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Report On

FCC Testing of the Sharp Dual-band LTE (B1 / B26), Dual-band WCDMA (FDD I / V) &,Quad-band GSM (850/900/1800/1900) multi mode Cellular phone with Bluetooth, WLAN, SRD (NFC,FeliCa) and GPS in accordance with FCC 47 CFR Part 22 and FCC 47 CFR Part 2 (WCDMA FDD V)

COMMERCIAL-IN-CONFIDENCE

FCC ID: APYHRO00236

Document 75933584 Report 16 Issue 1 **May 2016**

TÜV SÜD Product Service, Octagon House, Concorde Way, Segensworth North,
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REPORT ON

FCC Testing of the Sharp Dual-band LTE (B1 / B26), Dual-band WCDMA (FDD I / V) &,Quad-band GSM (850/900/1800/1900) multi mode Cellular phone with Bluetooth, WLAN, SRD (NFC,FeliCa) and GPS in accordance with FCC 47 CFR Part 22 and FCC 47 CFR Part 2 (WCDMA FDD V)

Document 75933584 Report 16 Issue 1

May 2016

PREPARED FOR

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PREPARED BY

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APPROVED BY

Ryan Henley
Authorised Signatory

DATED 18 May 2016

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC 47 CFR Part 22 and FCC 47 CFR Part 2. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);

M Russell S Bennett T Guy

UKAS TESTING 0141

Product Service

CONTENTS

Product Service

SECTION 1

REPORT SUMMARY

FCC Testing of the
Sharp Dual-band LTE (B1 / B26), Dual-band WCDMA (FDD I / V) &,Quad-band GSM (850/900/1800/1900) multi mode Cellular phone with Bluetooth, WLAN, SRD (NFC,FeliCa) and GPS
In accordance with FCC 47 CFR Part 22 and FCC 47 CFR Part 2 (WCDMA FDD V)

Product Service

1.1 INTRODUCTION

The information contained in this report is intended to show the verification of FCC Testing of the Sharp Dual-band LTE (B1 / B26), Dual-band WCDMA (FDD I / V) &,Quad-band GSM (850/900/1800/1900) multi mode Cellular phone with Bluetooth, WLAN, SRD (NFC,FeliCa) and GPS to the requirements of FCC 47 CFR Part 22 and FCC 47 CFR Part 2.

Objective	To perform FCC Testing to determine the Equipment Under Test's (EUT's) compliance with the Test Specification, for the series of tests carried out.
Manufacturer	Sharp Corporation
Serial Number(s)	IMEI 004401115792604 IMEI 004401115794196
Number of Samples Tested	2
Test Specification/Issue/Date	FCC 47 CFR Part 22 (2015) FCC 47 CFR Part 2 (2015)
Disposal Reference Number Date	Held Pending Disposal Not Applicable Not Applicable
Order Number Date	10753 17 February 2016
Start of Test	21 April 2016
Finish of Test	3 May 2016
Name of Engineer(s)	M Russell S Bennett T Guy
Related Document(s)	ANSI C63.4 (2014) ANSI TIA-603-C (2004)

Product Service

1.2 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 22 and FCC 47 CFR Part 2 is shown below.

Section	Specification Clause		Test Description	Result	Comments/Base Standard
	Part 22	Part 2			
WCDMA FDD V					
2.1	22.355	2.1055	Frequency Tolerance	Pass	
2.2	22.905	2.1051	Spurious Emissions at Band Edge	Pass	
2.3	22.913 (a)	2.1046	Maximum Conducted Output Power	Pass	
2.4	22.917	-	Emission Limitations for Cellular Equipment	Pass	
2.5	22.917 (a)	2.1051	Spurious Emissions at Antenna Terminals	Pass	
2.6	22.917 (b)	2.1049 (h)	26 dB Bandwidth	Pass	
2.7	-	2.1047 (d)	Modulation Characteristics	-	Customer Declaration

Product Service

1.3 PRODUCT TECHNICAL DESCRIPTION

Refer to Model Description APYHRO00236 Rev 1.0 document.

1.4 PRODUCT INFORMATION

1.4.1 Technical Description

The Equipment Under Test (EUT) was a Sharp Dual-band LTE (B1 / B26), Dual-band WCDMA (FDD I / V) &,Quad-band GSM (850/900/1800/1900) multi mode Cellular phone with Bluetooth, WLAN, SRD (NFC,FeliCa) and GPS. A full technical description can be found in the manufacturer's documentation.

1.5 TEST CONDITIONS

For all tests the EUT was set up in accordance with the relevant test standard and to represent typical operating conditions. Tests were applied with the EUT situated in a shielded enclosure.

The EUT was powered from a 4.0 V DC supply.

FCC Measurement Facility Registration Number
90987 Octagon House, Fareham Test Laboratory

1.6 DEVIATIONS FROM THE STANDARD

No deviations from the applicable test standard were made during testing.

1.7 MODIFICATION RECORD

Modification 0 - No modifications were made to the test sample during testing.

Product Service

SECTION 2

TEST DETAILS

FCC Testing of the
Sharp Dual-band LTE (B1 / B26), Dual-band WCDMA (FDD I / V) &,Quad-band GSM (850/900/1800/1900) multi mode Cellular phone with Bluetooth, WLAN, SRD (NFC,FeliCa) and GPS
In accordance with FCC 47 CFR Part 22 and FCC 47 CFR Part 2 (WCDMA FDD V)

Product Service

2.1 FREQUENCY TOLERANCE

2.1.1 Specification Reference

FCC 47 CFR Part 22, Clause 22.355
FCC 47 CFR Part 2, Clause 2.1055

2.1.2 Equipment Under Test and Modification State

S/N: IMEI 004401115792604 - Modification State 0

2.1.3 Date of Test

3 May 2016

2.1.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.5 Test Procedure

The test was performed in accordance with KDB 971168 D01 v02r02, Clause 9.

Remarks

Using a communication test set, frequency error measurements were made over the temperature range -30°C to +50°C in 10° steps. At 20°C, the voltage was varied in accordance with 2.1055 (d).

The communication test set was connected to an external frequency standard to improve measurement accuracy.

2.1.6 Environmental Conditions

Ambient Temperature	25.1°C
Relative Humidity	24.1%

Product Service

2.1.7 Test Results

4.0 V DC Supply

WCDMA FDD V, 835.00 MHz, RMC, QPSK, Frequency Tolerance Under Temperature Variations Results

Temperature	Fundamental Frequency Deviation (ppm)
-30 ºC	-0.007
-20 ºC	0.0014
-10 ºC	0.0014
0 ºC	-0.007
+10 ºC	-0.006
+20 ºC	-0.007
+30 ºC	-0.007
+40 ºC	0.007
+50 ºC	0.007

WCDMA FDD V, 835.00 MHz, RMC, QPSK, Frequency Tolerance Under Voltage Variations Results

Voltage	Fundamental Frequency Deviation (ppm)
4.0 V DC	-0.007
3.7 V DC	-0.007

FCC 47 CFR Part 22, Limit Clause 22.355

Frequency Range (MHz)	Base, Fixed (ppm)	Mobile ≤ 3 watts (ppm)	Mobile ≤ 3 watts (ppm)
25 to 50	20	20	50
50 to 450	5	5	50
450 to 512	2.5	5	5
821 to 896	1.5	2.5	2.5
928 to 929	5.0	-	-
929 to 960	1.5	-	-
2110 to 2220	10	-	-

Product Service

2.2 SPURIOUS EMISSIONS AT BAND EDGE

2.2.1 Specification Reference

FCC 47 CFR Part 22, Clause 22.905
FCC 47 CFR Part 2, Clause 2.1051

2.2.2 Equipment Under Test and Modification State

S/N: IMEI 004401115792604 - Modification State 0

2.2.3 Date of Test

23 April 2016

2.2.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.2.5 Test Procedure

The test was performed in accordance with KDB 971168 D01 v02r02, Clause 6.

