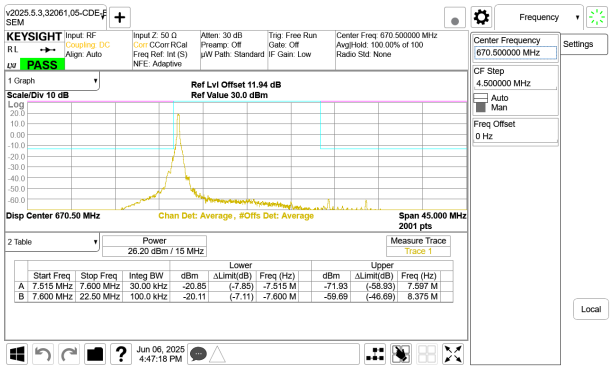
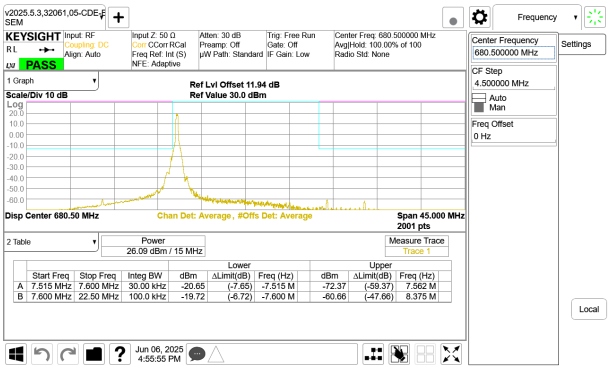
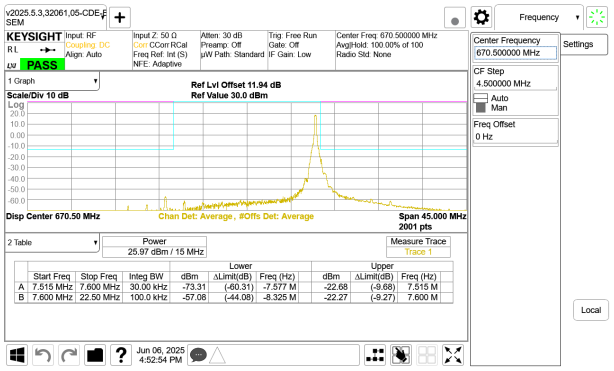


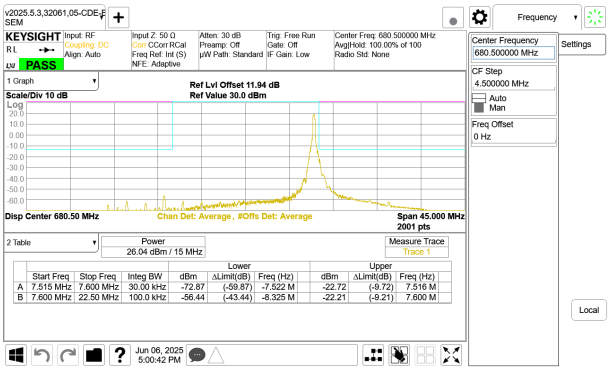
5G NR n71 15MHz BPSK Low Channel RB1-0



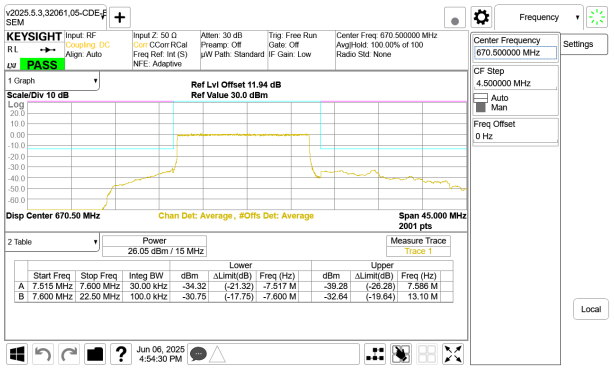
5G NR n71 15MHz BPSK Middle Channel RB1-0



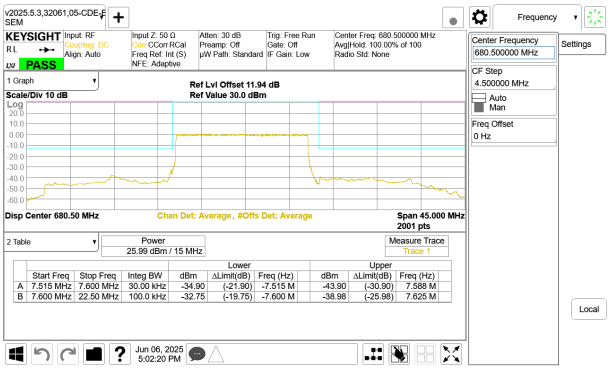
5G NR n71 15MHz BPSK Low Channel RB1-78



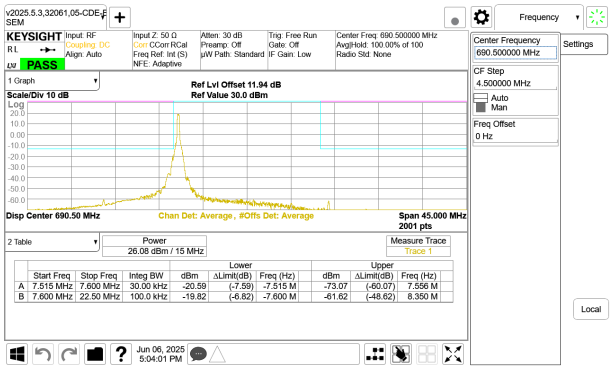
5G NR n71 15MHz BPSK Middle Channel RB1-78



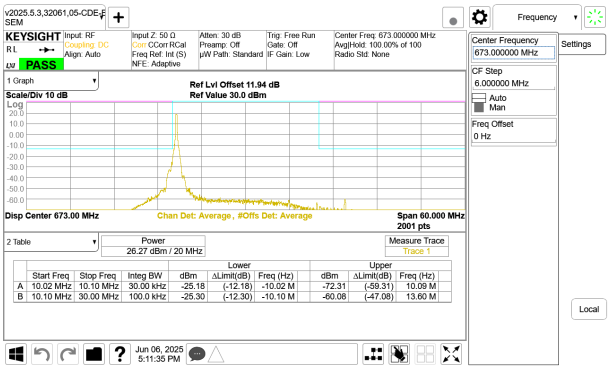
5G NR n71 15MHz BPSK Low Channel RB75-0



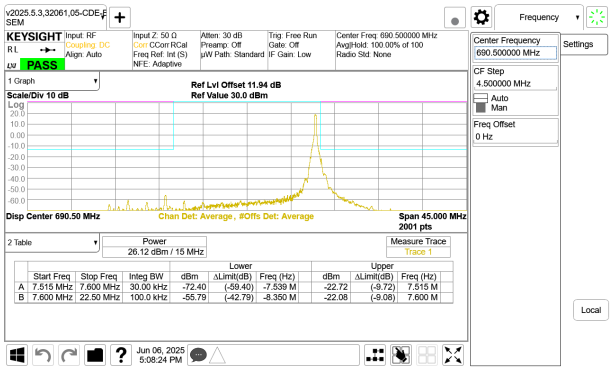
5G NR n71 15MHz BPSK Middle Channel RB75-0



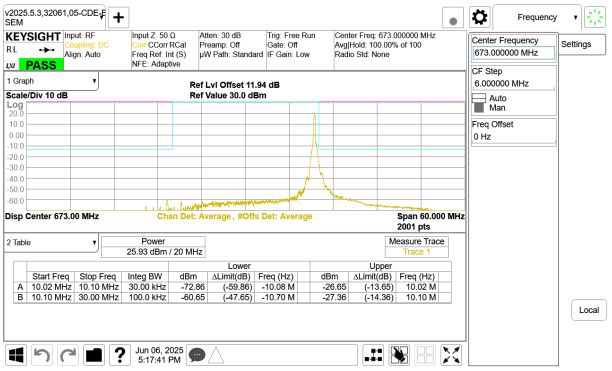
5G NR n71 15MHz BPSK High Channel RB1-0



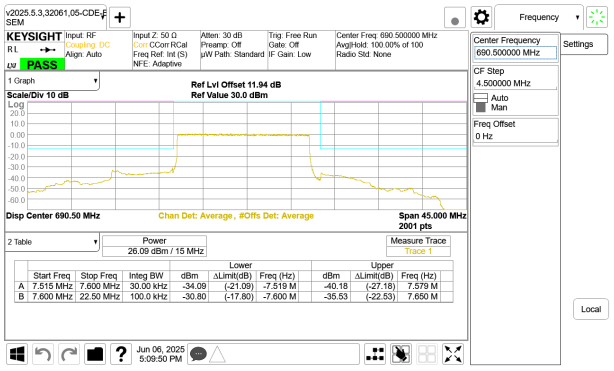
5G NR n71 20MHz BPSK Low Channel RB1-0



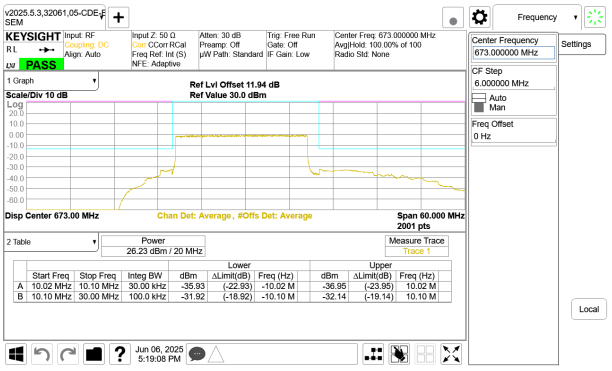
5G NR n71 15MHz BPSK High Channel RB1-78



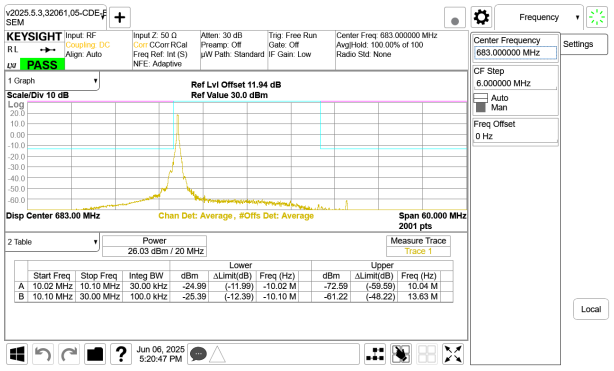
5G NR n71 20MHz BPSK Low Channel RB1-105



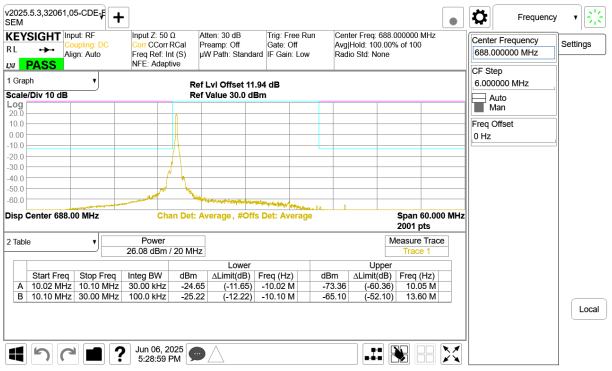
5G NR n71 15MHz BPSK High Channel RB75-0



