TEST REPORT

Test Report No. : UL-RPT-RP10363939JD06A

Manufacturer	:	Panasonic Mobile Communications Development of Europe Ltd
Model No.	:	NTT docomo P-01G/EB-4068
FCC ID	:	UCE114061A
Technology	:	UMTS850 Band V
Test Standard(s)	:	FCC Part 22

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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 1.0.

Date of Issue: 21 August 2014

Checked by:

Ian Watch
Senior Engineer, Radio Laboratory

Issued by :

pp

John Newell
Quality Manager,
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

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1. Customer Information

Company Name:	Panasonic Mobile Communications Development of Europe Ltd
Address:	Panasonic House Willoughby Road Bracknell Berkshire RG12 8FP United Kingdom

2. Summary of Testing

2.1. General Information

Specification Reference:	47CFR22
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications): Part 22 Subpart H (Public Mobile 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:	11 August 2014 to 14 August 2014

2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Result
Part 22.913(a)(2)	Transmitter Effective Radiated Power (ERP)	✓
Part 2.1055/22.355	Transmitter Frequency Stability (Temperature and Voltage Variation)	✓
Part 2.1049	Transmitter Occupied Bandwidth	✓
Part 2.1053/22.917	Transmitter Out of Band Radiated Emissions	✓
Part 2.1053/22.917	Transmitter Band Edge Radiated Emissions	✓
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:	NTT docomo
Model Name or Number:	P-01G/EB-4068
IMEI:	353758060006554 *(Radiated sample)*
Hardware Version Number:	Rev C
Software Version Number:	ACPU: B-D42CS1-02.01.001 CCPU: D42CS1_Cv18122202
FCC ID:	UCE114061A

Brand Name:	NTT docomo
Model Name or Number:	P-01G/EB-4068
IMEI:	353758060006612 *(Conducted RF port sample)*
Hardware Version Number:	Rev C
Software Version Number:	ACPU: B-D42CS1-02.01.001 CCPU: D42CS1_Cv18122202
FCC ID:	UCE114061A

Brand Name:	NTT docomo
Description:	AC Adapter
Model Name or Number:	AC 01 (Part Number MAS-BH0008-A 002)
Serial Number:	Not marked or stated

Brand Name:	NTT docomo
Description:	USB Cable with Charger Function
Model Name or Number:	02
Serial Number:	#62

Brand Name:	NTT docomo
Description:	Stereo Earphone Set
Model Name or Number:	01
Serial Number:	#26

Brand Name:	NTT docomo
Description:	Battery
Model Name or Number:	P31

3.2. Description of EUT

The Equipment Under Test was a single mode UTRA mobile phone with *Bluetooth*® (V2.0 + EDR) and RFID.

3.3. Modifications Incorporated in the EUT

No modifications were applied to the EUT during testing.

3.4. Additional Information Related to Testing

Technology Tested:	UMTS850		
Type of Radio Device:	Transceiver		
Mode:	UMTS FDD V and 3GPP Rel. 5 HSDPA / Rel. 6 HSUPA		
Modulation Type:	QPSK / 16QAM		
Channel Spacing:	5 MHz		
Antenna Gain:	2.5 dBi		
Power Supply Requirement(s):	Nominal	3.7 VDC	
	Minimum	3.4 VDC	
	Maximum	4.2 VDC	
Maximum Output Power (ERP):	Voice (12.2 kbit/s)	25.0 dBm	
	HSDPA Sub-Test 2	26.5 dBm	
	HSUPA Sub-Test 5	27.0 dBm	
Transmit Frequency Range:	824 to 849 MHz		
Transmit Channels Tested:	**Channel ID**	**Channel Number**	**Channel Frequency (MHz)**
	Bottom	4132	826.4
	Middle	4183	836.6
	Top	4233	846.6

3.5. Support Equipment

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

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

Brand Name:	Not marked or stated
Description:	Dummy Battery
Model Name or Number:	Not marked or stated

Brand Name:	Belkin
Description:	USB Hub
Model Name or Number:	Not marked or stated

4. Operation and Monitoring of the EUT during Testing

4.1. Operating Modes

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

- Constantly transmitting at full power on bottom, middle and top channels as required.
- Occupied bandwidth, ERP and band edge tests were performed with the EUT in Voice (12.2 kbit/s), HSDPA (Sub-tests 1 to 4) or HSUPA (Sub-tests 1 to 5) modes.
- Transmitter radiated spurious emissions were checked in all modes during pre-scans. Voice (12.2 kbit/s) was found to be the worst case and all final measurements were performed with the EUT in this mode.

4.2. Configuration and Peripherals

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

- Connected to a Rohde & Schwarz CMW 500 Wideband Radio Communications Tester, operating in UMTS Band V mode.
- Transmit mode radiated spurious emissions tests were performed with the AC charger connected to the EUT. All the accessories were individually connected and measurements made during the pre-scans to determine the worst case combination. The micro SD card was fitted during all tests.
- The AC charger input was connected to a 120 VAC 60 Hz single phase supply when it was used.
- The dummy battery was fitted for frequency stability and conducted power measurements.
- The conducted sample with IMEI 353758060006612 was used for frequency stability, occupied bandwidth and conducted power measurements.
- The radiated sample with IMEI 353758060006554 was used for all other measurements.

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 Effective Radiated Power (ERP)

Test Summary:

Test Engineer:	David Doyle	**Test Date:**	13 August 2014
Test Sample IMEI:	353758060006612		

FCC Reference:	Part 22.913(a)(2)
Test Method Used:	As detailed in FCC KDB 971168 D01 Section 5.1.1 and 5.2.1

Environmental Conditions:

Temperature (°C):	26
Relative Humidity (%):	38

Note(s):

1. All modes were compared on each channel and the highest power recorded was subtracted from the limit to show the margin.
2. The signal analyser was connected to the RF port on the EUT using suitable attenuation and RF cable. An RF level offset was entered on the signal analyser to compensate for the loss of the attenuator and RF cable.
3. The customer stated a maximum antenna gain of 2.5 dBi. As the limit is an ERP limit, the gain in dBi has been converted to dBd. The gain in dBd was calculated as:

   2.5 dBi – 2.15 dBi = 0.35 dBd

4. The antenna gain was added to the conducted output power to obtain the ERP.

Results: Peak ERP / HSDPA and Voice

Modes		**HSDPA**				**Voice**			
Sub-test		**1**	**2**	**3**	**4**	**12.2 kbit/s**			
Band	**Channel**	**Power (dBm)**	**Power (dBm)**	**Power (dBm)**	**Power (dBm)**	**Power (dBm)**	**Limit (dBm)**	**Margin (dB)**	**Result**
850	4132	25.1	26.1	26.0	26.1	24.6	38.5	12.4	Complied
	4183	25.7	26.1	26.4	26.5	25.0	38.5	12.0	Complied
	4233	25.4	26.5	26.0	26.0	24.5	38.5	12.0	Complied
ßc		**2**	**11**	**15**	**15**				
ßd		**15**	**15**	**8**	**4**				
ΔACK, ΔNACK, ΔCQI		8	8	8	8				

Transmitter Effective Radiated Power (ERP) (Continued)

