

TEST REPORT

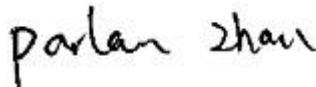
Application No.: SHCR2202000390AT
FCC ID: 2AFF62G11IUAM
Applicant: Adam Hall GmbH
Address of Applicant: Adam-Hall-Str. 1, 61267 Neu-Anspach, Germany
Manufacturer: Adam Hall GmbH
Address of Manufacturer: Adam-Hall-Str. 1, 61267 Neu-Anspach, Germany
Factory: Speaker Electronic(Jiashan) Co.,Ltd
Address of Factory: No. 8 Development Zone Road, Huimin Sub-district, Jiashan County, Zhejiang, 314112, P.R. China

Equipment Under Test (EUT):

EUT Name: Active PA Box
Model No.: MAUI11G2
Trade Mark: LD Systems
Standard(s) : 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2022-07-06
Date of Test: 2022-07-06 to 2022-07-07
Date of Issue: 2022-07-08

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



Parlam Zhan
Laboratory Manager



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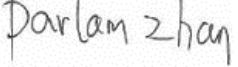
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Revision Record			
Version	Description	Date	Remark
00	Original	2022-07-08	/

Authorized for issue by:			
		Wade Zhang/Project Engineer	
		Parlam Zhan/Reviewer	

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2 Test Summary

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.5	47 CFR Part 15, Subpart C 15.247(b)(1)	Pass
Radiated Emissions which fall in the restricted bands		ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Below 1GHz		ANSI C63.10 (2013) Section 6.4,6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Above 1GHz		ANSI C63.10 (2013) Section 6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass

Emission Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass

Note: This EUT was based on the report SHEM161200792803 changed amplifier module, no other changes in power module, BT module, output power and product structure, we re-tested the Conducted emission, RF power and Radiation emissions consider as a C2PC application.

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4 General Information

4.1 Details of E.U.T.

Power supply:	AC100-120V/200-240V 50-60Hz, Max600W
Test Voltage:	AC 120V 60Hz
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK, pi/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Antenna Gain:	1.54dBi
Antenna Type:	PCB Antenna

4.2 Power level setting using in test:

Channel	Level
DH5	default
2DH5	default
3DH5	default

4.3 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	Lenovo	ThinkPad L460	/
USB to SPI converter	CSR	/	/
BlueTest3	CSR	/	/

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4.4 Measurement Uncertainty & Decision Rule

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4 x 10-8
2	Timeout	2s
3	Duty cycle	0.4%
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	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious emission test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-6GHz)
		5.4dB (6GHz-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.

Note:

- SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).
- SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).

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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.

- **A2LA (Certificate No. 6332.01)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

- **FCC (Designation Number: CN1301)**

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. Company Number: 8617A

- **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

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5 Equipment List

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RF Conducted Test					
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2021-12-20	2022-12-19
Spectrum Analyzer	Keysight	N9020B	SHEM241-1	2021-08-30	2022-08-29
Spectrum Analyzer	Agilent	N9020A	SHEM181-1	2021-08-13	2022-08-12
Signal Generator	R&S	SMR20	SHEM006-1	2021-08-13	2022-08-12
Signal Generator	Agilent	N5182A	SHEM182-1	2021-08-13	2022-08-12
Communication Tester	R&S	CMW270	SHEM183-1	2021-07-28	2022-07-27
Communication Tester	R&S	CMW500	SHEM183-2	2022-04-01	2023-03-31
Switcher	Tonscend	JS0806	SHEM184-1	2021-08-13	2022-08-12
Power Sensor	Keysight	U2021XA * 4	SHEM184-1	2021-08-13	2022-08-12
Splitter	Anritsu	MA1612A	SHEM185-1	/	/
Coupler	e-meca	803-S-1	SHEM186-1	/	/
High-low Temp Cabinet	Suzhou Zhihe	TL-40	SHEM087-1	2020-04-15	2023-04-14
AC Power Stabilizer	APC	KDF-31020T-V0-F0	SHEM216-1	2021-12-20	2022-12-19
DC Power Supply	MCH	MCH-303A	SHEM210-1	2021-12-20	2022-12-19
Conducted test Cable	/	RF01~RF04	/	2021-12-20	2022-12-19
Test software	Tonscend	JS Tonscend BT/WIFI System	Version: 2.6	/	/
RF Radiated Test					
EMI test Receiver	R&S	ESU40	SHEM051-1	2021-12-20	2022-12-19
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2021-12-20	2022-12-19
Communication Tester	R&S	CMW500	SHEM183-2	2022-04-01	2023-03-31
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2021-12-20	2022-12-19
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2021-09-11	2023-09-10
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM202-1	2021-05-07	2023-05-06
Horn Antenna (1-18GHz)	Schwarzbeck	HF906	SHEM009-1	2021-06-09	2023-06-08
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2021-09-18	2023-09-17
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2021-09-18	2023-09-17
Pre-Amplifier	HP	8447D	SHEM236-1	2021-05-27	2022-05-26
Pre-Amplifier	PANSHAN	LNA 1-18G	SHEM235-1	2021-05-27	2022-05-26
High-amplifier (14-40GHz)	Schwarzbeck	10001	SHEM049-2	2021-12-20	2022-12-19
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	/	2022-01-07	2023-01-06
Test software	ESE	E3	Version: 6.111221a	/	/

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6 Radio Spectrum Matter Test Results

6.1 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(1)
Test Method: ANSI C63.10 (2013) Section 7.8.5

Limit:

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

6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.1 °C Humidity: 69.2 % RH Atmospheric Pressure: 1010 mbar

6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

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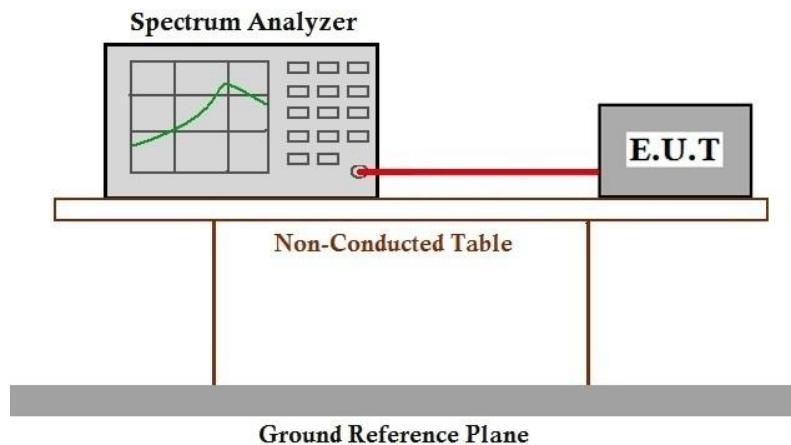
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6.1.3 Test Setup Diagram



6.1.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Test Mode	Test Channel	Power[dBm]	Limit[dBm]	Verdict
3DH5	2402	-0.34	30	PASS
2DH5	2402	-0.7	30	PASS
DH5	2402	-0.48	30	PASS
3DH5	2441	-0.58	30	PASS
2DH5	2441	-0.35	30	PASS
DH5	2441	-0.58	30	PASS
3DH5	2480	-0.25	30	PASS
2DH5	2480	-0.29	30	PASS
DH5	2480	-0.58	30	PASS

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Maximum peak conducted output power_3DH5_2402



Maximum peak conducted output power_2DH5_2402



Maximum peak conducted output power_DH5_2402

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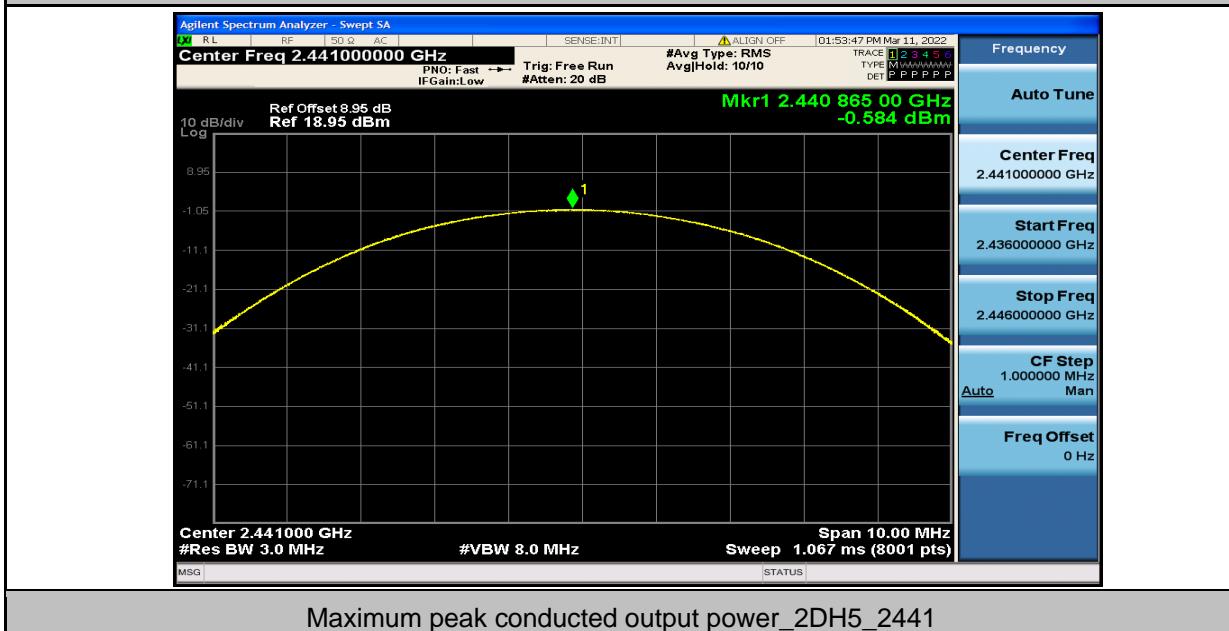
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Maximum peak conducted output power_3DH5_2441



Maximum peak conducted output power_2DH5_2441

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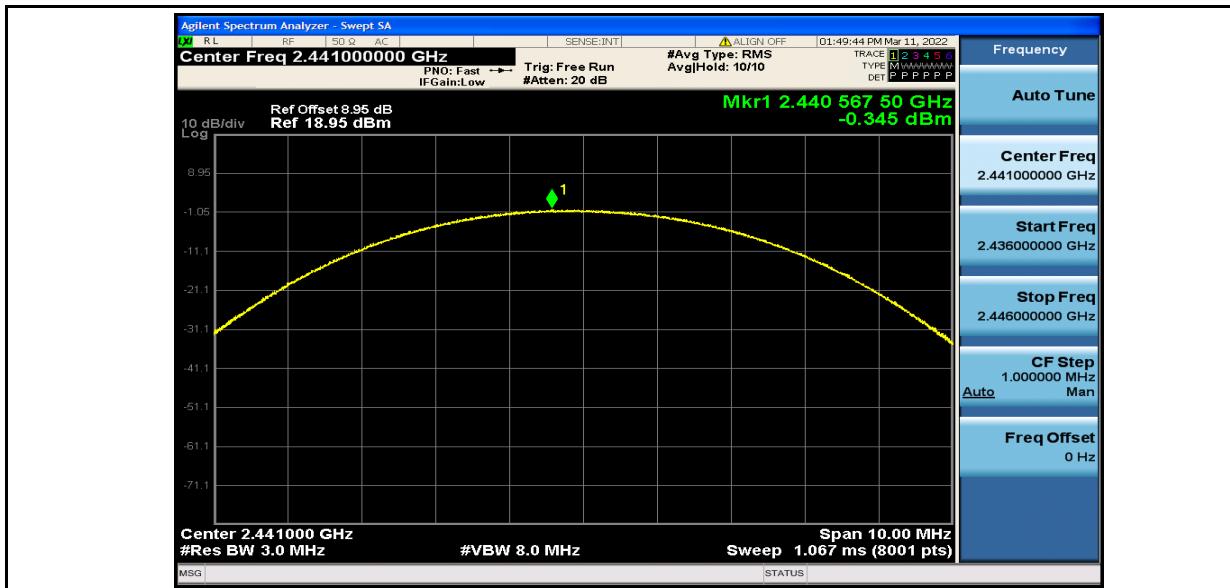


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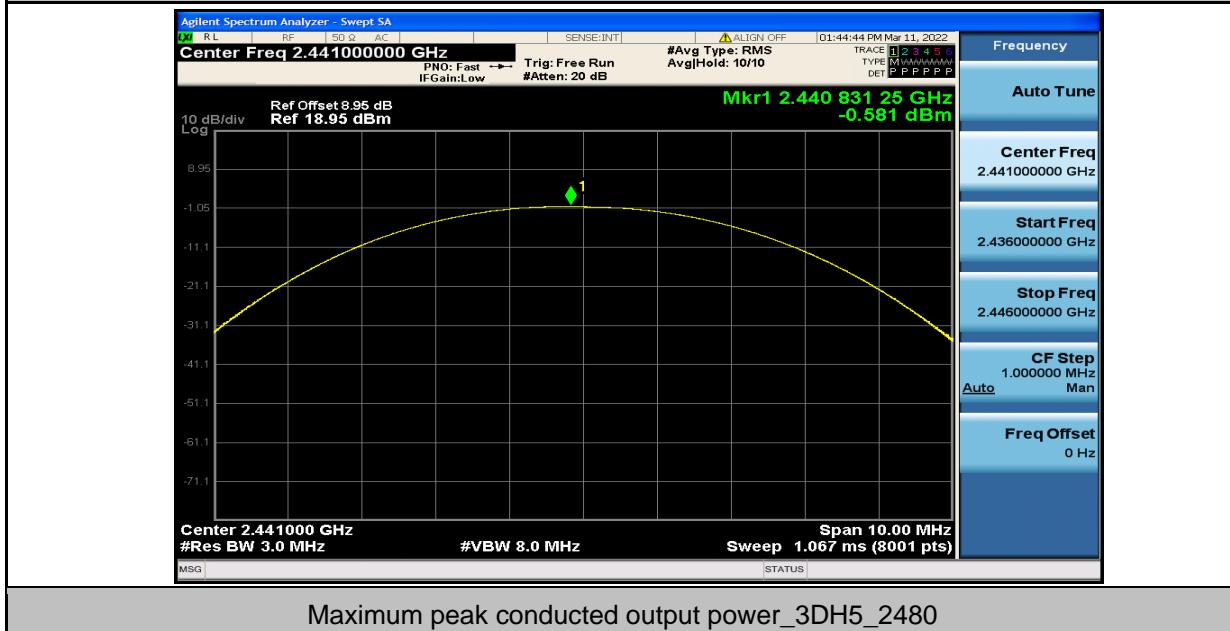
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Maximum peak conducted output power_DH5_2441

