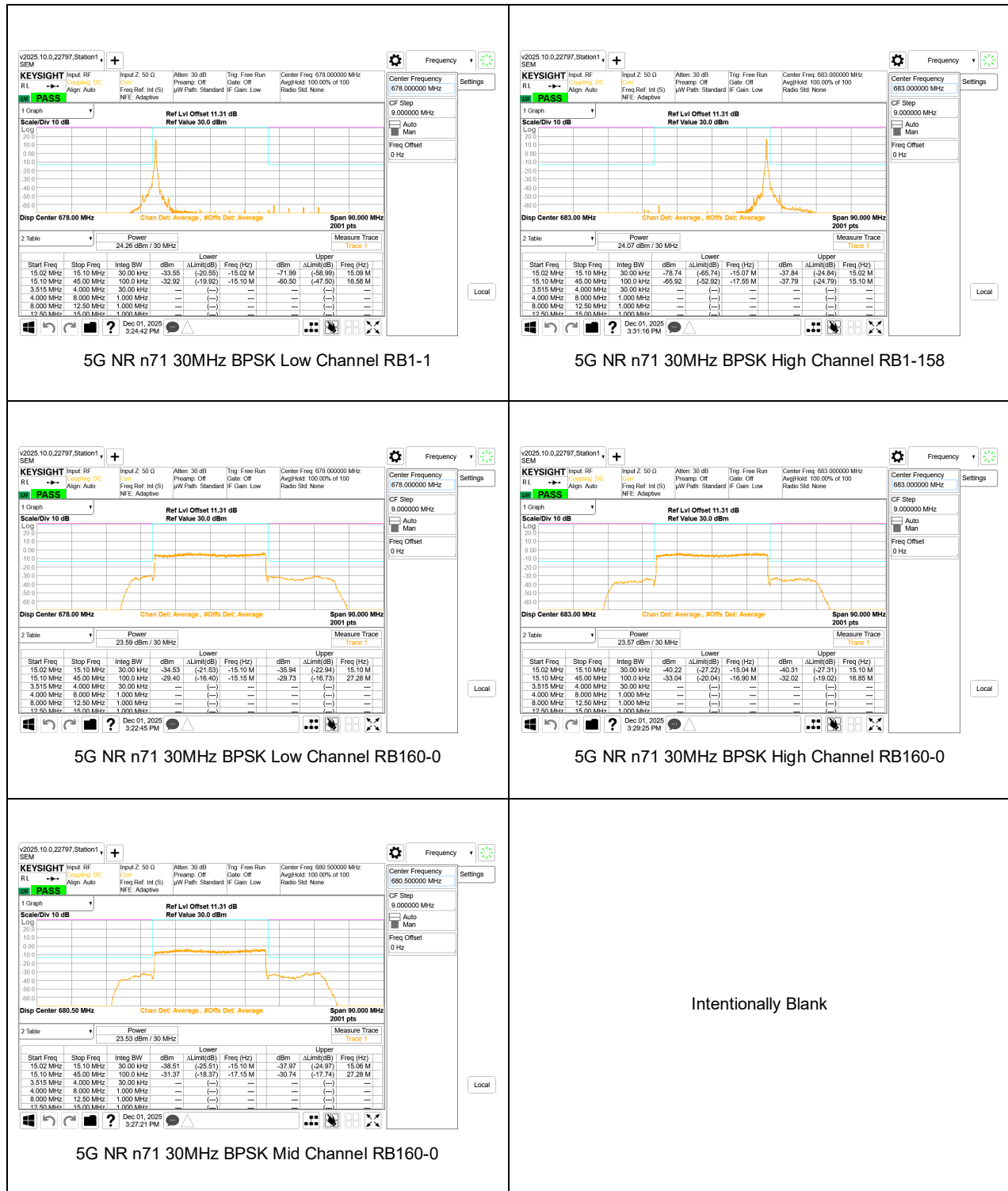
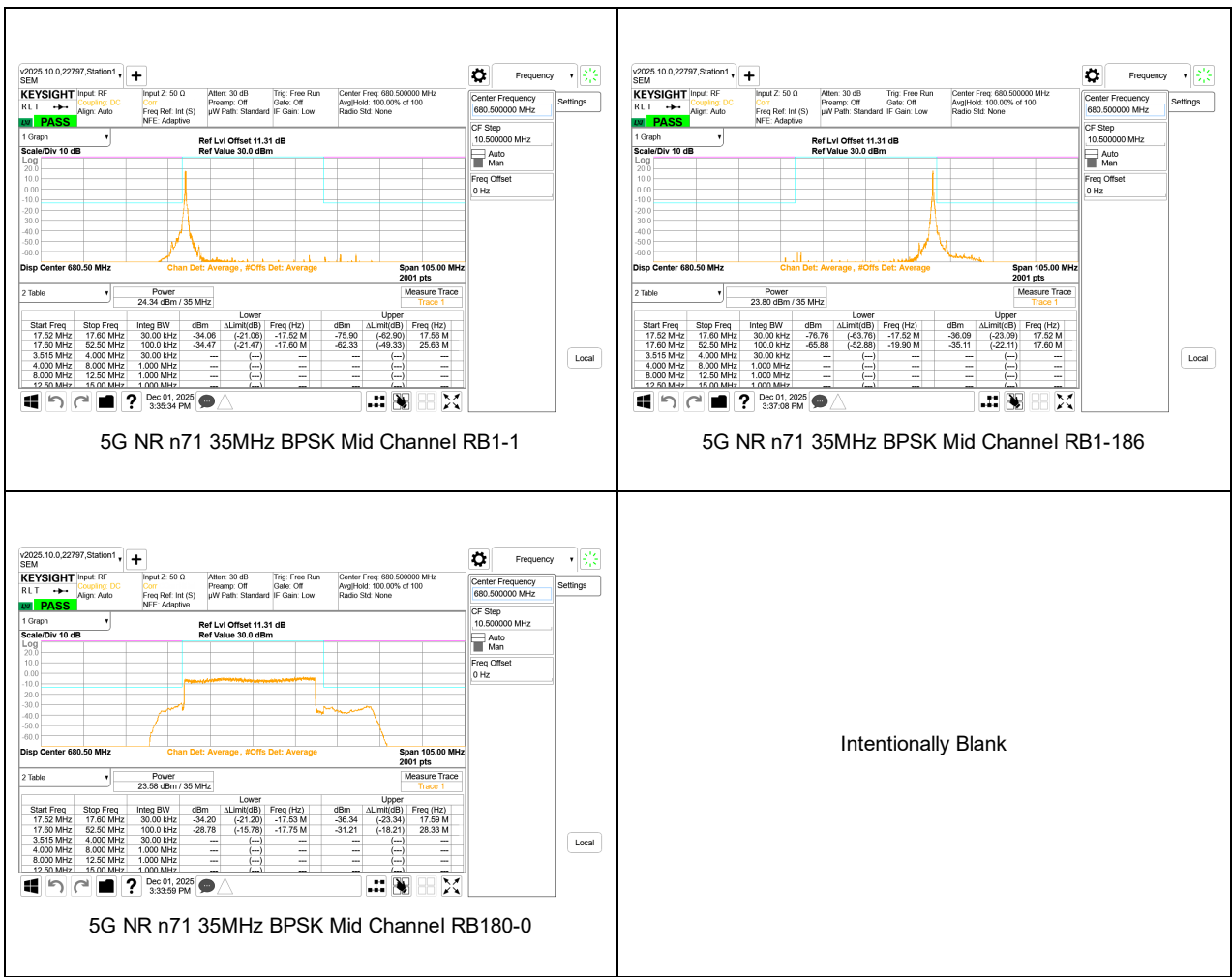






8.3. OUT OF BAND EMISSIONS

LIMITS (BAND 12, 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 9.2.3 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40 dBm/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 9.2.3 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40 dBm/MHz limit was used.

