

### **PCTEST**

7185 Oakland Mills Road, Columbia, MD 21046 USA Tel. 410.290.6652 / Fax 410.290.6654 http://www.pctest.com

# **PART 24 MEASUREMENT REPORT**

Applicant Name: SONY Corporation 1-7-1 Konan Minato-ku Tokyo, 108-0075, Japan Date of Testing: 8/2 - 9/23/2021 Test Site/Location:

PCTEST Lab. Columbia, MD, USA

Test Report Serial No.: 1M2108040087-03-R1.PY7

FCC ID: PY7-95324M

Applicant Name: SONY Corporation

Application Type:CertificationEUT Type:Portable Handset

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

FCC Rule Part: 24

Test Procedure(s): ANSI C63.26-2015, ANSI/TIA-603-E-2016, KDB 971168

D01 v03r01

Note: This revised Test Report (S/N: 1M2108040087-03-R1.PY7) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

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

assembly of contents thereof, please contact INFO@PCTEST.COM.





FCC ID: PY7-95324M	PART 24 MEASUREMENT REPORT		SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 1 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage For Fig



# TABLE OF CONTENTS

1.0	INTF	RODUCTION	2
	1.1	Scope	2
	1.2	PCTEST Test Location	2
	1.3	Test Facility / Accreditations	2
2.0	PRO	DUCT INFORMATION	5
	2.1	Equipment Description	5
	2.2	Device Capabilities	5
	2.3	Test Configuration	5
	2.4	EMI Suppression Device(s)/Modifications	5
3.0	DES	CRIPTION OF TESTS	6
	3.1	Evaluation Procedure	6
	3.2	Radiated Power and Radiated Spurious Emissions	6
4.0	MEA	SUREMENT UNCERTAINTY	7
5.0	TES	T EQUIPMENT CALIBRATION DATA	8
6.0	SAM	IPLE CALCULATIONS	9
7.0	TES	T RESULTS	11
	7.1	Summary	11
	7.2	Occupied Bandwidth	
	7.3	Spurious and Harmonic Emissions at Antenna Terminal	27
	7.4	Band Edge Emissions at Antenna Terminal	48
	7.5	Peak-Average Ratio	80
	7.6	Radiated Power (ERP/EIRP)	95
	7.7	Radiated Spurious Emissions Measurements	99
	7.8	Frequency Stability / Temperature Variation	11′
8.0	CON	ICLUSION	116

FCC ID: PY7-95324M	PART 24 MEASUREMENT REPORT		SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 2 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 2 of 110





# **PART 24 MEASUREMENT REPORT**



		Ty Fraguency	EII	RP	Emission
Mode	Modulation	Tx Frequency Range [MHz]	Max. Power [W]	Max. Power [dBm]	Emission Designator
GSM/GPRS	GMSK	1850.2 - 1909.8	0.368	25.66	244KGXW
EDGE	8-PSK	1850.2 - 1909.8	0.189	22.76	243KG7W
WCDMA	Spread Spectrum	1852.4 - 1907.6	0.171	22.33	4M17F9W

		Ty Fraguency	EI	RP	Emission
Mode	Modulation	Tx Frequency Range [MHz]	Max. Power [W]	Max. Power [dBm]	Designator
	QPSK	1860 - 1905	0.124	20.92	18M0G7D
	16QAM	1860 - 1905	0.101	20.06	18M0W7D
	QPSK	1857.5 - 1907.5	0.085	19.30	13M5G7D
	16QAM	1857.5 - 1907.5	0.127	21.03	13M5W7D
	QPSK	1855 - 1910	0.125	20.96	8M99G7D
LTE Band 25/2	16QAM	1855 - 1910	0.095	19.78	9M00W7D
LTE Dallu 25/2	QPSK	1852.5 - 1912.5	0.122	20.86	4M53G7D
	16QAM	1852.5 - 1912.5	0.100	19.98	4M51W7D
	QPSK	1851.5 - 1913.5	0.122	20.85	2M71G7D
	16QAM	1851.5 - 1913.5	0.102	20.08	2M72W7D
	QPSK	1850.7 - 1914.3	0.122	20.85	1M10G7D
	16QAM	1850.7 - 1914.3	0.096	19.84	1M10W7D
	π/2 BPSK	1860 - 1900	0.034	15.37	18M0G7D
	QPSK	1860 - 1900	0.034	15.27	19M0G7D
	16QAM	1860 - 1900	0.030	14.79	19M0W7D
	π/2 BPSK	1857.5 - 1902.5	0.035	15.45	13M6G7D
	QPSK	1857.5 - 1902.5	0.034	15.35	14M2G7D
NR Band n2	16QAM	1857.5 - 1902.5	0.032	15.02	14M2W7D
INK Danu nz	π/2 BPSK	1855 - 1905	0.033	15.13	8M97G7D
	QPSK	1855 - 1905	0.033	15.14	9M33G7D
	16QAM	1855 - 1905	0.031	14.92	9M36W7D
	π/2 BPSK	1852.5 - 1907.5	0.033	15.23	4M51G7D
	QPSK	1852.5 - 1907.5	0.031	14.92	4M49G7D
	16QAM	1852.5 - 1907.5	0.029	14.59	4M50W7D

