TEST REPORT

Test Report No. : UL-RPT-RP10295140JD12B V2.0

Manufacturer	:	Sony Mobile Communications Inc.
FCC ID	:	PY7PM-0804
Technology	:	LTE – Band 2 & LTE – Band 4
Test Standard(s)	:	FCC Part 24.232(c) & 27.50(d)(4)

1. This test report shall not be reproduced in full or partial, without the written approval of UL VS LTD.
2. The results in this report apply only to the sample(s) tested.
3. The sample tested is in compliance with the above standard(s).
4. The test results in this report are traceable to the national or international standards.
5. Version 2.0 supersedes all previous versions.

Date of Issue: 04 August 2014

Checked by:

Sarah Williams
Engineer, Radio Laboratory

Issued by :

pp
John Newell
Group Quality Manager
Basingstoke,
UL VS LTD

0644

This laboratory is accredited by UKAS. The tests reported herein have been performed in accordance with its' terms of accreditation.

UL VS LTD

Pavilion A, Ashwood Park, Ashwood Way, Basingstoke, Hampshire, RG23 8BG, UK
Telephone: +44 (0)1256 312000
Facsimile: +44 (0)1256 312001

This page has been left intentionally blank.

Table of Contents

1. Customer Information

Company Name:	Sony Mobile Communications Inc.
Address:	Nya Vattentornet Mobilvägen 10 Lund 22188 Sweden

2. Summary of Testing

2.1. General Information

Specification Reference:	47CFR24
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications): Part 24 Subpart E (Personal Communication Services)
Specification Reference:	47CFR27
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications): Part 27 Subpart C (Miscellaneous Wireless Communication Services)
Site Registration:	209735
Location of Testing:	UL VS LTD, Unit 3 Horizon, Wade Road, Kingsland Business Park, Basingstoke, Hampshire, RG24 8AH, United Kingdom
Test Dates:	27 May 2014 to 29 May 2014

2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Result
Part 24.232(c)	Transmitter Output Power (EIRP)	
Part 2.1046/27.50(d)(4)	Transmitter Output Power (EIRP)	

Key to Results

= Complied = Did not comply

2.3. Methods and Procedures

Reference:	ANSI/TIA-603-C-2004
Title:	Land Mobile Communications Equipment, Measurements and performance Standards
Reference:	FCC KDB 971168 D01 v02r01, 7 June 2013
Title:	Measurement Guidance for Certification of Licensed Digital Transmitters

2.4. Deviations from the Test Specification

For the measurements contained within this test report, there were no deviations from, additions to, or exclusions from the test specification identified above.

3. Equipment Under Test (EUT)

3.1. Identification of Equipment Under Test (EUT)

Brand Name:	Sony
IMEI:	004402452753027 *(Conducted sample with RF port #1)*
Test Sample Serial Number:	CB5A1Z1RXY
Hardware Version Number:	A
Software Version Number:	23.0.D.0.100*
FCC ID:	PY7PM-0801

Brand Name:	Sony
IMEI:	004402452751252 *(Conducted sample with RF port #2)*
Test Sample Serial Number:	CB5A1Z1S0C
Hardware Version Number:	A
Software Version Number:	23.0.A.0.204*
FCC ID:	PY7PM-0801

**Both software versions are identical in terms of RF performance*

Note:

The test results documented in this report are for FCC ID PY7PM-0804.

All physical measurements were performed on FCC ID PY7PM-0801, which is a variant of FCC ID PY7PM-0800. The client has declared that FCC ID PY7PM-0804 is identical in build and design for the bands and technologies to FCC ID PY7PM-0801 as listed in this report.

3.2. Description of EUT

The equipment under test (EUT) was a GSM/WCDMA/LTE Phone + Bluetooth, DTS/UNII a/b/g/n/ac + NFC & ANT+.

3.3. Modifications Incorporated in the EUT

No modifications were applied to the EUT during testing.

3.4. Additional Information Related to Testing

Tested Technology:	LTE Band 2		
Type of Equipment	Transceiver		
Channel Bandwidth(s):	1.4, 3, 5, 10, 15 & 20 MHz		
Modulation Type:	QPSK & 16QAM		
Duty Cycle:	100%		
Antenna Gain:	2.1 dBi		
Transmit Frequency Range:	1850 to 1910 MHz		
Channels Tested:	**Channel Bandwidth**	**N_{ul}**	**Frequency of Uplink (MHz)**
Bottom Channel	1.4	18607	1850.7
	3	18615	1851.5
	5	18625	1852.5
	10	18650	1855.0
	15	18675	1857.5
	20	18700	1860.0
Middle Channel	All	18900	1880.0
Top Channel	1.4	19193	1909.3
	3	19185	1908.5
	5	19175	1907.5
	10	19150	1905.0
	15	19125	1902.5
	20	19100	1900.0

Additional Information Related to Testing (continued)

