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PART 25 CLASS II PERMISSIVE CHANGE REPORT

Applicant Name:

Samsung Electronics Co., Ltd.
129, Samsung-ro,
Yeongtong-gu, Suwon-si
Gyeonggi-do, 16677, Korea

Date of Testing:

5/11/2025 - 5/14/2025

Test Report Issue Date:

6/13/2025

Test Site/Location:

Element Lab., Columbia, MD, USA

Test Report Serial No.:

1M2504220043-07.A3L

FCC ID:

A3LSMF966U

APPLICANT:

Samsung Electronics Co., Ltd.

Application Type:

Class II Permissive Change

Model:

SM-F966U

Additional Model(s):

SM-F966U1

EUT Type:

Portable Handset

FCC Classification:

PCS Licensed Transmitter Held to Ear (TNE)

FCC Rule Part:

25

Test Procedure(s):

ANSI C63.26-2015

Class II Permissive Change:

Please see FCC change document

Original Grant Date:

6/05/2025

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.

RJ Ortanez
Executive Vice President



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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 Element Test Location

Measurements were conducted at the Element laboratory indicated in Section 1.3 below. All measurement facilities are compliant with the test site requirements specified in ANSI C63.4-2014 and KDB 414788 D01 v01r01.

1.3 Test Facility / Accreditations

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

- Element Washington DC LLC 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.
- Element Washington DC LLC 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 ISSED Standards (RSS).
- Element Washington DC LLC facility is a registered (2451B) test laboratory with the site description on file with ISSED.
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISSED Canada as designated by NIST under the U.S. and Canada Mutual Recognition Agreements (MRAs).

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung Portable Handset FCC ID: A3LSMF966U**. 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 25.

This report is being issued as a Class II Permissive Change due to a pin-to-pin component change that is made. Full details are provided in the change description. The test data in this report demonstrates the continued compliance to Part 25.

Test Device Serial No.: 1737M, 1746M, 1748M, 1747M, 1744M, 1755M

2.2 Device Capabilities

This device contains the following capabilities:

850/1700/1900 WCDMA/HSPA, 850/1900 GSM/GPRS/EDGE Multi-Band LTE, MultiBand 5G NR (FR1 and FR2), 802.11b/g/n/ac/ax/be WLAN, 802.11a/n/ac/ax/be UNII (5GHz and 6GHz), Bluetooth (1x, EDR, LE), WirelessPower Transfer, UWB, NTN, SCS

For NTN operation under B255 (1626.5 – 1660.5MHz), this device supports both 3.75kHz and 15kHz subcarrier spacings with QPSK and BPSK modulations.

This device supports three folder configurations: one is with folder fully open, one is where the folder is half open (90 degrees), and one is with folder closed. All configurations are tested, and the worst case radiated emissions data is shown in this report.

2.3 Test Configuration

The EUT was tested per the guidance of ANSI C63.26-2015. See Section 6.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

2.4 Software and Firmware

Testing was performed on device(s) using software/firmware version S938USQU0AXJA installed on the EUT.

2.5 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 “American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services” (ANSI C63.26-2015) 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 C63.26-2015. For emissions below 1GHz, 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, the field strength conversion method is used per the formulas in Section 5.2.7 of ANSI C63.26-2015. Field Strength (EIRP) is calculated using the following formulas:

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

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 414788 D01 v01r01.

Radiated power and radiated spurious emission levels are investigated with the receive antenna horizontally and vertically polarized per ANSI C63.26-2015.

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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

Table 4-1. Measurement Uncertainty Budget – MD

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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	2/25/2025	Annual	2/25/2026	AP2
-	AP1	EMC Cable and Switch System	2/25/2025	Annual	2/25/2026	AP2
-	ETS	Conducted Cable Set (40GHz)	2/25/2025	Annual	2/25/2026	ETS
-	LTx4	Licensed Transmitter Cable Set	2/25/2025	Annual	2/25/2026	LTx4
-	LTx5	Licensed Transmitter Cable Set	2/25/2025	Annual	2/25/2026	LTx5
Anritsu	MA24408A	8GHz Microwave Peak Power Sensor	10/2/2024	Annual	10/2/2025	11676
EMCO	3116	Horn Antenna (18-40GHz)	7/5/2023	Biennial	7/5/2025	9203-2178
Espec	ESX-2CA	Environmental Chamber	11/20/2024	Biennial	11/20/2026	17620
Rohde & Schwarz	ESU26	EMI Test Receiver (26.5GHz)	10/16/2024	Annual	10/16/2025	100342
Rohde & Schwarz	ESU40	EMI Test Receiver (40GHz)	10/16/2024	Annual	10/16/2025	100348
Sunol	JB5	Bi-Log Antenna (30M - 5GHz)	9/11/2024	Biennial	9/11/2026	A051107
Sunol	DRH-118	Horn Antenna (1-18GHz)	2/21/2024	Biennial	2/21/2026	A050307

Table 5-1. Test Equipment Calibration Table – MD

Notes:

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

Component	Serial Number
Keysight Directional Coupler, Model: 87300C	55300518
MCL 6dB Attenuator, Model: BW K62W44+	2013
MegaPhase Cable, Model: TM40-K1K1-36	19026201 002

Table 5-2. LTx4 Conducted Cable Set Components

Component	Serial Number
Keysight Directional Coupler, Model: 87300C	55300519
MCL 6dB Attenuator, Model: BW-K62W44+	1905
MegaPhase Cable, Model: TM40-K1K1-36	19026201 001

Table 5-3. LTx5 Conducted Cable Set Components

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6.0 TEST RESULTS

6.1 Summary

Company Name: Samsung Electronics Co., Ltd.
 FCC ID: A3LSMF966U
 FCC Classification: PCS Licensed Transmitter Held to Ear (TNE)
 Mode(s): NTN

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference
CONDUCTED	Transmitter Conducted Output Power	2.1046, 25.204(a)	40 dBW(Max)	PASS	Section 6.2
	Occupied Bandwidth	2.1049	N/A	PASS	Section 6.3
	Conducted Emission Mask	2.1051, 25.202(f)	25.202(f)	PASS	Section 6.4
RADIATED	Effective Radiated Power / Equivalent Isotropic Radiated Power	2.1046, 25.204(a)	40 dBW(Max)	PASS	Section 6.5
	Radiated Spurious Emissions	25.202(f)	$> 43 + 10 \log_{10} (P[\text{Watts}])$ for all out-of-band emissions	PASS	Section 6.6

Table 6-1. 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 EMC Software Tool v2.3.0.
- 5) Compliance was assessed for NTN operation to determine the continued compliance in line with a Class II Permissive Change. Please see **Table 6-2** for a summary of results detailed in this report compared to that of the original grant.

FCC Rules	Test Item	Test Case	Units	Limit	Original Grant	C2PC
25	Conducted Output Power	Low Ch. 261505, 15kHz, QPSK	dBm	N/A	24.96	24.42
	Occupied Bandwidth	Mid Ch. 261674, 15kHz, QPSK	kHz	N/A	186.521	184.453
	Conducted Band Edge	High Ch. 261505, 15kHz, BPSK	dBc	-25	-27.03	-26.52
		Mid Ch. 261674, 15kHz, QPSK	dBc	-25	-26.46	-26.26
		High Ch. 261843, 15kHz, QPSK	dBc	-25	-26.26	-26.89
	EIRP	Mid Ch. 261674, 15kHz, QPSK	dBm	70	22.35	22.69
	RSE	Low Ch. 261505, 15kHz, QPSK	dBm	-13	-58.96	-58.48

Table 6-2. Class II Permissive Change - Test Results Summary – NTN Band 255

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6.2 Conducted Output Power Data

Test Overview

All emissions are measured with a power meter connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates 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.

