

TEST REPORT

Report Number: R15980274-E14C

Applicant : Samsung Electronics Co Ltd
129, SAMSUNG-RO, YEONGTONG-GU, SUWON-SI
GYEONGGI-DO, 16677, REP. OF KOREA

Model : SC-51G, SCG36

FCC ID : A3LSMS942JPN

EUT Description : GSM/WCDMA/LTE/NR Phone + BT/BLE, DTS/UNII
a/b/g/n/ac/ax/be, WPT and NFC

Test Standard(s) : FCC 47 CFR PART 2, PART 27, PART 25
ISED RSS-GEN ISSUE 5 + A1 + A2, RSS-130 ISSUE 2

Date Of Issue:
2025-12-31

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Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2025-12-31	Initial Review	Noah Bennett

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Samsung Electronics Co Ltd
129, Samsung-ro, Yeongtong-gu, Suwon-si,
Gyeonggi-do, 16677, Rep. of Korea

EUT DESCRIPTION: GSM/WCDMA/LTE/NR Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax/be, WPT and
NFC

SERIAL NUMBERS: YHI0909M, YHK0046M, YHK0177M, YKA2427M

SAMPLE RECEIVE DATE: 2025-09-11, 2025-10-07, 2025-11-19

DATE TESTED: 2025-09-11 to 2025-12-23

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47 CFR PART 2, PART 27, PART 25	Complies
ISED RSS-GEN ISSUE 5 + A1 + A2, RSS 130 Issue 2	

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document.

Approved & Released For
UL LLC By:

Prepared By:



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UL LLC

2. SUMMARY OF TEST RESULTS

This report contains data provided by the customer which can impact the validity of results. UL LLC is only responsible for correctly integrating customer-provided data with measurements performed by UL LLC.

Requirement Description	Band	Requirement Clause Number (FCC)	Requirement Clause Number (ISED)	Result	Remarks
Effective Radiated Power	12	27.50 (c) (10)	RSS130\$4.6.3	Complies	None.
	13	27.50 (b) (10)	RSS130\$4.6.3	Complies	None.
Occupied Bandwidth	12, 13	2.1049	RSS-GEN\$6.7 RSS130\$4.5	Complies	None.
Band Edge and Emission Mask	12, 13	2.1051, 27.53 (g), 27.53 (c) (f)	RSS130\$4.7	Complies	None.
Out of Band Emissions	12, 13	2.1051, 27.53 (g), 27.53 (c) (f)	RSS130\$4.7	Complies	None.
Frequency Stability	12, 13	2.1055, 27.54	RSS130\$4.5	Complies	None.
Peak-to-Average Ratio	12, 13	-	RSS130\$4.6.1	Complies	None.
Field Strength of Spurious Radiation	12, 13	2.1053, 27.53 (g), 27.53 (c) (f)	RSS130\$4.7	Complies	None.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with the following.

FCC published lists of [measurement procedures](#) for compliance testing.

ISED published lists of [normative test standards and acceptable alternatives procedures](#).

- ANSI C63.26:2015
- ANSI/TIA-603-E (2016)
- FCC 47 CFR Part 2, Part 27, Part 25
- [FCC KDB 971168 D01](#): Power Meas License Digital Systems (ISED acceptable alternative procedure)
- [FCC KDB 971168 D02](#): Misc Rev Approv License Devices
- [FCC KDB 412172 D01](#): Determining ERP and EIRP
- [FCC KDB 273109 D02](#): Part 25 SCS and CMRS-Bands
- ISED RSS-Gen Issue 5 + A1 + A2, RSS-130 Issue 2

4. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, Certificate Number 0751.06, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☒	Building 2800 Suite Perimeter Park Dr. Suite B Morrisville, NC 27560, USA	US0067	27265	825374

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement Uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U _{Lab}
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.52 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	4.88 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.24 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.37 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.17 dB
Occupied Channel Bandwidth	±0.39 %
Temperature	±0.9 °C
Supply voltages	±0.45 %
Time	±0.02 %

Uncertainty figures are valid to a confidence level of 95%.

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

6. EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE/NR Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax/be, WPT and NFC.

The EUT supports the following LTE and 5G NR Bands and their antenna configurations:

Mode and Bands	Config 0	Config 1
LTE Band12	ANT E	ANT A
LTE Band13		

6.2. MAXIMUM OUTPUT POWER

EIRP/ERP TEST PROCEDURE

ANSI C63.26:2015
KDB 971168 D01 Section 5.6

$ERP/EIRP = P_{Meas} + GT - LC$

where: ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as P_{Meas} , typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

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

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

EUT includes different power levels for head use configuration and body use configuration and the tables below contain the highest of all configurations average conducted and peak ERP output powers as follows:

LTE BAND 12, CONFIG 0

Part 27 / RSS 130								
ERP Limit (W)		3.00						
Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	ERP Average (dBm)	ERP Average (W)	99% BW (MHz)	99% BW (kHz)	Emission Designator
1.4	QPSK	699.7	715.3	17.61	0.058	1.093	1093	1M09G7W
10.0	QPSK	704.0	711.0	17.35	0.054	8.955	8954.5	8M95G7W
	16QAM			16.55	0.045	8.949	8949	8M95D7W

LTE BAND 12, CONFIG 1

Part 27 / RSS 130								
ERP Limit (W)		3.00						
Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	ERP Average (dBm)	ERP Average (W)	99% BW (MHz)	99% BW (kHz)	Emission Designator
10.0	QPSK	704.0	711.0	15.99	0.040	8.955	8955	8M95G7W
	16QAM			15.88	0.039	8.949	8949	8M95D7W

LTE BAND 13, CONFIG 0

Part 27 / RSS 130								
ERP Limit (W)		3.00						
Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	ERP Average (dBm)	ERP Average (W)	99% BW (MHz)	99% BW (kHz)	Emission Designator
5.0	QPSK	779.5	784.5	19.35	0.086	4.502	4501.9	4M50G7W
10.0	QPSK	782.0	782.0	19.11	0.081	8.984	8984	8M98G7W
	16QAM			18.47	0.070	8.984	8984	8M98D7W

LTE BAND 13, CONFIG 1

Part 27 / RSS 130								
ERP Limit (W)		3.00						
Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	ERP Average (dBm)	ERP Average (W)	99% BW (MHz)	99% BW (kHz)	Emission Designator
10.0	QPSK	782.0	782.0	15.80	0.038	8.984	8984	8M98G7W
	16QAM			15.05	0.032	8.984	8984	8M98D7W

6.3. MAXIMUM ANTENNA GAIN

The antenna(s) gain, as provided by the manufacturer' are as follows:

Frequency Band	ANT E Antenna Gain (dBi)	ANT A Antenna Gain (dBi)
LTE Band 12 / 699 – 716 MHz	-2.9	-3.7
LTE Band 13 777 – 787 MHz	-4.2	-4.3

6.4. WORST-CASE CONFIGURATION AND MODE

This report covers the following technologies:

- LTE Band 12
- LTE Band 13

For 5G NRs, conducted spurious emission tests were conducted on wider bandwidth with inner 1RB since this is the worst bandwidth and the highest output power.

BPSK modulation applied only for 5G NR frequencies and has the same tune up power as QPSK modulations.

