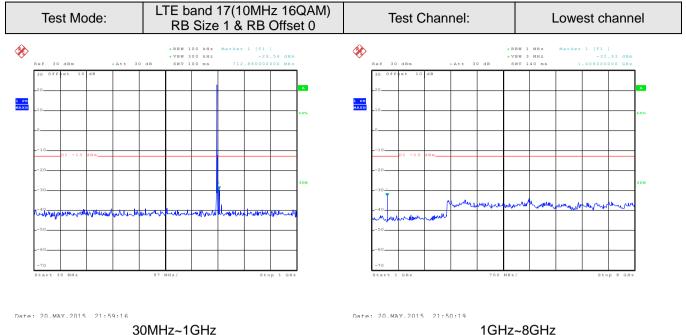
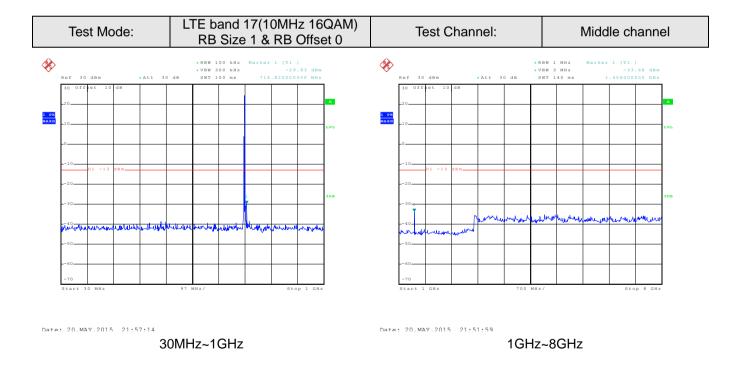




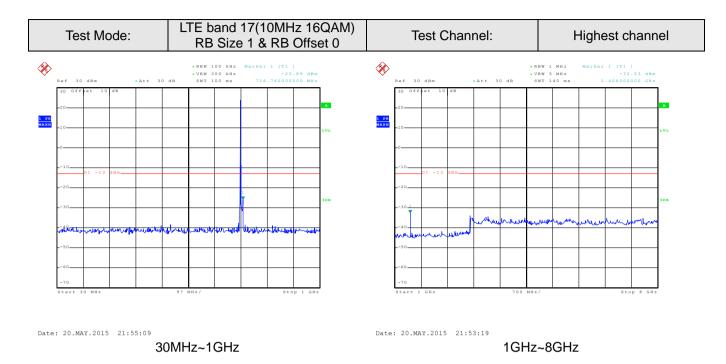
10MHz:

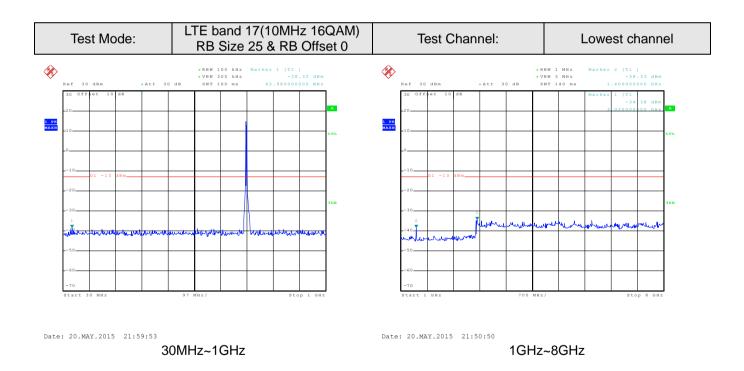






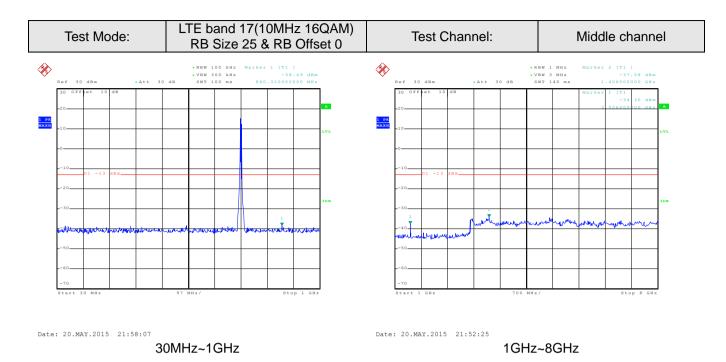


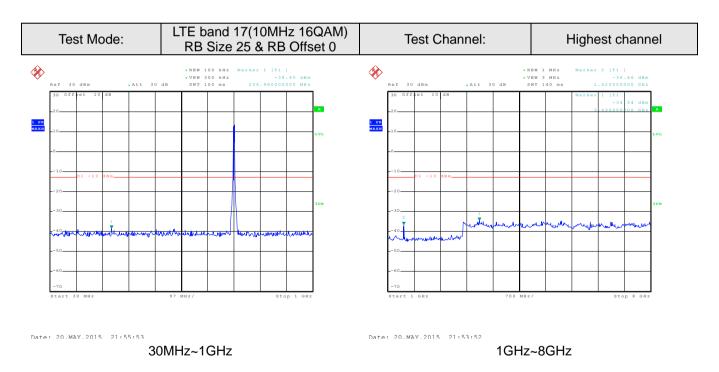






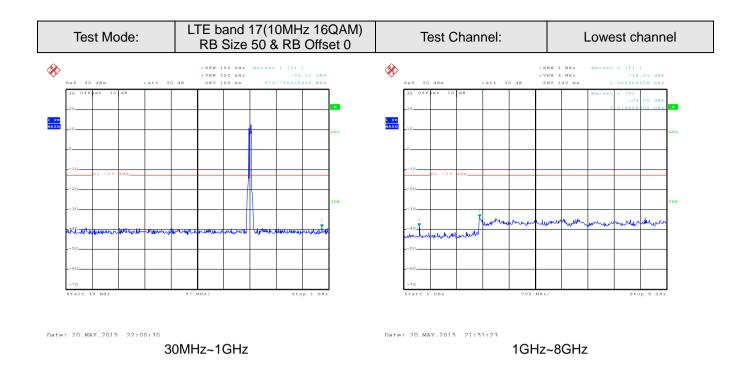


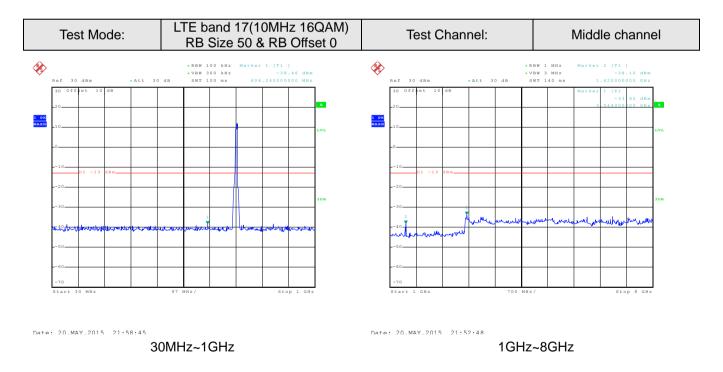






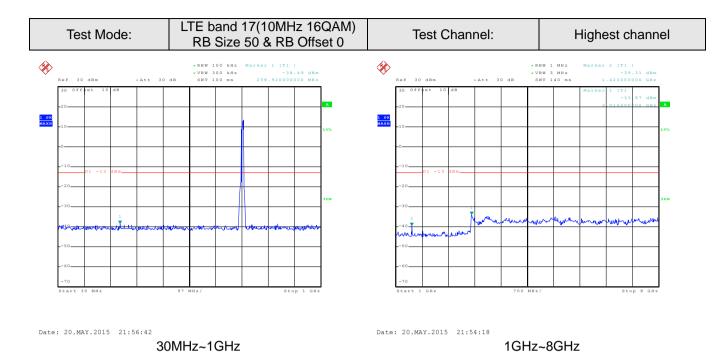


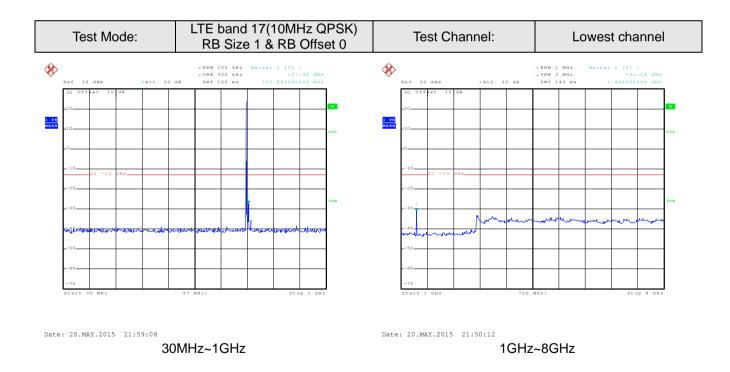






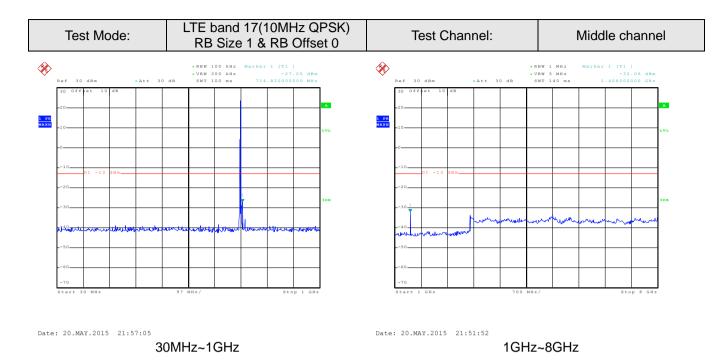


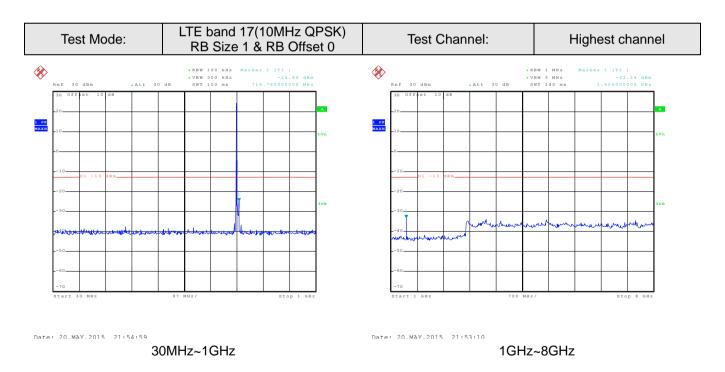








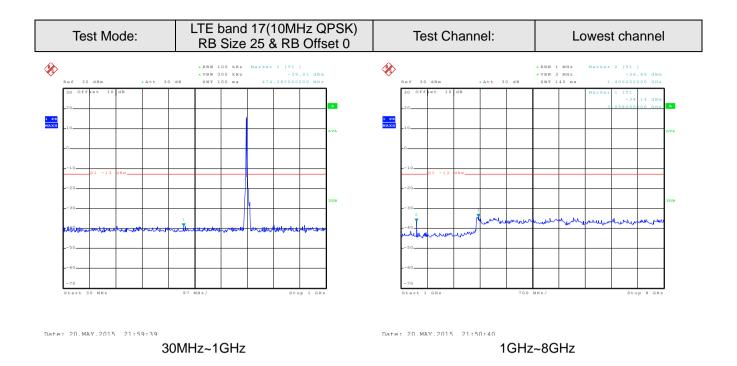


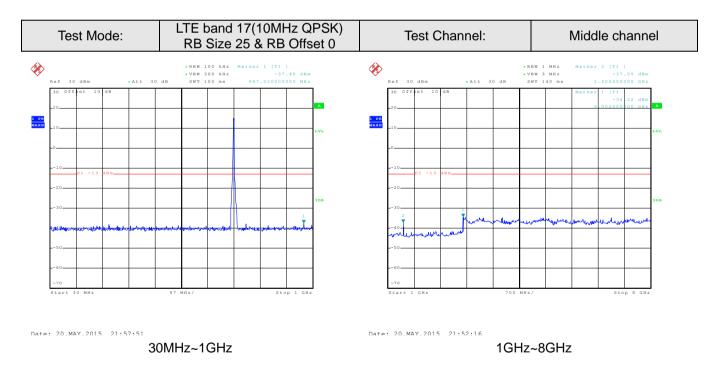


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No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China
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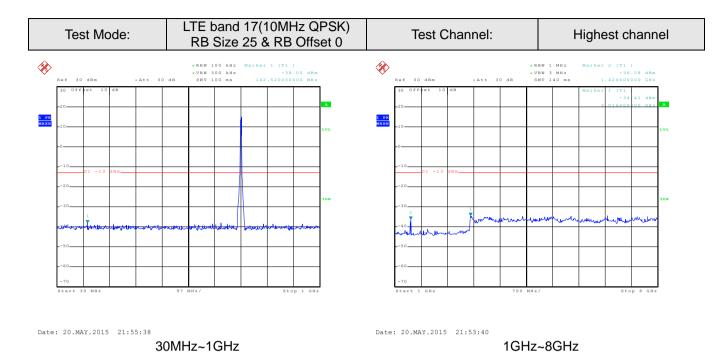


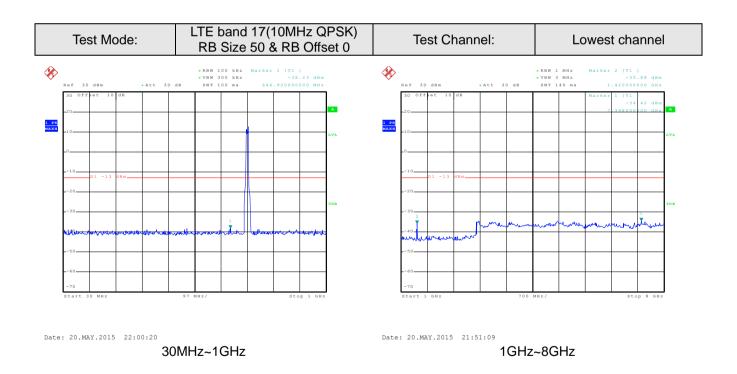






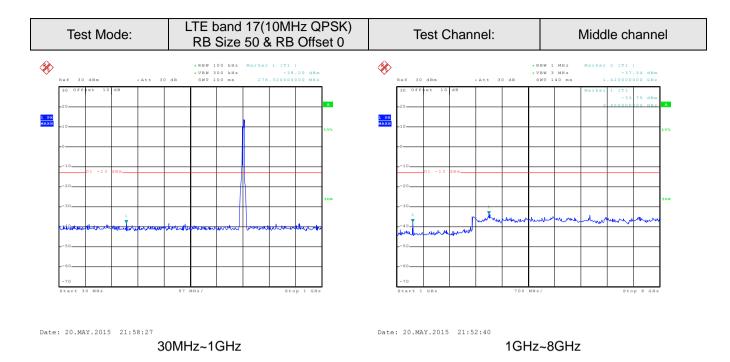


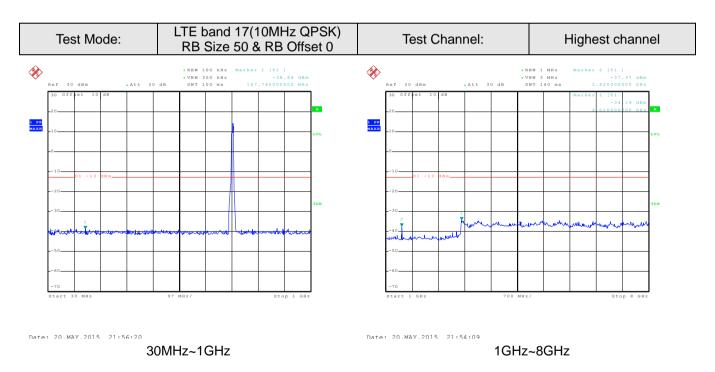












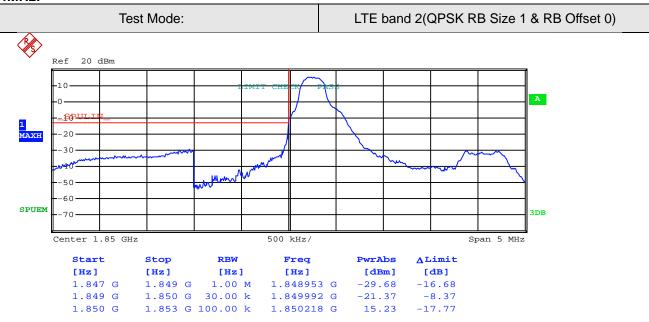




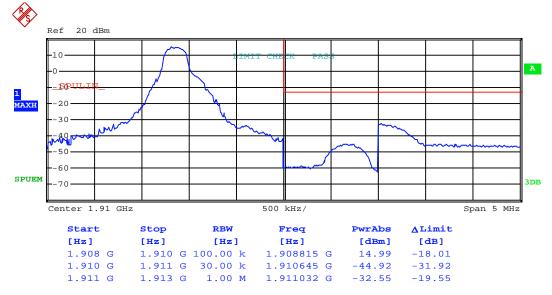
Band edge emission:

LTE band 2 part:

1.4MHz:

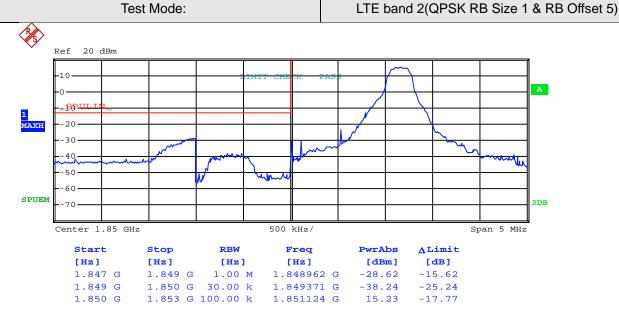


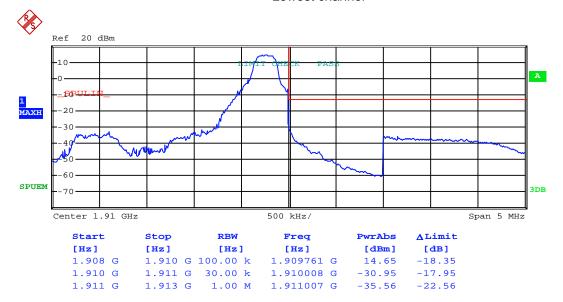
Lowest channel



Highest channel



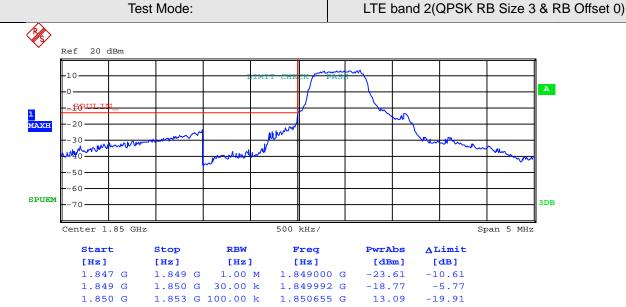




Highest channel



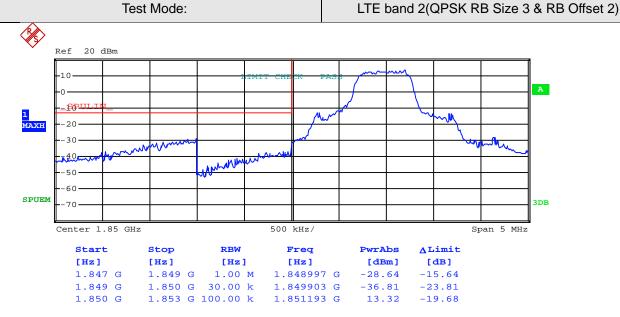


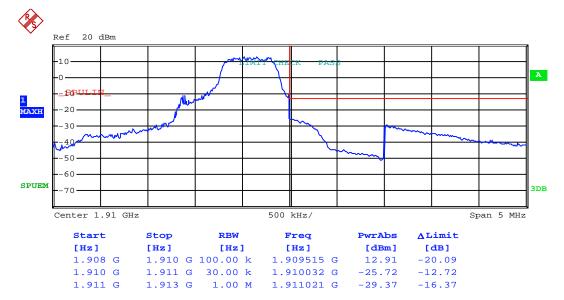




Highest channel

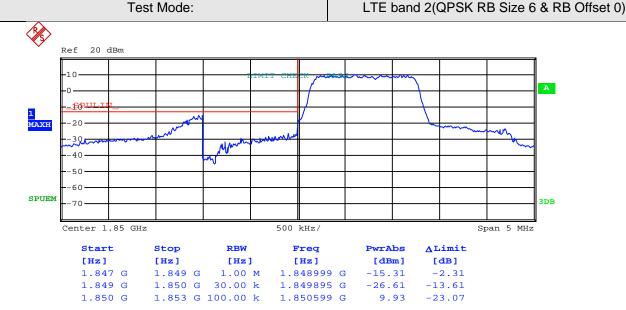


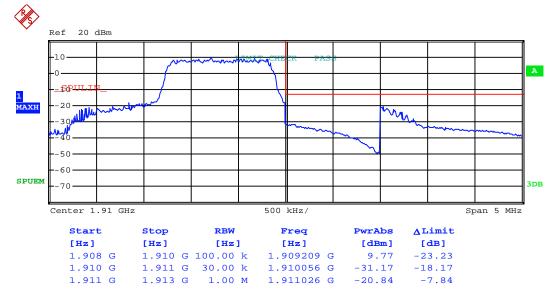




Highest channel



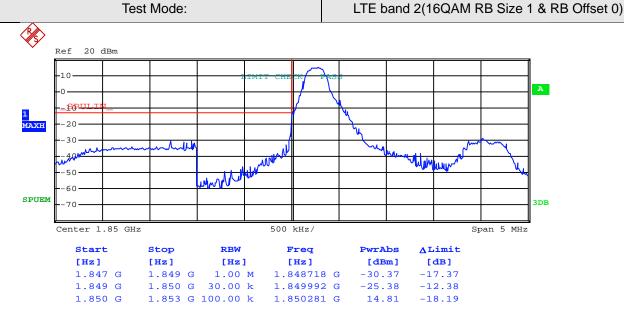


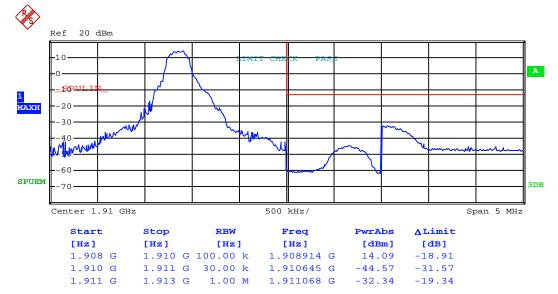


Highest channel



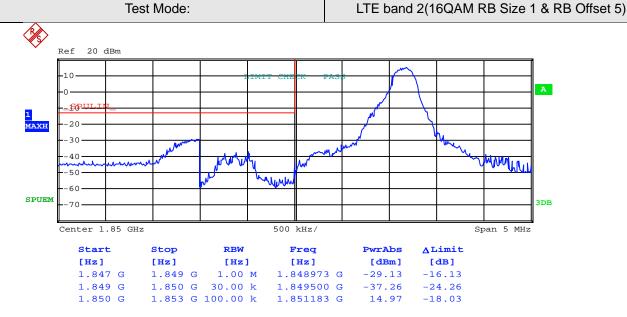


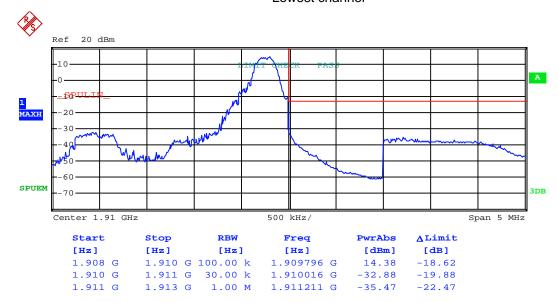




Highest channel



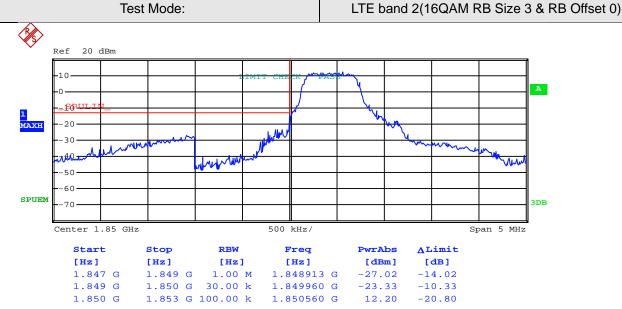


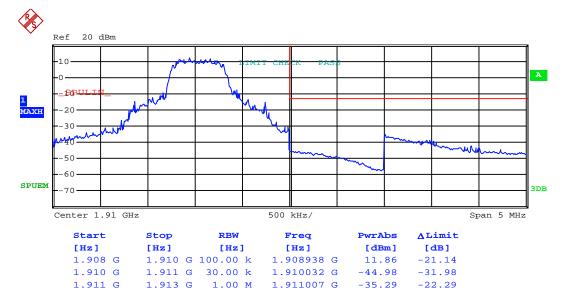


Highest channel





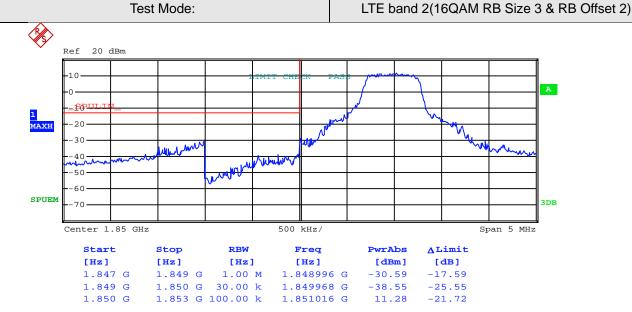


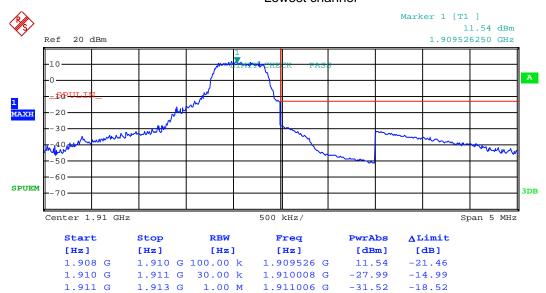


Highest channel



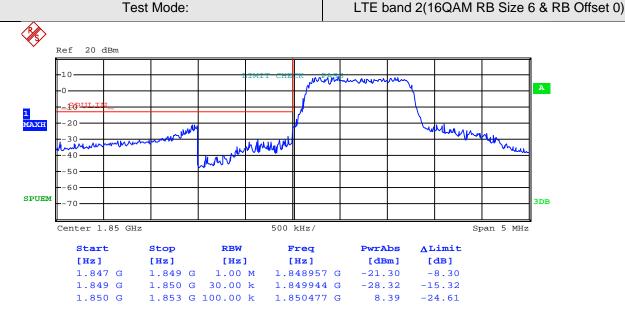


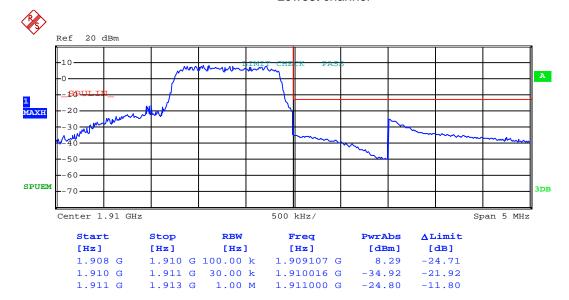




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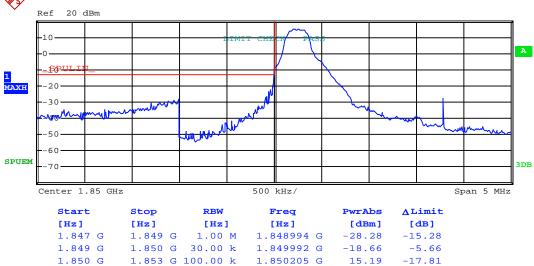
Highest channel



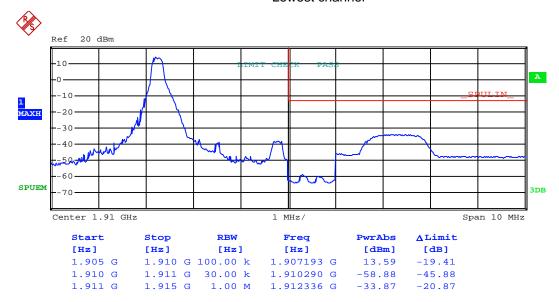


3MHz:





