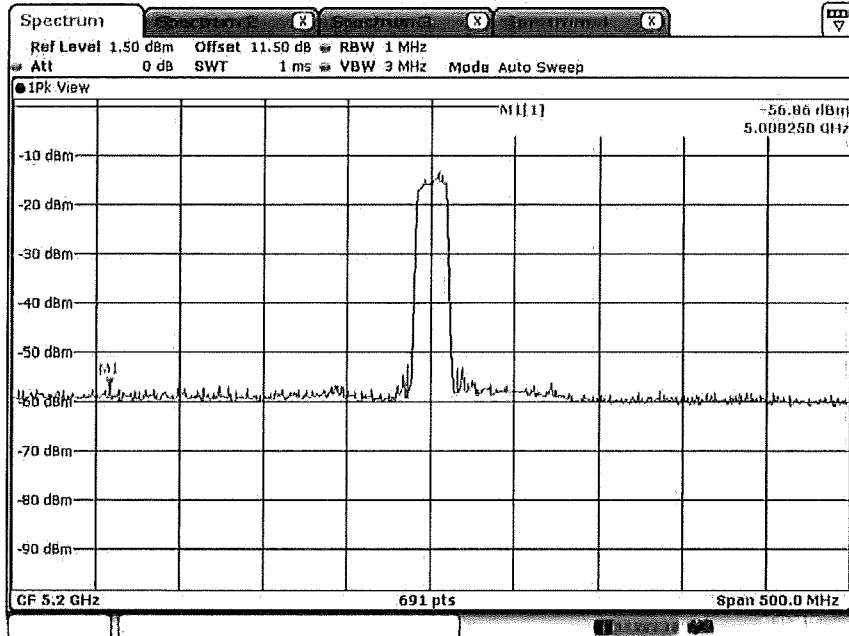
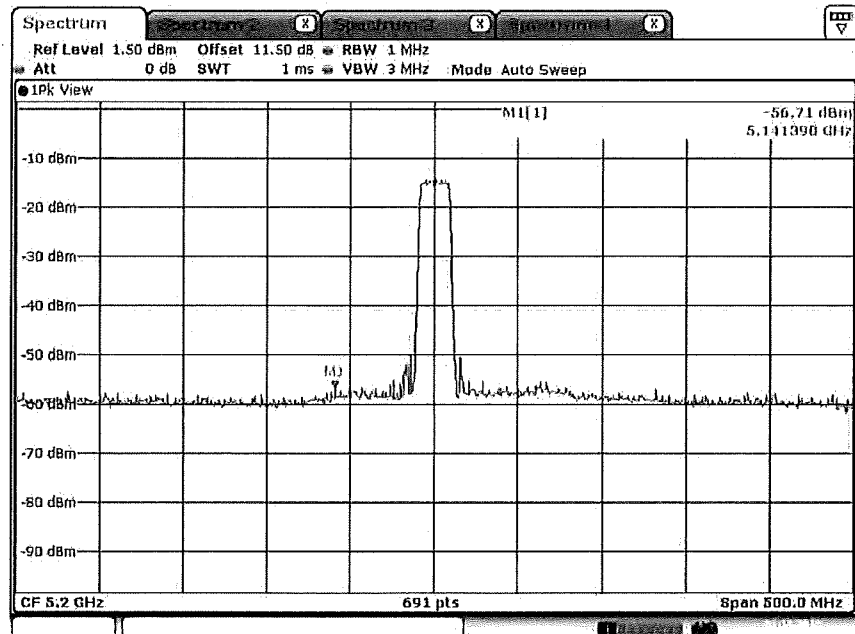


Plot on Configuration QPSK, 20M / 5200 MHz / Peak / Port 1 (TX1)



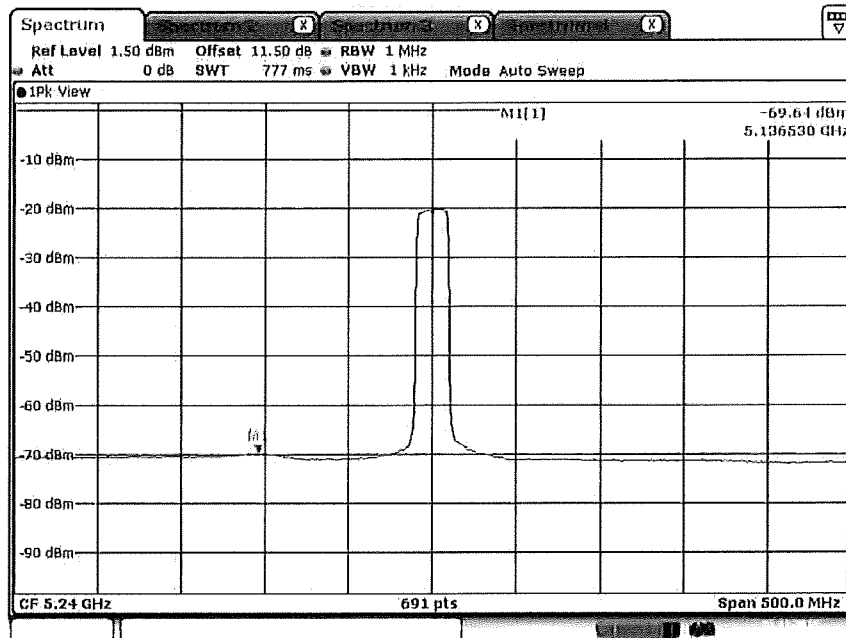
Date: 21.NOV.2017 17:01:40

Plot on Configuration QPSK, 20M / 5200 MHz / Peak / Port 2 (TX2)



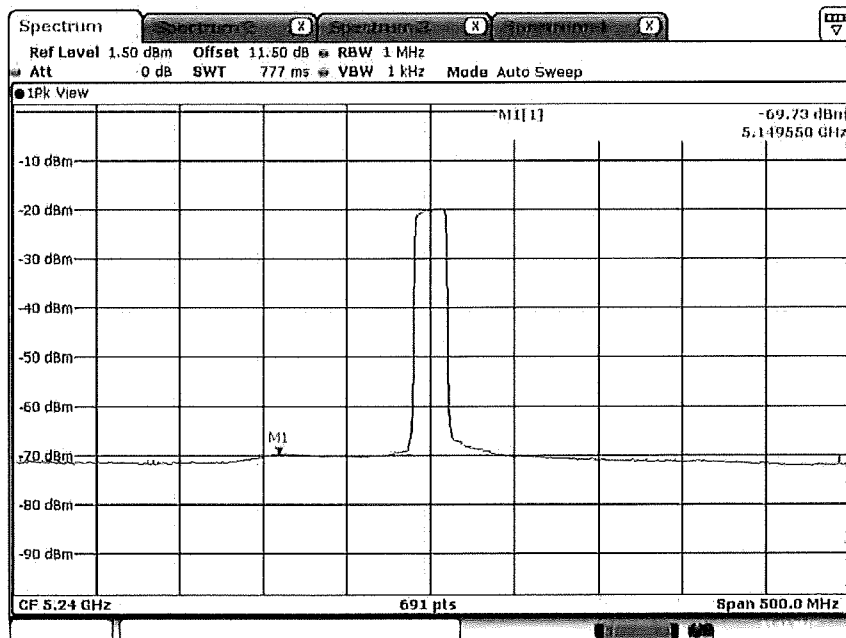
Date: 21.NOV.2017 16:57:25

Plot on Configuration QPSK, 20M / 5240 MHz / Average / Port 1 (TX1)



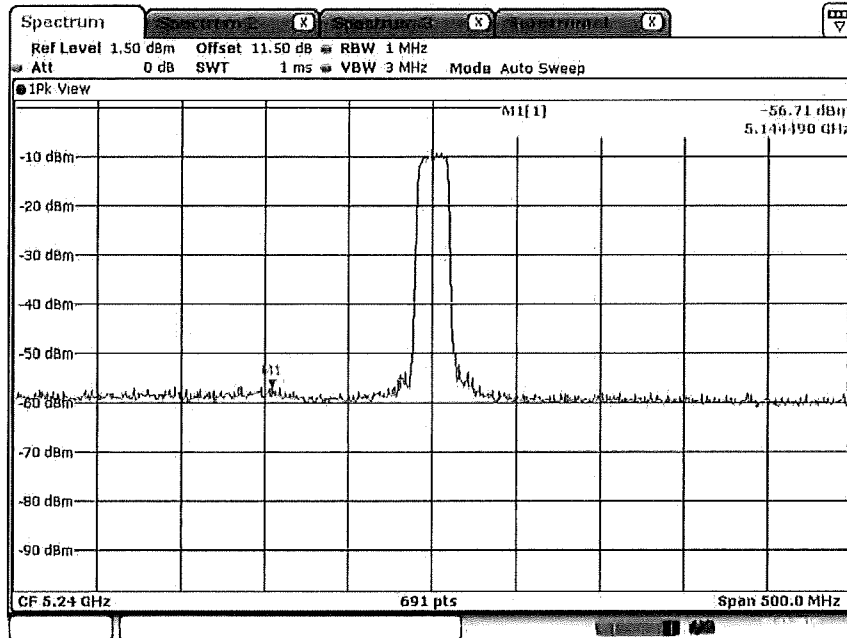
Date: 21.NOV.2017 17:10:58

Plot on Configuration QPSK, 20M / 5240 MHz / Average / Port 2 (TX2)



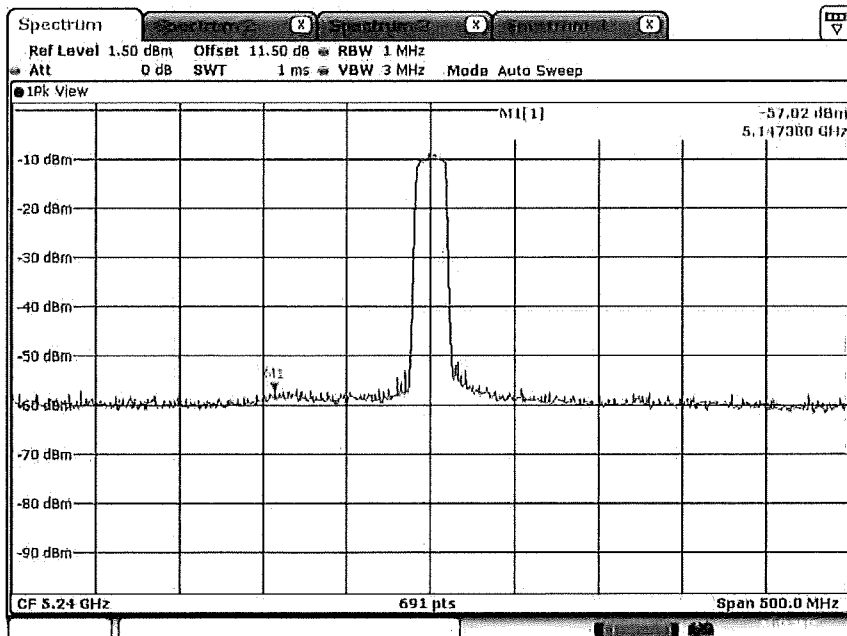
Date: 21.NOV.2017 17:07:42

Plot on Configuration QPSK, 20M / 5240 MHz / Peak / Port 1 (TX1)

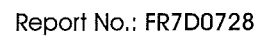


Date: 21.NOV.2017 17:09:35

Plot on Configuration QPSK, 20M / 5240 MHz / Peak / Port 2 (TX2)



Date: 21.NOV.2017 17:09:35



Spectrum Scan 1 Span 100.0 MHz Resolution 10.0 kHz Marker 1 Marker 2 Marker 3 Marker 4 Marker 5 Marker 6 Marker 7 Marker 8 Marker 9 Marker 10 Marker 11 Marker 12 Marker 13 Marker 14 Marker 15 Marker 16 Marker 17 Marker 18 Marker 19 Marker 20 Marker 21 Marker 22 Marker 23 Marker 24 Marker 25 Marker 26 Marker 27 Marker 28 Marker 29 Marker 30 Marker 31 Marker 32 Marker 33 Marker 34 Marker 35 Marker 36 Marker 37 Marker 38 Marker 39 Marker 40 Marker 41 Marker 42 Marker 43 Marker 44 Marker 45 Marker 46 Marker 47 Marker 48 Marker 49 Marker 50 Marker 51 Marker 52 Marker 53 Marker 54 Marker 55 Marker 56 Marker 57 Marker 58 Marker 59 Marker 60 Marker 61 Marker 62 Marker 63 Marker 64 Marker 65 Marker 66 Marker 67 Marker 68 Marker 69 Marker 70 Marker 71 Marker 72 Marker 73 Marker 74 Marker 75 Marker 76 Marker 77 Marker 78 Marker 79 Marker 80 Marker 81 Marker 82 Marker 83 Marker 84 Marker 85 Marker 86 Marker 87 Marker 88 Marker 89 Marker 90 Marker 91 Marker 92 Marker 93 Marker 94 Marker 95 Marker 96 Marker 97 Marker 98 Marker 99 Marker 100 Marker 101 Marker 102 Marker 103 Marker 104 Marker 105 Marker 106 Marker 107 Marker 108 Marker 109 Marker 110 Marker 111 Marker 112 Marker 113 Marker 114 Marker 115 Marker 116 Marker 117 Marker 118 Marker 119 Marker 120 Marker 121 Marker 122 Marker 123 Marker 124 Marker 125 Marker 126 Marker 127 Marker 128 Marker 129 Marker 130 Marker 131 Marker 132 Marker 133 Marker 134 Marker 135 Marker 136 Marker 137 Marker 138 Marker 139 Marker 140 Marker 141 Marker 142 Marker 143 Marker 144 Marker 145 Marker 146 Marker 147 Marker 148 Marker 149 Marker 150 Marker 151 Marker 152 Marker 153 Marker 154 Marker 155 Marker 156 Marker 157 Marker 158 Marker 159 Marker 160 Marker 161 Marker 162 Marker 163 Marker 164 Marker 165 Marker 166 Marker 167 Marker 168 Marker 169 Marker 170 Marker 171 Marker 172 Marker 173 Marker 174 Marker 175 Marker 176 Marker 177 Marker 178 Marker 179 Marker 180 Marker 181 Marker 182 Marker 183 Marker 184 Marker 185 Marker 186 Marker 187 Marker 188 Marker 189 Marker 190 Marker 191 Marker 192 Marker 193 Marker 194 Marker 195 Marker 196 Marker 197 Marker 198 Marker 199 Marker 200 Marker 201 Marker 202 Marker 203 Marker 204 Marker 205 Marker 206 Marker 207 Marker 208 Marker 209 Marker 210 Marker 211 Marker 212 Marker 213 Marker 214 Marker 215 Marker 216 Marker 217 Marker 218 Marker 219 Marker 220 Marker 221 Marker 222 Marker 223 Marker 224 Marker 225 Marker 226 Marker 227 Marker 228 Marker 229 Marker 230 Marker 231 Marker 232 Marker 233 Marker 234 Marker 235 Marker 236 Marker 237 Marker 238 Marker 239 Marker 240 Marker 241 Marker 242 Marker 243 Marker 244 Marker 245 Marker 246 Marker 247 Marker 248 Marker 249 Marker 250 Marker 251 Marker 252 Marker 253 Marker 254 Marker 255 Marker 256 Marker 257 Marker 258 Marker 259 Marker 260 Marker 261 Marker 262 Marker 263 Marker 264 Marker 265 Marker 266 Marker 267 Marker 268 Marker 269 Marker 270 Marker 271 Marker 272 Marker 273 Marker 274 Marker 275 Marker 276 Marker 277 Marker 278 Marker 279 Marker 280 Marker 281 Marker 282 Marker 283 Marker 284 Marker 285 Marker 286 Marker 287 Marker 288 Marker 289 Marker 290 Marker 291 Marker 292 Marker 293 Marker 294 Marker 295 Marker 296 Marker 297 Marker 298 Marker 299 Marker 300 Marker 301 Marker 302 Marker 303 Marker 304 Marker 305 Marker 306 Marker 307 Marker 308 Marker 309 Marker 310 Marker 311 Marker 312 Marker 313 Marker 314 Marker 315 Marker 316 Marker 317 Marker 318 Marker 319 Marker 320 Marker 321 Marker 322 Marker 323 Marker 324 Marker 325 Marker 326 Marker 327 Marker 328 Marker 329 Marker 330 Marker 331 Marker 332 Marker 333 Marker 334 Marker 335 Marker 336 Marker 337 Marker 338 Marker 339 Marker 340 Marker 341 Marker 342 Marker 343 Marker 344 Marker 345 Marker 346 Marker 347 Marker 348 Marker 349 Marker 350 Marker 351 Marker 352 Marker 353 Marker 354 Marker 355 Marker 356 Marker 357 Marker 358 Marker 359 Marker 360 Marker 361 Marker 362 Marker 363 Marker 364 Marker 365 Marker 366 Marker 367 Marker 368 Marker 369 Marker 370 Marker 371 Marker 372 Marker 373 Marker 3

