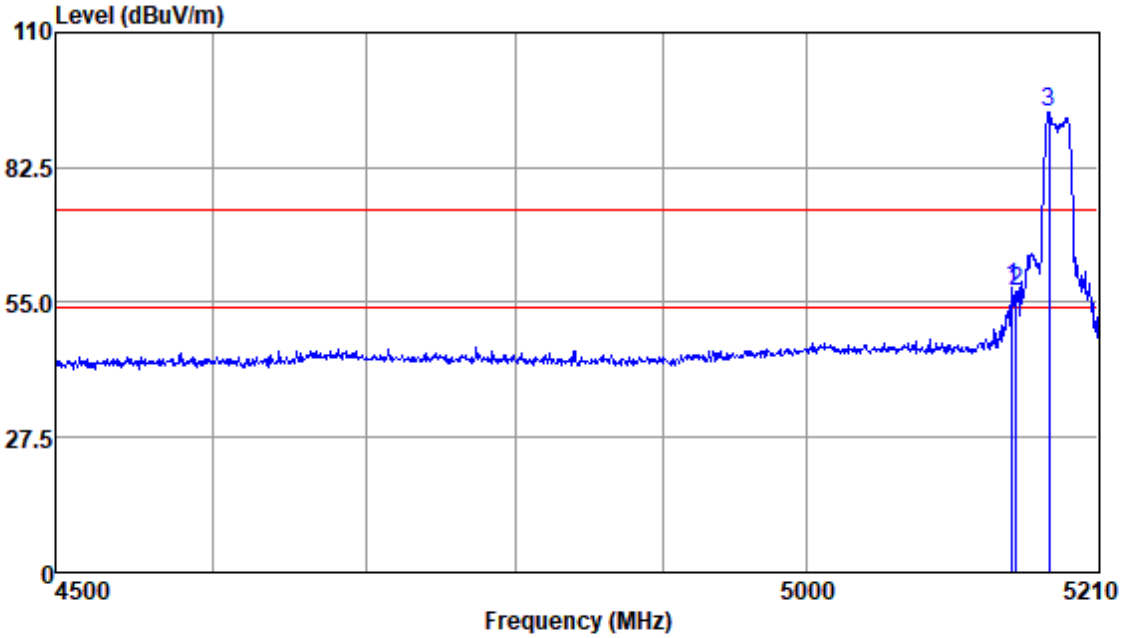


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5144.77	35.51	34.13	5.06	38.81	35.89	74.00	-38.11	Average
5150.00	35.85	34.13	5.06	38.81	36.23	74.00	-37.77	Average
5172.73	77.76	34.13	5.00	38.80	78.09	74.00	4.09	Average

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

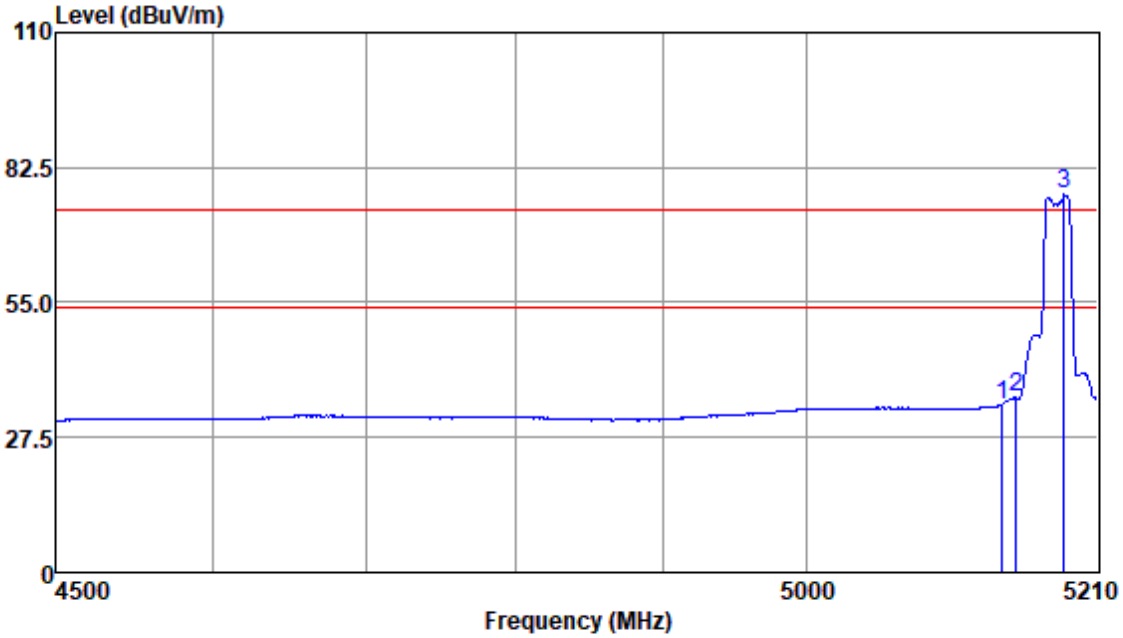


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5147.03	57.70	34.13	5.06	38.81	58.08	74.00	-15.92	Peak
5150.00	56.84	34.13	5.06	38.81	57.22	74.00	-16.78	Peak
5174.25	93.38	34.13	5.00	38.79	93.72	74.00	19.72	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

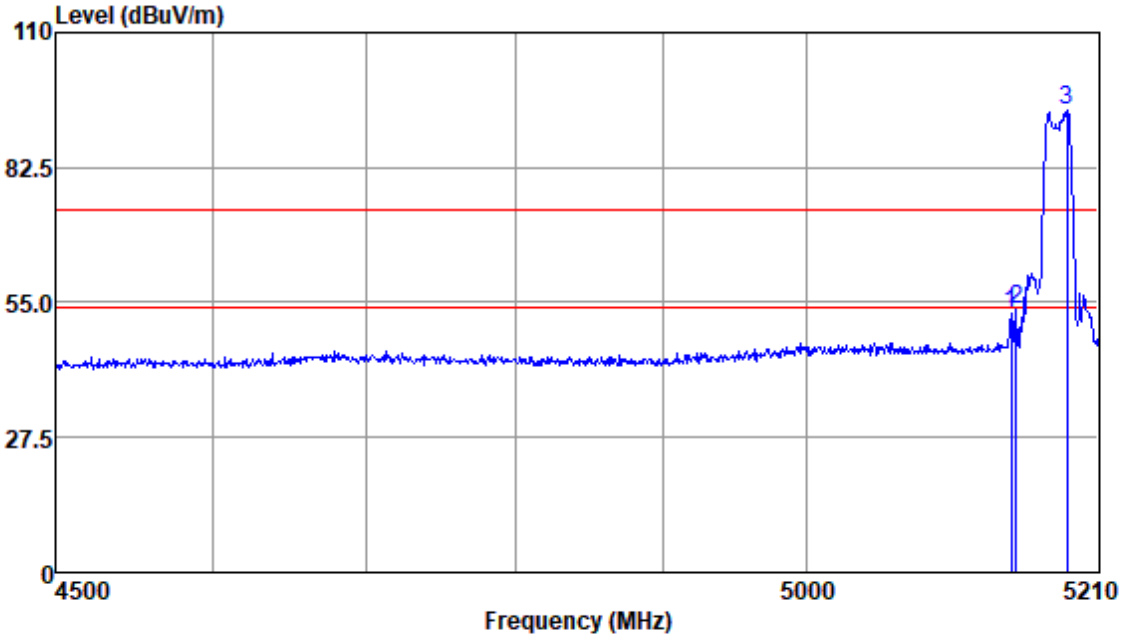


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5140.25	33.81	34.13	5.08	38.81	34.21	74.00	-39.79	Average
5150.00	35.16	34.13	5.06	38.81	35.54	74.00	-38.46	Average
5184.87	76.59	34.13	5.00	38.79	76.93	74.00	2.93	Average

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

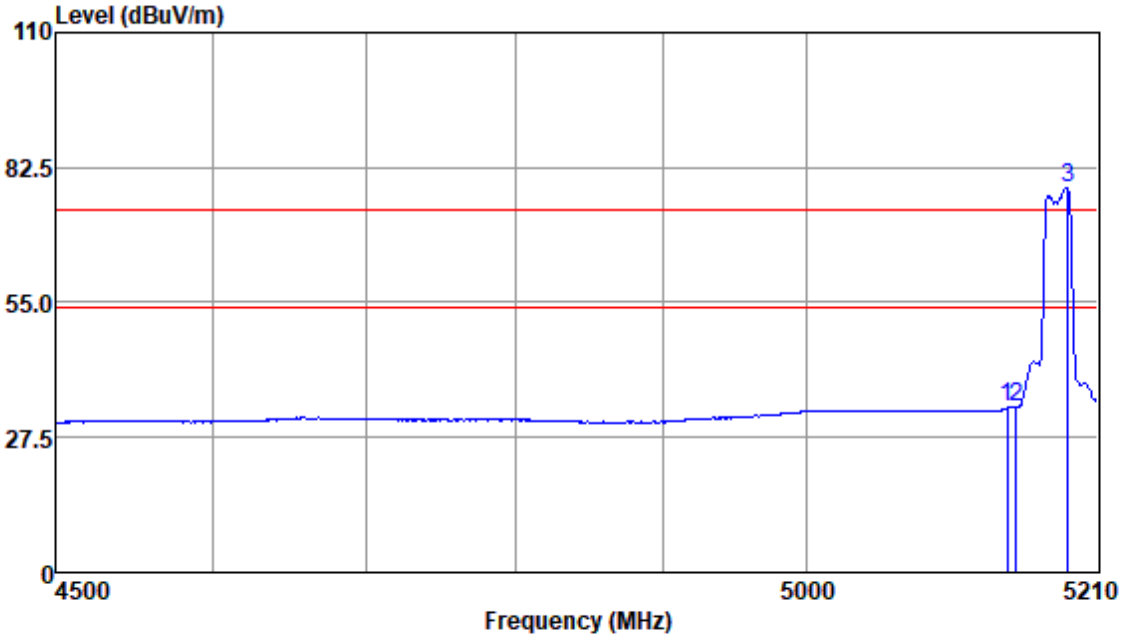


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5146.28	52.58	34.13	5.06	38.81	52.96	74.00	-21.04	Peak
5150.00	53.31	34.13	5.06	38.81	53.69	74.00	-20.31	Peak
5187.15	93.99	34.13	4.96	38.79	94.29	74.00	20.29	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

