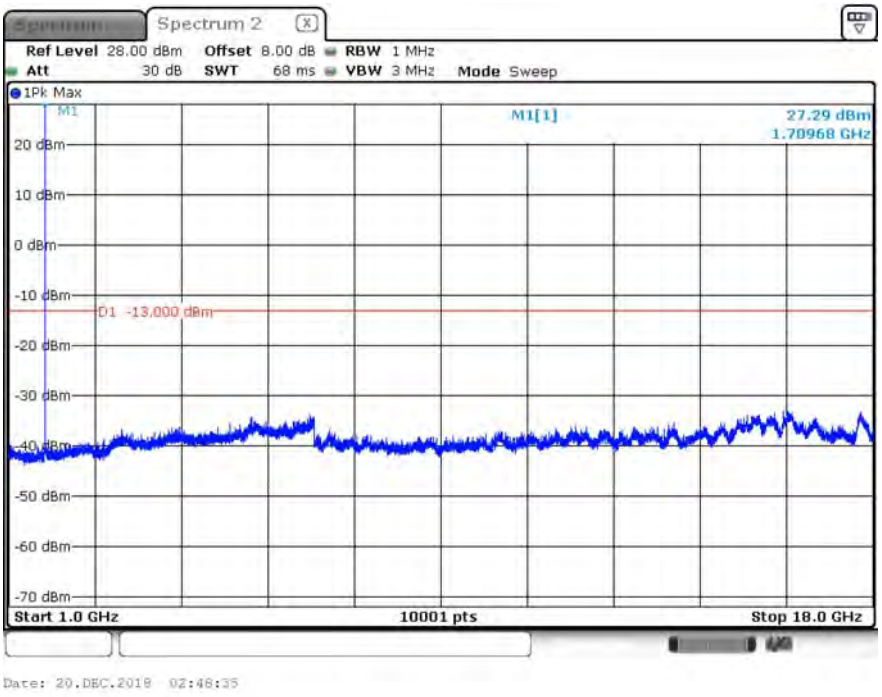
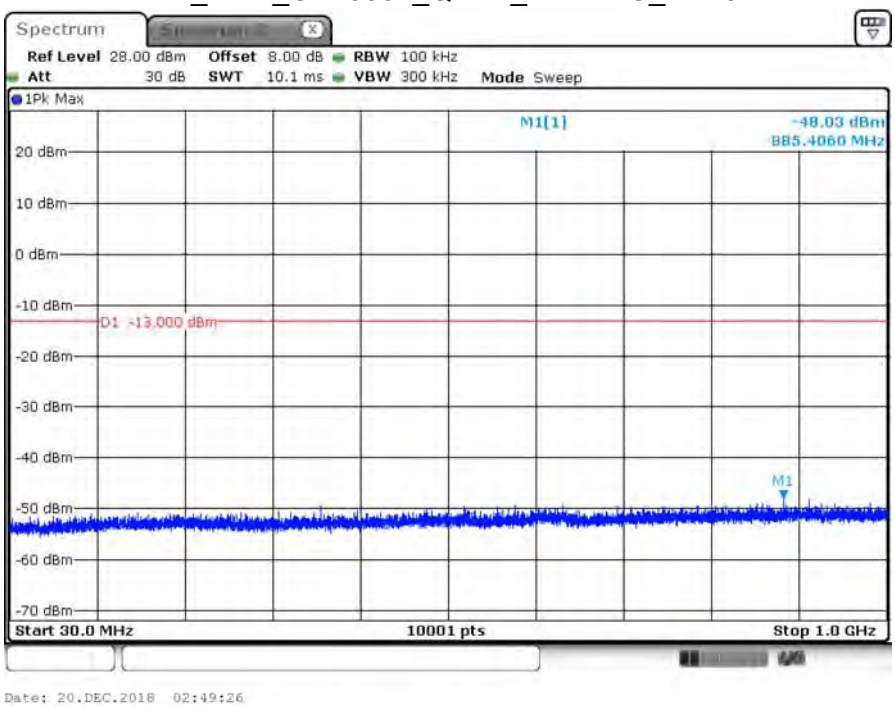
Product	Module		
Test Item	Conducted Spurious Emissions		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/12/21	Test Site	SR10-H

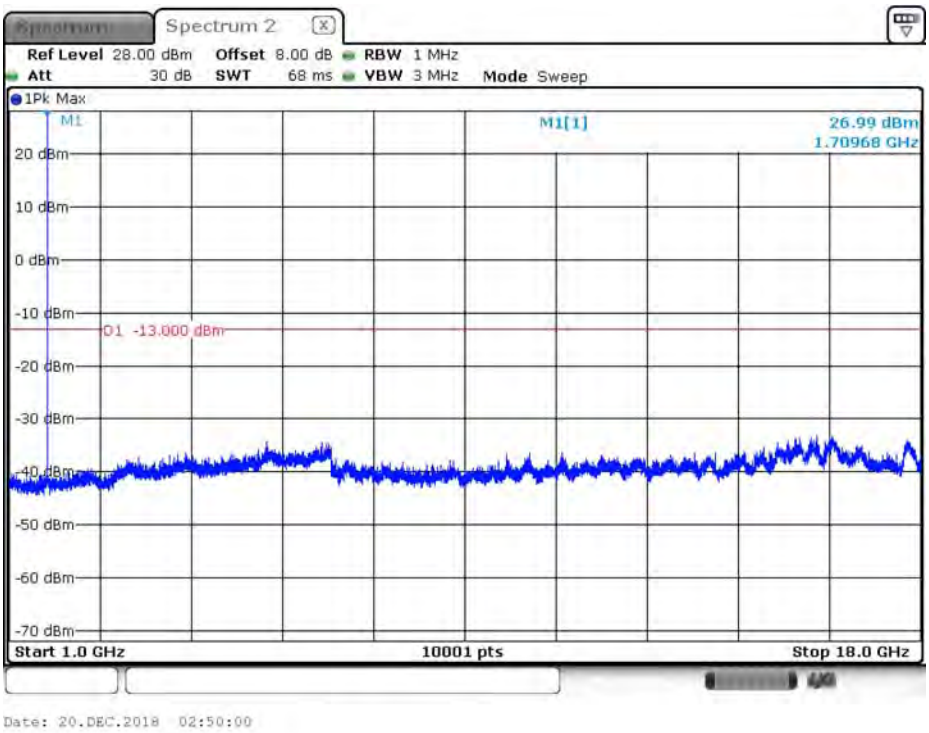
B4_1.4M_CH19957_QPSK_above 1G_1RB0



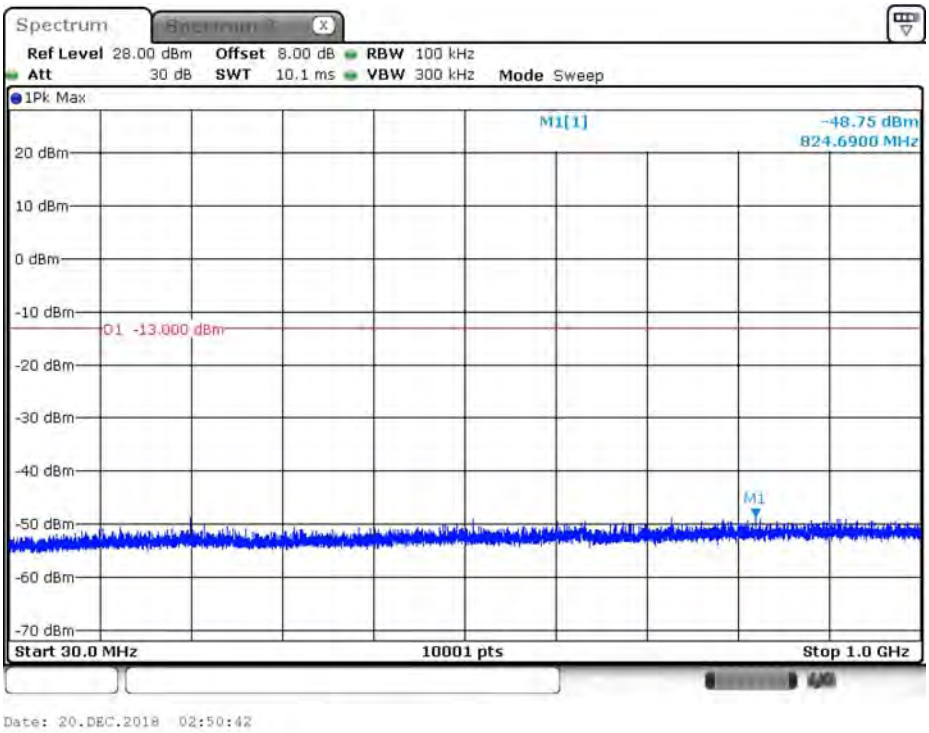
B4_1.4M_CH19957_QPSK_under 1G_1RB0



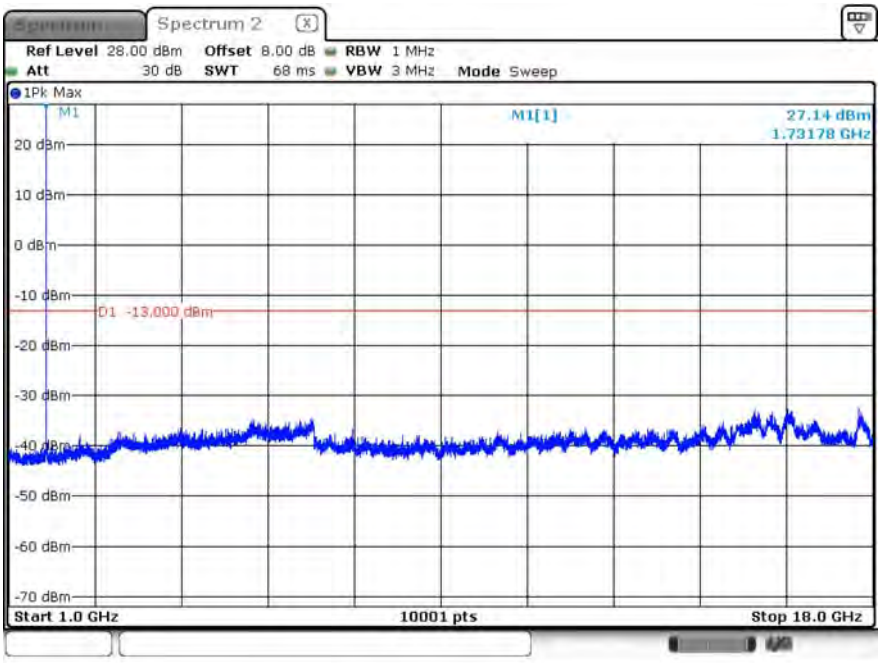
B4_1.4M_CH19957_16QAM_above 1G_1RB0



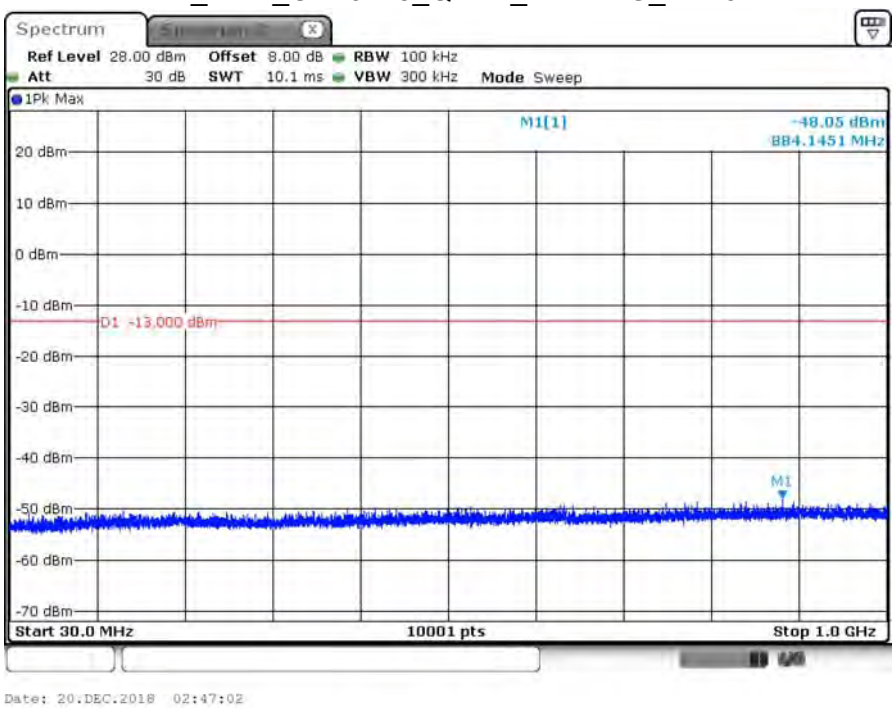
B4_1.4M_CH19957_16QAM_under 1G_1RB0



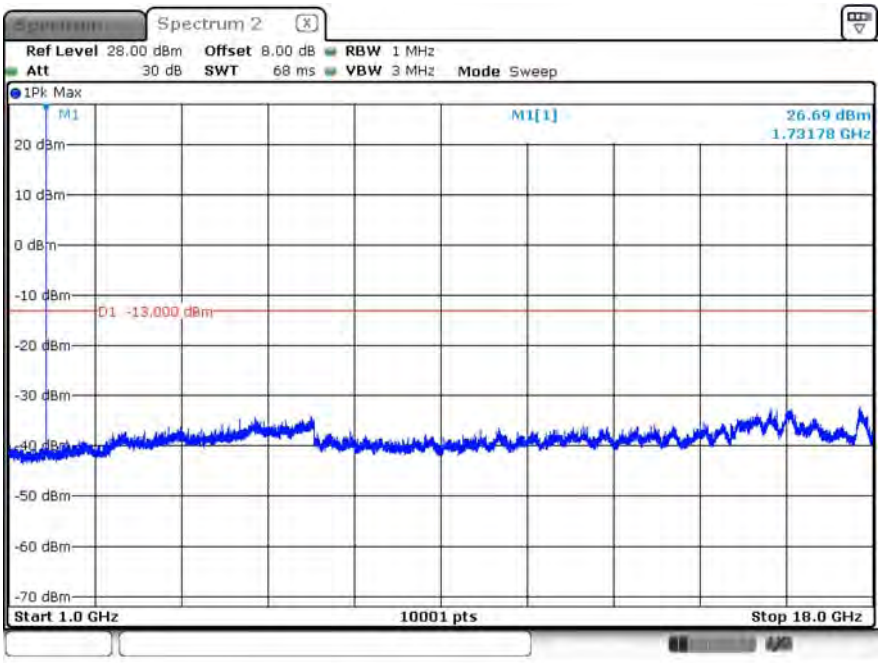
B4_1.4M_CH20175_QPSK_above 1G_1RB0



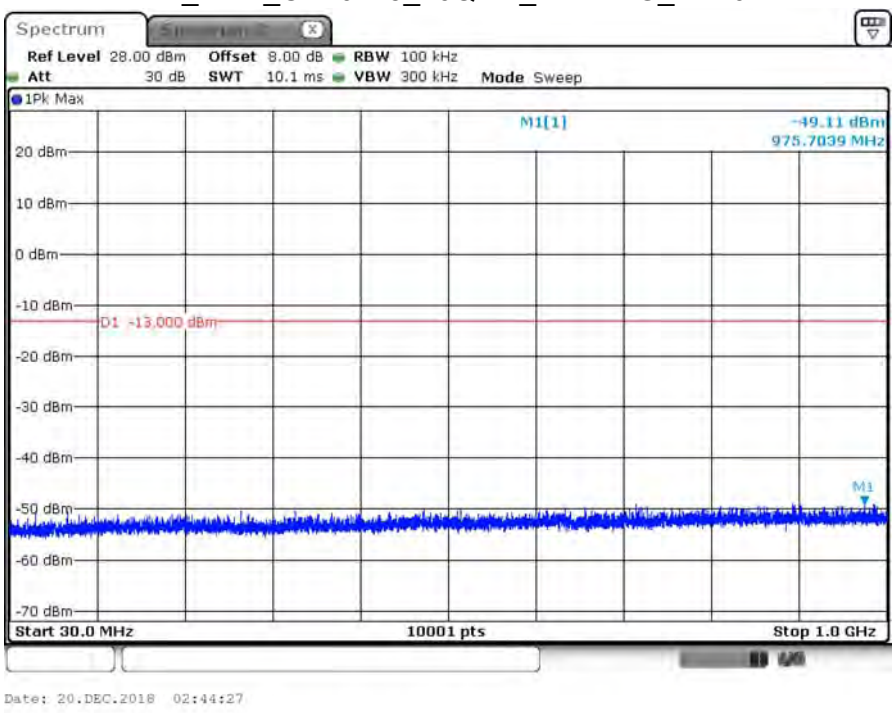
B4_1.4M_CH20175_QPSK_under 1G_1RB0



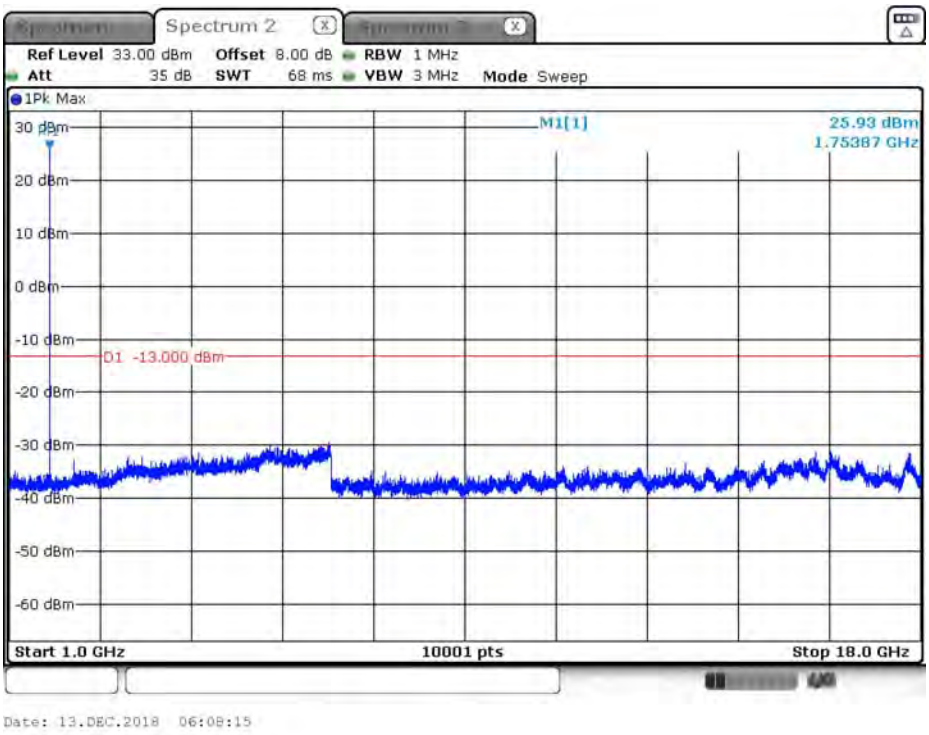
B4_1.4M_CH20175_16QAM_above 1G_1RB0



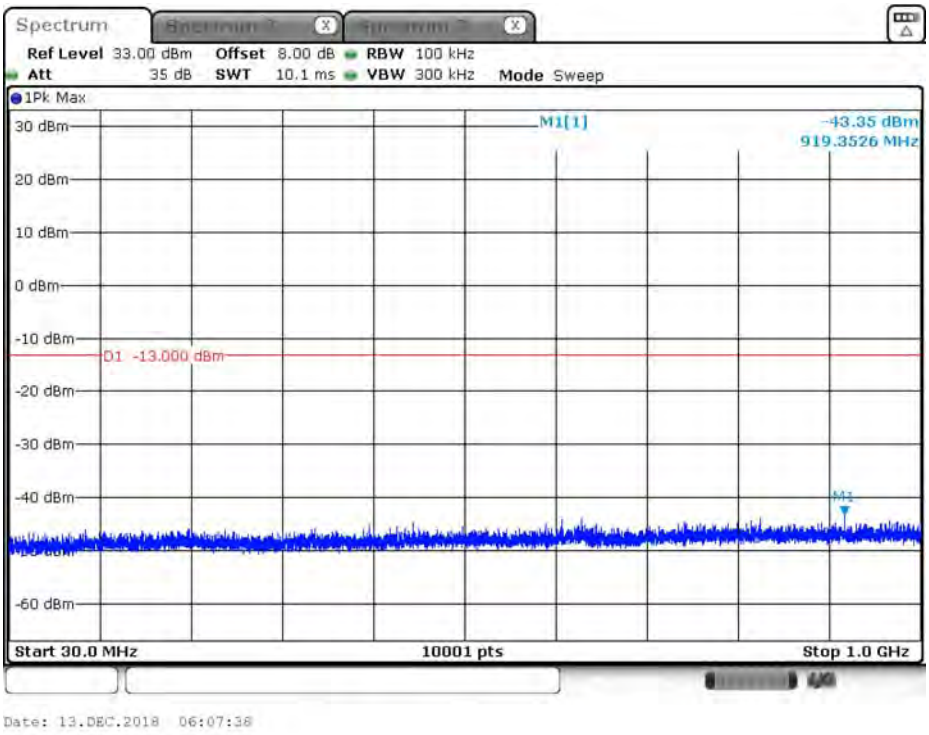
B4_1.4M_CH20175_16QAM_under 1G_1RB0



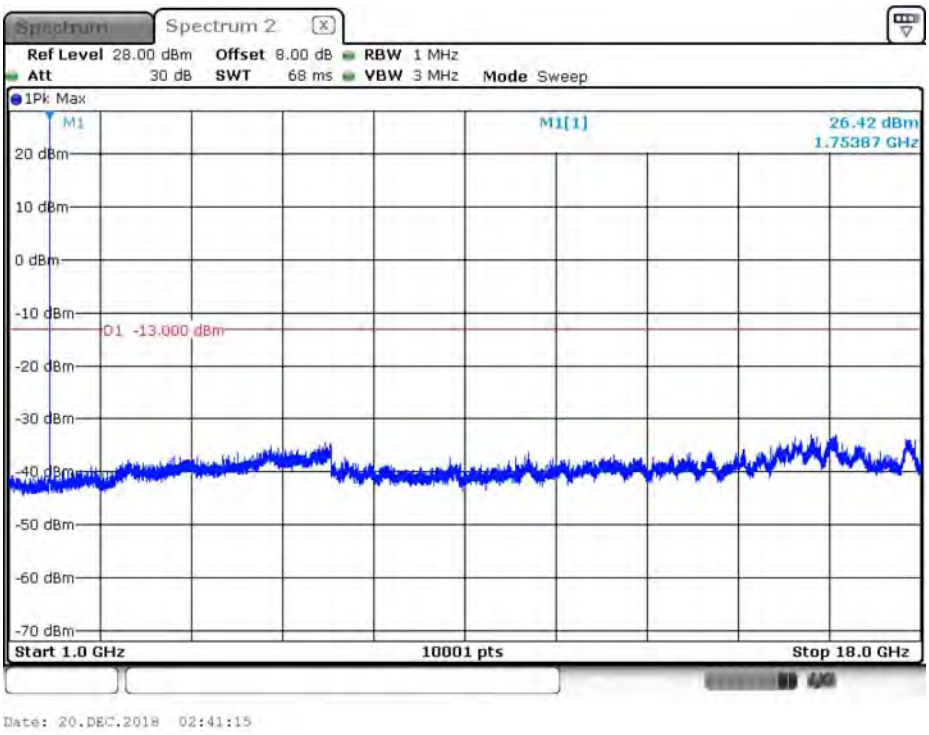
B4_1.4M_CH20393_QPSK_above 1G_1RB0



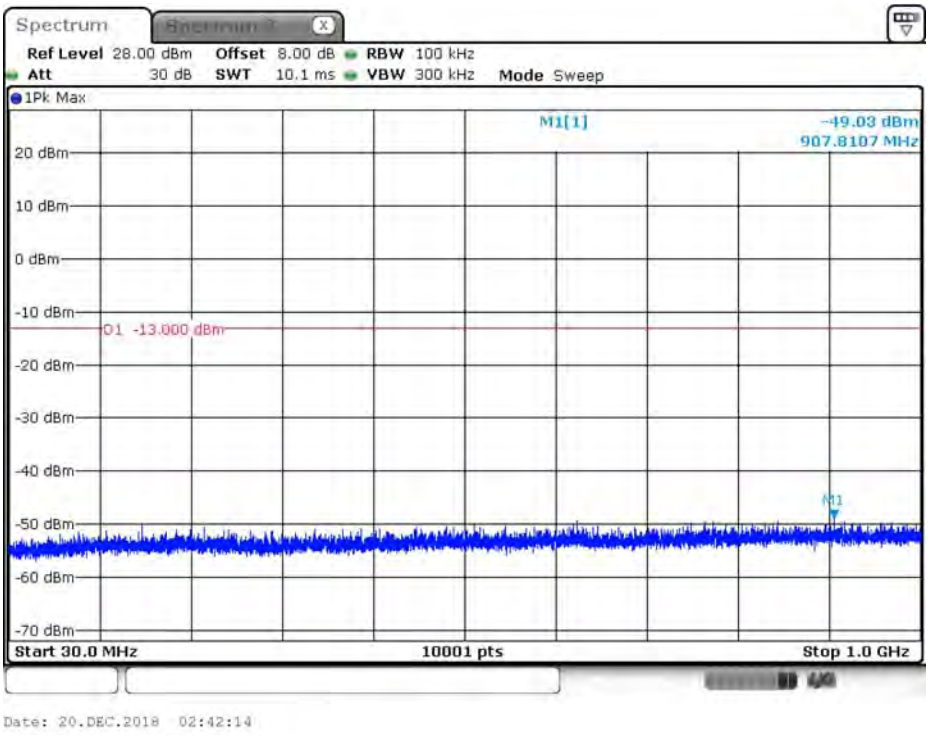
B4_1.4M_CH20393_QPSK_under 1G_1RB0



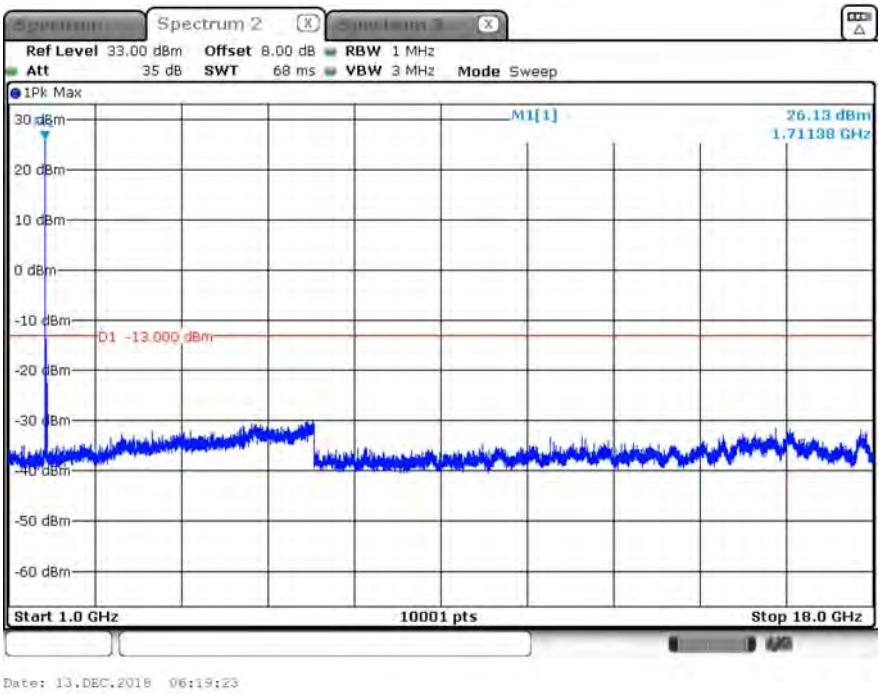
B4_1.4M_CH20393_16QAM_above 1G_1RB0



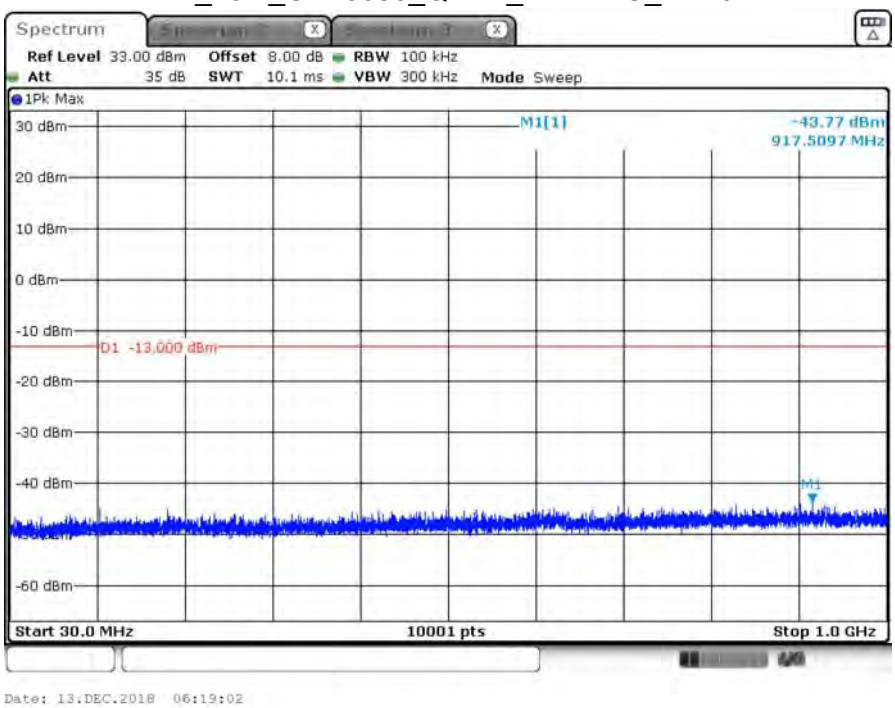
B4_1.4M_CH20393_16QAM_under 1G_1RB0



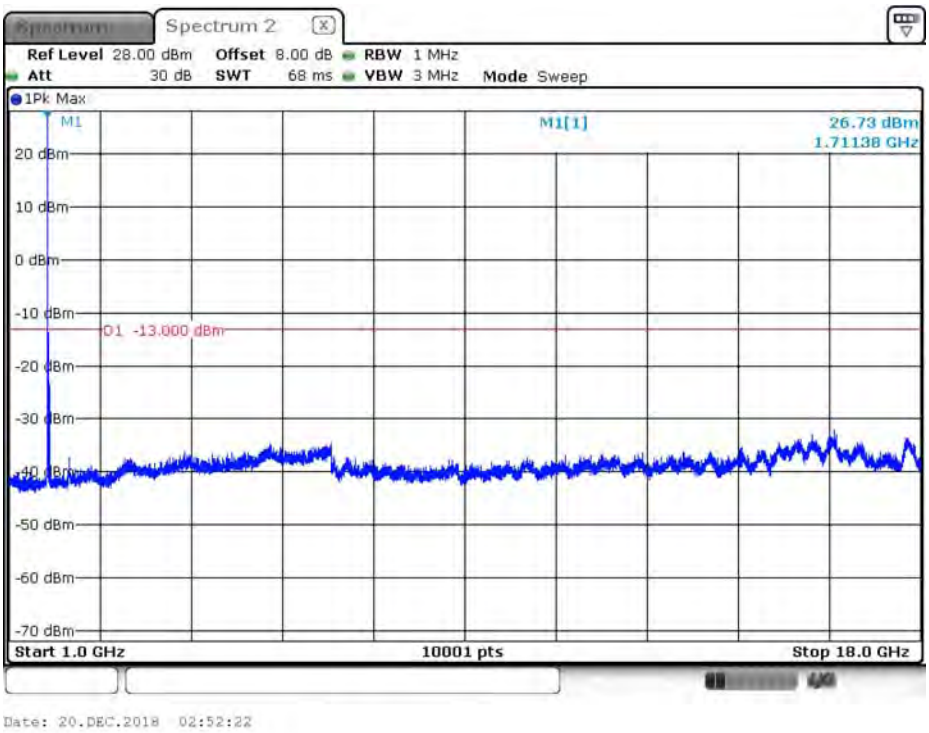
B4_20M_CH20050_QPSK_above 1G_1RB0



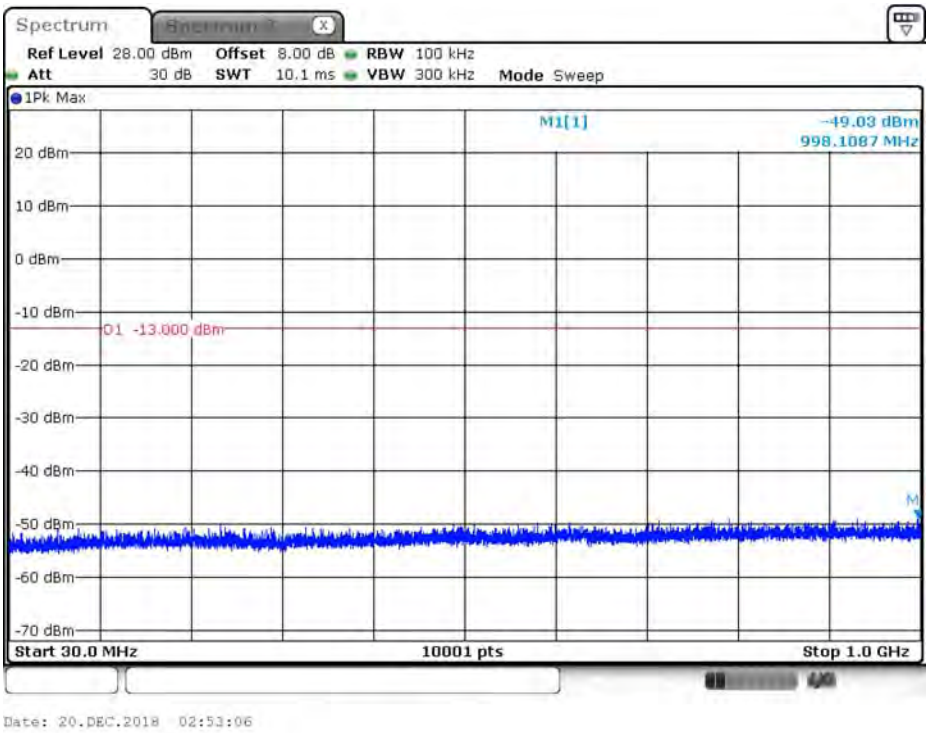
B4_20M_CH20050_QPSK_under 1G_1RB0



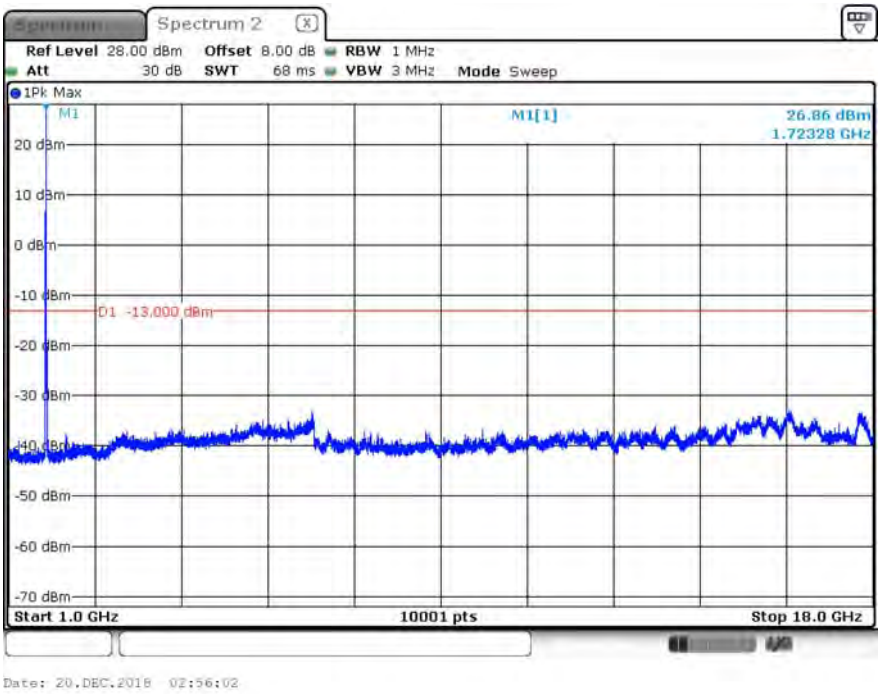
B4_20M_CH20050_16QAM_above 1G_1RB0



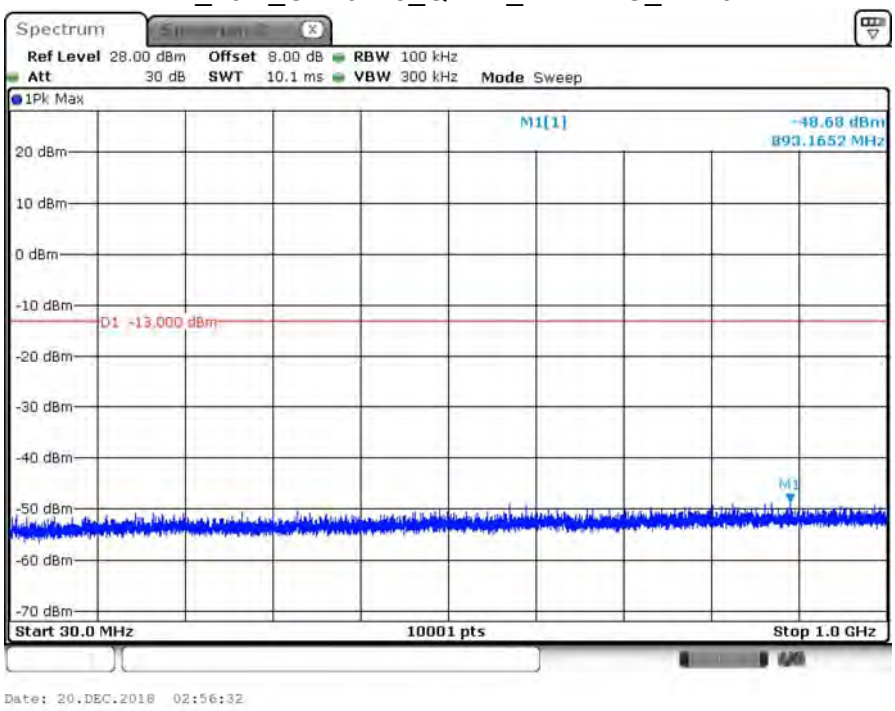
B4_20M_CH20050_16QAM_under 1G_1RB0



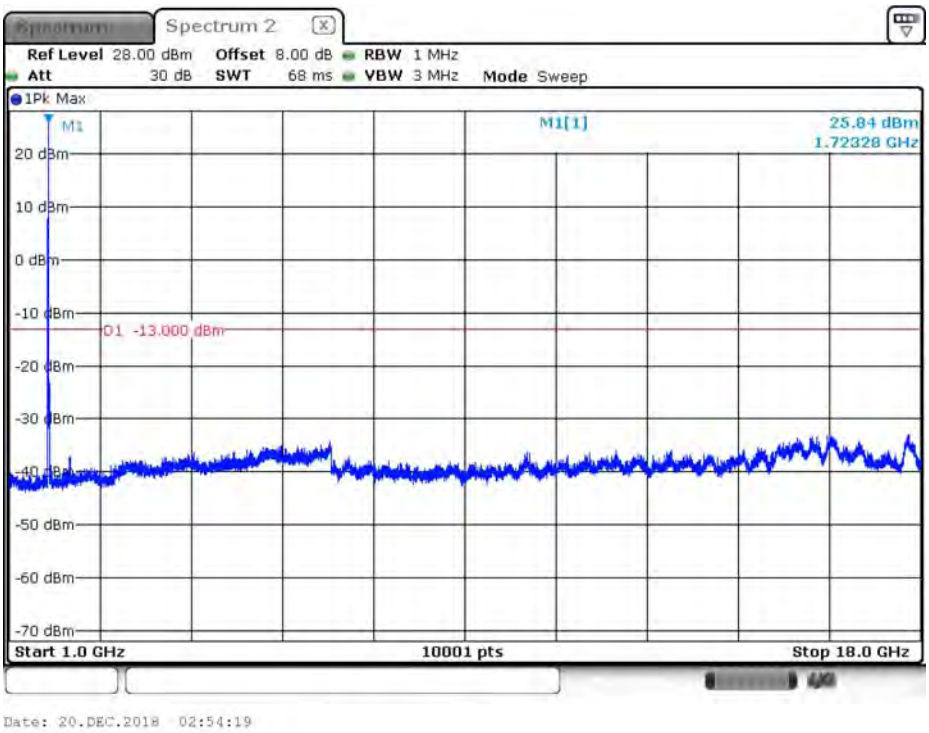
B4_20M_CH20175_QPSK_above 1G_1RB0



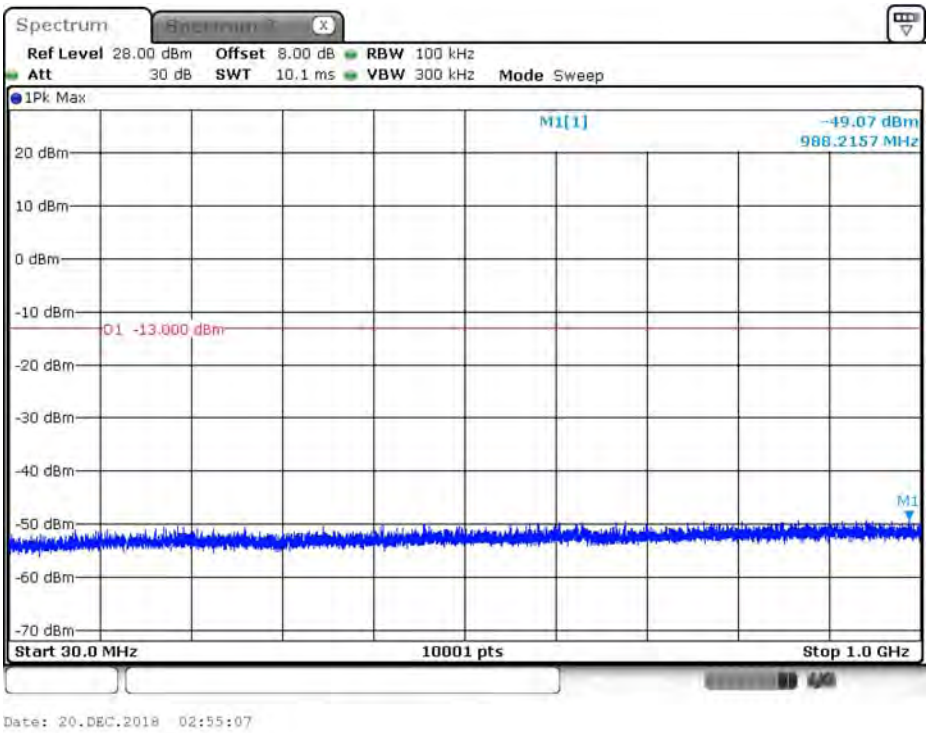
B4_20M_CH20175_QPSK_under 1G_1RB0



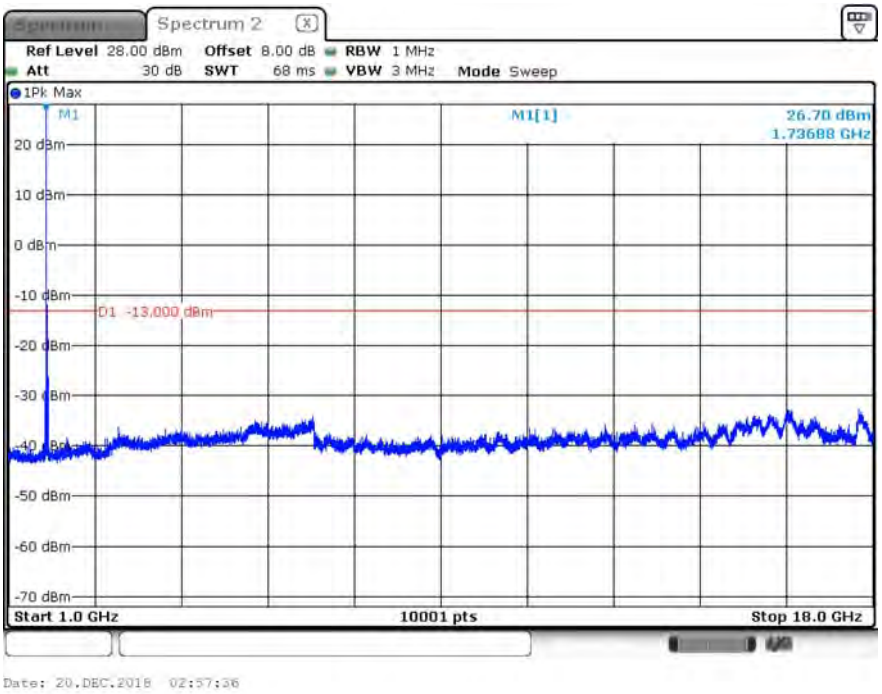
B4_20M_CH20175_16QAM_above 1G_1RB0



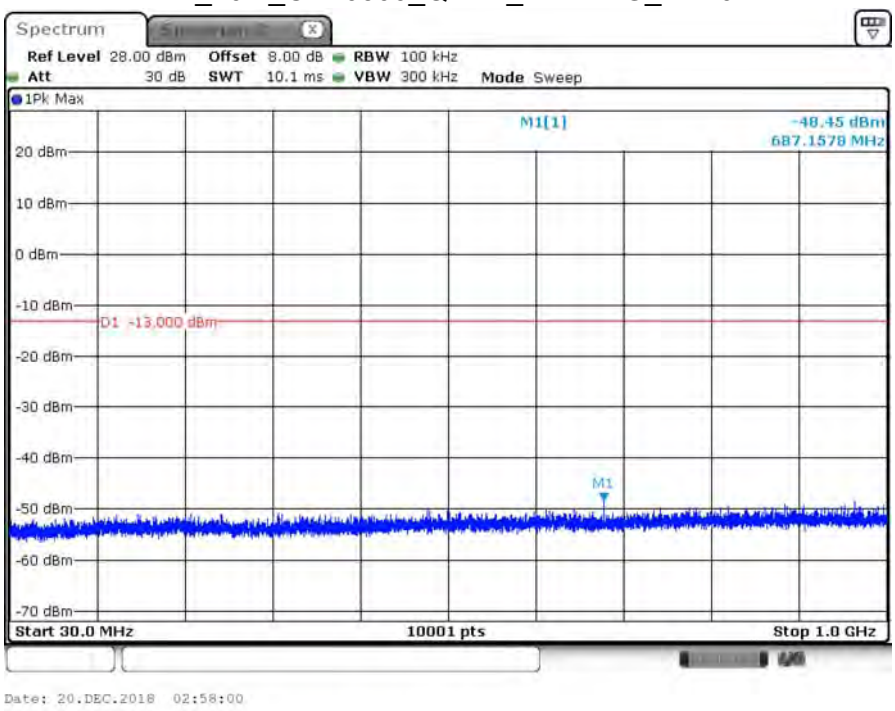
B4_20M_CH20175_16QAM_under 1G_1RB0



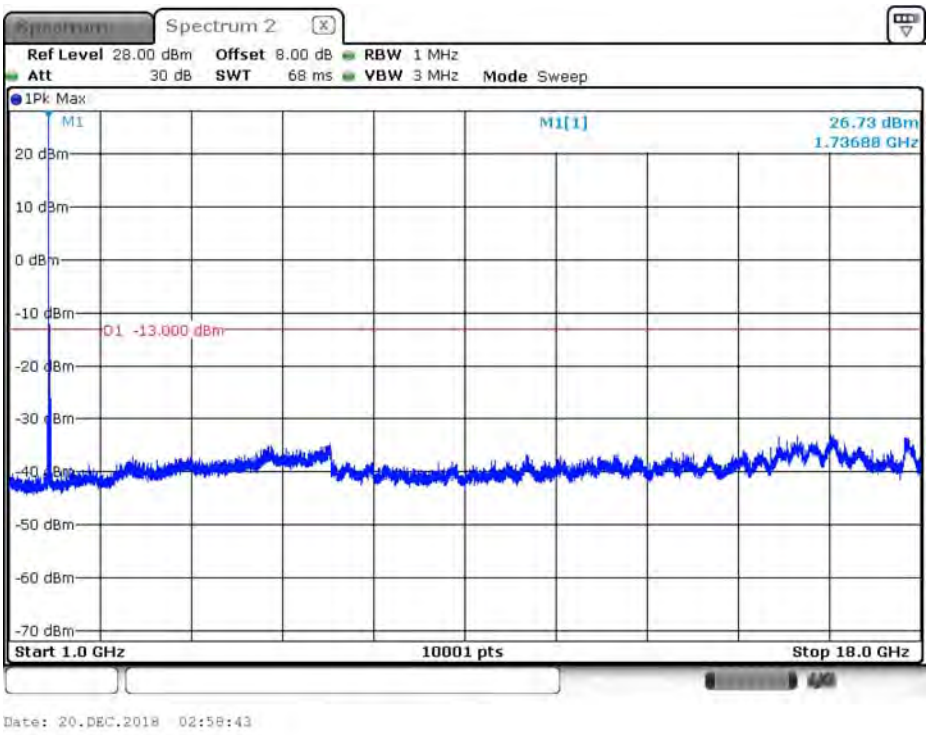
B4_20M_CH20300_QPSK_above 1G_1RB0



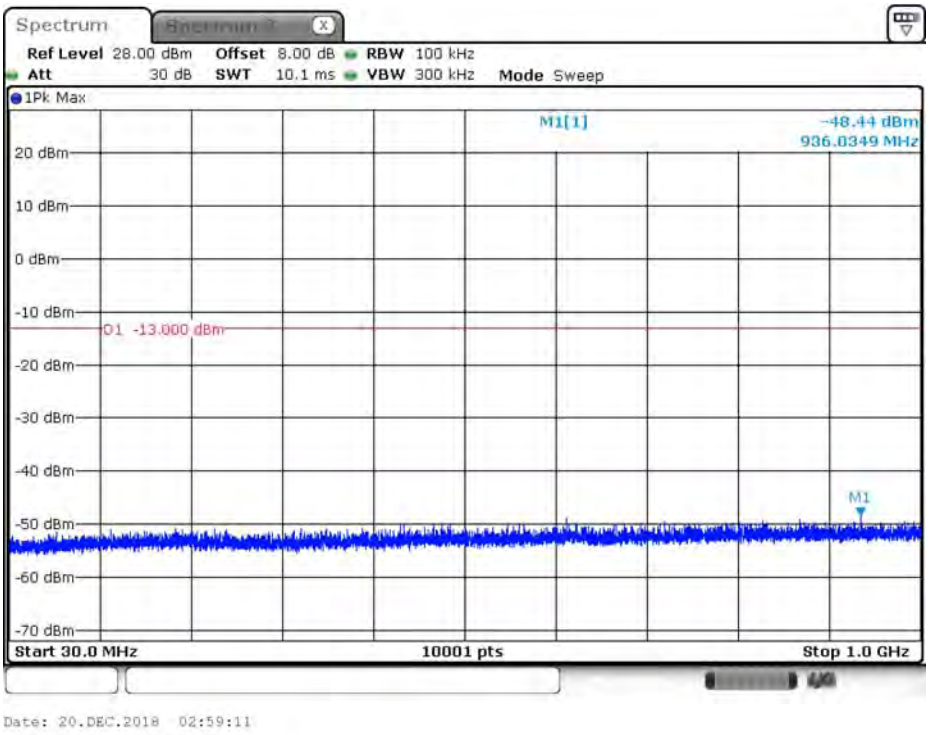
B4_20M_CH20300_QPSK_under 1G_1RB0



B4_20M_CH20300_16QAM_above 1G_1RB0

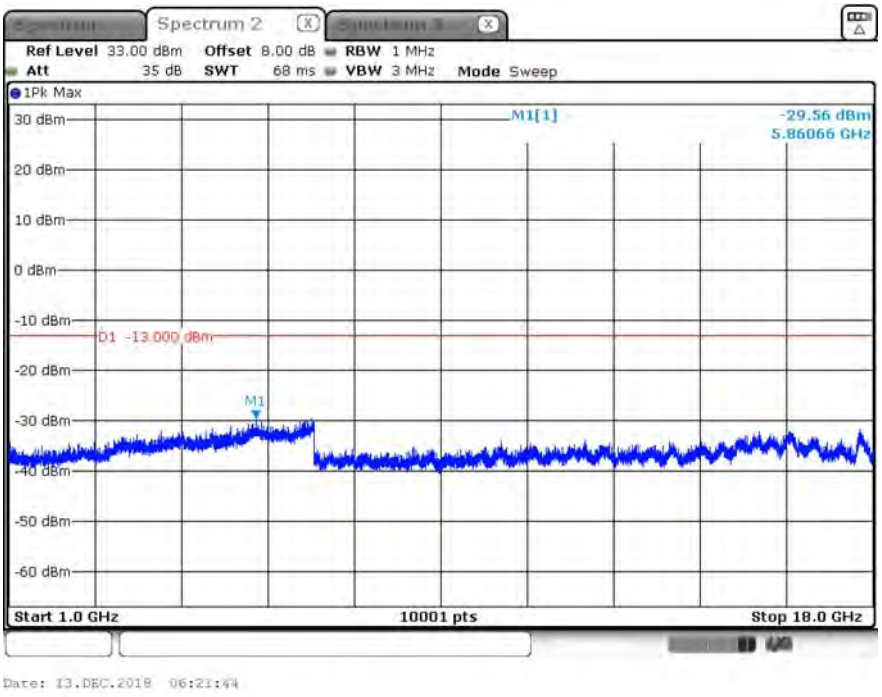


B4_20M_CH20300_16QAM_under 1G_1RB0

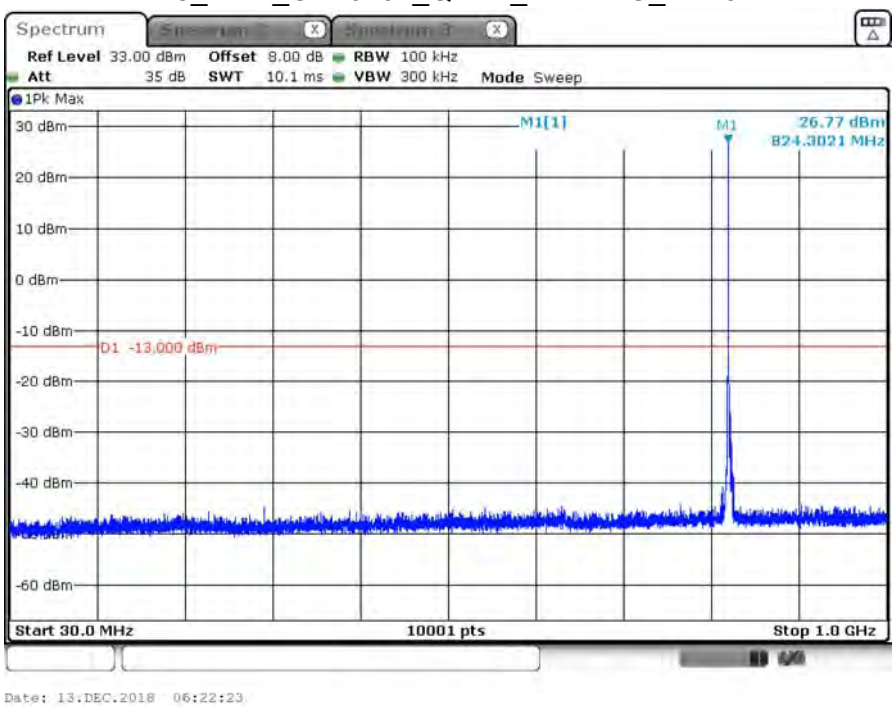


Product	Module		
Test Item	Conducted Spurious Emissions		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/12/21	Test Site	SR10-H

