8. Spurious Emissions at Antenna Terminals

8.1 Test Specification

FCC Part 27, Section: 53(a)(1)

8.2 Test Procedure

The power of any emission outside of the authorized operating frequency ranges (2345-2360 MHz) must be attenuated below the transmitting power (P) by a factor of at least as specified in this section.
The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator and an appropriate coaxial cable (31.3 dB).

The evaluation was done in frequency band from 9K-24GHz without band edges tests, and for each modulation separately.

Frequency Band (MHz)	Calculated Factor (dBc)
f<2285.0	75+10*log(10.5)=85.2
2285.0MHz<f<2287.5MHz	72+10*log(10.5)=82.2
2287.5MHz<f<2300.0MHz	70+10*log(10.5)=80.2
2300.0MHz<f<2305.0MHz	43+10*log(10.5)=53.2
2305.0MHz<f<2320.0MHz	43+10*log(10.5)=53.2
2320.0MHz<f<2345.0MHz	75+10*log(10.5)=85.2
2345.0MHz<f<2360.0MHz	43+10*log(10.5)=53.2
2360.0MHz<f<2362.50MHz	43+10*log(10.5)=53.2
2362.5MHz<f<2365.0MHz	55+10*log(10.5)=65.2
2365.0MHz<f<2367.5MHz	70+10*log(10.5)=80.2
2367.5MHz<f<2370.0MHz	72+10*log(10.5)=82.2
2370.0<f	75+10*log(10.5)=85.2