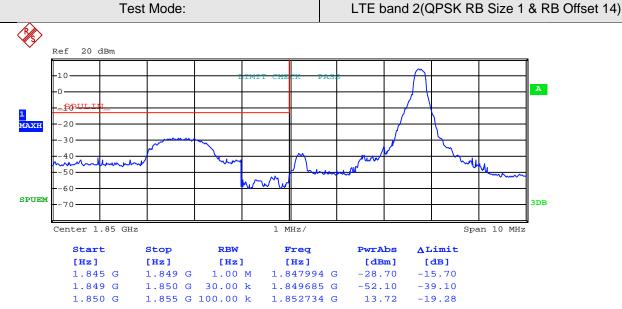
Lowest channel

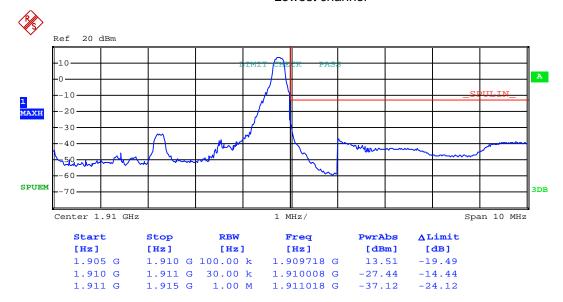


Highest channel





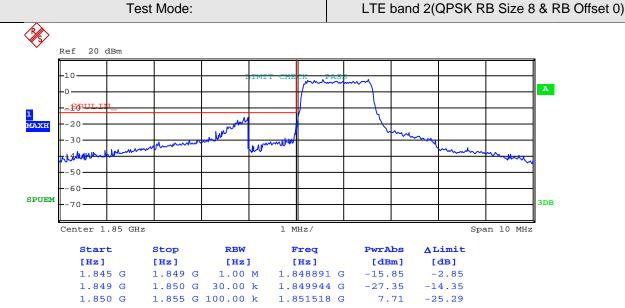


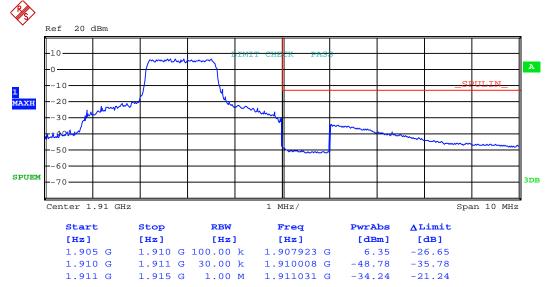


Highest channel





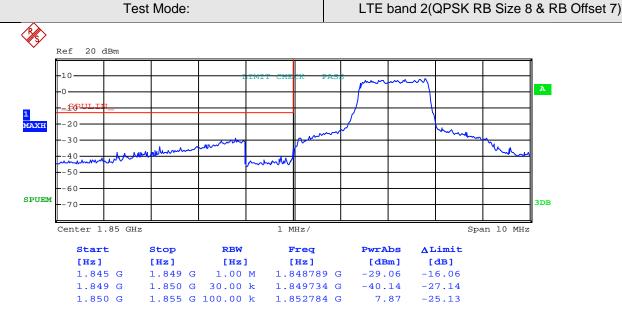


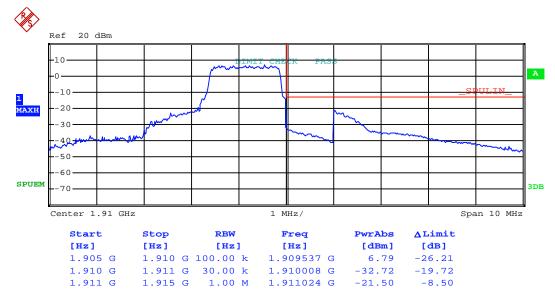


Highest channel





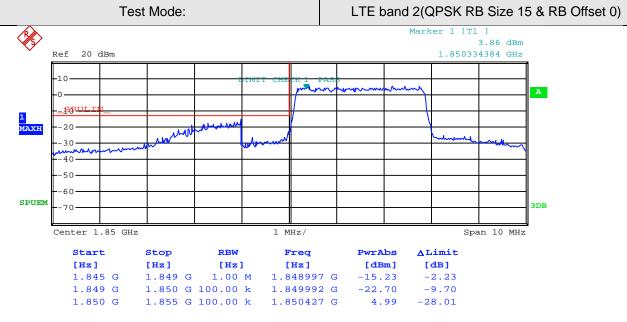


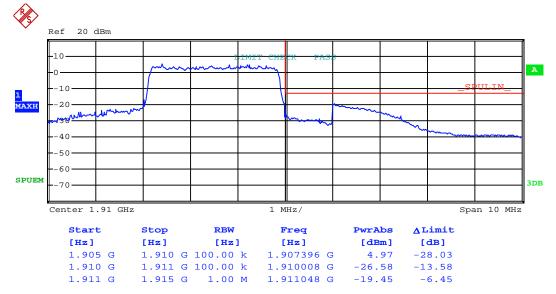


Highest channel





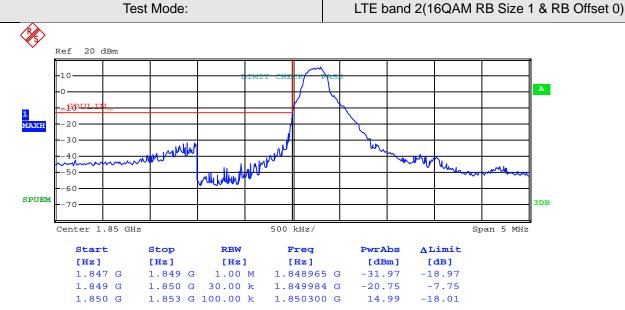




Highest channel





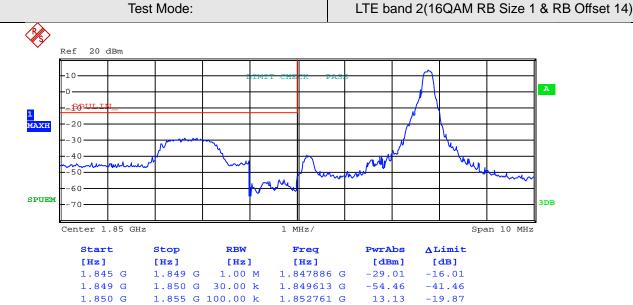


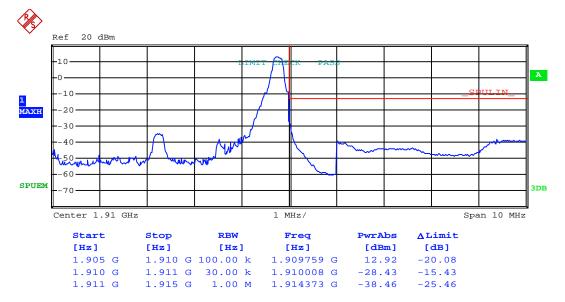


Highest channel





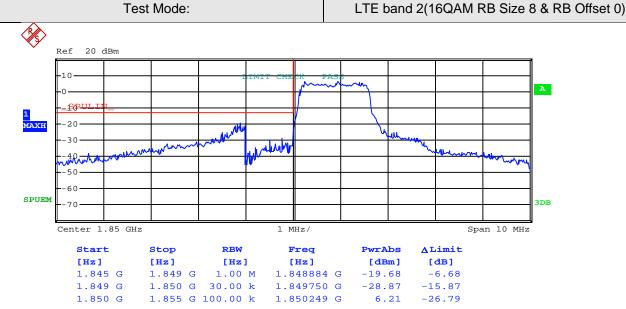




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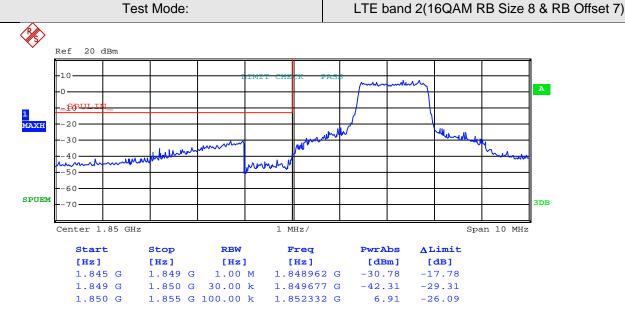


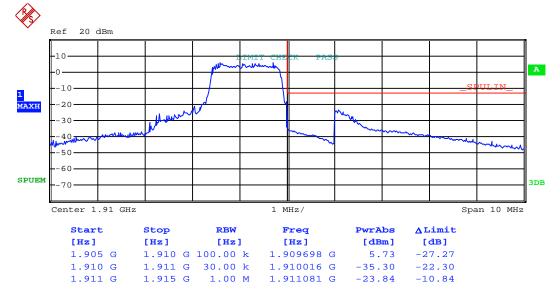


Highest channel





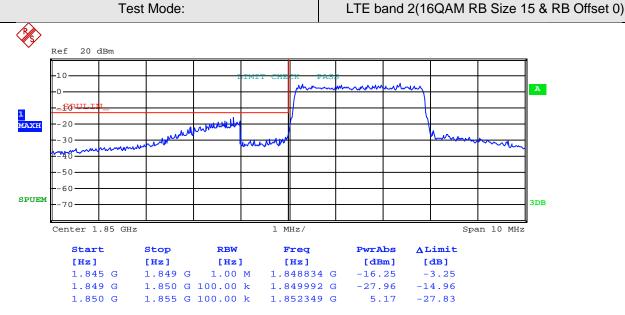


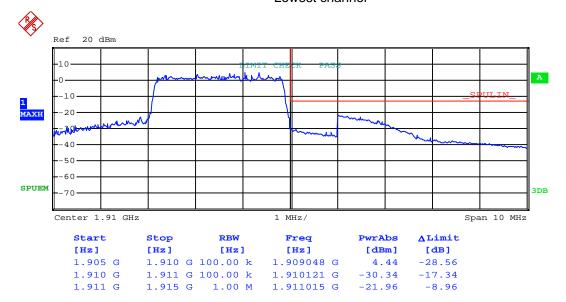


Highest channel







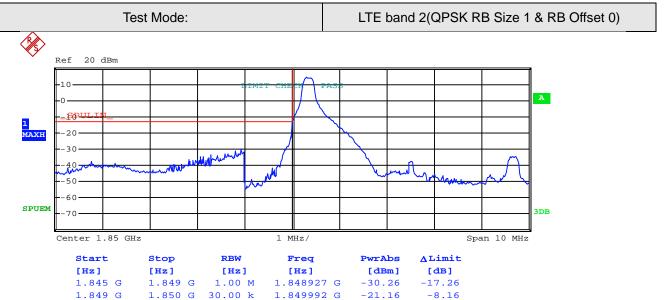


Highest channel





5MHz:

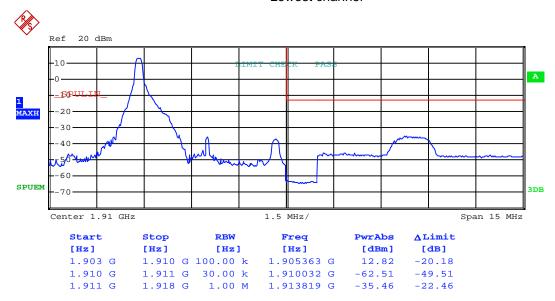


Lowest channel

14.39

-18.61

1.850299 G



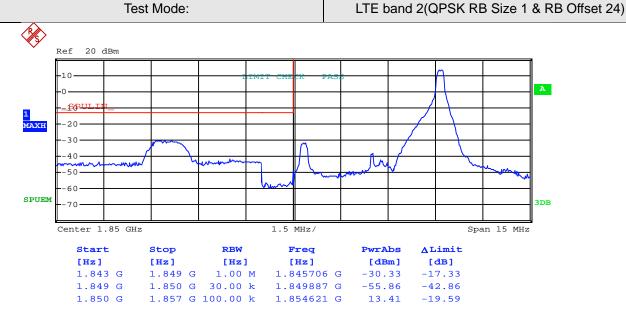
1.855 G 100.00 k

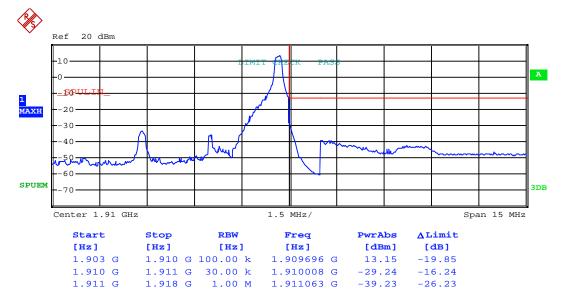
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Highest channel





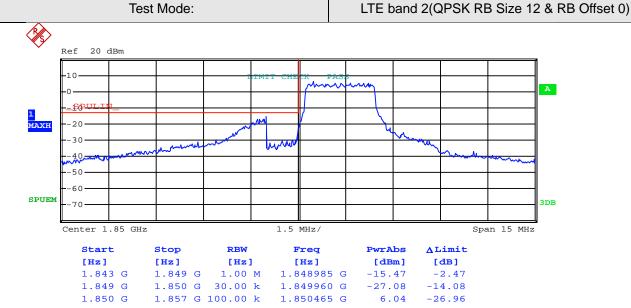


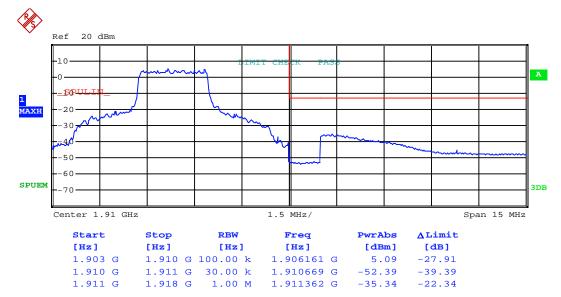


Highest channel





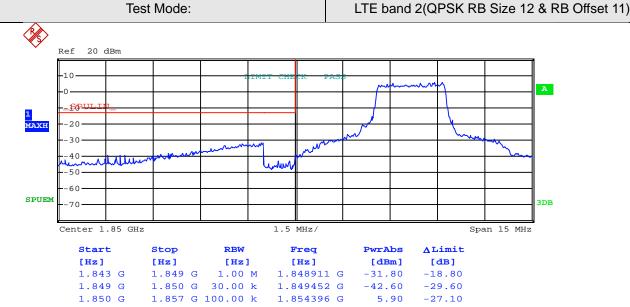


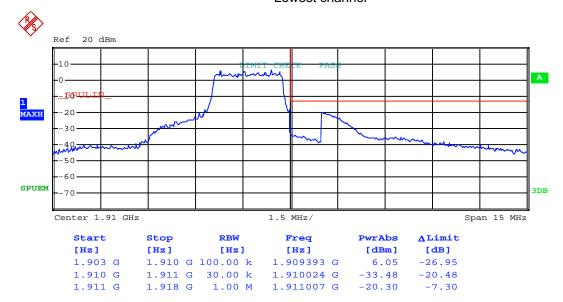


Highest channel





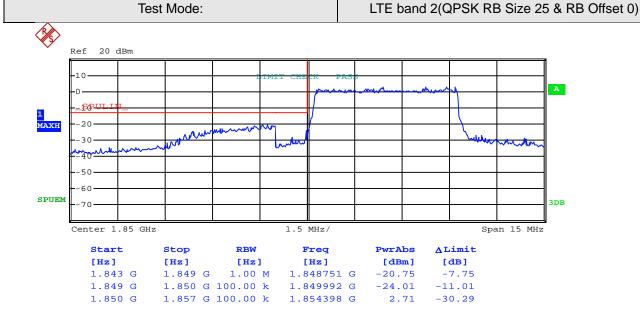


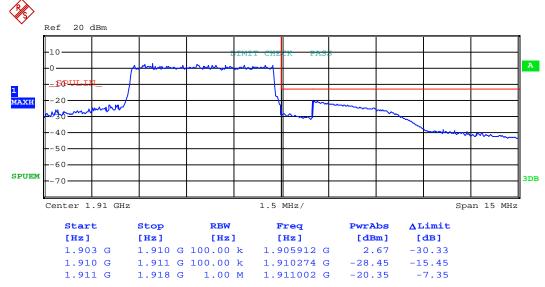


Highest channel





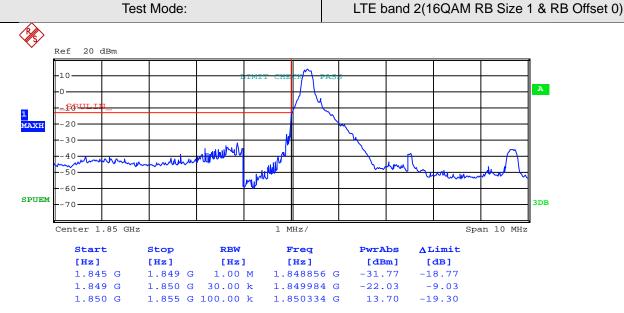


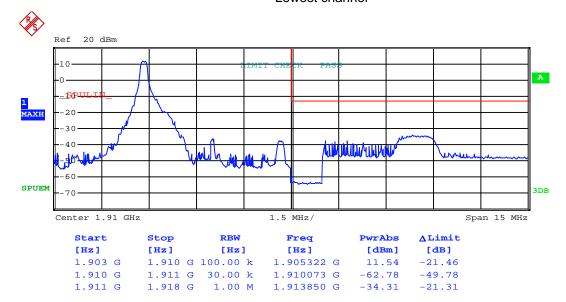


Highest channel





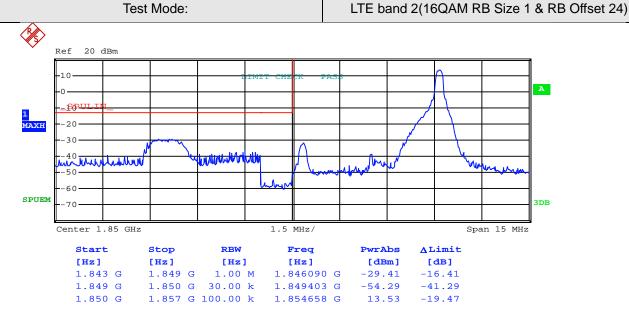


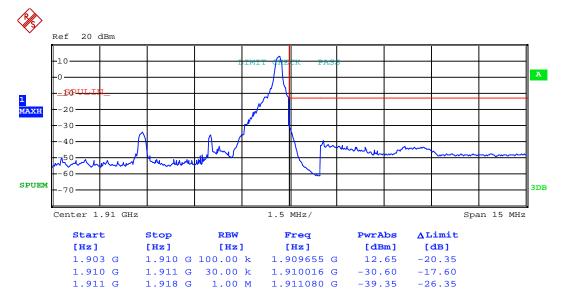


Highest channel



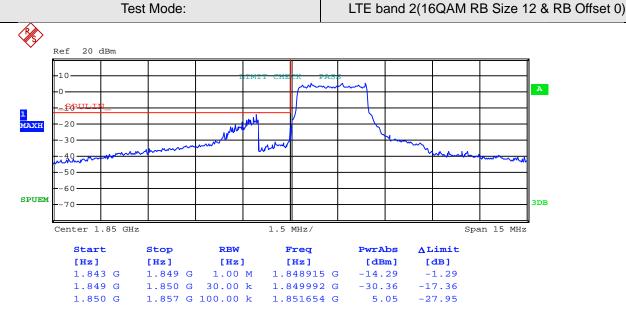






Highest channel





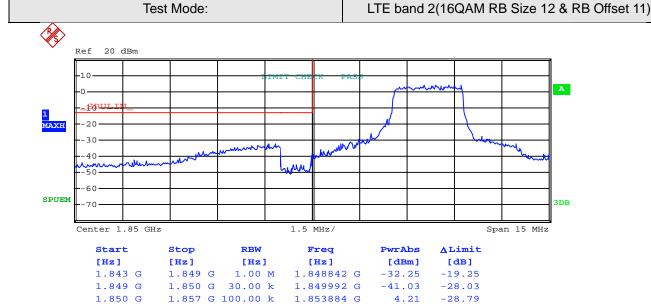
Lowest channel



Highest channel





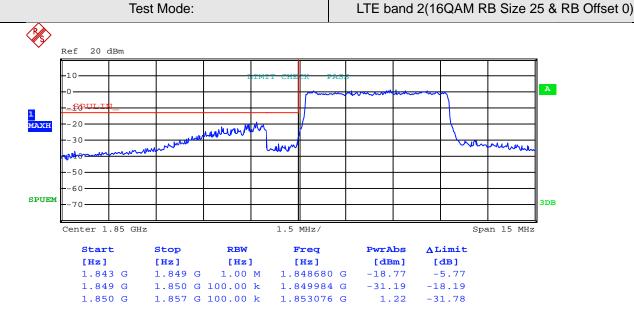


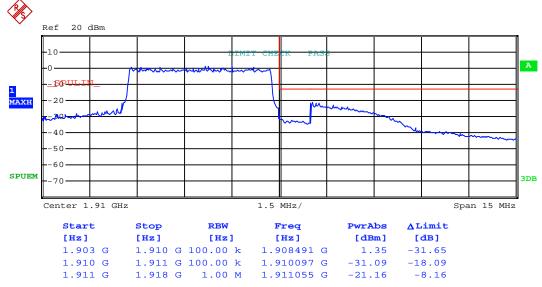


Highest channel







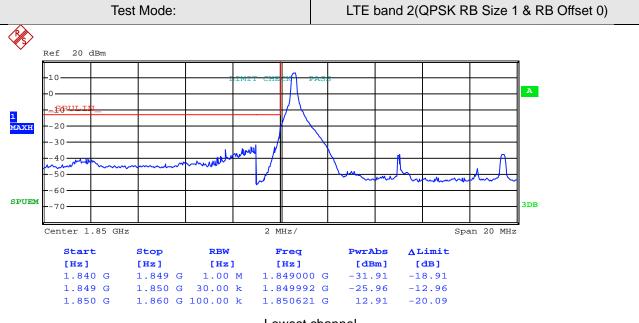


Highest channel

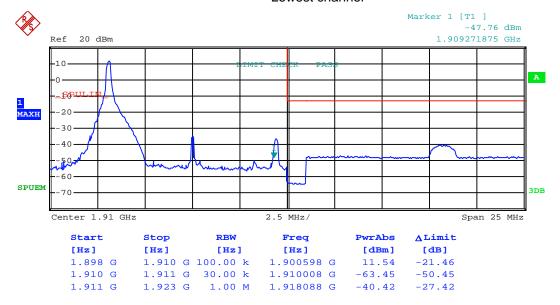




10MHz:



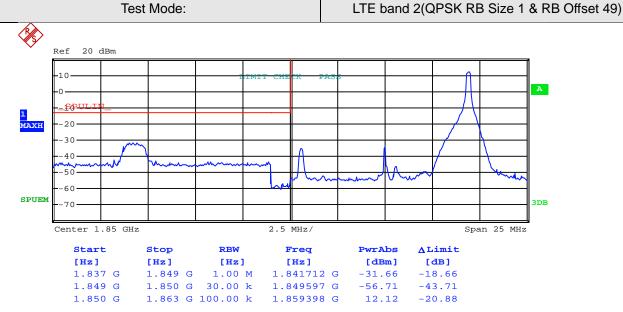
Lowest channel

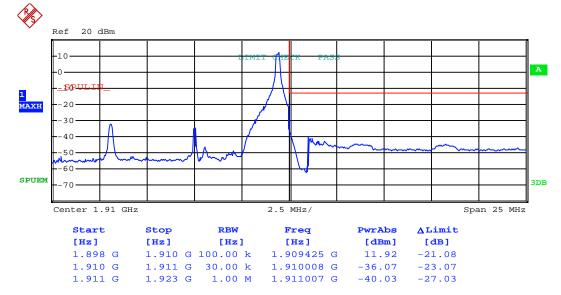


Highest channel



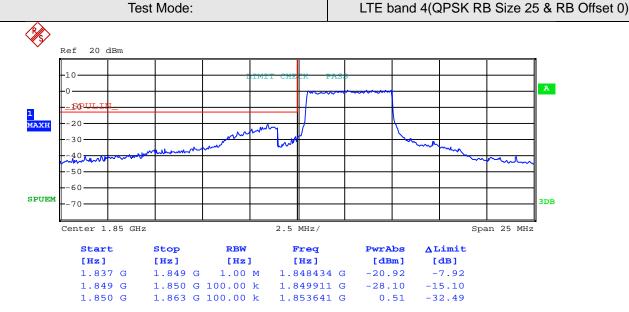


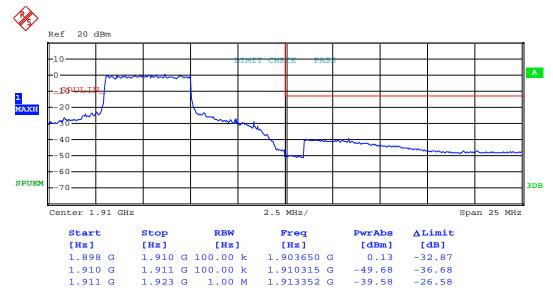




Highest channel



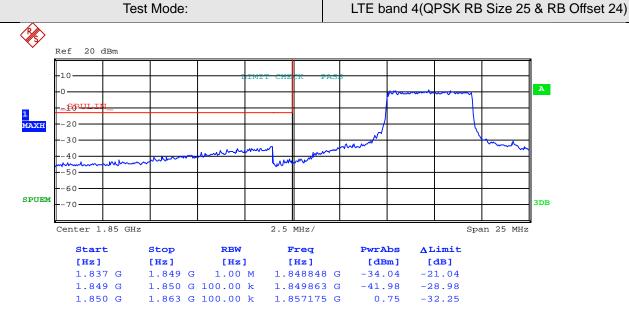


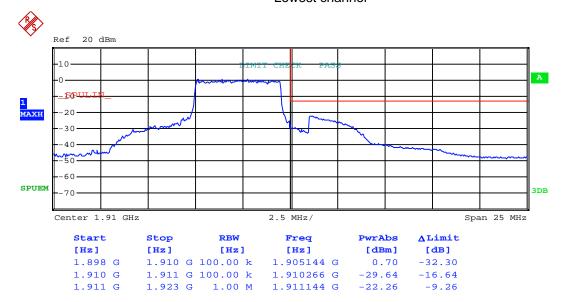


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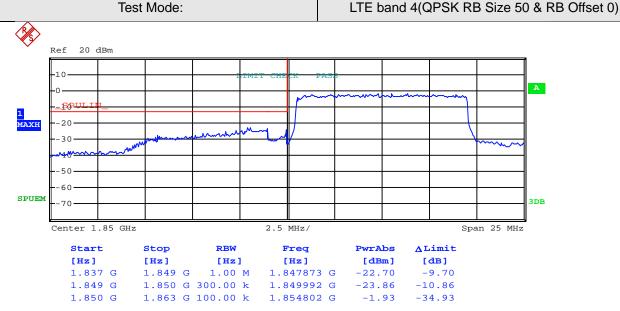


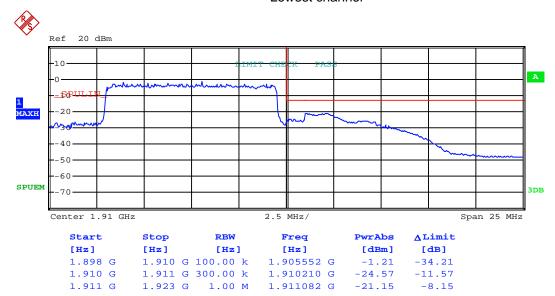




Highest channel



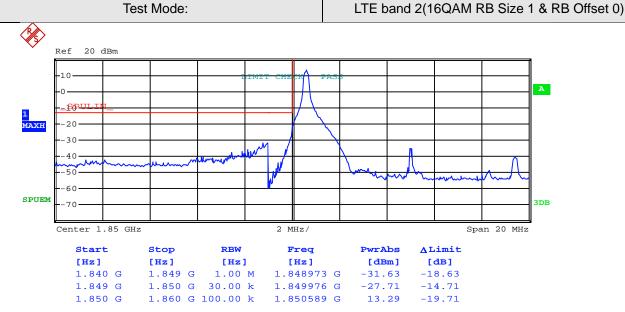


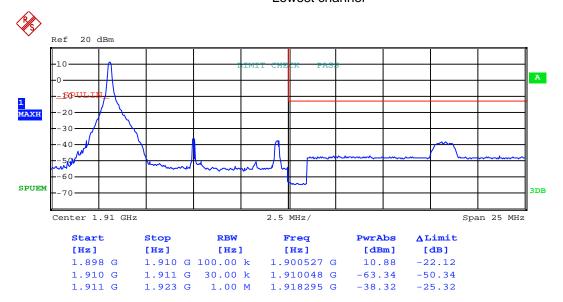


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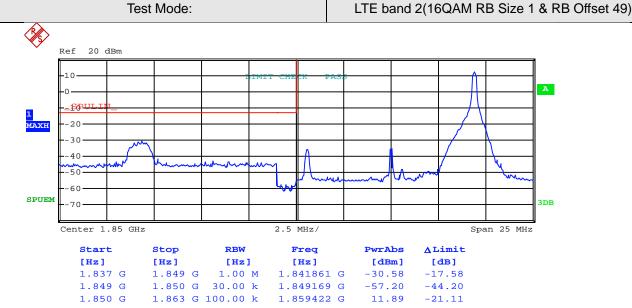