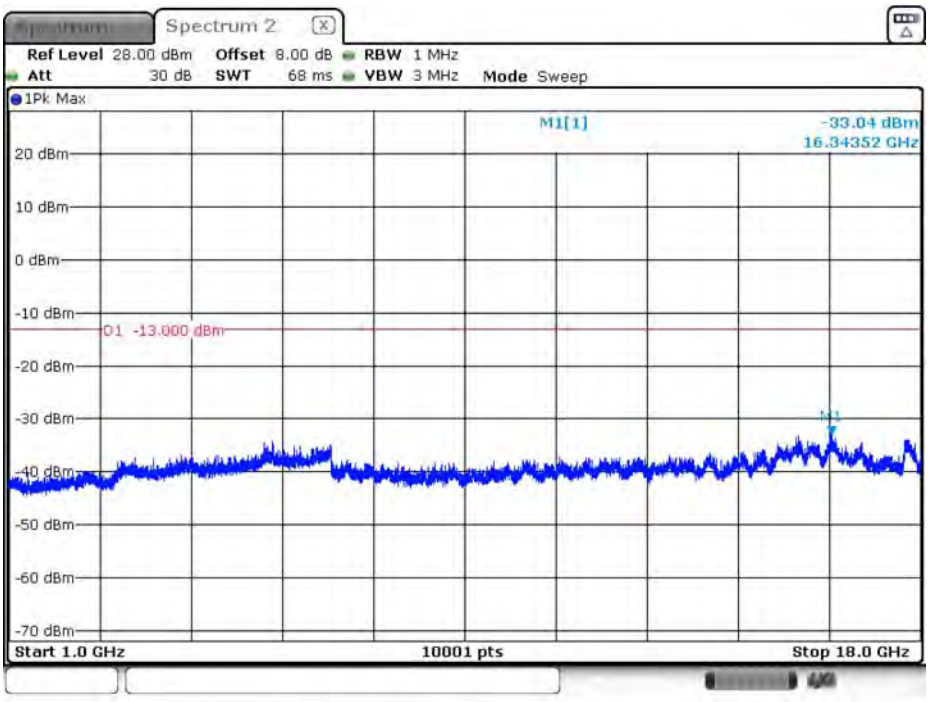
B5_1.4M_CH20407_QPSK_above 1G_1RB0



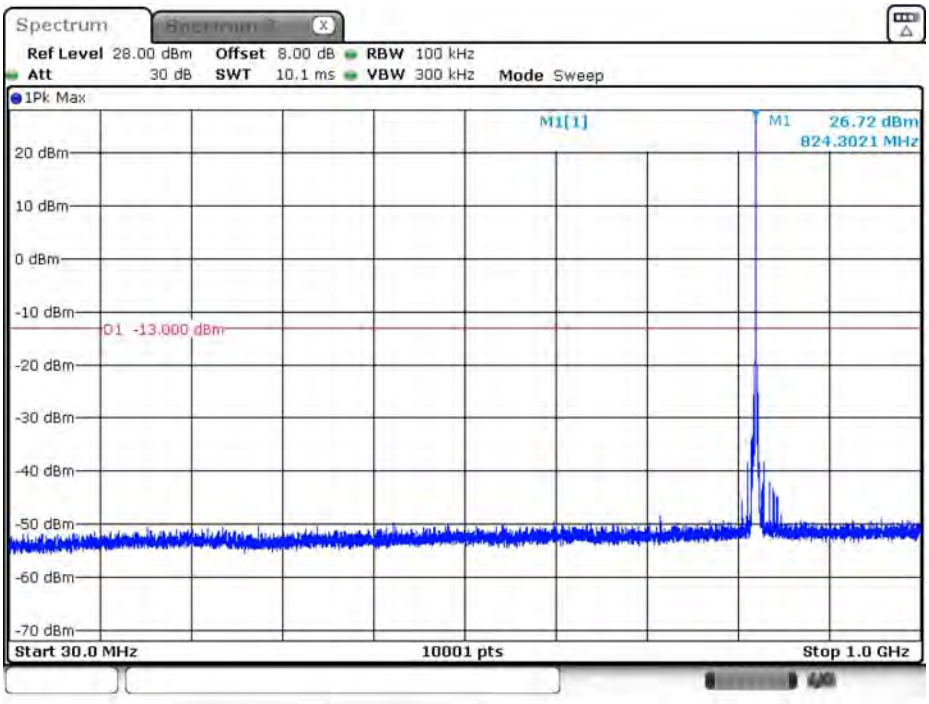
B5_1.4M_CH20407_QPSK_under 1G_1RB0



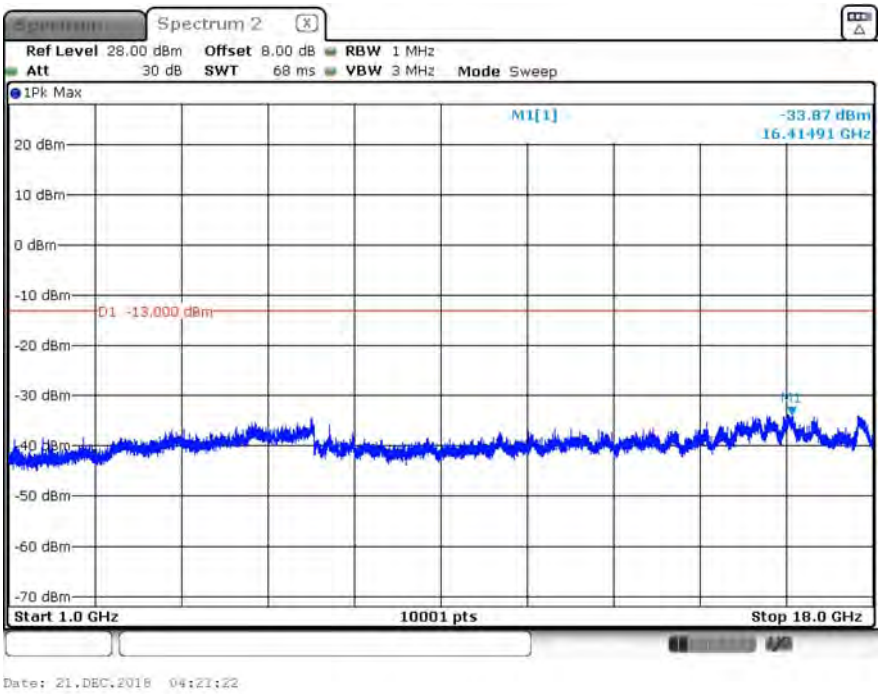
B5_1.4M_CH20407_16QAM_above 1G_1RB0



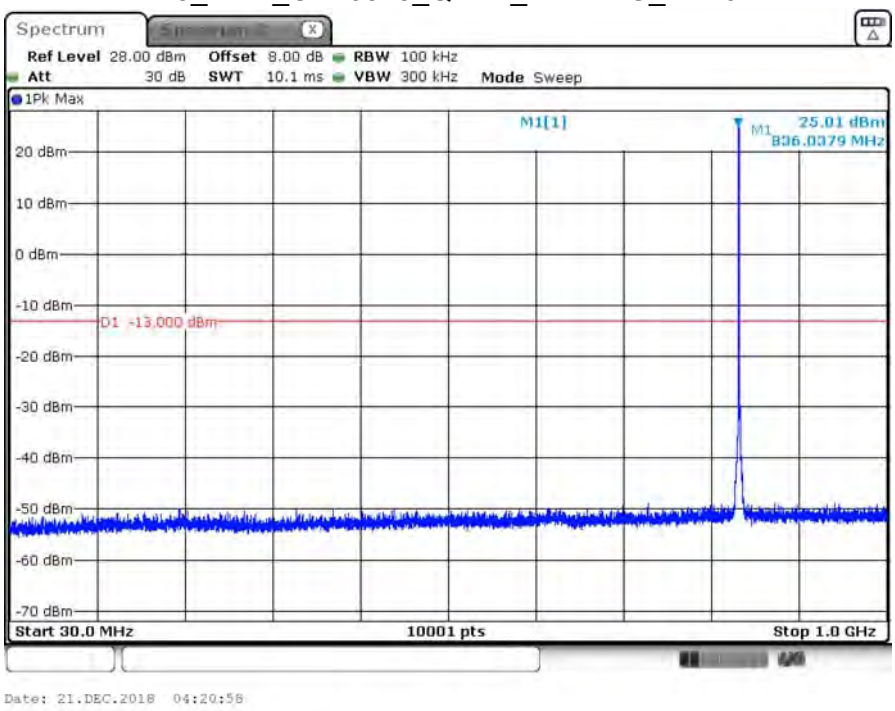
B5_1.4M_CH20407_16QAM_under 1G_1RB0



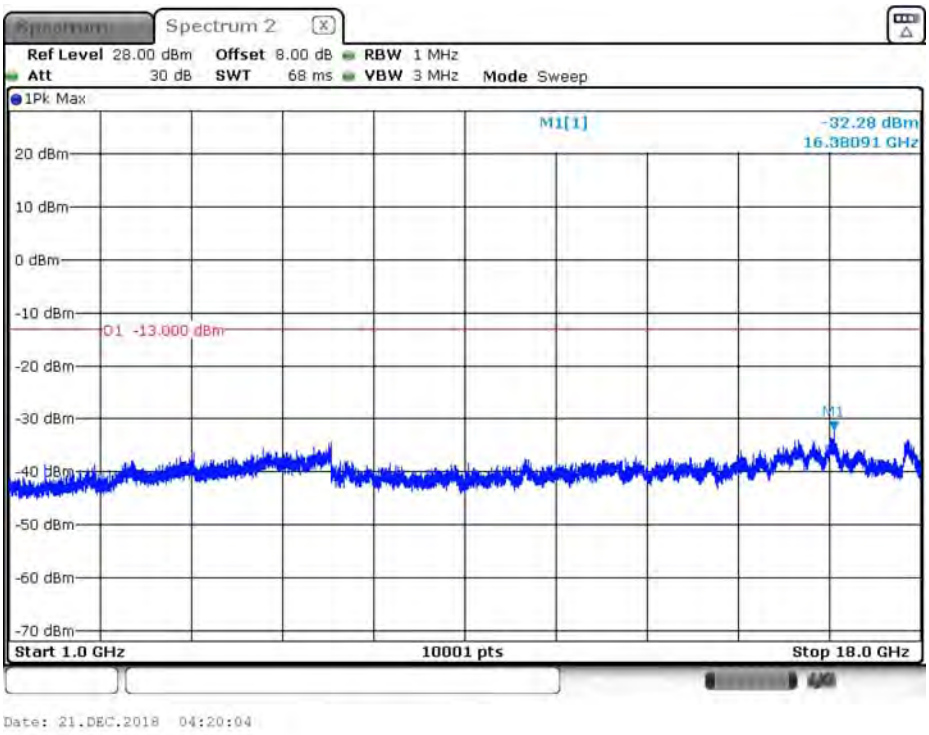
B5_1.4M_CH20525_QPSK_above 1G_1RB0



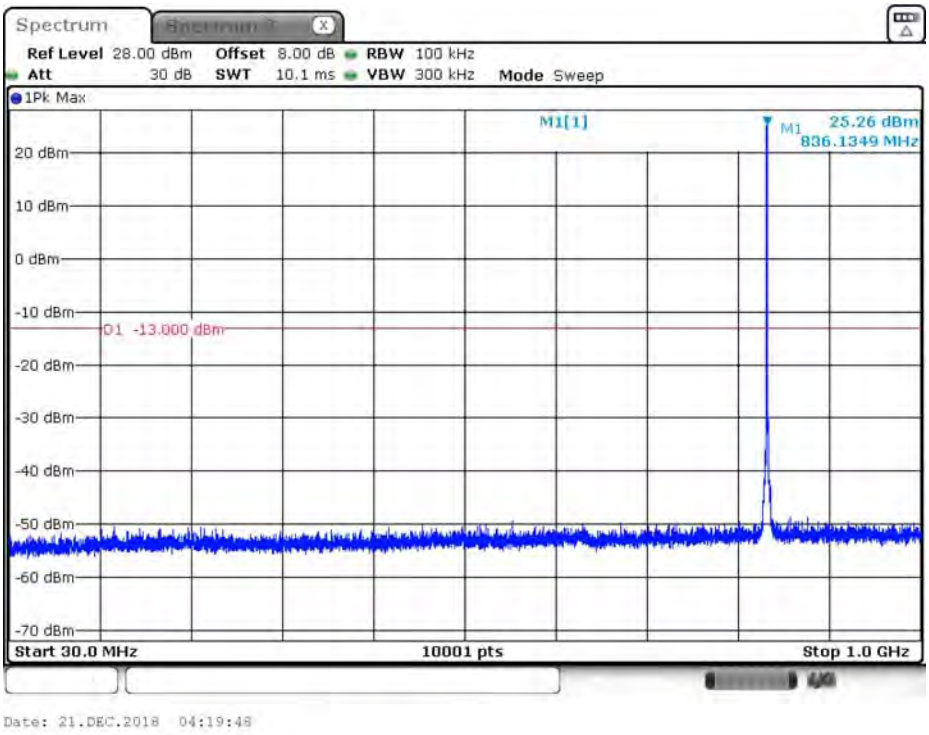
B5_1.4M_CH20525_QPSK_under 1G_1RB0



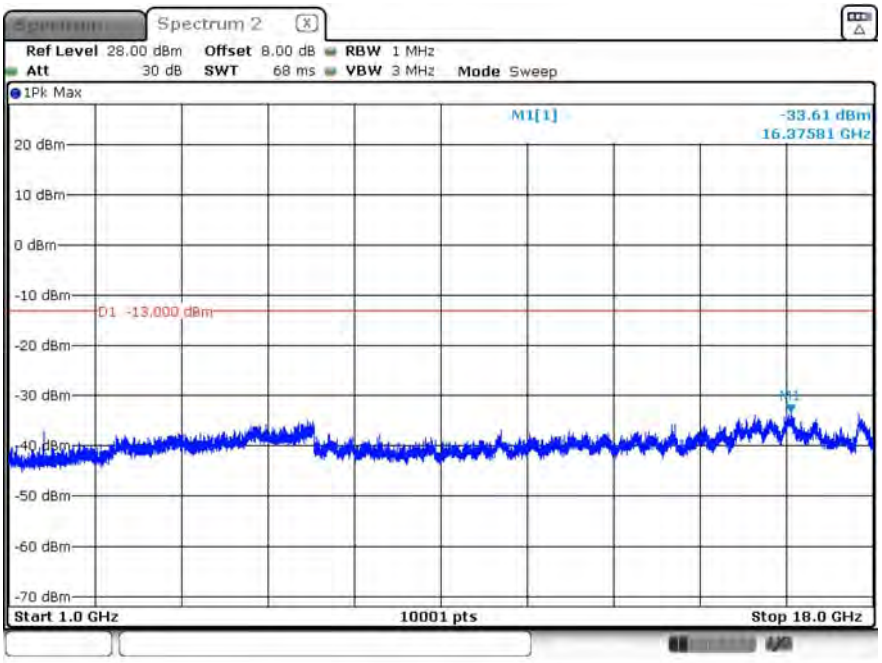
B5_1.4M_CH20525_16QAM_above 1G_1RB0



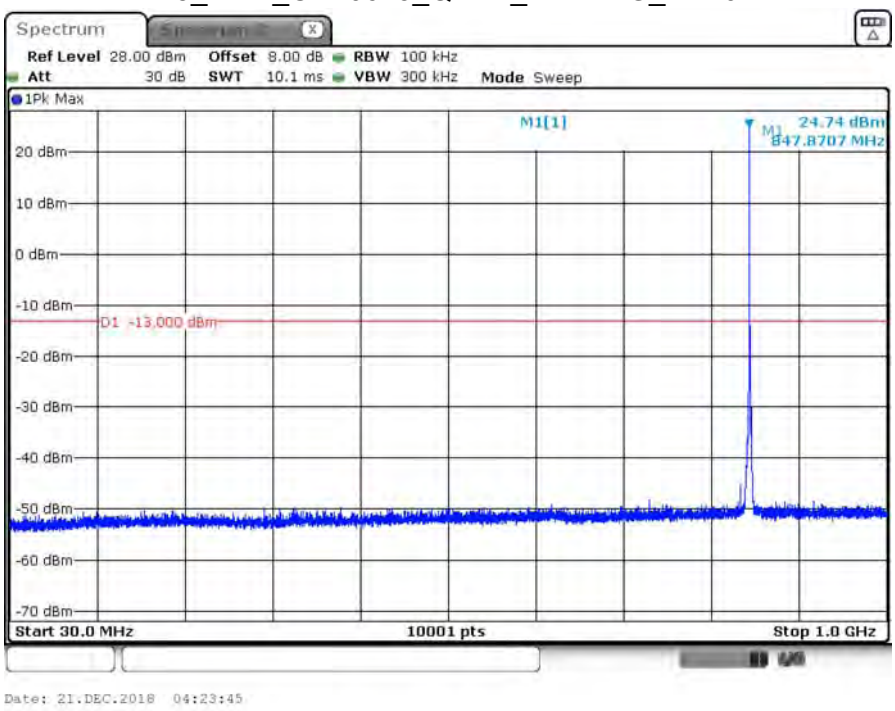
B5_1.4M_CH20525_16QAM_under 1G_1RB0



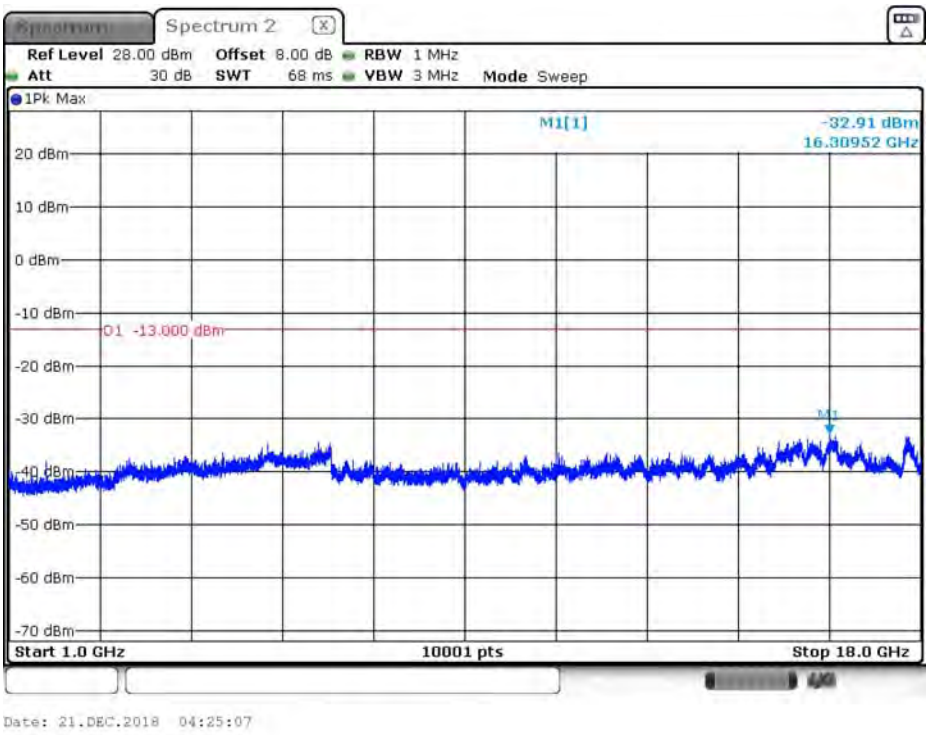
B5_1.4M_CH20643_QPSK_above 1G_1RB0



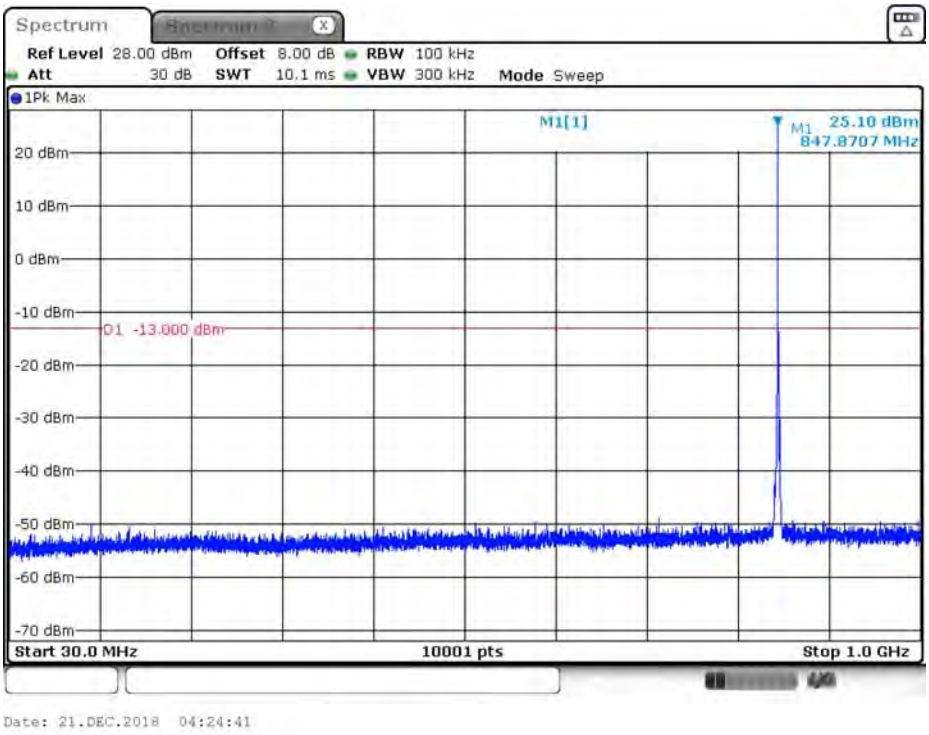
B5_1.4M_CH20643_QPSK_under 1G_1RB0



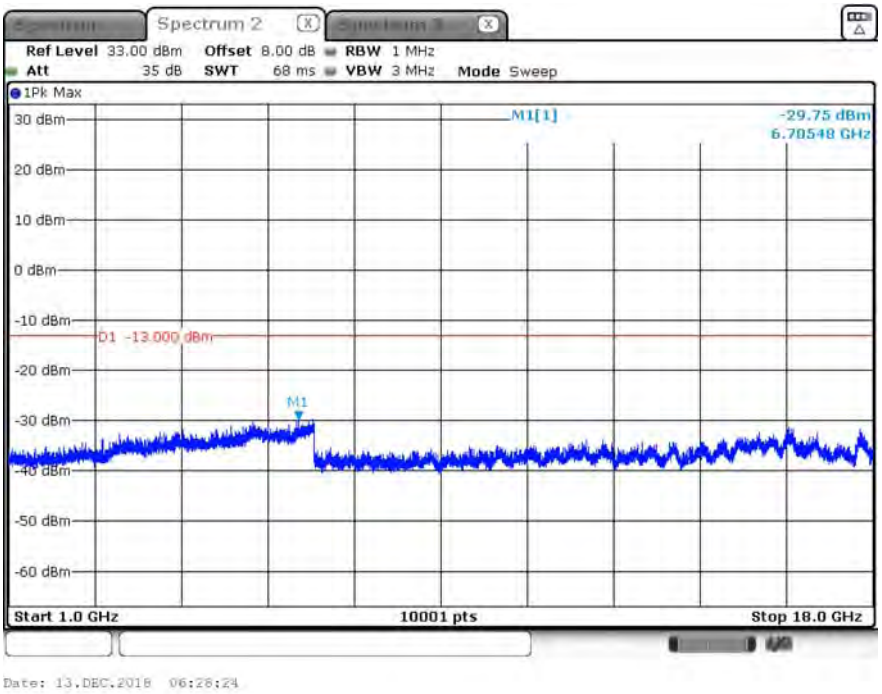
B5_1.4M_CH20643_16QAM_above 1G_1RB0



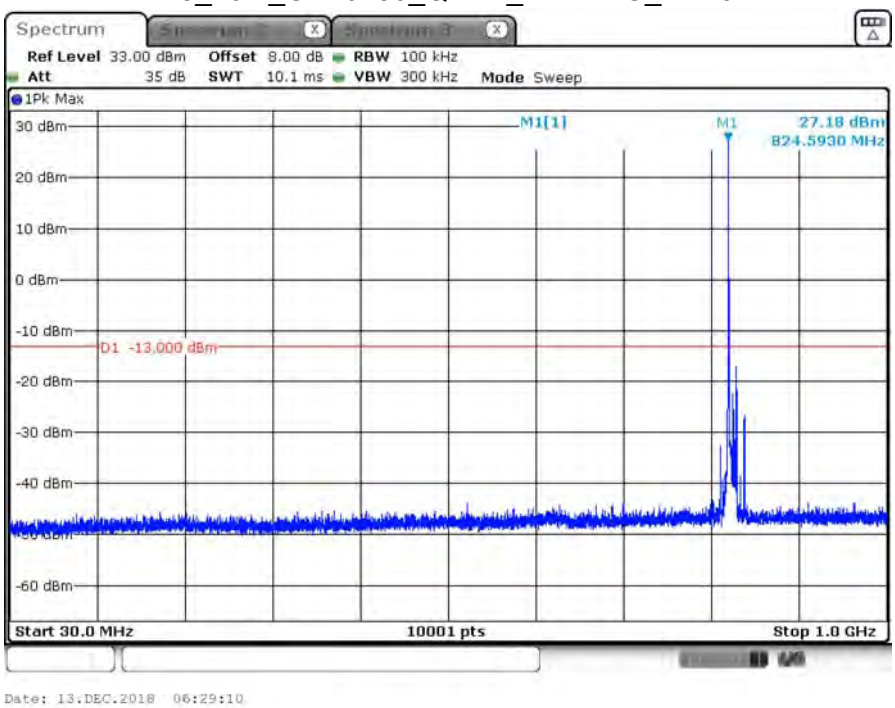
B5_1.4M_CH20643_16QAM_under 1G_1RB0



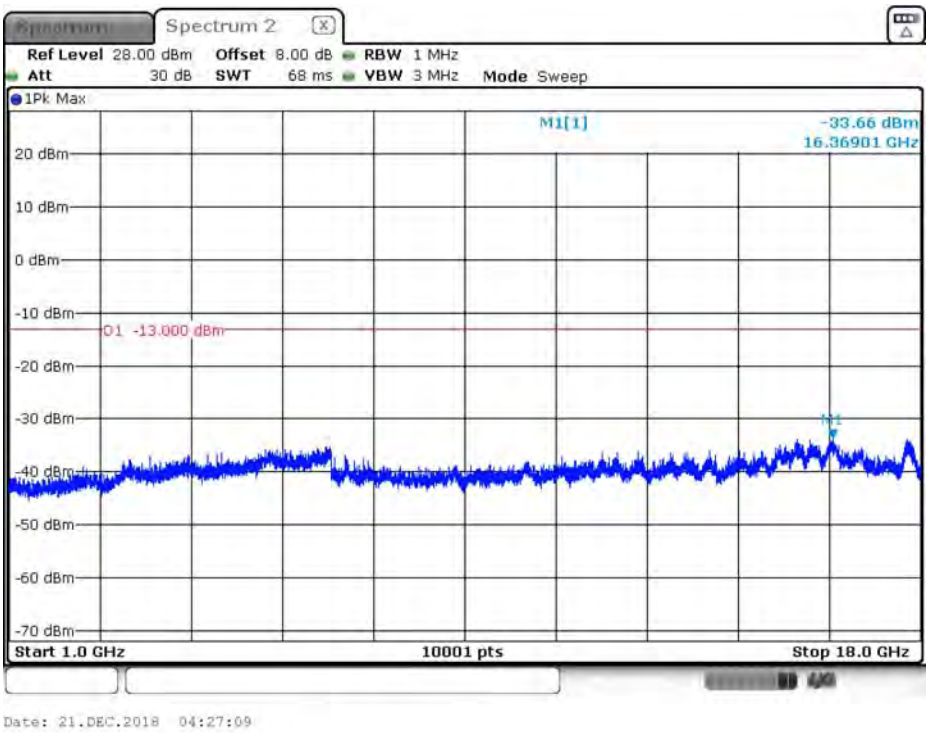
B5_10M_CH20450_QPSK_above 1G_1RB0



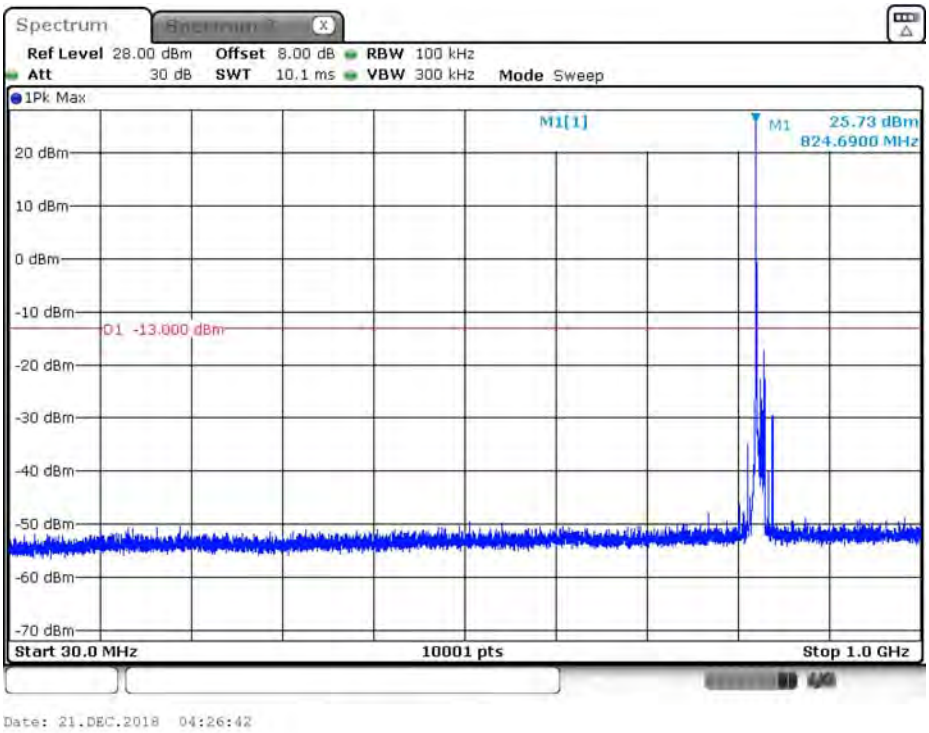
B5_10M_CH20450_QPSK_under 1G_1RB0



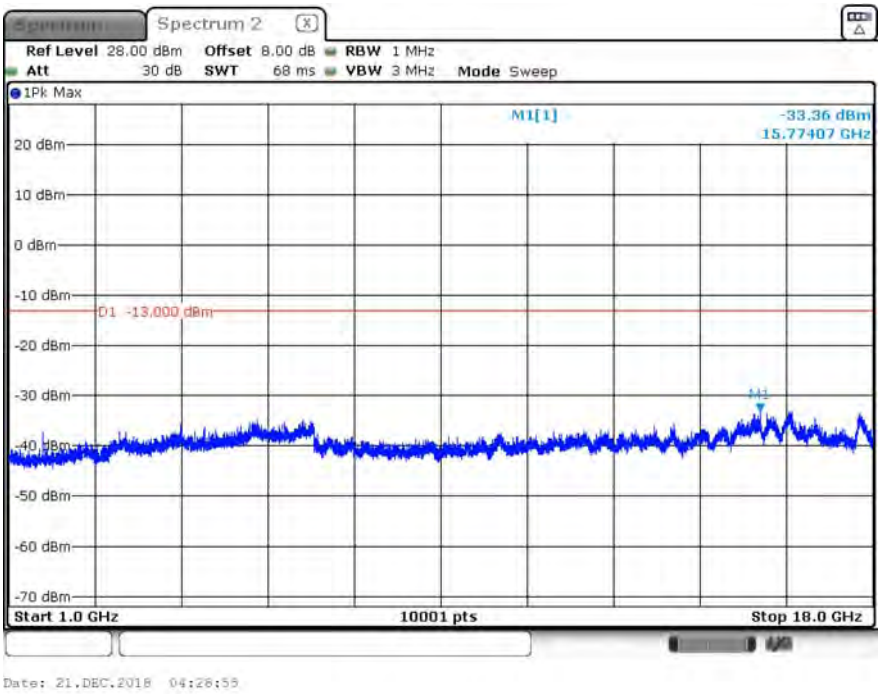
B5_10M_CH20450_16QAM_above 1G_1RB0



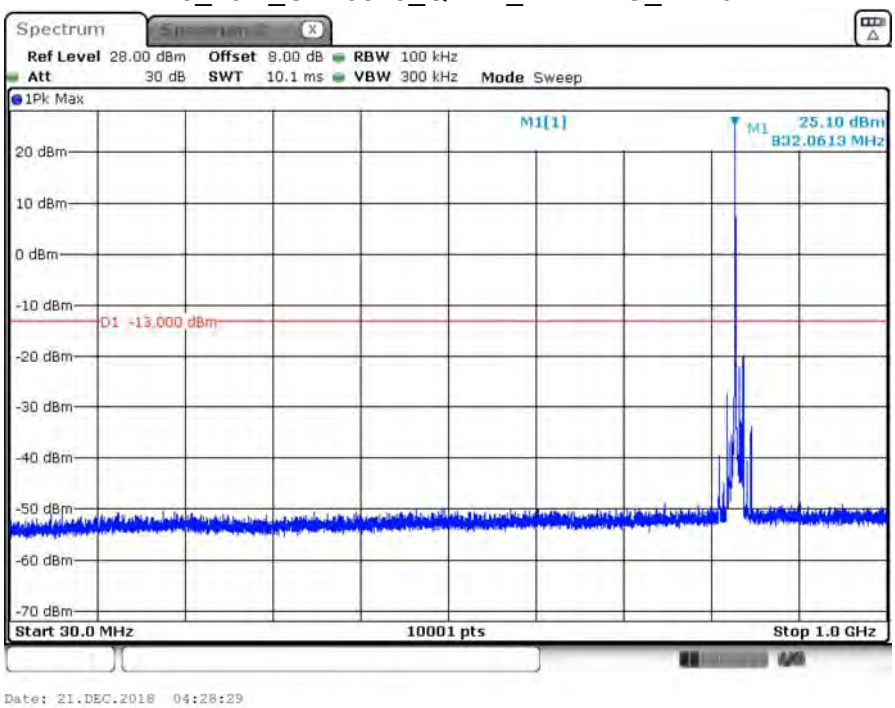
B5_10M_CH20450_16QAM_under 1G_1RB0



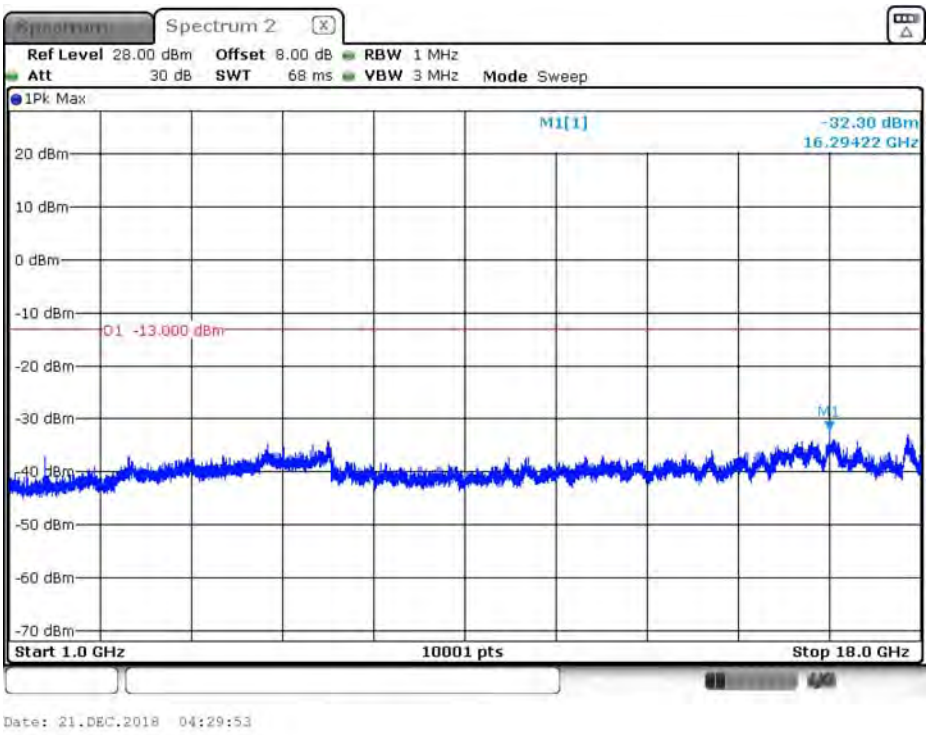
B5_10M_CH20525_QPSK_above 1G_1RB0



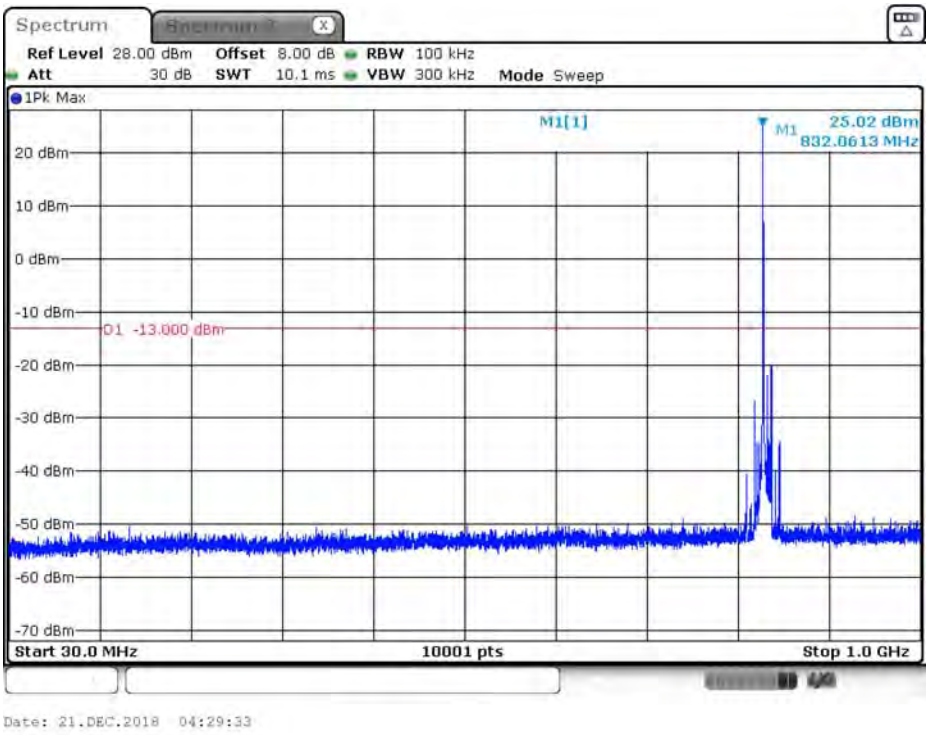
B5_10M_CH20525_QPSK_under 1G_1RB0



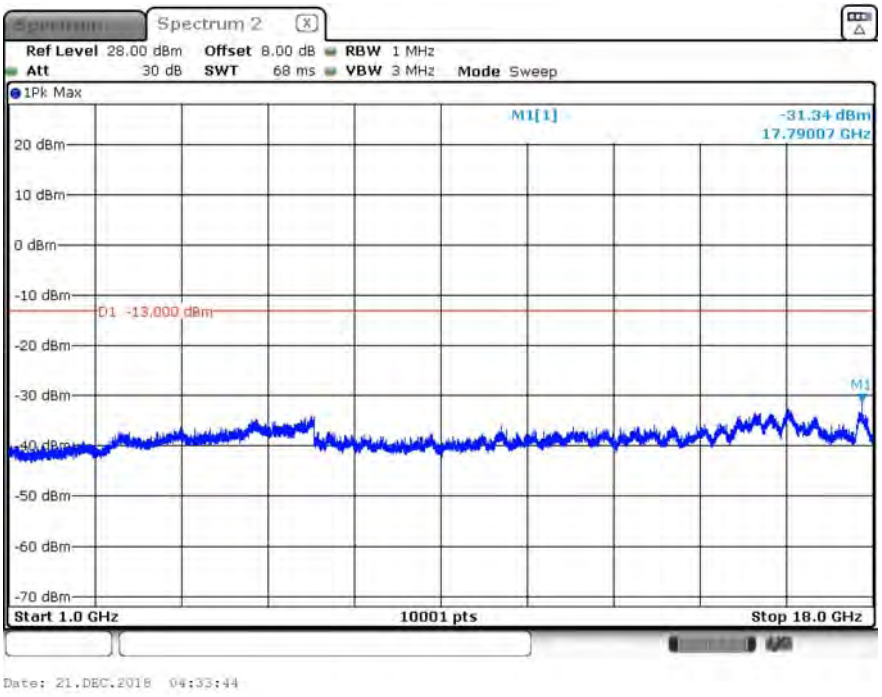
B5_10M_CH20525_16QAM_above 1G_1RB0



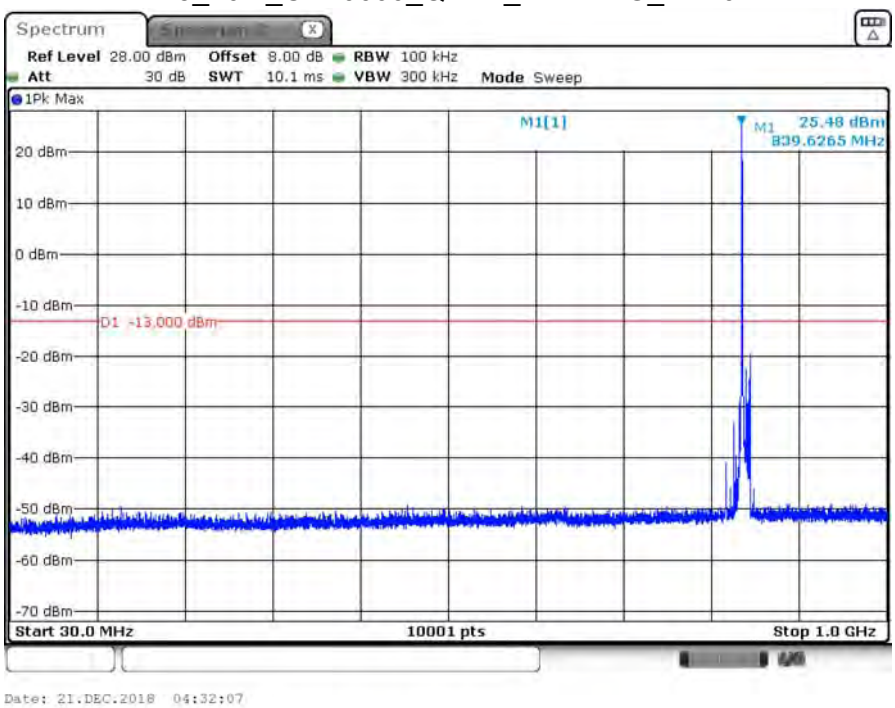
B5_10M_CH20525_16QAM_under 1G_1RB0



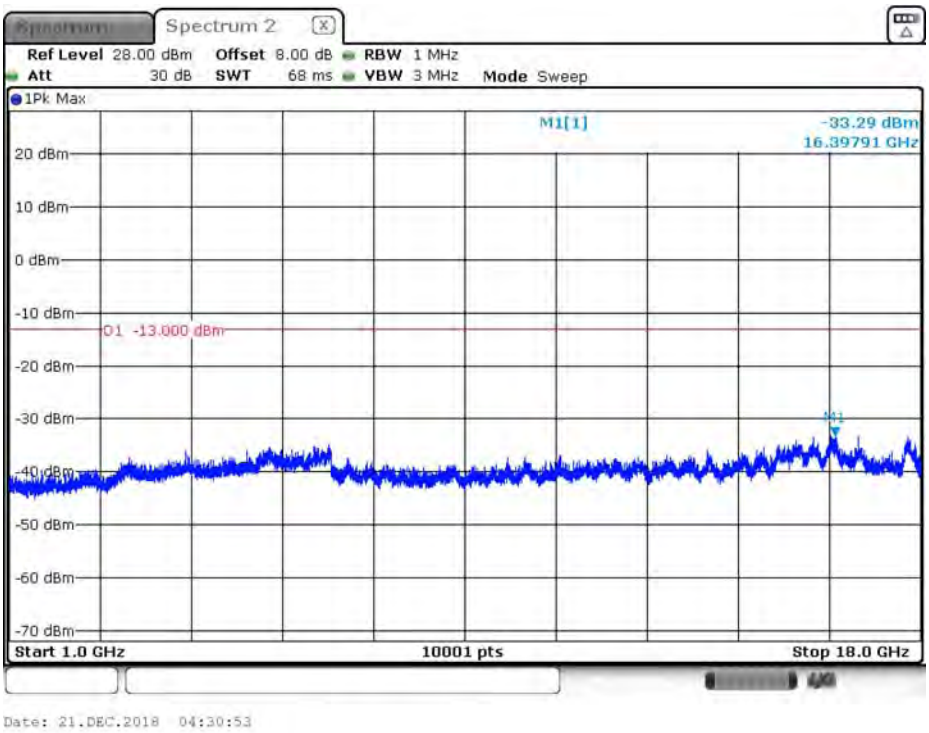
B5_10M_CH20600_QPSK_above 1G_1RB0



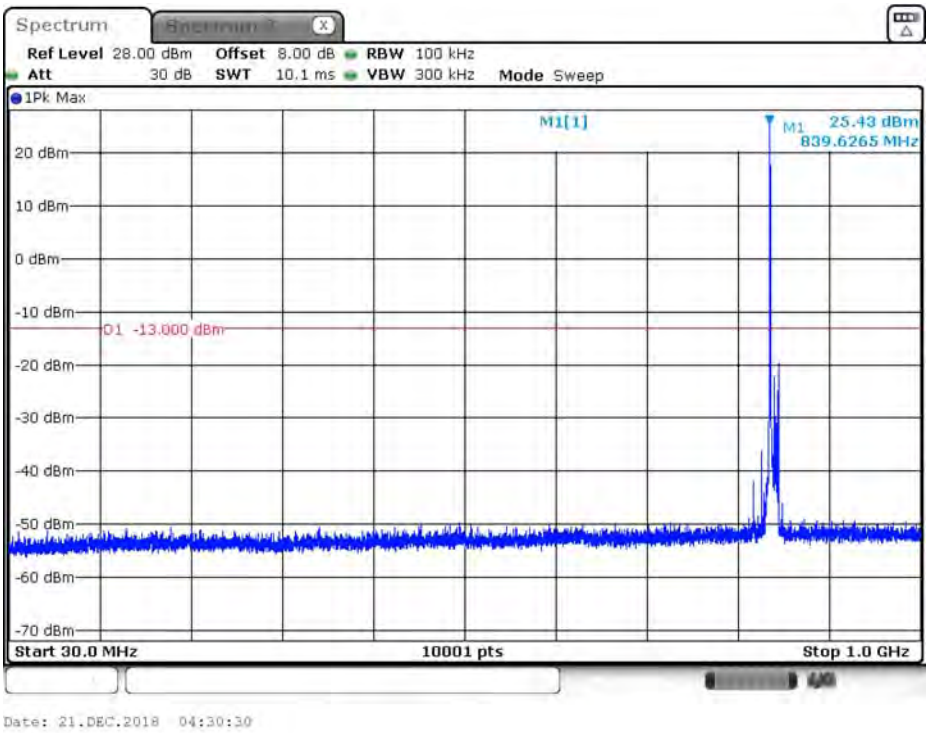
B5_10M_CH20600_QPSK_above 1G_1RB0



B5_10M_CH20600_16QAM_above 1G_1RB0

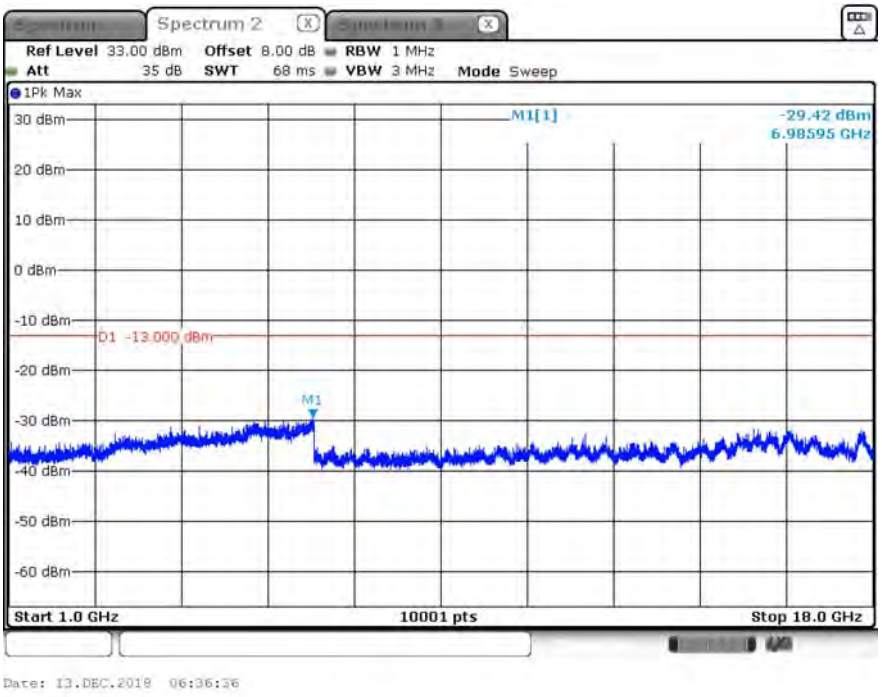


B5_10M_CH20600_16QAM_under 1G_1RB0

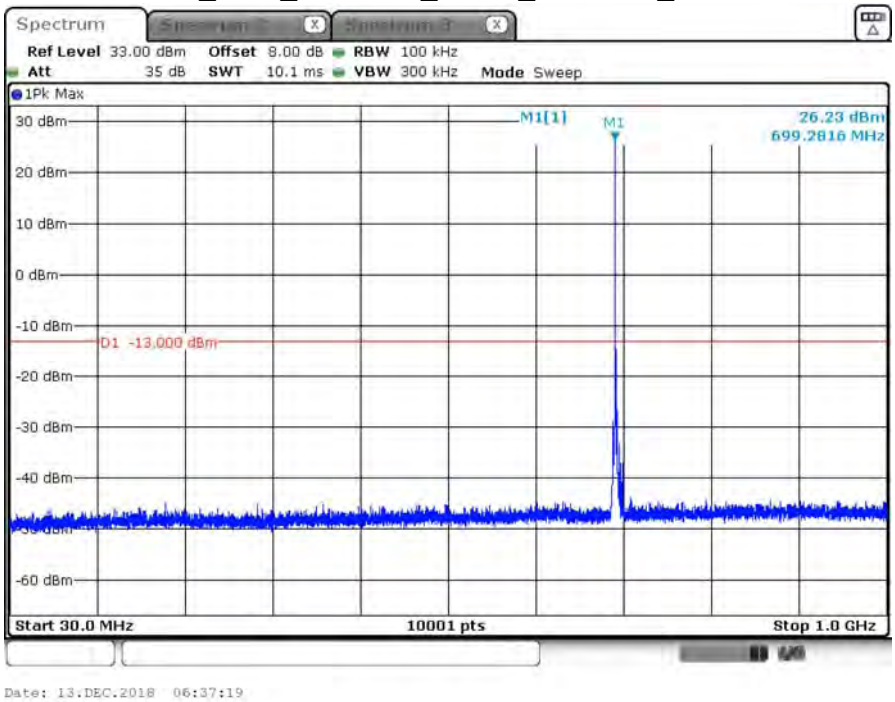


Product	Module		
Test Item	Conducted Spurious Emissions		
Test Mode	Mode 4: LTE Band 12		
Date of Test	2018/12/21	Test Site	SR10-H