Spectrum

Spectrum

Spectrum

Ref Level 1.50 dBm Offset 11.50 dB RBW 1 MHz

Att 0 dB SWT 777 ms VBW 1 kHz Mode Auto Sweep

IPK View

M1[1]

-69.30 dBm
5.150000 GHz

-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
-90 dBm

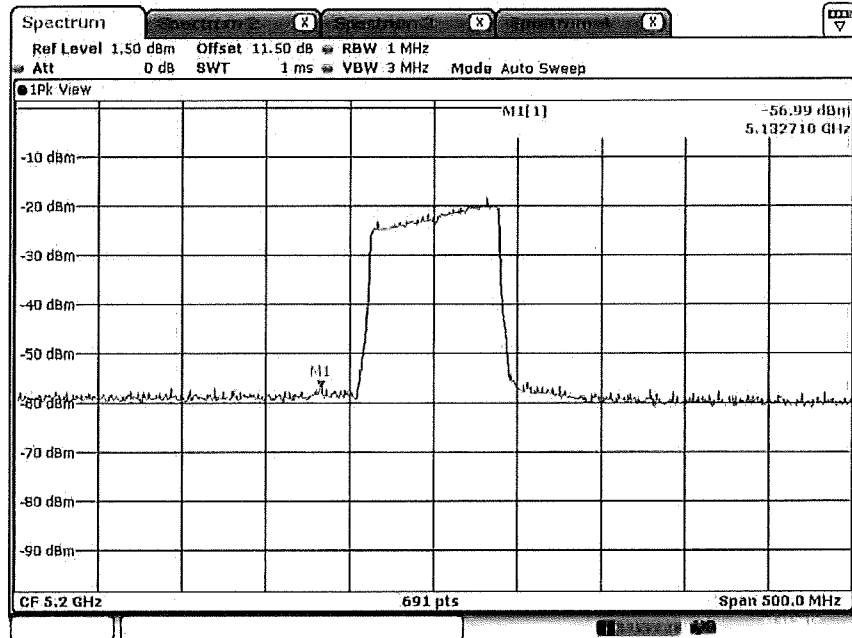
CF 5.2 GHz

691 pts

Span 500.0 MHz

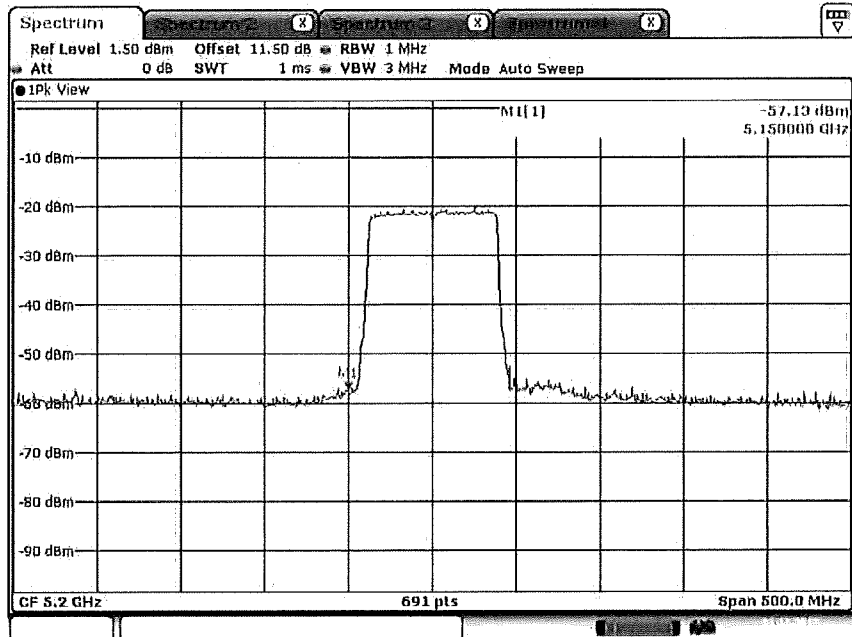
Date: 21.NOV.2017 17:17:55

Plot on Configuration QPSK, 80M / 5200 MHz / Peak / Port 1 (TX1)



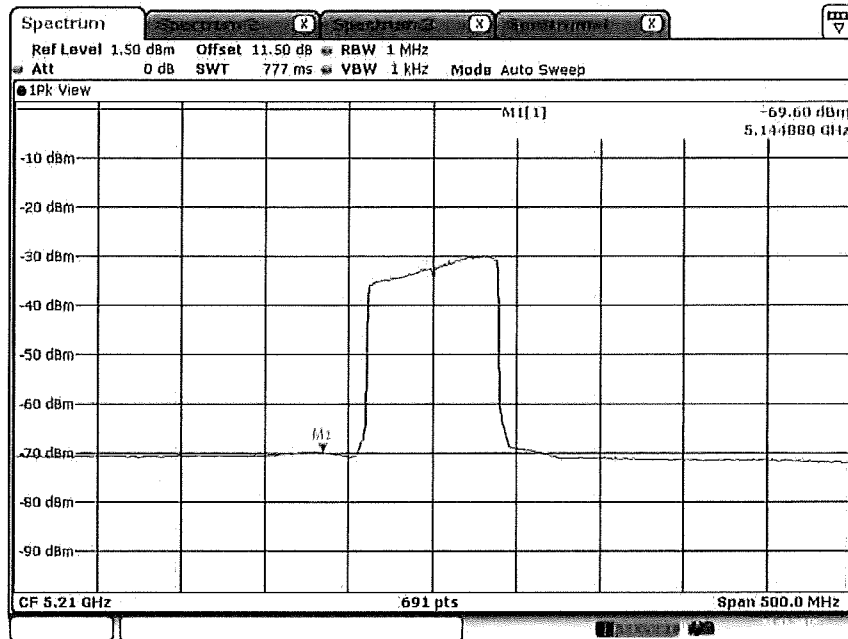
Date: 21.NOV.2017 17:18:59

Plot on Configuration QPSK, 80M / 5200 MHz / Peak / Port 2 (TX2)



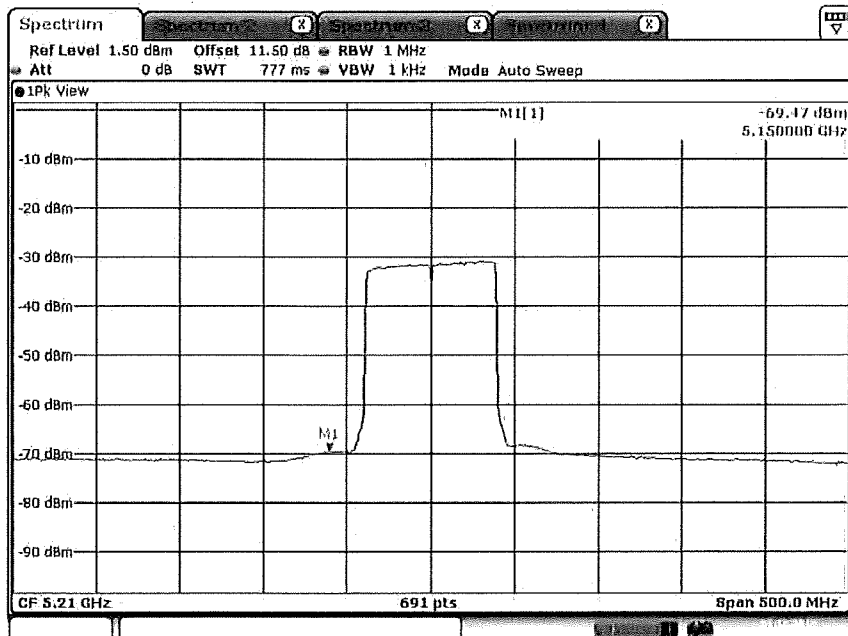
Date: 21.NOV.2017 17:19:19

Plot on Configuration QPSK, 80M / 5210 MHz / Average / Port 1 (TX1)



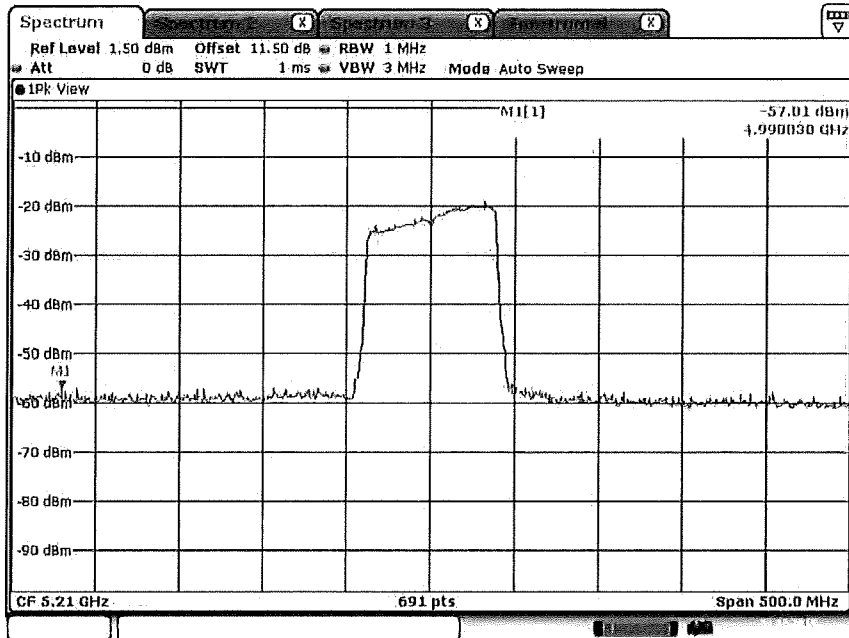
Date: 21.NOV.2017 17:24:02

Plot on Configuration QPSK, 80M / 5210 MHz / Average / Port 2 (TX2)



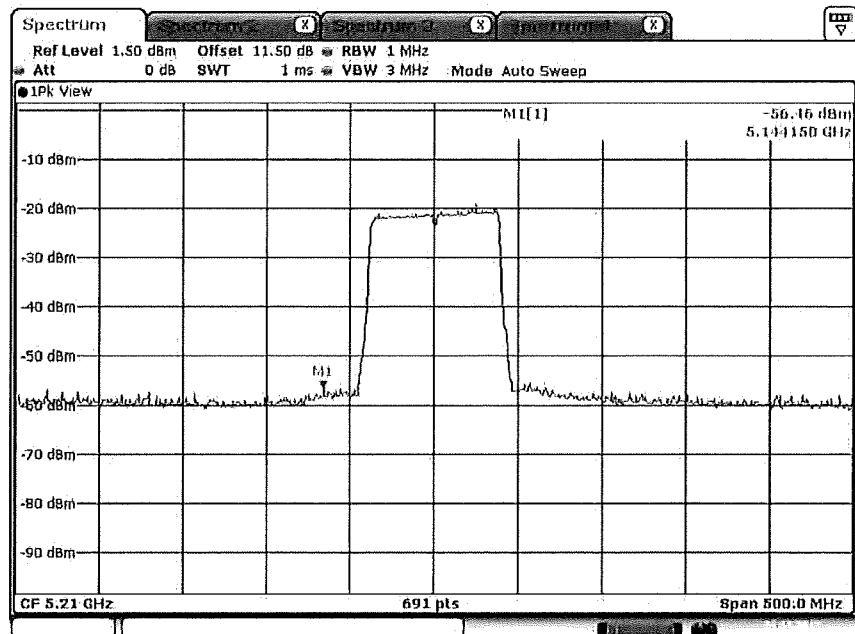
Date: 21.NOV.2017 17:21:18

Plot on Configuration QPSK, 80M / 5210 MHz / Peak / Port 1 (TX1)

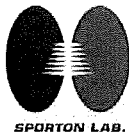


Date: 21.NOV.2017 17:23:18

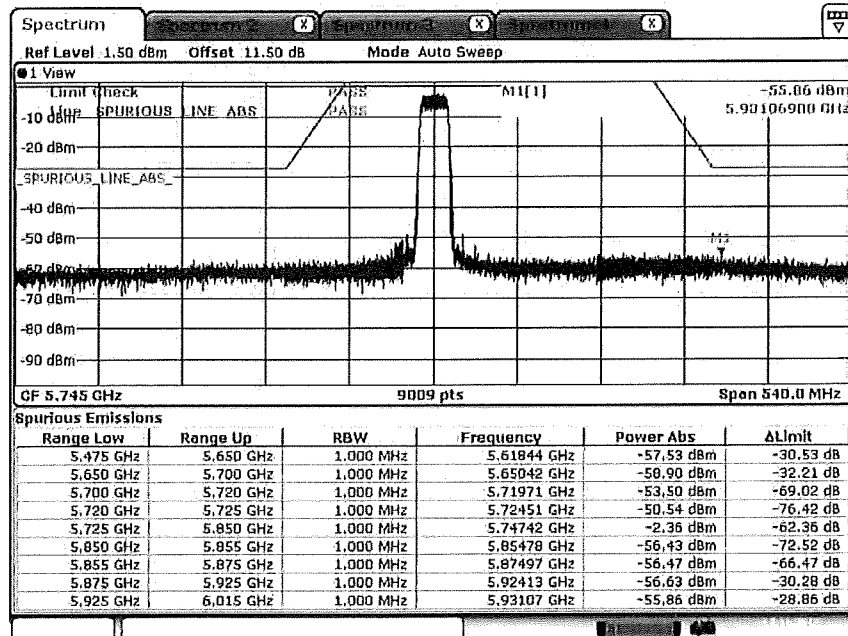
Plot on Configuration QPSK, 80M / 5210 MHz / Peak / Port 2 (TX2)