Tested Technology:	LTE Band 4		
Type of Equipment	Transceiver		
Channel Bandwidth(s):	1.4, 3, 5, 10, 15 & 20 MHz		
Modulation Type:	QPSK & 16QAM		
Duty Cycle:	100%		
Antenna Gain:	0.0 dBi		
Transmit Frequency Range:	1710 MHz to 1755 MHz		
Channels Tested:	**Channel Bandwidth**	**N_{ul}**	**Frequency of Uplink (MHz)**
Bottom Channel	1.4	19957	1710.7
	3	19965	1711.5
	5	19975	1712.5
	10	20000	1715.0
	15	20025	1717.5
	20	20050	1720.0
Middle Channel	All	20175	1732.5
Top Channel	1.4	20393	1754.3
	3	20385	1753.5
	5	20375	1752.5
	10	20350	1750.0
	15	20325	1747.5
	20	20300	1745.0

3.5. Support Equipment

The following support equipment was used to exercise the EUT during testing:

Description:	2 GB Micro SD Card
Brand Name:	SanDisk
Model Name or Number:	Not marked

Description:	Voltage variation jig
Brand Name:	Not marked
Model Name or Number:	Not marked
Serial Number:	Not marked

4. Operation and Monitoring of the EUT during Testing

4.1. Operating Modes

The EUT was tested in the following operating mode(s):

- Transmit Mode – The EUT was set to transmit with maximum output power using the required channel bandwidth. QPSK and 16QAM modulations were both tested, with Resource Block allocation as detailed in section 4.3.

4.2. Configuration and Peripherals

The EUT was tested in the following configuration(s):

- The EUT was connected to a Rohde and Schwarz CMW500 LTE system simulator, operating in a transceiver mode.
- The voltage variation jig and adaptor were used for conducted measurements set at the nominal voltage.

4.3. Resource Block Allocation

Channel Bandwidth (MHz)	Maximum No. of Resource Blocks	Resource Block / Offset Number							
		Sub Test 1		Sub Test 2		Sub Test 3		Sub Test 4	
		RB	Offset	RB	Offset	RB	Offset	RB	Offset
1.4	6	1	0	1	5	3	2	6	0
3	15	1	0	1	14	8	4	15	0
5	25	1	0	1	24	12	6	25	0
10	50	1	0	1	49	25	12	50	0
15	75	1	0	1	74	36	18	75	0
20	100	1	0	1	99	50	25	100	0

Transmitter Output Power was carried out using sub tests 1, 2, 3 and 4, with both QPSK and 16QAM modulation schemes.

5. Measurements, Examinations and Derived Results

5.1. General Comments

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to *Section 6. Measurement Uncertainty* for details.

In accordance with UKAS requirements all the measurement equipment is on a calibration schedule. All equipment was within the calibration period on the date of testing.

5.2. Test Results

5.2.1. Transmitter Output Power (EIRP)

Test Summary:

Test Engineer:	Keith Tucker	**Test Date:**	29 May 2014
Test Sample IMEI:	004402452753027		

FCC Reference:	Part 24.232(c)
Test Method Used:	As detailed in KDB 971168 Section 5.2.1

Environmental Conditions:

Temperature (°C):	27
Relative Humidity (%):	34

Note(s):

1. The customer stated that the antenna gain is 2.1 dBi.
2. Measurements were performed with the EUT transmitting with QPSK and 16QAM modulation schemes, with resource blocks settings as detailed in section 4.3 of this report.
3. The spectrum analyser's channel power function was used to integrate across the occupied bandwidth. The resolution bandwidth was set to between 1-5% of the occupied bandwidth and the video bandwidth was set to at least 3 times the resolution bandwidth. An RMS detector was used, sweep time was set to auto and the trace was averaged over at least 100 traces. The span was set to at least 1.5 times the occupied bandwidth. The channel power results are recorded in the tables below.
4. The RF port of the EUT was connected to the spectrum analyser via RF cables, directional coupler and suitable attenuation. An RF level offset was entered on the spectrum analyser, to compensate for the signal path losses in these components.

Transmitter Output Power (EIRP) (continued)

Results: 1.4 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1850.7	6	0	20.9	2.1	23.0	33.0	10.0	Complied
1850.7	3	2	21.9	2.1	24.0	33.0	9.0	Complied
1850.7	1	0	22.2	2.1	24.3	33.0	8.7	Complied
1850.7	1	5	22.1	2.1	24.2	33.0	8.8	Complied

Results: 1.4 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1850.7	6	0	20.0	2.1	22.1	33.0	10.9	Complied
1850.7	3	2	20.9	2.1	23.0	33.0	10.0	Complied
1850.7	1	0	21.2	2.1	23.3	33.0	9.7	Complied
1850.7	1	5	21.1	2.1	23.2	33.0	9.8	Complied

