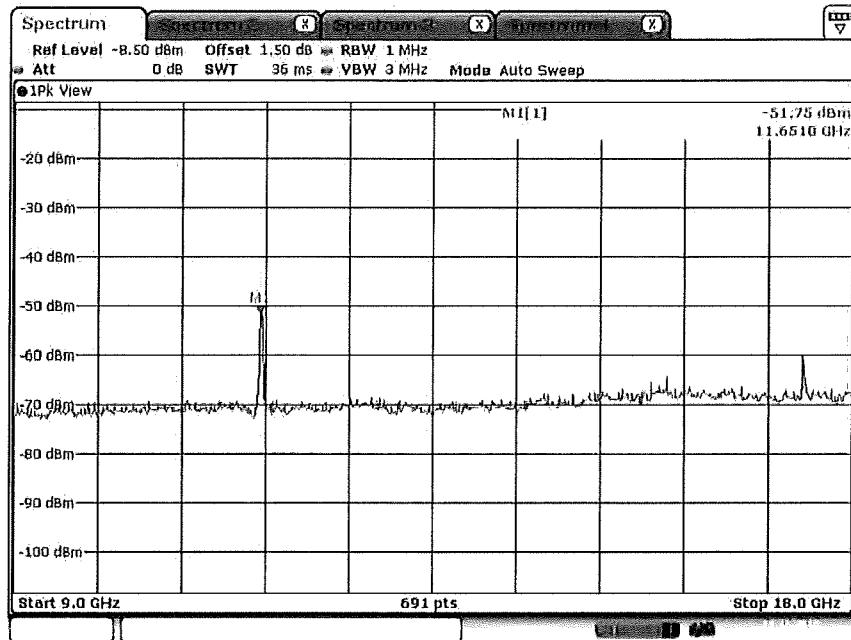
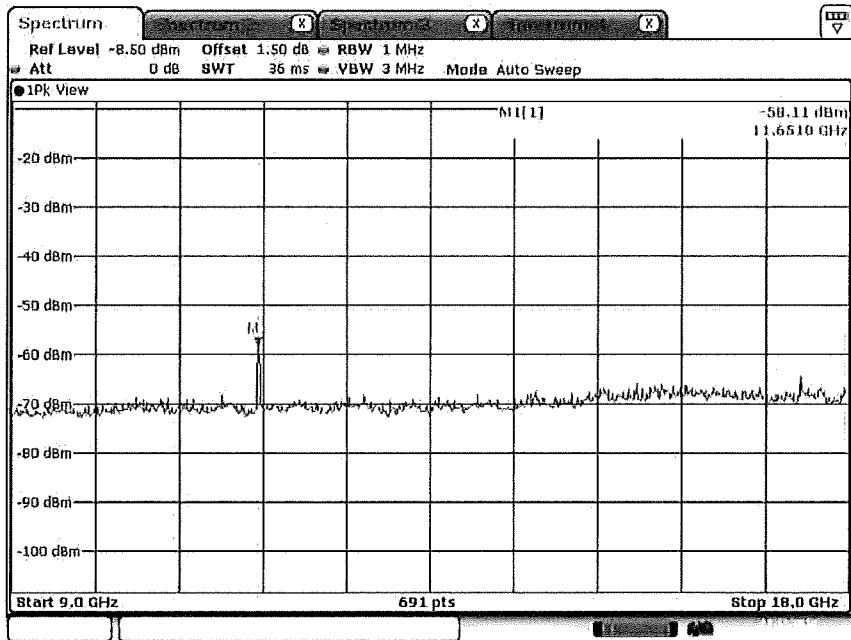


Plot on Configuration QPSK, 20M / 5825 MHz / Peak / Port 1 / 9GHz~18GHz

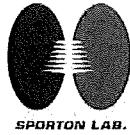


Date: 18.NOV.2017 12:16:01

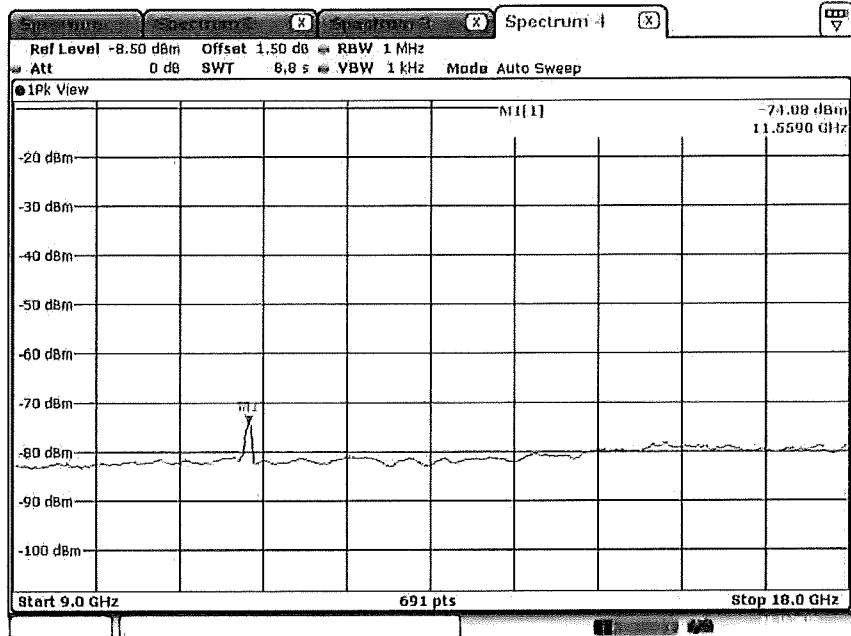
Plot on Configuration QPSK, 20M / 5825 MHz / Peak / Port 2 / 9GHz~18GHz



Date: 18.NOV.2017 12:20:53

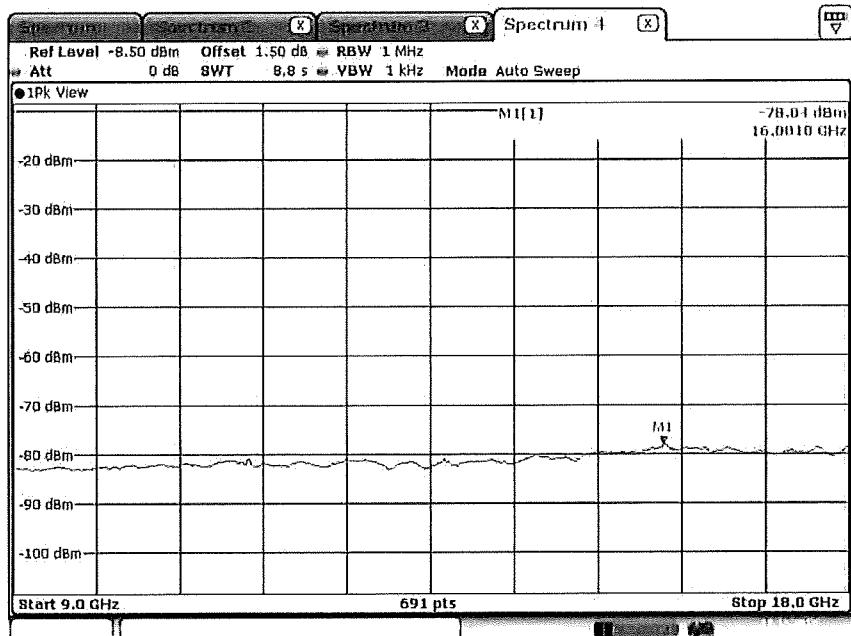


Plot on Configuration QPSK, 80M / 5765 MHz / Average / Port 1 / 9GHz~18GHz

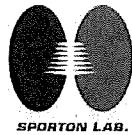


Date: 18.NOV.2017 22:47:36

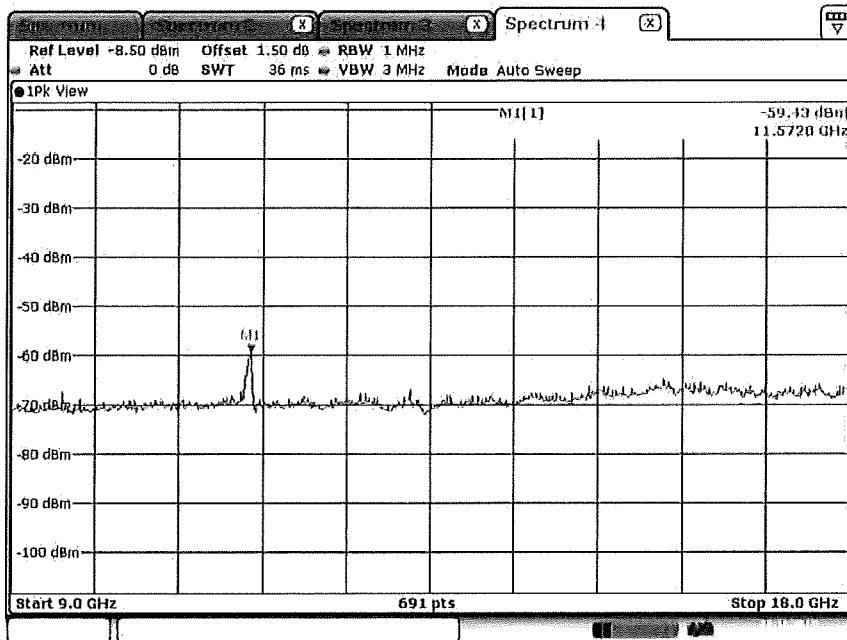
Plot on Configuration QPSK, 80M / 5765 MHz / Average / Port 2 / 9GHz~18GHz



Date: 18.NOV.2017 22:59:47

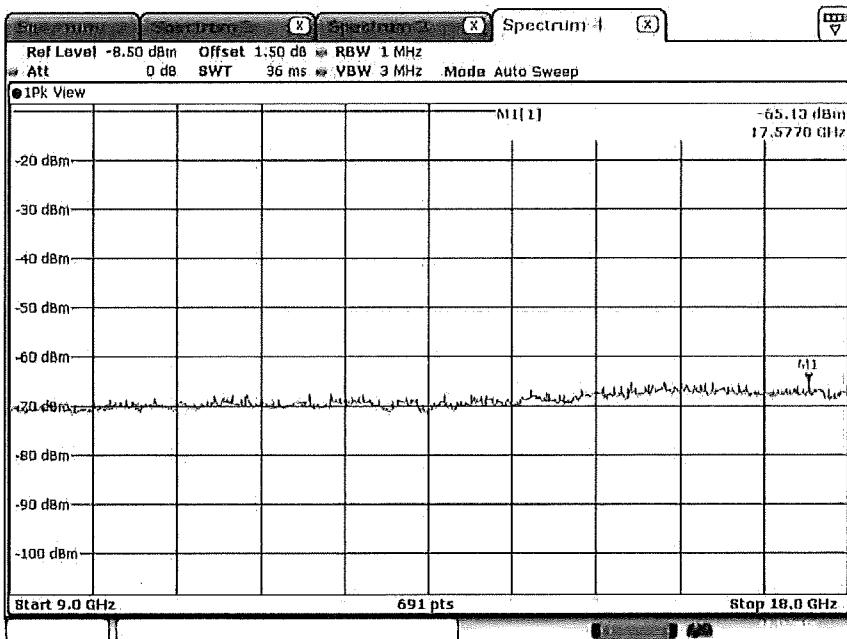


Plot on Configuration QPSK, 80M / 5765 MHz / Peak / Port 1 / 9GHz~18GHz



Date: 18.NOV.2017 22:48:42

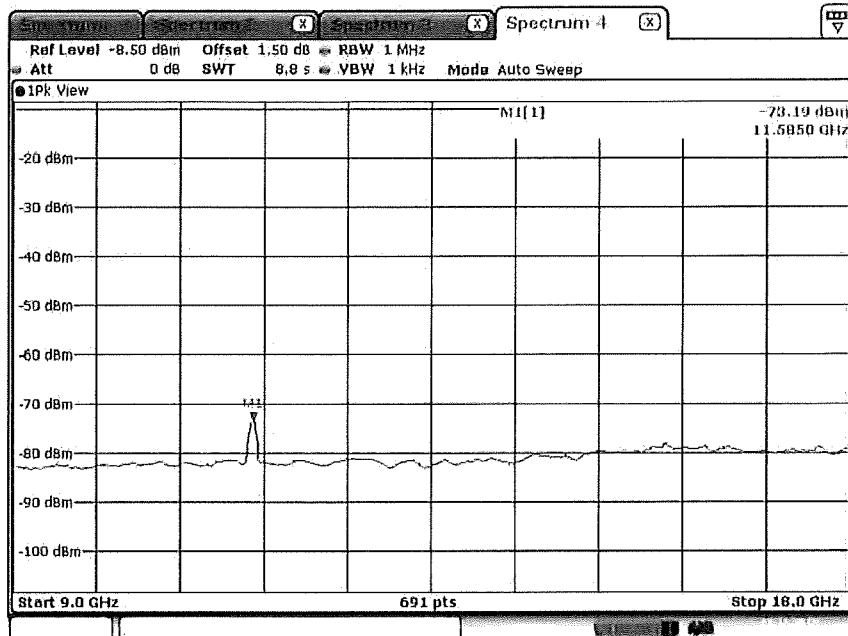
Plot on Configuration QPSK, 80M / 5765 MHz / Peak / Port 2 / 9GHz~18GHz



Date: 18.NOV.2017 23:01:01

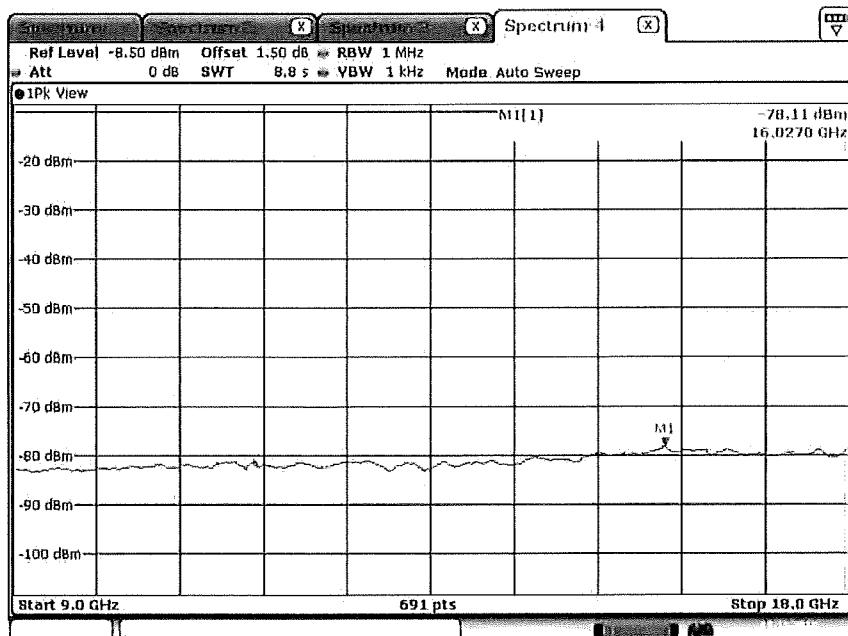


Plot on Configuration QPSK, 80M / 5785 MHz / Average / Port 1 / 9GHz~18GHz

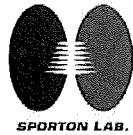


Date: 18.NOV.2017 23:38:17

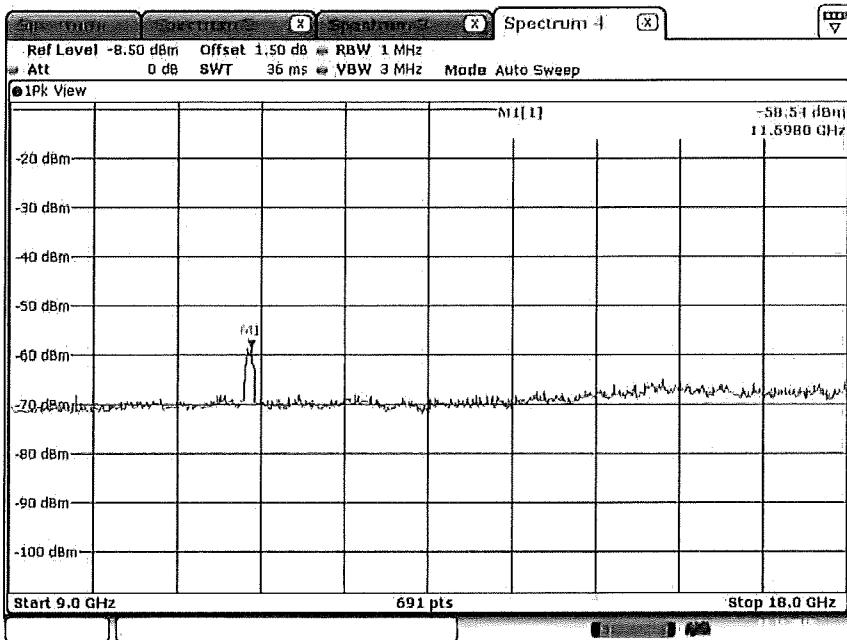
Plot on Configuration QPSK, 80M / 5785 MHz / Average / Port 2 / 9GHz~18GHz