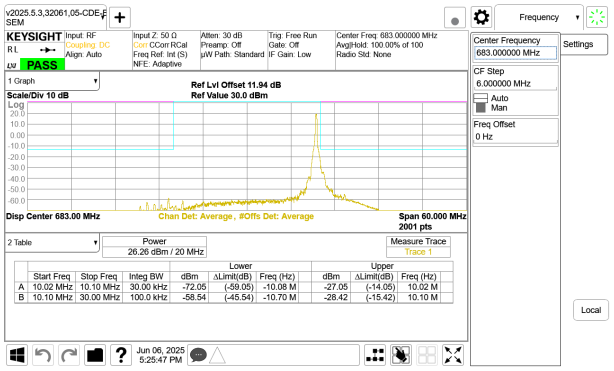
5G NR n71 20MHz BPSK Low Channel RB100-0



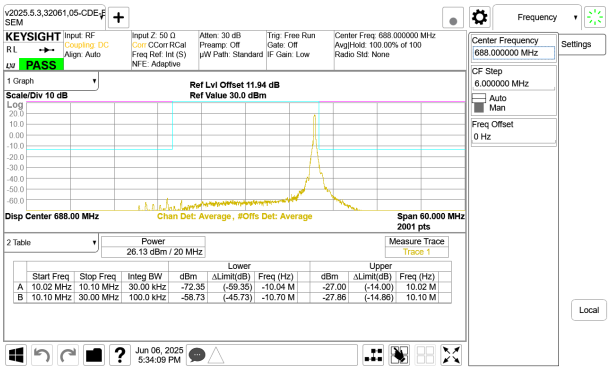
5G NR n71 20MHz BPSK Middle Channel RB1-0



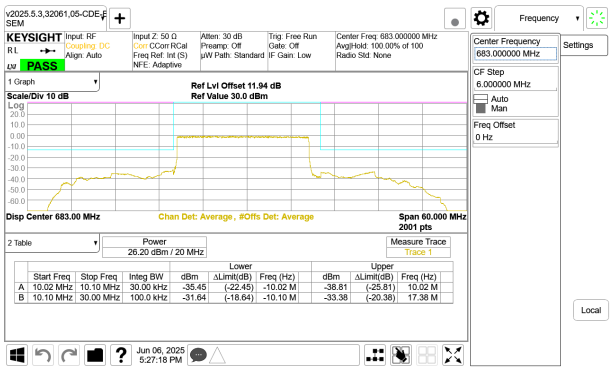
5G NR n71 20MHz BPSK High Channel RB1-0



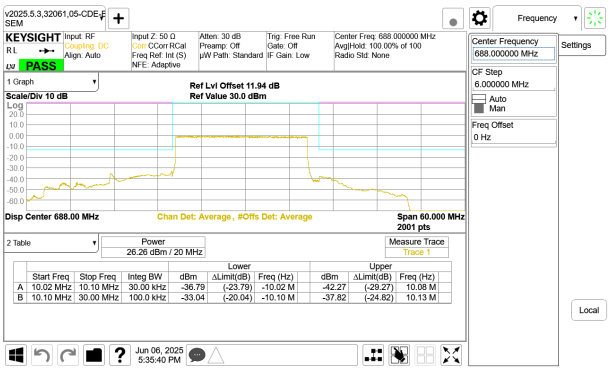
5G NR n71 20MHz BPSK Middle Channel RB1-105



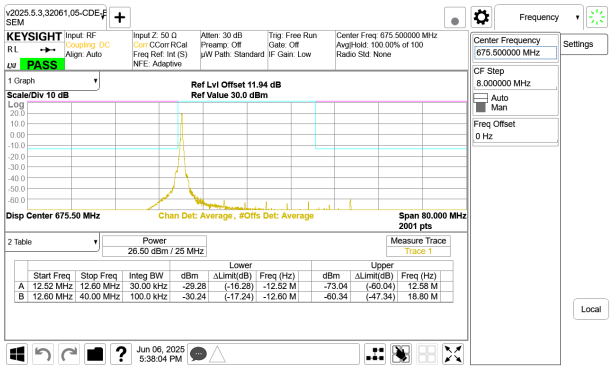
5G NR n71 20MHz BPSK High Channel RB1-105



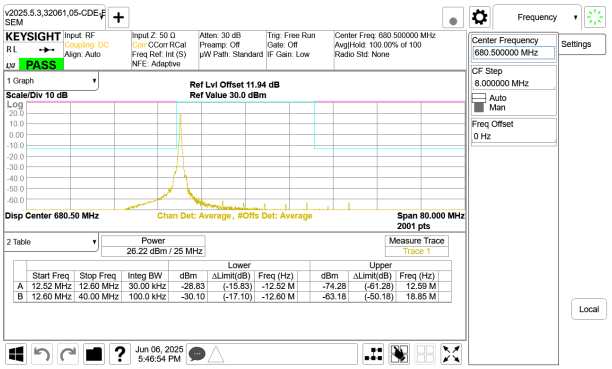
5G NR n71 20MHz BPSK Middle Channel RB100-0



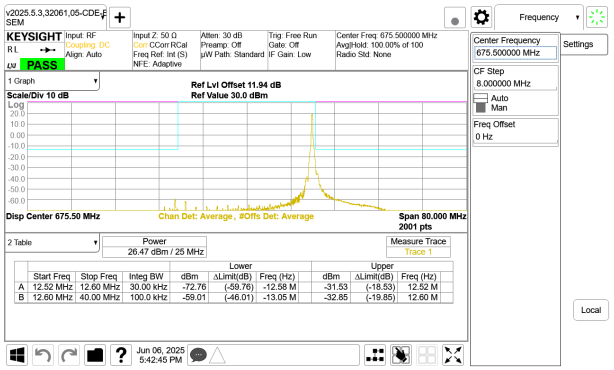
5G NR n71 20MHz BPSK High Channel RB100-0



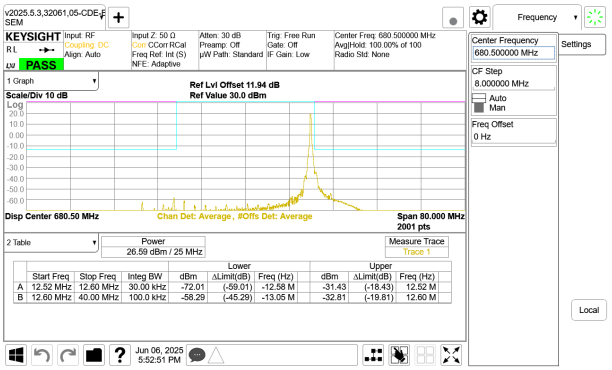
5G NR n71 25MHz BPSK Low Channel RB1-0



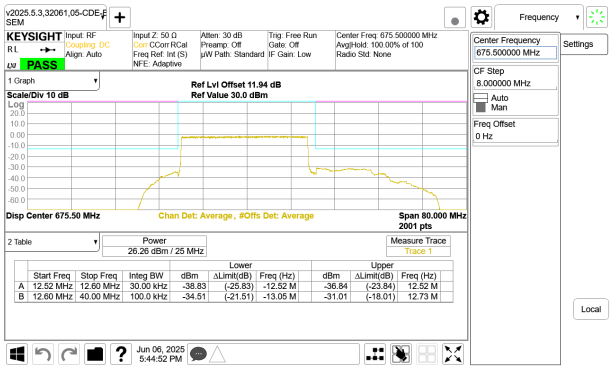
5G NR n71 25MHz BPSK Mid Channel RB1-0



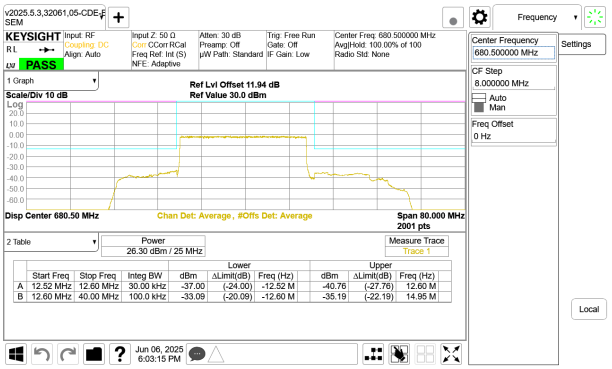
5G NR n71 25MHz BPSK Low Channel RB1-132



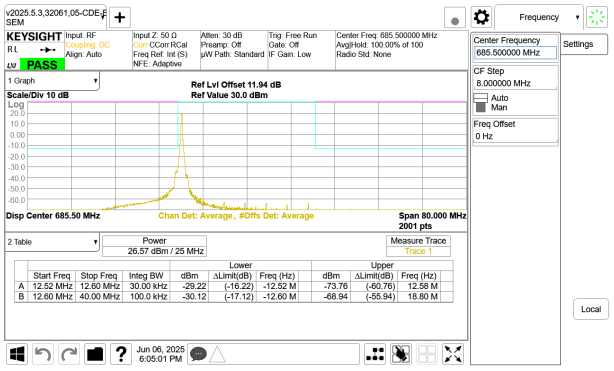
5G NR n71 25MHz BPSK Mid Channel RB1-132



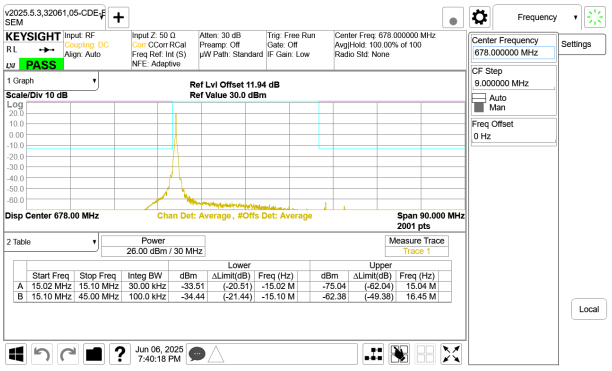
5G NR n71 25MHz BPSK Low Channel RB128-0



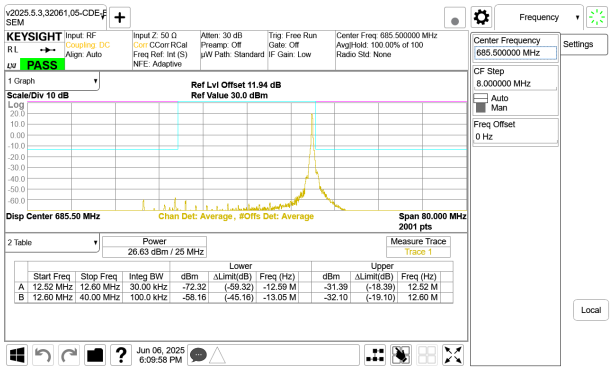
5G NR n71 25MHz BPSK Mid Channel RB128-0



