

**CFR 47 FCC PART 15 SUBPART C
ISED RSS-247 ISSUE 3**

CERTIFICATION TEST REPORT

For

Milo

MODEL NUMBER: M01

FCC ID: 2A6M9-MV01

IC: 28476-MV01

REPORT NUMBER: 4790849656-1

ISSUE DATE: January 12, 2024

Prepared for

**Loose Cannon Systems, Inc.
PO Box 1447, Ross, CA. 94957 USA**

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch

Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

Tel: +86 769 22038881

Fax: +86 769 33244054

Website: www.ul.com

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	1/12/2024	Initial Issue	

Note: This report is based on 4790371944-9 which is issued by UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch on July 18, 2022. The EUT had already applied for the FCC ID & IC ID, the customer added the new Bit Rates and updated the channel list. The RF technical construction including circuit diagram, PCB Layout, components, component layout and performance does not change. All the Bit Rates have been tested in this report.

Summary of Test Results			
Clause	Test Items	FCC/ISED Rules	Test Results
1	20dB Bandwidth and 99% Occupied Bandwidth	FCC 15.247 (a) (1) RSS-247 Clause 5.1 (a) RSS-Gen Clause 6.7	Pass
2	Conducted Output Power	FCC 15.247 (b) (1) RSS-247 Clause 5.1 (b)	Pass
3	Carrier Hopping Channel Separation	FCC 15.247 (a) (1) RSS-247 Clause 5.1 (b)	Pass
4	Number of Hopping Frequency	15.247 (a) (1) III RSS-247 Clause 5.1 (d)	Pass
5	Time of Occupancy (Dwell Time)	15.247 (a) (1) III RSS-247 Clause 5.1 (d)	Pass
6	Conducted Bandedge	FCC 15.247 (d) RSS-247 Clause 5.5	Pass
7	Radiated Bandedge and Spurious	FCC 15.247 (d) FCC 15.209 FCC 15.205 RSS-247 Clause 5.5 RSS-GEN Clause 8.9 RSS-GEN Clause 8.10	Pass
8	Conducted Emission Test for AC Power Port	FCC 15.207 RSS-GEN Clause 8.8	Pass
9	Antenna Requirement	FCC 15.203 RSS-GEN Clause 6.8	Pass
Note: 1.This test report is only published to and used by the applicant, and it is not for evidence purpose in China. 2. The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 15 SUBPART C >< ISED RSS-247 > when <Accuracy Method> decision rule is applied.			

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS.....	9
2. TEST METHODOLOGY	10
3. FACILITIES AND ACCREDITATION.....	10
4. CALIBRATION AND UNCERTAINTY	11
4.1. MEASURING INSTRUMENT CALIBRATION	11
4.2. MEASUREMENT UNCERTAINTY.....	11
5. EQUIPMENT UNDER TEST	12
5.1. DESCRIPTION OF EUT.....	12
5.2. MAXIMUM OUTPUT POWER.....	13
5.3. CHANNEL LIST.....	14
5.4. TEST CHANNEL CONFIGURATION.....	19
5.5. THE WORSE CASE POWER SETTING PARAMETER	20
5.6. THE WORSE CASE CONFIGURATIONS	21
5.7. DESCRIPTION OF AVAILABLE ANTENNAS.....	22
5.8. DESCRIPTION OF TEST SETUP.....	23
6. MEASURING INSTRUMENT AND SOFTWARE USED	25
7. ANTENNA PORT TEST RESULTS	29
7.1. ON TIME AND DUTY CYCLE	29
7.2. 20 dB BANDWIDTH AND 99 % OCCUPIED BANDWIDTH.....	30
7.3. CONDUCTED OUTPUT POWER	32
7.4. CARRIER FREQUENCY SEPARATION	33
7.5. NUMBER OF HOPPING FREQUENCIES	35
7.6. TIME OF OCCUPANCY (DWEEL TIME)	37
7.7. CONDUCTED BANDEGE AND SPURIOUS EMISSION	39
8. RADIATED TEST RESULTS	41
8.1. RESTRICTED BANDEGE	49
8.2. SPURIOUS EMISSIONS (1 GHz ~ 3 GHz).....	83
8.3. SPURIOUS EMISSIONS (3 GHz ~ 18 GHz).....	89
8.4. SPURIOUS EMISSIONS (18 GHz ~ 26 GHz).....	137
8.5. SPURIOUS EMISSIONS (30 MHz ~ 1 GHz).....	139
8.6. SPURIOUS EMISSIONS BELOW 30 MHz	141

9.	AC POWER LINE CONDUCTED EMISSIONS	144
10.	ANTENNA REQUIREMENTS	147
	TEST DATA	148
11.	FCC.2400M.2GFSK.25kbps	148
11.1.	<i>Appendix A1: 20dB Emission Bandwidth and Occupied Channel Bandwidth</i>	<i>148</i>
11.1.1.	Test Result	148
11.1.1.	Test Graphs	149
11.2.	<i>Appendix B1: Maximum conducted output power</i>	<i>150</i>
11.2.1.	Test Result	150
11.3.	<i>Appendix C1: Carrier frequency separation</i>	<i>151</i>
11.3.1.	Test Result	151
11.3.2.	Test Graphs	152
11.4.	<i>Appendix D1: Time of occupancy</i>	<i>153</i>
11.4.1.	Test Result	153
11.4.2.	Test Graphs	154
11.5.	<i>Appendix E1: Number of hopping channels</i>	<i>155</i>
11.5.1.	Test Result	155
11.5.2.	Test Graphs	156
11.6.	<i>Appendix F1: Band edge measurements& Conducted Spurious Emission</i>	<i>157</i>
11.6.1.	Test Result	157
11.6.2.	Test Graphs	158
11.7.	<i>Appendix G1: Duty Cycle</i>	<i>162</i>
11.7.1.	Test Result	162
11.7.2.	Test Graphs	163
12.	FCC.2400M.2GFSK.40kbps	164
12.1.	<i>Appendix A2: 20dB Emission Bandwidth and Occupied Channel Bandwidth</i>	<i>164</i>
12.1.1.	Test Result	164
12.1.2.	Test Graphs	165
12.2.	<i>Appendix B2: Maximum conducted output power</i>	<i>166</i>
12.2.1.	Test Result	166
12.3.	<i>Appendix C2: Carrier frequency separation</i>	<i>167</i>
12.3.1.	Test Result	167
12.3.2.	Test Graphs	168
12.4.	<i>Appendix D2: Time of occupancy</i>	<i>169</i>
12.4.1.	Test Result	169
12.4.2.	Test Graphs	170
12.5.	<i>Appendix E2: Number of hopping channels</i>	<i>171</i>
12.5.1.	Test Result	171
12.5.2.	Test Graphs	172
12.6.	<i>Appendix F2: Band edge measurements& Conducted Spurious Emission</i>	<i>173</i>
12.6.1.	Test Result	173
12.6.2.	Test Graphs	174

12.7.	<i>Appendix G2: Duty Cycle</i>	<i>178</i>
12.7.1.	Test Result.....	178
12.7.2.	Test Graphs	179
13.	FCC.2400M.2GFSK.60kbps.....	180
13.1.	<i>Appendix A3: 20dB Emission Bandwidth and Occupied Channel Bandwidth</i>	<i>180</i>
13.1.1.	Test Result.....	180
13.1.2.	Test Graphs	181
13.2.	<i>Appendix B3: Maximum conducted output power</i>	<i>182</i>
13.2.1.	Test Result.....	182
13.3.	<i>Appendix C3: Carrier frequency separation</i>	<i>183</i>
13.3.1.	Test Result.....	183
13.3.2.	Test Graphs	184
13.4.	<i>Appendix D3: Time of occupancy.....</i>	<i>185</i>
13.4.1.	Test Result.....	185
13.4.2.	Test Graphs	186
13.5.	<i>Appendix E3: Number of hopping channels</i>	<i>187</i>
13.5.1.	Test Result.....	187
13.5.2.	Test Graphs	188
13.6.	<i>Appendix F3: Band edge measurements& Conducted Spurious Emission.....</i>	<i>189</i>
13.6.1.	Test Result.....	189
13.6.2.	Test Graphs	190
13.7.	<i>Appendix G3: Duty Cycle</i>	<i>194</i>
13.7.1.	Test Result.....	194
13.7.2.	Test Graphs	195
14.	FCC.2400M.2GFSK.96kbps.....	196
14.1.	<i>Appendix A4: 20dB Emission Bandwidth and Occupied Channel Bandwidth</i>	<i>196</i>
14.1.1.	Test Result.....	196
14.1.2.	Test Graphs	197
14.2.	<i>Appendix B4: Maximum conducted output power</i>	<i>198</i>
14.2.1.	Test Result.....	198
14.3.	<i>Appendix C4: Carrier frequency separation</i>	<i>199</i>
14.3.1.	Test Result.....	199
14.3.2.	Test Graphs	200
14.4.	<i>Appendix D4: Time of occupancy.....</i>	<i>201</i>
14.4.1.	Test Result.....	201
14.4.2.	Test Graphs	202
14.5.	<i>Appendix E4: Number of hopping channels</i>	<i>203</i>
14.5.1.	Test Result.....	203
14.5.2.	Test Graphs	204
14.6.	<i>Appendix F4: Band edge measurements& Conducted Spurious Emission.....</i>	<i>205</i>
14.6.1.	Test Result.....	205
14.6.2.	Test Graphs	206
14.7.	<i>Appendix G4: Duty Cycle</i>	<i>210</i>
14.7.1.	Test Result.....	210

14.7.2.	Test Graphs	211
15.	FCC.2400M.2GFSK.150kbps.....	212
15.1.	<i>Appendix A5: 20dB Emission Bandwidth and Occupied Channel Bandwidth.....</i>	<i>212</i>
15.1.1.	Test Result.....	212
15.1.2.	Test Graphs	213
15.2.	<i>Appendix B5: Maximum conducted output power</i>	<i>214</i>
15.2.1.	Test Result.....	214
15.3.	<i>Appendix C5: Carrier frequency separation</i>	<i>215</i>
15.3.1.	Test Result.....	215
15.3.2.	Test Graphs	216
15.4.	<i>Appendix D5: Time of occupancy.....</i>	<i>217</i>
15.4.1.	Test Result.....	217
15.4.2.	Test Graphs	218
15.5.	<i>Appendix E5: Number of hopping channels</i>	<i>219</i>
15.5.1.	Test Result.....	219
15.5.2.	Test Graphs	220
15.6.	<i>Appendix F5: Band edge measurements& Conducted Spurious Emission.....</i>	<i>221</i>
15.6.1.	Test Result.....	221
15.6.2.	Test Graphs	222
15.7.	<i>Appendix G5: Duty Cycle</i>	<i>226</i>
15.7.1.	Test Result.....	226
15.7.2.	Test Graphs	227
16.	FCC.2400M.2GFSK.400kbps.H05	228
16.1.	<i>Appendix A6: 20dB Emission Bandwidth and Occupied Channel Bandwidth.....</i>	<i>228</i>
16.1.1.	Test Result.....	228
16.1.2.	Test Graphs	229
16.2.	<i>Appendix B6: Maximum conducted output power</i>	<i>230</i>
16.2.1.	Test Result.....	230
16.3.	<i>Appendix C6: Carrier frequency separation</i>	<i>231</i>
16.3.1.	Test Result.....	231
16.3.2.	Test Graphs	232
16.4.	<i>Appendix D6: Time of occupancy.....</i>	<i>233</i>
16.4.1.	Test Result.....	233
16.4.2.	Test Graphs	234
16.5.	<i>Appendix E6: Number of hopping channels</i>	<i>235</i>
16.5.1.	Test Result.....	235
16.5.2.	Test Graphs	236
16.6.	<i>Appendix F6: Band edge measurements& Conducted Spurious Emission.....</i>	<i>237</i>
16.6.1.	Test Result.....	237
16.6.2.	Test Graphs	238
16.7.	<i>Appendix G6: Duty Cycle</i>	<i>242</i>
16.7.1.	Test Result.....	242
16.7.2.	Test Graphs	243

17.	FCC.2400M.2GFSK.400kbps.....	244
17.1.	Appendix A7: 20dB Emission Bandwidth and Occupied Channel Bandwidth.....	244
17.1.1.	Test Result.....	244
17.1.2.	Test Graphs	245
17.2.	Appendix B7: Maximum conducted output power	247
17.2.1.	Test Result.....	247
17.3.	Appendix C7: Carrier frequency separation	248
17.3.1.	Test Result.....	248
17.3.2.	Test Graphs	249
17.4.	Appendix D7: Time of occupancy.....	250
17.4.1.	Test Result.....	250
17.4.2.	Test Graphs	251
17.5.	Appendix E7: Number of hopping channels	252
17.5.1.	Test Result.....	252
17.5.2.	Test Graphs	253
17.6.	Appendix F7: Band edge measurements& Conducted Spurious Emission.....	254
17.6.1.	Test Result.....	254
17.6.2.	Test Graphs	255
17.7.	Appendix G7: Duty Cycle	259
17.7.1.	Test Result.....	259
17.7.2.	Test Graphs	260
18.	FCC.2400M.4GFSK.400kbps.H05	261
18.1.	Appendix A8: 20dB Emission Bandwidth and Occupied Channel Bandwidth.....	261
18.1.1.	Test Result.....	261
18.1.2.	Test Graphs	262
18.2.	Appendix B8: Maximum conducted output power	263
18.2.1.	Test Result.....	263
18.3.	Appendix C8: Carrier frequency separation	264
18.3.1.	Test Result.....	264
18.3.2.	Test Graphs	265
18.4.	Appendix D8: Time of occupancy.....	266
18.4.1.	Test Result.....	266
18.4.2.	Test Graphs	267
18.5.	Appendix E8: Number of hopping channels	268
18.5.1.	Test Result.....	268
18.5.2.	Test Graphs	269
18.6.	Appendix F8: Band edge measurements& Conducted Spurious Emission.....	270
18.6.1.	Test Result.....	270
18.6.2.	Test Graphs	271
18.7.	Appendix G8: Duty Cycle	274
18.7.1.	Test Result.....	274
18.7.2.	Test Graphs	275

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Loose Cannon Systems, Inc.
Address: PO Box 1447, Ross, CA. 94957 USA

Manufacturer Information

Company Name: Loose Cannon Systems, Inc.
Address: PO Box 1447, Ross, CA. 94957 USA

EUT Information

EUT Name: Milo
Model: M01
Brand: 
Sample Received Date: May 6, 2023
Sample Status: Normal
Sample ID: 6728894
Date of Tested: May 6, 2023~ January 12, 2024

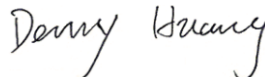
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 15 SUBPART C	PASS
ISED RSS-247 Issue 3	PASS
ISED RSS-GEN Issue 5	PASS

Prepared By:



Fanny Huang
Engineer Project Associate

Checked By:



Denny Huang
Senior Project Engineer

Approved By:



Stephen Guo
Operations Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15, ANSI C63.10-2013, ISED RSS-247 Issue 3 and ISED RSS-GEN Issue 5.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules ISED (Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046. VCCI (Registration No.: G-20192, C-20153, T-20155 and R-20202) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20192 and R-20202 Shielding Room B, the VCCI registration No. is C-20153 and T-20155
---------------------------	--

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognize national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Conduction emission	3.62 dB
Radiated Emission (Included Fundamental Emission) (9 kHz ~ 30 MHz)	2.2 dB
Radiated Emission (Included Fundamental Emission) (30 MHz ~ 1 GHz)	4.00 dB
Radiated Emission (Included Fundamental Emission) (1 GHz to 26 GHz)	5.78 dB (1 GHz ~ 18 GHz)
	5.23 dB (18 GHz ~ 26 GHz)
Duty Cycle	±0.028%
DTS and 99% Occupied Bandwidth	±0.0196%
Maximum Conducted Output Power	±0.686 dB
Maximum Power Spectral Density Level	±0.743 dB
Conducted Band-edge Compliance	±1.328 dB
Conducted Unwanted Emissions In Non-restricted Frequency Bands	±0.746 dB (9 kHz ~ 1 GHz)
	±1.328dB (1 GHz ~ 26 GHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	Milo
Model	M01
Power Supply	DC 5 V

Note: The product has 3 power supply modes: battery (DC 3.7 V), USB (DC 5 V), AC adapter, we had pre-scan for all the 3 modes, and only the worst data for DC 5 V supply are recorded in the report.

Test Mode	Modulation	Bit Rate	Operation Frequency	Number of Channels
FCC.2400M.2GFSK.25kbps	2GFSK	25 kbps	2400.395 MHz-2480.561 MHz	90
FCC.2400M.2GFSK.40kbps		40 kbps	2400.395 MHz-2480.561MHz	90
FCC.2400M.2GFSK.60kbps		60 kbps	2400.581 MHz-2480.561 MHz	75
FCC.2400M.2GFSK.96kbps		96 kbps	2400.581 MHz-2480.561 MHz	75
FCC.2400M.2GFSK.150kbps		150 kbps	2400.581 MHz-2480.561 MHz	75
FCC.2400M.2GFSK.400kbps.H05		400 kbps	2400.581 MHz-2475.725MHz	75
FCC.2400M.2GFSK.400kbps		400 kbps	2400.581 MHz-2475.725 MHz	75
FCC.2400M.4GFSK.400kbps.H05	4GFSK	400 kbps	2400.581 MHz-2475.725 MHz	75

5.2. MAXIMUM OUTPUT POWER

Test Mode	Modulation	Bit Rate	Operation Frequency	Maximum Conducted PEAK Output Power (dBm)
FCC.2400M.2GFSK.25kbps	2GFSK	25 kbps	2400.395 MHz-2480.561 MHz	24.83
FCC.2400M.2GFSK.40kbps		40 kbps	2400.395 MHz-2480.561MHz	24.68
FCC.2400M.2GFSK.60kbps		60 kbps	2400.581 MHz-2480.561 MHz	24.78
FCC.2400M.2GFSK.96kbps		96 kbps	2400.581 MHz-2480.561 MHz	24.85
FCC.2400M.2GFSK.150kbps		150 kbps	2400.581 MHz-2480.561 MHz	24.96
FCC.2400M.2GFSK.400kbps.H05		400 kbps	2400.581 MHz-2475.725MHz	23.54
FCC.2400M.2GFSK.400kbps		400 kbps	2400.581 MHz-2475.725 MHz	23.54
FCC.2400M.4GFSK.400kbps.H05	4GFSK	400 kbps	2400.581 MHz-2475.725 MHz	24.90

5.3. CHANNEL LIST

Channel List for FCC.2400M.2GFSK.25kbps									
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
11	2400.395	102	2417.321	188	2433.317	272	2448.941	364	2466.053
14	2400.953	106	2418.065	192	2434.061	281	2450.615	368	2466.797
22	2402.441	109	2418.623	203	2436.107	284	2451.173	375	2468.099
31	2404.115	112	2419.181	205	2436.479	286	2451.545	377	2468.471
37	2405.231	116	2419.925	206	2436.665	288	2451.917	378	2468.657
38	2405.417	121	2420.855	211	2437.595	296	2453.405	384	2469.773
41	2405.975	126	2421.785	214	2438.153	302	2454.521	387	2470.331
43	2406.347	132	2422.901	226	2440.385	303	2454.707	391	2471.075
45	2406.719	138	2424.017	227	2440.571	306	2455.265	393	2471.447
47	2407.091	140	2424.389	232	2441.501	307	2455.451	397	2472.191
50	2407.649	144	2425.133	236	2442.245	317	2457.311	398	2472.377
67	2410.811	150	2426.249	237	2442.431	318	2457.497	411	2474.795
73	2411.927	158	2427.737	242	2443.361	327	2459.171	414	2475.353
78	2412.857	166	2429.225	243	2443.547	338	2461.217	417	2475.911
79	2413.043	167	2429.411	245	2443.919	345	2462.519	422	2476.841
83	2413.787	170	2429.969	248	2444.477	348	2463.077	429	2478.143
87	2414.531	180	2431.829	265	2447.639	349	2463.263	440	2480.189
95	2416.019	181	2432.015	266	2447.825	351	2463.635	442	2480.561

Channel List for FCC.2400M.2GFSK.40kbps									
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
11	2400.395	100	2416.949	184	2432.573	280	2450.429	363	2465.867
16	2401.325	102	2417.321	185	2432.759	283	2450.987	365	2466.239
23	2402.627	111	2418.995	186	2432.945	284	2451.173	368	2466.797
24	2402.813	112	2419.181	188	2433.317	287	2451.731	372	2467.541
26	2403.185	114	2419.553	191	2433.875	288	2451.917	381	2469.215
37	2405.231	116	2419.925	195	2434.619	292	2452.661	384	2469.773
43	2406.347	133	2423.087	215	2438.339	301	2454.335	395	2471.819
44	2406.533	139	2424.203	218	2438.897	302	2454.521	397	2472.191
48	2407.277	141	2424.575	226	2440.385	314	2456.753	398	2472.377
51	2407.835	146	2425.505	228	2440.757	315	2456.939	400	2472.749
56	2408.765	147	2425.691	229	2440.943	321	2458.055	407	2474.051
59	2409.323	149	2426.063	234	2441.873	326	2458.985	408	2474.237
71	2411.555	156	2427.365	245	2443.919	331	2459.915	416	2475.725
75	2412.299	159	2427.923	246	2444.105	333	2460.287	421	2476.655
76	2412.485	165	2429.039	247	2444.291	341	2461.775	429	2478.143
82	2413.601	168	2429.597	251	2445.035	347	2462.891	437	2479.631
86	2414.345	178	2431.457	254	2445.593	351	2463.635	441	2480.375
91	2415.275	182	2432.201	257	2446.151	354	2464.193	442	2480.561

Channel List for FCC.2400M.2GFSK.60kbps									
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
11	2400.581	54	2416.577	100	2433.689	143	2449.685	183	2464.565
15	2402.069	56	2417.321	101	2434.061	145	2450.429	188	2466.425
18	2403.185	57	2417.693	102	2434.433	150	2452.289	191	2467.541
20	2403.929	60	2418.809	104	2435.177	152	2453.033	193	2468.285
22	2404.673	63	2419.925	106	2435.921	153	2453.405	194	2468.657
25	2405.789	71	2422.901	113	2438.525	154	2453.777	201	2471.261
26	2406.161	72	2423.273	115	2439.269	156	2454.521	202	2471.633
31	2408.021	74	2424.017	117	2440.013	158	2455.265	203	2472.005
32	2408.393	76	2424.761	118	2440.385	164	2457.497	204	2472.377
37	2410.253	77	2425.133	119	2440.757	168	2458.985	205	2472.749
39	2410.997	82	2426.993	130	2444.849	170	2459.729	215	2476.469
40	2411.369	90	2429.969	132	2445.593	174	2461.217	216	2476.841
42	2412.113	93	2431.085	133	2445.965	178	2462.705	221	2478.701
45	2413.229	95	2431.829	136	2447.081	180	2463.449	223	2479.445
49	2414.717	96	2432.201	137	2447.453	181	2463.821	226	2480.561

Channel List for FCC.2400M.2GFSK.96kbps									
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
11	2400.581	57	2417.693	97	2432.573	140	2448.569	183	2464.565
13	2401.325	60	2418.809	100	2433.689	141	2448.941	184	2464.937
18	2403.185	62	2419.553	102	2434.433	142	2449.313	185	2465.309
23	2405.045	63	2419.925	105	2435.549	146	2450.801	186	2465.681
24	2405.417	66	2421.041	108	2436.665	148	2451.545	191	2467.541
33	2408.765	68	2421.785	111	2437.781	156	2454.521	200	2470.889
34	2409.137	70	2422.529	118	2440.385	160	2456.009	202	2471.633
35	2409.509	76	2424.761	120	2441.129	165	2457.869	203	2472.005
36	2409.881	78	2425.505	123	2442.245	166	2458.241	205	2472.749
38	2410.625	80	2426.249	125	2442.989	167	2458.613	206	2473.121
39	2410.997	84	2427.737	126	2443.361	172	2460.473	215	2476.469
41	2411.741	87	2428.853	132	2445.593	176	2461.961	217	2477.213
42	2412.113	90	2429.969	137	2447.453	180	2463.449	221	2478.701
47	2413.973	91	2430.341	138	2447.825	181	2463.821	223	2479.445
53	2416.205	96	2432.201	139	2448.197	182	2464.193	226	2480.561

Channel List for FCC.2400M.2GFSK.150kbps									
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
11	2400.581	55	2416.949	98	2432.945	141	2448.941	183	2464.565
13	2401.325	56	2417.321	101	2434.061	142	2449.313	188	2466.425
14	2401.697	63	2419.925	102	2434.433	147	2451.173	190	2467.169
22	2404.673	65	2420.669	105	2435.549	152	2453.033	191	2467.541
23	2405.045	67	2421.413	109	2437.037	153	2453.405	193	2468.285
26	2406.161	70	2422.529	111	2437.781	154	2453.777	198	2470.145
30	2407.649	71	2422.901	114	2438.897	156	2454.521	206	2473.121
31	2408.021	74	2424.017	118	2440.385	157	2454.893	209	2474.237
37	2410.253	78	2425.505	119	2440.757	161	2456.381	210	2474.609
38	2410.625	79	2425.877	121	2441.501	168	2458.985	211	2474.981
43	2412.485	83	2427.365	127	2443.733	169	2459.357	215	2476.469
44	2412.857	85	2428.109	128	2444.105	177	2462.333	222	2479.073
46	2413.601	86	2428.481	129	2444.477	178	2462.705	224	2479.817
48	2414.345	93	2431.085	130	2444.849	179	2463.077	225	2480.189
50	2415.089	95	2431.829	137	2447.453	180	2463.449	226	2480.561

Channel List for FCC.2400M.2GFSK.400kbps.H05									
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
11	2400.581	31	2415.461	51	2430.341	73	2446.709	93	2461.589
12	2401.325	33	2416.949	53	2431.829	74	2447.453	94	2462.333
13	2402.069	35	2418.437	54	2432.573	75	2448.197	95	2463.077
15	2403.557	36	2419.181	56	2434.061	76	2448.941	97	2464.565
16	2404.301	37	2419.925	57	2434.805	77	2449.685	98	2465.309
18	2405.789	38	2420.669	59	2436.293	78	2450.429	99	2466.053
19	2406.533	39	2421.413	60	2437.037	79	2451.173	100	2466.797
20	2407.277	40	2422.157	61	2437.781	80	2451.917	101	2467.541
22	2408.765	42	2423.645	62	2438.525	81	2452.661	102	2468.285
23	2409.509	43	2424.389	63	2439.269	82	2453.405	103	2469.029
24	2410.253	45	2425.877	65	2440.757	86	2456.381	106	2471.261
25	2410.997	47	2427.365	66	2441.501	87	2457.125	109	2473.493
26	2411.741	48	2428.109	67	2442.245	88	2457.869	110	2474.237
27	2412.485	49	2428.853	68	2442.989	90	2459.357	111	2474.981
28	2413.229	50	2429.597	69	2443.733	91	2460.101	112	2475.725

Channel List for FCC.2400M.2GFSK.400kbps									
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
11	2400.581	31	2415.461	51	2430.341	72	2445.965	92	2460.845
12	2401.325	33	2416.949	53	2431.829	73	2446.709	93	2461.589
13	2402.069	34	2417.693	54	2432.573	74	2447.453	94	2462.333
14	2402.813	35	2418.437	55	2433.317	75	2448.197	95	2463.077
16	2404.301	36	2419.181	57	2434.805	76	2448.941	96	2463.821
17	2405.045	38	2420.669	58	2435.549	78	2450.429	99	2466.053
18	2405.789	39	2421.413	59	2436.293	81	2452.661	100	2466.797
19	2406.533	40	2422.157	60	2437.037	82	2453.405	102	2468.285
21	2408.021	42	2423.645	61	2437.781	83	2454.149	104	2469.773
22	2408.765	43	2424.389	63	2439.269	84	2454.893	105	2470.517
25	2410.997	44	2425.133	66	2441.501	86	2456.381	108	2472.749
26	2411.741	45	2425.877	67	2442.245	88	2457.869	109	2473.493
27	2412.485	46	2426.621	68	2442.989	89	2458.613	110	2474.237
29	2413.973	47	2427.365	69	2443.733	90	2459.357	111	2474.981
30	2414.717	50	2429.597	71	2445.221	91	2460.101	112	2475.725

Channel List for FCC.2400M.4GFSK.400kbps.H05									
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
11	2400.581	31	2415.461	51	2430.341	72	2445.965	92	2460.845
12	2401.325	33	2416.949	52	2431.085	73	2446.709	93	2461.589
13	2402.069	34	2417.693	55	2433.317	74	2447.453	94	2462.333
14	2402.813	35	2418.437	56	2434.061	76	2448.941	95	2463.077
16	2404.301	37	2419.925	57	2434.805	77	2449.685	96	2463.821
17	2405.045	38	2420.669	58	2435.549	78	2450.429	99	2466.053
18	2405.789	40	2422.157	60	2437.037	79	2451.173	101	2467.541
19	2406.533	41	2422.901	61	2437.781	81	2452.661	103	2469.029
20	2407.277	42	2423.645	62	2438.525	82	2453.405	104	2469.773
23	2409.509	43	2424.389	63	2439.269	84	2454.893	105	2470.517
24	2410.253	44	2425.133	65	2440.757	85	2455.637	106	2471.261
26	2411.741	45	2425.877	66	2441.501	86	2456.381	107	2472.005
28	2413.229	47	2427.365	68	2442.989	87	2457.125	109	2473.493
29	2413.973	48	2428.109	69	2443.733	89	2458.613	111	2474.981
30	2414.717	50	2429.597	71	2445.221	90	2459.357	112	2475.725

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency
FCC.2400M.2GFSK.25kbps	CH 11(Low Channel), CH 226(MID Channel), CH 442(High Channel)	2400.395 MHz, 2440.385 MHz, 2480.561 MHz
FCC.2400M.2GFSK.40kbps	CH 11(Low Channel), CH 226(MID Channel), CH 442(High Channel)	2400.395 MHz, 2440.385 MHz, 2480.561 MHz
FCC.2400M.2GFSK.60kbps	CH 11(Low Channel), CH 118(MID Channel), CH 226(High Channel)	2400.581 MHz, 2440.385 MHz, 2480.561 MHz
FCC.2400M.2GFSK.96kbps	CH 11(Low Channel), CH 118(MID Channel), CH 226(High Channel)	2400.581 MHz, 2440.385 MHz, 2480.561 MHz
FCC.2400M.2GFSK.150kbps	CH 11(Low Channel), CH 118(MID Channel), CH 226(High Channel)	2400.581 MHz, 2440.385 MHz, 2480.561 MHz
FCC.2400M.2GFSK.400kbps.H05	CH 11(Low Channel), CH 61(MID Channel), CH 112(High Channel)	2400.581 MHz, 2437.781 MHz, 2475.725 MHz
FCC.2400M.2GFSK.400kbps	CH 11(Low Channel), CH 61(MID Channel), CH 112(High Channel)	2400.581 MHz, 2437.781 MHz, 2475.725 MHz
FCC.2400M.4GFSK.400kbps.H05	CH 11(Low Channel), CH 61(MID Channel), CH 112(High Channel)	2400.581 MHz, 2437.781 MHz, 2475.725 MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worst Case Power Setting Parameter				
Test Software		Yukon		
Test Mode	Transmit Antenna Number	Test Software Setting Value		
		Low	Middle	High
FCC.2400M.2GFSK.25kbps	1	Default	Default	Default
FCC.2400M.2GFSK.40kbps	1	Default	Default	Default
FCC.2400M.2GFSK.60kbps	1	Default	Default	Default
FCC.2400M.2GFSK.96kbps	1	Default	Default	Default
FCC.2400M.2GFSK.150kbps	1	Default	Default	Default
FCC.2400M.2GFSK.400kbps.H05	1	Default	Default	Default
FCC.2400M.2GFSK.400kbps	1	Default	Default	Default
FCC.2400M.4GFSK.400kbps.H05	1	Default	Default	Default

5.6. THE WORSE CASE CONFIGURATIONS

The EUT was tested in the following configuration(s):

Controlled in test mode using a software application on the EUT supplied by customer. The application was used to enable a continuous transmission and to select the mode, test channels, bandwidth, data rates as required.

Test channels referring to section 5.4.

Maximum power setting referring to section 5.5.

The measured additional path loss was included in any path loss calculations for all RF cable used during tested.

5.7. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2400-2483.5	Inverted F	2.65

Test Mode	Transmit and Receive Mode	Description
FCC.2400M.2GFSK.25kbps	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
FCC.2400M.2GFSK.40kbps	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
FCC.2400M.2GFSK.60kbps	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
FCC.2400M.2GFSK.96kbps	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
FCC.2400M.2GFSK.150kbps	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
FCC.2400M.2GFSK.400kbps.H05	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
FCC.2400M.2GFSK.400kbps	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
FCC.2400M.4GFSK.400kbps.H05	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

Note: The value of the antenna gain was declared by customer.

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N	Remarks
1	PC	Dell	Vostro 3902	8KNDDDB2	/
2	USB TO UART	/	/	/	/
3	AC Adapter	/	HW-100225C00	/	Input: AC 100-240V, 50/60Hz, 0.75A Output: DC 5V, 2A

I/O PORT

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	/	/	1.0	/

ACCESSORY

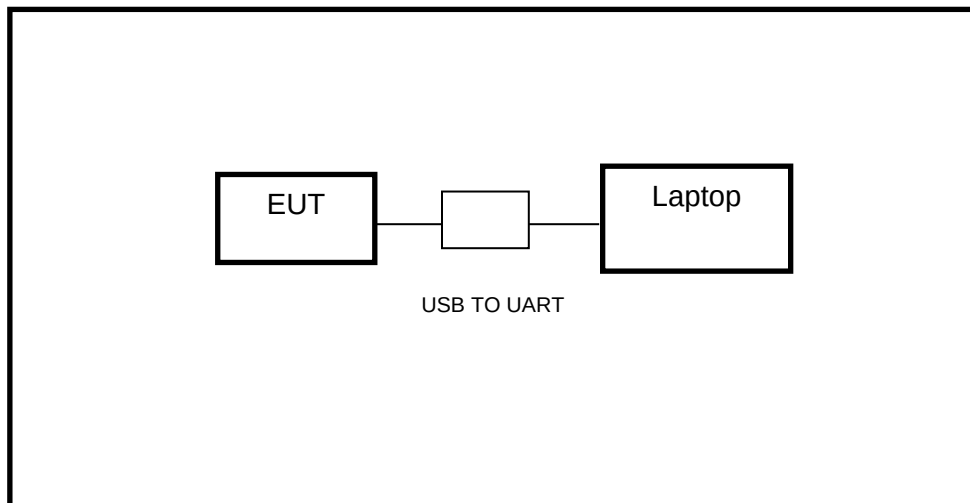
Item	Accessory	Brand Name	Model Name	Description
/	/	/	/	/

TEST SETUP

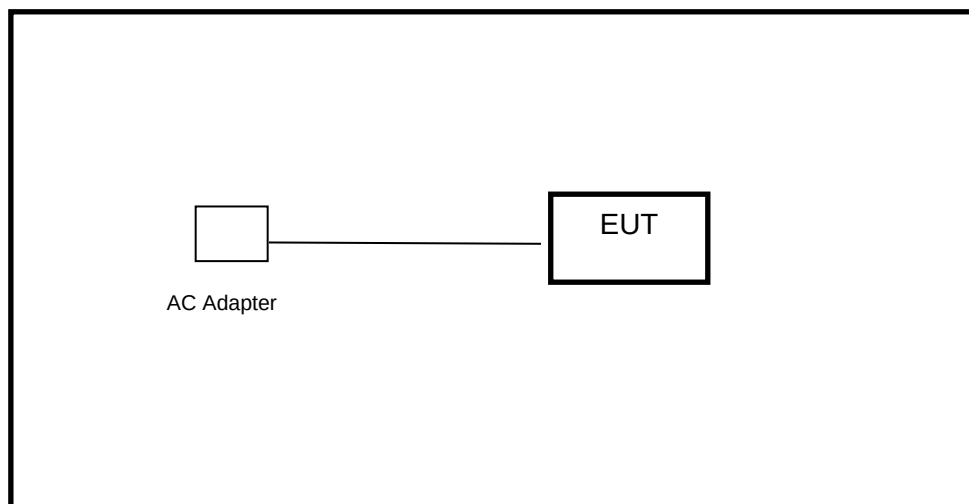
The EUT can work in engineering mode with a software through a Laptop.

SETUP DIAGRAM FOR TESTS

For others:



For AC POWER LINE CONDUCTED EMISSIONS only:



6. MEASURING INSTRUMENT AND SOFTWARE USED

R&S TS 8997 Test System						
Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Due. Date
Power sensor, Power Meter	R&S	OSP120	100921	/	Mar.31, 2023	Mar.30, 2024
Vector Signal Generator	R&S	SMBV100A	261637	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Signal Generator	R&S	SMB100A	178553	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Signal Analyzer	R&S	FSV40	101118	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Software						
Description	Manufacturer		Name		Version	
For R&S TS 8997 Test System	Rohde & Schwarz		EMC 32		10.60.10	
Tonsend RF Test System						
Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Due. Date
Wideband Radio Communication Tester	R&S	CMW500	155523	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Wireless Connectivity Tester	R&S	CMW270	1201.0002N75-102	Sep.28, 2022	Sep.27, 2023	Sep.26, 2024
PXA Signal Analyzer	Keysight	N9030A	MY55410512	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
MXG Vector Signal Generator	Keysight	N5182B	MY56200284	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
MXG Vector Signal Generator	Keysight	N5172B	MY56200301	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
DC power supply	Keysight	E3642A	MY55159130	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Temperature & Humidity Chamber	SANMOOD	SG-80-CC-2	2088	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Attenuator	Aglient	8495B	2814a12853	Oct.18, 2022	Oct.12, 2023	Oct.11, 2024
RF Control Unit	Tonscend	JS0806-2	23B80620666	/	April 18,2023	April 17,2024
Software						
Description	Manufacturer	Name		Version		
Tonsend SRD Test System	Tonsend	JS1120-3 RF Test System		V3.2.22		

Conducted Emissions						
Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Due. Date
EMI Test Receiver	R&S	ESR3	101961	Oct.17, 2022	Oct.13, 2023	Oct.12, 2024
Two-Line V-Network	R&S	ENV216	101983	Oct.17, 2022	Oct.13, 2023	Oct.12, 2024
Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Oct.17, 2022	Oct.13, 2023	Oct.12, 2024
Software						
Description			Manufacturer	Name	Version	
Test Software for Conducted Emissions			Farad	EZ-EMC	Ver. UL-3A1	

Radiated Emissions						
Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Due. Date
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130959	/	Aug.02, 2021	Aug.01, 2024
Preamplifier	HP	8447D	2944A09099	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
EMI Measurement Receiver	R&S	ESR26	101377	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Horn Antenna	TDK	HRN-0118	130940	/	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-0118	TRS-305-00067	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Horn Antenna	Schwarzbeck	BBHA9170	697	/	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-2	TRS-307-00003	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Preamplifier	TDK	PA-02-3	TRS-308-00002	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Loop antenna	Schwarzbeck	1519B	00008	/	Dec.14, 2021	Dec.13, 2024
Preamplifier	TDK	PA-02-001-3000	TRS-302-00050	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
Preamplifier	Mini-Circuits	ZX60-83LN-S+	SUP01202035	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024
High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Dec.01,2022	Oct.12, 2023	Oct.11, 2024

Highpass Filter	Wainwright	WHKX10-5850-6500-1800-40SS	4	Dec.01,2022	Oct.12, 2023	Oct.11, 2024
Band Reject Filter	Wainwright	WRCJV12-5695-5725-5850-5880-40SS	4	Dec.01,2022	Oct.12, 2023	Oct.11, 2024
Band Reject Filter	Wainwright	WRCJV20-5120-5150-5350-5380-60SS	2	Dec.01,2022	Oct.12, 2023	Oct.11, 2024
Band Reject Filter	Wainwright	WRCJV20-5440-5470-5725-5755-60SS	1	Dec.01,2022	Oct.12, 2023	Oct.11, 2024
Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Dec.01,2022	Oct.12, 2023	Oct.11, 2024
Band Reject Filter	Wainwright	WRCD5-1879-1879.85-1880.15-1881-40SS	1	Dec.01,2022	Oct.12, 2023	Oct.11, 2024
Notch Filter	Wainwright	WHJ10-882-980-7000-40SS	1	Dec.01,2022	Oct.12, 2023	Oct.11, 2024
Software						
Description		Manufacturer	Name	Version		
Test Software for Radiated Emissions		Farad	EZ-EMC	Ver. UL-3A1		

Other Instrument						
Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Due. Date
Temperature humidity probe	OMEGA	ITHX-SD-5	18470007	Oct.22, 2022	Oct.19, 2023	Oct.18, 2024
Barometer	Yiyi	Baro	N/A	Oct.24, 2022	Oct.19, 2023	Oct.18, 2024
Attenuator	Agilent	8495B	2814a12853	Oct.18, 2022	Oct.12, 2023	Oct.11, 2024
Power Sensor	Keysight	USB Wideband Power Sensor	MY5100022	Oct.17, 2022	Oct.12, 2023	Oct.11, 2024

Other Instruments					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Dual Channel Power Meter	Keysight	N1912A	MY55416024	Oct.30, 2021	Oct.29, 2022
Power Sensor	Keysight	USB Wideband Power Sensor	MY5100022	Oct.30, 2021	Oct.29, 2022
Signal Analyzer	R&S	FSV40	101118	Oct.30, 2021	Oct.29, 2022

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

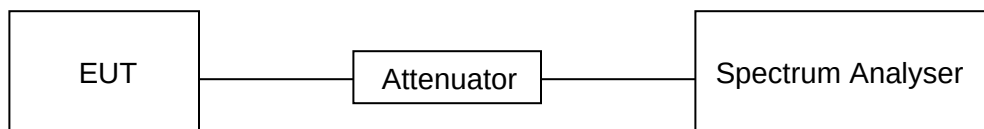
LIMITS

None; for reporting purposes only

PROCEDURE

Refer to ANSI C63.10-2013 clause 11.6 Zero – Span Spectrum Analyzer method.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	52 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

Please refer to appendix G1&G2&G3&G4&G5&G6&G7&G8.

7.2. 20 dB BANDWIDTH AND 99 % OCCUPIED BANDWIDTH

LIMITS

CFR 47FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 3			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247 (a) (1) RSS-247 Clause 5.1 (a)	20 dB Bandwidth	None; for reporting purposes only.	2400-2483.5
ISED RSS-Gen Clause 6.7	99 % Occupied Bandwidth	None; for reporting purposes only.	2400-2483.5

TEST PROCEDURE

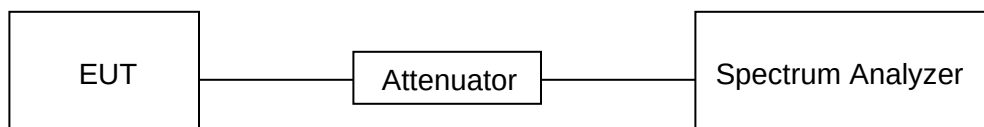
Refer to ANSI C63.10-2013 clause 6.9.2.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 20 dB Bandwidth: 1 % to 5 % of the 20 dB bandwidth For 99 % Occupied Bandwidth: 1 % to 5 % of the occupied bandwidth
VBW	For 20 dB Bandwidth: approximately 3×RBW For 99 % Occupied Bandwidth: ≥ 3×RBW
Span	Approximately 2 to 3 times the 20dB bandwidth
Trace	Max hold
Sweep	Auto couple

a) Use the occupied bandwidth function of the instrument, allow the trace to stabilize and report the measured 99 % occupied bandwidth and 20 dB Bandwidth.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	52 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

Please refer to appendix A1&A2&A3&A4&A5&A6&A7&A8.

7.3. CONDUCTED OUTPUT POWER

LIMITS

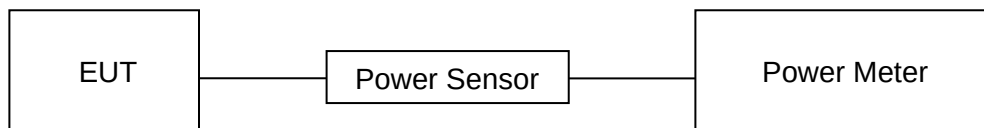
CFR 47 FCC Part15 (15.247), Subpart C ISED RSS-247 ISSUE 3			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247 (b) (1) ISED RSS-247 Clause 5.4 (b)	Peak Conducted Output Power	Hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel: 1 watt or 30 dBm; Hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel: 125 mW or 21 dBm	2400-2483.5

TEST PROCEDURE

Connect the EUT to a low loss RF cable from the antenna port to the power sensor (video bandwidth is greater than the occupied bandwidth).

Measure peak emission level, the indicated level is the peak output power, after any corrections for external attenuators and cables.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	52 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

Please refer to appendix B1&B2&B3&B4&B5&B6&B7&B8.

Note: Reported average power is for information only.

7.4. CARRIER FREQUENCY SEPARATION

LIMITS

CFR 47 FCC Part15 (15.247), Subpart C ISSED RSS-247 ISSUE 3			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247 (a) (1) ISED RSS-247 Clause 5.1 (b)	Carrier Frequency Separation	Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel.	2400-2483.5

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 7.8.2.

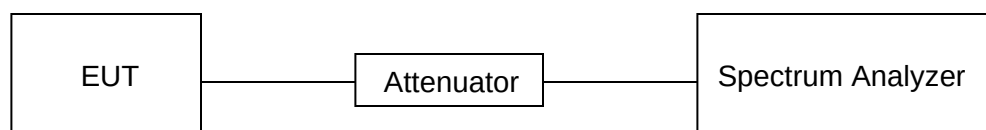
Connect the EUT to the spectrum analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Span	wide enough to capture the peaks of two adjacent channels
Detector	Peak
RBW	Start with the RBW set to approximately 30 % of the channel spacing; adjust as necessary to best identify the center of each individual channel.
VBW	≥RBW
Trace	Max hold
Sweep time	Auto couple

Allow the trace to stabilize and use the marker-delta function to determine the separation between the peaks of the adjacent channels.

Compliance of an EUT with the appropriate regulatory limit shall be determined.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	52 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

Please refer to Appendix C1&C2&C3&C4&C5&C6&C7&C8.

7.5. NUMBER OF HOPPING FREQUENCIES

LIMITS

CFR 47 FCC Part15 (15.247), Subpart C ISED RSS-247 ISSUE 3		
Section	Test Item	Limit
CFR 47 15.247 (a) (1) III ISED RSS-247 Clause 5.1 (d)	Number of Hopping Frequency	at least 15 hopping channels

TEST PROCEDURE

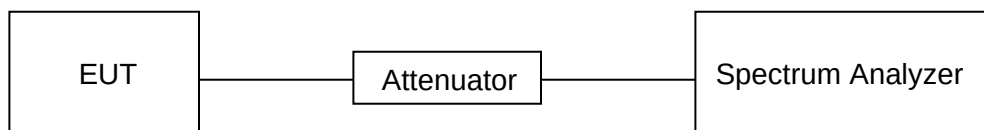
Refer to ANSI C63.10-2013 clause 7.8.3.

Connect the EUT to the spectrum Analyzer and use the following settings:

Detector	Peak
RBW	To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
VBW	≥RBW
Span	The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen.
Trace	Max hold
Sweep time	Auto couple

Set EUT to transmit maximum output power and switch on frequency hopping function. then set enough count time (larger than 5000 times) to get all the hopping frequency channel displayed on the screen of spectrum analyzer, count the quantity of peaks to get the number of hopping channels.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	52 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

Please refer to appendix E1&E2&E3&E4&E5&E6&E7&E8.

7.6. TIME OF OCCUPANCY (DWELL TIME)

LIMITS

CFR 47 FCC Part15 (15.247), Subpart C ISED RSS-247 ISSUE 3		
Section	Test Item	Limit
CFR 47 15.247 (a) (1) III ISED RSS-247 Clause 5.1 (d)	Time of Occupancy (Dwell Time)	The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds, multiplied by the number of hopping channels employed.

TEST PROCEDURE

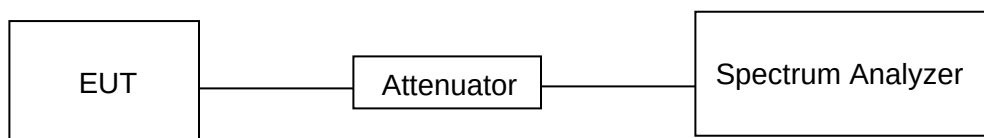
Refer to ANSI C63.10-2013 clause 7.8.4.

