PCTEST
7185 Oakland Mills Road, Columbia, MD 21046 USA
Tel. 410.290.6652 / Fax 410.290.6654
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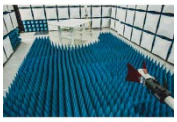

MEASUREMENT REPORT
LTE

Applicant Name:
LG Electronics USA, Inc.
1000 Sylvan Avenue
Englewood Cliffs, NJ 07632
United States

Date of Testing:
02/20 - 03/13/2020
Test Site/Location:
PCTEST Lab. Columbia, MD, USA
Test Report Serial No.:
1M2002170022-03.ZNF

FCC ID:	**ZNFQ730TM**
APPLICANT:	**LG Electronics USA, Inc.**

Application Type:	Class II Permissive Change
Model:	LM-Q730TM
Additional Model(s):	LM-Q730MM, LMQ730TM, LMQ730MM, Q730TM, Q730MM
EUT Type:	Portable Handset
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	22, 24, & 27
Test Procedure(s):	ANSI C63.26-2015, ANSI/TIA-603-E-2016, KDB 971168 D01 v03r01
Class II Permissive Change:	Please see FCC change document

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Randy Ortanez
President

ACCREDITED
TESTING CERT#2041.01

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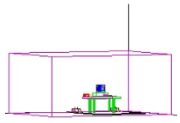
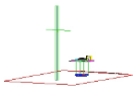


MEASUREMENT REPORT
FCC Part 22, 24, & 27



Mode	FCC Rule Part	Tx Frequency (MHz)	ERP		EIRP		Modulation
			Max. Power (W)	Max. Power (dBm)	Max. Power (W)	Max. Power (dBm)	
LTE Band 71	27	665.5 - 695.5	0.070	18.47			QPSK
LTE Band 71	27	665.5 - 695.5	0.054	17.36			16QAM
LTE Band 71	27	665.5 - 695.5	0.045	16.49			64QAM
LTE Band 71	27	668 - 693	0.070	18.45			QPSK
LTE Band 71	27	668 - 693	0.053	17.28			16QAM
LTE Band 71	27	668 - 693	0.044	16.47			64QAM
LTE Band 71	27	670.5 - 690.5	0.070	18.44			QPSK
LTE Band 71	27	670.5 - 690.5	0.053	17.26			16QAM
LTE Band 71	27	670.5 - 690.5	0.045	16.55			64QAM
LTE Band 71	27	673 - 688	0.072	18.58			QPSK
LTE Band 71	27	673 - 688	0.058	17.67			16QAM
LTE Band 71	27	673 - 688	0.047	16.73			64QAM
LTE Band 12	27	699.7 - 715.3	0.074	18.70	0.122	20.85	QPSK
LTE Band 12	27	699.7 - 715.3	0.068	18.31	0.111	20.46	16QAM
LTE Band 12	27	699.7 - 715.3	0.051	17.07	0.084	19.22	64QAM
LTE Band 12	27	700.5 - 714.5	0.075	18.76	0.123	20.91	QPSK
LTE Band 12	27	700.5 - 714.5	0.067	18.28	0.110	20.43	16QAM
LTE Band 12	27	700.5 - 714.5	0.051	17.10	0.084	19.25	64QAM
LTE Band 12	27	701.5 - 713.5	0.075	18.77	0.124	20.92	QPSK
LTE Band 12	27	701.5 - 713.5	0.069	18.36	0.112	20.51	16QAM
LTE Band 12	27	701.5 - 713.5	0.052	17.16	0.085	19.31	64QAM
LTE Band 12	27	704 - 711	0.077	18.87	0.126	21.02	QPSK
LTE Band 12	27	704 - 711	0.071	18.52	0.117	20.67	16QAM
LTE Band 12	27	704 - 711	0.054	17.33	0.089	19.48	64QAM
LTE Band 13	27	779.5 - 784.5	0.048	16.77	0.078	18.92	QPSK
LTE Band 13	27	779.5 - 784.5	0.039	15.94	0.064	18.09	16QAM
LTE Band 13	27	779.5 - 784.5	0.031	14.87	0.050	17.02	64QAM
LTE Band 13	27	782	0.048	16.78	0.078	18.93	QPSK
LTE Band 13	27	782	0.039	15.93	0.064	18.08	16QAM
LTE Band 13	27	782	0.031	14.87	0.050	17.02	64QAM
LTE Band 26/5	22H	824.7 - 848.3	0.054	17.35	0.089	19.50	QPSK
LTE Band 26/5	22H	824.7 - 848.3	0.047	16.74	0.077	18.89	16QAM
LTE Band 26/5	22H	824.7 - 848.3	0.037	15.67	0.061	17.82	64QAM
LTE Band 26/5	22H	825.5 - 847.5	0.055	17.39	0.090	19.54	QPSK
LTE Band 26/5	22H	825.5 - 847.5	0.048	16.80	0.079	18.95	16QAM
LTE Band 26/5	22H	825.5 - 847.5	0.037	15.68	0.061	17.83	64QAM
LTE Band 26/5	22H	826.5 - 846.5	0.037	15.65	0.060	17.80	QPSK
LTE Band 26/5	22H	826.5 - 846.5	0.031	14.94	0.051	17.09	16QAM
LTE Band 26/5	22H	826.5 - 846.5	0.024	13.87	0.040	16.02	64QAM
LTE Band 26/5	22H	829 - 844	0.055	17.42	0.091	19.57	QPSK
LTE Band 26/5	22H	829 - 844	0.046	16.64	0.076	18.79	16QAM
LTE Band 26/5	22H	829 - 844	0.036	15.61	0.060	17.76	64QAM
LTE Band 26	22H	831.5 - 841.5	0.055	17.37	0.090	19.52	QPSK
LTE Band 26	22H	831.5 - 841.5	0.048	16.82	0.079	18.97	16QAM
LTE Band 26	22H	831.5 - 841.5	0.037	15.65	0.060	17.80	64QAM

EUT Overview (<1 GHz)

Mode	FCC Rule Part	Tx Frequency (MHz)	EIRP		Modulation
			Max. Power (W)	Max. Power (dBm)	
LTE Band 66/4	27	1710.7 - 1779.3	0.166	22.20	QPSK
LTE Band 66/4	27	1710.7 - 1779.3	0.145	21.61	16QAM
LTE Band 66/4	27	1710.7 - 1779.3	0.101	20.04	64QAM
LTE Band 66/4	27	1711.5 - 1778.5	0.169	22.27	QPSK
LTE Band 66/4	27	1711.5 - 1778.5	0.144	21.57	16QAM
LTE Band 66/4	27	1711.5 - 1778.5	0.103	20.13	64QAM
LTE Band 66/4	27	1712.5 - 1777.5	0.167	22.23	QPSK
LTE Band 66/4	27	1712.5 - 1777.5	0.148	21.69	16QAM
LTE Band 66/4	27	1712.5 - 1777.5	0.102	20.09	64QAM
LTE Band 66/4	27	1715 - 1775	0.168	22.26	QPSK
LTE Band 66/4	27	1715 - 1775	0.148	21.71	16QAM
LTE Band 66/4	27	1715 - 1775	0.103	20.12	64QAM
LTE Band 66/4	27	1717.5 - 1772.5	0.164	22.16	QPSK
LTE Band 66/4	27	1717.5 - 1772.5	0.146	21.65	16QAM
LTE Band 66/4	27	1717.5 - 1772.5	0.103	20.12	64QAM
LTE Band 66/4	27	1720 - 1770	0.175	22.43	QPSK
LTE Band 66/4	27	1720 - 1770	0.149	21.74	16QAM
LTE Band 66/4	27	1720 - 1770	0.100	20.02	64QAM
LTE Band 25/2	24E	1850.7 - 1914.3	0.148	21.70	QPSK
LTE Band 25/2	24E	1850.7 - 1914.3	0.104	20.17	16QAM
LTE Band 25/2	24E	1850.7 - 1914.3	0.103	20.15	64QAM
LTE Band 25/2	24E	1851.5 - 1913.5	0.147	21.68	QPSK
LTE Band 25/2	24E	1851.5 - 1913.5	0.100	20.00	16QAM
LTE Band 25/2	24E	1851.5 - 1913.5	0.106	20.24	64QAM
LTE Band 25/2	24E	1852.5 - 1912.5	0.149	21.72	QPSK
LTE Band 25/2	24E	1852.5 - 1912.5	0.102	20.07	16QAM
LTE Band 25/2	24E	1852.5 - 1912.5	0.101	20.04	64QAM
LTE Band 25/2	24E	1855 - 1910	0.145	21.62	QPSK
LTE Band 25/2	24E	1855 - 1910	0.100	19.99	16QAM
LTE Band 25/2	24E	1855 - 1910	0.103	20.13	64QAM
LTE Band 25/2	24E	1857.5 - 1907.5	0.147	21.67	QPSK
LTE Band 25/2	24E	1857.5 - 1907.5	0.100	19.98	16QAM
LTE Band 25/2	24E	1857.5 - 1907.5	0.106	20.24	64QAM
LTE Band 25/2	24E	1860 - 1905	0.149	21.74	QPSK
LTE Band 25/2	24E	1860 - 1905	0.109	20.36	16QAM
LTE Band 25/2	24E	1860 - 1905	0.104	20.17	64QAM

EUT Overview (Mid Bands)

Mode	FCC Rule Part	Tx Frequency (MHz)	EIRP		Modulation
			Max. Power (W)	Max. Power (dBm)	
LTE Band 41 (PC2)	27	2498.5 - 2687.5	0.458	26.61	QPSK
LTE Band 41 (PC2)	27	2498.5 - 2687.5	0.419	26.22	16QAM
LTE Band 41 (PC2)	27	2498.5 - 2687.5	0.274	24.37	64QAM
LTE Band 41 (PC2)	27	2501 - 2685	0.464	26.67	QPSK
LTE Band 41 (PC2)	27	2501 - 2685	0.373	25.72	16QAM
LTE Band 41 (PC2)	27	2501 - 2685	0.270	24.31	64QAM
LTE Band 41 (PC2)	27	2503.5 - 2682.5	0.462	26.65	QPSK
LTE Band 41 (PC2)	27	2503.5 - 2682.5	0.400	26.02	16QAM
LTE Band 41 (PC2)	27	2503.5 - 2682.5	0.269	24.30	64QAM
LTE Band 41 (PC2)	27	2506 - 2680	0.467	26.69	QPSK
LTE Band 41 (PC2)	27	2506 - 2680	0.374	25.72	16QAM
LTE Band 41 (PC2)	27	2506 - 2680	0.293	24.66	64QAM

EUT Overview (High Bands)

1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2 PCTEST Test Location

These measurement tests were conducted at the PCTEST facility located at 7185 Oakland Mills Road, Columbia, MD 21046. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014.