Figure 38 Mask Limit Table

8.3 Test Results

JUDGEMENT: Passed

See additional information in *Figure 39* to *Figure 76.*

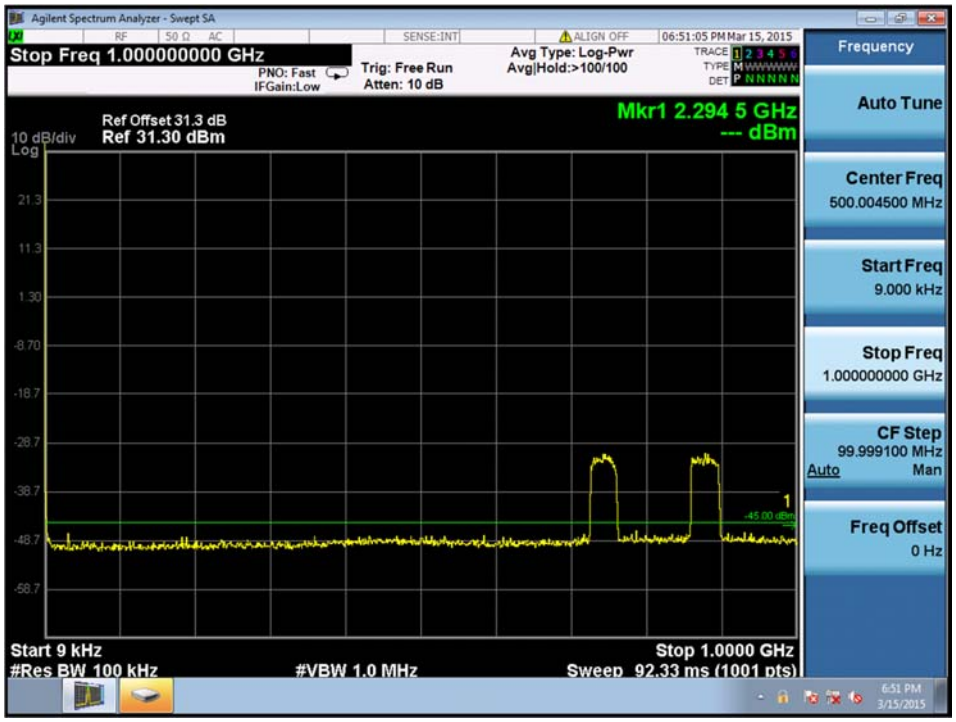

Figure 39. — 0.009 MHz-1000.0 MHz – LTE 64QAM

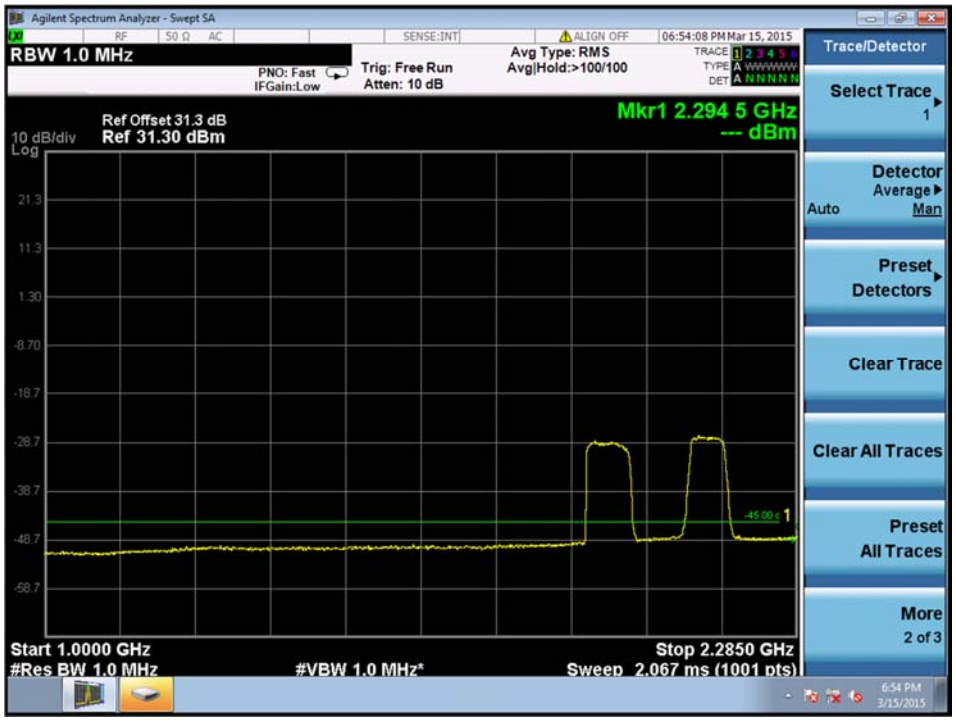

Figure 40. — 1000 MHz-2285 MHz – LTE 64QAM

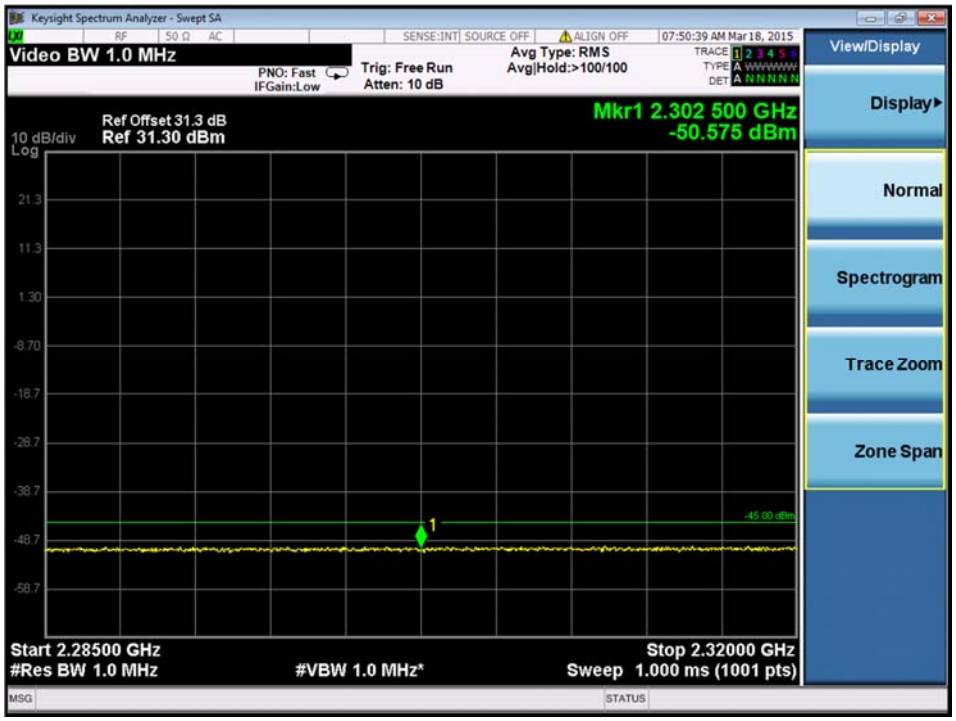

Figure 41. — 2285 MHz-2320 MHz – LTE 64QAM

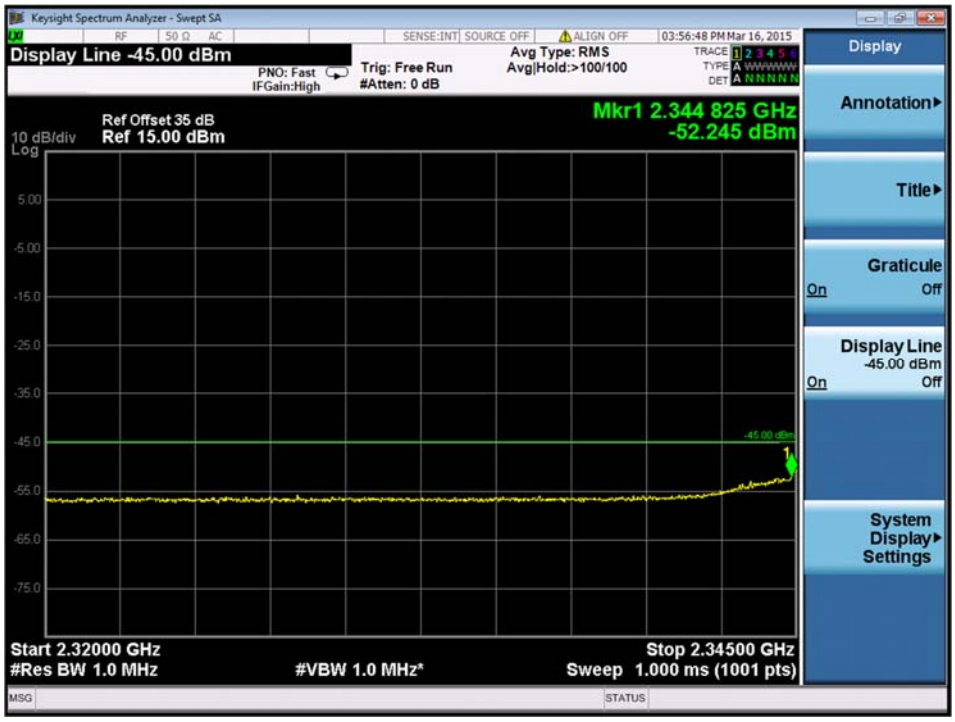

Figure 42. — 2320 MHz-2345 MHz – LTE 64QAM

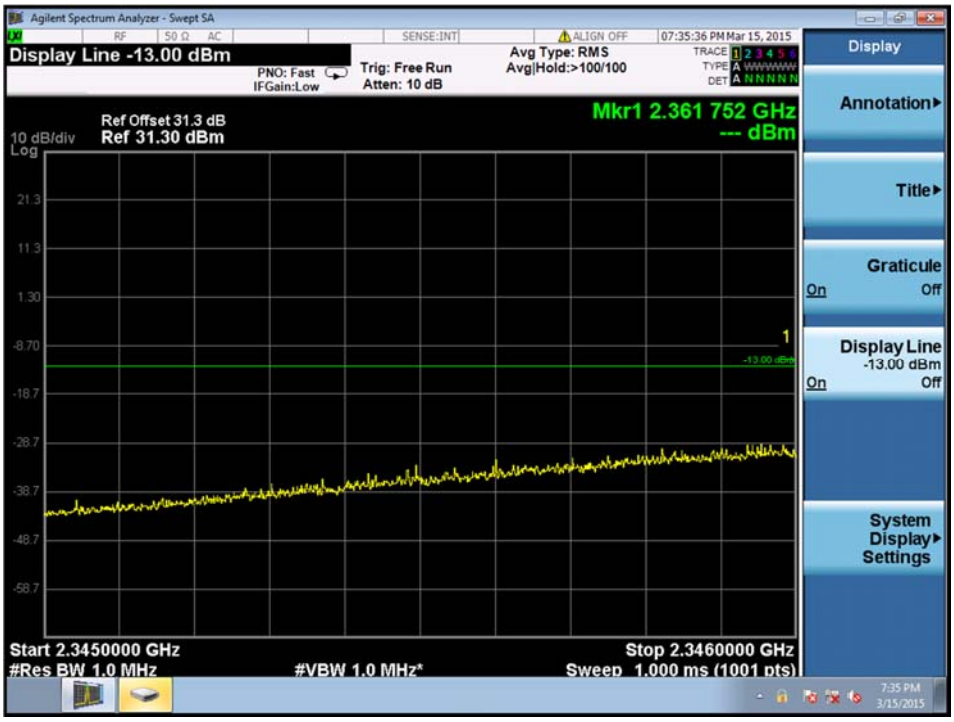

Figure 43. — 2345 MHz-2346 MHz – LTE 64QAM

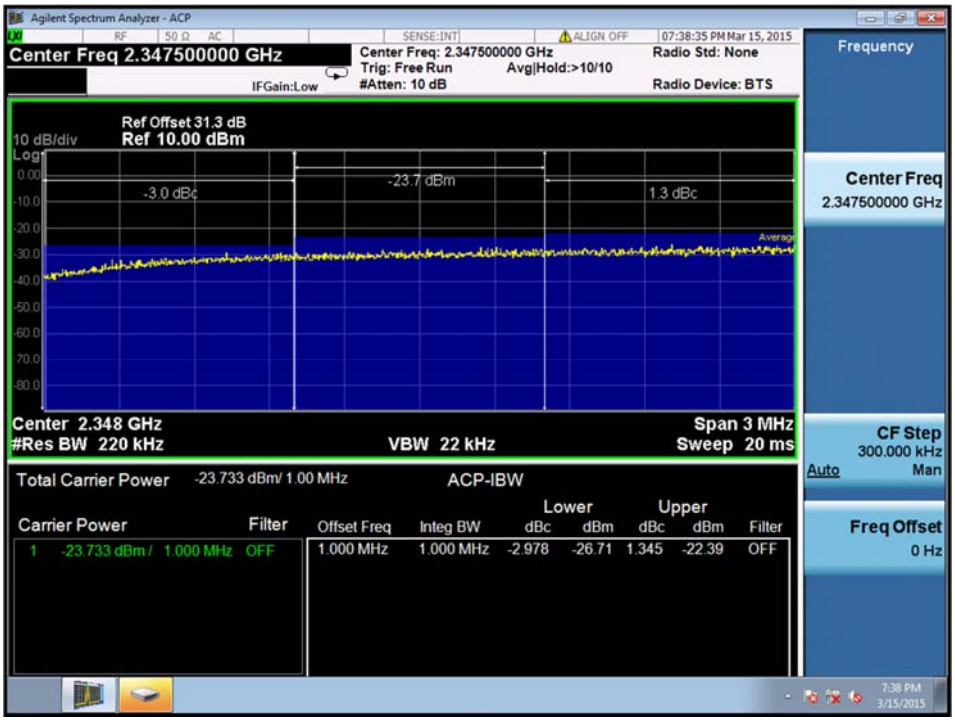

Figure 44. — 2346 MHz-2349MHz – LTE 64QAM

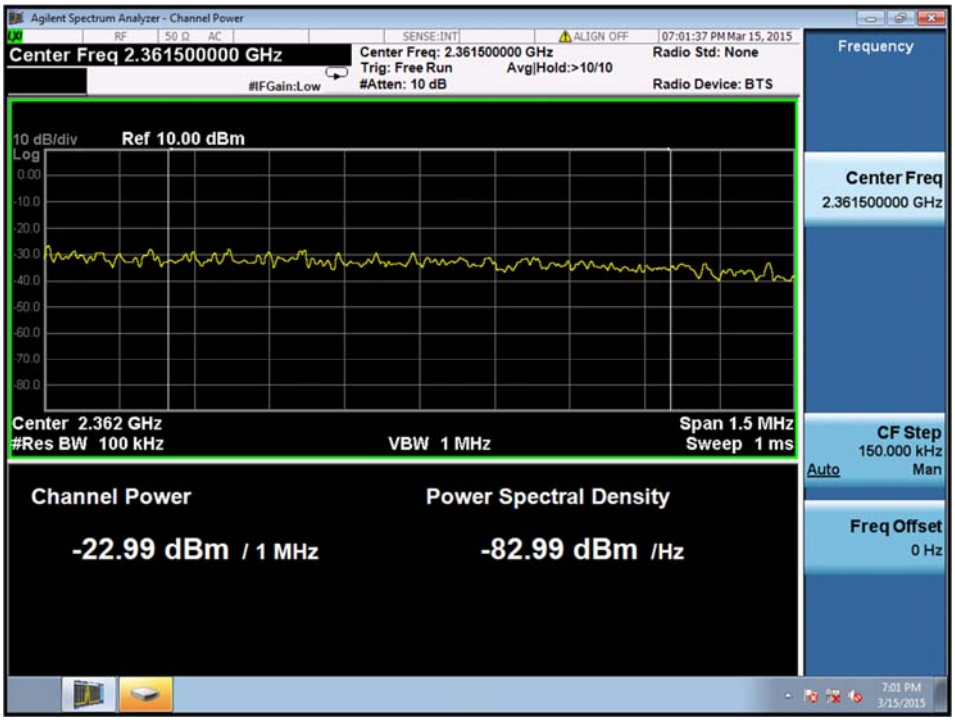

Figure 45. — 2361 MHz-2362 MHz – LTE 64QAM

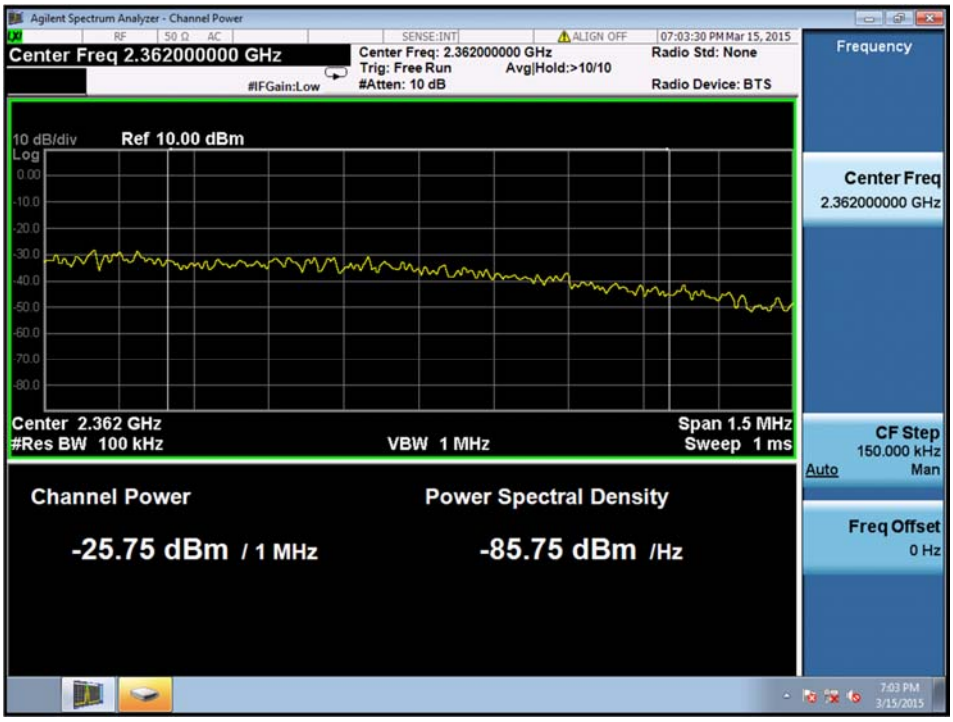

Figure 46. — 2361.5 MHz-2362.5 MHz – LTE 64QAM

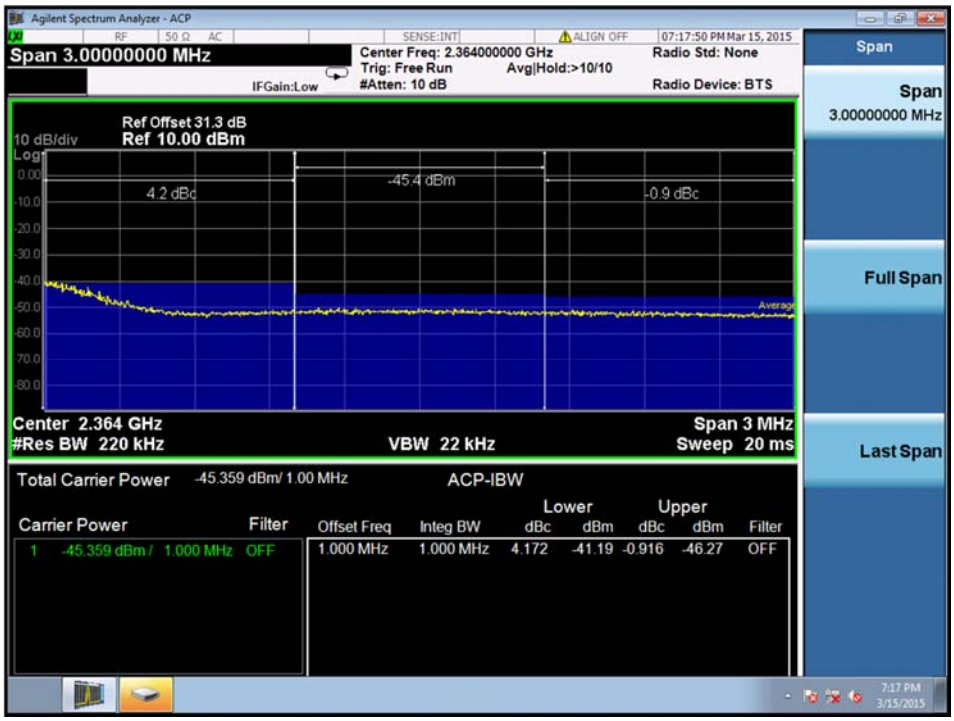