2.2.6 Environmental Conditions

Ambient Temperature	22.8°C
Relative Humidity	28.2%

Product Service

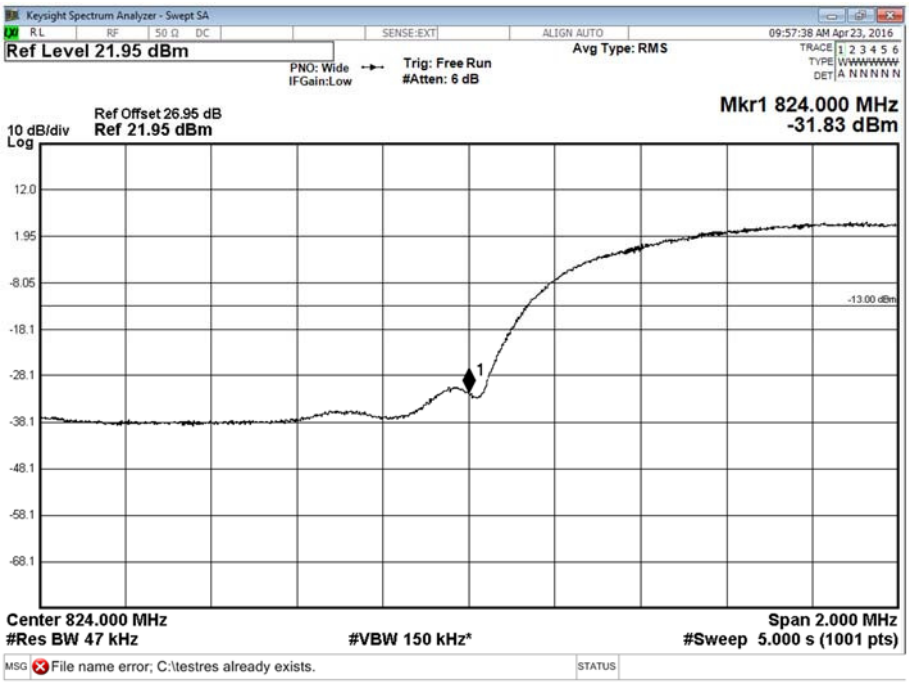
2.2.7 Test Results

4.0 V DC Supply

WCDMA FDD V, RMC, QPSK, Spurious Emissions at Band Edge Results

Block Edge	Frequency Block (MHz)	
	A :824.0 MHz – 835.0 MHz	B :846.5 MHz – 849.0 MHz
Lower	Channel: 4132 826.4 MHz	-
Upper	-	Channel: 4233 846.6 MHz

WCDMA FDD V, RMC, QPSK, Frequency Block A, Spurious Emissions at Band Edge Plot



Product Service

WCDMA FDD V, RMC, QPSK, Frequency Block B, Spurious Emissions at Band Edge Plot

FCC 47 CFR Part 22, Limit Clause 22.905 and 22.917

-13 dBm at block edge.

Product Service

2.3 MAXIMUM CONDUCTED OUTPUT POWER

2.3.1 Specification Reference

FCC 47 CFR Part 22, Clause 22.913 (a)
FCC 47 CFR Part 2, Clause 2.1046

2.3.2 Equipment Under Test and Modification State

S/N: IMEI 004401115792604 - Modification State 0

2.3.3 Date of Test

23 April 2016

2.3.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.3.5 Test Procedure

The test was performed in accordance with KDB 971168 D01 v02r02, clause 5.2.1

Remarks

The antenna gain was declared by the manufacturer as 2.0 dBi. As per KDB 412172 D01 v01r01 results are recorded in ERP therefore reported results are calculated as per the following calculation:

ERP = Pout (dBm) + ANT Gain (dBi) - 2.15 (dB).

2.3.6 Environmental Conditions

Ambient Temperature	22.8°C
Relative Humidity	28.2%

Product Service

2.3.7 Test Results

4.0 V DC Supply

WCDMA FDD V, RMC, Maximum Conducted Output Power Results

Frequency	Conducted Power (dBm)	Antenna Gain	ERP (dBm)	EIRP (W)
826.40 MHz	23.12	2.0 dBi	22.97	0.20
835.00 MHz	23.12	2.0 dBi	22.97	0.20
846.60 MHz	23.26	2.0 dBi	23.11	0.20

FCC 47 CFR Part 22, Limit Clause 22.913 (a)(2)

Mobile Transmitters: 7 W or 38.45 dBm

2.4 EMISSION LIMITATIONS FOR CELLULAR EQUIPMENT

2.4.1 Specification Reference

FCC 47 CFR Part 22, Clause 22.917

2.4.2 Equipment Under Test and Modification State

S/N: IMEI 004401115794196 - Modification State 0

2.4.3 Date of Test

21 April 2016 & 22 April 2016

2.4.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.4.5 Test Procedure

The test was performed in accordance with KDB 971168 D01 v02r02, Clause 5.8 and 7 and ANSI TIA-603-C, Clause 2.2.12. The EUT was configured as defined in ANSI C63.26.

2.4.6 Environmental Conditions

Ambient Temperature	20.5 - 21.7°C
Relative Humidity	34.2 - 34.5%

Product Service

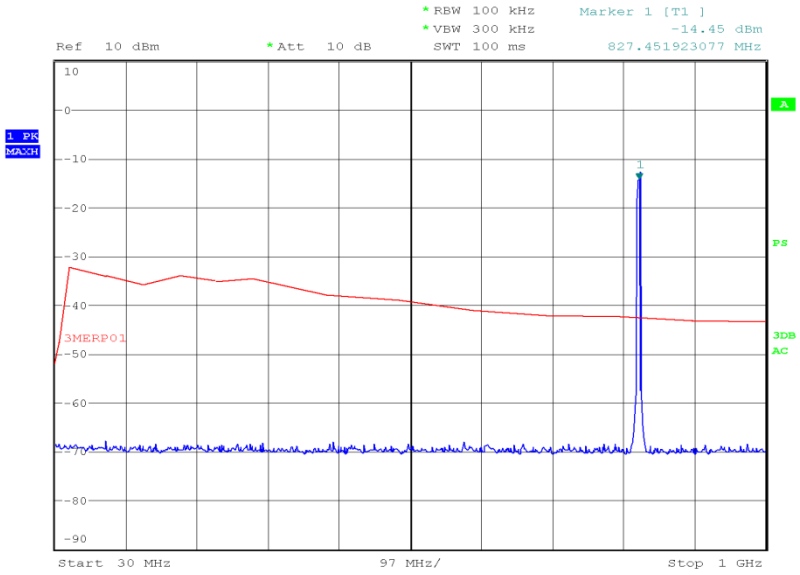
2.4.7 Test Results

WCDMA FDD V, 826.40 MHz, Emission Limitations for Cellular Equipment Results

Frequency (MHz)	Emission Results (dBm)
*	

*No emissions were detected within 20 dB of the limit.

