

8 SPURIOUS RADIATED EMISSIONS

Applicable Standard: FCC CFR 47 §2.1053

Test Equipment List and Details

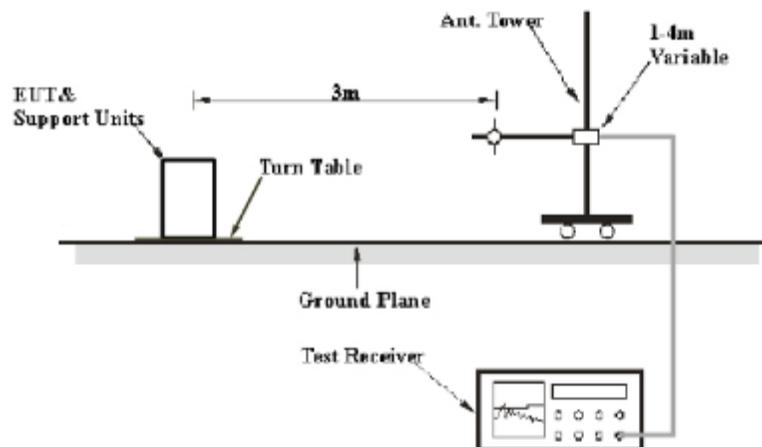
Manufacturer	Equipment	Model	Last Cal.	Cal. Interval
R&S	EMI Test receiver	ES126	2014-10-13	1 year
R&S	Log periodic Antenna	SAS-521-4	2014-7-14	1 year
R&S	Horn Antenna	HF906	2014-7-14	1 year

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiated emissions measurement at the EMC lab. is 3.6dB.

EUT Setup



The radiated emission tests were performed in the 3-meter Chamber, using the setup accordance with the FCC part 2.1053. The specification used was the FCC 2.1053 limits.

Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to teeth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB = 10 lg (TX pwr in Watts/0.001)-the absolute level

Spurious attenuation limit in dB = 43 + 10 Lg P (power out in Watts)

The resolution bandwidth of the spectrum analyzer was set at 1 percent as specified for 30MHz to 1GHz scanning, set at 1MHz for 1GHz to 20GHz scanning.

Test Results Summary: PASS

Environmental Conditions

Temperature:	26°C
Relative Humidity:	60 %
ATM Pressure:	1009 mbar

Test data

Indicated		Test Antenna	Substituted		Cable Loss(dB)	Effective radiated power (dBm)	Dipole Antenna	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
Frequency (MHz)	Amp. (dB μV)	Polar H/V	Level (dBm)	Antenna Gain Correction						
31.943888	33.23	V	-59	-43.49	0.3	-104.94	2.15	-107.09	-13	94.09
136.913828	35.95	V	-61.63	-8.42	1	-73.2	2.15	-75.35	-13	62.35
146.633267	36.08	V	-60.61	-6.46	1	-70.22	2.15	-72.37	-13	59.37
636.492986	41.57	V	-54.53	-1.09	2.1	-59.87	2.15	-62.02	-13	49.02
972.785571	47.34	V	-61.49	-2.82	2.6	-69.06	2.15	-71.21	-13	58.21
2631.26253	85.88	V	-24.2	7.95	4.4	-22.8	2.15	-24.95	-13	11.95
33.887776	33.48	H	-52.68	-42.03	0.3	-97.16	2.15	-99.31	-13	86.31
117.47495	35.1	H	-61.99	-12.48	0.8	-77.42	2.15	-79.57	-13	66.57
146.633267	36.76	H	-60.01	-6.46	1	-69.62	2.15	-71.77	-13	58.77
568.456914	41.72	H	-55.9	-1.46	2	-61.51	2.15	-63.66	-13	50.66
986.392786	47.22	H	-51.73	-4.1	2.7	-60.68	2.15	-62.83	-13	49.83
2635.27054	86.04	H	-20.56	7.95	4.3	-19.06	2.15	-21.21	-13	8.21

Radiation emission spurious below 3GHz

Indicated		Test Antenna	Substituted		Cable Loss(dB)	Effective radiated power (dBm)	Dipole Antenna	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
Frequency (MHz)	Amp. (dB μV)	Polar H/V	Level (dBm)	Antenna Gain Correction						
5324.6493	41.92	V	-50.31	8.55	6.2	-50.11	2.15	-52.26	-13	39.26
6919.83968	44.71	V	-52.87	9.25	7.3	-53.07	2.15	-55.22	-13	42.22
9849.6994	47.09	V	-49.6	9.95	8.9	-50.7	2.15	-52.85	-13	39.85
12326.6533	47.8	V	-48.3	12.05	9.9	-48.3	2.15	-50.45	-13	37.45
13270.5411	47.9	V	-60.93	11.85	10.2	-61.43	2.15	-63.58	-13	50.58
17939.8798	60.47	V	-49.61	8.95	12.2	-55.01	2.15	-57.16	-13	44.16
3641.28257	39.42	H	-46.74	7.75	5	-46.14	2.15	-48.29	-13	35.29
5356.71343	41.58	H	-55.51	8.55	6.3	-55.41	2.15	-57.56	-13	44.56
6927.85571	43.61	H	-53.16	9.25	7.3	-53.36	2.15	-55.51	-13	42.51
9849.6994	46.54	H	-51.08	9.95	8.9	-52.18	2.15	-54.33	-13	41.33
12434.8697	48.28	H	-50.67	12.05	9.9	-50.67	2.15	-52.82	-13	39.82
17949.8998	59.91	H	-46.69	8.95	12.2	-52.09	2.15	-54.24	-13	41.24

Radiation emission spurious above 3GHz

9 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standard: FCC§2.1051, §27.53

For digital base stations, the attenuation shall be not less than $43+10\log(P)$ dB, unless a documented interference complaint is received from an adjacent channel licensee with an overlapping Geographic Service Area. Mobile Satellite Service licensees operating on frequencies below 2495MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS No.1 on the same terms and conditions as adjacent channel BRS or EBS licensees. Provided applicable deadline, then the following additional attenuation requirements shall apply.

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in §2.1051.

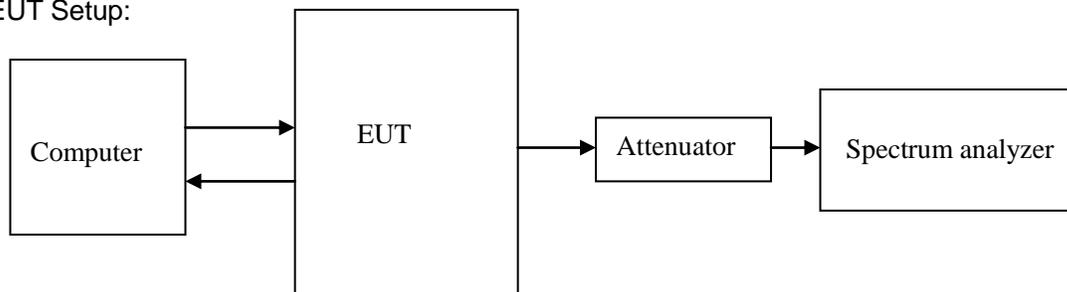
Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51240300	2013.12.10	2014.12.10
Agilent	MXA Series Spectrum Analyze	N9030A	MY53310566	2014.06.28	2015.06.28
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2014.06.13	2015.06.13

***statement of traceability:** ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

Test Procedure

EUT Setup:



The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

Sufficient scans were taken to show any out of band emissions up to 10th harmonic.

Test Data Environmental Conditions

Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

Test Result: Pass

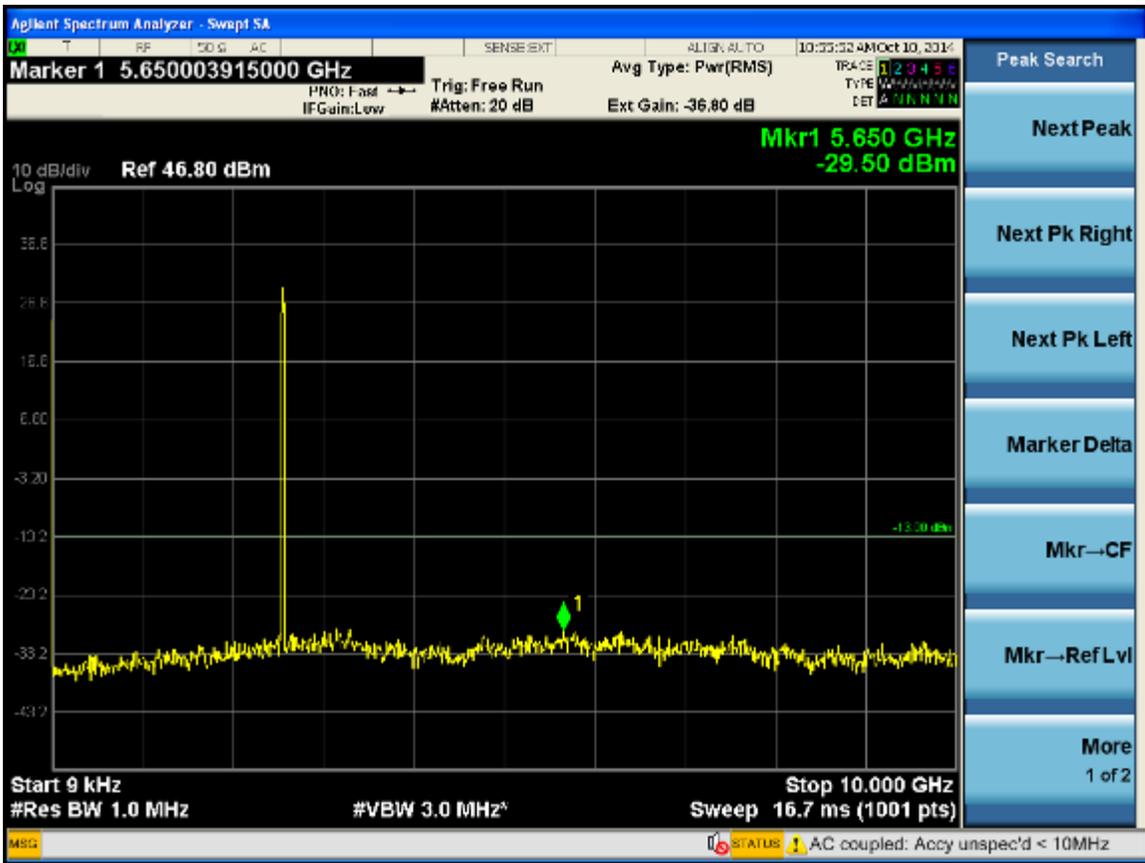
Test Mode: Transmitting LTE

Test Data:

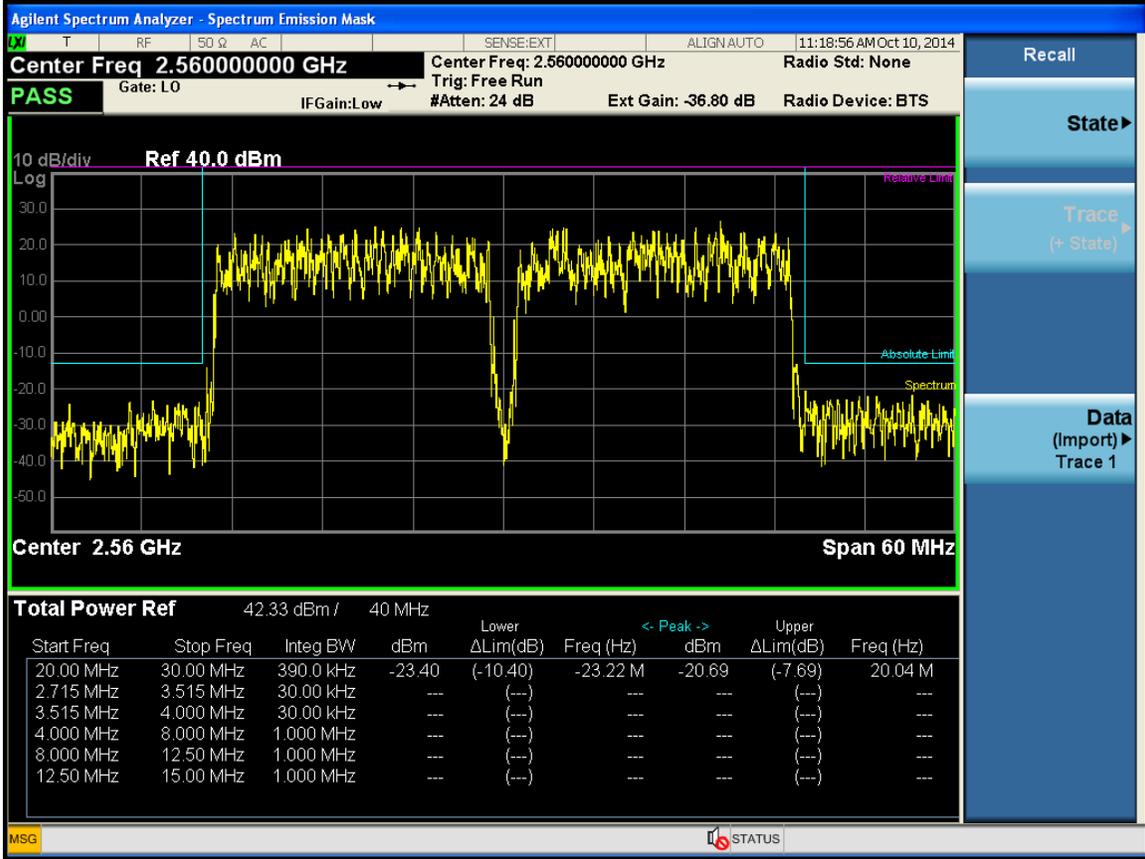
Channel Bandwidth: 20M+20M (1 port)

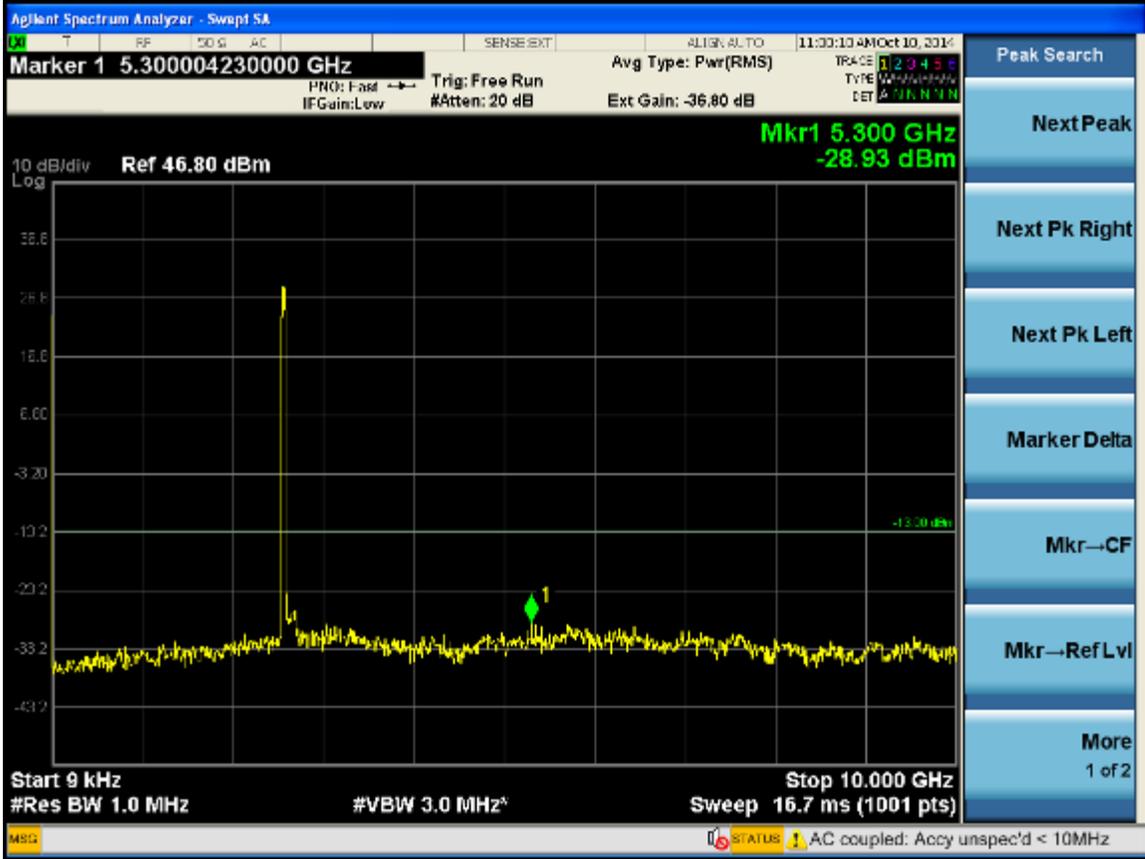
Port	Carrier Freq. (MHz)	Spurious Emissions								
		QPSK			16QAM			64QAM		
		9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge
1	2550+2570	-29.5	-39.82	-20.69	-28.93	-39.94	-21.39	-29.08	-39.65	-19.73
	2605+2625	-29.17	-39.97	-21.17	-29.26	-39.68	-20.72	-29.02	-40.28	-20.78
	2660+2680	-28.99	-39.65	-20.15	-29.66	-39.98	-20.11	-29.25	-39.43	-18.34
2	2550+2570	-28.41	-40.33	-21.46	-28.68	-40.12	-20.96	-29.47	-40.26	-20.92

Port	Carrier Freq. (MHz)	Spurious Emissions								
		QPSK			16QAM			64QAM		
		9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge	9k-10G	10G-26.5G	Band Edge
	2605+2625	-29.12	-40	-16.73	-29.45	-39.96	-20.76	-29.36	-40.11	-21.47
	2660+2680	-29.35	-39.44	-19.68	-29.02	-40.17	-19.94	-29.87	-40.16	-19.63
	2550+2570	-29.28	-40.16	-21.99	-29.01	-40.03	-20.83	-28.54	-39.93	-20.28
3	2605+2625	-29.13	-39.99	-22.32	-28.41	-39.55	-22.75	-29.68	-40.13	-21.65
	2660+2680	-29.23	-40.15	-19.27	-29.25	-39.83	-20.11	-29.37	-39.88	-18.89
	2550+2570	-29.19	-40.17	-21.03	-28.91	-40.29	-19.85	-28.71	-39.44	-19.25
4	2605+2625	-29.8	-40.19	-21.79	-29.45	-40.12	-22.99	-29.07	-40.2	-21.1
	2660+2680	-29.4	-39.98	-19.54	-29.05	-40.11	-20.57	-29.44	-40.29	-20.79
	2550+2570	-29.19	-40.17	-21.03	-28.91	-40.29	-19.85	-28.71	-39.44	-19.25