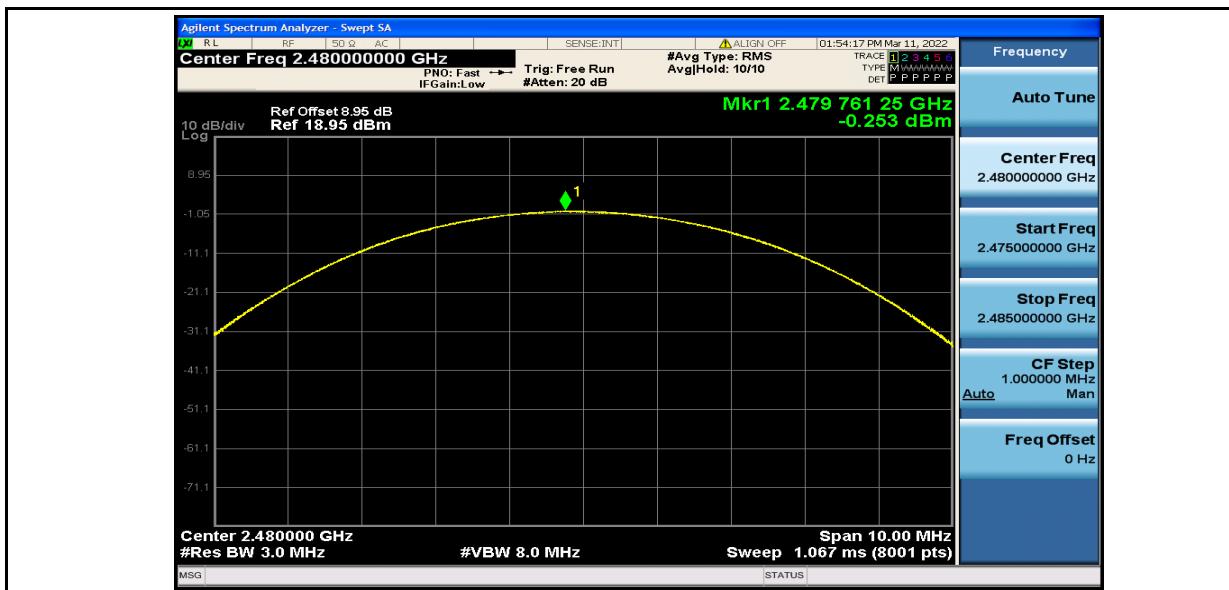


Maximum peak conducted output power_3DH5_2480

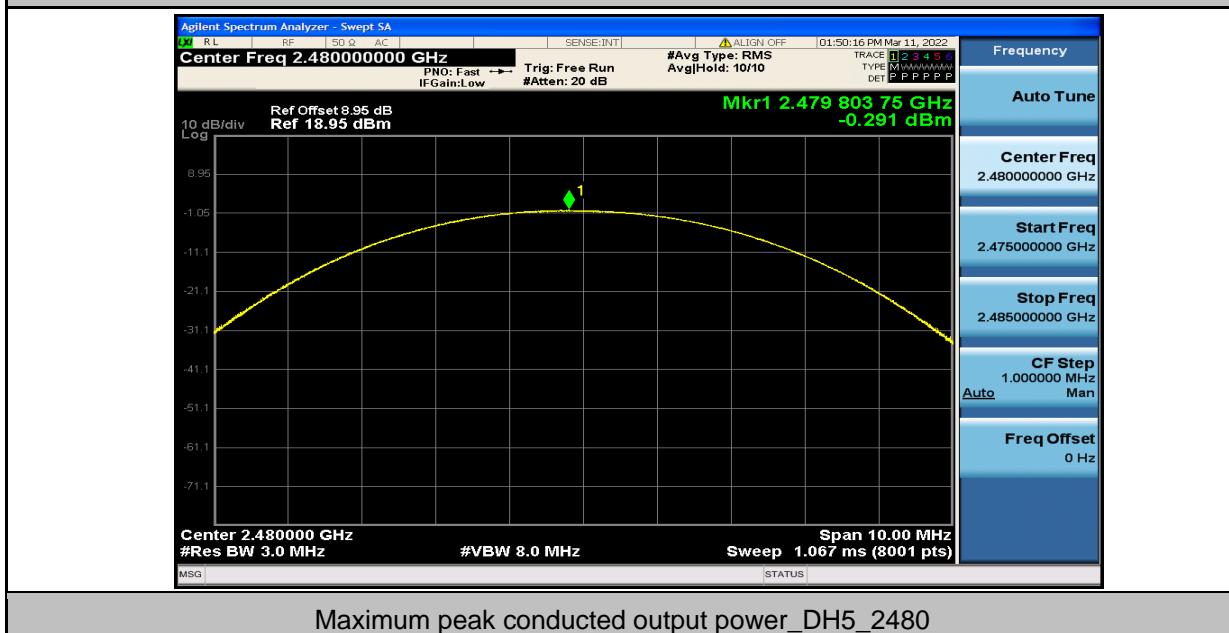
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Maximum peak conducted output power_2DH5_2480



Maximum peak conducted output power_DH5_2480

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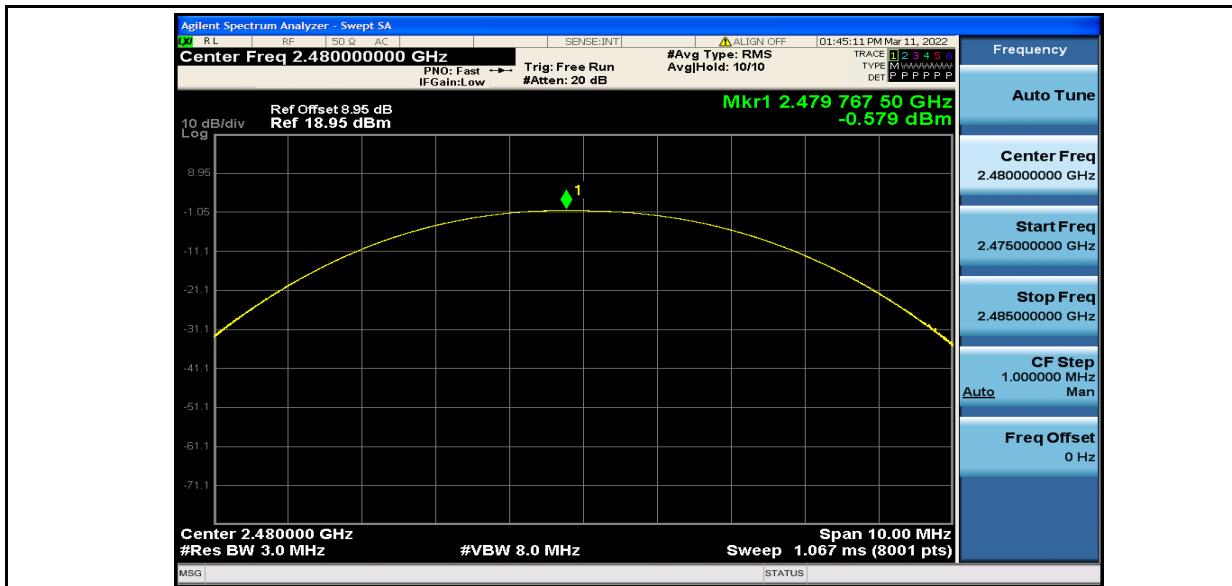
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6.2 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.10.5

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.

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 22.1 °C Humidity: 68.6 % RH Atmospheric Pressure: 1010 mbar

6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

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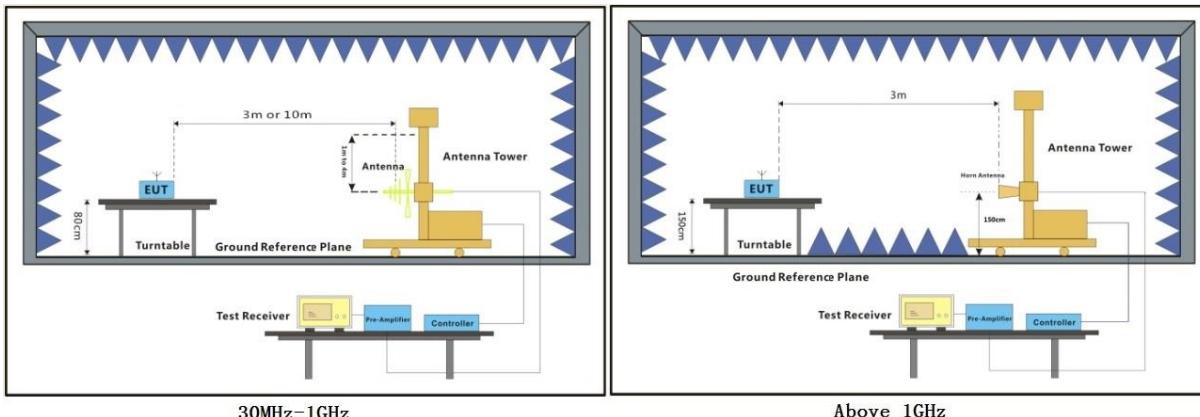


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6.2.3 Test Setup Diagram



6.2.4 Measurement Procedure and Data

- 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.
- 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.
- 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.
- 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.
- 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.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 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.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- 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.
- Repeat above procedures until all frequencies measured was complete.

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

Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



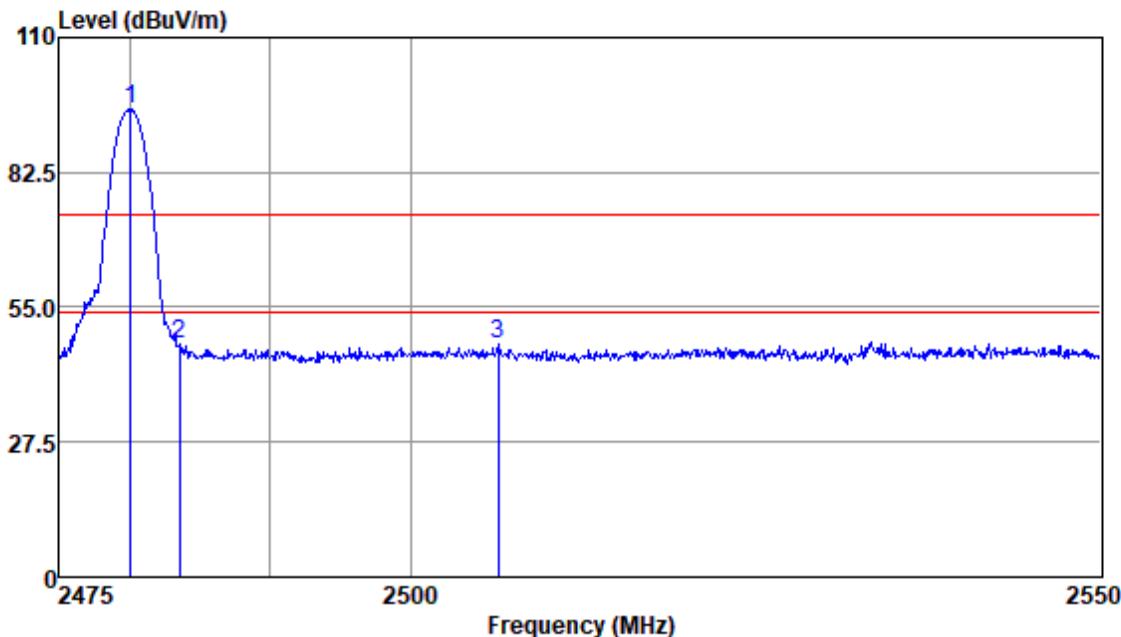
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Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; Channel:Low



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	
2480.03	98.44	29.10	3.14	35.25	95.43	74.00	21.43	Peak
2483.50	50.39	29.11	3.14	35.26	47.38	74.00	-26.62	Peak
2506.30	50.51	29.21	3.15	35.28	47.59	74.00	-26.41	Peak

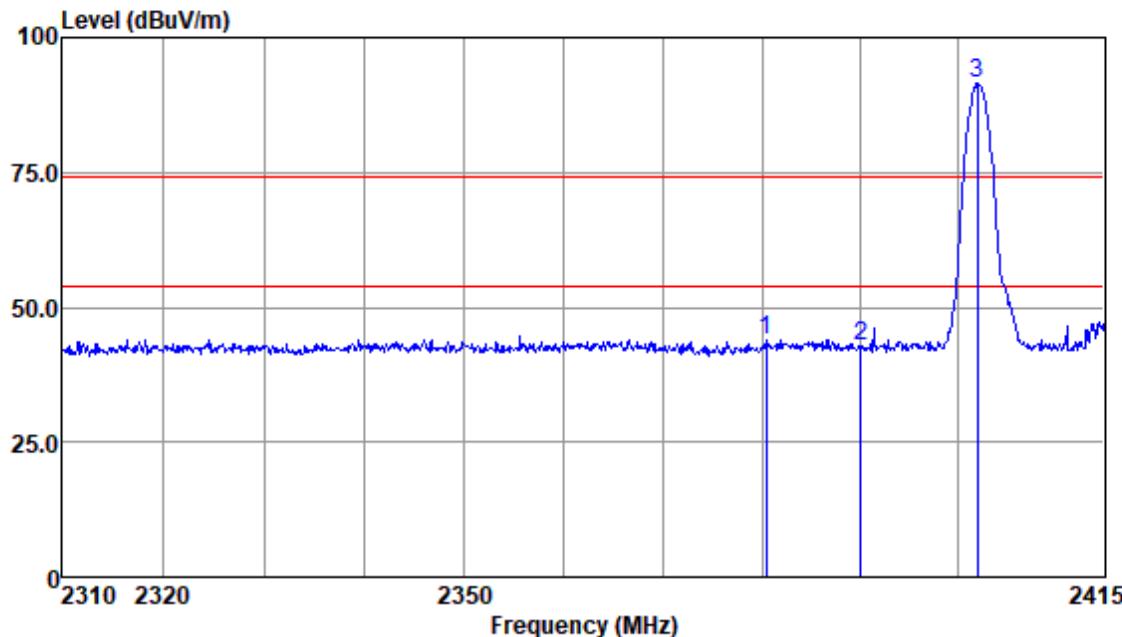
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation:GFSK; 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	
2380.36	47.64	28.40	3.17	35.17	44.04	74.00	-29.96	Peak
2390.00	45.86	28.97	3.15	35.18	42.80	74.00	-31.20	Peak
2401.94	94.68	29.01	3.14	35.19	91.64	74.00	17.64	Peak