Connect the EUT to the spectrum Analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	$\leq$ channel spacing and where possible RBW should be set $\gg 1 / T$, where T is the expected dwell time per channel.
VBW	$\geq$ RBW
Span	Zero span, centered on a hopping channel
Trace	Max hold
Sweep time	As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment to prevent triggering when the system hops on an adjacent channel

Use the marker-delta function to determine the transmit time per hop (Burst Width). If this value varies with different modes of operation (data rate, modulation format, number of hopping channels, etc.), then repeat this test for each variation in transmit time.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	52 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

Please refer to appendix D1&D2&D3&D4&D5&D6&D7&D8.

7.7. CONDUCTED BANDEDGE AND SPURIOUS EMISSION

LIMITS

CFR 47 FCC Part15 (15.247), Subpart C ISED RSS-247 ISSUE 3		
Section	Test Item	Limit
CFR 47 FCC §15.247 (d) ISED RSS-247 5.5	Conducted Spurious Emission	at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 7.8.6 and 7.8.8.

Connect the EUT to the spectrum analyser and use the following settings for reference level measurement:

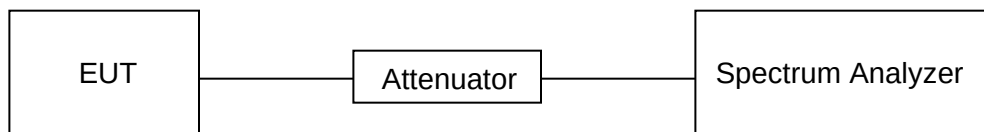
Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
Span	$1.5 \times \text{DTS bandwidth}$
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level.

Change the settings for emission level measurement:

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
measurement points	$\geq \text{span}/\text{RBW}$
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements.

TEST SETUP**TEST ENVIRONMENT**

Temperature	23.8 °C	Relative Humidity	52 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

Please refer to appendix F1&F2&F3&F4&F5&F6&F7&F8.

8. RADIATED TEST RESULTS

LIMITS

Please refer to CFR 47 FCC §15.205 and §15.209.

Please refer to ISCED RSS-GEN Clause 8.9 and Clause 8.10.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

Emissions radiated outside of the specified frequency bands above 30 MHz			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

FCC Emissions radiated outside of the specified frequency bands below 30 MHz		
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

ISCED General field strength limits at frequencies below 30 MHz

Table 6 – General field strength limits at frequencies below 30 MHz		
Frequency	Magnetic field strength (H-Field) (μA/m)	Measurement distance (m)
9 - 490 kHz ^{Note 1}	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

ISED Restricted bands please refer to ISED RSS-GEN Clause 8.10

MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 - 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 - 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 - 8500	
108 - 138		

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

FCC Restricted bands of operation refer to FCC §15.205 (a):

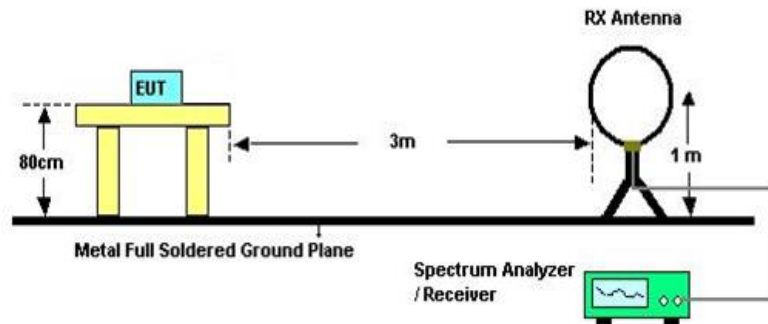
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

²Above 38.6c

TEST SETUP AND PROCEDURE

Below 30 MHz

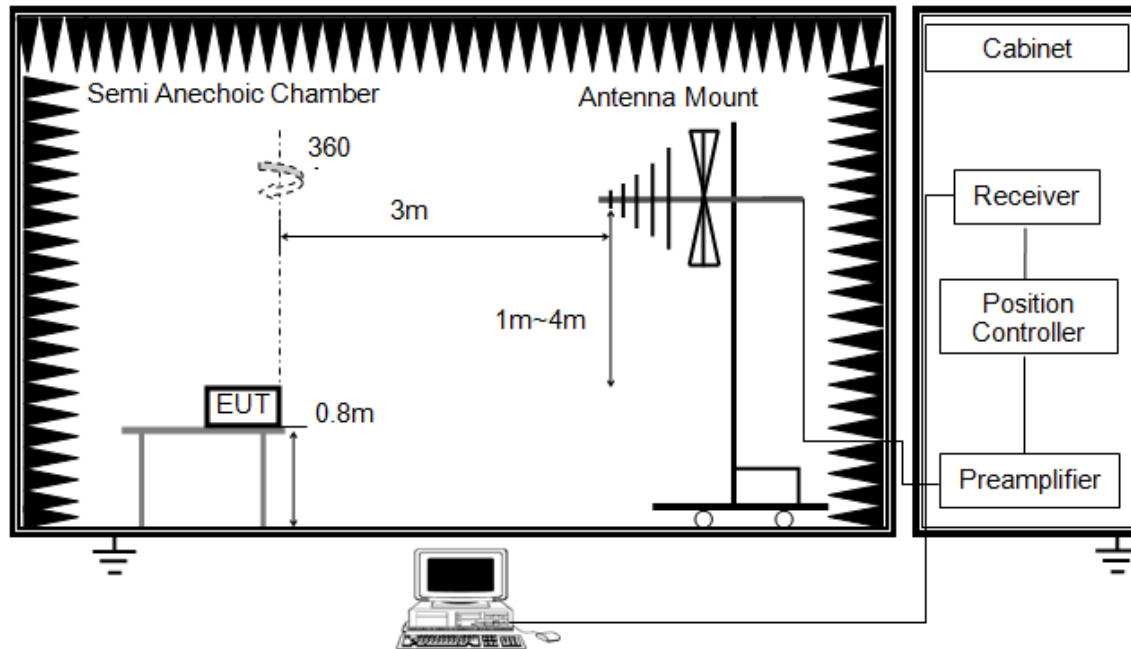


The setting of the spectrum analyser

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.
2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.
5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.
7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.
8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω ; For example, the measurement frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to $Y-51.5 = Z$ dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

Below 1 GHz and above 30 MHz

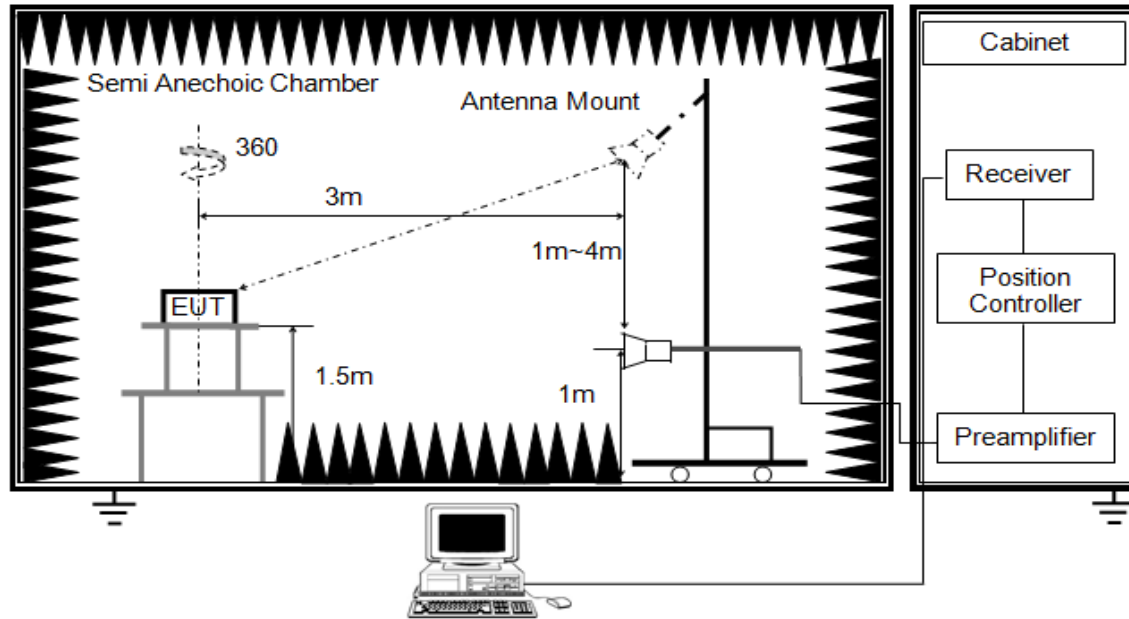


The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

Above 1 GHz

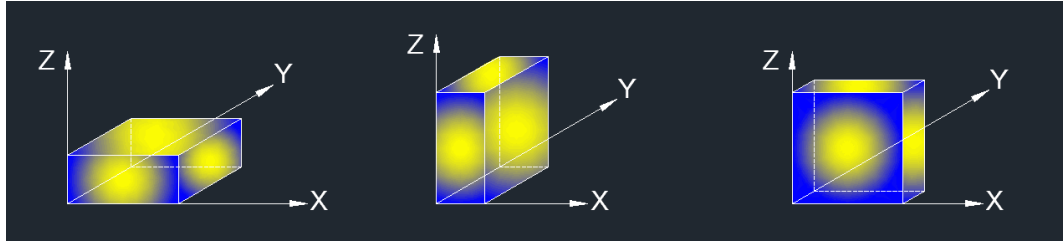


The setting of the spectrum analyser

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.6.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 1.5 m above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

Note 2: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

For Restricted Bandedge:

Note:

1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. PK=Peak: Peak detector.
4. AV=Average: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.5.
6. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.
7. Both horizontal and vertical have been tested, only the worst data was recorded in the report.
8. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious emission (9 kHz ~ 30 MHz):

Note:

1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
4. All modes have been tested, but only the worst data was recorded in the report.
5. $\text{dBuA/m} = \text{dBuV/m} - 20\log_{10}[120\pi] = \text{dBuV/m} - 51.5$

For Radiate Spurious Emission (30 MHz ~ 1 GHz):

Note:

1. Result Level = Read Level + Correct Factor.
2. If the peak values are less than the QP limit, the QP result is deemed to comply with QP limit.
3. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious Emission (1 GHz ~ 3 GHz):

Note:

1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.5.
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
8. All modes have been tested, but only the worst data was recorded in the report.

For Radiate Spurious Emission (3 GHz ~ 18 GHz):

Note:

1. Peak Result = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.5.
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
8. All modes have been tested, but only the worst data was recorded in the report.
- 9.*-indicates frequency is out of the restricted bands and the limit is referring to 15.247 (d) and RSS-247 clause 5.5. We had already performed the conducted non-restricted bands test, please refer to clause 7.7.

For Radiate Spurious emission (18 GHz ~ 26 GHz):

Note:

1. Measurement = Reading Level + Correct Factor.
2. If the peak values are less than the average limit of 54 dBuV/m, the average result is deemed to comply with average limit.
3. Peak: Peak detector.
4. All modes have been tested, but only the worst data was recorded in the report.

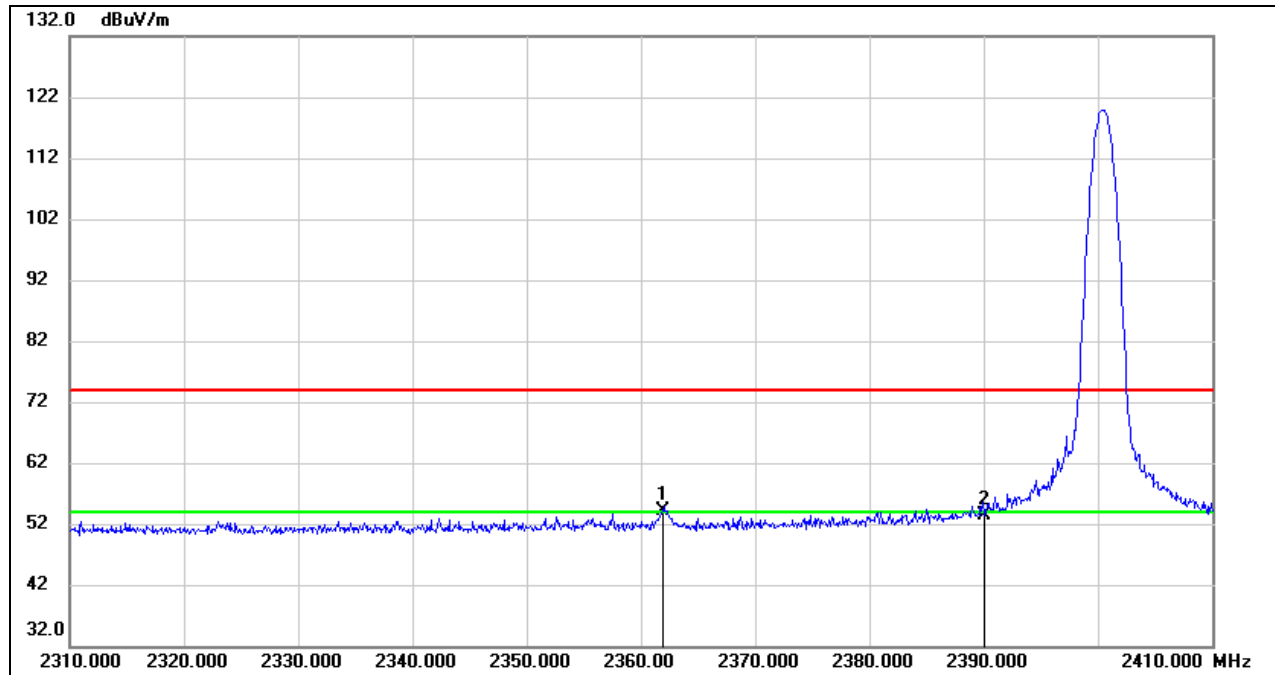
TEST ENVIRONMENT

Temperature	24.4 °C	Relative Humidity	61.1 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

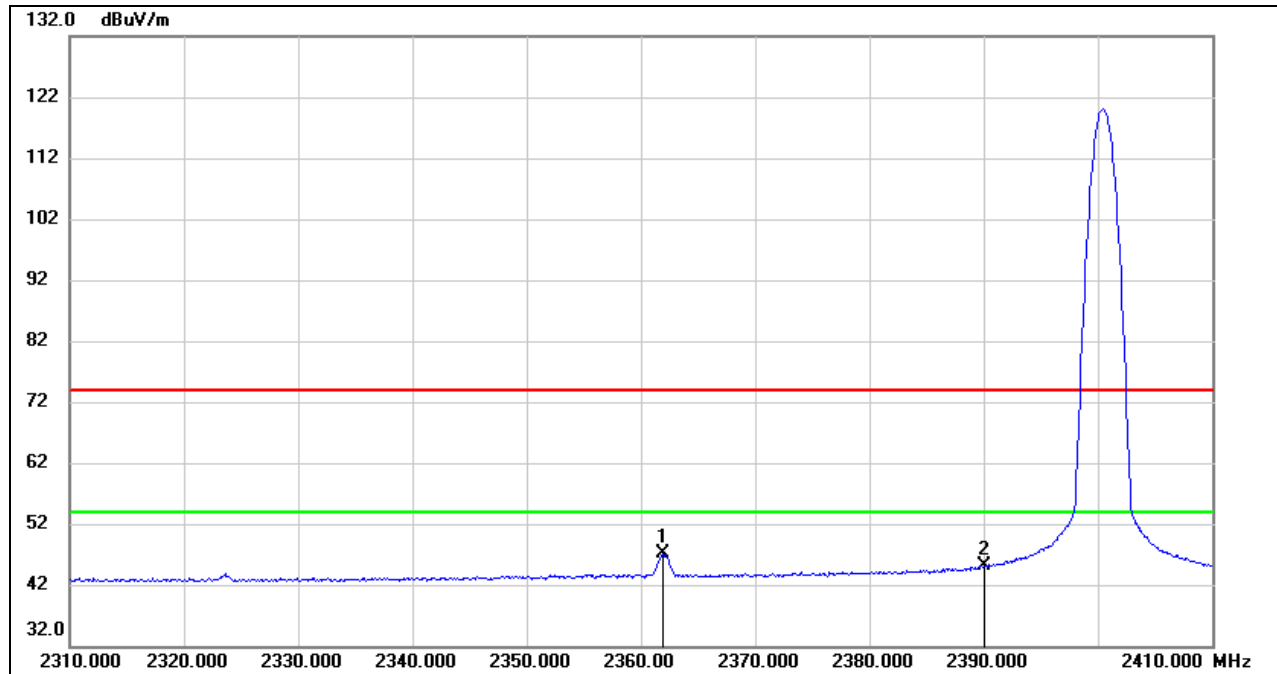
8.1. RESTRICTED BANDEDGE

Test Mode:	2400M.2GFSK.25kbps PK	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



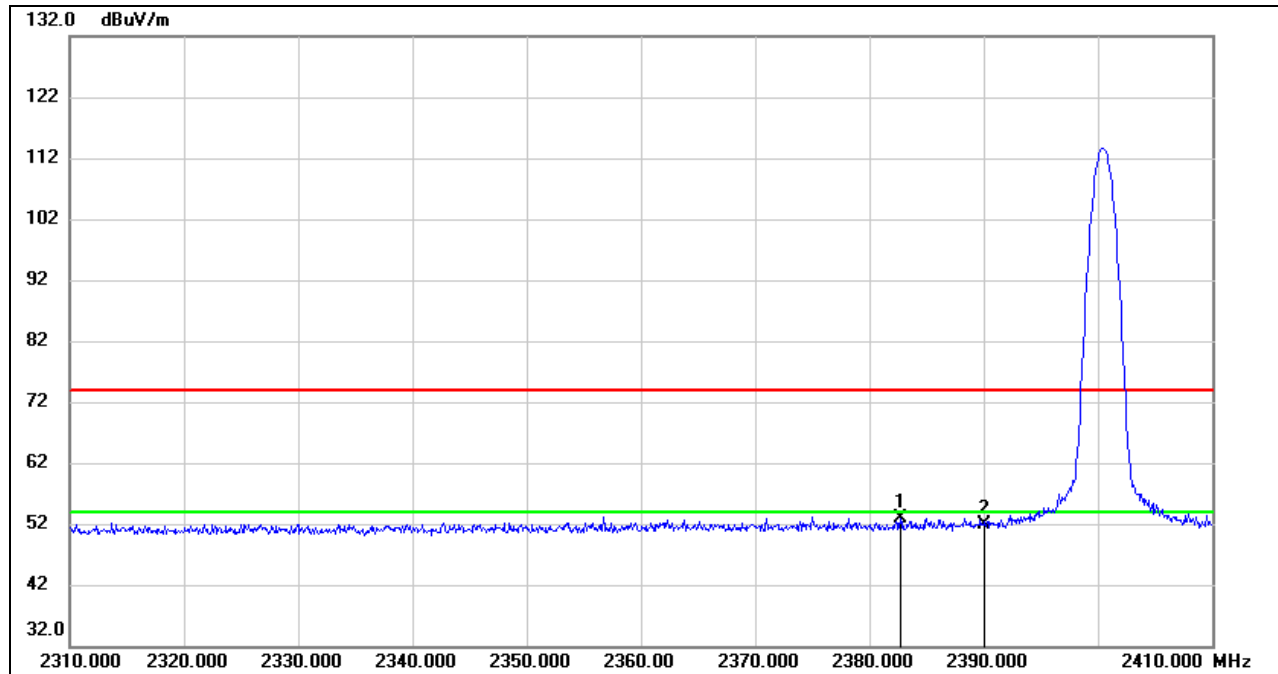
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2361.900	22.13	32.07	54.20	74.00	-19.80	peak
2	2390.000	21.19	32.16	53.35	74.00	-20.65	peak

Test Mode:	2400M.2GFSK.25kbps AV	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



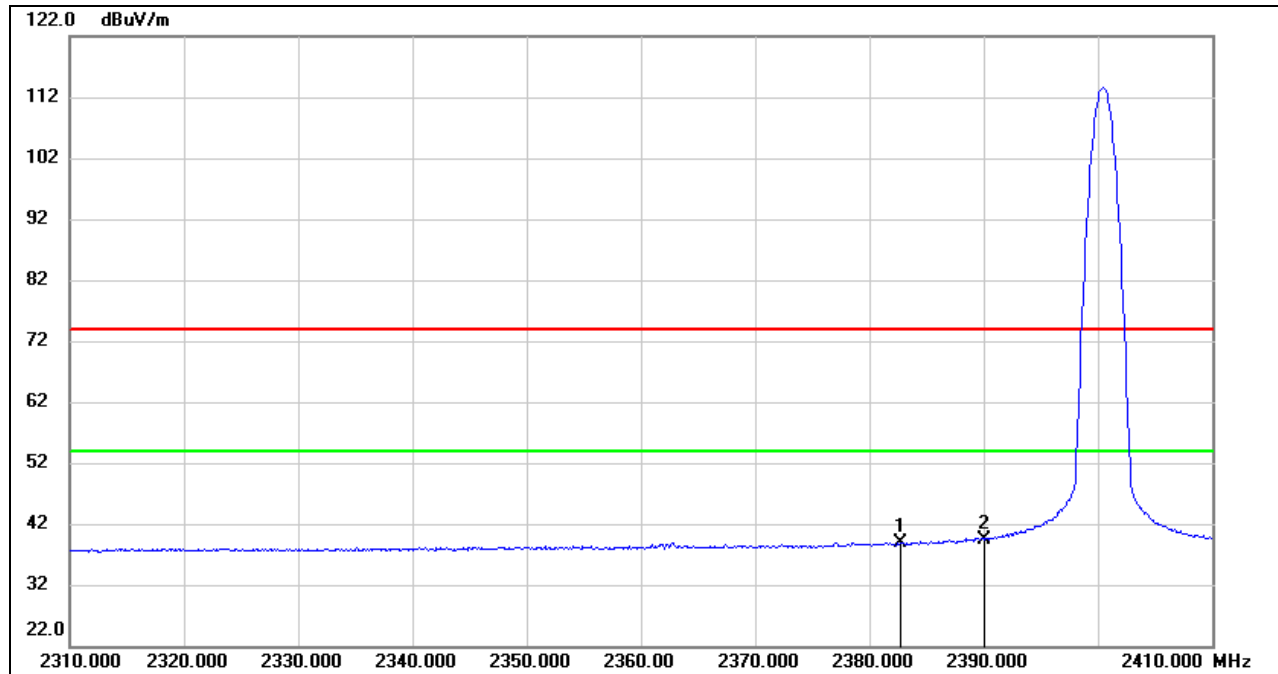
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2361.900	15.15	32.07	47.22	54.00	-6.78	AVG
2	2390.000	12.91	32.16	45.07	54.00	-8.93	AVG

Test Mode:	2400M.2GFSK.25kbps PK	Frequency(MHz):	2400.395
Polarity:	Vertical	Test Voltage:	DC 5 V



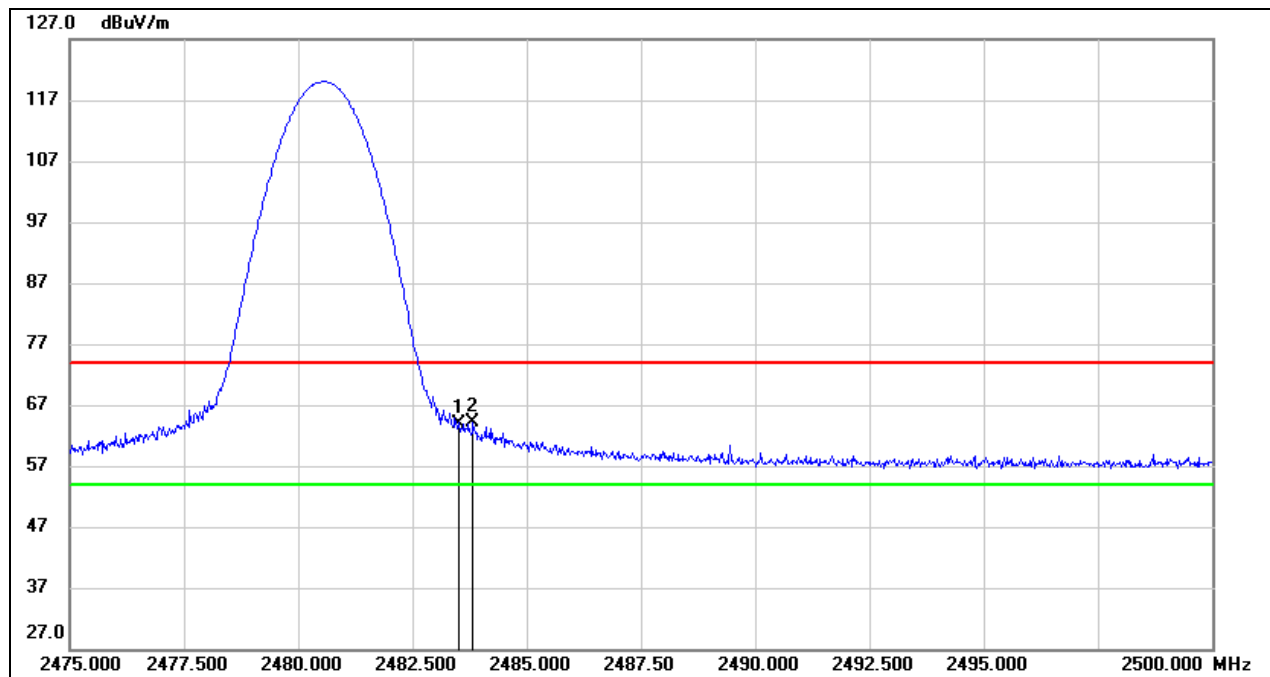
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2382.700	20.84	32.14	52.98	74.00	-21.02	peak
2	2390.000	19.83	32.16	51.99	74.00	-22.01	peak

Test Mode:	2400M.2GFSK.25kbps AV	Frequency(MHz):	2400.395
Polarity:	Vertical	Test Voltage:	DC 5 V



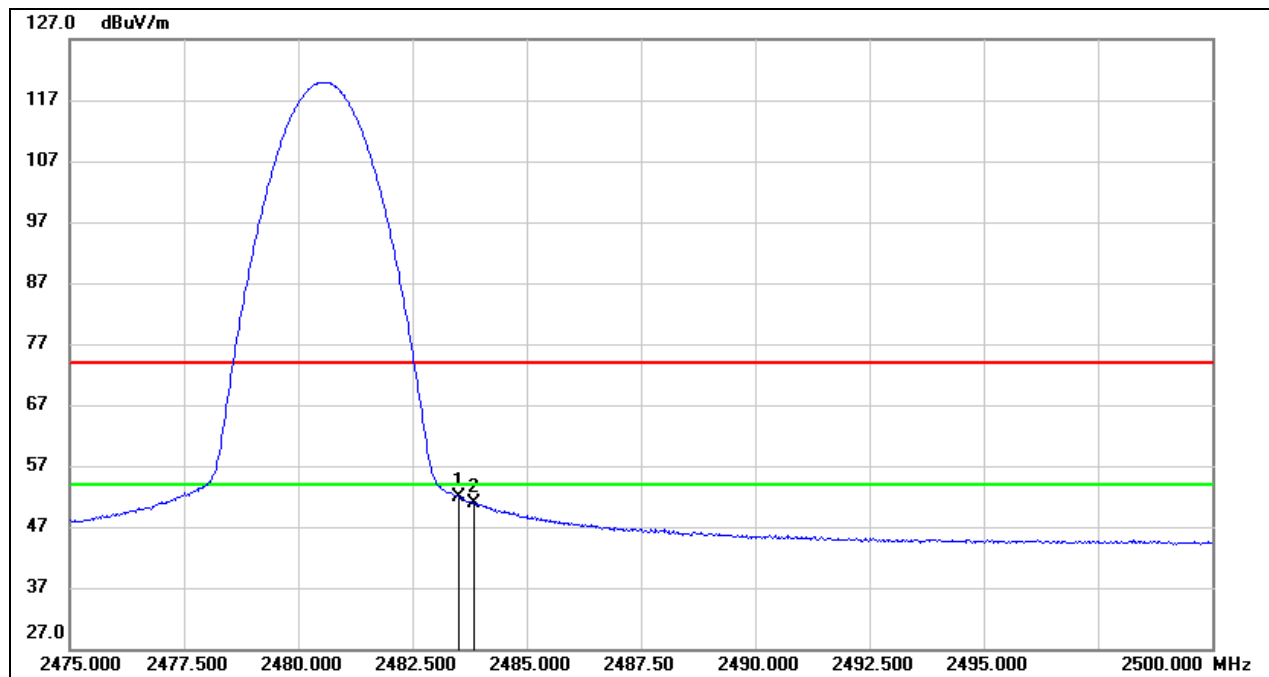
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2382.700	6.79	32.14	38.93	54.00	-15.07	AVG
2	2390.000	7.34	32.16	39.50	54.00	-14.50	AVG

Test Mode:	2400M.2GFSK.25kbps PK	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



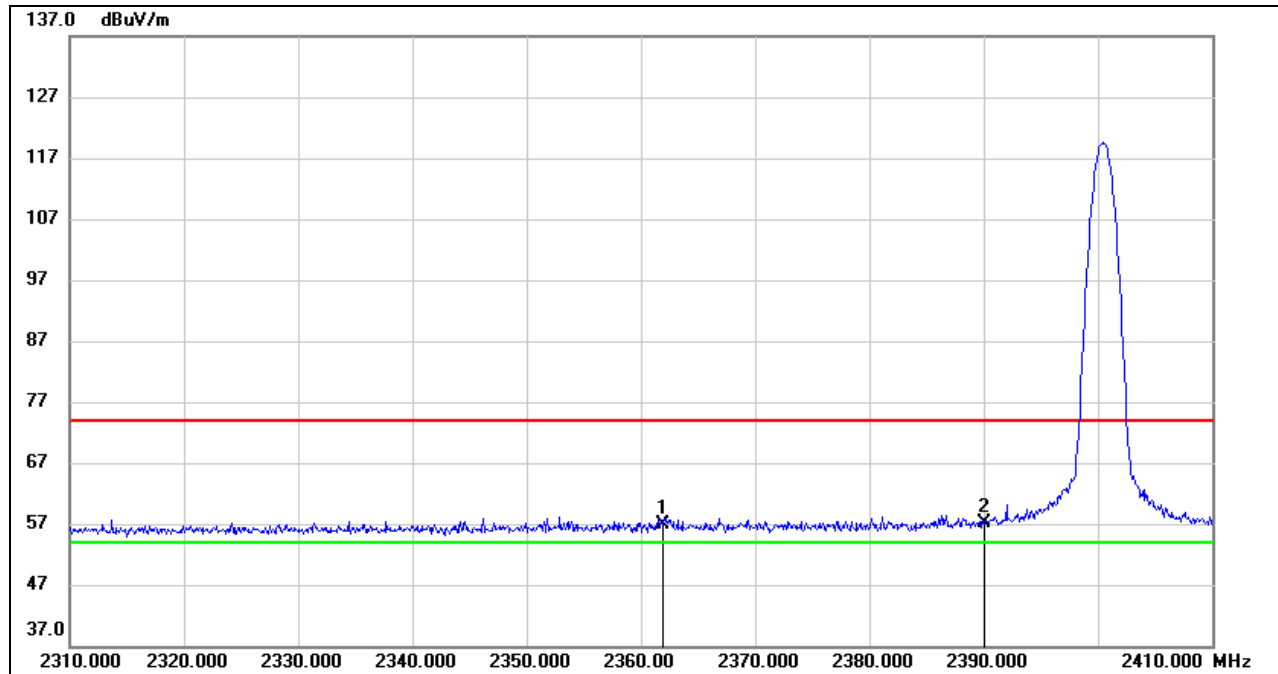
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	31.32	32.44	63.76	74.00	-10.24	peak
2	2483.825	31.75	32.44	64.19	74.00	-9.81	peak

Test Mode:	2400M.2GFSK.25kbps AV	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



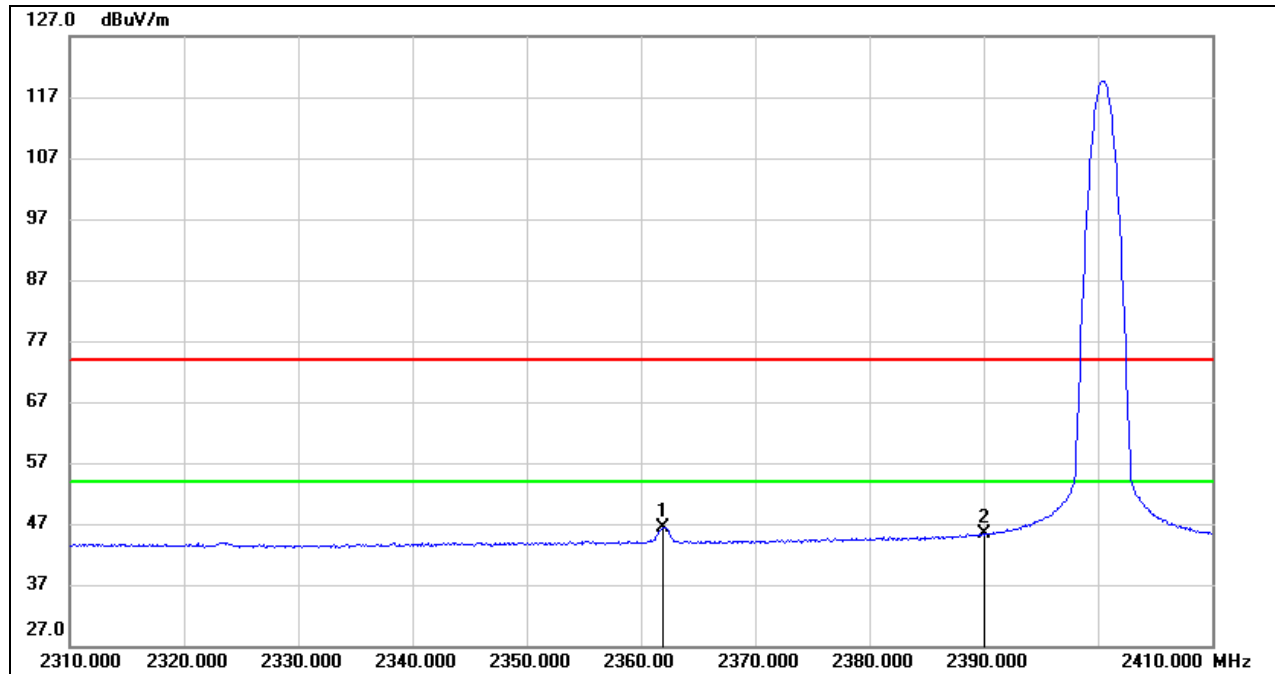
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	19.35	32.44	51.79	54.00	-2.21	AVG
2	2483.825	18.49	32.44	50.93	54.00	-3.07	AVG

Test Mode:	2400M.2GFSK.40kbps PK	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



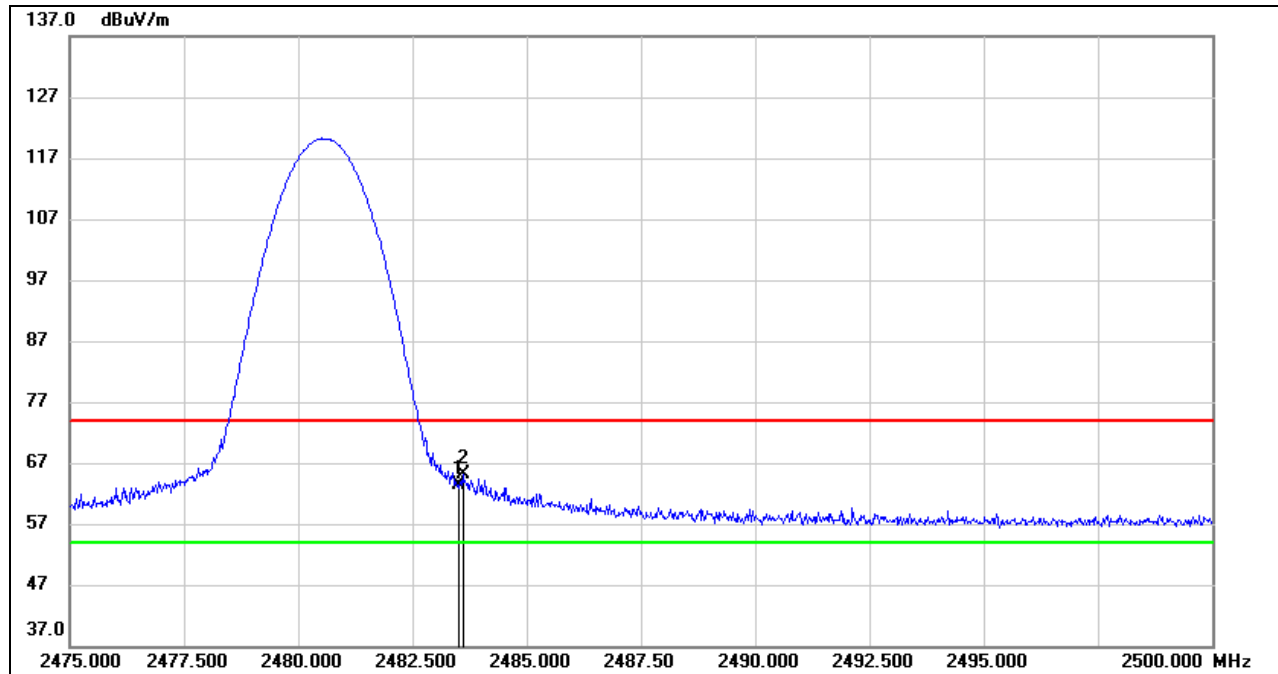
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2361.900	24.90	32.07	56.97	74.00	-17.03	peak
2	2390.000	24.88	32.16	57.04	74.00	-16.96	peak

Test Mode:	2400M.2GFSK.40kbps AV	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



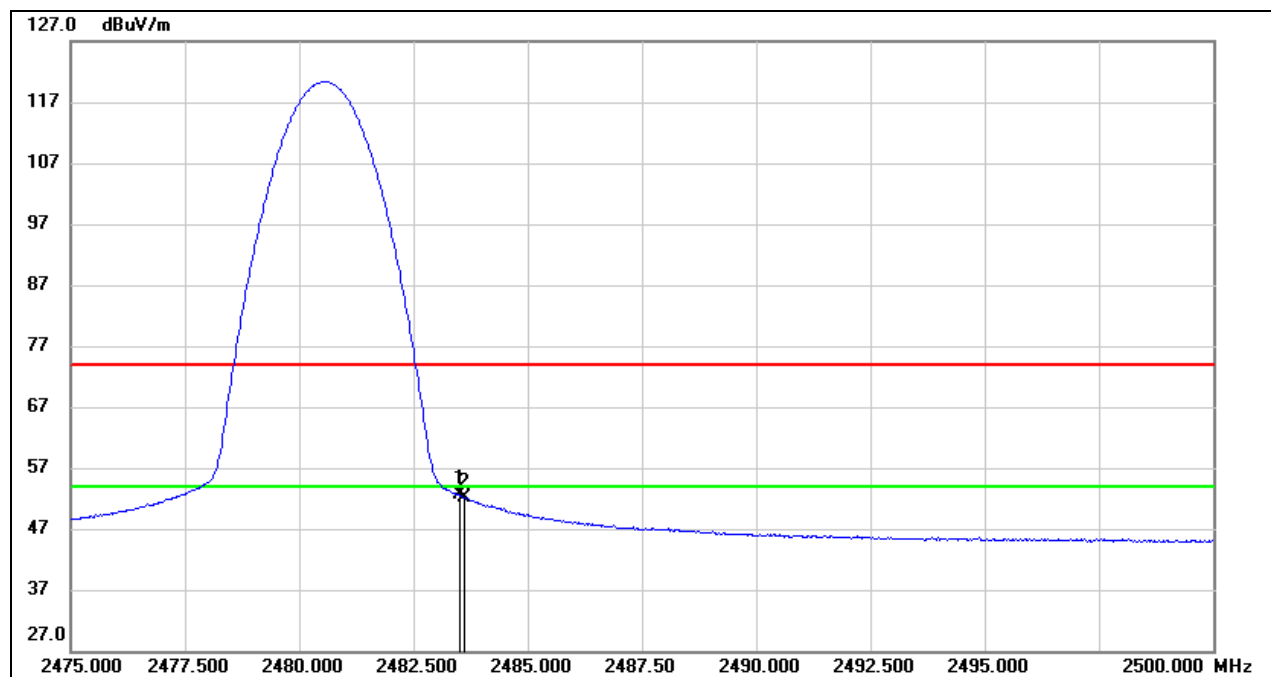
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2361.900	14.41	32.07	46.48	54.00	-7.52	AVG
2	2390.000	13.12	32.16	45.28	54.00	-8.72	AVG

Test Mode:	2400M.2GFSK.40kbps PK	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



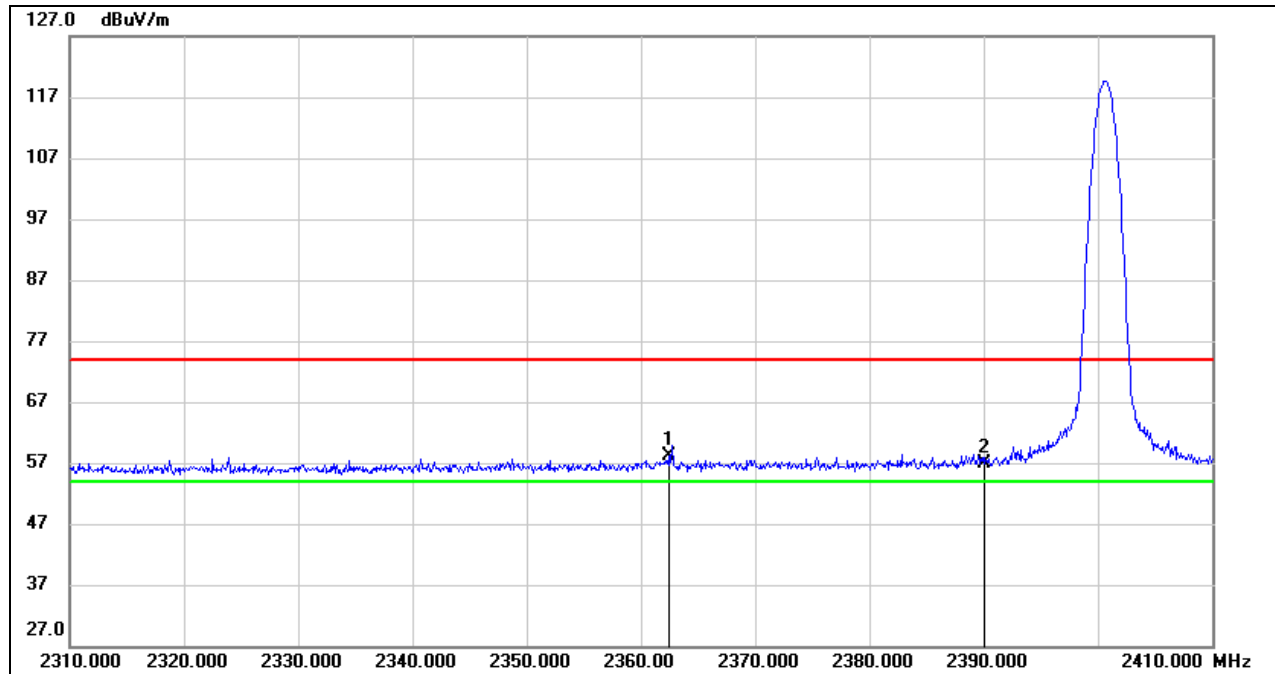
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	30.83	32.44	63.27	74.00	-10.73	peak
2	2483.600	32.76	32.44	65.20	74.00	-8.80	peak

Test Mode:	2400M.2GFSK.40kbps AV	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



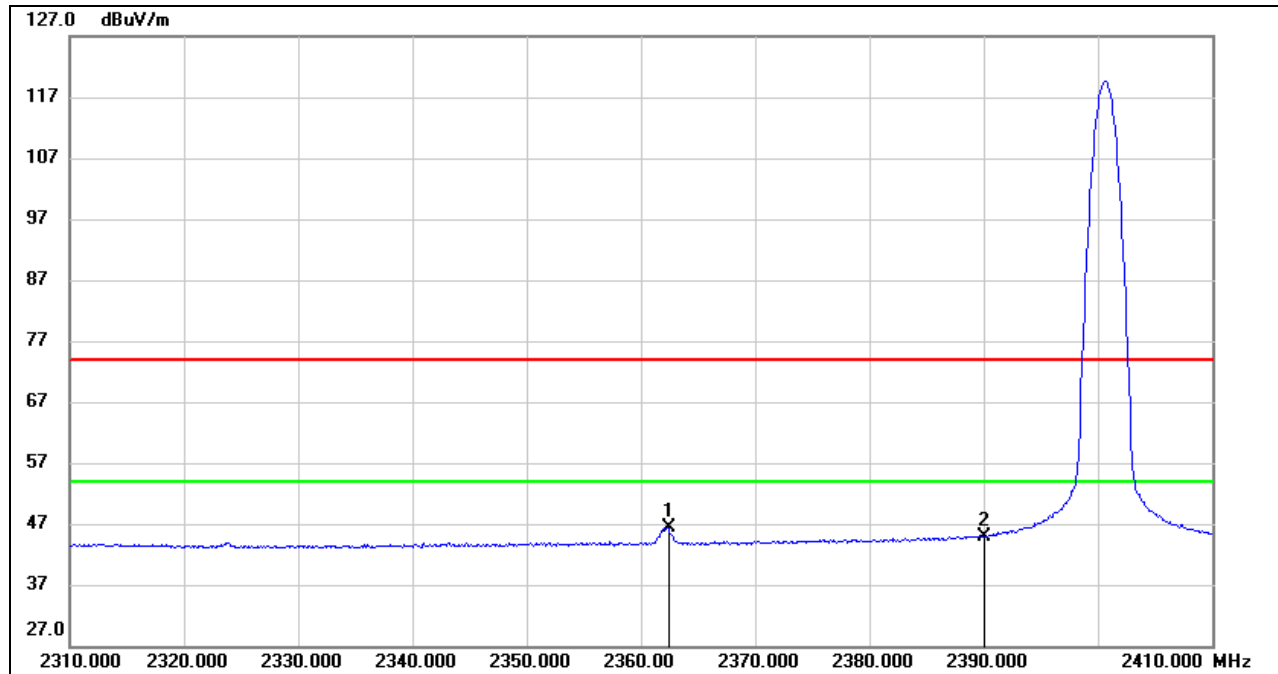
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	20.19	32.44	52.63	54.00	-1.37	AVG
2	2483.600	19.77	32.44	52.21	54.00	-1.79	AVG

Test Mode:	2400M.2GFSK.60kbps PK	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



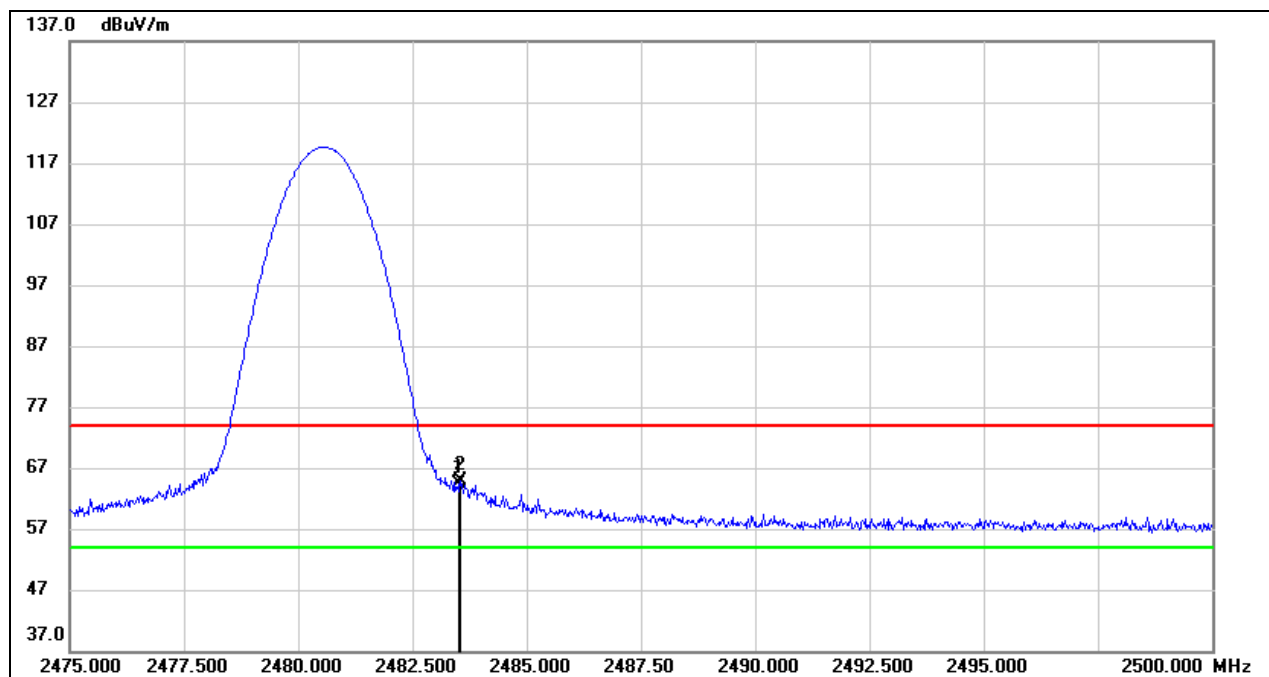
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.400	26.06	32.07	58.13	74.00	-15.87	peak
2	2390.000	24.76	32.16	56.92	74.00	-17.08	peak