Results: 1.4 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	6	0	20.3	2.1	22.4	33.0	10.6	Complied
1880.0	3	2	21.3	2.1	23.4	33.0	9.6	Complied
1880.0	1	0	21.8	2.1	23.9	33.0	9.1	Complied
1880.0	1	5	21.8	2.1	23.9	33.0	9.1	Complied

Results: 1.4 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	6	0	19.4	2.1	21.5	33.0	11.5	Complied
1880.0	3	2	20.3	2.1	22.4	33.0	10.6	Complied
1880.0	1	0	20.5	2.1	22.6	33.0	10.4	Complied
1880.0	1	5	20.5	2.1	22.6	33.0	10.4	Complied

Transmitter Output Power (EIRP) (continued)

Results: 1.4 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1909.3	6	0	20.0	2.1	22.1	33.0	10.9	Complied
1909.3	3	2	21.0	2.1	23.1	33.0	9.9	Complied
1909.3	1	0	21.4	2.1	23.5	33.0	9.5	Complied
1909.3	1	5	21.2	2.1	23.3	33.0	9.7	Complied

Results: 1.4 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1909.3	6	0	18.9	2.1	21.0	33.0	12.0	Complied
1909.3	3	2	20.0	2.1	22.1	33.0	10.9	Complied
1909.3	1	0	20.0	2.1	22.1	33.0	10.9	Complied
1909.3	1	5	20.0	2.1	22.1	33.0	10.9	Complied

Results: 3 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1851.5	15	0	20.3	2.1	22.4	33.0	10.6	Complied
1851.5	8	4	20.3	2.1	22.4	33.0	10.6	Complied
1851.5	1	0	22.2	2.1	24.3	33.0	8.7	Complied
1851.5	1	14	22.2	2.1	24.3	33.0	8.7	Complied

Results: 3 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1851.5	15	0	19.4	2.1	21.5	33.0	11.5	Complied
1851.5	8	4	19.4	2.1	21.5	33.0	11.5	Complied
1851.5	1	0	21.3	2.1	23.4	33.0	9.6	Complied
1851.5	1	14	21.2	2.1	23.3	33.0	9.7	Complied

Transmitter Output Power (EIRP) (continued)

Results: 3 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	15	0	19.7	2.1	21.8	33.0	11.2	Complied
1880.0	8	4	19.7	2.1	21.8	33.0	11.2	Complied
1880.0	1	0	22.0	2.1	24.1	33.0	8.9	Complied
1880.0	1	14	21.6	2.1	23.7	33.0	9.3	Complied

Results: 3 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	15	0	18.8	2.1	20.9	33.0	12.1	Complied
1880.0	8	4	18.8	2.1	20.9	33.0	12.1	Complied
1880.0	1	0	20.3	2.1	22.4	33.0	10.6	Complied
1880.0	1	14	20.2	2.1	22.3	33.0	10.7	Complied

Results: 3 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1908.5	15	0	19.3	2.1	21.4	33.0	11.6	Complied
1908.5	8	4	19.5	2.1	21.6	33.0	11.4	Complied
1908.5	1	0	21.1	2.1	23.2	33.0	9.8	Complied
1908.5	1	14	21.5	2.1	23.6	33.0	9.4	Complied

Results: 3 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1908.5	15	0	18.4	2.1	20.5	33.0	12.5	Complied
1908.5	8	4	18.3	2.1	20.4	33.0	12.6	Complied
1908.5	1	0	20.0	2.1	22.1	33.0	10.9	Complied
1908.5	1	14	20.1	2.1	22.2	33.0	10.8	Complied

Transmitter Output Power (EIRP) (continued)

Results: 5 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1852.5	25	0	19.4	2.1	21.5	33.0	11.5	Complied
1852.5	12	6	19.5	2.1	21.6	33.0	11.4	Complied
1852.5	1	0	21.9	2.1	24.0	33.0	9.0	Complied
1852.5	1	24	21.9	2.1	24.0	33.0	9.0	Complied

Results: 5 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1852.5	25	0	18.6	2.1	20.7	33.0	12.3	Complied
1852.5	12	6	18.5	2.1	20.6	33.0	12.4	Complied
1852.5	1	0	20.9	2.1	23.0	33.0	10.0	Complied
1852.5	1	24	21.0	2.1	23.1	33.0	9.9	Complied

Results: 5 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	25	0	18.9	2.1	21.0	33.0	12.0	Complied
1880.0	12	6	19.0	2.1	21.1	33.0	11.9	Complied
1880.0	1	0	21.8	2.1	23.9	33.0	9.1	Complied
1880.0	1	24	21.5	2.1	23.6	33.0	9.4	Complied

Results: 5 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	25	0	18.0	2.1	20.1	33.0	12.9	Complied
1880.0	12	6	17.8	2.1	19.9	33.0	13.1	Complied
1880.0	1	0	20.6	2.1	22.7	33.0	10.3	Complied
1880.0	1	24	20.8	2.1	22.9	33.0	10.1	Complied

