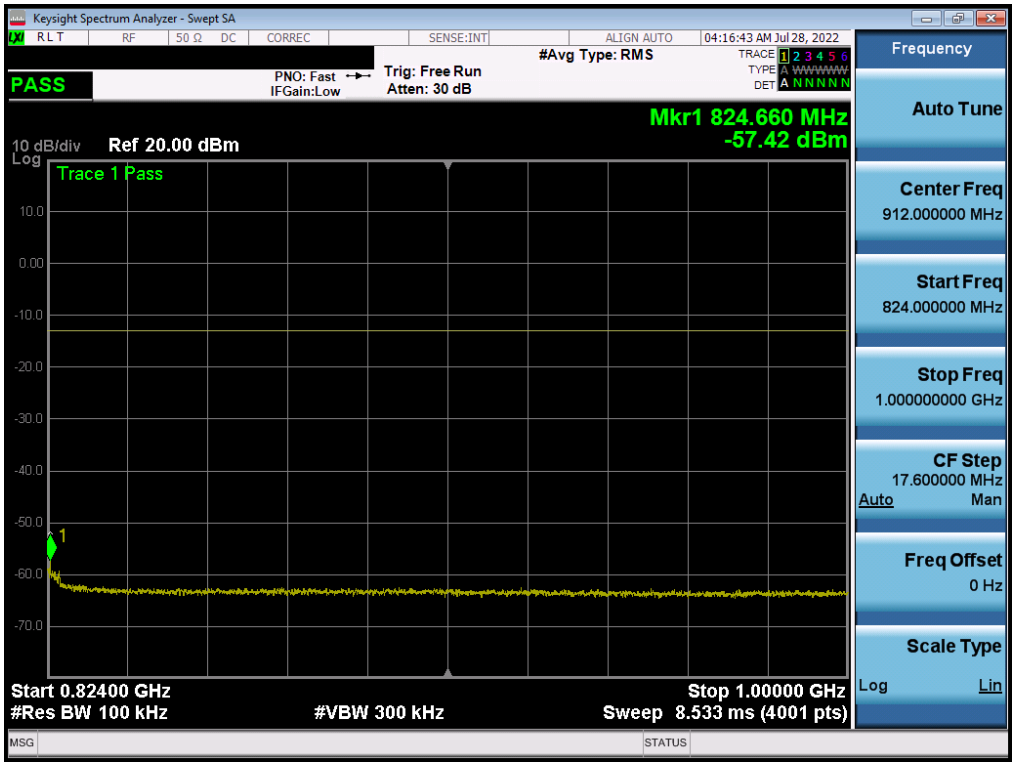
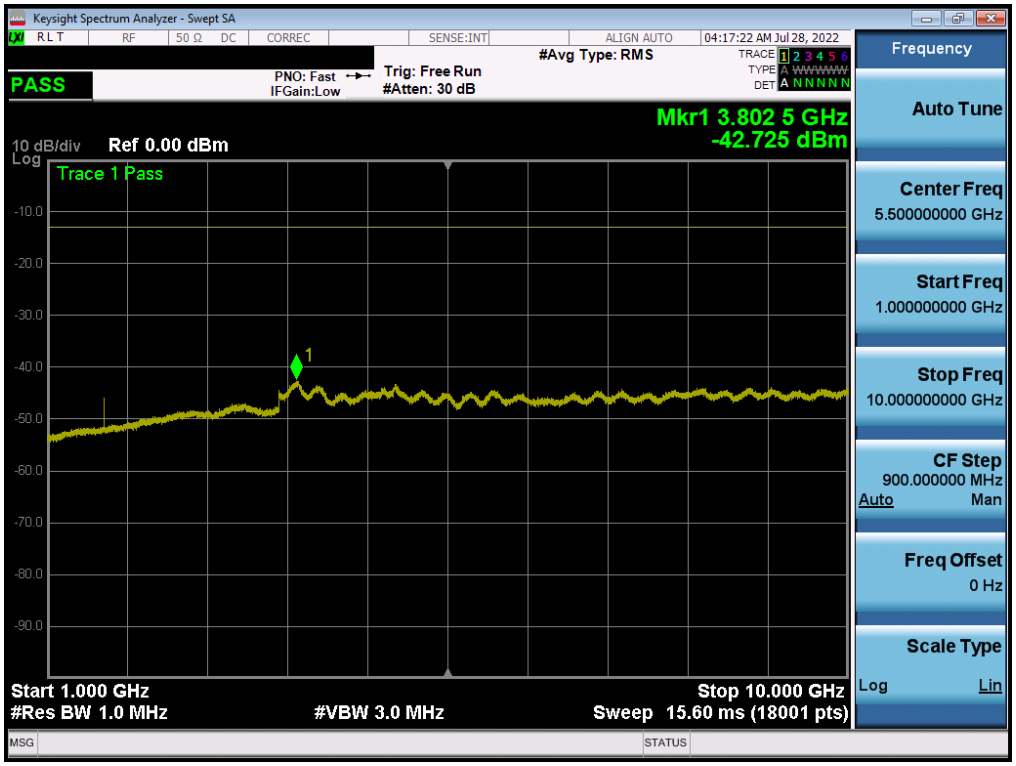
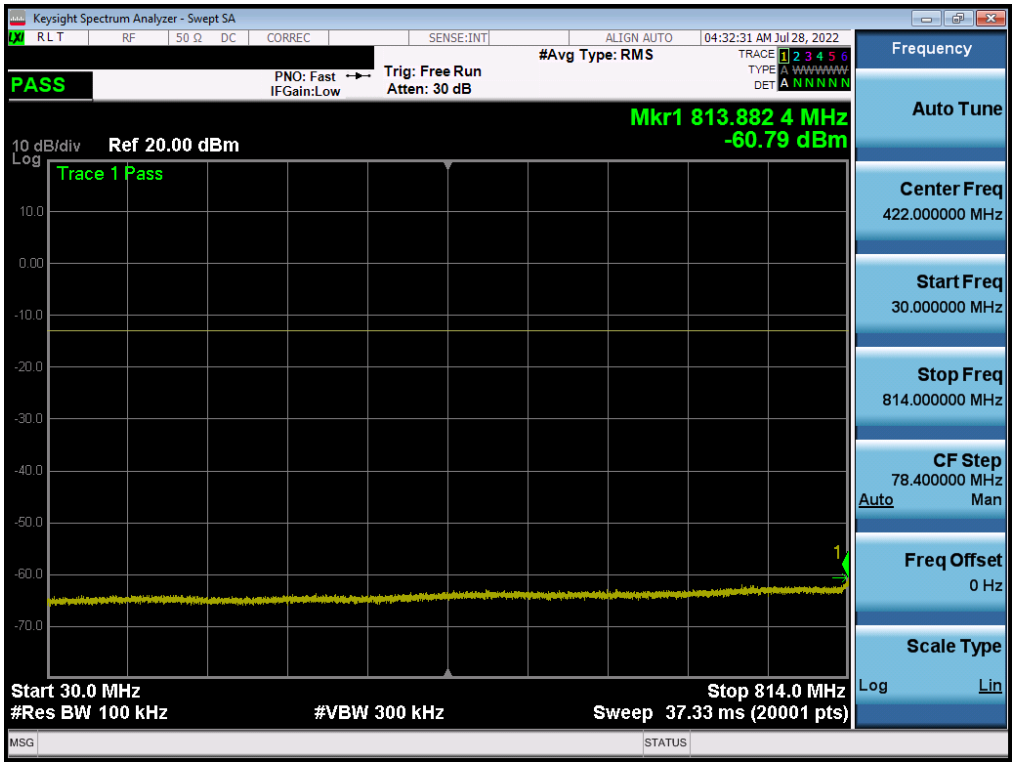


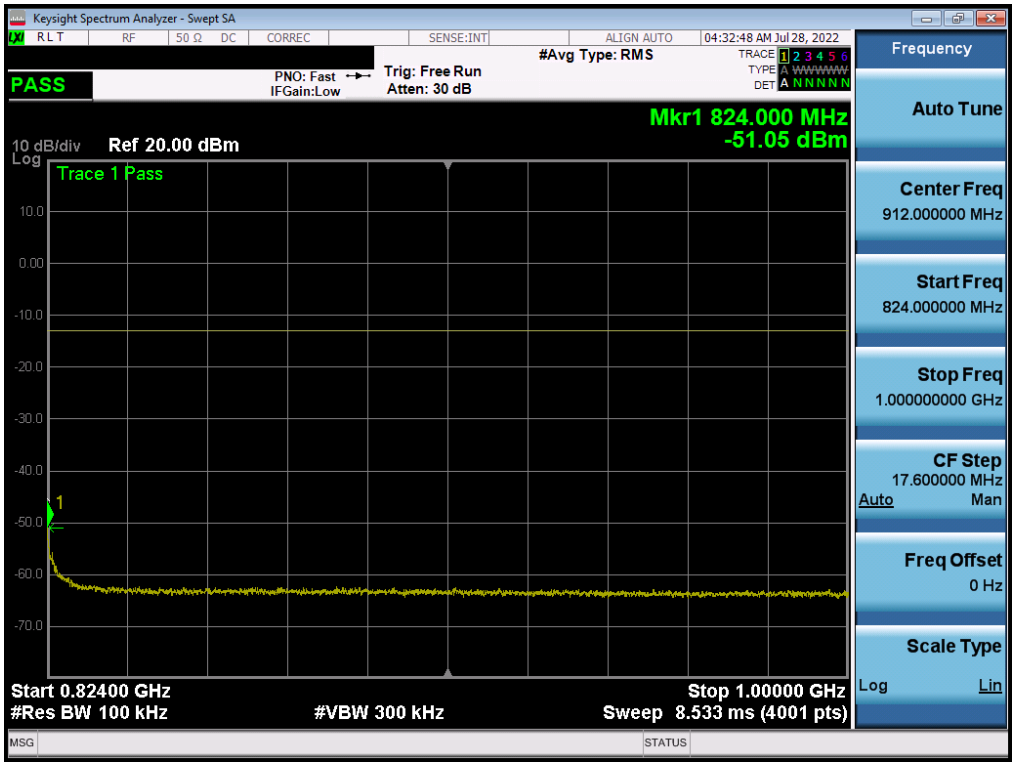
Plot 7-76. Conducted Spurious Plot (NR Band n26 - 10MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 – Mid Channel)



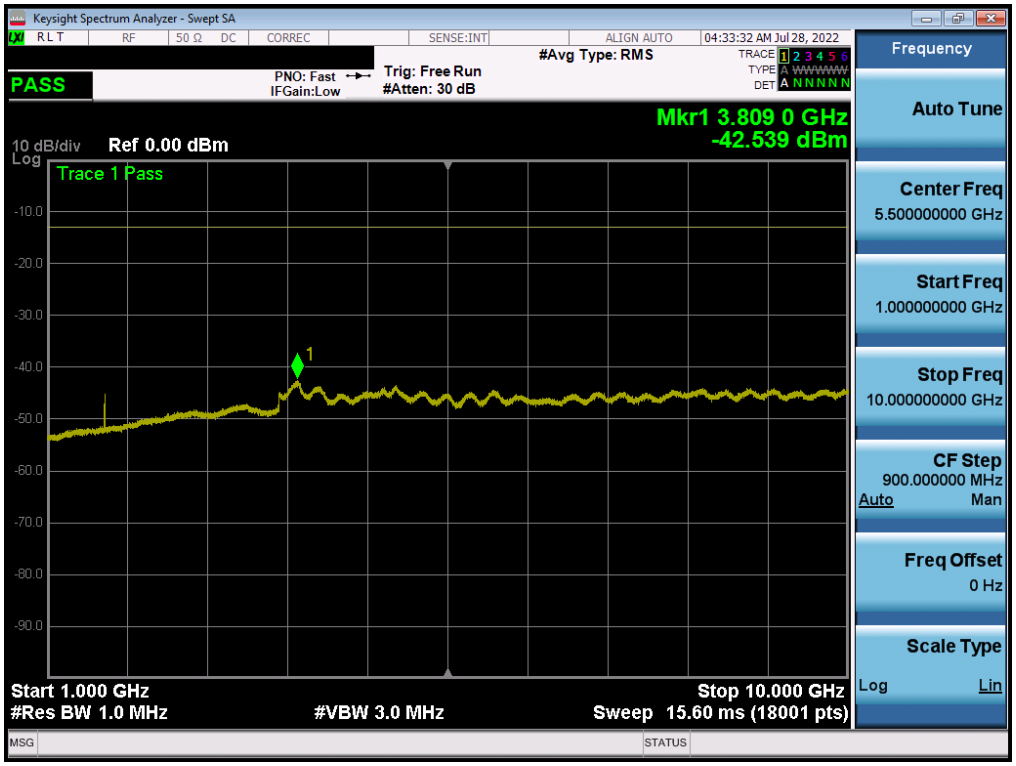
Plot 7-77. Conducted Spurious Plot (NR Band n26 - 10MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 – Mid Channel)



Plot 7-78. Conducted Spurious Plot (NR Band n26 - 5MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-79. Conducted Spurious Plot (NR Band n26 - 5MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-80. Conducted Spurious Plot (NR Band n26 - 5MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 - High Channel)

7.4 Band Edge Emissions at Antenna Terminal

§2.1051 §90(S).691(a) §90(R).543(e)

Test Overview

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 maximum power, and at the appropriate frequencies. 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. All ports were tested and only the worst case data were reported.

For LTE B26 operation under Part 90.691, the minimum permissible attenuation level of any spurious emission removed from the EA licensee's frequency block by greater than 37.5 kHz is 43 + 10log$_{10}$(P$_{[Watts]}$), where P is the transmitter power in Watts. The minimum permissible attenuation level of any spurious emission removed from the EA licensee's frequency block by up to and including 37.5 kHz is 50 + 10log$_{10}$(P$_{[Watts]}$), where P is the transmitter power in Watts.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

1. Span was set large enough so as to capture all out of band emissions near the band edge
2. RBW = 100 kHz
3. VBW = 300 kHz
4. Detector = RMS
5. Trace mode = trace average
6. Sweep time = auto couple
7. The trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

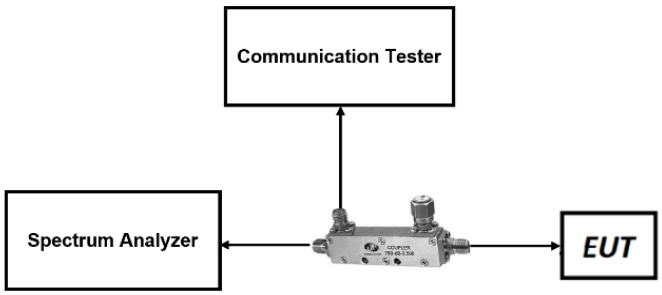


Figure 7-3. Test Instrument & Measurement Setup

Test Notes

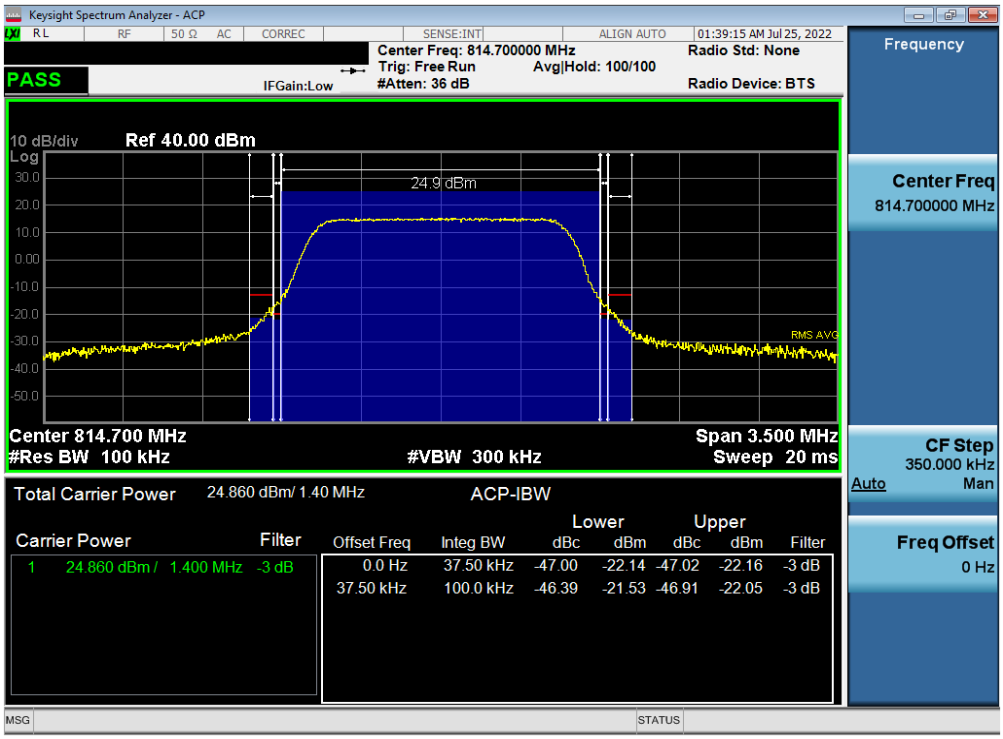
1. For channel edge emission, the signal analyzer's "ACP" measurement capability is used.