Test Mode:	2400M.2GFSK.60kbps AV	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



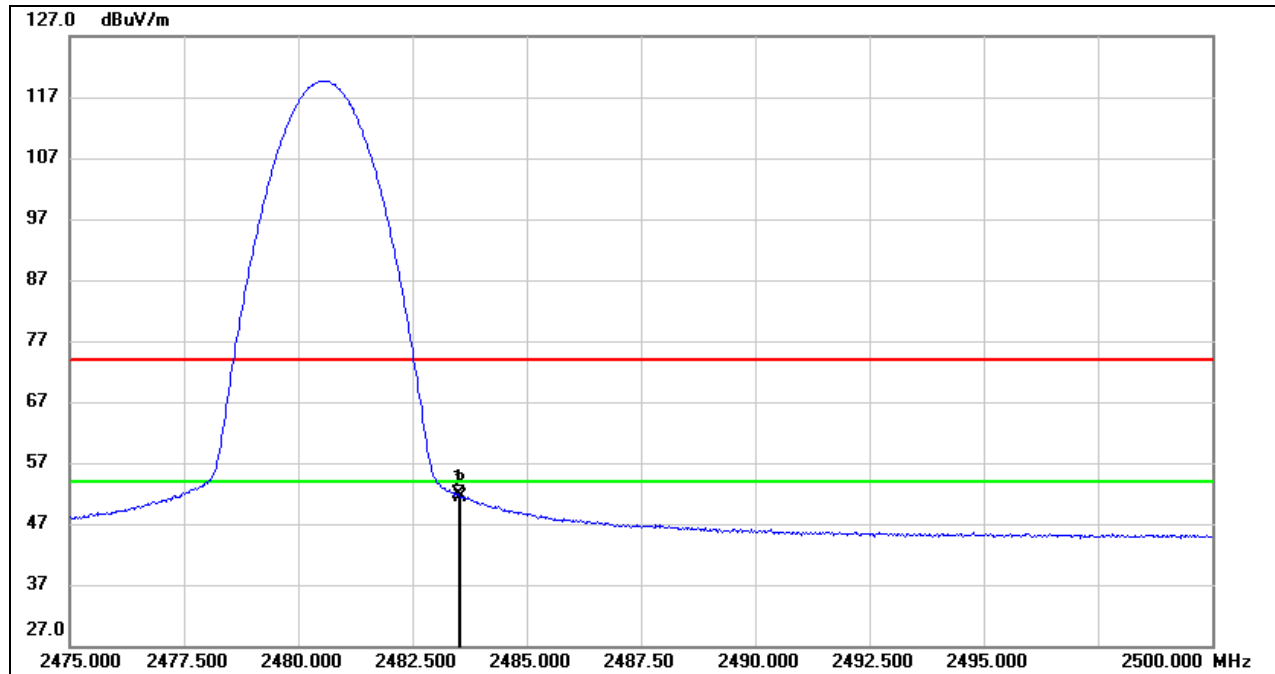
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.400	14.26	32.07	46.33	54.00	-7.67	AVG
2	2390.000	12.84	32.16	45.00	54.00	-9.00	AVG

Test Mode:	2400M.2GFSK.60kbps PK	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



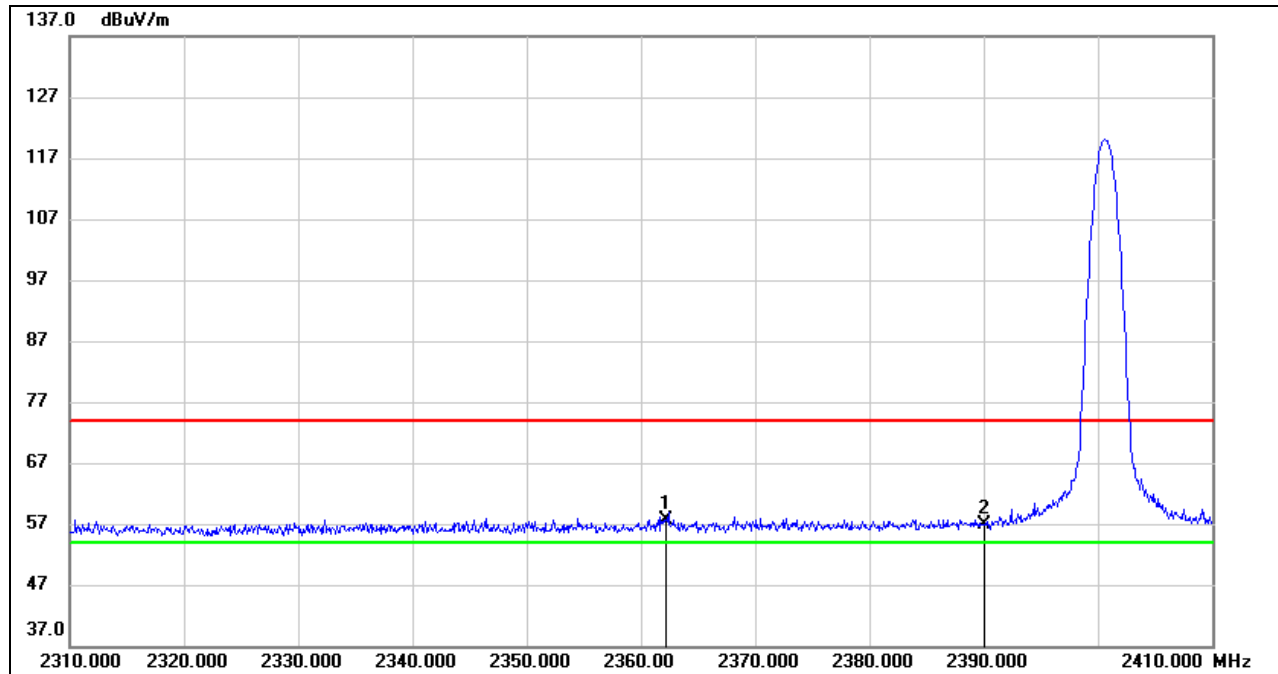
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	31.83	32.44	64.27	74.00	-9.73	peak
2	2483.550	32.53	32.44	64.97	74.00	-9.03	peak

Test Mode:	2400M.2GFSK.60kbps AV	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



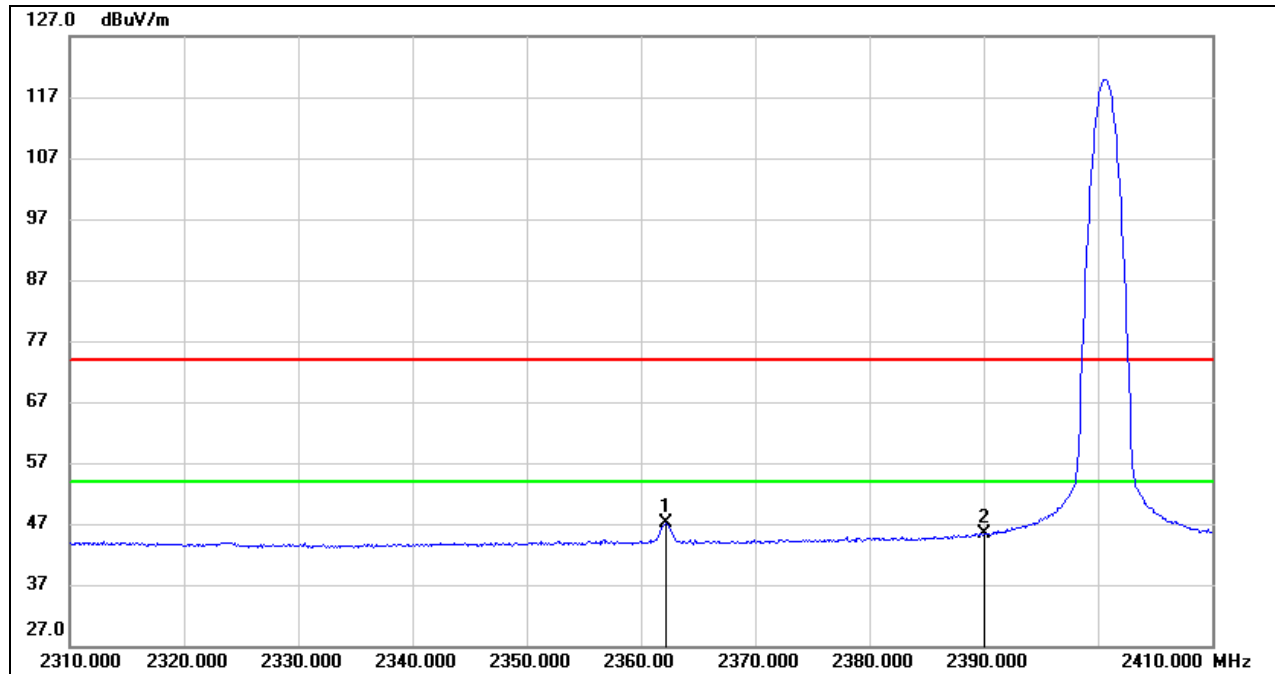
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	19.33	32.44	51.77	54.00	-2.23	AVG
2	2483.550	18.85	32.44	51.29	54.00	-2.71	AVG

Test Mode:	2400M.2GFSK.96kbps PK	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



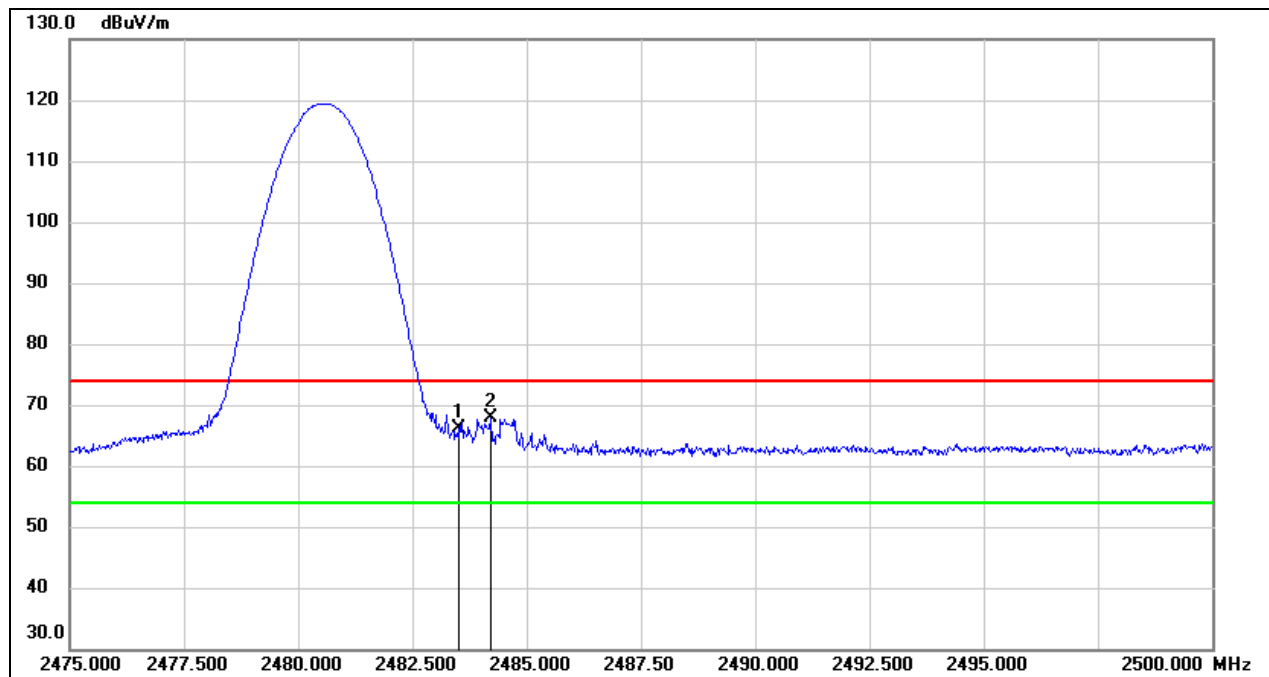
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.200	25.68	32.07	57.75	74.00	-16.25	peak
2	2390.000	24.73	32.16	56.89	74.00	-17.11	peak

Test Mode:	2400M.2GFSK.96kbps AV	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



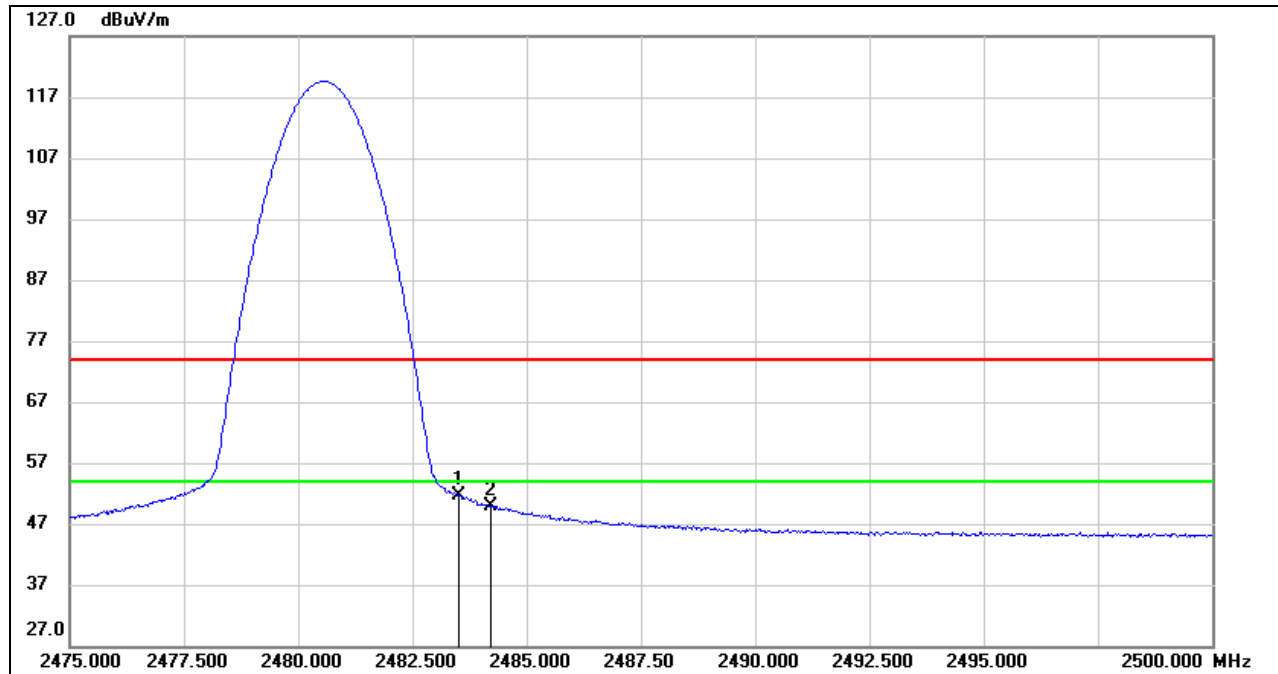
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.200	14.98	32.07	47.05	54.00	-6.95	AVG
2	2390.000	13.21	32.16	45.37	54.00	-8.63	AVG

Test Mode:	2400M.2GFSK.96kbps PK	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



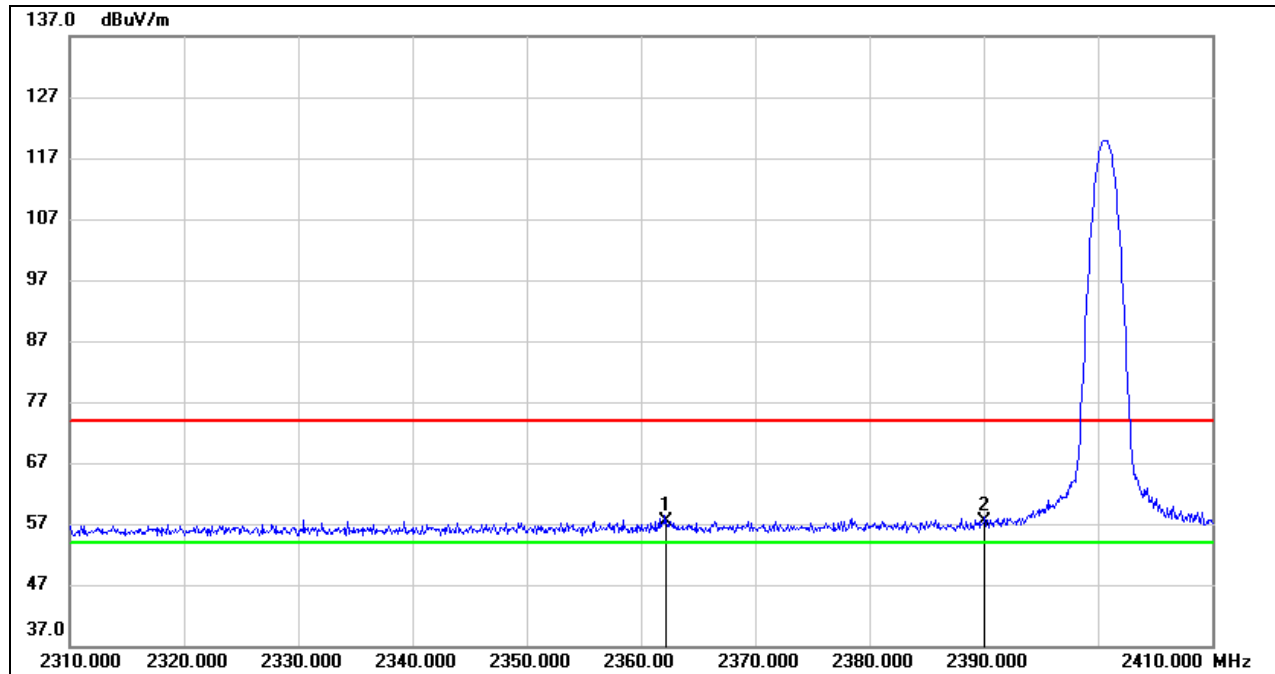
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	33.72	32.44	66.16	74.00	-7.84	peak
2	2484.200	35.54	32.44	67.98	74.00	-6.02	peak

Test Mode:	2400M.2GFSK.96kbps AV	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



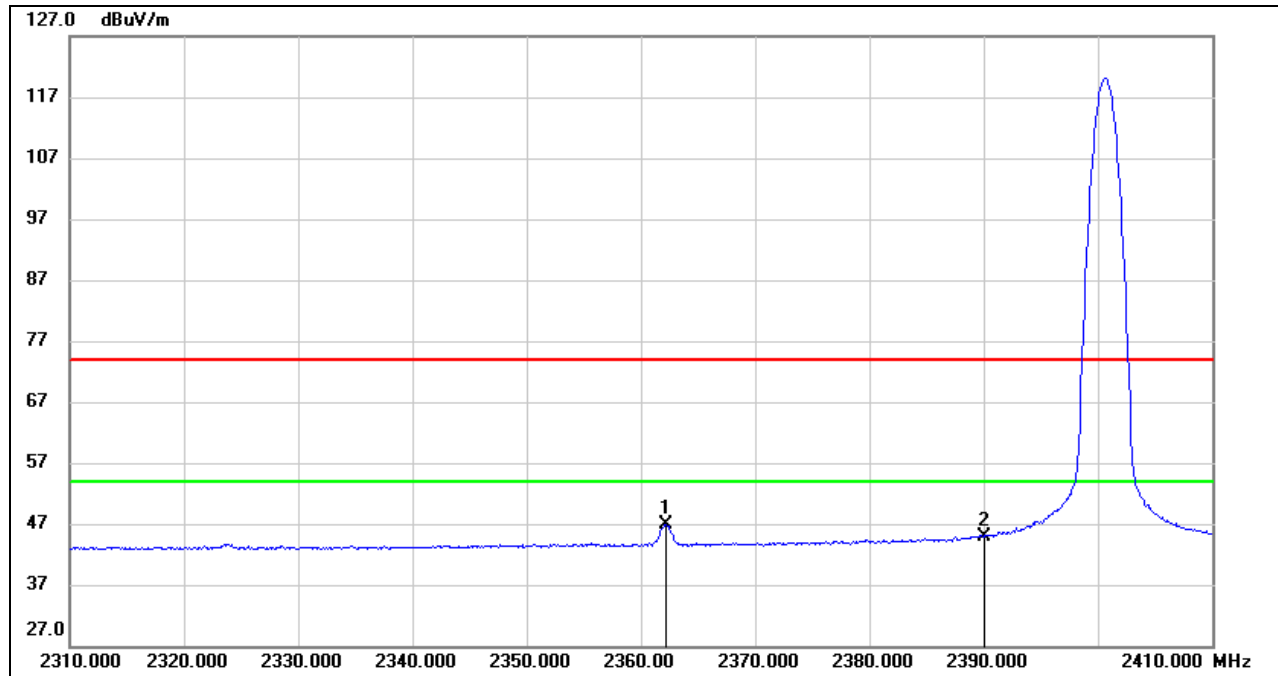
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	19.25	32.44	51.69	54.00	-2.31	AVG
2	2484.200	17.54	32.44	49.98	54.00	-4.02	AVG

Test Mode:	2400M.2GFSK.150kbps PK	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



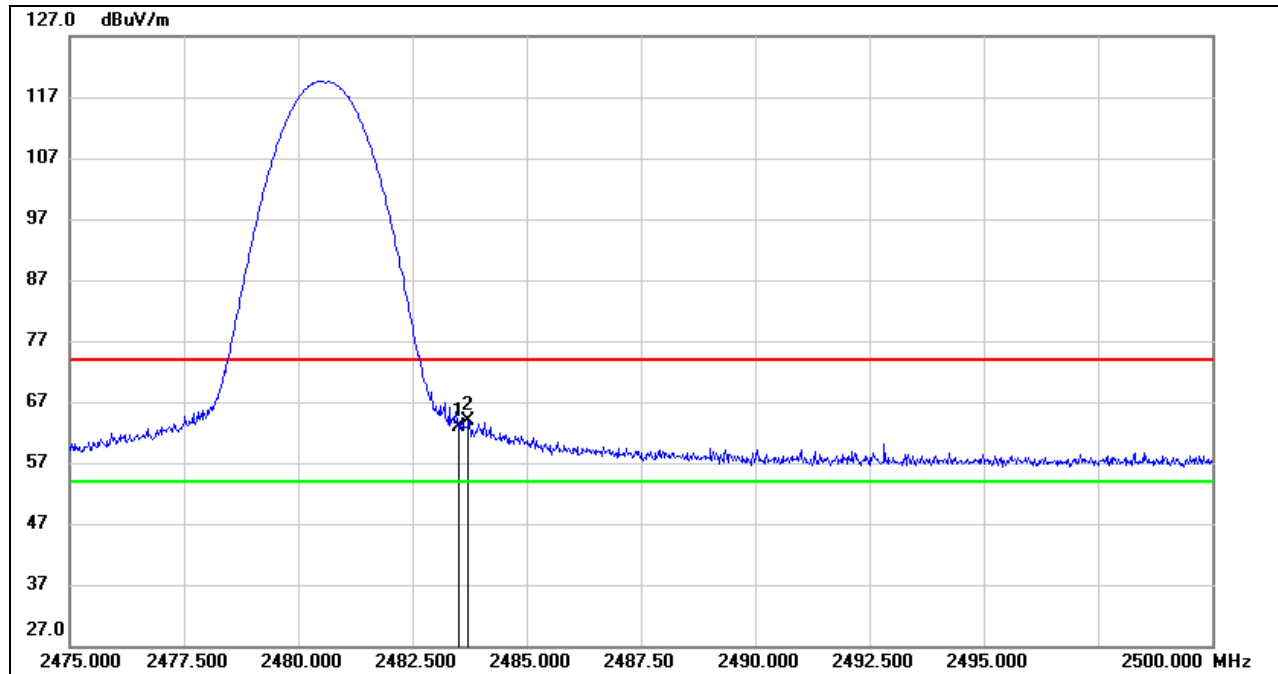
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.200	25.43	32.07	57.50	74.00	-16.50	peak
2	2390.000	25.20	32.16	57.36	74.00	-16.64	peak

Test Mode:	2400M.2GFSK.150kbps AV	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



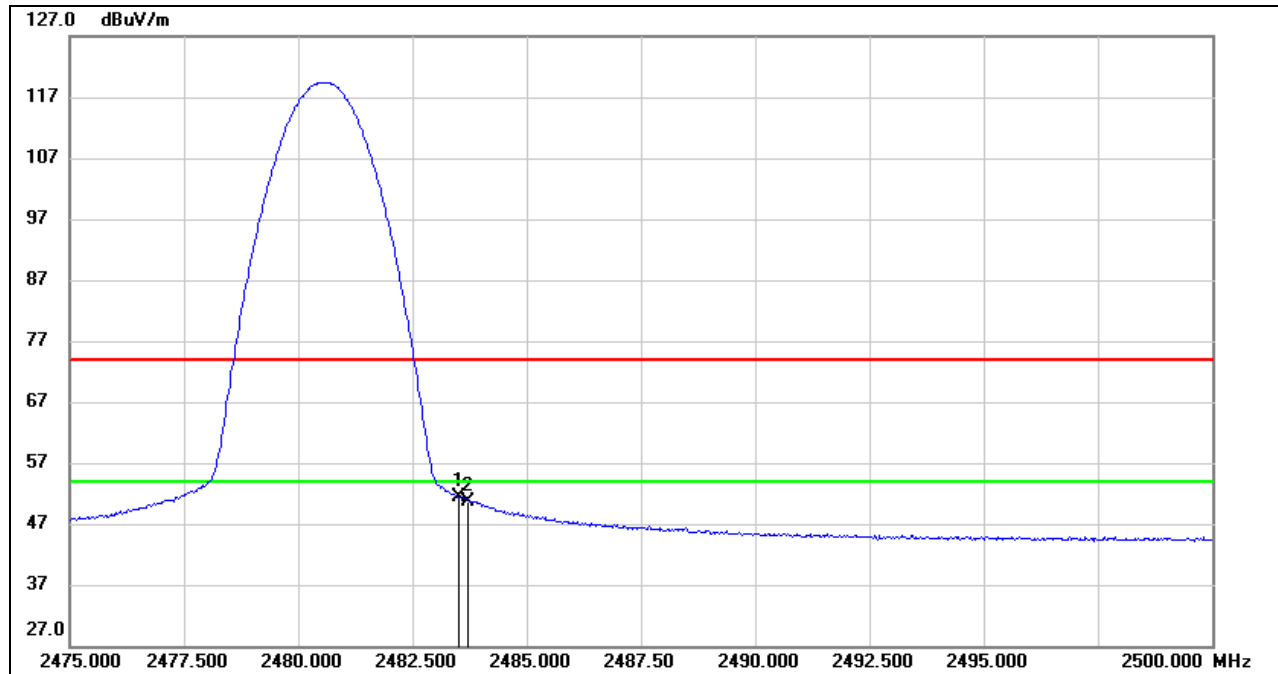
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.200	14.93	32.07	47.00	54.00	-7.00	AVG
2	2390.000	12.64	32.16	44.80	54.00	-9.20	AVG

Test Mode:	2400M.2GFSK.150kbps PK	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



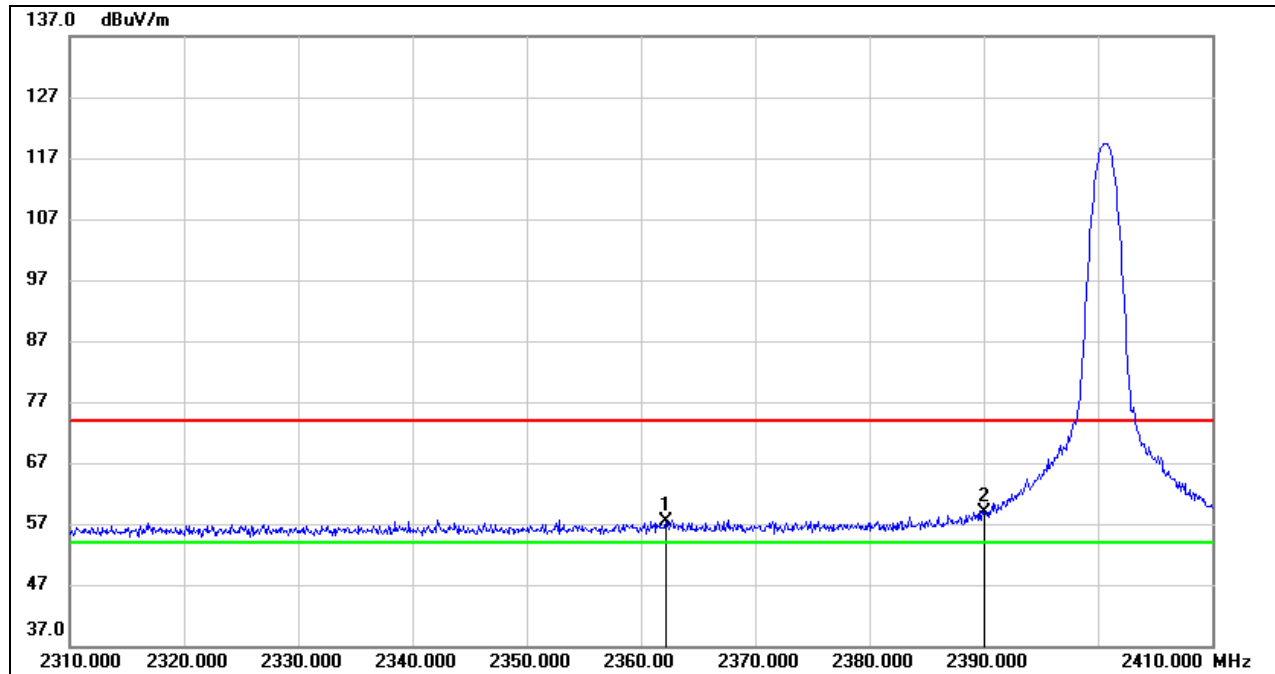
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	30.46	32.44	62.90	74.00	-11.10	peak
2	2483.725	31.53	32.44	63.97	74.00	-10.03	peak

Test Mode:	2400M.2GFSK.150kbps AV	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



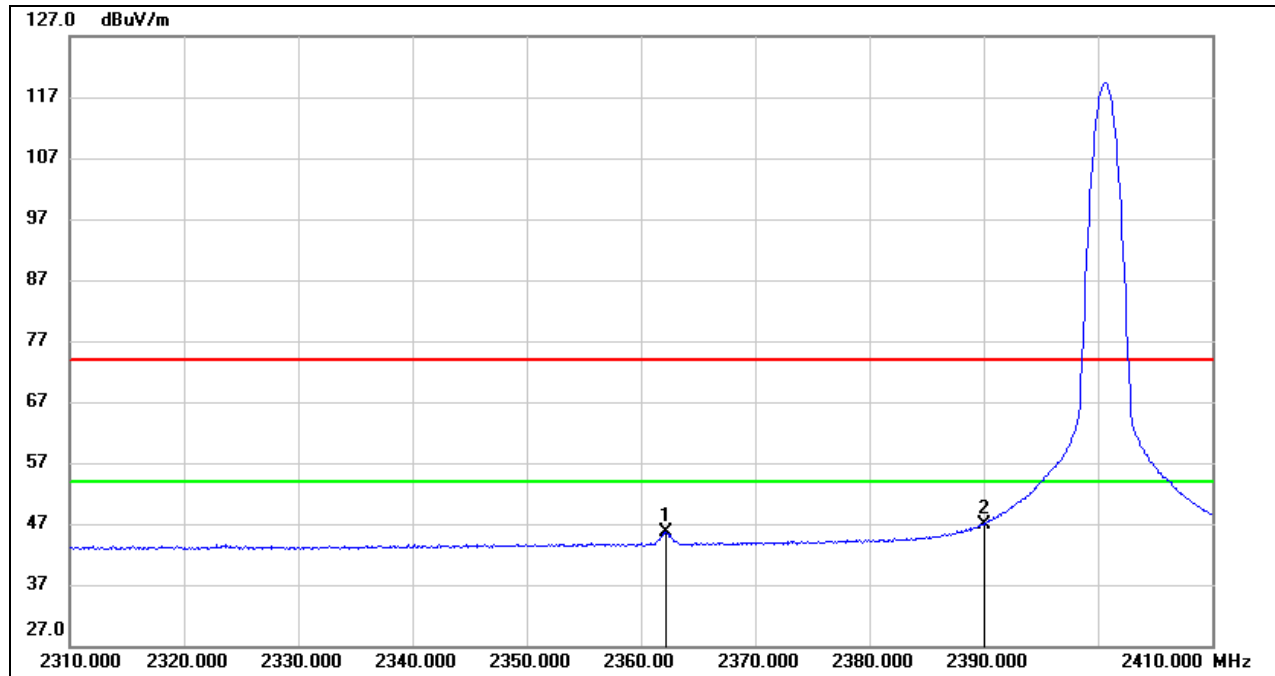
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	18.99	32.44	51.43	54.00	-2.57	AVG
2	2483.725	18.25	32.44	50.69	54.00	-3.31	AVG

Test Mode:	2400M.2GFSK.400kbps.H05 PK	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



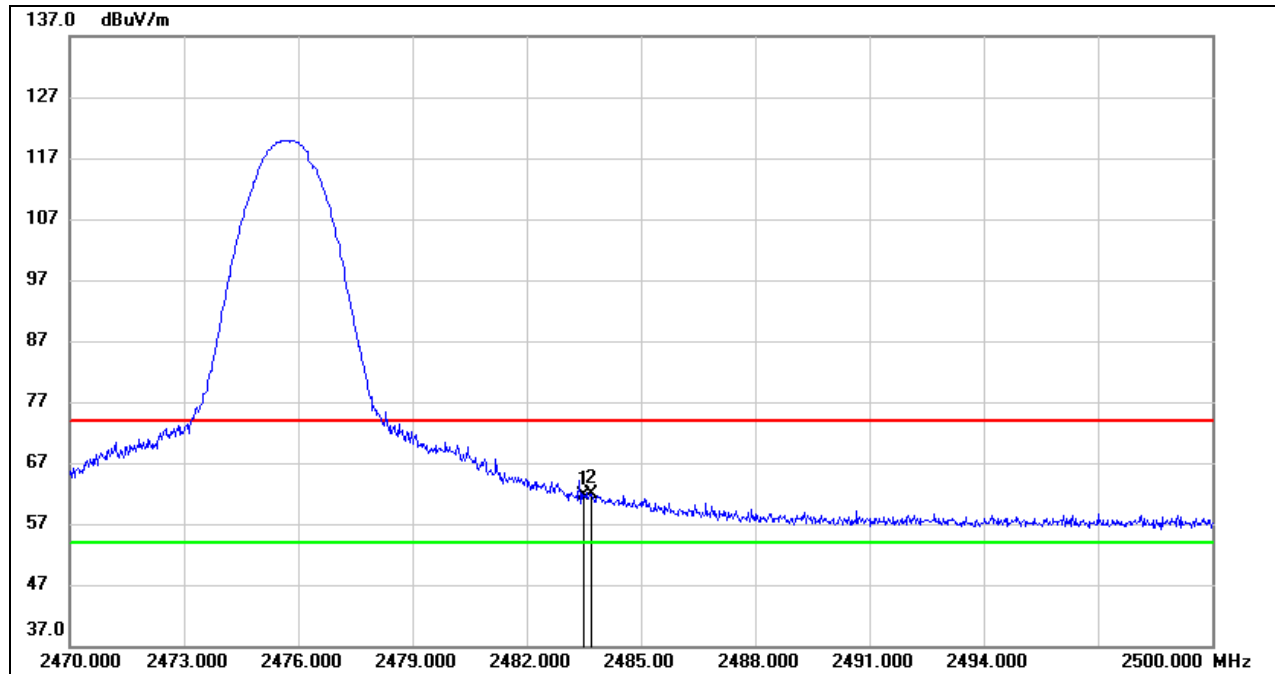
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.200	25.33	32.07	57.40	74.00	-16.60	peak
2	2390.000	26.75	32.16	58.91	74.00	-15.09	peak

Test Mode:	2400M.2GFSK.400kbps.H05 AV	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



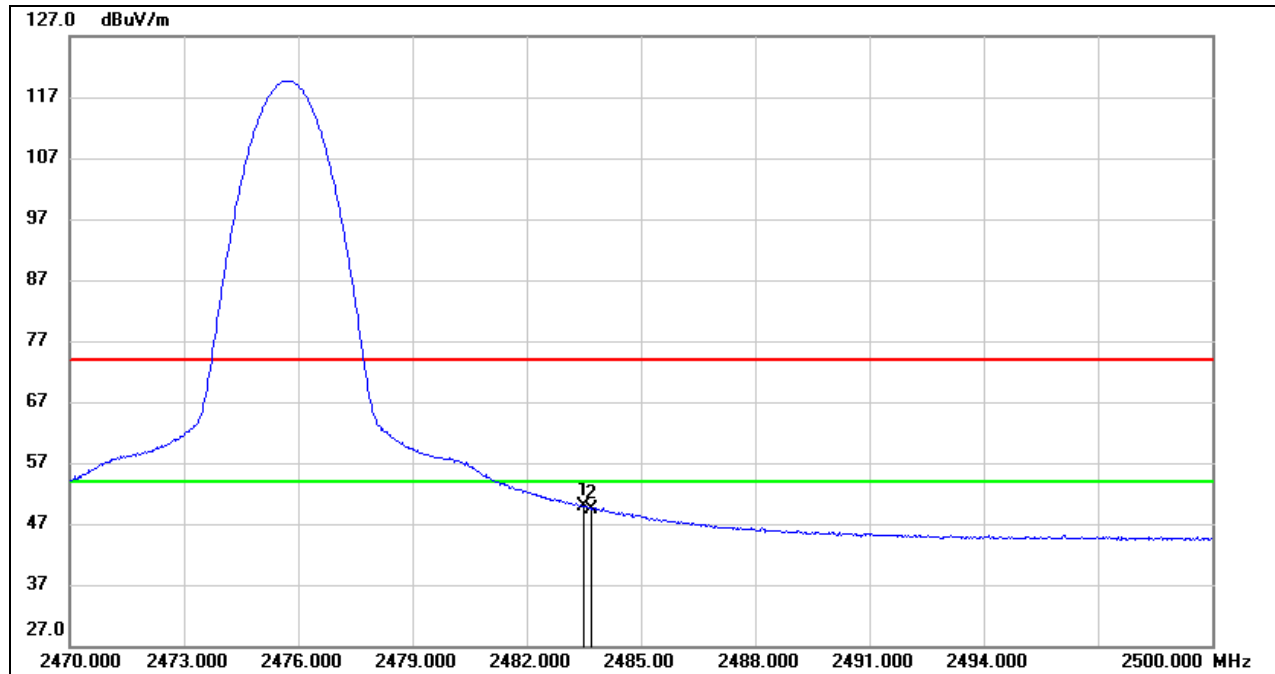
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.200	13.52	32.07	45.59	54.00	-8.41	AVG
2	2390.000	14.82	32.16	46.98	54.00	-7.02	AVG

Test Mode:	2400M.2GFSK.400kbps.H05 PK	Frequency(MHz):	2475.725
Polarity:	Horizontal	Test Voltage:	DC 5 V



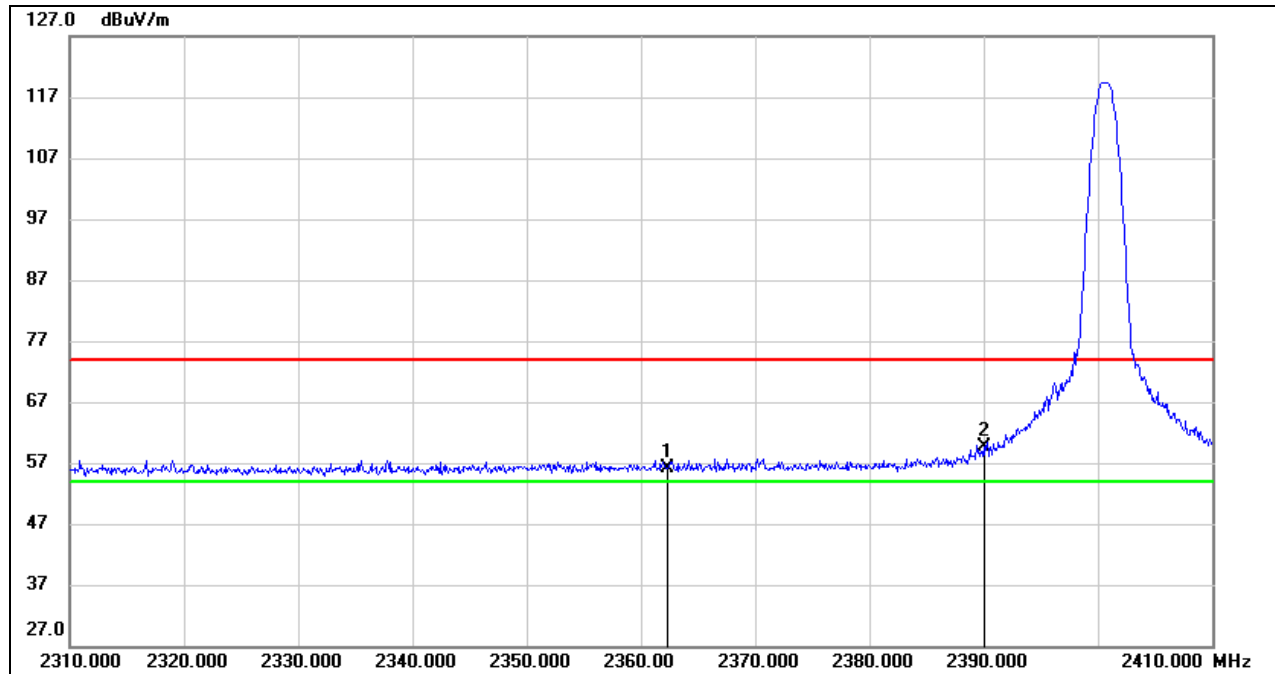
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	29.13	32.44	61.57	74.00	-12.43	peak
2	2483.710	29.54	32.44	61.98	74.00	-12.02	peak

Test Mode:	2400M.2GFSK.400kbps.H05 AV	Frequency(MHz):	2475.725
Polarity:	Horizontal	Test Voltage:	DC 5 V



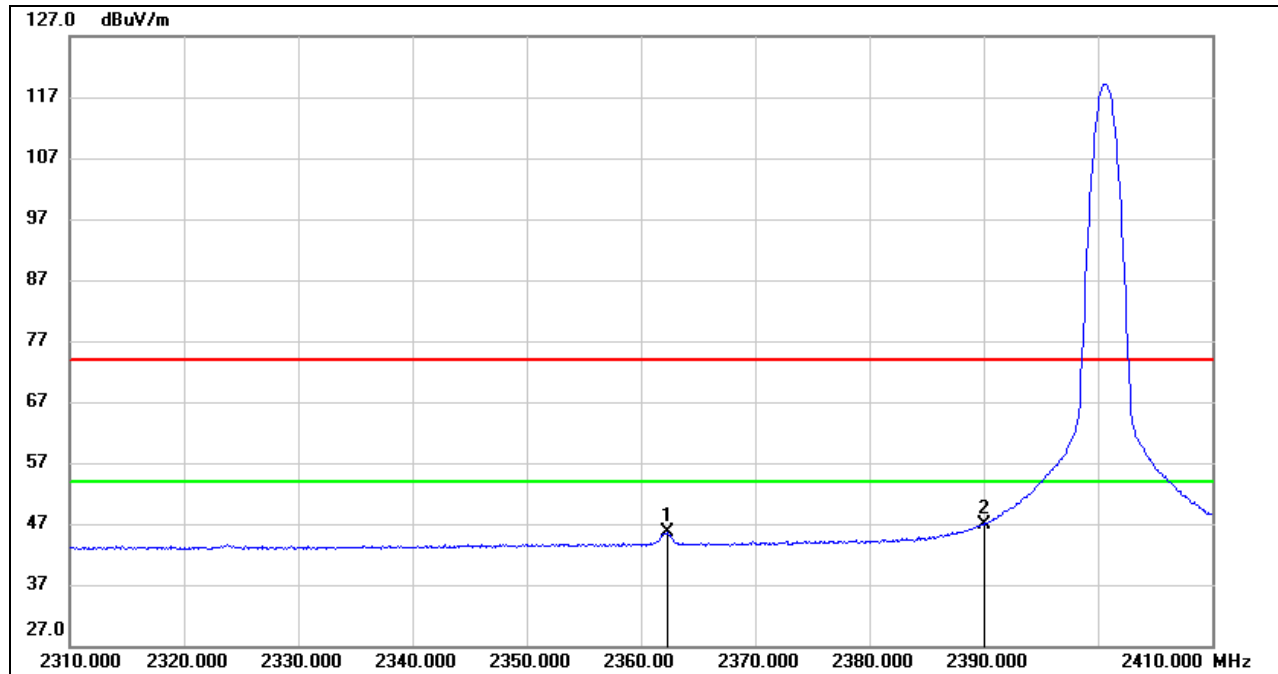
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	17.52	32.44	49.96	54.00	-4.04	AVG
2	2483.710	17.03	32.44	49.47	54.00	-4.53	AVG

Test Mode:	2400M.2GFSK.400kbps PK	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



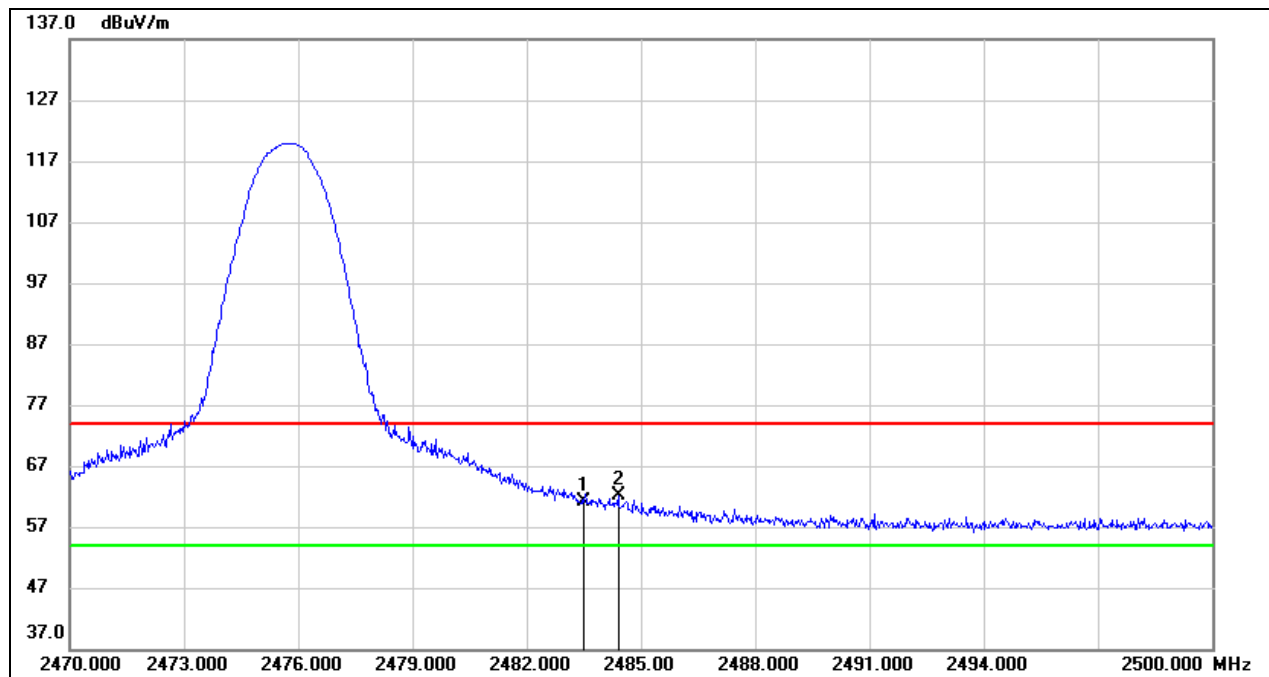
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.300	24.04	32.07	56.11	74.00	-17.89	peak
2	2390.000	27.51	32.16	59.67	74.00	-14.33	peak