Transmitter Output Power (EIRP) (continued)

Results: 5 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1907.5	25	0	18.6	2.1	20.7	33.0	12.3	Complied
1907.5	12	6	18.4	2.1	20.5	33.0	12.5	Complied
1907.5	1	0	21.3	2.1	23.4	33.0	9.6	Complied
1907.5	1	24	21.4	2.1	23.5	33.0	9.5	Complied

Results: 5 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1907.5	25	0	17.7	2.1	19.8	33.0	13.2	Complied
1907.5	12	6	17.8	2.1	19.9	33.0	13.1	Complied
1907.5	1	0	20.0	2.1	22.1	33.0	10.9	Complied
1907.5	1	24	19.9	2.1	22.0	33.0	11.0	Complied

Results: 10 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1855.0	50	0	19.9	2.1	22.0	33.0	11.0	Complied
1855.0	25	12	19.9	2.1	22.0	33.0	11.0	Complied
1855.0	1	0	21.6	2.1	23.7	33.0	9.3	Complied
1855.0	1	49	21.7	2.1	23.8	33.0	9.2	Complied

Results: 10 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1855.0	50	0	18.9	2.1	21.0	33.0	12.0	Complied
1855.0	25	12	18.9	2.1	21.0	33.0	12.0	Complied
1855.0	1	0	20.4	2.1	22.5	33.0	10.5	Complied
1855.0	1	49	20.3	2.1	22.4	33.0	10.6	Complied

Transmitter Output Power (EIRP) (continued)

Results: 10 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	50	0	19.4	2.1	21.5	33.0	11.5	Complied
1880.0	25	12	19.5	2.1	21.6	33.0	11.4	Complied
1880.0	1	0	22.2	2.1	24.3	33.0	8.7	Complied
1880.0	1	49	21.7	2.1	23.8	33.0	9.2	Complied

Results: 10 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	50	0	18.5	2.1	20.6	33.0	12.4	Complied
1880.0	25	12	18.6	2.1	20.7	33.0	12.3	Complied
1880.0	1	0	20.2	2.1	22.3	33.0	10.7	Complied
1880.0	1	49	20.1	2.1	22.2	33.0	10.8	Complied

Results: 10 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1905.0	50	0	19.1	2.1	21.2	33.0	11.8	Complied
1905.0	25	12	19.2	2.1	21.3	33.0	11.7	Complied
1905.0	1	0	21.5	2.1	23.6	33.0	9.4	Complied
1905.0	1	49	21.5	2.1	23.6	33.0	9.4	Complied

Results: 10 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1905.0	50	0	18.1	2.1	20.2	33.0	12.8	Complied
1905.0	25	12	18.1	2.1	20.2	33.0	12.8	Complied
1905.0	1	0	20.5	2.1	22.6	33.0	10.4	Complied
1905.0	1	49	20.3	2.1	22.4	33.0	10.6	Complied

Transmitter Output Power (EIRP) (continued)

Results: 15 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1857.5	75	0	21.4	2.1	23.5	33.0	9.5	Complied
1857.5	36	18	21.5	2.1	23.6	33.0	9.4	Complied
1857.5	1	0	21.8	2.1	23.9	33.0	9.1	Complied
1857.5	1	74	21.3	2.1	23.4	33.0	9.6	Complied

Results: 15 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1857.5	75	0	20.4	2.1	22.5	33.0	10.5	Complied
1857.5	36	18	20.5	2.1	22.6	33.0	10.4	Complied
1857.5	1	0	20.2	2.1	22.3	33.0	10.7	Complied
1857.5	1	74	20.1	2.1	22.2	33.0	10.8	Complied

Results: 15 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	75	0	21.1	2.1	23.2	33.0	9.8	Complied
1880.0	36	18	21.0	2.1	23.1	33.0	9.9	Complied
1880.0	1	0	21.4	2.1	23.5	33.0	9.5	Complied
1880.0	1	74	20.8	2.1	22.9	33.0	10.1	Complied

Results: 15 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	75	0	20.1	2.1	22.2	33.0	10.8	Complied
1880.0	36	18	20.0	2.1	22.1	33.0	10.9	Complied
1880.0	1	0	19.6	2.1	21.7	33.0	11.3	Complied
1880.0	1	74	19.4	2.1	21.5	33.0	11.5	Complied

Transmitter Output Power (EIRP) (continued)

Results: 15 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1902.5	75	0	20.7	2.1	22.8	33.0	10.2	Complied
1902.5	36	18	20.6	2.1	22.7	33.0	10.3	Complied
1902.5	1	0	21.1	2.1	23.2	33.0	9.8	Complied
1902.5	1	74	20.9	2.1	23.0	33.0	10.0	Complied

