

PART 22 MEASUREMENT REPORT

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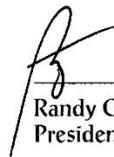
Date of Testing:
7/12 – 07/20/2021
Test Site/Location:
PCTEST Lab. Columbia, MD, USA
Test Report Serial No.:
1M2106280073-09.A3L

FCC ID:	A3LSMF926U
Applicant Name:	Samsung Electronics Co., Ltd.

Application Type: Class II Permissive Change
Model: SM-F926U
Additional Model(s): SM-F926U1
EUT Type: Portable Handset
FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part: 22
Test Procedure(s): ANSI C63.26-2015, ANSI/TIA-603-E-2016, KDB 971168 D01 v03r01, KDB 648474 D03 v01r04
Class II Permissive Change: Please see FCC change document
Original Grant Date: 6/23/2021

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

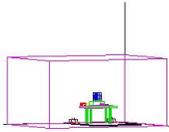


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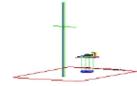
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Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	ERP		EIRP	
				Max. Power [W]	Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]
GSM/GPRS	N/A	GMSK	824.2 - 848.8	0.387	25.88	0.635	28.03
EDGE	N/A	8-PSK	824.2 - 848.8	0.173	22.37	0.283	24.52
WCDMA	N/A	Spread Spectrum	826.4 - 846.6	0.063	17.98	0.103	20.13
CDMA	N/A	Spread Spectrum	824.70 - 848.31	0.075	18.73	0.122	20.88
LTE Band 5	15MHz (Band 26 only)	QPSK	831.5 - 841.5	0.060	17.75	0.098	19.90
		16QAM	831.5 - 841.5	0.050	16.96	0.081	19.11
	10 MHz	QPSK	829.0 - 844.0	0.062	17.93	0.102	20.08
		16QAM	829.0 - 844.0	0.052	17.19	0.086	19.34
	5 MHz	QPSK	826.5 - 846.5	0.063	17.99	0.103	20.14
		16QAM	826.5 - 846.5	0.056	17.52	0.093	19.67
	3 MHz	QPSK	825.5 - 847.5	0.062	17.89	0.101	20.04
		16QAM	825.5 - 847.5	0.052	17.19	0.086	19.34
	1.4 MHz	QPSK	824.7 - 848.3	0.060	17.82	0.099	19.97
		16QAM	824.7 - 848.3	0.052	17.13	0.085	19.28
NR Band n5	20 MHz	$\pi/2$ BPSK	834.0 - 839.0	0.072	18.60	0.119	20.75
		QPSK	834.0 - 839.0	0.071	18.54	0.117	20.69
		16QAM	834.0 - 839.0	0.055	17.41	0.090	19.56
	15 MHz	$\pi/2$ BPSK	831.5 - 841.5	0.073	18.65	0.120	20.80
		QPSK	831.5 - 841.5	0.070	18.44	0.115	20.59
		16QAM	831.5 - 841.5	0.055	17.40	0.090	19.55
	10 MHz	$\pi/2$ BPSK	829.0 - 844.0	0.070	18.47	0.115	20.62
		QPSK	829.0 - 844.0	0.065	18.16	0.107	20.31
		16QAM	829.0 - 844.0	0.051	17.06	0.083	19.21
	5 MHz	$\pi/2$ BPSK	826.5 - 846.5	0.070	18.46	0.115	20.61
		QPSK	826.5 - 846.5	0.072	18.56	0.118	20.71
		16QAM	826.5 - 846.5	0.053	17.26	0.087	19.41

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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 Engineering Laboratory, Inc. 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 Engineering Lab located in Columbia, MD 21046, U.S.A.

- PCTEST is an ISO 17025-2017 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.

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung Portable Handset FCC ID:A3LSMF926U**. The test data contained in this report pertains only to the emissions due to the EUT's licensed transmitters that operate under the provisions of Part 22.

Test Device Serial No.: 0429M, 0405M

2.2 Device Capabilities

This device contains the following capabilities:

800/850/1900 CDMA/EvDO Rev0/A, 1x Advanced (BC0, BC1, BC10), 850/1900 GSM/GPRS/EDGE, 850/1700/1900 WCDMA/HSPA, Multi-band LTE, Multi-band 5G NR, 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII (5GHz and 6GHz), Bluetooth (1x, EDR, LE), NFC, Wireless Power Transfer, UWB

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.

This device uses a tuner circuit that dynamically updates the antenna impedance parameters to optimize antenna performance for certain bands and modes of operation. The tuner for this device was set to simulate a "free space" condition where the transmit antenna is matched to the medium into which it is transmitting and, thus, the power is at its maximum level.

2.3 Test Configuration

The EUT was tested per the guidance of ANSI/TIA-603-E-2016 and KDB 971168 D01 v03r01. See Section 3 of this test report for a description of the radiated and antenna port conducted emissions tests.

This device supports two configurations: one is with screen open and one is with screen closed. Both configurations are tested, and the worst case radiated emissions data is shown in this report.

This device supports two additional antenna configurations for LTE/NR Low bands [AFS operation]: one is with two antennas transmitting from one feed, and one is with a singular antenna transmitting. Both configurations are tested, and the worst case radiated emissions data is shown in this report.

This device supports wireless charging capability and, thus, is subject to the test requirements of KDB 648474 D03 v01r04. Additional radiated spurious emission measurements were performed with the EUT lying flat on an authorized wireless charging pad(WCP) Model: EP-N5100 while operating under normal conditions in a simulated call or data transmission configuration. The worst case radiated emissions data is shown in this report.

2.4 EMI Suppression Device(s)/Modifications

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

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3.0 DESCRIPTION OF TESTS

3.1 Evaluation Procedure

The measurement procedures described in the “Land Mobile FM or PM – Communications Equipment – Measurements and Performance Standards” (ANSI/TIA-603-E-2016) and “Measurement Guidance for Certification of Licensed Digital Transmitters” (KDB 971168 D01 v03r01) were used in the measurement of the EUT.

Deviation from Measurement Procedure.....None

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.

For radiated power measurements, substitution method is used per the guidance of ANSI/TIA-603-E-2016. A half-wave dipole is 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:

$$P_d \text{ [dBm]} = P_g \text{ [dBm]} - \text{cable loss [dB]} + \text{antenna gain [dBd/dBi]};$$

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 $P_g \text{ [dBm]} - \text{cable loss [dB]}$.

For radiated spurious emissions measurements and calculations, conversion method is used per the formulas in KDB 971168 Section 5.8.4. Field Strength (EIRP) is calculated using the following formulas:

$$E_{\text{[dB}\mu\text{V/m]}} = \text{Measured amplitude level}_{\text{[dBm]}} + 107 + \text{Cable Loss}_{\text{[dB]}} + \text{Antenna Factor}_{\text{[dB/m]}}$$

And

$$\text{EIRP}_{\text{[dBm]}} = E_{\text{[dB}\mu\text{V/m]}} + 20\log D - 104.8; \text{ where } D \text{ is the measurement distance in meters.}$$

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.

Radiated power and radiated spurious emission levels are investigated with the receive antenna horizontally and vertically polarized per ANSI/TIA-603-E-2016.

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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 (\pm dB)
Conducted Bench Top Measurements	1.13
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

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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
-	AP2	EMC Cable and Switch System	3/4/2021	Annual	3/4/2022	AP2
-	ETS	EMC Cable and Switch System	3/4/2021	Annual	3/4/2022	ETS
-	LTx1	Licensed Transmitter Cable Set	3/12/2021	Annual	3/12/2022	LTx1
-	LTx2	Licensed Transmitter Cable Set	3/12/2021	Annual	3/12/2022	LTx2
Anritsu	MT8821C	Radio Communication Analyzer	N/A			6201381794
Emco	3115	Horn Antenna (1-18GHz)	6/18/2020	Biennial	6/18/2022	9704-5182
Espec	ESX-2CA	Environmental Chamber	8/27/2020	Annual	8/27/2022	17620
ETS Lindgren	3117	1-18 GHz DRG Horn (Medium)	4/20/2021	Biennial	4/20/2023	00125518
Keysight Technologies	N9020A	MXA Signal Analyzer	9/22/2020	Annual	9/22/2021	MY54500644
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	8/17/2020	Annual	8/17/2021	MY52350166
Rohde & Schwarz	CMW500	Radio Communication Tester	N/A			100976
Rohde & Schwarz	CMW500	Radio Communication Tester	N/A			112347
Sunol	JB5	Bi-Log Antenna (30M - 5GHz)	7/27/2020	Biennial	7/27/2022	A051107
Sunol	JB6	LB6 Antenna	11/13/2020	Biennial	11/13/2022	A082816

Table 5-1. Test Equipment

Notes:

1. For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.
2. Equipment with a calibration date of "N/A" shown in this list was not used to make direct calibrated measurements.

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6.0 SAMPLE CALCULATIONS

GSM Emission Designator

Emission Designator = 250KGXW

GSM BW = 250 kHz
 G = Phase Modulation
 X = Cases not otherwise covered
 W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 250KG7W

EDGE BW = 250 kHz
 G = Phase Modulation
 7 = Quantized/Digital Info
 W = Combination (Audio/Data)

CDMA Emission Designator

Emission Designator = 1M25F9W

CDMA BW = 1.25 MHz
 F = Frequency Modulation
 9 = Composite Digital Info
 W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M16F9W

WCDMA BW = 4.16 MHz
 F = Frequency Modulation
 9 = Composite Digital Info
 W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 8M62G7D

LTE BW = 8.62 MHz
 G = Phase Modulation
 7 = Quantized/Digital Info
 D = Data transmission, telemetry, telecommand

QAM Modulation

Emission Designator = 8M45W7D

LTE BW = 8.45 MHz
 W = Amplitude/Angle Modulated
 7 = Quantized/Digital Info
 D = Data transmission, telemetry, telecommand

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Spurious Radiated Emission

Example: Spurious emission at 3700.40 MHz

The receive spectrum analyzer reading at 3 meters with the EUT on the turntable was -81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of -81.0 dBm on the spectrum analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 3700.40 MHz. So 6.1 dB is added to the signal generator reading of -30.9 dBm yielding -24.80 dBm. The fundamental EIRP was 25.50 dBm so this harmonic was 25.50 dBm $- (-24.80) = 50.3$ dBc.