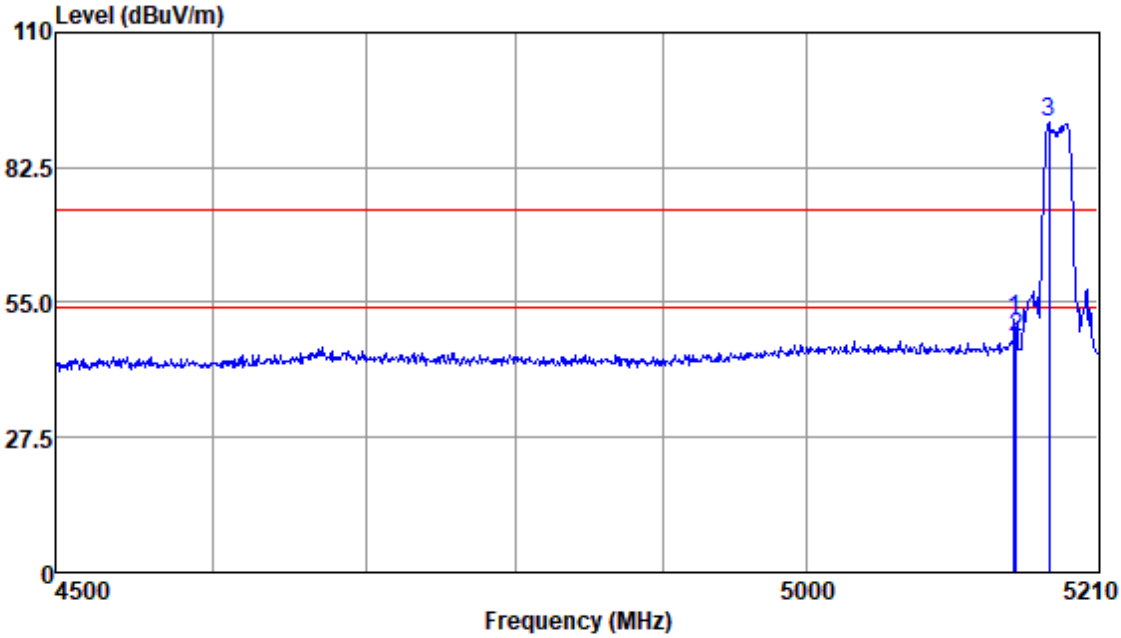


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5144.02	33.17	34.13	5.06	38.81	33.55	74.00	-40.45	Average
5150.00	33.43	34.13	5.06	38.81	33.81	74.00	-40.19	Average
5187.91	77.91	34.13	4.96	38.79	78.21	74.00	4.21	Average

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

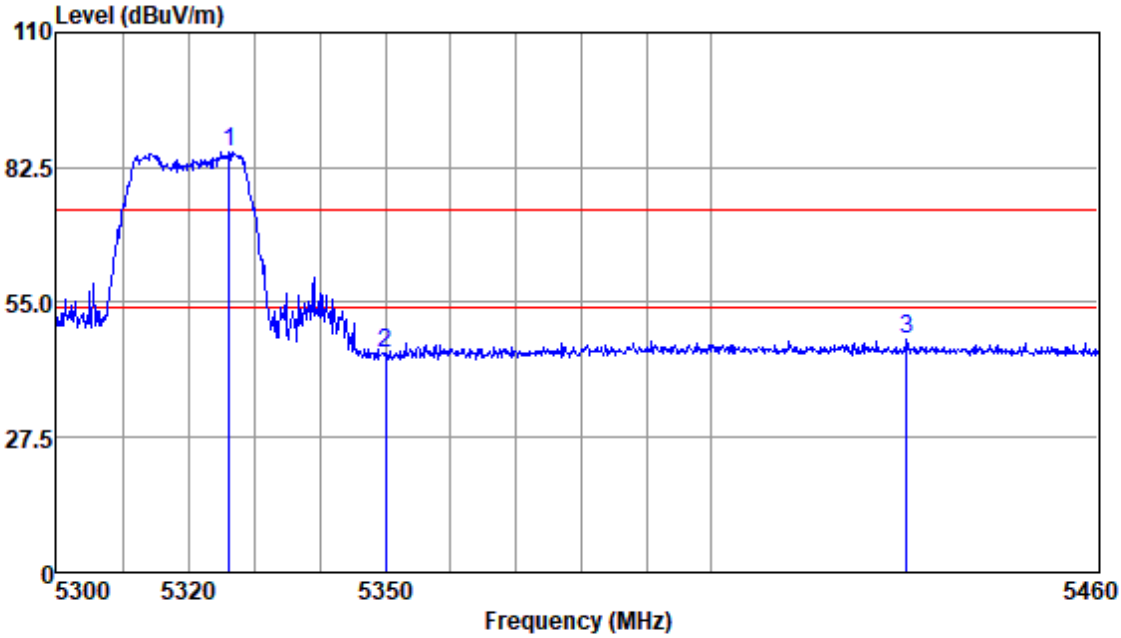


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5148.54	51.27	34.13	5.06	38.81	51.65	74.00	-22.35	Peak
5150.00	47.55	34.13	5.06	38.81	47.93	74.00	-26.07	Peak
5174.25	91.24	34.13	5.00	38.79	91.58	74.00	17.58	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:f; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:High

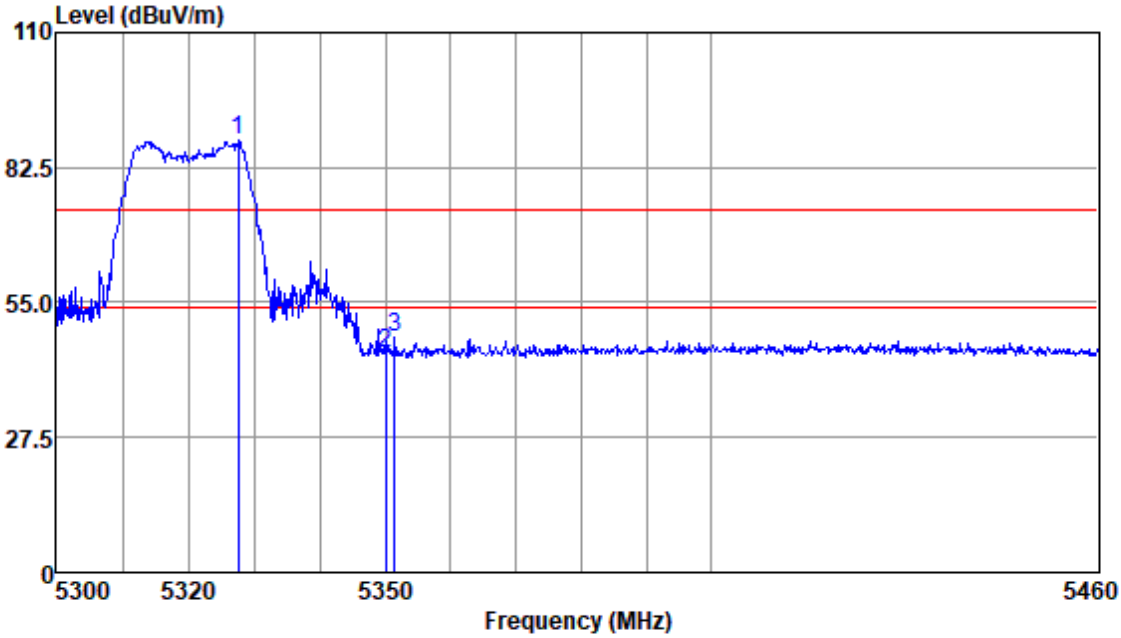


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5326.23	85.31	34.65	4.58	38.71	85.83	74.00	11.83	Peak
5350.00	44.09	34.71	4.66	38.69	44.77	74.00	-29.23	Peak
5430.20	46.44	34.67	4.82	38.64	47.29	74.00	-26.71	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:f; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:High

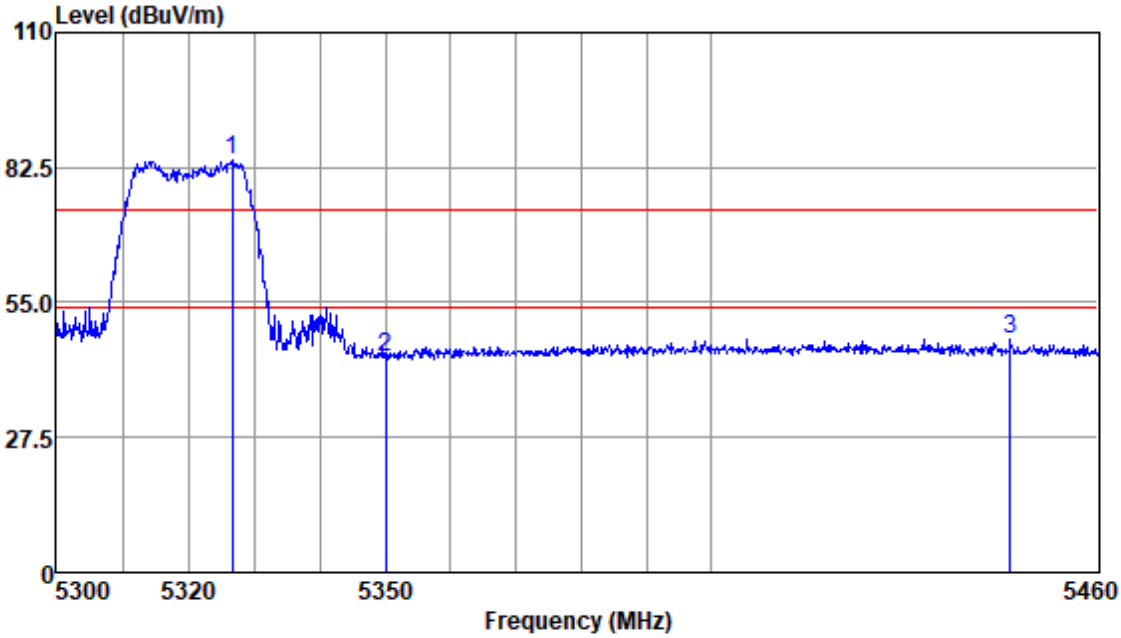


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5327.50	87.37	34.65	4.58	38.70	87.90	74.00	13.90	Peak
5350.00	43.84	34.71	4.66	38.69	44.52	74.00	-29.48	Peak
5351.48	47.29	34.71	4.66	38.69	47.97	74.00	-26.03	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