Results: RMS ERP / HSDPA and Voice

Modes		HSDPA				Voice			
Sub-test		1	2	3	4	12.2 kbit/s			
Band	Channel	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Limit (dBm)	Margin (dB)	Result
850	4132	19.8	19.8	19.4	19.3	19.7	38.5	18.7	Complied
	4183	20.2	20.1	19.8	19.9	20.3	38.5	18.2	Complied
	4233	19.7	19.6	19.2	19.3	19.4	38.5	18.8	Complied
ßc		**2**	**11**	**15**	**15**				
ßd		**15**	**15**	**8**	**4**				
ΔACK, ΔNACK, ΔCQI		8	8	8	8				

Results: Peak ERP / HSUPA

Modes		HSUPA							
Sub-test		1	2	3	4	5			
Band	Channel	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Limit (dBm)	Margin (dB)	Result
850	4132	26.1	25.6	26.0	25.5	26.7	38.5	11.8	Complied
	4183	26.3	26.1	26.4	26.0	27.0	38.5	11.5	Complied
	4233	26.0	25.6	25.9	25.5	26.6	38.5	11.9	Complied
ßc		**10**	**6**	**15**	**2**	**15**			
ßd		**15**	**15**	**9**	**15**	**1**			
ΔACK, ΔNACK, ΔCQI		8	8	8	8	8			

Results: RMS ERP / HSUPA

Modes		HSUPA							
Sub-test		1	2	3	4	5			
Band	Channel	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Limit (dBm)	Margin (dB)	Result
850	4132	19.6	19.9	18.9	19.8	19.8	38.5	18.6	Complied
	4183	20.1	20.3	19.5	20.1	20.2	38.5	18.2	Complied
	4233	19.4	19.7	18.9	19.5	19.7	38.5	18.8	Complied
ßc		**10**	**6**	**15**	**2**	**15**			
ßd		**15**	**15**	**9**	**15**	**1**			
ΔACK, ΔNACK, ΔCQI		8	8	8	8	8			

Transmitter Effective Radiated Power (ERP) (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
A2138	Directional Coupler	AtlanTecRF	A4224-10	Batch No. 2681	Calibrated before use	-
A1999	Attenuator	Huber & Suhner	6820.17.B	07101	Calibrated before use	-
L1138	Signal Analyzer	Rohde & Schwarz	FSV 13.6	101389	17 Apr 2015	12
M1229	Multimeter	Fluke	179	87640015	24 Apr 2015	12
S0557	DC Power Supply	TTI	EL303R	395819	Calibrated before use	-

5.2.2. Transmitter Frequency Stability (Temperature Variation)

Test Summary:

Test Engineer:	David Doyle	**Test Date:**	14 August 2014
Test Sample IMEI:	353758060006612		

FCC Reference:	Parts 2.1055 & 22.355
Test Method Used:	As detailed in ANSI TIA-603-C-2004 Section 2.2.2 referencing FCC CFR Part 2.1055

Environmental Conditions:

Ambient Temperature (°C):	24
Ambient Relative Humidity (%):	39

Note(s):

1. A dummy battery was placed on the EUT and the dummy battery cables connected to a bench power supply.
2. Frequency error was measured using the UMTS Band V modulation test on a calibrated Rohde & Schwarz CMW 500 Universal Radio Communications Tester in accordance with current Rohde & Schwarz application notes. The EUT was placed in a temperature chamber and connected by suitable RF cables to the CMW 500 outside the chamber. A bidirectional communications link was established on the centre channel between the EUT and the CMW 500. The frequency meter value was recorded.
3. Temperature was monitored throughout the test with a calibrated digital thermometer.

Results: Middle Channel (836.6 MHz)

Temperature (°C)	Measured Frequency (MHz)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Margin (ppm)	Result
-10	836.600010	10	0.0120	2.5	2.4880	Complied
0	836.600009	9	0.0108	2.5	2.4892	Complied
10	836.600014	14	0.0167	2.5	2.4833	Complied
20	836.600015	15	0.0179	2.5	2.4821	Complied
30	836.600013	13	0.0155	2.5	2.4845	Complied
40	836.599991	9	0.0108	2.5	2.4892	Complied
50	836.599988	12	0.0143	2.5	2.4857	Complied
55	836.600006	6	0.0072	2.5	2.4928	Complied

Transmitter Frequency Stability (Temperature Variation)

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
M1859	Radio Comms Tester	Rohde & Schwarz	CMW500	145920	09 May 2015	12
E013	Environmental Chamber	Sanyo	MTH-4200PR	None stated	Calibration not required	-
M1068	Thermometer	Iso-Tech	RS55	93102884	02 May 2015	12
M1229	Multimeter	Fluke	179	87640015	24 Apr 2015	12
S0557	DC Power Supply	TTI	EL303R	395819	Calibrated before use	-

5.2.3. Transmitter Frequency Stability (Voltage Variation)

Test Summary:

Test Engineer:	David Doyle	**Test Date:**	14 August 2014
Test Sample IMEI:	353758060006612		

FCC Reference:	Parts 2.1055 & 22.355
Test Method Used:	As detailed in ANSI TIA-603-C-2004 Section 2.2.2 referencing FCC CFR Part 2.1055

Environmental Conditions:

Temperature (°C):	24
Relative Humidity (%):	39

Note(s):

1. A dummy battery was placed on the EUT and the dummy battery cables connected to a bench power supply.
2. Frequency error was measured using the UMTS Band V modulation test on a calibrated Rohde & Schwarz CMW 500 Universal Radio Communications Tester in accordance with current Rohde & Schwarz application notes. The EUT was connected by suitable RF cables to the CMW 500. A bidirectional communications link was established on the centre channel between the EUT and the CMW 500. The frequency meter value was recorded.
3. Voltage was monitored throughout the test with a calibrated digital voltmeter.

Results: Middle Channel (836.6 MHz)

Supply Voltage (V)	Measured Frequency (MHz)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Margin (ppm)	Result
3.4	836.600011	11	0.0131	2.5	2.4869	Complied
4.2	836.600014	14	0.0167	2.5	2.4833	Complied

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
M1859	Radio Comms. Tester	Rohde & Schwarz	CMW500	145920	09 May 2015	12
M1229	Multimeter	Fluke	179	87640015	24 Apr 2015	12
S0557	DC Power Supply	TTI	EL303R	395819	Calibrated before use	-

5.2.4. Transmitter Occupied Bandwidth

Test Summary:

Test Engineer:	David Doyle	**Test Date:**	13 August 2014
Test Sample IMEI:	353758060006612		

FCC Reference:	Part 2.1049
Test Method Used:	As detailed in FCC KDB 971168 D01 Section 4.2

Environmental Conditions:

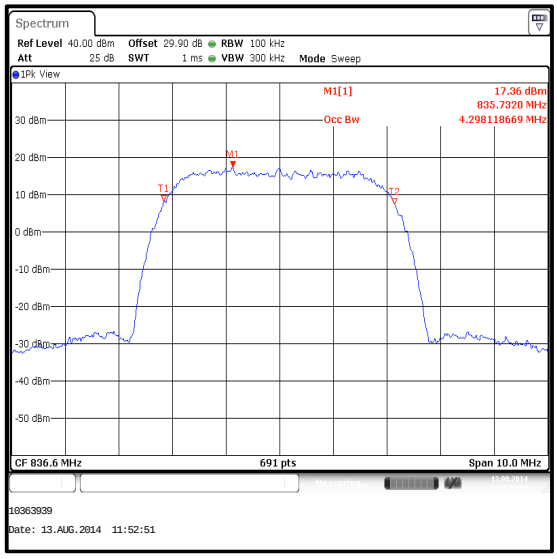
Temperature (°C):	26
Relative Humidity (%):	38

Note(s):

1. Occupied bandwidth (99% bandwidth) was measured using a signal analyser occupied bandwidth function.
2. The signal analyser was connected to the RF port on the EUT using suitable attenuation and RF cable

Results: Voice / 12.2 kbit/s

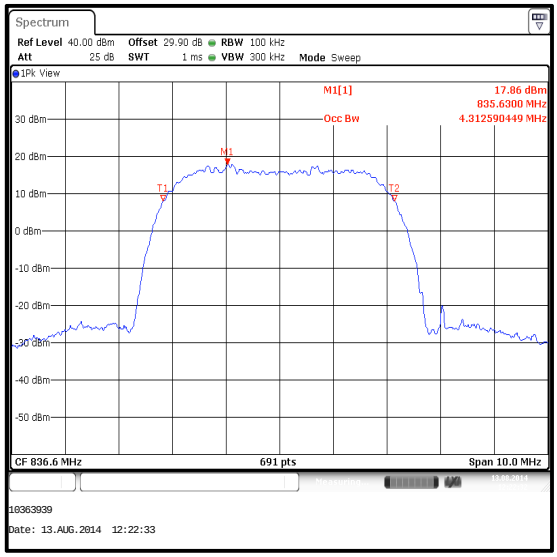
Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4298.119



Transmitter Occupied Bandwidth (continued)

Results: HSDPA Sub-Test 1

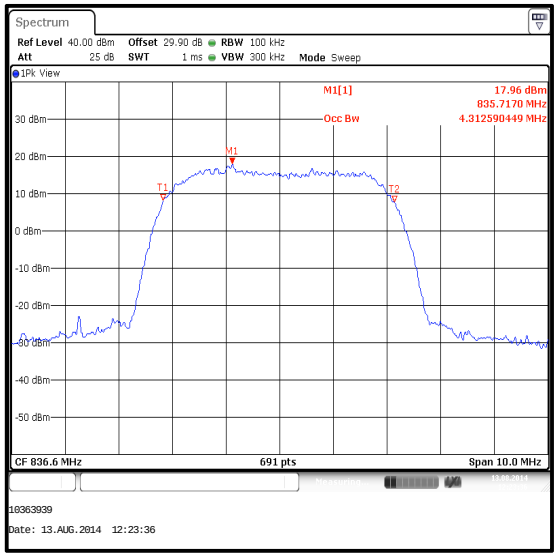
Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4312.590



Transmitter Occupied Bandwidth (continued)

Results: HSDPA Sub-Test 2

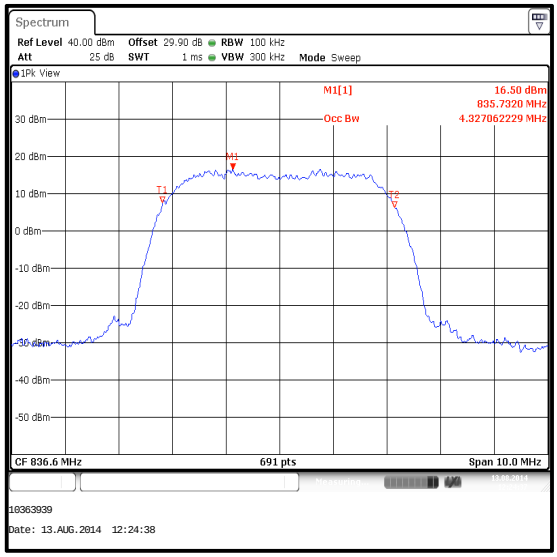
Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4312.590



Transmitter Occupied Bandwidth (continued)

Results: HSDPA Sub-Test 3

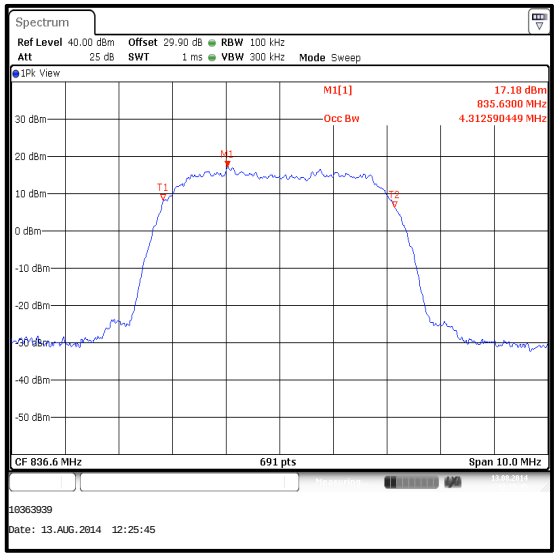
Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4327.062



Transmitter Occupied Bandwidth (continued)

Results: HSDPA Sub-Test 4

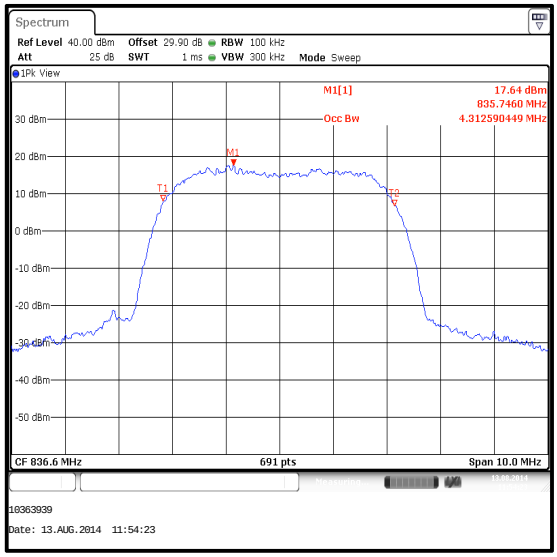
Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4312.590



Transmitter Occupied Bandwidth (continued)

Results: HSUPA Sub-Test 1

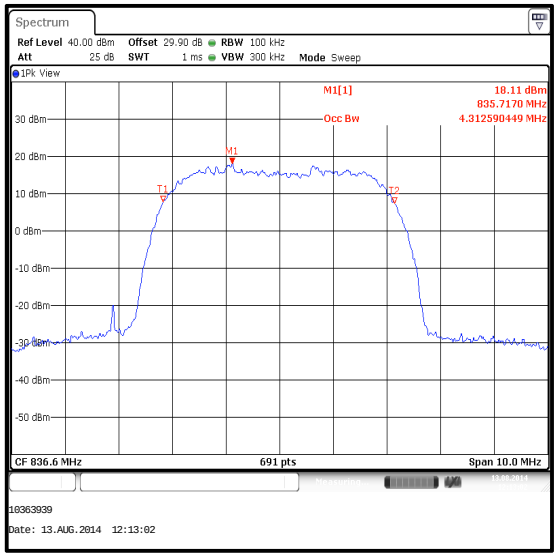
Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4312.590