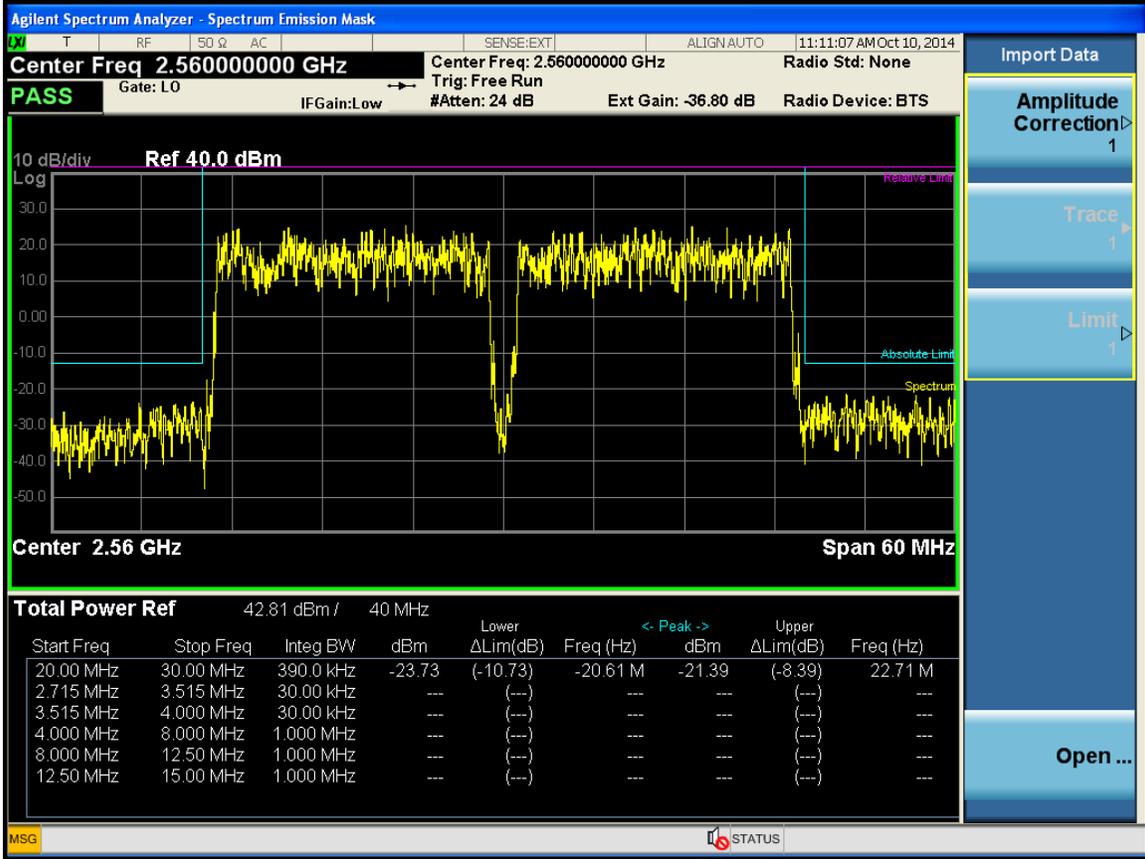


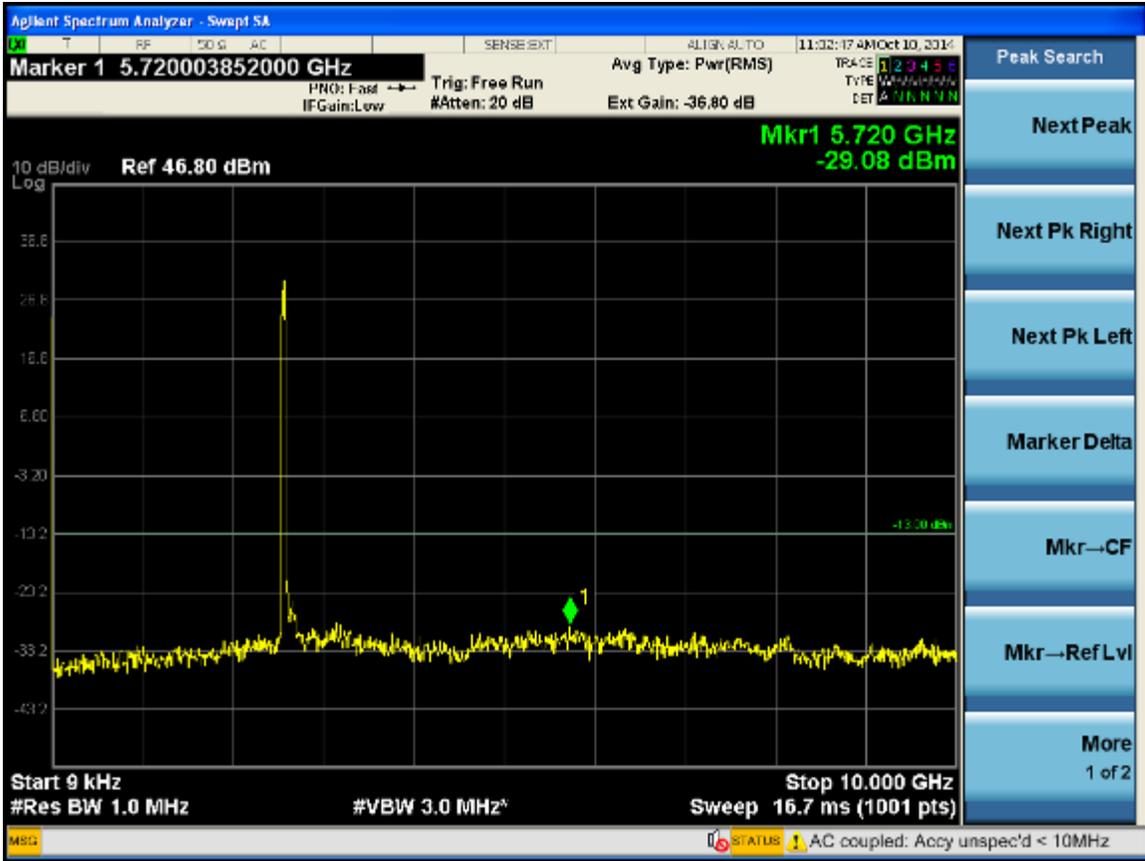




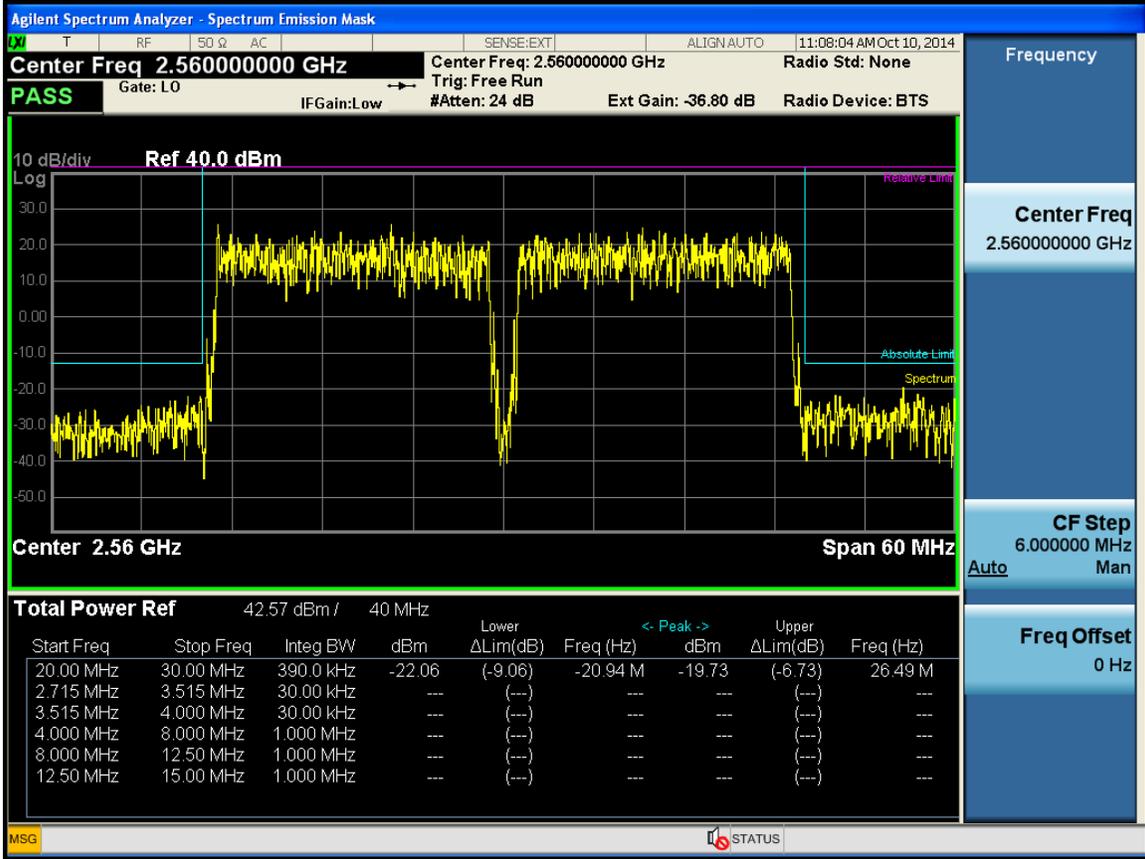


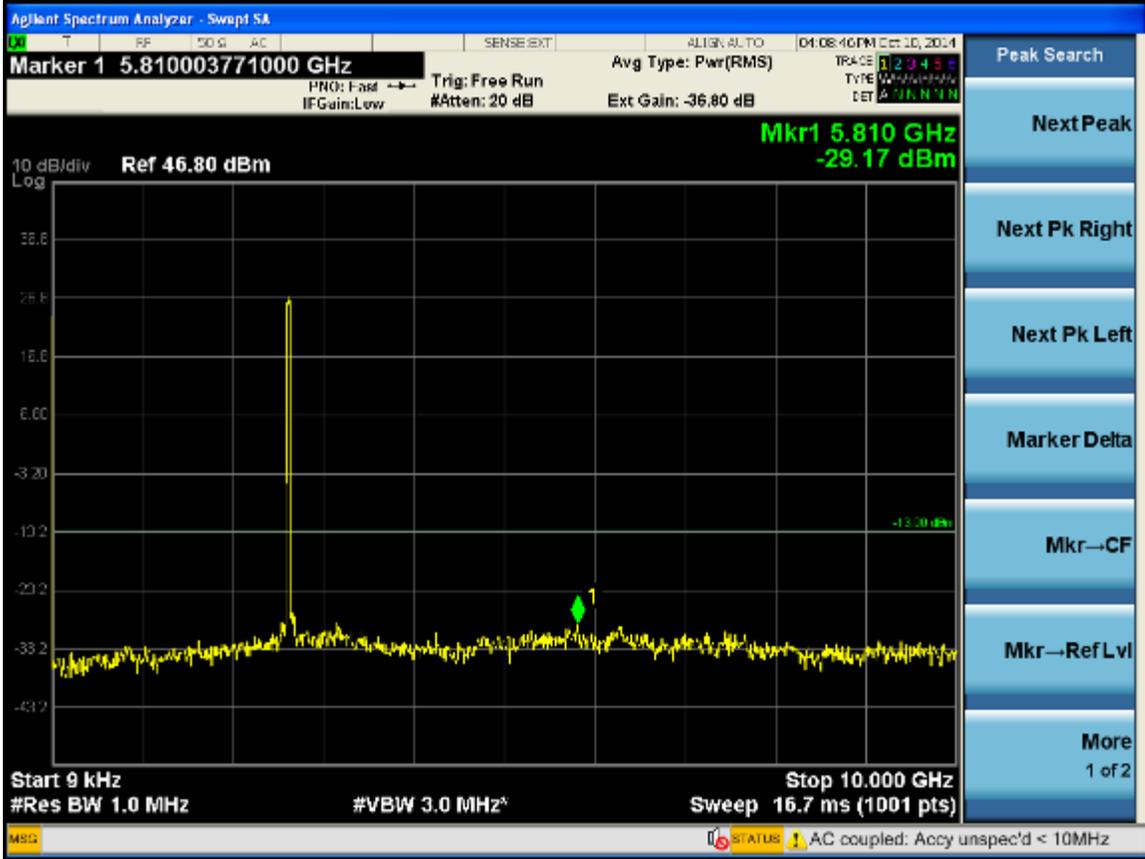




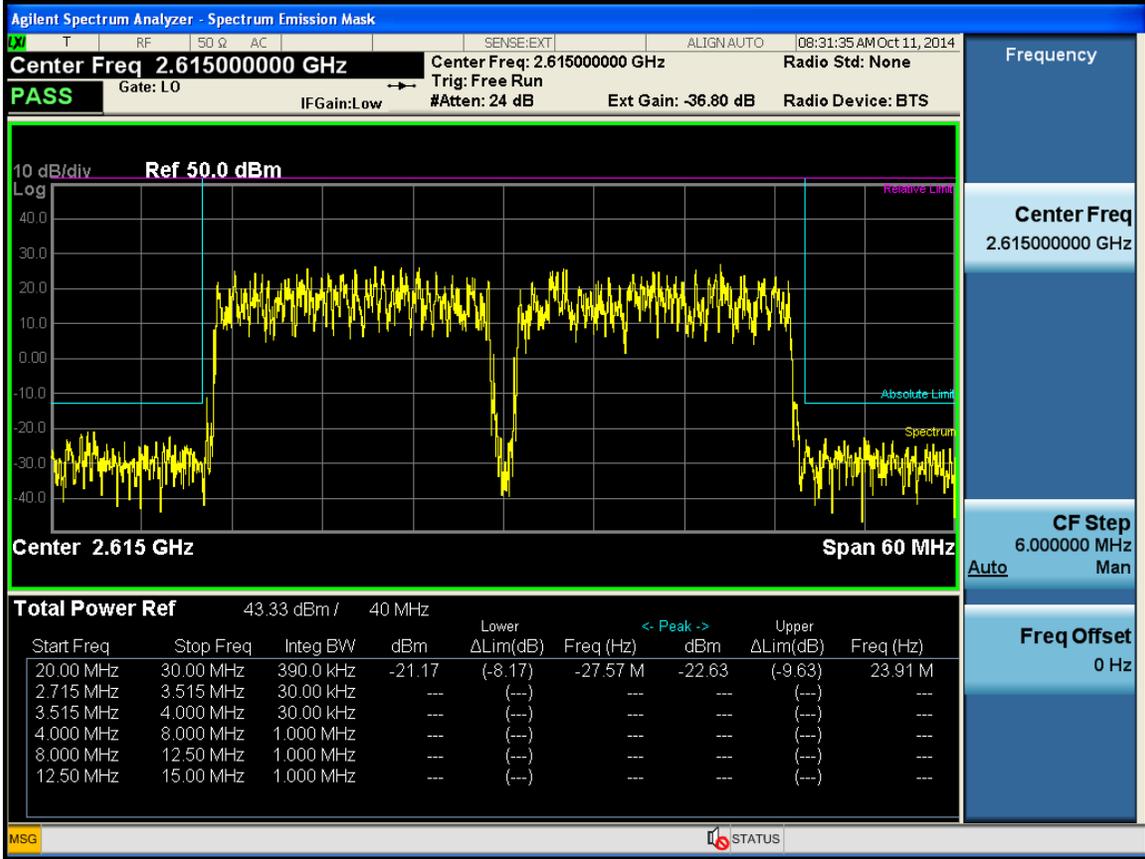


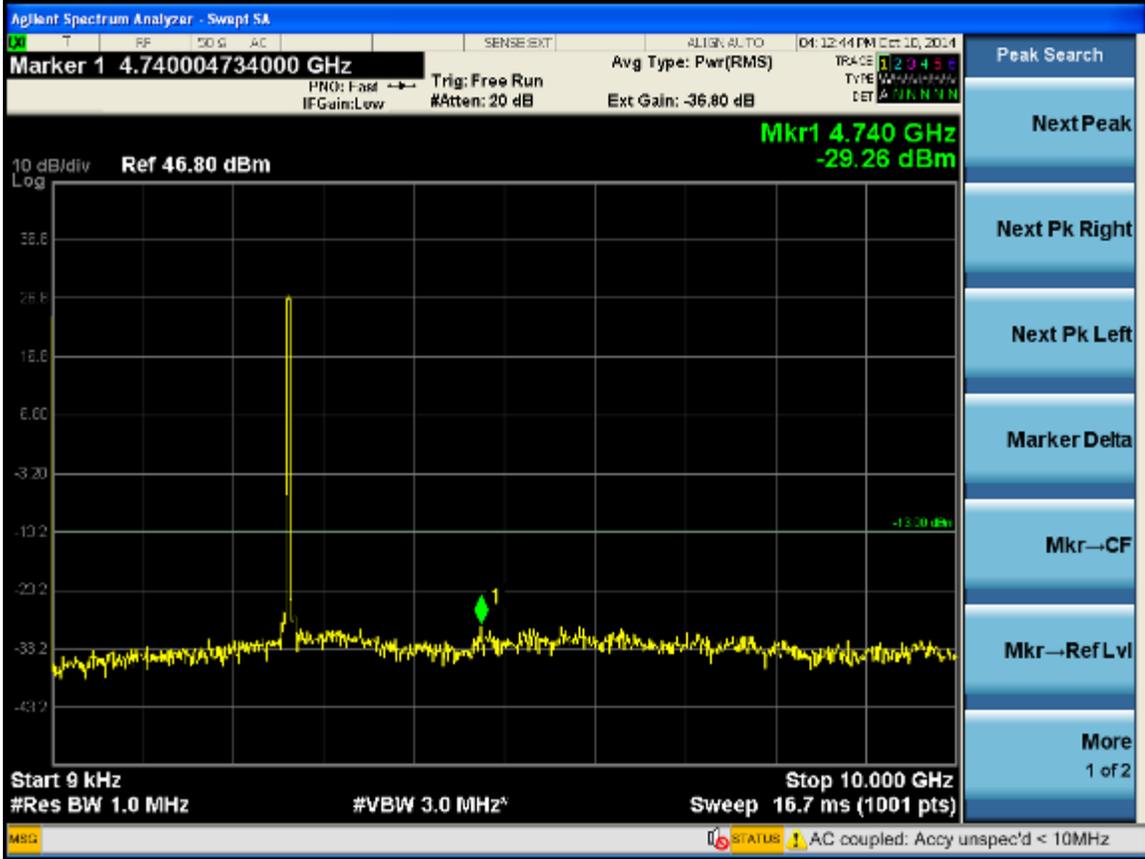




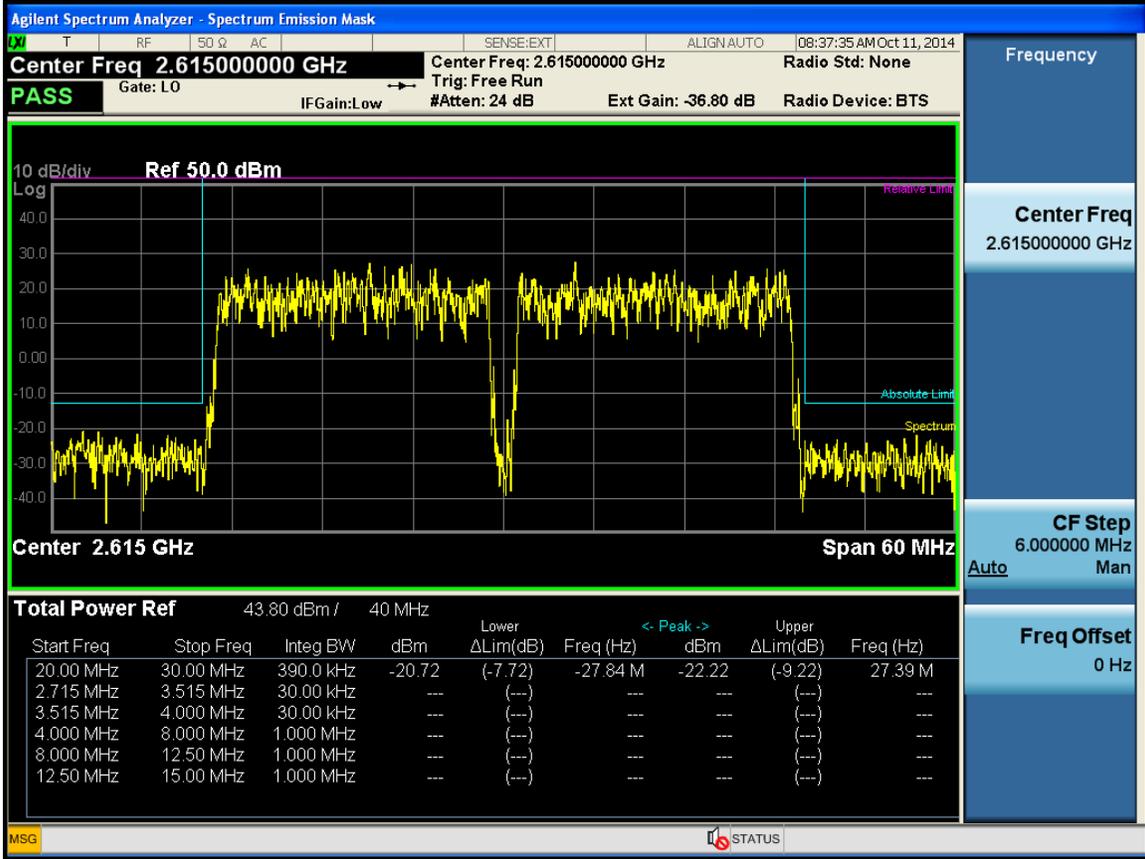


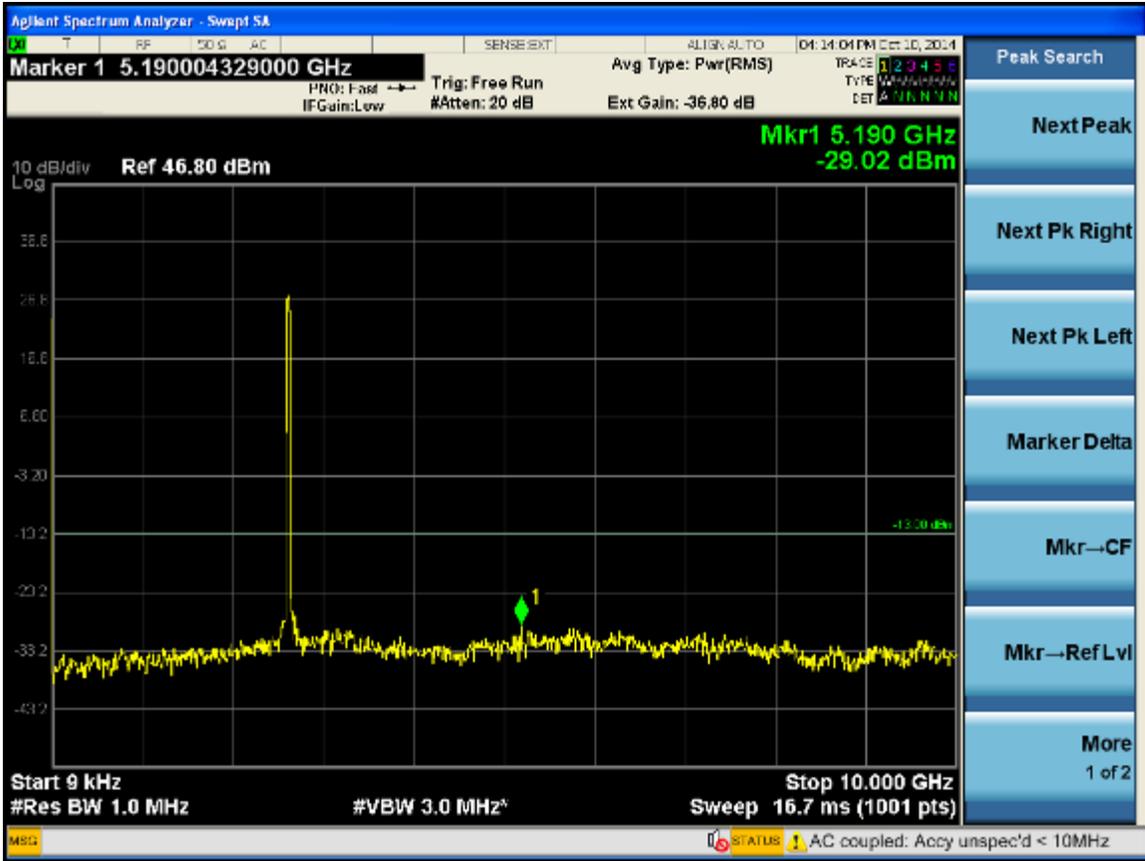




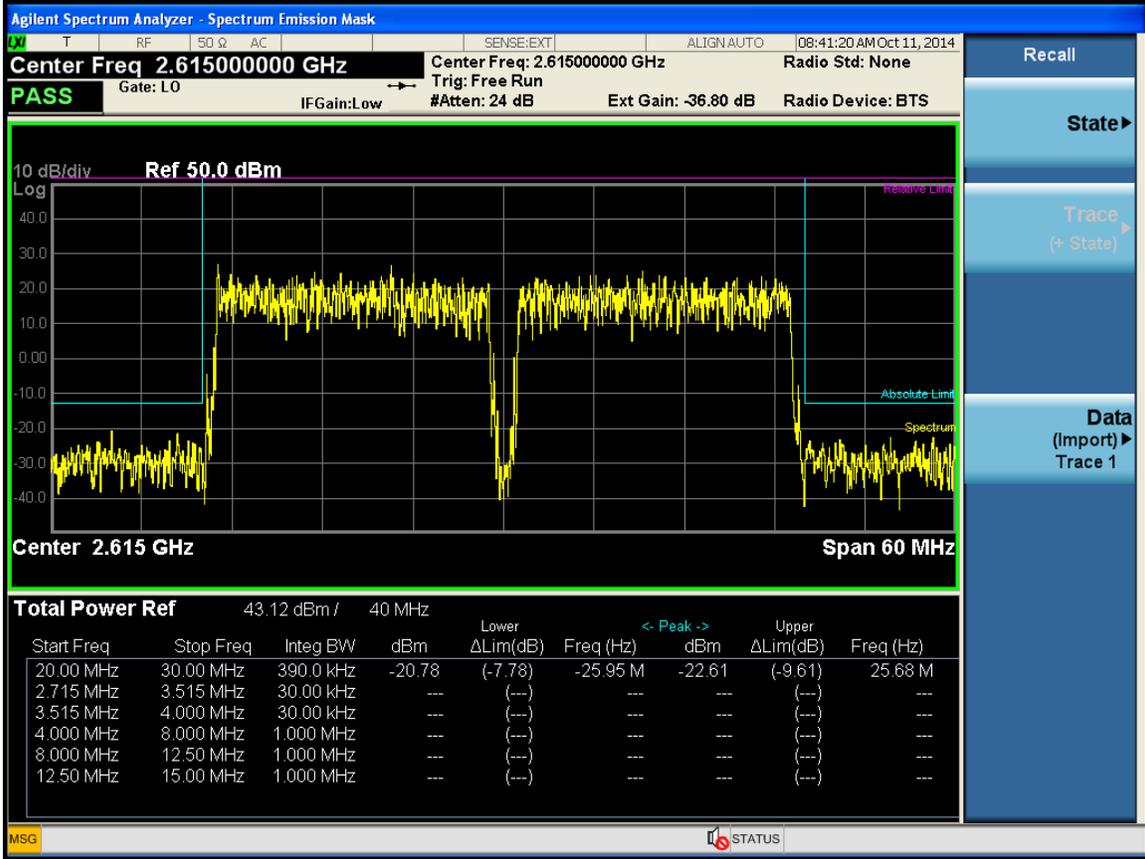


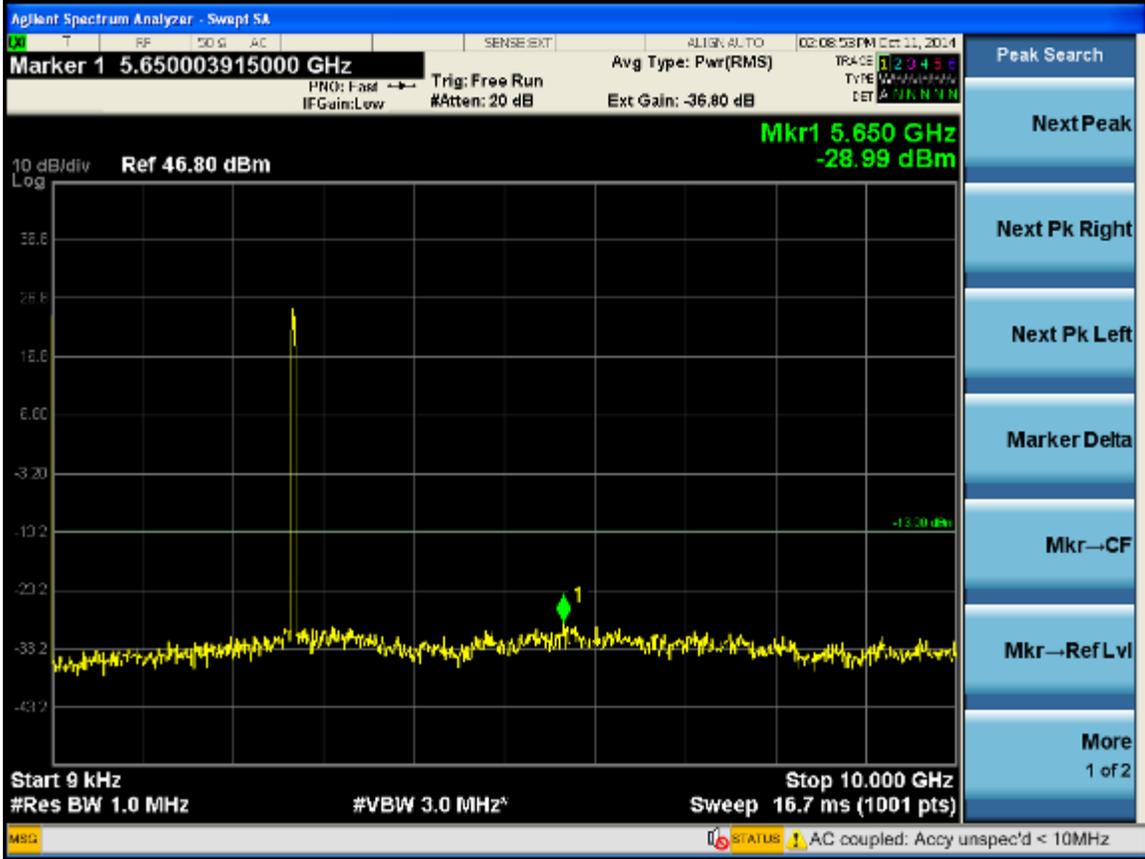




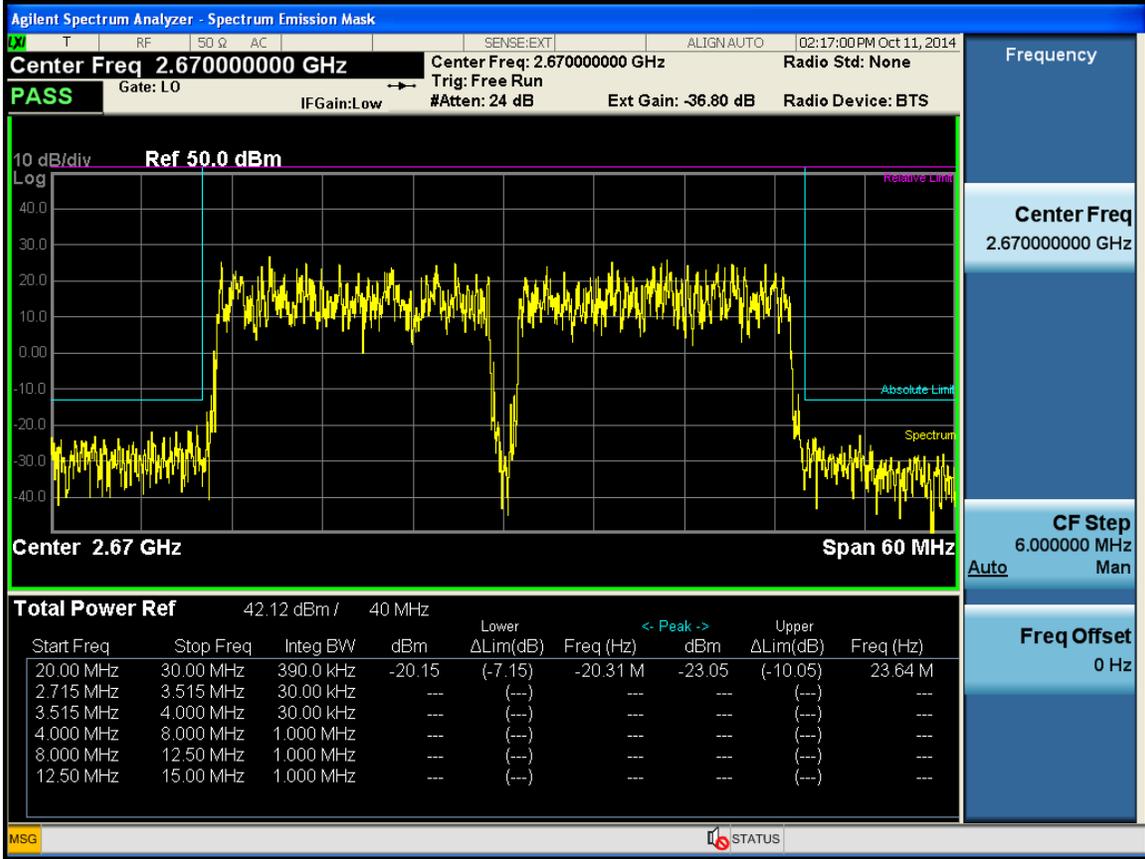