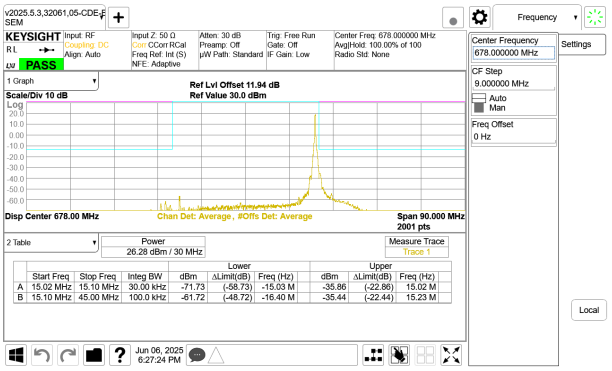
5G NR n71 25MHz BPSK High Channel RB1-0



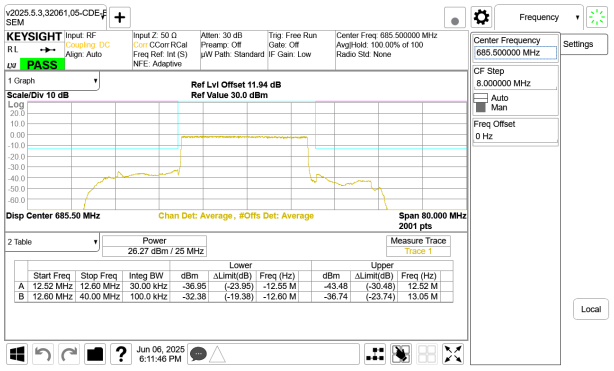
5G NR n71 30MHz BPSK Low Channel RB1-0



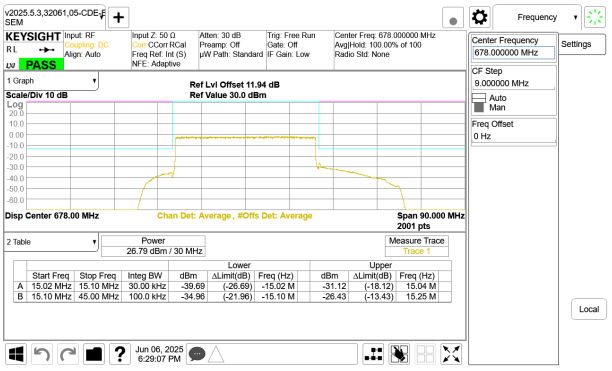
5G NR n71 25MHz BPSK High Channel RB1-132



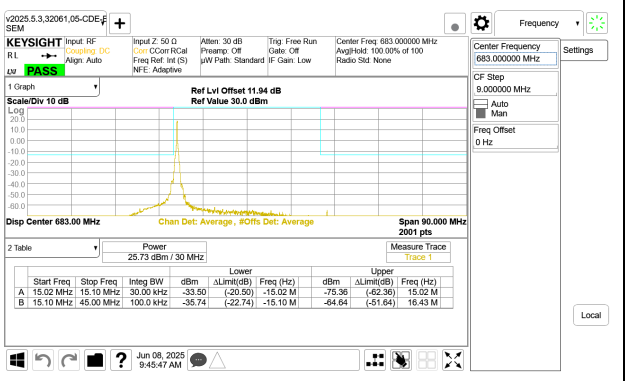
5G NR n71 30MHz BPSK Low Channel RB1-159



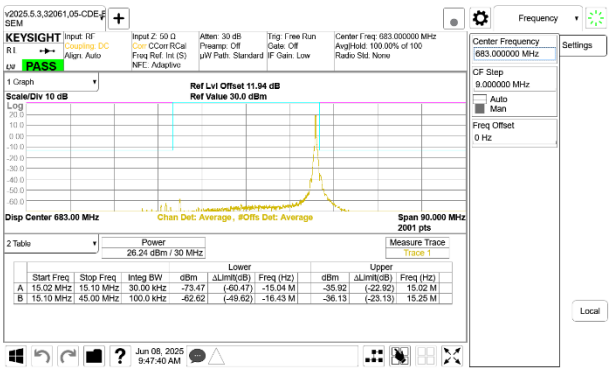
5G NR n71 25MHz BPSK High Channel RB128-0



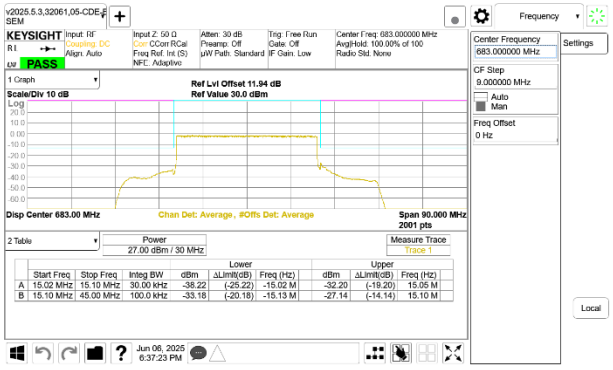
5G NR n71 30MHz BPSK Low Channel RB160-0



5G NR n71 30MHz BPSK High Channel RB1-0



5G NR n71 30MHz BPSK High Channel RB1-159



5G NR n71 30MHz BPSK High Channel RB160-0

Intentionally Blank

9.3. OUT OF BAND EMISSIONS

LIMITS (BAND 12, 17, 71)

FCC: §27.53 (g)
The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts.

ISED: RSS130§4.7

The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts.

LIMITS (BAND 13)

FCC: §27.53 (c), (f)
The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts. The band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.
Note: Radiated data in section 10.1.3 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40dBm/MHz limit was used.

ISED: RSS130§4.7

The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts.

4.7.1 General unwanted emissions limits

The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least 43 + 10 $\log_{10}$ p (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

4.7.2 Additional unwanted emissions limits

In addition to the limit outlined in section 4.7.1 above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

(a) the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:
    i. 76 + 10 $\log_{10}$ p (watts), dB, for base and fixed equipment and
    ii. 65 + 10 $\log_{10}$ p (watts), dB, for mobile and portable equipment

(b) the e.i.r.p. in the band 1559-1610 MHz shall not exceed −70 dBW/MHz for wideband signal and −80 dBW for discrete emission with bandwidth less than 700 Hz.

Note: Radiated data in section 10.1.3 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40dBm/MHz limit was used.

TEST PROCEDURE

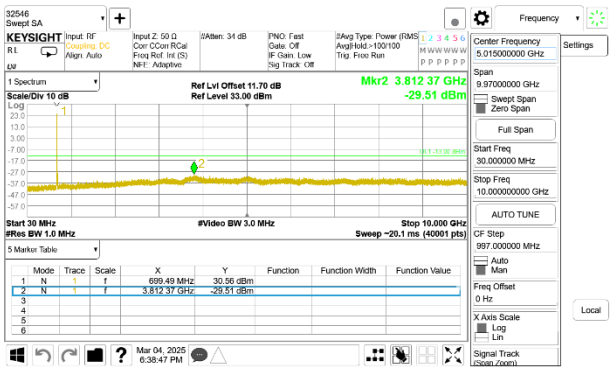
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement:

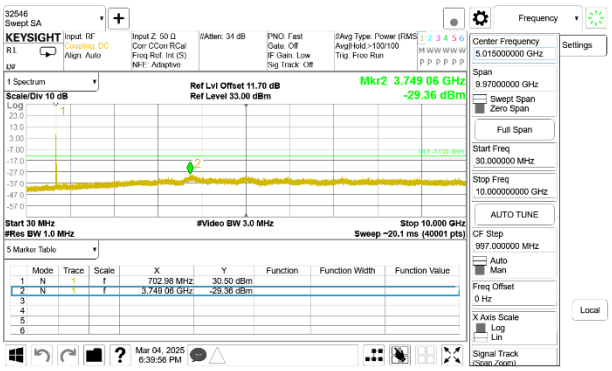
- Set display line at -13 dBm, -25dBm and -40dBm according to the band Limit
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz. (NOTE: Worst case set RBW/VBW to 1MHz/3MHz

RESULTS

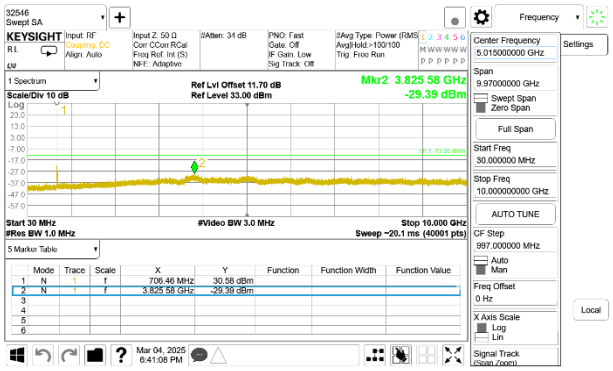
9.3.1. LTE BAND 12



LTE B12 10MHz QPSK Low Channel RB1-0



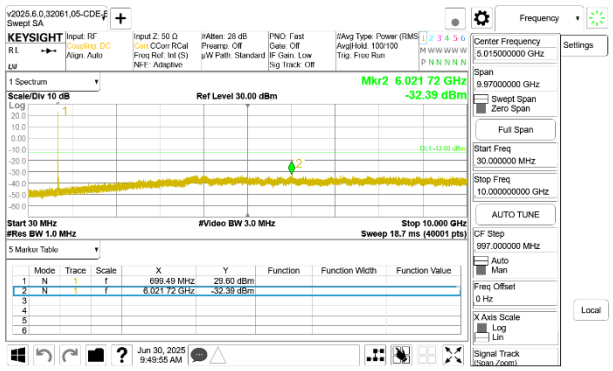
LTE B12 10MHz QPSK Middle Channel RB1-0



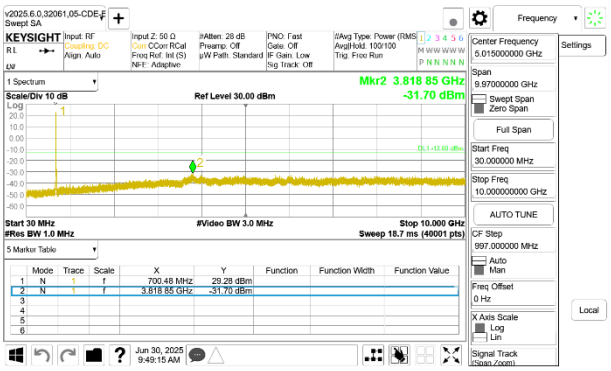
LTE B12 10MHz QPSK High Channel RB1-0

Intentionally Blank

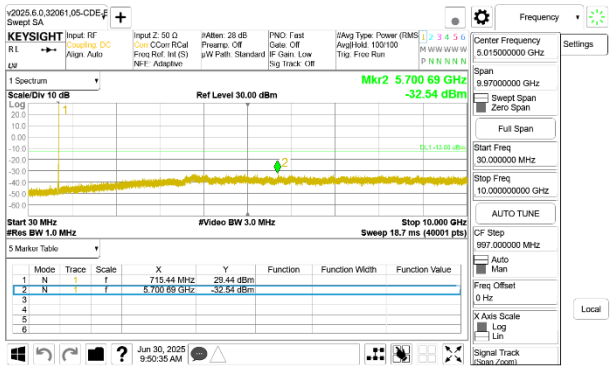
9.3.2. 5G NR n12



5G NR n12 15MHz BPSK Low Channel RB1-0



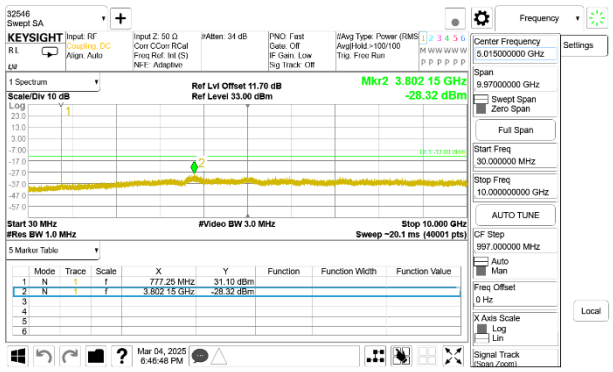
5G NR n12 15MHz BPSK Middle Channel RB1-1