Test Mode:	2400M.2GFSK.400kbps AV	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



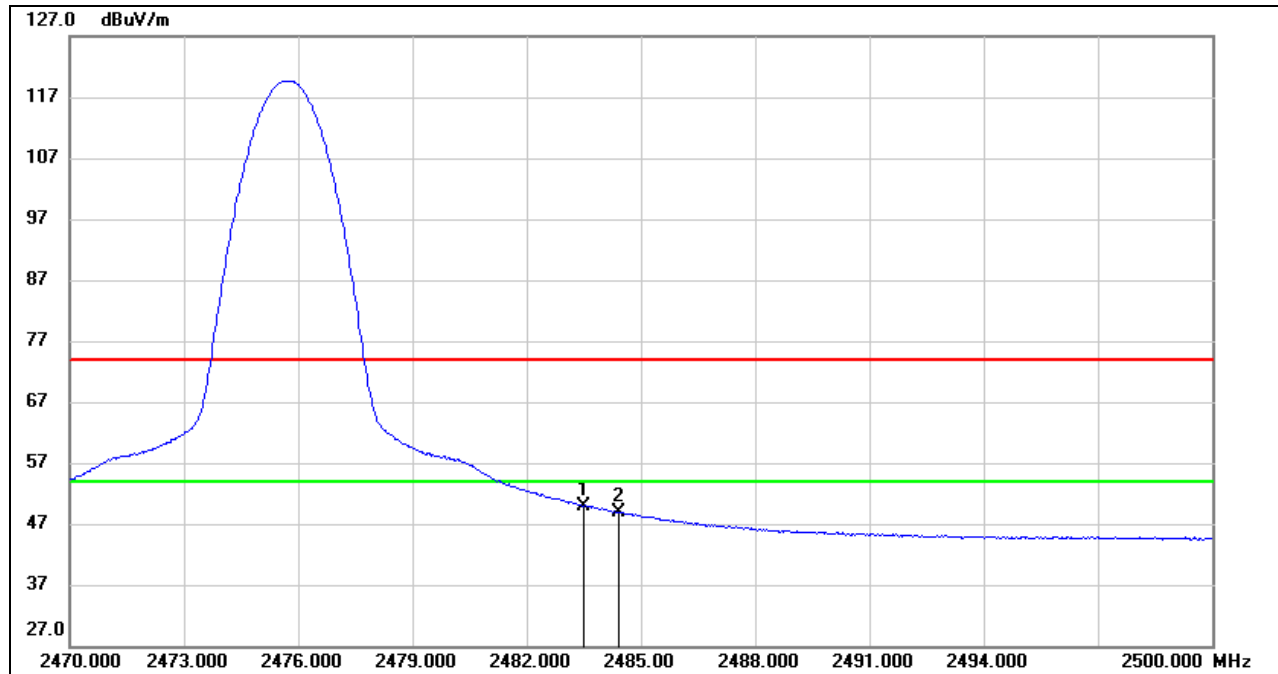
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.300	13.45	32.07	45.52	54.00	-8.48	AVG
2	2390.000	14.63	32.16	46.79	54.00	-7.21	AVG

Test Mode:	2400M.2GFSK.400kbps PK	Frequency(MHz):	2475.725
Polarity:	Horizontal	Test Voltage:	DC 5 V



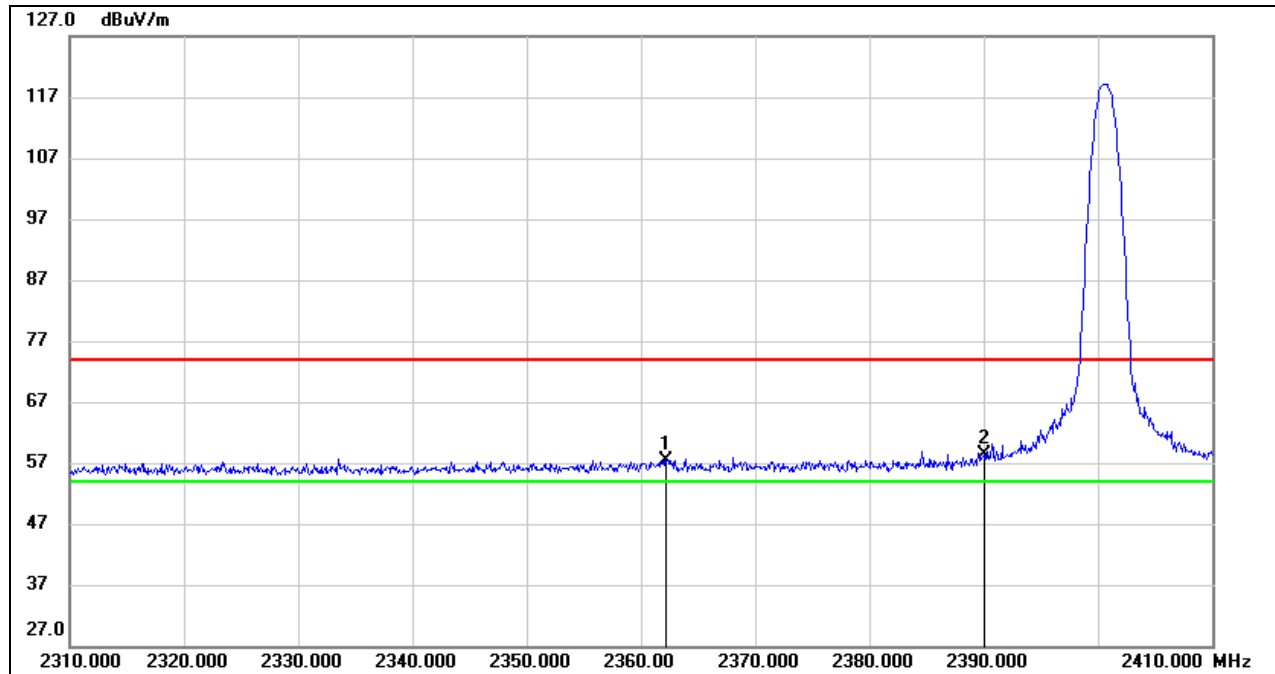
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	28.71	32.44	61.15	74.00	-12.85	peak
2	2484.400	29.59	32.44	62.03	74.00	-11.97	peak

Test Mode:	2400M.2GFSK.400kbps AV	Frequency(MHz):	2475.725
Polarity:	Horizontal	Test Voltage:	DC 5 V



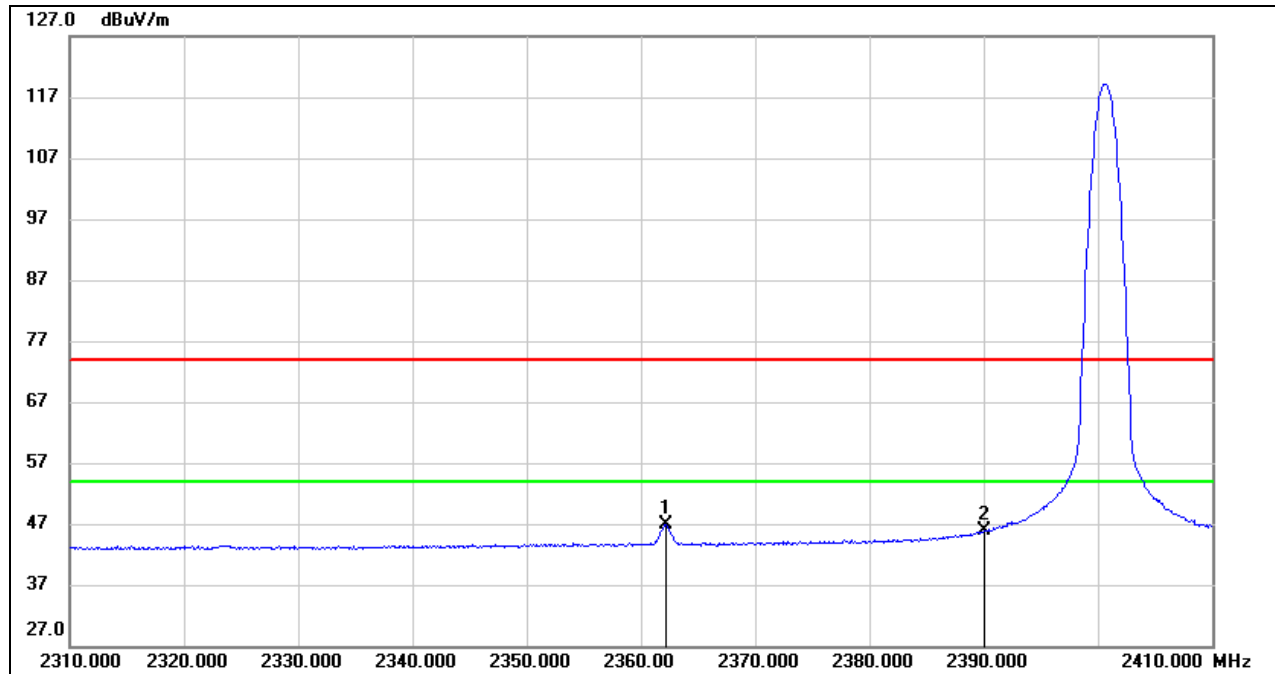
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	17.49	32.44	49.93	54.00	-4.07	AVG
2	2484.400	16.41	32.44	48.85	54.00	-5.15	AVG

Test Mode:	2400M.4GFSK.400kbps.H05 PK	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



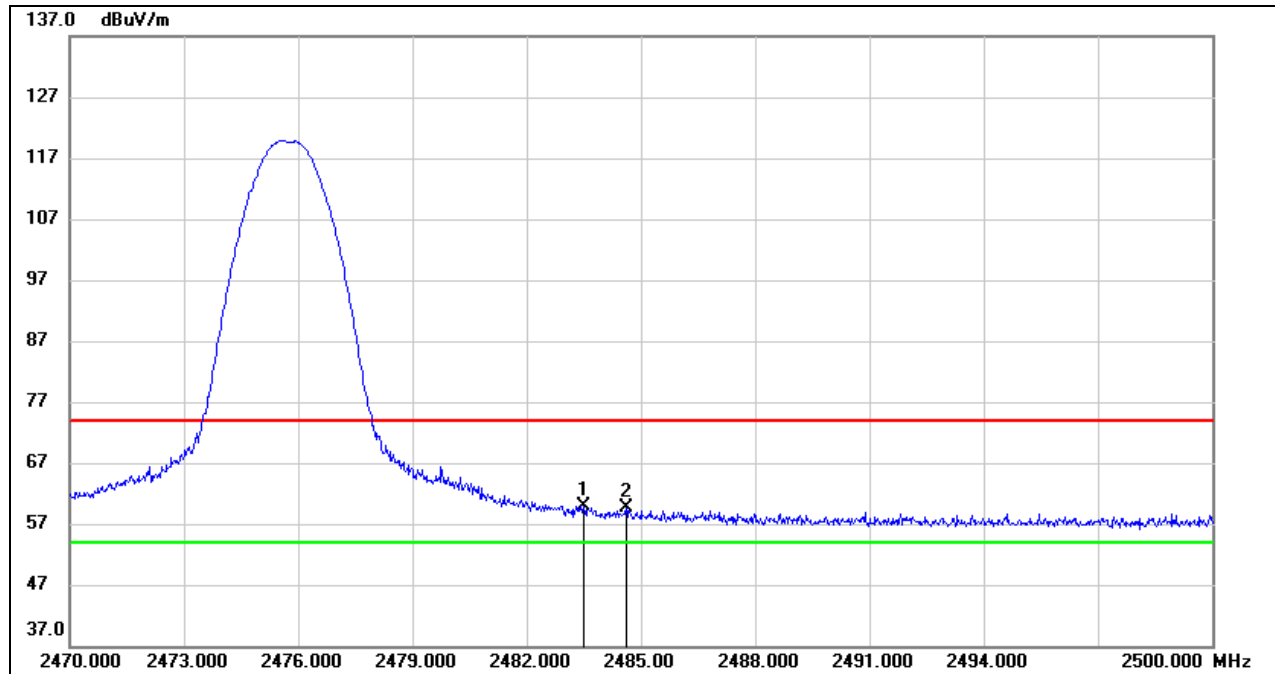
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.200	25.23	32.07	57.30	74.00	-16.70	peak
2	2390.000	26.24	32.16	58.40	74.00	-15.60	peak

Test Mode:	2400M.4GFSK.400kbps.H05 AV	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



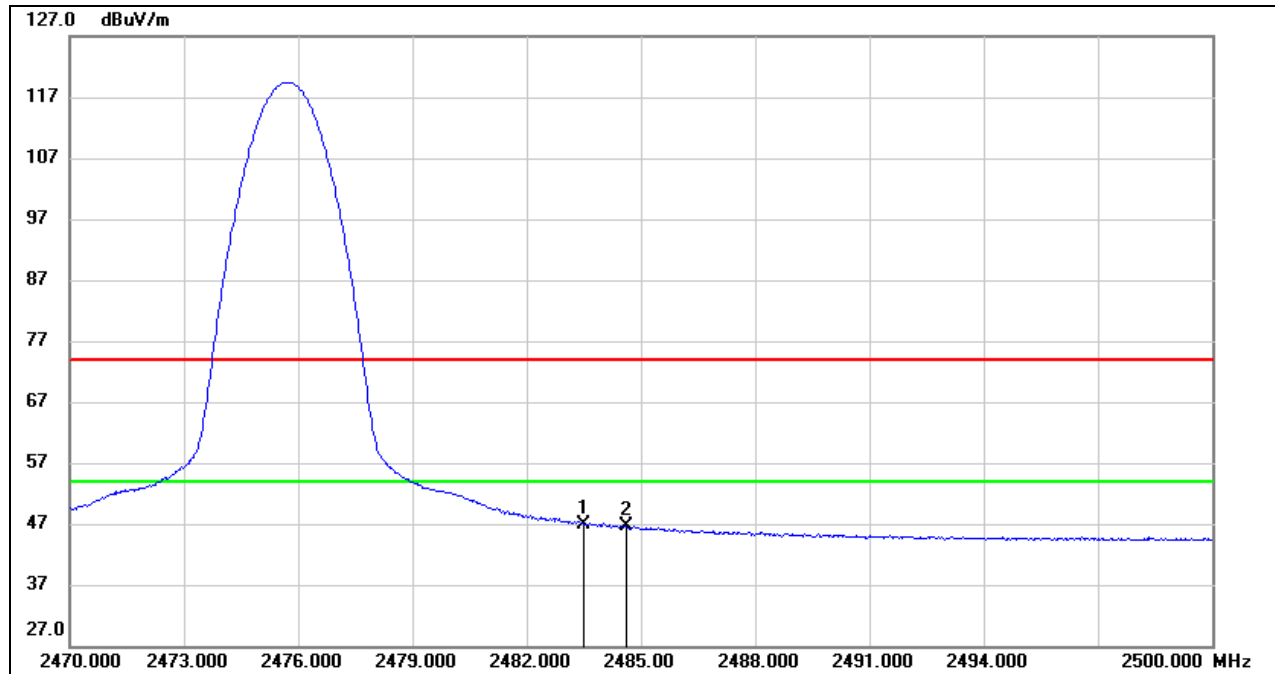
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2362.200	14.70	32.07	46.77	54.00	-7.23	AVG
2	2390.000	13.73	32.16	45.89	54.00	-8.11	AVG

Test Mode:	2400M.4GFSK.400kbps.H05 PK	Frequency(MHz):	2475.725
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	27.55	32.44	59.99	74.00	-14.01	peak
2	2484.610	27.24	32.44	59.68	74.00	-14.32	peak

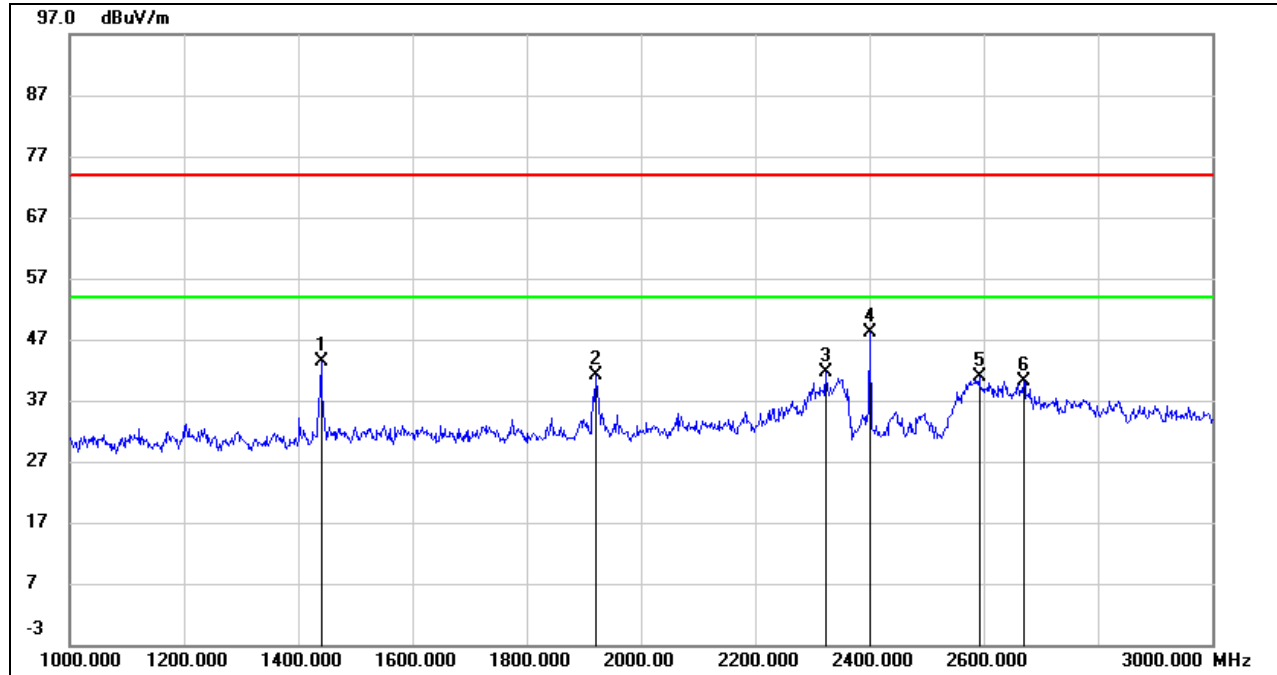
Test Mode:	2400M.4GFSK.400kbps.H05 AV	Frequency(MHz):	2475.725
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	14.39	32.44	46.83	54.00	-7.17	AVG
2	2484.610	14.13	32.44	46.57	54.00	-7.43	AVG

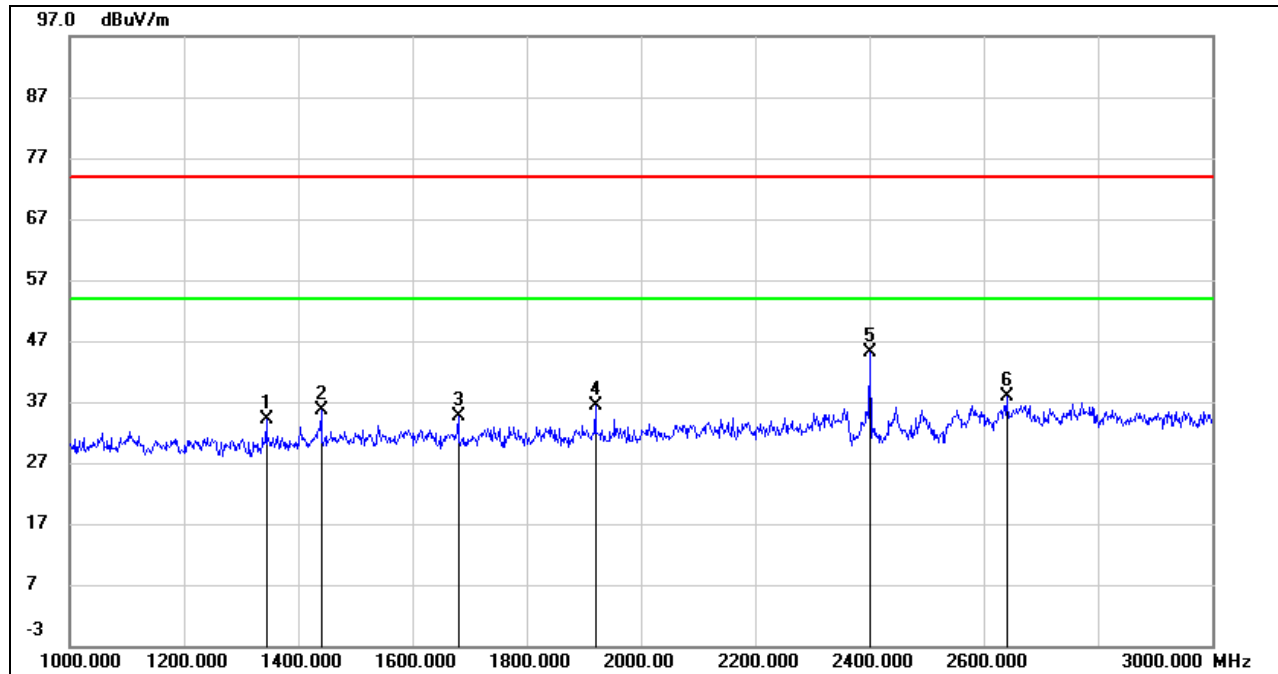
8.2. SPURIOUS EMISSIONS (1 GHz ~ 3 GHz)

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



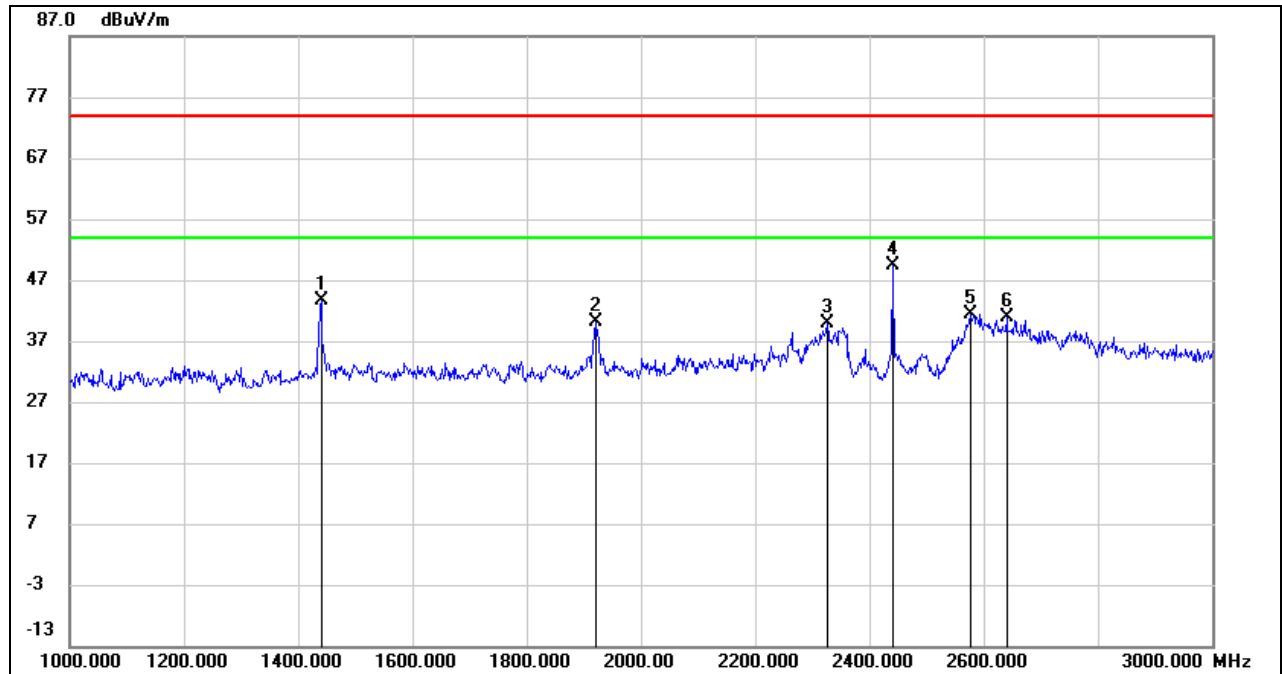
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1440.000	56.34	-12.98	43.36	74.00	-30.64	peak
2	1920.000	52.37	-11.32	41.05	74.00	-32.95	peak
3	2324.000	51.10	-9.39	41.71	74.00	-32.29	peak
4	2400.000	57.21	-9.00	48.21	/	/	fundamental
5	2592.000	49.05	-8.21	40.84	74.00	-33.16	peak
6	2670.000	48.00	-7.97	40.03	74.00	-33.97	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Vertical	Test Voltage:	DC 5 V



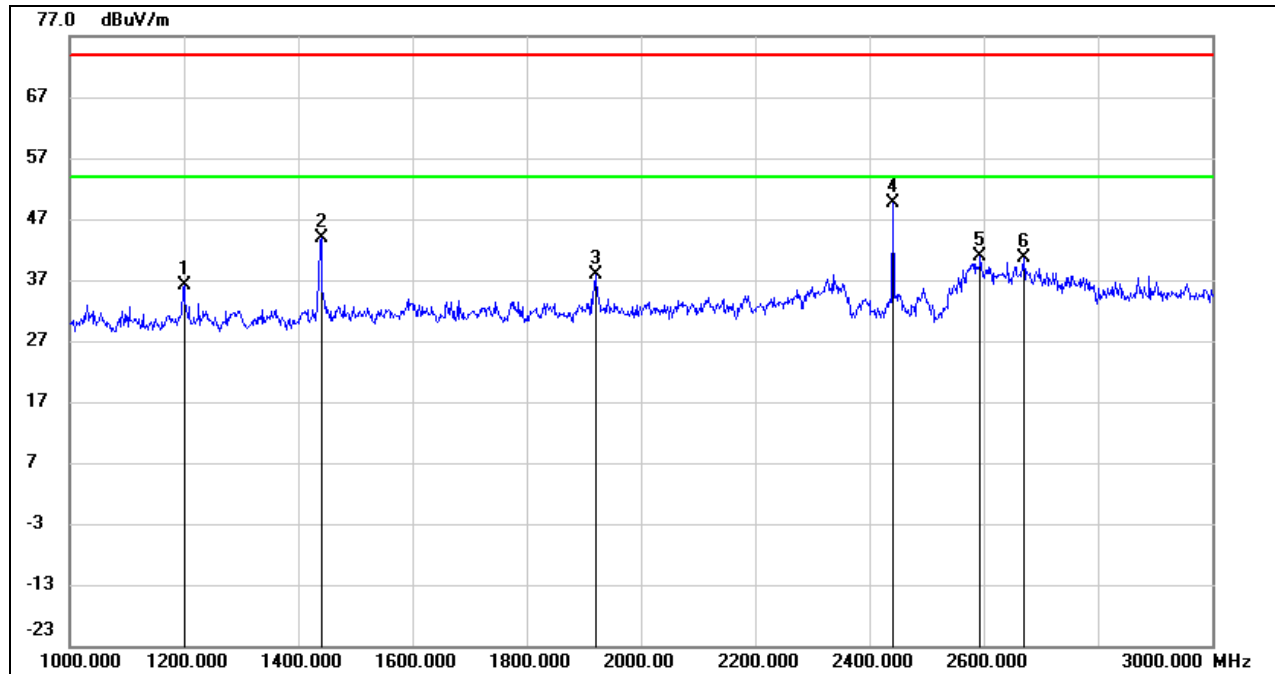
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1344.000	47.45	-13.43	34.02	74.00	-39.98	peak
2	1440.000	48.65	-12.98	35.67	74.00	-38.33	peak
3	1680.000	46.84	-12.12	34.72	74.00	-39.28	peak
4	1920.000	47.73	-11.32	36.41	74.00	-37.59	peak
5	2400.000	54.05	-9.00	45.05	/	/	fundamental
6	2640.000	46.03	-8.07	37.96	74.00	-36.04	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2440.385
Polarity:	Horizontal	Test Voltage:	DC 5 V



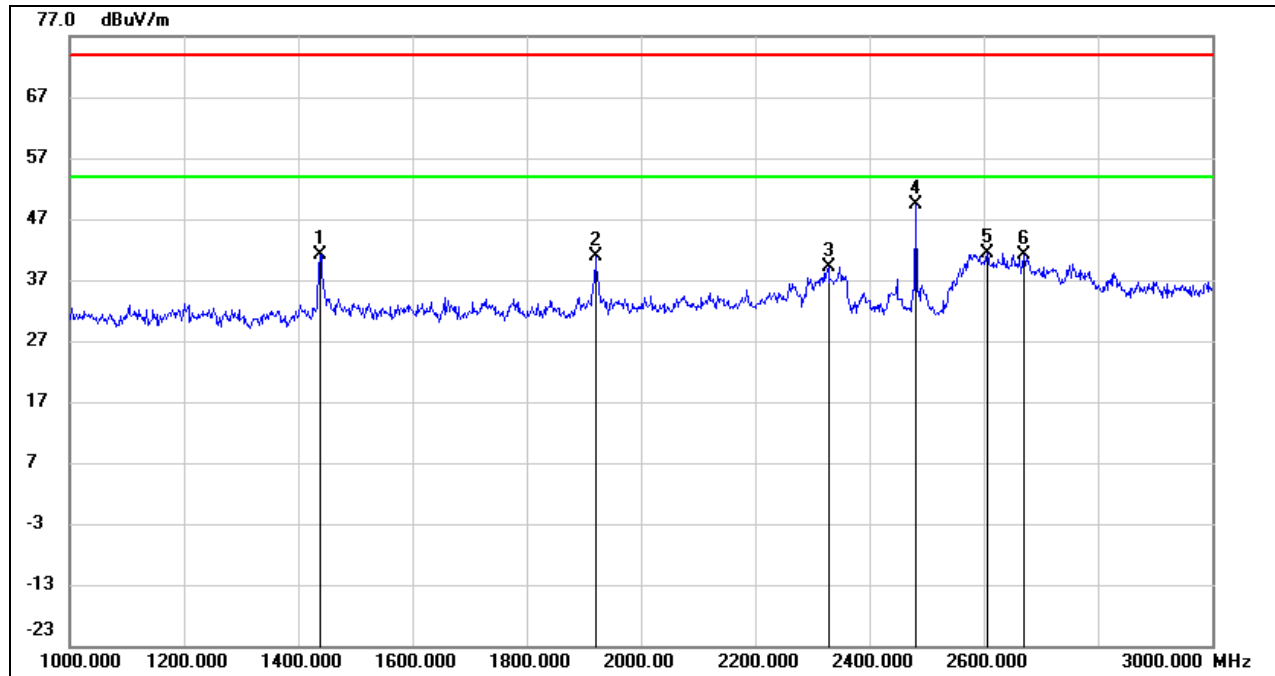
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1440.000	56.52	-12.98	43.54	74.00	-30.46	peak
2	1920.000	51.37	-11.32	40.05	74.00	-33.95	peak
3	2326.000	49.34	-9.38	39.96	74.00	-34.04	peak
4	2440.000	58.26	-8.80	49.46	/	/	fundamental
5	2576.000	49.58	-8.26	41.32	74.00	-32.68	peak
6	2640.000	49.07	-8.07	41.00	74.00	-33.00	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2440.385
Polarity:	Vertical	Test Voltage:	DC 5 V



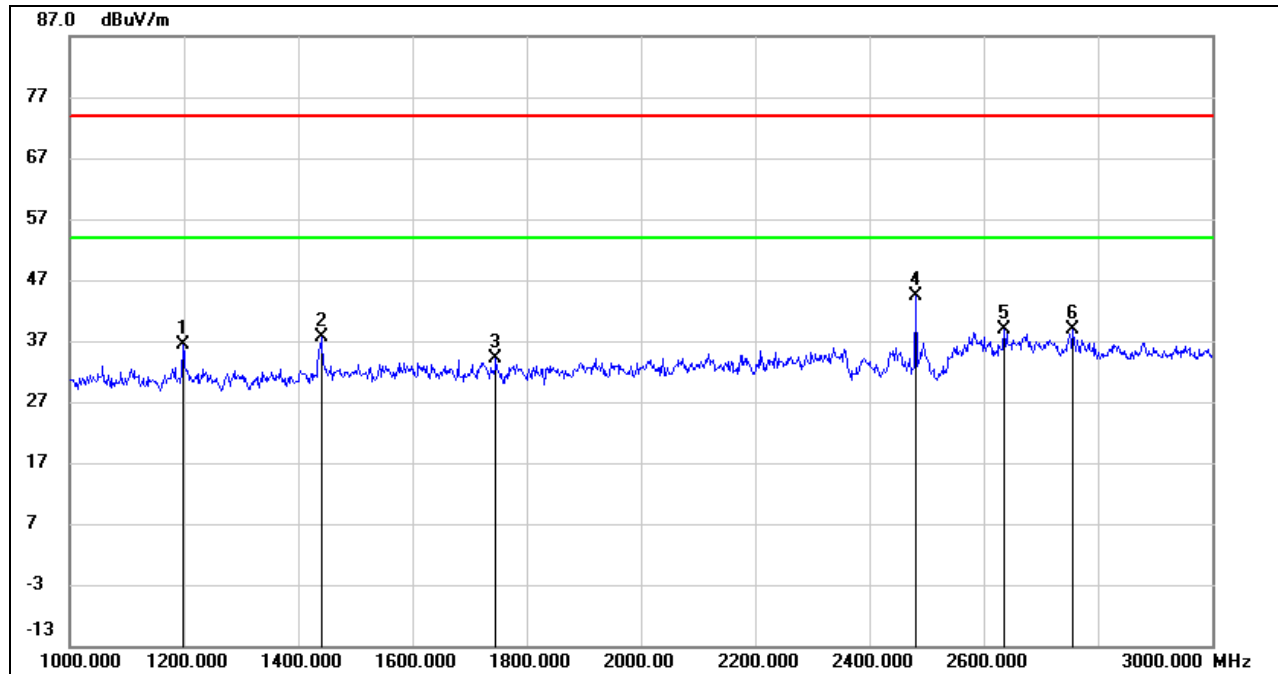
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1200.000	50.16	-14.10	36.06	74.00	-37.94	peak
2	1440.000	56.87	-12.98	43.89	74.00	-30.11	peak
3	1920.000	49.21	-11.32	37.89	74.00	-36.11	peak
4	2440.000	58.43	-8.80	49.63	/	/	fundamental
5	2594.000	49.07	-8.20	40.87	74.00	-33.13	peak
6	2670.000	48.71	-7.97	40.74	74.00	-33.26	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1438.000	54.23	-13.00	41.23	74.00	-32.77	peak
2	1920.000	52.19	-11.32	40.87	74.00	-33.13	peak
3	2328.000	48.60	-9.38	39.22	74.00	-34.78	peak
4	2480.000	57.91	-8.58	49.33	/	/	fundamental
5	2606.000	49.66	-8.17	41.49	74.00	-32.51	peak
6	2670.000	49.14	-7.97	41.17	74.00	-32.83	peak

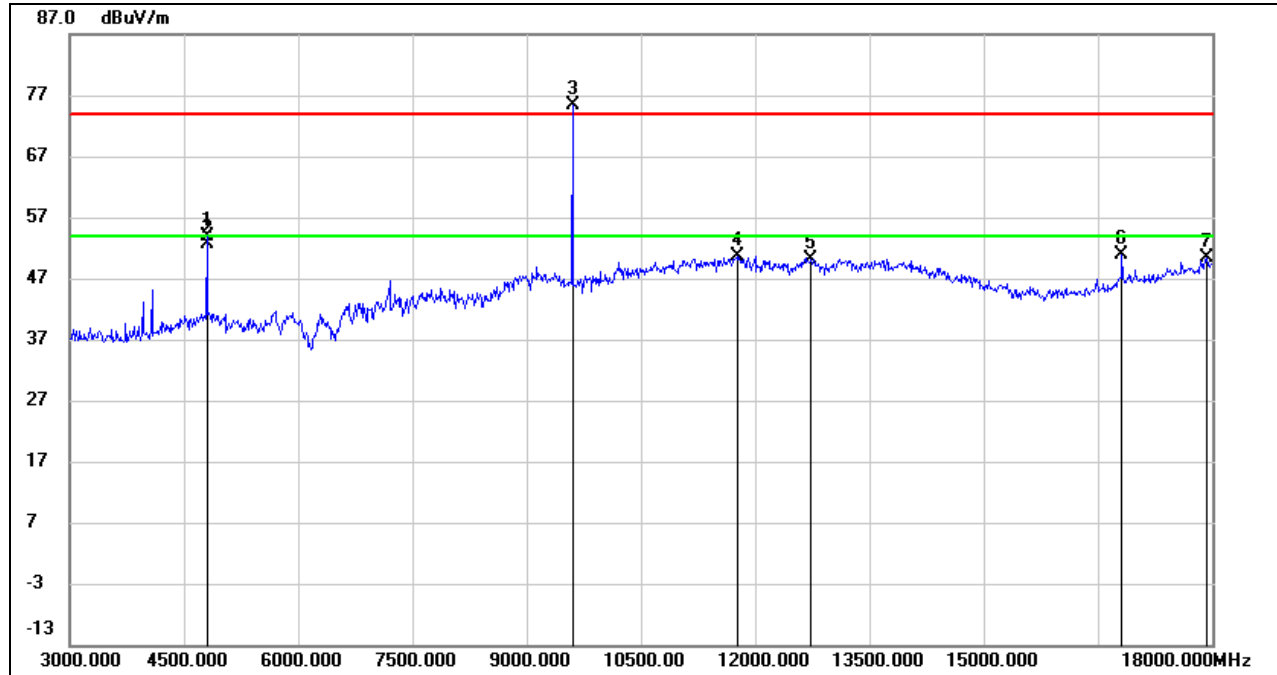
Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2480.561
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1198.000	50.38	-14.11	36.27	74.00	-37.73	peak
2	1440.000	50.71	-12.98	37.73	74.00	-36.27	peak
3	1746.000	46.01	-11.90	34.11	74.00	-39.89	peak
4	2480.000	52.96	-8.58	44.38	/	/	fundamental
5	2636.000	46.93	-8.08	38.85	74.00	-35.15	peak
6	2756.000	46.55	-7.72	38.83	74.00	-35.17	peak

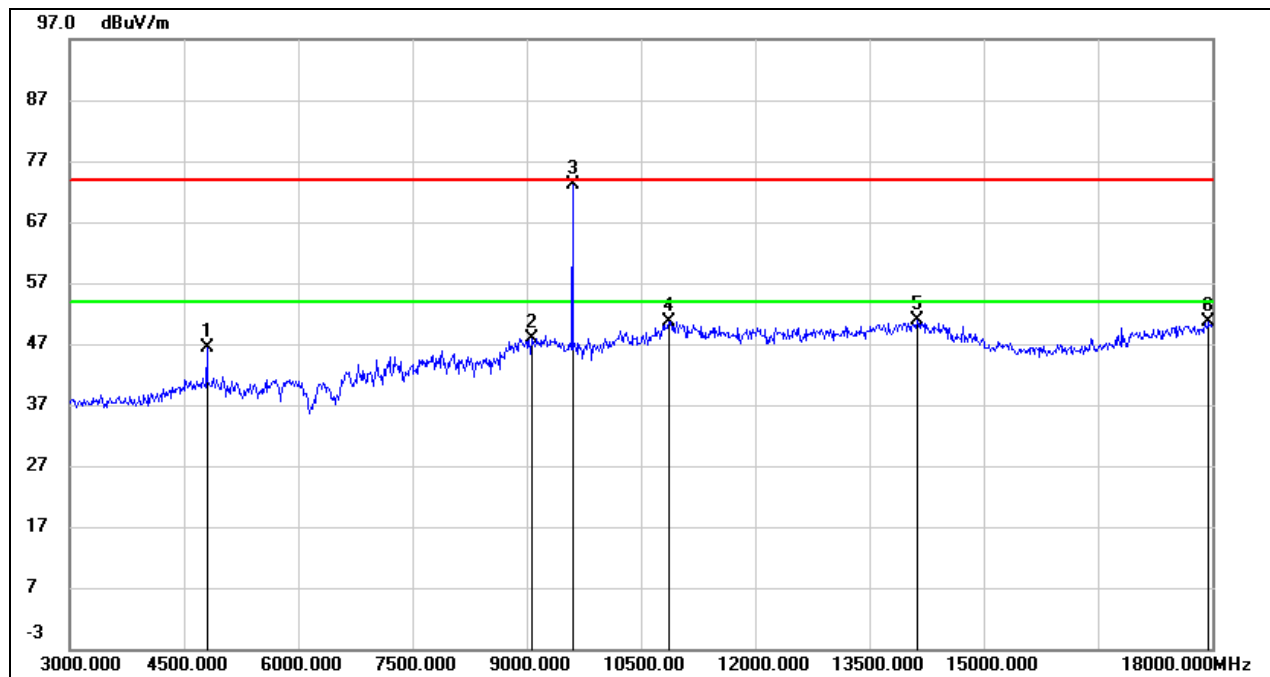
8.3. SPURIOUS EMISSIONS (3 GHz ~ 18 GHz)

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



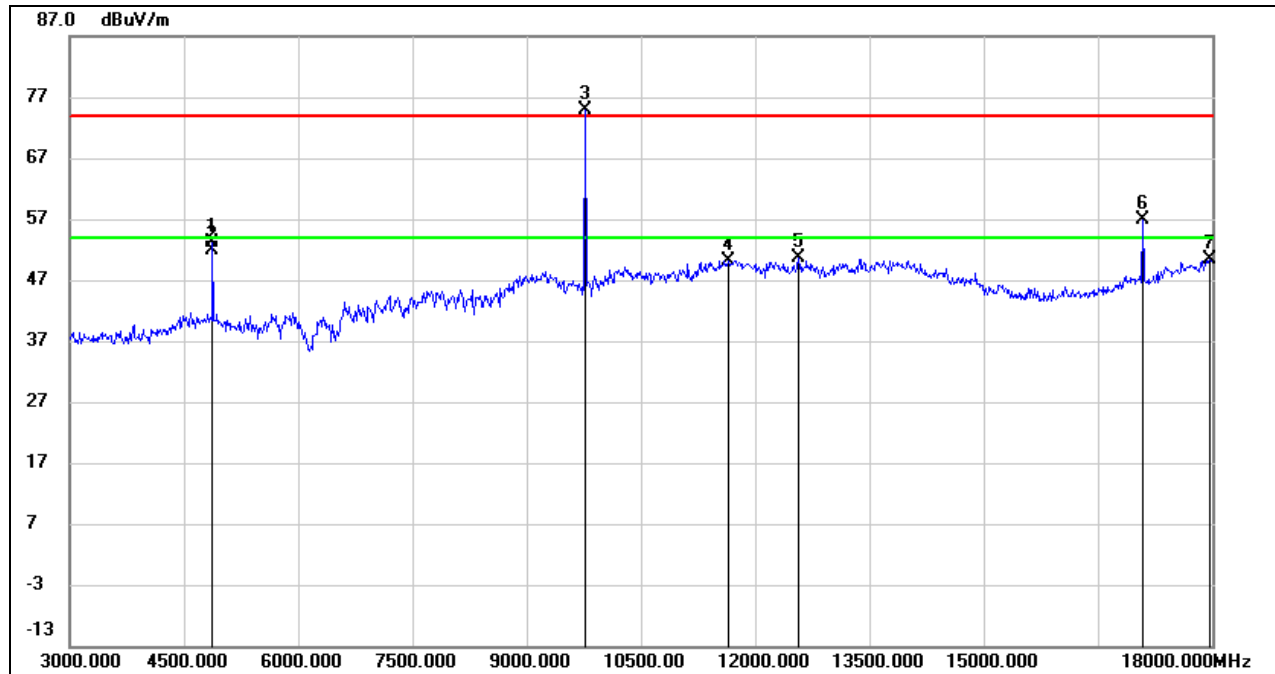
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	54.08	-0.31	53.77	74.00	-20.23	peak
2	4800.000	52.91	-0.31	52.60	54.00	-1.40	AVG
3*	9600.000	64.41	10.95	75.36	/	/	peak
4	11760.000	33.37	17.31	50.68	74.00	-23.32	peak
5	12735.000	32.05	18.12	50.17	74.00	-23.83	peak
6	16815.000	30.73	20.07	50.80	74.00	-23.20	peak
7	17925.000	25.02	25.25	50.27	74.00	-23.73	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Vertical	Test Voltage:	DC 5 V



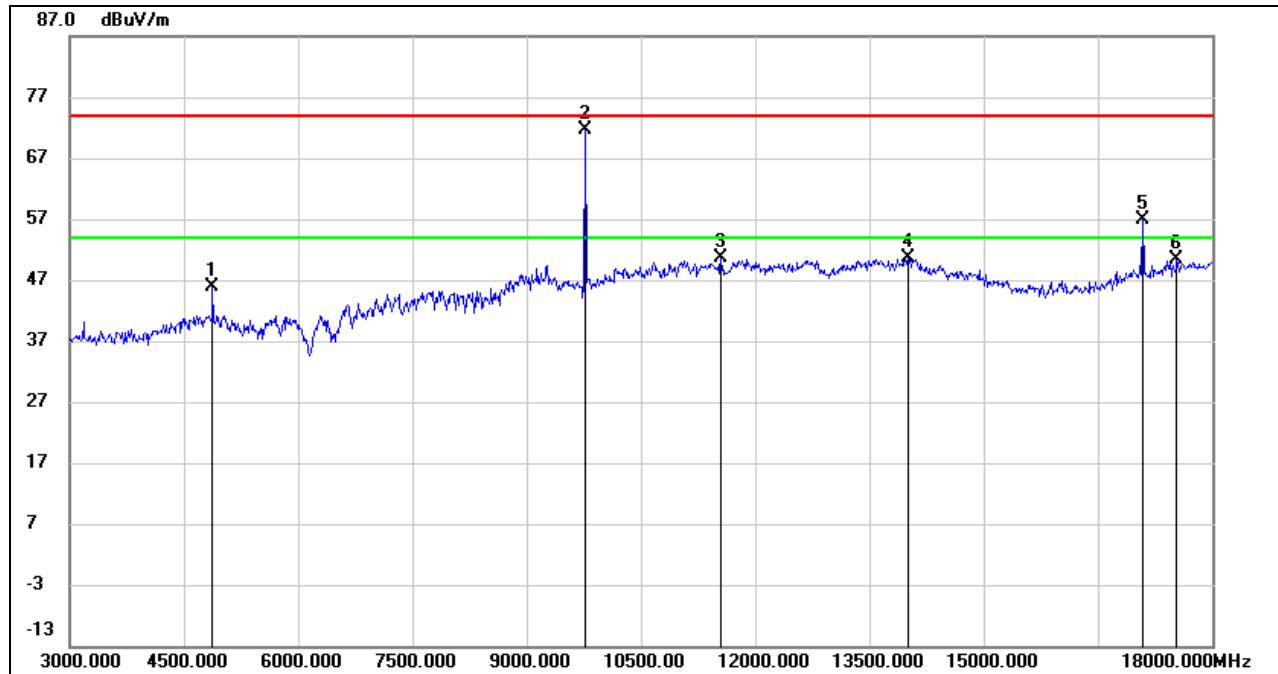
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	46.80	-0.31	46.49	74.00	-27.51	peak
2	9060.000	37.29	10.51	47.80	74.00	-26.20	peak
3*	9600.000	62.28	10.95	73.23	/	/	peak
4	10860.000	36.45	14.27	50.72	74.00	-23.28	peak
5	14130.000	29.53	21.43	50.96	74.00	-23.04	peak
6	17955.000	25.30	25.42	50.72	74.00	-23.28	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2440.385
Polarity:	Horizontal	Test Voltage:	DC 5 V