FCC ID: PY7-95324M	PART 24 MEASUREMENT REPORT		SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 3 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye 3 ULTIO



# 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.

FCC ID: PY7-95324M	PART 24 MEASUREMENT REPO		SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 4 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 4 of 116

2021 PCTEST

V2.0 3/15/2021
Il rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and



# 2.0 PRODUCT INFORMATION

# 2.1 Equipment Description

The Equipment Under Test (EUT) is the **SONY Portable Handset FCC ID: PY7-95324M**. 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 24.

Test Device Serial No.: 43745, 43844, 43869, 43786

# 2.2 Device Capabilities

This device contains the following capabilities:

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, Bluetooth (1x, EDR, LE), NFC

# 2.3 Test Configuration

The EUT was tested per the guidance of ANSI/TIA-603-E-2016 and KDB 971168 D01 v03r01. See Section 3.2 of this test report for a description of the radiated and antenna port conducted emissions tests.

# 2.4 EMI Suppression Device(s)/Modifications

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

FCC ID: PY7-95324M	PART 24 MEASUREMENT RE		SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 5 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 3 of 110

2021 PCTEST

V2.0 3/15/2021
Il rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and



# 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:

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

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

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:

 $E_{[dB\mu V/m]} = Measured amplitude level_{[dBm]} + 107 + Cable Loss_{[dB]} + Antenna Factor_{[dB/m]}$ And

 $EIRP_{[dBm]} = E_{[dB\mu V/m]} + 20logD - 104.8$ ; where D 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.

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

FCC ID: PY7-95324M	PART 24 MEASUREMENT REPORT		SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 6 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye o oi 110

© 2021 PCTEST

V2.0 3/15/2021

All trights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and



#### **MEASUREMENT UNCERTAINTY** 4.0

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

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

FCC ID: PY7-95324M	PART 24 MEASUREMENT REPOR		SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 7 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye / Ul 110



#### TEST EQUIPMENT CALIBRATION DATA 5.0

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
-	AP1	EMC Cable and Switch System	3/9/2021	Annual	3/9/2022	AP1
-	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
Agilent	E5515C	Wireless Communications Test Set		N/A		GB45360985
Agilent	E5515C	Wireless Communications Test Set		N/A		GB46310798
Agilent	N9030A	50GHz PXA Signal Analyzer	1/20/2021	Annual	1/20/2022	US51350301
Anritsu	MT8820C	Radio Communication Analyzer		N/A		6201300731
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
ETS Lindgren	3164-08	Quad Ridge Horn Antenna	3/12/2020	Biennial	3/12/2022	128337
ETS Lindgren	3816/2NM	LISN	7/9/2020	Biennial	7/9/2022	00114451
Mini-Circuits	SSG-4000HP	Synthesized Signal Generator	N/A			11208010032
Rohde & Schwarz	CMW500	Radio Communication Tester	N/A			100976
Rohde & Schwarz	CMW500	Radio Communication Tester	N/A		112347	
Rohde & Schwarz	ESW44	EMI Test Receiver 2Hz to 44 GHz	1/21/2021	Annual	1/21/2022	101716
Rohde & Schwarz	FSW26	2Hz-26.5GHz Signal and Spectrum Analyzer	2/10/2021	Annual	2/10/2022	103187
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.