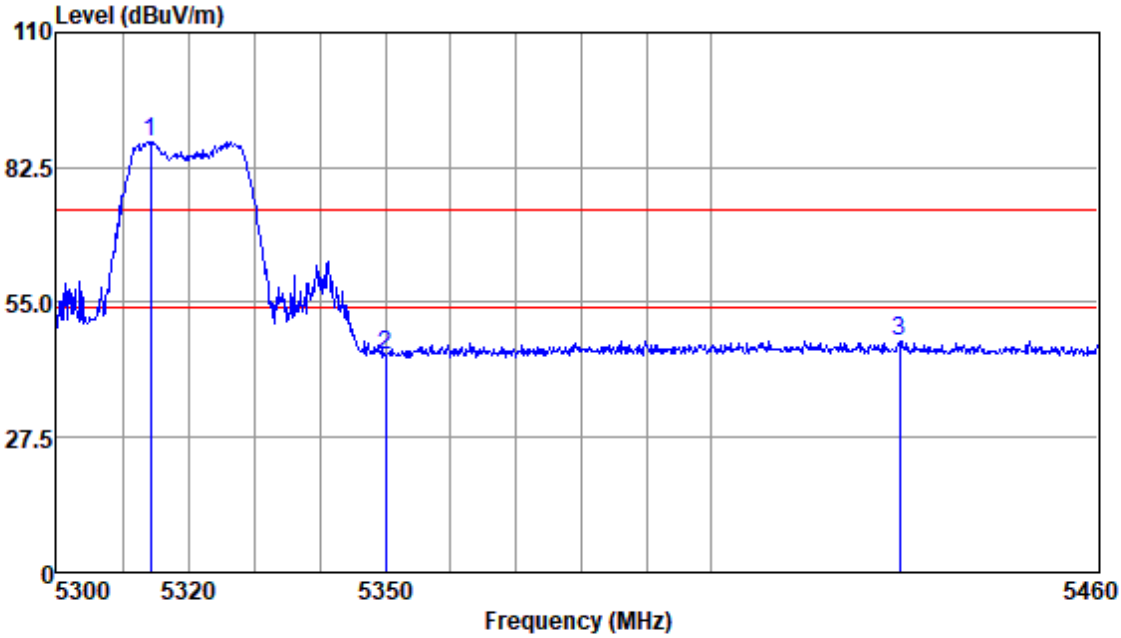


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5326.71	83.42	34.65	4.58	38.70	83.95	74.00	9.95	Peak
5350.00	43.16	34.71	4.66	38.69	43.84	74.00	-30.16	Peak
5446.21	46.62	34.65	4.85	38.63	47.49	74.00	-26.51	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

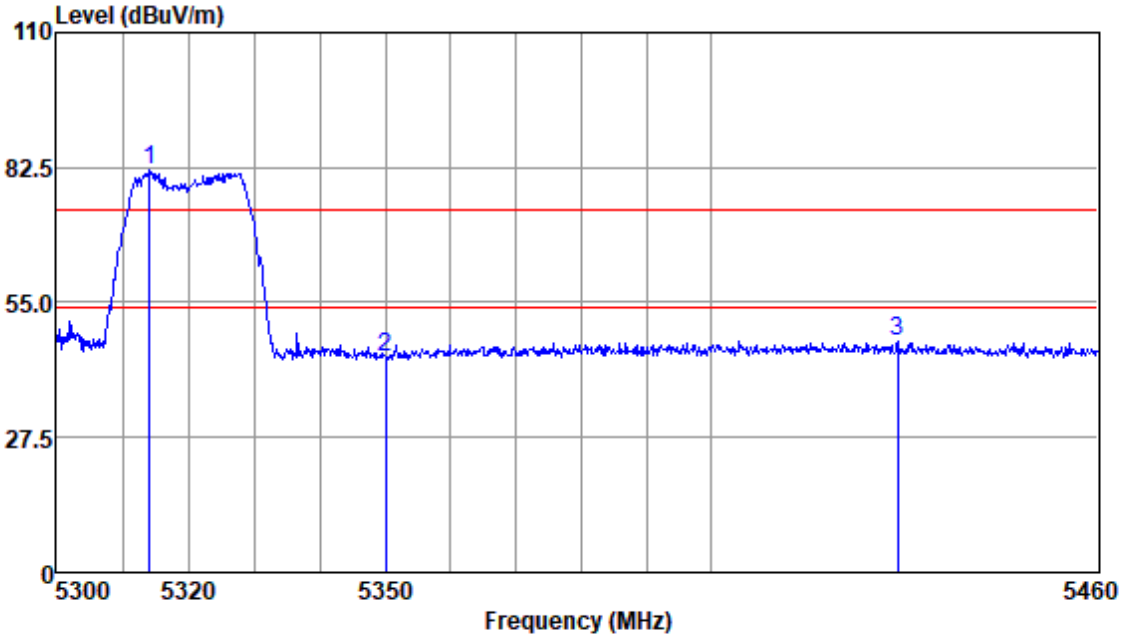


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5314.21	87.36	34.58	4.58	38.71	87.81	74.00	13.81	Peak
5350.00	43.45	34.71	4.66	38.69	44.13	74.00	-29.87	Peak
5429.07	46.39	34.67	4.82	38.64	47.24	74.00	-26.76	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

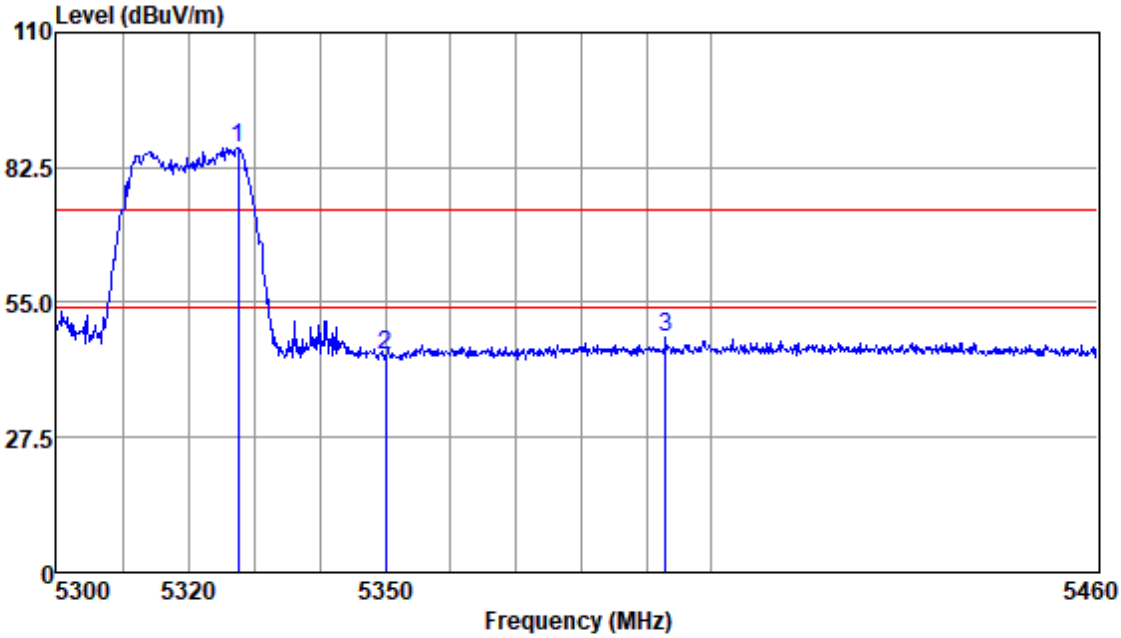


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5314.05	81.35	34.58	4.58	38.71	81.80	74.00	7.80	Peak
5350.00	42.99	34.71	4.66	38.69	43.67	74.00	-30.33	Peak
5428.75	46.31	34.67	4.82	38.64	47.16	74.00	-26.84	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