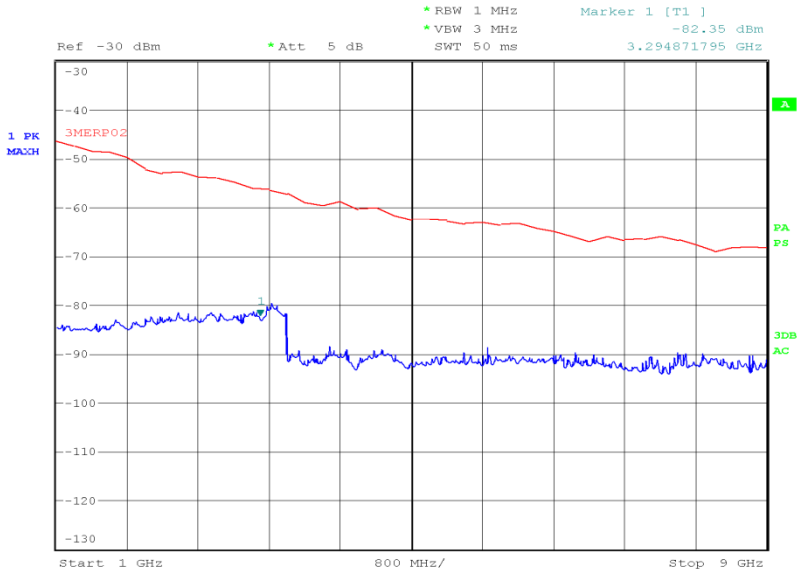
WCDMA FDD V, 826.40 MHz, 30 MHz to 1 GHz, Emission Limitations for Celluar Equipment Plot



Date: 22.APR.2016 03:15:00

Product Service

WCDMA FDD V, 826.40 MHz, 1 GHz to 9 GHz, Emission Limitations for Celluar Equipment Plot



Date: 21.APR.2016 03:31:52

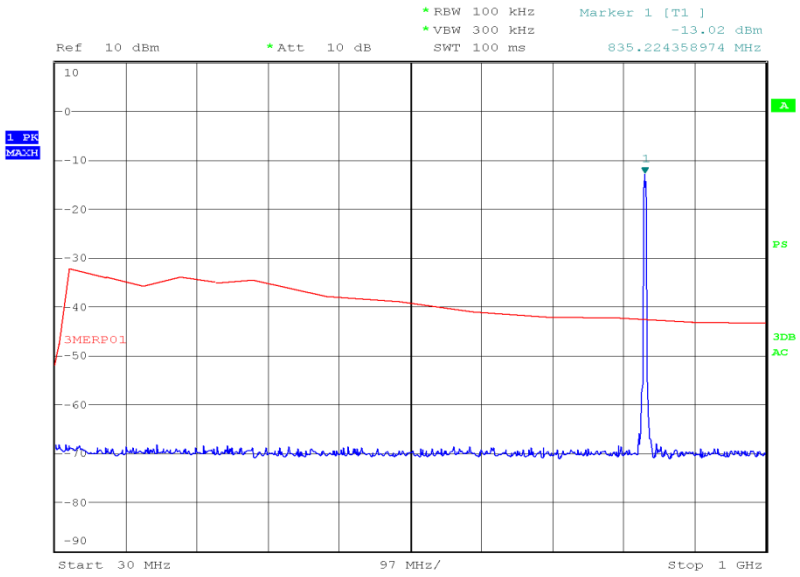
Product Service

WCDMA FDD V, 835.00 MHz, Emission Limitations for Cellular Equipment Results

Frequency (MHz)	Emission Results (dBm)
*	

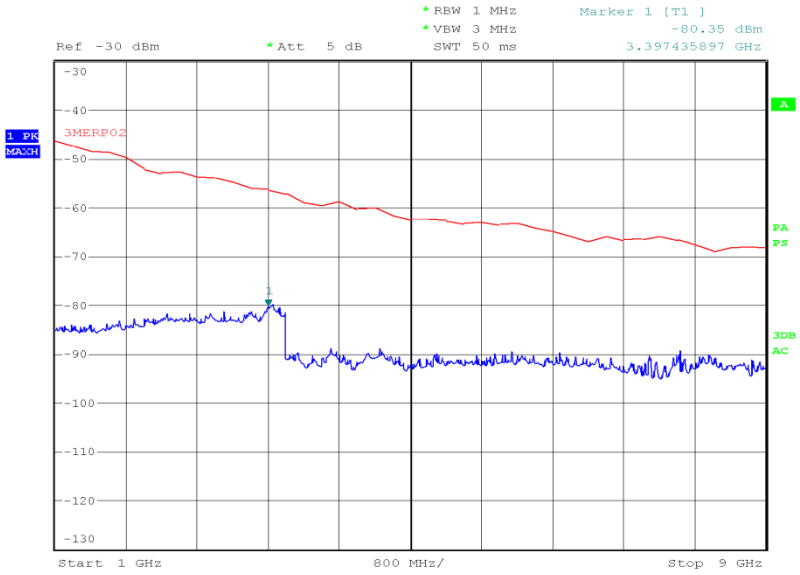
*No emissions were detected within 20 dB of the limit.

WCDMA FDD V, 835.00 MHz, 30 MHz to 1 GHz, Emission Limitations for Celluar Equipment Plot



Product Service

WCDMA FDD V, 835.00 MHz, 1 GHz to 9 GHz, Emission Limitations for Celluar Equipment Plot



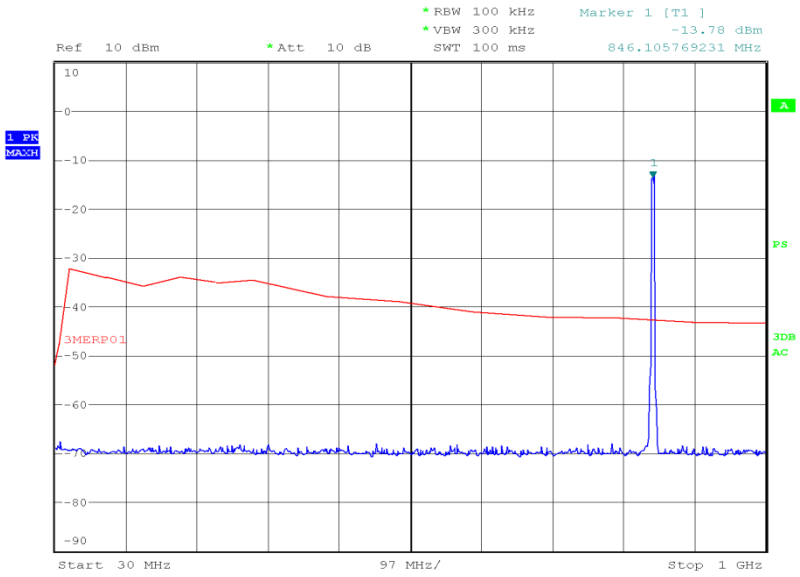
Date: 21.APR.2016 03:33:03

WCDMA FDD V, 846.60 MHz, Emission Limitations for Cellular Equipment Results

Frequency (MHz)	Emission Results (dBm)
*	

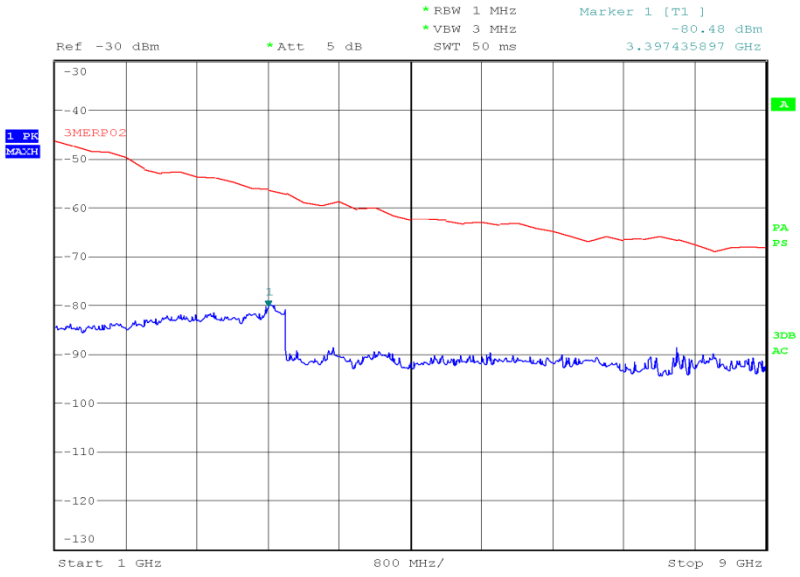
*No emissions were detected within 20 dB of the limit.