Results: 15 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1902.5	75	0	19.8	2.1	21.9	33.0	11.1	Complied
1902.5	36	18	19.7	2.1	21.8	33.0	11.2	Complied
1902.5	1	0	20.4	2.1	22.5	33.0	10.5	Complied
1902.5	1	74	19.8	2.1	21.9	33.0	11.1	Complied

Results: 20 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1860.0	100	0	21.3	2.1	23.4	33.0	9.6	Complied
1860.0	50	25	21.3	2.1	23.4	33.0	9.6	Complied
1860.0	1	0	21.3	2.1	23.4	33.0	9.6	Complied
1860.0	1	99	20.6	2.1	22.7	33.0	10.3	Complied

Results: 20 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1860.0	100	0	20.3	2.1	22.4	33.0	10.6	Complied
1860.0	50	25	20.4	2.1	22.5	33.0	10.5	Complied
1860.0	1	0	19.1	2.1	21.2	33.0	11.8	Complied
1860.0	1	99	18.3	2.1	20.4	33.0	12.6	Complied

Transmitter Output Power (EIRP) (continued)

Results: 20 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	100	0	21.0	2.1	23.1	33.0	9.9	Complied
1880.0	50	25	21.0	2.1	23.1	33.0	9.9	Complied
1880.0	1	0	20.3	2.1	22.4	33.0	10.6	Complied
1880.0	1	99	19.6	2.1	21.7	33.0	11.3	Complied

Results: 20 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1880.0	100	0	20.0	2.1	22.1	33.0	10.9	Complied
1880.0	50	25	20.1	2.1	22.2	33.0	10.8	Complied
1880.0	1	0	18.8	2.1	20.9	33.0	12.1	Complied
1880.0	1	99	17.9	2.1	20.0	33.0	13.0	Complied

Results: 20 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1900.0	100	0	20.7	2.1	22.8	33.0	10.2	Complied
1900.0	50	25	20.7	2.1	22.8	33.0	10.2	Complied
1900.0	1	0	20.9	2.1	23.0	33.0	10.0	Complied
1900.0	1	99	20.2	2.1	22.3	33.0	10.7	Complied

Results: 20 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1900.0	100	0	19.8	2.1	21.9	33.0	11.1	Complied
1900.0	50	25	19.8	2.1	21.9	33.0	11.1	Complied
1900.0	1	0	19.2	2.1	21.3	33.0	11.7	Complied
1900.0	1	99	18.8	2.1	20.9	33.0	12.1	Complied

Transmitter Output Power (EIRP) (continued)

Test Equipment Used:

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M1659	Thermohygrometer	JM Handelspunkt	30.5015.13	None stated	14 Mar 2015	12
L1127	Signal Analyser	Rohde & Schwarz	FSV13	100863	24 Apr 2015	12
A2536	Directional Coupler	AtlanTecRF	CDC-003060-20	1404 1701720	Calibrated before use	-
A2506	Attenuator	AtlanTecRF	AN18-10	821846#1	Calibrated before use	-
S0557	DC Power Supply	TTI	EL303R	395818	Calibrated before use	-
M1251	Digital Multimeter	Fluke	175	8717019	19 May 2015	12
G0608	Signal Generator	Rohde & Schwarz	SMIQ 06B	838341/033	14 Feb 2015	12
M1009	Power Meter	Hewlett Packard	437B	3125U13706	04 Feb 2015	12
M1592	Power Sensor	Hewlett Packard	8487A	3318A02094	28 Aug 2014	12

5.2.2. Transmitter Output Power (EIRP)

Test Summary:

Test Engineer:	Ben Mercer	**Test Date:**	27 May 2014
Test Sample IMEI:	004402452751252		

FCC Reference:	Parts 2.1046 & 27.50(d)(4)
Test Method Used:	As detailed in FCC KDB 971168 Section 5.2.1

Environmental Conditions:

Temperature (°C):	23 to 26
Relative Humidity (%):	41 to 43

Note(s):

1. The customer stated that the antenna gain is 0.0 dBi.
2. Measurements were performed with the EUT transmitting with QPSK and 16QAM modulation schemes, with resource blocks settings as detailed in section 4.3 of this report.
3. The spectrum analyser's channel power function was used to integrate across the occupied bandwidth. The resolution bandwidth was set to between 1-5% of the occupied bandwidth and the video bandwidth was set to at least 3 times the resolution bandwidth. An RMS detector was used, sweep time was set to auto and the trace was averaged over at least 100 traces. The span was set to at least 1.5 times the occupied bandwidth. The channel power results are recorded in the tables below.
4. The RF port of the EUT was connected to the spectrum analyser via RF cables, directional coupler and suitable attenuation. An RF level offset was entered on the spectrum analyser, to compensate for the signal path losses in these components.