The DFT-s-OFDM and CP-OFDM waveforms were investigated, and DFT-s-OFDM was found to be the worst case.

The worst-case scenario for all measurements is based upon an engineering evaluation made on conducted average power provided by the manufacturer. The modulations with the highest output power were selected as worst-case. Conducted tests were performed on the worst-case antenna port per band. Full radiated Emissions Testing on each antenna was performed and reported.

LTE & 5G NR Bands	Worst-Case Antenna Port	Worst-Case Modulation
LTE Band 12 / 699 – 716 MHz	ANT A	LTE (QPSK)
LTE Band 13 777 – 787 MHz	ANT A	

The EUT was investigated in three orthogonal orientations X/Y/Z on all available antennas to determine the worst-case orientation. The following table exhibits the worst-case orientation. The full tests of the EUT have made upon the orientations that shown in the table below.

Frequency Range	ANT E	ANT A
663 – 849 MHz	Z	Y

Radiated spurious emissions were investigated from 9kHz to 30MHz, 30MHz-1GHz and above 1GHz. There were no emissions found with less than 20dB of margin from 9kHz to 1GHz.

For simultaneous transmission of multiple channels in the 2.4GHz/5GHz WLAN, UWB, and Cellular bands, tests were conducted for various configurations having the highest power, least separation in frequencies and widest operation bandwidths. No noticeable new emission was found.

This report covers 2 models, the model differences and the representative model is shown below:

Representative Model	Difference	Derivative Model
		SCG36
SC-51G	Hardware	Same as SC-51G
	Software	Different UI

6.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Power Adapter	Flextronics	G-1000-US	Na	na

I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB-C	1	USB-C	Shielded	<3m	Phone to power adapter

TEST SETUP

The EUT was connected to a base station simulator and set to transmit at max power for LTE and 5G NR testing

SETUP DIAGRAM

Please see R15980274-EP1c for Setup Diagrams and Setup Photos

7. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 1)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	0.009-30MHz				
65682	Active Loop Antenna	ETS-Lindgren	6502	2025-10-14	2027-10-14
	30-1000 MHz				
90629	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2024-01-30	2026-01-30
	18-40 GHz				
91186	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2024-05-16	2026-05-16
91187	Horn Antenna, 26-40GHz	ARA	MWH-2640/B	2024-05-17	2026-05-17
	Gain-Loss Chains				
135999	Gain-loss string: 18-40GHz	Various	Various	2025-05-31	2026-05-31
	Receiver & Software				
206459	Spectrum Analyzer	Rohde & Schwarz	FSW	2025-09-15	2026-09-15
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
	Additional Equipment used				
241205	Environmental Meter	Fisher Scientific	15-077-963	2025-08-05	2027-08-05
212967	Wideband Radio Communications Tester	Rohde and Schwarz	CMW500	2025-02-07	2026-02-07

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 4)

Equip. ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	1-18 GHz				
206211	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2024-04-09	2026-04-09
	Gain-Loss Chains				
207640	Gain-loss string: 1-18GHz	Various	Various	2025-06-13	2026-06-13
	Receiver & Software				
197954	Spectrum Analyzer	Rohde & Schwarz	ESW44	2025-04-21	2026-04-21
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
	Additional Equipment used				
241204	Environmental Meter	Fisher Scientific	15-077-963	2025-08-05	2027-08-05
212967	Wideband Radio Communications Tester	Rohde and Schwarz	CMW500	2025-02-07	2026-02-07
212166	Wideband Radio Communications Tester	Anritsu	MT8821C	2025-01-20	2026-01-20
198917	1GHz high-pass filter, 2W, Fhigh =18GHz	Micro-Tronics	HPM18129-02	2025-03-13	2026-03-13
169108 (BRF010)	1.85-1.97GHz notch filter, 2W, Fhigh = 9GHz	Micro-Tronics	BRM50714-01	2025-03-13	2026-03-13
169106 (BRF008)	1710-1785MHz notch filter, 2W, Fhigh = 9GHz	Micro-Tronics	BRM50713-01	2025-03-13	2026-03-13
231408 (BRF011)	2.495-2.690GHz notch filter, 2W, Fhigh = 18GHz	Micro-Tronics	BRM50709-01	2025-03-13	2026-03-13

Wireless Conducted Measurement Equipment.

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	Additional Equipment used				
90411	Spectrum Analyzer MY54490314	Keysight Technologies	N9030A	2025-07-30	2026-07-30
231913	Spectrum Analyzer	Keysight Technologies	N9030B	2025-04-29	2026-04-29
212967	Wideband Radio Communications Tester 170733	Rohde and Schwarz	CMW500	2025-02-07	2026-02-07
222797	Wideband Radio Communications Tester	Rohde and Schwarz	CMW500	2025-02-21	2026-02-28
262469	Humidity and Temperature Probe	Control Company	15-077-963	2024-04-28	2026-04-28
207726	Temp/Humid Chamber	Thermotron	SM-32-8200	2025-01-15	2026-01-15
179892	Environmental Meter	Fisher Scientific	15-077-963	2025-08-05	2026-08-05
90416	Spectrum Analyzer	Keysight Technologies	N9030A	2025-07-25	2026-07-25
76022	DC Regulated Power Supply	CircuitSpecialists.Com	CSI3005X5	NA	NA
SOFTEMI	Antenna Port Software	UL	Version 2022.8.16	NA	NA

Test Equipment Used - Wireless Conducted Attenuators, Cables, and Couplers

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	Attenuators				
226554	20dB Attenuator	CentricRF	C18S2-20	2025-03-19	2026-03-19
226552	20dB Attenuator	CentricRF	C18S2-20	2025-03-19	2026-03-19
	Cables				
80865	SMA Cable	Huber + Suhner	104PEA	2025-09-05	2026-09-05
247384	SMA Cable	Huber + Suhner	104PEA	2025-09-05	2026-09-05
246257	SMA Cable	Huber + Suhner	104PEA	2025-09-05	2026-09-05
	Couplers				
238018 (CPL003-SAR)	Ultra-Wideband Directional Coupler 0.5-18GHz	Mini-Circuits	ZUDC10-183+	2025-04-48	2026-04-28

NOTES:

- * Testing is completed before equipment expiration date
- Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

8. CONDUCTED TEST RESULTS

8.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

ISED: RSS130§4.5

LIMITS

For reporting purposes only.

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the middle channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

RESULTS

There is no limit required and power is the same for low, middle and high channel; therefore, only middle channel was tested.