1.3 Test Facility / Accreditations

Measurements were performed at PCTEST located in Columbia, MD 21046, U.S.A.

- PCTEST is an ISO 17025-2005 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.01 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.

- PCTEST TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).

- PCTEST facility is a registered (2451B) test laboratory with the site description on file with ISED.

2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **LG Portable Handset FCC ID: ZNFQ730TM**. The test data contained in this report pertains only to the emissions due to the EUT's LTE function.

Test Device Serial No.: 04880, 04898, 04849, 04856, 04864, 04872

2.2 Device Capabilities

This device contains the following capabilities:

800/850/1900 CDMA/EvDO (BC0, BC1, BC10), 850/1900 GSM/GPRS/EDGE, 850/1700/1900 WCDMA/HSPA, Multi-band LTE, 802.11b/g/n WLAN, 802.11a/n/ac UNII, Bluetooth (1x, EDR, LE), NFC

LTE Band 26 (814.7 – 849 MHz) overlaps the entire frequency range of LTE Band 5 (824 – 849 MHz). Therefore, test data provided in this report covers Band 5 and the portion of Band 26 subject to Part 22.

LTE Band 66 (1710 - 1780 MHz) overlaps the entire frequency range of LTE Band 4 (1710 - 1755 MHz). Therefore, test data provided in this report covers Band 4 as well as Band 66.

LTE Band 25 (1850 - 1915 MHz) overlaps the entire frequency range of LTE Band 2 (1850 - 1910 MHz). Therefore, test data provided in this report covers Band 2 as well as Band 25.

2.3 Test Configuration

The EUT was tested per the guidance of ANSI/TIA-603-E-2016 and KDB 971168 D01 v03r01. See Section 6.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

2.4 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

3.0 DESCRIPTION OF TESTS

3.1 Measurement Procedure

The measurement procedures described in the document titled "Land Mobile FM or PM – Communications Equipment – Measurements and Performance Standards" (ANSI/TIA-603-E-2016) and "Procedures for Compliance Measurement of the Fundamental Emission Power of Licensed Wideband (> 1 MHz) Digital Transmission Systems" (KDB 971168 D01 v03r01) were used in the measurement of the EUT.

3.2 Radiated Power and Radiated Spurious Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. For measurements below 1GHz, the absorbers are removed. A raised turntable is used for radiated measurement. The turn table is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm tall test table made of Styrodur is placed on top of the turn table. A Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

The equipment under test was transmitting while connected to its integral antenna and is placed on a turntable 3 meters from the receive antenna. The receive antenna height is adjusted between 1 and 4 meter height, the turntable is rotated through 360 degrees, and the EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer. Radiated power levels are also investigated with the receive antenna horizontally and vertically polarized. The maximized power level is recorded using the spectrum analyzer "Channel Power" function with the integration band set to the emissions' occupied bandwidth, a RMS detector, RBW = 100kHz, VBW = 300kHz, and a 1 second sweep time over a minimum of 10 sweeps, per the guidelines of KDB 971168 D01 v03r01.

Per the guidance of ANSI/TIA-603-E-2016, a half-wave dipole is then substituted in place of the EUT. For emissions above 1GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer level previously recorded from the spurious emission from the EUT. The power of the emission is calculated using the following formula:

$$P_{d\ [dBm]} = P_{g\ [dBm]} - \text{cable loss}_{\ [dB]} + \text{antenna gain}_{\ [dBd/dBi]}$$

Where, P_d is the dipole equivalent power, P_g is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to $P_{g\ [dBm]}$ – cable loss $_{[dB]}$.

The calculated P_d levels are then compared to the absolute spurious emission limit of -13dBm which is equivalent to the required minimum attenuation of 43 + 10 $\log_{10}$(Power $_{[Watts]}$). For Band 41, the calculated P_d levels are compared to the absolute spurious emission limit of -25dBm which is equivalent to the required minimum attenuation of 55 + 10 $\log_{10}$(Power $_{[Watts]}$).

All radiated measurements are performed in a chamber that meets the site requirements per ANSI C63.4-2014. Additionally, radiated emissions below 30MHz are also validated on an Open Area Test Site to assert correlation with the chamber measurements per the requirements of KDB 474788 D01.

4.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Contribution	Expanded Uncertainty (±dB)
Conducted Bench Top Measurements	1.13
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

5.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
-	LTx1	Licensed Transmitter Cable Set	6/4/2019	Annual	6/4/2020	LTx1
-	LTx5	LIcensed Transmitter Cable Set	6/5/2019	Annual	6/5/2020	LTx5
Agilent	N9020A	MXA Signal Analyzer	4/20/2019	Annual	4/20/2020	US46470561
Agilent	N9038A	MXE EMI Receiver	7/17/2019	Annual	7/17/2020	MY51210133
Agilent	N9030A	PXA Signal Analyzer (44GHz)	6/12/2019	Annual	6/12/2020	MY52350166
Com-Power	PAM-103	Pre-Amplifier (1-1000MHz)	5/10/2019	Annual	5/10/2020	441112
Emco	3115	Horn Antenna (1-18GHz)	3/28/2018	Biennial	3/28/2020	9704-5182
EMCO	3160-09	Small Horn (18 - 26.5GHz)	8/9/2018	Biennial	8/9/2020	135427
ETS Lindgren	3117	1-18 GHz DRG Horn (Medium)	2/14/2019	Biennial	2/14/2021	125518
ETS Lindgren	3164-08	Quad Ridge Horn Antenna	2/22/2019	Biennial	2/22/2021	128338
Mini Circuits	TVA-11-422	RF Power Amp	N/A			QA1317001
Mini-Circuits	SSG-4000HP	Synthesized Signal Generator	N/A			11208010032
Mini-Circuits	PWR-SEN-4RMS	USB Power Sensor	4/20/2019	Annual	4/20/2020	11210140001
Mini-Circuits	SSG-4000HP	Synthesized Signal Generator	N/A			11403100002
Rohde & Schwarz	CMW500	Radio Communication Tester	N/A			100976
Rohde & Schwarz	ESU26	EMI Test Receiver (26.5GHz)	6/5/2019	Annual	6/5/2020	100342
Rohde & Schwarz	SFUNIT-Rx	Shielded Filter Unit	7/11/2019	Annual	7/11/2020	102134
Schwarzbeck	UHA 9105	Dipole Antenna (400 - 1GHz) Tx	4/30/2018	Biennial	4/30/2020	9105-2403
Seekonk	NC-100	Torque Wrench (8" lb)	5/10/2018	Biennial	5/10/2020	N/A
Sunol	DRH-118	Horn Antenna (1-18GHz)	10/3/2019	Biennial	10/3/2021	A050307
Sunol	JB5	Bi-Log Antenna (30M - 5GHz)	4/19/2018	Biennial	4/19/2020	A051107

Table 5-1. Test Equipment

Notes:

Equipment with a calibration date of “N/A” shown in this list was not used to make direct calibrated measurements.

6.0 TEST RESULTS

6.1 Summary

Company Name: LG Electronics USA, Inc.

FCC ID: ZNFQ730TM

FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)

Mode(s): LTE

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
22.913(a)(5)	Effective Radiated Power / Equivalent Isotropic Radiated Power (Band 5/26)	< 7 Watts max. ERP	RADIATED	PASS	Section 7.2
27.50(b)(10) 27.50(c)(10)	Effective Radiated Power / Equivalent Isotropic Radiated Power (Band 71, 12, 13)	< 3 Watts max. ERP			Section 7.2
24.232(c) 27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2/25, 41)	< 2 Watts max. EIRP			Section 7.2
27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4/66)	< 1 Watts max. EIRP			Section 7.2
2.1053 22.917(a) 24.238(a) 27.53(c) 27.53(g) 27.53(h)	Undesirable Emissions (Band 12, 13, 26/5, 66/4, 25/2)	> 43 + 10 $\log_{10}$ (P[Watts]) for all out-of-band emissions			Section 6.3
27.53(f)	Undesirable Emissions (Band 13)	< -70 dBW/MHz (for wideband signals) < -80 dBW (for discrete emissions less than 700Hz BW) For all emissions in the band 1559 – 1610 MHz			Section 6.3
27.53(m)	Undesirable Emissions (Band 41)	Undesirable emissions must meet the limits detailed in 27.53(m)			Section 6.3
27.53(m)	Uplink Carrier Aggregation	Undesirable emissions must meet the limits detailed in 27.53(m)			Section 6.3

Table 6-1. Summary of Radiated Test Results

Notes:

All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.

