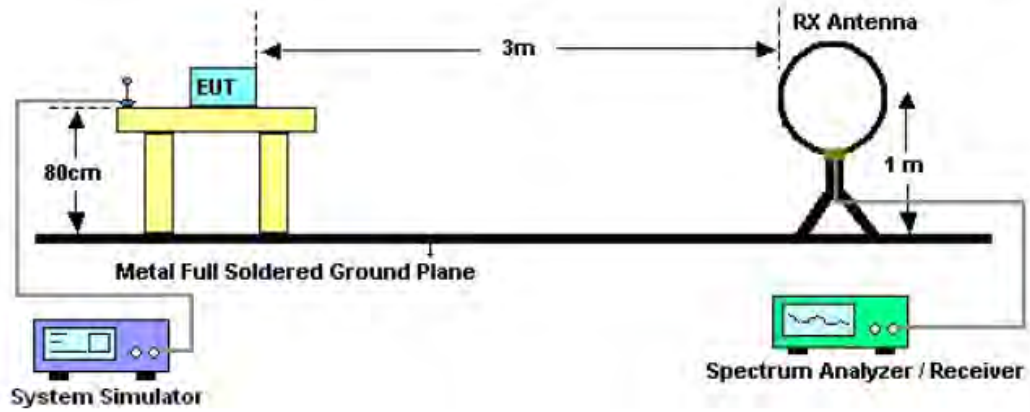
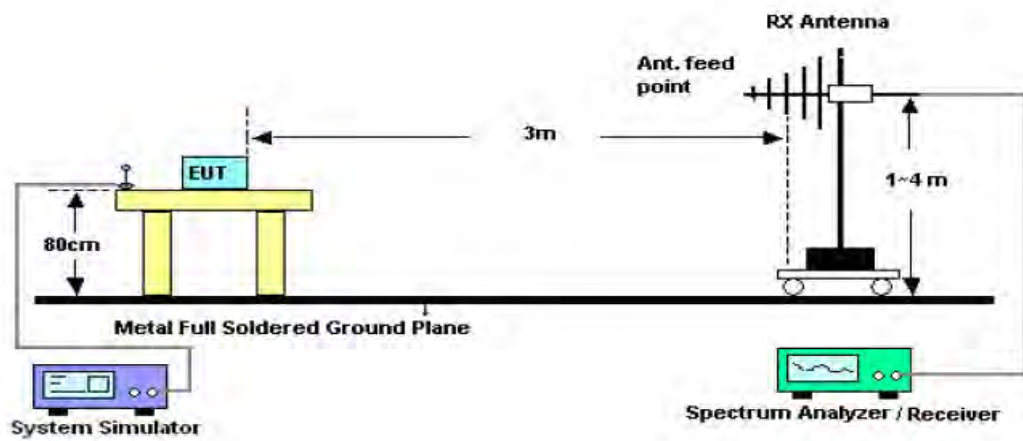


7.2.2. TEST SETUP

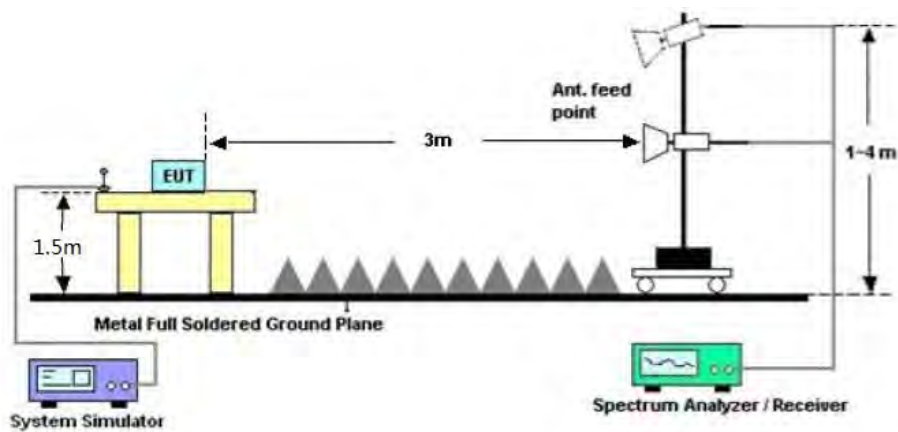
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



7.2.3 PROVISIONS APPLICABLE

(a) On any frequency outside a licensee's frequency block (e.g. A, D, B, etc.) within the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P , in Watts) by at least $43 + 10 \log(P)$ dB. The specification that emissions shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

Note: Only record the worst condition of each test mode:

7.2.3 MEASUREMENT RESULT

LTE Band 2 Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3720	-45.65	V	10.06	2.52	-38.11	-13	-25.11
3720	-46.22	H	10.06	2.52	-38.68	-13	-25.68
257.2	-51.25	V	6.7	0.24	-44.79	-13	-31.79
640.2	-47.80	H	6.5	0.39	-41.69	-13	-28.69

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3760	-46.49	V	10.06	2.52	-38.95	-13	-25.95
3760	-45.98	H	10.06	2.52	-38.44	-13	-25.44
256.9	-55.24	V	6.7	0.24	-48.78	-13	-35.78
639.8	-47.96	H	6.5	0.39	-41.85	-13	-28.85

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3800	-47.76	V	10.06	2.52	-40.22	-13	-27.22
3800	-48.13	H	10.06	2.52	-40.59	-13	-27.59
254.6	-54.65	V	6.7	0.24	-48.19	-13	-35.19
639.4	-47.78	H	6.5	0.39	-41.67	-13	-28.67

LTE Band 4
Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3440	-47.86	V	10.06	2.52	-40.32	-13	-27.32
3440	-46.28	H	10.06	2.52	-38.74	-13	-25.74
257.4	-54.27	V	6.7	0.24	-47.81	-13	-34.81
640.2	-51.12	H	6.5	0.39	-45.01	-13	-32.01

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3465	-48.16	V	10.06	2.52	-40.62	-13	-27.62
3465	-47.21	H	10.06	2.52	-39.67	-13	-26.67
256.9	-54.23	V	6.7	0.24	-47.77	-13	-34.77
639.8	-48.99	H	6.5	0.39	-42.88	-13	-29.88

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3490	-47.80	V	10.06	2.52	-40.26	-13	-27.26
3490	-44.84	H	10.06	2.52	-37.30	-13	-24.30
254.6	-52.71	V	6.7	0.24	-46.25	-13	-33.25
639.4	-47.56	H	6.5	0.39	-41.45	-13	-28.45

LTE Band 5
Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1658	-48.81	V	10.72	1.65	-39.74	-13	-26.74
1658	-43.91	H	10.72	1.65	-34.84	-13	-21.84
255.2	-52.29	V	6.7	0.24	-45.83	-13	-32.83
641.1	-48.62	H	6.5	0.39	-42.51	-13	-29.51

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1673	-48.51	V	10.72	1.65	-39.44	-13	-26.44
1673	-47.90	H	10.72	1.65	-38.83	-13	-25.83
254.5	-56.20	V	6.7	0.24	-49.74	-13	-36.74
640.2	-50.81	H	6.5	0.39	-44.70	-13	-31.70

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1688	-46.93	V	10.72	1.65	-37.86	-13	-24.86
1688	-46.91	H	10.72	1.65	-37.84	-13	-24.84
254.2	-53.63	V	6.7	0.24	-47.17	-13	-34.17
640.8	-51.31	H	6.5	0.39	-45.20	-13	-32.20

LTE Band 7
Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
5020	-45.90	V	9.32	3.29	-39.87	-13	-26.87
5020	-46.85	H	9.32	3.29	-40.82	-13	-27.82
257.1	-51.89	V	6.7	0.24	-45.43	-13	-32.43
640.4	-48.74	H	6.5	0.39	-42.63	-13	-29.63

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
5070	-46.94	V	9.32	3.29	-40.91	-13	-27.91
5070	-46.69	H	9.32	3.29	-40.66	-13	-27.66
257.3	-56.63	V	6.7	0.24	-50.17	-13	-37.17
640.5	-48.65	H	6.5	0.39	-42.54	-13	-29.54

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
5120	-49.30	V	9.32	3.29	-43.27	-13	-30.27
5120	-48.79	H	9.32	3.29	-42.76	-13	-29.76
256.3	-54.59	V	6.7	0.24	-48.13	-13	-35.13
641.2	-48.00	H	6.5	0.39	-41.89	-13	-28.89

LTE Band 12
Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1408	-48.35	V	10.72	1.65	-39.28	-13	-26.28
1408	-43.60	H	10.72	1.65	-34.53	-13	-21.53
255.2	-50.85	V	6.7	0.24	-44.39	-13	-31.39
641.1	-47.79	H	6.5	0.39	-41.68	-13	-28.68

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1415	-47.05	V	10.72	1.65	-37.98	-13	-24.98
1415	-46.46	H	10.72	1.65	-37.39	-13	-24.39
254.5	-55.39	V	6.7	0.24	-48.93	-13	-35.93
640.2	-49.45	H	6.5	0.39	-43.34	-13	-30.34

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1422	-45.62	V	10.72	1.65	-36.55	-13	-23.55
1422	-45.93	H	10.72	1.65	-36.86	-13	-23.86
254.2	-52.36	V	6.7	0.24	-45.90	-13	-32.90
640.8	-49.22	H	6.5	0.39	-43.11	-13	-30.11

LTE Band 17
Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1418	-48.44	V	10.72	1.65	-39.37	-13	-26.37
1418	-45.55	H	10.72	1.65	-36.48	-13	-23.48
253.8	-52.89	V	6.7	0.24	-46.43	-13	-33.43
640.5	-53.33	H	6.5	0.39	-47.22	-13	-34.22

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1420	-46.91	V	10.72	1.65	-37.84	-13	-24.84
1420	-47.28	H	10.72	1.65	-38.21	-13	-25.21
253.8	-53.51	V	6.7	0.24	-47.05	-13	-34.05
639.7	-49.61	H	6.5	0.39	-43.50	-13	-30.50

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1422	-49.61	V	10.72	1.65	-40.54	-13	-27.54
1422	-45.86	H	10.72	1.65	-36.79	-13	-23.79
254.5	-50.56	V	6.7	0.24	-44.10	-13	-31.10
639.4	-48.74	H	6.5	0.39	-42.63	-13	-29.63

- Note:** 1. EUT Field Strength (dBm) = Reading (Signal generator) + Antenna Gain (substitution antenna) - Cable loss (From Signal Generator to substitution antenna).
2. Below 30MHz no Spurious found and the QPSK modes is the worst condition.

8. FREQUENCY STABILITY

8.1 MEASUREMENT METHOD

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a "call mode". This is accomplished with the use of R&S CMW500 DIGITAL RADIO COMMUNICATION TESTER.

- 1 , Measure the carrier frequency at room temperature.
- 2 , Subject the EUT to overnight soak at -10°C.
 , With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on channel 20175 for LTE band 4 measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
- 3 , Repeat the above measurements at 10°C increments from -10°C to +50°C. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.
- 4 , Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1 1/2 hours unpowered, to allow any self-heating to stabilize, before continuing.
- 5 , Subject the EUT to overnight soak at +50°C.
- 6 , With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
- 7 , Repeat the above measurements at 10°C increments from +50°C to -10°C. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.
- 8 , At all temperature levels hold the temperature to +/- 0.5°C during the measurement procedure.