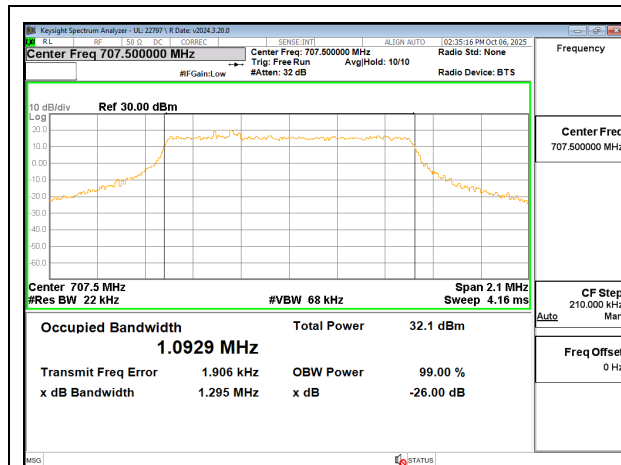
LTE BAND 12

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 12	1.4MHz, QPSK	6/0	707.5	1.093	1.30
	1.4MHz, 16QAM			1.094	1.43
	3MHz, QPSK	15/0		2.705	3.05
	3MHz, 16QAM			2.706	3.08
	5MHz, QPSK	25/0		4.492	5.05
	5MHz, 16QAM			4.500	5.09
	10MHz, QPSK	50/0		8.955	9.96
	10MHz, 16QAM			8.949	10.02
	10MHz, QPSK	1/0		0.263	0.45

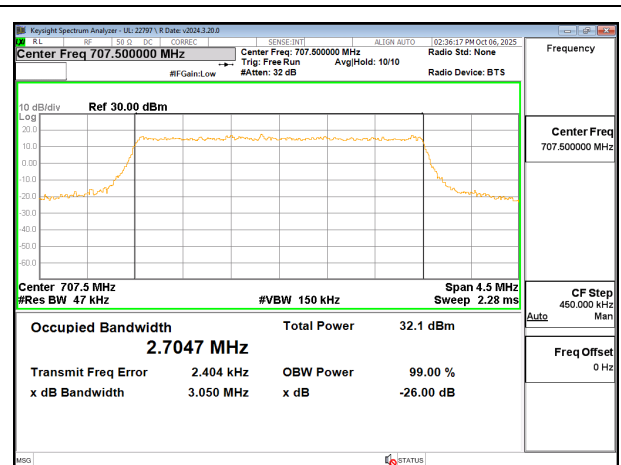
LTE BAND 13

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 13	5MHz, QPSK	25/0	782.0	4.502	5.09
	5MHz, 16QAM			4.502	5.09
	10MHz, QPSK	50/0		8.984	9.96
	10MHz, 16QAM			8.984	9.86
	10MHz, QPSK	1/0		0.250	0.43

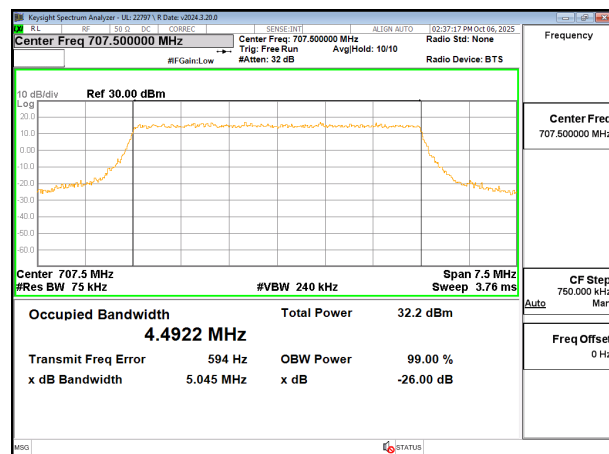
8.1.1. LTE BAND 12



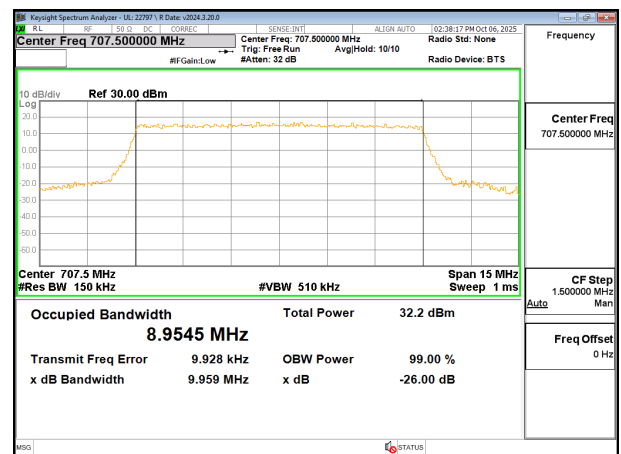
LTE B12 1.4MHz QPSK Middle Channel RB6-0



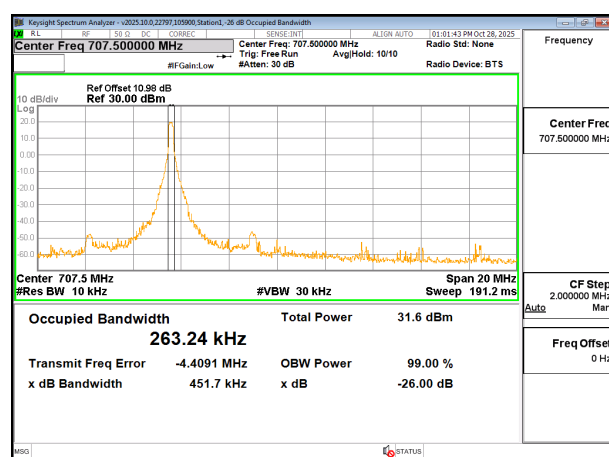
LTE B12 3MHz QPSK Middle Channel RB15-0



LTE B12 5MHz QPSK Middle Channel RB25-0



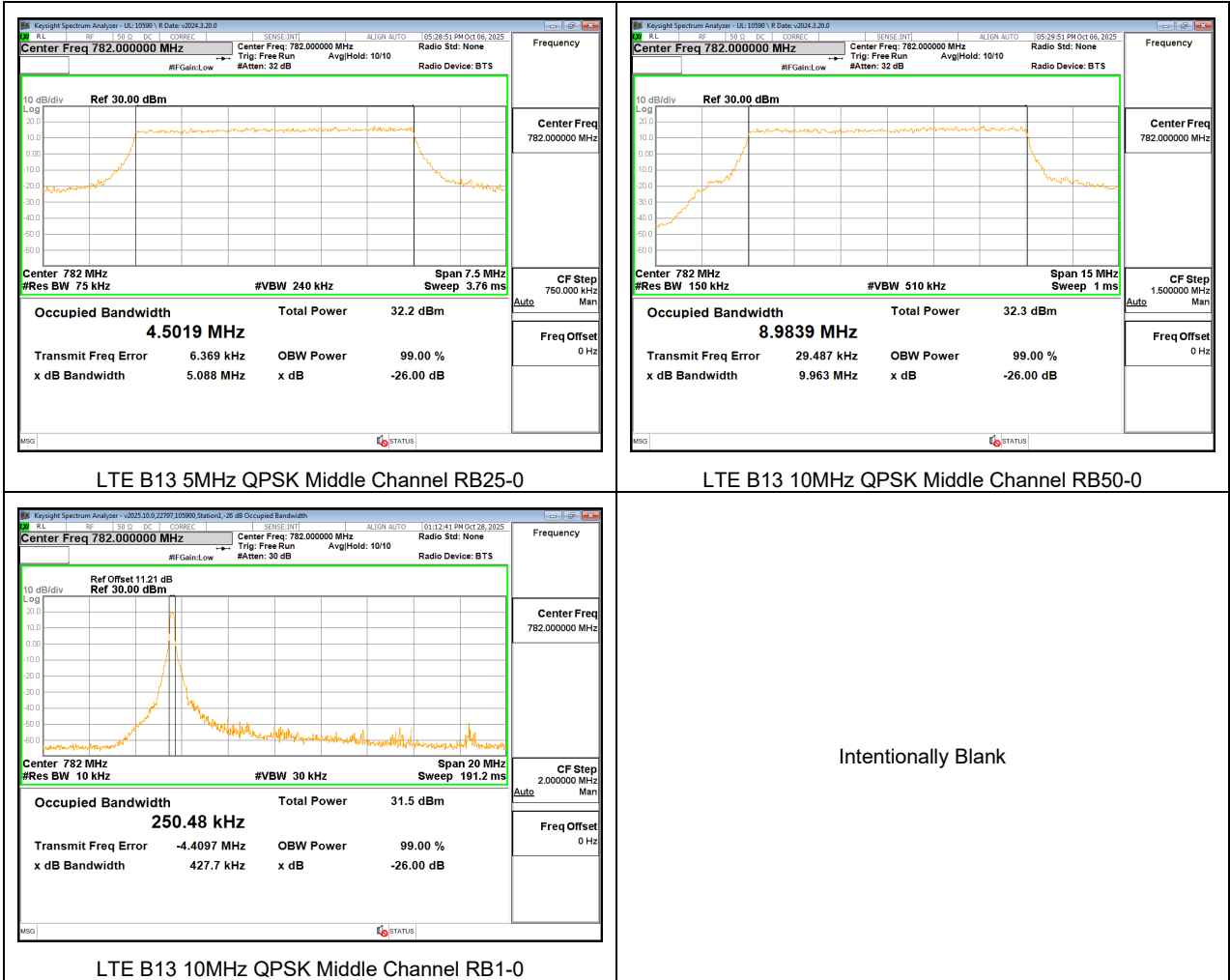
LTE B12 10MHz QPSK Middle Channel RB50-0