TEST PROCEDURE

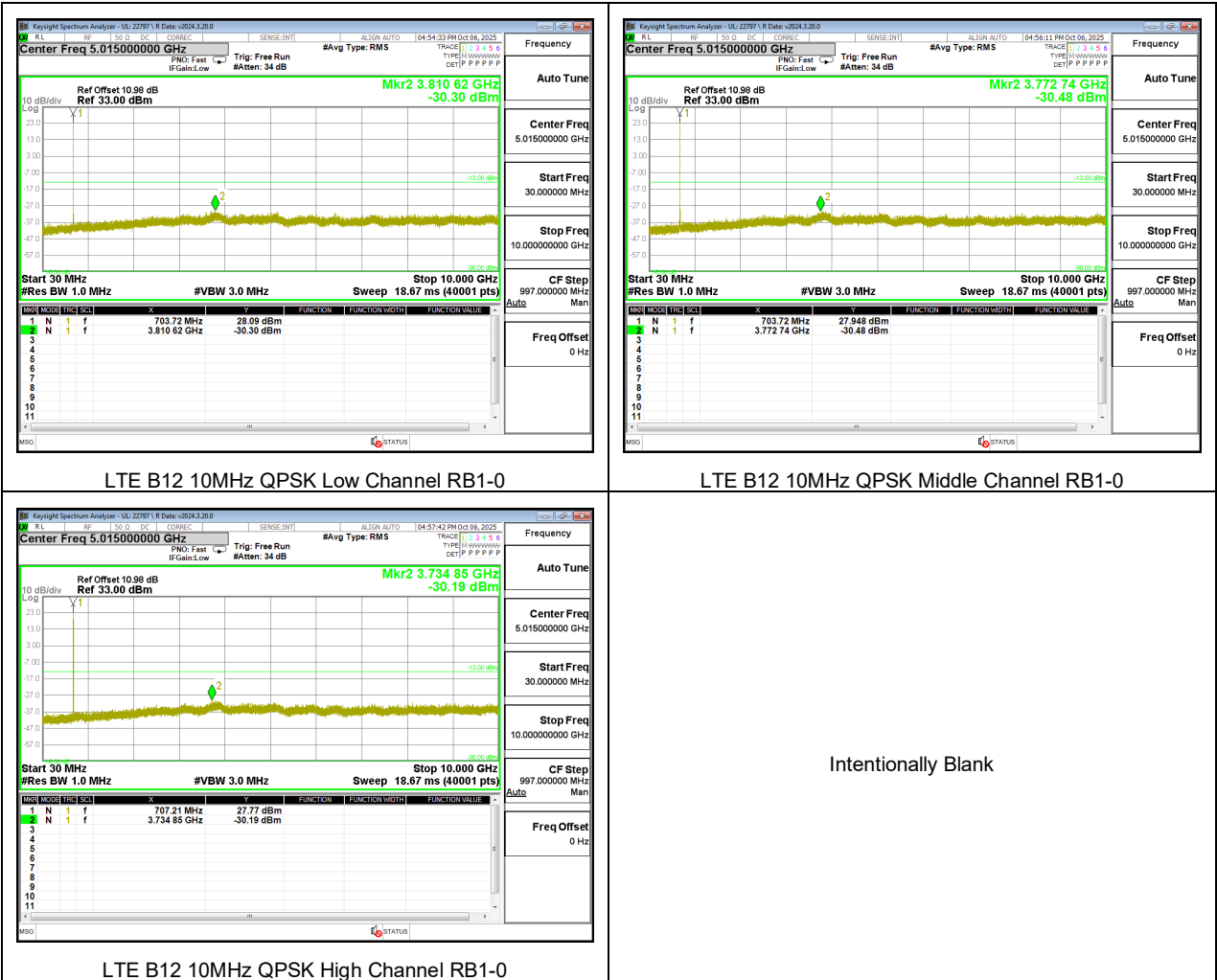
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case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

For each out of band emissions measurement:

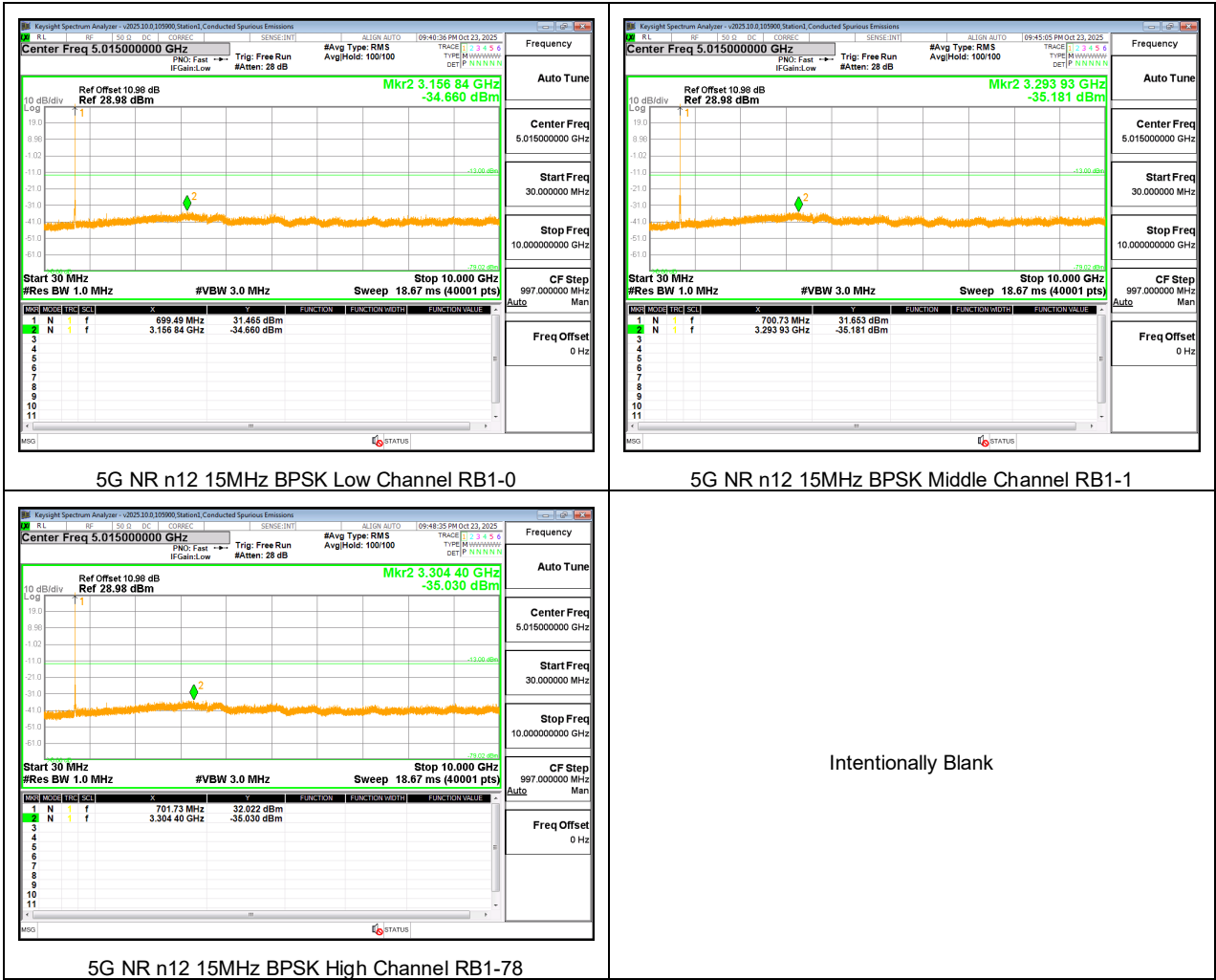
- Set display line at -13 dBm, -25 dBm and -40 dBm according to the band Limit
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.
(NOTE: Worst case set RBW/VBW to 1MHz/3MHz)