WCDMA FDD V, 846.60 MHz, 30 MHz to 1 GHz, Emission Limitations for Celluar Equipment Plot



Product Service

WCDMA FDD V, 846.60 MHz, 1 GHz to 9 GHz, Emission Limitations for Celluar Equipment Plot



Date: 21.APR.2016 03:34:36

FCC 47 CFR Part 22, Limit Clause 22.917 (a)

43+10log(P) or -13 dBm

Product Service

2.5 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

2.5.1 Specification Reference

FCC 47 CFR Part, Clause 22.917 (a)
FCC 47 CFR Part 2, Clause 2.1051

2.5.2 Equipment Under Test and Modification State

S/N: IMEI 004401115792604 - Modification State 0

2.5.3 Date of Test

23 April 2016

2.5.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.5.5 Test Procedure

The test was performed in accordance with KDB 971168 D01 v02r02, Clause 6.

Remarks

Testing was carried out with an RBW of 100 kHz as defined in 22.917(b). Measurements were made with a Peak detector and the trace set to Max Hold.

2.5.6 Environmental Conditions

Ambient Temperature	22.8°C
Relative Humidity	28.2%

Product Service

2.5.7 Test Results

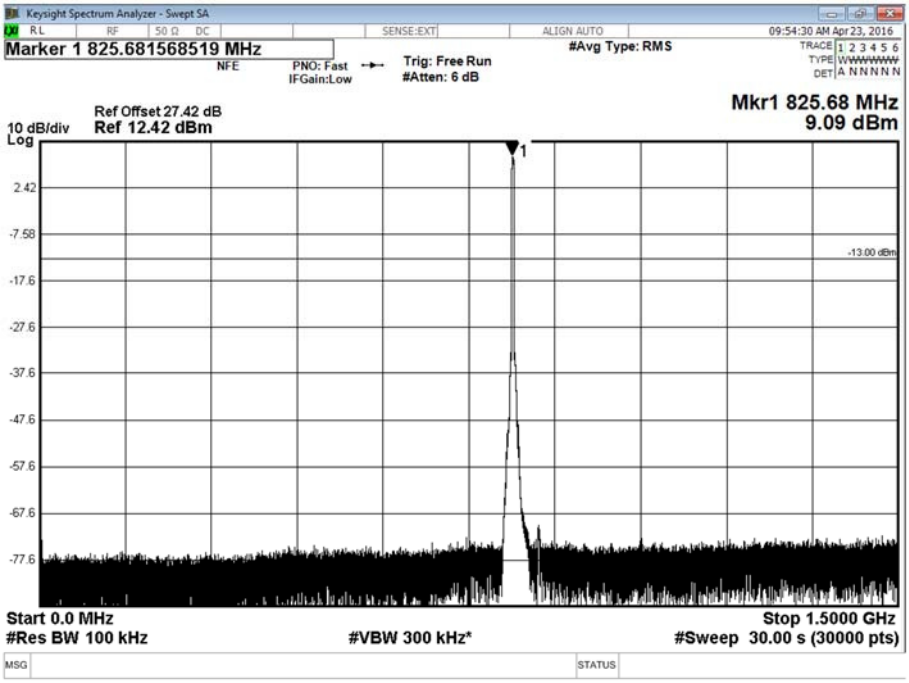
4.0 V DC Supply

WCDMA FDD V, 826.40 MHz, Spurious Emissions at Antenna Terminals Results

Frequency (MHz)	Emission Results (dBm)
*	

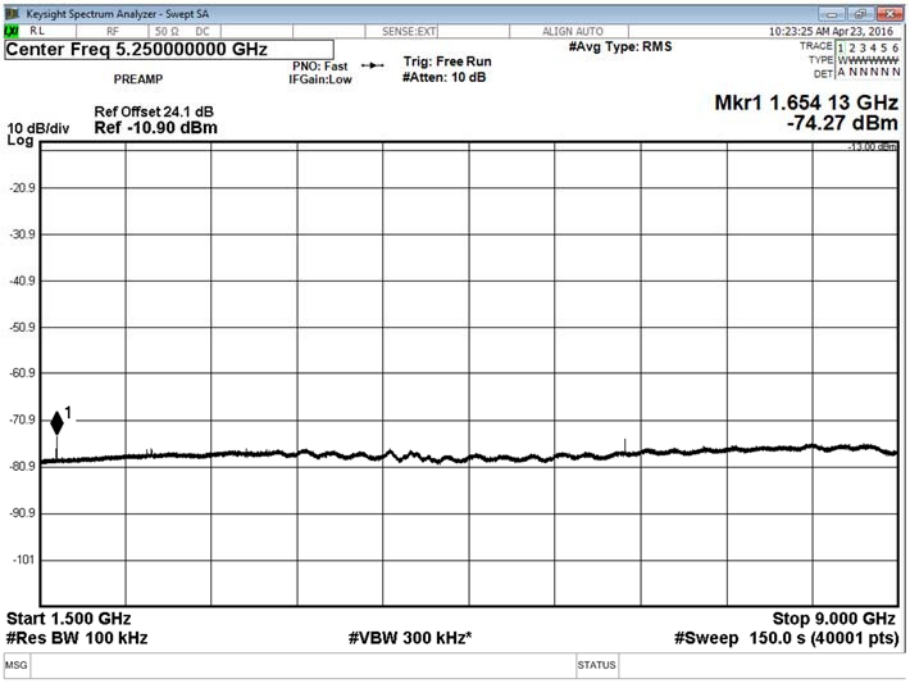
*No emissions were detected within 20 dB of the limit.