Figure 47. — 2362.5 MHz-2365 MHz – LTE 64QAM

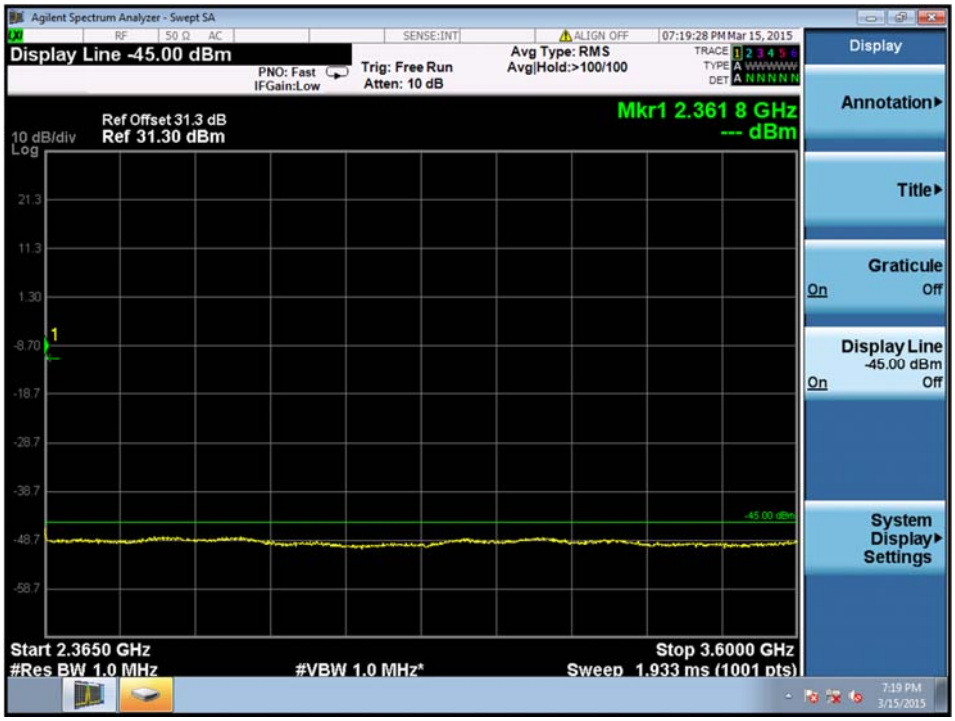

Figure 48. — 2365 MHz-3600 MHz – LTE 64QAM

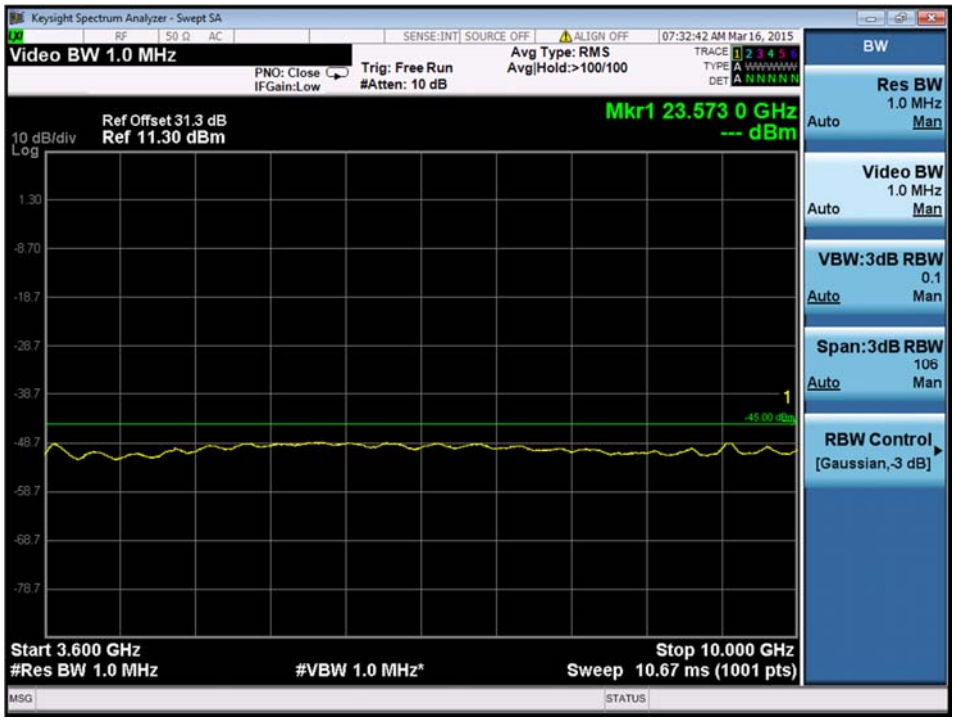

Figure 49. — 3600 MHz-10000 MHz – LTE 64QAM

Figure 50. — 10000 MHz-20000 MHz – LTE 64QAM

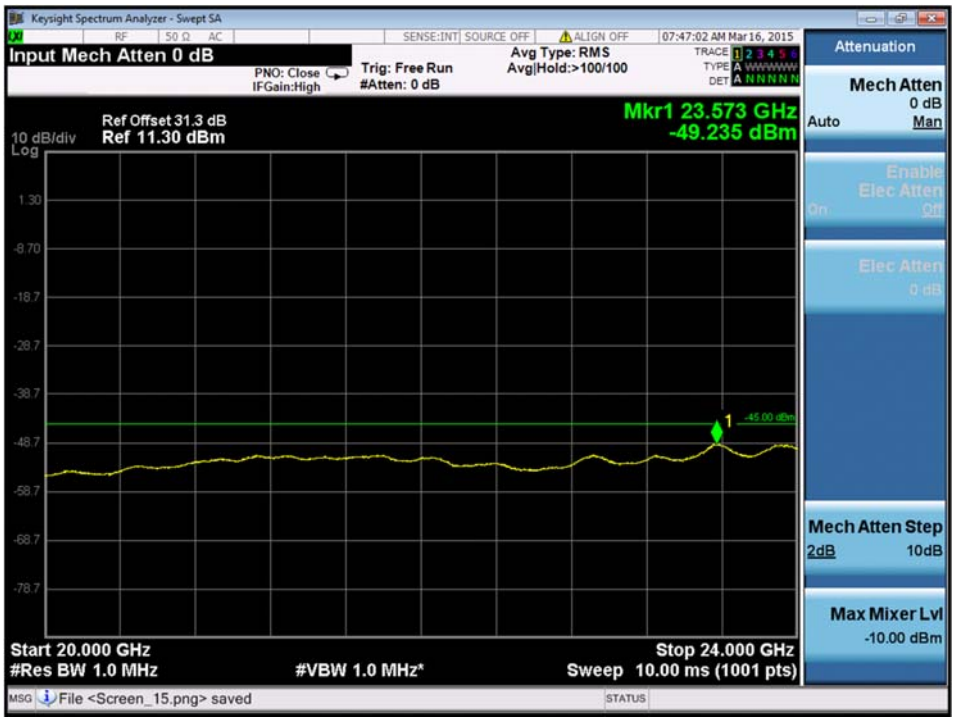

Figure 51 .— 20000 MHz-24000 MHz – LTE 64QAM

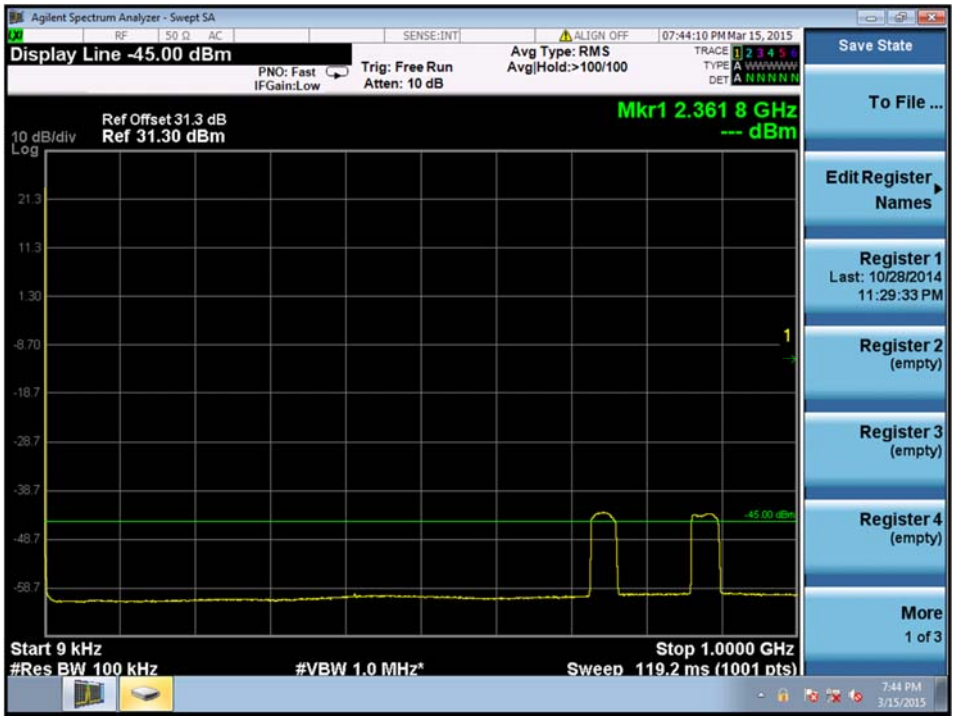

Figure 52. — 0.009 MHz-1000 MHz - GSM

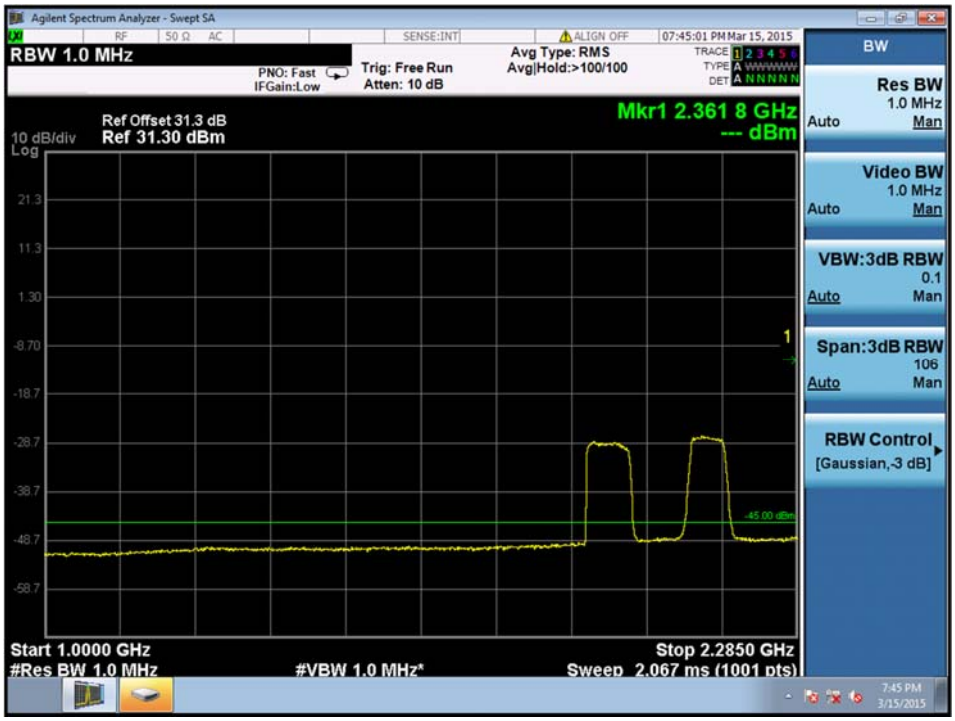

Figure 53 — 1000 MHz-2285 MHz - GSM

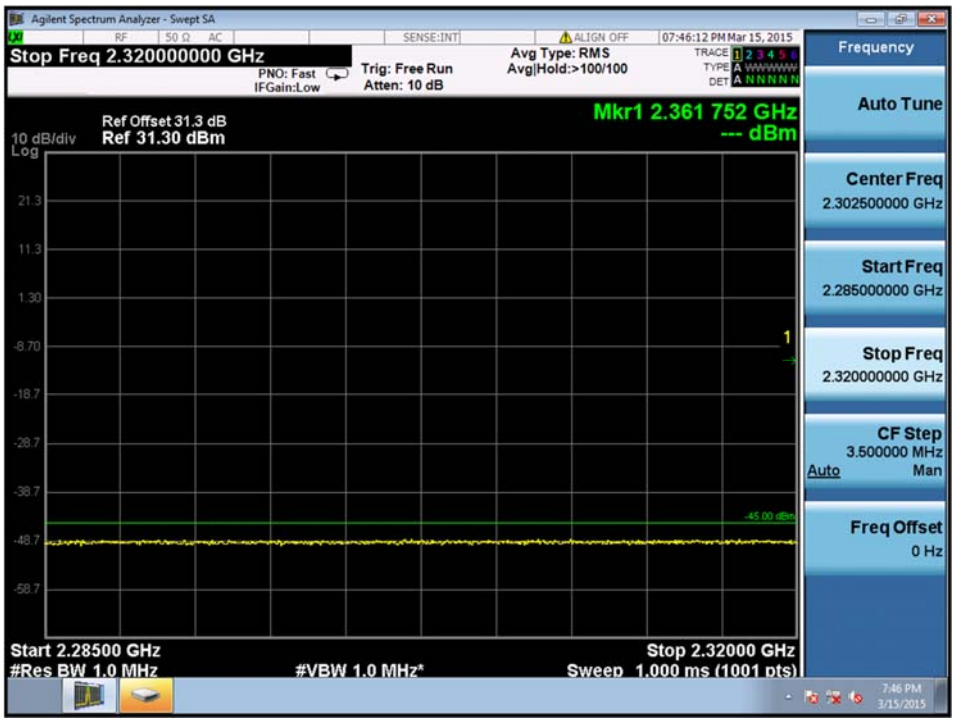

Figure 54. — 2285 MHz-2320 MHz - GSM

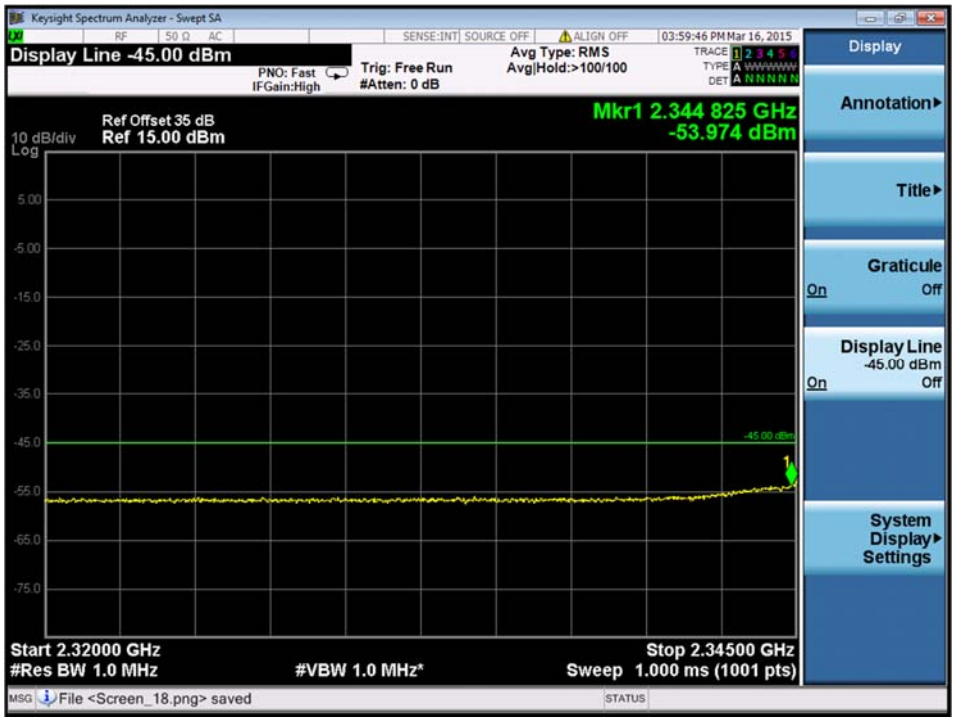

Figure 55. — 2320 MHz-2345 MHz - GSM

Figure 56. — 2345 MHz-2349 MHz - GSM

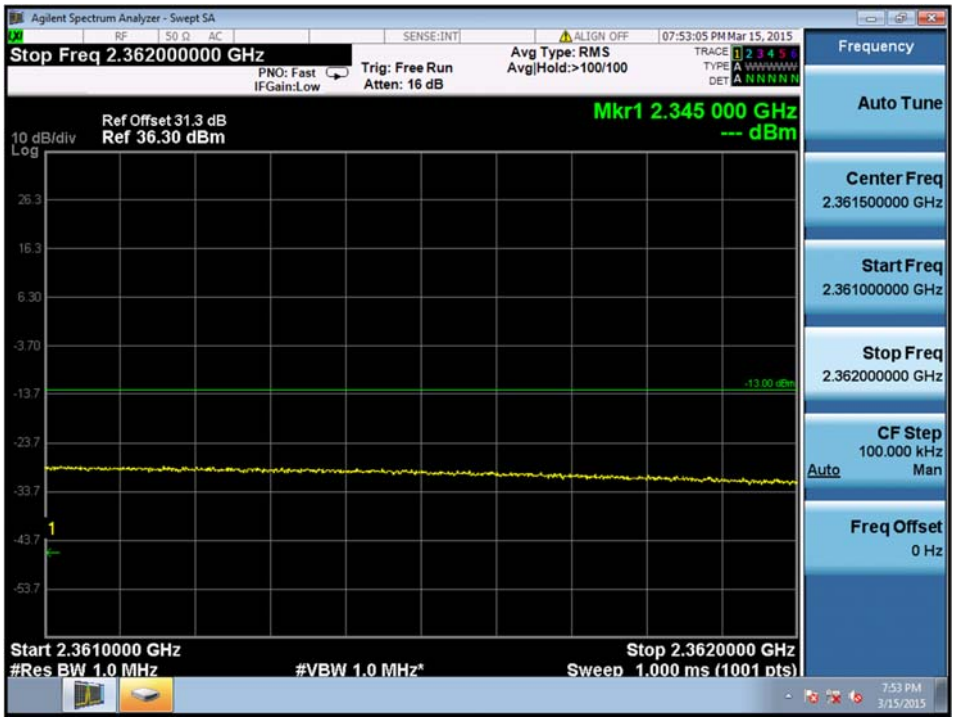

Figure 57. — 2361 MHz-2362.5 MHz - GSM

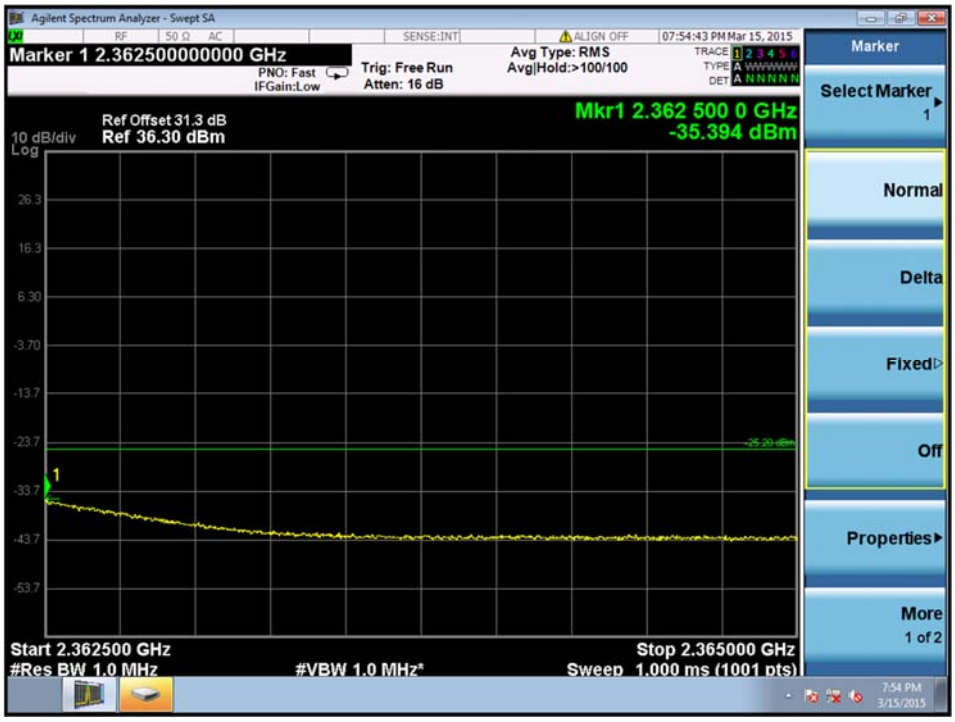

Figure 58. — 2362.5 MHz-2365 MHz - GSM

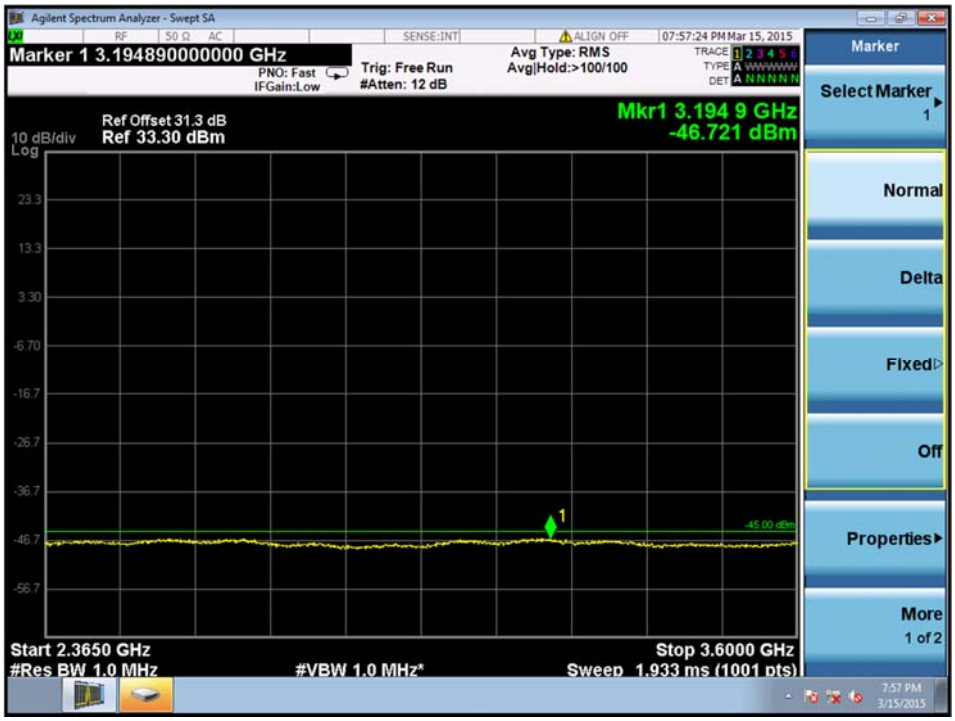