RESULTS

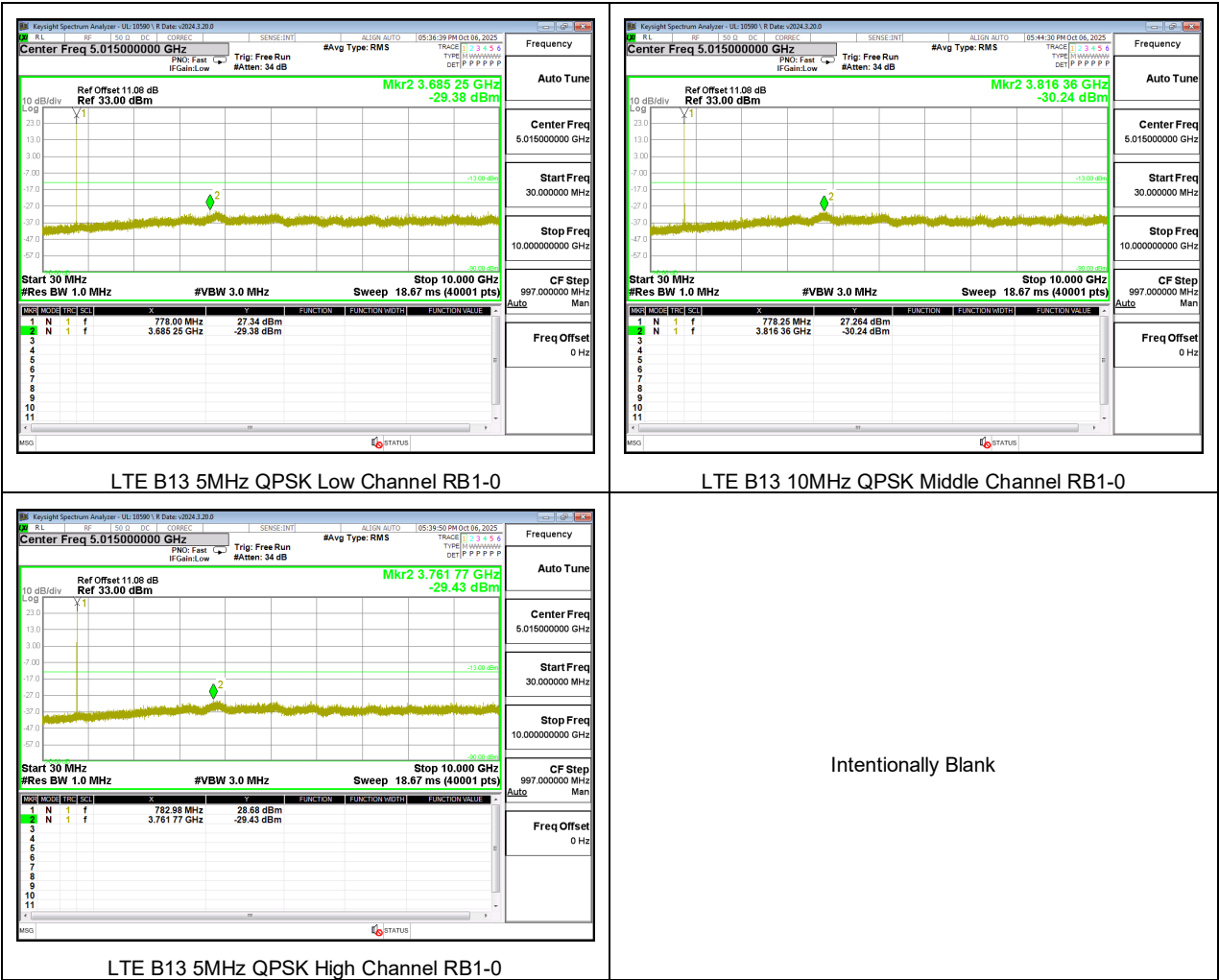
8.3.1. LTE BAND 12



8.3.2. 5G NR n12

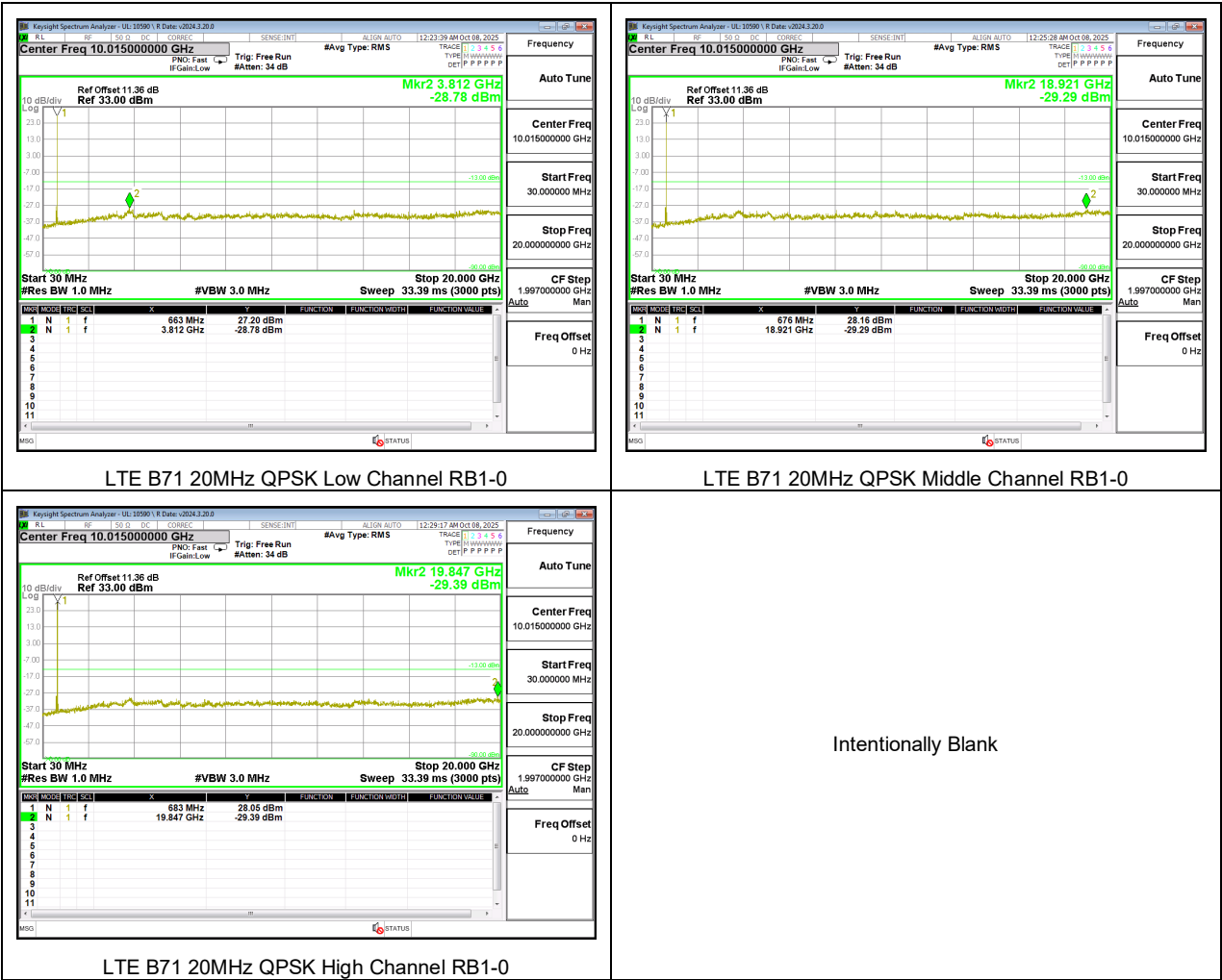


8.3.3. LTE BAND 13

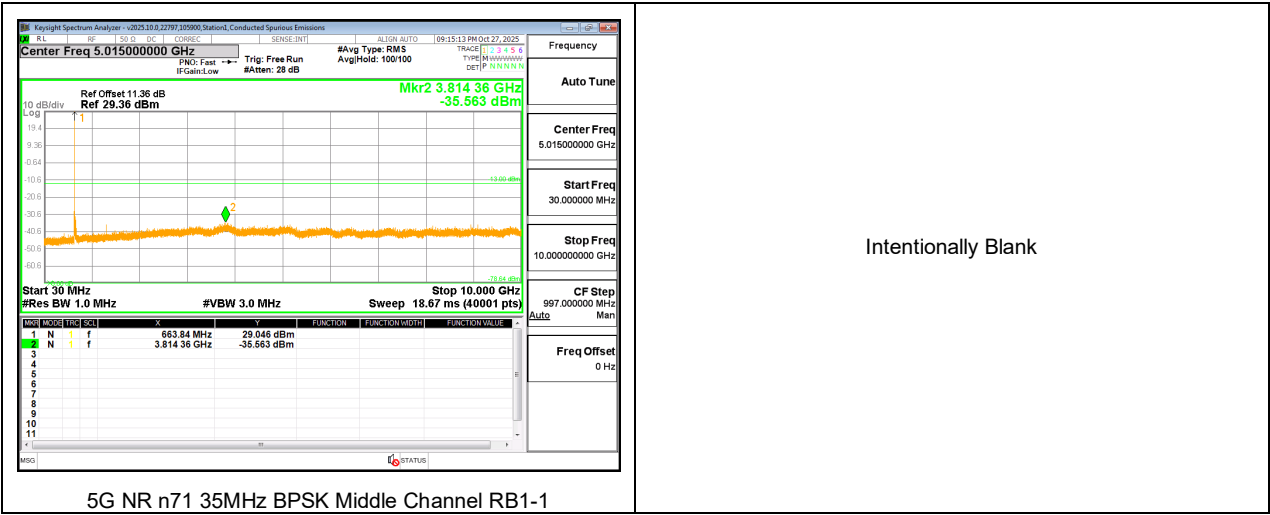


Note: Radiated data in section 9.1.6 confirms a compliance with narrowband limits for GPS1559-1610 MHz band.

8.3.4. LTE BAND 71



8.3.5. 5G NR n71



8.4. 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% - 100%)

Normal, 3.89VDC

End Voltage, 3.69VDC.

Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to 20°C 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 +50°C is reached.

Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

RESULTS

See the following pages.

8.4.1. LTE BAND 12 (QPSK 10MHz BANDWIDTH)

Test Engineer ID:	105900;22797	Test Date:	2025-10-09
-------------------	--------------	------------	------------

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	699.4050	715.5975			
Extreme (50°C)		699.4050	715.5975	2.2	0.003	Yes
Extreme (40°C)		699.4050	715.5975	2.1	0.003	Yes
Extreme (30°C)		699.4050	715.5975	-2.9	-0.004	Yes
Extreme (10°C)		699.4050	715.5975	3.3	0.005	Yes
Extreme (0°C)		699.4050	715.5975	2.7	0.004	Yes
Extreme (-10°C)		699.4050	715.5975	2.6	0.004	Yes
Extreme (-20°C)		699.4050	715.5975	4.9	0.007	Yes
Extreme (-30°C)		699.4050	715.5975	4.4	0.006	Yes
20°C	End Point Voltage	699.4050	715.5975	1.6	0.002	Yes

8.4.2. 5G NR n12 (BPSK 15MHz BANDWIDTH)

Test Engineer ID:	105900;22797	Test Date:	2025-10-10
-------------------	--------------	------------	------------

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	699.2500	715.0200			
Extreme (50°C)		699.2500	715.0200	-2.7	-0.004	Yes
Extreme (40°C)		699.2500	715.0200	0.3	0.000	Yes
Extreme (30°C)		699.2500	715.0200	-2.3	-0.003	Yes
Extreme (10°C)		699.2500	715.0200	-3.8	-0.005	Yes
Extreme (0°C)		699.2500	715.0200	0.1	0.000	Yes
Extreme (-10°C)		699.2500	715.0200	-0.4	-0.001	Yes
Extreme (-20°C)		699.2500	715.0200	-5.8	-0.008	Yes
Extreme (-30°C)		699.2500	715.0200	-2.9	-0.004	Yes
20°C	End Point Voltage	699.2500	715.0200	0.7	0.001	Yes