WCDMA FDD V, 826.40 MHz, 9 kHz to 1.5 GHz, Spurious Emissions at Antenna Terminals Plot



Product Service

WCDMA FDD V, 826.40 MHz, 1.5 GHz to 9 GHz, Spurious Emissions at Antenna Terminals Plot



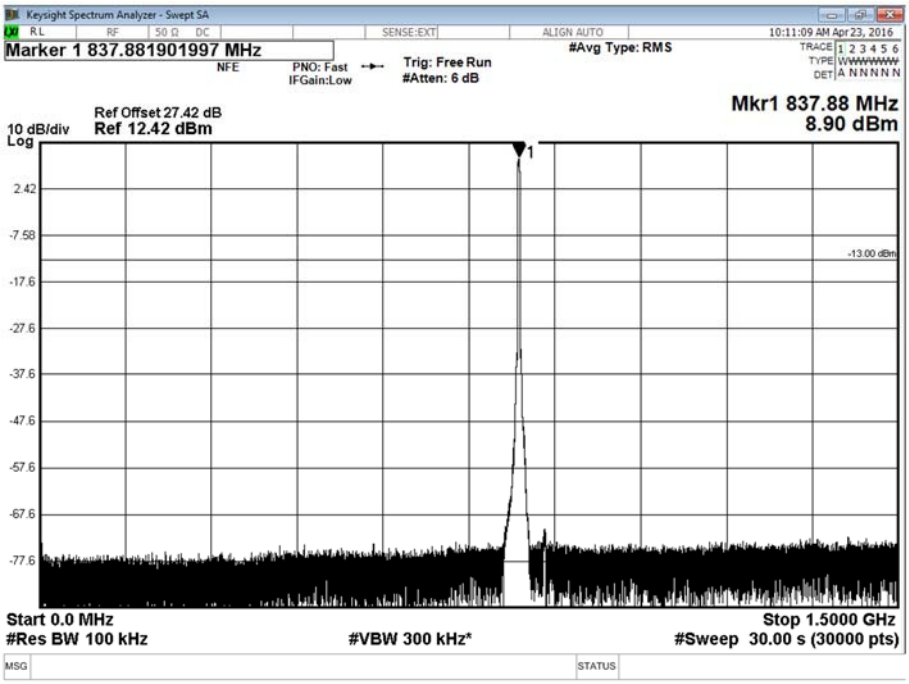
Product Service

WCDMA FDD V, 835.00 MHz, Spurious Emissions at Antenna Terminals Results

Frequency (MHz)	Emission Results (dBm)
*	

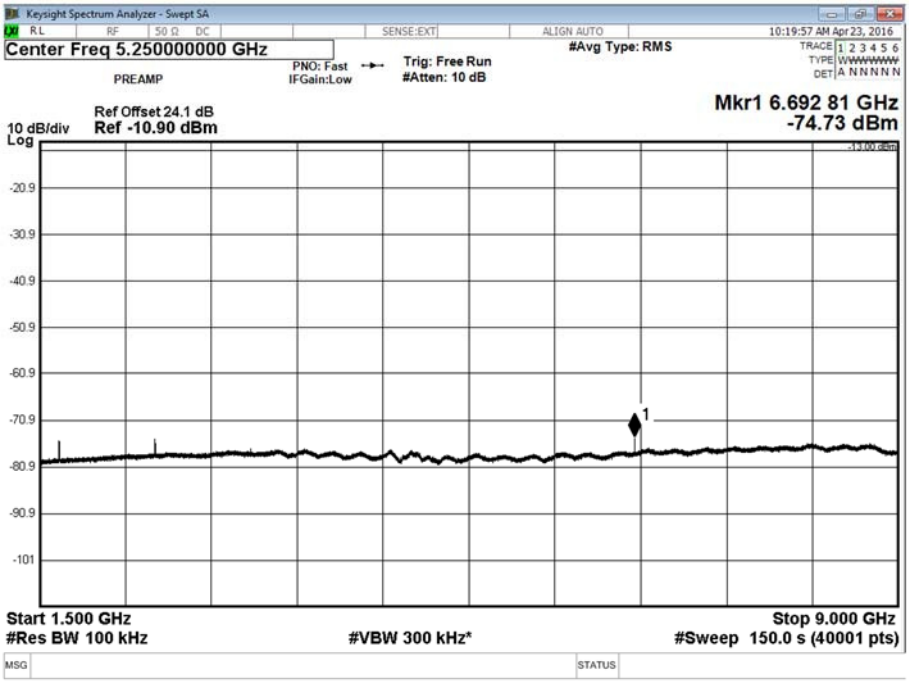
*No emissions were detected within 20 dB of the limit.

WCDMA FDD V, 835.00 MHz, 9 kHz to 1.5 GHz, Spurious Emissions at Antenna Terminals Plot



Product Service

WCDMA FDD V, 835.00 MHz, 1.5 GHz to 9 GHz, Spurious Emissions at Antenna Terminals Plot



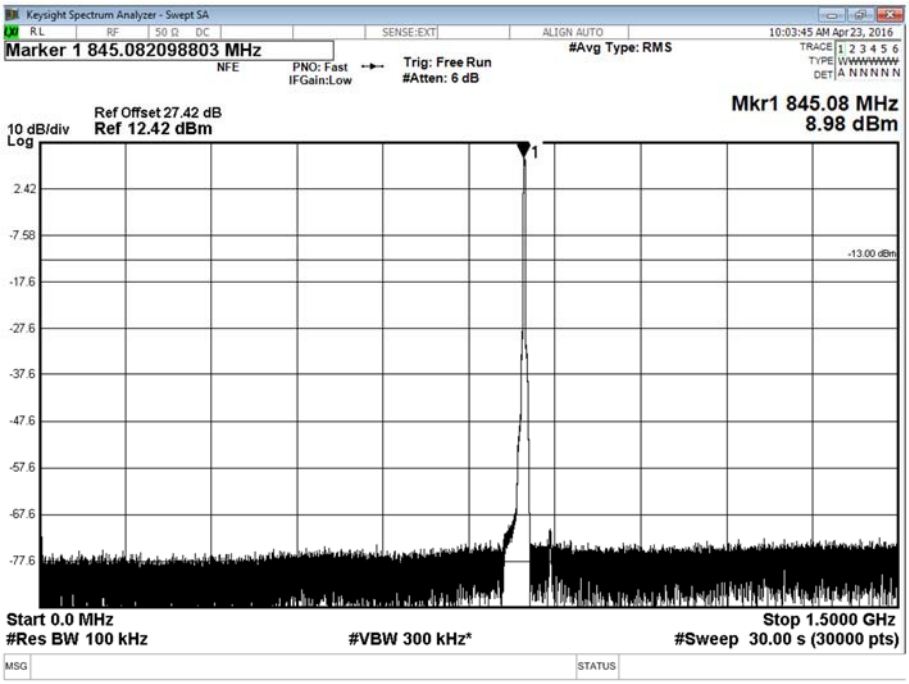
Product Service

WCDMA FDD V, 846.60 MHz, Spurious Emissions at Antenna Terminals Results

Frequency (MHz)	Emission Results (dBm)
*	

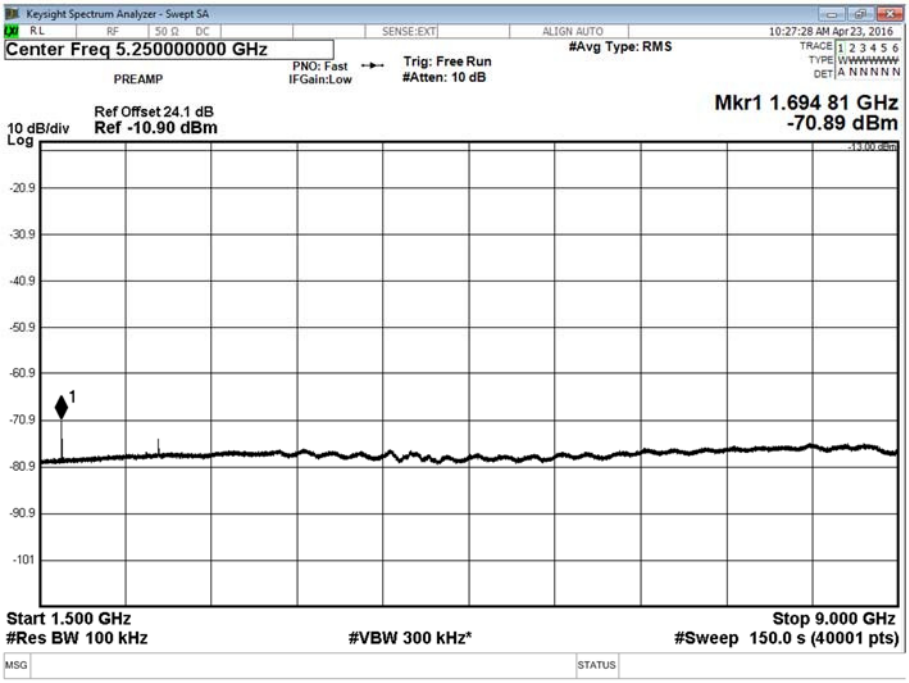
*No emissions were detected within 20 dB of the limit.