6.2 Radiated Power (ERP/EIRP)

Test Overview

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.2.1

ANSI/TIA-603-E-2016 – Section 2.2.17

Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation. For signals with burst transmission, the signal analyzer's "time domain power" measurement capability is used
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW ≥ 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points ≥ 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto". Trigger is set to enable triggering only on full power bursts with the sweep time set less than or equal to the transmission burst duration
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signals with burst transmission, the "gating" function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

Test Setup

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

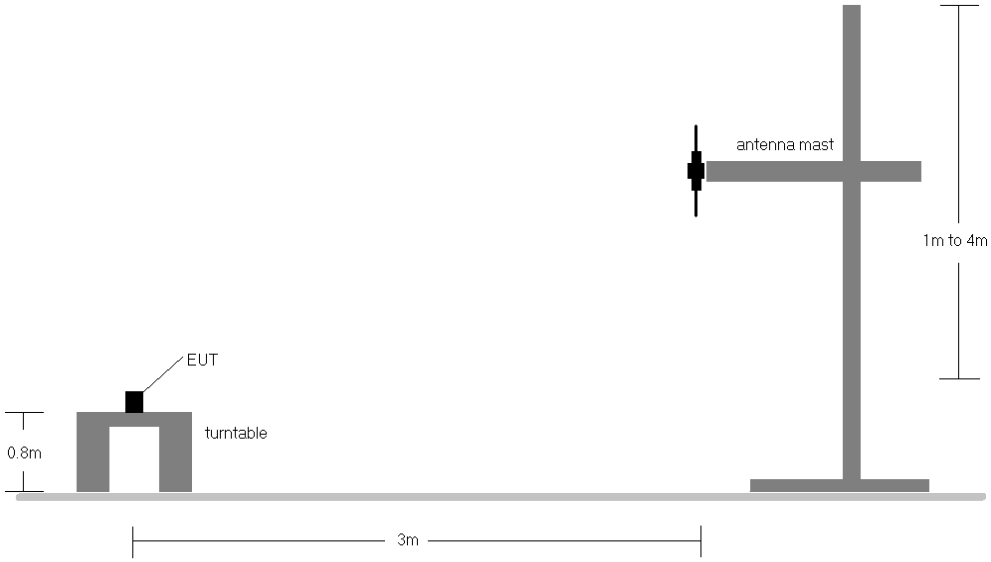


Figure 6-1. Radiated Test Setup <1GHz

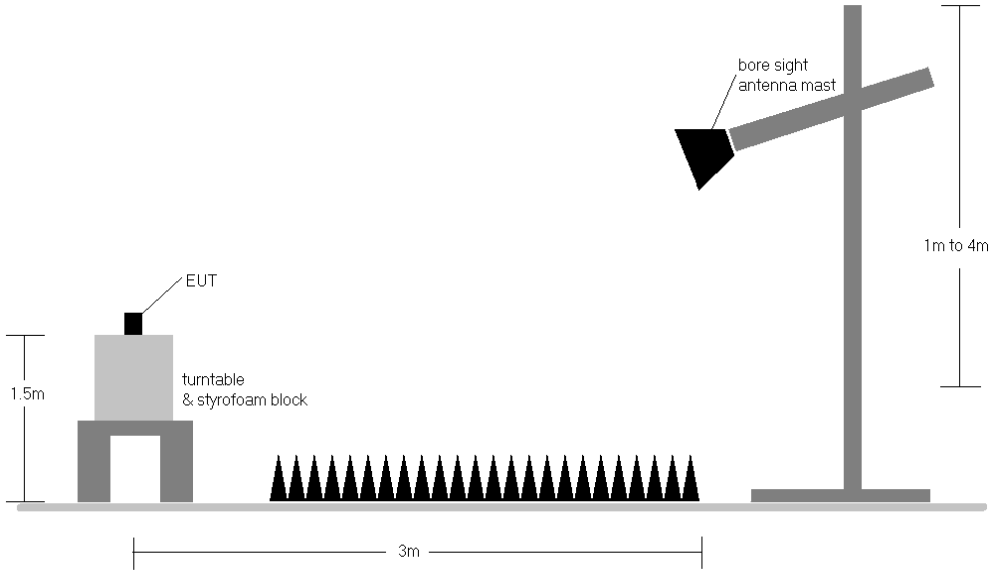


Figure 6-2. Radiated Test Setup >1GHz

Test Notes

1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.

2) This unit was tested with its standard battery.

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
665.50	5	QPSK	V	174	11	1 / 0	16.87	3.75	**18.47**	0.070	34.77	-16.30
680.50	5	QPSK	V	175	6	1 / 0	16.27	4.20	18.32	0.068	34.77	-16.45
695.50	5	QPSK	V	181	358	1 / 0	15.64	4.50	17.99	0.063	34.77	-16.78
680.50	5	16-QAM	V	175	6	1 / 24	15.31	4.20	**17.36**	0.054	34.77	-17.41
665.50	5	64-QAM	V	174	11	1 / 0	14.89	3.75	**16.49**	0.045	34.77	-18.28
668.00	10	QPSK	V	177	12	1 / 0	16.80	3.80	**18.45**	0.070	34.77	-16.32
680.50	10	QPSK	V	175	6	1 / 0	16.31	4.20	18.36	0.069	34.77	-16.41
693.00	10	QPSK	V	186	157	1 / 0	15.63	4.40	17.88	0.061	34.77	-16.89
668.00	10	16-QAM	V	177	12	1 / 0	15.63	3.80	**17.28**	0.053	34.77	-17.49
668.00	10	64-QAM	V	177	12	1 / 0	14.82	3.80	**16.47**	0.044	34.77	-18.30
670.50	15	QPSK	V	175	12	1 / 0	16.69	3.90	**18.44**	0.070	34.77	-16.33
680.50	15	QPSK	V	177	5	1 / 0	16.37	4.20	18.42	0.070	34.77	-16.35
690.50	15	QPSK	V	184	355	1 / 0	15.65	4.40	17.90	0.062	34.77	-16.87
670.50	15	16-QAM	V	175	12	1 / 0	15.51	3.90	**17.26**	0.053	34.77	-17.51
670.50	15	64-QAM	V	175	12	1 / 0	14.80	3.90	**16.55**	0.045	34.77	-18.22
673.00	20	QPSK	V	171	10	1 / 0	16.72	4.00	18.57	0.072	34.77	-16.20
680.50	20	QPSK	V	177	3	1 / 0	16.53	4.20	**18.58**	**0.072**	34.77	-16.19
688.00	20	QPSK	V	186	356	1 / 0	15.65	4.40	17.90	0.062	34.77	-16.87
673.00	20	16-QAM	V	171	10	1 / 0	15.82	4.00	**17.67**	0.058	34.77	-17.10
673.00	20	64-QAM	V	171	10	1 / 0	14.88	4.00	**16.73**	0.047	34.77	-18.04
680.50	20	QPSK	H	144	82	1 / 0	15.96	4.20	18.01	0.063	34.77	-16.76

Table 6-2. ERP Data (Band 71)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
699.70	1.4	QPSK	V	275	64	1 / 5	16.05	4.50	18.40	0.069	34.77	-16.37
707.50	1.4	QPSK	V	282	65	1 / 5	16.25	4.60	**18.70**	0.074	34.77	-16.07
715.30	1.4	QPSK	V	276	64	1 / 5	16.09	4.63	18.57	0.072	34.77	-16.20
707.50	1.4	16-QAM	V	282	65	1 / 5	15.86	4.60	**18.31**	0.068	34.77	-16.46
707.50	1.4	64-QAM	V	282	65	1 / 5	14.62	4.60	**17.07**	0.051	34.77	-17.70
700.50	3	QPSK	V	277	69	1 / 14	16.06	4.55	18.46	0.070	34.77	-16.31
707.50	3	QPSK	V	282	66	1 / 14	16.31	4.60	**18.76**	0.075	34.77	-16.01
714.50	3	QPSK	V	280	70	1 / 14	16.16	4.60	18.61	0.073	34.77	-16.16
707.50	3	16-QAM	V	282	66	1 / 14	15.83	4.60	**18.28**	0.067	34.77	-16.49
707.50	3	64-QAM	V	282	66	1 / 14	14.65	4.60	**17.10**	0.051	34.77	-17.67
701.50	5	QPSK	V	275	68	1 / 24	16.12	4.60	18.57	0.072	34.77	-16.20
707.50	5	QPSK	V	282	67	1 / 24	16.32	4.60	**18.77**	0.075	34.77	-16.00
713.50	5	QPSK	V	275	70	1 / 24	16.11	4.60	18.56	0.072	34.77	-16.21
707.50	5	16-QAM	V	282	67	1 / 24	15.91	4.60	**18.36**	0.069	34.77	-16.41
707.50	5	64-QAM	V	282	67	1 / 24	14.71	4.60	**17.16**	0.052	34.77	-17.61
704.00	10	QPSK	V	278	65	1 / 49	16.18	4.50	18.53	0.071	34.77	-16.24
707.50	10	QPSK	V	281	66	1 / 49	16.42	4.60	**18.87**	**0.077**	34.77	-15.90
711.00	10	QPSK	V	279	66	1 / 49	16.12	4.60	18.57	0.072	34.77	-16.20
707.50	10	16-QAM	V	281	66	1 / 49	16.07	4.60	**18.52**	0.071	34.77	-16.25
707.50	10	64-QAM	V	281	66	1 / 49	14.88	4.60	**17.33**	0.054	34.77	-17.44
707.50	10	QPSK	H	281	66	1 / 49	15.80	4.60	18.25	0.067	34.77	-16.52

Table 6-3. ERP Data (Band 12)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
779.50	5	QPSK	H	241	70	1 / 0	12.91	5.80	16.56	0.045	34.77	-18.21
782.00	5	QPSK	H	240	68	1 / 0	13.12	5.80	**16.77**	0.048	34.77	-18.00
784.50	5	QPSK	H	245	69	1 / 0	12.80	5.90	16.55	0.045	34.77	-18.22
782.00	5	16-QAM	H	240	68	1 / 0	12.29	5.80	**15.94**	0.039	34.77	-18.83
782.00	5	64-QAM	H	240	68	1 / 0	11.22	5.80	**14.87**	0.031	34.77	-19.90
782.00	10	QPSK	H	240	69	1 / 0	13.13	5.80	**16.78**	**0.048**	34.77	-17.99
782.00	10	16-QAM	H	240	69	1 / 0	12.28	5.80	**15.93**	0.039	34.77	-18.84
782.00	10	64-QAM	H	240	69	1 / 0	11.22	5.80	**14.87**	0.031	34.77	-19.90
782.00	10	QPSK	V	158	324	1 / 0	12.76	5.80	16.41	0.044	34.77	-18.36