8.4.3. LTE BAND 13 (QPSK 10MHz BANDWIDTH)

Test Engineer ID:	105900;22797	Test Date:	2025-10-10
-------------------	--------------	------------	------------

Band	13	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		777	787			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	777.4113	786.5963			
Extreme (50°C)		777.4113	786.5963	4.6	0.006	Yes
Extreme (40°C)		777.4113	786.5963	3.6	0.005	Yes
Extreme (30°C)		777.4112	786.5962	-3.1	-0.004	Yes
Extreme (10°C)		777.4113	786.5963	5.6	0.007	Yes
Extreme (0°C)		777.4113	786.5963	6.1	0.008	Yes
Extreme (-10°C)		777.4113	786.5963	5.7	0.007	Yes
Extreme (-20°C)		777.4113	786.5963	4.9	0.006	Yes
Extreme (-30°C)		777.4113	786.5963	4.4	0.006	Yes
20°C	End Point Voltage	777.4113	786.5963	4.6	0.006	Yes

8.4.4. LTE BAND 71 QPSK (20MHz BANDWIDTH)

Test Engineer ID:	105900;22797	Test Date:	2025-10-13
-------------------	--------------	------------	------------

Band	71	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		663	698			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	663.8225	697.1863			
Extreme (50°C)		663.8225	697.1863	1.7	0.002	Yes
Extreme (40°C)		663.8225	697.1863	2.5	0.004	Yes
Extreme (30°C)		663.8225	697.1863	3.3	0.005	Yes
Extreme (10°C)		663.8225	697.1863	3.2	0.005	Yes
Extreme (0°C)		663.8225	697.1863	3.4	0.005	Yes
Extreme (-10°C)		663.8225	697.1863	5.8	0.009	Yes
Extreme (-20°C)		663.8225	697.1863	3.9	0.006	Yes
Extreme (-30°C)		663.8225	697.1863	2.2	0.003	Yes
20°C	End Point Voltage	663.8225	697.1863	3.6	0.005	Yes

8.4.5. 5G NR n71 (BPSK 35MHz BANDWIDTH)

Test Engineer ID:	105900;22797	Test Date:	2025-10-21
-------------------	--------------	------------	------------

Band	71	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		663	698			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal					
Extreme (50°C)		0.0000	0.0000	-12.3	-0.018	Yes
Extreme (40°C)		0.0000	0.0000	-12.5	-0.018	Yes
Extreme (30°C)		0.0000	0.0000	-10.8	-0.016	Yes
Extreme (10°C)		0.0000	0.0000	-13.1	-0.019	Yes
Extreme (0°C)		0.0000	0.0000	-9.1	-0.013	Yes
Extreme (-10°C)		0.0000	0.0000	-10.1	-0.015	Yes
Extreme (-20°C)		0.0000	0.0000	-14.2	-0.021	Yes
Extreme (-30°C)		0.0000	0.0000	-9.4	-0.014	Yes
20°C	End Point Voltage	0.0000	0.0000	10.5	0.015	Yes

8.5. 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

Config 0 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.

TEST PROCEDURE

The EUT was connected to a Wideband Power Sensor to measure Peak and Average Output power.

8.5.1. LTE BAND 12

Test Engineer ID:	33499	Test Date:	2025-10-14
-------------------	-------	------------	------------

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	26.01	21.86	4.15
					16QAM	25.84	20.78	5.06
	3MHz		15	0	QPSK	26.49	22.05	4.44
					16QAM	26.44	21.03	5.41
	5MHz		25	0	QPSK	26.84	22.2	4.64
					16QAM	26.99	21.2	5.79
	10MHz		50	0	QPSK	26.97	22.19	4.78
					16QAM	27.14	21.26	5.88

Duty Cycle Correction Factor (dB) = 0.00

Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor

8.5.2. 5G NR n12

Test Engineer ID:	33499	Test Date:	2025-10-14
-------------------	-------	------------	------------

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	26.00	22.36	3.64
					16QAM	26.33	20.732	5.60
	10MHz		50	0	BPSK	26.60	22.399	4.20
					16QAM	26.33	20.665	5.67
	15MHz		75	0	BPSK	26.38	22.389	3.99
					16QAM	26.31	20.752	5.55

Duty Cycle Correction Factor (dB) = 0.00

Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor

8.5.3. LTE BAND 13

Test Engineer ID:	33499	Test Date:	2025-10-14
-------------------	-------	------------	------------

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	26.44	21.83	4.61
					16QAM	26.42	20.75	5.67
	10MHz		50	0	QPSK	26.76	21.89	4.87
					16QAM	26.81	20.92	5.89

Duty Cycle Correction Factor (dB) = 0.00

Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor

8.5.4. LTE BAND 71

Test Engineer ID:	33499	Test Date:	2025-10-15
-------------------	-------	------------	------------

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	26.91	22.23	4.68
					16QAM	26.94	21.25	5.69
	10MHz	683.0	50	0	QPSK	26.93	22.24	4.69
					16QAM	27.07	21.29	5.78
	15MHz	680.5	75	0	QPSK	27	22.18	4.82
					16QAM	27.07	21.21	5.86
	20MHz	683.0	100	0	QPSK	27.16	22.24	4.92
					16QAM	27.22	21.35	5.87

Duty Cycle Correction Factor (dB) = 0.00

Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor

8.5.5. 5G NR n71

Test Engineer ID:	22797,105900	Test Date:	2025-11-11
-------------------	--------------	------------	------------

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	28.16	23.34	4.82
					16QAM	28.03	22.28	5.75
	10MHz	683.0	50	0	BPSK	28.27	23.25	5.02
					16QAM	28.10	22.13	5.97
	15MHz	680.5	75	0	BPSK	28.33	23.29	5.04
					16QAM	28.05	22.29	5.76
	20MHz	683.0	100	0	BPSK	28.37	23.25	5.12
					16QAM	28.24	22.13	6.11
	25MHz	680.5	128	0	BPSK	28.42	23.15	5.27
					16QAM	28.34	22.06	6.28
	30MHz	683.0	160	0	BPSK	28.65	23.09	5.56
					16QAM	28.29	21.96	6.33
	35MHz	680.5	180	0	BPSK	28.48	23.07	5.41
					16QAM	28.24	21.94	6.30

Duty Cycle Correction Factor (dB) = 0.00

Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor

9. RADIATED TEST RESULTS

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.

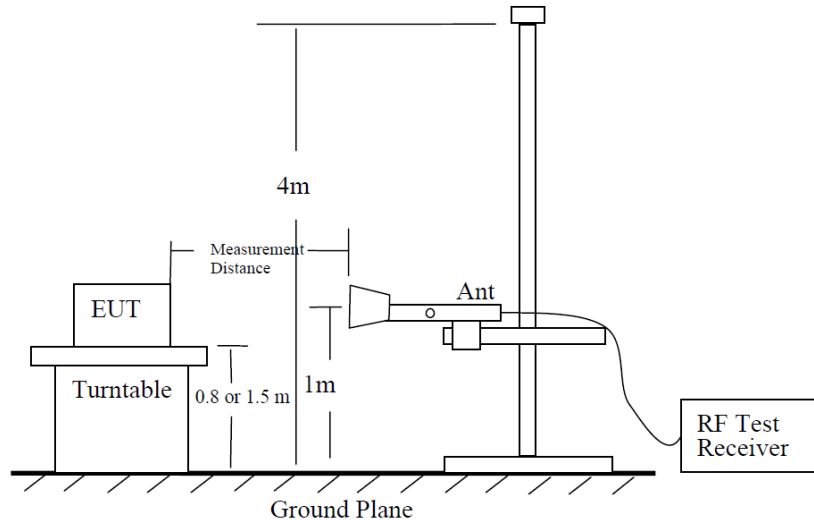


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

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

- a) $E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}.$
- b) $E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}.$
- c) $E \text{ (dB}\mu\text{V/m)} = \text{EIRP (dBm)} - 20\log(D) + 104.8;$ where D is the measurement distance (in the far field region) in m.
- d) $\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20\log(D) - 104.8;$ where D is the measurement distance (in the far field region) in m.

So, from d)

The measuring distance is usually at 3m, then $20 \cdot \log(3) = 9.5424$

Then, $\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 9.5424 - 104.8 = E \text{ (dB}\mu\text{V/m)} - 95.2576$

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.

9.1. EFFECTIVE RADIATED POWER ERP/EIRP

RULE PART(S)

FCC: §2.1046, §27.50 (c) (b) (10)

RSS: 130§4.6.3, 130§4.6.2

LIMITS

27.50(c) - (10) Portable stations (hand-held devices) are limited to 3 watts ERP.

27.50(b) - (10) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

RSS: 130§4.6.2 The e.r.p. shall not exceed 3 watts for mobile equipment, fixed subscriber equipment and portable equipment.

RSS: 130§4.6.3 The e.r.p. shall not exceed 30 watts for mobile equipment and outdoor fixed subscriber equipment. The e.r.p. shall not exceed 3 watts for portable equipment and indoor fixed subscriber equipment.

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13dB.

