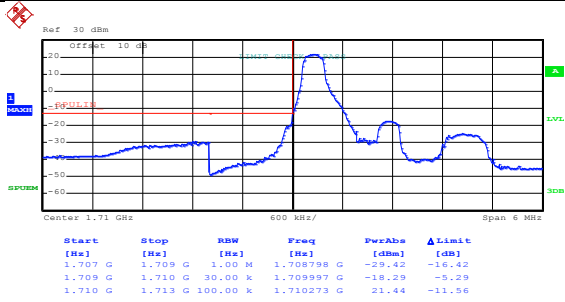


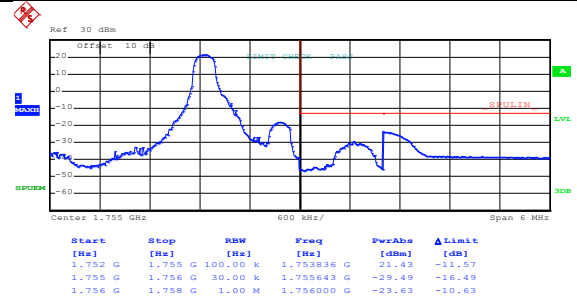
## LTE band 4 part:1.4MHz:

Test Mode: LTE band 4(QPSKRB Size 1 &RB Offset0)



Date: 20.JUN.2017 22:37:55

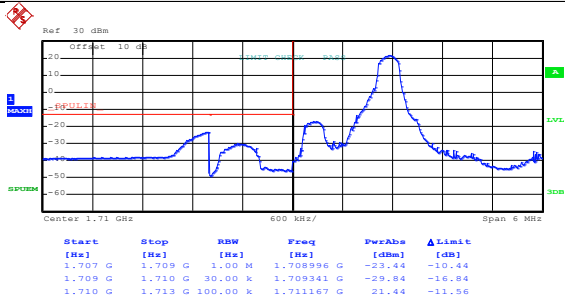
Lowest channel



Date: 20.JUN.2017 22:40:56

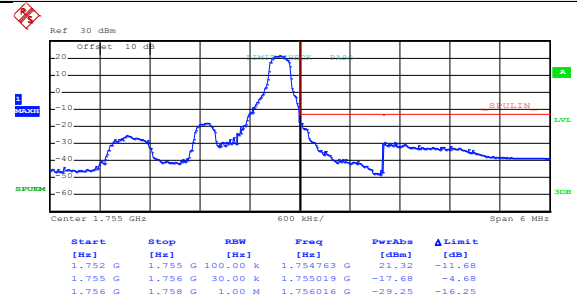
Highest channel

Test Mode: LTE band 4(QPSKRB Size 1 &RB Offset5)



Date: 20.JUN.2017 22:38:27

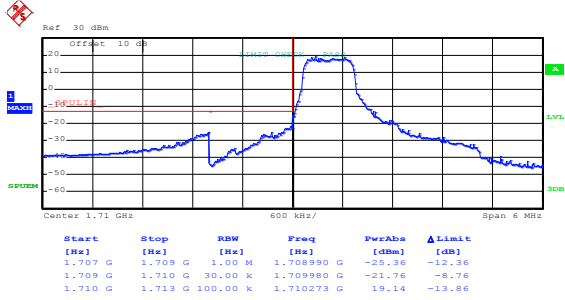
Lowest channel



Date: 20.JUN.2017 22:41:26

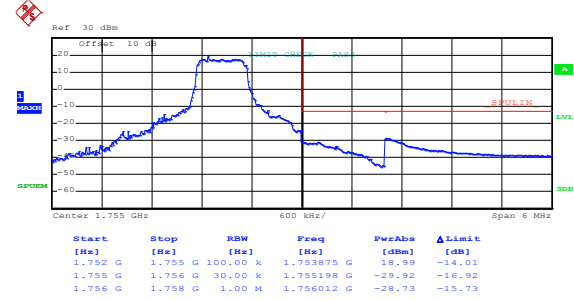
Highest channel

**Test Mode:** LTE band 4(QPSKRB Size 3 &RB Offset0)



Date: 20.JUN.2017 22:38:50

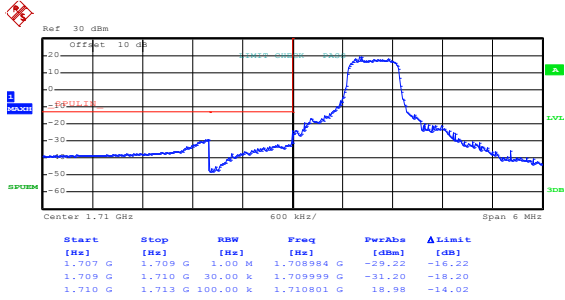
Lowest channel



Date: 20.JUN.2017 22:41:49

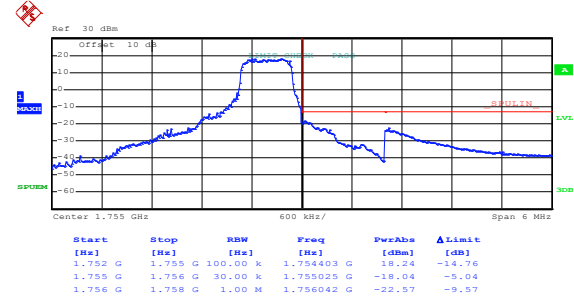
Highest channel

**Test Mode:** LTE band 4(QPSKRB Size 3 &RB Offset 2)



Date: 20.JUN.2017 22:39:18

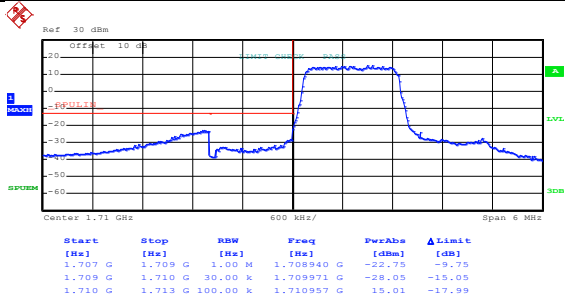
Lowest channel



Date: 20.JUN.2017 22:42:19

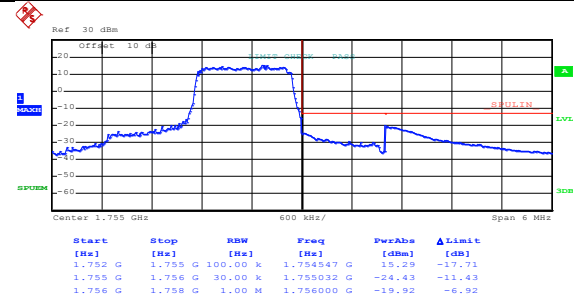
Highest channel

Test Mode: LTE band 4(QPSK RB Size 6 & RB Offset 0)



Date: 20.JUN.2017 22:39:43

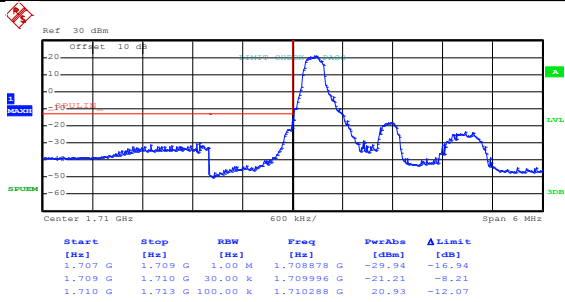
Lowest channel



Date: 20.JUN.2017 22:42:42

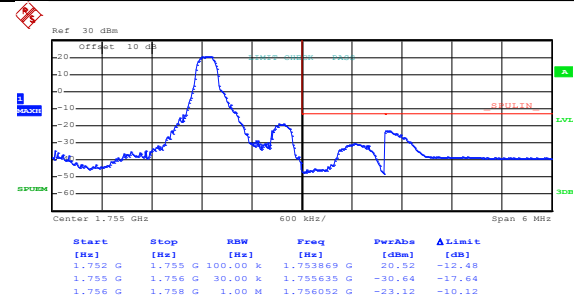
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1 &RB Offset0)



Date: 20.JUN.2017 22:38:12

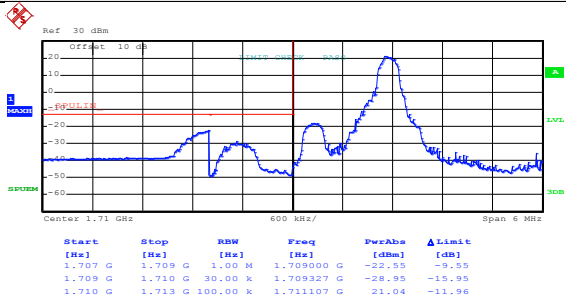
Lowest channel



Date: 20.JUN.2017 22:41:11

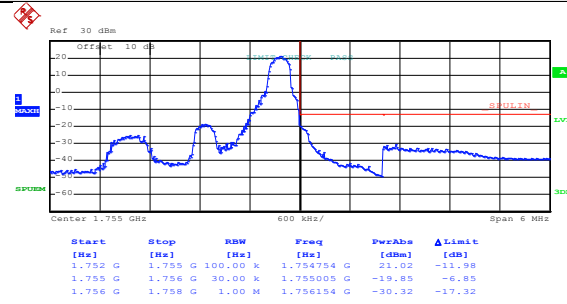
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1 &RB Offset5)



Date: 20.JUN.2017 22:38:36

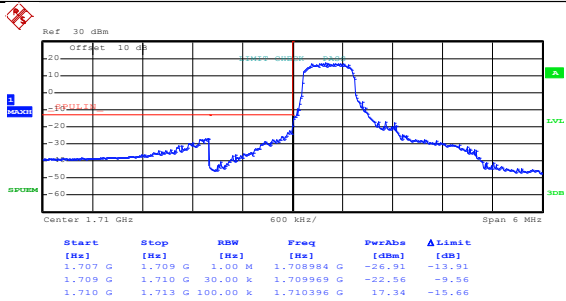
Lowest channel



Date: 20.JUN.2017 22:41:36

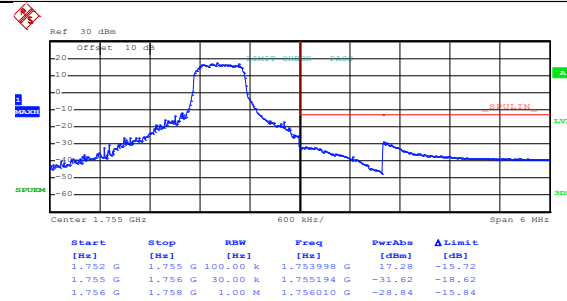
Highest channel

Test Mode: LTE band 4(16QAMRB Size 3 &RB Offset0)



Date: 20.JUN.2017 22:39:01

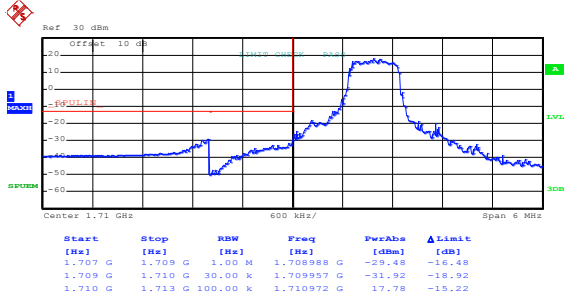
Lowest channel



Date: 20.JUN.2017 22:42:01

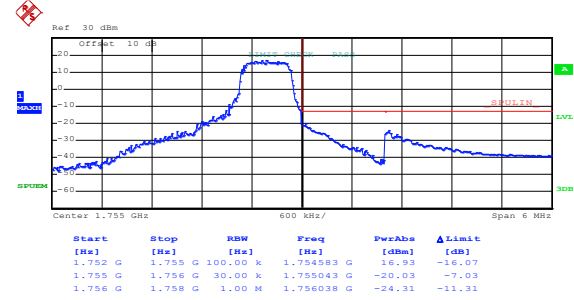
Highest channel

Test Mode: LTE band 4(16QAMRB Size 3 &RB Offset 2)



Date: 20.JUN.2017 22:39:27

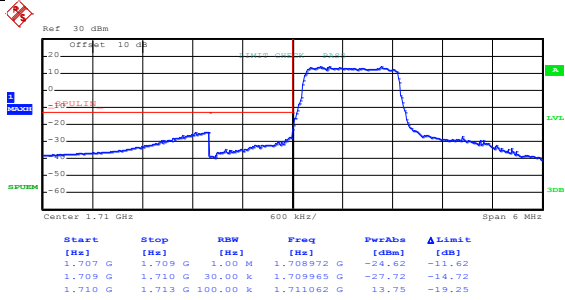
Lowest channel



Date: 20.JUN.2017 22:42:29

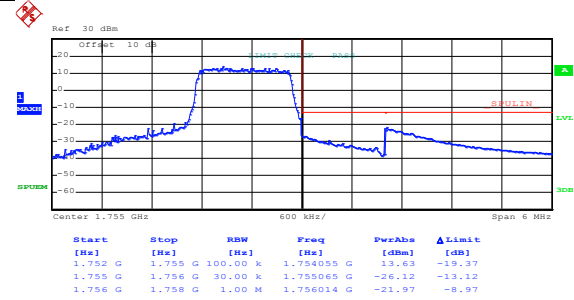
Highest channel

Test Mode: LTE band 4(16QAMRB Size 6 & RB Offset 0)



Date: 20.JUN.2017 22:40:07

Lowest channel

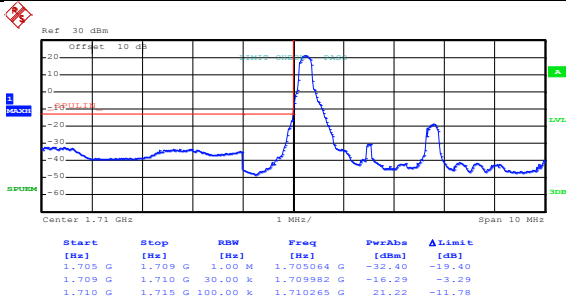


Date: 20.JUN.2017 22:42:50

Highest channel

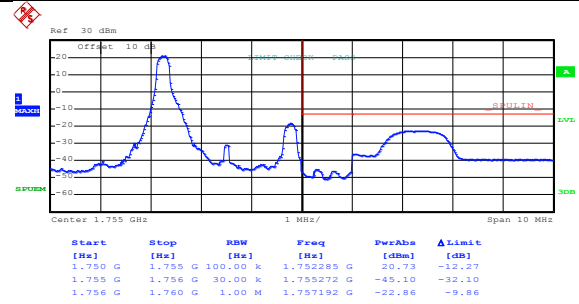
3MHz:

Test Mode: LTE band 4(QPSKRB Size 1 & RB Offset 0)



Date: 20.JUN.2017 22:44:34

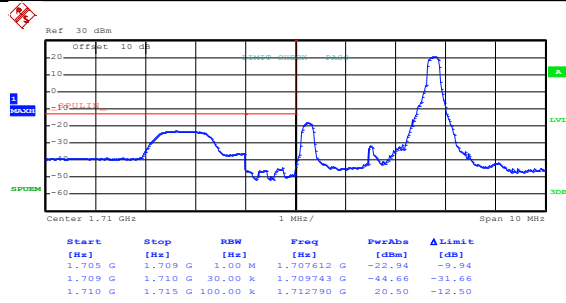
Lowest channel



Date: 20.JUN.2017 22:47:23

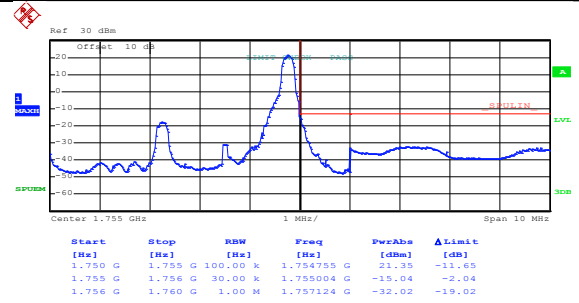
Highest channel

Test Mode: LTE band 4(QPSK RB Size 1 & RB Offset 14)



Date: 20.JUN.2017 22:45:09

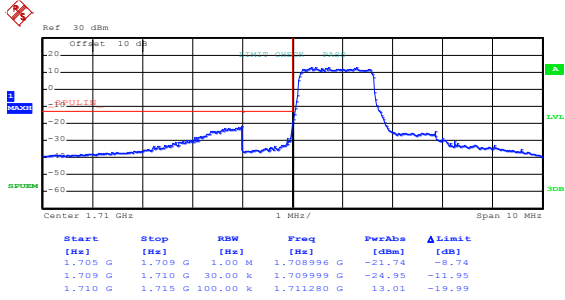
Lowest channel



Date: 20.JUN.2017 22:47:49

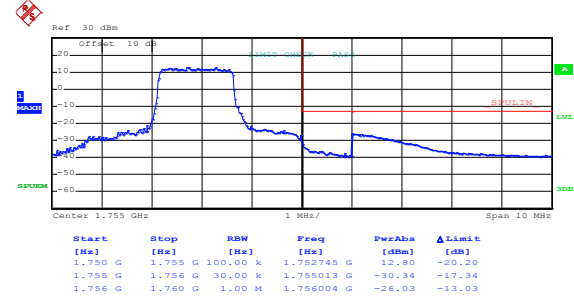
Highest channel

Test Mode: LTE band 4(QPSKRB Size 8& RB Offset 0)



Date: 20.JUN.2017 22:45:35

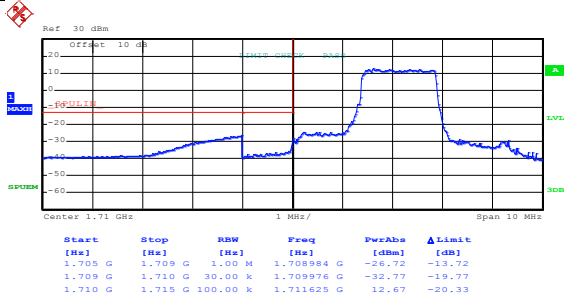
Lowest channel



Date: 20.JUN.2017 22:48:10

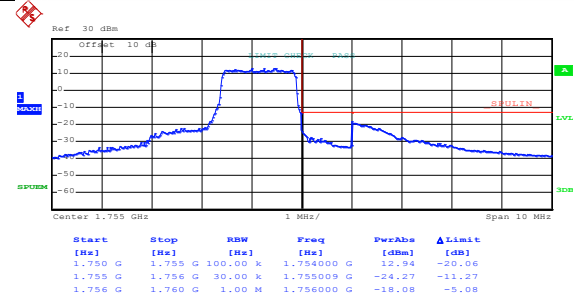
Highest channel

Test Mode: LTE band 4(QPSK RB Size 8& RB Offset 7)



Date: 20.JUN.2017 22:45:57

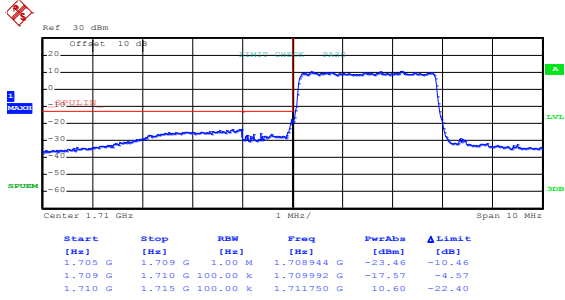
Lowest channel



Date: 20.JUN.2017 22:48:31

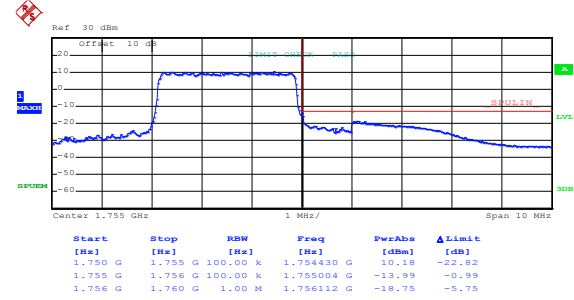
Highest channel

Test Mode: LTE band 4(QPSK RB Size 15& RB Offset 0)



Date: 20.JUN.2017 22:46:36

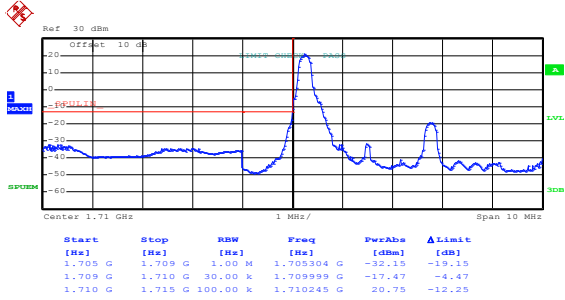
Lowest channel



Date: 20.JUN.2017 22:49:04

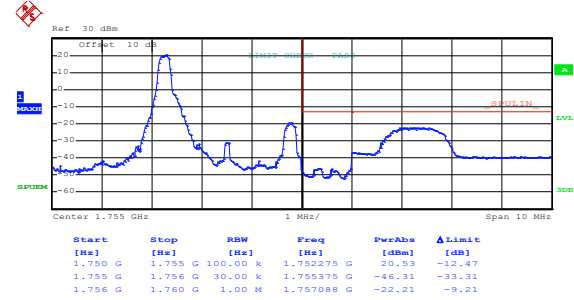
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1& RB Offset 0)



Date: 20.JUN.2017 22:44:54

Lowest channel

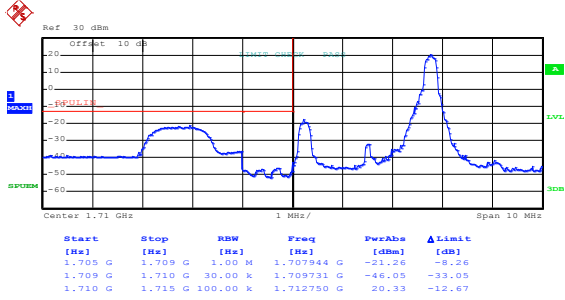


Date: 20.JUN.2017 22:47:32

Highest channel

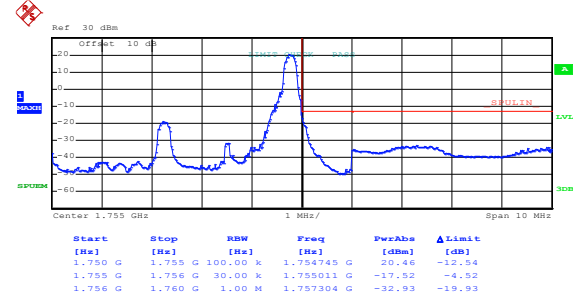


Test Mode: LTE band 4(16QAMRB Size 1 & RB Offset 14)