Transmitter Output Power (EIRP) (continued)

Results: 1.4 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1710.7	6	0	20.5	0.0	20.5	30.0	9.5	Complied
1710.7	3	2	21.6	0.0	21.6	30.0	8.4	Complied
1710.7	1	0	22.1	0.0	22.1	30.0	7.9	Complied
1710.7	1	5	22.2	0.0	22.2	30.0	7.8	Complied

Results: 1.4 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1710.7	6	0	19.7	0.0	19.7	30.0	10.3	Complied
1710.7	3	2	20.7	0.0	20.7	30.0	9.3	Complied
1710.7	1	0	21.1	0.0	21.1	30.0	8.9	Complied
1710.7	1	5	21.1	0.0	21.1	30.0	8.9	Complied

Results: 1.4 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	6	0	19.1	0.0	19.1	30.0	10.9	Complied
1732.5	3	2	20.1	0.0	20.1	30.0	9.9	Complied
1732.5	1	0	20.6	0.0	20.6	30.0	9.4	Complied
1732.5	1	5	20.4	0.0	20.4	30.0	9.6	Complied

Results: 1.4 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	6	0	18.2	0.0	18.2	30.0	11.8	Complied
1732.5	3	2	19.4	0.0	19.4	30.0	10.6	Complied
1732.5	1	0	19.5	0.0	19.5	30.0	10.5	Complied
1732.5	1	5	19.3	0.0	19.3	30.0	10.7	Complied

Transmitter Output Power (EIRP) (continued)

Results: 1.4 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1754.3	6	0	17.6	0.0	17.6	30.0	12.4	Complied
1754.3	3	2	18.7	0.0	18.7	30.0	11.3	Complied
1754.3	1	0	19.0	0.0	19.0	30.0	11.0	Complied
1754.3	1	5	19.1	0.0	19.1	30.0	10.9	Complied

Results: 1.4 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1754.3	6	0	16.8	0.0	16.8	30.0	13.2	Complied
1754.3	3	2	17.7	0.0	17.7	30.0	12.3	Complied
1754.3	1	0	18.1	0.0	18.1	30.0	11.9	Complied
1754.3	1	5	17.9	0.0	17.9	30.0	12.1	Complied

Results: 3 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1711.5	15	0	20.1	0.0	20.1	30.0	9.9	Complied
1711.5	8	4	20.2	0.0	20.2	30.0	9.8	Complied
1711.5	1	0	22.0	0.0	22.0	30.0	8.0	Complied
1711.5	1	14	22.2	0.0	22.2	30.0	7.8	Complied

Results: 3 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1711.5	15	0	19.2	0.0	19.2	30.0	10.8	Complied
1711.5	8	4	19.2	0.0	19.2	30.0	10.8	Complied
1711.5	1	0	21.0	0.0	21.0	30.0	9.0	Complied
1711.5	1	14	21.0	0.0	21.0	30.0	9.0	Complied

Transmitter Output Power (EIRP) (continued)

Results: 3 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	15	0	18.7	0.0	18.7	30.0	11.3	Complied
1732.5	8	4	18.9	0.0	18.9	30.0	11.1	Complied
1732.5	1	0	20.8	0.0	20.8	30.0	9.2	Complied
1732.5	1	14	20.6	0.0	20.6	30.0	9.4	Complied

Results: 3 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	15	0	17.8	0.0	17.8	30.0	12.2	Complied
1732.5	8	4	17.8	0.0	17.8	30.0	12.2	Complied
1732.5	1	0	19.4	0.0	19.4	30.0	10.6	Complied
1732.5	1	14	18.9	0.0	18.9	30.0	11.1	Complied

Results: 3 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1753.5	15	0	17.0	0.0	17.0	30.0	13.0	Complied
1753.5	8	4	17.4	0.0	17.4	30.0	12.6	Complied
1753.5	1	0	19.1	0.0	19.1	30.0	10.9	Complied
1753.5	1	14	19.5	0.0	19.5	30.0	10.5	Complied

Results: 3 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1753.5	15	0	16.3	0.0	16.3	30.0	13.7	Complied
1753.5	8	4	16.3	0.0	16.3	30.0	13.7	Complied
1753.5	1	0	18.1	0.0	18.1	30.0	11.9	Complied
1753.5	1	14	18.0	0.0	18.0	30.0	12.0	Complied

Transmitter Output Power (EIRP) (continued)

Results: 5 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1712.5	25	0	19.2	0.0	19.2	30.0	10.8	Complied
1712.5	12	6	19.3	0.0	19.3	30.0	10.7	Complied
1712.5	1	0	22.3	0.0	22.3	30.0	7.7	Complied
1712.5	1	24	22.2	0.0	22.2	30.0	7.8	Complied

Results: 5 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1712.5	25	0	18.4	0.0	18.4	30.0	11.6	Complied
1712.5	12	6	18.6	0.0	18.6	30.0	11.4	Complied
1712.5	1	0	20.8	0.0	20.8	30.0	9.2	Complied
1712.5	1	24	20.8	0.0	20.8	30.0	9.2	Complied