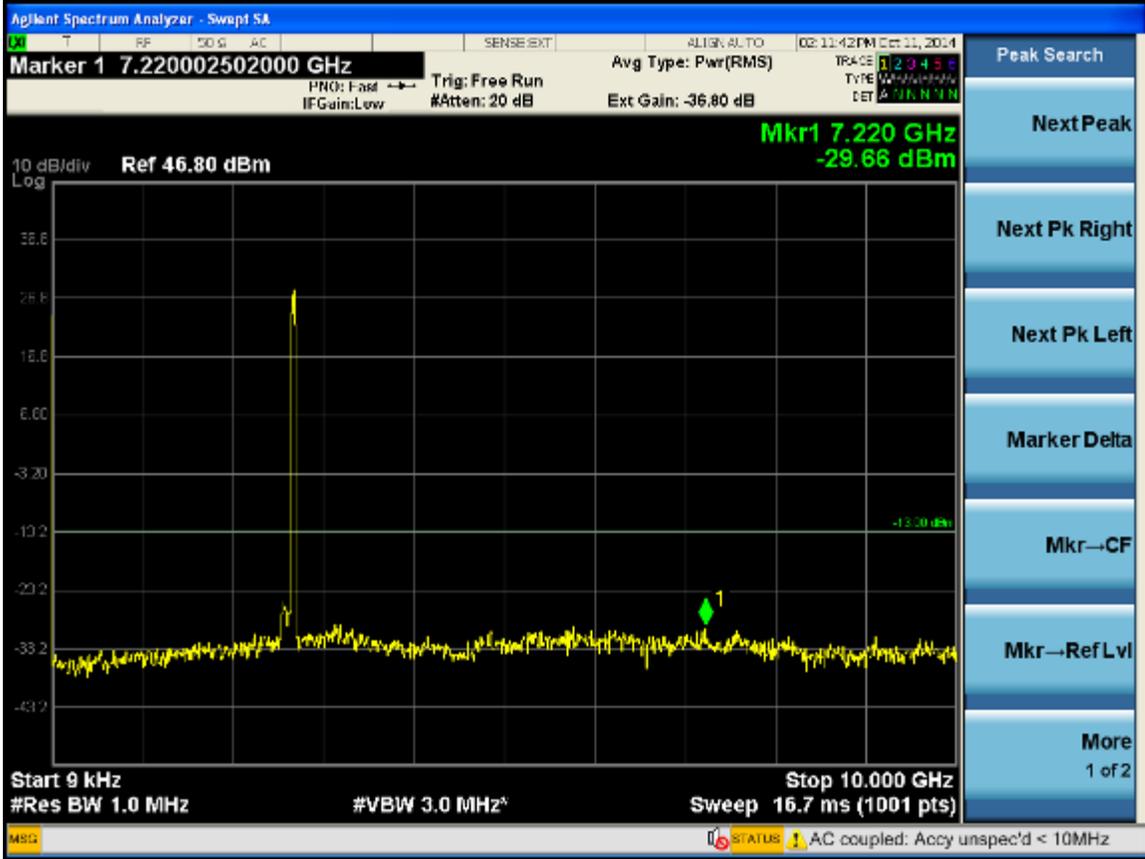




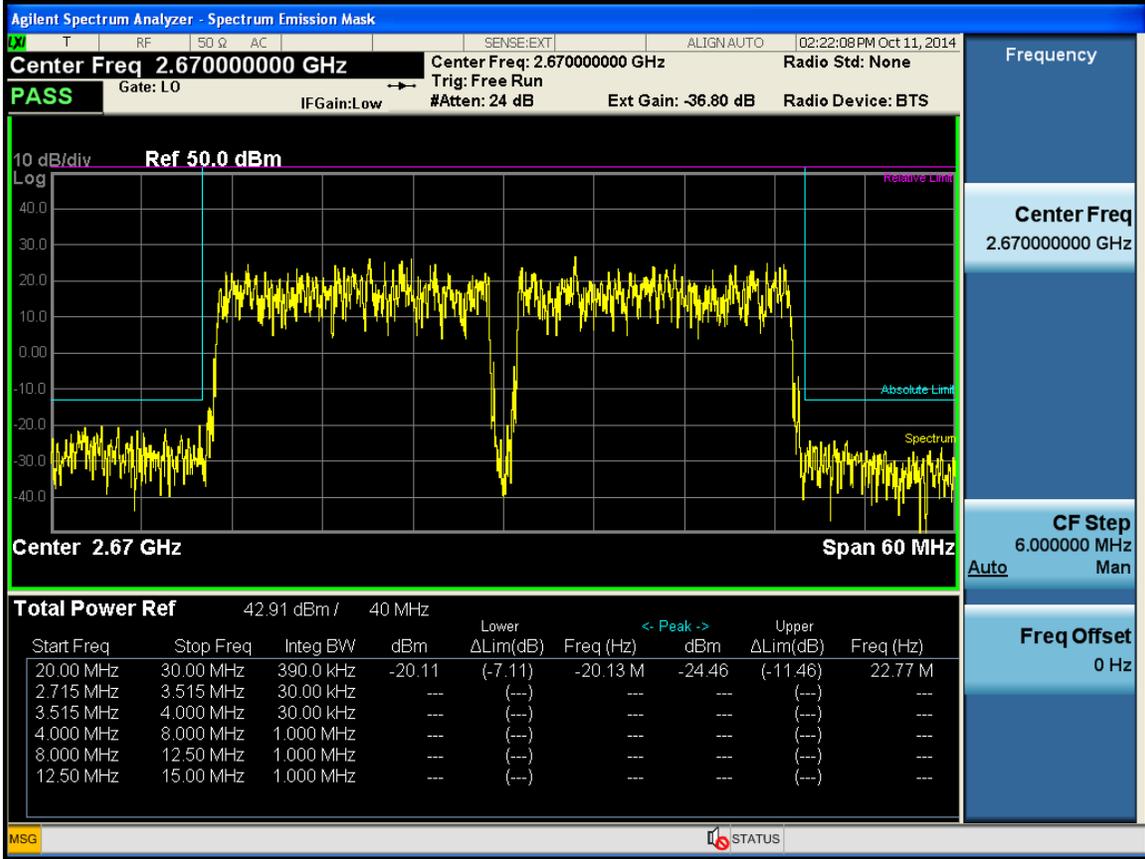


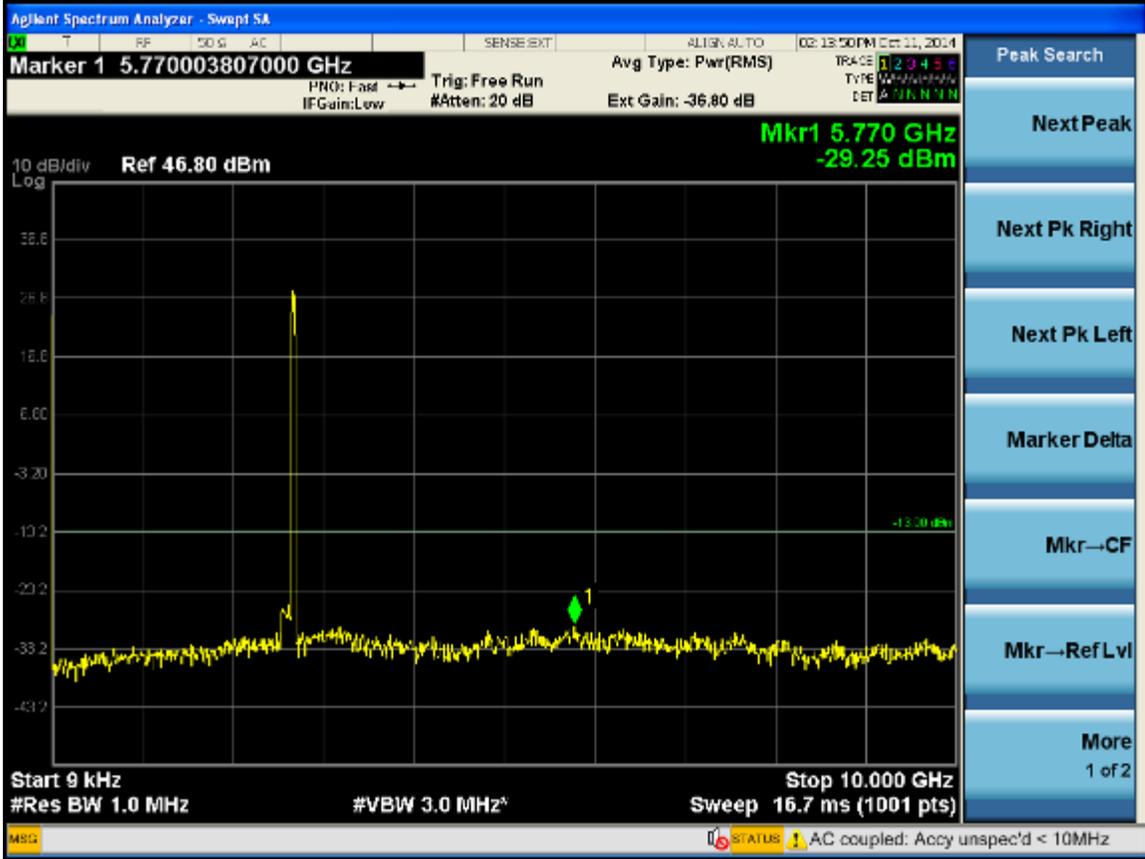




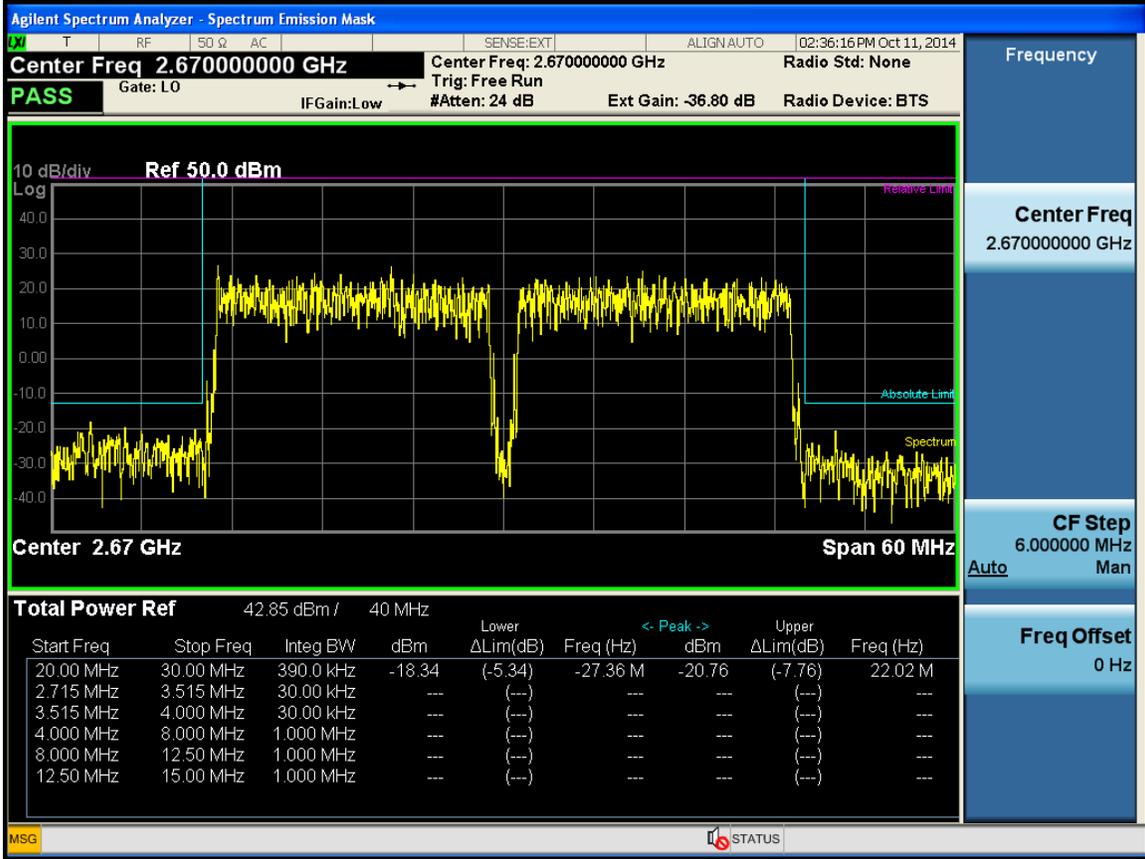




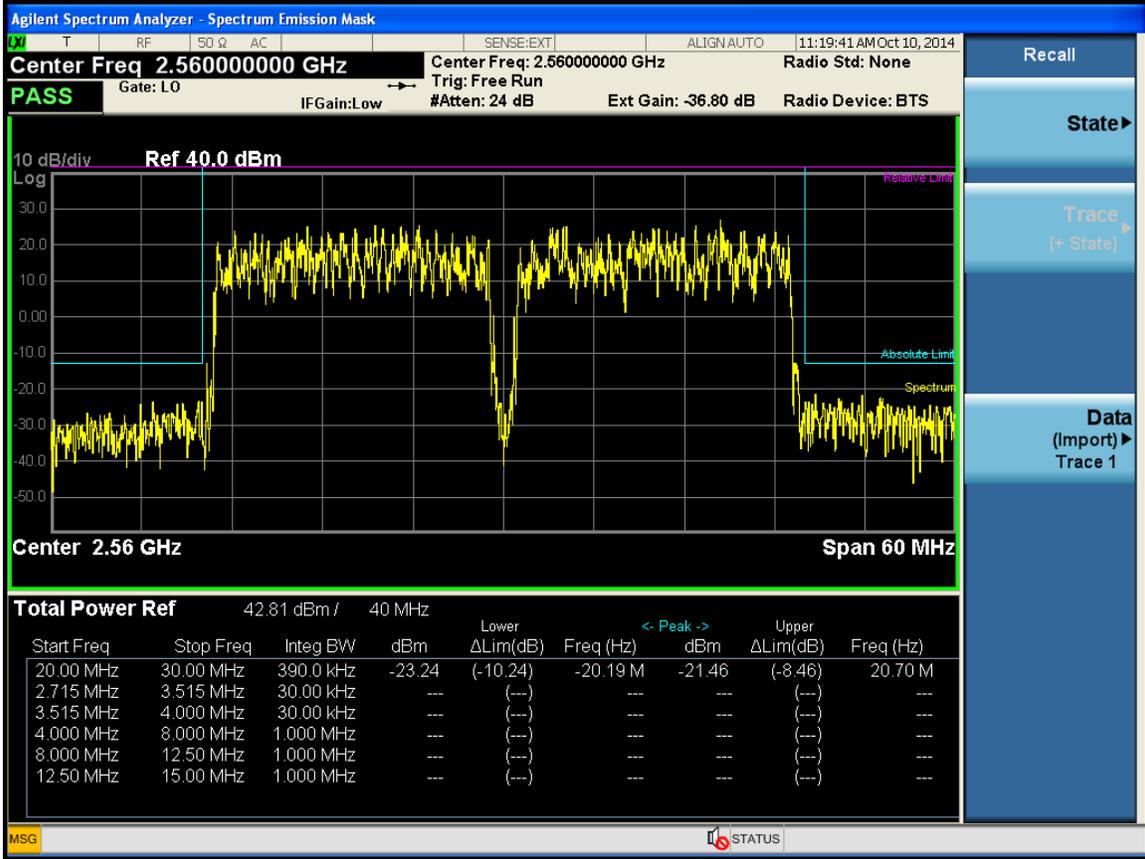


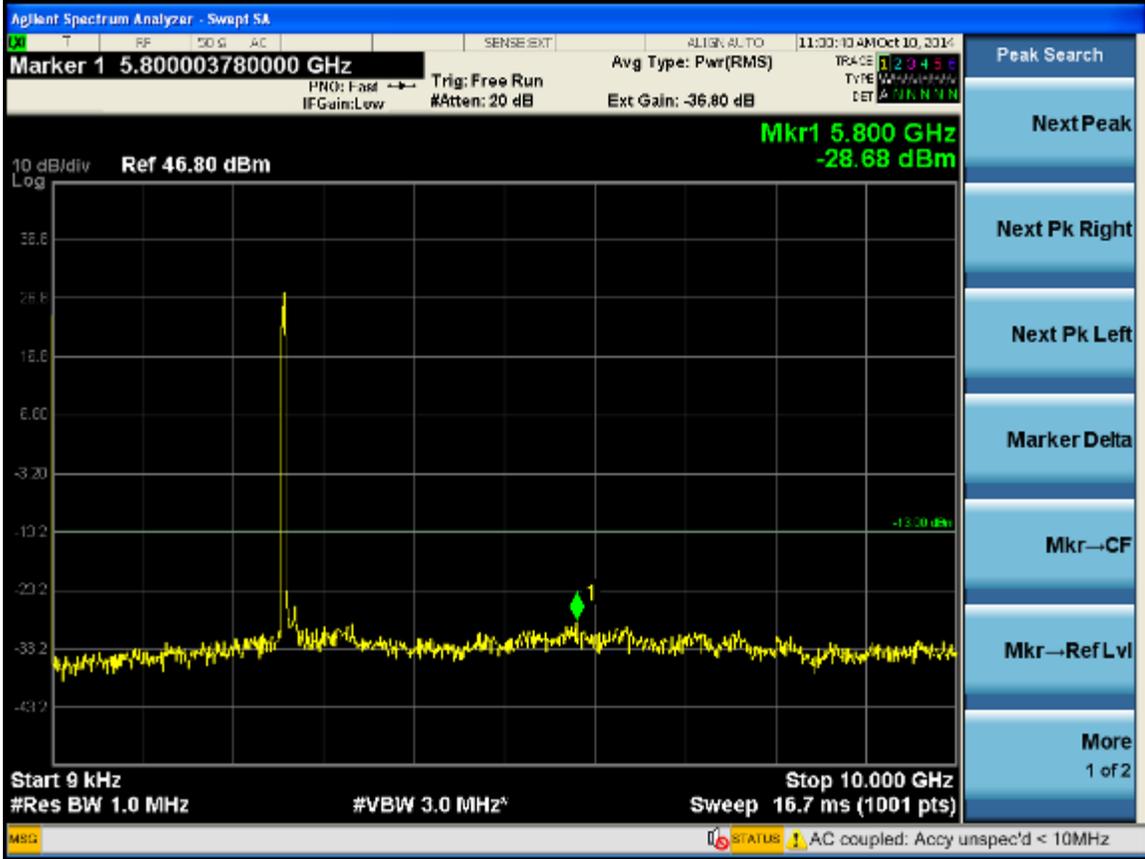


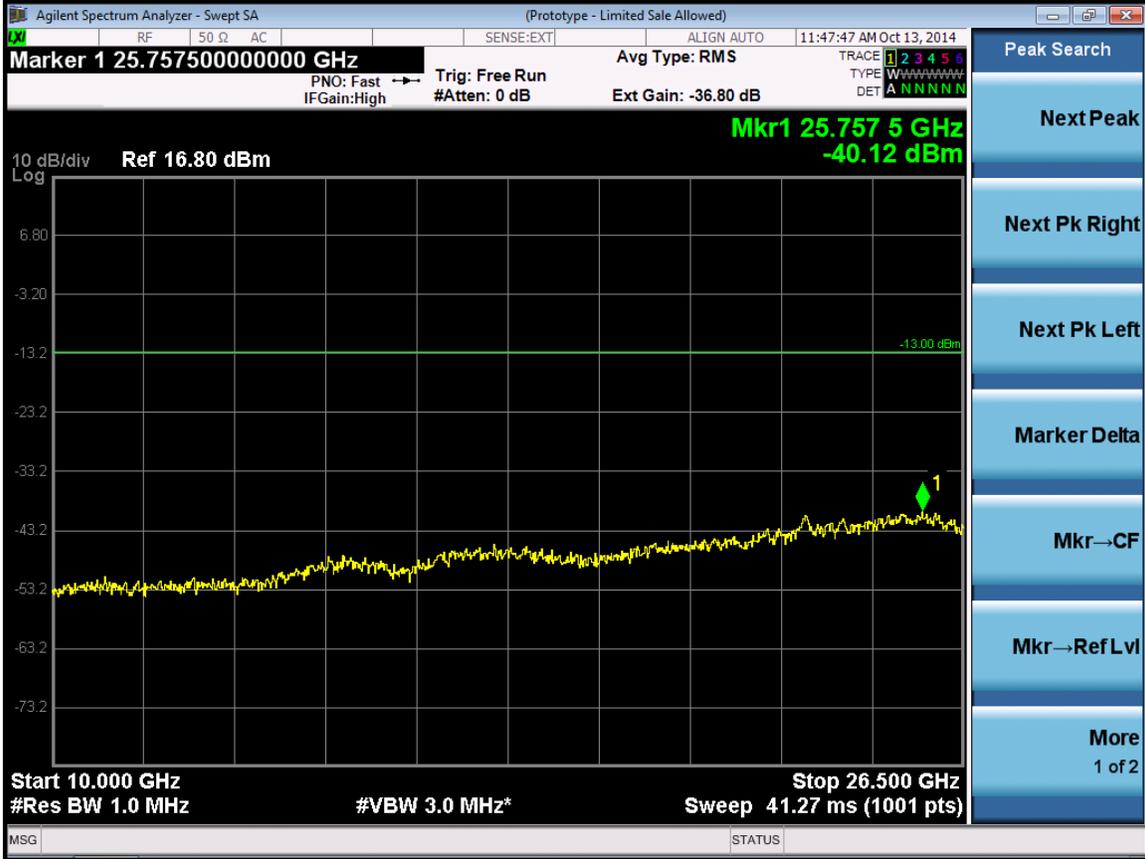


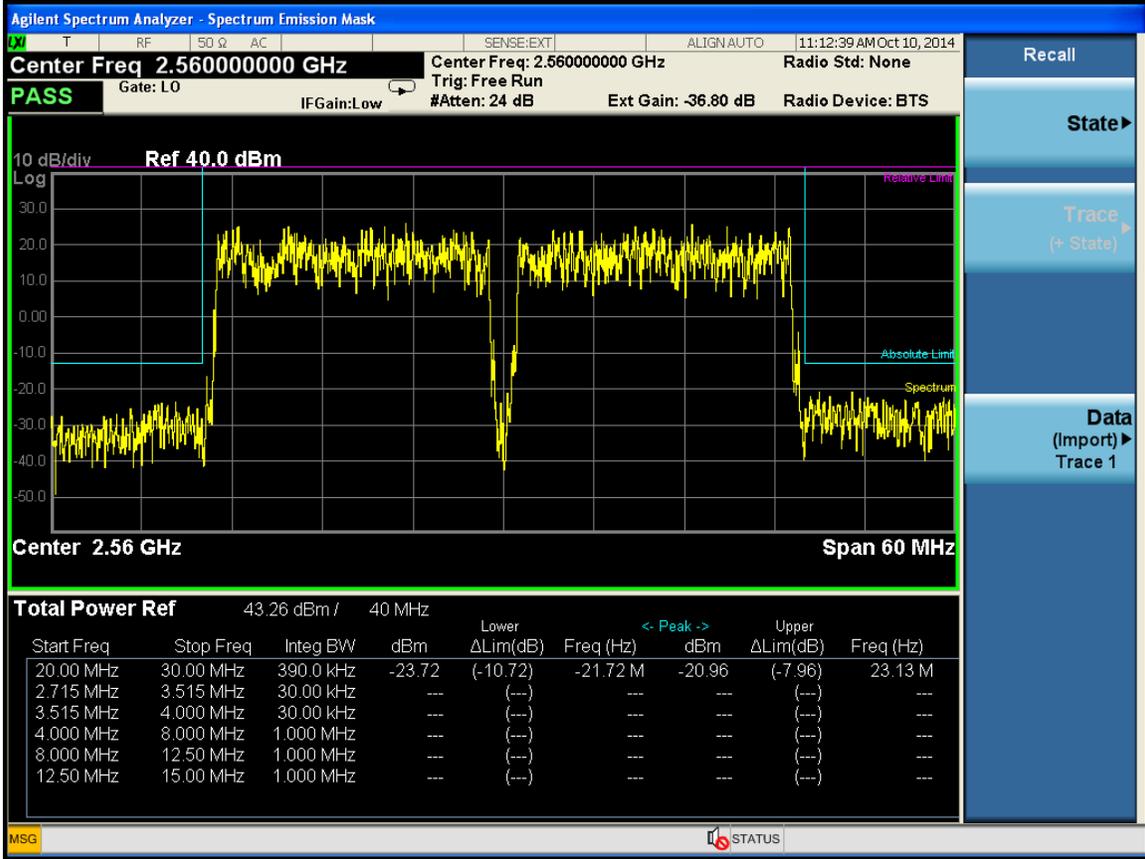


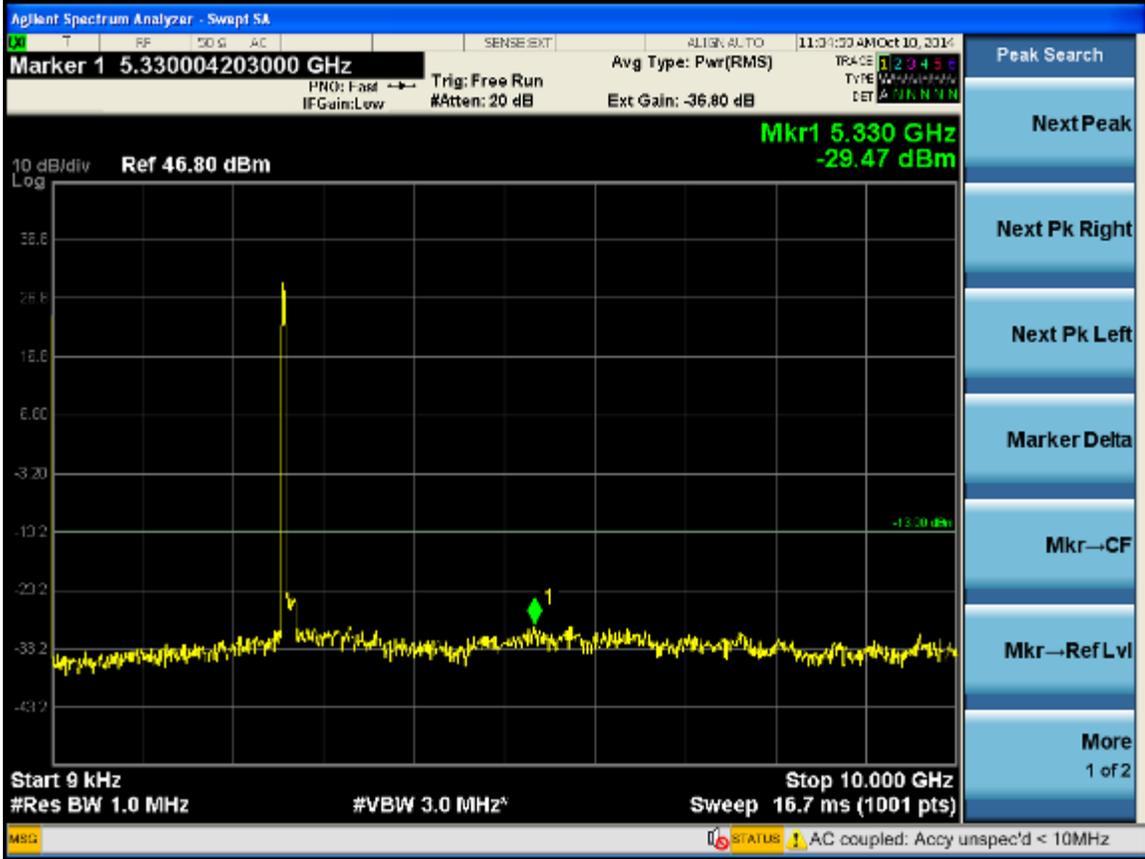




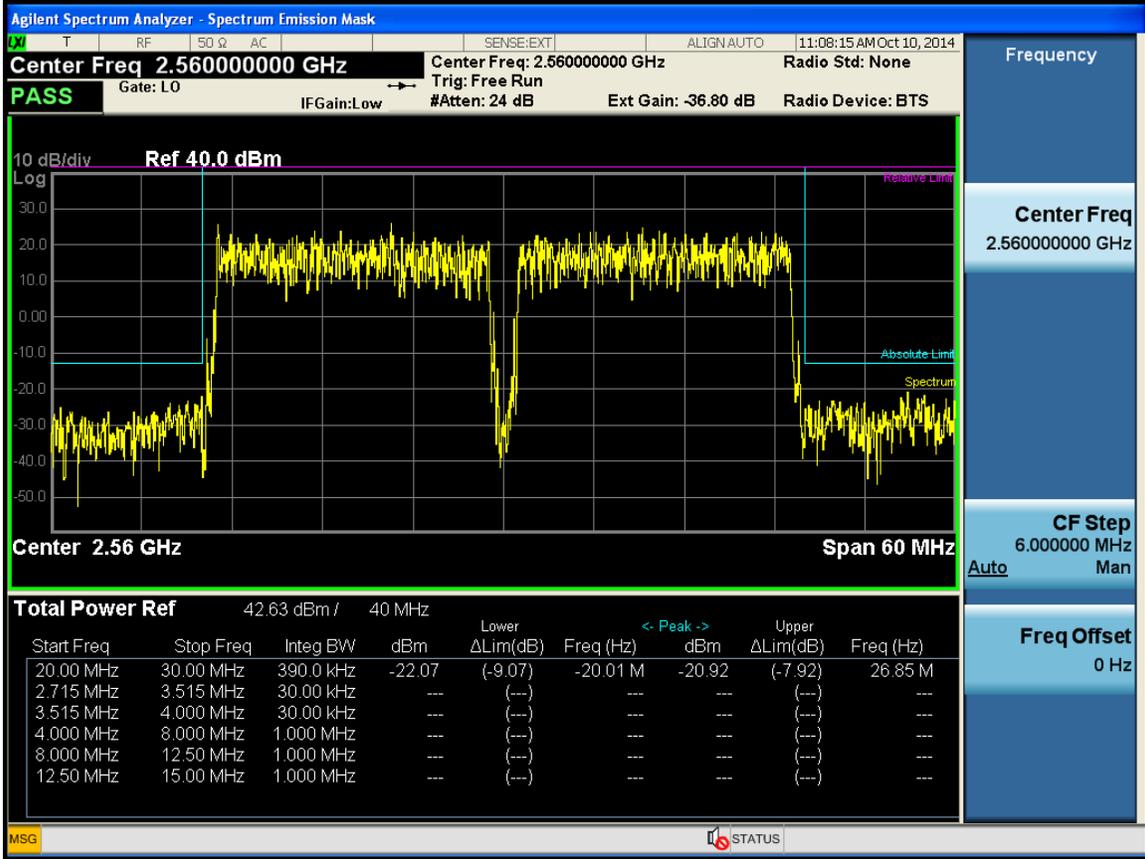


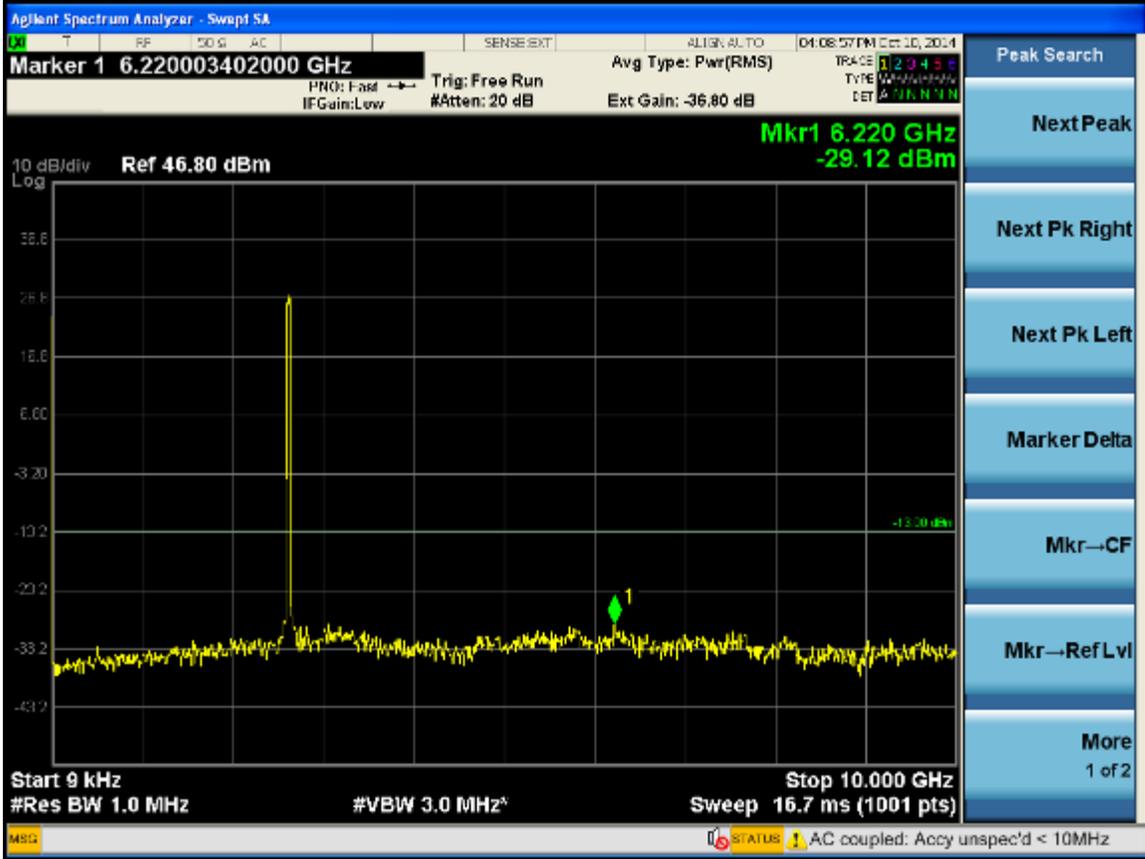