Figure 59. — 2365 MHz-3600 MHz - GSM

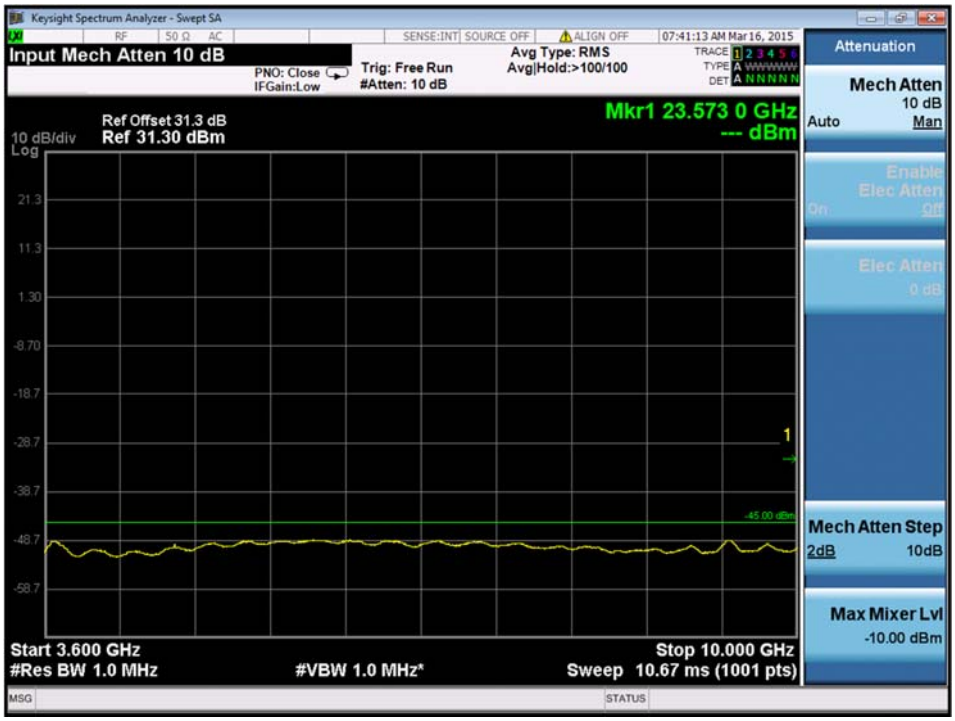

Figure 60. — 3600 MHz-10000 MHz - GSM

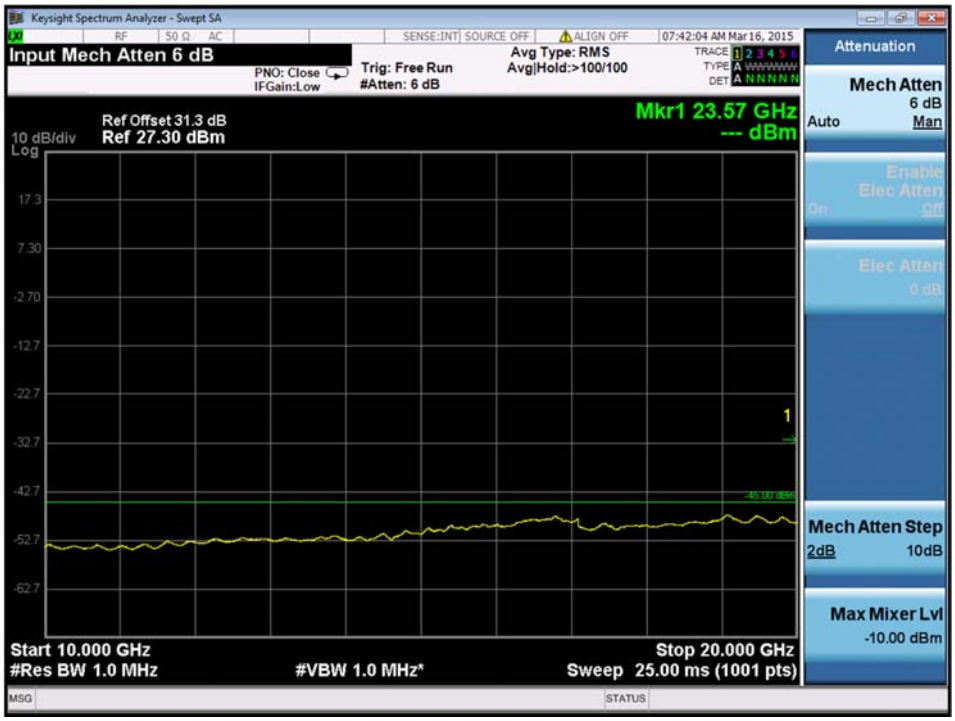

Figure 61. — 10000 MHz-20000 MHz - GSM

Figure 62. — 20000 MHz-24000 MHz - GSM

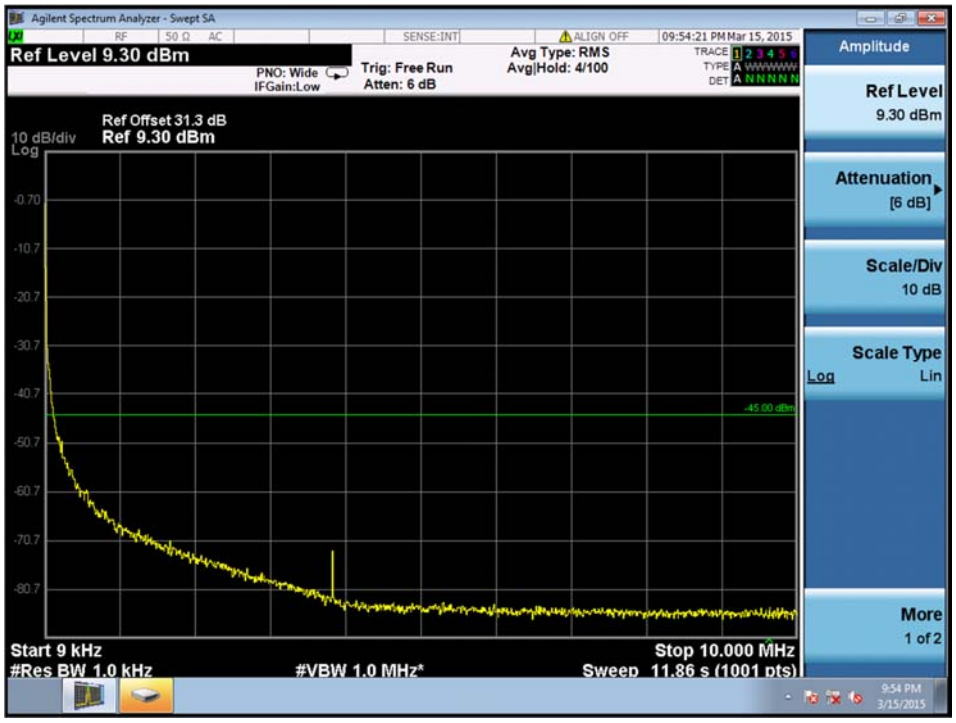

Figure 63. — 0.009 MHz-10MHz – W-CDMA

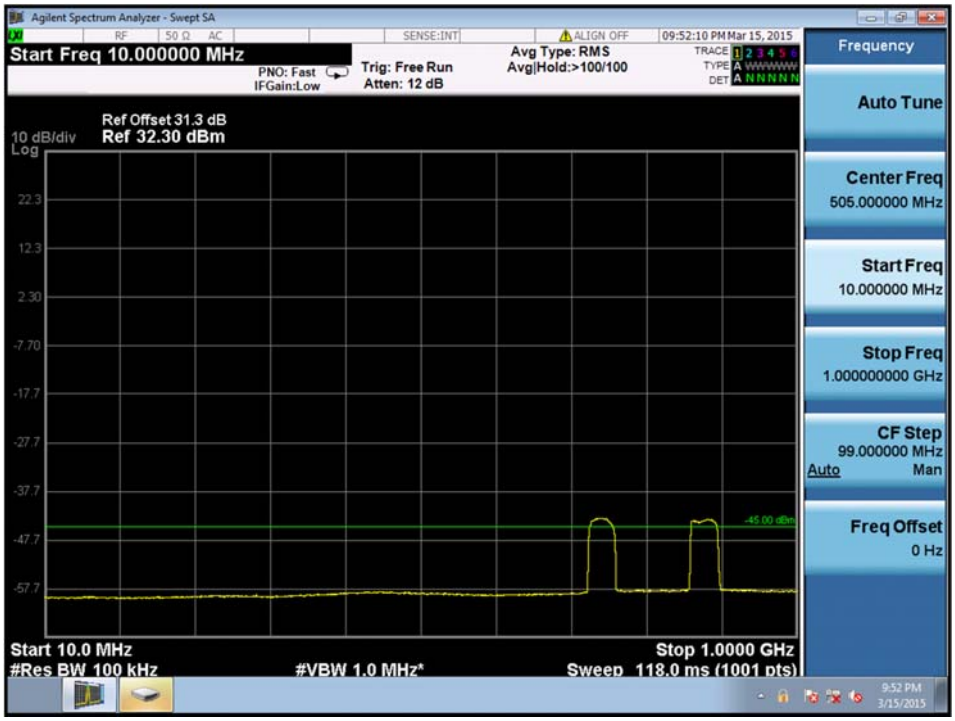

Figure 64. — 10 MHz-1000 MHz – W-CDMA

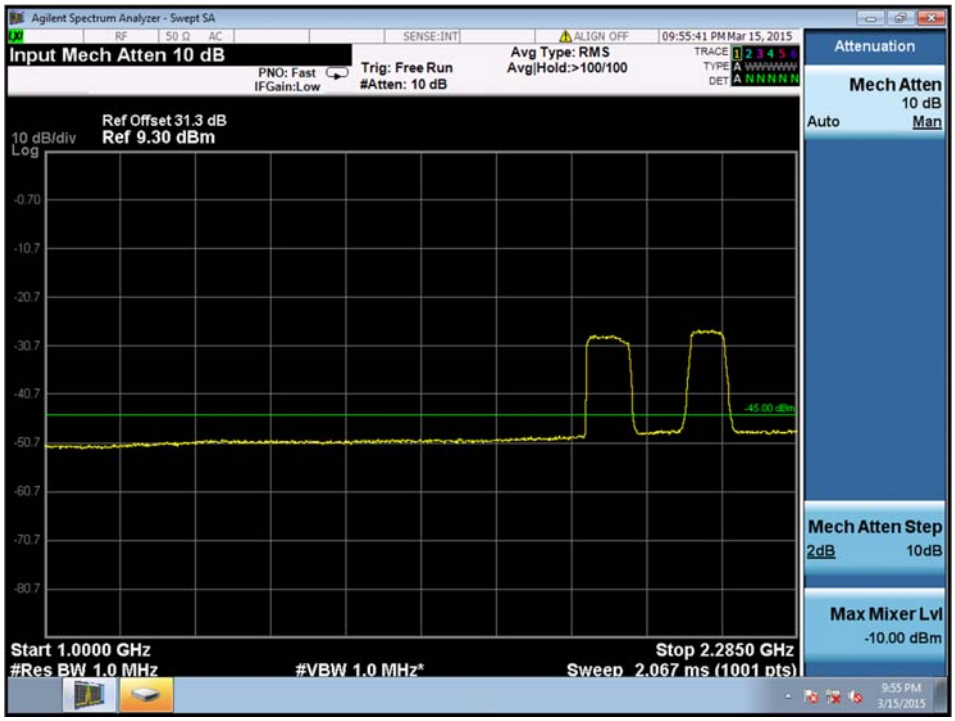

Figure 65. — 1000 MHz-2285 MHz – W-CDMA

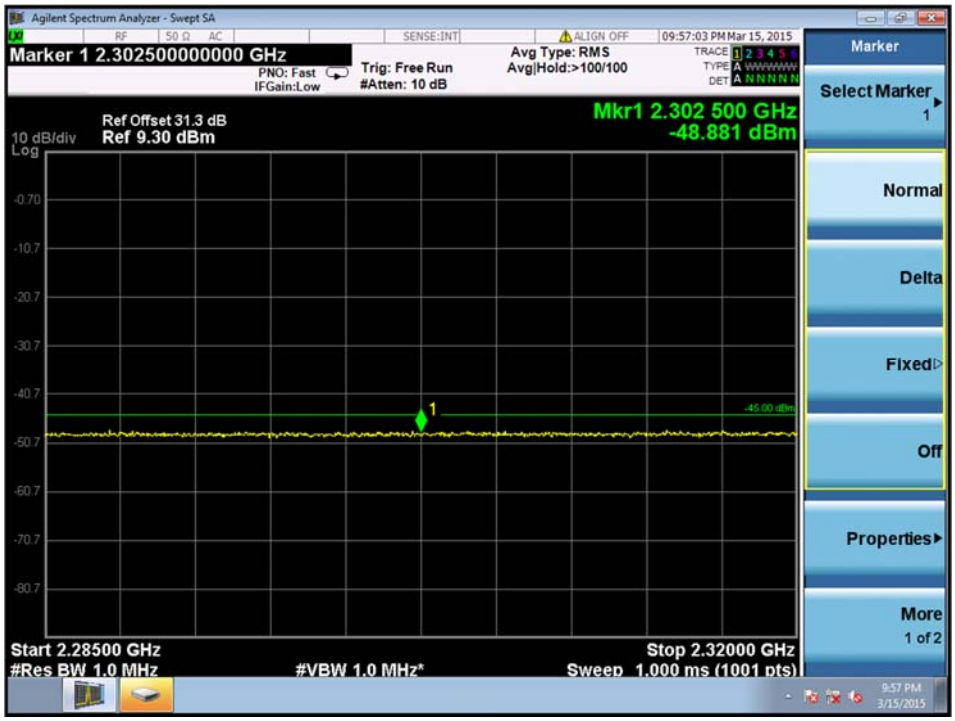

Figure 66. — 2285 MHz-2320 MHz – W-CDMA

Figure 67. — 2320 MHz-2345 MHz – W-CDMA

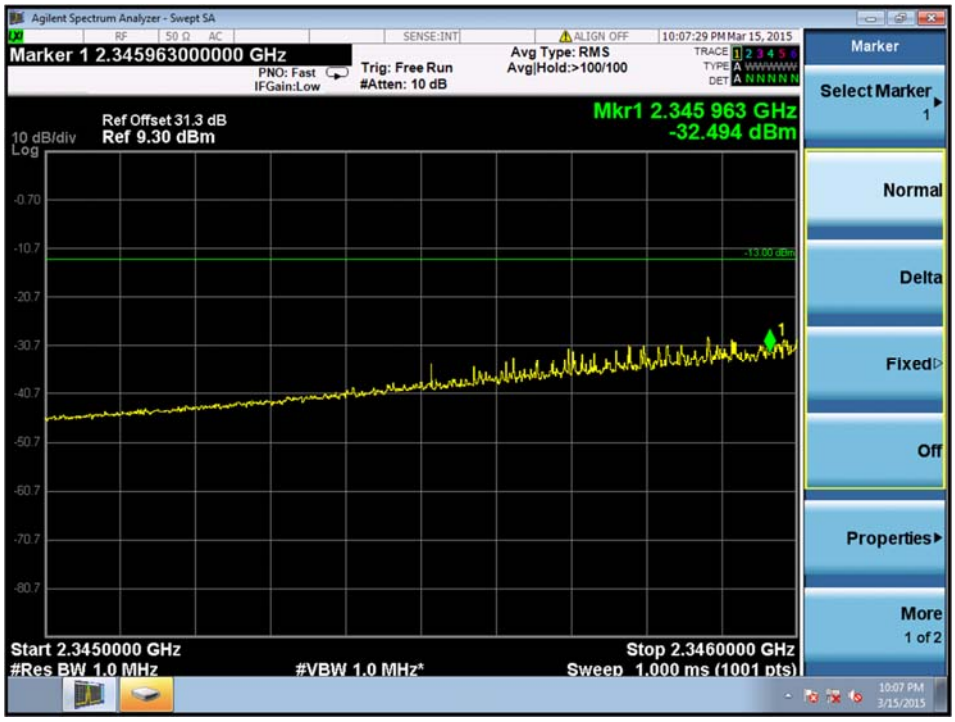

Figure 68. — 2345 MHz-2346 MHz – W-CDMA

Figure 69. — 2346 MHz-2349 MHz – W-CDMA

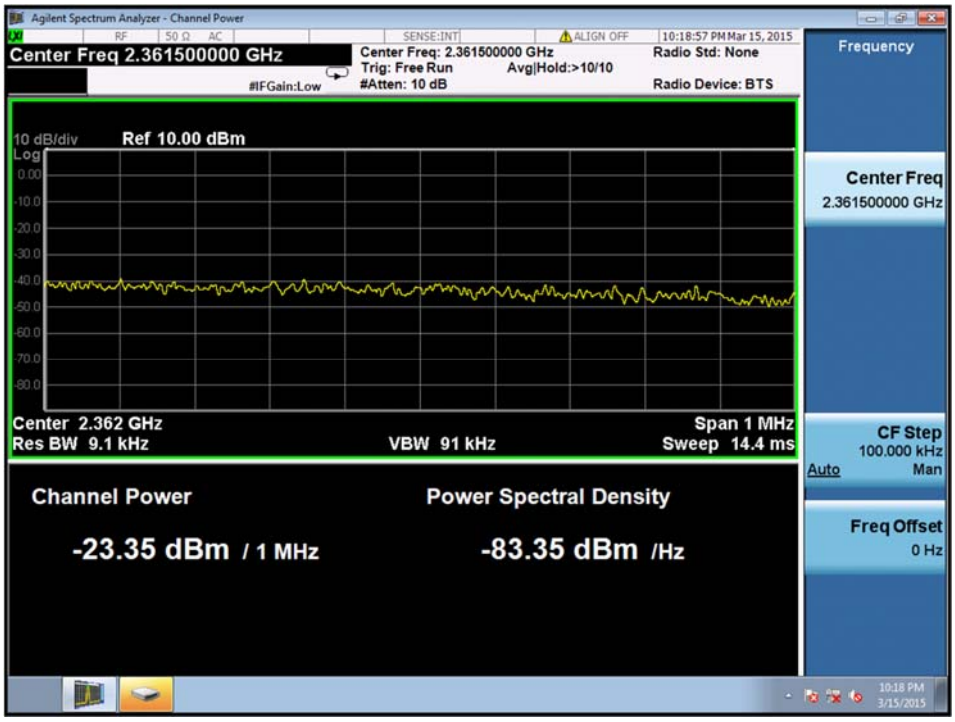

Figure 70. — 2361 MHz-2362MHz – W-CDMA

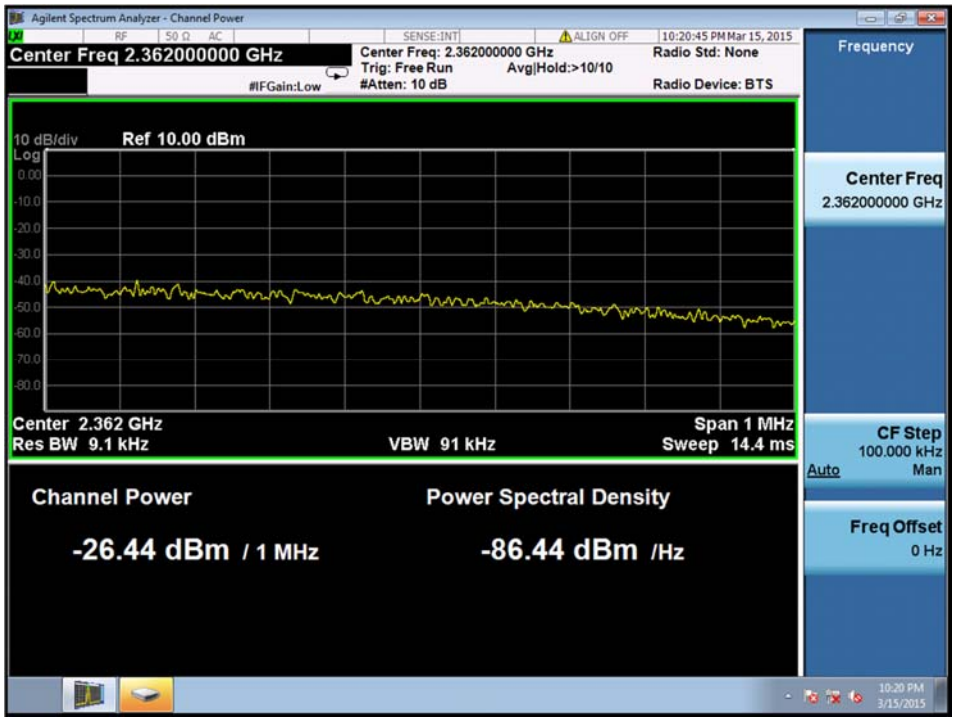