TEST PROCEDURE

ANSI / TIA / EIA 603-E (2016), Clause 2.2.17; PSA setting reference to 971168 D01

For average power measurements:

- a) Set span to at least 1.5 times the OBW;
- b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz;
- c) Set VBW $\geq 3 \times$ RBW;
- d) Set number of points in sweep $\geq 2 \times$ span / RBW;
- e) Sweep time = auto-couple;
- f) Detector = RMS (power averaging);
- g) Use free run trigger If burst duty cycle ≥ 98 ;
- h) Add a duty cycle correction factor ($10\log(DC)$) if burst duty cycle < 98 ;
- i) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- j) Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function.

RESULTS

9.1.1. LTE BAND 12 10MHz BANDWIDTH

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		Samsung Electronics Co., Ltd.							
Project #:		15980274							
Date:		2025-09-28 - 2025-10-28							
Test Engineer:		19289.0							
Configuration:		EUT Only							
Mode:		1TX, LTE Band 12, 10MHz, QPSK							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
707.50	15.59	H	7.65	-0.65		7.29	33.01	-25.72	RB1-0
707.50	25.34	V	7.65	-0.65		17.04	33.01	-15.97	RB1-0
707.50	16.03	H	7.65	-0.65		7.73	33.01	-25.28	RB1-25
707.50	25.65	V	7.65	-0.65		17.35	33.01	-15.66	RB1-25
707.50	16.44	H	7.65	-0.65		8.14	33.01	-24.87	RB1-49
707.50	25.99	V	7.65	-0.65		17.69	33.01	-15.32	RB1-49
Rev. 10.17.25									

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		Samsung Electronics Co., Ltd.							
Project #:		15980274							
Date:		2025-09-28 - 2025-10-28							
Test Engineer:		19289.0							
Configuration:		EUT Only							
Mode:		1TX, LTE Band 12, 10MHz, 16QAM							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
707.50	14.80	H	7.65	-0.65		6.50	33.01	-26.51	RB1-0
707.50	24.55	V	7.65	-0.65		16.25	33.01	-16.76	RB1-0
707.50	15.23	H	7.65	-0.65		6.93	33.01	-26.08	RB1-25
707.50	24.85	V	7.65	-0.65		16.55	33.01	-16.46	RB1-25
707.50	15.62	H	7.65	-0.65		7.32	33.01	-25.69	RB1-49
707.50	25.25	V	7.65	-0.65		16.95	33.01	-16.06	RB1-49
Rev. 10.17.25									

CONFIG 0

**High Frequency Substitution Measurement
UL Morrisville Chamber 4**

Company:
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 707.05MHz BAND LTE 12 QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
707.50	24.29	H	7.65	-0.65		15.99	33.01	-17.02	RB1-0
707.50	10.66	V	7.65	-0.65		2.36	33.01	-30.65	RB1-0
707.50	24.98	H	7.65	-0.65		16.68	33.01	-16.33	RB1-25
707.50	11.52	V	7.65	-0.65		3.22	33.01	-29.79	RB1-25
707.50	24.22	H	7.65	-0.65		15.92	33.01	-17.09	RB1-49
707.50	12.42	V	7.65	-0.65		4.12	33.01	-28.89	RB1-49

Rev. 10.17.25

**High Frequency Substitution Measurement
UL Morrisville Chamber 4**

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 707.05MHz BAND LTE 12 16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
707.50	24.18	H	7.65	-0.65		15.88	33.01	-17.13	RB1-0
707.50	9.87	V	7.65	-0.65		1.57	33.01	-31.44	RB1-0
707.50	24.43	H	7.65	-0.65		16.13	33.01	-16.88	RB1-25
707.50	10.75	V	7.65	-0.65		2.45	33.01	-30.56	RB1-25
707.50	24.11	H	7.65	-0.65		15.81	33.01	-17.20	RB1-49
707.50	11.61	V	7.65	-0.65		3.31	33.01	-29.70	RB1-49

Rev. 10.17.25

CONFIG 1

9.1.2. 5G NR n12 15MHz BANDWIDTH

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		RFSL							
Project #:		15980274							
Date:		2025-09-28 thru 2025-10-28							
Test Engineer:		19289							
Configuration:		EUT Only							
Mode:		TX, 707.05MHz BAND 5G NR 12 BPSK							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
707.50	15.57	H	7.65	-0.65		7.27	34.77	-27.50	Mid CH RB1-0
707.50	25.15	V	7.65	-0.65		16.85	34.77	-17.92	Mid CH RB1-0
707.50	15.89	H	7.65	-0.65		7.59	34.77	-27.18	Mid CH RB1-25
707.50	25.05	V	7.65	-0.65		16.75	34.77	-18.02	Mid CH RB1-25
707.50	16.64	H	7.65	-0.65		8.34	34.77	-26.43	Mid CH RB1-49
707.50	27.87	V	7.65	-0.65		19.57	34.77	-15.20	Mid CH RB1-49
Rev. 10.17.25									

CONFIG 0 BPSK

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		RFSL							
Project #:		15980274							
Date:		2025-09-28 thru 2025-10-28							
Test Engineer:		19289							
Configuration:		EUT Only							
Mode:		TX, 707.05MHz BAND 5G NR 12 16QAM							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
707.50	14.45	H	7.65	-0.65		6.15	34.77	-28.62	Mid CH RB1-0
707.50	24.08	V	7.65	-0.65		15.78	34.77	-18.99	Mid CH RB1-0
707.50	14.66	H	7.65	-0.65		6.36	34.77	-28.41	Mid CH RB1-25
707.50	23.58	V	7.65	-0.65		15.28	34.77	-19.49	Mid CH RB1-25
707.50	15.43	H	7.65	-0.65		7.13	34.77	-27.64	Mid CH RB1-49
707.50	24.05	V	7.65	-0.65		15.75	34.77	-19.02	Mid CH RB1-49
Rev. 10.17.25									

CONFIG 0 16QAM

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 707.05MHz BAND 5G NR 12 **BPSK**

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
707.50	14.17	H	7.65	-0.65		5.87	34.77	-28.90	Mid CH RB1-0
707.50	12.73	V	7.65	-0.65		4.43	34.77	-30.34	Mid CH RB1-0
707.50	26.27	H	7.65	-0.65		17.97	34.77	-16.80	Mid CH RB1-25
707.50	13.06	V	7.65	-0.65		4.76	34.77	-30.01	Mid CH RB1-25
707.50	14.30	H	7.65	-0.65		6.00	34.77	-28.77	Mid CH RB1-49
707.50	13.44	V	7.65	-0.65		5.14	34.77	-29.63	Mid CH RB1-49

Rev. 10.17.25

CONFIG 1 BPSK

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289.0
Configuration: EUT Only
Mode: TX, 707.05MHz BAND 5G NR 12 **16QAM**

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
707.50	13.02	H	7.65	-0.65		4.72	34.77	-30.05	Mid CH RB1-0
707.50	11.53	V	7.65	-0.65		3.23	34.77	-31.54	Mid CH RB1-0
707.50	13.20	H	7.65	-0.65		4.90	34.77	-29.87	Mid CH RB1-25
707.50	11.90	V	7.65	-0.65		3.60	34.77	-31.17	Mid CH RB1-25
707.50	13.04	H	7.65	-0.65		4.74	34.77	-30.03	Mid CH RB1-49
707.50	12.17	V	7.65	-0.65		3.87	34.77	-30.90	Mid CH RB1-49

Rev. 10.17.25

CONFIG 1 16QAM

9.1.3. LTE BAND 13 10MHZ BANDWIDTH

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		RFSL							
Project #:		15980274							
Date:		2025-09-28 thru 2025-10-28							
Test Engineer:		19289							
Configuration:		EUT Only							
Mode:		TX, 782.0MHz BAND LTE 13 QPSK							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
782.00	18.73	H	7.58	-1.05		10.10	34.77	-24.67	RB1-0
782.00	28.05	V	7.58	-1.05		19.42	34.77	-15.35	RB1-0
782.00	18.48	H	7.58	-1.05		9.85	34.77	-24.92	RB1-25
782.00	27.74	V	7.58	-1.05		19.11	34.77	-15.66	RB1-25
782.00	18.07	H	7.58	-1.05		9.44	34.77	-25.33	RB1-49
782.00	27.40	V	7.58	-1.05		18.77	34.77	-16.00	RB1-49
Rev. 10.17.25									

CONFIG 0 QPSK

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		RFSL							
Project #:		15980274							
Date:		2025-09-28 thru 2025-10-28							
Test Engineer:		19289							
Configuration:		EUT Only							
Mode:		TX, 782.0MHz BAND LTE 13 16QAM							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
782.00	17.80	H	7.58	-1.05		9.17	34.77	-25.60	RB1-0
782.00	27.43	V	7.58	-1.05		18.80	34.77	-15.97	RB1-0
782.00	17.99	H	7.58	-1.05		9.36	34.77	-25.41	RB1-25
782.00	26.91	V	7.58	-1.05		18.28	34.77	-16.49	RB1-25
782.00	18.11	H	7.58	-1.05		9.48	34.77	-25.29	RB1-49
782.00	27.10	V	7.58	-1.05		18.47	34.77	-16.30	RB1-49
Rev. 10.17.25									