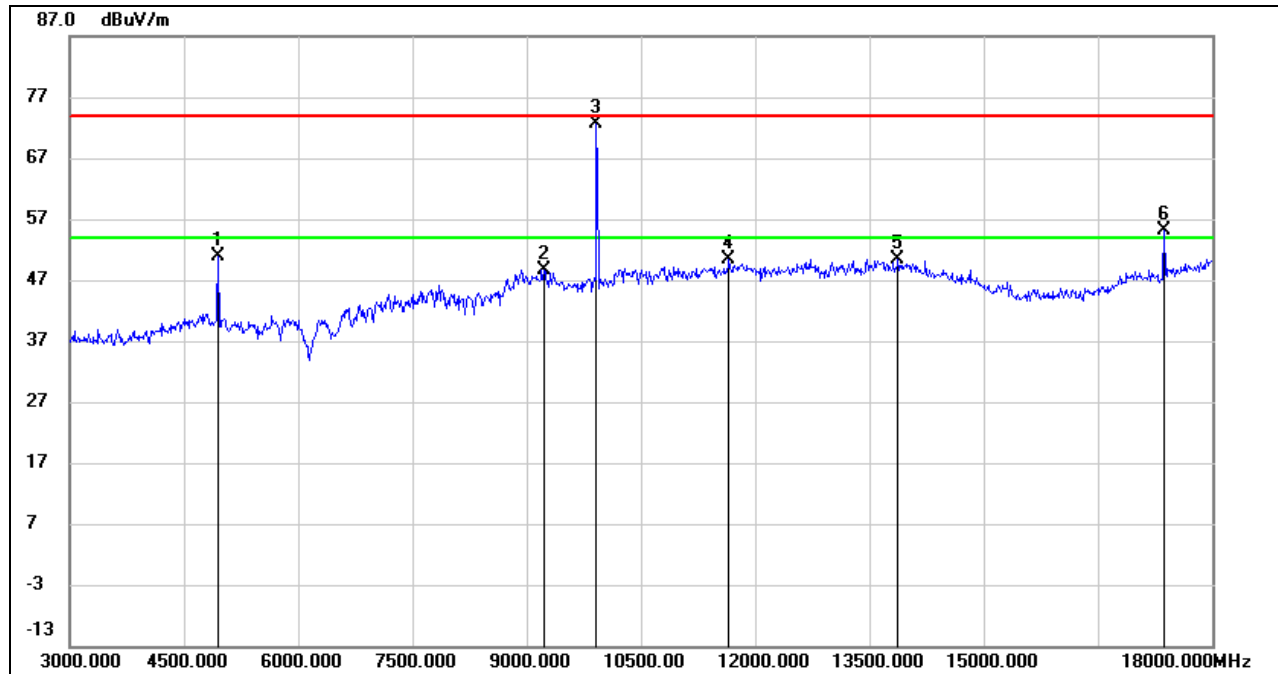
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	53.18	-0.03	53.15	74.00	-20.85	peak
2	4875.000	51.92	-0.03	51.89	54.00	-2.11	AVG
3*	9765.000	63.44	11.40	74.84	/	/	peak
4	11655.000	33.22	17.01	50.23	74.00	-23.77	peak
5	12570.000	32.93	17.75	50.68	74.00	-23.32	peak
6*	17085.000	35.61	21.20	56.81	/	/	peak
7	17970.000	24.90	25.51	50.41	74.00	-23.59	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2440.385
Polarity:	Vertical	Test Voltage:	DC 5 V



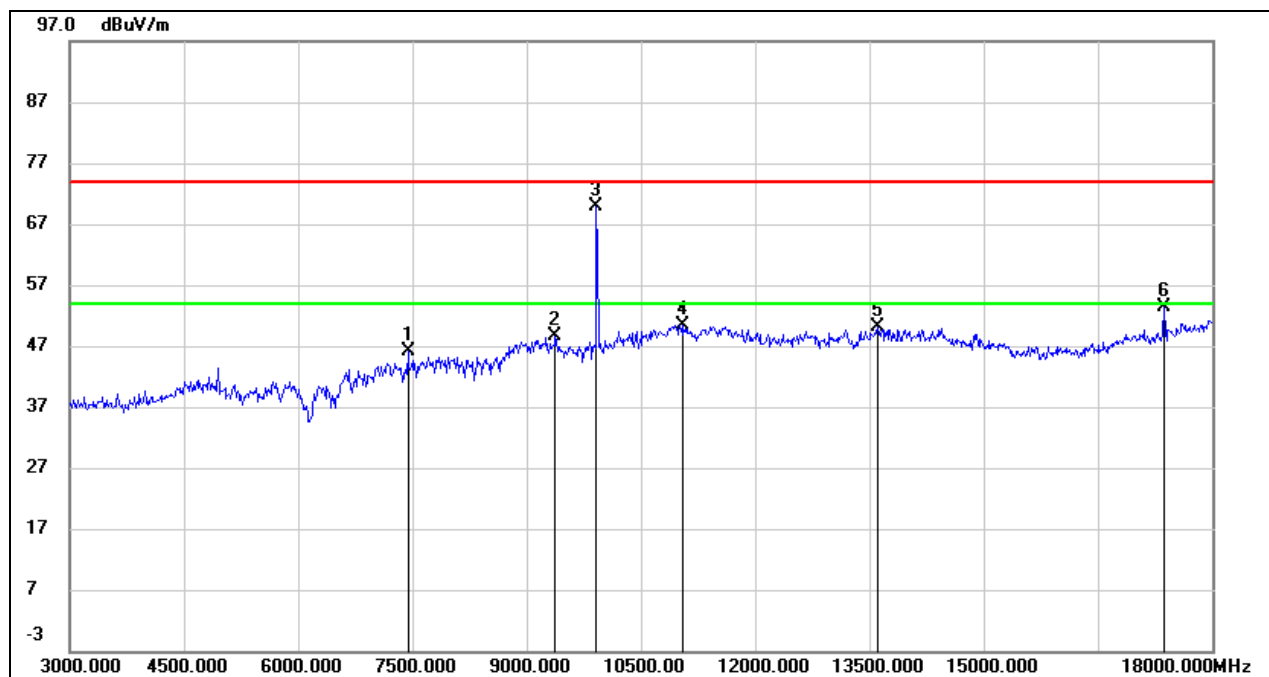
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	45.90	-0.03	45.87	74.00	-28.13	peak
2*	9765.000	60.20	11.40	71.60	/	/	peak
3	11550.000	33.80	16.74	50.54	74.00	-23.46	peak
4	14010.000	28.60	21.93	50.53	74.00	-23.47	peak
5*	17085.000	35.56	21.20	56.76	/	/	peak
6	17535.000	27.33	22.94	50.27	74.00	-23.73	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



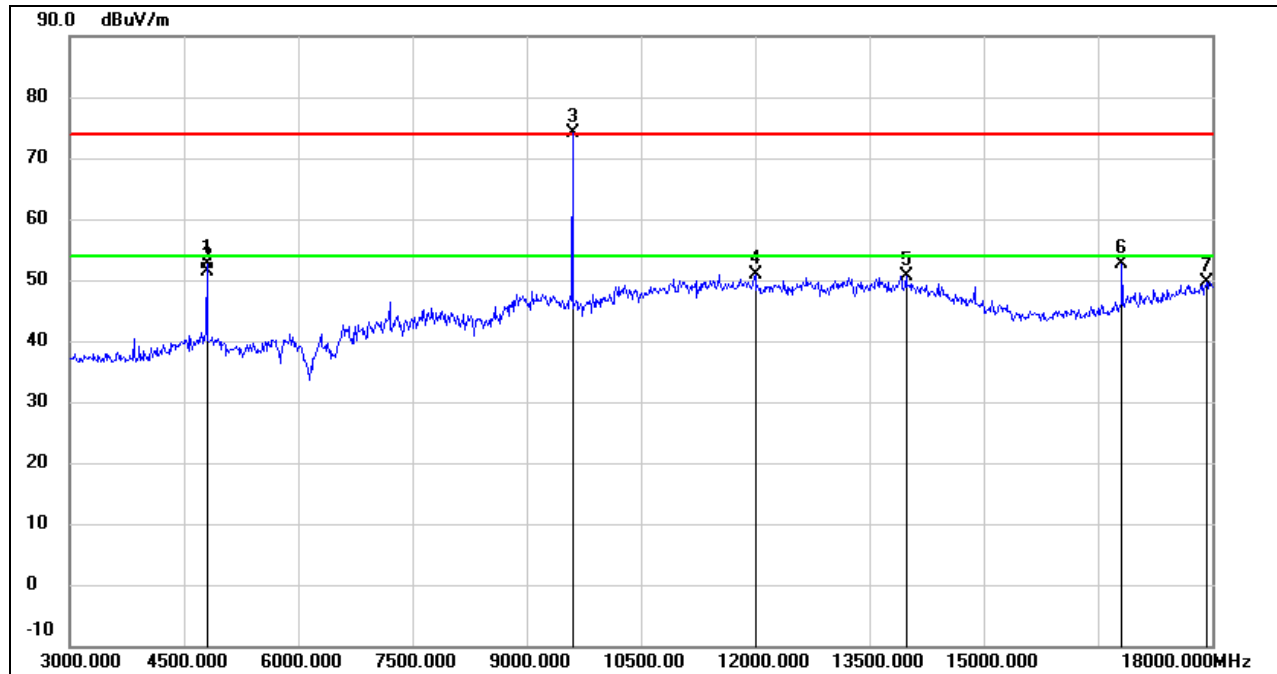
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.000	50.55	0.26	50.81	74.00	-23.19	peak
2	9225.000	38.12	10.58	48.70	74.00	-25.30	peak
3*	9915.000	60.83	11.80	72.63	/	/	peak
4	11655.000	33.34	17.01	50.35	74.00	-23.65	peak
5	13875.000	28.58	21.70	50.28	74.00	-23.72	peak
6*	17370.000	32.80	22.25	55.05	/	/	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2480.561
Polarity:	Vertical	Test Voltage:	DC 5 V



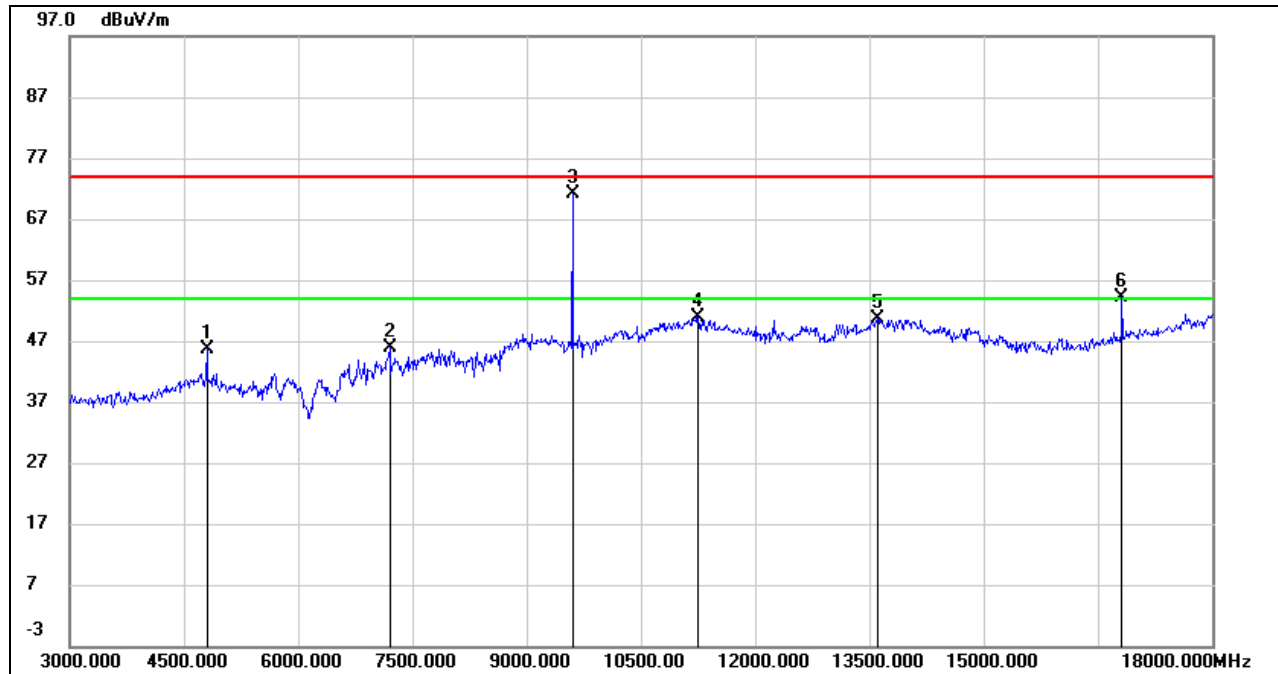
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7440.000	39.64	6.38	46.02	74.00	-27.98	peak
2	9375.000	37.93	10.64	48.57	74.00	-25.43	peak
3*	9915.000	58.04	11.80	69.84	/	/	peak
4	11055.000	35.52	14.96	50.48	74.00	-23.52	peak
5	13605.000	29.04	21.12	50.16	74.00	-23.84	peak
6	17370.000	31.13	22.25	53.38	74.00	-20.62	peak

Test Mode:	2400M.2GFSK.40kbps	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



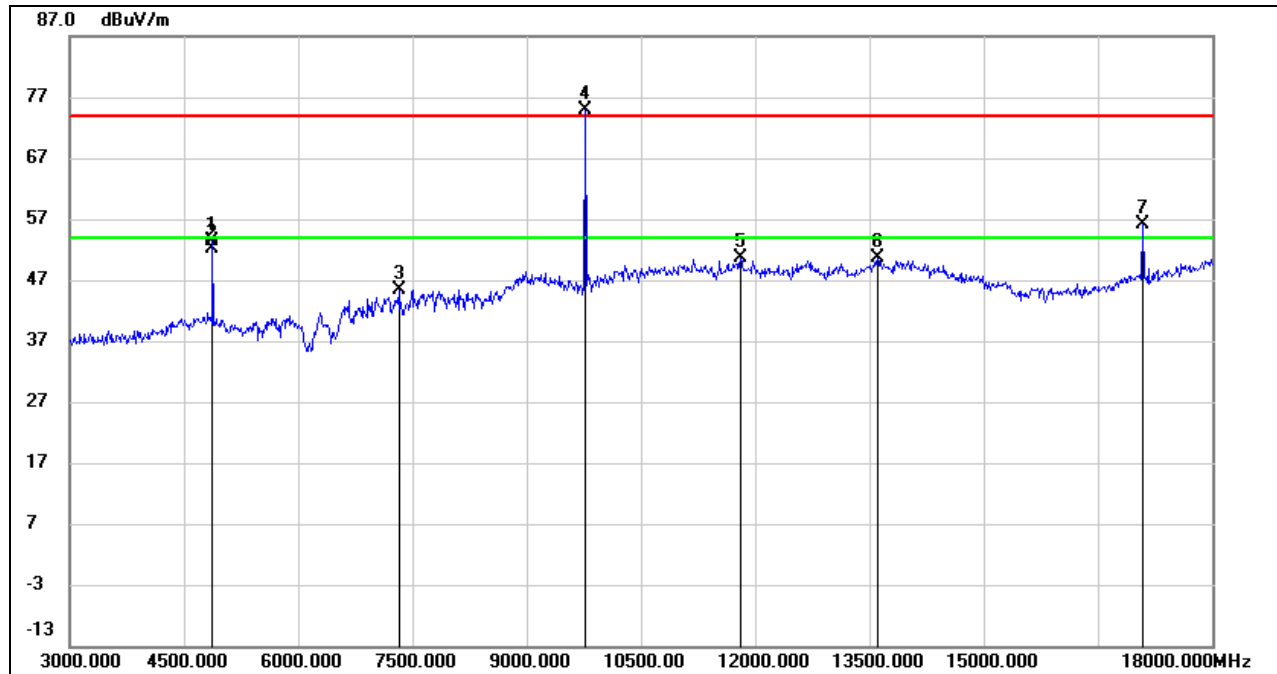
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	52.87	-0.31	52.56	74.00	-21.44	peak
2	4800.000	51.57	-0.31	51.26	54.00	-2.74	AVG
3*	9600.000	63.26	10.95	74.21	/	/	peak
4	12000.000	33.00	17.96	50.96	74.00	-23.04	peak
5	13980.000	28.64	21.92	50.56	74.00	-23.44	peak
6	16815.000	32.59	20.07	52.66	74.00	-21.34	peak
7	17925.000	24.42	25.25	49.67	74.00	-24.33	peak

Test Mode:	2400M.2GFSK.40kbps	Frequency(MHz):	2400.395
Polarity:	Vertical	Test Voltage:	DC 5 V



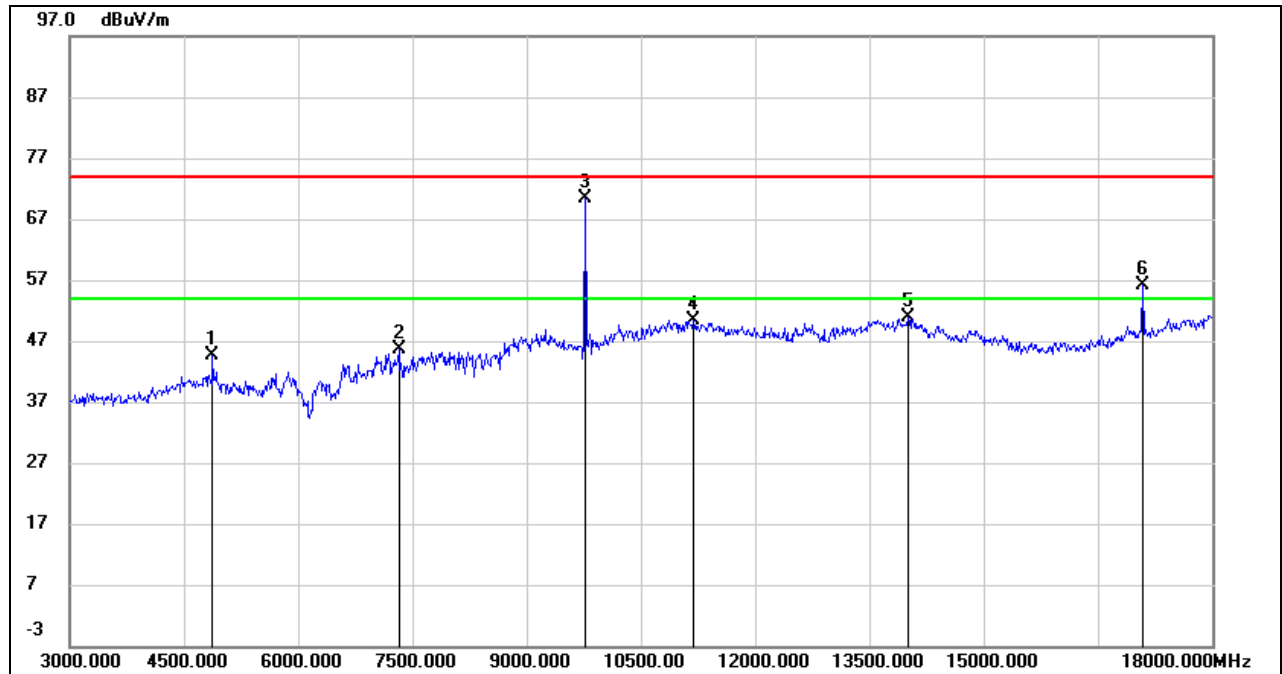
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	45.97	-0.31	45.66	74.00	-28.34	peak
2	7200.000	39.34	6.55	45.89	74.00	-28.11	peak
3*	9600.000	60.15	10.95	71.10	/	/	peak
4	11250.000	35.23	15.69	50.92	74.00	-23.08	peak
5	13605.000	29.56	21.12	50.68	74.00	-23.32	peak
6*	16815.000	34.11	20.07	54.18	/	/	peak

Test Mode:	2400M.2GFSK.40kbps	Frequency(MHz):	2440.385
Polarity:	Horizontal	Test Voltage:	DC 5 V



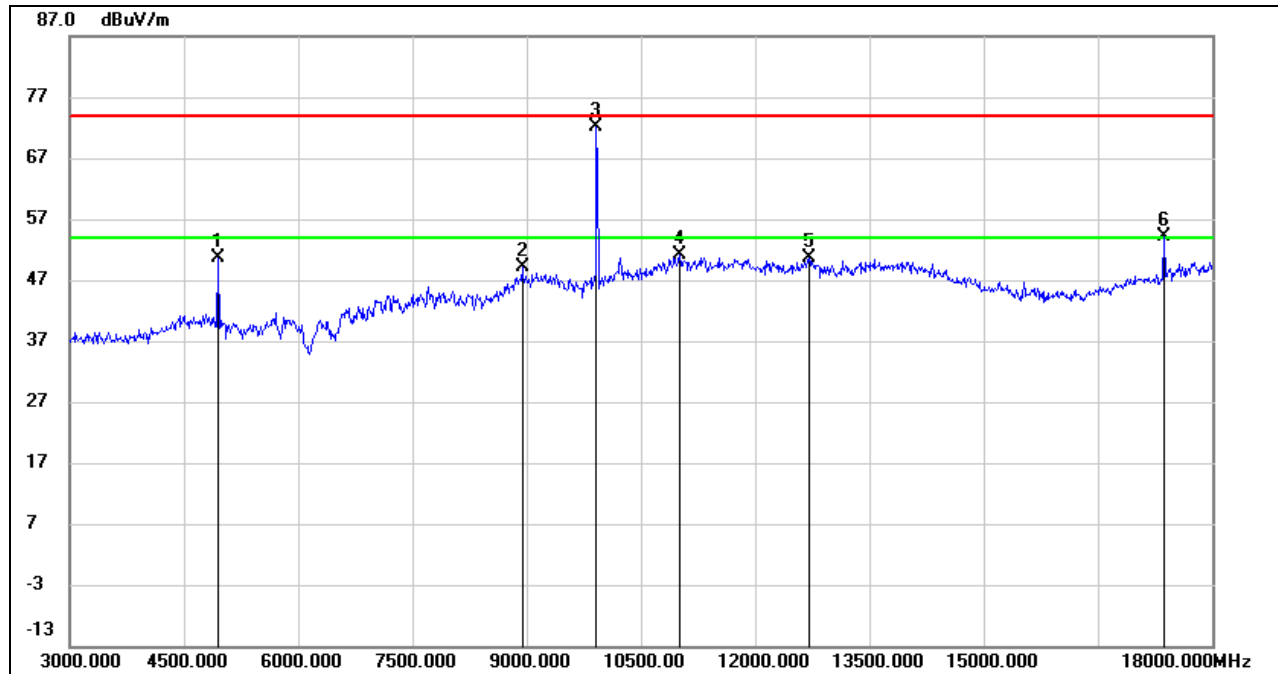
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	53.34	-0.03	53.31	74.00	-20.69	peak
2	4875.000	52.08	-0.03	52.05	54.00	-1.95	AVG
3	7320.000	39.04	6.46	45.50	74.00	-28.50	peak
4*	9765.000	63.39	11.40	74.79	/	/	peak
5	11805.000	33.12	17.43	50.55	74.00	-23.45	peak
6	13605.000	29.39	21.12	50.51	74.00	-23.49	peak
7*	17085.000	34.96	21.20	56.16	/	/	peak

Test Mode:	2400M.2GFSK.40kbps	Frequency(MHz):	2440.385
Polarity:	Vertical	Test Voltage:	DC 5 V



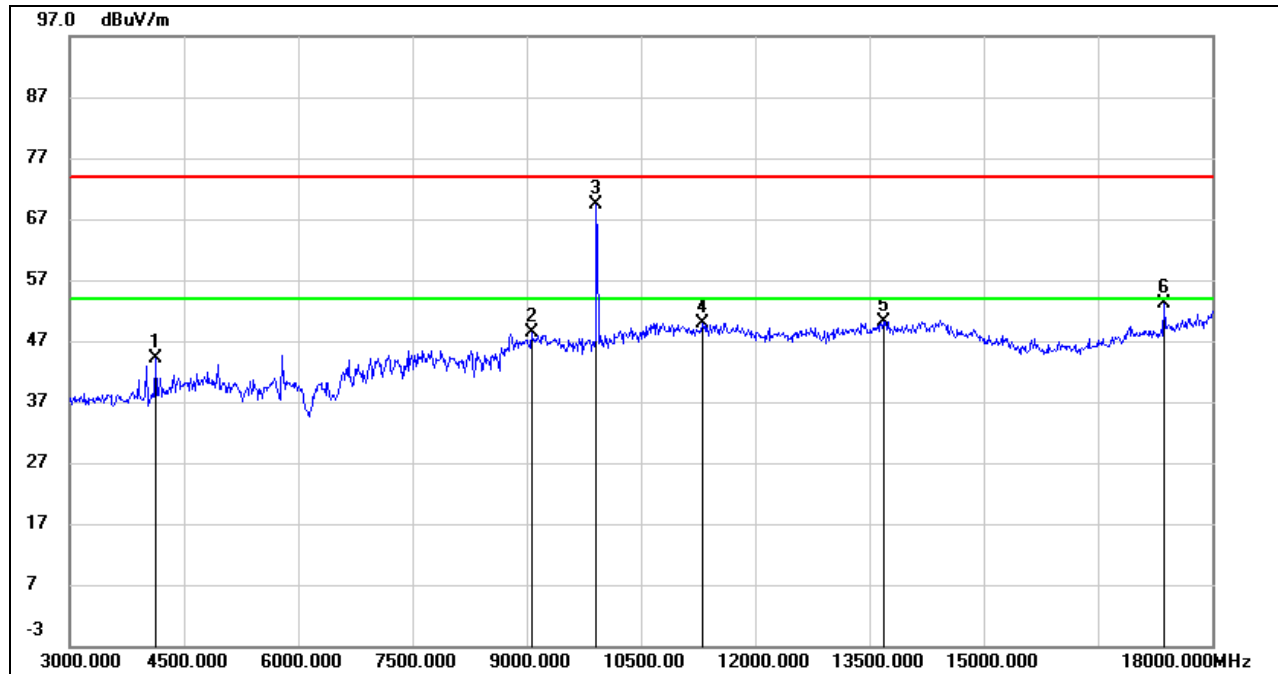
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	44.75	-0.03	44.72	74.00	-29.28	peak
2	7320.000	39.17	6.46	45.63	74.00	-28.37	peak
3*	9765.000	59.05	11.40	70.45	/	/	peak
4	11190.000	34.86	15.46	50.32	74.00	-23.68	peak
5	14010.000	28.87	21.93	50.80	74.00	-23.20	peak
6*	17085.000	34.82	21.20	56.02	/	/	peak

Test Mode:	2400M.2GFSK.40kbps	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



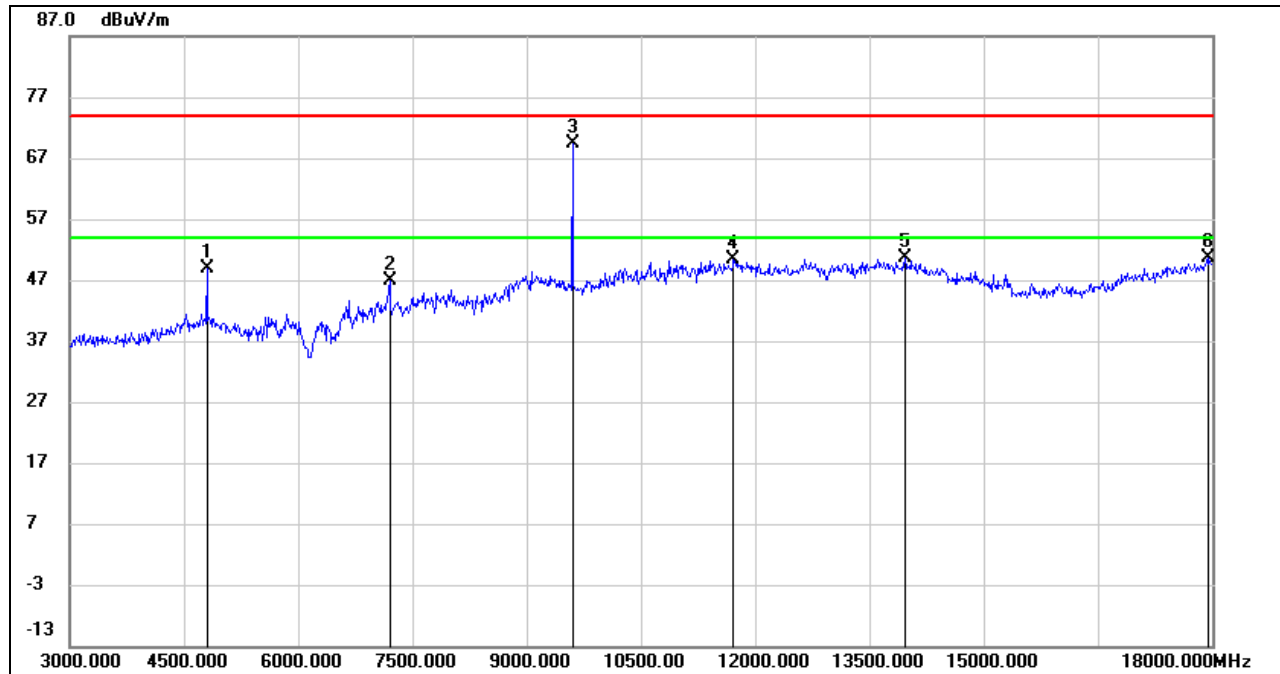
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.000	50.33	0.26	50.59	74.00	-23.41	peak
2	8940.000	38.98	10.04	49.02	74.00	-24.98	peak
3*	9915.000	60.23	11.80	72.03	/	/	peak
4	11010.000	36.34	14.81	51.15	74.00	-22.85	peak
5	12705.000	32.56	18.06	50.62	74.00	-23.38	peak
6*	17370.000	31.97	22.25	54.22	/	/	peak

Test Mode:	2400M.2GFSK.40kbps	Frequency(MHz):	2480.561
Polarity:	Vertical	Test Voltage:	DC 5 V



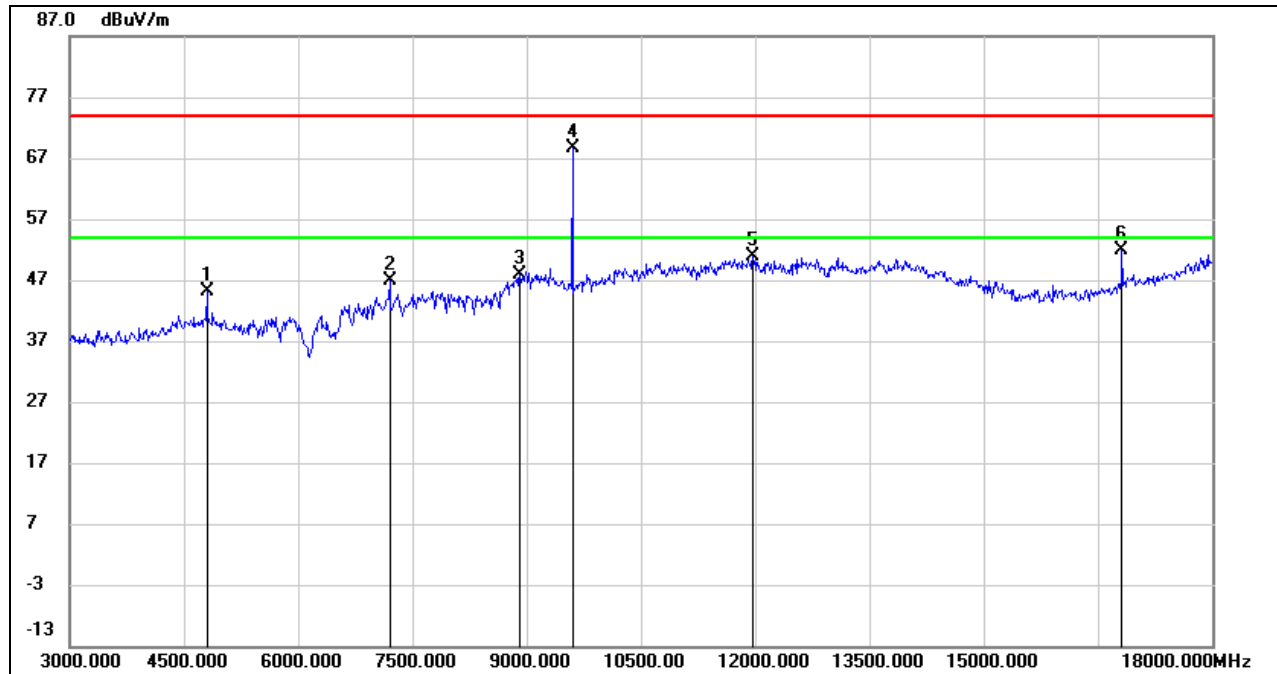
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4125.000	47.43	-3.21	44.22	74.00	-29.78	peak
2	9060.000	37.77	10.51	48.28	74.00	-25.72	peak
3*	9915.000	57.66	11.80	69.46	/	/	peak
4	11310.000	34.05	15.91	49.96	74.00	-24.04	peak
5	13680.000	28.94	21.29	50.23	74.00	-23.77	peak
6	17370.000	30.84	22.25	53.09	74.00	-20.91	peak

Test Mode:	2400M.2GFSK.60kbps	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



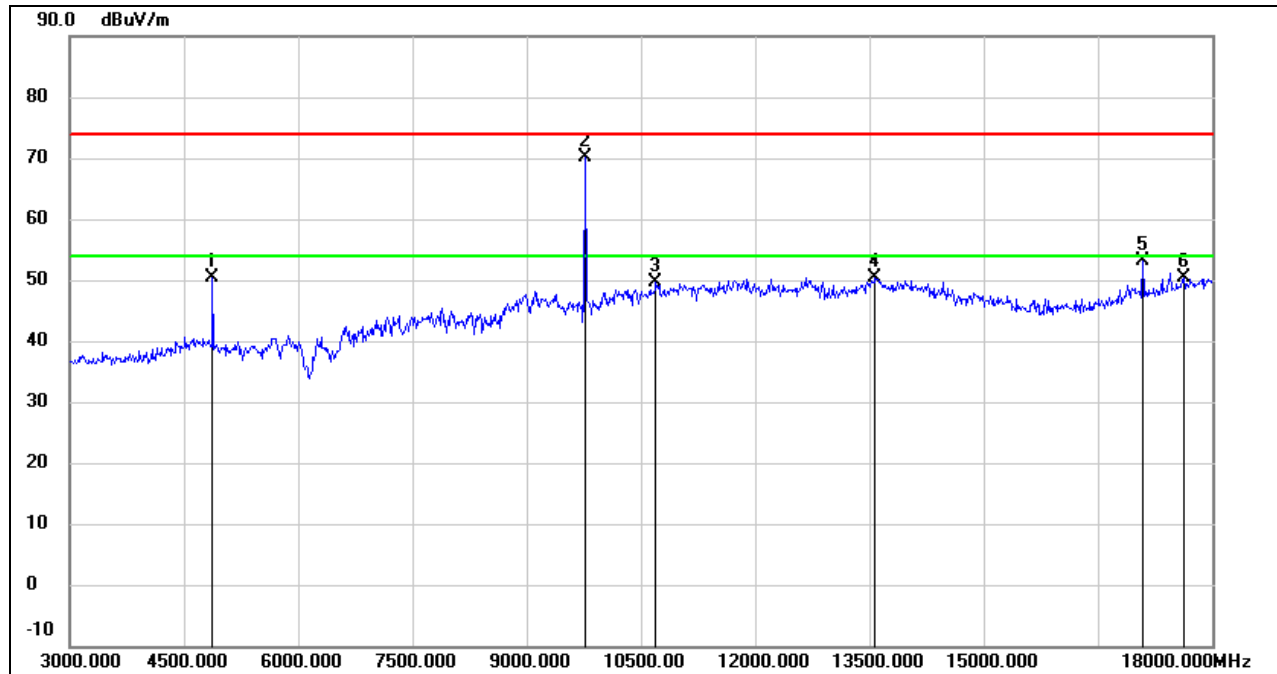
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	49.24	-0.31	48.93	74.00	-25.07	peak
2	7200.000	40.42	6.55	46.97	74.00	-27.03	peak
3*	9600.000	58.41	10.95	69.36	/	/	peak
4	11715.000	33.07	17.19	50.26	74.00	-23.74	peak
5	13965.000	28.73	21.89	50.62	74.00	-23.38	peak
6	17940.000	25.18	25.34	50.52	74.00	-23.48	peak

Test Mode:	2400M.2GFSK.60kbps	Frequency(MHz):	2400.581
Polarity:	Vertical	Test Voltage:	DC 5 V



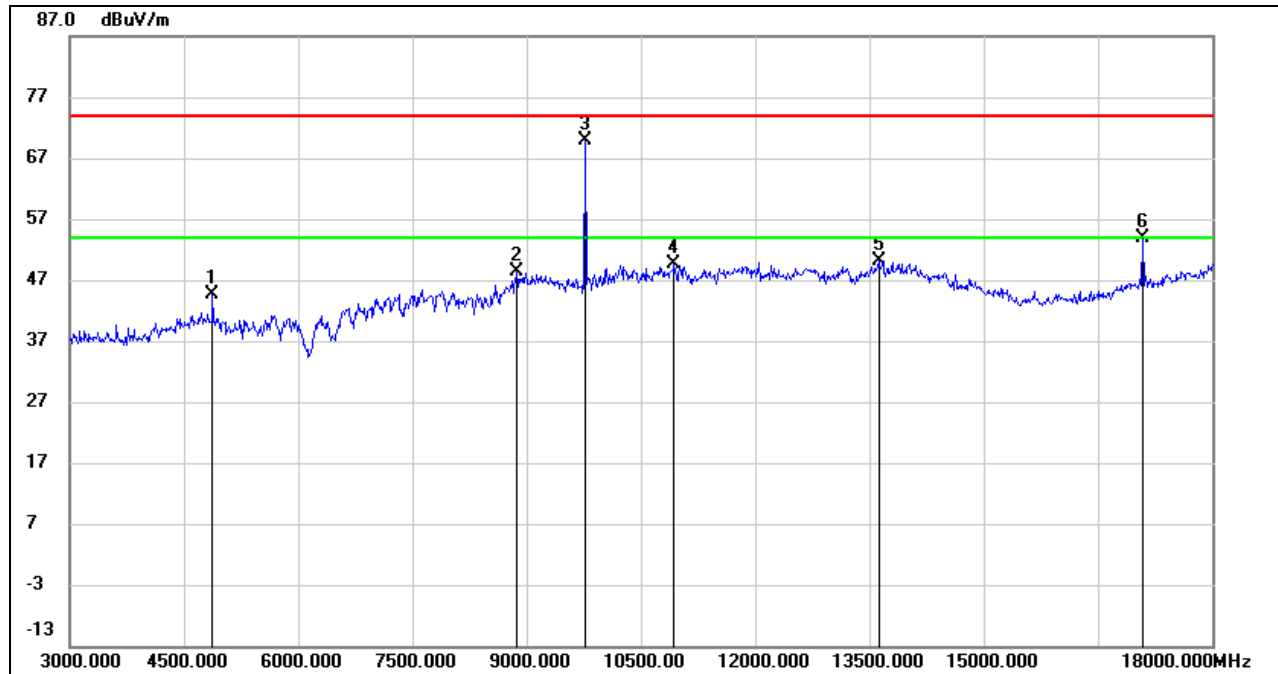
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	45.48	-0.31	45.17	74.00	-28.83	peak
2	7200.000	40.29	6.55	46.84	74.00	-27.16	peak
3	8910.000	38.17	9.82	47.99	74.00	-26.01	peak
4*	9600.000	57.56	10.95	68.51	/	/	peak
5	11970.000	33.09	17.88	50.97	74.00	-23.03	peak
6	16815.000	31.88	20.07	51.95	74.00	-22.05	peak

Test Mode:	2400M.2GFSK.60kbps	Frequency(MHz):	2440.385
Polarity:	Horizontal	Test Voltage:	DC 5 V



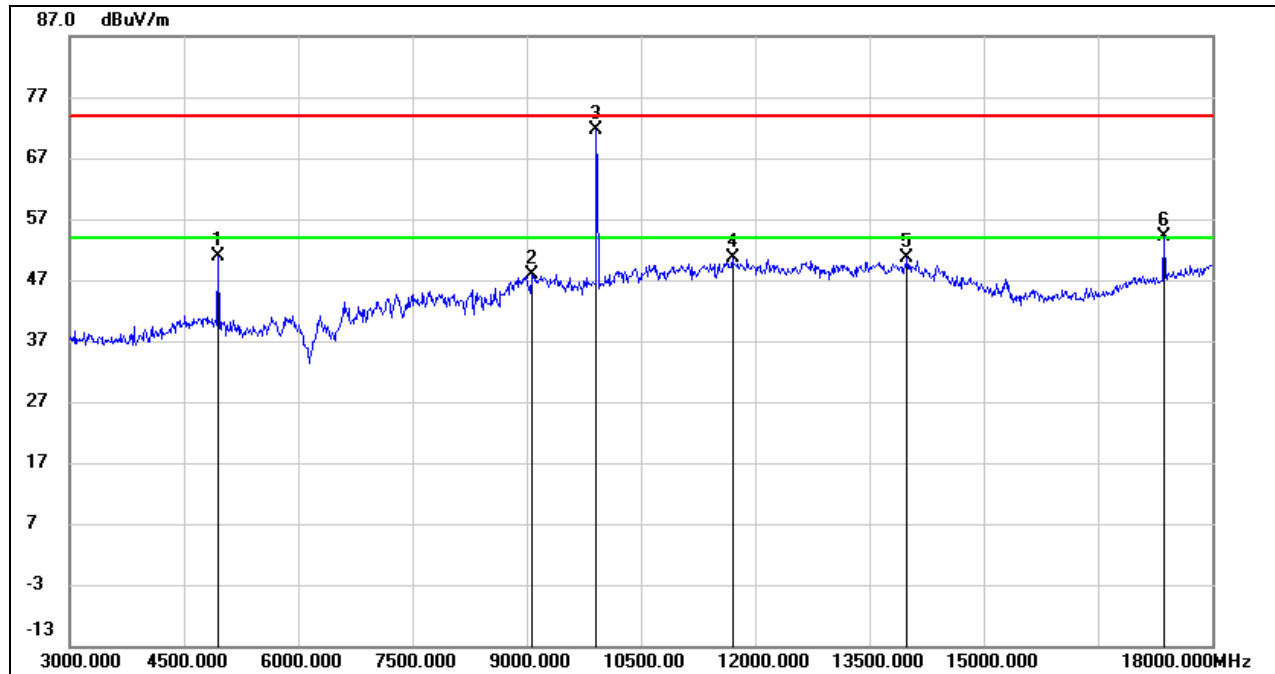
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	50.50	-0.03	50.47	74.00	-23.53	peak
2*	9765.000	58.66	11.40	70.06	/	/	peak
3	10695.000	35.86	13.68	49.54	74.00	-24.46	peak
4	13575.000	29.20	21.06	50.26	74.00	-23.74	peak
5	17085.000	31.82	21.20	53.02	74.00	-20.98	peak
6	17625.000	26.86	23.47	50.33	74.00	-23.67	peak

Test Mode:	2400M.2GFSK.60kbps	Frequency(MHz):	2440.385
Polarity:	Vertical	Test Voltage:	DC 5 V



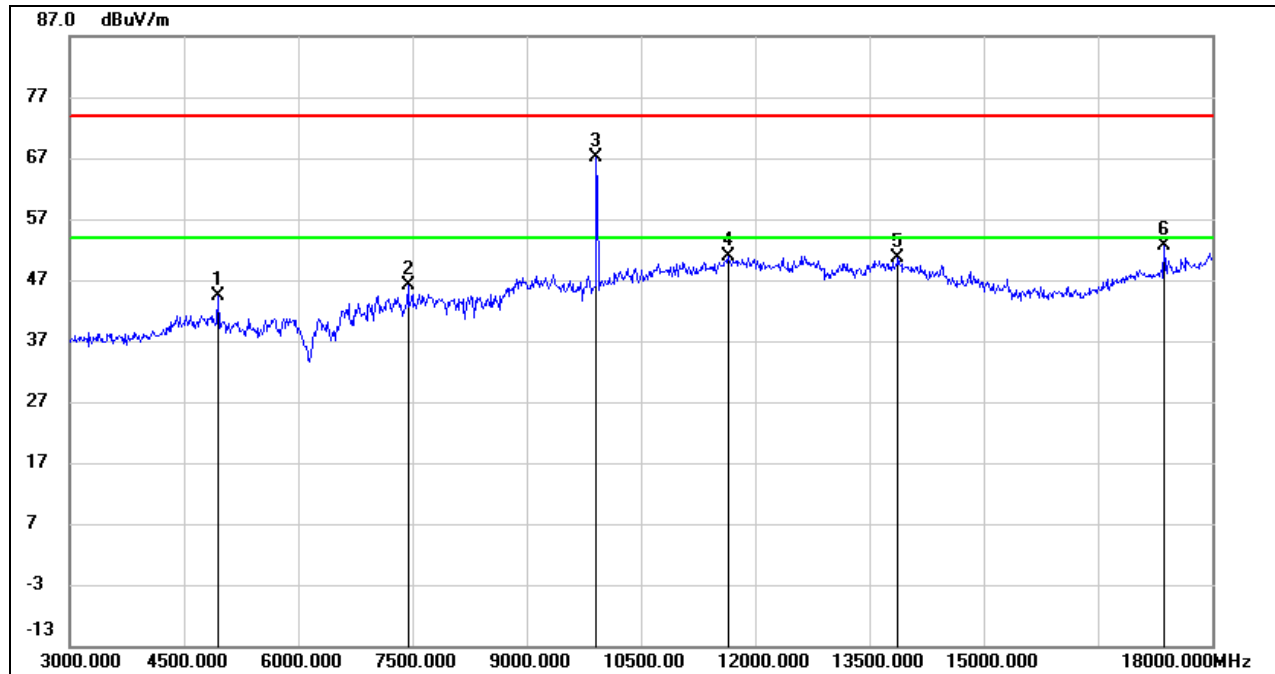
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	44.76	-0.03	44.73	74.00	-29.27	peak
2	8865.000	38.80	9.50	48.30	74.00	-25.70	peak
3*	9765.000	58.59	11.40	69.99	/	/	peak
4	10935.000	35.10	14.54	49.64	74.00	-24.36	peak
5	13620.000	28.98	21.15	50.13	74.00	-23.87	peak
6	17085.000	32.64	21.20	53.84	74.00	-20.16	peak

Test Mode:	2400M.2GFSK.60kbps	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



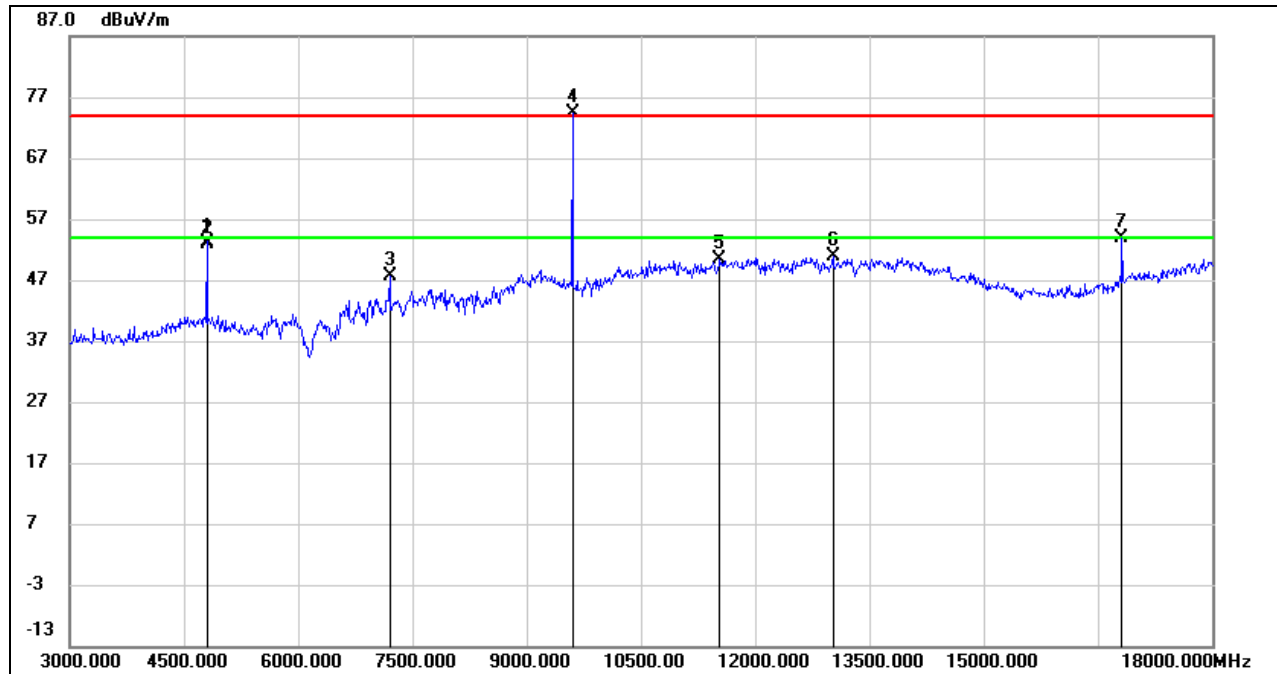
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.000	50.67	0.26	50.93	74.00	-23.07	peak
2	9075.000	37.44	10.52	47.96	74.00	-26.04	peak
3*	9915.000	59.79	11.80	71.59	/	/	peak
4	11700.000	33.49	17.14	50.63	74.00	-23.37	peak
5	13995.000	28.77	21.95	50.72	74.00	-23.28	peak
6*	17370.000	31.97	22.25	54.22	/	/	peak