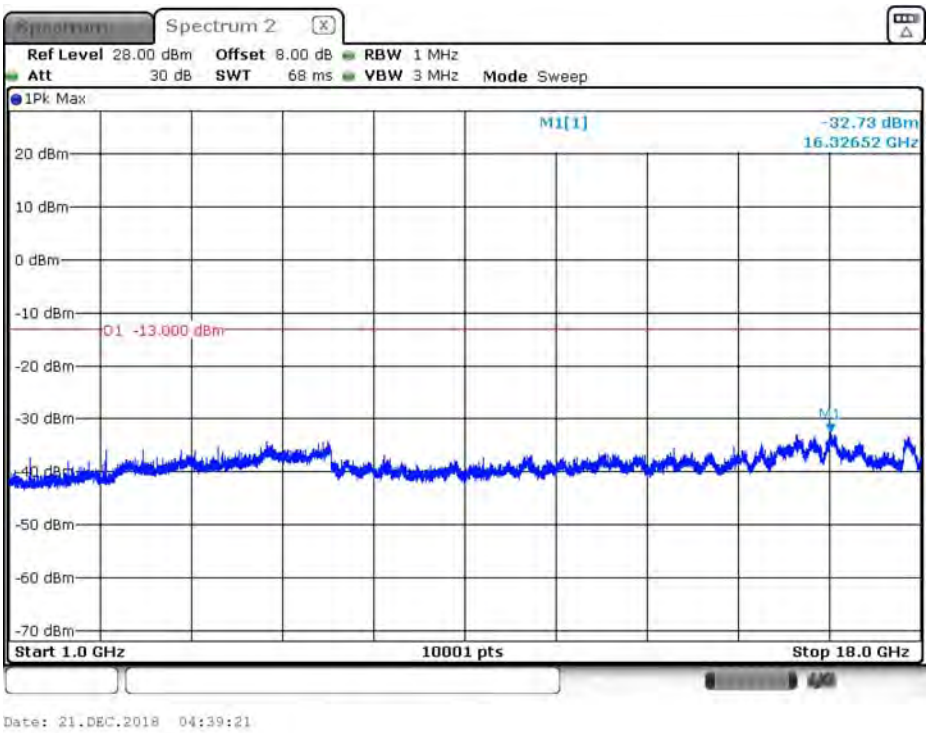
B12_1.4M_CH23017_QPSK_above 1G_1RB0



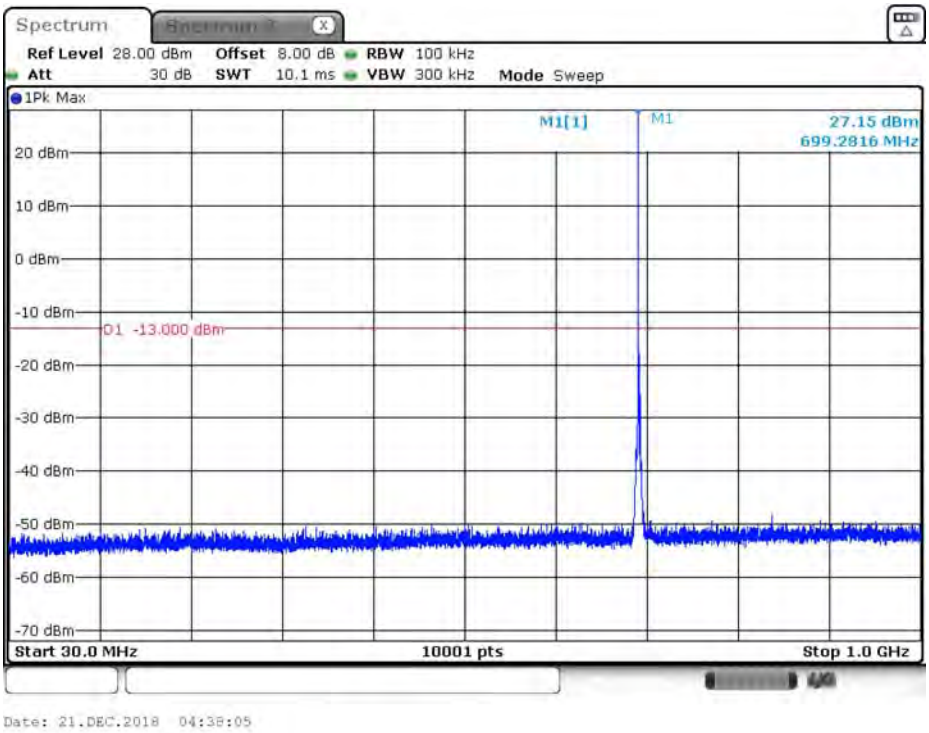
B12_1.4M_CH23017_QPSK_under 1G_1RB0



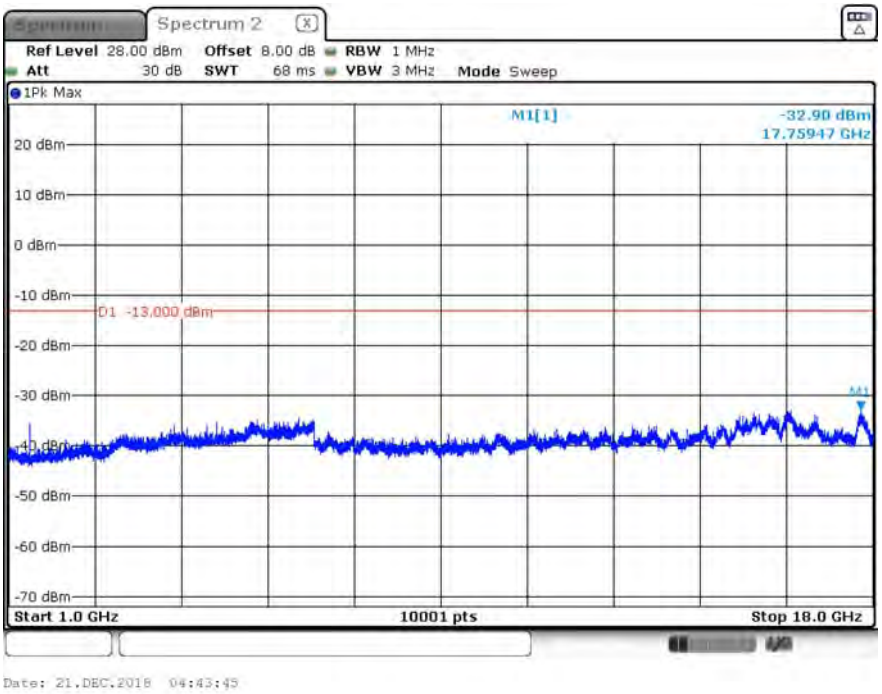
B12_1.4M_CH23017_16QAM_above 1G_1RB0



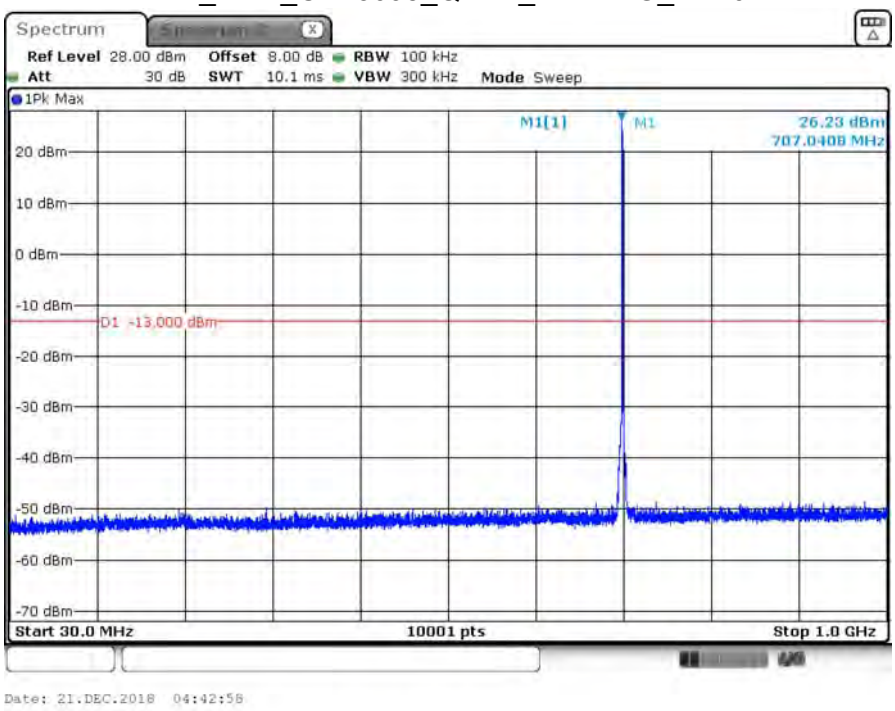
B12_1.4M_CH23017_16QAM_under 1G_1RB0



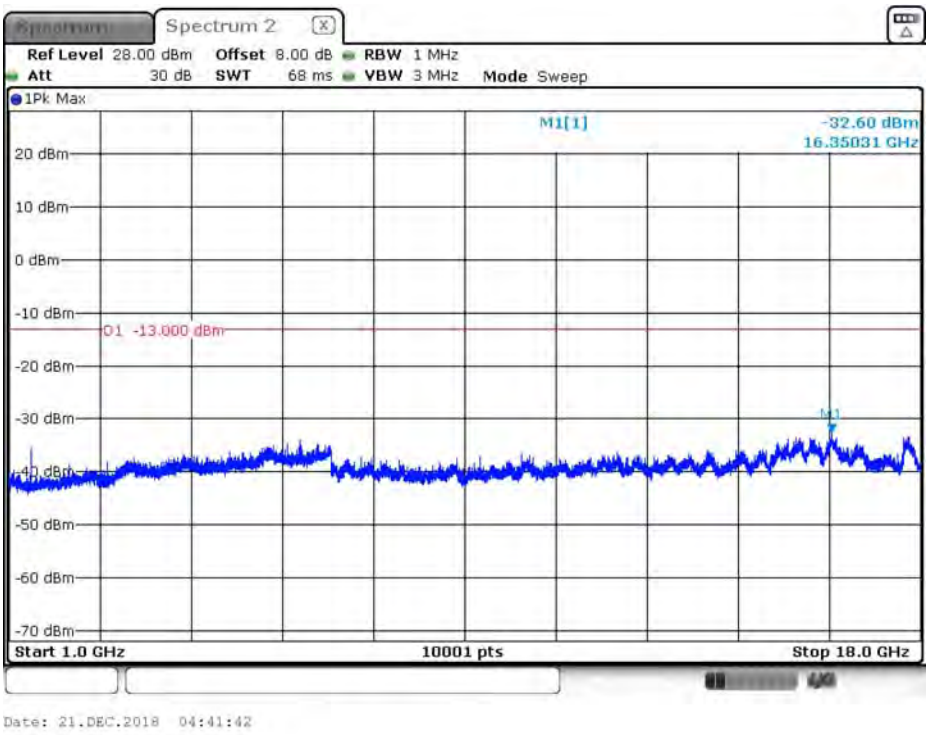
B12_1.4M_CH23095_QPSK_above 1G_1RB0



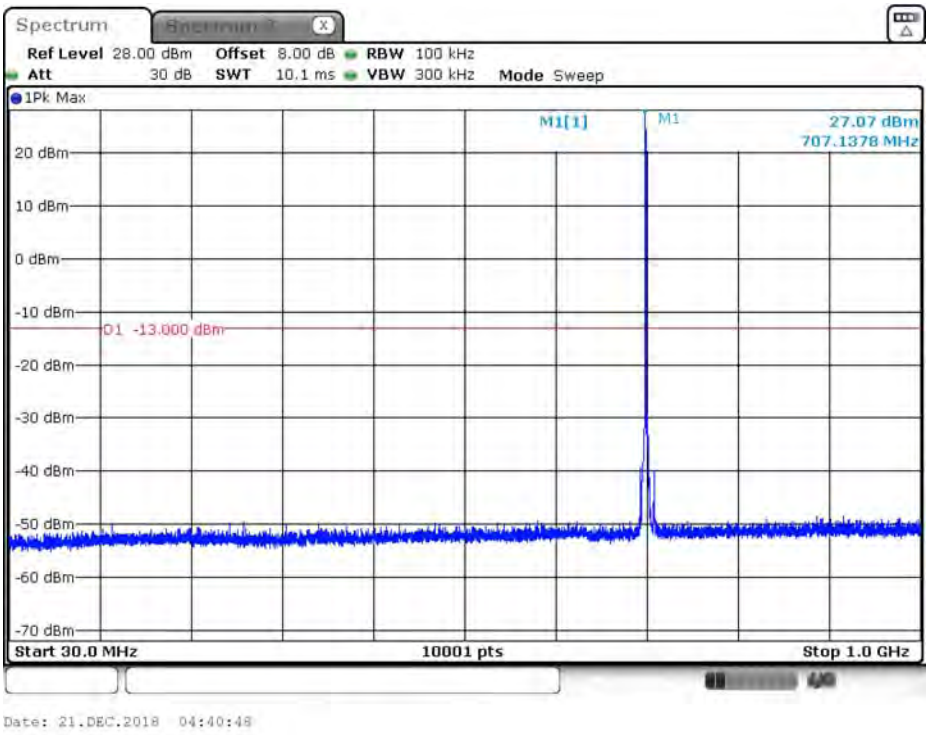
B12_1.4M_CH23095_QPSK_under 1G_1RB0



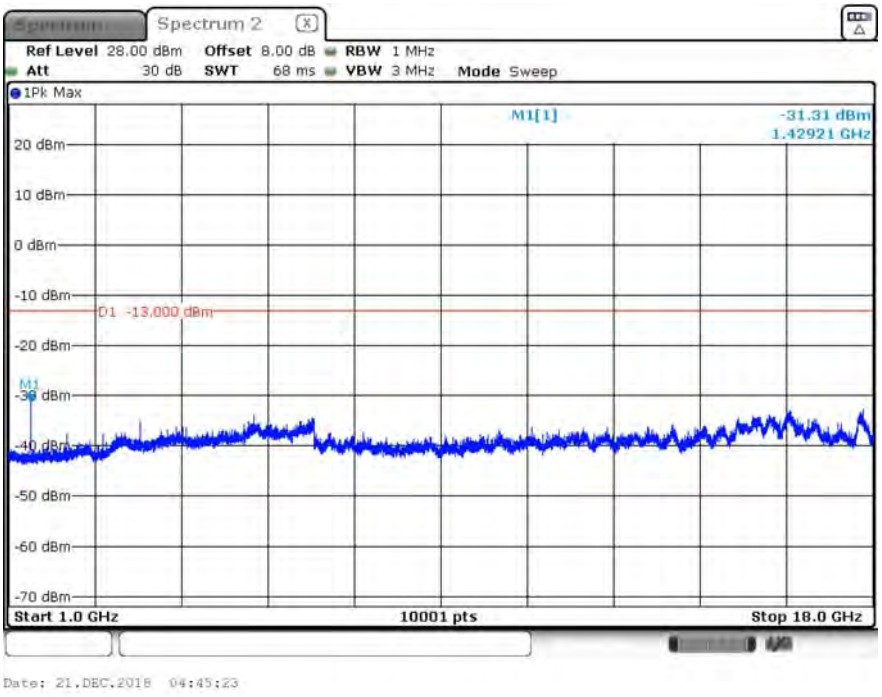
B12_1.4M_CH23095_16QAM_above 1G_1RB0



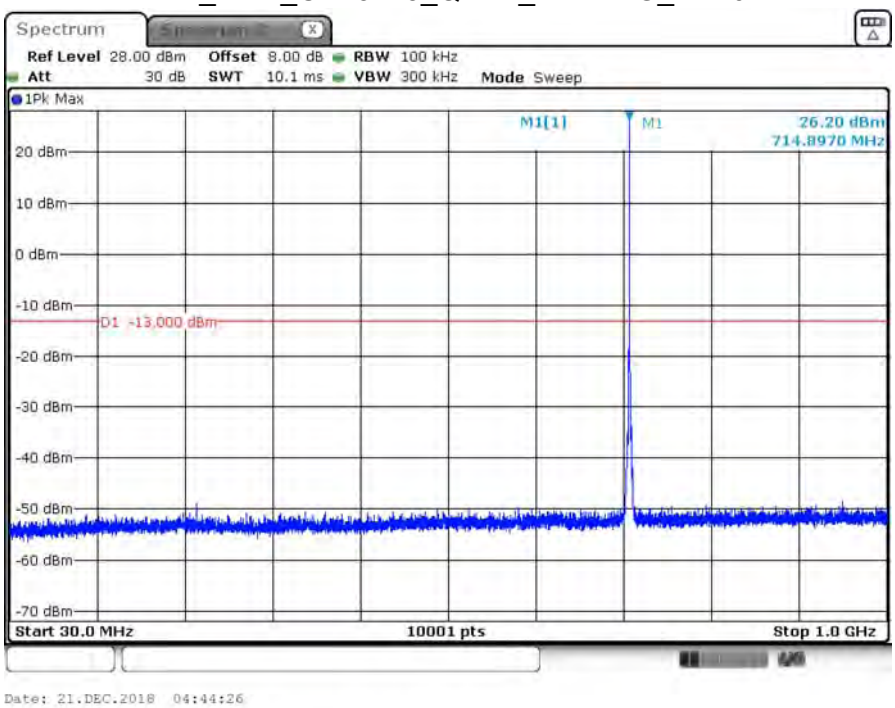
B12_1.4M_CH23095_16QAM_under 1G_1RB0



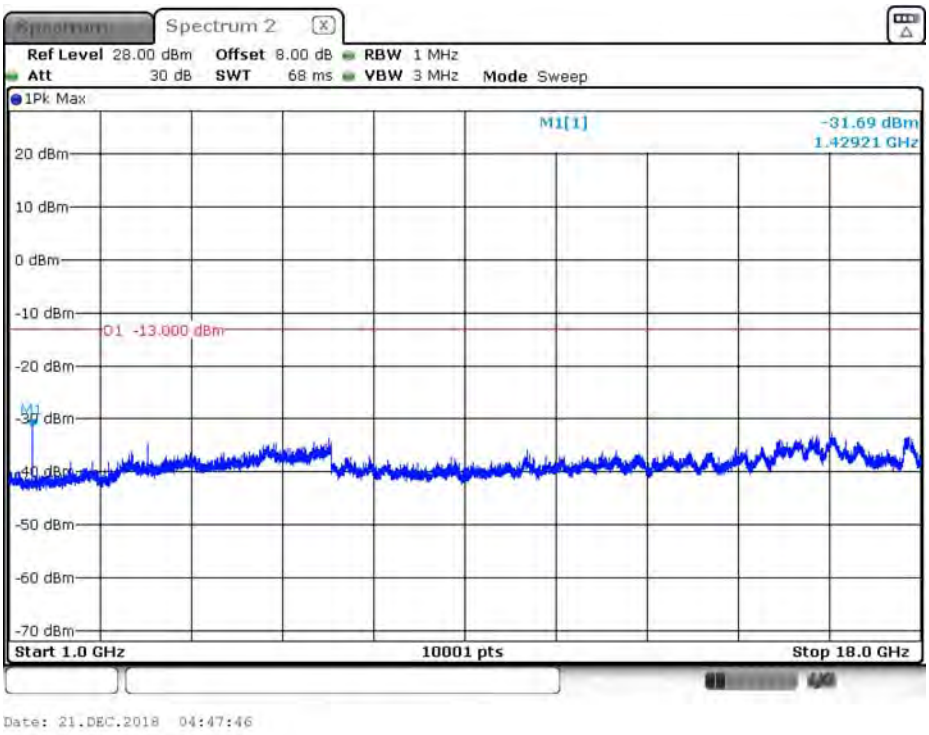
B12_1.4M_CH23173_QPSK_above 1G_1RB0



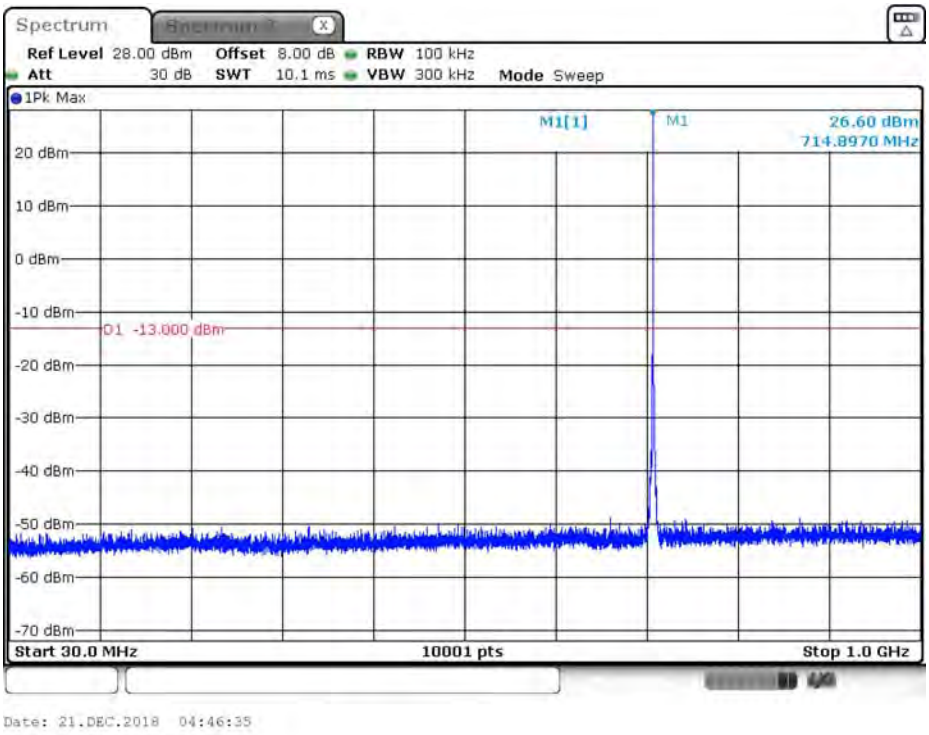
B12_1.4M_CH23173_QPSK_under 1G_1RB0



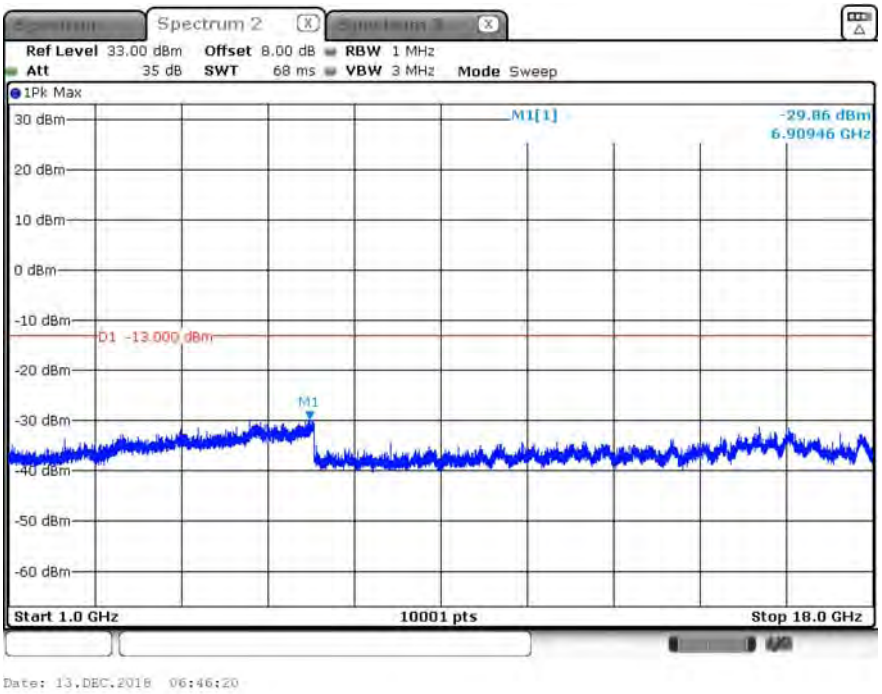
B12_1.4M_CH23173_16QAM_above 1G_1RB0



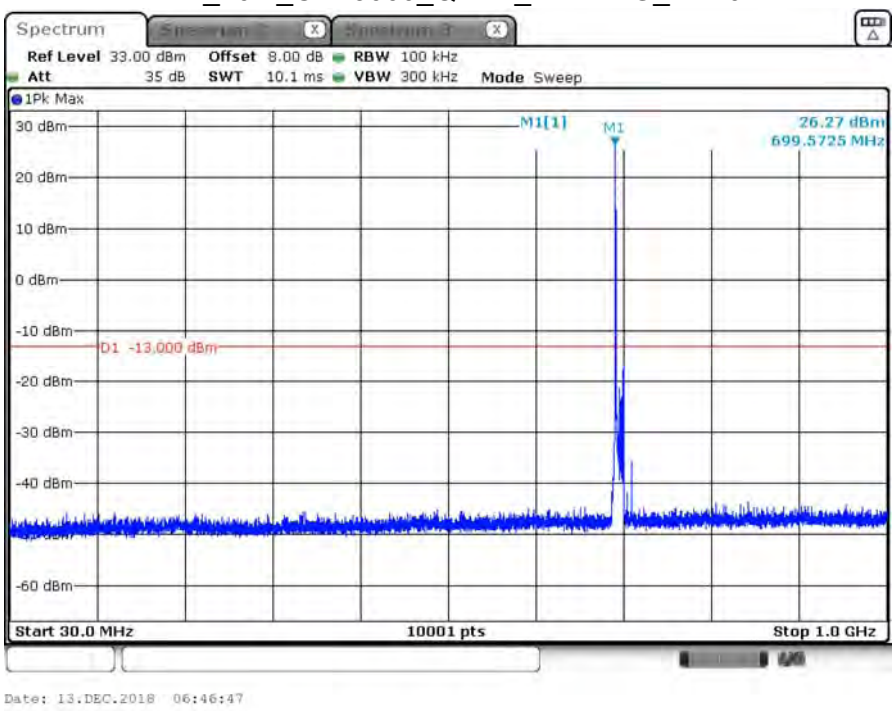
B12_1.4M_CH23173_16QAM_under 1G_1RB0



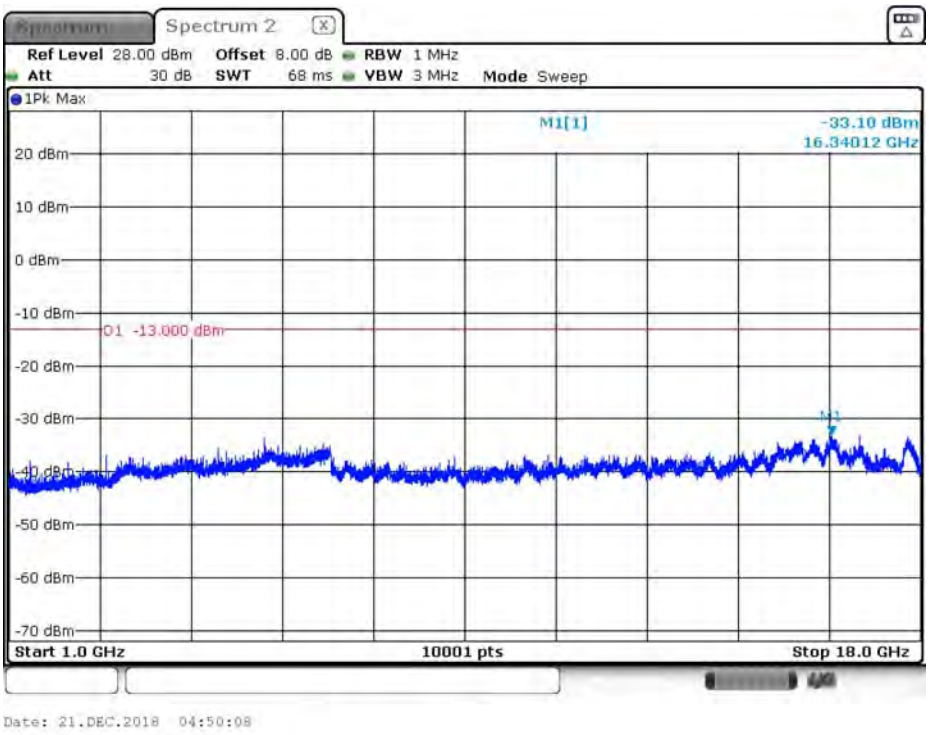
B12_10M_CH23060_QPSK_above 1G_1RB0



B12_10M_CH23060_QPSK_under 1G_1RB0



B12_10M_CH23060_16QAM_above 1G_1RB0



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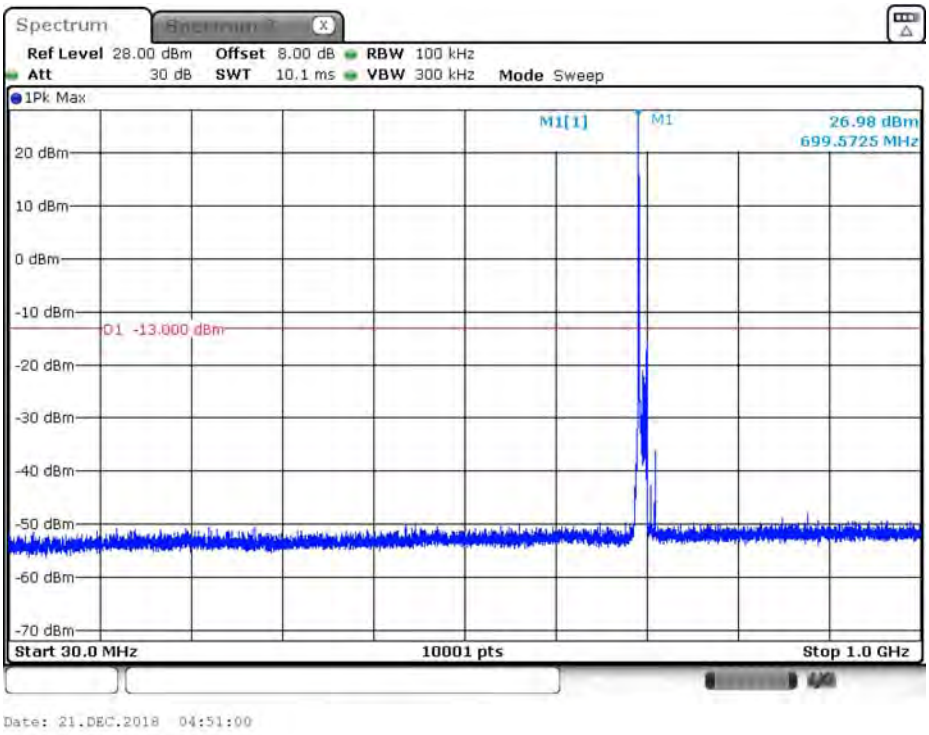
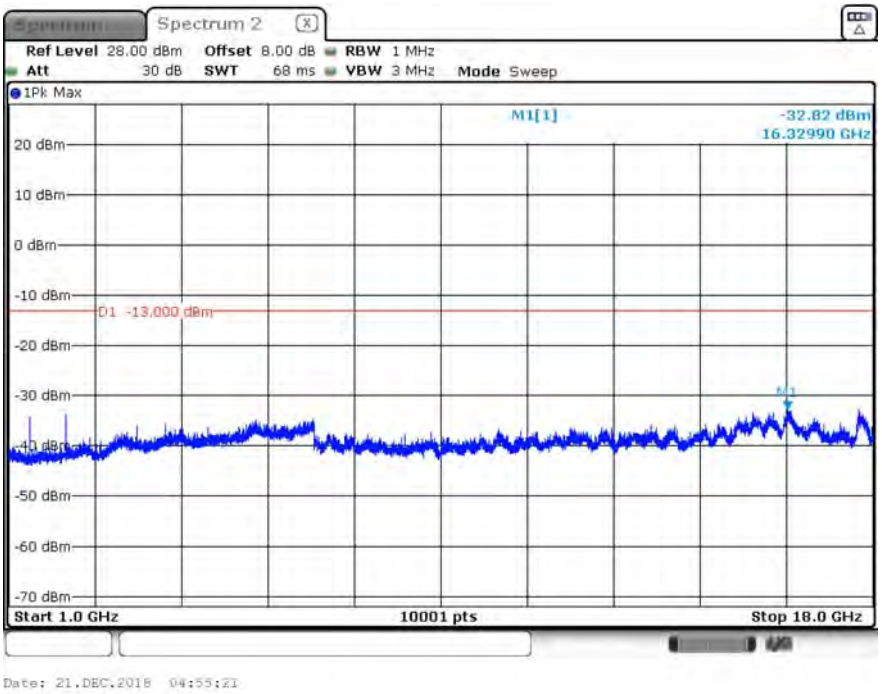
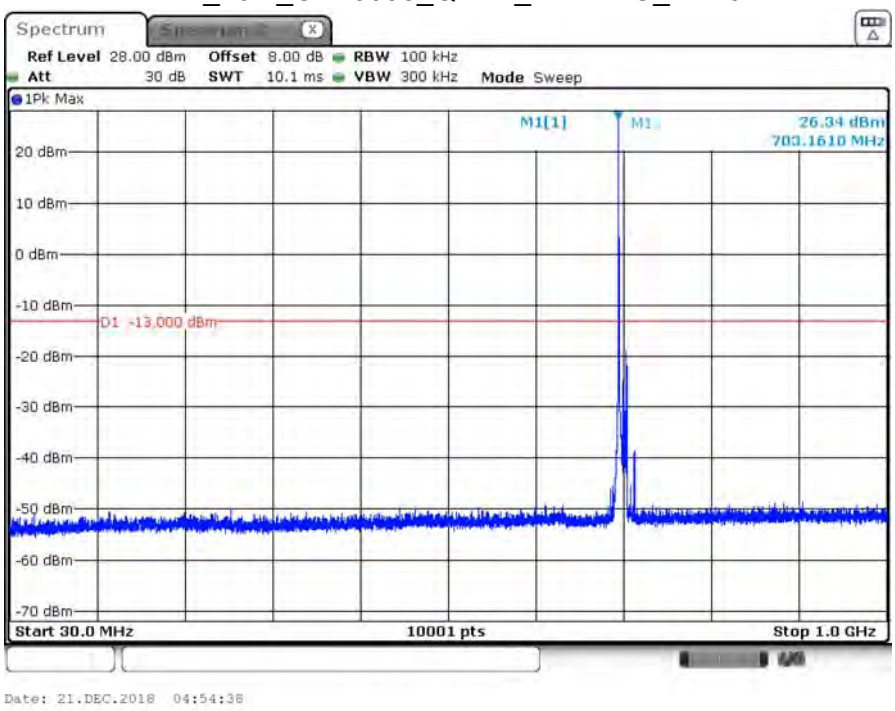


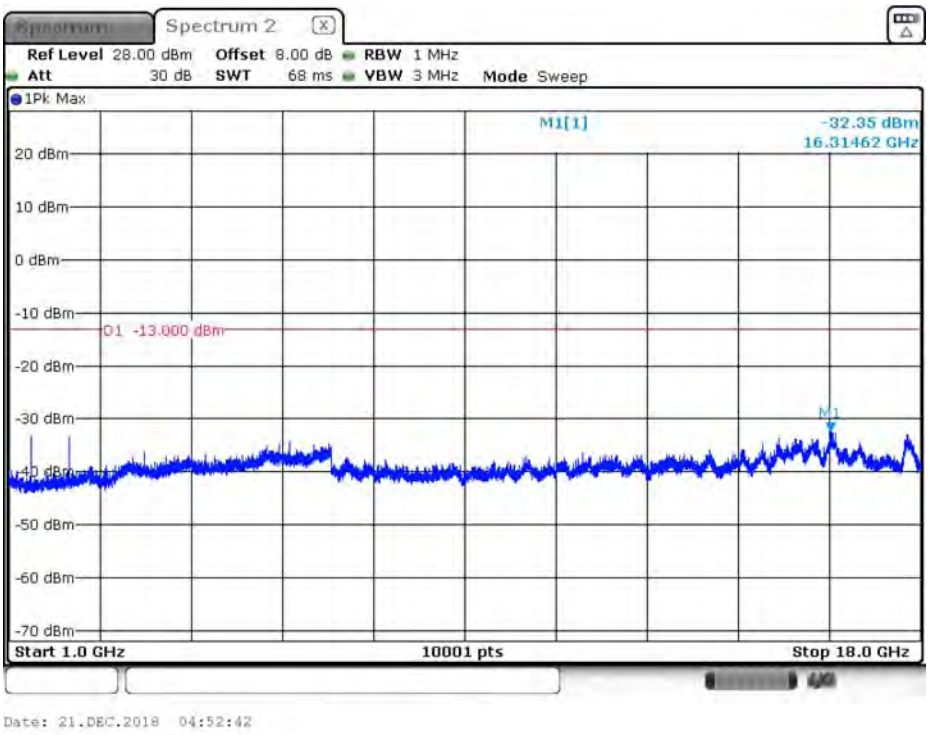
B12_10M_CH23095_QPSK_above 1G_1RB0



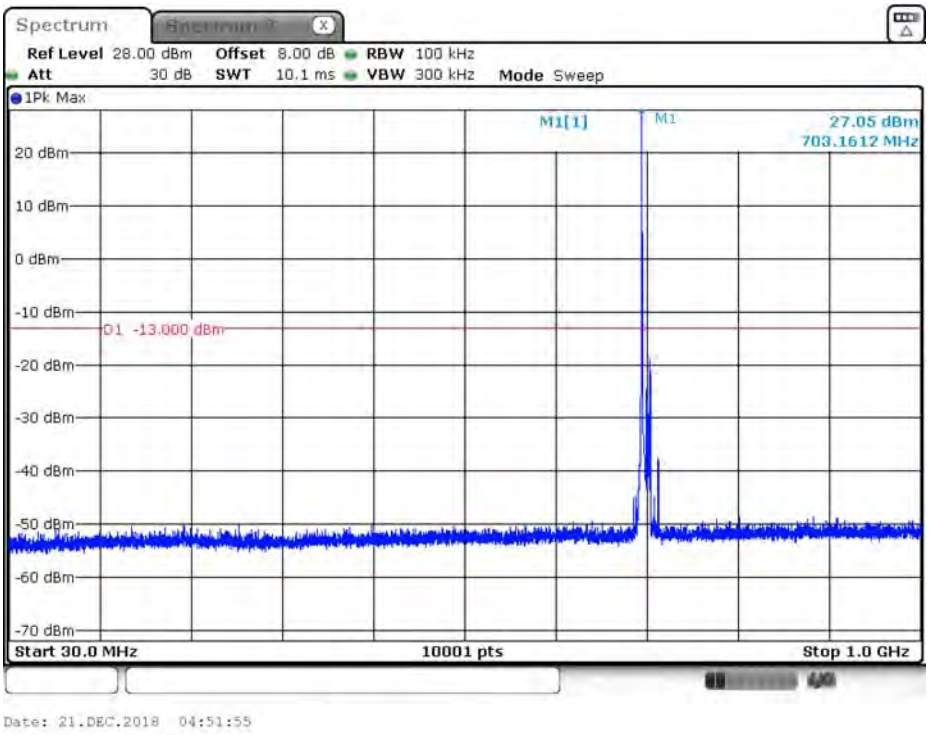
B12_10M_CH23095_QPSK_under 1G_1RB0



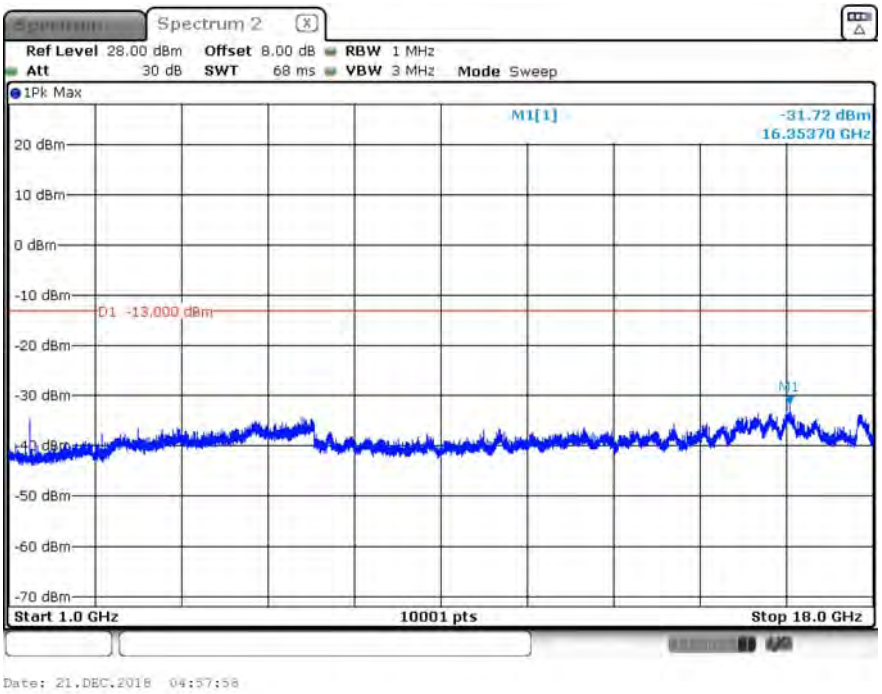
B12_10M_CH23095_16QAM_above 1G_1RB0



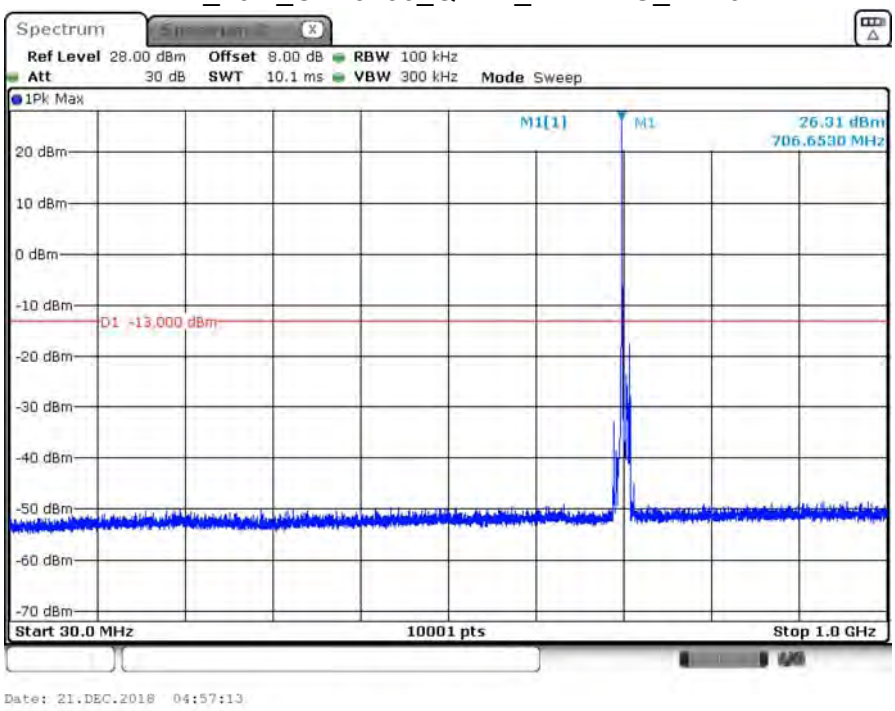
B12_10M_CH23095_16QAM_under 1G_1RB0



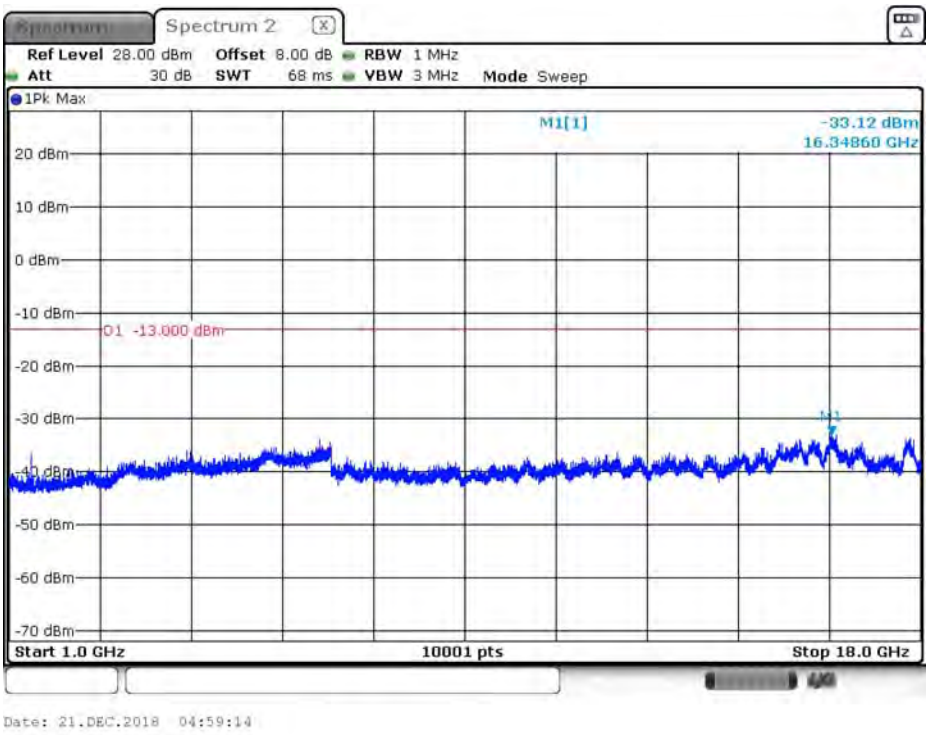
B12_10M_CH23130_QPSK_above 1G_1RB0



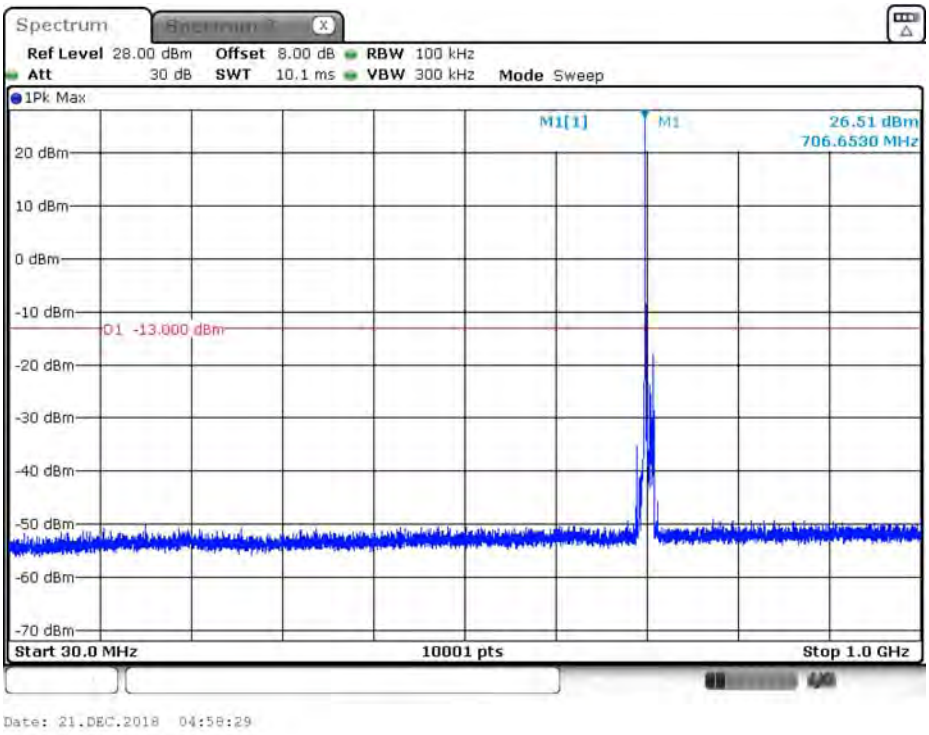
B12_10M_CH23130_QPSK_under 1G_1RB0



B12_10M_CH23130_16QAM_above 1G_1RB0

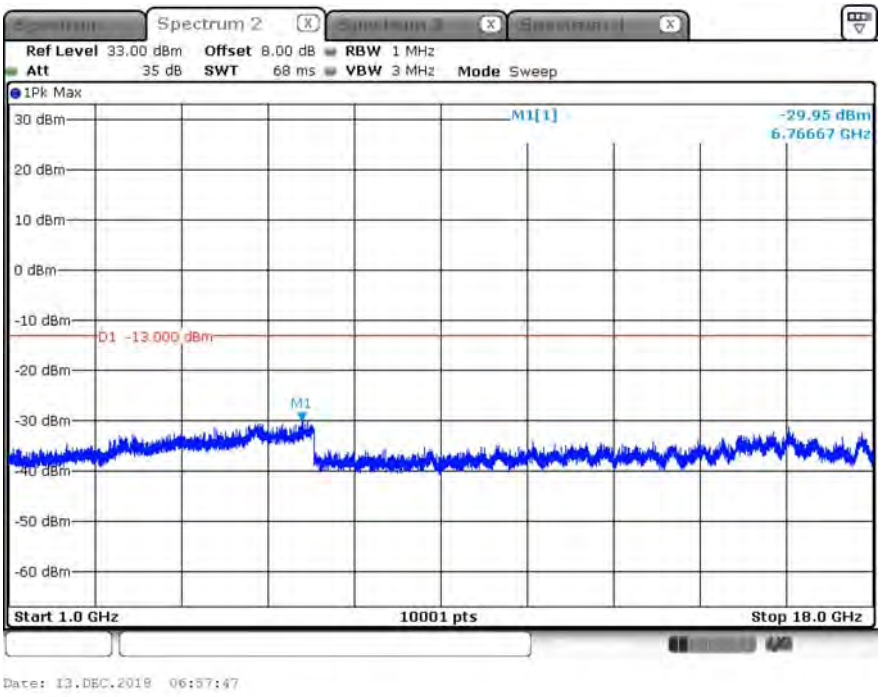


B12_10M_CH23130_16QAM_under 1G_1RB0

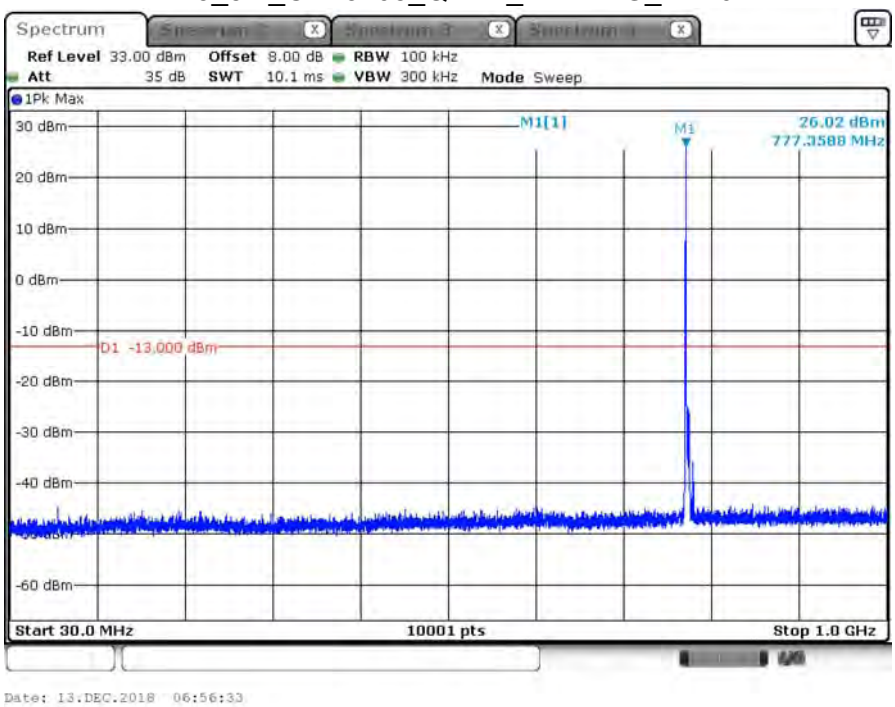


Product	Module		
Test Item	Conducted Spurious Emissions		
Test Mode	Mode 5: LTE Band 13		
Date of Test	2018/12/22	Test Site	SR10-H

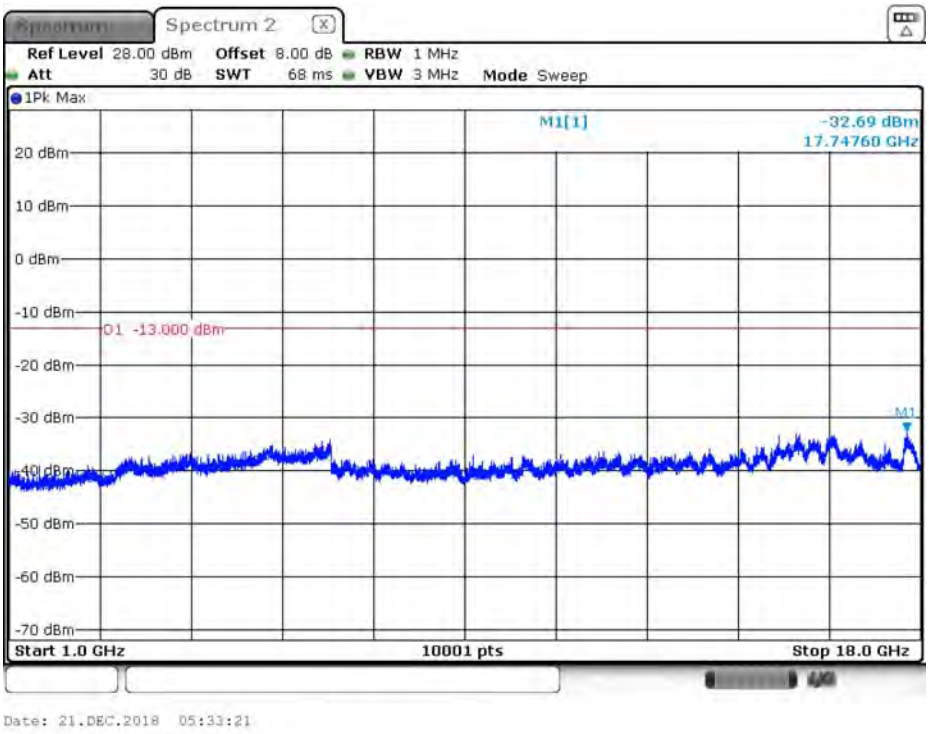
B13_5M_CH23205_QPSK_above 1G_1RB0



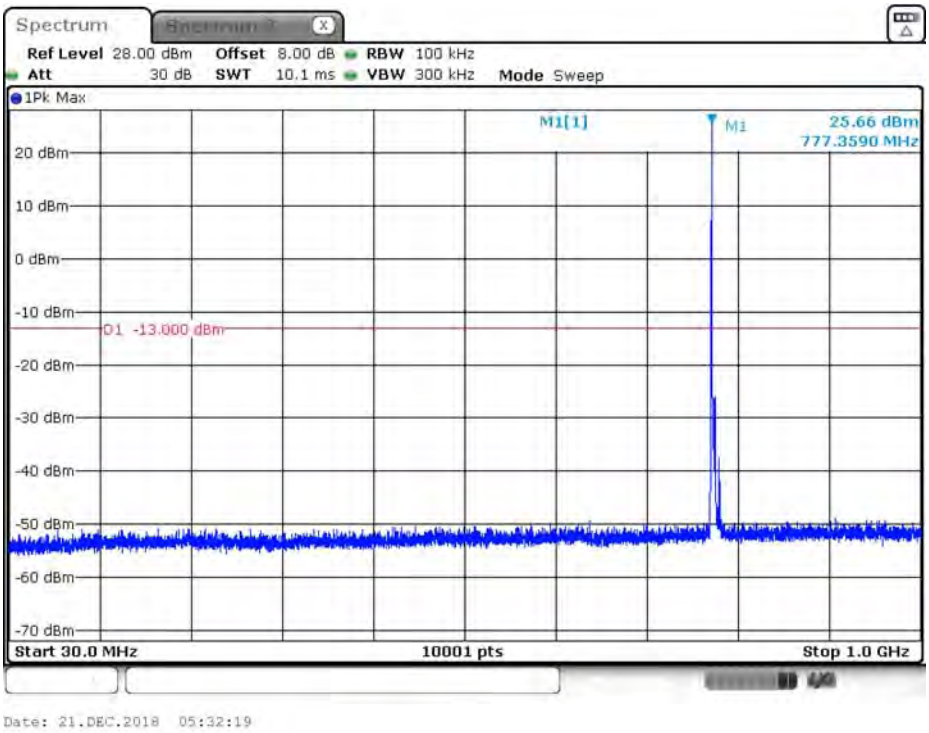
B13_5M_CH23205_QPSK_under 1G_1RB0



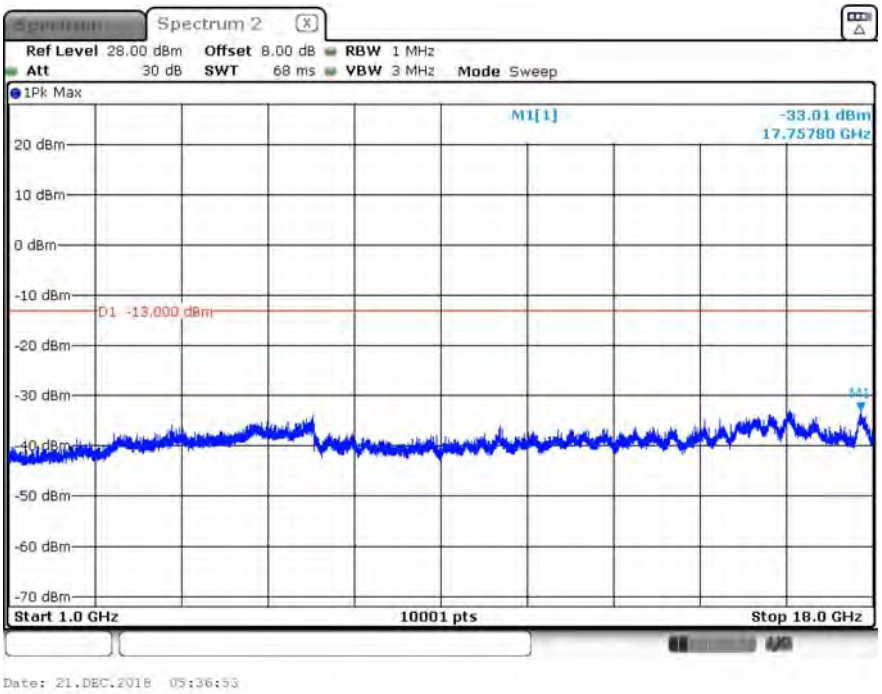
B13_5M_CH23205_16QAM_above 1G_1RB0



B13_5M_CH23205_16QAM_under 1G_1RB0



B13_5M_CH23230_QPSK_above 1G_1RB0



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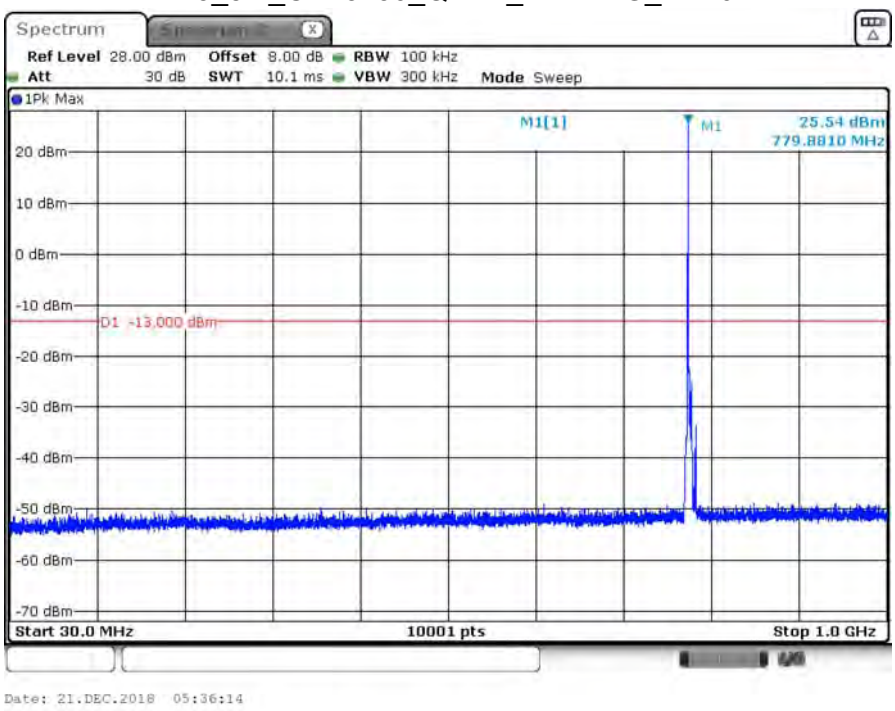

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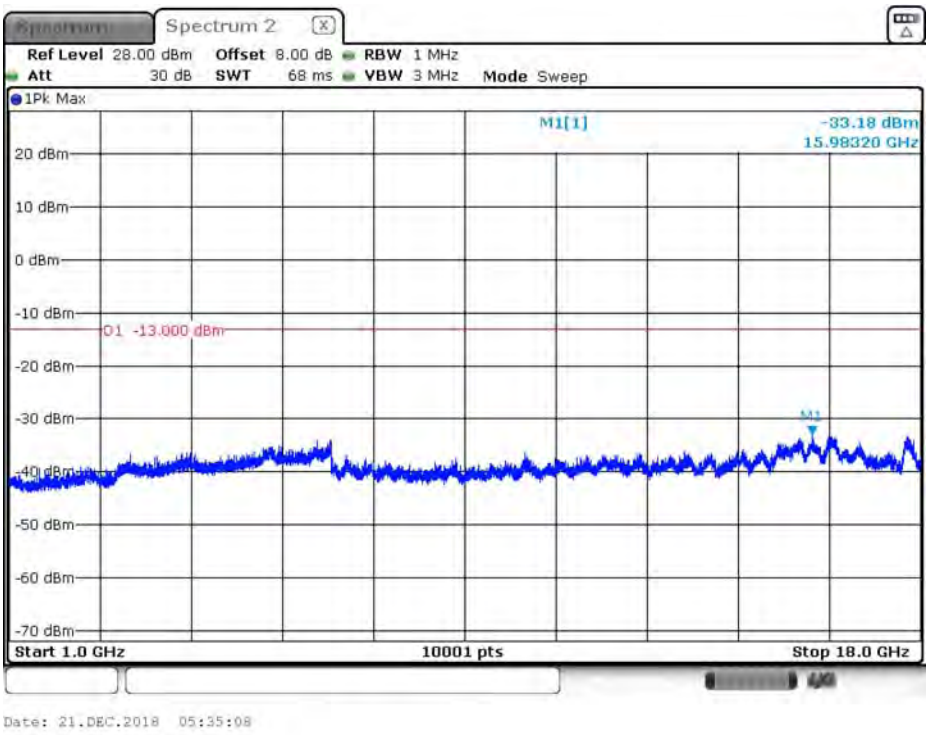