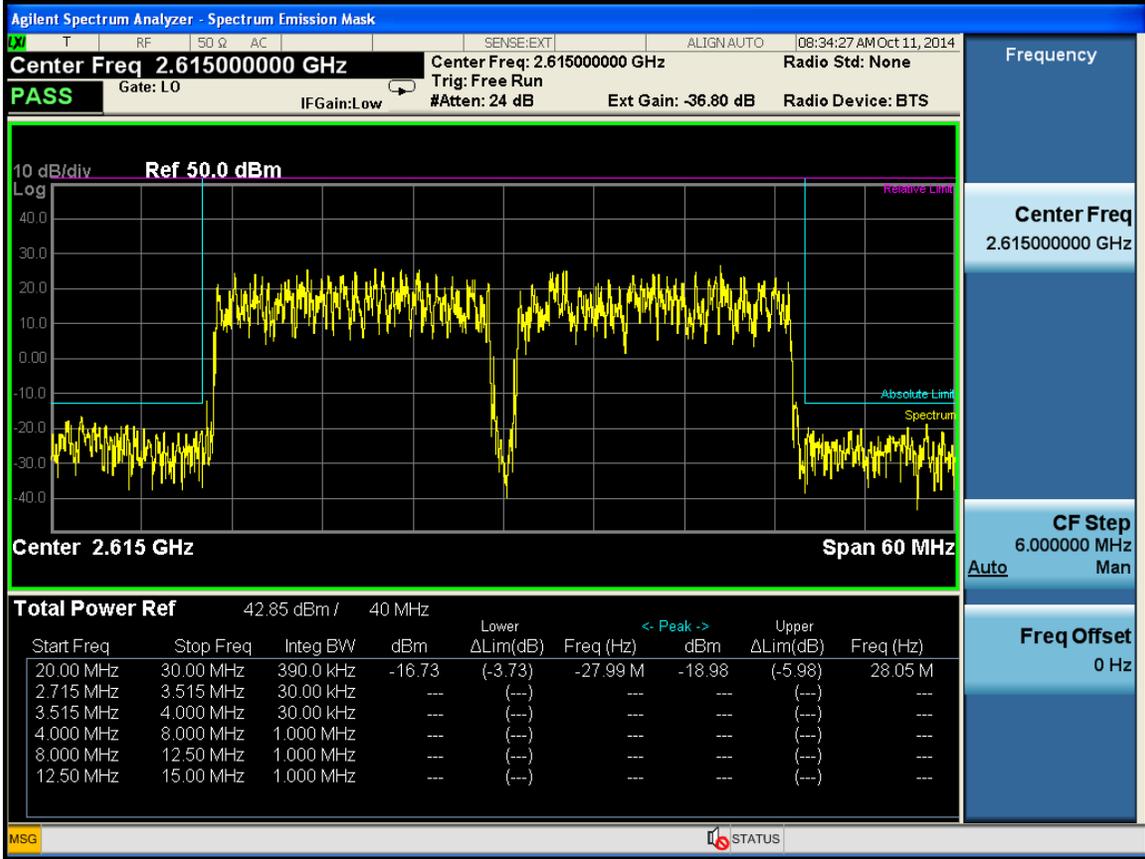


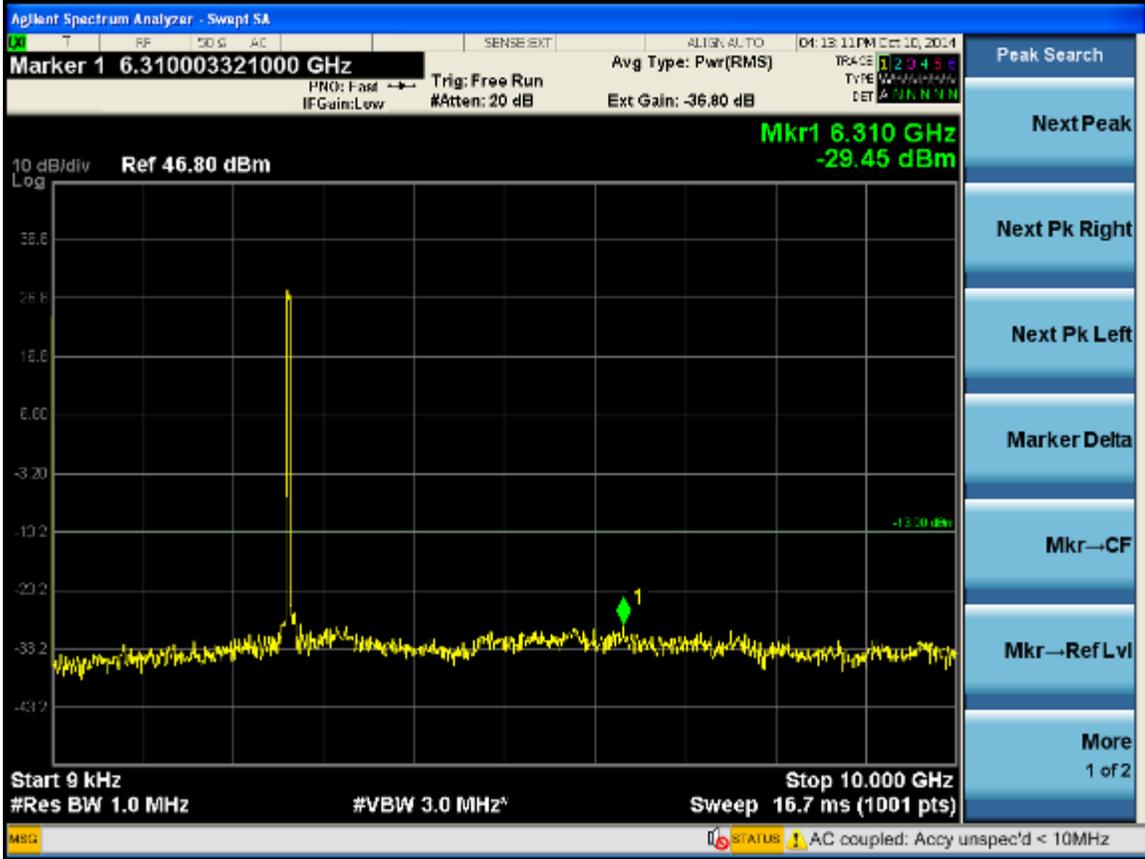




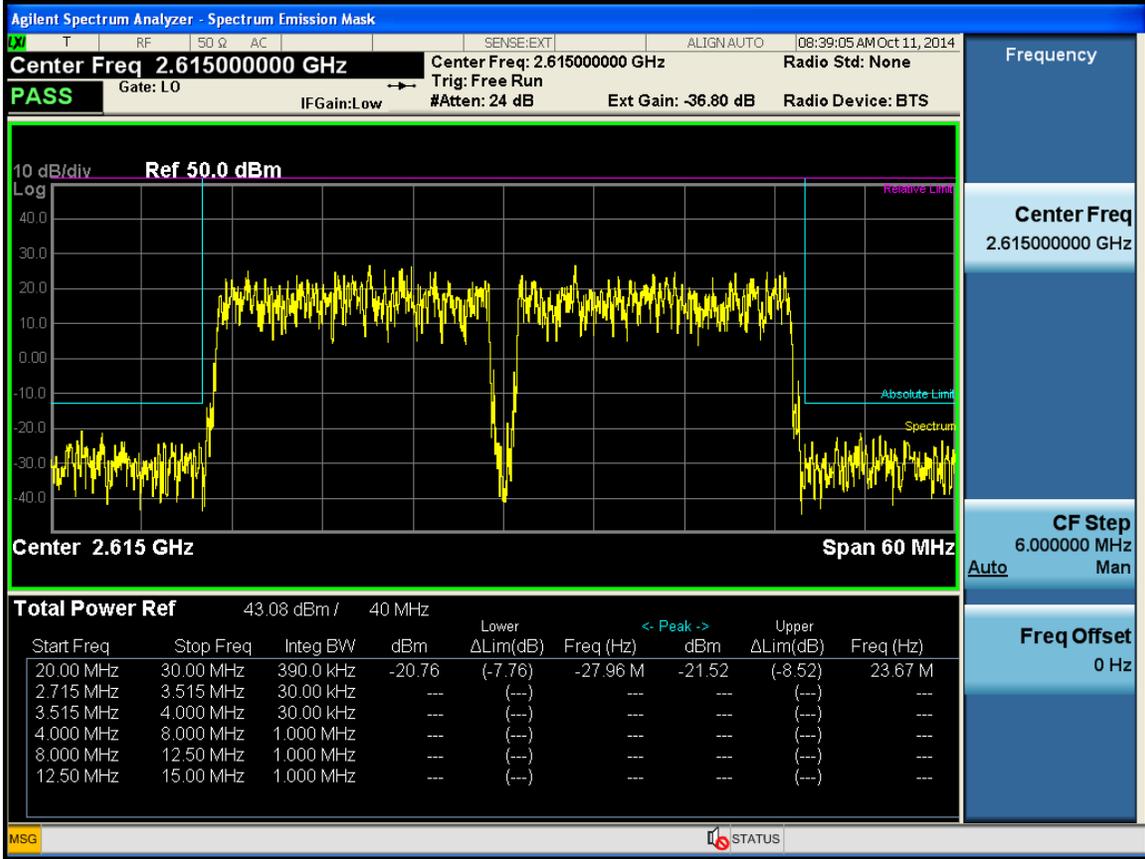


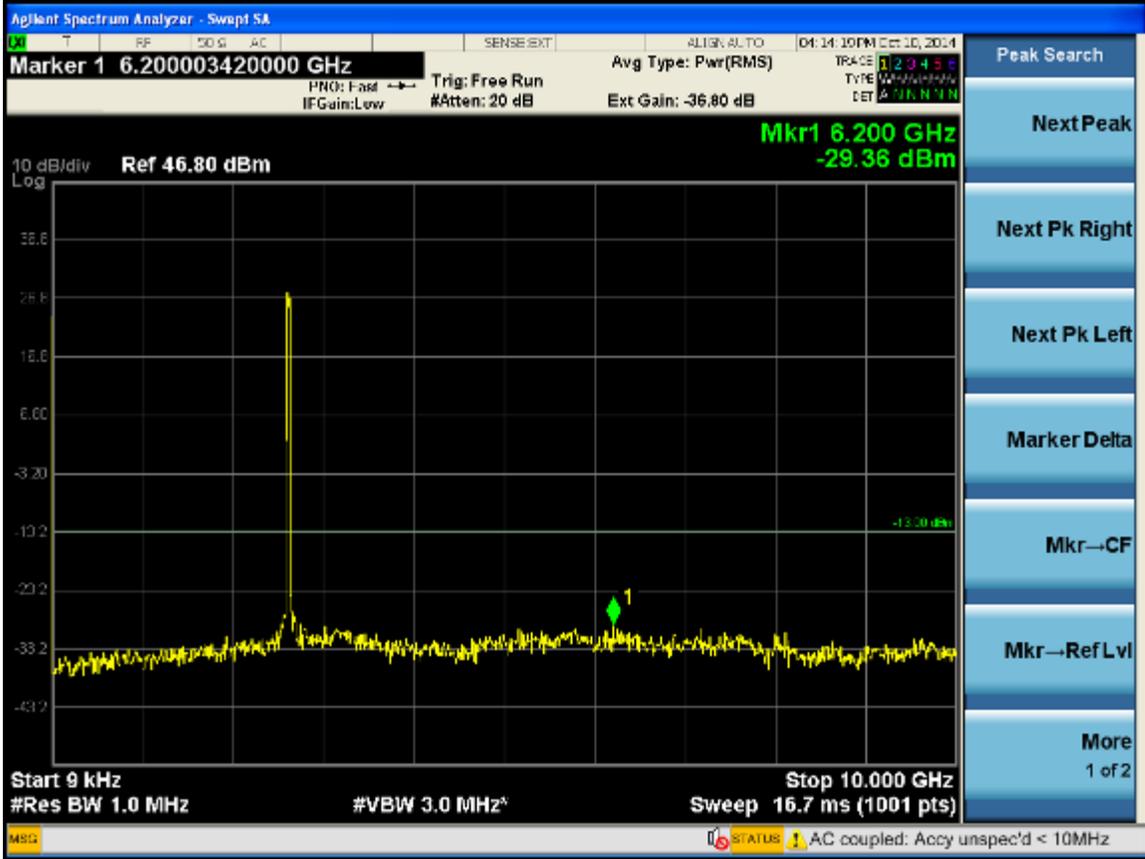


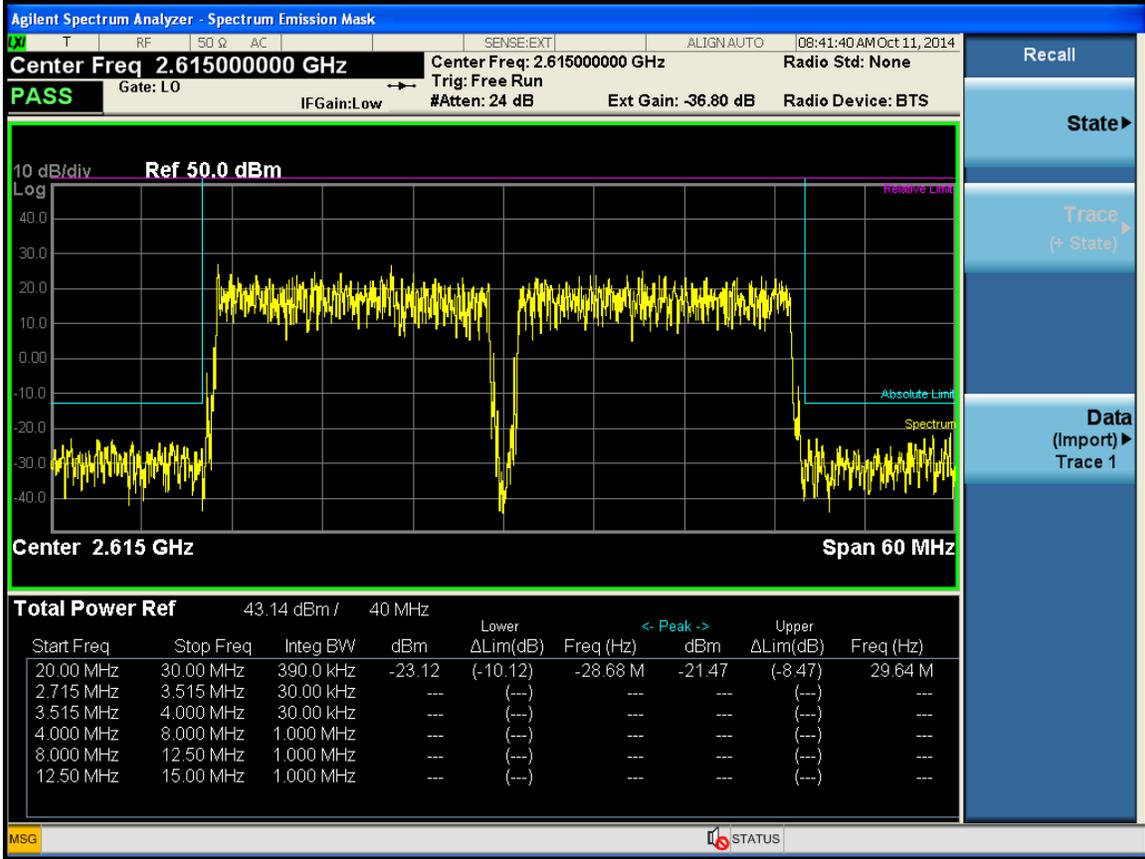


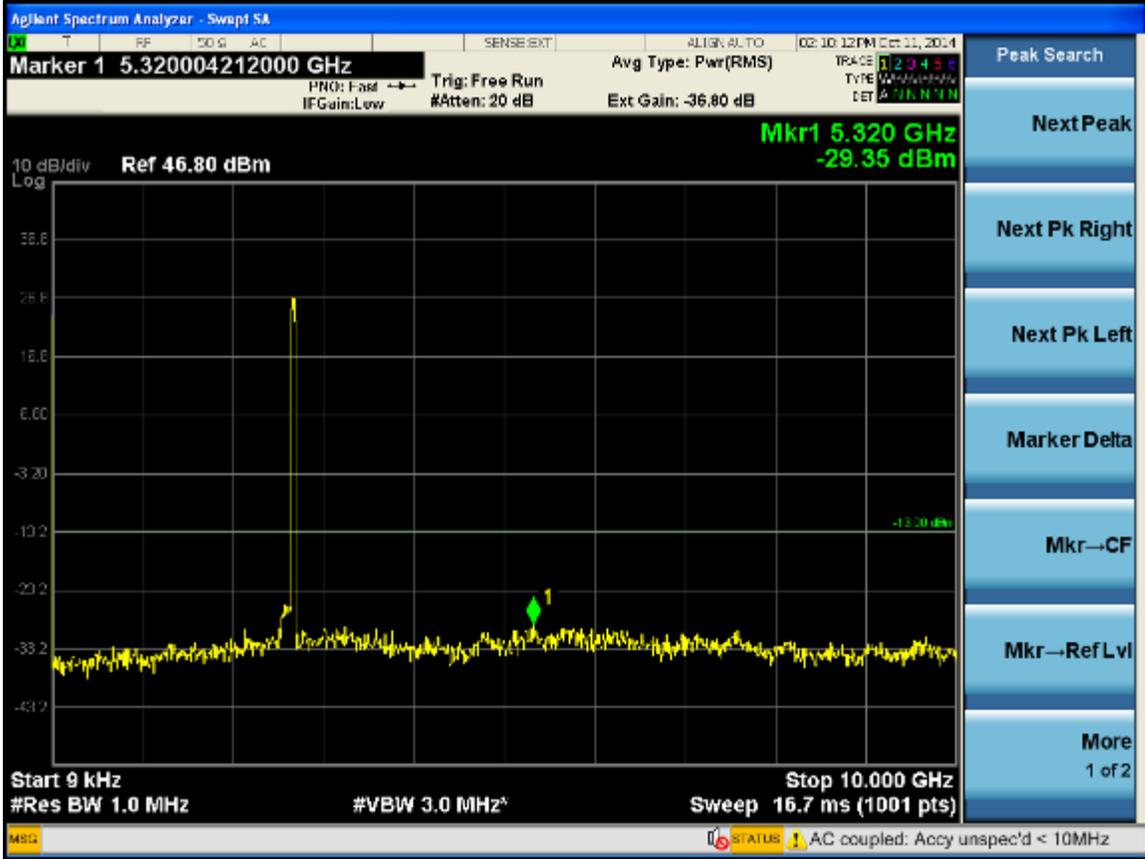




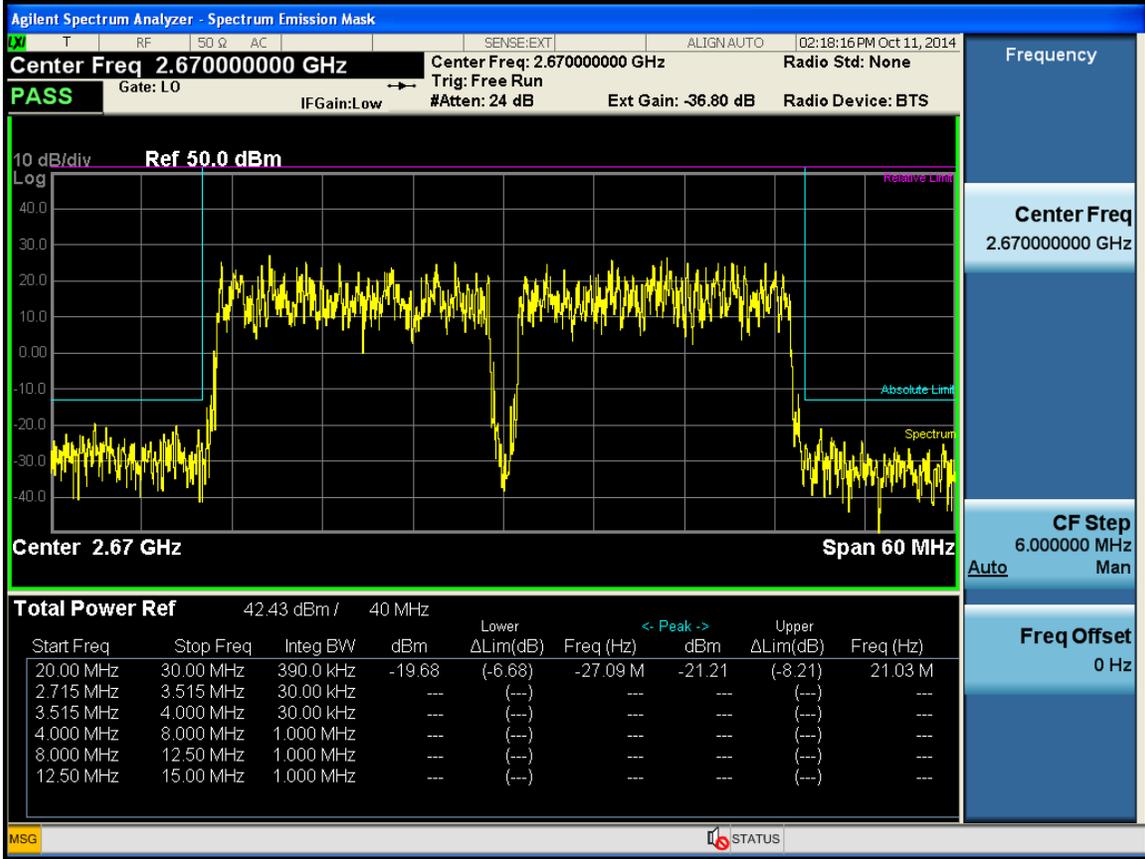


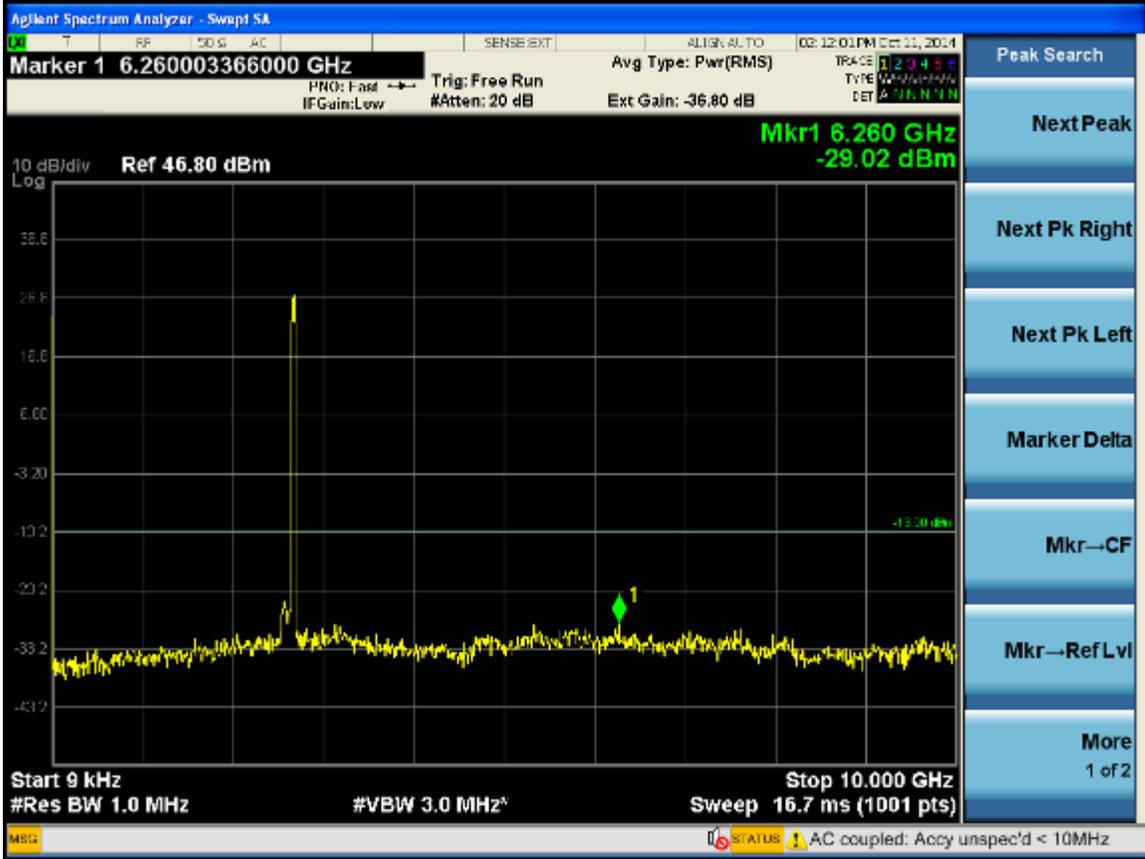




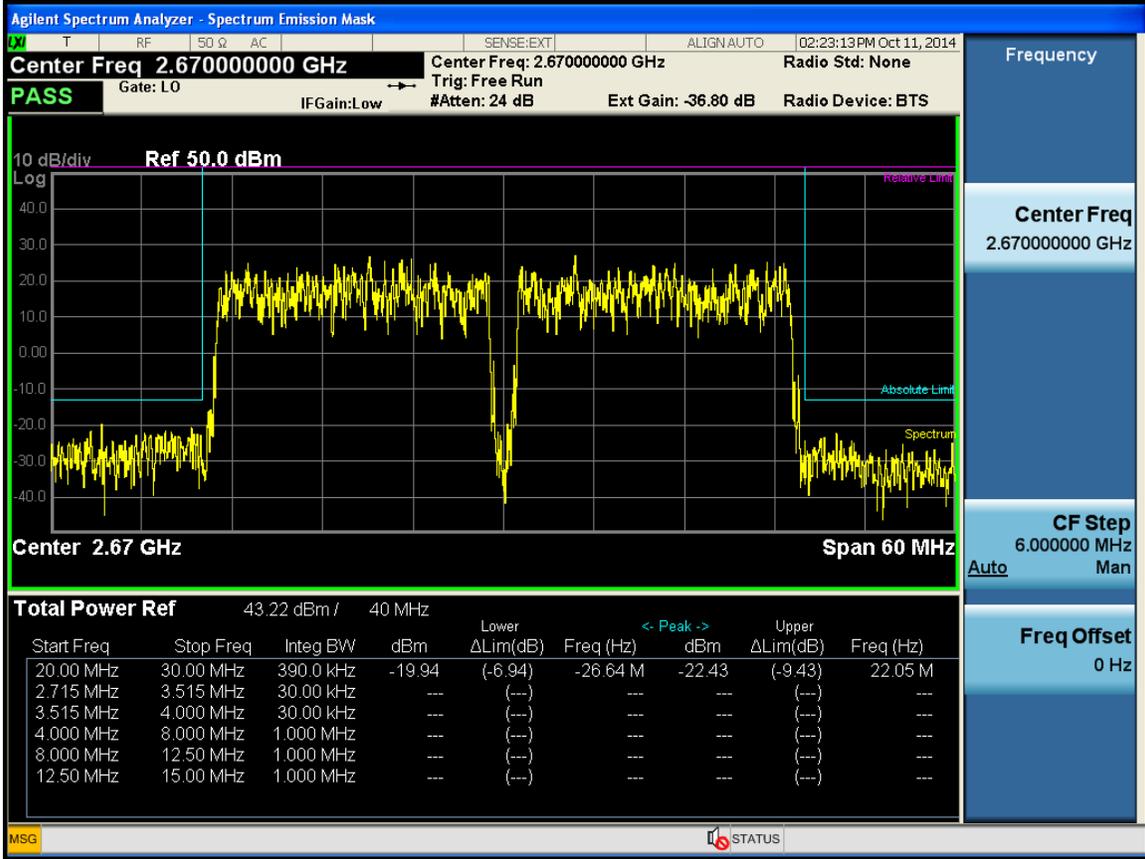


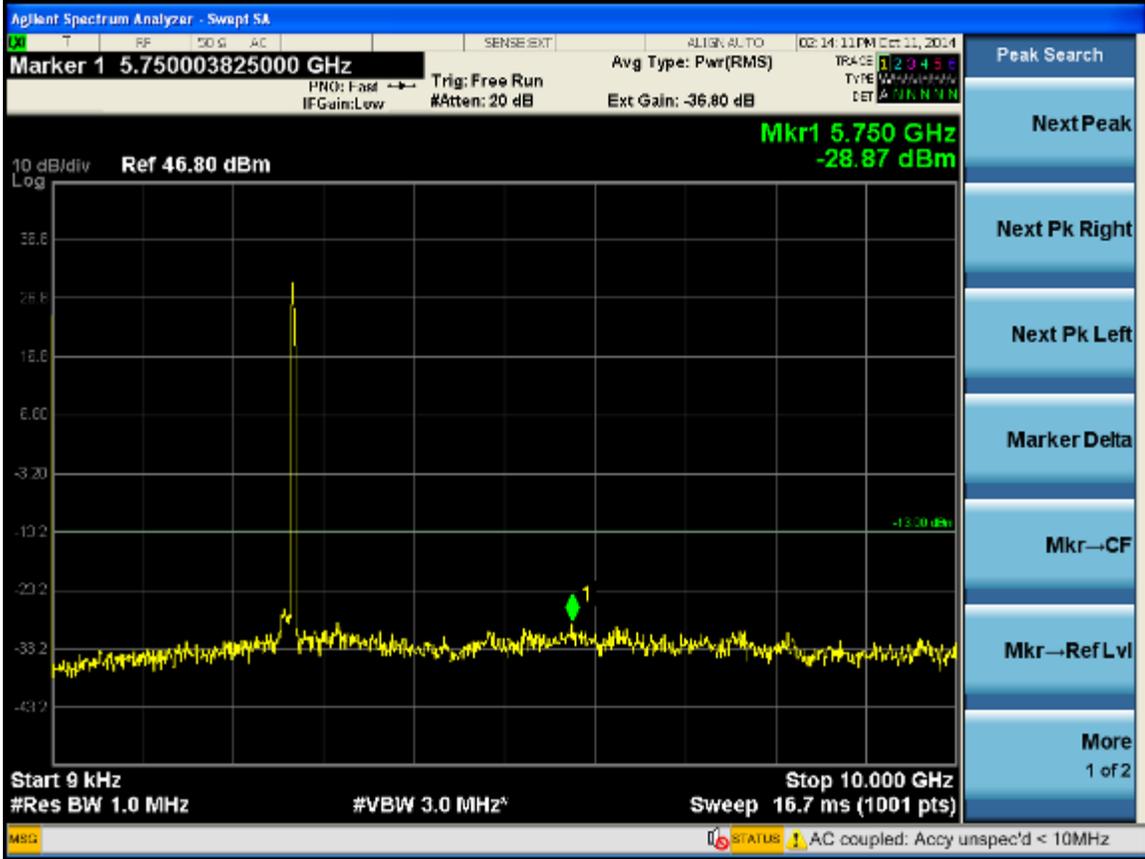




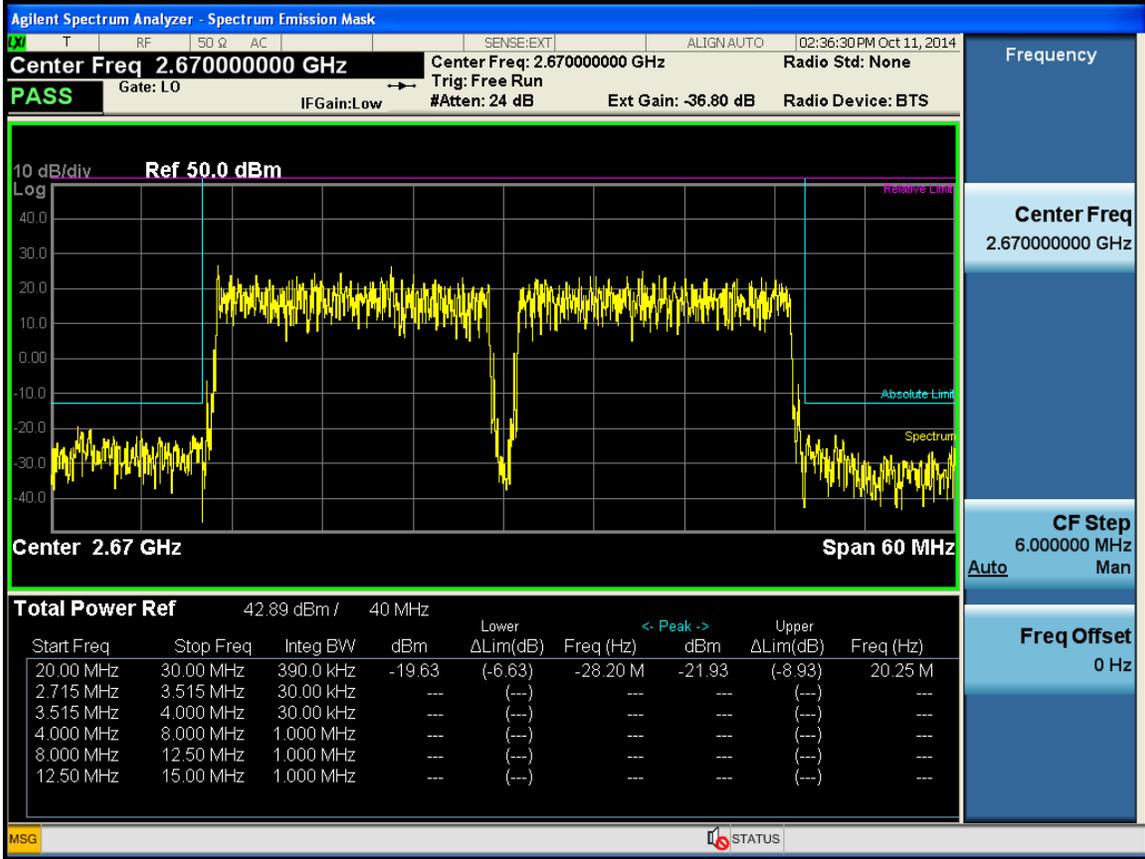