Date: 21.NOV.2017 17:22:02

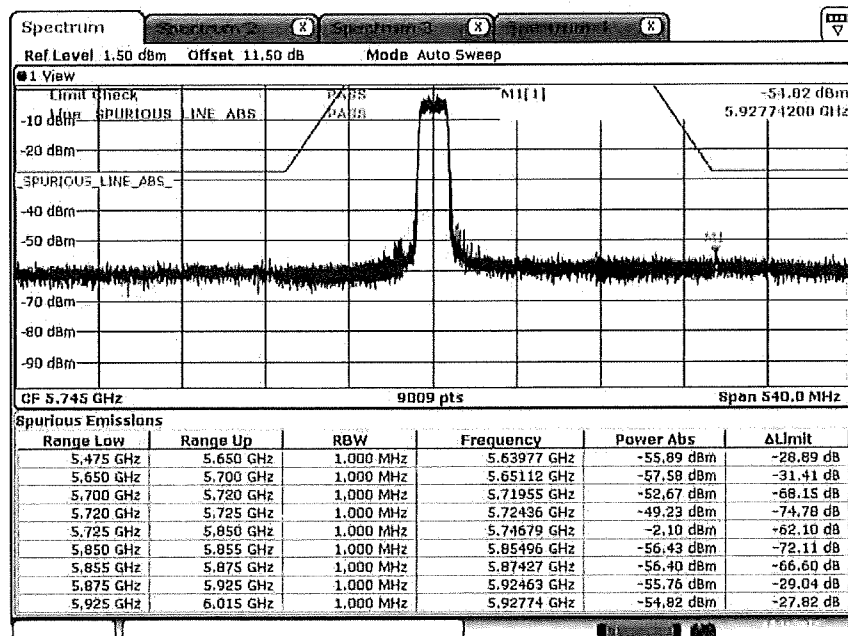


Plot on Configuration QPSK, 20M / 5745 MHz / Peak / Port 1 (TX1)



Date: 17.NOV.2017 14:33.13

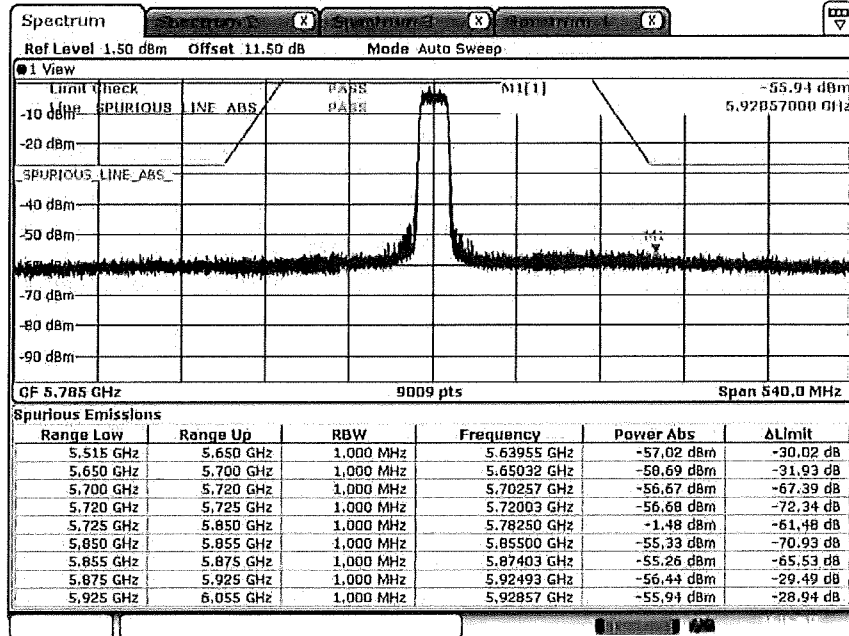
Plot on Configuration QPSK, 20M / 5745 MHz / Peak / Port 2 (TX2)



Date: 17.NOV.2017 14:30.33

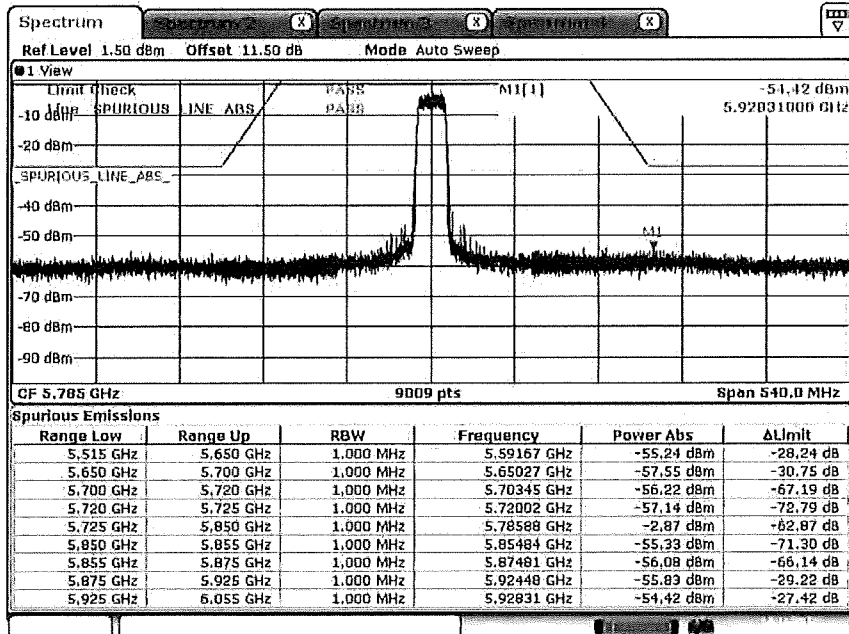


Plot on Configuration QPSK, 20M / 5785 MHz / Peak / Port 1 (TX1)



Date: 18.NOV.2017 18:57:35

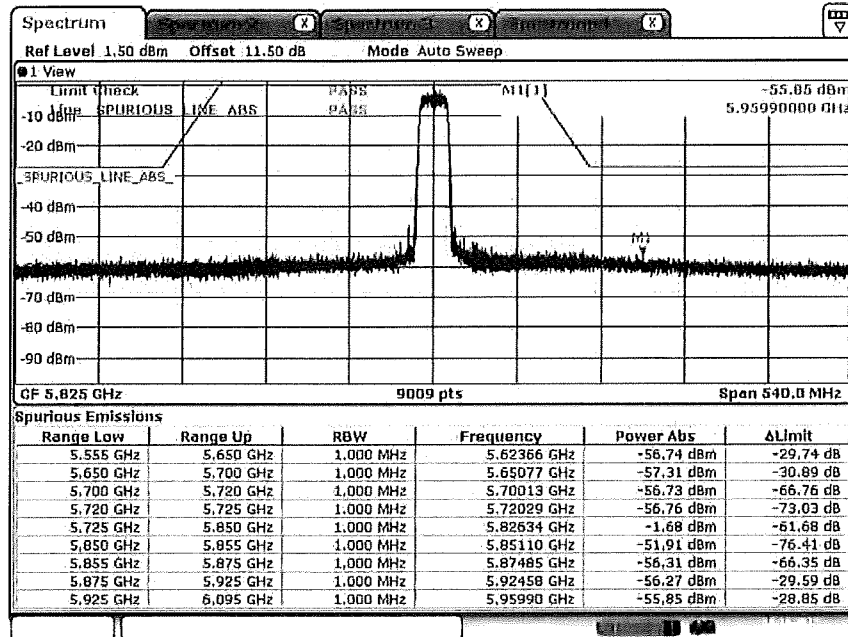
Plot on Configuration QPSK, 20M / 5785 MHz / Peak / Port 2 (TX2)



Date: 18.NOV.2017 19:01:14

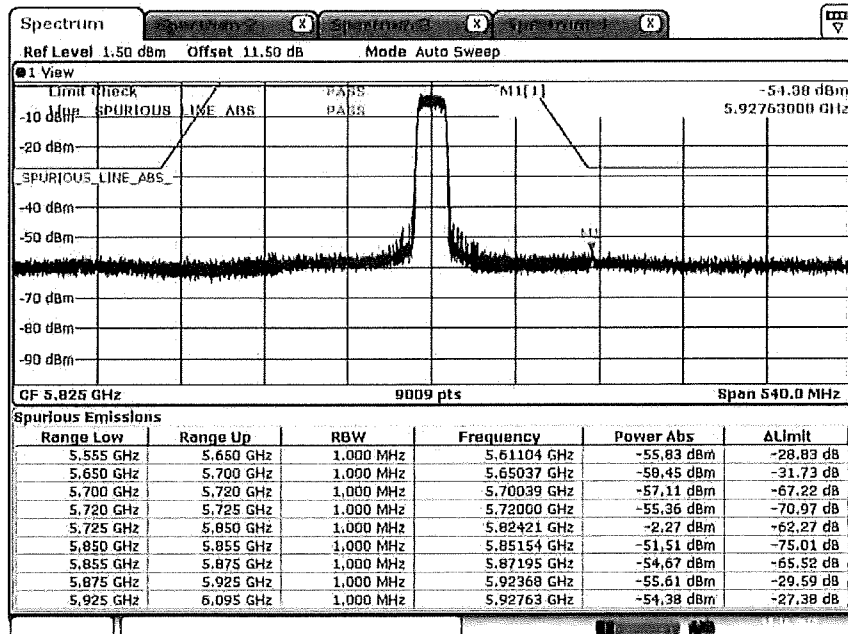


Plot on Configuration QPSK, 20M / 5825 MHz / Peak / Port 1 (TX1)



Date: 18.NOV.2017 19:09.03

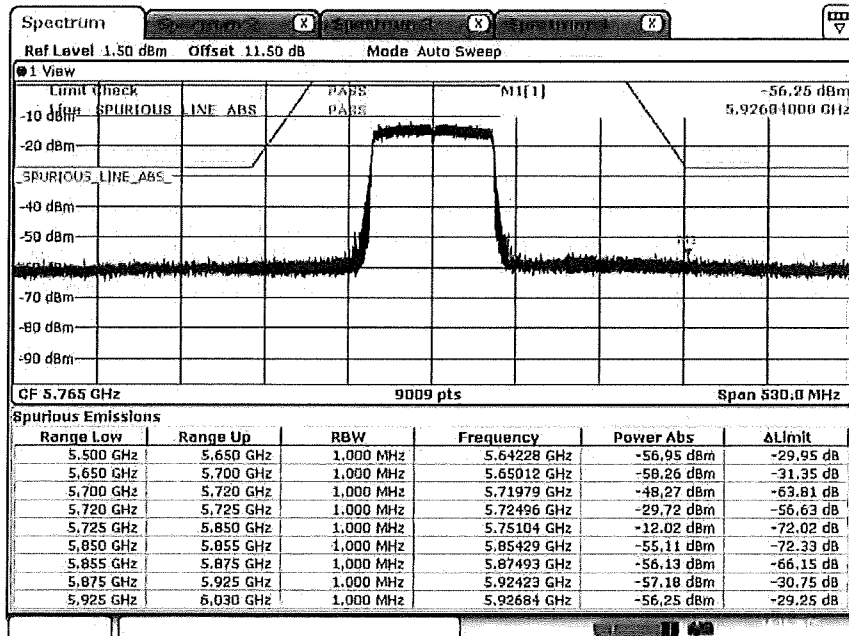
Plot on Configuration QPSK, 20M / 5825 MHz / Peak / Port 2 (TX2)



Date: 18.NOV.2017 19:03.55

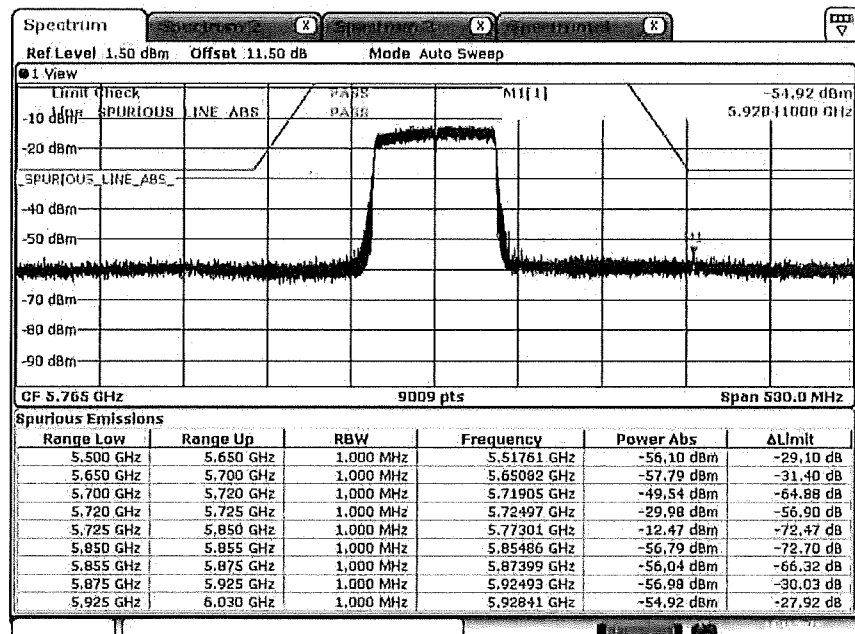


Plot on Configuration QPSK, 80M / 5765 MHz / Peak / Port 1 (TX1)



Date: 18.NOV.2017 19:37:35

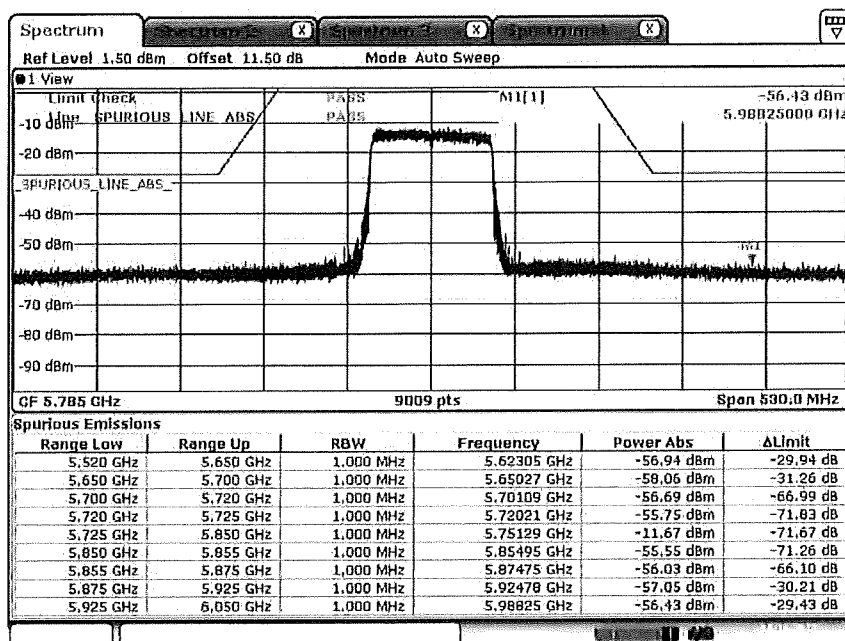
Plot on Configuration QPSK, 80M / 5765 MHz / Peak / Port 2 (TX2)