FCC ID: PY7-95324M	Piccal to be part of @element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 8 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye o oi 110



# 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)

# 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

FCC ID: PY7-95324M	Proud to be part of @ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 9 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 9 of 110



# **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.

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 10 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 10 01 110



# 7.0 TEST RESULTS

# 7.1 Summary

Company Name: <u>SONY Corporation</u>

FCC ID: <u>PY7-95324M</u>

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

Mode(s): <u>GSM/GPRS/EDGE/WCDMA/LTE/NR</u>

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference
0	Occupied Bandwidth	2.1049	N/A	PASS	Section 7.2
JCTEI	Conducted Band Edge / Spurious Emissions	2.1051, 24.238(b)	> 43 + 10log10(P[Watts]) at Band Edge and for all out-of- band emissions	PASS	Sections 7.3, 7.4
CONDUCTED	Transmitter Conducted Output Power	2.1046	N/A	PASS	See RF Exposure Report
O	Frequency Stability	/ 1055 /4 /35	Fundamental emissions stay within authorized frequency block	PASS	Section 7.8
RADIATED	Effective Radiated Power / Equivalent Isotropic Radiated Power	24.232(c)	< 7 Watts max. ERP	PASS	Section 7.6
RADI	Radiated Spurious Emissions	2.1053, 24.238(b)	> 43 + 10 log10 (P[Watts]) for all out-of-band emissions	PASS	Section 7.7

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 v1.1.

FCC ID: PY7-95324M	Proud to be part of @ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 11 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 11 01 116

2021 PCTEST

V2.0 3/15/2021
Il rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and



# 7.2 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**

KDB 971168 D01 v03r01 - Section 4.2

### **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 ≥ 3 x RBW
- 4. Detector = Peak
- 5. Trace mode = max hold
- 6. Sweep = auto couple
- 7. The trace was allowed to stabilize

assembly of contents thereof, please contact INFO@PCTEST.COM.

- 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 7-1. Test Instrument & Measurement Setup

#### **Test Notes**

None.

FCC ID: PY7-95324M	Proud to be port of @ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 12 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye 12 Ul 110



#### **GSM/GPRS PCS**



Plot 7-1. Occupied Bandwidth Plot (GPRS, Ch. 661)

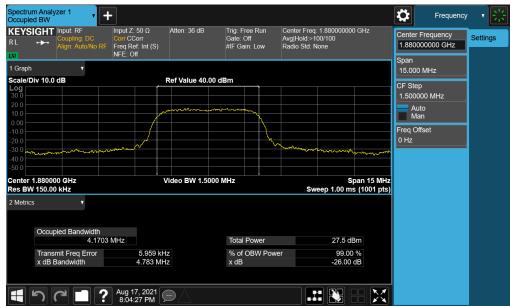


Plot 7-2. Occupied Bandwidth Plot (EDGE, Ch. 661)

FCC ID: PY7-95324M	Proceed to be part of @ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 13 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye 13 01 110



# **WCDMA PCS**



Plot 7-3. Occupied Bandwidth Plot (WCDMA, Ch. 9400)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 14 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye 14 01 110



#### LTE Band 25/2



Plot 7-4. Occupied Bandwidth Plot (LTE Band 25/2 - 20MHz QPSK - Full RB)



Plot 7-5. Occupied Bandwidth Plot (LTE Band 25/2 - 20MHz 16-QAM - Full RB)

FCC ID: PY7-95324M	Proceed to be part of @ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 15 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 13 01 110





Plot 7-6. Occupied Bandwidth Plot (LTE Band 25/2 - 15MHz QPSK - Full RB)



Plot 7-7. Occupied Bandwidth Plot (LTE Band 25/2 - 15MHz 16-QAM - Full RB)

FCC ID: PY7-95324M	Pocceed to be part of @element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 16 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 10 of 110





Plot 7-8. Occupied Bandwidth Plot (LTE Band 25/2 - 10MHz QPSK - Full RB)



Plot 7-9. Occupied Bandwidth Plot (LTE Band 25/2 - 10MHz 16-QAM - Full RB)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 17 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye ir ol 110





Plot 7-10. Occupied Bandwidth Plot (LTE Band 25/2 - 5MHz QPSK - Full RB)



Plot 7-11. Occupied Bandwidth Plot (LTE Band 25/2 - 5MHz 16-QAM - Full RB)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 18 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye 10 01 110





Plot 7-12. Occupied Bandwidth Plot (LTE Band 25/2 - 3MHz QPSK - Full RB)



Plot 7-13. Occupied Bandwidth Plot (LTE Band 25/2 - 3MHz 16-QAM - Full RB)

FCC ID: PY7-95324M	Proceed to be post of the element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 10 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 19 of 116





Plot 7-14. Occupied Bandwidth Plot (LTE Band 25/2 - 1.4MHz QPSK - Full RB)