LTE B12 10MHz QPSK Middle Channel RB1-0

Intentionally Blank

8.1.2. LTE BAND 13



8.2. EMISSION MASK AND ADJACENT CHANNEL POWER

LIMITS (BAND 12)

FCC: §27.53

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

ISED: RSS130§4.7

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.

LIMITS (BAND 13)

FCC: §27.53

(c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals. (-70 dBW/MHz = -40dBm/MHz).

ISED: RSS130§4.7

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.

TEST PROCEDURE

For Spectrum Emission Mask plots, the spectrum analyzer is configured to sweep with a moving integration window, the width of which can be adjusted to different sizes across the sweep. The window width is configured to be greater than or equal to the required reference bandwidth. The center frequencies of the integration window for the different integration windows was set such that the upper and lower edges of the windows are aligned with the transition points in the reference bandwidths. This is achieved by setting the start / stop frequencies of the window with an offset equal to the reference bandwidth / 2 from the transition point.

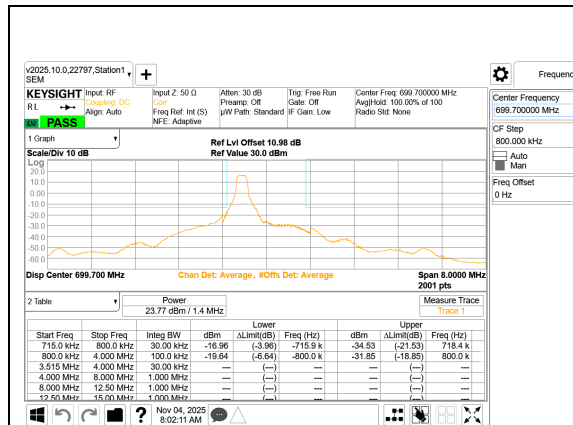
The transmitter output was connected to a base station simulator and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

For each band edge measurement:

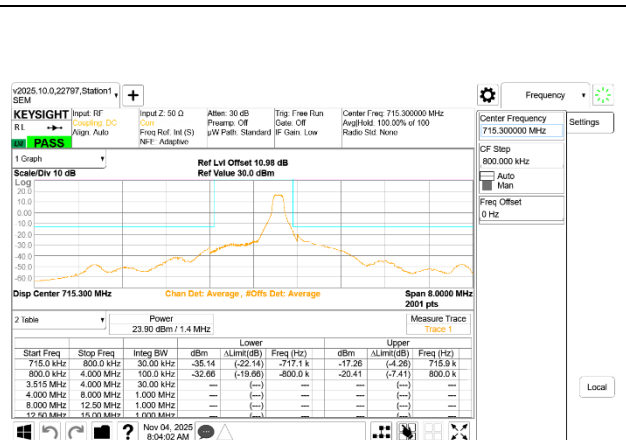
1. Set the spectrum analyzer span to include the block edge frequency.
2. Set a marker to point the corresponding band edge frequency in each test case.
3. Set display line at each different band's requirement limits
4. Set resolution bandwidth to at least 1% of emission bandwidth.