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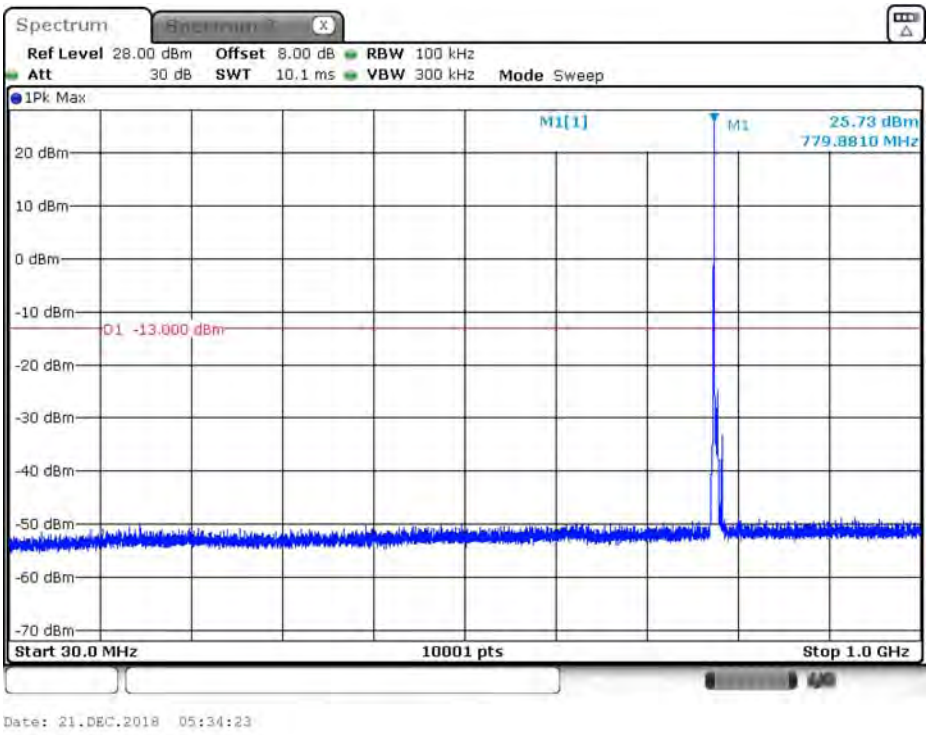
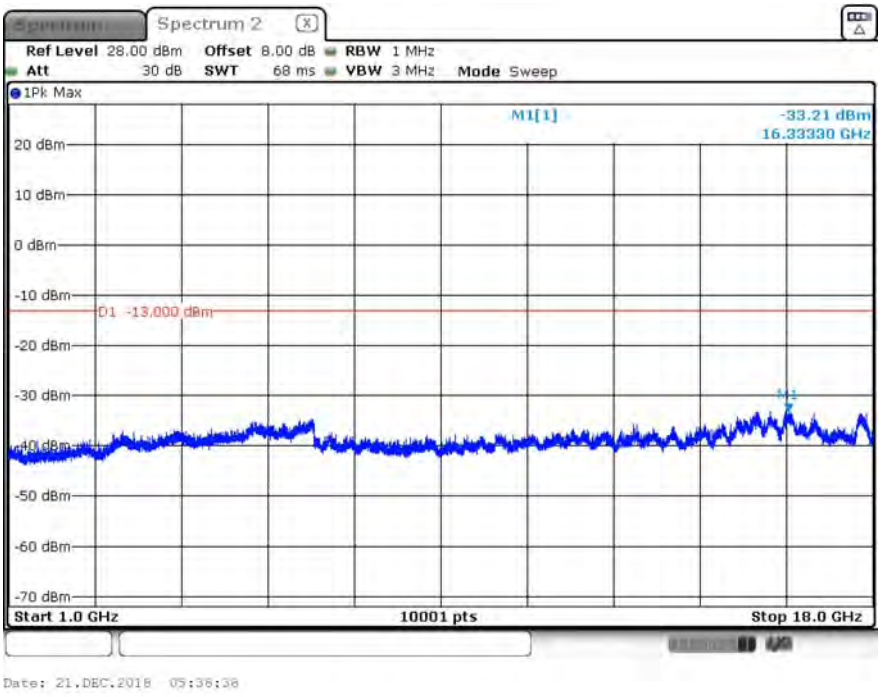
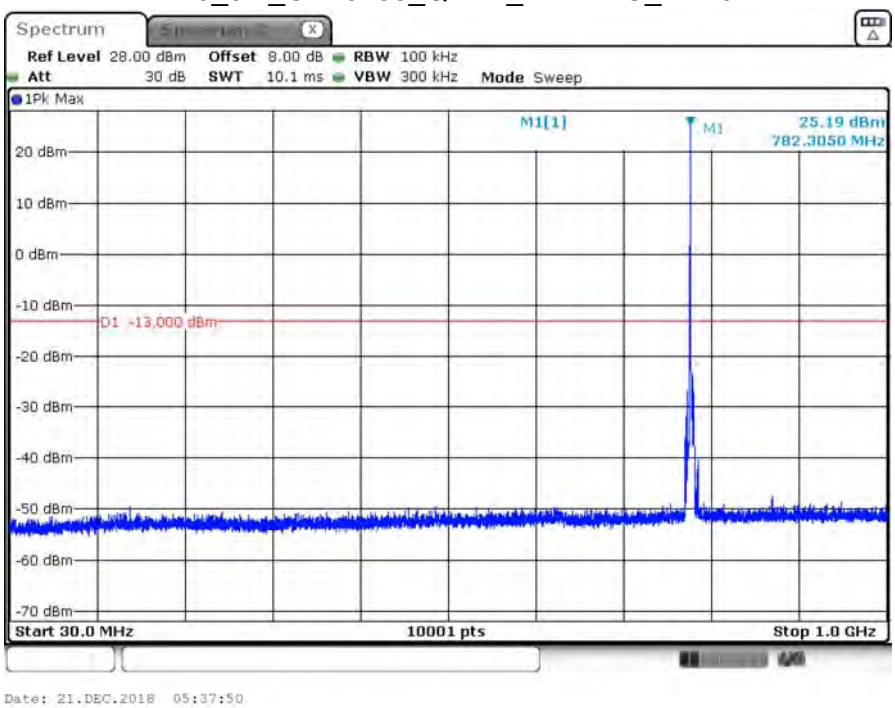


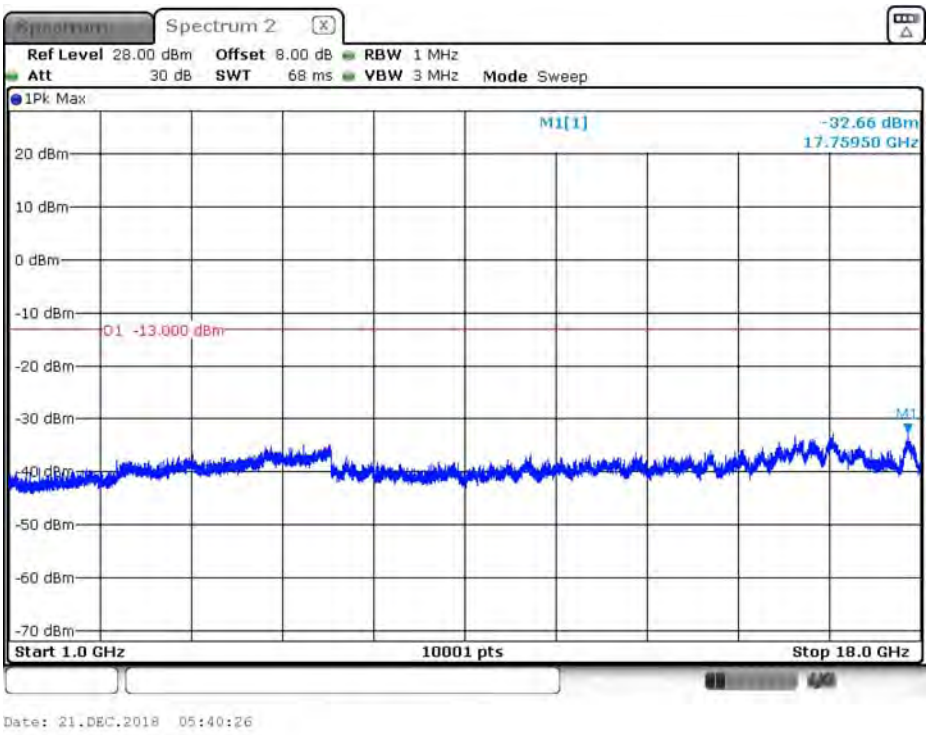
B13_5M_CH23255_QPSK_above 1G_1RB0



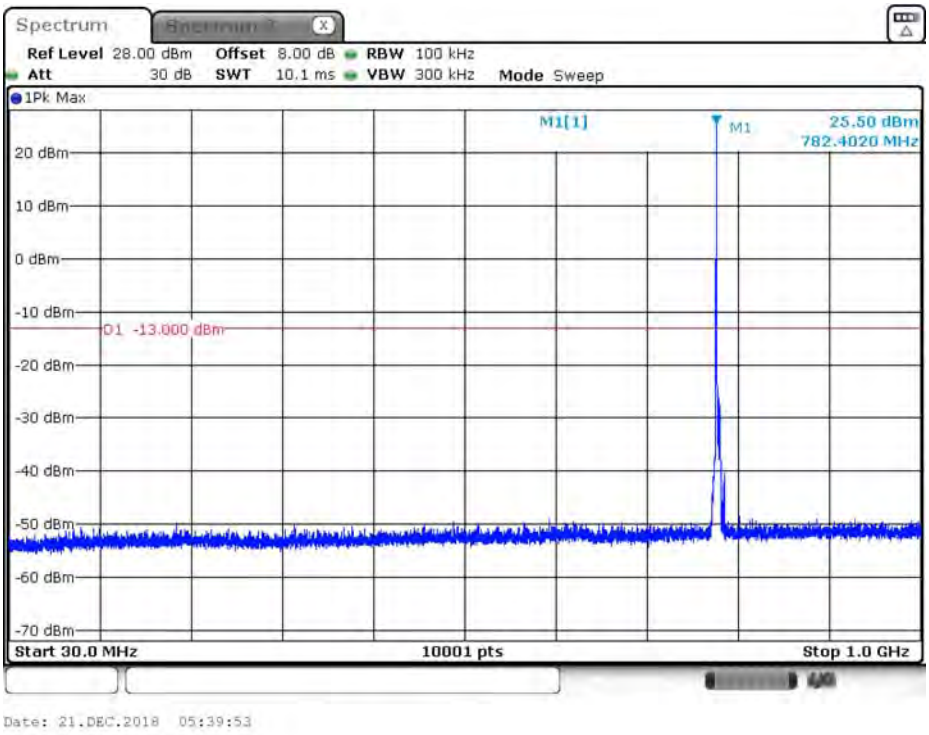
B13_5M_CH23255_QPSK_under 1G_1RB0



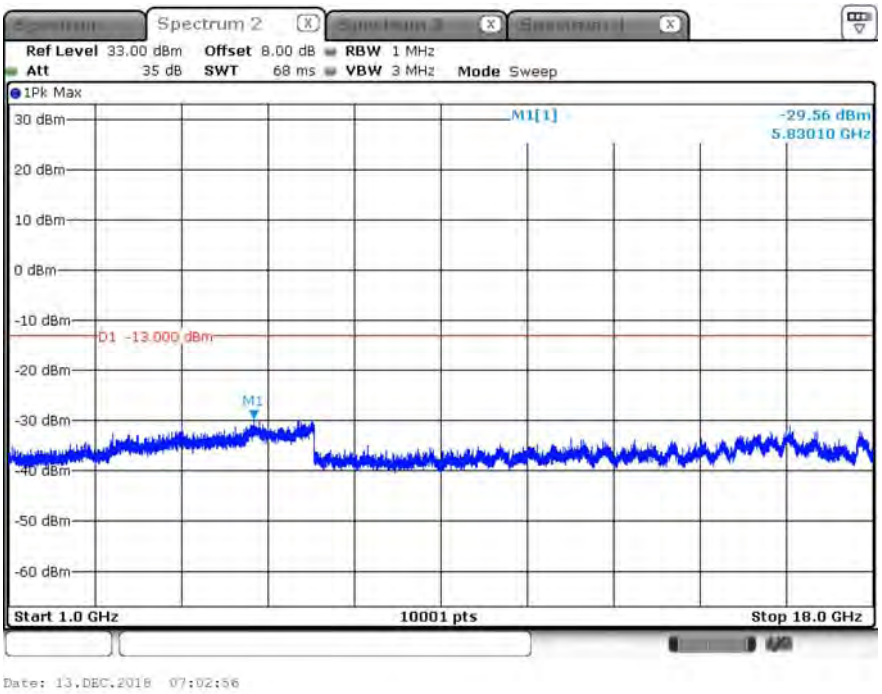
B13_5M_CH23255_16QAM_above 1G_1RB0



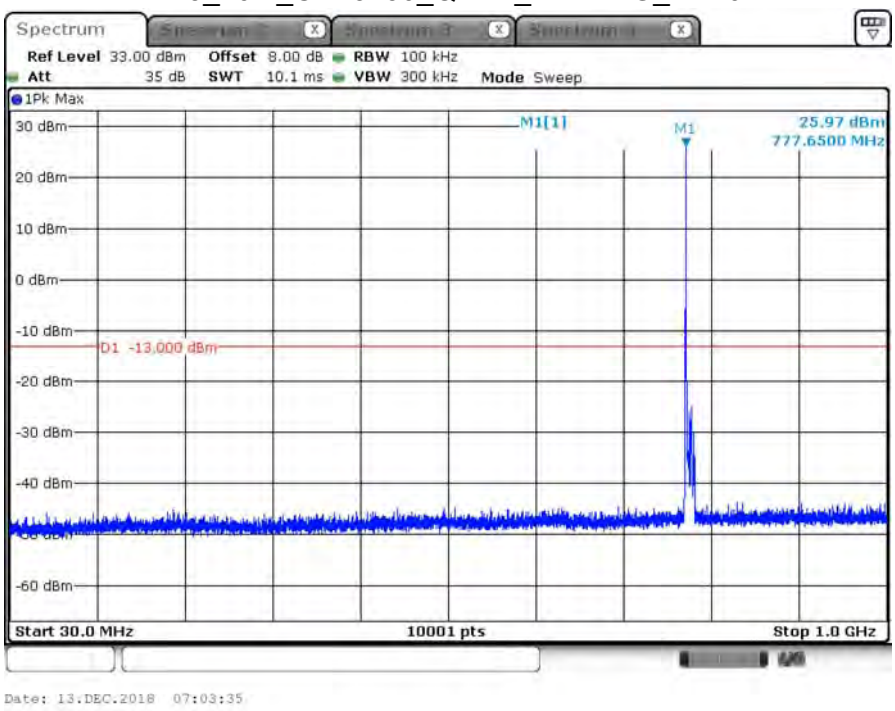
B13_5M_CH23255_16QAM_under 1G_1RB0



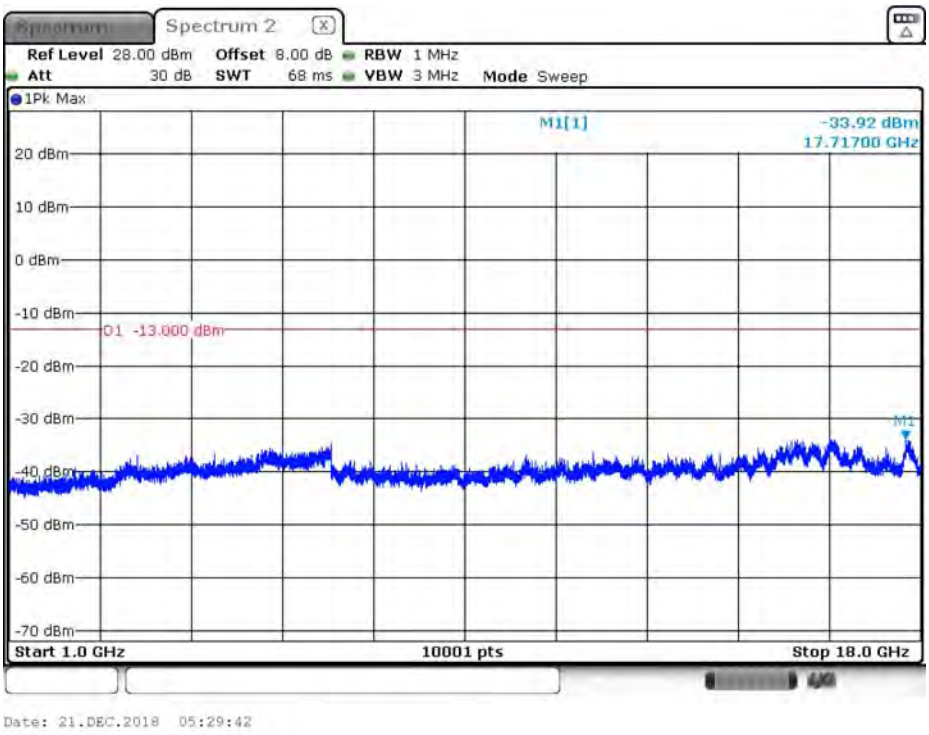
B13_10M_CH23230_QPSK_above 1G_1RB0



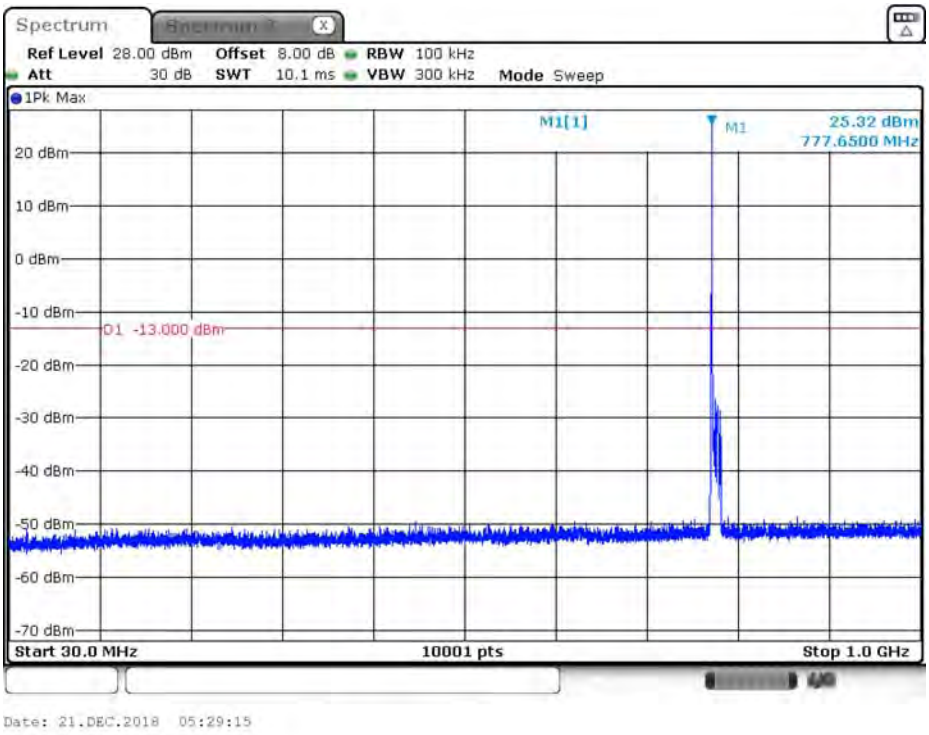
B13_10M_CH23230_QPSK_under 1G_1RB0



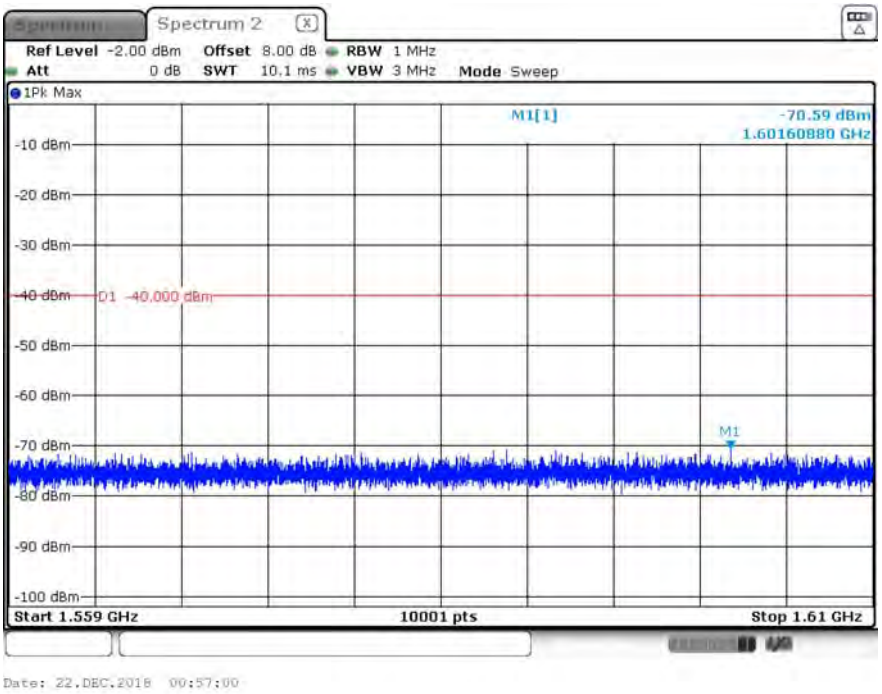
B13_10M_CH23230_16QAM_above 1G_1RB0



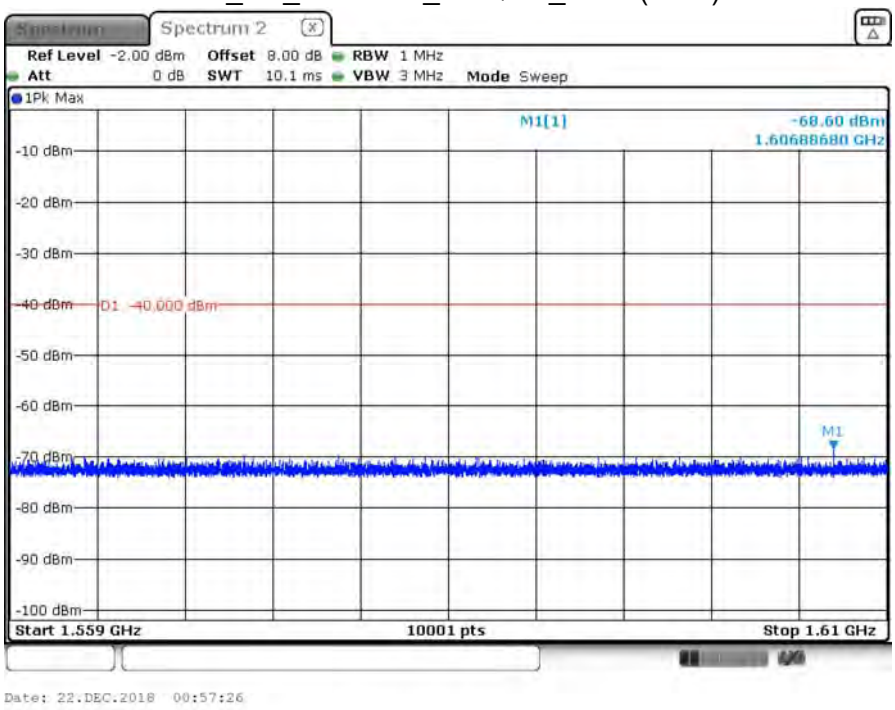
B13_10M_CH23230_16QAM_under 1G_1RB0



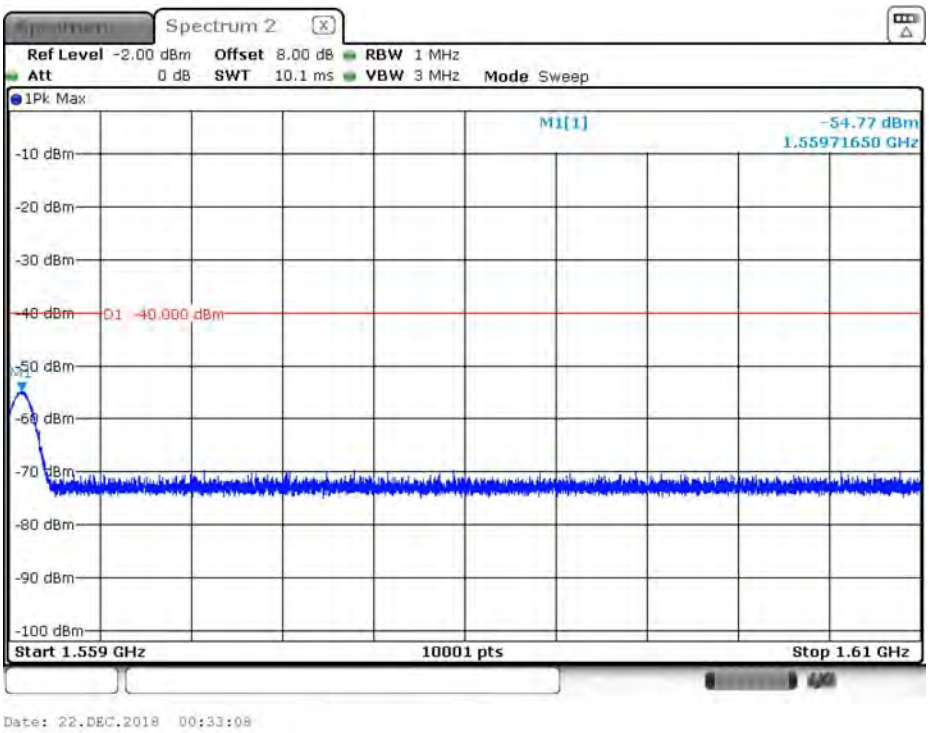
B13_5M_CH23205_QPSK_1RB0(GPS)



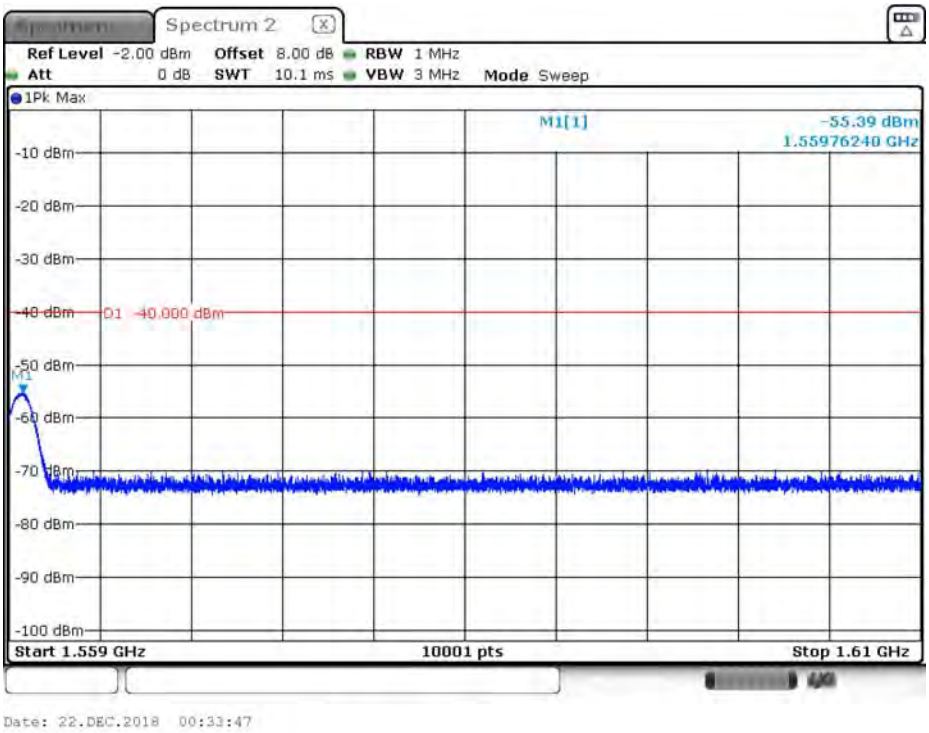
B13_5M_CH23205_16-QAM_1RB0(GPS)



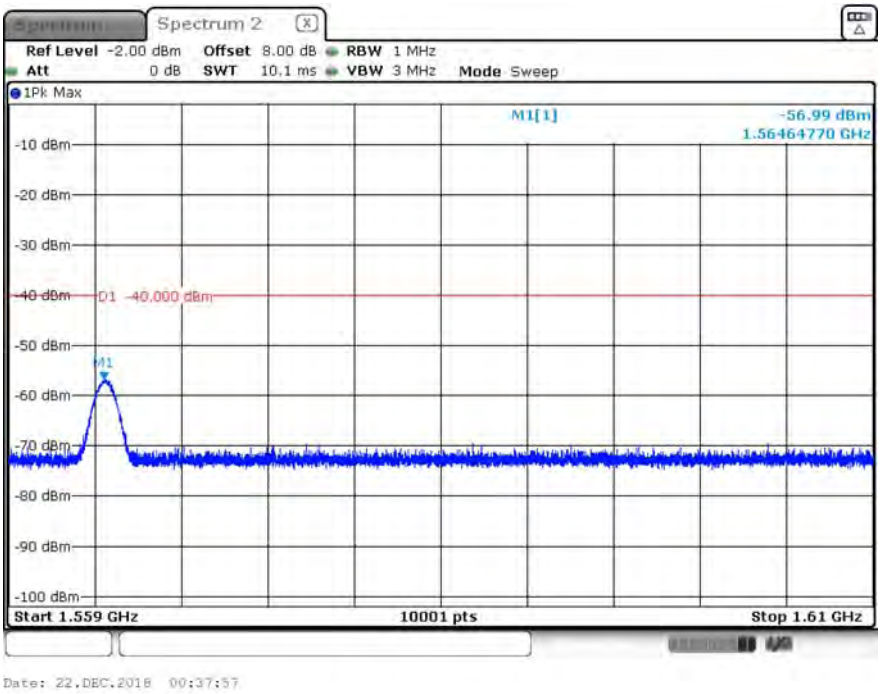
B13_5M_CH23230_QPSK_1RB0(GPS)



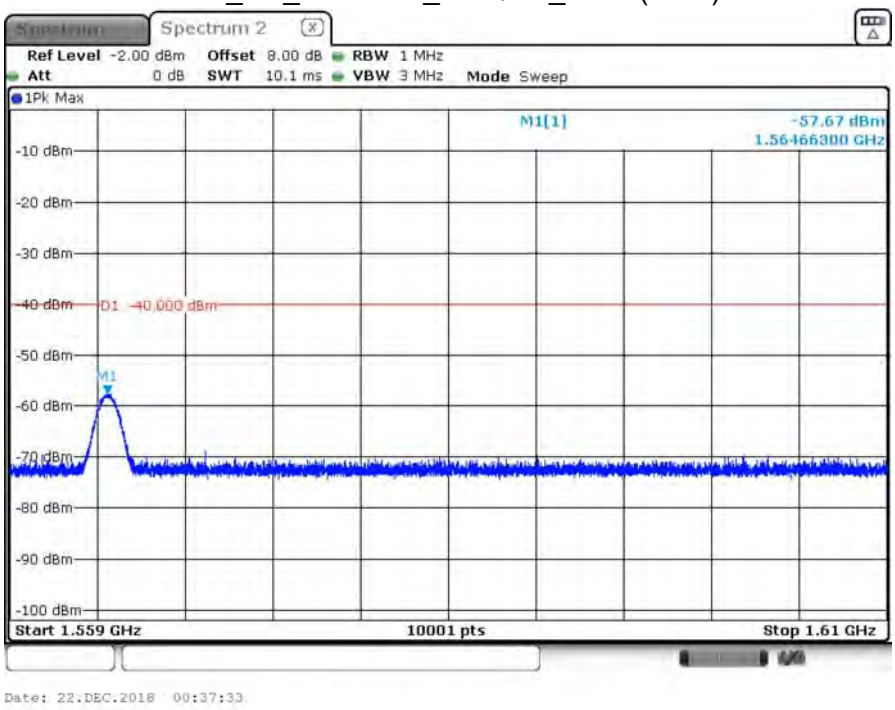
B13_5M_CH23230_16-QAM_1RB0(GPS)



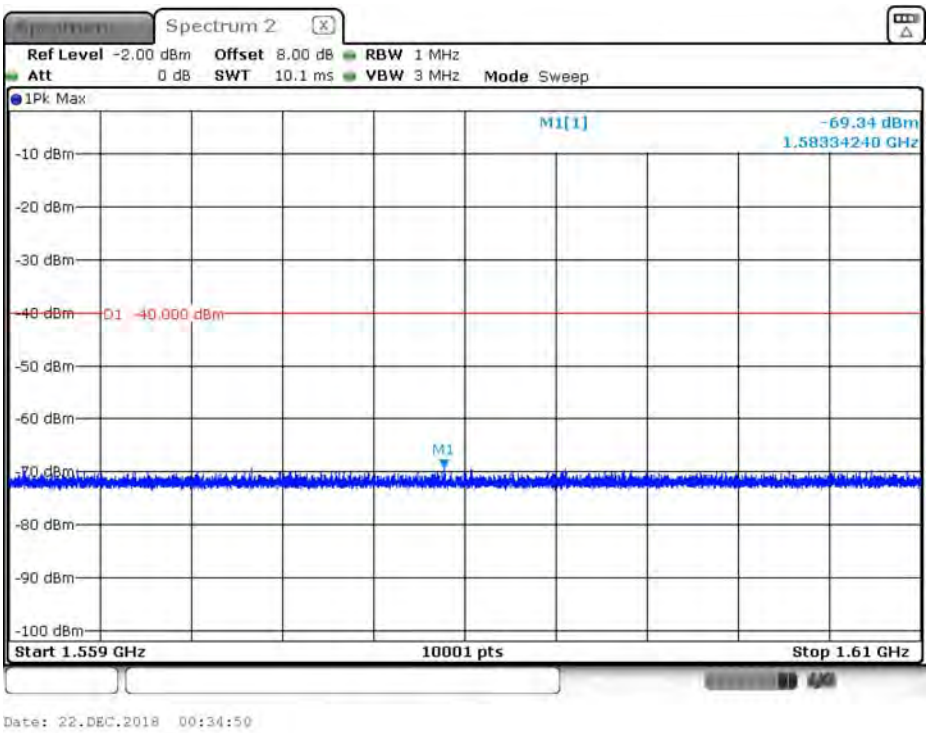
B13_5M_CH23255_QPSK_1RB0(GPS)



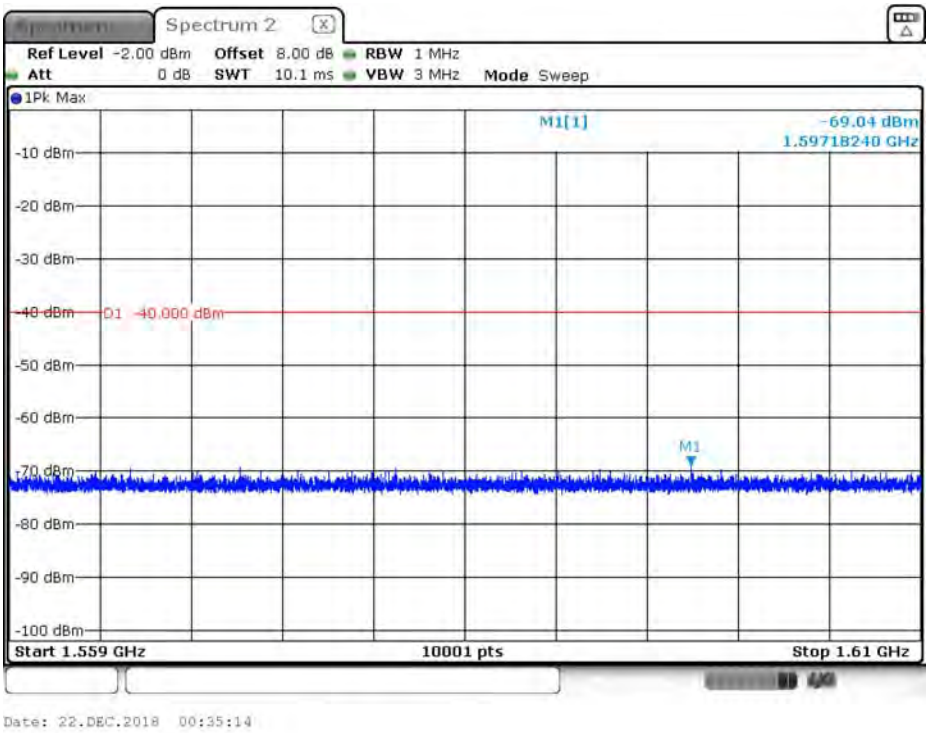
B13_5M_CH23255_16-QAM_1RB0(GPS)



B13_10M_CH23230_QPSK_1RB0(GPS)

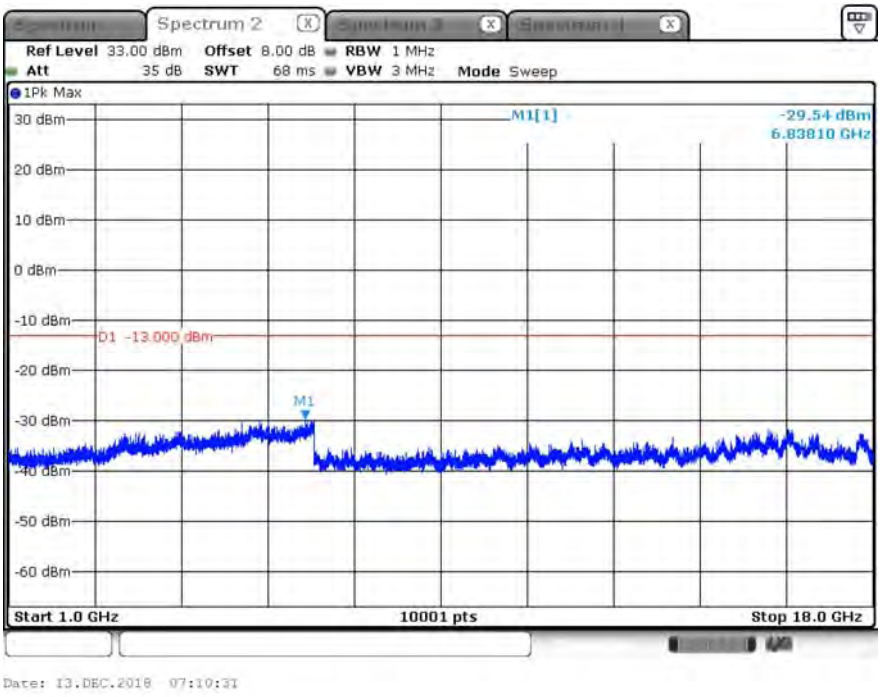


B13_10M_CH23230_16-QAM_1RB0(GPS)

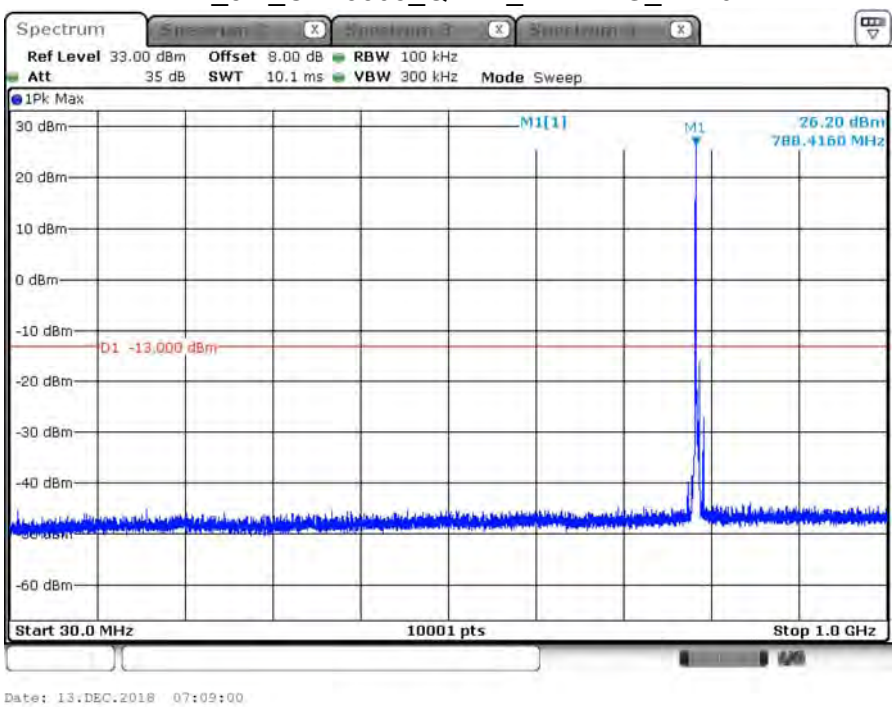


Product	Module		
Test Item	Conducted Spurious Emissions		
Test Mode	Mode 6: LTE Band 14		
Date of Test	2018/12/22	Test Site	SR10-H