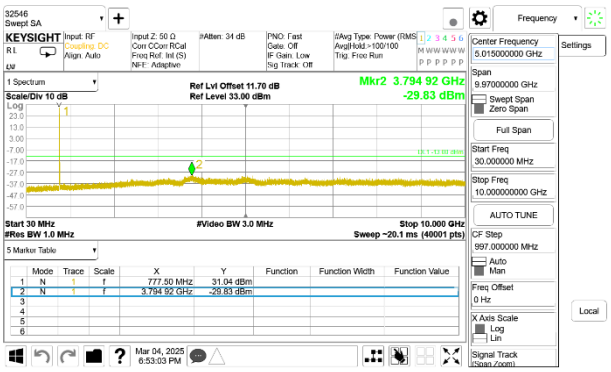
5G NR n12 15MHz BPSK High Channel RB1-78

Intentionally Blank

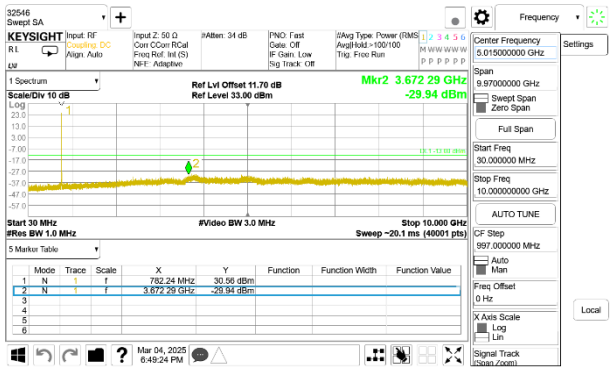
9.3.3. LTE BAND 13



LTE B13 10MHz QPSK Low Channel RB1-0



LTE B13 10MHz QPSK Middle Channel RB1-0

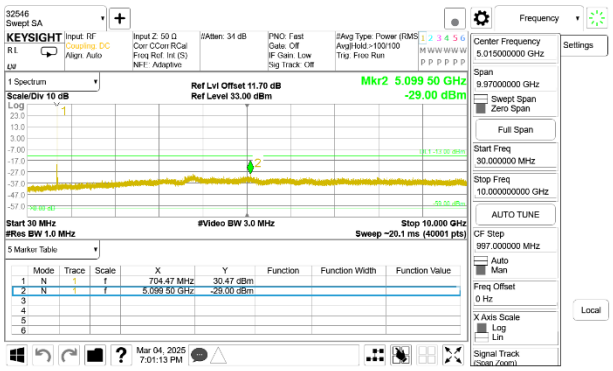


LTE B13 10MHz QPSK High Channel RB1-0

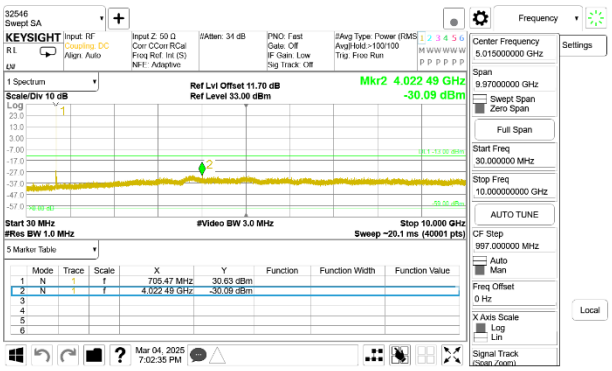
Intentionally Blank

Note: Radiated data in section 10.1.3 confirms compliance with narrowband limits for GPS1559-1610 MHz band.

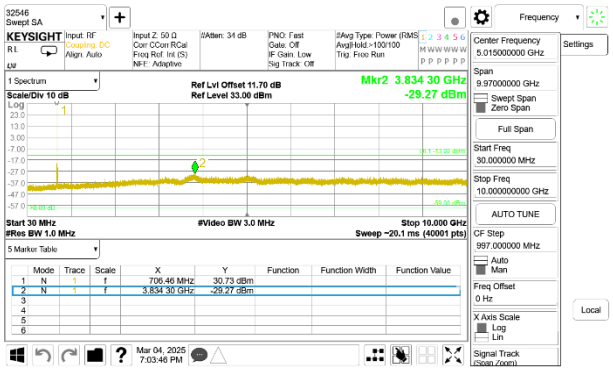
9.3.4. LTE BAND 17



LTE B17 10MHz QPSK Low Channel RB1-0



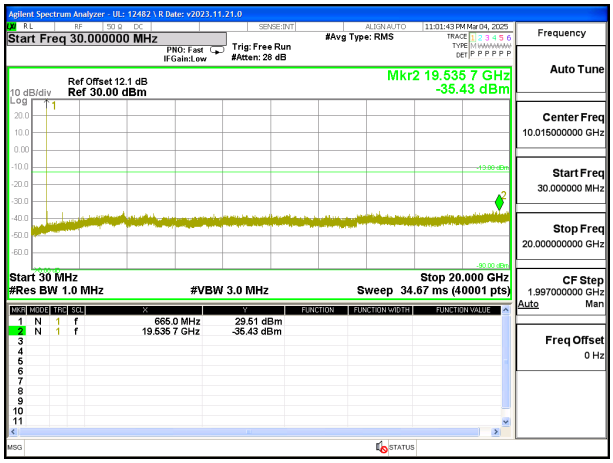
LTE B17 10MHz QPSK Middle Channel RB1-0



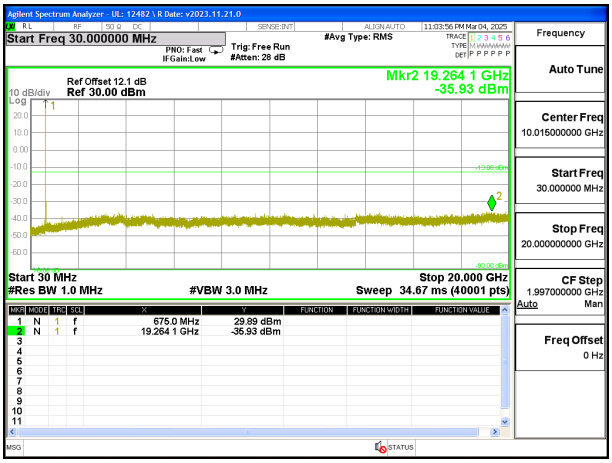
LTE B17 10MHz QPSK High Channel RB1-0

Intentionally Blank

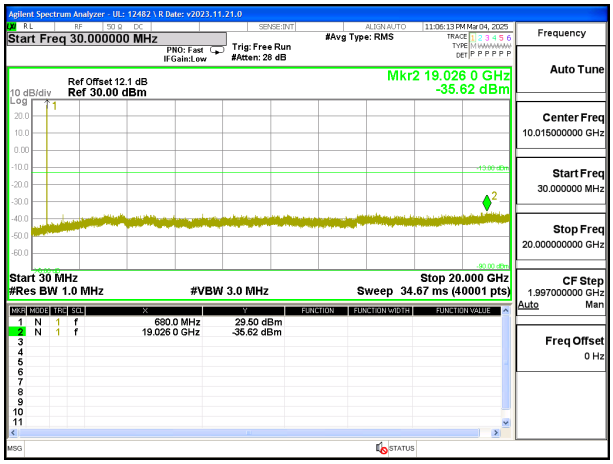
9.3.5. LTE BAND 71



LTE B71 20MHz QPSK Low Channel RB1-0



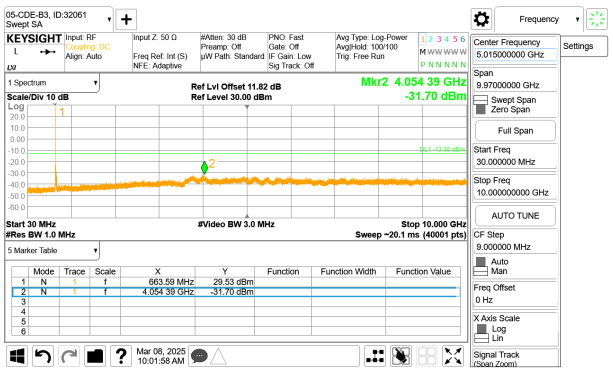
LTE B71 20MHz QPSK Middle Channel RB1-0



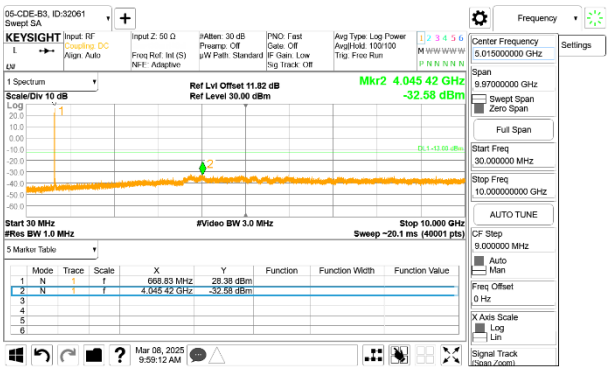
LTE B71 20MHz QPSK High Channel RB1-0

Intentionally Blank

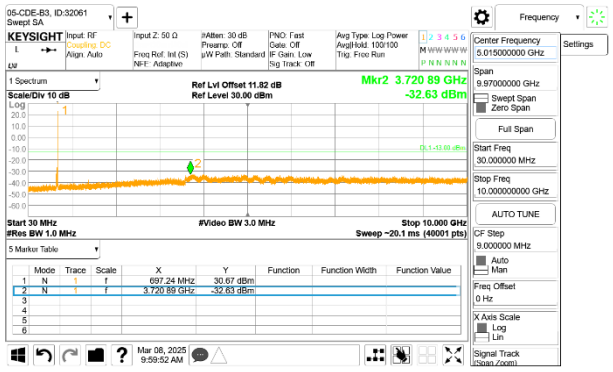
9.3.6. 5G NR n71



5G NR n71 30MHz BPSK Middle Channel RB1-0



5G NR n71 30MHz BPSK Middle Channel RB1-1



5G NR n71 30MHz BPSK Middle Channel RB1-159

Intentionally Blank

9.4. FREQUENCY STABILITY

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

ISED: RSS130§4.5
For equipment that is capable of transmitting numerous channels simultaneously for different applications (e.g. LTE and narrowband – Internet of Things (IoT)), the occupied bandwidth shall be the bandwidth representing the sum of the occupied bandwidths of these channels.

The frequency stability shall be sufficient to ensure that the occupied bandwidth remains within each frequency block range when tested at the temperature and supply voltage variations specified in RSS-Gen.

TEST PROCEDURE

Use base station simulator with Frequency Error measurement capability.

- Temp. = −30°C to +50°C
- Voltage = (85% - 115%)

  Low voltage, 3.23VDC, Normal, 3.8VDC and High voltage, 4.37VDC.
  End Voltage, 3.2VDC.

Frequency Stability vs Temperature:
The EUT is place inside a temperature chamber. The temperature is set to 20ºC and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until +50ºC is reached.

Frequency Stability vs Voltage:
The peak frequency error is recorded (worst-case).

RESULTS

See the following pages.