Date: 18.NOV.2017 23:52:51

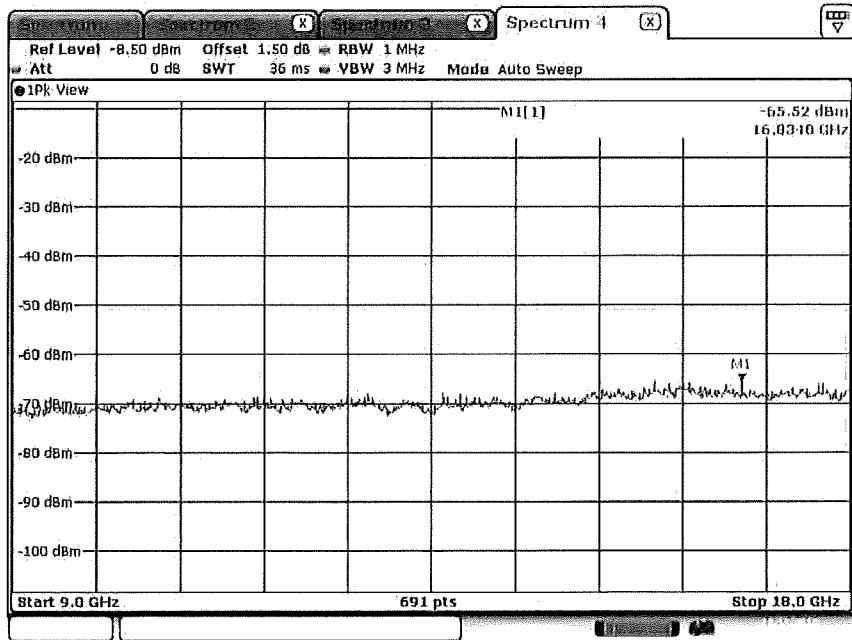


Plot on Configuration QPSK, 80M / 5785 MHz / Peak / Port 1 / 9GHz~18GHz



Date: 18.NOV.2017 23:37:56

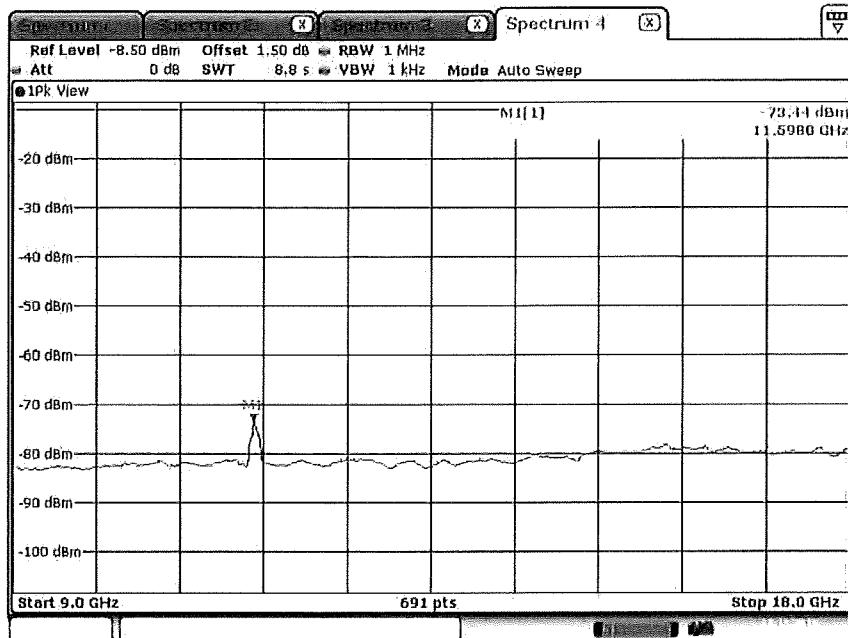
Plot on Configuration QPSK, 80M / 5785 MHz / Peak / Port 2 / 9GHz~18GHz



Date: 18.NOV.2017 23:53:50

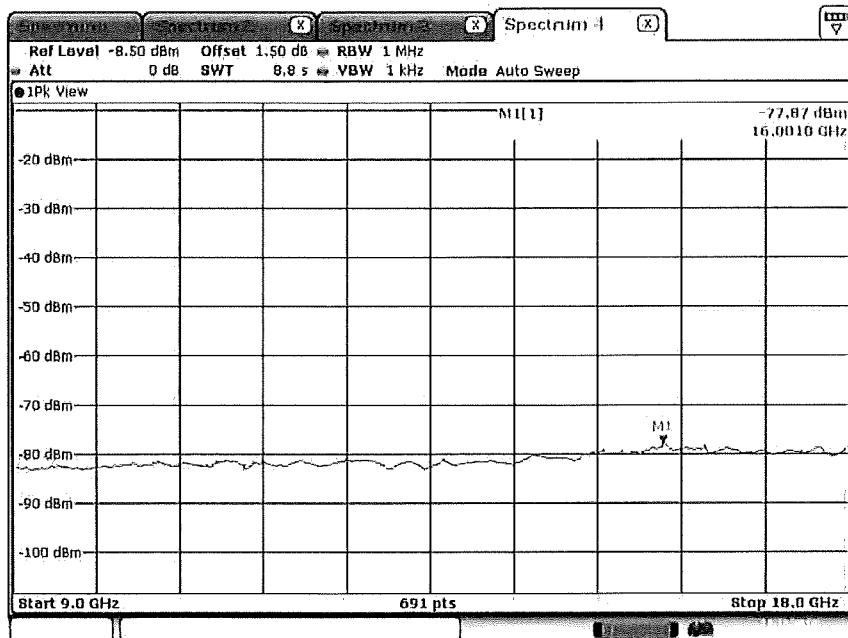


Plot on Configuration QPSK, 80M / 5805 MHz / Average / Port 1 / 9GHz~18GHz

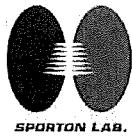


Date: 19.NOV.2017 00.19.52

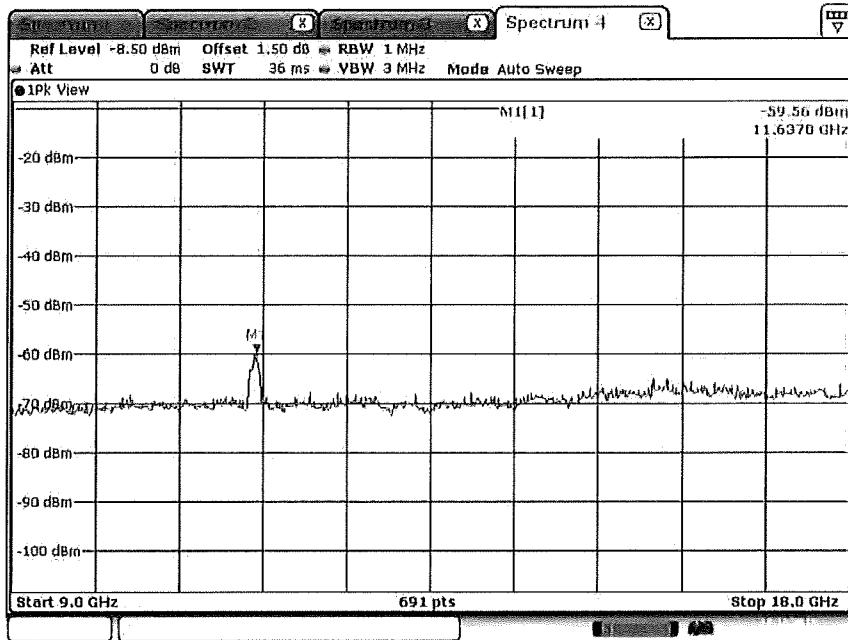
Plot on Configuration QPSK, 80M / 5805 MHz / Average / Port 2 / 9GHz~18GHz



Date: 19.NOV.2017 00.35.10

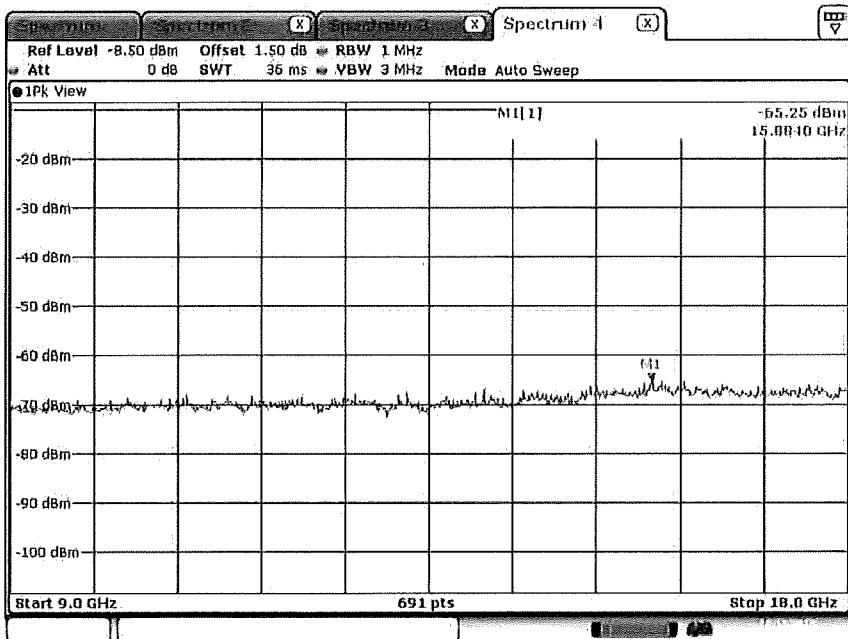


Plot on Configuration QPSK, 80M / 5805 MHz / Peak / Port 1 / 9GHz~18GHz

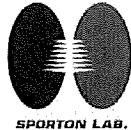


Date: 19.NOV.2017 00.20.32

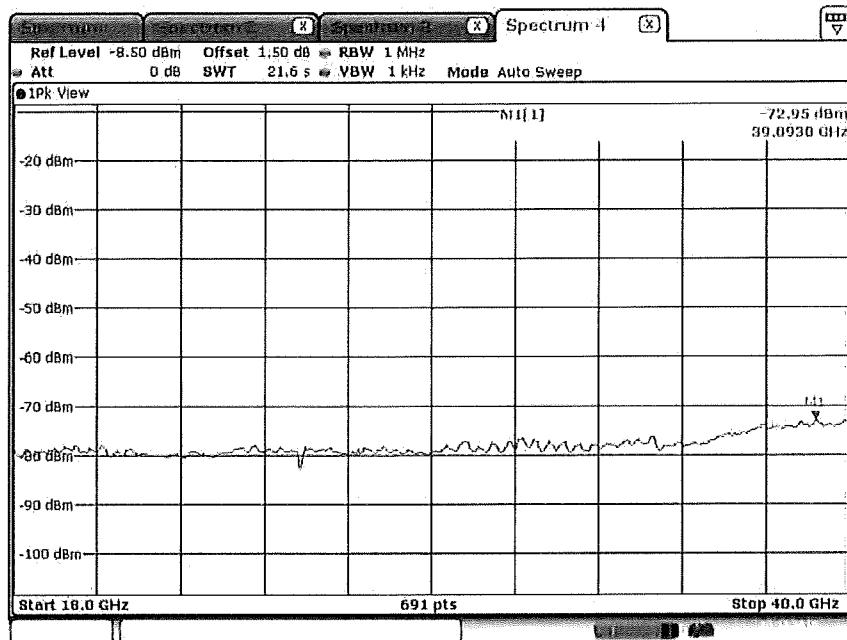
Plot on Configuration QPSK, 80M / 5805 MHz / Peak / Port 2 / 9GHz~18GHz



Date: 19.NOV.2017 00.33.35

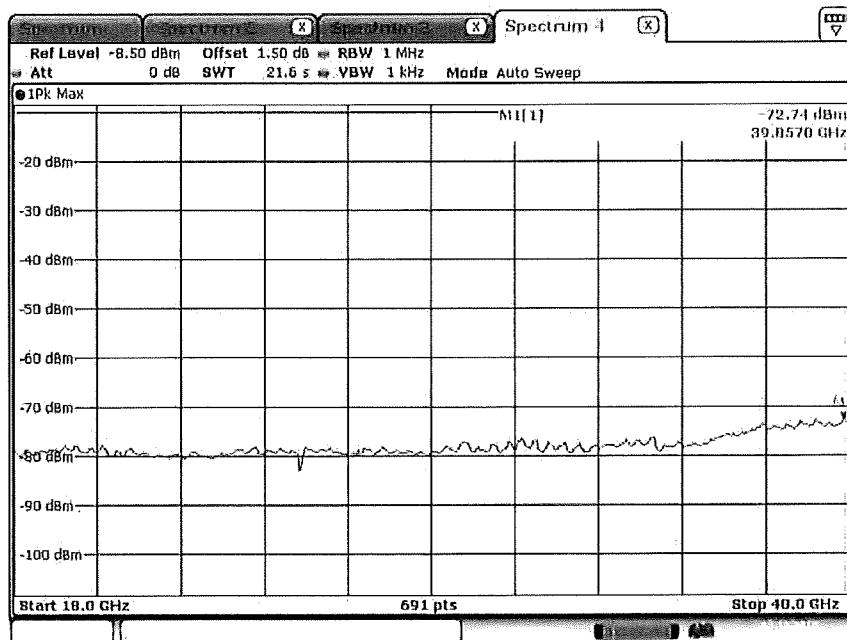


Plot on Configuration QPSK, 20M / 5180 MHz / Average / Port 1 / 18GHz~40GHz

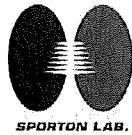


Date: 21.NOV.2017 14:55:55

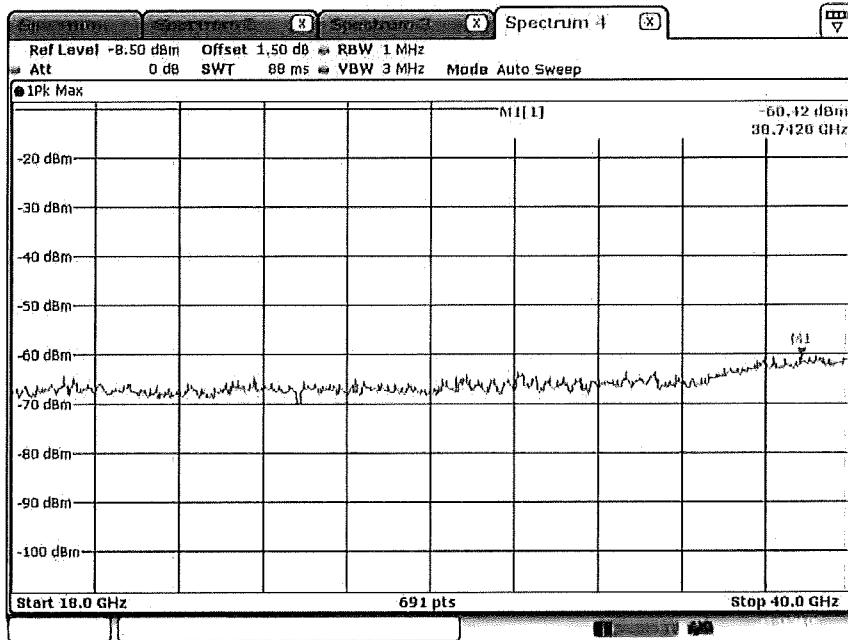
Plot on Configuration QPSK, 20M / 5180 MHz / Average / Port 2 / 18GHz~40GHz