2. Per Part 90, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit. 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.

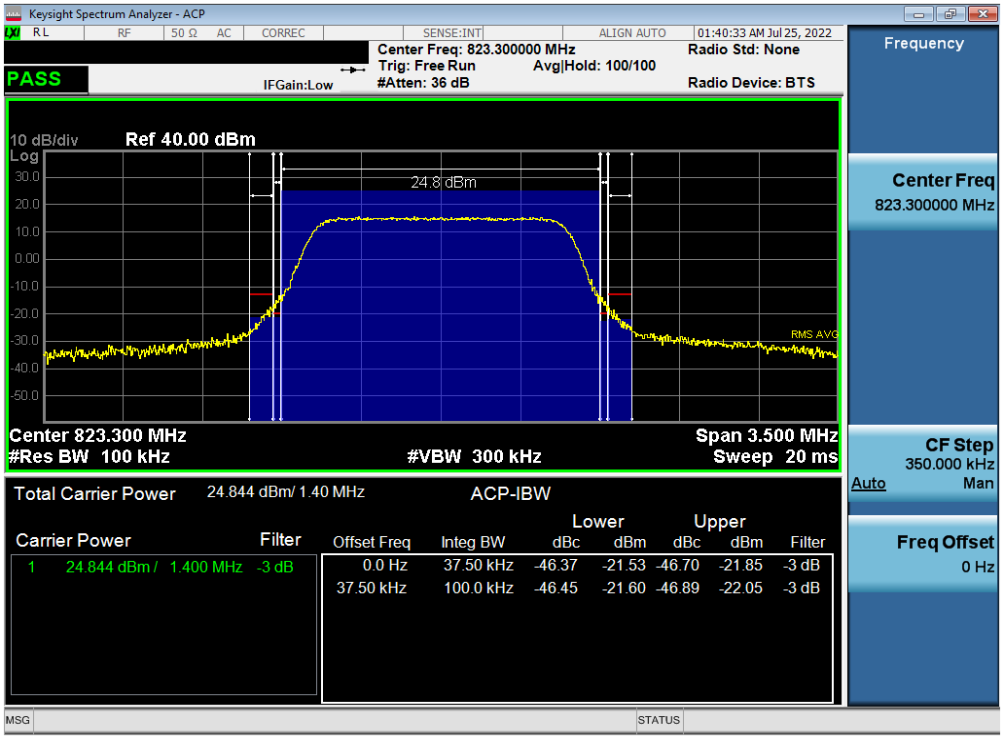
3. For LTE Band 14 and NR Band n14 operations under Part 90.543, the power of any emission must be reduced below the mean output power (P) by at least 43 + 10log (P) dB measured in a 100 kHz bandwidth for frequencies less than 1 GHz, and in a 1 MHz bandwidth for frequencies greater than 1 GHz.

4. Additionally, for LTE Band 14 and NR Band n14 operations, on all frequencies between 769-775 MHz and 799-805 MHz, the power of any emission shall be attenuated by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

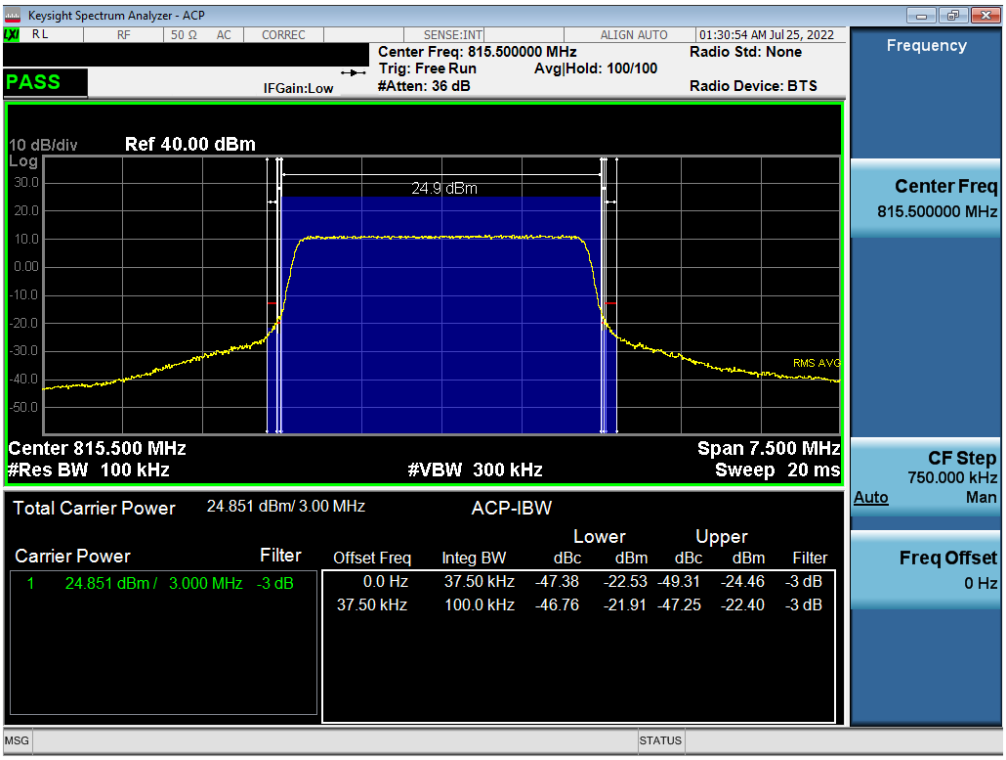
LTE Band 26



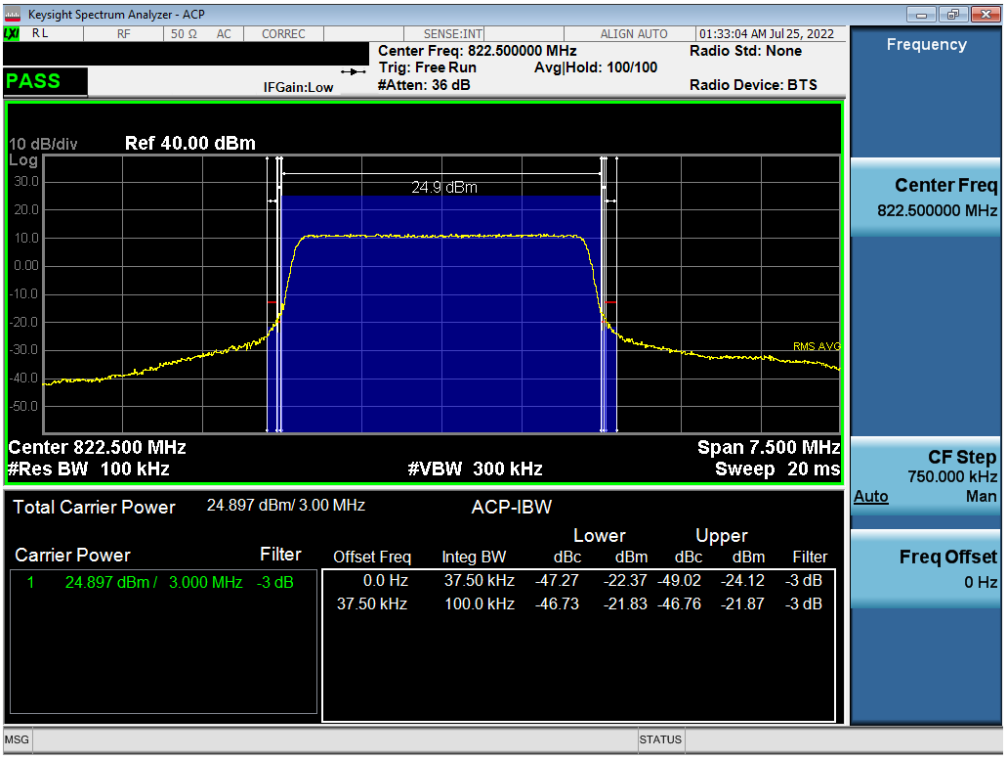
Plot 7-81. Channel Edge Plot (LTE Band 26 - 1.4MHz QPSK - Low Channel)



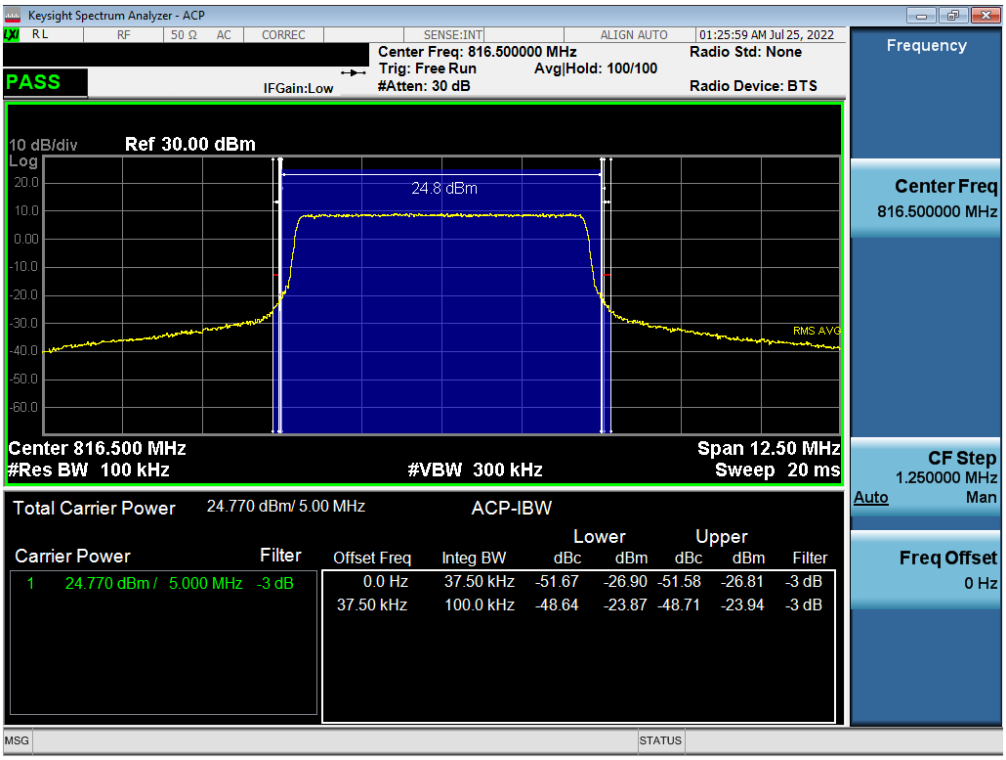
Plot 7-82. Channel Edge Plot (LTE Band 26 - 1.4MHz QPSK - High Channel)



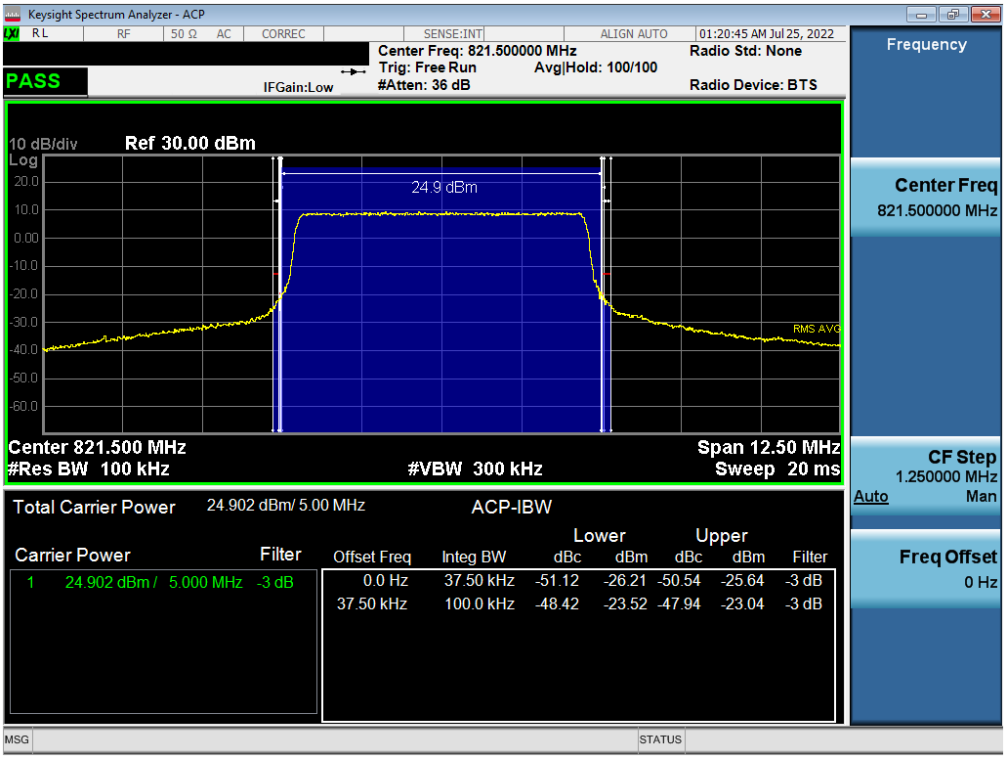
Plot 7-83. Channel Edge Plot (LTE Band 26 - 3MHz QPSK - Low Channel)