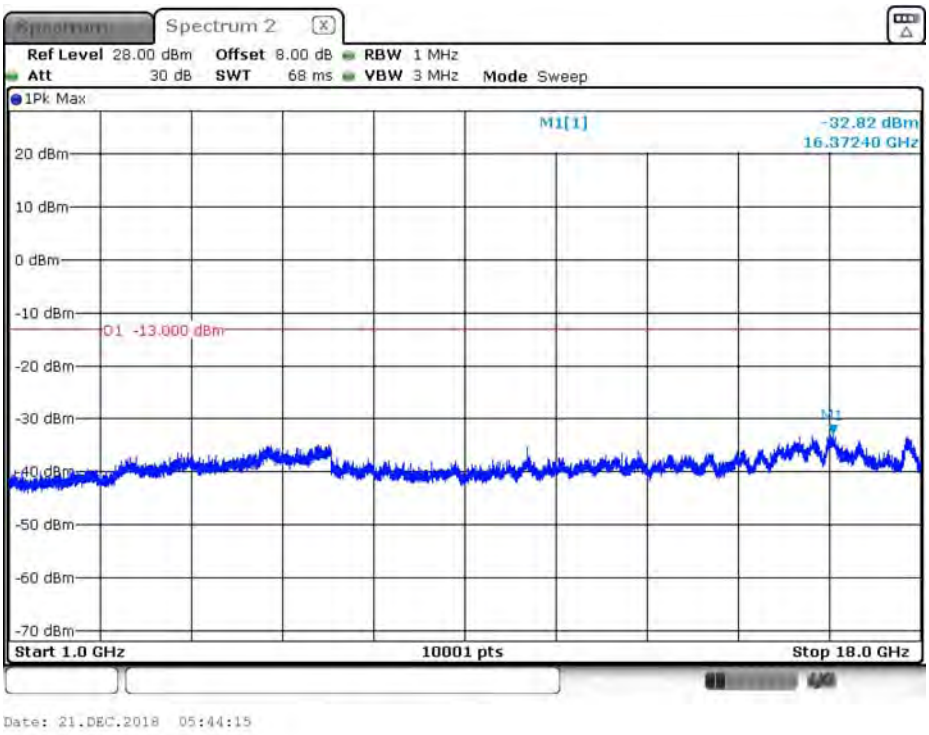
B14_5M_CH23305_QPSK_Above 1G_1RB0



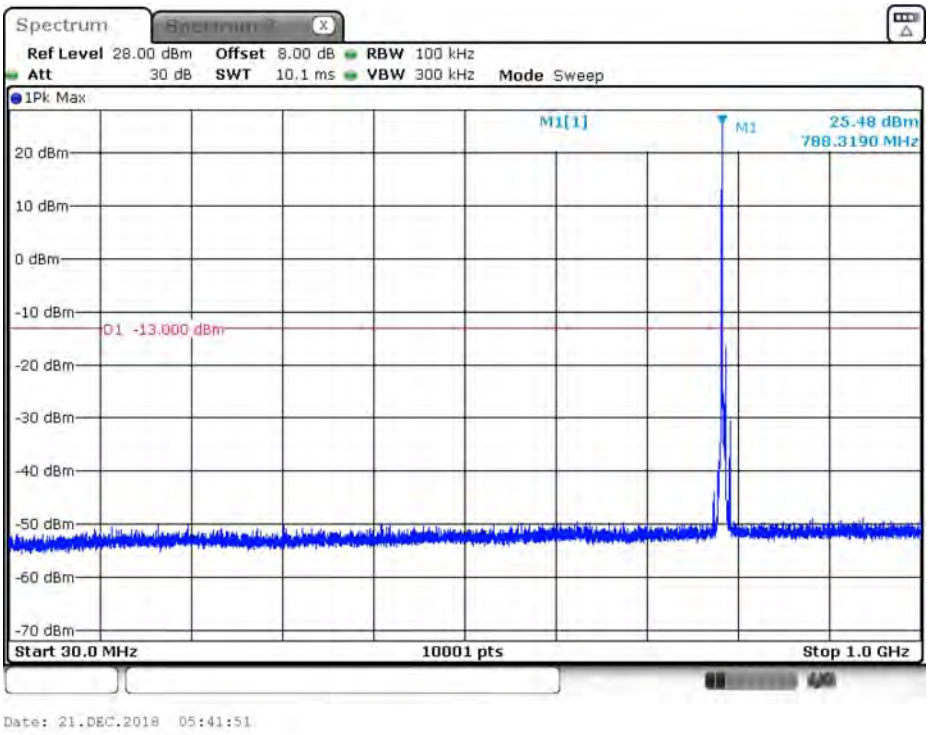
B14_5M_CH23305_QPSK_under 1G_1RB0



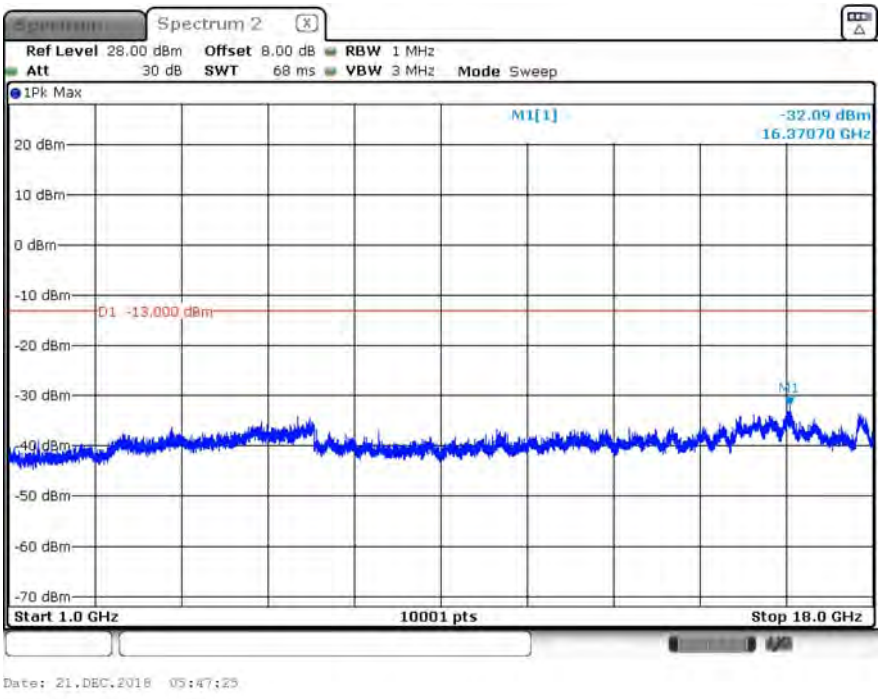
B14_5M_CH23305_16QAM_Above 1G_1RB0



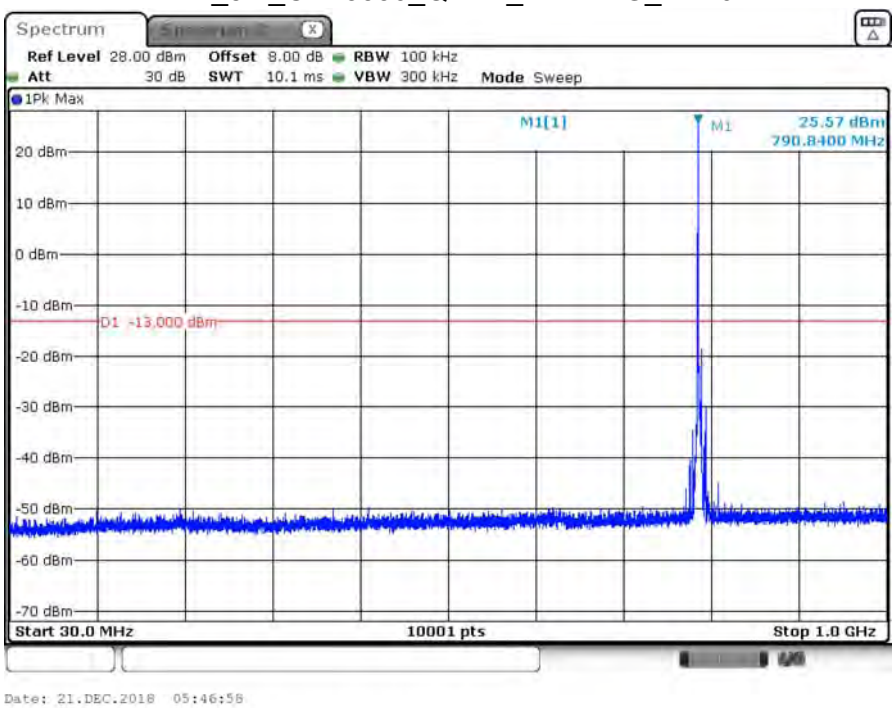
B14_5M_CH23305_16QAM_under 1G_1RB0



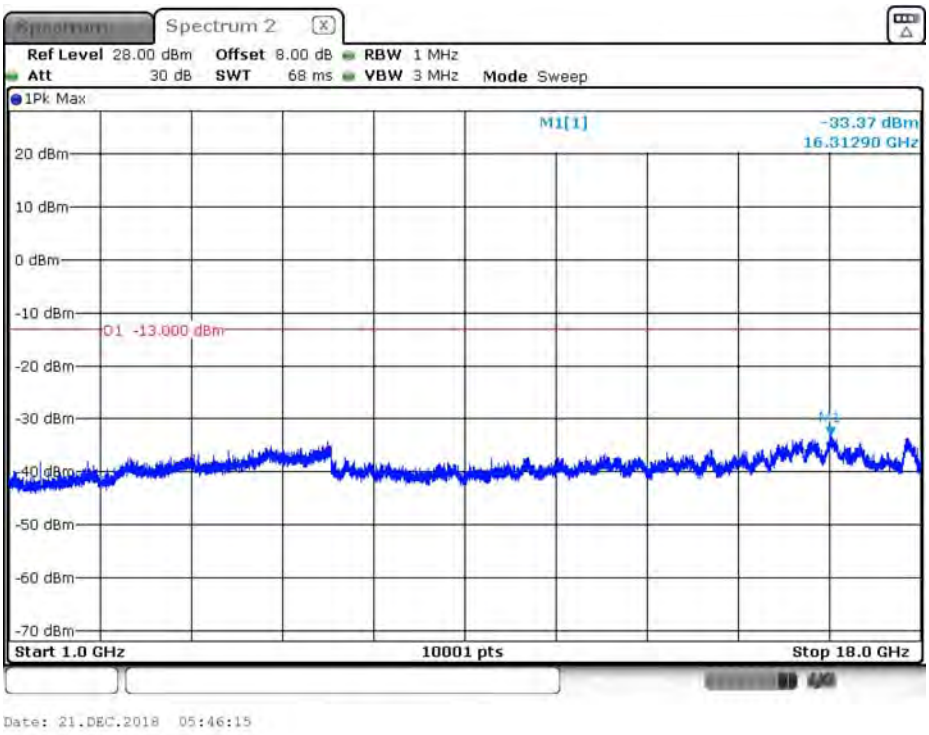
B14_5M_CH23330_QPSK_Above 1G_1RB0



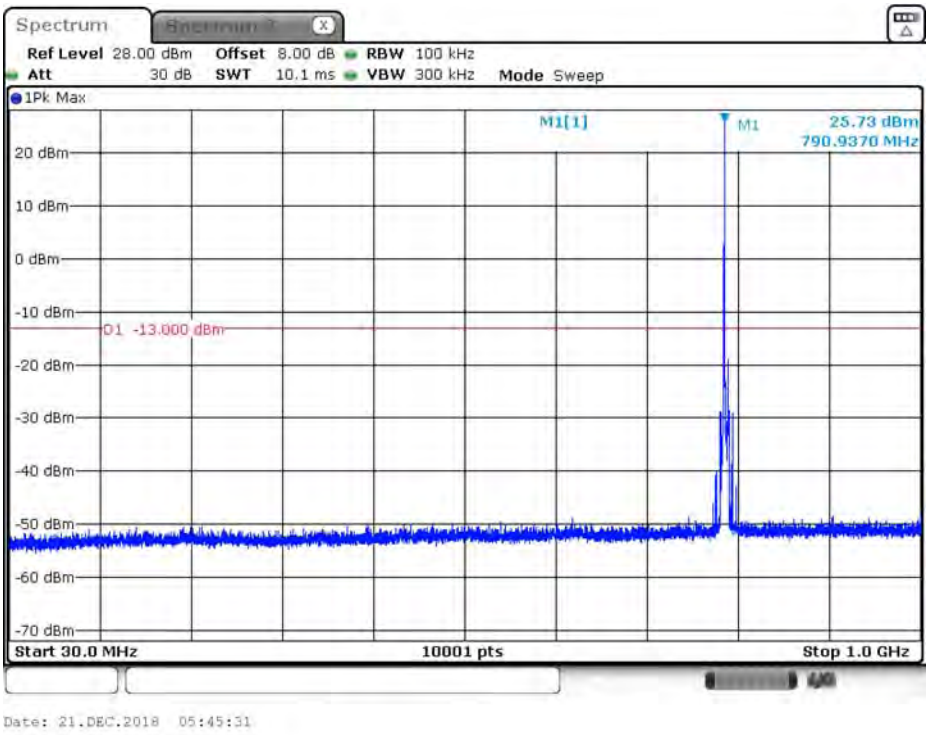
B14_5M_CH23330_QPSK_under 1G_1RB0



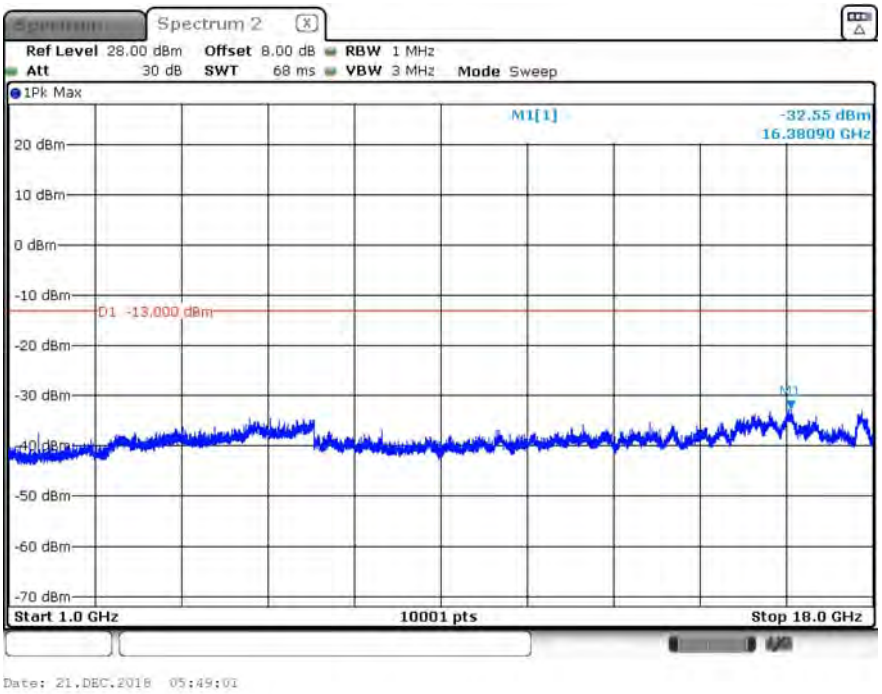
B14_5M_CH23330_16QAM_Above 1G_1RB0



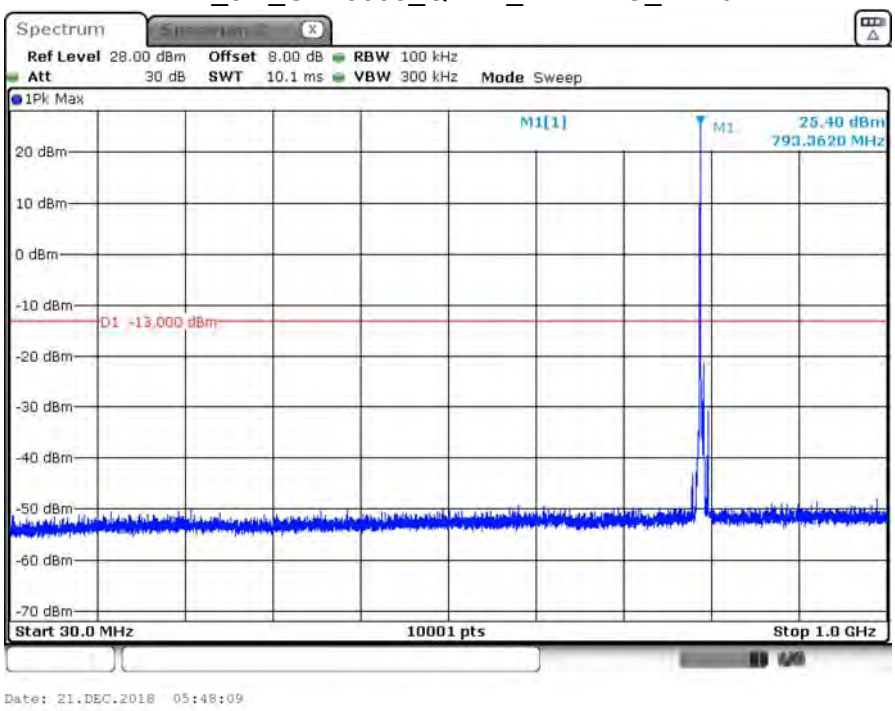
B14_5M_CH23330_16QAM_under 1G_1RB0



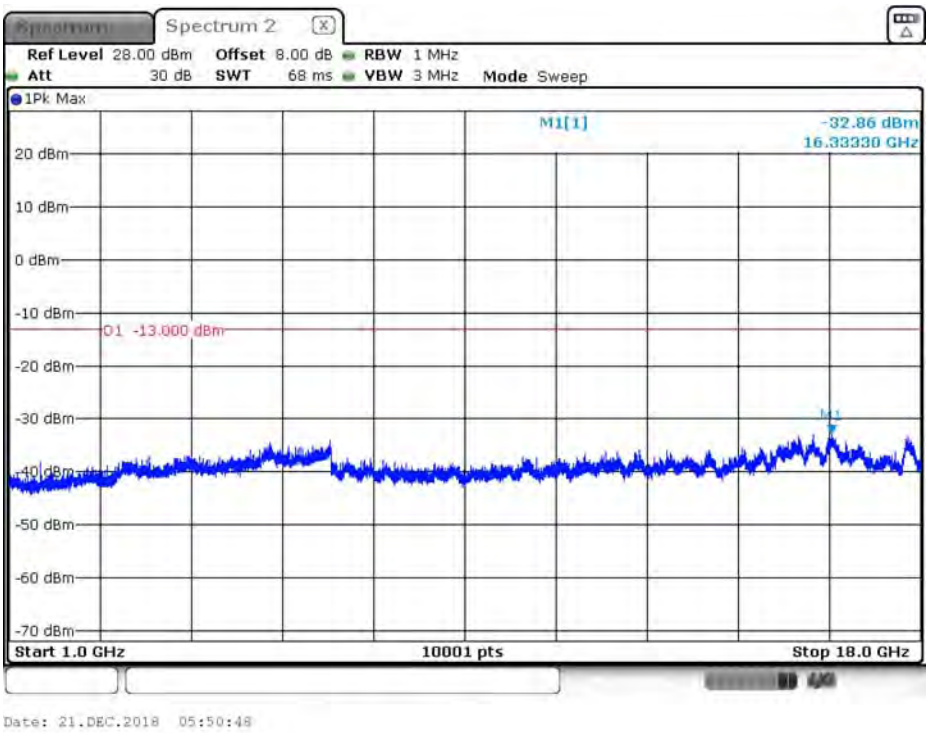
B14_5M_CH23355_QPSK_Above 1G_1RB0



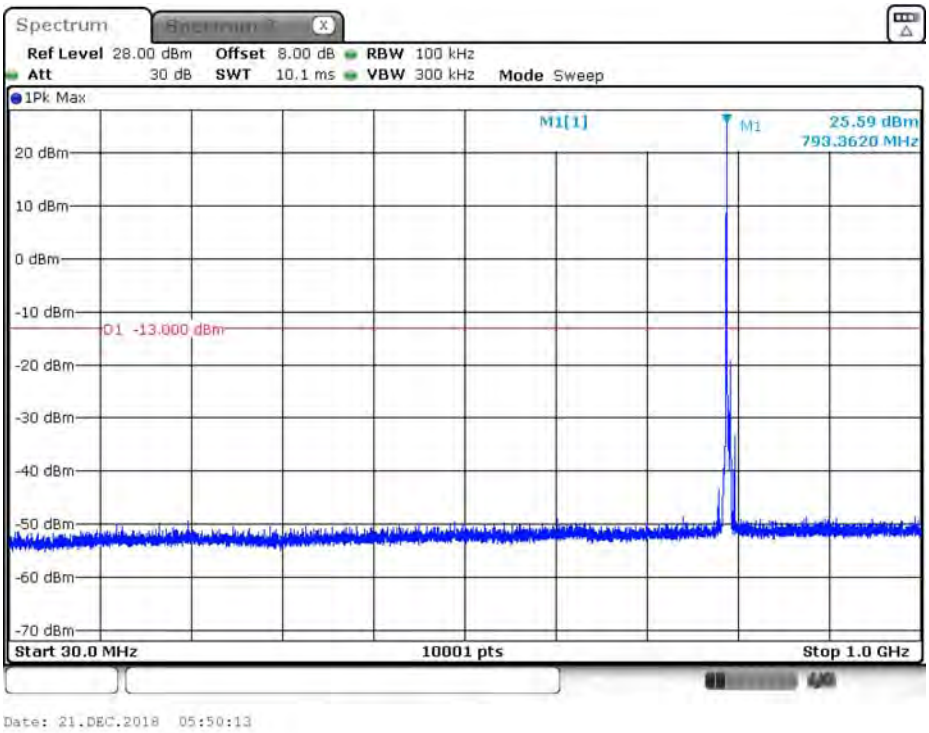
B14_5M_CH23355_QPSK_under 1G_1RB0



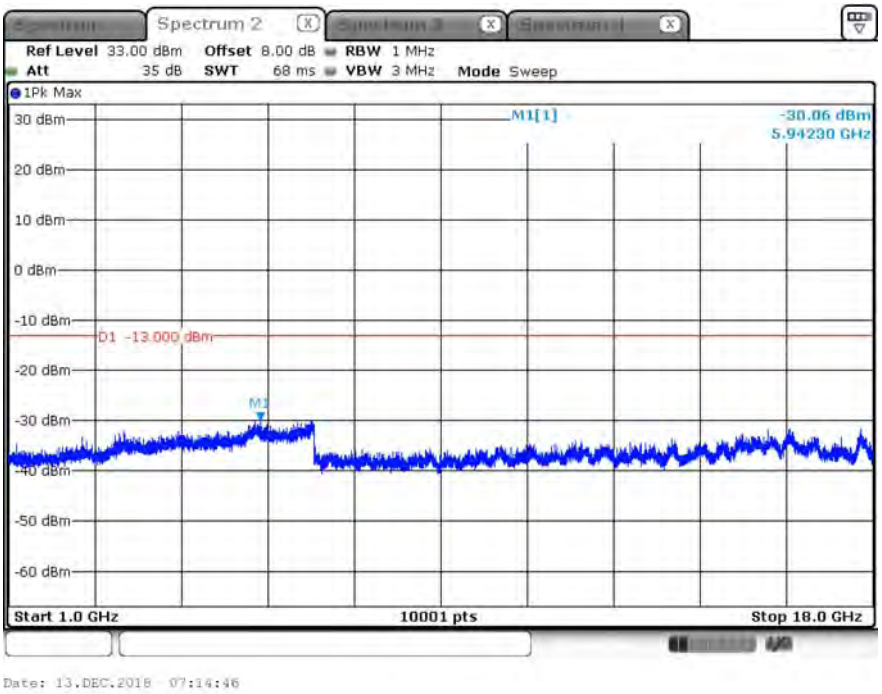
B14_5M_CH23355_16QAM_Above 1G_1RB0



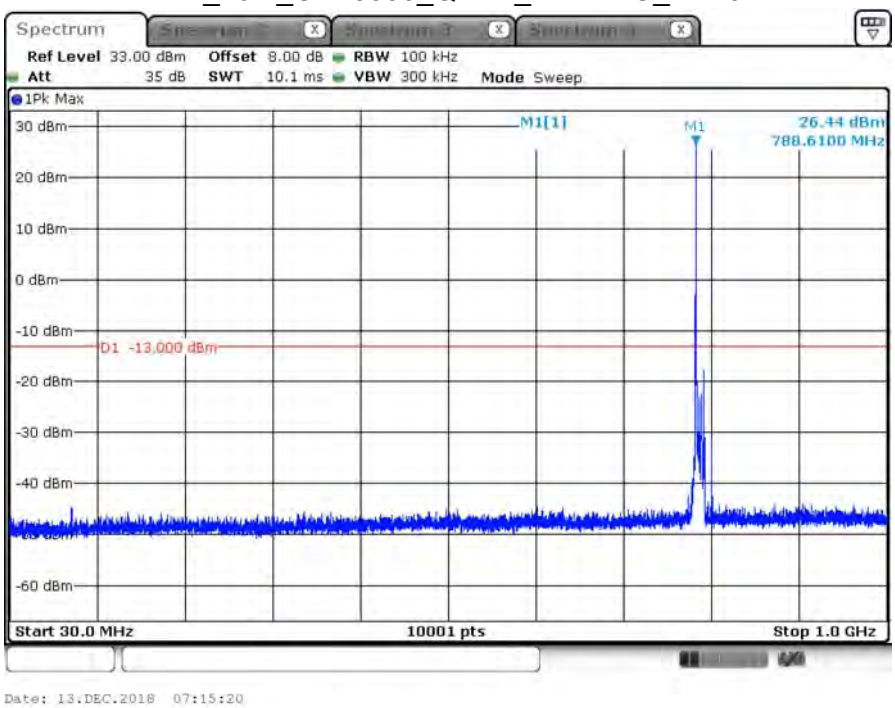
B14_5M_CH23355_16QAM_under 1G_1RB0



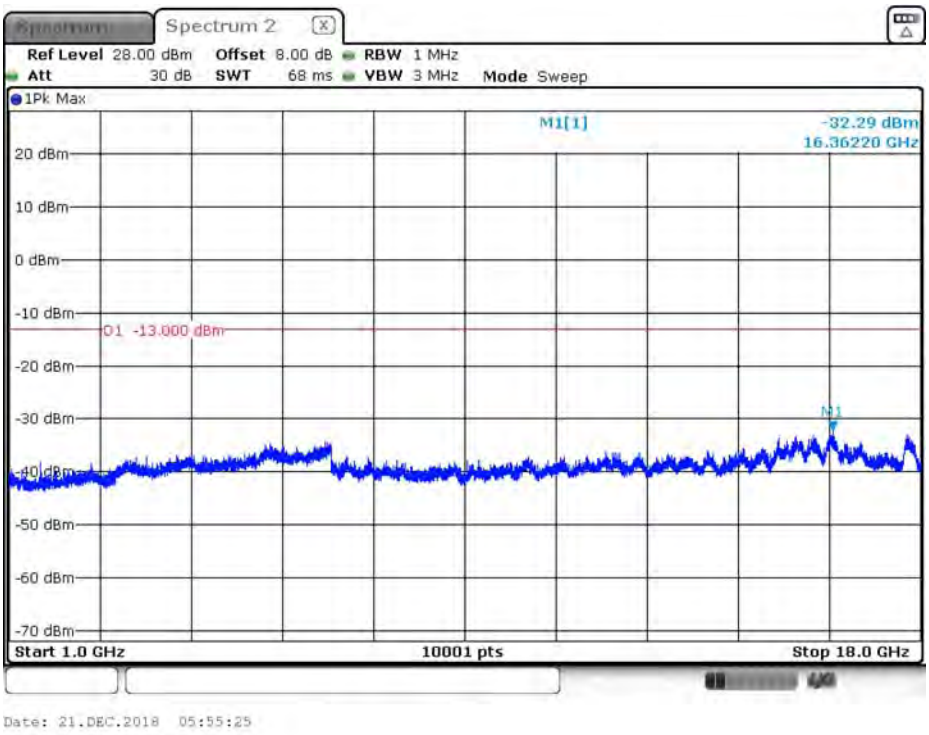
B14_10M_CH23330_QPSK_Above 1G_1RB0



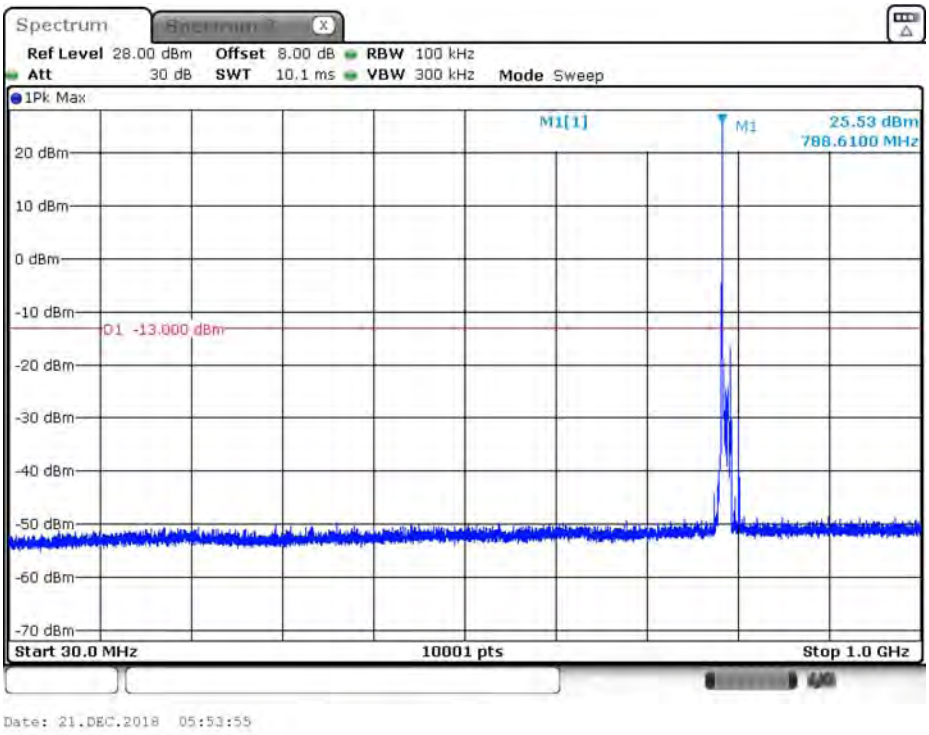
B14_10M_CH23330_QPSK_under 1G_1RB0



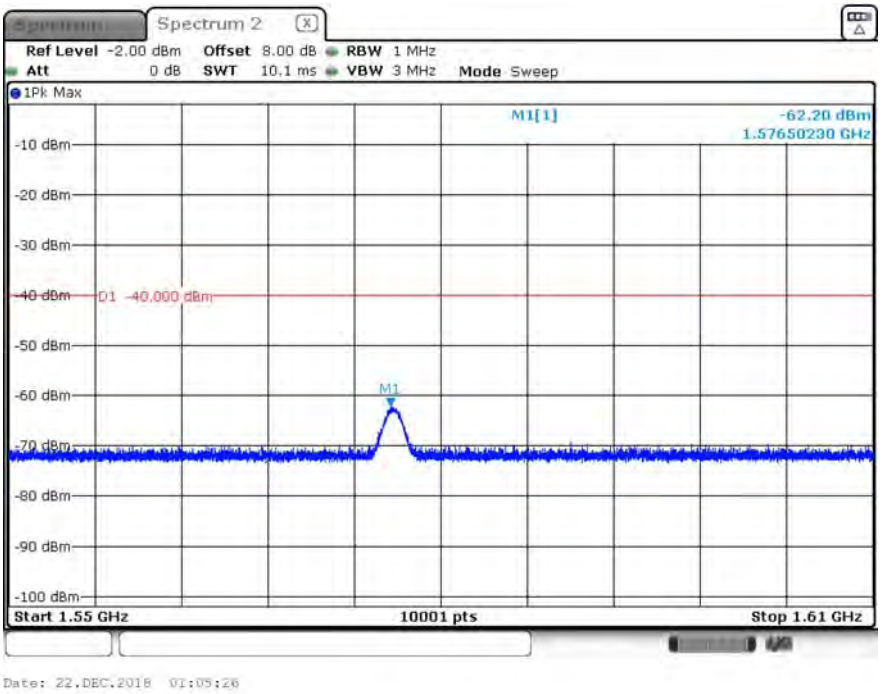
B14_10M_CH23330_16QAM_Above 1G_1RB0



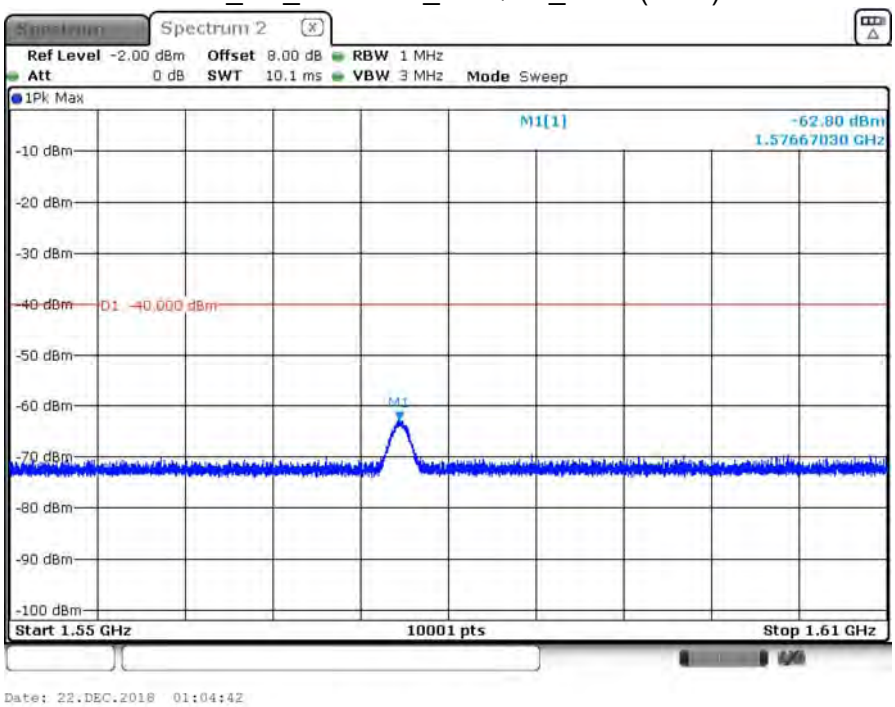
B14_10M_CH23330_16QAM_under 1G_1RB0



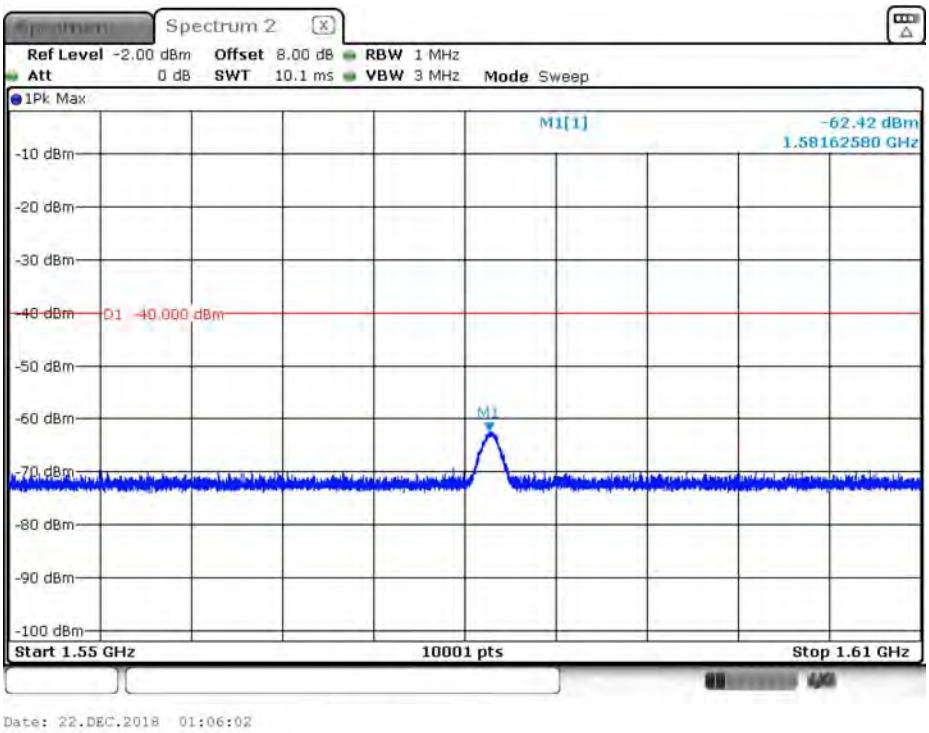
B14_5M_CH23305_QPSK_1RB0(GPS)



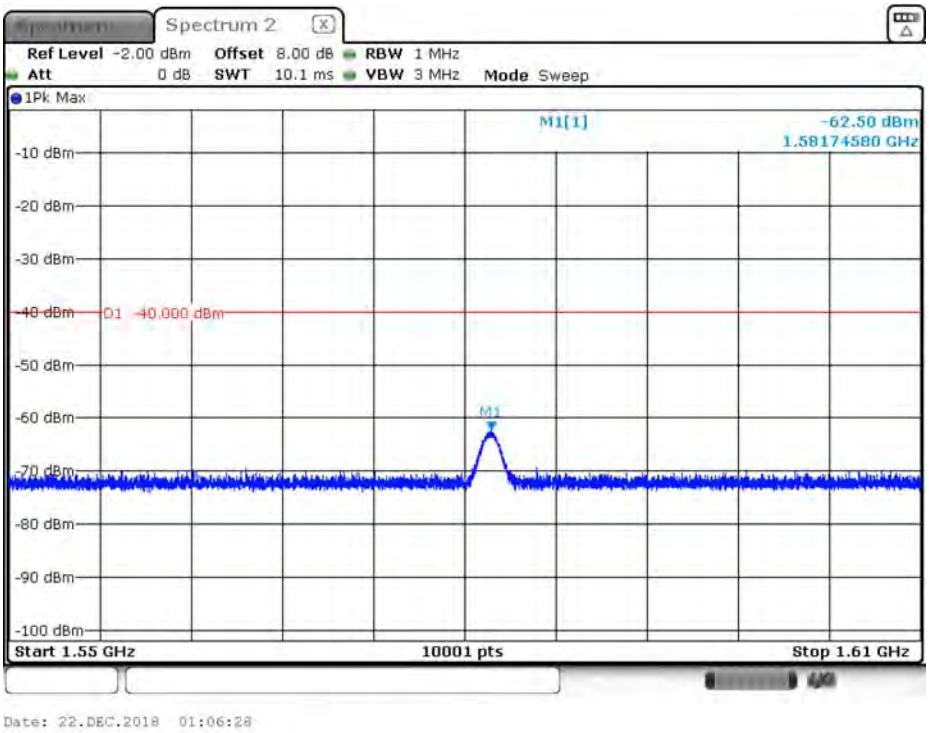
B14_5M_CH23305_16-QAM_1RB0(GPS)



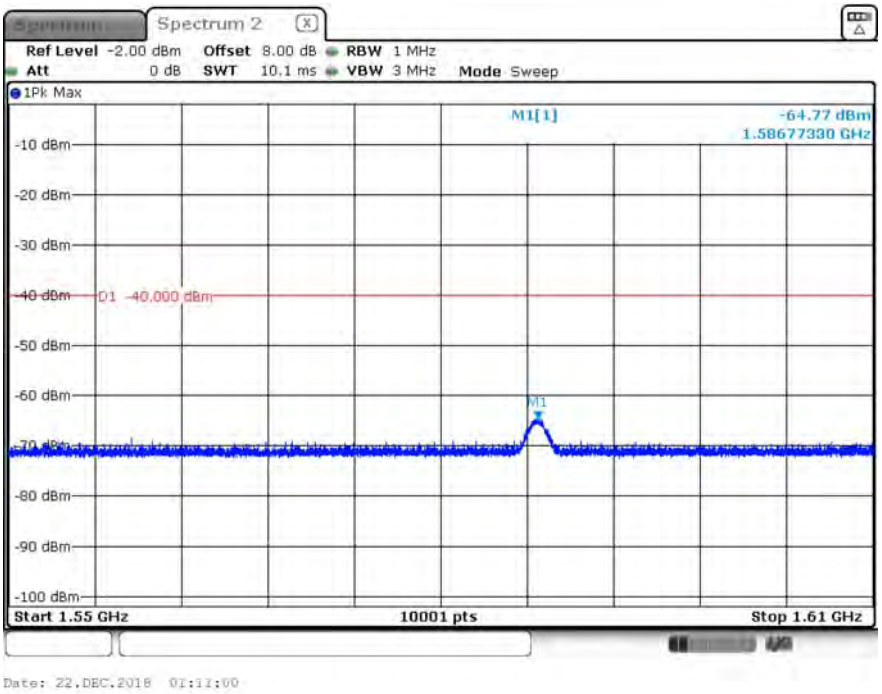
B14_5M_CH23330_QPSK_1RB0(GPS)



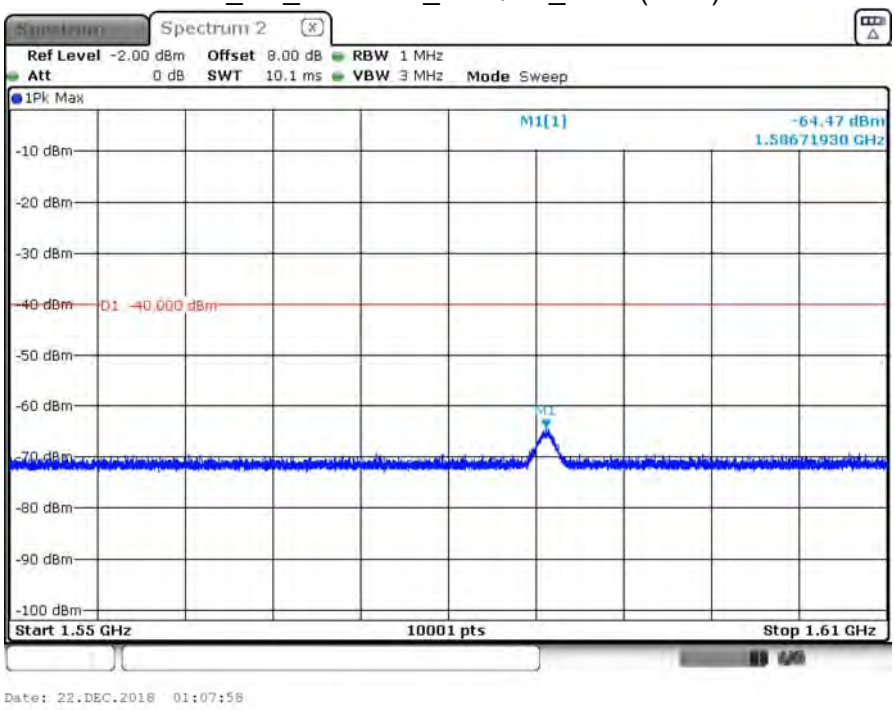
B14_5M_CH23330_16-QAM_1RB0(GPS)



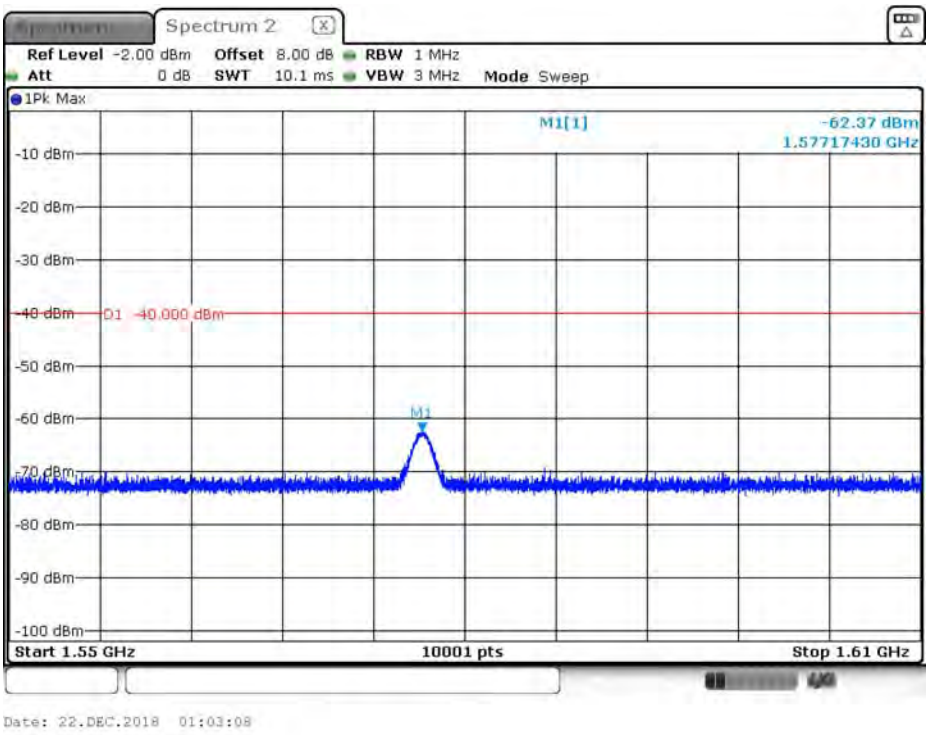
B14_5M_CH23355_QPSK_1RB0(GPS)



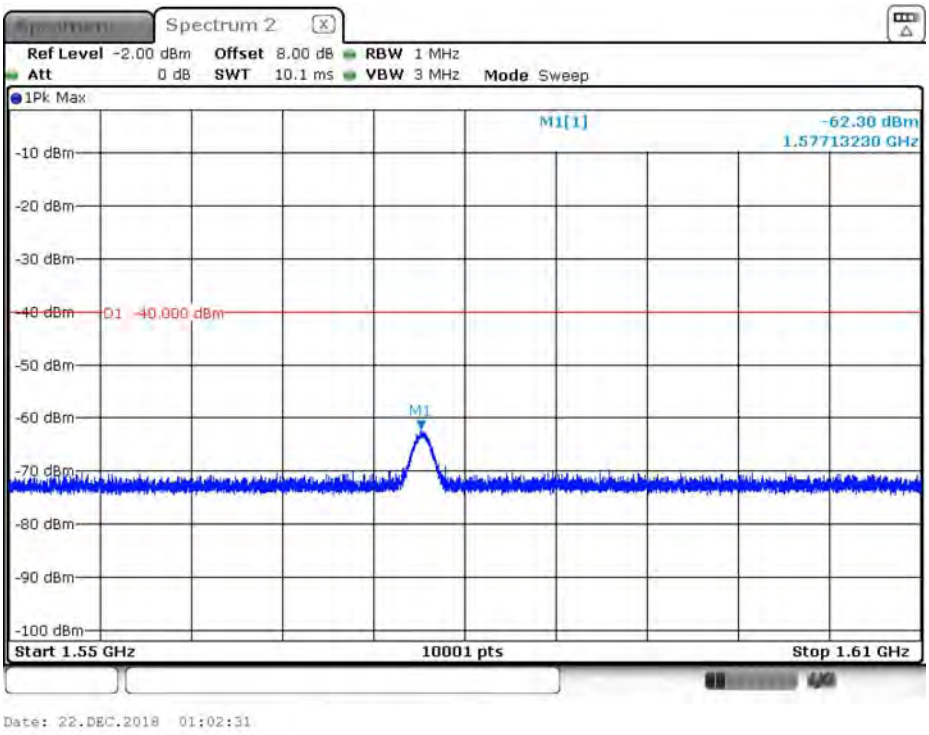
B14_5M_CH23355_16-QAM_1RB0(GPS)



B14_10M_CH23330_QPSK_1RB0(GPS)

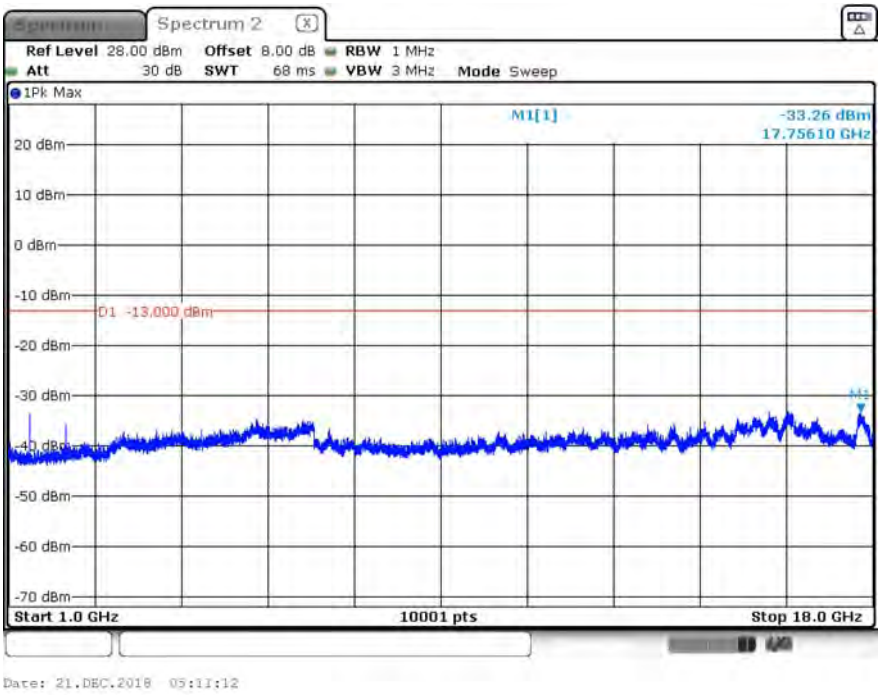


B14_10M_CH23330_16-QAM_1RB0(GPS)

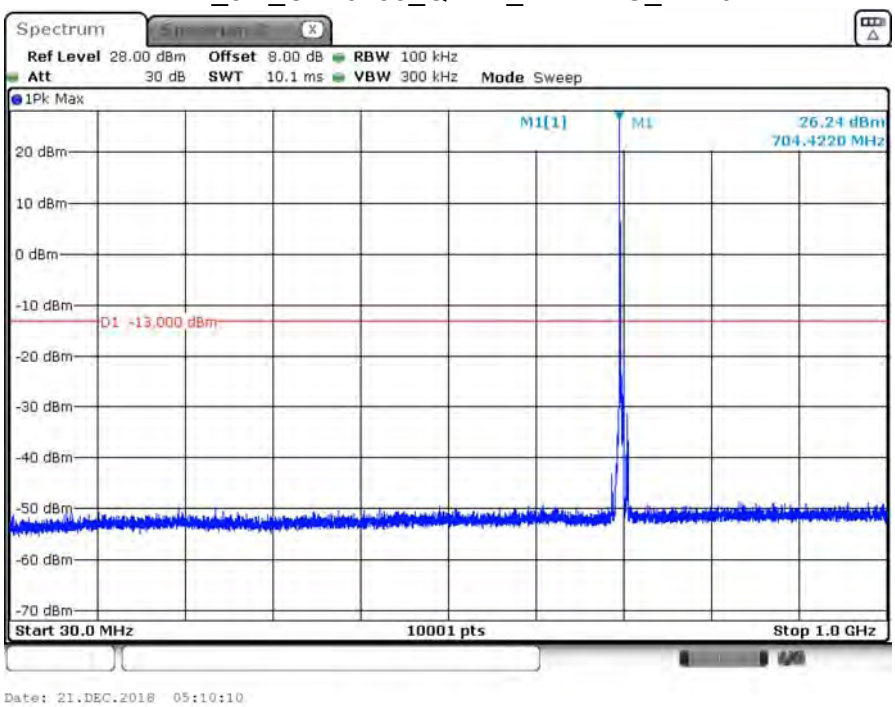


Product	Module		
Test Item	Conducted Spurious Emissions		
Test Mode	Mode 7: LTE Band 17		
Date of Test	2018/12/21	Test Site	SR10-H