Date: 21.NOV.2017 15:10:51

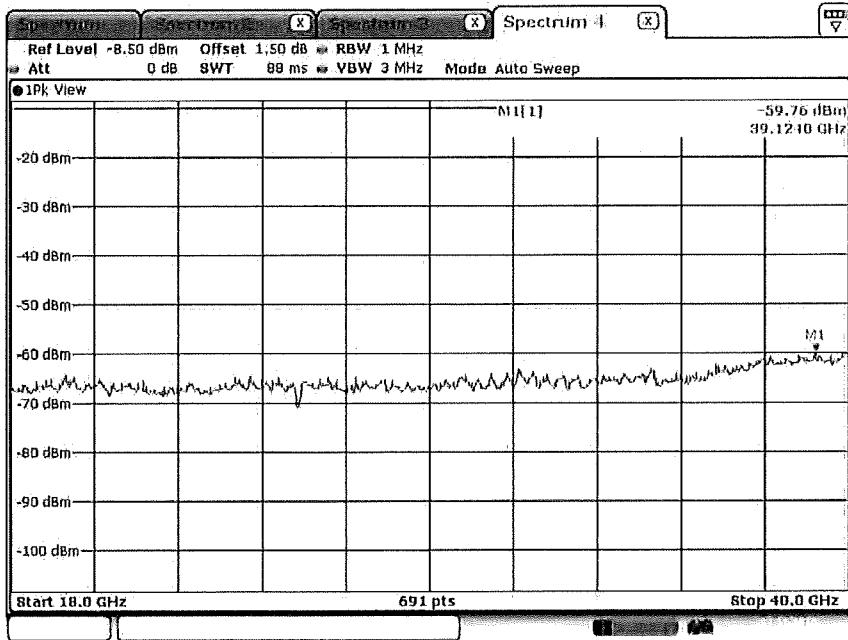


Plot on Configuration QPSK, 20M / 5180 MHz / Peak / Port 1 / 18GHz~40GHz

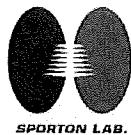


Date: 21.NOV.2017 14:58:17

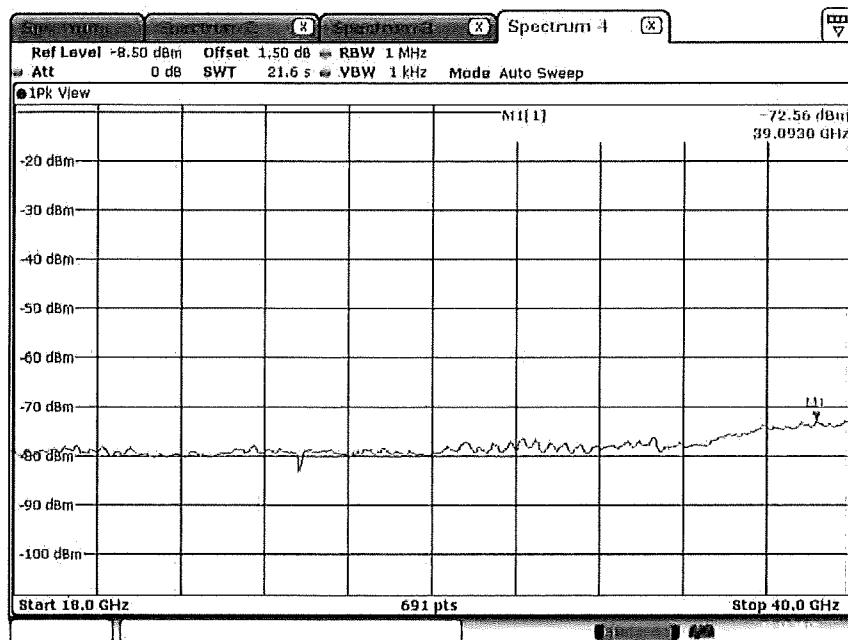
Plot on Configuration QPSK, 20M / 5180 MHz / Peak / Port 2 / 18GHz~40GHz



Date 21.NOV.2017 15:09:59

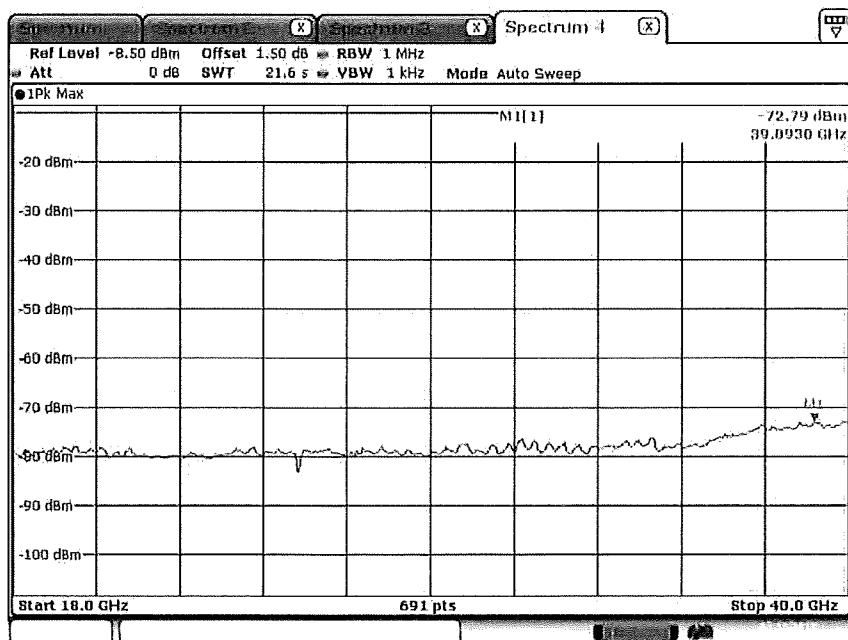


Plot on Configuration QPSK, 20M / 5200 MHz / Average / Port 1 / 18GHz~40GHz



Date: 21.NOV.2017 14:57:59

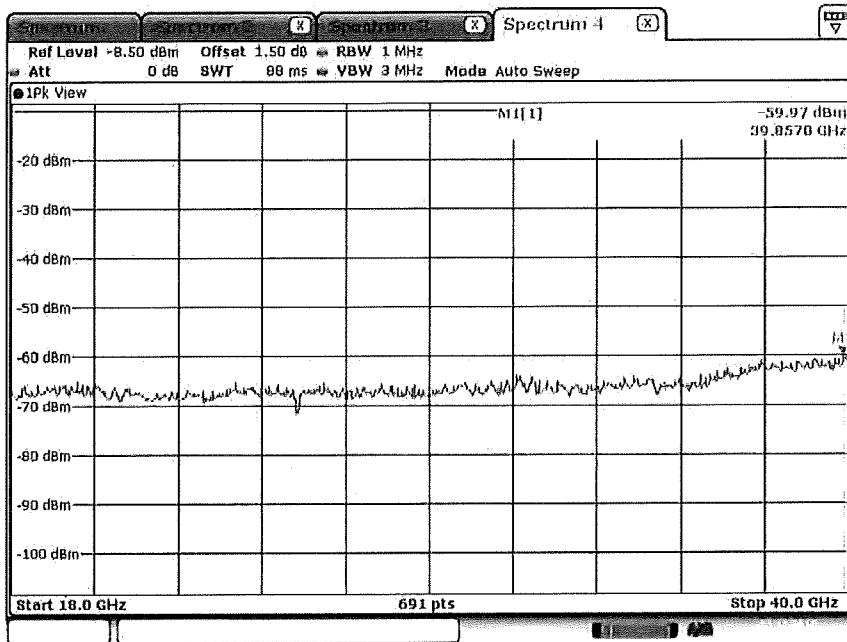
Plot on Configuration QPSK, 20M / 5200 MHz / Average / Port 2 / 18GHz~40GHz



Date: 21.NOV.2017 15:12:31

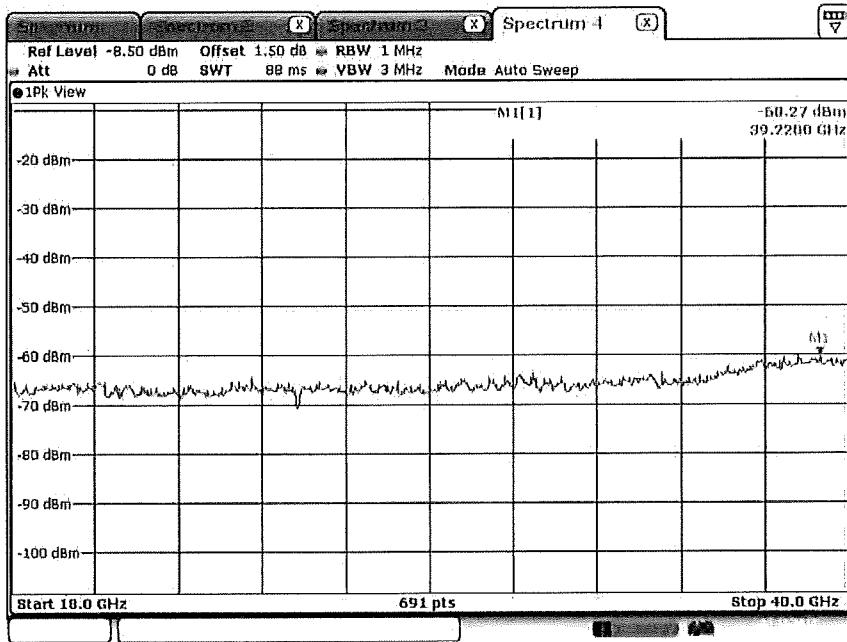


Plot on Configuration QPSK, 20M / 5200 MHz / Peak / Port 1 / 18GHz~40GHz

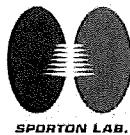


Date: 21.NOV.2017 14:56:47

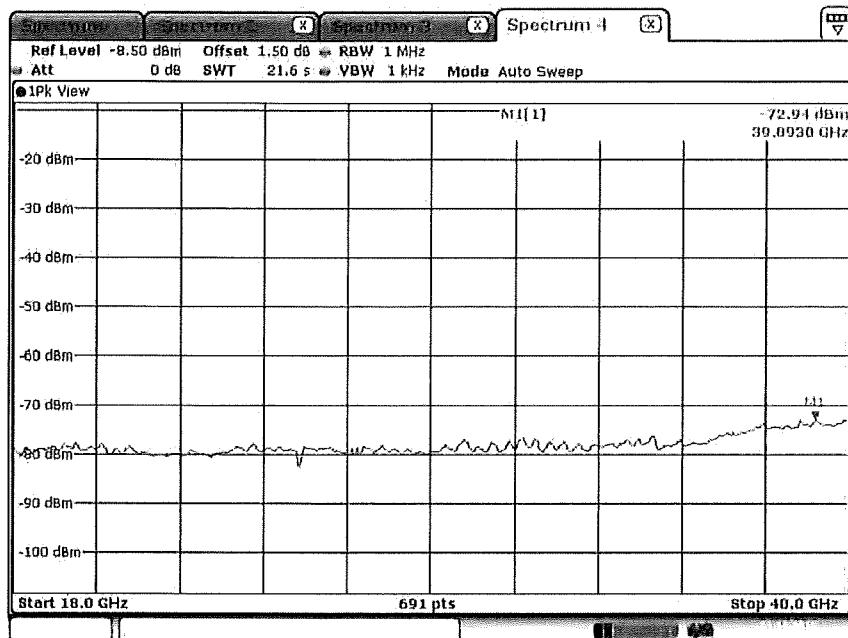
Plot on Configuration QPSK, 20M / 5200 MHz / Peak / Port 2 / 18GHz~40GHz



Date: 21.NOV.2017 15:13:27

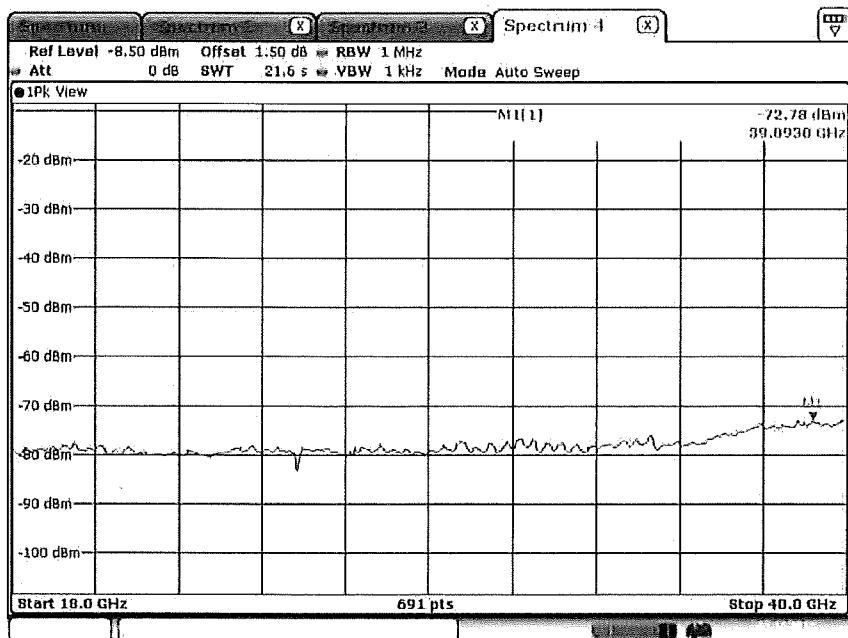


Plot on Configuration QPSK, 20M / 5240 MHz / Average / Port 1 / 18GHz~40GHz



Date: 21.NOV.2017 14:59:43

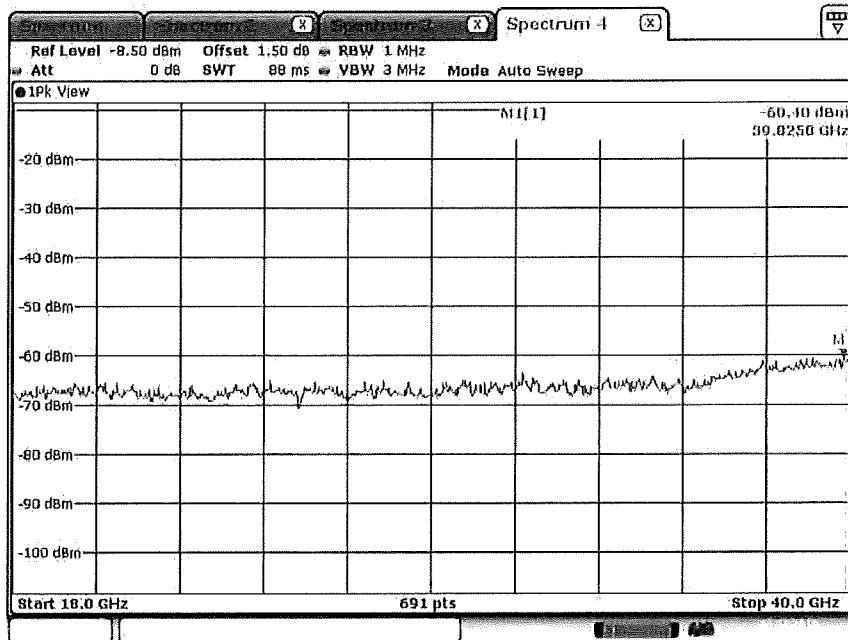
Plot on Configuration QPSK, 20M / 5240 MHz / Average / Port 2 / 18GHz~40GHz