Table 6-4. ERP Data (Band 13)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
824.70	1.4	QPSK	V	140	165	1 / 5	12.71	6.70	17.26	0.053	38.45	-21.19
836.50	1.4	QPSK	V	137	166	1 / 0	12.80	6.70	**17.35**	0.054	38.45	-21.10
848.30	1.4	QPSK	V	140	155	1 / 0	12.45	6.70	17.00	0.050	38.45	-21.45
824.70	1.4	16-QAM	V	140	165	1 / 5	12.19	6.70	**16.74**	0.047	38.45	-21.71
824.70	1.4	64-QAM	V	140	165	1 / 5	11.12	6.70	**15.67**	0.037	38.45	-22.78
825.50	3	QPSK	V	139	170	1 / 14	12.79	6.70	17.34	0.054	38.45	-21.11
836.50	3	QPSK	V	137	167	1 / 0	12.84	6.70	**17.39**	0.055	38.45	-21.06
847.50	3	QPSK	V	138	158	1 / 0	12.57	6.65	17.07	0.051	38.45	-21.38
825.50	3	16-QAM	V	139	170	1 / 14	12.25	6.70	**16.80**	0.048	38.45	-21.65
825.50	3	64-QAM	V	139	170	1 / 14	11.13	6.70	**15.68**	0.037	38.45	-22.77
826.50	5	QPSK	V	139	170	1 / 24	11.00	6.70	15.55	0.036	38.45	-22.90
836.50	5	QPSK	V	137	167	1 / 0	11.10	6.70	**15.65**	0.037	38.45	-22.80
846.50	5	QPSK	V	138	158	1 / 0	10.70	6.60	15.15	0.033	38.45	-23.30
826.50	5	16-QAM	V	139	170	1 / 24	10.39	6.70	**14.94**	0.031	38.45	-23.51
826.50	5	64-QAM	V	139	170	1 / 24	9.32	6.70	**13.87**	0.024	38.45	-24.58
829.00	10	QPSK	V	135	169	1 / 49	12.86	6.70	17.41	0.055	38.45	-21.04
836.50	10	QPSK	V	136	168	1 / 0	12.87	6.70	**17.42**	**0.055**	38.45	-21.03
844.00	10	QPSK	V	136	157	1 / 0	12.54	6.60	16.99	0.050	38.45	-21.46
829.00	10	16-QAM	V	135	169	1 / 49	12.09	6.70	**16.64**	0.046	38.45	-21.81
829.00	10	64-QAM	V	135	169	1 / 49	11.06	6.70	**15.61**	0.036	38.45	-22.84
836.50	10	QPSK	H	199	166	1 / 0	11.40	6.70	15.95	0.039	38.45	-22.50

Table 6-5. ERP Data (Band 26/5)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
831.50	15	QPSK	V	139	170	1 / 74	12.75	6.70	17.30	0.054	38.45	-21.15
836.50	15	QPSK	V	135	166	1 / 0	12.82	6.70	**17.37**	0.055	38.45	-21.08
841.50	15	QPSK	V	135	161	1 / 0	12.48	6.60	16.93	0.049	38.45	-21.52
831.50	15	16-QAM	V	139	170	1 / 74	12.27	6.70	**16.82**	0.048	38.45	-21.63
831.50	15	64-QAM	V	139	170	1 / 74	11.10	6.70	**15.65**	0.037	38.45	-22.80

Table 6-6. ERP Data (Band 26)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1710.70	1.4	QPSK	H	148	9	1 / 5	12.22	9.44	21.66	0.147	30.00	-8.34
1745.00	1.4	QPSK	H	105	10	1 / 0	12.97	9.23	**22.20**	0.166	30.00	-7.80
1779.30	1.4	QPSK	H	142	9	1 / 0	12.49	9.26	21.75	0.150	30.00	-8.25
1745.00	1.4	16-QAM	H	105	10	1 / 0	12.38	9.23	**21.61**	0.145	30.00	-8.39
1779.30	1.4	64-QAM	H	142	9	1 / 0	10.78	9.26	**20.04**	0.101	30.00	-9.96
1711.50	3	QPSK	H	151	11	1 / 14	12.29	9.44	21.73	0.149	30.00	-8.27
1745.00	3	QPSK	H	102	12	1 / 0	13.04	9.23	**22.27**	0.169	30.00	-7.73
1778.50	3	QPSK	H	140	10	1 / 0	12.41	9.26	21.67	0.147	30.00	-8.33
1745.00	3	16-QAM	H	102	12	1 / 0	12.34	9.23	**21.57**	0.144	30.00	-8.43
1778.50	3	64-QAM	H	140	10	1 / 0	10.87	9.26	**20.13**	0.103	30.00	-9.87
1712.50	5	QPSK	H	151	12	1 / 24	12.26	9.43	21.69	0.148	30.00	-8.31
1745.00	5	QPSK	H	101	10	1 / 0	13.00	9.23	**22.23**	0.167	30.00	-7.77
1777.50	5	QPSK	H	142	12	1 / 0	12.24	9.26	21.50	0.141	30.00	-8.50
1745.00	5	16-QAM	H	101	10	1 / 0	12.46	9.23	**21.69**	0.148	30.00	-8.31
1712.50	5	64-QAM	H	151	12	1 / 24	10.66	9.43	**20.09**	0.102	30.00	-9.91
1715.00	10	QPSK	H	155	12	1 / 49	12.29	9.42	21.71	0.148	30.00	-8.29
1745.00	10	QPSK	H	101	12	1 / 0	13.03	9.23	**22.26**	0.168	30.00	-7.74
1775.00	10	QPSK	H	142	9	1 / 0	12.44	9.25	21.70	0.148	30.00	-8.30
1745.00	10	16-QAM	H	101	12	1 / 0	12.48	9.23	**21.71**	0.148	30.00	-8.29
1775.00	10	64-QAM	H	142	9	1 / 0	10.86	9.25	**20.12**	0.103	30.00	-9.88
1717.50	15	QPSK	H	149	12	1 / 74	12.38	9.40	21.78	0.151	30.00	-8.22
1745.00	15	QPSK	H	101	11	1 / 0	12.93	9.23	**22.16**	0.164	30.00	-7.84
1772.50	15	QPSK	H	141	9	1 / 0	12.39	9.25	21.64	0.146	30.00	-8.36
1745.00	15	16-QAM	H	101	11	1 / 0	12.42	9.23	**21.65**	0.146	30.00	-8.35
1772.50	15	64-QAM	H	141	9	1 / 0	10.87	9.25	**20.12**	0.103	30.00	-9.88
1720.00	20	QPSK	H	150	9	1 / 99	12.27	9.38	21.65	0.146	30.00	-8.35
1745.00	20	QPSK	H	101	10	1 / 0	13.20	9.23	**22.43**	**0.175**	30.00	-7.57
1770.00	20	QPSK	H	139	8	1 / 0	12.55	9.24	21.79	0.151	30.00	-8.21
1745.00	20	16-QAM	H	101	10	1 / 0	12.51	9.23	**21.74**	0.149	30.00	-8.26
1770.00	20	64-QAM	H	139	8	1 / 0	10.78	9.24	**20.02**	0.100	30.00	-9.98
1745.00	20	QPSK	V	391	92	1 / 0	12.35	9.23	21.58	0.144	30.00	-8.42

Table 6-7. EIRP Data (Band 66/4)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1850.70	1.4	QPSK	H	162	359	1 / 0	12.21	9.48	**21.70**	0.148	33.01	-11.32
1882.50	1.4	QPSK	H	159	3	1 / 5	10.91	9.94	20.85	0.121	33.01	-12.17
1914.30	1.4	QPSK	H	154	7	1 / 5	10.79	10.29	21.09	0.128	33.01	-11.93
1850.70	1.4	16-QAM	H	162	359	1 / 0	10.68	9.48	**20.17**	0.104	33.01	-12.85
1850.70	1.4	64-QAM	H	162	359	1 / 0	10.66	9.48	**20.15**	0.103	33.01	-12.87
1851.50	3	QPSK	H	167	359	1 / 0	12.18	9.50	**21.68**	0.147	33.01	-11.33
1882.50	3	QPSK	H	160	4	1 / 14	10.93	9.94	20.87	0.122	33.01	-12.15
1913.50	3	QPSK	H	158	4	1 / 14	10.71	10.29	21.00	0.126	33.01	-12.01
1851.50	3	16-QAM	H	167	359	1 / 0	10.51	9.50	**20.00**	0.100	33.01	-13.01
1851.50	3	64-QAM	H	167	359	1 / 0	10.75	9.50	**20.24**	0.106	33.01	-12.77
1852.50	5	QPSK	H	167	359	1 / 0	12.21	9.51	**21.72**	0.149	33.01	-11.29
1882.50	5	QPSK	H	159	6	1 / 24	10.98	9.94	20.92	0.123	33.01	-12.10
1912.50	5	QPSK	H	155	7	1 / 24	10.65	10.28	20.93	0.124	33.01	-12.08
1852.50	5	16-QAM	H	167	359	1 / 0	10.56	9.51	**20.07**	0.102	33.01	-12.94
1852.50	5	64-QAM	H	167	359	1 / 0	10.53	9.51	**20.04**	0.101	33.01	-12.97
1855.00	10	QPSK	H	164	358	1 / 0	12.07	9.55	**21.62**	0.145	33.01	-11.39
1882.50	10	QPSK	H	158	4	1 / 49	10.89	9.94	20.83	0.121	33.01	-12.19
1910.00	10	QPSK	H	154	5	1 / 49	10.77	10.26	21.03	0.127	33.01	-11.98
1882.50	10	16-QAM	H	158	4	1 / 49	10.05	9.94	**19.99**	0.100	33.01	-13.03
1855.00	10	64-QAM	H	164	358	1 / 0	10.59	9.55	**20.13**	0.103	33.01	-12.88
1857.50	15	QPSK	H	159	358	1 / 0	12.09	9.58	**21.67**	0.147	33.01	-11.34
1882.50	15	QPSK	H	156	4	1 / 74	10.83	9.94	20.77	0.119	33.01	-12.25
1907.50	15	QPSK	H	155	5	1 / 74	10.75	10.24	20.99	0.126	33.01	-12.02
1857.50	15	16-QAM	H	159	358	1 / 0	10.40	9.58	**19.98**	0.100	33.01	-13.03
1857.50	15	64-QAM	H	159	358	1 / 0	10.66	9.58	**20.24**	0.106	33.01	-12.77
1860.00	20	QPSK	H	166	357	1 / 0	12.12	9.62	**21.74**	**0.149**	33.01	-11.27
1882.50	20	QPSK	H	158	2	1 / 99	11.06	9.94	21.00	0.126	33.01	-12.02
1905.00	20	QPSK	H	153	6	1 / 99	10.92	10.22	21.14	0.130	33.01	-11.87
1860.00	20	16-QAM	H	166	357	1 / 0	10.74	9.62	**20.36**	0.109	33.01	-12.65
1860.00	20	64-QAM	H	166	357	1 / 0	10.55	9.62	**20.17**	0.104	33.01	-12.84
1860.00	20	QPSK	V	141	85	1 / 0	10.61	10.11	20.72	0.118	33.01	-12.29

