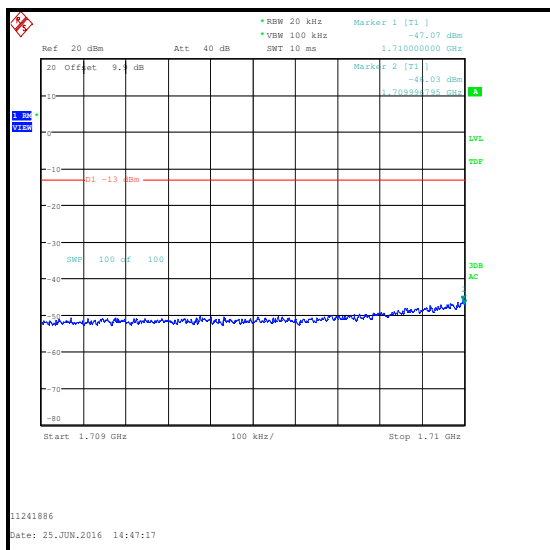
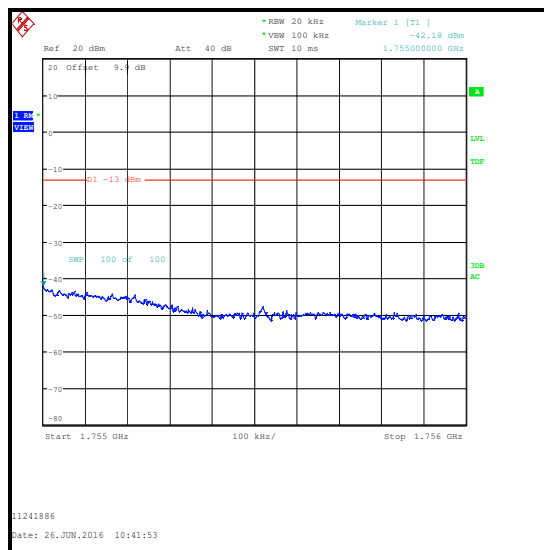
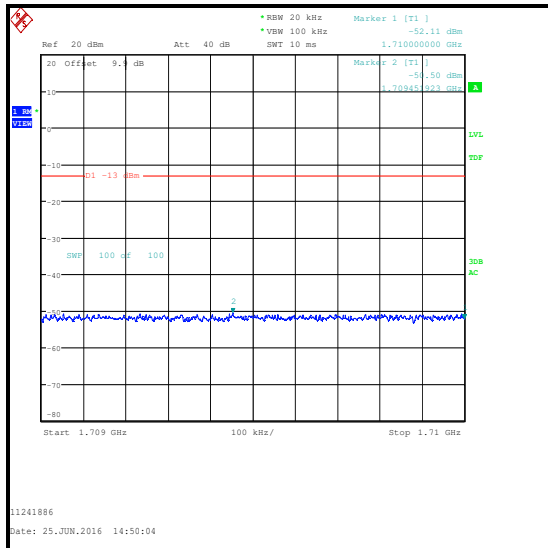
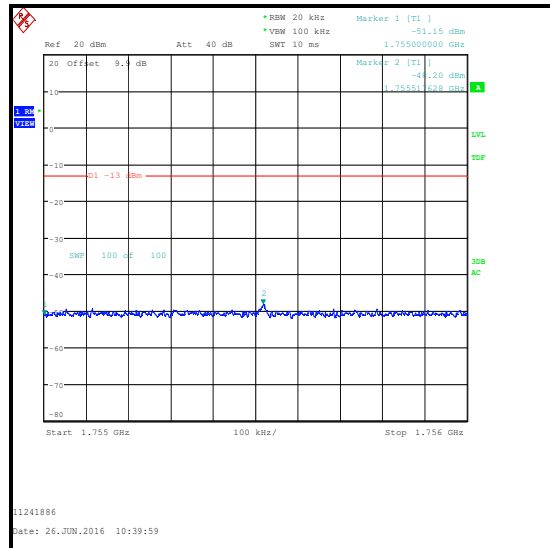


Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 1.4 MHz Channel Bandwidth / 16QAM**

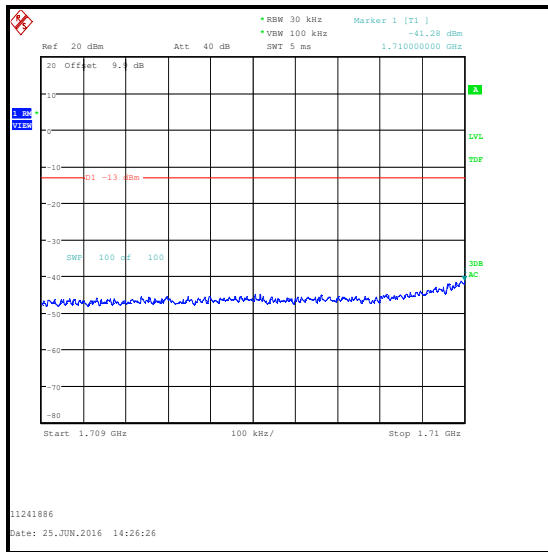
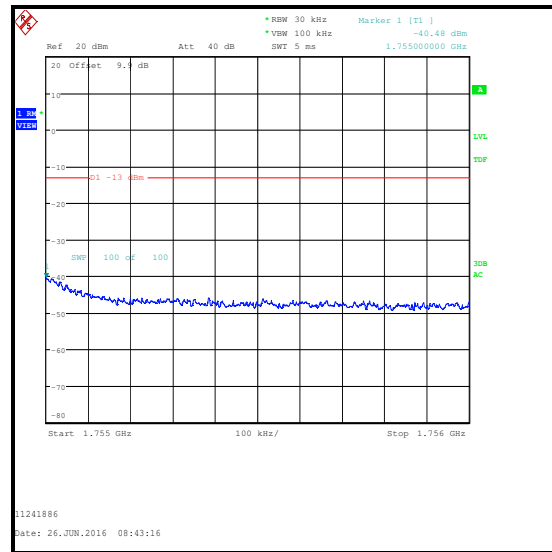
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.997	1	0	-46.0	-13.0	33.0	Complied
1710	1	0	-47.1	-13.0	34.1	Complied
1755	1	5	-42.2	-13.0	29.2	Complied
1709.452	1	5	-50.5	-13.0	37.5	Complied
1710	1	5	-52.1	-13.0	39.1	Complied
1755	1	0	-51.2	-13.0	38.2	Complied
1755.518	1	0	-48.2	-13.0	35.2	Complied

**16QAM / 1 RB 0 offset / Lower Band Edge****16QAM / 1 RB 5 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 1.4 MHz Channel Bandwidth / 16QAM (continued)****16QAM / 1 RB 5 offset / Lower Band Edge****16QAM / 1 RB 0 offset / Upper Band Edge**

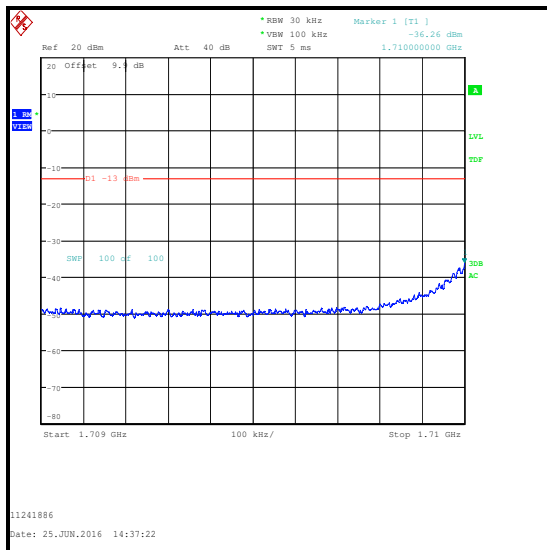
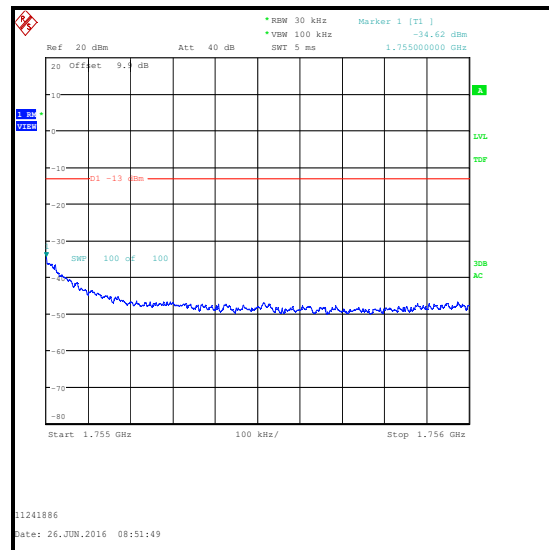
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 3 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	15	0	-41.3	-13.0	28.3	Complied
1755	15	0	-40.5	-13.0	27.5	Complied

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

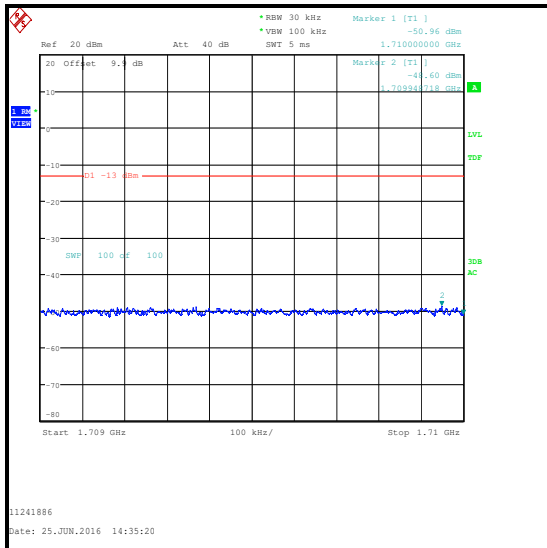
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 3 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	1	0	-36.3	-13.0	23.3	Complied
1755	1	14	-34.6	-13.0	21.6	Complied
1709.949	1	14	-48.6	-13.0	35.6	Complied
1710	1	14	-51.0	-13.0	38.0	Complied
1755	1	0	-48.1	-13.0	35.1	Complied
1755.	1	0	-46.9	-13.0	33.9	Complied

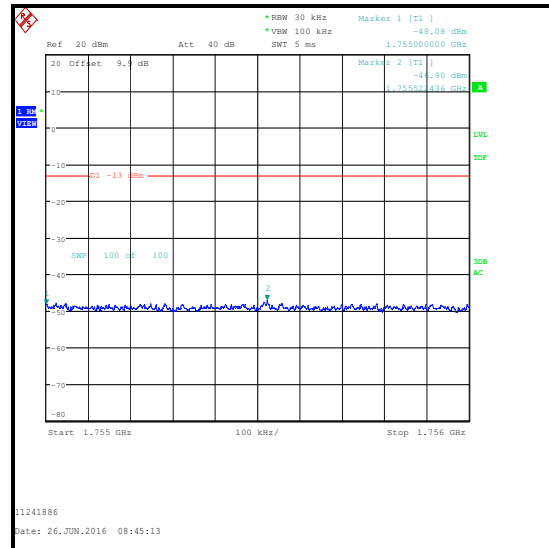
**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 14 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT

Results: 3 MHz Channel Bandwidth / QPSK (continued)



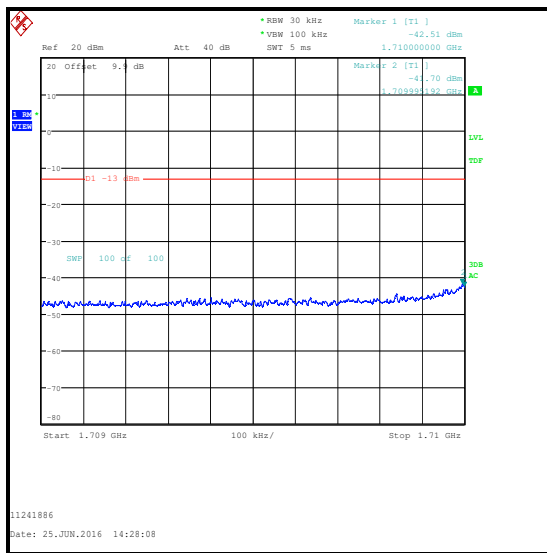
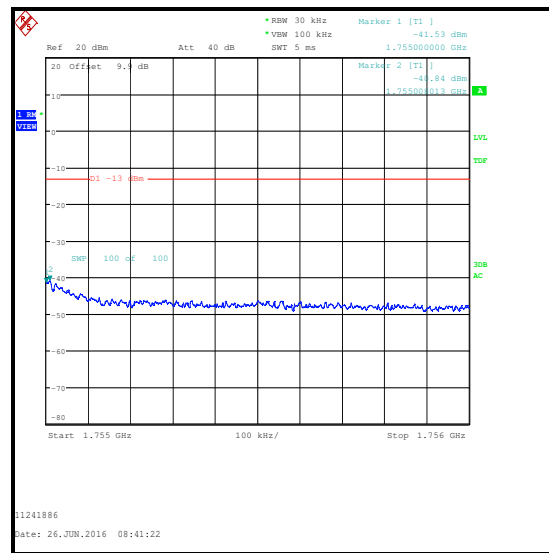
QPSK / 1 RB 14 offset / Lower Band Edge



QPSK / 1 RB 0 offset / Upper Band Edge

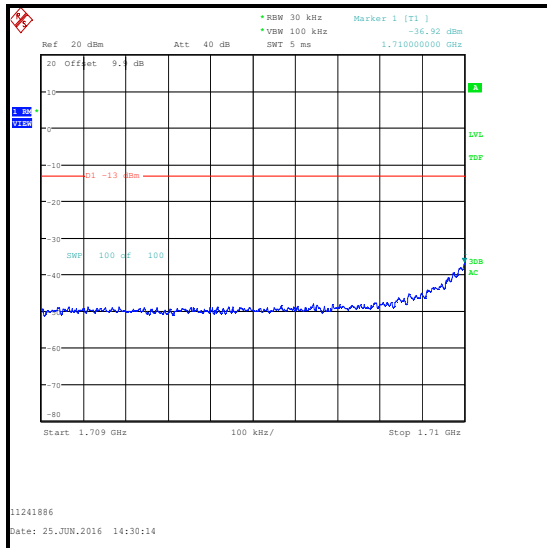
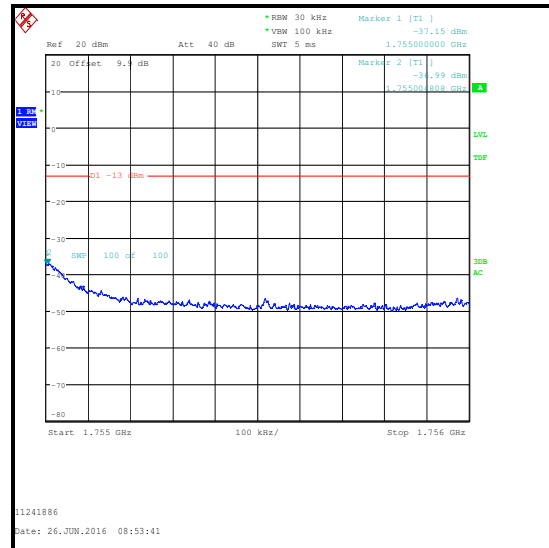
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 3 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.995	15	0	-41.7	-13.0	28.7	Complied
1710	15	0	-42.5	-13.0	29.5	Complied
1755	15	0	-41.5	-13.0	28.5	Complied
1755.008	15	0	-40.8	-13.0	27.8	Complied

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

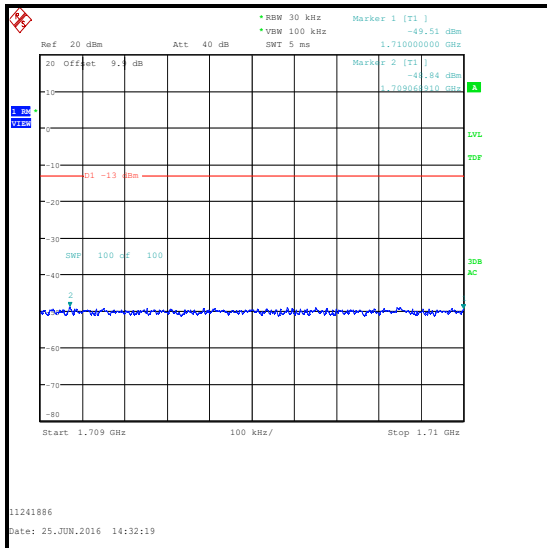
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 3 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	1	0	-36.9	-13.0	23.9	Complied
1755	1	14	-37.2	-13.0	24.2	Complied
1755.005	1	14	-37.0	-13.0	24.0	Complied
1709.069	1	14	-48.8	-13.0	35.8	Complied
1710	1	14	-49.5	-13.0	36.5	Complied
1755	1	0	-49.6	-13.0	36.6	Complied
1755.519	1	0	-47.5	-13.0	34.5	Complied

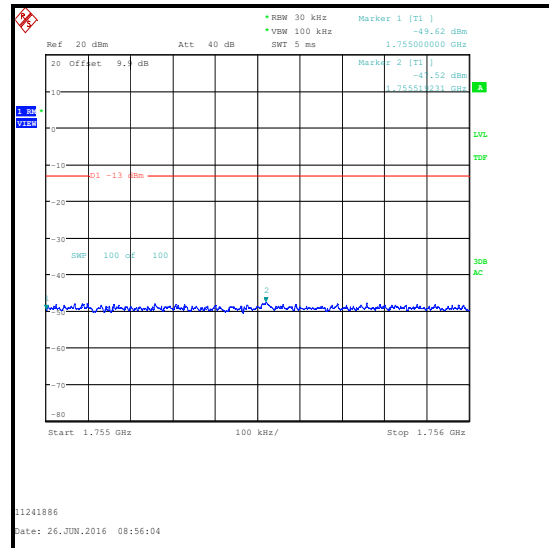
**16QAM / 1 RB 0 offset / Lower Band Edge****16QAM / 1 RB 14 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT

Results: 3 MHz Channel Bandwidth / 16QAM (continued)



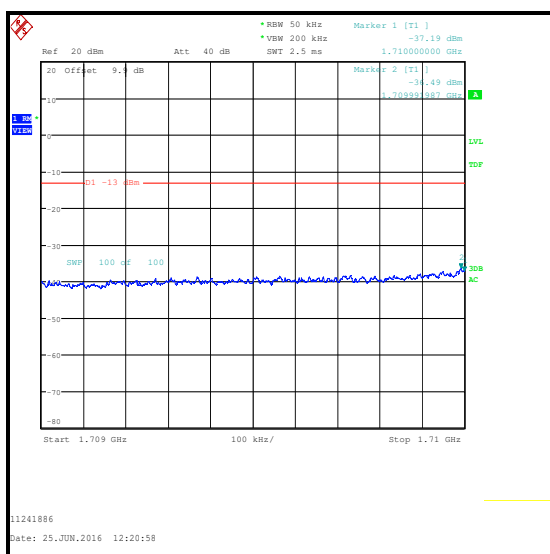
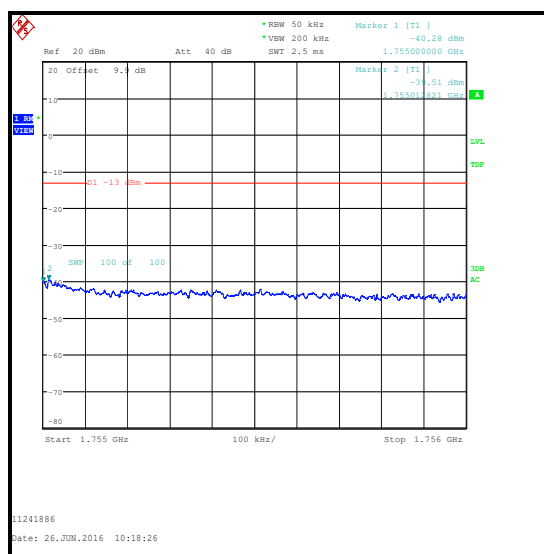
16QAM / 1 RB 14 offset / Lower Band Edge



16QAM / 1 RB 0 offset / Upper Band Edge

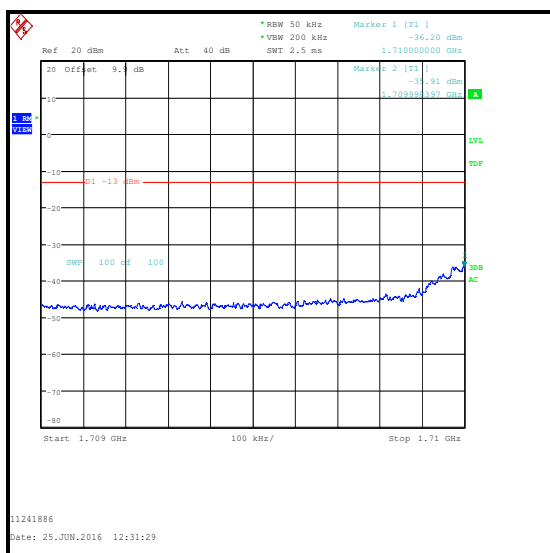
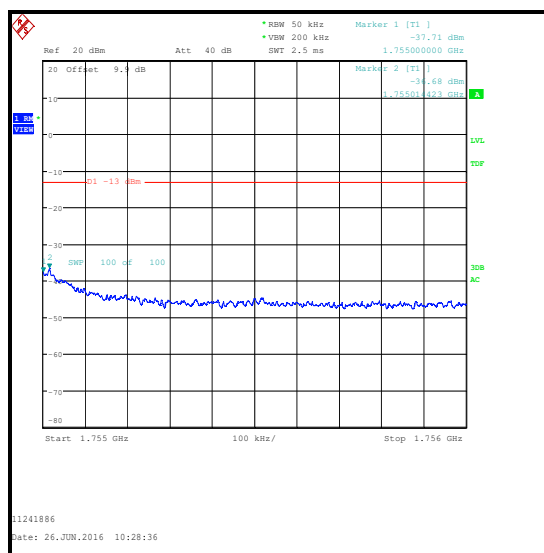
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 5 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.920	25	0	-36.5	-13.0	23.5	Complied
1710	25	0	-37.2	-13.0	24.2	Complied
1755	25	0	-40.3	-13.0	27.3	Complied
1755.	25	0	-39.5	-13.0	26.5	Complied

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

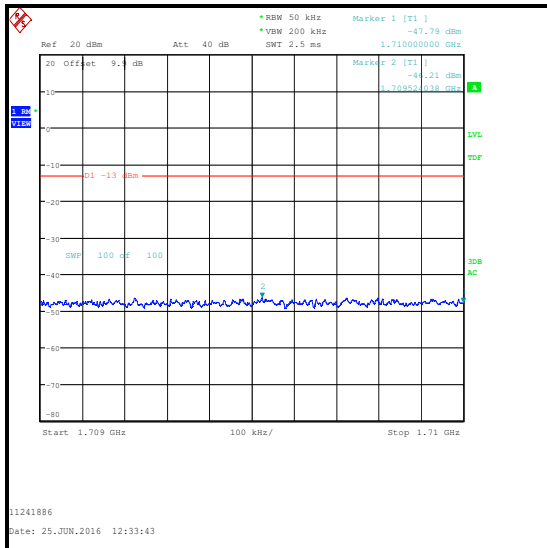
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 5 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.998	1	0	-35.9	-13.0	32.9	Complied
1710	1	0	-36.2	-13.0	33.2	Complied
1755	1	24	-37.7	-13.0	24.7	Complied
1755.014	1	24	-36.7	-13.0	23.7	Complied
1709.524	1	24	-46.2	-13.0	33.2	Complied
1710	1	24	-47.8	-13.0	34.8	Complied
1755	1	0	-47.3	-13.0	34.3	Complied
1755.	1	0	-45.2	-13.0	32.2	Complied

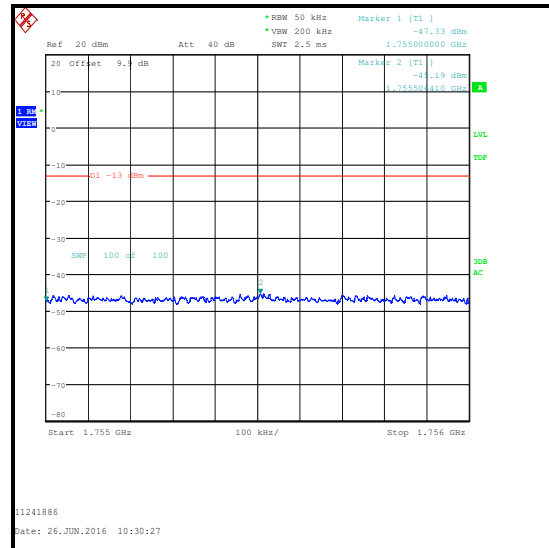
**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 24 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT

Results: 5 MHz Channel Bandwidth / QPSK (continued)



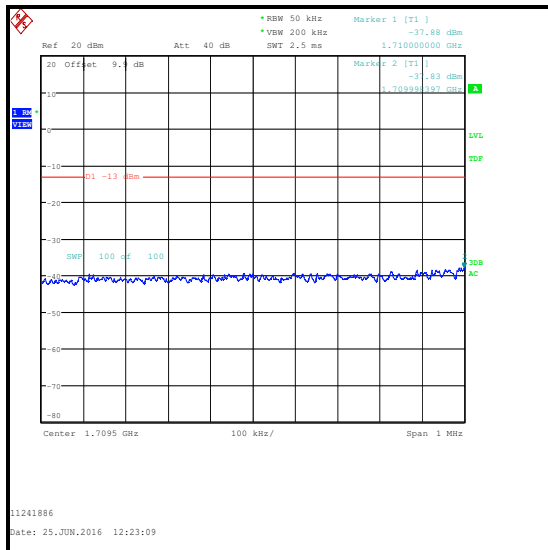
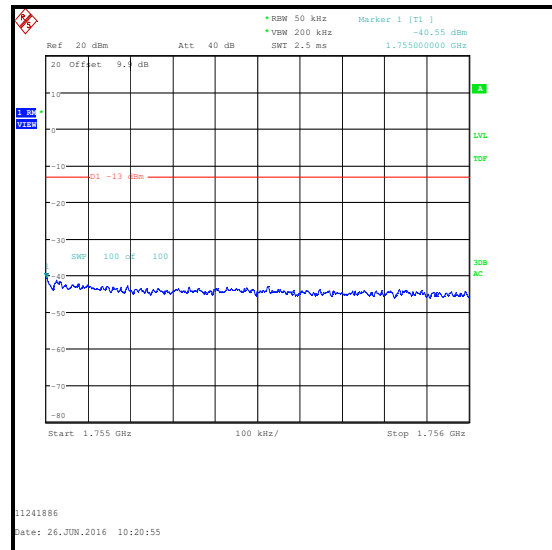
QPSK / 1 RB 24 offset / Lower Band Edge



QPSK / 1 RB 0 offset / Upper Band Edge

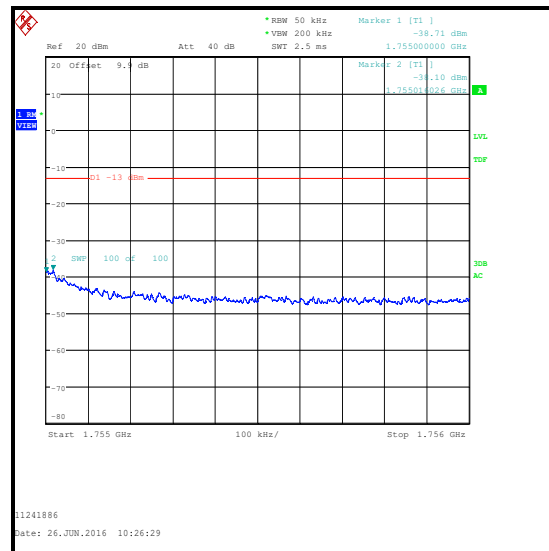
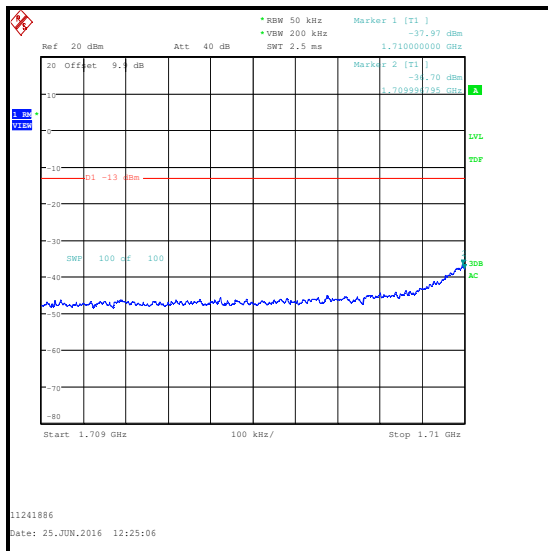
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 5 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.998	25	0	-37.8	-13.0	24.8	Complied
1710	25	0	-37.9	-13.0	24.9	Complied
1755	25	0	-40.6	-13.0	27.6	Complied

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

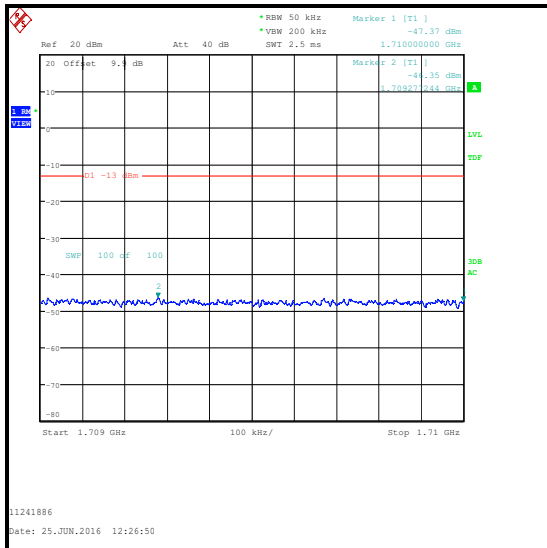
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 5 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.997	1	0	-36.7	-13.0	23.7	Complied
1710	1	0	-38.0	-13.0	25.0	Complied
1755	1	24	-38.7	-13.0	25.7	Complied
1755.016	1	24	-38.1	-13.0	25.1	Complied
1709.277	1	24	-46.4	-13.0	33.4	Complied
1710	1	24	-47.4	-13.0	34.4	Complied
1755	1	0	-46.4	-13.0	33.4	Complied
1755.556	1	0	-44.9	-13.0	31.9	Complied

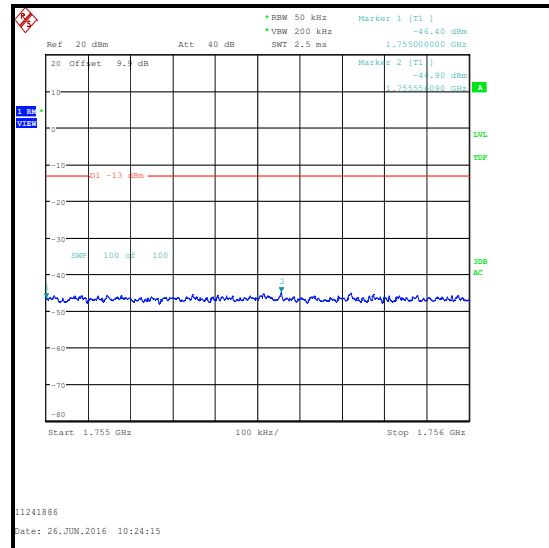


Transmitter Radiated Emissions at Band Edges (continued) - LAT

Results: 5 MHz Channel Bandwidth / 16QAM (continued)



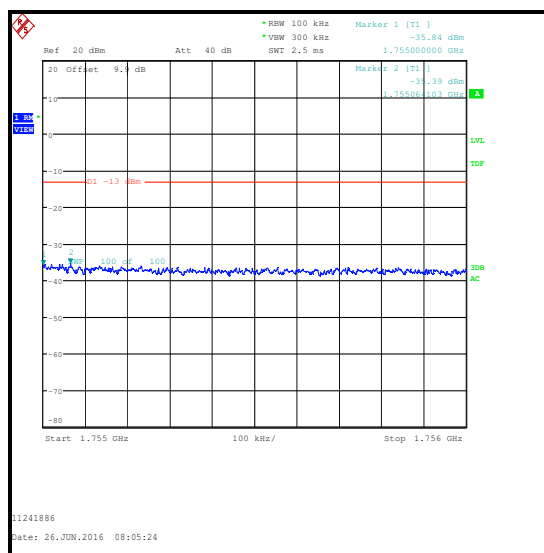
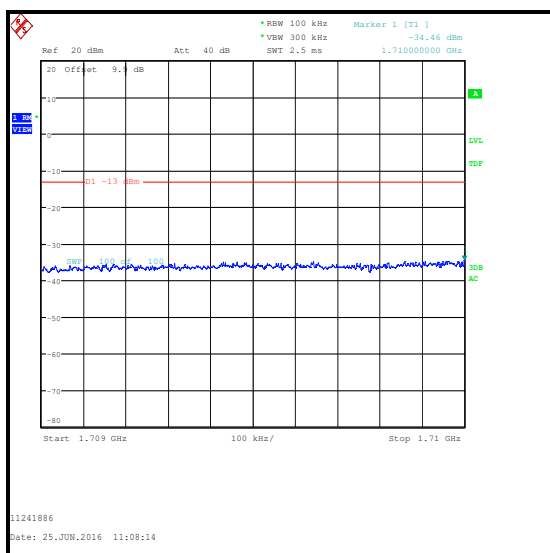
16QAM / 1 RB 24 offset / Lower Band Edge



16QAM / 1 RB 0 offset / Upper Band Edge

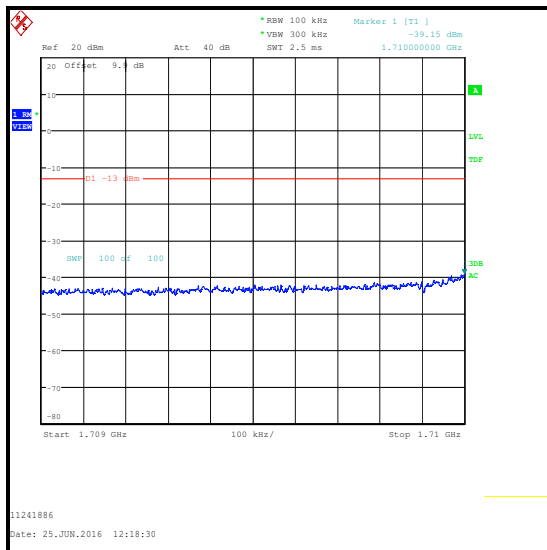
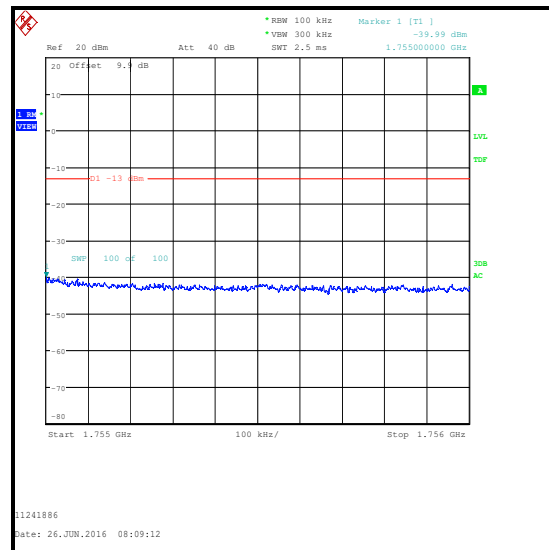
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 10 MHz Channel Bandwidth / QPSK**

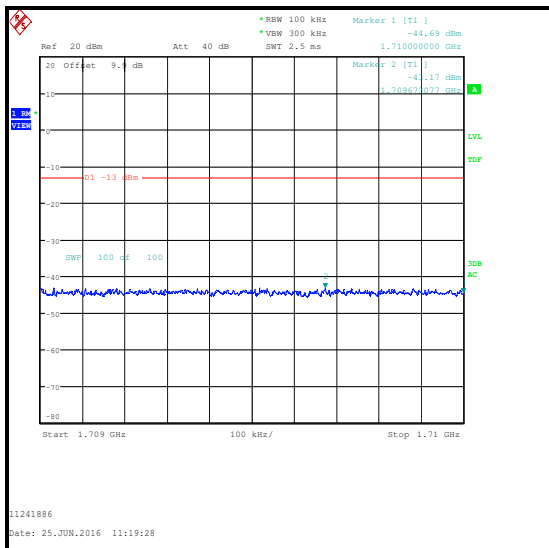
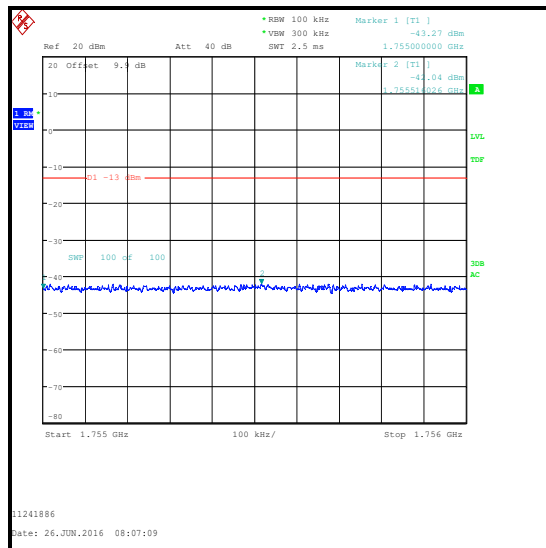
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	50	0	-34.5	-13.0	21.5	Complied
1755	50	0	-35.8	-13.0	22.8	Complied
1755.064	50	0	-35.4	-13.0	22.4	Complied



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

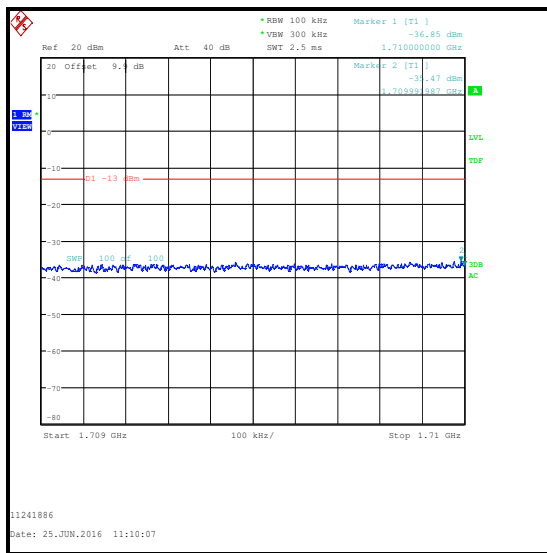
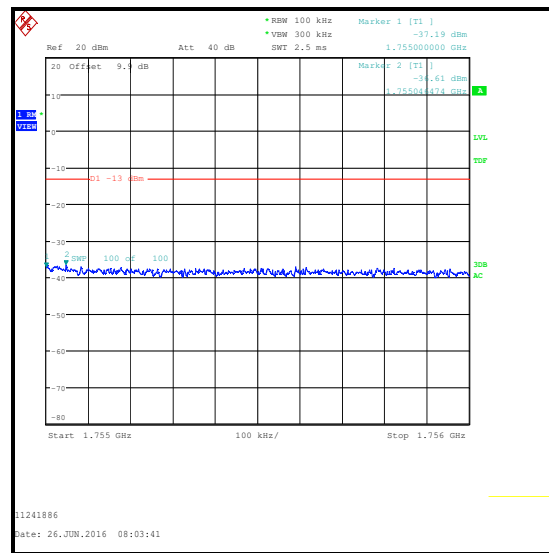
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	1	0	-39.2	-13.0	26.2	Complied
1755	1	49	-40.0	-13.0	27.0	Complied
1709.673	1	49	-43.2	-13.0	30.2	Complied
1710	1	49	-44.7	-13.0	31.7	Complied
1755	1	0	-43.3	-13.0	30.3	Complied
1755.516	1	0	-42.0	-13.0	29.0	Complied

**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 49 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 10 MHz Channel Bandwidth / QPSK (continued)****QPSK / 1 RB 49 offset / Lower Band Edge****QPSK / 1 RB 0 offset / Upper Band Edge**

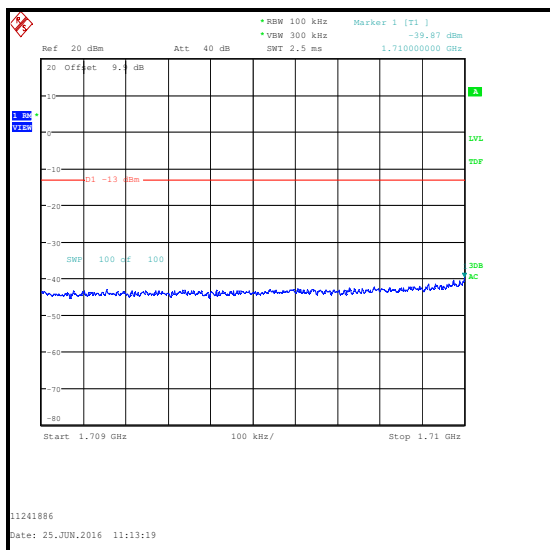
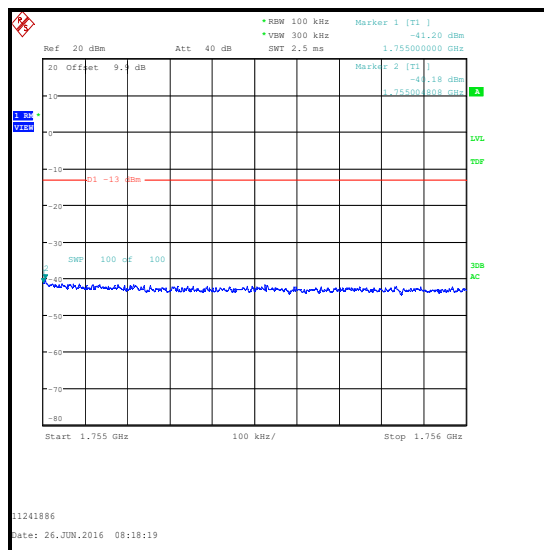
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 10 MHz Channel Bandwidth / 16QAM**

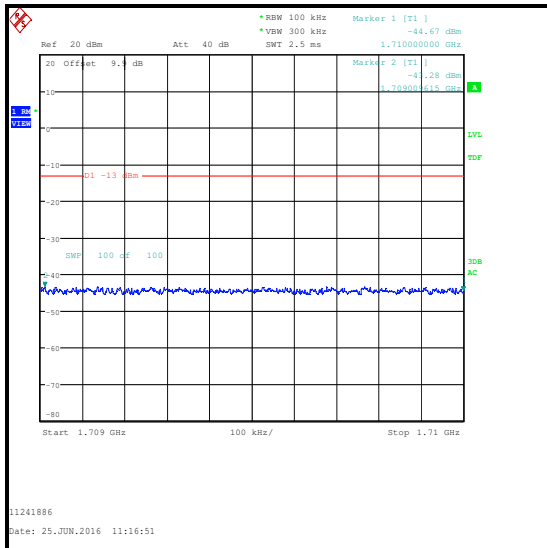
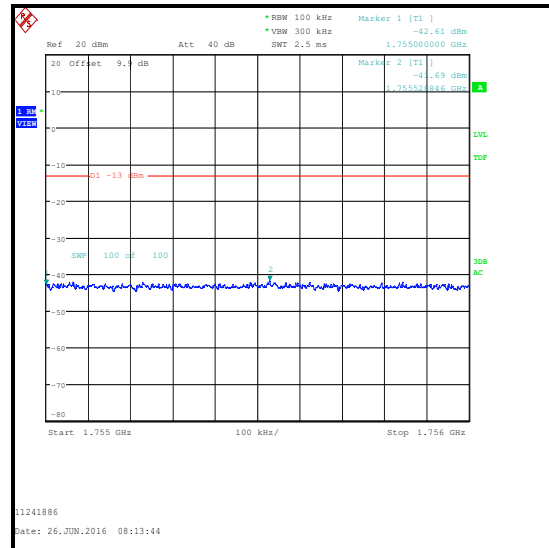
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.920	50	0	-35.5	-13.0	22.5	Complied
1710	50	0	-36.9	-13.0	23.9	Complied
1755	50	0	-37.2	-13.0	24.2	Complied
1755.046	50	0	-36.6	-13.0	23.6	Complied

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

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

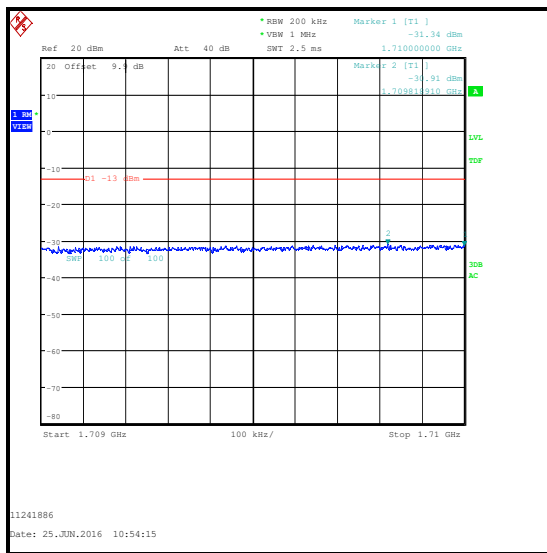
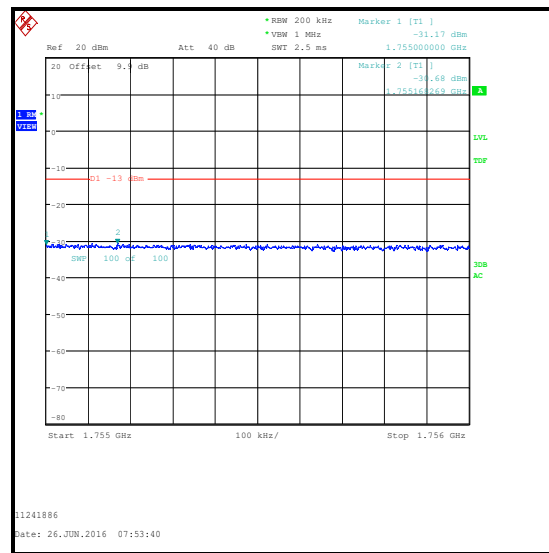
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	1	49	-39.9	-13.0	26.9	Complied
1755	1	49	-41.2	-13.0	28.2	Complied
1755.	1	49	-40.2	-13.0	27.2	Complied
1709.010	1	49	-43.3	-13.0	30.3	Complied
1710	1	49	-44.7	-13.0	31.7	Complied
1755	1	0	-42.6	-13.0	29.6	Complied
1755.	1	0	-41.7	-13.0	28.7	Complied

**16QAM / 1 RB 0 offset / Lower Band Edge****16QAM / 1 RB 49 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 10 MHz Channel Bandwidth / 16QAM (continued)****16QAM / 1 RB 49 offset / Lower Band Edge****16QAM / 1 RB 0 offset / Upper Band Edge**

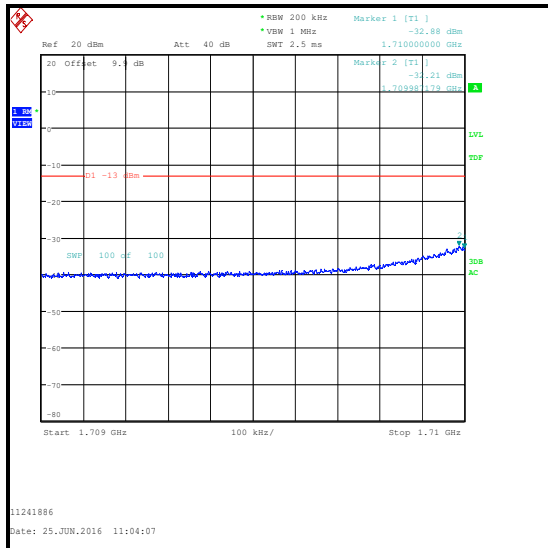
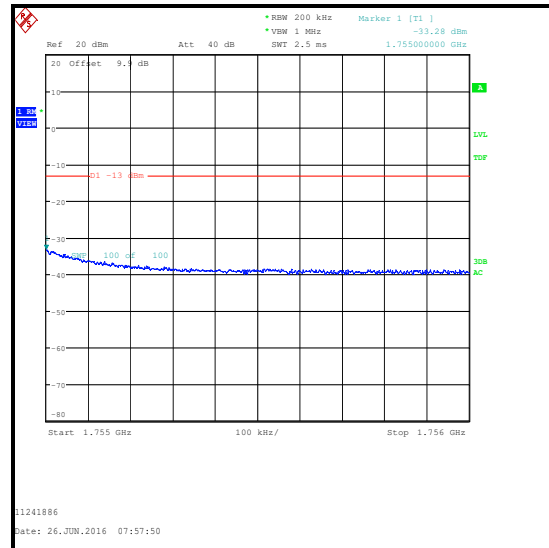
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 15 MHz Channel Bandwidth / QPSK**

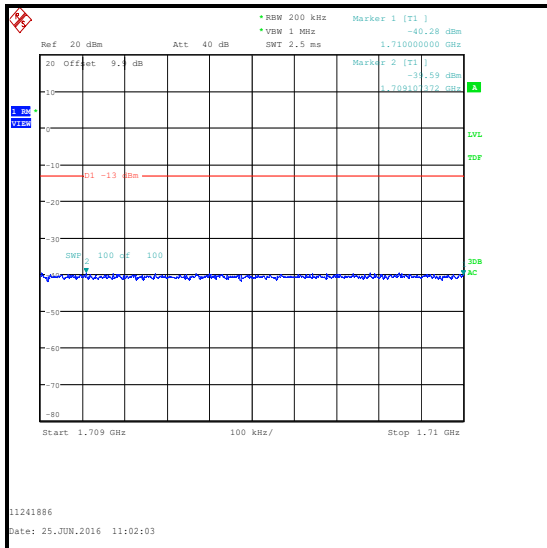
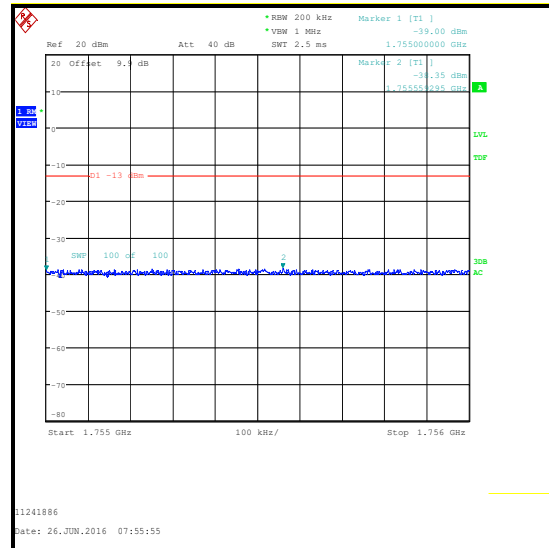
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.819	75	0	-30.9	-13.0	17.9	Complied
1710	75	0	-31.3	-13.0	18.3	Complied
1755	75	0	-31.2	-13.0	18.2	Complied
1755.168	75	0	-30.7	-13.0	17.7	Complied

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

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

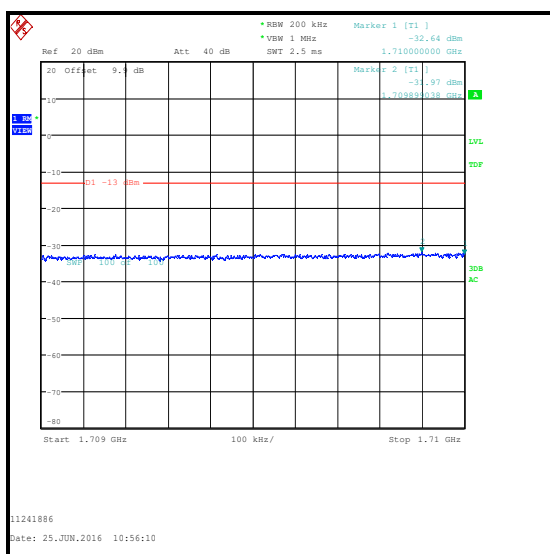
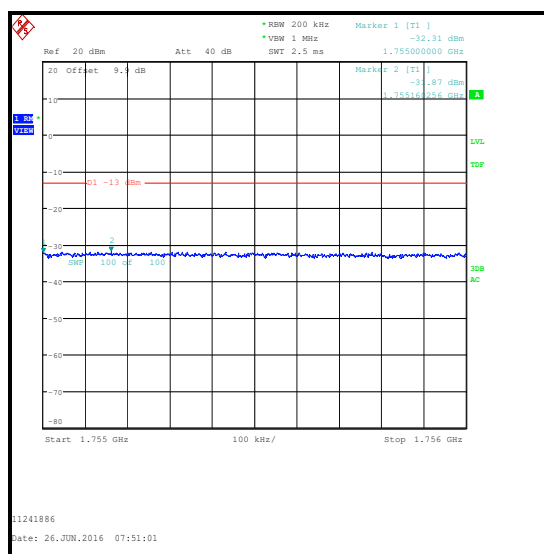
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.987	1	0	-32.2	-13.0	19.2	Complied
1710	1	0	-32.9	-13.0	19.9	Complied
1755	1	74	-33.3	-13.0	20.3	Complied
1709.107	1	74	-39.6	-13.0	26.6	Complied
1710	1	74	-40.3	-13.0	27.3	Complied
1755	1	0	-39.0	-13.0	26.0	Complied
1755.	1	0	-38.4	-13.0	25.4	Complied

**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 74 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 15 MHz Channel Bandwidth / QPSK (continued)****QPSK / 1 RB 74 offset / Lower Band Edge****QPSK / 1 RB 0 offset / Upper Band Edge**

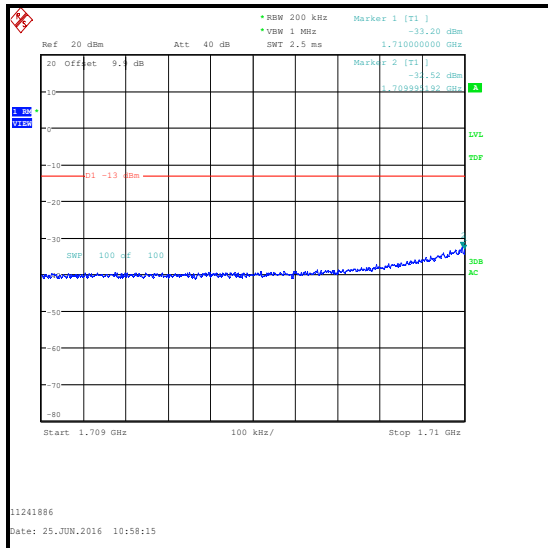
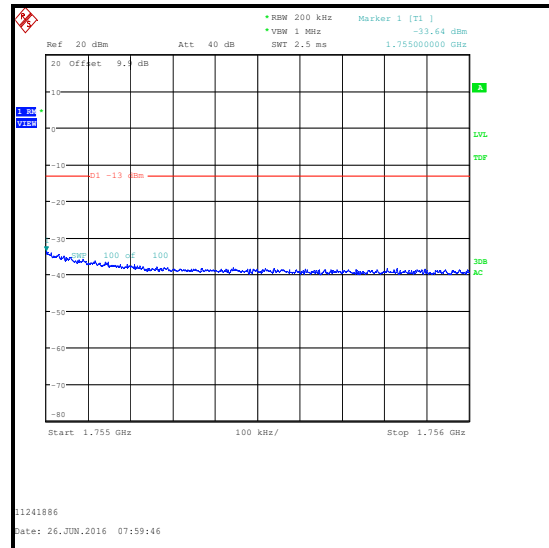
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 15 MHz Channel Bandwidth / 16QAM**

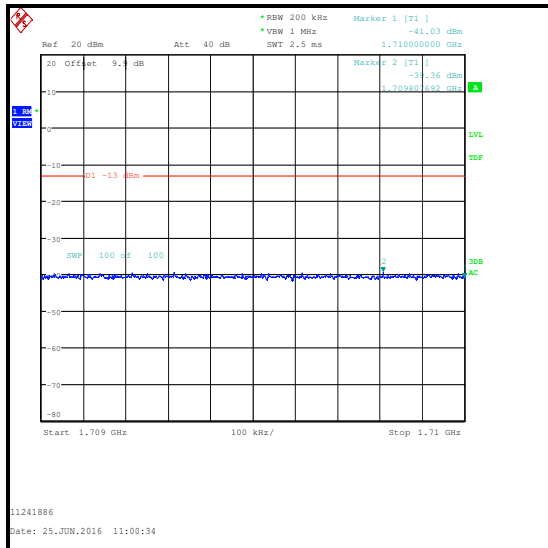
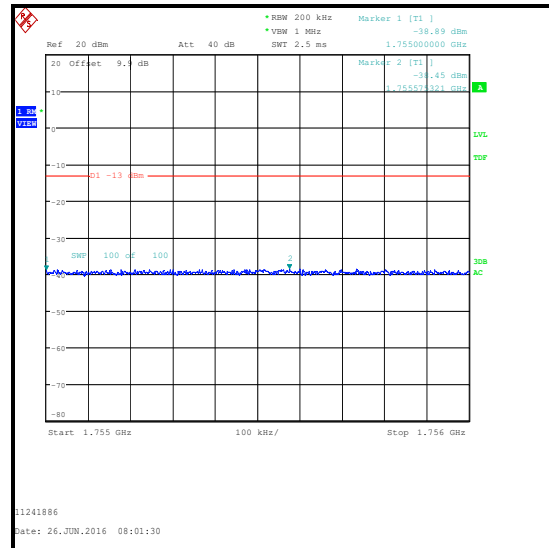
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.899	75	0	-32.0	-13.0	19.0	Complied
1710	75	0	-32.6	-13.0	19.6	Complied
1755	75	0	-32.3	-13.0	19.3	Complied
1755.168	75	0	-31.9	-13.0	18.9	Complied

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

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

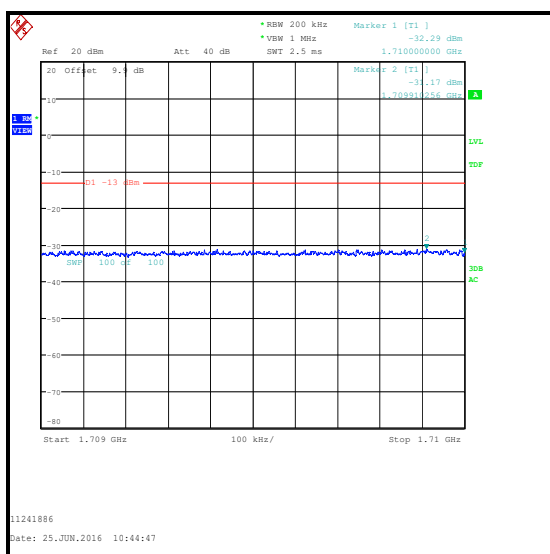
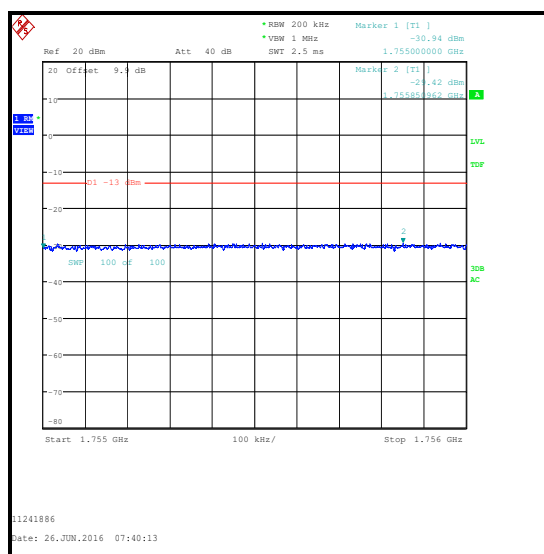
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.995	1	0	-32.5	-13.0	19.5	Complied
1710	1	0	-33.2	-13.0	20.2	Complied
1755	1	74	-33.6	-13.0	20.6	Complied
1709.808	1	74	-39.4	-13.0	26.4	Complied
1710	1	74	-41.0	-13.0	28.0	Complied
1755	1	0	-38.9	-13.0	25.9	Complied
1755.575	1	0	-38.5	-13.0	25.5	Complied

**16QAM / 1 RB 0 offset / Lower Band Edge****16QAM / 1 RB 74 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 15 MHz Channel Bandwidth / 16QAM (continued)****16QAM / 1 RB 74 offset / Lower Band Edge****16QAM / 1 RB 0 offset / Upper Band Edge**

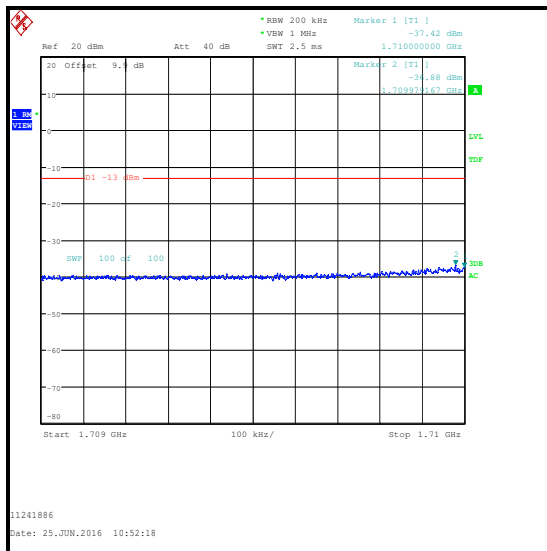
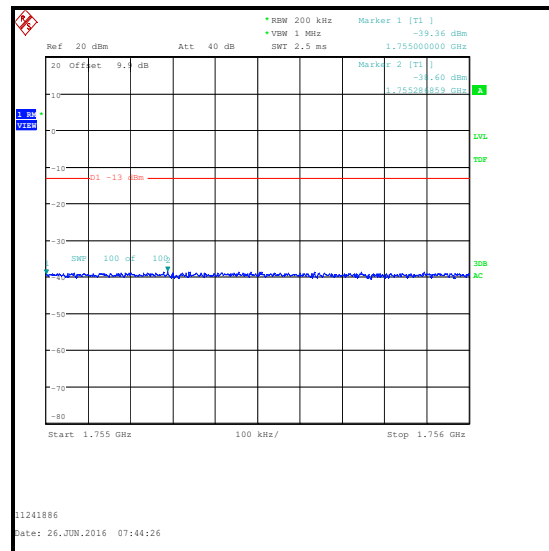
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 20 MHz Channel Bandwidth / QPSK**

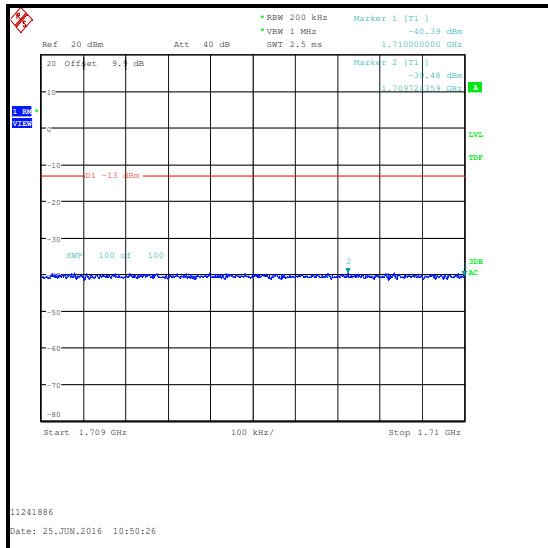
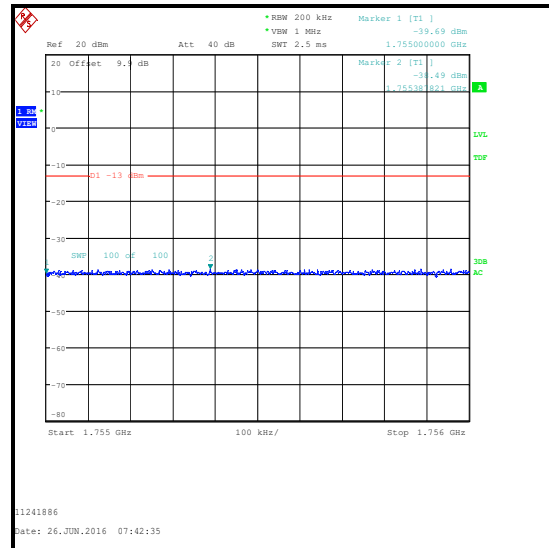
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.910	100	0	-31.2	-13.0	18.2	Complied
1710	100	0	-32.3	-13.0	19.3	Complied
1755	75	0	-30.9	-13.0	17.9	Complied
1755.851	75	0	-29.4	-13.0	16.4	Complied

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

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

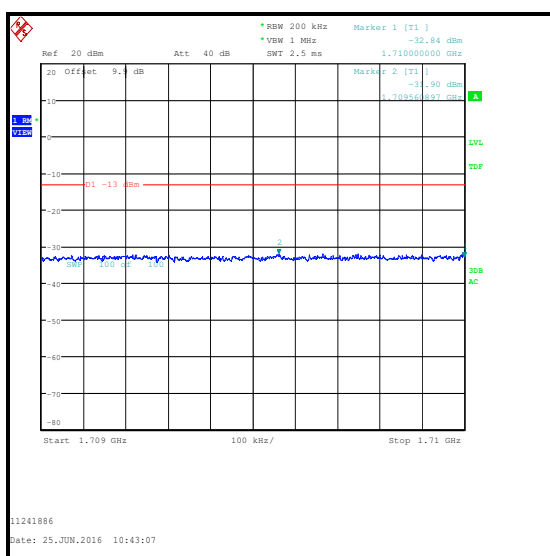
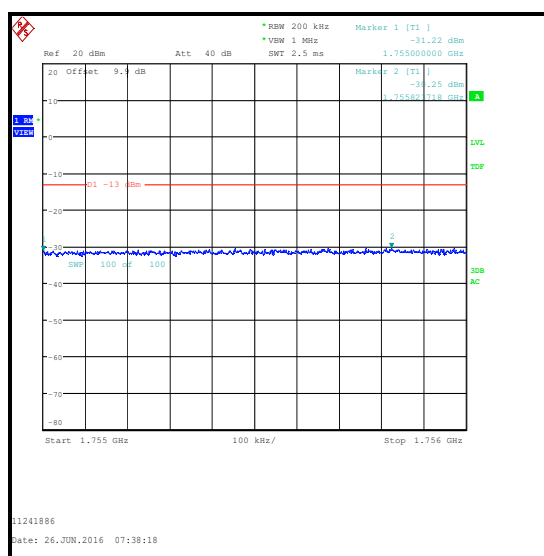
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.979	1	0	-36.9	-13.0	23.9	Complied
1710	1	0	-37.4	-13.0	24.4	Complied
1755	1	99	-39.4	-13.0	26.4	Complied
1755.287	1	99	-38.6	-13.0	25.6	Complied
1709.724	1	99	-39.5	-13.0	26.5	Complied
1710	1	99	-40.4	-13.0	27.4	Complied
1755	1	0	-39.7	-13.0	26.7	Complied
1755.388	1	0	-38.5	-13.0	25.5	Complied

**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 99 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 20 MHz Channel Bandwidth / QPSK (continued)****QPSK / 1 RB 99 offset / Lower Band Edge****QPSK / 1 RB 0 offset / Upper Band Edge**

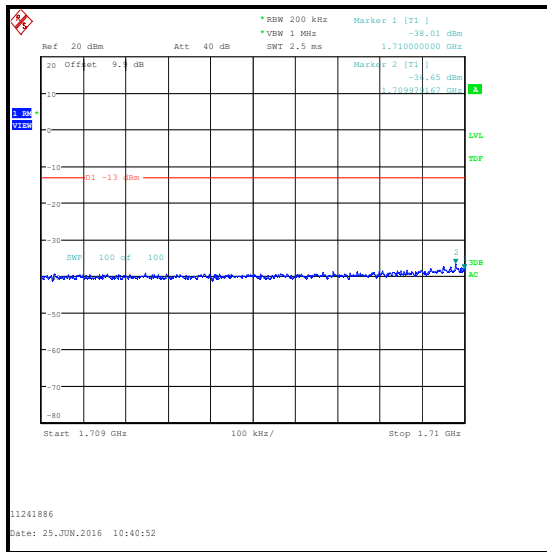
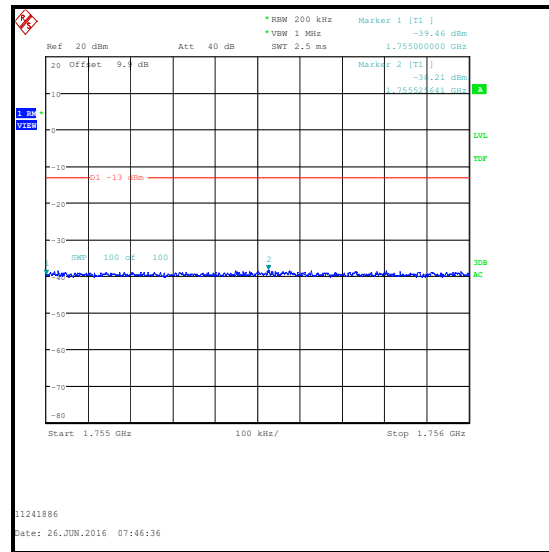
Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 20 MHz Channel Bandwidth / 16QAM**

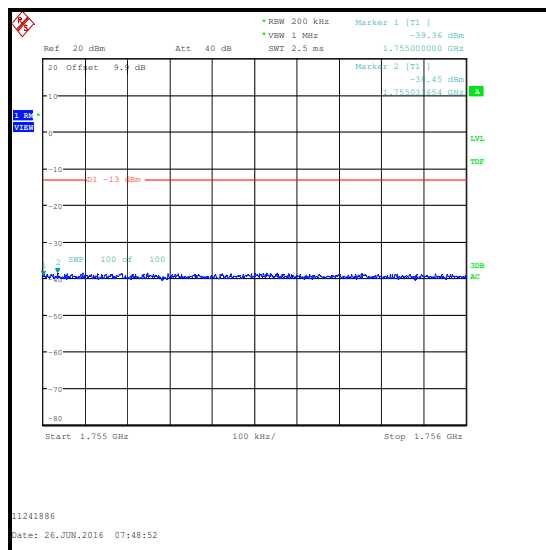
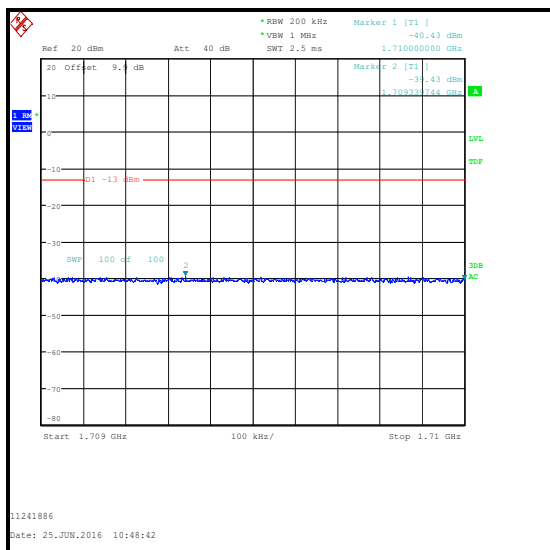
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.561	100	0	-31.9	-13.0	18.9	Complied
1710	100	0	-32.8	-13.0	19.8	Complied
1755	100	0	-31.2	-13.0	18.2	Complied
1755.824	100	0	-30.3	-13.0	17.3	Complied

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

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

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.979	1	0	-36.7	-13.0	23.7	Complied
1710	1	0	-38.0	-13.0	25.0	Complied
1755	1	99	-39.5	-13.0	26.5	Complied
1755.526	1	99	-38.2	-13.0	25.2	Complied
1709.340	1	99	-39.4	-13.0	26.4	Complied
1710	1	99	-40.4	-13.0	27.4	Complied
1755	1	0	-39.4	-13.0	26.4	Complied
1755.	1	0	-38.5	-13.0	25.5	Complied

**16QAM / 1 RB 0 offset / Lower Band Edge****16QAM / 1 RB 99 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - LAT**Results: 20 MHz Channel Bandwidth / 16QAM (continued)****Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M2003	Thermohygrometer	Testo	608-H1	45046641	22 Apr 2017	12
K0017	3m RSE Chamber	Rainford EMC	N/A	N/A	17 May 2017	12
M1995	Test Receiver	Rohde & Schwarz	ESU40	100428	21 Mar 2017	12
A2916	Attenuator	AtlanTecRF	AN18W5-10	832827#1	19 May 2017	12
A2863	Pre Amplifier	Agilent	8449B	3008A02100	07 Jan 2017	12
A2889	Antenna	Schwarzbeck	BBHA 9120 B	BBHA 9120 B 653	07 Apr 2017	12

5.2.8. Transmitter Radiated Emissions at Band Edges - UAT**Test Summary:**

Test Engineers:	David Doyle & Nick Steele	Test Dates:	24 June 2016 to 26 June 2016
Test Sample IMEI:	358640070022893		

FCC Reference:	Parts 2.1053 & 27.53(h)(1)
Test Method Used:	KDB 971168 Section 6.1 referencing FCC Part 27.53

Environmental Conditions:

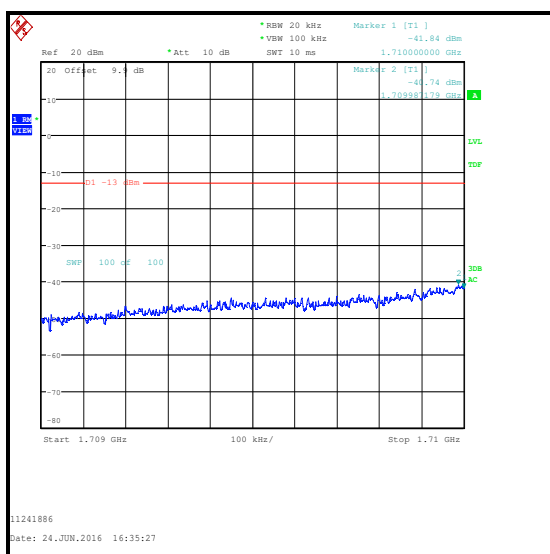
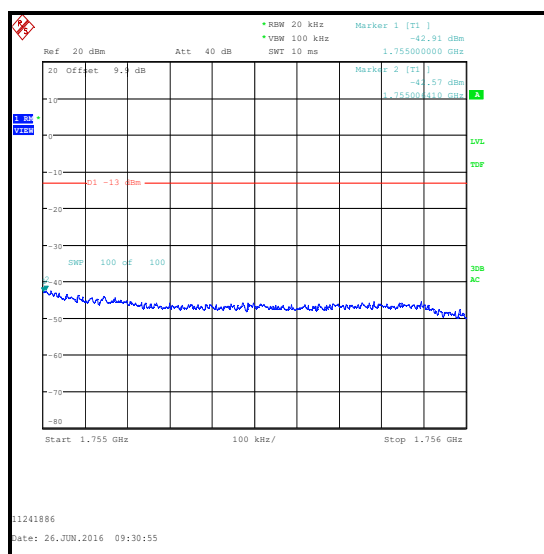
Temperature (°C):	24 to 25
Relative Humidity (%):	42 to 45

Note(s):

1. 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.
2. Measurements were performed in a fully anechoic chamber (Asset Number K0017) 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. The measurement antenna was placed at a fixed height of 1.5 metres above the test chamber floor in line with the EUT.
3. 1.4 MHz Channel bandwidth: In the first 1.0 MHz immediately outside and adjacent to the operating band, the test receiver resolution bandwidth was set to 20 kHz (>1% of the widest 26 dB emission bandwidth) and video bandwidth 100 kHz (as close to > three times the resolution bandwidth as the test receiver allowed).
4. 3 MHz Channel bandwidth: In the first 1.0 MHz immediately outside and adjacent to the operating band, the test receiver resolution bandwidth was set to 30 kHz (1% of the widest 26 dB emission bandwidth) and video bandwidth 100 kHz (as close to > three times the resolution bandwidth as the test receiver allowed).
5. 5 MHz Channel bandwidth: In the first 1.0 MHz immediately outside and adjacent to the operating band, the test receiver resolution bandwidth was set to 50 kHz (1% of the widest 26 dB emission bandwidth) and video bandwidth 200 kHz (as close to > three times the resolution bandwidth as the test receiver allowed).
6. 10 MHz Channel bandwidth: In the first 1.0 MHz immediately outside and adjacent to the operating band, the test receiver resolution bandwidth was set to 100 kHz (>1% of the widest 26 dB emission bandwidth) and video bandwidth 300 kHz (three times the resolution bandwidth).
7. 15 MHz Channel bandwidth: In the first 1.0 MHz immediately outside and adjacent to the operating band, the test receiver resolution bandwidth was set to 200 kHz (1% of the widest 26 dB emission bandwidth) and video bandwidth 1 MHz (as close to > three times the resolution bandwidth as the test receiver allowed).
8. 20 MHz Channel bandwidth: In the first 1.0 MHz immediately outside and adjacent to the operating band, the test receiver resolution bandwidth was set to 200 kHz (>1% of the widest 26 dB emission bandwidth) and video bandwidth 1 MHz (three times the resolution bandwidth).

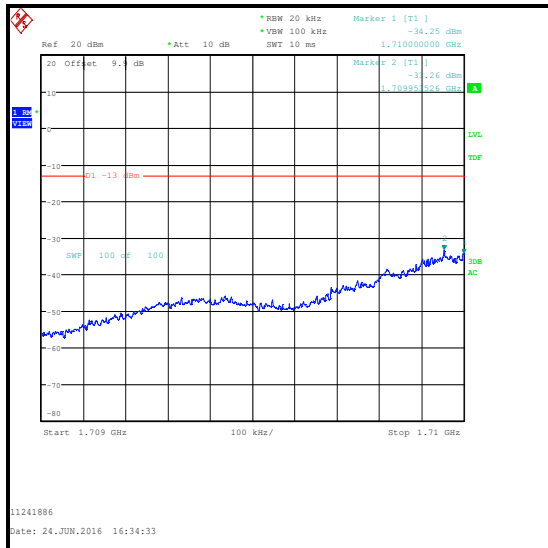
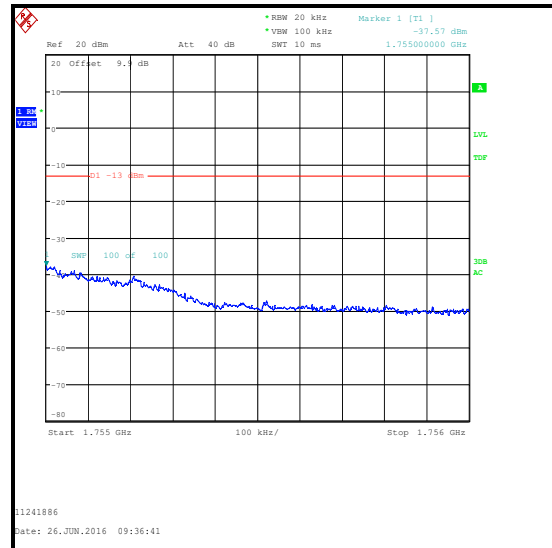
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 1.4 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.987	6	0	-40.7	-13.0	27.7	Complied
1710	6	0	-41.8	-13.0	28.8	Complied
1755	6	0	-42.9	-13.0	29.9	Complied
1755.016	6	0	-42.6	-13.0	29.6	Complied

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

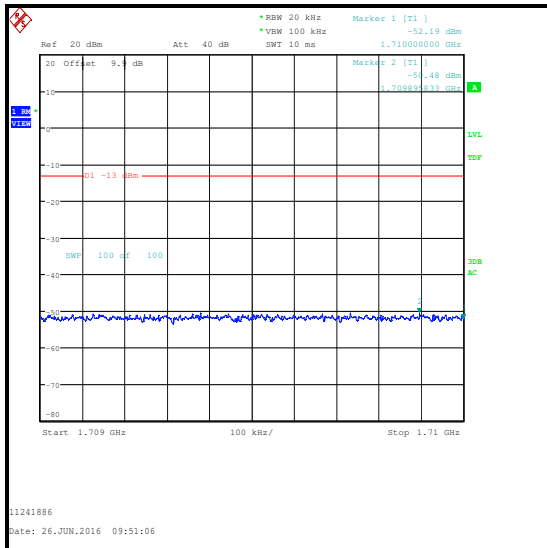
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 1.4 MHz Channel Bandwidth / QPSK**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.953	1	0	-33.3	-13.0	20.3	Complied
1710	1	0	-34.3	-13.0	21.3	Complied
1755	1	5	-37.6	-13.0	24.6	Complied
1709.896	1	5	-50.5	-13.0	37.5	Complied
1710	1	5	-52.2	-13.0	39.2	Complied
1755	1	0	-50.0	-13.0	37.0	Complied
1755.521	1	0	-47.9	-13.0	34.9	Complied

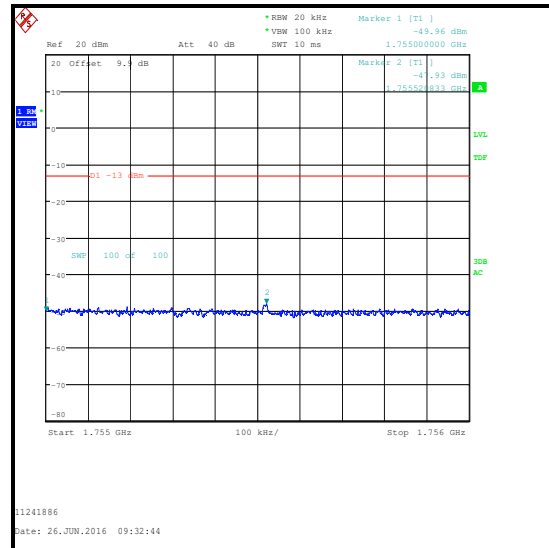
**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 5 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - UAT

Results: 1.4 MHz Channel Bandwidth / QPSK (continued)



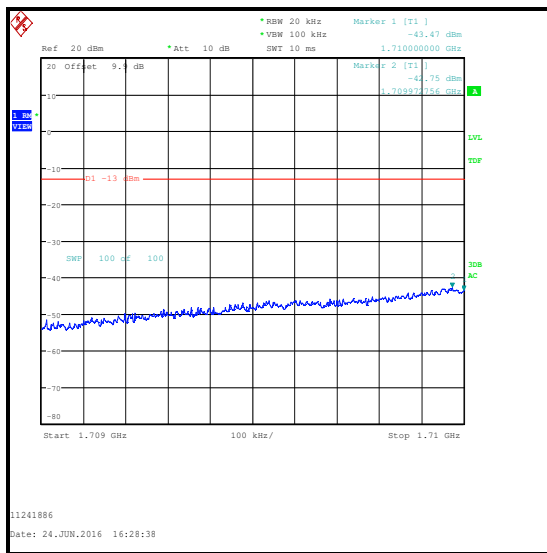
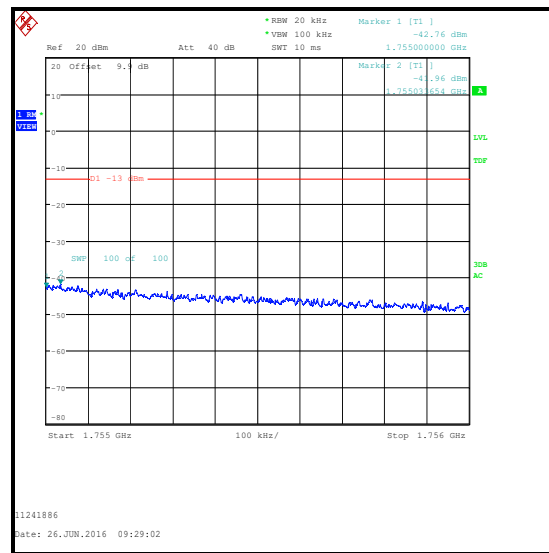
QPSK / 1 RB 5 offset / Lower Band Edge



QPSK / 1 RB 0 offset / Upper Band Edge

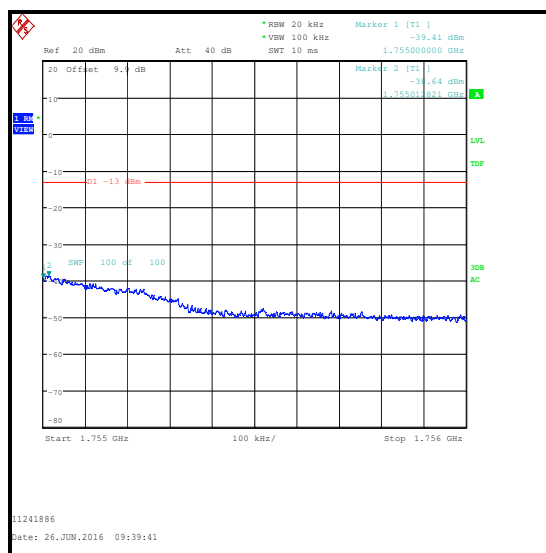
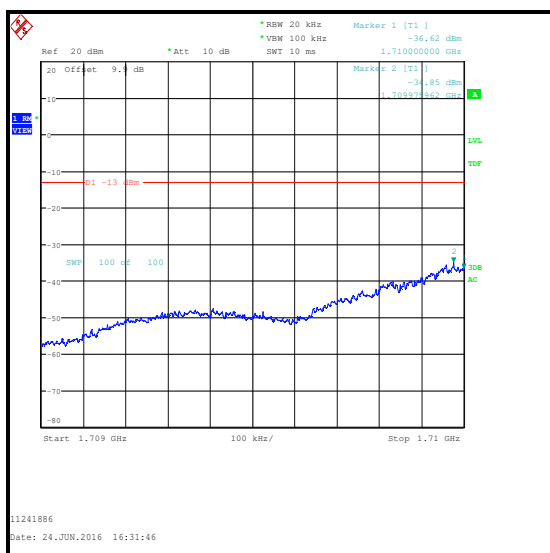
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 1.4 MHz Channel Bandwidth / 16QAM**

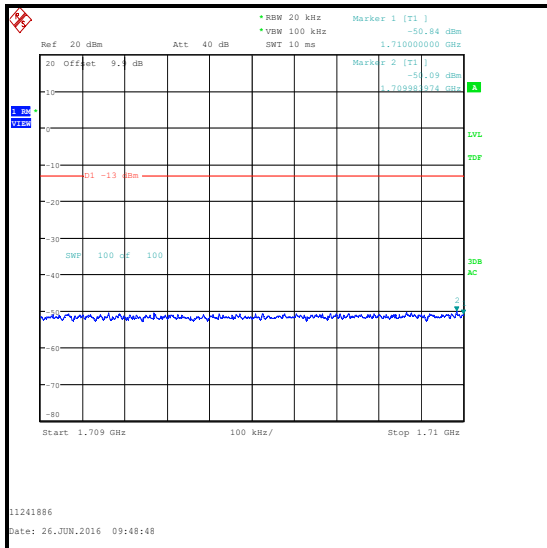
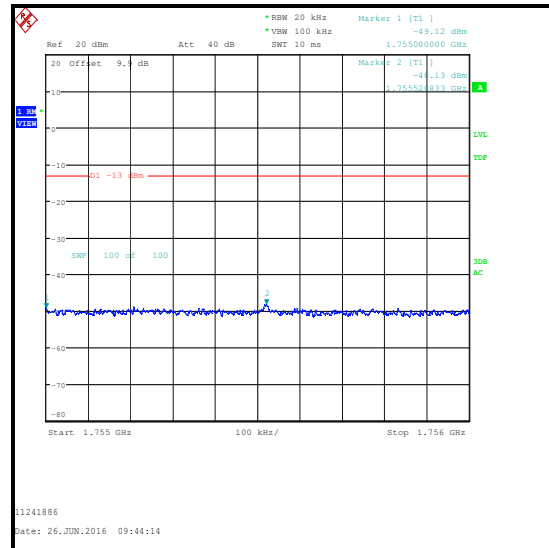
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.973	6	0	-42.8	-13.0	29.8	Complied
1710	6	0	-43.5	-13.0	30.5	Complied
1755	6	0	-42.8	-13.0	29.8	Complied
1755.034	6	0	-42.0	-13.0	29.0	Complied

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

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 1.4 MHz Channel Bandwidth / 16QAM**

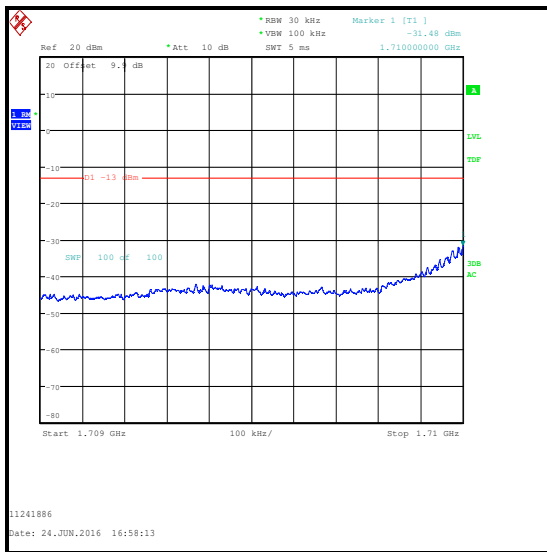
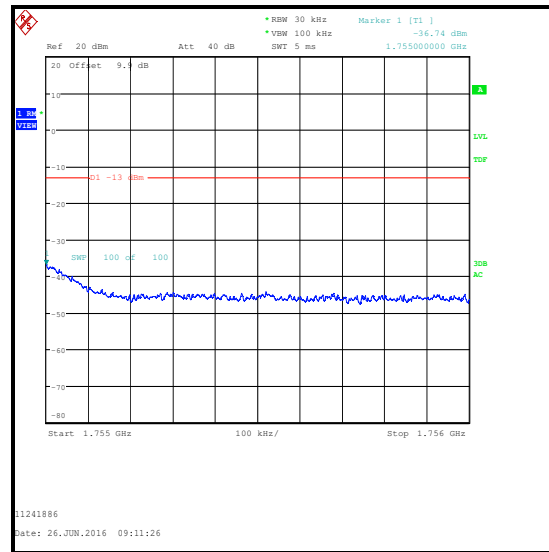
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.976	1	0	-34.9	-13.0	21.9	Complied
1710	1	0	-36.6	-13.0	23.6	Complied
1755	1	5	-39.4	-13.0	26.4	Complied
1755.013	1	5	-38.6	-13.0	25.6	Complied
1709.984	1	5	-50.8	-13.0	37.8	Complied
1710	1	5	-50.1	-13.0	37.1	Complied
1755	1	0	-49.1	-13.0	36.1	Complied
1755.	1	0	-48.1	-13.0	35.1	Complied



Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 1.4 MHz Channel Bandwidth / 16QAM (continued)****16QAM / 1 RB 5 offset / Lower Band Edge****16QAM / 1 RB 0 offset / Upper Band Edge**

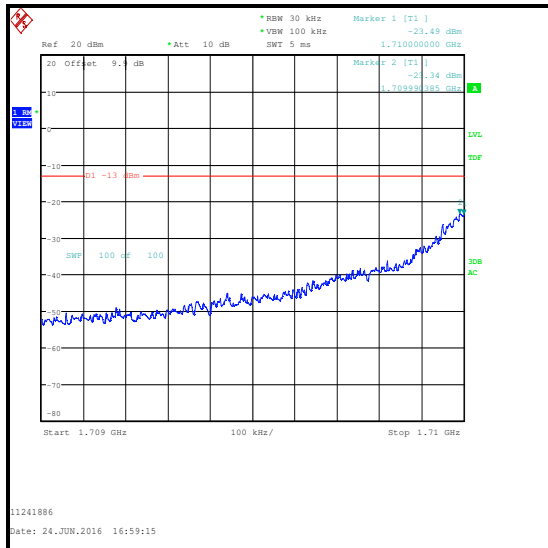
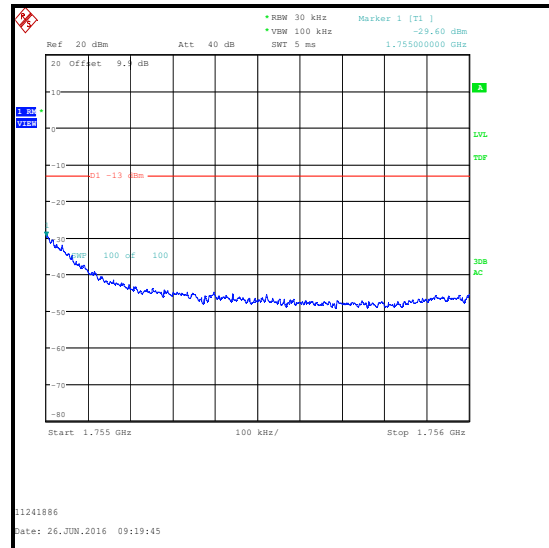
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 3 MHz Channel Bandwidth / QPSK**

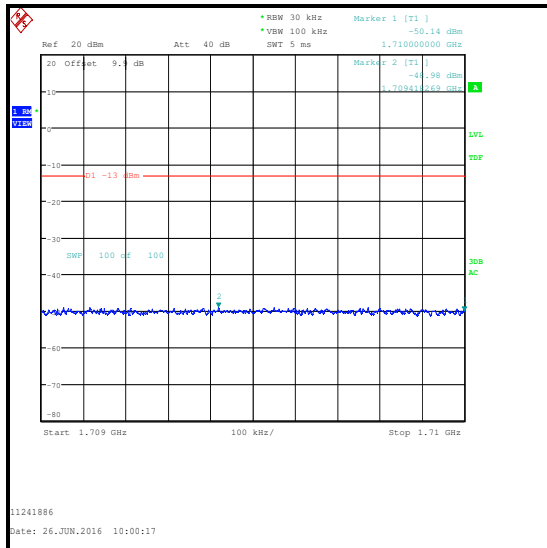
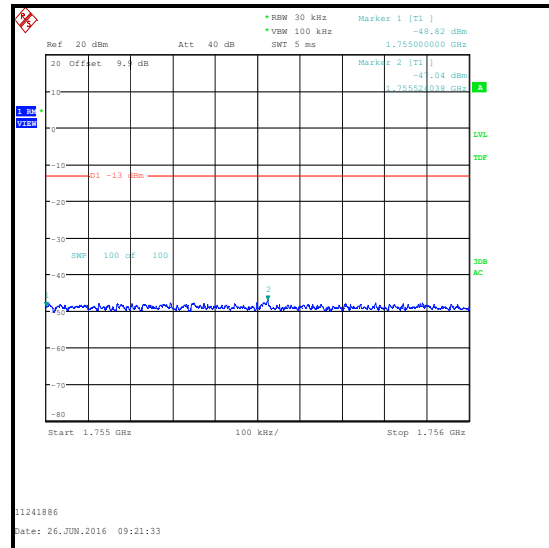
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	15	0	-31.5	-13.0	18.5	Complied
1755	15	0	-36.7	-13.0	23.7	Complied

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

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 3 MHz Channel Bandwidth / QPSK**

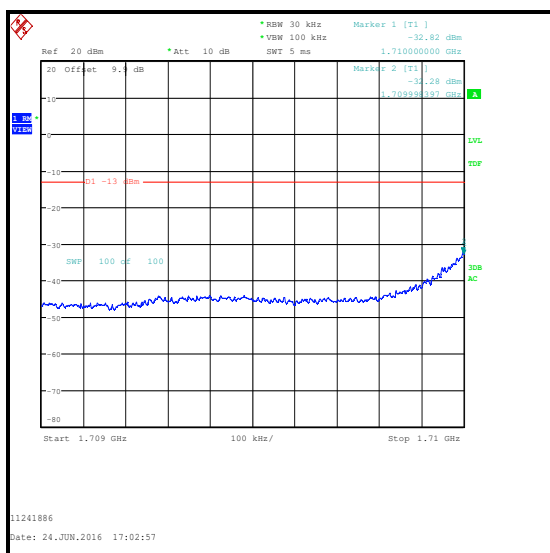
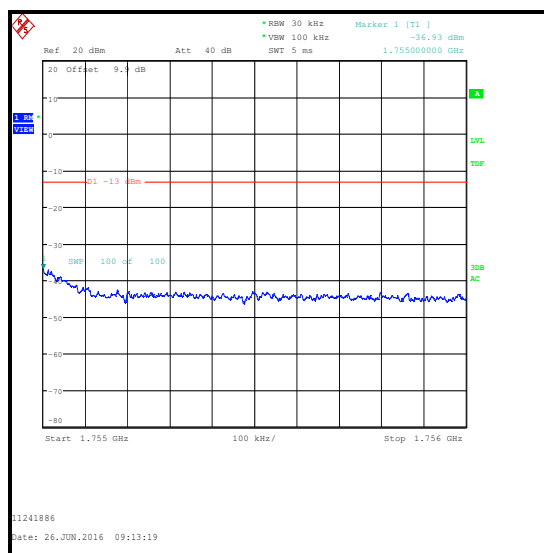
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.904	1	0	-23.3	-13.0	10.3	Complied
1710	1	0	-23.5	-13.0	10.5	Complied
1755	1	14	-29.6	-13.0	16.6	Complied
1709.418	1	14	-49.0	-13.0	36.0	Complied
1710	1	14	-50.1	-13.0	37.1	Complied
1755	1	0	-48.8	-13.0	35.8	Complied
1755.524	1	0	-47.0	-13.0	34.0	Complied

**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 14 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 3 MHz Channel Bandwidth / QPSK****QPSK / 1 RB 14 offset / Lower Band Edge****QPSK / 1 RB 0 offset / Upper Band Edge**

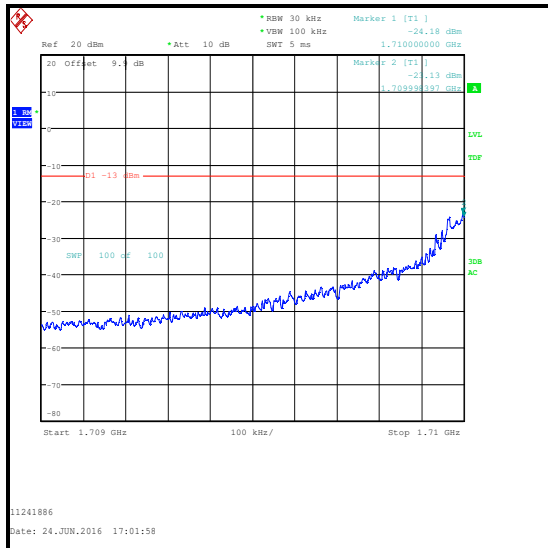
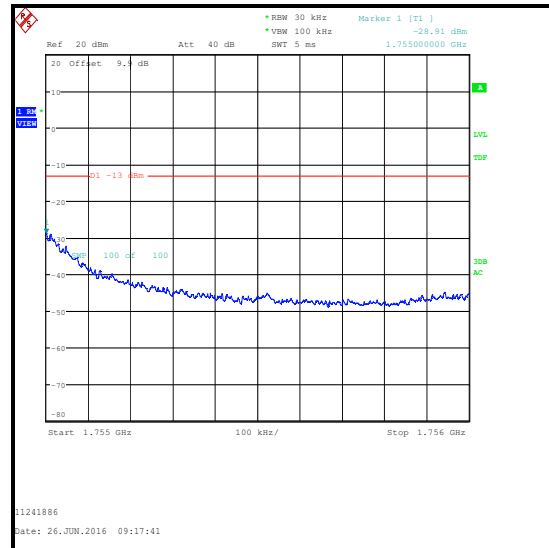
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 3 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.998	15	0	-32.3	-13.0	19.3	Complied
1710	15	0	-32.8	-13.0	19.8	Complied
1755	15	0	-36.9	-13.0	23.9	Complied

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

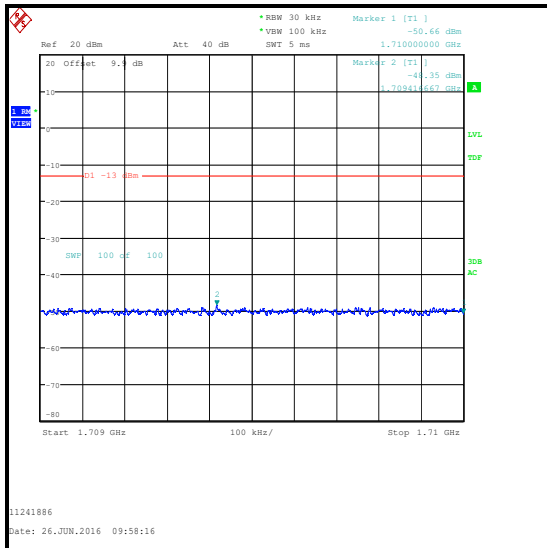
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 3 MHz Channel Bandwidth / 16QAM**

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.994	1	0	-23.1	-13.0	10.1	Complied
1755	1	0	-24.2	-13.0	11.2	Complied
1755	1	14	-28.9	-13.0	15.9	Complied
1709.417	1	14	-48.4	-13.0	35.4	Complied
1710	1	14	-50.7	-13.0	37.7	Complied
1755	1	0	-48.4	-13.0	35.4	Complied
1755.518	1	0	-46.4	-13.0	33.4	Complied

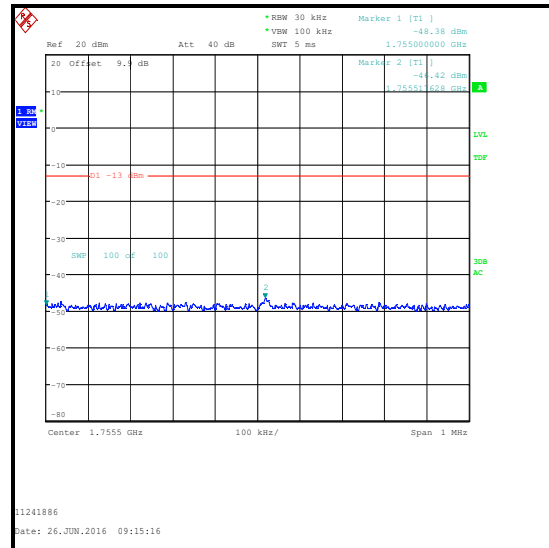
**16QAM / 1 RB 0 offset / Lower Band Edge****16QAM / 1 RB 14 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - UAT

Results: 3 MHz Channel Bandwidth / 16QAM (continued)



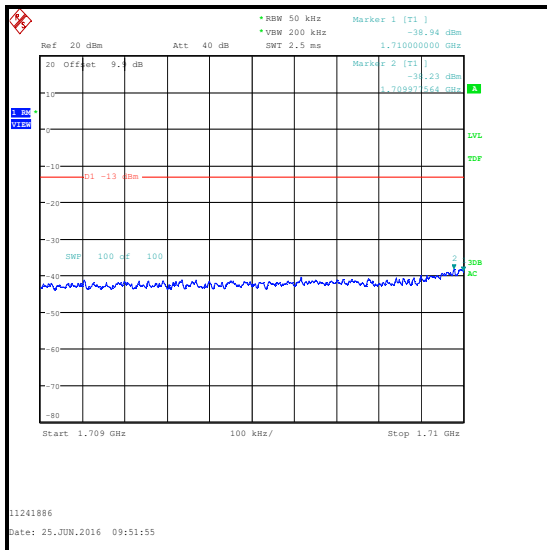
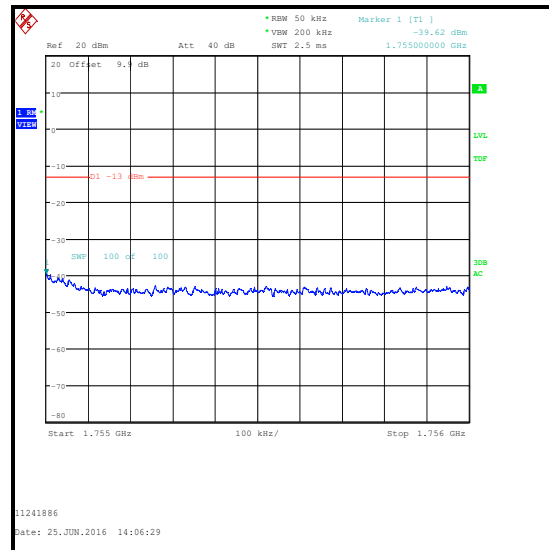
16QAM / 1 RB 14 offset / Lower Band Edge



16QAM / 1 RB 0 offset / Upper Band Edge

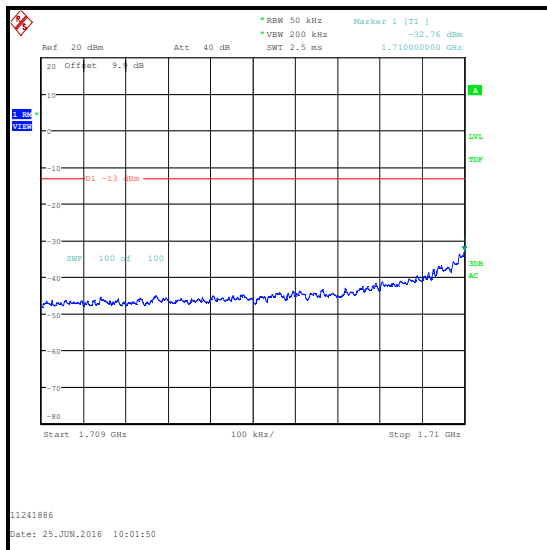
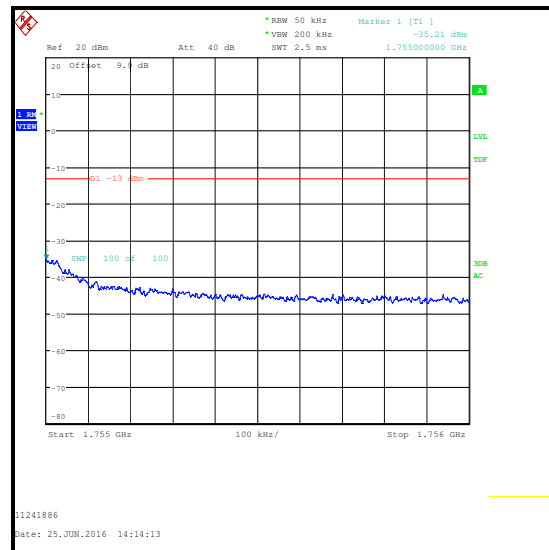
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 5 MHz Channel Bandwidth / QPSK**

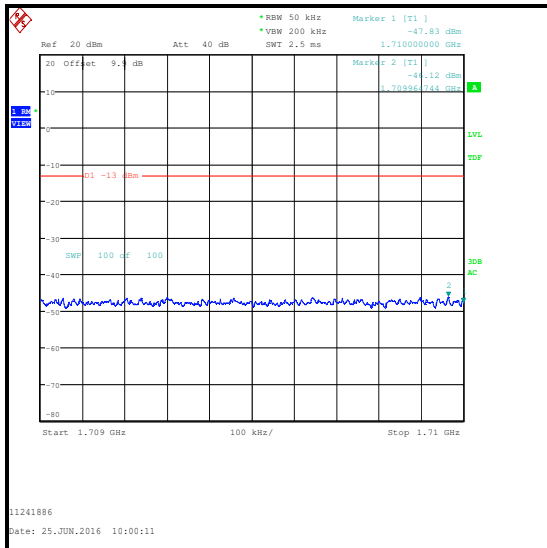
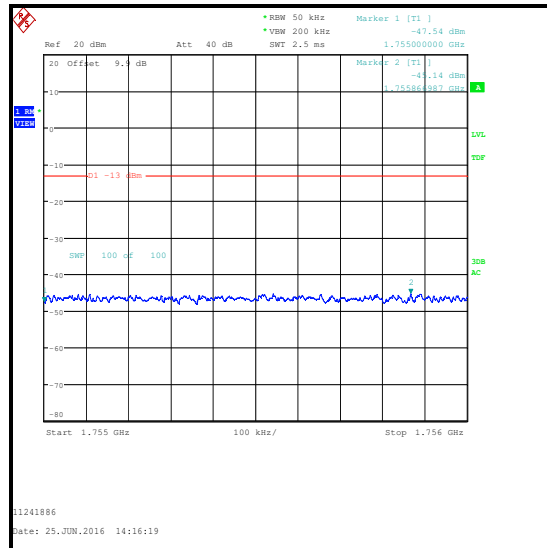
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.978	25	0	-38.2	-13.0	25.2	Complied
1710	25	0	-38.9	-13.0	25.9	Complied
1755	25	0	-39.6	-13.0	26.6	Complied

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

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

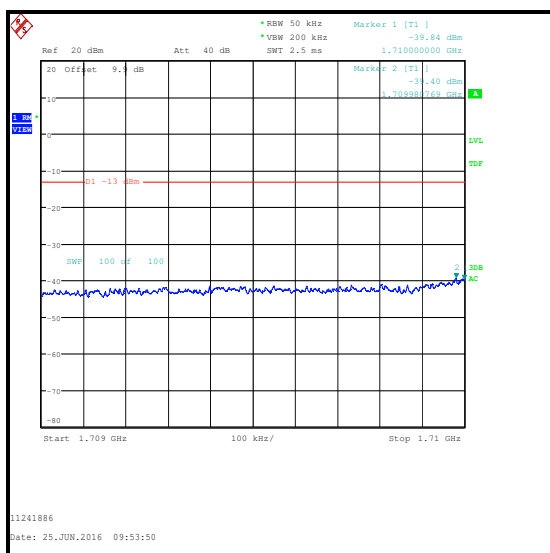
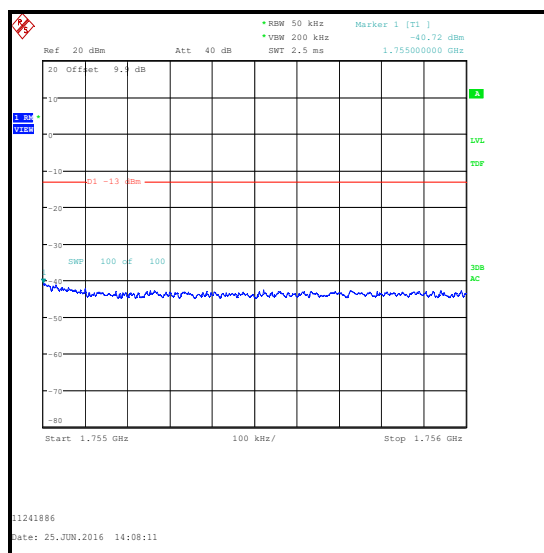
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	1	0	-32.8	-13.0	19.8	Complied
1755	1	24	-35.2	-13.0	22.2	Complied
1709.965	1	24	-46.1	-13.0	33.1	Complied
1710	1	24	-47.8	-13.0	34.8	Complied
1755	1	0	-47.5	-13.0	34.5	Complied
1755.	1	0	-45.1	-13.0	32.1	Complied

**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 24 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 5 MHz Channel Bandwidth / QPSK (continued)****QPSK / 1 RB 24 offset / Lower Band Edge****QPSK / 1 RB 0 offset / Upper Band Edge**

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

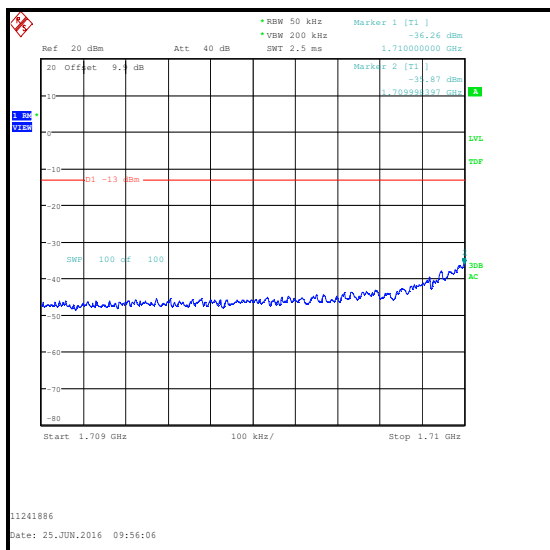
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.981	25	0	-39.4	-13.0	26.4	Complied
1710	25	0	-39.8	-13.0	26.8	Complied
1755	25	0	-40.7	-13.0	27.7	Complied

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

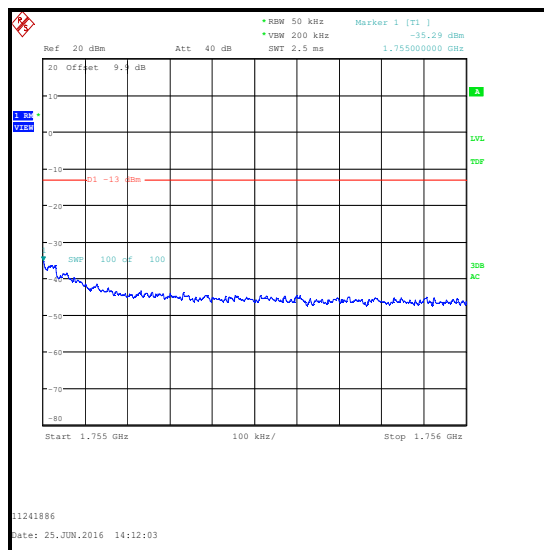
Transmitter Radiated Emissions at Band Edges (continued) - UAT

Results: 5 MHz Channel Bandwidth / 16QAM

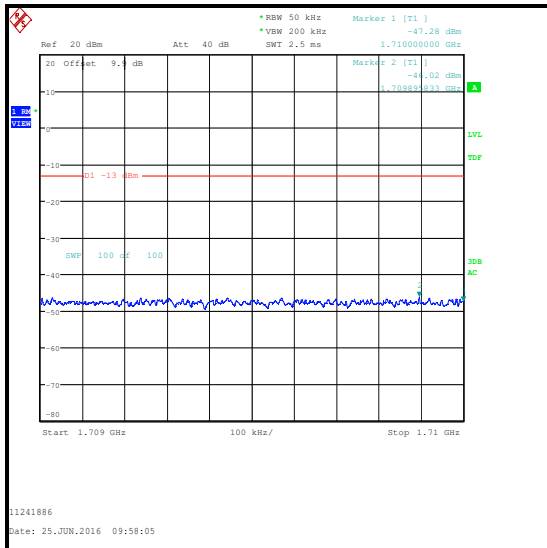
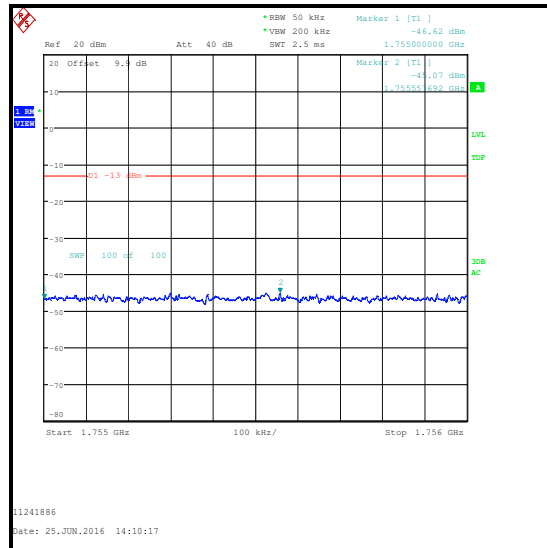
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.998	1	0	-35.9	-13.0	22.9	Complied
1710	1	0	-36.3	-13.0	23.3	Complied
1755	1	24	-35.3	-13.0	22.3	Complied
1709.896	1	24	-46.0	-13.0	33.0	Complied
1710	1	24	-47.3	-13.0	34.3	Complied
1755	1	0	-46.6	-13.0	33.6	Complied
1755.558	1	0	-45.1	-13.0	32.1	Complied



16QAM / 1 RB 0 offset / Lower Band Edge

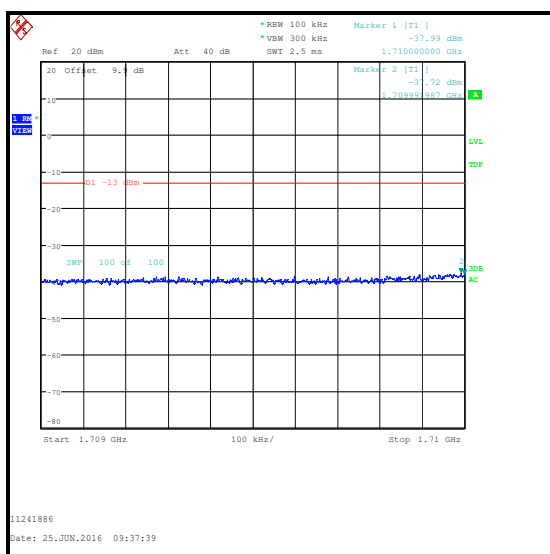
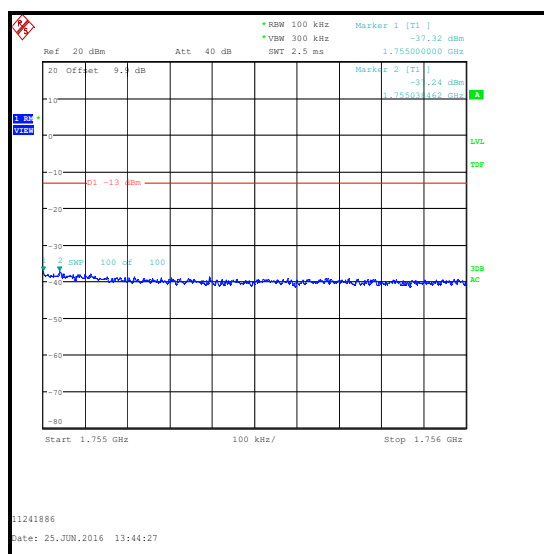


16QAM / 1 RB 24 offset / Upper Band Edge

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 5 MHz Channel Bandwidth / 16QAM (continued)****16QAM / 1 RB 24 offset / Lower Band Edge****16QAM / 1 RB 0 offset / Upper Band Edge**

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

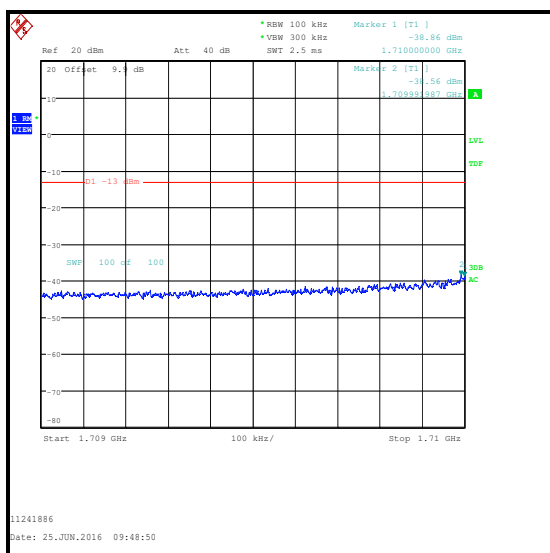
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.920	50	0	-37.7	-13.0	24.7	Complied
1710	50	0	-38.0	-13.0	25.0	Complied
1755	50	0	-37.3	-13.0	24.3	Complied
1755.038	50	0	-37.2	-13.0	24.2	Complied

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

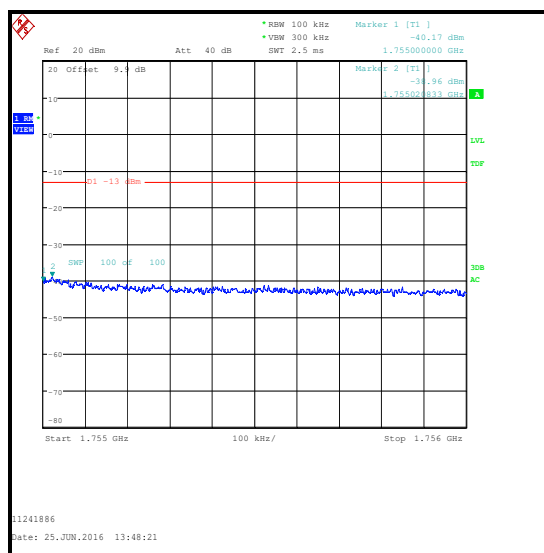
Transmitter Radiated Emissions at Band Edges (continued) - UAT

Results: 10 MHz Channel Bandwidth / QPSK

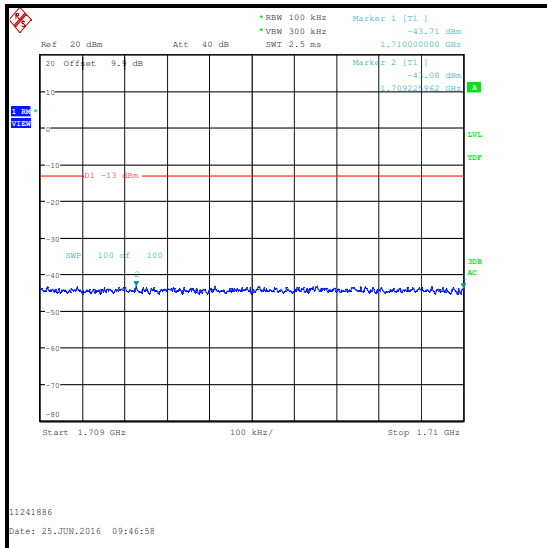
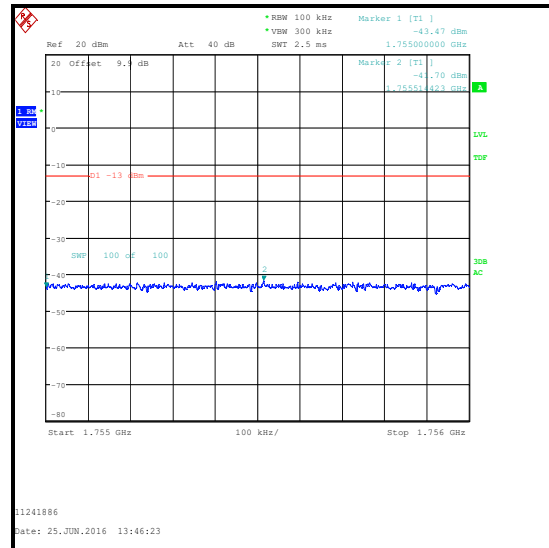
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.920	1	0	-38.6	-13.0	25.6	Complied
1710	1	0	-38.9	-13.0	25.9	Complied
1755	1	49	-40.2	-13.0	27.2	Complied
1755.	1	49	-39.0	-13.0	26.0	Complied
1709.226	1	49	-43.1	-13.0	20.1	Complied
1710	1	49	-43.7	-13.0	20.7	Complied
1755	1	0	-43.5	-13.0	30.5	Complied
1755.	1	0	-41.7	-13.0	28.7	Complied



QPSK / 1 RB 0 offset / Lower Band Edge

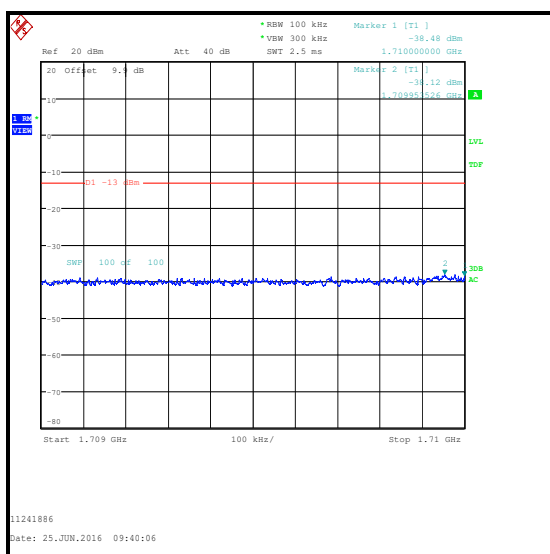
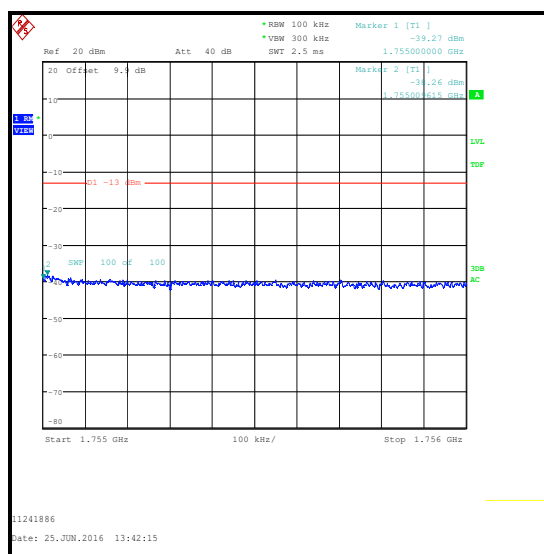


QPSK / 1 RB 49 offset / Upper Band Edge

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 10 MHz Channel Bandwidth / QPSK (continued)****QPSK / 1 RB 49 offset / Lower Band Edge****QPSK / 1 RB 0 offset / Upper Band Edge**

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

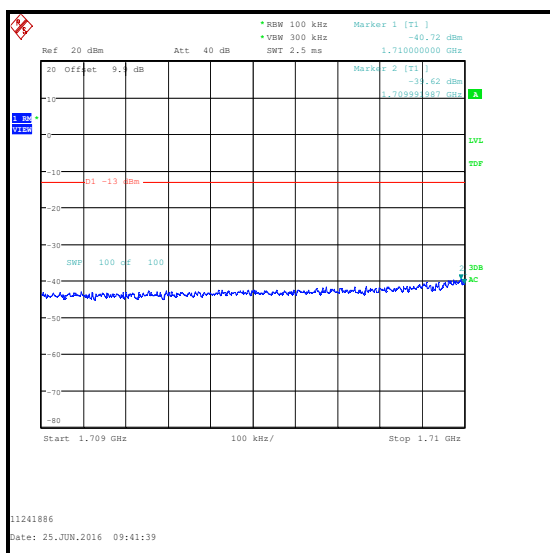
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.954	50	0	-38.1	-13.0	25.1	Complied
1710	50	0	-38.5	-13.0	25.5	Complied
1755	50	0	-39.3	-13.0	26.3	Complied
1755.010	50	0	-38.3	-13.0	25.3	Complied

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

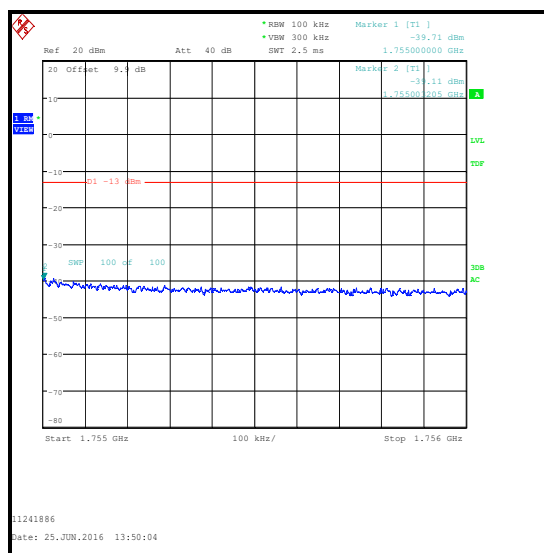
Transmitter Radiated Emissions at Band Edges (continued) - UAT

Results: 10 MHz Channel Bandwidth / 16QAM

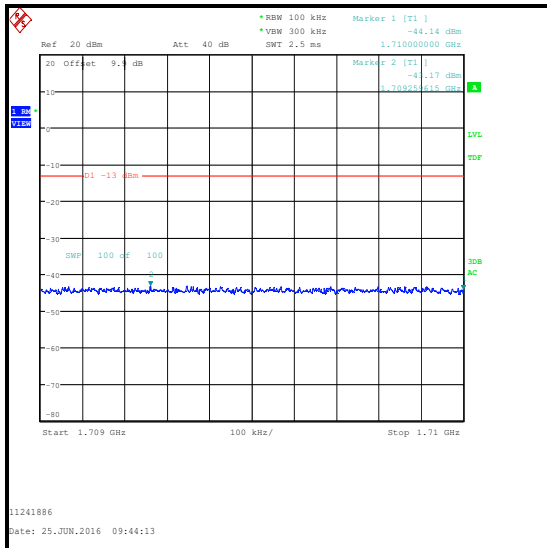
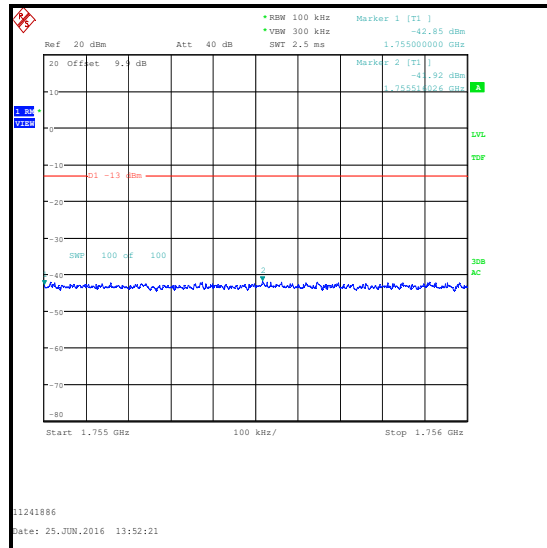
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.993	1	0	-39.6	-13.0	26.6	Complied
1710	1	0	-40.7	-13.0	27.7	Complied
1755	1	49	-39.7	-13.0	26.7	Complied
1755.003	1	49	-39.1	-13.0	26.1	Complied
1709.260	1	49	-43.2	-13.0	29.2	Complied
1710	1	49	-44.1	-13.0	21.1	Complied
1755	1	0	-42.9	-13.0	29.9	Complied
1755.516	1	0	-41.9	-13.0	28.9	Complied



16QAM / 1 RB 0 offset / Lower Band Edge

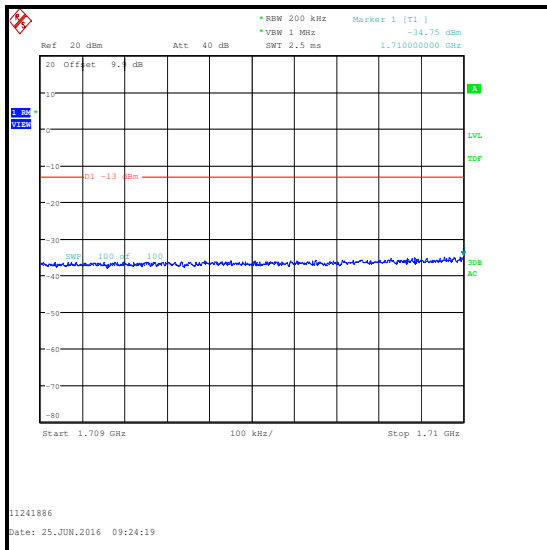
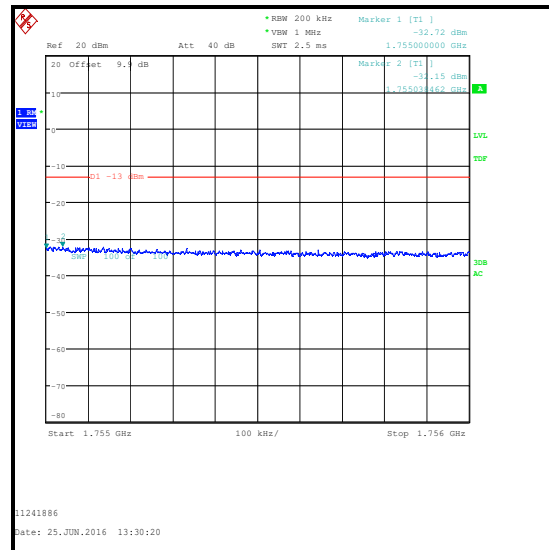


16QAM / 1 RB 49 offset / Upper Band Edge

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 10 MHz Channel Bandwidth / 16QAM (continued)****16QAM / 1 RB 49 offset / Lower Band Edge****16QAM / 1 RB 0 offset / Upper Band Edge**

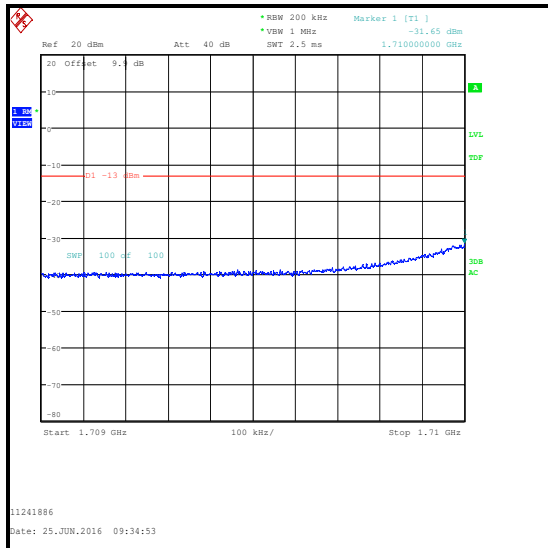
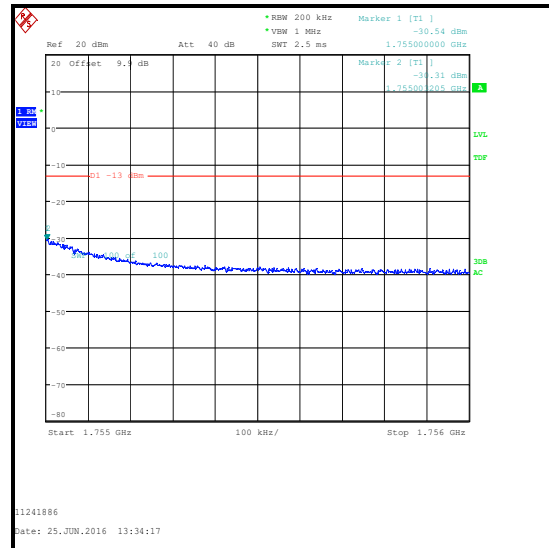
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 15 MHz Channel Bandwidth / QPSK**

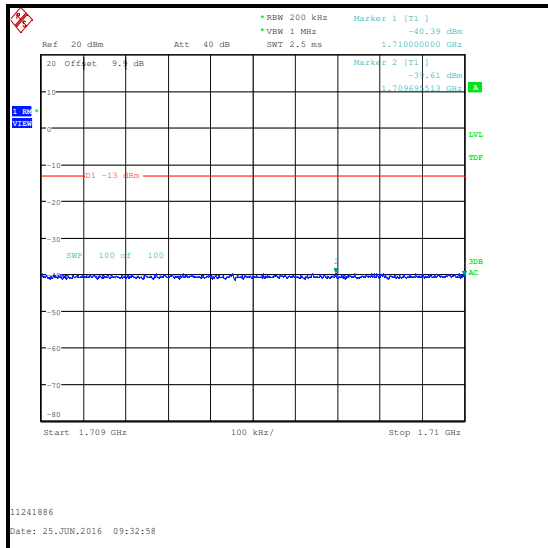
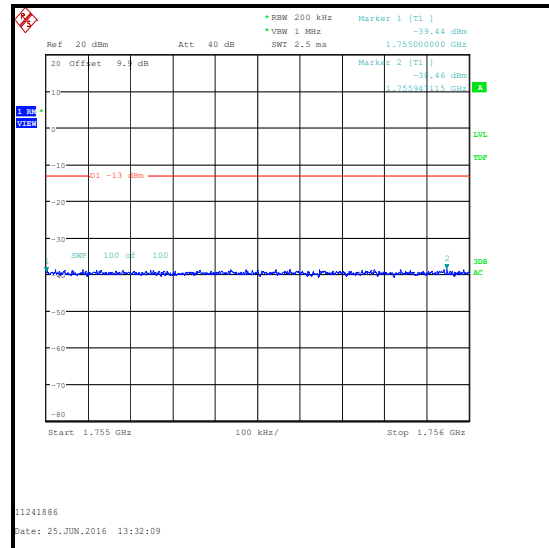
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	75	0	-34.8	-13.0	21.8	Complied
1755	75	0	-32.7	-13.0	19.7	Complied
1755.038	75	0	-32.2	-13.0	19.2	Complied

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

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

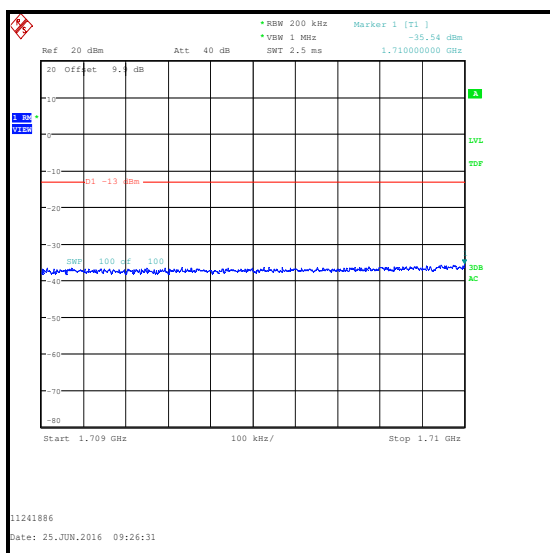
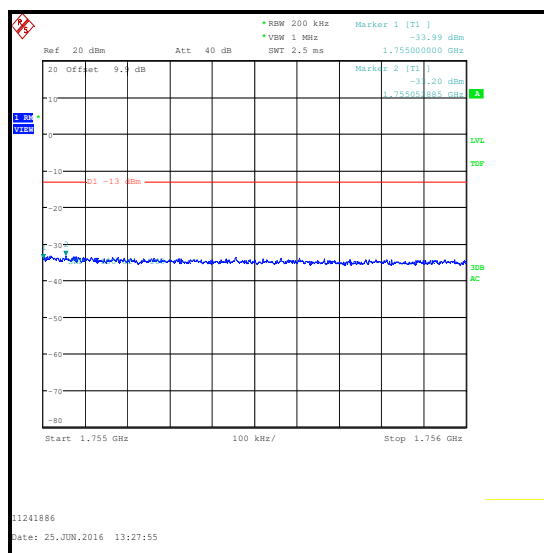
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	1	0	-31.7	-13.0	18.7	Complied
1755	1	74	-30.5	-13.0	17.5	Complied
1755.	1	74	-30.3	-13.0	17.3	Complied
1709.696	1	74	-39.6	-13.0	26.6	Complied
1710	1	74	-40.4	-13.0	27.4	Complied
1755	1	0	-39.4	-13.0	26.4	Complied
1755.947	1	0	-38.5	-13.0	25.5	Complied

**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 74 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 15 MHz Channel Bandwidth / QPSK (continued)****QPSK / 1 RB 74 offset / Lower Band Edge****QPSK / 1 RB 0 offset / Upper Band Edge**

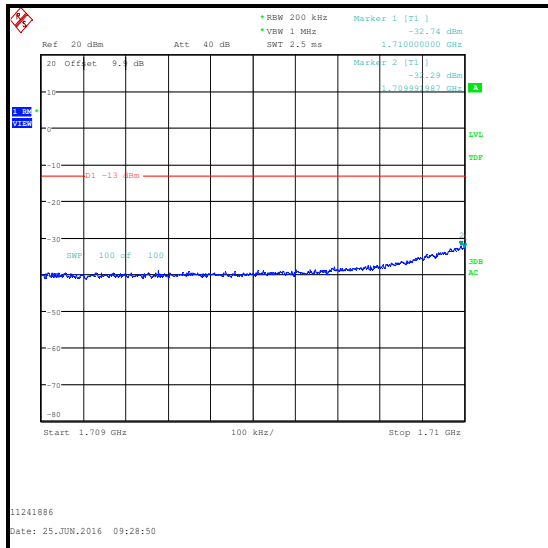
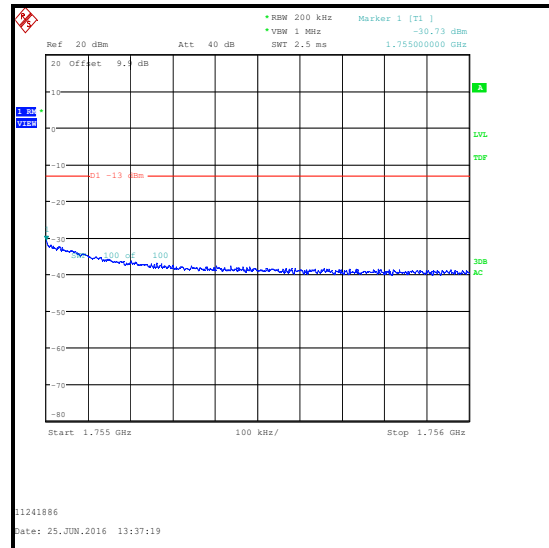
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 15 MHz Channel Bandwidth / 16QAM**

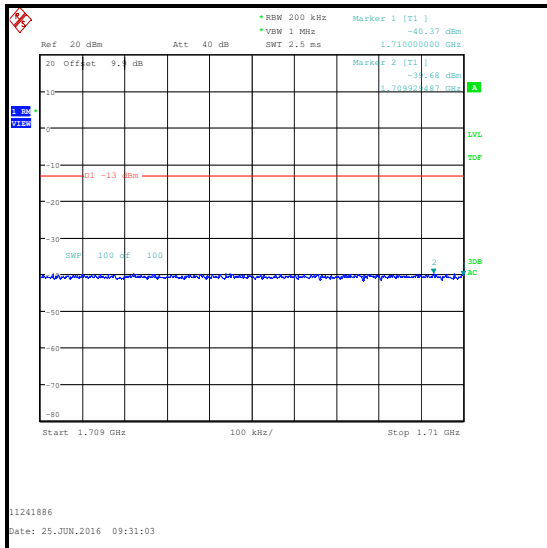
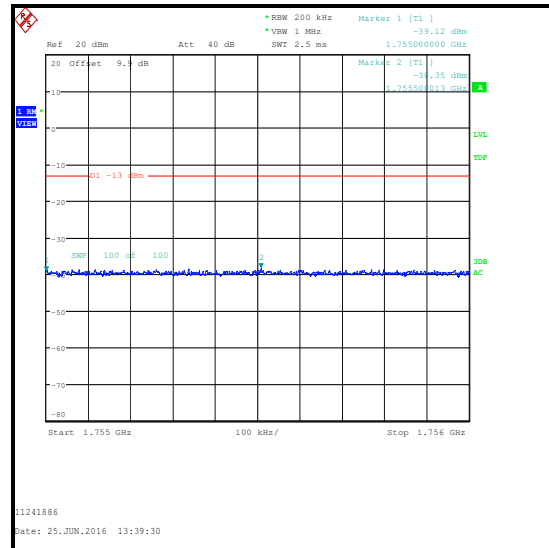
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	75	0	-35.5	-13.0	22.5	Complied
1755	75	0	-34.0	-13.0	21.0	Complied
1755.053	75	0	-33.2	-13.0	20.2	Complied

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

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

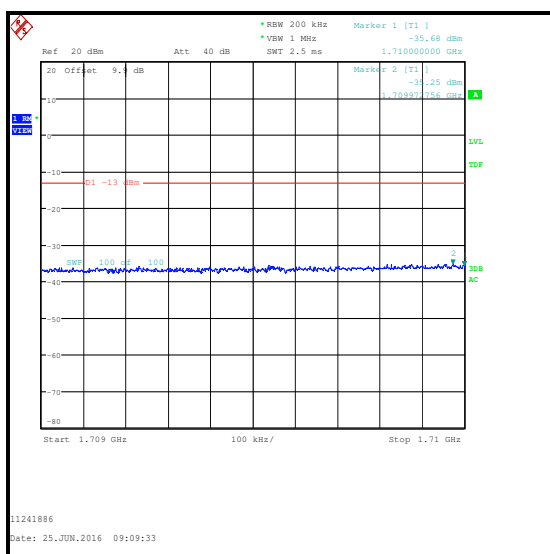
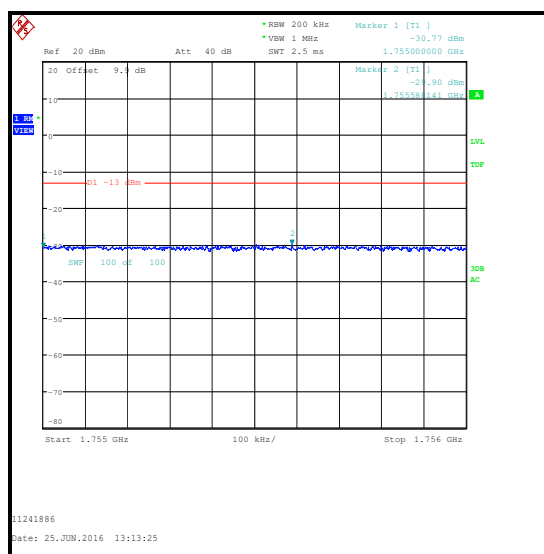
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.992	1	0	-32.3	-13.0	19.3	Complied
1710	1	0	-32.7	-13.0	19.7	Complied
1755	1	74	-30.7	-13.0	17.7	Complied
1709.929	1	74	-39.7	-13.0	26.7	Complied
1710	1	74	-40.4	-13.0	27.4	Complied
1755	1	0	-39.1	-13.0	26.1	Complied
1755.508	1	0	-38.4	-13.0	25.4	Complied

**16QAM / 1 RB 0 offset / Lower Band Edge****16QAM / 1 RB 74 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 15 MHz Channel Bandwidth / 16QAM (continued)****16QAM / 1 RB 74 offset / Lower Band Edge****16QAM / 1 RB 0 offset / Upper Band Edge**

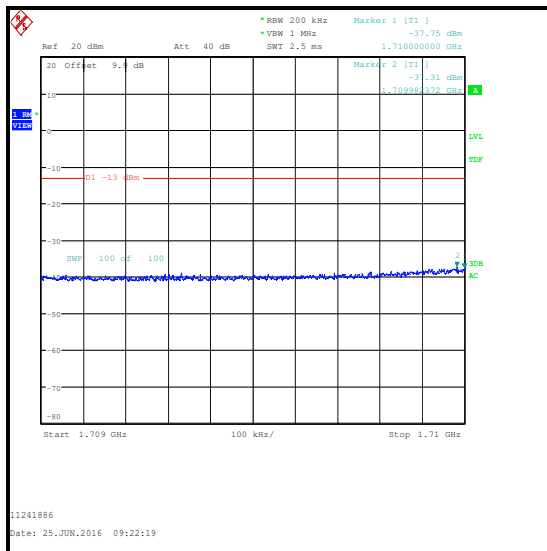
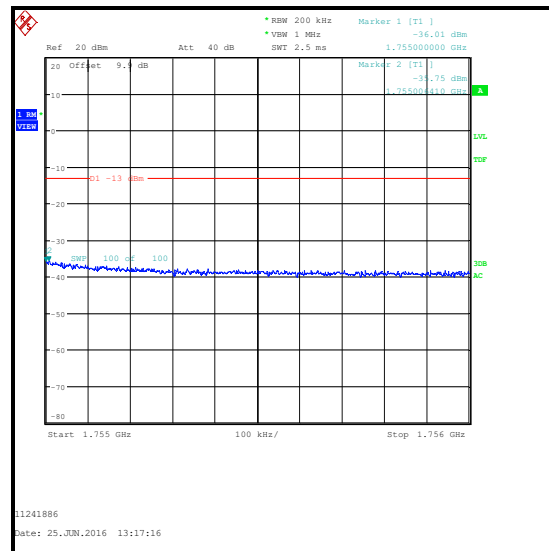
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 20 MHz Channel Bandwidth / QPSK**

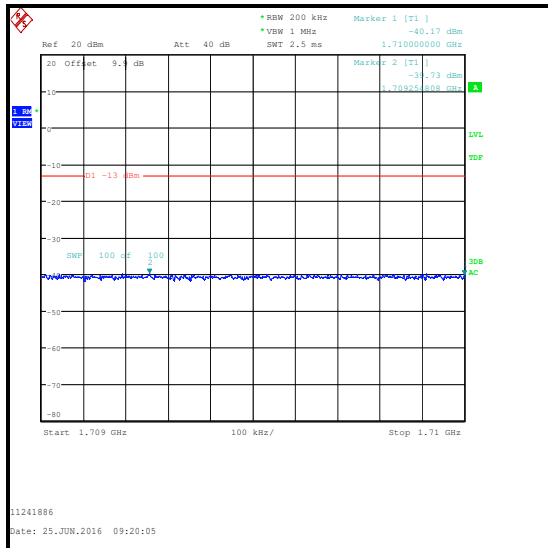
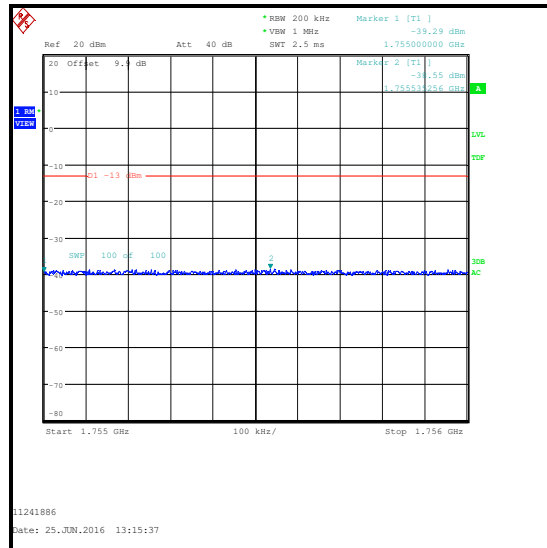
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.973	100	0	-35.3	-13.0	22.3	Complied
1710	100	0	-35.7	-13.0	22.7	Complied
1755	100	0	-30.8	-13.0	18.9	Complied
1755.588	100	0	-29.9	-13.0	16.9	Complied

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

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

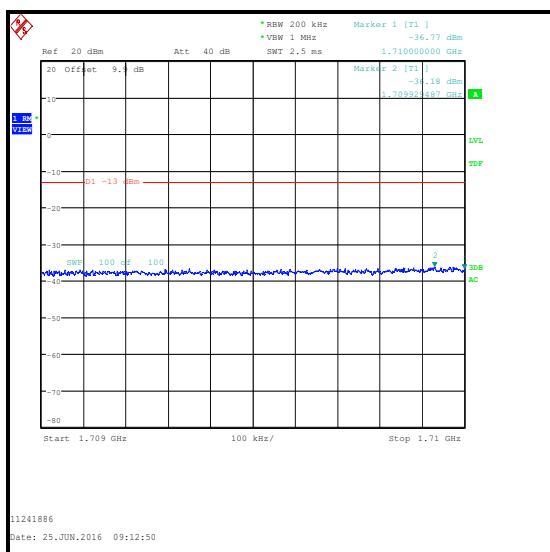
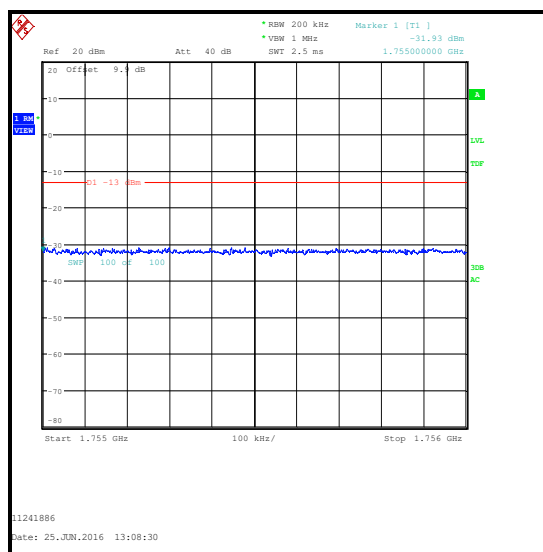
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.982	1	0	-37.3	-13.0	24.3	Complied
1710	1	0	-37.8	-13.0	24.8	Complied
1755	1	99	-36.0	-13.0	23.0	Complied
1755.006	1	99	-35.8	-13.0	22.8	Complied
1709.254	1	99	-39.7	-13.0	26.7	Complied
1710	1	99	-40.2	-13.0	27.2	Complied
1755	1	0	-39.3	-13.0	26.3	Complied
1755.554	1	0	-38.6	-13.0	25.3	Complied

**QPSK / 1 RB 0 offset / Lower Band Edge****QPSK / 1 RB 99 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 20 MHz Channel Bandwidth / QPSK (continued)****QPSK / 1 RB 99 offset / Lower Band Edge****QPSK / 1 RB 0 offset / Upper Band Edge**

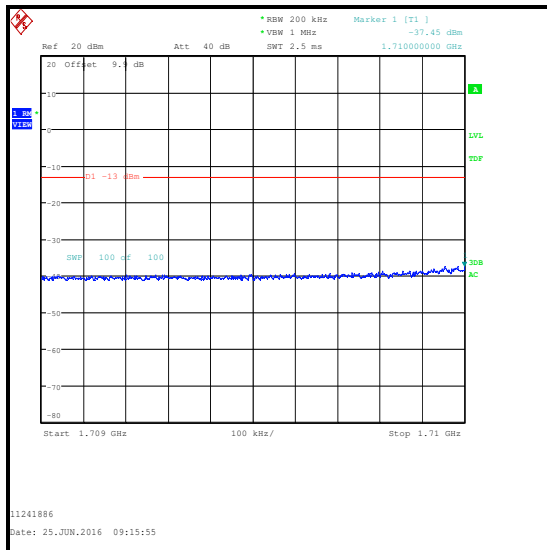
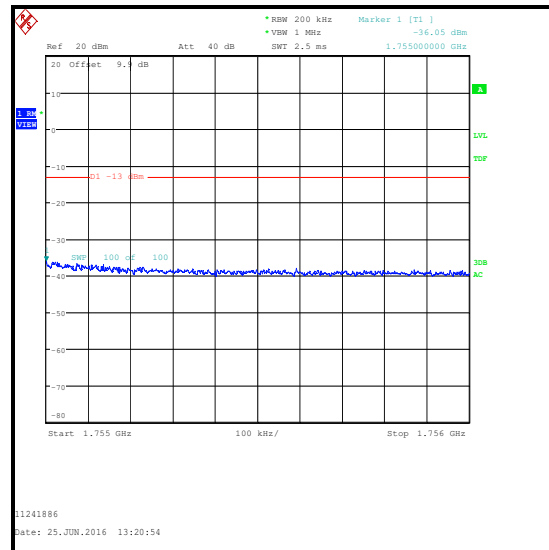
Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 20 MHz Channel Bandwidth / 16QAM**

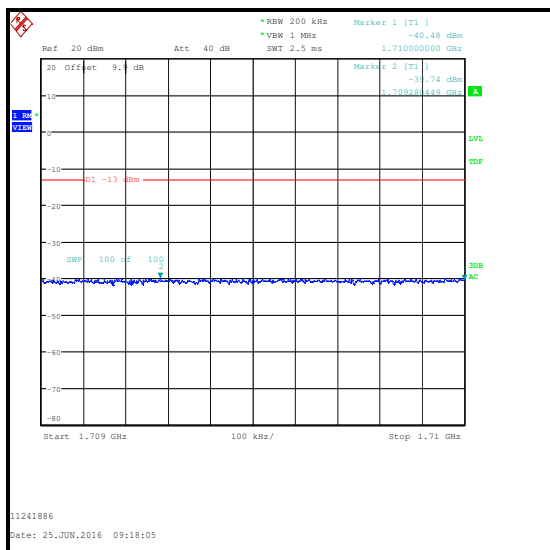
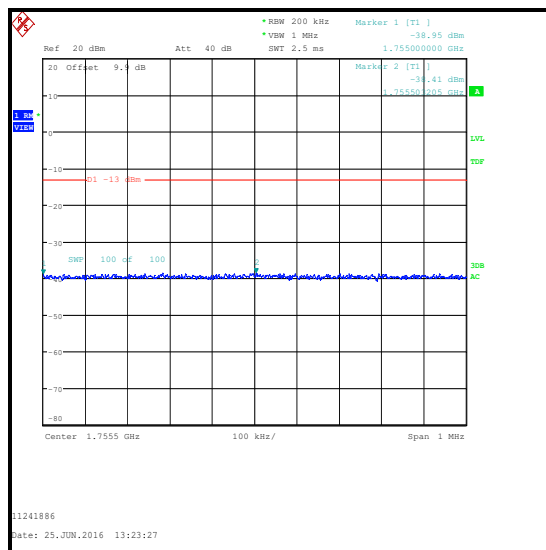
Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1709.929	100	0	-36.2	-13.0	23.2	Complied
1710	100	0	-36.8	-13.0	23.8	Complied
1755	100	0	-31.9	-13.0	18.9	Complied

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

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

Frequency (MHz)	Resource Block(s)	Resource Block Offset	Emission Level (dBm)	Limit (dBm)	Margin (dB)	Result
1710	1	0	-37.5	-13.0	24.5	Complied
1755	1	99	-36.1	-13.0	23.1	Complied
1709.280	1	99	-39.7	-13.0	26.7	Complied
1710	1	99	-40.5	-13.0	27.5	Complied
1755	1	0	-39.0	-13.0	26.0	Complied
1755.503	1	0	-38.4	-13.0	25.4	Complied

**16QAM / 1 RB 0 offset / Lower Band Edge****16QAM / 1 RB 99 offset / Upper Band Edge**

Transmitter Radiated Emissions at Band Edges (continued) - UAT**Results: 20 MHz Channel Bandwidth / 16QAM (continued)****16QAM / 1 RB 99 offset / Lower Band Edge****16QAM / 1 RB 0 offset / Upper Band Edge****Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M2003	Thermohygrometer	Testo	608-H1	45046641	22 Apr 2017	12
K0017	3m RSE Chamber	Rainford EMC	N/A	N/A	17 May 2017	12
M1995	Test Receiver	Rohde & Schwarz	ESU40	100428	21 Mar 2017	12
A2916	Attenuator	AtlanTecRF	AN18W5-10	832827#1	19 May 2017	12
A2863	Pre Amplifier	Agilent	8449B	3008A02100	07 Jan 2017	12
A2889	Antenna	Schwarzbeck	BBHA 9120 B	BBHA 9120 B 653	07 Apr 2017	12

5.2.9. Transmitter Frequency Stability (Temperature Variation)**Test Summary:**

Test Engineer:	Stefan Ho	Test Date:	12 May 2016
Test Sample Serial Number:	C7CRG02QH6DH		

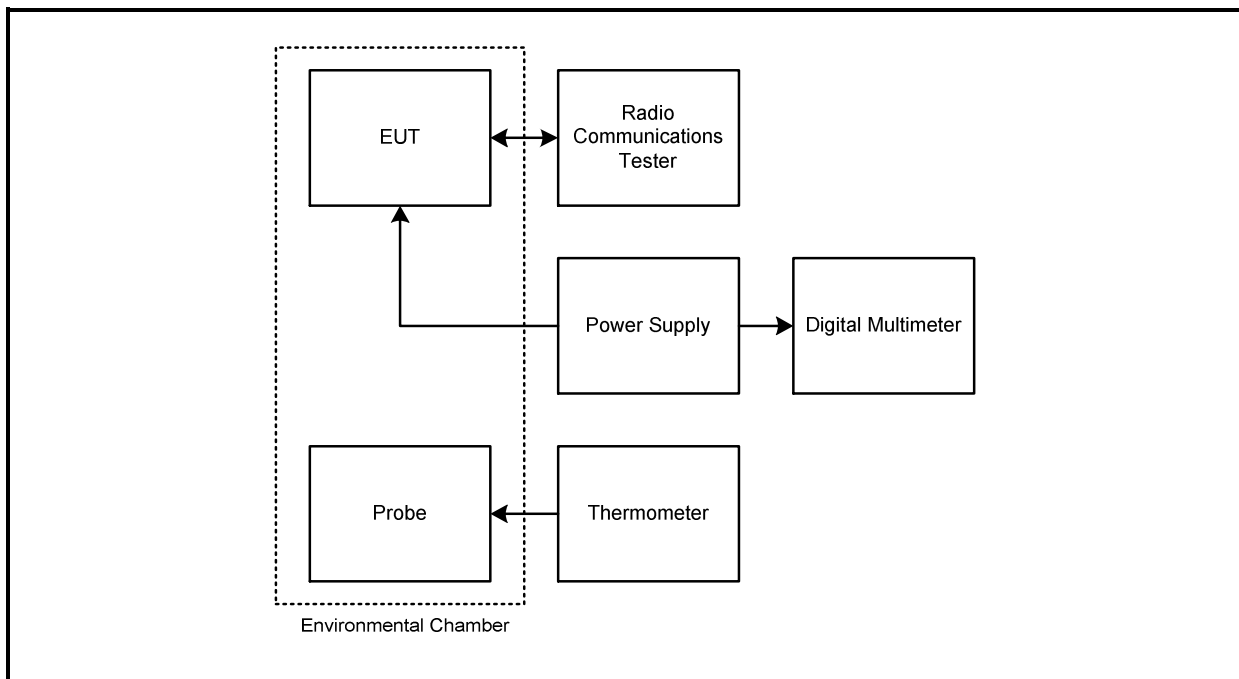
FCC Reference:	Parts 2.1055 & 27.54
Test Method Used:	KDB 971168 Section 9.0 referencing ANSI TIA-603-D-2010 Section 2.2.2 and FCC Part 2.1055

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	43

Note(s):

1. Flying leads were connected internally to the EUT in place of the battery. These leads extended and connected to a bench power supply at the nominal voltage of 3.8 V.
2. Frequency error was measured using a calibrated Rohde and Schwarz CMW 500 Universal Radio Communications Tester in accordance with current Rohde and Schwarz application notes. The EUT was connected by suitable RF cables to the CMW 500. A bi-directional communications link was established between the EUT and CMW 500. The frequency meter value was recorded.
3. Temperature was monitored throughout the test with a calibrated digital thermometer.

Test setup:

Transmitter Frequency Stability (Temperature Variation) (continued)**Results: Bottom Channel (1710.7 MHz)**

Temperature (°C)	Frequency Error (Hz)	Measured Frequency (MHz)	Lower Band Edge Limit (MHz)	Margin (MHz)	Result
-30	8	1710.700008	1710.0	0.700008	Complied
-20	8	1710.700008	1710.0	0.700008	Complied
-10	8	1710.700008	1710.0	0.700008	Complied
0	8	1710.700008	1710.0	0.700008	Complied
10	8	1710.700008	1710.0	0.700008	Complied
20	9	1710.700009	1710.0	0.700009	Complied
30	7	1710.700007	1710.0	0.700007	Complied
40	8	1710.700008	1710.0	0.700008	Complied
50	8	1710.700008	1710.0	0.700008	Complied

Results: Top Channel (1754.3 MHz)

Temperature (°C)	Frequency Error (Hz)	Measured Frequency (MHz)	Upper Band Edge Limit (MHz)	Margin (MHz)	Result
-30	6	1754.299994	1755.0	0.700006	Complied
-20	10	1754.299990	1755.0	0.700010	Complied
-10	6	1754.300006	1755.0	0.699994	Complied
0	8	1754.299992	1755.0	0.700008	Complied
10	9	1754.299991	1755.0	0.700009	Complied
20	8	1754.299992	1755.0	0.700008	Complied
30	15	1754.299985	1755.0	0.700015	Complied
40	8	1754.299992	1755.0	0.700008	Complied
50	8	1754.299992	1755.0	0.700008	Complied

Transmitter Frequency Stability (Temperature Variation) (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	02 Apr 2017	12
M1869	Wideband Radio Comms Tester	Rohde & Schwarz	CMW 500	145923	05 Apr 2017	12
M1674	Environmental Chamber	Espec Corporation	SU-241	90213139	Calibrated before use	-
M1642	Thermometer	Fluke	52II	18890119	25 Apr 2017	12
S0576	DC power supply	TTI	PL330QMD	066701	Calibrated before use	-
M122	Multimeter	Fluke	77	64910017	21 Apr 2017	12

5.2.10. Transmitter Frequency Stability (Voltage Variation)**Test Summary:**

Test Engineer:	Stefan Ho	Test Date:	12 May 2016
Test Sample Serial Number:	C7CRG02QH6DH		

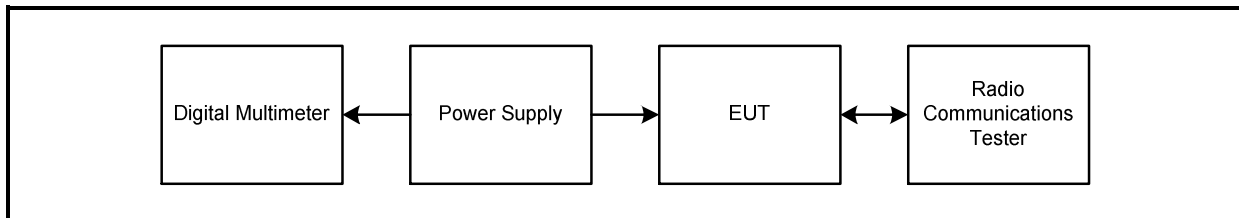
FCC Reference:	Parts 2.1055 & 27.54
Test Method Used:	KDB 971168 Section 9.0 referencing ANSI TIA-603-D-2010 Section 2.2.2 and FCC Part 2.1055

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	43

Note(s):

1. Flying leads were connected internally to the EUT in place of the battery. These leads extended and connected to a bench power supply.
2. Frequency error was measured using a calibrated Rohde and Schwarz CMW 500 Universal Radio Communications Tester in accordance with current Rohde and Schwarz application notes. The EUT was connected by suitable RF cables to the CMW 500. A bi-directional communications link was established between the EUT and CMW 500. The frequency meter value was recorded.
3. Voltage was monitored throughout the test with a calibrated digital voltmeter.

Test setup:

Transmitter Frequency Stability (Voltage Variation) (continued)**Results: Bottom Channel (1710.7 MHz)**

Supply Voltage (V)	Frequency Error (Hz)	Measured Frequency (MHz)	Lower Band Edge Limit (MHz)	Margin (MHz)	Result
3.4	6	1710.700006	1710.0	0.700006	Complied
4.2	8	1710.700008	1710.0	0.700008	Complied

Results: Top Channel (1754.3 MHz)

Supply Voltage (V)	Frequency Error (Hz)	Measured Frequency (MHz)	Upper Band Edge Limit (MHz)	Margin (MHz)	Result
3.4	8	1754.299992	1755.0	0.700008	Complied
4.2	9	1754.299991	1755.0	0.700009	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	02 Apr 2017	12
M1869	Wideband Radio Comms Tester	Rohde & Schwarz	CMW 500	145923	05 Apr 2017	12
S0576	DC power supply	TTI	PL330QMD	066701	Calibrated before use	-
M122	Multimeter	Fluke	77	64910017	21 Apr 2017	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 1755 MHz	95%	± 1.36 dB
Frequency Stability	1710 to 1755 MHz	95%	± 23 Hz
Occupied Bandwidth	1710 to 1755 MHz	95%	± 3.92 %
Radiated Spurious Emissions	30 MHz to 1 GHz	95%	± 5.65 dB
Radiated Spurious Emissions	1 GHz to 18 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	-	-	Updates as requested by the TCB
3.0	-	-	Updates as requested by the TCB
4.0	-	-	Updates as requested by the TCB

--- END OF REPORT ---