Date: 18.NOV.2017 19:40:45

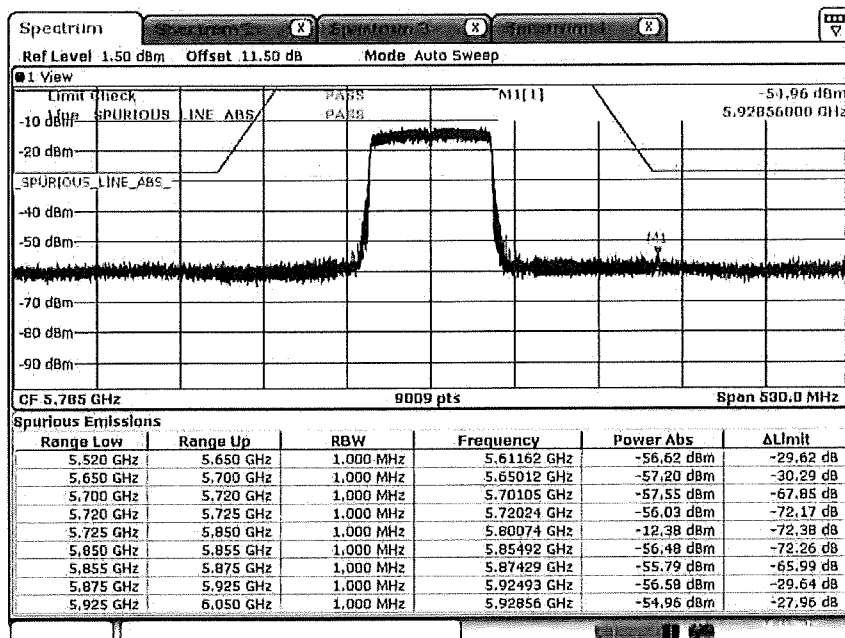


Plot on Configuration QPSK, 80M / 5785 MHz / Peak / Port 1 (TX1)



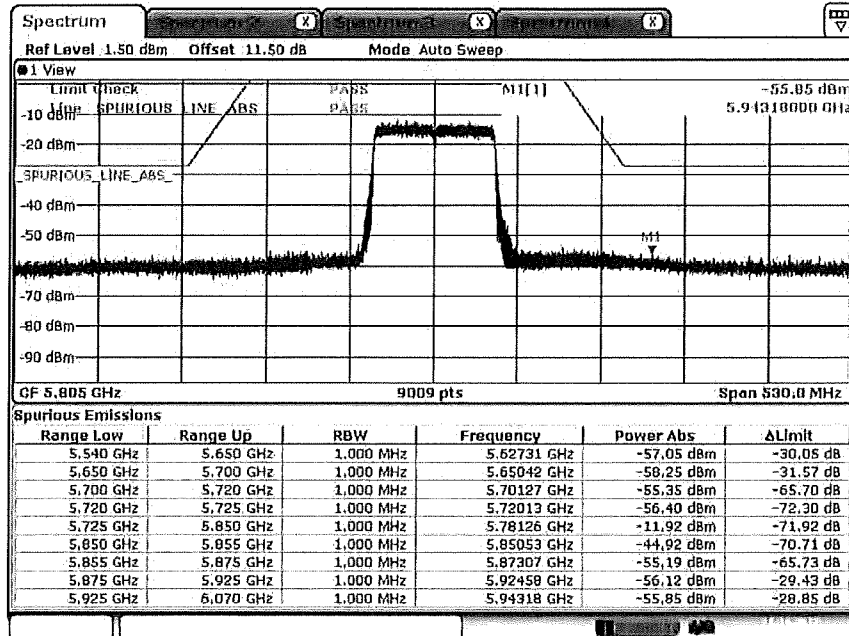
Date: 18.NOV.2017 19:52:09

Plot on Configuration QPSK, 80M / 5785 MHz / Peak / Port 2 (TX2)



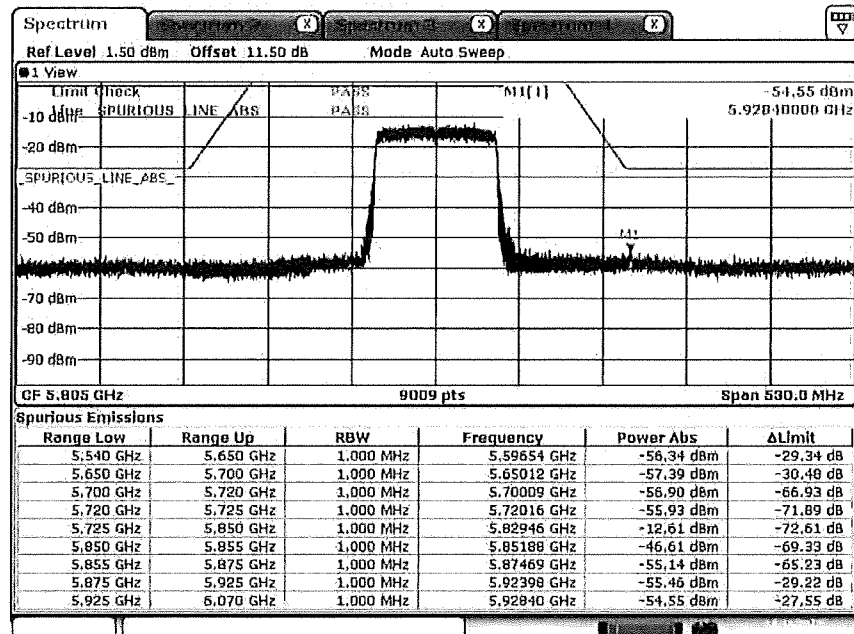
Date: 18.NOV.2017 19:44:59

Plot on Configuration QPSK, 80M / 5805 MHz / Peak / Port 1 (TX1)



Date: 18.NOV.2017 19:57:07

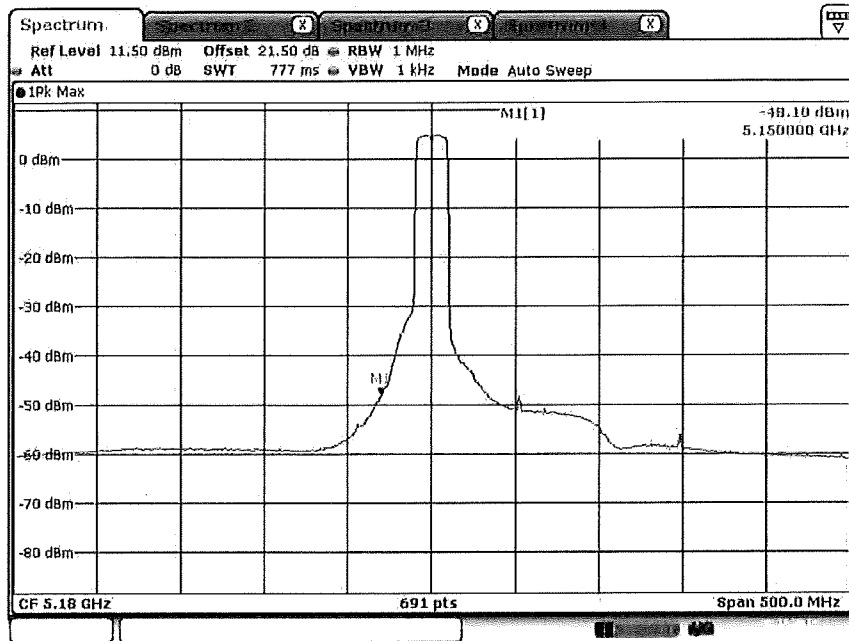
Plot on Configuration QPSK, 80M / 5805 MHz / Peak / Port 2 (TX2)



Date: 18.NOV.2017 20:01:25

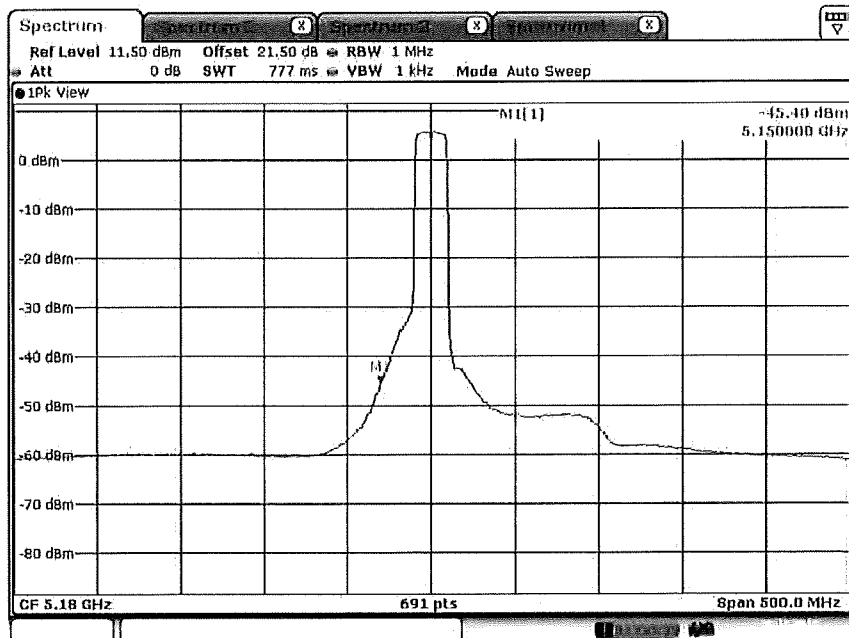
For Antenna 3:

Plot on Configuration QPSK, 20M / 5180 MHz / Average / Port 1 (TX1)



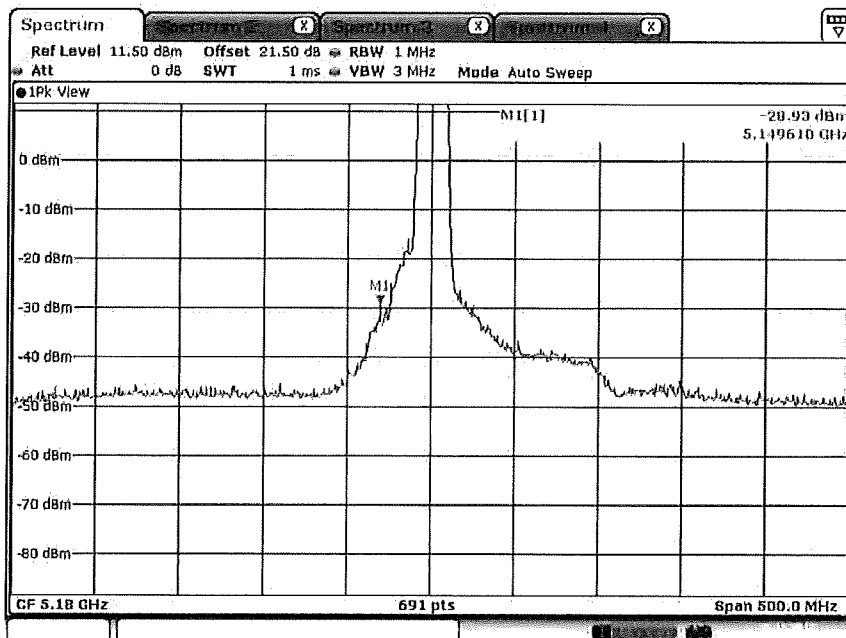
Date: 20.NOV.2017 10:33:11

Plot on Configuration QPSK, 20M / 5180 MHz / Average / Port 2 (TX2)



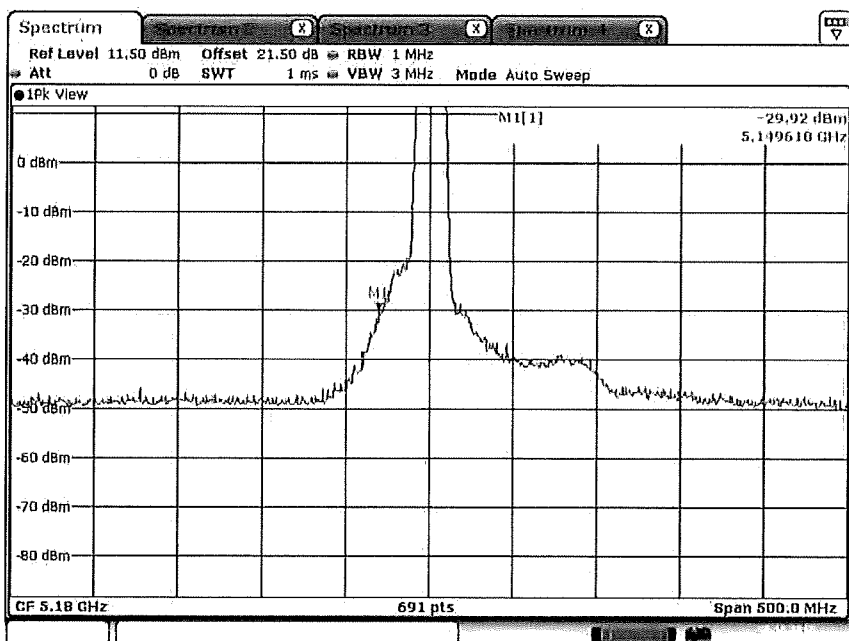
Date: 20.NOV.2017 10:34:31

Plot on Configuration QPSK, 20M / 5180 MHz / Peak / Port 1 (TX1)