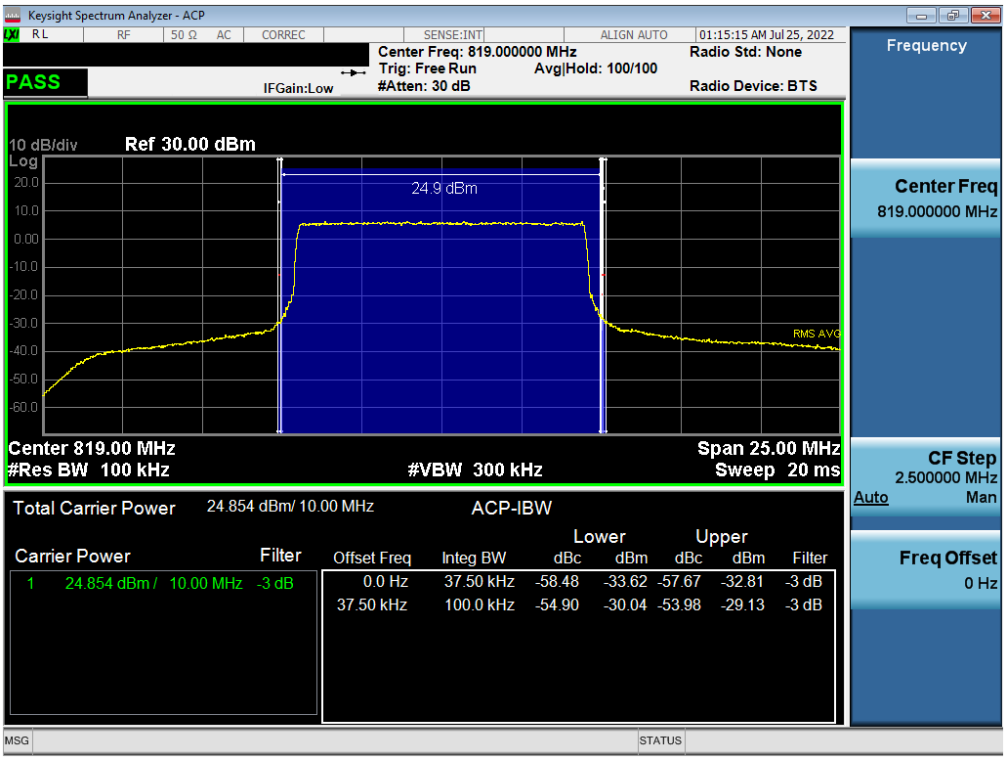
Plot 7-84. Channel Edge Plot (LTE Band 26 - 3MHz QPSK - High Channel)



Plot 7-85. Channel Edge Plot (LTE Band 26 - 5MHz QPSK - Low Channel)

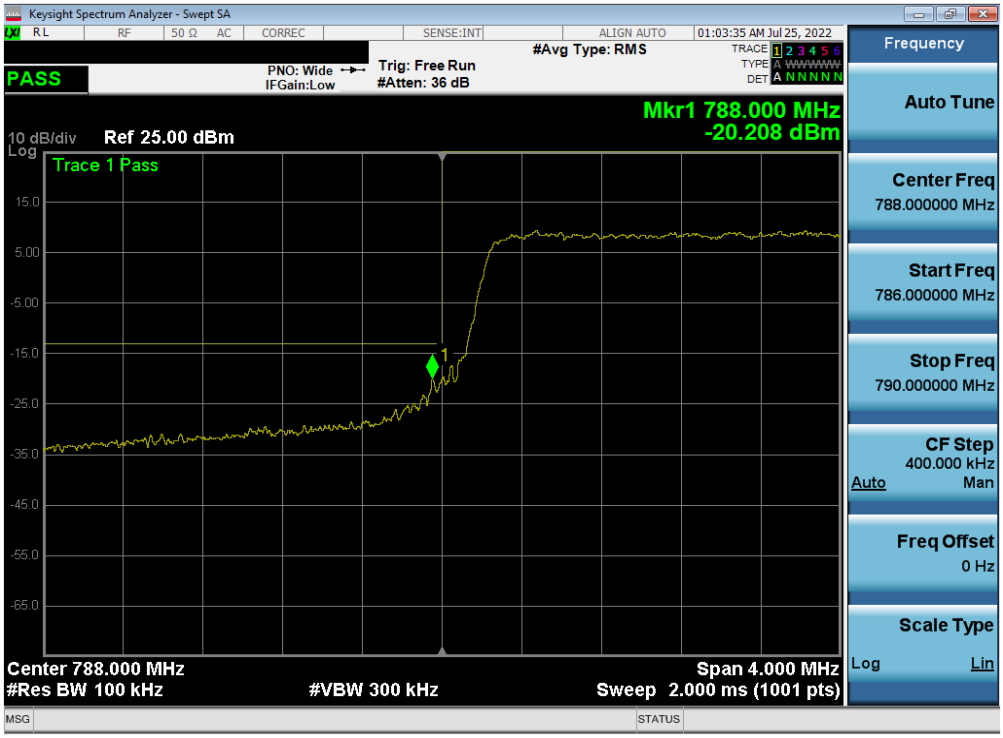


Plot 7-86. Channel Edge Plot (LTE Band 26 - 5MHz QPSK - High Channel)

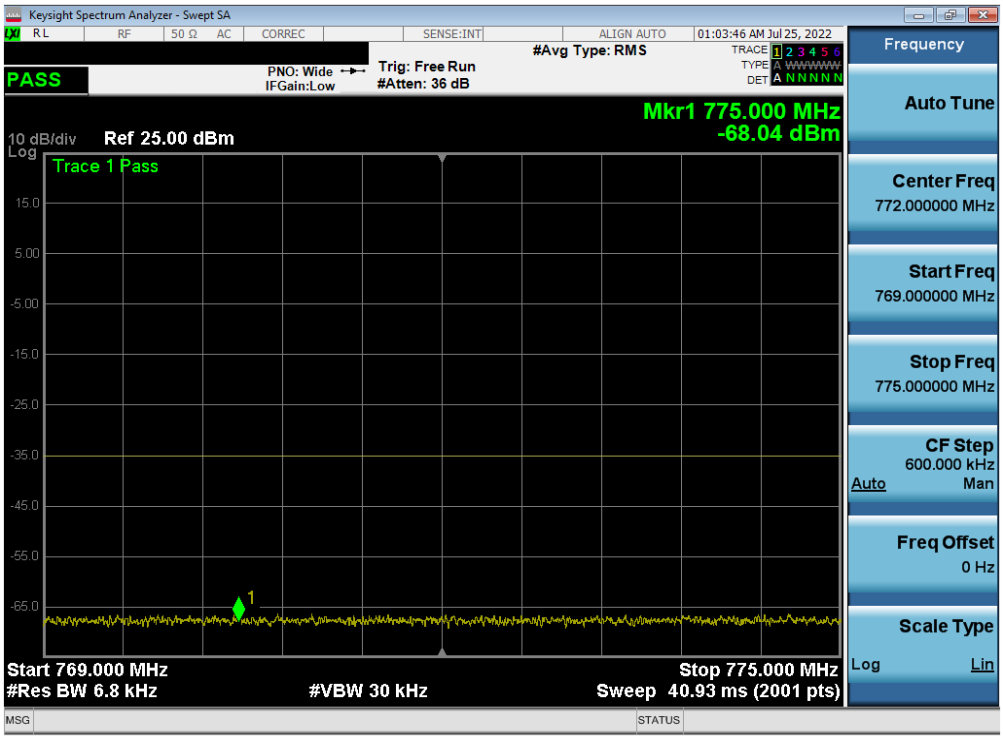


Plot 7-87. Channel Edge Plot (LTE Band 26 - 10MHz QPSK - Mid Channel)

LTE Band 14

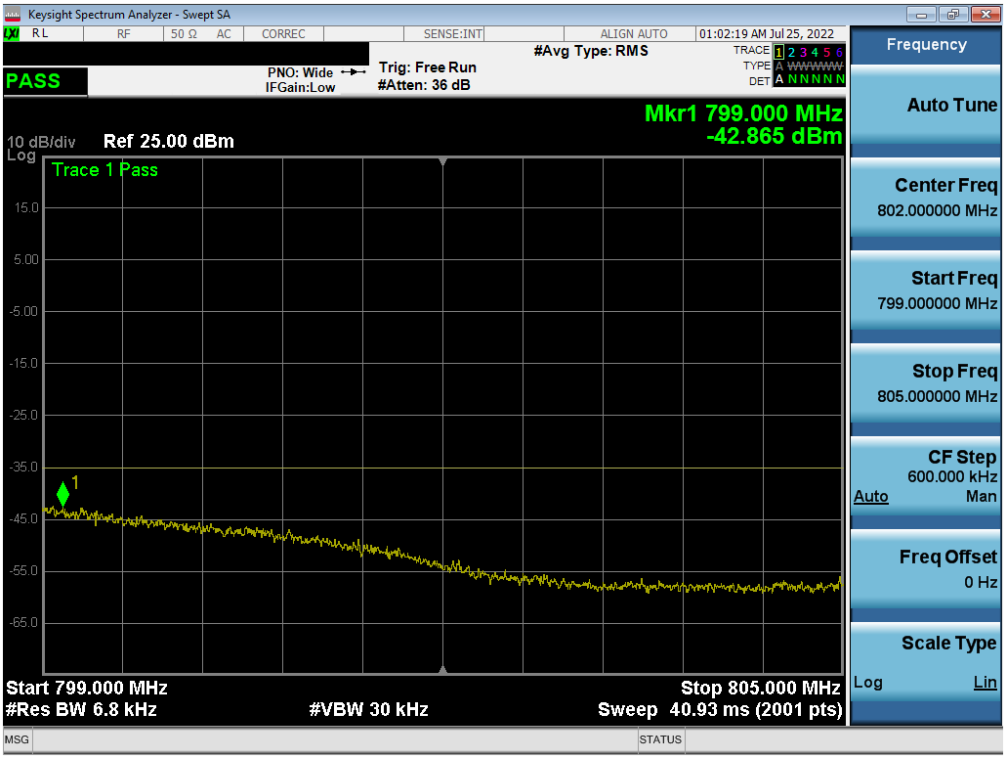


Plot 7-88. Lower Band Edge Plot (LTE Band 14, 5MHz QPSK - RB Size 25)

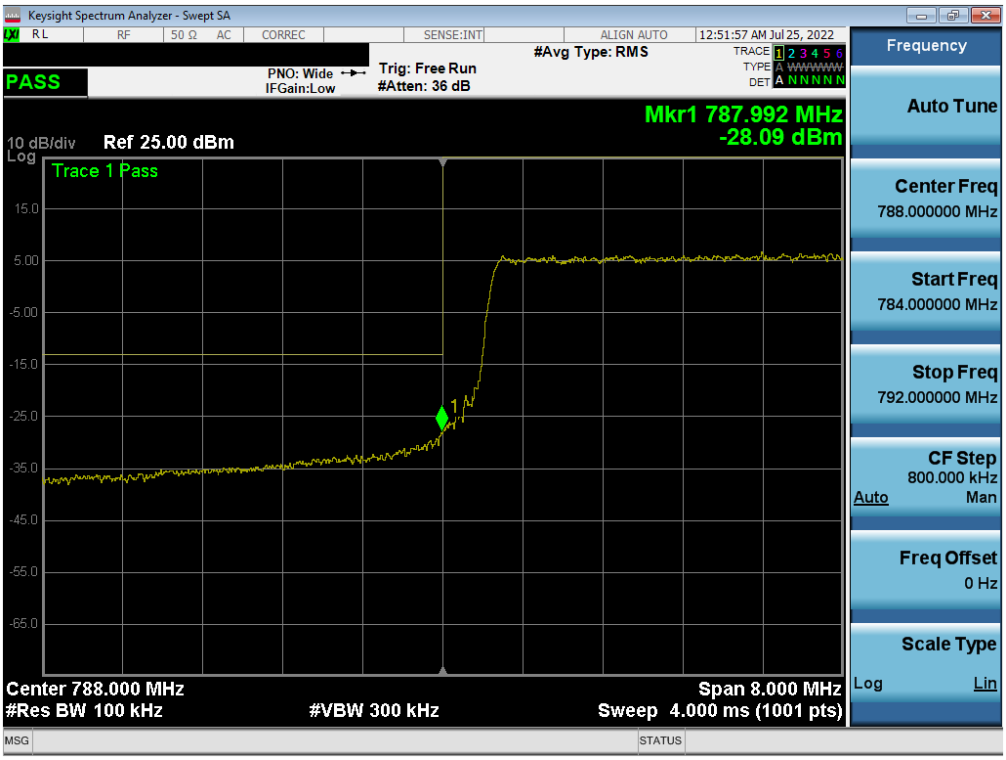


Plot 7-89. Lower Emission Mask Plot (LTE Band 14, 5MHz QPSK - RB Size 25)

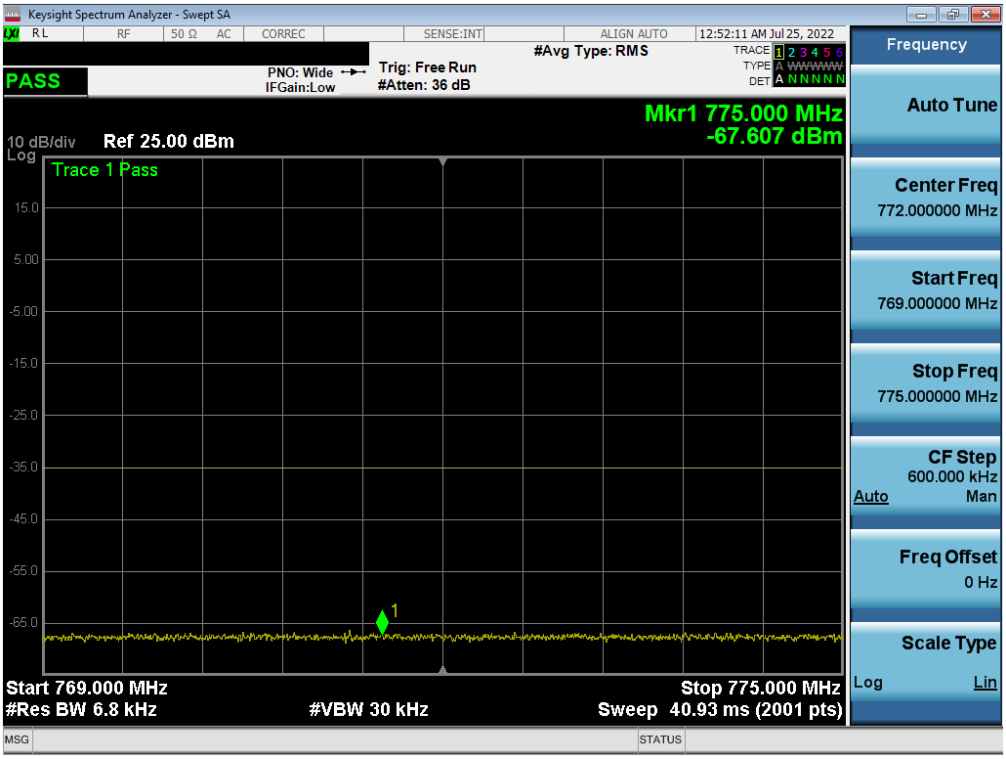
Plot 7-90. Upper Band Edge Plot (LTE Band 14, 5MHz QPSK - RB Size 25)



Plot 7-91. Upper Emission Mask Plot (LTE Band 14, 5MHz QPSK - RB Size 25)