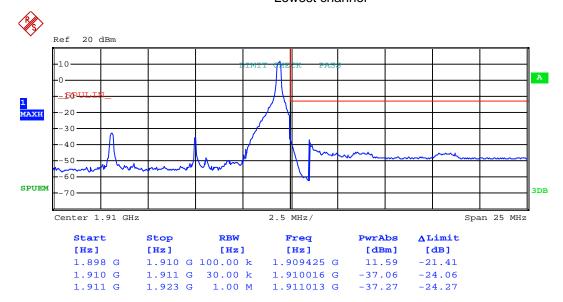


Highest channel





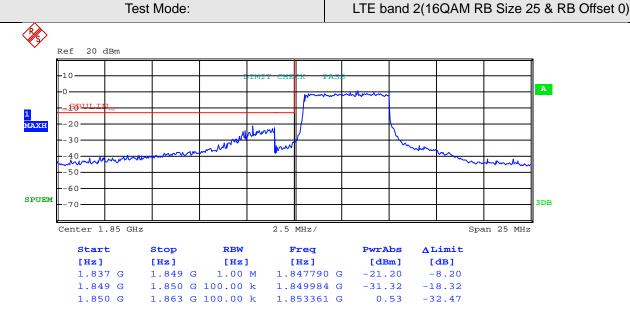


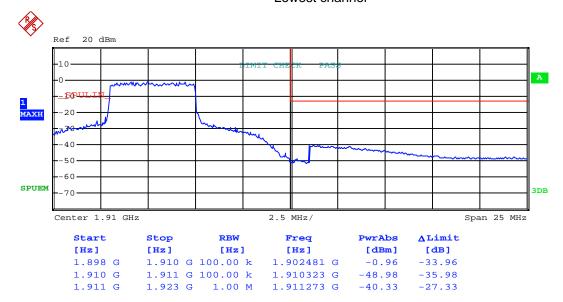


Highest channel





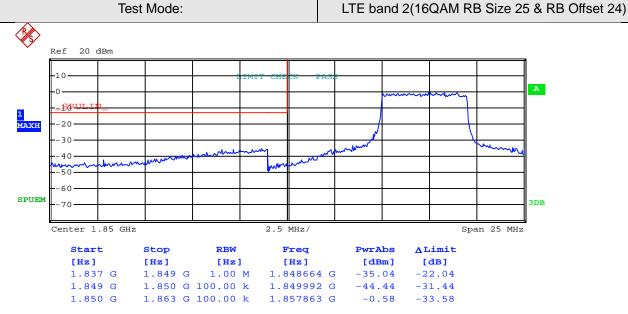


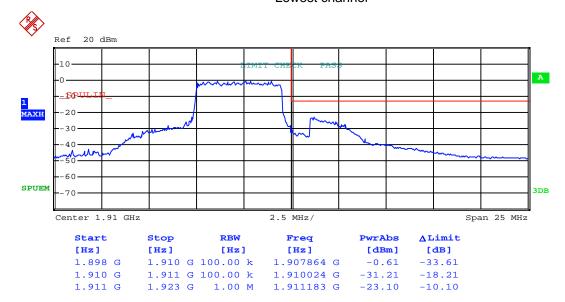


Highest channel





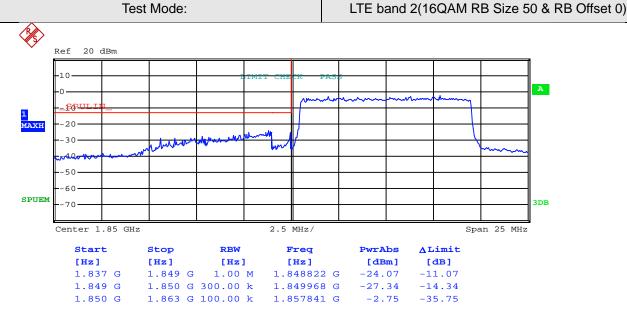


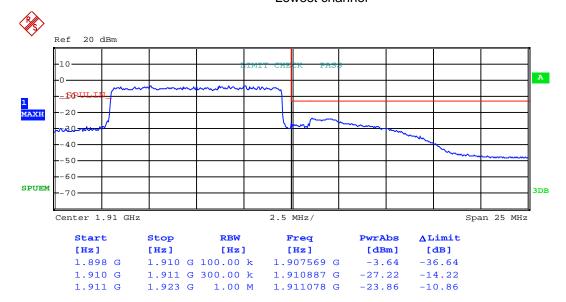


Highest channel







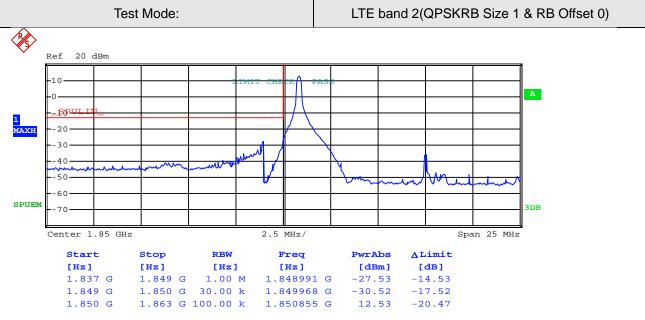


Highest channel

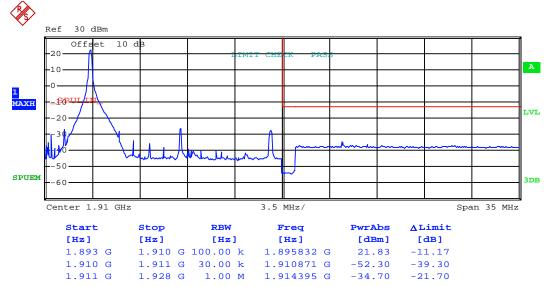




15MHz:



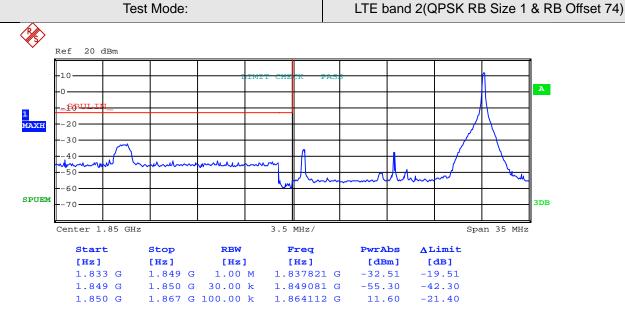
Lowest channel

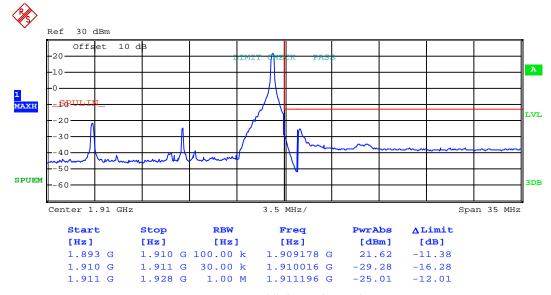


Highest channel





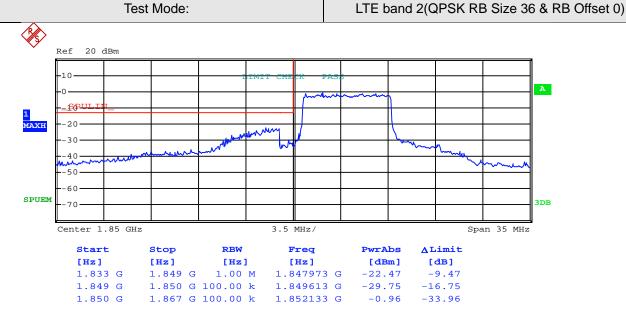


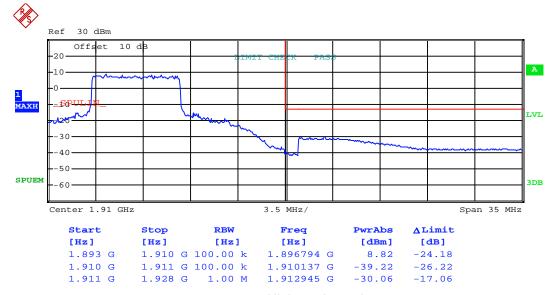


Highest channel





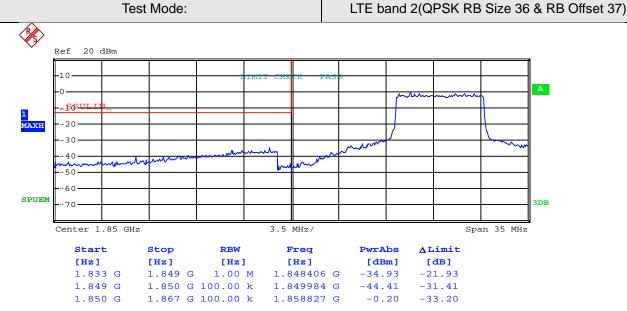


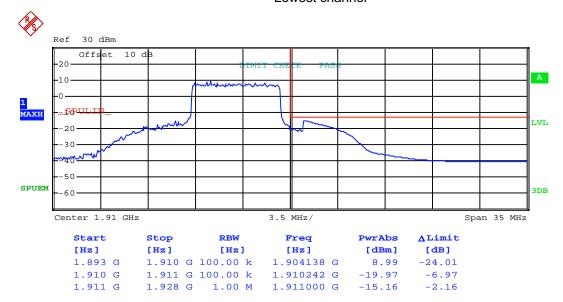


Highest channel





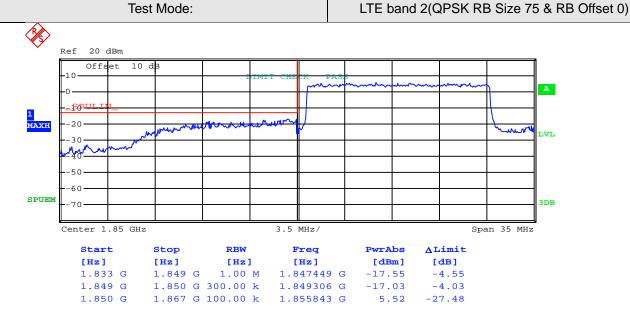


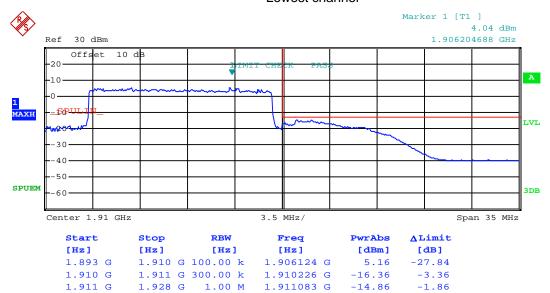


Highest channel





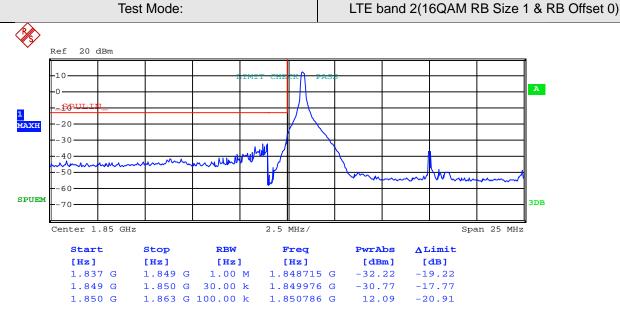


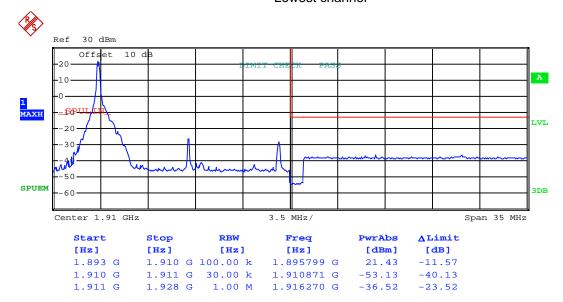


Highest channel





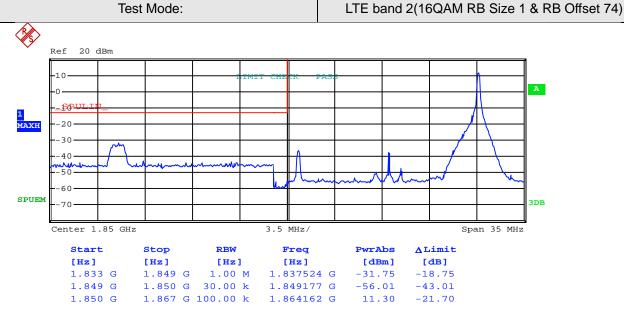


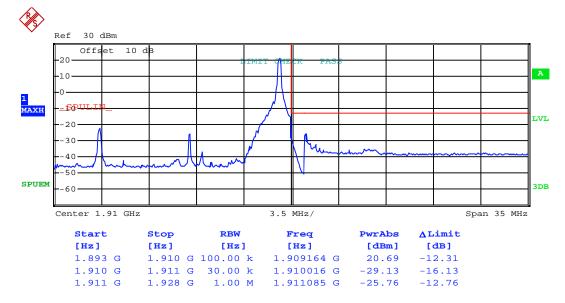


Highest channel





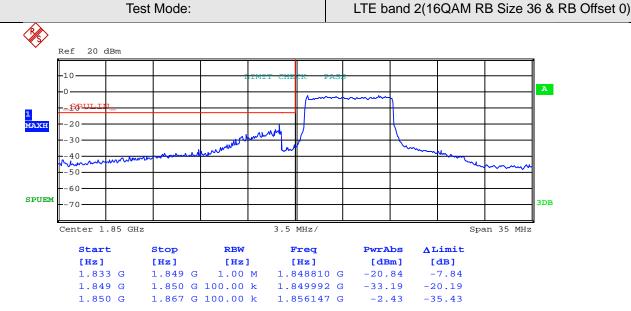


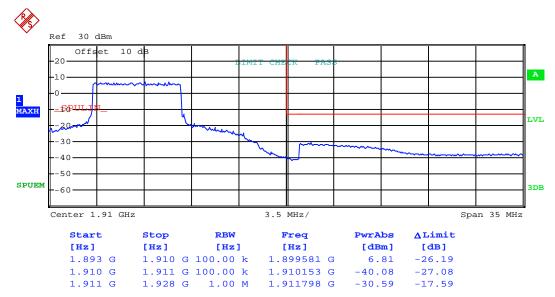


Highest channel





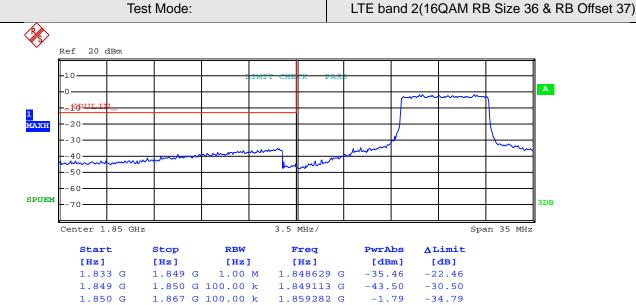


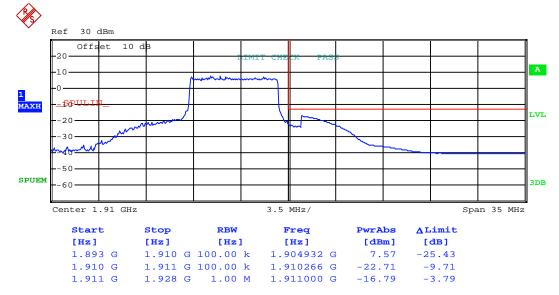


Highest channel





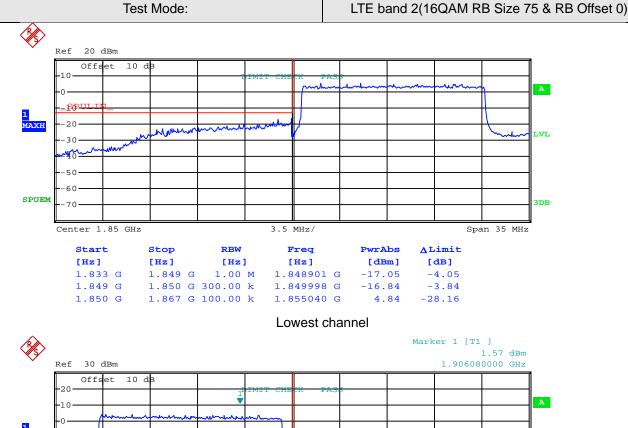




Highest channel







LVL 20--30 40 SPUEM 3DB Center 1.91 GHz 3.5 MHz/ Span 35 MHz **∆Limit** Start Stop RBW Freq PwrAbs [dBm] [dB] [Hz] [Hz] [Hz] [Hz] 1.893 G 1.910 G 100.00 k 1.896243 G 4.19 -28.81 1.910 G 1.911 G 300.00 k 1.910210 G -18.78 -5.78 1.911 G 1.928 G 1.912353 G

1.00 M

Highest channel

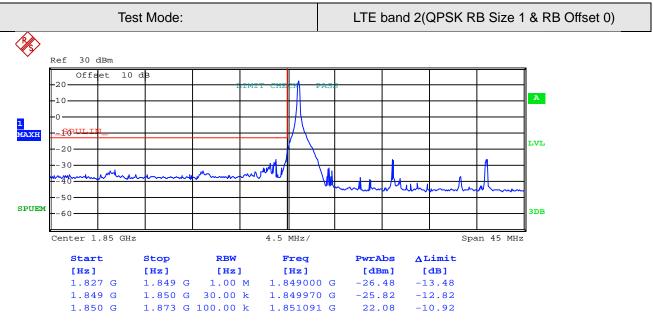
-17.32

-4.32

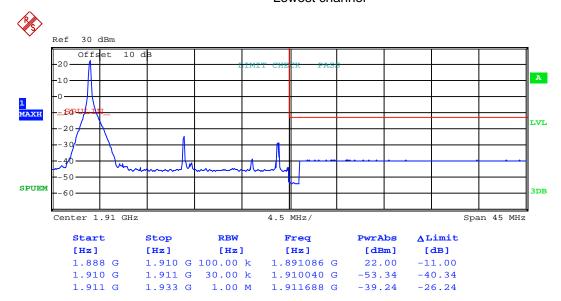




20MHz:



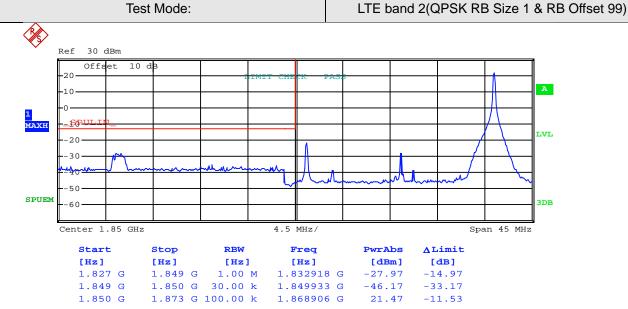
Lowest channel

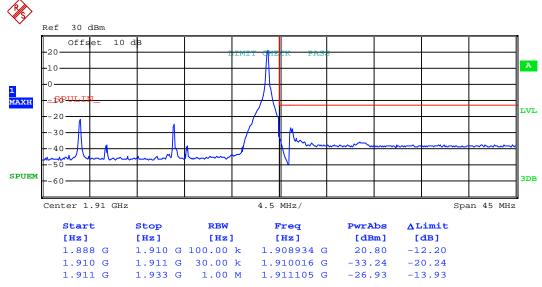


Highest channel





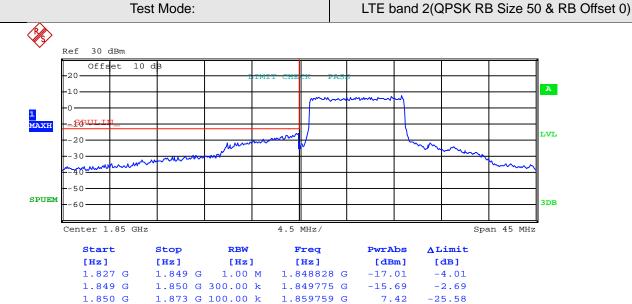




Highest channel





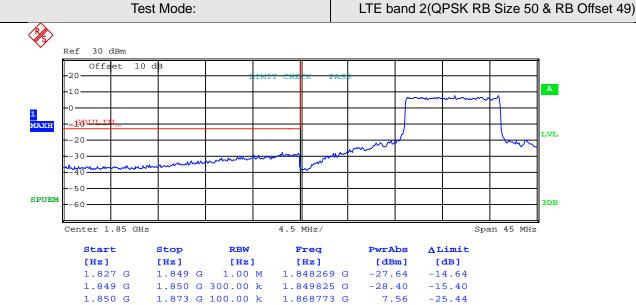




Highest channel



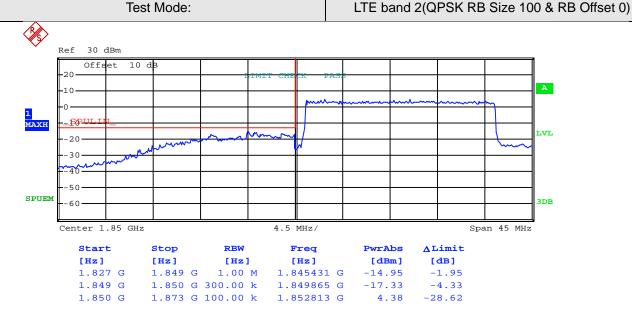


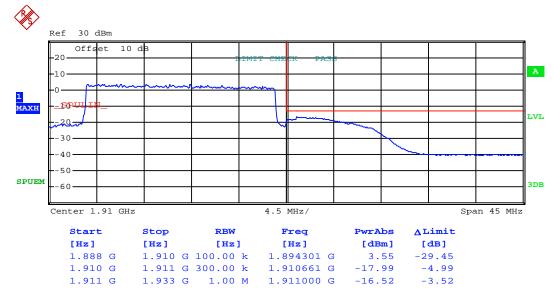




Highest channel

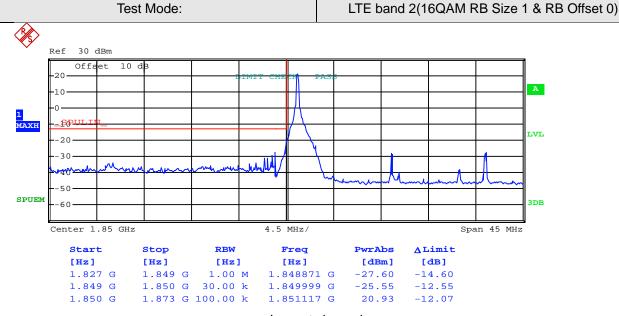


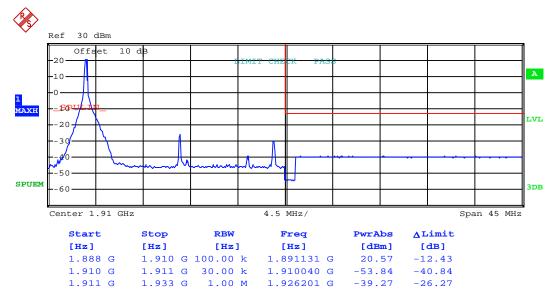




Highest channel



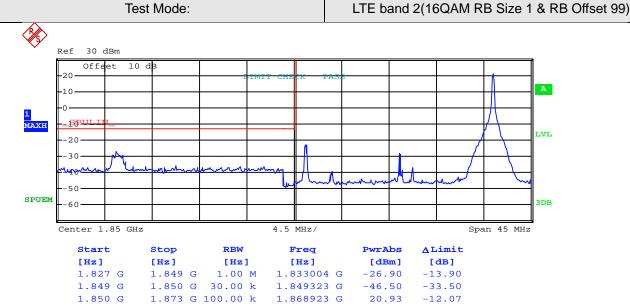


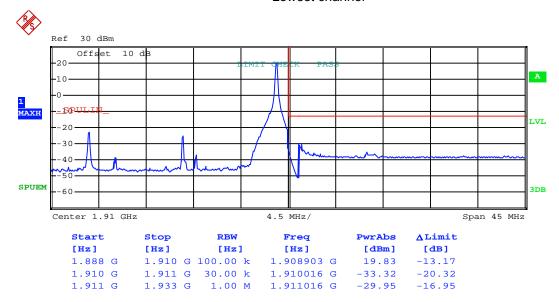


Highest channel









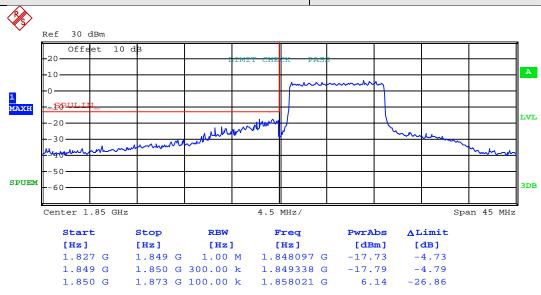
Highest channel



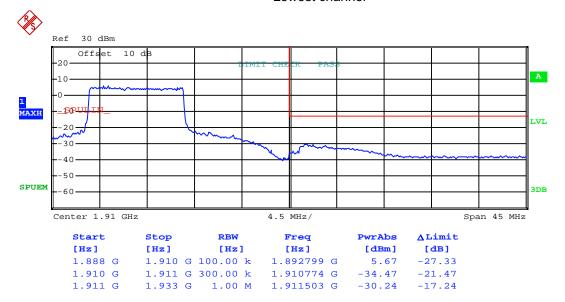
LTE band 2(16QAM RB Size 50 & RB Offset 0)



Test Mode:



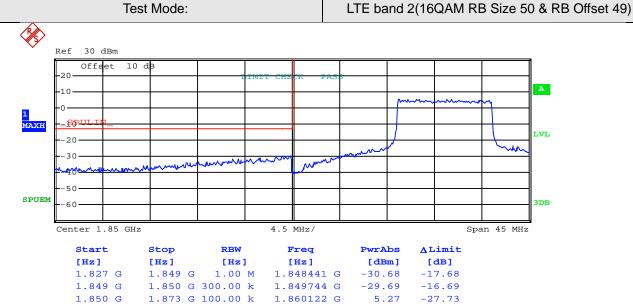
Lowest channel



Highest channel





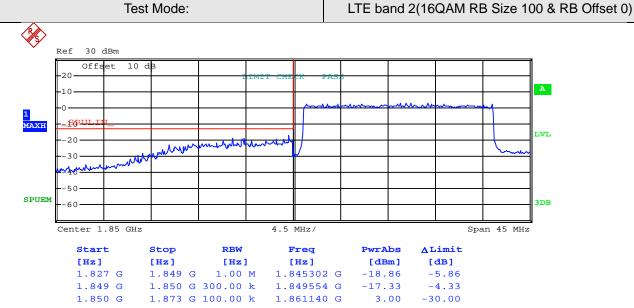


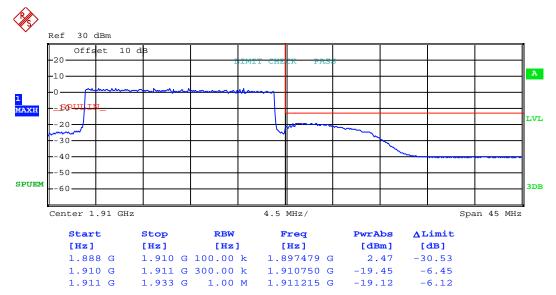


Highest channel









Highest channel





LTE band 4 part:

1.709 G

1.710 G

1.710 G 30.00 k

1.712 G 100.00 k

1.4MHz:



Lowest channel

-26.02

20.59

-13.02

-12.41

1.709996 G

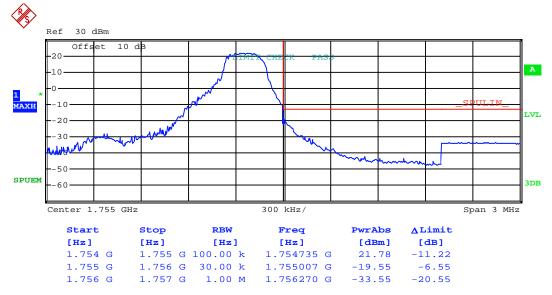
1.710318 G



Highest channel



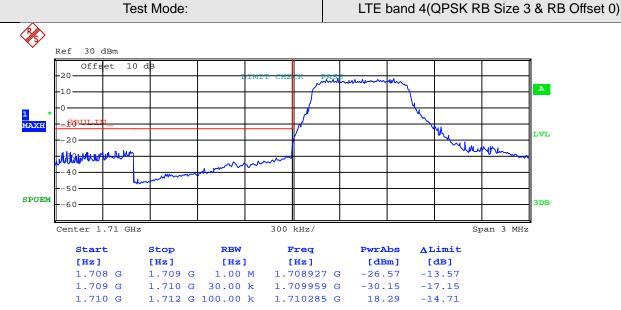


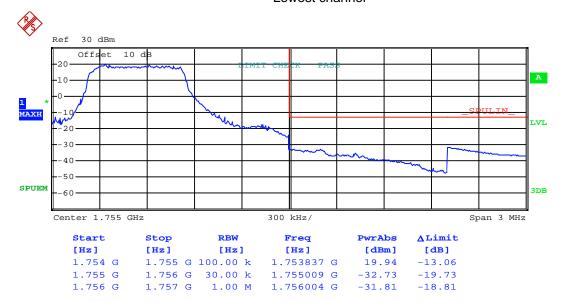


Highest channel



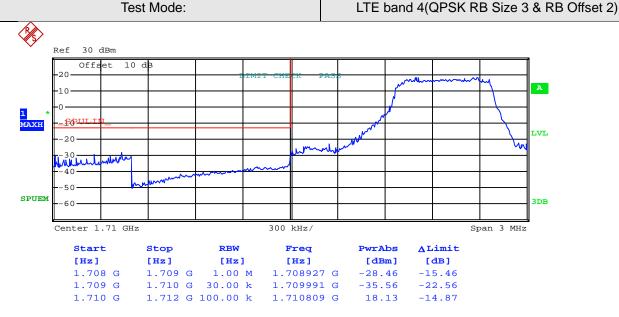


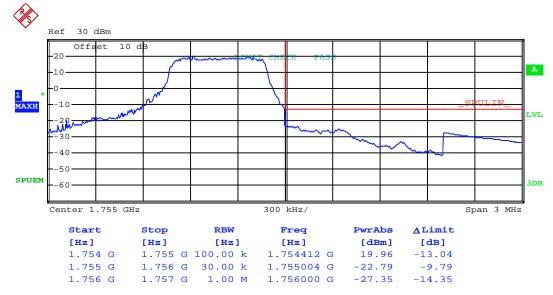




Highest channel

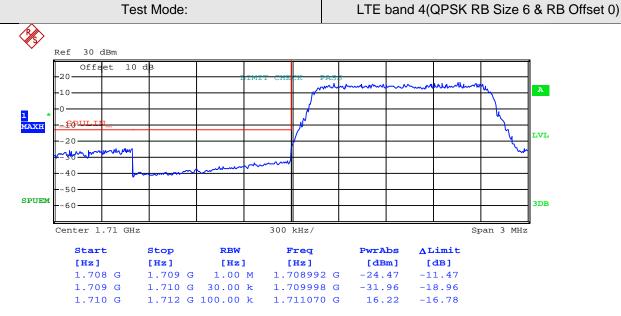


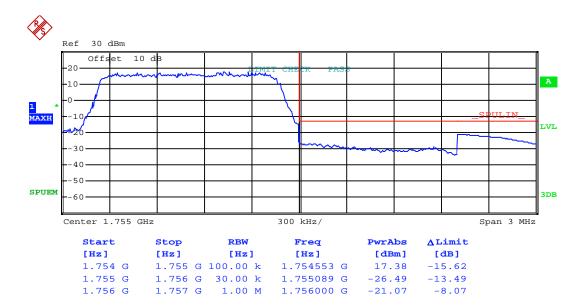




Highest channel



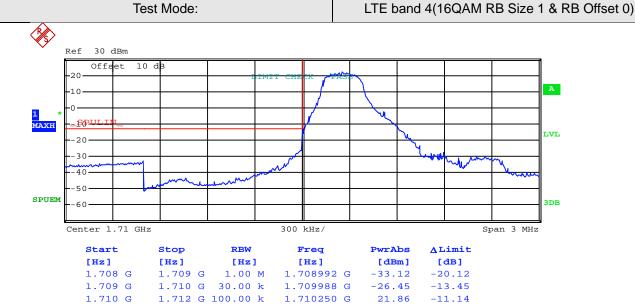


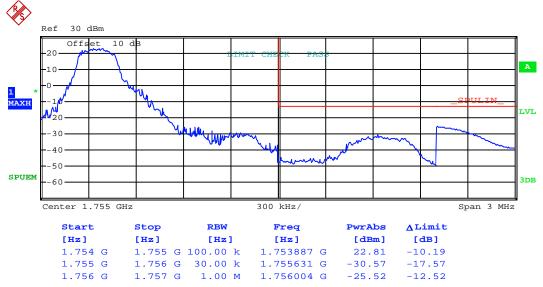


Highest channel





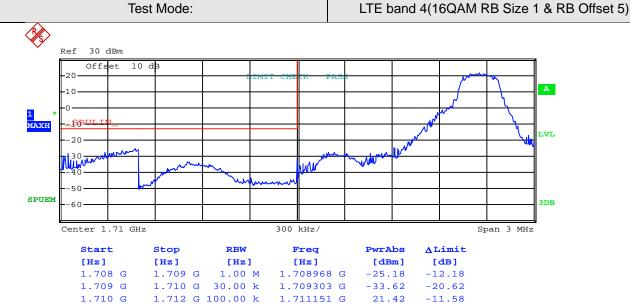


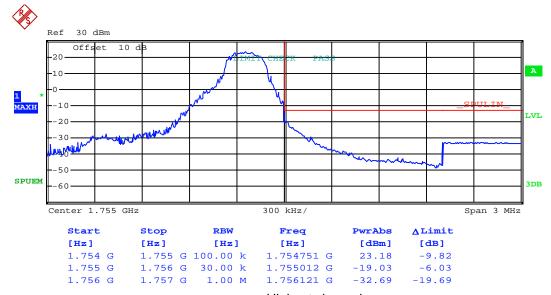


Highest channel





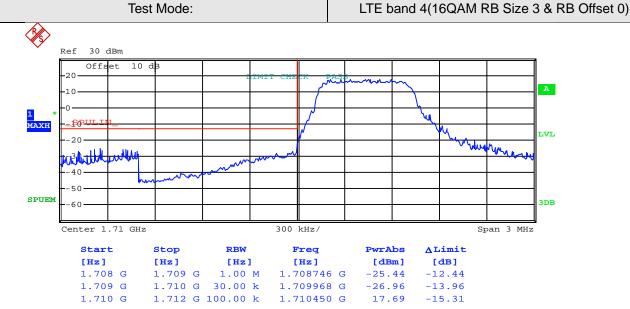


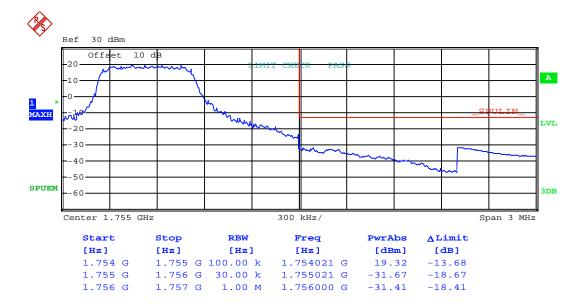


Highest channel





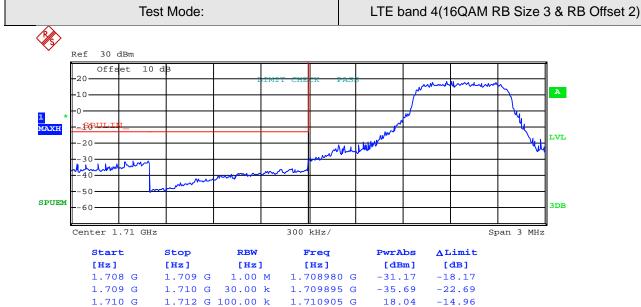


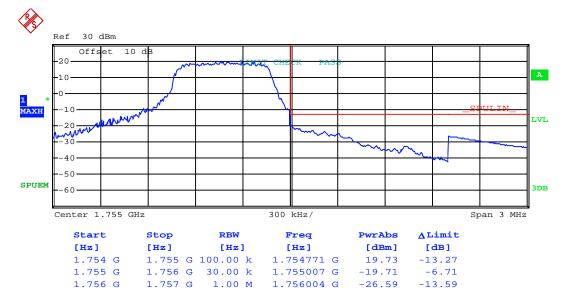


Highest channel



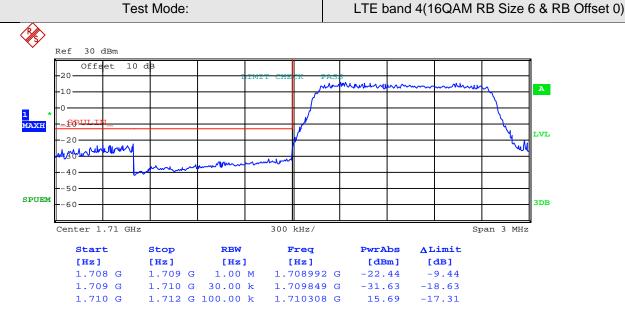


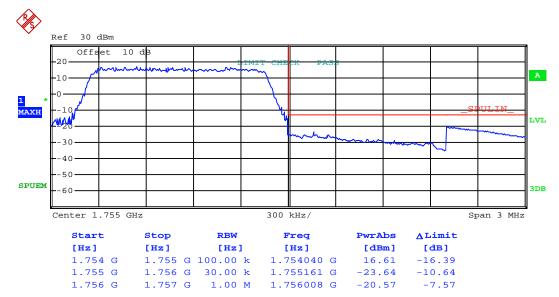




Highest channel







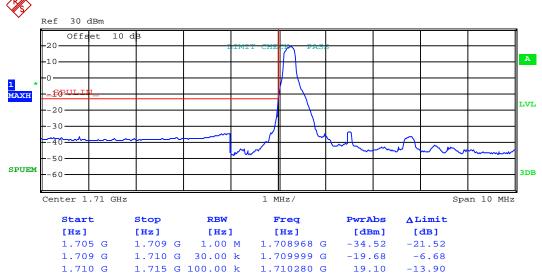
Highest channel





3MHz:





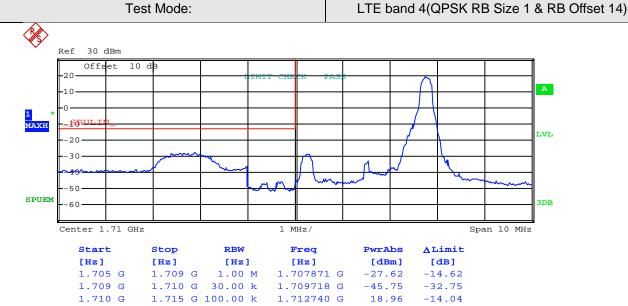
Lowest channel

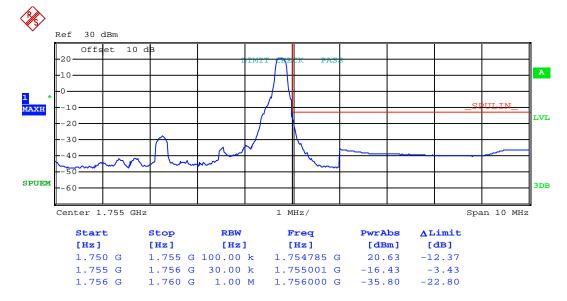


Highest channel





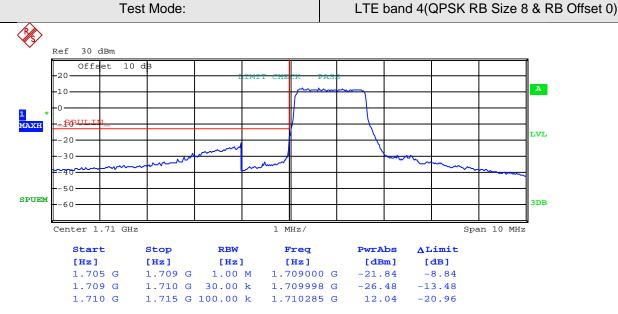


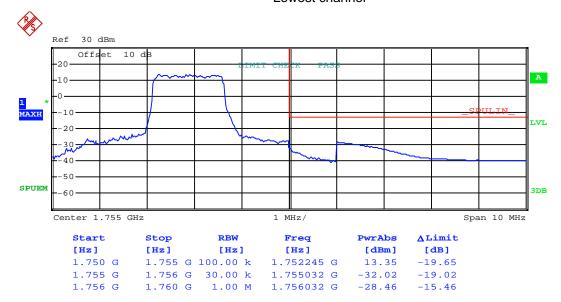


Highest channel





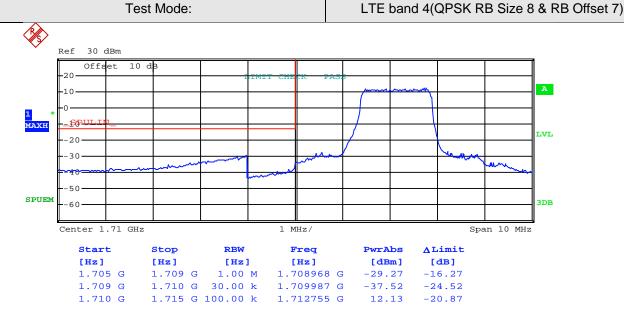


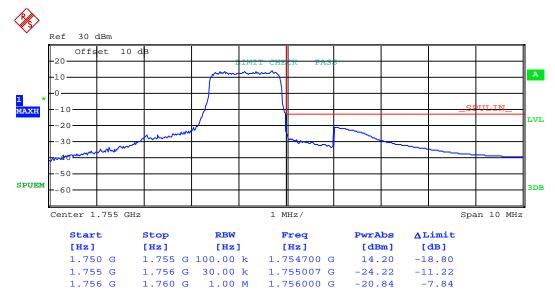


Highest channel





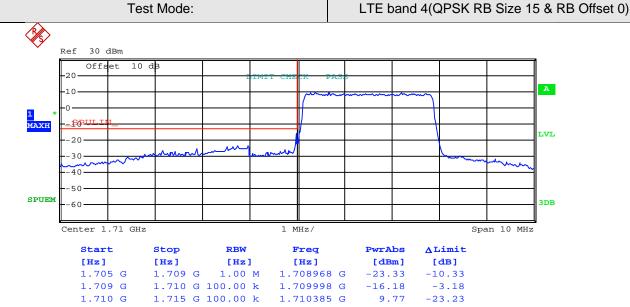


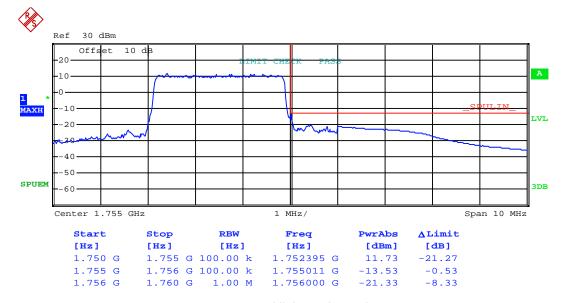


Highest channel







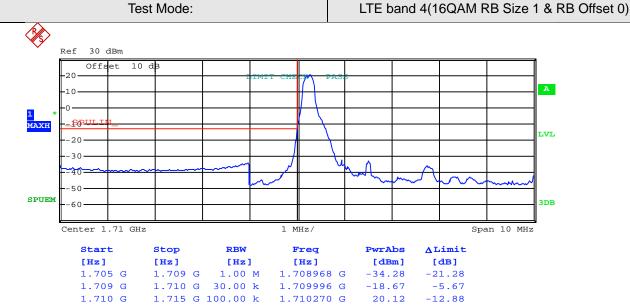


Highest channel

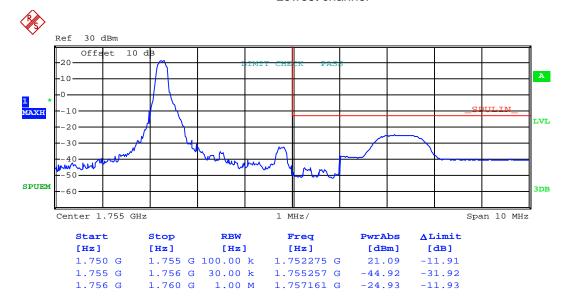




Test Mode:



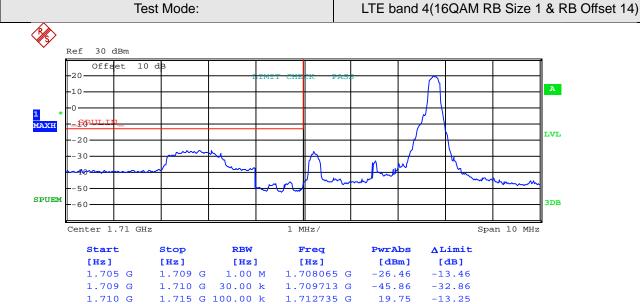
Lowest channel

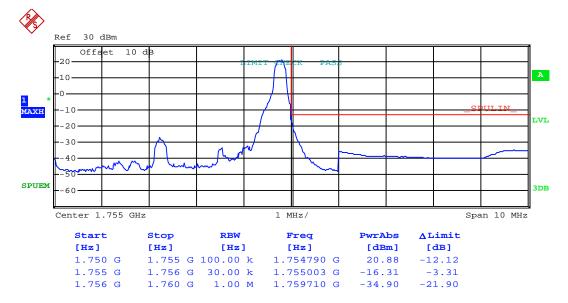


Highest channel









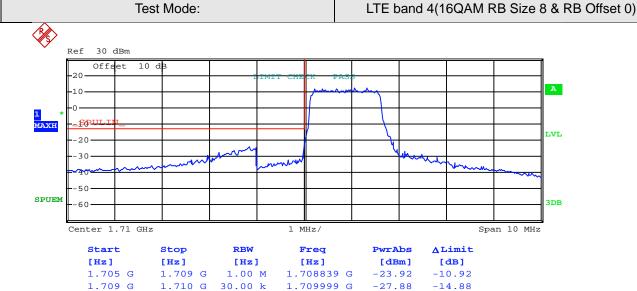
Highest channel





1.710 G

1.715 G 100.00 k

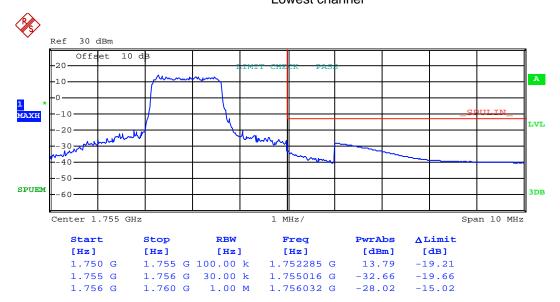


Lowest channel

12.31

-20.69

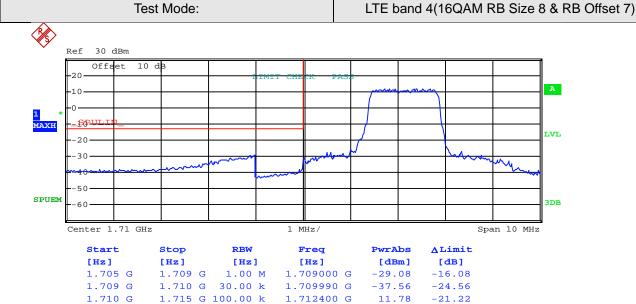
1.711060 G

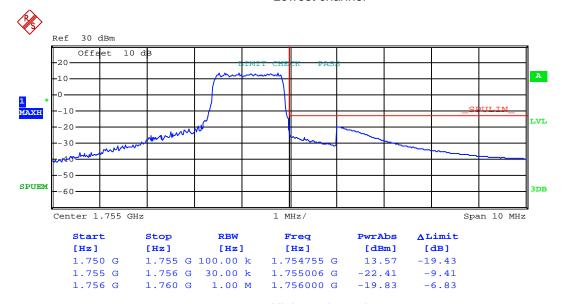


Highest channel





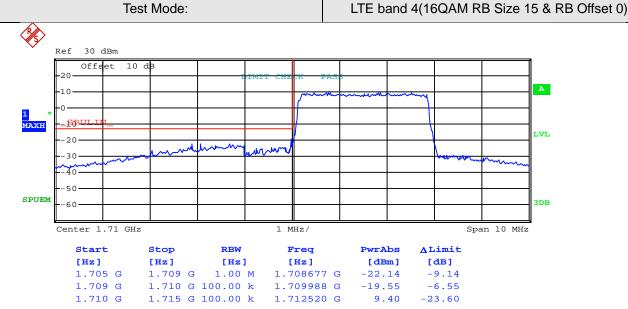


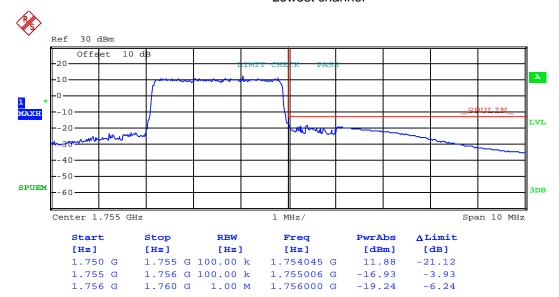


Highest channel







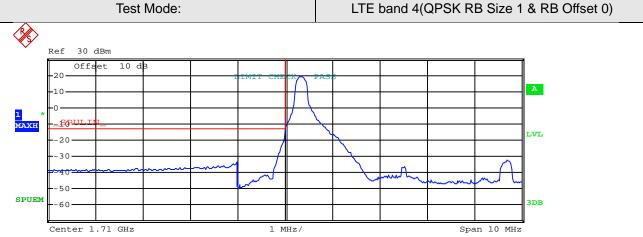


Highest channel





5MHz:



Start [Hz]	Stop [Hz]	RBW	Freq [Hz]	PwrAbs	∆Limit [dB]
1.705 G	1.709 G	1.00 M	1.709000 G	-33.42	-20.42
1.709 G	1.710 G	30.00 k	1.709999 G	-19.11	-6.11
1.710 G	1.715 G	100.00 k	1.710355 G	19.44	-13.56

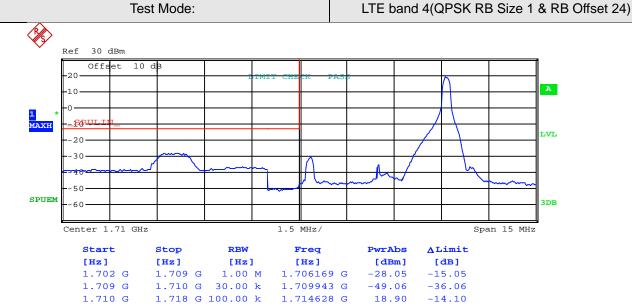
Lowest channel



Highest channel





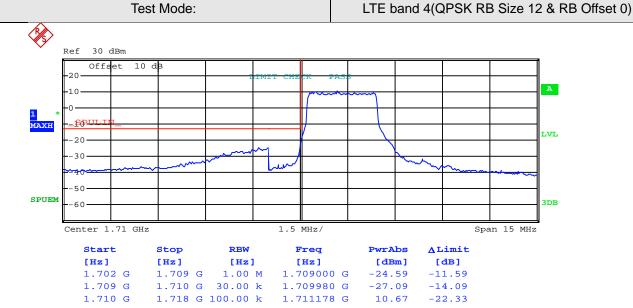


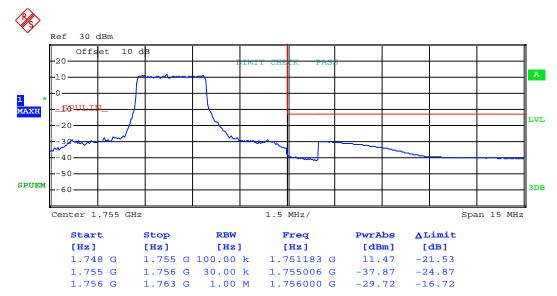


Highest channel





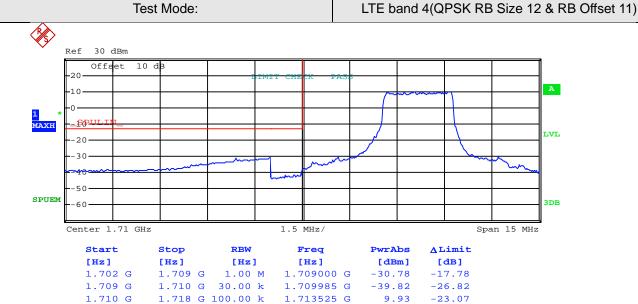


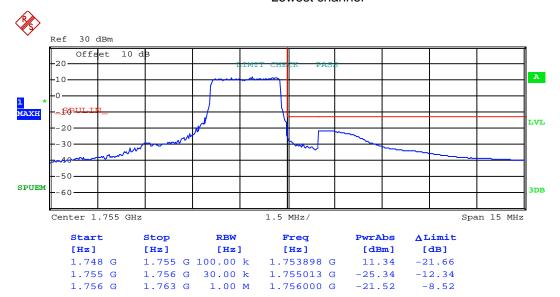


Highest channel





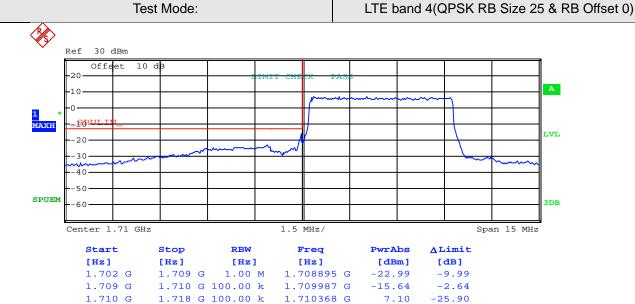


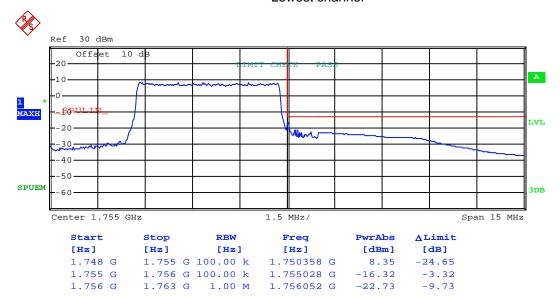


Highest channel



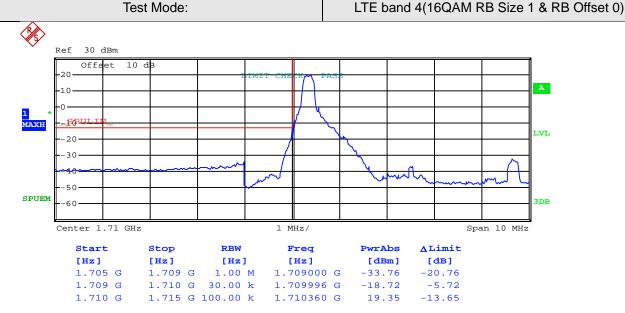


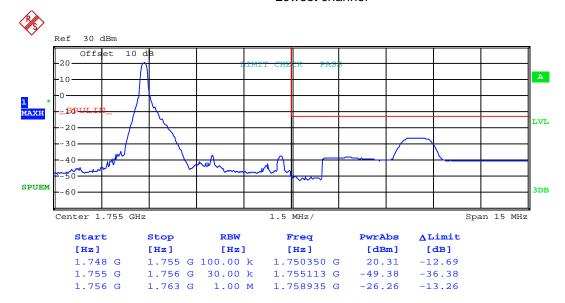




Highest channel



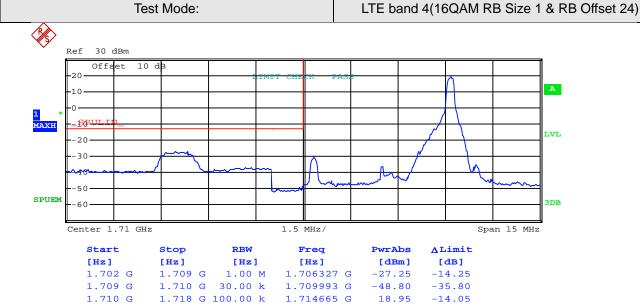




Highest channel





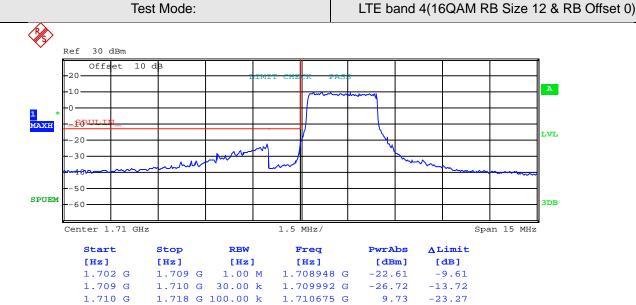




Highest channel





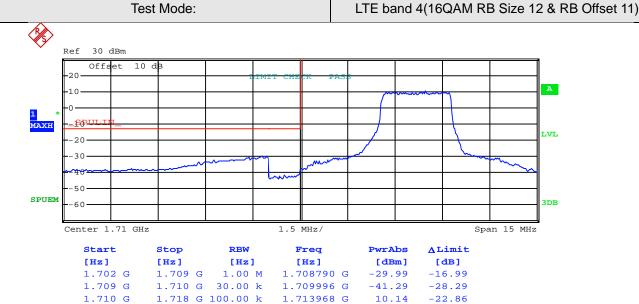


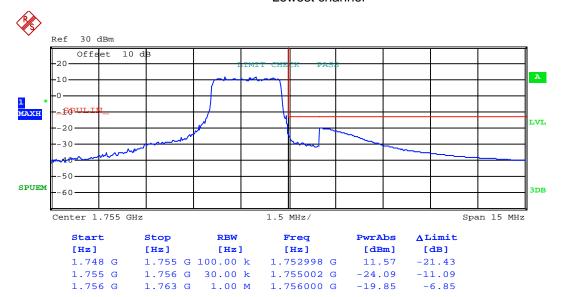


Highest channel



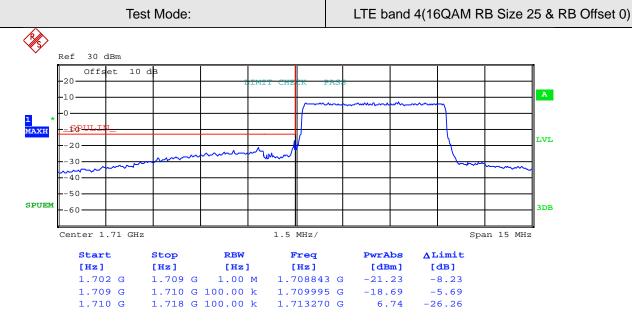


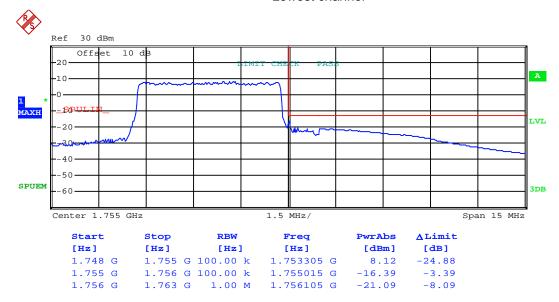




Highest channel





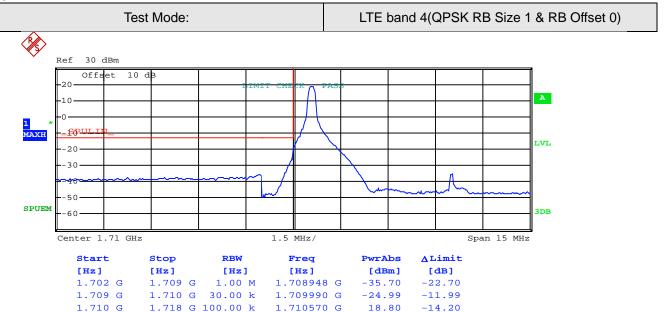


Highest channel





10MHz:



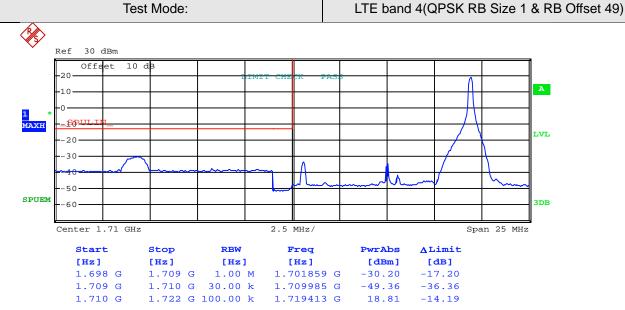
Lowest channel



Highest channel





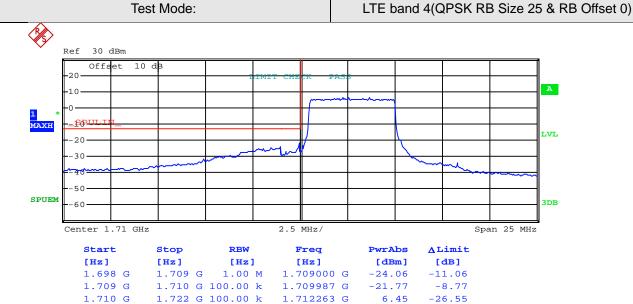


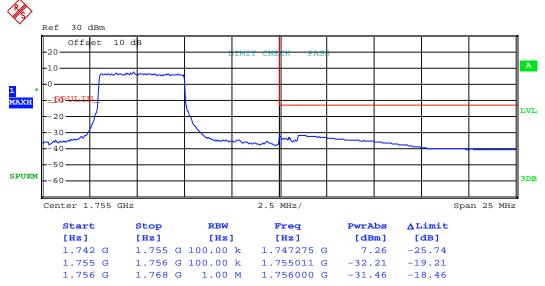


Highest channel





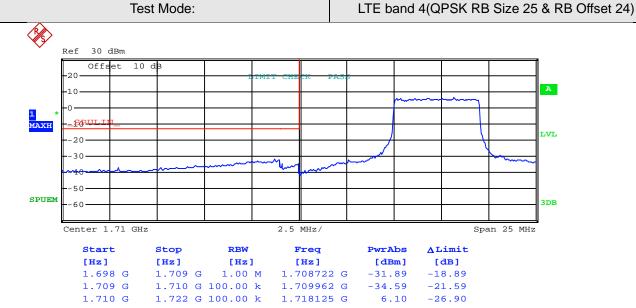


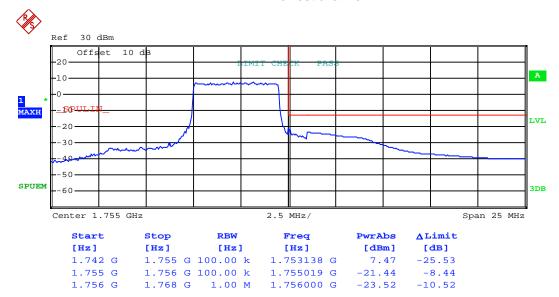


Highest channel





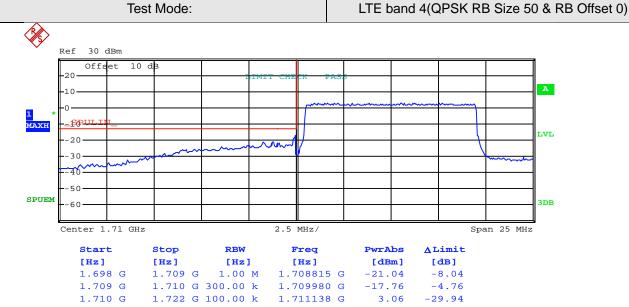


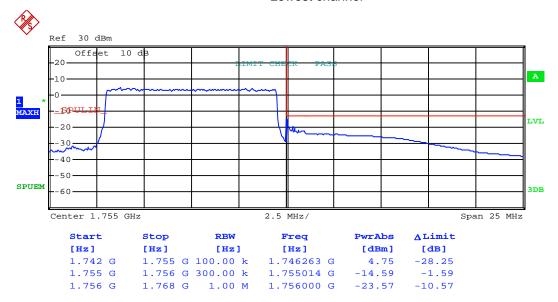


Highest channel





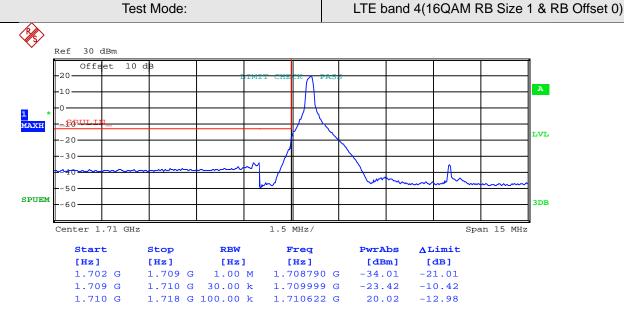




Highest channel





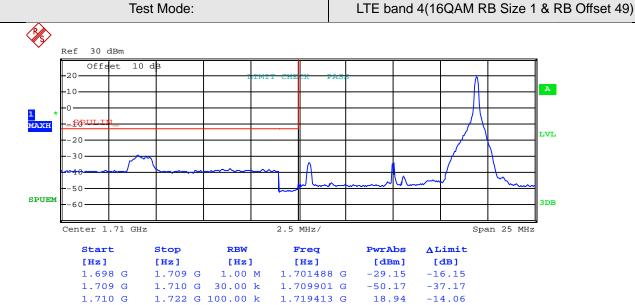


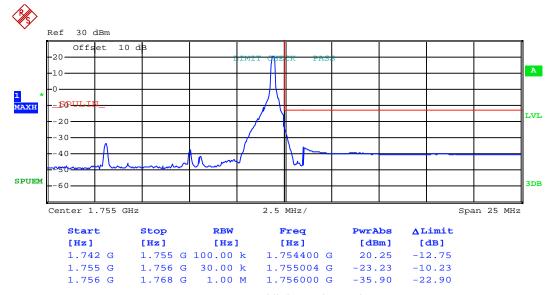


Highest channel





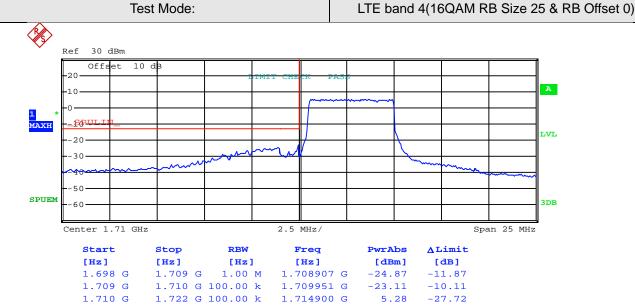




Highest channel





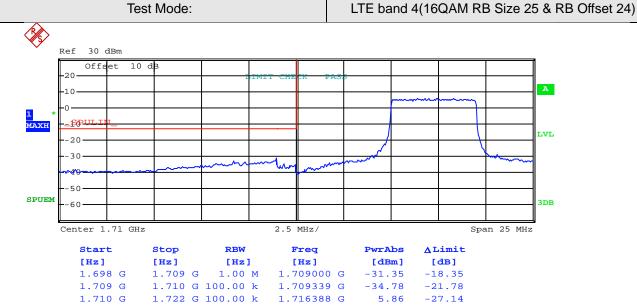


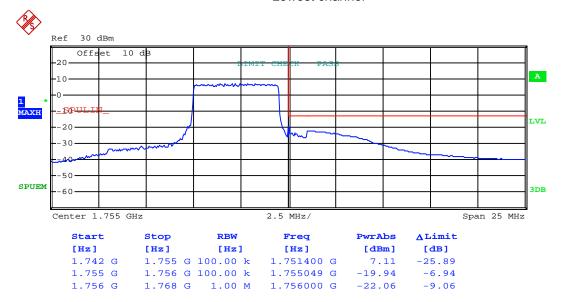


Highest channel



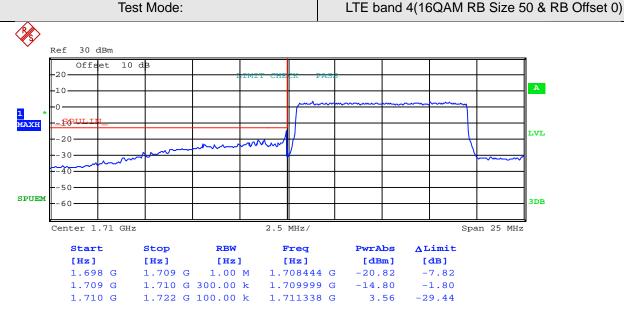


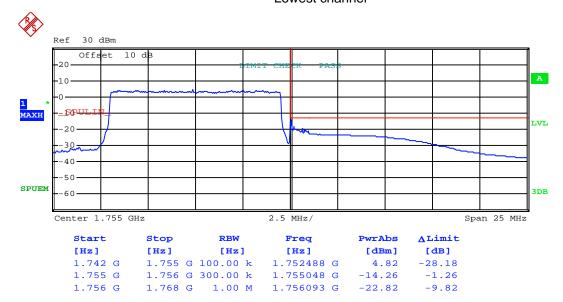




Highest channel





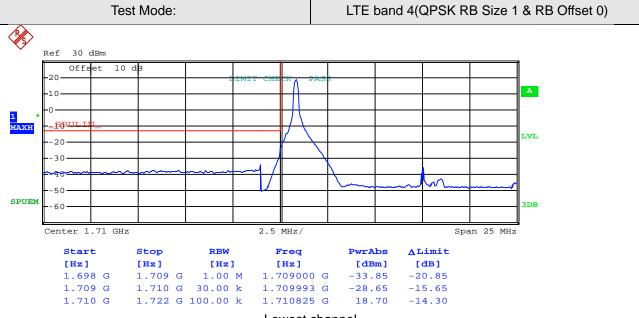


Highest channel

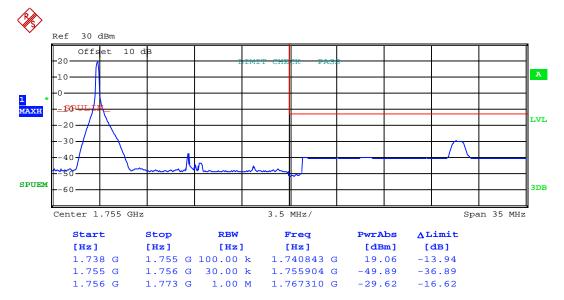




15MHz:



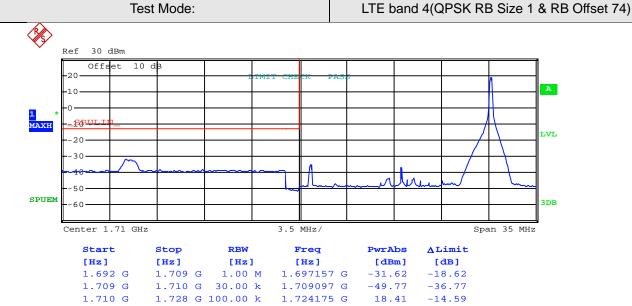
Lowest channel

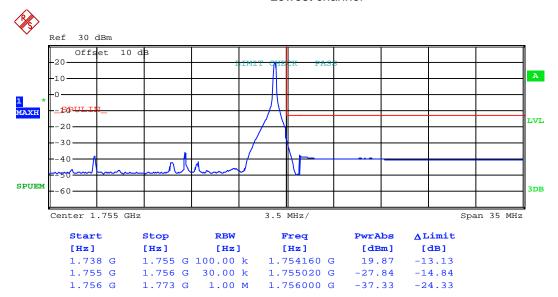


Highest channel





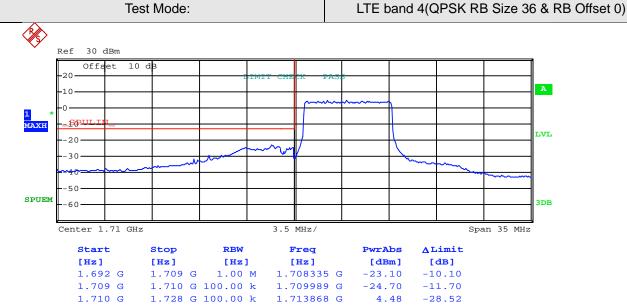


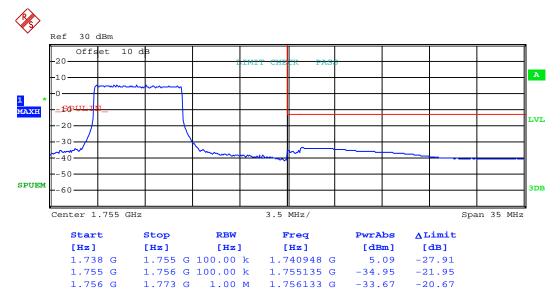


Highest channel





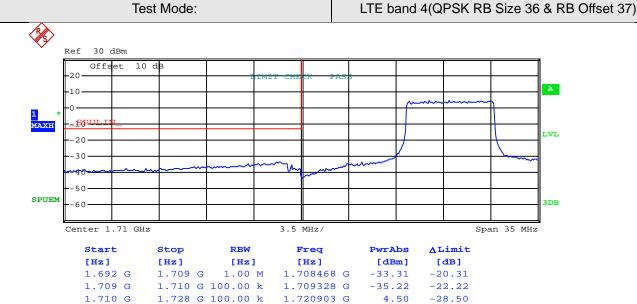


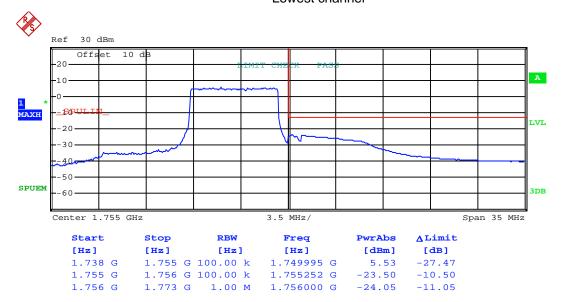


Highest channel



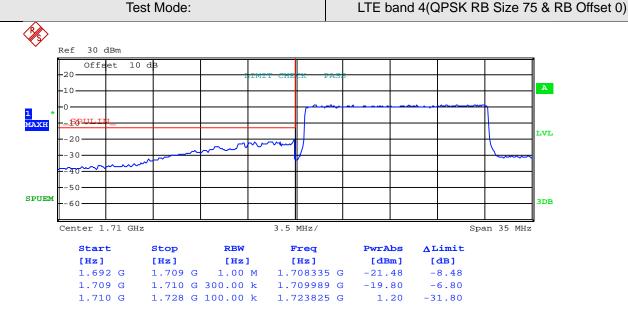


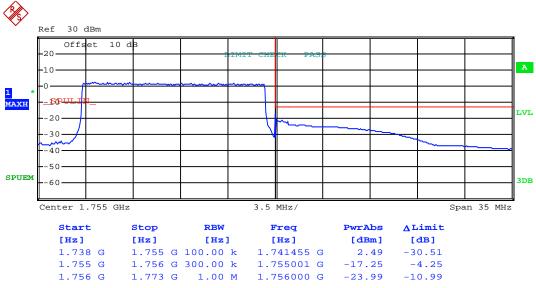




Highest channel



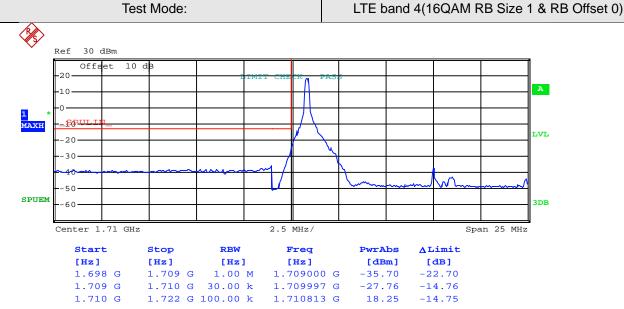




Highest channel





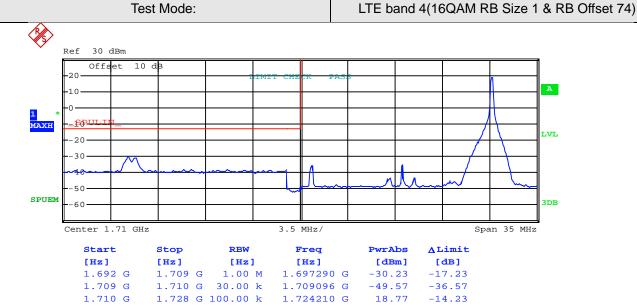


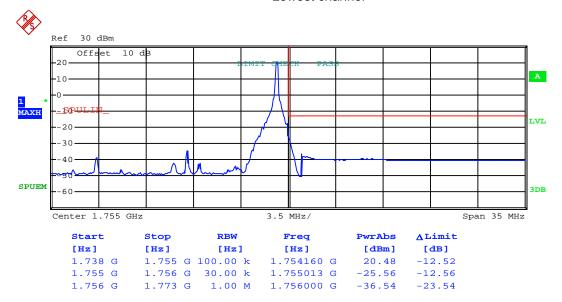


Highest channel





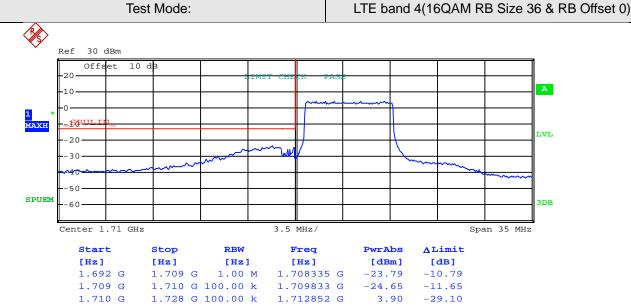


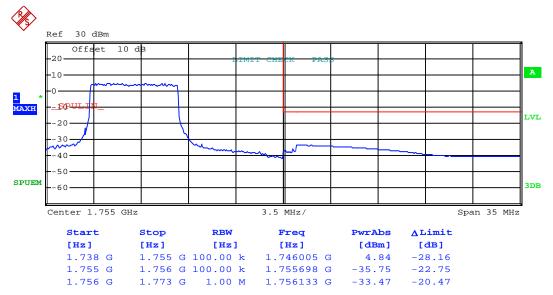


Highest channel





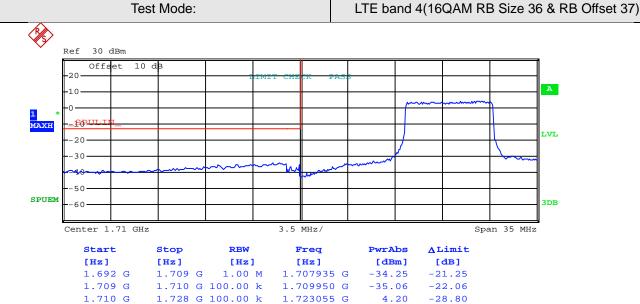


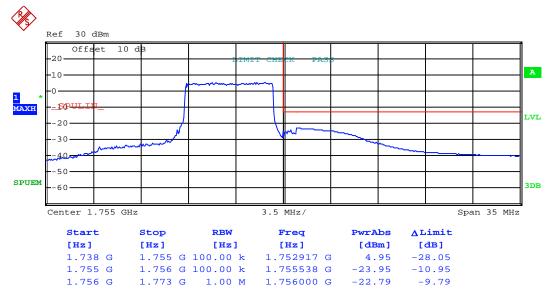


Highest channel



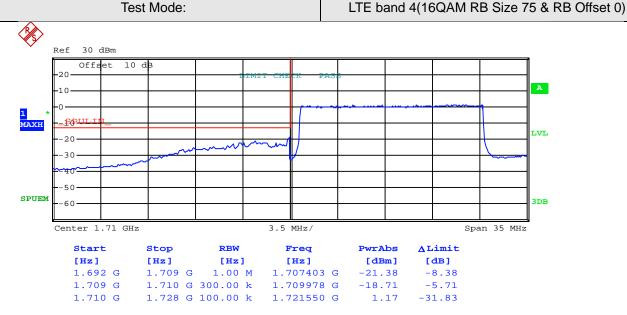


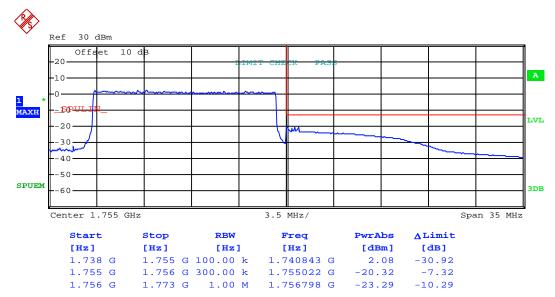




Highest channel





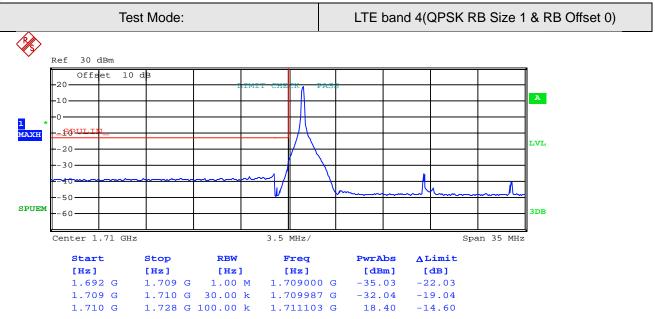


Highest channel

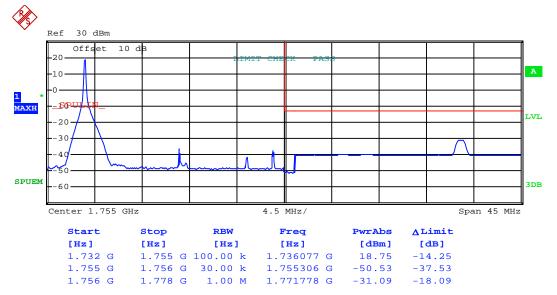




20MHz:



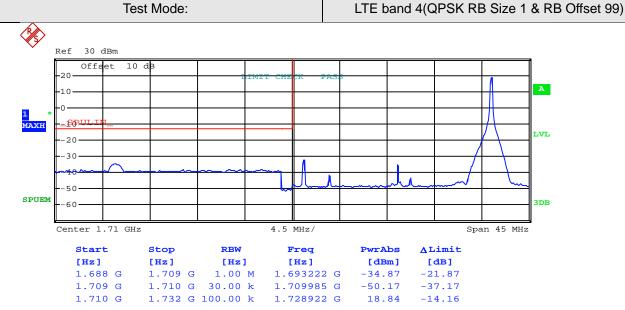
Lowest channel

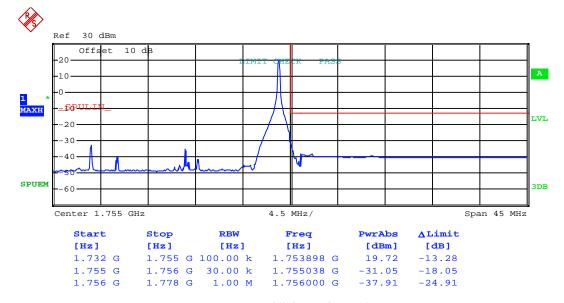


Highest channel





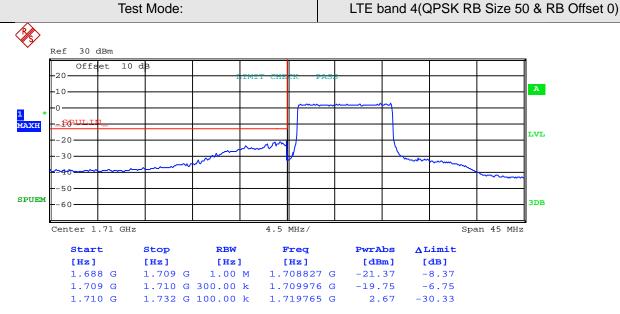


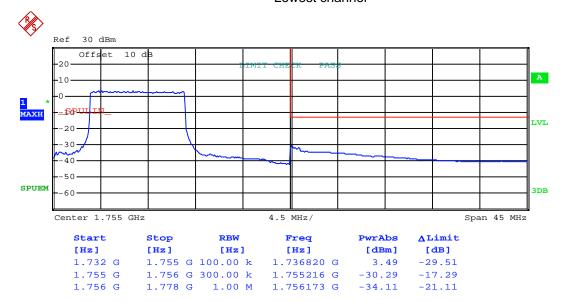


Highest channel





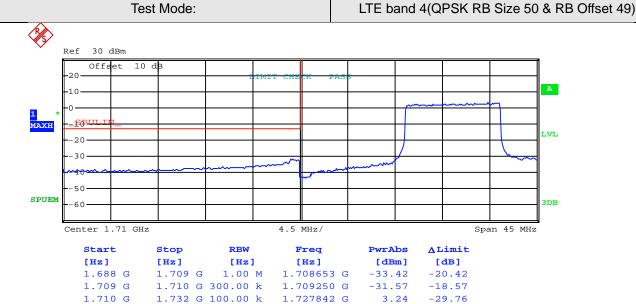


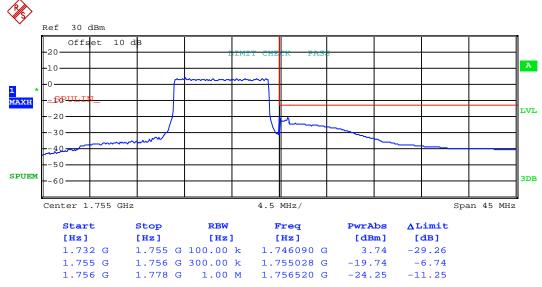


Highest channel



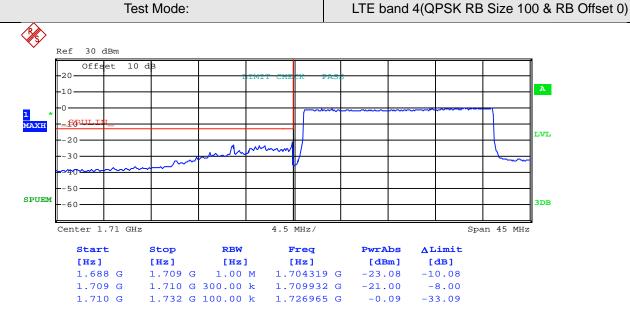


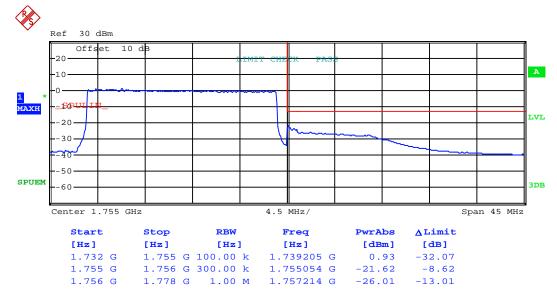




Highest channel



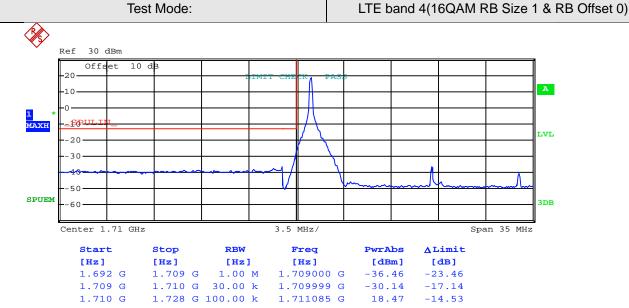


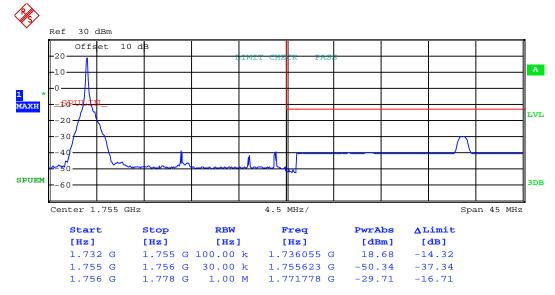


Highest channel





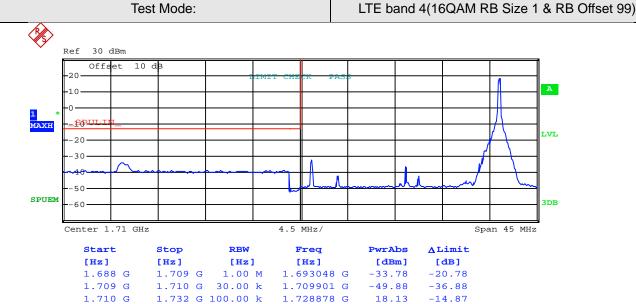


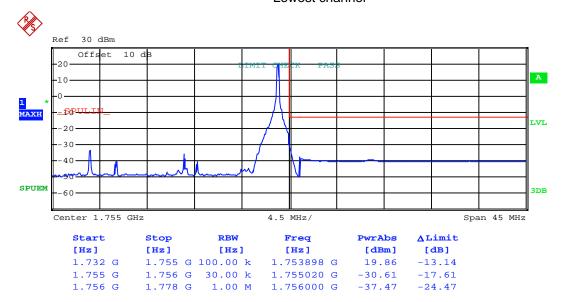


Highest channel





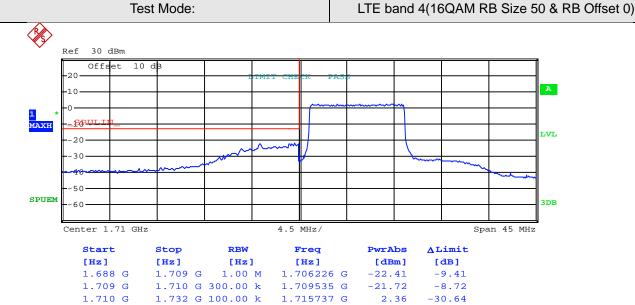


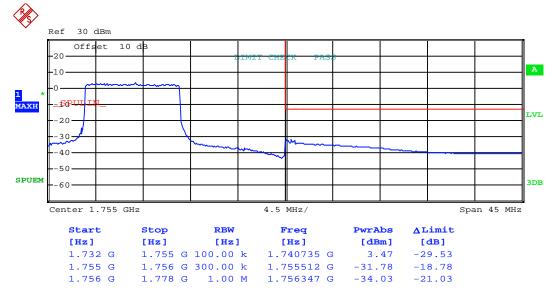


Highest channel





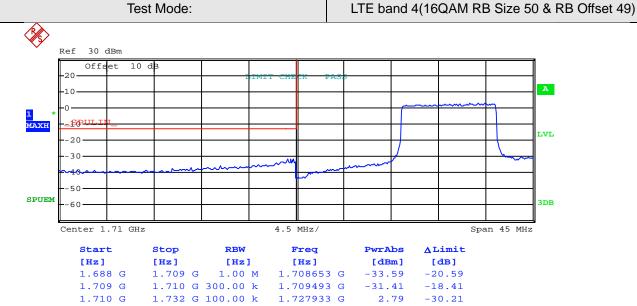


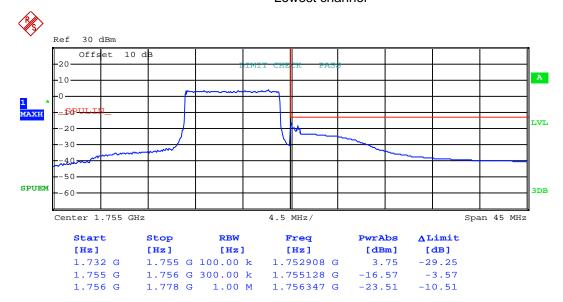


Highest channel



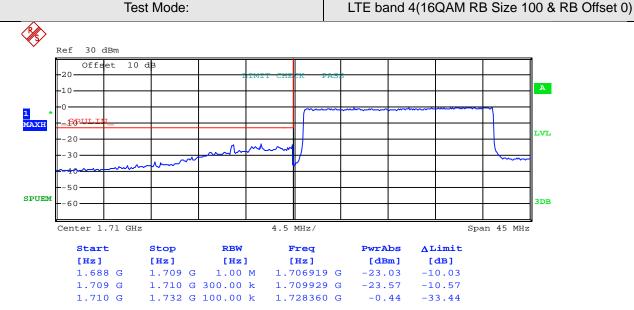


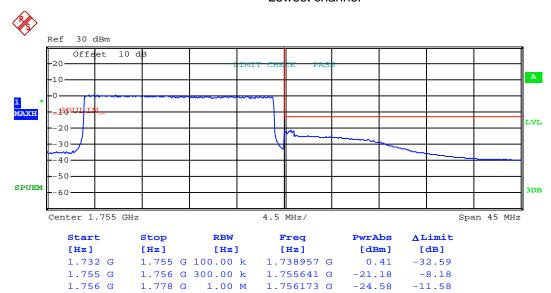




Highest channel







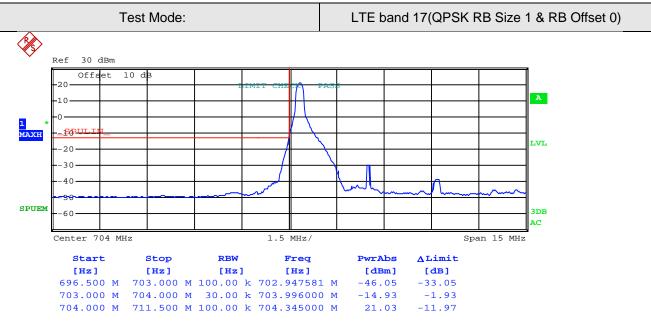
Highest channel



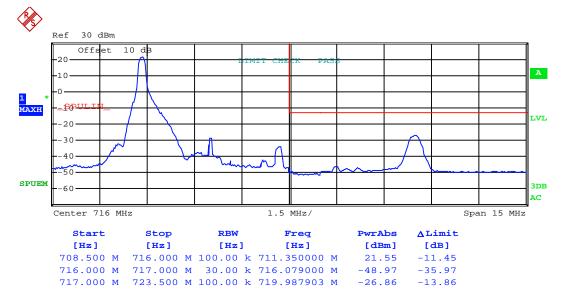


LTE band 17 part:

5MHz:



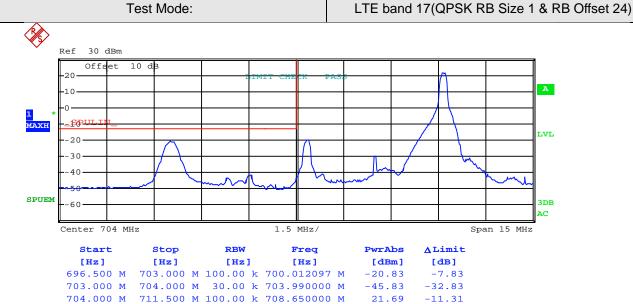
Lowest channel

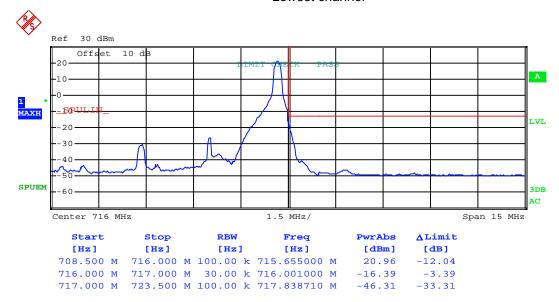


Highest channel





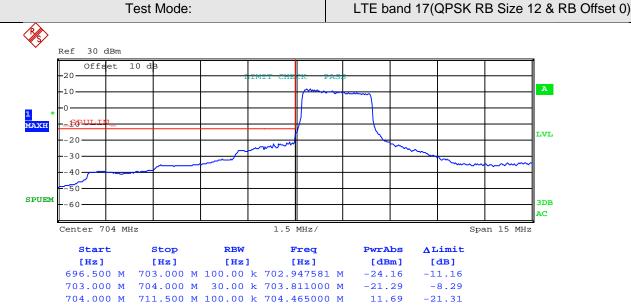


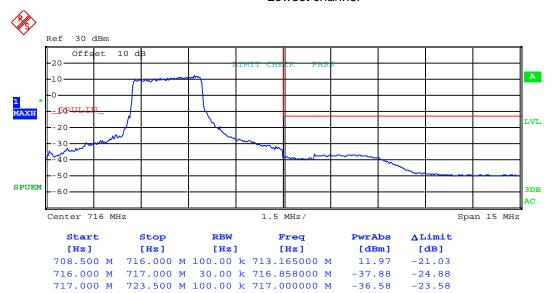


Highest channel





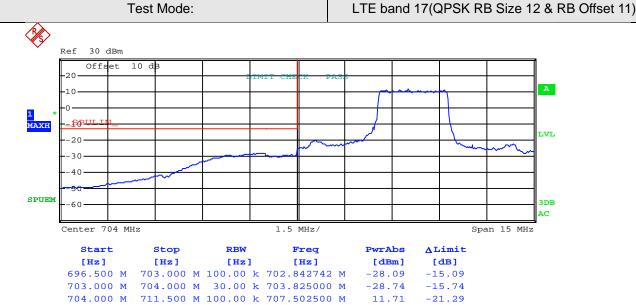


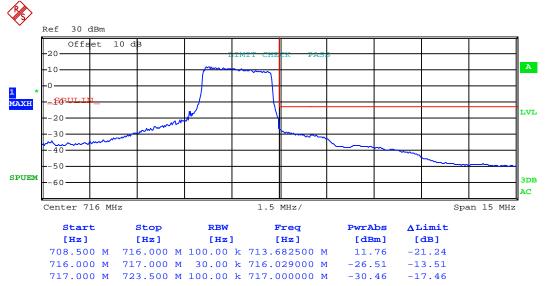


Highest channel



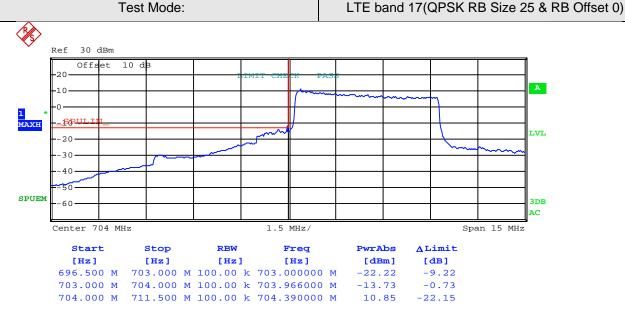


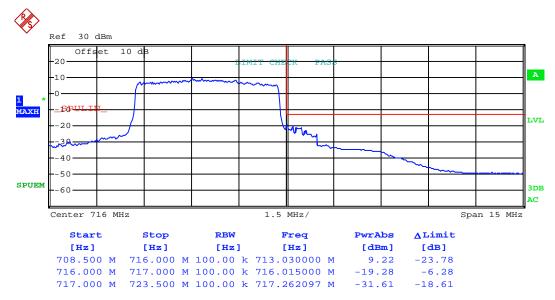




Highest channel



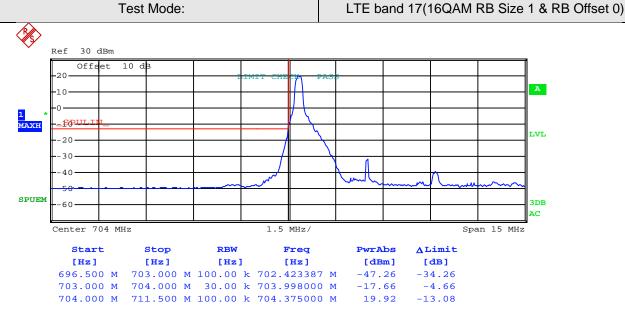


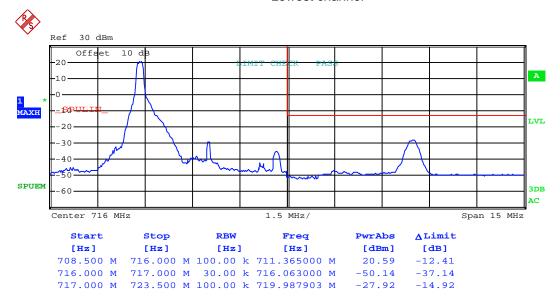


Highest channel





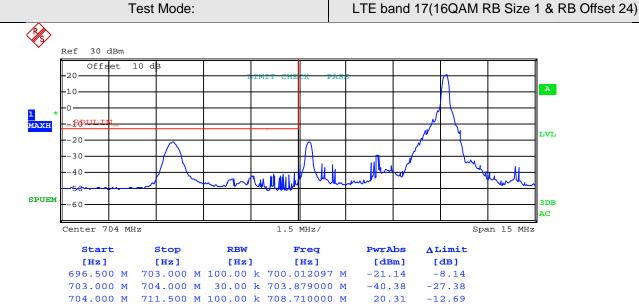


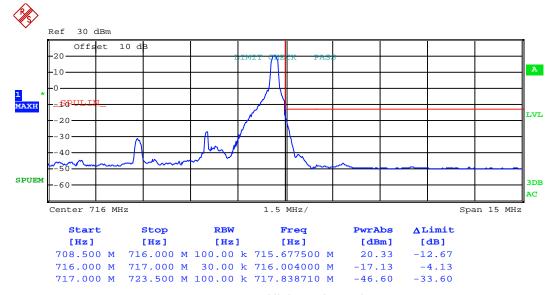


Highest channel





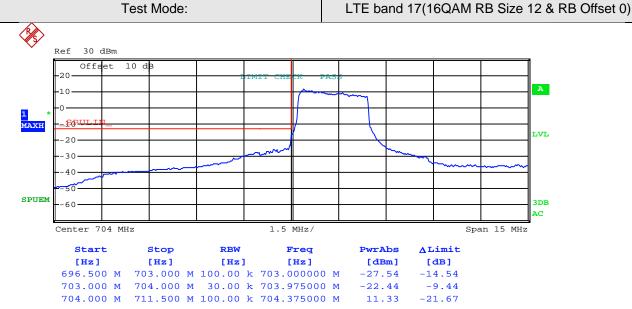


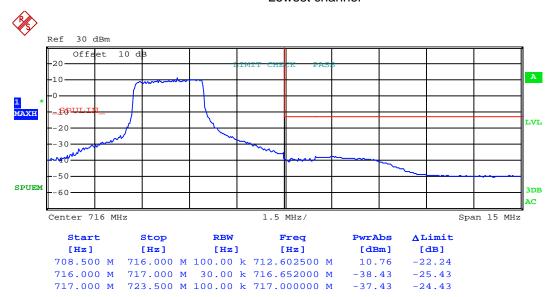


Highest channel





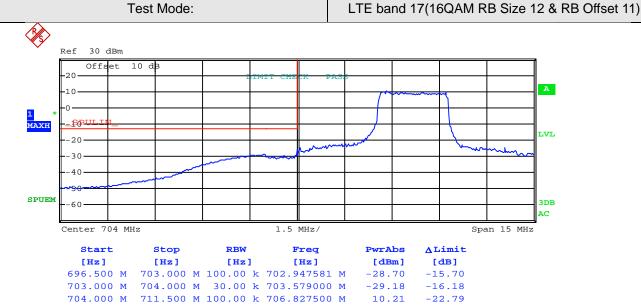


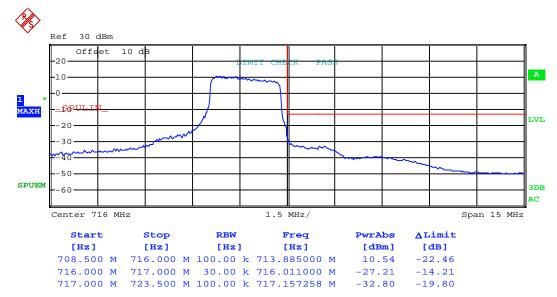


Highest channel



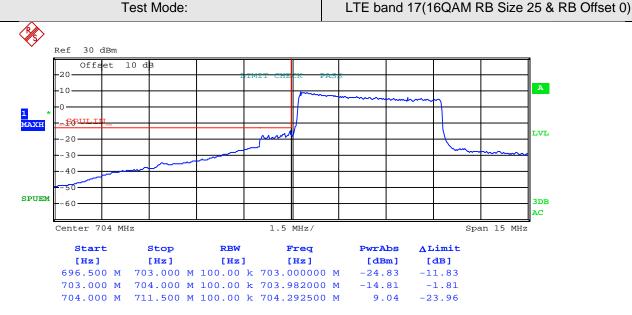


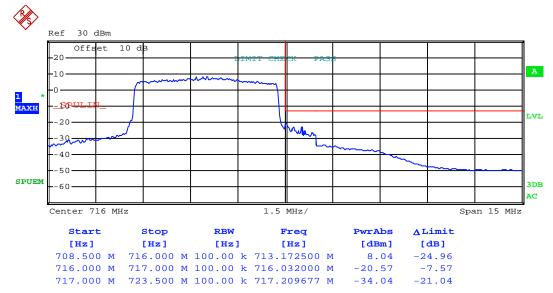




Highest channel





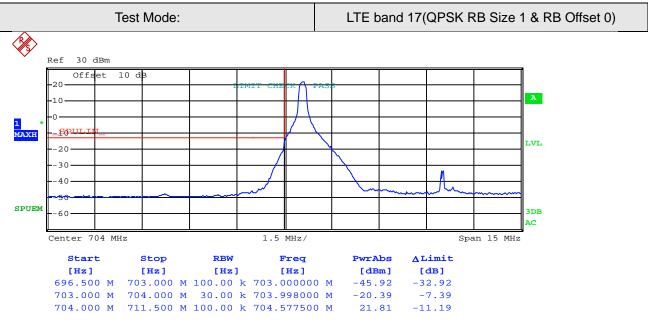


Highest channel

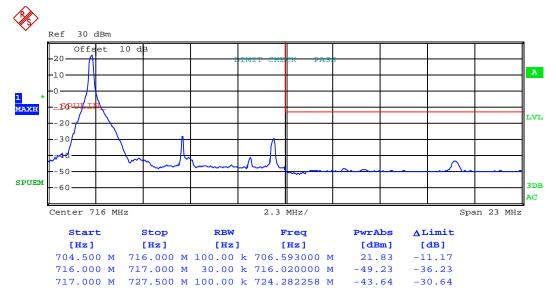




10MHz:



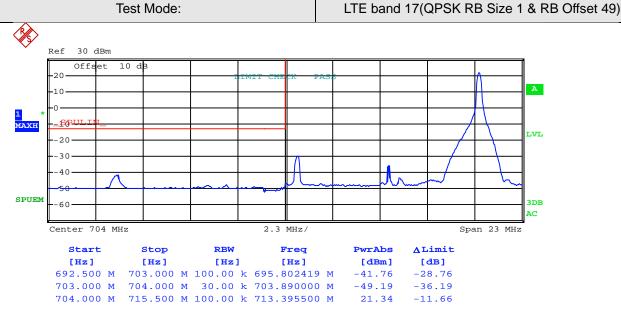
Lowest channel

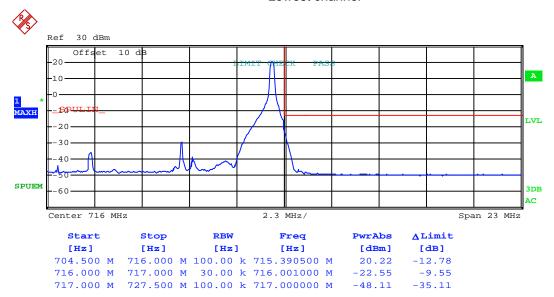


Highest channel





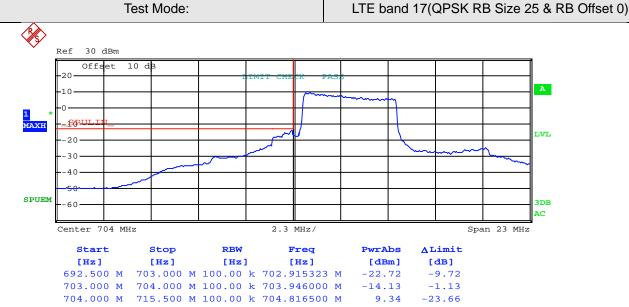


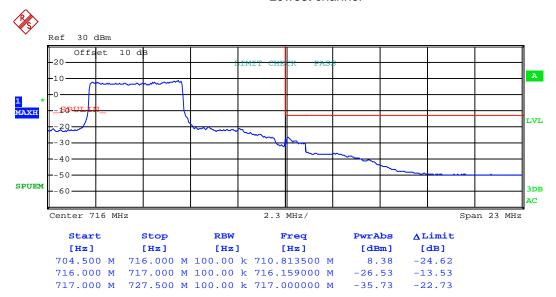


Highest channel





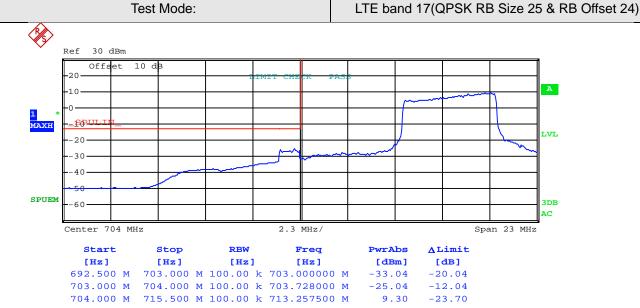


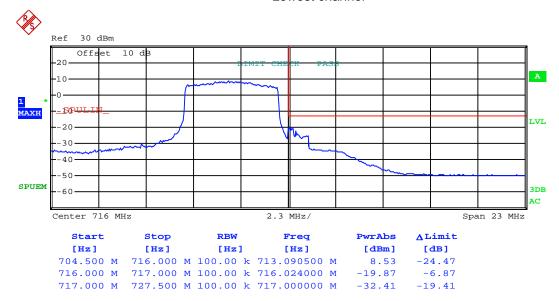


Highest channel



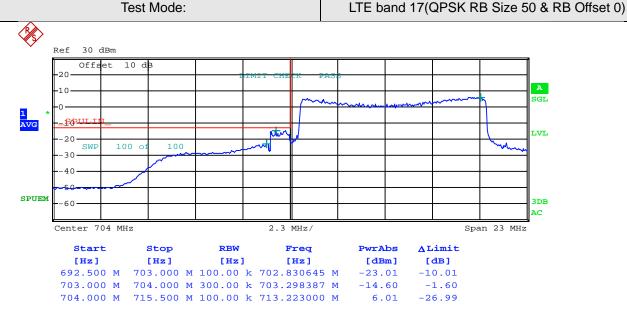


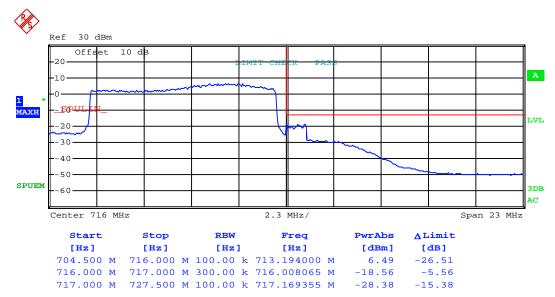




Highest channel

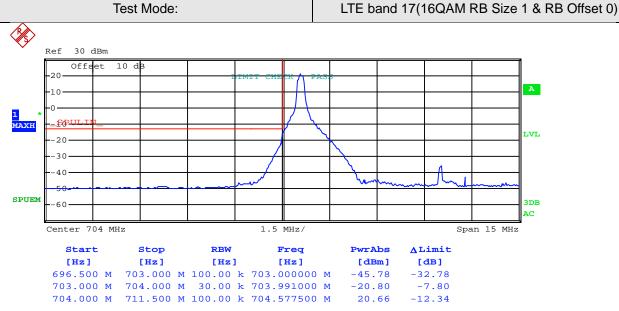


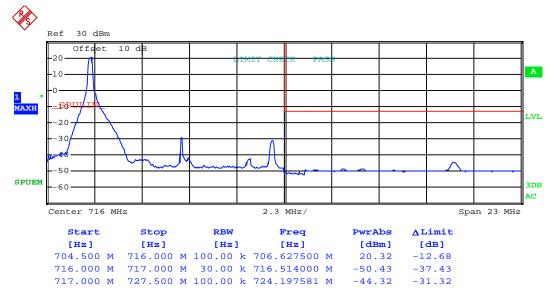




Highest channel



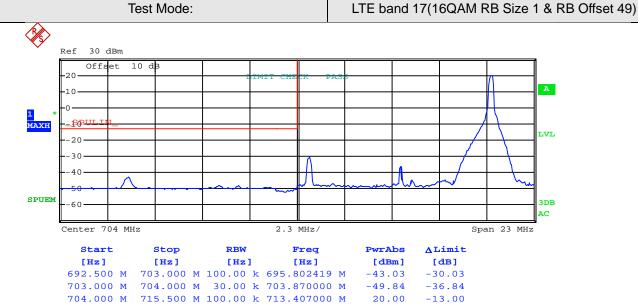


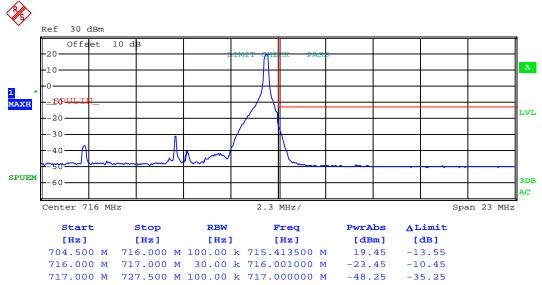


Highest channel





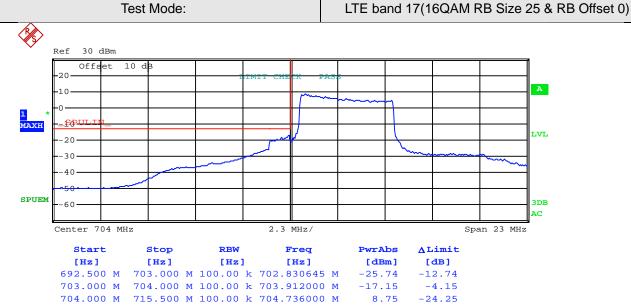


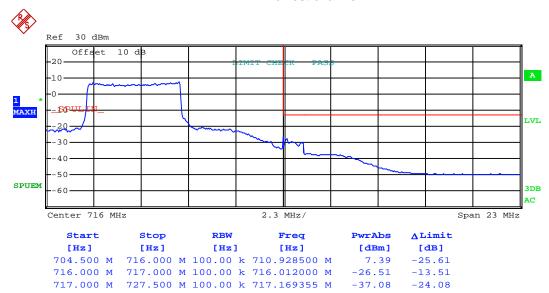


Highest channel





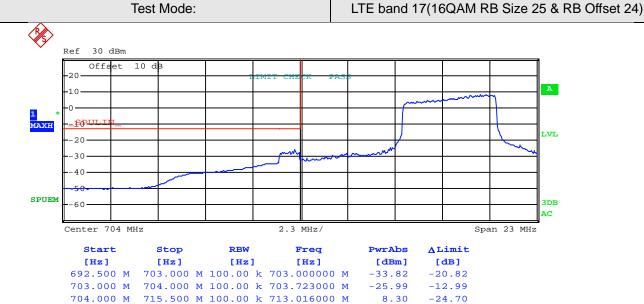


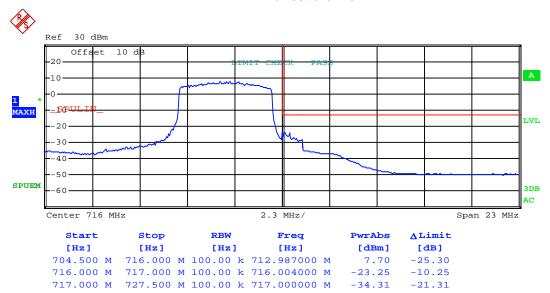


Highest channel



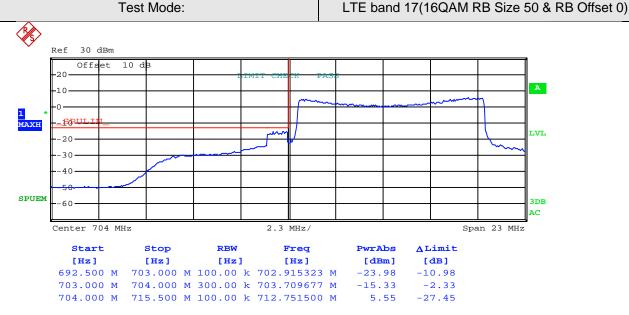


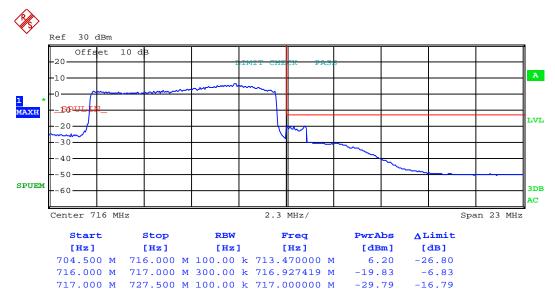




Highest channel







Highest channel





6.10 ERP, EIRP Measurement

O. TO LINI, LINI Measure	
Test Requirement:	FCC part 24.232 (c), part 27.50(c) and part 27.50(h)
Test Method:	FCC part 2.1046
Limit:	LTE Band 2: 2W EIRP LTE Band 4: 1W EIRP LTE Band 17: 3W EIRP
Test setup:	Below 1GHz Antenna Tower Search Antenna RF Test Receiver Ground Plane Above 1GHz
	Andrews FLIT Turn O, See: Irm Table Amplifier Amplifier Amplifier
	Substituted method:
	Ground plane d: distance in meters d:3 meter 1-4 meter S.G. Substituted Dipole or Horn Antenna Bi-Log Antenna or Horn Antenna





Test Procedure:	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. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.
	3. EIRP in frequency band 1850.7 –1909.3MHz, 1710.7-1754.3 MHz and 706.5-7135 MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows: EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable Loss (dB)
	4. The worse case was relating to the conducted output power.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data (worst case)





LTE band 2 part

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result			
		1.	4MHz(RB s	ize 1 & RB	offset 0)						
1850.70	18607	QPSK	1.4	Н	V	23.24					
1650.70	10007	QFSK	1.4	П	Н	17.98	30.00	Pass			
1850.70	18607	16QAM	1.4	Н	V	23.54	30.00	Pass			
1650.70	10007	IOQAW	1.4	П	Н	17.83					
	1.4MHz(RB size 3 & RB offset 0)										
1050.70	10607	ODSK	1.4	Н	V	22.95					
1850.70	18607	QPSK	1.4		Н	17.91	30.00	Pass			
1050.70	10607	16QAM	1.4	Н	V	22.85	30.00	Fa55			
1850.70	18607	TOQAM	1.4		Н	18.14					
		1.	4MHz(RB s	ize 6 & RB	offset 0)						
1050.70	10007	ODSK	1.4	Н	V	22.48					
1850.70	18607	QPSK	1.4	"	Н	17.26	20.00	Doos			
1950.70	10607	160 AM	1.4	Ц	V	22.51	30.00	Pass			
1850.70	18607	16QAM	1.4	Н	Н	17.01					

Middle channel												
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result				
		1.4	4MHz(RB	size 1 & RE	3 offset 0)							
1880.00	18900	QPSK	1.4	Н	V	22.46						
1000.00	10900	Qr 5K	1.4	!!	Н	17.53	30.00	Pass				
1880.00	18900	16QAM	1.4	Н	V	22.52	30.00	F a55				
1000.00	10900	IOQAIVI	1.4	!!	Н	17.33						
	1.4MHz(RB size 3 & RB offset 0)											
1880.00	18900	QPSK	1.4	Н	V	22.25						
1000.00	10300	QI OIL	1.4	11	Н	16.95	30.00	Pass				
1880.00	18900	16QAM	1.4	Н	V	22.41	30.00	1 433				
1000.00	10300	TOQAWI	1.7		Н	17.07						
		1.4	4MHz(RB	size 6 & RE	3 offset 0)							
1880.00	18900	QPSK	1.40	Н	V	21.20						
1000.00	10900	QFOR	1.40	11	Н	15.99	30.00	Pass				
1880.00	18900	16QAM	1.40	Н	V	21.56	30.00	rass				
1000.00	10900	IOQAM	1.40	11	Η	16.49						





Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result			
1.4MHz(RB size 1 & RB offset 0)											
1000 20	10102	QPSK	1.1	Н	V	22.28					
1909.30	19193	QPSK	1.4	П	Н	16.46	20.00	Door			
1000 20	10102	16QAM	1 4 H V 22.31	30.00	Pass						
1909.30	19193	IOQAW	1.4 H H 16.55		16.55						
1.4MHz(RB size 3 & RB offset 0)											
1000 20	10102	ODSK	1.4 H	ш	V	22.38					
1909.30	19193	QPSK		П	Н	16.11	20.00	Door			
1909.30	19193	16QAM	1.4	Н	V	22.55	30.00	Pass			
1909.30	19193	IOQAW	1.4	П	Н	16.25					
			1.4MHz(RE	3 size 6 & F	RB offset 0)						
1000 20	10102	ODSK	1.1	Н	V	21.72					
1909.30	19193	QPSK	1.4	П	Н	15.76	20.00	Door			
1909.30	19193	16QAM	4.4	Н	V	21.78	30.00	Pass			
1909.30	כפופו	IOQAW	1.4	П	Н	15.88					