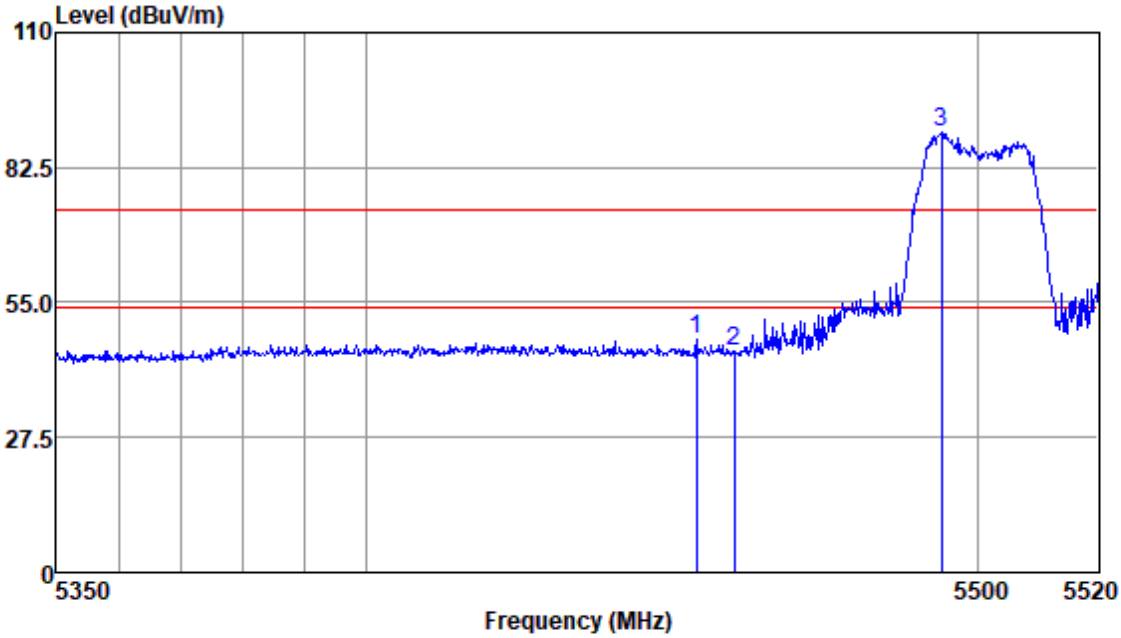


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5327.50	85.97	34.65	4.58	38.70	86.50	74.00	12.50	Peak
5350.00	43.75	34.71	4.66	38.69	44.43	74.00	-29.57	Peak
5393.02	47.07	34.69	4.76	38.67	47.85	74.00	-26.15	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

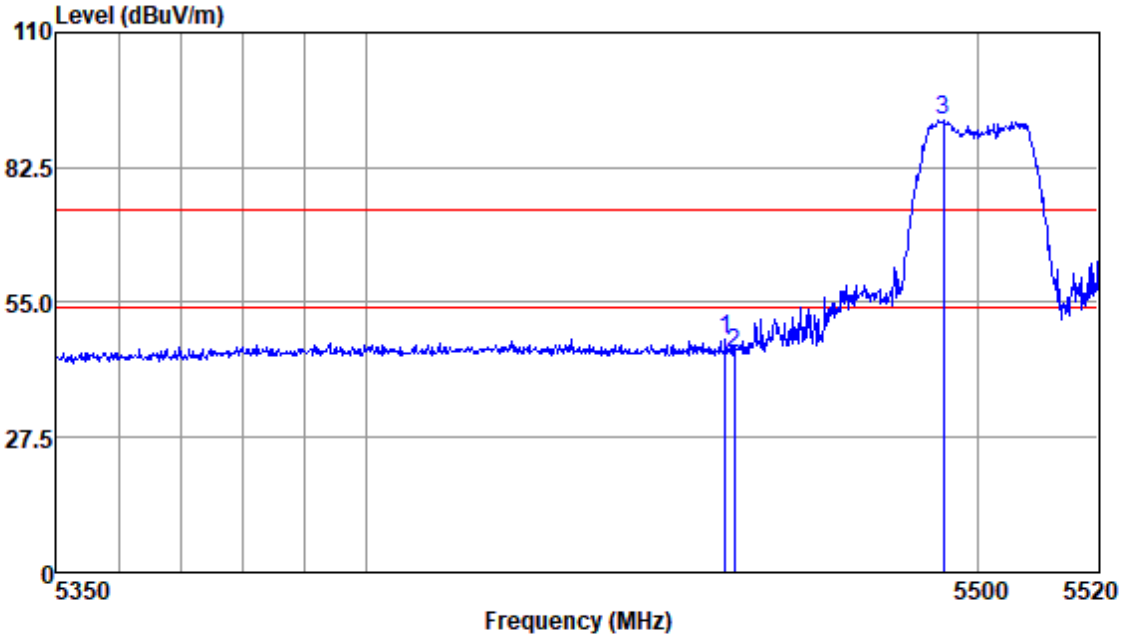


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5453.75	46.62	34.64	4.85	38.63	47.48	74.00	-26.52	Peak
5460.00	44.34	34.64	4.89	38.63	45.24	74.00	-28.76	Peak
5493.99	88.77	34.67	4.92	38.61	89.75	74.00	15.75	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

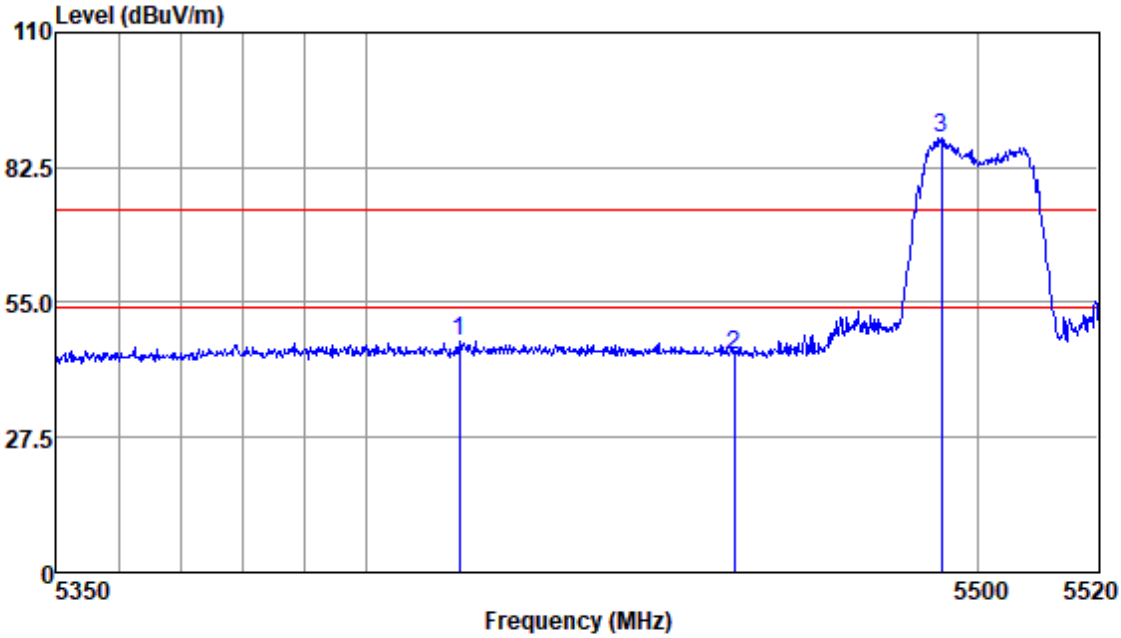


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5458.53	46.77	34.64	4.89	38.63	47.67	74.00	-26.33	Peak
5460.00	43.57	34.64	4.89	38.63	44.47	74.00	-29.53	Peak
5494.33	91.18	34.67	4.92	38.61	92.16	74.00	18.16	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

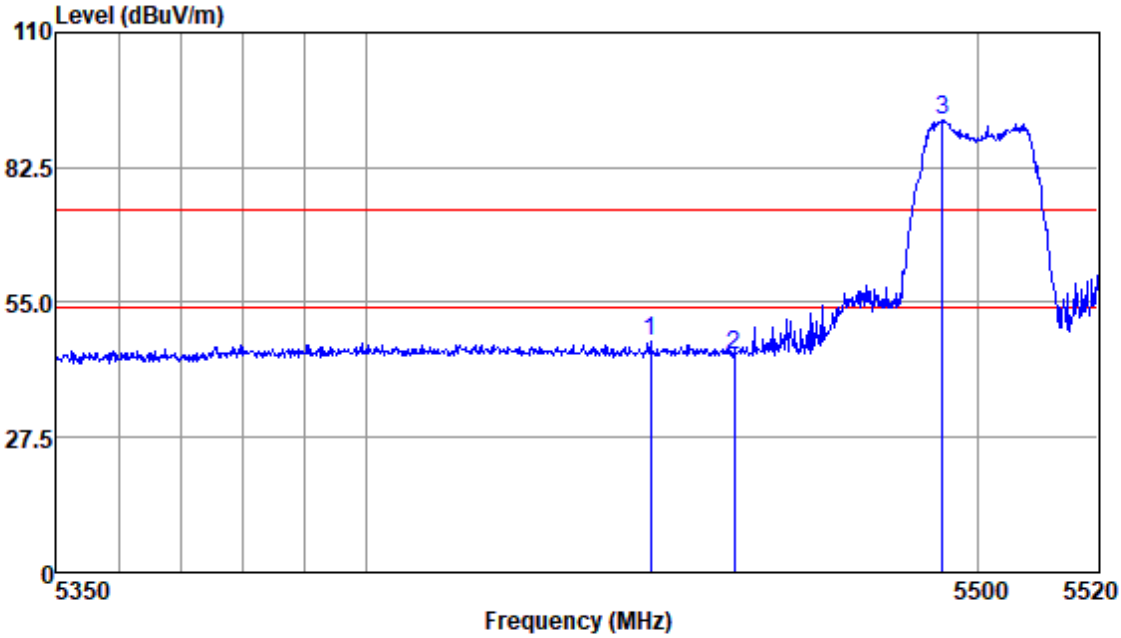


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5415.16	46.30	34.68	4.79	38.65	47.12	74.00	-26.88	Peak
5460.00	43.47	34.64	4.89	38.63	44.37	74.00	-29.63	Peak
5493.99	87.51	34.67	4.92	38.61	88.49	74.00	14.49	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

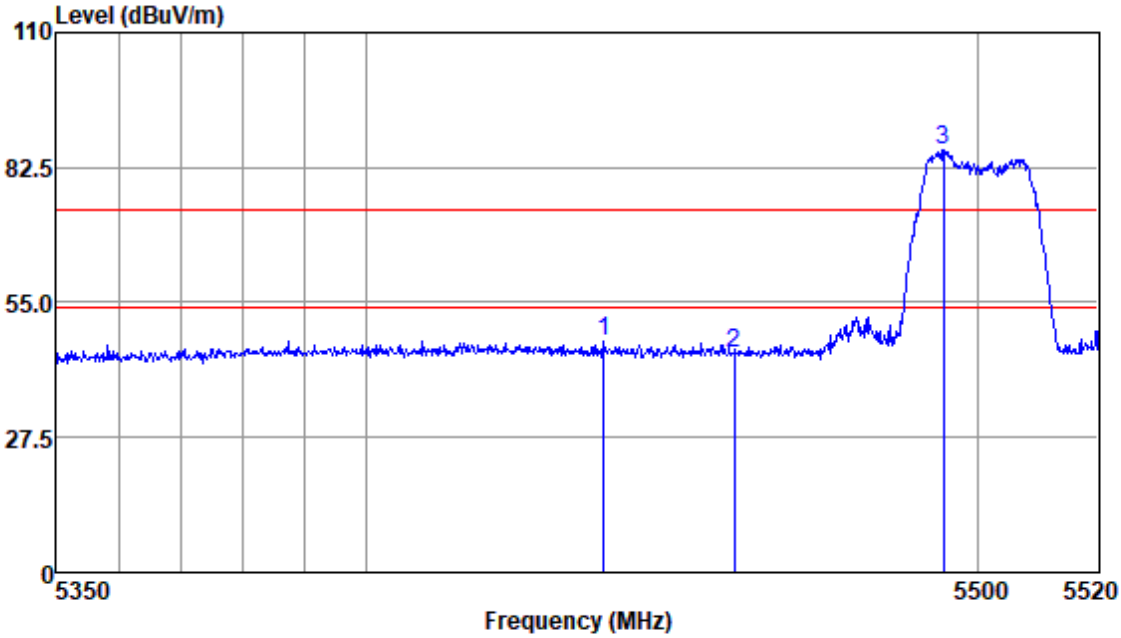


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5446.25	46.24	34.65	4.85	38.63	47.11	74.00	-26.89	Peak
5460.00	43.26	34.64	4.89	38.63	44.16	74.00	-29.84	Peak
5494.16	91.33	34.67	4.92	38.61	92.31	74.00	18.31	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

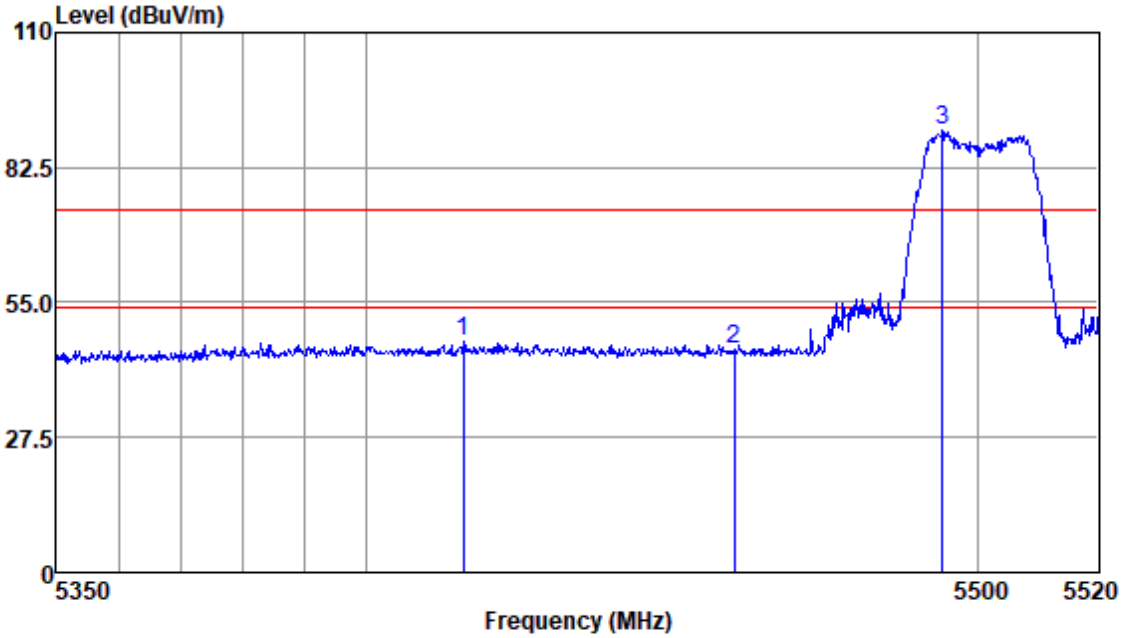


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5438.59	46.18	34.65	4.82	38.64	47.01	74.00	-26.99	Peak
5460.00	43.84	34.64	4.89	38.63	44.74	74.00	-29.26	Peak
5494.33	85.15	34.67	4.92	38.61	86.13	74.00	12.13	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

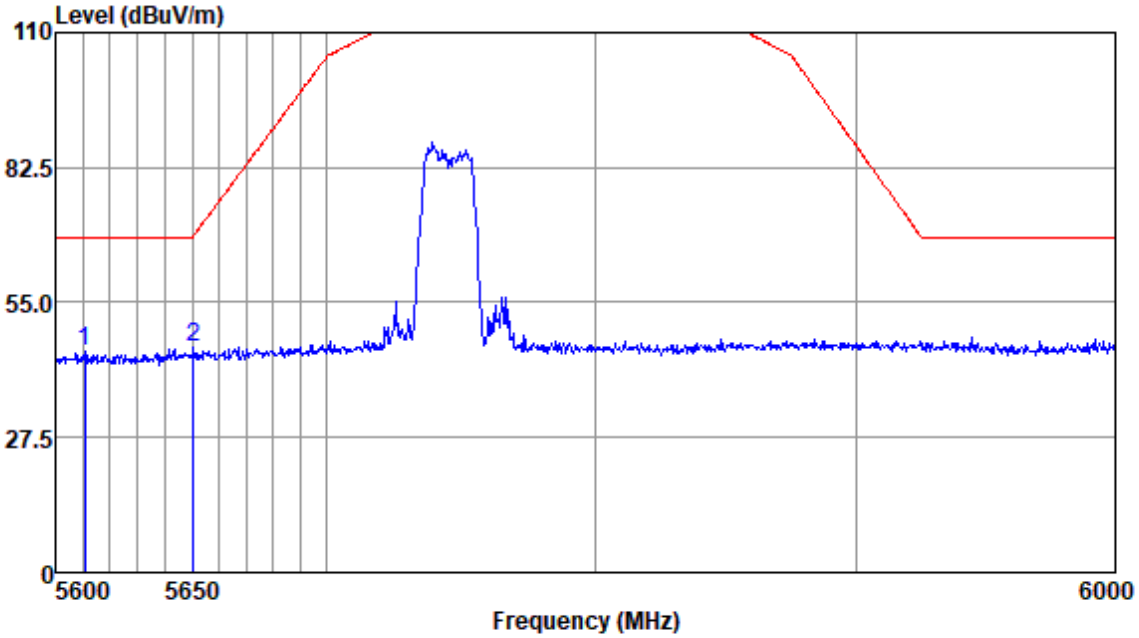


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5415.84	46.29	34.68	4.79	38.65	47.11	74.00	-26.89	Peak
5460.00	44.56	34.64	4.89	38.63	45.46	74.00	-28.54	Peak
5494.16	88.97	34.67	4.92	38.61	89.95	74.00	15.95	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:Low

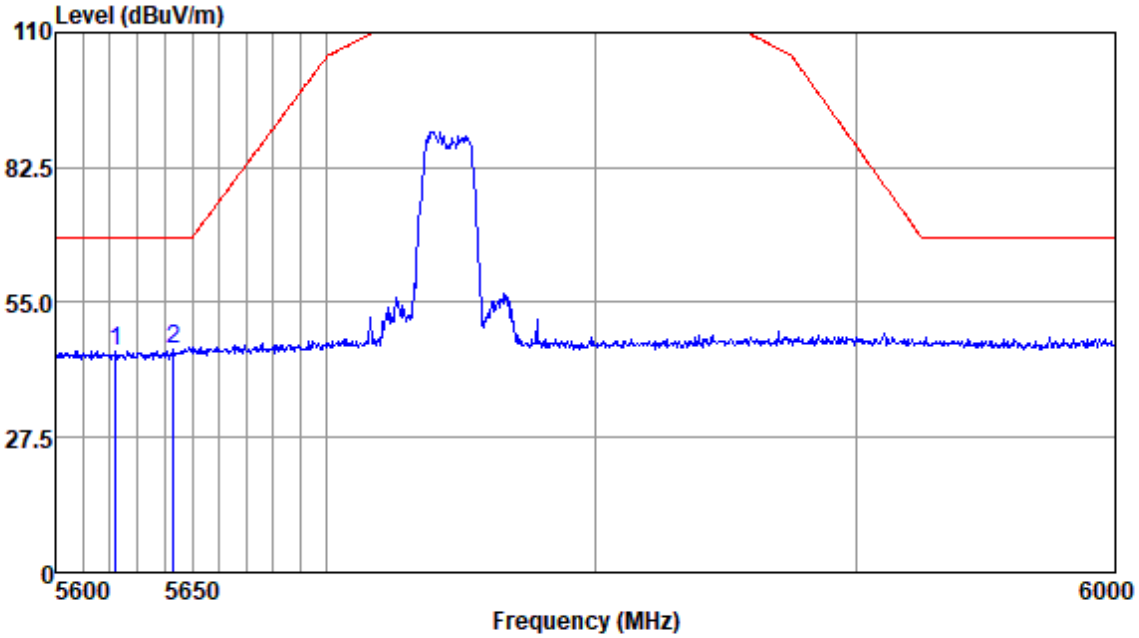


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5610.83	43.90	34.87	5.06	38.58	45.25	68.20	-22.95	Peak
5650.45	44.28	34.94	5.11	38.57	45.76	68.54	-22.78	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:Low