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7.0 TEST RESULTS

7.1 Summary

Company Name: Samsung Electronics Co., Ltd.
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 FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
 Mode(s): NR/GSM/GPRS/EDGE/WCDMA/CDMA/LTE

Test Condition	Test Description	FCC Part Section(s)	RSS Section(s)	Test Limit	Test Result	Reference
RADIATED	Effective Radiated Power / Equivalent Isotropic Radiated Power	22.913(a)(5)	RSS-132(5.4)	< 7 Watts max. ERP	PASS	Section 7.2
	Radiated Spurious Emissions	2.1053, 22.917(a)	RSS-132(5.5)	> 43 + 10 log ₁₀ (P[Watts]) for all out-of-band emissions	PASS	Section 7.3

Table 7-1. Summary of Test Results

Notes:

- 1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.
- 4) All conducted emissions measurements are performed with automated test software to capture the corresponding plots necessary to show compliance. The measurement software utilized is PCTEST EMC Software Tool Beta 8

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7.2 Radiated Power (ERP)

Test Overview

Effective Radiated Power (ERP) 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 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 \geq 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points \geq 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

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Test Setup

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

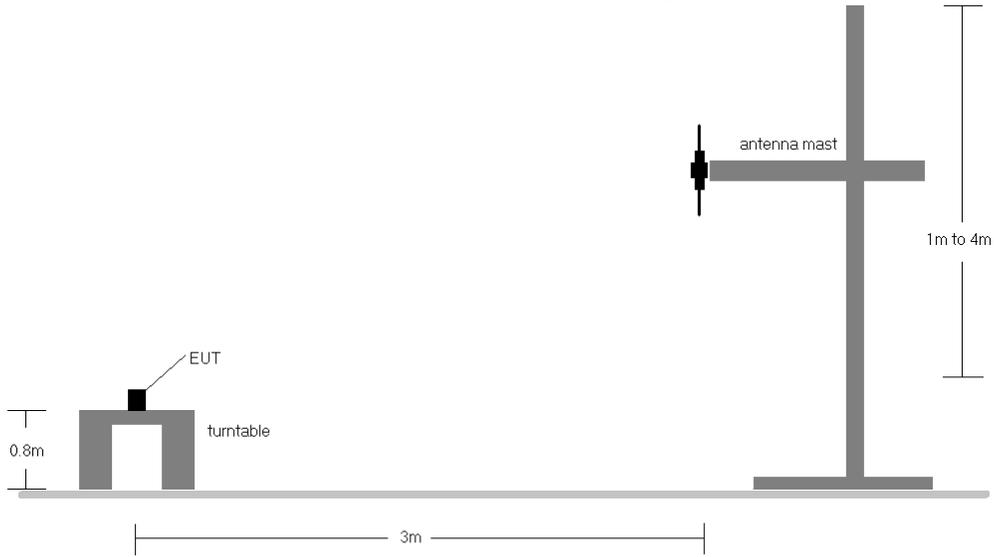


Figure 7-1. Radiated Test Setup <1GHz

Test Notes

- 1) This device employs GSM, GPRS, and EDGE capabilities. The EUT was tested under all configurations and the highest powers is reported in GPRS mode while transmitting with one slot active.
- 2) This device employs UMTS technology with WCDMA (AMR/RMC) and HSDPA capabilities. The EUT was tested under all configurations and the highest power is reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to "1".
- 3) This device employs CDMA technology. The EUT was tested under all RC and SO combinations and the worst case is reported with RC3/SO55 with "All Up" power control bits.
- 4) 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.
- 5) This unit was tested with its standard battery.
- 6) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case setup is reported in the tables below.
- 7) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

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Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
824.20	GPRS850	H	221	339	20.42	6.65	24.92	0.310	38.45	-13.53
836.60	GPRS850	H	227	343	21.29	6.74	25.88	0.387	38.45	-12.57
848.80	GPRS850	H	395	326	20.15	6.73	24.73	0.297	38.45	-13.73
836.60	GPRS850	V	124	93	19.04	6.74	23.63	0.231	38.45	-14.82
836.60	EDGE850	H	227	343	17.78	6.74	22.37	0.173	38.45	-16.08
836.60	CLOSED	H	231	321	20.58	6.74	25.17	0.329	38.45	-13.28
836.60	WCP	H	246	255	15.58	6.74	20.17	0.104	38.45	-18.28

Table 7-2. ERP Data (GPRS Cell) – AntA + AntB

Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
824.20	GPRS850	H	214	304	21.30	6.65	25.80	0.380	38.45	-12.65
836.60	GPRS850	H	114	307	20.58	6.74	25.17	0.329	38.45	-13.28
848.80	GPRS850	H	204	304	20.48	6.73	25.06	0.320	38.45	-13.40
824.20	GPRS850	V	120	200	20.31	6.74	24.90	0.309	38.45	-13.55
824.20	EDGE850	H	214	304	10.99	6.74	15.58	0.036	38.45	-22.87
824.20	WCP	H	358	280	18.07	6.65	22.57	0.181	38.45	-15.88

Table 7-3. ERP Data (GPRS Cell) – AntA

Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
826.40	WCDMA850	H	254	346	12.27	6.67	16.79	0.048	38.45	-21.66
836.60	WCDMA850	H	253	335	13.09	6.74	17.68	0.059	38.45	-20.77
846.60	WCDMA850	H	236	339	12.94	6.78	17.57	0.057	38.45	-20.88
836.60	WCDMA850	V	152	11	11.64	6.74	16.23	0.042	38.45	-22.22
836.60	CLOSED	H	236	293	11.34	6.74	15.93	0.039	38.45	-22.52
836.60	WCP	V	142	30	9.10	6.74	13.69	0.023	38.45	-24.76

Table 7-4. ERP Data (WCDMA Cell) – AntA + AntB

Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
826.40	WCDMA850	H	225	139	11.24	6.67	15.76	0.038	38.45	-22.69
836.60	WCDMA850	H	221	109	10.79	6.74	15.38	0.035	38.45	-23.07
846.60	WCDMA850	H	231	136	13.35	6.78	17.98	0.063	38.45	-20.47
846.60	WCDMA850	V	147	222	12.94	6.74	17.53	0.057	38.45	-20.92
846.60	WCP	H	242	308	11.59	6.78	16.22	0.042	38.45	-22.23

Table 7-5. ERP Data (WCDMA Cell) – AntA

Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
824.70	CDMA850	H	221	336	14.05	6.66	18.56	0.072	38.45	-19.90
836.52	CDMA850	H	206	332	14.15	6.73	18.73	0.075	38.45	-19.72
848.31	CDMA850	H	210	334	14.10	6.77	18.72	0.074	38.45	-19.73
836.52	CDMA850	V	153	81	13.28	6.73	17.86	0.061	38.45	-20.59
836.52	WCP	V	144	18	10.58	6.73	15.16	0.033	38.45	-23.29

Table 7-6. ERP Data (CDMA Cell)

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset		Page 14 of 40

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
15MHz (Band 26 only)	QPSK	831.5	H	222	329	6.73	1 / 37	12.72	17.30	0.054	38.45	-21.15	19.45	0.088	40.61	-21.16
		836.5	H	209	339	6.73	1 / 37	12.91	17.49	0.056	38.45	-20.96	19.64	0.092	40.61	-20.97
	841.5	H	204	340	6.73	1 / 0	13.17	17.75	0.060	38.45	-20.70	19.90	0.098	40.61	-20.71	
	16-QAM	841.5	H	204	340	6.73	1 / 0	12.38	16.96	0.050	38.45	-21.49	19.11	0.081	40.61	-21.50
10 MHz	QPSK	829.0	H	222	329	6.70	1 / 0	12.91	17.46	0.056	38.45	-20.99	19.61	0.091	40.61	-21.00
		836.5	H	209	339	6.73	1 / 0	13.06	17.64	0.058	38.45	-20.81	19.79	0.095	40.61	-20.82
	844.0	H	204	340	6.76	1 / 0	13.32	17.93	0.062	38.45	-20.52	20.08	0.102	40.61	-20.53	
	16-QAM	844.0	H	204	340	6.76	1 / 0	12.58	17.19	0.052	38.45	-21.26	19.34	0.086	40.61	-21.27
5 MHz	QPSK	826.5	H	222	329	6.67	1 / 0	12.95	17.48	0.056	38.45	-20.97	19.63	0.092	40.61	-20.98
		836.5	H	209	339	6.73	1 / 24	13.20	17.78	0.060	38.45	-20.67	19.93	0.098	40.61	-20.68
	846.5	H	204	340	6.78	1 / 0	13.36	17.99	0.063	38.45	-20.46	20.14	0.103	40.61	-20.46	
	16-QAM	846.5	H	204	340	6.78	1 / 0	12.89	17.52	0.056	38.45	-20.93	19.67	0.093	40.61	-20.94
3 MHz	QPSK	825.5	H	222	329	6.66	1 / 14	13.13	17.64	0.058	38.45	-20.81	19.79	0.095	40.61	-20.82
		836.5	H	209	339	6.73	1 / 0	13.17	17.75	0.060	38.45	-20.70	19.90	0.098	40.61	-20.71
	847.5	H	204	340	6.79	1 / 14	13.25	17.89	0.062	38.45	-20.56	20.04	0.101	40.61	-20.57	
	16-QAM	847.5	H	204	340	6.79	1 / 14	12.56	17.19	0.052	38.45	-21.26	19.34	0.086	40.61	-21.27
1.4 MHz	QPSK	824.7	H	222	329	6.66	1 / 3	13.00	17.51	0.056	38.45	-20.94	19.66	0.092	40.61	-20.95
		836.5	H	209	339	6.73	1 / 3	13.11	17.69	0.059	38.45	-20.76	19.84	0.096	40.61	-20.76
	848.3	H	204	340	6.77	1 / 0	13.20	17.82	0.060	38.45	-20.63	19.97	0.099	40.61	-20.64	
	16-QAM	848.3	H	204	340	6.77	1 / 0	12.51	17.13	0.052	38.45	-21.32	19.28	0.085	40.61	-21.33
5 MHz	QPSK (Opposite Pol.)	841.5	V	149	321	6.73	1 / 0	11.68	16.26	0.042	38.45	-22.19	18.41	0.069	40.61	-22.20
	CLOSED	841.5	H	214	311	6.73	1 / 0	13.01	17.59	0.057	38.45	-20.86	19.74	0.094	40.61	-20.87
	QPSK(WCP)	841.5	H	134	275	6.73	1 / 0	10.67	15.25	0.033	38.45	-23.20	17.40	0.055	40.61	-23.21