WCDMA FDD V, 846.60 MHz, 9 kHz to 1.5 GHz, Spurious Emissions at Antenna Terminals Plot



Product Service

WCDMA FDD V, 846.60 MHz, 1.5 GHz to 9 GHz, Spurious Emissions at Antenna Terminals Plot



FCC 47 CFR Part 22, Limit Clause 22.917 (a)

43+10log(P) or -13 dBm

2.6 26 dB BANDWIDTH

2.6.1 Specification Reference

FCC 47 CFR Part 22, Clause 22.917 (b)
FCC 47 CFR Part 2, Clause 2.1049 (h)

2.6.2 Equipment Under Test and Modification State

S/N: IMEI 004401115792604 - Modification State 0

2.6.3 Date of Test

23 April 2016

2.6.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.6.5 Test Procedure

The test was performed in accordance with KDB 971168 D01 v02r02, Clause 4.1.

2.6.6 Environmental Conditions

Ambient Temperature	22.8°C
Relative Humidity	28.2%

Product Service

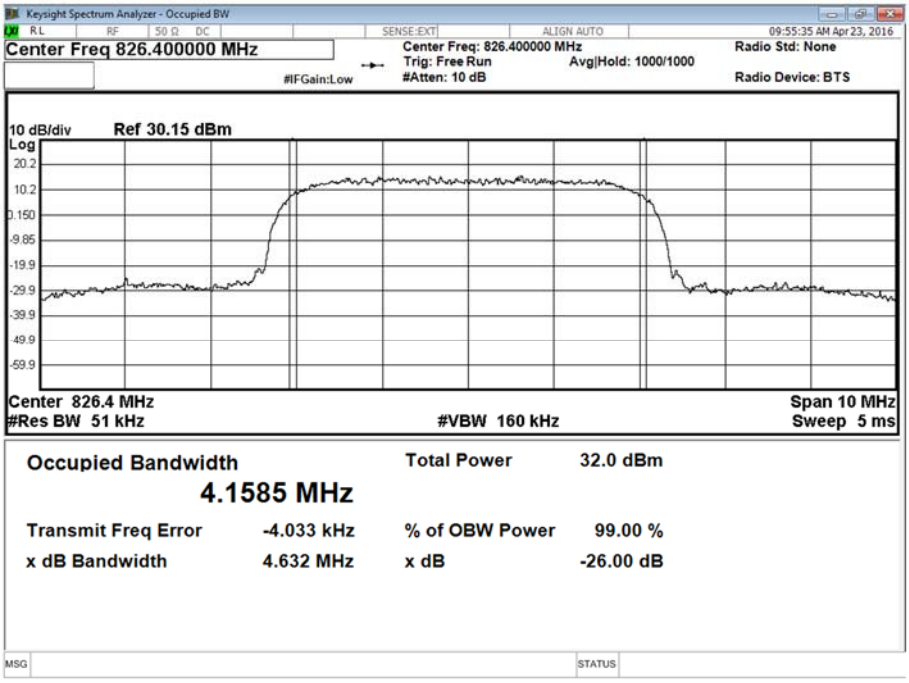
2.6.7 Test Results

4.0 V DC Supply

WCDMA FDD V, QPSK, 26 dB Bandwidth Results

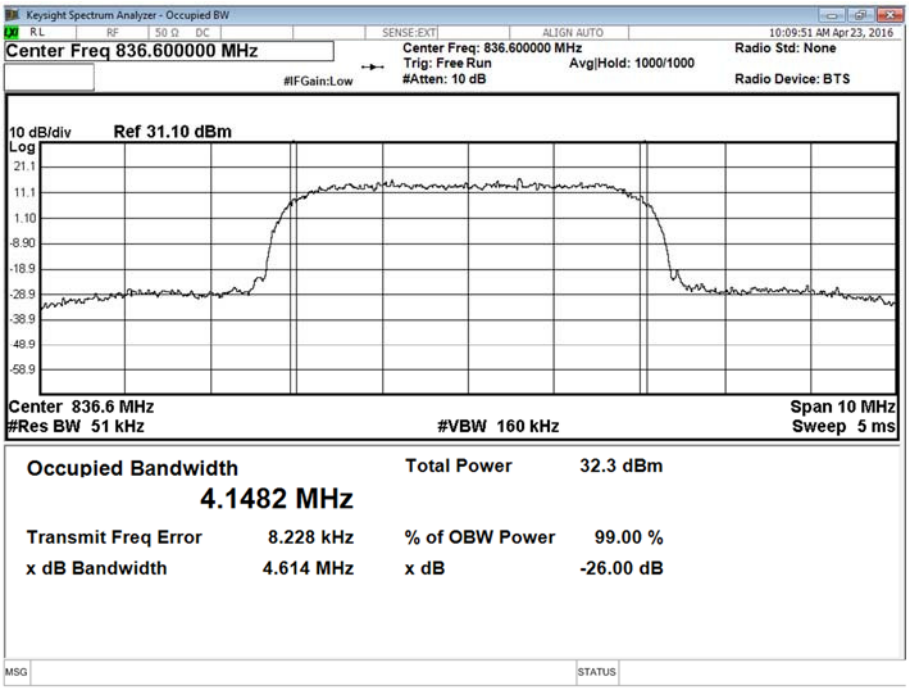
826.40 MHz	835.00 MHz	846.60 MHz
kHz	kHz	kHz
4632	4614	4624

WCDMA FDD V, 826.40 MHz, QPSK, 26 dB Bandwidth Plot

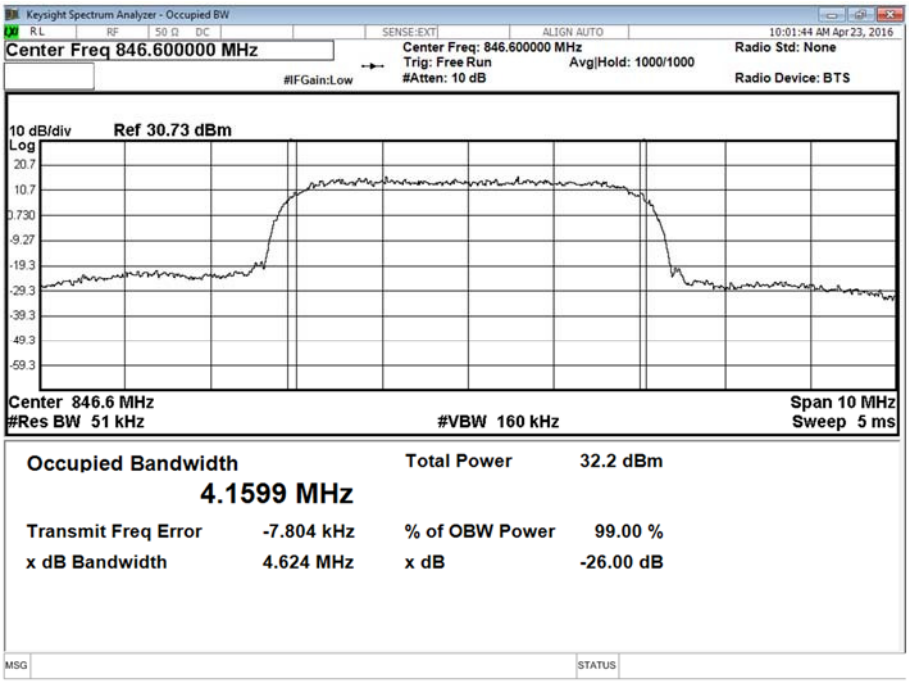


Product Service

WCDMA FDD V, 835.00 MHz,QPSK, 26 dB Bandwidth Plot



WCDMA FDD V, 846.60 MHz, QPSK, 26 dB Bandwidth Plot



FCC 47 CFR Part 22, Limit Clause

None specified.