8.2 PROVISIONS APPLICABLE

8.2.1 For Hand carried battery powered equipment

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-C-2004. The frequency stability of the transmitter is measured by:

- a.) Temperature: The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 22, the frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency. For Part 24 and Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

8.2.2 For equipment powered by primary supply voltage

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

8.3 MEASUREMENT RESULT (WORST)

LTE Band 2

Middle Channel, $f_0 = 1880$ MHz				
Temperature (°C)	Power Supplied	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.7	2.05	0.001088	± 2.5
0		-3.13	-0.001666	± 2.5
10		0.93	0.000495	± 2.5
20		3.29	0.001750	± 2.5
30		-2.78	-0.001476	± 2.5
40		-1.90	-0.001012	± 2.5
50		-2.10	-0.001119	± 2.5
55		4.13	0.002199	± 2.5
25	4.2	1.95	0.001035	± 2.5
	3.5	1.03	0.000548	± 2.5

LTE Band 4

Middle Channel, $f_0 = 1732.5$ MHz				
Temperature (°C)	Power Supplied	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.7	0.21	0.000124	± 2.5
0		1.24	0.000718	± 2.5
10		0.01	0.000008	± 2.5
20		-0.26	-0.000149	± 2.5
30		0.29	0.000165	± 2.5
40		-1.03	-0.000594	± 2.5
50		0.97	0.000561	± 2.5
55		1.52	0.000875	± 2.5

- 25	4.2	0.69	0.000396	± 2.5
	3.5	1.39	0.000801	± 2.5

LLTE Band 5

Middle Channel, fo = 836.5 MHz				
Temperature (°C)	Power Supplied	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.7	0.83	0.000992	± 2.5
0		0.13	0.000154	± 2.5
10		3.92	0.004686	± 2.5
20		-0.53	-0.000633	± 2.5
30		0.53	0.000633	± 2.5
40		2.53	0.003027	± 2.5
50		2.09	0.002497	± 2.5
55		3.85	0.004600	± 2.5
- 25	4.2	1.86	0.002223	± 2.5
	3.5	-0.51	-0.000616	± 2.5

LTE Band 7

Middle Channel, fo = 2535 MHz				
Temperature (°C)	Power Supplied	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.7	0.37	0.000147	± 2.5
0		1.43	0.000564	± 2.5
10		0.67	0.000265	± 2.5
20		2.99	0.001179	± 2.5
30		1.39	0.000547	± 2.5
40		1.42	0.000559	± 2.5
50		2.78	0.001095	± 2.5
55		0.24	0.000096	± 2.5
25	4.2	2.37	0.000937	± 2.5
	3.5	0.60	0.000237	± 2.5

LTE Band 12

Middle Channel, $f_0 = 707.5$ MHz				
Temperature (°C)	Power Supplied	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.7	-1.12	-0.001577	± 2.5
0		2.07	0.002932	± 2.5
10		-0.99	-0.001395	± 2.5
20		0.90	0.001274	± 2.5
30		0.47	0.000667	± 2.5
40		1.09	0.001537	± 2.5
50		-2.79	-0.003943	± 2.5
55		-2.32	-0.003276	± 2.5
25	4.2	0.73	0.001031	± 2.5
	3.5	0.86	0.001213	± 2.5

LTE Band 17

Middle Channel, $f_0 = 710$ MHz				
Temperature (°C)	Power Supplied	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.7	-1.23	-0.001733	± 2.5
0		-0.87	-0.001229	± 2.5
10		-0.50	-0.000705	± 2.5
20		1.62	0.002277	± 2.5
30		2.06	0.002901	± 2.5
40		-0.10	-0.000141	± 2.5
50		-0.94	-0.001330	± 2.5
55		-1.47	-0.002075	± 2.5
25	4.2	-0.66	-0.000927	± 2.5
	3.5	-1.22	-0.001713	± 2.5

Note: The EUT doesn't work below -10°C

9. OCCUPIED BANDWIDTH

9.1 MEASUREMENT METHOD

The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

9.2 PROVISIONS APPLICABLE

The emission bandwidth is defined as two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power

9.3 MEASUREMENT RESULT

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

LTE Band 2

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.0778	PASS
	MCH	6	0	1.0766	PASS
	HCH	6	0	1.0780	PASS
16QAM	LCH	6	0	1.0787	PASS
	MCH	6	0	1.0792	PASS
	HCH	6	0	1.0789	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6850	PASS
	MCH	15	0	2.6812	PASS
	HCH	15	0	2.6831	PASS
16QAM	LCH	15	0	2.6858	PASS
	MCH	15	0	2.6833	PASS
	HCH	15	0	2.6849	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		

QPSK	LCH	25	0	4.4814	PASS
	MCH	25	0	4.4866	PASS
	HCH	25	0	4.4784	PASS
16QAM	LCH	25	0	4.4839	PASS
	MCH	25	0	4.4785	PASS
	HCH	25	0	4.4857	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9479	PASS
	MCH	50	0	8.9189	PASS
	HCH	50	0	8.9200	PASS
16QAM	LCH	50	0	8.9479	PASS
	MCH	50	0	8.9223	PASS
	HCH	50	0	8.9280	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.427	PASS
	MCH	75	0	13.391	PASS
	HCH	75	0	13.393	PASS
16QAM	LCH	75	0	13.404	PASS
	MCH	75	0	13.375	PASS
	HCH	75	0	13.383	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.875	PASS
	MCH	100	0	17.812	PASS
	HCH	100	0	17.855	PASS
16QAM	LCH	100	0	17.877	PASS
	MCH	100	0	17.798	PASS
	HCH	100	0	17.860	PASS

LTE Band 4

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.0761	PASS
	MCH	6	0	1.0762	PASS
	HCH	6	0	1.0782	PASS
16QAM	LCH	6	0	1.0812	PASS
	MCH	6	0	1.0784	PASS
	HCH	6	0	1.0765	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6845	PASS
	MCH	15	0	2.6832	PASS
	HCH	15	0	2.6822	PASS
16QAM	LCH	15	0	2.6813	PASS
	MCH	15	0	2.6850	PASS
	HCH	15	0	2.6817	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4828	PASS
	MCH	25	0	4.4890	PASS
	HCH	25	0	4.4838	PASS
16QAM	LCH	25	0	4.4782	PASS
	MCH	25	0	4.4752	PASS
	HCH	25	0	4.4862	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9356	PASS

16QAM	MCH	50	0	8.9386	PASS
	HCH	50	0	8.9323	PASS
	LCH	50	0	8.9255	PASS
	MCH	50	0	8.9346	PASS
	HCH	50	0	8.9430	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.410	PASS
	MCH	75	0	13.418	PASS
	HCH	75	0	13.398	PASS
16QAM	LCH	75	0	13.404	PASS
	MCH	75	0	13.400	PASS
	HCH	75	0	13.384	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.855	PASS
	MCH	100	0	17.861	PASS
	HCH	100	0	17.854	PASS
16QAM	LCH	100	0	17.865	PASS
	MCH	100	0	17.867	PASS
	HCH	100	0	17.845	PASS

LTE Band 5

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.0772	PASS
	MCH	6	0	1.0760	PASS
	HCH	6	0	1.0791	PASS
16QAM	LCH	6	0	1.0792	PASS
	MCH	6	0	1.0792	PASS
	HCH	6	0	1.0762	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6806	PASS
	MCH	15	0	2.6836	PASS
	HCH	15	0	2.6832	PASS
16QAM	LCH	15	0	2.6828	PASS
	MCH	15	0	2.6837	PASS
	HCH	15	0	2.6810	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4847	PASS
	MCH	25	0	4.4796	PASS
	HCH	25	0	4.4836	PASS
16QAM	LCH	25	0	4.4809	PASS
	MCH	25	0	4.4782	PASS
	HCH	25	0	4.4836	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9366	PASS
	MCH	50	0	8.9377	PASS
	HCH	50	0	8.9363	PASS
16QAM	LCH	50	0	8.9486	PASS
	MCH	50	0	8.9489	PASS
	HCH	50	0	8.9511	PASS

LTE Band 7
Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4848	PASS
	MCH	25	0	4.4737	PASS
	HCH	25	0	4.4872	PASS
16QAM	LCH	25	0	4.4800	PASS
	MCH	25	0	4.4892	PASS
	HCH	25	0	4.4890	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9333	PASS
	MCH	50	0	8.9407	PASS
	HCH	50	0	8.9270	PASS
16QAM	LCH	50	0	8.9362	PASS
	MCH	50	0	8.9290	PASS
	HCH	50	0	8.9466	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.394	PASS
	MCH	75	0	13.417	PASS
	HCH	75	0	13.412	PASS
16QAM	LCH	75	0	13.397	PASS
	MCH	75	0	13.410	PASS
	HCH	75	0	13.416	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.848	PASS
	MCH	100	0	17.870	PASS
	HCH	100	0	17.867	PASS
16QAM	LCH	100	0	17.861	PASS

	MCH	100	0	17.885	PASS
	HCH	100	0	17.848	PASS

LTE Band 12

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.0787	PASS
	MCH	6	0	1.0764	PASS
	HCH	6	0	1.0795	PASS
16QAM	LCH	6	0	1.0820	PASS
	MCH	6	0	1.0801	PASS
	HCH	6	0	1.0798	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6821	PASS
	MCH	15	0	2.6849	PASS
	HCH	15	0	2.6853	PASS
16QAM	LCH	15	0	2.6836	PASS
	MCH	15	0	2.6845	PASS
	HCH	15	0	2.6835	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4833	PASS
	MCH	25	0	4.4777	PASS
	HCH	25	0	4.4780	PASS
16QAM	LCH	25	0	4.4728	PASS
	MCH	25	0	4.4809	PASS
	HCH	25	0	4.4847	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		

QPSK	LCH	50	0	8.9711	PASS
	MCH	50	0	8.9348	PASS
	HCH	50	0	8.9143	PASS
16QAM	LCH	50	0	8.9679	PASS
	MCH	50	0	8.9355	PASS
	HCH	50	0	8.9096	PASS

LTE Band 17

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4903	PASS
	MCH	25	0	4.4731	PASS
	HCH	25	0	4.4723	PASS
16QAM	LCH	25	0	4.4845	PASS
	MCH	25	0	4.4853	PASS
	HCH	25	0	4.4751	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9564	PASS
	MCH	50	0	8.9318	PASS
	HCH	50	0	8.8851	PASS
16QAM	LCH	50	0	8.9602	PASS
	MCH	50	0	8.9303	PASS
	HCH	50	0	8.9087	PASS

Note: Please refers to Appendix B for compliance test plots for Occupied Bandwidth (99%)

10. EMISSION BANDWIDTH

10.1 MEASUREMENT METHOD

The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

10.2 PROVISIONS APPLICABLE

The emission bandwidth is defined as two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power

10.3 MEASUREMENT RESULT

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

LTE Band 2

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.219	PASS
	MCH	6	0	1.203	PASS
	HCH	6	0	1.224	PASS
16QAM	LCH	6	0	1.208	PASS
	MCH	6	0	1.206	PASS
	HCH	6	0	1.221	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.874	PASS
	MCH	15	0	2.863	PASS
	HCH	15	0	2.883	PASS
16QAM	LCH	15	0	2.874	PASS
	MCH	15	0	2.894	PASS
	HCH	15	0	2.870	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		

QPSK	LCH	25	0	4.771	PASS
	MCH	25	0	4.818	PASS
	HCH	25	0	4.868	PASS
16QAM	LCH	25	0	4.849	PASS
	MCH	25	0	4.863	PASS
	HCH	25	0	4.829	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.483	PASS
	MCH	50	0	9.459	PASS
	HCH	50	0	9.428	PASS
16QAM	LCH	50	0	9.462	PASS
	MCH	50	0	9.469	PASS
	HCH	50	0	9.328	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	14.00	PASS
	MCH	75	0	14.03	PASS
	HCH	75	0	14.21	PASS
16QAM	LCH	75	0	14.00	PASS
	MCH	75	0	14.05	PASS
	HCH	75	0	13.99	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	18.62	PASS
	MCH	100	0	18.55	PASS
	HCH	100	0	18.65	PASS
16QAM	LCH	100	0	18.63	PASS
	MCH	100	0	18.54	PASS
	HCH	100	0	18.60	PASS

LTE Band 4

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.230	PASS
	MCH	6	0	1.212	PASS
	HCH	6	0	1.221	PASS
16QAM	LCH	6	0	1.230	PASS
	MCH	6	0	1.211	PASS
	HCH	6	0	1.224	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.880	PASS
	MCH	15	0	2.871	PASS
	HCH	15	0	2.886	PASS
16QAM	LCH	15	0	2.860	PASS
	MCH	15	0	2.876	PASS
	HCH	15	0	2.869	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.825	PASS
	MCH	25	0	4.826	PASS
	HCH	25	0	4.851	PASS
16QAM	LCH	25	0	4.854	PASS
	MCH	25	0	4.846	PASS
	HCH	25	0	4.860	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.383	PASS
	MCH	50	0	9.499	PASS

	HCH	50	0	9.464	PASS
16QAM	LCH	50	0	9.447	PASS
	MCH	50	0	9.466	PASS
	HCH	50	0	9.407	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	14.08	PASS
	MCH	75	0	14.08	PASS
	HCH	75	0	14.01	PASS
16QAM	LCH	75	0	14.02	PASS
	MCH	75	0	14.08	PASS
	HCH	75	0	14.06	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	18.65	PASS
	MCH	100	0	18.63	PASS
	HCH	100	0	18.58	PASS
16QAM	LCH	100	0	18.59	PASS
	MCH	100	0	18.64	PASS
	HCH	100	0	18.62	PASS