RESULTS

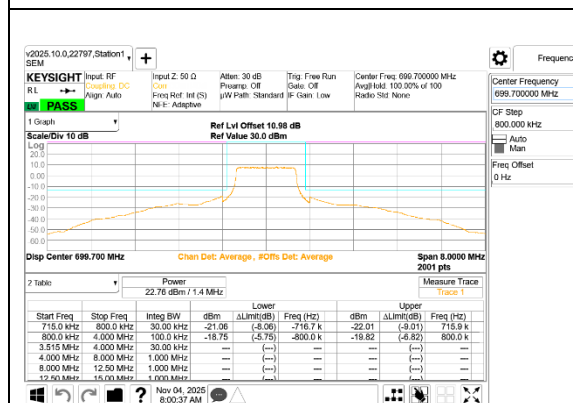
8.2.1. LTE BAND 12



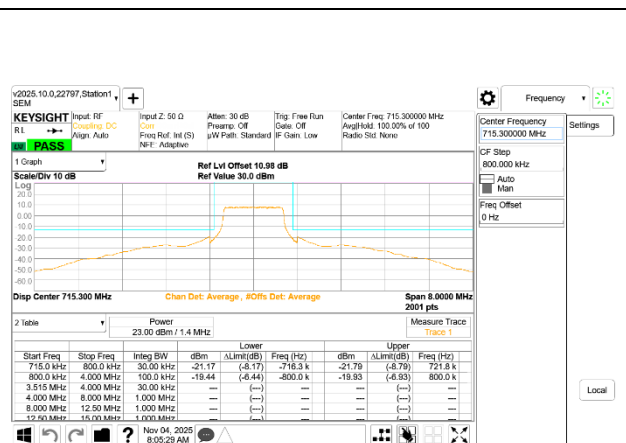
LTE B12 1.4MHz QPSK Low Channel RB1-0



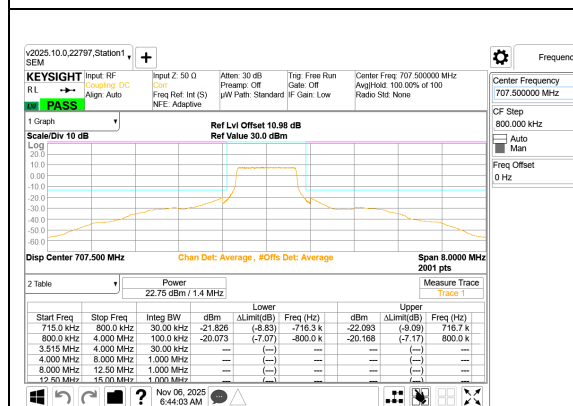
LTE B12 1.4MHz QPSK High Channel RB1-5



LTE B12 1.4MHz QPSK Low Channel RB6-0



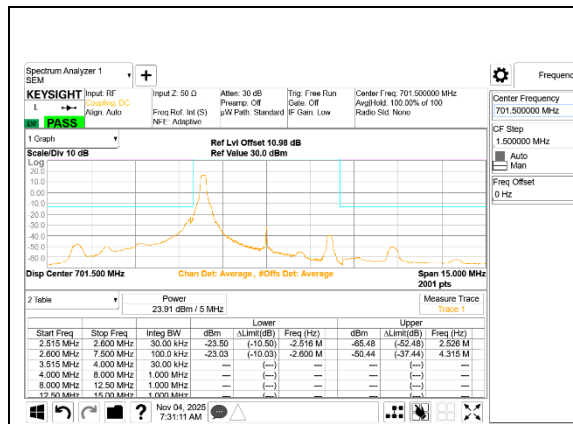
LTE B12 1.4MHz QPSK High Channel RB6-0



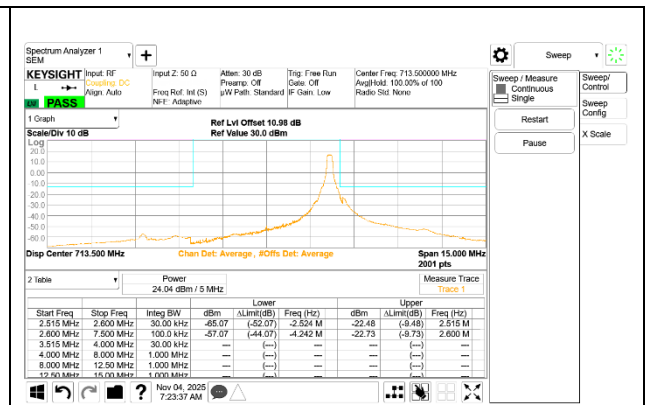
LTE B12 1.4MHz QPSK Mid Channel RB6-0

Intentionally Blank

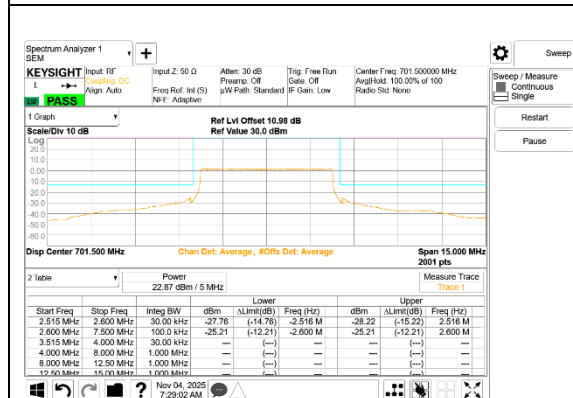




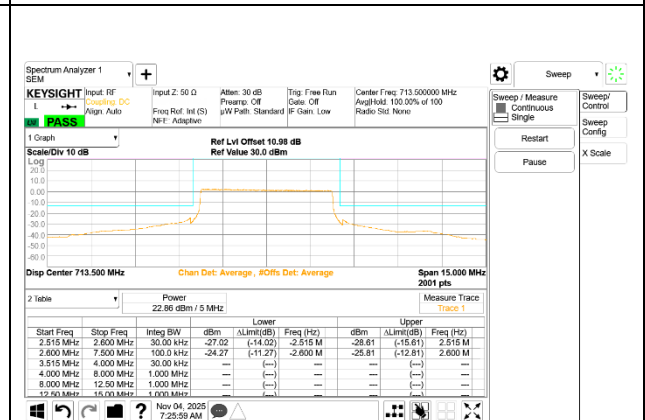
LTE B12 5MHz QPSK Low Channel RB1-0