Date: 21.NOV.2017 15:15:34

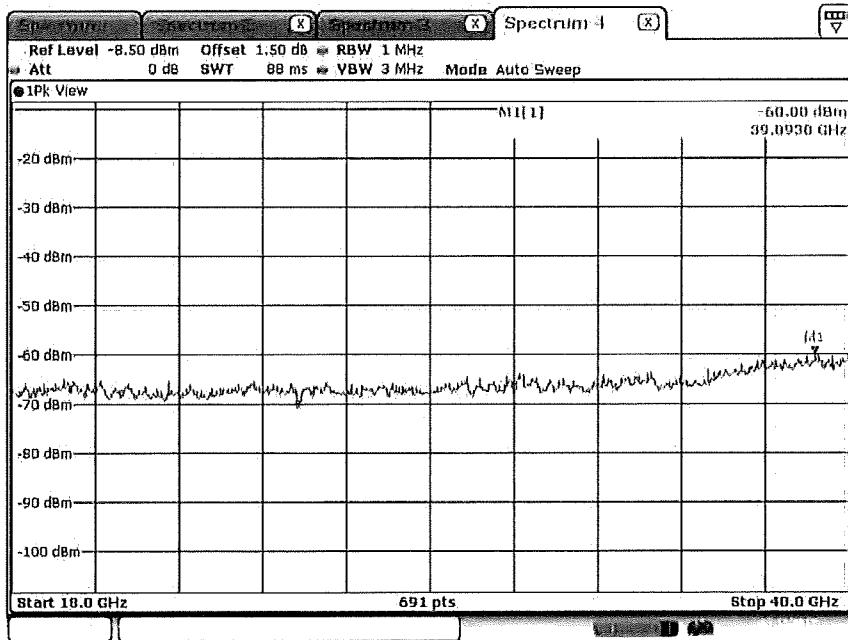


Plot on Configuration QPSK, 20M / 5240 MHz / Peak / Port 1 / 18GHz~40GHz



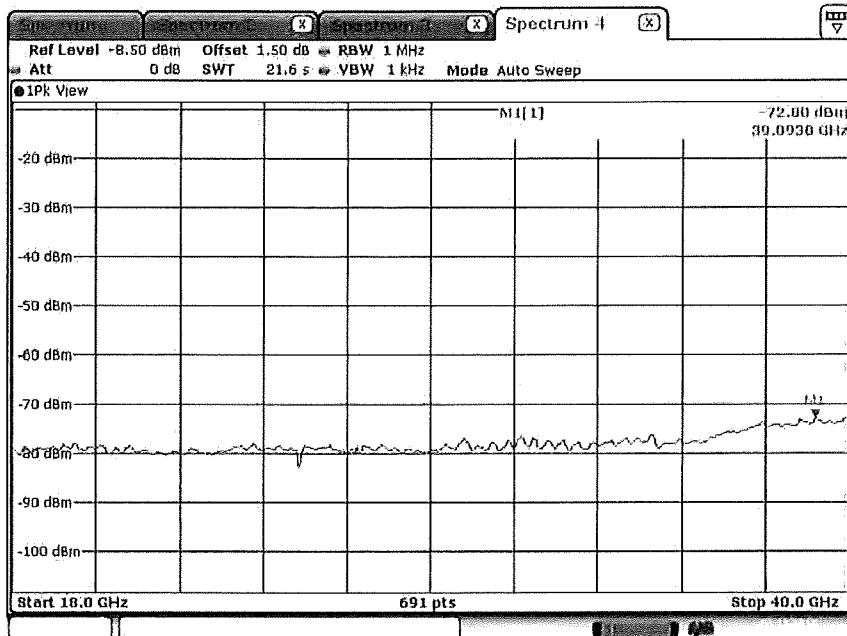
Date: 21.NOV.2017 16:00:16

Plot on Configuration QPSK, 20M / 5240 MHz / Peak / Port 2 / 18GHz~40GHz

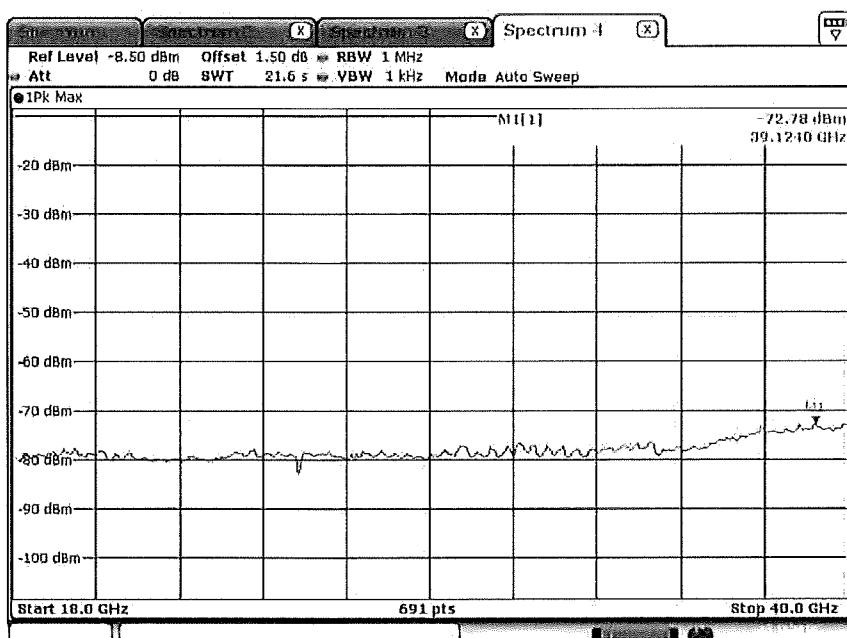


Date: 21.NOV.2017 16:14:44

Plot on Configuration QPSK, 80M / 5200 MHz / Average / Port 1 / 18GHz~40GHz

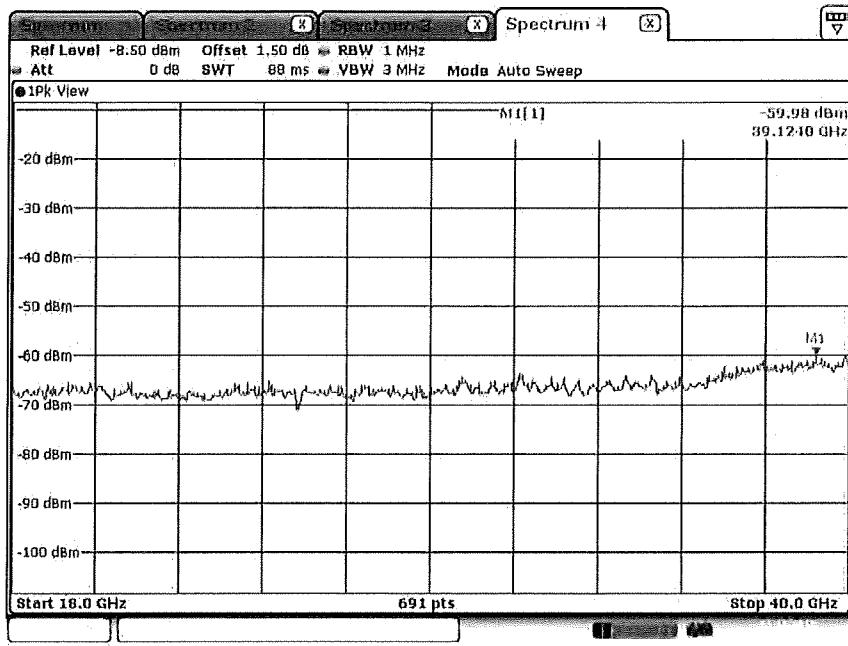


Plot on Configuration QPSK, 80M / 5200 MHz / Average / Port 2 / 18GHz~40GHz



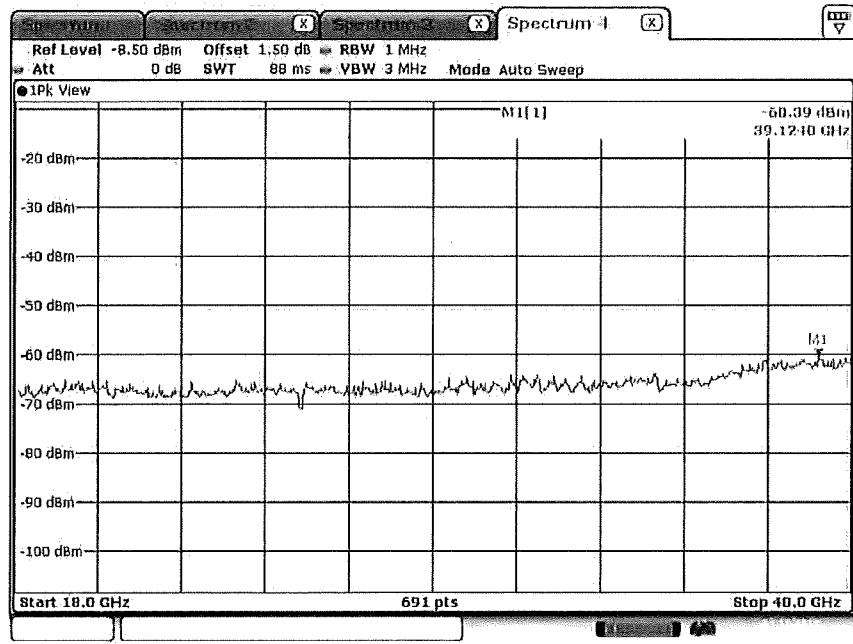


Plot on Configuration QPSK, 80M / 5200 MHz / Peak / Port 1 / 18GHz~40GHz



Date: 21.NOV.2017 15:01:20

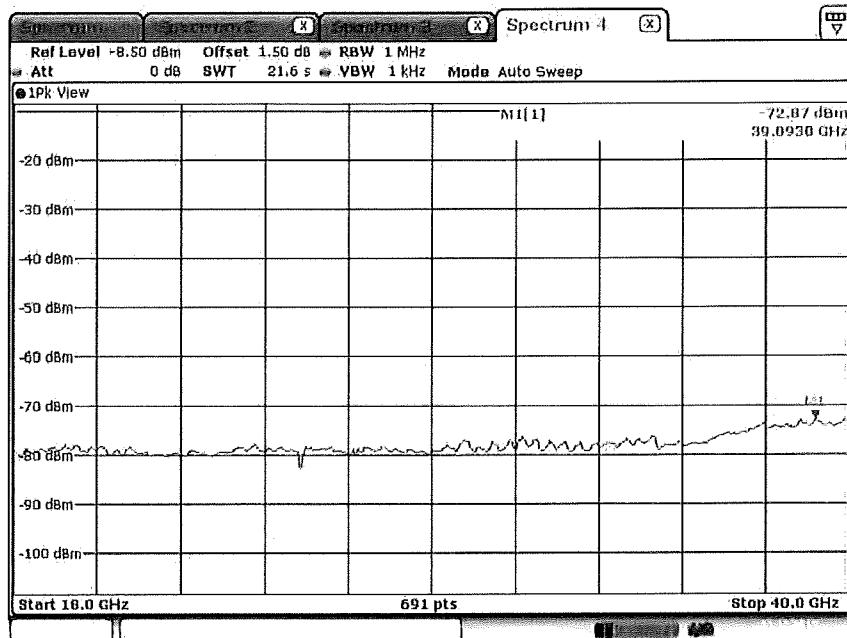
Plot on Configuration QPSK, 80M / 5200 MHz / Peak / Port 2 / 18GHz~40GHz



Date: 21.NOV.2017 15:08:49

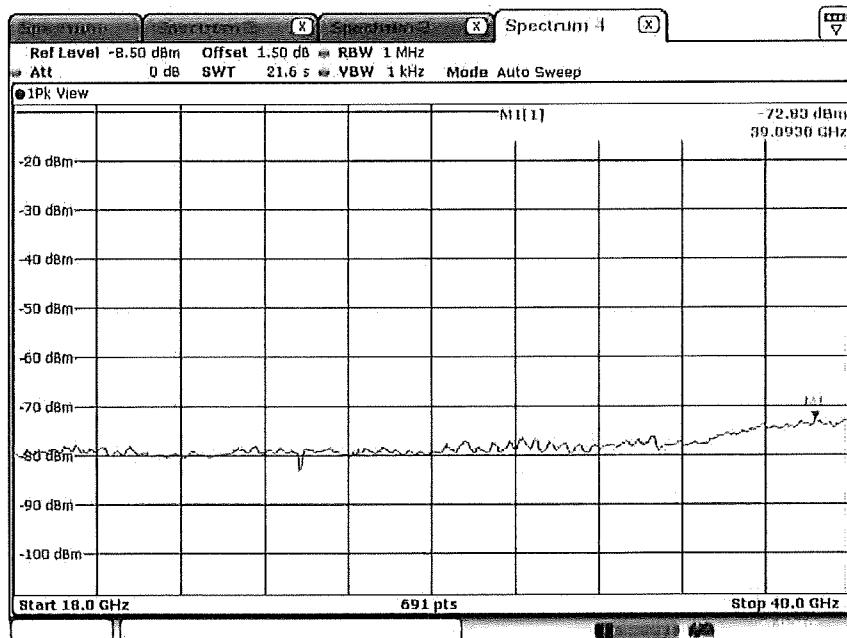


Plot on Configuration QPSK, 80M / 5210 MHz / Average / Port 1 / 18GHz~40GHz

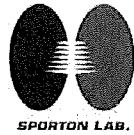


Date: 21.NOV.2017 15:04:18

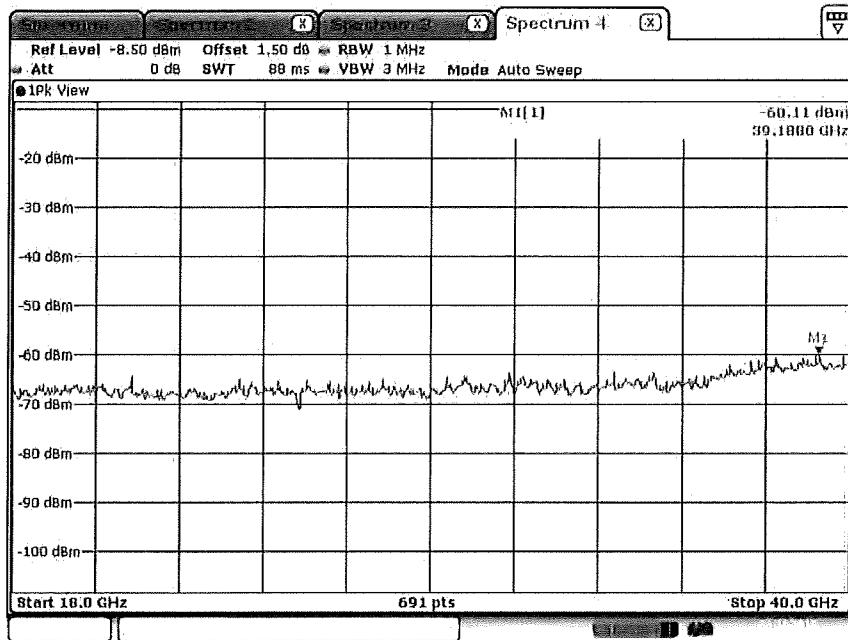
Plot on Configuration QPSK, 80M / 5210 MHz / Average / Port 2 / 18GHz~40GHz



Date: 21.NOV.2017 15:06:02

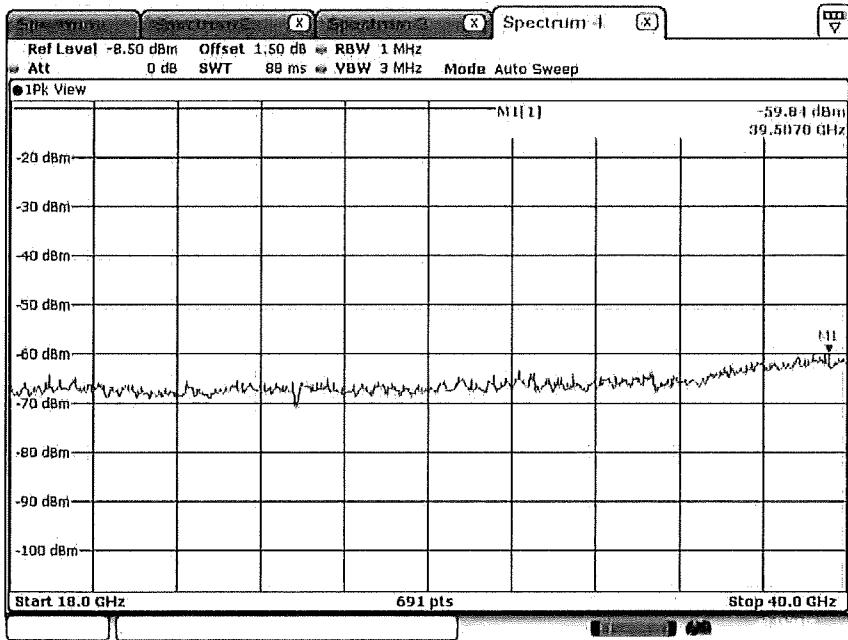


Plot on Configuration QPSK, 80M / 5210 MHz / Peak / Port 1 / 18GHz~40GHz



Date: 21.NOV.2017 | 15:04:38

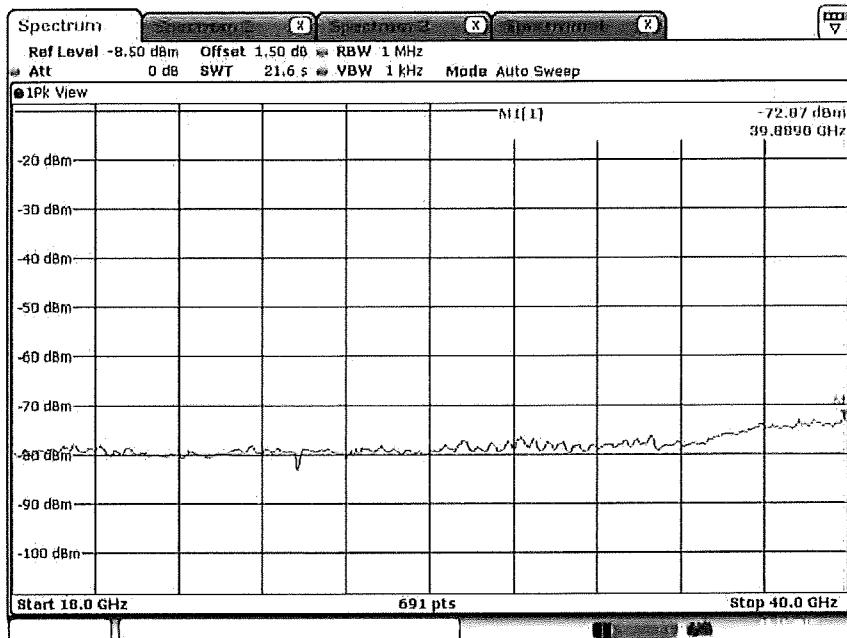
Plot on Configuration QPSK, 80M / 5210 MHz / Peak / Port 2 / 18GHz~40GHz