LTE Band 5

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.228	PASS
	MCH	6	0	1.215	PASS
	HCH	6	0	1.217	PASS
16QAM	LCH	6	0	1.233	PASS
	MCH	6	0	1.216	PASS
	HCH	6	0	1.224	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.861	PASS
	MCH	15	0	2.870	PASS
	HCH	15	0	2.865	PASS
16QAM	LCH	15	0	2.878	PASS
	MCH	15	0	2.849	PASS
	HCH	15	0	2.883	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.818	PASS
	MCH	25	0	4.820	PASS
	HCH	25	0	4.835	PASS
16QAM	LCH	25	0	4.790	PASS
	MCH	25	0	4.782	PASS
	HCH	25	0	4.819	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.509	PASS
	MCH	50	0	9.470	PASS
	HCH	50	0	9.481	PASS
16QAM	LCH	50	0	9.437	PASS
	MCH	50	0	9.444	PASS
	HCH	50	0	9.437	PASS

LTE Band 7

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth(MHz)	Verdict
		Size	Offset		

QPSK	LCH	25	0	4.814	PASS
	MCH	25	0	4.826	PASS
	HCH	25	0	4.862	PASS
16QAM	LCH	25	0	4.853	PASS
	MCH	25	0	4.847	PASS
	HCH	25	0	4.852	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.427	PASS
	MCH	50	0	9.471	PASS
	HCH	50	0	9.467	PASS
16QAM	LCH	50	0	9.429	PASS
	MCH	50	0	9.434	PASS
	HCH	50	0	9.454	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	14.06	PASS
	MCH	75	0	14.08	PASS
	HCH	75	0	14.01	PASS
16QAM	LCH	75	0	14.04	PASS
	MCH	75	0	13.99	PASS
	HCH	75	0	14.10	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	18.57	PASS
	MCH	100	0	18.60	PASS
	HCH	100	0	18.54	PASS
16QAM	LCH	100	0	18.58	PASS
	MCH	100	0	18.60	PASS
	HCH	100	0	18.61	PASS

LTE Band 12

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.218	PASS
	MCH	6	0	1.209	PASS
	HCH	6	0	1.228	PASS
16QAM	LCH	6	0	1.248	PASS
	MCH	6	0	1.243	PASS
	HCH	6	0	1.230	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.867	PASS
	MCH	15	0	2.857	PASS
	HCH	15	0	2.890	PASS
16QAM	LCH	15	0	2.889	PASS
	MCH	15	0	2.869	PASS
	HCH	15	0	2.886	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.823	PASS
	MCH	25	0	4.816	PASS
	HCH	25	0	4.827	PASS
16QAM	LCH	25	0	4.835	PASS
	MCH	25	0	4.822	PASS
	HCH	25	0	4.771	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.552	PASS
	MCH	50	0	9.491	PASS
	HCH	50	0	9.350	PASS
16QAM	LCH	50	0	9.509	PASS

	MCH	50	0	9.475	PASS
	HCH	50	0	9.429	PASS

LTE Band 17

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.799	PASS
	MCH	25	0	4.819	PASS
	HCH	25	0	4.804	PASS
16QAM	LCH	25	0	4.873	PASS
	MCH	25	0	4.825	PASS
	HCH	25	0	4.793	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.417	PASS
	MCH	50	0	9.388	PASS
	HCH	50	0	9.342	PASS
16QAM	LCH	50	0	9.455	PASS
	MCH	50	0	9.384	PASS
	HCH	50	0	9.306	PASS

Note: Please refers to Appendix B for compliance test plots for emission bandwidth (-26dBc)

11. BAND EDGE

11.1 MEASUREMENT METHOD

The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

11.2 PROVISIONS APPLICABLE

As Specified in FCC rules of §2.1051 §24.238(a) §27.53(e) §27.53(g)

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11.3 MEASUREMENT RESULT

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequency. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

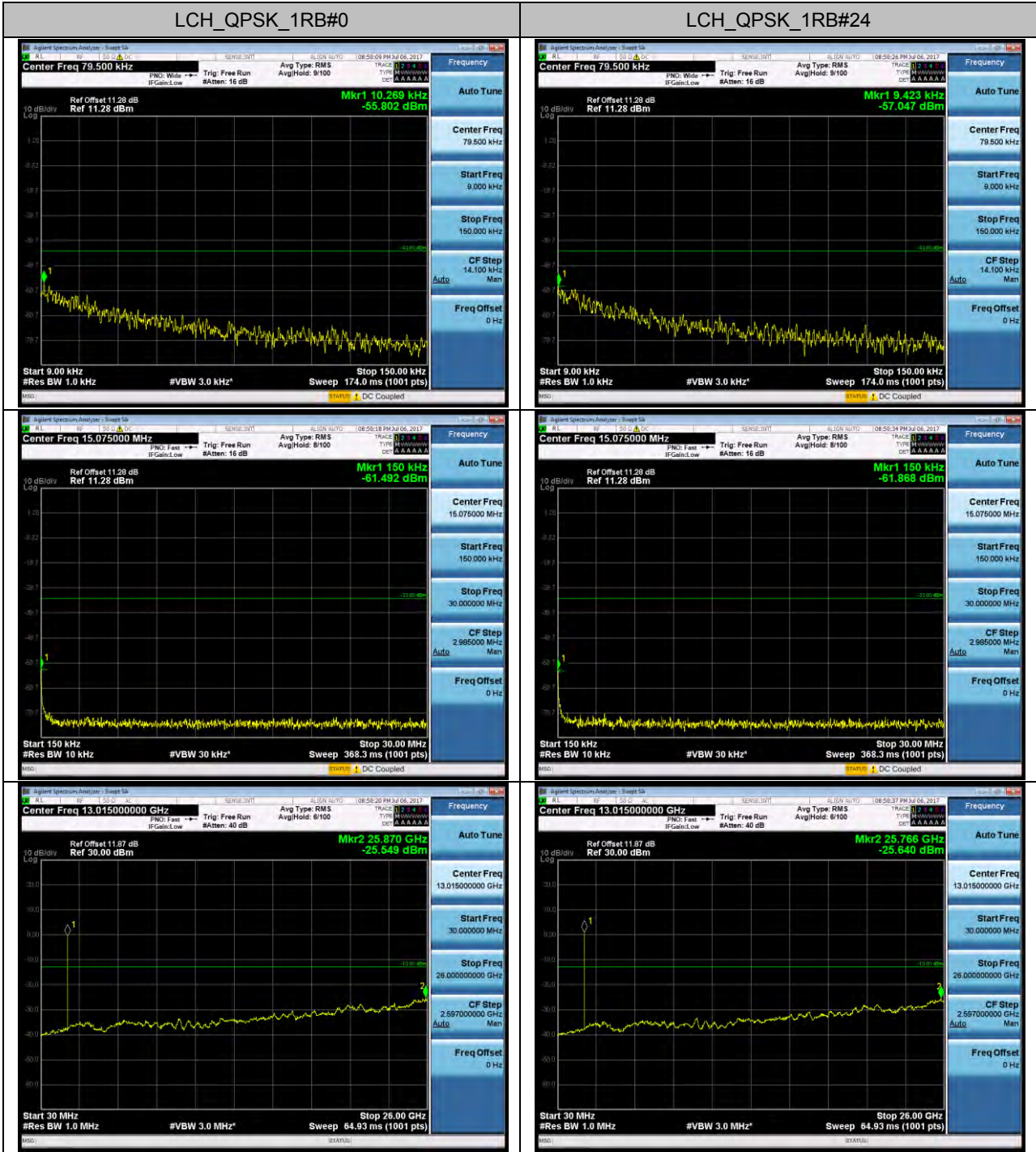
The minimum permissible attenuation level of any spurious emission is $43 + \log_{10}(P[\text{Watts}])$, where P is the transmitter power in Watts.

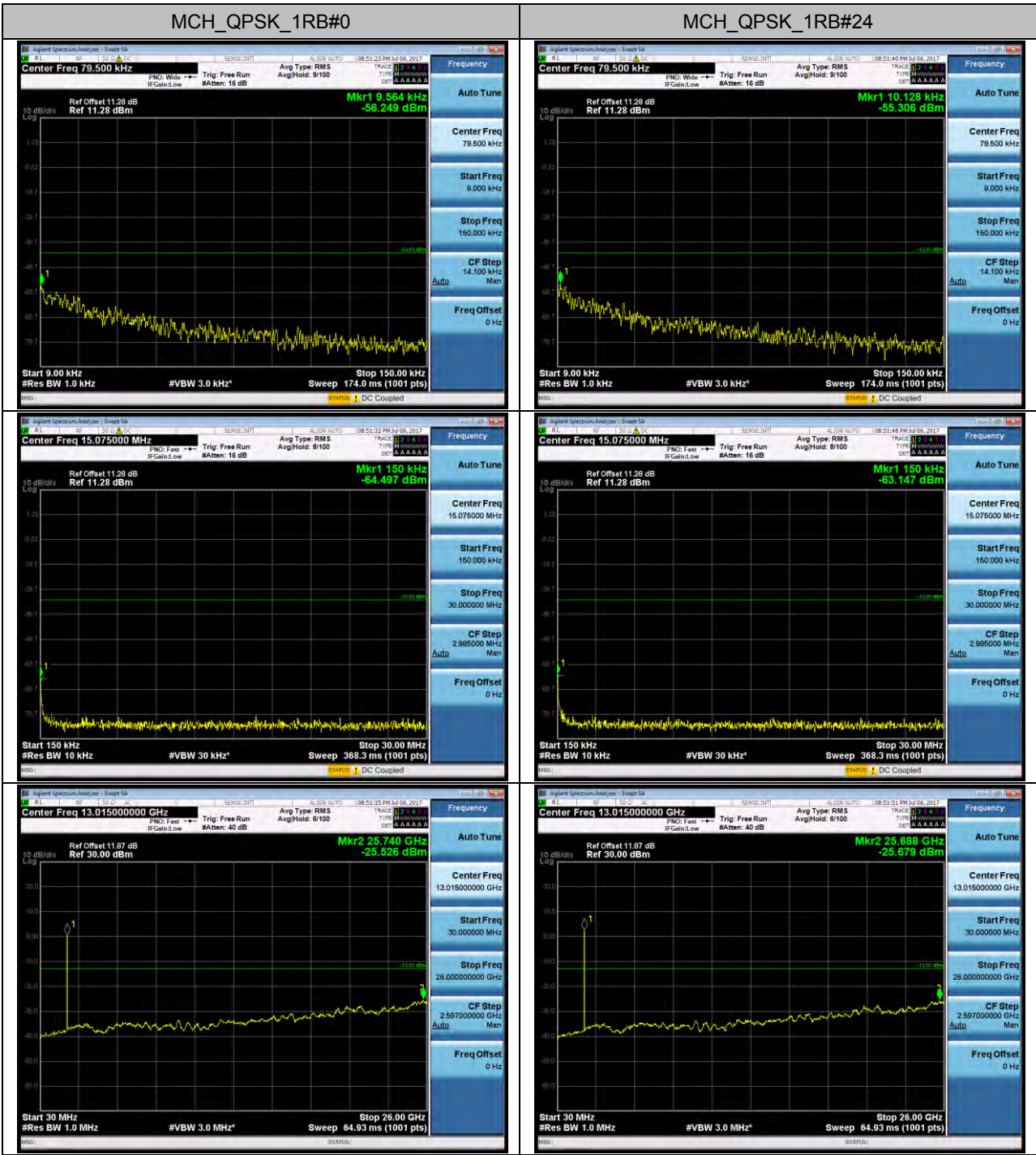
Please refers to Appendix III for compliance test plots for band edge