CONFIG 0 16QAM

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 782.0MHz BAND LTE 13 QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
782.00	25.25	H	7.58	-1.05		16.62	34.77	-18.15	RB1-0
782.00	16.60	V	7.58	-1.05		7.97	34.77	-26.80	RB1-0
782.00	20.65	H	7.58	-1.05		12.02	34.77	-22.75	RB1-25
782.00	16.63	V	7.58	-1.05		8.00	34.77	-26.77	RB1-25
782.00	19.94	H	7.58	-1.05		11.31	34.77	-23.46	RB1-49
782.00	15.94	V	7.58	-1.05		7.31	34.77	-27.46	RB1-49

Rev. 10.17.25

CONFIG 1 QPSK

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 782.0MHz BAND LTE 13 16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
782.00	20.91	H	7.58	-1.05		12.28	34.77	-22.49	RB1-0
782.00	16.10	V	7.58	-1.05		7.47	34.77	-27.30	RB1-0
782.00	20.06	H	7.58	-1.05		11.43	34.77	-23.34	RB1-25
782.00	15.97	V	7.58	-1.05		7.34	34.77	-27.43	RB1-25
782.00	19.34	H	7.58	-1.05		10.71	34.77	-24.06	RB1-49
782.00	15.34	V	7.58	-1.05		6.71	34.77	-28.06	RB1-49

Rev. 10.17.25

CONFIG 1 16QAM

9.1.4. LTE BAND 71 20MHz BANDWIDTH

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		RFSL							
Project #:		15980274							
Date:		2025-09-28 thru 2025-10-28							
Test Engineer:		19289							
Configuration:		EUT Only							
Mode:		TX, 680.50MHz BAND LTE 71 QPSK							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
680.50	18.77	H	7.54	-1.35		9.88	34.77	-24.89	RB1-0
680.50	24.15	V	7.54	-1.35		15.26	34.77	-19.51	RB1-0
680.50	16.56	H	7.54	-1.35		7.67	34.77	-27.10	RB1-50
680.50	25.63	V	7.54	-1.35		16.74	34.77	-18.03	RB1-50
680.50	17.19	H	7.54	-1.35		8.30	34.77	-26.47	RB1-99
680.50	22.05	V	7.54	-1.35		13.16	34.77	-21.61	RB1-99
Rev. 10.17.25									

CONFIG 0 QPSK

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		RFSL							
Project #:		15980274							
Date:		2025-09-28 thru 2025-10-28							
Test Engineer:		19289							
Configuration:		EUT Only							
Mode:		TX, 680.50MHz BAND LTE 71 16QAM							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
680.50	13.65	H	7.54	-1.35		4.76	34.77	-30.01	RB1-0
680.50	22.63	V	7.54	-1.35		13.74	34.77	-21.03	RB1-0
680.50	14.53	H	7.54	-1.35		5.64	34.77	-29.13	RB1-50
680.50	21.89	V	7.54	-1.35		13.00	34.77	-21.77	RB1-50
680.50	13.20	H	7.54	-1.35		4.31	34.77	-30.46	RB1-99
680.50	20.01	V	7.54	-1.35		11.12	34.77	-23.65	RB1-99
Rev. 10.17.25									

CONFIG 0 16QAM

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 680.50MHz BAND LTE 71 QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
680.50	23.75	H	7.54	-1.35		14.86	34.77	-19.91	RB1-0
680.50	15.66	V	7.54	-1.35		6.77	34.77	-28.00	RB1-0
680.50	23.01	H	7.54	-1.35		14.12	34.77	-20.65	RB1-50
680.50	16.15	V	7.54	-1.35		7.26	34.77	-27.51	RB1-50
680.50	23.45	H	7.54	-1.35		14.56	34.77	-20.21	RB1-99
680.50	13.93	V	7.54	-1.35		5.04	34.77	-29.73	RB1-99

Rev. 10.17.25

CONFIG 1 QPSK

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 680.50MHz BAND LTE 71 16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
680.50	15.67	H	7.54	-1.35		6.78	34.77	-27.99	RB1-0
680.50	14.91	V	7.54	-1.35		6.02	34.77	-28.75	RB1-0
680.50	21.56	H	7.54	-1.35		12.67	34.77	-22.10	RB1-50
680.50	15.17	V	7.54	-1.35		6.28		6.28	RB1-50
680.50	22.55	H	7.54	-1.35		13.66	34.77	-21.11	RB1-99
680.50	15.02	V	7.54	-1.35		6.13	34.77	-28.64	RB1-99

Rev. 10.17.25

CONFIG 1 16QAM

9.1.5. 5G NR n71 35MHz BANDWIDTH

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		RFSL							
Project #:		15980274							
Date:		2025-09-28 thru 2025-10-28							
Test Engineer:		19289							
Configuration:		EUT Only							
Mode:		TX, 680.50MHz BAND 5G NR 71 BPSK							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
680.50	18.04	H	7.54	-1.35		9.15	34.77	-25.62	RB1-0
680.50	26.00	V	7.54	-1.35		17.11	34.77	-17.66	RB1-0
680.50	16.47	H	7.54	-1.35		7.58	34.77	-27.19	RB1-94
680.50	24.41	V	7.54	-1.35		15.52	34.77	-19.25	RB1-94
680.50	13.49	H	7.54	-1.35		4.60	34.77	-30.17	RB1-186
680.50	22.48	V	7.54	-1.35		13.59	34.77	-21.18	RB1-186

Rev. 10.17.25

CONFIG 0 QPSK

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company:		RFSL							
Project #:		15980274							
Date:		2025-09-28 thru 2025-10-28							
Test Engineer:		19289							
Configuration:		EUT Only							
Mode:		TX, 680.50MHz BAND 5G NR 71 16QAM							
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
680.50	17.04	H	7.54	-1.35		8.15	34.77	-26.62	Mid CH RB1-0
680.50	25.11	V	7.54	-1.35		16.22	34.77	-18.55	Mid CH RB1-0
680.50	15.22	H	7.54	-1.35		6.33	34.77	-28.44	Mid CH RB1-94
680.50	23.20	V	7.54	-1.35		14.31	34.77	-20.46	Mid CH RB1-94
680.50	12.17	H	7.54	-1.35		3.28	34.77	-31.49	Mid CH RB1-186
680.50	20.87	V	7.54	-1.35		11.98	34.77	-22.79	Mid CH RB1-186

Rev. 10.17.25

CONFIG 0 16QAM

High Frequency Substitution Measurement UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 680.50MHz BAND 5G NR 71 BPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
680.50	23.17	H	7.54	-1.35		14.28	34.77	-20.49	RB1-0
680.50	16.51	V	7.54	-1.35		7.62	34.77	-27.15	RB1-0
680.50	15.65	H	7.54	-1.35		6.76	34.77	-28.01	RB1-94
680.50	16.14	V	7.54	-1.35		7.25	34.77	-27.52	RB1-94
680.50	15.15	H	7.54	-1.35		6.26	34.77	-28.51	RB1-186
680.50	15.20	V	7.54	-1.35		6.31	34.77	-28.46	RB1-186

Rev. 10.17.25

CONFIG 1 QPSK

High Frequency Substitution Measurement UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-10-28
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 680.50MHz BAND 5G NR 71 16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	DCCF (dB)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
680.50	16.08	H	7.54	-1.35		7.19	34.77	-27.58	Mid CH RB1-1
680.50	15.35	V	7.54	-1.35		6.46	34.77	-28.31	Mid CH RB1-1
680.50	14.60	H	7.54	-1.35		5.71	34.77	-29.06	Mid CH RB1-94
680.50	15.06	V	7.54	-1.35		6.17	34.77	-28.60	Mid CH RB1-94
680.50	14.85	H	7.54	-1.35		5.96	34.77	-28.81	Mid CH RB1-186
680.50	14.13	V	7.54	-1.35		5.24	34.77	-29.53	Mid CH RB1-186

Rev. 10.17.25

CONFIG 1 16QAM

9.2. FIELD STRENGTH OF SPURIOUS RADIATION,

LIMITS (BAND 12, 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 9.2.3 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40 dBm/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 9.2.3 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40 dBm/MHz limit was used.