Test Mode:	2400M.2GFSK.60kbps	Frequency(MHz):	2480.561
Polarity:	Vertical	Test Voltage:	DC 5 V



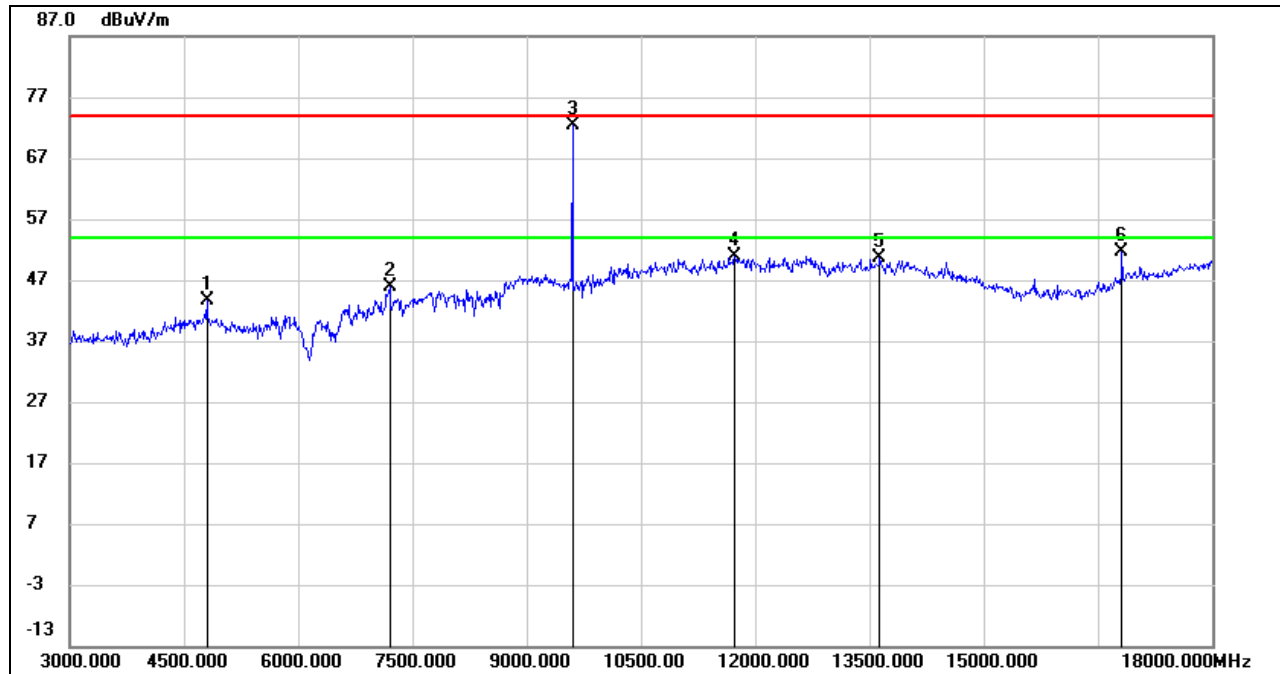
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.000	44.01	0.26	44.27	74.00	-29.73	peak
2	7440.000	39.79	6.38	46.17	74.00	-27.83	peak
3*	9915.000	55.42	11.80	67.22	/	/	peak
4	11640.000	33.95	16.98	50.93	74.00	-23.07	peak
5	13875.000	28.93	21.70	50.63	74.00	-23.37	peak
6	17370.000	30.49	22.25	52.74	74.00	-21.26	peak

Test Mode:	2400M.2GFSK.96kbps	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



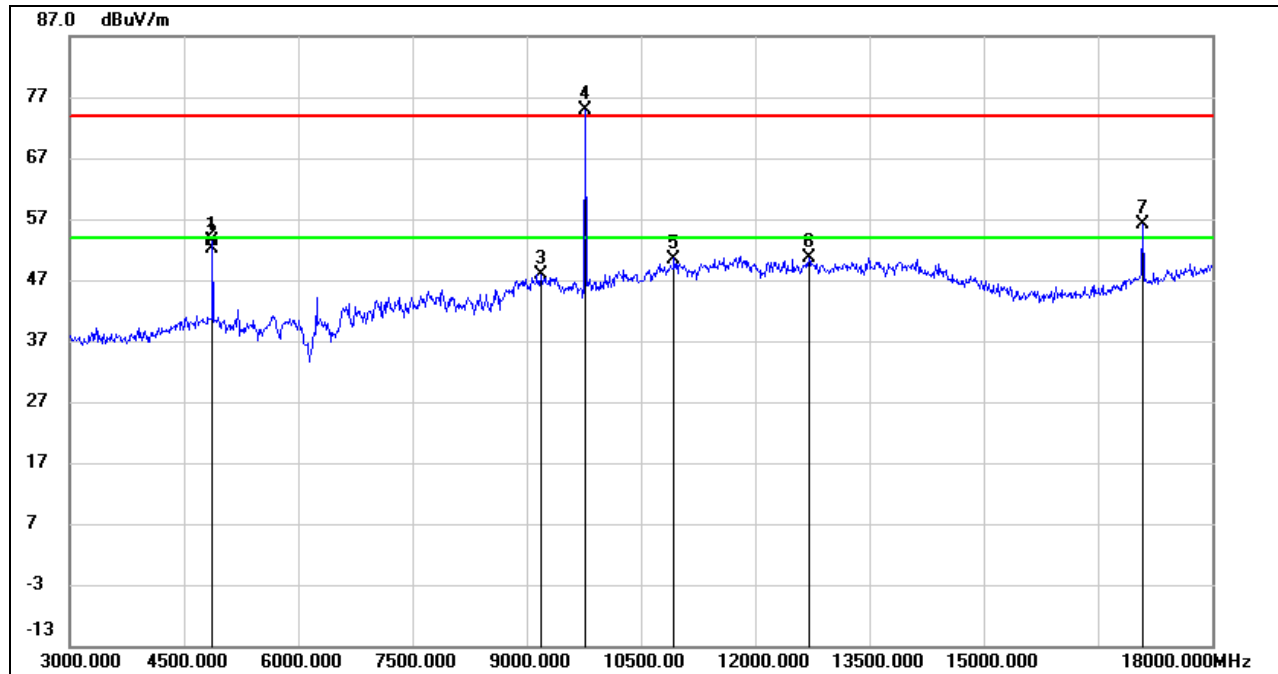
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	53.56	-0.31	53.25	74.00	-20.75	peak
2	4800.000	53.17	-0.31	52.86	54.00	-1.14	AVG
3	7200.000	41.11	6.55	47.66	74.00	-26.34	peak
4*	9600.000	63.41	10.95	74.36	/	/	peak
5	11535.000	33.56	16.70	50.26	74.00	-23.74	peak
6	13020.000	32.13	18.80	50.93	74.00	-23.07	peak
7	16815.000	33.80	20.07	53.87	74.00	-20.13	peak

Test Mode:	2400M.2GFSK.96kbps	Frequency(MHz):	2400.581
Polarity:	Vertical	Test Voltage:	DC 5 V



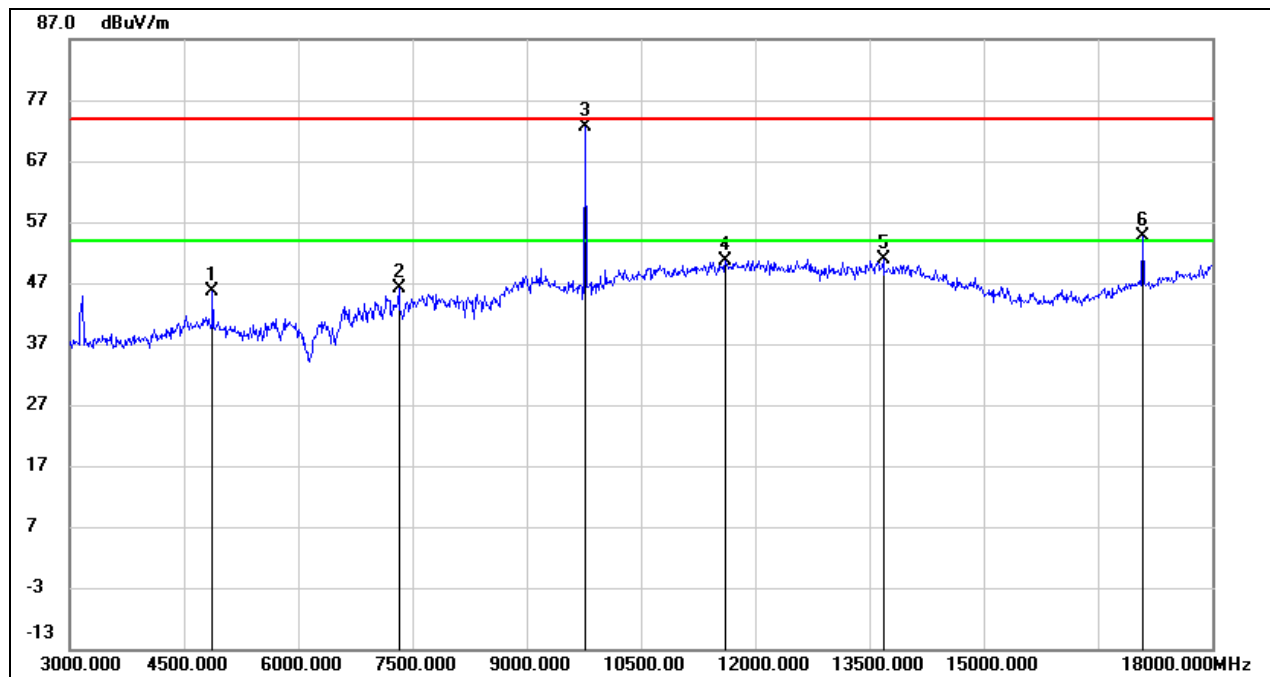
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	43.98	-0.31	43.67	74.00	-30.33	peak
2	7200.000	39.28	6.55	45.83	74.00	-28.17	peak
3*	9600.000	61.48	10.95	72.43	/	/	peak
4	11730.000	33.74	17.22	50.96	74.00	-23.04	peak
5	13635.000	29.43	21.19	50.62	74.00	-23.38	peak
6	16815.000	31.53	20.07	51.60	74.00	-22.40	peak

Test Mode:	2400M.2GFSK.96kbps	Frequency(MHz):	2440.385
Polarity:	Horizontal	Test Voltage:	DC 5 V



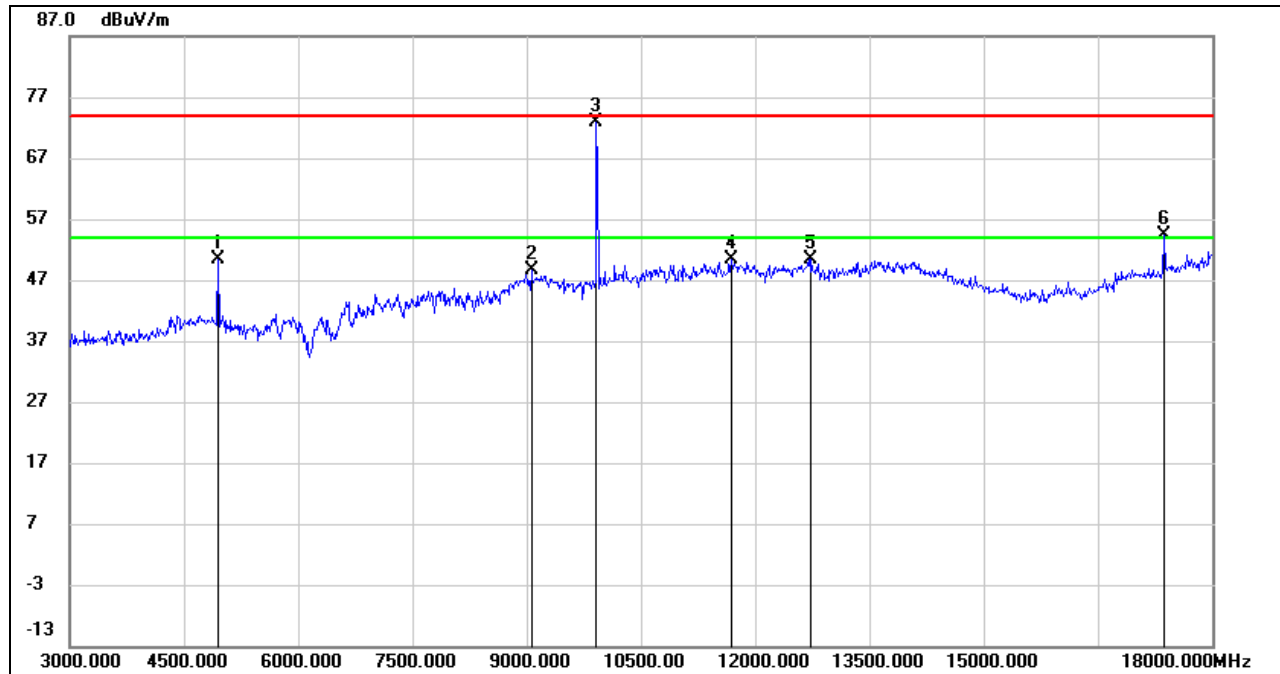
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	53.35	-0.03	53.32	74.00	-20.68	peak
2	4875.000	52.16	-0.03	52.13	54.00	-1.87	AVG
3	9195.000	37.25	10.56	47.81	74.00	-26.19	peak
4*	9765.000	63.38	11.40	74.78	/	/	peak
5	10935.000	35.96	14.54	50.50	74.00	-23.50	peak
6	12705.000	32.61	18.06	50.67	74.00	-23.33	peak
7*	17085.000	34.88	21.20	56.08	/	/	peak

Test Mode:	2400M.2GFSK.96kbps	Frequency(MHz):	2440.385
Polarity:	Vertical	Test Voltage:	DC 5 V



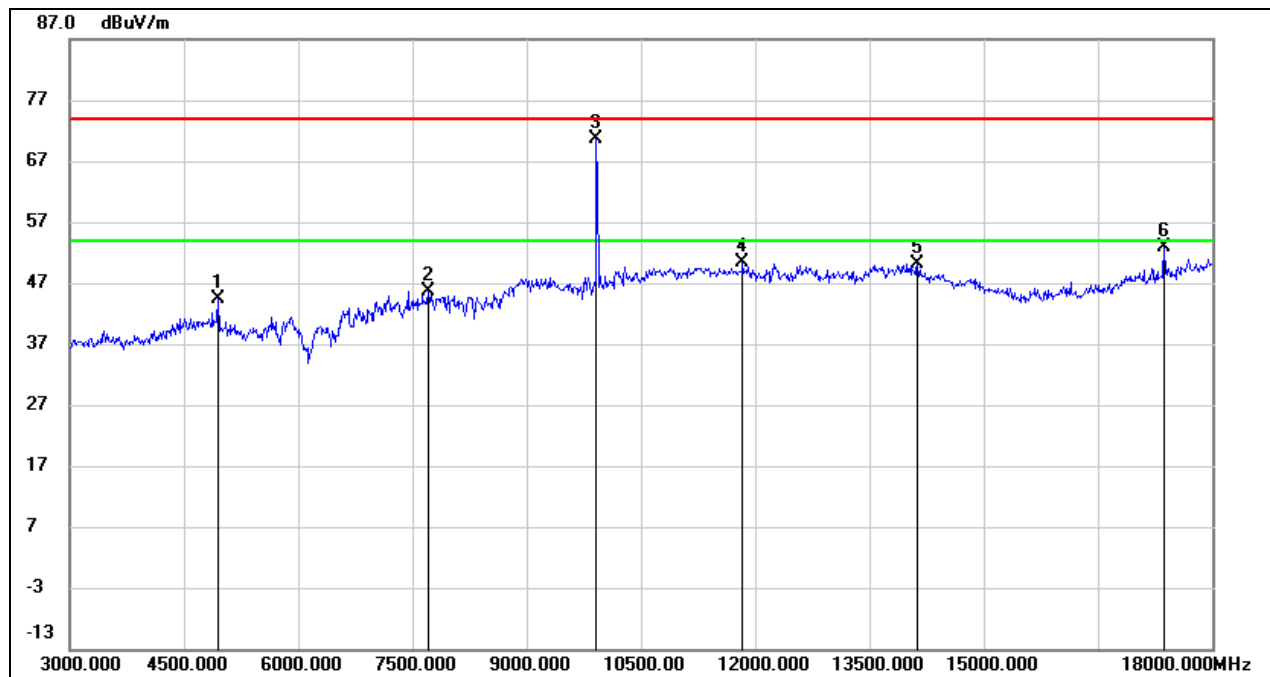
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	45.71	-0.03	45.68	74.00	-28.32	peak
2	7320.000	39.72	6.46	46.18	74.00	-27.82	peak
3*	9765.000	61.18	11.40	72.58	/	/	peak
4	11610.000	33.84	16.90	50.74	74.00	-23.26	peak
5	13680.000	29.51	21.29	50.80	74.00	-23.20	peak
6*	17085.000	33.34	21.20	54.54	/	/	peak

Test Mode:	2400M.2GFSK.96kbps	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



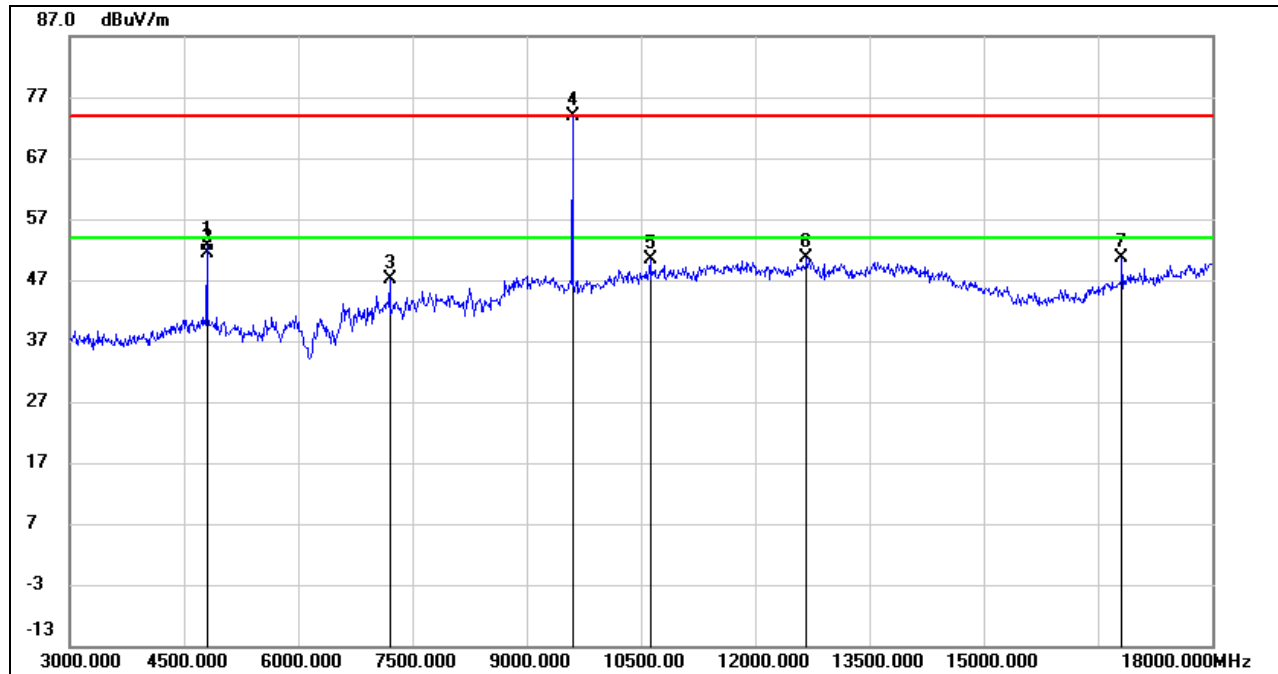
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.000	50.07	0.26	50.33	74.00	-23.67	peak
2	9060.000	38.02	10.51	48.53	74.00	-25.47	peak
3*	9915.000	61.17	11.80	72.97	/	/	peak
4	11685.000	33.17	17.10	50.27	74.00	-23.73	peak
5	12735.000	32.18	18.12	50.30	74.00	-23.70	peak
6*	17370.000	32.01	22.25	54.26	/	/	peak

Test Mode:	2400M.2GFSK.96kbps	Frequency(MHz):	2480.561
Polarity:	Vertical	Test Voltage:	DC 5 V



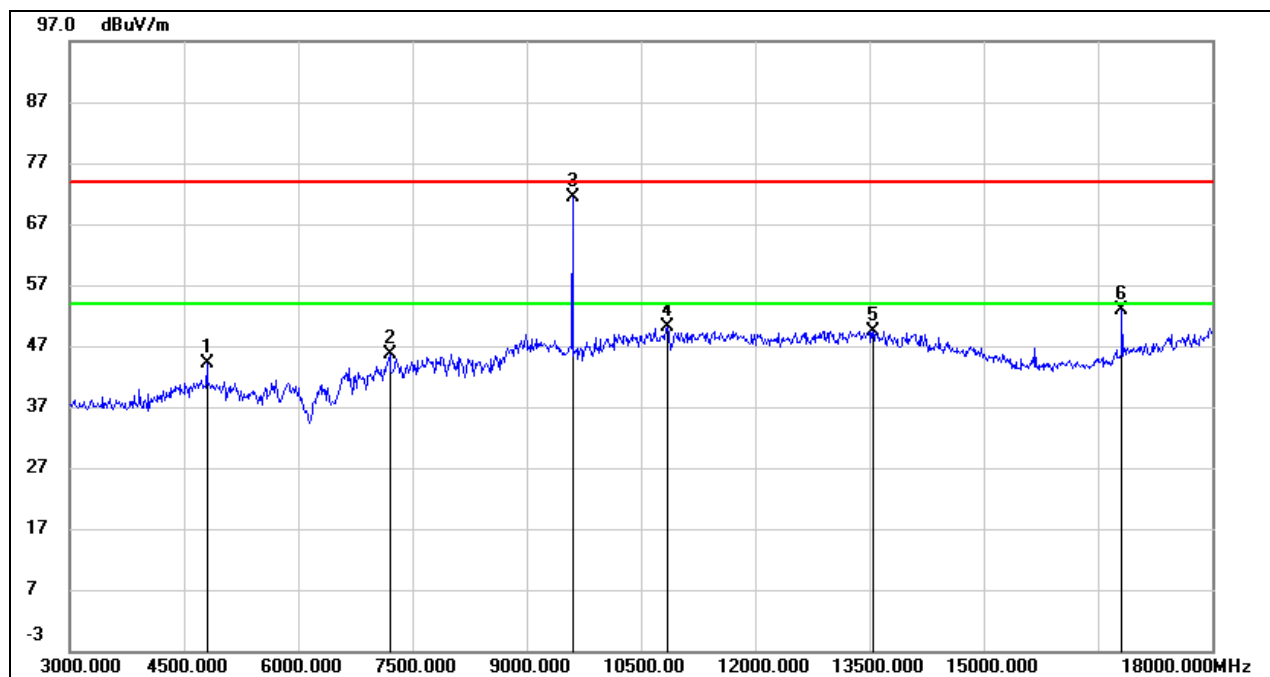
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.000	44.10	0.26	44.36	74.00	-29.64	peak
2	7710.000	39.28	6.33	45.61	74.00	-28.39	peak
3*	9915.000	58.87	11.80	70.67	/	/	peak
4	11835.000	32.83	17.51	50.34	74.00	-23.66	peak
5	14130.000	28.69	21.43	50.12	74.00	-23.88	peak
6	17370.000	30.70	22.25	52.95	74.00	-21.05	peak

Test Mode:	2400M.2GFSK.150kbps	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



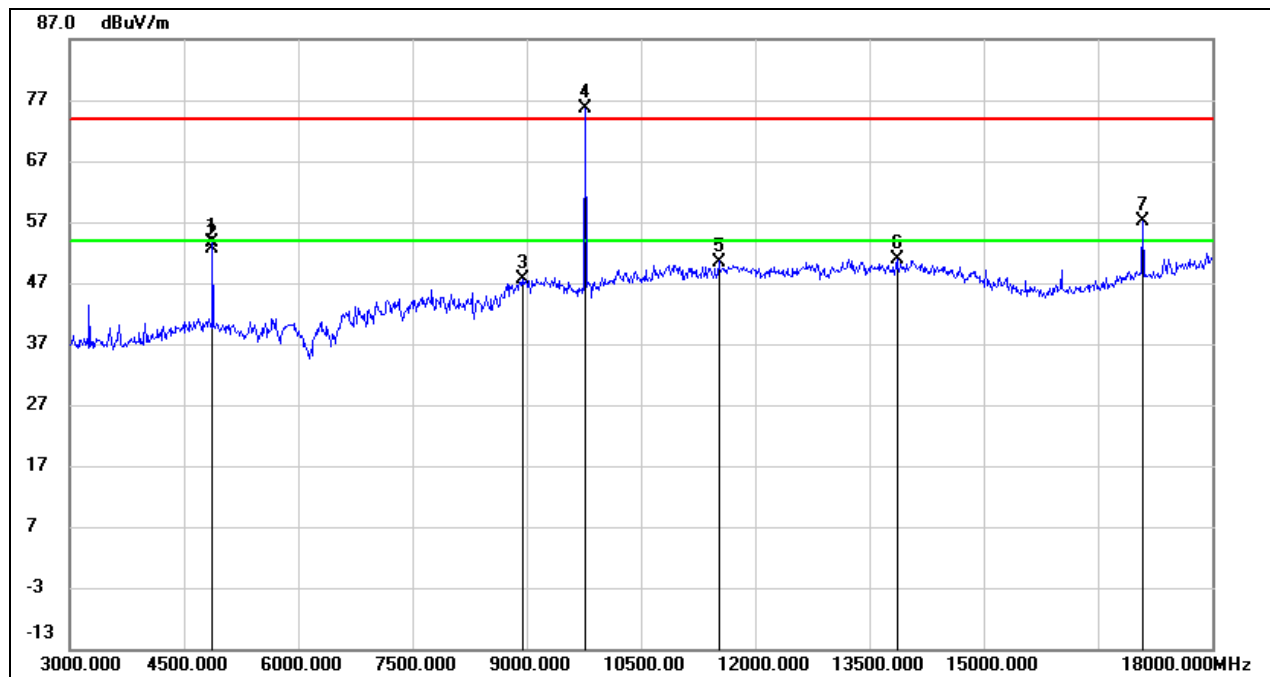
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	53.04	-0.31	52.73	74.00	-21.27	peak
2	4800.000	51.66	-0.31	51.35	54.00	-2.65	AVG
3	7200.000	40.54	6.55	47.09	74.00	-26.91	peak
4*	9600.000	62.85	10.95	73.80	/	/	peak
5	10620.000	37.06	13.42	50.48	74.00	-23.52	peak
6	12675.000	32.60	17.99	50.59	74.00	-23.41	peak
7	16815.000	30.48	20.07	50.55	74.00	-23.45	peak

Test Mode:	2400M.2GFSK.150kbps	Frequency(MHz):	2400.581
Polarity:	Vertical	Test Voltage:	DC 5 V



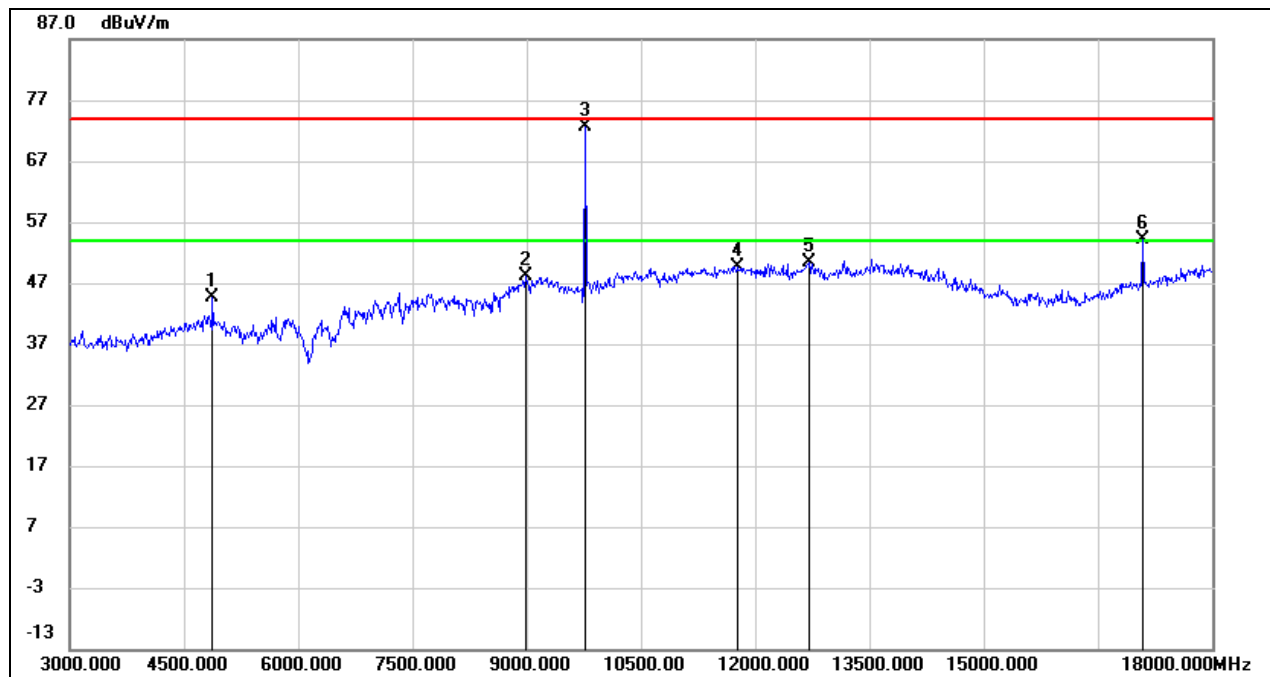
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	44.49	-0.31	44.18	74.00	-29.82	peak
2	7200.000	39.02	6.55	45.57	74.00	-28.43	peak
3*	9600.000	60.53	10.95	71.48	/	/	peak
4	10845.000	36.01	14.21	50.22	74.00	-23.78	peak
5	13545.000	28.48	20.99	49.47	74.00	-24.53	peak
6	16815.000	32.75	20.07	52.82	74.00	-21.18	peak

Test Mode:	2400M.2GFSK.150kbps	Frequency(MHz):	2440.385
Polarity:	Horizontal	Test Voltage:	DC 5 V



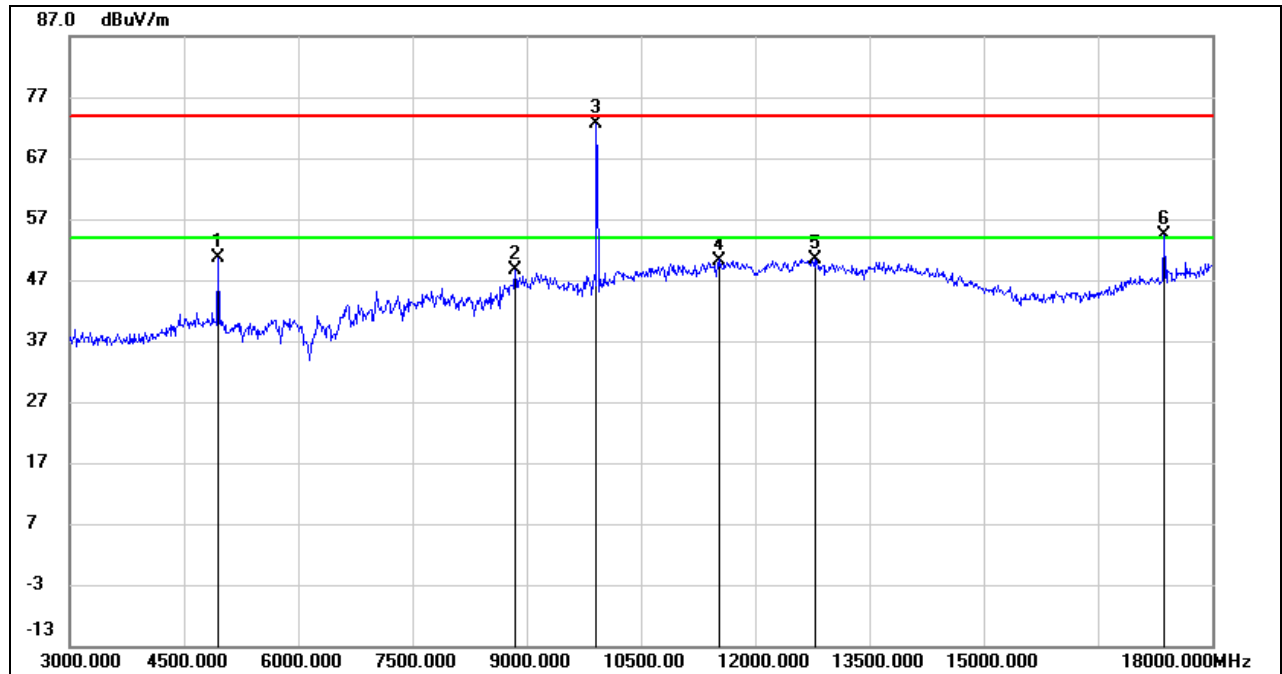
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	53.73	-0.03	53.70	74.00	-20.30	peak
2	4875.000	52.57	-0.03	52.54	54.00	-1.46	AVG
3	8940.000	37.50	10.04	47.54	74.00	-26.46	peak
4*	9765.000	64.13	11.40	75.53	/	/	peak
5	11520.000	33.85	16.65	50.50	74.00	-23.50	peak
6	13860.000	29.15	21.67	50.82	74.00	-23.18	peak
7*	17085.000	36.05	21.20	57.25	/	/	peak

Test Mode:	2400M.2GFSK.150kbps	Frequency(MHz):	2440.385
Polarity:	Vertical	Test Voltage:	DC 5 V



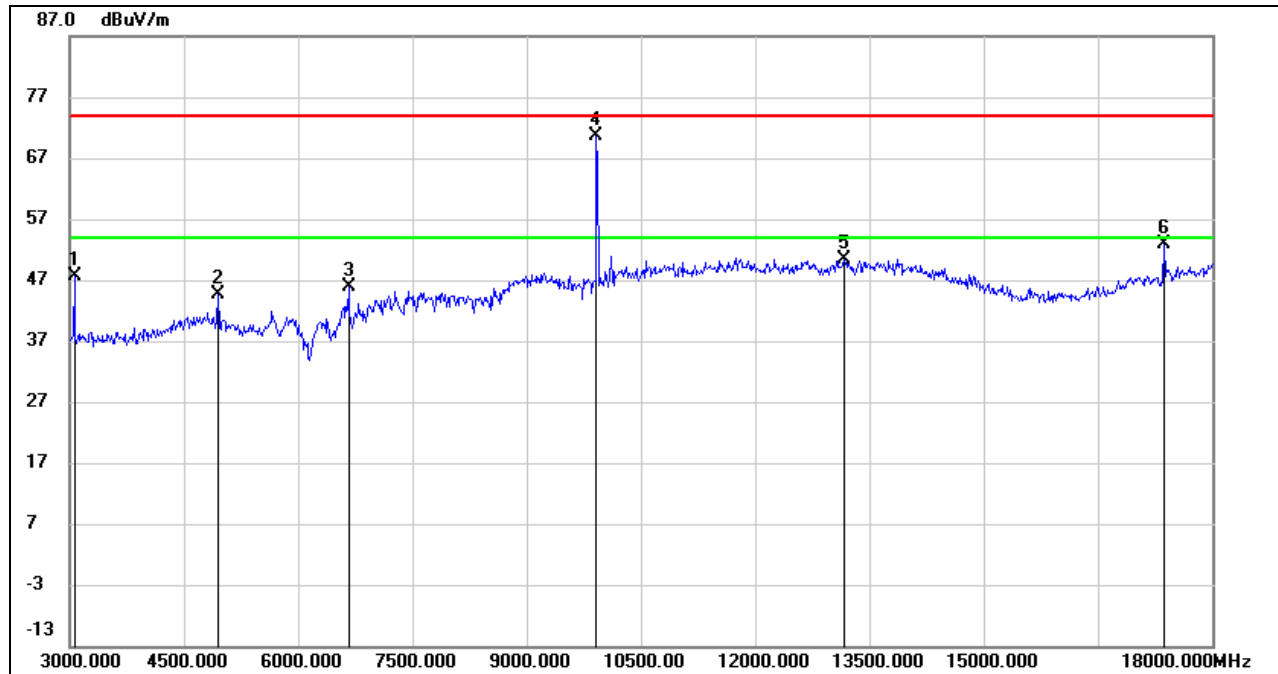
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	44.71	-0.03	44.68	74.00	-29.32	peak
2	8985.000	37.72	10.37	48.09	74.00	-25.91	peak
3*	9765.000	61.22	11.40	72.62	/	/	peak
4	11760.000	32.42	17.31	49.73	74.00	-24.27	peak
5	12705.000	32.20	18.06	50.26	74.00	-23.74	peak
6*	17085.000	32.95	21.20	54.15	/	/	peak

Test Mode:	2400M.2GFSK.150kbps	Frequency(MHz):	2480.561
Polarity:	Horizontal	Test Voltage:	DC 5 V



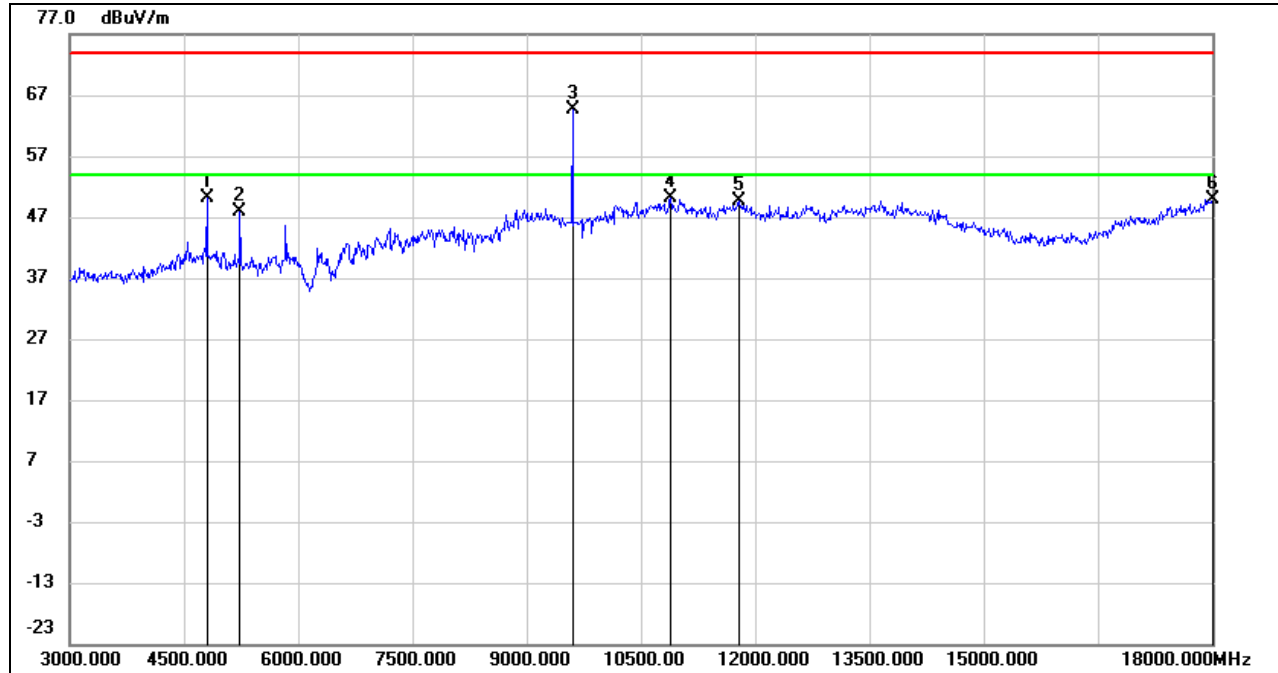
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.000	50.46	0.26	50.72	74.00	-23.28	peak
2	8850.000	39.19	9.39	48.58	74.00	-25.42	peak
3*	9915.000	60.94	11.80	72.74	/	/	peak
4	11535.000	33.55	16.70	50.25	74.00	-23.75	peak
5	12780.000	32.19	18.24	50.43	74.00	-23.57	peak
6*	17370.000	32.18	22.25	54.43	/	/	peak

Test Mode:	2400M.2GFSK.150kbps	Frequency(MHz):	2480.561
Polarity:	Vertical	Test Voltage:	DC 5 V



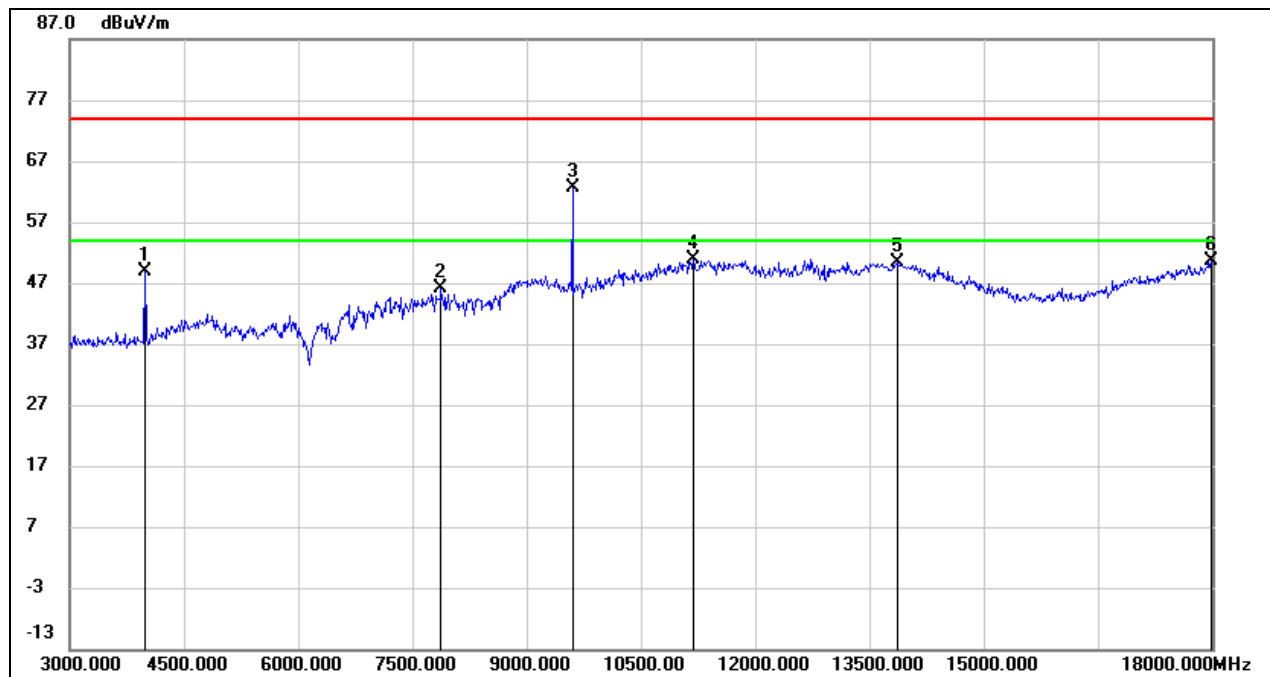
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3060.000	52.82	-5.20	47.62	74.00	-26.38	peak
2	4950.000	44.30	0.26	44.56	74.00	-29.44	peak
3	6660.000	40.89	5.02	45.91	74.00	-28.09	peak
4*	9915.000	58.88	11.80	70.68	/	/	peak
5	13170.000	30.92	19.46	50.38	74.00	-23.62	peak
6	17370.000	30.60	22.25	52.85	74.00	-21.15	peak

Test Mode:	2400M.2GFSK.400kbps.H05	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



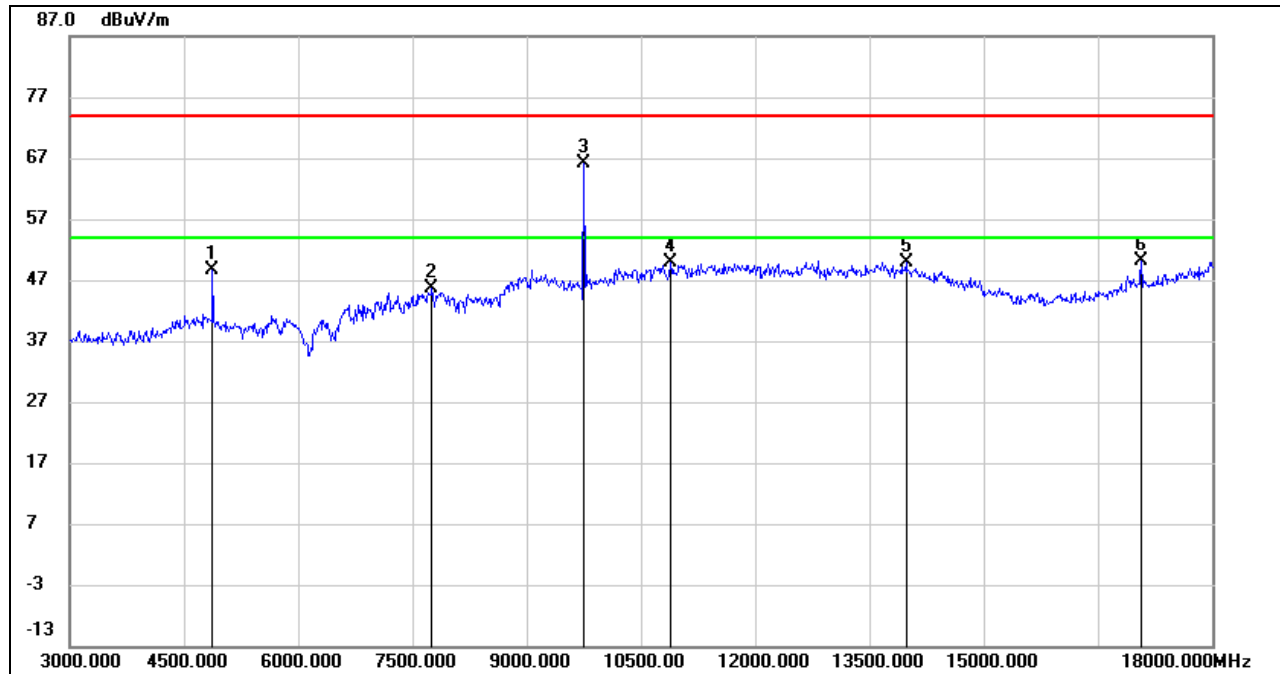
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	50.34	-0.31	50.03	74.00	-23.97	peak
2	5235.000	47.29	0.63	47.92	74.00	-26.08	peak
3*	9600.000	53.68	10.95	64.63	/	/	peak
4	10890.000	35.67	14.39	50.06	74.00	-23.94	peak
5	11790.000	32.13	17.38	49.51	74.00	-24.49	peak
6	18000.000	24.30	25.69	49.99	74.00	-24.01	peak

Test Mode:	2400M.2GFSK.400kbps.H05	Frequency(MHz):	2400.581
Polarity:	Vertical	Test Voltage:	DC 5 V