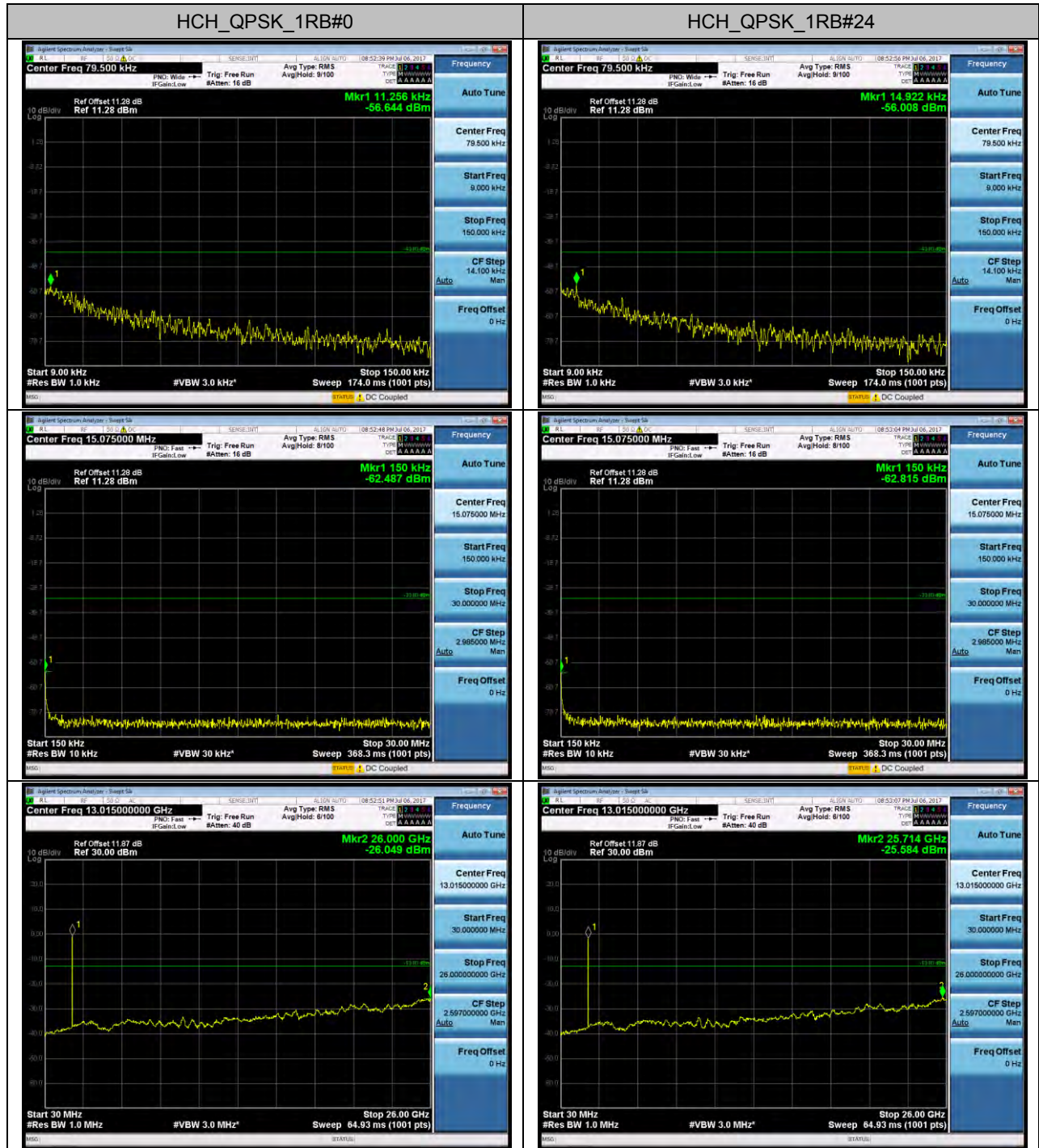
APPENDIX A

TEST PLOTS FOR CONDUCTED SPURIOUS EMISSION

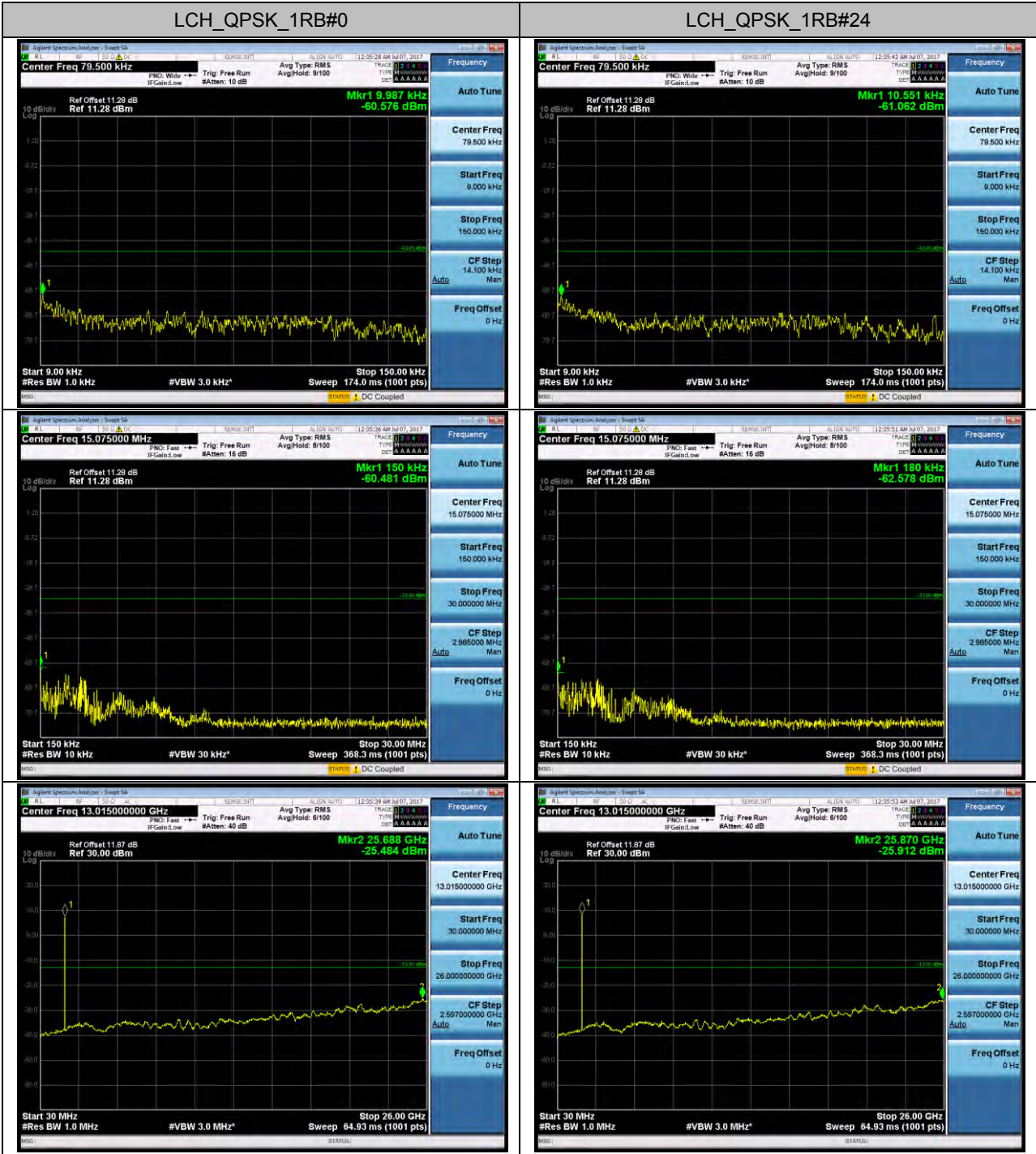
LTE BAND 2

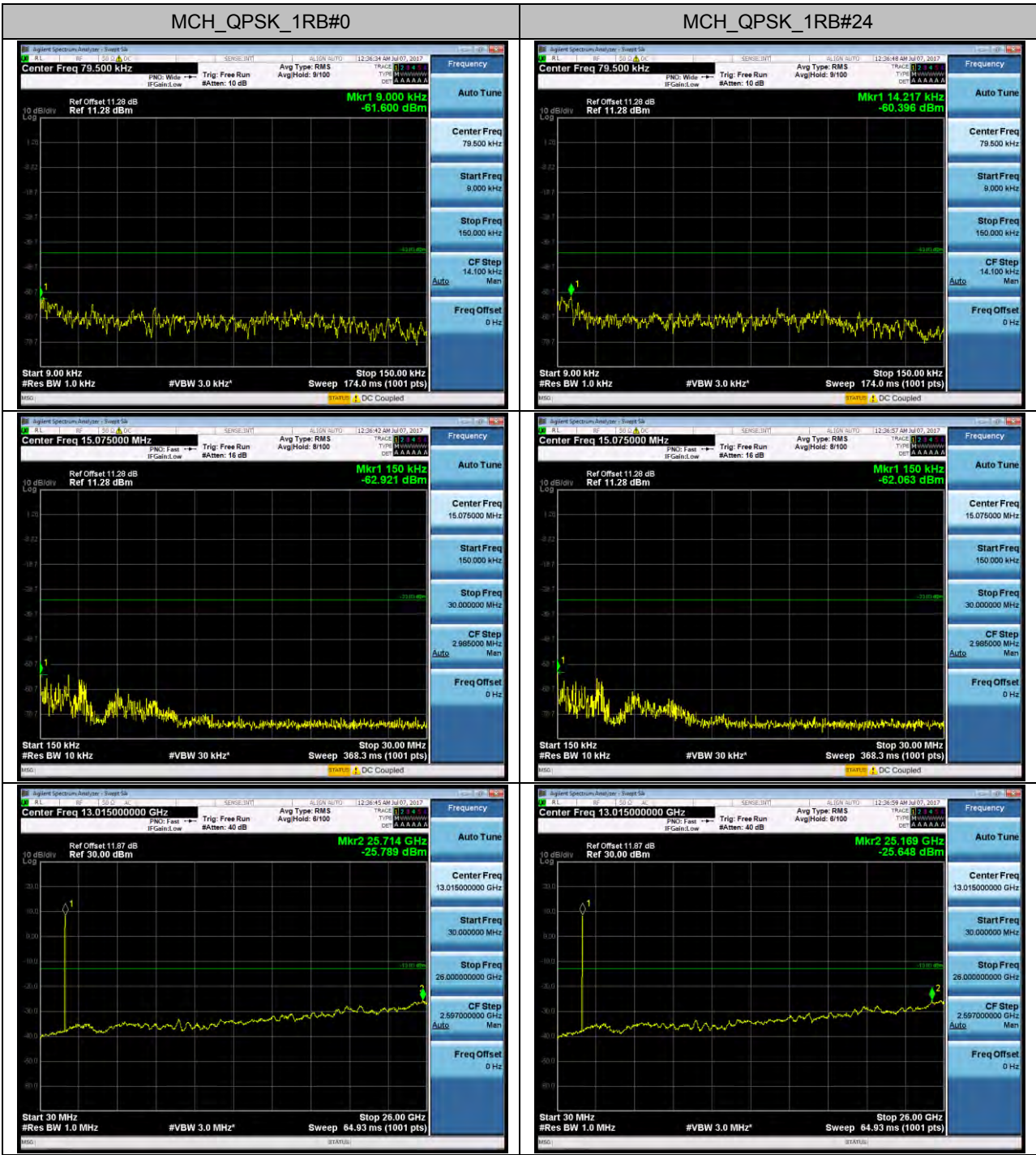


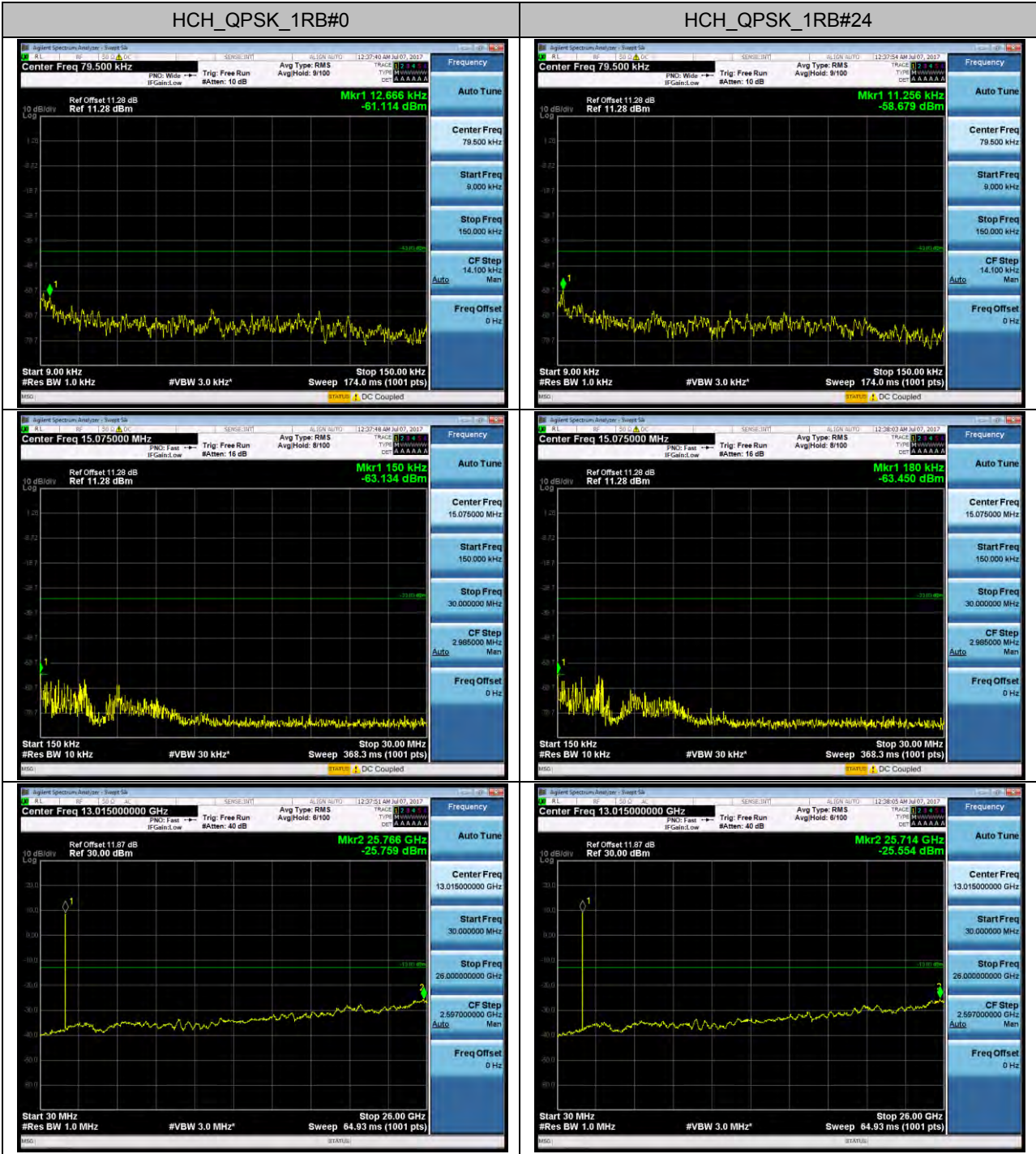




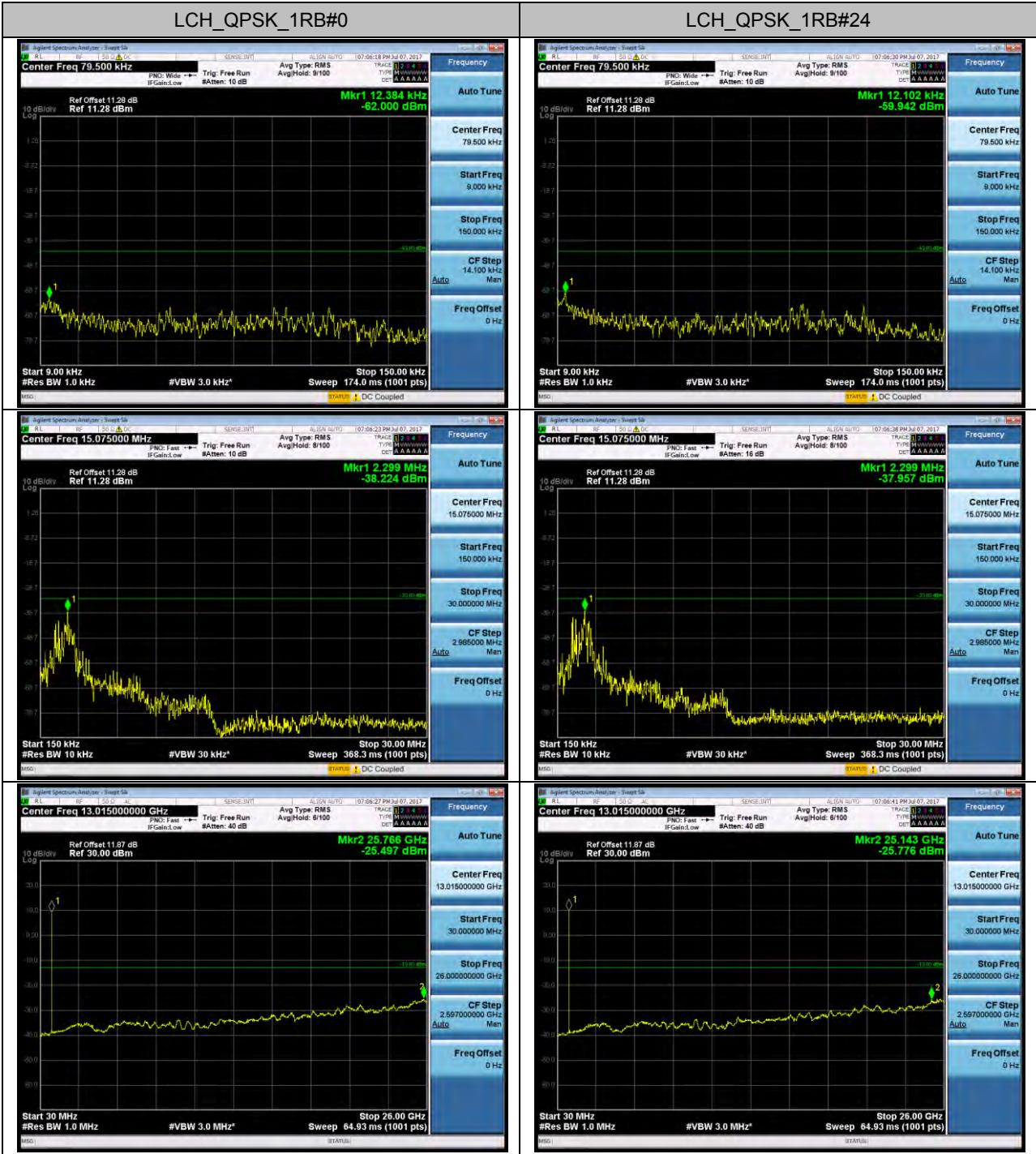
LTE BAND 4

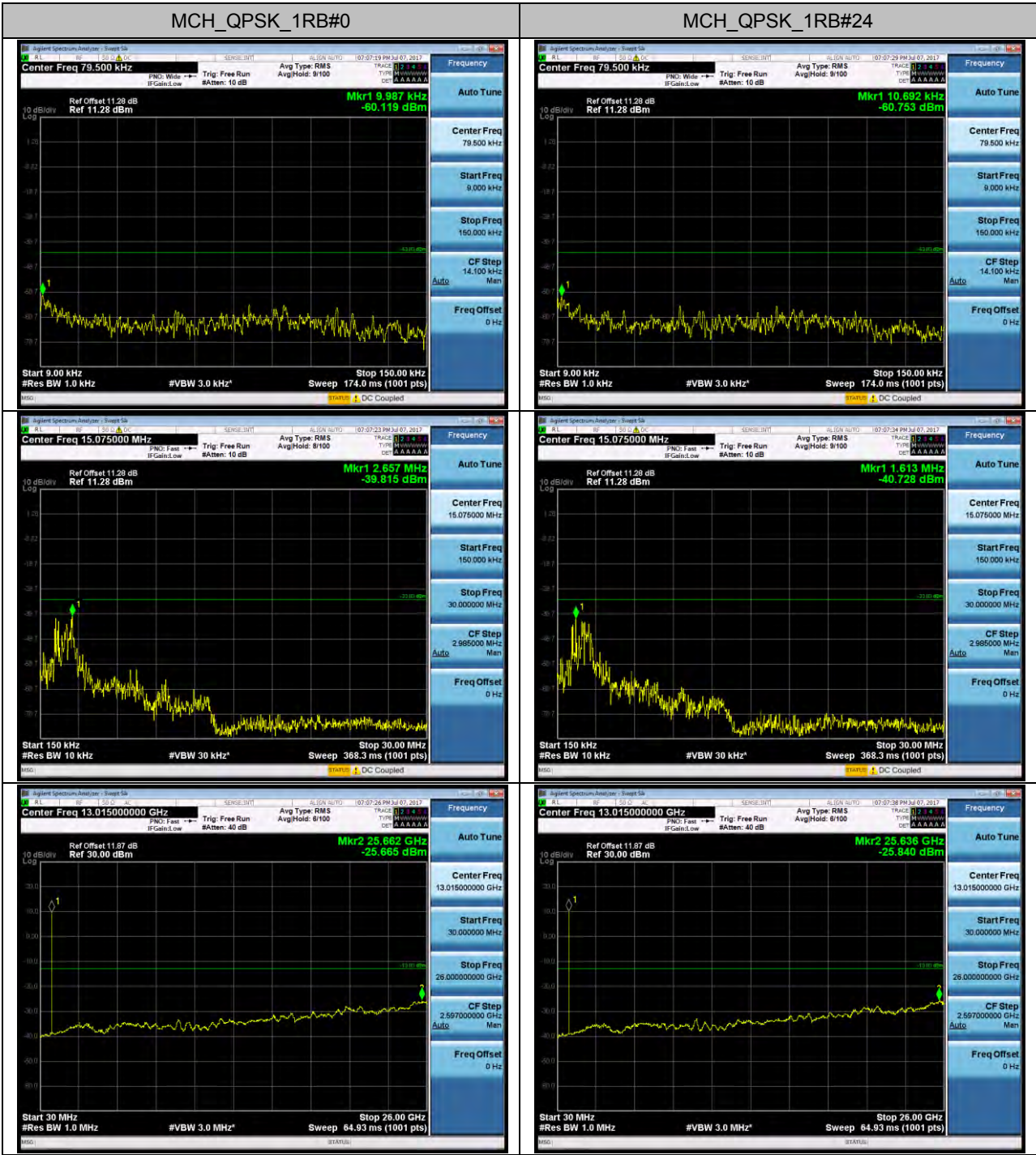






LTE BAND 5





Agilent Spectrum Analyzer - Sweep 5a

Center Freq 15.075000 MHz

Ref Offset 11.28 dB
Ref 11.28 dBm

Mkr1 2.657 MHz
-39.815 dBm

10 dB/div
Log

Start 150 kHz
#Res BW 10 kHz

Stop 30.000 MHz
#VBW 30 kHz*

Sweep 368.3 ms (1001 pts)

Auto Tune

Center Freq 15.075000 MHz

Start Freq 150.000 kHz

Stop Freq 30.000000 MHz

CF Step 2.985000 MHz

Freq Offset 0 Hz

STATUS

DC Coupled

Agilent Spectrum Analyzer - Sweep 5a

Center Freq 15.075000 MHz

Ref Offset 11.28 dB
Ref 11.28 dBm

Mkr1 1.613 MHz
-40.728 dBm

10 dB/div