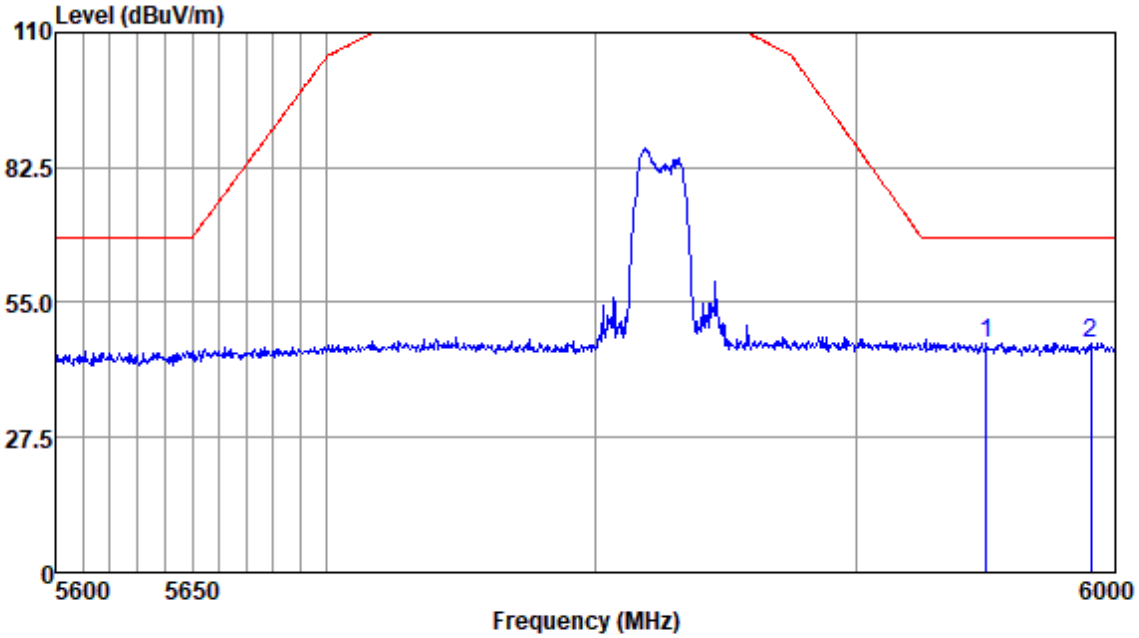


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5622.07	78.75	0.00	5.06	38.58	45.23	68.20	-22.97	Peak
5643.05	78.95	0.00	5.11	38.57	45.49	68.20	-22.71	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Horizontal; Modulation:a; bandwidth:20MHz; Channel:High

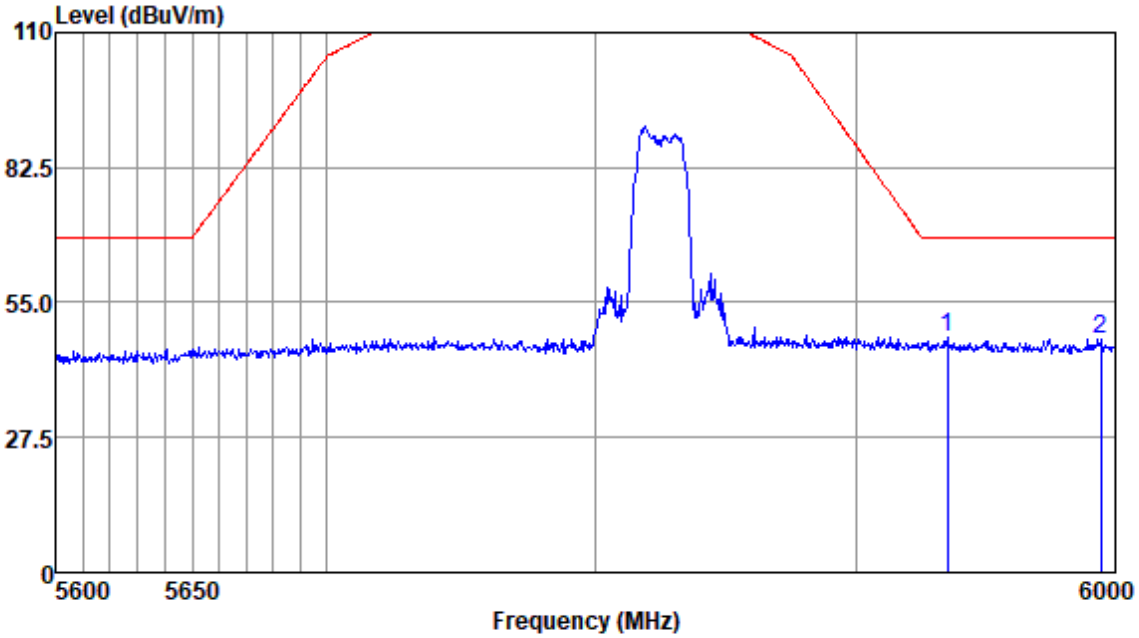


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5949.71	44.74	35.26	5.32	38.51	46.81	68.20	-21.39	Peak
5990.49	44.83	35.26	5.22	38.50	46.81	68.20	-21.39	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Mode:h; Polarization:Vertical; Modulation:a; bandwidth:20MHz; Channel:High

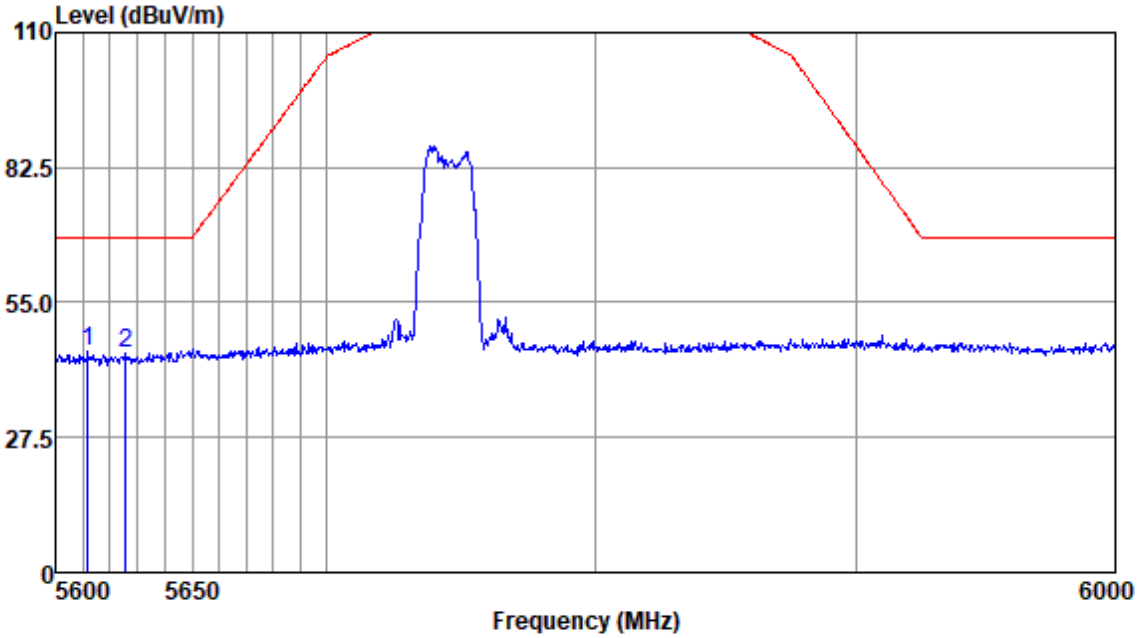


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5934.95	81.07	0.00	5.22	38.51	47.78	68.20	-20.42	Peak
5994.21	80.93	0.00	5.22	38.50	47.65	68.20	-20.55	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

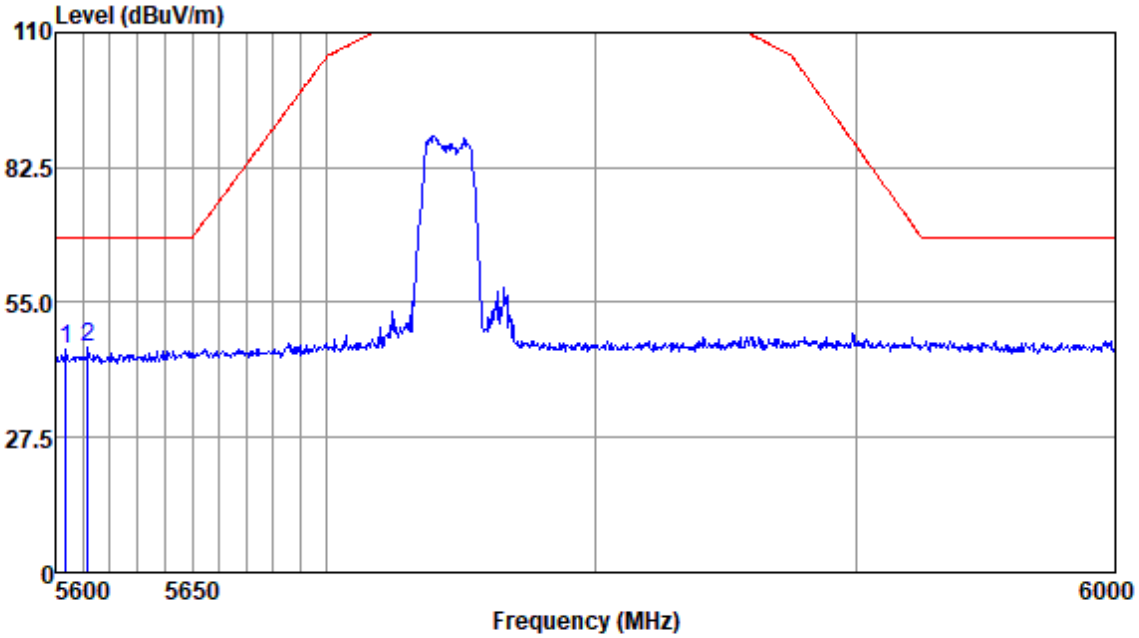


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5611.99	43.52	34.87	5.06	38.58	44.87	68.20	-23.33	Peak
5625.56	78.26	0.00	5.16	38.58	44.84	68.20	-23.36	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