Figure 71. — 2362 MHz-2362.5MHz – W-CDMA

Figure 72. — 2362.5 MHz-2365MHz – W-CDMA

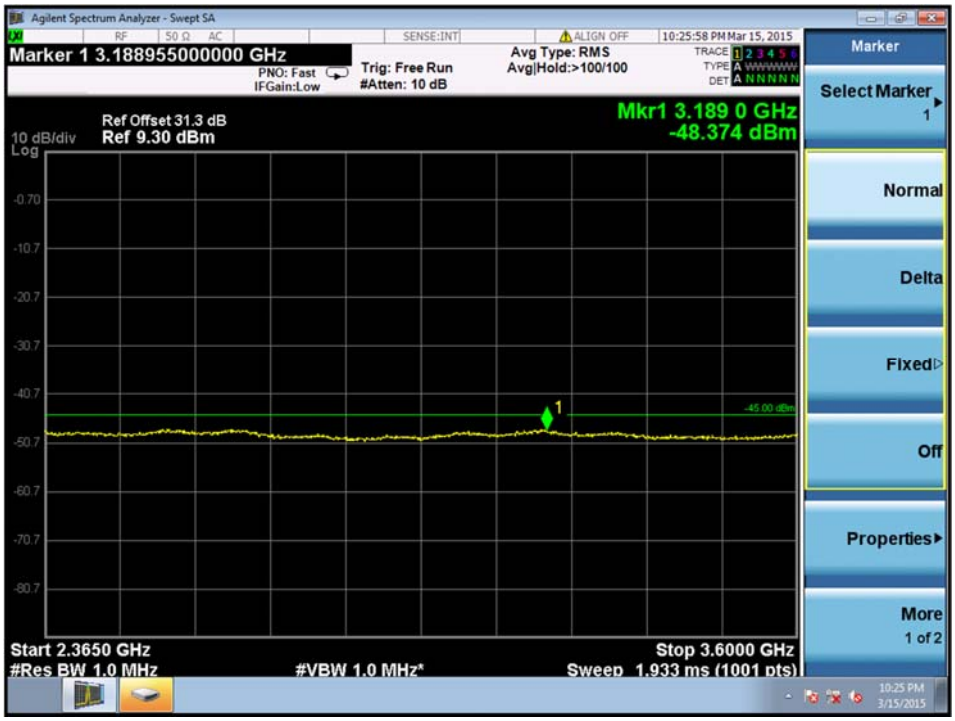

Figure 73.—2365 MHz-3600MHz – W-CDMA

Figure 74. — 3600 MHz-10000 MHz – W-CDMA

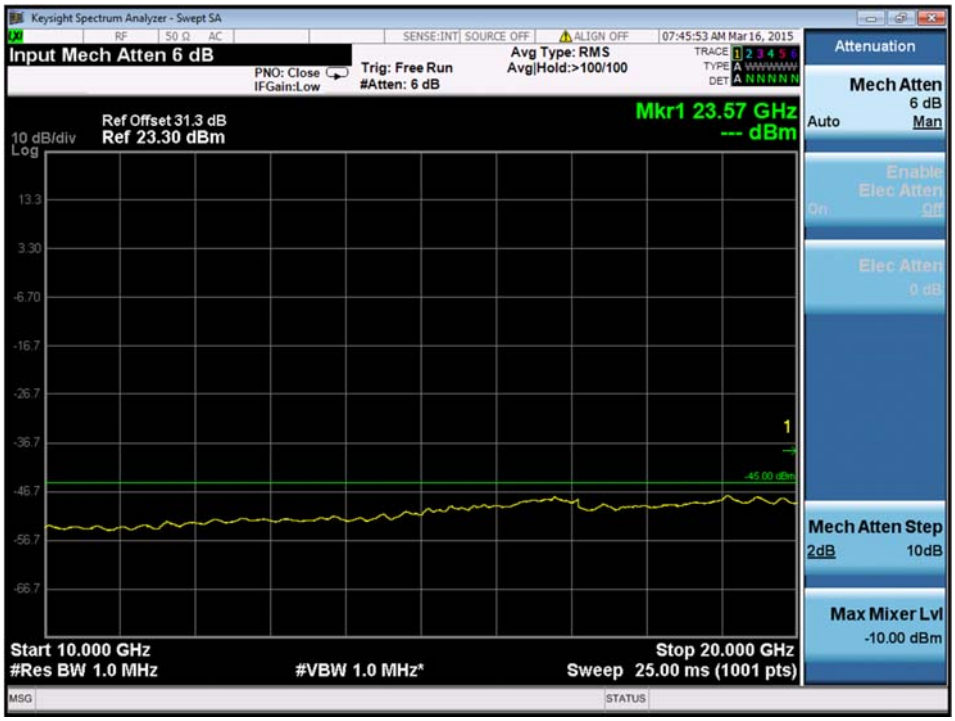

Figure 75. — 10000 MHz-20000 MHz – W-CDMA

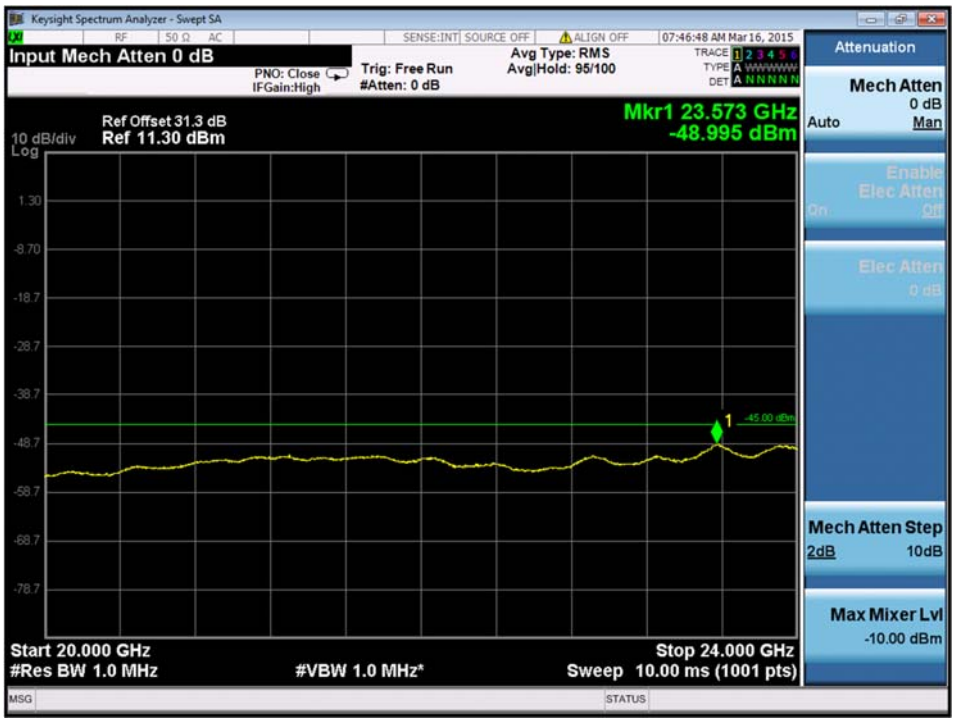

Figure 76. — 20000 MHz-24000 MHz – W-CDMA

8.4 Test Equipment Used; Out of Band Emission at Antenna Terminals

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibration	Period
Signal Analyzer	Agilent	N9020A	A27058	February 12, 2015	1 year
Band Stop Filter	RF Com	RWC2355R10 M01	15030001	March 1, 2015	1 year
Vector Signal Generator	Agilent	N5182A	MY48180244	July 16, 2014	1 year
30 dB Attenuator	JFW	50FHC-030-50	43608 46-140-1	March 8, 2015	1 month

Figure 77 Test Equipment Used

9. Band Edge Spectrum

9.1 Test Specification

FCC Part 27, Section 53(a)(1)

9.2 Test procedure

The power of any emission in the 1 MHz bands immediately outside and adjacent to the channel blocks (2350-2360MHz) was attenuated below the transmitting power (P) by a factor as specified in this section.
The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator and an appropriate coaxial cable (31.3 dB).
The spectrum analyzer RBW was set to 1% from OBW.
The evaluation was repeated for all modulations.

9.3 Test Results

Modulation	Operation Frequency (MHz)	Band Edge Frequency (MHz)	Reading (dBm)	Specification (dBm)	Margin (dB)
LTE 64QAM	2355.0	2350	-15.0	-13.0	-2.0
	2355.0	2360	-14.8	-13.0	-1.8
GSM	2351.2	2350	-18.0	-13.0	-5.0
	2358.8	2360	-18.5	-13.0	-5.5
W-CDMA	2352.5	2350	-21.9	-13.0	-8.9
	2357.5	2360	-23.0	-13.0	-10.0

Figure 78 Band Edge Spectrum Results

JUDGEMENT: Passed by 1.8 dB

See additional information in *Figure 79* to *Figure 84*.