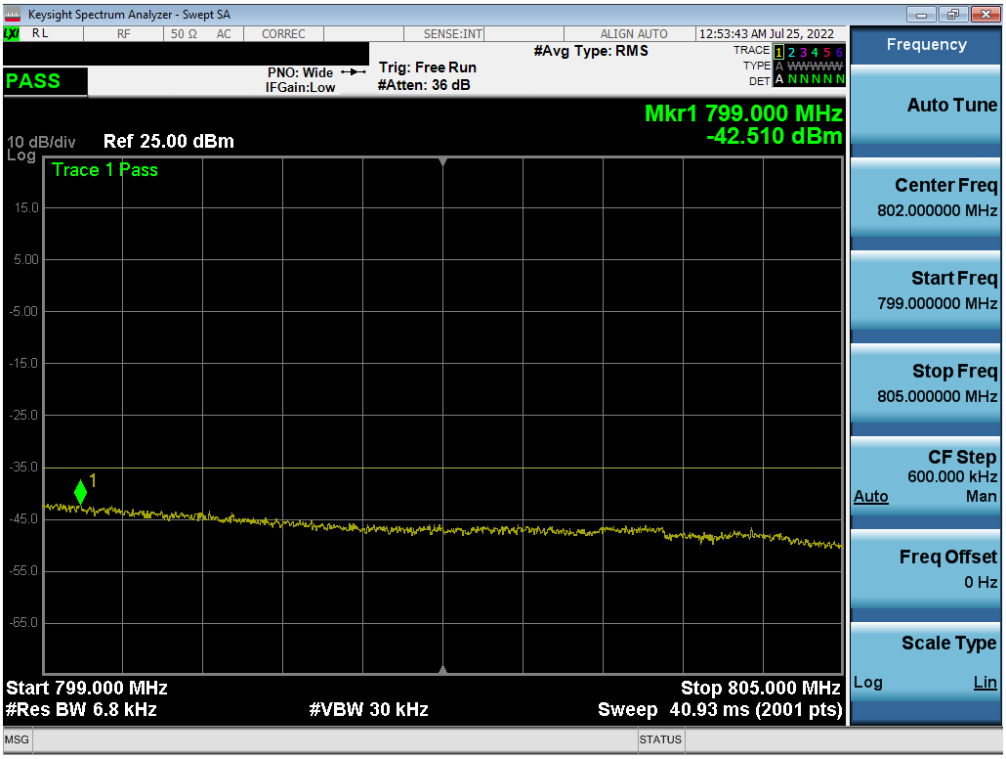


Plot 7-92. Lower Band Edge Plot (LTE Band 14, 10MHz QPSK - RB Size 50)



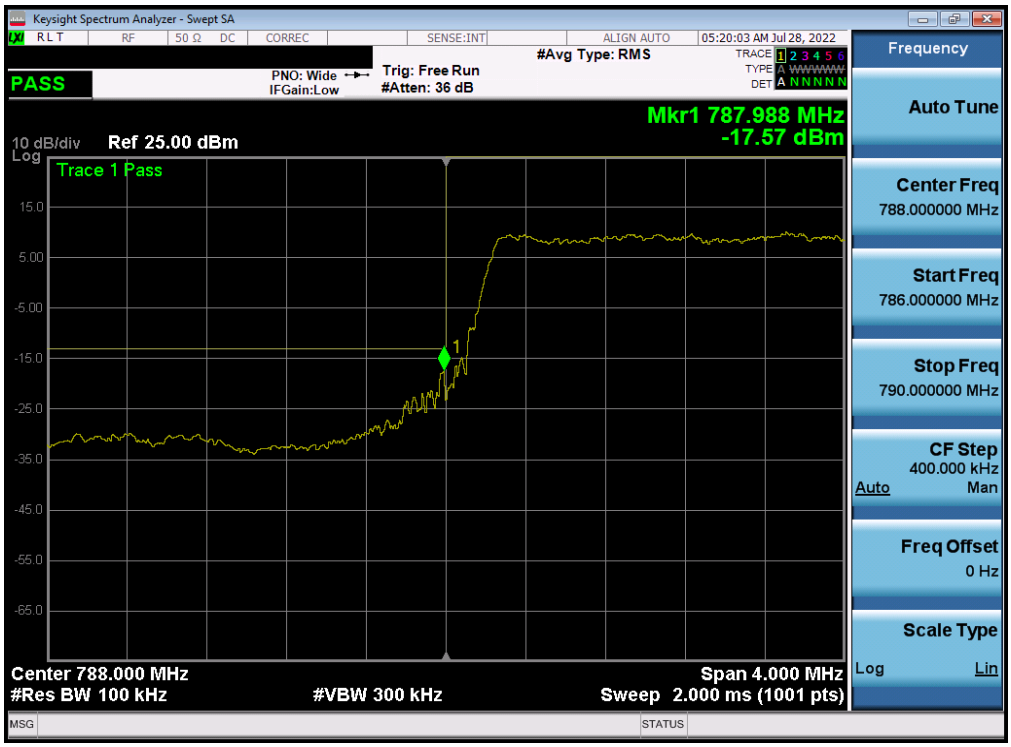
Plot 7-93. Lower Emission Mask Plot (LTE Band 14, 10MHz QPSK - RB Size 50)

Plot 7-94. Upper Band Edge Plot (LTE Band 14, 10MHz QPSK - RB Size 50)

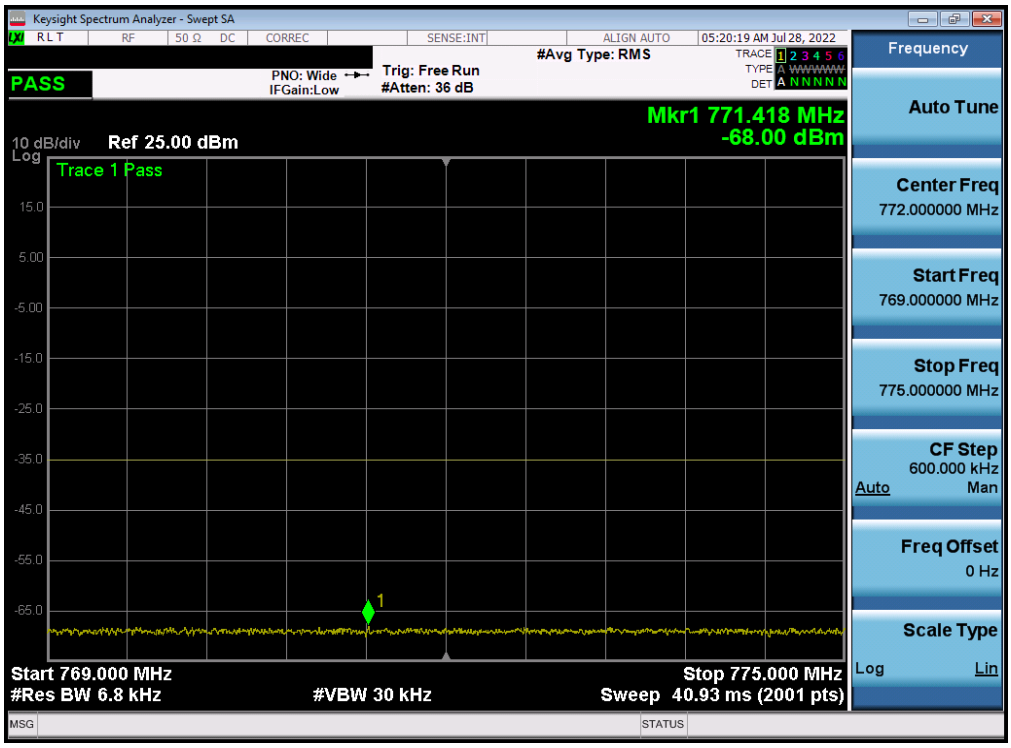


Plot 7-95. Upper Emission Mask Plot (LTE Band 14, 10MHz QPSK - RB Size 50)

NR Band n14

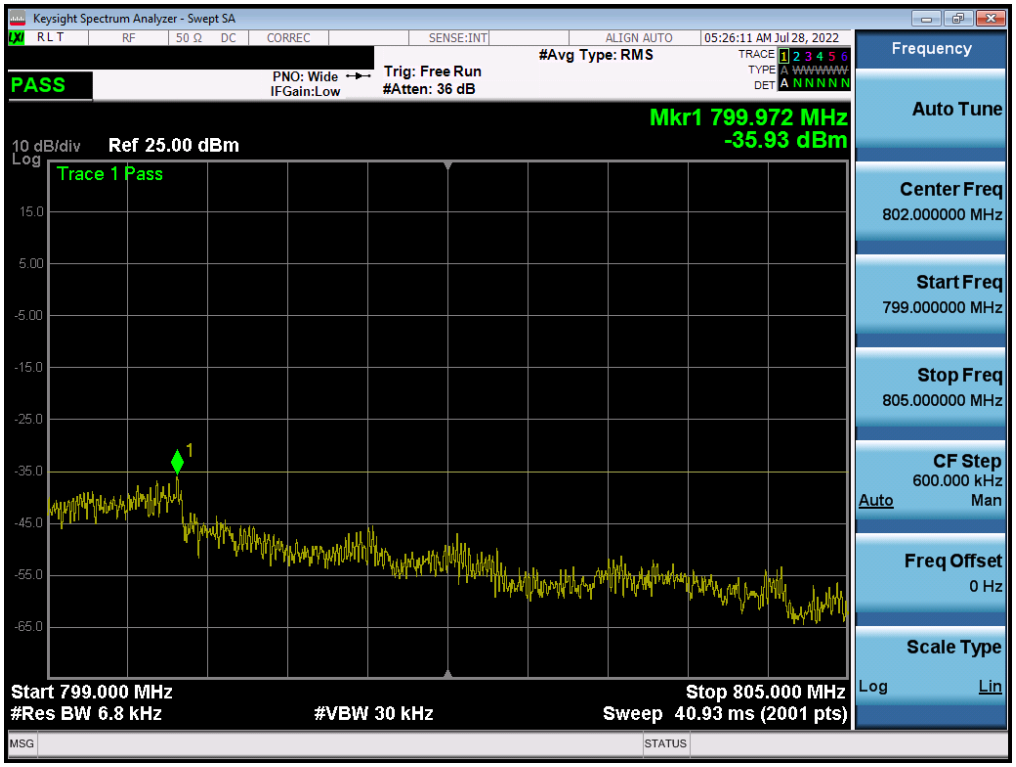


Plot 7-96. Lower Band Edge Plot (NR Band n14, 5MHz DFT-s-OFDM π/2 BPSK - RB Size 25)

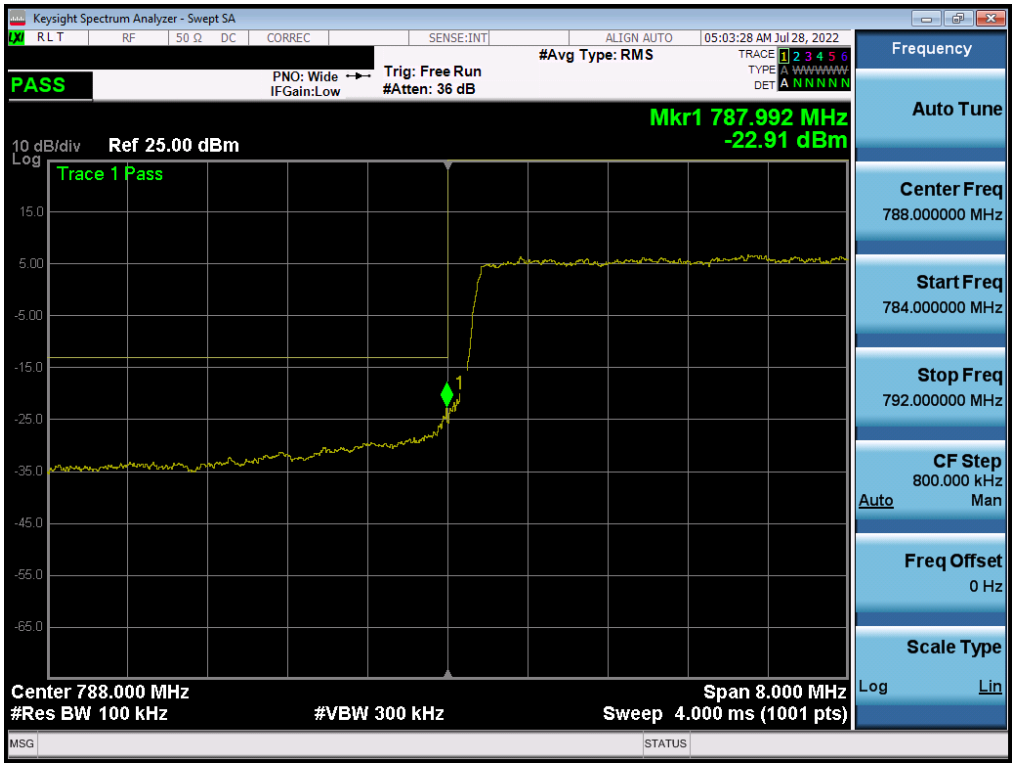


Plot 7-97. Lower Emission Mask Plot (NR Band n14, 5MHz CP-OFDM QPSK - RB Size 25)

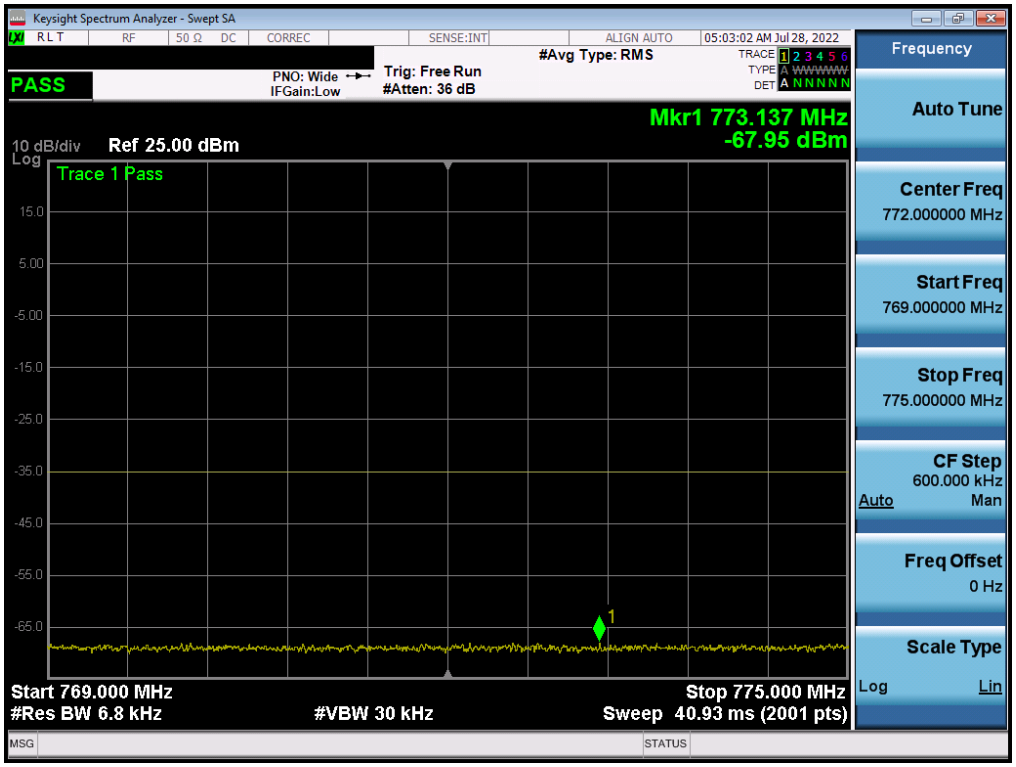
Plot 7-98. Upper Band Edge Plot (NR Band n14, 5MHz DFT-s-OFDM π/2 BPSK - RB Size 25)



Plot 7-99. Upper Emission Mask Plot (NR Band n14, 5MHz DFT-s-OFDM π/2 BPSK - RB Size 25)