Table 6-8. EIRP Data (Band 25/2)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2498.50	5	QPSK	H	160	30	1 / 24	15.00	9.43	24.44	0.278	33.01	-8.57
2593.00	5	QPSK	H	115	32	1 / 24	15.45	9.55	25.00	0.317	33.01	-8.01
2687.50	5	QPSK	H	110	31	1 / 0	16.79	9.82	**26.61**	0.458	33.01	-6.40
2687.50	5	16-QAM	H	110	31	1 / 0	16.40	9.82	**26.22**	0.419	33.01	-6.79
2687.50	5	64-QAM	H	110	31	1 / 0	14.55	9.82	**24.37**	0.274	33.01	-8.64
2501.00	10	QPSK	H	160	30	1 / 49	15.09	9.43	24.52	0.283	33.01	-8.49
2593.00	10	QPSK	H	116	35	1 / 49	15.49	9.55	25.04	0.319	33.01	-7.97
2685.00	10	QPSK	H	112	32	1 / 0	16.85	9.82	**26.67**	0.464	33.01	-6.34
2685.00	10	16-QAM	H	112	32	1 / 0	15.90	9.82	**25.72**	0.373	33.01	-7.29
2685.00	10	64-QAM	H	112	32	1 / 0	14.49	9.82	**24.31**	0.270	33.01	-8.70
2503.50	15	QPSK	H	155	31	1 / 74	15.04	9.43	24.47	0.280	33.01	-8.54
2593.00	15	QPSK	H	116	40	1 / 74	15.39	9.55	24.94	0.312	33.01	-8.07
2682.50	15	QPSK	H	112	38	1 / 0	16.82	9.83	**26.65**	0.462	33.01	-6.36
2682.50	15	16-QAM	H	112	38	1 / 0	16.19	9.83	**26.02**	0.400	33.01	-6.99
2682.50	15	64-QAM	H	112	38	1 / 0	14.47	9.83	**24.30**	0.269	33.01	-8.71
2506.00	20	QPSK	H	158	29	1 / 99	15.01	9.42	24.43	0.278	33.01	-8.58
2593.00	20	QPSK	H	115	38	1 / 99	15.47	9.55	25.02	0.318	33.01	-7.99
2680.00	20	QPSK	H	109	28	1 / 0	16.86	9.83	**26.69**	**0.467**	33.01	-6.32
2680.00	20	16-QAM	H	109	28	1 / 0	15.89	9.83	**25.72**	0.374	33.01	-7.29
2680.00	20	64-QAM	H	109	28	1 / 0	14.83	9.83	**24.66**	0.293	33.01	-8.35
2680.00	20	QPSK	V	331	148	1 / 0	14.10	9.56	23.66	0.232	33.01	-9.35
2680.00	20 (PC3)	QPSK	H	108	29	1 / 0	15.01	9.83	**24.84**	**0.305**	33.01	-8.17

Table 6-9. EIRP Data (Band 41)

6.3 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

ANSI/TIA-603-E-2016 – Section 2.2.12

Test Settings

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

Test Setup

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

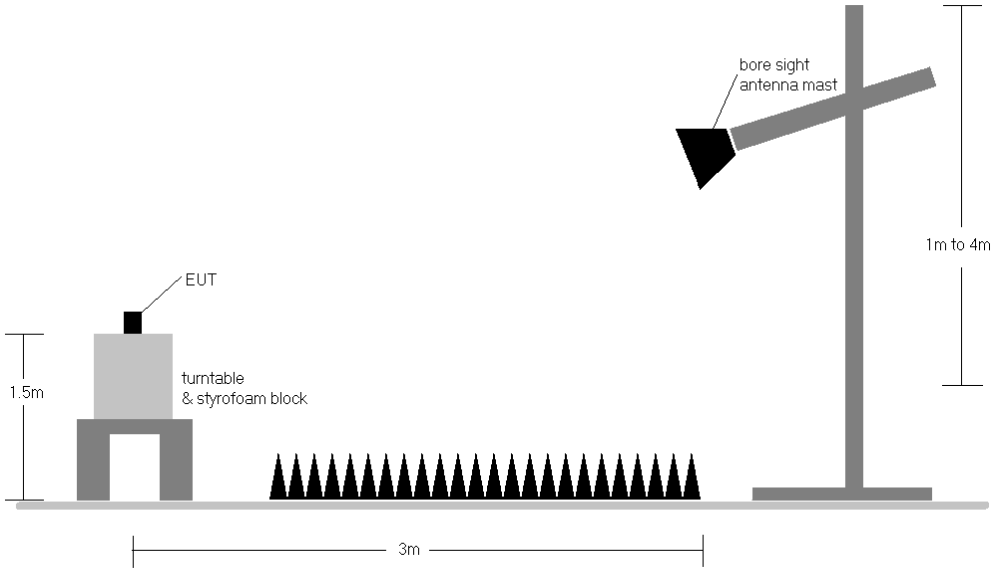


Figure 6-3. Test Instrument & Measurement Setup

Test Notes

1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.

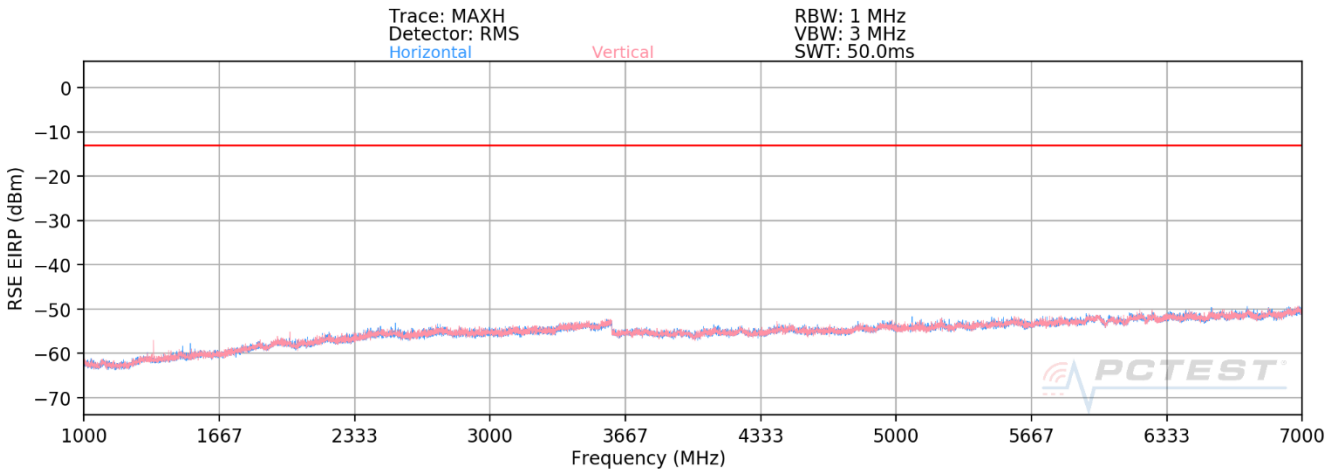
2) This unit was tested with its standard battery.

3) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.

4) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.

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

Band 71



Plot 6-1. Radiated Spurious Plot above 1GHz (Band 71)

OPERATING FREQUENCY:	673.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1346.00	V	386	317	-73.27	7.47	-65.80	-52.8
2019.00	V	198	139	-61.91	8.68	-53.23	-40.2
2692.00	V	354	248	-72.73	9.99	-62.75	-49.7
3365.00	V	-	-	-71.27	9.66	-61.61	-48.6
4038.00	V	-	-	-72.00	9.84	-62.15	-49.2

Table 6-10. Radiated Spurious Data (Band 71 – Low Channel)

OPERATING FREQUENCY:	680.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1361.00	V	209	91	-68.77	7.48	-61.29	-48.3
2041.50	V	101	169	-53.79	8.76	-45.02	-32.0
2722.00	V	128	86	-72.07	10.08	-61.99	-49.0
3402.50	V	115	165	-71.32	9.80	-61.52	-48.5
4083.00	V	-	-	-71.97	10.05	-61.92	-48.9
4763.50	V	-	-	-72.56	10.98	-61.57	-48.6

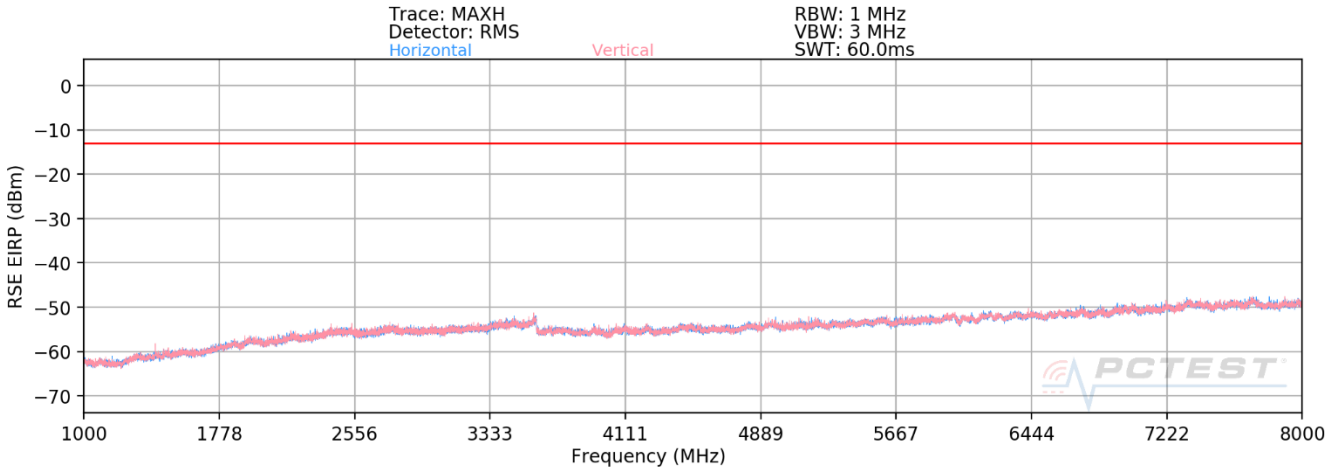
Table 6-11. Radiated Spurious Data (Band 71 – Mid Channel)

OPERATING FREQUENCY:	688.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1376.00	V	157	219	-67.89	7.46	-60.42	-47.4
2064.00	V	102	126	-58.73	8.80	-49.93	-36.9
2752.00	V	400	226	-72.01	10.17	-61.84	-48.8
3440.00	V	101	159	-71.17	9.84	-61.33	-48.3
4128.00	V	-	-	-71.87	10.18	-61.69	-48.7
4816.00	V	-	-	-71.74	10.89	-60.85	-47.8