Transmitter Occupied Bandwidth (continued)

Results: HSUPA Sub-Test 2

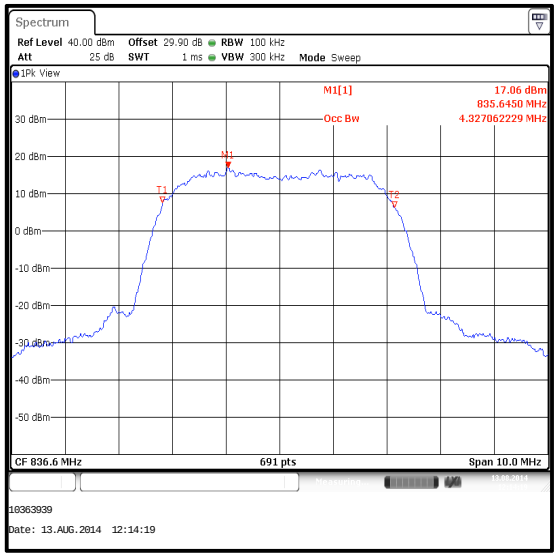
Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4312.590



Transmitter Occupied Bandwidth (continued)

Results: HSUPA Sub-Test 3

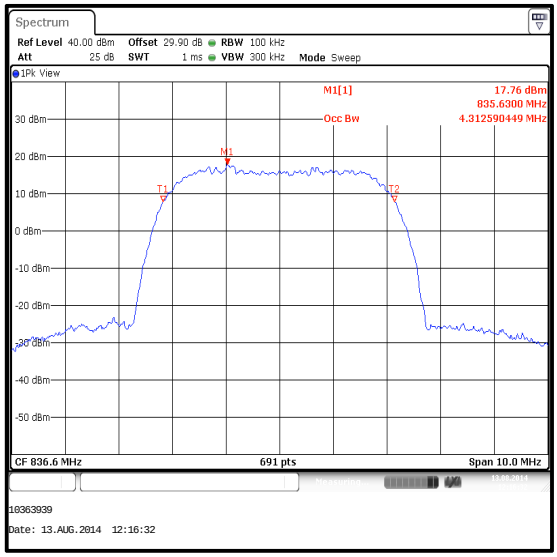
Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4327.062



Transmitter Occupied Bandwidth (continued)

Results: HSUPA Sub-Test 4

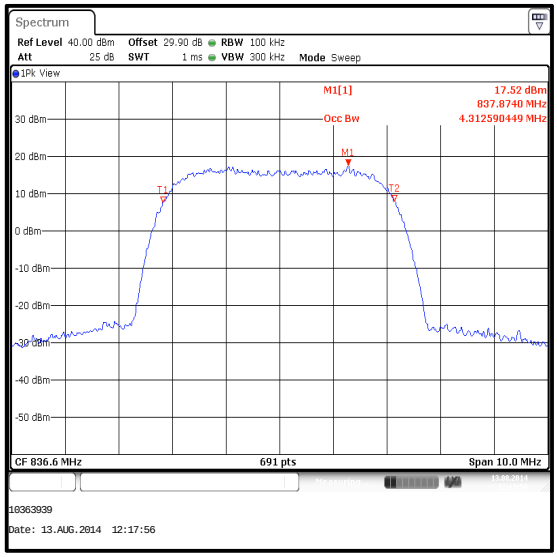
Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4312.590



Transmitter Occupied Bandwidth (continued)

Results: HSUPA Sub-Test 5

Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.6	4312.590



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
A2138	Directional Coupler	AtlanTecRF	A4224-10	Batch No. 2681	Calibrated before use	-
A1999	Attenuator	Huber & Suhner	6820.17.B	07101	Calibrated before use	-
L1138	Signal Analyzer	Rohde & Schwarz	FSV 13.6	101389	17 Apr 2015	12
M1229	Multimeter	Fluke	179	87640015	24 Apr 2015	12
S0557	DC Power Supply	TTI	EL303R	395819	Calibrated before use	-

5.2.5. Transmitter Out of Band Radiated Emissions

Test Summary:

Test Engineer:	Andrew Edwards	**Test Dates:**	11 August 2014 & 12 August 2014
Test Sample IMEI:	353758060006554		

FCC Reference:	Parts 2.1053 & 22.917
Test Method Used:	As detailed in ANSI TIA-603-C-2004 Section 2.2.12 referencing FCC CFR Part 2.1053
Frequency Range:	30 MHz to 9 GHz
Configuration:	Voice / 12.2 kbit/s

Environmental Conditions:

Temperature (°C):	22 to 25
Relative Humidity (%):	30 to 42

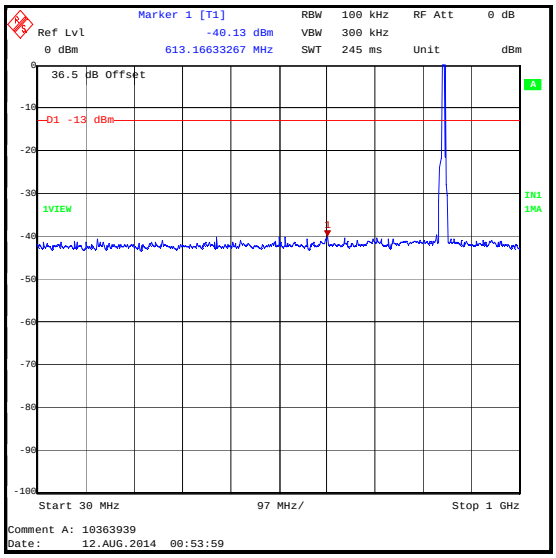
Note(s):

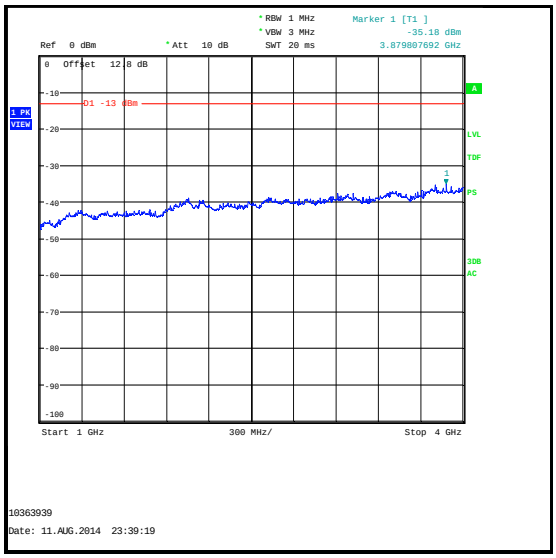
1. No spurious emissions were detected above the noise floor of the measuring receiver; the highest peak noise floor reading of the measuring receiver was recorded.
2. The uplink traffic channels are shown on the 30 MHz to 1 GHz plot.
3. Measurements below 1 GHz were performed in a semi-anechoic chamber (Asset Number K0001) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.
4. Pre-scans above 1 GHz were performed in a fully anechoic chamber (Asset Number K0002) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres above the test chamber floor in the centre of the chamber turntable. All measurement antennas were placed at a fixed height of 1.5 metres above the test chamber floor, in line with the EUT. Final measurements above 1 GHz were performed in a semi-anechoic chamber (Asset Number K0001) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.