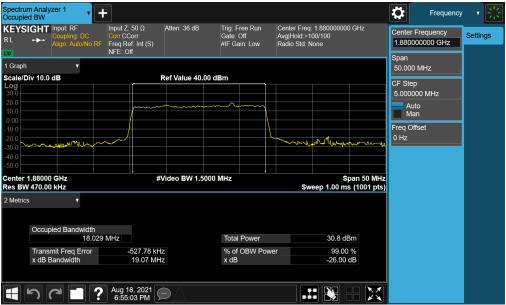


Plot 7-15. Occupied Bandwidth Plot (LTE Band 25/2 - 1.4MHz 16-QAM - Full RB)

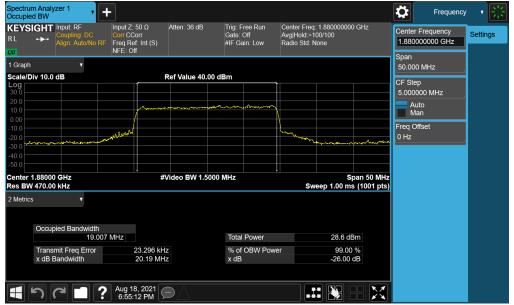
FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 20 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 20 of 116



#### NR Band n2



Plot 7-16. Occupied Bandwidth Plot (NR Band n2 - 20.0MHz DFT-s-OFDM BPSK - Full RB)



Plot 7-17. Occupied Bandwidth Plot (NR Band n2 - 20.0MHz CP-OFDM QPSK - Full RB)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 21 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 21 01 110





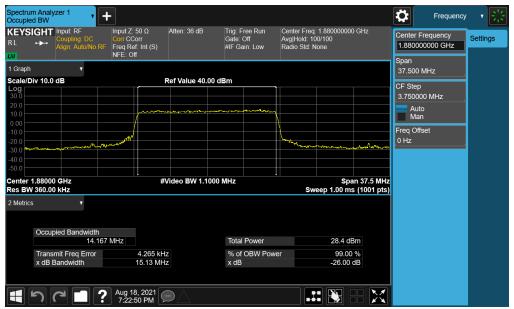
Plot 7-18. Occupied Bandwidth Plot (NR Band n2 - 20.0MHz CP-OFDM 16QAM - Full RB)



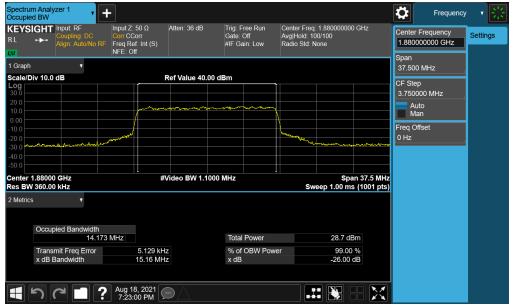
Plot 7-19. Occupied Bandwidth Plot (NR Band n2 - 15.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: PY7-95324M	Proud to be part of @ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 22 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 22 of 116





Plot 7-20. Occupied Bandwidth Plot (NR Band n2 - 15.0MHz CP-OFDM QPSK - Full RB)



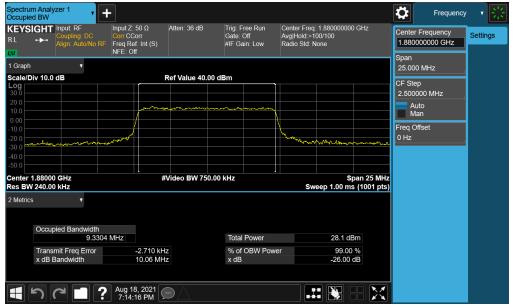
Plot 7-21. Occupied Bandwidth Plot (NR Band n2 - 15.0MHz CP-OFDM 16QAM - Full RB)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 23 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Fage 23 01 110





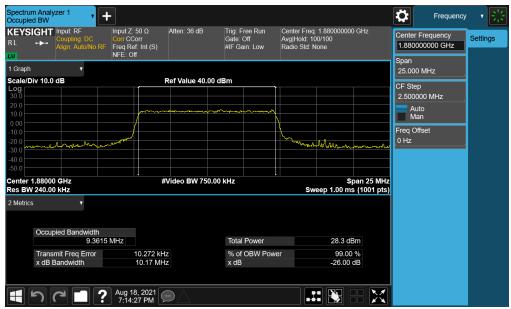
Plot 7-22. Occupied Bandwidth Plot (NR Band n2 - 10.0MHz DFT-s-OFDM BPSK - Full RB)