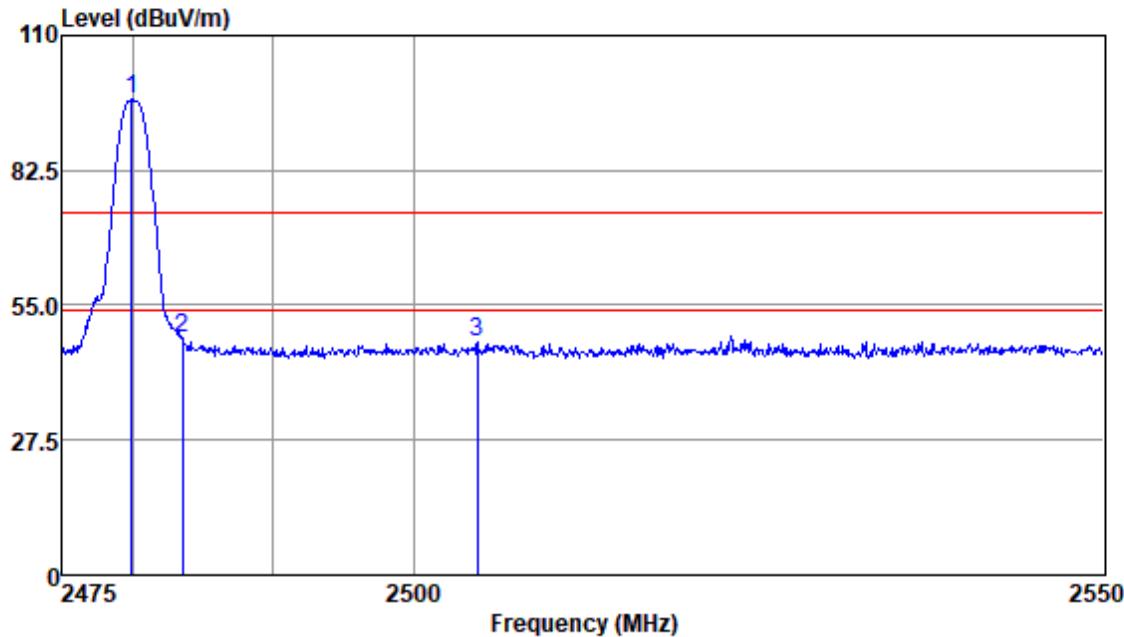
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; Channel:High



Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
2479.88	99.95	29.10	3.14	35.25	96.94	74.00	22.94	Peak
2483.50	51.36	29.11	3.14	35.26	48.35	74.00	-25.65	Peak
2504.58	50.61	29.21	3.15	35.28	47.69	74.00	-26.31	Peak

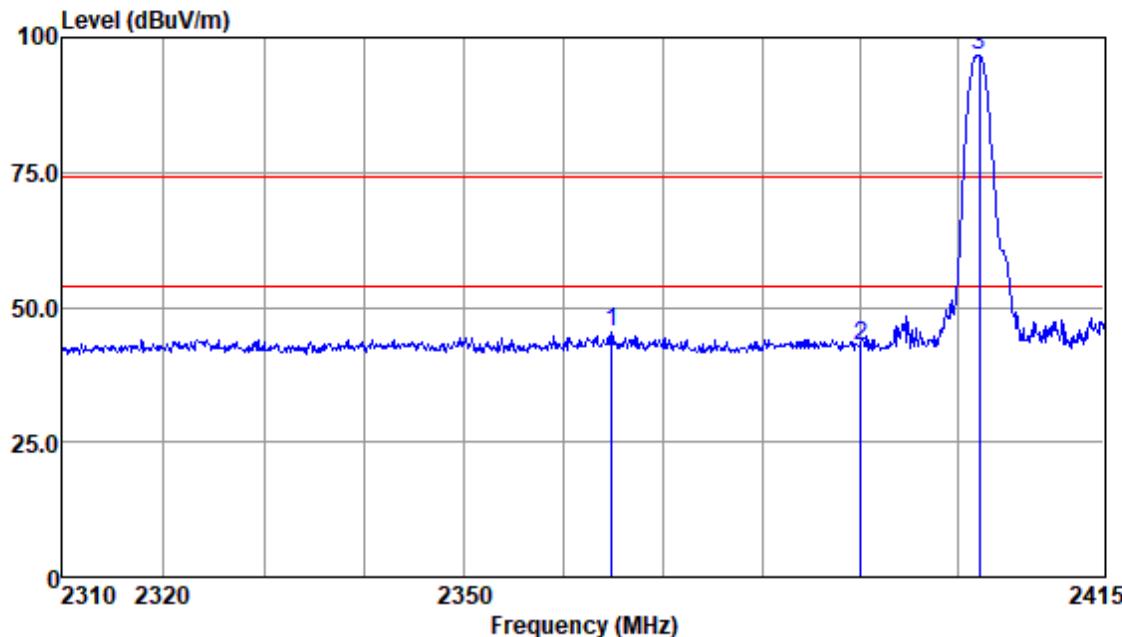
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation:GFSK; 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	
2364.75	48.34	28.94	3.15	35.16	45.27	74.00	-28.73	Peak
2390.00	45.79	28.97	3.15	35.18	42.73	74.00	-31.27	Peak
2402.15	99.82	29.01	3.14	35.19	96.78	74.00	22.78	Peak

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

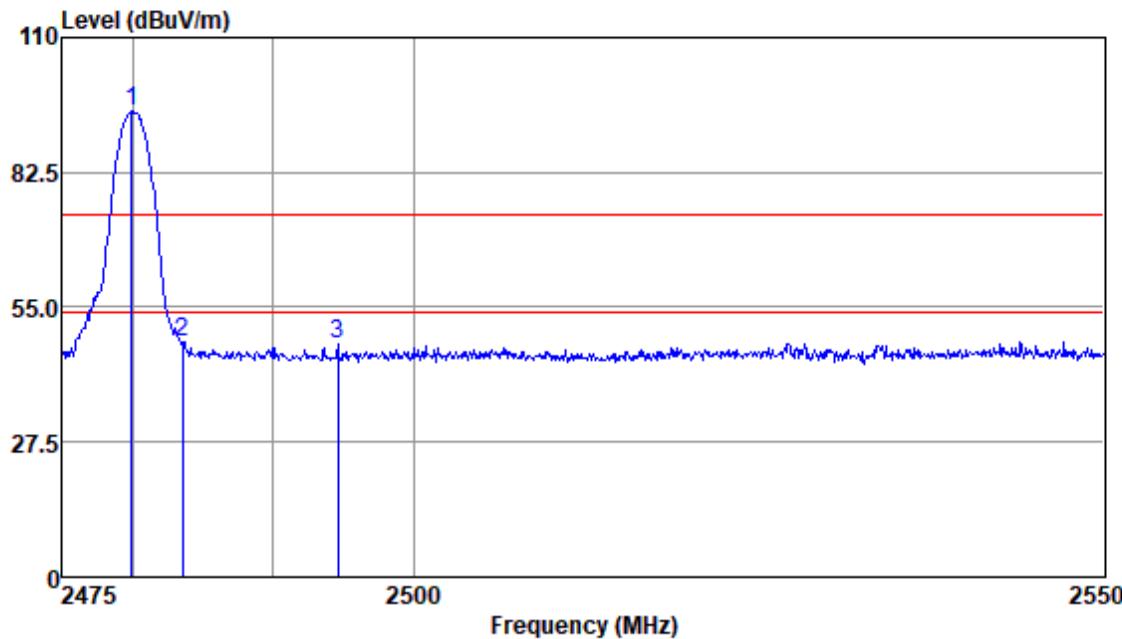


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Test Mode: 00; Polarity: Horizontal; Modulation: $\pi/4$ DQPSK; Channel: Low

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	
2479.88	97.83	29.10	3.14	35.25	94.82	74.00	20.82	Peak
2483.50	51.02	29.11	3.14	35.26	48.01	74.00	-25.99	Peak
2494.58	50.29	29.13	3.15	35.26	47.31	74.00	-26.69	Peak

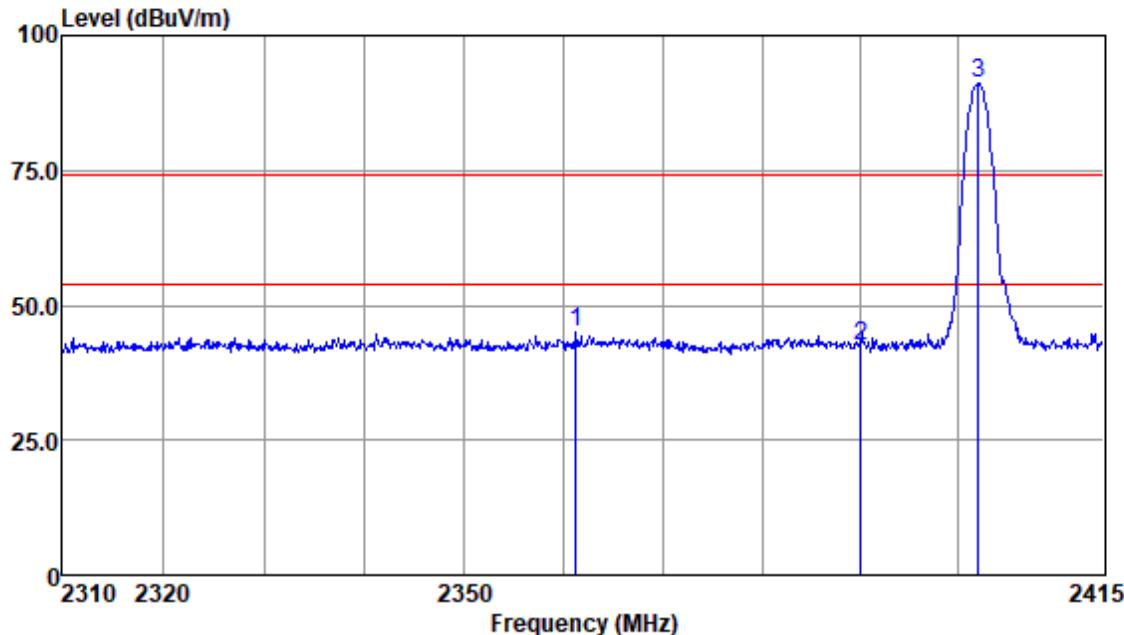
Note: Emission Level = Read Level + Antenna Factor + Cable loss + Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation: $\pi/4$ DQPSK; 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	
2361.18	48.08	28.92	3.15	35.16	44.99	74.00	-29.01	Peak
2390.00	45.65	28.97	3.15	35.18	42.59	74.00	-31.41	Peak
2402.05	94.22	29.01	3.14	35.19	91.18	74.00	17.18	Peak

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



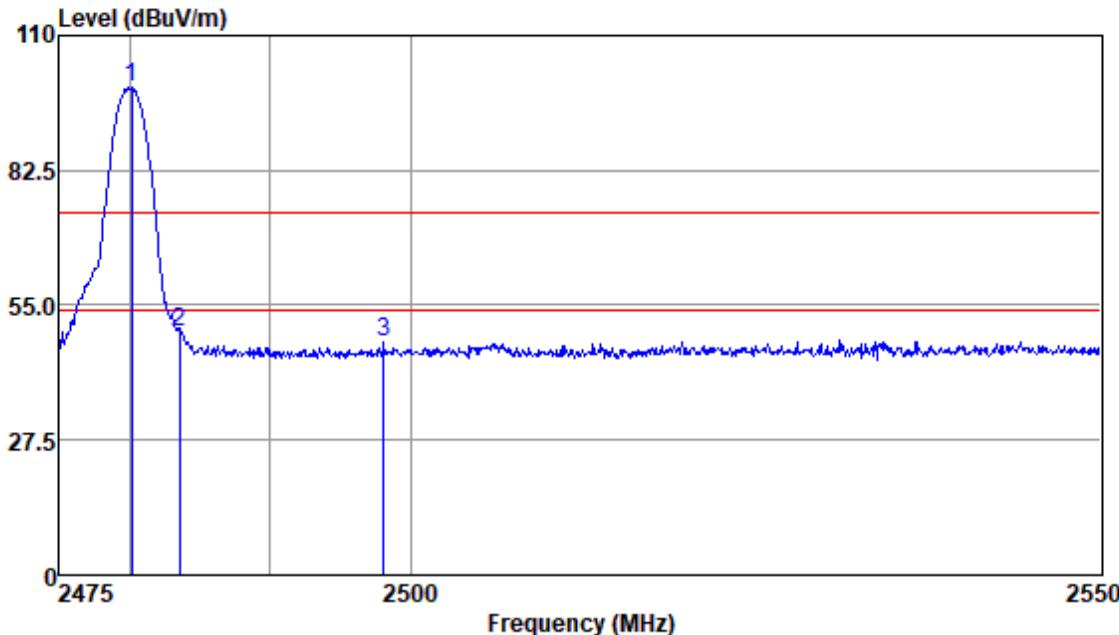
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Test Mode: 00; Polarity: Horizontal; Modulation: $\pi/4$ DQPSK; Channel:High



Antenna Polarity : VERTICAL

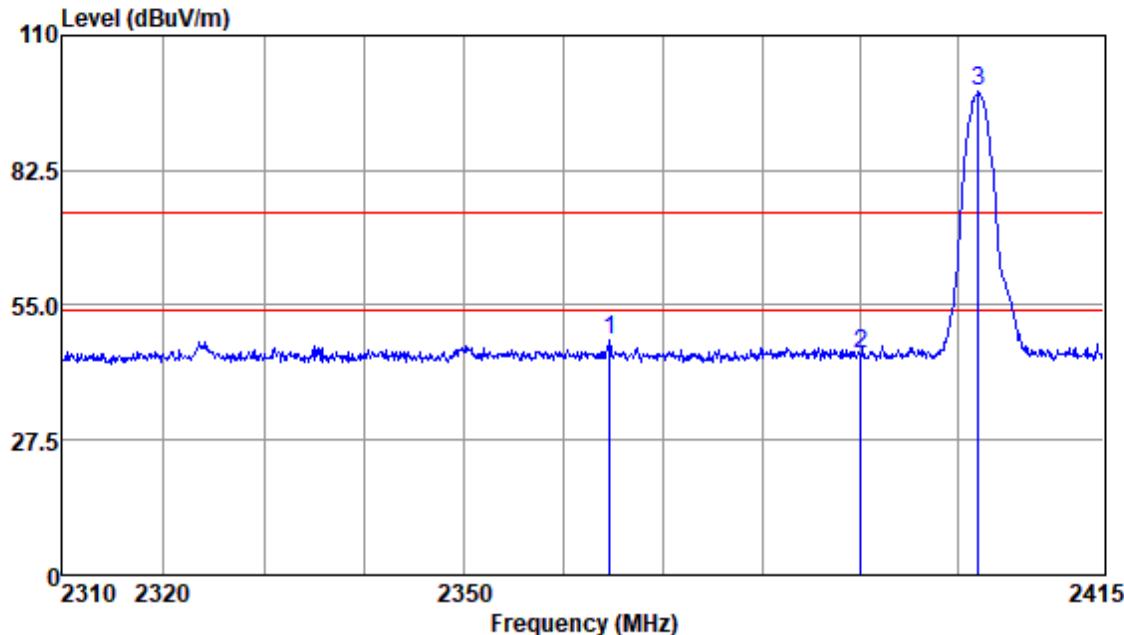
Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2480.10	102.34	29.10	3.14	35.25	99.33	74.00	25.33	Peak
2483.50	52.65	29.11	3.14	35.26	49.64	74.00	-24.36	Peak
2498.09	50.64	29.14	3.15	35.27	47.66	74.00	-26.34	Peak

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



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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	
2364.54	50.81	28.94	3.15	35.16	47.74	74.00	-26.26	Peak
2390.00	48.18	28.97	3.15	35.18	45.12	74.00	-28.88	Peak
2402.05	101.49	29.01	3.14	35.19	98.45	74.00	24.45	Peak