Date: 20.JUN.2017 22:45:19

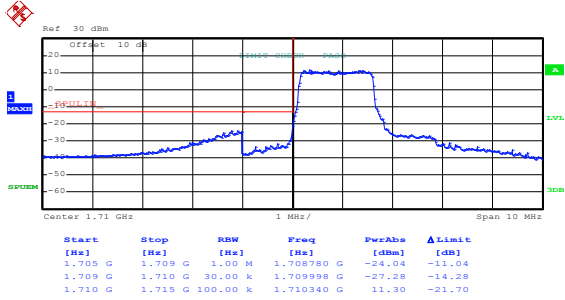
Lowest channel



Date: 20.JUN.2017 22:47:57

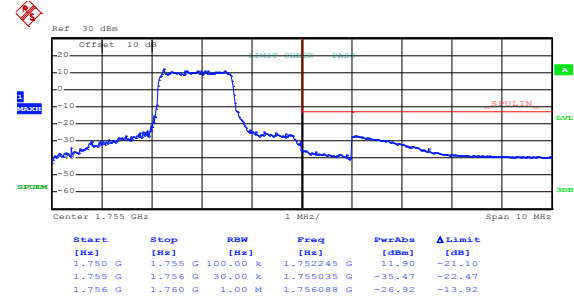
Highest channel

Test Mode: LTE band 4(16QAMRB Size 8& RB Offset 0)



Date: 20.JUN.2017 22:45:42

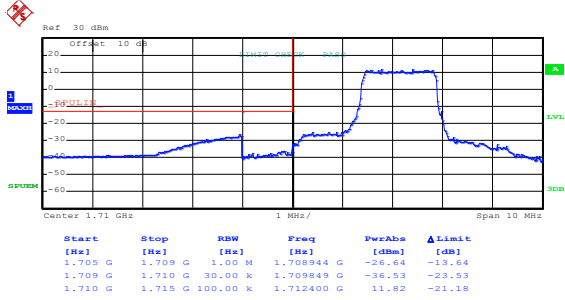
Lowest channel



Date: 20.JUN.2017 22:48:17

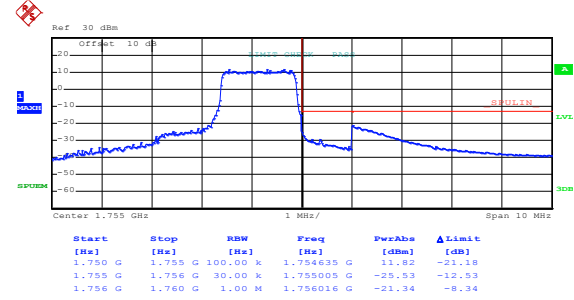
Highest channel

Test Mode: LTE band 4(16QAMRB Size 8& RB Offset 7)



Date: 20.JUN.2017 22:46:09

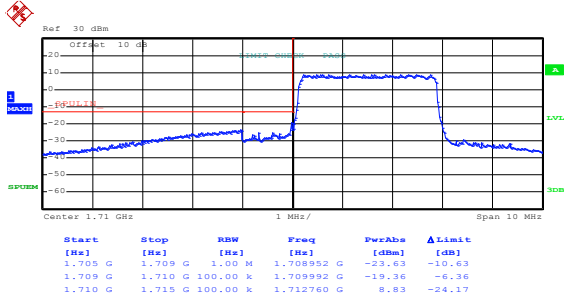
Lowest channel



Date: 20.JUN.2017 22:48:41

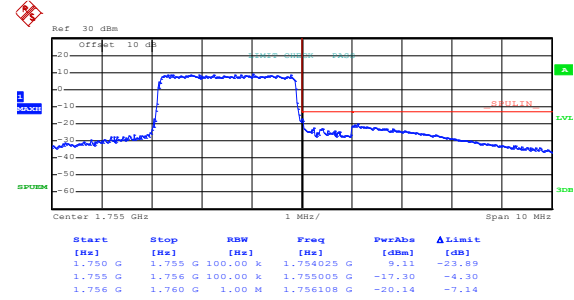
Highest channel

Test Mode: LTE band 4(16QAMRB Size 15& RB Offset 0)



Date: 20.JUN.2017 22:46:45

Lowest channel

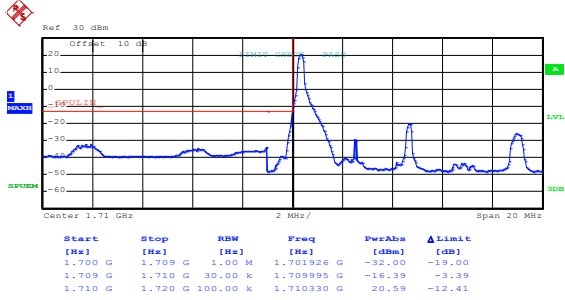


Date: 20.JUN.2017 22:49:11

Highest channel

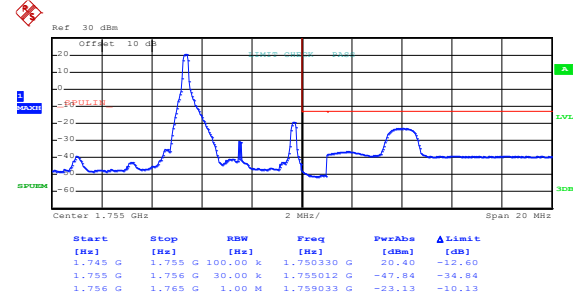
5MHz:

Test Mode: LTE band 4(QPSKRB Size 1& RB Offset 0)



Date: 20.JUN.2017 22:50:24

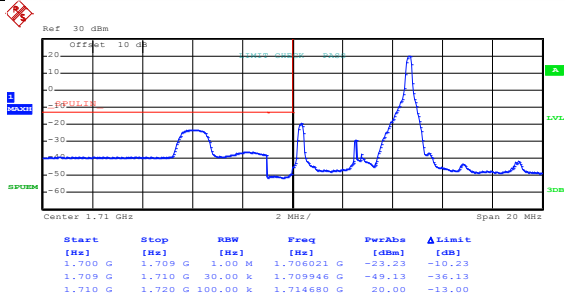
Lowest channel



Date: 20.JUN.2017 22:54:14

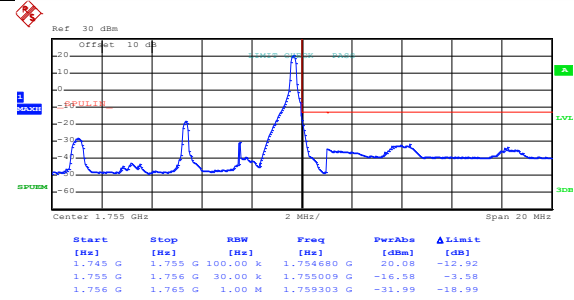
Highest channel

Test Mode: LTE band 4(QPSKRB Size 1& RB Offset 24)



Date: 20.JUN.2017 22:50:48

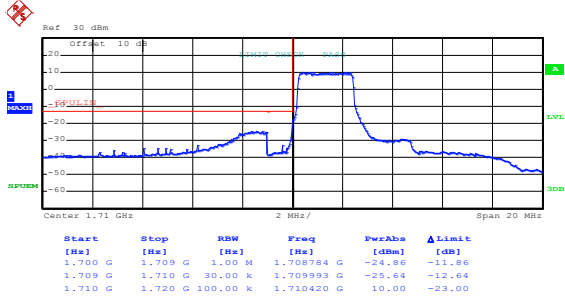
Lowest channel



Date: 20.JUN.2017 22:54:34

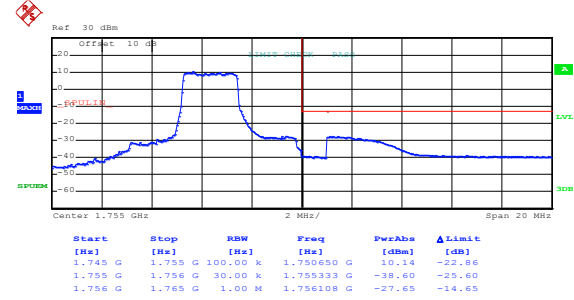
Highest channel

Test Mode: LTE band 4(QPSKRB Size 12& RB Offset 0)



Date: 20.JUN.2017 22:51:37

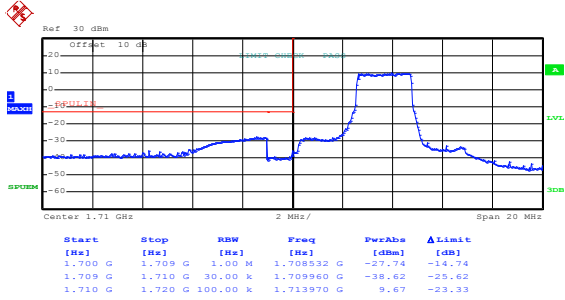
Lowest channel



Date: 20.JUN.2017 22:54:56

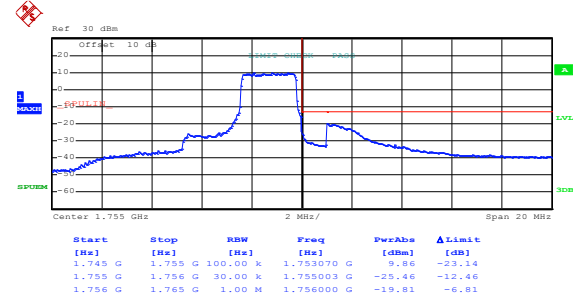
Highest channel

Test Mode: LTE band 4(QPSKRB Size 12& RB Offset 11)



Date: 20.JUN.2017 22:52:02

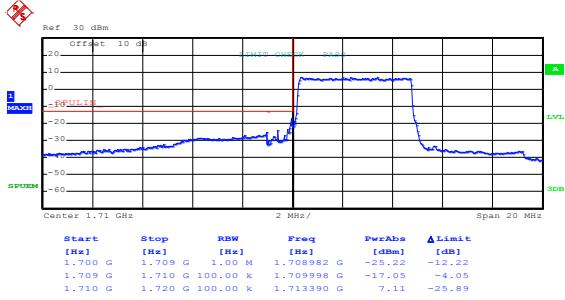
Lowest channel



Date: 20.JUN.2017 22:55:20

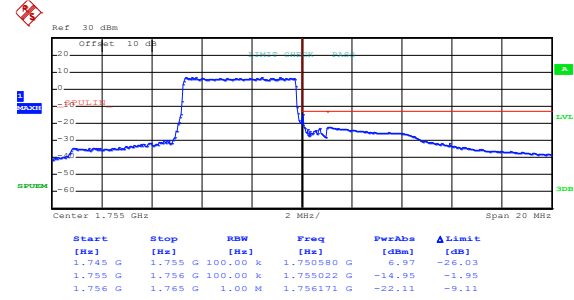
Highest channel

Test Mode: LTE band 4(QPSKRB Size 25& RB Offset 0)



Date: 20.JUN.2017 22:53:22

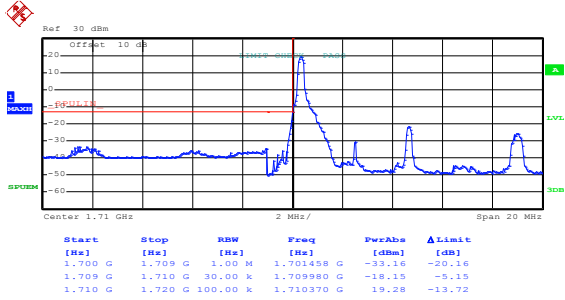
Lowest channel



Date: 20.JUN.2017 22:55:50

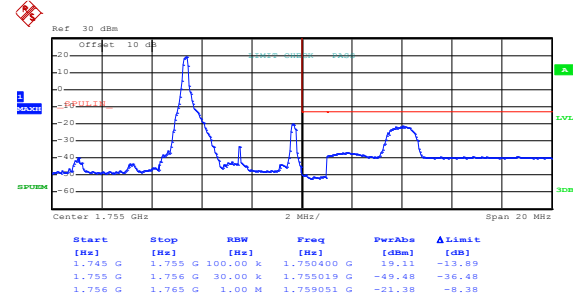
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1& RB Offset 0)



Date: 20.JUN.2017 22:50:34

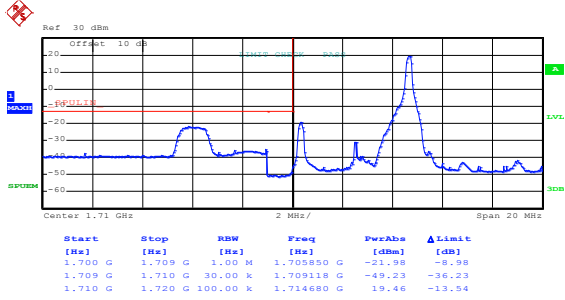
Lowest channel



Date: 20.JUN.2017 22:54:21

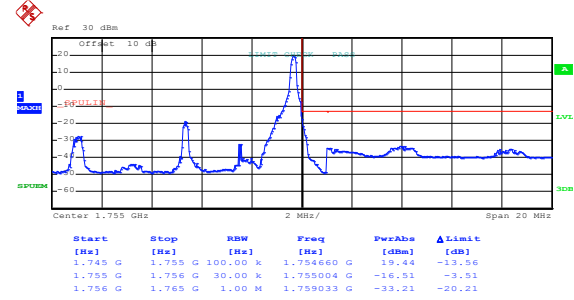
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1& RB Offset 24)



Date: 20.JUN.2017 22:51:09

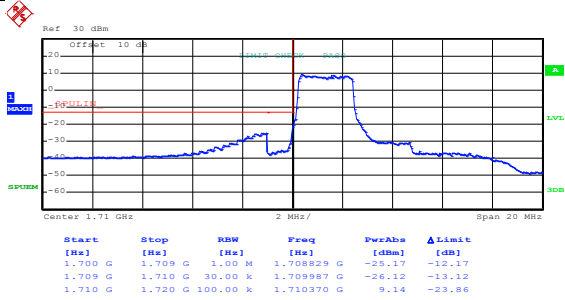
Lowest channel



Date: 20.JUN.2017 22:54:43

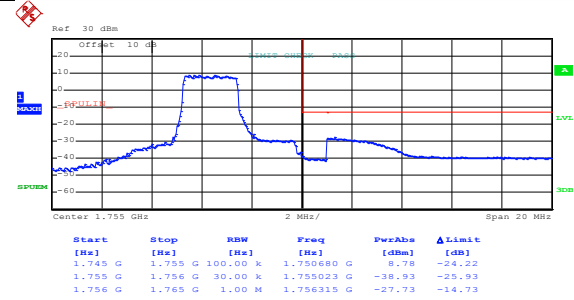
Highest channel

Test Mode: LTE band 4(16QAMRB Size 12& RB Offset 0)



Date: 20.JUN.2017 22:51:46

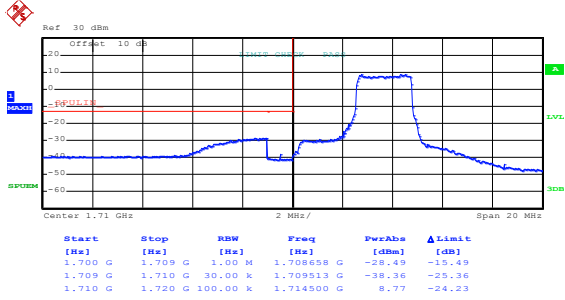
Lowest channel



Date: 20.JUN.2017 22:55:06

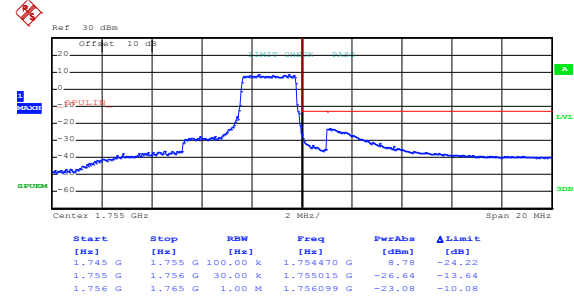
Highest channel

Test Mode: LTE band 4(16QAMRB Size 12& RB Offset 11)



Date: 20.JUN.2017 22:52:11

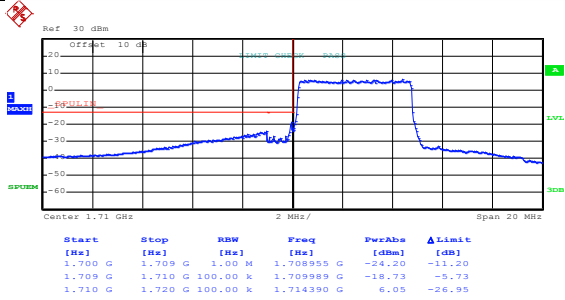
Lowest channel



Date: 20.JUN.2017 22:55:29

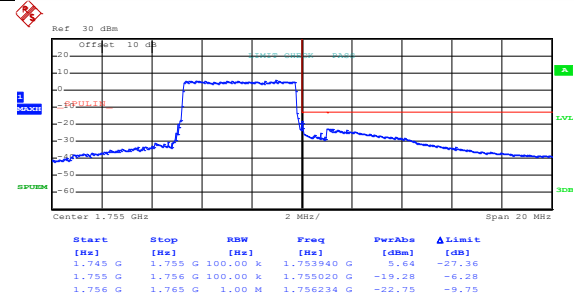
Highest channel

Test Mode: LTE band 4(16QAMRB Size 25& RB Offset 0)



Date: 20.JUN.2017 22:53:37

Lowest channel

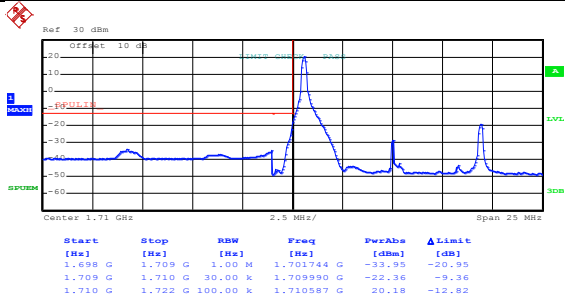


Date: 20.JUN.2017 22:55:57

Highest channel

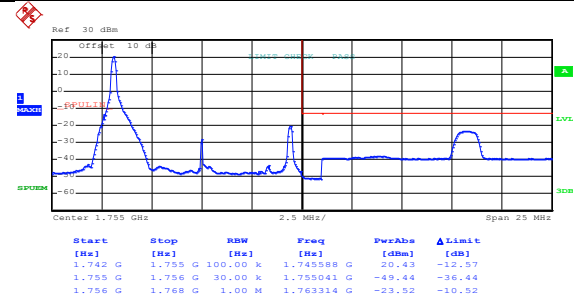
10MHz:

Test Mode: LTE band 4(QPSKRB Size 1& RB Offset 0)



Date: 20.JUN.2017 22:57:08

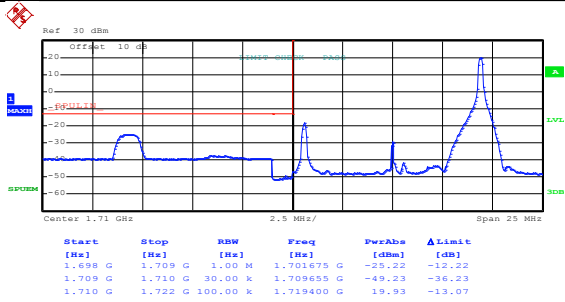
Lowest channel



Date: 20.JUN.2017 23:01:06

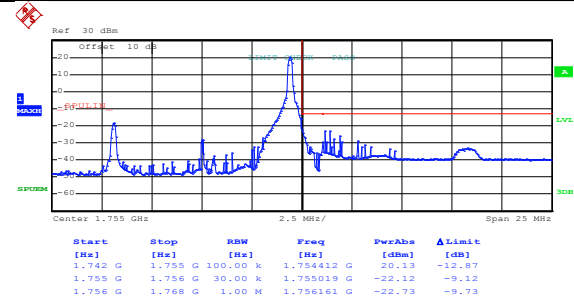
Highest channel

Test Mode: LTE band 4(QPSKRB Size 1& RB Offset 49)



Date: 20.JUN.2017 22:57:34

Lowest channel

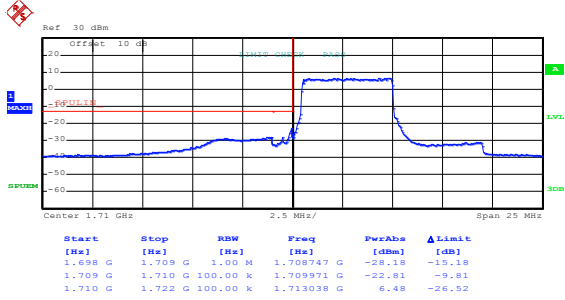


Date: 20.JUN.2017 23:01:27

Highest channel

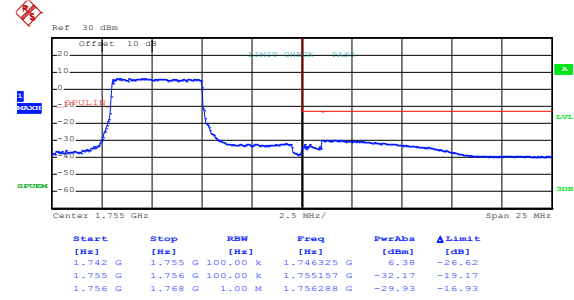


Test Mode: LTE band 4(QPSKRB Size 25& RB Offset 0)



Date: 20.JUN.2017 22:58:31

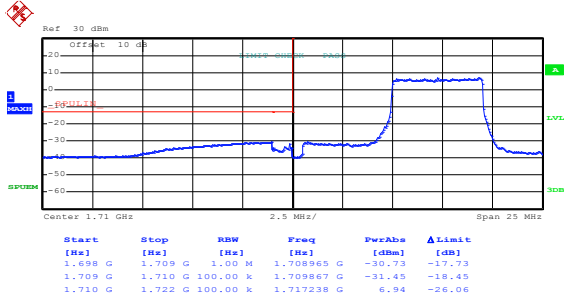
Lowest channel



Date: 20.JUN.2017 23:02:17

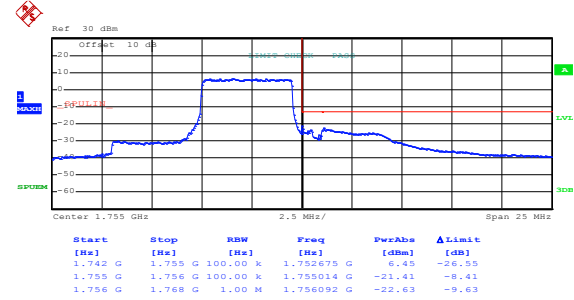
Highest channel

Test Mode: LTE band 4(QPSKRB Size 25 & RB Offset 24)