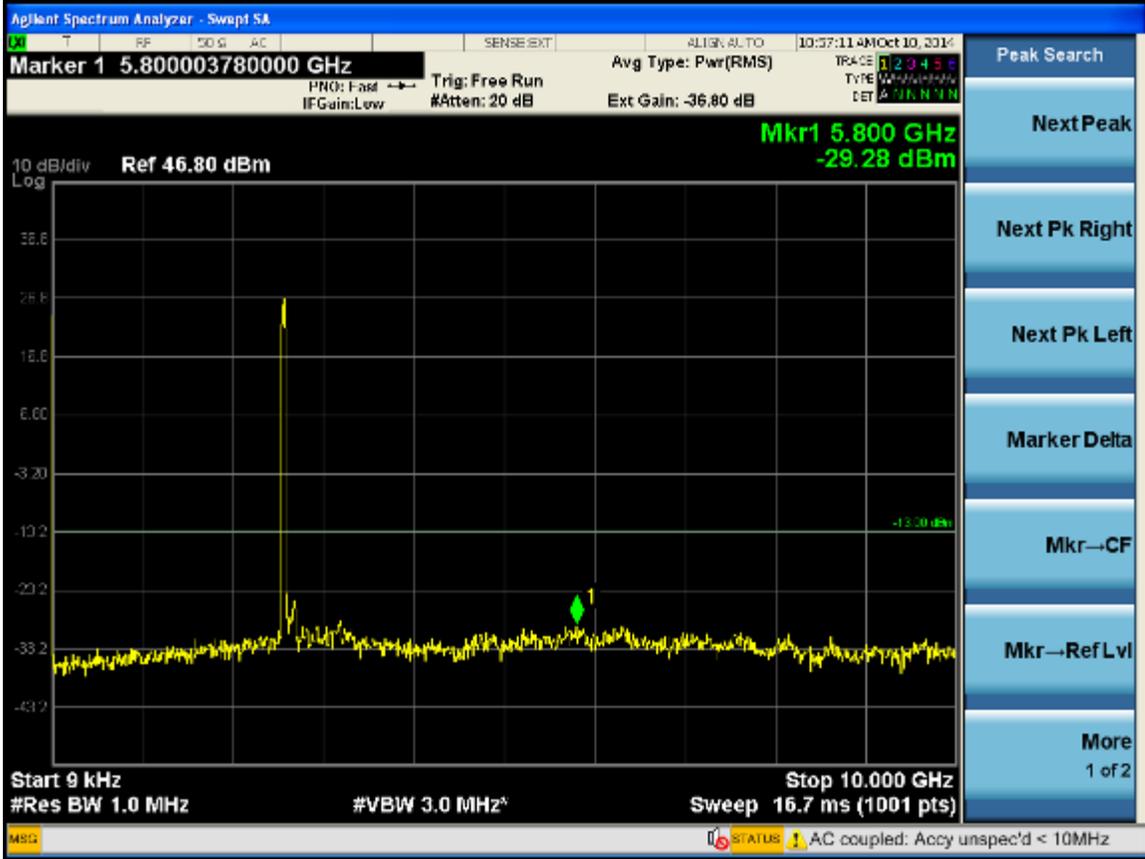




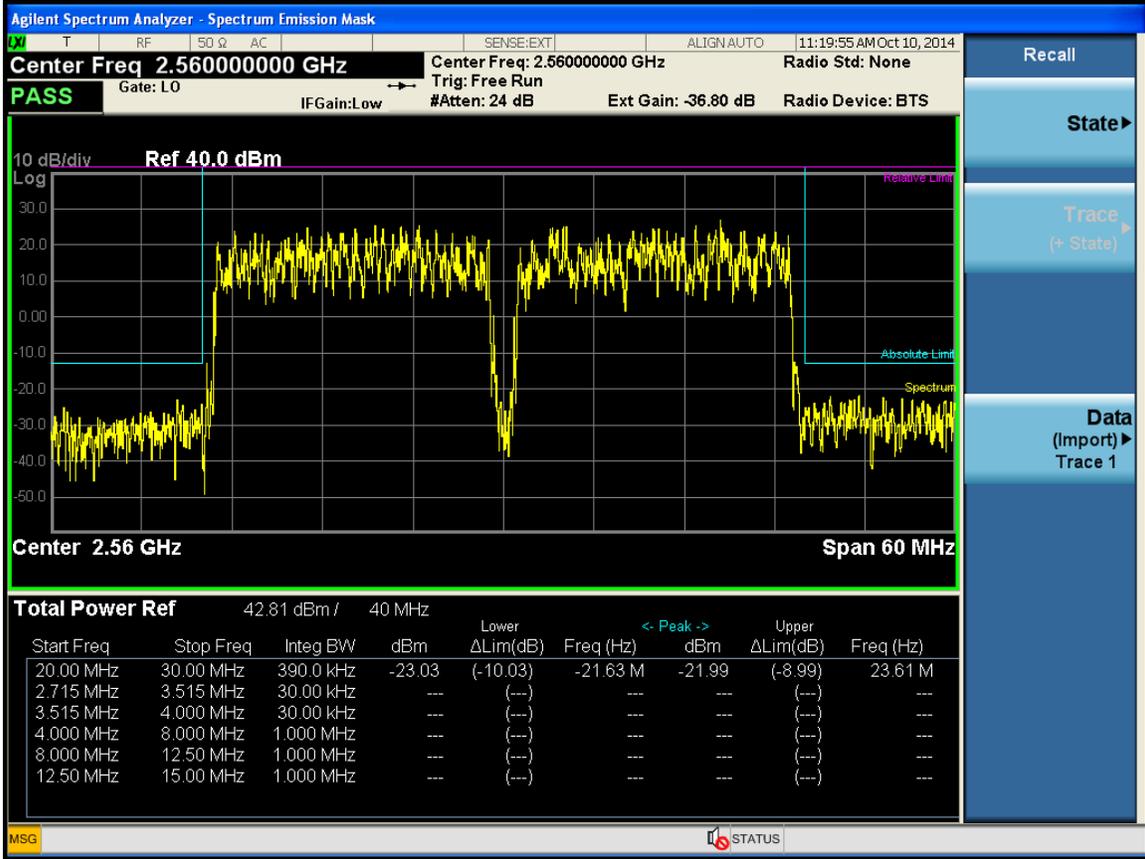


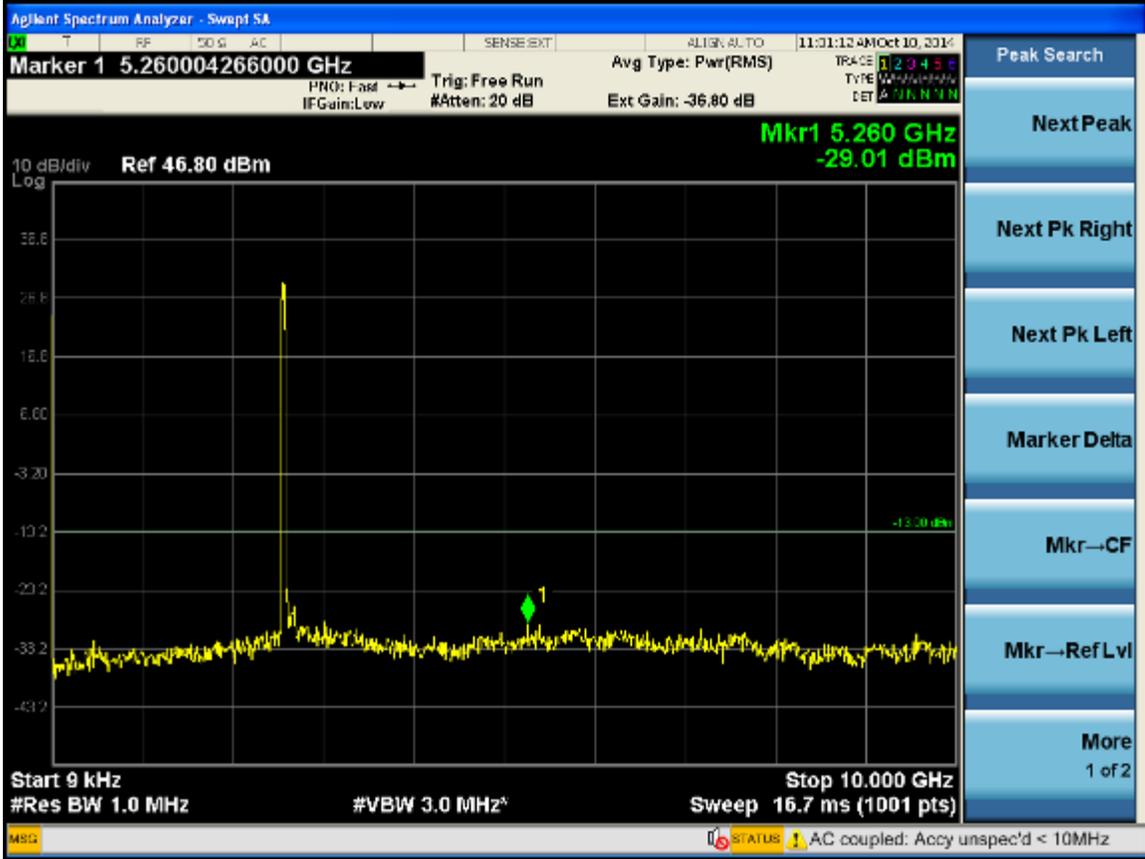




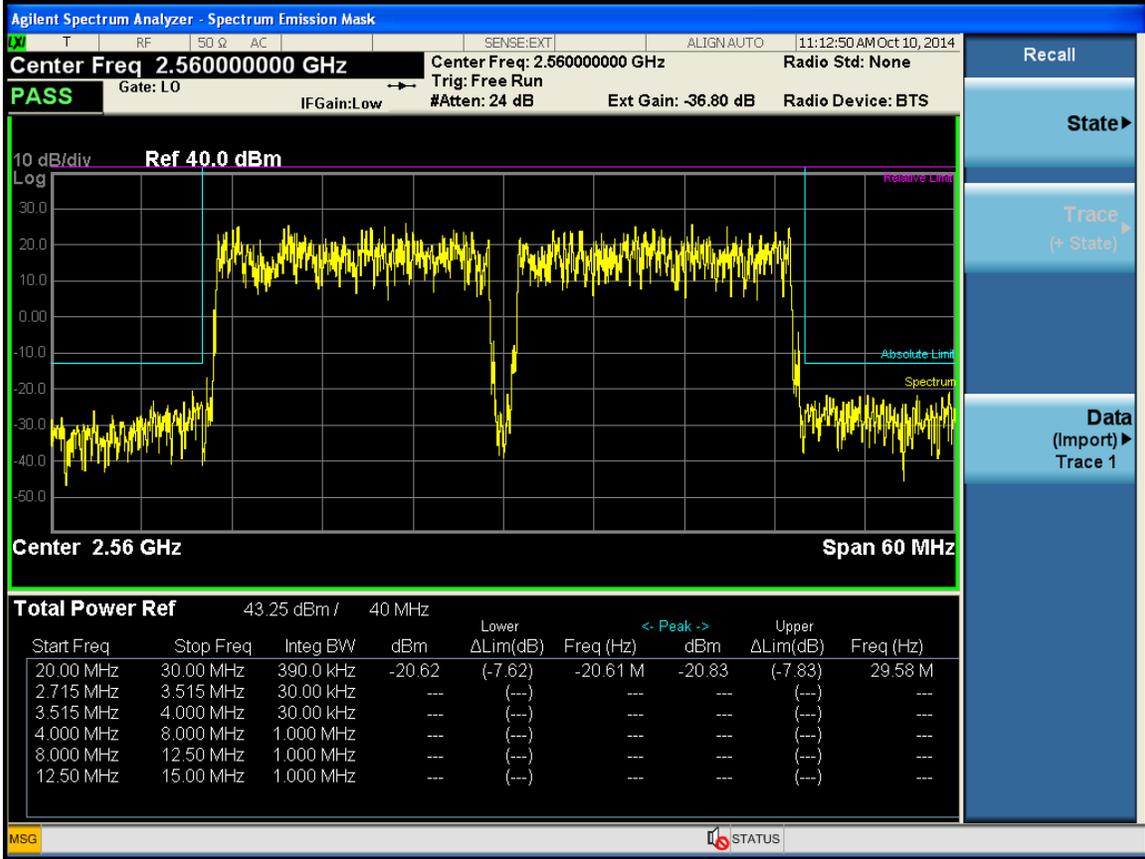










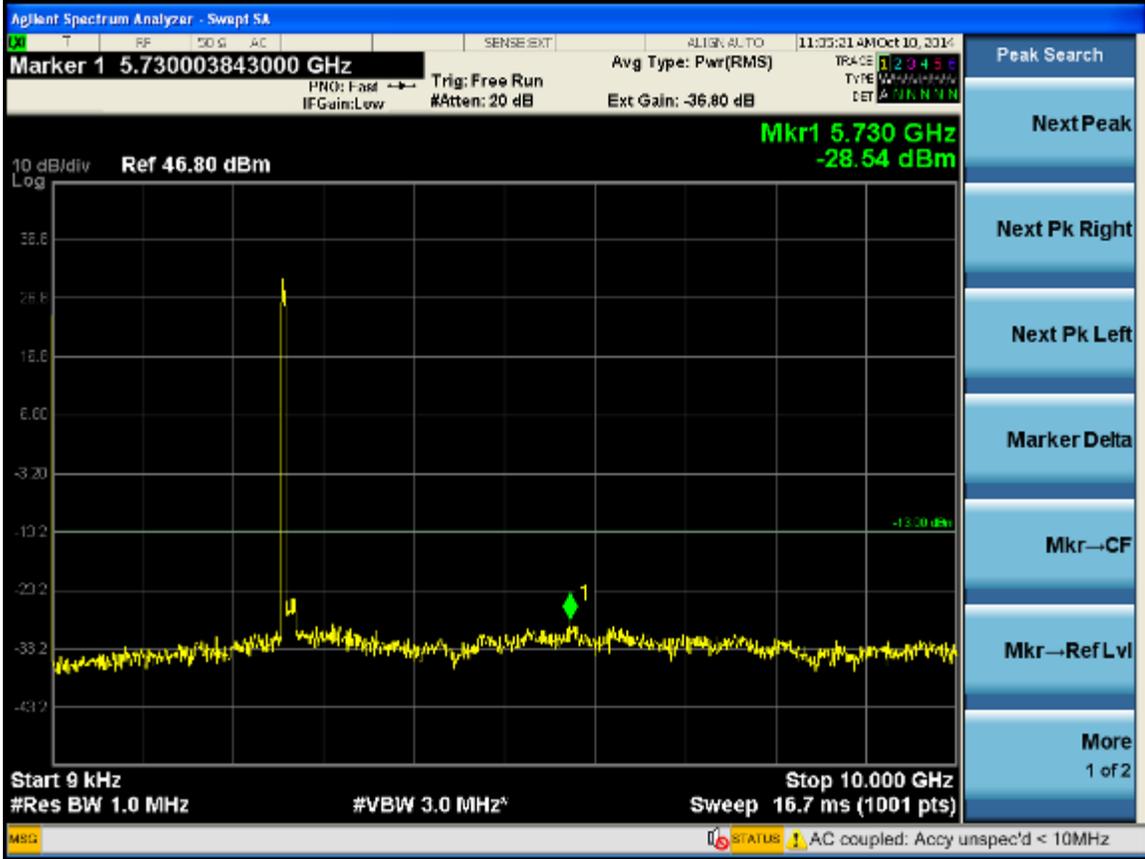


Recall

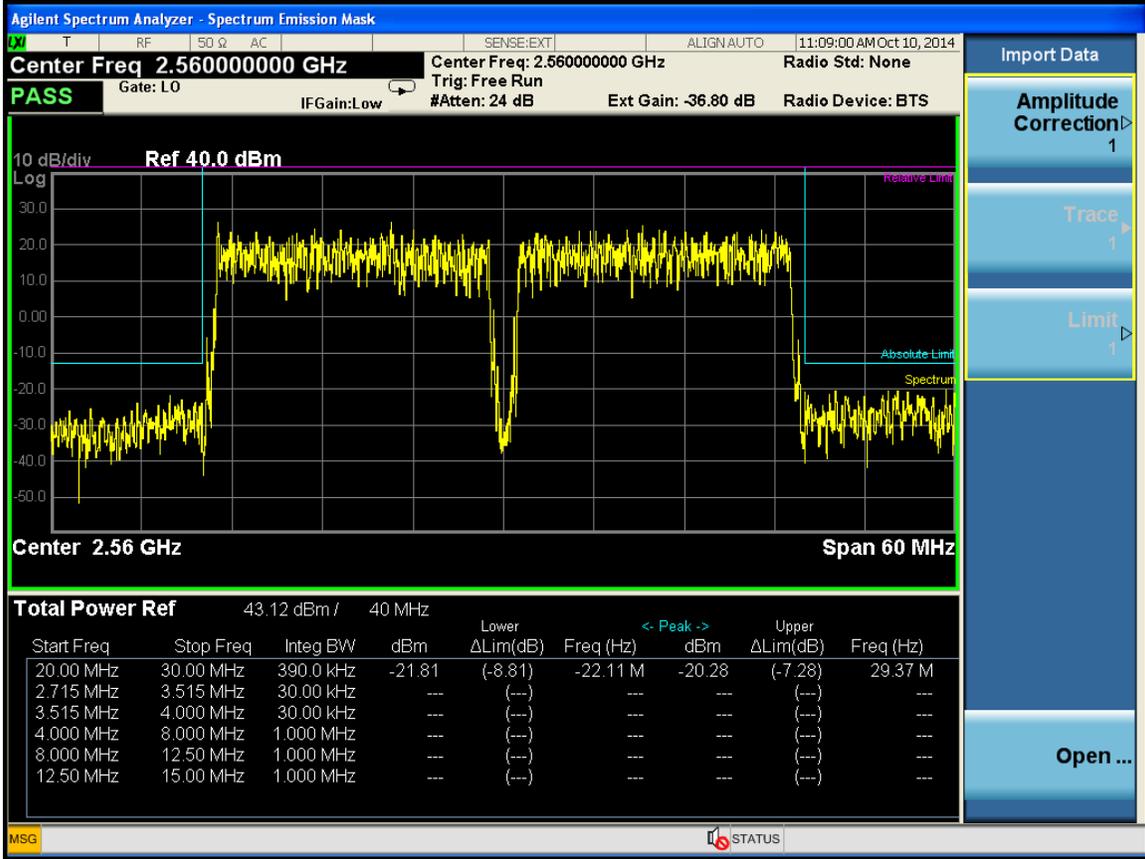
State ▶

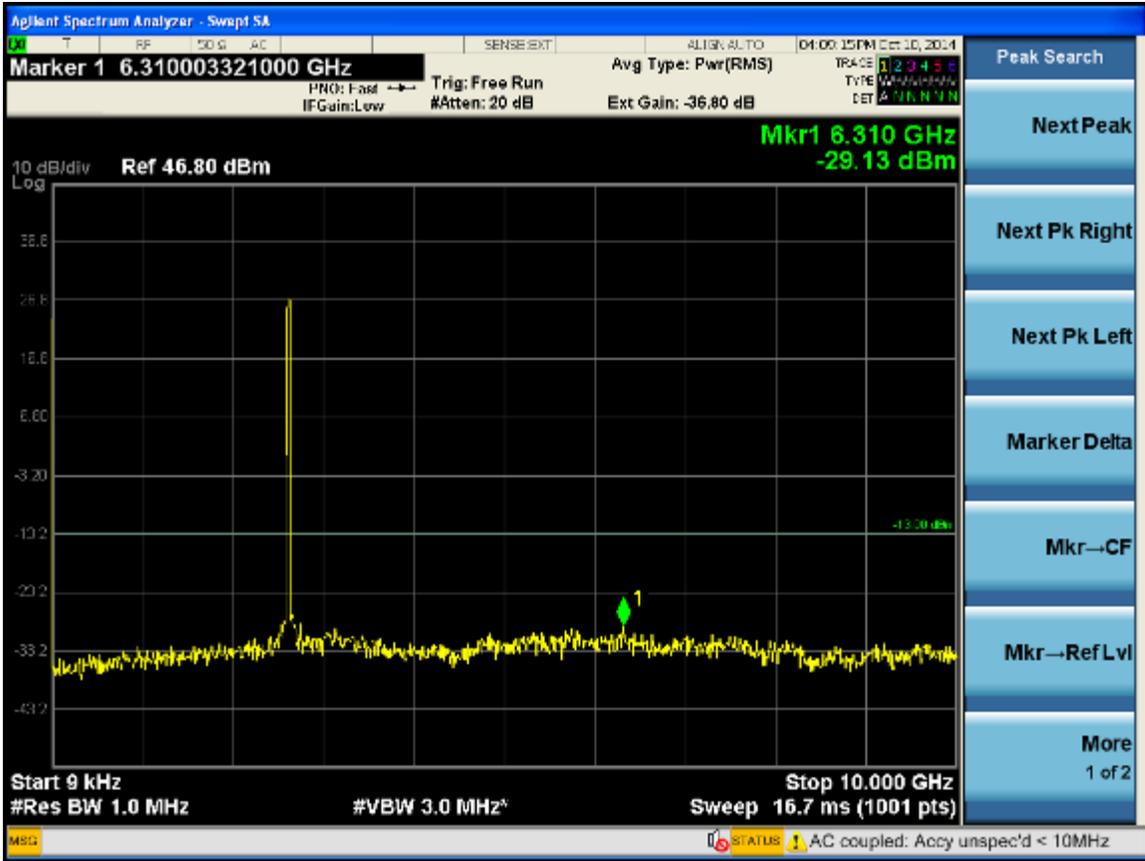
Trace (+ State) ▶

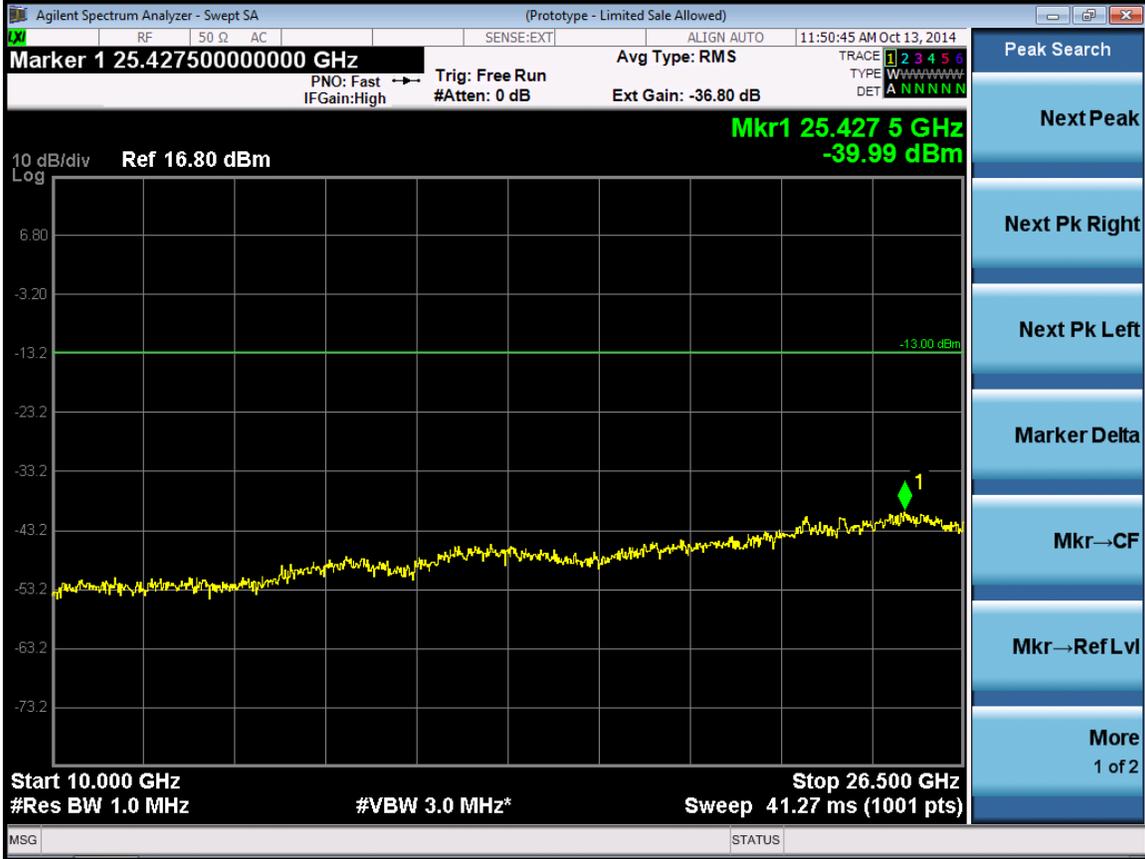
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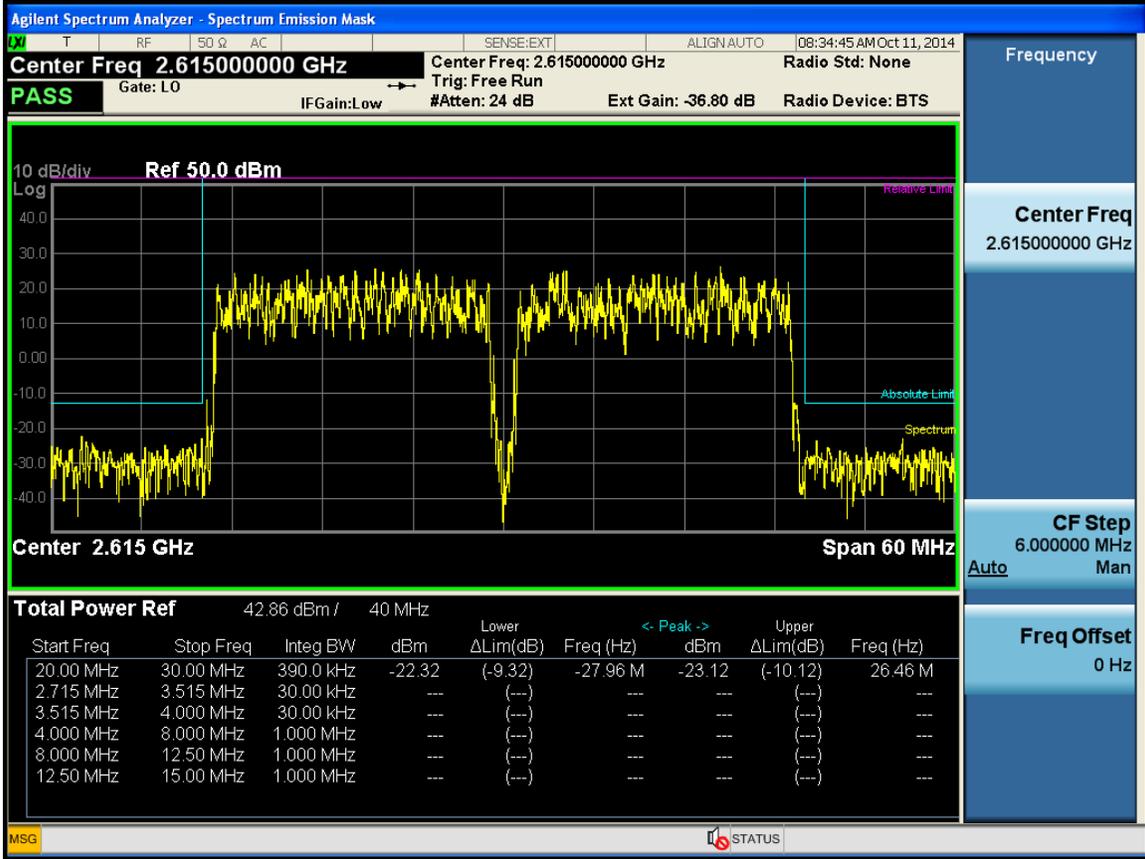