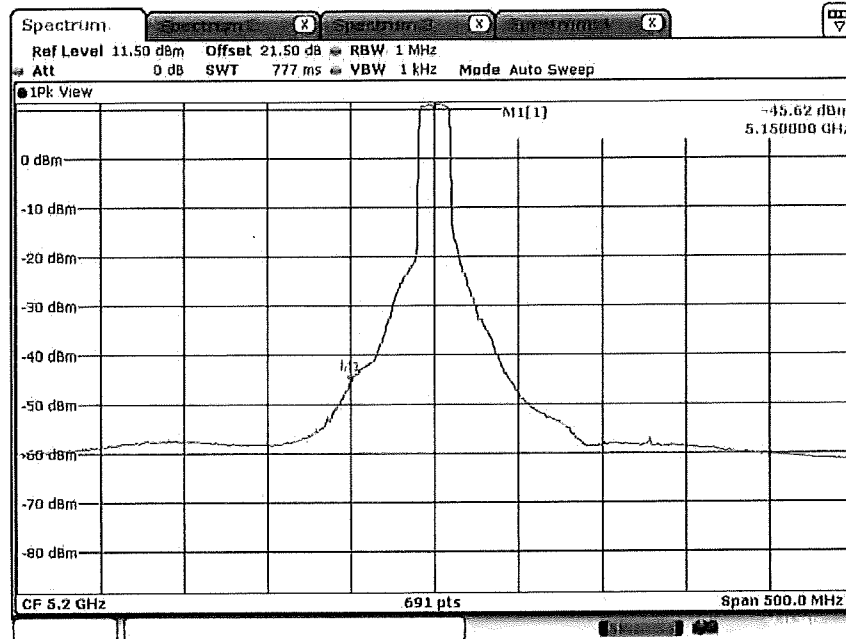
Date: 20.NOV.2017 10:36:47

Plot on Configuration QPSK, 20M / 5180 MHz / Peak / Port 2 (TX2)



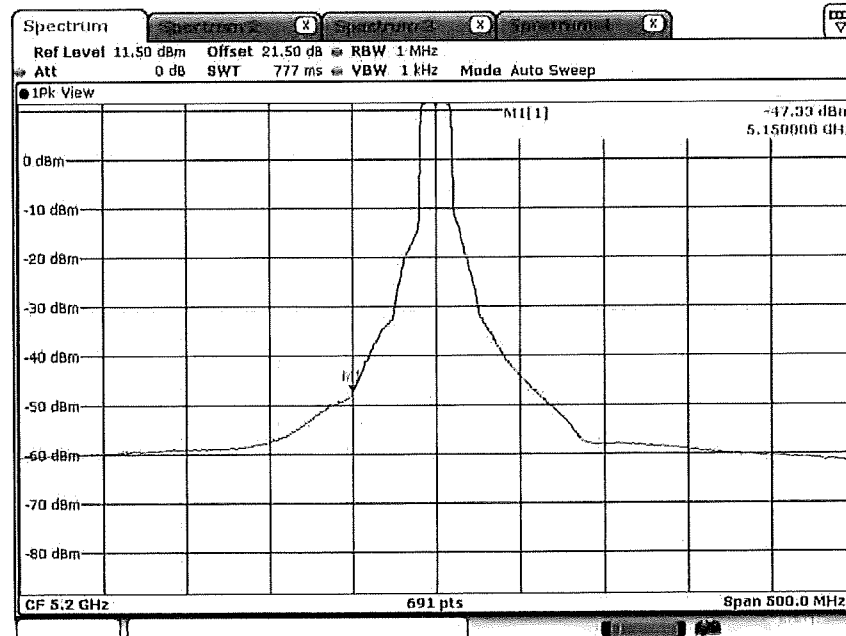
Date: 20.NOV.2017 10:38:13

Plot on Configuration QPSK, 20M / 5200 MHz / Average / Port 1 (TX1)



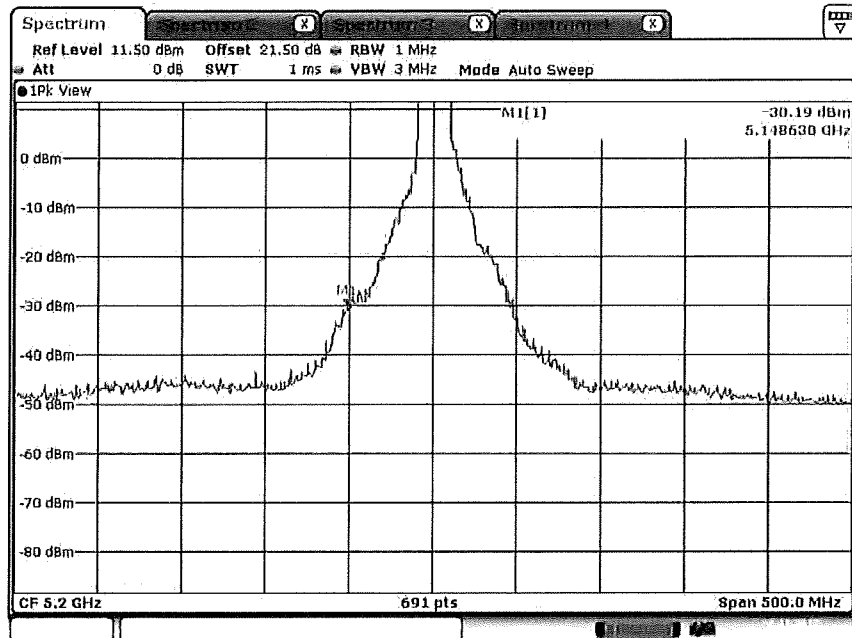
Date: 20.NOV.2017 11:24:04

Plot on Configuration QPSK, 20M / 5200 MHz / Average / Port 2 (TX2)



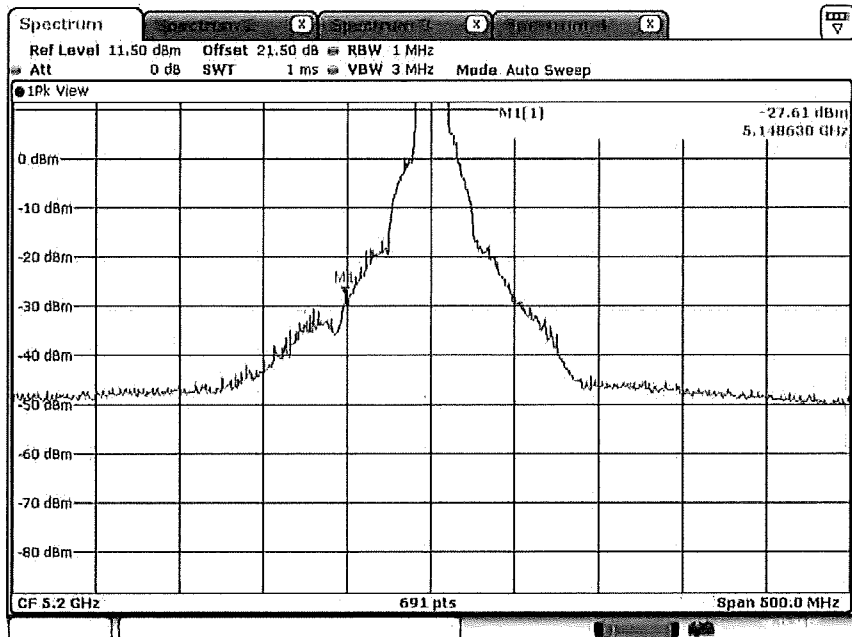
Date: 20.NOV.2017 11:22:11

Plot on Configuration QPSK, 20M / 5200 MHz / Peak / Port 1 (TX1)



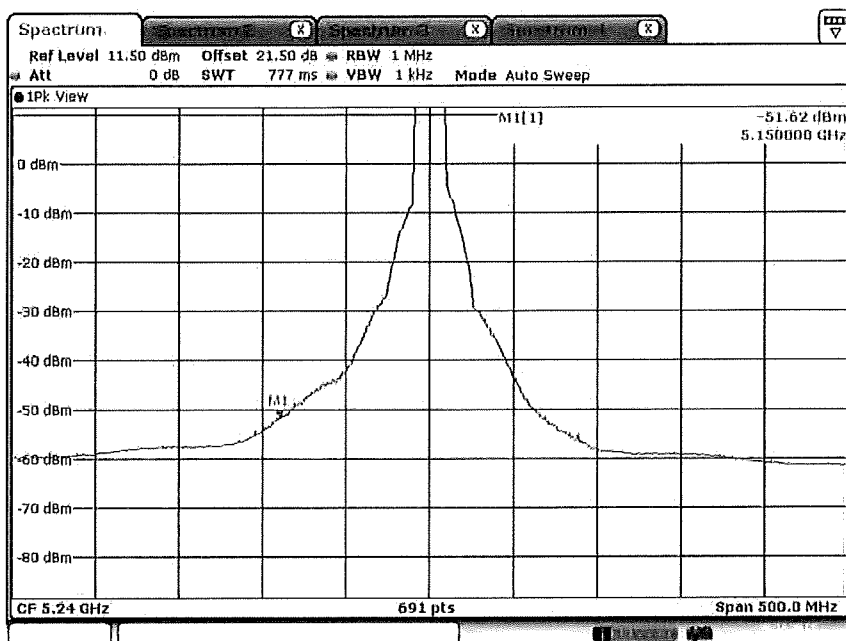
Date: 20.NOV.2017 11:24:48

Plot on Configuration QPSK, 20M / 5200 MHz / Peak / Port 2 (TX2)



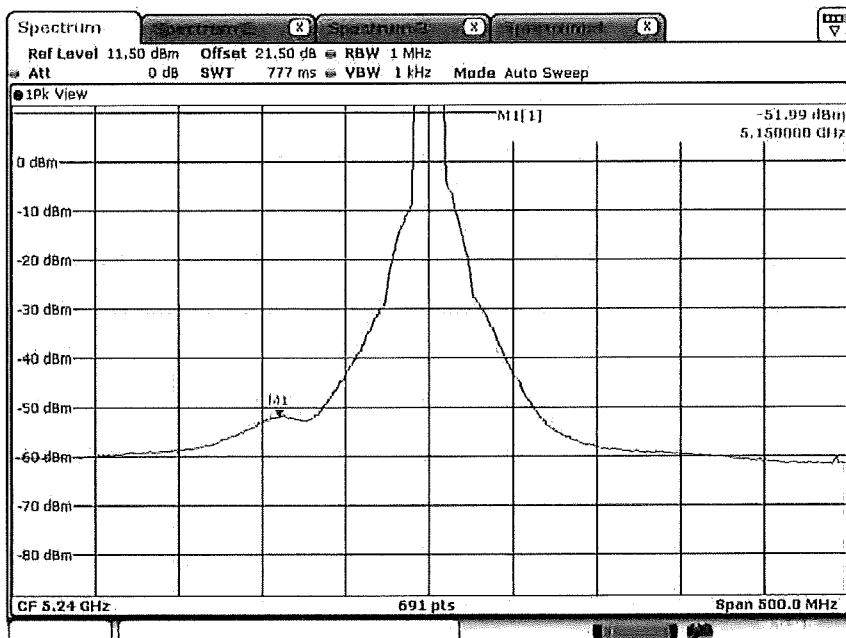
Date: 20.NOV.2017 11:26:53

Plot on Configuration QPSK, 20M / 5240 MHz / Average / Port 1 (TX1)



Date: 20.NOV.2017 11:34:20

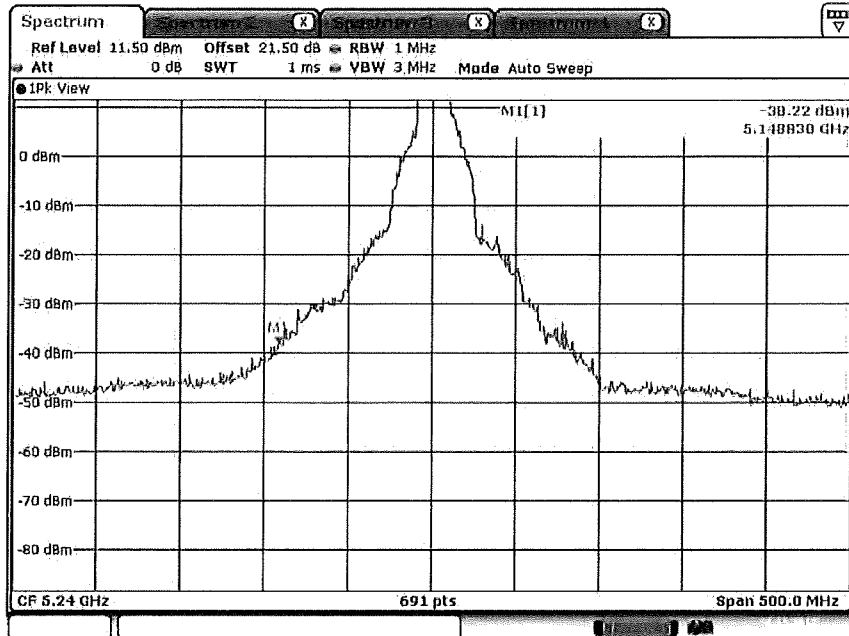
Plot on Configuration QPSK, 20M / 5240 MHz / Average / Port 2 (TX2)



Date: 20.NOV.2017 11:33:14

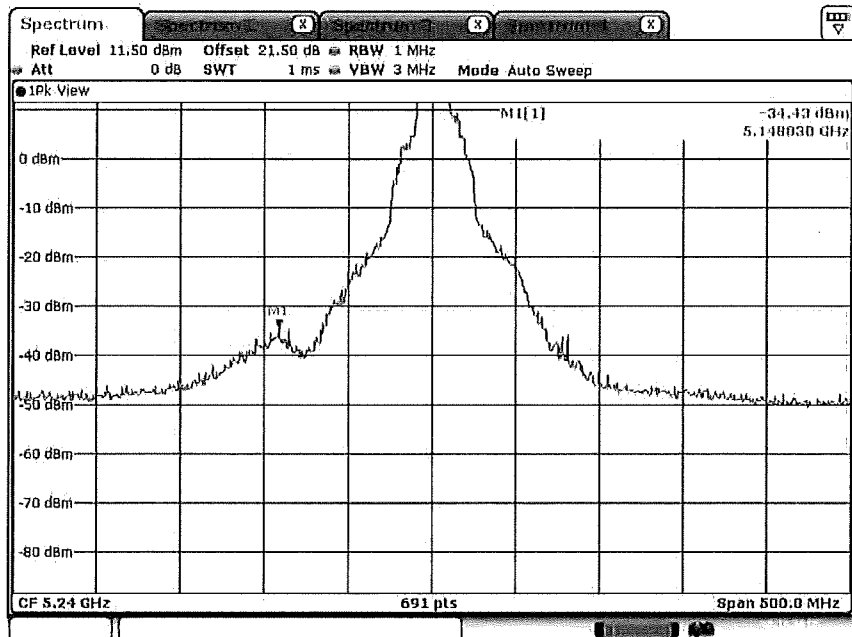


Plot on Configuration QPSK, 20M / 5240 MHz / Peak / Port 1 (TX1)