Date: 21.NOV.2017 | 15:05:29

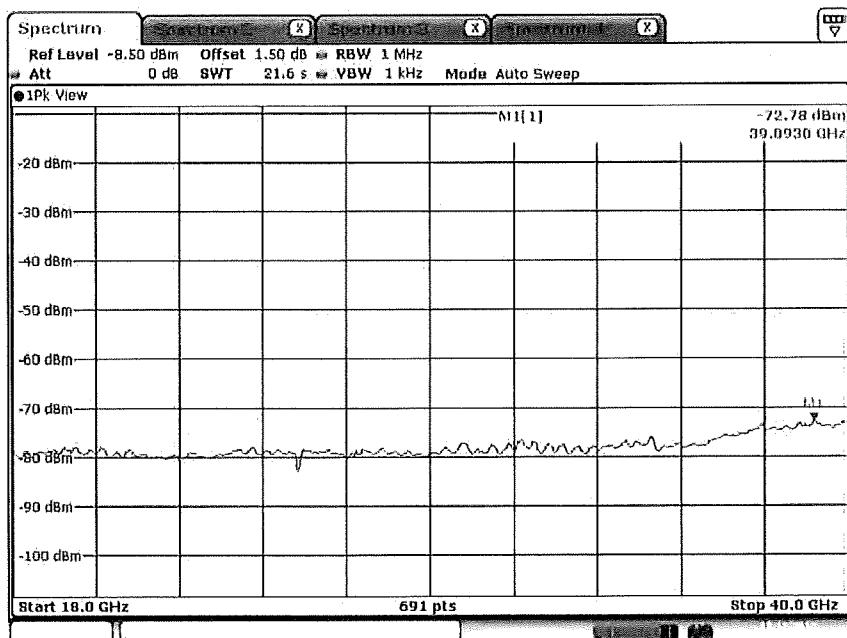


Plot on Configuration QPSK, 20M / 5745 MHz / Average / Port 1 / 18GHz~40GHz

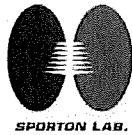


Date: 18.NOV.2017 13:07:07

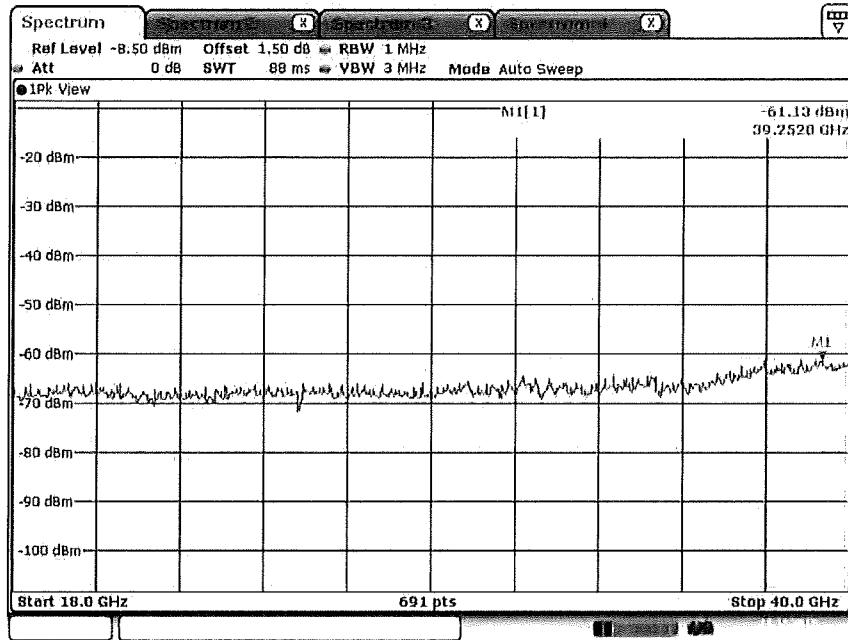
Plot on Configuration QPSK, 20M / 5745 MHz / Average / Port 2 / 18GHz~40GHz



Date: 18.NOV.2017 13:23:51

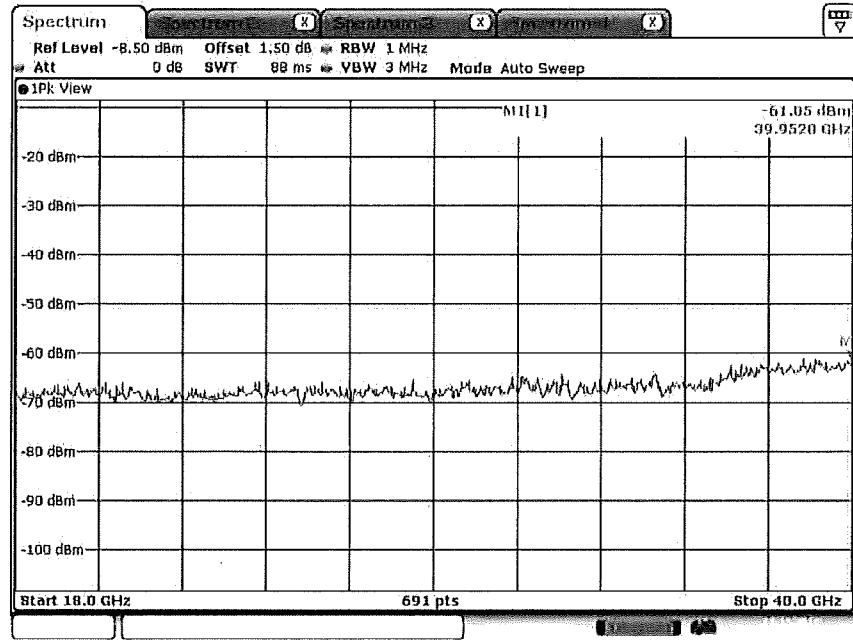


Plot on Configuration QPSK, 20M / 5745 MHz / Peak / Port 1 / 18GHz~40GHz

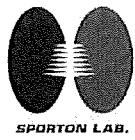


Date: 18.NOV.2017 13:12:44

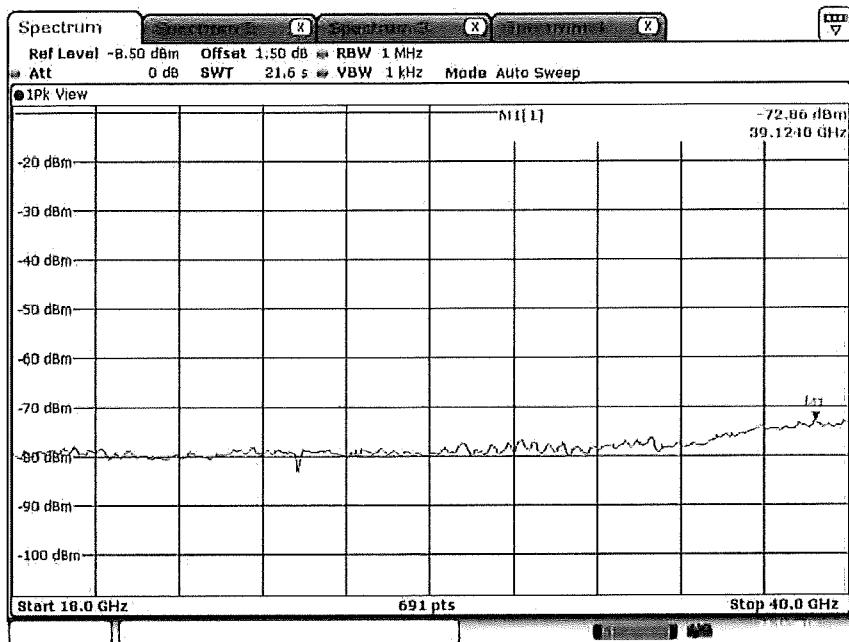
Plot on Configuration QPSK, 20M / 5745 MHz / Peak / Port 2 / 18GHz~40GHz



Date: 18.NOV.2017 13:13:02

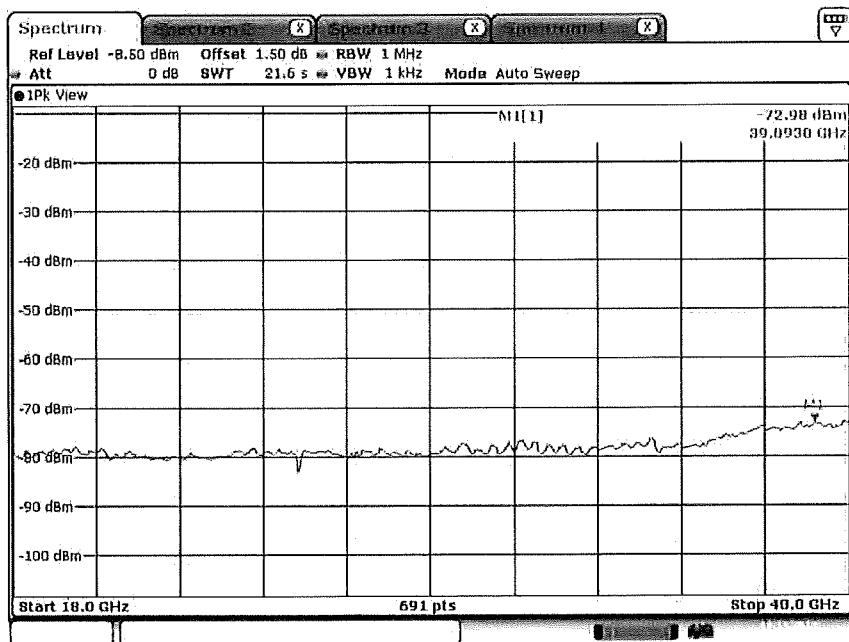


Plot on Configuration QPSK, 20M / 5785 MHz / Average / Port 1 / 18GHz~40GHz

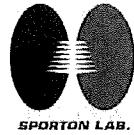


Date: 18.NOV.2017 13:09:07

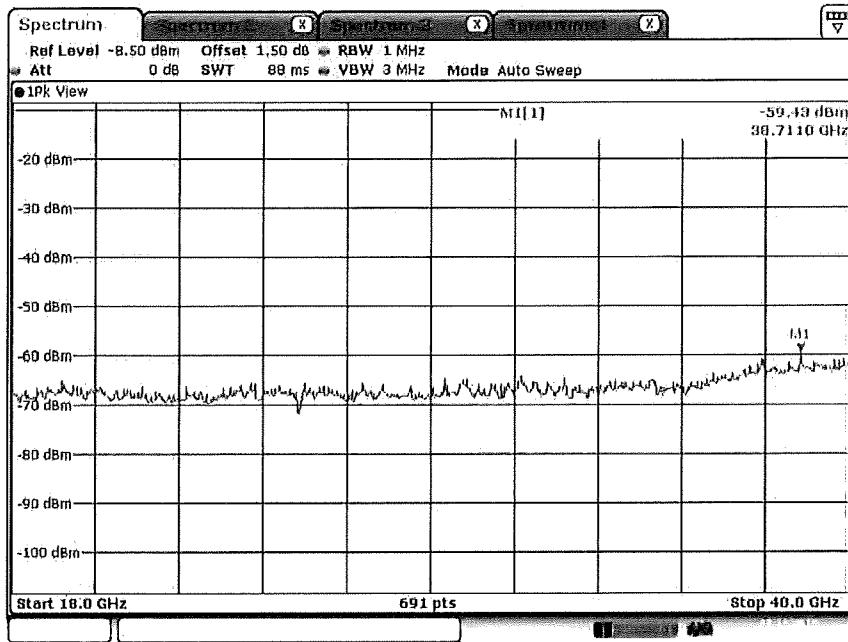
Plot on Configuration QPSK, 20M / 5785 MHz / Average / Port 2 / 18GHz~40GHz



Date: 18.NOV.2017 13:09:53

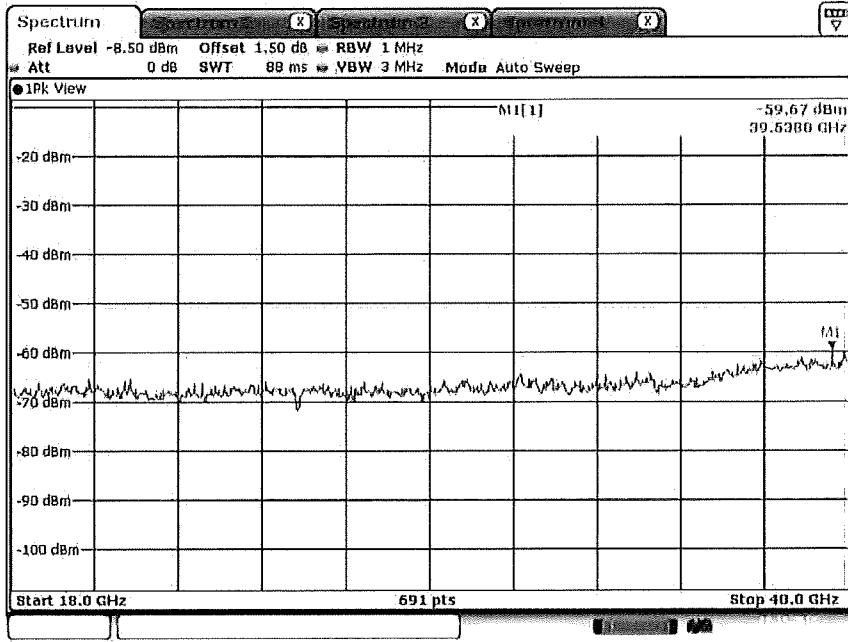


Plot on Configuration QPSK, 20M / 5785 MHz / Peak / Port 1 / 18GHz~40GHz

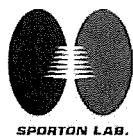


Date: 18.NOV.2017 13:13:44

Plot on Configuration QPSK, 20M / 5785 MHz / Peak / Port 2 / 18GHz~40GHz



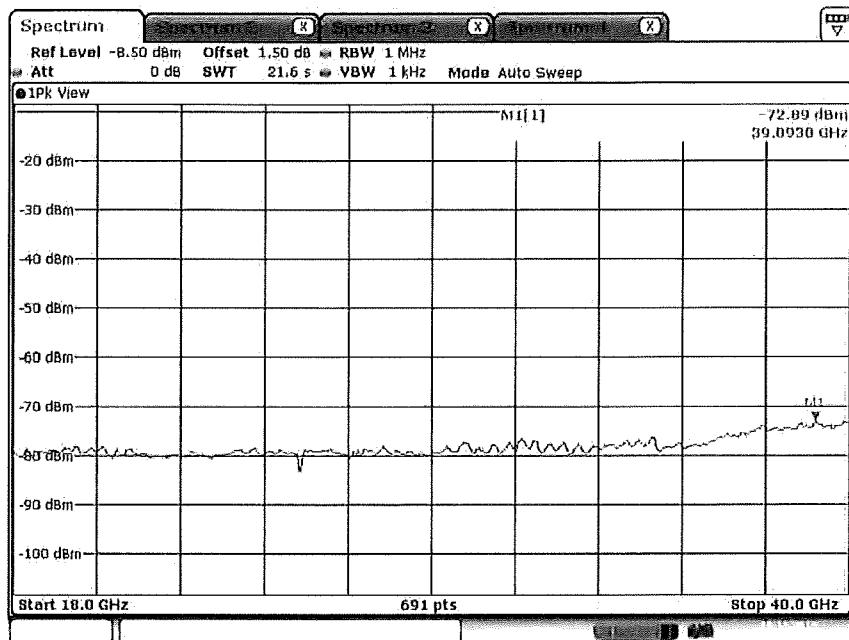
Date: 18.NOV.2017 13:14:20



SPARTON LAB.