Log

Start 150 kHz
#Res BW 10 kHz

Stop 30.000 MHz
#VBW 30 kHz*

Sweep 368.3 ms (1001 pts)

Auto Tune

Center Freq 15.075000 MHz

Start Freq 150.000 kHz

Stop Freq 30.000000 MHz

CF Step 2.985000 MHz

Freq Offset 0 Hz

STATUS

DC Coupled

Agilent Spectrum Analyzer - Sweep 5a

Center Freq 13.015000000 GHz

Ref Offset 11.87 dB
Ref 30.00 dBm

Mkr2 25.662 GHz
-25.665 dBm

10 dB/div
Log

Start 30 MHz
#Res BW 1.0 MHz

Stop 26.00 GHz
#VBW 3.0 MHz*

Sweep 64.93 ms (1001 pts)

Auto Tune

Center Freq 13.015000000 GHz

Start Freq 30.000000 MHz

Stop Freq 26.000000000 GHz

CF Step 2.597000000 GHz

Freq Offset 0 Hz

STATUS

DC Coupled

Agilent Spectrum Analyzer - Sweep 5a

Center Freq 13.015000000 GHz

Ref Offset 11.87 dB
Ref 30.00 dBm

Mkr2 25.636 GHz
-25.640 dBm

10 dB/div
Log

Start 30 MHz
#Res BW 1.0 MHz

Stop 26.00 GHz
#VBW 3.0 MHz*

Sweep 64.93 ms (1001 pts)