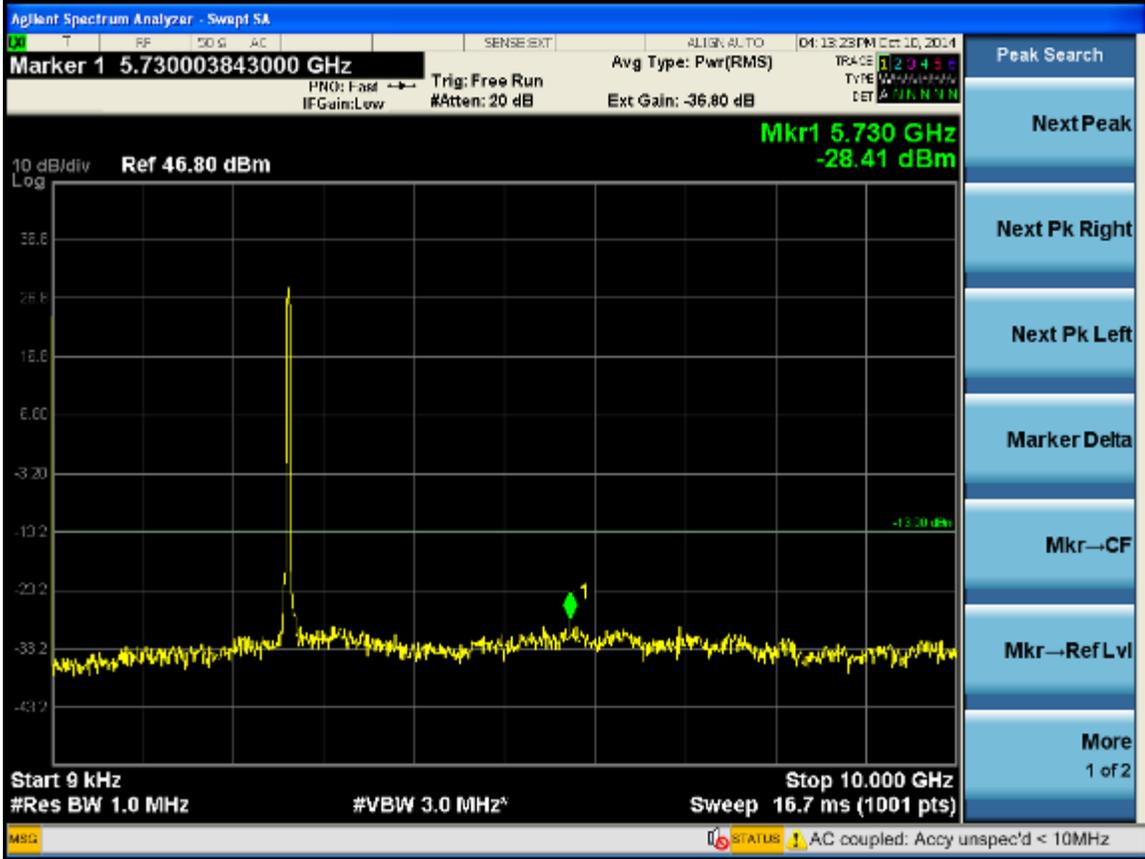




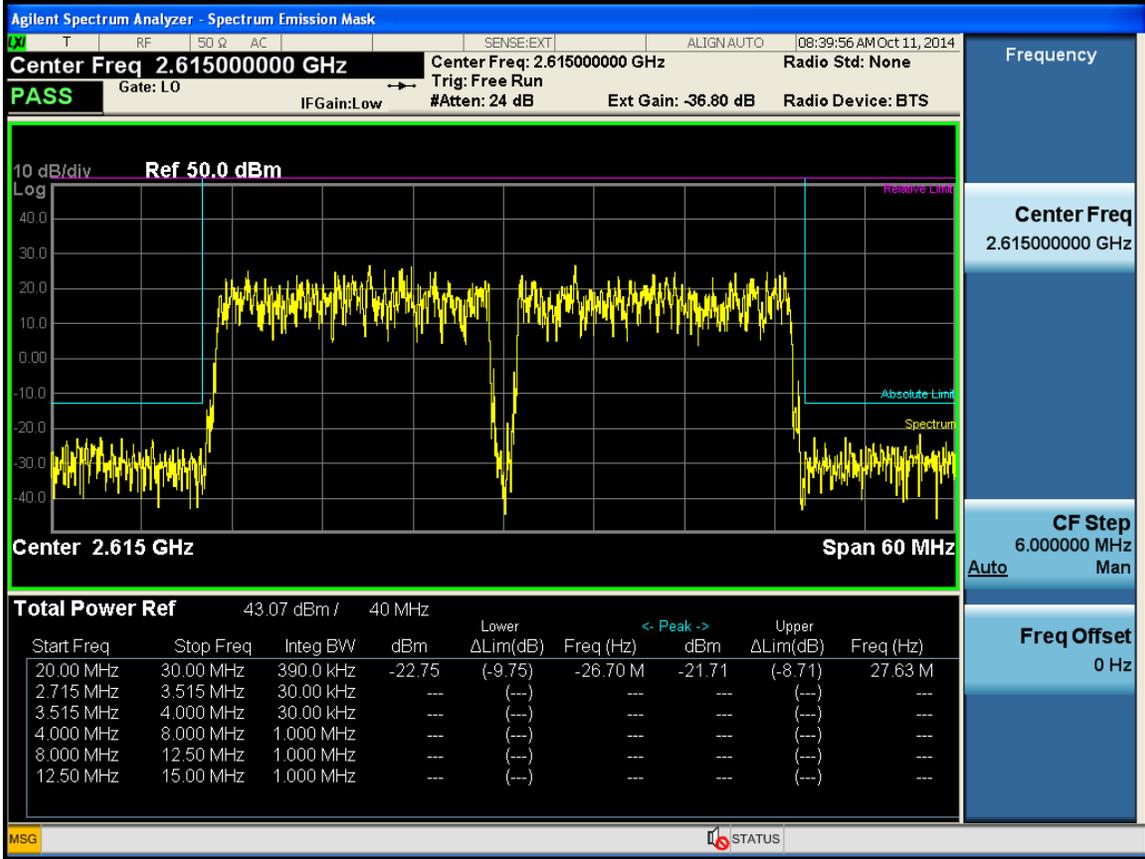


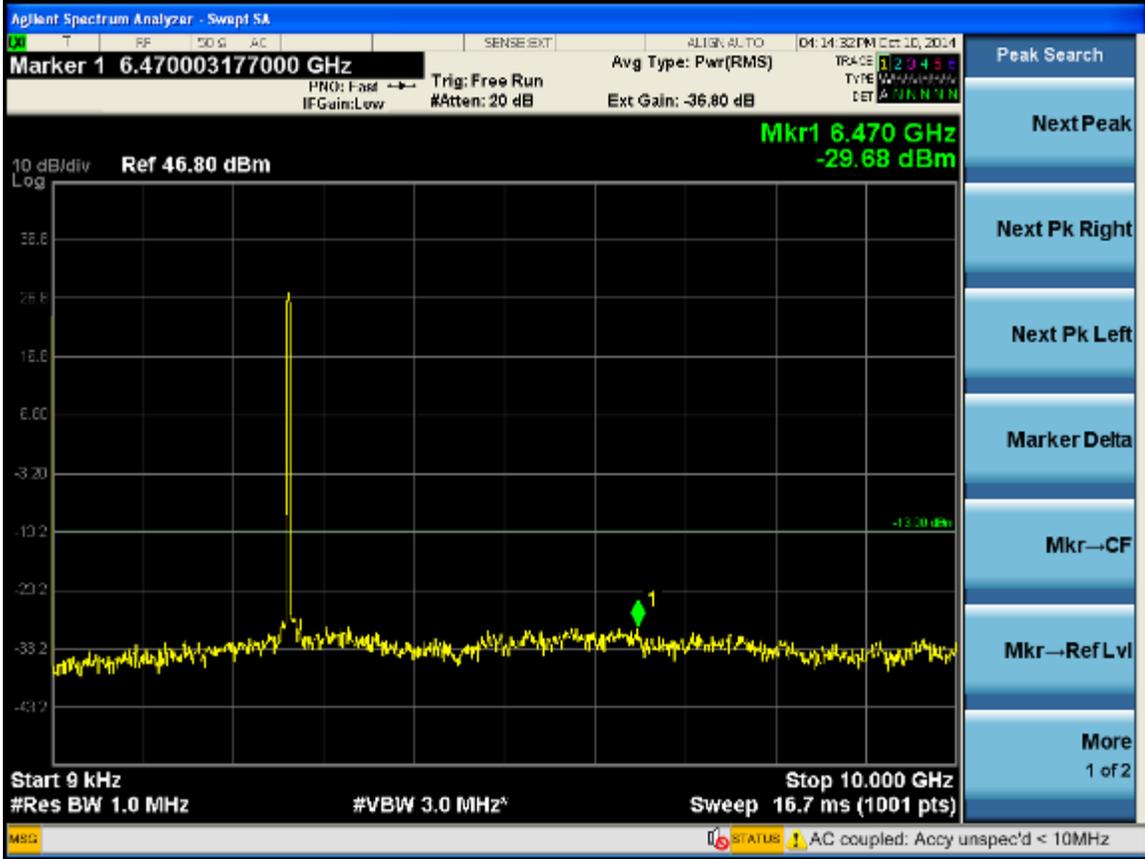


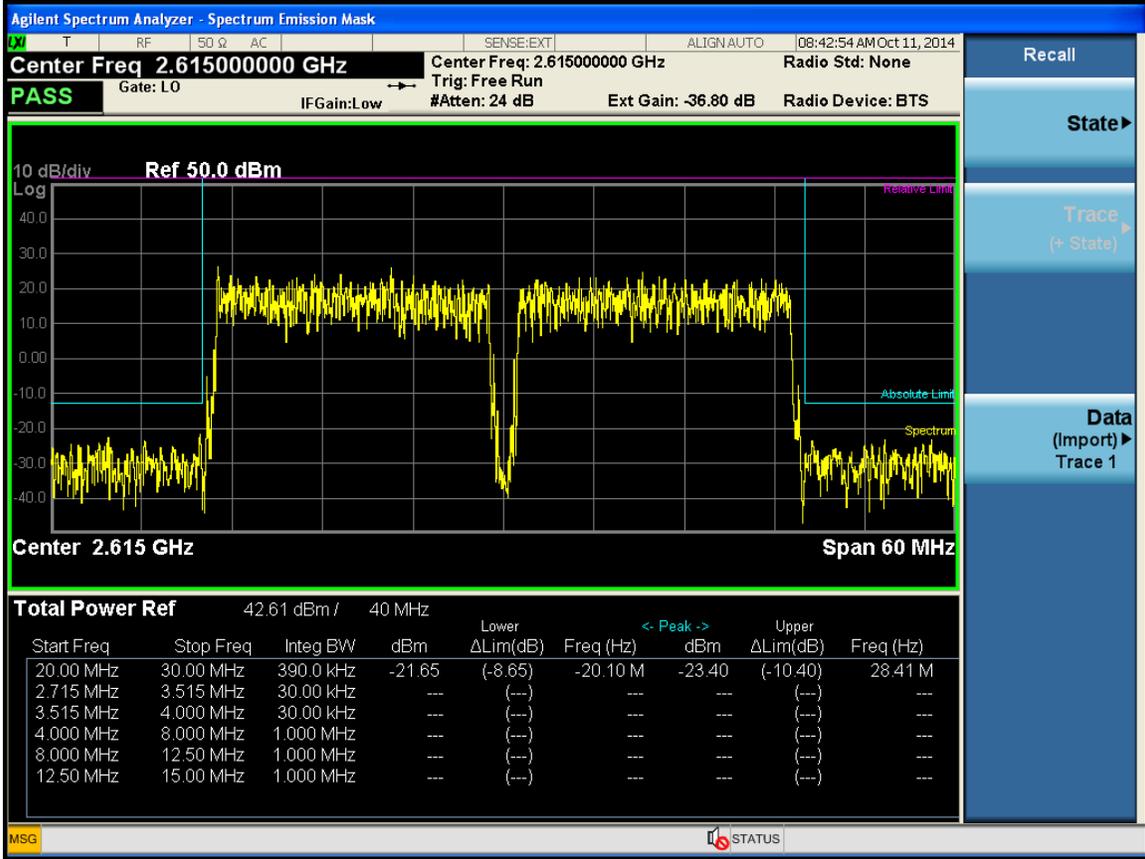


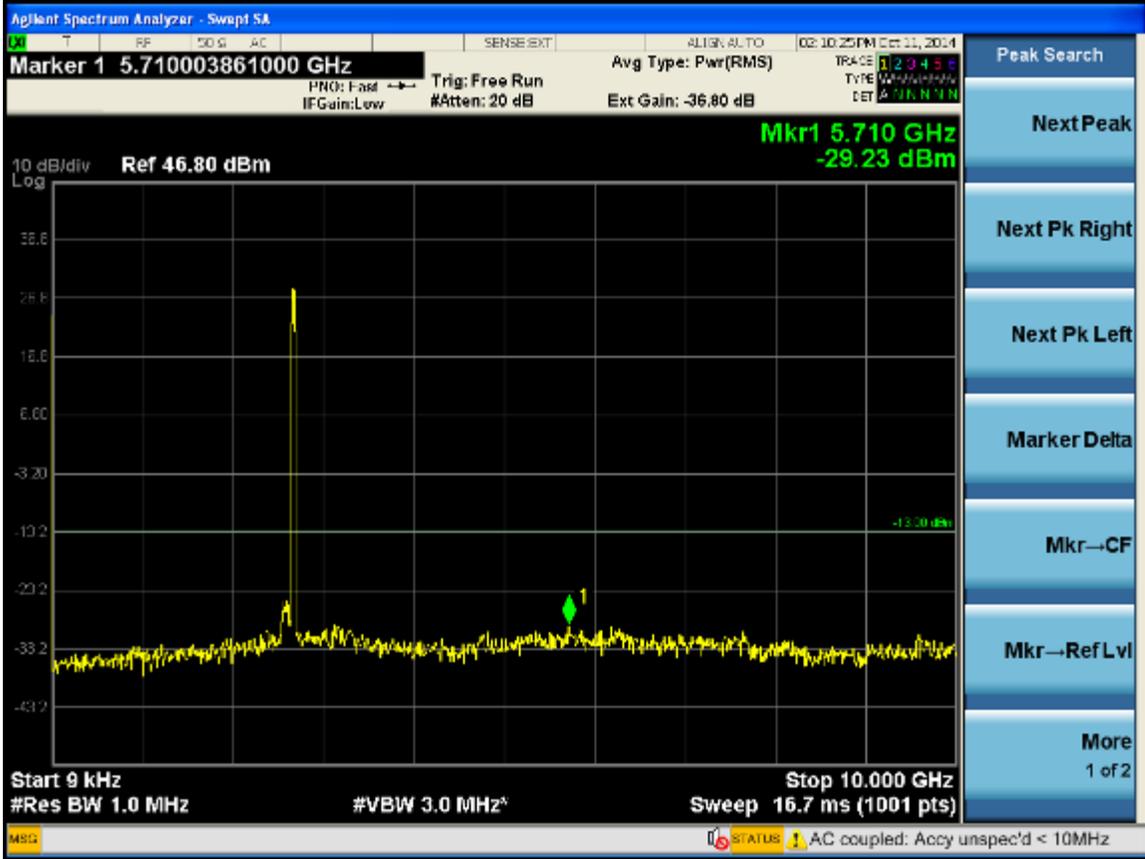




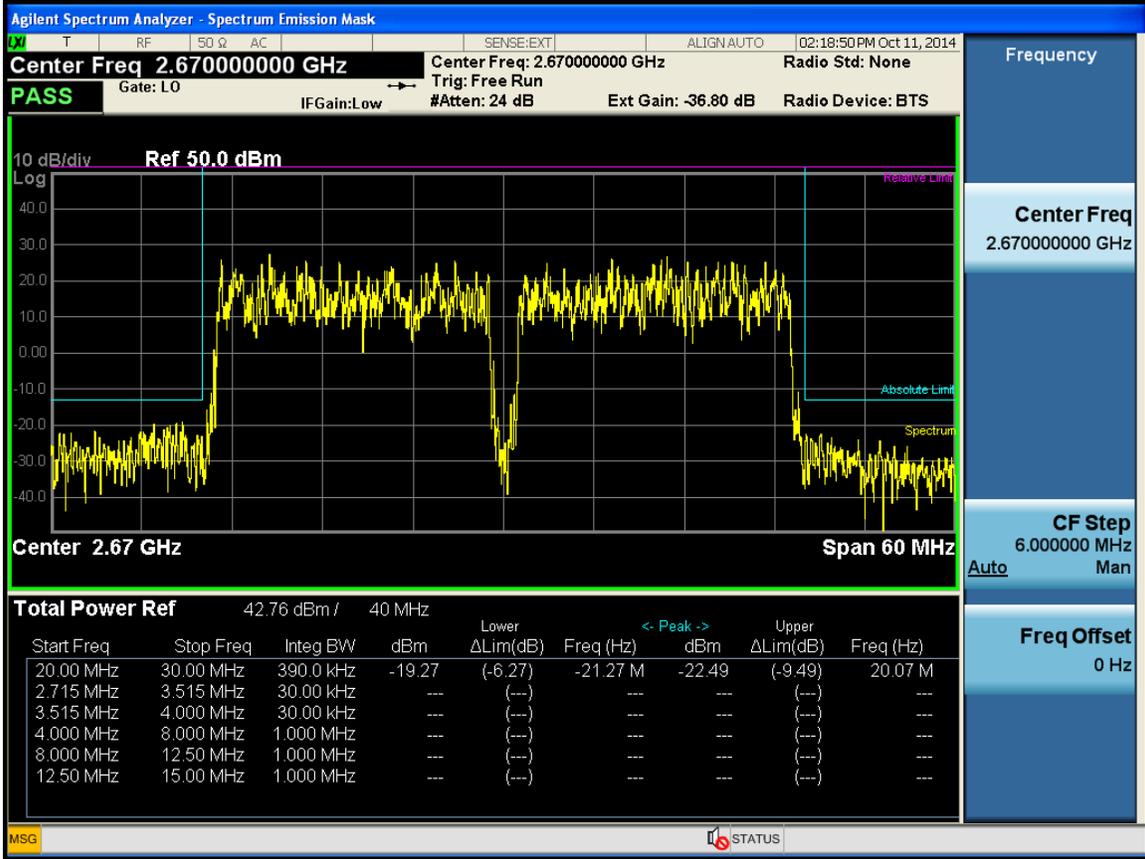


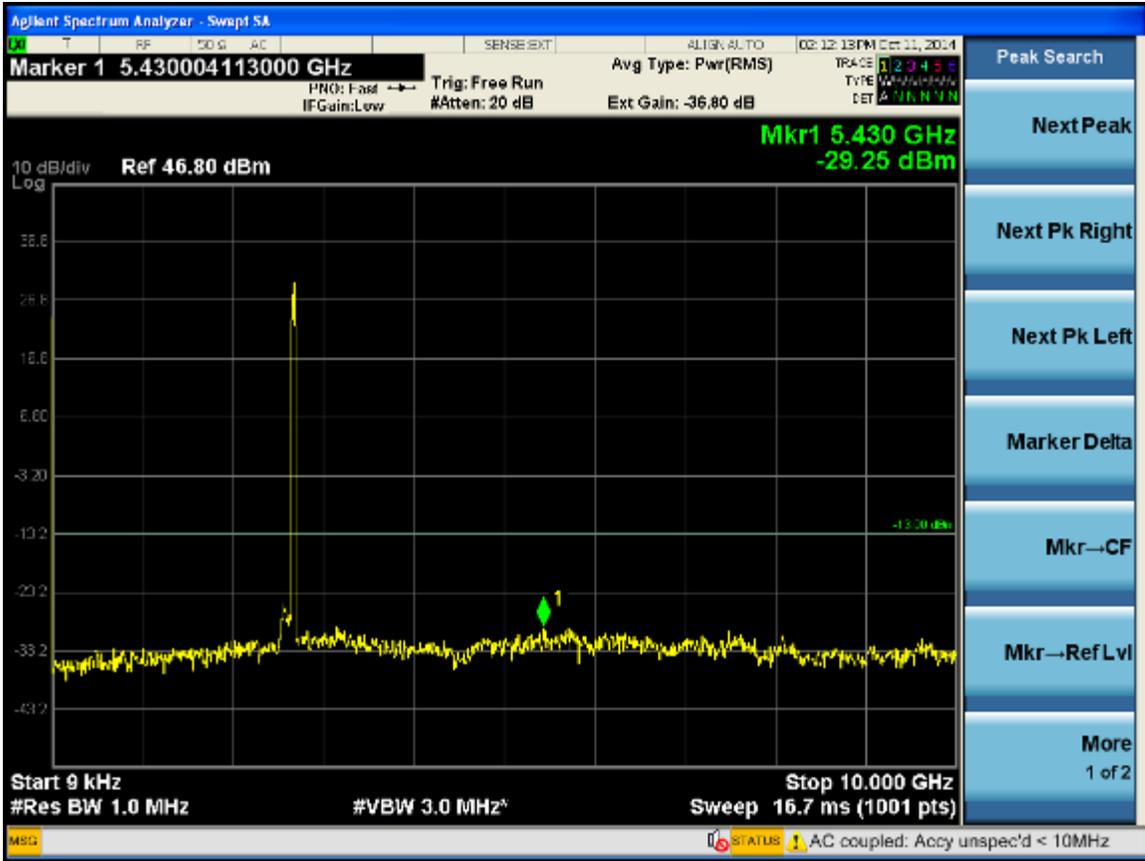




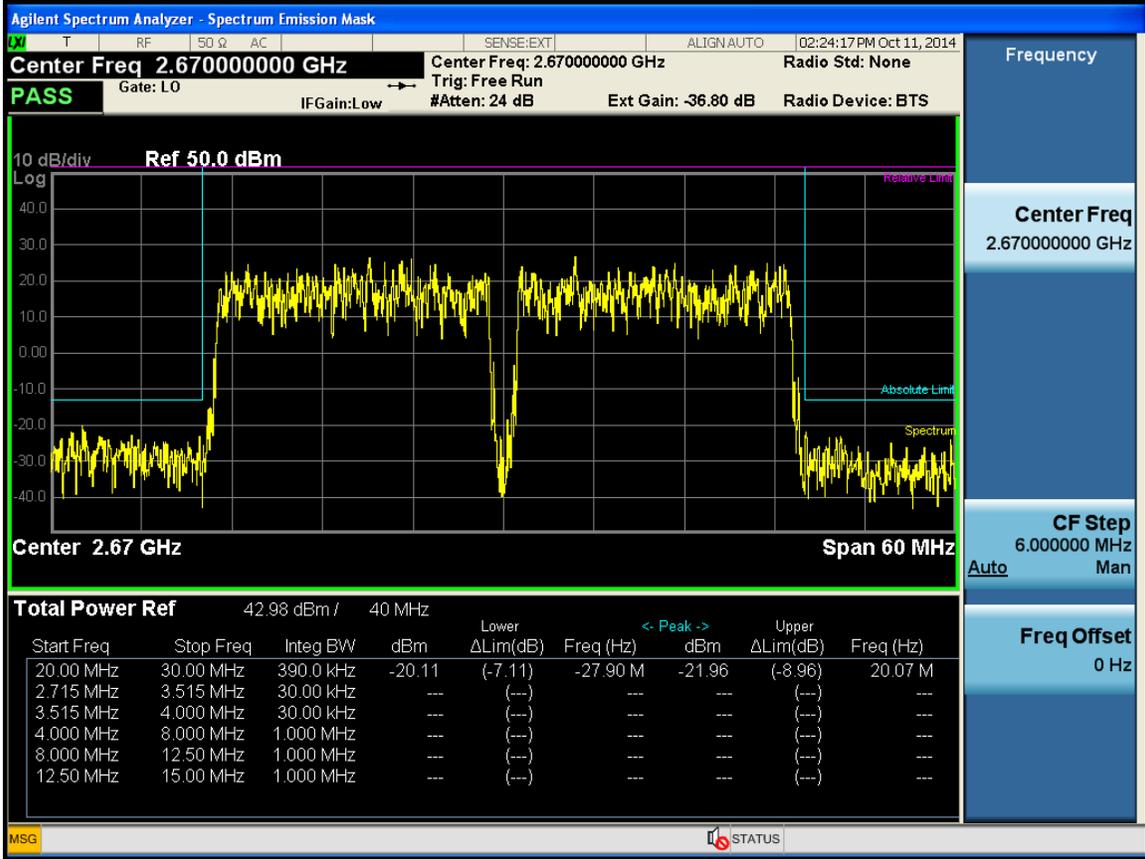


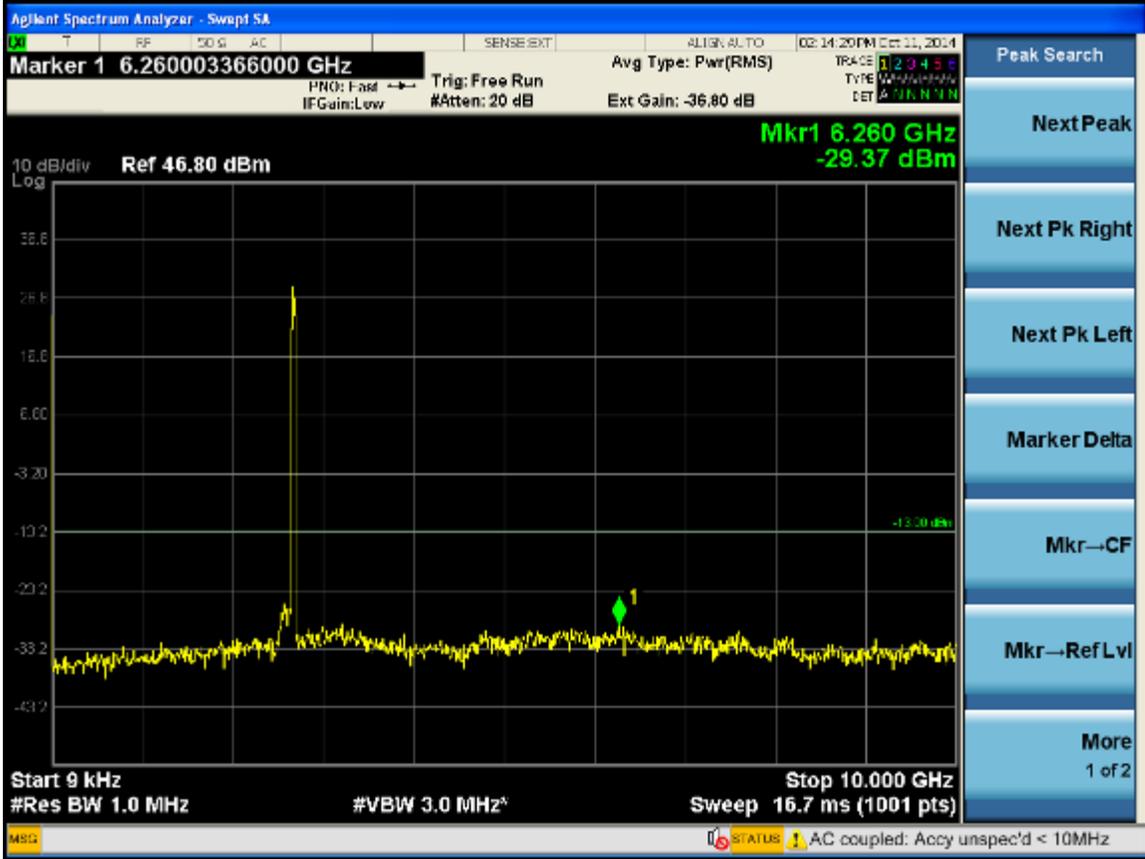




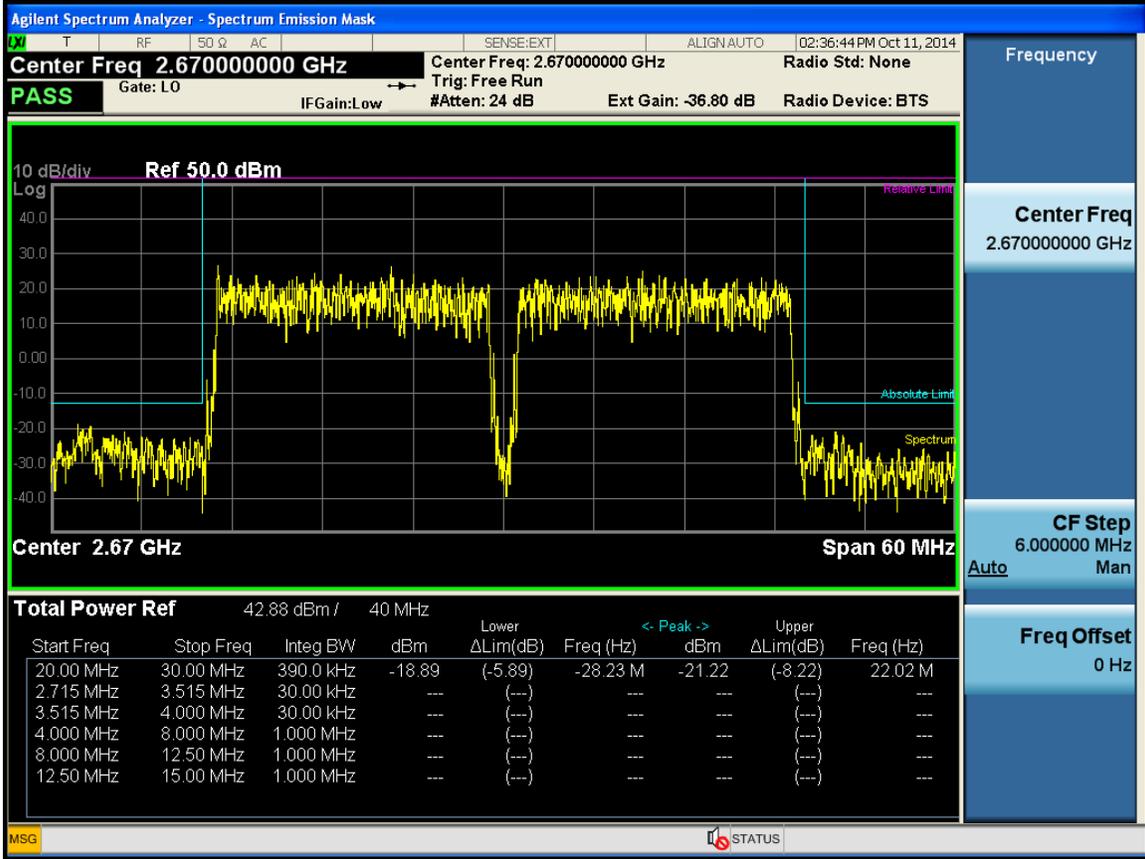


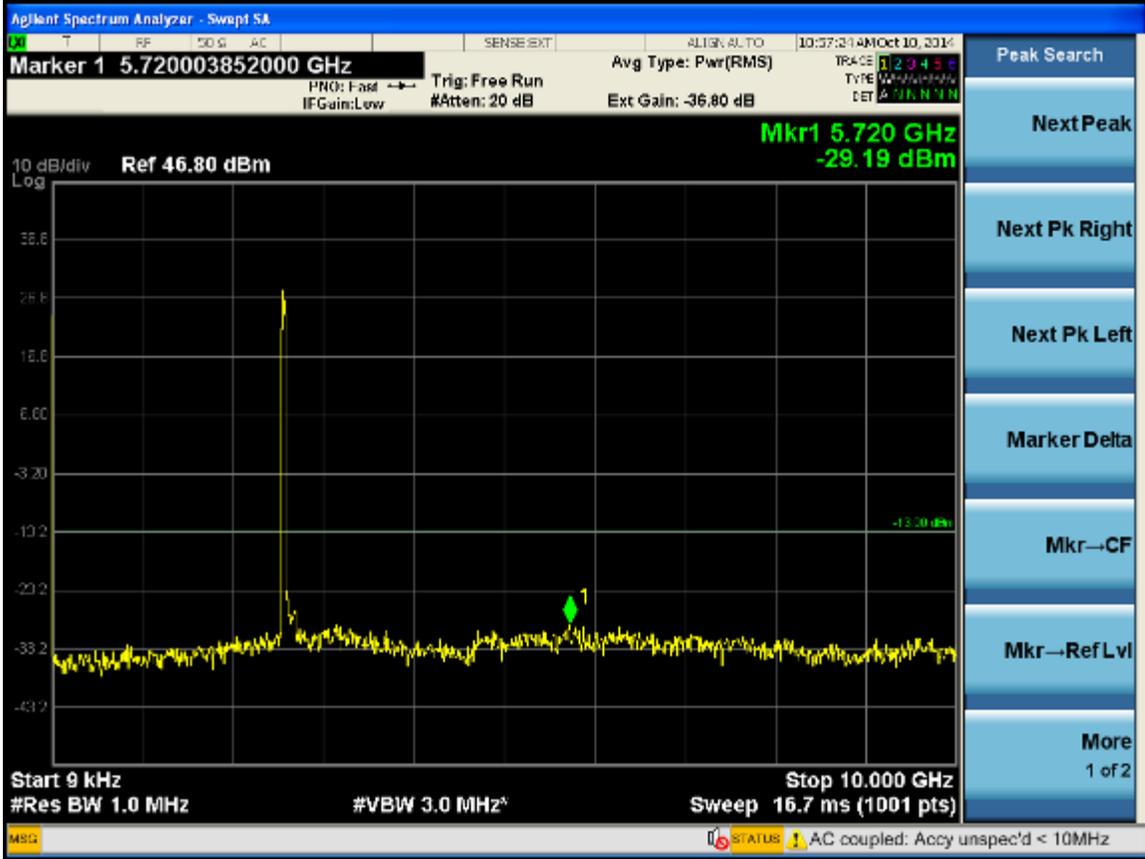




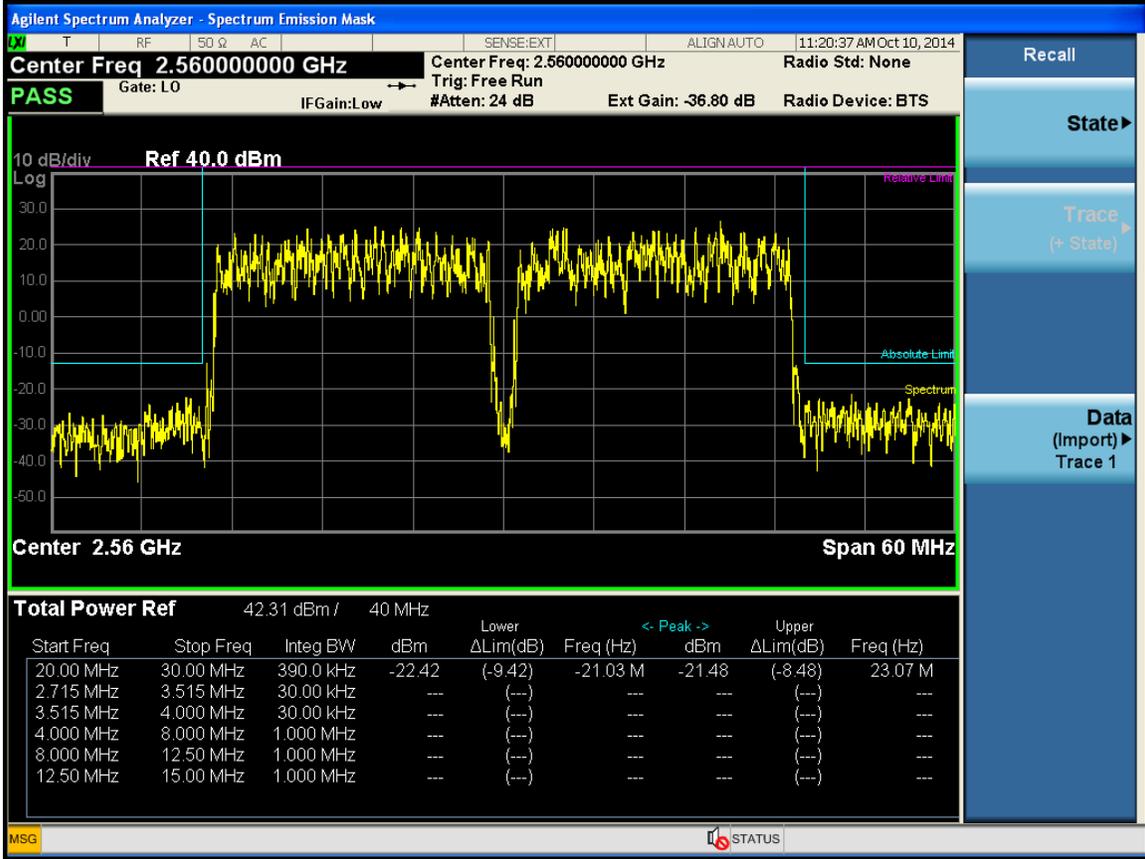


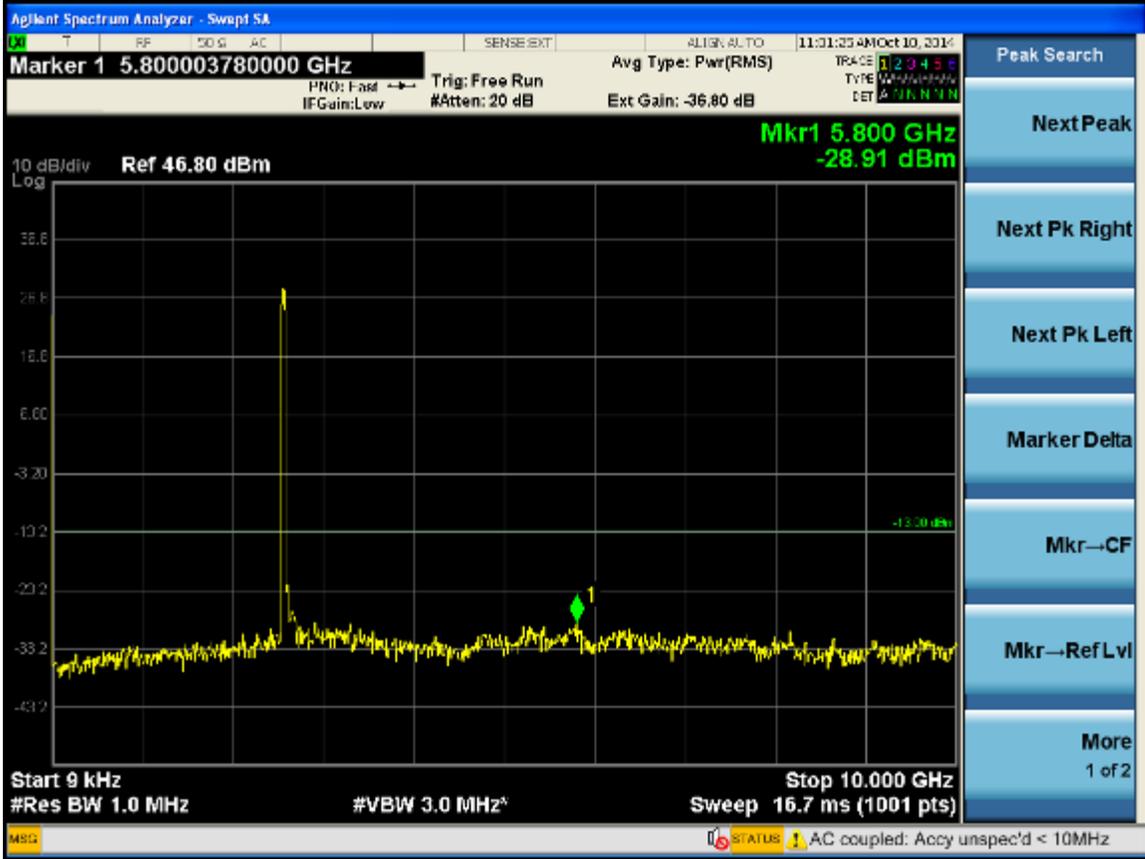




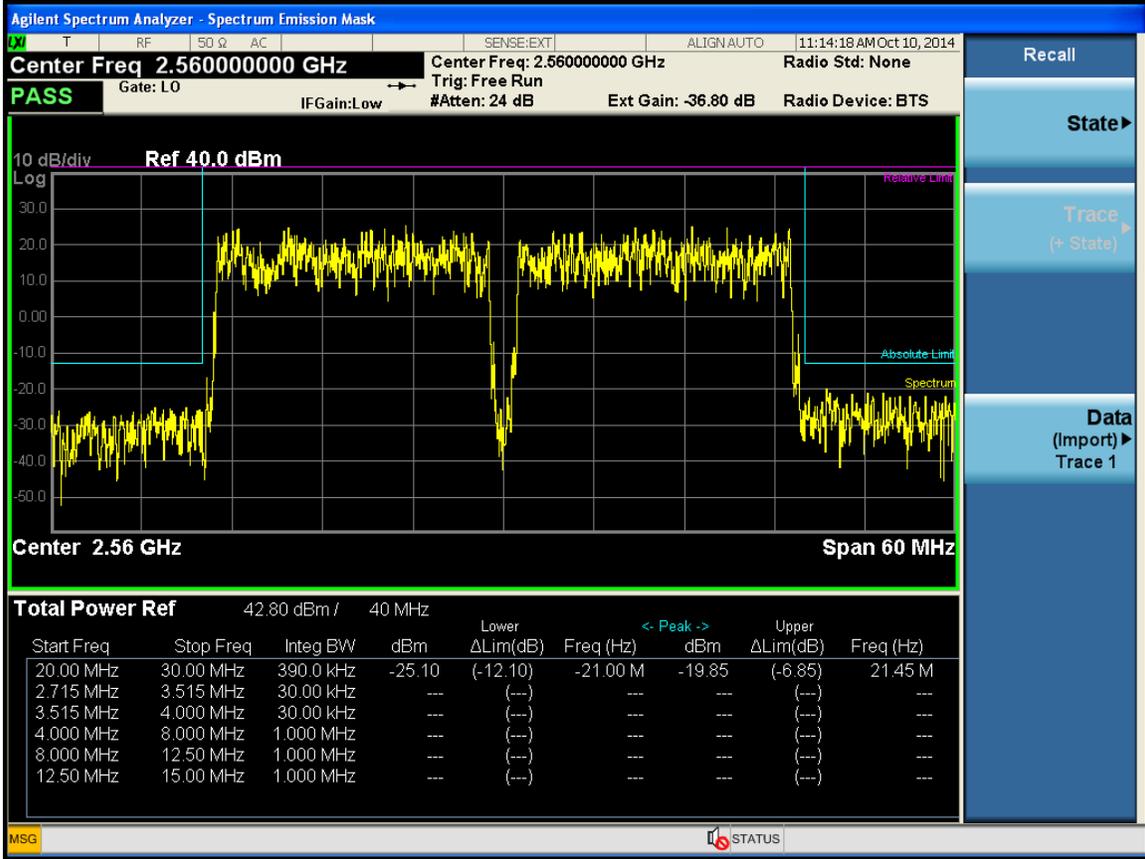


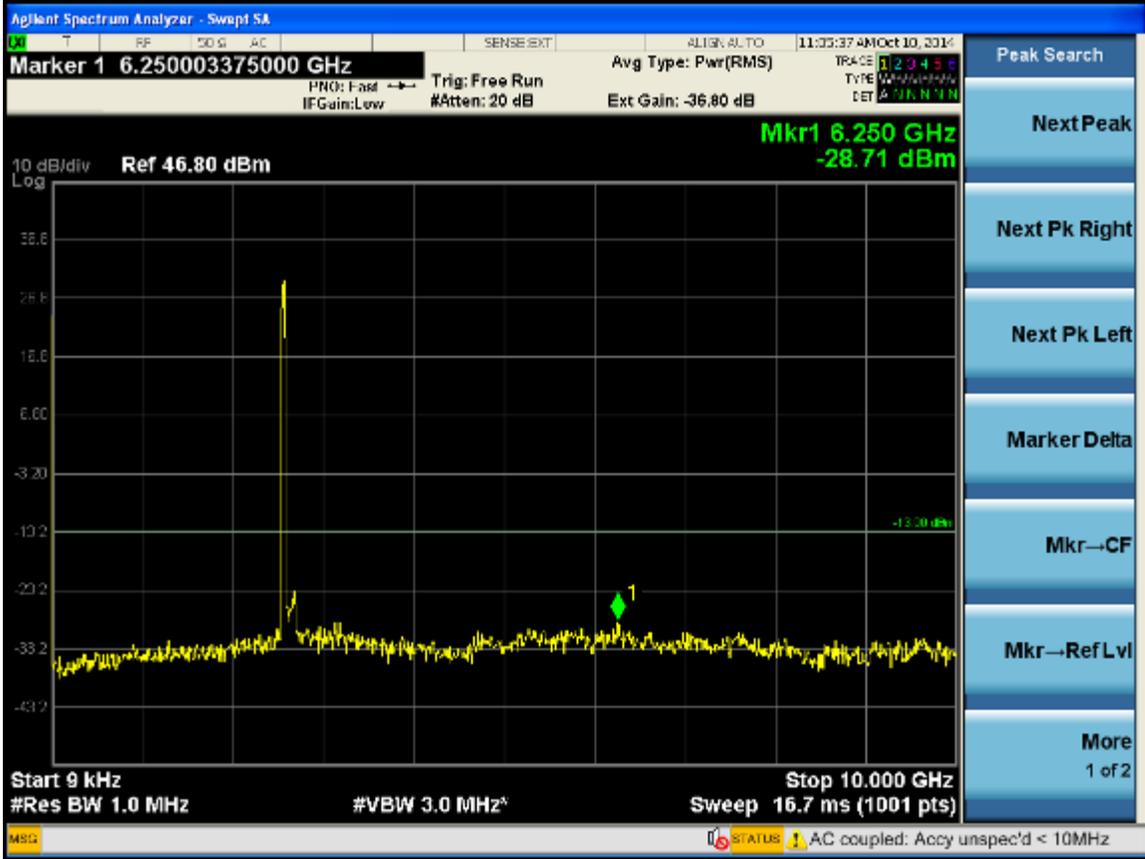




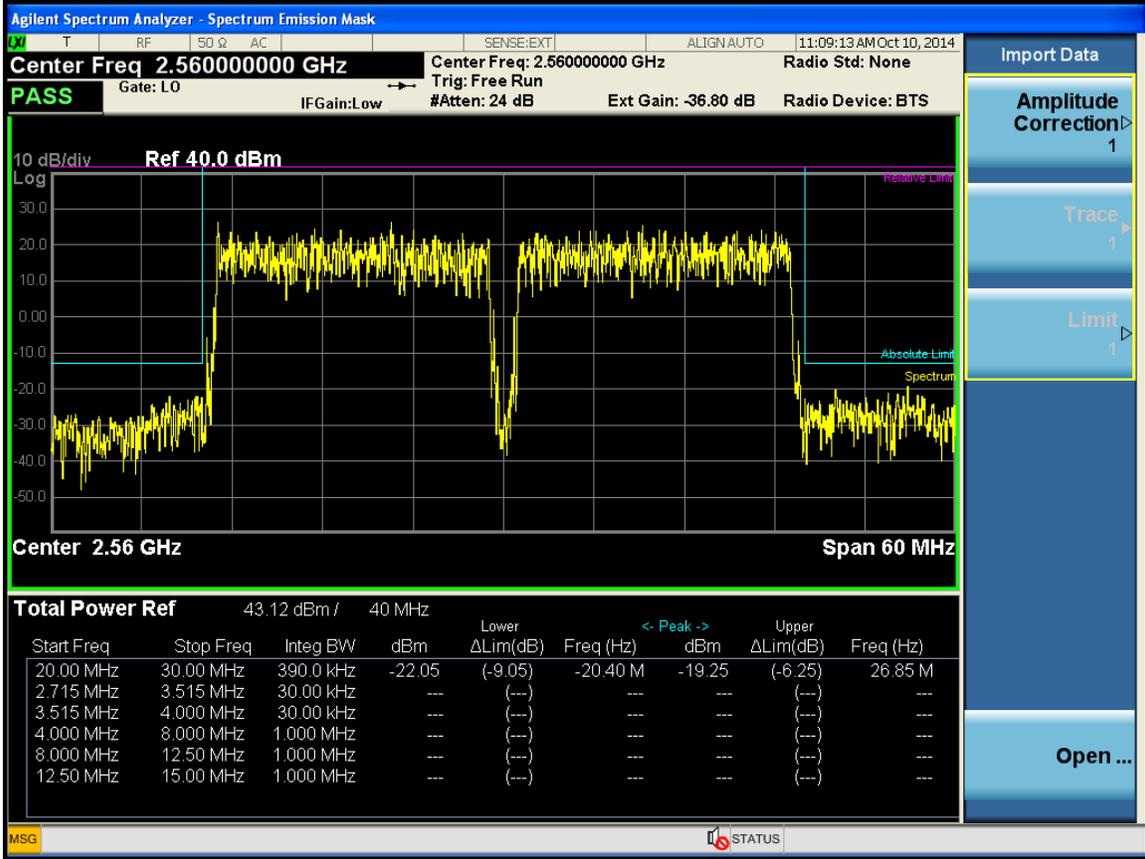












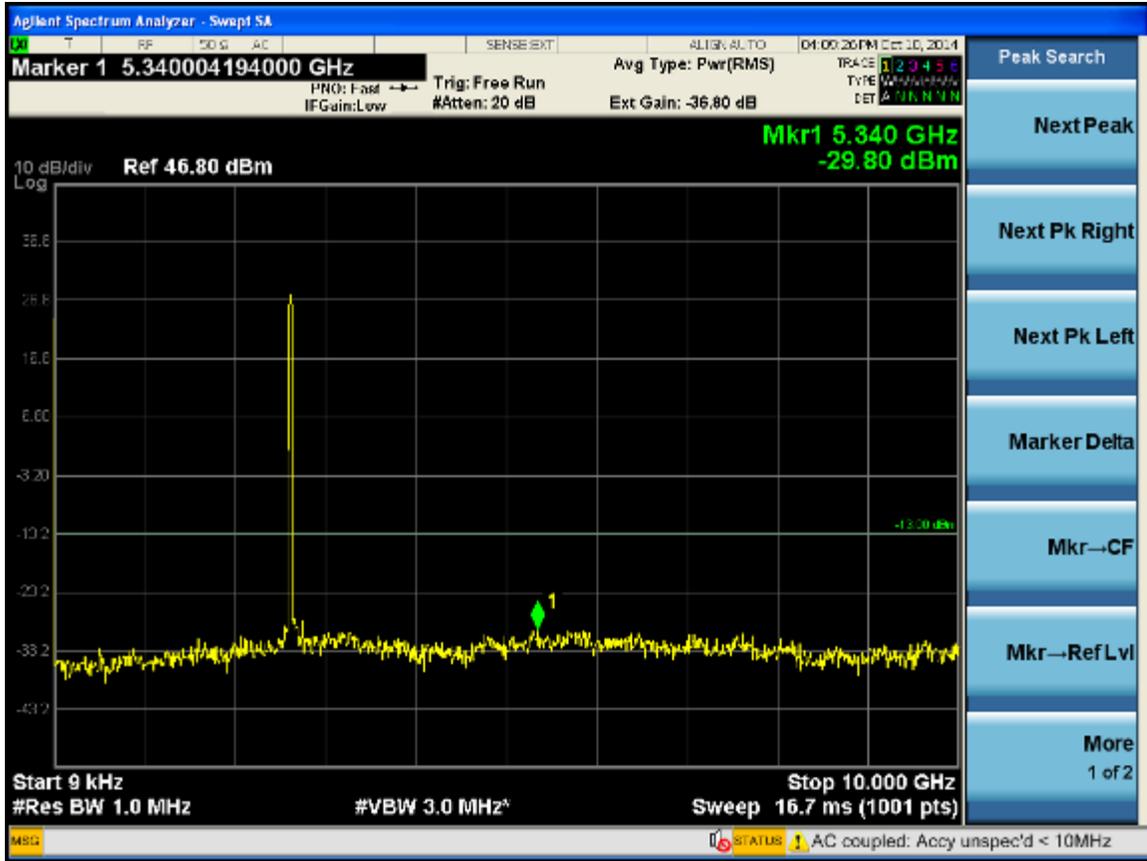
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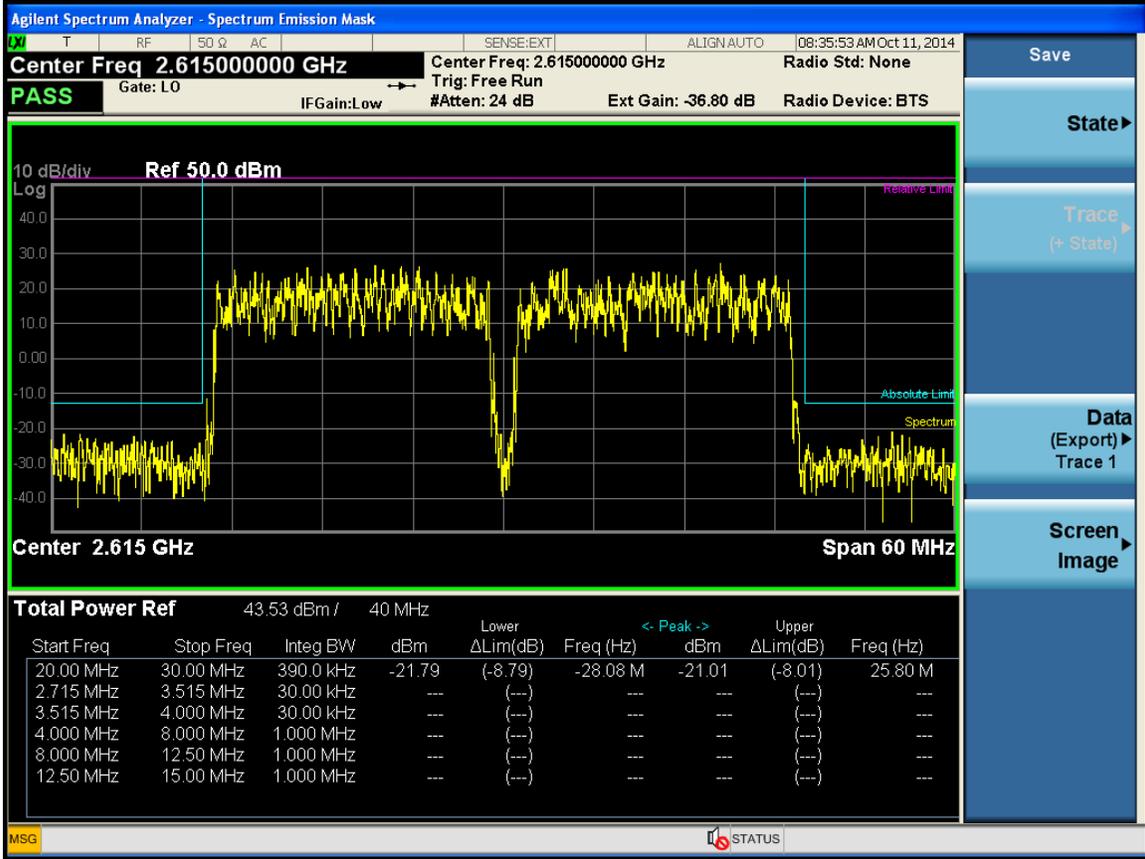
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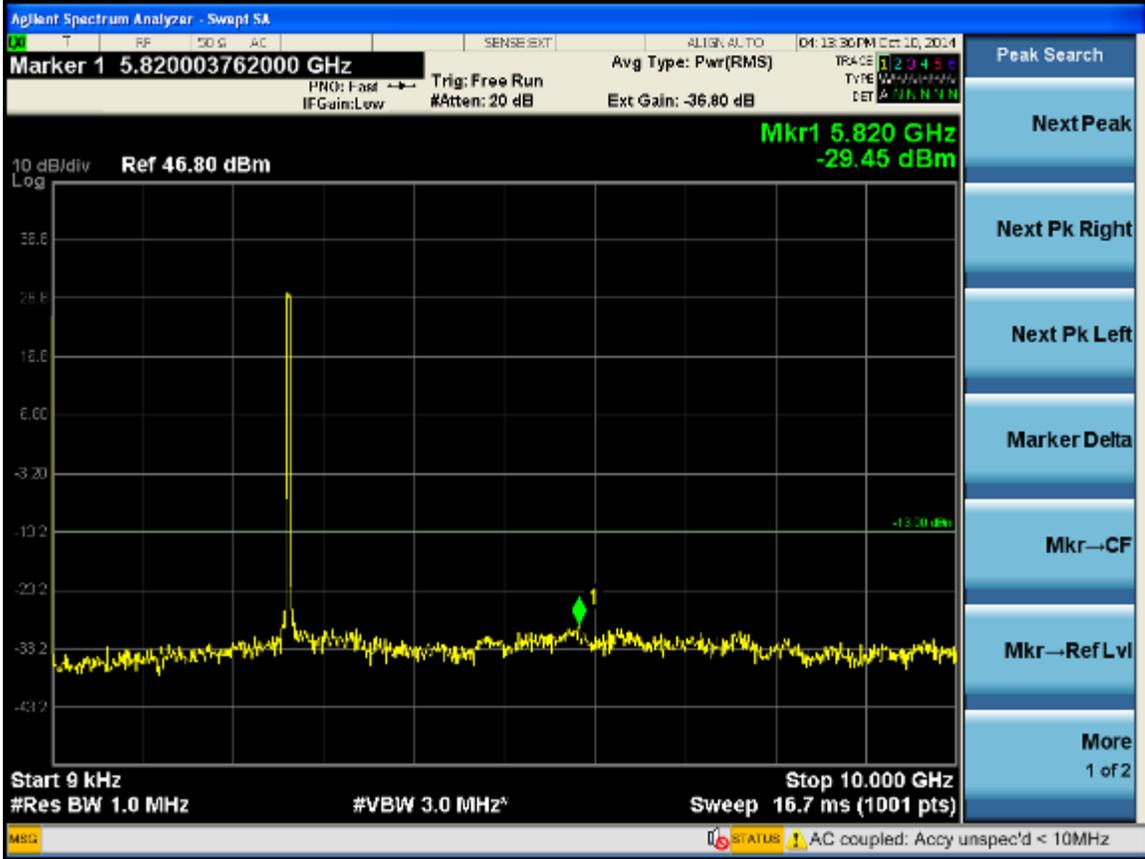
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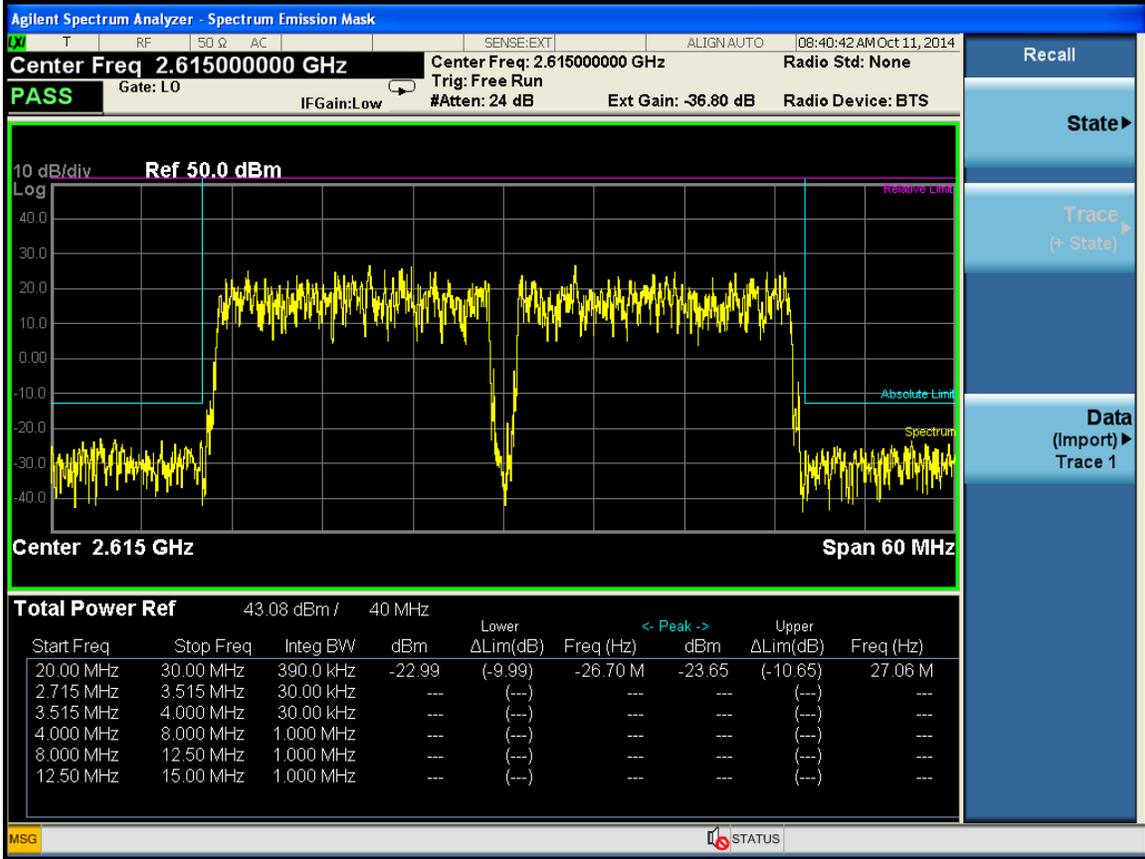


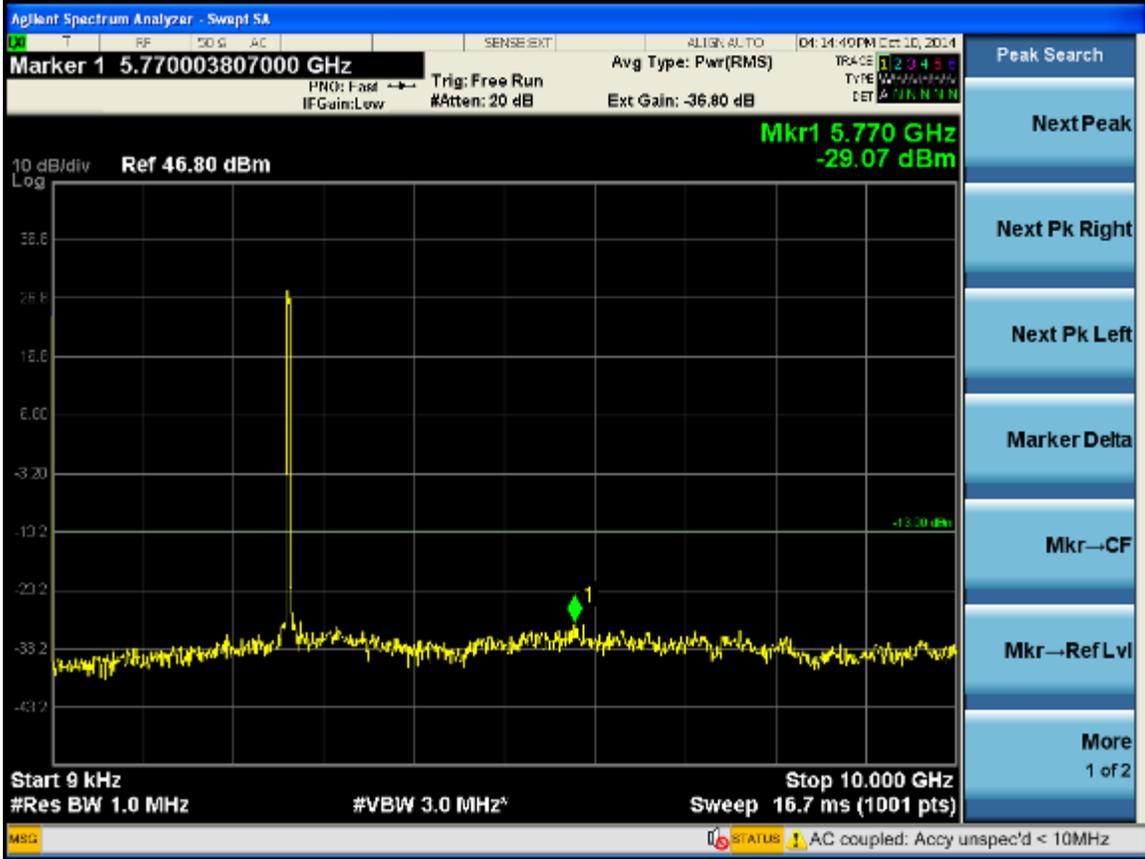




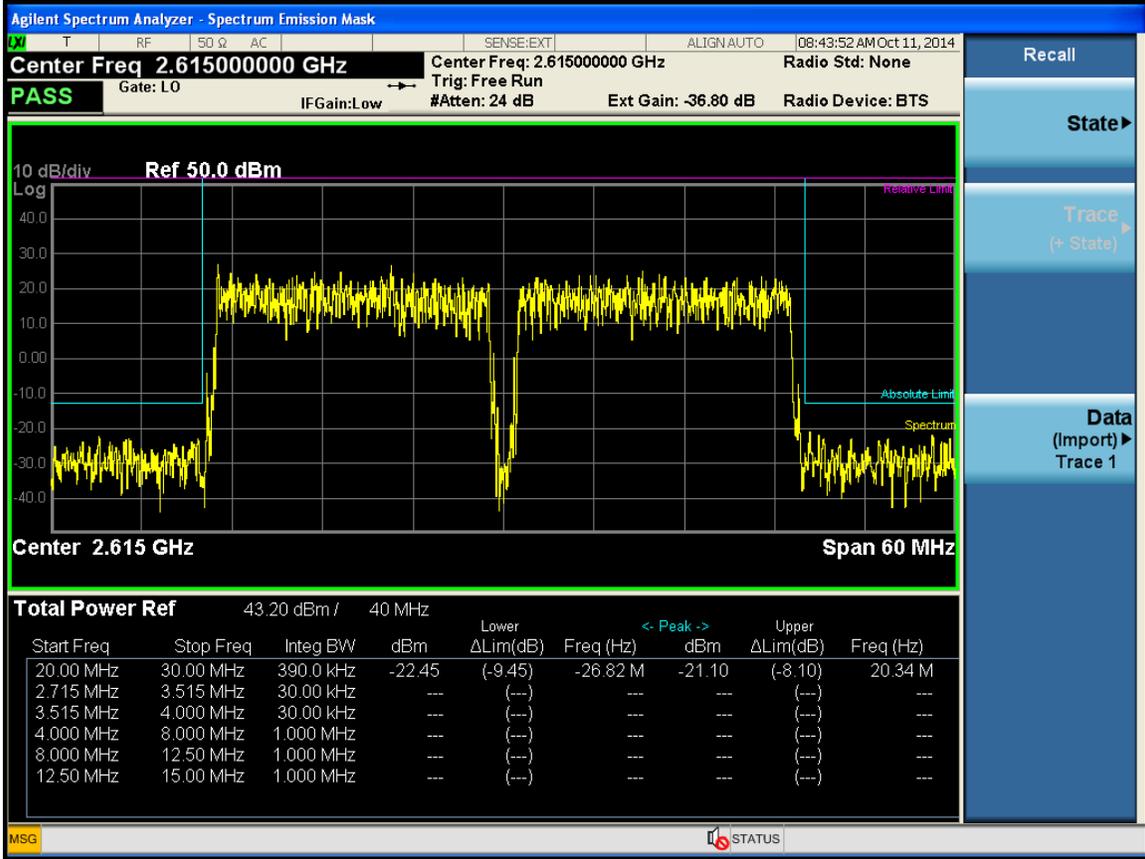