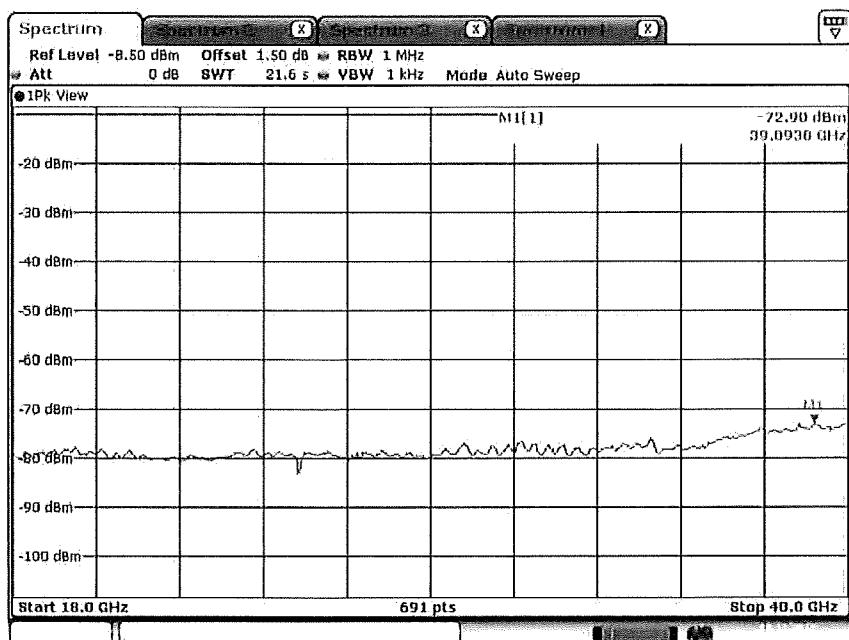
Report No.: FR7D0728

Plot on Configuration QPSK, 20M / 5825 MHz / Average / Port 1 / 18GHz~40GHz

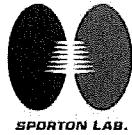


Date: 18.NOV.2017 13:10:41

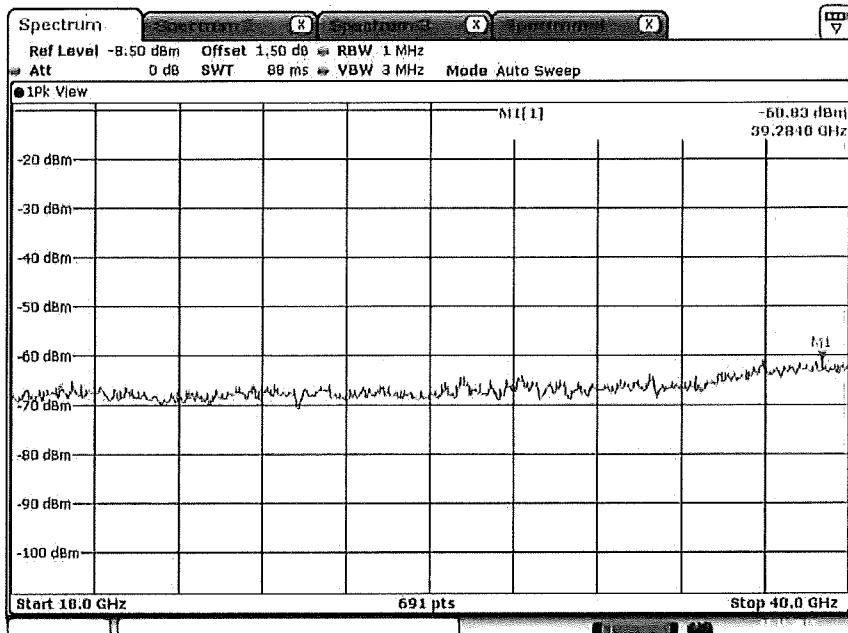
Plot on Configuration QPSK, 20M / 5825 MHz / Average / Port 2 / 18GHz~40GHz



Date: 18.NOV.2017 13:11:51

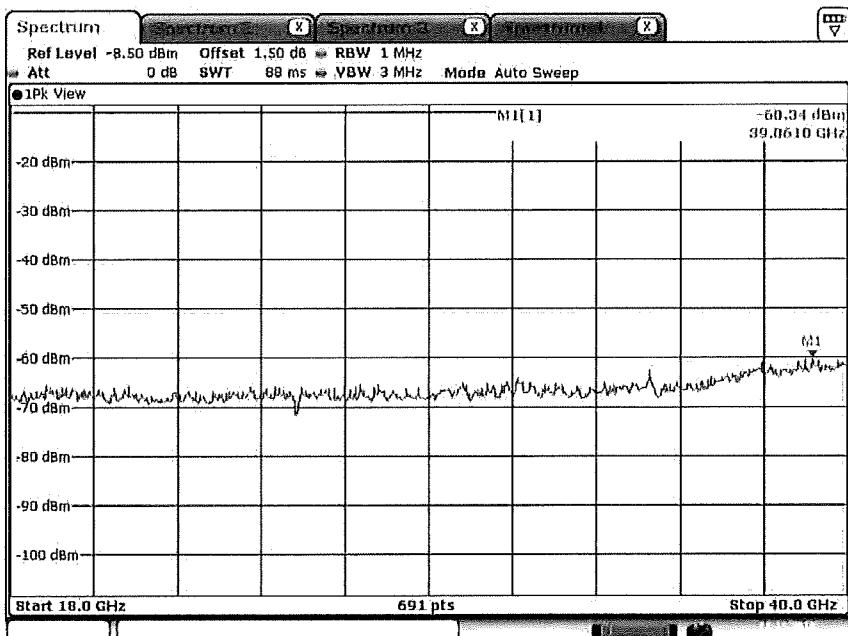


Plot on Configuration QPSK, 20M / 5825 MHz / Peak / Port 1 / 18GHz~40GHz



Date: 18.NOV.2017 13:14:44

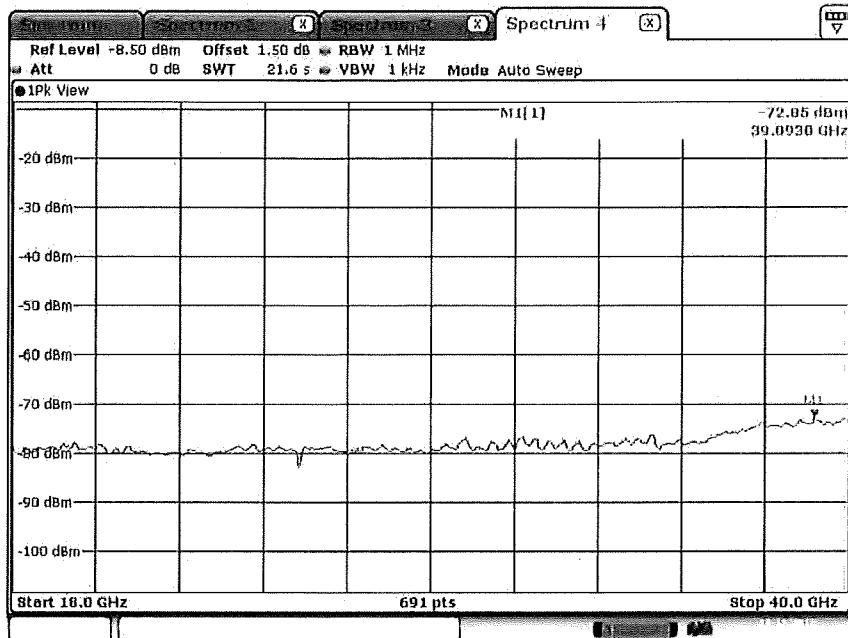
Plot on Configuration QPSK, 20M / 5825 MHz / Peak / Port 2 / 18GHz~40GHz



Date: 18.NOV.2017 13:15:05

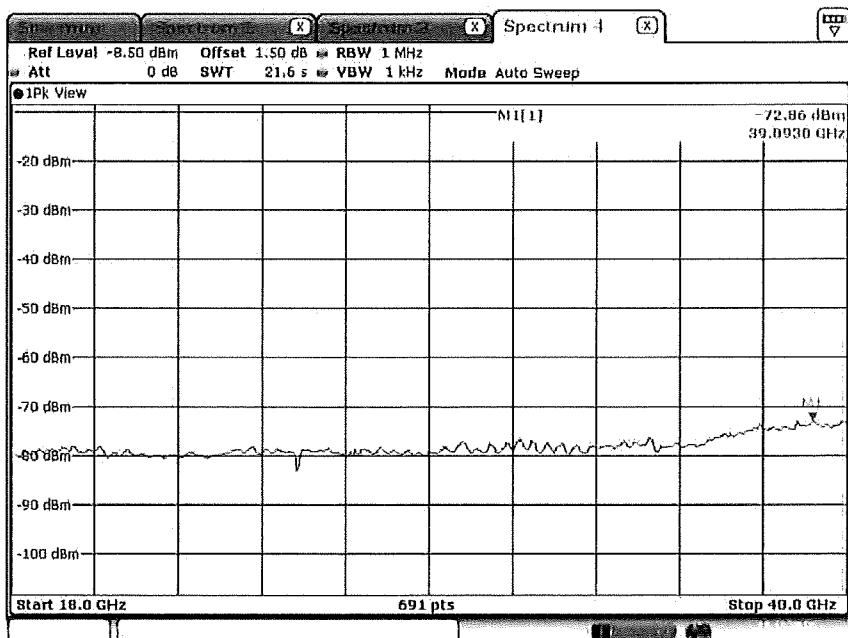


Plot on Configuration QPSK, 80M / 5765 MHz / Average / Port 1 / 18GHz~40GHz

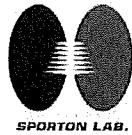


Date: 18.NOV.2017 22:50:54

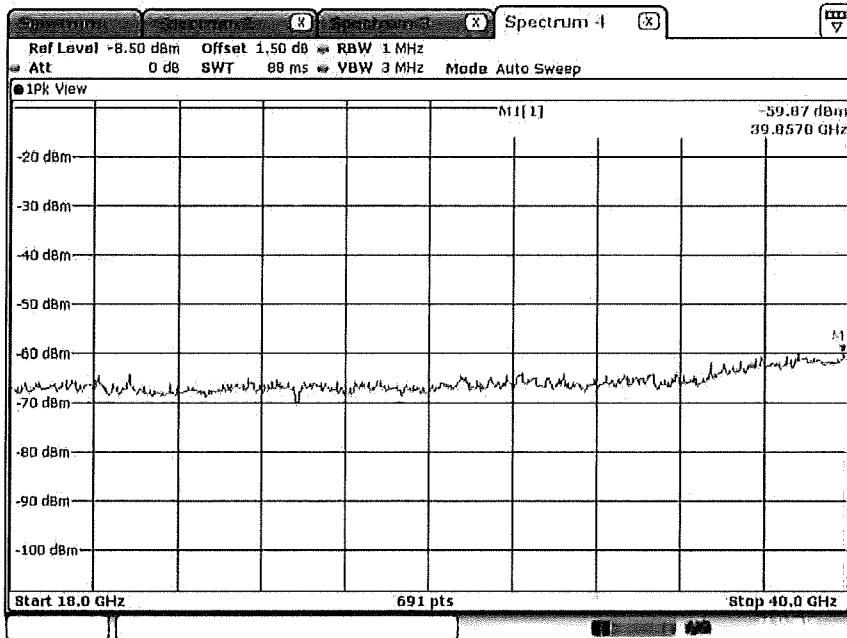
Plot on Configuration QPSK, 80M / 5765 MHz / Average / Port 2 / 18GHz~40GHz



Date: 18.NOV.2017 22:57:12

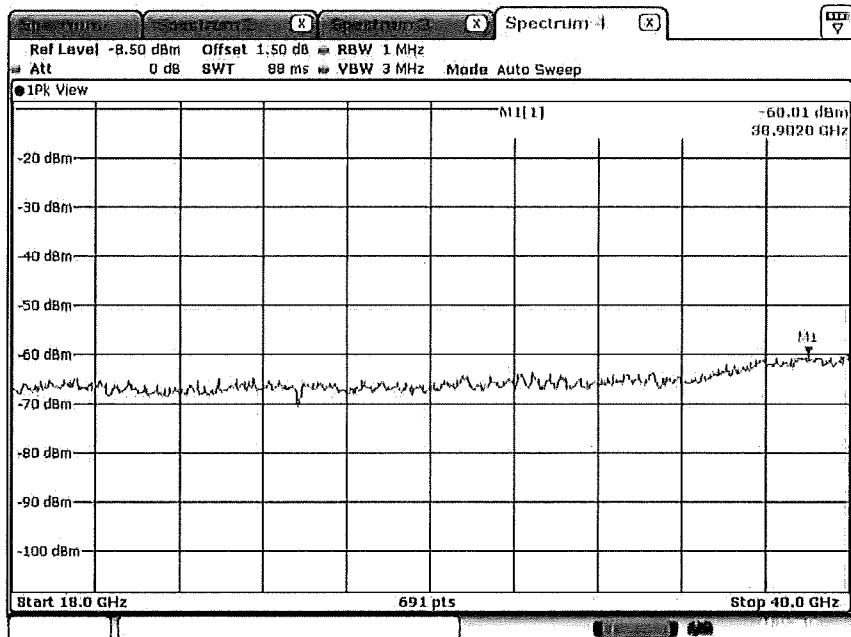


Plot on Configuration QPSK, 80M / 5765 MHz / Peak / Port 1 / 18GHz~40GHz



Date: 18.NOV.2017 22:52:02

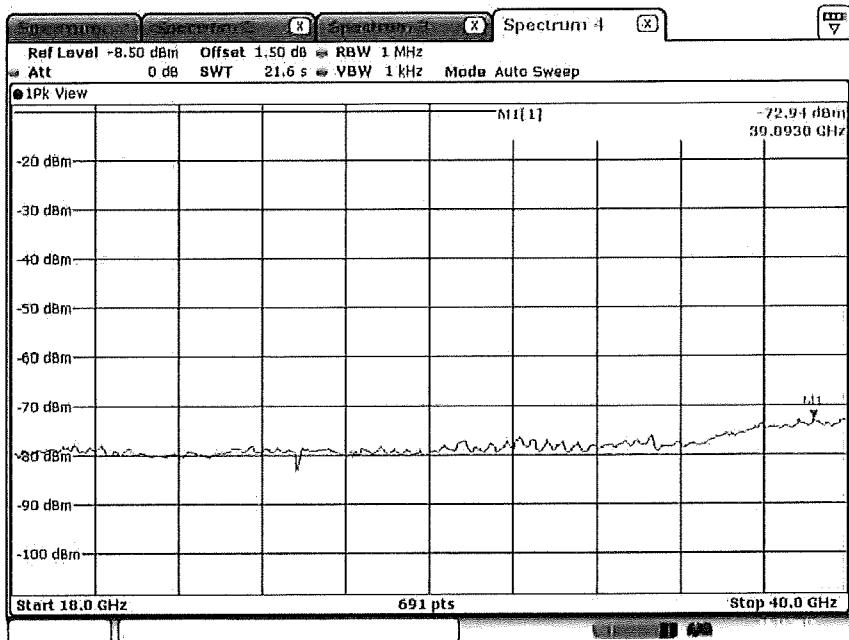
Plot on Configuration QPSK, 80M / 5765 MHz / Peak / Port 2 / 18GHz~40GHz