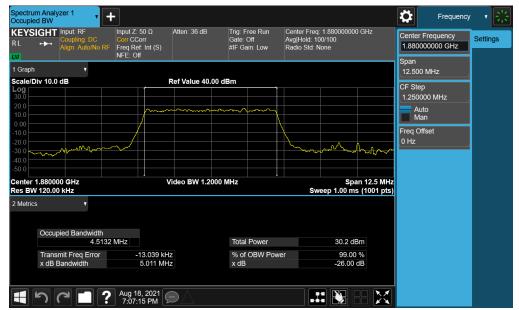
Plot 7-23. Occupied Bandwidth Plot (NR Band n2 - 10.0MHz CP-OFDM QPSK - Full RB)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 24 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Faye 24 01 110





Plot 7-24. Occupied Bandwidth Plot (NR Band n2 - 10.0MHz CP-OFDM 16QAM - Full RB)



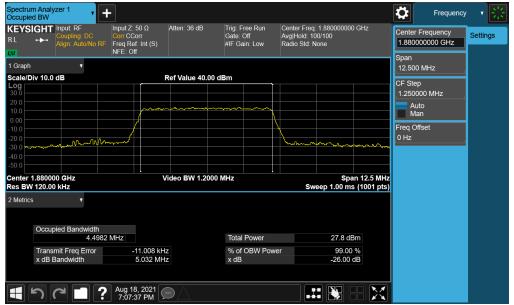
Plot 7-25. Occupied Bandwidth Plot (NR Band n2 - 5.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 25 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Fage 23 01 110





Plot 7-26. Occupied Bandwidth Plot (NR Band n2 - 5.0MHz CP-OFDM QPSK - Full RB)



Plot 7-27. Occupied Bandwidth Plot (NR Band n2 - 5.0MHz CP-OFDM 16QAM - Full RB)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 26 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 20 01 110



# 7.3 Spurious and Harmonic Emissions at Antenna Terminal

#### **Test Overview**

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10<sup>th</sup> harmonic. 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.

The minimum permissible attenuation level of any spurious emission is 43 + 10  $log_{10}(P_{[Watts]})$ , where P is the transmitter power in Watts.

#### **Test Procedure Used**

KDB 971168 D01 v03r01 - Section 6.0

#### **Test Settings**

- 1. Start frequency was set to 30MHz and stop frequency was set to 20GHz (separated into at least two plots per channel)
- 2. Detector = RMS
- 3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 4. Sweep time = auto couple

assembly of contents thereof, please contact INFO@PCTEST.COM.

- 5. The trace was allowed to stabilize
- 6. Please see test notes below for RBW and VBW settings

#### **Test Setup**

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



Figure 7-2. Test Instrument & Measurement Setup

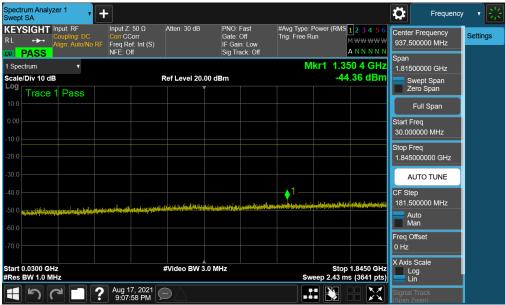
### **Test Notes**

- 1. Per Part 24 and RSS-133, compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth 100 kHz or greater for measurements below 1GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.
- 2. 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.

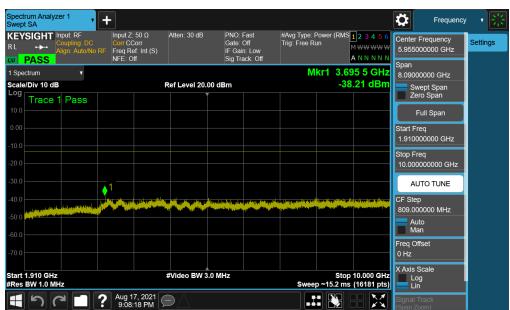
FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 27 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 27 of 110



# **GSM/GPRS PCS**



Plot 7-28. Conducted Spurious Plot (GPRS Ch. 512)



Plot 7-29. Conducted Spurious Plot (GPRS Ch. 512)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 28 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 28 of 116





Plot 7-30. Conducted Spurious Plot (GPRS Ch. 512)



Plot 7-31. Conducted Spurious Plot (GPRS Ch. 661)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 20 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 29 of 116





Plot 7-32. Conducted Spurious Plot (GPRS Ch. 661)