Table 6-12. Radiated Spurious Data (Band 71 – High Channel)

Band 12



Plot 6-2. Radiated Spurious Plot above 1GHz (Band 12)

OPERATING FREQUENCY:	704.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	10.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1408.00	H	150	6	-71.65	7.54	-64.11	-51.1
2112.00	H	120	338	-62.72	8.85	-53.87	-40.9
2816.00	H	-	-	-73.37	10.12	-63.25	-50.3
3520.00	H	-	-	-72.28	9.91	-62.37	-49.4

Table 6-13. Radiated Spurious Data (Band 12 – Low Channel)

OPERATING FREQUENCY:	707.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	10.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1415.00	H	101	336	-65.71	7.63	-58.08	-45.1
2122.50	H	281	2	-52.43	8.86	-43.57	-30.6
2830.00	H	-	-	-72.57	10.10	-62.48	-49.5
3537.50	H	-	-	-71.94	9.90	-62.05	-49.0

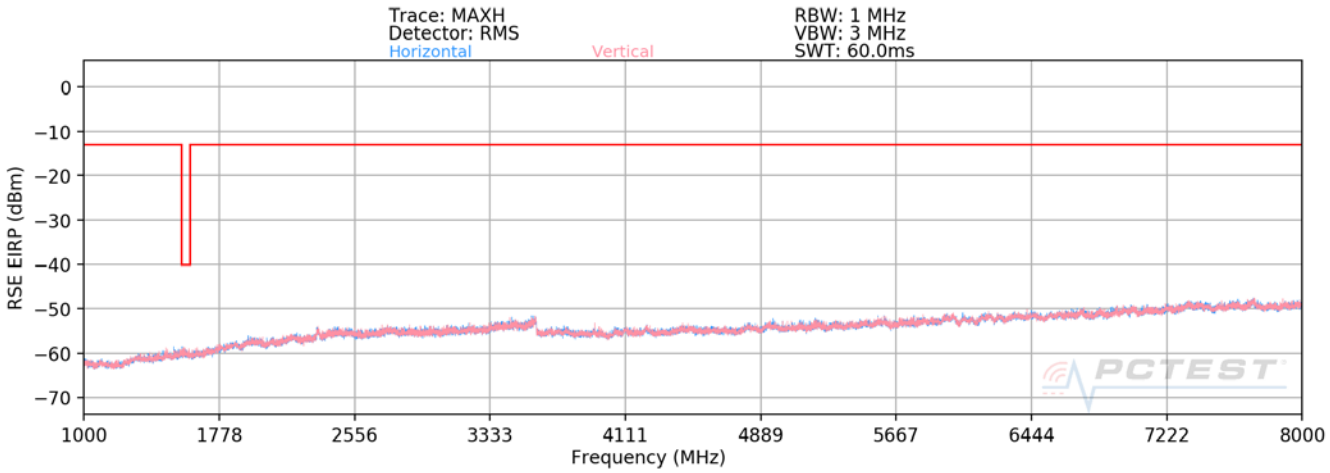
Table 6-14. Radiated Spurious Data (Band 12 – Mid Channel)

OPERATING FREQUENCY:	711.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	10.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1422.00	H	152	179	-71.00	7.72	-63.28	-50.3
2133.00	H	138	9	-64.21	8.87	-55.34	-42.3
2844.00	H	-	-	-72.56	10.07	-62.49	-49.5
3555.00	H	-	-	-71.83	9.89	-61.93	-48.9

Table 6-15. Radiated Spurious Data (Band 12 – High Channel)

Band 13



Plot 6-3. Radiated Spurious Plot above 1GHz (Band 13)

OPERATING FREQUENCY:	782.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	10.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2346.00	H	113	20	-52.32	9.43	-42.89	-29.9
3128.00	H	-	-	-71.40	9.34	-62.06	-49.1
3910.00	H	-	-	-71.55	9.37	-62.18	-49.2

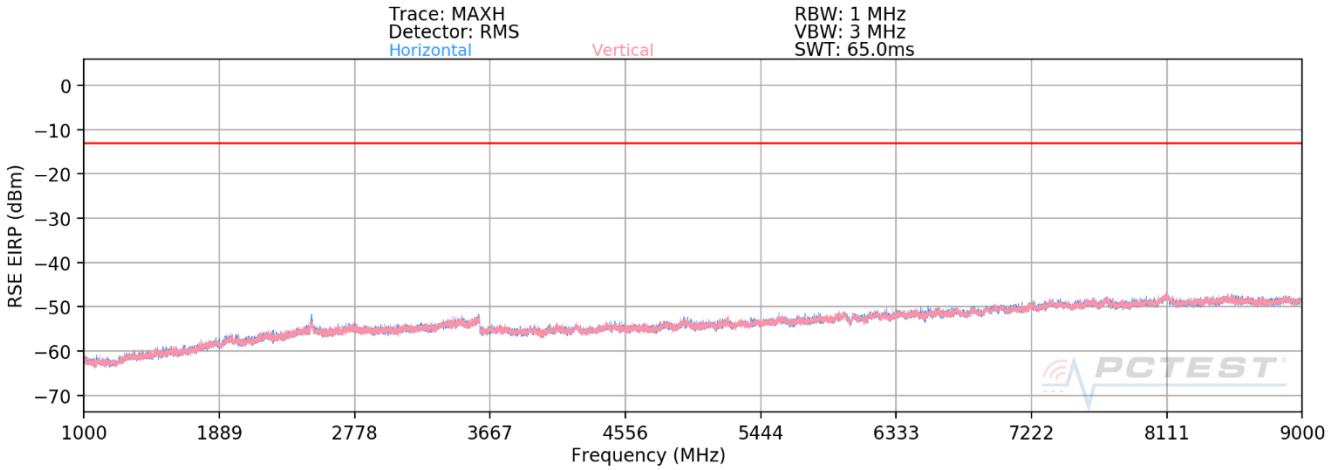
Table 6-16. Radiated Spurious Data (Band 13 – Mid Channel)

MODULATION SIGNAL:	QPSK	
BANDWIDTH:	10.00	MHz
DISTANCE:	3	meters
NARROWBAND EMISSION LIMIT:	-50	dBm
WIDEBAND EMISSION LIMIT:	-40	dBm/MHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1564.00	H	398	264	-70.80	8.53	-62.27	-22.3

Table 6-17. Radiated Spurious Data (Band 13 – 1559-1610MHz Band)

Band 26/5



Plot 6-4. Radiated Spurious Plot above 1GHz (Band 26/5)

OPERATING FREQUENCY:	829.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	10.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1658.00	V	240	136	-68.13	8.95	-59.18	-46.2
2487.00	V	182	111	-54.03	9.70	-44.32	-31.3
3316.00	V	-	-	-75.69	9.59	-66.10	-53.1
4145.00	V	162	169	-70.32	10.22	-60.11	-47.1
4974.00	V	-	-	-75.84	10.93	-64.92	-51.9
5803.00	V	-	-	-75.50	11.50	-64.00	-51.0

Table 6-18. Radiated Spurious Data (Band 26/5 – Low Channel)

OPERATING FREQUENCY:	836.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	10.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1673.00	V	167	171	-65.78	8.95	-56.83	-43.8
2509.50	V	204	128	-60.54	9.75	-50.79	-37.8
3346.00	V	400	166	-75.77	9.60	-66.17	-53.2
4182.50	V	181	160	-68.36	10.34	-58.02	-45.0
5019.00	V	-	-	-45.40	10.88	-34.51	-21.5
5855.50	V	-	-	-76.18	11.52	-64.66	-51.7

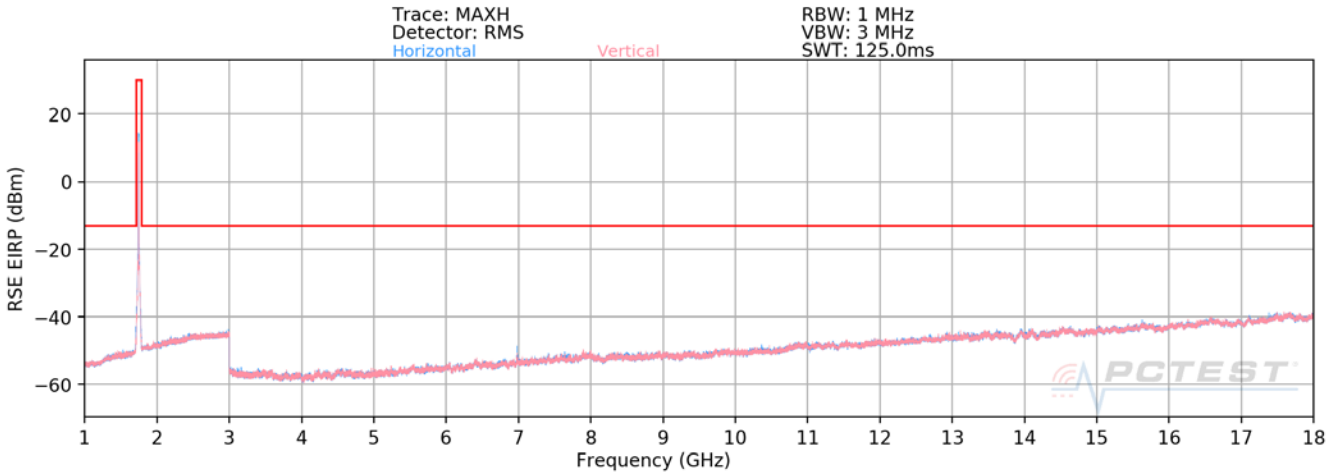
Table 6-19. Radiated Spurious Data (Band 26/5 – Mid Channel)

OPERATING FREQUENCY:	844.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	10.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1688.00	V	320	238	-62.25	8.95	-53.29	-40.3
2532.00	V	132	175	-57.13	9.75	-47.38	-34.4
3376.00	V	-	-	-76.13	9.71	-66.43	-53.4
4220.00	V	392	142	-71.51	10.48	-61.02	-48.0
5064.00	V	-	-	-75.35	10.76	-64.59	-51.6
5908.00	V	-	-	-74.31	11.45	-62.86	-49.9

Table 6-20. Radiated Spurious Data (Band 26/5 – High Channel)