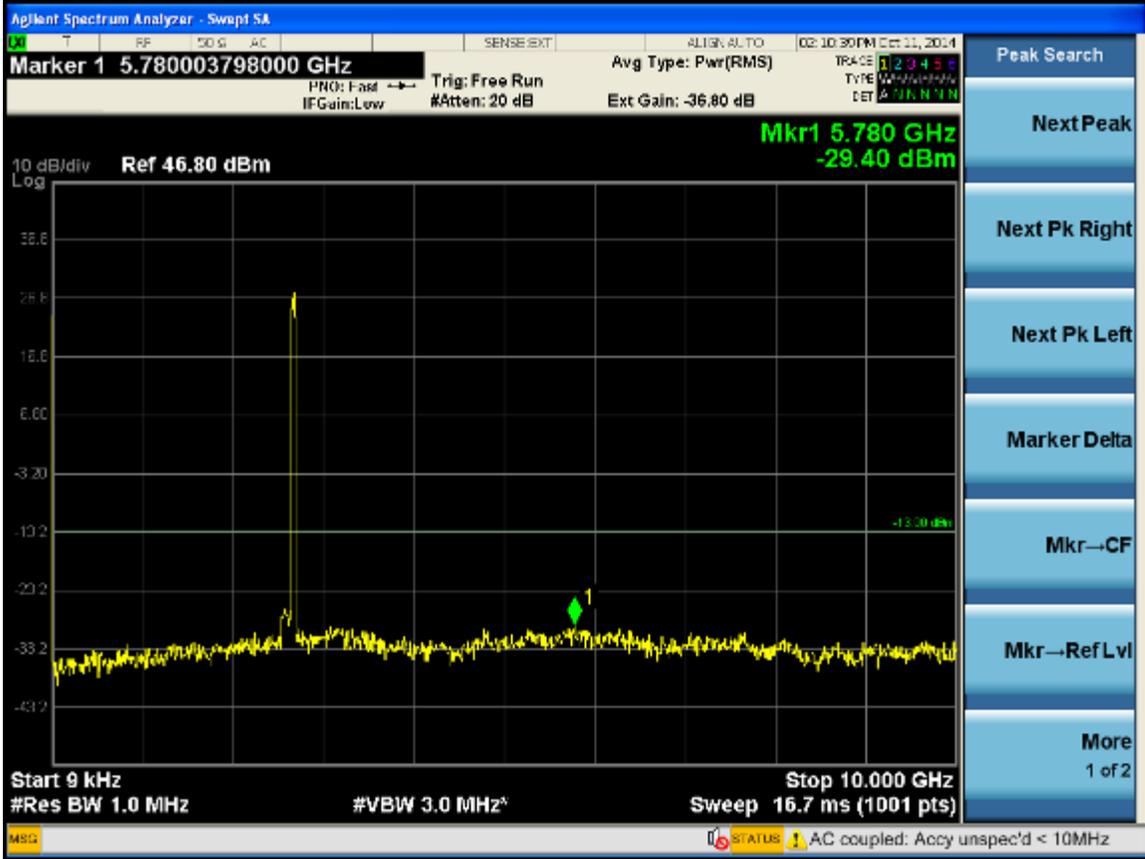




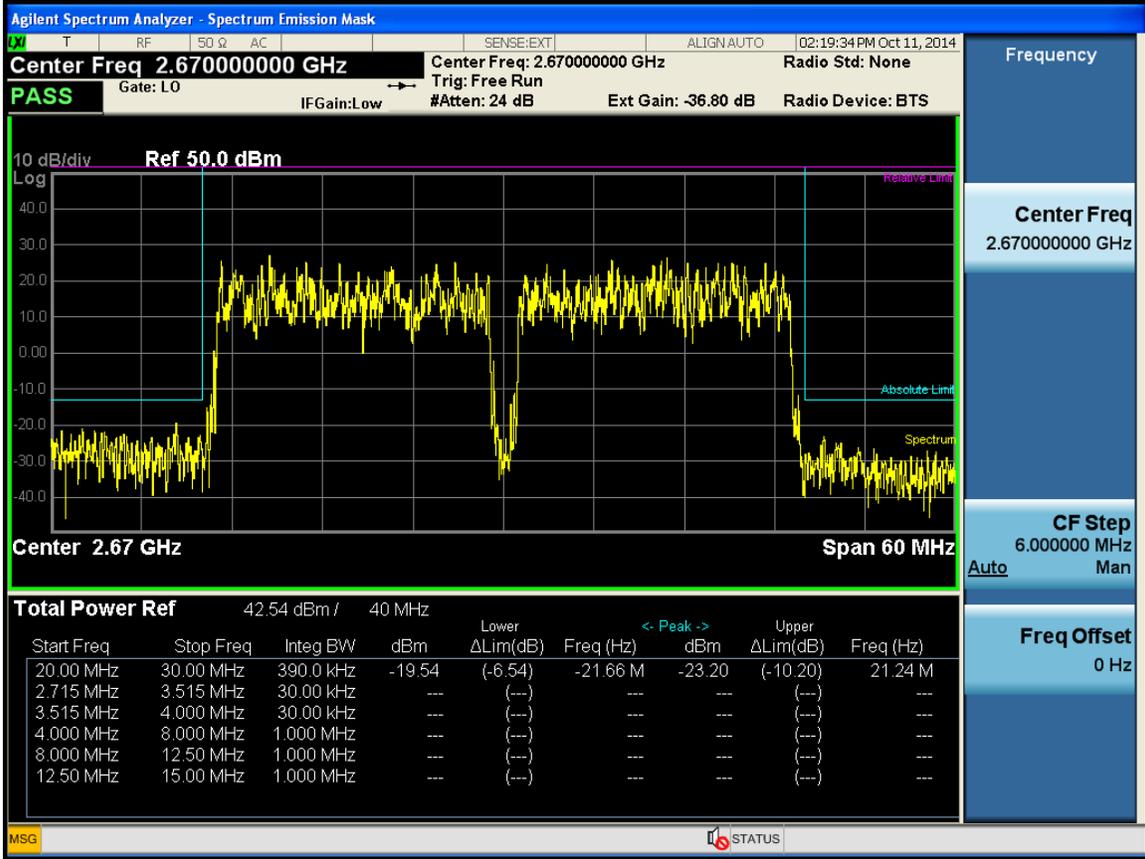


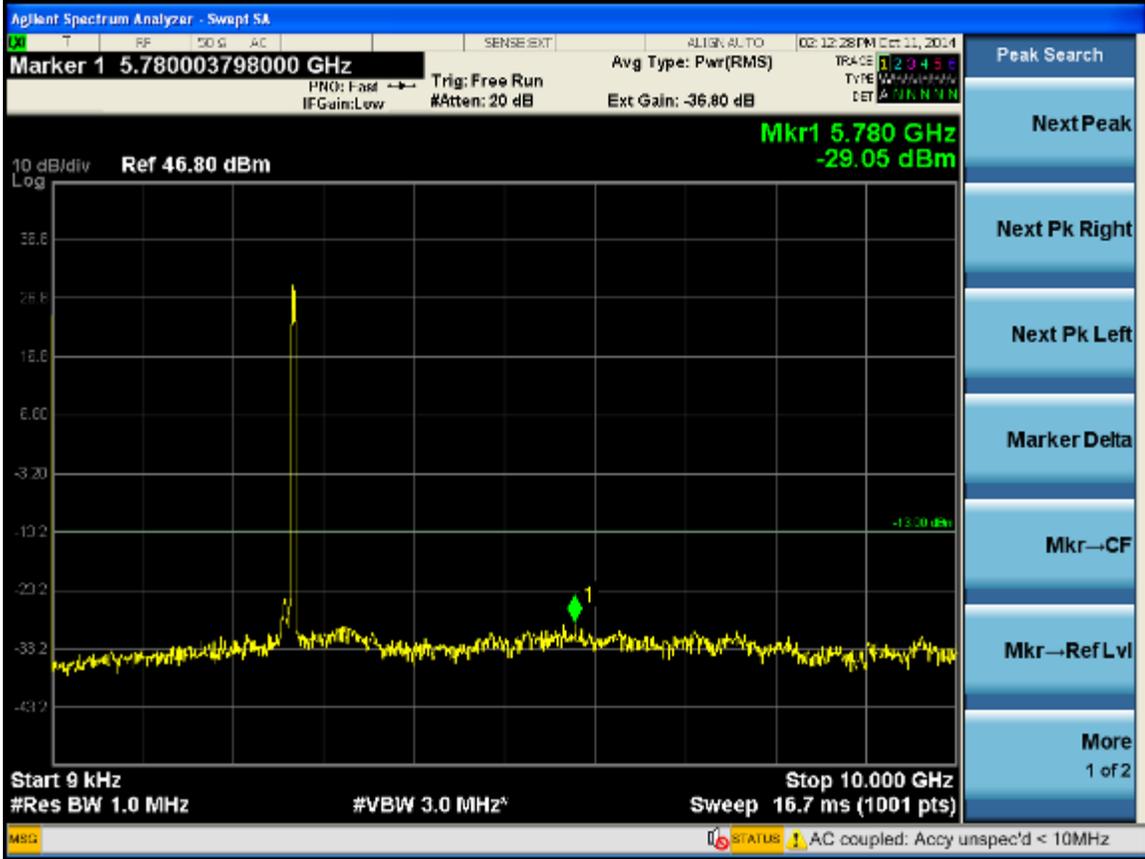




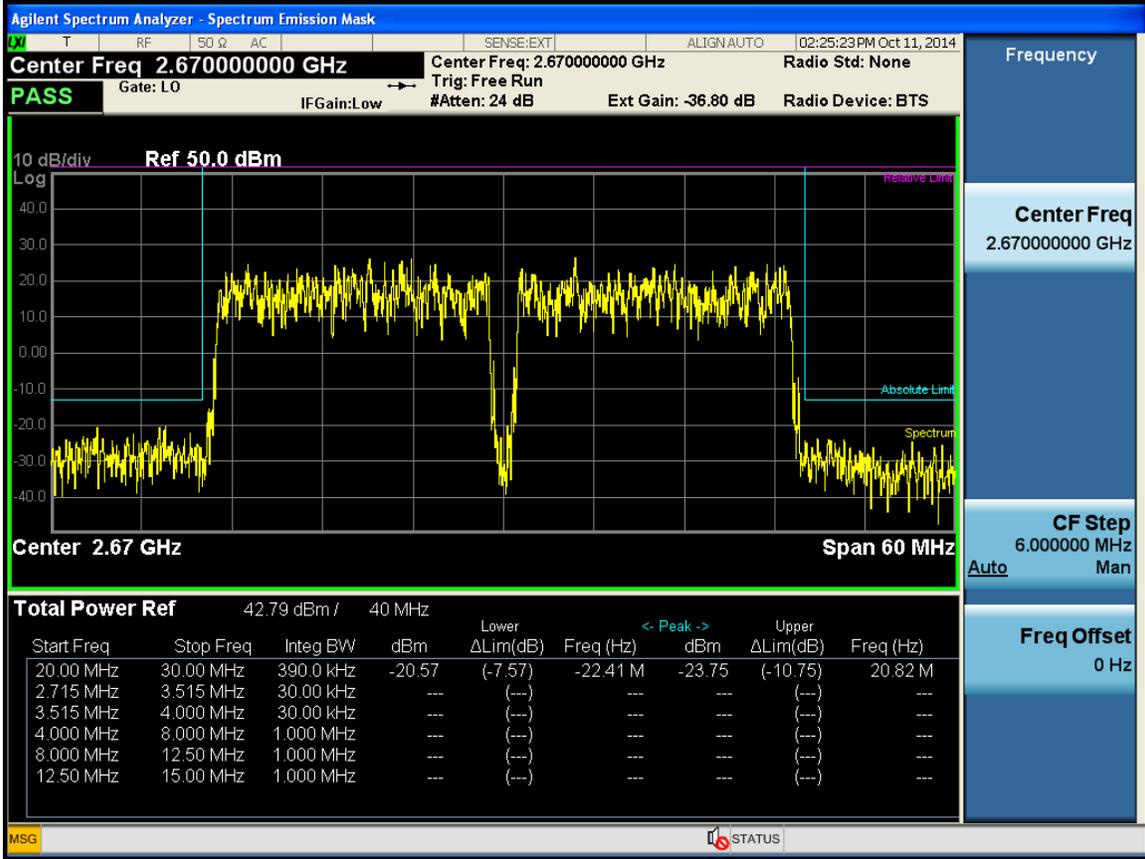


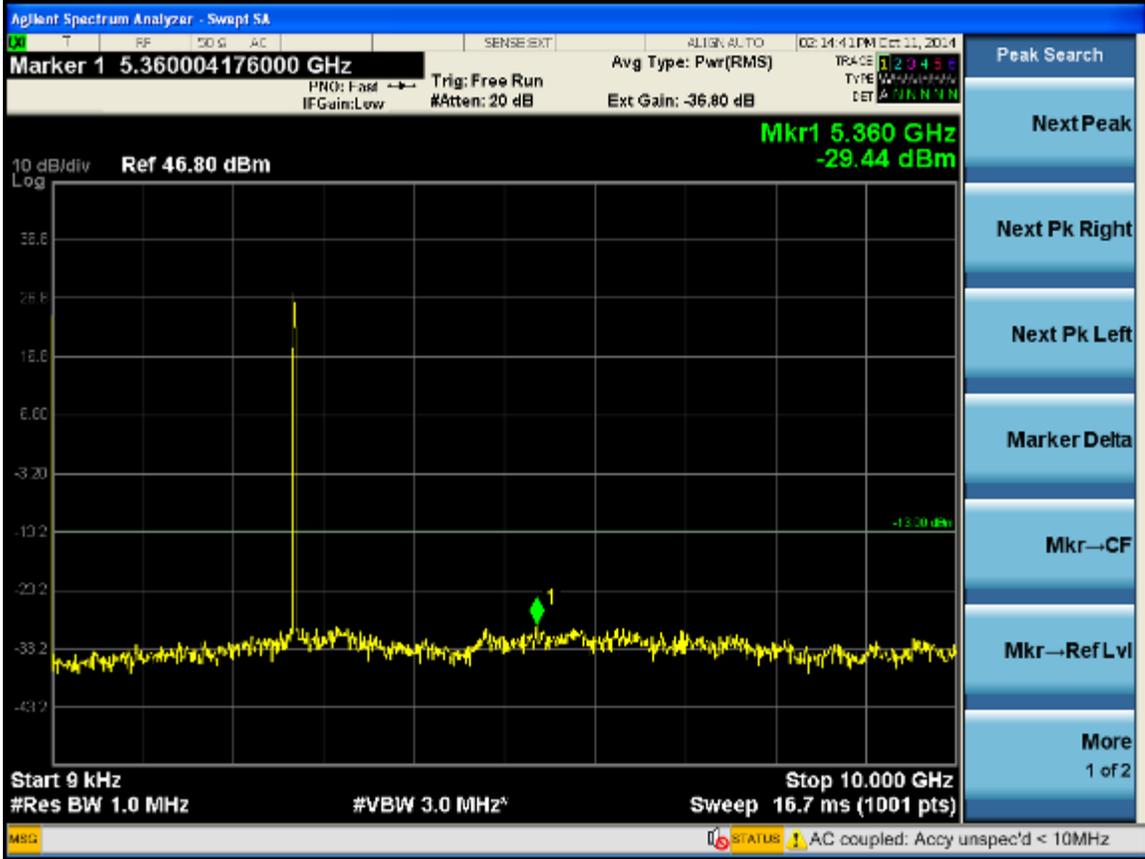




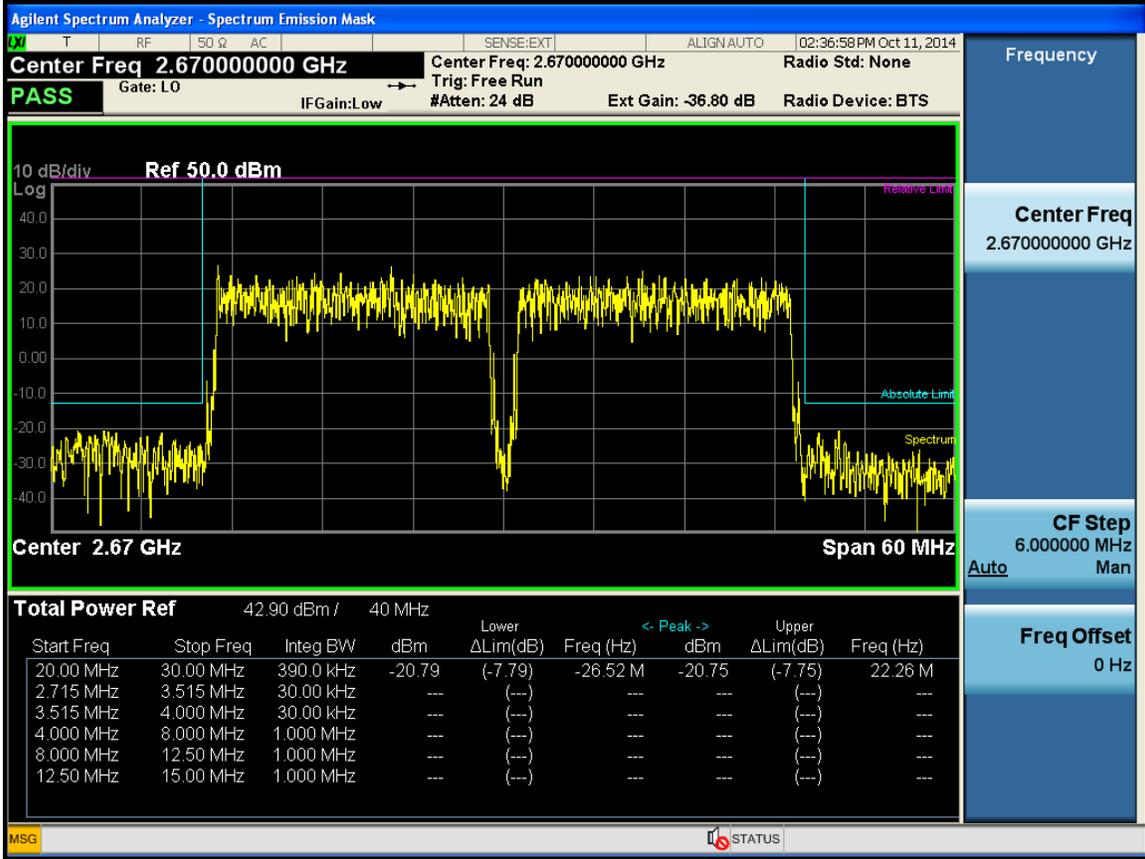












10 FREQUENCY STABILITY

Applicable Standard: FCC § 2.1055, §27.54

Requirements: FCC § 2.1055 (a)(d), The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
GZ-ESPEC	Temperature Chamber	EW0470	06113028	2014.06.25	2015.06.25
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51240300	2013.12.10	2014.12.10
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2014.06.13	2015.06.13

***statement of traceability:** ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to a Spectrum Analyzer via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 150 minutes, the frequency output was recorded from the counter.

Frequency Stability vs. Voltage: An external variable DC power supply Source. The voltage was set to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the end point. The output frequency was recorded for each voltage.