Date: 20.JUN.2017 22:59:03

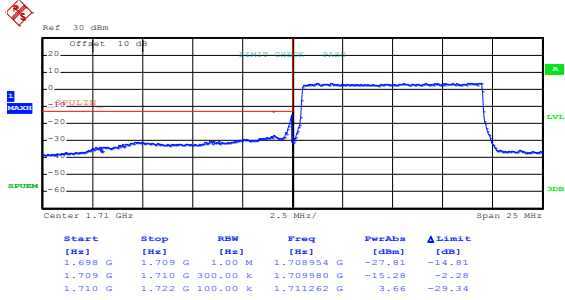
Lowest channel



Date: 20.JUN.2017 23:02:42

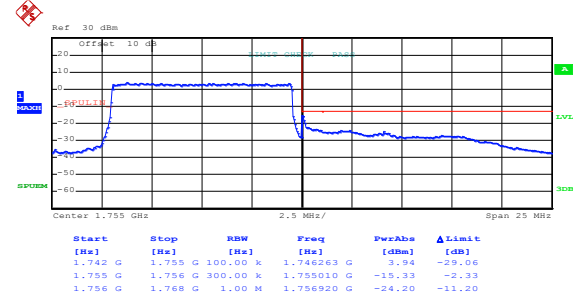
Highest channel

Test Mode: LTE band 4(QPSKRB Size 50& RB Offset 0)



Date: 20.JUN.2017 23:00:24

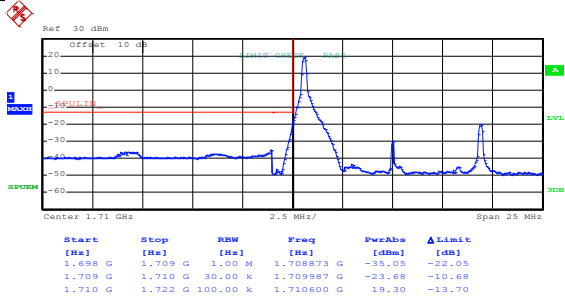
Lowest channel



Date: 20.JUN.2017 23:03:41

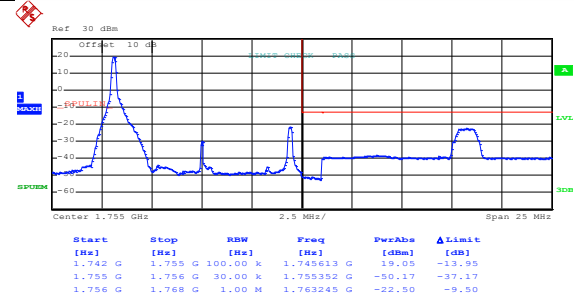
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1& RB Offset 0)



Date: 20.JUN.2017 22:57:18

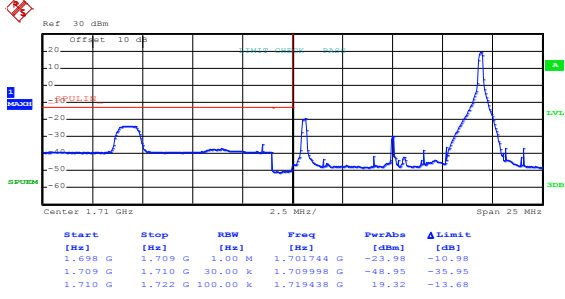
Lowest channel



Date: 20.JUN.2017 23:01:15

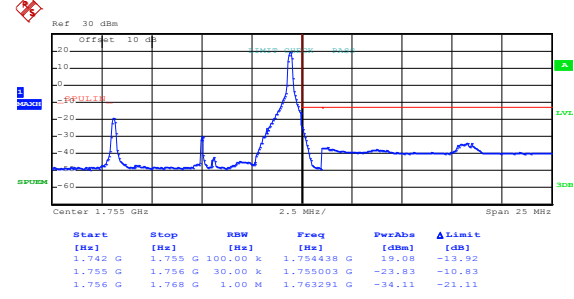
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1& RB Offset 49)



Date: 20.JUN.2017 22:58:06

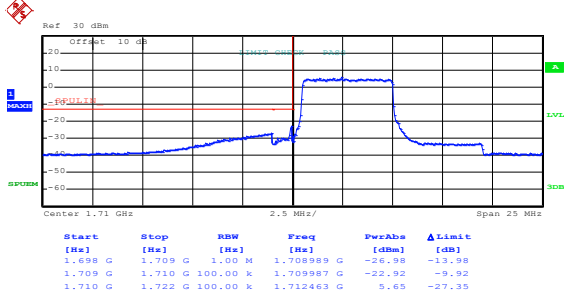
Lowest channel



Date: 20.JUN.2017 23:01:38

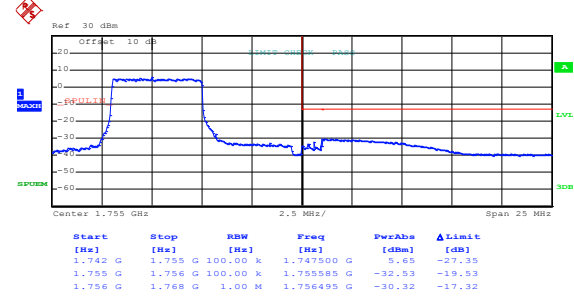
Highest channel

Test Mode: LTE band 4(16QAMRB Size 25& RB Offset 0)



Date: 20.JUN.2017 22:58:39

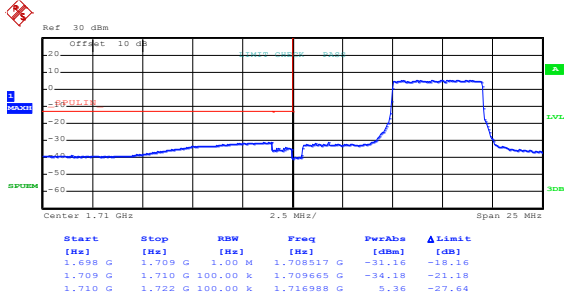
Lowest channel



Date: 20.JUN.2017 23:02:25

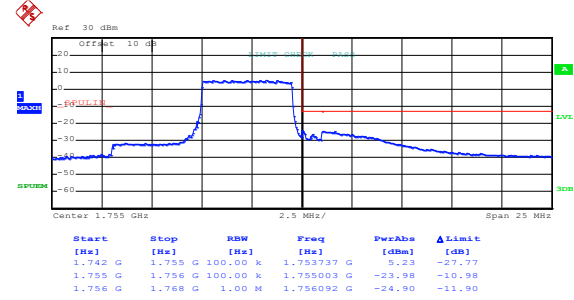
Highest channel

Test Mode: LTE band 4(16QAMRB Size 25& RB Offset 24)



Date: 20.JUN.2017 23:00:05

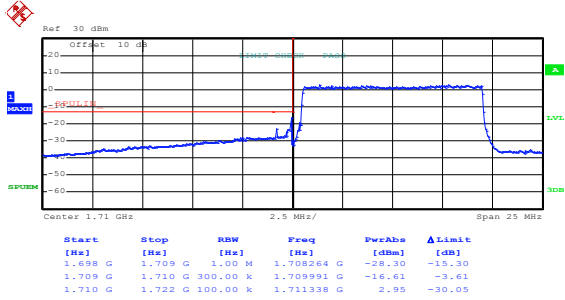
Lowest channel



Date: 20.JUN.2017 23:03:00

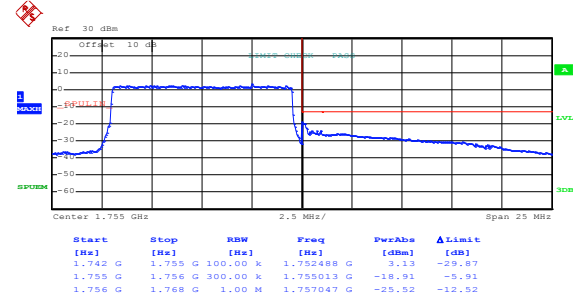
Highest channel

Test Mode: LTE band 4(16QAMRB Size 50& RB Offset 0)



Date: 20.JUN.2017 23:00:32

Lowest channel

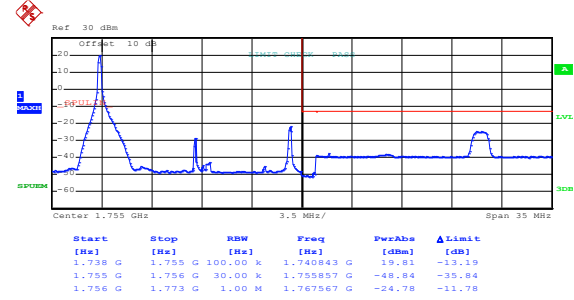
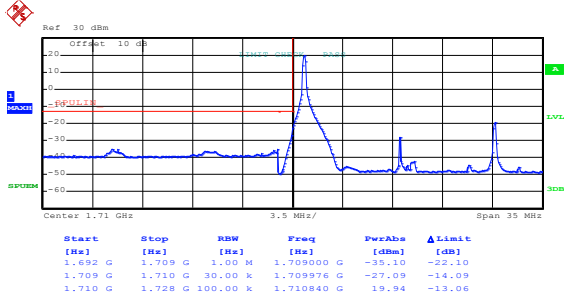


Date: 20.JUN.2017 23:03:51

Highest channel

15MHz:

Test Mode: LTE band 4(QPSKRB Size 1 & RB Offset 0)



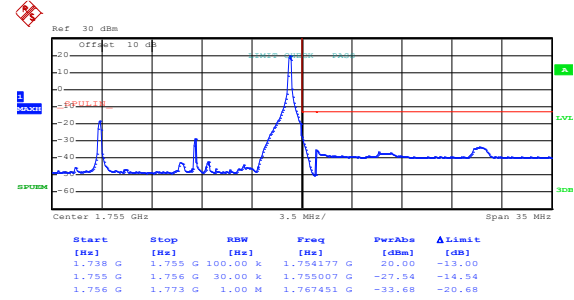
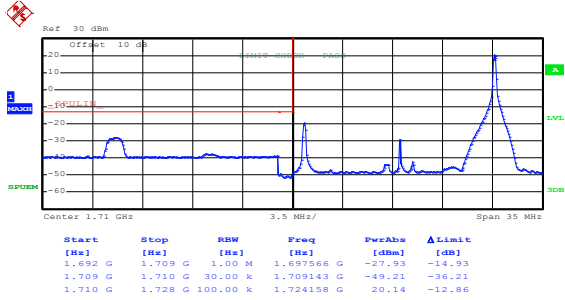
Date: 20.JUN.2017 23:05:23

Date: 20.JUN.2017 23:08:00

Lowest channel

Highest channel

Test Mode: LTE band 4(QPSKRB Size 1 & RB Offset 74)



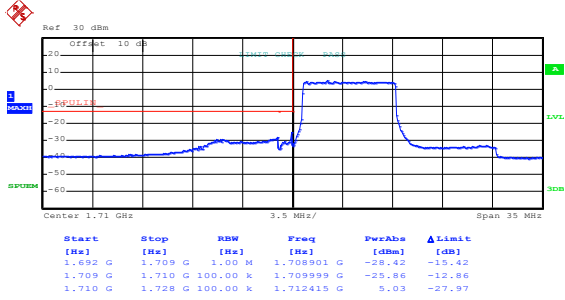
Date: 20.JUN.2017 23:05:57

Date: 20.JUN.2017 23:08:22

Lowest channel

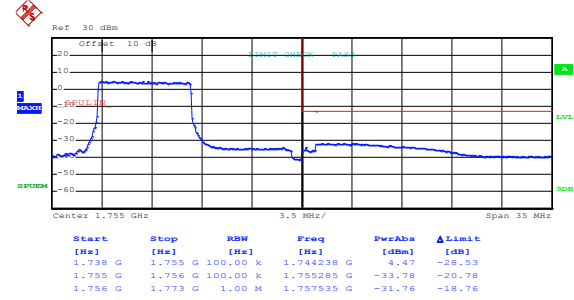
Highest channel

Test Mode: LTE band 4(QPSKRB Size 36& RB Offset 0)



Date: 20.JUN.2017 23:06:33

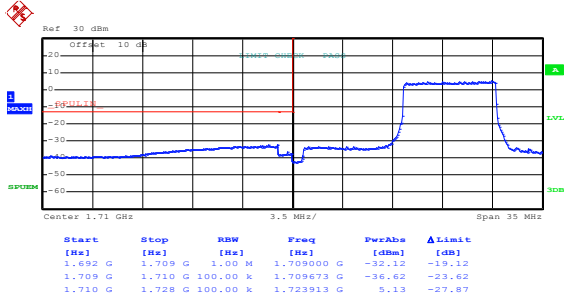
Lowest channel



Date: 20.JUN.2017 23:08:53

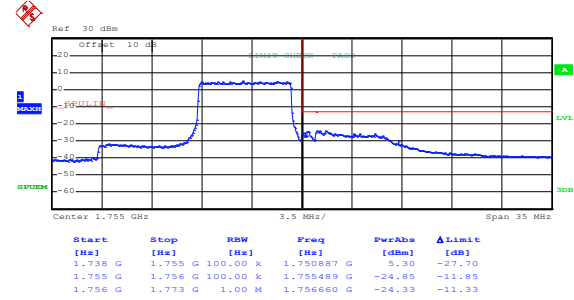
Highest channel

Test Mode: LTE band 4(QPSKRB Size 36& RB Offset 37)



Date: 20.JUN.2017 23:06:56

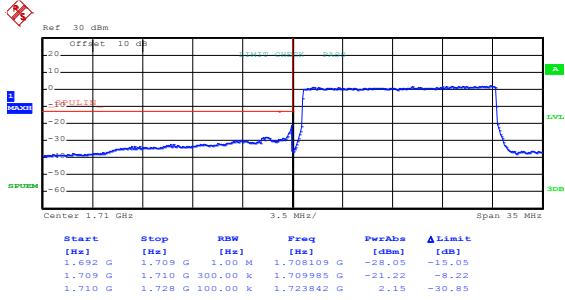
Lowest channel



Date: 20.JUN.2017 23:09:16

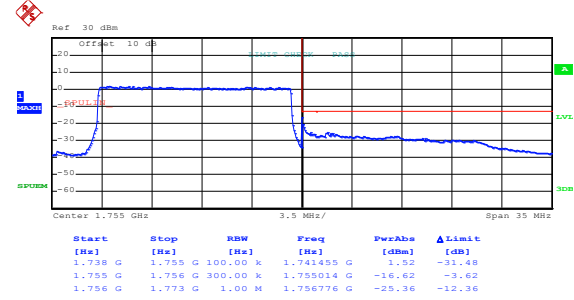
Highest channel

Test Mode: LTE band 4(QPSKRB Size 75& RB Offset 0)



Date: 20.JUN.2017 23:07:26

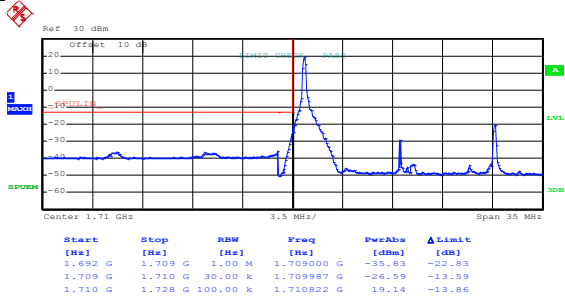
Lowest channel



Date: 20.JUN.2017 23:09:49

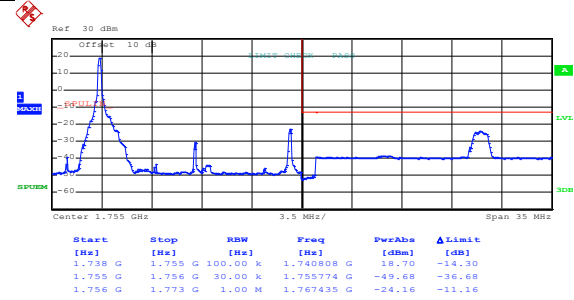
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1 & RB Offset 0)



Date: 20.JUN.2017 23:05:38

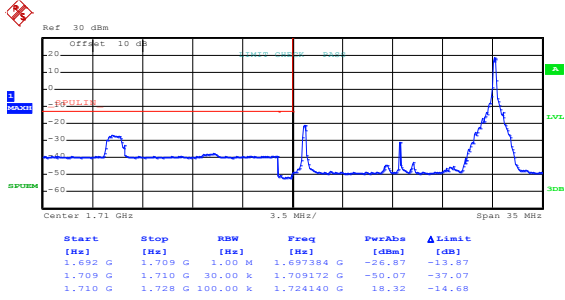
Lowest channel



Date: 20.JUN.2017 23:08:08

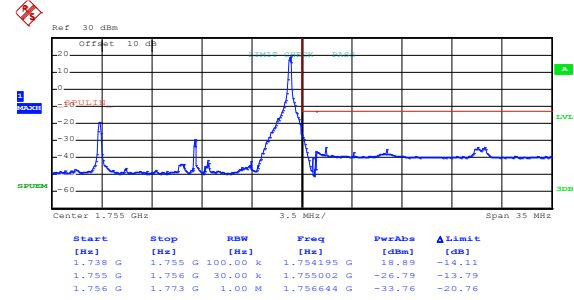
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1 & RB Offset 74)



Date: 20.JUN.2017 23:06:05

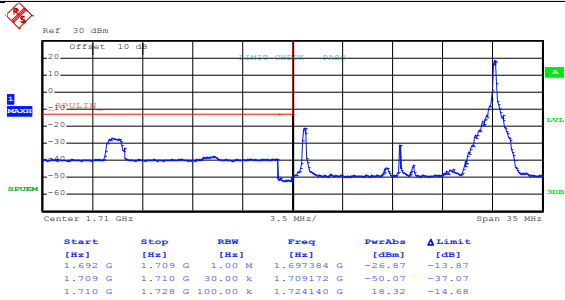
Lowest channel



Date: 20.JUN.2017 23:08:31

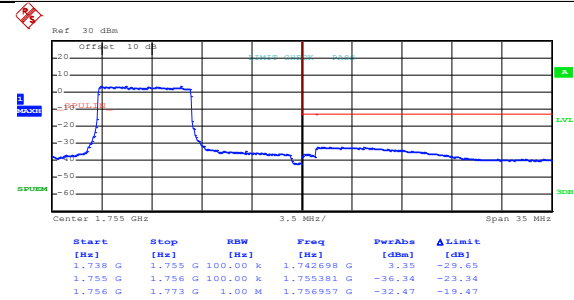
Highest channel

Test Mode: LTE band 4(16QAMRB Size 36 & RB Offset 0)



Date: 20.JUN.2017 23:06:05

Lowest channel

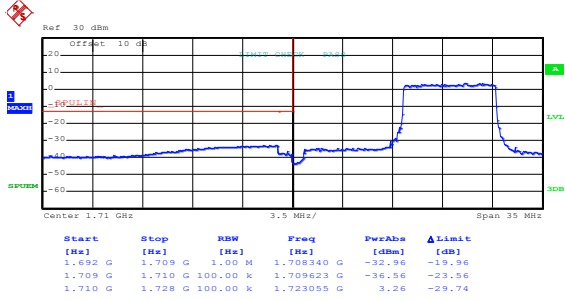


Date: 20.JUN.2017 23:09:01

Highest channel

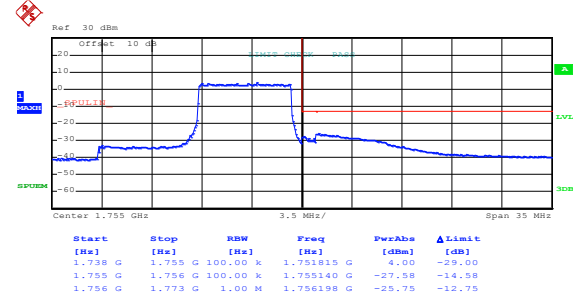


Test Mode: LTE band 4(16QAMRB Size 36 & RB Offset 37)



Date: 20.JUN.2017 23:07:05

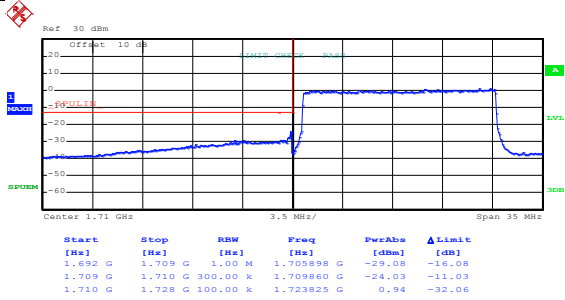
Lowest channel



Date: 20.JUN.2017 23:09:25

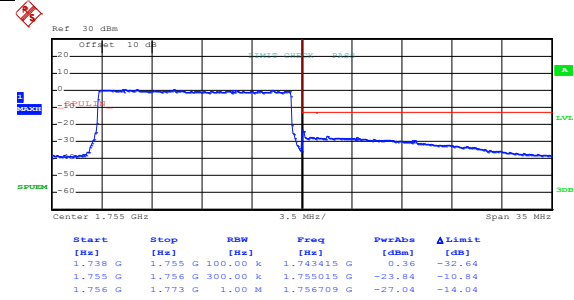
Highest channel

Test Mode: LTE band 4(16QAMRB Size 75& RB Offset 0)



Date: 20.JUN.2017 23:07:33

Lowest channel

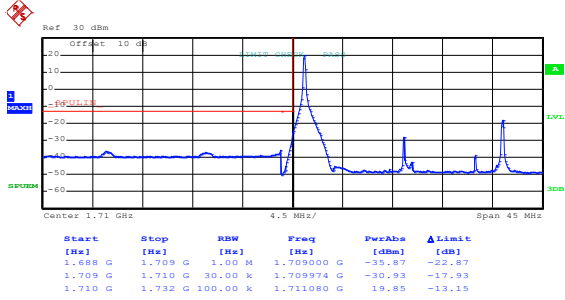


Date: 20.JUN.2017 23:09:57

Highest channel

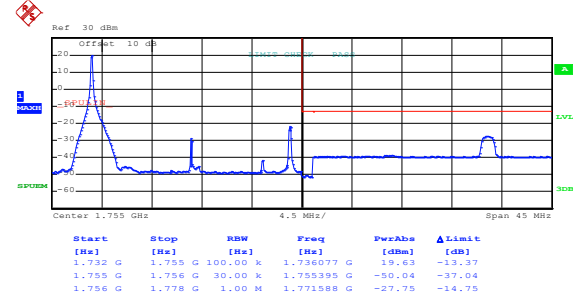
20MHz:

Test Mode: LTE band 4(QPSKRB Size 1 & RB Offset 0)



Date: 20.JUN.2017 23:10:57

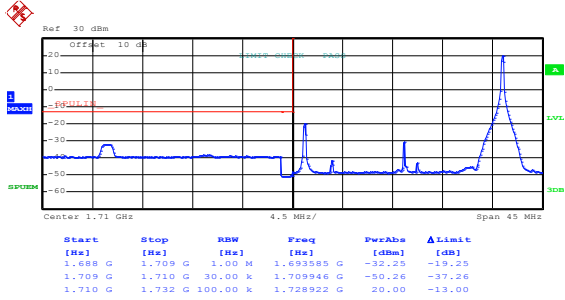
Lowest channel



Date: 20.JUN.2017 23:13:50

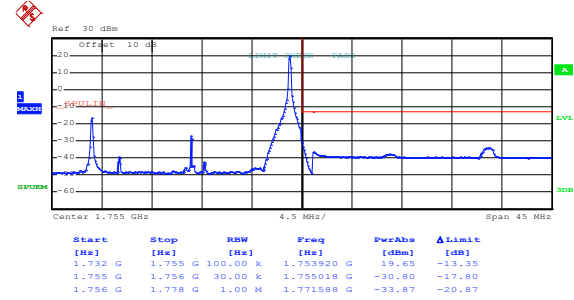
Highest channel

Test Mode: LTE band 4(QPSKRB Size 1 & RB Offset 99)



Date: 20.JUN.2017 23:11:35

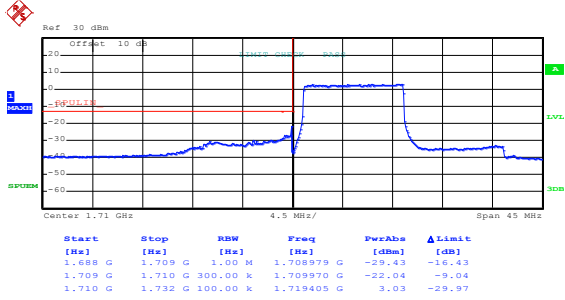
Lowest channel



Date: 20.JUN.2017 23:14:13

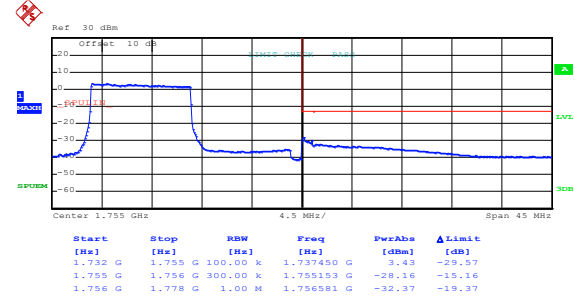
Highest channel

Test Mode: LTE band 4(QPSKRB Size 50& RB Offset 0)



Date: 20.JUN.2017 23:12:09

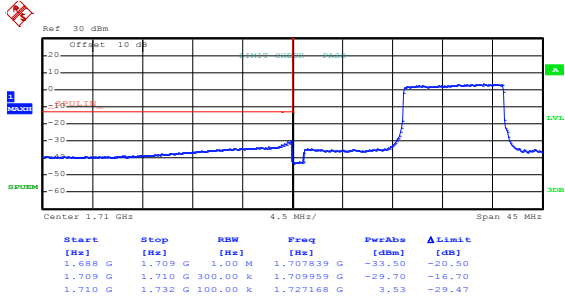
Lowest channel



Date: 20.JUN.2017 23:15:08

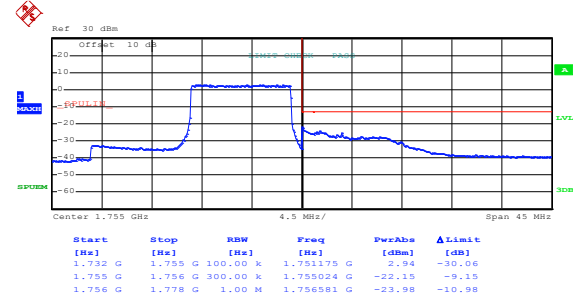
Highest channel

Test Mode: LTE band 4(QPSKRB Size 50& RB Offset 49)



Date: 20.JUN.2017 23:12:35

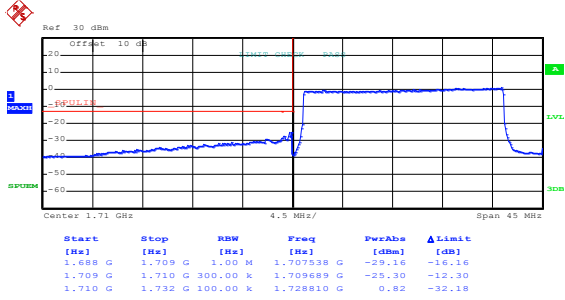
Lowest channel



Date: 20.JUN.2017 23:15:34

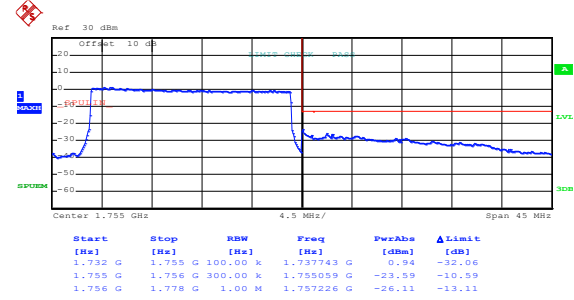
Highest channel

Test Mode: LTE band 4(QPSKRB Size 100& RB Offset 0)



Date: 20.JUN.2017 23:13:02

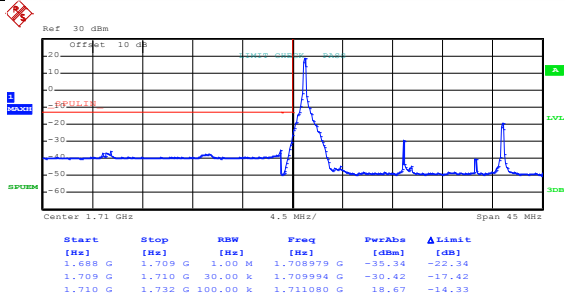
Lowest channel



Date: 20.JUN.2017 23:16:03

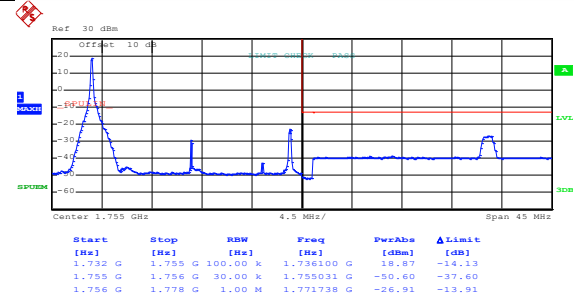
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1& RB Offset 0)



Date: 20.JUN.2017 23:11:05

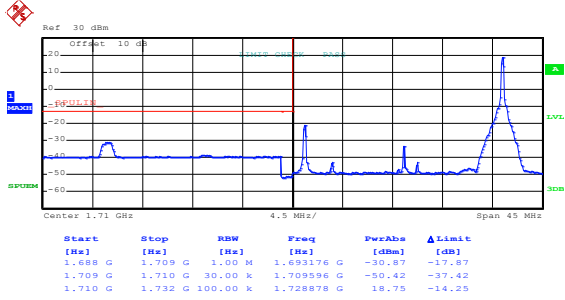
Lowest channel



Date: 20.JUN.2017 23:14:01

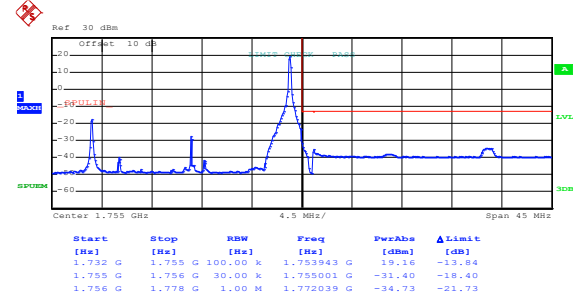
Highest channel

Test Mode: LTE band 4(16QAMRB Size 1& RB Offset 99)



Date: 20.JUN.2017 23:11:45

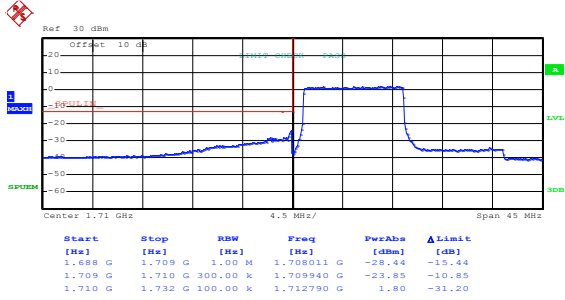
Lowest channel



Date: 20.JUN.2017 23:14:33

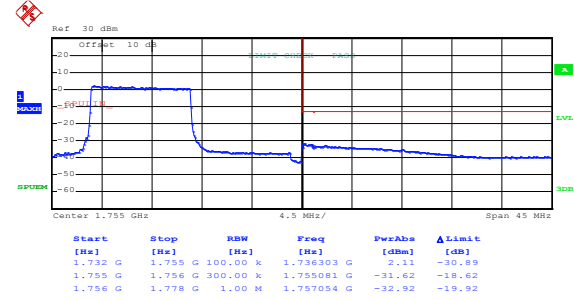
Highest channel

Test Mode: LTE band 4(16QAMRB Size 50& RB Offset 0)



Date: 20.JUN.2017 23:12:19

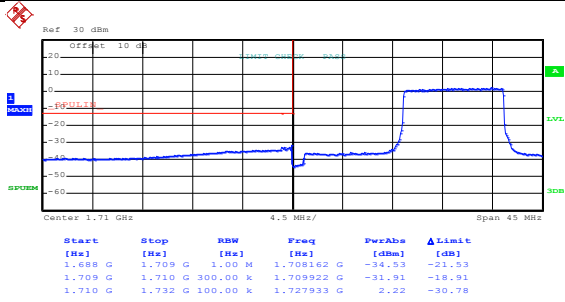
Lowest channel



Date: 20.JUN.2017 23:15:17

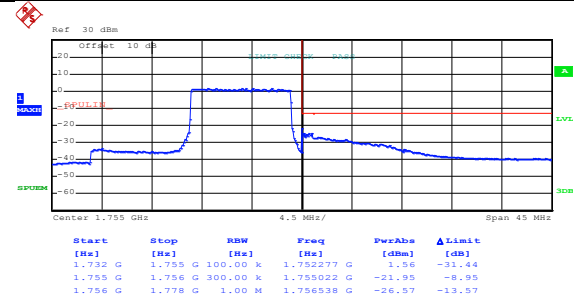
Highest channel

Test Mode: LTE band 4(16QAMRB Size 50& RB Offset 49)



Date: 20.JUN.2017 23:12:44

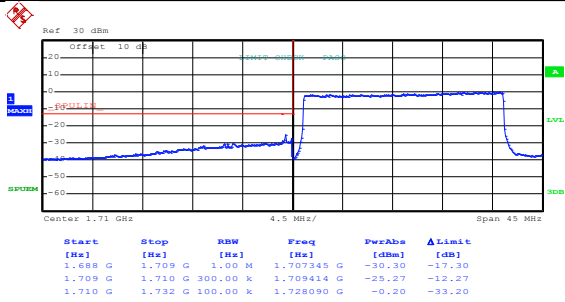
Lowest channel



Date: 20.JUN.2017 23:15:43

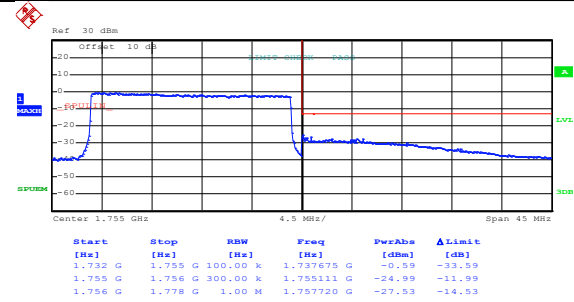
Highest channel

Test Mode: LTE band 4(16QAMRB Size 100& RB Offset 0)



Date: 20.JUN.2017 23:13:18

Lowest channel



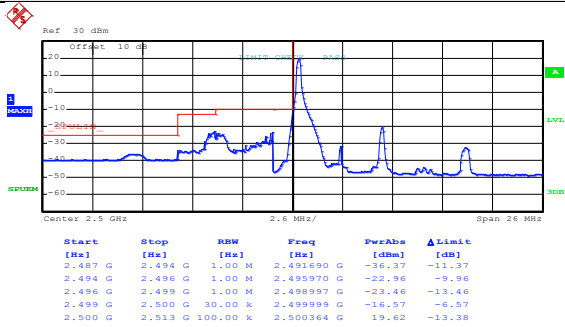
Date: 20.JUN.2017 23:16:10

Highest channel

LTE band 7 part:

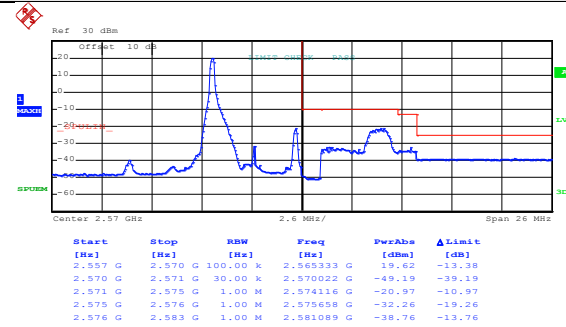
5MHz:

Test Mode: LTE band 7(QPSK RB Size 1 & RB Offset 0)



Date: 20.JUN.2017 23:24:02

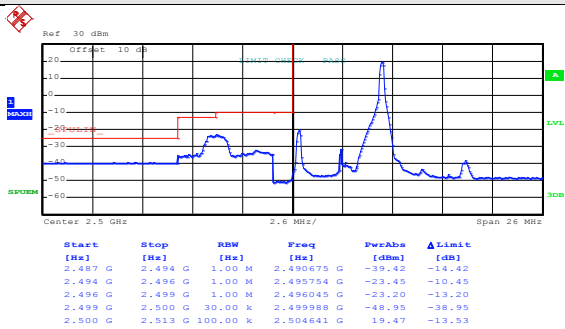
Lowest channel



Date: 20.JUN.2017 23:30:45

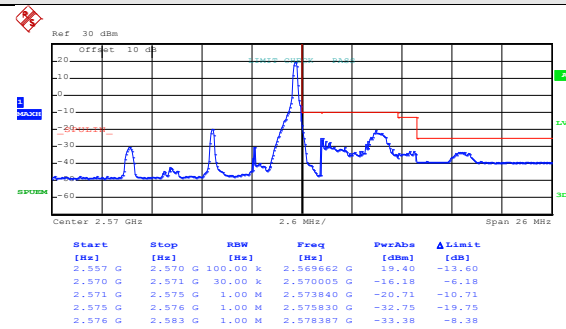
Highest channel

Test Mode: LTE band 7(QPSK RB Size 1 & RB Offset 24)



Date: 20.JUN.2017 23:24:35

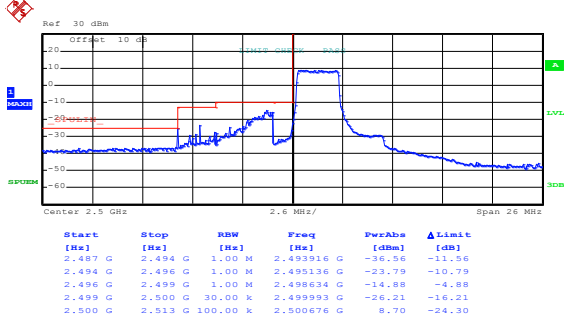
Lowest channel



Date: 20.JUN.2017 23:31:10

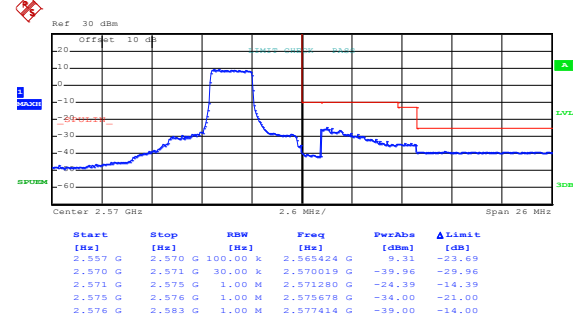
Highest channel

Test Mode: LTE band 7(QPSK RB Size 12& RB Offset 0)



Date: 20.JUN.2017 23:28:45

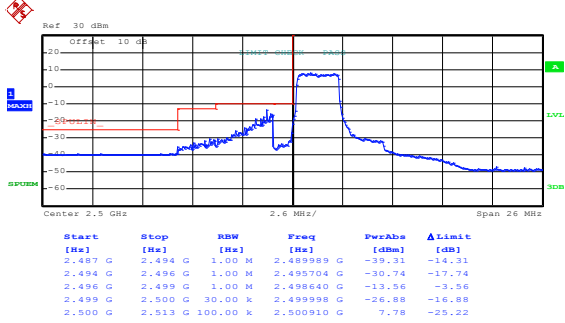
Lowest channel



Date: 20.JUN.2017 23:31:44

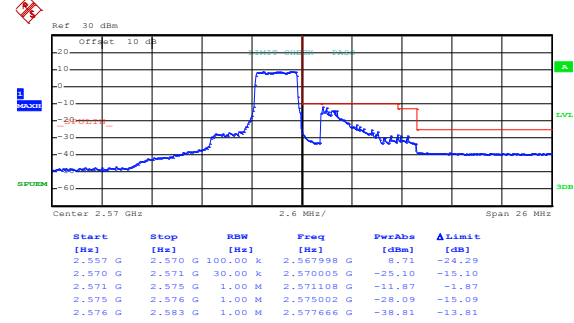
Highest channel

Test Mode: LTE band 7(QPSK RB Size 12& RB Offset 11)



Date: 20.JUN.2017 23:28:59

Lowest channel

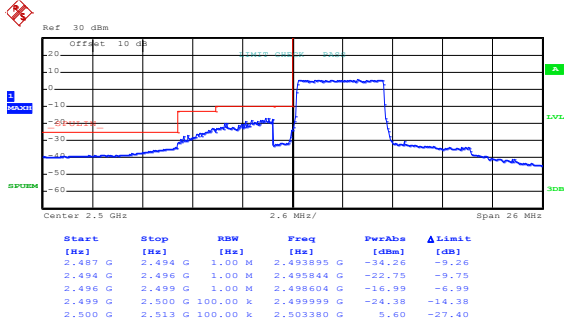


Date: 20.JUN.2017 23:32:05

Highest channel

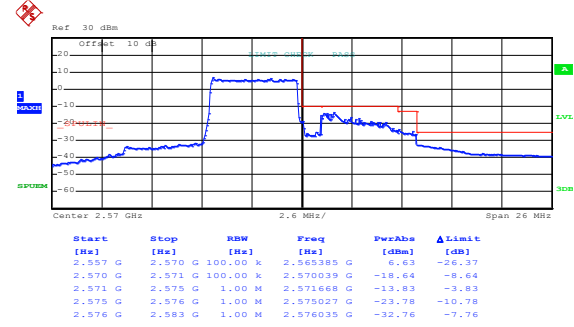


Test Mode: LTE band 7(QPSK RB Size 25& RB Offset 0)



Date: 20.JUN.2017 23:29:57

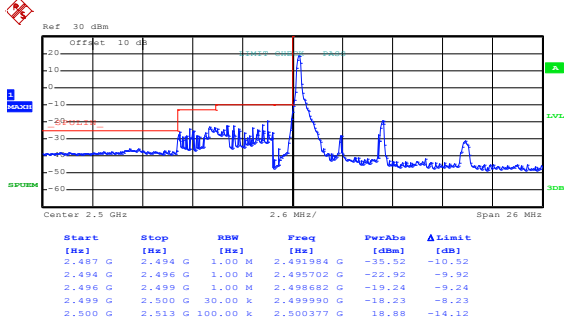
Lowest channel



Date: 20.JUN.2017 23:32:37

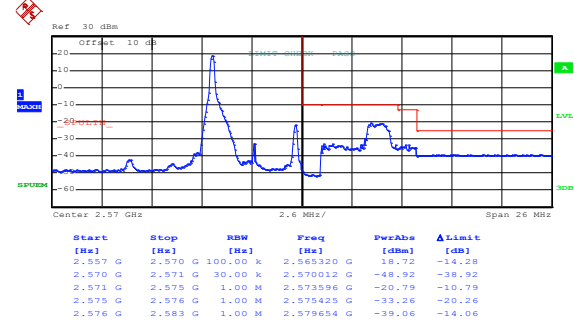
Highest channel

Test Mode: LTE band 7(16QAM RB Size 1& RB Offset 0)



Date: 20.JUN.2017 23:24:17

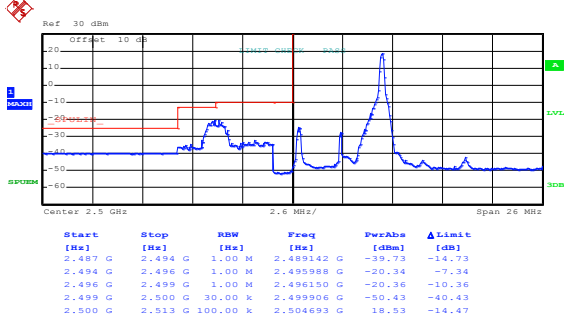
Lowest channel



Date: 20.JUN.2017 23:30:54

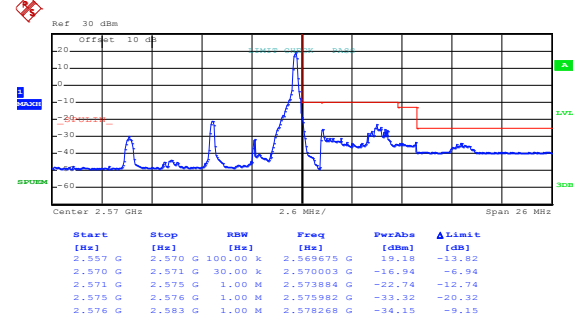
Highest channel

Test Mode: LTE band 7(16QAM RB Size 1& RB Offset 24)



Date: 20.JUN.2017 23:24:44

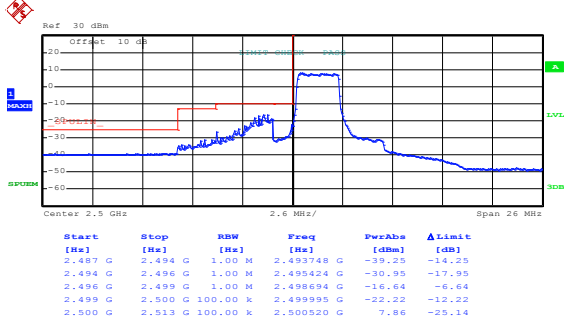
Lowest channel



Date: 20.JUN.2017 23:31:21

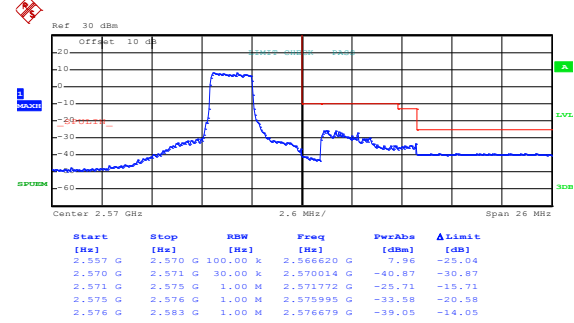
Highest channel

Test Mode: LTE band 7(16QAM RB Size 12& RB Offset 0)