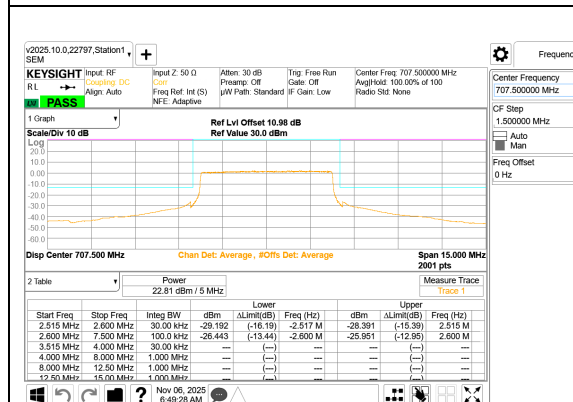
LTE B12 5MHz QPSK High Channel RB1-24



LTE B12 5MHz QPSK Low Channel RB25-0



LTE B12 5MHz QPSK High Channel RB25-0



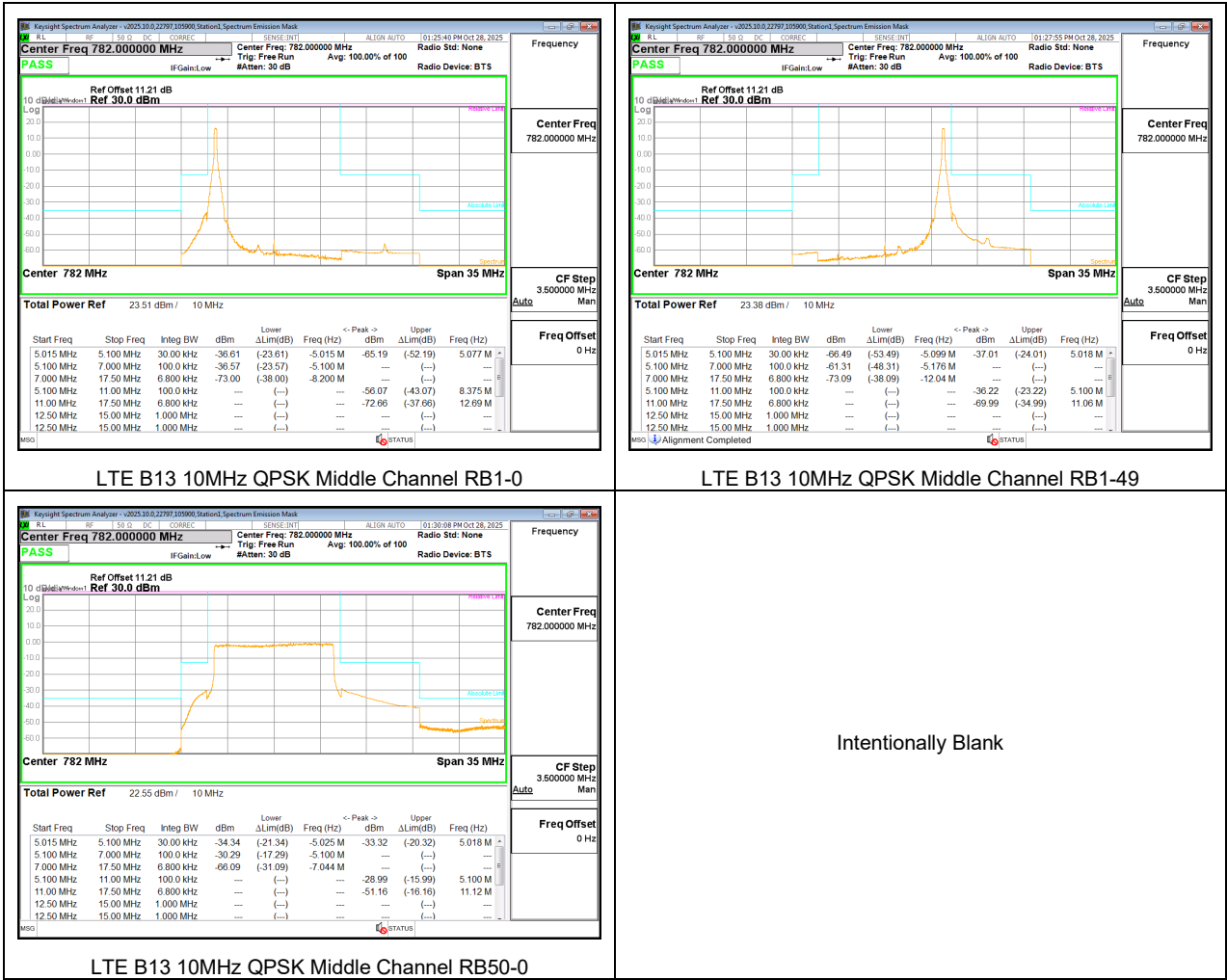
LTE B12 5MHz QPSK Low Channel RB25-0

Intentionally Blank



8.2.2. LTE BAND 13





8.3. OUT OF BAND EMISSIONS

LIMITS (BAND 12)

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

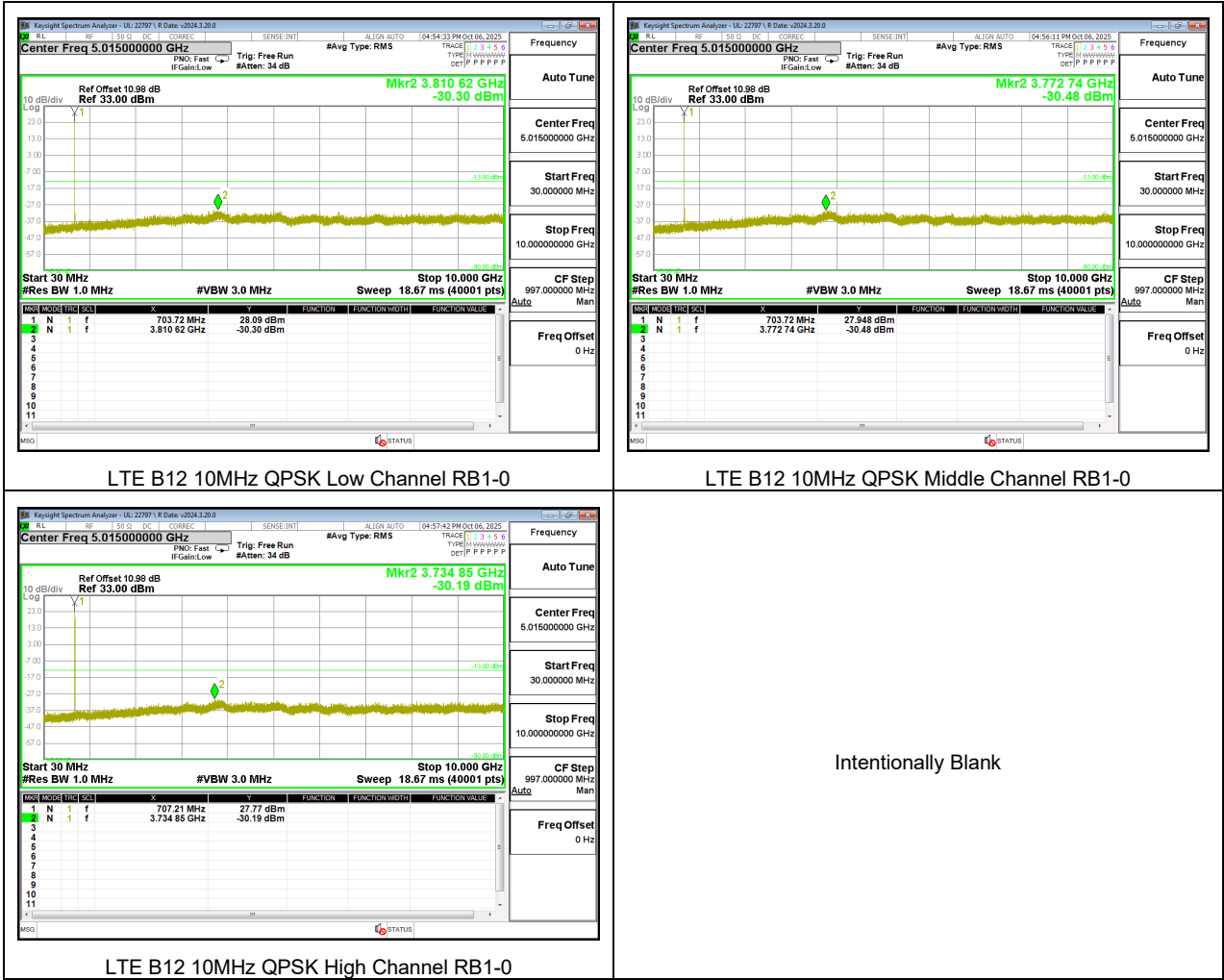
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case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

For each out of band emissions measurement:

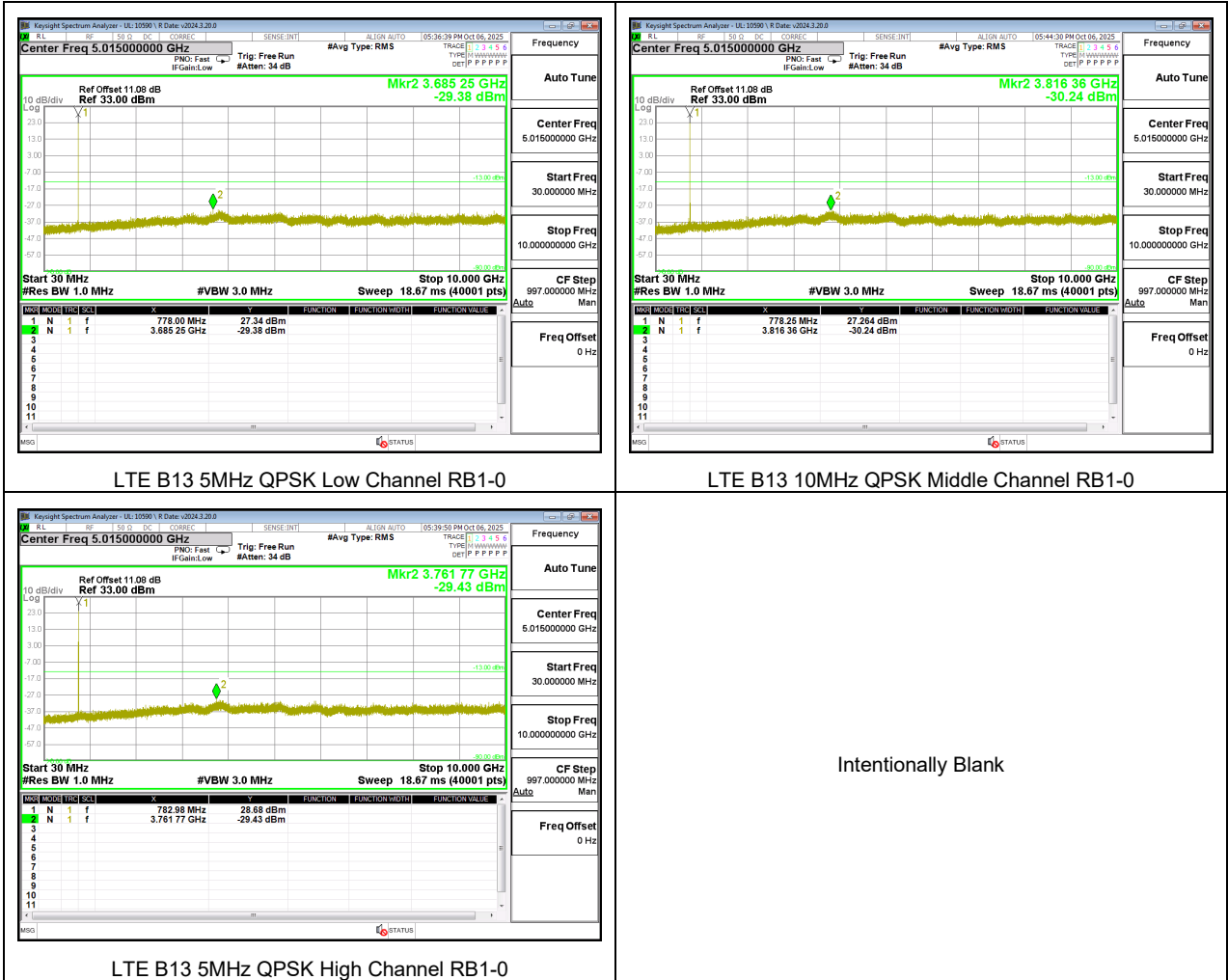
- Set display line at -13 dBm, -25 dBm and -40 dBm according to the band Limit
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.
(NOTE: Worst case set RBW/VBW to 1MHz/3MHz)

RESULTS

8.3.1. LTE BAND 12



8.3.2. LTE BAND 13



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

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
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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. LTE BAND 13 (QPSK 10MHz BANDWIDTH)

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

8.5. 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
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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. LTE BAND 13

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

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.

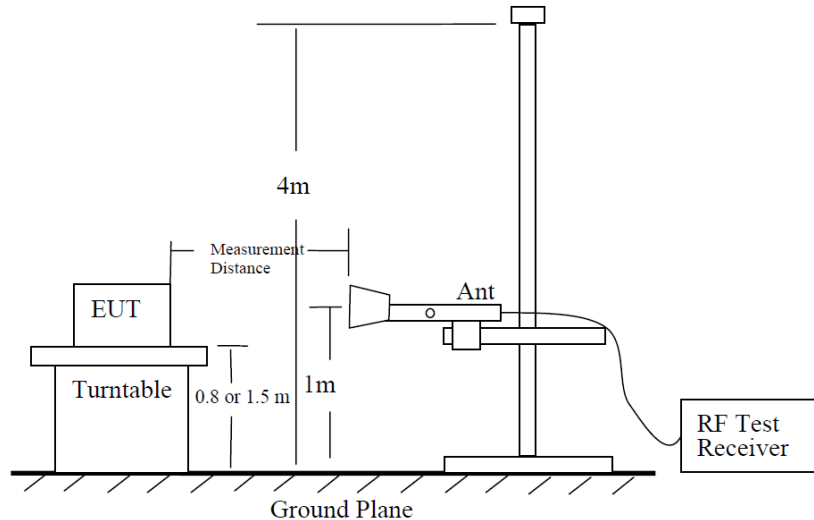


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

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

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-12-23
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 707.05MHz BAND LTE 12 QPSK, 10M BW

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	16.03	H	7.65	-0.65		7.73		7.73	RB1-25
707.50	25.65	V	7.65	-0.65		17.35		17.35	RB1-25

Rev. 10.17.25

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-12-23
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 707.05MHz BAND LTE 12 16QAM, 10M BW

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	15.23	H	7.65	-0.65		6.93		6.93	RB1-25
707.50	24.85	V	7.65	-0.65		16.55		16.55	RB1-25

Rev. 10.17.25

CONFIG 0

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: _____
Project #: 15980274
Date: 2025-09-28 thru 2025-12-23
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 707.05MHz BAND LTE 12 QPSK, 10M BW

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	34.77	-18.78	RB1-0
707.50	10.66	V	7.65	-0.65		2.36	34.77	-32.41	RB1-0

Rev. 10.17.25

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-12-23
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 707.05MHz BAND LTE 12 16QAM, 10M BW

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	34.77	-18.89	RB1-0
707.50	9.87	V	7.65	-0.65		1.57	34.77	-33.20	RB1-0

Rev. 10.17.25

CONFIG 1

9.1.2. LTE BAND 12 WC BANDWIDTH

Company:

Project #:

Date:

Test Engineer:

Configuration:

Mode:

RFSL

15980274

2025-09-28 thru 2025-12-23

19289

EUT Only

TX, 707.05MHz BAND LTE 12 QPSK, 1.4M BW

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	25.91	V	7.65	-0.65		17.61		17.61	RB1-25

Rev. 10.17.25

CONFIG 0

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 2025-12-23									
Test Engineer: 19289									
Configuration: EUT Only									
Mode: TX, 782.0MHz BAND LTE 13 QPSK, 10M BW									

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	18.48	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

Rev. 10.17.25

High Frequency Substitution Measurement UL Morrisville Chamber 4									
Company: RFSL									
Project #: 15980274									
Date: 2025-09-28 thru 2025-12-23									
Test Engineer: 19289									
Configuration: EUT Only									
Mode: TX, 782.0MHz BAND LTE 13 16QAM, 10M BW									

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	18.11	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

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-12-23
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 782.0MHz BAND LTE 13 QPSK, 10M BW

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	24.43	H	7.58	-1.05		15.80	34.77	-18.97	RB1-0
782.00	16.60	V	7.58	-1.05		7.97	34.77	-26.80	RB1-0

Rev. 10.17.25

High Frequency Substitution Measurement
UL Morrisville Chamber 4

Company: RFSL
Project #: 15980274
Date: 2025-09-28 thru 2025-12-23
Test Engineer: 19289
Configuration: EUT Only
Mode: TX, 782.0MHz BAND LTE 13 16QAM, 10M BW

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	23.68	H	7.58	-1.05		15.05	34.77	-19.72	RB1-0
782.00	16.10	V	7.58	-1.05		7.47	34.77	-27.30	RB1-0