Results: 5 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	25	0	18.0	0.0	18.0	30.0	12.0	Complied
1732.5	12	6	18.0	0.0	18.0	30.0	12.0	Complied
1732.5	1	0	21.4	0.0	21.4	30.0	8.6	Complied
1732.5	1	24	20.6	0.0	20.6	30.0	9.4	Complied

Results: 5 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	25	0	17.0	0.0	17.0	30.0	13.0	Complied
1732.5	12	6	16.8	0.0	16.8	30.0	13.2	Complied
1732.5	1	0	19.9	0.0	19.9	30.0	10.1	Complied
1732.5	1	24	19.7	0.0	19.7	30.0	10.3	Complied

Transmitter Output Power (EIRP) (continued)

Results: 5 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1752.5	25	0	16.6	0.0	16.6	30.0	13.4	Complied
1752.5	12	6	16.2	0.0	16.2	30.0	13.8	Complied
1752.5	1	0	19.6	0.0	19.6	30.0	10.4	Complied
1752.5	1	24	19.3	0.0	19.3	30.0	10.7	Complied

Results: 5 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1752.5	25	0	15.7	0.0	15.7	30.0	14.3	Complied
1752.5	12	6	15.5	0.0	15.5	30.0	14.5	Complied
1752.5	1	0	18.0	0.0	18.0	30.0	12.0	Complied
1752.5	1	24	18.2	0.0	18.2	30.0	11.8	Complied

Results: 10 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1715.0	50	0	19.9	0.0	19.9	30.0	10.1	Complied
1715.0	25	12	19.8	0.0	19.8	30.0	10.2	Complied
1715.0	1	0	22.4	0.0	22.4	30.0	7.6	Complied
1715.0	1	49	22.1	0.0	22.1	30.0	7.9	Complied

Results: 10 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1715.0	50	0	18.9	0.0	18.9	30.0	11.1	Complied
1715.0	25	12	18.9	0.0	18.9	30.0	11.1	Complied
1715.0	1	0	20.6	0.0	20.6	30.0	9.4	Complied
1715.0	1	49	20.5	0.0	20.5	30.0	9.5	Complied

Transmitter Output Power (EIRP) (continued)

Results: 10 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	50	0	18.6	0.0	18.6	30.0	11.4	Complied
1732.5	25	12	18.5	0.0	18.5	30.0	11.5	Complied
1732.5	1	0	21.2	0.0	21.2	30.0	8.8	Complied
1732.5	1	49	20.7	0.0	20.7	30.0	9.3	Complied

Results: 10 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	50	0	17.5	0.0	17.5	30.0	12.5	Complied
1732.5	25	12	17.5	0.0	17.5	30.0	12.5	Complied
1732.5	1	0	19.8	0.0	19.8	30.0	10.2	Complied
1732.5	1	49	19.1	0.0	19.1	30.0	10.9	Complied

Results: 10 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1750.0	50	0	17.2	0.0	17.2	30.0	12.8	Complied
1750.0	25	12	17.3	0.0	17.3	30.0	12.7	Complied
1750.0	1	0	20.3	0.0	20.3	30.0	9.7	Complied
1750.0	1	49	19.6	0.0	19.6	30.0	10.4	Complied

Results: 10 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1750.0	50	0	16.4	0.0	16.4	30.0	13.6	Complied
1750.0	25	12	16.2	0.0	16.2	30.0	13.8	Complied
1750.0	1	0	18.8	0.0	18.8	30.0	11.2	Complied
1750.0	1	49	18.2	0.0	18.2	30.0	11.8	Complied

Transmitter Output Power (EIRP) (continued)

Results: 15 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1717.5	75	0	21.3	0.0	21.3	30.0	8.7	Complied
1717.5	36	18	21.3	0.0	21.3	30.0	8.7	Complied
1717.5	1	0	22.3	0.0	22.3	30.0	7.7	Complied
1717.5	1	74	21.5	0.0	21.5	30.0	8.5	Complied

Results: 15 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1717.5	75	0	20.3	0.0	20.3	30.0	9.7	Complied
1717.5	36	18	20.3	0.0	20.3	30.0	9.7	Complied
1717.5	1	0	20.0	0.0	20.0	30.0	10.0	Complied
1717.5	1	74	19.2	0.0	19.2	30.0	10.8	Complied

Results: 15 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	75	0	20.2	0.0	20.2	30.0	9.8	Complied
1732.5	36	18	20.2	0.0	20.2	30.0	9.8	Complied
1732.5	1	0	20.9	0.0	20.9	30.0	9.1	Complied
1732.5	1	74	19.9	0.0	19.9	30.0	10.1	Complied