Table 7-7. ERP Data (LTE Band 26/5 AntA + AntB)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
15MHz (Band 26 only)	QPSK	831.5	H	224	303	6.73	1 / 37	7.80	12.38	0.017	38.45	-26.07	14.53	0.028	40.61	-26.08
		836.5	H	226	299	6.73	1 / 37	7.73	12.31	0.017	38.45	-26.14	14.46	0.028	40.61	-26.15
	841.5	H	111	305	6.73	1 / 37	7.77	12.35	0.017	38.45	-26.10	14.50	0.028	40.61	-26.11	
	16-QAM	831.5	H	224	303	6.73	1 / 37	7.19	11.77	0.015	38.45	-26.68	13.92	0.025	40.61	-26.69
10 MHz	QPSK	829.0	H	224	303	6.70	1 / 0	7.99	12.54	0.018	38.45	-25.91	14.69	0.029	40.61	-25.92
		836.5	H	226	299	6.73	1 / 0	7.88	12.46	0.018	38.45	-25.99	14.61	0.029	40.61	-26.00
	844.0	H	111	305	6.76	1 / 0	7.92	12.53	0.018	38.45	-25.92	14.68	0.029	40.61	-25.93	
	16-QAM	829.0	H	224	303	6.70	1 / 0	7.65	12.20	0.017	38.45	-26.25	14.35	0.027	40.61	-26.25
5 MHz	QPSK	826.5	H	224	303	6.67	1 / 0	8.03	12.56	0.018	38.45	-25.89	14.71	0.030	40.61	-25.90
		836.5	H	226	299	6.73	1 / 24	8.02	12.60	0.018	38.45	-25.85	14.75	0.030	40.61	-25.86
	846.5	H	111	305	6.78	1 / 0	7.96	12.59	0.018	38.45	-25.86	14.74	0.030	40.61	-25.86	
	16-QAM	836.5	H	226	299	6.73	1 / 24	7.47	12.05	0.016	38.45	-26.40	14.20	0.026	40.61	-26.40
3 MHz	QPSK	825.5	H	224	303	6.66	1 / 14	8.21	12.72	0.019	38.45	-25.73	14.87	0.031	40.61	-25.74
		836.5	H	226	299	6.73	1 / 0	7.99	12.57	0.018	38.45	-25.88	14.72	0.030	40.61	-25.89
	847.5	H	111	305	6.79	1 / 14	7.85	12.49	0.018	38.45	-25.96	14.64	0.029	40.61	-25.97	
	16-QAM	825.5	H	224	303	6.66	1 / 14	7.54	12.06	0.016	38.45	-26.40	14.21	0.026	40.61	-26.40
1.4 MHz	QPSK	824.7	H	224	303	6.66	1 / 3	8.08	12.59	0.018	38.45	-25.86	14.74	0.030	40.61	-25.87
		836.5	H	226	299	6.73	1 / 3	7.93	12.51	0.018	38.45	-25.94	14.66	0.029	40.61	-25.94
	16-QAM	848.3	H	111	305	6.77	1 / 0	7.80	12.42	0.017	38.45	-26.03	14.57	0.029	40.61	-26.04
10 MHz	QPSK (Opposite Pol.)	831.5	V	143	225	6.73	0.00	7.43	12.01	0.016	38.45	-26.44	14.16	0.026	40.61	-26.45
	QPSK (WCP)	831.5	H	254	272	6.73	0.00	4.94	9.52	0.009	38.45	-28.93	11.67	0.015	40.61	-28.94

Table 7-8. ERP Data (LTE Band 26/5 – AntA)

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset	Page 15 of 40	

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	π/2 BPSK	834.0	H	249	337	6.65	1 / 53	13.82	18.32	0.068	38.45	-20.13	20.47	0.111	40.61	-20.13
		836.5	H	257	343	6.73	1 / 53	14.02	18.60	0.072	38.45	-19.85	20.75	0.119	40.61	-19.86
		839.0	H	246	340	6.80	1 / 53	13.47	18.12	0.065	38.45	-20.33	20.27	0.107	40.61	-20.33
	QPSK	834.0	H	249	337	6.65	1 / 53	13.83	18.33	0.068	38.45	-20.12	20.48	0.112	40.61	-20.12
		836.5	H	257	343	6.73	1 / 53	13.96	18.54	0.071	38.45	-19.91	20.69	0.117	40.61	-19.92
		839.0	H	246	340	6.80	1 / 53	13.39	18.04	0.064	38.45	-20.41	20.19	0.105	40.61	-20.41
16-QAM	836.5	H	257	343	6.73	1 / 53	12.83	17.41	0.055	38.45	-21.04	19.56	0.090	40.61	-21.05	
15 MHz	π/2 BPSK	831.5	H	249	337	6.73	1 / 39	13.76	18.34	0.068	38.45	-20.11	20.49	0.112	40.61	-20.12
		836.5	H	257	343	6.73	1 / 20	14.07	18.65	0.073	38.45	-19.80	20.80	0.120	40.61	-19.80
		841.5	H	246	340	6.73	1 / 20	13.52	18.10	0.065	38.45	-20.35	20.25	0.106	40.61	-20.36
	QPSK	831.5	H	249	337	6.73	1 / 39	13.63	18.21	0.066	38.45	-20.24	20.36	0.109	40.61	-20.25
		836.5	H	257	343	6.73	1 / 20	13.86	18.44	0.070	38.45	-20.01	20.59	0.115	40.61	-20.02
		841.5	H	246	340	6.73	1 / 20	13.45	18.03	0.063	38.45	-20.42	20.18	0.104	40.61	-20.43
16-QAM	836.5	H	257	343	6.73	1 / 20	12.83	17.40	0.055	38.45	-21.05	19.55	0.090	40.61	-21.05	
10 MHz	π/2 BPSK	829.0	H	249	337	6.70	1 / 13	13.62	18.18	0.066	38.45	-20.28	20.33	0.108	40.61	-20.28
		836.5	H	257	343	6.73	1 / 13	13.90	18.47	0.070	38.45	-19.98	20.62	0.115	40.61	-19.98
		844.0	H	246	340	6.76	1 / 26	13.34	17.95	0.062	38.45	-20.50	20.10	0.102	40.61	-20.51
	QPSK	829.0	H	249	337	6.70	1 / 13	13.52	18.07	0.064	38.45	-20.38	20.22	0.105	40.61	-20.39
		836.5	H	257	343	6.73	1 / 13	13.58	18.16	0.065	38.45	-20.29	20.31	0.107	40.61	-20.30
		844.0	H	246	340	6.76	1 / 26	13.36	17.96	0.063	38.45	-20.49	20.11	0.103	40.61	-20.49
16-QAM	836.5	H	257	343	6.73	1 / 13	12.48	17.06	0.051	38.45	-21.39	19.21	0.083	40.61	-21.40	
5 MHz	π/2 BPSK	829.0	H	249	337	6.67	1 / 6	13.68	18.20	0.066	38.45	-20.25	20.35	0.108	40.61	-20.25
		836.5	H	257	343	6.73	1 / 6	13.88	18.46	0.070	38.45	-19.99	20.61	0.115	40.61	-20.00
		844.0	H	246	340	6.78	1 / 12	13.05	17.68	0.059	38.45	-20.77	19.83	0.096	40.61	-20.78
	QPSK	829.0	H	249	337	6.67	1 / 6	13.66	18.19	0.066	38.45	-20.26	20.34	0.108	40.61	-20.27
		836.5	H	257	343	6.73	1 / 6	13.98	18.56	0.072	38.45	-19.89	20.71	0.118	40.61	-19.90
		844.0	H	246	340	6.78	1 / 12	13.12	17.75	0.060	38.45	-20.70	19.90	0.098	40.61	-20.71
16-QAM	836.5	H	257	343	6.73	1 / 6	12.68	17.26	0.053	38.45	-21.19	19.41	0.087	40.61	-21.20	
15 MHz	QPSK (CP-OFDM)	836.5	H	257	343	6.73	1 / 20	14.23	18.81	0.076	38.45	-19.64	20.96	0.125	40.61	-19.65
	QPSK (Opposite Pol.)	836.5	V	182	122	6.73	1 / 20	12.91	17.49	0.056	38.45	-20.96	19.64	0.092	40.61	-20.97
	QPSK (WCP)	836.5	H	182	122	6.73	1 / 20	8.57	13.15	0.021	38.45	-25.30	15.30	0.034	40.61	-25.31
	Closed	836.5	H	171	235	6.73	1 / 20	11.57	16.15	0.041	38.45	-22.30	18.30	0.068	40.61	-22.31

Table 7-9. ERP Data (NR Band n5 – AntA + AntB)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	π/2 BPSK	834.0	H	214	344	6.65	1 / 53	12.59	17.09	0.051	38.45	-21.36	19.24	0.084	40.61	-21.36
		836.5	H	222	343	6.73	1 / 53	13.49	18.07	0.064	38.45	-20.38	20.22	0.105	40.61	-20.39
		839.0	H	230	340	6.80	1 / 53	12.89	17.54	0.057	38.45	-20.91	19.69	0.093	40.61	-20.91
	QPSK	834.0	H	214	344	6.65	1 / 53	12.54	17.04	0.051	38.45	-21.41	19.19	0.083	40.61	-21.41
		836.5	H	222	343	6.73	1 / 53	13.39	17.97	0.063	38.45	-20.48	20.12	0.103	40.61	-20.49
		839.0	H	230	340	6.80	1 / 53	12.74	17.39	0.055	38.45	-21.06	19.54	0.090	40.61	-21.06
16-QAM	836.5	H	222	343	6.73	1 / 53	12.59	17.17	0.052	38.45	-21.28	19.32	0.085	40.61	-21.29	
15 MHz	π/2 BPSK	831.5	H	214	344	6.73	1 / 39	12.53	17.11	0.051	38.45	-21.34	19.26	0.084	40.61	-21.35
		836.5	H	222	343	6.73	1 / 20	13.54	18.12	0.065	38.45	-20.33	20.27	0.106	40.61	-20.33
		841.5	H	230	340	6.73	1 / 20	12.94	17.52	0.056	38.45	-20.93	19.67	0.093	40.61	-20.94
	QPSK	831.5	H	214	344	6.73	1 / 39	12.34	16.92	0.049	38.45	-21.53	19.07	0.081	40.61	-21.54
		836.5	H	222	343	6.73	1 / 20	13.29	17.87	0.061	38.45	-20.58	20.02	0.100	40.61	-20.59
		841.5	H	230	340	6.73	1 / 20	12.80	17.38	0.055	38.45	-21.07	19.53	0.090	40.61	-21.08
16-QAM	836.5	H	222	343	6.73	1 / 20	12.59	17.16	0.052	38.45	-21.29	19.31	0.085	40.61	-21.29	
10 MHz	π/2 BPSK	829.0	H	214	344	6.70	1 / 13	12.39	16.95	0.049	38.45	-21.51	19.10	0.081	40.61	-21.51
		836.5	H	222	343	6.73	1 / 13	13.37	17.94	0.062	38.45	-20.51	20.09	0.102	40.61	-20.51
		844.0	H	230	340	6.76	1 / 26	12.76	17.37	0.055	38.45	-21.08	19.52	0.089	40.61	-21.09
	QPSK	829.0	H	214	344	6.70	1 / 13	12.23	16.78	0.048	38.45	-21.67	18.93	0.078	40.61	-21.68
		836.5	H	222	343	6.73	1 / 13	13.01	17.59	0.057	38.45	-20.86	19.74	0.094	40.61	-20.87
		844.0	H	230	340	6.76	1 / 26	12.71	17.31	0.054	38.45	-21.14	19.46	0.088	40.61	-21.14
16-QAM	836.5	H	222	343	6.73	1 / 13	12.24	16.82	0.048	38.45	-21.63	18.97	0.079	40.61	-21.64	
5 MHz	π/2 BPSK	829.0	H	214	344	6.67	1 / 6	12.45	16.97	0.050	38.45	-21.48	19.12	0.082	40.61	-21.48
		836.5	H	222	343	6.73	1 / 6	13.35	17.93	0.062	38.45	-20.52	20.08	0.102	40.61	-20.53
		844.0	H	230	340	6.78	1 / 12	12.47	17.10	0.051	38.45	-21.35	19.25	0.084	40.61	-21.36
	QPSK	829.0	H	214	344	6.67	1 / 6	12.37	16.90	0.049	38.45	-21.55	19.05	0.080	40.61	-21.56
		836.5	H	222	343	6.73	1 / 6	13.41	17.99	0.063	38.45	-20.46	20.14	0.103	40.61	-20.47
		844.0	H	230	340	6.78	1 / 12	12.47	17.10	0.051	38.45	-21.35	19.25	0.084	40.61	-21.36
16-QAM	836.5	H	222	343	6.73	1 / 6	12.44	17.02	0.050	38.45	-21.43	19.17	0.083	40.61	-21.44	
15 MHz	QPSK (CP-OFDM)	836.5	H	214	344	6.73	0.00	12.04	16.62	0.046	38.45	-21.83	18.77	0.075	40.61	-21.84
	QPSK (Opposite Pol.)	836.5	V	246	357	6.73	0.00	11.68	16.26	0.042	38.45	-22.19	18.41	0.069	40.61	-22.20
	QPSK (WCP)	836.5	H	259	270	6.73	0.00	10.27	14.85	0.031	38.45	-23.60	17.00	0.050	40.61	-23.61