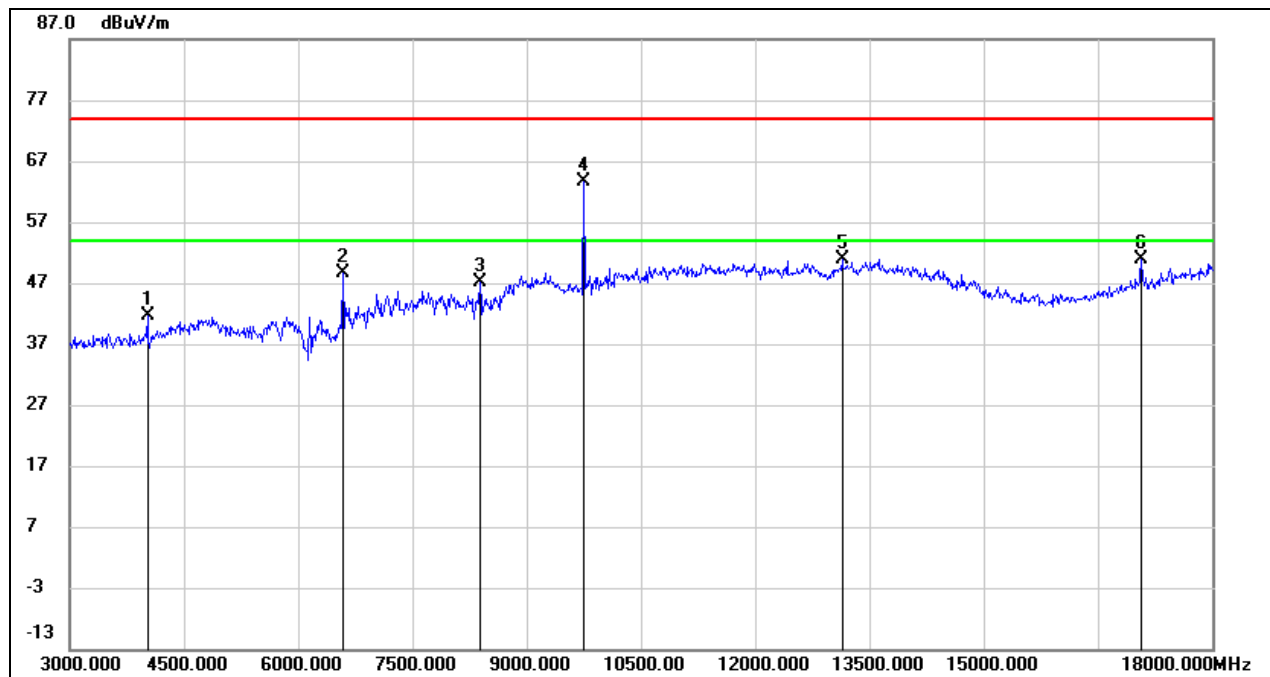
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	52.66	-3.82	48.84	74.00	-25.16	peak
2	7875.000	39.81	6.31	46.12	74.00	-27.88	peak
3*	9600.000	51.75	10.95	62.70	/	/	peak
4	11190.000	35.39	15.46	50.85	74.00	-23.15	peak
5	13860.000	28.75	21.67	50.42	74.00	-23.58	peak
6	17985.000	24.94	25.60	50.54	74.00	-23.46	peak

Test Mode:	2400M.2GFSK.400kbps.H05	Frequency(MHz):	2437.781
Polarity:	Horizontal	Test Voltage:	DC 5 V



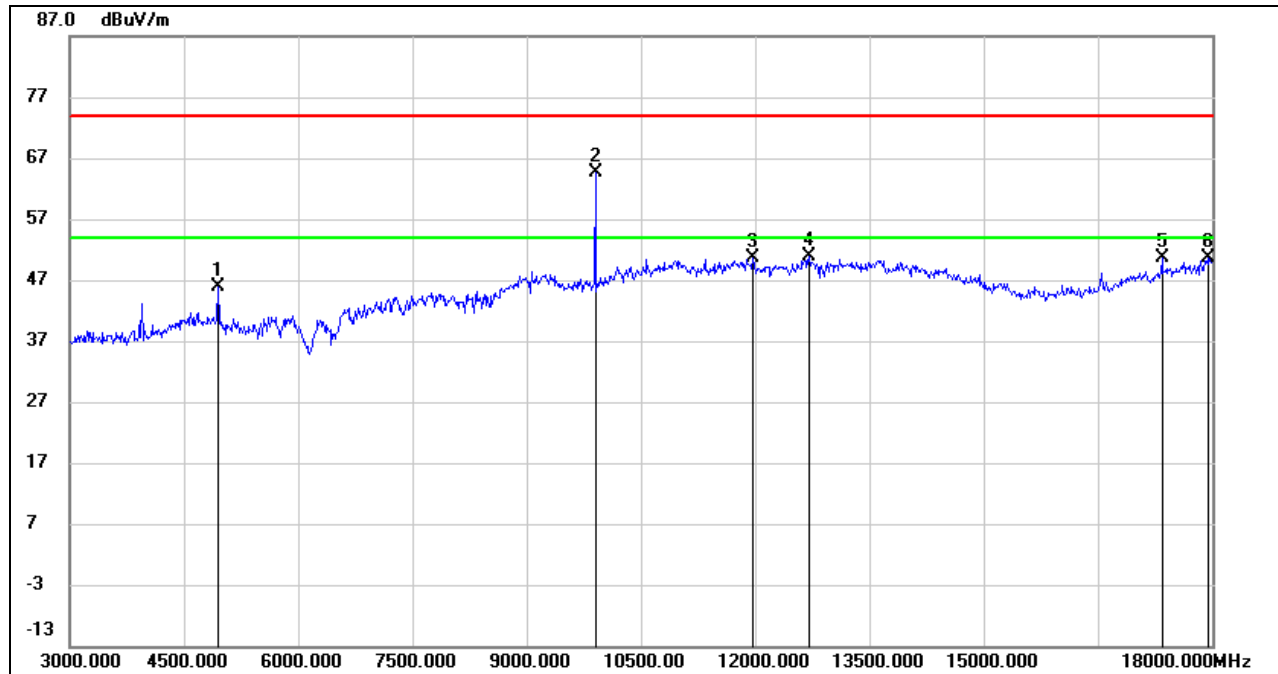
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	48.54	-0.03	48.51	74.00	-25.49	peak
2	7755.000	39.43	6.31	45.74	74.00	-28.26	peak
3*	9750.000	54.71	11.35	66.06	/	/	peak
4	10890.000	35.45	14.39	49.84	74.00	-24.16	peak
5	13980.000	27.95	21.92	49.87	74.00	-24.13	peak
6	17070.000	28.87	21.15	50.02	74.00	-23.98	peak

Test Mode:	2400M.2GFSK.400kbps.H05	Frequency(MHz):	2437.781
Polarity:	Vertical	Test Voltage:	DC 5 V



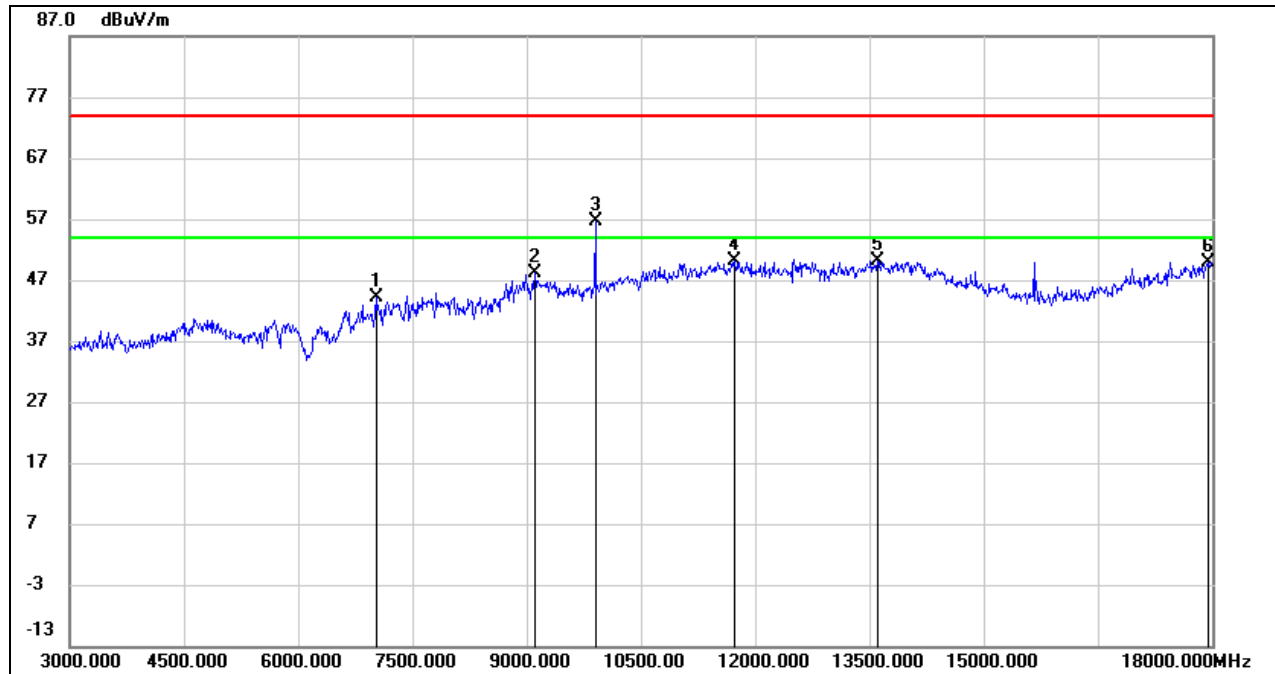
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4020.000	45.46	-3.71	41.75	74.00	-32.25	peak
2	6585.000	43.96	4.64	48.60	74.00	-25.40	peak
3	8385.000	40.37	6.72	47.09	74.00	-26.91	peak
4*	9750.000	52.32	11.35	63.67	/	/	peak
5	13140.000	31.47	19.33	50.80	74.00	-23.20	peak
6	17070.000	29.85	21.15	51.00	74.00	-23.00	peak

Test Mode:	2400M.2GFSK.400kbps.H05	Frequency(MHz):	2475.725
Polarity:	Horizontal	Test Voltage:	DC 5 V



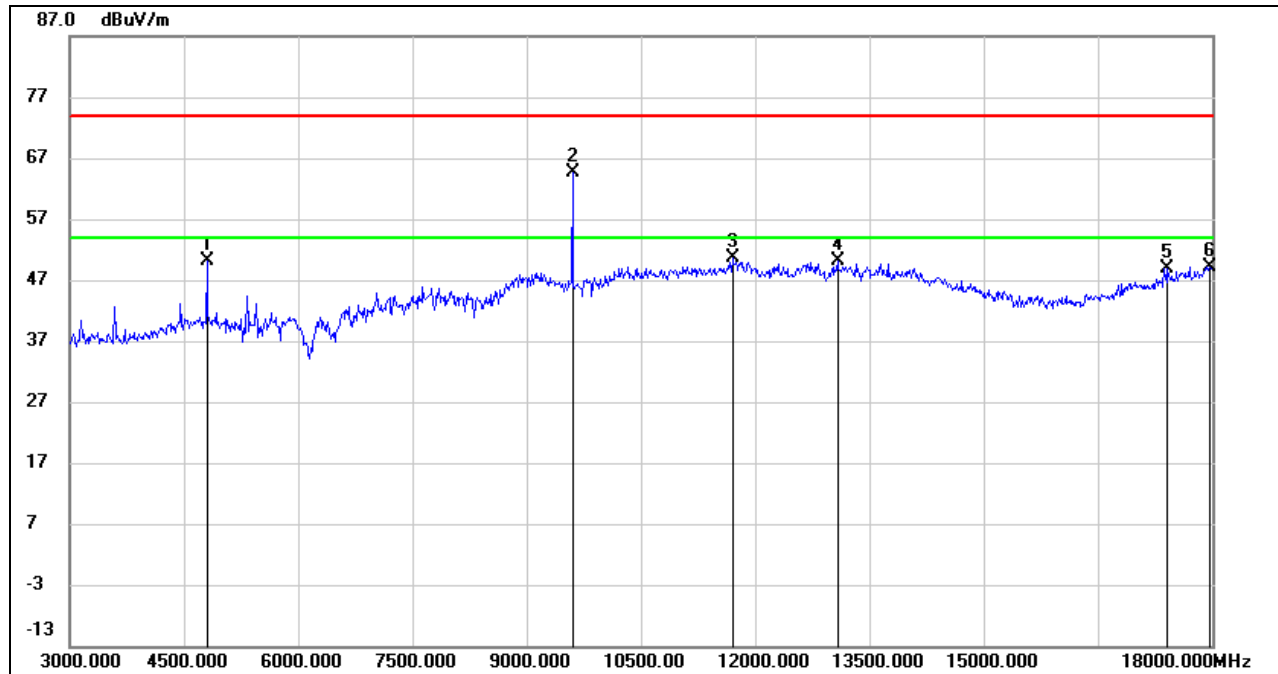
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.000	45.61	0.26	45.87	74.00	-28.13	peak
2*	9900.000	52.89	11.75	64.64	/	/	peak
3	11970.000	32.66	17.88	50.54	74.00	-23.46	peak
4	12705.000	32.87	18.06	50.93	74.00	-23.07	peak
5	17340.000	28.57	22.14	50.71	74.00	-23.29	peak
6	17940.000	25.19	25.34	50.53	74.00	-23.47	peak

Test Mode:	2400M.2GFSK.400kbps.H05	Frequency(MHz):	2475.725
Polarity:	Vertical	Test Voltage:	DC 5 V



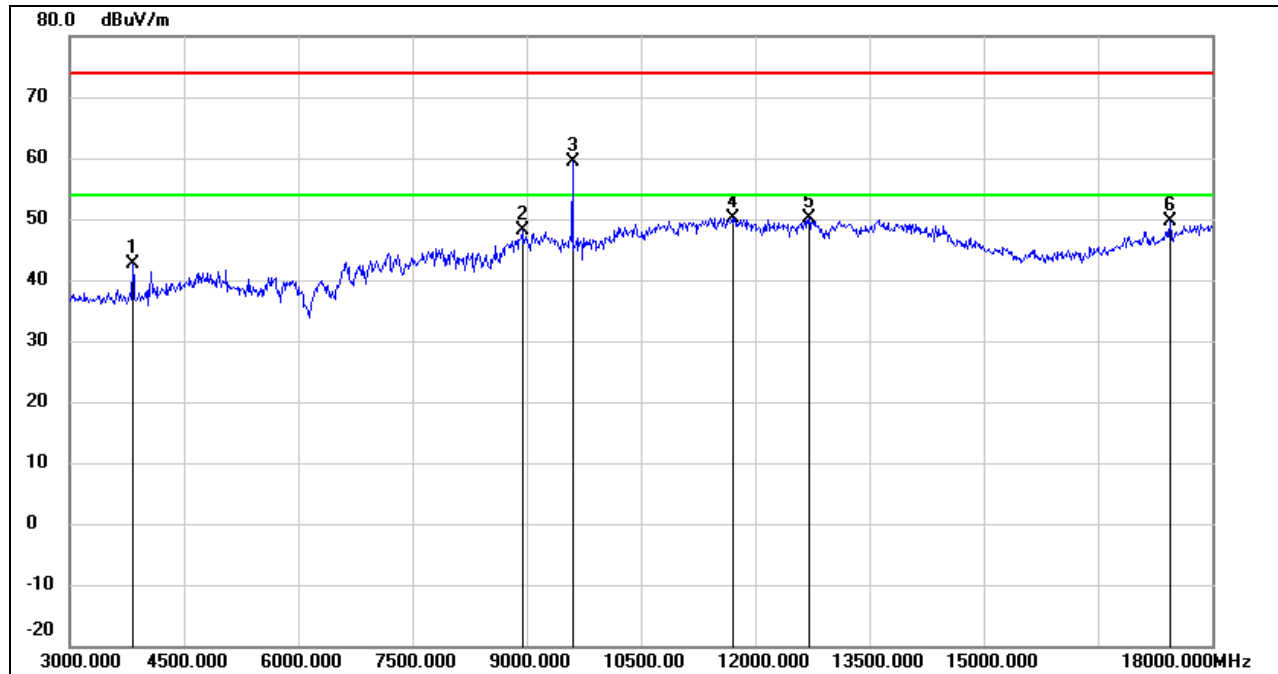
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7020.000	37.46	6.67	44.13	74.00	-29.87	peak
2	9105.000	37.48	10.53	48.01	74.00	-25.99	peak
3*	9900.000	44.87	11.75	56.62	/	/	peak
4	11730.000	32.90	17.22	50.12	74.00	-23.88	peak
5	13605.000	28.94	21.12	50.06	74.00	-23.94	peak
6	17940.000	24.65	25.34	49.99	74.00	-24.01	peak

Test Mode:	2400M.2GFSK.400kbps	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



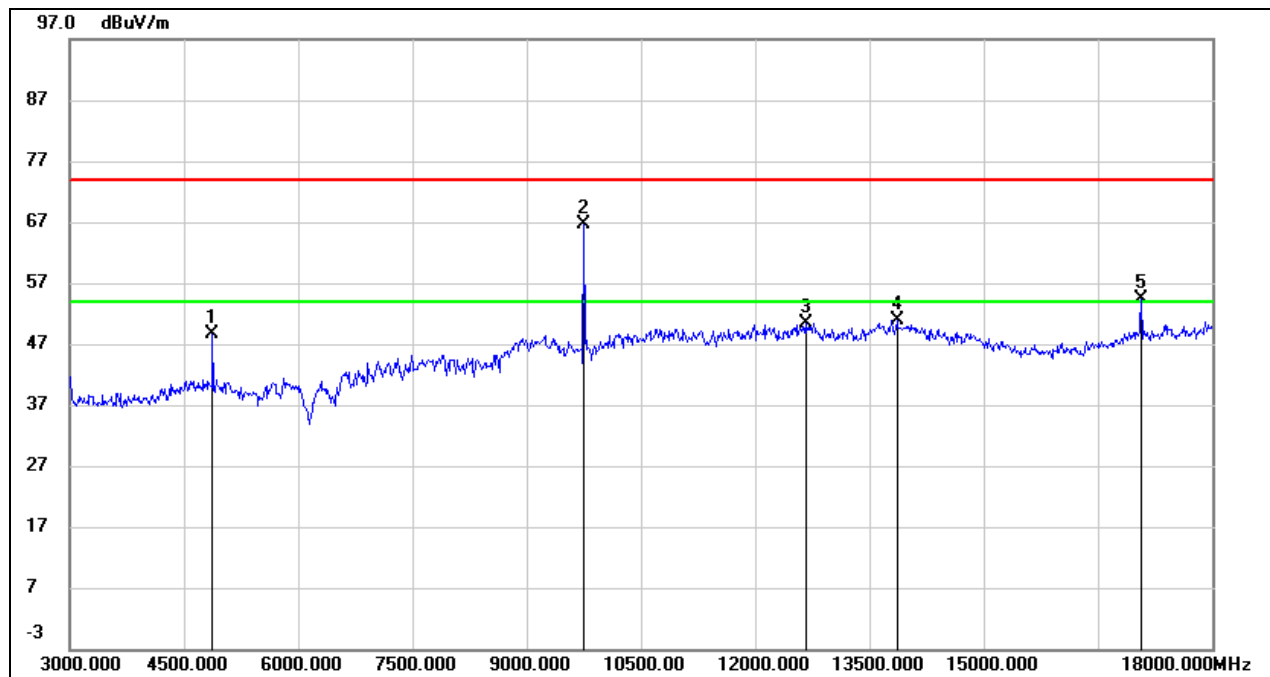
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	50.37	-0.31	50.06	74.00	-23.94	peak
2*	9600.000	53.71	10.95	64.66	/	/	peak
3	11700.000	33.57	17.14	50.71	74.00	-23.29	peak
4	13080.000	30.95	19.07	50.02	74.00	-23.98	peak
5	17400.000	26.57	22.36	48.93	74.00	-25.07	peak
6	17970.000	23.72	25.51	49.23	74.00	-24.77	peak

Test Mode:	2400M.2GFSK.400kbps	Frequency(MHz):	2400.581
Polarity:	Vertical	Test Voltage:	DC 5 V



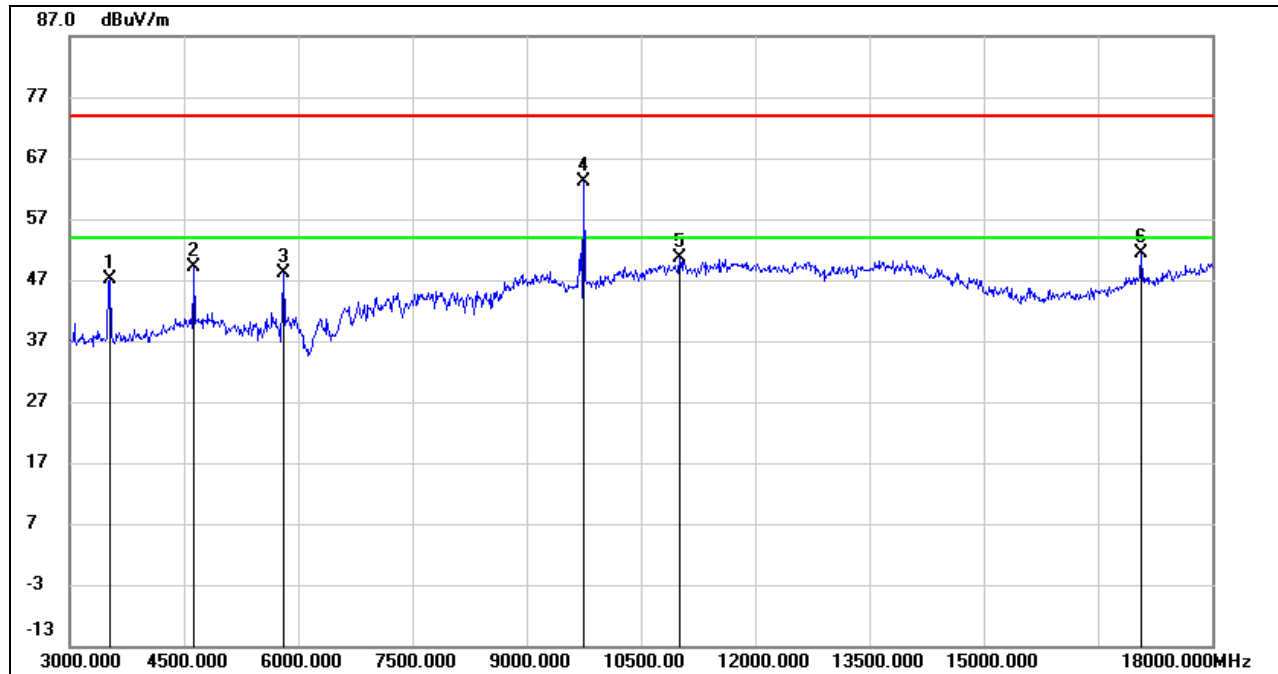
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3825.000	46.76	-4.21	42.55	74.00	-31.45	peak
2	8940.000	38.13	10.04	48.17	74.00	-25.83	peak
3*	9600.000	48.40	10.95	59.35	/	/	peak
4	11700.000	33.11	17.14	50.25	74.00	-23.75	peak
5	12705.000	32.12	18.06	50.18	74.00	-23.82	peak
6	17445.000	26.99	22.54	49.53	74.00	-24.47	peak

Test Mode:	2400M.2GFSK.400kbps	Frequency(MHz):	2437.781
Polarity:	Horizontal	Test Voltage:	DC 5 V



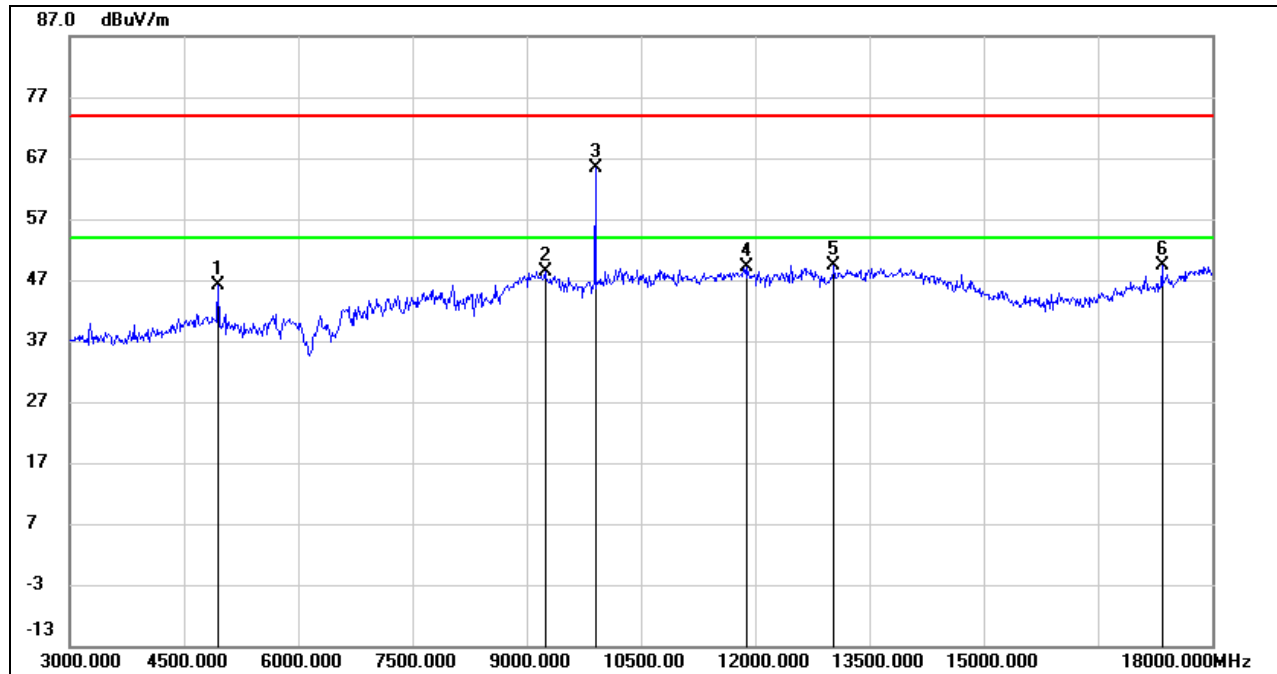
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	48.65	-0.03	48.62	74.00	-25.38	peak
2*	9750.000	55.19	11.35	66.54	/	/	peak
3	12660.000	32.41	17.95	50.36	74.00	-23.64	peak
4	13860.000	29.29	21.67	50.96	74.00	-23.04	peak
5	17070.000	33.17	21.15	54.32	74.00	-19.68	peak

Test Mode:	2400M.2GFSK.400kbps	Frequency(MHz):	2437.781
Polarity:	Vertical	Test Voltage:	DC 5 V



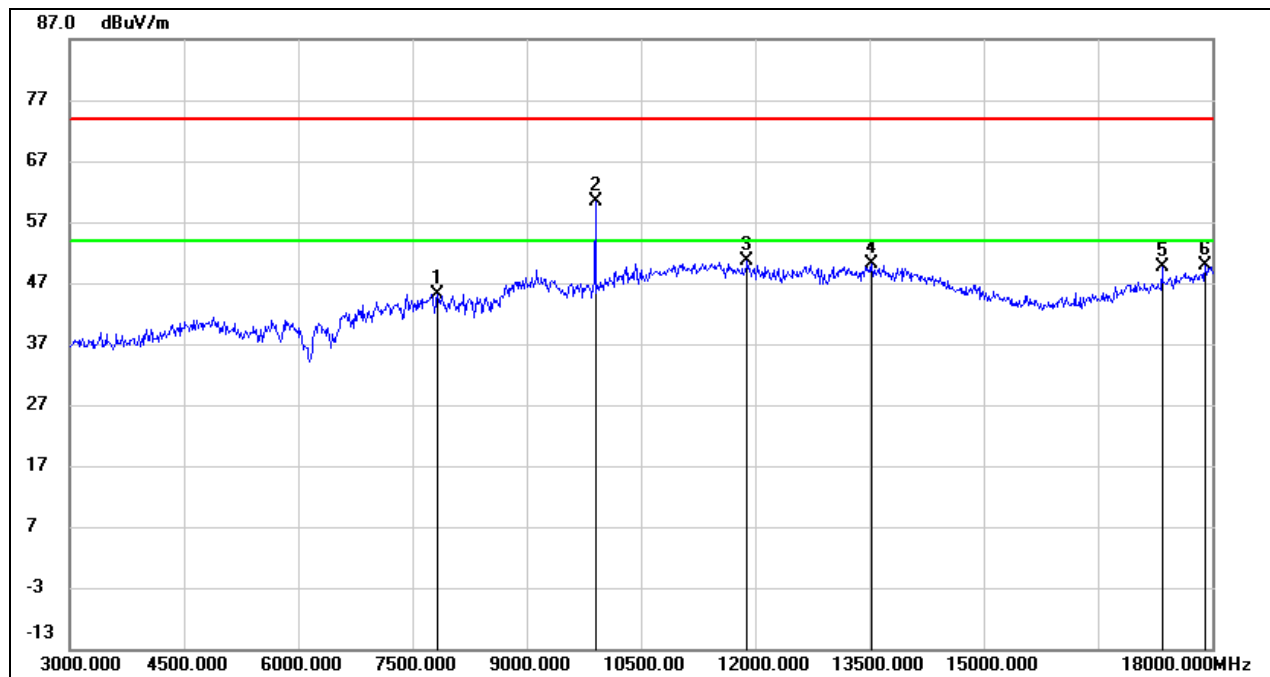
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3525.000	51.96	-4.90	47.06	74.00	-26.94	peak
2	4635.000	50.01	-0.95	49.06	74.00	-24.94	peak
3	5805.000	46.43	1.71	48.14	74.00	-25.86	peak
4*	9750.000	51.81	11.35	63.16	/	/	peak
5	11010.000	35.70	14.81	50.51	74.00	-23.49	peak
6	17070.000	30.13	21.15	51.28	74.00	-22.72	peak

Test Mode:	2400M.2GFSK.400kbps	Frequency(MHz):	2475.725
Polarity:	Horizontal	Test Voltage:	DC 5 V



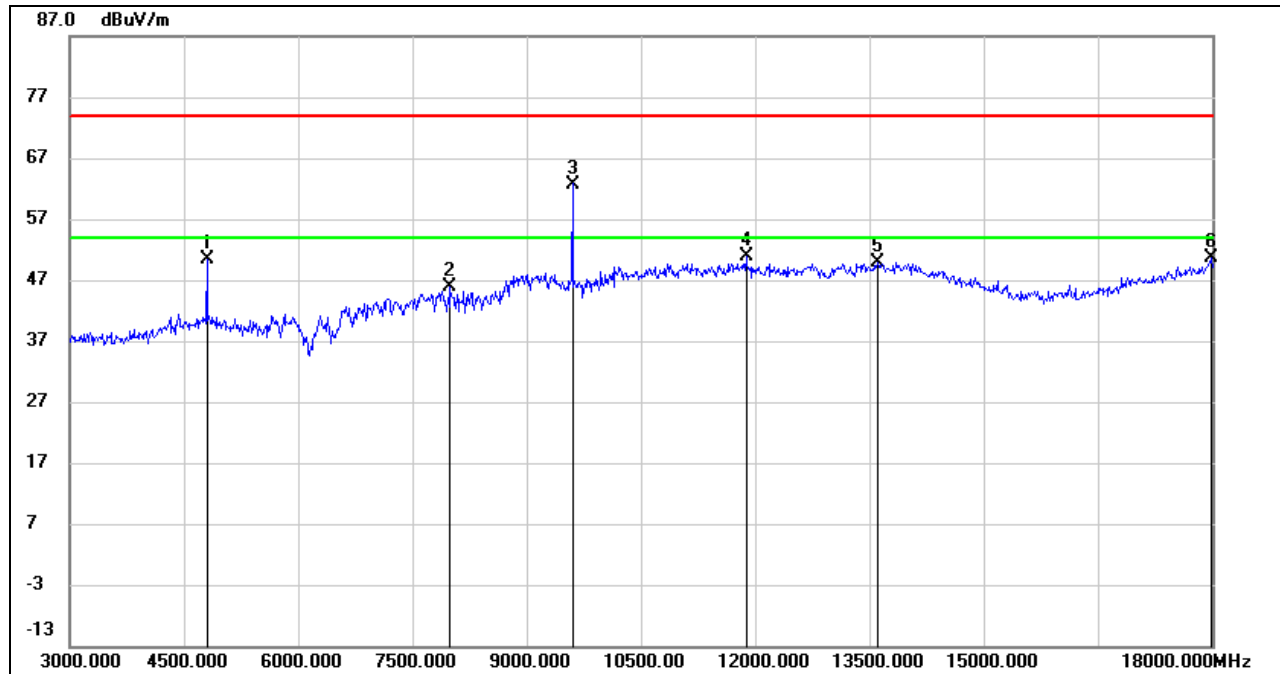
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4950.000	45.83	0.26	46.09	74.00	-27.91	peak
2	9240.000	37.89	10.58	48.47	74.00	-25.53	peak
3*	9900.000	53.53	11.75	65.28	/	/	peak
4	11880.000	31.39	17.63	49.02	74.00	-24.98	peak
5	13035.000	30.49	18.87	49.36	74.00	-24.64	peak
6	17340.000	27.34	22.14	49.48	74.00	-24.52	peak

Test Mode:	2400M.2GFSK.400kbps	Frequency(MHz):	2475.725
Polarity:	Vertical	Test Voltage:	DC 5 V



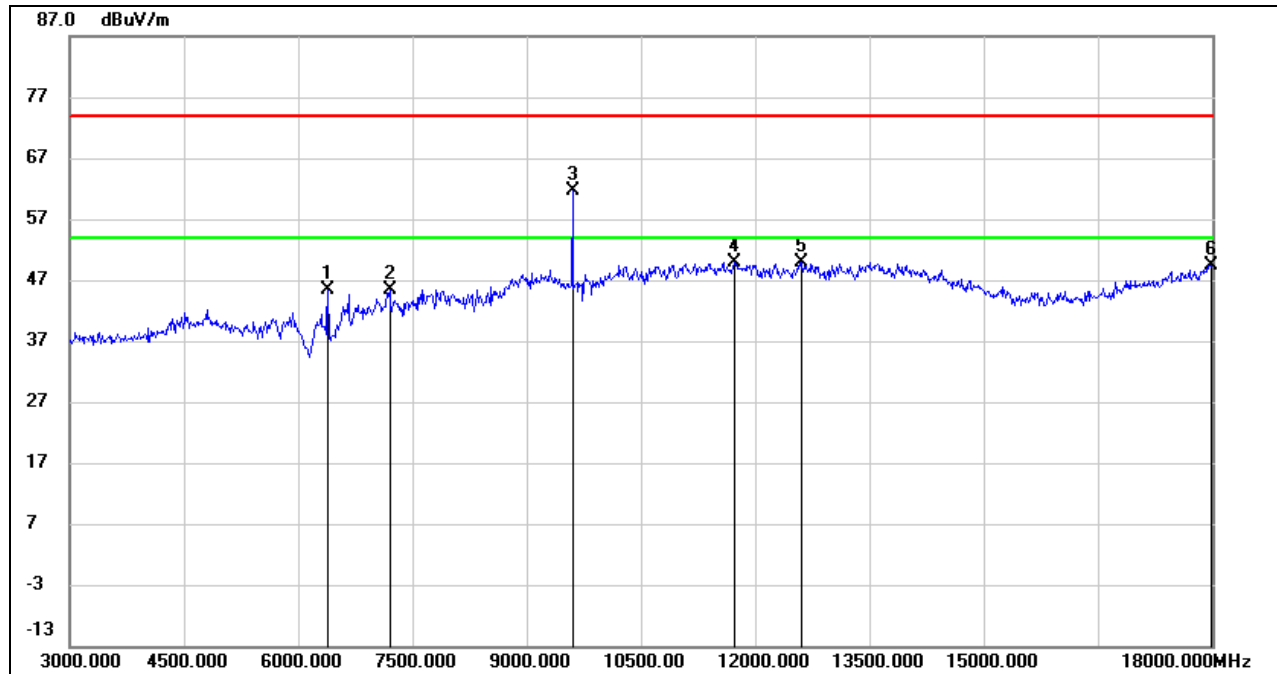
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7830.000	38.87	6.32	45.19	74.00	-28.81	peak
2*	9900.000	48.73	11.75	60.48	/	/	peak
3	11895.000	32.94	17.68	50.62	74.00	-23.38	peak
4	13530.000	29.17	20.96	50.13	74.00	-23.87	peak
5	17340.000	27.60	22.14	49.74	74.00	-24.26	peak
6	17910.000	24.64	25.16	49.80	74.00	-24.20	peak

Test Mode:	2400M.4GFSK.400kbps.H05	Frequency(MHz):	2400.581
Polarity:	Horizontal	Test Voltage:	DC 5 V



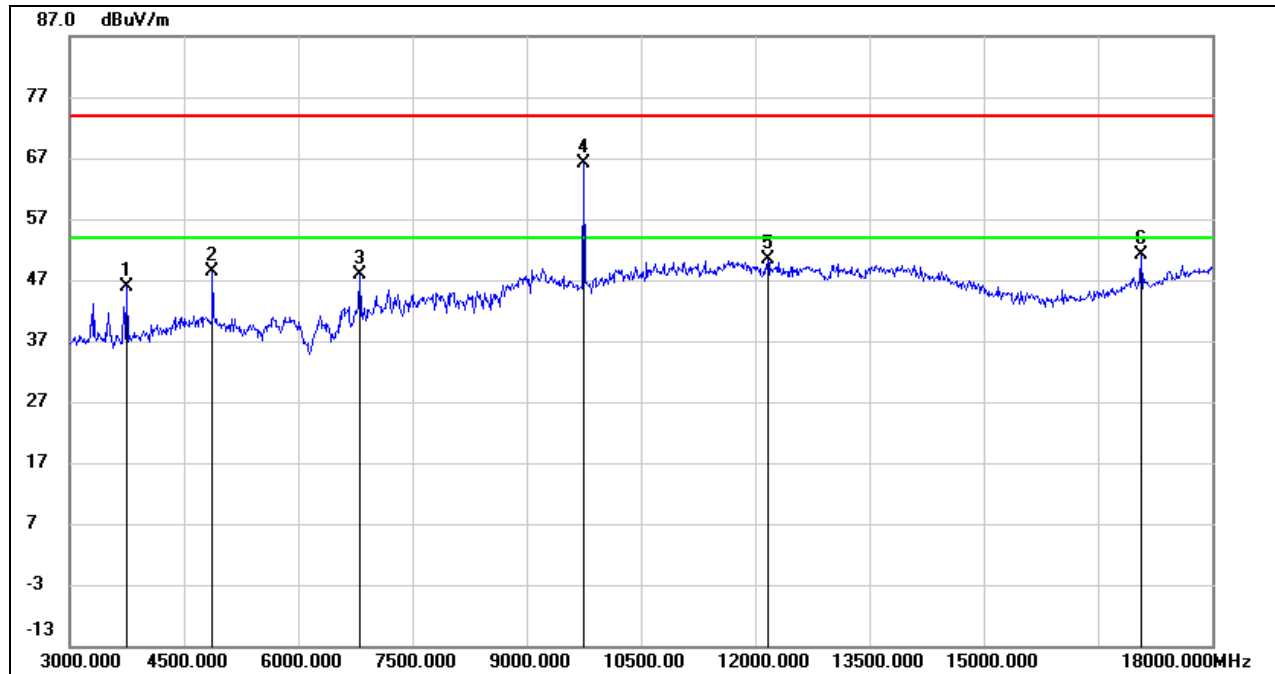
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4800.000	50.74	-0.31	50.43	74.00	-23.57	peak
2	7995.000	39.49	6.31	45.80	74.00	-28.20	peak
3*	9600.000	51.80	10.95	62.75	/	/	peak
4	11880.000	33.21	17.63	50.84	74.00	-23.16	peak
5	13605.000	28.87	21.12	49.99	74.00	-24.01	peak
6	17985.000	24.92	25.60	50.52	74.00	-23.48	peak

Test Mode:	2400M.4GFSK.400kbps.H05	Frequency(MHz):	2400.581
Polarity:	Vertical	Test Voltage:	DC 5 V



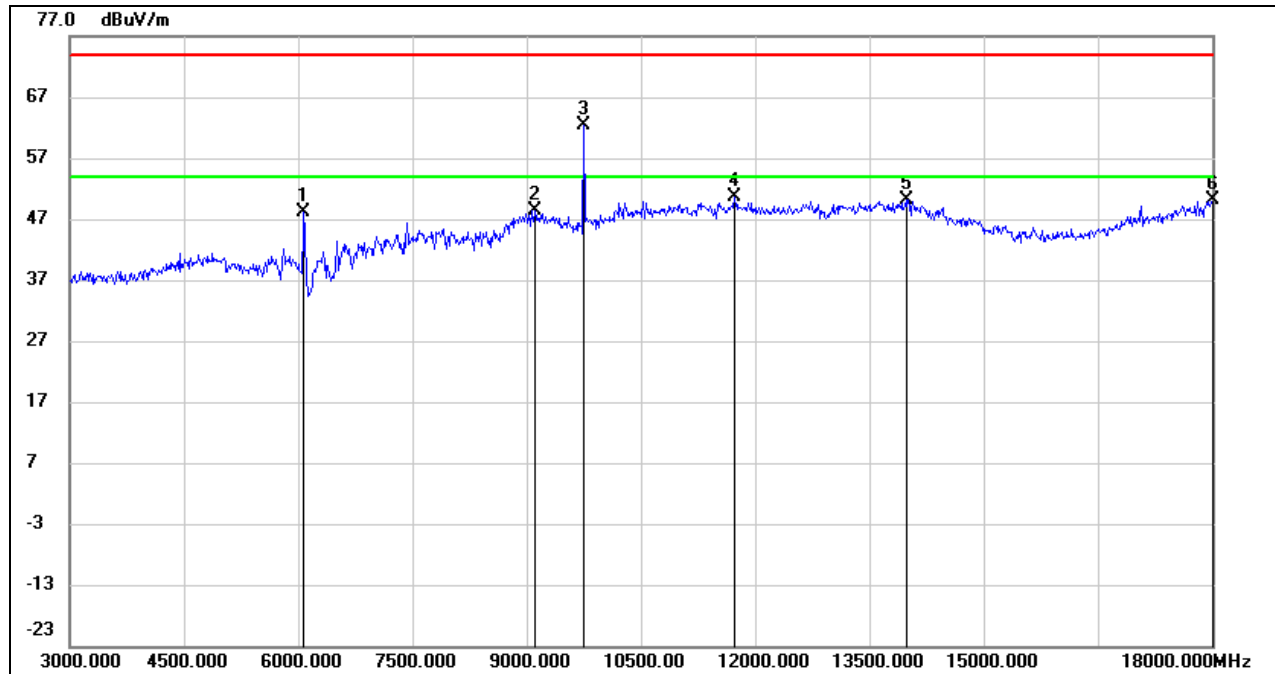
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6390.000	41.52	3.78	45.30	74.00	-28.70	peak
2	7200.000	38.90	6.55	45.45	74.00	-28.55	peak
3*	9600.000	50.57	10.95	61.52	/	/	peak
4	11730.000	32.69	17.22	49.91	74.00	-24.09	peak
5	12615.000	31.94	17.86	49.80	74.00	-24.20	peak
6	17985.000	23.85	25.60	49.45	74.00	-24.55	peak

Test Mode:	2400M.4GFSK.400kbps.H05	Frequency(MHz):	2437.781
Polarity:	Horizontal	Test Voltage:	DC 5 V



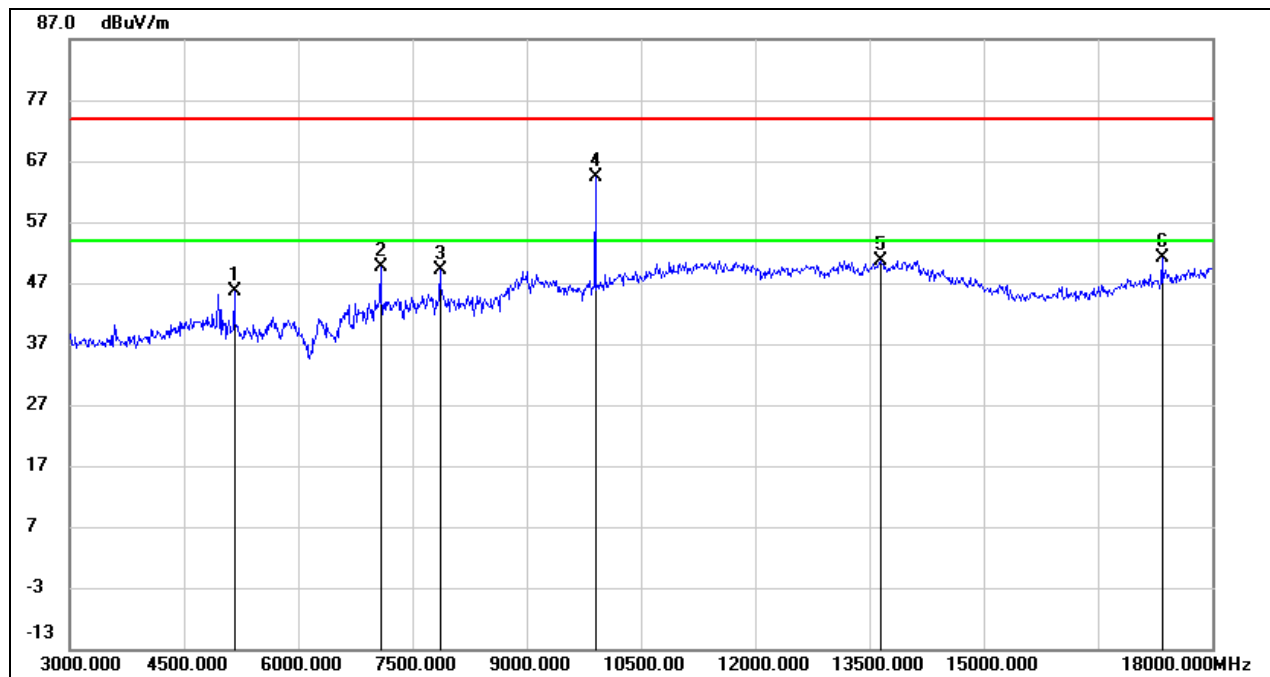
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3750.000	50.35	-4.38	45.97	74.00	-28.03	peak
2	4875.000	48.42	-0.03	48.39	74.00	-25.61	peak
3	6810.000	42.04	5.76	47.80	74.00	-26.20	peak
4*	9750.000	54.88	11.35	66.23	/	/	peak
5	12165.000	32.52	17.84	50.36	74.00	-23.64	peak
6	17070.000	29.93	21.15	51.08	74.00	-22.92	peak

Test Mode:	2400M.4GFSK.400kbps.H05	Frequency(MHz):	2437.781
Polarity:	Vertical	Test Voltage:	DC 5 V



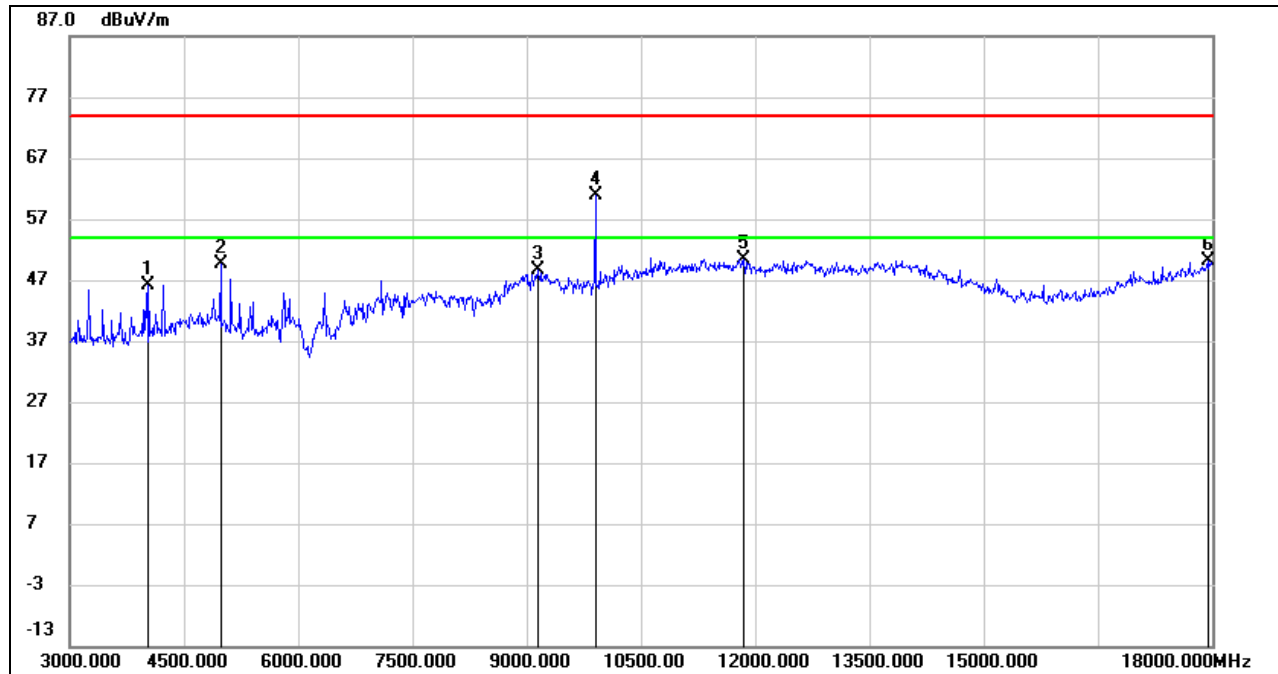
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6075.000	45.68	2.56	48.24	74.00	-25.76	peak
2	9105.000	37.95	10.53	48.48	74.00	-25.52	peak
3*	9750.000	50.98	11.35	62.33	/	/	peak
4	11730.000	33.40	17.22	50.62	74.00	-23.38	peak
5	13980.000	28.16	21.92	50.08	74.00	-23.92	peak
6	18000.000	24.35	25.69	50.04	74.00	-23.96	peak