Date: 20.NOV.2017 11:34:54

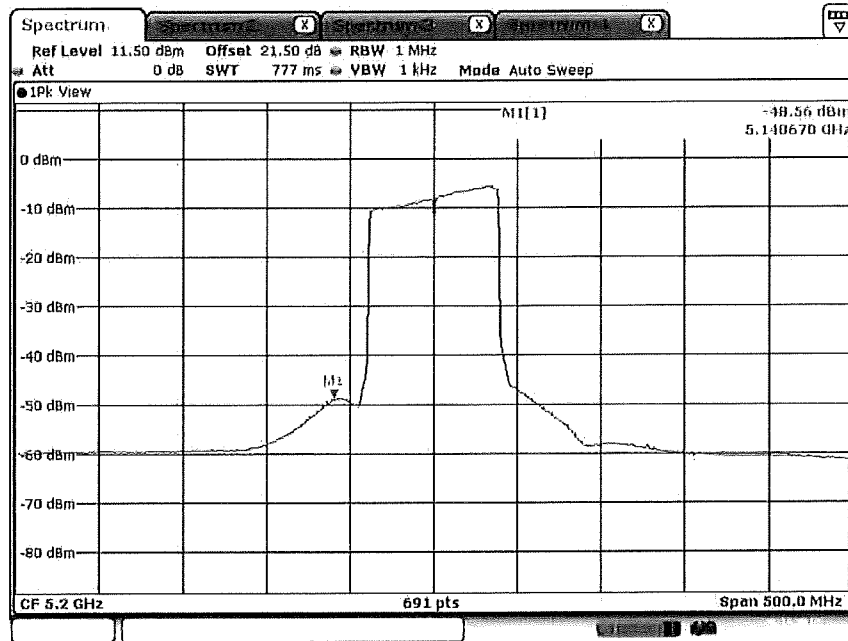
Plot on Configuration QPSK, 20M / 5240 MHz / Peak / Port 2 (TX2)



Date: 20.NOV.2017 11:36:18

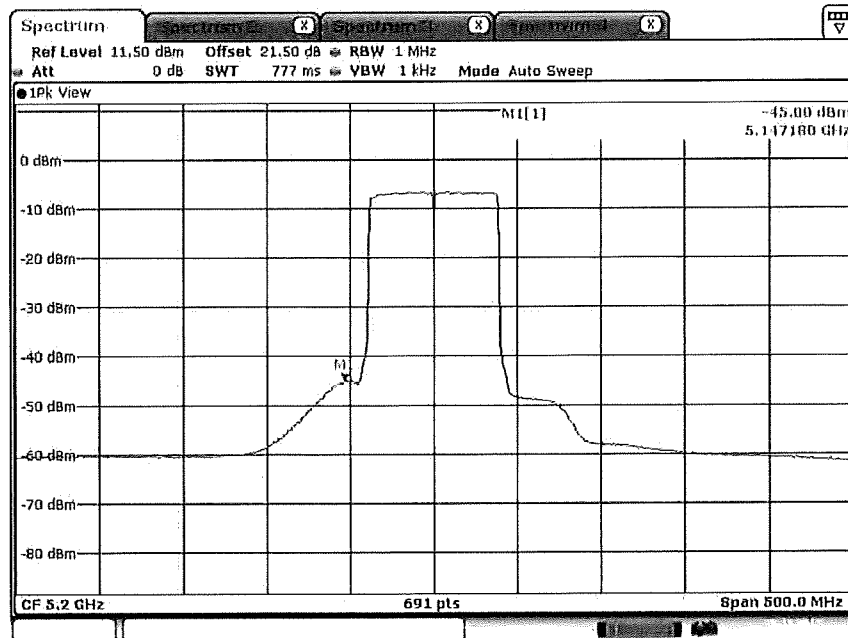


Plot on Configuration QPSK, 80M / 5200 MHz / Average / Port 1 (TX1)



Date: 20.NOV.2017 14:00:21

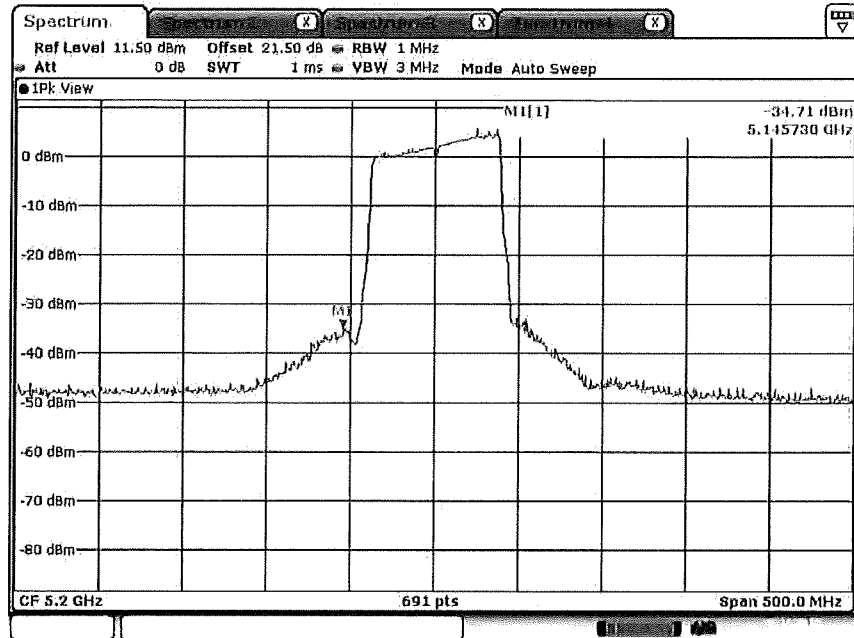
Plot on Configuration QPSK, 80M / 5200 MHz / Average / Port 2 (TX2)



Date: 20.NOV.2017 13:55:41

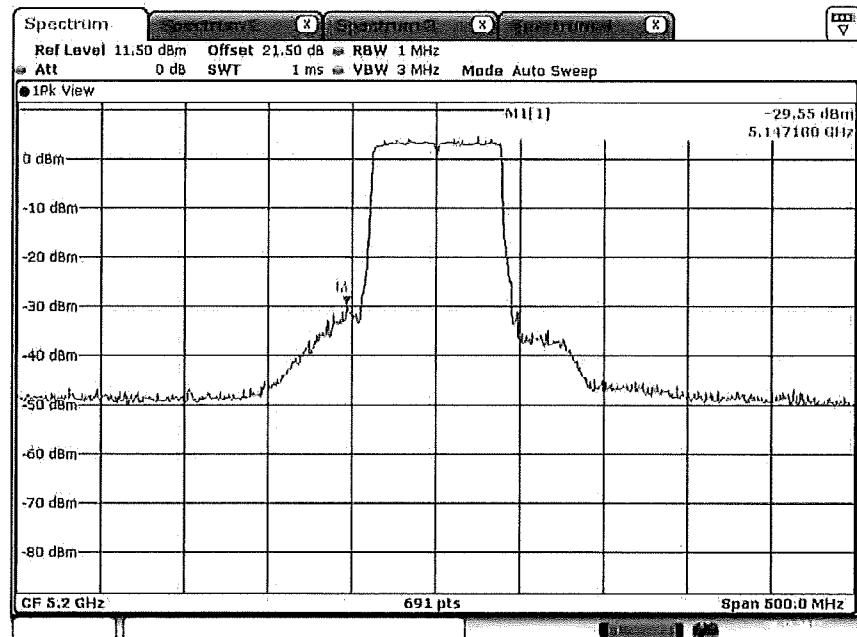


Plot on Configuration QPSK, 80M / 5200 MHz / Peak / Port 1 (TX1)



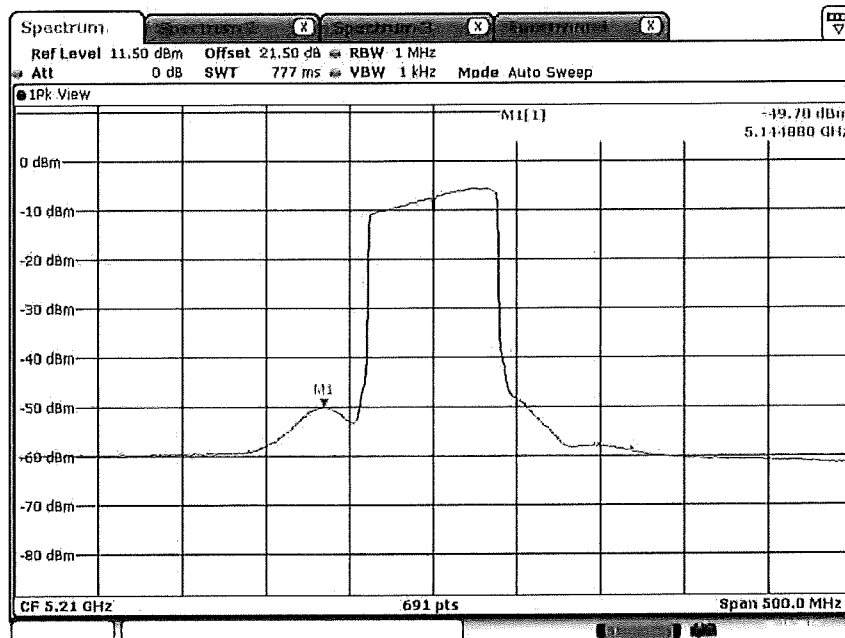
Date: 20.NOV.2017 14:01:34

Plot on Configuration QPSK, 80M / 5200 MHz / Peak / Port 2 (TX2)



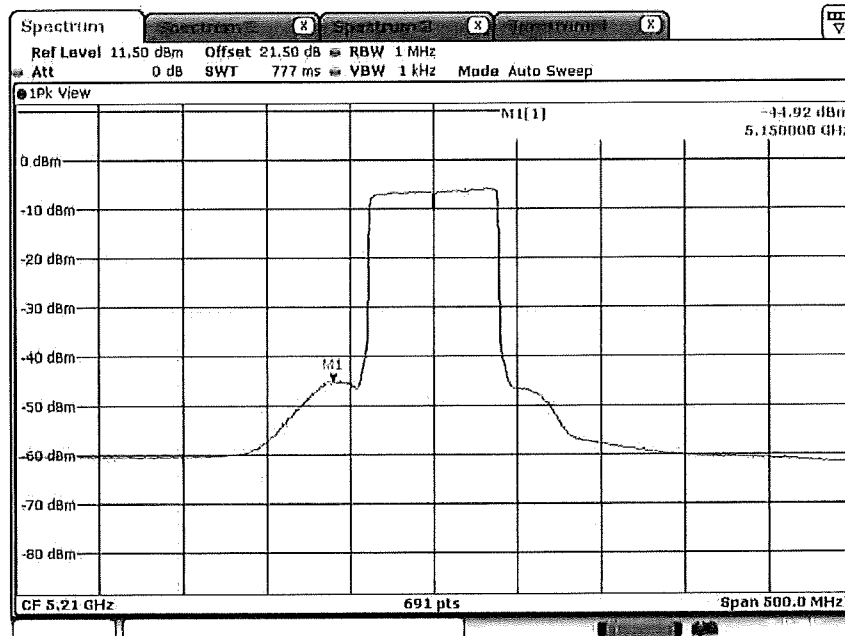
Date: 20.NOV.2017 14:09:42

Plot on Configuration QPSK, 80M / 5210 MHz / Average / Port 1 (TX1)



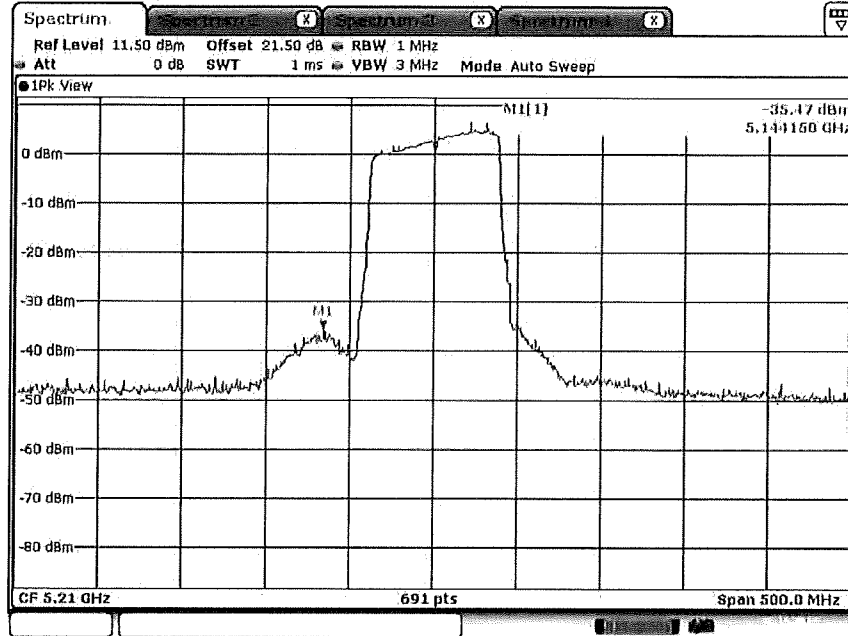
Date: 20.NOV.2017 14:20:22

Plot on Configuration QPSK, 80M / 5210 MHz / Average / Port 2 (TX2)



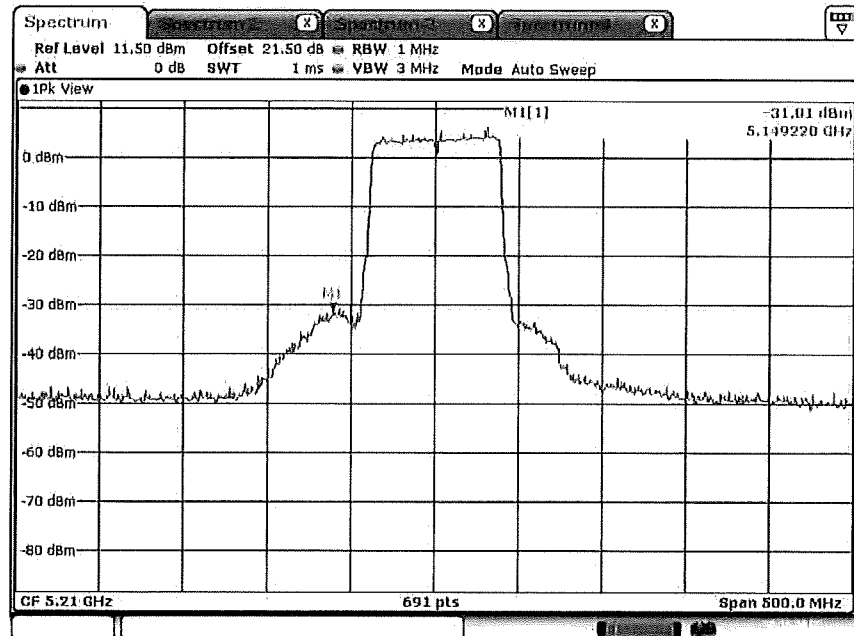
Date: 20.NOV.2017 14:22:47

Plot on Configuration QPSK, 80M / 5210 MHz / Peak / Port 1 (TX1)