Table 7-10. ERP Data (NR Band n5 – AntA)

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7.3 Radiated Spurious Emissions Measurements

Test Overview

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

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

Test Settings

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

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Test Setup

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

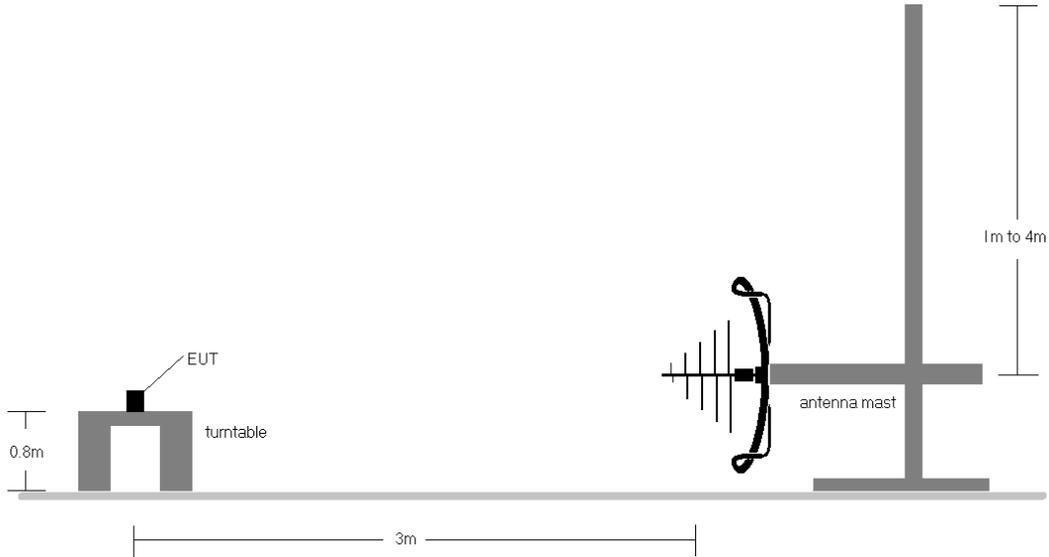


Figure 7-2. Test Instrument & Measurement Setup < 1GHz

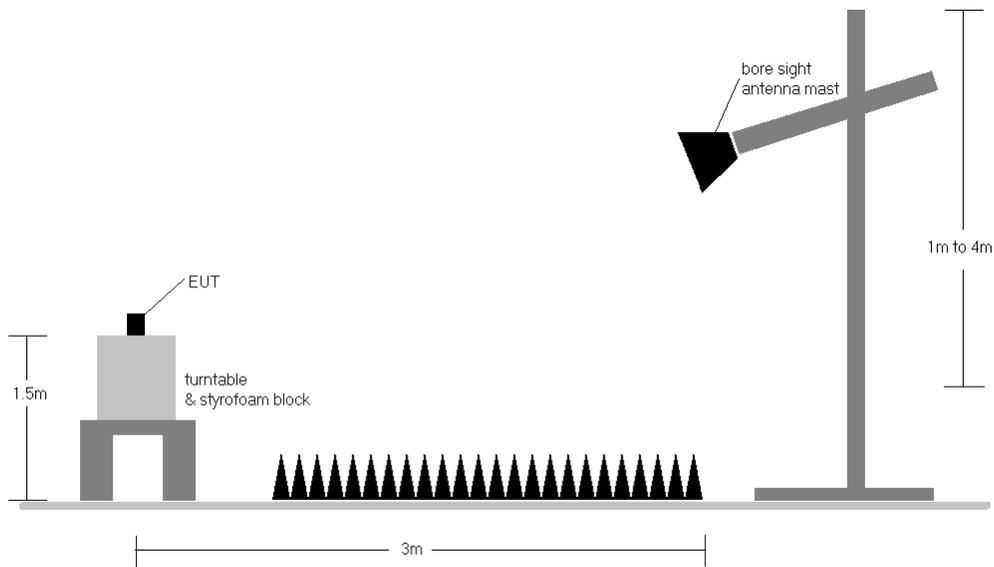


Figure 7-3. Test Instrument & Measurement Setup >1 GHz

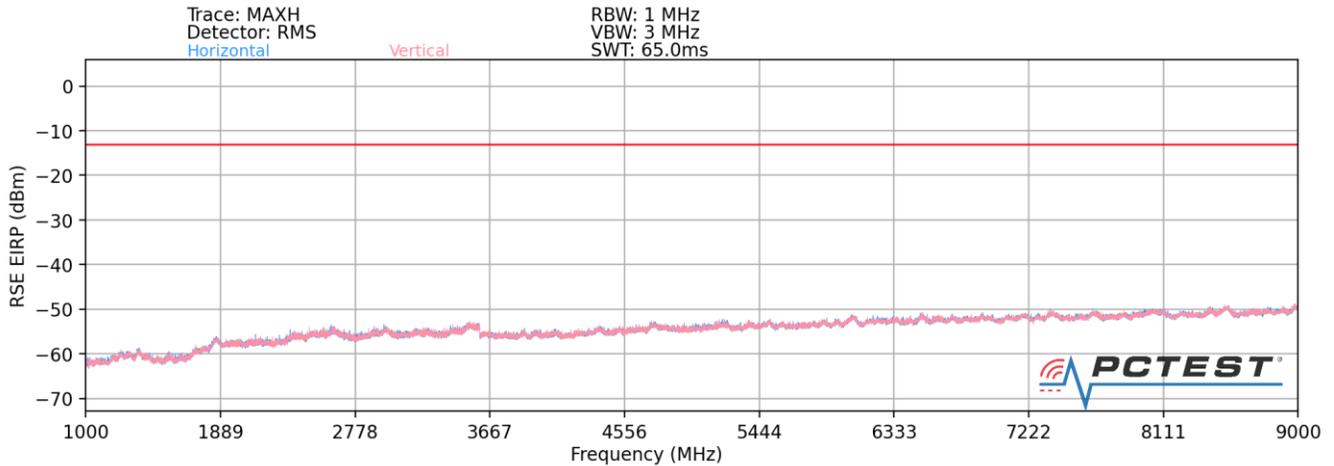
FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	Approved by: Technical Manager
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Test Notes

- 1) Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
 - b) $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
 - d) $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$; where D is the measurement distance in meters.
- 2) This device employs GSM, GPRS, and EDGE capabilities. The EUT was tested under all configurations and the highest powers is reported in GPRS mode while transmitting with one slot active.
- 3) This device employs UMTS technology with WCDMA (AMR/RMC) and HSDPA capabilities. The EUT was tested under all configurations and the highest power is reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to "1".
- 4) For CDMA, this device was tested under all RC and SO combinations and the worst case is reported with RC3/SO55 with "All Up" power control bits.
- 5) 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.
- 6) This unit was tested with its standard battery..
- 7) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 8) 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.
- 9) The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 10) ULCA spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
- 11) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.
- 12) Spurious emissions shown in this section are measured while operating in EN-DC mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor). Spurious emissions from the NR carrier device, is subject to the rules under which the NR carrier operates. Spurious emission caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

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GSM/GPRS Cell AntA + AntB



Plot 7-1. Radiated Spurious Plot (GPRS Cell) – OPEN

Mode:	GPRS 1 Tx Slot
Channel:	128
Frequency (MHz):	824.2

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1648.4	H	-	-	-65.74	-2.58	38.68	-56.57	-13.00	-43.57
2472.6	H	-	-	-66.95	1.99	42.04	-53.22	-13.00	-40.22
3296.8	H	-	-	-67.34	2.47	42.13	-53.12	-13.00	-40.12
4121.0	H	-	-	-70.65	3.44	39.79	-55.47	-13.00	-42.47

Table 7-11. Radiated Spurious Data (GPRS Cell – Low Channel) – OPEN

Mode:	GPRS 1 Tx Slot
Channel:	190
Frequency (MHz):	836.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.2	H	145	197	-67.81	-2.27	36.92	-58.33	-13.00	-45.33
2509.8	H	140	215	-60.75	2.22	48.47	-46.78	-13.00	-33.78
3346.4	H	-	-	-68.14	2.42	41.28	-53.98	-13.00	-40.98
4183.0	H	-	-	-70.93	3.46	39.53	-55.73	-13.00	-42.73

Table 7-12. Radiated Spurious Data (GPRS Cell – Mid Channel) - OPEN

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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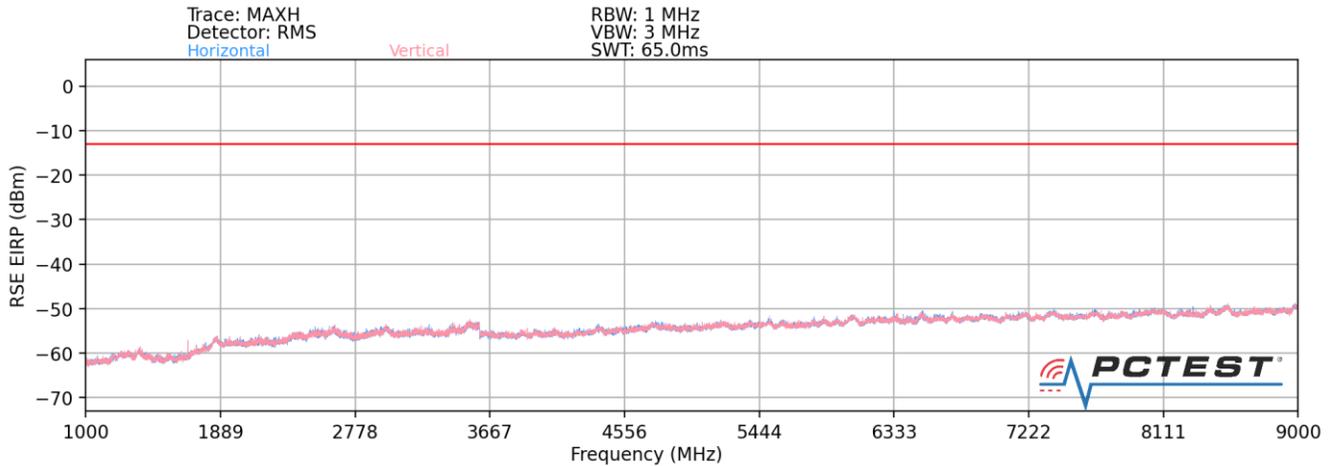
Mode:	GPRS 1 Tx Slot
Channel:	251
Frequency (MHz):	848.8