Date: 18.NOV.2017 22:58:25

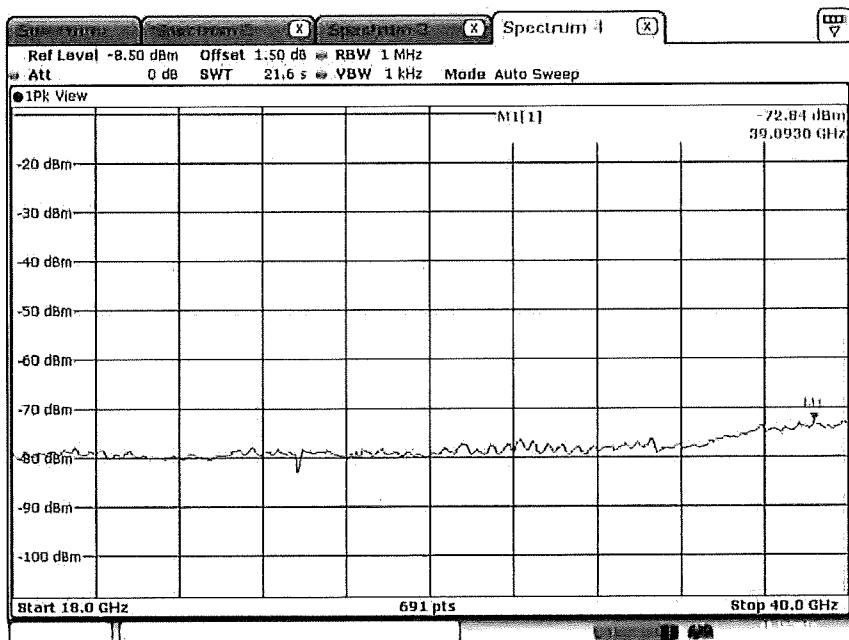


Plot on Configuration QPSK, 80M / 5785 MHz / Average / Port 1 / 18GHz~40GHz



Date: 18 NOV. 2017 23:42:45

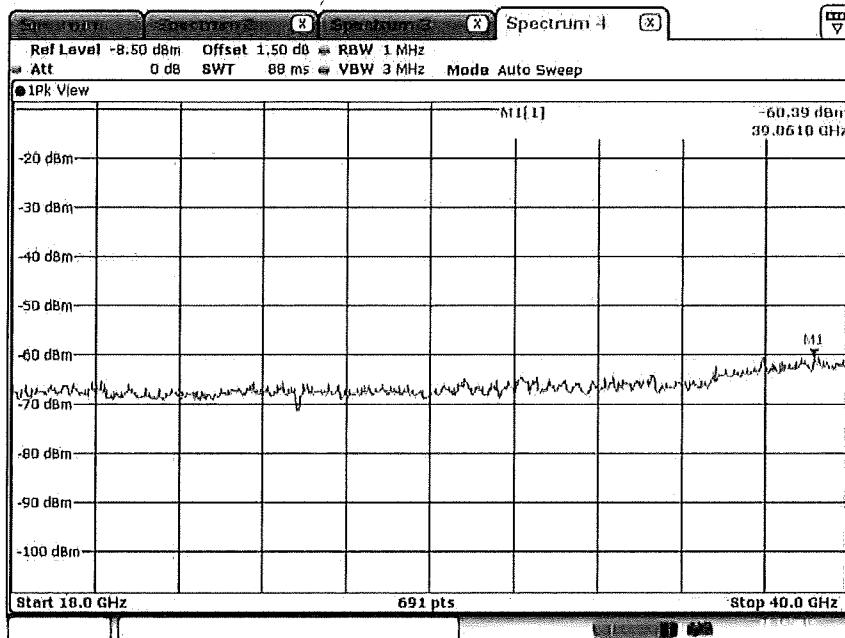
Plot on Configuration QPSK, 80M / 5785 MHz / Average / Port 2 / 18GHz~40GHz



Date: 18 NOV. 2017 23:49:57

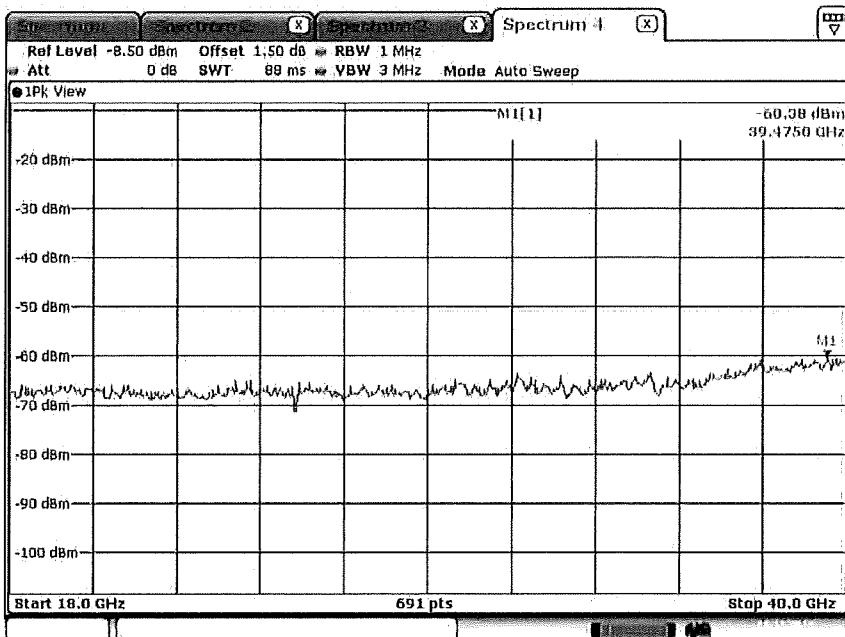


Plot on Configuration QPSK, 80M / 5785 MHz / Peak / Port 1 / 18GHz~40GHz

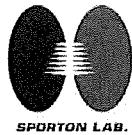


Date: 18.NOV.2017 23:45:29

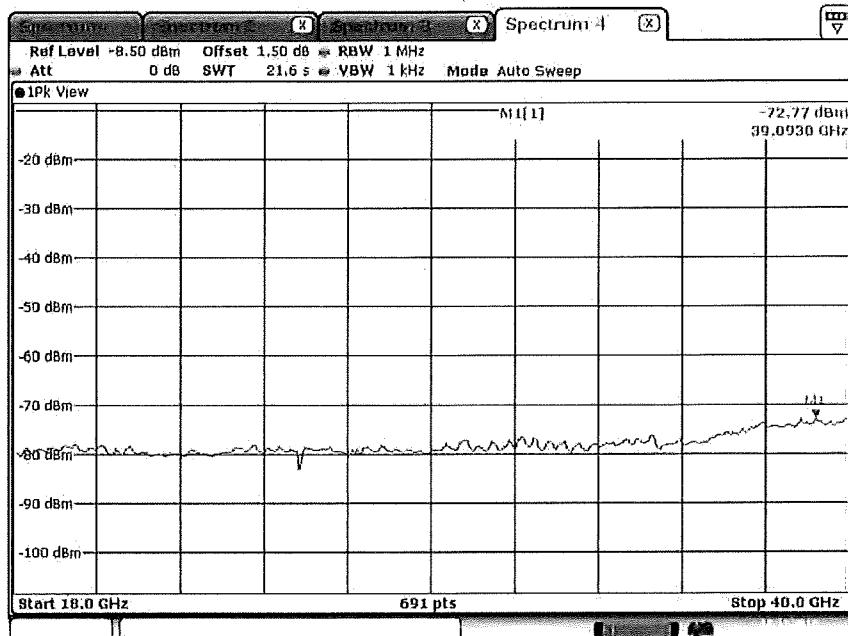
Plot on Configuration QPSK, 80M / 5785 MHz / Peak / Port 2 / 18GHz~40GHz



Date: 18.NOV.2017 23:51:12

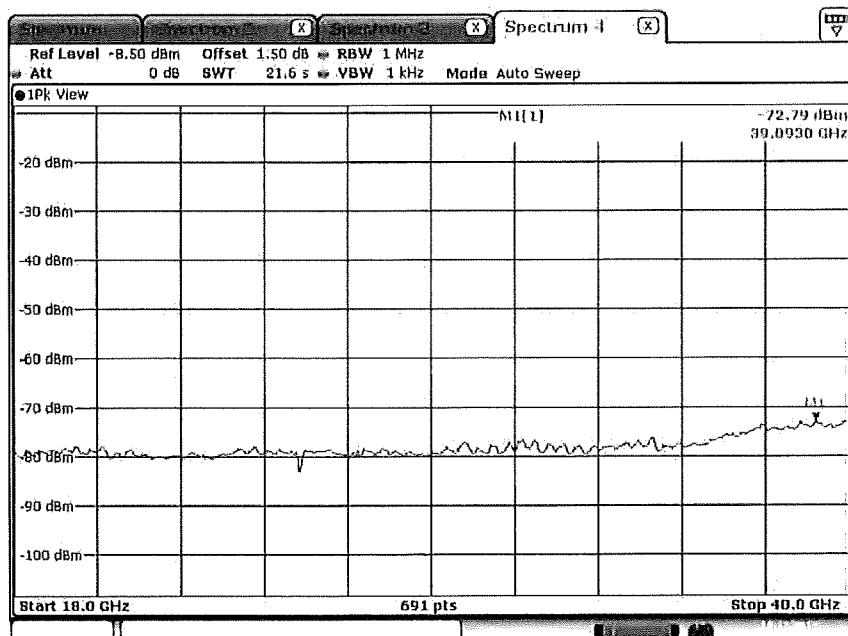


Plot on Configuration QPSK, 80M / 5805 MHz / Average / Port 1 / 18GHz~40GHz

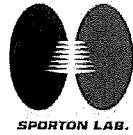


Date: 19.NOV.2017 00.22:46

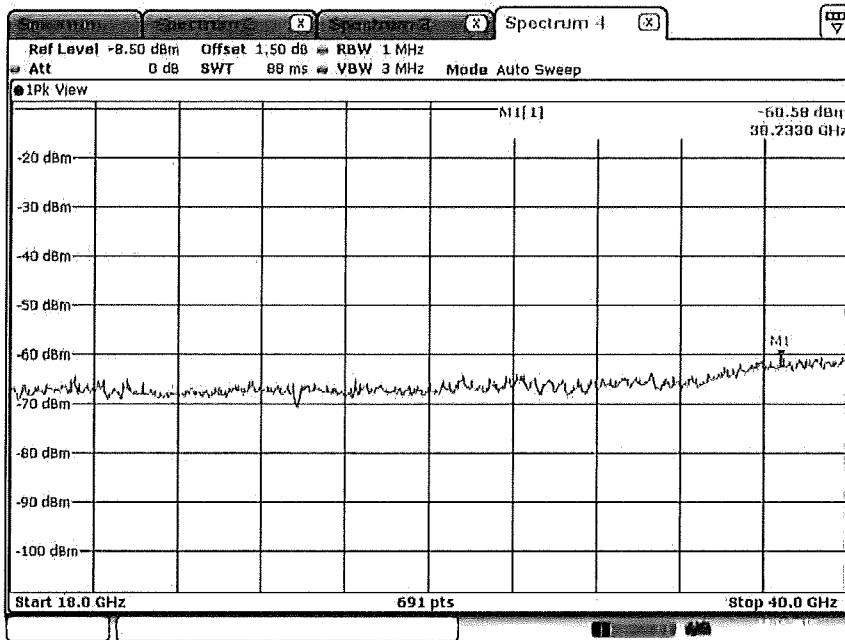
Plot on Configuration QPSK, 80M / 5805 MHz / Average / Port 2 / 18GHz~40GHz



Date: 19.NOV.2017 00.28.18

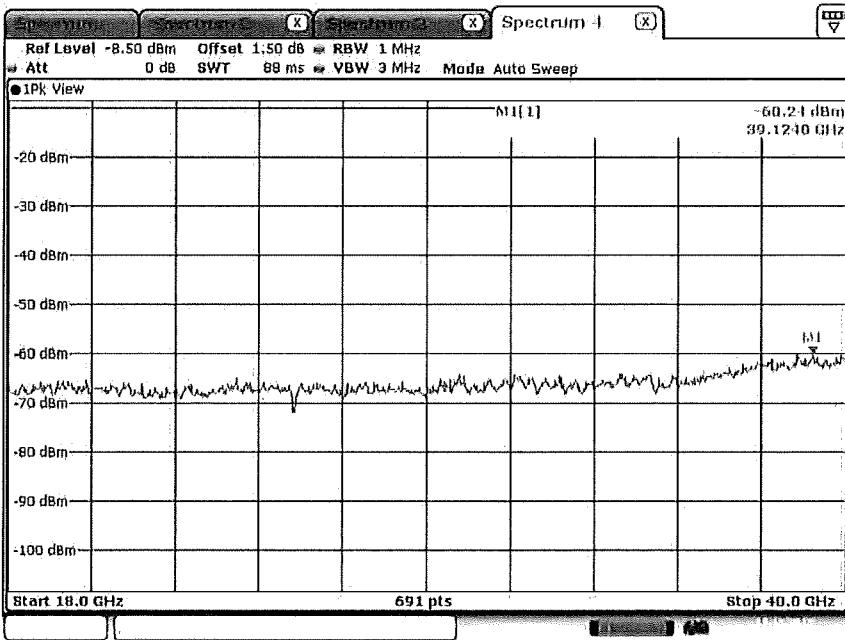


Plot on Configuration QPSK, 80M / 5805 MHz / Peak / Port 1 / 18GHz~40GHz

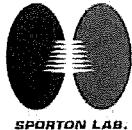


Date: 19.NOV.2017 00.23.30

Plot on Configuration QPSK, 80M / 5805 MHz / Peak / Port 2 / 18GHz~40GHz



Date: 19.NOV.2017 00.29.56

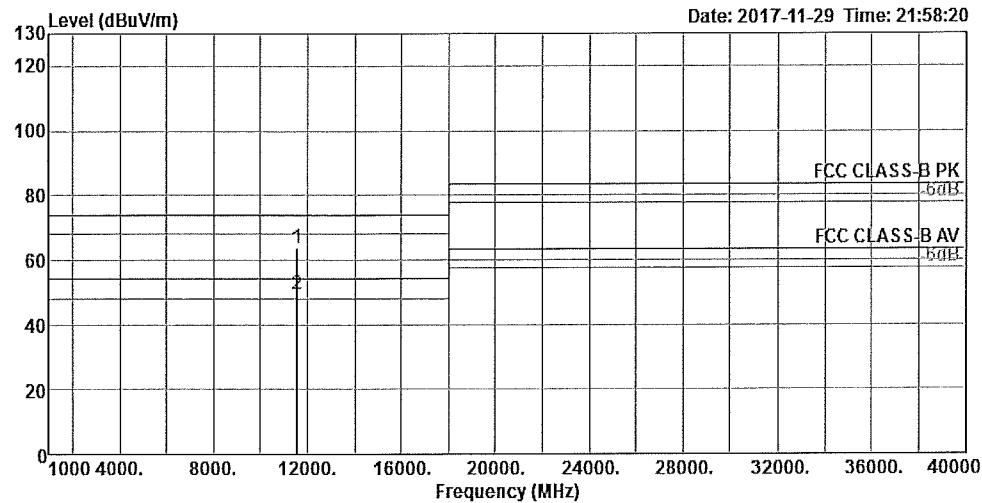


SPARTON LAB.