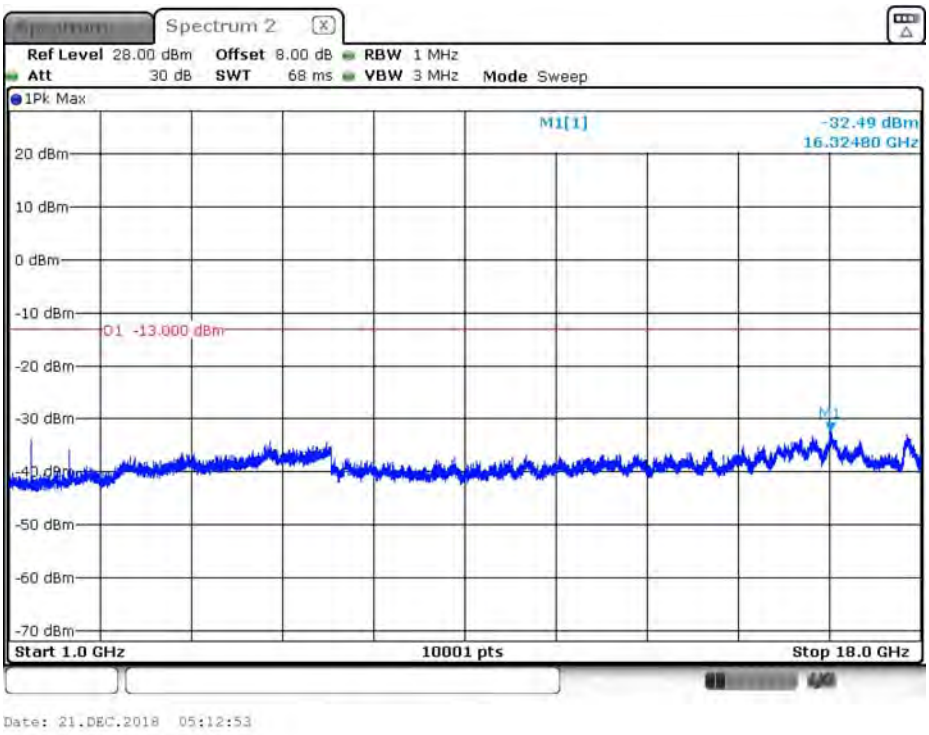
B17_5M_CH23755_QPSK_above 1G_1RB0



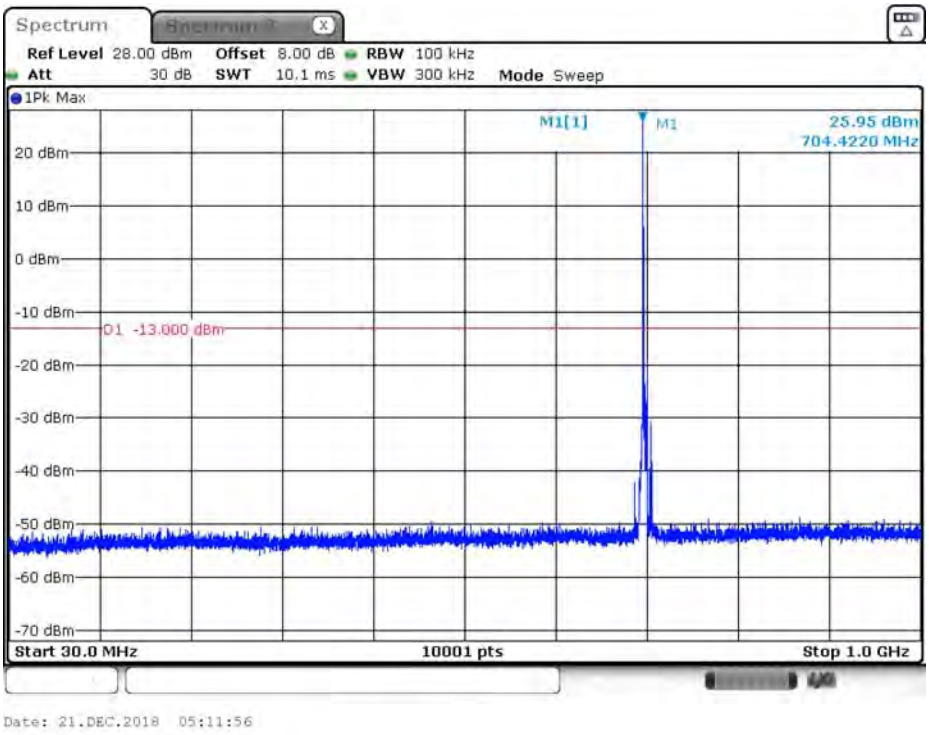
B17_5M_CH23755_QPSK_under 1G_1RB0



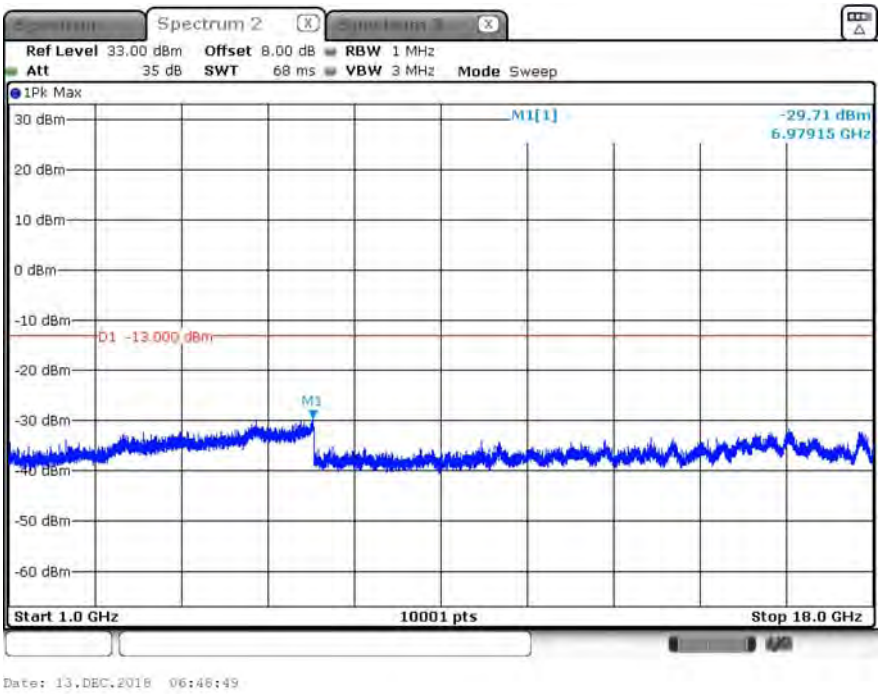
B17_5M_CH23755_16QAM_above 1G_1RB0



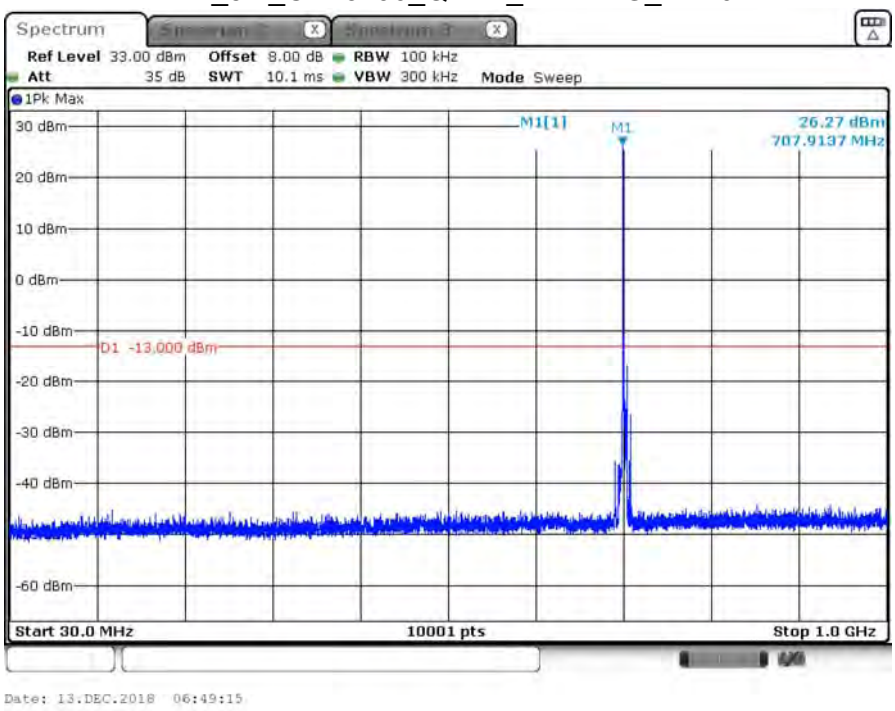
B17_5M_CH23755_16QAM_under 1G_1RB0



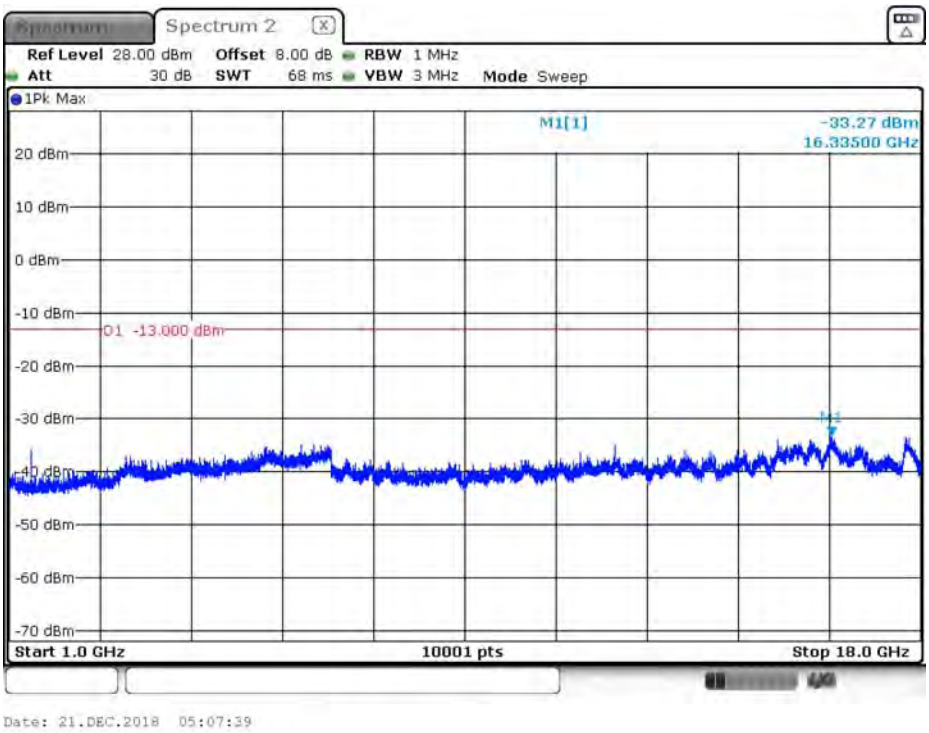
B17_5M_CH23790_QPSK_above 1G_1RB0



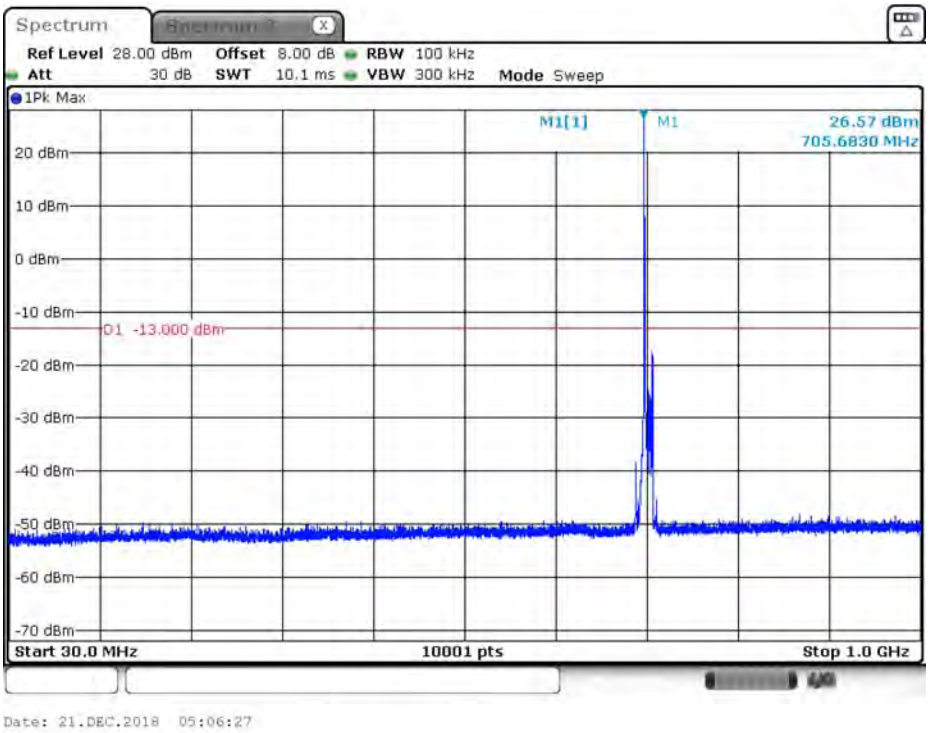
B17_5M_CH23790_QPSK_under 1G_1RB0



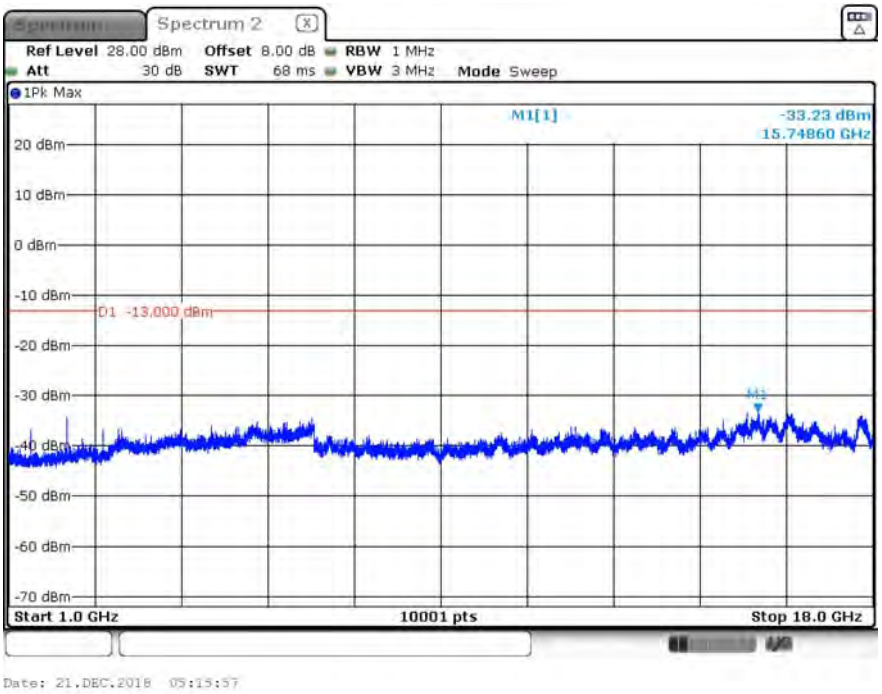
B17_5M_CH23790_16QAM_above 1G_1RB0



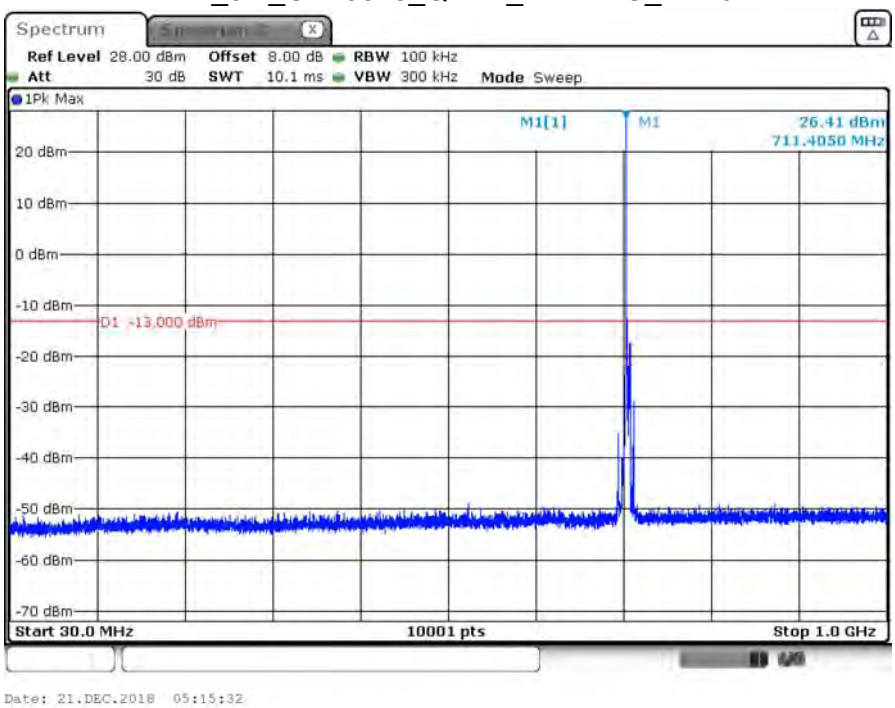
B17_5M_CH23790_16QAM_under 1G_1RB0



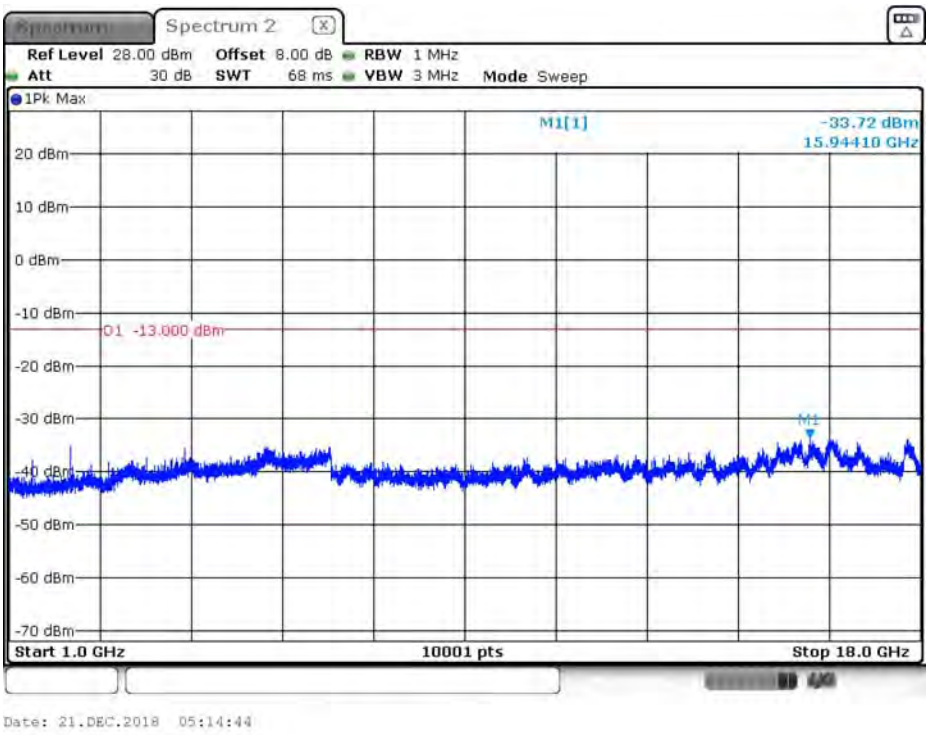
B17_5M_CH23825_QPSK_above 1G_1RB0



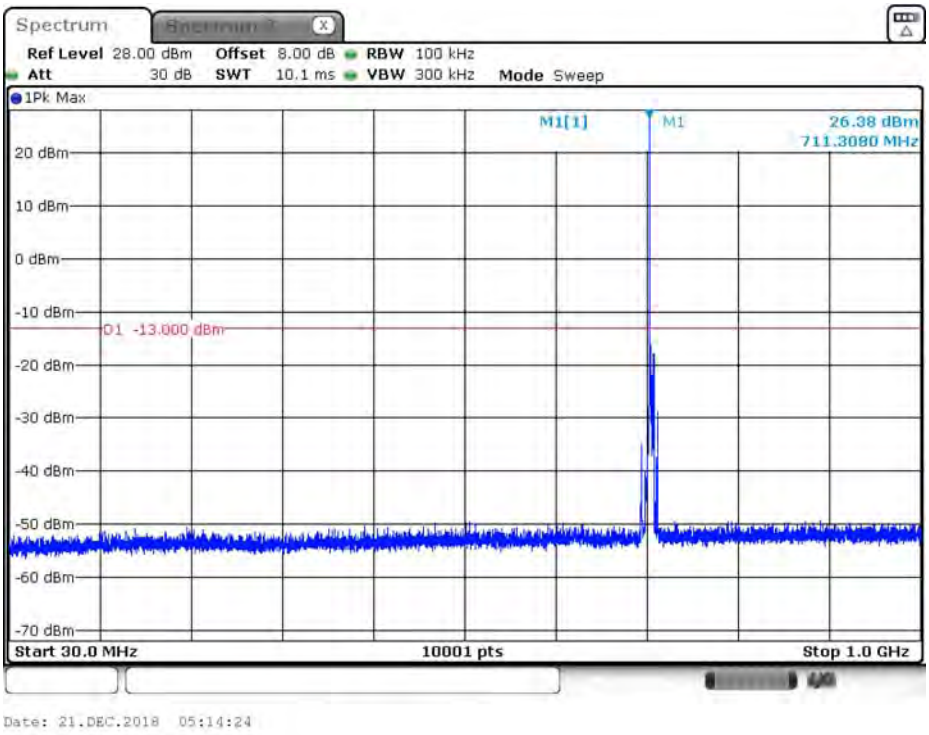
B17_5M_CH23825_QPSK_under 1G_1RB0



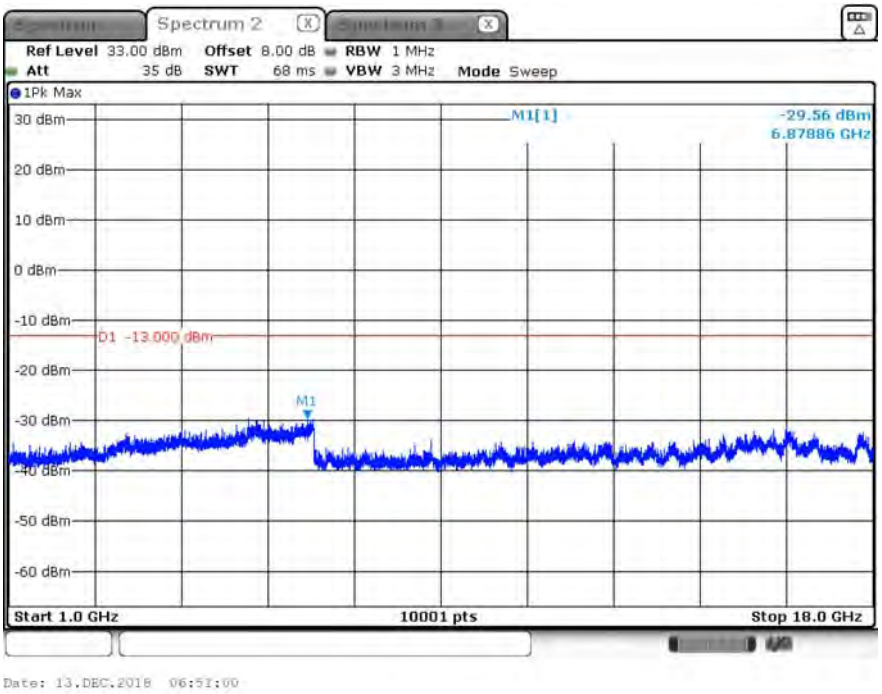
B17_5M_CH23825_16QAM_above 1G_1RB0



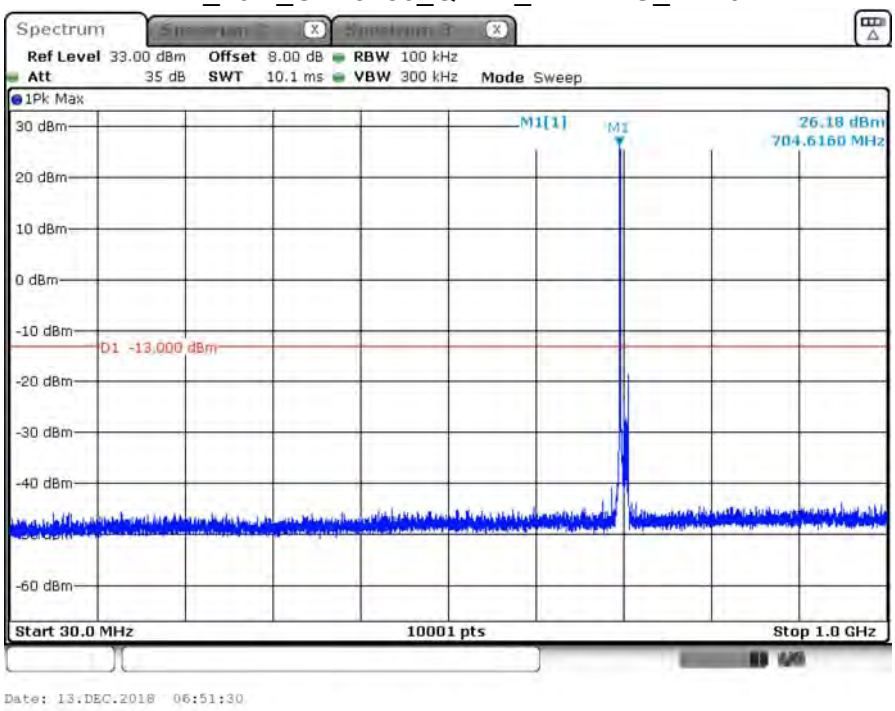
B17_5M_CH23825_16QAM_under 1G_1RB0



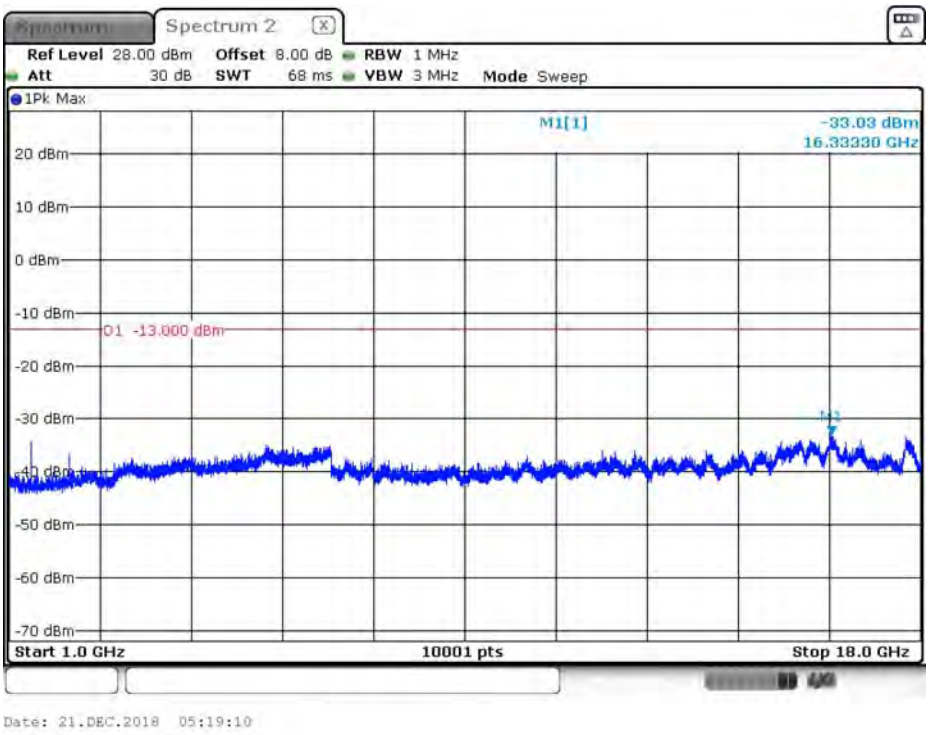
B17_10M_CH23780_QPSK_above 1G_1RB0



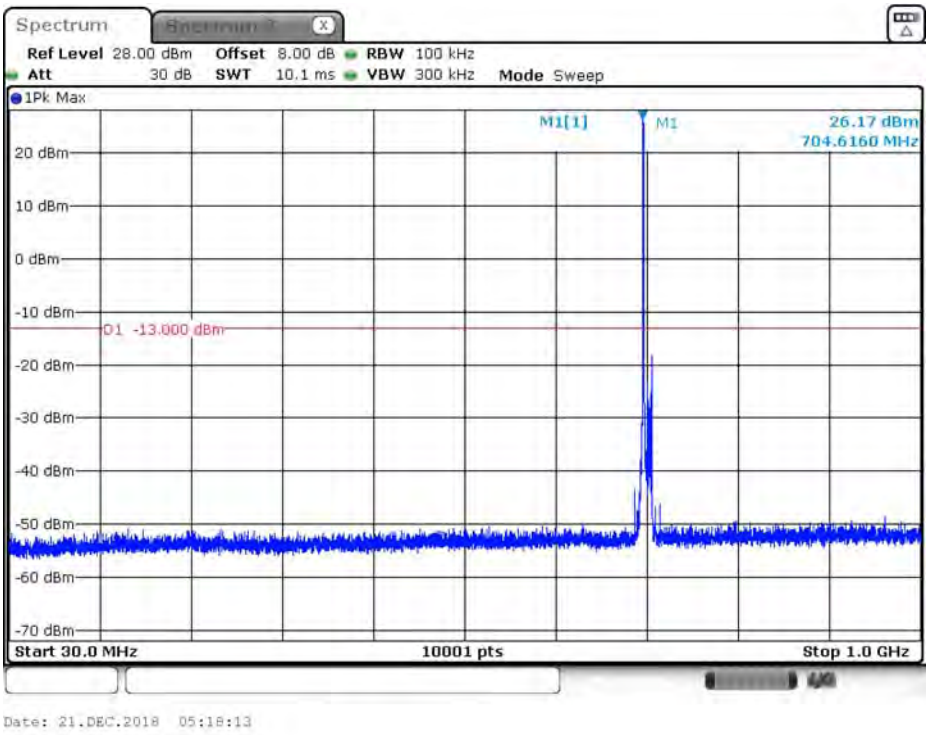
B17_10M_CH23780_QPSK_under 1G_1RB0



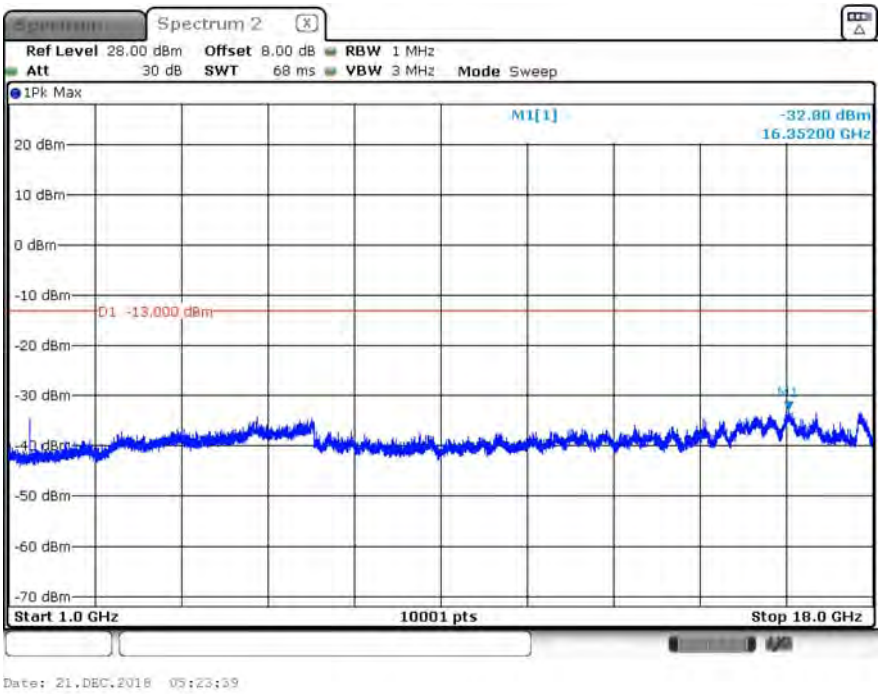
B17_10M_CH23780_16QAM_above 1G_1RB0



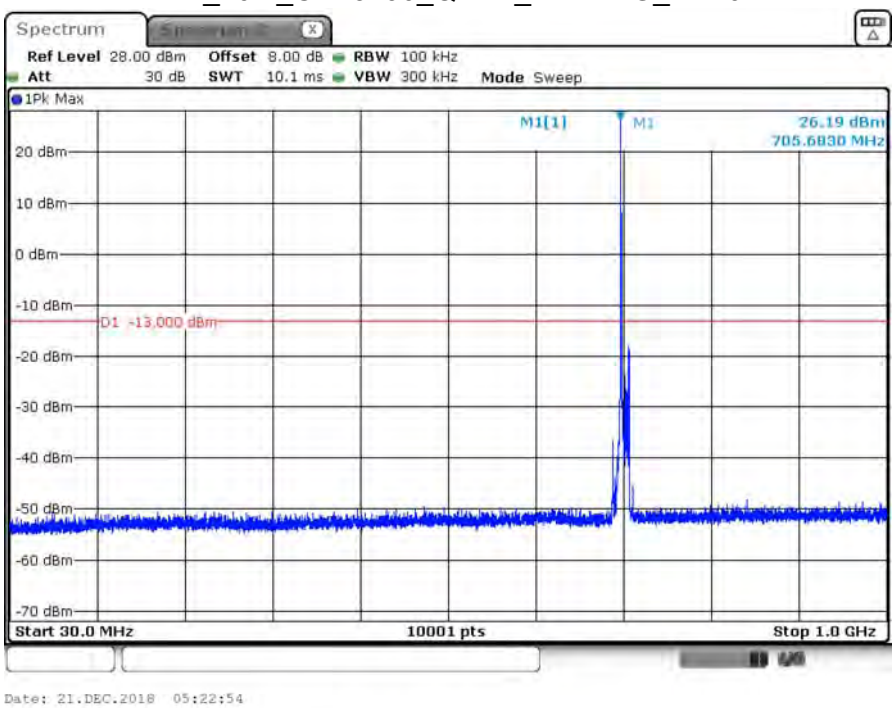
B17_10M_CH23780_16QAM_under 1G_1RB0



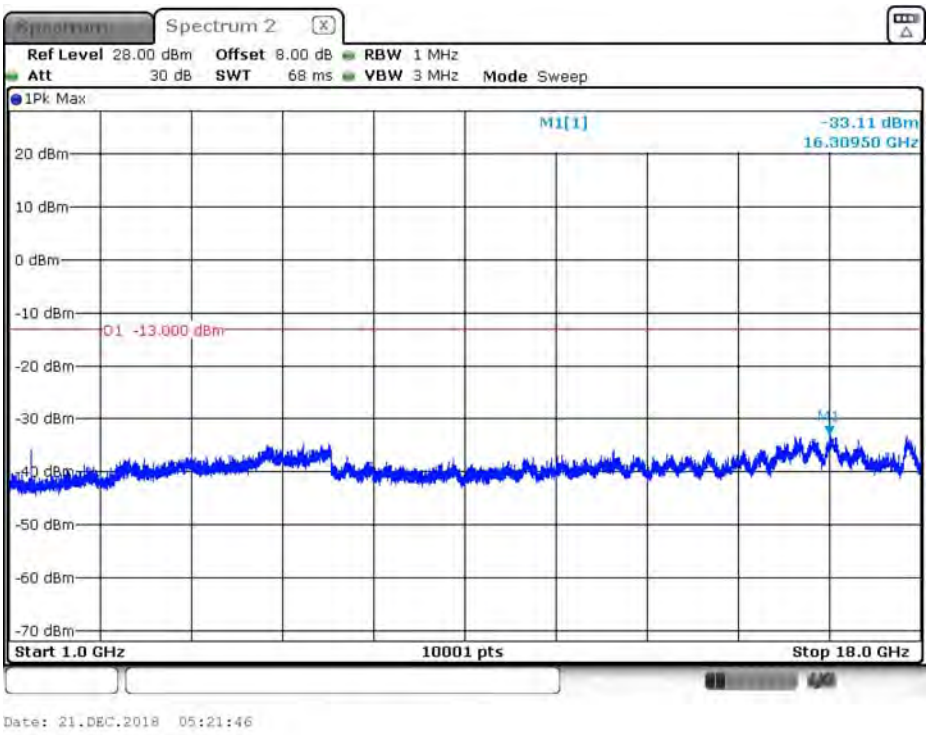
B17_10M_CH23790_QPSK_above 1G_1RB0



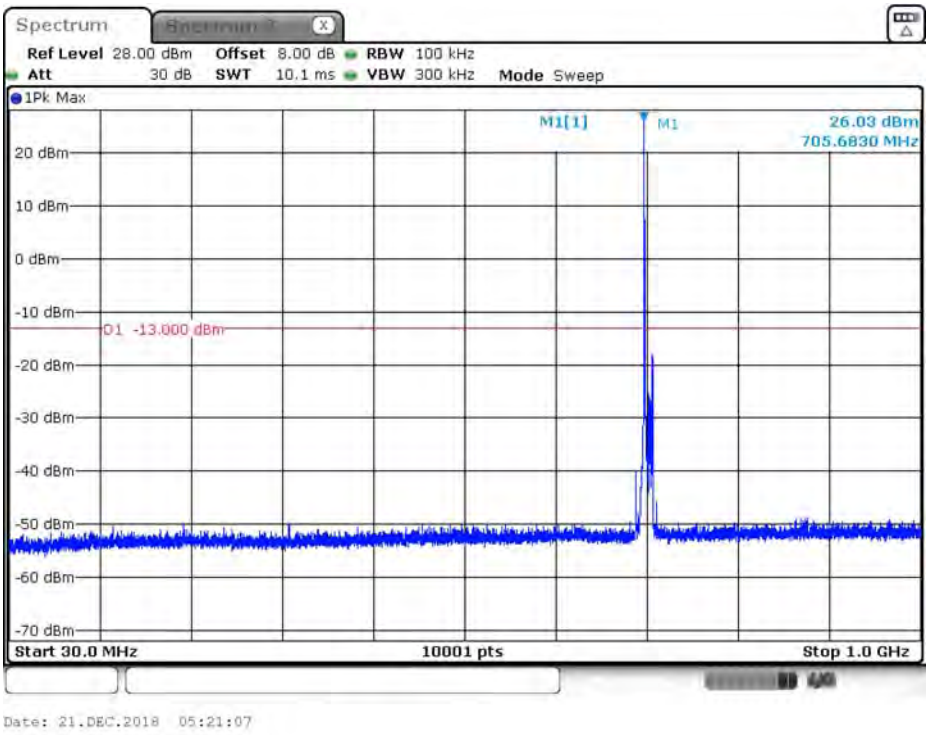
B17_10M_CH23790_QPSK_under 1G_1RB0



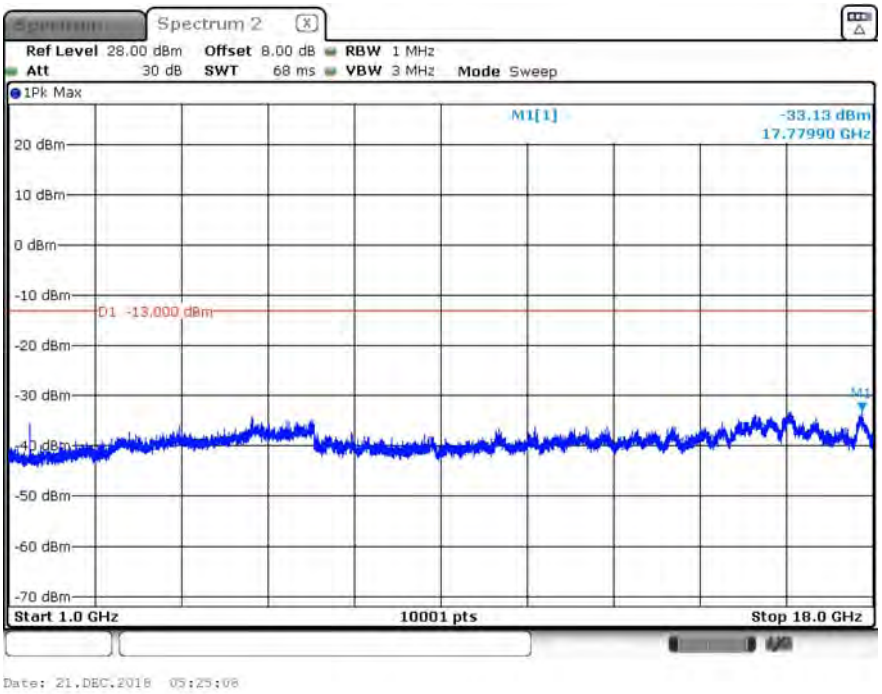
B17_10M_CH23790_16QAM_above 1G_1RB0



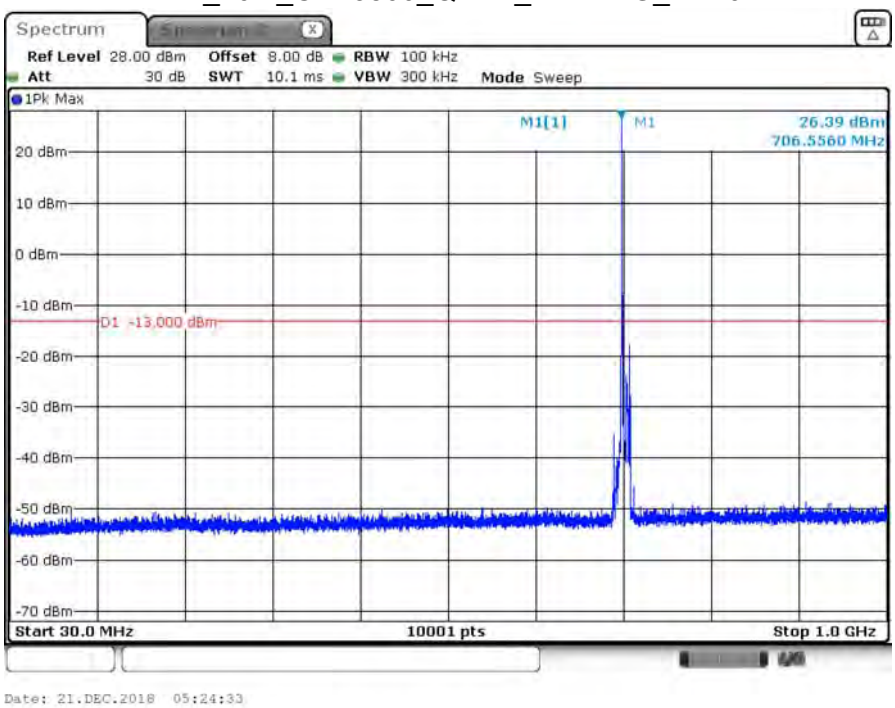
B17_10M_CH23790_16QAM_under 1G_1RB0



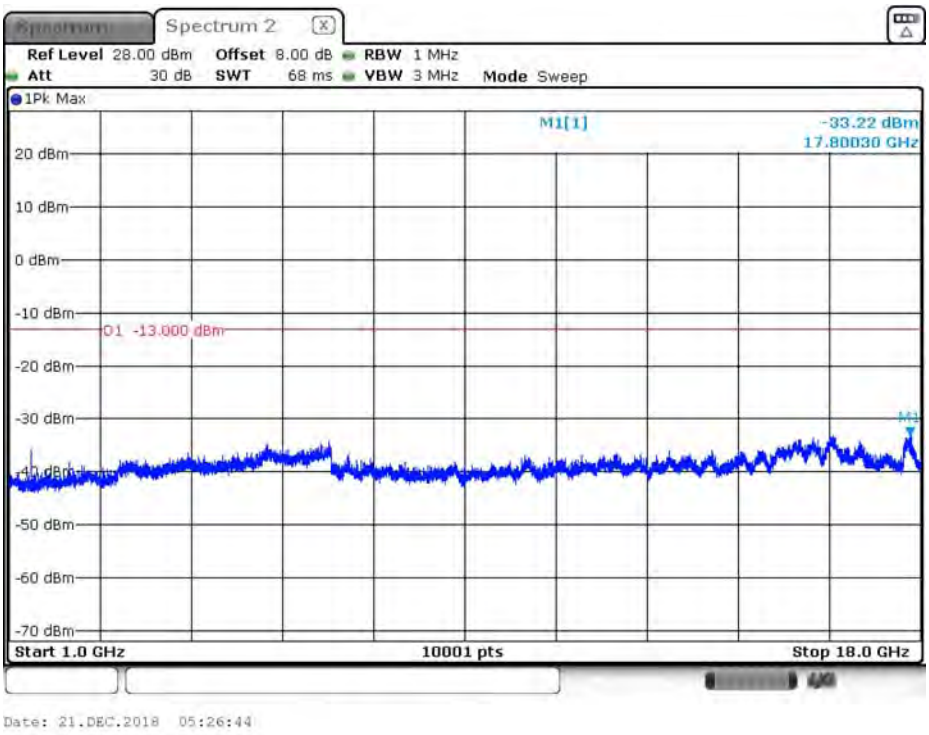
B17_10M_CH23800_QPSK_above 1G_1RB0



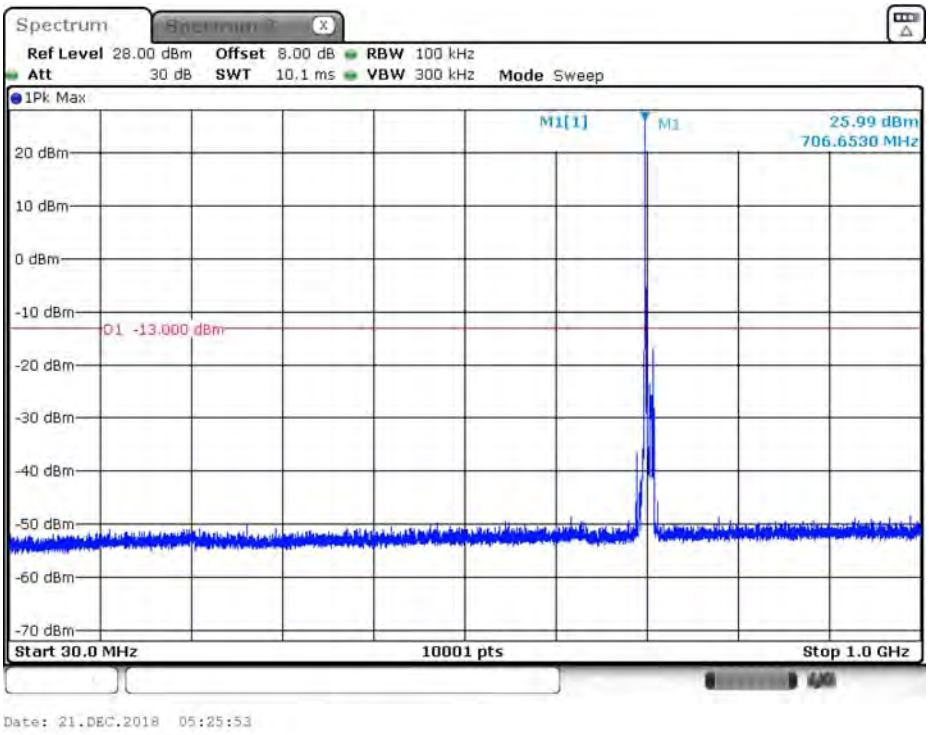
B17_10M_CH23800_QPSK_under 1G_1RB0



B17_10M_CH23800_16QAM_above 1G_1RB0

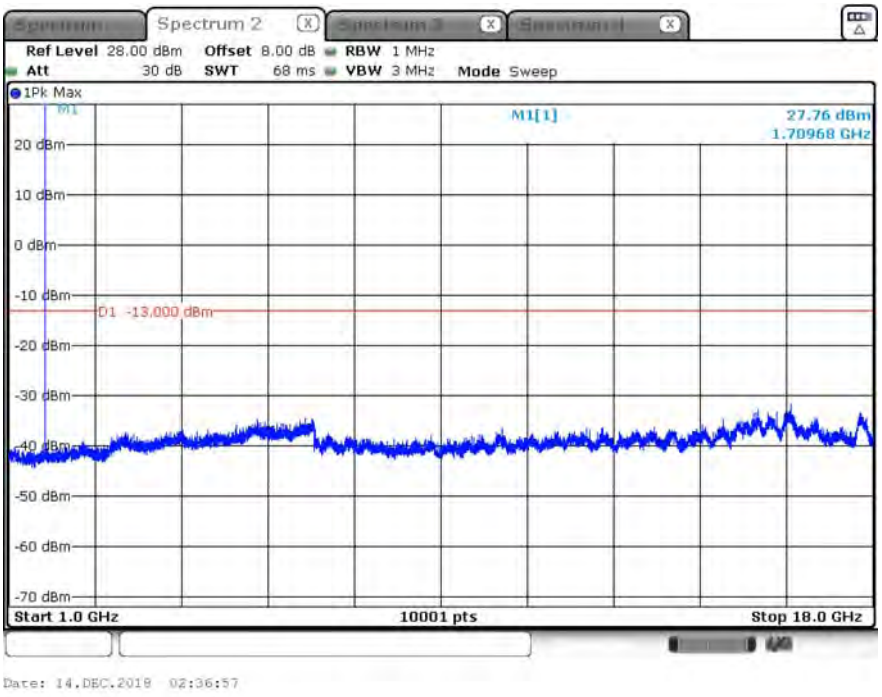


B17_10M_CH23800_16QAM_under 1G_1RB0

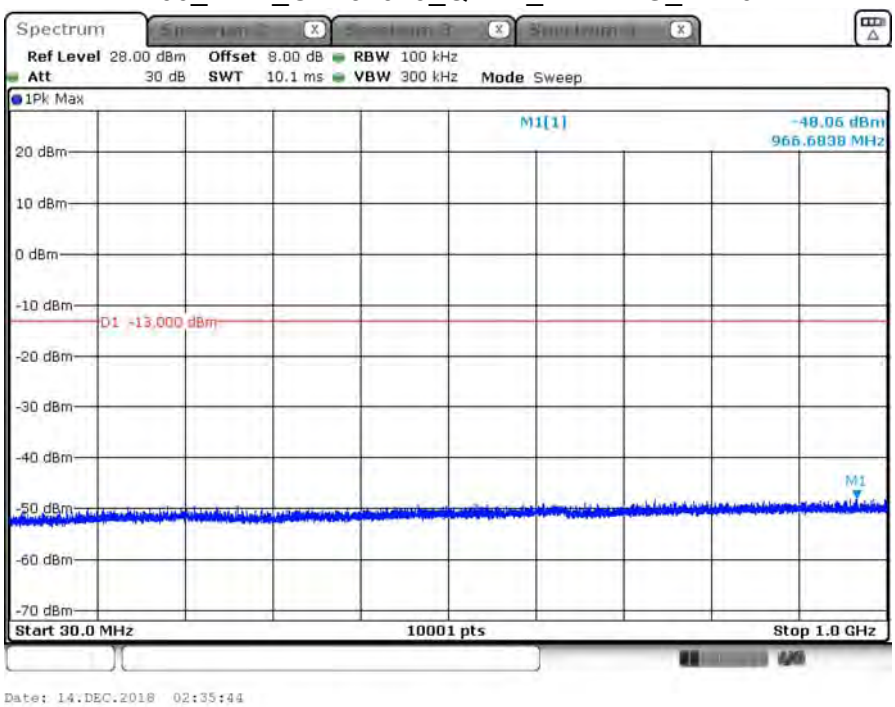


Product	Module		
Test Item	Conducted Spurious Emissions		
Test Mode	Mode 8: LTE Band 66		
Date of Test	2018/12/22	Test Site	SR10-H

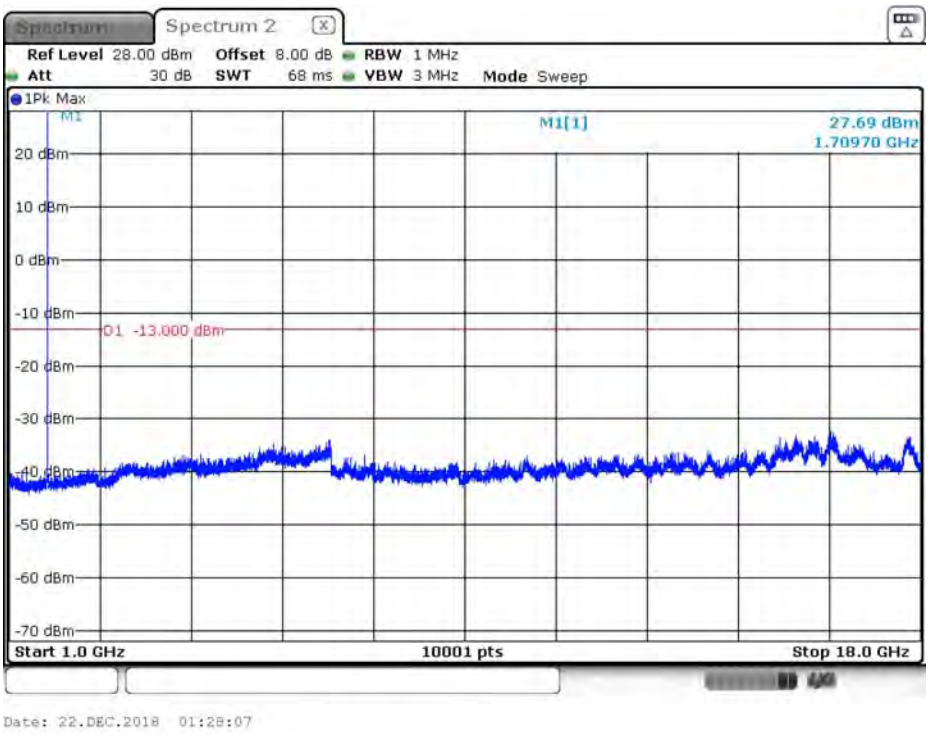
B66_1.4M_CH131979_QPSK_above 1G_1RB0



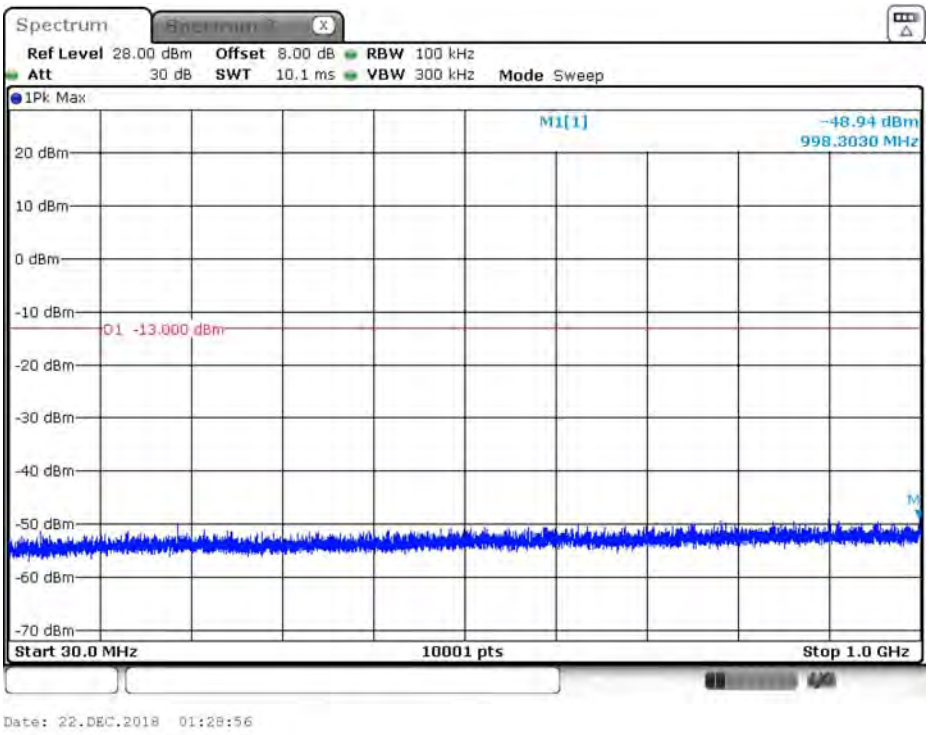
B66_1.4M_CH131979_QPSK_under 1G_1RB0



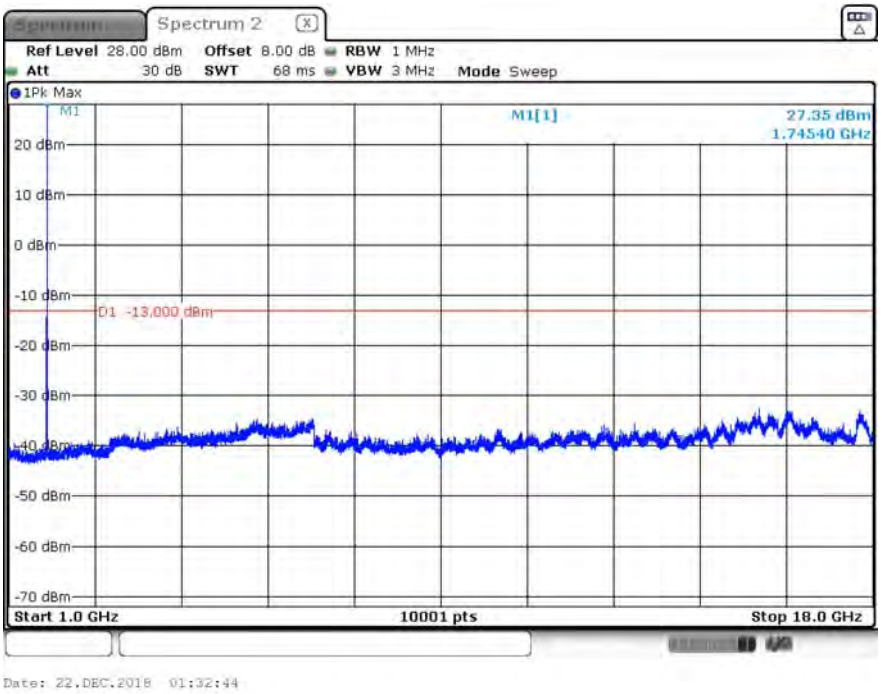
B66_1.4M_CH131979_16QAM_above 1G_1RB0



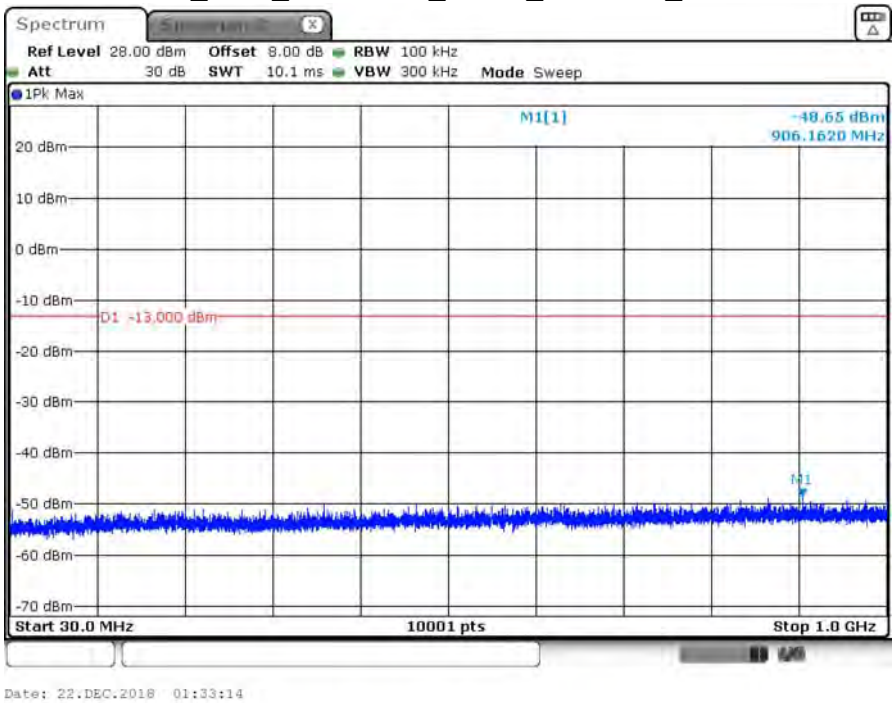
B66_1.4M_CH131979_16QAM_under 1G_1RB0



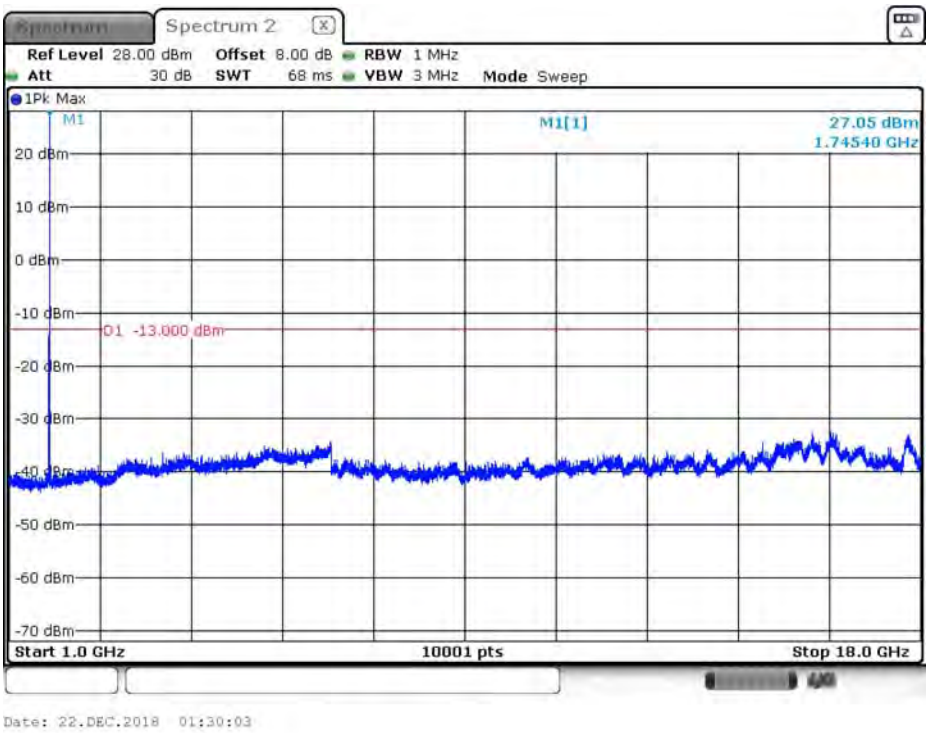
B66_1.4M_CH132322_QPSK_above 1G_1RB0



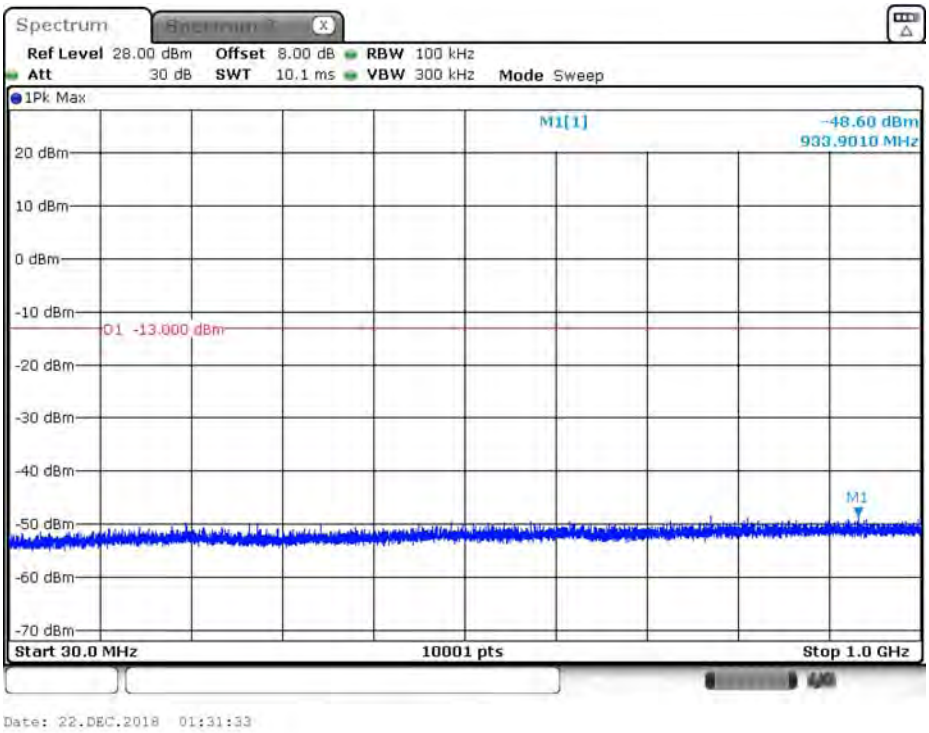
B66_1.4M_CH132322_QPSK_under 1G_1RB0



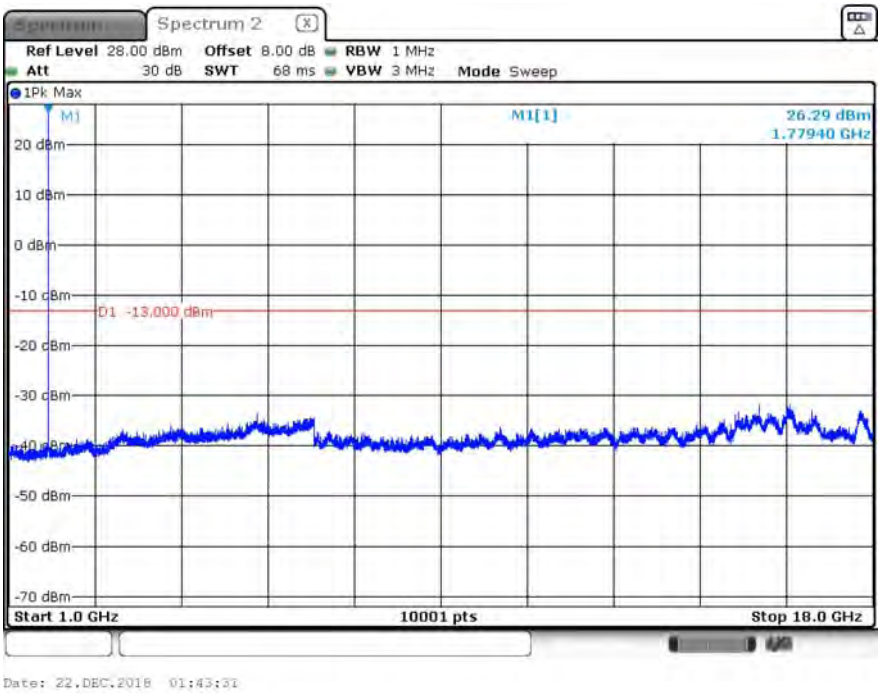
B66_1.4M_CH132322_16QAM_above 1G_1RB0



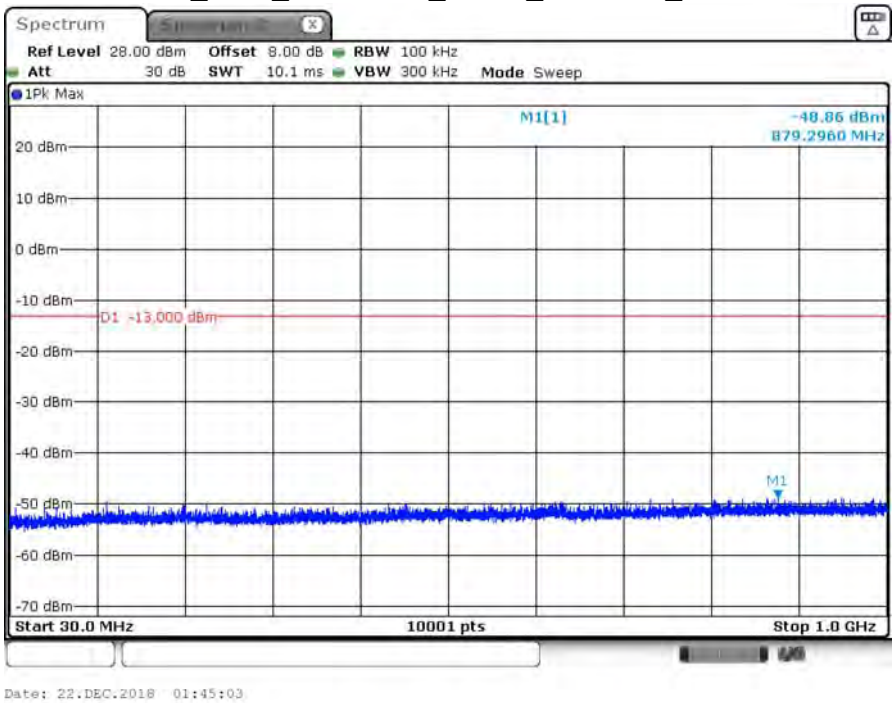
B66_1.4M_CH132322_16QAM_under 1G_1RB0



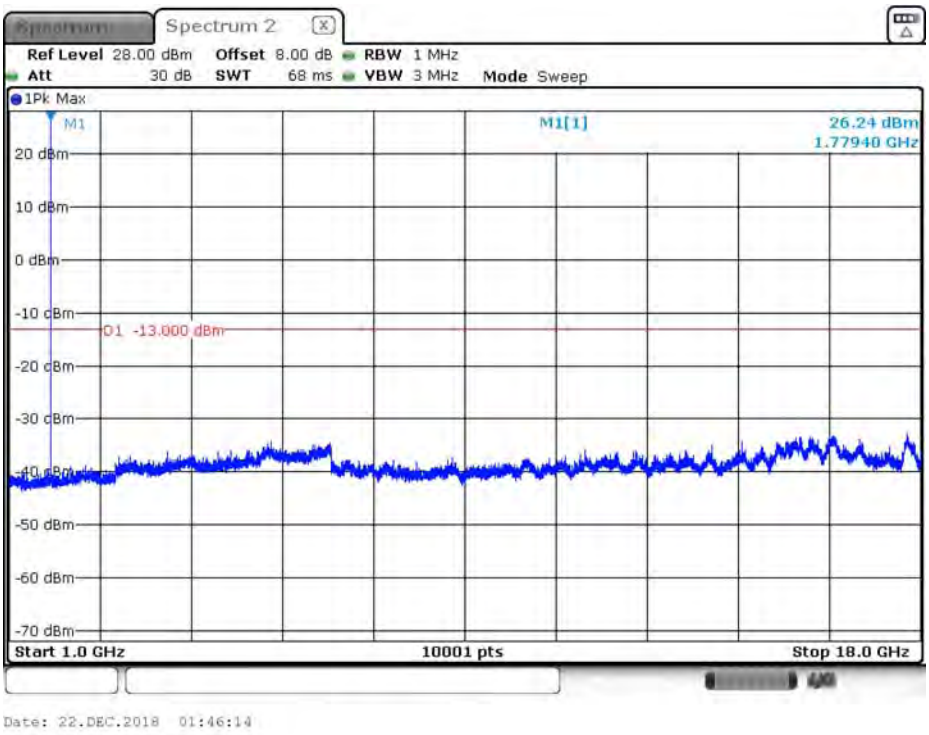
B66_1.4M_CH132665_QPSK_above 1G_1RB0



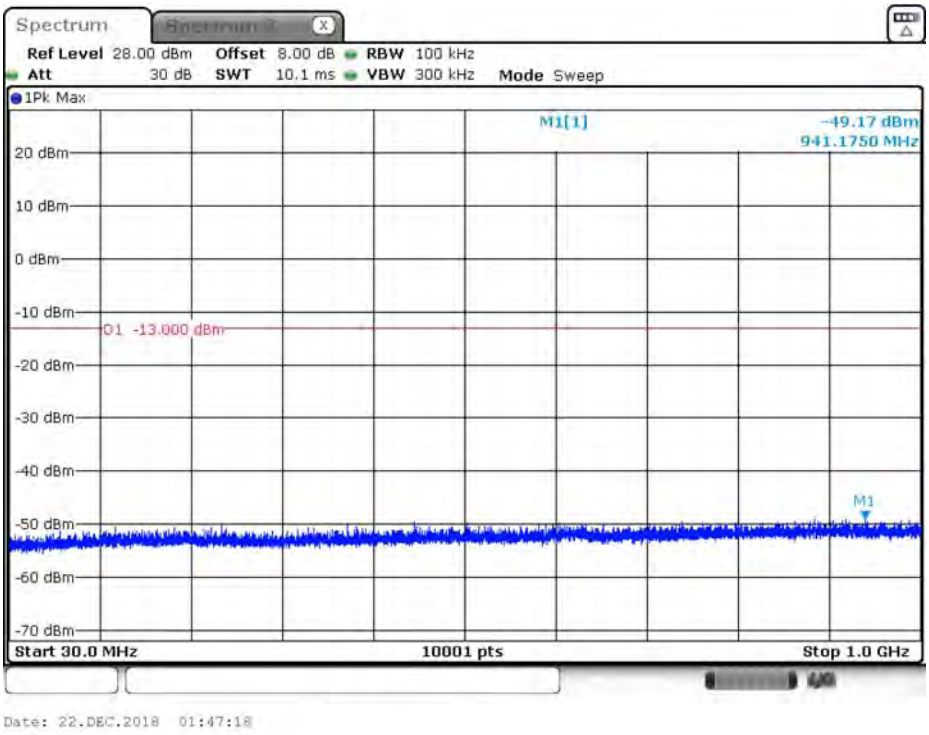
B66_1.4M_CH132665_QPSK_under 1G_1RB0



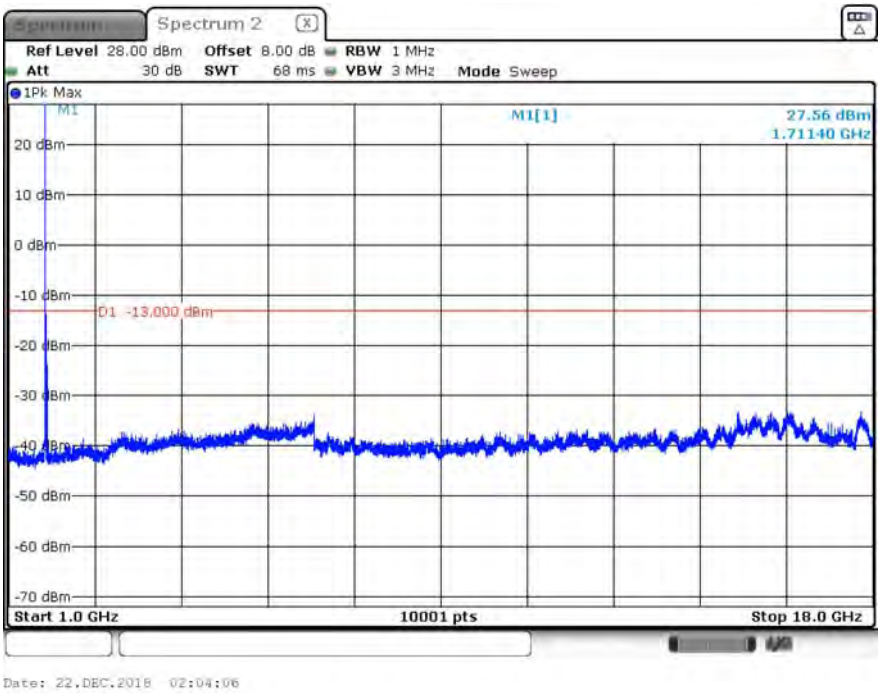
B66_1.4M_CH132665_16QAM_above 1G_1RB0



B66_1.4M_CH132665_16QAM_under 1G_1RB0



B66_20M_CH132072_QPSK_above 1G_1RB0



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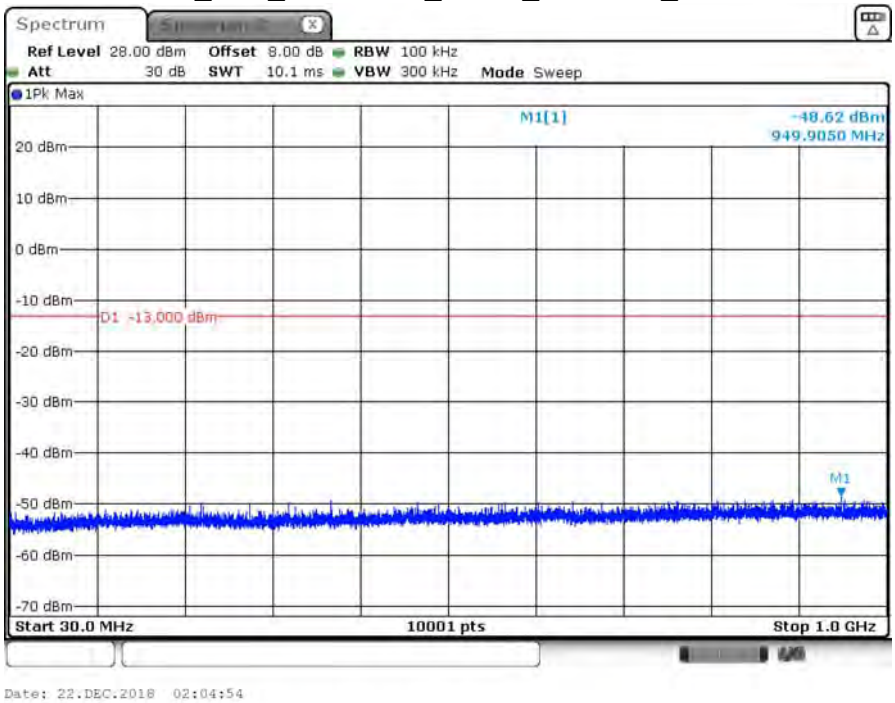

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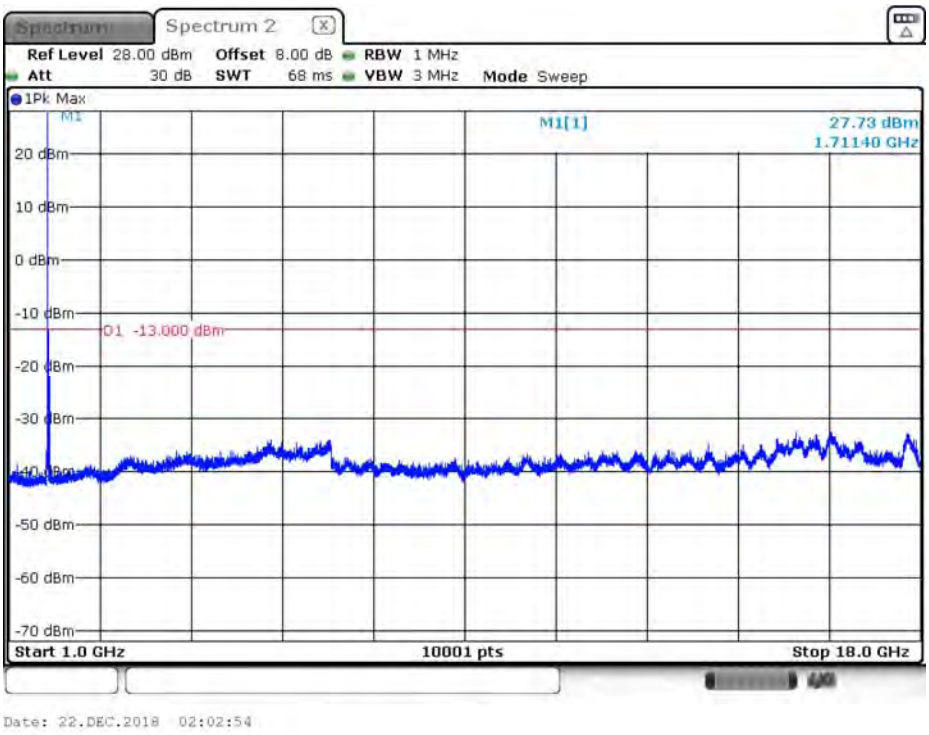

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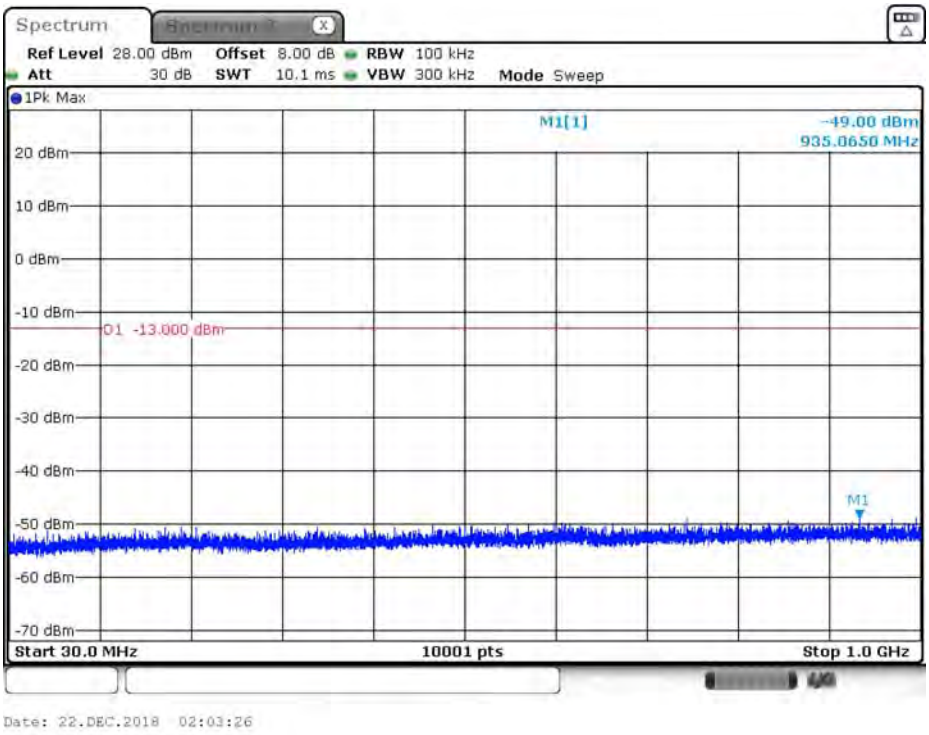