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1697.6	H	-	-	-67.02	-1.68	38.30	-56.96	-13.00	-43.96
2546.4	H	116	10	-64.80	2.45	44.65	-50.61	-13.00	-37.61
3395.2	H	-	-	-66.85	2.39	42.54	-52.72	-13.00	-39.72
4244.0	H	-	-	-71.09	3.67	39.58	-55.67	-13.00	-42.67

Table 7-13. Radiated Spurious Data (GPRS Cell – High Channel) – OPEN

FCC ID: A3LSMF926U	 MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		 Approved by: Technical Manager
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GSM/GPRS Cell AntA



Plot 7-2. Radiated Spurious Plot (GPRS Cell) - CLOSED

Mode:	GPRS 1 Tx Slot
Channel:	128
Frequency (MHz):	824.2

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1648.4	H	-	-	-65.46	-2.58	38.96	-56.29	-13.00	-43.29
2472.6	H	155	189	-66.61	1.99	42.38	-52.88	-13.00	-39.88
3296.8	H	-	-	-67.75	2.47	41.72	-53.53	-13.00	-40.53
4121.0	H	-	-	-71.06	3.44	39.38	-55.88	-13.00	-42.88

Table 7-14. Radiated Spurious Data (GPRS Cell – Low Channel) - CLOSED

Mode:	GPRS 1 Tx Slot
Channel:	190
Frequency (MHz):	836.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.2	H	141	195	-68.77	-2.27	35.96	-59.29	-13.00	-46.29
2509.8	H	157	148	-63.88	2.22	45.34	-49.91	-13.00	-36.91
3346.4	H	-	-	-66.94	2.42	42.48	-52.78	-13.00	-39.78
4183.0	H	-	-	-70.83	3.46	39.63	-55.63	-13.00	-42.63

Table 7-15. Radiated Spurious Data (GPRS Cell – Mid Channel) - CLOSED

FCC ID: A3LSMF926U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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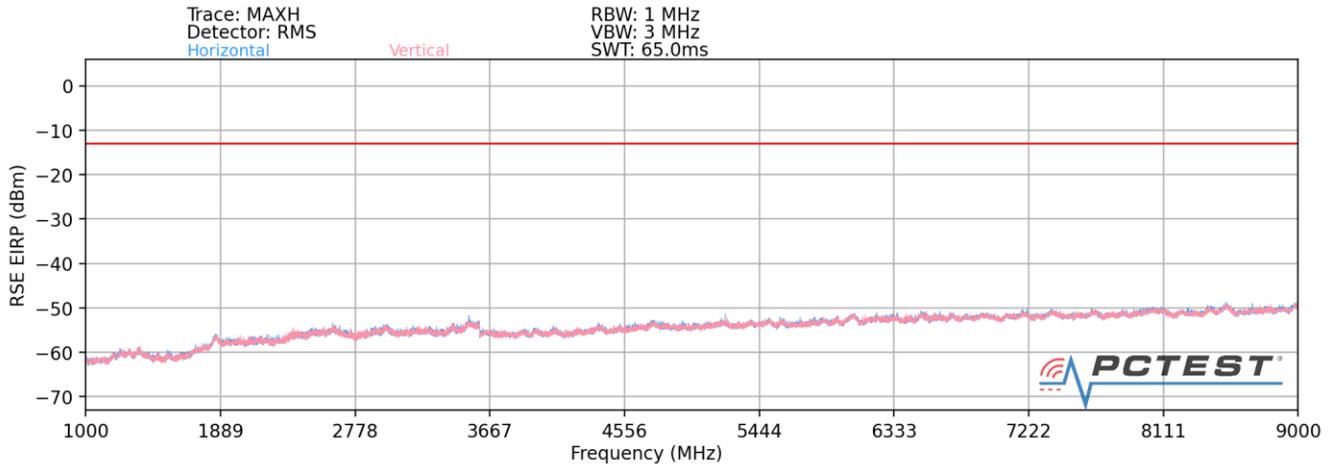
Mode:	GPRS 1 Tx Slot
Channel:	251
Frequency (MHz):	848.8

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1697.6	H	-	-	-68.31	-1.68	37.01	-58.25	-13.00	-45.25
2546.4	H	153	324	-66.58	2.45	42.87	-52.39	-13.00	-39.39
3395.2	H	-	-	-67.74	2.39	41.65	-53.61	-13.00	-40.61
4244.0	H	-	-	-70.77	3.67	39.90	-55.35	-13.00	-42.35

Table 7-16. Radiated Spurious Data (GPRS Cell – High Channel) - CLOSED

FCC ID: A3LSMF926U	 MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE) 		Approved by: Technical Manager
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WCDMA Cell AntA + AntB



Plot 7-3. Radiated Spurious Plot (WCDMA Cell) - OPEN

Mode:	WCDMA RMC
Channel:	4132
Frequency (MHz):	826.4

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1652.8	H	-	-	-67.99	-2.52	36.49	-58.77	-13.00	-45.77
2479.2	H	-	-	-66.90	2.03	42.13	-53.13	-13.00	-40.13
3305.6	H	-	-	-66.29	2.42	43.13	-52.13	-13.00	-39.13

Table 7-17. Radiated Spurious Data (WCDMA Cell – Low Channel) - OPEN

Mode:	WCDMA RMC
Channel:	4183
Frequency (MHz):	836.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.2	H	-	-	-68.06	-2.27	36.67	-58.58	-13.00	-45.58
2509.8	H	-	-	-67.88	2.22	41.34	-53.91	-13.00	-40.91
3346.4	H	-	-	-68.66	2.42	40.76	-54.50	-13.00	-41.50

Table 7-18. Radiated Spurious Data (WCDMA Cell – Mid Channel) - OPEN

Mode:	WCDMA RMC
Channel:	4233
Frequency (MHz):	846.6

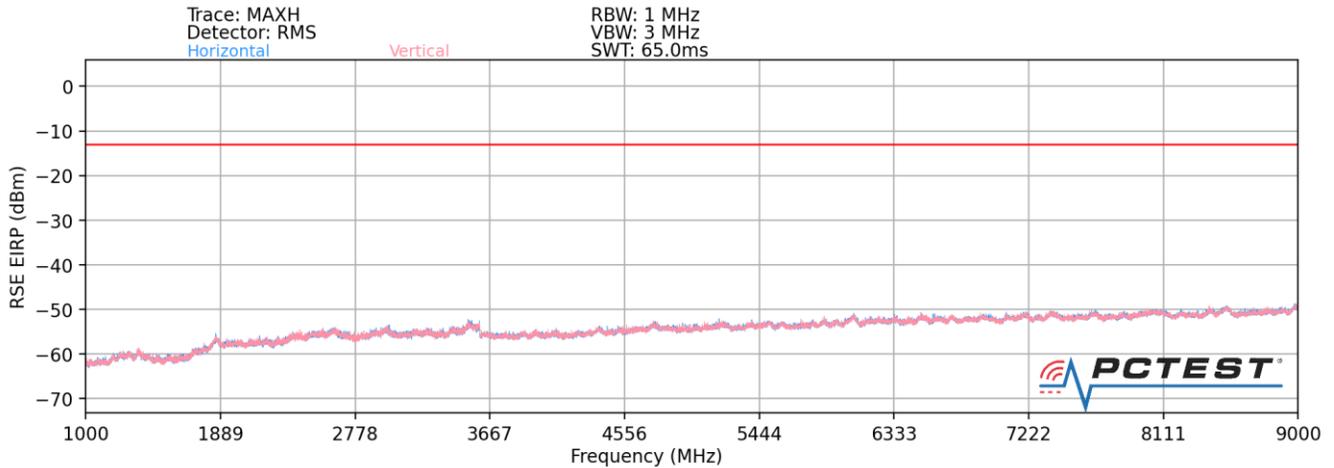
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1693.2	H	-	-	-68.29	-1.82	36.89	-58.36	-13.00	-45.36
2539.8	H	-	-	-67.70	2.33	41.63	-53.63	-13.00	-40.63
3386.4	H	-	-	-66.50	2.32	42.82	-52.43	-13.00	-39.43

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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Table 7-19. Radiated Spurious Data (WCDMA Cell – High Channel) – OPEN

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WCDMA Cell AntA



Plot 7-4. Radiated Spurious Plot (WCDMA Cell) - CLOSED

Mode:	WCDMA RMC
Channel:	4132
Frequency (MHz):	826.4

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1652.8	H	-	-	-71.55	-2.52	32.93	-62.33	-13.00	-49.33
2479.2	H	120	183	-67.54	2.03	41.49	-53.77	-13.00	-40.77
3305.6	H	-	-	-72.45	2.42	36.97	-58.29	-13.00	-45.29
4132.0	H	-	-	-75.54	3.25	34.71	-60.55	-13.00	-47.55

Table 7-20. Radiated Spurious Data (WCDMA Cell – Low Channel) - CLOSED

Mode:	WCDMA RMC
Channel:	4183
Frequency (MHz):	836.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.2	H	-	-	-71.72	-2.27	33.01	-62.24	-13.00	-49.24
2509.8	H	-	-	-71.87	2.22	37.35	-57.90	-13.00	-44.90
3346.4	H	-	-	-71.81	2.42	37.61	-57.65	-13.00	-44.65