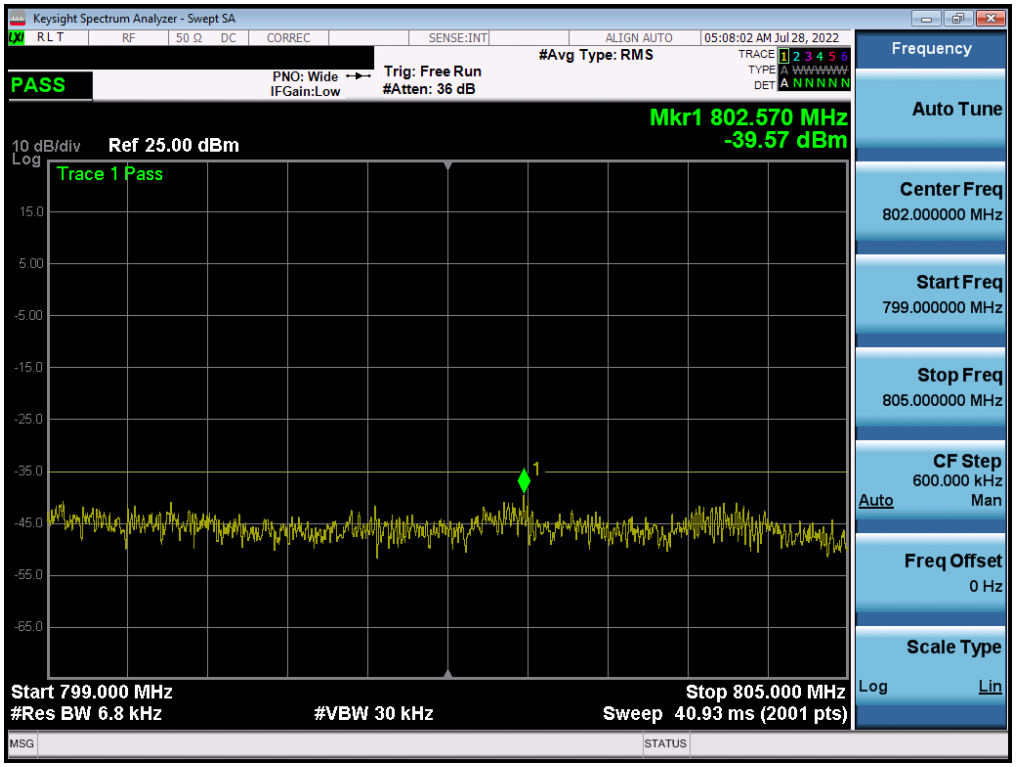


Plot 7-100. Lower Band Edge Plot (NR Band n14, 10MHz DFT-s-OFDM π/2 BPSK - RB Size 50)



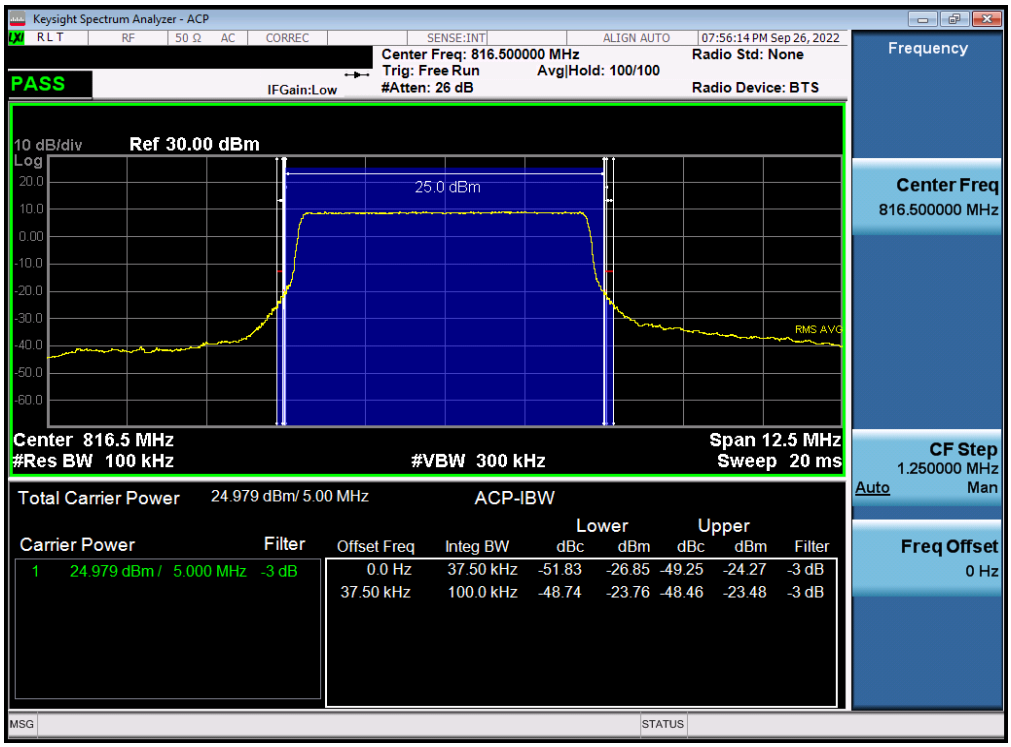
Plot 7-101. Lower Emission Mask Plot (NR Band n14, 10MHz CP-OFDM QPSK - RB Size 50)

Plot 7-102. Upper Band Edge Plot (NR Band n14, 10MHz DFT-s-OFDM π/2 BPSK - RB Size 50)

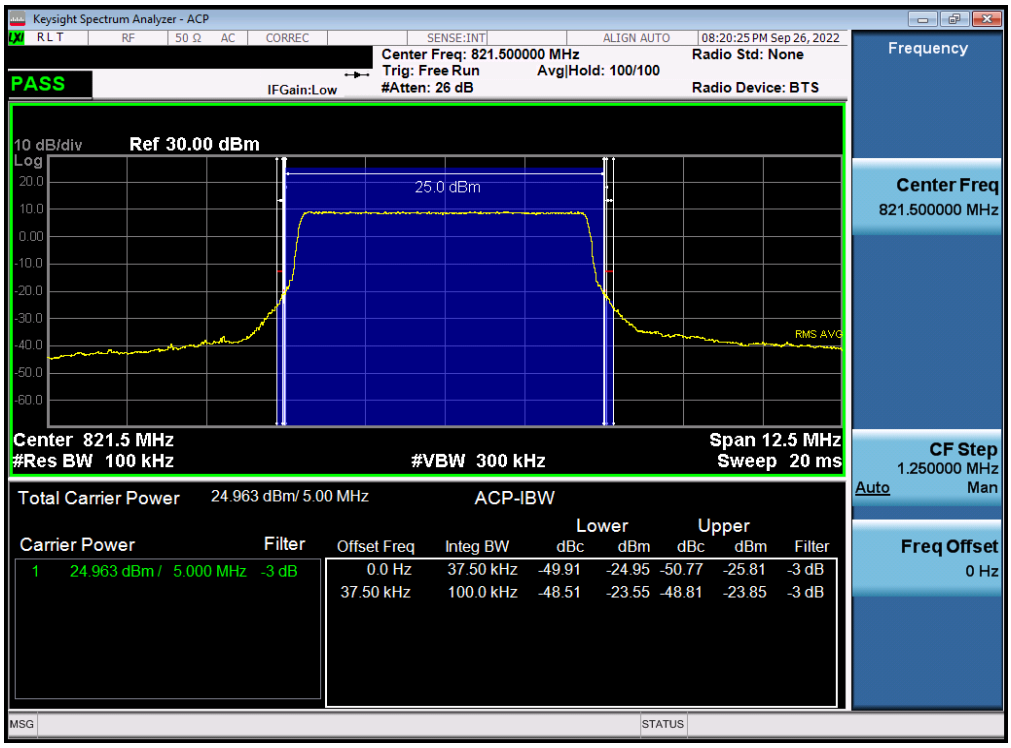


Plot 7-103. Upper Emission Mask Plot (NR Band n14, 10MHz DFT-s-OFDM π/2 BPSK - RB Size 50)

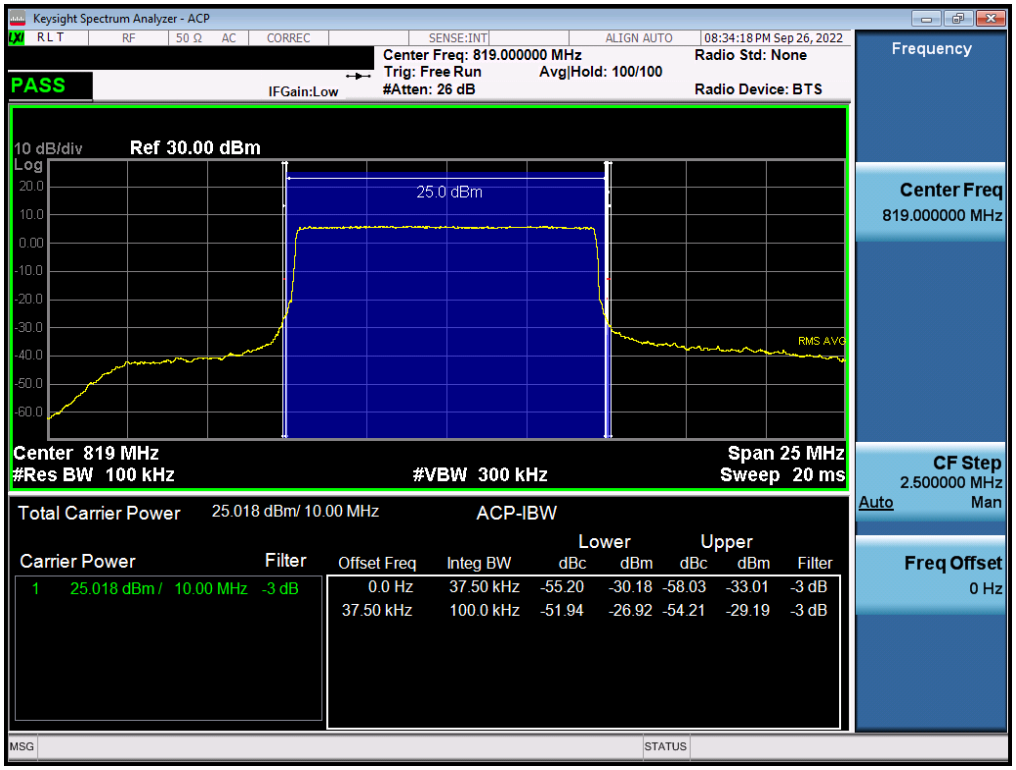
NR Band n26



Plot 7-104. Channel Edge Plot (NR Band n26, 5MHz CP-OFDM QPSK - Low Channel)



Plot 7-105. Channel Edge Plot (NR Band n26, 5MHz CP-OFDM QPSK - High Channel)



Plot 7-106. Channel Edge Plot (NR Band n26, 10MHz CP-OFDM QPSK - Mid Channel)

7.5 Conducted Power Output Data

§2.1046 §90.635

Test Overview

Conducted power measurements are performed to measure the average output power of the EUT. The averaging is to be performed only over duration of active transmissions at maximum output power level. The average measurements do not include averaging over periods when the transmitter is quiescent or when operating at reduced power level.

Test Procedures Used

KDB 971168 D01 v03r01

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

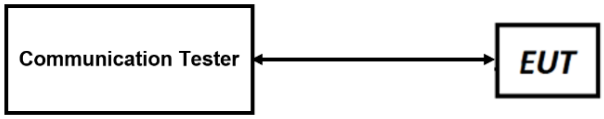


Figure 7-4. Conducted Power Measurement Setup

Test Notes

1. The EUT was tested in all possible test configurations. The worst case emissions are reported with the EUT modulations and channel bandwidth configurations shown in the tables below.

2. This unit was tested with its standard battery.

Antenna 3

Bandwidth	Modulation	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]	Conducted Power [Watts]	Conducted Power Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	814.7	1 / 3	25.59	0.362	50.00	-24.41
		823.3	1 / 0	25.46	0.352	50.00	-24.54
	16-QAM	823.3	1 / 5	24.49	0.281	50.00	-25.51
	64-QAM	823.3	1 / 0	23.46	0.222	50.00	-26.54
	256-QAM	814.7	1 / 3	21.48	0.141	50.00	-28.52
3 MHz	QPSK	815.5	1 / 14	25.46	0.352	50.00	-24.54
		822.5	1 / 7	25.29	0.338	50.00	-24.71
	16-QAM	822.5	1 / 7	24.34	0.272	50.00	-25.66
	64-QAM	822.5	1 / 0	23.37	0.217	50.00	-26.63
	256-QAM	815.5	1 / 7	21.38	0.137	50.00	-28.62
5 MHz	QPSK	816.5	1 / 12	25.20	0.331	50.00	-24.80
		821.5	1 / 12	25.16	0.328	50.00	-24.84
	16-QAM	821.5	1 / 0	24.23	0.265	50.00	-25.77
	64-QAM	821.5	1 / 24	23.30	0.214	50.00	-26.70
	256-QAM	816.5	1 / 12	21.28	0.134	50.00	-28.72
10 MHz	QPSK	819.0	1 / 49	25.42	0.348	50.00	-24.58
	16-QAM	819.0	1 / 0	24.47	0.280	50.00	-25.53
	64-QAM	819.0	1 / 0	23.34	0.216	50.00	-26.66
	256-QAM	819.0	1 / 25	21.18	0.131	50.00	-28.82

Table 7-2. Conducted Power Output Data (LTE Band 26)

Bandwidth	Modulation	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]	Conducted Power [Watts]	Conducted Power Limit [dBm]	Margin [dB]
5 MHz	π/2 BPSK	816.5	1 / 1	25.57	0.361	50.00	-24.43
		819.0	1 / 23	25.45	0.351	50.00	-24.55
		821.5	1 / 12	25.38	0.345	50.00	-24.62
	QPSK	816.5	1 / 12	25.26	0.336	50.00	-24.74
		819.0	1 / 12	25.29	0.338	50.00	-24.71
		821.5	1 / 23	25.32	0.340	50.00	-24.68
	16-QAM	816.5	1 / 1	24.31	0.270	50.00	-25.69
	64-QAM	819.0	1 / 1	23.74	0.237	50.00	-26.26
	256-QAM	816.5	1 / 1	20.76	0.119	50.00	-29.24
10 MHz	π/2 BPSK	819.0	1 / 1	25.32	0.340	50.00	-24.68
	QPSK	819.0	1 / 25	25.40	0.347	50.00	-24.60
	16-QAM	819.0	1 / 1	24.42	0.277	50.00	-25.58
	64-QAM	819.0	1 / 25	23.56	0.227	50.00	-26.44
	256-QAM	819.0	1 / 48	20.65	0.116	50.00	-29.35

Table 7-3. Conducted Power Output Data (NR Band n26)

Antenna 1

Bandwidth	Modulation	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]	Conducted Power [Watts]	Conducted Power Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	814.7	1 / 5	23.67	0.233	50.00	-26.33
		823.3	1 / 5	23.72	0.235	50.00	-26.28
	16-QAM	823.3	1 / 3	22.75	0.188	50.00	-27.25
	64-QAM	823.3	1 / 0	21.71	0.148	50.00	-28.29
	256-QAM	814.7	1 / 0	19.74	0.094	50.00	-30.26
3 MHz	QPSK	815.5	1 / 7	23.72	0.235	50.00	-26.28
		822.5	1 / 0	23.55	0.226	50.00	-26.45
	16-QAM	822.5	1 / 0	22.60	0.182	50.00	-27.40
	64-QAM	822.5	1 / 0	21.62	0.145	50.00	-28.38
	256-QAM	815.5	1 / 0	19.63	0.092	50.00	-30.37
5 MHz	QPSK	816.5	1 / 0	23.46	0.222	50.00	-26.54
		821.5	1 / 24	23.42	0.220	50.00	-26.58
	16-QAM	821.5	1 / 24	22.48	0.177	50.00	-27.52
	64-QAM	821.5	1 / 12	21.55	0.143	50.00	-28.45
	256-QAM	816.5	1 / 12	19.53	0.090	50.00	-30.47
10 MHz	QPSK	819.0	1 / 25	23.68	0.233	50.00	-26.32
	16-QAM	819.0	1 / 25	22.68	0.185	50.00	-27.32
	64-QAM	819.0	1 / 49	21.59	0.144	50.00	-28.41
	256-QAM	819.0	1 / 0	19.42	0.088	50.00	-30.58