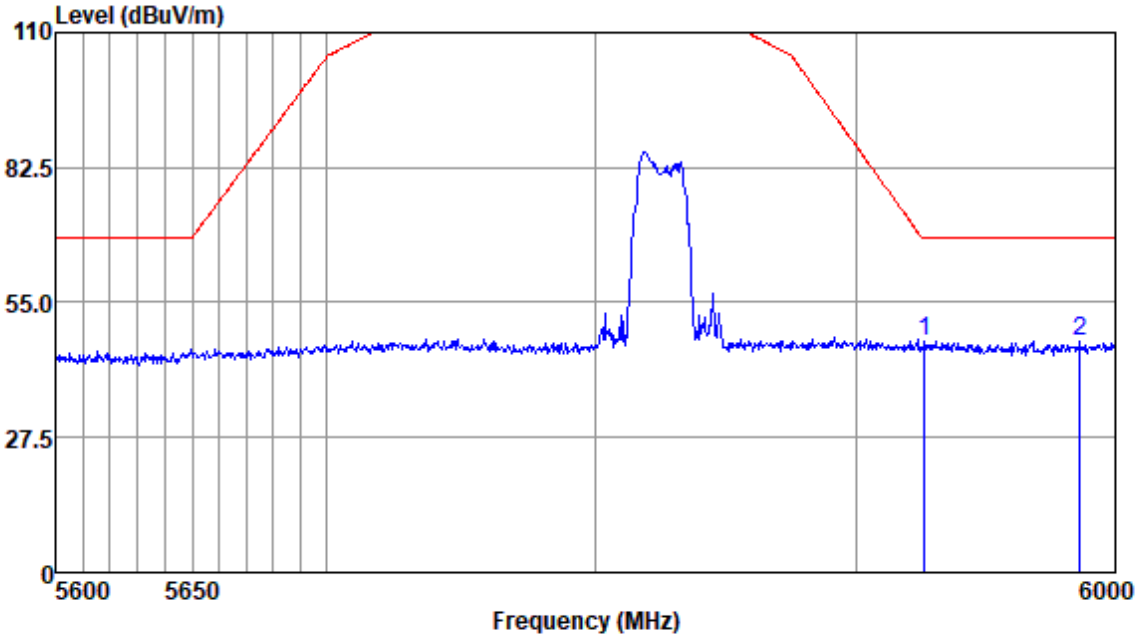


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5603.87	79.04	0.00	4.96	38.58	45.42	68.20	-22.78	Peak
5611.99	44.39	34.87	5.06	38.58	45.74	68.20	-22.46	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

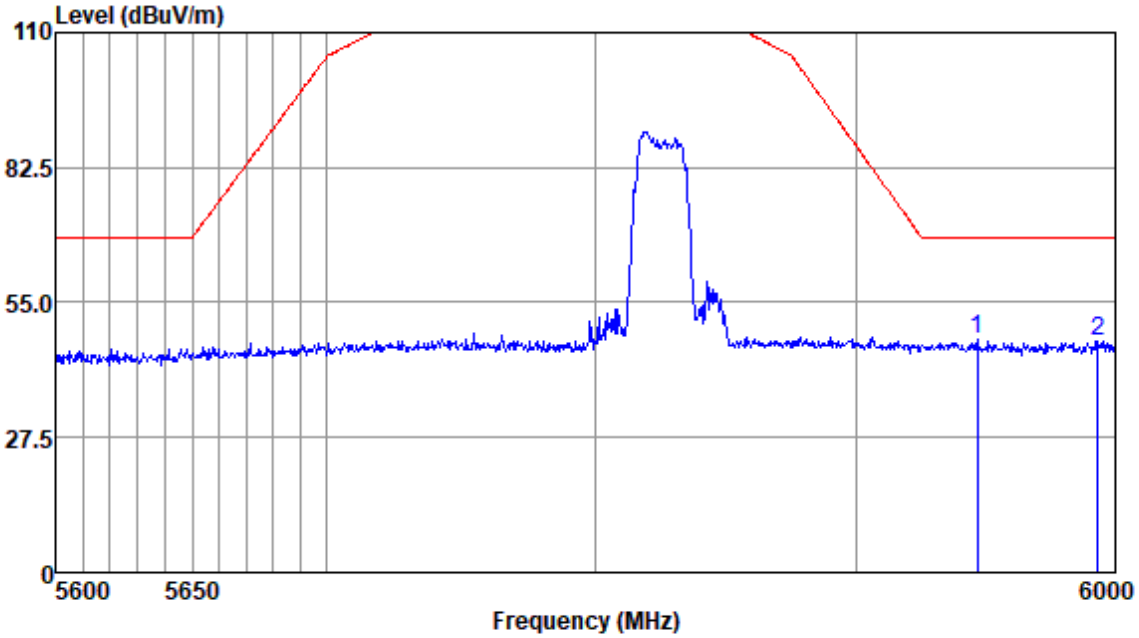


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5925.95	80.53	0.00	5.22	38.51	47.24	68.20	-20.96	Peak
5986.36	80.45	0.00	5.26	38.50	47.21	68.20	-20.99	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

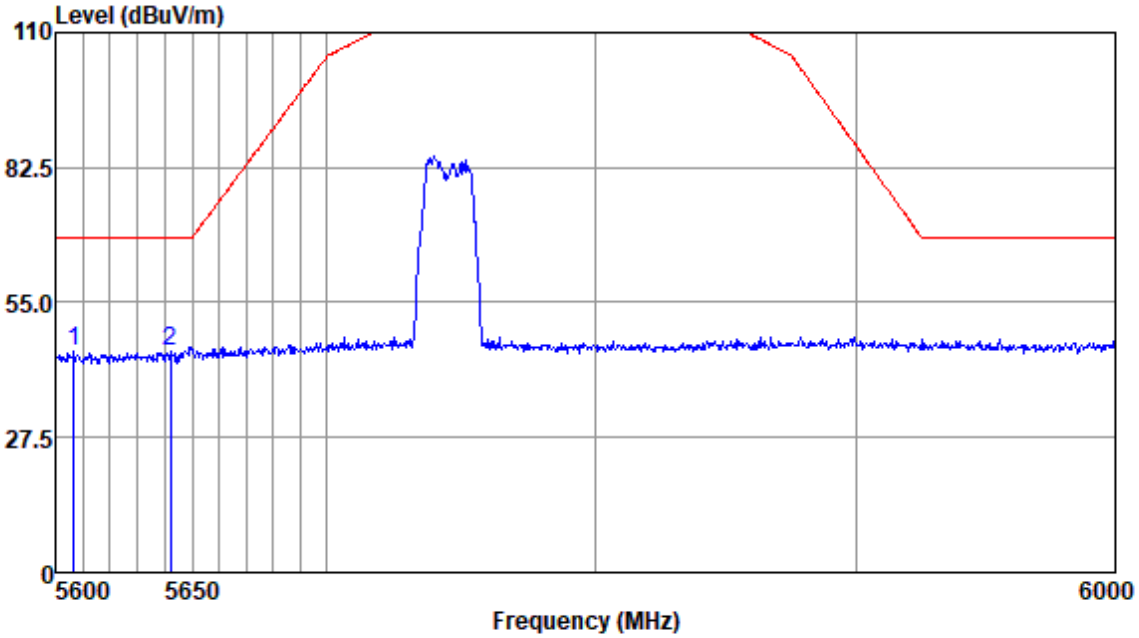


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5946.43	45.31	35.26	5.32	38.51	47.38	68.20	-20.82	Peak
5993.38	45.06	35.26	5.22	38.50	47.04	68.20	-21.16	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

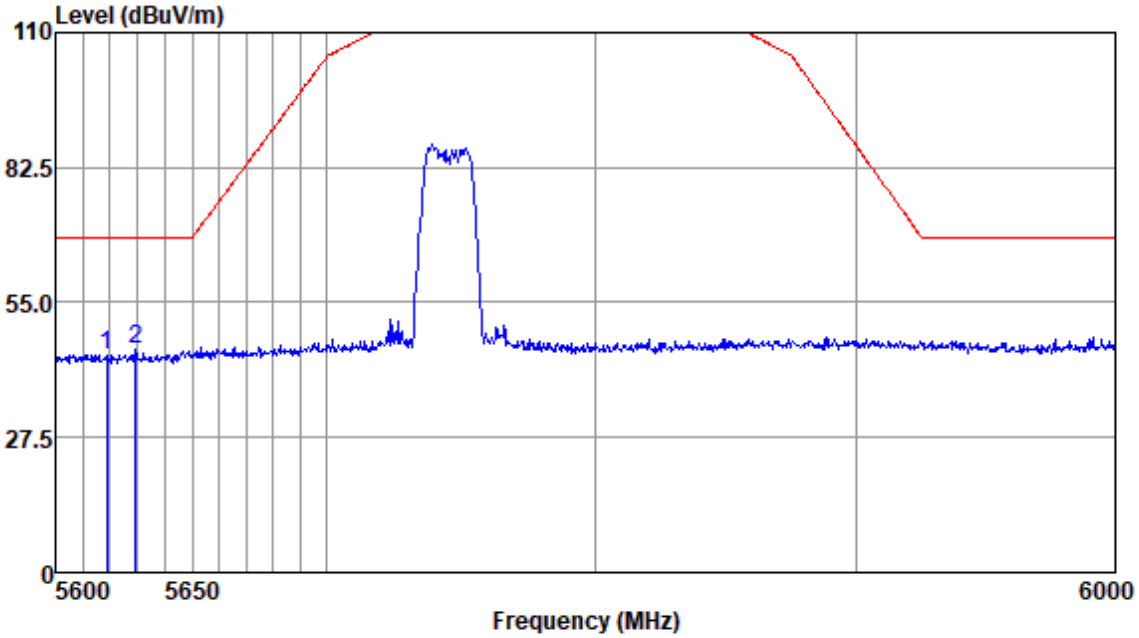


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5606.57	78.85	0.00	4.96	38.58	45.23	68.20	-22.97	Peak
5642.27	78.47	0.00	5.11	38.57	45.01	68.20	-23.19	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