Date: 20.JUN.2017 23:27:33

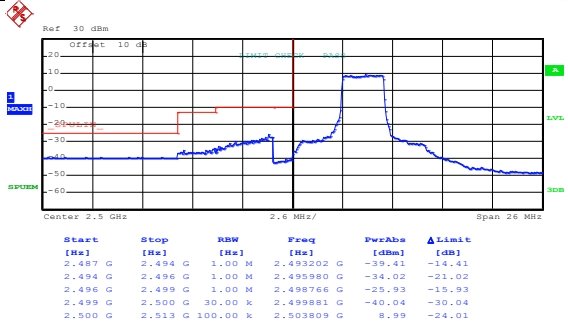
Lowest channel



Date: 20.JUN.2017 23:31:51

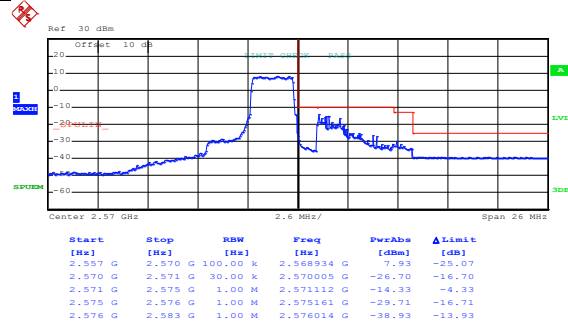
Highest channel

Test Mode: LTE band 7(16QAM RB Size 12& RB Offset 11)



Date: 20.JUN.2017 23:29:28

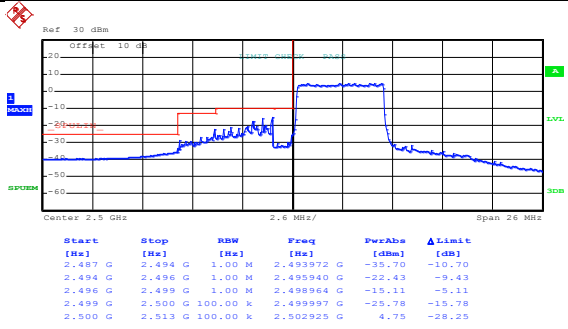
Lowest channel



Date: 20.JUN.2017 23:32:15

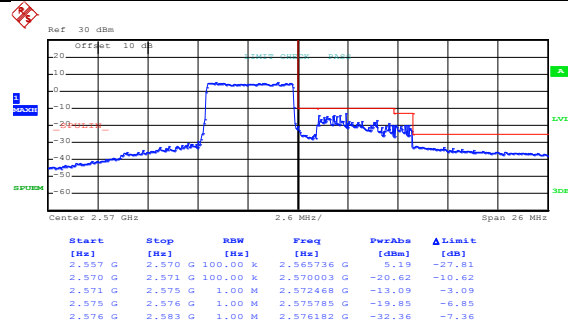
Highest channel

Test Mode: LTE band 7(16QAM RB Size 25& RB Offset 0)



Date: 20.JUN.2017 23:30:05

Lowest channel

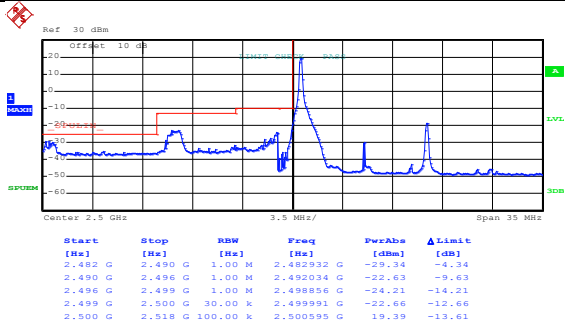


Date: 20.JUN.2017 23:32:48

Highest channel

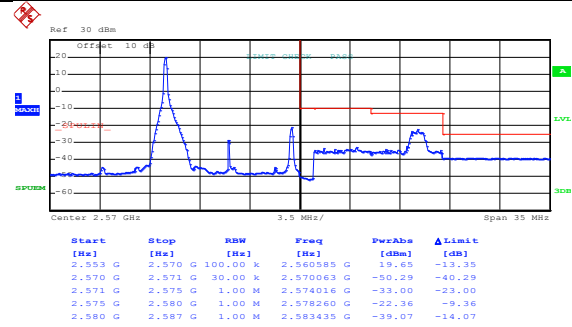
10MHz:

Test Mode: LTE band 7(QPSK RB Size 1& RB Offset 0)



Date: 20.JUN.2017 23:34:04

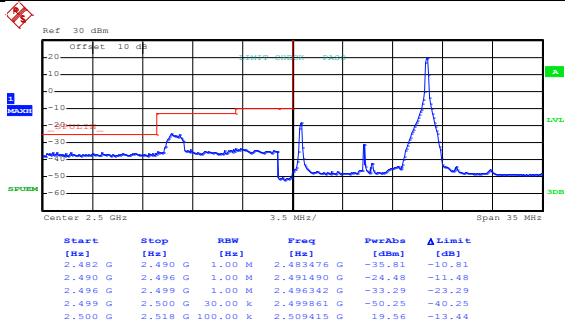
Lowest channel



Date: 20.JUN.2017 23:36:48

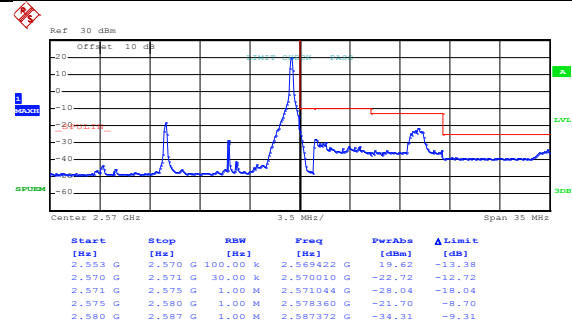
Highest channel

Test Mode: LTE band 7(QPSK RB Size 1& RB Offset 49)



Date: 20.JUN.2017 23:34:30

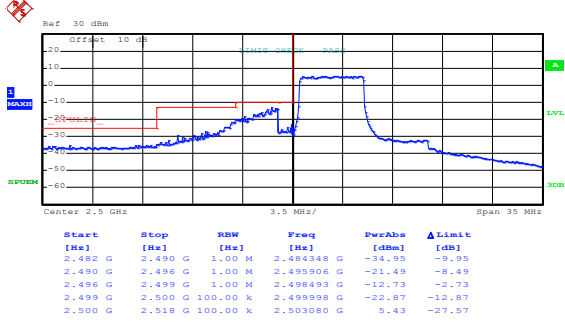
Lowest channel



Date: 20.JUN.2017 23:37:11

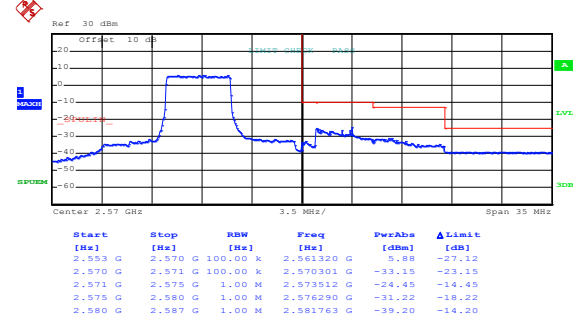
Highest channel

Test Mode: LTE band 7(QPSK RB Size 25& RB Offset 0)



Date: 20.JUN.2017 23:35:14

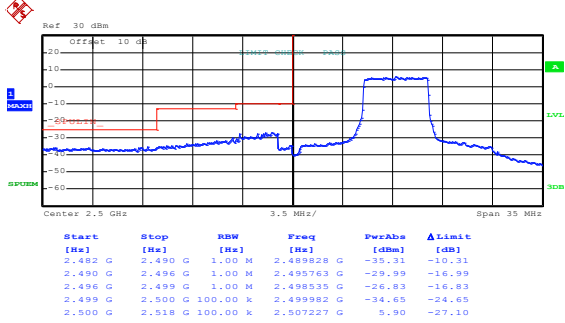
Lowest channel



Date: 20.JUN.2017 23:37:44

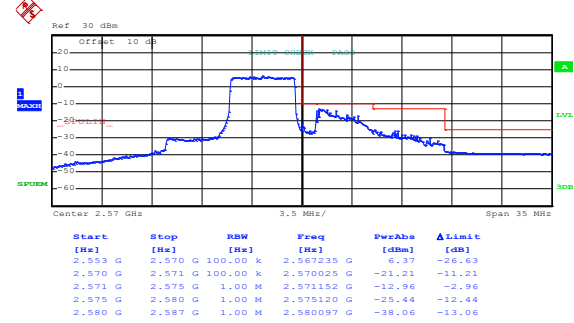
Highest channel

Test Mode: LTE band 7(QPSK RB Size 25& RB Offset 24)



Date: 20.JUN.2017 23:35:42

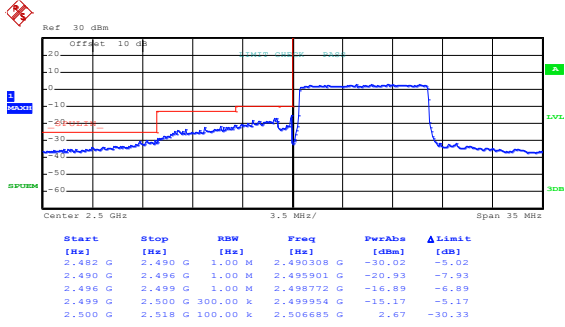
Lowest channel



Date: 20.JUN.2017 23:38:15

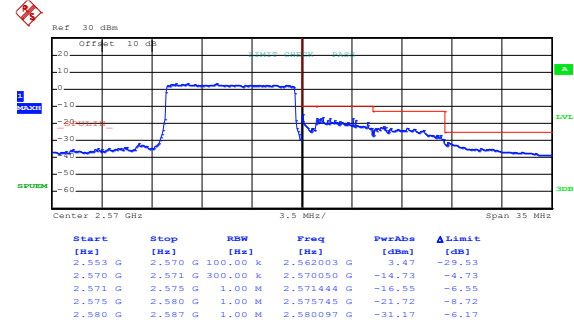
Highest channel

Test Mode: LTE band 7(QPSK RB Size 50& RB Offset 0)



Date: 20.JUN.2017 23:36:13

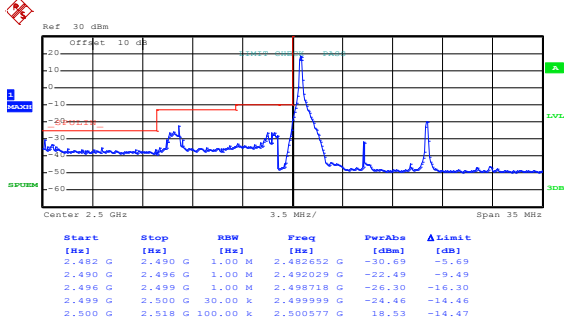
Lowest channel



Date: 20.JUN.2017 23:38:51

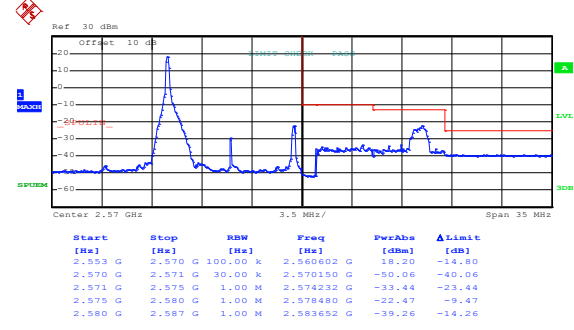
Highest channel

Test Mode: LTE band 7(16QAM RB Size 1& RB Offset 0)



Date: 20.JUN.2017 23:34:14

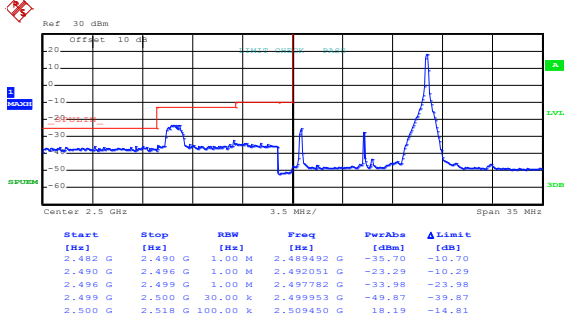
Lowest channel



Date: 20.JUN.2017 23:36:56

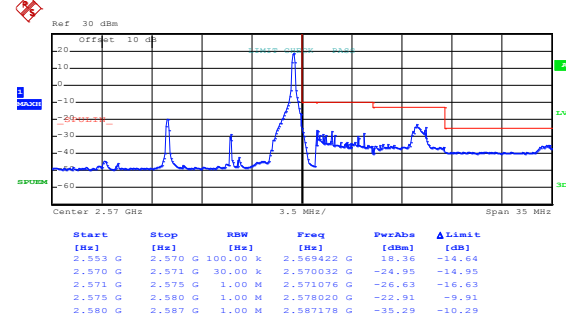
Highest channel

Test Mode: LTE band 7(16QAM RB Size 1& RB Offset 49)



Date: 20.JUN.2017 23:34:39

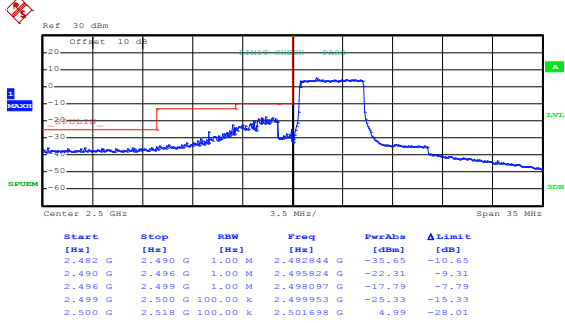
Lowest channel



Date: 20.JUN.2017 23:37:20

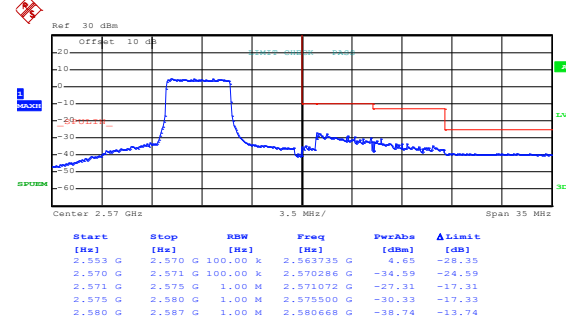
Highest channel

Test Mode: LTE band 7(16QAM RB Size 25& RB Offset 0)



Date: 20.JUN.2017 23:35:22

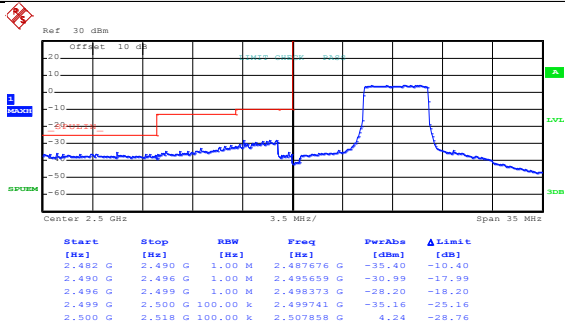
Lowest channel



Date: 20.JUN.2017 23:37:52

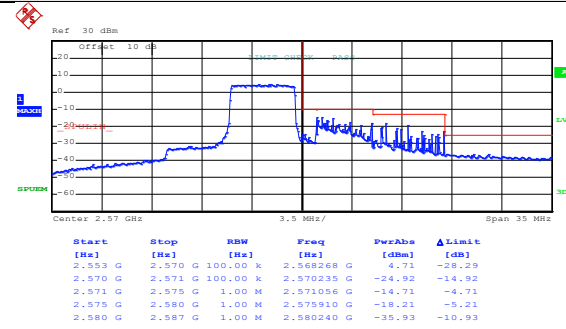
Highest channel

Test Mode: LTE band 7(16QAM RB Size 25& RB Offset 24)



Date: 20.JUN.2017 23:35:51

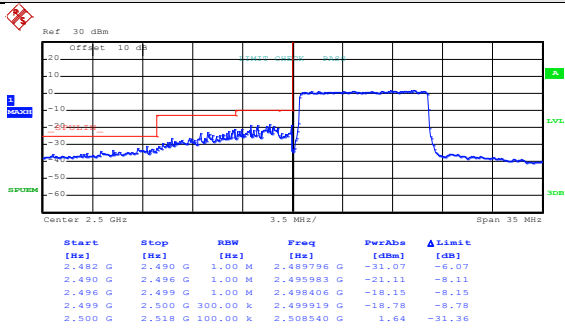
Lowest channel



Date: 20.JUN.2017 23:38:25

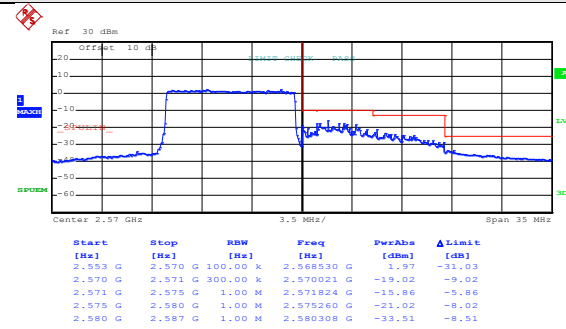
Highest channel

Test Mode: LTE band 7(16QAM RB Size 50& RB Offset 0)



Date: 20.JUN.2017 23:36:20

Lowest channel



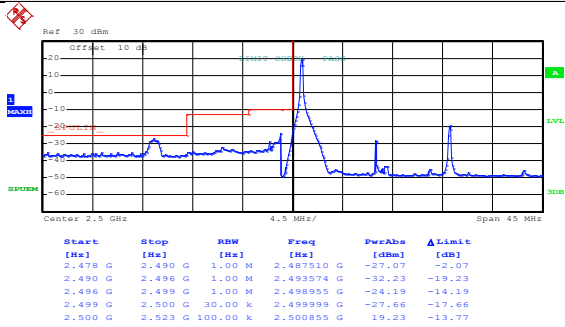
Date: 20.JUN.2017 23:39:01

Highest channel



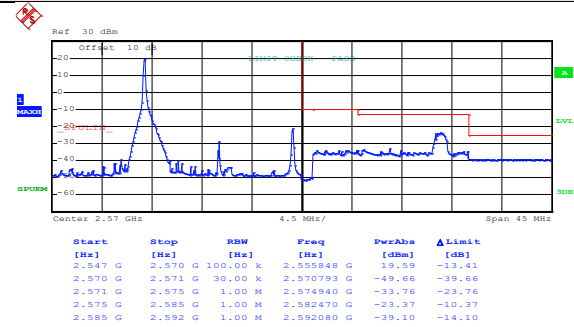
15MHz:

Test Mode: LTE band 7(QPSK RB Size 1& RB Offset 0)



Date: 20.JUN.2017 23:40:21

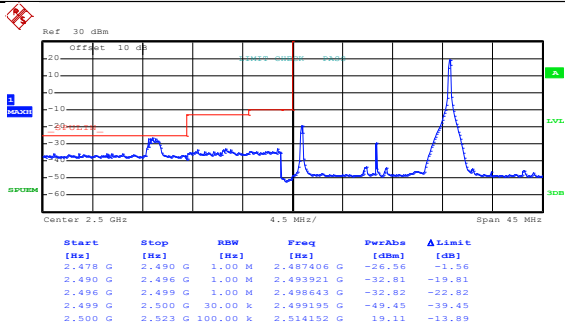
Lowest channel



Date: 20.JUN.2017 23:42:52

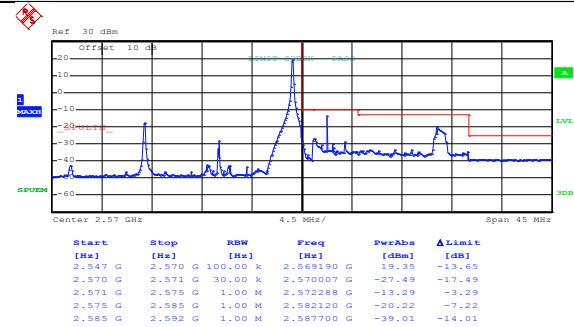
Highest channel

Test Mode: LTE band 7(QPSK RB Size 1& RB Offset 74)



Date: 20.JUN.2017 23:40:47

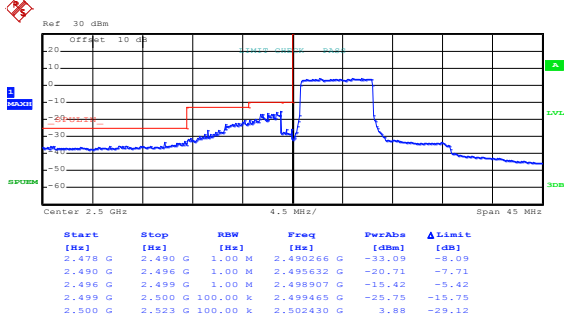
Lowest channel



Date: 20.JUN.2017 23:43:16

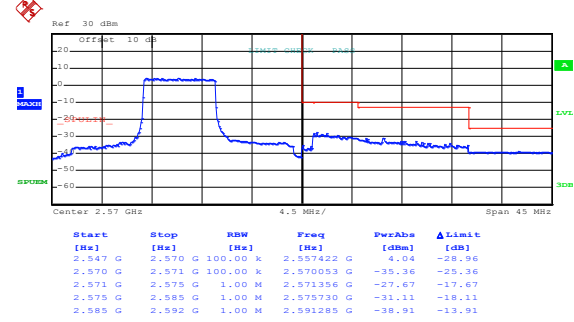
Highest channel

Test Mode: LTE band 7(QPSK RB Size 36& RB Offset 0)



Date: 20.JUN.2017 23:41:25

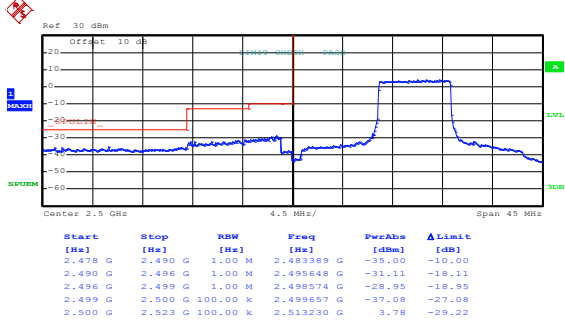
Lowest channel



Date: 20.JUN.2017 23:43:51

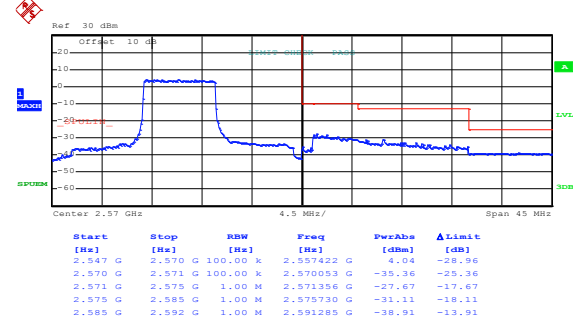
Highest channel

Test Mode: LTE band 7(QPSK RB Size 36& RB Offset 37)