9.4.1. LTE BAND 12 (QPSK 10MHz BANDWIDTH)

Test Engineer ID:	32546	Test Date:	2025-03-04

Band	12	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		699	716			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	699.5300	715.4703			
Extreme (50°C)		699.5300	715.4703	4.0	0.006	Yes
Extreme (40°C)		699.5300	715.4703	4.2	0.006	Yes
Extreme (30°C)		699.5300	715.4703	4.7	0.007	Yes
Extreme (10°C)		699.5300	715.4703	5.5	0.008	Yes
Extreme (0°C)		699.5300	715.4703	5.5	0.008	Yes
Extreme (-10°C)		699.5300	715.4703	5.9	0.008	Yes
Extreme (-20°C)		699.5300	715.4703	6.4	0.009	Yes
Extreme (-30°C)		699.5300	715.4703	6.7	0.009	Yes
20°C	15%	699.5300	715.4703	4.4	0.006	Yes
	-15%	699.5300	715.4703	5.2	0.007	Yes
	End Point Voltage	699.5300	715.4703	-7.5	-0.011	Yes

9.4.2. 5G NR n12 (BPSK 15MHz BANDWIDTH)

Test Engineer ID:	32546	Test Date:	2025-03-04

Band	12	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		699	716			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	699.4282	714.8313			
Extreme (50°C)		699.4282	714.8313	3.2	0.005	Yes
Extreme (40°C)		699.4282	714.8313	3.1	0.004	Yes
Extreme (30°C)		699.4282	714.8313	3.5	0.005	Yes
Extreme (10°C)		699.4282	714.8313	-2.8	-0.004	Yes
Extreme (0°C)		699.4282	714.8313	3.7	0.005	Yes
Extreme (-10°C)		699.4282	714.8313	-2.9	-0.004	Yes
Extreme (-20°C)		699.4282	714.8313	2.7	0.004	Yes
Extreme (-30°C)		699.4282	714.8313	3.3	0.005	Yes
20°C	15%	699.4282	714.8313	2.4	0.003	Yes
	-15%	699.4282	714.8313	2.9	0.004	Yes
	End Point Voltage	699.4282	714.8313	2.6	0.004	Yes

9.4.3. LTE BAND 13 (QPSK 10MHz BANDWIDTH)

Test Engineer ID:	32546	Test Date:	2025-03-04

Band	13	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		777	787			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		786.4748	777.5170			
Extreme (50°C)		786.4748	777.5170	5.6	0.007	Yes
Extreme (40°C)		786.4748	777.5170	4.1	0.005	Yes
Extreme (30°C)		786.4748	777.5170	5.2	0.007	Yes
Extreme (10°C)	Normal	786.4748	777.5170	4.9	0.006	Yes
Extreme (0°C)		786.4748	777.5170	5.9	0.008	Yes
Extreme (-10°C)		786.4748	777.5170	6.1	0.008	Yes
Extreme (-20°C)		786.4748	777.5170	6.2	0.008	Yes
Extreme (-30°C)		786.4748	777.5170	6.0	0.008	Yes
20°C	15%	786.4748	777.5170	4.9	0.006	Yes
	-15%	786.4748	777.5170	4.9	0.006	Yes
	End Point Voltage	786.4748	777.5170	-4.2	-0.005	Yes

9.4.4. LTE BAND 17 (QPSK 10MHz BANDWIDTH)

Test Engineer ID:	32546	Test Date:	2025-03-04

Band	17	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		704	716			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		704.5291	715.4740			
Extreme (50°C)		704.5291	715.4740	-3.9	-0.006	Yes
Extreme (40°C)		704.5291	715.4740	-3.7	-0.005	Yes
Extreme (30°C)		704.5291	715.4740	-3.7	-0.005	Yes
Extreme (10°C)	Normal	704.5291	715.4740	7.8	0.011	Yes
Extreme (0°C)		704.5291	715.4740	5.7	0.008	Yes
Extreme (-10°C)		704.5291	715.4740	-4.8	-0.007	Yes
Extreme (-20°C)		704.5291	715.4740	4.9	0.007	Yes
Extreme (-30°C)		704.5291	715.4740	5.2	0.007	Yes
20°C	15%	704.5291	715.4740	4.4	0.006	Yes
	-15%	704.5291	715.4740	-3.7	-0.005	Yes
	End Point Voltage	704.5291	715.4740	4.1	0.006	Yes

9.4.5. LTE BAND 71 QPSK (20MHz BANDWIDTH)

Test Engineer ID:	32546	Test Date:	2025-03-04

Band	71	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		663	698			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		664.0550	696.9316			
Extreme (50°C)		664.0550	696.9316	3.7	0.005	Yes
Extreme (40°C)		664.0550	696.9316	3.9	0.006	Yes
Extreme (30°C)		664.0550	696.9316	5.6	0.008	Yes
Extreme (10°C)	Normal	664.0550	696.9316	-4.1	-0.006	Yes
Extreme (0°C)		664.0550	696.9316	5.0	0.007	Yes
Extreme (-10°C)		664.0550	696.9316	5.8	0.008	Yes
Extreme (-20°C)		664.0550	696.9316	5.2	0.008	Yes
Extreme (-30°C)		664.0550	696.9316	4.9	0.007	Yes
20°C	15%	664.0550	696.9316	3.1	0.005	Yes
	-15%	664.0550	696.9316	4.7	0.007	Yes
	End Point Voltage	664.0550	696.9316	4.2	0.006	Yes

9.4.6. 5G NR n71 (BPSK 30MHz BANDWIDTH)

Test Engineer ID:	23546	Test Date:	2025-03-06

Band	71	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		663	698			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		663.7013	695.8442			
Extreme (50°C)		663.7013	695.8442	3.1	0.005	Yes
Extreme (40°C)		663.7013	695.8442	3.0	0.004	Yes
Extreme (30°C)		663.7013	695.8442	3.4	0.005	Yes
Extreme (10°C)	Normal	663.7013	695.8442	3.2	0.005	Yes
Extreme (0°C)		663.7013	695.8442	3.5	0.005	Yes
Extreme (-10°C)		663.7013	695.8442	3.1	0.005	Yes
Extreme (-20°C)		663.7013	695.8442	3.8	0.006	Yes
Extreme (-30°C)		663.7013	695.8442	3.2	0.005	Yes
20°C	15%	663.7013	695.8442	2.6	0.004	Yes
	-15%	663.7013	695.8442	3.1	0.005	Yes
	End Point Voltage	663.7013	695.8442	3.4	0.005	Yes

9.5. PEAK-TO-AVERAGE POWER RATIO

LIMIT

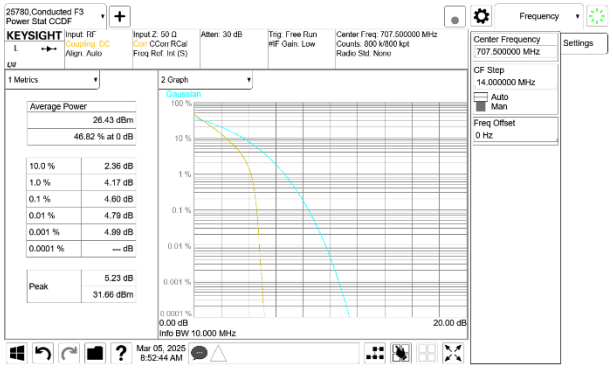
ISED: RSS130§4.6.1

The transmitter output power shall be measured in terms of average power. In addition, the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.

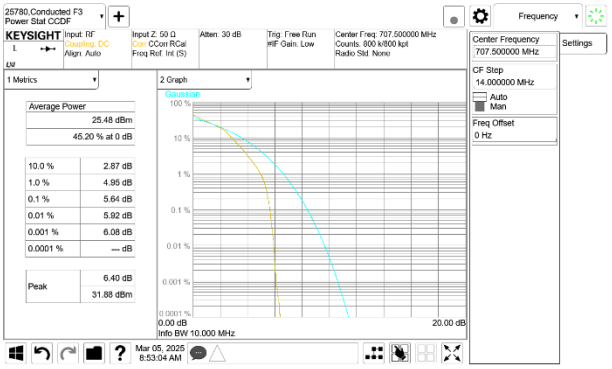
RESULT

Antenna 1 was used to measure as the worst case; full resource block (FRB) for each bandwidth was used to measure as the worst case. The results from all CCDF measurements are passed with 13dB peak-to-average power ratio criteria.

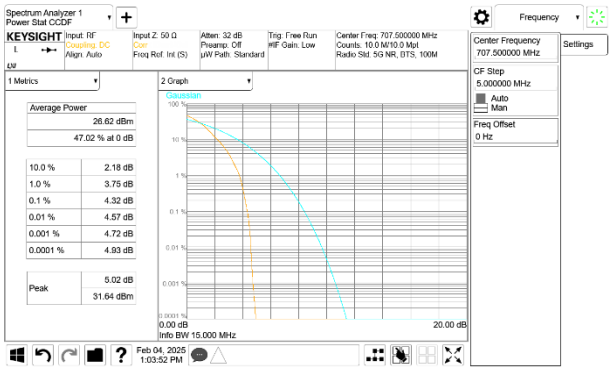
Example Plots: FULL RB



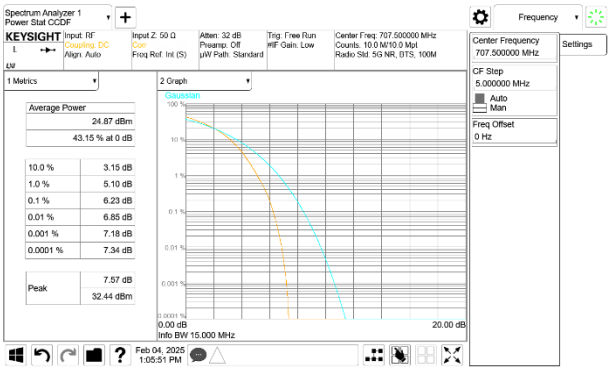
LTE B12 10MHz QPSK Middle Channel



LTE B12 10MHz 16QAM Middle Channel



5G NR n12 15MHz BPSK Middle Channel



5G NR n12 15MHz 16QAM Middle Channel

9.5.1. LTE BAND 12

Test Engineer ID:	25780	Test Date:	2025-03-04

Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
LTE Band 12	1.4MHz	707.5	6	0	QPSK	31.10	26.35	4.75
					16QAM	31.41	25.45	5.96
	3MHz		15	0	QPSK	31.25	26.40	4.85
					16QAM	31.57	25.45	6.12
	5MHz		25	0	QPSK	31.37	26.46	4.91
					16QAM	31.62	25.48	6.14
	10MHz		50	0	QPSK	31.66	26.43	5.23
					16QAM	31.88	25.48	6.40
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

9.5.2. 5G NR n12

Test Engineer ID:	50822	Test Date:	2025-02-03

Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
5G NR n12	5MHz	707.5	25	0	BPSK	31.04	26.57	4.47
					16QAM	32.02	25.09	6.93
	10MHz		50	0	BPSK	31.26	26.70	4.56
					16QAM	32.24	25.09	7.15
	15MHz		75	0	BPSK	31.64	26.62	5.02
					16QAM	32.44	24.87	7.57
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

9.5.3. LTE BAND 13

Test Engineer ID:	25780	Test Date:	2025-03-04

Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
LTE Band 13	5MHz	782.0	25	0	QPSK	31.50	26.45	5.05
					16QAM	31.68	25.48	6.20
	10MHz		50	0	QPSK	31.99	26.49	5.50
					16QAM	32.16	25.50	6.66
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

9.5.4. LTE BAND 17

Test Engineer ID:	25780	Test Date:	2025-03-04

Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
LTE Band 17	5MHz	710.0	25	0	QPSK	31.65	26.68	4.97
					16QAM	32.04	25.77	6.27
	10MHz		50	0	QPSK	31.92	26.70	5.22
					16QAM	32.00	25.70	6.30
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

9.5.5. LTE BAND 71

Test Engineer ID:	25780	Test Date:	2025-03-04

Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
LTE Band 71	5MHz	680.5	25	0	QPSK	31.51	26.70	4.81
					16QAM	31.79	25.74	6.05
	10MHz	683.0	50	0	QPSK	31.70	26.69	5.01
					16QAM	31.86	25.70	6.16
	15MHz	680.5	75	0	QPSK	31.49	26.65	4.84
					16QAM	31.65	25.67	5.98
	20MHz	683.0	100	0	QPSK	31.44	26.68	4.76
					16QAM	31.77	25.70	6.07
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

9.5.6. 5G NR n71

Test Engineer ID:	32546	Test Date:	2025-07-11

Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
5G NR Band n71	5MHz	680.5	25	0	BPSK	30.62	26.29	4.33
					16QAM	31.78	25.19	6.59
	10MHz	683.0	50	0	BPSK	30.46	26.29	4.17
					16QAM	31.59	25.04	6.55
	15MHz	680.5	75	0	BPSK	30.42	26.33	4.09
					16QAM	31.90	25.09	6.81
	20MHz	683.0	100	0	BPSK	30.46	26.42	4.04
					16QAM	31.76	25.09	6.67
	25MHz	680.5	128	0	BPSK	29.99	25.75	4.24
					16QAM	31.32	24.57	6.75
	30MHz	683.0	160	0	BPSK	30.07	25.51	4.56
					16QAM	32.20	24.89	7.31
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

10. RADIATED TEST RESULTS

LIMITS (BAND 12, 17, 71)

FCC: §27.53 (g)
The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts.