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

9.2.1. LTE BAND 12

LTE BAND 12 (QPSK 10.0MHZ BANDWIDTH, Config 0)

Project #:	15980274
Date:	2025-09-10
Test Engineer:	33271 / 11993
Configuration:	EUT Only
Mode	LTE B12 QPSK 10MHz
Chamber #:	Chamber 2

Frequency (GHz)	Meter Reading (dBm)	Det	88761 ACF (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 704MHz										
1.398700	-45.27	Pk	28.2	-49.3	0.4	11.8	-54.17	-13	-41.17	H
1.398700	-45.36	Pk	28.2	-49.3	0.4	11.8	-54.26	-13	-41.26	V
2.798200	-49.92	Pk	32.2	-47.0	0.6	11.8	-52.32	-13	-39.32	H
2.799100	-51.56	Pk	32.2	-47.0	0.6	11.8	-53.96	-13	-40.96	V
6.125500	-55.82	Pk	35.5	-44.0	0.4	11.8	-52.12	-13	-39.12	V
6.130900	-54.38	Pk	35.5	-44.3	0.4	11.8	-50.98	-13	-37.98	H
Mid Channel, 707.5MHz										
1.405900	-44.66	Pk	28.2	-49.5	0.5	11.8	-53.66	-13	-40.66	V
1.915300	-48.96	Pk	30.7	-48.6	0.3	11.8	-54.76	-13	-41.76	H
2.026900	-40.36	Pk	31.6	-49.9	0.3	11.8	-46.56	-13	-33.56	V
4.245400	-51.92	Pk	33.3	-45.9	0.7	11.8	-52.02	-13	-39.02	H
6.570100	-53.81	Pk	35.5	-43.6	0.4	11.8	-49.71	-13	-36.71	V
6.822100	-56.49	Pk	35.5	-42.9	0.4	11.8	-51.69	-13	-38.69	H
High Channel, 711MHz										
1.963900	-48.87	Pk	31.1	-49.6	0.4	11.8	-55.17	-13	-42.17	V
1.965700	-47.79	Pk	31.1	-49.7	0.4	11.8	-54.19	-13	-41.19	H
3.652300	-52.35	Pk	33.0	-46.2	0.3	11.8	-53.45	-13	-40.45	H
3.658600	-51.31	Pk	33.1	-46.2	0.3	11.8	-52.31	-13	-39.31	V
6.805900	-55.33	Pk	35.5	-43	0.4	11.8	-50.63	-13	-37.63	V
6.813100	-54.31	Pk	35.5	-42.9	0.4	11.8	-49.51	-13	-36.51	H

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

Project #:	15980274
Date:	2025-09-13
Test Engineer:	112113 / 11993
Configuration:	EUT Only
Mode	LTE B12 QPSK 10MHz
Chamber #:	Chamber 2

Frequency (GHz)	Meter Reading (dBm)	Det	88761 ACF (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 704MHz										
1.219600	-45.15	Pk	28.1	-49.3	0.6	11.8	-53.95	-13	-40.95	V
1.223200	-47.46	Pk	28.2	-49.3	0.6	11.8	-56.16	-13	-43.16	H
2.163700	-49.28	Pk	31.4	-49.2	0.3	11.8	-54.98	-13	-41.98	H
2.166400	-49.78	Pk	31.4	-49.1	0.3	11.8	-55.38	-13	-42.38	V
3.542500	-52.18	Pk	33.1	-45.9	0.4	11.8	-52.78	-13	-39.78	V
3.547000	-52.79	Pk	33.1	-46	0.5	11.8	-53.39	-13	-40.39	H
Mid Channel, 707.5MHz										
1.405900	-46.60	Pk	28.2	-49.5	0.5	11.8	-55.60	-13	-42.60	V
1.415800	-48.40	Pk	28.3	-49.7	0.5	11.8	-57.50	-13	-44.50	H
2.278000	-47.94	Pk	31.8	-49.2	0.4	11.8	-53.14	-13	-40.14	H
2.292400	-49.93	Pk	31.8	-48.6	0.3	11.8	-54.63	-13	-41.63	V
3.007000	-52.17	Pk	32.7	-46.0	0.4	11.8	-53.27	-13	-40.27	H
3.026800	-52.50	Pk	32.8	-46.6	0.5	11.8	-54.00	-13	-41.00	V
High Channel, 711MHz										
1.414000	-48.87	Pk	28.3	-49.5	0.5	11.8	-57.77	-13	-44.77	V
1.435600	-49.75	Pk	28.3	-49.0	0.5	11.8	-58.15	-13	-45.15	H
2.091700	-50.16	Pk	31.6	-49.5	0.3	11.8	-55.96	-13	-42.96	V
2.098000	-50.17	Pk	31.5	-49.2	0.3	11.8	-55.77	-13	-42.77	H
2.895400	-53.01	Pk	32.3	-46.8	0.5	11.8	-55.21	-13	-42.21	H
2.897200	-52.74	Pk	32.3	-46.8	0.5	11.8	-54.94	-13	-41.94	V

9.2.2. 5G NR n12

5G NR n12 (BPSK 15.0MHZ BANDWIDTH, Config 0)

Project #:	15980274
Date:	2025-10-07
Test Engineer:	32934
Configuration:	EUT Only
Mode	5G NR n12 BPSK 15MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBm)	Det	206211 ACF (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 706.5MHz										
1.153000	-60.86	Pk	27.6	-36.7	0.7	11.8	-57.46	-13	-44.46	V
1.296100	-63.05	Pk	29.2	-36.2	0.5	11.8	-57.75	-13	-44.75	H
4.874500	-64.97	Pk	33.9	-31.5	0.3	11.8	-50.47	-13	-37.47	V
5.024800	-64.23	Pk	34.0	-32.6	0.2	11.8	-50.83	-13	-37.83	H
8.905600	-64.78	Pk	36.0	-25.7	0.4	11.8	-42.28	-13	-29.28	H
9.059500	-65.26	Pk	36.0	-25.4	0.5	11.8	-42.36	-13	-29.36	V
Mid Channel, 707.5MHz										
1.288000	-62.94	Pk	29.3	-36.5	0.5	11.8	-57.84	-13	-44.84	V
1.299700	-62.41	Pk	29.2	-36.5	0.5	11.8	-57.41	-13	-44.41	H
4.553200	-64.90	Pk	34.0	-33.0	0.3	11.8	-51.80	-13	-38.80	H
4.629700	-63.69	Pk	34.2	-32.8	0.3	11.8	-50.19	-13	-37.19	V
9.583300	-66.47	Pk	36.6	-25.2	0.5	11.8	-42.77	-13	-29.77	V
9.686800	-66.39	Pk	36.7	-24.6	0.3	11.8	-42.19	-13	-29.19	H
High Channel, 708.5MHz										
1.412200	-60.02	Pk	28.4	-37.2	0.5	11.8	-56.52	-13	-43.52	V
1.863100	-61.78	Pk	30.6	-36.7	0.4	11.8	-55.68	-13	-42.68	H
5.904100	-65.72	Pk	34.9	-30.9	0.4	11.8	-49.52	-13	-36.52	H
6.064300	-66.73	Pk	35.2	-30.1	0.4	11.8	-49.43	-13	-36.43	V
9.051400	-65.56	Pk	36	-25.3	0.5	11.8	-42.56	-13	-29.56	V
9.559900	-66.60	Pk	36.7	-25.0	0.4	11.8	-42.70	-13	-29.70	H

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

Project #:	15980274
Date:	2025-10-07
Test Engineer:	112113 / 11993
Configuration:	EUT Only
Mode	5G NR n12 BPSK 15MHz
Chamber #:	Chamber 4

Frequency (GHz)	Meter Reading (dBm)	Det	206211 ACF (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 706.5MHz										
1.867600	-62.48	Pk	30.6	-36.8	0.4	11.8	-56.48	-13	-43.48	V
1.901800	-62.51	Pk	30.7	-36.8	0.3	11.8	-56.51	-13	-43.51	H
2.980000	-63.01	Pk	32.6	-36.5	0.4	11.8	-54.71	-13	-41.71	V
2.993500	-63.23	Pk	32.7	-36.3	0.4	11.8	-54.63	-13	-41.63	H
4.990600	-65.40	Pk	33.9	-32.2	0.2	11.8	-51.70	-13	-38.70	H
5.026600	-64.50	Pk	34.0	-32.6	0.3	11.8	-51.00	-13	-38.00	V
Mid Channel, 707.5MHz										
1.807300	-62.83	Pk	30.0	-36.7	0.5	11.8	-57.23	-13	-44.23	H
1.818100	-62.23	Pk	30.1	-36.8	0.5	11.8	-56.63	-13	-43.63	V
3.051100	-63.76	Pk	33.0	-36.1	0.6	11.8	-54.46	-13	-41.46	V
3.055600	-63.76	Pk	33.0	-36.2	0.7	11.8	-54.46	-13	-41.46	H
4.865500	-64.72	Pk	33.9	-32.3	0.2	11.8	-51.12	-13	-38.12	H
4.870900	-65.37	Pk	33.9	-31.8	0.3	11.8	-51.17	-13	-38.17	V
High Channel, 708.5MHz										
1.880200	-62.55	Pk	30.6	-36.8	0.4	11.8	-56.55	-13	-43.55	V
1.912600	-63.36	Pk	30.6	-36.1	0.3	11.8	-56.76	-13	-43.76	H
2.963800	-62.51	Pk	32.5	-36.9	0.5	11.8	-54.61	-13	-41.61	V
2.964700	-63.34	Pk	32.5	-36.8	0.4	11.8	-55.44	-13	-42.44	H
4.092400	-64.84	Pk	33.3	-34.0	0.5	11.8	-53.24	-13	-40.24	V
4.117600	-65.58	Pk	33.3	-33.1	0.6	11.8	-52.98	-13	-39.98	H

9.2.3. LTE BAND 13

LTE BAND 13 (QPSK 10.0MHZ BANDWIDTH, Config 0)

Project #:	15980274
Date:	2025-09-10
Test Engineer:	33271 / 11993
Configuration:	EUT Only
Mode	LTE B12 QPSK 10MHz
Chamber #:	Chamber 2

Frequency (GHz)	Meter Reading (dBm)	Det	88761 ACF(dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	-40dBm (WB limit)	Margin (dB)	-50dBm (NB limit)	Margin (dB)	Polarity
Mid Channel, 782MHz														
1.586800	-50.17	Pk	27.9	-49.1	0.6	11.8	-58.97	-13	-45.97	-40	-18.97	-50	-8.97	H
1.586800	-49.57	Pk	27.9	-49.1	0.6	11.8	-58.37	-13	-45.37	-40	-18.37	-50	-8.37	V
2.032300	-48.96	Pk	31.6	-49.0	0.3	11.8	-54.26	-13	-41.26	-	-	-	-	V
2.035000	-49.83	Pk	31.6	-48.9	0.4	11.8	-54.93	-13	-41.93	-	-	-	-	H
5.340700	-54.42	Pk	34.4	-45	0.2	11.8	-53.02	-13	-40.02	-	-	-	-	V
5.344300	-53.58	Pk	34.4	-44.8	0.2	11.8	-51.98	-13	-38.98	-	-	-	-	H

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

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

Project #:	15980274
Date:	2025-09-12
Test Engineer:	33271 / 11993
Configuration:	EUT Only
Mode	LTE B12 QPSK 10MHz
Chamber #:	Chamber 2

Frequency (GHz)	Meter Reading (dBm)	Det	88761 ACF(dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	-40dBm (WB limit)	Margin (dB)	-50dBm (NB limit)	Margin (dB)	Polarity
Mid Channel, 782MHz														
1.579600	-48.83	Pk	27.9	-49.2	0.4	11.8	-57.93	-13	-44.93	-40	-17.93	-50	-7.93	V
1.584100	-49.90	Pk	27.9	-49.0	0.3	11.8	-58.9	-13	-45.9	-40	-18.9	-50	-8.90	H
2.332000	-47.10	Pk	31.7	-49.4	0.3	11.8	-52.7	-13	-39.7	-	-	-	-	V
2.332900	-49.79	Pk	31.7	-49.3	0.3	11.8	-55.29	-13	-42.29	-	-	-	-	H
3.560500	-52.23	Pk	33.1	-45.9	0.5	11.8	-52.73	-13	-39.73	-	-	-	-	H
3.572200	-52.56	Pk	33.0	-46.8	0.5	11.8	-54.06	-13	-41.06	-	-	-	-	V

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

9.2.4. LTE BAND 71

LTE BAND 71 (QPSK 20.0MHZ BANDWIDTH, Config 0)

Project #:	15980274
Date:	2025-09-11
Test Engineer:	112113 / 11993
Configuration:	EUT Only
Mode	LTE B12 QPSK 20MHz
Chamber #:	Chamber 2

Frequency (GHz)	Meter Reading (dBm)	Det	88761 ACF (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 673MHz										
1.317700	-48.33	Pk	28.8	-48.9	0.5	11.8	-56.13	-13	-43.13	H
1.323100	-48.93	Pk	28.8	-48.7	0.5	11.8	-56.53	-13	-43.53	V
2.314000	-49.19	Pk	31.7	-48.8	0.3	11.8	-54.19	-13	-41.19	V
2.320300	-50.71	Pk	31.7	-49.2	0.4	11.8	-56.01	-13	-43.01	H
3.667600	-53.37	Pk	33.1	-45.7	0.4	11.8	-53.77	-13	-40.77	H
3.669400	-54.17	Pk	33.1	-45.9	0.4	11.8	-54.77	-13	-41.77	V
Mid Channel, 680.5MHz										
1.315900	-47.93	Pk	28.8	-49.0	0.5	11.8	-55.83	-13	-42.83	V
1.324000	-49.04	Pk	28.8	-48.7	0.5	11.8	-56.64	-13	-43.64	H
2.964700	-55.04	Pk	32.6	-46.3	0.4	11.8	-56.54	-13	-43.54	H
2.968300	-53.78	Pk	32.6	-46.4	0.4	11.8	-55.38	-13	-42.38	V
4.717000	-52.27	Pk	34.0	-45.6	0.2	11.8	-51.87	-13	-38.87	V
4.719700	-54.47	Pk	34.0	-45.8	0.2	11.8	-54.27	-13	-41.27	H
High Channel, 688MHz										
1.320400	-48.27	Pk	28.8	-48.8	0.5	11.8	-55.97	-13	-42.97	H
1.324000	-48.05	Pk	28.8	-48.7	0.5	11.8	-55.65	-13	-42.65	V
3.038500	-53.70	Pk	32.9	-46.4	0.7	11.8	-54.70	-13	-41.70	H
3.047500	-54.43	Pk	33	-46.2	0.6	11.8	-55.23	-13	-42.23	V
5.328100	-55.15	Pk	34.4	-45.1	0.2	11.8	-53.85	-13	-40.85	V
5.329900	-54.83	Pk	34.4	-45.1	0.2	11.8	-53.53	-13	-40.53	H

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

Project #:	15980274
Date:	2025-09-15
Test Engineer:	112113 / 11993
Configuration:	EUT Only
Mode	LTE B12 QPSK 20MHz
Chamber #:	Chamber 2

Frequency (GHz)	Meter Reading (dBm)	Det	206211 ACF(dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	Polarity
Low Channel, 673MHz										
1.327600	-46.80	Pk	28.8	-48.5	0.5	11.8	-54.20	-13	-41.20	H
1.327600	-45.38	Pk	28.8	-48.5	0.5	11.8	-52.78	-13	-39.78	V
2.160100	-50.39	Pk	31.4	-49.4	0.4	11.8	-56.19	-13	-43.19	V
2.164600	-50.70	Pk	31.4	-49.2	0.3	11.8	-56.40	-13	-43.40	H
3.284200	-51.89	Pk	32.9	-45.1	0.6	11.8	-51.69	-13	-38.69	V
3.285100	-54.45	Pk	32.9	-45.2	0.6	11.8	-54.35	-13	-41.35	H
Mid Channel, 683MHz										
1.425700	-48.99	Pk	28.3	-50.0	0.5	11.8	-58.39	-13	-45.39	H
1.428400	-49.50	Pk	28.3	-49.7	0.5	11.8	-58.60	-13	-45.60	V
2.031400	-48.28	Pk	31.6	-49.2	0.3	11.8	-53.78	-13	-40.78	V
2.037700	-49.67	Pk	31.6	-49.0	0.4	11.8	-54.87	-13	-41.87	H
3.026800	-53.76	Pk	32.8	-46.6	0.5	11.8	-55.26	-13	-42.26	H
3.033100	-53.79	Pk	32.9	-46.5	0.6	11.8	-54.99	-13	-41.99	V
High Channel, 688MHz										
1.492300	-48.92	Pk	27.7	-49.3	0.5	11.8	-58.22	-13	-45.22	V
1.501300	-51.44	Pk	27.7	-49.2	0.5	11.8	-60.64	-13	-47.64	H
2.249200	-50.09	Pk	31.6	-48.8	0.4	11.8	-55.09	-13	-42.09	H
2.250100	-50.03	Pk	31.7	-48.9	0.4	11.8	-55.03	-13	-42.03	V
2.995300	-53.74	Pk	32.6	-45.5	0.4	11.8	-54.44	-13	-41.44	H
3.000700	-54.32	Pk	32.7	-45.8	0.4	11.8	-55.22	-13	-42.22	V

9.2.5. 5G NR n71

5G NR n71 (BPSK 35.0MHZ BANDWIDTH, Config 0)

Project #:	15980274
Date:	2025-10-07
Test Engineer:	84740 / 11993
Configuration:	EUT Only
Mode	5G NR n12 BPSK 35MHz
Chamber #:	Chamber 4

Frequency (GHz)	Meter Reading (dBm)	Det	206211 ACF(dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	Polarity
Mid Channel, 680.5MHz										
1.326700	-58.31	Pk	29.2	-36.3	0.5	11.8	-53.11	-13	-40.11	V
2.509300	-62.89	Pk	32.4	-36.2	0.4	11.8	-54.49	-13	-41.49	H
5.923900	-63.91	Pk	35.0	-31.3	0.4	11.8	-48.01	-13	-35.01	V
6.743800	-67.22	Pk	35.5	-29.0	0.4	11.8	-48.52	-13	-35.52	H
9.484300	-65.5	Pk	36.6	-25.8	0.4	11.8	-42.50	-13	-29.50	V
9.591400	-65.86	Pk	36.6	-25.0	0.4	11.8	-42.06	-13	-29.06	H

5G NR n71 (BPSK 35.0MHZ BANDWIDTH, Config 1)

Project #:	15980274
Date:	2025-10-09
Test Engineer:	112113 / 11993
Configuration:	EUT Only
Mode	5G NR n12 BPSK 35MHz
Chamber #:	Chamber 4

Frequency (GHz)	Meter Reading (dBm)	Det	206211 ACF(dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	Limit (dBm)	Margin (dB)	Polarity
Mid Channel, 680.5MHz										
1.326700	-63.02	Pk	29.2	-36.3	0.5	11.8	-57.82	-13	-44.82	H
1.326700	-59.71	Pk	29.2	-36.3	0.5	11.8	-54.51	-13	-41.51	V
2.503000	-63.16	Pk	32.4	-35.9	0.3	11.8	-54.56	-13	-41.56	H
2.503000	-63.74	Pk	32.4	-35.9	0.3	11.8	-55.14	-13	-42.14	V
3.891700	-65.15	Pk	33.4	-33.9	0.2	11.8	-53.65	-13	-40.65	V
3.895300	-65.61	Pk	33.4	-33.9	0.2	11.8	-54.11	-13	-41.11	H

10. SETUP PHOTOS

Refer to 15980274-EP1 for setup photos.

END OF REPORT