Product Service

2.7 MODULATION CHARACTERISTICS

2.7.1 Specification Reference

FCC 47 CFR Part 2, Clause 2.1047 (d)

2.7.2 Test Results

WCDMA FDD V, Modulation Characteristics, Customer Description

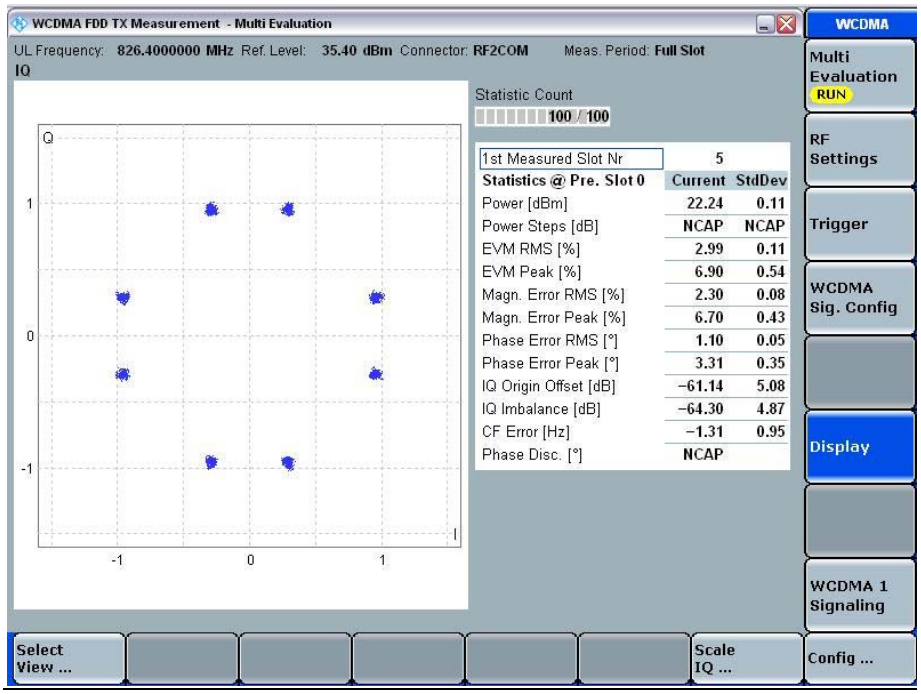
For the period of test the EUT met the requirements of FCC CFR 47 Part 2 for Modulation Characteristics.

The test results are shown below.

4.0 V DC Supply

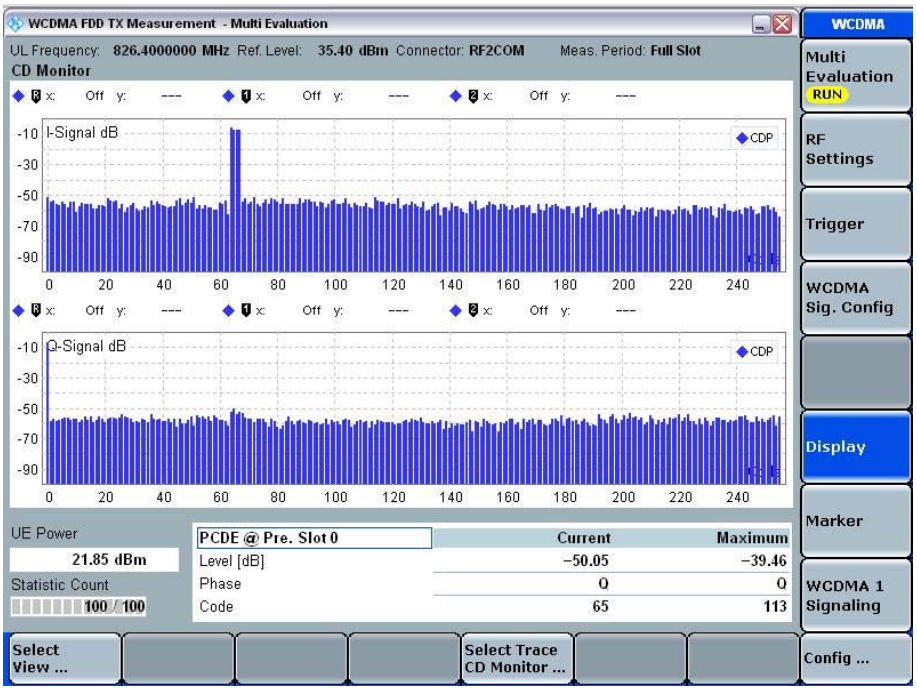
QPSK

Constellation Diagram

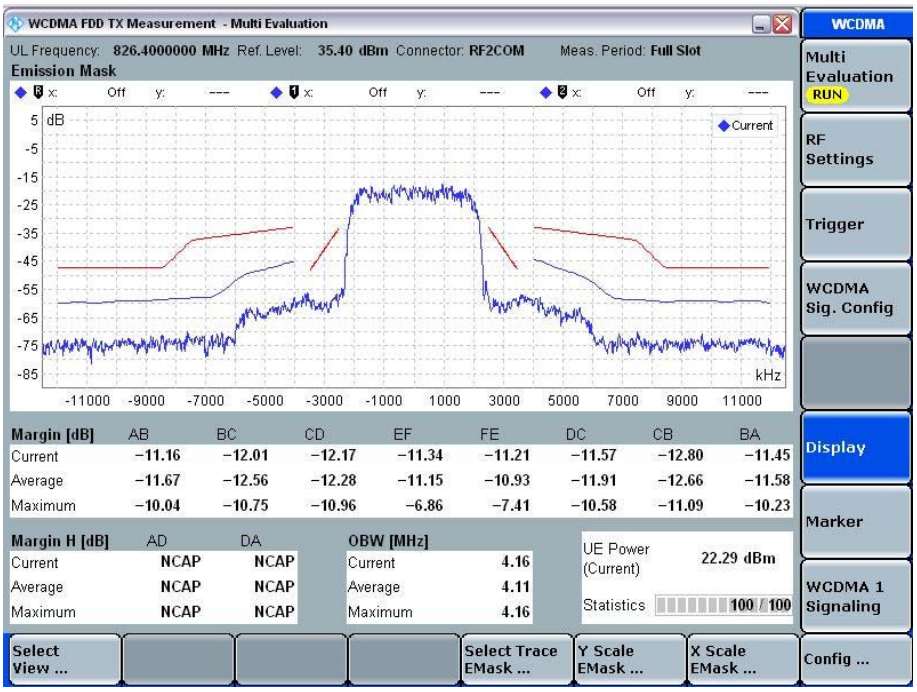


Product Service

I and Q Code Domain



Spectrum Emission Mask



FCC 47 CFR Part 2, Limit Clause 2.1047 (d)

A curve or equivalent data which shows that the equipment will meet the modulation requirements of the rules under which the equipment is to be licensed.