ISED: RSS130§4.7

The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts.

LIMITS (BAND 13)

FCC: §27.53 (c), (f)
The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts. The band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.
Note: Radiated data in section 10.1.3 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40dBm/MHz limit was used.

ISED: RSS130§4.7
The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts.
4.7.1 General unwanted emissions limits
The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least 43 + 10 $\log_{10}$ p (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

4.7.2 Additional unwanted emissions limits
In addition to the limit outlined in section 4.7.1 above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

(c) the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:
    iii. 76 + 10 $\log_{10}$ p (watts), dB, for base and fixed equipment and
    iv. 65 + 10 $\log_{10}$ p (watts), dB, for mobile and portable equipment
(d) the e.i.r.p. in the band 1559-1610 MHz shall not exceed −70 dBW/MHz for wideband signal and −80 dBW for discrete emission with bandwidth less than 700 Hz.

Note: Radiated data in section 10.1.3 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40dBm/MHz limit was used.

Radiated measurement using the Field Strength Method

Using the test configuration shown in Figure 6 below, the radiated emissions is measured directly from the EUT and convert the measured field strength or received power to ERP or EIRP, as required, for comparison to the applicable limits. As stated in 5.5.1 of ANSI C63.26-2015, the field strength measurement method using a test site validated to the requirements of ANSI C63.4 is an alternative to the substitution measurement.

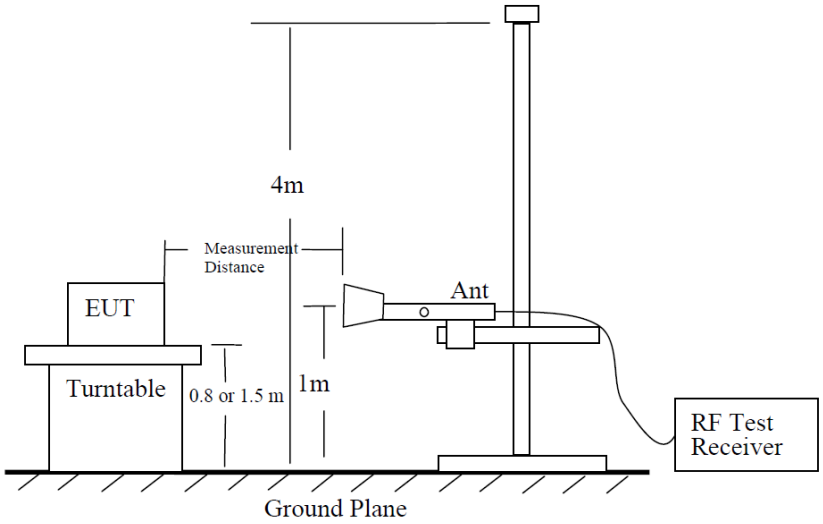


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

Radiated Power Measurement Calculation According to ANSI C63.26-2015

a) E (dBμV/m) = Measured amplitude level (dBμV) + Cable Loss (dB) + Antenna Factor (dB/m).
b) E (dBμV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m).
c) E (dBμV/m) = EIRP (dBm) − 20log(D) + 104.8; where D is the measurement distance (in the far field region) in m.
d) EIRP (dBm) = E (dBμV/m) + 20log(D) − 104.8; where D is the measurement distance (in the far field region) in m.

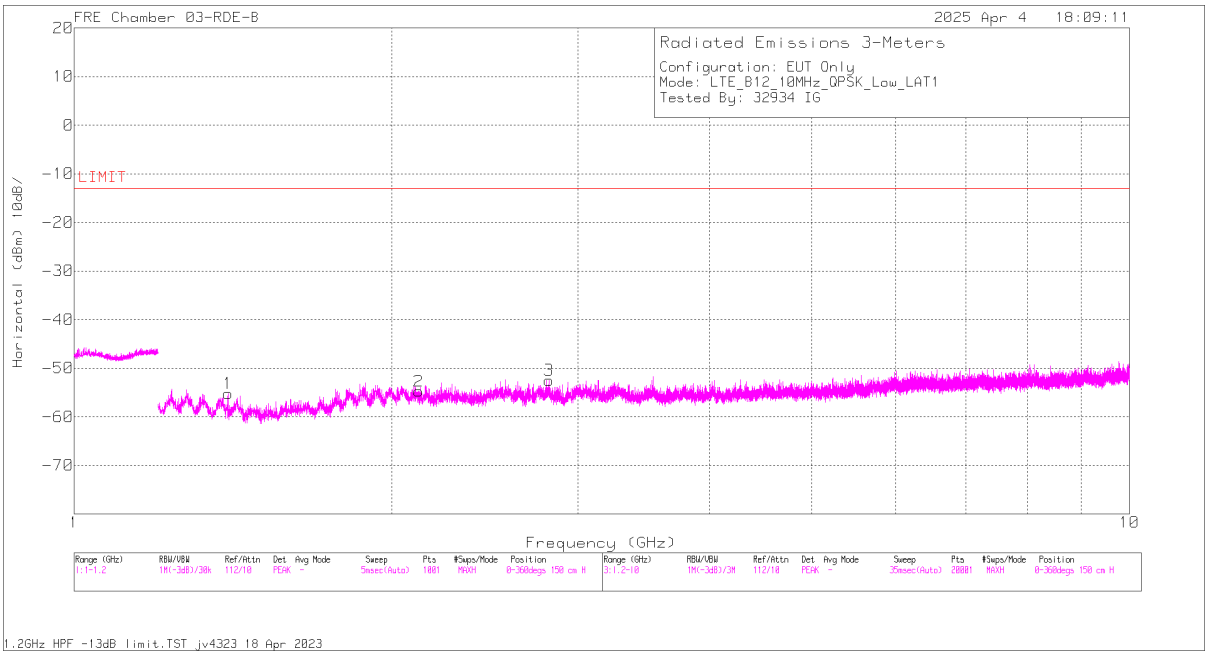
So, from d)

The measuring distance is usually at 3m, then 20*Log(3)=9.5424

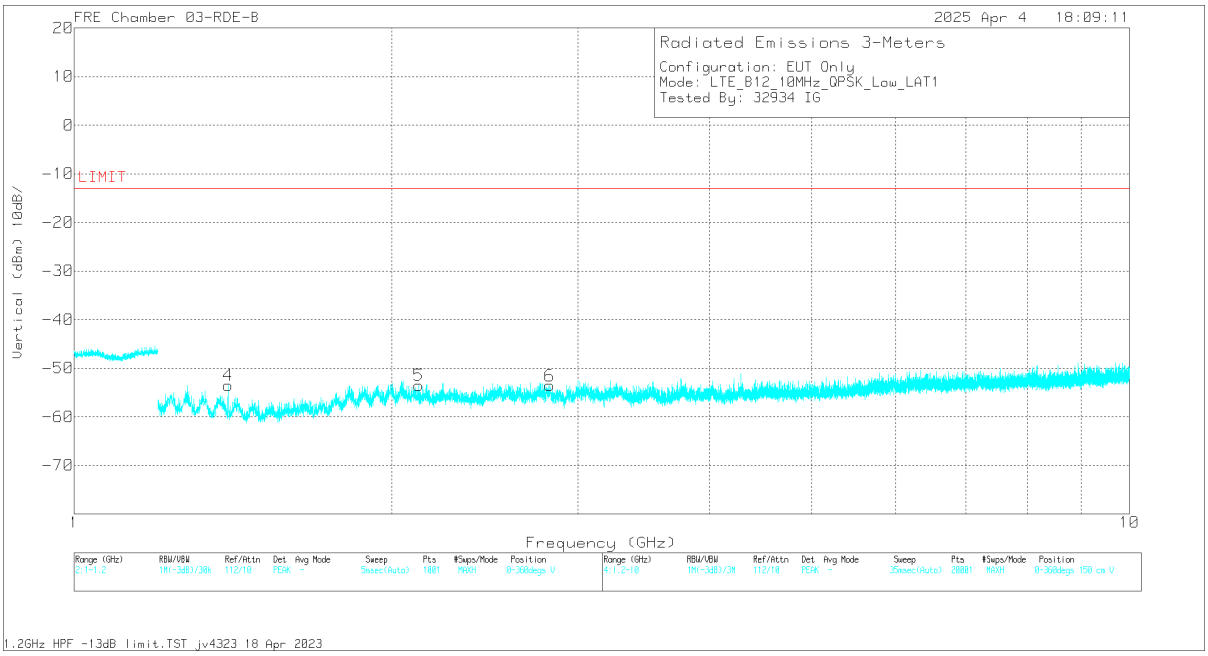
Then, EIRP (dBm) = E (dBμV/m) + 9.5424 − 104.8 = E (dBμV/m) – 95.2576

Note: Confidence check of each chamber is performed daily to see if any degradation from expected/normal reading reference data. Ambient check of each chamber is performed monthly.