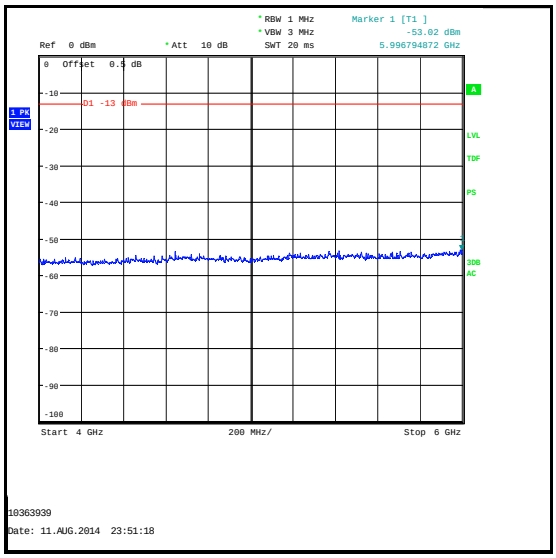
Results: Voice / 12.2 kbit/s - Top Channel

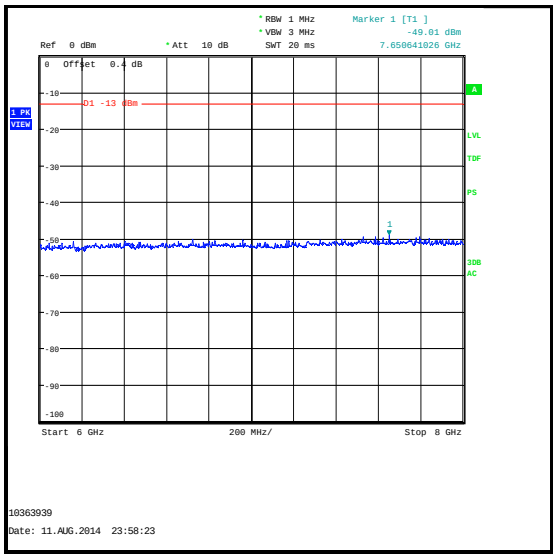
Frequency (MHz)	Peak Level (dBm)	Limit (dBm)	Margin (dB)	Result
3879.808	-35.2	-13.0	22.2	Complied

Transmitter Out of Band Radiated Emissions (continued)

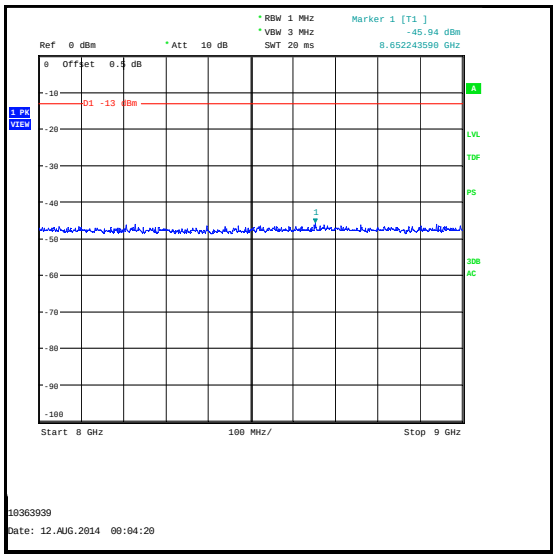








Transmitter Out of Band Radiated Emissions (continued)



Test Equipment Used:

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M1622	Thermohygrometer	JM Handelspunkt	30.5015.13	Not stated	31 Dec 2014	12
K0001	5m RSE Chamber	Rainford EMC	N/A	N/A	26 Nov 2014	12
M1273	Test Receiver	Rohde & Schwarz	ESIB26	100275	15 Feb 2015	12
A490	Antenna	Chase	CBL6111A	1590	29 Apr 2015	12
G0543	Amplifier	Sonoma	310N	230801	19 Aug 2014	3
A1834	Attenuator	Hewlett Packard	8491B	10444	15 Nov 2014	12
A1393	Attenuator	Huber & Suhner	6820.17.B	757456	02 May 2015	12
M1656	Thermohygrometer	JM Handelspunkt	30.5015.13	Not stated	14 Mar 2015	12
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	14 Nov 2014	12
M1874	Test Receiver	Rohde & Schwarz	ESU26	100553	13 May 2015	12
A1534	Pre Amplifier	Hewlett Packard	8449B	3008A00405	18 May 2015	12
A1818	Antenna	EMCO	3115	00075692	14 Nov 2014	12
A253	Antenna	Flann Microwave	12240-20	128	14 Nov 2014	12
A254	Antenna	Flann Microwave	14240-20	139	14 Nov 2014	12
A255	Antenna	Flann Microwave	16240-20	519	14 Nov 2014	12
A1396	Attenuator	Huber & Suhner	6810.17.B	757987	02 May 2015	12
A1974	High Pass Filter	AtlanTecRF	AFH-01000	090000283	12 Apr 2015	12
A1975	High Pass Filter	AtlanTecRF	AFH-03000	090424010	12 Apr 2015	12

5.2.6. Transmitter Radiated Emissions at Band Edges

Test Summary:

Test Engineer:	Andrew Edwards	**Test Date:**	11 August 2014
Test Sample IMEI:	353758060006554		

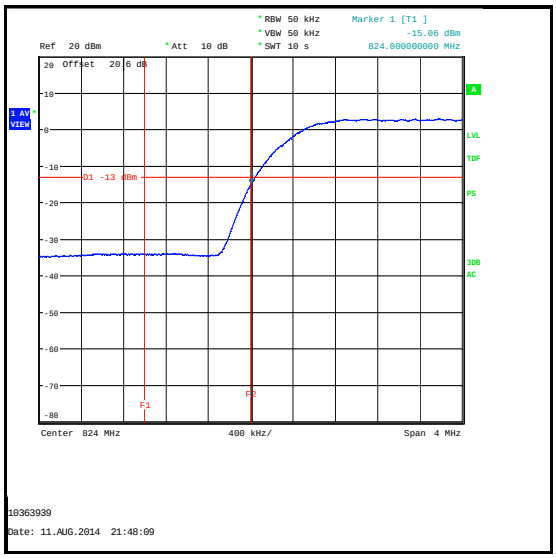
FCC Reference:	Parts 2.1053 & 22.917(b)
Test Method Used:	As detailed in ANSI TIA-603-C-2004 Section 2.2.12 referencing FCC CFR Part 22.917