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
(/		2	20MHz(RB s	ize 1 & RE	3 offset 0)		(- /			
1960.00	10700	ODSK	20	Н	V	23.29				
1860.00	18700	QPSK	20	п	Н	18.70	20.00	Door		
1860.00	18700	16QAM	20	Н	V	23.44	30.00	Pass		
1000.00	16700	TOQAM	20	П	Н	17.68				
	20MHz(RB size 50 & RB offset 0)									
1860.00	18700	QPSK	20	Н	V	22.91				
1000.00	16700	QPSK	20	Г	Н	17.81	30.00	Pass		
1860.00	18700	16QAM	20	Н	V	23.14	30.00	F 455		
1000.00	10700	TOQAIVI	20	11	Η	17.68				
		20MHz(RB size 100	& RB offs	et 0)					
1860.00	18700	QPSK	20	Н	V	21.73				
1000.00	10700	QF SIX	20	11	Н	16.93	30.00	Pass		
1860.00	60.00 18700 16QAM	20	Н	V	22.24	30.00	Pass			
1000.00	10700	IOQAW	20	11	Н	17.17				





Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result				
	20MHz(RB size 1 & RB offset 0)											
1880.00	18900	QPSK	20	Н	V	24.39						
1000.00	10900	QF3K	20	П	Н	19.11	30.00	Pass				
1880.00	18900	16QAM	20	Н	V	24.59	30.00	F a 5 5				
1880.00	10900	TOQAW	20	11	Н	18.87						
	20MHz(RB size 50 & RB offset 0)											
1880.00	18900	QPSK	20	Н	V	23.28						
1000.00	10900	QF3K	20	П	Н	18.21	30.00	Pass				
1880.00	18900	16QAM	20	Н	V	23.66	30.00	F a 5 5				
1000.00	10900	IOQAW	20	П	Н	18.16						
		20	MHz(RB siz	e 100 & R	B offset 0)							
1990.00	19000	OBSK	20	Н	V	21.52						
1880.00	18900	QPSK	20	<u>п</u>	Н	16.55	30.00	Pass				
1880.00	0.00 18900 16QAM	20	Н	V	22.19	30.00	F a 5 5					
1000.00	10900	IOQAW	20	11	Н	16.67						

Highest channel

	rignest channel										
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result			
	20MHz(RB size 1 & RB offset 0)										
1900.00	19100	QPSK	20	Н	V	22.11					
1900.00	19100	QPSK	20	П	Н	15.94	30.00	Pass			
1900.00	19100	16QAM	20	Н	V	22.25	30.00	Fa55			
1900.00	19100	TOQAM	20	11	Н	15.62					
	20MHz(RB size 50 & RB offset 0)										
1900.00	19100	QPSK	20	Н	V	22.31	30.00				
1900.00	19100	QFSK	20		Н	15.87		Pass			
1900.00	19100	16QAM	20	Н	V	22.41	30.00	F 455			
1900.00	19100	TOQAM	20	11	Н	15.63					
		2	0MHz(RB s	ize 100 8	& RB offset (0)					
1900.00	19100	QPSK	20	Н	V	21.56					
1900.00	19100	QFSK	20	11	Н	15.27	30.00	Pass			
1900.00	1900.00 19100 16QAM	16QAM	20	Н	V	22.12	30.00	газэ			
1300.00	15100	IOQAW	20	- ' '	Н	15.48					





LTE band 4 part

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
		1	.4MHz(RE	3 size 1 &	RB offset 0)					
1710.70	19957	QPSK	1.4	Н	V	20.64				
1710.70	19937	QFSK	1.4	11	Н	14.42	30.00	Pass		
1710.70	19957	16QAM	1 /	.4 H V 21.24	30.00	F455				
1710.70	19937	IOQAW	1.4	П	Н	14.78				
	1.4MHz(RB size 3 & RB offset 0)									
1710.70	19957	QPSK	1.4	Н	V	19.75		Pass		
1710.70	19937	QFSK	1.4	П	Н	14.80	30.00			
1710.70	19957	16QAM	1.4	Н	V	20.04	30.00	F455		
1710.70	19957	IOQAW	1.4	П	Н	15.22				
		1	.4MHz(RE	3 size 6 &	RB offset 0)					
1710 70	10057	QPSK	1.1	Н	V	18.56				
1710.70	19957	QPSK	1.4	П	Н	14.08	30.00	Pass		
1710.70	19957	16QAM	1.4	Н	V	19.57				
1710.70	19907	IOQAW	1.4	П	Н	13.98				

Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result				
	1.4MHz(RB size 1 & RB offset 0)											
1732.50	10057	QPSK	1.4	Н	V	21.11						
1732.50	19957	QFSK	1.4	П	Н	15.09	30.00	Pass				
1732.50	19957	16QAM	1.4	Н	V	21.68	30.00	F 455				
1732.30	19957	TOQAW	1.4	11	Н	15.50						
	1.4MHz(RB size 3 & RB offset 0)											
1732.50	19957	QPSK	1.4	Н	V	20.49		Pass				
1732.50	19937	QFSK	1.4	1.4	Н	15.68	30.00					
1732.50	19957	16QAM	1.4	Н	V	21.36	30.00	rass				
1732.50	19937	TOQAM	1.4	- 11	Н	15.65						
		1	.4MHz(RE	3 size 6 &	RB offset 0)							
1722.50	10057	OBSK	1.4	Н	V	20.02						
1732.50	19957	QPSK	1.4	П	Н	14.71	20.00	Door				
1732.50	19957	16QAM	1.4	Н	V	20.81	30.00	Pass				
1732.50	19901	TOQAM	1.4	11	Н	14.68						



CCIS

Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result				
	1.4MHz(RB size 1 & RB offset 0)											
1754 20	10057	QPSK	1.1	Н	V	21.10						
1754.30	19957	QPSK	1.4	П	Н	15.33	30.00	Pass				
1754.30	19957	16QAM	1 1	ы	V	21.62	30.00	F 455				
1754.30	19957	IOQAW	1.4 H H 15.93									
	1.4MHz(RB size 3 & RB offset 0)											
1754.30	10057	QPSK	1.4	Н	V	21.05						
1754.30	19957	QPSK	1.4	11	Н	15.46	30.00	Pass				
1754.30	19957	16QAM	1.4	Н	V	21.88	30.00	Fd55				
1754.50	19937	IOQAW	1.4	П	Н	15.83						
		•	1.4MHz(RE	3 size 6 & F	RB offset 0)							
1751 20	10057	ODSK	1.4	Н	V	21.23						
1754.30	19957	QPSK	1.4	П	Н	15.28	20.00	Door				
1754 20	10057	160 AM	1 1		V	21.93	30.00	Pass				
1754.30	19957	16QAM	1.4	Н	Н	15.39						

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result		
20MHz(RB size 1 & RB offset 0)										
1720.00	20050	ODSK	20	Н	V	20.27				
1720.00	20050	QPSK	20	П	Н	14.88	20.00	Door		
1720.00	20050	16QAM	20	Н	V	20.78	30.00	Pass		
1720.00	20050	IOQAW	20	Г	Н	15.24				
	20MHz(RB size 50 & RB offset 0)									
1720.00	20050	ODCK	20	Н	V	20.56				
1720.00	20050	QPSK	20	П	Н	15.10	30.00	Pass		
1720.00	20050	16QAM	20	Н	V	21.51	30.00	Fa55		
1720.00	20050	TOQAW	20	11	Н	15.81				
		20MHz(RB size 100	& RB offs	et 0)					
1720.00	20050	ODCK	20	Н	V	18.38				
1720.00	20050	QPSK	20	Г	Н	12.83	20.00	Door		
1720.00	20050	16QAM	20	Н	V	19.64	30.00	Pass		
1720.00	20050	IOQAW	20	17	Н	14.00				





Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result	
		2	0MHz(RB si	ze 1 & RB	offset 0)				
1732.50	20175	QPSK	20	Н	V	20.34			
1732.50	20175	QFSK	20	П	Н	15.26	30.00	Pass	
1732.50	20175	16QAM	20	Н	V	21.05	30.00	F a 5 5	
1732.50	20175	IOQAW	20	11	Н	15.81			
	20MHz(RB size 50 & RB offset 0)								
1732.50	20175	QPSK	20	Н	V	20.95			
1732.50	20175	QFSK	20	11	Н	15.37	30.00	Pass	
1732.50	20175	16QAM	20	Н	V	21.88	30.00		
1732.30	20173	TOQAIVI	20	!!	Н	16.04			
		20	MHz(RB siz	e 100 & RI	B offset 0)				
1732.50	20175	QPSK	20	Н	V	18.85			
1732.50	20175	QF3N	20	17	Н	13.42	30.00	Pass	
1732.50	20175	16QAM	20	Н	V	20.17	30.00	газэ	
1732.30	20173	IOQAW	20	11	Н	14.22			

High channel

High channel									
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result	
20MHz(RB size 1 & RB offset 0)									
1745.00	20300	QPSK	20	Н	V	21.64			
1745.00	20300	QFSK	20	П	Н	15.53	30.00	Pass	
1745.00	20300	16QAM	20	Н	V	22.09	30.00	Pass	
1745.00	20300	IOQAW	20	11	Н	16.24			
	20MHz(RB size 50 & RB offset 0)								
1745.00	20300	QPSK	20	Н	V	21.34			
1745.00	20300	QFSK	20	11	Н	16.19	30.00	Pass	
1745.00	20300	16QAM	20	Н	V	22.37	30.00	Fass	
1745.00	20300	TOQAM	20	11	Н	16.69			
		2	20MHz(RB s	ize 100 8	RB offset (0)			
1745.00	20300	QPSK	20	Н	V	20.63			
1745.00	20300	QF3N	20	П	Н	13.73	30.00	Pass	
1745.00	20300	16QAM	20	Н	V	22.21	30.00	1 1 455	
1745.00	20300	TOQAM	20	11	Н	14.83			



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LTE band 17 part Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result		
	5MHz(RB size 1 & RB offset 0)									
706.50	23755	QPSK	5	Н	V	12.84				
706.50	23733	QFSK	5		Н	10.71	30.00	Pass		
706.50	23755	16QAM	5	I	V	12.80	30.00	Fa55		
706.50	23733	IOQAW	5		Н	11.01				
	5MHz(RB size 12 & RB offset 0)									
706.50	700 F0 227FF ODSV 5	5	Н	V	11.45					
700.50	23755	QPSK	5	П	Н	9.62	30.00	Pass		
706.50	23755	16QAM	5	Н	V	10.78	30.00	F 455		
700.50	23733	TOQAW	5	11	Н	10.30				
		!	5MHz(RB	size 25 8	RB offset 0)					
706.50	23755	QPSK	5	Н	V	11.31				
700.50	23733	QF3N	3	П	Н	9.13	30.00	Pass		
706.50	23755	16QAM	5	Н	V	11.73	30.00	F a55		
7 00.00	20700	IOQAW			Н	9.52				

Middle channel

Middle Channel									
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result	
5MHz(RB size 1 & RB offset 0)									
710.00	23790	QPSK	5	Н	V	12.35			
710.00	23790	QFSK	5	П	Н	10.09	30.00	Pass	
710.00	23790	16QAM	5	I	V	12.22	30.00	F a 5 5	
710.00	23790	TOQAM	5	- 11	Н	10.28			
	5MHz(RB size 12 & RB offset 0)								
710.00	22700	ODCK	QPSK 5	5 H	V	13.61			
710.00	23790	QPSK		J	3 11	Н	10.13	30.00	Pass
710.00	23790	16O A M	E	E	5 H	V	13.41	30.00	F a 5 5
710.00	23790	16QAM	5	11	Н	10.89			
			5MHz(RB	size 25 &	RB offset 0)				
710.00	22700	OBSK	5	Н	V	12.47			
710.00	23790	QPSK	ິວ	П	Н	10.06	30.00	Pass	
710.00	23790	16QAM	5	Н	V	12.78	30.00	rass	
7 10.00	23790	IOQAM	J		Н	10.11			





Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result		
5MHz(RB size 1 & RB offset 0)										
712.50	22025	ODSK	DOL 5 II V			14.37				
713.50	23825	QPSK	5	Н	Н	12.36	20.00	Door		
713.50	23825	16QAM	5	Н	V	14.46	30.00	Pass		
7 13.50	23023	IOQAW	5	П	Н	12.95	<u> </u>			
	5MHz(RB size 12 & RB offset 0)									
712.50	740.50 00005 00016	E	5 H	V	13.78	1				
713.50	23825	QPSK	5	J	5	П	Н	11.99	20.00	Door
713.50	23825	16QAM	5	- 11	V	13.69	30.00	Pass		
7 13.50	23023	TOQAW	5	Η	Н	12.33				
			5MHz(RB	size 25 &	RB offset 0)					
742.50	22025	ODCK	_	Н	V	11.34				
713.50	23825	QPSK	5	П	Н	10.09	20.00	Door		
712.50	22025	160AM	5 H	_	- 11	V	11.89	30.00	Pass	
713.50	23825	16QAM	5	П	Н	10.67				

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result	
			10MHz(R	B size 1 &	RB offset 0)				
709.00	23780	QPSK	10	Н	V	11.53			
709.00	23760	QFSK	10	- 1	Н	10.10	30.00	Pass	
709.00	23780	16QAM	10	Н	V	11.90	30.00	Fa55	
709.00	23700	IOQAW	10	П	Н	9.41			
	10MHz(RB size 25 & RB offset 0)								
700.00	22700	QPSK 10	10	H	V	13.19			
709.00	23780	QPSK	10 H	П	Н	11.12	20.00	Door	
709.00	23780	16QAM	10	Н	V	13.61	30.00	Pass	
709.00	23700	IOQAW	10	П	Н	12.76			
		1	0MHz(RE	3 size 50 8	RB offset 0)				
700.00	22700	OBSK	10	Н	V	11.85			
709.00	23780	QPSK	10	П	Н	12.01	30.00	Pass	
709.00	23780	16QAM	10 H	Н	V	12.00	30.00	Fa55	
709.00	23700	IOQAW	10	11	Н	12.96			





Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result				
	10MHz(RB size 1 & RB offset 0)											
710.00	23790	QPSK	10	Н	V	11.47						
7 10.00	23790	QFSK	10	П	Н	10.85	30.00	Pass				
710.00	23790	16QAM	10	Н	V	10.62	30.00	F488				
7 10.00	23790	TOQAM	10	11	Н	9.76	1					
	10MHz(RB size 25 & RB offset 0)											
710.00	740.00 00700 0000	10	Н	V	13.77							
7 10.00	23790	QPSK	10	10		Н	11.92	30.00	Pass			
710.00	22700	160014	10	10	10	10	10 H		V	14.04	30.00	F488
710.00	23790	16QAM		П	Н	13.03	<u> </u>					
		1	0MHz(RI	B size 50 &	RB offset 0)							
710.00	22700	QPSK	10	Н	V	11.98						
710.00	23790	QF3N	10	П	Н	13.25	20.00	Door				
710.00	23790	16QAM	10	Н	V	13.87	30.00	Pass				
7 10.00	23790	IOQAW	10	П	Н	12.78						

Highest channel

Hignest channel									
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result	
10MHz(RB size 1 & RB offset 0)									
711.00	23800	QPSK	10	Н	V	11.32			
711.00	23000	QPSK	10	П	Н	10.36	30.00	Door	
711.00	23800	16QAM	10 H	V	11.35	30.00	Pass		
711.00	23000	IOQAW	10	П	Н	9.72			
	10MHz(RB size 25 & RB offset 0)								
711.00	22000	ODSK 10	10	10 H	V	14.61			
711.00	23800	QPSK	10	10	11	Н	13.48	20.00	Door
711.00	22000	160AM	10	Н	V	14.84	30.00	Pass	
711.00	23800	16QAM	10	П	Н	13.74			
		1	0MHz(RE	3 size 50 8	RB offset 0)				
711.00	22000	ODCK	10	- 11	V	13.38			
711.00	23800	QPSK	10	Н	Н	12.07	20.00	Door	
711.00	23800	16QAM	10	Н	V	13.74	30.00	Pass	
711.00	23000	IOQAW	10	П	Н	12.56			



6.11 Field strength of spurious radiation measurement

The Field Strength of Spurious radiation measurement							
Test Requirement:	FCC Part 24.238 (a), part 27.53(g) and part 27.53(m)						
Test Method:	FCC part 2.1053						
Limit:	LTE Band 2, LTE Band 4: -13dBm LTE Band 17: -25dBm						
Test setup:	Below 1GHz Antenna Tower Search Antenna RF Test Receiver Ground Plane Above 1GHz						
	Antenna Horn Automa Spectrum Analyzer Turn O, Seet Im Table Amplifier						
	Substituted method: Antenna mast Ground plane d: distance in meters d:3 meter SPA Substituted Dipole or Horn Antenna Bi-Log Antenna or Horn Antenna						
Test Procedure:	 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. 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. 4. 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 5.8 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed

Measurement Data (worst case)

Below 1GHz:

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

Above 1GHz

For above 1 GHz, all test modes were performed, and just the worst case shown in the report.





LTE band 2 part:

		TE band 2 part:							
		e 1 & RB offset 0) for QPSK						
Frequency (MHz)	Spurious E		Limit (dBm)	Result					
1 requeries (ivii iz)	Polarization	Level (dBm)	Limit (dDin)	rtodan					
	T	Lowest		T					
3701.40	Vertical	-44.01							
5552.10	V	-23.51							
7402.00	V	-38.30	-13.00	Pass					
3701.40	Horizontal	-41.60	-13.00	1 433					
5552.10	Н	-20.31							
7402.00	Н	-38.35							
		Middle							
3760.00	Vertical	-39.94							
5640.00	V	-25.39							
7520.00	V	-41.15	10.00						
3760.00	Horizontal	-39.98	-13.00	Pass					
5640.00	Н	-23.88							
7520.00	Н	-38.13							
		Highest							
3816.60	Vertical	-41.09							
5724.90	V	-21.70							
7633.20	V	-38.55							
3816.60	Horizontal	-40.46	-13.00	Pass					
5724.90	Н	-26.27							
7633.20	Н	-37.20							
		e 1 & RB offset 0)	for QPSK						
	Spurious E								
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result					
		Lowest							
3703.00	Vertical	-42.23							
5554.50	V	-19.37							
7406.00	V	-37.13	40.00	Б.					
3703.00	Horizontal	-42.79	-13.00	Pass					
5554.50	Н	-18.92	1						
7406.00	Н	-38.75							
		Middle							
3760.00	Vertical	-41.01							
5640.00	V	-25.94	1						
7520.00	V	-39.43	1	_					
3760.00	Horizontal	-39.30	-13.00	Pass					
5640.00	Н	-24.23							
7520.00	Н	-39.45	1						
	1	1 23.10							





		Highest							
3817.00	Vertical	-34.06							
5725.50	V	-21.28							
7634.00	V	-37.77		_					
3817.00	Horizontal	-40.20	-13.00	Pass					
5725.50	Н	-23.32							
7634.00	Н	-36.92							
	5MHz(RB siz	e 1 & RB offset 0) f	for QPSK						
Frequency (MHz)	Spurious	Emission	Limit (dBm)	Result					
1 requericy (Wir 12)	Polarization	Level (dBm)	Lilliit (dbill)	Result					
Lowest									
3705.00	Vertical	-42.27							
5557.50	V	-23.77							
7410.00	V	-37.89	-13.00	Pass					
3705.00	Horizontal	-43.04		1 400					
5557.50	Н	-22.04							
7410.00	Н	-38.07							
Middle									
3760.00	Vertical	-38.53							
5640.00	V	-25.03							
7520.00	V	-39.58	-13.00	Pass					
3760.00	Horizontal	-38.93		1 833					
5640.00	Н	-24.24							
7520.00	Н	-39.62							
		Highest							
3815.00	Vertical	-36.88							
5722.50	V	-24.69							
7630.00	V	-39.46	-13.00	Pass					
3815.00	Horizontal	-39.05	-13.00	rass					
5722.50	H	-24.73							
7630.00	Η	-37.43							
	10MHz(RB siz	ze 1 & RB offset 0)	for QPSK						
	Spurious	Emission							
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result					
		Lowest							
3710.00	Vertical	-39.37							
5565.00	V	-21.21	-13.00						
7420.00	V	-38.02		Door					
3710.00	Horizontal	-41.84		Pass					
5565.00	Н	-24.99							
7420.00	Н	-38.19							





		Middle					
3760.00	Vertical	-39.17					
5640.00	V	-24.23					
7520.00	V	-38.74	40.00	Dana			
3760.00	Horizontal	-37.45	-13.00	Pass			
5640.00	Н	-22.33					
7520.00	Н	-37.89					
Highest							
3810.00	Vertical	-37.17					
5715.00	V	-26.28					
7620.00	V	-38.80	-13.00	Pass			
3810.00	Horizontal	-41.56	-13.00	Fass			
5715.00	5715.00 H -25.44						
7620.00	H -39.40						
15MHz(RB size 1 & RB offset 0) for QPSK							
Frequency (MHz)	Frequency (MHz) Spurious Emission		Limit (dBm)	Result			
Trequency (WH12)	Polarization Level (dBm)		Limit (dbin)	rtodat			
Lowest							
3715.00	Vertical	-42.59	_				
5572.50	V	-23.30					
7430.00	V	-38.40	-13.00	Pass			
3715.00	Horizontal	-42.62					
5572.50	Н	-19.69					
7430.00	Н	-38.23					
		Middle	1	1			
3760.00	Vertical	-36.67					
5640.00	V	-24.08					
7520.00	V	-38.79	-13.00	Pass			
3760.00	Horizontal	-37.53		. 400			
5640.00	Н	-24.55					
7520.00	Н	-39.52					
		Highest		1			
3805.00	Vertical	-39.35					
5707.50	V	-23.69					
7610.00	V	-39.20	-13.00	Pass			
3805.00	Horizontal	-38.08	15.00	1 033			
5707.50	Н	-25.18					
7610.00	Н	-38.06					





	20MHz(RB	size 1 & RB offset 0) for QPSK	
	Spurious	Emission		
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
3720.00	Vertical	-39.13		
5580.00	V	-20.60		
7440.00			12.00	Door
3720.00	Horizontal	-39.81	-13.00	Pass
5580.00	Н	-22.48		
7440.00	Н	-38.45		
		Middle		
3760.00	Vertical	-38.84		
5640.00	V	-22.09		
7520.00	V	-39.06	-13.00	Pass
3760.00	Horizontal	-37.72	-13.00	Fd55
5640.00	Н	-19.85		
7520.00	Н	-38.88		
		Highest		
3800.00	Vertical	-38.24		
5700.00	V	-26.85		
7600.00	V	-39.27	12.00	Door
3800.00	Horizontal	-41.79	-13.00	Pass
5700.00	Н	-24.15		
7600.00	Н	-37.72		





LTE Band 4 Part:

		TE Band 4 Part:	· • • • • • • • • • • • • • • • • • • •	
		e 1 & RB offset 0)	for QPSK	
Frequency (MHz)	Spurious		Limit (dBm)	Result
1 7 7	Polarization	Level (dBm)	, ,	
0.404.40		Lowest		1
3421.40	Vertical	-41.18		
5132.10	V	-35.75		
6842.80	V	-39.80	-13.00	Pass
3421.40	Horizontal	-39.27		
5132.10	Н	-29.03		
6842.80	Н	-38.92		
		Middle		
3465.00	Vertical	-42.85		
5197.50	V	-33.93		
6930.00	V	-36.88	-13.00	Pass
3465.00	Horizontal	-43.21	-13.00	Pass
5197.50	Н	-34.03		
6930.00	Н	-37.88		
		Highest	1	
3508.60	Vertical	-45.03		
5262.90	V	-33.15		
7017.20	V	-38.10	1	_
3508.60	Horizontal	-41.04	-13.00	Pass
5262.90	Н	-30.18		
7017.20	Н	-37.61		
	3MHz(RB size	e 1 & RB offset 0) fo	or QPSK	1
[Spurious			Danish
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
3423.00	Vertical	-41.93		
5134.50	V	-34.21		
6846.00	V	-38.84	12.00	Door
3423.00	Horizontal	-38.94	-13.00	Pass
5134.50	Н	-32.57		
6846.00	Н	-39.32		
		Middle		
3465.00	Vertical	-44.25		
5197.50	V	-33.52		
6930.00	V	-37.47	40.00	Desir
3465.00	Horizontal	-41.94	-13.00	Pass
5197.50	Н	-33.62		
6930.00	Н	-37.31		
	I.	1	1	I.





		Highest		
3507.00	Vertical	-42.97		
5260.50	V	-30.50		
7014.00	V	-37.01		
3507.00	Horizontal	-41.14	-13.00	Pass
5260.50	Н	-28.41		
7014.00	Н	-38.27		
		e 1 & RB offset 0) f	or QPSK	
Fragues av. (MILI=)	Spurious E			Daguilt
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
		Lowest		
3425.00	Vertical	-42.05		
5137.50	V	-32.38		
6850.00	V	-39.16	-13.00	Pass
3425.00	Horizontal	-47.40	-13.00	Fa55
5137.50	Н	-31.44		
6850.00	Н	-39.60		
<u>.</u>		Middle	<u> </u>	
3465.00	Vertical	-44.05		
5197.50	V	-31.37		
6930.00	V	-38.19	42.00	Door
3465.00	Horizontal	-41.88	-13.00	Pass
5197.50	Н	-30.45]	
6930.00	Н	-38.44]	
<u>.</u>		Highest	<u> </u>	
3505.00	Vertical	-44.25		
5257.50	V	-28.06]	
7010.00	V	-38.33	40.00	D
3505.00	Horizontal	-41.35	-13.00	Pass
5257.50	Н	-27.91		
7010.00	Н	-39.26		
	10MHz(RB siz	e 1 & RB offset 0)	for QPSK	
Frequency (MHz)	Spurious E		Limit (dBm)	Result
1 roquonoy (Wil 12)	Polarization	Level (dBm)	Limit (dBiri)	rtoount
		Lowest	T	T
3430.00	Vertical	-41.90	_	
5145.00	V	-31.29	_	
6860.00	V	-39.64	-13.00	Pass
3430.00	Horizontal	-40.14	_	
5145.00	Н	-28.23	_	
6860.00	Н	-36.68		<u> </u>





Middle						
3465.00	Vertical	-43.86				
5197.50	V	-32.49				
6930.00	V	-37.53	12.00	Door		
3465.00	Horizontal	-42.27	-13.00	Pass		
5197.50	Н	-32.24				
6930.00	H -37.14					
		Highest				
3500.00	Vertical	-41.50				
5250.00	V	-24.48				
7000.00	V	-37.43	-13.00	Pass		
3500.00	Horizontal	-40.17	-13.00	Fass		
5250.00	5250.00 H -27.42					
7000.00	Н					
		size 1 & RB offset 0) for QPSK			
Frequency (MHz)	Frequency (MHz) Spurious Emission			Result		
	Polarization Level (dBm)		Limit (dBm)	1.000		
2427.22		Lowest				
3435.00	Vertical	-43.37				
5152.50	V	-34.10				
6870.00	V	-38.09	-13.00	Pass		
3435.00	Horizontal	-38.20				
5152.50	H	-27.90				
6870.00	Н	-34.61				
		Middle				
3465.00	Vertical	-43.59				
5197.50	V	-33.46				
6930.00	V	-38.96	-13.00	Pass		
3465.00	Horizontal	-42.31				
5197.50	H	-30.50				
6930.00	Н	-38.92				
0.40=		Highest				
3495.00	Vertical	-41.08	4			
5242.50	V	-25.45	_			
6990.00	V	-37.53	-13.00	Pass		
3495.00	Horizontal	-39.60	_			
5242.50	Н	-23.69	_			
6990.00	Н	-35.69				





	20MHz(RB si	ize 1 & RB offset 0)	for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result			
Frequency (Miriz)	Polarization	Level (dBm)	Limit (ubm)	Result			
		Lowest					
3440.00	Vertical	-40.86					
5160.00	V	-28.01					
6880.00	V	-38.79	42.00	Door			
3440.00	Horizontal	-38.68	-13.00	Pass			
5160.00	Н	-30.18					
6880.00	Н	-37.51					
	Middle						
3465.00	Vertical	-45.39					
5197.50	V	-31.90					
6930.00	V	-38.35	42.00	Door			
3465.00	Horizontal	-42.60	-13.00	Pass			
5197.50	Н	-31.95					
6930.00	Н	-37.04					
		Highest					
3490.00	Vertical	-42.00					
5235.00	V	-29.04					
6980.00	V	-37.59	42.00	Dage			
3490.00	Horizontal	-40.26	-13.00	Pass			
5235.00	Н	-29.78					
6980.00	Н	-38.13					





LTE Band 17 Part:

	LIE Band 17 Part:						
5MHz(RB size 1 & RB offset 0) for QPSK							
Frequency (MHz)		Spurious Emission		Result			
1 requericy (Wir 12)	Polarization L		Limit (dBm)	Result			
Lowest							
1413.00	Vertical	-54.84					
2119.50	V	-53.99					
2826.00	V	-50.87	-13.00	Pass			
1413.00	Horizontal	-57.25	-13.00	Pass			
2119.50	Н	-58.63	-				
2826.00	Н	-53.38					
		Middle		·			
1420.00	Vertical	-49.69					
2130.00	V	-47.54					
2840.00	V	-48.26	-13.00	Pass			
1420.00	Horizontal	-51.39	-13.00	Pass			
2130.00	Н	-51.60					
2840.00	Н	-49.75					
		Highest		•			
1427.00	Vertical	-49.69					
2140.50	V	-48.84					
2854.00	V	-51.43	12.00	Door			
1427.00	Horizontal	-49.27	-13.00	Pass			
2140.50	Н	-55.42					
2854.00	Н	-51.02]				
2140.50 2854.00 1427.00 2140.50	V V Horizontal H	-49.69 -48.84 -51.43 -49.27 -55.42	-13.00	Pass			





	10MHz(RB siz	e 1 & RB offset 0) f	or QPSK				
Frequency (MHz)		Emission	Limit (dBm)	Result			
1 requerity (Wir 12)	Polarization	Level (dBm)	Limit (dDin)	Nesuit			
	Lowest						
1418.00	Vertical	-57.85					
2127.00	V	-56.09					
2836.00	V	-51.32	-13.00	Pass			
1418.00	Horizontal	-57.16	-13.00	Fa55			
2127.00	Н	-55.83					
2836.00	Н	-51.84					
		Middle					
1420.00	Vertical	-52.03		Pass			
2130.00	V	-52.75					
2840.00	V	-51.48	40.00				
1420.00	Horizontal	-56.51	-13.00				
2130.00	Н	-54.31					
2840.00	Н	-51.59					
		Highest					
1422.00	Vertical	-50.58					
2133.00	V	-51.82					
2844.00	V	-51.71	40.00	Dana			
1422.00	Horizontal	-54.06	-13.00	Pass			
2133.00	Н	-54.65					
2844.00	Н	-51.81					





6.12 Frequency stability V.S. Temperature measurement

Test Requirement:	FCC Part 2.1055(a)(1)(b)
Test Method:	FCC Part 2.1055(a)(1)(b)
Limit:	±2.5 ppm
Test setup:	Spectrum analyzer EUT Variable Power Supply Note: Measurement setup for testing on Antenna connector
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 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Remark:	All three channels of all modulations have been tested, but only the worst channel and the worst modulation show in this test item.