Test Mode:	2400M.4GFSK.400kbps.H05	Frequency(MHz):	2475.725
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5160.000	44.98	0.58	45.56	74.00	-28.44	peak
2	7080.000	43.06	6.63	49.69	74.00	-24.31	peak
3	7860.000	42.93	6.32	49.25	74.00	-24.75	peak
4*	9900.000	52.61	11.75	64.36	/	/	peak
5	13650.000	29.47	21.21	50.68	74.00	-23.32	peak
6	17340.000	28.90	22.14	51.04	74.00	-22.96	peak

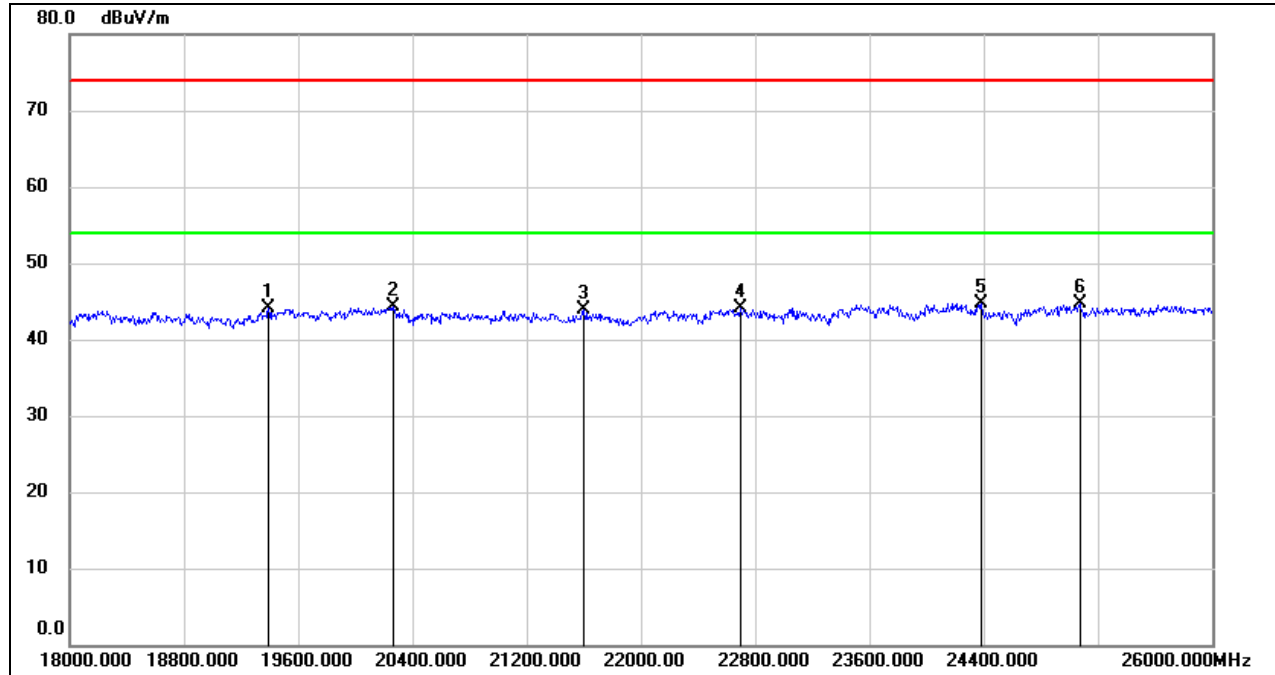
Test Mode:	2400M.4GFSK.400kbps.H05	Frequency(MHz):	2475.725
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4035.000	49.89	-3.64	46.25	74.00	-27.75	peak
2	4980.000	49.19	0.38	49.57	74.00	-24.43	peak
3	9150.000	38.20	10.54	48.74	74.00	-25.26	peak
4*	9900.000	49.16	11.75	60.91	74.00	-13.09	peak
5	11850.000	32.90	17.56	50.46	74.00	-23.54	peak
6	17940.000	24.86	25.34	50.20	74.00	-23.80	peak

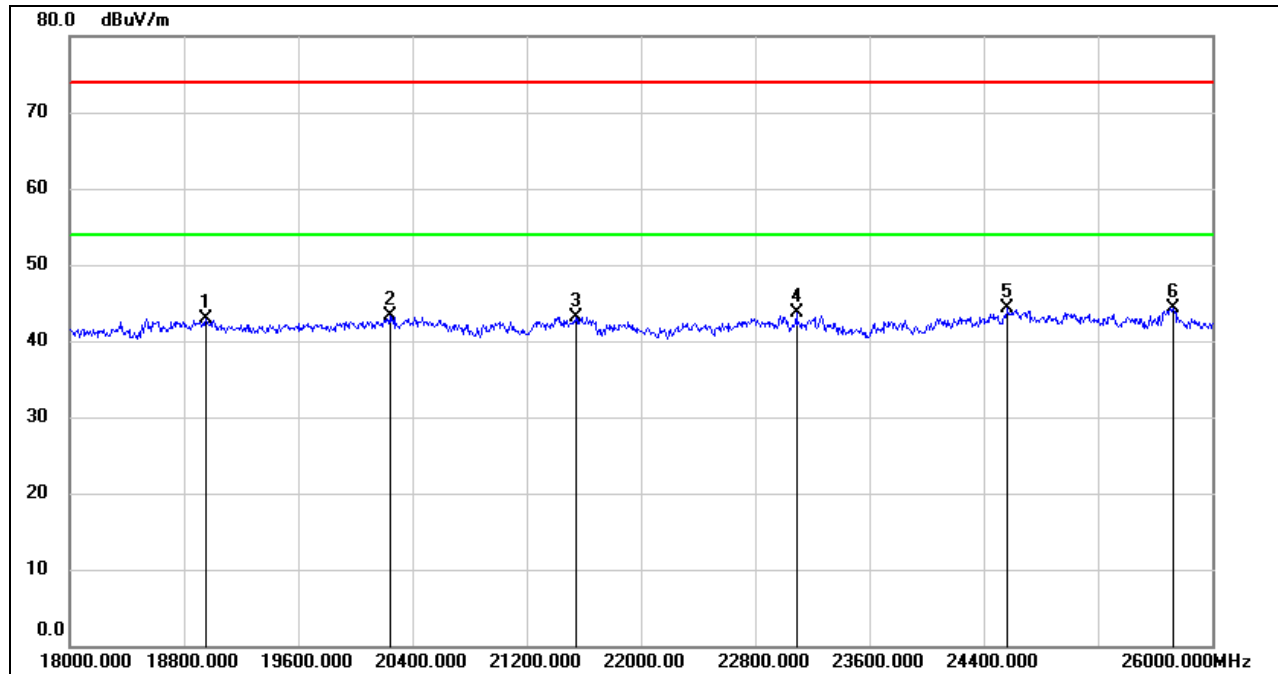
8.4. SPURIOUS EMISSIONS (18 GHz ~ 26 GHz)

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	19392.000	49.62	-5.57	44.05	74.00	-29.95	peak
2	20264.000	49.97	-5.60	44.37	74.00	-29.63	peak
3	21600.000	48.52	-4.54	43.98	74.00	-30.02	peak
4	22696.000	47.78	-3.73	44.05	74.00	-29.95	peak
5	24384.000	47.18	-2.55	44.63	74.00	-29.37	peak
6	25072.000	46.67	-1.97	44.70	74.00	-29.30	peak

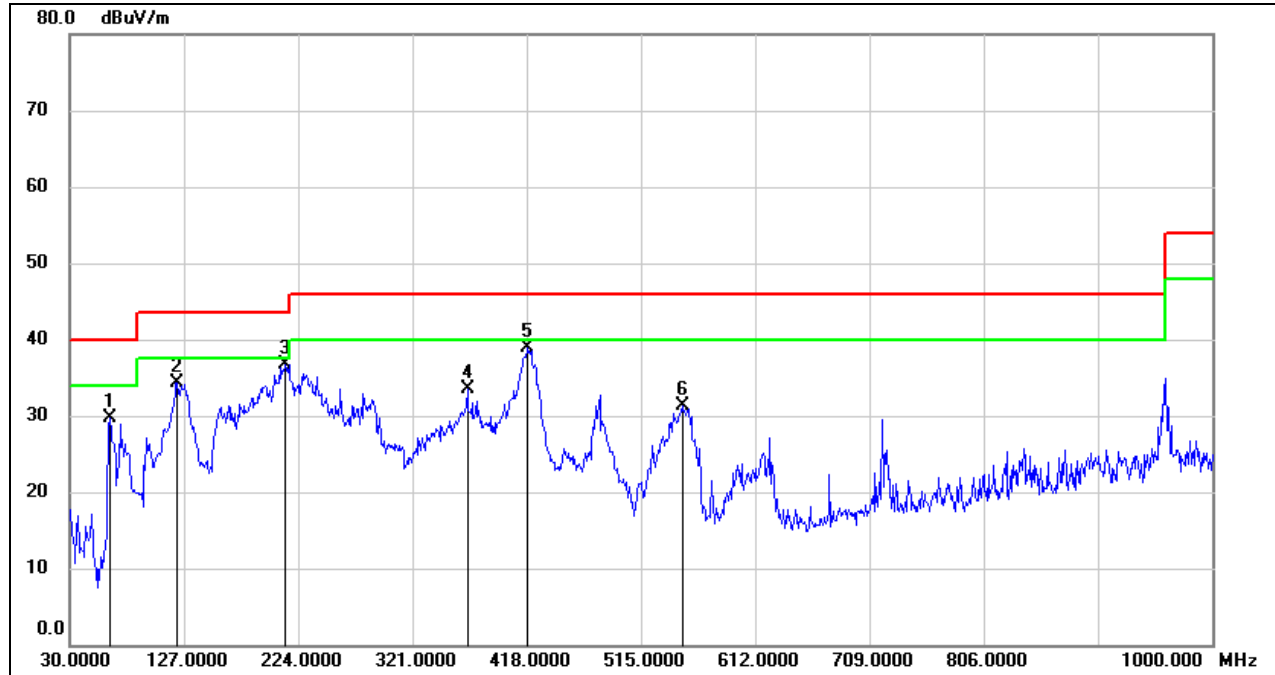
Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18952.000	48.14	-5.26	42.88	74.00	-31.12	peak
2	20240.000	48.82	-5.61	43.21	74.00	-30.79	peak
3	21544.000	47.76	-4.63	43.13	74.00	-30.87	peak
4	23088.000	47.02	-3.41	43.61	74.00	-30.39	peak
5	24568.000	46.60	-2.33	44.27	74.00	-29.73	peak
6	25728.000	45.11	-0.72	44.39	74.00	-29.61	peak

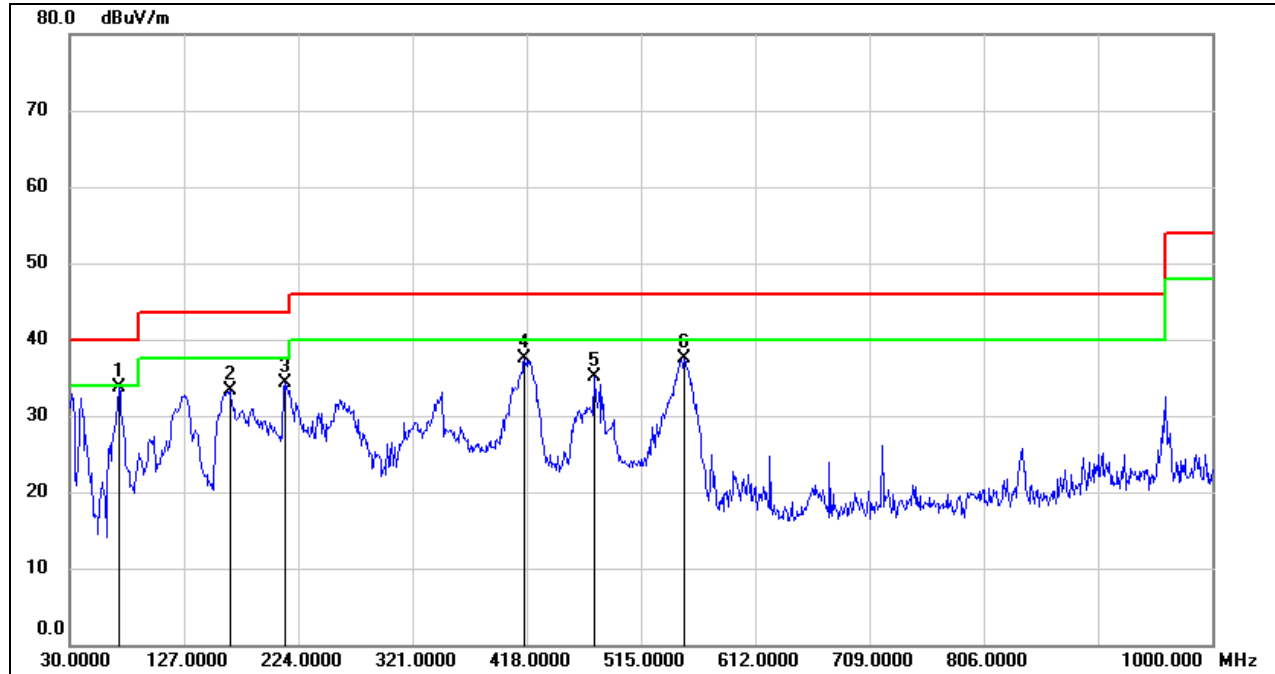
8.5. SPURIOUS EMISSIONS (30 MHz ~ 1 GHz)

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	63.9500	49.71	-19.97	29.74	40.00	-10.26	QP
2	121.1800	53.59	-19.31	34.28	43.50	-9.22	QP
3	213.3300	53.22	-16.49	36.73	43.50	-6.77	QP
4	367.5600	45.91	-12.48	33.43	46.00	-12.57	QP
5	418.9700	51.03	-12.10	38.93	46.00	-7.07	QP
6	549.9200	41.53	-10.27	31.26	46.00	-14.74	QP

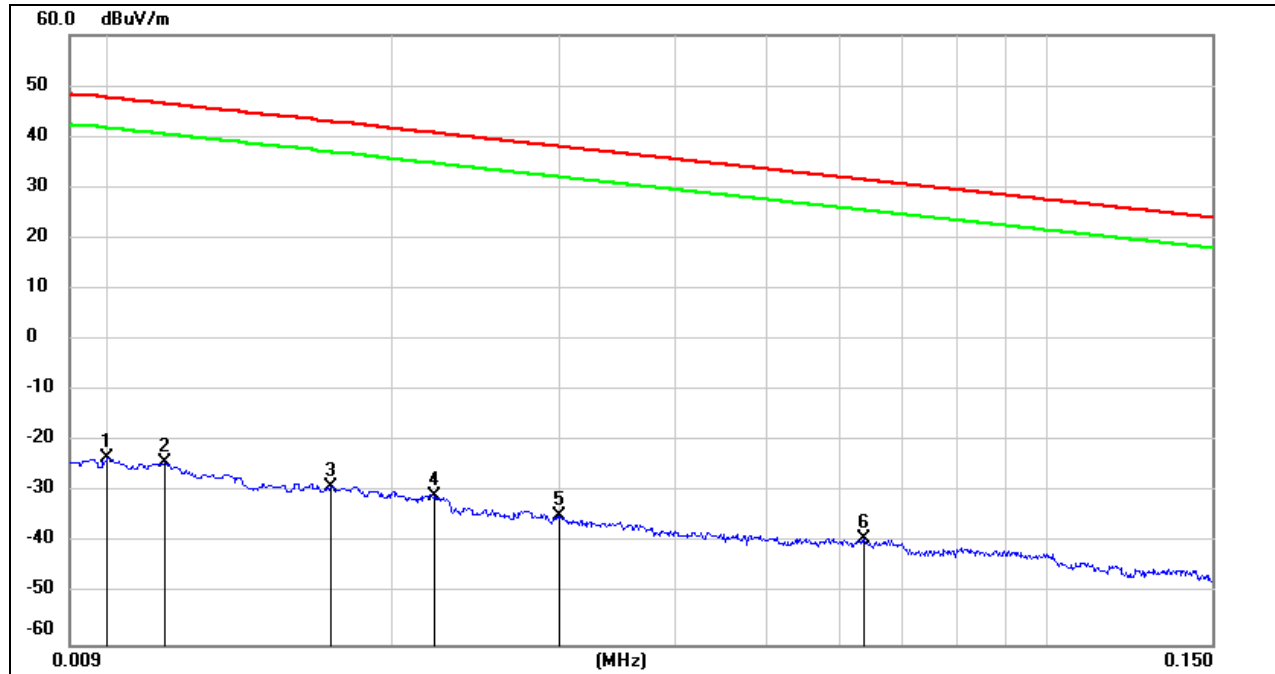
Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	71.7100	54.19	-20.41	33.78	40.00	-6.22	QP
2	165.8000	49.85	-16.61	33.24	43.50	-10.26	QP
3	213.3300	50.72	-16.49	34.23	43.50	-9.27	QP
4	416.0600	49.69	-12.14	37.55	46.00	-8.45	QP
5	475.2300	45.97	-10.86	35.11	46.00	-10.89	QP
6	551.8600	47.79	-10.23	37.56	46.00	-8.44	QP

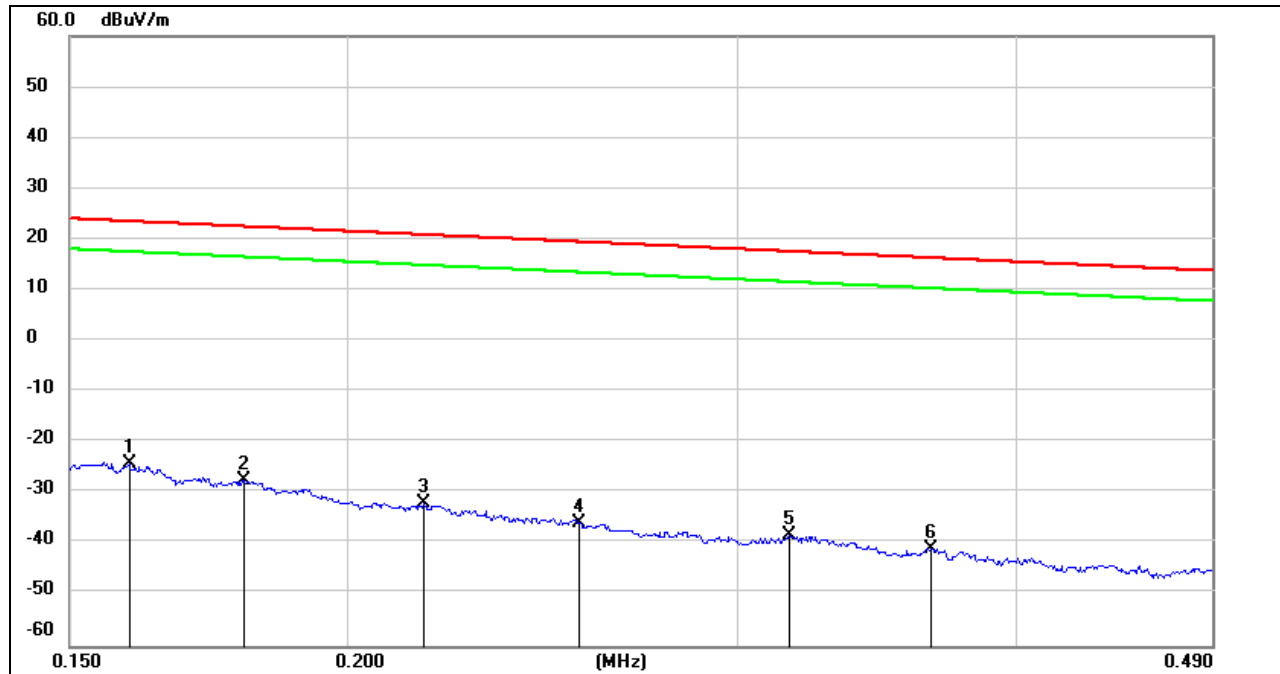
8.6. SPURIOUS EMISSIONS BELOW 30 MHz

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



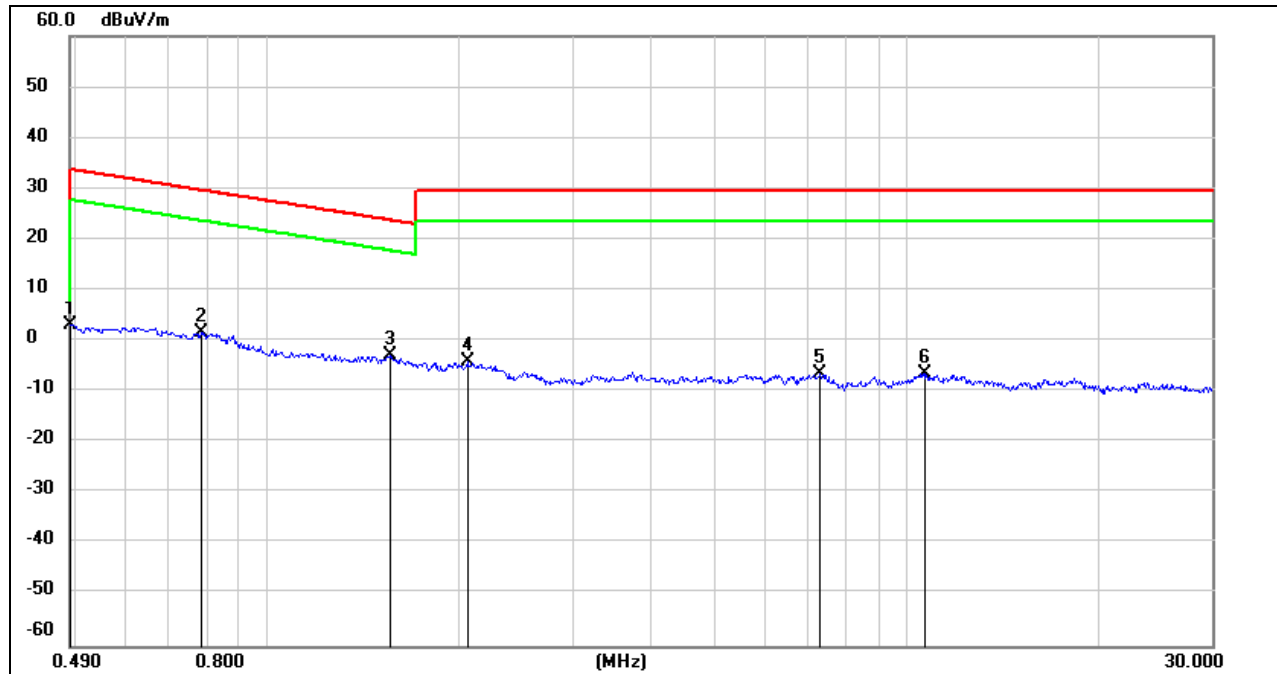
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.0100	78.22	-101.40	-23.18	47.60	-74.68	-3.90	-70.78	peak
2	0.0114	77.38	-101.40	-24.02	46.46	-75.52	-5.04	-70.48	peak
3	0.0171	72.38	-101.36	-28.98	42.94	-80.48	-8.56	-71.92	peak
4	0.0221	70.63	-101.35	-30.72	40.71	-82.22	-10.79	-71.43	peak
5	0.0300	66.76	-101.39	-34.63	38.06	-86.13	-13.44	-72.69	peak
6	0.0636	62.31	-101.54	-39.23	31.53	-90.73	-19.97	-70.76	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.1595	77.36	-101.65	-24.29	23.55	-75.79	-27.95	-47.84	peak
2	0.1800	74.15	-101.68	-27.53	22.50	-79.03	-29.00	-50.03	peak
3	0.2164	69.77	-101.75	-31.98	20.90	-83.48	-30.60	-52.88	peak
4	0.2544	66.02	-101.80	-35.78	19.49	-87.28	-32.01	-55.27	peak
5	0.3163	63.70	-101.87	-38.17	17.60	-89.67	-33.90	-55.77	peak
6	0.3662	61.08	-101.93	-40.85	16.33	-92.35	-35.17	-57.18	peak

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Polarity:	Horizontal	Test Voltage:	DC 5V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.4900	65.22	-62.06	3.16	13.80	-48.34	-37.70	-10.64	peak
2	0.7861	63.83	-62.14	1.69	29.69	-49.81	-21.81	-28.00	peak
3	1.5564	59.18	-62.02	-2.84	23.76	-54.34	-27.74	-26.60	peak
4	2.0539	57.70	-61.81	-4.11	29.54	-55.61	-21.96	-33.65	peak
5	7.3361	54.58	-61.17	-6.59	29.54	-58.09	-21.96	-36.13	peak
6	10.7004	54.36	-60.83	-6.47	29.54	-57.97	-21.96	-36.01	peak

9. AC POWER LINE CONDUCTED EMISSIONS

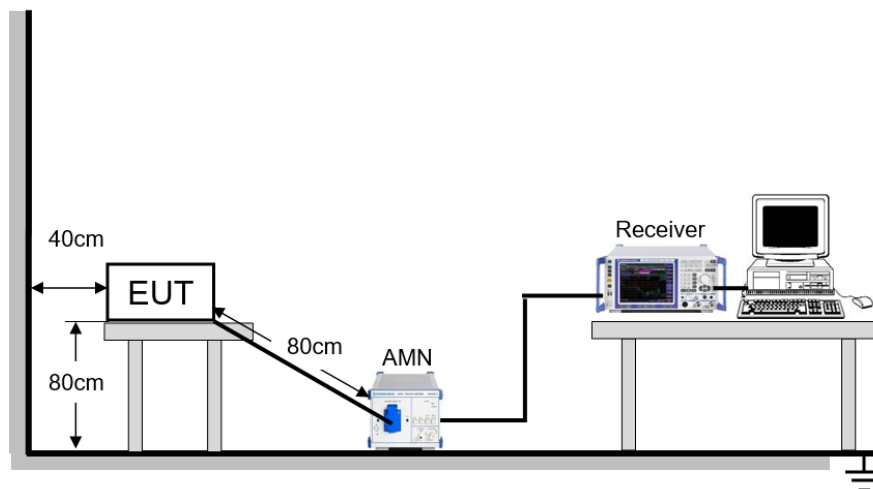
LIMITS

Please refer to CFR 47 FCC §15.207 (a).

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST SETUP AND PROCEDURE

Refer to ANSI C63.10-2013 clause 6.2.



The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

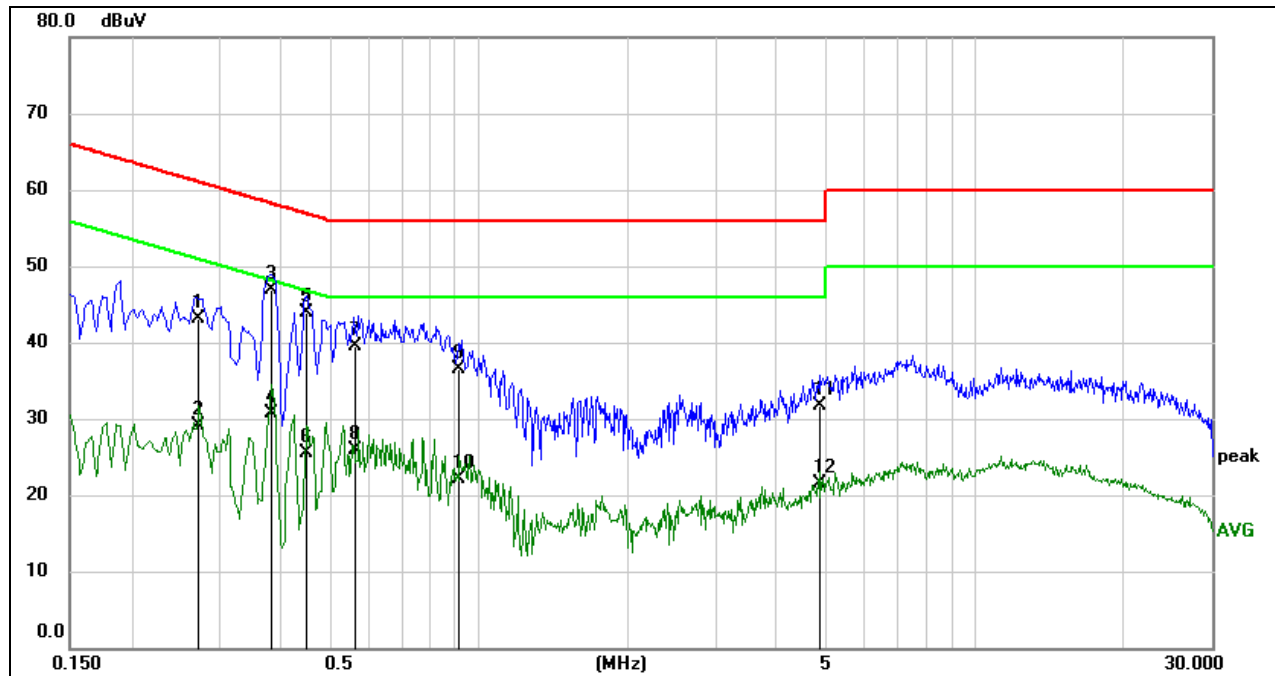
The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST ENVIRONMENT

Temperature	23.5 °C	Relative Humidity	61.2 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V/60 Hz

RESULTS

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Line:	Line		



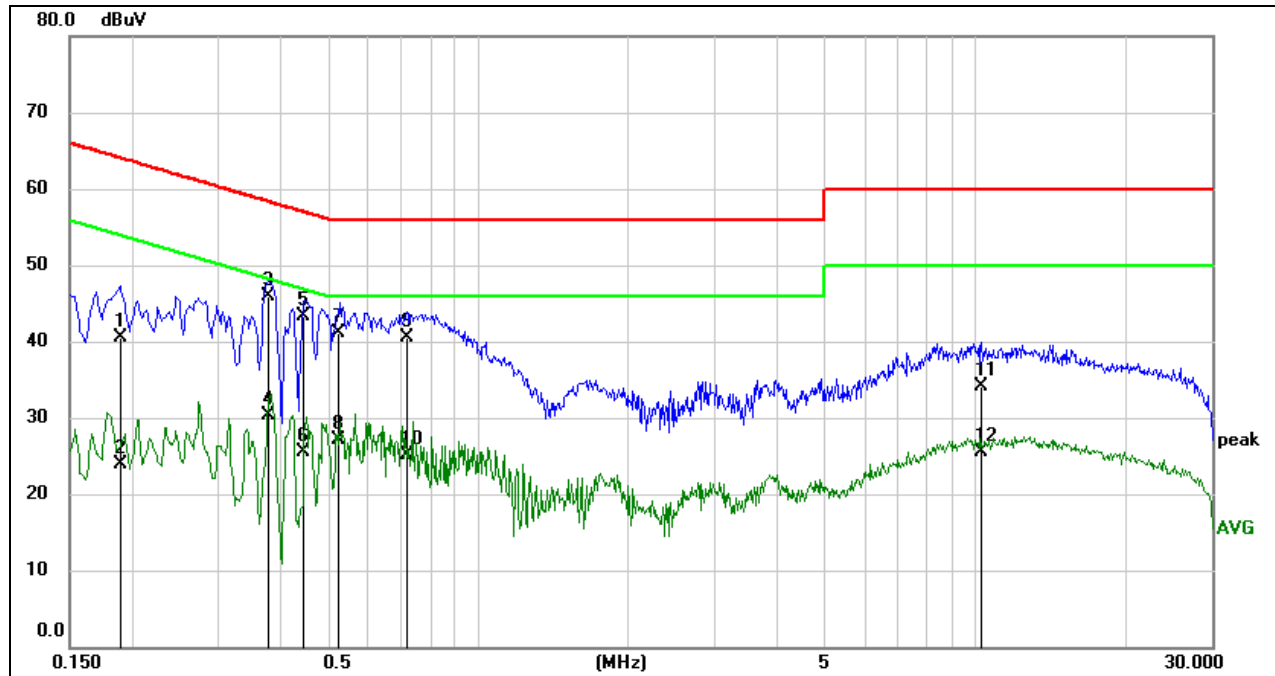
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2738	33.46	9.59	43.05	61.00	-17.95	QP
2	0.2738	19.52	9.59	29.11	51.00	-21.89	AVG
3	0.3794	37.25	9.59	46.84	58.29	-11.45	QP
4	0.3794	21.08	9.59	30.67	48.29	-17.62	AVG
5	0.4493	34.35	9.60	43.95	56.89	-12.94	QP
6	0.4493	15.91	9.60	25.51	46.89	-21.38	AVG
7	0.5698	29.99	9.60	39.59	56.00	-16.41	QP
8	0.5698	16.40	9.60	26.00	46.00	-20.00	AVG
9	0.9161	26.90	9.61	36.51	56.00	-19.49	QP
10	0.9161	12.48	9.61	22.09	46.00	-23.91	AVG
11	4.8834	21.98	9.71	31.69	56.00	-24.31	QP
12	4.8834	11.80	9.71	21.51	46.00	-24.49	AVG

Note:

1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.

Test Mode:	2400M.2GFSK.25kbps	Frequency(MHz):	2400.395
Line:	Neutral		



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1890	30.98	9.59	40.57	64.08	-23.51	QP
2	0.1890	14.36	9.59	23.95	54.08	-30.13	AVG
3	0.3789	36.33	9.59	45.92	58.30	-12.38	QP
4	0.3789	20.70	9.59	30.29	48.30	-18.01	AVG
5	0.4465	33.69	9.60	43.29	56.94	-13.65	QP
6	0.4465	15.97	9.60	25.57	46.94	-21.37	AVG
7	0.5215	31.46	9.60	41.06	56.00	-14.94	QP
8	0.5215	17.59	9.60	27.19	46.00	-18.81	AVG
9	0.7142	30.87	9.60	40.47	56.00	-15.53	QP
10	0.7142	15.52	9.60	25.12	46.00	-20.88	AVG
11	10.2689	24.35	9.72	34.07	60.00	-25.93	QP
12	10.2689	15.78	9.72	25.50	50.00	-24.50	AVG

Note:

1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.

10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

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

Please refer to FCC §15.247(b)(4)

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

RESULTS

Complies

TEST DATA

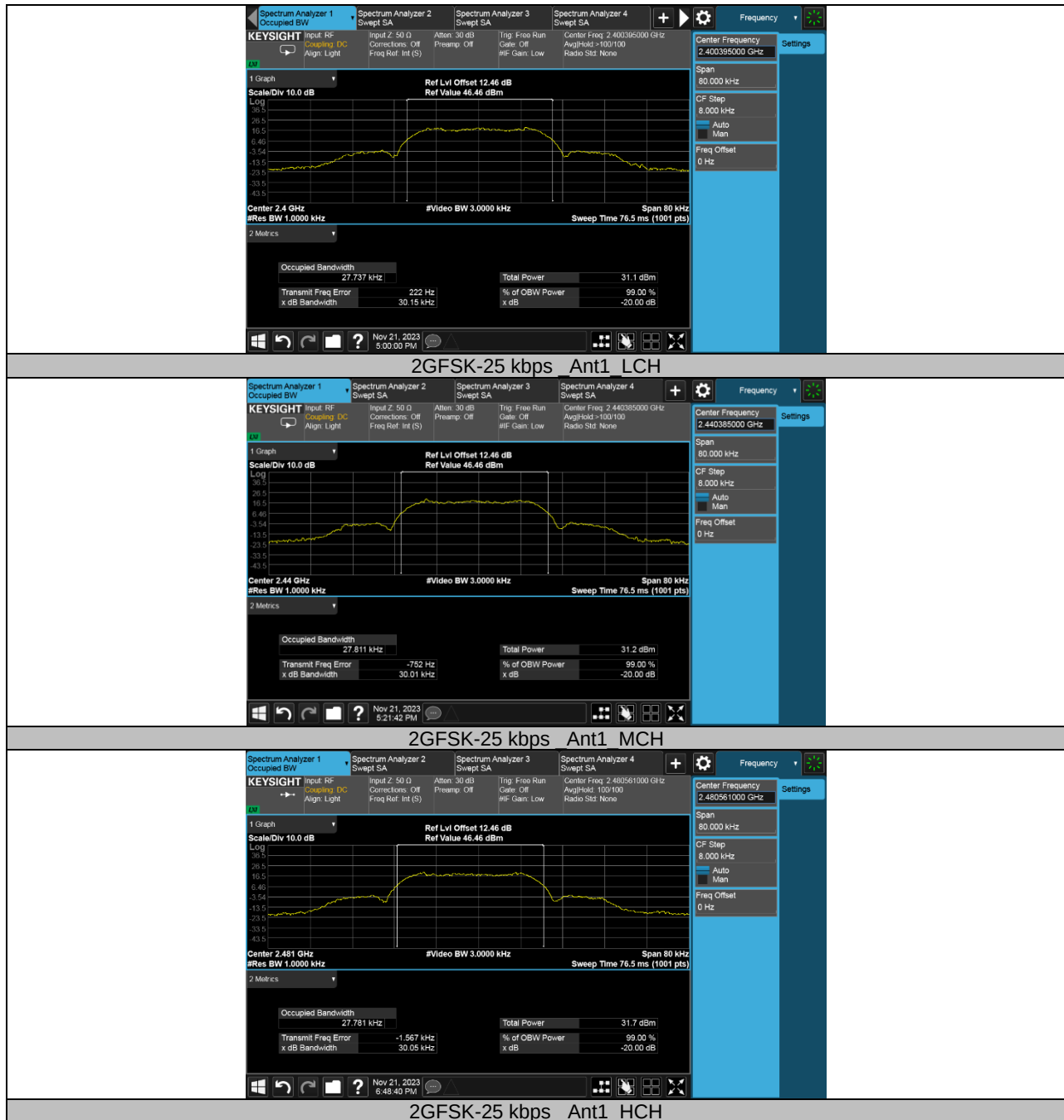
11. FCC.2400M.2GFSK.25kbps

11.1. Appendix A1: 20dB Emission Bandwidth and Occupied Channel Bandwidth

11.1.1. Test Result

Test Mode	Antenna	Channel	20db EBW[MHz]	OCB [MHz]	Verdict
2GFSK-25 kbps	Ant1	LCH	0.03015	0.027737	PASS
		MCH	0.03001	0.027811	PASS
		HCH	0.03005	0.027781	PASS

11.1.1. Test Graphs



11.2. Appendix B1: Maximum conducted output power**11.2.1. Test Result**

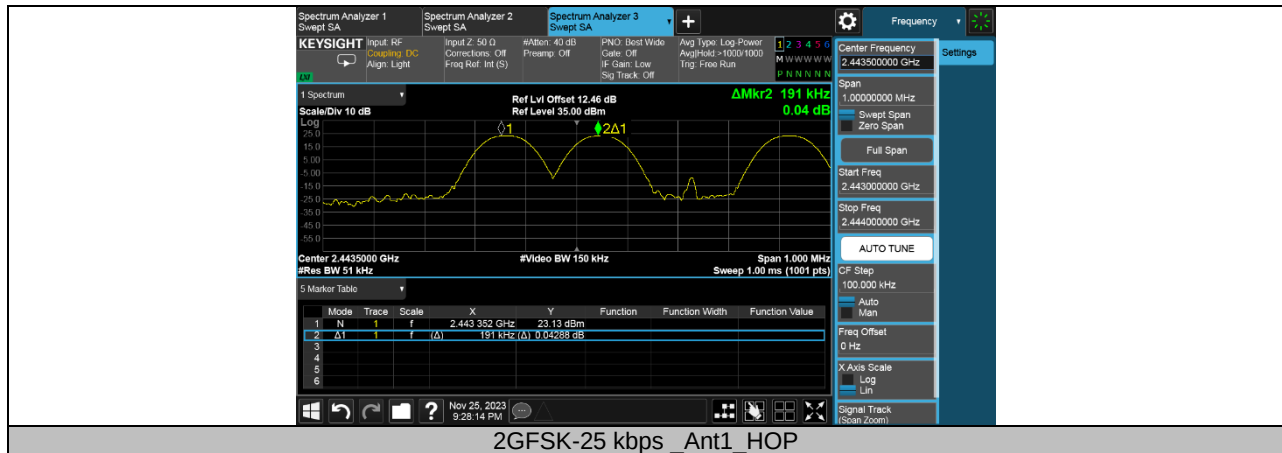
Test Mode	Antenna	Channel	PEAK Result[dBm]	AVG Result[dBm]	Limit[dBm]	Verdict
2GFSK-25 kbps	Ant1	LCH	24.61	24.29	≤30	PASS
		MCH	24.33	24.18	≤30	PASS
		HCH	24.83	24.68	≤30	PASS

11.3. Appendix C1: Carrier frequency separation

11.3.1. Test Result

Test Mode	Antenna	Channel	Result [MHz]	Limit[MHz]	Verdict
2GFSK-25 kbps	Ant1	Hop	0.191	≥ 0.03015	PASS

11.3.2. Test Graphs



11.4. Appendix D1: Time of occupancy

11.4.1. Test Result

Test Mode	Antenna	Channel	Time of single slot 1 [ms]	number of single slot 1	Burst Width 1 [ms/hop/ch]	The number of hop channel appear
2GFSK-25 kbps	Ant1	Hop	23.00	7	161.00	1

Test Mode	Antenna	Channel	Time of single slot 2 [ms]	number of single slot 2	Burst Width 2 [ms/hop/ch]	The number of hop channel appear
2GFSK-25 kbps	Ant1	Hop	14.00	1	14.00	1

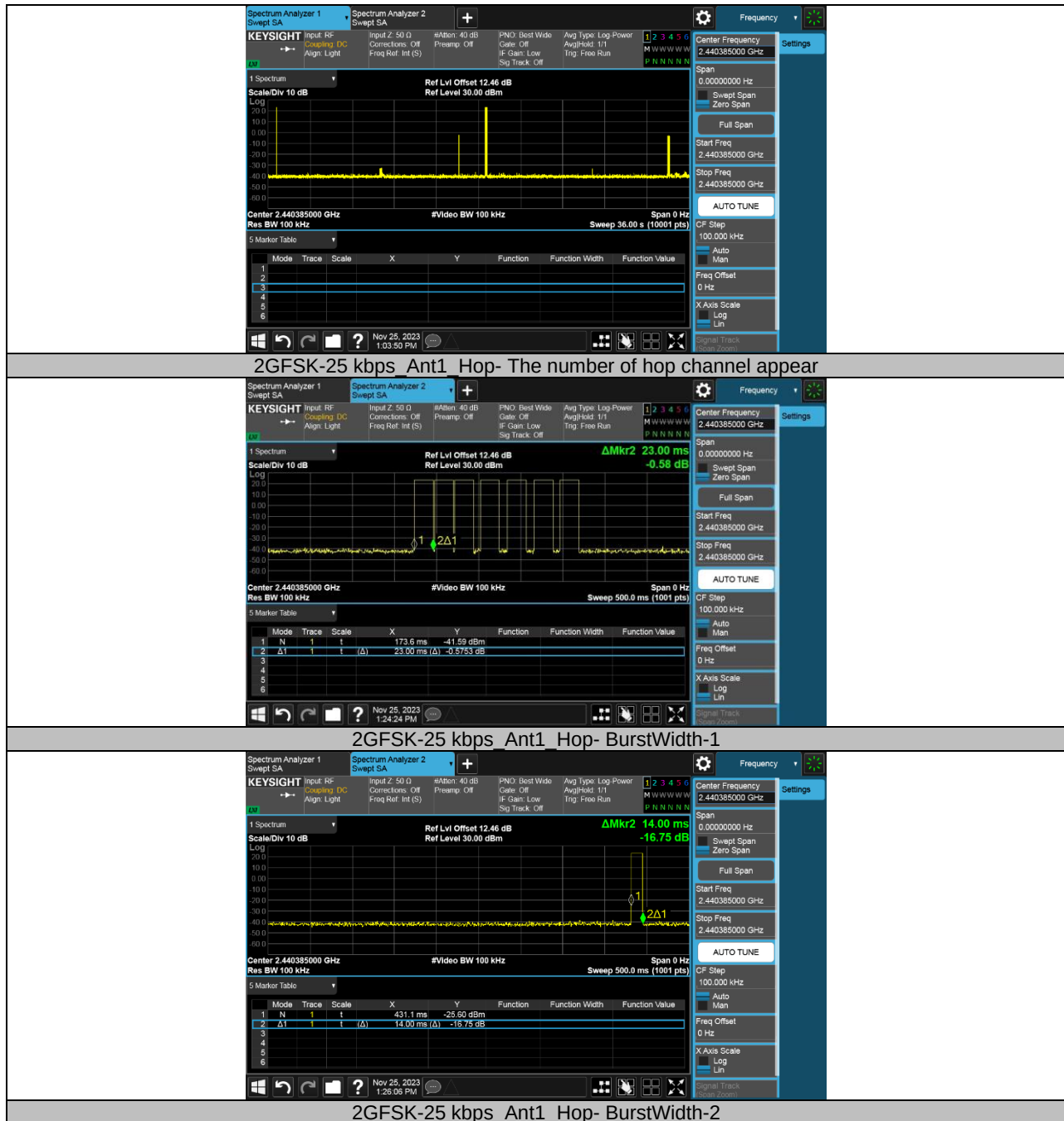
Test Mode	Antenna	Channel	Dwell Time1 [ms]	Dwell Time 2 [ms]	Dwell Time [ms]	Limit [ms]	Results
2GFSK-25 kbps	Ant1	Hop	161.00	14.00	175.00	400	PASS

Note:

2GFSK-25 kbps: The dwell time = Time of single slot * The number of hop channel appear within (0.4 * the number of hopping channels employed)s

BurstWidth =Time of single slot*number of single slot

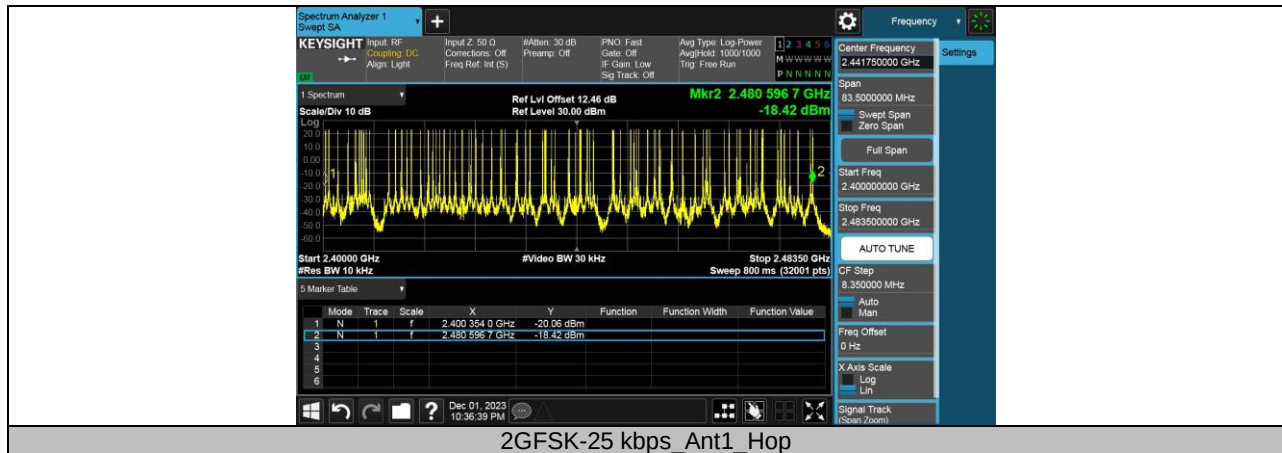
11.4.2. Test Graphs



11.5. Appendix E1: Number of hopping channels**11.5.1. Test Result**

Test Mode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
2GFSK-25 kbps	Ant1	Hop	90	≥15	PASS

11.5.2. Test Graphs



11.6. Appendix F1: Band edge measurements& Conducted Spurious Emission

11.6.1. Test Result

Test Mode	Antenna	ChName	Result [dBm]	Verdict
2GFSK-25 kbps	Ant1	LCH	See the below graphs	PASS
		MCH		PASS
		HCH		PASS
		Hop_LCH		PASS
		Hop_HCH		PASS