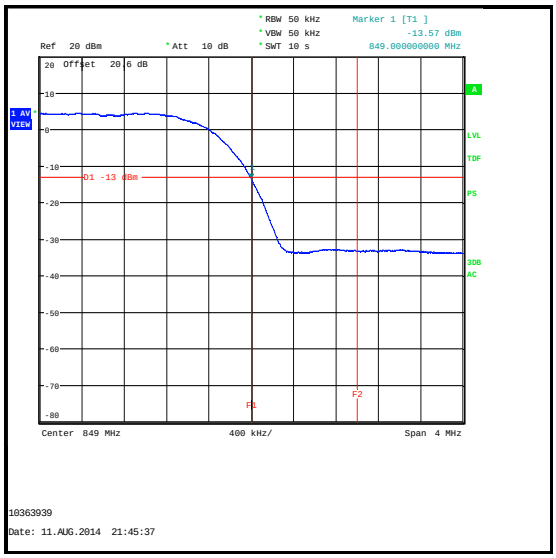
Environmental Conditions:

Temperature (°C):	23
Relative Humidity (%):	49

Results: Voice / 12.2 kbit/s

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-15.1	-13.0	2.1	Complied
849	-13.6	-13.0	0.6	Complied

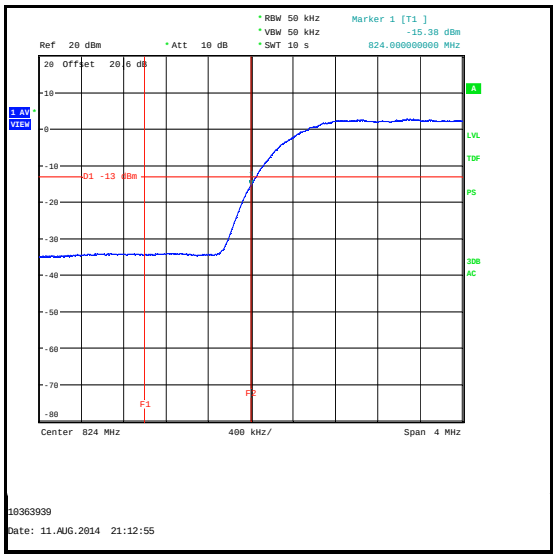


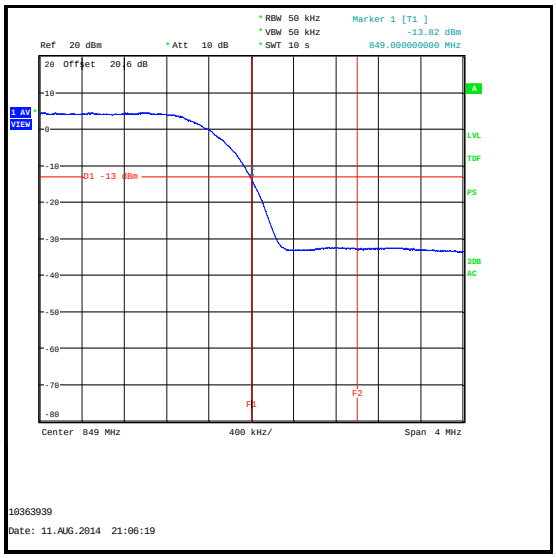


Transmitter Radiated Emissions at Band Edges (continued)

Results: HSDPA Sub-Test 1

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-15.4	-13.0	2.4	Complied
849	-13.8	-13.0	0.8	Complied

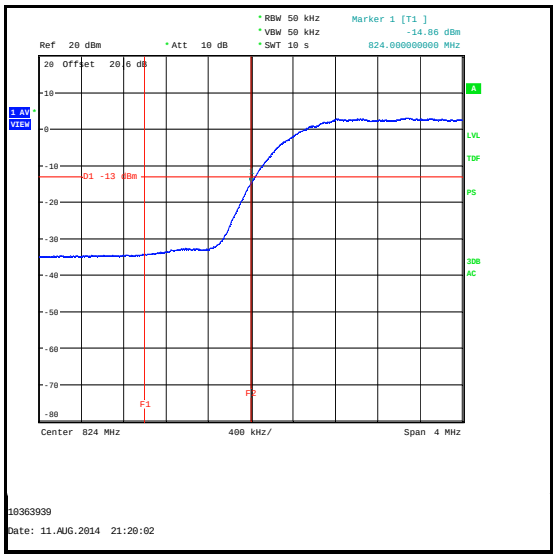


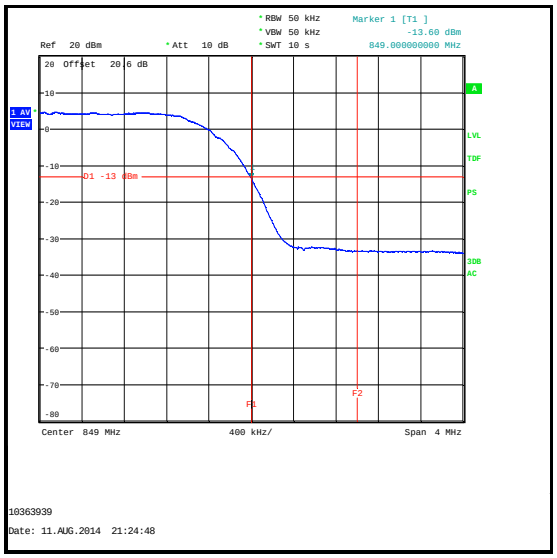


Transmitter Radiated Emissions at Band Edges (continued)

Results: HSDPA Sub-Test 2

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-14.9	-13.0	1.9	Complied
849	-13.6	-13.0	0.6	Complied

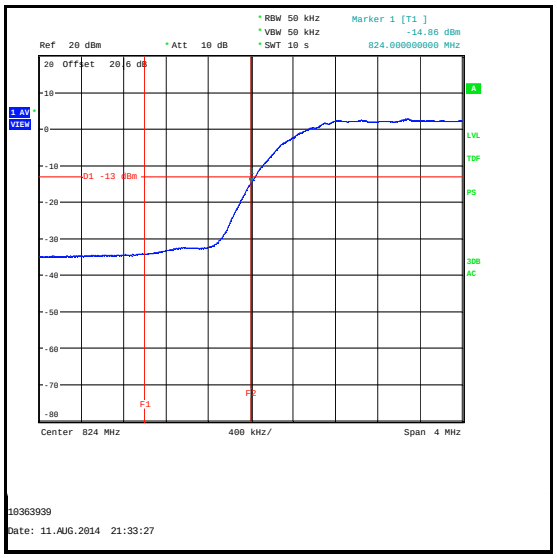


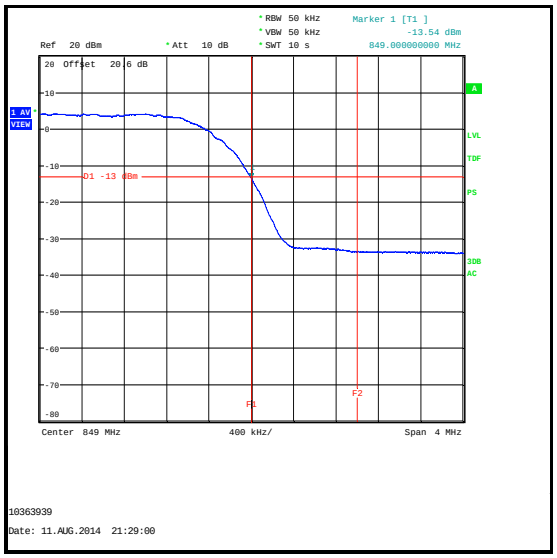


Transmitter Radiated Emissions at Band Edges (continued)