Auto Tune

Center Freq 13.015000000 GHz

Start Freq 30.000000 MHz

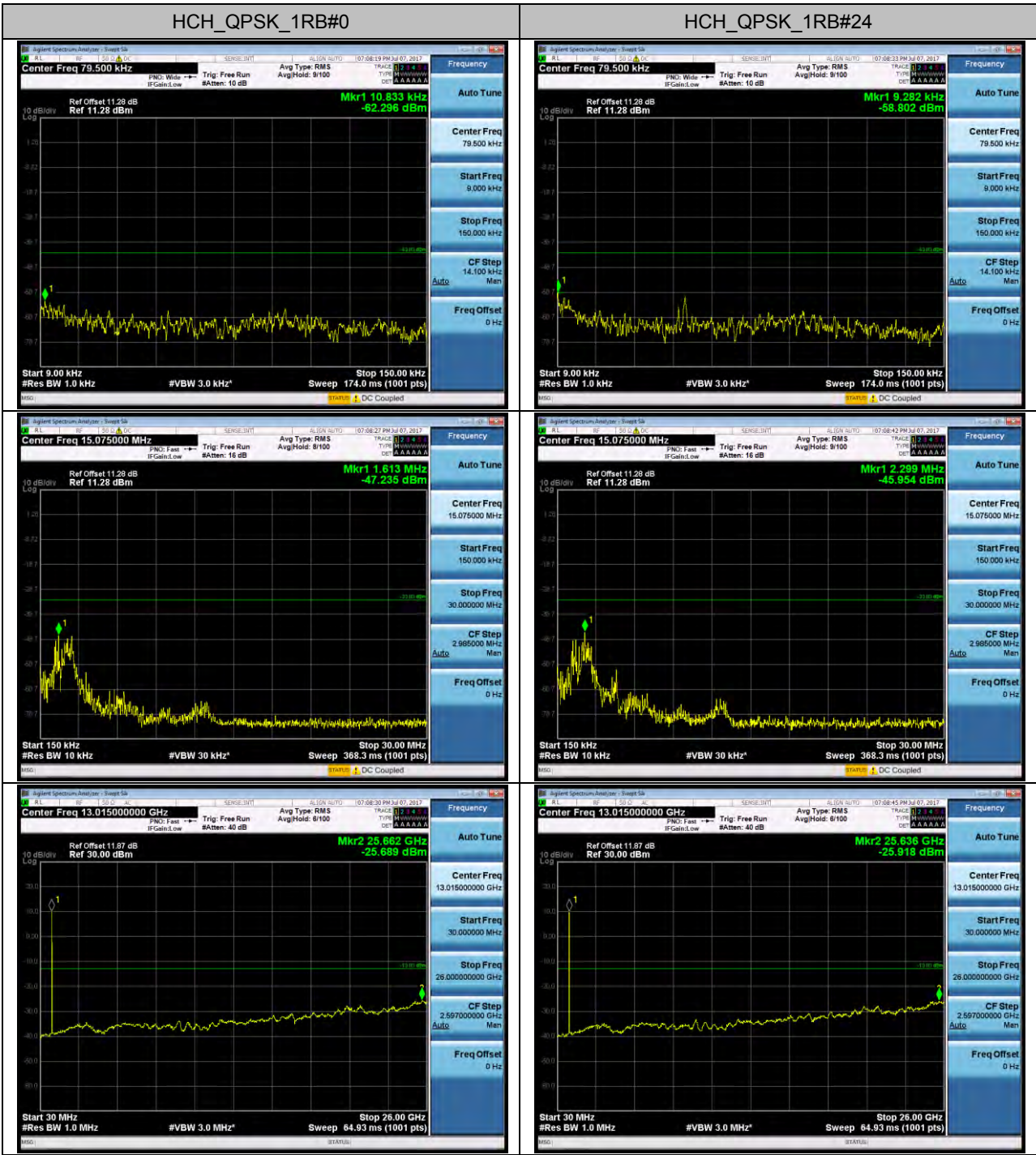
Stop Freq 26.000000000 GHz

CF Step 2.597000000 GHz

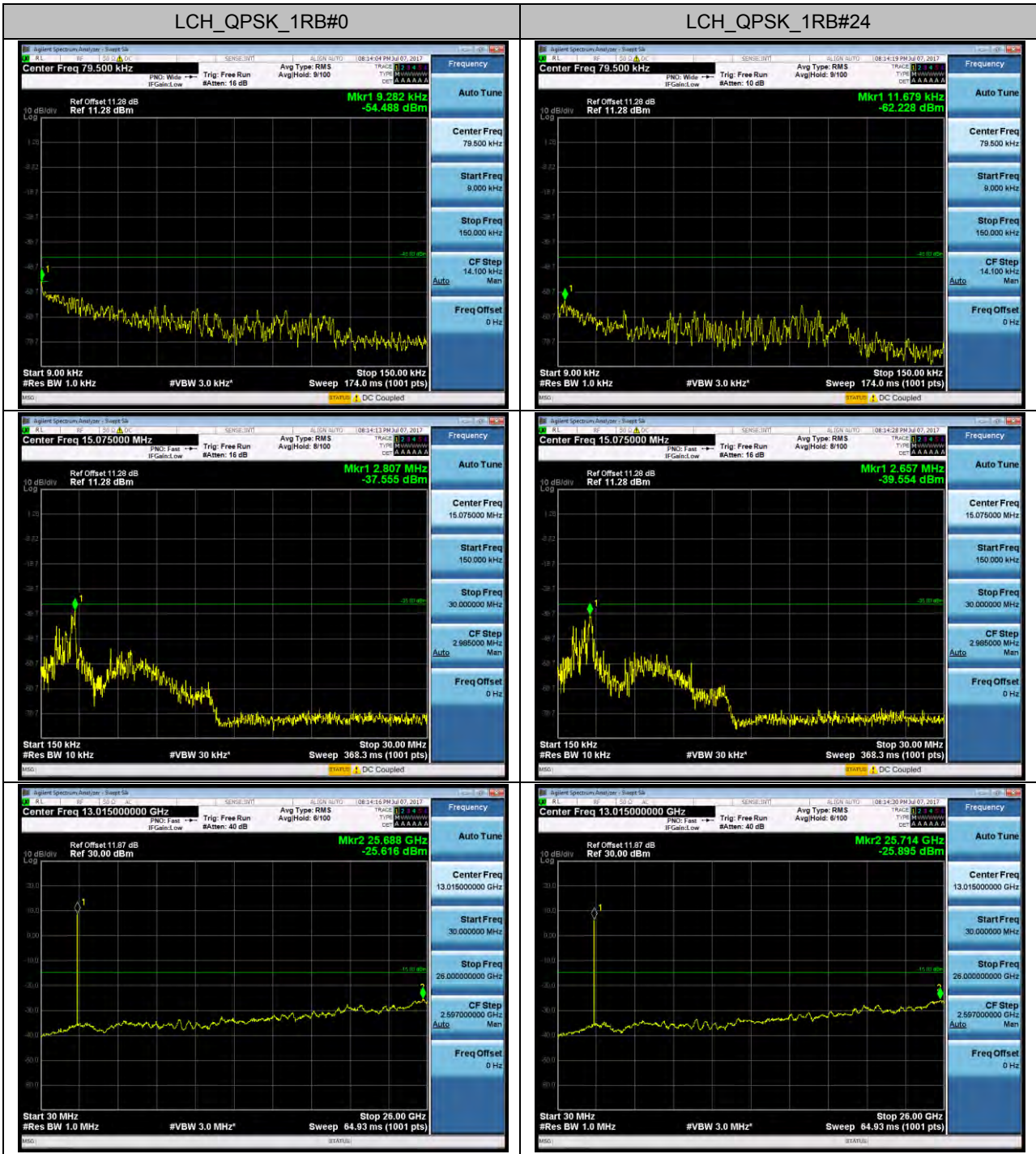
Freq Offset 0 Hz

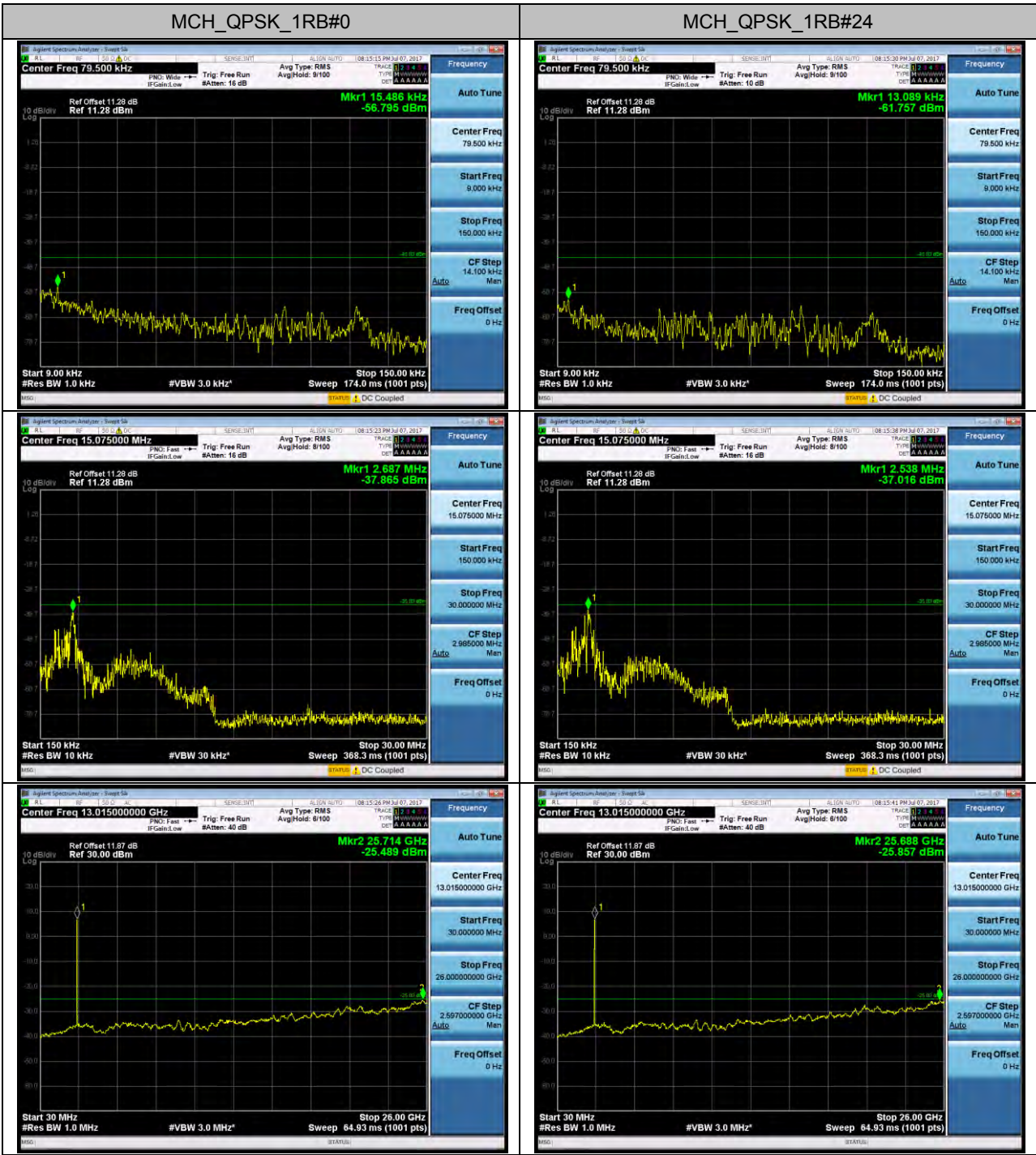
STATUS

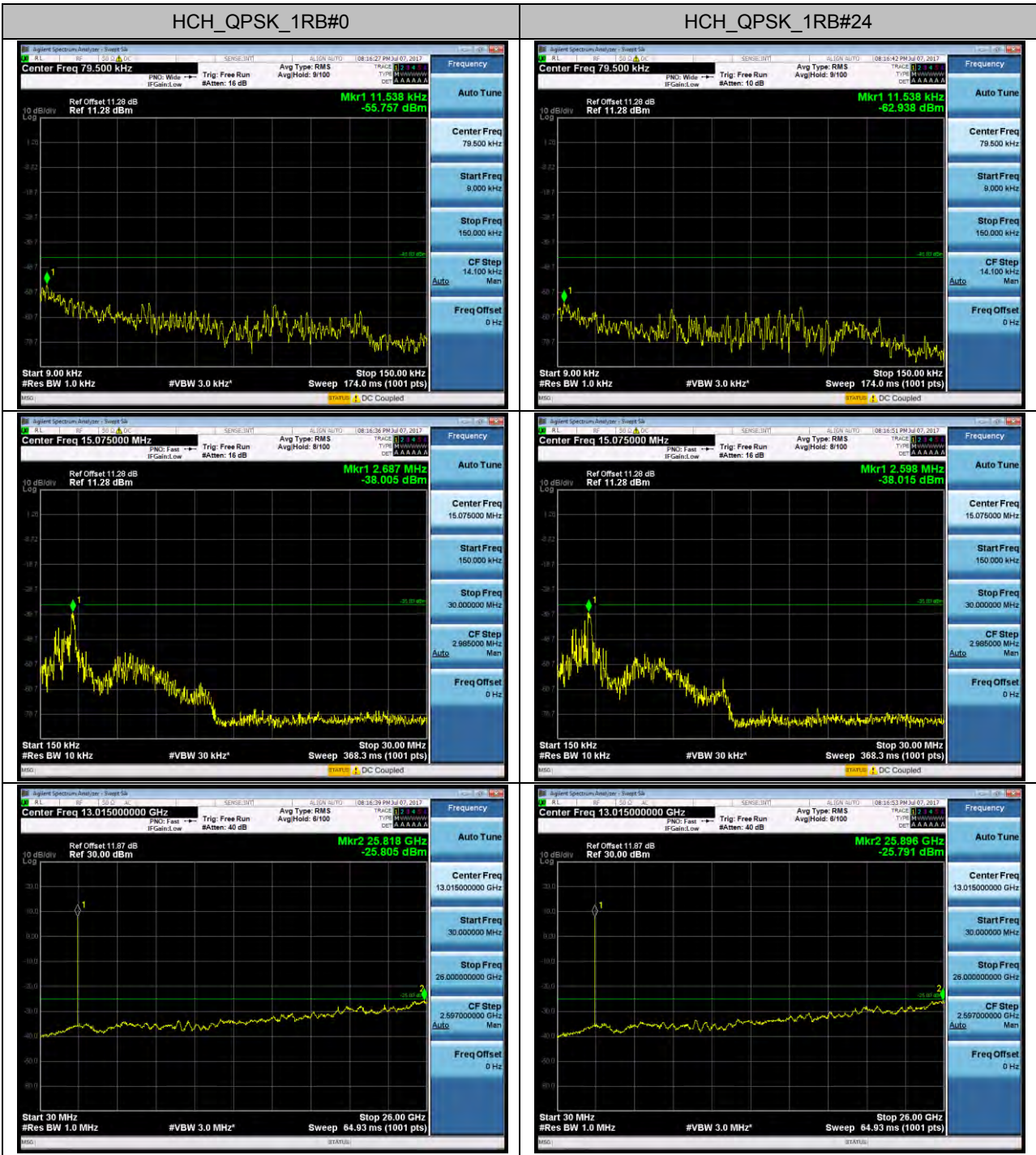
DC Coupled



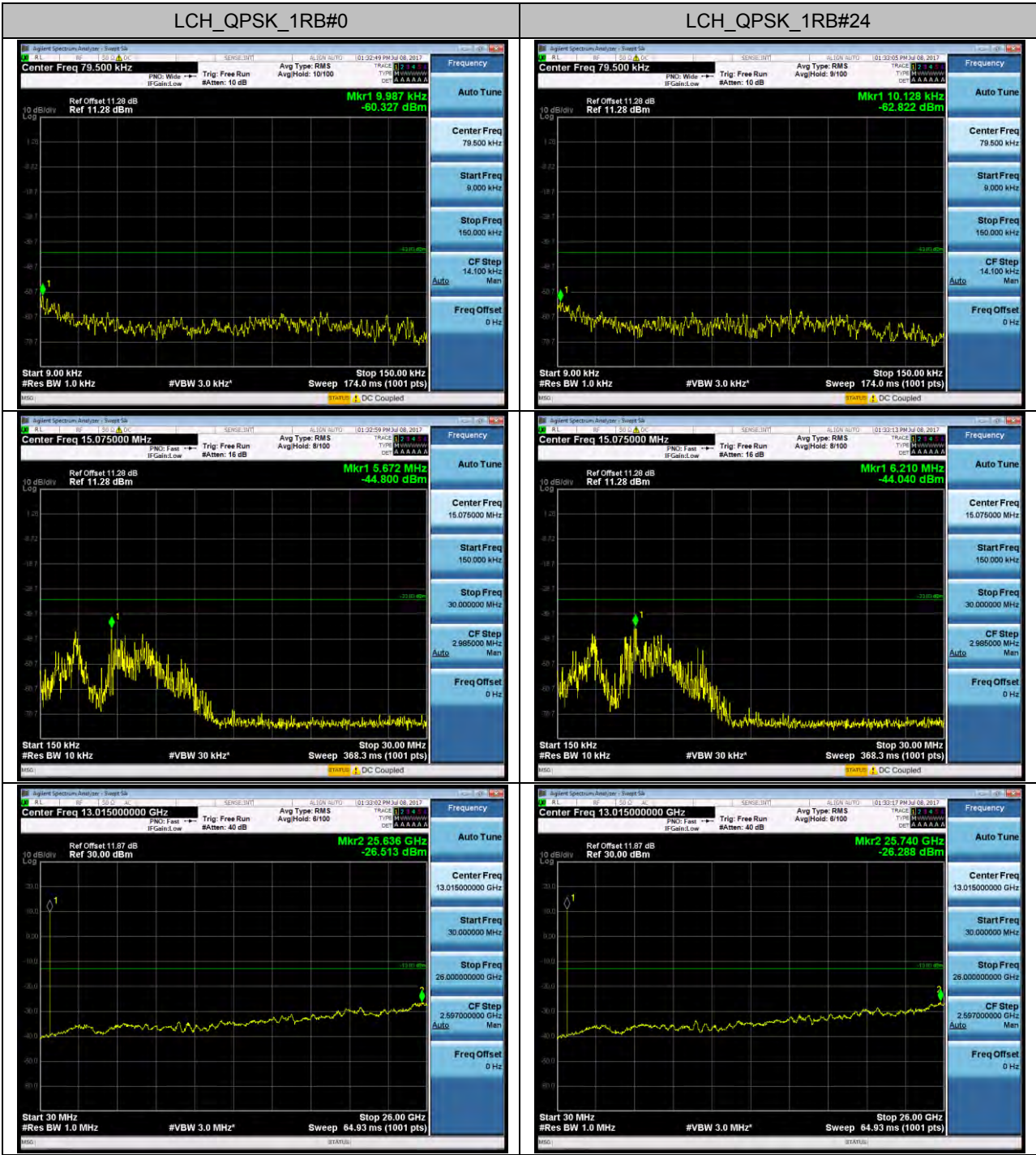
LTE BAND 7

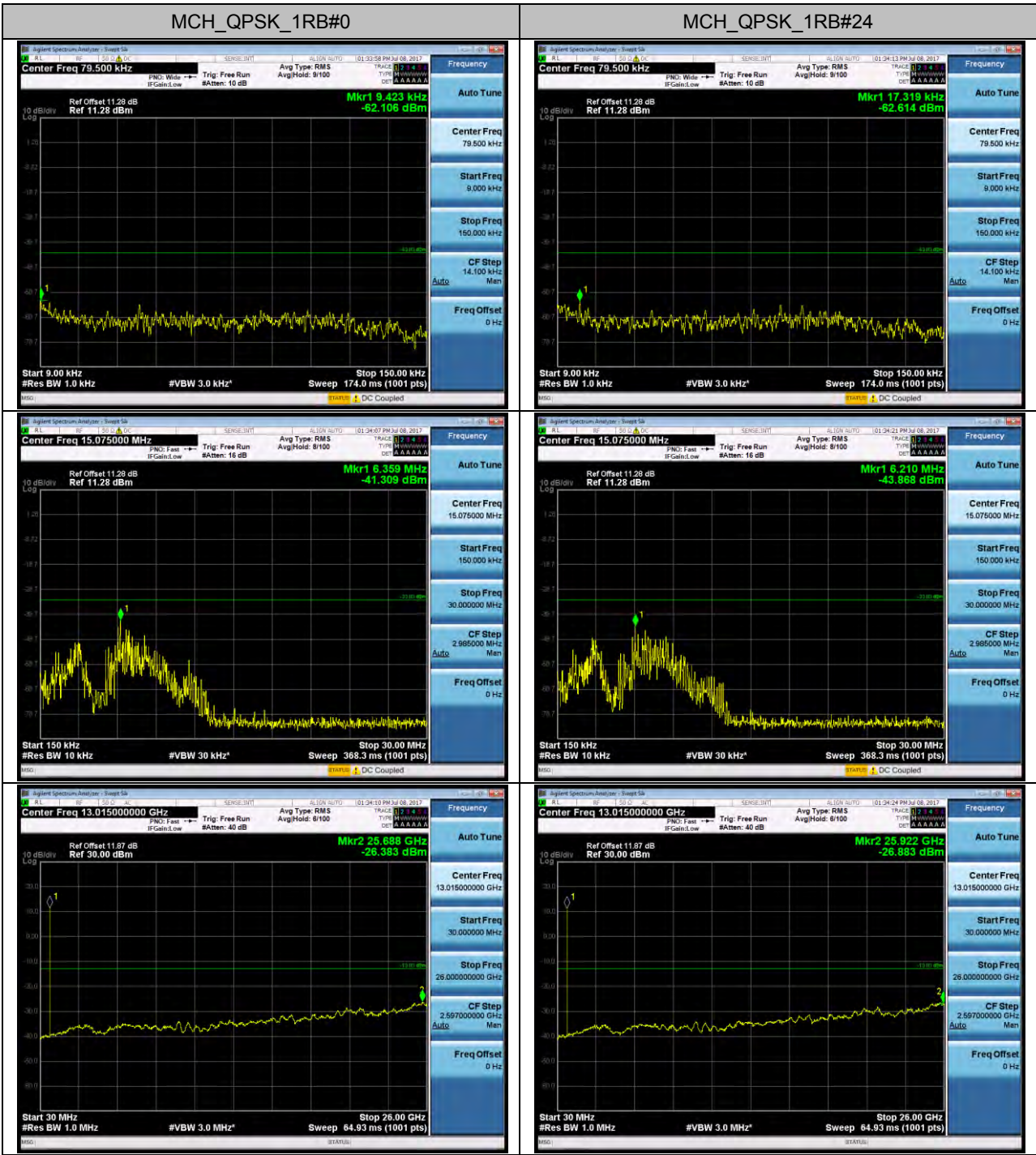


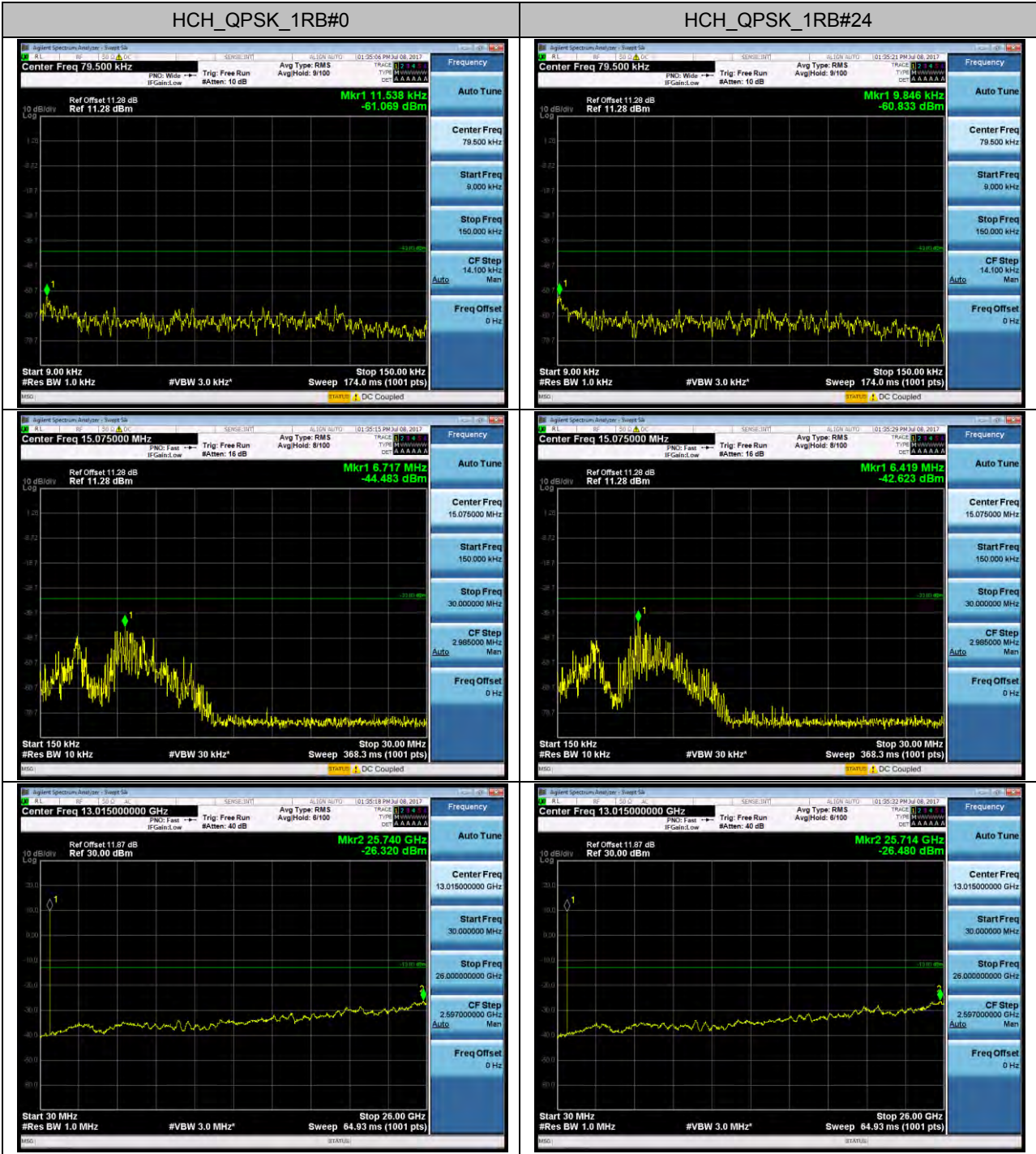




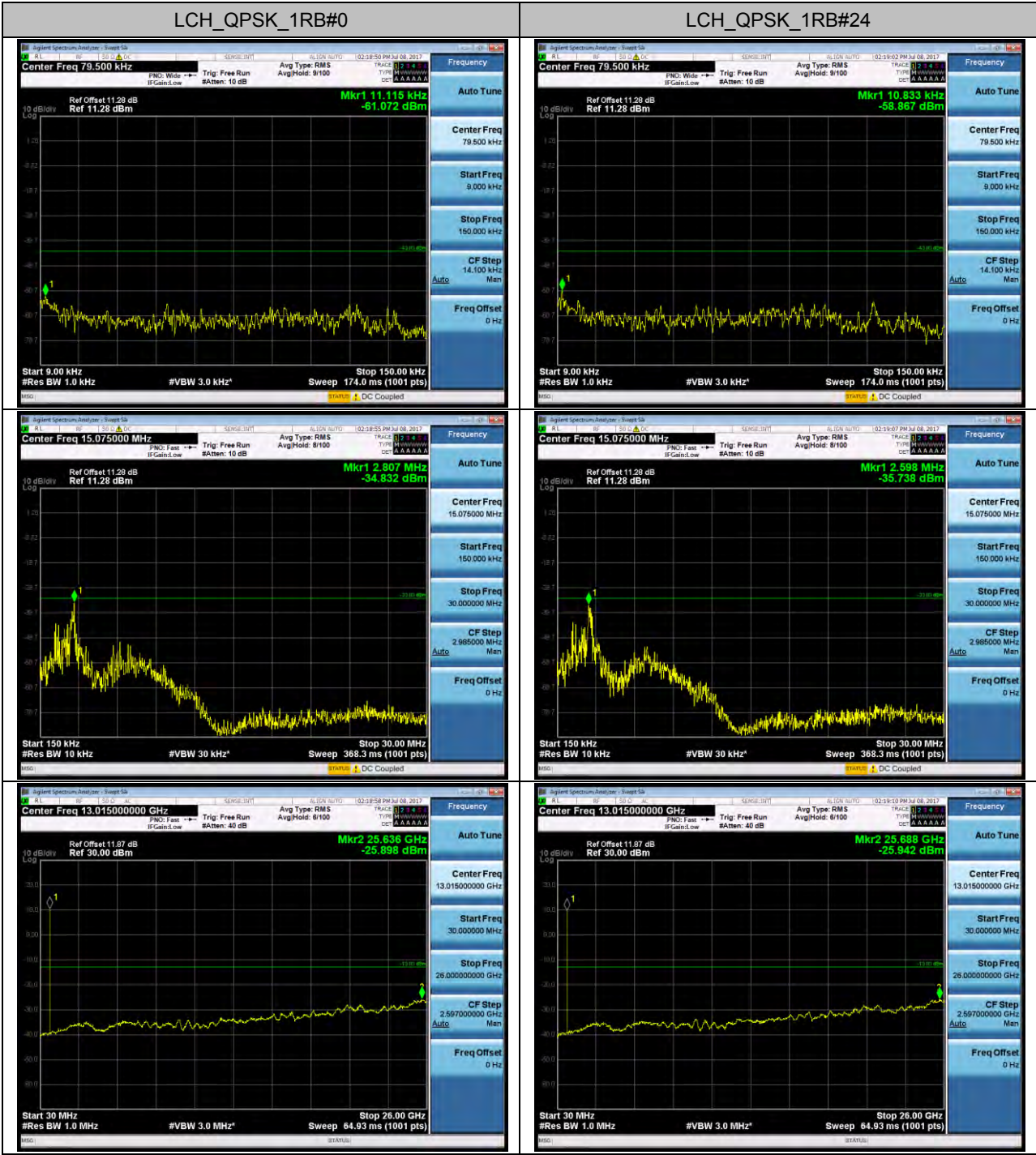
LTE BAND 12

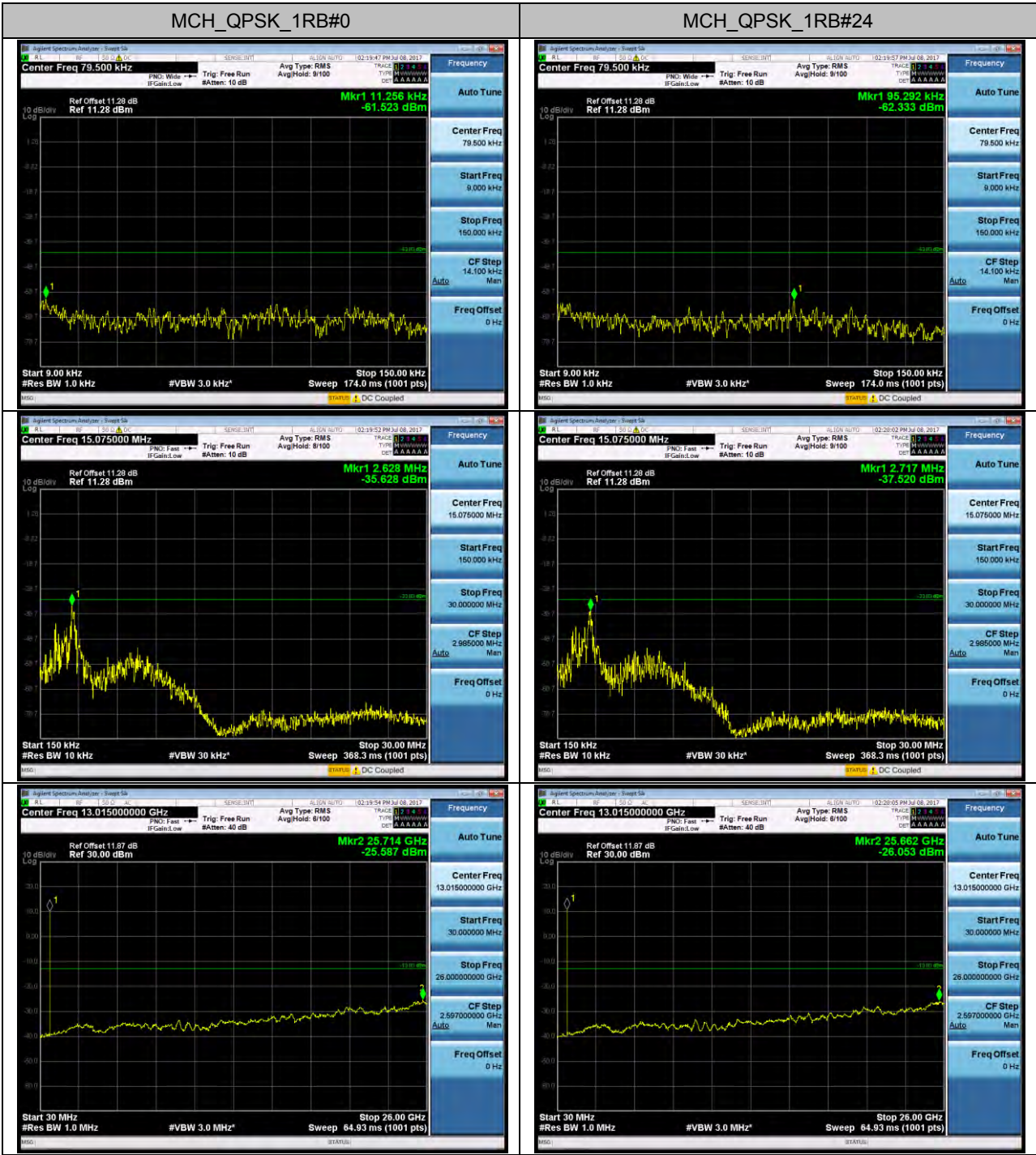






LTE BAND 17





Agilent Spectrum Analyzer - Sweep 5a

Center Freq 15.075000 MHz

Ref Offset 11.28 dB
Ref 11.28 dBm

Mkr1 2.628 MHz
-35.628 dBm