Measurement Data (the worst channel):





LTE Band 2(QPSK):

	,	LIE Dallu			
Reference Fr	requency: LTE Band	2(1.4MHz) N	Middle channel=18900	channel=1880.00	OMHz
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
(Vdc)	remperature (C)	Hz	ppm		
	-30	179	0.095213		
	-20	122	0.064894		
	-10	127	0.067553		
	0	150	0.079787		
3.70	10	87	0.046277	±2.5	Pass
0.70	20	122	0.064894		1 400
	30	128	0.068085		
	40	146	0.077660		
	50	83	0.044149		
Poforonco E			liddle channel=18900 c	hannal_1990 00	MU-
	requericy. LTL barro			Taririei = 1000.00	IVII IZ
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
(Vdc)	, ,	Hz	ppm	" ' '	
	-30	125	0.066489		
	-20	162	0.086170	±2.5	
	-10	145	0.077128		
	0	104	0.055319		
3.70	10	110	0.058511		Pass
	20	102	0.054255		
	30	135	0.071809		
	40	124	0.065957		
	50	156	0.082979		
Reference F	requency: LTE Band	2(5MHz) M	liddle channel=18900 c	hannel=1880.00	MHz
Power supplied (Vdc)	Temperature (°C)	Fr	equency error	Limit (ppm)	Result
Power supplied (vac)	remperature (C)	Hz	ppm	Limit (ppm)	Result
	-30	118	0.062766		
	-20	105	0.055851		
	-10	71	0.037766	_	
	0	52	0.027660	.0.5	Desir
3.70	10	67	0.035638	±2.5	Pass
	20	73 55	0.038830	_	
	30 40	55 96	0.029255 0.051064	+	
	50	102	0.051064		
	JU	102	0.004200		





Reference Fr	requency: LIE Band		fiddle channel=18900	channel=1880.00	MHz ————
Power supplied (Vdc)	Temperature (°C)		Frequency error		Result
Tower supplied (Vdo)	, , ,	Hz	ppm	Limit (ppm)	rtosait
	-30	83	0.044149		
	-20	109	0.057979	_	
	-10	62	0.032979		
-	0	98	0.052128		5
3.70	10	127	0.067553	±2.5	Pass
-	20	101	0.053723	_	
-	30 40	88 132	0.046809 0.070213	_	
-	50	86	0.070213	_	
Reference F			Middle channel=18900) channel=1880.00)MHz
			equency error		
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	98	0.052128		
	-20	81	0.043085		Pass
	-10	77	0.040957		
	0	106	0.056383		
3.70	10	52	0.027660	±2.5	
	20	128	0.068085		
	30	99	0.052660		
	40	101	0.053723		
	50	93	0.049468		
Reference F	requency: LTE Band	l 2(20MHz) l	Middle channel=18900	channel=1880.00)MHz
Power supplied (Vdc)	Temperature (°C)	Fre	equency error	Limit (ppm)	
rower supplied (vdc)	remperature (C)	Hz	ppm	Еппі (рріп)	Result
	-30	138	0.073404	_	
	-20	142	0.075532		
	-10	116	0.061702		
	0	95	0.050532]	
3.70	10	49	0.026064	±2.5	Pass
	20	91	0.048404		1 400
	30	73	0.038830	7	
	40	105	0.055851		
	50	108	0.057447		





LTE Band 2(16QAM):

			Z(TOWAIVI).		
Reference F	requency: LTE Band	2(1.4MHz)	Middle channel=18900	channel=1880.0	0MHz
B P 10(1)	Temperature (°C)		requency error	Limit (ppm)	D 1
Power supplied (Vdc)	Tomperature (C)	Hz	ppm	сини (ррии)	Result
	-30	117	0.062234		
	-20	102	0.054255		
	-10	124	0.065957		
	0	147	0.078191		
3.70	10	90	0.047872	±2.5	Pass
0.70	20	134	0.071277		1 400
	30	127	0.067553		
	40	122	0.064894		
	50	105	0.055851		
Poforonco I	Frequency: LTE Band		/liddle channel=18900	channel_1880_00	MU-
Neielelice I	requericy. LTL bank	1 2(31VII 12) IV	mudie charmei 10900 (//VII 12
Power supplied (Vdc)	Temperature (℃)	F	requency error Limit (ppm)		Result
Power supplied (vac)	romporataro (e)	Hz	ppm	(- /	Result
	-30	116	0.061702		
	-20	133	0.070745		
	-10	122	0.064894		
	0	97	0.051596		
3.70	10	108	0.057447	±2.5	Pass
0.7 0	20	121	0.064362		. 400
	30	149	0.079255		
	40	105	0.055851		
	50	121	0.064362		
Reference F	requency: LTE Band	2(5MHz) M	liddle channel=18900 c	hannel=1880.00	MHz
Power supplied (Vdc)	Temperature (°C)		equency error	Limit (ppm)	Result
Power supplied (vac)	` ′	Hz	ppm	Limit (ppm)	Result
	-30	134	0.071277		
	-20	87	0.046277		
	-10	92	0.048936		
	0	106	0.056383		
3.70	10	118	0.062766	±2.5	Pass
	20	111	0.059043	_	
	30 40	122	0.064894	_	
	50	133 118	0.070745	+	
	50	110	0.062766		





Dower ounglied (\/-la)	Tomporeture (°C)	Fre	equency error	Lippit (nnn)	Daguit
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	92	0.048936		
	-20	128	0.068085		
	-10	77	0.040957		
	0	91	0.048404		
3.70	10	115	0.061170	±2.5	Pass
	20	106	0.056383	_	
	30	98	0.052128		
	40	122	0.064894		
	50	97	0.051596		
	requency: LTE Band	, ,	liddle channel=18900) channel=1880.00	MHz
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
(Vdc)	. , ,	Hz	ppm	=····· (PP····)	
	-30	101	0.053723		
	-20	98	0.052128		
	-10	87	0.046277		
	0	123	0.065426		Pass
3.70	10	132	0.070213	±2.5	
	20	105	0.055851		
	30	81	0.043085		
	40	128	0.068085		
	50	81	0.043085		
Reference F	requency: LTE Band	2(20MHz) M	liddle channel=18900) channel=1880.00	MHz
Power supplied	Tamaranatuma (%C)	Fre	equency error		
(Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	122	0.064894		
	-20	158	0.084043		
	-10	127	0.067553		
3.70	0	104	0.055319	╡	
	10	72	0.038298	±2.5	Pass
	20	88	0.036298		. 400
	20	+			
	30	99	0.052660		
	30 40	99 115	0.052660 0.061170	_	





LTE Band 4(QPSK):

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 channel=1732.50MHz								
	requency: LIE Band			cnannei=1732.50	JIVIHZ			
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result			
(Vdc)	` ` `	Hz	ppm	(FF)				
	-30	171	0.098701					
	-20	128	0.073882					
	-10	123	0.070996					
	0	152	0.087734					
3.70	10	87	0.050216	±2.5	Pass			
5 5	20	125	0.072150]	. 0.00			
	30	121	0.069841					
	40	145	0.083694	1				
	50	84	0.048485					
Reference F	requency: LTF Band	4(3MHz) M	liddle channel=20175 c	hannel-1732 50	MHz			
	Toquelloy. LTL Dallo			17 02.00	IVII 12			
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result			
(Vdc)		Hz	ppm					
	-30	128	0.073882					
	-20	163	0.094084					
	-10	142	0.081962					
	0	108	0.062338	±2.5				
3.70	10	111	0.064069		Pass			
	20	107	0.061760					
	30	139	0.080231					
	40	128	0.073882					
	50	152	0.087734					
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 channel=1732.50MHz								
Power supplied (Vdc)	Temperature (°C)	Fr	equency error	Lineit (mm.)	Result			
rower supplied (vac)	remperature (C)	Hz	ppm	Limit (ppm)	Resuit			
	-30	111	0.064069					
	-20	107	0.061760					
	-10	75	0.043290	_				
	0	53	0.030592	0.5	Dana			
3.70	10	65	0.037518	±2.5	Pass			
	20	79 55	0.045599	_				
	30 40	55 94	0.031746 0.054257	+				
	50	108	0.062338	-				
	JU	100	0.002330					





Reference Fr	equency: LTE Band	4(10MHz) M	/liddle channel=20175	channel=1732.50	MHz
Dawar auguliad (\/da)	Temperature (°C)	Frequency error		Limit (mmm)	Decult
Power supplied (Vdc)	remperature (C)	Hz	ppm	Limit (ppm)	Result
	-30	88	0.050794		
	-20	103	0.059452		
	-10	67	0.038672		
	0	91	0.052525		
3.70	10	128	0.073882	±2.5	Pass
•	20	105	0.060606	_	
	30	82	0.047330	_	
	40 50	139 87	0.080231 0.050216	_	
D (=				- 4700 54	O.B. 41. 1
Reference F	requency: LTE Band	, ,	Middle channel=2017	channel=1/32.50	JMHZ
Power supplied (Vdc)	Temperature (°C)	Hz	requency error	Limit (ppm)	Result
	20		ppm	,	reodit
	-30	92	0.053102	_	
•	-20	83	0.047908	_	
	-10	77	0.044444		Pass
	0	101	0.058297		
3.70	10	59	0.034055	±2.5	
	20	125	0.072150		
	30	98	0.056566		
	40	103	0.059452		
	50	98	0.056566		
Reference F	requency: LTE Band	4(20MHz) I	Middle channel=2017	5 channel=1732.50	OMHz
Dower ounglied (\/-l-\)	Tomporeture (°C)	Fı	requency error	Limit (nnn)	
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result
	-30	131	0.075613		
	-20	148	0.085426		
	-10	112	0.064646		
	0	96	0.055411		
3.70	10	48	0.027706	±2.5	Pass
2	20	91	0.052525		rass
	30	79	0.045599	\dashv	
	40	102	0.058874	-	
	40	102	0.030074	-	





LTE Band 4(16QAM):

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 channel=1732.50MHz								
			requency error					
Power supplied (Vdc)	Temperature (°C)	Hz	ppm	Limit (ppm)	Result			
	-30	143	0.082540					
	-20	107	0.061760					
	-10	125	0.072150					
	0	149	0.086003					
3.70	10	92	0.053102	±2.5	Pass			
	20	137	0.079076	1				
	30	121	0.069841					
	40	128	0.073882					
	50	102	0.058874	1				
Poforonco I			/liddle channel=20175	channel_1732 50	MHz			
iverence i	roquericy. LTL Danc			1732.30	IVII IZ			
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result			
	· • · · · · · · · · · · · · · · · · · ·	Hz	ppm	(- - - - - - - - - - - - -				
	-30	113	0.065224					
	-20	138	0.079654					
	-10	124	0.071573					
	0	97	0.055988	±2.5				
3.70	10	102	0.058874		Pass			
	20	126	0.072727					
	30	143	0.082540					
	40	101	0.058297					
	50	125	0.072150					
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 channel=1732.50MHz								
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result			
rower supplied (vac)	· , ,	Hz	ppm	сини (ррии)	Result			
3.70	-30	132	0.076190					
	-20	88	0.050794					
	-10	91	0.052525	-				
	0 10	103 118	0.059452	±2.5	Pass			
3.70	20	118	0.068110 0.064646	±∠.5	F855			
	30	124	0.071573	-				
	40	137	0.079076	1				
	50	116	0.066955	1				





I/GIGIGIICG I	requency: LIE Band	4(10MHz) N	1iddle channel=20175	channel=1732.50)MHz
Davier augustical (Vda)	Temperature (°C)	Fre	equency error	Limit (none)	Daguilt
Power supplied (Vdc)	remperature (C)	Hz	ppm	Limit (ppm)	Result
	-30	92	0.053102		
	-20	126	0.072727		
	-10	73	0.042136		
	0	97	0.055988		
3.70	10	115	0.066378	±2.5	Pass
	20	101	0.058297		
	30	98	0.056566		
	40	125	0.072150		
	50	93	0.053680		
	requency: LTE Band		1iddle channel=20175	channel=1732.50	MHz
Power supplied	Temperature (°C)		equency error	Limit (ppm)	Result
(Vdc)	. ,	Hz	ppm	Ziiiii (ppiii)	rtoodit
	-30	105	0.060606		
	-20	98	0.056566		
	-10	81	0.046753		
	0	127	0.073304		Pass
3.70	10	135	0.077922	±2.5	
	20	109	0.062915		
	30	82	0.047330		
	40	125	0.072150		
	50	81	0.046753		
Reference F	requency: LTE Band	4(20MHz) M	liddle channel=20175	channel=1732.50)MHz
Power supplied	Temperature (°C)	Fre	equency error		
(Vdc)	remperature (O)	Hz	ppm	Limit (ppm)	Result
3.70	-30	122	0.070418		
	-20	155	0.089466		
	-10	121	0.069841	7	
	0	108	0.062338		
	10	74	0.042713	±2.5	Pass
	20	88	0.050794		1 400
	30	97	0.055988	7	
	40	111	0.064069	7	
	50	96	0.055411		





LTE Band 17(QPSK):

Reference F	requency: LTE Band	17(5MHz) I	channel=710.00l	MHz	
Power supplied	Temperature (°C)	Fr	equency error		5 "
(Vdc)	remperature (C)	Hz	ppm	Limit (ppm)	Result
	-30	178	0.250704		
	-20	121	0.170423		
	-10	92	0.129577		
	0	78	0.109859		
3.70	10	93	0.130986	±2.5	Pass
	20	87	0.122535		
	30	62	0.087324		
	40	88	0.123944		l
	50	111	0.156338		
Reference F	requency: LTE Band	17(10MHz)	Middle channel=23790	channel=710.00	MHz
Power supplied	Temperature (°C)	Fr	equency error		5 "
(Vdc)	remperature (C)	Hz	ppm	Limit (ppm)	Result
	-30	99	0.139437		
	-20	156	0.219718		
	-10	127	0.178873		
	0	131	0.184507		
3.70	10	98	0.138028	±2.5	Pass
	20	85	0.119718		
	30	93	0.130986	1	
	40	102	0.143662		
	50	91	0.128169		

LTE Band 17(16QAM):

Reference Frequency: LTE Band 17(16QAM): Reference Frequency: LTE Band 17(5MHz) Middle channel=23790 channel=710.00MHz								
Power supplied	Temperature (°C)	Frequency error						
(Vdc)	remperature (C)	Hz	ppm	Limit (ppm)	Result			
	-30	149	0.209859					
	-20	91	0.128169					
	-10	87	0.122535					
	0	65	0.091549					
3.70	10	72	0.101408	±2.5	Pass			
	20	88	0.123944					
	30	103	0.145070					
	40	135	0.190141					
	50	84	0.118310					
Reference F	requency: LTE Band	17(10MHz)	Middle channel=23790	channel=710.00	MHz			
Power supplied	Temperature (°C)	Fr	equency error	Limit (nnm)	Dooult			
(Vdc)	Tomporataro (o)	Hz	ppm	Limit (ppm)	Result			
	-30	112	0.157746					
	-20	98	0.138028					
	-10	82	0.115493					
	0	73	0.102817					
3.70	10	157	0.221127	±2.5	Pass			
	20	104	0.146479					
	30	95	0.133803					
	40	136	0.191549					
	50	98	0.138028					





6.13 Frequency stability V.S. Voltage measurement

Test Requirement:	FCC Part 2.1055(d)(1)(2)
Test Method:	FCC Part 2.1055(d)(1)(2)
Limit:	2.5ppm
Test setup:	Spectrum analyzer EUT Variable Power Supply Note: Measurement setup for testing on Antenna connector
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 5.8 for details
Test mode:	Refer to section 5.3 for details, and all channels have been tested, only shows the worst channel data in this report.
Test results:	Passed

Measurement Data (the worst channel):





LTE Band 2(QPSK):

	LTE Band 2(Q	PSK):		
requency: LTE Band	2(1.4MHz) Middle	e channel=18900	channel=1880.00	MHz
Power supplied	Frequer	ncy error	Limit (none)	Doordt
(Vdc)	Hz	ppm	Limit (ppm)	Result
4.25	142	0.075532		
3.70	81	0.043085	±2.5	Pass
3.40	58	0.030851		
Frequency: LTE Band	d 2(3MHz) Middle	channel=18900 d	channel=1880.00 l	ИНz
Power supplied	Freque	ncy error	1: "()	D 1
(Vdc)	Hz	ppm	Limit (ppm)	Result
4.25	72	0.038298		
3.70	94	0.050000	±2.5	Pass
3.40	87	0.046277	7	
requency: LTE Band	d 2(5MHz) Middle	channel=18900 d	channel=1880.00ľ	ИНz
Power supplied	Frequer	ncy error		
	Hz		Limit (ppm)	Result
` ′	61			
			±2.5	Pass
requency: LTE Band	2(10MHz) Middle	channel=18900	channel=1880.00	MHz
Power supplied	Frequer	ncv error		
			Limit (ppm)	Result
4.25	95			
	89		±2.5	Pass
3.40	61	0.032447		
requency: LTE Band	2(15MHz) Middle	channel=18900	channel=1880.00	MHz
<u> </u>				
· ·	Hz		Limit (ppm)	Result
` ′	62			
3.70	77		±2.5	Pass
3.40	92	0.048936		
			channel=1880.00	MHz
Power supplied	,			
(Vdc)	Hz	ppm	Limit (ppm)	Result
4.25	66	0.035106		
3.70	85	0.045213	±2.5	Pass
3.40	71	0.037766]	
	Power supplied (Vdc) 4.25 3.70 3.40 Frequency: LTE Band (Vdc) 4.25 3.70 3.40 Frequency: LTE Band Power supplied (Vdc) 4.25 3.70 3.40 Frequency: LTE Band Power supplied (Vdc) 4.25 3.70 3.40 Frequency: LTE Band Power supplied (Vdc) 4.25 3.70 3.40 Frequency: LTE Band Power supplied (Vdc) 4.25 3.70 3.40 Frequency: LTE Band Power supplied (Vdc) 4.25 3.70 3.40 Frequency: LTE Band Power supplied (Vdc) 4.25 3.70 3.40 Frequency: LTE Band Power supplied (Vdc) 4.25 3.70 3.40 Frequency: LTE Band Power supplied (Vdc) 4.25 3.70 3.40	requency: LTE Band 2(1.4MHz) Middle Power supplied (Vdc)	Power supplied	Power supplied (Vdc)





LTE Band 2(16QAM):

LTE Band 2(16QAM):								
Reference Fr	equency: LTE Band	2(1.4MHz) Middle	e channel=18900	channel=1880.00	MHz			
Temperature (℃)	Power supplied	Freque	ncy error	Limit (nnm)	Dooult			
remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	106	0.056383	_				
25	3.70	72	0.038298	±2.5	Pass			
	3.40	98	0.052128					
Reference F	requency: LTE Band	d 2(3MHz) Middle	channel=18900 c	channel=1880.00N	ЛHz			
T(°C)	Power supplied	Frequei	ncy error		- ·			
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	81	0.043085					
25	3.70	107	0.056915	±2.5	Pass			
	3.40	73	0.038830					
Reference F	requency: LTE Band	2(5MHz) Middle	channel=18900 c	channel=1880.00N	ЛНz			
- (00)	Power supplied	Freque	ncy error					
Temperature (°C)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	82	0.043617					
25	3.70	74	0.039362	±2.5	Pass			
	3.40	88	0.046809	1				
Reference F	requency: LTE Band	2(10MHz) Middle	channel=18900	channel=1880.00l	MHz			
	Power supplied	Freque	ncy error					
Temperature (°C)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	95	0.050532					
25	3.70	92	0.048936	±2.5	Pass			
	3.40	88	0.046809	1				
Reference Fr	requency: LTE Band	2(15MHz) Middle	channel=18900	channel=1880.00	MHz			
- (00)	Power supplied	Freque	ncy error					
Temperature (°C)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	51	0.027128					
25	3.70	76	0.040426	±2.5	Pass			
	3.40	87	0.046277	1				
Reference Fr	requency: LTE Band			channel=1880.00	MHz			
	Power supplied	,	ncy error					
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	89	0.047340					
25	3.70	105	0.055851	±2.5	Pass			
20								





LTE Band 4(QPSK):

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 channel=1732.50MHz	LTE Band 4(QPSK):								
Temperature (C)	Reference F	requency: LTE Band	4(1.4MHz) Middle	e channel=20175	channel=1732.50	MHz			
	Tomporaturo (°C)	Power supplied	Freque	ncy error	Limit (nnm)	Decult			
25 3.70 87 0.050216 ±2.5 Pass	Temperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 channel=1732.50MHz Temperature (°C)		4.25	158	0.091198					
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 channel=1732.50MHz Temperature (°C) Power supplied (Vdc) Hz ppm Limit (ppm) Result	25	3.70	87	0.050216	±2.5	Pass			
Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result 25 3.70 96 0.045599 ±2.5 Pass 3.40 81 0.046753 ±2.5 Pass Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result 4.25 62 0.035786 ±2.5 Pass 3.70 58 0.033478 ±2.5 Pass 3.40 101 0.058297 ±2.5 Pass Temperature (℃) Power supplied (Vdc) Frequency error Limit (ppm) Result 4.25 97 0.055988 ±2.5 Pass 25 3.70 86 0.049639 ±2.5 Pass 25 3.70 86 0.049639 ±2.5 Pass 25 3.70 86 0.049639 ±2.5 Pass 25 3.70 86 0.039250 ±2.5 Pass 3.40 68 0.039250		3.40	54	0.031169					
Temperature (°C)	Reference F	requency: LTE Band	d 4(3MHz) Middle	channel=20175 d	channel=1732.50	ИHz			
(Vdc)	T(°O)	Power supplied	Freque	ncy error					
3.70 96 0.055411 ±2.5 Pass	remperature (C)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 channel=1732.50MHz Temperature (°C)		4.25	79	0.045599					
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 channel=1732.50MHz Temperature (℃) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result 25 62 0.035786 20.035786 20.033478 ±2.5 Pass 3.40 101 0.058297 ±2.5 Pass Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz Frequency error (Vdc) Limit (ppm) Result 4.25 97 0.055988 ±2.5 Pass 3.40 86 0.049639 ±2.5 Pass 3.40 68 0.039250 Experimental properties (Vdc) Frequency error (Vdc) Limit (ppm) Result Temperature (℃) Power supplied (Vdc) Frequency error (Vdc) Limit (ppm) Result	25	3.70	96	0.055411	±2.5	Pass			
Temperature (°C) Power supplied (Vdc) Frequency error ppm Limit (ppm) Result 25 4.25 62 0.035786 2.5 Pass 3.40 101 0.058297 2.5 Pass Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz Temperature (°C) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result 25 3.70 86 0.049639 ±2.5 Pass 3.40 68 0.039250 +2.5 Pass Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz Temperature (°C) Power supplied (Vdc) Frequency error Limit (ppm) Limit (ppm) Result		3.40	81	0.046753					
Comperature (C)	Reference F	requency: LTE Band	d 4(5MHz) Middle	channel=20175 d	channel=1732.50	ИНz			
Comperature (C)	- (00)	Power supplied	Frequer	ncy error					
A.25 62 0.035786 2.5 Pass	Temperature (°C)	7 -			Limit (ppm)	Result			
3.40 101 0.058297		4.25	62						
Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz Temperature (°C) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result 4.25 97 0.055988 25 3.70 86 0.049639 ±2.5 Pass 3.40 68 0.039250 ±2.5 Pass Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz Temperature (°C) Power supplied (Vdc) Frequency error Limit (ppm) Result	25	3.70	58	0.033478	±2.5	Pass			
Temperature (℃) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result 25 3.70 86 0.049639 ±2.5 Pass 3.40 68 0.039250 ±2.5 Pass Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz Temperature (℃) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result		3.40	101	0.058297	1				
Temperature (℃) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result 25 3.70 86 0.049639 ±2.5 Pass 3.40 68 0.039250 ±2.5 Pass Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz Temperature (℃) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result	Reference F	requency: LTE Band	4(10MHz) Middle	channel=20175	channel=1732.50	MHz			
Column C	- (00)	Power supplied	Frequer	ncy error					
25 3.70 86 0.049639 ±2.5 Pass 3.40 68 0.039250 ±2.5 Pass Temperature (°C) Power supplied (Vdc) Frequency error (Vdc) Limit (ppm) Result	Temperature (°C)				Limit (ppm)	Result			
3.40 68 0.039250 Temperature (°C) Power supplied (Vdc) Frequency error Hz Limit (ppm) Result		4.25	97	• •					
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz Temperature (°C) Power supplied (Vdc) Frequency error Limit (ppm) Result	25	3.70	86	0.049639	±2.5	Pass			
Temperature (°C) Power supplied Frequency error (Vdc) Hz ppm Limit (ppm) Result		3.40	68	0.039250					
Temperature (C) (Vdc) Hz ppm Limit (ppm) Result	Reference F	requency: LTE Band	4(15MHz) Middle	channel=20175	channel=1732.50	MHz			
Temperature (C) (Vdc) Hz ppm Limit (ppm) Result	T (%C)	Power supplied	Freque	ncy error					
4.25 65 0.037518	Temperature (°C)	(Vdc)		-	Limit (ppm)	Result			
		4.25	65	0.037518					
25 3.70 74 0.042713 ±2.5 Pass	25	3.70	74	0.042713	±2.5	Pass			
3.40 97 0.055988		3.40	97	0.055988					
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 channel=1732.50MHz	Reference F	requency: LTE Band	4(20MHz) Middle	channel=20175	channel=1732.50	MHz			
Temporative (%) Power supplied Frequency error	Towns and the (°C)	Power supplied	Freque	ncy error	Lime it (co.)	D ''			
Temperature (°C) (Vdc) Hz ppm Limit (ppm) Result	Temperature (℃)				Limit (ppm)	Kesult			
4.25 68 0.039250		, ,	68						
25 3.70 86 0.049639 ±2.5 Pass	25	3.70	86	0.049639	±2.5	Pass			
3.40 71 0.040981		3.40	71]				





LTE Band 4(16QAM):

LTE Band 4(16QAM):								
Reference F	requency: LTE Band	4(1.4MHz) Middle	e channel=20175	channel=1732.50)MHz			
Tomporoture (°C)	Power supplied	Frequer	ncy error	l ::t ()	Doords			
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	101	0.058297					
25	3.70	75	0.043290	±2.5	Pass			
	3.40	97	0.055988					
Reference F	requency: LTE Band	d 4(3MHz) Middle	channel=20175 d	channel=1732.50l	ИНz			
- (00)	Power supplied	Frequer	ncy error					
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	87	0.050216					
25	3.70	106	0.061183	±2.5	Pass			
	3.40	71	0.040981	1				
Reference F	requency: LTE Band	d 4(5MHz) Middle	channel=20175 d	hannel=1732.50l	ИНz			
	Power supplied	,	ncy error					
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	88	0.050794					
25	3.70	71	0.040981	±2.5	Pass			
	3.40	86	0.049639		. 6.65			
Reference F	requency: LTE Band	4(10MHz) Middle		channel=1732.50	MHz			
	Power supplied		ncy error					
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	91	0.052525					
25	3.70	97	0.055988	±2.5	Pass			
_0	3.40	82	0.047330		. 5.55			
Reference F	requency: LTE Band			channel=1732 50	MHz			
110101011001	Power supplied	,	ncy error		2			
Temperature (°C)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	58	0.033478					
25	3.70	71	0.040981	±2.5	Pass			
	3.40	89	0.051371		1 400			
Reference F	requency: LTE Band			channel=1732 50	MHz			
	Power supplied Frequency error							
Temperature (℃)	(Vdc)	Hz	ppm	Limit (ppm)	Result			
	4.25	85	0.049062					
25	3.70	108	0.062338	±2.5	Pass			
20	3.40	111	0.064069		. 455			
	0.70	111	0.004000					





LTE Band 17(QPSK):

Reference Frequency: LTE Band 17(5MHz) Middle channel=23790 channel=710.00MHz									
Temperature (°C)	Power supplied	Frequency error		Limit (nnm)	Result				
	(Vdc)	Hz	ppm	Limit (ppm)	Result				
25	4.25	158	0.222535	±2.5	Pass				
	3.70	87	0.122535						
	3.40	44	0.061972						
Reference Frequency: LTE Band 17(10MHz) Middle channel=23790 channel=710.00MHz									
Temperature (°C)	Power supplied	Frequency error		Limit (nnm)	Result				
	(Vdc)	Hz	ppm	Limit (ppm)	Kesuit				
	4.25	65	0.091549						
25	3.70	89	0.125352	±2.5	Pass				
	3.40	86	0.121127						

LTE Band 17(16QAM):

LTE Band 17(16QAM):									
Reference Frequency: LTE Band 17(5MHz) Middle channel=23790 channel=710.00MHz									
Temperature (°C)	Power supplied	Frequency error		Limit (nnm)	Dogult				
	(Vdc)	Hz	ppm	Limit (ppm)	Result				
	4.25	91	0.128169						
25	3.70	87	0.122535	±2.5	Pass				
	3.40	55	0.077465						
Reference Frequency: LTE Band 17(10MHz) Middle channel=23790 channel=710.00MHz									
Temperature (°C)	Power supplied	Frequency error		Limit (nnm)	Dogult				
	(Vdc)	Hz	ppm	Limit (ppm)	Result				
	4.25	72	0.101408						
25	3.70	97	0.136620	±2.5	Pass				
	3.40	105	0.147887						