Test Procedure Used

ANSI C63.26-2015 – Section 5.2.4.2

Test Settings

1. Detector = RMS
2. Trace mode = trace average for continuous emissions
3. 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. Test Instrument & Measurement Setup

Test Notes

1. The conducted powers were measured with FTM software used to allow 100% duty cycle transmission.
2. For NB operation in this band, the 3.75kHz and 15kHz subcarrier spacings support both QPSK and BPSK modulation as shown in the following tables.

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SCS	SC Size	Frequency [MHz]	Conducted Power [dBm]	
			BPSK	QPSK
3.75kHz	1SC0	1626.6	23.52	23.64
	1SC24	1626.6	24.11	24.11
	1SC47	1626.6	23.54	23.64
15kHz	1SC0	1626.6	23.91	23.95
	1SC6	1626.6	24.44	24.42
	1SC11	1626.6	24.1	23.95
	12SC0	1626.6	N/A	23.06

Table 6-3. Conducted Power Result - Low Channel

SCS	SC Size	Frequency [MHz]	Conducted Power [dBm]	
			BPSK	QPSK
3.75kHz	1SC0	1643.5	23.52	23.56
	1SC24	1643.5	24.01	24.12
	1SC47	1643.5	23.53	23.58
15kHz	1SC0	1643.5	23.94	23.79
	1SC6	1643.5	24.56	24.32
	1SC11	1643.5	23.93	23.92
	12SC0	1643.5	N/A	23.01

Table 6-4. Conducted Power Result - Mid Channel

SCS	SC Size	Frequency [MHz]	Conducted Power [dBm]	
			BPSK	QPSK
3.75kHz	1SC0	1660.4	23.6	23.81
	1SC24	1660.4	24.21	24.11
	1SC47	1660.4	23.65	23.63
15kHz	1SC0	1660.4	24.23	24.55
	1SC6	1660.4	24.6	24.95
	1SC11	1660.4	24.19	24.22
	12SC0	1660.4	N/A	23.72

Table 6-5. Conducted Power Result - High Channel

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6.3 Occupied Bandwidth

Test Overview

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst-case configuration results are reported in this section.

Test Procedure Used

ANSI C63.26-2015 – Section 5.4.4

Test Settings

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5% of the expected OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5% of the 99% occupied bandwidth observed in Step 7

Test Setup

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

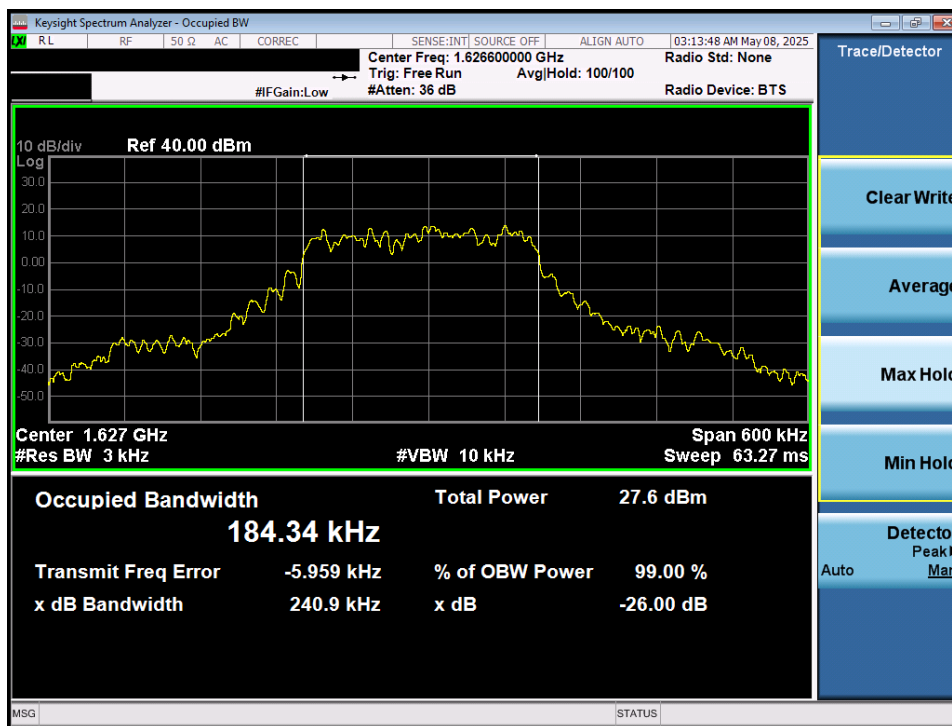


Figure 6-2. Test Instrument & Measurement Setup

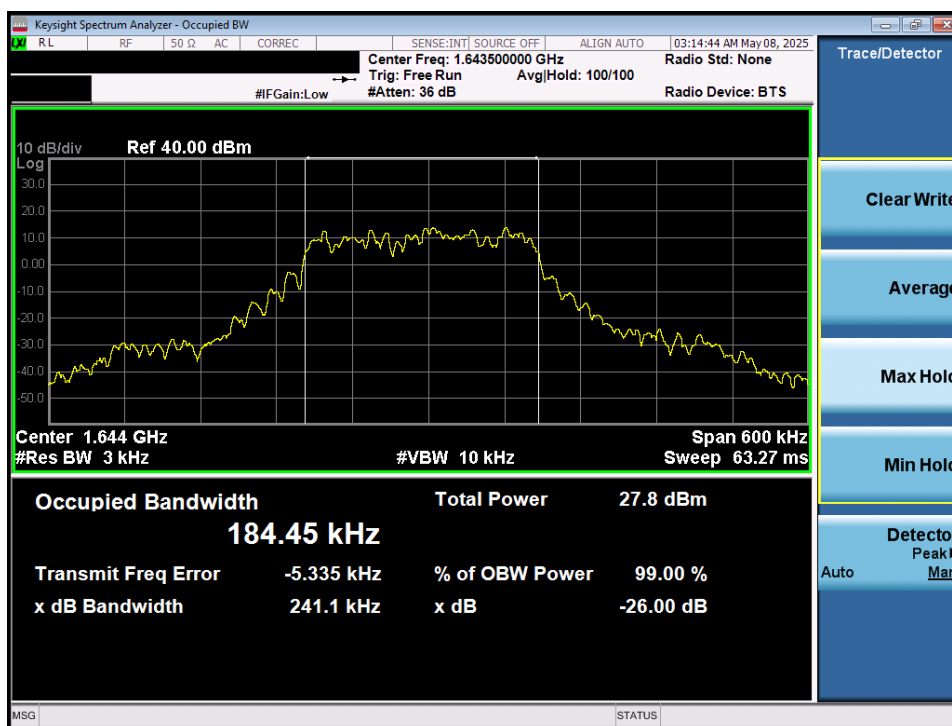
Test Notes

None.

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Plot 6-1. Bandwidth Plot (Band n255, Low Channel)



Plot 6-2. Bandwidth Plot (Band n255, Mid Channel)

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Plot 6-3. Bandwidth Plot (Band n255, High Channel)

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6.4 Conducted Emissions Mask

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates 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.

Per FCC Part 25.202(f):

Emission limitations.