Environmental Conditions

Normal condition:	25° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

Test Result: Pass

Test Mode: Transmitting LTE

Test Data

Frequency Stability versus Temperature

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2550+2570MHz) FL=2540.72MHz, FH=2579.26MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
-40	-48	1	QPSK	-1.51	2540.72	2579.26	Pass
			16QAM	0.36	2540.72	2579.26	Pass
			64QAM	-1.25	2540.72	2579.26	Pass
		2	QPSK	2.35	2540.72	2579.26	Pass
			16QAM	-0.95	2540.72	2579.26	Pass
			64QAM	-2.28	2540.72	2579.26	Pass
		3	QPSK	-3.02	2540.72	2579.26	Pass
			16QAM	2.77	2540.72	2579.26	Pass
			64QAM	3.96	2540.72	2579.26	Pass
		4	QPSK	-2.04	2540.72	2579.26	Pass
			16QAM	-0.82	2540.72	2579.26	Pass
			64QAM	1.56	2540.72	2579.26	Pass
-30	-48	1	QPSK	0.88	2540.72	2579.26	Pass
			16QAM	-1.82	2540.72	2579.26	Pass
			64QAM	-2.53	2540.72	2579.26	Pass
		2	QPSK	-0.72	2540.72	2579.26	Pass
			16QAM	2.08	2540.72	2579.26	Pass
			64QAM	1.85	2540.72	2579.26	Pass

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2550+2570MHz) FL=2540.72MHz, FH=2579.26MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset(MHz)	FH+ Frequency Offset(MHz)	Result
		3	QPSK	-2.57	2540.72	2579.26	Pass
			16QAM	-0.33	2540.72	2579.26	Pass
			64QAM	2.81	2540.72	2579.26	Pass
		4	QPSK	0.68	2540.72	2579.26	Pass
			16QAM	0.52	2540.72	2579.26	Pass
			64QAM	1.52	2540.72	2579.26	Pass
-20	-48	1	QPSK	-2.51	2540.72	2579.26	Pass
			16QAM	0.62	2540.72	2579.26	Pass
			64QAM	2.15	2540.72	2579.26	Pass
		2	QPSK	-0.6	2540.72	2579.26	Pass
			16QAM	-1.78	2540.72	2579.26	Pass
			64QAM	2.88	2540.72	2579.26	Pass
		3	QPSK	1.69	2540.72	2579.26	Pass
			16QAM	3.12	2540.72	2579.26	Pass
			64QAM	-2.25	2540.72	2579.26	Pass
		4	QPSK	3.02	2540.72	2579.26	Pass
			16QAM	-1.89	2540.72	2579.26	Pass
			64QAM	0.33	2540.72	2579.26	Pass
-10	-48	1	QPSK	1.85	2540.72	2579.26	Pass
			16QAM	-2.81	2540.72	2579.26	Pass
			64QAM	3.66	2540.72	2579.26	Pass
		2	QPSK	-2.88	2540.72	2579.26	Pass
			16QAM	0.27	2540.72	2579.26	Pass
			64QAM	-1.58	2540.72	2579.26	Pass
		3	QPSK	3.66	2540.72	2579.26	Pass
			16QAM	4.28	2540.72	2579.26	Pass
			64QAM	-1.82	2540.72	2579.26	Pass
		4	QPSK	-0.99	2540.72	2579.26	Pass
			16QAM	2.55	2540.72	2579.26	Pass
			64QAM	-2.81	2540.72	2579.26	Pass
0	-48	1	QPSK	-2.64	2540.72	2579.26	Pass
			16QAM	0.58	2540.72	2579.26	Pass
			64QAM	-3.62	2540.72	2579.26	Pass

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2550+2570MHz) FL=2540.72MHz, FH=2579.26MHz									
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result		
		2	QPSK	0.59	2540.72	2579.26	Pass		
			16QAM	-4.22	2540.72	2579.26	Pass		
			64QAM	2.98	2540.72	2579.26	Pass		
		3	QPSK	1.25	2540.72	2579.26	Pass		
			16QAM	-0.98	2540.72	2579.26	Pass		
			64QAM	-3.71	2540.72	2579.26	Pass		
		4	QPSK	0.58	2540.72	2579.26	Pass		
			16QAM	2.24	2540.72	2579.26	Pass		
			64QAM	1.92	2540.72	2579.26	Pass		
		10	-48	1	QPSK	-2.39	2540.72	2579.26	Pass
					16QAM	2.41	2540.72	2579.26	Pass
					64QAM	0.96	2540.72	2579.26	Pass
2	QPSK			-3.66	2540.72	2579.26	Pass		
	16QAM			-2.71	2540.72	2579.26	Pass		
	64QAM			0.55	2540.72	2579.26	Pass		
3	QPSK			2.74	2540.72	2579.26	Pass		
	16QAM			3.64	2540.72	2579.26	Pass		
	64QAM			2.99	2540.72	2579.26	Pass		
4	QPSK			-2.12	2540.72	2579.26	Pass		
	16QAM			3.22	2540.72	2579.26	Pass		
	64QAM			-0.82	2540.72	2579.26	Pass		
20	-48	1	QPSK	-1.89	2540.72	2579.26	Pass		
			16QAM	-2.25	2540.72	2579.26	Pass		
			64QAM	0.33	2540.72	2579.26	Pass		
		2	QPSK	2.52	2540.72	2579.26	Pass		
			16QAM	1.96	2540.72	2579.26	Pass		
			64QAM	-3.21	2540.72	2579.26	Pass		
		3	QPSK	-2.82	2540.72	2579.26	Pass		
			16QAM	-3.62	2540.72	2579.26	Pass		
			64QAM	-1.58	2540.72	2579.26	Pass		
		4	QPSK	-3.62	2540.72	2579.26	Pass		
			16QAM	-2.63	2540.72	2579.26	Pass		
			64QAM	-2.48	2540.72	2579.26	Pass		

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2550+2570MHz) FL=2540.72MHz, FH=2579.26MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset(MHz)	FH+ Frequency Offset(MHz)	Result
30	-48	1	QPSK	-2.22	2540.72	2579.26	Pass
			16QAM	0.59	2540.72	2579.26	Pass
			64QAM	0.55	2540.72	2579.26	Pass
		2	QPSK	-2.12	2540.72	2579.26	Pass
			16QAM	4.32	2540.72	2579.26	Pass
			64QAM	2.92	2540.72	2579.26	Pass
		3	QPSK	1.29	2540.72	2579.26	Pass
			16QAM	-3.51	2540.72	2579.26	Pass
			64QAM	3.21	2540.72	2579.26	Pass
		4	QPSK	0.56	2540.72	2579.26	Pass
			16QAM	2.14	2540.72	2579.26	Pass
			64QAM	1.96	2540.72	2579.26	Pass
40	-48	1	QPSK	0.85	2540.72	2579.26	Pass
			16QAM	-2.15	2540.72	2579.26	Pass
			64QAM	0.94	2540.72	2579.26	Pass
		2	QPSK	0.85	2540.72	2579.26	Pass
			16QAM	-1.25	2540.72	2579.26	Pass
			64QAM	-1.33	2540.72	2579.26	Pass
		3	QPSK	-2.12	2540.72	2579.26	Pass
			16QAM	0.85	2540.72	2579.26	Pass
			64QAM	-3.21	2540.72	2579.26	Pass
		4	QPSK	-1.26	2540.72	2579.26	Pass
			16QAM	-2.26	2540.72	2579.26	Pass
			64QAM	-3.41	2540.72	2579.26	Pass
50	-48	1	QPSK	0.36	2540.72	2579.26	Pass
			16QAM	-1.26	2540.72	2579.26	Pass
			64QAM	-2.22	2540.72	2579.26	Pass
		2	QPSK	-0.26	2540.72	2579.26	Pass
			16QAM	3.12	2540.72	2579.26	Pass
			64QAM	-2.85	2540.72	2579.26	Pass
		3	QPSK	-1.23	2540.72	2579.26	Pass
			16QAM	-2.36	2540.72	2579.26	Pass
			64QAM	-1.22	2540.72	2579.26	Pass

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2550+2570MHz) FL=2540.72MHz, FH=2579.26MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
55	-48	4	QPSK	2.15	2540.72	2579.26	Pass
			16QAM	-2.11	2540.72	2579.26	Pass
			64QAM	-3.2	2540.72	2579.26	Pass
		1	QPSK	0.96	2540.72	2579.26	Pass
			16QAM	2.92	2540.72	2579.26	Pass
			64QAM	3.24	2540.72	2579.26	Pass
		2	QPSK	-2.65	2540.72	2579.26	Pass
			16QAM	3.41	2540.72	2579.26	Pass
			64QAM	-0.85	2540.72	2579.26	Pass
		3	QPSK	2.12	2540.72	2579.26	Pass
			16QAM	-3.12	2540.72	2579.26	Pass
			64QAM	-0.85	2540.72	2579.26	Pass
4	QPSK	1.61	2540.72	2579.26	Pass		
	16QAM	2.35	2540.72	2579.26	Pass		
	64QAM	1.89	2540.72	2579.26	Pass		

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2605+2625MHz) FL=2595.75MHz, FH=2634.27MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
-40	-48	1	QPSK	3.12	2595.75	2634.27	Pass
			16QAM	2.06	2595.75	2634.27	Pass
			64QAM	1.5	2595.75	2634.27	Pass
		2	QPSK	-2.05	2595.75	2634.27	Pass
			16QAM	-3.11	2595.75	2634.27	Pass
			64QAM	1.63	2595.75	2634.27	Pass
		3	QPSK	-3.16	2595.75	2634.27	Pass
			16QAM	2.58	2595.75	2634.27	Pass
			64QAM	1.63	2595.75	2634.27	Pass
		4	QPSK	-0.85	2595.75	2634.27	Pass
			16QAM	3.26	2595.75	2634.27	Pass
			64QAM	2.12	2595.75	2634.27	Pass

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2605+2625MHz) FL=2595.75MHz, FH=2634.27MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
-30	-48	1	QPSK	-3.21	2595.75	2634.27	Pass
			16QAM	-0.54	2595.75	2634.27	Pass
			64QAM	2.51	2595.75	2634.27	Pass
		2	QPSK	1.85	2595.75	2634.27	Pass
			16QAM	1.92	2595.75	2634.27	Pass
			64QAM	-3.55	2595.75	2634.27	Pass
		3	QPSK	-2.95	2595.75	2634.27	Pass
			16QAM	-2.9	2595.75	2634.27	Pass
			64QAM	2.11	2595.75	2634.27	Pass
		4	QPSK	0.85	2595.75	2634.27	Pass
			16QAM	-1.96	2595.75	2634.27	Pass
			64QAM	2.02	2595.75	2634.27	Pass
-20	-48	1	QPSK	-3.52	2595.75	2634.27	Pass
			16QAM	2.44	2595.75	2634.27	Pass
			64QAM	3.46	2595.75	2634.27	Pass
		2	QPSK	1.88	2595.75	2634.27	Pass
			16QAM	2.58	2595.75	2634.27	Pass
			64QAM	3.62	2595.75	2634.27	Pass
		3	QPSK	-2.31	2595.75	2634.27	Pass
			16QAM	3.23	2595.75	2634.27	Pass
			64QAM	-2.55	2595.75	2634.27	Pass
		4	QPSK	-0.96	2595.75	2634.27	Pass
			16QAM	1.25	2595.75	2634.27	Pass
			64QAM	-2.37	2595.75	2634.27	Pass
-10	-48	1	QPSK	2.41	2595.75	2634.27	Pass
			16QAM	2.68	2595.75	2634.27	Pass
			64QAM	-1.65	2595.75	2634.27	Pass
		2	QPSK	-1.22	2595.75	2634.27	Pass
			16QAM	0.96	2595.75	2634.27	Pass
			64QAM	2.61	2595.75	2634.27	Pass
		3	QPSK	-2.09	2595.75	2634.27	Pass
			16QAM	3.05	2595.75	2634.27	Pass
			64QAM	1.52	2595.75	2634.27	Pass

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2605+2625MHz) FL=2595.75MHz, FH=2634.27MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
0	-48	4	QPSK	-2.3	2595.75	2634.27	Pass
			16QAM	1.98	2595.75	2634.27	Pass
			64QAM	2.36	2595.75	2634.27	Pass
		1	QPSK	-1.59	2595.75	2634.27	Pass
			16QAM	-1.68	2595.75	2634.27	Pass
			64QAM	2.85	2595.75	2634.27	Pass
		2	QPSK	1.46	2595.75	2634.27	Pass
			16QAM	3.52	2595.75	2634.27	Pass
			64QAM	-1.5	2595.75	2634.27	Pass
		3	QPSK	3.87	2595.75	2634.27	Pass
			16QAM	-2.64	2595.75	2634.27	Pass
			64QAM	3.61	2595.75	2634.27	Pass
4	QPSK	0.95	2595.75	2634.27	Pass		
	16QAM	1.85	2595.75	2634.27	Pass		
	64QAM	-2.51	2595.75	2634.27	Pass		
10	-48	1	QPSK	1.92	2595.75	2634.27	Pass
			16QAM	-1.85	2595.75	2634.27	Pass
			64QAM	3.21	2595.75	2634.27	Pass
		2	QPSK	-1.25	2595.75	2634.27	Pass
			16QAM	-1.96	2595.75	2634.27	Pass
			64QAM	-2.52	2595.75	2634.27	Pass
		3	QPSK	3.02	2595.75	2634.27	Pass
			16QAM	2.56	2595.75	2634.27	Pass
			64QAM	-1.26	2595.75	2634.27	Pass
		4	QPSK	-1.54	2595.75	2634.27	Pass
			16QAM	-2.2	2595.75	2634.27	Pass
			64QAM	3.61	2595.75	2634.27	Pass
20	-48	1	QPSK	1.24	2595.75	2634.27	Pass
			16QAM	4.35	2595.75	2634.27	Pass
			64QAM	-2.65	2595.75	2634.27	Pass
		2	QPSK	-2.16	2595.75	2634.27	Pass
			16QAM	2.83	2595.75	2634.27	Pass
			64QAM	1.89	2595.75	2634.27	Pass

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2605+2625MHz) FL=2595.75MHz, FH=2634.27MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
		3	QPSK	-2.09	2595.75	2634.27	Pass
			16QAM	1.96	2595.75	2634.27	Pass
			64QAM	-1.11	2595.75	2634.27	Pass
		4	QPSK	-2.3	2595.75	2634.27	Pass
			16QAM	-2.55	2595.75	2634.27	Pass
			64QAM	3.06	2595.75	2634.27	Pass
30	-48	1	QPSK	-0.84	2595.75	2634.27	Pass
			16QAM	3.14	2595.75	2634.27	Pass
			64QAM	2.86	2595.75	2634.27	Pass
		2	QPSK	-1.12	2595.75	2634.27	Pass
			16QAM	3.09	2595.75	2634.27	Pass
			64QAM	-2.78	2595.75	2634.27	Pass
		3	QPSK	-3.92	2595.75	2634.27	Pass
			16QAM	-0.57	2595.75	2634.27	Pass
			64QAM	0.81	2595.75	2634.27	Pass
		4	QPSK	-1.62	2595.75	2634.27	Pass
			16QAM	-1.13	2595.75	2634.27	Pass
			64QAM	2.52	2595.75	2634.27	Pass
40	-48	1	QPSK	1.41	2595.75	2634.27	Pass
			16QAM	2.51	2595.75	2634.27	Pass
			64QAM	-0.96	2595.75	2634.27	Pass
		2	QPSK	3.26	2595.75	2634.27	Pass
			16QAM	-2.58	2595.75	2634.27	Pass
			64QAM	-1.99	2595.75	2634.27	Pass
		3	QPSK	-2.08	2595.75	2634.27	Pass
			16QAM	-3.12	2595.75	2634.27	Pass
			64QAM	4.24	2595.75	2634.27	Pass
		4	QPSK	3.26	2595.75	2634.27	Pass
			16QAM	-0.82	2595.75	2634.27	Pass
			64QAM	2.33	2595.75	2634.27	Pass
50	-48	1	QPSK	1.89	2595.75	2634.27	Pass
			16QAM	2.25	2595.75	2634.27	Pass
			64QAM	1.58	2595.75	2634.27	Pass

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2605+2625MHz) FL=2595.75MHz, FH=2634.27MHz									
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result		
		2	QPSK	3.33	2595.75	2634.27	Pass		
			16QAM	-1.89	2595.75	2634.27	Pass		
			64QAM	-2.86	2595.75	2634.27	Pass		
		3	QPSK	-1.95	2595.75	2634.27	Pass		
			16QAM	-2.62	2595.75	2634.27	Pass		
			64QAM	-2.52	2595.75	2634.27	Pass		
		4	QPSK	-1.29	2595.75	2634.27	Pass		
			16QAM	2.33	2595.75	2634.27	Pass		
			64QAM	-1.95	2595.75	2634.27	Pass		
		55	-48	1	QPSK	2.77	2595.75	2634.27	Pass
					16QAM	-4.12	2595.75	2634.27	Pass
					64QAM	-1.96	2595.75	2634.27	Pass
2	QPSK			-0.56	2595.75	2634.27	Pass		
	16QAM			-4.62	2595.75	2634.27	Pass		
	64QAM			-2.33	2595.75	2634.27	Pass		
3	QPSK			-0.69	2595.75	2634.27	Pass		
	16QAM			4.32	2595.75	2634.27	Pass		
	64QAM			1.89	2595.75	2634.27	Pass		
4	QPSK			-2.33	2595.75	2634.27	Pass		
	16QAM			2.96	2595.75	2634.27	Pass		
	64QAM			-1.89	2595.75	2634.27	Pass		

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2660+2680MHz) FL=2550.77MHz, FH=2689.22MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
-40	-48	1	QPSK	1.59	2550.77	2689.22	Pass
			16QAM	3.62	2550.77	2689.22	Pass
			64QAM	-1.45	2550.77	2689.22	Pass
		2	QPSK	2.86	2550.77	2689.22	Pass
			16QAM	-1.88	2550.77	2689.22	Pass
			64QAM	-0.85	2550.77	2689.22	Pass
		3	QPSK	1.69	2550.77	2689.22	Pass

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2660+2680MHz) FL=2550.77MHz, FH=2689.22MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
		4	16QAM	-2.32	2550.77	2689.22	Pass
			64QAM	-1.89	2550.77	2689.22	Pass
			QPSK	-0.85	2550.77	2689.22	Pass
			16QAM	2.32	2550.77	2689.22	Pass
			64QAM	1.29	2550.77	2689.22	Pass
-30	-48	1	QPSK	2.36	2550.77	2689.22	Pass
			16QAM	-1.05	2550.77	2689.22	Pass
			64QAM	2.5	2550.77	2689.22	Pass
		2	QPSK	-1.82	2550.77	2689.22	Pass
			16QAM	1.69	2550.77	2689.22	Pass
			64QAM	-2.57	2550.77	2689.22	Pass
		3	QPSK	-2.33	2550.77	2689.22	Pass
			16QAM	4.85	2550.77	2689.22	Pass
			64QAM	-3.61	2550.77	2689.22	Pass
		4	QPSK	1.89	2550.77	2689.22	Pass
			16QAM	-3.61	2550.77	2689.22	Pass
			64QAM	-2.99	2550.77	2689.22	Pass
-20	-48	1	QPSK	3.25	2550.77	2689.22	Pass
			16QAM	-1.29	2550.77	2689.22	Pass
			64QAM	-2.58	2550.77	2689.22	Pass
		2	QPSK	-1.26	2550.77	2689.22	Pass
			16QAM	-3.55	2550.77	2689.22	Pass
			64QAM	2.85	2550.77	2689.22	Pass
		3	QPSK	1.29	2550.77	2689.22	Pass
			16QAM	4.33	2550.77	2689.22	Pass
			64QAM	-2.05	2550.77	2689.22	Pass
		4	QPSK	-0.96	2550.77	2689.22	Pass
			16QAM	1.52	2550.77	2689.22	Pass
			64QAM	1.96	2550.77	2689.22	Pass
-10	-48	1	QPSK	-2.33	2550.77	2689.22	Pass
			16QAM	-4.21	2550.77	2689.22	Pass
			64QAM	-0.88	2550.77	2689.22	Pass
		2	QPSK	1.83	2550.77	2689.22	Pass

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2660+2680MHz) FL=2550.77MHz, FH=2689.22MHz								
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result	
		3	16QAM	-0.66	2550.77	2689.22	Pass	
			64QAM	2.81	2550.77	2689.22	Pass	
			QPSK	-3.33	2550.77	2689.22	Pass	
			16QAM	-2.63	2550.77	2689.22	Pass	
			64QAM	4.52	2550.77	2689.22	Pass	
			QPSK	1.96	2550.77	2689.22	Pass	
		4	16QAM	-2.22	2550.77	2689.22	Pass	
			64QAM	2.34	2550.77	2689.22	Pass	
			1	QPSK	5.32	2550.77	2689.22	Pass
				16QAM	1.89	2550.77	2689.22	Pass
				64QAM	2.78	2550.77	2689.22	Pass
			2	QPSK	-0.72	2550.77	2689.22	Pass
16QAM	4.23	2550.77		2689.22	Pass			
64QAM	-1.26	2550.77		2689.22	Pass			
3	QPSK	3.52	2550.77	2689.22	Pass			
	16QAM	1.25	2550.77	2689.22	Pass			
	64QAM	-0.99	2550.77	2689.22	Pass			
4	QPSK	2.36	2550.77	2689.22	Pass			
	16QAM	1.82	2550.77	2689.22	Pass			
	64QAM	1.66	2550.77	2689.22	Pass			
10	-48	1	QPSK	-2.33	2550.77	2689.22	Pass	
			16QAM	1.96	2550.77	2689.22	Pass	
			64QAM	2.52	2550.77	2689.22	Pass	
		2	QPSK	1.48	2550.77	2689.22	Pass	
			16QAM	2.38	2550.77	2689.22	Pass	
			64QAM	-3.15	2550.77	2689.22	Pass	
		3	QPSK	-3.12	2550.77	2689.22	Pass	
			16QAM	2.58	2550.77	2689.22	Pass	
			64QAM	1.69	2550.77	2689.22	Pass	
		4	QPSK	2.53	2550.77	2689.22	Pass	
			16QAM	4.36	2550.77	2689.22	Pass	
			64QAM	-3.05	2550.77	2689.22	Pass	
20	-48	1	QPSK	1.58	2550.77	2689.22	Pass	

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2660+2680MHz) FL=2550.77MHz, FH=2689.22MHz								
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result	
			16QAM	0.69	2550.77	2689.22	Pass	
			64QAM	-0.88	2550.77	2689.22	Pass	
			2	QPSK	-2.31	2550.77	2689.22	Pass
				16QAM	0.55	2550.77	2689.22	Pass
			64QAM	-2.32	2550.77	2689.22	Pass	
			3	QPSK	-2.15	2550.77	2689.22	Pass
		16QAM		0.45	2550.77	2689.22	Pass	
		64QAM		1.59	2550.77	2689.22	Pass	
		4	QPSK	-2.18	2550.77	2689.22	Pass	
			16QAM	-2.15	2550.77	2689.22	Pass	
			64QAM	3.17	2550.77	2689.22	Pass	
		30	-48	1	QPSK	3.64	2550.77	2689.22
16QAM	1.87				2550.77	2689.22	Pass	
64QAM	1.59				2550.77	2689.22	Pass	
2	QPSK			-3.51	2550.77	2689.22	Pass	
	16QAM			-2.08	2550.77	2689.22	Pass	
	64QAM			3.15	2550.77	2689.22	Pass	
3	QPSK			-2.85	2550.77	2689.22	Pass	
	16QAM			-1.69	2550.77	2689.22	Pass	
	64QAM			-2.32	2550.77	2689.22	Pass	
4	QPSK			3.16	2550.77	2689.22	Pass	
	16QAM			4.21	2550.77	2689.22	Pass	
	64QAM			-2.09	2550.77	2689.22	Pass	
40	-48	1	QPSK	1.69	2550.77	2689.22	Pass	
			16QAM	2.45	2550.77	2689.22	Pass	
			64QAM	3.26	2550.77	2689.22	Pass	
		2	QPSK	-1.85	2550.77	2689.22	Pass	
			16QAM	-1.08	2550.77	2689.22	Pass	
			64QAM	-1.99	2550.77	2689.22	Pass	
		3	QPSK	2.58	2550.77	2689.22	Pass	
			16QAM	3.6	2550.77	2689.22	Pass	
			64QAM	-2.66	2550.77	2689.22	Pass	
		4	QPSK	-2.31	2550.77	2689.22	Pass	

Frequency Stability vs. Temperature (Channel Bandwidth:20M+20M Frequency :2660+2680MHz) FL=2550.77MHz, FH=2689.22MHz							
Temperature (°C)	Power Supplied (V _{DC})	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
50	-48	1	16QAM	1.09	2550.77	2689.22	Pass
			64QAM	-2.78	2550.77	2689.22	Pass
			QPSK	2.06	2550.77	2689.22	Pass
		2	16QAM	-2.69	2550.77	2689.22	Pass
			64QAM	-1.33	2550.77	2689.22	Pass
			QPSK	-2.48	2550.77	2689.22	Pass
		3	16QAM	1.96	2550.77	2689.22	Pass
			64QAM	-2.85	2550.77	2689.22	Pass
			QPSK	-3.02	2550.77	2689.22	Pass
		4	16QAM	1.85	2550.77	2689.22	Pass
			64QAM	-2.22	2550.77	2689.22	Pass
			QPSK	2.54	2550.77	2689.22	Pass
55	-48	1	16QAM	-0.98	2550.77	2689.22	Pass
			64QAM	3.24	2550.77	2689.22	Pass
			QPSK	-2.62	2550.77	2689.22	Pass
		2	16QAM	-3.14	2550.77	2689.22	Pass
			64QAM	-2.96	2550.77	2689.22	Pass
			QPSK	0.84	2550.77	2689.22	Pass
		3	16QAM	0.77	2550.77	2689.22	Pass
			64QAM	-3.12	2550.77	2689.22	Pass
			QPSK	2.48	2550.77	2689.22	Pass
		4	16QAM	-3.4	2550.77	2689.22	Pass
			64QAM	-2.86	2550.77	2689.22	Pass
			QPSK	-1.85	2550.77	2689.22	Pass
	16QAM	-0.82	2550.77	2689.22	Pass		
	64QAM	1.12	2550.77	2689.22	Pass		
	QPSK	-1.85	2550.77	2689.22	Pass		

Frequency Stability versus Voltage

Frequency Stability vs. Voltage (Channel Bandwidth:20M+20M Frequency :2550+2570MHz) FL=2540.72MHz, FH=2579.26MHz							
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Voltage: Ref=-48V (%)	Temperature (°C)	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
85%	25°C	1	QPSK	1.58	2540.72	2579.26	Pass
			16QAM	2.16	2540.72	2579.26	Pass
			64QAM	-3.21	2540.72	2579.26	Pass
		2	QPSK	1.08	2540.72	2579.26	Pass
			16QAM	-3.12	2540.72	2579.26	Pass
			64QAM	1.74	2540.72	2579.26	Pass
		3	QPSK	1.69	2540.72	2579.26	Pass
			16QAM	-3.25	2540.72	2579.26	Pass
			64QAM	-1.87	2540.72	2579.26	Pass
		4	QPSK	2.62	2540.72	2579.26	Pass
			16QAM	3.45	2540.72	2579.26	Pass
			64QAM	-1.69	2540.72	2579.26	Pass
100%	25°C	1	QPSK	2.88	2540.72	2579.26	Pass
			16QAM	-1.02	2540.72	2579.26	Pass
			64QAM	-3.62	2540.72	2579.26	Pass
		2	QPSK	2.71	2540.72	2579.26	Pass
			16QAM	0.15	2540.72	2579.26	Pass
			64QAM	2.85	2540.72	2579.26	Pass
		3	QPSK	-2.32	2540.72	2579.26	Pass
			16QAM	-0.85	2540.72	2579.26	Pass
			64QAM	1.96	2540.72	2579.26	Pass
		4	QPSK	2.25	2540.72	2579.26	Pass
			16QAM	-1.36	2540.72	2579.26	Pass
			64QAM	-2.15	2540.72	2579.26	Pass
115%	25°C	1	QPSK	1.58	2540.72	2579.26	Pass
			16QAM	-3.52	2540.72	2579.26	Pass
			64QAM	-1.52	2540.72	2579.26	Pass
		2	QPSK	0.96	2540.72	2579.26	Pass
			16QAM	5.32	2540.72	2579.26	Pass
			64QAM	-2.23	2540.72	2579.26	Pass
		3	QPSK	-1.58	2540.72	2579.26	Pass
			16QAM	2.62	2540.72	2579.26	Pass
			64QAM	3.62	2540.72	2579.26	Pass
		4	QPSK	-1.57	2540.72	2579.26	Pass
			16QAM	-2.74	2540.72	2579.26	Pass

			64QAM	0.45	2540.72	2579.26	Pass
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Frequency Stability vs. Voltage (Channel Bandwidth:20M+20M Frequency :2605+2625MHz) FL=2595.75MHz, FH=2634.27MHz							
Voltage: Ref=-48V (%)	Temperature (°C)	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
85%	25°C	1	QPSK	-1.52	2595.75	2634.27	Pass
			16QAM	2.41	2595.75	2634.27	Pass
			64QAM	-3.02	2595.75	2634.27	Pass
		2	QPSK	-2.57	2595.75	2634.27	Pass
			16QAM	-0.66	2595.75	2634.27	Pass
			64QAM	3.14	2595.75	2634.27	Pass
		3	QPSK	2.11	2595.75	2634.27	Pass
			16QAM	-3.52	2595.75	2634.27	Pass
			64QAM	0.69	2595.75	2634.27	Pass
		4	QPSK	1.75	2595.75	2634.27	Pass
			16QAM	3.15	2595.75	2634.27	Pass
			64QAM	-2.44	2595.75	2634.27	Pass
100%	25°C	1	QPSK	1.62	2595.75	2634.27	Pass
			16QAM	-2.87	2595.75	2634.27	Pass
			64QAM	-0.85	2595.75	2634.27	Pass
		2	QPSK	1.88	2595.75	2634.27	Pass
			16QAM	2.35	2595.75	2634.27	Pass
			64QAM	1.62	2595.75	2634.27	Pass
		3	QPSK	-0.81	2595.75	2634.27	Pass
			16QAM	3.48	2595.75	2634.27	Pass
			64QAM	-2.92	2595.75	2634.27	Pass
		4	QPSK	0.67	2595.75	2634.27	Pass
			16QAM	2.06	2595.75	2634.27	Pass
			64QAM	-1.58	2595.75	2634.27	Pass
115%	25°C	1	QPSK	1.11	2595.75	2634.27	Pass
			16QAM	2.08	2595.75	2634.27	Pass
			64QAM	-3.14	2595.75	2634.27	Pass
		2	QPSK	-2.55	2595.75	2634.27	Pass
			16QAM	2.16	2595.75	2634.27	Pass
			64QAM	-0.65	2595.75	2634.27	Pass
3	QPSK	1.95	2595.75	2634.27	Pass		

Frequency Stability vs. Voltage (Channel Bandwidth:20M+20M Frequency :2605+2625MHz) FL=2595.75MHz, FH=2634.27MHz							
Voltage: Ref=-48V (%)	Temperature (°C)	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
			16QAM	-2.06	2595.75	2634.27	Pass
			64QAM	1.57	2595.75	2634.27	Pass
			QPSK	4.26	2595.75	2634.27	Pass
		4	16QAM	-2.68	2595.75	2634.27	Pass
			64QAM	-2.22	2595.75	2634.27	Pass

Frequency Stability vs. Voltage (Channel Bandwidth:20M+20M Frequency :2660+2680MHz) FL=2550.77MHz, FH=2689.22MHz							
Voltage: Ref=-48V (%)	Temperature (°C)	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset (MHz)	FH+ Frequency Offset (MHz)	Result
85%	25°C	1	QPSK	1.86	2550.77	2689.22	Pass
			16QAM	-2.57	2550.77	2689.22	Pass
			64QAM	-3.66	2550.77	2689.22	Pass
		2	QPSK	3.12	2550.77	2689.22	Pass
			16QAM	-2.41	2550.77	2689.22	Pass
			64QAM	3.12	2550.77	2689.22	Pass
		3	QPSK	-0.52	2550.77	2689.22	Pass
			16QAM	2.36	2550.77	2689.22	Pass
			64QAM	1.87	2550.77	2689.22	Pass
		4	QPSK	-0.69	2550.77	2689.22	Pass
			16QAM	1.75	2550.77	2689.22	Pass
			64QAM	-2.62	2550.77	2689.22	Pass
100%	25°C	1	QPSK	-4.36	2550.77	2689.22	Pass
			16QAM	1.29	2550.77	2689.22	Pass
			64QAM	-3.32	2550.77	2689.22	Pass
		2	QPSK	-0.82	2550.77	2689.22	Pass
			16QAM	-2.57	2550.77	2689.22	Pass
			64QAM	0.63	2550.77	2689.22	Pass
		3	QPSK	-1.45	2550.77	2689.22	Pass
			16QAM	-0.22	2550.77	2689.22	Pass
			64QAM	0.85	2550.77	2689.22	Pass
		4	QPSK	1.52	2550.77	2689.22	Pass
			16QAM	3.62	2550.77	2689.22	Pass

Frequency Stability vs. Voltage (Channel Bandwidth:20M+20M Frequency :2660+2680MHz) FL=2550.77MHz, FH=2689.22MHz							
Voltage: Ref=-48V (%)	Temperature (°C)	Port	Modulation	Frequency Measure Error (Hz)	FL+ Frequency Offset(MHz)	FH+ Frequency Offset(MHz)	Result
			64QAM	1.25	2550.77	2689.22	Pass
115%	25°C	1	QPSK	4.37	2550.77	2689.22	Pass
			16QAM	-2.15	2550.77	2689.22	Pass
			64QAM	3.18	2550.77	2689.22	Pass
		2	QPSK	-3.26	2550.77	2689.22	Pass
			16QAM	-4.51	2550.77	2689.22	Pass
			64QAM	0.85	2550.77	2689.22	Pass
		3	QPSK	1.31	2550.77	2689.22	Pass
			16QAM	2.92	2550.77	2689.22	Pass
			64QAM	-0.97	2550.77	2689.22	Pass
		4	QPSK	-2.33	2550.77	2689.22	Pass
			16QAM	-0.51	2550.77	2689.22	Pass
			64QAM	-2.65	2550.77	2689.22	Pass