Results: HSDPA Sub-Test 3

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-14.9	-13.0	1.9	Complied
849	-13.5	-13.0	0.5	Complied

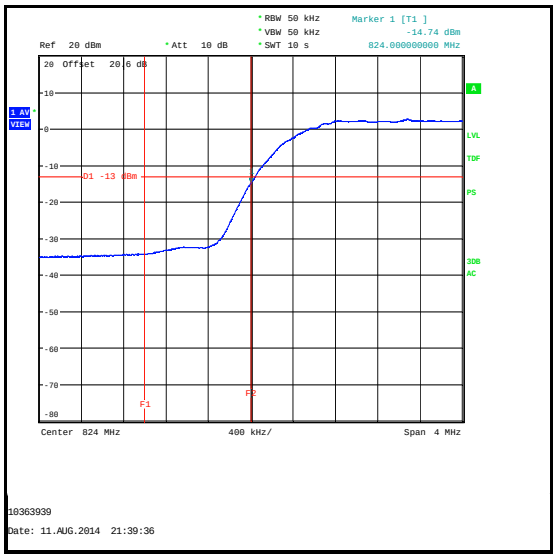


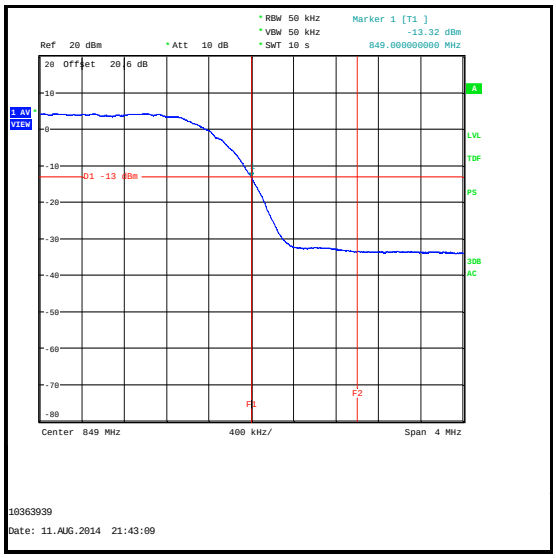


Transmitter Radiated Emissions at Band Edges (continued)

Results: HSDPA Sub-Test 4

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-14.7	-13.0	1.7	Complied
849	-13.3	-13.0	0.3	Complied

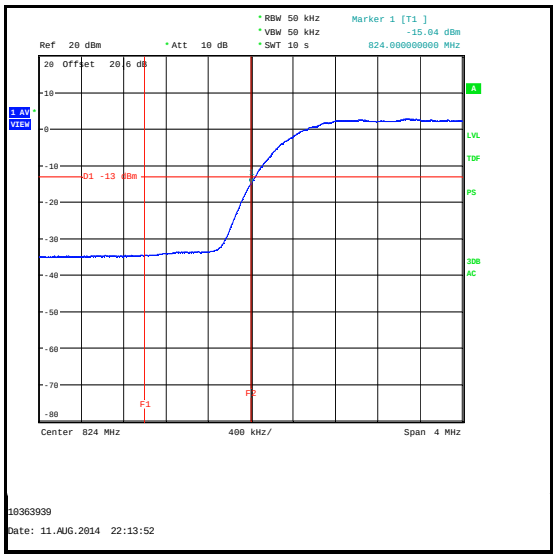


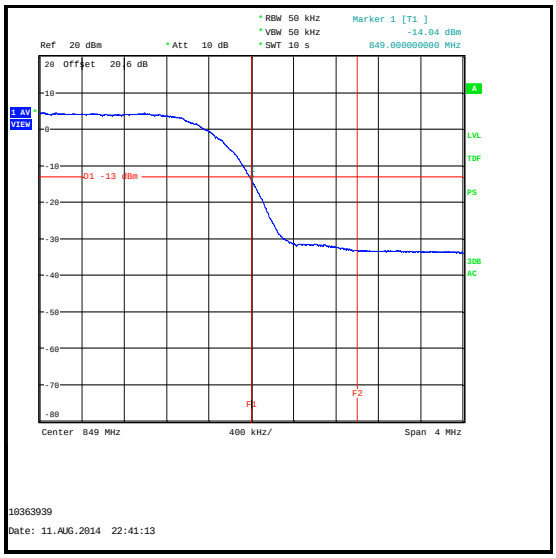


Transmitter Radiated Emissions at Band Edges (continued)

Results: HSUPA Sub-Test 1

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-15.0	-13.0	2.0	Complied
849	-14.0	-13.0	1.0	Complied

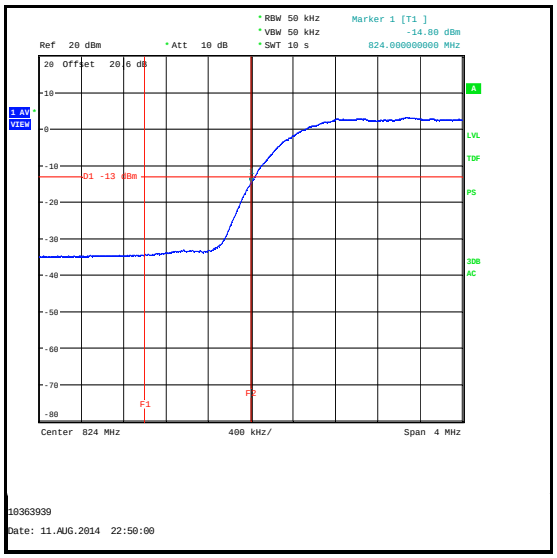


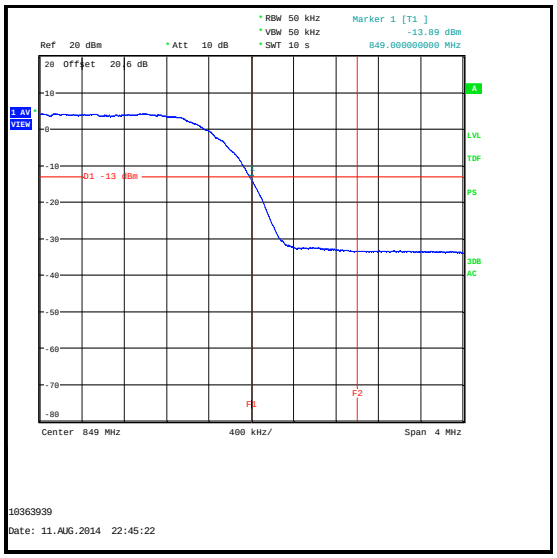


Transmitter Radiated Emissions at Band Edges (continued)

Results: HSUPA Sub-Test 2

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-14.8	-13.0	1.8	Complied
849	-13.9	-13.0	0.9	Complied