Table 7-4. Conducted Power Output Data (LTE Band 26)

Bandwidth	Modulation	Frequency [MHz]	RB Size/Offset	Conducted Power [dBm]	Conducted Power [Watts]	Conducted Power Limit [dBm]	Margin [dB]
5 MHz	π/2 BPSK	816.5	1 / 12	23.26	0.212	50.00	-26.74
		819.0	1 / 12	23.62	0.230	50.00	-26.38
		821.5	1 / 23	23.33	0.215	50.00	-26.67
	QPSK	816.5	1 / 1	23.50	0.224	50.00	-26.50
		819.0	1 / 12	23.79	0.240	50.00	-26.21
		821.5	1 / 23	23.58	0.228	50.00	-26.42
	16-QAM	816.5	1 / 1	22.33	0.171	50.00	-27.67
	64-QAM	819.0	1 / 12	21.15	0.130	50.00	-28.85
	256-QAM	819.0	1 / 12	19.06	0.081	50.00	-30.94
10 MHz	π/2 BPSK	819.0	1 / 25	23.65	0.232	50.00	-26.35
	QPSK	819.0	1 / 1	23.58	0.228	50.00	-26.42
	16-QAM	819.0	1 / 1	22.38	0.173	50.00	-27.62
	64-QAM	819.0	1 / 1	21.10	0.129	50.00	-28.90
	256-QAM	819.0	1 / 25	18.99	0.079	50.00	-31.01

Table 7-5. Conducted Power Output Data (NR Band n26)

7.6 Radiated Power (ERP)

§90.542(a)(7)

Test Overview

Effective Radiated Power (ERP) measurements are calculated by adding highest antenna gain to maximum measured conducted output power. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.2.1
ANSI C63.26-2015
TIA-603-E-2016 – Section 2.2.17

Test Settings

The relevant equation for determining the ERP from the conducted RF output power measured is:

ERP = PMeas – LC + GT

Where:

ERP = Effective Radiated Power (expressed in the same units as PMeas, typically dBW or dBm)

PMeas = measured transmitter output power or PSD, in dBW or dBm

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

GT = gain of the transmitting antenna, in dBd (ERP)

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

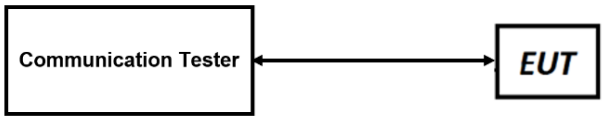


Figure 7-5. ERP Measurement Setup

Test Notes

1) The worst case emissions are reported with the modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.

2) This unit was tested with its standard battery.

3) The Level (dBm) readings in the table were taken with a correction table loaded into the base station simulator. The correction table was used to account for the signal attenuation in the connecting cable between the transmitter and antenna.

4) The Ant. Gains (GT) are listed in dBi.

Antenna 3 – ERP

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
5 MHz	QPSK	790.5	-2.90	1 / 24	25.40	**20.35**	0.108	34.77	-14.42
		793.0	-2.90	1 / 12	25.29	20.24	0.106	34.77	-14.53
		795.5	-2.90	1 / 0	25.33	20.28	0.107	34.77	-14.49
	16-QAM	790.5	-2.90	1 / 12	24.38	19.33	0.086	34.77	-15.44
	64-QAM	793.0	-2.90	1 / 12	23.35	18.30	0.068	34.77	-16.47
	256-QAM	793.0	-2.90	1 / 0	21.29	16.24	0.042	34.77	-18.53
10 MHz	QPSK	793.0	-2.90	1 / 0	25.53	**20.48**	0.112	34.77	-14.29
	16-QAM	793.0	-2.90	1 / 49	24.32	19.27	0.085	34.77	-15.50
	64-QAM	793.0	-2.90	1 / 49	23.41	18.36	0.069	34.77	-16.41
	256-QAM	793.0	-2.90	1 / 0	21.37	16.32	0.043	34.77	-18.45

Table 7-6. ERP Data (LTE Band 14)

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
5 MHz	π/2 BPSK	790.5	-2.90	1 / 12	25.04	19.99	0.100	34.77	-14.78
		793.0	-2.90	1 / 12	25.28	**20.23**	0.105	34.77	-14.54
		795.5	-2.90	1 / 1	25.12	20.07	0.102	34.77	-14.70
	QPSK	790.5	-2.90	1 / 12	25.15	20.10	0.102	34.77	-14.67
		793.0	-2.90	1 / 12	25.20	**20.15**	0.103	34.77	-14.62
		795.5	-2.90	1 / 23	25.13	20.08	0.102	34.77	-14.69
	16-QAM	793.0	-2.90	1 / 23	24.43	19.38	0.087	34.77	-15.39
	64-QAM	790.5	-2.90	1 / 23	23.08	18.03	0.064	34.77	-16.74
	256-QAM	793.0	-2.90	1 / 12	20.71	15.66	0.037	34.77	-19.11
10 MHz	π/2 BPSK	793.0	-2.90	1 / 1	25.32	**20.27**	0.106	34.77	-14.50
	QPSK	793.0	-2.90	1 / 25	25.21	**20.16**	0.104	34.77	-14.61
	16-QAM	793.0	-2.90	1 / 25	24.33	19.28	0.085	34.77	-15.49
	64-QAM	793.0	-2.90	1 / 1	23.19	18.14	0.065	34.77	-16.63
	256-QAM	793.0	-2.90	1 / 1	20.67	15.62	0.036	34.77	-19.15

Table 7-7. ERP Data (NR Band n14)

Antenna 1 – ERP

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
5 MHz	QPSK	790.5	-3.10	1 / 12	23.51	**18.26**	0.067	34.77	-16.51
		793.0	-3.10	1 / 0	23.42	18.17	0.066	34.77	-16.60
		795.5	-3.10	1 / 12	23.49	18.24	0.067	34.77	-16.53
	16-QAM	790.5	-3.10	1 / 12	22.48	17.23	0.053	34.77	-17.54
	64-QAM	793.0	-3.10	1 / 12	21.52	16.27	0.042	34.77	-18.50
	256-QAM	790.5	-3.10	1 / 12	19.41	14.16	0.026	34.77	-20.61
10 MHz	QPSK	793.0	-3.10	1 / 25	23.53	**18.28**	0.067	34.77	-16.49
	16-QAM	793.0	-3.10	1 / 49	22.46	17.21	0.053	34.77	-17.56
	64-QAM	793.0	-3.10	1 / 49	21.55	16.30	0.043	34.77	-18.47
	256-QAM	793.0	-3.10	1 / 0	19.48	14.23	0.026	34.77	-20.54

Table 7-8. ERP Data (LTE Band 14)

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
5 MHz	π/2 BPSK	790.5	-3.10	1 / 12	23.65	18.40	0.069	34.77	-16.37
		793.0	-3.10	1 / 23	23.78	**18.53**	0.071	34.77	-16.24
		795.5	-3.10	1 / 23	23.64	18.39	0.069	34.77	-16.38
	QPSK	790.5	-3.10	1 / 12	23.51	18.26	0.067	34.77	-16.51
		793.0	-3.10	1 / 12	23.62	18.37	0.069	34.77	-16.40
		795.5	-3.10	1 / 12	23.76	**18.51**	0.071	34.77	-16.26
	16-QAM	793.0	-3.10	1 / 23	22.83	17.58	0.057	34.77	-17.19
	64-QAM	795.5	-3.10	1 / 23	21.73	16.48	0.044	34.77	-18.29
	256-QAM	795.5	-3.10	1 / 23	19.61	14.36	0.027	34.77	-20.41
10 MHz	π/2 BPSK	793.0	-3.10	1 / 1	23.59	**18.34**	0.068	34.77	-16.43
	QPSK	793.0	-3.10	1 / 48	23.62	**18.37**	0.069	34.77	-16.40
	16-QAM	793.0	-3.10	1 / 1	22.44	17.19	0.052	34.77	-17.58
	64-QAM	793.0	-3.10	1 / 1	21.52	16.27	0.042	34.77	-18.50
	256-QAM	793.0	-3.10	1 / 48	19.39	14.14	0.026	34.77	-20.63

Table 7-9. ERP Data (NR Band n14)

7.7 Radiated Spurious Emissions

§2.1053 §90(S).691(a) §90(R).543(e)

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in KDB 971168 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized broadband hybrid antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed while the EUT is operating at maximum power and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

ANSI C63.26-2015

TIA-603-E-2016 – Section 2.2.12

Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW ≥ 3 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points ≥ 2 x span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

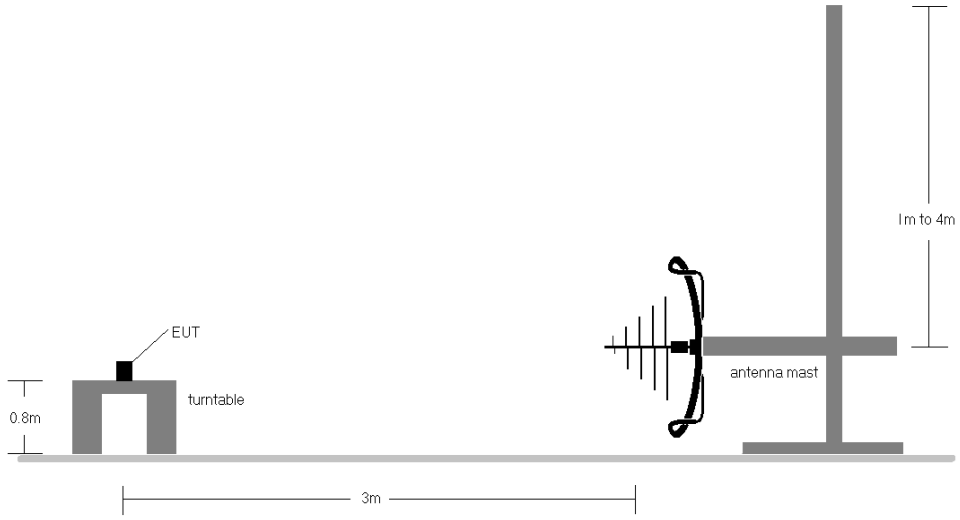


Figure 7-6. Test Instrument & Measurement Setup < 1GHz

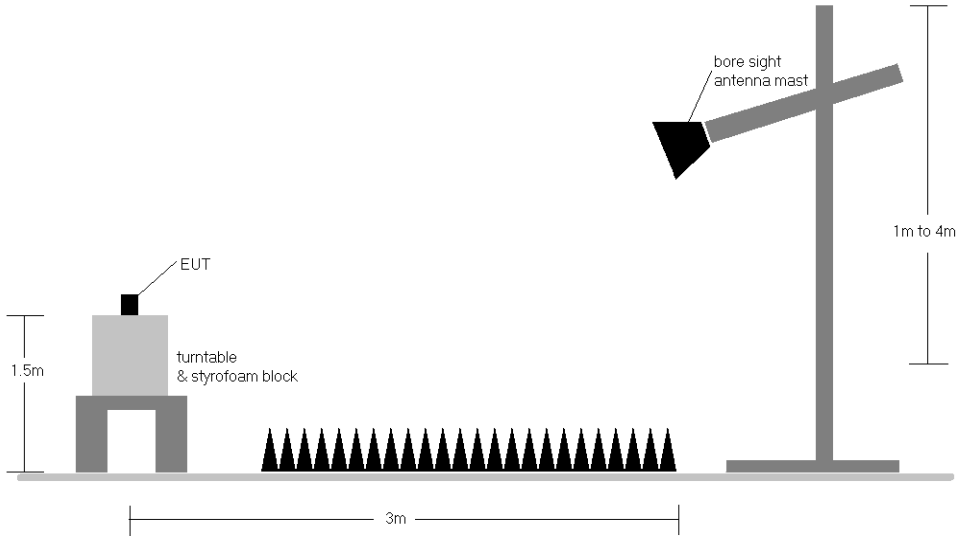


Figure 7-7. Test Instrument & Measurement Setup >1 GHz

Test Notes

1. Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
    a. E(dBµV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m)
    b. EIRP (dBm) = E(dBµV/m) + 20logD – 104.8; where D is the measurement distance in meters.

2. For LTE mode, the device was tested under all modulations, RB sizes and offsets, and channel bandwidth configurations and the worst case emissions are reported with 1 RB.

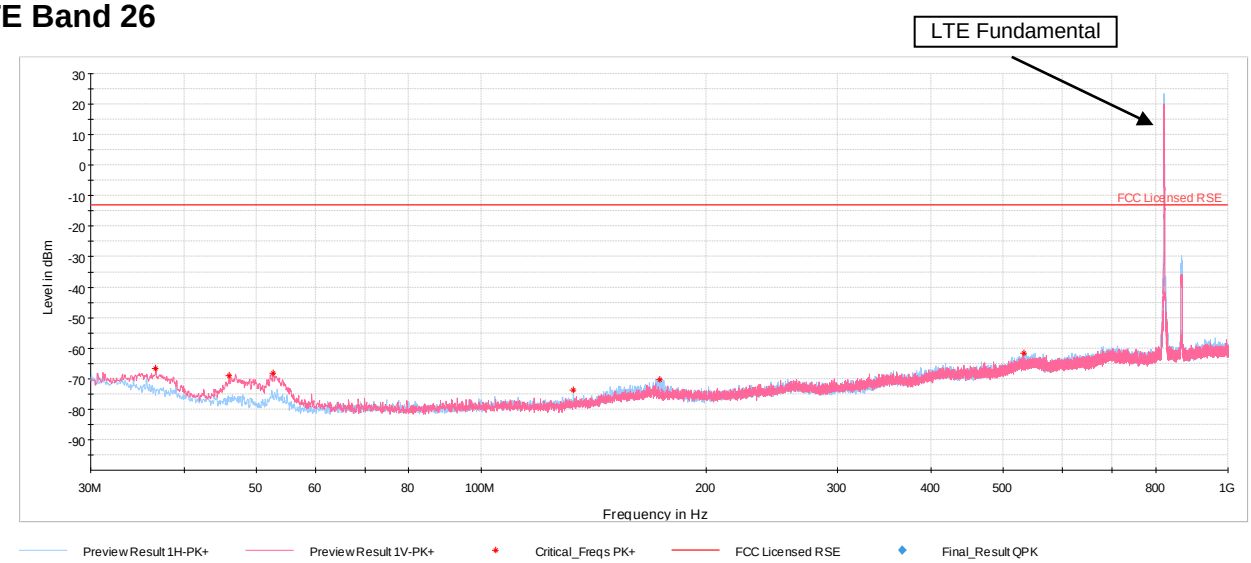
3. This unit was tested with its standard battery.

4. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case setup is reported in the tables below.

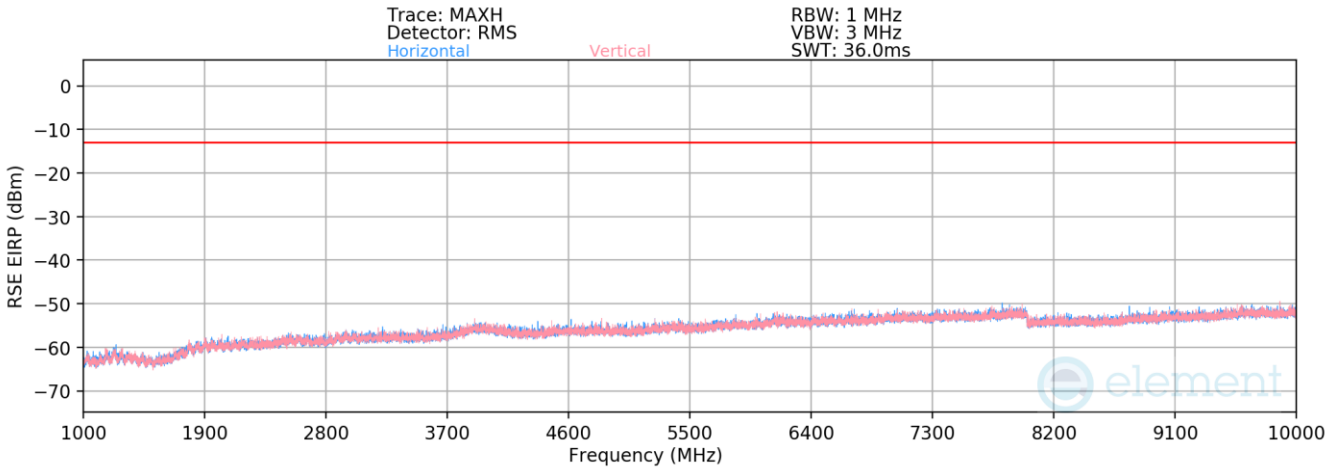
5. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

7.7.1 Antenna 3 – Radiated Spurious Emission Measurements

LTE Band 26



Plot 7-107. Antenna 3 Radiated Spurious Plot below 1GHz (LTE Band 26)



Plot 7-108. Antenna 3 Radiated Spurious Plot above 1GHz (LTE Band 26)

Bandwidth (MHz):	5
Frequency (MHz):	816.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1633.0	H	-	-	-75.22	-4.46	27.32	-67.94	-13.00	-54.94
2449.5	H	-	-	-75.89	-0.06	31.05	-64.21	-13.00	-51.21
3266.0	H	-	-	-76.76	1.69	31.93	-63.33	-13.00	-50.33

Table 7-10. Antenna 3 Radiated Spurious Data (LTE Band 26 – Low Channel)

Bandwidth (MHz):	5
Frequency (MHz):	819.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1638.0	H	-	-	-75.19	-4.44	27.37	-67.88	-13.00	-54.88
2457.0	H	-	-	-75.80	0.03	31.23	-64.03	-13.00	-51.03
3276.0	H	-	-	-76.76	1.82	32.06	-63.20	-13.00	-50.20

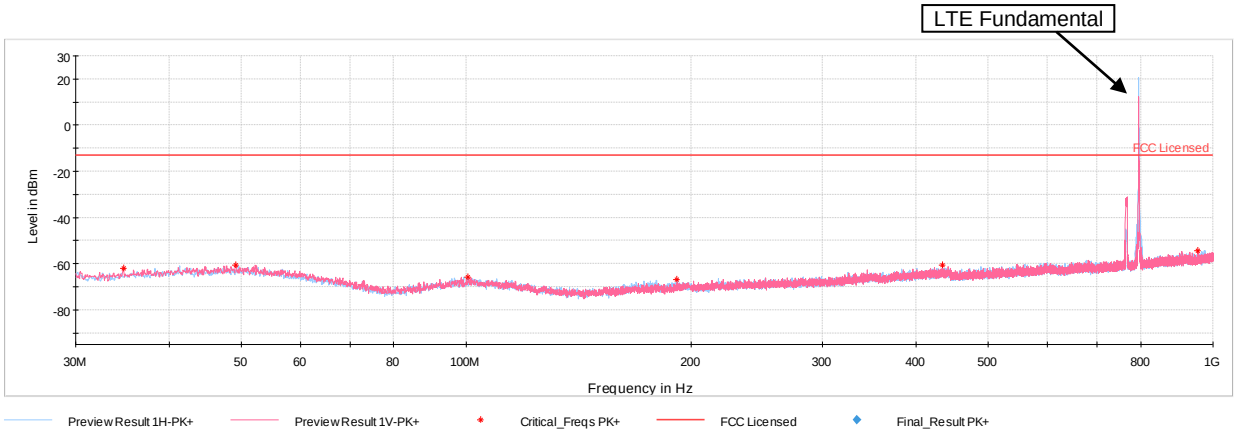
Table 7-11. Antenna 3 Radiated Spurious Data (LTE Band 26 – Mid Channel)

Bandwidth (MHz):	5
Frequency (MHz):	821.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

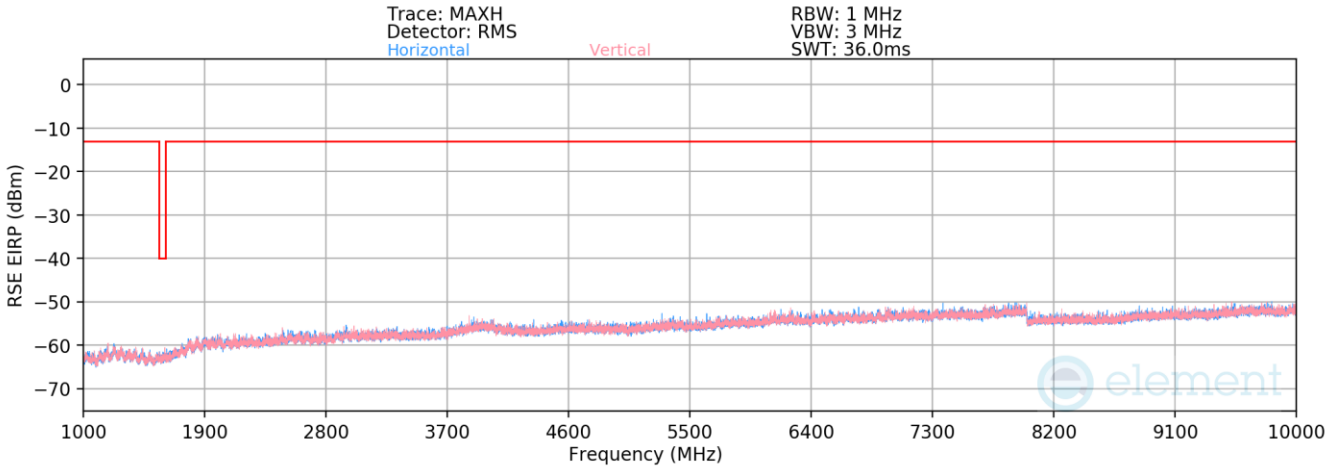
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1643.0	H	-	-	-75.59	-4.41	27.00	-68.26	-13.00	-55.26
2464.5	H	-	-	-75.78	0.10	31.32	-63.93	-13.00	-50.93
3286.0	H	-	-	-76.49	1.94	32.45	-62.80	-13.00	-49.80

Table 7-12. Antenna 3 Radiated Spurious Data (LTE Band 26 – High Channel)

LTE Band 14



Plot 7-109. Antenna 3 Radiated Spurious Plot below 1GHz (LTE Band 14)



Plot 7-110. Antenna 3 Radiated Spurious Plot above 1GHz (LTE Band 14)

Bandwidth (MHz):	5
Frequency (MHz):	790.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1581.0	H	-	-	-75.24	-4.77	26.99	-68.27	-40.00	-28.27
2371.5	H	-	-	-75.72	-0.74	30.54	-64.72	-13.00	-51.72
3162.0	H	-	-	-76.26	1.37	32.11	-63.15	-13.00	-50.15

Table 7-13. Antenna 3 Radiated Spurious Data (LTE Band 14 – Low Channel)

Bandwidth (MHz):	5
Frequency (MHz):	793.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1586.0	H	-	-	-75.30	-4.74	26.96	-68.30	-40.00	-28.30
2379.0	H	-	-	-75.46	-0.74	30.80	-64.46	-13.00	-51.46
3172.0	H	-	-	-76.34	1.36	32.02	-63.23	-13.00	-50.23

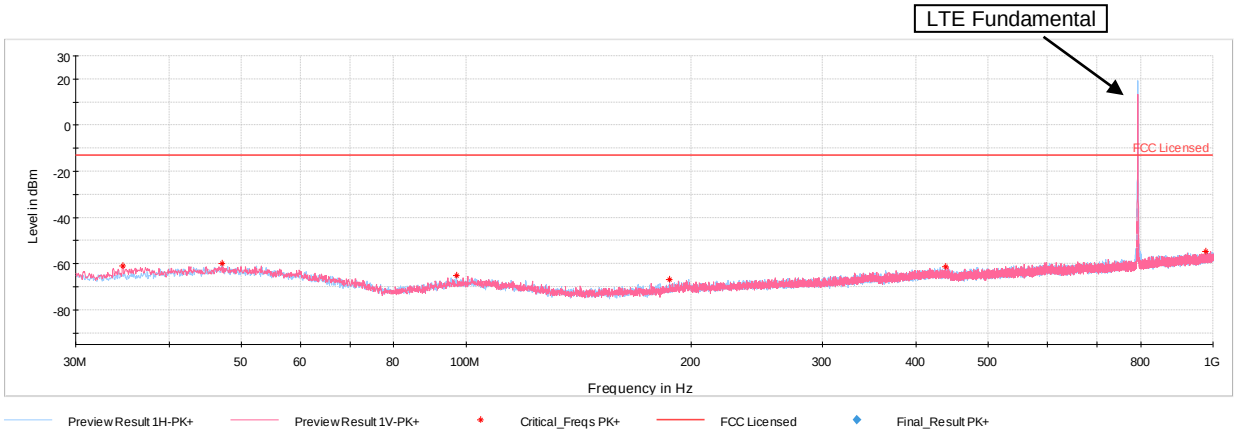
Table 7-14. Antenna 3 Radiated Spurious Data (LTE Band 14 – Mid Channel)

Bandwidth (MHz):	5
Frequency (MHz):	795.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

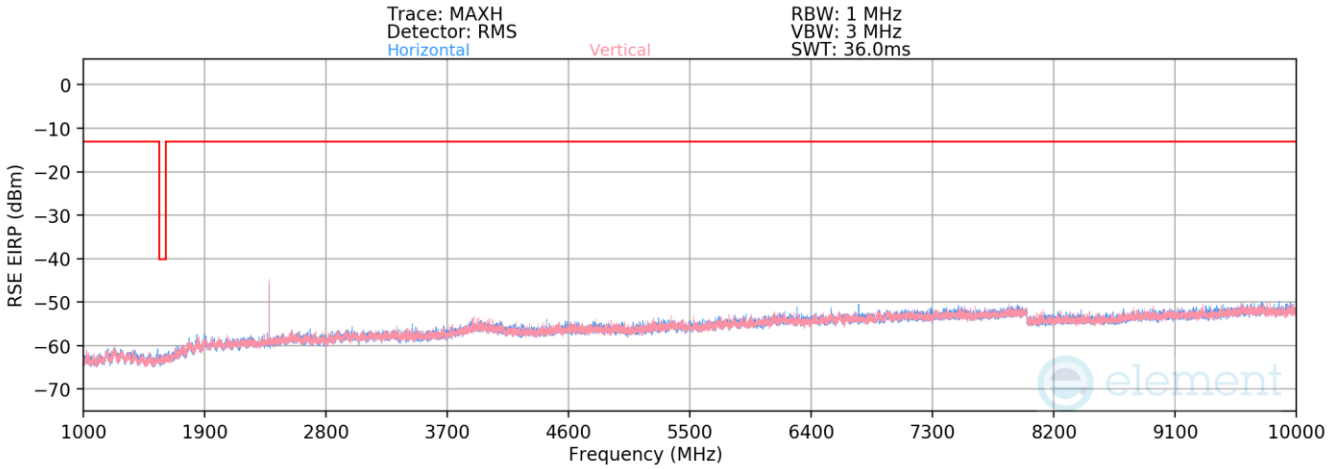
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1591.0	H	-	-	-75.08	-4.72	27.20	-68.05	-40.00	-28.05
2386.5	H	-	-	-75.63	-0.79	30.58	-64.68	-13.00	-51.68
3182.0	H	-	-	-76.14	1.33	32.19	-63.07	-13.00	-50.07

Table 7-15. Antenna 3 Radiated Spurious Data (LTE Band 14 – High Channel)

NR Band n14



Plot 7-111. Antenna 3 Radiated Spurious Plot below 1GHz (NR Band n14)



Plot 7-112. Antenna 3 Radiated Spurious Plot above 1GHz (NR Band n14)

Bandwidth (MHz):	5
Frequency (MHz):	790.5
Modulation Signal:	QPSK
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1581.0	H	241	31	-74.58	-4.77	27.65	-67.61	-13.00	-54.61
2371.5	V	327	99	-60.87	-0.74	45.39	-49.87	-13.00	-36.87
3162.0	V	-	-	-76.41	1.37	31.96	-63.30	-13.00	-50.30
3952.5	V	-	-	-76.97	4.38	34.41	-60.85	-13.00	-47.85
4743.0	V	-	-	-77.34	3.99	33.65	-61.60	-13.00	-48.60

Table 7-16. Antenna 3 Radiated Spurious Data (NR Band n14 – Low Channel)

Bandwidth (MHz):	5
Frequency (MHz):	793.0
Modulation Signal:	QPSK
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1586.0	H	280	34	-74.55	-4.74	27.71	-67.55	-13.00	-54.55
2379.0	V	364	95	-59.83	-0.74	46.43	-48.83	-13.00	-35.83
3172.0	V	-	-	-76.37	1.36	31.99	-63.26	-13.00	-50.26
3965.0	V	-	-	-77.18	4.29	34.11	-61.15	-13.00	-48.15
4758.0	V	-	-	-77.36	3.84	33.48	-61.78	-13.00	-48.78

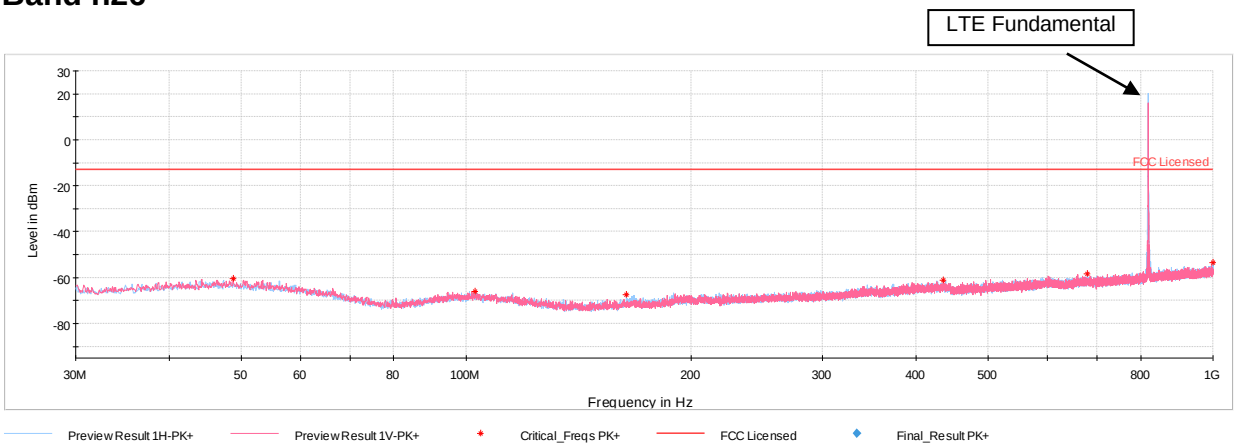
Table 7-17. Antenna 3 Radiated Spurious Data (NR Band n14 – Mid Channel)