Band 66/4



Plot 6-5. Radiated Spurious Plot above 1GHz (Band 66/4)

OPERATING FREQUENCY:	1720.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3440.00	V	400	333	-63.82	9.84	-53.97	-41.0
5160.00	V	385	6	-75.20	10.71	-64.49	-51.5
6880.00	V	131	314	-58.29	11.68	-46.61	-33.6
8600.00	V	150	276	-70.72	11.08	-59.64	-46.6
10320.00	V	268	5	-61.80	12.38	-49.42	-36.4
12040.00	V	-	-	-69.58	12.71	-56.87	-43.9
13760.00	V	-	-	-66.53	11.99	-54.54	-41.5

Table 6-21. Radiated Spurious Data (Band 66/4 – Low Channel)

OPERATING FREQUENCY:	1745.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3490.00	V	142	70	-72.60	9.91	-62.68	-49.7
5235.00	V	114	43	-64.09	10.73	-53.36	-40.4
6980.00	V	129	359	-59.90	11.82	-48.08	-35.1
8725.00	V	158	273	-71.05	11.00	-60.05	-47.0
10470.00	V	289	4	-60.11	12.58	-47.53	-34.5
12215.00	V	-	-	-70.65	13.11	-57.53	-44.5
13960.00	V	-	-	-66.68	11.85	-54.83	-41.8

Table 6-22. Radiated Spurious Data (Band 66/4 – Mid Channel)

OPERATING FREQUENCY:	1770.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3540.00	V	400	77	-66.76	9.89	-56.87	-43.9
5310.00	V	400	10	-69.48	10.69	-58.80	-45.8
7080.00	V	293	5	-57.93	11.79	-46.15	-33.1
8850.00	V	160	293	-71.30	11.00	-60.30	-47.3
10620.00	V	251	332	-64.20	12.58	-51.63	-38.6
12390.00	V	-	-	-70.12	13.33	-56.79	-43.8
14160.00	V	-	-	-66.40	11.53	-54.86	-41.9

Table 6-23. Radiated Spurious Data (Band 66/4 – High Channel)

Band 25/2

OPERATING FREQUENCY:	1860.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3720.00	V	122	119	-69.42	9.51	-59.92	-46.9
5580.00	V	112	327	-51.79	10.99	-40.80	-27.8
7440.00	V	100	232	-52.68	10.99	-41.69	-28.7
9300.00	V	-	-	-68.95	11.61	-57.35	-44.3
11160.00	V	269	240	-67.64	12.73	-54.91	-41.9
13020.00	V	-	-	-66.07	13.23	-52.84	-39.8
14880.00	V	-	-	-61.58	12.62	-48.96	-36.0

Table 6-24. Radiated Spurious Data (Band 25/2 – Low Channel)

OPERATING FREQUENCY:	1882.50	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3765.00	V	101	231	-69.43	9.36	-60.07	-47.1
5647.50	V	115	329	-54.02	11.19	-42.82	-29.8
7530.00	V	100	235	-52.92	11.13	-41.78	-28.8
9412.50	V	101	268	-68.44	11.57	-56.87	-43.9
11295.00	V	103	317	-61.61	12.71	-48.90	-35.9
13177.50	V	-	-	-65.20	13.13	-52.07	-39.1
15060.00	V	-	-	-62.81	13.58	-49.24	-36.2

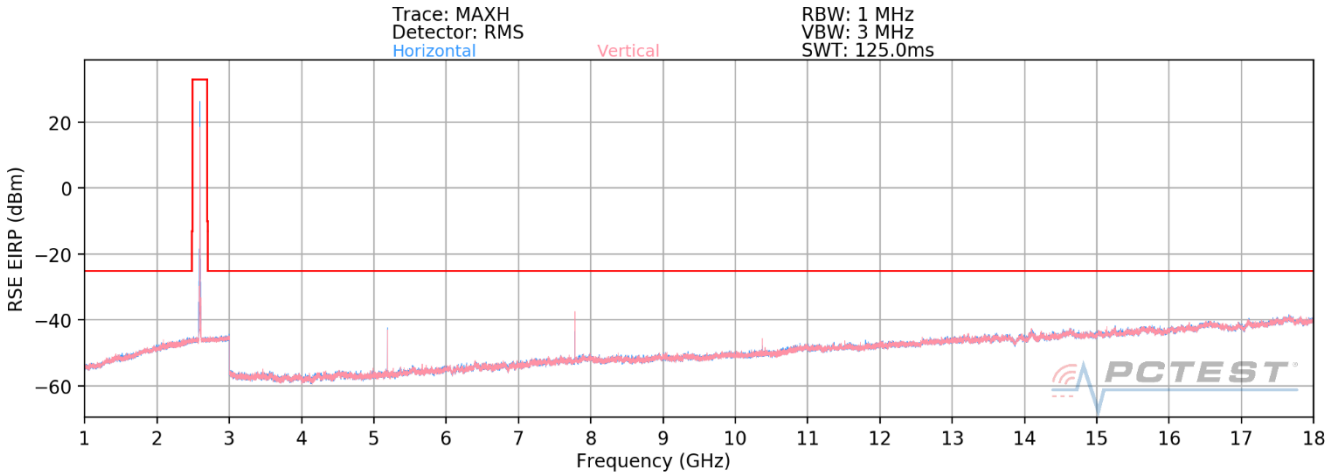
Table 6-25. Radiated Spurious Data (Band 25/2 – Mid Channel)

OPERATING FREQUENCY:	1905.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

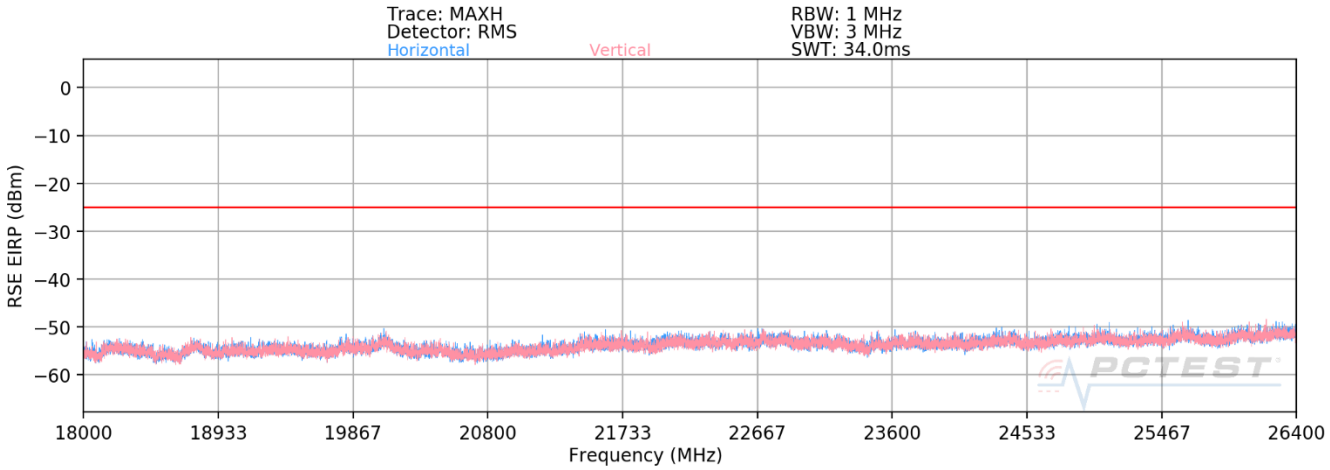
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3810.00	V	111	312	-64.81	9.29	-55.51	-42.5
5715.00	V	289	347	-62.50	11.35	-51.15	-38.2
7620.00	V	115	237	-55.49	11.29	-44.20	-31.2
9525.00	V	-	-	-70.22	11.73	-58.49	-45.5
11430.00	V	100	312	-63.02	12.83	-50.19	-37.2
13335.00	V	-	-	-64.03	12.80	-51.23	-38.2
15240.00	V	-	-	-63.63	14.79	-48.84	-35.8

Table 6-26. Radiated Spurious Data (Band 25/2 – High Channel)

Band 41



Plot 6-6. Radiated Spurious Plot 1GHz - 18GHz (Band 41)



Plot 6-7. Radiated Spurious Plot 18GHz – 26.5GHz (Band 41)

OPERATING FREQUENCY:	2506.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-25	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	V	114	52	-54.77	10.90	-43.87	-18.9
7518.00	V	286	5	-46.77	11.11	-35.66	-10.7
10024.00	V	321	24	-55.41	11.99	-43.41	-18.4
12530.00	V	157	358	-68.28	13.56	-54.72	-29.7
15036.00	V	224	338	-61.29	13.51	-47.79	-22.8
17542.00	V	-	-	-62.61	11.69	-50.92	-25.9

Table 6-27. Radiated Spurious Data (Band 41 – Low Channel)

OPERATING FREQUENCY:	2593.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-25	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	V	400	15	-45.80	10.74	-35.06	-10.1
7779.00	V	115	325	-50.84	11.44	-39.40	-14.4
10372.00	V	163	2	-57.43	12.42	-45.01	-20.0
12965.00	V	181	20	-67.31	13.29	-54.01	-29.0
15558.00	V	286	358	-63.13	16.33	-46.80	-21.8

Table 6-28. Radiated Spurious Data (Band 41 – Mid Channel)

OPERATING FREQUENCY:	2680.00	MHz
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-25	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	V	112	47	-53.11	10.70	-42.41	-17.4
8040.00	V	151	311	-46.03	11.16	-34.87	-9.9
10720.00	V	390	32	-47.19	12.59	-34.60	-9.6
13400.00	V	395	2	-59.17	12.59	-46.57	-21.6
16080.00	V	280	1	-67.46	16.68	-50.78	-25.8

Table 6-29. Radiated Spurious Data (Band 41 – High Channel)

6.4 Uplink Carrier Aggregation Radiated Measurements

§2.1053, §27.53(m)

Test Overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI/TIA-603-D-2010 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as peak measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v02r02 – Section 5.8

ANSI/TIA-603-D-2010 – Section 2.2.12

Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW ≥ 3 x RBW
3. No. of sweep points ≥ 2 x span / RBW
4. Detector = RMS
5. Trace mode = trace average for continuous emissions, max hold for pulse emissions
6. The trace was allowed to stabilize