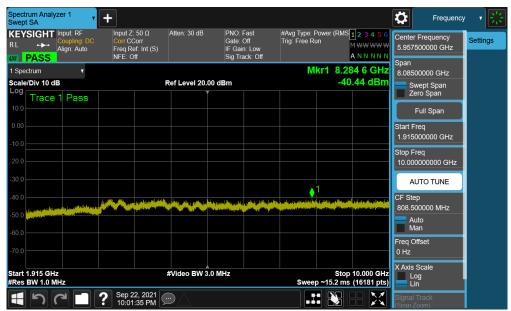
Plot 7-33. Conducted Spurious Plot (GPRS Ch. 661)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 30 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 30 of 116





Plot 7-34. Conducted Spurious Plot (GPRS Ch. 810)



Plot 7-35. Conducted Spurious Plot (GPRS Ch. 810)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 31 of 116	
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 31 01 116	





Plot 7-36. Conducted Spurious Plot (GPRS Ch. 810)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 32 of 116	
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 32 01 110	



# **WCDMA PCS**



Plot 7-37. Conducted Spurious Plot (WCDMA Ch. 9262)



Plot 7-38. Conducted Spurious Plot (WCDMA Ch. 9262)

FCC ID: PY7-95324M	Proceed to be part of @ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 33 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 33 01 116





Plot 7-39. Conducted Spurious Plot (WCDMA Ch. 9262)



Plot 7-40. Conducted Spurious Plot (WCDMA Ch. 9400)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 34 of 116	
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 34 01 116	





Plot 7-41. Conducted Spurious Plot (WCDMA Ch. 9400)



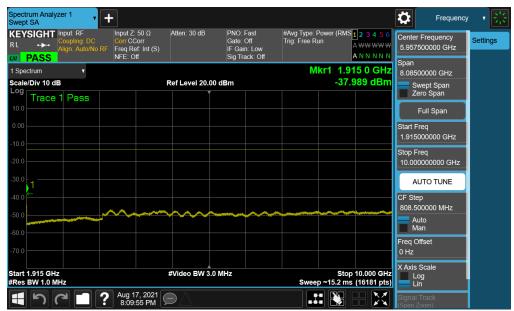
Plot 7-42. Conducted Spurious Plot (WCDMA Ch. 9400)

FCC ID: PY7-95324M	Proceed to be part of @ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 35 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 33 01 116





Plot 7-43. Conducted Spurious Plot (WCDMA Ch. 9538)



Plot 7-44. Conducted Spurious Plot (WCDMA Ch. 9538)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 36 of 116	
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 36 01 116	





Plot 7-45. Conducted Spurious Plot (WCDMA Ch. 9538)

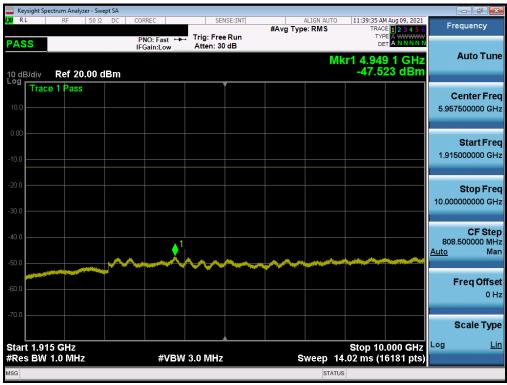
FCC ID: PY7-95324M	Proceed to be port of the element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 27 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 37 of 116



# LTE Band 25/2



Plot 7-46. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Low Channel)



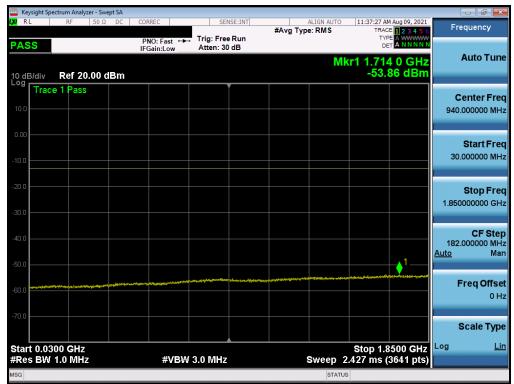
Plot 7-47. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Low Channel)

FCC ID: PY7-95324M	Proceed to be part of @ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 39 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 38 of 116





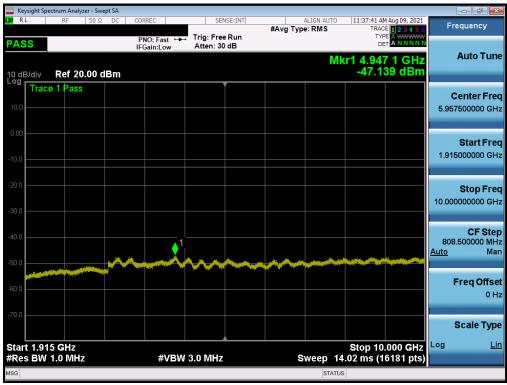
Plot 7-48. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Low Channel)