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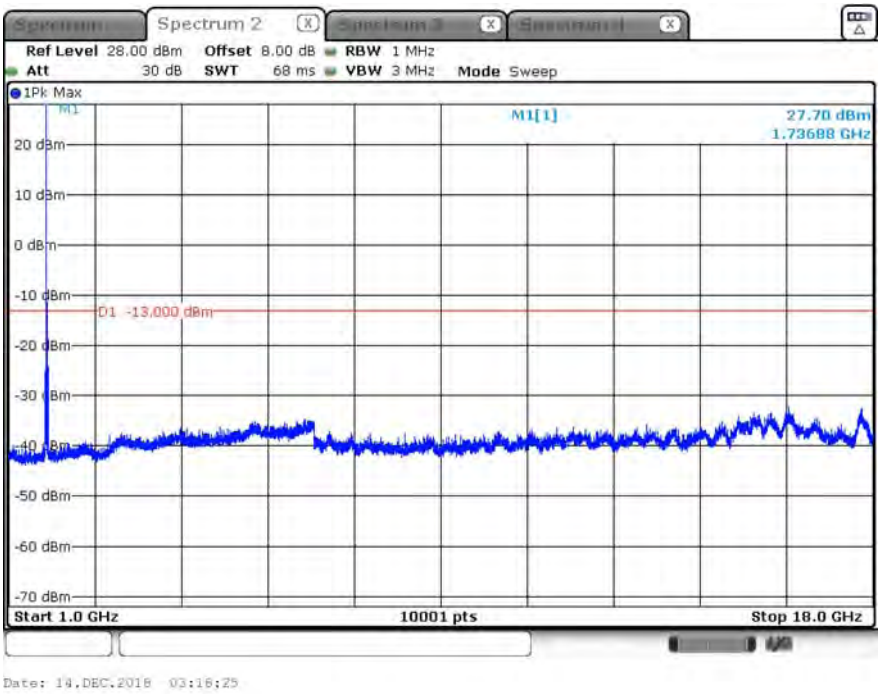

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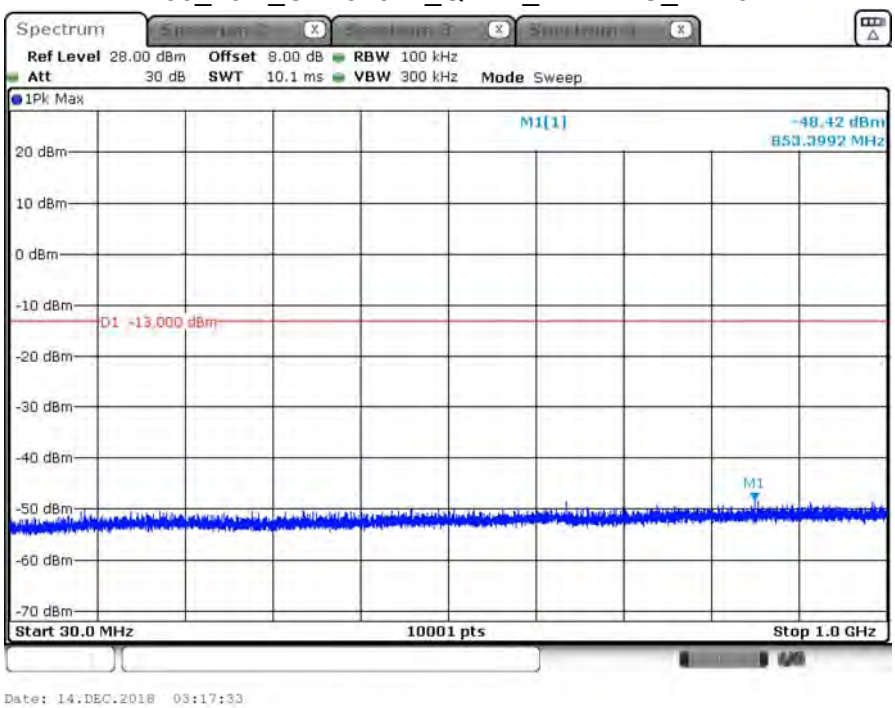

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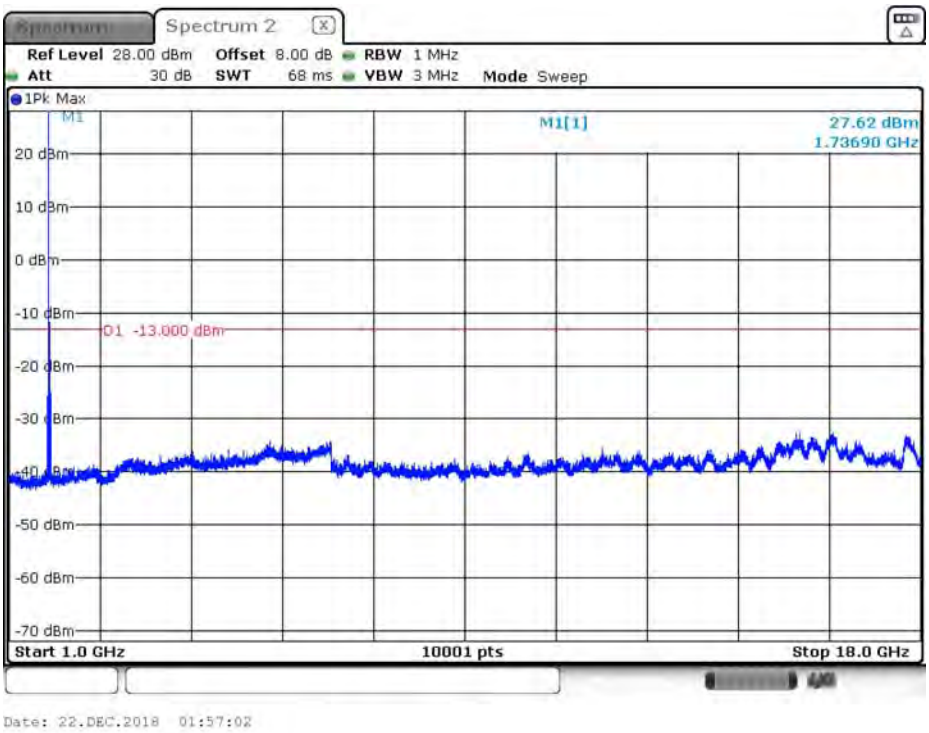

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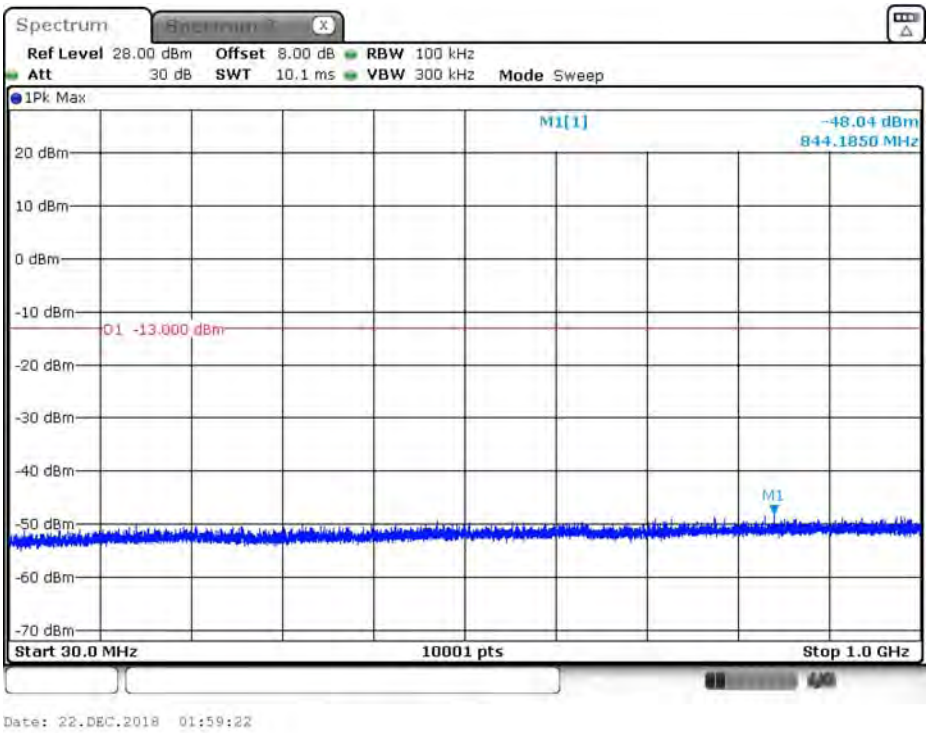

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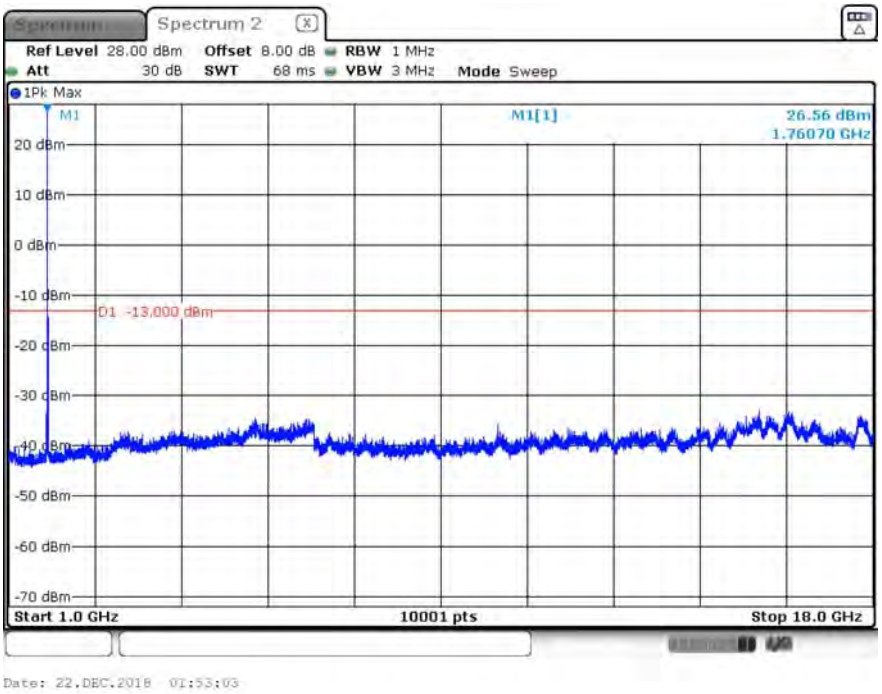

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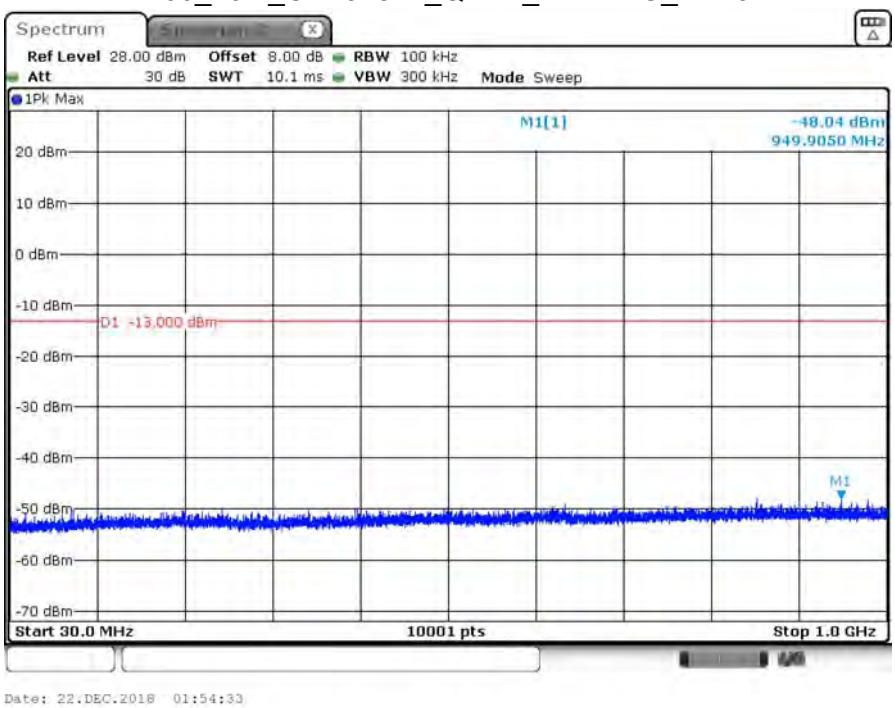

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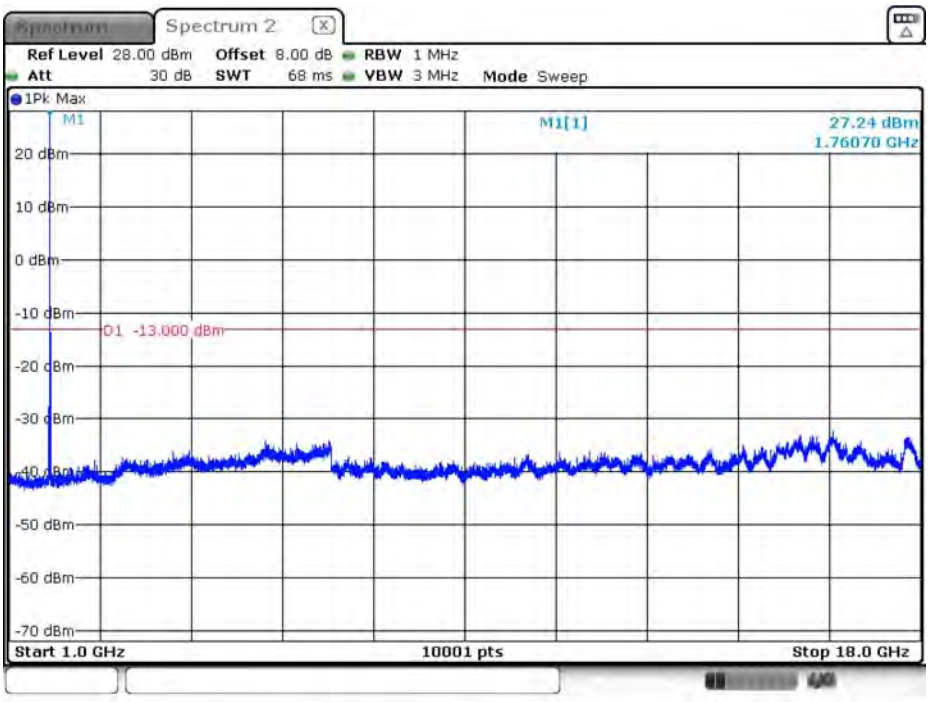

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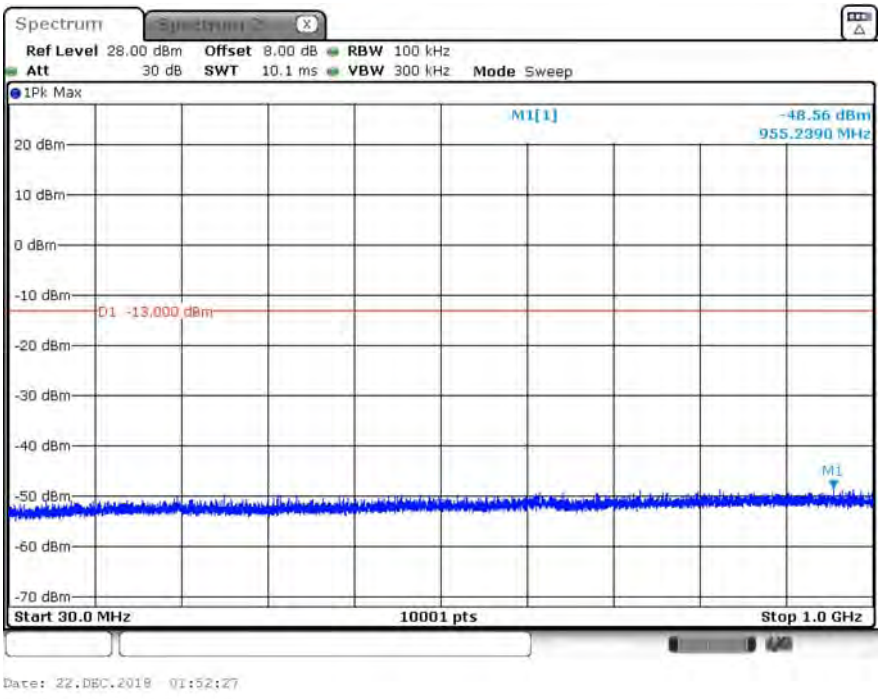


Product	Module		
Test Item	Radiated Spurious Emissions		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/12/17	Test Site	CB4-H

BW 1.4M_CH18607_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3701.400	-47.62	13	-60.62	-55.27	11.94	4.28
	5552.100	-49.33	13	-62.33	-57.03	12.90	5.20
	7402.800	-47.35	13	-60.35	-53.21	12.16	6.31
	9253.500	-51.89	13	-64.89	-56.74	13.30	8.45
	11104.200	-50.25	13	-63.25	-55.10	13.30	8.45
	12954.900	-52.06	13	-65.06	-56.91	13.30	8.45
V	3701.400	-45.08	13	-58.08	-52.73	11.94	4.28
	5552.100	-38.80	13	-51.80	-46.50	12.90	5.20
	7402.800	-41.48	13	-54.48	-47.34	12.16	6.31
	9253.500	-44.51	13	-57.51	-49.36	13.30	8.45
	11104.200	-50.77	13	-63.77	-55.62	13.30	8.45
	12954.900	-50.91	13	-63.91	-55.76	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH18900_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3760.000	-49.63	13	-62.63	-57.13	11.83	4.33
	5640.000	-48.67	13	-61.67	-56.33	12.90	5.24
	7520.000	-44.03	13	-57.03	-49.83	12.27	6.46
	9400.000	-50.39	13	-63.39	-55.24	13.30	8.45
	11280.000	-50.20	13	-63.20	-55.05	13.30	8.45
	13160.000	-50.27	13	-63.27	-55.12	13.30	8.45
V	3760.000	-49.47	13	-62.47	-56.97	11.83	4.33
	5640.000	-38.15	13	-51.15	-45.81	12.90	5.24
	7520.000	-37.27	13	-50.27	-43.07	12.27	6.46
	9400.000	-41.81	13	-54.81	-46.66	13.30	8.45
	11280.000	-51.11	13	-64.11	-55.96	13.30	8.45
	13160.000	-48.77	13	-61.77	-53.62	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH19193_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3818.600	-47.31	13	-60.31	-54.65	11.73	4.38
	5727.900	-44.99	13	-57.99	-52.62	12.90	5.27
	7637.200	-45.57	13	-58.57	-51.32	12.37	6.62
	9546.500	-51.93	13	-64.93	-56.78	13.30	8.45
	11455.800	-50.30	13	-63.30	-55.15	13.30	8.45
	13365.100	-50.24	13	-63.24	-55.09	13.30	8.45
V	3818.600	-45.80	13	-58.80	-53.14	11.73	4.38
	5727.900	-33.23	13	-46.23	-40.86	12.90	5.27
	7637.200	-38.05	13	-51.05	-43.80	12.37	6.62
	9546.500	-45.28	13	-58.28	-50.13	13.30	8.45
	11455.800	-50.47	13	-63.47	-55.32	13.30	8.45
	13365.100	-49.87	13	-62.87	-54.72	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH18700_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3720.000	-47.90	13	-60.90	-55.50	11.90	4.30
	5580.000	-47.64	13	-60.64	-55.33	12.90	5.21
	7440.000	-50.09	13	-63.09	-55.93	12.20	6.36
	9300.000	-52.68	13	-65.68	-57.53	13.30	8.45
	11160.000	-50.43	13	-63.43	-55.28	13.30	8.45
	13020.000	-50.36	13	-63.36	-55.21	13.30	8.45
V	3720.000	-44.72	13	-57.72	-52.32	11.90	4.30
	5580.000	-38.43	13	-51.43	-46.12	12.90	5.21
	7440.000	-45.35	13	-58.35	-51.19	12.20	6.36
	9300.000	-47.76	13	-60.76	-52.61	13.30	8.45
	11160.000	-49.50	13	-62.50	-54.35	13.30	8.45
	13020.000	-51.25	13	-64.25	-56.10	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH18900_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3760.000	-51.99	13	-64.99	-59.49	11.83	4.33
	5640.000	-51.73	13	-64.73	-59.39	12.90	5.24
	7520.000	-46.76	13	-59.76	-52.56	12.27	6.46
	9400.000	-52.94	13	-65.94	-57.79	13.30	8.45
	11280.000	-50.41	13	-63.41	-55.26	13.30	8.45
	13160.000	-50.03	13	-63.03	-54.88	13.30	8.45
V	3760.000	-49.88	13	-62.88	-57.38	11.83	4.33
	5640.000	-41.42	13	-54.42	-49.08	12.90	5.24
	7520.000	-39.22	13	-52.22	-45.02	12.27	6.46
	9400.000	-45.59	13	-58.59	-50.44	13.30	8.45
	11280.000	-50.67	13	-63.67	-55.52	13.30	8.45
	13160.000	-49.29	13	-62.29	-54.14	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH19100_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3800.000	-47.42	13	-60.42	-54.81	11.76	4.37
	5700.000	-53.06	13	-66.06	-60.70	12.90	5.26
	7600.000	-50.34	13	-63.34	-56.11	12.34	6.57
	9500.000	-52.92	13	-65.92	-57.77	13.30	8.45
	11400.000	-50.17	13	-63.17	-55.02	13.30	8.45
	13300.000	-49.11	13	-62.11	-53.96	13.30	8.45
V	3800.000	-45.66	13	-58.66	-53.05	11.76	4.37
	5700.000	-36.93	13	-49.93	-44.57	12.90	5.26
	7600.000	-44.64	13	-57.64	-50.41	12.34	6.57
	9500.000	-48.05	13	-61.05	-52.90	13.30	8.45
	11400.000	-47.60	13	-60.60	-52.45	13.30	8.45
	13300.000	-49.88	13	-62.88	-54.73	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

Product	Module		
Test Item	Radiated Spurious Emissions		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/12/17	Test Site	CB4-H

BW 1.4M_CH19957_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3421.400	-51.61	13	-64.61	-59.64	12.10	4.06
	5132.100	-58.29	13	-71.29	-65.45	12.24	5.08
	6842.800	-53.67	13	-66.67	-59.75	11.77	5.69
	8553.500	-55.33	13	-68.33	-60.51	13.03	7.85
	10264.200	-49.61	13	-62.61	-54.46	13.30	8.45
	11974.900	-51.11	13	-64.11	-55.96	13.30	8.45
V	3421.400	-53.97	13	-66.97	-62.00	12.10	4.06
	5132.100	-57.00	13	-70.00	-64.16	12.24	5.08
	6842.800	-48.71	13	-61.71	-54.79	11.77	5.69
	8553.500	-55.00	13	-68.00	-60.18	13.03	7.85
	10264.200	-49.82	13	-62.82	-54.67	13.30	8.45
	11974.900	-50.93	13	-63.93	-55.78	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH20175_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3465.000	-48.79	13	-61.79	-56.91	12.21	4.09
	5197.500	-55.21	13	-68.21	-62.47	12.36	5.09
	6930.000	-51.43	13	-64.43	-57.49	11.79	5.73
	8662.500	-55.74	13	-68.74	-60.84	13.10	8.00
	10395.000	-50.04	13	-63.04	-54.89	13.30	8.45
	12127.500	-50.82	13	-63.82	-55.67	13.30	8.45
V	3465.000	-49.53	13	-62.53	-57.65	12.21	4.09
	5197.500	-52.61	13	-65.61	-59.87	12.36	5.09
	6930.000	-45.76	13	-58.76	-51.82	11.79	5.73
	8662.500	-53.30	13	-66.30	-58.40	13.10	8.00
	10395.000	-50.02	13	-63.02	-54.87	13.30	8.45
	12127.500	-50.29	13	-63.29	-55.14	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH20393_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3508.600	-53.28	13	-66.28	-61.45	12.28	4.12
	5262.900	-56.90	13	-69.90	-64.26	12.47	5.11
	7017.200	-54.92	13	-67.92	-60.95	11.82	5.79
	8771.500	-55.23	13	-68.23	-60.25	13.16	8.15
	10525.800	-49.97	13	-62.97	-54.82	13.30	8.45
	12280.100	-50.70	13	-63.70	-55.55	13.30	8.45
V	3508.600	-54.34	13	-67.34	-62.51	12.28	4.12
	5262.900	-54.03	13	-67.03	-61.39	12.47	5.11
	7017.200	-50.49	13	-63.49	-56.52	11.82	5.79
	8771.500	-55.75	13	-68.75	-60.77	13.16	8.15
	10525.800	-49.77	13	-62.77	-54.62	13.30	8.45
	12280.100	-50.32	13	-63.32	-55.17	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 20M_CH20050_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3440.000	-53.06	13	-66.06	-61.13	12.14	4.08
	5160.000	-57.92	13	-70.92	-65.12	12.29	5.08
	6880.000	-53.88	13	-66.88	-59.95	11.78	5.71
	8600.000	-55.41	13	-68.41	-60.55	13.06	7.92
	10320.000	-49.39	13	-62.39	-54.24	13.30	8.45
	12040.000	-50.97	13	-63.97	-55.82	13.30	8.45
V	3440.000	-53.22	13	-66.22	-61.29	12.14	4.08
	5160.000	-56.98	13	-69.98	-64.18	12.29	5.08
	6880.000	-48.06	13	-61.06	-54.13	11.78	5.71
	8600.000	-54.79	13	-67.79	-59.93	13.06	7.92
	10320.000	-50.38	13	-63.38	-55.23	13.30	8.45
	12040.000	-51.00	13	-64.00	-55.85	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 20M_CH20175_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3465.000	-49.74	13	-62.74	-57.86	12.21	4.09
	5197.500	-57.53	13	-70.53	-64.79	12.36	5.09
	6930.000	-51.96	13	-64.96	-58.02	11.79	5.73
	8662.500	-55.87	13	-68.87	-60.97	13.10	8.00
	10395.000	-50.42	13	-63.42	-55.27	13.30	8.45
	12127.500	-51.02	13	-64.02	-55.87	13.30	8.45
V	3465.000	-52.05	13	-65.05	-60.17	12.21	4.09
	5197.500	-55.23	13	-68.23	-62.49	12.36	5.09
	6930.000	-46.58	13	-59.58	-52.64	11.79	5.73
	8662.500	-54.71	13	-67.71	-59.81	13.10	8.00
	10395.000	-50.17	13	-63.17	-55.02	13.30	8.45
	12127.500	-51.03	13	-64.03	-55.88	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 20M_CH20300_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3490.000	-48.49	13	-61.49	-56.66	12.27	4.11
	5235.000	-55.77	13	-68.77	-63.09	12.42	5.10
	6980.000	-51.68	13	-64.68	-57.72	11.80	5.76
	8725.000	-55.95	13	-68.95	-61.00	13.13	8.08
	10470.000	-50.08	13	-63.08	-54.93	13.30	8.45
	12215.000	-50.45	13	-63.45	-55.30	13.30	8.45
V	3490.000	-49.33	13	-62.33	-57.50	12.27	4.11
	5235.000	-51.94	13	-64.94	-59.26	12.42	5.10
	6980.000	-45.20	13	-58.20	-51.24	11.80	5.76
	8725.000	-53.73	13	-66.73	-58.78	13.13	8.08
	10470.000	-50.03	13	-63.03	-54.88	13.30	8.45
	12215.000	-50.71	13	-63.71	-55.56	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

Product	Module		
Test Item	Radiated Spurious Emissions		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/12/17	Test Site	CB4-H

BW 1.4M_CH20407_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1649.400	-50.24	13	-63.24	-56.20	8.75	2.79
	2474.100	-54.54	13	-67.54	-61.66	10.56	3.44
	3298.800	-59.69	13	-72.69	-67.48	11.78	3.99
	4123.500	-59.74	13	-72.74	-66.60	11.47	4.62
	4948.200	-58.28	13	-71.28	-65.23	11.97	5.02
	5772.900	-57.83	13	-70.83	-65.44	12.90	5.29
V	1649.400	-49.60	13	-62.60	-55.56	8.75	2.79
	2474.100	-54.13	13	-67.13	-61.25	10.56	3.44
	3298.800	-56.32	13	-69.32	-64.11	11.78	3.99
	4123.500	-59.70	13	-72.70	-66.56	11.47	4.62
	4948.200	-58.38	13	-71.38	-65.33	11.97	5.02
	5772.900	-57.85	13	-70.85	-65.46	12.90	5.29

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH20525_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1673.000	-52.05	13	-65.05	-58.06	8.82	2.81
	2509.500	-59.72	13	-72.72	-66.86	10.61	3.46
	3346.000	-58.62	13	-71.62	-66.50	11.90	4.02
	4182.500	-58.89	13	-71.89	-65.74	11.51	4.65
	5019.000	-58.07	13	-71.07	-65.06	12.03	5.04
	5855.500	-57.91	13	-70.91	-65.49	12.90	5.32
V	1673.000	-52.88	13	-65.88	-58.89	8.82	2.81
	2509.500	-59.62	13	-72.62	-66.76	10.61	3.46
	3346.000	-59.92	13	-72.92	-67.80	11.90	4.02
	4182.500	-59.19	13	-72.19	-66.04	11.51	4.65
	5019.000	-58.14	13	-71.14	-65.13	12.03	5.04
	5855.500	-57.73	13	-70.73	-65.31	12.90	5.32

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH20643_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1696.600	-54.38	13	-67.38	-60.44	8.89	2.83
	2544.900	-56.33	13	-69.33	-63.48	10.64	3.49
	3393.200	-59.61	13	-72.61	-67.58	12.02	4.05
	4241.500	-59.32	13	-72.32	-66.17	11.54	4.69
	5089.800	-58.38	13	-71.38	-65.48	12.16	5.06
	5938.100	-59.04	13	-72.04	-66.59	12.90	5.35
V	1696.600	-53.31	13	-66.31	-59.37	8.89	2.83
	2544.900	-57.88	13	-70.88	-65.03	10.64	3.49
	3393.200	-59.45	13	-72.45	-67.42	12.02	4.05
	4241.500	-59.29	13	-72.29	-66.14	11.54	4.69
	5089.800	-58.14	13	-71.14	-65.24	12.16	5.06
	5938.100	-55.06	13	-68.06	-62.61	12.90	5.35

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH20450_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1658.000	-55.06	13	-68.06	-61.04	8.77	2.80
	2487.000	-53.21	13	-66.21	-60.34	10.58	3.45
	3316.000	-59.90	13	-72.90	-67.72	11.82	4.00
	4145.000	-59.53	13	-72.53	-66.39	11.49	4.63
	4974.000	-58.31	13	-71.31	-65.27	11.98	5.03
	5803.000	-56.84	13	-69.84	-64.44	12.90	5.30
V	1658.000	-52.04	13	-65.04	-58.02	8.77	2.80
	2487.000	-52.00	13	-65.00	-59.13	10.58	3.45
	3316.000	-59.72	13	-72.72	-67.54	11.82	4.00
	4145.000	-59.00	13	-72.00	-65.86	11.49	4.63
	4974.000	-58.21	13	-71.21	-65.17	11.98	5.03
	5803.000	-57.56	13	-70.56	-65.16	12.90	5.30

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH20525_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1673.000	-53.46	13	-66.46	-59.47	8.82	2.81
	2509.500	-59.35	13	-72.35	-66.49	10.61	3.46
	3346.000	-59.67	13	-72.67	-67.55	11.90	4.02
	4182.500	-59.37	13	-72.37	-66.22	11.51	4.65
	5019.000	-58.51	13	-71.51	-65.50	12.03	5.04
	5855.500	-57.68	13	-70.68	-65.26	12.90	5.32
V	1673.000	-52.21	13	-65.21	-58.22	8.82	2.81
	2509.500	-59.49	13	-72.49	-66.63	10.61	3.46
	3346.000	-59.60	13	-72.60	-67.48	11.90	4.02
	4182.500	-58.78	13	-71.78	-65.63	11.51	4.65
	5019.000	-58.09	13	-71.09	-65.08	12.03	5.04
	5855.500	-57.98	13	-70.98	-65.56	12.90	5.32

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH20600_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1688.000	-58.37	13	-71.37	-64.41	8.86	2.83
	2532.000	-61.05	13	-74.05	-68.20	10.63	3.48
	3376.000	-59.18	13	-72.18	-67.12	11.98	4.04
	4220.000	-59.04	13	-72.04	-65.89	11.53	4.68
	5064.000	-57.66	13	-70.66	-64.72	12.12	5.06
	5908.000	-57.24	13	-70.24	-64.80	12.90	5.34
V	1688.000	-56.90	13	-69.90	-62.94	8.86	2.83
	2532.000	-60.41	13	-73.41	-67.56	10.63	3.48
	3376.000	-59.38	13	-72.38	-67.32	11.98	4.04
	4220.000	-58.90	13	-71.90	-65.75	11.53	4.68
	5064.000	-58.39	13	-71.39	-65.45	12.12	5.06
	5908.000	-56.87	13	-69.87	-64.43	12.90	5.34

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

Product	Module		
Test Item	Radiated Spurious Emissions		
Test Mode	Mode 4: LTE Band 12		
Date of Test	2018/12/17	Test Site	CB4-H

BW 1.4M_CH23017_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1399.400	-56.69	13	-69.69	-61.93	7.82	2.57
	2099.100	-49.68	13	-62.68	-56.46	9.96	3.18
	2798.800	-50.09	13	-63.09	-57.26	10.84	3.67
	3498.500	-52.10	13	-65.10	-60.29	12.30	4.11
	4198.200	-44.30	13	-57.30	-51.15	11.52	4.66
	4897.900	-50.90	13	-63.90	-57.84	11.94	5.00
V	1399.400	-51.12	13	-64.12	-56.36	7.82	2.57
	2099.100	-40.24	13	-53.24	-47.02	9.96	3.18
	2798.800	-51.27	13	-64.27	-58.44	10.84	3.67
	3498.500	-54.37	13	-67.37	-62.56	12.30	4.11
	4198.200	-45.27	13	-58.27	-52.12	11.52	4.66
	4897.900	-47.51	13	-60.51	-54.45	11.94	5.00

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH23095_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1415.000	-57.60	13	-70.60	-62.91	7.89	2.59
	2122.500	-57.43	13	-70.43	-64.23	10.00	3.19
	2830.000	-56.87	13	-69.87	-64.04	10.86	3.69
	3537.500	-58.35	13	-71.35	-66.44	12.23	4.14
	4245.000	-52.08	13	-65.08	-58.93	11.55	4.69
	4952.500	-57.66	13	-70.66	-64.61	11.97	5.02
V	1415.000	-53.08	13	-66.08	-58.39	7.89	2.59
	2122.500	-47.99	13	-60.99	-54.79	10.00	3.19
	2830.000	-57.99	13	-70.99	-65.16	10.86	3.69
	3537.500	-58.71	13	-71.71	-66.80	12.23	4.14
	4245.000	-53.47	13	-66.47	-60.32	11.55	4.69
	4952.500	-57.53	13	-70.53	-64.48	11.97	5.02

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH23173_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1430.600	-47.82	13	-60.82	-53.19	7.97	2.60
	2145.900	-56.95	13	-69.95	-63.77	10.03	3.21
	2861.200	-56.44	13	-69.44	-63.61	10.89	3.71
	3576.500	-52.82	13	-65.82	-60.81	12.16	4.18
	4291.800	-50.96	13	-63.96	-57.81	11.58	4.72
	5007.100	-55.87	13	-68.87	-62.84	12.01	5.04
V	1430.600	-42.16	13	-55.16	-47.53	7.97	2.60
	2145.900	-46.55	13	-59.55	-53.37	10.03	3.21
	2861.200	-56.80	13	-69.80	-63.97	10.89	3.71
	3576.500	-55.94	13	-68.94	-63.93	12.16	4.18
	4291.800	-53.66	13	-66.66	-60.51	11.58	4.72
	5007.100	-55.20	13	-68.20	-62.17	12.01	5.04

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH23060_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1408.000	-53.93	13	-66.93	-59.21	7.86	2.58
	2112.000	-50.74	13	-63.74	-57.53	9.98	3.19
	2816.000	-49.72	13	-62.72	-56.89	10.85	3.68
	3520.000	-56.72	13	-69.72	-64.86	12.26	4.13
	4224.000	-46.20	13	-59.20	-53.05	11.53	4.68
	4928.000	-50.64	13	-63.64	-57.59	11.96	5.01
V	1408.000	-50.26	13	-63.26	-55.54	7.86	2.58
	2112.000	-40.84	13	-53.84	-47.63	9.98	3.19
	2816.000	-54.17	13	-67.17	-61.34	10.85	3.68
	3520.000	-56.69	13	-69.69	-64.83	12.26	4.13
	4224.000	-46.42	13	-59.42	-53.27	11.53	4.68
	4928.000	-48.37	13	-61.37	-55.32	11.96	5.01

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH23095_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1415.000	-52.68	13	-65.68	-57.99	7.89	2.59
	2122.500	-53.38	13	-66.38	-60.18	10.00	3.19
	2830.000	-54.30	13	-67.30	-61.47	10.86	3.69
	3537.500	-56.61	13	-69.61	-64.70	12.23	4.14
	4245.000	-47.72	13	-60.72	-54.57	11.55	4.69
	4952.500	-53.85	13	-66.85	-60.80	11.97	5.02
V	1415.000	-47.41	13	-60.41	-52.72	7.89	2.59
	2122.500	-41.58	13	-54.58	-48.38	10.00	3.19
	2830.000	-56.12	13	-69.12	-63.29	10.86	3.69
	3537.500	-56.54	13	-69.54	-64.63	12.23	4.14
	4245.000	-49.20	13	-62.20	-56.05	11.55	4.69
	4952.500	-52.40	13	-65.40	-59.35	11.97	5.02

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH23130_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1422.000	-56.52	13	-69.52	-61.85	7.93	2.59
	2133.000	-57.75	13	-70.75	-64.56	10.01	3.20
	2844.000	-57.40	13	-70.40	-64.57	10.88	3.70
	3555.000	-56.90	13	-69.90	-64.94	12.20	4.16
	4266.000	-52.95	13	-65.95	-59.80	11.56	4.71
	4977.000	-57.46	13	-70.46	-64.42	11.99	5.03
V	1422.000	-51.82	13	-64.82	-57.15	7.93	2.59
	2133.000	-47.20	13	-60.20	-54.01	10.01	3.20
	2844.000	-58.59	13	-71.59	-65.76	10.88	3.70
	3555.000	-57.72	13	-70.72	-65.76	12.20	4.16
	4266.000	-54.05	13	-67.05	-60.90	11.56	4.71
	4977.000	-57.45	13	-70.45	-64.41	11.99	5.03

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

Product	Module		
Test Item	Radiated Spurious Emissions		
Test Mode	Mode 5: LTE Band 13		
Date of Test	2018/12/17	Test Site	CB4-H

BW 5M_CH23205_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1559.000	-61.92	13	-74.92	-67.69	8.48	2.71
	2338.500	-53.29	13	-66.29	-60.29	10.34	3.34
	3118.000	-60.11	13	-73.11	-67.53	11.31	3.88
	3897.500	-59.79	13	-72.79	-66.92	11.58	4.45
	4677.000	-59.11	13	-72.11	-66.00	11.81	4.92
	5456.500	-57.14	13	-70.14	-64.79	12.82	5.17
V	1559.000	-61.53	13	-74.53	-67.30	8.48	2.71
	2338.500	-57.16	13	-70.16	-64.16	10.34	3.34
	3118.000	-59.62	13	-72.62	-67.04	11.31	3.88
	3897.500	-59.78	13	-72.78	-66.91	11.58	4.45
	4677.000	-58.91	13	-71.91	-65.80	11.81	4.92
	5456.500	-57.19	13	-70.19	-64.84	12.82	5.17

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 5M_CH23230_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1564.000	-61.29	13	-74.29	-67.07	8.49	2.71
	2346.000	-50.20	13	-63.20	-57.20	10.35	3.35
	3128.000	-60.74	13	-73.74	-68.18	11.33	3.89
	3910.000	-59.15	13	-72.15	-66.25	11.56	4.46
	4692.000	-59.15	13	-72.15	-66.04	11.82	4.92
	5474.000	-56.78	13	-69.78	-64.46	12.85	5.17
V	1564.000	-59.83	13	-72.83	-65.61	8.49	2.71
	2346.000	-55.34	13	-68.34	-62.34	10.35	3.35
	3128.000	-59.76	13	-72.76	-67.20	11.33	3.89
	3910.000	-59.74	13	-72.74	-66.84	11.56	4.46
	4692.000	-58.62	13	-71.62	-65.51	11.82	4.92
	5474.000	-57.12	13	-70.12	-64.80	12.85	5.17

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 5M_CH23255_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1569.000	-62.21	13	-75.21	-68.00	8.51	2.72
	2353.500	-53.63	13	-66.63	-60.64	10.37	3.35
	3138.000	-60.50	13	-73.50	-67.96	11.36	3.90
	3922.500	-59.59	13	-72.59	-66.66	11.54	4.47
	4707.000	-58.84	13	-71.84	-65.74	11.82	4.93
	5491.500	-56.97	13	-69.97	-64.68	12.88	5.18
V	1569.000	-61.33	13	-74.33	-67.12	8.51	2.72
	2353.500	-55.04	13	-68.04	-62.05	10.37	3.35
	3138.000	-59.98	13	-72.98	-67.44	11.36	3.90
	3922.500	-59.75	13	-72.75	-66.82	11.54	4.47
	4707.000	-58.63	13	-71.63	-65.53	11.82	4.93
	5491.500	-56.79	13	-69.79	-64.50	12.88	5.18

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH23230_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1564.000	-61.96	13	-74.96	-67.74	8.49	2.71
	2346.000	-54.34	13	-67.34	-61.34	10.35	3.35
	3128.000	-60.88	13	-73.88	-68.32	11.33	3.89
	3910.000	-60.22	13	-73.22	-67.32	11.56	4.46
	4692.000	-58.14	13	-71.14	-65.03	11.82	4.92
	5474.000	-57.43	13	-70.43	-65.11	12.85	5.17
V	1564.000	-62.19	13	-75.19	-67.97	8.49	2.71
	2346.000	-56.30	13	-69.30	-63.30	10.35	3.35
	3128.000	-59.74	13	-72.74	-67.18	11.33	3.89
	3910.000	-59.57	13	-72.57	-66.67	11.56	4.46
	4692.000	-58.09	13	-71.09	-64.98	11.82	4.92
	5474.000	-57.14	13	-70.14	-64.82	12.85	5.17

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

Product	Module		
Test Item	Radiated Spurious Emissions		
Test Mode	Mode 6: LTE Band 14		
Date of Test	2018/12/17	Test Site	CB4-H

BW 5M_CH23305_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1581.000	-60.74	13	-73.74	-66.55	8.54	2.73
	2371.500	-58.14	13	-71.14	-65.17	10.39	3.37
	3162.000	-60.13	13	-73.13	-67.64	11.42	3.91
	3952.500	-60.10	13	-73.10	-67.09	11.49	4.50
	4743.000	-58.29	13	-71.29	-65.19	11.85	4.94
	5533.500	-57.29	13	-70.29	-65.00	12.90	5.19
V	1581.000	-59.47	13	-72.47	-65.28	8.54	2.73
	2371.500	-60.27	13	-73.27	-67.30	10.39	3.37
	3162.000	-59.37	13	-72.37	-66.88	11.42	3.91
	3952.500	-59.86	13	-72.86	-66.85	11.49	4.50
	4743.000	-58.32	13	-71.32	-65.22	11.85	4.94
	5533.500	-56.63	13	-69.63	-64.34	12.90	5.19

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 5M_CH23330_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1586.000	-60.47	13	-73.47	-66.29	8.56	2.73
	2379.000	-58.20	13	-71.20	-65.23	10.41	3.37
	3172.000	-60.74	13	-73.74	-68.27	11.45	3.92
	3965.000	-59.69	13	-72.69	-66.64	11.46	4.51
	4758.000	-58.35	13	-71.35	-65.26	11.85	4.95
	5551.000	-56.89	13	-69.89	-64.59	12.90	5.20
V	1586.000	-60.75	13	-73.75	-66.57	8.56	2.73
	2379.000	-60.53	13	-73.53	-67.56	10.41	3.37
	3172.000	-59.69	13	-72.69	-67.22	11.45	3.92
	3965.000	-59.64	13	-72.64	-66.59	11.46	4.51
	4758.000	-58.43	13	-71.43	-65.34	11.85	4.95
	5551.000	-56.73	13	-69.73	-64.43	12.90	5.20

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 5M_CH23355_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1591.000	-61.71	13	-74.71	-67.55	8.57	2.74
	2386.500	-50.24	13	-63.24	-57.28	10.42	3.38
	3182.000	-60.21	13	-73.21	-67.76	11.47	3.92
	3977.500	-59.94	13	-72.94	-66.86	11.44	4.52
	4773.000	-58.84	13	-71.84	-65.75	11.86	4.95
	5568.500	-56.69	13	-69.69	-64.38	12.90	5.21
V	1591.000	-61.89	13	-74.89	-67.73	8.57	2.74
	2386.500	-53.39	13	-66.39	-60.43	10.42	3.38
	3182.000	-60.32	13	-73.32	-67.87	11.47	3.92
	3977.500	-58.74	13	-71.74	-65.66	11.44	4.52
	4773.000	-59.84	13	-72.84	-66.75	11.86	4.95
	5568.500	-56.92	13	-69.92	-64.61	12.90	5.21

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH23330_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1586.000	-60.60	13	-73.60	-66.42	8.56	2.73
	2379.000	-58.67	13	-71.67	-65.70	10.41	3.37
	3172.000	-60.57	13	-73.57	-68.10	11.45	3.92
	3965.000	-59.66	13	-72.66	-66.61	11.46	4.51
	4758.000	-58.89	13	-71.89	-65.80	11.85	4.95
	5551.000	-56.96	13	-69.96	-64.66	12.90	5.20
V	1586.000	-58.77	13	-71.77	-64.59	8.56	2.73
	2379.000	-59.96	13	-72.96	-66.99	10.41	3.37
	3172.000	-58.94	13	-71.94	-66.47	11.45	3.92
	3965.000	-59.75	13	-72.75	-66.70	11.46	4.51
	4758.000	-58.05	13	-71.05	-64.96	11.85	4.95
	5551.000	-56.79	13	-69.79	-64.49	12.90	5.20

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

Product	Module		
Test Item	Radiated Spurious Emissions		
Test Mode	Mode 7: LTE Band 17		
Date of Test	2018/12/17	Test Site	CB4-H

BW 5M_CH23755_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1413.000	-52.30	13	-65.30	-57.60	7.88	2.58
	2119.500	-51.60	13	-64.60	-58.40	9.99	3.19
	2826.000	-56.45	13	-69.45	-63.62	10.86	3.69
	3532.500	-57.81	13	-70.81	-65.91	12.24	4.14
	4239.000	-48.99	13	-61.99	-55.84	11.54	4.69
	4945.500	-55.90	13	-68.90	-62.85	11.97	5.02
V	1413.000	-48.95	13	-61.95	-54.25	7.88	2.58
	2119.500	-43.31	13	-56.31	-50.11	9.99	3.19
	2826.000	-57.76	13	-70.76	-64.93	10.86	3.69
	3532.500	-58.05	13	-71.05	-66.15	12.24	4.14
	4239.000	-49.74	13	-62.74	-56.59	11.54	4.69
	4945.500	-55.51	13	-68.51	-62.46	11.97	5.02

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 5M_CH23790_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1420.000	-61.33	13	-74.33	-66.66	7.92	2.59
	2130.000	-54.47	13	-67.47	-61.28	10.01	3.20
	2840.000	-55.82	13	-68.82	-62.99	10.87	3.70
	3550.000	-58.71	13	-71.71	-66.77	12.21	4.15
	4260.000	-50.99	13	-63.99	-57.84	11.56	4.70
	4970.000	-57.37	13	-70.37	-64.33	11.98	5.03
V	1420.000	-58.29	13	-71.29	-63.62	7.92	2.59
	2130.000	-48.48	13	-61.48	-55.29	10.01	3.20
	2840.000	-57.82	13	-70.82	-64.99	10.87	3.70
	3550.000	-58.00	13	-71.00	-66.06	12.21	4.15
	4260.000	-53.69	13	-66.69	-60.54	11.56	4.70
	4970.000	-56.33	13	-69.33	-63.29	11.98	5.03

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 5M_CH23825_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1427.000	-58.65	13	-71.65	-64.00	7.95	2.59
	2140.500	-54.24	13	-67.24	-61.06	10.02	3.21
	2854.000	-52.81	13	-65.81	-59.98	10.88	3.71
	3567.500	-56.30	13	-69.30	-64.31	12.18	4.17
	4281.000	-49.95	13	-62.95	-56.80	11.57	4.72
	4994.500	-54.15	13	-67.15	-61.11	12.00	5.03
V	1427.000	-48.32	13	-61.32	-53.67	7.95	2.59
	2140.500	-42.91	13	-55.91	-49.73	10.02	3.21
	2854.000	-57.91	13	-70.91	-65.08	10.88	3.71
	3567.500	-56.79	13	-69.79	-64.80	12.18	4.17
	4281.000	-51.98	13	-64.98	-58.83	11.57	4.72
	4994.500	-54.79	13	-67.79	-61.75	12.00	5.03

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 10M_CH23790_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	1420.000	-55.68	13	-68.68	-61.01	7.92	2.59
	2130.000	-56.92	13	-69.92	-63.73	10.01	3.20
	2840.000	-58.22	13	-71.22	-65.39	10.87	3.70
	3550.000	-57.60	13	-70.60	-65.66	12.21	4.15
	4260.000	-52.98	13	-65.98	-59.83	11.56	4.70
	4970.000	-57.17	13	-70.17	-64.13	11.98	5.03
V	1420.000	-50.20	13	-63.20	-55.53	7.92	2.59
	2130.000	-45.12	13	-58.12	-51.93	10.01	3.20
	2840.000	-59.65	13	-72.65	-66.82	10.87	3.70
	3550.000	-58.51	13	-71.51	-66.57	12.21	4.15
	4260.000	-54.53	13	-67.53	-61.38	11.56	4.70
	4970.000	-56.35	13	-69.35	-63.31	11.98	5.03

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

Product	Module		
Test Item	Radiated Spurious Emissions		
Test Mode	Mode 8: LTE Band 66		
Date of Test	2018/12/17	Test Site	CB4-H

BW 1.4M_CH131979_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3421.400	-49.14	13	-62.14	-57.17	12.10	4.06
	5132.100	-57.75	13	-70.75	-64.91	12.24	5.08
	6842.800	-53.67	13	-66.67	-59.75	11.77	5.69
	8553.500	-55.40	13	-68.40	-60.58	13.03	7.85
	10264.200	-49.80	13	-62.80	-54.65	13.30	8.45
	11974.900	-51.17	13	-64.17	-56.02	13.30	8.45
V	3421.400	-52.11	13	-65.11	-60.14	12.10	4.06
	5132.100	-55.27	13	-68.27	-62.43	12.24	5.08
	6842.800	-47.24	13	-60.24	-53.32	11.77	5.69
	8553.500	-53.57	13	-66.57	-58.75	13.03	7.85
	10264.200	-50.76	13	-63.76	-55.61	13.30	8.45
	11974.900	-51.02	13	-64.02	-55.87	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH132322_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3490.000	-49.34	13	-62.34	-57.51	12.27	4.11
	5235.000	-57.23	13	-70.23	-64.55	12.42	5.10
	6980.000	-52.30	13	-65.30	-58.34	11.80	5.76
	8725.000	-54.45	13	-67.45	-59.50	13.13	8.08
	10470.000	-50.10	13	-63.10	-54.95	13.30	8.45
	12215.000	-50.70	13	-63.70	-55.55	13.30	8.45
V	3490.000	-51.00	13	-64.00	-59.17	12.27	4.11
	5235.000	-52.60	13	-65.60	-59.92	12.42	5.10
	6980.000	-47.16	13	-60.16	-53.20	11.80	5.76
	8725.000	-54.23	13	-67.23	-59.28	13.13	8.08
	10470.000	-50.26	13	-63.26	-55.11	13.30	8.45
	12215.000	-50.48	13	-63.48	-55.33	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 1.4M_CH132665_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3558.600	-49.09	13	-62.09	-57.12	12.19	4.16
	5337.900	-51.46	13	-64.46	-58.93	12.61	5.13
	7117.200	-50.15	13	-63.15	-56.13	11.91	5.92
	8896.500	-54.62	13	-67.62	-59.54	13.24	8.31
	10675.800	-49.30	13	-62.30	-54.15	13.30	8.45
	12455.100	-50.79	13	-63.79	-55.64	13.30	8.45
V	3558.600	-48.23	13	-61.23	-56.26	12.19	4.16
	5337.900	-47.34	13	-60.34	-54.81	12.61	5.13
	7117.200	-47.04	13	-60.04	-53.02	11.91	5.92
	8896.500	-54.22	13	-67.22	-59.14	13.24	8.31
	10675.800	-49.91	13	-62.91	-54.76	13.30	8.45
	12455.100	-50.50	13	-63.50	-55.35	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 20M_CH132072_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3440.000	-50.41	13	-63.41	-58.48	12.14	4.08
	5160.000	-56.17	13	-69.17	-63.37	12.29	5.08
	6880.000	-53.57	13	-66.57	-59.64	11.78	5.71
	8600.000	-54.71	13	-67.71	-59.85	13.06	7.92
	10320.000	-50.50	13	-63.50	-55.35	13.30	8.45
	12040.000	-51.32	13	-64.32	-56.17	13.30	8.45
V	3440.000	-53.04	13	-66.04	-61.11	12.14	4.08
	5160.000	-55.99	13	-68.99	-63.19	12.29	5.08
	6880.000	-48.68	13	-61.68	-54.75	11.78	5.71
	8600.000	-53.58	13	-66.58	-58.72	13.06	7.92
	10320.000	-50.10	13	-63.10	-54.95	13.30	8.45
	12040.000	-51.43	13	-64.43	-56.28	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

BW 20M_CH132322_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3490.000	-47.84	13	-60.84	-56.01	12.27	4.11
	5235.000	-55.70	13	-68.70	-63.02	12.42	5.10
	6980.000	-48.71	13	-61.71	-54.75	11.80	5.76
	8725.000	-54.97	13	-67.97	-60.02	13.13	8.08
	10470.000	-49.46	13	-62.46	-54.31	13.30	8.45
	12215.000	-51.38	13	-64.38	-56.23	13.30	8.45
V	3490.000	-48.13	13	-61.13	-56.30	12.27	4.11
	5235.000	-51.54	13	-64.54	-58.86	12.42	5.10
	6980.000	-44.05	13	-57.05	-50.09	11.80	5.76
	8725.000	-51.40	13	-64.40	-56.45	13.13	8.08
	10470.000	-50.07	13	-63.07	-54.92	13.30	8.45
	12215.000	-50.84	13	-63.84	-55.69	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

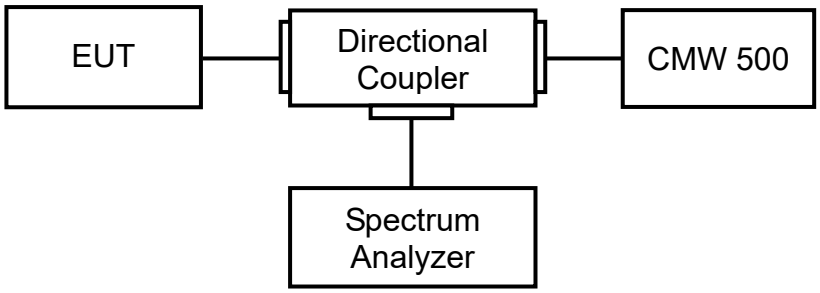
BW 20M_CH132572_QPSK_1RB0

Antenna Polarity	Frequency (MHz)	Emission Level (dBm)	Limit (dBm)	Margin (dB)	SG Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)
H	3540.000	-52.95	13	-65.95	-61.03	12.23	4.15
	5310.000	-53.31	13	-66.31	-60.74	12.56	5.13
	7080.000	-51.83	13	-64.83	-57.83	11.87	5.87
	8850.000	-54.13	13	-67.13	-59.09	13.21	8.25
	10620.000	-49.61	13	-62.61	-54.46	13.30	8.45
	12390.000	-51.53	13	-64.53	-56.38	13.30	8.45
V	3540.000	-48.53	13	-61.53	-56.61	12.23	4.15
	5310.000	-49.05	13	-62.05	-56.48	12.56	5.13
	7080.000	-46.59	13	-59.59	-52.59	11.87	5.87
	8850.000	-52.00	13	-65.00	-56.96	13.21	8.25
	10620.000	-50.03	13	-63.03	-54.88	13.30	8.45
	12390.000	-50.83	13	-63.83	-55.68	13.30	8.45

Emission Level=SG(Signal Generator) Level+Antenna Gain-Cable Loss.

7. Spurious Emissions at Antenna Terminals

7.1. Test Setup



7.2. Test Procedure

a) Place the EUT on a bench and set it in transmitting mode.
b) Connect a low loss RF cable from the antenna port to a spectrum analyzer and CMW500 by a Directional Couple.
c) EUT Communicate with CMW500, then select a channel for testing.
d) Add a correction factor to the display of spectrum, and then test.
e) The resolution bandwidth of the spectrum analyzer was set at 1 MHz, sufficient scans were taken to show the out of band Emission if any up to 10th harmonic.