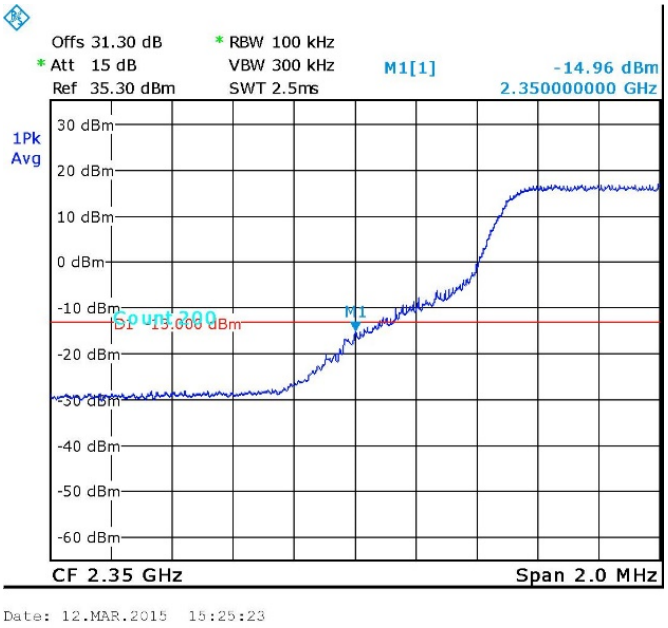

Figure 79. — Lower Block Edge -1MHz – LTE 64QAM

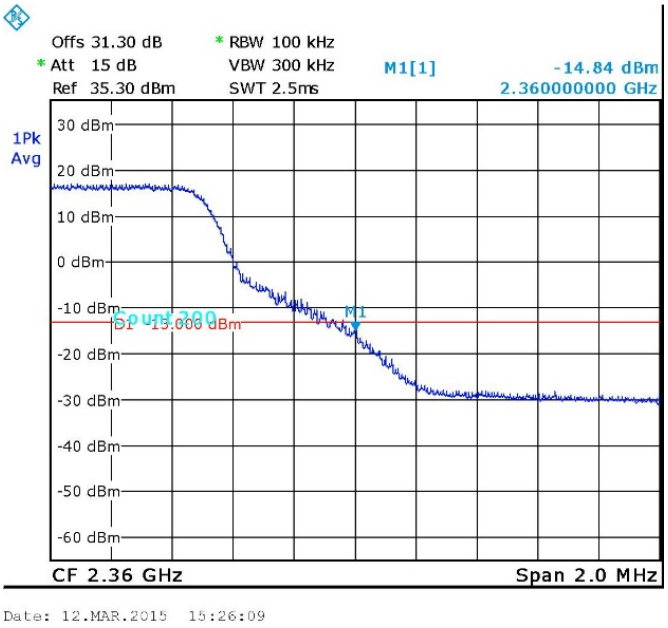

Figure 80. — Upper Band Edge +1MHz – LTE 64QAM

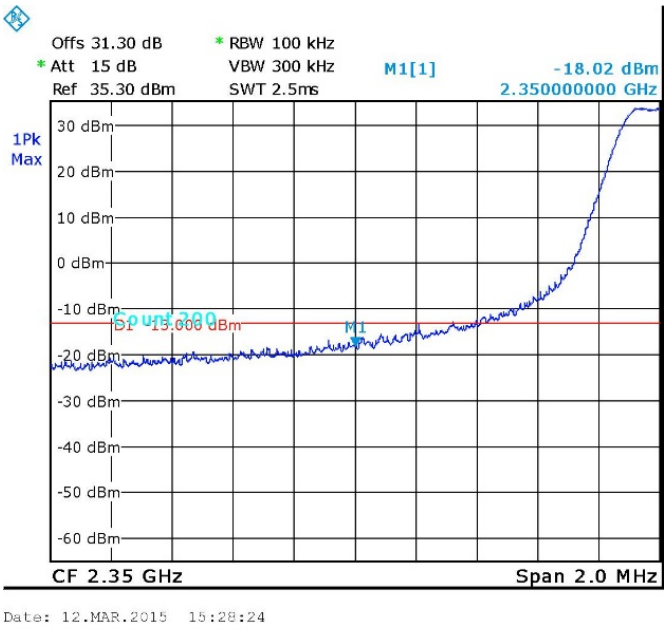

Figure 81. — Lower Block Edge -1MH - GSM

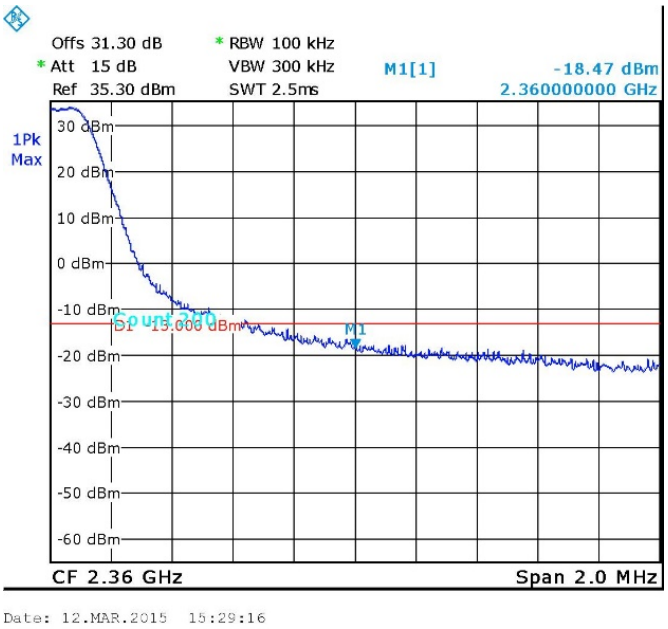

Figure 82. — Upper Band Edge +1MHz - GSM

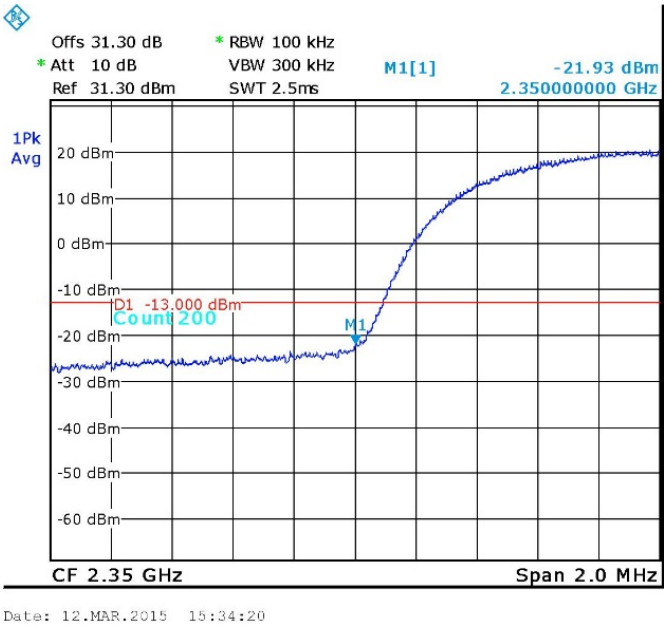

Figure 83. — Lower Block Edge -1MHz – W-CDMA

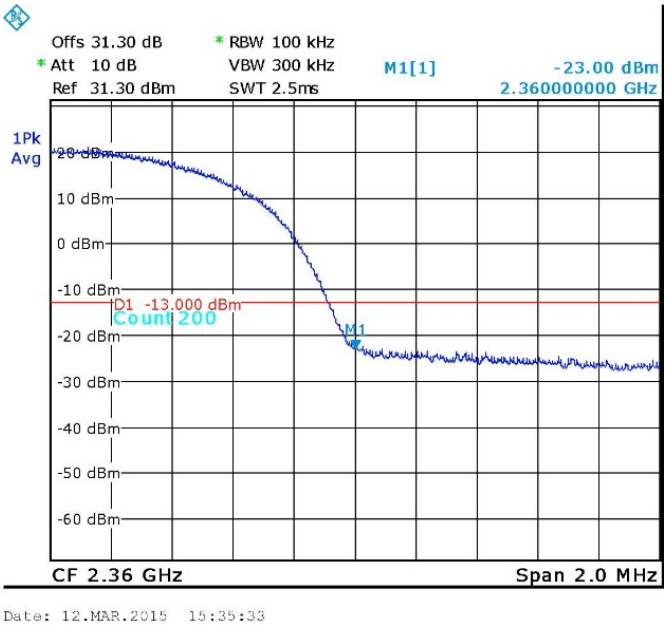

Figure 84. — Upper Band Edge +1MHz – W-CDMA

9.4 Test Equipment Used; Band Edge Spectrum

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibration	Period
Spectrum Analyzer	HP	8592L	3826A01204	March 4, 2015	1 year
Spectrum Analyzer	R&S	FSL6	100194	January 1, 2015	1 year
Vector Signal Generator	Agilent	N5182A	MY48180244	July 16, 2014	1 year
30 dB Attenuator	JFW	50FHC-030-50	43608 46-140-1	March 8, 2015	1 month

Figure 85 Test Equipment Used

10. Spurious Emissions (Radiated)

10.1 Test Specification

FCC Part 27.53

10.2 Test Procedure

The test method was based on ANSI/TIA-603-C: 2004, Section 2.2.12 Unwanted Emissions: Radiated Spurious.

(a) The E.U.T. operation mode and test set-up are as described in Section 3. A preliminary measurement to characterize the E.U.T was performed inside the shielded room at a distance of 3 meters, using peak detection mode and broadband antennas. The preliminary measurements produced a list of the highest emissions. The E.U.T was then transferred to the open site, and placed on a remote-controlled turntable. The E.U.T was placed on a non-metallic table, 0.8 meters above the ground. The configuration tested is shown in Figure 1.
The frequency range 9 kHz-24 GHz was scanned and the list of the highest emissions was verified and updated accordingly.
The readings were maximized by adjusting the antenna height between 1-4 meters, the turntable azimuth between 0-360°, and the antenna polarization.
The emissions were measured at a distance of 3 meters.

(b) The E.U.T. was replaced by a substitution antenna (dipole 30MHz-1GHz, Horn Antenna above 1GHz) driven by a signal generator. The height was readjusted for maximum reading. The signal generator level was adjusted to obtain the same reading on the EMI receiver as in step (a).
The signals observed in step (a) were converted to radiated power using:
$P_d(dBm) = P_g(dBm) – Cable\ Loss\ (dB) + Substitution\ Antenna\ Gain\ (dB)$
P_d = Dipole equivalent power (result).
P_g = Signal generator output level.

AVERGE trace was used +RMS detector for this test.

Frequency Band (MHz)	Calculated Factor (dBc)
f<2285.0	75+10*log(10.5)=85.2
2285.0MHz<f<2287.5MHz	72+10*log(10.5)=82.2
2287.5MHz<f<2300.0MHz	70+10*log(10.5)=80.2
2300.0MHz<f<2305.0MHz	43+10*log(10.5)=53.2
2305.0MHz<f<2320.0MHz	43+10*log(10.5)=53.2
2320.0MHz<f<2345.0MHz	75+10*log(10.5)=85.2
2345.0MHz<f<2360.0MHz	43+10*log(10.5)=53.2
2360.0MHz<f<2362.50MHz	43+10*log(10.5)=53.2
2362.5MHz<f<2365.0MHz	55+10*log(10.5)=65.2
2365.0MHz<f<2367.5MHz	70+10*log(10.5)=80.2
2367.5MHz<f<2370.0MHz	72+10*log(10.5)=82.2
2370.0<f	75+10*log(10.5)=85.2

Figure 86 Mask Limit Table

10.3 Test Results

Freq. (GHz)	Antenna Pol.	Maximum Peak Level (dBµV/m)	Signal Generator RF Output (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Effective Radiated Power Level (dBm)	Spec.* (dBm)	Margin (dB)
2.335	V	47.5	-49.3	9.0	7.7	-50.6	-45.0	-5.6
2.335	H	45.4	-52.3	9.0	8.5	-52.8	-45.0	-7.8
4.700	V	54.1	-43.3	12.1	9.9	-45.5	-45.0	-0.5
4.700	H	53.3	-44.3	12.1	10.8	-45.6	-45.0	-0.6
4.705	V	50.8	-44.8	12.1	9.9	-47.0	-45.0	-2.0
4.705	H	50.9	-45.0	12.1	10.8	-46.3	-45.0	-1.3

***Note - Limit calculation for freq>2370.0MHz: factor=75+10*log(10.5)=85.2dBc**
Limit=40.2-85.2=-45.0dBm

Figure 87 Spurious Emission (Radiated)

JUDGEMENT; Passed by 0.5 dB

The E.U.T met the requirements of the FCC Part 27, Section 917; FCC Part 2.1053 specifications.

10.4 Test Instrumentation Used, Radiated Measurements

Instrument	Manufacturer	Model	Serial Number	Calibration	Period
EMI Receiver	R&S	ESIB7	100120	January 4, 2015	1 year
Spectrum Analyzer	HP	8592L	3826A01204	March 4, 2015	1 year
Active Loop Antenna	EMCO	6502	2950	November 4, 2014	1 year
Biconical Log Antenna	EMCO	3142B	1078	May 22, 2014	2 years
Horn Antenna	ETS	3115	6142	March 14, 2012	3 years*
Horn Antenna	ARA	SWH-28	1007	March 30, 2014	2 years
40dB attenuator	Weinschel Engineering	WA-39-40-33	A1323	March 1, 2015	1 year
Signal Generator	HP	E4433B	GB40051245	July 16, 2014	1 year
Signal Generator	MARCONI	2022D	119196015	February 23, 2015	1 year
Signal Generator	HP	E4433B	GB40050702	May 16, 2013	2 years
Signal Generator	HP	E4436B	US39260774	January 7, 2015	2 years
Signal Generator	HP	ESG-4000A	1782	February 24, 2015	1 year
Low Noise Amplifier	Sophia Wireless	LNA 28-B	232	August 29, 2014	1 Year
Low Noise Amplifier	DBS MICROWAVE	LNA-DBS-0411N313	013	August 22, 2014	1 Year
Antenna Mast	ETS	2070-2	-	N/A	N/A
Turntable	ETS	2087	-	N/A	N/A
Mast & Table Controller	ETS/EMCO	2090	9608-1456	N/A	N/A

*Note – Extended to May 19, 2015

Figure 88 Test Equipment Used

11. Intermodulation Conducted

11.1 Test Procedure

The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator and an appropriate coaxial cable(loss = 31.3dB). The spectrum analyzer was set to 1 kHz resolution BW for the frequency range 9.0-150.0 kHz, 10 kHz for the frequency range 150 kHz–1.0 MHz, 100 kHz for the frequency range 1.0 MHz – 30 MHz, and 1MHz for the frequency range 30 MHz - 24.0 GHz.

5 input signals were sent simultaneously to the E.U.T. as follows:

LTE 747 MHz CW 0 dBm

CELL 881 MHz CW 0 dBm

PCS 1960 MHz CW 0 dBm

AWS: 2135 MHz CW 0 dBm

WCS: 2355MHz CW 0 dBm

The frequency range of 9 kHz – 24.0 GHz was scanned for unwanted signals.

11.2 Test Results

JUDGEMENT: Passed

See additional information in *Figure 89* to *Figure 92*.