Example Plot



Horizontal Polarity



Vertical Polarity

Trace Markers

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
1.399062	64.14	Pk	28.7	-95.2	-49.31	-51.67	-13	-38.67	H
1.399274	69.90	Pk	28.7	-95.2	-49.33	-45.93	-13	-32.93	V
2.119600	60.03	Pk	31.5	-95.2	-49.86	-53.53	-13	-40.53	V
2.120480	58.81	Pk	31.5	-95.2	-49.85	-54.74	-13	-41.74	H
2.819640	59.07	Pk	32.3	-95.2	-48.70	-52.53	-13	-39.53	H
2.821400	57.98	Pk	32.3	-95.2	-48.66	-53.58	-13	-40.58	V

10.1. FIELD STRENGTH OF SPURIOUS RADIATION, ABOVE 1GHz

TEST PROCEDURE

KDB 971168 D01 /D02

All tests above 1GHz were done with a Resolution Bandwidth of 1MHz, and a Video Bandwidth of 3MHz

RESULTS

10.1.1. LTE BAND 12

LTE BAND 12 (QPSK 10.0MHZ BANDWIDTH, ANT 1)

Project #:	15496277
Date:	2025-06-11
Test Engineer:	32934
Configuration:	EUT Only
Mode	LTE B12 QPSK 10MHz
Chamber #:	03-RDE-B and A

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 704MHz									
1.399062	64.14	Pk	28.7	-95.2	-49.31	-51.67	-13	-38.67	H
1.399274	69.90	Pk	28.7	-95.2	-49.33	-45.93	-13	-32.93	V
2.119600	60.03	Pk	31.5	-95.2	-49.86	-53.53	-13	-40.53	V
2.120480	58.81	Pk	31.5	-95.2	-49.85	-54.74	-13	-41.74	H
2.819640	59.07	Pk	32.3	-95.2	-48.70	-52.53	-13	-39.53	H
2.821400	57.98	Pk	32.3	-95.2	-48.66	-53.58	-13	-40.58	V
Mid Channel, 707.5MHz									
1.406181	67.29	Pk	28.6	-95.2	-49.40	-48.71	-13	-35.71	H
1.406182	70.70	Pk	28.6	-95.2	-49.40	-45.30	-13	-32.30	V
2.157440	60.14	Pk	31.5	-95.2	-49.84	-53.40	-13	-40.40	H
2.163160	59.75	Pk	31.5	-95.2	-50.00	-53.95	-13	-40.95	V
2.813480	58.26	Pk	32.3	-95.2	-48.80	-53.44	-13	-40.44	V
2.819640	58.55	Pk	32.3	-95.2	-48.70	-53.05	-13	-40.05	H
High Channel, 711MHz									
1.427920	59.99	Pk	28.2	-95.2	-49.00	-56.01	-13	-43.01	H
1.425280	58.85	Pk	28.2	-95.2	-48.90	-57.05	-13	-44.05	V
2.131480	58.35	Pk	31.5	-95.2	-49.49	-54.84	-13	-41.84	V
2.138080	58.31	Pk	31.5	-95.2	-49.10	-54.49	-13	-41.49	H
2.843400	56.91	Pk	32.5	-95.2	-47.74	-53.53	-13	-40.53	H
2.837680	57.58	Pk	32.4	-95.2	-48.10	-53.32	-13	-40.32	V

LTE BAND 12 (QPSK 10.0MHZ BANDWIDTH, ANT 2)

Project #:	15496277
Date:	2025-04-11
Test Engineer:	32934
Configuration:	EUT Only
Mode	LTE B12 QPSK 10MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	81887 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 704MHz									
1.395360	58.21	Pk	28.8	-95.2	-49.33	-57.52	-13	-44.52	V
1.399238	64.67	Pk	28.7	-95.2	-49.37	-51.20	-13	-38.20	H
2.016200	59.01	Pk	31.6	-95.2	-50.16	-54.75	-13	-41.75	V
2.017960	59.74	Pk	31.6	-95.2	-50.13	-53.99	-13	-40.99	H
2.815680	57.25	Pk	32.1	-95.2	-49.10	-54.95	-13	-41.95	H
2.821840	59.14	Pk	32.0	-95.2	-49.02	-53.08	-13	-40.08	V
Mid Channel, 707.5MHz									
1.410320	60.04	Pk	28.6	-95.2	-49.39	-55.95	-13	-42.95	H
1.429240	59.53	Pk	28.4	-95.2	-49.42	-56.69	-13	-43.69	V
2.126200	59.53	Pk	31.6	-95.2	-49.94	-54.01	-13	-41.01	V
2.128400	59.87	Pk	31.6	-95.2	-49.93	-53.66	-13	-40.66	H
2.834160	58.26	Pk	32.0	-95.2	-48.88	-53.82	-13	-40.82	H
2.836360	57.39	Pk	32.0	-95.2	-48.88	-54.69	-13	-41.69	V
High Channel, 711MHz									
1.420440	59.91	Pk	28.5	-95.2	-49.39	-56.18	-13	-43.18	V
1.422695	68.04	Pk	28.5	-95.2	-49.37	-48.03	-13	-35.03	H
2.130160	58.84	Pk	31.6	-95.2	-49.88	-54.64	-13	-41.64	H
2.133680	59.88	Pk	31.6	-95.2	-49.85	-53.57	-13	-40.57	V
2.840320	58.06	Pk	32.0	-95.2	-48.88	-54.02	-13	-41.02	V
2.844720	57.93	Pk	32.0	-95.2	-48.82	-54.09	-13	-41.09	H

10.1.2. 5G NR n12

5G NR n12 (BPSK 15.0MHZ BANDWIDTH, ANT 1)

Project #:	15496277
Date:	2025-05-23
Test Engineer:	32934
Configuration:	EUT Only
Mode	5G NR n12 BPSK 15MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 706.5MHz									
1.399262	67.01	Pk	28.7	-95.2	-49.33	-48.82	-13	-35.82	H
1.399385	70.95	Pk	28.7	-95.2	-49.34	-44.89	-13	-31.89	V
2.109480	59.77	Pk	31.4	-95.2	-49.80	-53.83	-13	-40.83	V
2.123120	59.74	Pk	31.5	-95.2	-49.80	-53.76	-13	-40.76	H
2.825800	57.29	Pk	32.3	-95.2	-48.72	-54.33	-13	-41.33	H
2.830200	57.77	Pk	32.3	-95.2	-48.72	-53.85	-13	-40.85	V
Mid Channel, 707.5MHz									
1.420000	59.29	Pk	28.4	-95.2	-49.30	-56.81	-13	-43.81	H
2.840760	57.83	Pk	32.3	-95.2	-48.68	-53.75	-13	-40.75	H
1.419120	59.39	Pk	28.4	-95.2	-49.21	-56.62	-13	-43.62	V
2.101907	65.41	Pk	31.4	-95.2	-49.80	-48.19	-13	-35.19	V
2.102000	61.47	Pk	31.4	-95.2	-49.80	-52.13	-13	-39.13	V
2.124000	58.98	Pk	31.5	-95.2	-49.80	-54.52	-13	-41.52	H
High Channel, 708.5MHz									
1.403318	67.25	Pk	28.6	-95.2	-49.40	-48.75	-13	-35.75	V
1.412080	58.53	Pk	28.5	-95.2	-49.30	-57.47	-13	-44.47	H
2.099800	60.76	Pk	31.4	-95.2	-49.80	-52.84	-13	-39.84	V
2.122680	59.31	Pk	31.5	-95.2	-49.80	-54.19	-13	-41.19	H
2.821840	58.08	Pk	32.3	-95.2	-48.62	-53.44	-13	-40.44	V
2.832840	57.24	Pk	32.3	-95.2	-48.70	-54.36	-13	-41.36	H

5G NR n12 (BPSK 15.0MHZ BANDWIDTH, ANT 2)

Project #:	15496277
Date:	2025-03-12
Test Engineer:	32703
Configuration:	EUT Only
Mode	5G NR n12 BPSK 15MHz
Chamber #:	03-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 706.5MHz									
1.398440	57.58	Pk	28.3	-95.2	-48.60	-57.92	-13	-44.92	H
1.398440	58.57	Pk	28.3	-95.2	-48.60	-56.93	-13	-43.93	V
2.098040	56.94	Pk	31.5	-95.2	-49.20	-55.96	-13	-42.96	H
2.098040	57.35	Pk	31.5	-95.2	-49.20	-55.55	-13	-42.55	V
2.796320	55.92	Pk	32.4	-95.2	-48.47	-55.35	-13	-42.35	H
2.796320	54.78	Pk	32.4	-95.2	-48.47	-56.49	-13	-43.49	V
Mid Channel, 707.5MHz									
1.400640	57.66	Pk	28.3	-95.2	-48.66	-57.90	-13	-44.90	H
1.400640	58.09	Pk	28.3	-95.2	-48.66	-57.47	-13	-44.47	V
2.100680	57.02	Pk	31.5	-95.2	-49.10	-55.78	-13	-42.78	H
2.100680	57.02	Pk	31.5	-95.2	-49.10	-55.78	-13	-42.78	V
2.800280	55.41	Pk	32.4	-95.2	-48.50	-55.89	-13	-42.89	H
2.800280	56.11	Pk	32.4	-95.2	-48.50	-55.19	-13	-42.19	V
High Channel, 708.5MHz									
1.402840	59.37	Pk	28.2	-95.2	-48.60	-56.23	-13	-43.23	H
1.402840	59.15	Pk	28.2	-95.2	-48.60	-56.45	-13	-43.45	V
2.103320	56.48	Pk	31.5	-95.2	-49.00	-56.22	-13	-43.22	H
2.103320	56.85	Pk	31.5	-95.2	-49.00	-55.85	-13	-42.85	V
2.804680	56.83	Pk	32.4	-95.2	-48.33	-54.30	-13	-41.30	H
2.804680	56.02	Pk	32.4	-95.2	-48.33	-55.11	-13	-42.11	V

10.1.3. LTE BAND 13

LTE BAND 13 (QPSK 10.0MHZ BANDWIDTH, ANT 1)

Project #:	15496277
Date:	2025-04-04
Test Engineer:	32934
Configuration:	EUT Only
Mode	LTE B13 QPSK 10MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.577960	58.83	Pk	28.2	-95.2	-49.50	-57.67	-40	-17.67	V
1.588080	58.30	Pk	28.3	-95.2	-49.49	-58.09	-40	-18.09	H
2.333880	58.64	Pk	31.6	-95.2	-49.80	-54.76	-13	-41.76	V
2.347080	59.68	Pk	31.6	-95.2	-49.89	-53.81	-13	-40.81	H
3.120600	55.52	Pk	33.1	-95.2	-47.66	-54.24	-13	-41.24	V
3.125000	55.82	Pk	33.1	-95.2	-47.70	-53.98	-13	-40.98	H

*** Emissions in the GPS band were wideband emissions therefore the -40dBm/MHz limit was used.**

LTE BAND 13 (QPSK 10.0MHZ BANDWIDTH, ANT 2)

Project #:	15496277
Date:	2025-04-04
Test Engineer:	32934
Configuration:	EUT Only
Mode	LTE B13 QPSK 10MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.581920	59.78	Pk	28.2	-95.2	-49.41	-56.63	-40	-16.63	H
1.584560	59.04	Pk	28.2	-95.2	-49.40	-57.36	-40	-17.36	V
2.342900	58.64	Pk	31.6	-95.2	-49.90	-54.86	-13	-41.86	V
2.351040	58.74	Pk	31.6	-95.2	-49.80	-54.66	-13	-41.66	H
3.124120	56.12	Pk	33.1	-95.2	-47.61	-53.59	-13	-40.59	V
3.126760	55.76	Pk	33.2	-95.2	-47.70	-53.94	-13	-40.94	H

*** Emissions in the GPS band were wideband emissions therefore the -40dBm/MHz limit was used.**

10.1.4. LTE BAND 17

LTE BAND 17 (QPSK 10.0MHZ BANDWIDTH, ANT 1)