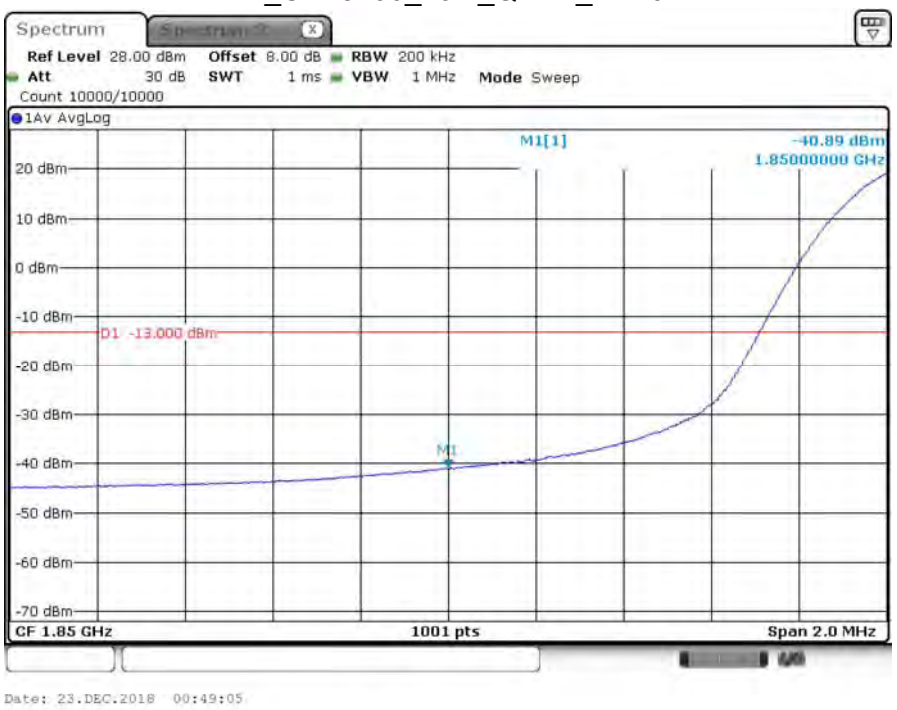
7.3. Test Method

KDB 971168 D01 Power Meas License Digital Systems v03 sub-clause 6.1
ANSI C63.26: 2015 Sub-clause 5.7

7.4. Test Result

Product	Module		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/12/23	Test Site	SR10-H

B2_CH18700_20M_QPSK_1RB0



B2_CH18700_20M_16-QAM_1RB0

B2_CH18700_20M_QPSK_100RB0

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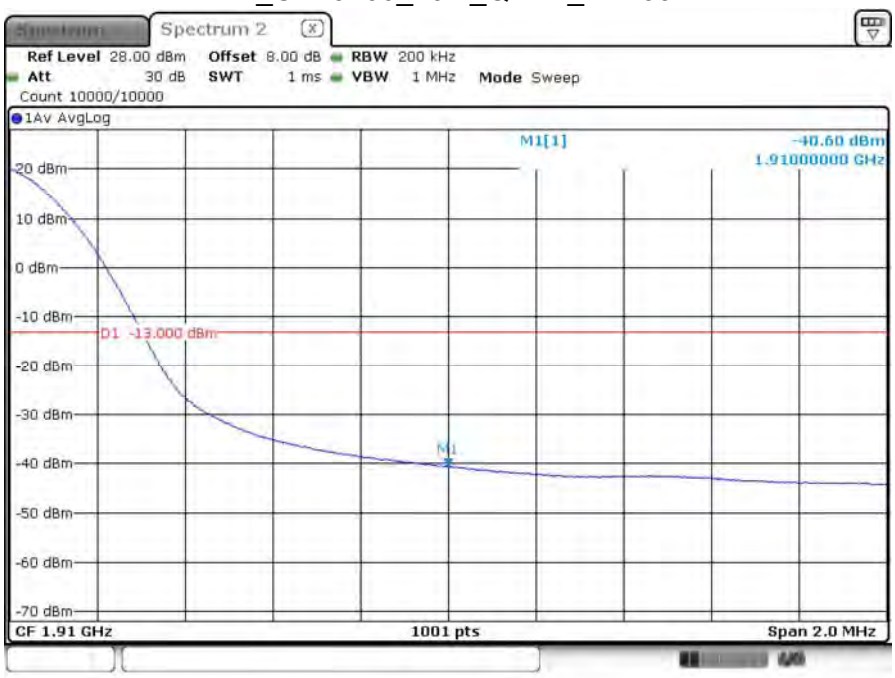
B2_CH19100_20M_QPSK_1RB99



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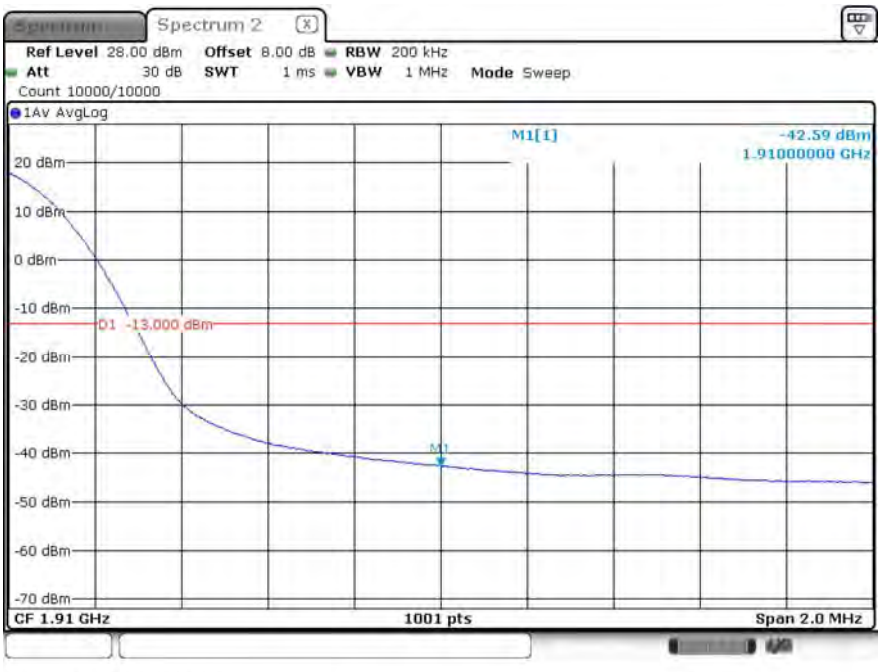

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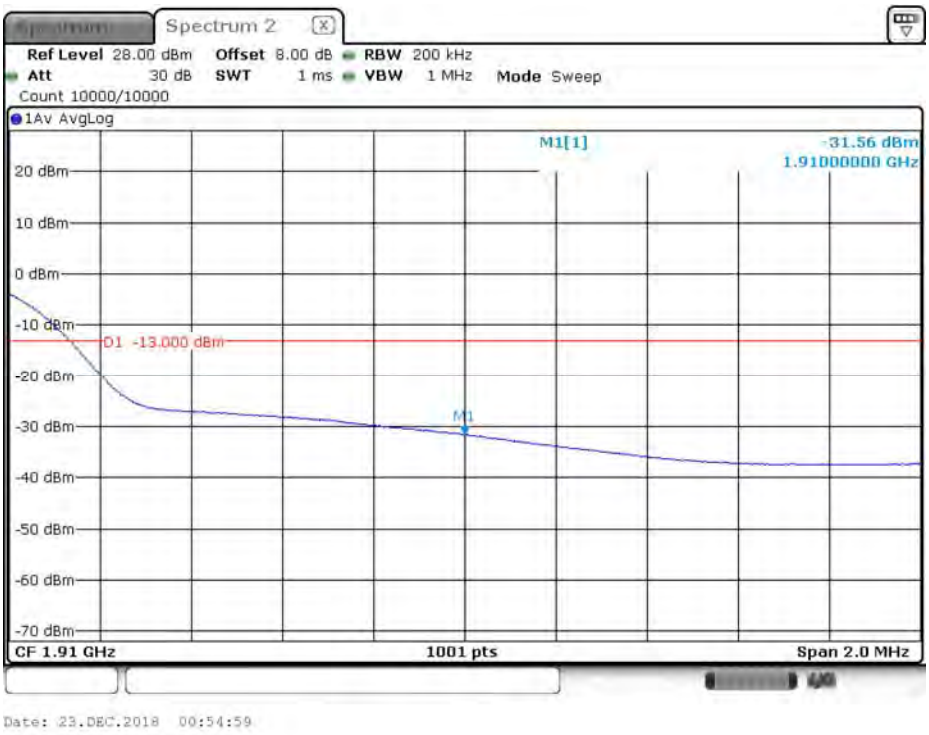
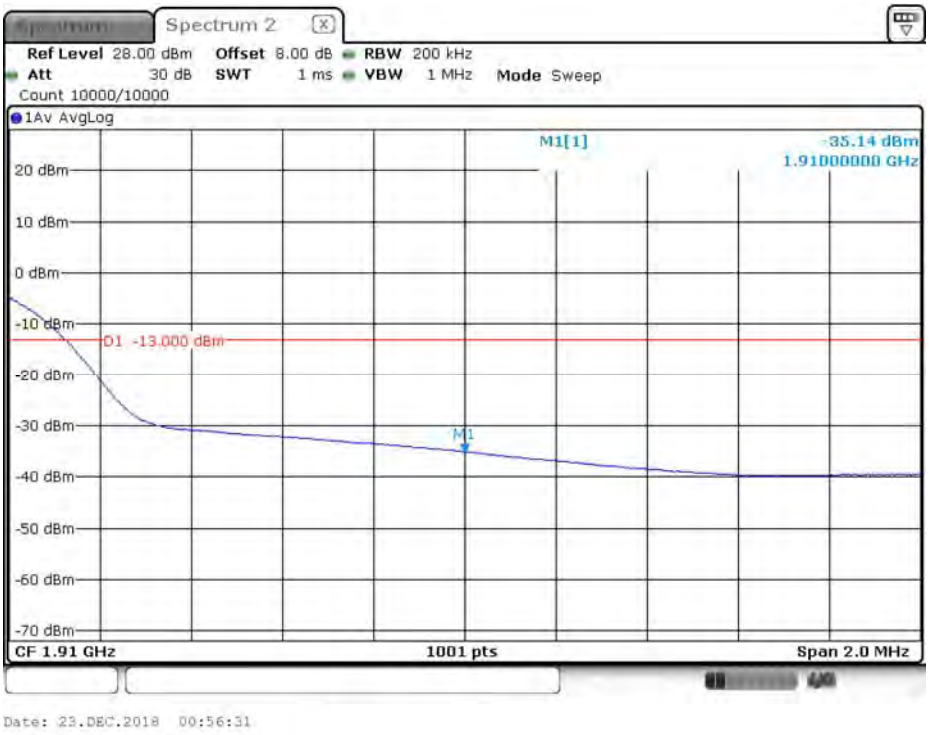
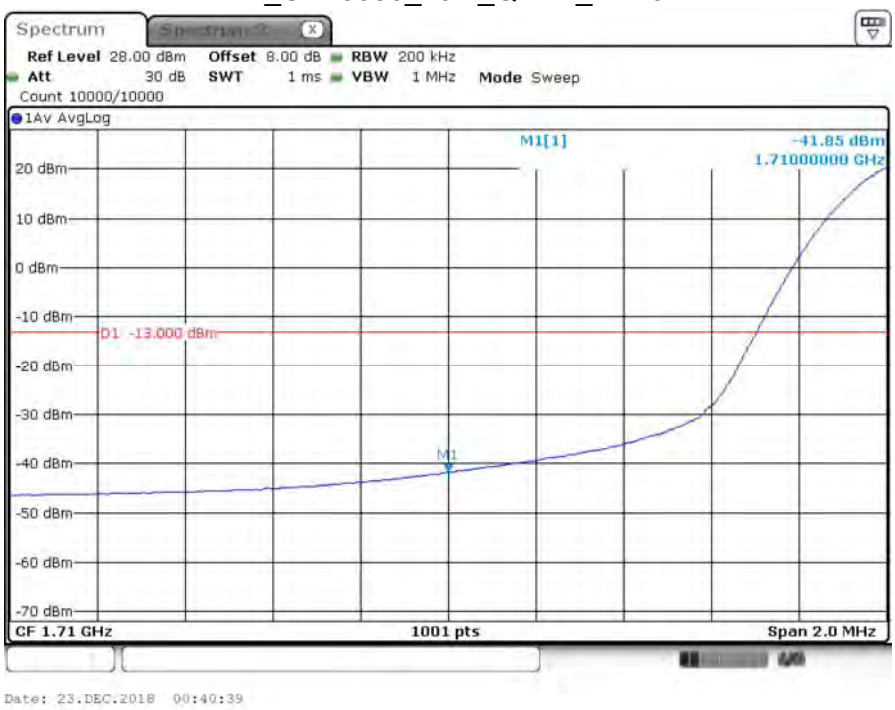


B2_CH19100_20M_16-QAM_100RB0



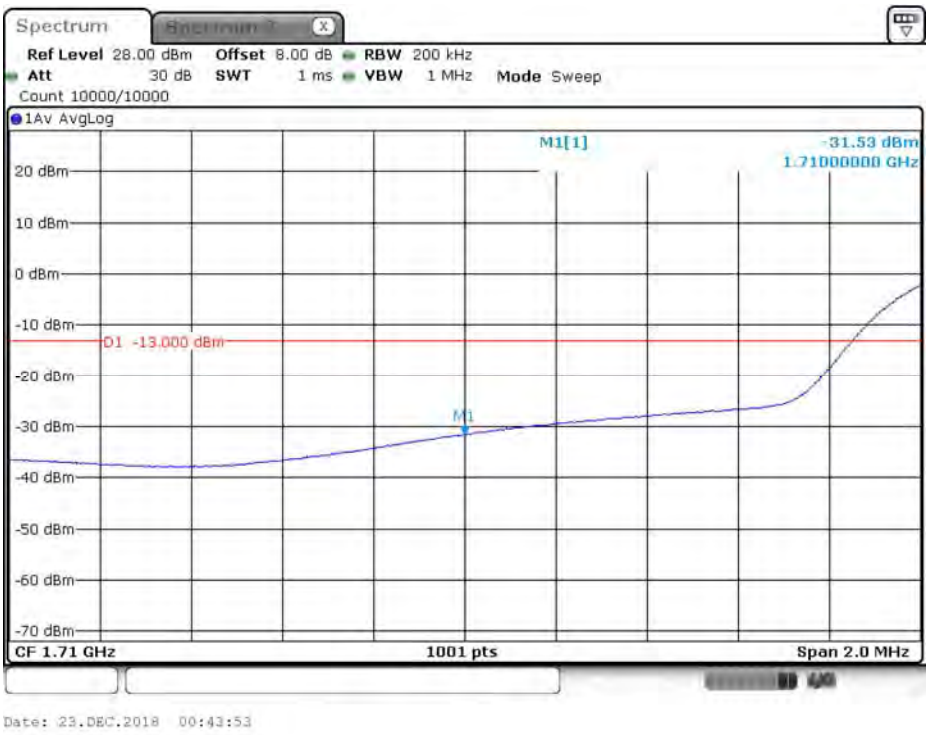
Product	Module		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/12/23	Test Site	SR10-H

B4_CH20050_20M_QPSK_1RB0

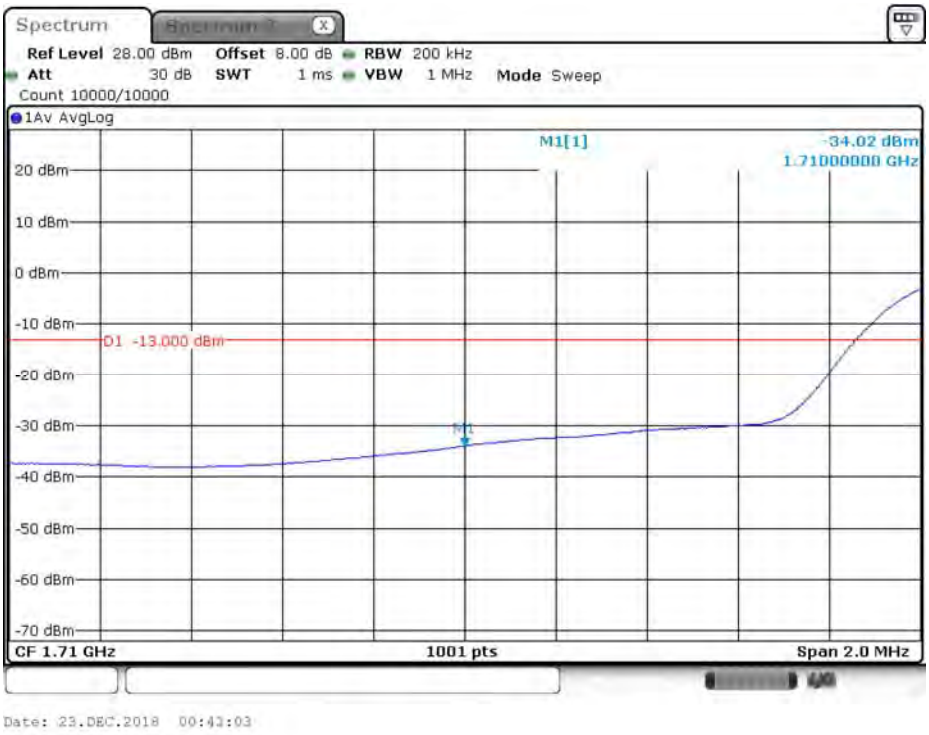


B4_CH20050_20M_16-QAM_1RB0

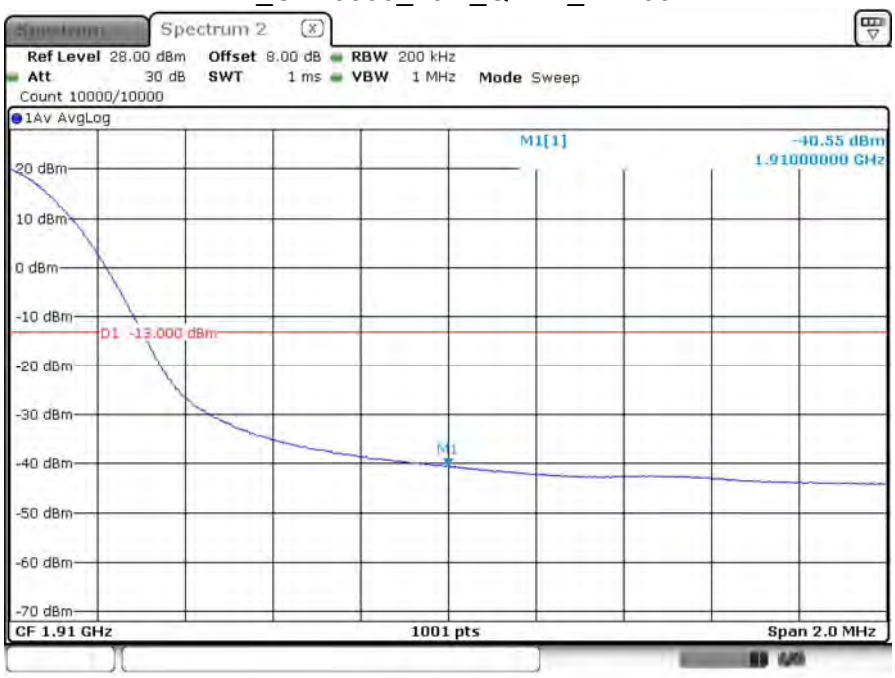
B4_CH20050_20M_QPSK_100RB0



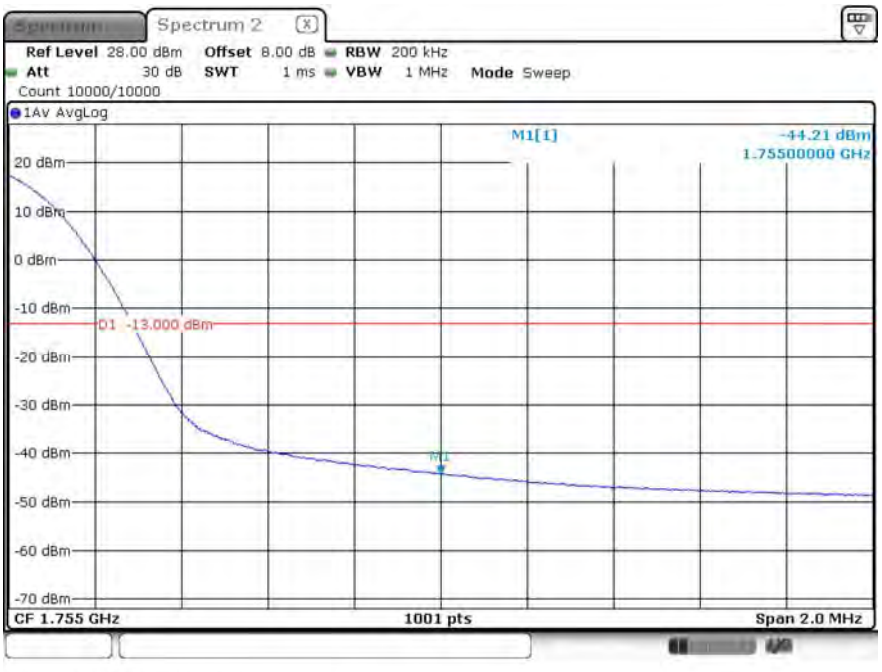
B4_CH20050_20M_16-QAM_100RB0



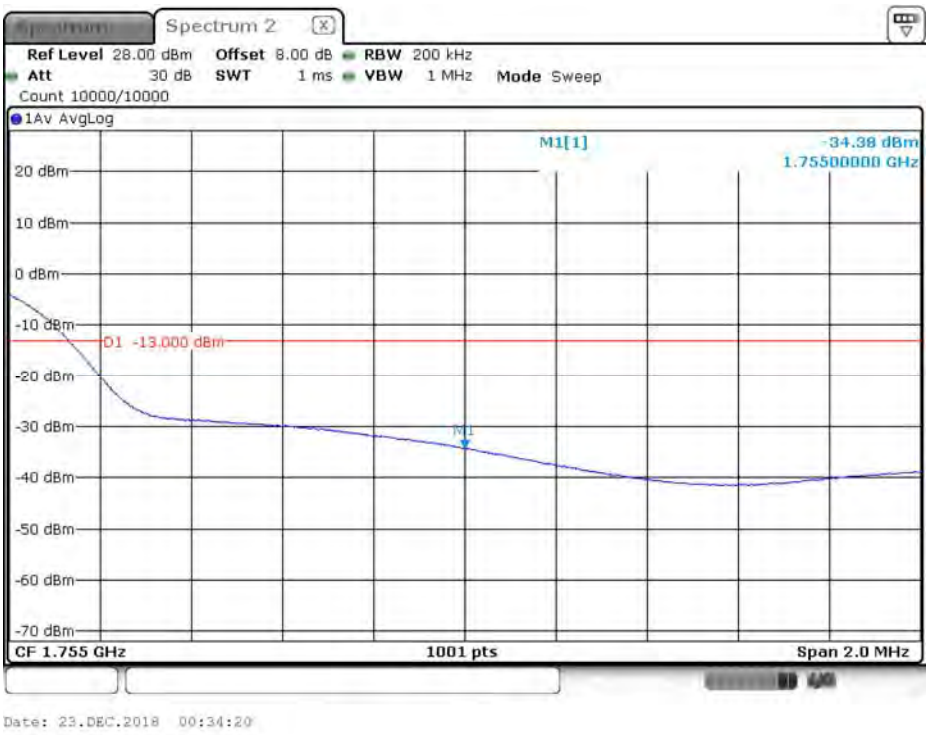
B4_CH20300_20M_QPSK_1RB99



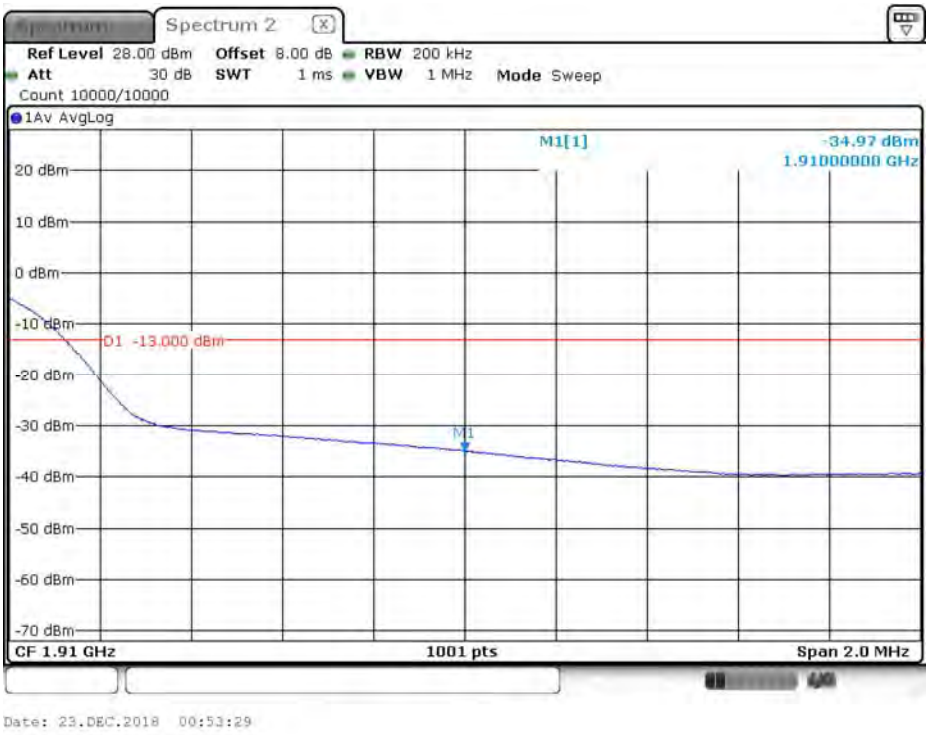
B4_CH20300_20M_16-QAM_1RB99



B4_CH20300_20M_QPSK_100RB0



B4_CH20300_20M_16-QAM_100RB0



Product	Module		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/12/23	Test Site	SR10-H

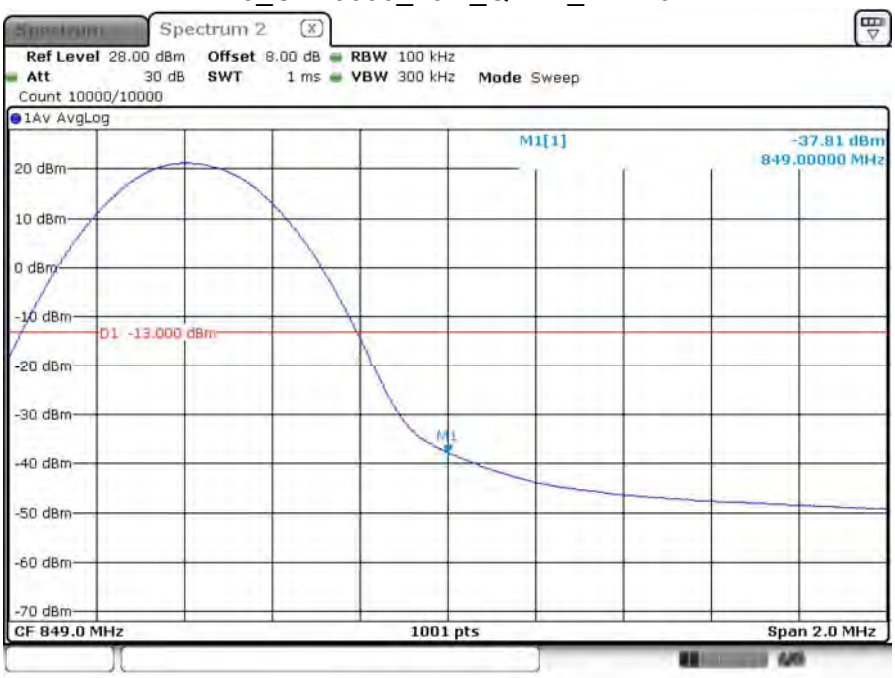
B5_CH20450_10M_QPSK_1RB0

B5_CH20450_10M_16-QAM_1RB0

B5_CH20450_10M_QPSK_50RB0

B5_CH20450_10M_16-QAM_50RB0

B5_CH20600_10M_QPSK_1RB49



B5_CH20600_10M_16-QAM_1RB49

B5_CH20600_10M_QPSK_50RB0

B5_CH20600_10M_16-QAM_50RB0

Product	Module		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 4: LTE Band 12		
Date of Test	2018/12/23	Test Site	SR10-H

B12_CH23060_10M_QPSK_1RB0

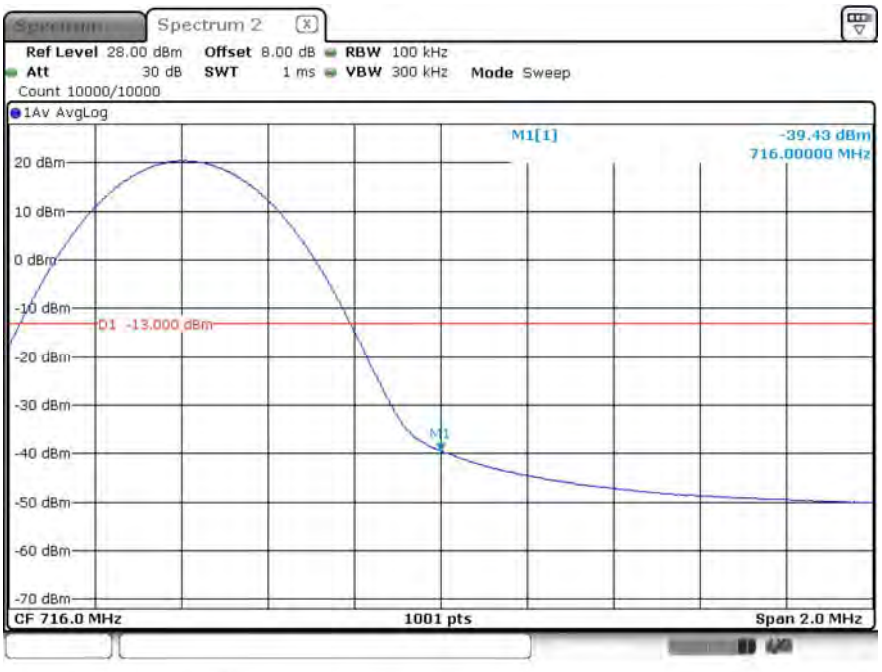
B12_CH23060_10M_16-QAM_1RB0

B12_CH23060_10M_QPSK_50RB0

B12_CH23060_10M_16-QAM_50RB0

B12_CH23130_10M_QPSK_1RB49

B12_CH23130_10M_16-QAM_1RB49



B12_CH23130_10M_QPSK_50RB0

B12_CH23130_10M_16-QAM_50RB0

Product	Module		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 5: LTE Band 13		
Date of Test	2018/12/23	Test Site	SR10-H

B13_CH23230_10M_QPSK_1RB0

B13_CH23230_10M_16-QAM_1RB0

B13_CH23230_10M_QPSK_1RB49

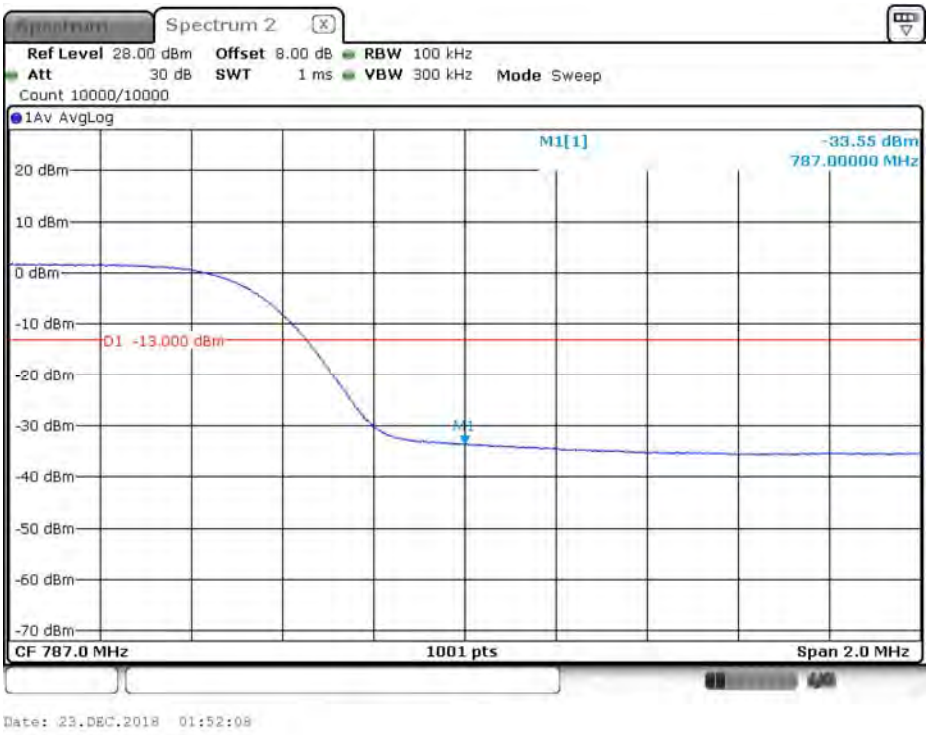
B13_CH23230_10M_16-QAM_1RB49

B13_CH23230_10M_QPSK_50RB0_Left

B13_CH23230_10M_16-QAM_50RB0_Left

B13_CH23230_10M_QPSK_50RB0_Right

B13_CH23230_10M_16-QAM_50RB0_Right



Product	Module		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 6: LTE Band 14		
Date of Test	2018/12/23	Test Site	SR10-H

B14_CH23330_10M_QPSK_1RB0

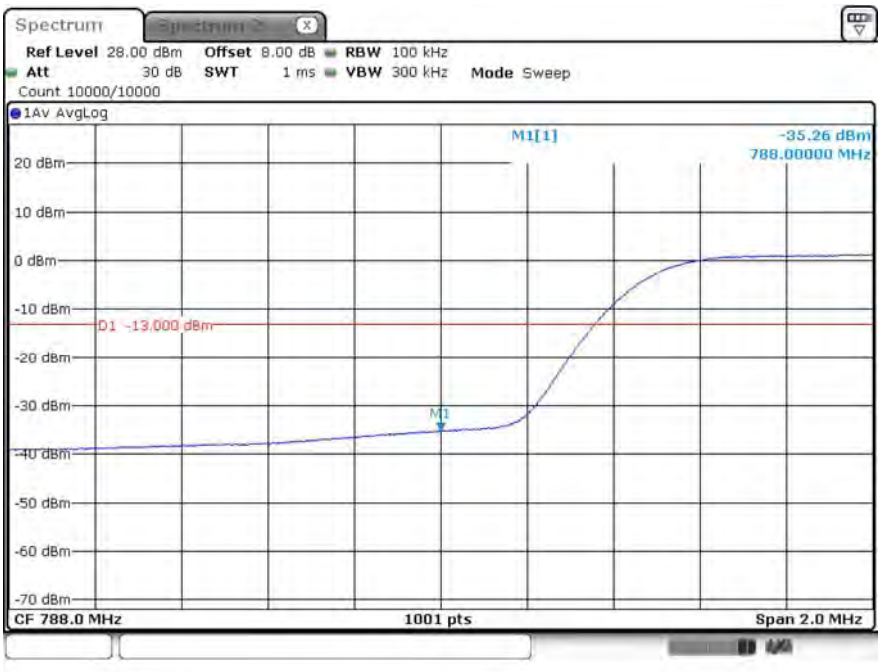
B14_CH23330_10M_16-QAM_1RB0

B14_CH23330_10M_QPSK_1RB49

B14_CH23330_10M_16-QAM_1RB49

B14_CH23330_10M_QPSK_50RB0_Left

B14_CH23330_10M_16-QAM_50RB0_Left



B14_CH23330_10M_QPSK_50RB0_Right

B14_CH23330_10M_16-QAM_50RB0_Right

Product	Module		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 7: LTE Band 17		
Date of Test	2018/12/23	Test Site	SR10-H

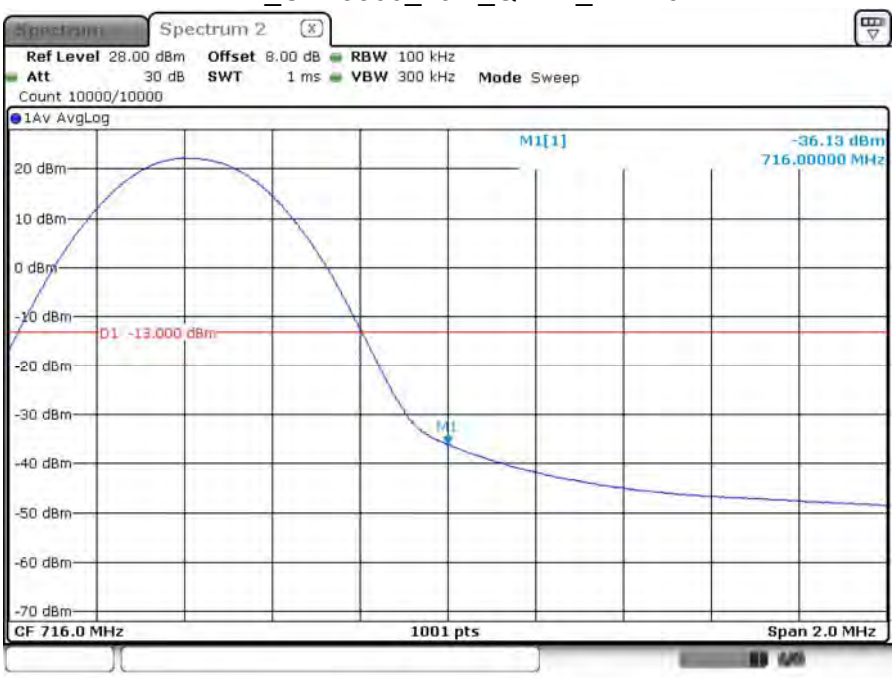
B17_CH23780_10M_QPSK_1RB0

B17_CH23780_10M_16-QAM_1RB0

B17_CH23780_10M_QPSK_50RB0

B17_CH23780_10M_16-QAM_50RB0

B17_CH23800_10M_QPSK_1RB49



B17_CH23800_10M_16-QAM_1RB49

B17_CH23800_10M_QPSK_50RB0

B17_CH23800_10M_16-QAM_50RB0

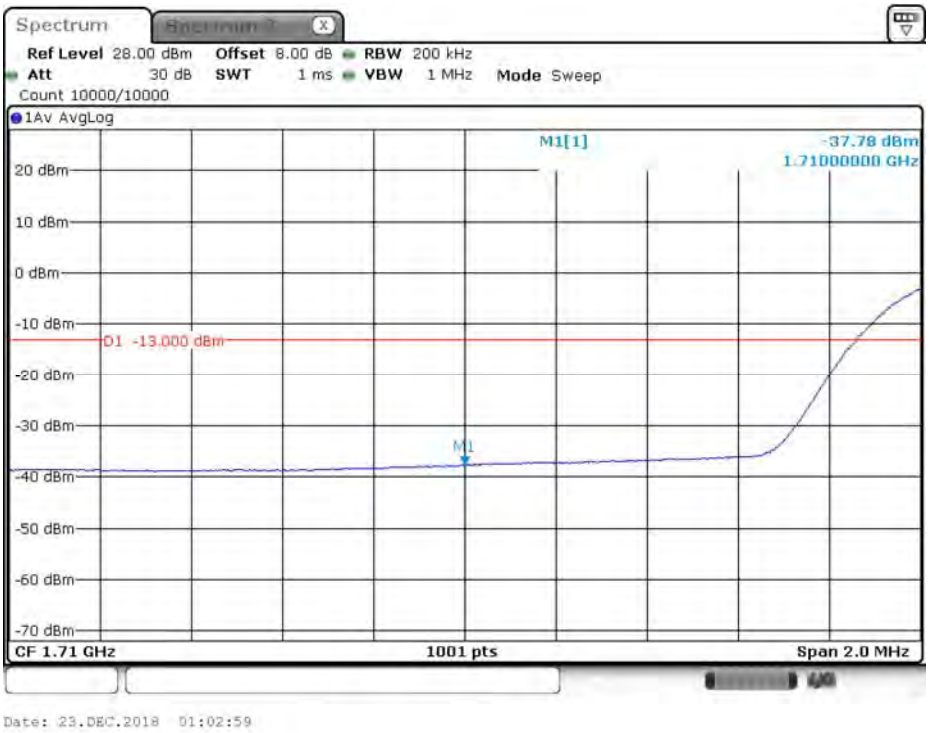
Product	Module		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 8: LTE Band 66		
Date of Test	2018/12/23	Test Site	SR10-H

B66_CH132072_20M_QPSK_1RB0

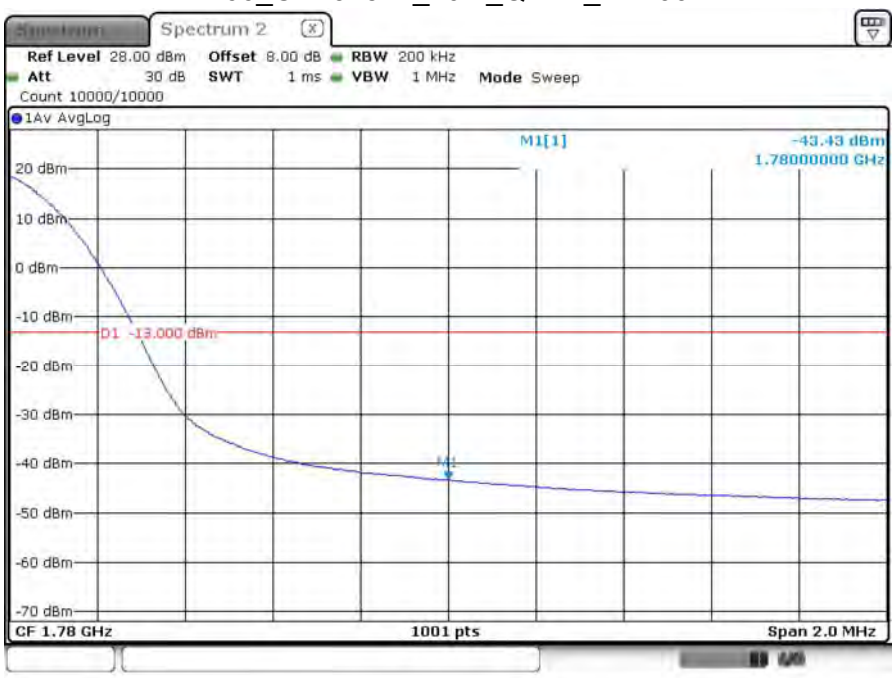
B66_CH132072_20M_16-QAM_1RB0

B66_CH132072_20M_QPSK_100RB0

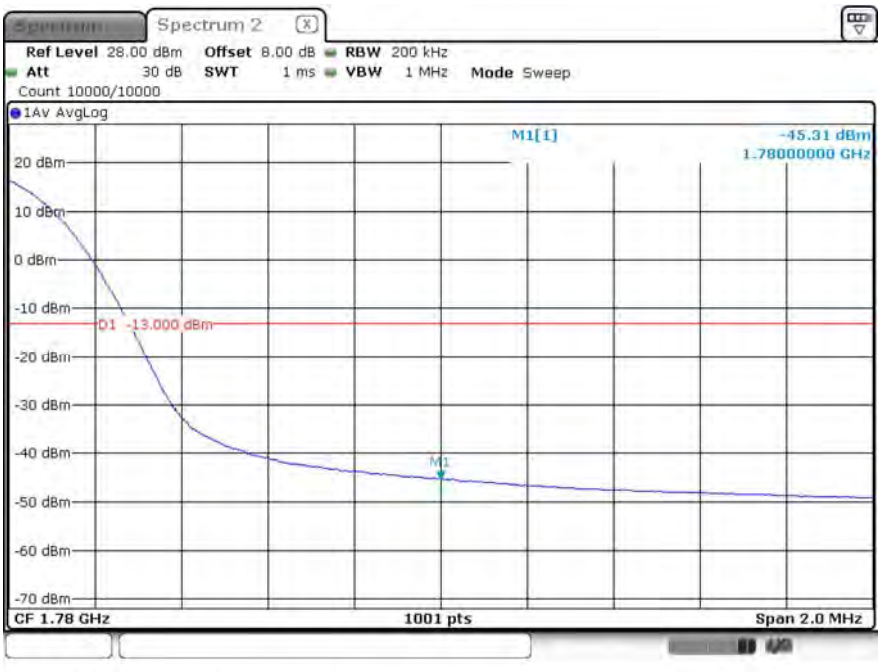
B66_CH132072_20M_16-QAM_100RB0



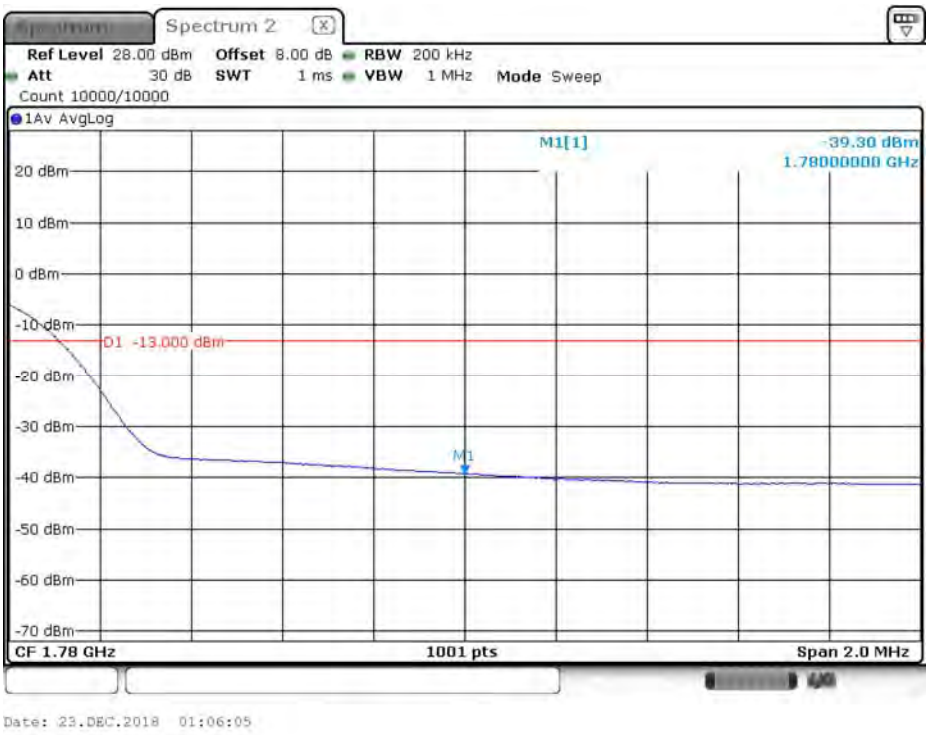
B66_CH132572_20M_QPSK_1RB99



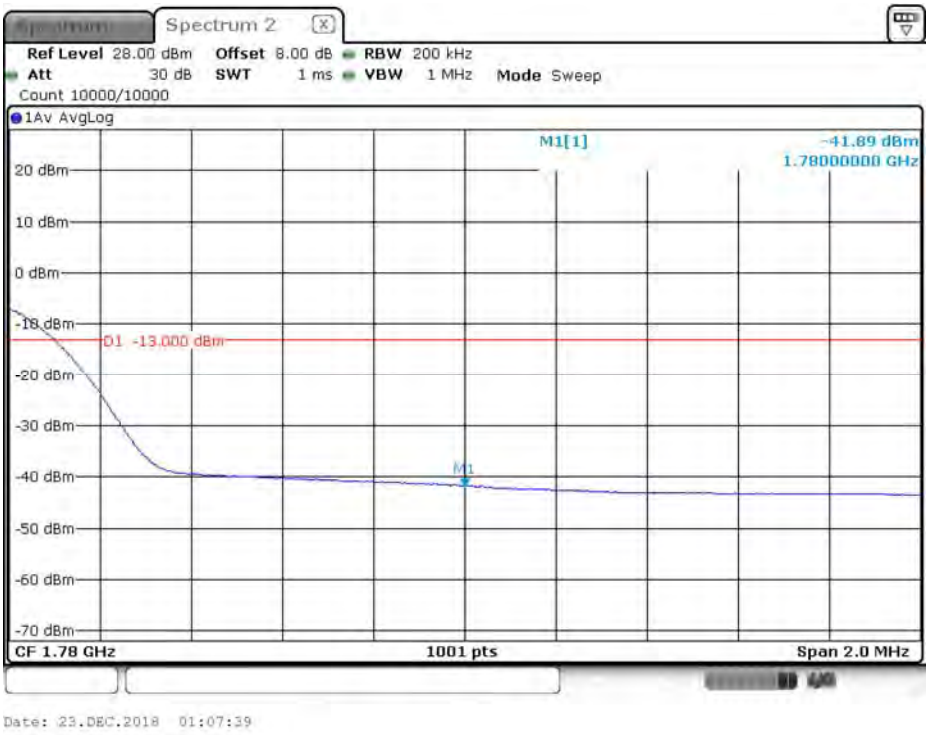
B66_CH132572_20M_16-QAM_1RB99



B66_CH132572_20M_QPSK_100RB0

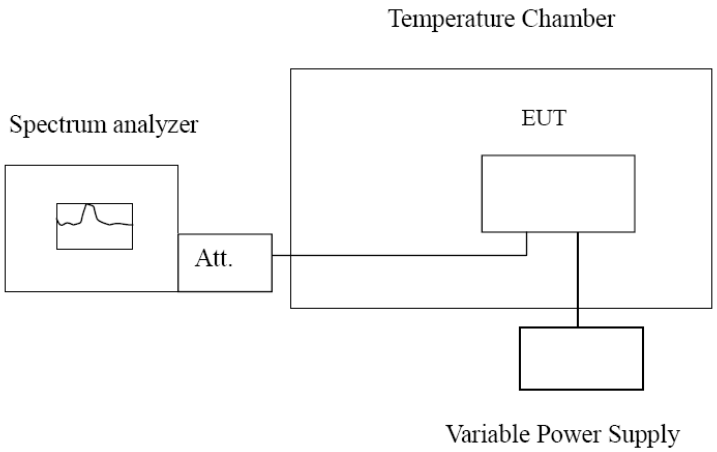


B66_CH132572_20M_16-QAM_100RB0



8. Frequency Stability

8.1. Test Setup



8.2. Test Procedure

Frequency Stability Under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20℃. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.
Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

8.3. Test Method

KDB 971168 D01 Power Meas License Digital Systems v03 sub-clause 9
ANSI C63.26: 2015 Sub-clause 5.6

8.4. Test Result

Product	Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/12/13	Test Site	SR10-H

1860MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	3.38	-0.0018
3.7	2.87	-0.0015
3.2	3.09	-0.0017

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	3.27	-0.0018
-20	2.99	-0.0016
-10	3.19	-0.0017
0	3.30	-0.0018
10	2.48	-0.0013
20	3.35	-0.0018
30	2.35	-0.0013
40	3.10	-0.0017
50	2.69	-0.0014

1880MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	1.06	-0.0006
3.7	1.26	-0.0007
3.2	1.49	-0.0008

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	1.83	-0.0010
-20	0.47	-0.0003
-10	1.51	-0.0008
0	0.72	-0.0004
10	1.80	-0.0010
20	1.31	-0.0007
30	1.30	-0.0007
40	0.79	-0.0004
50	1.40	-0.0007

1900MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	2.54	-0.0013
3.7	2.54	-0.0013
3.2	2.77	-0.0015

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	2.16	-0.0011
-20	2.19	-0.0012
-10	2.36	-0.0012
0	2.42	-0.0013
10	3.37	-0.0018
20	2.70	-0.0014
30	3.18	-0.0017
40	2.03	-0.0011
50	3.18	-0.0017

Product	Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/12/13	Test Site	SR10-H

1720MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	1.90	-0.0011
3.7	1.33	-0.0008
3.2	1.54	-0.0009

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	0.71	-0.0004
-20	1.12	-0.0007
-10	0.63	-0.0004
0	1.40	-0.0008
10	2.20	-0.0013
20	1.23	-0.0007
30	1.75	-0.0010
40	1.37	-0.0008
50	1.62	-0.0009

1732.5MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	2.93	-0.0017
3.7	2.96	-0.0017
3.2	2.47	-0.0014

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	2.63	-0.0015
-20	3.62	-0.0021
-10	3.03	-0.0017
0	2.84	-0.0016
10	3.50	-0.0020
20	2.73	-0.0016
30	3.59	-0.0021
40	2.57	-0.0015
50	3.24	-0.0019

1745MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	0.99	-0.0006
3.7	1.25	-0.0007
3.2	0.95	-0.0005

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	1.40	-0.0008
-20	0.79	-0.0005
-10	2.12	-0.0012
0	1.11	-0.0006
10	0.73	-0.0004
20	0.94	-0.0005
30	1.25	-0.0007
40	0.92	-0.0005
50	1.84	-0.0011

Product	Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/12/13	Test Site	SR10-H

829MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	2.22	-0.0027
3.7	3.02	-0.0036
3.2	2.35	-0.0028

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	2.35	-0.0028
-20	2.55	-0.0031
-10	2.87	-0.0035
0	3.13	-0.0038
10	2.86	-0.0034
20	2.82	-0.0034
30	3.70	-0.0045
40	2.60	-0.0031
50	3.22	-0.0039

836.5MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	3.12	-0.0037
3.7	1.59	-0.0019
3.2	3.50	-0.0042

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	3.22	-0.0038
-20	2.73	-0.0033
-10	2.49	-0.0030
0	3.00	-0.0036
10	2.78	-0.0033
20	2.69	-0.0032
30	3.70	-0.0044
40	2.67	-0.0032
50	3.22	-0.0038

844MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	3.51	-0.0042
3.7	2.57	-0.0030
3.2	3.66	-0.0043

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	3.08	-0.0036
-20	3.85	-0.0046
-10	3.10	-0.0037
0	2.65	-0.0031
10	3.50	-0.0041
20	2.74	-0.0032
30	2.38	-0.0028
40	3.05	-0.0036
50	3.14	-0.0037

Product	Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 4: LTE Band 12		
Date of Test	2018/12/13	Test Site	SR10-H

704MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	1.80	-0.0026
3.7	1.54	-0.0022
3.2	1.21	-0.0017

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	1.55	-0.0022
-20	1.18	-0.0017
-10	1.19	-0.0017
0	0.89	-0.0013
10	1.87	-0.0027
20	1.56	-0.0022
30	1.79	-0.0025
40	1.63	-0.0023
50	1.17	-0.0017

707.5MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	1.12	-0.0016
3.7	2.03	-0.0029
3.2	1.07	-0.0015

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	1.10	-0.0016
-20	2.11	-0.0030
-10	1.47	-0.0021
0	1.33	-0.0019
10	0.88	-0.0012
20	1.71	-0.0024
30	2.09	-0.0030
40	2.00	-0.0028
50	1.16	-0.0016

711MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	2.07	-0.0029
3.7	2.57	-0.0036
3.2	2.15	-0.0030

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	1.53	-0.0022
-20	2.45	-0.0034
-10	1.31	-0.0018
0	1.68	-0.0024
10	1.94	-0.0027
20	1.90	-0.0027
30	2.19	-0.0031
40	1.30	-0.0018
50	1.40	-0.0020

Product	Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 5: LTE Band 13		
Date of Test	2018/12/13	Test Site	SR10-H

782MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	2.41	-0.0031
3.7	2.96	-0.0038
3.2	3.06	-0.0039

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	3.02	-0.0039
-20	1.18	-0.0015
-10	3.33	-0.0043
0	2.39	-0.0031
10	1.61	-0.0021
20	2.84	-0.0036
30	2.85	-0.0036
40	1.94	-0.0025
50	2.02	-0.0026

Product	Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 6: LTE Band 14		
Date of Test	2018/12/13	Test Site	SR10-H

793MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	0.93	-0.0012
3.7	1.28	-0.0016
3.2	0.08	-0.0001

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	0.34	-0.0004
-20	1.41	-0.0018
-10	0.70	-0.0009
0	0.04	-0.0001
10	0.33	-0.0004
20	0.27	-0.0003
30	0.51	-0.0006
40	0.07	-0.0001
50	0.55	-0.0007

Product	Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 7: LTE Band 17		
Date of Test	2018/12/13	Test Site	SR10-H

709MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	1.07	-0.0015
3.7	1.54	-0.0022
3.2	1.47	-0.0021

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	1.03	-0.0015
-20	0.71	-0.0010
-10	0.17	-0.0002
0	1.82	-0.0026
10	0.35	-0.0005
20	0.37	-0.0005
30	1.17	-0.0017
40	1.15	-0.0016
50	1.50	-0.0021

710MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	1.55	-0.0022
3.7	1.75	-0.0025
3.2	1.51	-0.0021

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	1.19	-0.0017
-20	1.35	-0.0019
-10	0.89	-0.0013
0	1.85	-0.0026
10	1.51	-0.0021
20	0.98	-0.0014
30	1.22	-0.0017
40	2.14	-0.0030
50	1.27	-0.0018

711MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	2.42	-0.0034
3.7	2.96	-0.0042
3.2	1.38	-0.0019

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	2.80	-0.0039
-20	2.03	-0.0029
-10	1.96	-0.0028
0	2.26	-0.0032
10	2.91	-0.0041
20	2.72	-0.0038
30	2.87	-0.0040
40	2.33	-0.0033
50	1.59	-0.0022

Product	Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 8: LTE Band 66		
Date of Test	2018/12/13	Test Site	SR10-H

1720MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	2.12	-0.0012
3.7	2.03	-0.0012
3.2	1.49	-0.0009

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	2.34	-0.0014
-20	2.00	-0.0012
-10	1.96	-0.0011
0	1.96	-0.0011
10	1.18	-0.0007
20	1.27	-0.0007
30	0.97	-0.0006
40	2.06	-0.0012
50	1.62	-0.0009

1745MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	1.19	-0.0007
3.7	1.59	-0.0009
3.2	1.50	-0.0009

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	1.24	-0.0007
-20	1.59	-0.0009
-10	1.42	-0.0008
0	1.23	-0.0007
10	1.56	-0.0009
20	0.93	-0.0005
30	1.75	-0.0010
40	1.72	-0.0010
50	0.85	-0.0005

1770MHz

Voltage

Voltage (VDC)	Frequency Error(Hz)	Frequency Error(ppm)
4.3	1.65	-0.0009
3.7	1.60	-0.0009
3.2	2.13	-0.0012

Temperature

TEMPERATURE	Frequency Error(Hz)	Frequency Error (ppm)
-30	2.04	-0.0012
-20	0.63	-0.0004
-10	1.54	-0.0009
0	2.40	-0.0014
10	1.21	-0.0007
20	2.52	-0.0014
30	1.54	-0.0009
40	0.51	-0.0003
50	1.83	-0.0010