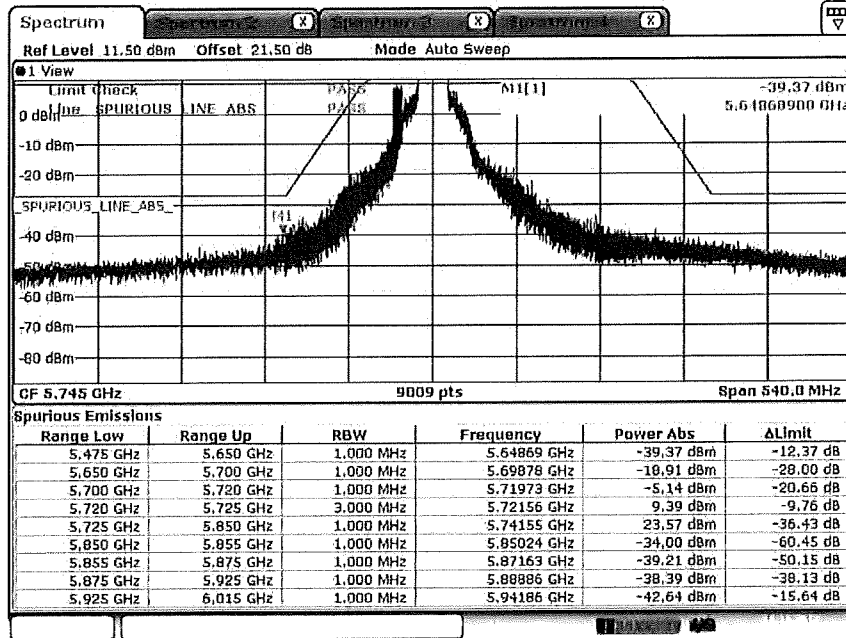
Date: 20.NOV.2017 14:24:25

Plot on Configuration QPSK, 80M / 5210 MHz / Peak / Port 2 (TX2)



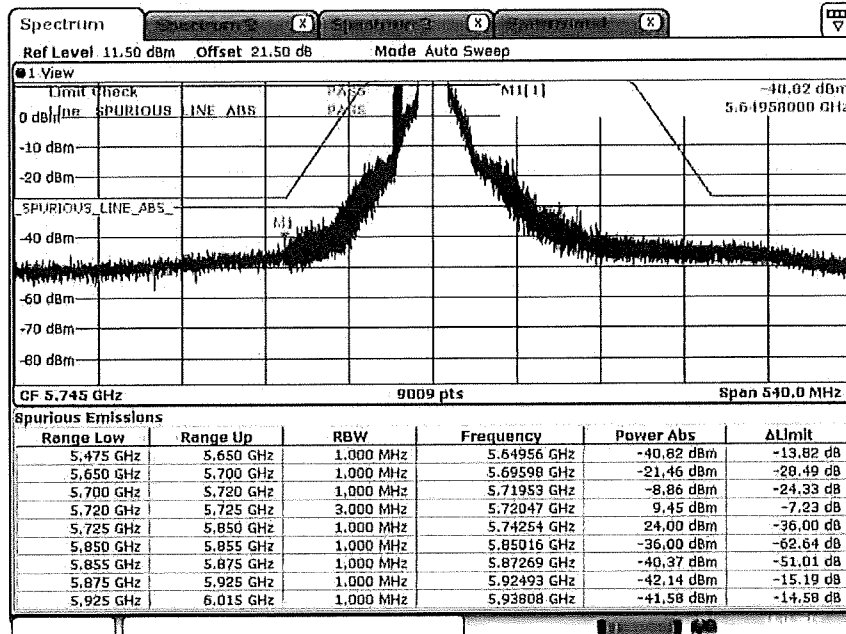
Date: 20.NOV.2017 14:21:54

Plot on Configuration QPSK, 20M / 5745 MHz / Peak / Port 1 (TX1)



Date: 18.NOV.2017 08:55:01

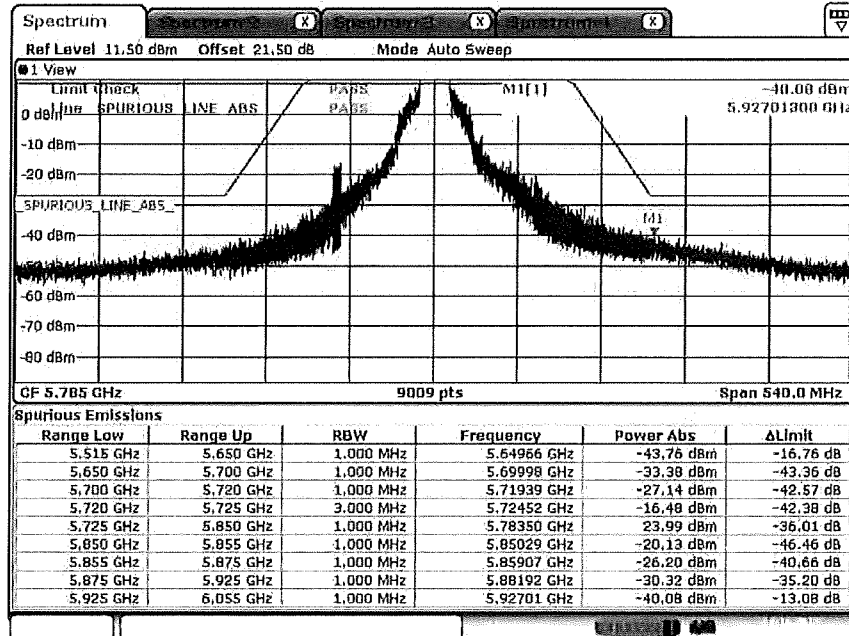
Plot on Configuration QPSK, 20M / 5745 MHz / Peak / Port 2 (TX2)



Date: 18.NOV.2017 08:53:57

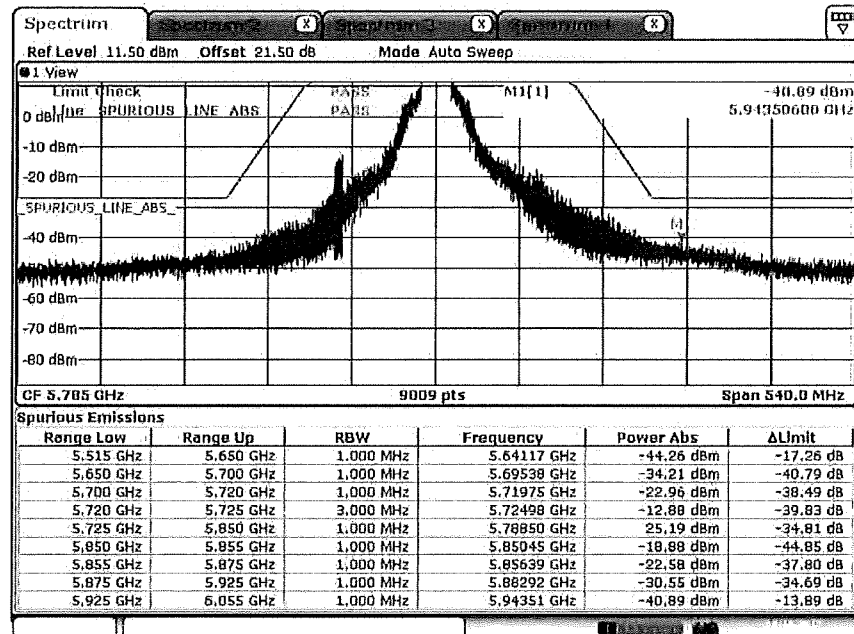


Plot on Configuration QPSK, 20M / 5785 MHz / Peak / Port 1 (TX1)



Date: 18.NOV.2017 08:51:08

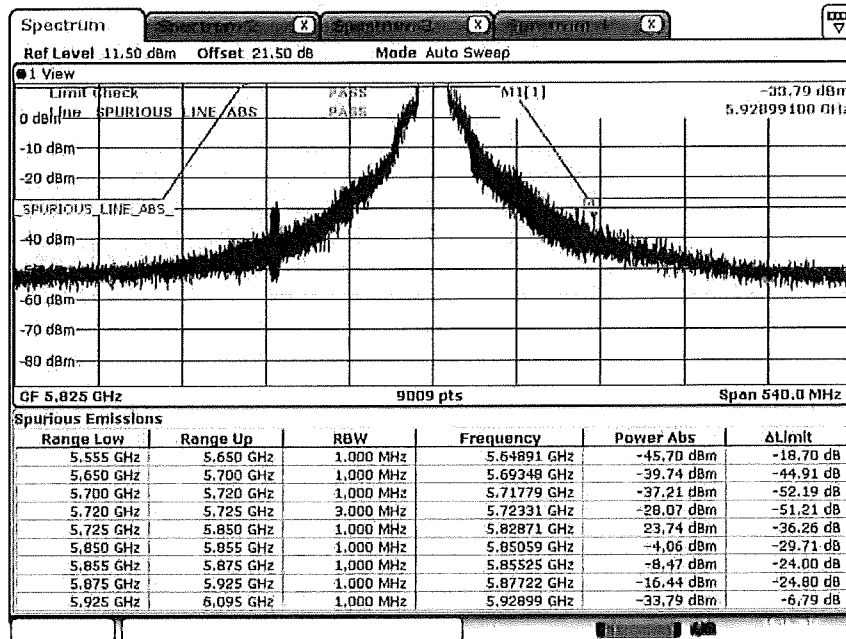
Plot on Configuration QPSK, 20M / 5785 MHz / Peak / Port 2 (TX2)



Date: 18.NOV.2017 08:52:45

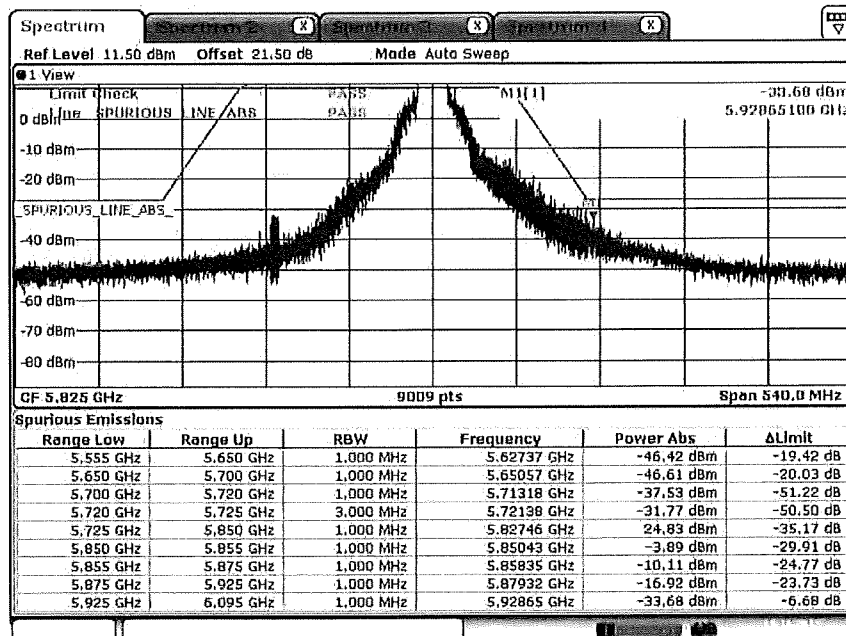


Plot on Configuration QPSK, 20M / 5825 MHz / Peak / Port 1 (TX1)



Date: 18.NOV.2017 08:56:53

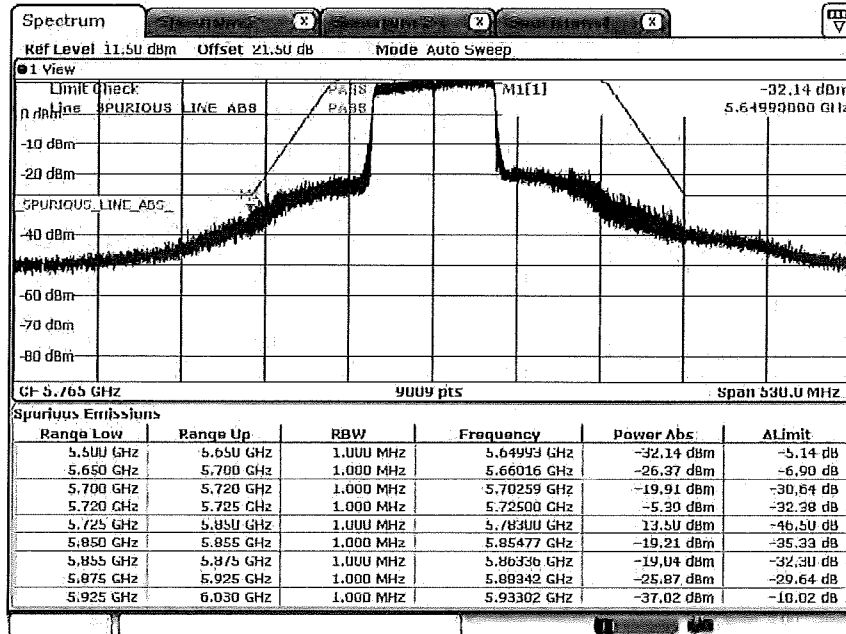
Plot on Configuration QPSK, 20M / 5825 MHz / Peak / Port 2 (TX2)



Date: 18.NOV.2017 09:00:26

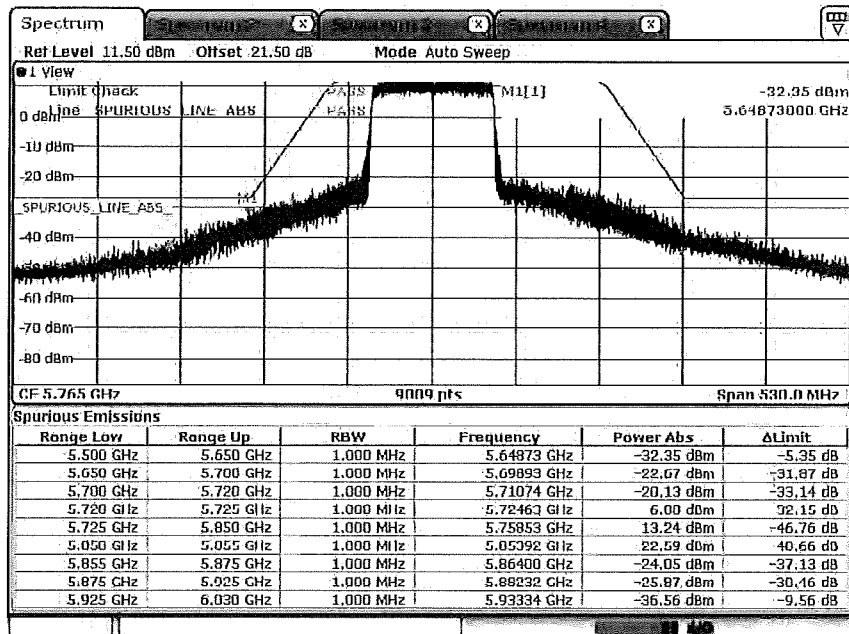


Plot on Configuration QPSK, 80M / 5765 MHz / Peak / Port 1 (TX1)