(1) In any 4 kHz band, the center frequency of which is removed from the assigned frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: 25 dB;

(2) In any 4 kHz band, the center frequency of which is removed from the assigned frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: 35 dB;

Test Procedure Used

ANSI C63.26-2015 – Section 5.7.4

Test Settings

1. EUT is connected to the spectrum analyzer.
2. Highest Power within the transmitting signal is measured.
3. Worst Case Emissions are identified and measured
4. See Notes regarding RBW

Test Setup

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

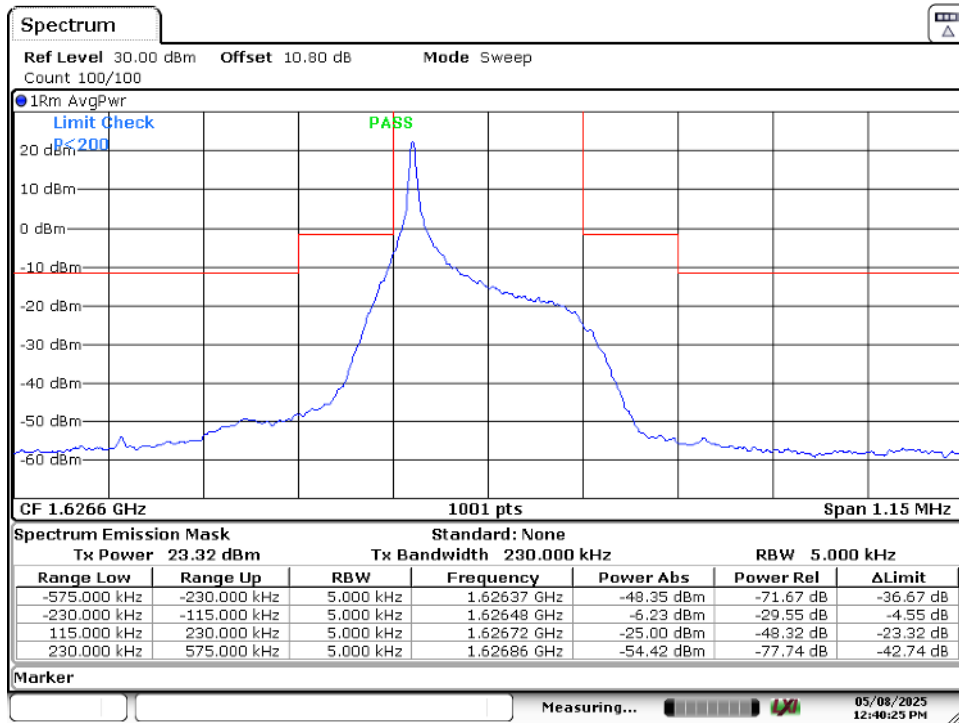


Figure 6-3. Test Instrument & Measurement Setup

Test Notes

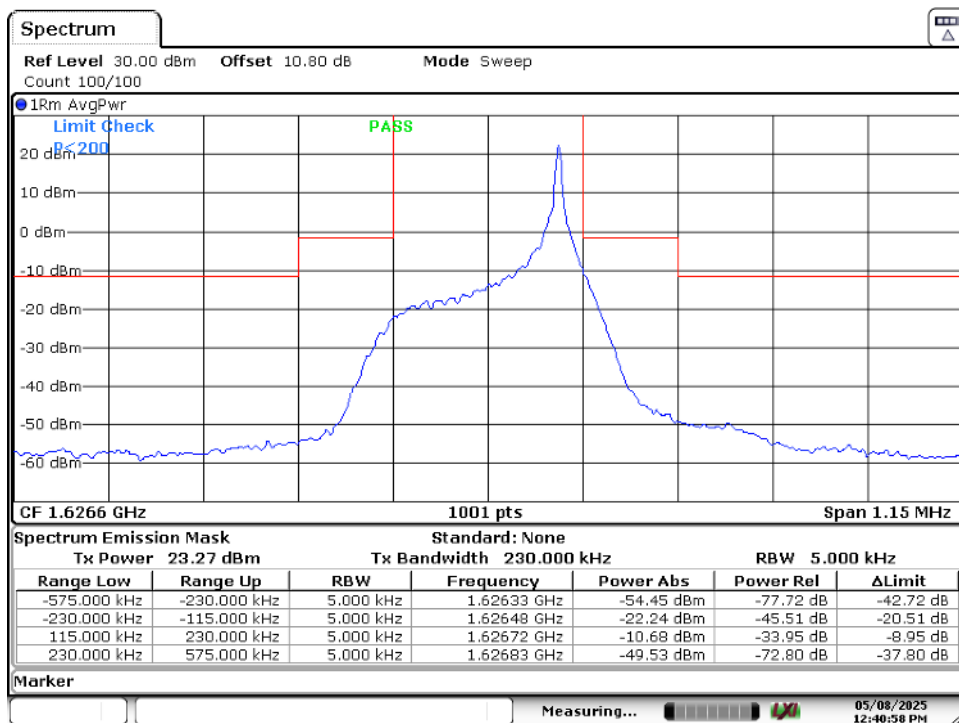
1. Due to measurement equipment limitations a RBW of 4KHz is not available. To ensure worst-case result a RBW = 5kHz and a VBW = 20kHz was utilized.
2. For purposes of the emission mask testing in this section, the manufacturer has declared an authorized bandwidth of 230kHz.
3. Limit lines are based on dBc limits in FCC Part 25.202(f), this is based of the measured carrier power using the Spectrum Emission Mask function of the spectrum analyzer.

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Date: 8.MAY.2025 12:40:24

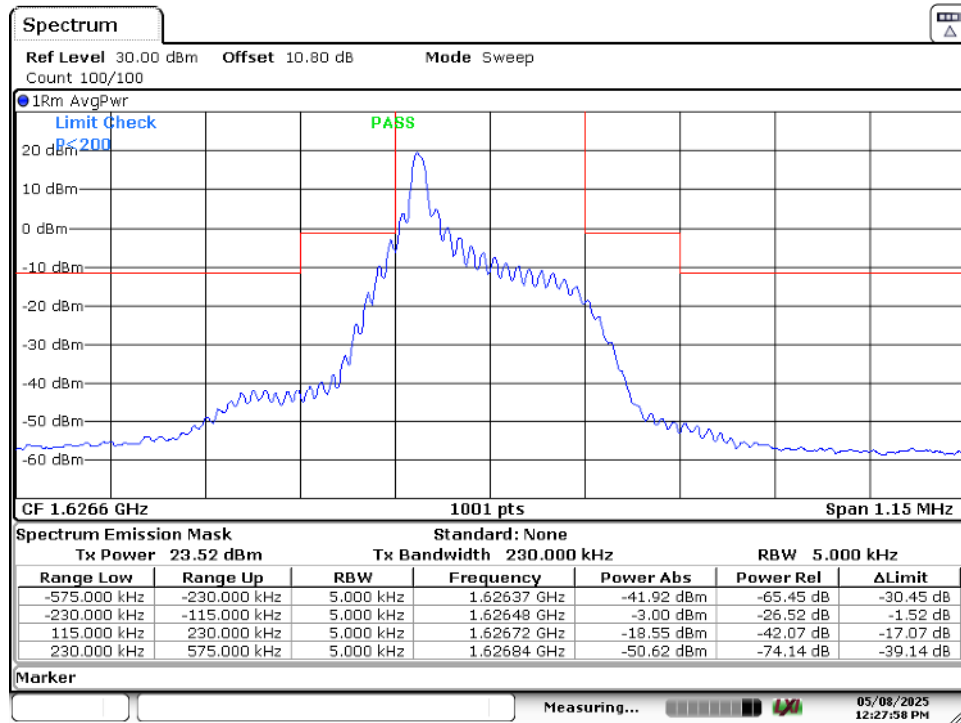
Plot 6-4. Low Channel Conducted Emission Mask – 3.75kHz SCS – 1SC0 – BPSK



Date: 8.MAY.2025 12:40:57

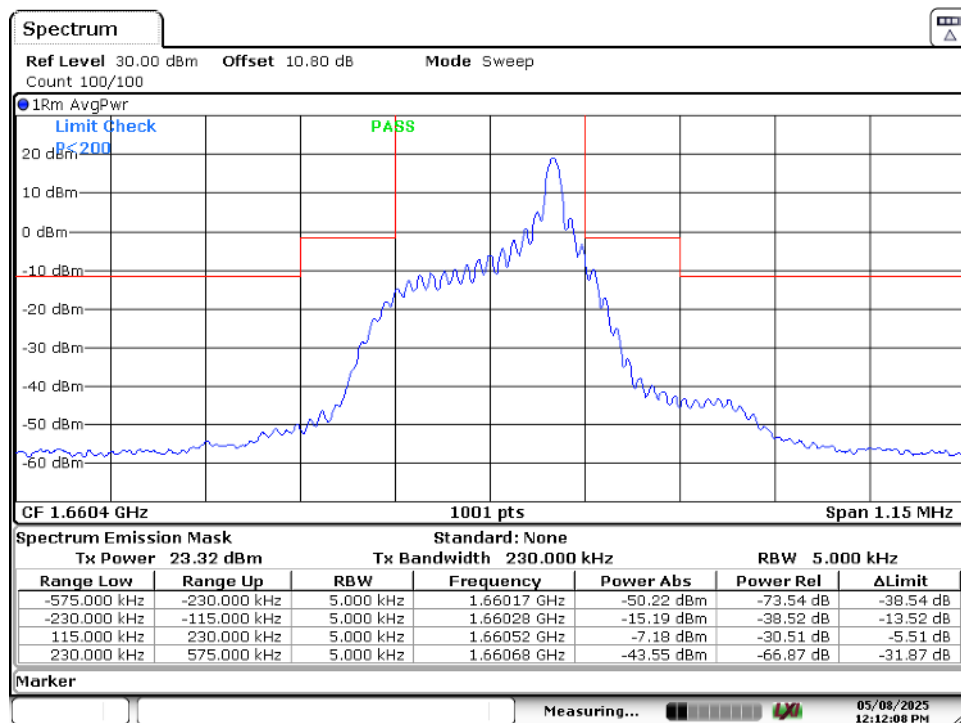
Plot 6-5. Low Channel Conducted Emission Mask – 3.75kHz SCS – 1SC47 – BPSK

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Date: 8.MAY.2025 12:27:58

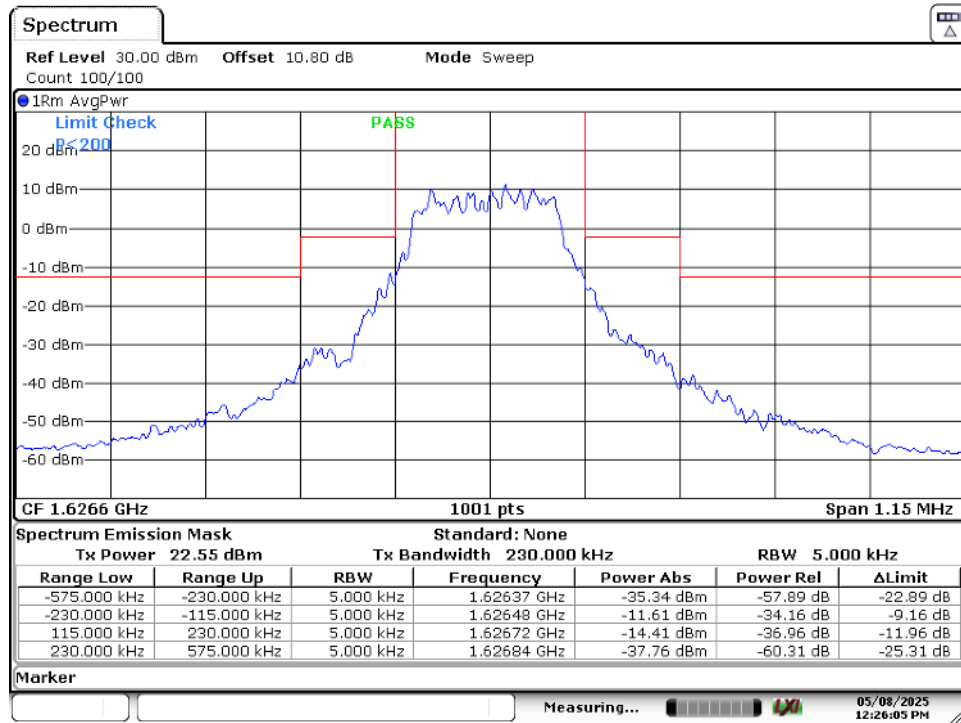
Plot 6-6. Low Channel Conducted Emission Mask – 15kHz SCS – 1SC0 – BPSK



Date: 8.MAY.2025 12:12:08

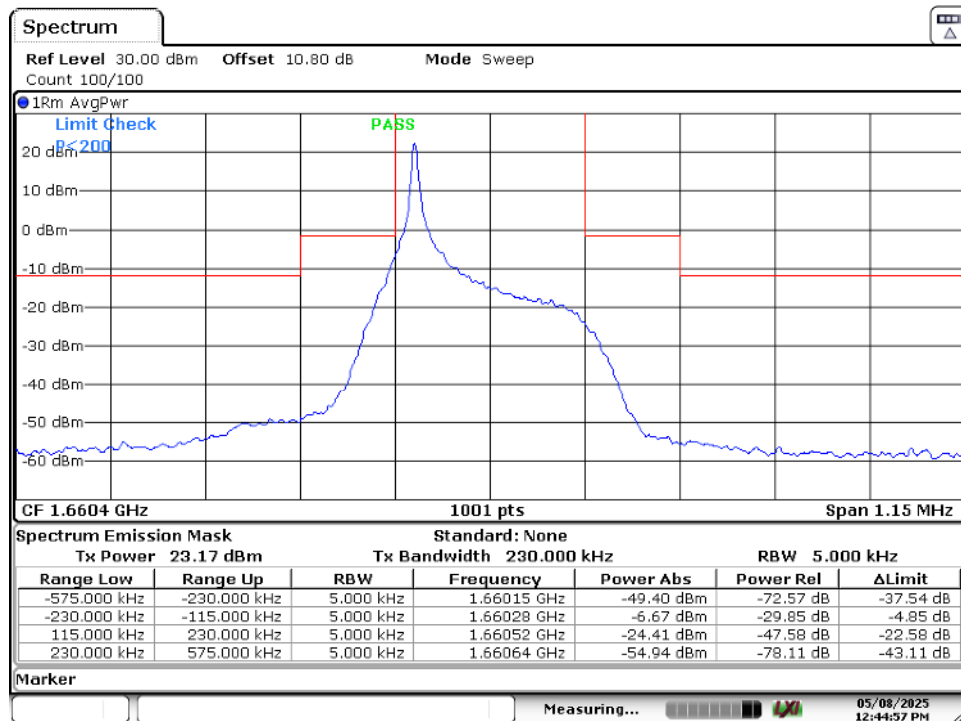
Plot 6-7. Low Channel Conducted Emission Mask – 15kHz SCS – 1SC11 – BPSK

FCC ID: A3LSMF966U	PART 25 MEASUREMENT REPORT CLASS II PERMISSIVE CHANGE		Approved by: Technical Manager
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Date: 8.MAY.2025 12:26:05

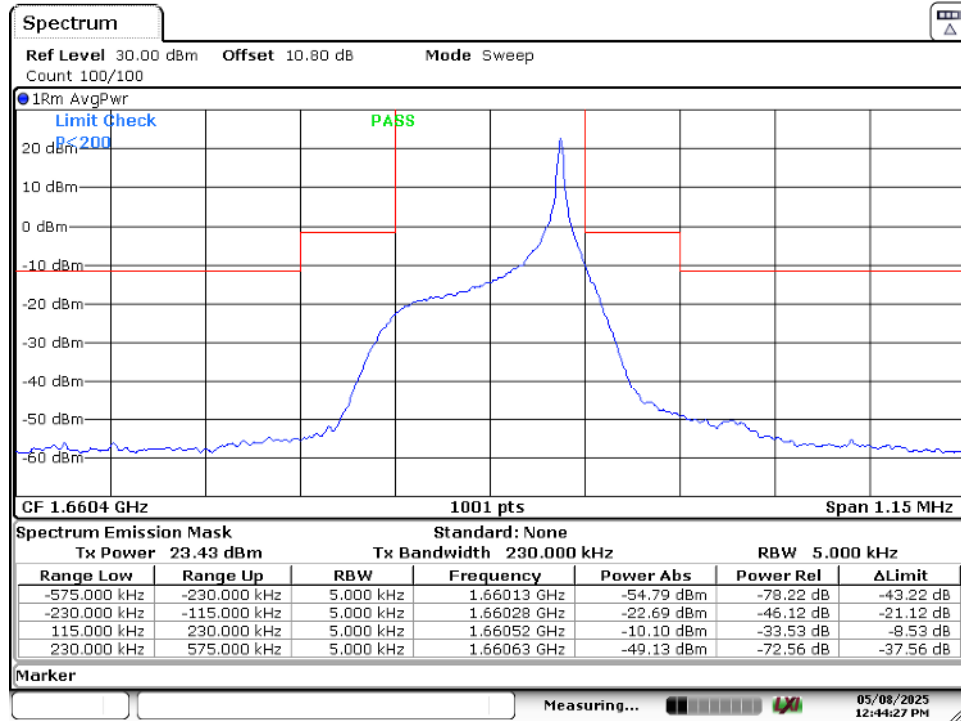
Plot 6-8. Low Channel Conducted Emission Mask – 15kHz SCS – 12SC0



Date: 8.MAY.2025 12:44:56

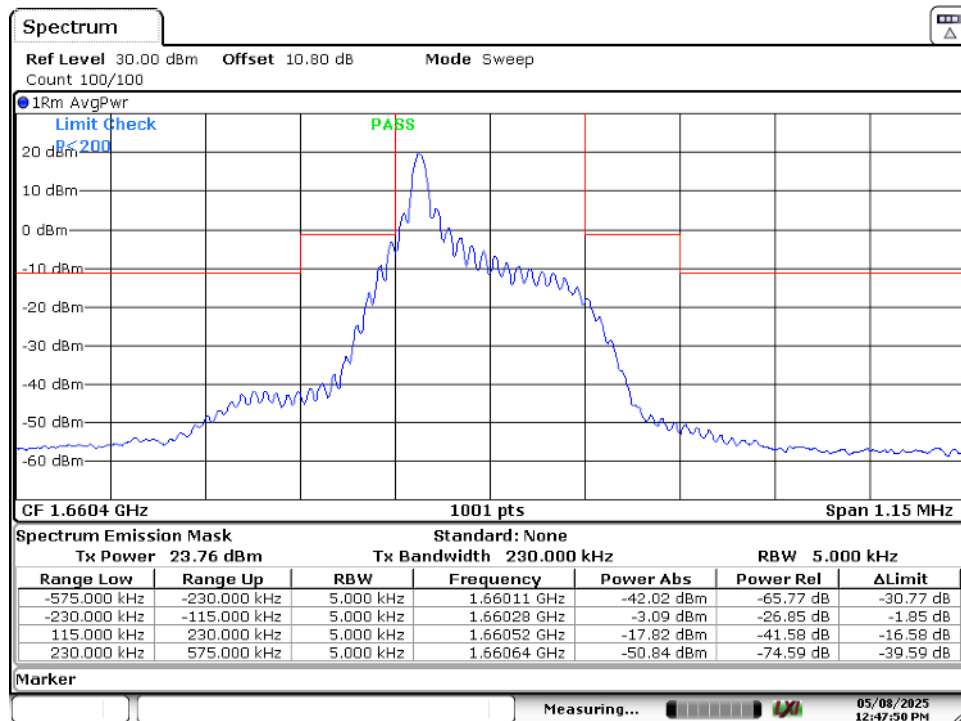
Plot 6-9. Mid Channel Conducted Emission Mask – 3.75kHz SCS – 1SC0 – BPSK

FCC ID: A3LSMF966U	PART 25 MEASUREMENT REPORT CLASS II PERMISSIVE CHANGE		Approved by: Technical Manager
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Date: 8.MAY.2025 12:44:27

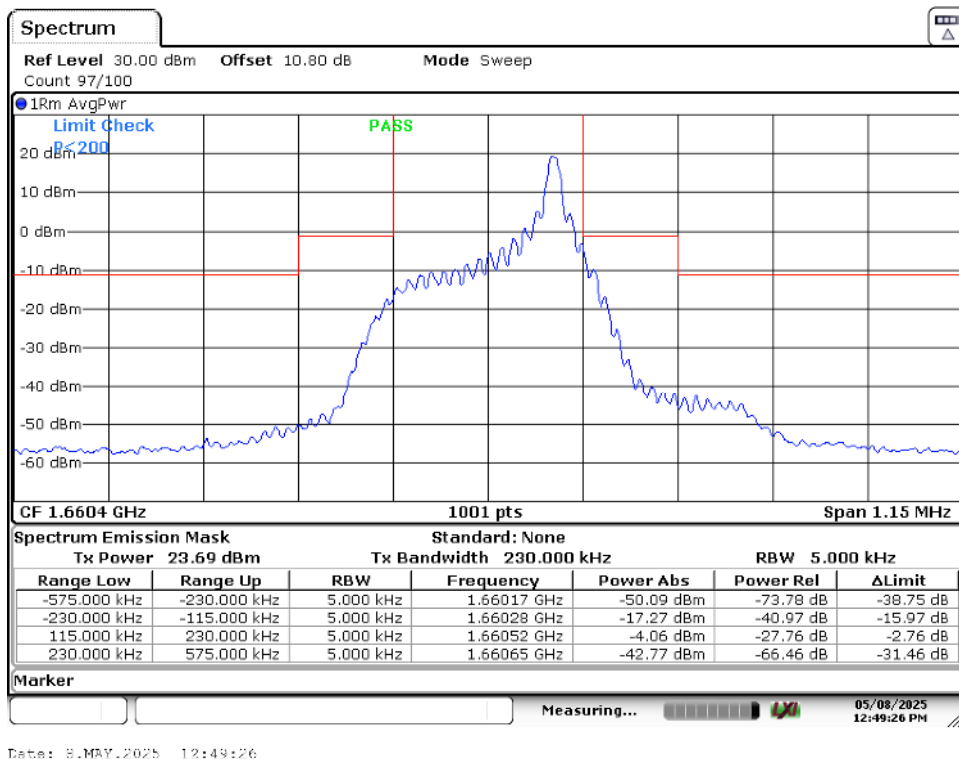
Plot 6-10. Mid Channel Conducted Emission Mask – 3.75kHz SCS – 1SC47 – BPSK



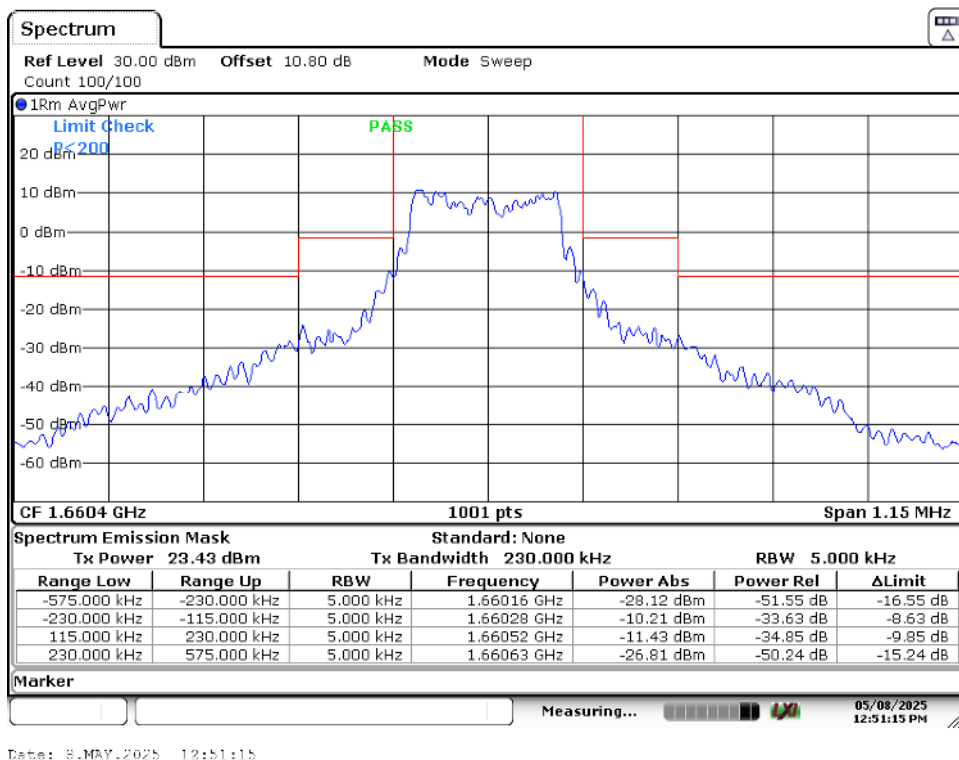
Date: 8.MAY.2025 12:47:50

Plot 6-11. Mid Channel Conducted Emission Mask – 15kHz SCS – 1SC0 – BPSK

FCC ID: A3LSMF966U	PART 25 MEASUREMENT REPORT CLASS II PERMISSIVE CHANGE		Approved by: Technical Manager
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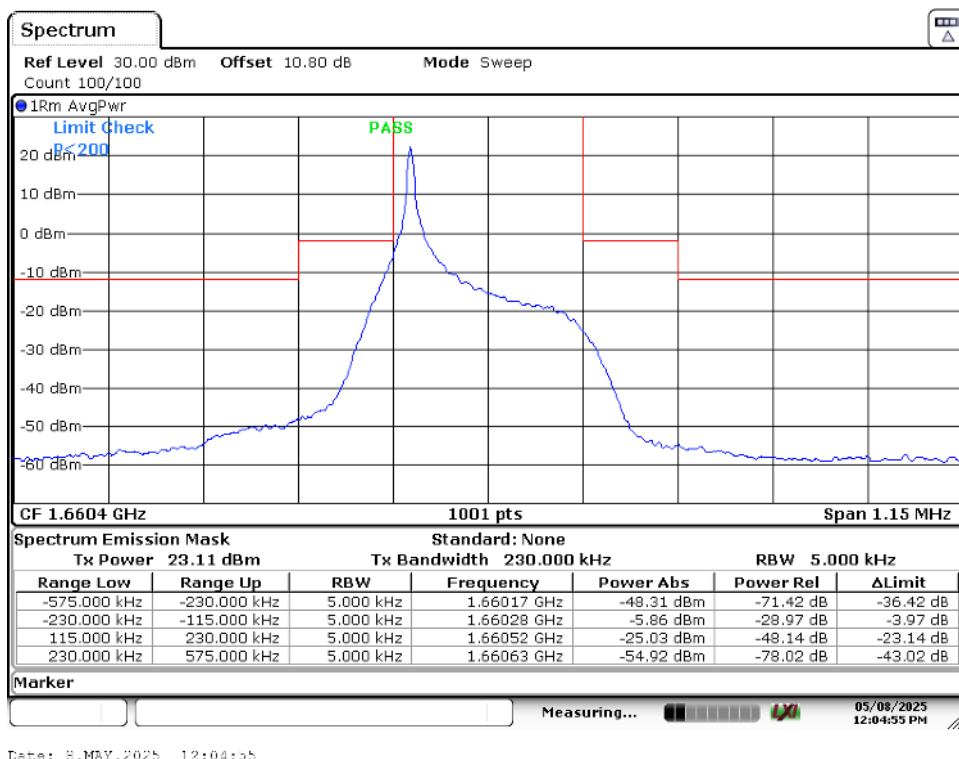


Plot 6-12. Mid Channel Conducted Emission Mask – 15kHz SCS – 1SC11 – BPSK

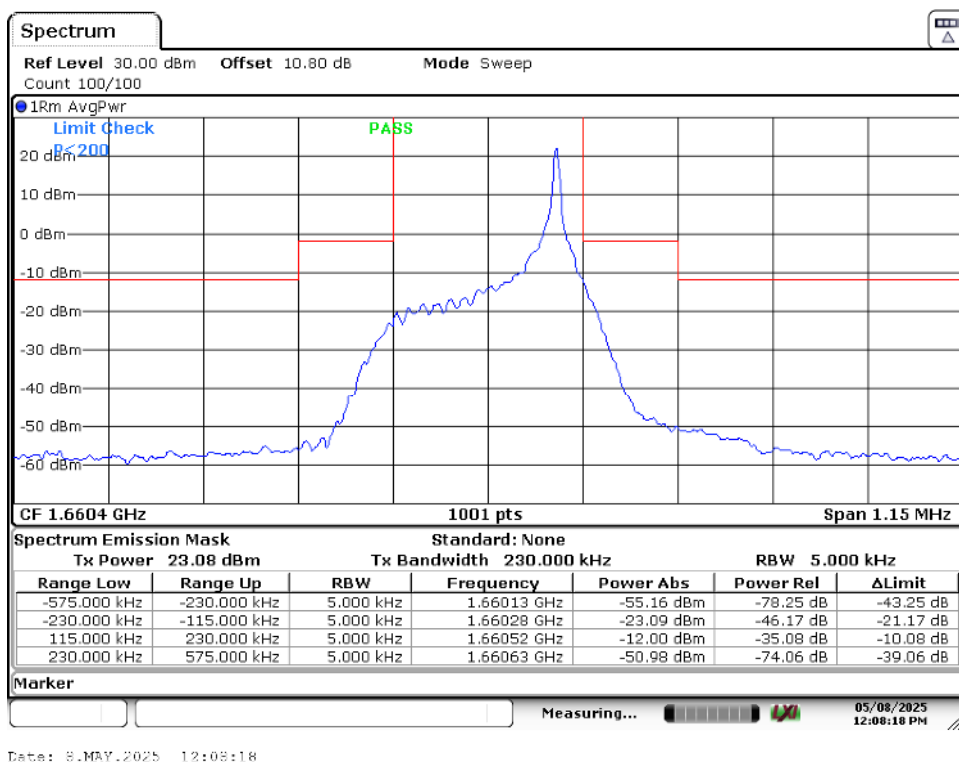


Plot 6-13. Mid Channel Conducted Emission Mask – 15kHz SCS – 12SC0

FCC ID: A3LSMF966U	PART 25 MEASUREMENT REPORT CLASS II PERMISSIVE CHANGE		Approved by: Technical Manager
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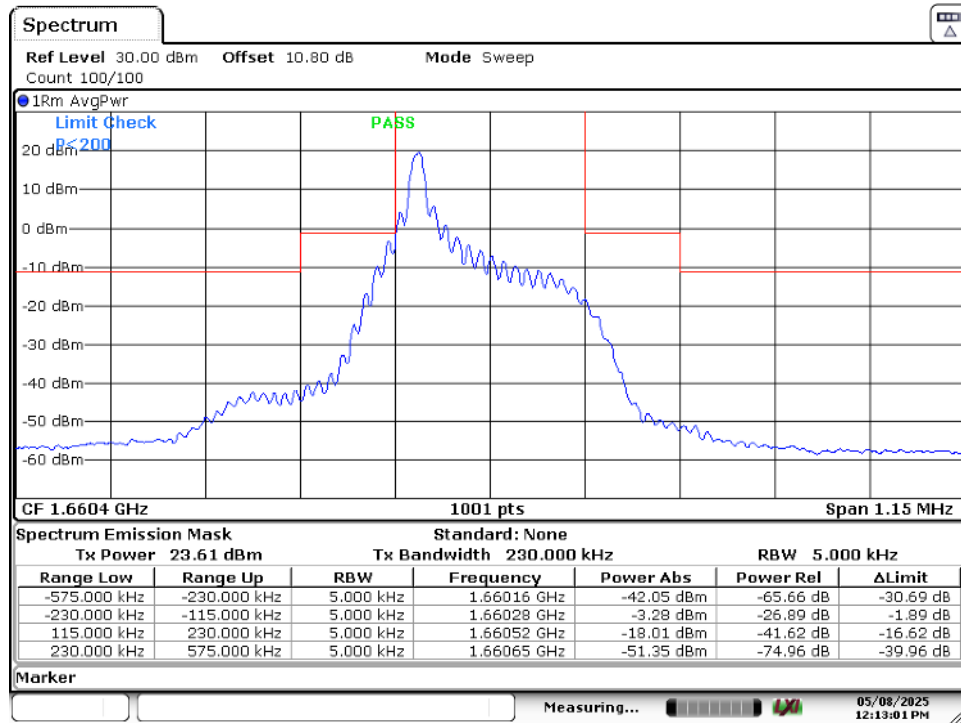


Plot 6-14. High Channel Conducted Emission Mask – 3.75kHz SCS – 1SC0 – BPSK



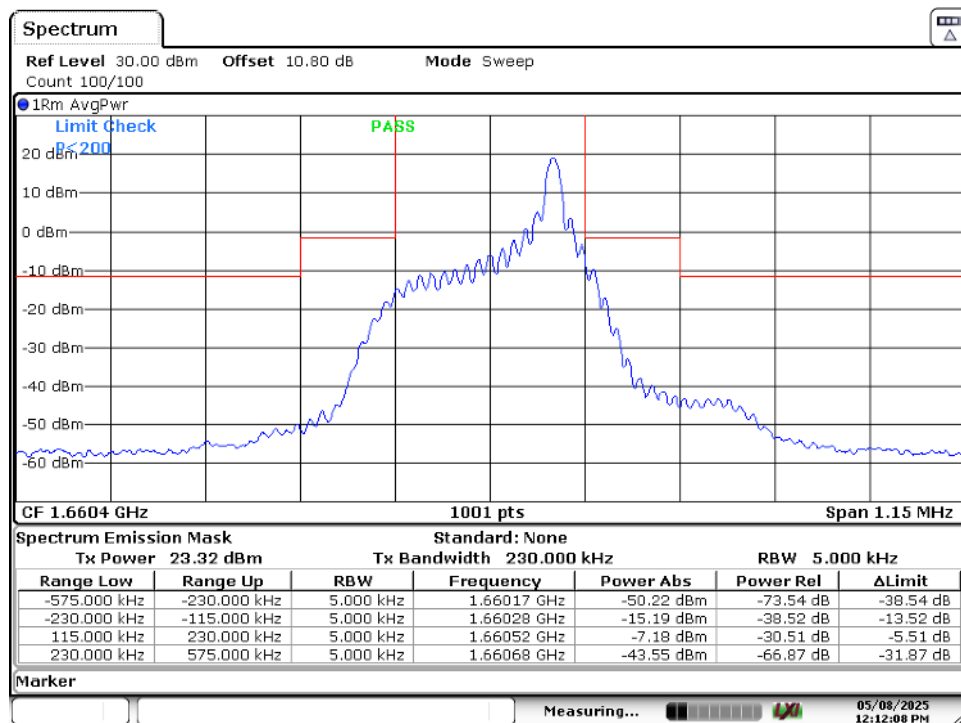
Plot 6-15. High Channel Conducted Emission Mask – 3.75kHz SCS – 1SC47 – BPSK

FCC ID: A3LSMF966U	PART 25 MEASUREMENT REPORT CLASS II PERMISSIVE CHANGE		Approved by: Technical Manager
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Date: 8.MAY.2025 12:13:01

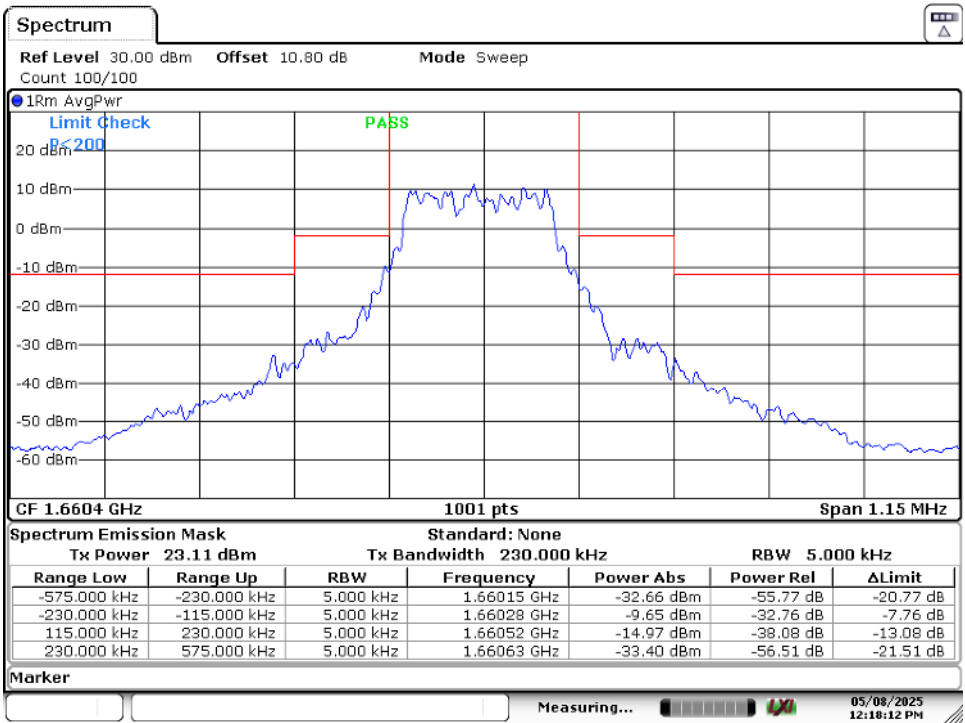
Plot 6-16. High Channel Conducted Emission Mask – 15kHz SCS – 1SC0 – BPSK



Date: 8.MAY.2025 12:12:08

Plot 6-17. High Channel Conducted Emission Mask – 15kHz SCS – 1SC11 – BPSK

FCC ID: A3LSMF966U	PART 25 MEASUREMENT REPORT CLASS II PERMISSIVE CHANGE		Approved by: Technical Manager
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Plot 6-18. High Channel Conducted Emission Mask – 15kHz SCS – 12SC0

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6.5 Radiated Power (EIRP)

Test Overview

Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements 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.