Date: 20.JUN.2017 23:41:49

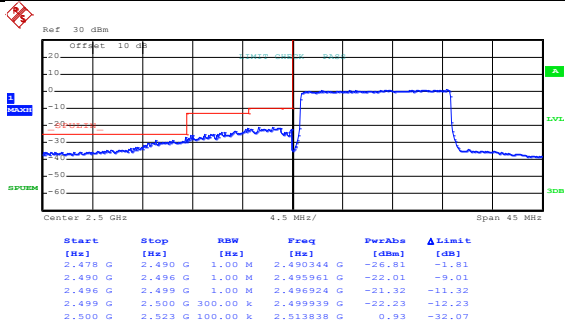
Lowest channel



Date: 20.JUN.2017 23:43:51

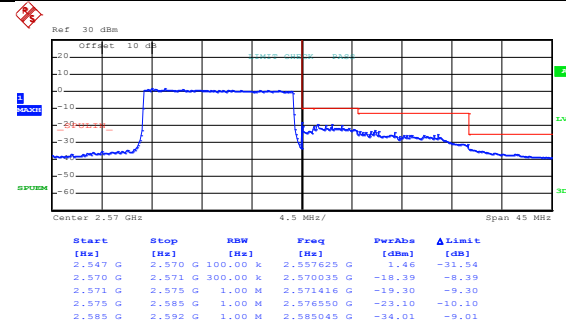
Highest channel

Test Mode: LTE band 7(QPSK RB Size 75& RB Offset 0)



Date: 20.JUN.2017 23:42:20

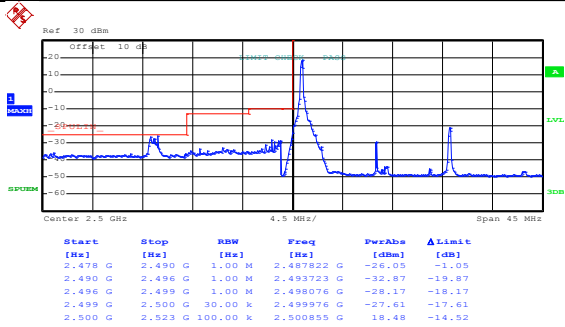
Lowest channel



Date: 20.JUN.2017 23:44:53

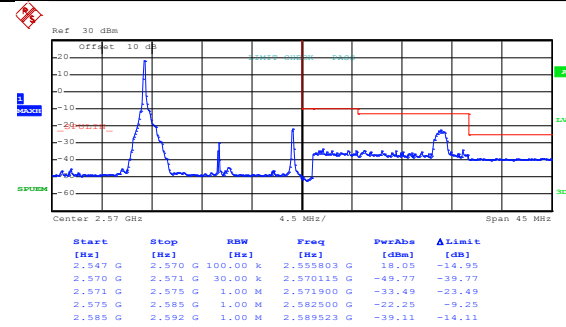
Highest channel

Test Mode: LTE band 7(16QAM RB Size 1& RB Offset 0)



Date: 20.JUN.2017 23:40:31

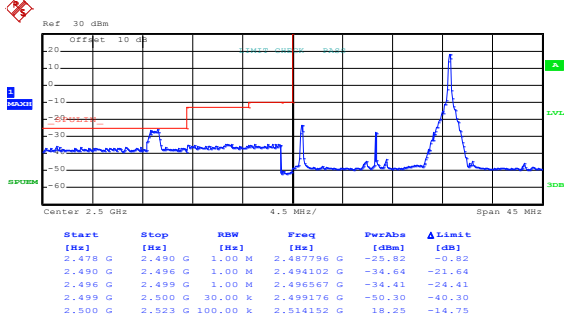
Lowest channel



Date: 20.JUN.2017 23:43:00

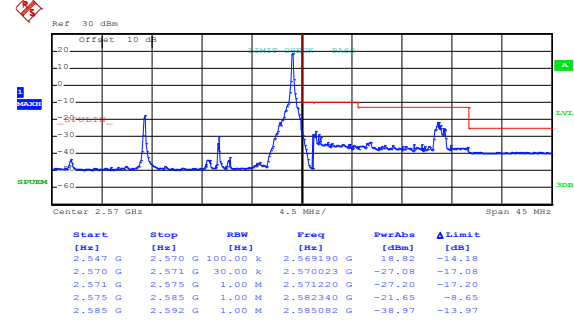
Highest channel

Test Mode: LTE band 7(16QAM RB Size 1& RB Offset 74)



Date: 20.JUN.2017 23:40:56

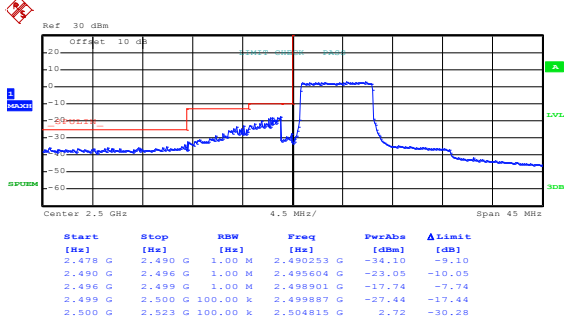
Lowest channel



Date: 20.JUN.2017 23:43:26

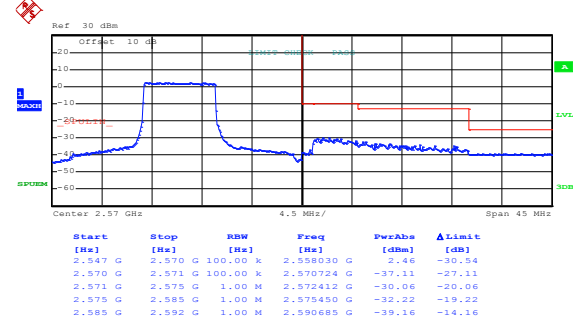
Highest channel

Test Mode: LTE band 7(16QAM RB Size 36& RB Offset 0)



Date: 20.JUN.2017 23:41:34

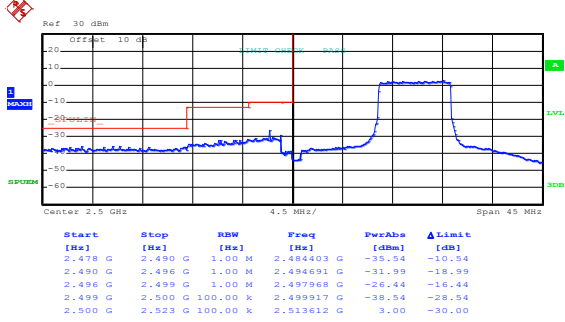
Lowest channel



Date: 20.JUN.2017 23:43:59

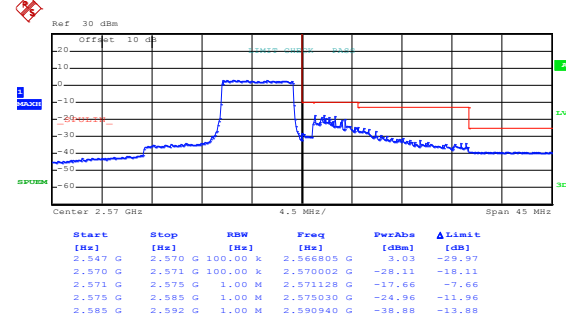
Highest channel

Test Mode: LTE band 7(16QAM RB Size 36& RB Offset 37)



Date: 20.JUN.2017 23:41:59

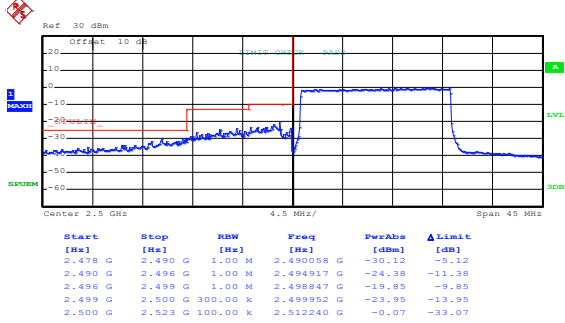
Lowest channel



Date: 20.JUN.2017 23:44:25

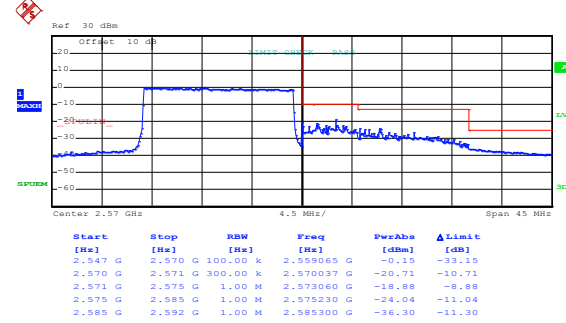
Highest channel

Test Mode: LTE band 7(16QAM RB Size 75& RB Offset 0)



Date: 20.JUN.2017 23:42:27

Lowest channel

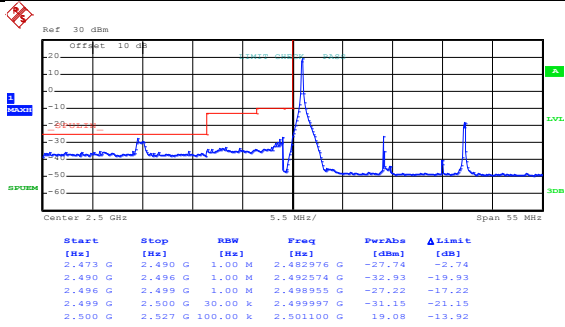


Date: 20.JUN.2017 23:45:02

Highest channel

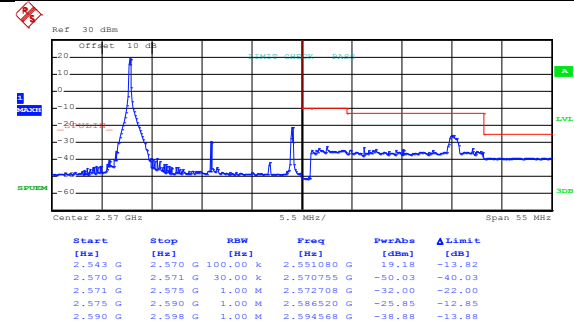
20MHz:

Test Mode: LTE band 7(QPSK RB Size 1& RB Offset 0)



Date: 20.JUN.2017 23:46:06

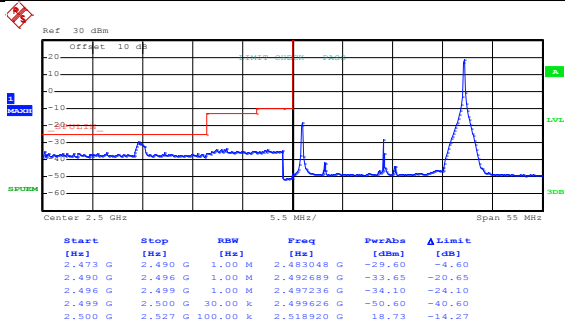
Lowest channel



Date: 20.JUN.2017 23:48:36

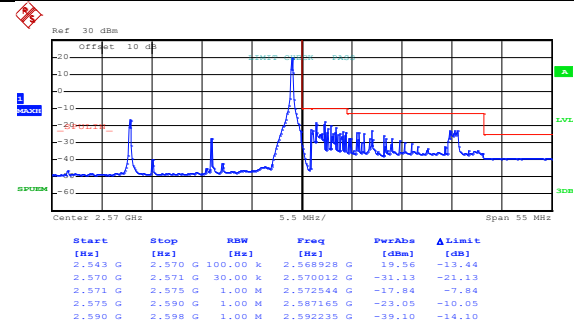
Highest channel

Test Mode: LTE band 7(QPSK RB Size 1& RB Offset 99)



Date: 20.JUN.2017 23:46:28

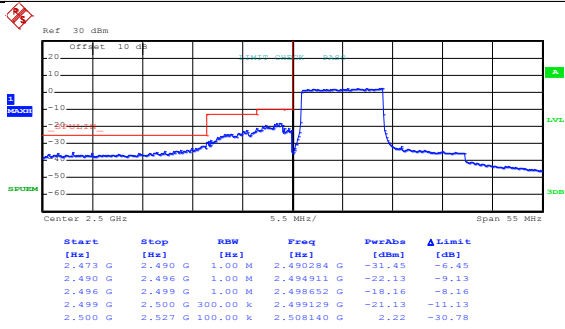
Lowest channel



Date: 20.JUN.2017 23:49:06

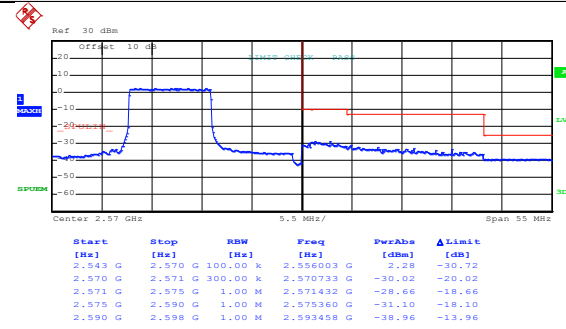
Highest channel

Test Mode: LTE band 7(QPSK RB Size 50& RB Offset 0)



Date: 20.JUN.2017 23:46:58

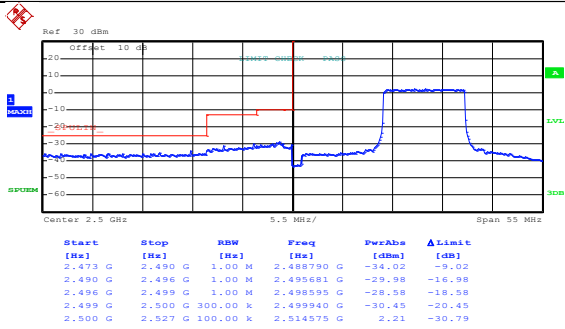
Lowest channel



Date: 20.JUN.2017 23:49:42

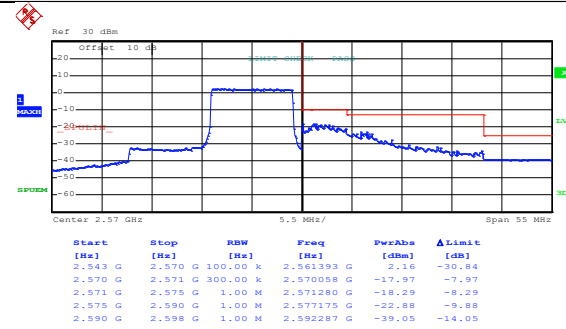
Highest channel

Test Mode: LTE band 7(QPSK RB Size 50& RB Offset 49)



Date: 20.JUN.2017 23:47:29

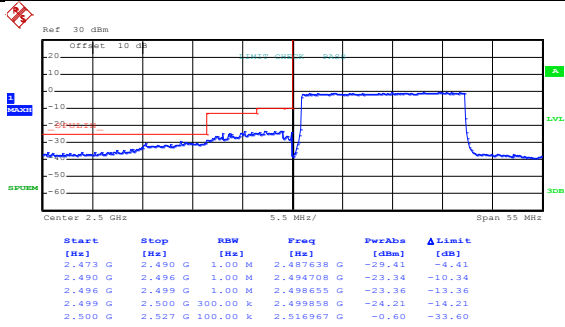
Lowest channel



Date: 20.JUN.2017 23:50:09

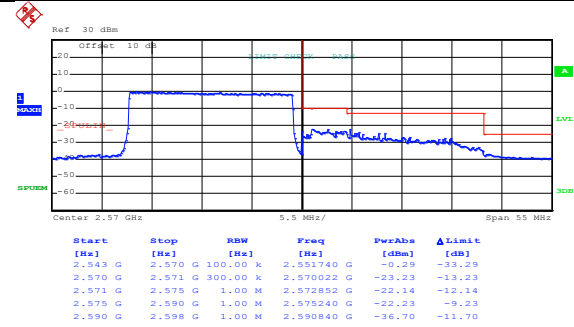
Highest channel

Test Mode: LTE band 7(QPSK RB Size 100& RB Offset 0)



Date: 20.JUN.2017 23:47:59

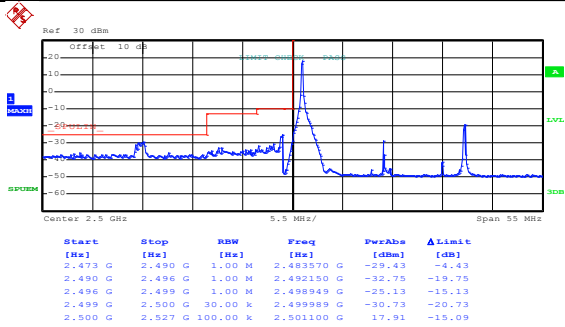
Lowest channel



Date: 20.JUN.2017 23:50:39

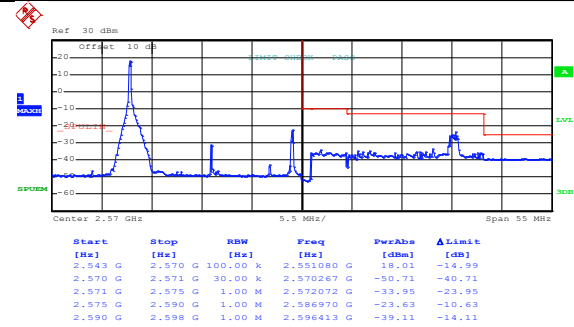
Highest channel

Test Mode: LTE band 7(16QAM RB Size 1& RB Offset 0)



Date: 20.JUN.2017 23:46:15

Lowest channel

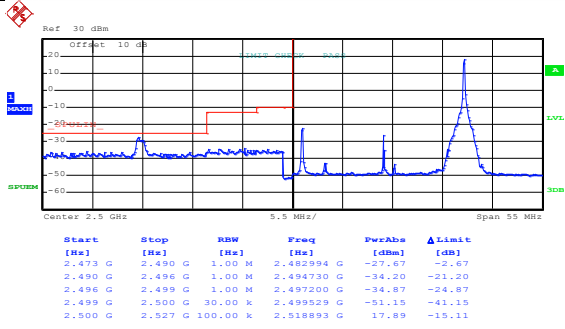


Date: 20.JUN.2017 23:48:45

Highest channel

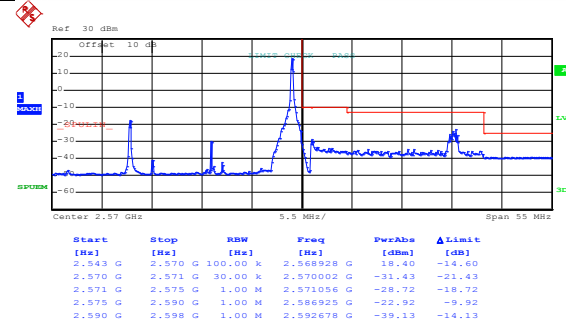


Test Mode: LTE band 7(16QAM RB Size 1& RB Offset 99)



Date: 20.JUN.2017 23:46:37

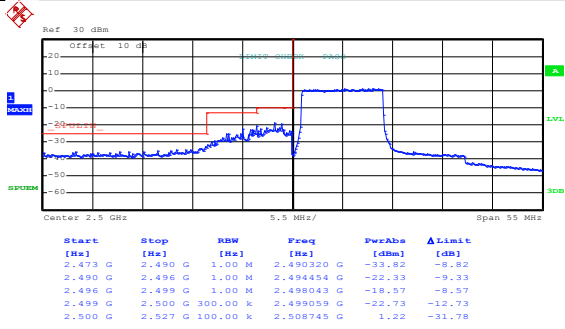
Lowest channel



Date: 20.JUN.2017 23:49:17

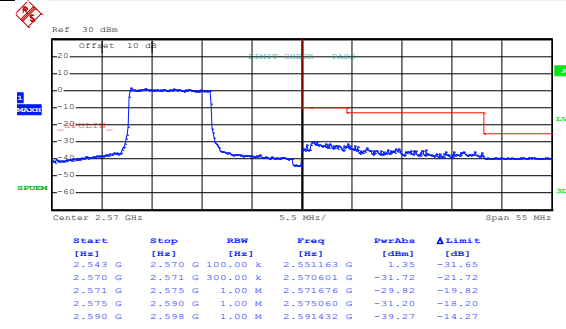
Highest channel

Test Mode: LTE band 7(16QAM RB Size 50& RB Offset 0)



Date: 20.JUN.2017 23:47:07

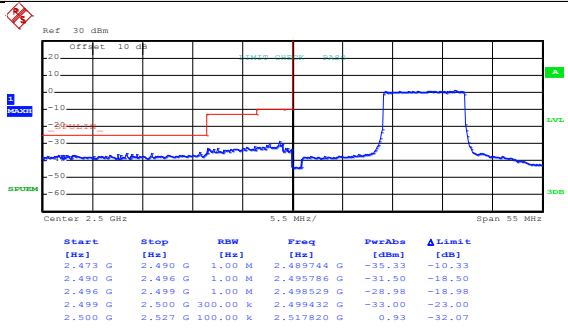
Lowest channel



Date: 20.JUN.2017 23:49:52

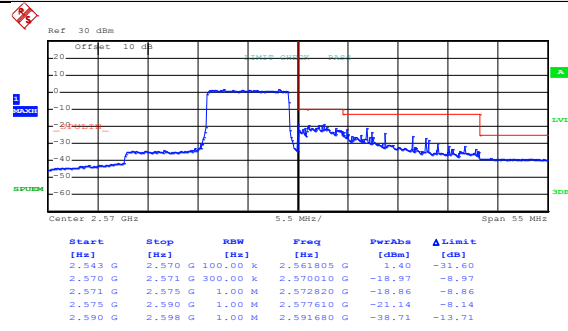
Highest channel

**Test Mode:** **LTE band 7(16QAM RB Size 50& RB Offset 49)**



Date: 20.JUN.2017 23:47:39

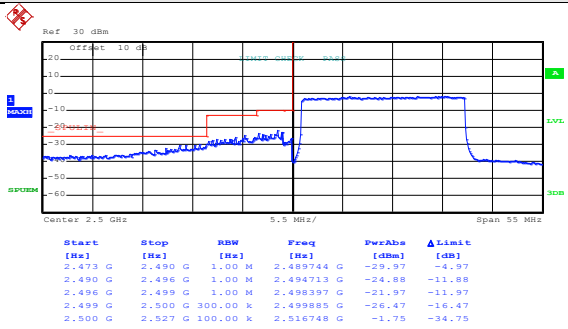
Lowest channel



Date: 20.JUN.2017 23:50:25

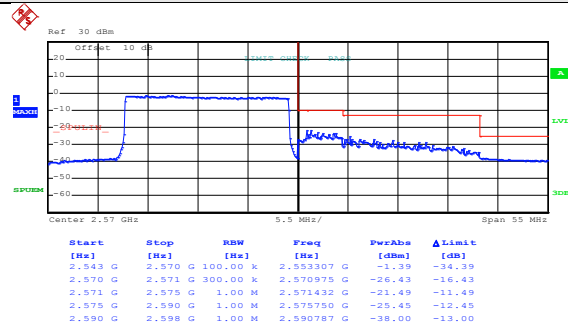
Highest channel

**Test Mode:** **LTE band 7(16QAM RB Size 100& RB Offset 0)**



Date: 20.JUN.2017 23:48:07

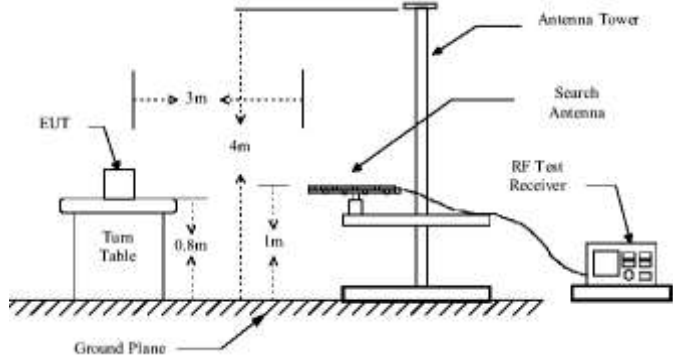
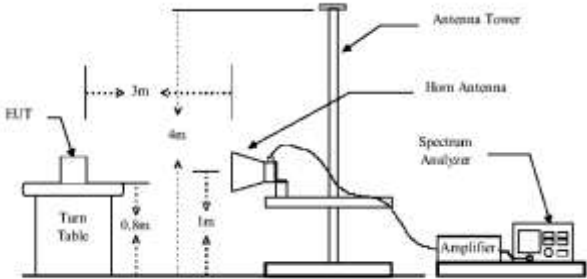
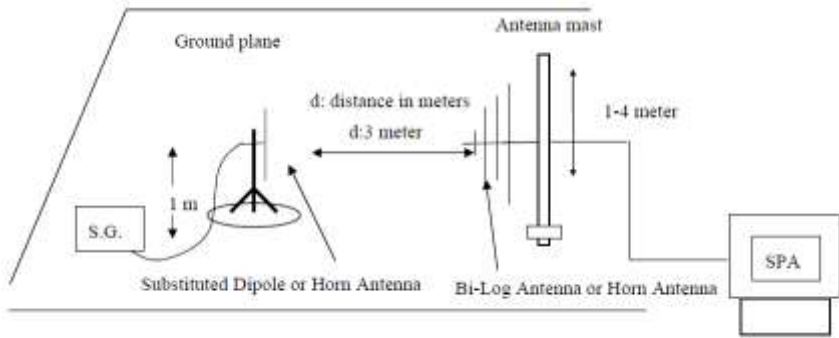
Lowest channel