Table 7-21. Radiated Spurious Data (WCDMA Cell – Mid Channel) – CLOSED

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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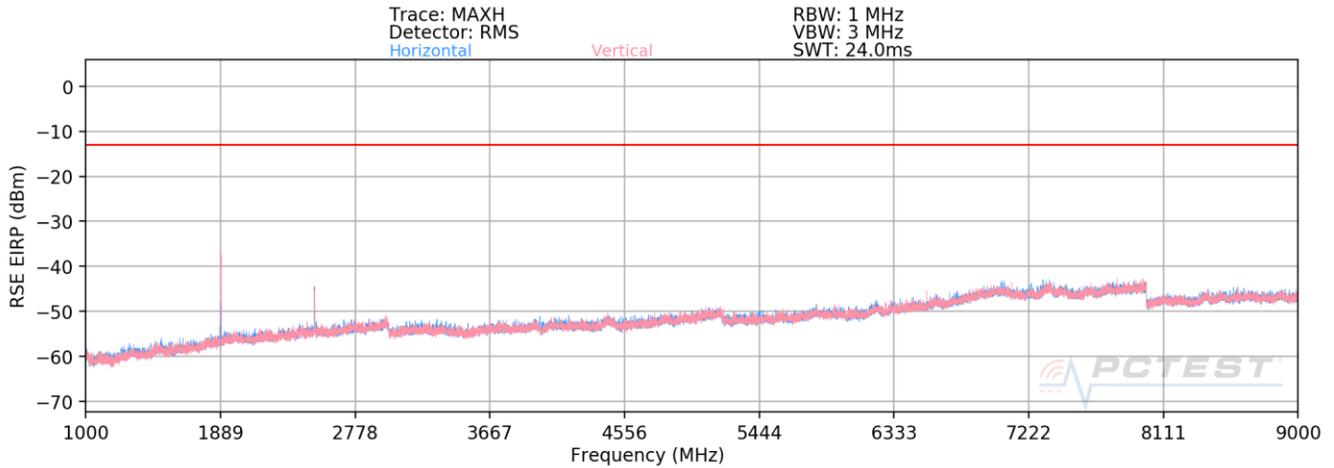
Mode:	WCDMA RMC
Channel:	4233
Frequency (MHz):	846.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1693.2	H	-	-	-71.10	-1.82	34.08	-61.17	-13.00	-48.17
2539.8	H	-	-	-71.44	2.33	37.89	-57.37	-13.00	-44.37
3386.4	H	-	-	-72.14	2.32	37.18	-58.07	-13.00	-45.07
4233.0	H	-	-	-75.22	3.38	35.16	-60.10	-13.00	-47.10

Table 7-22. Radiated Spurious Data (WCDMA Cell – High Channel) – CLOSED

FCC ID: A3LSMF926U	 MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		 Approved by: Technical Manager
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CDMA Cell



Plot 7-5. Radiated Spurious Plot (CDMA Cell) - OPEN

Mode:	CDMA
Channel:	1013
Frequency (MHz):	824.7

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1649.40	H	-	-	-71.89	-2.56	32.55	-62.71	-13.00	-49.71
2474.10	H	-	-	-72.42	2.01	36.59	-58.66	-13.00	-45.66
3298.80	H	-	-	-72.25	2.44	37.19	-58.06	-13.00	-45.06

Table 7-23. Radiated Spurious Data (CDMA Cell – Low Channel) - OPEN

Mode:	CDMA
Channel:	384
Frequency (MHz):	836.52

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.04	H	-	-	-72.44	-2.27	32.29	-62.97	-13.00	-49.97
2509.56	H	-	-	-71.60	2.22	37.62	-57.64	-13.00	-44.64
3346.08	H	-	-	-77.86	2.42	31.56	-63.70	-13.00	-50.70

Table 7-24. Radiated Spurious Data (CDMA Cell – Mid Channel) - OPEN

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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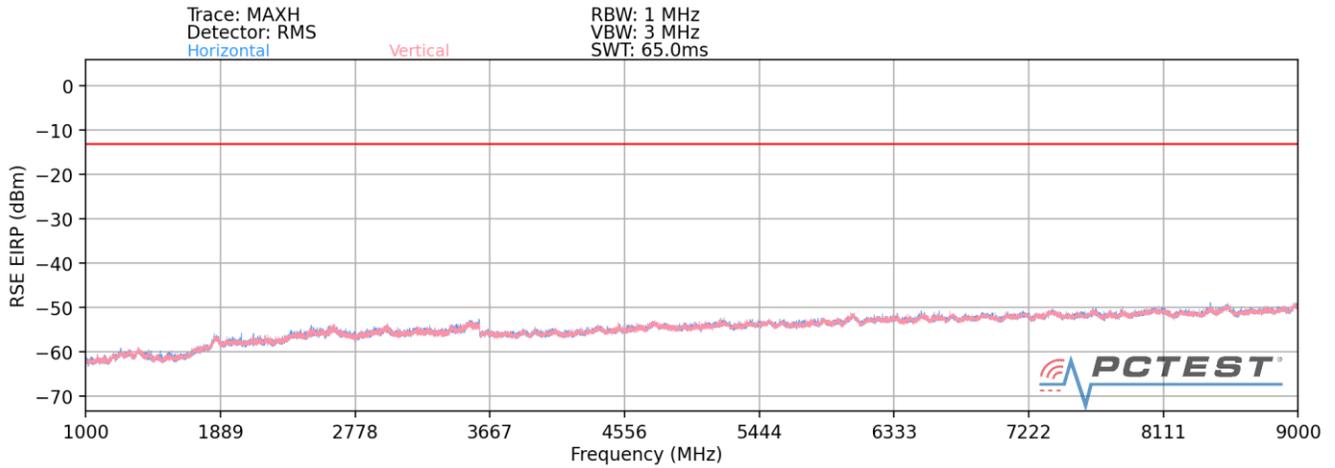
Mode:	CDMA
Channel:	777
Frequency (MHz):	848.31

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1696.62	H	-	-	-72.06	-1.71	33.23	-62.03	-13.00	-49.03
2544.93	H	-	-	-72.19	2.43	37.24	-58.02	-13.00	-45.02
3393.24	H	-	-	-75.34	2.37	34.03	-61.23	-13.00	-48.23

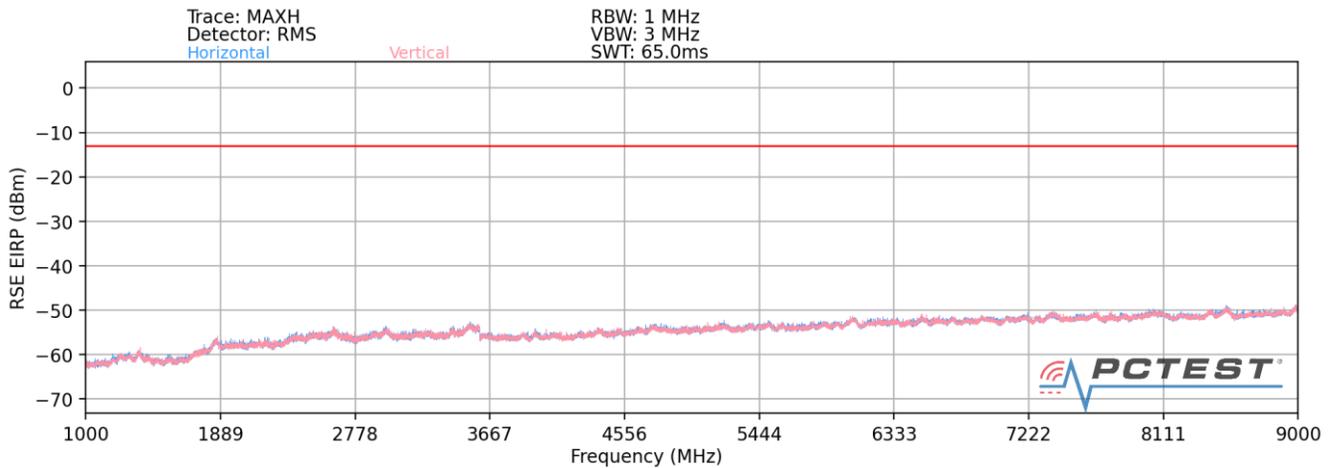
Table 7-25. Radiated Spurious Data (CDMA Cell – High Channel) - OPEN

FCC ID: A3LSMF926U	 PCTEST Proud to be part of element	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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LTE Band 26/5 – AntA + AntB



Plot 7-6. Radiated Spurious Plot (LTE Band 26/5) – OPEN



Plot 7-7. Radiated Spurious Plot (LTE Band 26/5) - CLOSED

Bandwidth (MHz):	15
Frequency (MHz):	831.5
RB / Offset:	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1663.0	H	-	-	-69.01	-2.28	35.71	-59.54	-13.00	-46.54
2494.5	H	114	209	-64.77	2.52	44.75	-50.50	-13.00	-37.50
3326.0	H	-	-	-68.29	2.90	41.61	-53.65	-13.00	-40.65
4157.5	H	-	-	-76.44	4.54	35.10	-60.15	-13.00	-47.15

Table 7-26. Radiated Spurious Data (LTE Band 26/5 – Low Channel) - OPEN

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset		Page 30 of 40

Bandwidth (MHz):	15
Frequency (MHz):	836.5
RB / Offset:	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.0	H	-	-	-69.83	-2.25	34.92	-60.34	-13.00	-47.34
2509.5	H	375	199	-66.75	2.83	43.08	-52.18	-13.00	-39.18
3346.0	H	-	-	-68.96	3.25	41.29	-53.97	-13.00	-40.97
4182.5	H	-	-	-74.35	4.69	37.34	-57.92	-13.00	-44.92

Table 7-27. Radiated Spurious Data (LTE Band 26/5 – Mid Channel) - OPEN

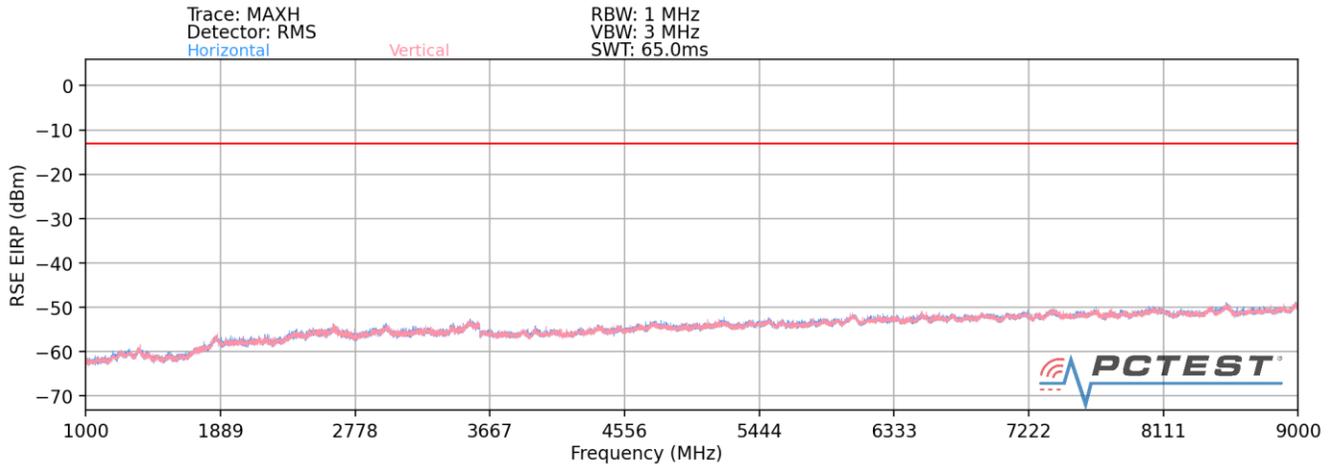
Bandwidth (MHz):	15
Frequency (MHz):	841.5
RB / Offset:	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1683.00	H	354	297	-69.42	-2.16	35.42	-59.84	-13.00	-46.84
2524.50	H	143	220	-65.39	2.60	44.21	-51.05	-13.00	-38.05
3366.00	H	-	-	-68.17	3.57	42.40	-52.85	-13.00	-39.85
4207.50	H	-	-	-74.70	4.37	36.67	-58.59	-13.00	-45.59

Table 7-28. Radiated Spurious Data (LTE Band 26/5 – High Channel) - OPEN

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset	Page 31 of 40	

LTE Band 26/5 – AntA



Plot 7-8. Radiated Spurious Plot (LTE Band 26/5) - CLOSED

Bandwidth (MHz):	15
Frequency (MHz):	831.5
RB / Offset:	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1663.0	H	193	56	-69.54	-2.41	35.05	-60.21	-13.00	-47.21
2494.5	H	124	143	-68.11	2.13	41.02	-54.24	-13.00	-41.24
3326.0	H	-	-	-68.70	2.41	40.71	-54.55	-13.00	-41.55
4157.5	H	-	-	-74.52	3.28	35.76	-59.50	-13.00	-46.50

Table 7-29. Radiated Spurious Data (LTE Band 26/5 – Low Channel) – CLOSED

Bandwidth (MHz):	15
Frequency (MHz):	836.5
RB / Offset:	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.0	H	-	-	-71.50	-2.27	33.23	-62.03	-13.00	-49.03
2509.5	H	181	204	-70.58	2.22	38.64	-56.62	-13.00	-43.62
3346.0	H	-	-	-72.16	2.42	37.26	-58.00	-13.00	-45.00
4182.5	H	-	-	-76.65	3.46	33.81	-61.44	-13.00	-48.44

Table 7-30. Radiated Spurious Data (LTE Band 26/5 – Mid Channel) – CLOSED

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset		Page 32 of 40

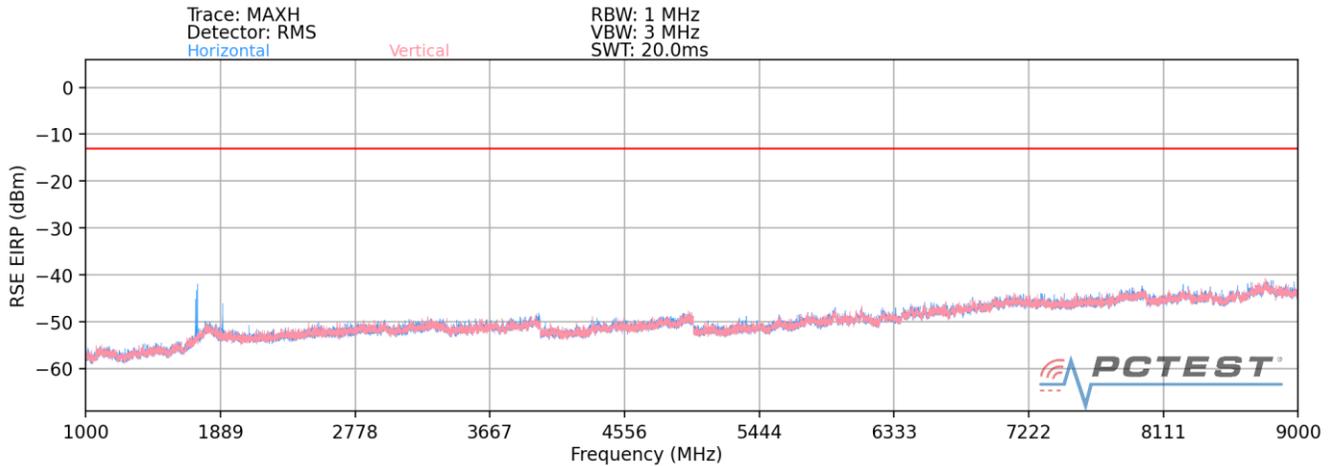
Bandwidth (MHz):	15
Frequency (MHz):	841.5
RB / Offset:	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1683.00	H	-	-	-70.34	-2.06	34.60	-60.65	-13.00	-47.65
2524.50	H	114	296	-66.45	2.22	42.77	-52.49	-13.00	-39.49
3366.00	H	-	-	-68.23	2.32	41.09	-54.17	-13.00	-41.17
4207.50	H	-	-	-74.15	3.23	36.08	-59.17	-13.00	-46.17

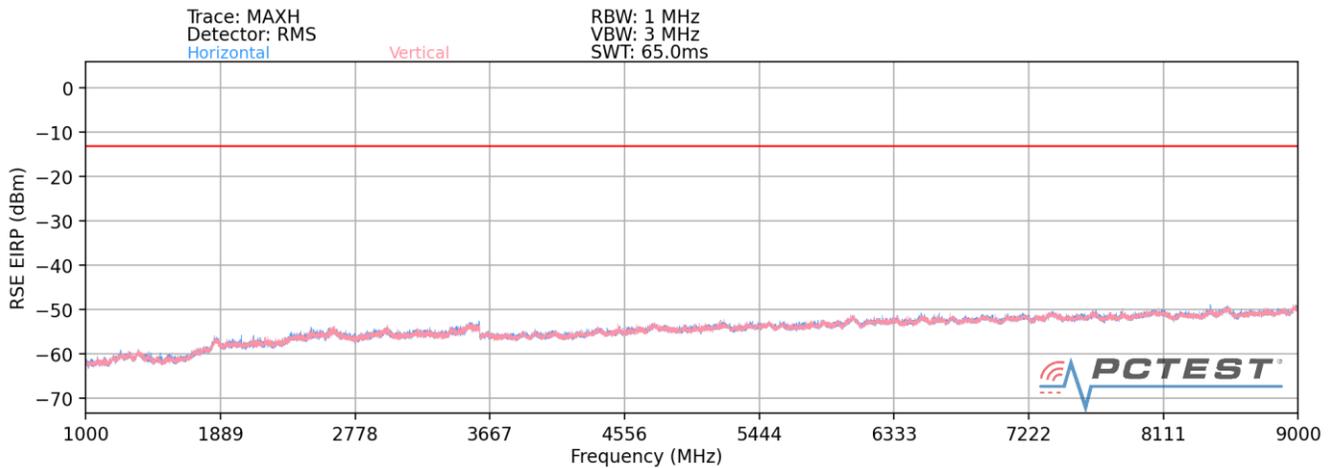
Table 7-31. Radiated Spurious Data (LTE Band 26/5 – High Channel) - CLOSED

FCC ID: A3LSMF926U	 MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		 Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset	Page 33 of 40

NR Band n5 – AntA + AntB



Plot 7-9. Radiated Spurious Plot (NR Band n5) – OPEN



Plot 7-10. Radiated Spurious Plot (NR Band n5) - CLOSED

Bandwidth (MHz):	20
Frequency (MHz):	834.0
RB / Offset:	1 / 53
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1668.0	H	222	154	-72.00	0.41	35.41	-59.85	-13.00	-46.85
2502.0	H	100	260	-67.89	4.28	43.39	-51.87	-13.00	-38.87
3336.0	H	-	-	-68.69	5.76	44.07	-51.19	-13.00	-38.19
4170.0	H	-	-	-72.00	6.62	41.62	-53.64	-13.00	-40.64

Table 7-32. Radiated Spurious Data (NR Band n5 – Low Channel) – OPEN

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset		Page 34 of 40

Bandwidth (MHz):	20
Frequency (MHz):	836.5
RB / Offset:	1 / 53
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.0	H	-	-	-67.24	0.62	40.38	-54.88	-13.00	-41.88
2509.5	H	-	-	-69.23	4.25	42.02	-53.24	-13.00	-40.24
3346.0	H	-	-	-70.11	5.76	42.65	-52.61	-13.00	-39.61

Table 7-33. Radiated Spurious Data (NR Band n5 – Mid Channel) – OPEN

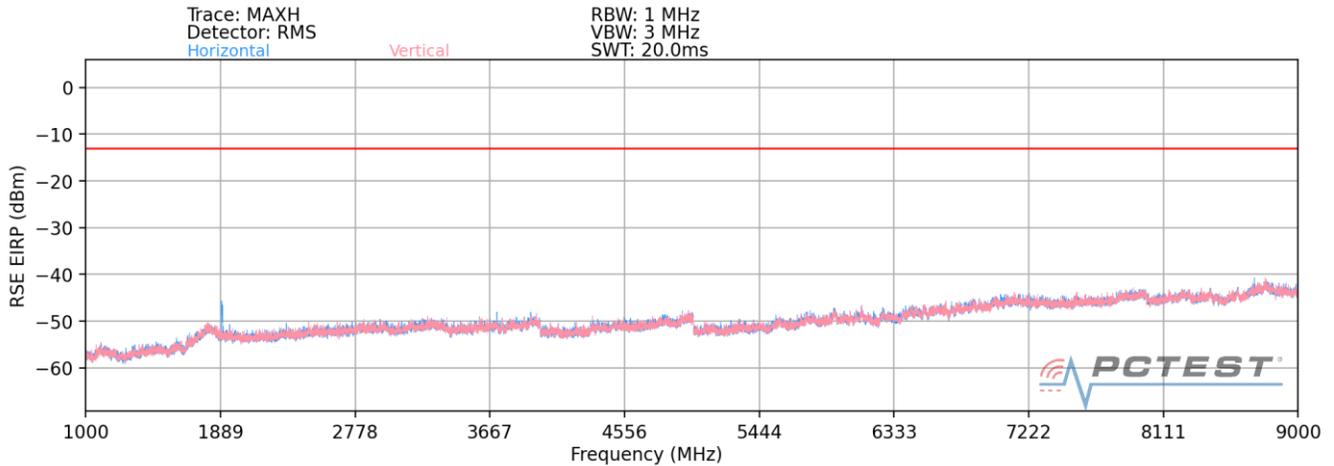
Bandwidth (MHz):	20
Frequency (MHz):	839.0
RB / Offset:	1 / 53
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1678.0	H	-	-	-68.01	0.84	39.83	-55.43	-13.00	-42.43
2517.0	H	-	-	-69.22	4.44	42.22	-53.04	-13.00	-40.04
3356.0	H	-	-	-71.24	5.67	41.43	-53.83	-13.00	-40.83

Table 7-34. Radiated Spurious Data (NR Band n5 – High Channel) – OPEN

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset	Page 35 of 40	

NR Band n5 – AntA



Plot 7-11. Radiated Spurious Plot (NR Band n5) - CLOSED

Bandwidth (MHz):	20
Frequency (MHz):	834.0
RB / Offset:	1 / 50
Mode:	Standalone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1668.0	H	-	-	-67.81	0.41	39.60	-55.66	-13.00	-42.66
2502.0	H	-	-	-69.22	4.28	42.06	-53.20	-13.00	-40.20
3336.0	H	-	-	-70.14	5.76	42.62	-52.64	-13.00	-39.64

Table 7-35. Radiated Spurious Data (NR Band n5 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	836.5
RB / Offset:	1 / 50
Mode:	Standalone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.0	H	-	-	-68.43	0.62	39.19	-56.07	-13.00	-43.07
2509.5	H	-	-	-69.99	4.25	41.26	-54.00	-13.00	-41.00
3346.0	H	-	-	-70.17	5.76	42.59	-52.67	-13.00	-39.67

Table 7-36. Radiated Spurious Data (NR Band n5 – Mid Channel)