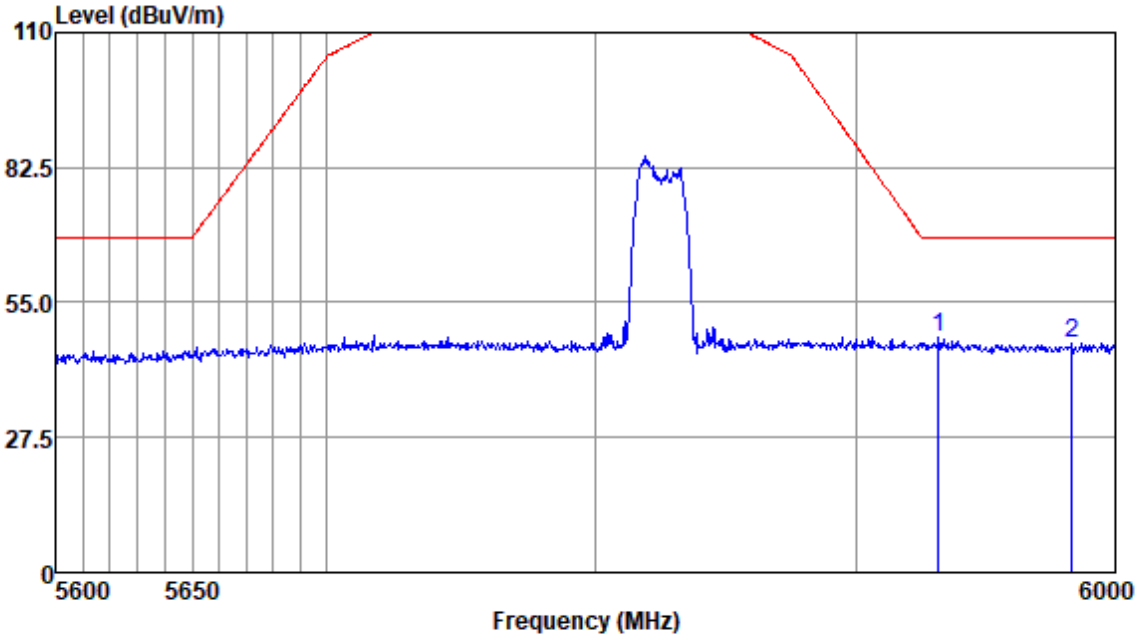


Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5618.58	77.92	0.00	5.06	38.58	44.40	68.20	-23.80	Peak
5629.44	78.74	0.00	5.16	38.58	45.32	68.20	-22.88	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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

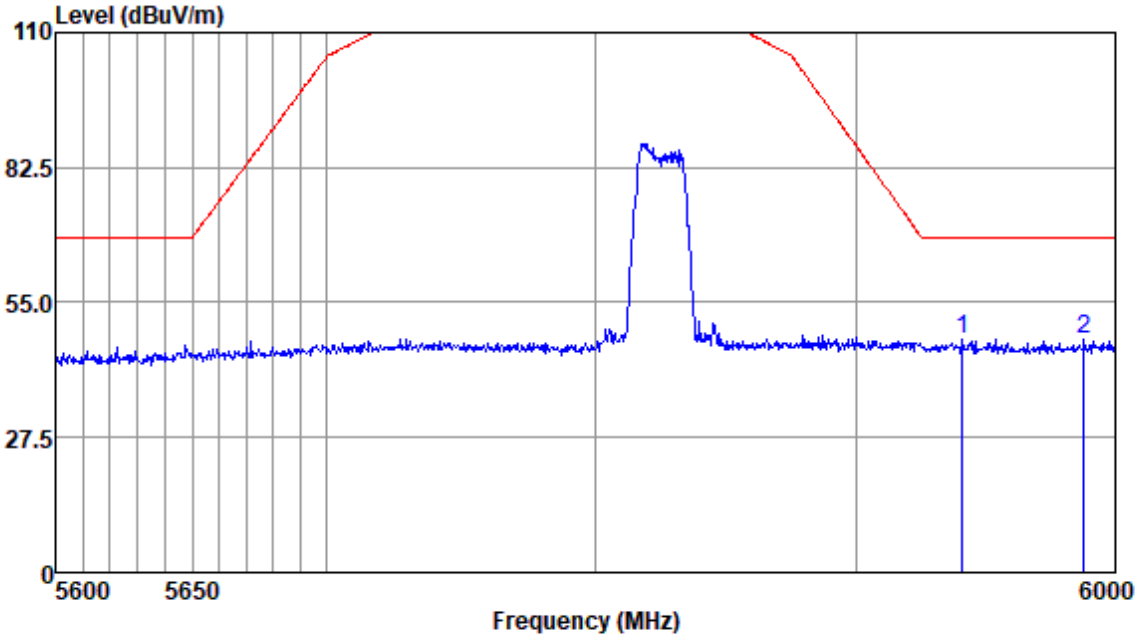


Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5931.27	45.85	35.27	5.22	38.51	47.83	68.20	-20.37	Peak
5983.05	44.85	35.26	5.26	38.50	46.87	68.20	-21.33	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

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



Antenna Polarity :VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5940.69	45.32	35.27	5.32	38.51	47.40	68.20	-20.80	Peak
5987.59	45.56	35.26	5.26	38.50	47.58	68.20	-20.62	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

7.10 Frequency Stability

Test Requirement	47 CFR Part 15, Subpart C 15.407 (g)
Test Method:	ANSI C63.10 (2013) Section 6.8
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 35 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

7.10.1 E.U.T. Operation

Operating Environment:

Temperature: 20 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

Test mode

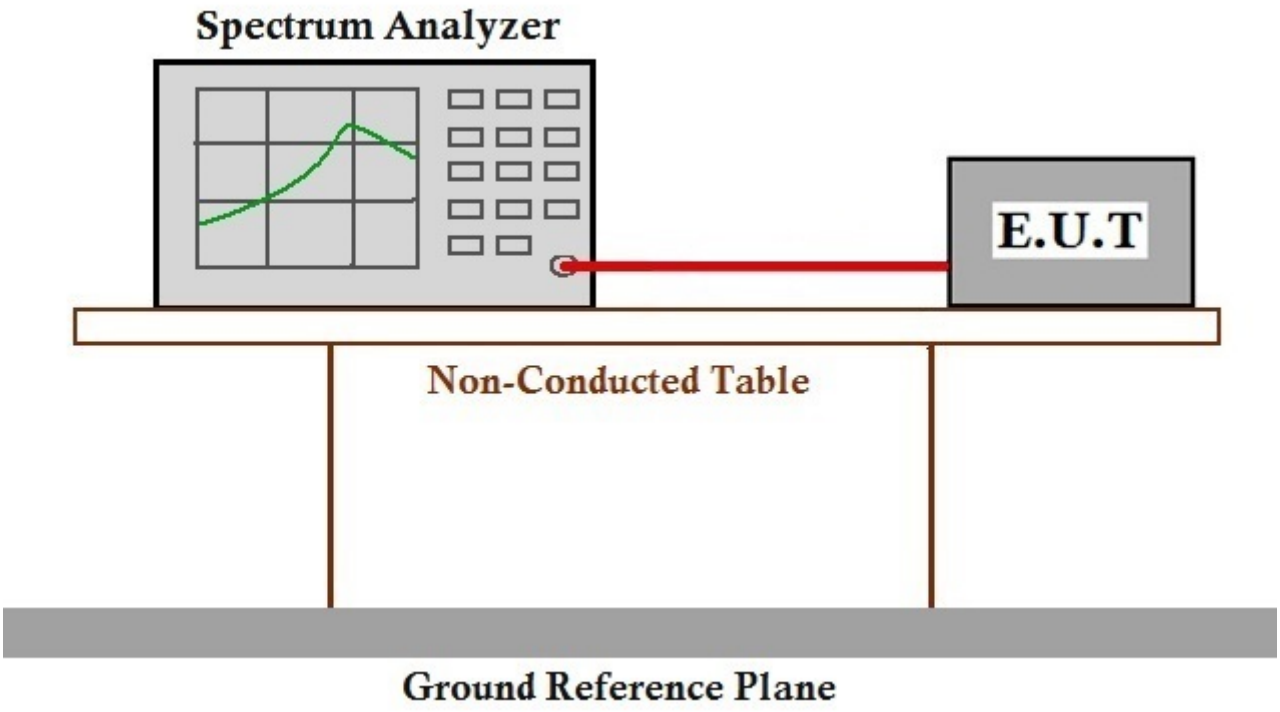
e:TX+charging mode (Band 1)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

f:TX+charging mode (Band 2A)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

g:TX+charging mode (Band 2C)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20);data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

h:TX+charging mode (Band 3)_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20). Only the data of worst case is recorded in the report.

7.10.2 Test Setup Diagram



7.10.3 Measurement Procedure and Data

The detailed test data see: Appendix D for SHEM200700614004

8 Test Setup Photographs

Refer to the < Test Setup photos-FCC>.

9 EUT Constructional Details

Refer to the < External Photos > & < Internal Photos >.

- End of the Report -