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



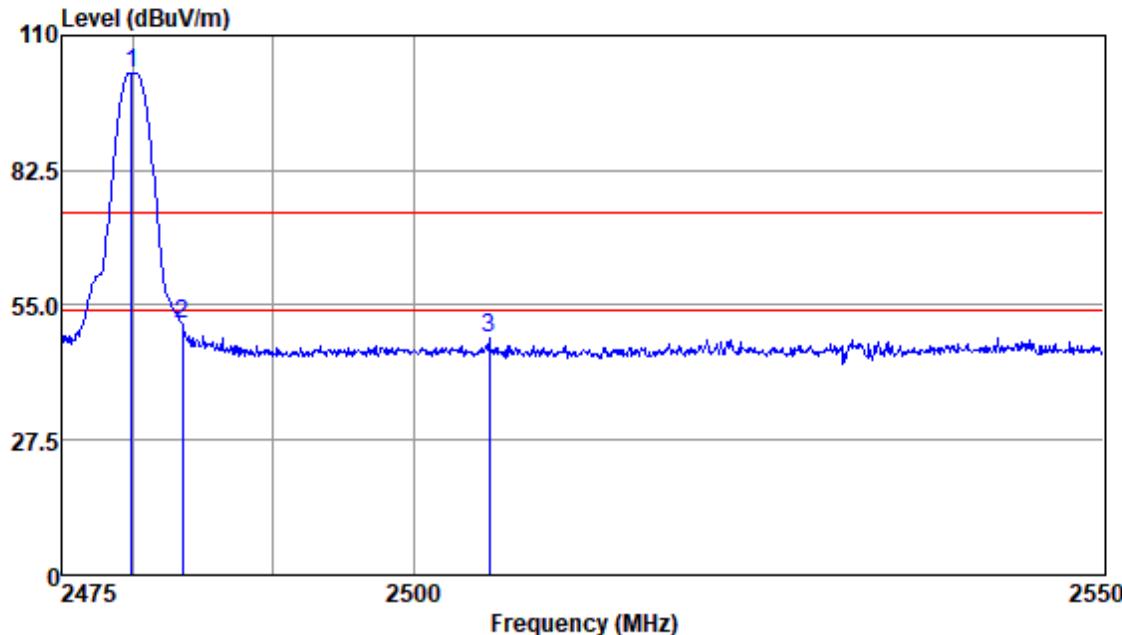
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Test Mode: 00; Polarity: Horizontal; Modulation:8DPSK; Channel:Low



Antenna Polarity : VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
2479.88	105.43	29.10	3.14	35.25	102.42	74.00	28.42	Peak
2483.50	54.09	29.11	3.14	35.26	51.08	74.00	-22.92	Peak
2505.48	51.05	29.21	3.15	35.28	48.13	74.00	-25.87	Peak

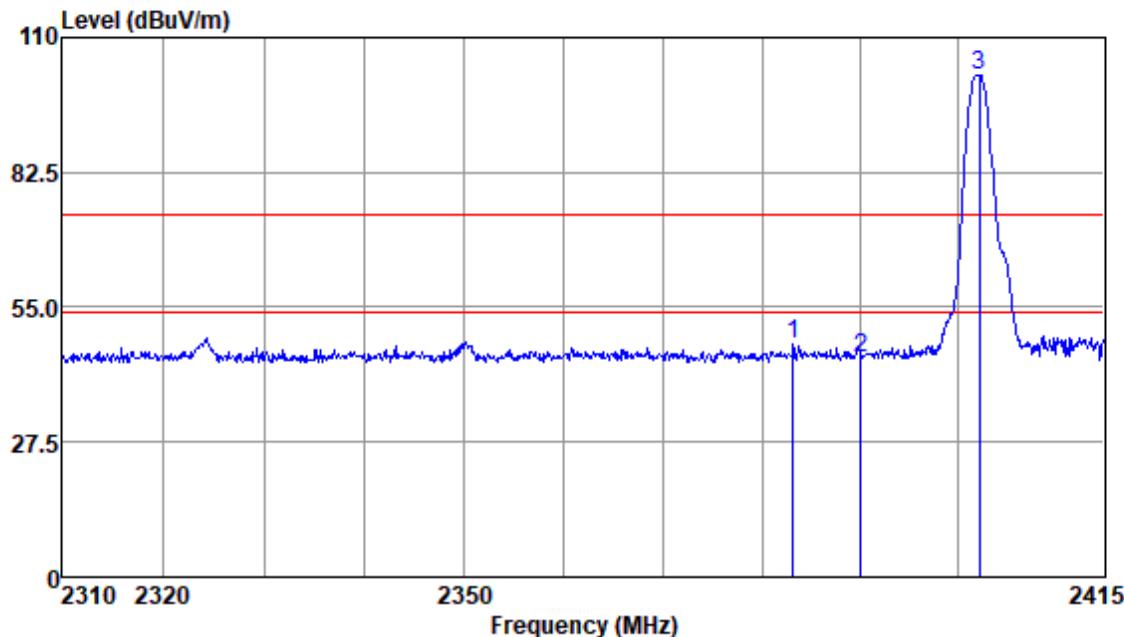
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation:8DPSK; 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	
2383.12	51.08	28.40	3.16	35.17	47.47	74.00	-26.53	Peak
2390.00	47.69	28.97	3.15	35.18	44.63	74.00	-29.37	Peak
2402.15	105.46	29.01	3.14	35.19	102.42	74.00	28.42	Peak

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

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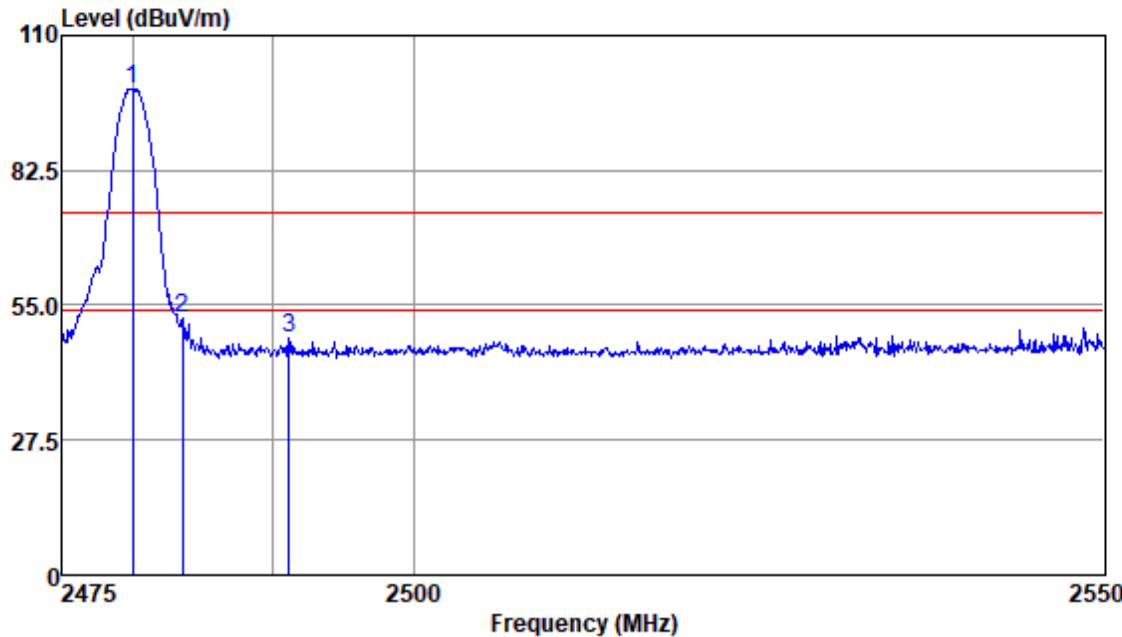


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Test Mode: 00; Polarity: Horizontal; Modulation:8DPSK; Channel:High



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	
2479.96	102.08	29.10	3.14	35.25	99.07	74.00	25.07	Peak
2483.50	55.17	29.11	3.14	35.26	52.16	74.00	-21.84	Peak
2491.09	51.16	29.13	3.15	35.26	48.18	74.00	-25.82	Peak

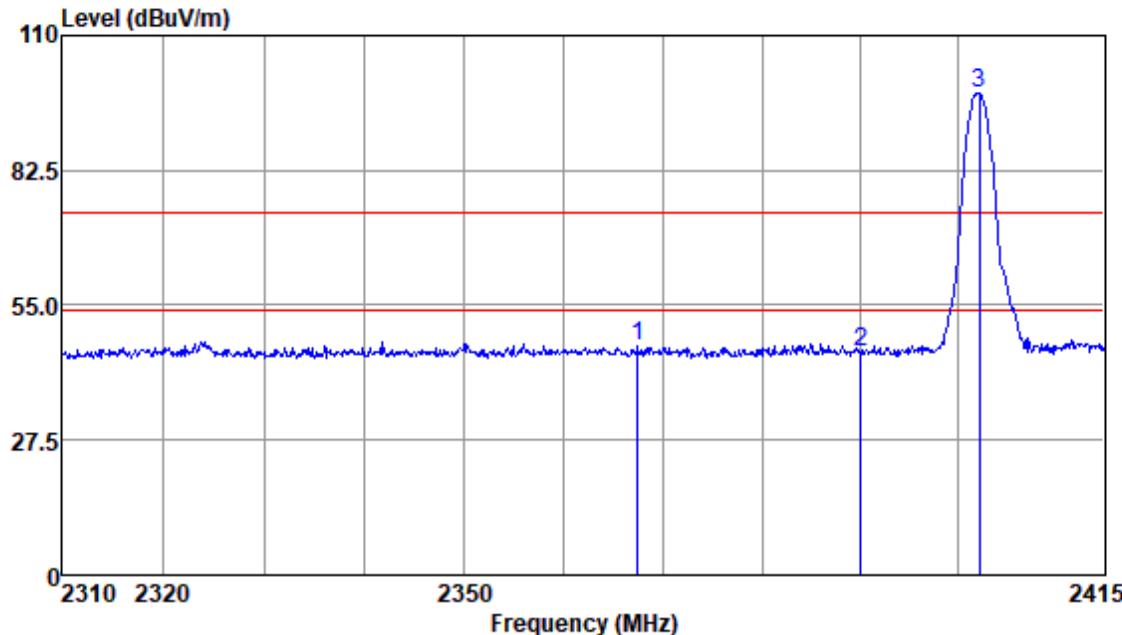
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation:8DPSK; 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	
2367.38	49.92	28.94	3.17	35.16	46.87	74.00	-27.13	Peak
2390.00	48.53	28.97	3.15	35.18	45.47	74.00	-28.53	Peak
2402.15	101.46	29.01	3.14	35.19	98.42	74.00	24.42	Peak

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



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6.3 Radiated Spurious Emissions Below 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4,6.5

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
960-1000	500	3

6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22.1 °C

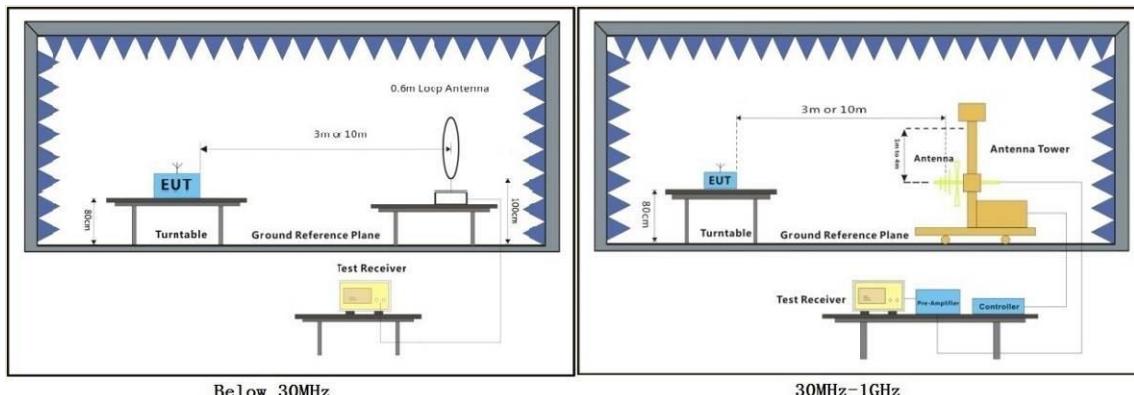
Humidity: 68.8 % RH

Atmospheric Pressure: 1010 mbar

6.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

6.3.3 Test Setup Diagram



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6.3.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. 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.
- c. 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.
- d. 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.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. 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 quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. 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.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 9kHz to 30MHz, the disturbance 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.
3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



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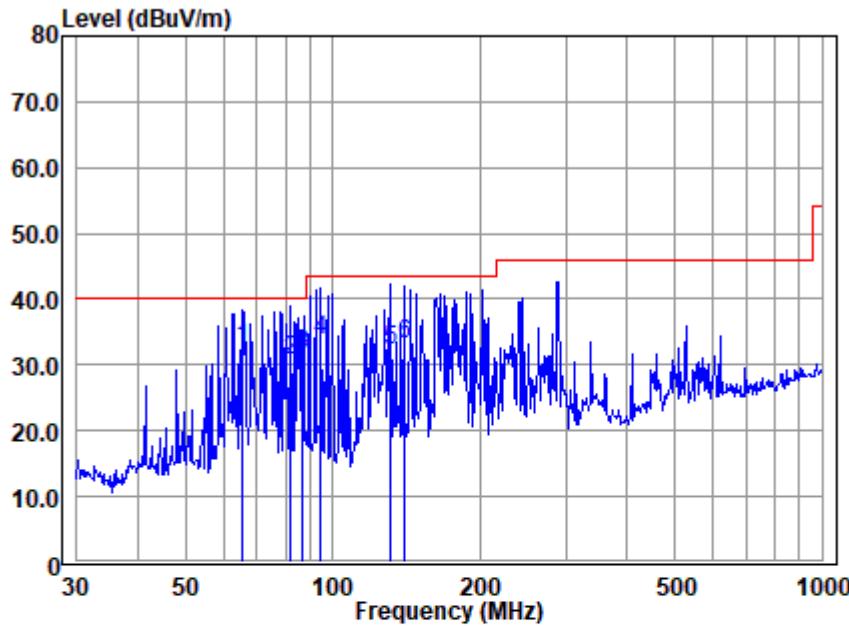
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Test Mode: 00; Polarity: Horizontal



Antenna Polarity :Horizontal
 EUT/Project :0390AT
 Test mode :00

Freq	Read	Antenna	Cable	Preamp	Emission	Limit	Over	Remark	
	Level	Factor	Loss	Factor	Level	Line	Limit		
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB		
1	65.28	44.11	12.40	1.99	26.10	32.40	40.00	-7.60	QP
2	82.06	46.45	8.40	2.12	26.10	30.87	40.00	-9.13	QP
3	86.39	47.90	7.81	2.17	26.10	31.78	40.00	-8.22	QP
4	94.61	49.18	8.30	2.28	26.05	33.71	43.50	-9.79	QP
5	130.97	43.57	12.05	2.64	26.00	32.26	43.50	-11.24	QP
6	139.91	43.33	12.88	2.82	26.00	33.03	43.50	-10.47	QP