Date: 20.JUN.2017 23:50:47

Highest channel

## 6.10 ERP, EIRP Measurement

Test Requirement:	24.232 (c), part 27.50(d), part 27.50 (h)
Test Method:	FCC part2.1046
Limit:	LTE Band 2: 2W EIRP LTE Band 4: 1W EIRP LTE Band 7: 2W EIRP
Test setup:	<p>Below 1GHz</p>  <p>Above 1GHz</p>  <p>Substituted method:</p> 

<p>Test Procedure:</p>	<ol style="list-style-type: none"> <li>1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.</li> <li>2. 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.</li> <li>3. ERP in frequency band below 1GHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:  <math display="block">\text{ERP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable Loss (dB)}</math> </li> <li>4. EIRP in frequency band above 1GHz 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:  <math display="block">\text{EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable Loss (dB)}</math> </li> <li>5. The worse case was relating to the conducted output power.</li> </ol>
<p>Test Instruments:</p>	<p>Refer to section 5.8 for details</p>
<p>Test mode:</p>	<p>Refer to section 5.3 for details</p>
<p>Test results:</p>	<p>Passed</p>

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 size 1 & RB offset 0)								
1850.70	18607	QPSK	1.4	H	V	18.31	33.00	Pass
					H	18.20		
1850.70	18607	16QAM	1.4	H	V	18.14		
					H	18.36		
1.4MHz(RB size 3 & RB offset 0)								
1850.70	18607	QPSK	1.4	H	V	18.43	33.00	Pass
					H	17.91		
1850.70	18607	16QAM	1.4	H	V	18.54		
					H	18.38		
1.4MHz(RB size 6 & RB offset 0)								
1850.70	18607	QPSK	1.4	H	V	17.45	33.00	Pass
					H	17.61		
1850.70	18607	16QAM	1.4	H	V	17.56		
					H	17.82		

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)								
1880.00	18900	QPSK	1.4	H	V	18.32	33.00	Pass
					H	18.14		
1880.00	18900	16QAM	1.4	H	V	18.11		
					H	18.34		
1.4MHz(RB size 3 & RB offset 0)								
1880.00	18900	QPSK	1.4	H	V	18.46	33.00	Pass
					H	17.92		
1880.00	18900	16QAM	1.4	H	V	18.62		
					H	18.43		
1.4MHz(RB size 6 & RB offset 0)								
1880.00	18900	QPSK	1.40	H	V	17.62	33.00	Pass
					H	17.66		
1880.00	18900	16QAM	1.40	H	V	17.54		
					H	17.86		

### 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)								
1909.30	19193	QPSK	1.4	H	V	18.34	33.00	Pass
					H	18.16		
1909.30	19193	16QAM	1.4	H	V	18.09		
					H	18.34		
1.4MHz(RB size 3 & RB offset 0)								
1909.30	19193	QPSK	1.4	H	V	18.49	33.00	Pass
					H	17.93		
1909.30	19193	16QAM	1.4	H	V	18.64		
					H	18.43		
1.4MHz(RB size 6 & RB offset 0)								
1909.30	19193	QPSK	1.4	H	V	17.64	33.00	Pass
					H	17.72		
1909.30	19193	16QAM	1.4	H	V	17.51		
					H	17.85		

### 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)								
1860.00	18700	QPSK	20	H	V	18.40	33.00	Pass
					H	18.28		
1860.00	18700	16QAM	20	H	V	18.71		
					H	18.52		
20MHz(RB size 50 & RB offset 0)								
1860.00	18700	QPSK	20	H	V	16.07	33.00	Pass
					H	15.12		
1860.00	18700	16QAM	20	H	V	16.25		
					H	15.42		
20MHz(RB size 100 & RB offset 0)								
1860.00	18700	QPSK	20	H	V	16.26	33.00	Pass
					H	14.13		
1860.00	18700	16QAM	20	H	V	15.93		
					H	13.61		

**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	H	V	18.38	33.00	Pass
					H	18.32		
1880.00	18900	16QAM	20	H	V	18.81		
					H	18.64		
20MHz(RB size 50 & RB offset 0)								
1880.00	18900	QPSK	20	H	V	16.08	33.00	Pass
					H	15.23		
1880.00	18900	16QAM	20	H	V	16.29		
					H	15.44		
20MHz(RB size 100 & RB offset 0)								
1880.00	18900	QPSK	20	H	V	16.29	33.00	Pass
					H	14.21		
1880.00	18900	16QAM	20	H	V	16.03		
					H	13.67		

**Highest 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	H	V	18.39	33.00	Pass
					H	18.29		
1900.00	19100	16QAM	20	H	V	18.79		
					H	18.67		
20MHz(RB size 50 & RB offset 0)								
1900.00	19100	QPSK	20	H	V	16.09	33.00	Pass
					H	15.27		
1900.00	19100	16QAM	20	H	V	16.24		
					H	15.46		
20MHz(RB size 100 & RB offset 0)								
1900.00	19100	QPSK	20	H	V	16.32	33.00	Pass
					H	14.29		
1900.00	19100	16QAM	20	H	V	16.39		
					H	13.72		

**LTE band 4 part**

**Lowest 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)								
1710.70	19957	QPSK	1.4	H	V	13.57	30.00	Pass
					H	14.70		
1710.70	19957	16QAM	1.4	H	V	13.69		
					H	14.16		
1.4MHz(RB size 3 & RB offset 0)								
1710.70	19957	QPSK	1.4	H	V	13.63	30.00	Pass
					H	14.17		
1710.70	19957	16QAM	1.4	H	V	15.35		
					H	14.24		
1.4MHz(RB size 6 & RB offset 0)								
1710.70	19957	QPSK	1.4	H	V	12.34	30.00	Pass
					H	12.72		
1710.70	19957	16QAM	1.4	H	V	12.57		
					H	13.23		

**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	20175	QPSK	1.4	H	V	13.59	30.00	Pass
					H	14.73		
1732.50	20175	16QAM	1.4	H	V	13.72		
					H	14.36		
1.4MHz(RB size 3 & RB offset 0)								
1732.50	20175	QPSK	1.4	H	V	13.64	30.00	Pass
					H	14.21		
1732.50	20175	16QAM	1.4	H	V	15.39		
					H	14.26		
1.4MHz(RB size 6 & RB offset 0)								
1732.50	20175	QPSK	1.4	H	V	12.39	30.00	Pass
					H	12.81		
1732.50	20175	16QAM	1.4	H	V	12.64		
					H	13.26		



### 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)								
1754.30	20393	QPSK	1.4	H	V	13.54	30.00	Pass
					H	14.82		
1754.30	20393	16QAM	1.4	H	V	13.64		
					H	14.39		
1.4MHz(RB size 3 & RB offset 0)								
1754.30	20393	QPSK	1.4	H	V	13.67	30.00	Pass
					H	14.26		
1754.30	20393	16QAM	1.4	H	V	15.42		
					H	14.28		
1.4MHz(RB size 6 & RB offset 0)								
1754.30	20393	QPSK	1.4	H	V	12.37	30.00	Pass
					H	12.86		
1754.30	20393	16QAM	1.4	H	V	12.67		
					H	13.29		

### 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	QPSK	20	H	V	13.79	30.00	Pass
					H	14.10		
1720.00	20050	16QAM	20	H	V	13.64		
					H	14.13		
20MHz(RB size 50 & RB offset 0)								
1720.00	20050	QPSK	20	H	V	10.33	30.00	Pass
					H	10.60		
1720.00	20050	16QAM	20	H	V	10.60		
					H	11.15		
20MHz(RB size 100 & RB offset 0)								
1720.00	20050	QPSK	20	H	V	8.87	30.00	Pass
					H	9.08		
1720.00	20050	16QAM	20	H	V	9.30		
					H	9.63		

**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)								
1732.50	20175	QPSK	20	H	V	13.89	30.00	Pass
					H	14.23		
1732.50	20175	16QAM	20	H	V	13.72		
					H	14.21		
20MHz(RB size 50 & RB offset 0)								
1732.50	20175	QPSK	20	H	V	10.39	30.00	Pass
					H	10.65		
1732.50	20175	16QAM	20	H	V	10.59		
					H	11.21		
20MHz(RB size 100 & RB offset 0)								
1732.50	20175	QPSK	20	H	V	9.21	30.00	Pass
					H	9.32		
1732.50	20175	16QAM	20	H	V	9.33		
					H	9.64		

**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	H	V	13.92	30.00	Pass
					H	14.24		
1745.00	20300	16QAM	20	H	V	13.92		
					H	14.26		
20MHz(RB size 50 & RB offset 0)								
1745.00	20300	QPSK	20	H	V	10.62	30.00	Pass
					H	10.72		
1745.00	20300	16QAM	20	H	V	10.54		
					H	11.36		
20MHz(RB size 100 & RB offset 0)								
1745.00	20300	QPSK	20	H	V	9.64	30.00	Pass
					H	9.32		
1745.00	20300	16QAM	20	H	V	9.37		
					H	9.72		

LTE band 7 part

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
5MHz(RB size 1 & RB offset 0)								
2502.50	20775	QPSK	5	H	V	10.63	33.00	Pass
					H	14.04		
2502.50	20775	16QAM	5	H	V	10.63		
					H	12.98		
5MHz(RB size 12& RB offset 0)								
2502.50	20775	QPSK	5	H	V	10.66	33.00	Pass
					H	14.08		
2502.50	20775	16QAM	5	H	V	10.51		
					H	13.99		
5MHz(RB size 25& RB offset 0)								
2502.50	20775	QPSK	5	H	V	9.82	33.00	Pass
					H	13.09		
2502.50	20775	16QAM	5	H	V	9.69		
					H	11.71		

Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
5MHz(RB size 1 & RB offset 0)								
2535.00	21100	QPSK	5	H	V	11.03	33.00	Pass
					H	14.23		
2535.00	21100	16QAM	5	H	V	11.23		
					H	12.99		
5MHz(RB size 12& RB offset 0)								
2535.00	21100	QPSK	5	H	V	10.98	33.00	Pass
					H	14.12		
2535.00	21100	16QAM	5	H	V	10.59		
					H	14.31		
5MHz(RB size 25& RB offset 0)								
2535.00	21100	QPSK	5	H	V	10.06	33.00	Pass
					H	13.12		
2535.00	21100	16QAM	5	H	V	9.76		
					H	11.74		

### Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
5MHz(RB size 1 & RB offset 0)								
2567.50	21425	QPSK	5	H	V	11.12	33.00	Pass
					H	14.38		
2567.50	21425	16QAM	5	H	V	11.36		
					H	12.37		
5MHz(RB size 12& RB offset 0)								
2567.50	21425	QPSK	5	H	V	11.26	33.00	Pass
					H	14.24		
2567.50	21425	16QAM	5	H	V	10.59		
					H	14.36		
5MHz(RB size 25& RB offset 0)								
2567.50	21425	QPSK	5	H	V	10.12	33.00	Pass
					H	13.19		
2567.50	21425	16QAM	5	H	V	10.84		
					H	11.86		

### 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)								
2510.00	20850	QPSK	20	H	V	10.39	33.00	Pass
					H	13.93		
2510.00	20850	16QAM	20	H	V	10.30		
					H	13.07		
20MHz(RB size 50 & RB offset 0)								
2510.00	20850	QPSK	20	H	V	9.52	33.00	Pass
					H	11.04		
2510.00	20850	16QAM	20	H	V	9.61		
					H	11.40		
20MHz(RB size 100 & RB offset 0)								
2510.00	20850	QPSK	20	H	V	8.58	33.00	Pass
					H	10.15		
2510.00	20850	16QAM	20	H	V	8.44		
					H	10.15		

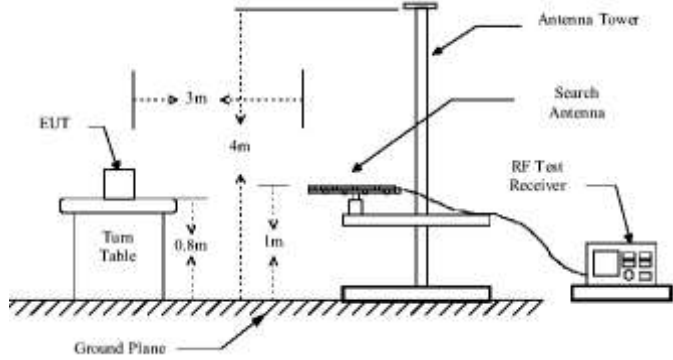
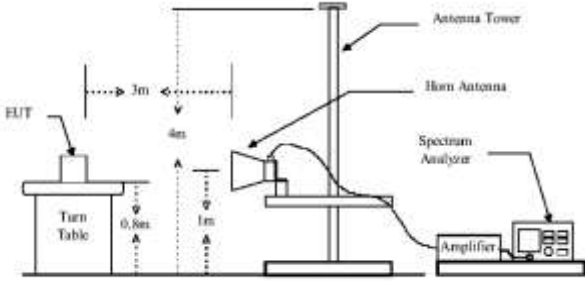
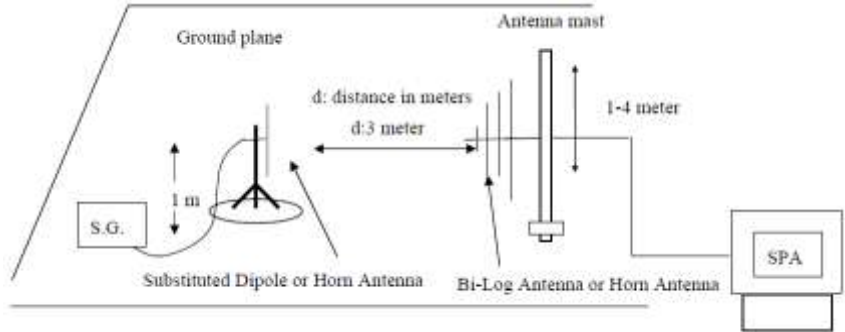
**Middle channel**

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
20MHz(RB size 1 & RB offset 0)								
2535.00	21100	QPSK	20	H	V	10.46	33.00	Pass
					H	14.06		
2535.00	21100	16QAM	20	H	V	10.38		
					H	13.62		
20MHz(RB size 50 & RB offset 0)								
2535.00	21100	QPSK	20	H	V	10.24	33.00	Pass
					H	11.25		
2535.00	21100	16QAM	20	H	V	10.64		
					H	11.98		
20MHz(RB size 100 & RB offset 0)								
2535.00	21100	QPSK	20	H	V	9.36	33.00	Pass
					H	10.26		
2535.00	21100	16QAM	20	H	V	9.84		
					H	11.29		

**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)								
2560.00	21350	QPSK	20	H	V	10.58	33.00	Pass
					H	14.36		
2560.00	21350	16QAM	20	H	V	10.42		
					H	13.64		
20MHz(RB size 50 & RB offset 0)								
2560.00	21350	QPSK	20	H	V	10.29	33.00	Pass
					H	11.36		
2560.00	21350	16QAM	20	H	V	10.68		
					H	12.06		
20MHz(RB size 100 & RB offset 0)								
2560.00	21350	QPSK	20	H	V	9.37	33.00	Pass
					H	10.61		
2560.00	21350	16QAM	20	H	V	9.87		
					H	11.36		

## 6.11 Field strength of spurious radiation measurement

Test Requirement:	Part 24.238 (a), Part 27.53(m), Part 27.53(h)
Test Method:	FCC part2.1053
Limit:	LTE Band 2, LTE Band 4: -13dBm, LTE Band 7: -25dBm
Test setup:	<p>Below 1GHz</p>  <p>Above 1GHz</p>  <p>Substituted method:</p> 
Test Procedure:	<ol style="list-style-type: none"> <li>1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.</li> <li>2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.</li> <li>3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission</li> </ol>

	<p>was determined using the substitution method.</p> <p>4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.</p> $\text{ERP / EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$
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:

1.4MHz(RB size 1 & RB offset 0) for QPSK

Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3701.40	Vertical	-30.42	-13.00	Pass
5552.10	V	-39.34		
7402.00	V	-38.63		
3701.40	Horizontal	-26.83		
5552.10	H	-40.96		
7402.00	H	-40.24		
<b>Middle</b>				
3760.00	Vertical	-28.89	-13.00	Pass
5640.00	V	-43.04		
7520.00	V	-37.70		
3760.00	Horizontal	-26.44		
5640.00	H	-41.50		
7520.00	H	-39.57		
<b>Highest</b>				
3816.60	Vertical	-27.13	-13.00	Pass
5724.90	V	-43.26		
7633.20	V	-38.64		
3816.60	Horizontal	-24.97		
5724.90	H	-43.22		
7633.20	H	-39.00		



3MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3703.00	Vertical	-30.02	-13.00	Pass
5554.50	V	-39.42		
7406.00	V	-39.65		
3703.00	Horizontal	-29.08		
5554.50	H	-37.86		
7406.00	H	-38.21		
<b>Middle</b>				
3760.00	Vertical	-25.34	-13.00	Pass
5640.00	V	-41.29		
7520.00	V	-39.72		
3760.00	Horizontal	-32.81		
5640.00	H	-41.26		
7520.00	H	-39.37		
<b>Highest</b>				
3817.00	Vertical	-26.64	-13.00	Pass
5725.50	V	-41.98		
7634.00	V	-39.54		
3817.00	Horizontal	-24.39		
5725.50	H	-42.51		
7634.00	H	-38.83		

5MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3705.00	Vertical	-30.48	-13.00	Pass
5557.50	V	-39.68		
7410.00	V	-38.61		
3705.00	Horizontal	-26.84		
5557.50	H	-40.97		
7410.00	H	-40.36		
<b>Middle</b>				
3760.00	Vertical	-28.94	-13.00	Pass
5640.00	V	-43.12		
7520.00	V	-37.74		
3760.00	Horizontal	-26.85		
5640.00	H	-41.59		
7520.00	H	-39.64		
<b>Highest</b>				
3815.00	Vertical	-27.19	-13.00	Pass
5722.50	V	-43.32		
7630.00	V	-38.69		
3815.00	Horizontal	-24.98		
5722.50	H	-43.29		
7630.00	H	-39.21		

10MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3710.00	Vertical	-29.98	-13.00	Pass
5565.00	V	-39.45		
7420.00	V	-39.64		
3710.00	Horizontal	-29.12		
5565.00	H	-37.81		
7420.00	H	-38.16		
<b>Middle</b>				
3760.00	Vertical	-25.48	-13.00	Pass
5640.00	V	-41.21		
7520.00	V	-39.68		
3760.00	Horizontal	-32.67		
5640.00	H	-41.19		
7520.00	H	-39.34		
<b>Highest</b>				
3810.00	Vertical	-26.60	-13.00	Pass
5715.00	V	-42.43		
7620.00	V	-39.52		
3810.00	Horizontal	-24.34		
5715.00	H	-42.68		
7620.00	H	-38.78		

15MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3715.00	Vertical	-29.87	-13.00	Pass
5572.50	V	-38.97		
7430.00	V	-38.61		
3715.00	Horizontal	-26.81		
5572.50	H	-40.78		
7430.00	H	-40.32		
<b>Middle</b>				
3760.00	Vertical	-28.36	-13.00	Pass
5640.00	V	-43.29		
7520.00	V	-37.89		
3760.00	Horizontal	-26.84		
5640.00	H	-41.69		
7520.00	H	-39.67		
<b>Highest</b>				
3805.00	Vertical	-27.32	-13.00	Pass
5707.50	V	-43.36		
7610.00	V	-38.67		
3805.00	Horizontal	-24.99		
5707.50	H	-43.36		
7610.00	H	-39.29		

20MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3720.00	Vertical	-30.12	-13.00	Pass
5580.00	V	-39.48		
7440.00	V	-39.61		
3720.00	Horizontal	-26.07		
5580.00	H	-37.71		
7440.00	H	-38.00		
<b>Middle</b>				
3760.00	Vertical	-29.51	-13.00	Pass
5640.00	V	-41.19		
7520.00	V	-39.64		
3760.00	Horizontal	-32.64		
5640.00	H	-41.15		
7520.00	H	-39.39		
<b>Highest</b>				
3800.00	Vertical	-26.59	-13.00	Pass
5700.00	V	-42.39		
7600.00	V	-39.48		
3800.00	Horizontal	-24.30		
5700.00	H	-42.64		
7600.00	H	-38.79		

LTE Band 4 Part:

1.4MHz(RB size 1 & RB offset 0) for QPSK

Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3421.40	Vertical	-24.82	-13.00	Pass
5132.10	V	-34.15		
6842.80	V	-36.71		
3421.40	Horizontal	-30.20		
5132.10	H	-42.46		
6842.80	H	-36.99		
<b>Middle</b>				
3465.00	Vertical	-27.47	-13.00	Pass
5197.50	V	-41.67		
6930.00	V	-38.03		
3465.00	Horizontal	-31.66		
5197.50	H	-41.20		
6930.00	H	-38.09		
<b>Highest</b>				
3508.60	Vertical	-32.57	-13.00	Pass
5262.90	V	-36.72		
7017.20	V	-37.77		
3508.60	Horizontal	-37.35		
5262.90	H	-39.44		
7017.20	H	-37.75		

3MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3423.00	Vertical	-24.89	-13.00	Pass
5134.50	V	-42.32		
6846.00	V	-37.26		
3423.00	Horizontal	-32.98		
5134.50	H	-45.12		
6846.00	H	-40.87		
<b>Middle</b>				
3465.00	Vertical	-26.72	-13.00	Pass
5197.50	V	-36.08		
6930.00	V	-36.34		
3465.00	Horizontal	-30.16		
5197.50	H	-40.78		
6930.00	H	-35.29		
<b>Highest</b>				
3507.00	Vertical	-24.58	-13.00	Pass
5260.50	V	-38.97		
7014.00	V	-36.36		
3507.00	Horizontal	-32.24		
5260.50	H	-40.82		
7014.00	H	-38.02		

5MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3425.00	Vertical	-24.98	-13.00	Pass
5137.50	V	-34.16		
6850.00	V	-36.72		
3425.00	Horizontal	-30.26		
5137.50	H	-42.52		
6850.00	H	-39.72		
<b>Middle</b>				
3465.00	Vertical	-27.52	-13.00	Pass
5197.50	V	-41.68		
6930.00	V	-39.12		
3465.00	Horizontal	-41.26		
5197.50	H	-38.02		
6930.00	H	-38.10		
<b>Highest</b>				
3505.00	Vertical	-32.59	-13.00	Pass
5257.50	V	-36.74		
7010.00	V	-37.78		
3505.00	Horizontal	-37.64		
5257.50	H	-39.59		
7010.00	H	-37.64		



10MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3430.00	Vertical	-24.83	-13.00	Pass
5145.00	V	-42.16		
6860.00	V	-37.12		
3430.00	Horizontal	-32.96		
5145.00	H	-45.06		
6860.00	H	-40.86		
<b>Middle</b>				
3465.00	Vertical	-26.69	-13.00	Pass
5197.50	V	-36.06		
6930.00	V	-36.32		
3465.00	Horizontal	-30.14		
5197.50	H	-40.68		
6930.00	H	-35.12		
<b>Highest</b>				
3500.00	Vertical	-25.49	-13.00	Pass
5250.00	V	-38.94		
7000.00	V	-36.29		
3500.00	Horizontal	-32.12		
5250.00	H	-40.79		
7000.00	H	-37.19		

15MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3435.00	Vertical	-24.95	-13.00	Pass
5152.50	V	-34.29		
6870.00	V	-36.76		
3435.00	Horizontal	-30.32		
5152.50	H	-42.55		
6870.00	H	-39.74		
<b>Middle</b>				
3465.00	Vertical	-27.59	-13.00	Pass
5197.50	V	-41.64		
6930.00	V	-39.14		
3465.00	Horizontal	-41.28		
5197.50	H	-38.06		
6930.00	H	-38.16		
<b>Highest</b>				
3495.00	Vertical	-32.54	-13.00	Pass
5242.50	V	-36.72		
6990.00	V	-37.82		
3495.00	Horizontal	-37.69		
5242.50	H	-39.54		
6990.00	H	-37.62		

20MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
3440.00	Vertical	-24.83	-13.00	Pass
5160.00	V	-42.10		
6880.00	V	-37.10		
3440.00	Horizontal	-32.92		
5160.00	H	-45.05		
6880.00	H	-40.82		
<b>Middle</b>				
3465.00	Vertical	-26.68	-13.00	Pass
5197.50	V	-36.02		
6930.00	V	-36.27		
3465.00	Horizontal	-30.12		
5197.50	H	-40.62		
6930.00	H	-35.09		
<b>Highest</b>				
3490.00	Vertical	-25.48	-13.00	Pass
5235.00	V	-38.93		
6980.00	V	-36.24		
3490.00	Horizontal	-32.10		
5235.00	H	-40.73		
6980.00	H	-37.14		

LTE Band 7 Part:

5MHz(RB size 1 & RB offset 0) for QPSK

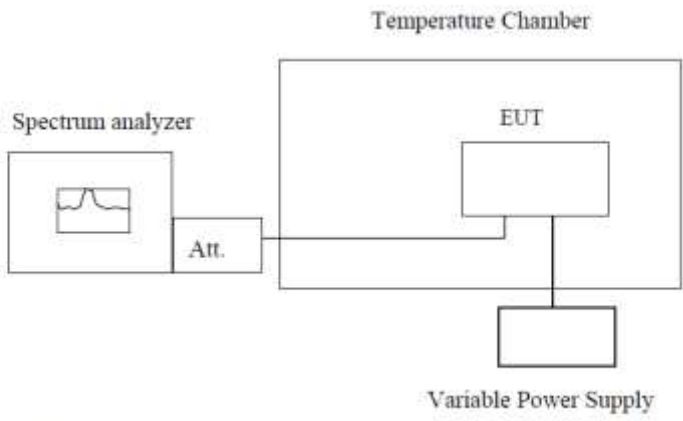
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
5005.00	Vertical	-45.29	-25.00	Pass
7507.50	V	-38.85		
10010.00	V	-35.61		
5005.00	Horizontal	-44.23		
7507.50	H	-37.72		
10010.00	H	-36.11		
<b>Middle</b>				
5070.00	Vertical	-43.81	-25.00	Pass
7605.00	V	-38.05		
10140.00	V	-34.84		
5070.00	Horizontal	-43.58		
7605.00	H	-37.91		
10140.00	H	-35.16		
<b>Highest</b>				
5135.00	Vertical	-42.44	-25.00	Pass
7702.50	V	-38.31		
10270.00	V	-35.37		
5135.00	Horizontal	-41.62		
7702.50	H	-38.21		
10270.00	H	-34.94		

10MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
5010.00	Vertical	-45.36	-25.00	Pass
7515.00	V	-39.12		
10020.00	V	-37.74		
5010.00	Horizontal	-44.76		
7515.00	H	-38.16		
10020.00	H	-37.79		
<b>Middle</b>				
5070.00	Vertical	-43.98	-25.00	Pass
7605.00	V	-38.89		
10140.00	V	-35.09		
5070.00	Horizontal	-44.46		
7605.00	H	-38.06		
10140.00	H	-35.72		
<b>Highest</b>				
5130.00	Vertical	-43.79	-25.00	Pass
7695.00	V	-37.51		
10260.00	V	-34.95		
5130.00	Horizontal	-44.21		
7695.00	H	-37.46		
10260.00	H	-34.62		

15MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
5015.00	Vertical	-45.32	-25.00	Pass
7522.50	V	-38.89		
10030.00	V	-35.64		
5015.00	Horizontal	-44.29		
7522.50	H	-37.78		
10030.00	H	-36.16		
<b>Middle</b>				
5070.00	Vertical	-43.82	-25.00	Pass
7605.00	V	-38.19		
10140.00	V	-34.98		
5070.00	Horizontal	-43.62		
7605.00	H	-37.96		
10140.00	H	-35.21		
<b>Highest</b>				
5125.00	Vertical	42.29	-25.00	Pass
7687.50	V	-38.37		
10250.00	V	-35.69		
5125.00	Horizontal	-41.68		
7687.50	H	-38.26		
10250.00	H	-34.97		

20MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest</b>				
5020.00	Vertical	-45.39	-25.00	Pass
7530.00	V	-39.00		
10040.00	V	-37.74		
5020.00	Horizontal	-44.71		
7530.00	H	-38.14		
10040.00	H	-37.76		
<b>Middle</b>				
5070.00	Vertical	-43.97	-25.00	Pass
7605.00	V	-38.85		
10140.00	V	-35.04		
5070.00	Horizontal	-44.41		
7605.00	H	-38.03		
10140.00	H	-35.71		
<b>Highest</b>				
5120.00	Vertical	-43.76	-25.00	Pass
7680.00	V	-37.54		
10240.00	V	-34.96		
5120.00	Horizontal	-44.34		
7680.00	H	-37.98		
10240.00	H	-34.59		

## 6.12 Frequency stability V.S. Temperature measurement

Test Requirement:	Part 24.235, Part 27.54, Part 2.1055(a)(1)(b)
Test Method:	FCC Part2.1055(a)(1)(b)
Limit:	±2.5ppm
Test setup:	 <p><b>Note :</b> Measurement setup for testing on Antenna connector</p>
Test procedure:	<ol style="list-style-type: none"> <li>1. The equipment under test was connected to an external DC power supply and input rated voltage.</li> <li>2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.</li> <li>3. The EUT was placed inside the temperature chamber.</li> <li>4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency.</li> <li>5. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.</li> <li>6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached</li> </ol>
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):

Reference Frequency: LTE Band 2(1.4MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	175	0.094785	±2.5	Pass
	-20	160	0.086806		
	-10	144	0.078296		
	0	102	0.055955		
	10	163	0.088402		
	20	151	0.082019		
	30	142	0.077232		
	40	130	0.070849		
	50	125	0.068189		
Reference Frequency: LTE Band 2(3MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	174	0.094153	±2.5	Pass
	-20	166	0.089898		
	-10	125	0.068089		
	0	130	0.070749		
	10	141	0.0766		
	20	105	0.057451		
	30	128	0.069685		
	40	136	0.07394		
	50	159	0.086174		
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	170	0.092326	±2.5	Pass
	-20	163	0.088602		
	-10	145	0.079028		
	0	128	0.069985		
	10	162	0.08807		
	20	128	0.069985		
	30	135	0.073709		
	40	149	0.081155		
	50	158	0.085943		

Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	136	0.07444	±2.5	Pass
	-20	152	0.082951		
	-10	142	0.077632		
	0	105	0.057951		
	10	126	0.069121		
	20	138	0.075504		
	30	146	0.07976		
	40	125	0.068589		
	50	109	0.060079		
Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	174	0.094853	±2.5	Pass
	-20	163	0.089002		
	-10	125	0.068789		
	0	142	0.077832		
	10	105	0.058151		
	20	138	0.075704		
	30	147	0.080491		
	40	156	0.085279		
	50	138	0.075704		
Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	185	0.101004	±2.5	Pass
	-20	125	0.069089		
	-10	163	0.089302		
	0	142	0.078132		
	10	155	0.085047		
	20	167	0.09143		
	30	135	0.074409		
	40	148	0.081323		
	50	159	0.087174		

**LTE Band 2(16QAM):**

Reference Frequency: LTE Band 2(1.4MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	168	0.091962	±2.5	Pass
	-20	170	0.093026		
	-10	152	0.083451		
	0	136	0.07494		
	10	146	0.08026		
	20	156	0.085579		
	30	146	0.08026		
	40	149	0.081855		
	50	128	0.070685		
Reference Frequency: LTE Band 2(3MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	171	0.093017	±2.5	Pass
	-20	129	0.070677		
	-10	163	0.088762		
	0	142	0.077592		
	10	158	0.086103		
	20	138	0.075464		
	30	174	0.094613		
	40	125	0.068549		
	50	156	0.085039		
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	162	0.08823	±2.5	Pass
	-20	142	0.077592		
	-10	135	0.073869		
	0	105	0.057911		
	10	126	0.069081		
	20	142	0.077592		
	30	190	0.103124		
	40	156	0.085039		
	50	174	0.094613		

Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	156	0.113079	±2.5	Pass
	-20	174	0.122653		
	-10	135	0.101909		
	0	146	0.10776		
	10	185	0.128504		
	20	158	0.114143		
	30	162	0.11627		
	40	155	0.112547		
	50	136	0.10244		
Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	174	0.113253	±2.5	Pass
	-20	125	0.087189		
	-10	163	0.107402		
	0	108	0.078147		
	10	142	0.096232		
	20	135	0.092509		
	30	126	0.087721		
	40	145	0.097828		
	50	140	0.095168		
Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	177	0.096209	±2.5	Pass
	-20	162	0.08823		
	-10	148	0.080783		
	0	152	0.082911		
	10	143	0.078124		
	20	125	0.068549		
	30	156	0.085039		
	40	185	0.100464		
	50	190	0.103124		

**LTE Band 4(QPSK):**

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	166	0.125915	±2.5	Pass
	-20	125	0.10225		
	-10	136	0.108599		
	0	155	0.119566		
	10	142	0.112062		
	20	112	0.094746		
	30	106	0.091283		
	40	147	0.114948		
	50	125	0.10225		
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	142	0.084022	±2.5	Pass
	-20	136	0.080559		
	-10	152	0.089794		
	0	158	0.093258		
	10	140	0.082868		
	20	136	0.080559		
	30	145	0.085754		
	40	122	0.072478		
	50	108	0.064398		
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	177	0.122865	±2.5	Pass
	-20	156	0.110743		
	-10	143	0.10324		
	0	135	0.098622		
	10	142	0.102662		
	20	162	0.114206		
	30	141	0.102085		
	40	125	0.09285		
	50	136	0.099199		

Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	175	0.10307	±2.5	Pass
	-20	163	0.096144		
	-10	152	0.089794		
	0	145	0.085754		
	10	129	0.076519		
	20	187	0.109997		
	30	176	0.103647		
	40	135	0.079982		
	50	125	0.07421		
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	163	0.124184	±2.5	Pass
	-20	181	0.134573		
	-10	149	0.116103		
	0	128	0.103982		
	10	163	0.124184		
	20	155	0.119566		
	30	170	0.128224		
	40	129	0.104559		
	50	142	0.112062		
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	185	0.127482	±2.5	Pass
	-20	136	0.099199		
	-10	142	0.102662		
	0	162	0.114206		
	10	174	0.121133		
	20	158	0.111898		
	30	143	0.10324		
	40	105	0.081306		
	50	122	0.091118		

**LTE Band 4(16QAM):**

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	136	0.102493	±2.5	Pass
	-20	125	0.095566		
	-10	140	0.079982		
	0	121	0.082868		
	10	142	0.095566		
	20	144	0.064398		
	30	153	0.079982		
	40	163	0.084022		
	50	147	0.106533		
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	162	0.123606	±2.5	Pass
	-20	108	0.092438		
	-10	122	0.100518		
	0	136	0.108599		
	10	162	0.123606		
	20	141	0.111485		
	30	144	0.113217		
	40	136	0.108599		
	50	150	0.11668		
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	174	0.099199	±2.5	Pass
	-20	162	0.09285		
	-10	135	0.101508		
	0	140	0.090541		
	10	162	0.102662		
	20	108	0.103817		
	30	135	0.109012		
	40	142	0.114784		
	50	181	0.105548		

Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	174	0.126492	±2.5	Pass
	-20	136	0.117834		
	-10	125	0.107445		
	0	136	0.090706		
	10	142	0.102827		
	20	152	0.095901		
	30	146	0.121298		
	40	155	0.122452		
	50	126	0.104559		
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	167	0.105548	±2.5	Pass
	-20	152	0.080152		
	-10	134	0.093427		
	0	105	0.109012		
	10	126	0.078997		
	20	114	0.091696		
	30	158	0.108434		
	40	160	0.081883		
	50	129	0.092273		
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	147	0.102493	±2.5	Pass
	-20	103	0.080559		
	-10	126	0.07421		
	0	153	0.080559		
	10	101	0.084022		
	20	123	0.089794		
	30	152	0.086331		
	40	106	0.091526		
	50	124	0.074787		



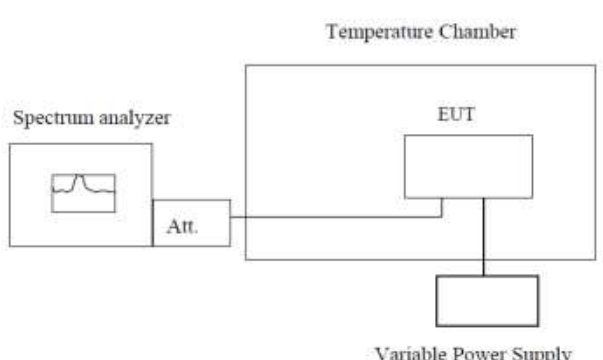
**LTE Band 7(QPSK):**

Reference Frequency: LTE Band 7(5MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	168	0.076716	±2.5	Pass
	-20	102	0.061331		
	-10	122	0.07001		
	0	136	0.074349		
	10	163	0.076321		
	20	152	0.073165		
	30	142	0.06212		
	40	108	0.070404		
	50	162	0.070404		
Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	142	0.096372	±2.5	Pass
	-20	103	0.070337		
	-10	125	0.078226		
	0	136	0.083749		
	10	141	0.0944		
	20	133	0.090061		
	30	105	0.086116		
	40	126	0.072704		
	50	126	0.094005		
Reference Frequency: LTE Band 7(15MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	141	0.057681	±2.5	Pass
	-20	105	0.04348		
	-10	126	0.051764		
	0	138	0.056498		
	10	152	0.062021		
	20	116	0.047819		
	30	124	0.050975		
	40	108	0.044664		
	50	162	0.065965		
Reference Frequency: LTE Band 7(20MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	174	0.098739	±2.5	Pass
	-20	125	0.07941		
	-10	136	0.083749		
	0	169	0.096767		
	10	152	0.090061		
	20	142	0.086116		
	30	152	0.090061		
	40	160	0.093216		
	50	135	0.083354		

**LTE Band 7(16QAM):**

Reference Frequency: LTE Band 7(5MHz) Middle channel=21100Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	142	0.057291	±2.5	Pass
	-20	102	0.04348		
	-10	136	0.051764		
	0	152	0.056498		
	10	141	0.062021		
	20	102	0.047819		
	30	125	0.050975		
	40	160	0.044664		
	50	141	0.065965		
Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	152	0.078739	±2.5	Pass
	-20	123	0.05941		
	-10	141	0.063749		
	0	105	0.076767		
	10	122	0.070061		
	20	135	0.066116		
	30	142	0.070061		
	40	102	0.073216		
	50	162	0.063354		
Reference Frequency: LTE Band 7(15MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	142	0.071416	2.5	Pass
	-20	125	0.056031		
	-10	136	0.06471		
	0	125	0.069049		
	10	150	0.071021		
	20	141	0.067865		
	30	102	0.05682		
	40	132	0.065104		
	50	152	0.065104		
Reference Frequency: LTE Band 7(20MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	145	0.067299	2.5	Pass
	-20	126	0.059804		
	-10	150	0.069272		
	0	125	0.05941		
	10	145	0.067299		
	20	126	0.059804		
	30	142	0.066116		
	40	125	0.05941		
	50	132	0.062171		

## 6.13 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 24.235, Part 27.54, Part 2.1055(d)(2)
Test Method:	FCC Part2.1055(d)(1)(2)
Limit:	2.5ppm
Test setup:	 <p style="text-align: center;"><b>Note :</b> Measurement setup for testing on Antenna connector</p>
Test procedure:	<ol style="list-style-type: none"> <li>1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage.</li> <li>2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.</li> <li>3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.</li> </ol>
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):**

Reference Frequency: LTE Band 2(1.4MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	96	0.052734	±2.5	Pass
	3.80	87	0.048337		
	3.55	69	0.038762		
Reference Frequency: LTE Band 2(3MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	75	0.041954	±2.5	Pass
	3.80	85	0.047273		
	3.55	64	0.036103		
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.041422	±2.5	Pass
	3.80	62	0.035039		
	3.55	50	0.028656		
Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.049462	±2.5	Pass
	3.80	52	0.03776		
	3.55	36	0.029249		
Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.049462	±2.5	Pass
	3.80	85	0.055313		
	3.55	65	0.044674		
Reference Frequency: LTE Band 2(20MHz) Middle channel=20175 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.049462	±2.5	Pass
	3.80	88	0.056909		
	3.55	69	0.046802		

**LTE Band 2(16QAM):**

Reference Frequency: LTE Band 2(1.4MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.054762	±2.5	Pass
	3.80	85	0.060613		
	3.55	88	0.062209		
Reference Frequency: LTE Band 2(3MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.054762	±2.5	Pass
	3.80	96	0.066464		
	3.55	85	0.060613		
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	77	0.056357	±2.5	Pass
	3.80	68	0.05157		
	3.55	96	0.066464		
Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	71	0.047866	±2.5	Pass
	3.80	85	0.055313		
	3.55	67	0.045738		
Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	75	0.049994	±2.5	Pass
	3.80	88	0.056909		
	3.55	89	0.05744		
Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	75	0.049994	±2.5	Pass
	3.80	65	0.044674		
	3.55	71	0.047866		

**LTE Band 4(QPSK):**

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	88	0.052464	±2.5	Pass
	3.80	76	0.045927		
	3.55	96	0.057471		
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	78	0.047082	±2.5	Pass
	3.80	85	0.051122		
	3.55	68	0.04131		
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.044773	±2.5	Pass
	3.80	88	0.052854		
	3.55	87	0.052276		
Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	86	0.059844	±2.5	Pass
	3.80	95	0.064462		
	3.55	85	0.067925		
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.058113	±2.5	Pass
	3.80	85	0.064462		
	3.55	74	0.058113		
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	77	0.065039	±2.5	Pass
	3.80	85	0.070234		
	3.55	91	0.064462		

**LTE Band 4(16QAM):**

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.044383	±2.5	Pass
	3.80	80	0.048236		
	3.55	68	0.04131		
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.044773	±2.5	Pass
	3.80	82	0.04939		
	3.55	78	0.047082		
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	90	0.054008	±2.5	Pass
	3.80	78	0.047082		
	3.55	70	0.042464		
Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	68	0.04935	±2.5	Pass
	3.80	74	0.052813		
	3.55	88	0.060894		
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.052813	±2.5	Pass
	3.80	65	0.047618		
	3.55	85	0.059162		
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	74	0.052813	±2.5	Pass
	3.80	96	0.065511		
	3.55	85	0.059162		

**LTE Band 7(QPSK):**

Reference Frequency: LTE Band 7(5MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	87	0.033450	±2.5	Pass
	3.80	90	0.034503		
	3.55	85	0.034561		
Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	67	0.024530	±2.5	Pass
	3.80	80	0.033258		
	3.55	74	0.026391		
Reference Frequency: LTE Band 7(15MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	88	0.036314	±2.5	Pass
	3.80	65	0.024541		
	3.55	85	0.038631		
Reference Frequency: LTE Band 7(20MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	78	0.030719	±2.5	Pass
	3.80	75	0.037586		
	3.55	90	0.035203		



**LTE Band 7(16QAM):**

Reference Frequency: LTE Band 7(5MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	85	0.032731	±2.5	Pass
	3.80	75	0.023486		
	3.55	63	0.024552		
Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	84	0.033736	±2.5	Pass
	3.80	95	0.032775		
	3.55	74	0.021191		
Reference Frequency: LTE Band 7(15MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	85	0.036531	±2.5	Pass
	3.80	76	0.028780		
	3.55	90	0.035103		
Reference Frequency: LTE Band 7(20MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	85	0.034531	±2.5	Pass
	3.80	74	0.029371		
	3.55	85	0.034231		