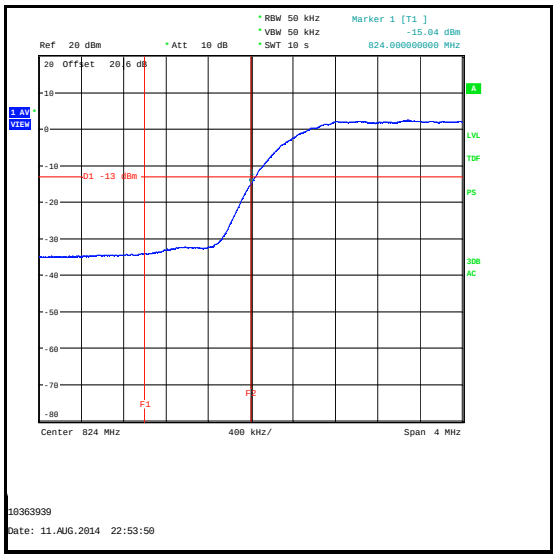


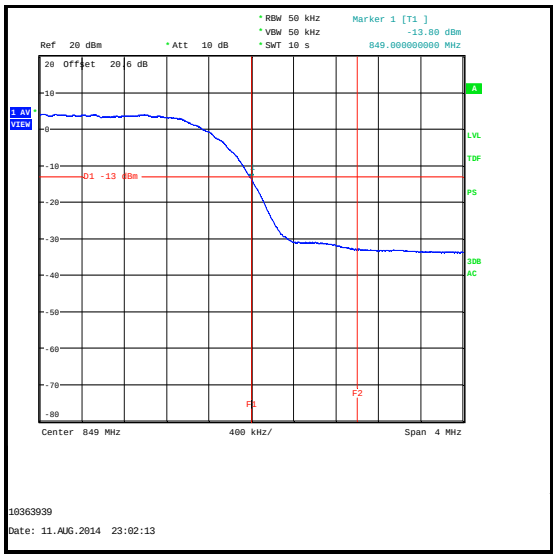


Transmitter Radiated Emissions at Band Edges (continued)

Results: HSUPA Sub-Test 3

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-15.0	-13.0	2.0	Complied
849	-13.8	-13.0	0.8	Complied

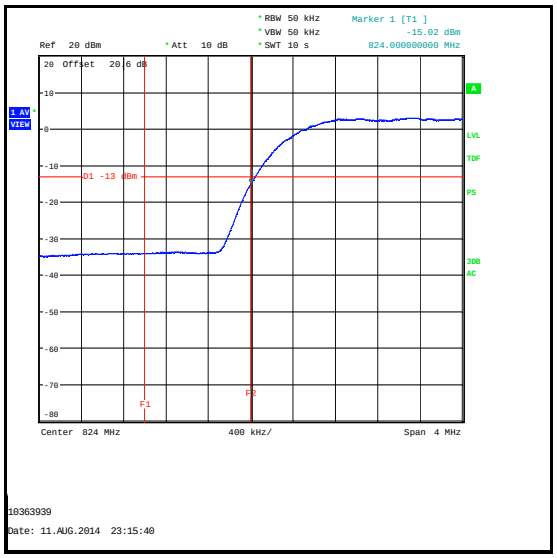


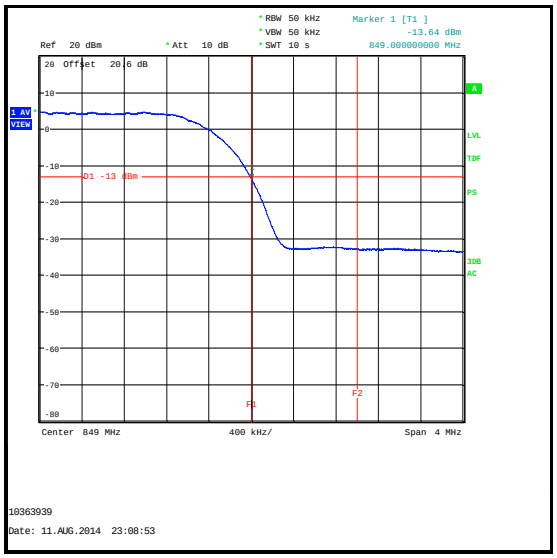


Transmitter Radiated Emissions at Band Edges (continued)

Results: HSUPA Sub-Test 4

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-15.0	-13.0	2.0	Complied
849	-13.6	-13.0	0.6	Complied

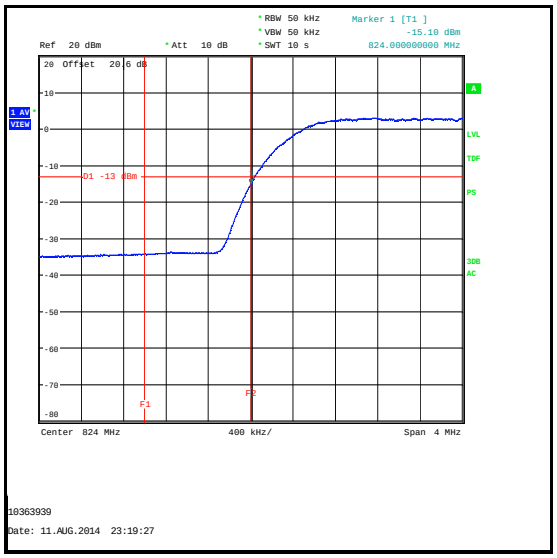


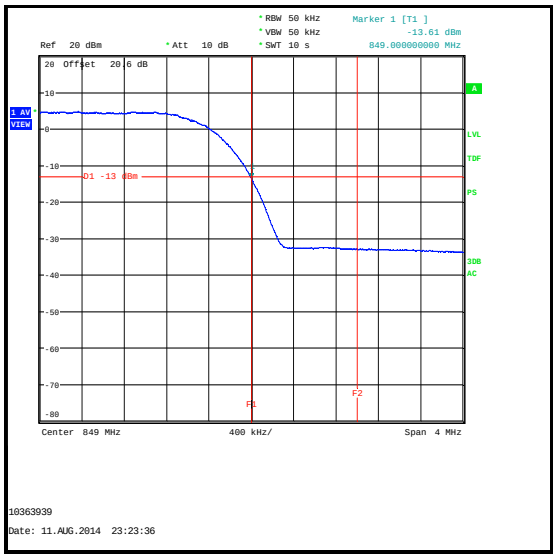


Transmitter Radiated Emissions at Band Edges (continued)

Results: HSUPA Sub-Test 5

Frequency (MHz)	Maximum Level (dBm)	Limit (dBm)	Margin (dB)	Result
824	-15.1	-13.0	2.1	Complied
849	-13.6	-13.0	0.6	Complied





Test Equipment Used:

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M1656	Thermohygrometer	JM Handelspunkt	30.5015.13	Not stated	14 Mar 2015	12
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	14 Nov 2014	12
M1874	Test Receiver	Rohde & Schwarz	ESU26	100553	13 May 2015	12
A288	Antenna	Chase	CBL6111A	1589	20 Aug 2014	12
A1393	Attenuator	Huber & Suhner	6820.17.B	757456	02 May 2015	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	824 to 849 MHz	95%	±1.13 dB
Frequency Stability	824 to 849 MHz	95%	±23 Hz
Occupied Bandwidth	824 to 849 MHz	95%	±3.92 %
Radiated Spurious Emissions	30 MHz to 1 GHz	95%	±5.64dB
Radiated Spurious Emissions	1 GHz to 9 GHz	95%	±2.94 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

---END OF REPORT---