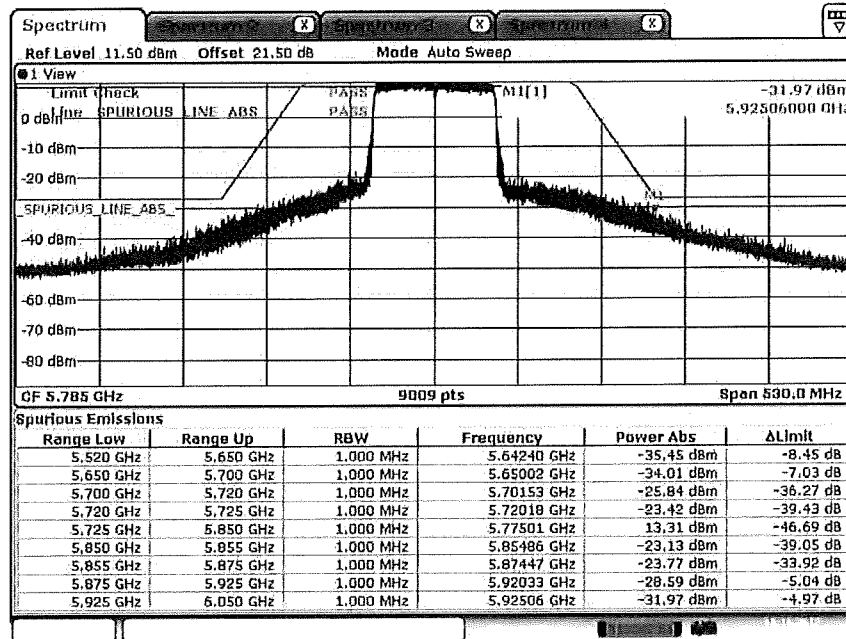
Date: 18.NOV.2017 21:13:30

Plot on Configuration QPSK, 80M / 5765 MHz / Peak / Port 2 (TX2)



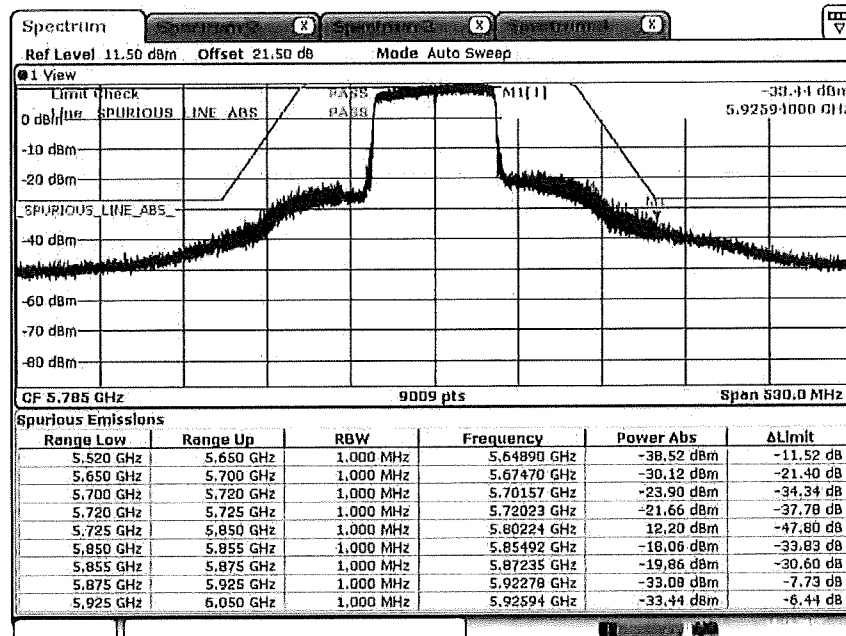
Date: 18.NOV.2017 21:20:25

Plot on Configuration QPSK, 80M / 5785 MHz / Peak / Port 1 (TX1)



Date: 18.NOV.2017 21:35:19

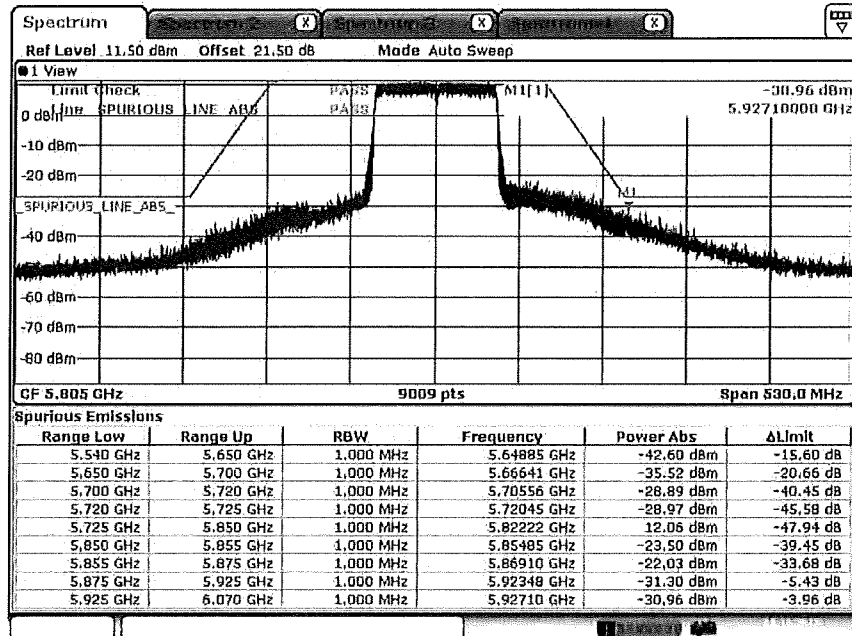
Plot on Configuration QPSK, 80M / 5785 MHz / Peak / Port 2 (TX2)



Date: 18.NOV.2017 21:32:06

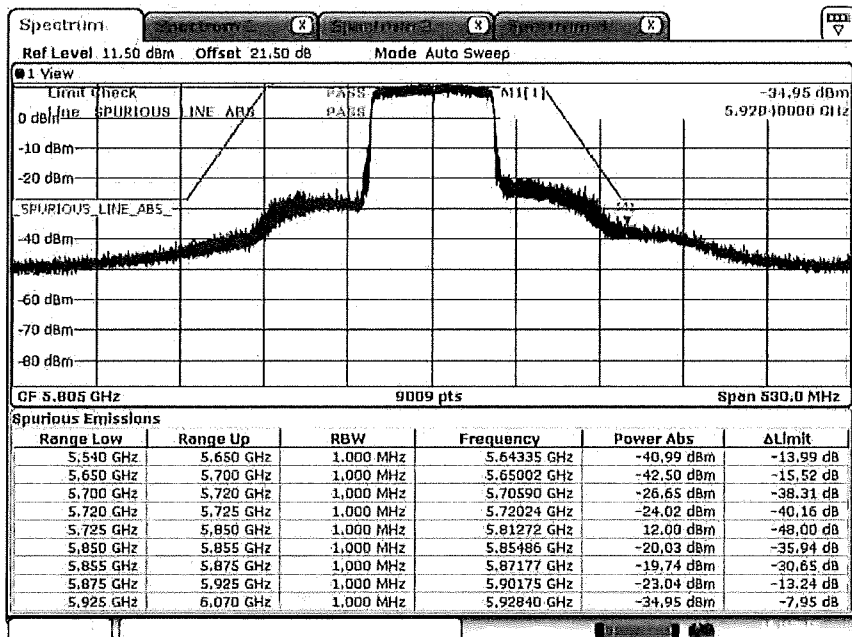


Plot on Configuration QPSK, 80M / 5805 MHz / Peak / Port 1 (TX1)



Date: 18.NOV.2017 21:42:31

Plot on Configuration QPSK, 80M / 5805 MHz / Peak / Port 2 (TX2)



Date: 18.NOV.2017 21:45:04

4.8. Frequency Stability Measurement

4.8.1. Limit

In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band (IEEE 802.11n specification).

4.8.2. Measuring Instruments and Setting

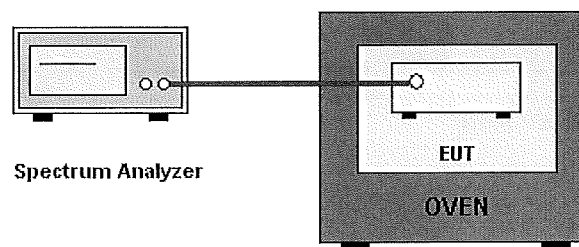
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

4.8.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. f_c is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6$ ppm and the limit is less than ± 20 ppm (IEEE 802.11n specification).
6. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
7. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
8. Extreme temperature is $-40^\circ\text{C} \sim 70^\circ\text{C}$.

4.8.4. Test Setup Layout



4.8.5. Test Deviation

There is no deviation with the original standard.

4.8.6. EUT Operation during Test

The EUT was programmed to be in continuously un-modulation transmitting mode.

4.8.7. Test Result of Frequency Stability

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brain Sun / Serway Li	Test Date	Nov. 16, 2017~Nov. 30, 2017

Mode: 20 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9982	5199.9974	5199.9969	5199.9968
110.00	5199.9979	5199.9975	5199.9974	5199.9967
93.50	5199.9970	5199.9967	5199.9963	5199.9954
Max. Deviation (MHz)	0.0030	0.0033	0.0037	0.0046
Max. Deviation (ppm)	0.58	0.63	0.71	0.88
Result	Complies			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5200.0612	5200.0613	5200.0615	5200.0622
-30	5200.0651	5200.0649	5200.0655	5200.0652
-20	5200.0690	5200.0691	5200.0685	5200.0692
-10	5200.0508	5200.0512	5200.0523	5200.0522
0	5200.0403	5200.0369	5200.0356	5200.0406
10	5200.0117	5200.0008	5200.0008	5200.0003
20	5199.9813	5199.9802	5199.9808	5199.9804
30	5199.9795	5199.9789	5199.9788	5199.9779
40	5199.9726	5199.9725	5199.9724	5199.9728
50	5199.9769	5199.9758	5199.9752	5199.9746
60	5200.0186	5200.0179	5200.0177	5200.0175
70	5200.0473	5199.9982	5199.9980	5199.9973
Max. Deviation (MHz)	0.0690	0.0691	0.0685	0.0692
Max. Deviation (ppm)	13.27	13.29	13.17	13.31
Result	Complies			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9987	5784.9979	5784.9977	5784.9969
110.00	5784.9979	5784.9974	5784.9966	5784.9962
93.50	5784.9971	5784.9970	5784.9964	5784.9960
Max. Deviation (MHz)	0.0029	0.0030	0.0036	0.0040
Max. Deviation (ppm)	0.50	0.52	0.62	0.69
Result	Complies			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5785.0777	5785.0765	5785.0978	5785.0766
-30	5785.0755	5785.0746	5785.0749	5785.0754
-20	5785.0759	5785.0761	5785.0758	5785.0766
-10	5785.0573	5785.0562	5785.0551	5785.0549
0	5785.0442	5785.0426	5785.0416	5785.0395
10	5785.0126	5785.0008	5785.0008	5785.0034
20	5784.9752	5784.9749	5784.9755	5784.9755
30	5784.9743	5784.9739	5784.9741	5784.9744
40	5784.9700	5784.9712	5784.9702	5784.9705
50	5784.9726	5784.9725	5784.9728	5784.9724
60	5785.0273	5785.0269	5785.0277	5785.0281
70	5785.0564	5785.0001	5785.0000	5784.9997
Max. Deviation (MHz)	0.0777	0.0765	0.0978	0.0766
Max. Deviation (ppm)	13.43	13.22	16.91	13.24
Result	Complies			



Mode: 80 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9937	5209.9929	5209.9928	5209.9925
110.00	5209.9936	5209.9932	5209.9922	5209.9913
93.50	5209.9930	5209.9929	5209.9923	5209.9920
Max. Deviation (MHz)	0.0070	0.0071	0.0078	0.0087
Max. Deviation (ppm)	1.34	1.36	1.50	1.67
Result	Complies			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5210.0607	5210.0605	5210.0612	5210.0605
-30	5210.0707	5210.0705	5210.0710	5210.0712
-20	5210.0655	5210.0659	5210.0655	5210.0654
-10	5210.0507	5210.0512	5210.0522	5210.0505
0	5210.0416	5210.0568	5210.0562	5210.0553
10	5210.0139	5210.0004	5210.0013	5210.0034
20	5209.9830	5209.9816	5209.9809	5209.9817
30	5209.9756	5209.9755	5209.9746	5209.9755
40	5209.9726	5209.9721	5209.9725	5209.9719
50	5209.9782	5209.9779	5209.9775	5209.9782
60	5210.0026	5210.0028	5210.0021	5210.0062
70	5210.0434	5210.0051	5210.0049	5210.0044
Max. Deviation (MHz)	0.0655	0.0659	0.0655	0.0654
Max. Deviation (ppm)	12.57	12.65	12.57	12.55
Result	Complies			



Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5765 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5765.0089	5765.0079	5765.0074	5765.0068
110.00	5765.0087	5765.0079	5765.0076	5765.0074
93.50	5765.0085	5765.0078	5765.0069	5765.0066
Max. Deviation (MHz)	0.0089	0.0079	0.0076	0.0074
Max. Deviation (ppm)	1.54	1.37	1.31	1.28
Result	Complies			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5765 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5765.0694	5765.0706	5765.0702	5765.0701
-30	5765.0790	5765.0785	5765.0789	5765.0788
-20	5765.0729	5765.0731	5765.0725	5765.0728
-10	5765.0547	5765.0539	5765.0541	5765.0544
0	5765.0468	5765.0579	5765.0571	5765.0566
10	5765.0204	5765.0231	5765.0169	5765.0155
20	5764.9822	5764.9813	5764.9835	5764.9828
30	5764.9713	5764.9725	5764.9722	5764.9719
40	5764.9704	5764.9707	5764.9709	5764.9705
50	5764.9782	5764.9785	5764.9789	5764.9788
60	5764.9934	5764.9931	5764.9921	5764.9935
70	5765.0464	5765.0068	5765.0065	5765.0063
Max. Deviation (MHz)	0.0729	0.0731	0.0725	0.0728
Max. Deviation (ppm)	12.65	12.68	12.58	12.63
Result	Complies			

4.9. Antenna Requirements

4.9.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. 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 the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

4.9.2. Antenna Connector Construction

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 24, 2017	Nov. 23, 2018	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 13, 2017	Nov. 12, 2018	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Jan. 16, 2017	Jan. 15, 2018	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Nov. 10, 2017	Nov. 09, 2018	Conduction (CO02-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F	9561-F073	9kHz ~ 30MHz	Oct. 03, 2017	Oct. 02, 2018	Conduction (CO02-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMC	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 20, 2017	Nov. 19, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	May 01, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Jan. 15, 2018	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-10-7	N/A	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Dec. 25, 2017	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Jun. 01, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Nov. 21, 2017	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 20, 2017	Nov. 19, 2018	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

"*" Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.

6. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%
Frequency Stability	6.06×10^{-8}	Confidence levels of 95%