10 dB/div

Log

Start 150 kHz
#Res BW 10 kHz

#VBW 30 kHz*

Stop 30.000 MHz
Sweep 368.3 ms (1001 pts)

Auto Tune

Center Freq 15.075000 MHz

Start Freq 150.000 kHz

Stop Freq 30.000000 MHz

CF Step 2.985000 MHz

Freq Offset 0 Hz

STATUS

DC Coupled

Agilent Spectrum Analyzer - Sweep 5a

Center Freq 15.075000 MHz

Ref Offset 11.28 dB
Ref 11.28 dBm

Mkr1 2.717 MHz
-37.520 dBm

10 dB/div

Log

Start 150 kHz
#Res BW 10 kHz

#VBW 30 kHz*

Stop 30.000 MHz
Sweep 368.3 ms (1001 pts)

Auto Tune

Center Freq 15.075000 MHz

Start Freq 150.000 kHz

Stop Freq 30.000000 MHz

CF Step 2.985000 MHz

Freq Offset 0 Hz

STATUS

DC Coupled

Agilent Spectrum Analyzer - Sweep 5a

Center Freq 13.015000000 GHz

Ref Offset 11.87 dB
Ref 30.00 dBm

Mkr2 25.714 GHz
-25.587 dBm

10 dB/div

Log

Start 30 MHz
#Res BW 1.0 MHz

#VBW 3.0 MHz*

Stop 26.00 GHz
Sweep 64.93 ms (1001 pts)

Auto Tune

Center Freq 13.015000000 GHz

Start Freq 30.000000 MHz

Stop Freq 26.000000000 GHz

CF Step 2.597000000 GHz

Freq Offset 0 Hz

STATUS

DC Coupled

Agilent Spectrum Analyzer - Sweep 5a

Center Freq 13.015000000 GHz

Ref Offset 11.87 dB
Ref 30.00 dBm

Mkr2 25.682 GHz
-26.063 dBm

10 dB/div

Log

Start 30 MHz
#Res BW 1.0 MHz

#VBW 3.0 MHz*

Stop 26.00 GHz
Sweep 64.93 ms (1001 pts)

Auto Tune

Center Freq 13.015000000 GHz

Start Freq 30.000000 MHz

Stop Freq 26.000000000 GHz

CF Step 2.597000000 GHz

Freq Offset 0 Hz

STATUS

DC Coupled