The EIRP shall not exceed +40 dBW in any 4 kHz band.

Test Procedures Used

ANSI C63.26-2015 – Section 5.2.4.4

Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW $\geq 3 \times$ RBW
4. Span = 1.5 times the OBW
5. No. of sweep points $\geq 2 \times$ span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
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.

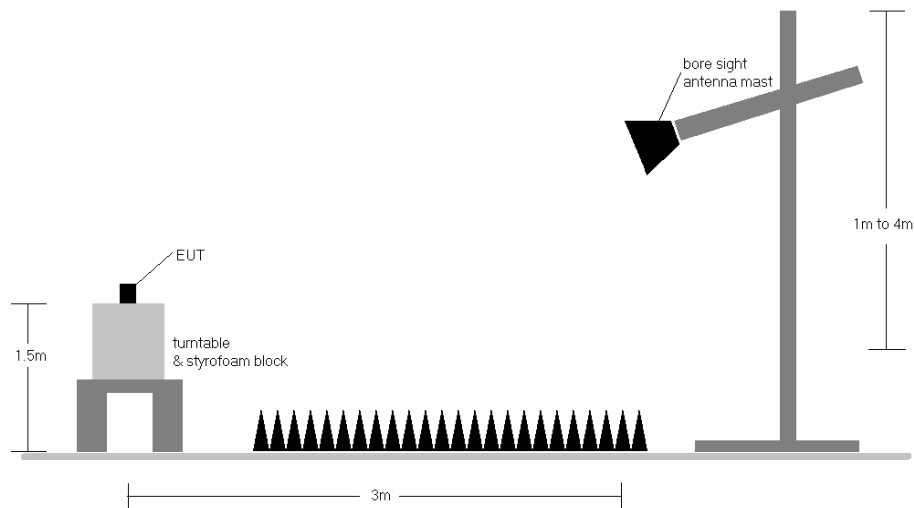


Figure 6-4. Radiated Test Setup >1GHz

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) 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.
- 3) This unit was tested with its standard battery.

Bandwidth	SC Size	Modulation	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	Result
15kHz	1SC6	QPSK	1643.5	H	102	33	3.08	19.61	22.69	0.186	Pass

Table 6-6. EIRP Power Result - Mid Channel

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6.6 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using hybrid (biconical/log) antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 – Section 5.5.4

Test Settings

1. RBW $\geq$ 100kHz
2. VBW $\geq$ 3 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points $\geq$ 2 x span / RBW
5. Detector = RMS
6. Trace mode = Average
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.

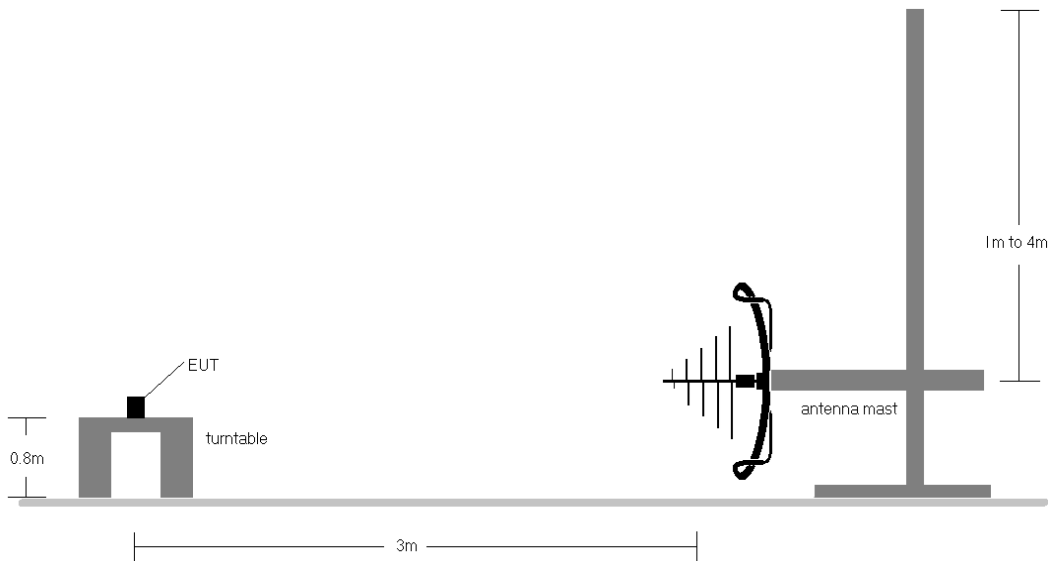


Figure 6-5. Test Instrument & Measurement Setup < 1GHz

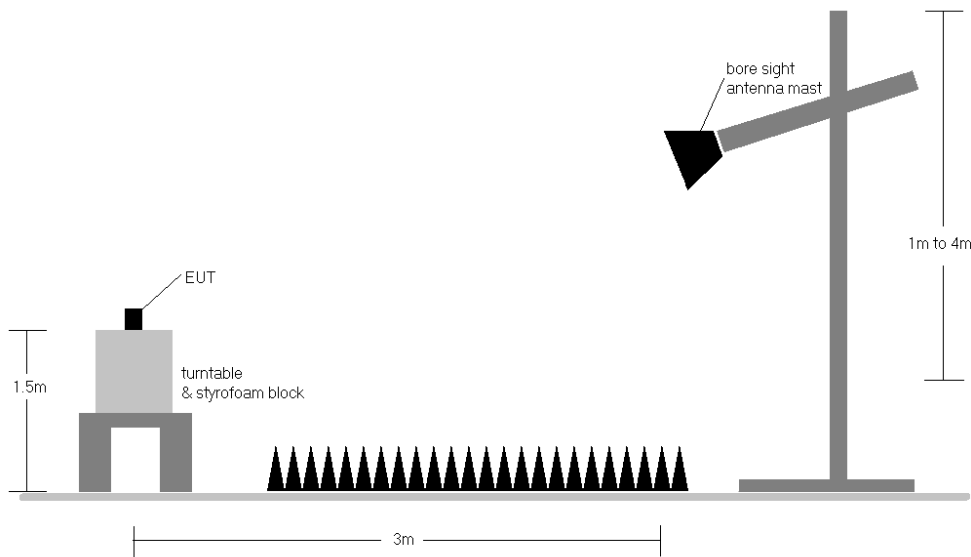


Figure 6-6. Test Instrument & Measurement Setup >1 GHz

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Test Notes

- 1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
 - a) $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
 - b) $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$; where D is the measurement distance in meters.
- 2) 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.
- 3) This unit was tested with its standard battery.
- 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) The "-" shown in the following RSE tables are used to denote a noise floor measurement.

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Band 255

Bandwidth (kHz):	200
Frequency (MHz):	1626.6
SC / Offset:	1 / 24

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]
3253.20	H	379	84	-78.82	6.86	35.04	-60.22	-13.00	-47.22
4879.80	H	121	285	-79.75	9.53	36.78	-58.48	-13.00	-45.48

Table 6-7. Radiated Spurious Data – Band 255 – Low Channel

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7.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMF966U** complies with the requirements of Part 25 of the FCC rules for operation in the 1626.5 – 1660.5MHz band. After additional testing it is concluded that the component change detailed in the FCC Change Document does not meaningfully affect compliance.

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