Results: 15 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	75	0	19.2	0.0	19.2	30.0	10.8	Complied
1732.5	36	18	19.2	0.0	19.2	30.0	10.8	Complied
1732.5	1	0	18.6	0.0	18.6	30.0	11.4	Complied
1732.5	1	74	17.6	0.0	17.6	30.0	12.4	Complied

Transmitter Output Power (EIRP) (continued)

Results: 15 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1747.5	75	0	19.2	0.0	19.2	30.0	10.8	Complied
1747.5	36	18	19.1	0.0	19.1	30.0	10.9	Complied
1747.5	1	0	20.1	0.0	20.1	30.0	9.9	Complied
1747.5	1	74	19.5	0.0	19.5	30.0	10.5	Complied

Results: 15 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1747.5	75	0	18.2	0.0	18.2	30.0	11.8	Complied
1747.5	36	18	18.1	0.0	18.1	30.0	11.9	Complied
1747.5	1	0	18.0	0.0	18.0	30.0	12.0	Complied
1747.5	1	74	17.9	0.0	17.9	30.0	12.1	Complied

Results: 20 MHz Channel Bandwidth / Bottom Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1720.0	100	0	21.1	0.0	21.1	30.0	8.9	Complied
1720.0	50	25	21.2	0.0	21.2	30.0	8.8	Complied
1720.0	1	0	20.4	0.0	20.4	30.0	9.6	Complied
1720.0	1	99	19.2	0.0	19.2	30.0	10.8	Complied

Results: 20 MHz Channel Bandwidth / Bottom Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1720.0	100	0	20.1	0.0	20.1	30.0	9.9	Complied
1720.0	50	25	20.1	0.0	20.1	30.0	9.9	Complied
1720.0	1	0	18.7	0.0	18.7	30.0	11.3	Complied
1720.0	1	99	17.7	0.0	17.7	30.0	12.3	Complied

Transmitter Output Power (EIRP) (continued)

Results: 20 MHz Channel Bandwidth / Middle Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	100	0	20.1	0.0	20.1	30.0	9.9	Complied
1732.5	50	25	20.1	0.0	20.1	30.0	9.9	Complied
1732.5	1	0	19.5	0.0	19.5	30.0	10.5	Complied
1732.5	1	99	18.2	0.0	18.2	30.0	11.8	Complied

Results: 20 MHz Channel Bandwidth / Middle Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1732.5	100	0	19.1	0.0	19.1	30.0	10.9	Complied
1732.5	50	25	19.1	0.0	19.1	30.0	10.9	Complied
1732.5	1	0	18.1	0.0	18.1	30.0	11.9	Complied
1732.5	1	99	16.8	0.0	16.8	30.0	13.2	Complied

Results: 20 MHz Channel Bandwidth / Top Channel / QPSK

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1745.0	100	0	19.3	0.0	19.3	30.0	10.7	Complied
1745.0	50	25	19.3	0.0	19.3	30.0	10.7	Complied
1745.0	1	0	19.1	0.0	19.1	30.0	10.9	Complied
1745.0	1	99	19.2	0.0	19.2	30.0	10.8	Complied

Results: 20 MHz Channel Bandwidth / Top Channel / 16QAM

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Conducted RF Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)	Result
1745.0	100	0	18.3	0.0	18.3	30.0	11.7	Complied
1745.0	50	25	18.3	0.0	18.3	30.0	11.7	Complied
1745.0	1	0	17.7	0.0	17.7	30.0	12.3	Complied
1745.0	1	99	17.8	0.0	17.8	30.0	12.2	Complied

Transmitter Output Power (EIRP) (continued)

Test Equipment Used:

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M1659	Thermohygrometer	JM Handelspunkt	30.5015.13	None stated	14 Mar 2015	12
L1128	Signal Analyser	Rohde & Schwarz	FSV13	101835	25 April 2015	12
A2535	Directional Coupler	AtlanTecRF	CDC-003060-20	14041701719	Calibrated before use	-
A2508	Attenuator	AtlanTecRF	AN18-10	821846#3	Calibrated before use	-
S0537	DC Power Supply	Tti	EL302D	249928	Calibrated before use	-
M1251	Digital Multimeter	Fluke	175	8717019	19 May 2015	12
G0608	Signal Generator	Rohde & Schwarz	SMIQ 06B	838341/033	14 Feb 2015	12
M1009	Power Meter	Hewlett Packard	437B	3125U13706	04 Feb 2015	12
M1592	Power Sensor	Hewlett Packard	8487A	3318A02094	28 Aug 2014	12

6. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor such that a confidence level of approximately 95% is maintained. For the purposes of this document “approximately” is interpreted as meaning “effectively” or “for most practical purposes”.

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
Conducted Output Power	1710 to 1910 MHz	95%	±1.13 dB

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty the published guidance of the appropriate accreditation body is followed.

7. Report Revision History

Version Number	Revision Details		
	Page No(s)	Clause	Details
1.0	-	-	Initial Version
2.0	-	-	EUT Description update

--- END OF REPORT ---