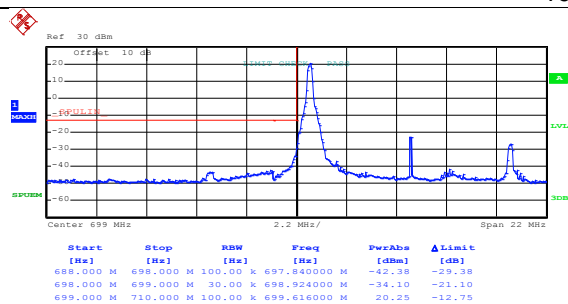


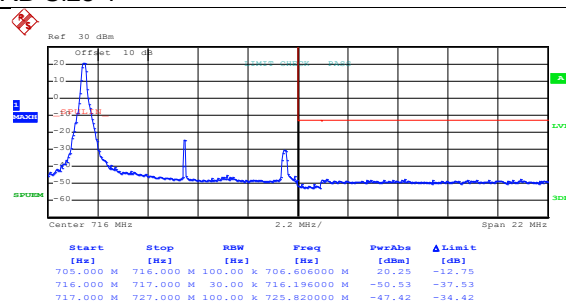
LTE Band 12, BW: 10MHz

16QAM & RB Size 1



Date: 15.AUG.2018 00:24:36

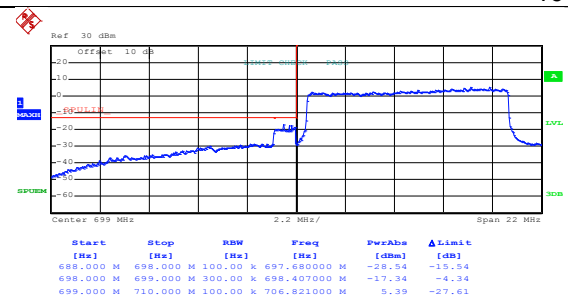
Lowest channel



Date: 15.AUG.2018 00:23:13

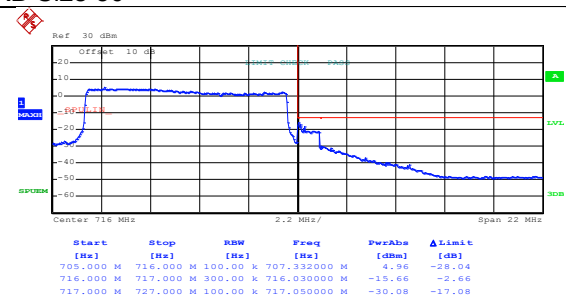
Highest channel

16QAM & RB Size 50



Date: 15.AUG.2018 00:24:59

Lowest channel

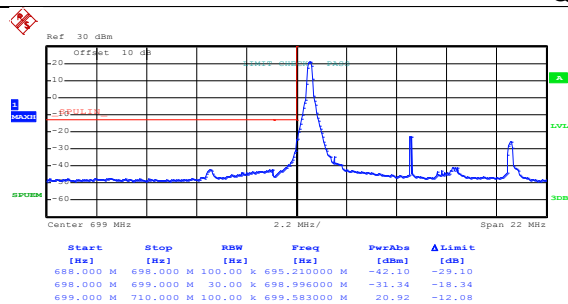


Date: 15.AUG.2018 00:23:42

Highest channel

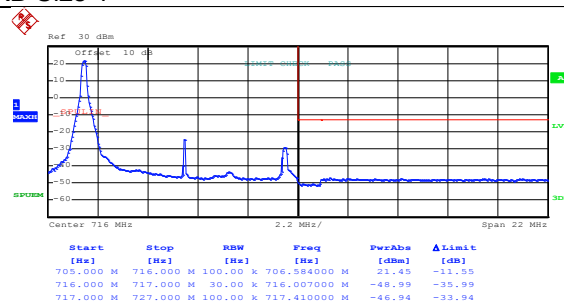
LTE Band 12, BW: 10MHz

QPSK & RB Size 1



Date: 15.AUG.2018 00:24:28

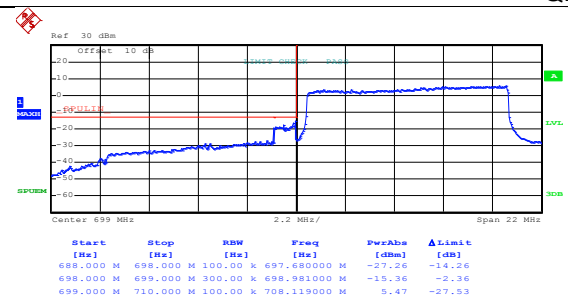
Lowest channel



Date: 15.AUG.2018 00:23:02

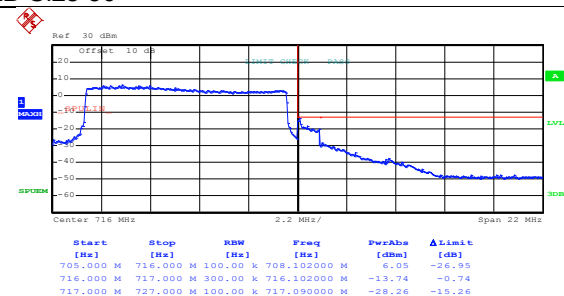
Highest channel

QPSK & RB Size 50



Date: 15.AUG.2018 00:24:54

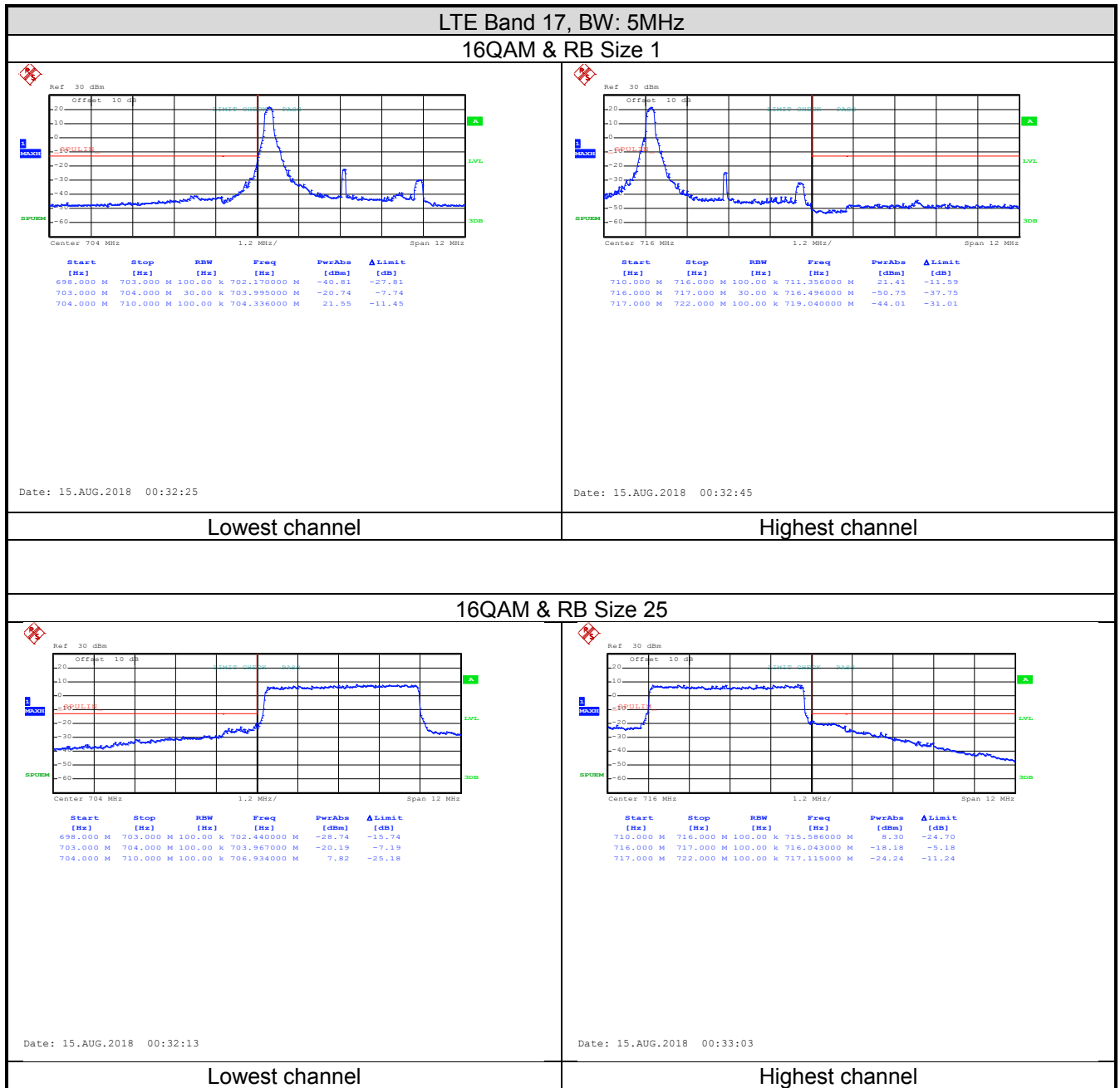
Lowest channel



Date: 15.AUG.2018 00:23:34

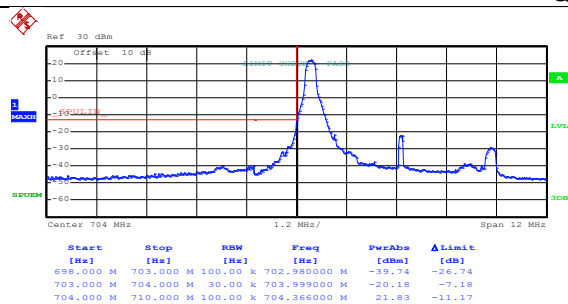
Highest channel

LTE Band 17 part:



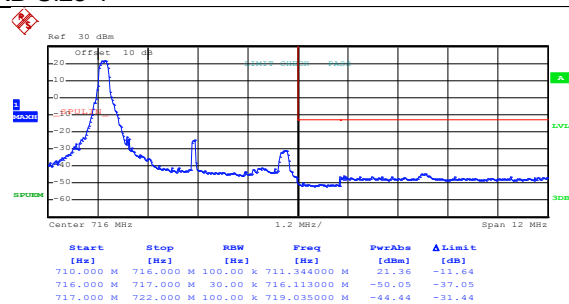
LTE Band 17, BW: 5MHz

QPSK & RB Size 1



Date: 15.AUG.2018 00:31:41

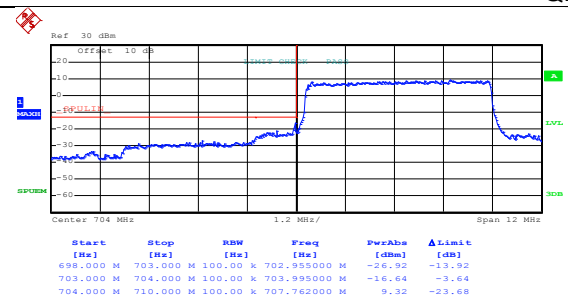
Lowest channel



Date: 15.AUG.2018 00:32:40

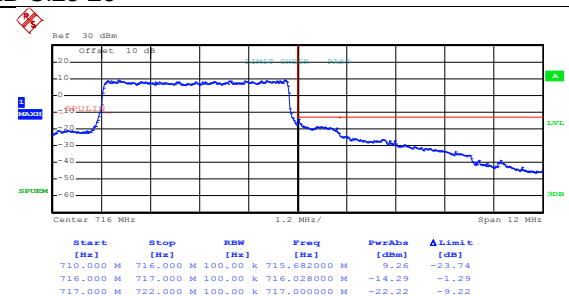
Highest channel

QPSK & RB Size 25



Date: 15.AUG.2018 00:32:05

Lowest channel

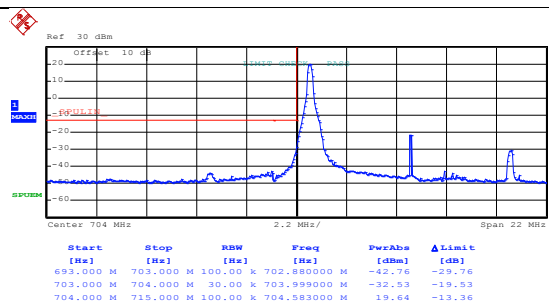


Date: 15.AUG.2018 00:32:58

Highest channel

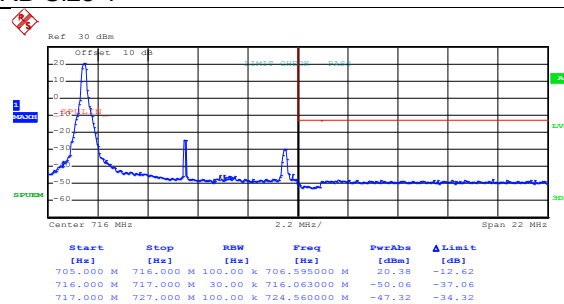
LTE Band 17, BW: 10MHz

16QAM & RB Size 1



Date: 15.AUG.2018 00:33:52

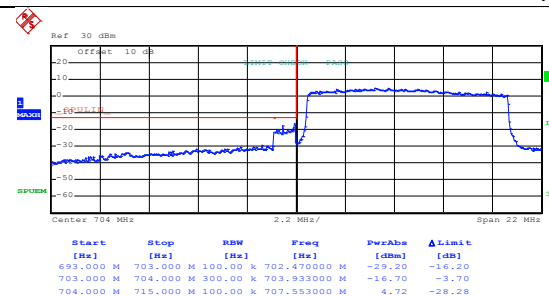
Lowest channel



Date: 15.AUG.2018 00:34:34

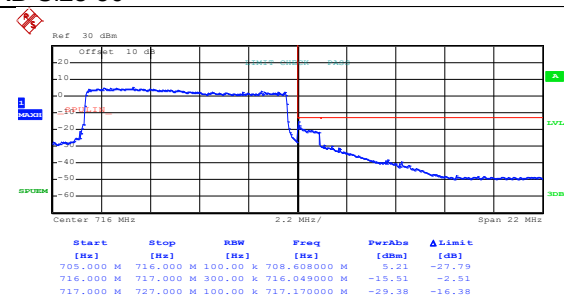
Highest channel

16QAM & RB Size 50



Date: 15.AUG.2018 00:34:12

Lowest channel

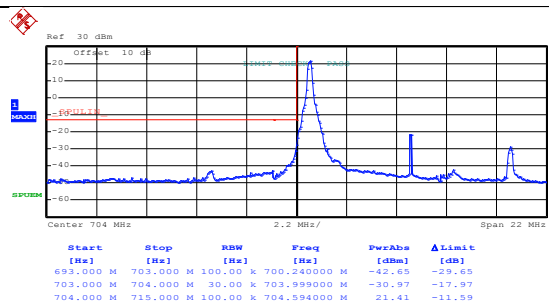


Date: 15.AUG.2018 00:34:50

Highest channel

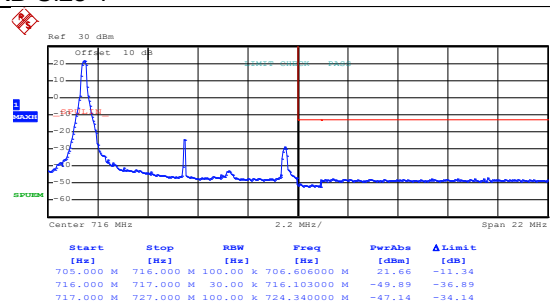
LTE Band 17, BW: 10MHz

QPSK & RB Size 1



Date: 15.AUG.2018 00:33:43

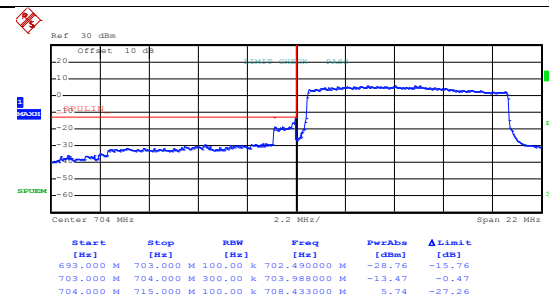
Lowest channel



Date: 15.AUG.2018 00:34:28

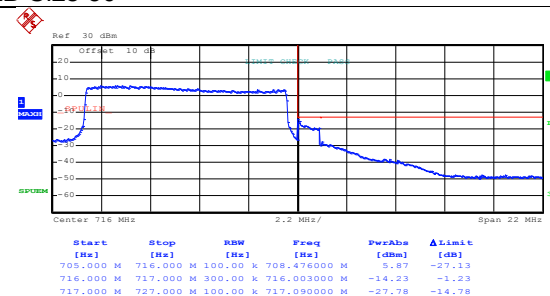
Highest channel

QPSK & RB Size 50



Date: 15.AUG.2018 00:34:07

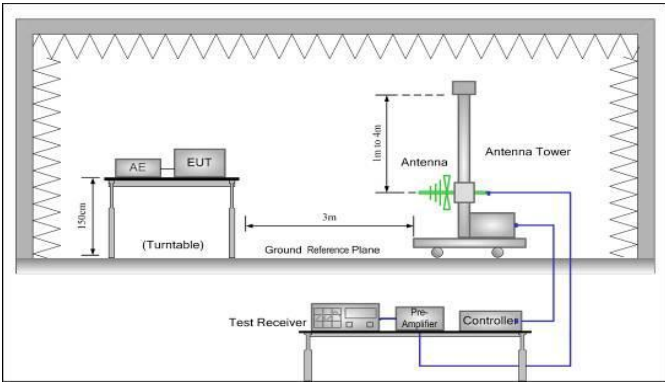
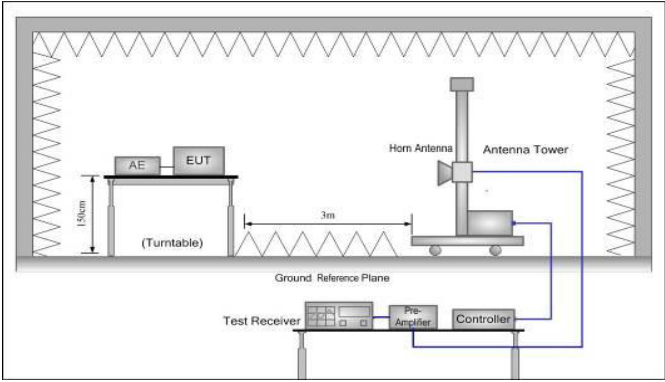
Lowest channel



Date: 15.AUG.2018 00:34:46

Highest channel

6.5 Field strength of spurious radiation measurement

Test Requirement:	Part 22.917(b), Part 24.238 (a), Part 27.53(g), Part 27.53(m), Part 27.53(h) RSS-130 section 4.6, RSS-132 section 5.5, RSS-133 section 6.5 RSS-139 section 6.6, RSS-199 section 4.5
Test Method:	RSS-GEN section 6.13, ANSI/TIA-603-D 2010
Limit:	LTE Band 2 & 4 & 5 & 12 & 17: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB (-13 dBm). LTE Band 7: For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz.
Test setup:	<p>Below 1GHz</p>  <p>Above 1GHz</p> 
Test Procedure:	<ol style="list-style-type: none"> 1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

	<p>3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.</p> <p>4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. $\text{ERP / EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$</p>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed

Measurement Data:
LTE Band 2 part:

LTE Band 2, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3701.40	Vertical	-48.94	-13.00	Pass
5552.10	V	-41.92		
7402.00	V	-35.34		
3701.40	Horizontal	-49.91		
5552.10	H	-41.76		
7402.00	H	-34.46		
Middle Channel				
3760.00	Vertical	-48.37	-13.00	Pass
5640.00	V	-41.55		
7520.00	V	-35.73		
3760.00	Horizontal	-49.57		
5640.00	H	-41.33		
7520.00	H	-34.35		
Highest Channel				
3816.60	Vertical	-48.26	-13.00	Pass
5724.90	V	-41.58		
7633.20	V	-35.99		
3816.60	Horizontal	-49.92		
5724.90	H	-41.12		
7633.20	H	-34.26		
Note: 1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. 2. For above 1 GHz, all test modes were performed, and iust the worst case shown in the report.				

LTE Band 2, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3703.00	Vertical	-48.67	-13.00	Pass
5554.50	V	-41.32		
7406.00	V	-35.58		
3703.00	Horizontal	-49.46		
5554.50	H	-41.82		
7406.00	H	-34.42		
Middle Channel				
3760.00	Vertical	-48.67	-13.00	Pass
5640.00	V	-41.94		
7520.00	V	-35.99		
3760.00	Horizontal	-49.12		
5640.00	H	-41.35		
7520.00	H	-34.92		
Highest Channel				
3817.00	Vertical	-48.94	-13.00	Pass
5725.50	V	-41.33		
7634.00	V	-35.26		
3817.00	Horizontal	-49.58		
5725.50	H	-41.12		
7634.00	H	-34.81		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 2, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3705.00	Vertical	-48.26	-13.00	Pass
5557.50	V	-41.36		
7410.00	V	-35.87		
3705.00	Horizontal	-48.60		
5557.50	H	-41.64		
7410.00	H	-34.78		
Middle Channel				
3760.00	Vertical	-48.05	-13.00	Pass
5640.00	V	-41.45		
7520.00	V	-35.85		
3760.00	Horizontal	-49.58		
5640.00	H	-41.58		
7520.00	H	-34.57		
Highest Channel				
3815.00	Vertical	-48.88	-13.00	Pass
5722.50	V	-41.84		
7630.00	V	-35.75		
3815.00	Horizontal	-49.82		
5722.50	H	-41.47		
7630.00	H	-34.57		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 2, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3710.00	Vertical	-48.12	-13.00	Pass
5565.00	V	-41.93		
7420.00	V	-35.67		
3710.00	Horizontal	-49.47		
5565.00	H	-41.47		
7420.00	H	-34.55		
Middle Channel				
3760.00	Vertical	-48.42	-13.00	Pass
5640.00	V	-41.67		
7520.00	V	-35.12		
3760.00	Horizontal	-49.94		
5640.00	H	-41.35		
7520.00	H	-34.28		
Highest Channel				
3810.00	Vertical	-48.42	-13.00	Pass
5715.00	V	-41.34		
7620.00	V	-35.94		
3810.00	Horizontal	-49.81		
5715.00	H	-41.47		
7620.00	H	-34.33		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 2, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3715.00	Vertical	-48.99	-13.00	Pass
5572.50	V	-41.41		
7430.00	V	-35.81		
3715.00	Horizontal	-48.34		
5572.50	H	-41.67		
7430.00	H	-34.95		
Middle Channel				
3760.00	Vertical	-48.26	-13.00	Pass
5640.00	V	-41.94		
7520.00	V	-35.34		
3760.00	Horizontal	-49.17		
5640.00	H	-41.81		
7520.00	H	-34.48		
Highest Channel				
3805.00	Vertical	-48.82	-13.00	Pass
5707.50	V	-41.33		
7610.00	V	-35.58		
3805.00	Horizontal	-49.42		
5707.50	H	-41.48		
7610.00	H	-34.92		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 2, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3720.00	Vertical	-48.95	-13.00	Pass
5580.00	V	-41.35		
7440.00	V	-35.99		
3720.00	Horizontal	-49.26		
5580.00	H	-41.17		
7440.00	H	-34.58		
Middle Channel				
3760.00	Vertical	-48.17	-13.00	Pass
5640.00	V	-41.99		
7520.00	V	-35.48		
3760.00	Horizontal	-49.94		
5640.00	H	-41.34		
7520.00	H	-34.99		
Highest Channel				
3800.00	Vertical	-48.47	-13.00	Pass
5700.00	V	-41.46		
7600.00	V	-35.26		
3800.00	Horizontal	-49.48		
5700.00	H	-41.35		
7600.00	H	-34.95		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4 part:

LTE Band 4, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3421.40	Vertical	-48.27	-13.00	Pass
5132.10	V	-42.98		
6842.80	V	-35.71		
3421.40	Horizontal	-45.65		
5132.10	H	-42.71		
6842.80	H	-35.63		
Middle Channel				
3465.00	Vertical	-48.37	-13.00	Pass
5197.50	V	-42.55		
6930.00	V	-35.73		
3465.00	Horizontal	-45.70		
5197.50	H	-42.54		
6930.00	H	-35.39		
Highest Channel				
3508.60	Vertical	-48.09	-13.00	Pass
5262.90	V	-42.46		
7017.20	V	-35.94		
3508.60	Horizontal	-45.09		
5262.90	H	-42.46		
7017.20	H	-35.94		
Note: 1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. 2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3423.00	Vertical	-48.17	-13.00	Pass
5134.50	V	-42.31		
6846.00	V	-35.91		
3423.00	Horizontal	-45.87		
5134.50	H	-42.59		
6846.00	H	-35.26		
Middle Channel				
3465.00	Vertical	-48.41	-13.00	Pass
5197.50	V	-42.26		
6930.00	V	-35.12		
3465.00	Horizontal	-45.59		
5197.50	H	-42.12		
6930.00	H	-35.33		
Highest Channel				
3507.00	Vertical	-48.59	-13.00	Pass
5260.50	V	-42.91		
7014.00	V	-35.28		
3507.00	Horizontal	-45.92		
5260.50	H	-42.12		
7014.00	H	-35.59		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3425.00	Vertical	-48.69	-13.00	Pass
5137.50	V	-42.59		
6850.00	V	-35.31		
3425.00	Horizontal	-45.26		
5137.50	H	-42.68		
6850.00	H	-35.12		
Middle Channel				
3465.00	Vertical	-48.26	-13.00	Pass
5197.50	V	-42.17		
6930.00	V	-35.59		
3465.00	Horizontal	-45.64		
5197.50	H	-42.31		
6930.00	H	-35.26		
Highest Channel				
3505.00	Vertical	-48.99	-13.00	Pass
5257.50	V	-42.92		
7010.00	V	-35.47		
3505.00	Horizontal	-45.41		
5257.50	H	-42.17		
7010.00	H	-35.59		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3430.00	Vertical	-48.72	-13.00	Pass
5145.00	V	-42.26		
6860.00	V	-35.42		
3430.00	Horizontal	-45.58		
5145.00	H	-42.55		
6860.00	H	-35.37		
Middle Channel				
3465.00	Vertical	-48.59	-13.00	Pass
5197.50	V	-42.91		
6930.00	V	-35.36		
3465.00	Horizontal	-45.77		
5197.50	H	-42.76		
6930.00	H	-35.26		
Highest Channel				
3500.00	Vertical	-48.80	-13.00	Pass
5250.00	V	-42.68		
7000.00	V	-35.76		
3500.00	Horizontal	-45.12		
5250.00	H	-42.47		
7000.00	H	-35.17		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3435.00	Vertical	-48.59	-13.00	Pass
5152.50	V	-42.26		
6870.00	V	-35.77		
3435.00	Horizontal	-45.47		
5152.50	H	-42.76		
6870.00	H	-35.42		
Middle Channel				
3465.00	Vertical	-48.59	-13.00	Pass
5197.50	V	-42.41		
6930.00	V	-35.26		
3465.00	Horizontal	-45.72		
5197.50	H	-42.31		
6930.00	H	-35.69		
Highest Channel				
3495.00	Vertical	-48.12	-13.00	Pass
5242.50	V	-42.41		
6990.00	V	-35.31		
3495.00	Horizontal	-45.54		
5242.50	H	-42.59		
6990.00	H	-35.91		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3440.00	Vertical	-48.26	-13.00	Pass
5160.00	V	-42.76		
6880.00	V	-35.92		
3440.00	Horizontal	-45.47		
5160.00	H	-42.68		
6880.00	H	-35.81		
Middle Channel				
3465.00	Vertical	-48.31	-13.00	Pass
5197.50	V	-42.49		
6930.00	V	-35.92		
3465.00	Horizontal	-45.12		
5197.50	H	-42.26		
6930.00	H	-35.59		
Highest Channel				
3490.00	Vertical	-48.47	-13.00	Pass
5235.00	V	-42.31		
6980.00	V	-35.68		
3490.00	Horizontal	-45.49		
5235.00	H	-42.12		
6980.00	H	-35.92		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 5 part:

LTE Band 5, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1649.40	Vertical	-52.54	-13.00	Pass
2474.10	V	-53.53		
3298.80	V	-49.28		
1649.40	Horizontal	-53.67		
2474.10	H	-50.59		
3298.80	H	-49.37		
Middle Channel				
1673.00	Vertical	-52.16	-13.00	Pass
2509.50	V	-53.24		
3346.00	V	-49.32		
1673.00	Horizontal	-53.64		
2509.50	H	-50.47		
3346.00	H	-49.29		
Highest Channel				
1696.60	Vertical	-52.48	-13.00	Pass
2544.90	V	-53.71		
3393.20	V	-49.96		
1696.60	Horizontal	-53.88		
2544.90	H	-50.55		
3393.20	H	-49.64		
Note: 1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. 2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 5, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1651.00	Vertical	-52.41	-13.00	Pass
2476.50	V	-53.79		
3302.00	V	-49.52		
1651.00	Horizontal	-53.54		
2476.50	H	-50.91		
3302.00	H	-49.95		
Middle Channel				
1673.00	Vertical	-52.53	-13.00	Pass
2509.50	V	-53.95		
3346.00	V	-49.15		
1673.00	Horizontal	-53.57		
2509.50	H	-50.53		
3346.00	H	-49.55		
Highest Channel				
1695.00	Vertical	-52.53	-13.00	Pass
2542.50	V	-53.55		
3390.00	V	-49.28		
1695.00	Horizontal	-53.41		
2542.50	H	-50.91		
3390.00	H	-49.54		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 5, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1653.00	Vertical	-52.54	-13.00	Pass
2479.50	V	-53.58		
3306.00	V	-49.58		
1653.00	Horizontal	-53.77		
2479.50	H	-50.95		
3306.00	H	-49.61		
Middle Channel				
1673.00	Vertical	-52.84	-13.00	Pass
2509.50	V	-53.57		
3346.00	V	-49.91		
1673.00	Horizontal	-53.52		
2509.50	H	-50.12		
3346.00	H	-49.39		
Highest Channel				
1693.00	Vertical	-52.15	-13.00	Pass
2539.50	V	-53.95		
3386.00	V	-49.91		
1693.00	Horizontal	-53.84		
2539.50	H	-50.55		
3386.00	H	-49.52		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 5, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1658.00	Vertical	-52.55	-13.00	Pass
2487.00	V	-53.91		
3316.00	V	-49.54		
1658.00	Horizontal	-53.15		
2487.00	H	-50.12		
3316.00	H	-49.37		
Middle Channel				
1673.00	Vertical	-53.47	-13.00	Pass
2509.50	V	-53.77		
3346.00	V	-49.61		
1673.00	Horizontal	-53.39		
2509.50	H	-50.64		
3346.00	H	-49.28		
Highest Channel				
1688.00	Vertical	-52.55	-13.00	Pass
2532.00	V	-53.99		
3376.00	V	-49.07		
1688.00	Horizontal	-53.91		
2532.00	H	-50.15		
3376.00	H	-49.77		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 7 part:

LTE Band 7, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5005.00	Vertical	-42.36	-25.00	Pass
7507.50	V	-35.10		
10010.00	V	-33.42		
5005.00	Horizontal	-42.94		
7507.50	H	-35.41		
10010.00	H	-33.85		
Middle Channel				
5070.00	Vertical	-42.50	-25.00	Pass
7605.00	V	-35.75		
10140.00	V	-33.10		
5070.00	Horizontal	-42.09		
7605.00	H	-35.08		
10140.00	H	-33.11		
Highest Channel				
5135.00	Vertical	-42.45	-25.00	Pass
7702.50	V	-35.41		
10270.00	V	-33.68		
5135.00	Horizontal	-42.94		
7702.50	H	-35.69		
10270.00	H	-33.57		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 7, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5010.00	Vertical	-42.37	-25.00	Pass
7515.00	V	-35.24		
10020.00	V	-33.85		
5010.00	Horizontal	-42.44		
7515.00	H	-35.94		
10020.00	H	-33.99		
Middle Channel				
5070.00	Vertical	-42.37	-25.00	Pass
7605.00	V	-35.24		
10140.00	V	-33.41		
5070.00	Horizontal	-42.44		
7605.00	H	-35.37		
10140.00	H	-33.24		
Highest Channel				
5130.00	Vertical	-41.41	-25.00	Pass
7695.00	V	-35.68		
10260.00	V	-33.24		
5130.00	Horizontal	-42.24		
7695.00	H	-35.42		
10260.00	H	-33.73		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 7, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5015.00	Vertical	-42.94	-25.00	Pass
7522.50	V	-35.42		
10030.00	V	-33.15		
5015.00	Horizontal	-42.26		
7522.50	H	-35.45		
10030.00	H	-33.88		
Middle Channel				
5070.00	Vertical	-42.94	-25.00	Pass
7605.00	V	-35.99		
10140.00	V	-33.88		
5070.00	Horizontal	-42.44		
7605.00	H	-35.42		
10140.00	H	-33.15		
Highest Channel				
5125.00	Vertical	-42.26	-25.00	Pass
7687.50	V	-35.41		
10250.00	V	-33.42		
5125.00	Horizontal	-42.42		
7687.50	H	-35.24		
10250.00	H	-33.99		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 7, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5020.00	Vertical	-42.41	-25.00	Pass
7530.00	V	-35.94		
10040.00	V	-33.99		
5020.00	Horizontal	-42.41		
7530.00	H	-35.57		
10040.00	H	-33.41		
Middle Channel				
5070.00	Vertical	-42.15	-25.00	Pass
7605.00	V	-35.68		
10140.00	V	-33.40		
5070.00	Horizontal	-42.24		
7605.00	H	-35.99		
10140.00	H	-33.42		
Highest Channel				
5120.00	Vertical	-41.69	-25.00	Pass
7680.00	V	-35.94		
10240.00	V	-33.51		
5120.00	Horizontal	-42.24		
7680.00	H	-35.51		
10240.00	H	-33.21		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 12 part:

LTE Band 12, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1399.40	Vertical	-54.89	-13.00	Pass
2099.10	V	-52.56		
2798.80	V	-47.48		
1399.40	Horizontal	-51.99		
2099.10	H	-52.82		
2798.80	H	-40.41		
Middle Channel				
1415.00	Vertical	-54.82	-13.00	Pass
2122.50	V	-52.03		
2830.00	V	-47.12		
1415.00	Horizontal	-51.86		
2122.50	H	-52.71		
2830.00	H	-40.12		
Highest Channel				
1430.60	Vertical	-54.42	-13.00	Pass
2145.90	V	-52.12		
2861.20	V	-47.77		
1430.60	Horizontal	-51.48		
2145.90	H	-52.66		
2861.20	H	-40.75		
Note: 1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. 2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 12, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1401.00	Vertical	-54.85	-13.00	Pass
2101.50	V	-52.70		
2802.00	V	-47.11		
1401.00	Horizontal	-51.14		
2101.50	H	-52.80		
2802.00	H	-40.68		
Middle Channel				
1415.00	Vertical	-54.13	-13.00	Pass
2122.50	V	-52.20		
2830.00	V	-47.27		
1415.00	Horizontal	-51.39		
2122.50	H	-52.09		
2830.00	H	-40.79		
Highest Channel				
1429.00	Vertical	-54.97	-13.00	Pass
2143.50	V	-52.98		
2858.00	V	-47.99		
1429.00	Horizontal	-51.75		
2143.50	H	-52.88		
2858.00	H	-40.93		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 12, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1403.00	Vertical	-54.77	-13.00	Pass
2104.50	V	-52.54		
2806.00	V	-47.85		
1403.00	Horizontal	-51.86		
2104.50	H	-52.12		
2806.00	H	-40.88		
Middle Channel				
1415.00	Vertical	-54.13	-13.00	Pass
2122.50	V	-52.54		
2830.00	V	-47.16		
1415.00	Horizontal	-51.42		
2122.50	H	-52.85		
2830.00	H	-40.12		
Highest Channel				
1427.00	Vertical	-54.89	-13.00	Pass
2410.50	V	-52.82		
2854.00	V	-47.89		
1427.00	Horizontal	-51.34		
2410.50	H	-52.99		
2854.00	H	-40.13		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

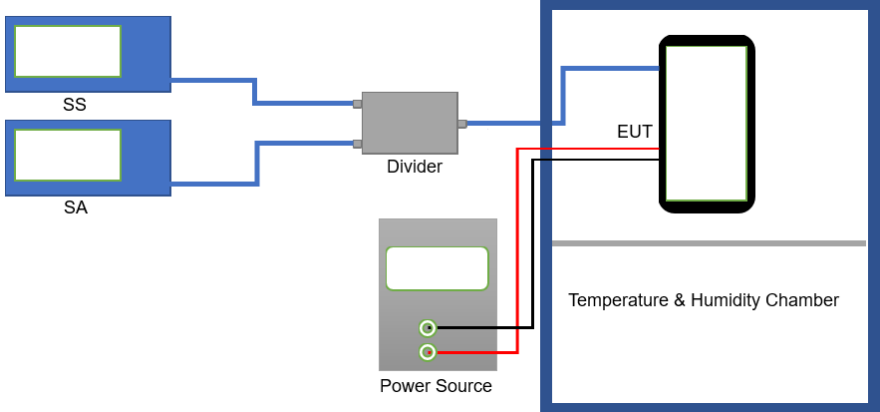
LTE Band 12, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1408.00	Vertical	-54.41	-13.00	Pass
2112.00	V	-52.12		
2816.00	V	-47.67		
1408.00	Horizontal	-51.54		
2112.00	H	-52.99		
2816.00	H	-40.86		
Middle Channel				
1415.00	Vertical	-54.77	-13.00	Pass
2122.50	V	-52.89		
2830.00	V	-47.03		
1415.00	Horizontal	-51.11		
2122.50	H	-52.71		
2830.00	H	-40.56		
Highest Channel				
1422.00	Vertical	-54.48	-13.00	Pass
2133.00	V	-52.16		
2844.00	V	-47.54		
1422.00	Horizontal	-51.61		
2133.00	H	-52.37		
2844.00	H	-40.56		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 17 part:

LTE Band 17, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1413.00	Vertical	-52.95	-13.00	Pass
2119.50	V	-55.93		
2826.00	V	-44.46		
1413.00	Horizontal	-52.49		
2119.50	H	-53.80		
2826.00	H	-44.14		
Middle Channel				
1420.00	Vertical	-52.14	-13.00	Pass
2130.00	V	-55.21		
2840.00	V	-44.28		
1420.00	Horizontal	-52.40		
2130.00	H	-53.11		
2840.00	H	-44.81		
Highest Channel				
1427.00	Vertical	-52.95	-13.00	Pass
2140.50	V	-55.68		
2854.00	V	-44.41		
1427.00	Horizontal	-52.65		
2140.50	H	-53.89		
2854.00	H	-44.21		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 17, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1418.00	Vertical	-52.84	-13.00	Pass
2127.00	V	-55.11		
2836.00	V	-44.15		
1418.00	Horizontal	-52.36		
2127.00	H	-53.43		
2836.00	H	-44.38		
Middle Channel				
1420.00	Vertical	-52.84	-13.00	Pass
2130.00	V	-55.14		
2840.00	V	-44.73		
1420.00	Horizontal	-52.65		
2130.00	H	-53.35		
2840.00	H	-44.85		
Highest Channel				
1422.00	Vertical	-52.54	-13.00	Pass
2133.00	V	-55.59		
2844.00	V	-44.52		
1422.00	Horizontal	-52.36		
2133.00	H	-53.37		
2844.00	H	-44.41		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

6.6 Frequency stability V.S. Temperature measurement

Test Requirement:	Part 22.355, Part 24.235, Part 27.54, Part 2.1055(a)(1)(b) RSS-130 section 4.3, RSS-132 section 5.3, RSS-133 section 6.3 RSS-139 section 6.4, RSS-199 section 4.3
Test Method:	RSS-GEN section 6.11, ANSI/TIA-603-D 2010
Limit:	$\pm 2.5\text{ppm}$
Test setup:	
Test procedure:	<ol style="list-style-type: none"> 1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data (worst case):

LTE Band 2 part:

Reference Frequency: LTE Band 2 (10MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	196	0.10426	±2.5	Pass
	-20	153	0.08138		
	-10	161	0.08564		
	0	121	0.06436		
	10	186	0.09894		
	20	172	0.09149		
	30	112	0.05957		
	40	103	0.05479		
	50	148	0.07872		
16QAM					
3.80	-30	121	0.06436	±2.5	Pass
	-20	148	0.07872		
	-10	164	0.08723		
	0	120	0.06383		
	10	142	0.07553		
	20	138	0.07340		
	30	154	0.08191		
	40	131	0.06968		
	50	136	0.07234		
Note: Only the worst case shown in the report.					

LTE Band 4 part:

Reference Frequency: LTE Band 4 (10MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	196	0.113131	±2.5	Pass
	-20	153	0.088312		
	-10	161	0.092929		
	0	121	0.069841		
	10	186	0.107359		
	20	172	0.099278		
	30	112	0.064646		
	40	103	0.059452		
	50	148	0.085426		
16QAM					
3.80	-30	121	0.069841	±2.5	Pass
	-20	148	0.085426		
	-10	164	0.094661		
	0	120	0.069264		
	10	142	0.081962		
	20	138	0.079654		
	30	154	0.088889		
	40	131	0.075613		
	50	136	0.078499		
Note: Only the worst case shown in the report.					

LTE Band 5 part:

Reference Frequency: LTE Band 5 (10MHz) Middle channel=20525 channel=836.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	197	0.235505	±2.5	Pass
	-20	154	0.184100		
	-10	162	0.193664		
	0	122	0.145846		
	10	187	0.223551		
	20	173	0.206814		
	30	113	0.135087		
	40	104	0.124328		
	50	149	0.178123		
16QAM					
3.80	-30	122	0.145846	±2.5	Pass
	-20	149	0.178123		
	-10	165	0.197250		
	0	121	0.144650		
	10	143	0.170950		
	20	139	0.166169		
	30	155	0.185296		
	40	132	0.157800		
	50	137	0.163778		
Note: Only the worst case shown in the report.					

LTE Band 7 part:

Reference Frequency: LTE Band 7 (10MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	197	0.0777120	±2.5	Pass
	-20	154	0.0607495		
	-10	162	0.0639053		
	0	122	0.0481262		
	10	187	0.0737673		
	20	173	0.0682446		
	30	113	0.0445759		
	40	104	0.0410256		
	50	149	0.0587771		
16QAM					
3.80	-30	122	0.0481262	±2.5	Pass
	-20	149	0.0587771		
	-10	165	0.0650888		
	0	121	0.0477318		
	10	143	0.0564103		
	20	139	0.0548323		
	30	155	0.0611440		
	40	132	0.0520710		
	50	137	0.0540434		
Note: Only the worst case shown in the report.					

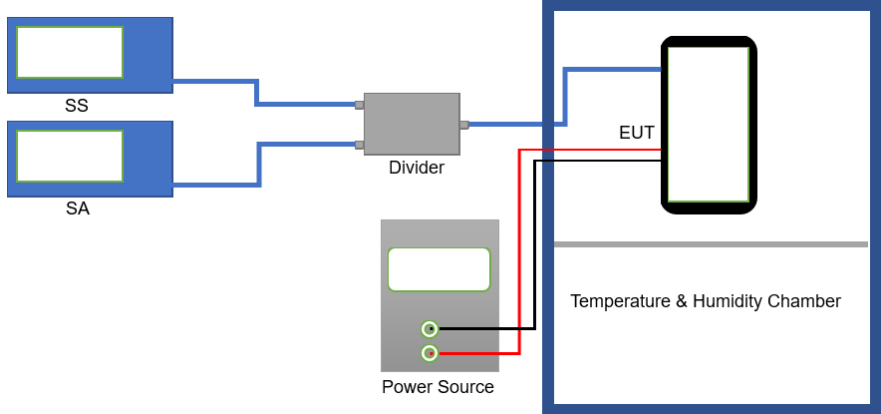
LTE Band 12 part:

Reference Frequency: LTE Band 12 (10MHz) Middle channel=23095 channel=707.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	195	0.275618	±2.5	Pass
	-20	152	0.214841		
	-10	160	0.226148		
	0	120	0.169611		
	10	185	0.261484		
	20	171	0.241696		
	30	111	0.156890		
	40	102	0.144170		
	50	147	0.207774		
16QAM					
3.80	-30	120	0.169611	±2.5	Pass
	-20	147	0.207774		
	-10	163	0.230389		
	0	119	0.168198		
	10	141	0.199293		
	20	137	0.193640		
	30	153	0.216254		
	40	130	0.183746		
	50	135	0.190813		
Note: Only the worst case shown in the report.					

LTE Band 17 part:

Reference Frequency: LTE Band 17 (10MHz) Middle channel=23790 channel=710.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	199	0.280282	±2.5	Pass
	-20	156	0.219718		
	-10	164	0.230986		
	0	124	0.174648		
	10	189	0.266197		
	20	175	0.246479		
	30	115	0.161972		
	40	106	0.149296		
	50	151	0.212676		
16QAM					
3.80	-30	124	0.174648	±2.5	Pass
	-20	151	0.212676		
	-10	167	0.235211		
	0	123	0.173239		
	10	145	0.204225		
	20	141	0.198592		
	30	157	0.221127		
	40	134	0.188732		
	50	139	0.195775		
Note: Only the worst case shown in the report.					

6.7 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 22.355, Part 24.235, Part 27.54, Part 2.1055(d)(2) RSS-130 section 4.3, RSS-132 section 5.3, RSS-133 section 6.3 RSS-139 section 6.4, RSS-199 section 4.3
Test Method:	RSS-GEN section 6.11, ANSI/TIA-603-D 2010
Limit:	± 2.5 ppm
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer (SA) and a Signal Source (SS) are connected to a Divider. The output of the Divider is connected to the EUT (Equipment Under Test) inside a Temperature & Humidity Chamber. A Power Source is also connected to the EUT.</p>
Test procedure:	<ol style="list-style-type: none"> 1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data (worst case):

LTE Band 2 part:

Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	100	0.053191	±2.5	Pass
	3.80	67	0.035638		
	3.50	76	0.040426		
16QAM					
25	4.35	82	0.043617	±2.5	Pass
	3.80	98	0.052128		
	3.50	50	0.026596		
Note: Only the worst case shown in the report.					

LTE Band 4 part:

Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	96	0.055411	±2.5	Pass
	3.80	63	0.036364		
	3.50	72	0.041558		
16QAM					
25	4.35	78	0.045022	±2.5	Pass
	3.80	94	0.054257		
	3.50	46	0.026551		
Note: Only the worst case shown in the report.					

LTE Band 5 part:

Reference Frequency: LTE Band 5(10MHz) Middle channel=20525 channel=836.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	97	0.115959	±2.5	Pass
	3.80	64	0.076509		
	3.50	73	0.087268		
16QAM					
25	4.35	79	0.094441	±2.5	Pass
	3.80	95	0.113568		
	3.50	47	0.056186		
Note: Only the worst case shown in the report.					

LTE Band 7 part:

Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	97	0.0382643	±2.5	Pass
	3.80	64	0.0252465		
	3.50	73	0.0287968		
16QAM					
25	4.35	79	0.0311637	±2.5	Pass
	3.80	95	0.0374753		
	3.50	47	0.0185404		
Note: Only the worst case shown in the report.					

Note: Only the worst case shown in the report.

LTE Band 12 part:

Reference Frequency: LTE Band 12(10MHz) Middle channel=23095 channel=707.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	95	0.134276	±2.5	Pass
	3.80	62	0.087633		
	3.50	71	0.100353		
16QAM					
25	4.35	77	0.108834	±2.5	Pass
	3.80	93	0.131449		
	3.50	45	0.063604		
Note: Only the worst case shown in the report.					

Note: Only the worst case shown in the report.

LTE Band 17 part:

Reference Frequency: LTE Band 17(10MHz) Middle channel=23790 channel=710.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	99	0.139437	±2.5	Pass
	3.80	66	0.092958		
	3.50	75	0.105634		
16QAM					
25	4.35	81	0.114085	±2.5	Pass
	3.80	97	0.136620		
	3.50	49	0.069014		
Note: Only the worst case shown in the report.					

Note: Only the worst case shown in the report.