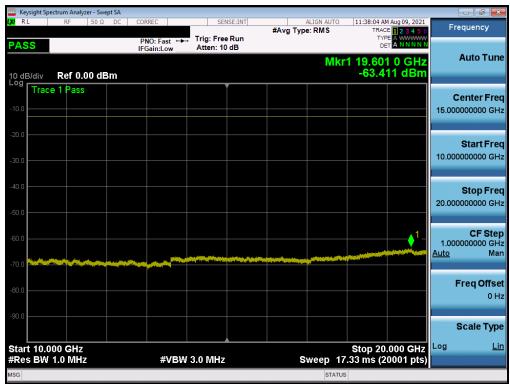
Plot 7-49. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Mid Channel)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 30 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 39 of 116





Plot 7-50. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Mid Channel)



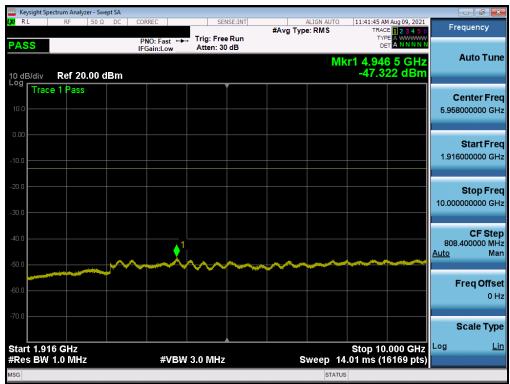
Plot 7-51. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Mid Channel)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 40 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 40 of 110





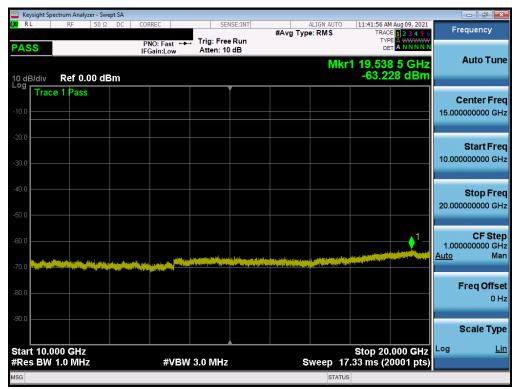
Plot 7-52. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - High Channel)



Plot 7-53. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - High Channel)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 41 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		raye 41 01 110





Plot 7-54. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - High Channel)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 42 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 42 of 116



#### NR Band n2



Plot 7-55. Conducted Spurious Plot (NR Band n2 -20.0MHz - 1RB - Low Channel)



Plot 7-56. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Low Channel)

FCC ID: PY7-95324M	Product to be peat of @element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 43 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Fage 43 01 116





Plot 7-57. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Low Channel)



Plot 7-58. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Mid Channel)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 44 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 44 of 116





Plot 7-59. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Mid Channel)



Plot 7-60. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Mid Channel)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 45 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 45 of 116





Plot 7-61. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - High Channel)



Plot 7-62. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - High Channel)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 46 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 40 of 110





Plot 7-63. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - High Channel)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 47 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 47 of 116



#### **Band Edge Emissions at Antenna Terminal** 7.4

#### **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.

The minimum permissible attenuation level of any spurious emission is  $43 + 10 \log_{10}(P_{\text{IWatts}})$ , where P is the transmitter power in Watts.

## **Test Procedure Used**

KDB 971168 D01 v03r01 - Section 6.0

#### **Test Settings**

- 1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
- 2. Span was set large enough so as to capture all out of band emissions near the band edge
- 3. RBW > 1% of the emission bandwidth
- 4.  $VBW > 3 \times RBW$
- 5. Detector = RMS
- 6. Number of sweep points ≥ 2 x Span/RBW
- 7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 8. Sweep time = auto couple
- 9. The trace was allowed to stabilize

## **Test Setup**

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



Figure 7-3. Test Instrument & Measurement Setup

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 48 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 48 of 116



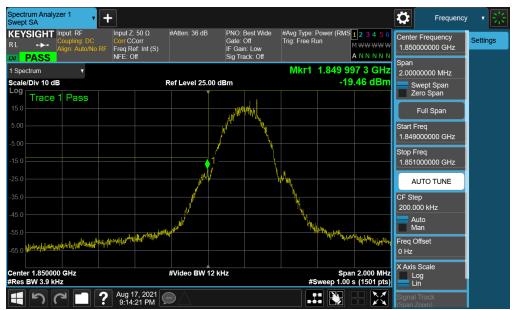
#### **Test Notes**

- 1. Per 24.238(b) and RSS-133(6.5), in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.
- 2. 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.