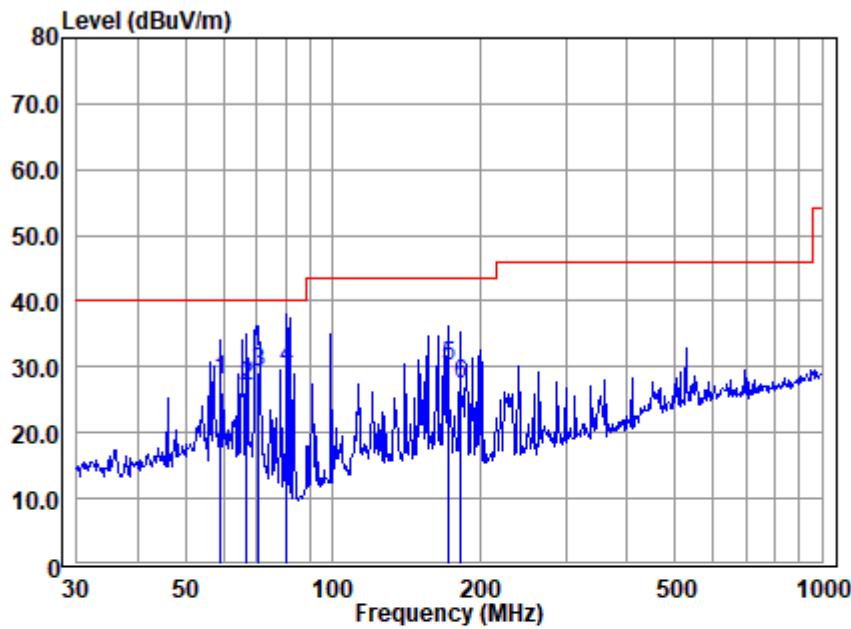
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Vertical



Antenna Polarity :Vertical
EUT/Project :0390AT
Test mode :00

Freq MHz	Read Level dBuV	Antenna Factor	Cable Loss	Preamp Factor	Emission Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Remark
	MHz	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	58.97	39.14	13.20	1.85	26.11	28.08	40.00	-11.92
2	66.29	38.84	12.15	2.04	26.10	26.93	40.00	-13.07
3	70.45	41.87	11.39	2.08	26.10	29.24	40.00	-10.76
4	80.41	45.10	8.80	2.13	26.10	29.93	40.00	-10.07
5	172.33	40.31	12.46	3.23	25.91	30.09	43.50	-13.41
6	182.23	38.65	11.36	3.24	25.87	27.38	43.50	-16.12

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

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6.4 Radiated Spurious Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.6

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1000	500	3

6.4.1 E.U.T. Operation

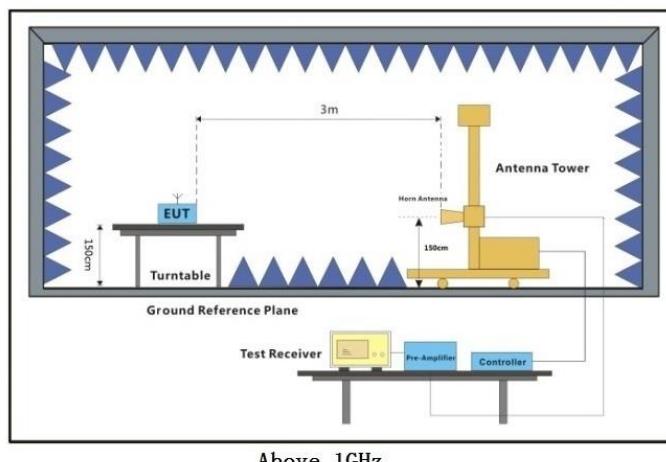
Operating Environment:

Temperature: 22.1 °C Humidity: 68.9 % RH Atmospheric Pressure: 1010 mbar

6.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

6.4.3 Test Setup Diagram



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6.4.4 Measurement Procedure and Data

- a. 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.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. 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.
- d. 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.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. 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 or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. 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.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 1GHz to 25GHz, the disturbance above 18GHz 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.
3. 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.



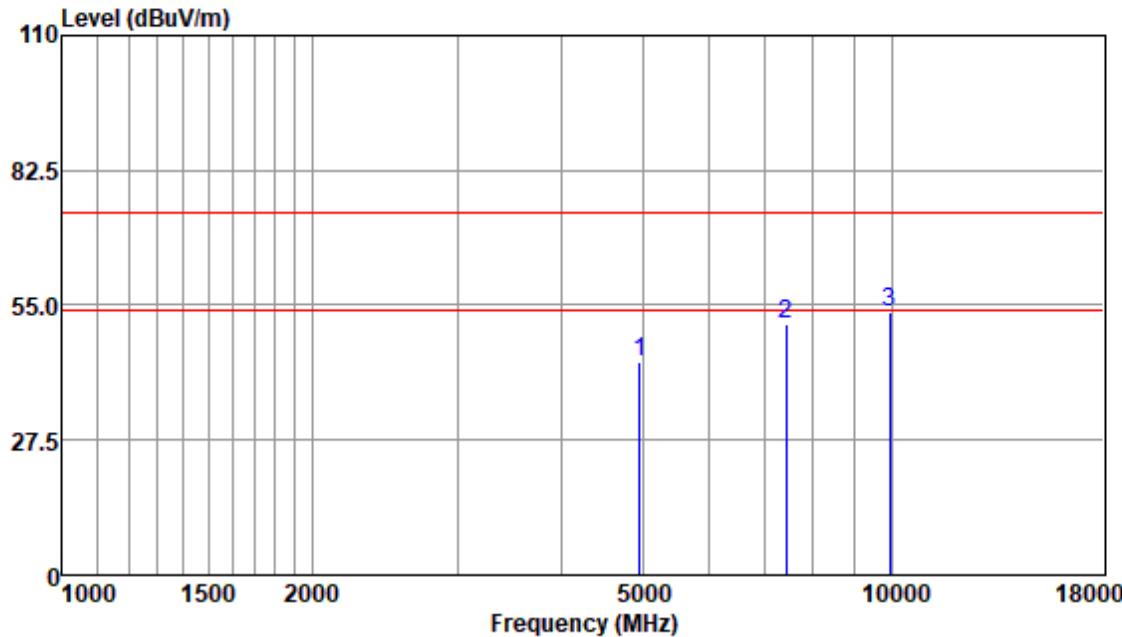
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Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; Channel:Low



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	
4960.00	41.56	31.52	12.72	42.40	43.40	74.00	-30.60	Peak
7440.00	41.79	36.94	15.33	42.79	51.27	74.00	-22.73	Peak
9920.00	41.02	38.52	16.72	42.53	53.73	74.00	-20.27	Peak

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



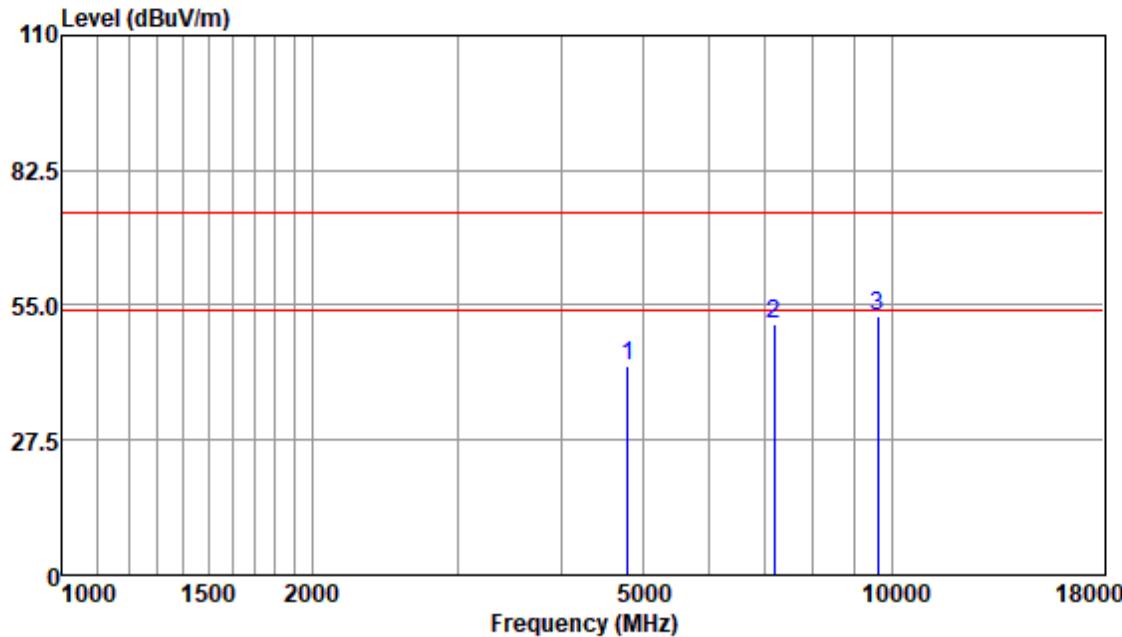
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Test Mode: 00; Polarity: Vertical; Modulation:GFSK; Channel:Low



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	
4804.00	41.31	31.22	12.62	42.40	42.75	74.00	-31.25	Peak
7206.00	42.07	36.34	15.28	42.74	50.95	74.00	-23.05	Peak
9608.00	40.87	38.21	16.48	42.66	52.90	74.00	-21.10	Peak

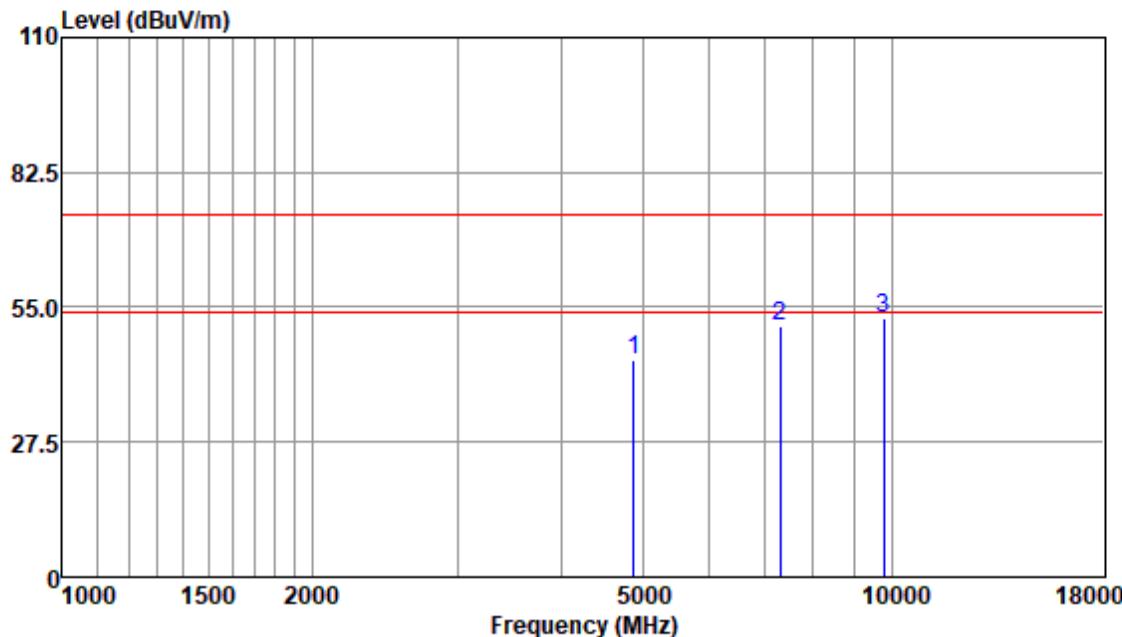
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; Channel:middle



Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4882.00	42.44	31.38	12.67	42.40	44.09	74.00	-29.91	Peak
7323.00	42.02	36.67	15.30	42.77	51.22	74.00	-22.78	Peak
9764.00	40.44	38.35	16.60	42.60	52.79	74.00	-21.21	Peak

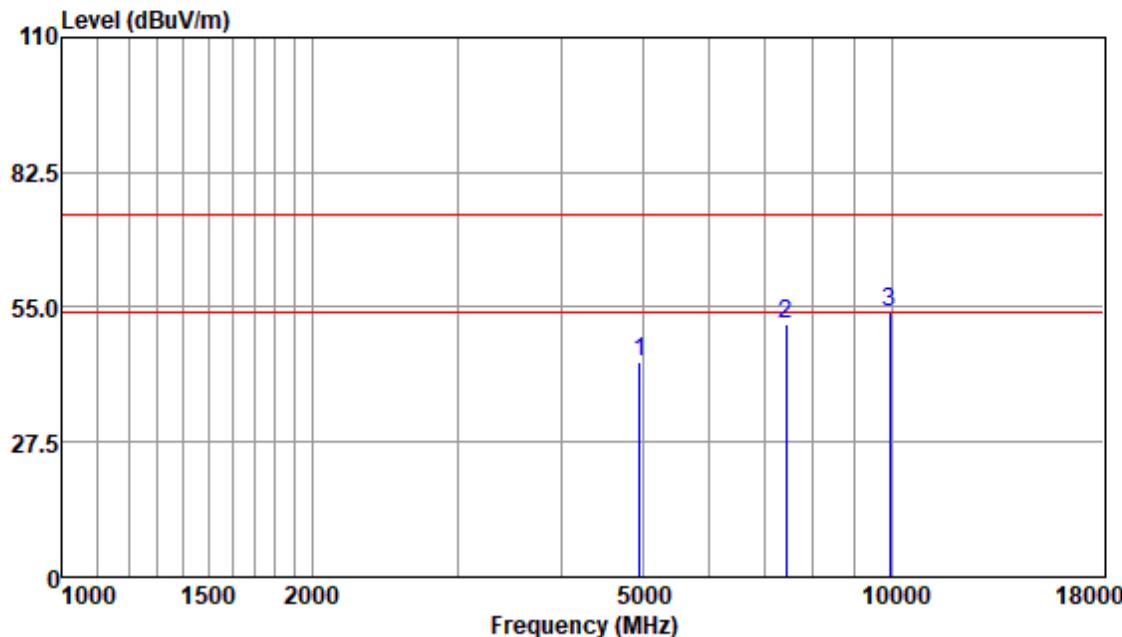
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation:GFSK; 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	
4960.00	42.11	31.52	12.72	42.40	43.95	74.00	-30.05	Peak
7440.00	42.02	36.94	15.33	42.79	51.50	74.00	-22.50	Peak
9920.00	41.08	38.52	16.72	42.53	53.79	74.00	-20.21	Peak