Rev. 10.17.25

CONFIG 1

9.1.4. LTE BAND 13 WC BANDWIDTH

High Frequency Substitution Measurement UL Morrisville Chamber 4 Company: RFSL Project #: 15980274 Date: 2025-09-28 thru 2025-12-23 Test Engineer: 19289 Configuration: EUT Only Mode: TX, 782.0MHz BAND LTE 13 QPSK, 5M BW									
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	27.98	V	7.58	-1.05		19.35	34.77	-15.42	RB1-0
Rev. 10.17.25									
CONFIG 0									

9.2. FIELD STRENGTH OF SPURIOUS RADIATION,

LIMITS (BAND 12)

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 #:	15980275
Date:	2025-11-24
Test Engineer:	19289
Configuration:	EUT Only
Mode	LTE12 10MHz QPSK
Chamber #:	Chamber 4

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										
2.2933	-62.06	Pk	31.9	-36.6	.6	11.8	-54.36	-13	-41.36	H
2.3095	-62.06	Pk	31.9	-36.3	.5	11.8	-54.16	-13	-41.16	V
4.3309	-65.05	Pk	33.4	-32.3	.3	11.8	-51.85	-13	-38.85	V
4.4317	-64.75	Pk	33.7	-32.4	.3	11.8	-51.35	-13	-38.35	H
9.5608	-65.95	Pk	36.7	-25.1	.6	11.8	-41.95	-13	-28.95	V
9.6877	-66.47	Pk	36.7	-24.7	.6	11.8	-42.07	-13	-29.07	H
Mid Channel, 707.5MHz										
2.5021	-62.15	Pk	32.4	-36	.4	11.8	-53.55	-13	-40.55	V
2.5048	-62.99	Pk	32.4	-36	.4	11.8	-54.39	-13	-41.39	H
4.7062	-64.44	Pk	34.1	-32.3	.3	11.8	-50.54	-13	-37.54	V
4.9852	-64.25	Pk	33.9	-31.9	.3	11.8	-50.15	-13	-37.15	H
9.1063	-66.54	Pk	36	-24.9	.3	11.8	-43.34	-13	-30.34	H
9.2107	-65.24	Pk	36.3	-25.7	.3	11.8	-42.54	-13	-29.54	V
High Channel, 711MHz										
2.0458	-62.24	Pk	31.7	-36.7	.5	11.8	-54.94	-13	-41.94	H
2.2663	-61.9	Pk	31.8	-36	.5	11.8	-53.8	-13	-40.8	V
4.4371	-64.12	Pk	33.7	-32.4	.3	11.8	-50.72	-13	-37.72	V
4.6729	-64.39	Pk	34.2	-32.7	.4	11.8	-50.69	-13	-37.69	H
9.5383	-66.13	Pk	36.7	-25.2	.5	11.8	-42.33	-13	-29.33	V
9.5428	-66.13	Pk	36.7	-24.8	.5	11.8	-41.93	-13	-28.93	H

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

Project #:	15980275
Date:	2025-11-25
Test Engineer:	19289
Configuration:	EUT Only
Mode	LTE12 10MHz QPSK
Chamber #:	Chamber 4

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										
2.0485	-62.27	Pk	31.7	-36.8	.5	11.8	-55.07	-13	-42.07	V
2.0611	-61.45	Pk	31.7	-36.8	.4	11.8	-54.35	-13	-41.35	H
3.8674	-64.59	Pk	33.5	-33.7	.2	11.8	-52.79	-13	-39.79	V
3.988	-64.1	Pk	33.4	-33.3	.3	11.8	-51.9	-13	-38.9	H
9.5446	-66.73	Pk	36.7	-24.7	.5	11.8	-42.43	-13	-29.43	H
9.5545	-65.32	Pk	36.7	-24.8	.6	11.8	-41.02	-13	-28.02	V
Mid Channel, 707.5MHz										
2.0593	-61.58	Pk	31.7	-36.9	.4	11.8	-54.58	-13	-41.58	V
2.0611	-62.6	Pk	31.7	-36.8	.4	11.8	-55.5	-13	-42.5	H
4.8349	-64.79	Pk	34	-31.8	.4	11.8	-50.39	-13	-37.39	V
4.8493	-64.53	Pk	34	-32.6	.3	11.8	-51.03	-13	-38.03	H
9.0631	-66.24	Pk	36	-25.7	.4	11.8	-43.74	-13	-30.74	V
9.172	-65.13	Pk	36.2	-25.9	.5	11.8	-42.53	-13	-29.53	H
High Channel, 711MHz										
1.9603	-61.26	Pk	31	-36.7	.4	11.8	-54.76	-13	-41.76	V
1.9954	-62.25	Pk	31.3	-36.9	.4	11.8	-55.65	-13	-42.65	H
4.8322	-63.27	Pk	34	-31.8	.4	11.8	-48.87	-13	-35.87	H
5.1013	-64.99	Pk	34.2	-32	.3	11.8	-50.69	-13	-37.69	V
9.5473	-66.25	Pk	36.7	-24.6	.6	11.8	-41.75	-13	-28.75	H
9.5554	-66.22	Pk	36.7	-24.8	.6	11.8	-41.92	-13	-28.92	V

9.2.2. LTE BAND 13

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

Project #:	15980275
Date:	2025-11-24
Test Engineer:	19289
Configuration:	EUT Only
Mode	LTE12 10MHz QPSK
Chamber #:	Chamber 4

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														
1.5733	-62.94	Pk	28	-36.9	.7	11.8	-59.34	-13	-46.34	-40	-19.34	-50	-9.34	V
1.603	-62.43	Pk	28.5	-37.2	.6	11.8	-58.73	-13	-45.73	-40	-18.73	-50	-8.73	H
4.7251	-64.57	Pk	34	-32.2	.2	11.8	-50.77	-13	-37.77	-	-	-	-	H
5.2696	-64.02	Pk	34.3	-32	.2	11.8	-49.72	-13	-36.72	-	-	-	-	V
8.9155	-65.95	Pk	36	-25	.4	11.8	-42.75	-13	-29.75	-	-	-	-	H
9.7102	-66.44	Pk	36.7	-25	.7	11.8	-42.24	-13	-29.24	-	-	-	-	V

* 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 #:	15980275
Date:	2025-11-25
Test Engineer:	19289
Configuration:	EUT Only
Mode	LTE12 10MHz QPSK
Chamber #:	Chamber 4

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														
1.5715	-61.56	Pk	28	-36.9	.7	11.8	-57.96	-13	-44.96	-40	-17.96	-50	-7.96	H
1.6066	-62.49	Pk	28.5	-37.2	.6	11.8	-58.79	-13	-45.79	-40	-18.79	-50	-8.79	V
3.9943	-64.56	Pk	33.4	-33.7	.2	11.8	-52.86	-13	-39.86	-	-	-	-	H
4.1077	-63.31	Pk	33.3	-33	.3	11.8	-50.91	-13	-37.91	-	-	-	-	V
9.5572	-65.76	Pk	36.7	-24.9	.6	11.8	-41.56	-13	-28.56	-	-	-	-	V
9.5833	-65.4	Pk	36.6	-25.2	.6	11.8	-41.6	-13	-28.6	-	-	-	-	H

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

10. SETUP PHOTOS

Refer to 15980274-EP1c for setup photos.

END OF REPORT