



TEST REPORT

Test Report No. : UL-RPT-RP10295140JD04C V2.0

Manufacturer : Sony Mobile Communications Inc.

FCC ID : PY7PM-0804

Technology : LTE – Band 7

Test Standard(s) : FCC Part 27.53(l)(4)

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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 2.0 supersedes all previous versions.

Date of Issue: 04 August 2014

Checked by:

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pp

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This laboratory is accredited by UKAS.
The tests reported herein have been
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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:	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:	11 July 2014 to 14 July 2014

2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Result
2.1053 / 27.53(l)(4)	Transmitter Radiated Spurious Emissions	
2.1053 / 27.53(l)(4)	Transmitter Radiated Emissions at Band Edges	
2.1053 / 27.53(l)(4)	Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz	
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:	004402452980612 (<i>Radiated sample</i>)
Test Sample Serial Number:	CB5A1ZQX7W
Hardware Version Number:	A
Software Version Number:	23.0.A.0.283
FCC ID:	PY7PM-0804

Brand Name:	Sony
Description:	AC Charger
Model Name or Number:	EP880

Brand Name:	Generic
Description:	MHL Cable
Model Name or Number:	Not marked

Brand Name:	Sony
Description:	MHL Adaptor
Model Name or Number:	IM750

Brand Name:	Sony
Description:	USB Cable
Model Name or Number:	EC803

Brand Name:	Sony
Description:	Deskstand
Model Name or Number:	DK43

Brand Name:	Sony
Description:	PHF
Model Name or Number:	MH410c

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 7		
Type of Equipment	Transceiver		
Channel Bandwidth:	5 MHz, 10 MHz, 15 MHz & 20 MHz		
Modulation Type:	QPSK & 16QAM		
Duty Cycle:	100%		
Power Supply Requirement:	Nominal	3.8 V	
Transmit Frequency Range:	2500 MHz to 2570 MHz		
Channels Tested:	Channel Bandwidth	N _{ul}	Frequency of Uplink (MHz)
Bottom Channel	5	20775	2502.5
	10	20800	2505.0
	15	20825	2507.5
	20	20850	2510.0
Middle Channel	All	21100	2535.0
Top Channel	5	21425	2567.5
	10	21400	2565.0
	15	21375	2562.5
	20	21350	2560.0

3.5. Support Equipment

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

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

Description:	22" High Definition Television
Brand Name:	Logik
Model Name or Number:	L22FE12A
Serial Number:	1309020661

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, modulation and resource blocks setting.

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.
- Transmitter radiated spurious emission tests were performed with the following configurations, employing all available accessories:
 - o Configuration 1 – Handset with the AC charger, USB Cable, MHL cable (terminated in to a television), MHL adaptor and PHF.
 - o Configuration 2 – Handset with the AC charger, USB Cable, Deskstand and PHF.

Pre-scans below 1 GHz were performed in both configurations 1 and 2, with final measurements limited to the configuration which provided worst case results. Pre-scans above 1 GHz were performed in the configuration that employed the most accessories (Configuration 1), with any final measurements being performed in both configurations

- Transmitter radiated spurious emissions tests were performed with the EUT set to transmit with a 5 MHz channel bandwidth with QPSK modulation applied and 1 resource block with 0 offset. This was found to be the worst case modulation scheme with regards to emissions after preliminary investigations and, as this mode emits the highest transmit output power level, it was deemed to be the worst case.
- Transmitter Radiated Band Edge Emissions was tested on all supported channel bandwidths using QPSK and 16QAM modulations with the maximum resource blocks settings.

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* for Measurement Uncertainty 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 Radiated Spurious Emissions

Test Summary:

Test Engineers	Georgios Vrezas & David Doyle	Test Dates:	11 July 2014 & 12 July 2014
Test Sample IMEI:	004402452980612		

FCC Reference:	Parts 2.1053 & 27.53(l)(4)
Test Method Used:	As detailed in KDB 971168 Section 6.1 referencing FCC Part 2.1053
Frequency Range:	30 MHz to 26 GHz
Configuration:	5 MHz, QPSK, 1RB, 0 Offset

Environmental Conditions:

Temperature (°C):	24 to 35
Relative Humidity (%):	31 to 44

Note(s):

1. The EUT was set to transmit with a 5 MHz channel bandwidth with QPSK modulation applied and 1 resource block with 0 offset, as this was found to be the worst case modulation scheme with regards to emissions after preliminary investigations and, as this mode emits the highest transmit output power level, it was deemed to be the worst case.
2. The emission seen on the 1 GHz to 3 GHz plot at approximately 2567.5 MHz is the EUT carrier.
3. All other emissions were at least 20 dB below the specification limit or below the measurement system noise floor.
4. 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.
5. 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.

Transmitter Radiated Spurious Emissions (continued)**Results: Results: Bottom Channel**

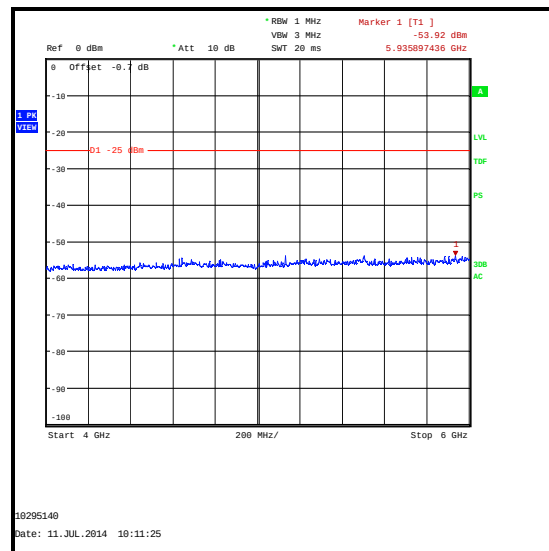
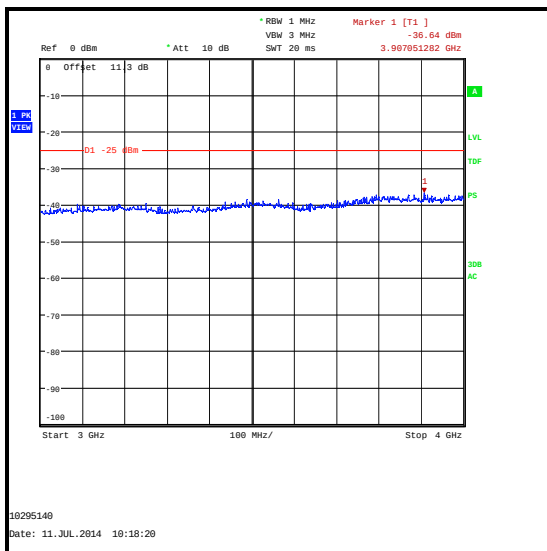
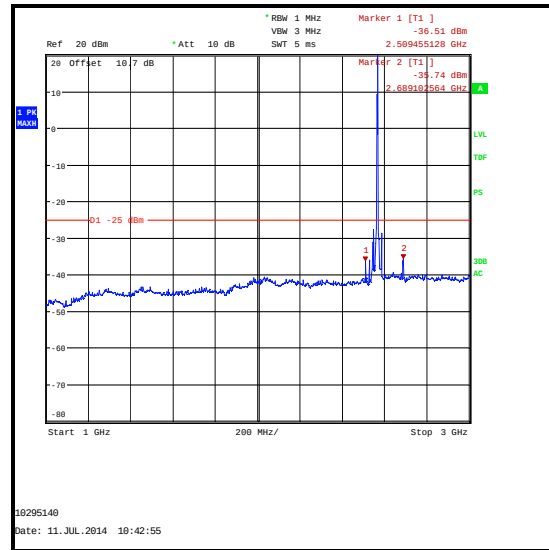
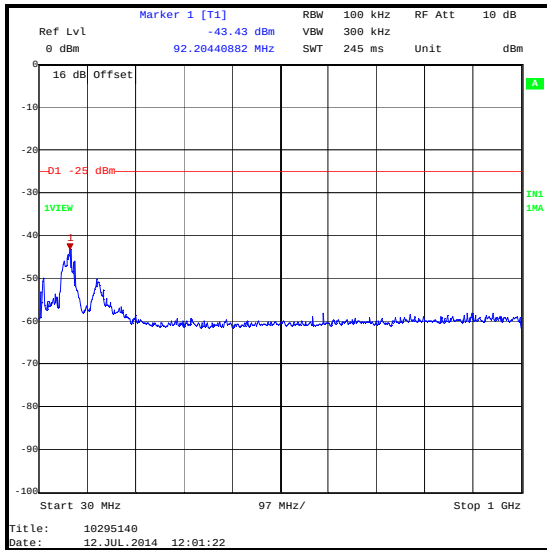
Frequency (MHz)	Peak Level (dBm)	Limit (dBm)	Margin (dB)	Result
2624.271	-32.7	-25.0	7.7	Complied

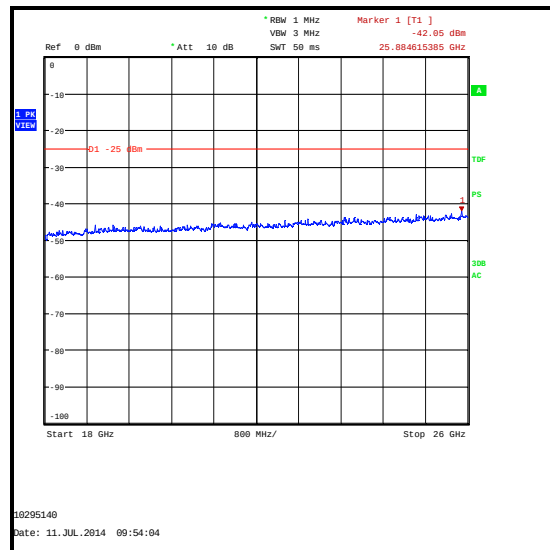
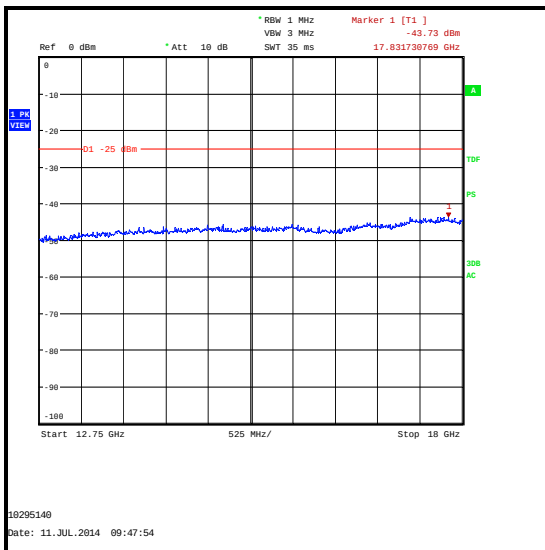
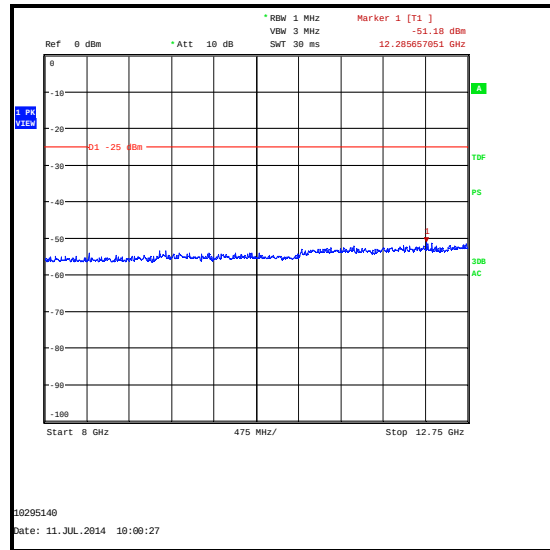
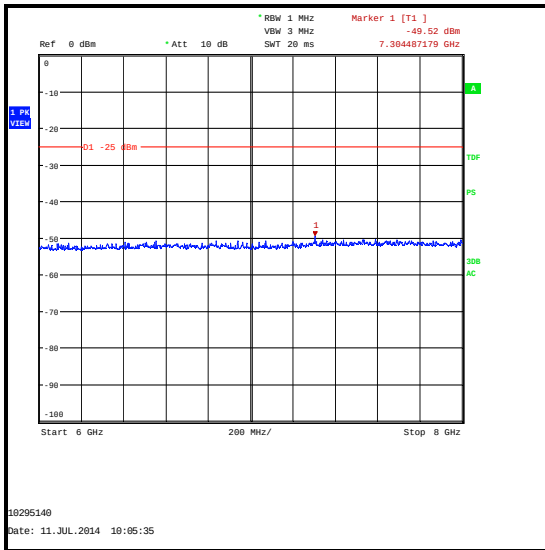
Results: Middle Channel

Frequency (MHz)	Peak Level (dBm)	Limit (dBm)	Margin (dB)	Result
2655.841	-34.1	-25.0	9.1	Complied

Results: Top Channel

Frequency (MHz)	Peak Level (dBm)	Limit (dBm)	Margin (dB)	Result
2687.256	-34.1	-25.0	9.1	Complied

Transmitter Radiated Spurious Emissions (continued)

Transmitter Radiated Spurious Emissions (continued)

Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Radiated Emissions (continued)**Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
A490	Antenna	Chase	CBL6111A	1590	29 Apr 2015	12
A1834	Attenuator	Hewlett Packard	8491B	10444	15 Nov 2014	12
K0001	5m RSE Chamber	Rainford EMC	N/A	N/A	26 Nov 2014	12
G0543	Amplifier	Sonoma	310N	230801	19 Aug 2014	3
M1622	Thermohygrometer	JM Handelspunkt	30.5015.06	None stated	31 Dec 2014	12
M1273	Test Receiver	Rohde & Schwarz	ESIB 26	100275	15 Feb 2015	12
M1656	Thermohygrometer	JM Handelspunkt	30.5015.13	None 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	15 May 2015	12
A1534	Pre Amplifier	Hewlett Packard	8449B	3008A00405	18 May 2015	12
A1396	Attenuator	Huber & Suhner	6810.17.B	757987	02 May 2015	12
A1975	High Pass Filter	AtlanTecRF	AFH-03000	090424010	12 Apr 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
A256	Antenna	Flann Microwave	18240-20	400	14 Nov 2014	12
A436	Antenna	Flann Microwave	20240-20	330	14 Nov 2014	12

5.2.2. Transmitter Radiated Emissions at Band Edges**Test Summary:**

Test Engineer:	David Doyle	Test Dates:	11 July 2014 & 14 July 2014
Test Sample IMEI:	004402452980612		

FCC Reference:	Parts 2.1053 & 27.53(l)(4)
Test Method Used:	As detailed in KDB 971168 Section 6.1 referencing FCC Part 27.53

Environmental Conditions:

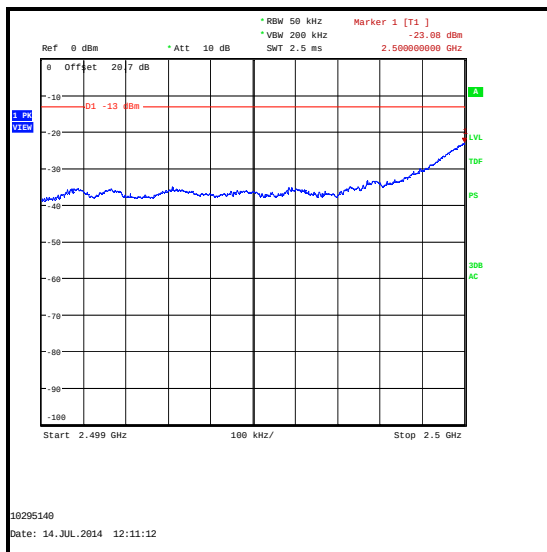
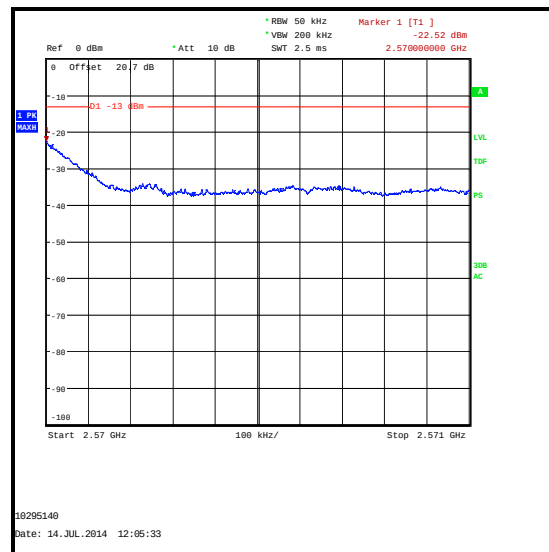
Temperature (°C):	24 to 25
Relative Humidity (%):	44 to 45

Note(s):

1. Measurements were performed with the EUT transmitting with QPSK and 16QAM modulation schemes, with the maximum resource blocks settings.

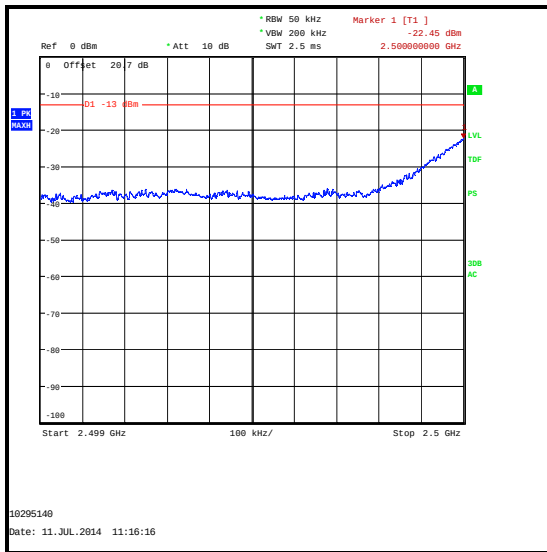
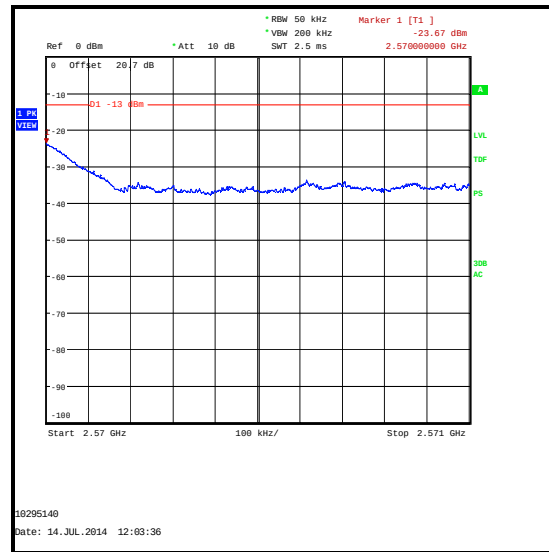
Transmitter Radiated Emissions at Band Edges (continued)**Results: 5 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2500	25	0	-23.1	-13.0	10.1	Complied
2570	25	0	-22.5	-13.0	9.5	Complied

**QPSK / Lower Band Edge****QPSK / Upper Band Edge**

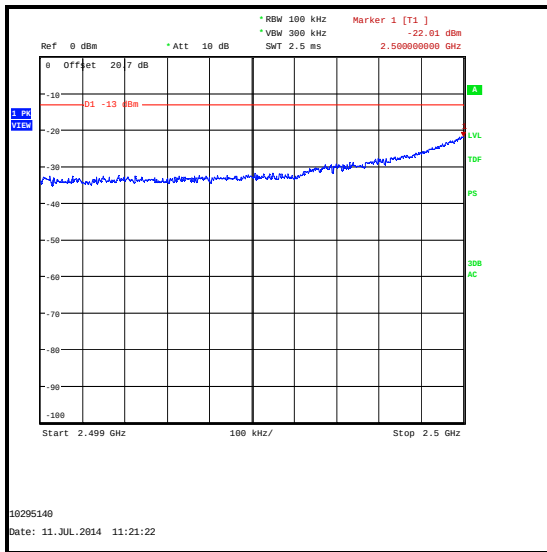
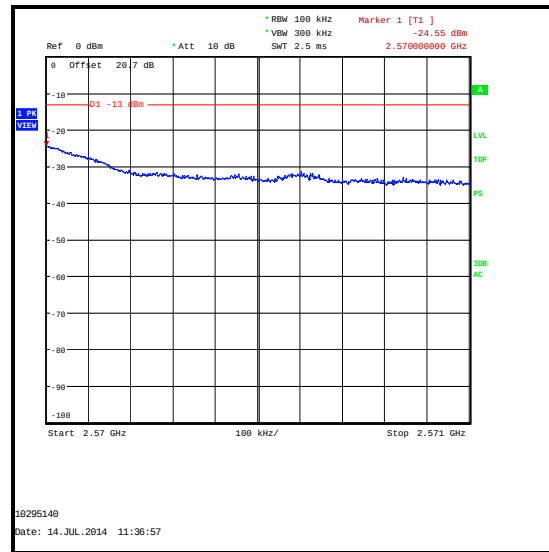
Transmitter Radiated Emissions at Band Edges (continued)**Results: 5 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2500	25	0	-22.5	-13.0	9.5	Complied
2570	25	0	-23.7	-13.0	10.7	Complied

**16QAM / Lower Band Edge****16QAM / Upper Band Edge**

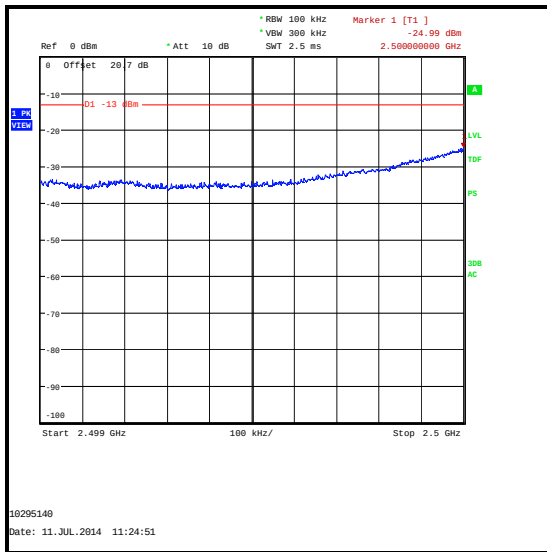
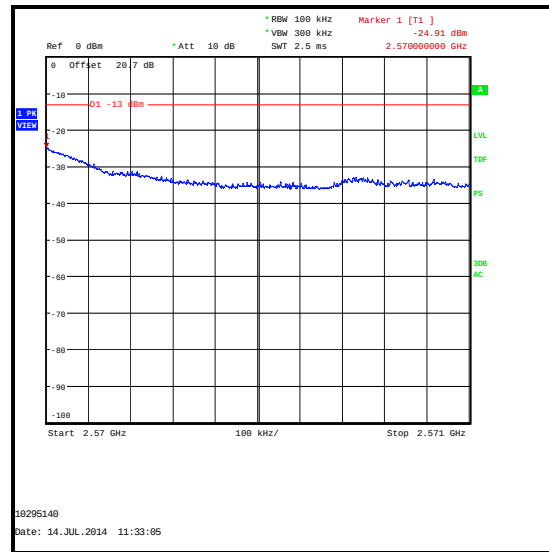
Transmitter Radiated Emissions at Band Edges (continued)**Results: 10 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2500	50	0	-22.0	-13.0	9.0	Complied
2570	50	0	-24.6	-13.0	11.6	Complied

**QPSK / Lower Band Edge****QPSK / Upper Band Edge**

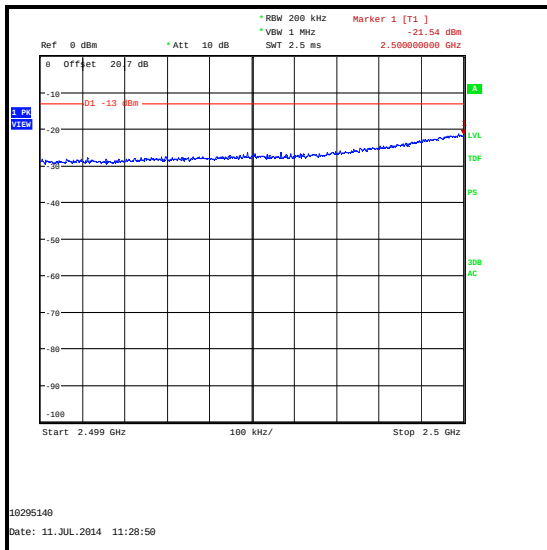
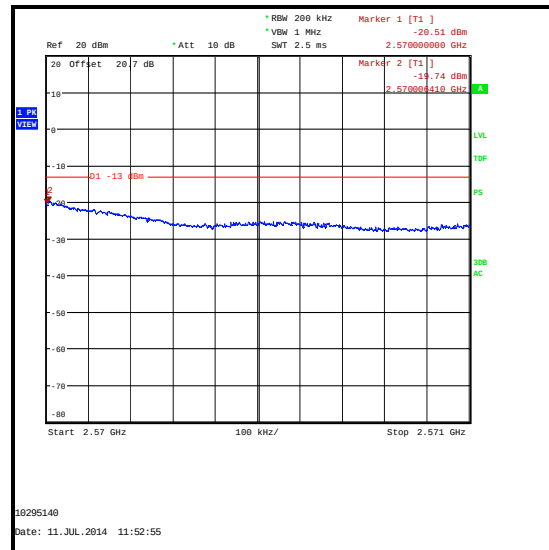
Transmitter Radiated Emissions at Band Edges (continued)**Results: 10 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2500	50	0	-25.0	-13.0	12.0	Complied
2570	50	0	-24.9	-13.0	11.9	Complied