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

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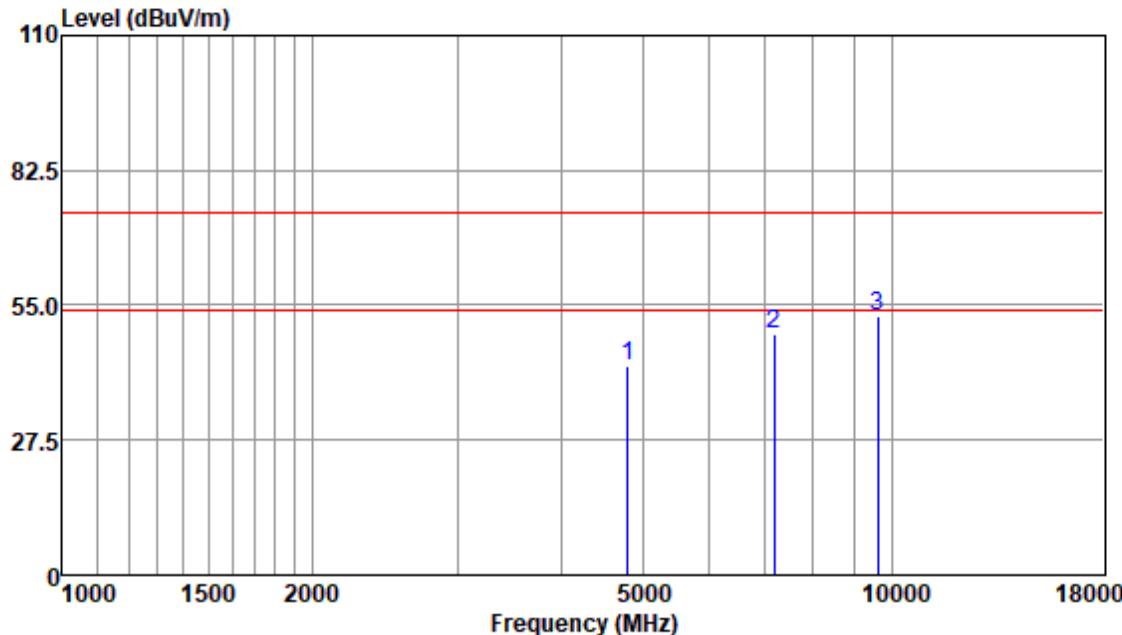
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Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; Channel:High



Antenna Polarity :HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4804.00	41.35	31.22	12.62	42.40	42.79	74.00	-31.21	Peak
7206.00	40.38	36.34	15.28	42.74	49.26	74.00	-24.74	Peak
9608.00	40.62	38.21	16.48	42.66	52.65	74.00	-21.35	Peak

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



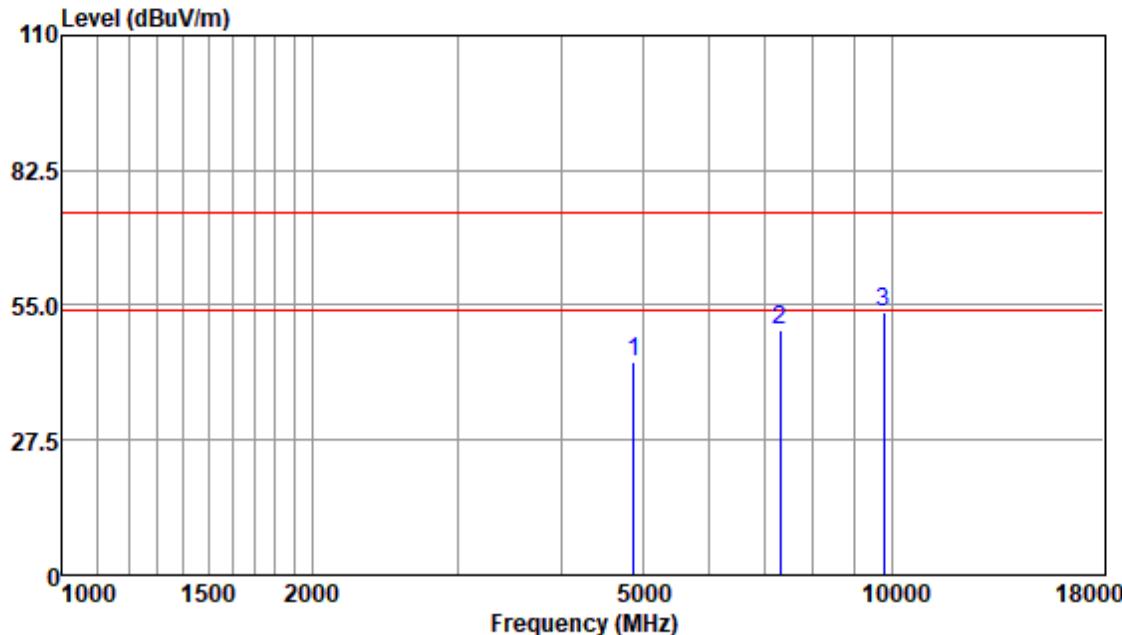
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Test Mode: 00; Polarity: Vertical; Modulation:GFSK; Channel:High



Antenna Polarity :HORIZONTAL

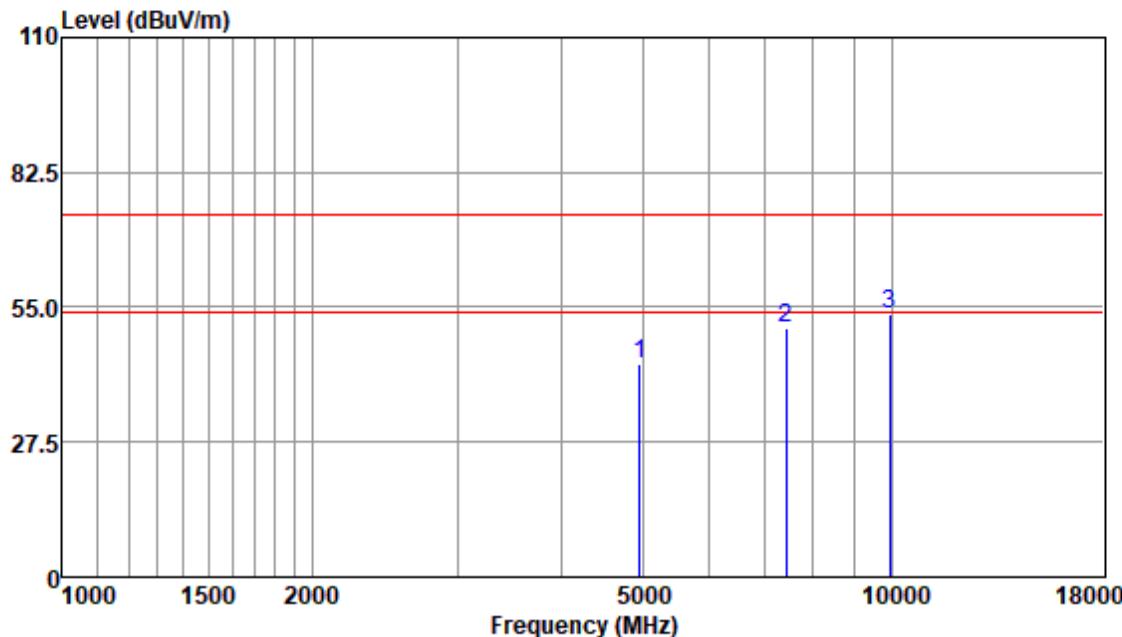
Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4882.00	41.59	31.38	12.67	42.40	43.24	74.00	-30.76	Peak
7323.00	40.92	36.67	15.30	42.77	50.12	74.00	-23.88	Peak
9764.00	41.03	38.35	16.60	42.60	53.38	74.00	-20.62	Peak

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



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Test Mode: 00; Polarity: Horizontal; Modulation: $\pi/4$ DQPSK; Channel: Low

Antenna Polarity : HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4960.00	41.72	31.52	12.72	42.40	43.56	74.00	-30.44	Peak
7440.00	41.27	36.94	15.33	42.79	50.75	74.00	-23.25	Peak
9920.00	40.92	38.52	16.72	42.53	53.63	74.00	-20.37	Peak

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



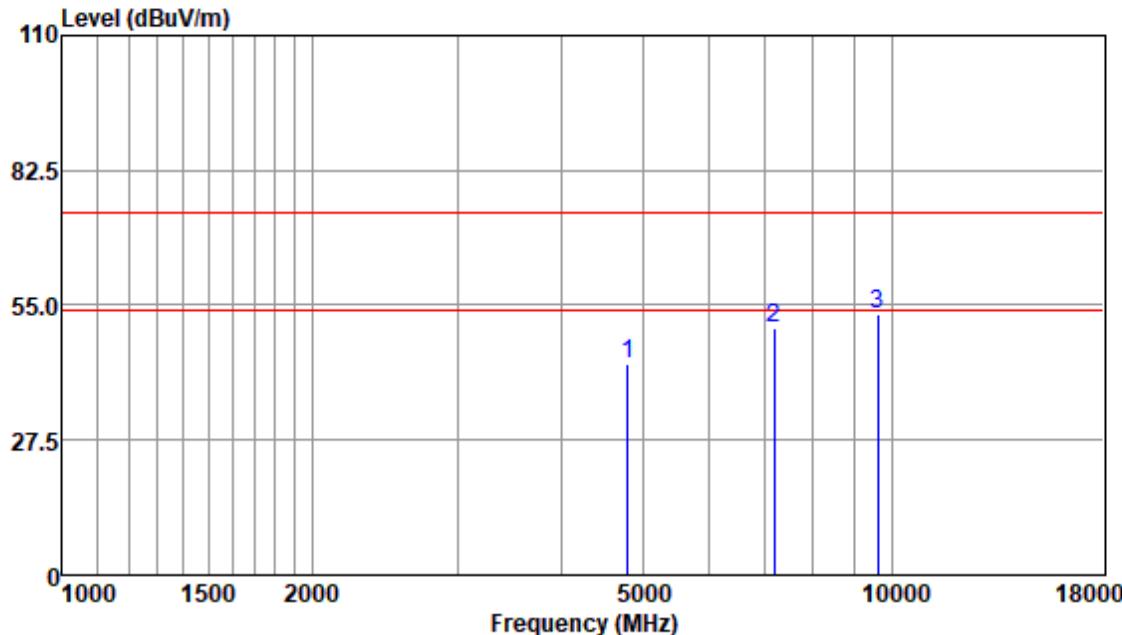
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Test Mode: 00; Polarity: Vertical; Modulation: $\pi/4$ DQPSK; Channel: Low



Antenna Polarity : HORIZONTAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4804.00	41.74	31.22	12.62	42.40	43.18	74.00	-30.82	Peak
7206.00	41.59	36.34	15.28	42.74	50.47	74.00	-23.53	Peak
9608.00	41.06	38.21	16.48	42.66	53.09	74.00	-20.91	Peak

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

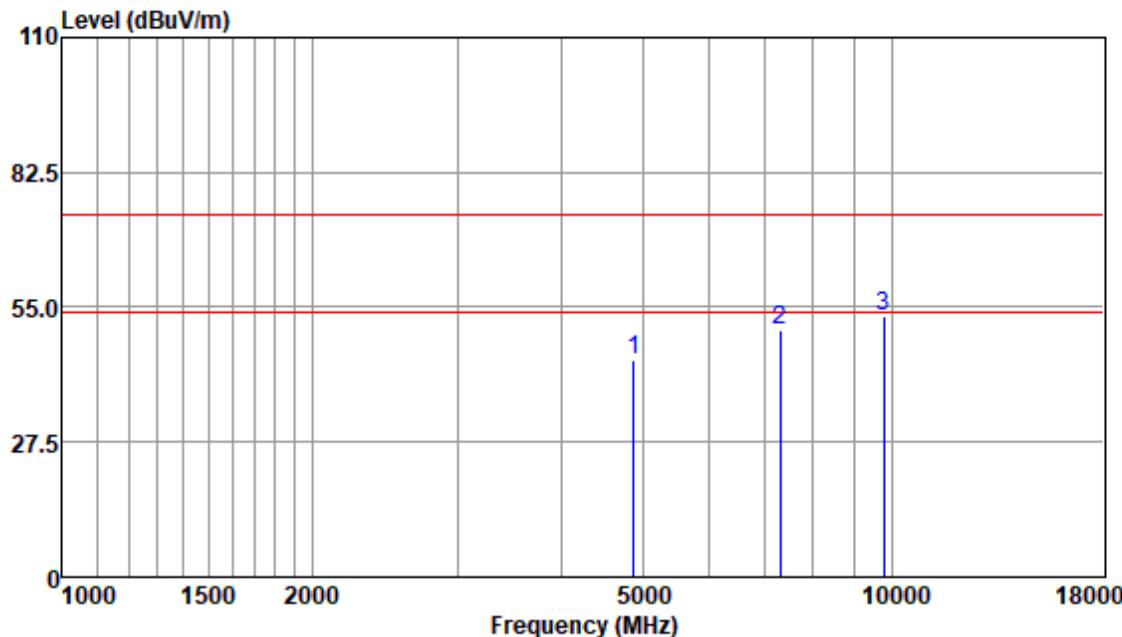


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Test Mode: 00; Polarity: Horizontal; Modulation: $\pi/4$ DQPSK; Channel: middle

Antenna Polarity :HORIZONTAL

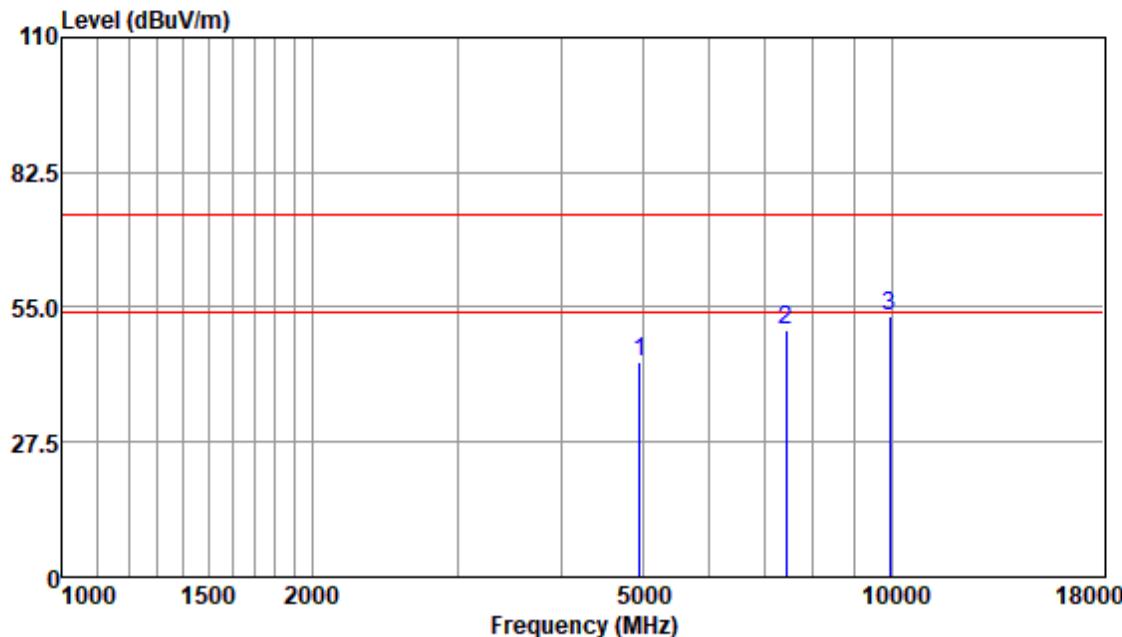
Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4882.00	42.67	31.38	12.67	42.40	44.32	74.00	-29.68	Peak
7323.00	41.13	36.67	15.30	42.77	50.33	74.00	-23.67	Peak
9764.00	40.82	38.35	16.60	42.60	53.17	74.00	-20.83	Peak