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 49 of 116	
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		rage 49 of 110	



## **GSM/GPRS PCS**



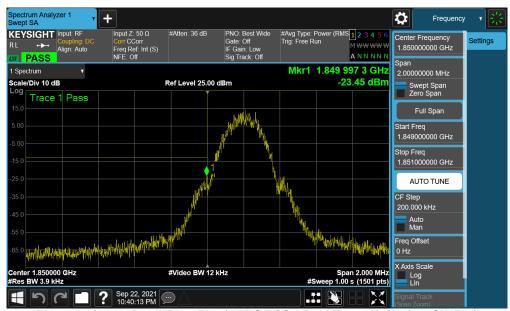
Plot 7-64. Lower Band Edge Plot (GPRS PCS - Ch. 512)



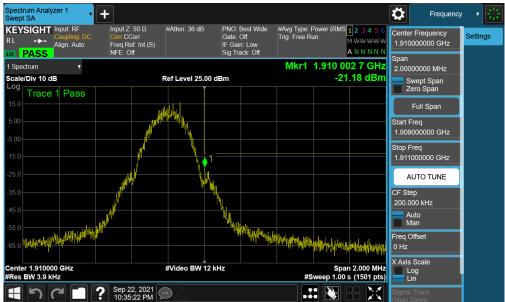
Plot 7-65. Upper Band Edge Plot (GPRS PCS - Ch. 810)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 50 of 116	
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 50 of 116	





Plot 7-66. Lower Band Edge Plot (GPRS PCS – Dual Transmit Mode – Ch. 512)



Plot 7-67. Upper Band Edge Plot (GPRS PCS - Dual Transmit Mode - Ch. 810)

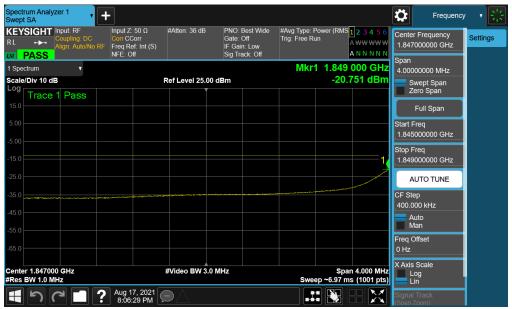
FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 51 of 116	
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 51 01 116	



### **WCDMA PCS**



Plot 7-68. Lower Band Edge Plot (WCDMA PCS - Ch. 9262)



Plot 7-69. Extended Lower Band Edge Plot (WCDMA PCS - Ch. 9262)

FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 52 of 116	
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Fage 32 01 110	





Plot 7-70. Upper Band Edge Plot (WCDMA PCS - Ch. 9538)



Plot 7-71. Extended Upper Band Edge Plot (WCDMA PCS - Ch. 9538)

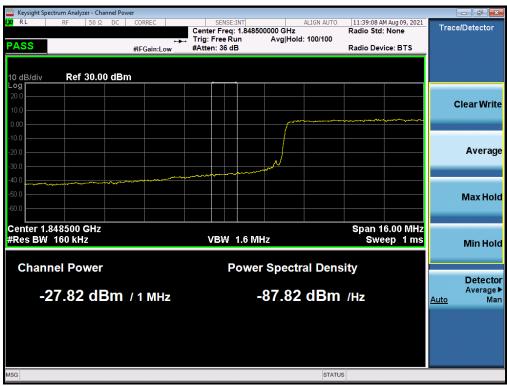
FCC ID: PY7-95324M	Proceed to be part of \$\infty\$ element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 53 of 116	
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		Page 55 01 116	



## LTE Band 25/2



Plot 7-72. Lower Band Edge Plot (LTE Band 25/2 - 20MHz QPSK - Full RB)



Plot 7-73. Extended Lower Band Edge Plot (LTE Band 25/2 - 20MHz QPSK - Full RB)

FCC ID: PY7-95324M	Pocceed to be part of @element	PART 24 MEASUREMENT REPORT	SONY	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 54 of 116
1M2108040087-03-R1.PY7	8/2 - 9/23/2021	Portable Handset		