**16QAM / Lower Band Edge****16QAM / Upper Band Edge**

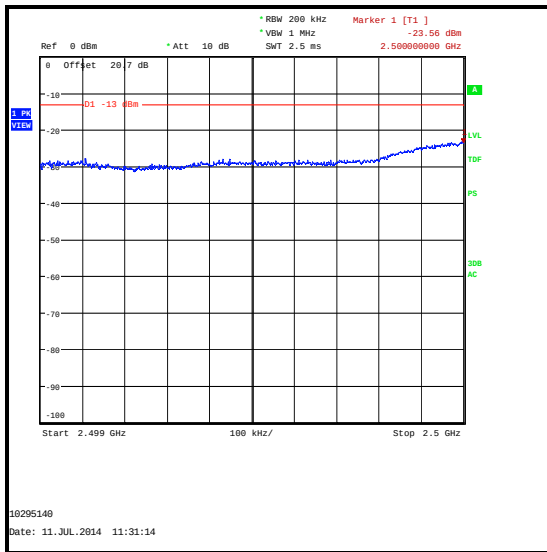
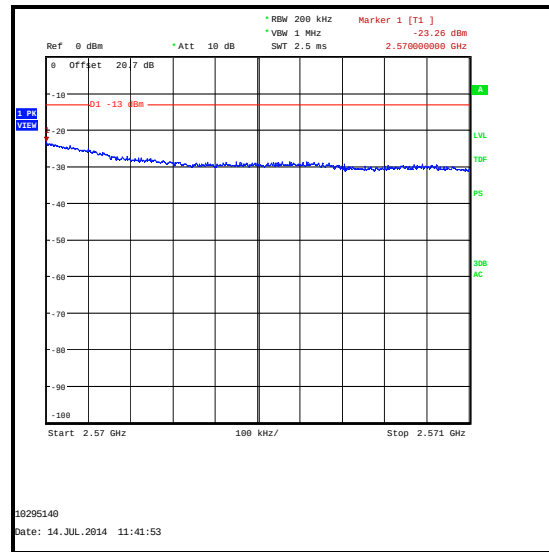
Transmitter Radiated Emissions at Band Edges (continued)**Results: 15 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2500	75	0	-21.5	-13.0	8.5	Complied
2570	75	0	-20.5	-13.0	7.5	Complied
2570.006	75	0	-19.7	-13.0	6.7	Complied

**QPSK / Lower Band Edge****QPSK / Upper Band Edge**

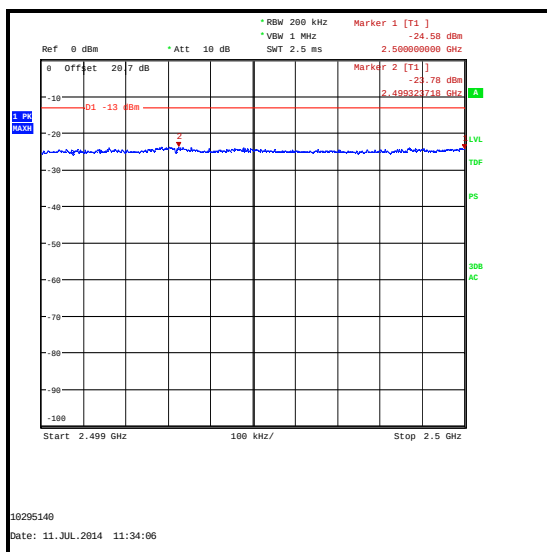
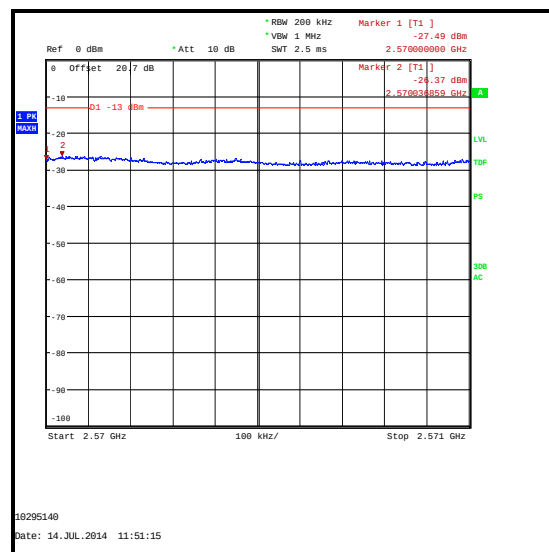
Transmitter Radiated Emissions at Band Edges (continued)**Results: 15 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2500	75	0	-23.6	-13.0	10.6	Complied
2570	75	0	-23.3	-13.0	10.3	Complied

**16QAM / Lower Band Edge****16QAM / Upper Band Edge**

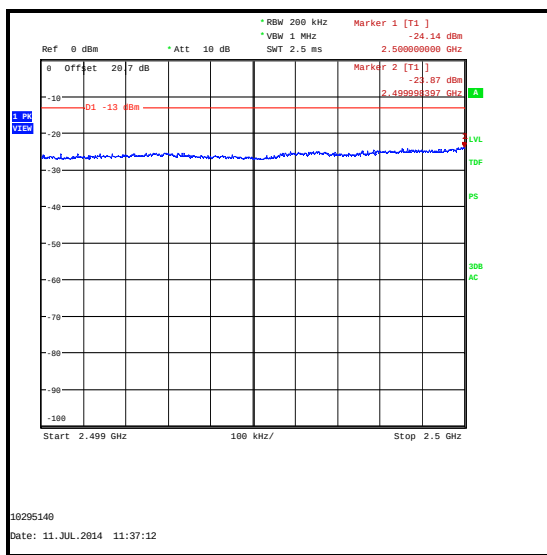
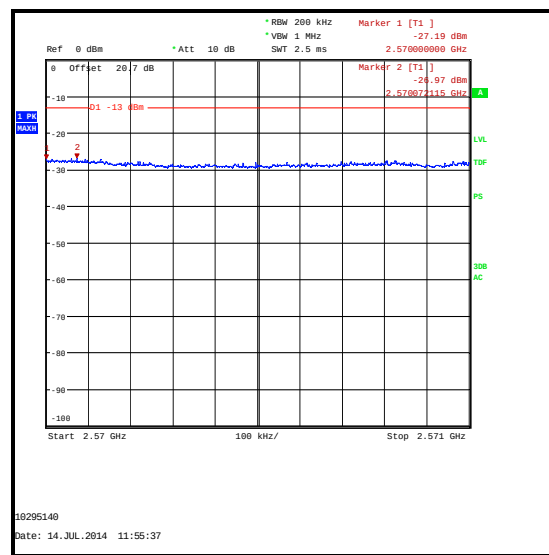
Transmitter Radiated Emissions at Band Edges (continued)**Results: 20 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2499.324	100	0	-23.8	-13.0	10.8	Complied
2500	100	0	-24.6	-13.0	11.6	Complied
2570	100	0	-27.5	-13.0	14.5	Complied
2570.037	100	0	-26.4	-13.0	13.4	Complied

**QPSK / Lower Band Edge****QPSK / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued)**Results: 20 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2499.998	100	0	-23.9	-13.0	10.9	Complied
2500	100	0	-24.1	-13.0	11.1	Complied
2570	100	0	-27.2	-13.0	14.2	Complied
2570.072	100	0	-27.0	-13.0	14.0	Complied

**16QAM / Lower Band Edge****16QAM / Upper Band Edge****Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M1656	Thermohygrometer	JM Handelspunkt	30.5015.13	None 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	15 May 2015	12
A1534	Pre Amplifier	Hewlett Packard	8449B	3008A00405	18 May 2015	12
A1818	Antenna	EMCO	3115	00075692	14 Nov 2014	12
A1393	Attenuator	Huber & Suhner	6820.17B	757456	02 May 2015	12

5.2.3. Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz**Test Summary:**

Test Engineer:	David Doyle	Test Date:	11 July 2014
Test Sample IMEI:	004402452980612		

FCC Reference:	Parts 2.1053 & 27.53(l)(4)
Test Method Used:	As detailed in KDB 971168 Section 6 referencing FCC Part 27.53 & note 2 below

Environmental Conditions:

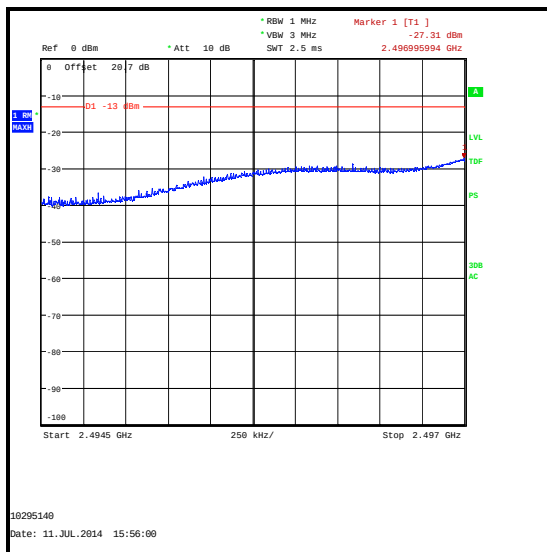
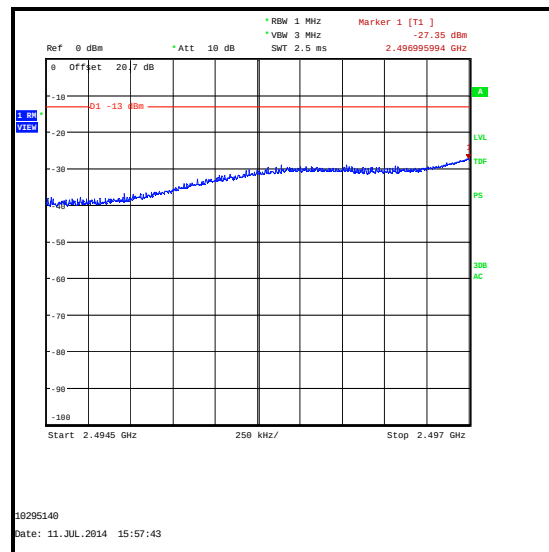
Temperature (°C):	25
Relative Humidity (%):	44

Note(s):

1. Measurements were performed with the EUT transmitting QPSK and 16QAM modulation schemes, with maximum resource block settings.
2. In accordance with KDB 971168 D01 section 6.0, a relaxation of the resolution bandwidth has been applied at the edge of the authorised frequency band to increase the measurement accuracy in the ranges 2497 to 2498 MHz, 2498 to 2499 MHz, 2571 to 2572 MHz and 2572 to 2573 MHz. Where necessary the channel power function of the spectrum analyser was used to integrate over 1 MHz.

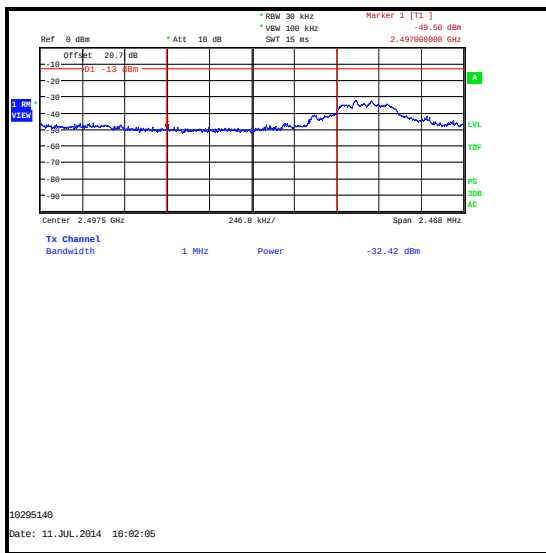
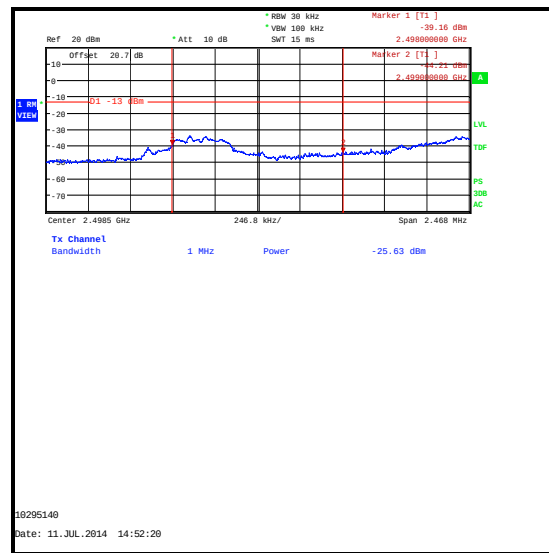
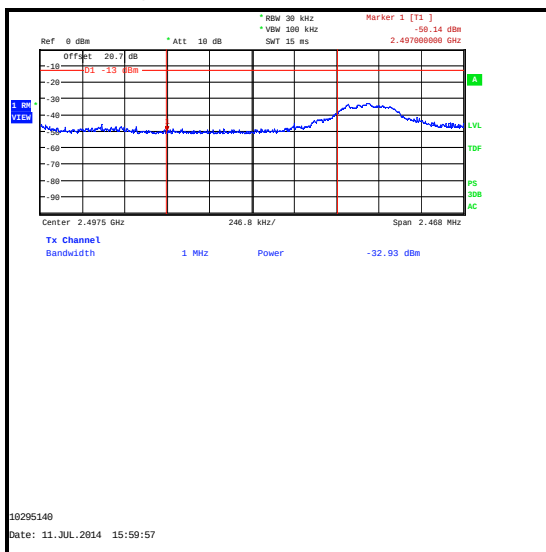
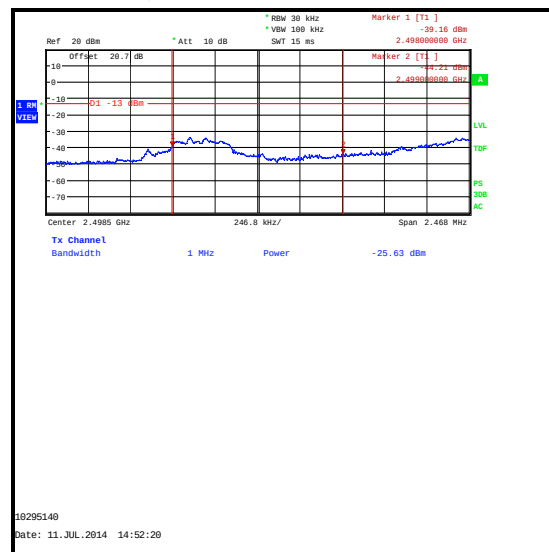
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 5 MHz Channel Bandwidth / 2494.5 MHz to 2497 MHz / Sub-test 1**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2496.996	QPSK	1	0	-27.3	-13.0	14.3	Complied
2496.996	16QAM	1	0	-27.4	-13.0	14.4	Complied

**QPSK****16QAM**

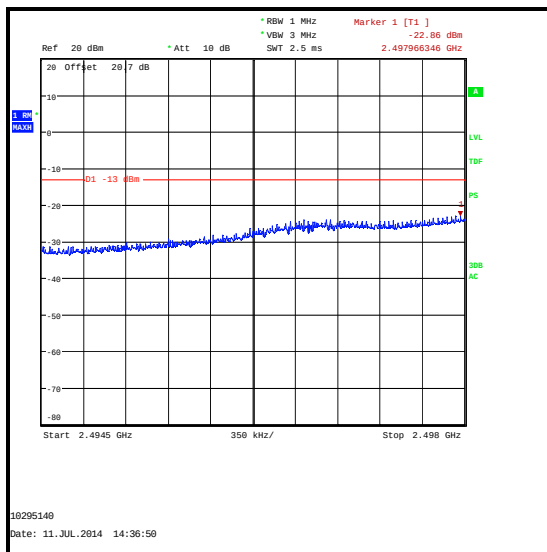
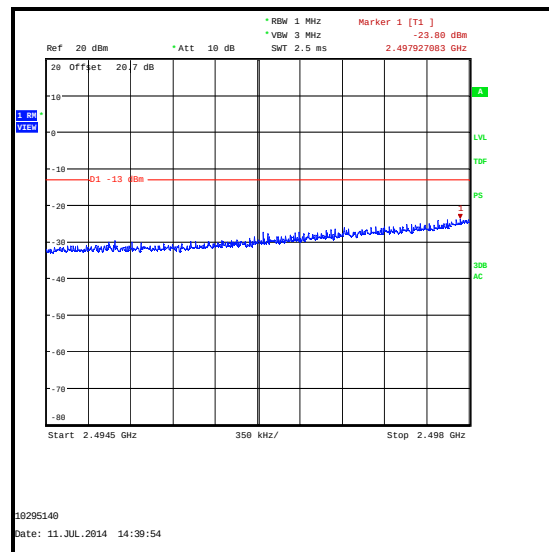
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 5 MHz Channel Bandwidth / 2497 MHz to 2499 MHz / Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2497 to 2498	QPSK	1	0	-32.4	-13.0	19.4	Complied
2498 to 2499	QPSK	1	0	-25.6	-13.0	12.6	Complied
2497 to 2498	16QAM	1	0	-32.9	-13.0	19.9	Complied
2498 to 2499	16QAM	1	0	-25.6	-13.0	12.6	Complied

**QPSK / 2497 to 2498 MHz****QPSK / 2498 to 2499 MHz****16QAM / 2497 to 2498 MHz****16QAM / 2498 to 2499 MHz**

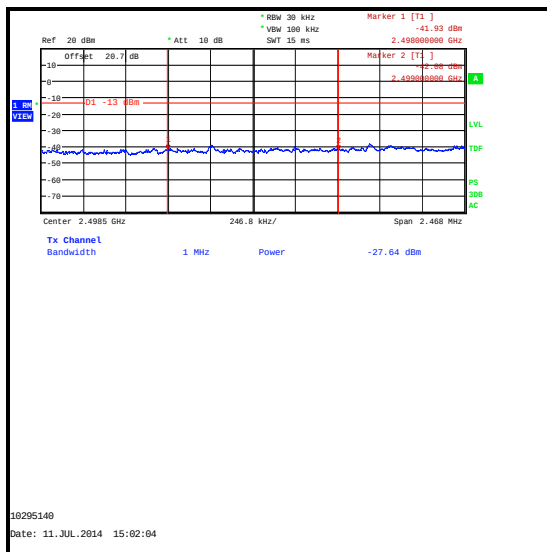
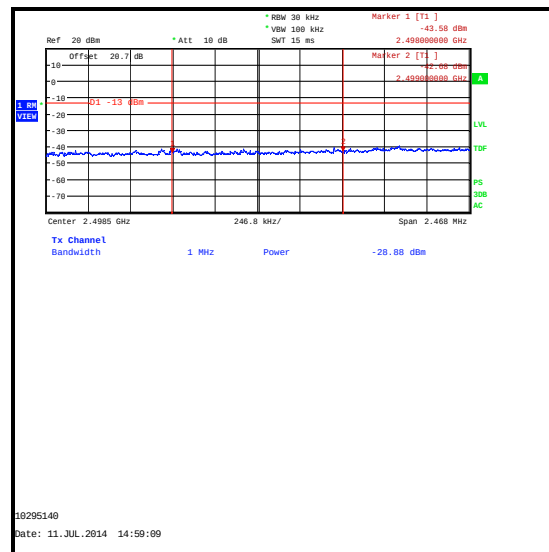
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 5 MHz Channel Bandwidth / 2494.5 MHz to 2498 MHz / Sub-test 4**

Frequency (MHz)	Modulation Scheme	Resource Blocks	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2497.966	QPSK	25	0	-22.9	-13.0	9.9	Complied
2497.927	16QAM	25	0	-23.8	-13.0	10.8	Complied

**QPSK****16QAM**

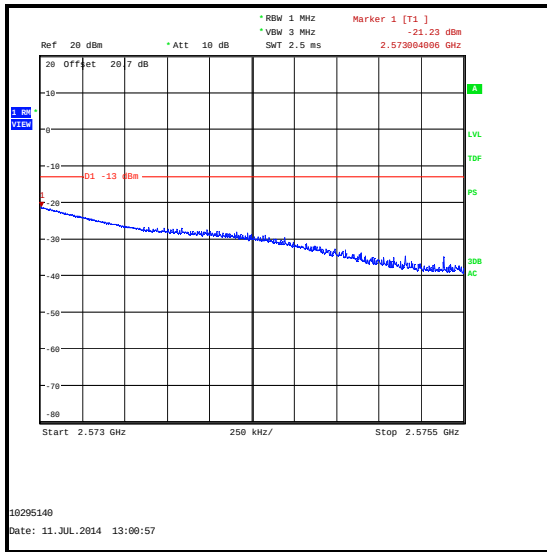
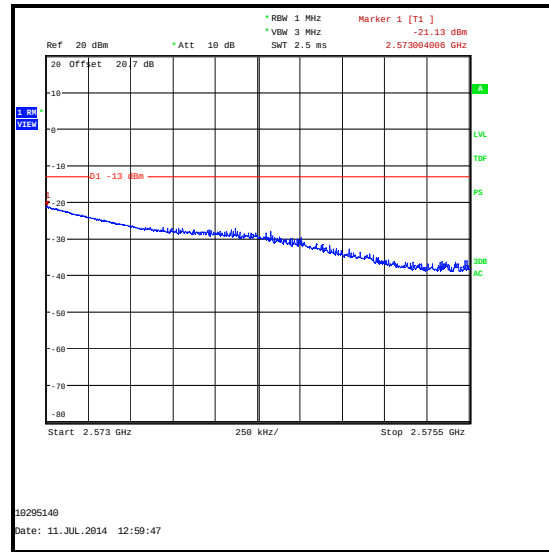
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 5 MHz Channel Bandwidth / 2498 MHz to 2499 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2498 to 2499	QPSK	25	0	-27.6	-13.0	14.6	Complied
2498 to 2499	16QAM	25	0	-28.9	-13.0	15.9	Complied

**QPSK****16QAM**

Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 5 MHz Channel Bandwidth / 2573 MHz to 2575.5 MHz / Sub-test 2**

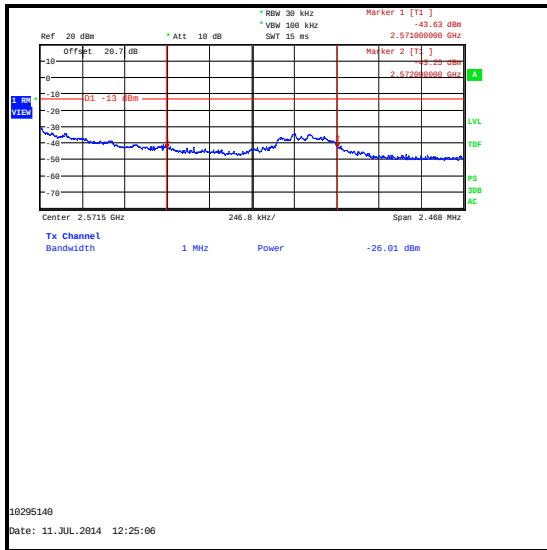
Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2573.004	QPSK	1	24	-21.2	-13.0	8.2	Complied
2573.004	16QAM	1	24	-21.1	-13.0	8.1	Complied

**QPSK****16QAM**

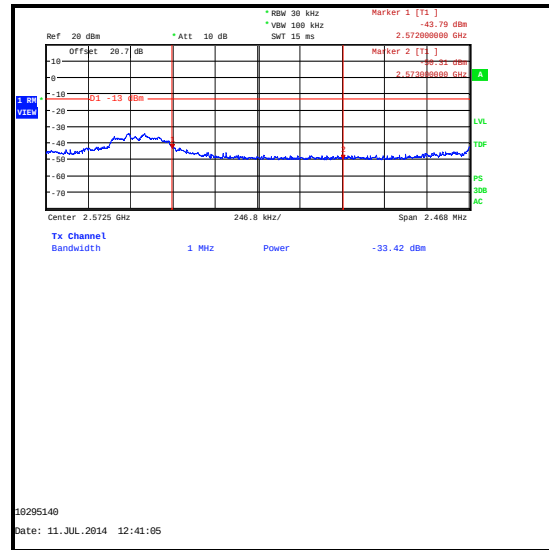
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)

Results: 5 MHz Channel Bandwidth / 2571 MHz to 2573 MHz Integrated Result

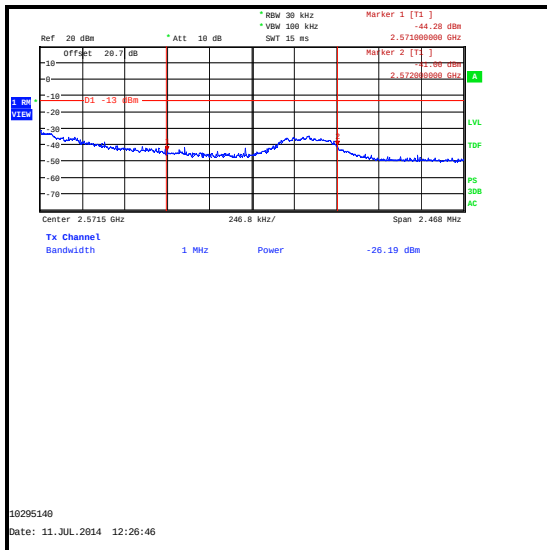
Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2571 to 2572	QPSK	1	24	-26.0	-13.0	13.0	Complied
2572 to 2573	QPSK	1	24	-33.4	-13.0	20.4	Complied
2571 to 2572	16QAM	1	24	-26.2	-13.0	13.2	Complied
2572 to 2573	16QAM	1	24	-33.6	-13.0	20.6	Complied



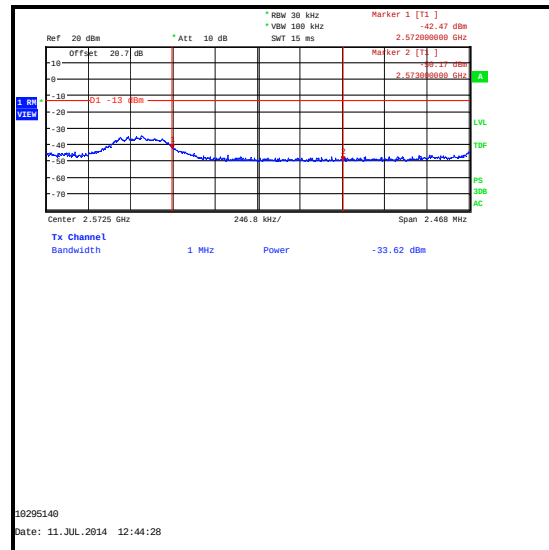
QPSK / 2571 to 2572 MHz



QPSK / 2572 to 2573 MHz



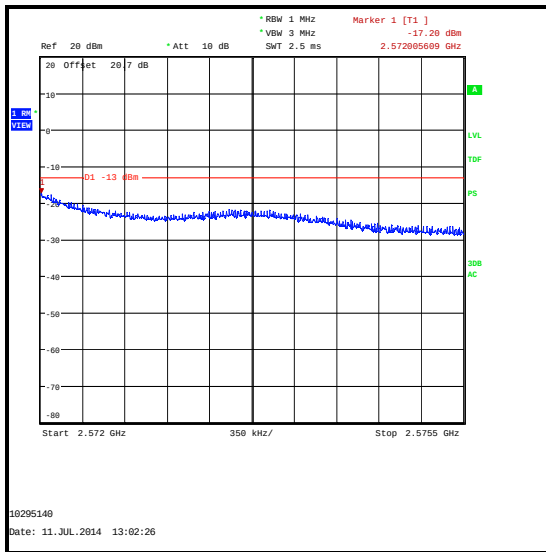
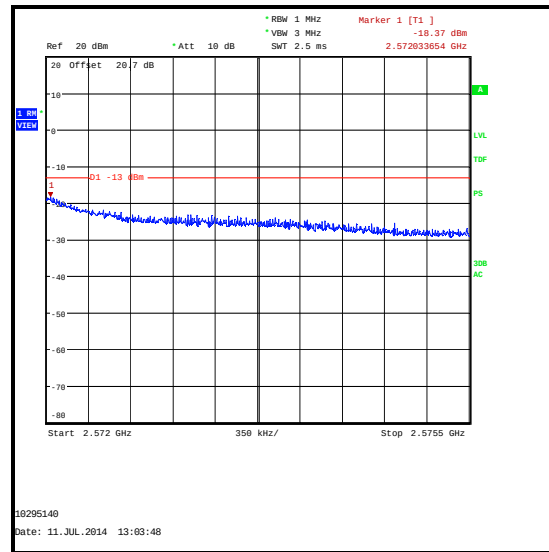
16QAM / 2571 to 2572 MHz



16QAM / 2572 to 2573 MHz

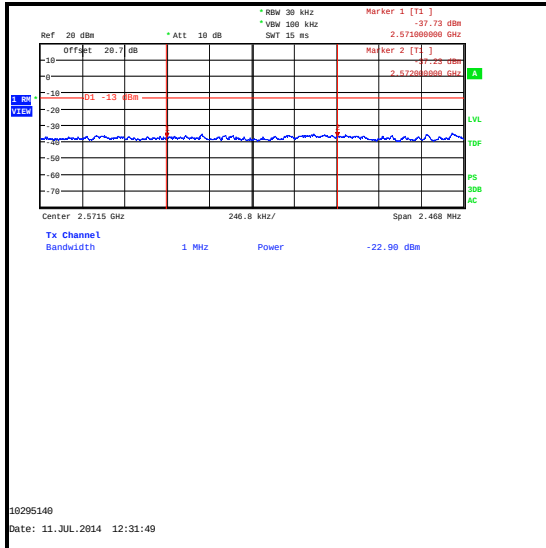
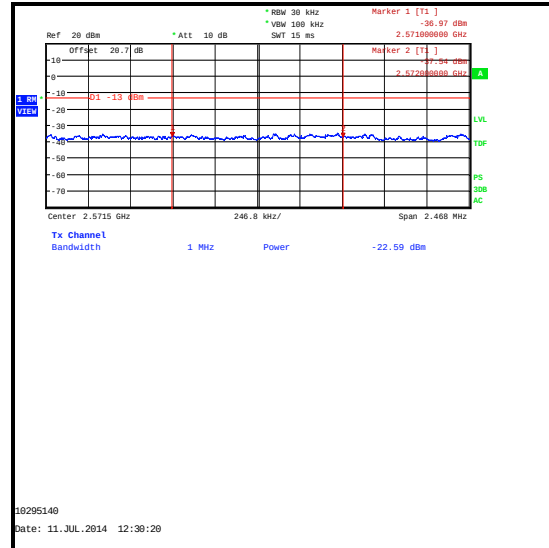
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 5 MHz Channel Bandwidth / 2572 MHz to 2575.5 MHz / Sub-test 4**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2572.006	QPSK	25	0	-17.2	-13.0	4.2	Complied
2572.034	16QAM	25	0	-18.4	-13.0	5.4	Complied

**QPSK****16QAM**

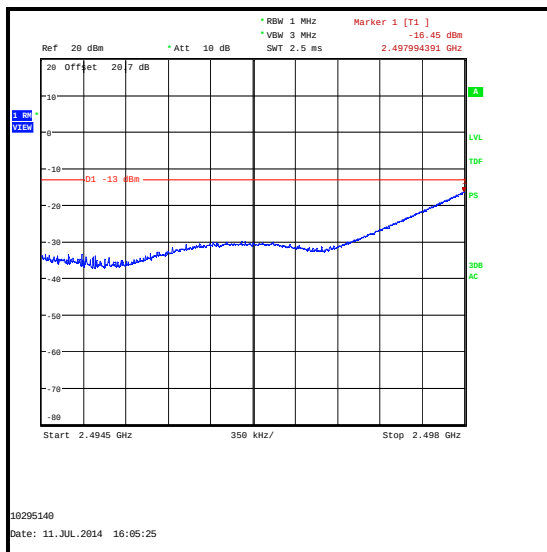
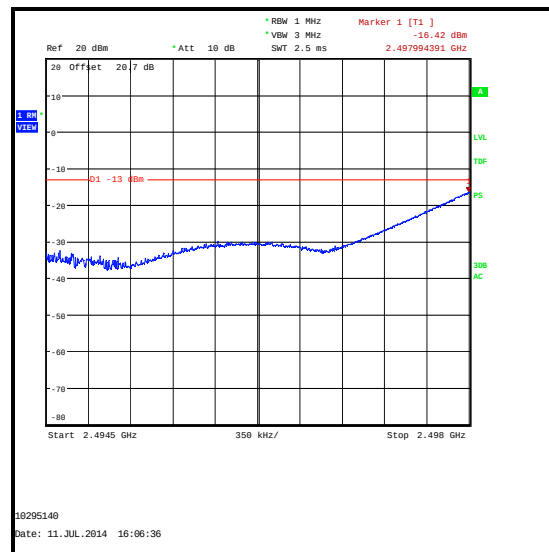
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 5 MHz Channel Bandwidth / 2571 MHz to 2572 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2571 to 2572	QPSK	25	0	-22.9	-13.0	9.9	Complied
2571 to 2572	16QAM	25	0	-22.6	-13.0	9.6	Complied

**QPSK****16QAM**

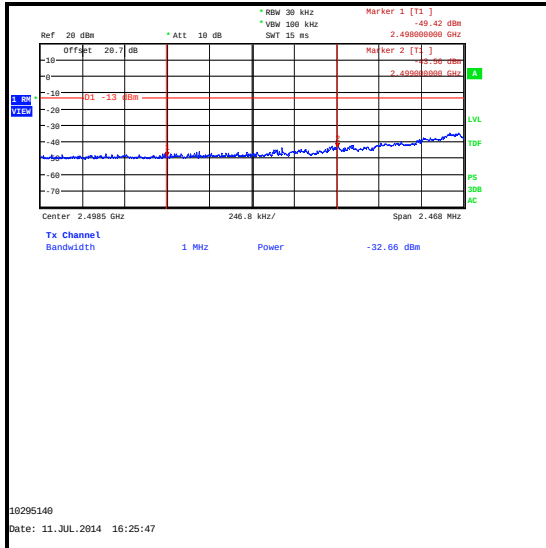
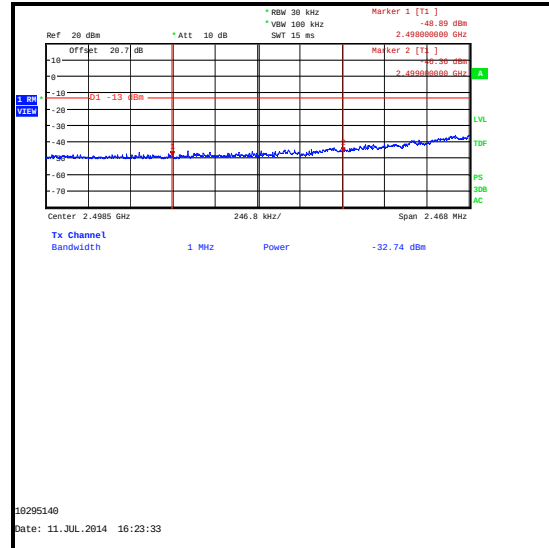
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 10 MHz Channel Bandwidth / 2494.5 MHz to 2498 MHz / Sub-test 1**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2497.994	QPSK	1	0	-16.5	-13.0	3.5	Complied
2497.994	16QAM	1	0	-16.4	-13.0	3.4	Complied

**QPSK****16QAM**

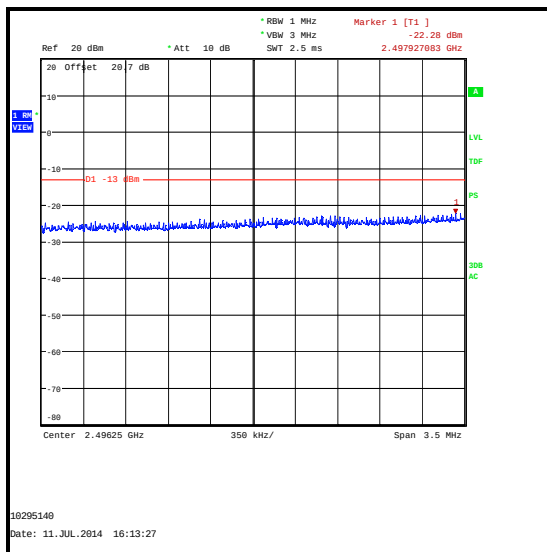
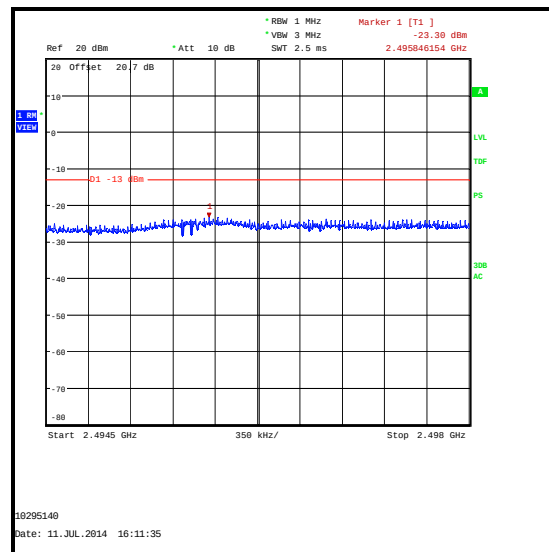
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 10 MHz Channel Bandwidth / 2498 MHz to 2499 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2498 to 2499	QPSK	1	0	-32.7	-13.0	19.7	Complied
2498 to 2499	16QAM	1	0	-32.7	-13.0	19.7	Complied

**QPSK****16QAM**

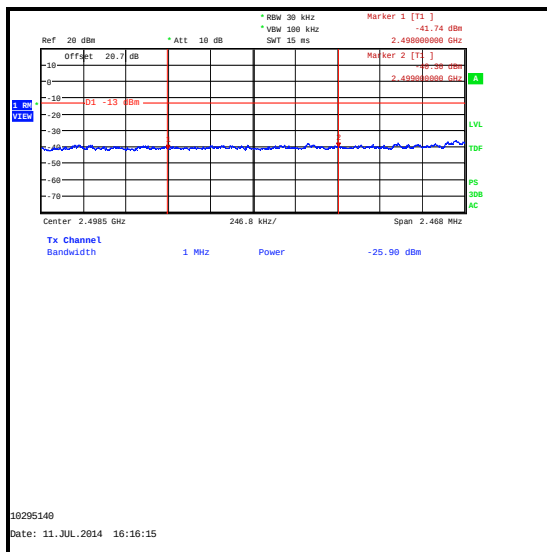
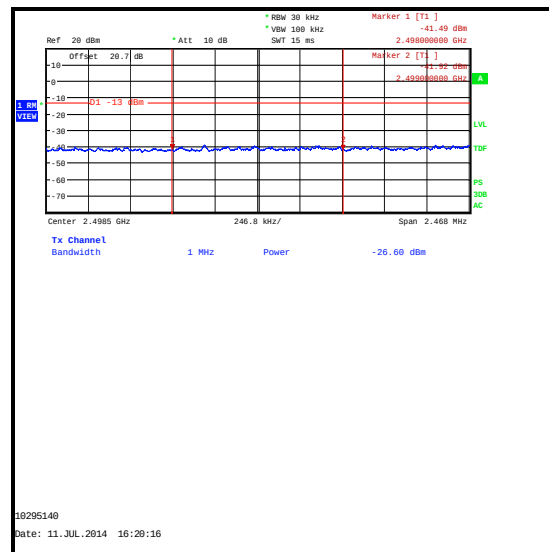
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 10 MHz Channel Bandwidth / 2494.5 MHz to 2498 MHz / Sub-test 4**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2497.927	QPSK	50	0	-22.3	-13.0	9.3	Complied
2495.846	16QAM	50	0	-23.3	-13.0	10.3	Complied

**QPSK****16QAM**

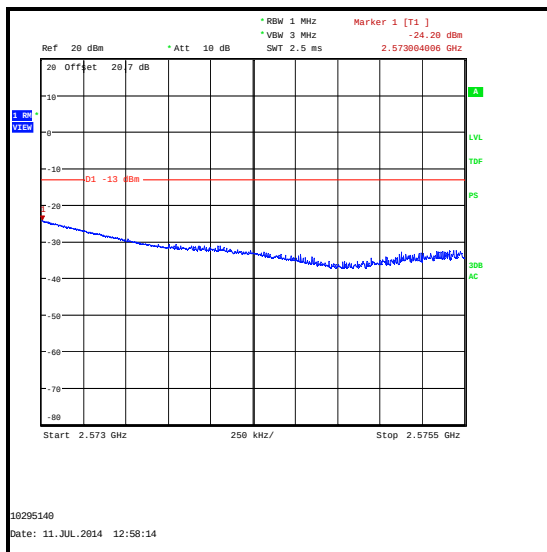
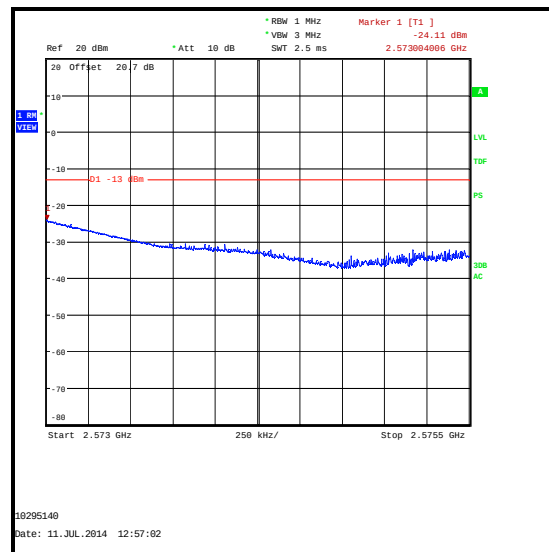
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 10 MHz Channel Bandwidth / 2498 MHz to 2499 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2498 to 2499	QPSK	50	0	-25.9	-13.0	12.9	Complied
2498 to 2499	16QAM	50	0	-26.6	-13.0	13.6	Complied

**QPSK****16QAM**

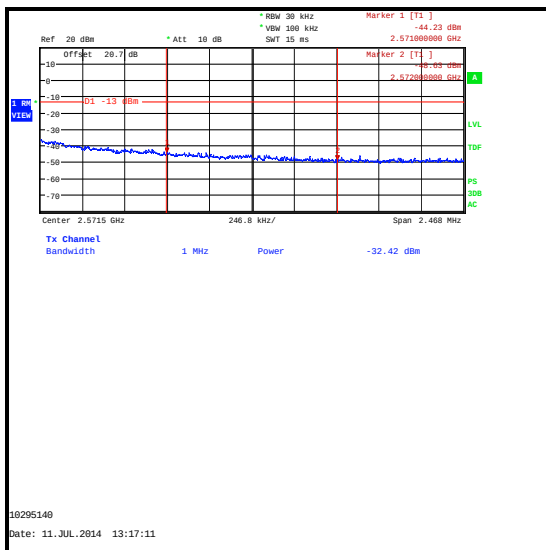
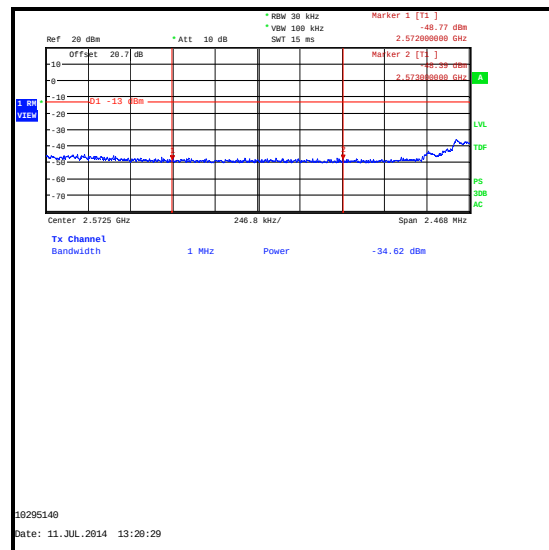
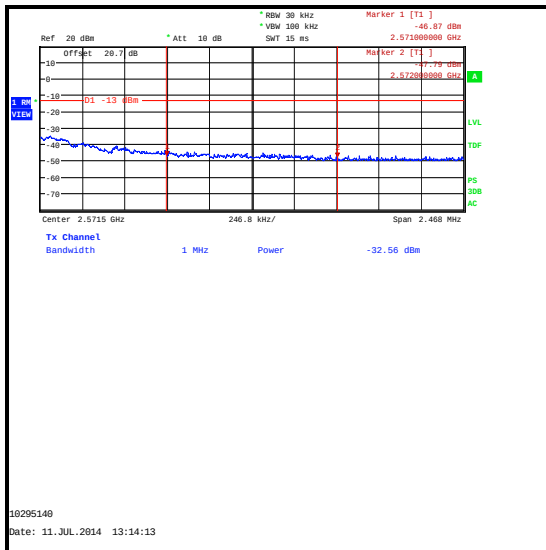
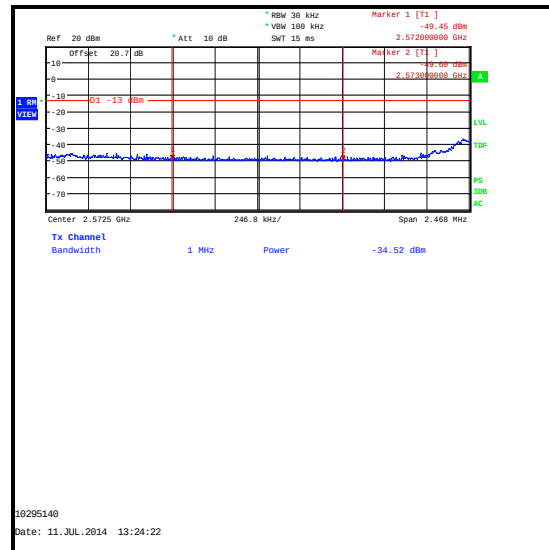
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 10 MHz Channel Bandwidth / 2573 MHz to 2575.5 MHz / Sub-test 2**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2573.004	QPSK	1	49	-24.2	-13.0	11.2	Complied
2573.004	16QAM	1	49	-24.1	-13.0	11.1	Complied

**QPSK****16QAM**

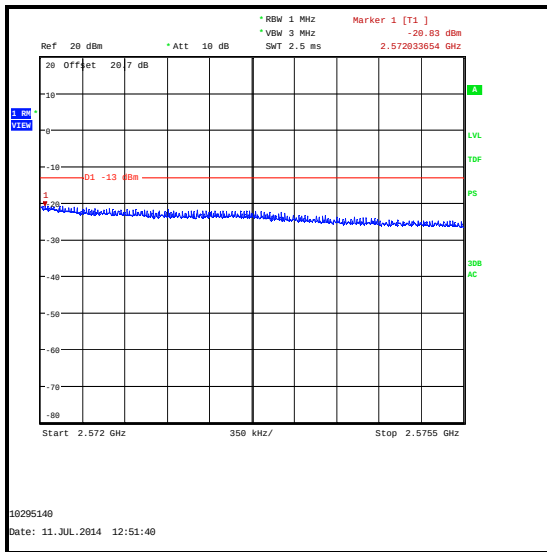
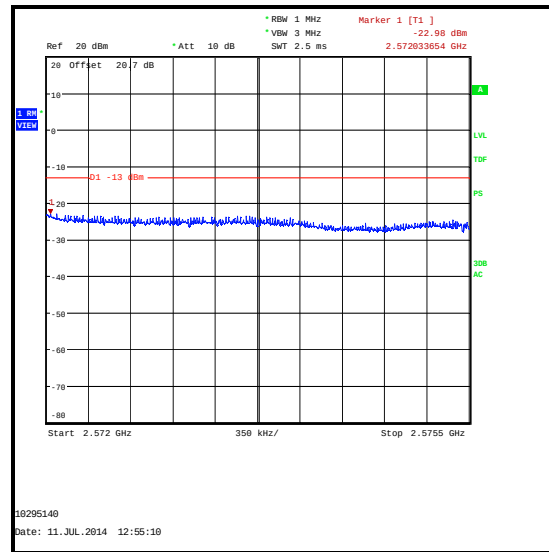
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 10 MHz Channel Bandwidth / 2571 MHz to 2573 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2571 to 2572	QPSK	1	49	-32.4	-13.0	19.4	Complied
2572 to 2573	QPSK	1	49	-34.6	-13.0	21.6	Complied
2571 to 2572	16QAM	1	49	-32.6	-13.0	19.6	Complied
2572 to 2573	16QAM	1	49	-34.5	-13.0	21.5	Complied

**QPSK / 2571 to 2572 MHz****QPSK / 2572 to 2573 MHz****16QAM / 2571 to 2572 MHz****16QAM / 2572 to 2573 MHz**

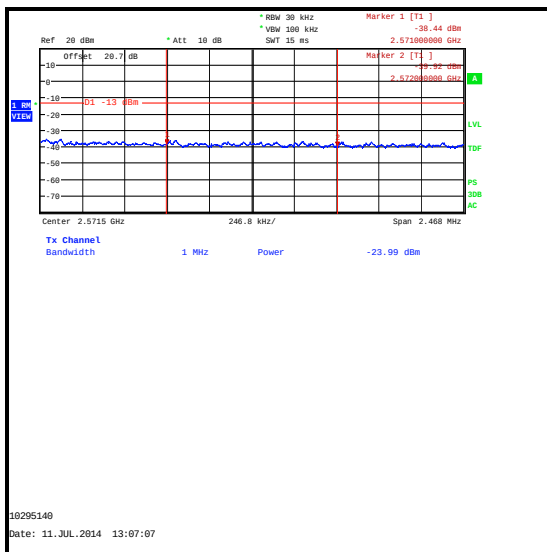
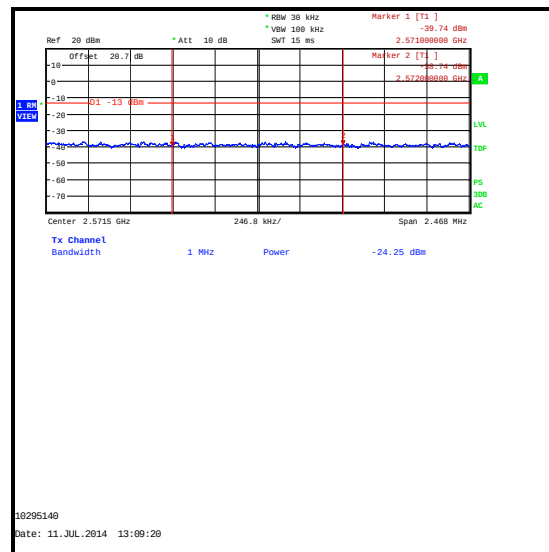
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 10 MHz Channel Bandwidth / 2572 MHz to 2575.5 MHz / Sub-test 4**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2572.034	QPSK	50	0	-20.8	-13.0	7.8	Complied
2572.034	16QAM	50	0	-23.0	-13.0	10.0	Complied

**QPSK****16QAM**

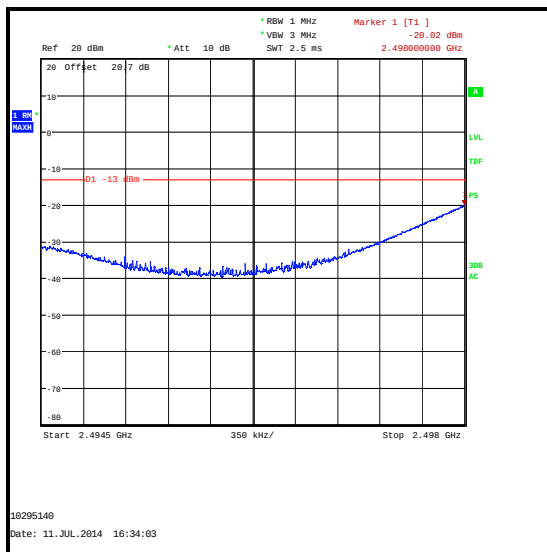
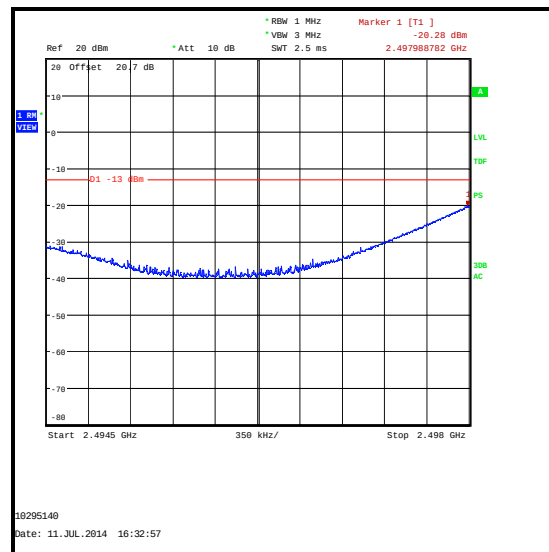
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 10 MHz Channel Bandwidth / 2571 MHz to 2572 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2571 to 2572	QPSK	50	0	-24.0	-13.0	11.0	Complied
2571 to 2572	16QAM	50	0	-24.3	-13.0	11.3	Complied

**QPSK****16QAM**

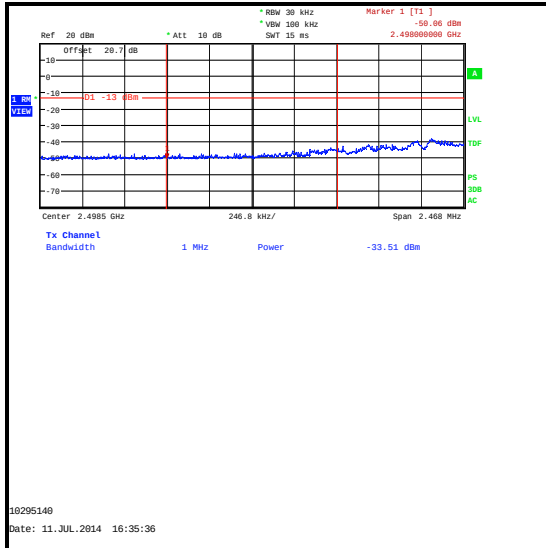
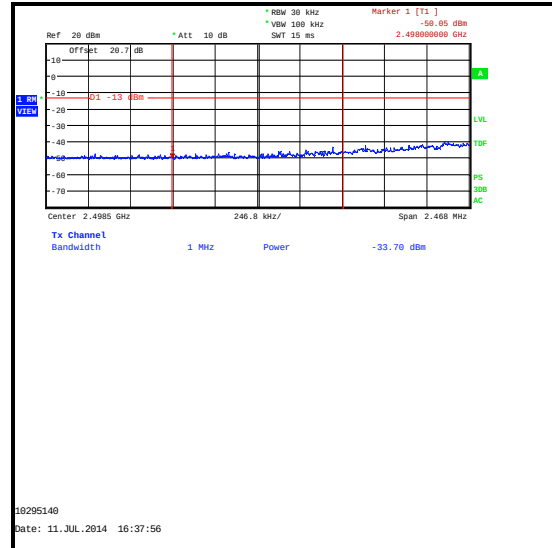
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 15 MHz Channel Bandwidth / 2494.5 MHz to 2498 MHz / Sub-test 1**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2498.000	QPSK	1	0	-20.0	-13.0	7.0	Complied
2497.989	16QAM	1	0	-20.3	-13.0	7.3	Complied

**QPSK****16QAM**

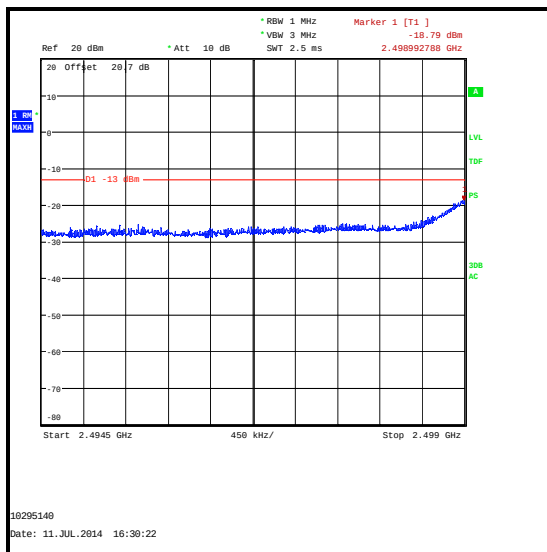
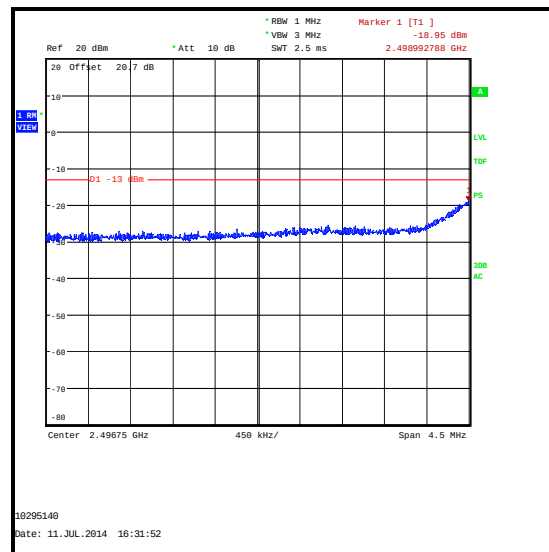
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 15 MHz Channel Bandwidth / 2498 MHz to 2499 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2498 to 2499	QPSK	1	0	-33.5	-13.0	20.5	Complied
2498 to 2499	16QAM	1	0	-33.7	-13.0	20.7	Complied

**QPSK****16QAM**

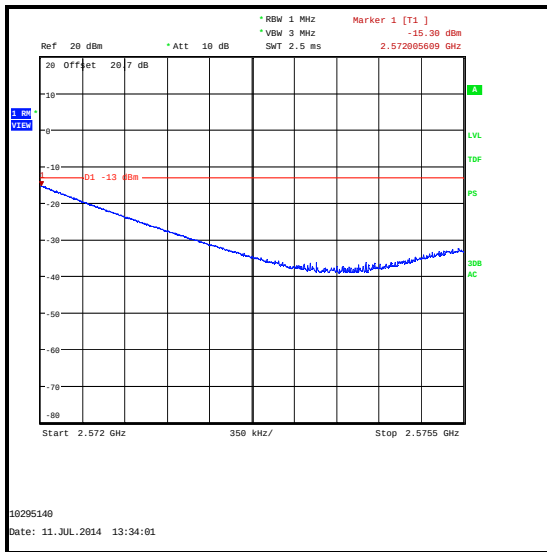
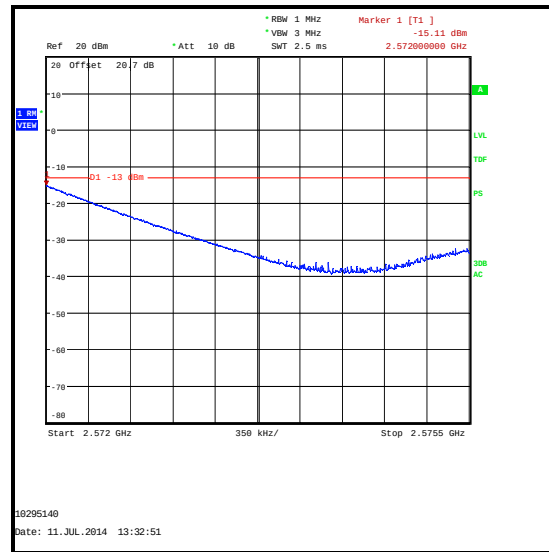
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 15 MHz Channel Bandwidth / 2494.5 MHz to 2499 MHz / Sub-test 4**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2498.993	QPSK	75	0	-18.8	-13.0	5.8	Complied
2498.993	16QAM	75	0	-19.0	-13.0	6.0	Complied

**QPSK****16QAM**

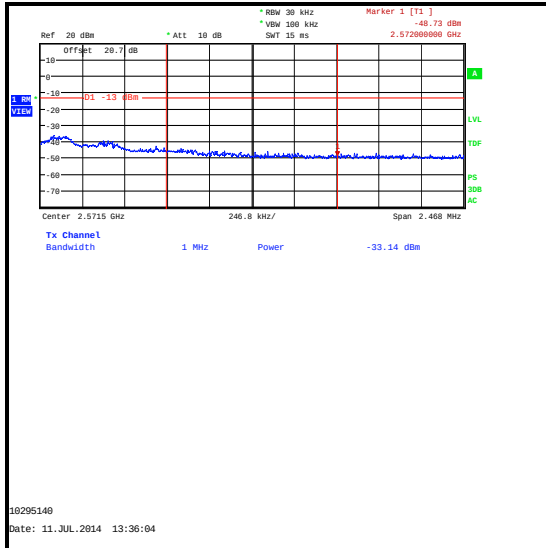
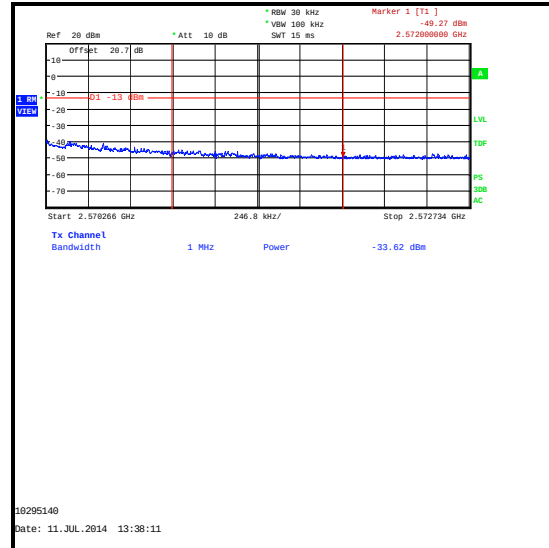
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 15 MHz Channel Bandwidth / 2572 MHz to 2575.5 MHz / Sub-test 2**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2572.006	QPSK	1	74	-15.3	-13.0	2.3	Complied
2572.000	16QAM	1	74	-15.1	-13.0	2.1	Complied

**QPSK****16QAM**

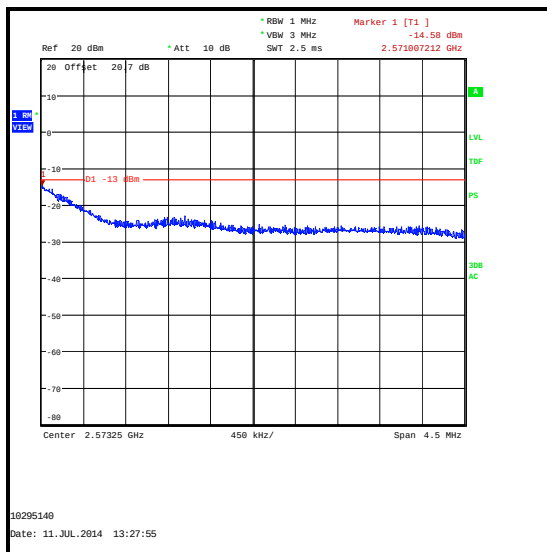
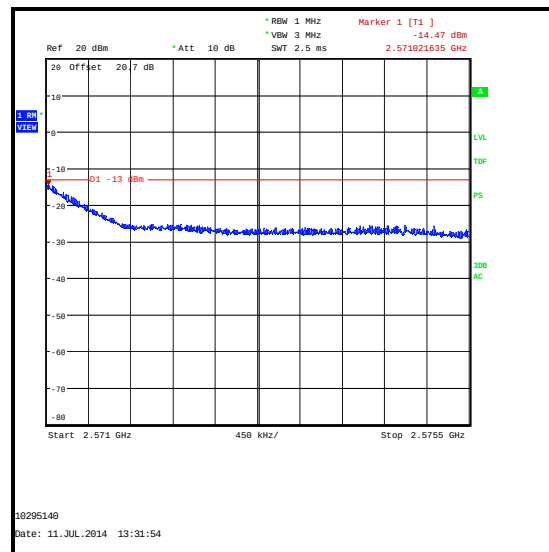
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 15 MHz Channel Bandwidth / 2571 MHz to 2572 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2571 to 2572	QPSK	1	74	-33.1	-13.0	20.1	Complied
2571 to 2572	16QAM	1	74	-33.6	-13.0	20.6	Complied

**QPSK****16QAM**

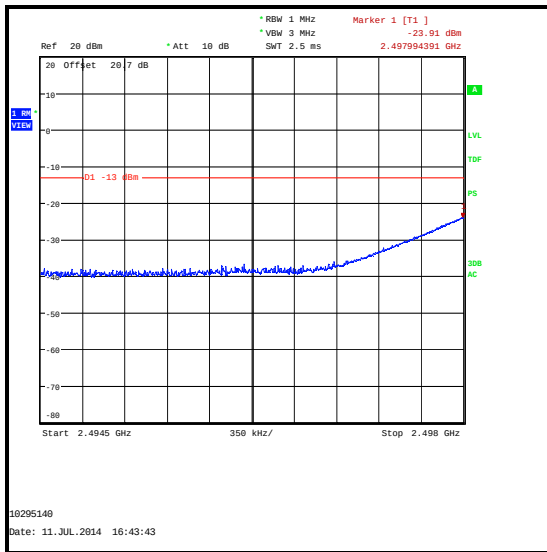
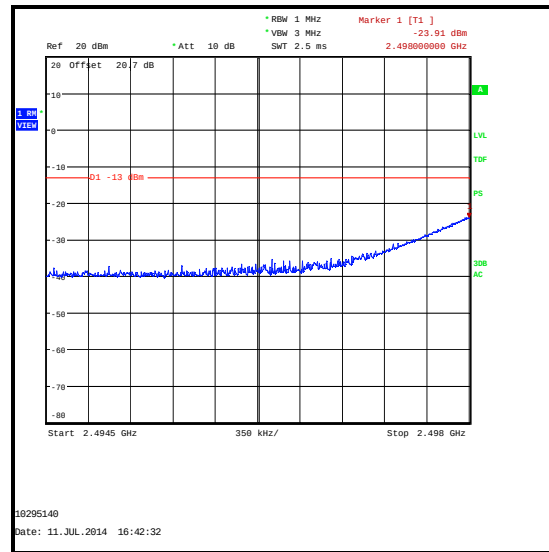
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 15 MHz Channel Bandwidth / 2571 MHz to 2575.5 MHz / Sub-test 4**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2571.007	QPSK	75	0	-14.6	-13.0	1.6	Complied
2571.022	16QAM	75	0	-14.5	-13.0	1.5	Complied

**QPSK****16QAM**

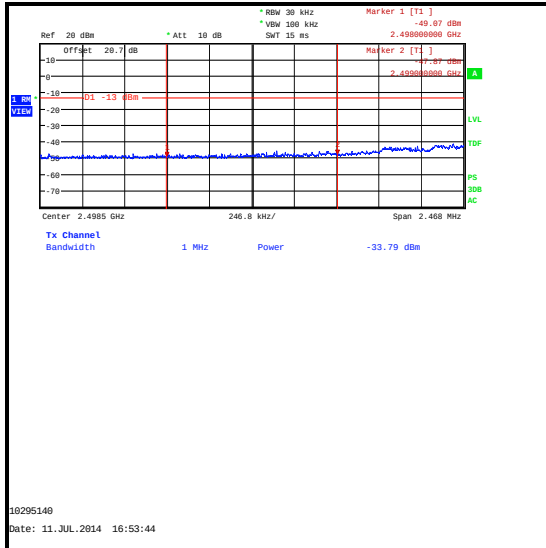
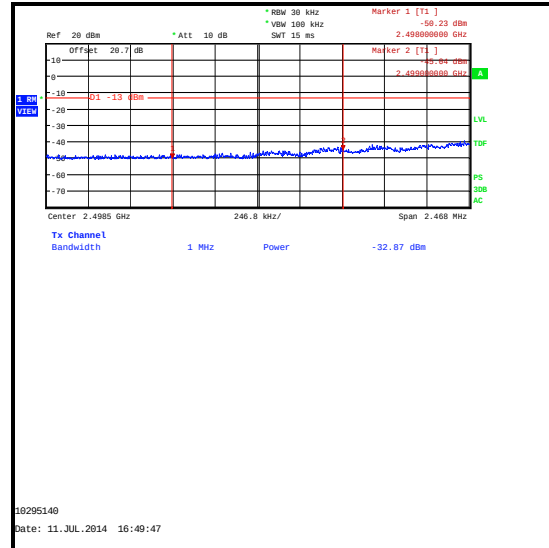
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 20 MHz Channel Bandwidth / 2494.5 MHz to 2498 MHz / Sub-test 1**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2497.994	QPSK	1	0	-23.9	-13.0	10.9	Complied
2498.000	16QAM	1	0	-23.9	-13.0	10.9	Complied

**QPSK****16QAM**

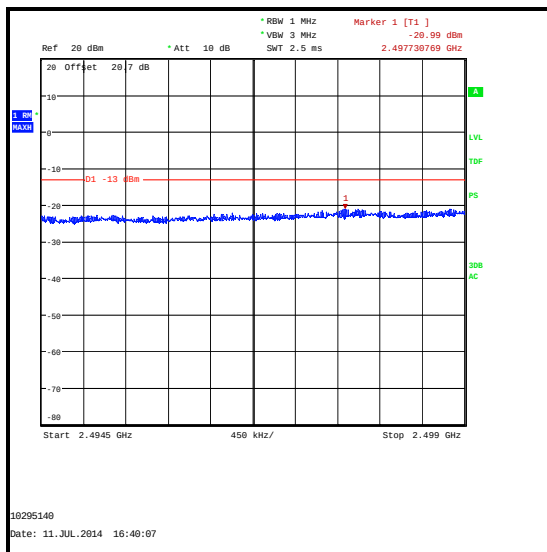
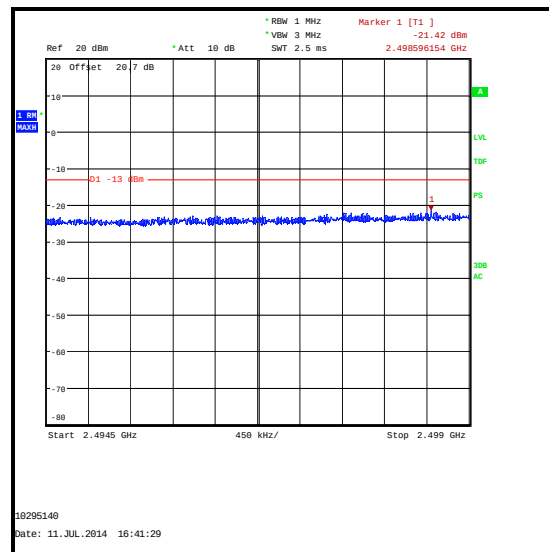
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 20 MHz Channel Bandwidth / 2498 MHz to 2499 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2498 to 2499	QPSK	1	0	-33.8	-13.0	20.8	Complied
2498 to 2499	16QAM	1	0	-32.9	-13.0	19.9	Complied

**QPSK****16QAM**

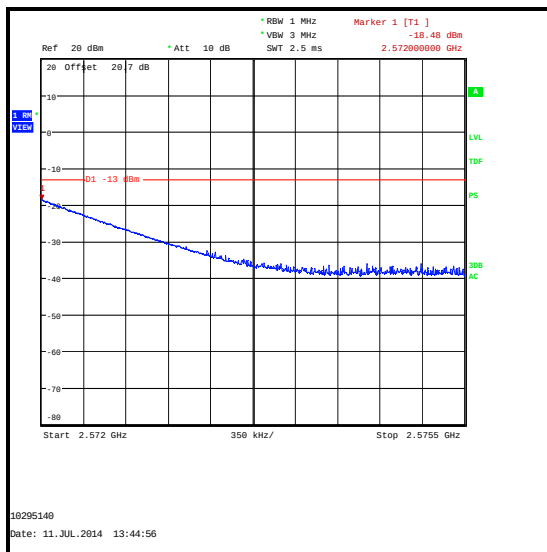
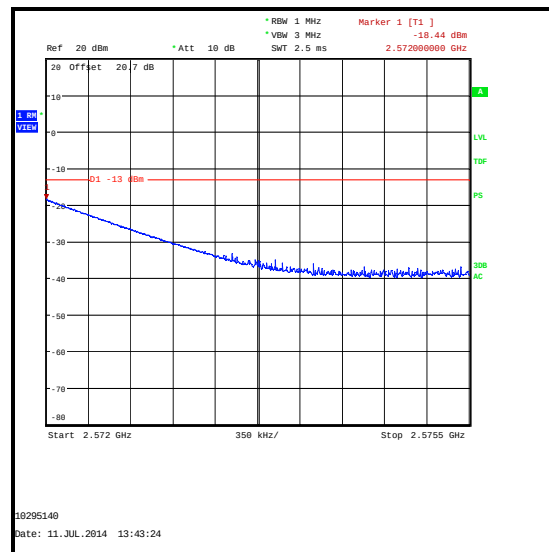
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 20 MHz Channel Bandwidth / 2494.5 MHz to 2499 MHz / Sub-test 4**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2497.731	QPSK	100	0	-21.0	-13.0	8.0	Complied
2498.596	16QAM	100	0	-21.4	-13.0	8.4	Complied

**QPSK****16QAM**

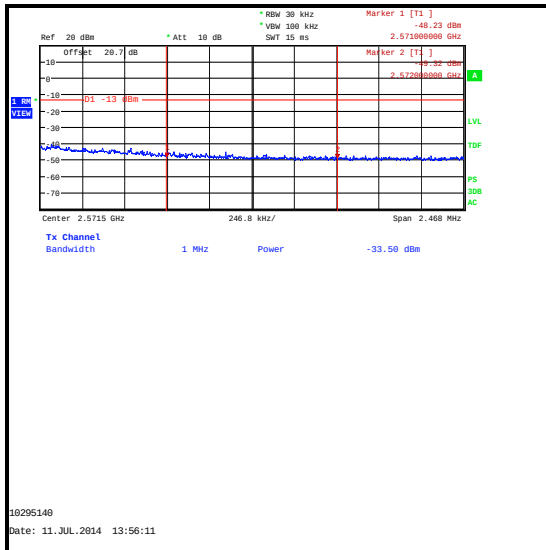
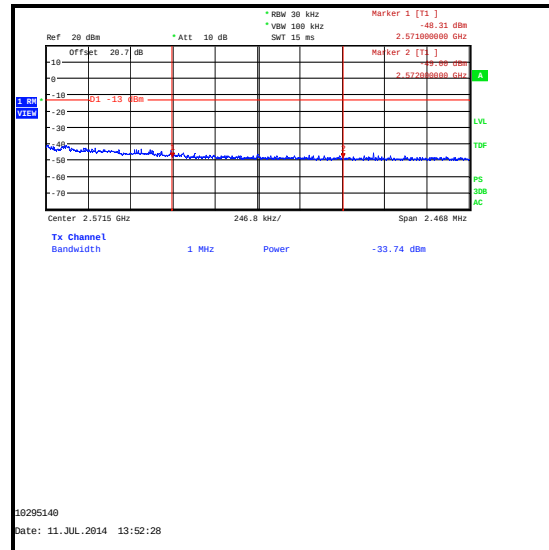
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 20 MHz Channel Bandwidth / 2572 MHz to 2575.5 MHz / Sub-test 2**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2572.000	QPSK	1	99	-18.5	-13.0	5.5	Complied
2572.000	16QAM	1	99	-18.4	-13.0	5.4	Complied

**QPSK****16QAM**

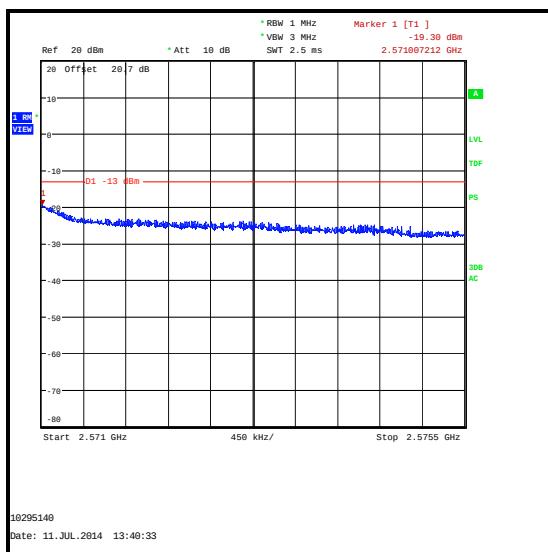
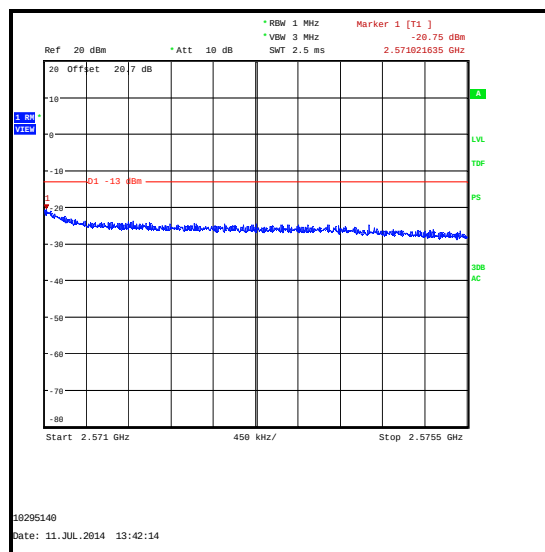
Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 20 MHz Channel Bandwidth / 2571 MHz to 2572 MHz Integrated Result**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Integrated Level (dBm)	Limit (dBm)	Margin (dB)	Result
2571 to 2572	QPSK	1	99	-33.5	-13.0	20.5	Complied
2571 to 2572	16QAM	1	99	-33.7	-13.0	20.7	Complied

**QPSK****16QAM**

Transmitter Radiated Emissions at Band Edges +/- 5.5 MHz (continued)**Results: 20 MHz Channel Bandwidth / 2571 MHz to 2575.5 MHz / Sub-test 4**

Frequency (MHz)	Modulation Scheme	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
2571.007	QPSK	100	0	-19.3	-13.0	6.3	Complied
2571.022	16QAM	100	0	-20.8	-13.0	7.8	Complied

**QPSK****16QAM****Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M1656	Thermohygrometer	JM Handelspunkt	30.5015.13	None 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	15 May 2015	12
A1534	Pre Amplifier	Hewlett Packard	8449B	3008A00405	18 May 2015	12
A1818	Antenna	EMCO	3115	00075692	14 Nov 2014	12
A1393	Attenuator	Huber & Suhner	6820.17B	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
Radiated Spurious Emissions	30 MHz to 1 GHz	95%	±5.65 dB
Radiated Spurious Emissions	1 GHz to 26 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
2.0	-	-	EUT Description update

--- END OF REPORT ---