Project #:	15496277
Date:	2025-04-08
Test Engineer:	32545
Configuration:	EUT Only
Mode	LTE B17 QPSK 10MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 709MHz									
1.418680	58.28	Pk	28.4	-95.2	-49.23	-57.75	-13	-44.75	H
1.418680	56.96	Pk	28.4	-95.2	-49.23	-59.07	-13	-46.07	V
2.126640	58.35	Pk	31.5	-95.2	-49.90	-55.25	-13	-42.25	H
2.126640	60.38	Pk	31.5	-95.2	-49.90	-53.22	-13	-40.22	V
2.836360	56.15	Pk	32.3	-95.2	-48.80	-55.55	-13	-42.55	H
2.836360	57.30	Pk	32.3	-95.2	-48.80	-54.40	-13	-41.40	V
Mid Channel, 710MHz									
1.420440	57.46	Pk	28.4	-95.2	-49.30	-58.64	-13	-45.64	H
1.420440	58.97	Pk	28.4	-95.2	-49.30	-57.13	-13	-44.13	V
2.130600	58.46	Pk	31.5	-95.2	-49.84	-55.08	-13	-42.08	H
2.130600	56.53	Pk	31.5	-95.2	-49.84	-57.01	-13	-44.01	V
2.840760	55.86	Pk	32.3	-95.2	-48.68	-55.72	-13	-42.72	H
2.840760	57.34	Pk	32.3	-95.2	-48.68	-54.24	-13	-41.24	V
High Channel, 711MHz									
1.422200	58.64	Pk	28.4	-95.2	-49.28	-57.44	-13	-44.44	H
1.422200	58.80	Pk	28.4	-95.2	-49.28	-57.28	-13	-44.28	V
2.133240	56.22	Pk	31.5	-95.2	-49.90	-57.38	-13	-44.38	H
2.133240	58.37	Pk	31.5	-95.2	-49.90	-55.23	-13	-42.23	V
2.844280	55.03	Pk	32.3	-95.2	-48.70	-56.57	-13	-43.57	H
2.844280	54.87	Pk	32.3	-95.2	-48.70	-56.73	-13	-43.73	V

LTE BAND 17 (QPSK 10.0MHZ BANDWIDTH, ANT 2)

Project #:	15496277
Date:	2025-04-14
Test Engineer:	20756
Configuration:	EUT Only
Mode	LTE B17 QPSK 10MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	81887 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 709MHz									
1.416250	57.23	Pk	28.5	-95.2	-49.68	-59.15	-13	-46.15	V
1.421200	57.73	Pk	28.5	-95.2	-49.62	-58.59	-13	-45.59	H
2.130400	57.22	Pk	31.6	-95.2	-49.61	-55.99	-13	-42.99	H
2.132650	57.77	Pk	31.6	-95.2	-49.64	-55.47	-13	-42.47	V
2.839150	58.88	Pk	32.0	-95.2	-48.40	-52.72	-13	-39.72	V
2.839600	58.35	Pk	32.0	-95.2	-48.41	-53.26	-13	-40.26	H
Mid Channel, 710MHz									
1.422100	58.08	Pk	28.5	-95.2	-49.61	-58.23	-13	-45.23	H
1.423000	58.66	Pk	28.5	-95.2	-49.64	-57.68	-13	-44.68	V
2.134450	57.92	Pk	31.6	-95.2	-49.62	-55.30	-13	-42.30	H
2.138050	58.09	Pk	31.6	-95.2	-49.69	-55.20	-13	-42.20	V
2.839150	58.50	Pk	32.0	-95.2	-48.40	-53.10	-13	-40.10	H
2.842750	59.00	Pk	32.0	-95.2	-48.37	-52.57	-13	-39.57	V
High Channel, 711MHz									
1.422550	57.66	Pk	28.5	-95.2	-49.63	-58.67	-13	-45.67	H
1.424800	58.21	Pk	28.5	-95.2	-49.62	-58.11	-13	-45.11	V
2.135800	57.69	Pk	31.6	-95.2	-49.65	-55.56	-13	-42.56	H
2.141650	57.87	Pk	31.6	-95.2	-49.74	-55.47	-13	-42.47	V
2.841850	57.97	Pk	32.0	-95.2	-48.35	-53.58	-13	-40.58	H
2.845000	58.45	Pk	32.0	-95.2	-48.31	-53.06	-13	-40.06	V

10.1.5. LTE BAND 71

LTE BAND 71 (QPSK 20.0MHZ BANDWIDTH, ANT 1)

Project #:	15496277
Date:	2025-04-08
Test Engineer:	32545
Configuration:	EUT Only
Mode	LTE B71 QPSK 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 673MHz									
1.346080	56.20	Pk	29.0	-95.2	-49.40	-59.40	-13	-46.40	H
1.346080	58.24	Pk	29.0	-95.2	-49.40	-57.36	-13	-44.36	V
2.019720	56.49	Pk	31.9	-95.2	-49.93	-56.74	-13	-43.74	H
2.019720	56.66	Pk	31.9	-95.2	-49.93	-56.57	-13	-43.57	V
2.692040	56.98	Pk	32.4	-95.2	-49.60	-55.42	-13	-42.42	H
2.692040	57.13	Pk	32.4	-95.2	-49.60	-55.27	-13	-42.27	V
Mid Channel, 680.5MHz									
1.363680	60.11	Pk	28.9	-95.2	-49.37	-55.56	-13	-42.56	H
1.363680	58.36	Pk	28.9	-95.2	-49.37	-57.31	-13	-44.31	V
2.041720	58.39	Pk	31.8	-95.2	-49.93	-54.94	-13	-41.94	H
2.041720	57.15	Pk	31.8	-95.2	-49.93	-56.18	-13	-43.18	V
2.722400	56.83	Pk	32.3	-95.2	-49.60	-55.67	-13	-42.67	H
2.722400	55.94	Pk	32.3	-95.2	-49.60	-56.56	-13	-43.56	V
High Channel, 688MHz									
1.376440	58.03	Pk	28.9	-95.2	-49.34	-57.61	-13	-44.61	H
1.376440	58.85	Pk	28.9	-95.2	-49.34	-56.79	-13	-43.79	V
2.064600	58.47	Pk	31.7	-95.2	-49.90	-54.93	-13	-41.93	H
2.064600	57.60	Pk	31.7	-95.2	-49.90	-55.80	-13	-42.80	V
2.752760	56.82	Pk	32.4	-95.2	-49.32	-55.30	-13	-42.30	H
2.752760	56.86	Pk	32.4	-95.2	-49.32	-55.26	-13	-42.26	V

LTE BAND 71 (QPSK 20.0MHZ BANDWIDTH, ANT 2)

Project #:	15496277
Date:	2025-04-14
Test Engineer:	20756
Configuration:	EUT Only
Mode	LTE B71 QPSK 20MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	81887 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 673MHz									
1.346500	58.82	Pk	29.1	-95.2	-49.53	-56.81	-13	-43.81	V
1.355500	59.67	Pk	29.0	-95.2	-49.62	-56.15	-13	-43.15	H
2.009350	59.22	Pk	31.6	-95.2	-50.18	-54.56	-13	-41.56	V
2.011150	60.53	Pk	31.6	-95.2	-50.15	-53.22	-13	-40.22	H
2.677600	57.13	Pk	32.6	-95.2	-48.45	-53.92	-13	-40.92	V
2.692450	57.57	Pk	32.5	-95.2	-48.44	-53.57	-13	-40.57	H
Mid Channel, 680.5MHz									
1.345600	60.12	Pk	29.1	-95.2	-49.52	-55.50	-13	-42.50	V
1.349200	59.59	Pk	29.1	-95.2	-49.54	-56.05	-13	-43.05	H
2.031850	58.77	Pk	31.5	-95.2	-49.93	-54.86	-13	-41.86	V
2.032750	58.85	Pk	31.5	-95.2	-49.93	-54.78	-13	-41.78	H
2.717650	56.87	Pk	32.4	-95.2	-48.36	-54.29	-13	-41.29	V
2.725750	56.52	Pk	32.4	-95.2	-48.36	-54.64	-13	-41.64	H
High Channel, 688MHz									
1.378450	57.91	Pk	28.9	-95.2	-49.63	-58.02	-13	-45.02	V
1.380250	57.95	Pk	28.9	-95.2	-49.63	-57.98	-13	-44.98	H
2.051200	59.08	Pk	31.5	-95.2	-50.02	-54.64	-13	-41.64	V
2.058850	60.08	Pk	31.4	-95.2	-50.00	-53.72	-13	-40.72	H
2.753200	56.33	Pk	32.4	-95.2	-48.53	-55.00	-13	-42.00	H
2.754550	57.31	Pk	32.4	-95.2	-48.55	-54.04	-13	-41.04	V

10.1.6. 5G NR n71

5G NR n71 (BPSK 30.0MHZ BANDWIDTH, ANT 1)

Project #:	15496277
Date:	2025-05-23
Test Engineer:	32934
Configuration:	EUT Only
Mode	5G NR n71 BPSK 30MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 678MHz									
1.327345	65.98	Pk	29.1	-95.2	-49.37	-49.49	-13	-36.49	V
1.355320	57.63	Pk	29.0	-95.2	-49.40	-57.97	-13	-44.97	H
2.013120	57.94	Pk	31.9	-95.2	-49.90	-55.26	-13	-42.26	H
2.014880	60.26	Pk	31.9	-95.2	-49.99	-53.03	-13	-40.03	V
2.694240	57.76	Pk	32.4	-95.2	-49.52	-54.56	-13	-41.56	V
2.698200	58.46	Pk	32.3	-95.2	-49.60	-54.04	-13	-41.04	H
High Channel, 683MHz									
1.357658	65.68	Pk	29.0	-95.2	-49.40	-49.92	-13	-36.92	V
1.371160	60.68	Pk	28.9	-95.2	-49.40	-55.02	-13	-42.02	H
2.047440	60.69	Pk	31.8	-95.2	-49.96	-52.67	-13	-39.67	H
2.054480	60.49	Pk	31.8	-95.2	-49.95	-52.86	-13	-39.86	V
2.648920	58.79	Pk	32.6	-95.2	-49.49	-53.30	-13	-40.30	H
2.799400	59.79	Pk	32.3	-95.2	-48.90	-52.01	-13	-39.01	V

5G NR n71 (BPSK 20.0MHZ BANDWIDTH, ANT 2)

Project #:	15496277
Date:	2025-04-11
Test Engineer:	32933
Configuration:	EUT Only
Mode	5G NR n71 BPSK 30MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	200897 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 673MHz									
1.331560	60.04	Pk	28.6	-95.2	-48.75	-55.31	-13	-42.31	H
1.334640	60.05	Pk	28.5	-95.2	-48.77	-55.42	-13	-42.42	V
2.021040	58.14	Pk	31.5	-95.2	-49.22	-54.78	-13	-41.78	H
2.033800	58.57	Pk	31.5	-95.2	-49.30	-54.43	-13	-41.43	V
3.348960	56.24	Pk	32.7	-95.2	-47.07	-53.33	-13	-40.33	H
3.359080	56.93	Pk	32.7	-95.2	-46.99	-52.56	-13	-39.56	V
High Channel, 683MHz									
1.357361	62.70	Pk	28.4	-95.2	-48.84	-52.94	-13	-39.94	H
1.379520	58.56	Pk	28.4	-95.2	-48.80	-57.04	-13	-44.04	V
2.019720	58.31	Pk	31.5	-95.2	-49.21	-54.60	-13	-41.60	H
2.023240	59.68	Pk	31.5	-95.2	-49.22	-53.24	-13	-40.24	V
3.435200	54.38	Pk	32.7	-95.2	-46.83	-54.95	-13	-41.95	V
3.438280	54.85	Pk	32.7	-95.2	-46.91	-54.56	-13	-41.56	H

11. SETUP PHOTOS

Refer to 15496277-EP1V1 for setup photos.

END OF REPORT

UL VERIFICATION SERVICES INC.
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888