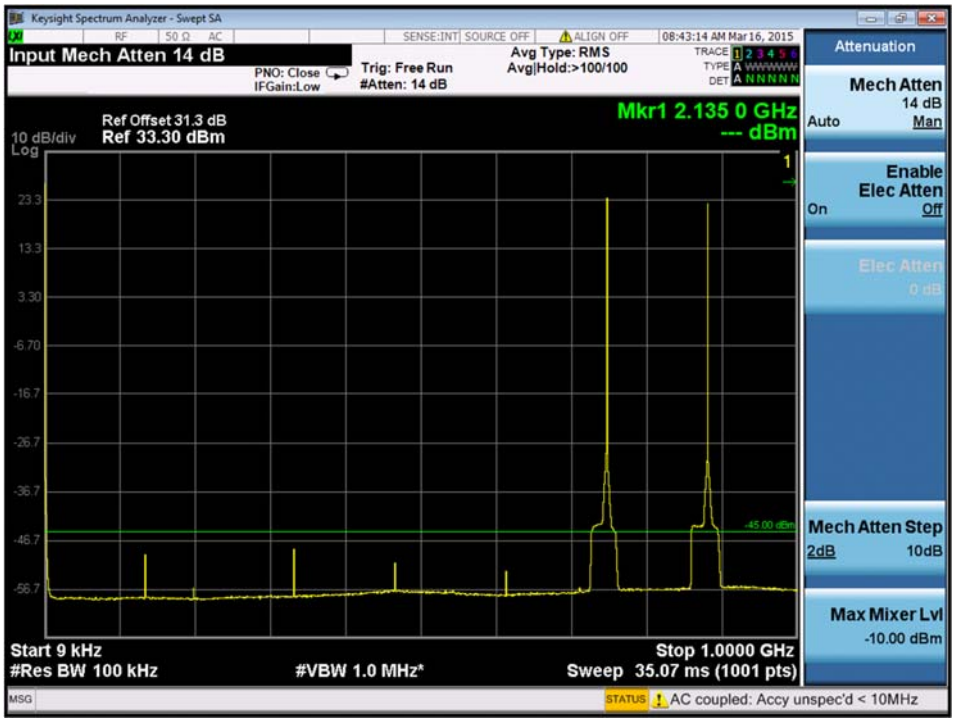

Figure 89 0.009M-1000M

Figure 90 1000M-5000M

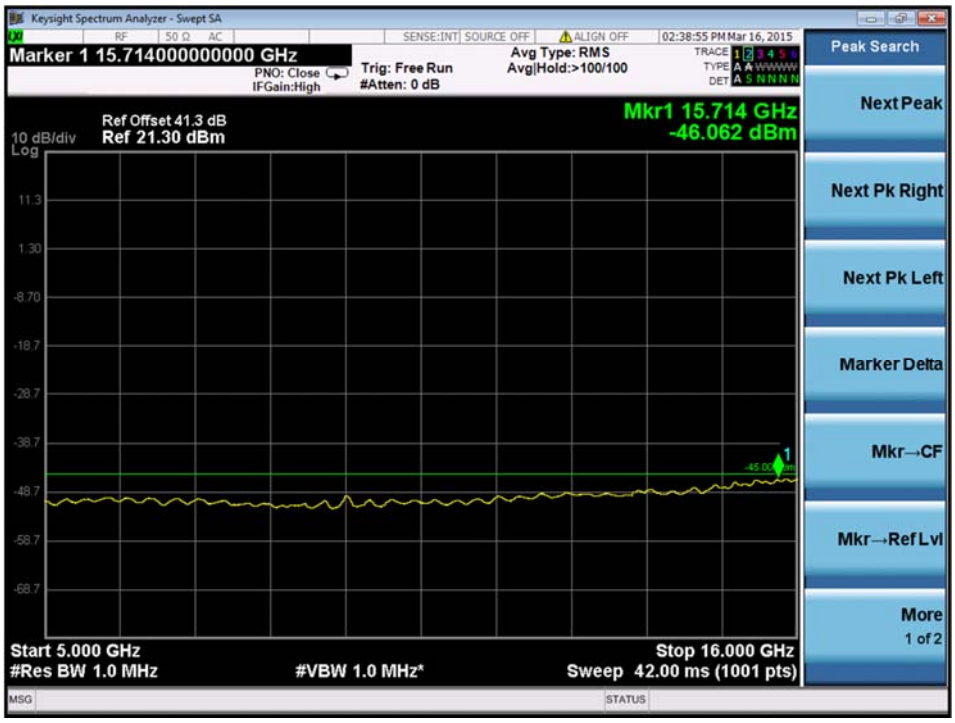

Figure 91 5000M-16000M

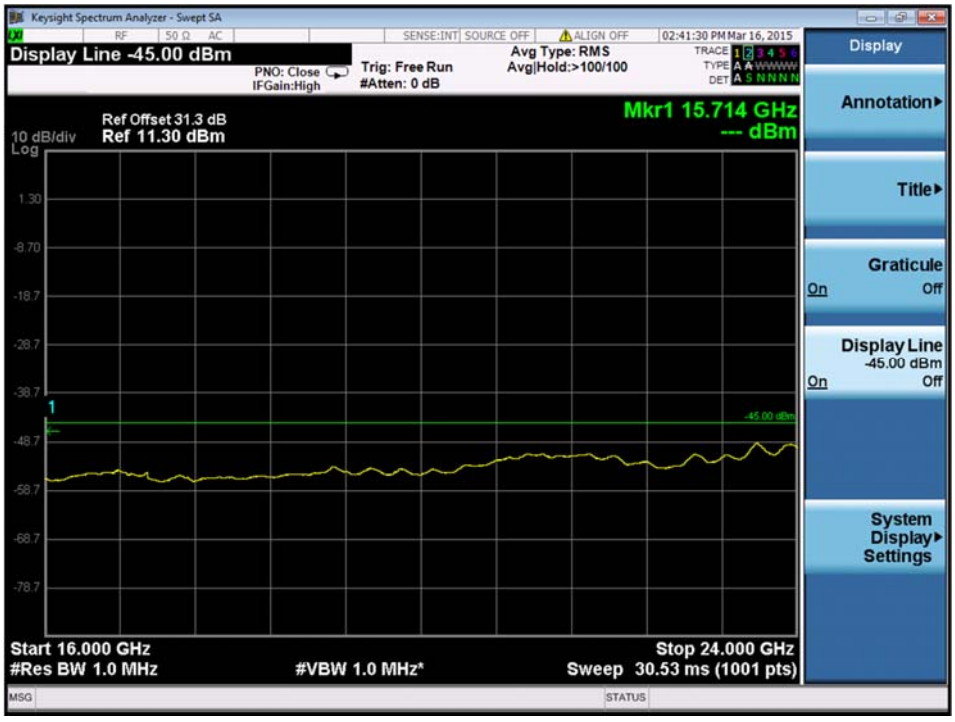

Figure 92 16000M-24000M

11.3 Test Equipment Used; Intermodulation Conducted

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibration	Period
Spectrum Analyzer	HP	8592L	3826A01204	March 4, 2015	1 year
Spectrum Analyzer	R&S	FSL6	100194	January 1, 2015	1 year
Vector Signal Generator	Agilent	N5182A	MY48180244	July 16, 2014	1 year
Vector Signal Generator	Agilent	N5172B	MY51350518	May 03, 2013	3 years
Vector Signal Generator	Agilent	N5172B	MY51350584	May 07, 2013	3 years
Signal Generator	HP	E4433B	GB40050702	May 16, 2013	2 years
Signal Generator	HP	E4436B	US39260774	January 07 2015	2 years
30 dB Attenuator	JFW	50FHC-030-50	43608 46-140-1	March 8, 2015	1 month

Figure 93 Test Equipment Used

12. Intermodulation Radiated

12.1 Test Procedure

The test method was based on ANSI/TIA-603-C: 2004, Section 2.2.12 Unwanted Emissions: Radiated Spurious.

(a) The E.U.T. operation mode and test set-up are as described in Section 2.
A preliminary measurement to characterize the E.U.T was performed inside the shielded room at a distance of 3 meters, using peak detection mode and broadband antennas. The preliminary measurements produced a list of the highest emissions. The E.U.T was then transferred to the open site, and placed on a remote-controlled turntable. The E.U.T was placed on a non-metallic table, 0.8 meters above the ground. The configuration tested is shown in Figure 1.

The E.U.T. was operated in Downlink mode at 4 different channels at center frequency of each band at the same time, transmitting at CW signal.

(b) The frequency range 9 kHz-24 GHz was scanned and the list of the highest emissions was verified and updated accordingly. The readings were maximized by adjusting the antenna height between 1-4 meters, the turntable azimuth between 0-360°, and the antenna polarization.
The emissions were measured at a distance of 3 meters.

In the frequency range 7-24.0 GHz, a spectrum analyzer including a low noise amplifier was used. During average measurements, the IF bandwidth was 1 MHz and the video bandwidth was 100 Hz. During peak measurements, the IF bandwidth was 1 MHz and the video bandwidth was 3 MHz.

(b) The E.U.T. was replaced by a substitution antenna (dipole 30MHz-1GHz, Horn Antenna above 1GHz) driven by a signal generator. The height was readjusted for maximum reading. The signal generator level was adjusted to obtain the same reading on the EMI receiver as in step (a).
The signals observed in step (a) were converted to radiated power using:
P_d(dBm) = P_g(dBm) – Cable Loss (dB) + Substitution Antenna Gain (dB)
P_d = Dipole equivalent power (result).
P_g = Signal generator output level.
Average trace +RMS detector was used for this test.

5 input signals were sent simultaneously to the E.U.T. as follows:

LTE 747 MHz 0 dBm

CELL 881 MHz 0 dBm

PCS 1960 MHz 0 dBm

AWS: 2135 MHz 0 dBm

WCS: 2355 MHz CW 0 dBm

12.2 Test Results

Freq. (MHz)	Antenna Pol.	Maximum Peak Level (dBµV/m)	Signal Generator RF Output (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Effective Radiated Power Level (dBm)	Spec. (dBm)	Margin (dB)
1565.0	V	48.1	-51.9	6.7	7.6	-51.0	-45.0	-6.0
1565.0	H	48.8	-51.5	6.7	8	-50.2	-45.0	-5.2
3039.0	V	43.4	-53.1	9.9	8.4	-54.6	-45.0	-9.6
3039.0	H	44.0	-53.8	9.9	9.6	-54.1	-45.0	-9.1
3434.0	V	44.5	-52.2	9.9	8.4	-53.7	-45.0	-8.7
3434.0	H	44.7	-53.8	9.9	9.6	-54.0	-45.0	-9.0
4118.0	V	46.9	-48.4	11.2	9.5	-50.0	-45.0	-5.0
4118.0	H	47.8	-48.8	11.2	8.6	-51.4	-45.0	-6.4
5303.0	V	50.5	-43.9	13.1	9.7	-47.3	-45.0	-2.3
5303.0	H	50.3	-42.8	13.1	10.4	-45.5	-45.0	-0.5
3523.0	V	45.5	-49.4	10.2	8.7	-50.9	-45.0	-5.9
3523.0	H	45.9	-50.2	10.2	9.8	-50.6	-45.0	-5.6
2249.0	V	40.1	-53.8	9	8.5	-54.3	-45.0	-9.3
2249.0	H	42.6	-52.8	9	7.7	-54.1	-45.0	-9.1
1915.0	V	50.2	-47.9	9	7.7	-49.2	-45.0	-4.2
1915.0	H	50.0	-49.4	9	8.5	-49.9	-45.0	-4.9
5571.0	V	50.0	-43.9	13.5	9.9	-47.5	-45.0	-2.5
5571.0	H	52.1	-43.3	13.5	10.8	-46.0	-45.0	-1.0
3303.0	V	43.5	-53.1	9.9	8.4	-54.6	-45.0	-9.6
3303.0	H	43.6	-54.4	9.9	9.6	-54.7	-45.0	-9.7

Figure 94 Intermodulation Radiated Results

JUDGEMENT: Passed

12.3 Test Instrumentation Used; Radiated Measurements Intermodulation

Instrument	Manufacturer	Model	Serial Number	Calibration	Period
EMI Receiver	R&S	ESIB7	100120	December 15, 2014	1 year
Spectrum Analyzer	HP	8592L	3826A01204	March 4, 2015	1 year
Active Loop Antenna	EMCO	6502	2950	November 4, 2014	1 year
Biconical Log Antenna	EMCO	3142B	1078	May 22, 2014	2 years
Horn Antenna	ETS	3115	6142	March 14, 2012	3 years*
Horn Antenna	A.R.A	SWH-28	1007	March 30, 2014	2 years
40dB attenuator	Weinschel Engineering	WA-39-40-33	A1323	March 1, 2015	1 year
Signal Generator	HP	E4433B	GB40051245	July 16, 2014	1 year
Signal Generator	MARCONI	2022D	119196015	February 23, 2015	1 year
Signal Generator	HP	E4433B	GB40050702	May 16, 2013	2 years
Signal Generator	HP	E4436B	US39260774	January 7, 2015	2 years
Signal Generator	HP	ESG-4000A	1782	February 24, 2015	1 year
Low Noise Amplifier	Sophia Wireless	LNA 28-B	232	August 29, 2014	1 Year
Low Noise Amplifier	DBS MICROWAVE	LNA-DBS-0411N313	013	August 22, 2014	1 Year
Antenna Mast	ETS	2070-2	-	N/A	N/A
Turntable	ETS	2087	-	N/A	N/A
Mast & Table Controller	ETS/EMCO	2090	9608-1456	N/A	N/A

*Note – Extended to May 19, 2015

Figure 95 Test Equipment Used

13. APPENDIX A - CORRECTION FACTORS

13.1 Correction factors for CABLE

from EMI receiver to test antenna at 3 meter range.

Frequency (MHz)	Cable Loss (dB)	Frequency (MHz)	Cable Loss (dB)
0.010	0.4	50.00	1.2
0.015	0.2	100.00	0.7
0.020	0.2	150.00	20.1
0.030	0.3	200.00	2.3
0.050	0.3	300.00	2.9
0.075	0.3	500.00	3.8
0.100	0.2	750.00	4.8
0.150	0.2	1000.00	5.4
0.200	0.3	1500.00	6.7
0.500	0.4	2000.00	9.0
1.00	0.4	2500.00	9.4
1.50	0.5	3000.00	9.9
2.00	0.5	3500.00	10.2
5.00	0.6	4000.00	11.2
10.00	0.8	4500.00	12.1
15.00	0.9	5000.00	13.1
20.00	0.8	5500.00	13.5
		6000.00	14.5

NOTES:

1. The cable type is SPUMA400 RF-11N(X2) and 39m long

2. The cable is manufactured by Huber + Suhner

13.2 Correction factors for Bilog ANTENNA

Model: 3142
Antenna serial number: 1250
3 meter range

FREQUENCY (MHz)	AFE (dB/m)	FREQUENCY (MHz)	AFE (dB/m)
30	18.4	1100	25
40	13.7	1200	24.9
50	9.9	1300	26
60	8.1	1400	26.1
70	7.4	1500	27.1
80	7.2	1600	27.2
90	7.5	1700	28.3
100	8.5	1800	28.1
120	7.8	1900	28.5
140	8.5	2000	28.9
160	10.8		
180	10.4		
200	10.5		
250	12.7		
300	14.3		
400	17		
500	18.6		
600	19.6		
700	21.1		
800	21.4		
900	23.5		
1000	24.3		

13.3 Correction factors for Horn ANTENNA

Model: 3115
Antenna serial number: 6142
3 meter range

FREQUENCY (MHz)	Antenna Factor (dB/m)	FREQUENCY (MHz)	Antenna Factor (dB/m)
1000	23.9	10500	38.4
1500	25.4	11000	38.5
2000	27.3	11500	39.4
2500	28.5	12000	39.2
3000	30.4	12500	39.4
3500	31.6	13000	40.7
4000	33	14000	42.1
4500	32.7	15000	40.1
5000	34.1	16000	38.2
5500	34.5	17000	41.7
6000	34.9	17500	45.7
6500	35.1	18000	47.7
7000	35.9		
7500	37.5		
8000	37.6		
8500	38.3		
9000	38.5		
9500	38.1		
10000	38.6		

13.1 Correction factors for Horn ANTENNA

Model: SWH-28
Antenna serial number: 1007
1 meter range

FREQUENCY	Antenna Factor
(MHz)	(dB/m)
18000	33.0
18500	32.9
19000	33.1
19500	33.3
20000	33.6
20500	33.6
21000	33.4
21500	33.8
22000	33.7
22500	33.9
23000	34.8
23500	34.5
24000	34.2
24500	34.8
25000	34.4
25500	35.2
26000	35.9
26500	36.0

13.2 Correction factors for ACTIVE LOOP ANTENNA

Model 6502
S/N 9506-2950

FREQUENCY	Magnetic Antenna Factor	Electric Antenna Factor
(MHz)	(dB)	(dB)
.009	-35.1	16.4
.010	-35.7	15.8
.020	-38.5	13.0
.050	-39.6	11.9
.075	-39.8	11.8
.100	-40.0	11.6
.150	-40.0	11.5
.250	-40.0	11.6
.500	-40.0	11.5
.750	-40.1	11.5
1.000	-39.9	11.7
2.000	-39.5	12.0
3.000	-39.4	12.1
4.000	-39.7	11.9
5.000	-39.7	11.8
10.000	40.2	11.3
15.000	-40.7	10.8
20.000	-40.5	11.0
25.000	-41.3	10.2
30.000	42.3	9.2