FCC ID: A3LSMF926U		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset	Page 36 of 40	

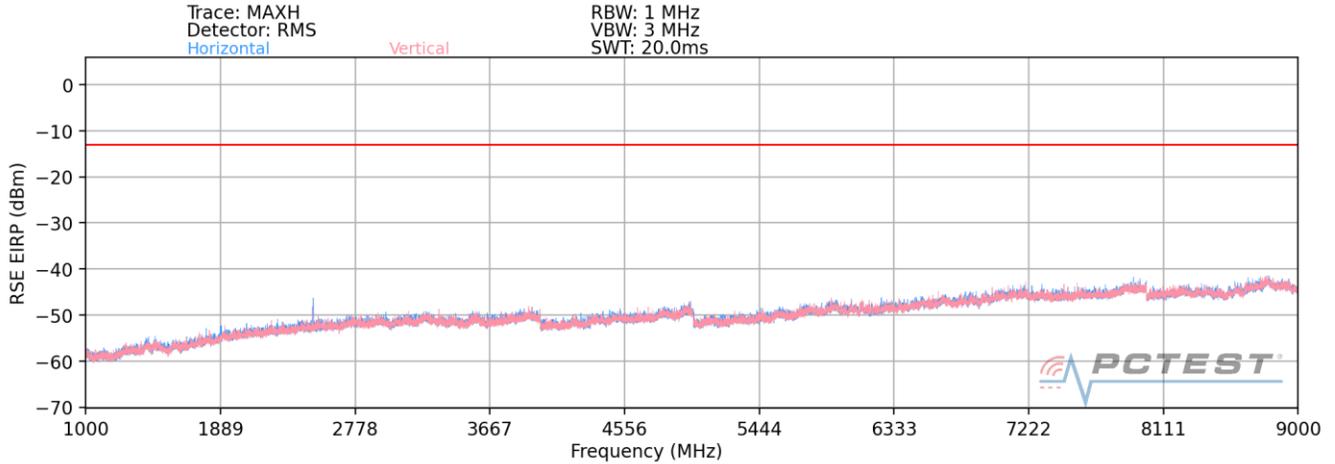
Bandwidth (MHz):	20
Frequency (MHz):	839.0
RB / Offset:	1 / 50
Mode:	Standalone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1678.0	H	-	-	-67.01	0.84	40.83	-54.43	-13.00	-41.43
2517.0	H	-	-	-68.49	4.44	42.95	-52.31	-13.00	-39.31
3356.0	H	-	-	-72.01	5.67	40.66	-54.60	-13.00	-41.60

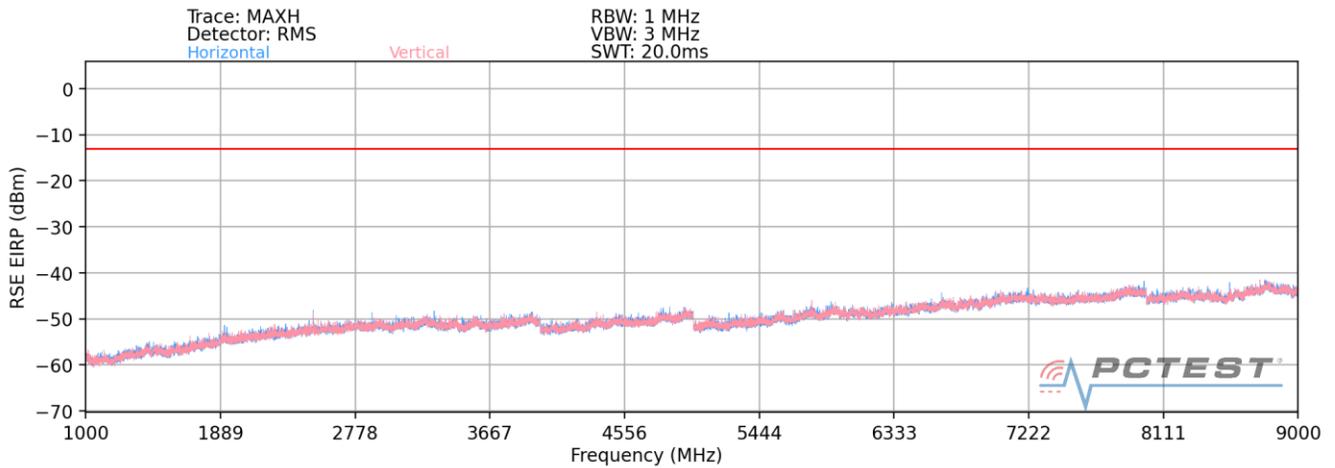
Table 7-37. Radiated Spurious Data (NR Band n5 – High Channel)

FCC ID: A3LSMF926U	 PCTEST Proud to be part of element	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset	Page 37 of 40	

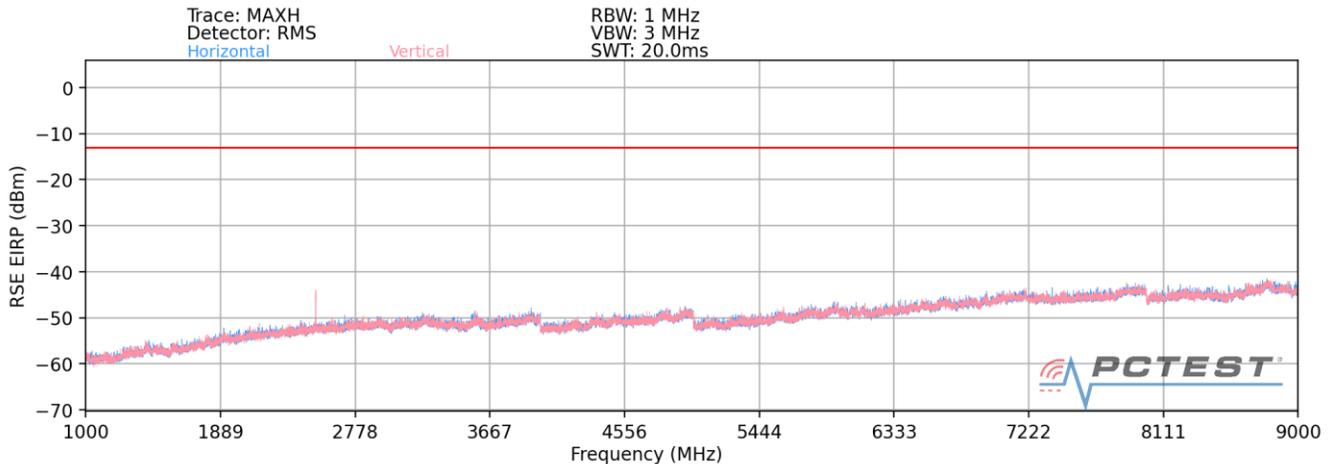
ULCA LTE Band 5



Plot 7-12. Radiated Spurious Plot (ULCA LTE Band 5 – Low Channel) – OPEN

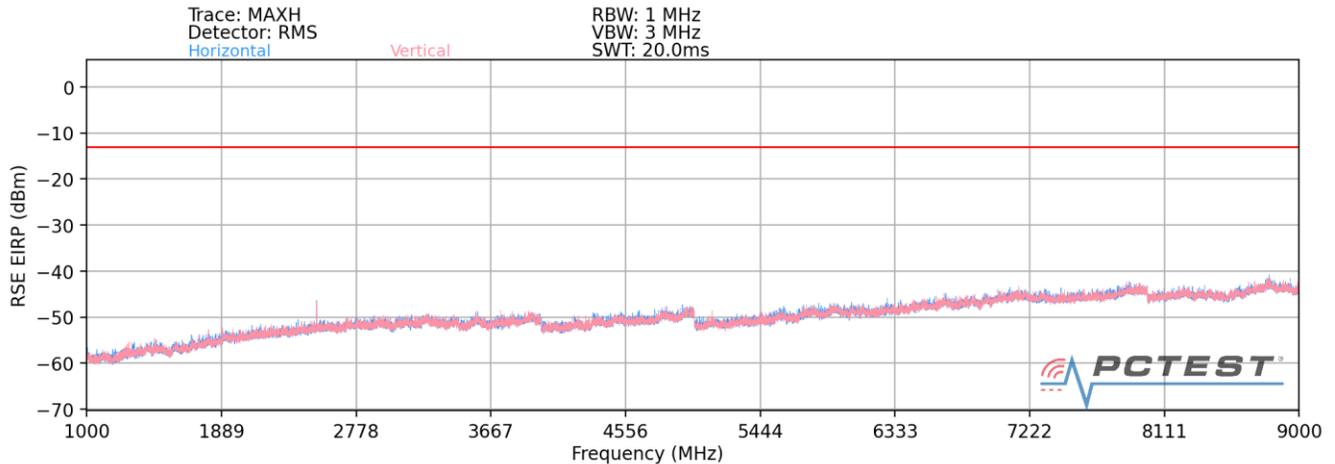


Plot 7-13. Radiated Spurious Plot (ULCA LTE Band 5 – Low Channel) – CLOSED



Plot 7-14. Radiated Spurious Plot (ULCA LTE Band 5 – High Channel) – OPEN

FCC ID: A3LSMF926U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset		Page 38 of 40



Plot 7-15. Radiated Spurious Plot (ULCA LTE Band 5 – High Channel) - CLOSED

PCC Bandwidth (MHz):	10
PCC Frequency (MHz):	829.0
PCC RB / Offset:	1 / 49
SCC Bandwidth (MHz):	10
SCC Frequency (MHz):	838.9
SCC RB / Offset:	1 / 0

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1658.0	V	-	-	-68.20	2.05	40.85	-54.41	-13.00	-41.41
2487.0	V	-	-	-68.41	5.64	44.23	-51.03	-13.00	-38.03
3316.0	V	-	-	-68.16	7.35	46.19	-49.07	-13.00	-36.07

Table 7-38. Radiated Spurious Data (ULCA LTE Band 5 – Low Channel)

PCC Bandwidth (MHz):	10
PCC Frequency (MHz):	844.0
PCC RB / Offset:	1 / 0
SCC Bandwidth (MHz):	10
SCC Frequency (MHz):	834.1
SCC RB / Offset:	1 / 49

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1688.0	V	154	230	-61.11	3.46	49.35	-45.91	-13.00	-32.91
2532.0	V	-	-	-69.23	5.78	43.55	-51.71	-13.00	-38.71
3376.0	V	-	-	-68.75	7.05	45.30	-49.96	-13.00	-36.96

Table 7-39. Radiated Spurious Data (ULCA LTE Band 5 – High Channel)

FCC ID: A3LSMF926U	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset	Page 39 of 40

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the Samsung **Portable Handset** **FCC ID: A3LSMF926U** complies with all the requirements of Part 22 of the FCC rules.

FCC ID: A3LSMF926U	 PCTEST <small>Proud to be part of element</small>	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)	 Approved by: Technical Manager
Test Report S/N: 1M2106280073-09.A3L	Test Dates: 7/12 – 07/20/2021	EUT Type: Portable Handset	Page 40 of 40