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



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Test Mode: 00; Polarity: Vertical; Modulation: $\pi/4$ DQPSK; Channel: middle

Antenna Polarity : VERTICAL

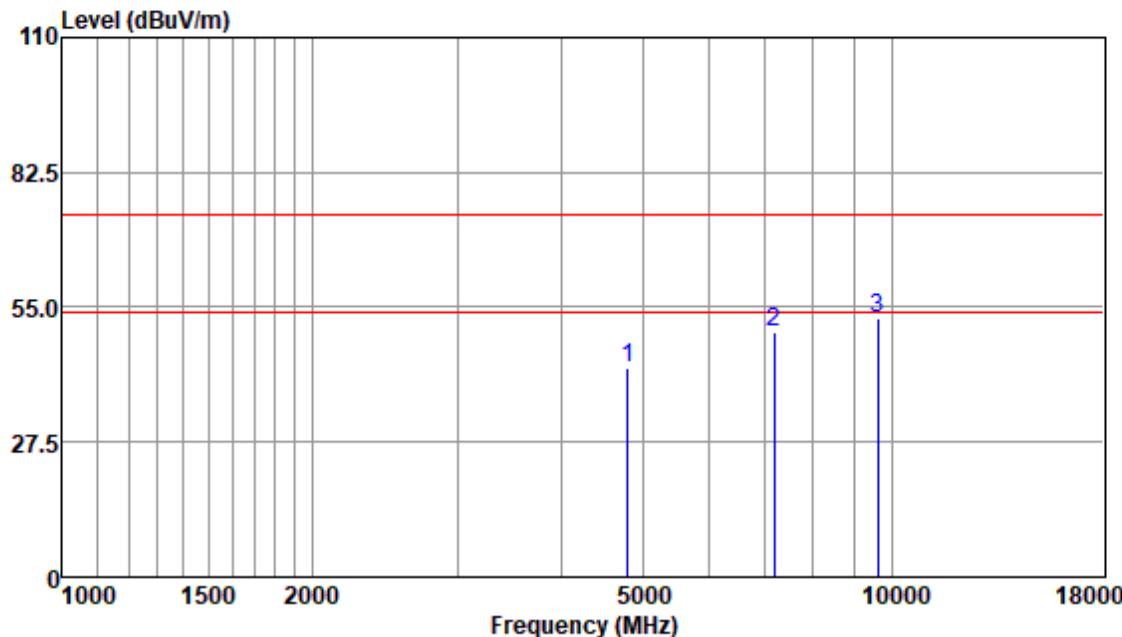
Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4960.00	41.83	31.52	12.72	42.40	43.67	74.00	-30.33	Peak
7440.00	41.00	36.94	15.33	42.79	50.48	74.00	-23.52	Peak
9920.00	40.57	38.52	16.72	42.53	53.28	74.00	-20.72	Peak

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



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Test Mode: 00; Polarity: Horizontal; Modulation: $\pi/4$ DQPSK; 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	
4804.00	41.19	31.22	12.62	42.40	42.63	74.00	-31.37	Peak
7206.00	41.06	36.34	15.28	42.74	49.94	74.00	-24.06	Peak
9608.00	40.72	38.21	16.48	42.66	52.75	74.00	-21.25	Peak

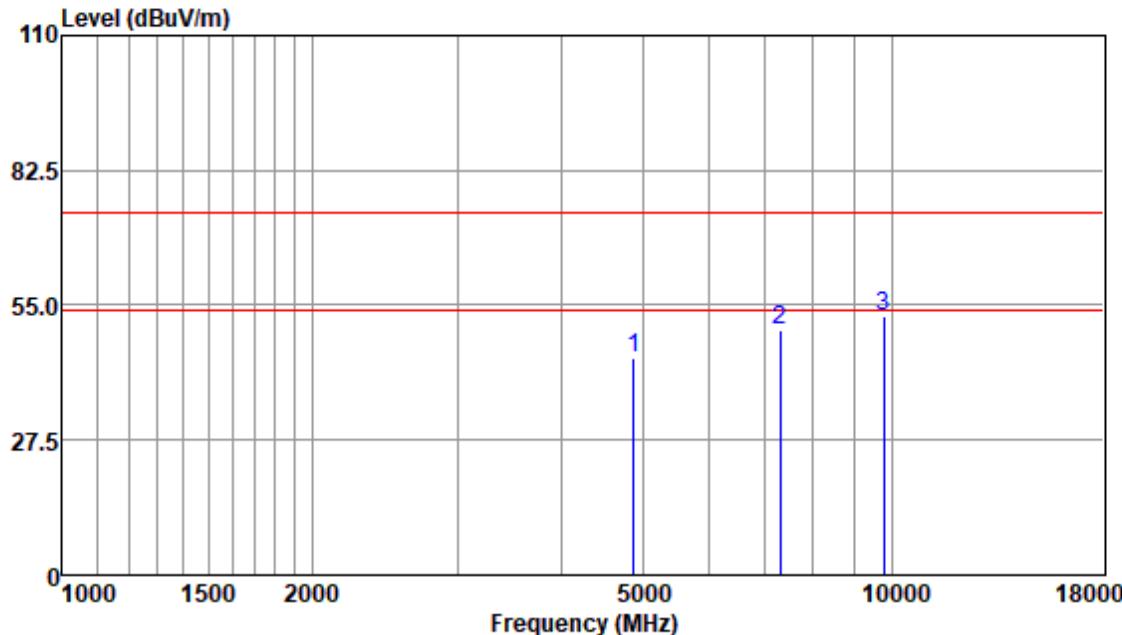
Note: Emission Level = Read Level + Antenna Factor + Cable loss + Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation: $\pi/4$ DQPSK; Channel: High



Antenna Polarity : VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4882.00	42.42	31.38	12.67	42.40	44.07	74.00	-29.93	Peak
7323.00	40.85	36.67	15.30	42.77	50.05	74.00	-23.95	Peak
9764.00	40.27	38.35	16.60	42.60	52.62	74.00	-21.38	Peak

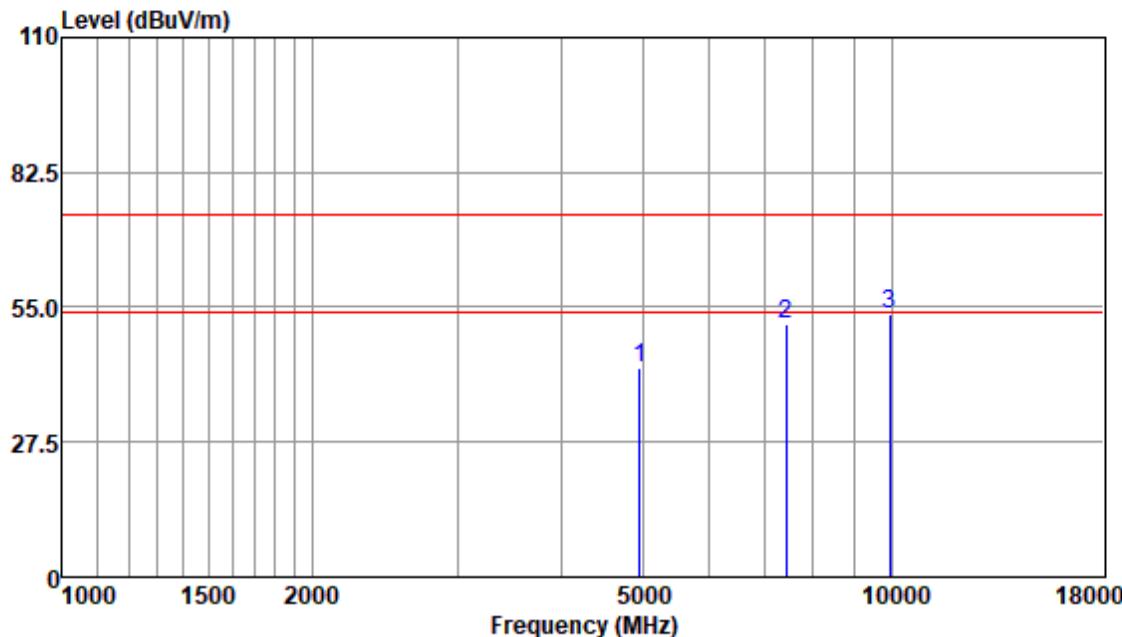
Note: Emission Level = Read Level + Antenna Factor + Cable loss + Preamp Factor



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Test Mode: 00; Polarity: Horizontal; Modulation:8DPSK; Channel:Low



Antenna Polarity : VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4960.00	40.89	31.52	12.72	42.40	42.73	74.00	-31.27	Peak
7440.00	42.10	36.94	15.33	42.79	51.58	74.00	-22.42	Peak
9920.00	40.96	38.52	16.72	42.53	53.67	74.00	-20.33	Peak

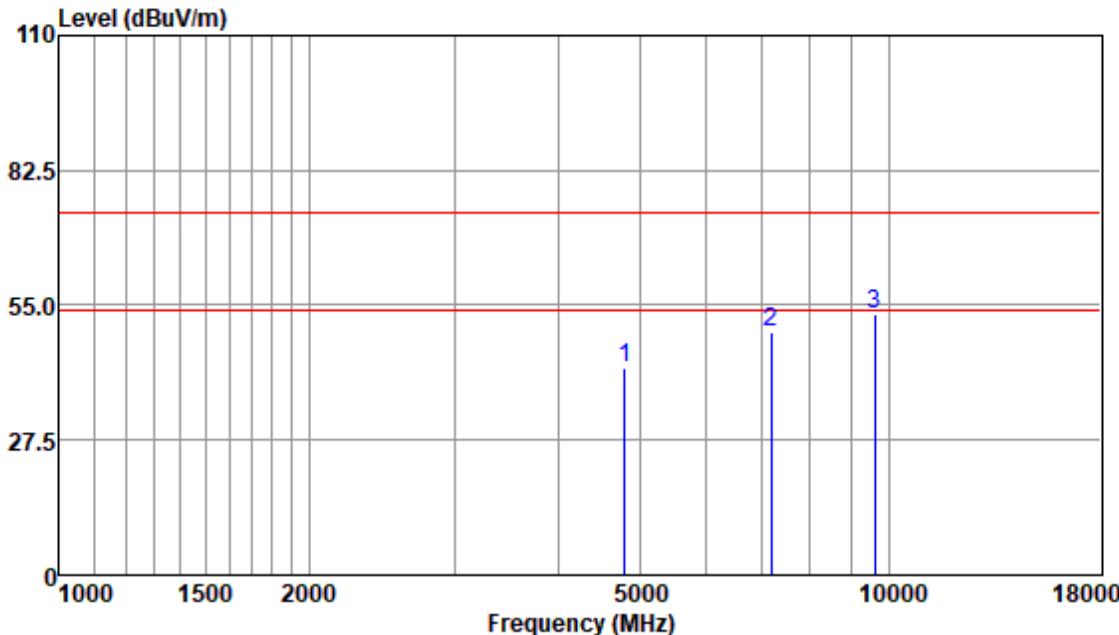
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation:8DPSK; Channel:Low



Antenna Polarity : VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4804.00	40.75	31.22	12.62	42.40	42.19	74.00	-31.81	Peak
7206.00	40.76	36.34	15.28	42.74	49.64	74.00	-24.36	Peak
9608.00	41.32	38.21	16.48	42.66	53.35	74.00	-20.65	Peak

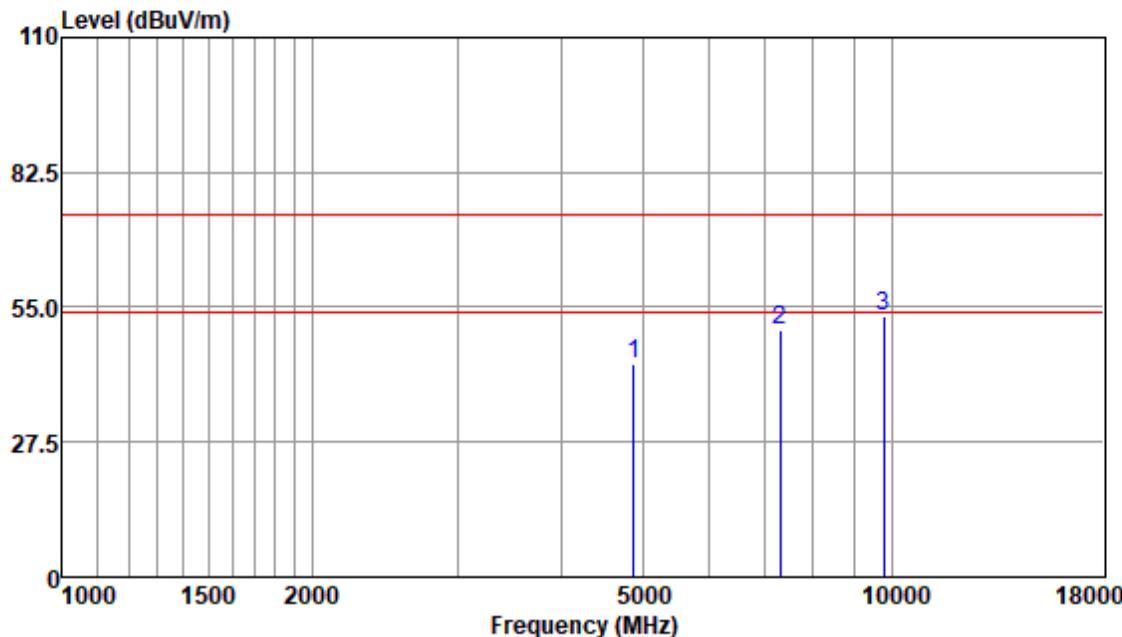
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Horizontal; Modulation:8DPSK; Channel:middle



Antenna Polarity : VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4882.00	41.62	31.38	12.67	42.40	43.27	74.00	-30.73	Peak
7323.00	40.99	36.67	15.30	42.77	50.19	74.00	-23.81	Peak
9764.00	40.86	38.35	16.60	42.60	53.21	74.00	-20.79	Peak