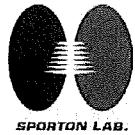
Report No.: FR7D0728

For Cabinet test:

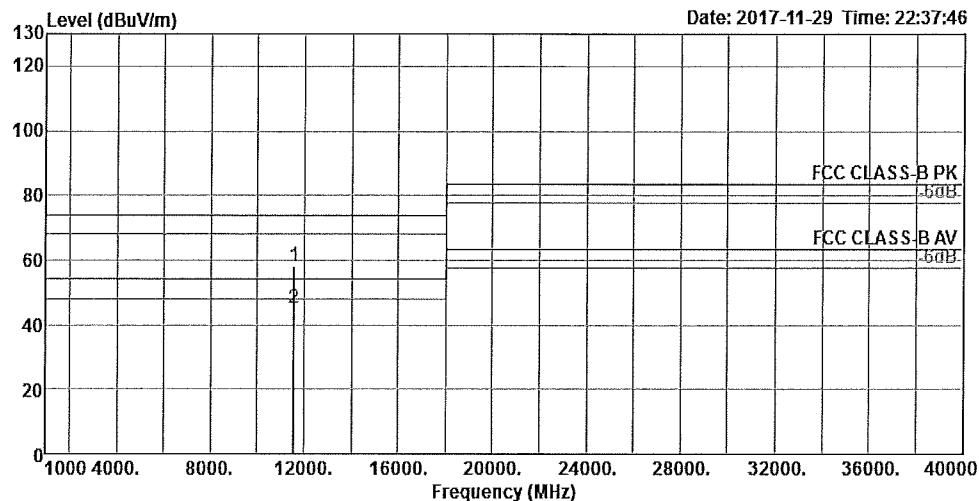
Polarization	Vertical
--------------	----------



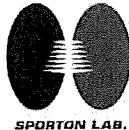
Freq	Level	Limit		Over Limit	Read Level	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
		Line	dB			dBuV	dB	dB/m	dB	cm		
MHz	dBuV/m	dBuV/m	dB	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11574.60	63.82	74.00	-10.18	50.22	9.48	39.05	34.93	282	253	Peak	VERTICAL
2	11576.40	49.47	54.00	-4.53	35.87	9.48	39.05	34.93	282	253	Average	VERTICAL



Polarization	Horizontal
--------------	------------



Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
		Line	Limit	Level	Loss	Factor	Factor	cm	deg		
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	11571.40	57.97	74.00	-16.03	44.37	9.48	39.05	34.93	296	158 Peak	HORIZONTAL
2	11573.90	45.15	54.00	-8.85	31.55	9.48	39.05	34.93	296	158 Average	HORIZONTAL



4.7. Band Edge Emissions Measurement

4.7.1. Limit

For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

In addition, In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

4.7.2. 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	100 MHz
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average
RBW / VBW (Emission in non-restricted band)	1MHz / 3MHz for Peak

4.7.3. Test Procedures

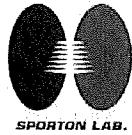
The test procedure is the same as section 4.5.3

4.7.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.5.4

4.7.5. Test Deviation

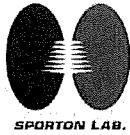
There is no deviation with the original standard.



Report No.: FR7D0728

4.7.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.



4.7.7. Test Result of Band Edge and Fundamental Emissions

For Antenna 2:

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 20M / Average / Port 1+Port 2

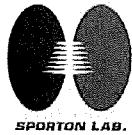
Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5180	-69.69	-69.66	-41.66	-41.25	0.41
5200	-69.55	-69.70	-41.61	-41.25	0.36
5240	-69.64	-69.73	-41.67	-41.25	0.42

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 20M / Peak / Port 1+Port 2

Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5180	-57.12	-57.70	-29.39	-21.25	8.14
5200	-56.86	-56.71	-28.77	-21.25	7.52
5240	-56.71	-57.02	-28.85	-21.25	7.60

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 80M / Average / Port 1+Port 2

Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5200	-69.68	-69.30	-41.48	-41.25	0.23
5210	-69.60	-69.47	-41.52	-41.25	0.27



Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 80M / Peak / Port 1+Port 2

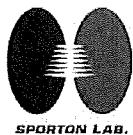
Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5200	-56.99	-57.13	-29.05	-21.25	7.80
5210	-57.01	-56.46	-28.72	-21.25	7.47

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 20M / Peak / Port 1+Port 2

Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5745	-55.86	-54.82	-27.30	-27.00	0.30
5785	-55.94	-54.42	-27.10	-27.00	0.10
5825	-55.85	-54.38	-27.04	-27.00	0.04

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 80M / Peak / Port 1+Port 2

Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5745	-56.25	-54.92	-27.52	-27.00	0.52
5785	-56.43	-54.96	-27.62	-27.00	0.62
5805	-55.85	-54.55	-27.14	-27.00	0.14



For Antenna 3:

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 20M / Average / Port 1+Port 2

Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5180	-48.10	-45.40	-41.53	-41.25	0.28
5200	-45.62	-47.33	-41.38	-41.25	0.13
5240	-51.62	-51.99	-46.79	-41.25	5.54

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 20M / Peak / Port 1+Port 2

Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5180	-28.93	-29.92	-24.39	-21.25	3.14
5200	-30.19	-27.61	-23.70	-21.25	2.45
5240	-38.22	-34.43	-30.91	-21.25	9.66

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 80M / Average / Port 1+Port 2

Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5200	-48.56	-45.00	-41.41	-41.25	0.16
5210	-49.70	-44.92	-41.67	-41.25	0.42



Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 80M / Peak / Port 1 + Port 2

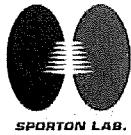
Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5200	-34.71	-29.55	-26.39	-21.25	5.14
5210	-35.47	-31.01	-27.68	-21.25	6.43

Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 20M / Peak / Port 1 + Port 2

Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5745	-39.37	-40.82	-35.02	-27.00	8.02
5785	-40.08	-40.89	-35.46	-27.00	8.46
5825	-33.79	-33.68	-28.72	-27.00	1.72

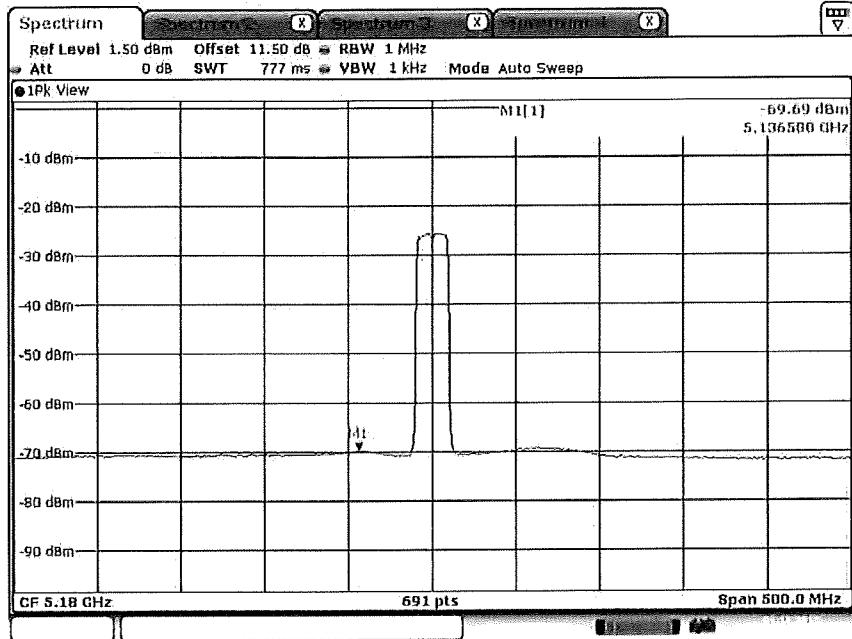
Temperature	22°C	Humidity	54%
Test Engineer	Ron Huang / Lucke Hsieh / Brian Sun / Serway Li	Configurations	QPSK, 80M / Peak / Port 1 + Port 2

Frequency(MHz)	Port 1 (TX1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dB)
5745	-32.14	-32.35	-27.23	-27.00	0.23
5785	-31.97	-33.44	-27.63	-27.00	0.63
5805	-30.96	-34.95	-27.50	-27.00	0.50

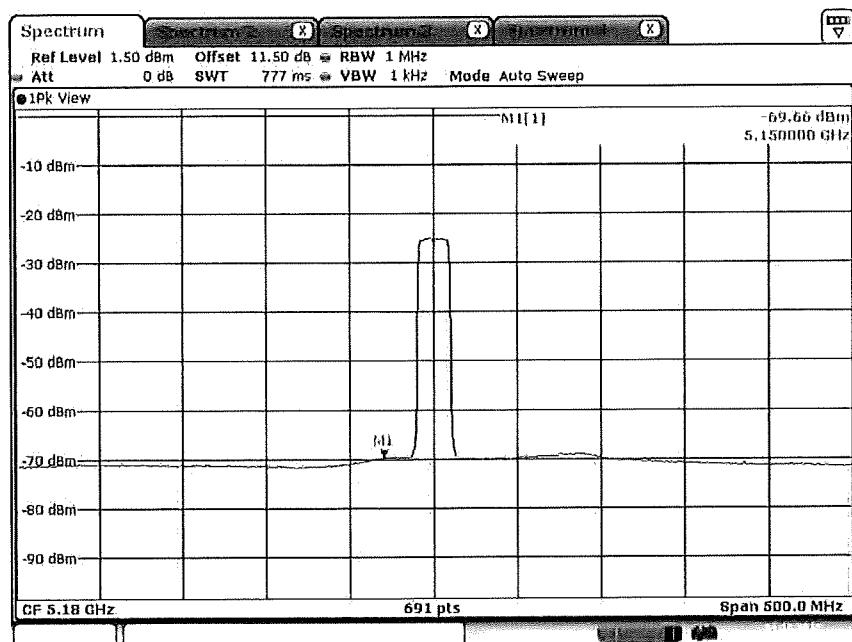


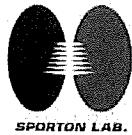
For Antenna 2:

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

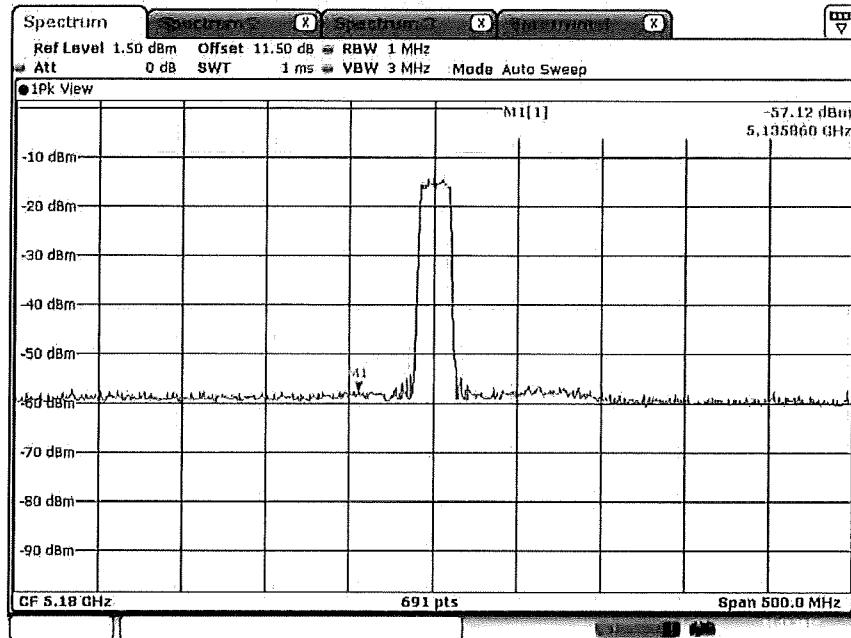


Plot on Configuration QPSK, 20M / 5180 MHz / Average / Port 2 (TX2)

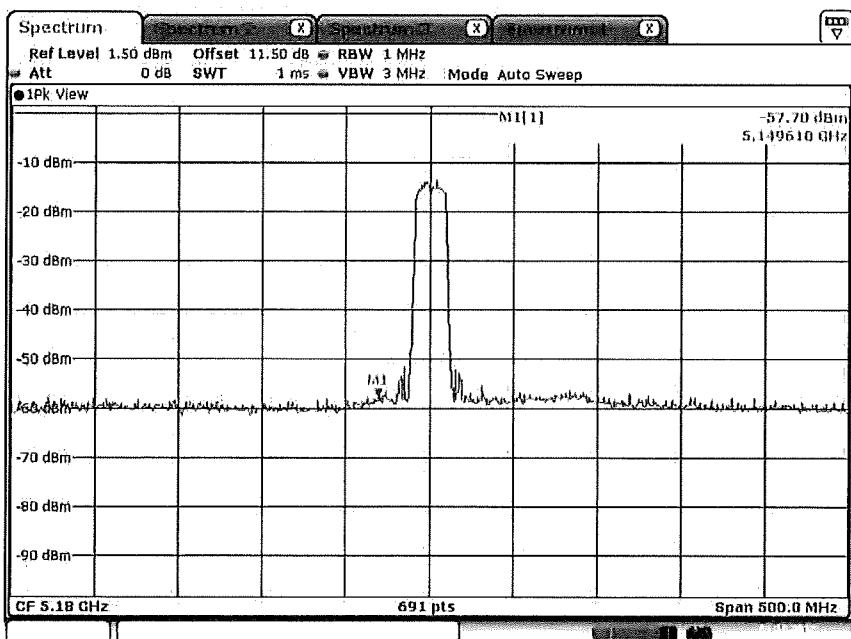




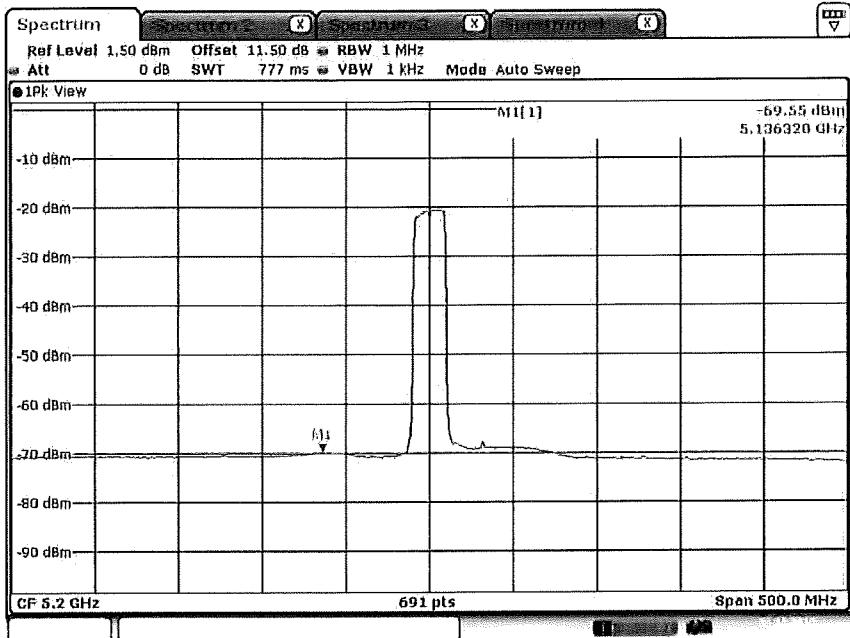
Plot on Configuration QPSK, 20M / 5180 MHz / Peak / Port 1 (TX1)



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

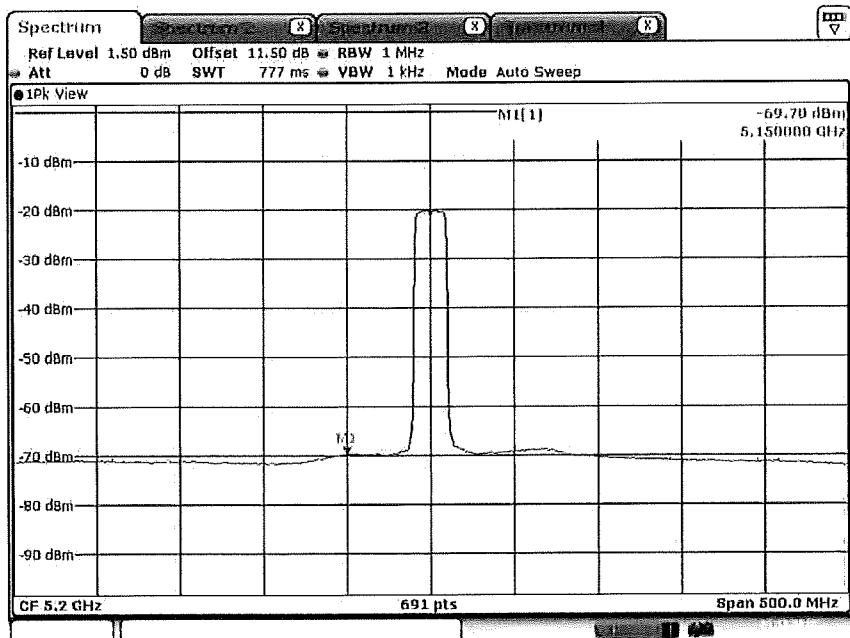


Plot on Configuration QPSK, 20M / 5200 MHz / Average / Port 1 (TX1)



Date: 21.NOV.2017 17:04:40

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



Date: 21.NOV.2017 17:05:18