Test Setup

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

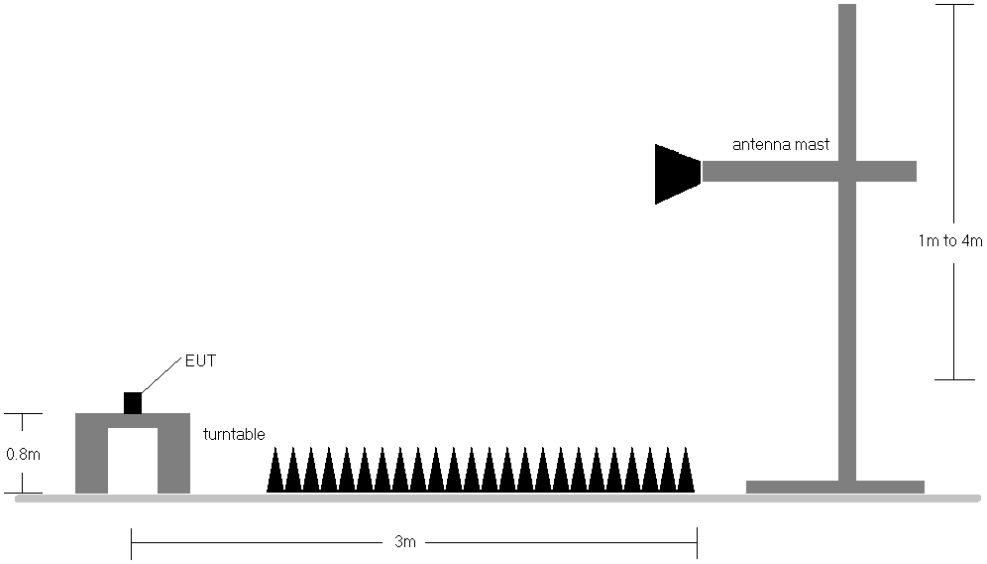


Figure 6-4. Test Instrument & Measurement Setup

Test Notes

1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.

2) This unit was tested with its standard battery.

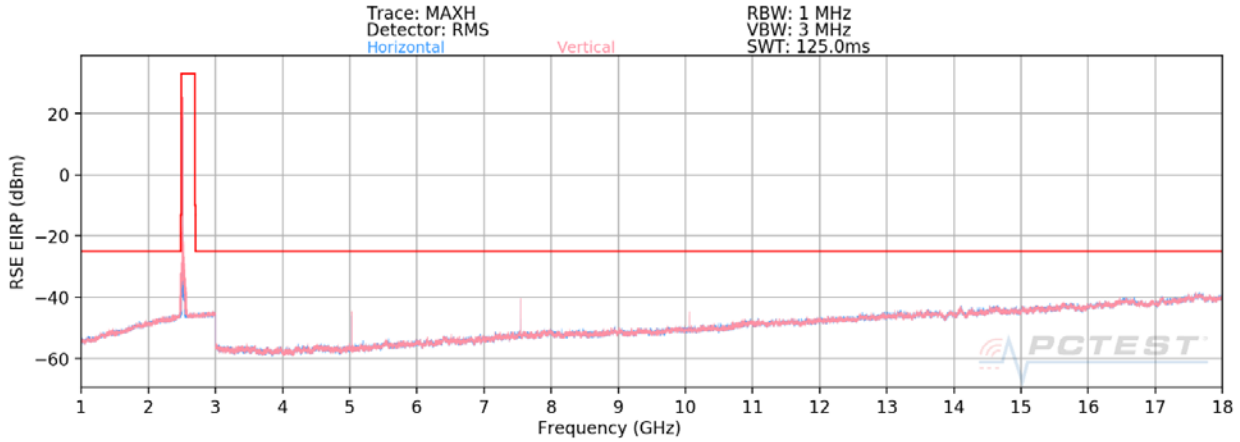
3) Radiated spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. The worst case (highest) emissions were found while operating with QPSK modulation with both carriers set to transmit using 1RB.

4) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.

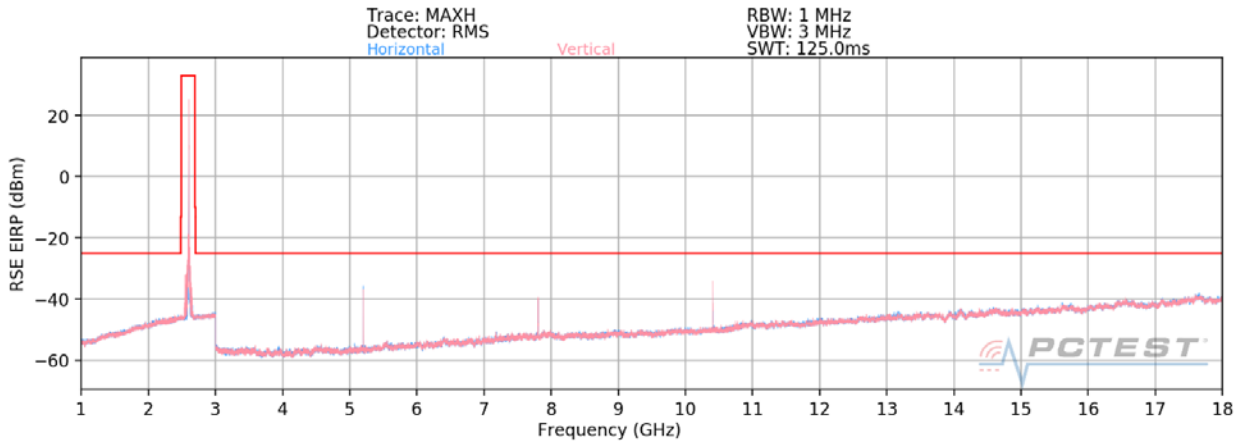
5) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.

6) No significant emissions were found as a result of two uplink carriers operating contiguously.

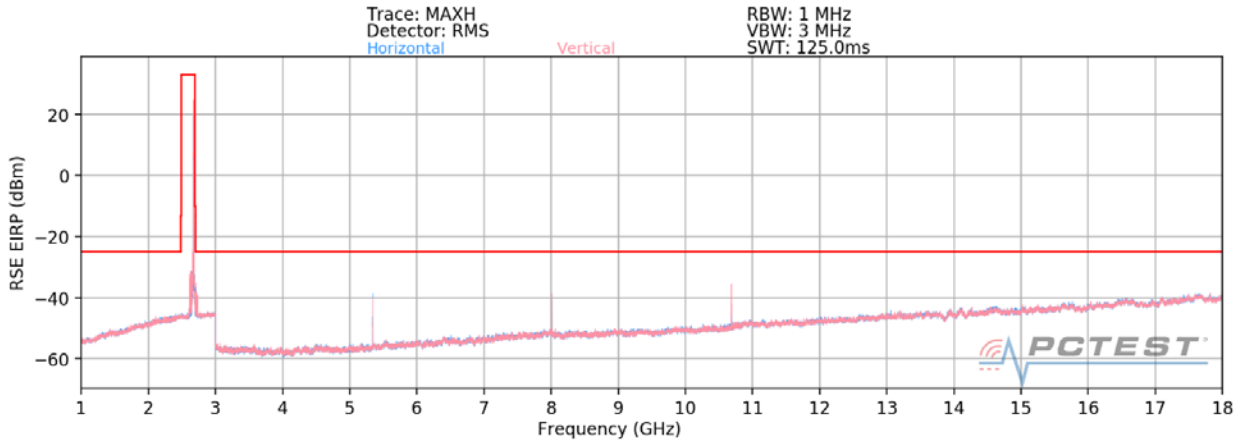
Band 41 PC2 ULCA



Plot 6-8. Radiated Spurious Plot 1GHz - 18GHz (Band 41 PC2 ULCA PCC/SCC: 1RB – Low Channel)



Plot 6-9. Radiated Spurious Plot 1GHz - 18GHz (Band 41 PC2 ULCA PCC/SCC: 1RB – Mid Channel)



Plot 6-10. Radiated Spurious Plot 1GHz - 18GHz (Band 41 PC2 ULCA PCC/SCC: 1RB – High Channel)

OPERATING FREQUENCY (PCC):	2506.00	MHz
OPERATING FREQUENCY (SCC):	2525.80	MHz
CHANNEL (PCC):	39750	
CHANNEL (SCC):	39948	
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-25	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	V	122	10	-52.74	10.77	-41.97	-17.0
7518.00	V	137	21	-60.14	12.55	-47.59	-22.6
10024.00	V	264	31	-50.65	9.80	-40.85	-15.9
12530.00	V	-	-	-58.41	8.87	-49.54	-24.5
15036.00	V	210	344	-53.36	8.84	-44.52	-19.5
17542.00	V	-	-	-52.17	8.84	-43.33	-18.3

Table 6-30. Radiated Spurious Data (ULCA 41C- PC2 - PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Low Channel)

OPERATING FREQUENCY (PCC):	2593.00	MHz
OPERATING FREQUENCY (SCC):	2612.80	MHz
CHANNEL (PCC):	40620	
CHANNEL (SCC):	40818	
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-25	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	V	101	41	-42.26	11.14	-31.12	-6.1
7779.00	V	100	13	-63.13	12.33	-50.80	-25.8
10372.00	V	122	3	-46.66	9.50	-37.16	-12.2
12965.00	V	-	-	-57.45	8.75	-48.70	-23.7
15558.00	V	391	221	-54.51	8.47	-46.04	-21.0

Table 6-31. Radiated Spurious Data (ULCA 41C- PC2 - PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Mid Channel)

OPERATING FREQUENCY (PCC):	2680.00	MHz
OPERATING FREQUENCY (SCC):	2660.20	MHz
CHANNEL (PCC):	41490	
CHANNEL (SCC):	41292	
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-25	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	V	101	48	-48.16	11.49	-36.67	-11.7
8040.00	V	112	28	-50.92	12.03	-38.89	-13.9
10720.00	V	264	1	-44.10	9.39	-34.71	-9.7
13400.00	V	100	18	-51.97	8.67	-43.30	-18.3
16080.00	V	392	172	-53.56	8.46	-45.10	-20.1

Table 6-32. Radiated Spurious Data (ULCA 41C- PC2 - PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – High Channel)

7.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **LG Portable Handset FCC ID: ZNFQ730TM** complies with all the requirements of Part 22, 24, & 27 of the FCC Rules for LTE operation only.