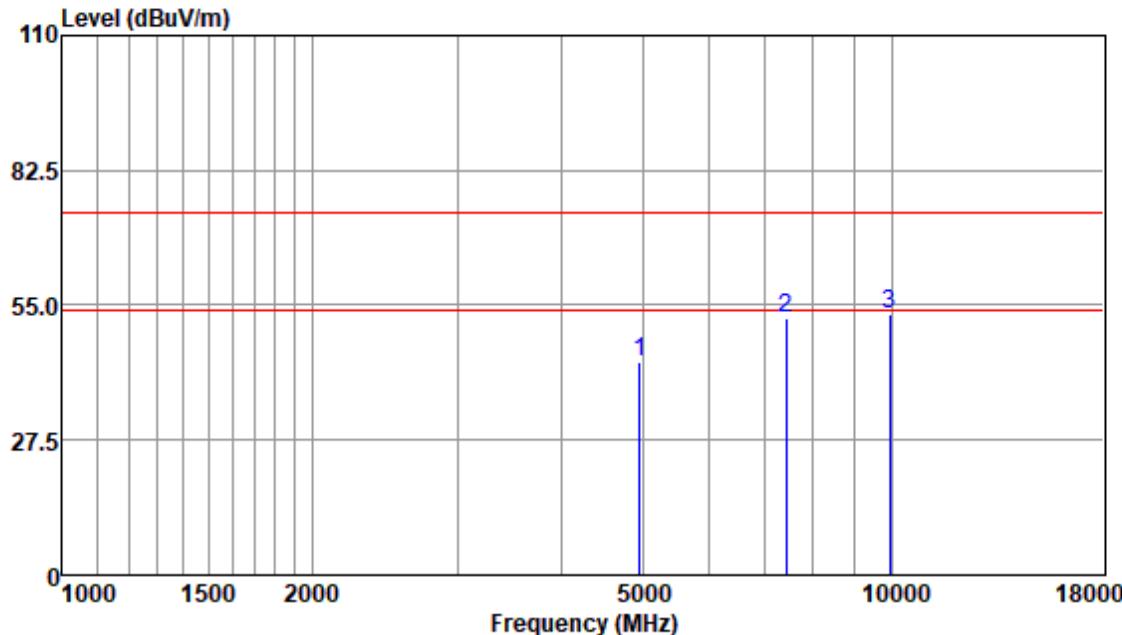
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation:8DPSK; 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	
4960.00	41.72	31.52	12.72	42.40	43.56	74.00	-30.44	Peak
7440.00	42.81	36.94	15.33	42.79	52.29	74.00	-21.71	Peak
9920.00	40.38	38.52	16.72	42.53	53.09	74.00	-20.91	Peak

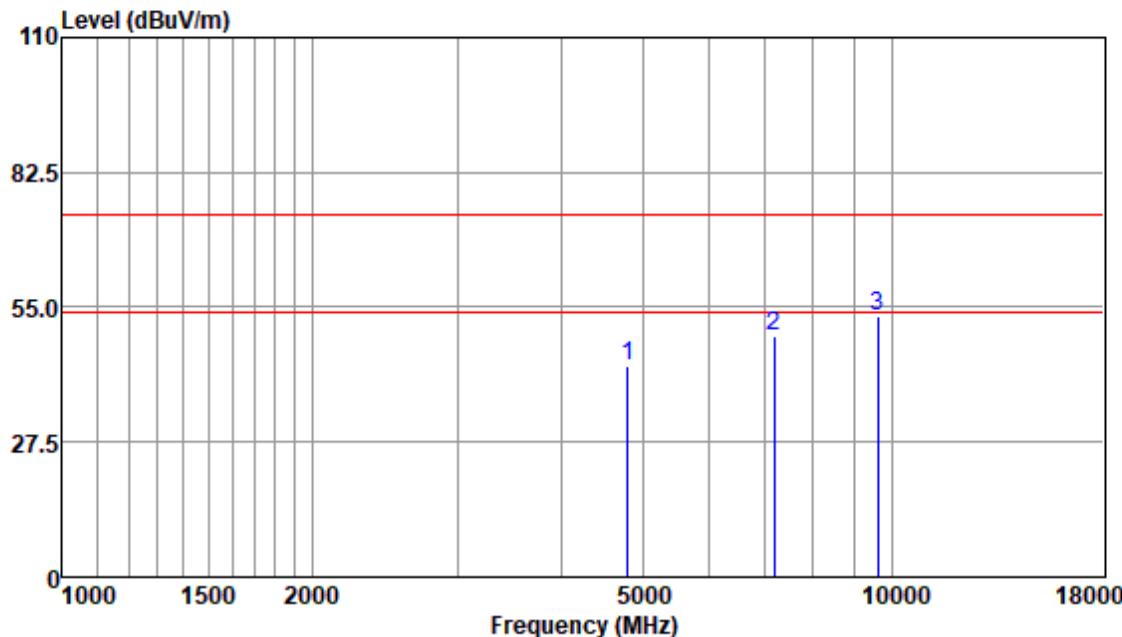
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Horizontal; Modulation:8DPSK; 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	
4804.00	41.59	31.22	12.62	42.40	43.03	74.00	-30.97	Peak
7206.00	40.20	36.34	15.28	42.74	49.08	74.00	-24.92	Peak
9608.00	41.05	38.21	16.48	42.66	53.08	74.00	-20.92	Peak

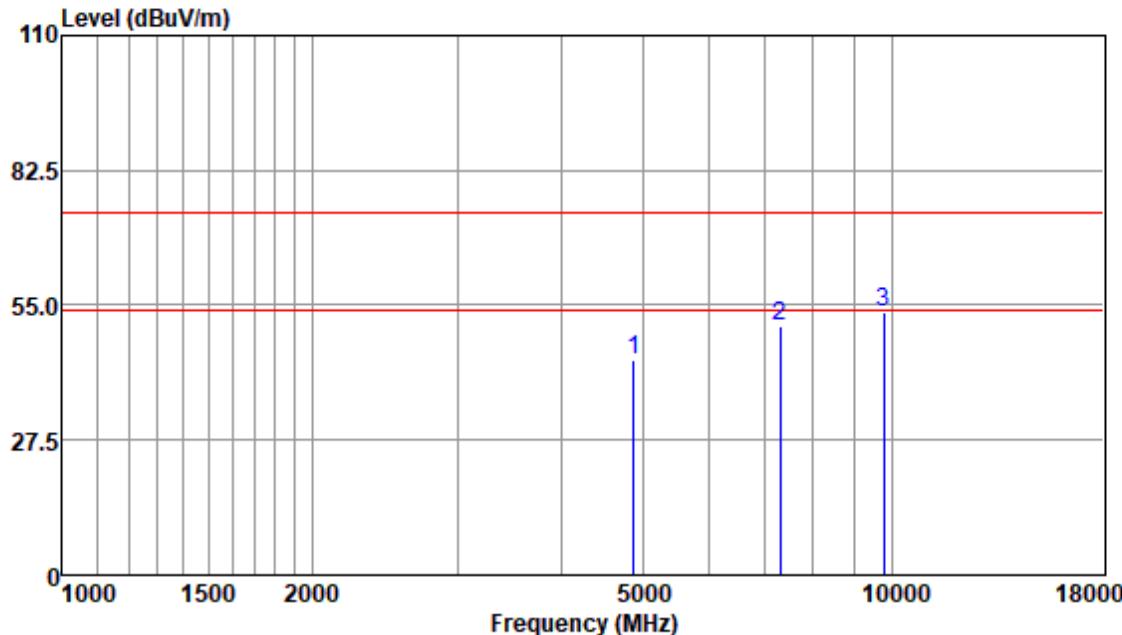
Note: Emission Level=Read Level+Antenna Factor+Cable loss+Preamp Factor



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Test Mode: 00; Polarity: Vertical; Modulation:8DPSK; Channel:High



Antenna Polarity : VERTICAL

Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
4882.00	42.25	31.38	12.67	42.40	43.90	74.00	-30.10	Peak
7323.00	41.44	36.67	15.30	42.77	50.64	74.00	-23.36	Peak
9764.00	41.03	38.35	16.60	42.60	53.38	74.00	-20.62	Peak

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



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7 Emission Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement: 47 CFR Part 15, Subpart C 15.247
Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dB μ V)	
	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.

Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

7.1.1 E.U.T. Operation

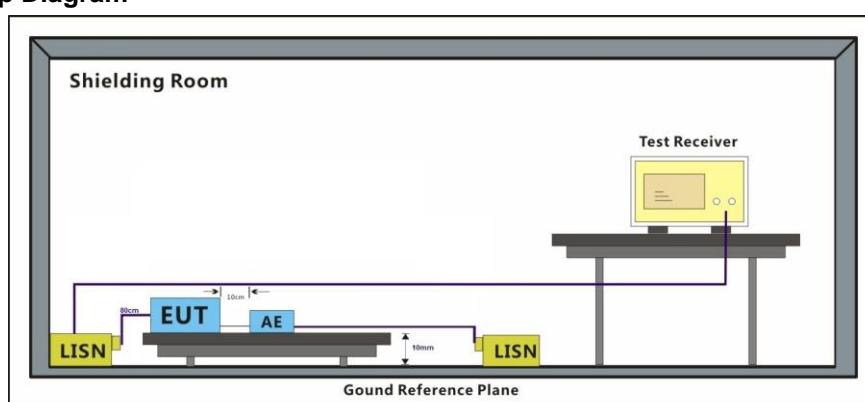
Operating Environment:

Temperature: 22.1 °C Humidity: 69.1 % RH Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX_non-Hop mode_Keep the EUT in continuously transmitting mode with GFSK modulation, Pi/4DQPSK modulation, 8DPSK modulation. All modes have been tested and only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram



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7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

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



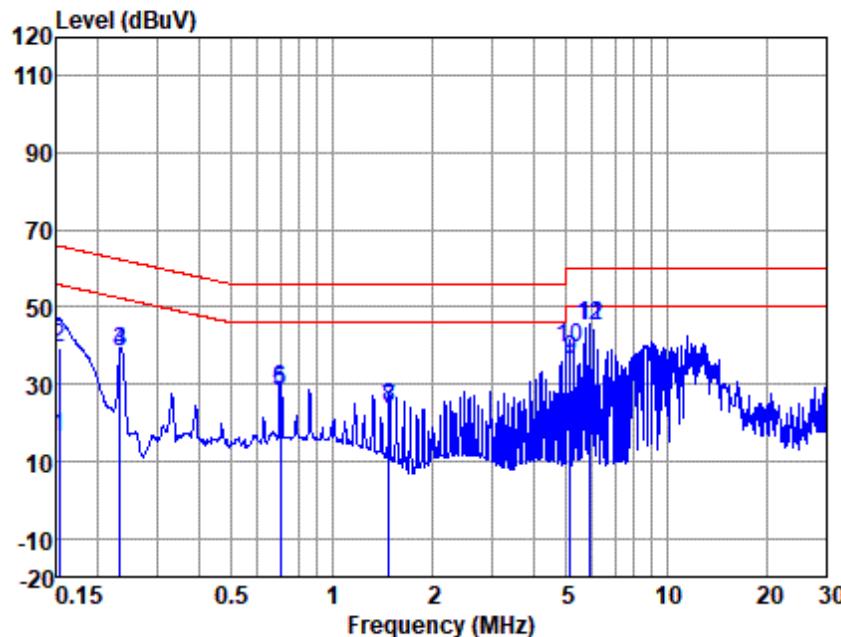
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Test Mode: 00; Line: Live line



LISN : LINE
 EUT/Project No : 00390AT
 Test Mode : 00

Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Over Limit (dBuV)	Over Limit (dB)	Remark
1 0.15	6.11	0.10	10.01	16.22	55.87	-39.65	Average
2 0.15	29.37	0.10	10.01	39.48	65.87	-26.39	QP
3 0.23	28.11	0.10	10.04	38.25	52.35	-14.10	Average
4 0.23	28.24	0.10	10.04	38.38	62.35	-23.97	QP
5 0.70	17.68	0.10	10.09	27.87	46.00	-18.13	Average
6 0.70	18.28	0.10	10.09	28.47	56.00	-27.53	QP
7 1.48	13.24	0.10	10.15	23.49	46.00	-22.51	Average
8 1.48	13.51	0.10	10.15	23.76	56.00	-32.24	QP
9 5.14	26.00	0.11	10.24	36.35	50.00	-13.65	Average
10 5.14	28.93	0.11	10.24	39.28	60.00	-20.72	QP
11 5.93	34.51	0.15	10.25	44.91	50.00	-5.09	Average
12 5.93	34.62	0.15	10.25	45.02	60.00	-14.98	QP

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

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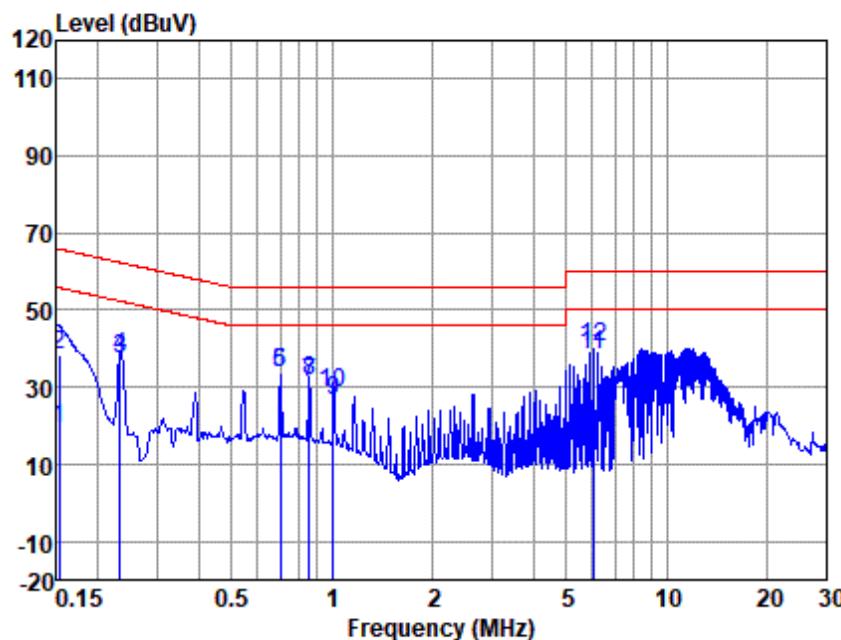
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Test Mode: 00; Line: Neutral Line



LISN : NEUTRAL
 EUT/Project No : 00390AT
 Test Mode : 00

Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Over Limit (dBuV)	Remark
1 0.15	9.19	0.00	10.01	19.20	55.87	-36.67
2 0.15	28.55	0.00	10.01	38.56	65.87	-27.31
3 0.23	27.54	0.00	10.04	37.58	52.35	-14.77
4 0.23	27.74	0.00	10.04	37.78	62.35	-24.57
5 0.70	23.42	0.00	10.09	33.51	46.00	-12.49
6 0.70	23.69	0.00	10.09	33.78	56.00	-22.22
7 0.86	21.20	0.00	10.09	31.29	46.00	-14.71
8 0.86	21.42	0.00	10.09	31.51	56.00	-24.49
9 1.01	16.43	0.00	10.10	26.53	46.00	-19.47
10 1.01	18.34	0.00	10.10	28.44	56.00	-27.56
11 6.06	28.29	0.00	10.26	38.55	50.00	-11.45
12 6.06	30.20	0.00	10.26	40.46	60.00	-19.54

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

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8 Test Setup Photo

Refer to Appendix - Test Setup Photo for SHCR2202000390AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for SHCR2202000390AT

-- End of the Report --

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