Product Service

SECTION 3

TEST EQUIPMENT USED

Product Service

3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Section 2.1 - Frequency Tolerance					
Multimeter	White Gold	WG022	190	12	24-Nov-2016
Digital Temperature Indicator + T/C	Fluke	51	412	12	2-Mar-2017
Temperature Chamber	Montford	2F3	467	-	O/P Mon
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	3-Sep-2016
Power Supply	Hewlett Packard	6104A	1948	-	TU
Radio Communications Test Set	Rohde & Schwarz	CMU 200	3035	12	16-Nov-2016
Frequency Standard	Spectracom	Secure Sync 1200-0408-0601	4393	6	3-Sep-2016
Section 2.2 - Spurious Emissions at Band Edge					
Attenuator 10dB/25W	Weinschel	46-10-43	400	12	18-Jun-2016
Radio Communications Test Set	Rohde & Schwarz	CMU 200	442	12	18-Jan-2017
Power Splitter	Weinschel	1506A	607	12	31-Mar-2017
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	3-Sep-2016
Power Supply	Hewlett Packard	6104A	1948	-	TU
Multimeter	Iso-tech	IDM101	2424	12	29-Sep-2016
Programmable Power Supply	Iso-tech	IPS 2010	2436	-	O/P Mon
Attenuator (20dB, 2W)	Pasternack	PE7004-20	2943	12	4-Apr-2017
Hygrometer	Rotronic	I-1000	3220	12	19-Aug-2016
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	2-Sep-2016
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	7-Sep-2016
Frequency Standard	Spectracom	Secure Sync 1200-0408-0601	4393	6	3-Sep-2016
PXA Signal Analyser	Agilent Technologies	N9030A PXA	4409	12	8-Mar-2017
Section 2.3 - Maximum Conducted Output Power					
Multimeter	White Gold	WG022	190	12	24-Nov-2016
Attenuator 10dB/25W	Weinschel	46-10-43	400	12	18-Jun-2016
Radio Communications Test Set	Rohde & Schwarz	CMU 200	442	12	18-Jan-2017
Attenuator (20dB/ 2W)	Pasternack	PE7004-20	489	12	30-Oct-2016
Power Splitter	Weinschel	1506A	607	12	31-Mar-2017
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	3-Sep-2016
Power Supply	Hewlett Packard	6104A	1948	-	TU
Multimeter	Iso-tech	IDM101	2424	12	29-Sep-2016
Programmable Power Supply	Iso-tech	IPS 2010	2436	-	O/P Mon
Attenuator (20dB, 2W)	Pasternack	PE7004-20	2943	12	4-Apr-2017
Hygrometer	Rotronic	I-1000	3220	12	19-Aug-2016
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	2-Sep-2016
Combiner/Splitter	Weinschel	1506A	3878	12	2-Jun-2016
P-Series Power Meter	Agilent Technologies	N1911A	3981	12	25-Sep-2016
50 MHz-18 GHz Wideband Power Sensor	Agilent Technologies	N1921A	3983	12	25-Sep-2016
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	7-Sep-2016
Frequency Standard	Spectracom	Secure Sync 1200-0408-0601	4393	6	3-Sep-2016
PXA Signal Analyser	Agilent Technologies	N9030A PXA	4409	12	8-Mar-2017

Product Service

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Section 2.4 - Emission Limitations for Cellular Equipment					
Turntable Controller	Inn-Co GmbH	CO 1000	1606	-	TU
Antenna (Bilog)	Chase	CBL6143	2904	24	11-Jun-2017
Radio Communications Test Set	Rohde & Schwarz	CMU 200	3035	12	16-Nov-2016
Signal Generator (10MHz to 40GHz)	Rohde & Schwarz	SMR40	3171	12	28-Sep-2016
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	2-Nov-2016
Tilt Antenna Mast	maturo Gmbh	TAM 4.0-P	3916	-	TU
Mast Controller	maturo Gmbh	NCD	3917	-	TU
Double Ridged Waveguide Horn Antenna	ETS-Lindgren	3117	4722	12	29-Dec-2016
Section 2.5 - Spurious Emissions at Antenna Terminals					
Attenuator 10dB/25W	Weinschel	46-10-43	400	12	18-Jun-2016
Radio Communications Test Set	Rohde & Schwarz	CMU 200	442	12	18-Jan-2017
Power Splitter	Weinschel	1506A	607	12	31-Mar-2017
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	3-Sep-2016
Power Supply	Hewlett Packard	6104A	1948	-	TU
High Pass Filter (7GHz)	Lorch	9HP7-7000-SR	2246	0	Class 1 (Int)
Multimeter	Iso-tech	IDM101	2424	12	29-Sep-2016
Programmable Power Supply	Iso-tech	IPS 2010	2436	-	O/P Mon
Filter	Daden Anthony Ass	MH-1500-7SS	2778	12	5-Feb-2017
Attenuator (20dB, 2W)	Pasternack	PE7004-20	2943	12	4-Apr-2017
Hygrometer	Rotronic	I-1000	3220	12	19-Aug-2016
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	2-Sep-2016
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	7-Sep-2016
Frequency Standard	Spectracom	Secure Sync 1200-0408-0601	4393	6	3-Sep-2016
PXA Signal Analyser	Agilent Technologies	N9030A PXA	4409	12	8-Mar-2017
Suspended Substrate Highpass Filter	Advance Power Components	11SH10-3000/X18000-O/O	4411	12	23-Mar-2017
Section 2.6 - 26 dB Bandwidth					
Attenuator 10dB/25W	Weinschel	46-10-43	400	12	18-Jun-2016
Amplifier	Miteq Corp	AM-4A-0510-1103	422	-	TU
Radio Communications Test Set	Rohde & Schwarz	CMU 200	442	12	18-Jan-2017
Power Splitter	Weinschel	1506A	607	12	31-Mar-2017
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	3-Sep-2016
Power Supply	Hewlett Packard	6104A	1948	-	TU
Multimeter	Iso-tech	IDM101	2424	12	29-Sep-2016
Programmable Power Supply	Iso-tech	IPS 2010	2436	-	O/P Mon
Attenuator (20dB, 2W)	Pasternack	PE7004-20	2943	12	4-Apr-2017
Hygrometer	Rotronic	I-1000	3220	12	19-Aug-2016
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	2-Sep-2016
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	7-Sep-2016
Frequency Standard	Spectracom	Secure Sync 1200-0408-0601	4393	6	3-Sep-2016
PXA Signal Analyser	Agilent Technologies	N9030A PXA	4409	12	8-Mar-2017

TU – Traceability Unscheduled
O/P MON – Output Monitored with Calibrated Equipment

Product Service

3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:-

Test Discipline	MU
Frequency Tolerance	± 44.32 Hz
Modulation Characteristics	-
Maximum Conducted Output Power	± 0.70 dB
Spurious Emissions at Antenna Terminals	± 3.454 dB
Emission Limitations for Cellular Equipment	30 MHz to 1 GHz: ± 5.1 dB 1 GHz to 40 GHz: ± 6.3 dB
26 dB Bandwidth	± 93.71 kHz
Spurious Emissions at Band Edge	30 MHz to 1 GHz: ± 5.1 dB 1 GHz to 40 GHz: ± 6.3 dB

Product Service

SECTION 4

ACCREDITATION, DISCLAIMERS AND COPYRIGHT

4.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT

This report relates only to the actual item/items tested.

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation.

Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited).