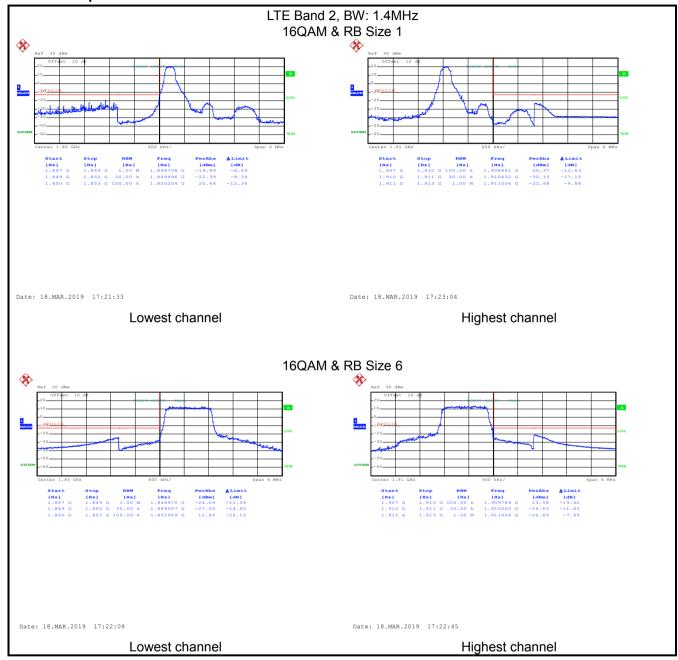


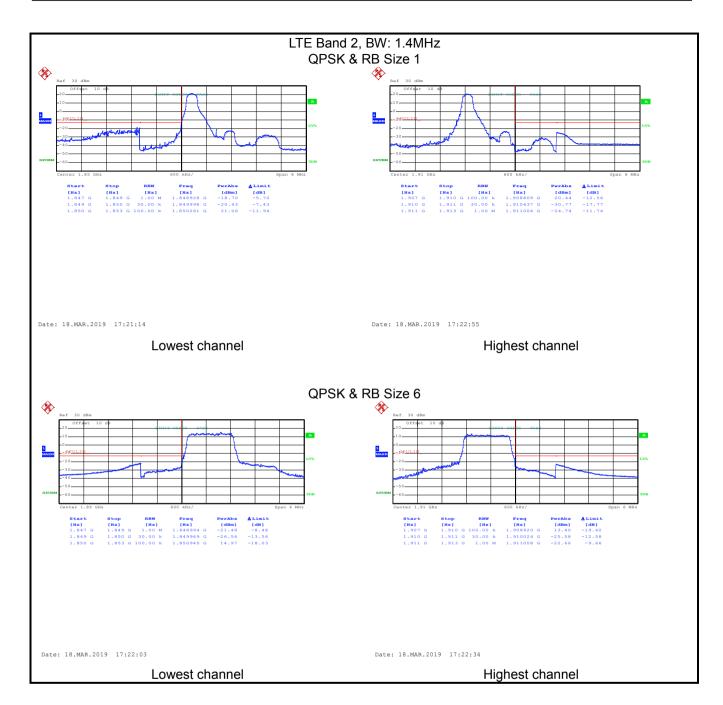


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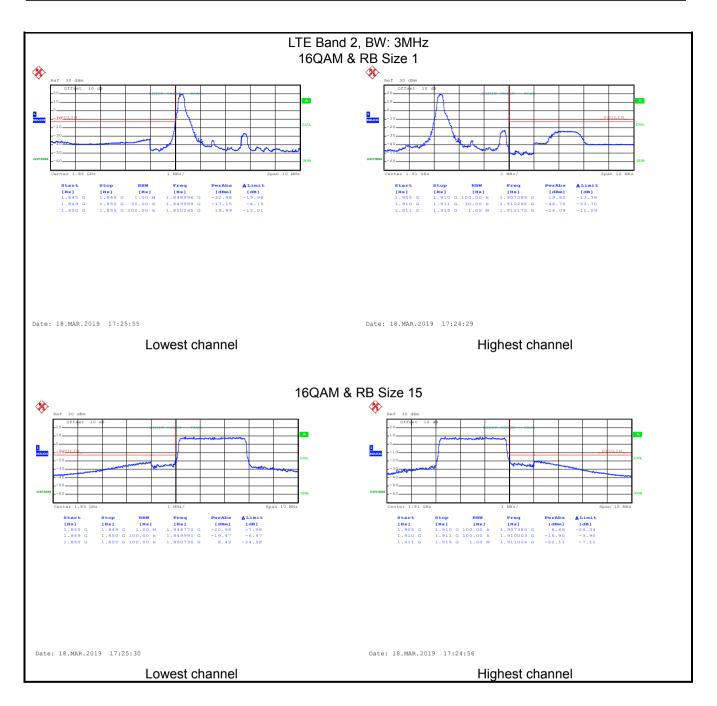
LTE Band 2 part:



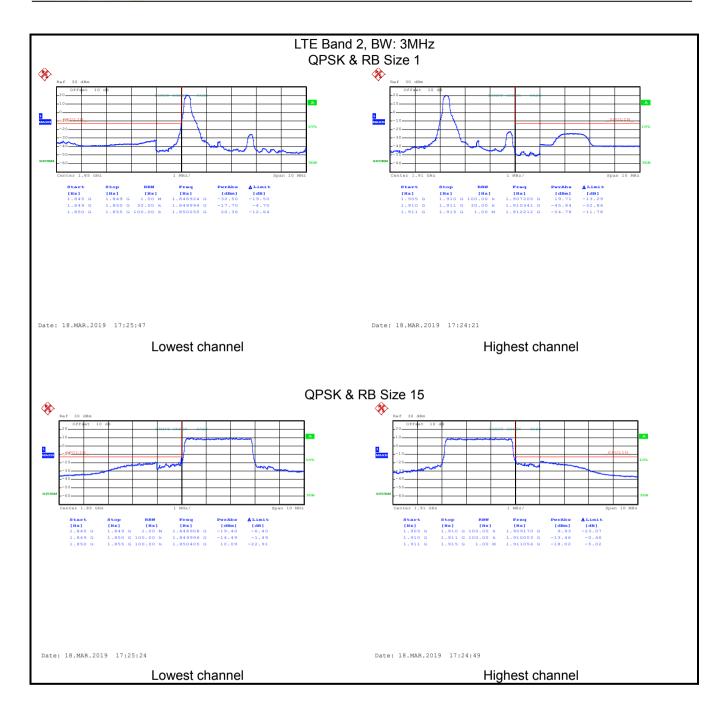




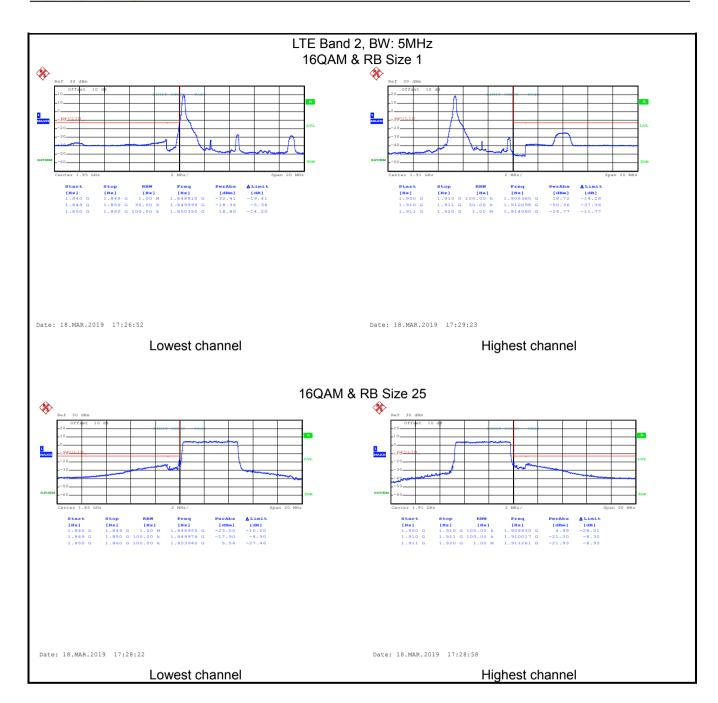




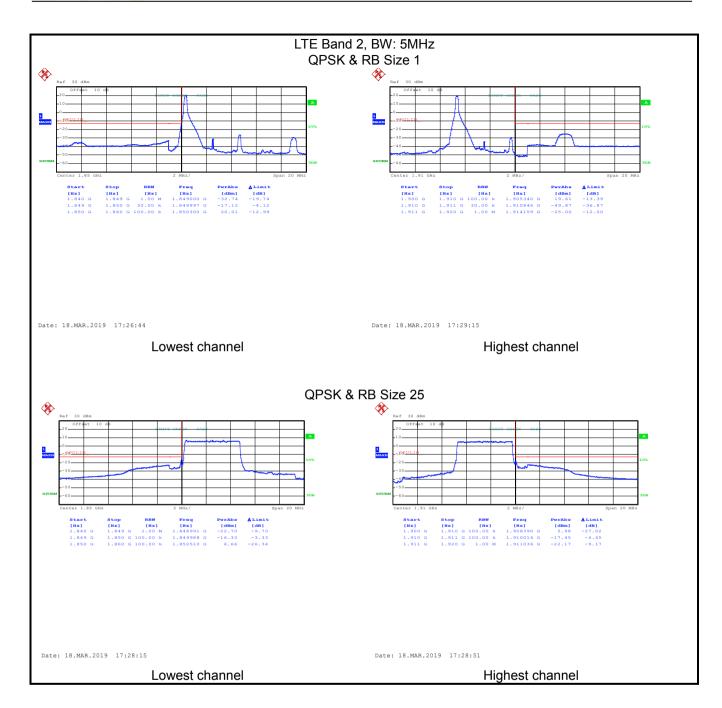




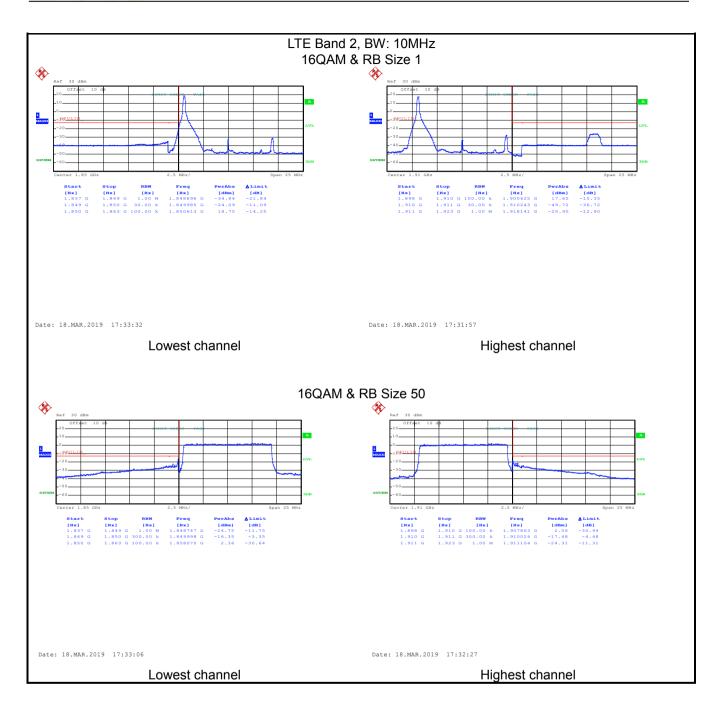




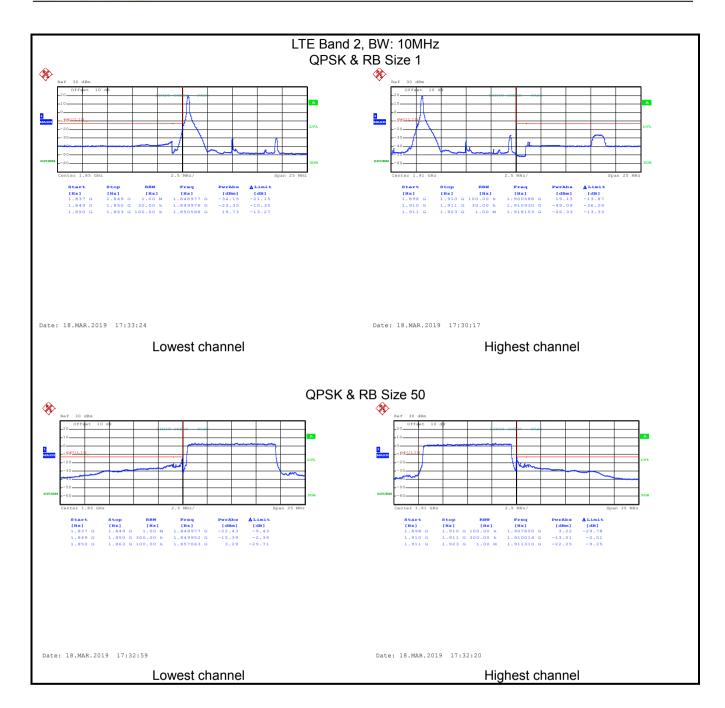




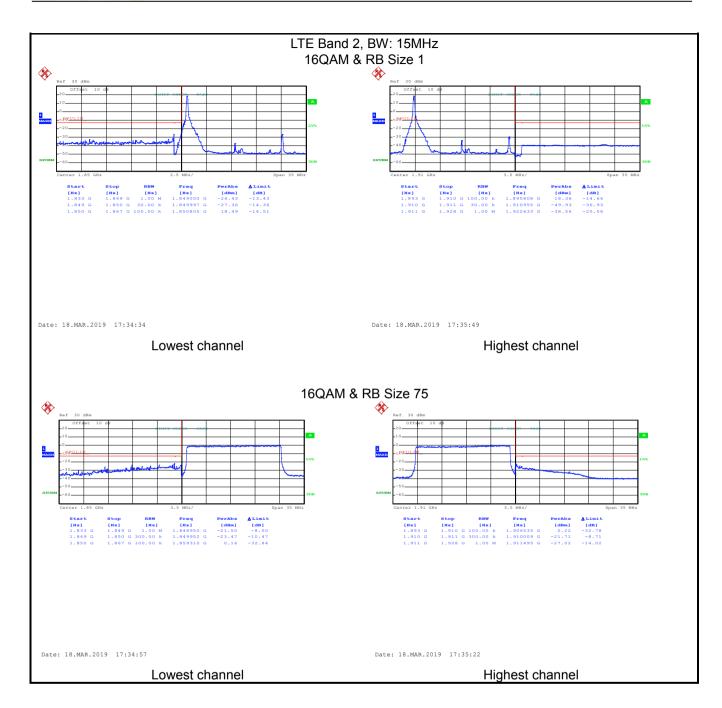




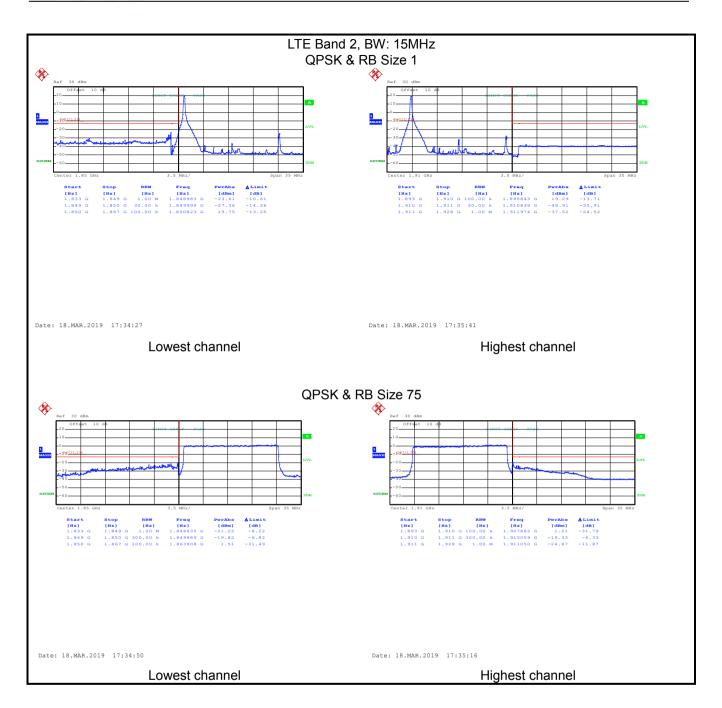




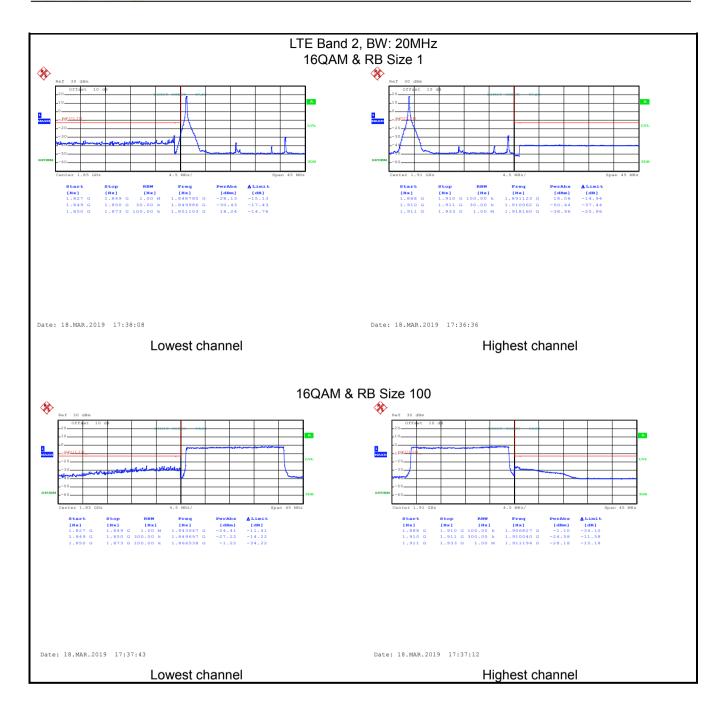




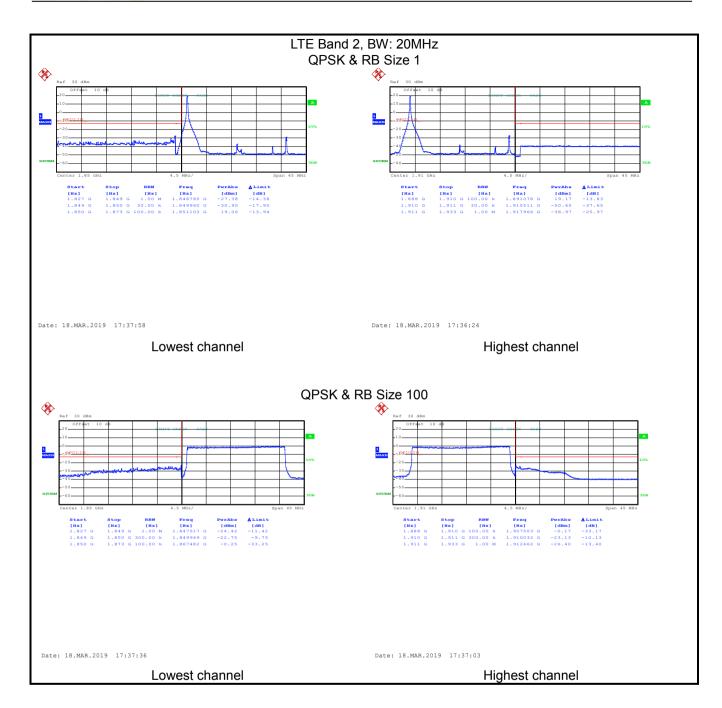






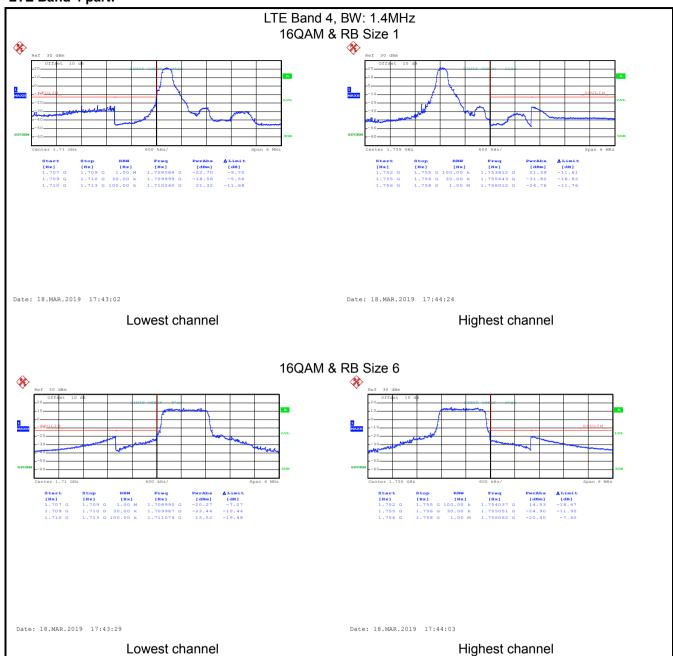




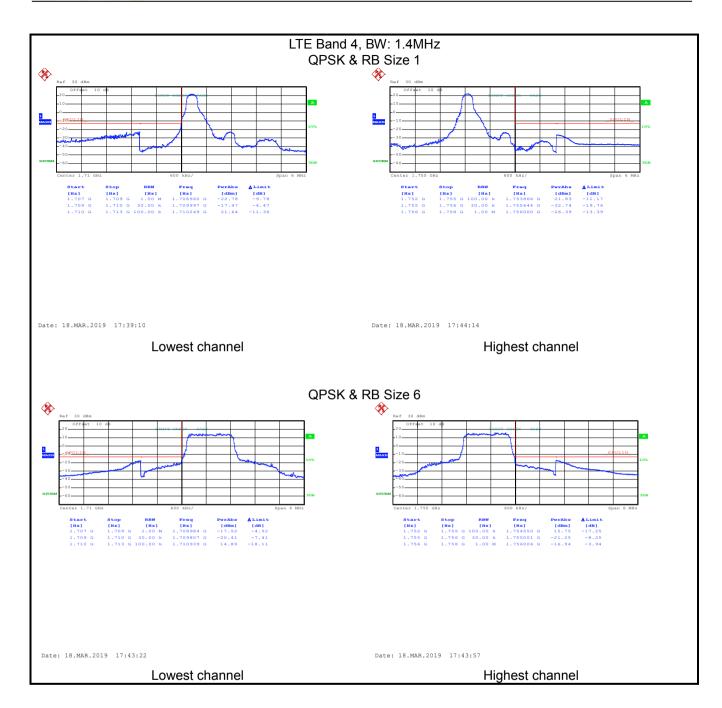




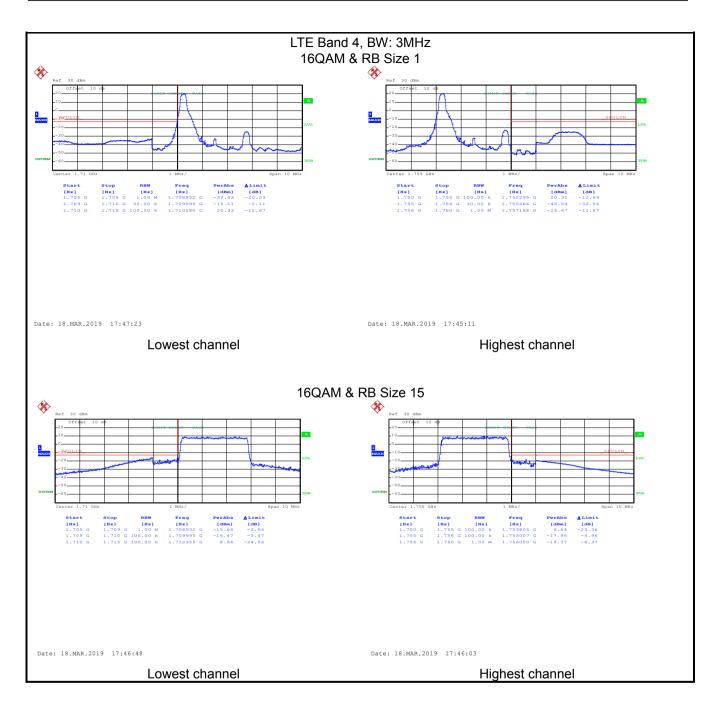
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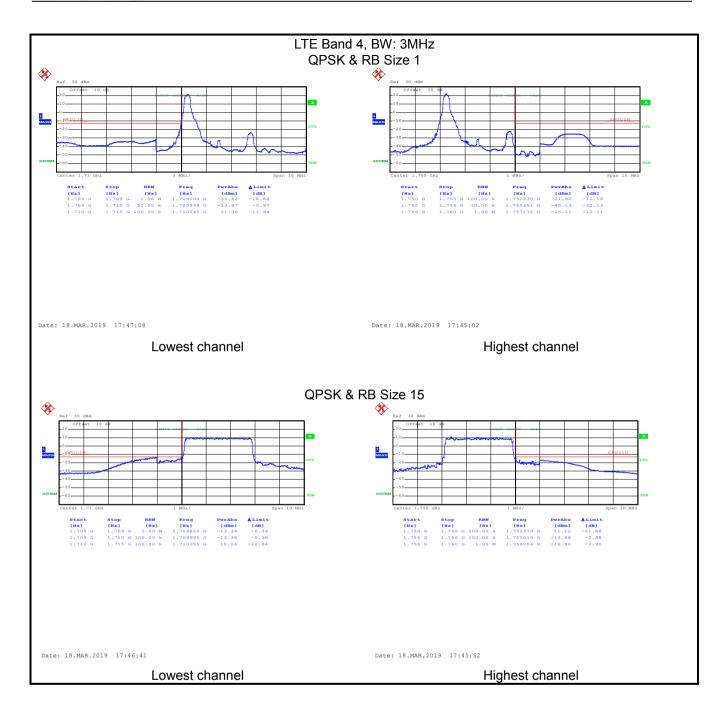




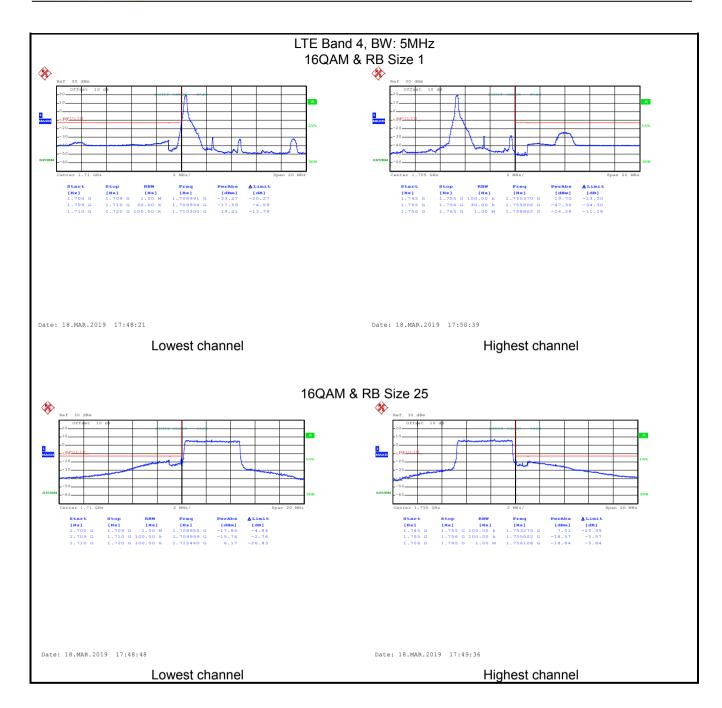




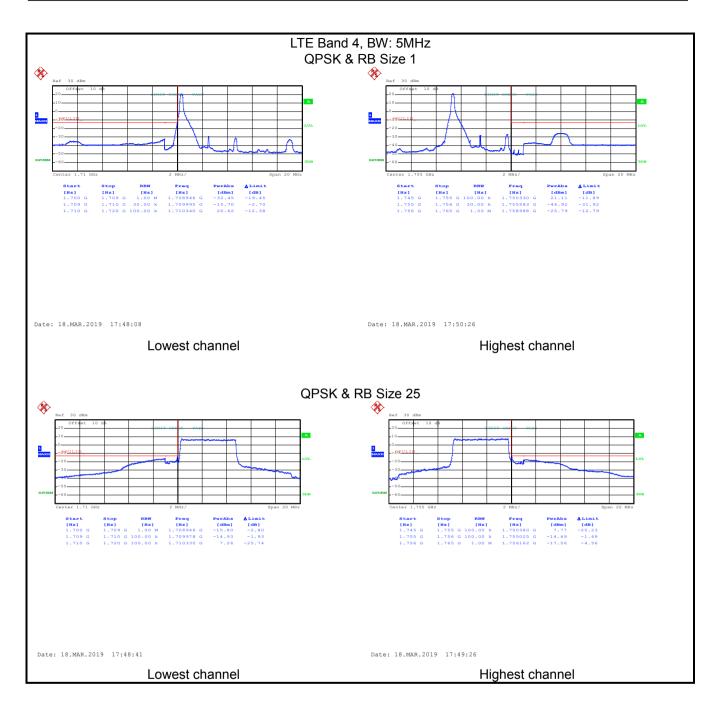




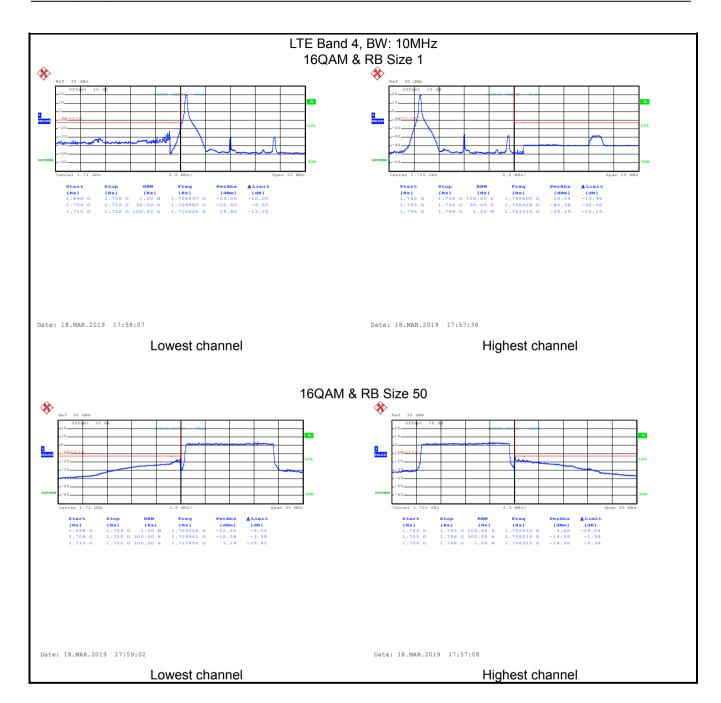




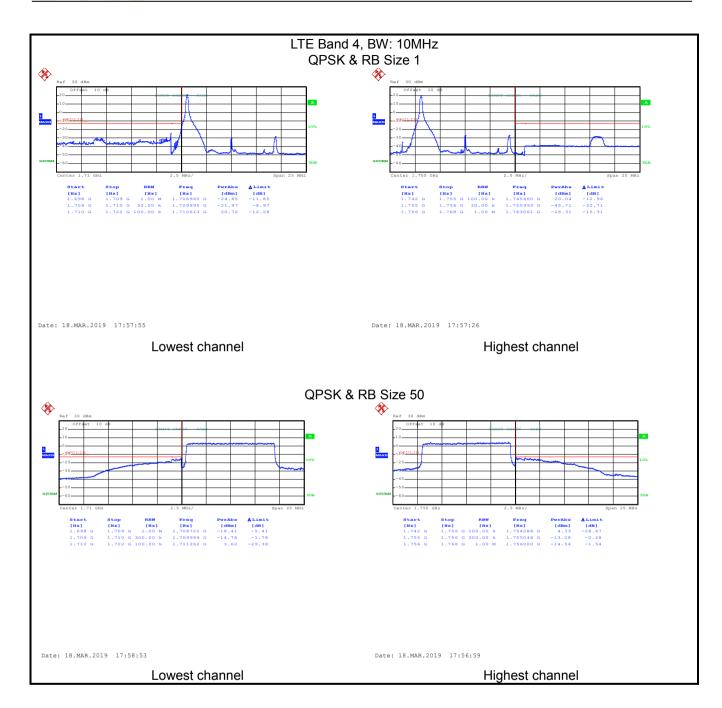




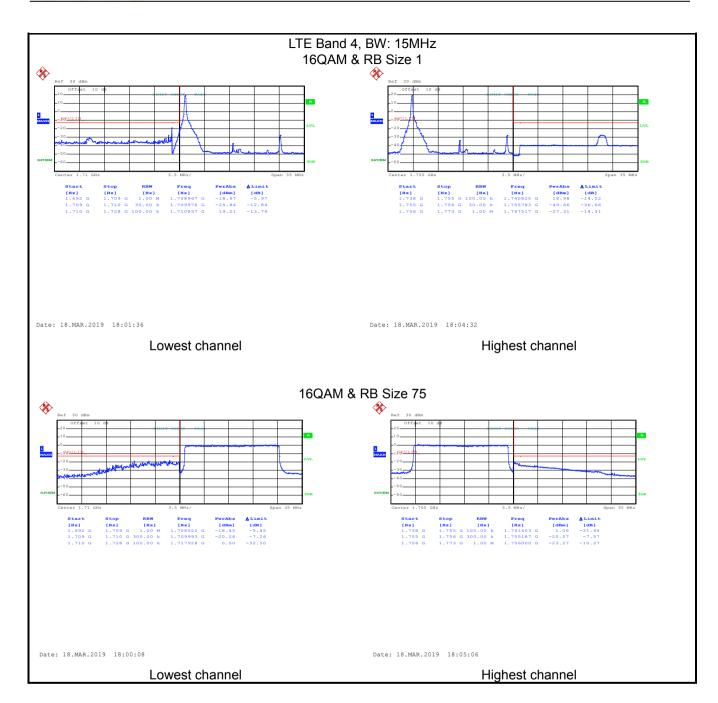




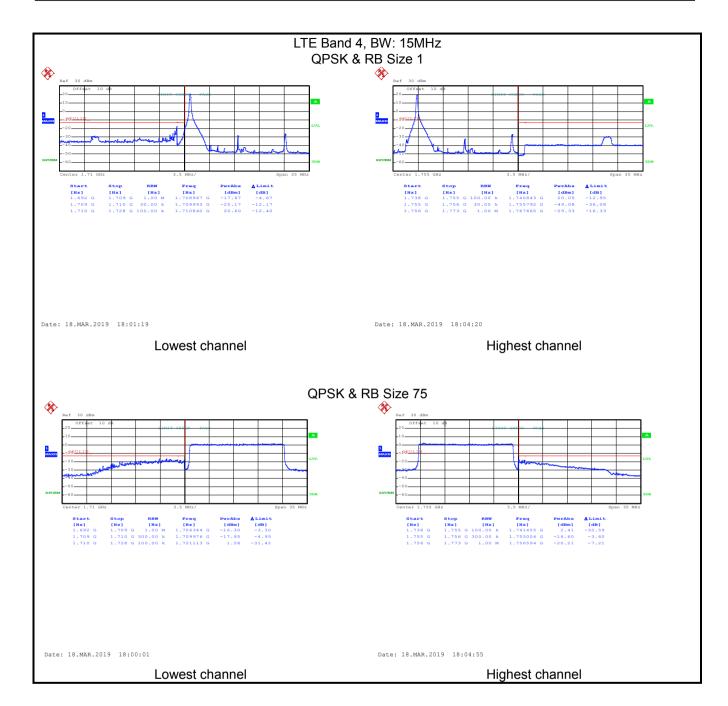




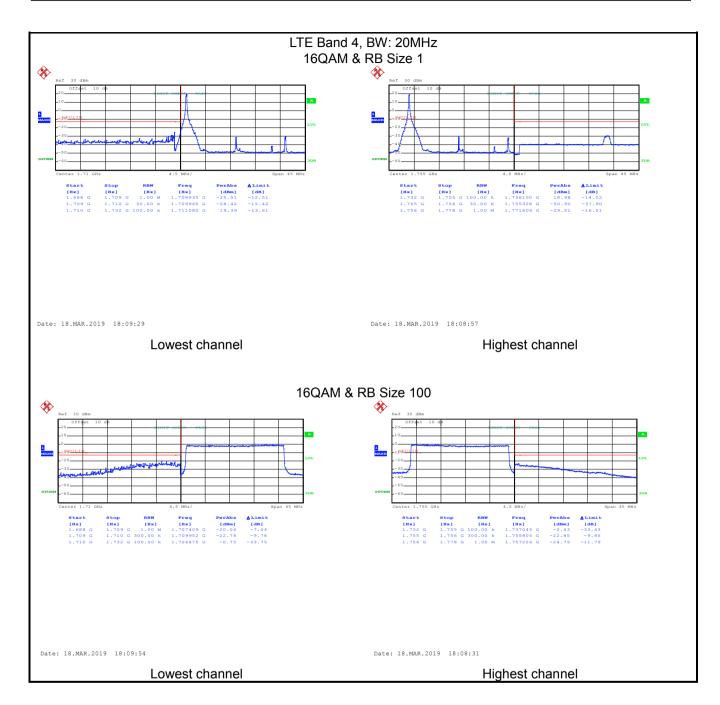




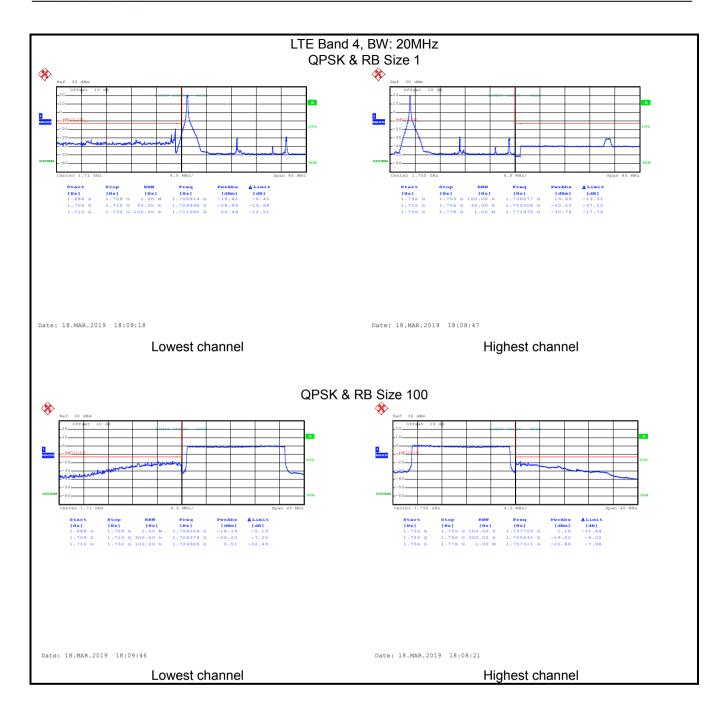






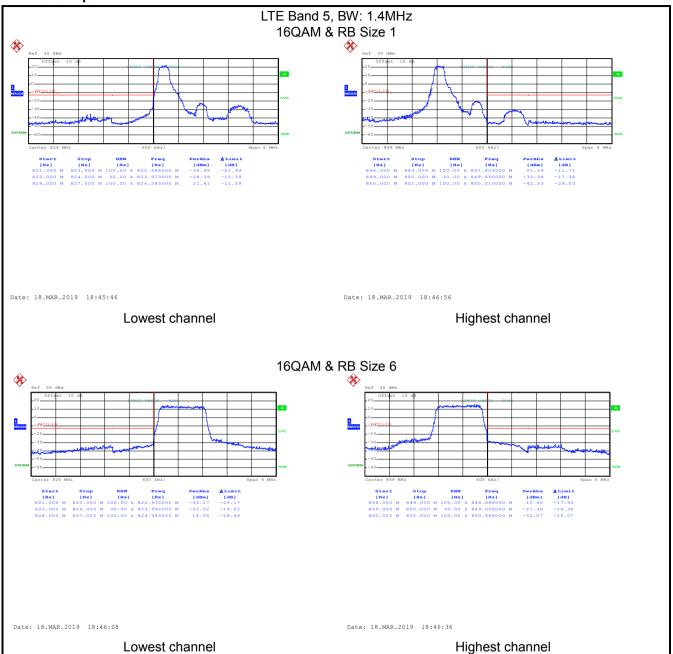




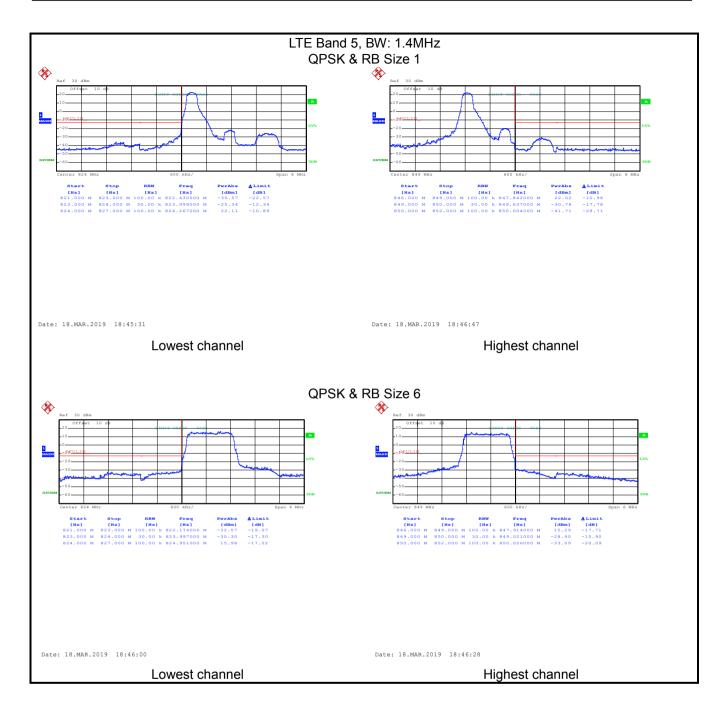




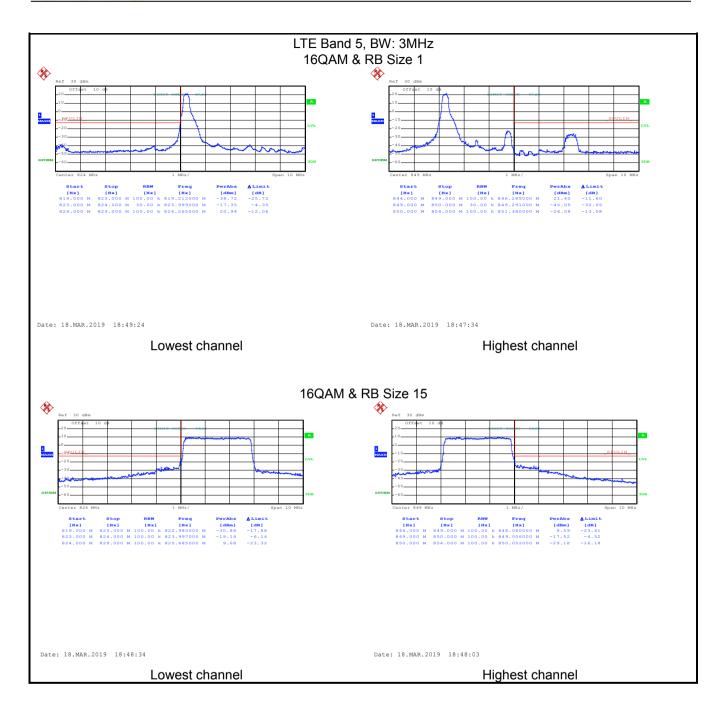
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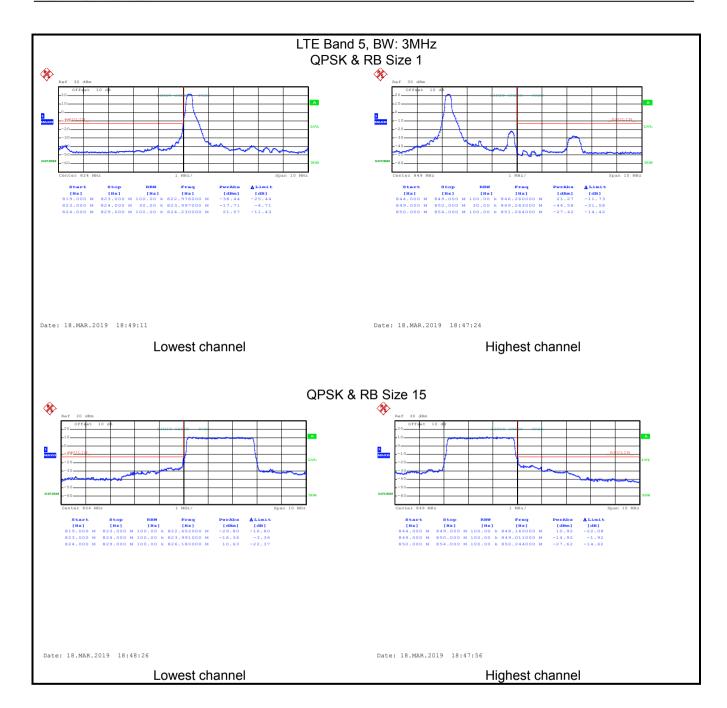




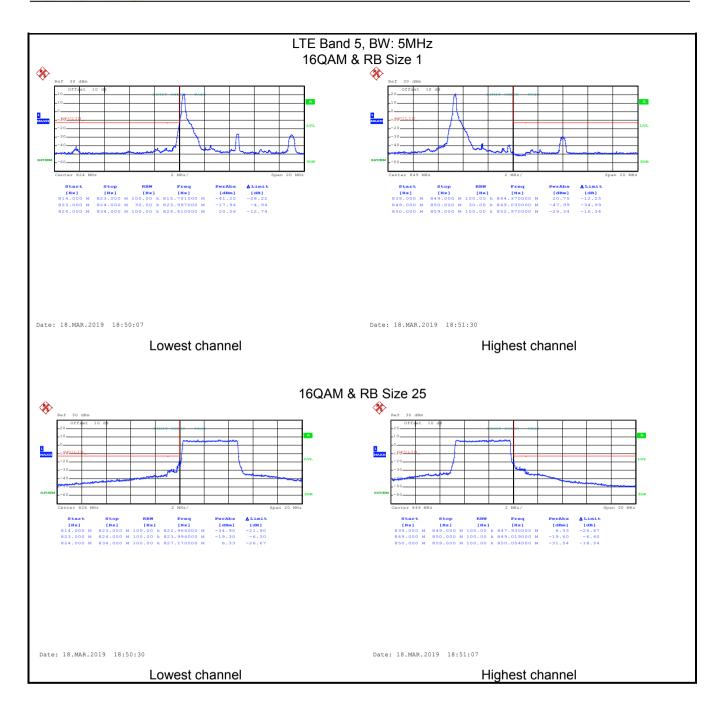




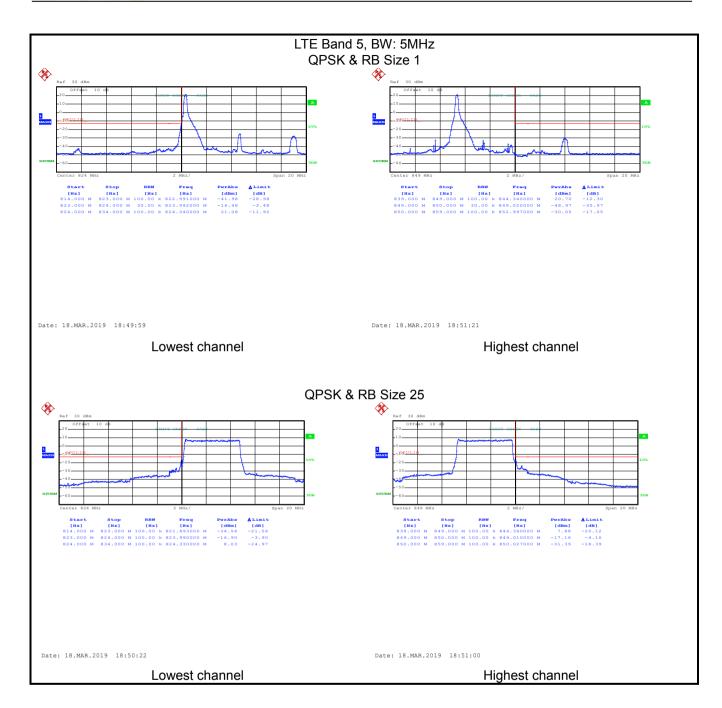




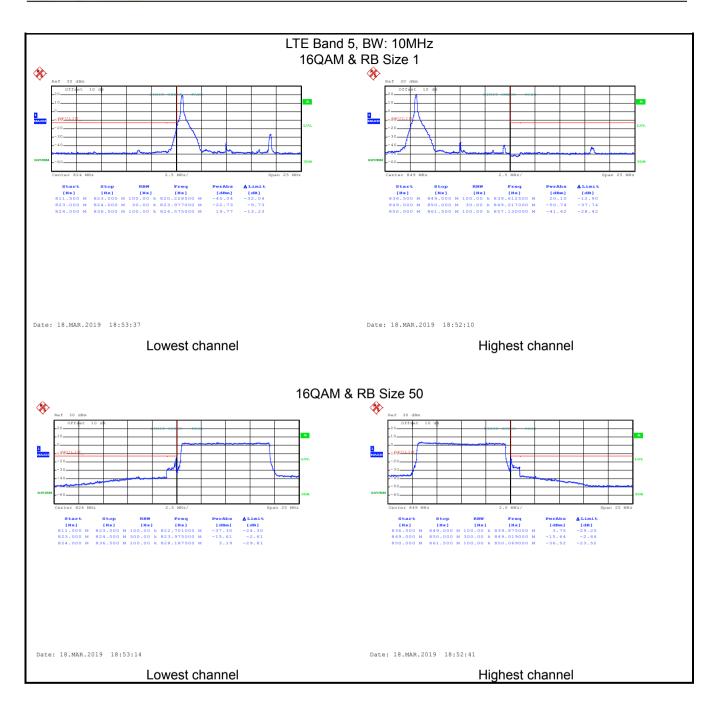




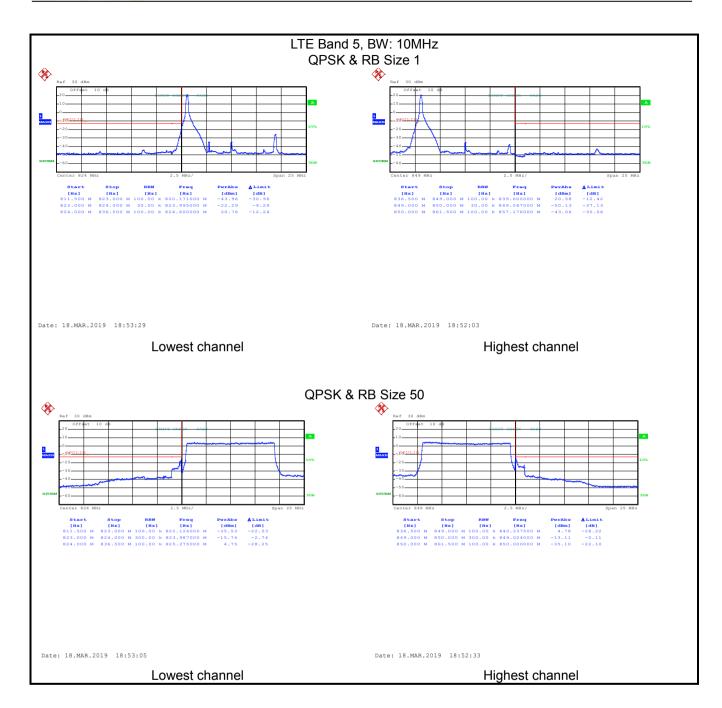






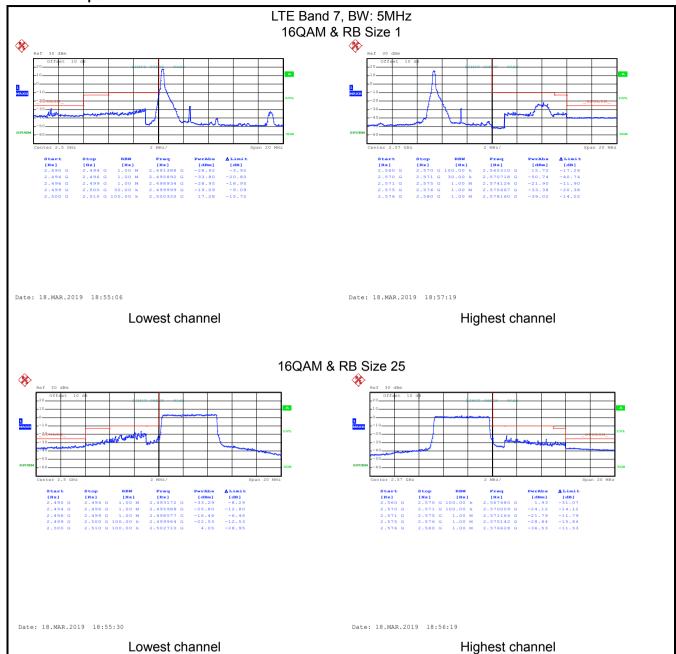




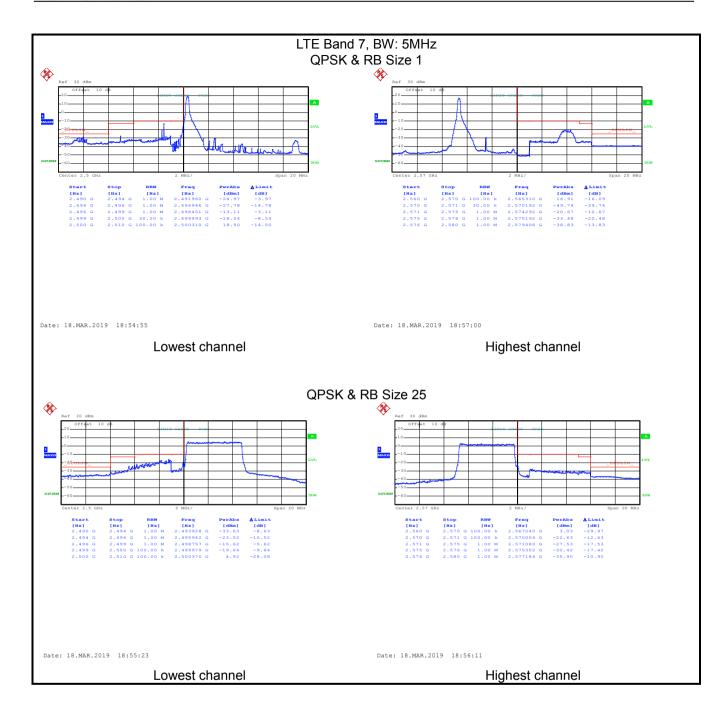




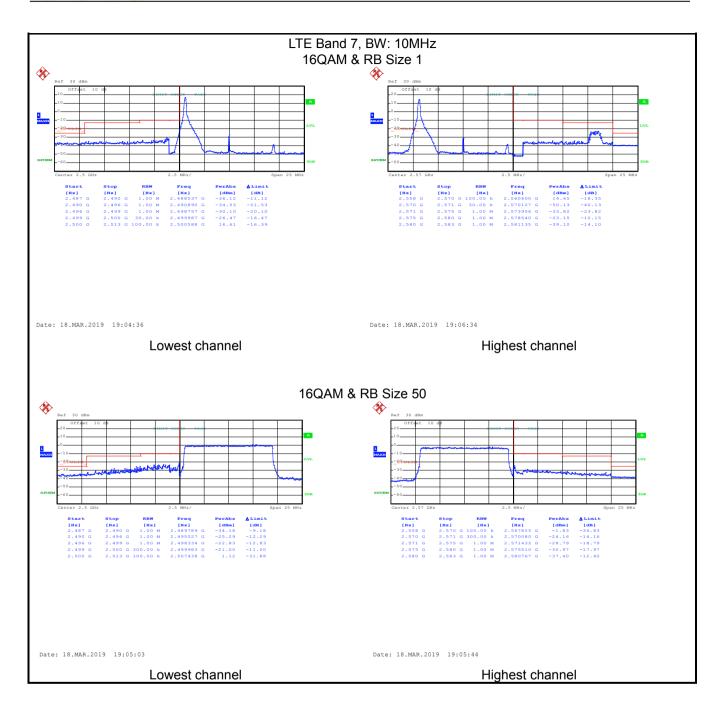
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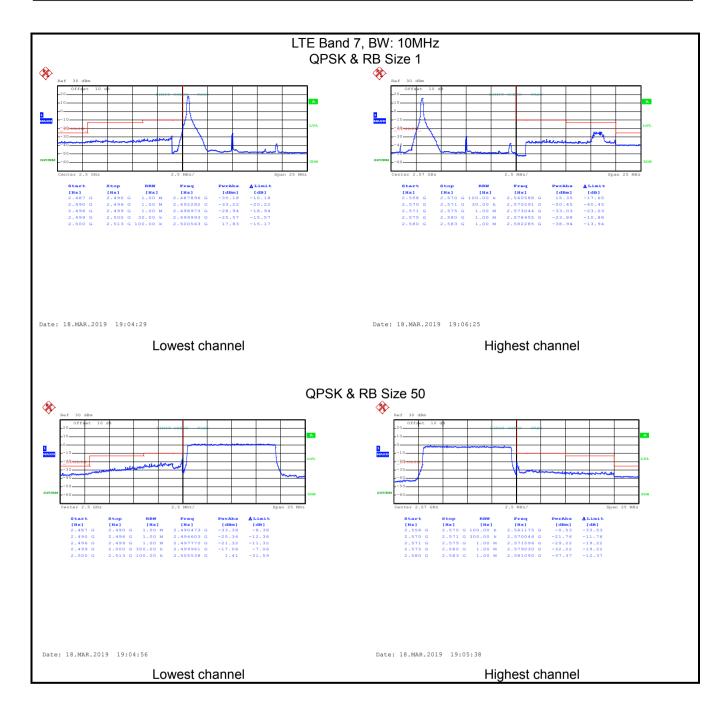




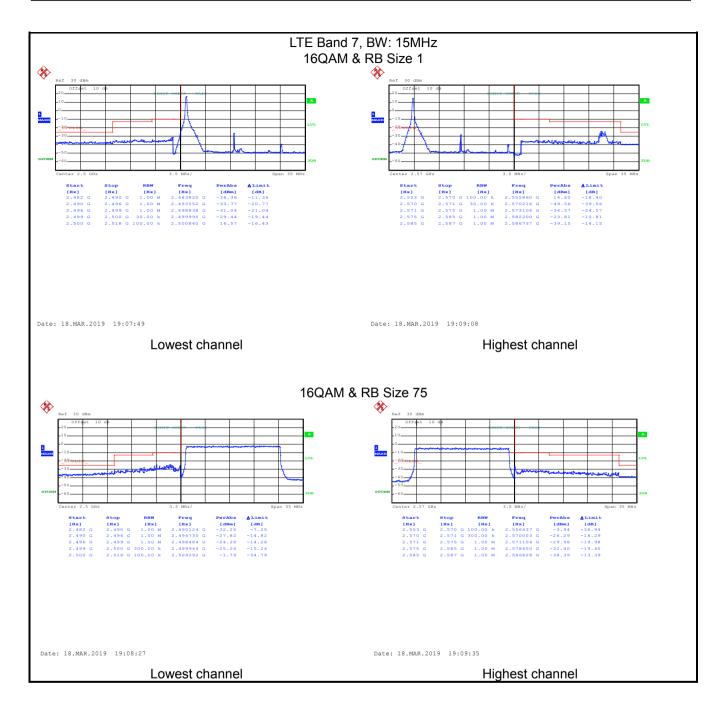




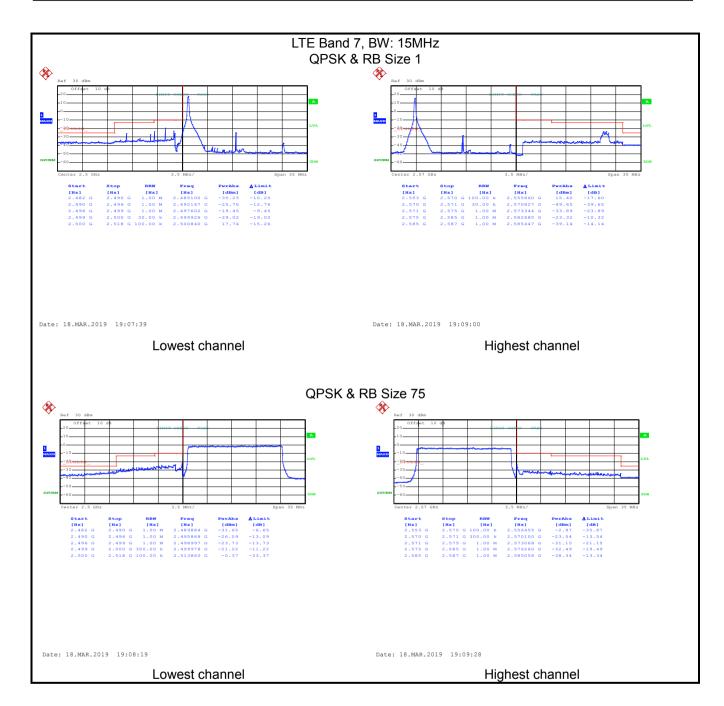




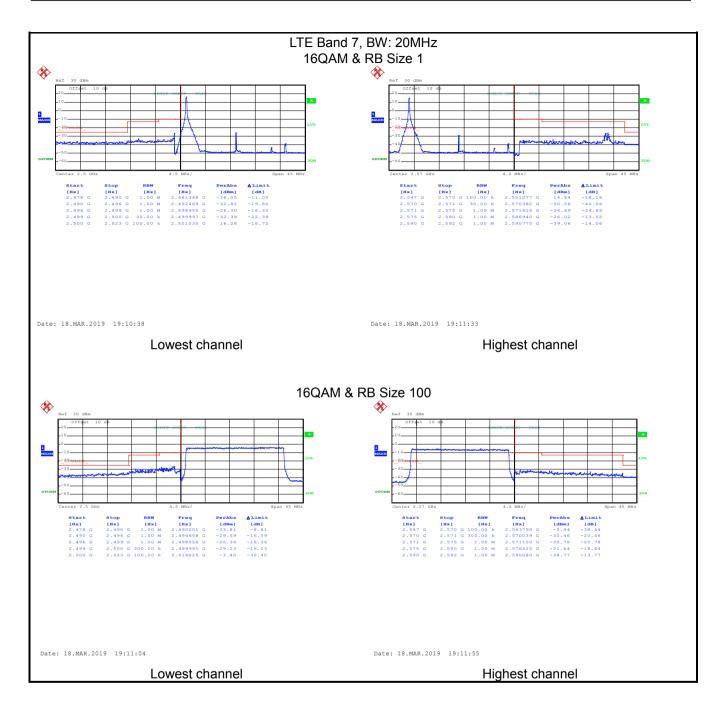




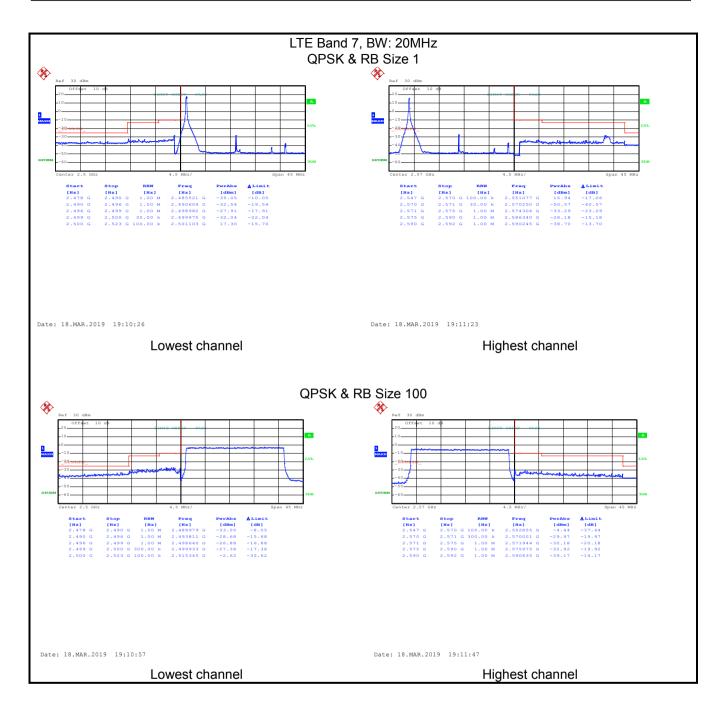














6.5 Field strength of spurious radiation measurement

	urious radiation measurement
Test Requirement:	Part 22.917(b), Part 24.238 (a), Part 27.53(m), Part 27.53(h)
Test Method:	ANSI/TIA-603-D 2010
Limit:	LTE Band 2 & 4 & 5: 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 that 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:	Below 1GHz
	Antenna Tower Ground Reference Plane Test Receiver Para Angalier Controlles
	Above 1GHz
	Antenna Tower Ground Reference Plane Test Receiver Test Receiver Test Receiver Test Receiver Test Receiver
Test Procedure:	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.
	 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.

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China
Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366





	The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. ERP / EIRP = S.G. output (dBm) + Antenna Gain(dB/dBi) - Cable Loss (dB)
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:

	LT	E Band 2, WB: 1.4MH	lz	
	R	B size 1 & RB offset ()	
Fraguency (MHz)	Spurious	Emission	Limit (dPm)	Result
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest Channel		
3701.40	Vertical	-43.28		
5552.10	V	-42.86		
7402.00	V	-35.67	12.00	Door
3701.40	Horizontal	-39.64	-13.00	Pass
5552.10	Н	-41.23		
7402.00	Н	-35.98		
·		Middle Channel		
3760.00	Vertical	-42.08		Pass
5640.00	V	-42.01		
7520.00	V	-35.62	42.00	
3760.00	Horizontal	-39.98	-13.00	
5640.00	Н	-41.49		
7520.00	Н	-35.78		
·		Highest Channel		
3816.60	Vertical	-42.80		
5724.90	V	-42.84		
7633.20	V	-36.89	-13.00	_
3816.60	Horizontal	-39.94		Pass
5724.90	Н	-41.03		
7633.20	Н	-36.24		

Note:

^{1.} The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

For above 1 GHz, all test modes were performed, and just 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			
Frequency (MHZ)	Polarization	Level (dBm)	LIIIII (UDIII)	Result			
	Lowest Channel						
3703.00	Vertical	-41.91					
5554.50	V	-42.16					
7406.00	V	-36.27	-13.00	Pass			
3703.00	Horizontal	-39.89	-13.00	Pass			
5554.50	Н	-41.89					
7406.00	Н	-36.57					
		Middle Channel					
3760.00	Vertical	-42.74		Pass			
5640.00	V	-41.29					
7520.00	V	-36.47	42.00				
3760.00	Horizontal	-40.82	-13.00				
5640.00	Н	-42.14					
7520.00	Н	-36.27					
		Highest Channel					
3817.00	Vertical	-42.37					
5725.50	V	-41.98	-13.00				
7634.00	V	-36.89		Dage			
3817.00	Horizontal	-40.17		Pass			
5725.50	Н	-41.92					
7634.00	Н	-37.06					

^{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					
(MIII)	Spurious	Emission	Limit (dPm)	Desuit	
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result	
		Lowest Channel			
3705.00	Vertical	-43.26			
5557.50	V	-42.95			
7410.00	V	-35.87	-13.00	Pass	
3705.00	Horizontal	-39.65	-13.00	Fd55	
5557.50	Н	-41.89			
7410.00	Н	-36.07			
		Middle Channel			
3760.00	Vertical	-41.87		Door	
5640.00	V	-42.35			
7520.00	V	-35.74	-13.00		
3760.00	Horizontal	-40.25	-13.00	Pass	
5640.00	Н	-42.34			
7520.00	Н	-35.93			
		Highest Channel			
3815.00	Vertical	-42.14			
5722.50	V	-41.83			
7630.00	V	-35.67	-13.00	Door	
3815.00	Horizontal	-40.34		Pass	
5722.50	Н	-41.23			
7630.00	Н	-36.28			

^{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 I	Emission	Limit (dBm)	Result	
Frequency (MHZ)	Polarization	Level (dBm)	Limit (ubm)	Result	
		Lowest Channel			
3710.00	Vertical	-41.89			
5565.00	V	-42.35			
7420.00	V	-36.11	-13.00	Pass	
3710.00	Horizontal	-39.64	-13.00	Pass	
5565.00	Н	-41.73			
7420.00	Н	-36.95			
		Middle Channel			
3760.00	Vertical	-42.68		Pass	
5640.00	V	-41.38			
7520.00	V	-35.97	-13.00		
3760.00	Horizontal	-40.86	-13.00		
5640.00	Н	-42.35			
7520.00	Н	-35.67			
		Highest Channel			
3810.00	Vertical	-42.98			
5715.00	V	-41.67	-13.00		
7620.00	V	-36.64		Dage	
3810.00	Horizontal	-40.23		Pass	
5715.00	Н	-41.89			
7620.00	Н	-36.24			

^{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					
Fragueray (NALIE)	Spurious Emission		Lineit (dDne)	Decult	
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result	
		Lowest Channel			
3715.00	Vertical	-42.93			
5572.50	V	-41.94			
7430.00	V	-36.27	-13.00	Door	
3715.00	Horizontal	-35.83	-13.00	Pass	
5572.50	Н	-42.61			
7430.00	Н	-36.84			
		Middle Channel			
3760.00	Vertical	-42.31		Pass	
5640.00	V	-41.89			
7520.00	V	-35.67	42.00		
3760.00	Horizontal	-40.26	-13.00		
5640.00	Н	-42.19			
7520.00	Н	-35.47			
		Highest Channel			
3805.00	Vertical	-42.22			
5707.50	V	-41.74			
7610.00	V	-36.26	-13.00	Dana	
3805.00	Horizontal	-39.45		Pass	
5707.50	Н	-41.28			
7610.00	Н	-36.59			

^{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						
F (MIL)	Spurious	Emission	Limit (dPm)	D 16		
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result		
		Lowest Channel				
3720.00	Vertical	-42.11				
5580.00	V	-42.23				
7440.00	V	-39.29	-13.00	Pass		
3720.00	Horizontal	-35.68	-13.00	Fa55		
5580.00	Н	-41.94				
7440.00	Н	-36.62				
		Middle Channel				
3760.00	Vertical	-42.71		Pass		
5640.00	V	-41.94				
7520.00	V	-35.89	-13.00			
3760.00	Horizontal	-40.39	-13.00			
5640.00	Н	-42.28				
7520.00	Н	-35.57				
		Highest Channel				
3800.00	Vertical	-42.36				
5700.00	V	-41.94				
7600.00	V	-36.49	-13.00 P	Pass		
3800.00	Horizontal	-40.57		Pass		
5700.00	Н	-42.32				
7600.00	Н	-35.89				

^{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:

	LT	E Band 4, WB: 1.4MF	·lz	
	R	B size 1 & RB offset	0	
[Spurious	Emission	Limit (dDm)	Result
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest Channel		
3421.40	Vertical	-35.64		
5132.10	V	-44.26		
6842.80	V	-37.14	-13.00	Pass
3421.40	Horizontal	-37.98	-13.00	Pa55
5132.10	Н	-42.67		
6842.80	Н	-36.24		
		Middle Channel		
3465.00	Vertical	-34.34		Dana
5197.50	V	-43.74		
6930.00	V	-37.52	-13.00	
3465.00	Horizontal	-37.98	-13.00	Pass
5197.50	Н	-42.94		
6930.00	Н	-35.62		
		Highest Channel		
3508.60	Vertical	-34.07		
5262.90	V	-43.37		
7017.20	V	-38.06	-13.00	Door
3508.60	Horizontal	-37.55		Pass
5262.90	Н	-42.98		
7017.20	Н	-35.92		

Note:

^{1.}

The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.



	Ľ	TE Band 4, WB: 3MHz	Z	
	R	B size 1 & RB offset ()	
Fraguency (MHz)	Spurious	Emission	Limit (dBm)	Result
Frequency (MHz)	Polarization	Level (dBm)	Limit (dDin)	Result
		Lowest Channel		
3423.00	Vertical	-36.14		
5134.50	V	-44.95		
6846.00	V	-37.83	-13.00	Door
3423.00	Horizontal	-37.39	-13.00	Pass
5134.50	Н	-42.67		
6846.00	Н	-36.62		
		Middle Channel		
3465.00	Vertical	-36.94		Pass
5197.50	V	-44.72		
6930.00	V	-38.34	-13.00	
3465.00	Horizontal	-37.93	-13.00	
5197.50	Н	-42.89		
6930.00	Н	-37.12		
		Highest Channel		
3507.00	Vertical	-36.95		
5260.50	V	-44.89		
7014.00	V	-38.61	-13.00	Door
3507.00	Horizontal	-37.67		Pass
5260.50	Н	-42.68		
7014.00	Н	-36.97		

^{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					
Crossion ov (MILIT)	Spurious Emission		Lineit (dDne)	Result	
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result	
		Lowest Channel			
3425.00	Vertical	-35.74			
5137.50	V	-44.29			
6850.00	V	-37.82	-13.00	Pass	
3425.00	Horizontal	-38.06	-13.00	Fd55	
5137.50	Н	-43.12			
6850.00	Н	-37.64			
		Middle Channel			
3465.00	Vertical	-35.26		Pass	
5197.50	V	-43.95			
6930.00	V	-38.17	-13.00		
3465.00	Horizontal	-39.06	-13.00		
5197.50	Н	-42.98			
6930.00	Н	-36.17			
		Highest Channel			
3505.00	Vertical	-34.57			
5257.50	V	-43.87			
7010.00	V	-38.64	-13.00	Pass	
3505.00	Horizontal	-37.49		Pass	
5257.50	Н	-43.06			
7010.00	Н	-36.28			

^{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				
	R	B size 1 & RB offset ()	
[Spurious	Spurious Emission		Result
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest Channel		
3430.00	Vertical	-36.27		
5145.00	V	-44.86		
6860.00	V	-38.24	-13.00	Pass
3430.00	Horizontal	-37.96	-13.00	Pass
5145.00	Н	-42.86		
6860.00	Н	-36.91		
		Middle Channel		
3465.00	Vertical	-36.75		Pass
5197.50	V	-44.37		
6930.00	V	-38.62	-13.00	
3465.00	Horizontal	-38.17	-13.00	Pass
5197.50	Н	-42.96		
6930.00	Н	-37.86		
		Highest Channel		
3500.00	Vertical	-37.00		
5250.00	V	-44.65		
7000.00	V	-38.98	-13.00	Dage
3500.00	Horizontal	-37.84		Pass
5250.00	Н	-43.06		
7000.00	Н	-36.14		

^{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.



	Lī	E Band 4, WB: 15MH	z			
	R	B size 1 & RB offset ()			
Fraguency (MUz)	Spurious Emission		Limit (dRm)	Result		
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result		
		Lowest Channel				
3435.00	Vertical	-35.11				
5152.50	V	-43.98				
6870.00	V	-37.24	12.00	Door		
3435.00	Horizontal	-39.03	-13.00 Pass		-13.00	Pass
5152.50	Н	-43.52				
6870.00	Н	-38.24				
·		Middle Channel				
3465.00	Vertical	-35.73				
5197.50	V	-43.22				
6930.00	V	-38.64	-13.00	Pass		
3465.00	Horizontal	-39.34	-13.00	Pass		
5197.50	Н	-42.83				
6930.00	Н	-36.38				
·		Highest Channel				
3495.00	Vertical	-34.62				
5242.50	V	-43.47				
6990.00	V	-38.92	42.00	Door		
3495.00	Horizontal	-37.95	-13.00	Pass		
5242.50	Н	-43.01				
6990.00	Н	-35.16				

^{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.



	LT	E Band 4, WB: 20MH	z	
	R	B size 1 & RB offset ()	
Frequency (MHz)	Spurious Emission		Limit (dRm)	Result
Frequency (MHZ)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest Channel		
3440.00	Vertical	-36.95		
5160.00	V	-44.87		
6880.00	V	-38.69	-13.00	Pass
3440.00	Horizontal	-37.95	-13.00	Fd55
5160.00	Н	-42.89		
6880.00	Н	-36.74		
		Middle Channel		
3465.00	Vertical	-36.95		
5197.50	V	-44.79		
6930.00	V	-38.24	-13.00	Pass
3465.00	Horizontal	-38.62	-13.00	F d 5 5
5197.50	Н	-42.97		
6930.00	Н	-38.24		
		Highest Channel		
3490.00	Vertical	-36.49		
5235.00	V	-44.61		
6980.00	V	-37.46	12.00	Door
3490.00	Horizontal	-38.04	-13.00 Pass	
5235.00	Н	-43.11		
6980.00	Н	-46.92		

^{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:

	LT	E Band 5, WB: 1.4MH	lz			
	R	B size 1 & RB offset ()			
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result		
r requericy (Wir 12)	Polarization	Level (dBm)	Lillill (dDIII)	Nesuit		
		Lowest Channel				
1649.40	Vertical	-48.92				
2474.10	V	-48.67				
3298.80	V	-46.91	12.00	Poos		
1649.40	Horizontal	-48.83	-13.00 Pass	Fa55		
2474.10	Н	-49.67				
3298.80	Н	-46.89				
		Middle Channel				
1673.00	Vertical	-49.17				
2509.50	V	-48.44				
3346.00	V	-46.53	12.00	Door		
1673.00	Horizontal	-48.68	-13.00	Pass		
2509.50	Н	-49.45				
3346.00	Н	-46.12				
		Highest Channel				
1696.60	Vertical	-49.09				
2544.90	V	-48.69				
3393.20	V	-46.37	12.00	Door		
1696.60	Horizontal	-48.89	-13.00	Pass		
2544.90	Н	-49.93				
3393.20	Н	-46.78				

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.



	L.	TE Band 5, WB: 3MH	z	
	R	B size 1 & RB offset	0	
Fraguenov (MHz)	Spurious Emission		Limit (dPm)	Result
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest Channel		
1651.00	Vertical	-48.89		
2476.50	V	-48.74		
3302.00	V	-46.89	-13.00	Pass
1651.00	Horizontal	-48.86	-13.00	Fd55
2476.50	Н	-49.95		
3302.00	Н	-46.89		
		Middle Channel		
1673.00	Vertical	-48.67		
2509.50	V	-49.34		
3346.00	V	-46.37	-13.00	Pass
1673.00	Horizontal	-49.24	-13.00	Fd55
2509.50	Н	-49.06		
3346.00	Н	-47.34		
		Highest Channel		
1695.00	Vertical	-47.86		
2542.50	V	-49.03		
3390.00	V	-46.37	12.00	Door
1695.00	Horizontal	-48.92	-13.00	Pass
2542.50	Н	-49.37		
3390.00	Н	-46.89		

^{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.



	L	TE Band 5, WB: 5MH	z	
	R	B size 1 & RB offset	0	
Fraguenov (MHz)	Spurious Emission		Limit (dDm)	Result
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest Channel		
1653.00	Vertical	-49.04		
2479.50	V	-48.67		
3306.00	V	-46.83	-13.00	Pass
1653.00	Horizontal	-48.35	-13.00	Fd55
2479.50	Н	-49.91		
3306.00	Н	-46.94		
<u>.</u>		Middle Channel		
1673.00	Vertical	-49.37		
2509.50	V	-48.67		
3346.00	V	-46.61	42.00	Door
1673.00	Horizontal	-48.74	-13.00	Pass
2509.50	Н	-49.37		
3346.00	Н	-46.25]	
<u>.</u>		Highest Channel		
1693.00	Vertical	-48.67		
2539.50	V	-48.74]	
3386.00	V	-46.91	40.00	Dana
1693.00	Horizontal	-49.37	-13.00	Pass
2539.50	Н	-49.86]	
3386.00	Н	-46.37]	

^{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.



	LT	E Band 5, WB: 10MH	İz	
	R	B size 1 & RB offset (0	
Fraguency (MUz)	Spurious Emission		Limit (dDm)	Result
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest Channel		
1658.00	Vertical	-49.37		
2487.00	V	-48.94		
3316.00	V	-47.32	-13.00	Pass
1658.00	Horizontal	-48.94	-13.00	Fd55
2487.00	Н	-49.37		
3316.00	Н	-46.74		
		Middle Channel		
1673.00	Vertical	-48.89		
2509.50	V	-49.37		
3346.00	V	-46.52	-13.00	Pass
1673.00	Horizontal	-49.37	-13.00	Fd55
2509.50	Н	-49.82		
3346.00	Н	-47.86		
		Highest Channel		
1688.00	Vertical	-47.64		
2532.00	V	-49.15		
3376.00	V	-47.38	-13.00	Door
1688.00	Horizontal	-49.52	-13.00	Pass
2532.00	Н	-49.87		
3376.00	Н	-47.16		

^{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:

	Ľ	TE Band 7, WB: 5MH	z		
	R	B size 1 & RB offset ()		
Frequency (MHz)	Spurious	Emission	Limit (dBm)	Result	
Frequency (MIFIZ)	Polarization	Level (dBm)	Lillill (ubill)	Result	
		Lowest Channel			
5005.00	Vertical	-42.91			
7507.50	V	-30.89			
10010.00	V	-36.94	25.00	Poop	
5005.00	Horizontal	-42.57	-25.00 Pass	Fa55	
7507.50	Н	-30.51			
10010.00	Н	-37.46			
		Middle Channel			
5070.00	Vertical	-43.06			
7605.00	V	-31.25			
10140.00	V	-36.64	-25.00	Pass	
5070.00	Horizontal	-42.68	-25.00	Fa55	
7605.00	Н	-30.87			
10140.00	Н	-37.56			
		Highest Channel			
5135.00	Vertical	-43.06			
7702.50	V	-31.24			
10270.00	V	-37.06	25.00	Door	
5135.00	Horizontal	-42.61	-25.00	Pass	
7702.50	Н	-30.83			
10270.00	Н	-37.49			

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.



	LT	E Band 7, WB: 10MH	z	
	RI	B size 1 & RB offset 0)	
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
Frequency (MHZ)	Polarization	Level (dBm)	LIIIII (UDIII)	Result
		Lowest Channel		
5010.00	Vertical	-42.88		
7515.00	V	-39.17		
10020.00	V	-36.98	-25.00	Pass
5010.00	Horizontal	-42.37	-25.00	Pa55
7515.00	Н	-30.46		
10020.00	Н	-37.89		
		Middle Channel		
5070.00	Vertical	-42.37		
7605.00	V	-39.87		
10140.00	V	-36.96	25.00	Dage
5070.00	Horizontal	-42.67	-25.00	Pass
7605.00	Н	-30.58		
10140.00	Н	-38.03		
		Highest Channel		
5130.00	Vertical	-42.97		
7695.00	V	-39.67		
10260.00	V	-39.85	25.00	Dage
5130.00	Horizontal	-42.78	-25.00	Pass
7695.00	Н	-40.67		
10260.00	Н	-37.95		

^{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.



	Lī	E Band 7, WB: 15MH	z		
		B size 1 & RB offset (
Fraguenov (MHz)	Spurious Emission		Limit (dPm)	Popult	
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result	
		Lowest Channel			
5015.00	Vertical	-42.89			
7522.50	V	-30.97			
10030.00	V	-36.87	25.00	Door	
5015.00	Horizontal	-42.68	-25.00 Pass		
7522.50	Н	-31.06			
10030.00	Н	-37.49			
		Middle Channel			
5070.00	Vertical	-43.37			
7605.00	V	-30.47			
10140.00	V	-37.06	25.00	Door	
5070.00	Horizontal	-42.31	-25.00	Pass	
7605.00	Н	-30.92			
10140.00	Н	-37.94			
		Highest Channel			
5125.00	Vertical	-42.89			
7687.50	V	-31.47			
10250.00	V	-37.83	25.00	Door	
5125.00	Horizontal	-42.67	-25.00	Pass	
7687.50	Н	-31.14	1		
10250.00	Н	-37.06			

^{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.



	LT	E Band 7, WB: 20MH	z		
	R	B size 1 & RB offset ()		
Erogueney (MHz)	Spurious Emission		Limit (dRm)	Result	
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result	
		Lowest Channel			
5020.00	Vertical	-42.96			
7530.00	V	-39.18			
10040.00	V	-36.74	25.00	Poos	
5020.00	Horizontal	-42.55	-25.00 Pass		
7530.00	Н	-30.59			
10040.00	Н	-38.24			
		Middle Channel			
5070.00	Vertical	-42.67			
7605.00	V	-40.06			
10140.00	V	-37.34	-25.00	Pass	
5070.00	Horizontal	-47.09	-25.00	Fd55	
7605.00	Н	-30.67			
10140.00	Н	-38.11			
		Highest Channel			
5120.00	Vertical	-42.59			
7680.00	V	-39.64			
10240.00	V	-40.14	25.00	Door	
5120.00	Horizontal	-42.95	-25.00	Pass	
7680.00	Н	-40.73			
10240.00	Н	-37.85			

^{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)
Test Method:	ANSI/TIA-603-D 2010
Limit:	±2.5ppm
Test setup:	SS Divider SA Temperature & Humidity Chamber Power Source
Test procedure:	 The equipment under test was connected to an external DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 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 Fi	equency: LTE Band 2	(10MHz) Midd	le channel=18900) channel=1880.0	0MHz
Power supplied	Temperature (°C)	Tomporature (°C) Frequei		Limit (ppm)	Result
(Vdc)	remperature (C)	Hz	ppm	Limit (ppm)	Nesuit
		QPSK			
	-30	199	0.105851		
	-20	180	0.095745		
	-10	123	0.065426		
	0	165	0.087766		
3.80	10	144	0.076596	±2.5	Pass
	20	111	0.059043		
	30	174	0.092553	_	
	40	158	0.084043		
	50	100	0.053191		
		16QAM			
	-30	199	0.105851		
	-20	181	0.096277		
	-10	123	0.065426		
	0	165	0.087766		
3.80	10	144	0.076596	±2.5	Pass
	20	171	0.090957		
	30	102	0.054255		
	40	115	0.061170	1	
	50	118	0.062766		





LTE Band 4 part:

Reference Fi	requency: LTE Band 4	(10MHz) Midd	le channel=20175	channel=1732.5	0MHz
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
	remperature (C)	Hz	ppm	Limit (ppm)	Result
		QPSK			
	-30	199	0.114863		Pass
	-20	123	0.070996		
	-10	165	0.095238		
	0	180	0.103896		
3.80	10	177	0.102165	±2.5	
	20	145	0.083694		
	30	122	0.070418		
	40	102	0.058874		
	50	118	0.068110		
		16QAM			
	-30	197	0.113709		Pass
	-20	180	0.103896		
	-10	155	0.089466		
	0	171	0.098701		
3.80	10	132	0.076190	±2.5	
	20	145	0.083694		
	30	122	0.070418		
	40	100	0.057720]	
	50	119	0.068687		





LTE Band 5 part:

Power supplied		Frequency error		25 channel=836.50	
(Vdc)	Temperature (°C) —	Hz	ppm	Limit (ppm)	Result
		QPSK	•		
	-30	196	0.234310		Pass
	-20	132	0.157800		
	-10	155	0.185296		
	0	101	0.120741		
3.80	10	145	0.173341	±2.5	
	20	171	0.204423	-	
	30	166	0.198446		
	40	125	0.149432		
	50	100	0.119546		
		16QAM			
	-30	198	0.236701		Pass
	-20	171	0.204423		
	-10	123	0.147041		
	0	165	0.197250		
3.80	10	100	0.119546	±2.5	
	20	114	0.136282		
	30	148	0.176928		
	40	139	0.166169		
	50	180	0.215182		





LTE Band 7 part:

Power supplied	T(°C)	Frequency error			
(Vdc)	Temperature (°C) —	Hz	ppm	Limit (ppm)	Result
	·	QPSK	·		
	-30	199	0.078501		Pass
	-20	123	0.048521		
	-10	151	0.059566		
	0	126	0.049704		
3.80	10	144	0.056805	±2.5	
	20	171	0.067456	-	
	30	100	0.039448		
	40	118	0.046548		
	50	169	0.066667		
		16QAM			
	-30	198	0.078107		Pass
	-20	171	0.067456		
	-10	123	0.048521		
	0	131	0.051677		
3.80	10	144	0.056805	±2.5	
	20	165	0.065089		
	30	111	0.043787		
	40	100	0.039448		
	50	184	0.072584		



6.7 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 22.355, Part 24.235, Part 27.54, Part 2.1055(d)(2)
Test Method:	ANSI/TIA-603-D 2010
Limit:	±2.5ppm
Test setup:	SS Divider Temperature & Humidity Chamber
Test procedure:	 Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 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 Fr	equency: LTE Band	2(10MHz) Middle	channel=18900	channel=1880.0	00MHz
Temperature (°C)	Power supplied	Frequency error		Limit (nnm)	Result
Temperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
		QPSK			
	4.35	99	0.052660	±2.5	
25	3.80	87	0.046277		Pass
	3.50	65	0.034574		
		16QAM			
25	4.35	77	0.040957	±2.5	
	3.80	80	0.042553		Pass
	3.50	94	0.050000		
Note: Only the worst ca	se shown in the report.				

LTE Band 4 part:

Reference Fr	requency: LTE Band 4	(10MHz) Middl	e channel=20175	channel=1732.5	0MHz
Town orotices (°C)	Power supplied	Frequency error		Limit (mmm)	Danult
Temperature (°C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
		QPSK			
	4.35	96	0.055411		Pass
25	3.80	85	0.049062	±2.5	
	3.50	65	0.037518		
		16QAM			
	4.35	74	0.042713	±2.5	Pass
25	3.80	80	0.046176		
	3.50	93	0.053680		

LTE Band 5 part:

Reference F	requency: LTE Band	d 5(10MHz) Midd	e channel=2052	5 channel=836.5	0MHz
Temperature (°C)	Power supplied	Frequency error		Lineit (none)	Decult
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
		QPSK			
	4.35	96	0.114764	±2.5	
25	3.80	85	0.101614		Pass
	3.50	68	0.081291		
		16QAM			
25	4.35	99	0.118350	±2.5	
	3.80	80	0.095637		Pass
	3.50	74	0.088464		
Note: Only the worst ca	se shown in the report.				





LTE Band 7 part:

Reference Free	quency: LTE Band 7(1	0MHz) Middle	channel=21100 I	requency=2535.	00MHz
T(°C)	Power supplied Freque		ncy error	Lineit (none)	Daguilt
Temperature (°C)	(Vdc)	Hz	ppm	Limit (ppm)	Result
		QPSK			
	4.35	69	0.027219	±2.5	Pass
25	3.80	83	0.032742		
	3.50	90	0.035503		
		16QAM			
25	4.35	80	0.031558	±2.5	Pass
	3.80	77	0.030375		
	3.50	93	0.036686		