Bandwidth (MHz):	5
Frequency (MHz):	795.5
Modulation Signal:	QPSK
RB / Offset:	1 / 12

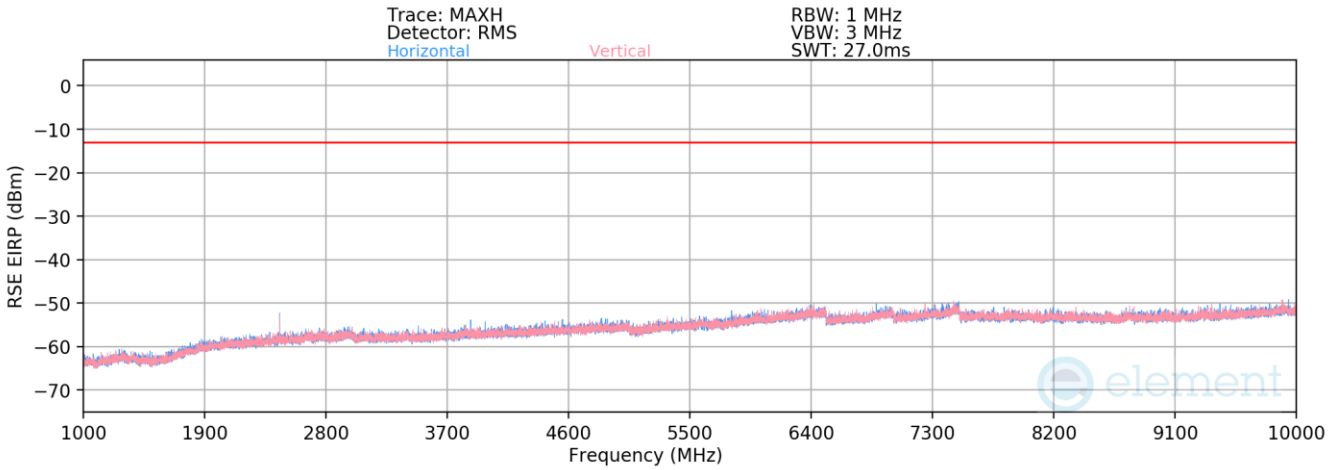
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1591.0	H	236	27	-74.79	-4.72	27.49	-67.76	-13.00	-54.76
2386.5	V	366	93	-59.65	-0.79	46.56	-48.70	-13.00	-35.70
3182.0	V	-	-	-76.12	1.33	32.21	-63.05	-13.00	-50.05
3977.5	V	-	-	-76.83	4.01	34.18	-61.08	-13.00	-48.08
4773.0	V	-	-	-77.45	4.20	33.75	-61.51	-13.00	-48.51

Table 7-18. Antenna 3 Radiated Spurious Data (NR Band n14 – High Channel)

NR Band n26



Plot 7-113. Antenna 3 Radiated Spurious Plot below 1GHz (NR Band n26)



Plot 7-114. Antenna 3 Radiated Spurious Plot above 1GHz (NR Band n26)

Bandwidth (MHz):	5
Frequency (MHz):	816.5
Modulation Signal:	QPSK
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1633.0	H	-	-	-76.75	-4.71	25.54	-69.71	-13.00	-56.71
2449.5	V	319	94	-72.72	0.00	34.28	-60.98	-13.00	-47.98
3266.0	H	-	-	-77.79	1.21	30.42	-64.84	-13.00	-51.84
4082.5	H	-	-	-78.65	2.83	31.18	-64.08	-13.00	-51.08
4899.0	H	-	-	-79.47	4.40	31.93	-63.33	-13.00	-50.33

Table 7-19. Antenna 3 Radiated Spurious Data (NR Band n26 – Low Channel)

Bandwidth (MHz):	10
Frequency (MHz):	819.0
Modulation Signal:	QPSK
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1638.0	H	-	-	-76.77	-4.66	25.57	-69.69	-13.00	-56.69
2457.0	V	361	93	-70.69	-0.03	36.28	-58.98	-13.00	-45.98
3276.0	H	-	-	-77.41	1.24	30.83	-64.43	-13.00	-51.43
4095.0	H	-	-	-78.66	2.69	31.03	-64.22	-13.00	-51.22
4914.0	H	-	-	-79.42	4.43	32.01	-63.25	-13.00	-50.25

Table 7-20. Antenna 3 Radiated Spurious Data (NR Band n26 – Mid Channel)

Bandwidth (MHz):	5
Frequency (MHz):	821.5
Modulation Signal:	QPSK
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1643.0	H	-	-	-76.68	-4.61	25.71	-69.55	-13.00	-56.55
2464.5	V	183	282	-72.61	-0.08	34.31	-60.95	-13.00	-47.95
3286.0	H	-	-	-77.70	1.30	30.60	-64.65	-13.00	-51.65
4107.5	H	-	-	-78.76	2.69	30.93	-64.32	-13.00	-51.32
4929.0	H	-	-	-79.45	4.50	32.05	-63.20	-13.00	-50.20

Table 7-21. Antenna 3 Radiated Spurious Data (NR Band n26 – High Channel)

7.7.2 Antenna 1 – Radiated Spurious Emission Measurements

LTE Band 26

Bandwidth (MHz):	5
Frequency (MHz):	816.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1633.0	H	-	-	-75.38	-4.46	27.16	-68.10	-13.00	-55.10
2449.5	H	-	-	-75.74	-0.06	31.20	-64.06	-13.00	-51.06
3266.0	H	-	-	-76.50	1.69	32.19	-63.07	-13.00	-50.07

Table 7-22. Antenna 1 Radiated Spurious Data (LTE Band 26 – Low Channel)

Bandwidth (MHz):	5
Frequency (MHz):	819.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1638.0	H	-	-	-75.34	-4.44	27.22	-68.03	-13.00	-55.03
2457.0	H	-	-	-75.92	0.03	31.11	-64.15	-13.00	-51.15
3276.0	H	-	-	-76.75	1.82	32.07	-63.19	-13.00	-50.19

Table 7-23. Antenna 1 Radiated Spurious Data (LTE Band 26 – Mid Channel)

Bandwidth (MHz):	5
Frequency (MHz):	821.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1643.0	H	-	-	-75.53	-4.41	27.06	-68.20	-13.00	-55.20
2464.5	H	-	-	-75.85	0.10	31.25	-64.00	-13.00	-51.00
3286.0	H	-	-	-76.75	1.94	32.19	-63.06	-13.00	-50.06

Table 7-24. Antenna 1 Radiated Spurious Data (LTE Band 26 – High Channel)

LTE Band 14

Bandwidth (MHz):	5
Frequency (MHz):	790.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1581.0	H	-	-	-75.34	-4.77	26.89	-68.37	-40.00	-28.37
2371.5	H	-	-	-75.57	-0.74	30.69	-64.57	-13.00	-51.57
3162.0	H	-	-	-76.14	1.37	32.23	-63.03	-13.00	-50.03

Table 7-25. Antenna 1 Radiated Spurious Data (LTE Band 14 – Low Channel)

Bandwidth (MHz):	5
Frequency (MHz):	793.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1586.0	H	-	-	-75.38	-4.74	26.88	-68.38	-40.00	-28.38
2379.0	H	-	-	-75.52	-0.74	30.74	-64.52	-13.00	-51.52
3172.0	H	-	-	-76.24	1.36	32.12	-63.13	-13.00	-50.13

Table 7-26. Antenna 1 Radiated Spurious Data (LTE Band 14 – Mid Channel)

Bandwidth (MHz):	5
Frequency (MHz):	795.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1591.0	H	-	-	-75.33	-4.72	26.95	-68.30	-40.00	-28.30
2386.5	H	-	-	-75.53	-0.79	30.68	-64.58	-13.00	-51.58
3182.0	H	-	-	-76.33	1.33	32.00	-63.26	-13.00	-50.26

Table 7-27. Antenna 1 Radiated Spurious Data (LTE Band 14 – High Channel)

NR Band n14

Bandwidth (MHz):	5
Frequency (MHz):	790.5
Modulation Signal:	QPSK
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1581.0	H	128	49	-74.72	-4.77	27.51	-67.75	-13.00	-54.75
2371.5	H	-	-	-75.46	-0.74	30.80	-64.46	-13.00	-51.46
3162.0	H	-	-	-76.21	1.37	32.16	-63.10	-13.00	-50.10
3952.5	H	-	-	-77.08	4.38	34.30	-60.96	-13.00	-47.96

Table 7-28. Antenna 1 Radiated Spurious Data (NR Band n14 – Low Channel)

Bandwidth (MHz):	5
Frequency (MHz):	793.0
Modulation Signal:	QPSK
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1586.0	H	133	46	-74.72	-4.74	27.54	-67.72	-13.00	-54.72
2379.0	H	-	-	-75.65	-0.74	30.61	-64.65	-13.00	-51.65
3172.0	H	-	-	-76.18	1.36	32.18	-63.07	-13.00	-50.07
3965.0	H	-	-	-76.87	4.29	34.42	-60.84	-13.00	-47.84

Table 7-29. Antenna 1 Radiated Spurious Data (NR Band n14 – Mid Channel)

Bandwidth (MHz):	5
Frequency (MHz):	795.5
Modulation Signal:	QPSK
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1591.0	H	170	41	-74.64	-4.72	27.64	-67.61	-13.00	-54.61
2386.5	H	-	-	-75.51	-0.79	30.70	-64.56	-13.00	-51.56
3182.0	H	-	-	-76.34	1.33	31.99	-63.27	-13.00	-50.27
3977.5	H	-	-	-79.96	4.01	31.05	-64.21	-13.00	-51.21

Table 7-30. Antenna 1 Radiated Spurious Data (NR Band n14 –High Channel)

NR Band n26

Bandwidth (MHz):	5
Frequency (MHz):	816.5
Modulation Signal:	QPSK
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1633.0	H	-	-	-76.69	-4.71	25.60	-69.65	-13.00	-56.65
2449.5	H	-	-	-77.46	0.00	29.54	-65.72	-13.00	-52.72
3266.0	H	-	-	-77.72	1.21	30.49	-64.77	-13.00	-51.77

Table 7-31. Antenna 1 Radiated Spurious Data (NR Band n26 – Low Channel)

Bandwidth (MHz):	10
Frequency (MHz):	819.0
Modulation Signal:	QPSK
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1638.0	H	-	-	-76.65	-4.66	25.69	-69.57	-13.00	-56.57
2457.0	H	-	-	-77.43	-0.03	29.54	-65.72	-13.00	-52.72
3276.0	H	-	-	-77.76	1.24	30.48	-64.78	-13.00	-51.78

Table 7-32. Antenna 1 Radiated Spurious Data (NR Band n26 – Mid Channel)

Bandwidth (MHz):	5
Frequency (MHz):	821.5
Modulation Signal:	QPSK
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1643.0	H	-	-	-76.73	-4.61	25.66	-69.60	-13.00	-56.60
2464.5	H	-	-	-77.29	-0.08	29.63	-65.63	-13.00	-52.63
3286.0	H	-	-	-77.75	1.30	30.55	-64.70	-13.00	-51.70

Table 7-33. Antenna 1 Radiated Spurious Data (NR Band n26 – High Channel)

7.8 Frequency Stability / Temperature Variation

§2.1055 §90.213

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015 and TIA-603-E-2016. 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 Band 26, the frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5 ppm) of the center frequency. For Band 14 the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure Used

ANSI C63.26-2015

TIA-603-E-2016

Test Settings

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.

Test Setup

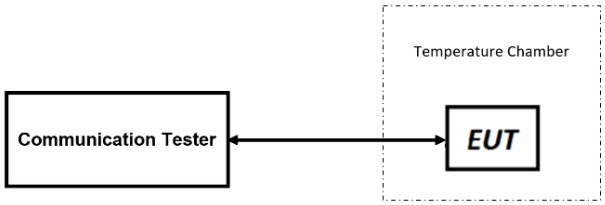


Figure 7-8. Test Instrument & Measurement Setup

Test Notes

All ports were tested and only the worst case data were reported.

Frequency Stability / Temperature Variation

LTE Band 26

Operating Frequency (Hz):	819,000,000
Ref. Voltage (VDC):	3.80
Deviation Limit:	± 0.00025% or 2.5 ppm

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	819,000,005	4	0.0000005
		- 20	819,000,003	2	0.0000002
		- 10	818,999,998	-3	-0.0000004
		0	818,999,998	-3	-0.0000004
		+ 10	819,000,000	-1	-0.0000001
		+ 20 (Ref)	819,000,001	1	0.0000001
		+ 30	818,999,999	-2	-0.0000002
		+ 40	818,999,999	-2	-0.0000002
		+ 50	818,999,998	-3	-0.0000004
Battery Endpoint	3.23	+ 20	818,999,998	-3	-0.0000004

Table 7-34. LTE Band 26 Frequency Stability Data

LTE Band 14

Low Channel Frequency (Hz):	790,500,000
High Channel Frequency (Hz):	795,500,000
Ref. Voltage (VDC):	3.80

Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	790,499,996	795,500,000	-1	1	-0.0000001
		- 20	790,499,995	795,500,000	-2	1	-0.0000003
		- 10	790,499,994	795,499,997	-3	-2	-0.0000004
		0	790,499,996	795,500,000	-1	1	-0.0000001
		+ 10	790,499,994	795,499,998	-3	-1	-0.0000004
		+ 20 (Ref)	790,499,997	795,499,999	-3	-1	-0.0000004
		+ 30	790,499,997	795,499,996	0	-3	-0.0000004
		+ 40	790,499,996	795,500,001	-1	2	0.0000003
		+ 50	790,499,996	795,499,998	-1	-1	-0.0000001
Battery Endpoint	3.23	+ 20	790,499,998	795,499,997	1	-2	-0.0000003

Table 7-35. LTE Band 14 Frequency Stability Data

NR Band n14

Low Channel Frequency (Hz):	790,500,000
High Channel Frequency (Hz):	795,500,000
Ref. Voltage (VDC):	3.80

Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	790,499,656	795,499,740	-168	-128	-0.0000213
		- 20	790,499,671	795,499,737	-153	-131	-0.0000194
		- 10	790,499,719	795,499,724	-105	-144	-0.0000181
		0	790,499,635	795,499,706	-189	-162	-0.0000239
		+ 10	790,499,720	795,499,690	-104	-178	-0.0000224
		+ 20 (Ref)	790,499,824	795,499,868	-176	-132	-0.0000223
		'+ 30	790,499,718	795,499,710	-106	-158	-0.0000199
		+ 40	790,499,686	795,499,697	-138	-171	-0.0000215
		+ 50	790,499,669	795,499,719	-155	-149	-0.0000196
Battery Endpoint	3.23	+ 20	790,499,652	795,500,031	-172	163	-0.0000218

Table 7-36. NR Band n14 Frequency Stability Data

NR Band 26

Operating Frequency (Hz):	819,000,000
Ref. Voltage (VDC):	3.80
Deviation Limit:	± 0.00025% or 2.5 ppm

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	818,999,710	-139	-0.0000170
		- 20	818,999,661	-188	-0.0000230
		- 10	818,999,706	-143	-0.0000175
		0	818,999,674	-175	-0.0000214
		+ 10	818,999,682	-167	-0.0000204
		+ 20 (Ref)	818,999,849	-151	-0.0000184
		+ 30	818,999,696	-153	-0.0000187
		+ 40	818,999,688	-161	-0.0000197
		+ 50	818,999,670	-179	-0.0000219
Battery Endpoint	3.23	+ 20	818,999,709	-140	-0.0000171

Table 7-37. NR Band n26 Frequency Stability Data

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Apple Tablet Device FCC ID: BCGA2764** complies with all the requirements of Part 90 of the FCC rules.