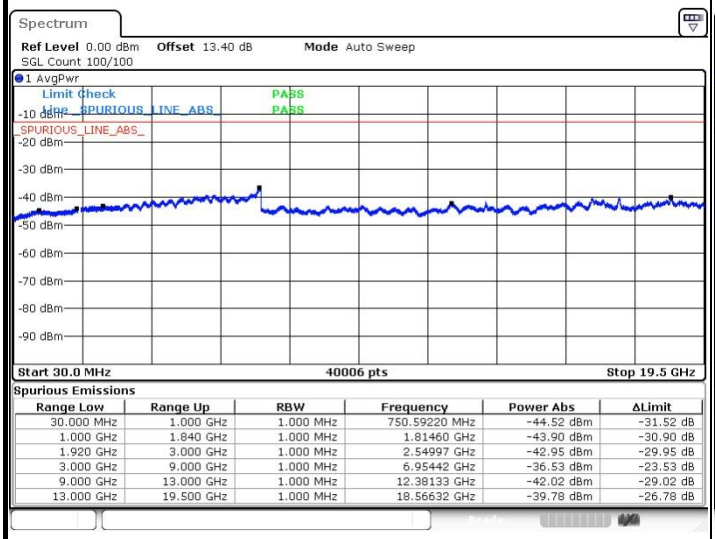
LTE Band 2 / 5MHz

Highest Channel / QPSK

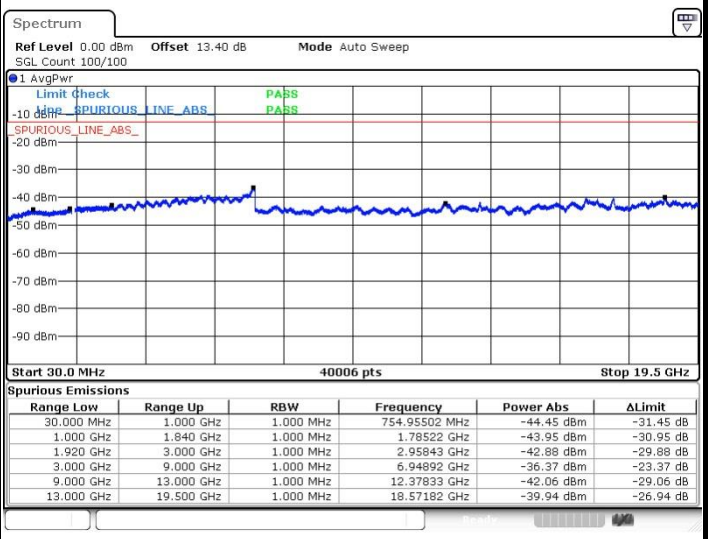


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	750.59220 MHz	-44.52 dBm	-31.52 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.81460 GHz	-43.90 dBm	-30.90 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.54997 GHz	-42.95 dBm	-29.95 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.95442 GHz	-36.53 dBm	-23.53 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.38133 GHz	-42.02 dBm	-29.02 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.56632 GHz	-39.78 dBm	-26.78 dB

Date: 23.AUG.2015 09:10:03

Highest Channel / 16QAM



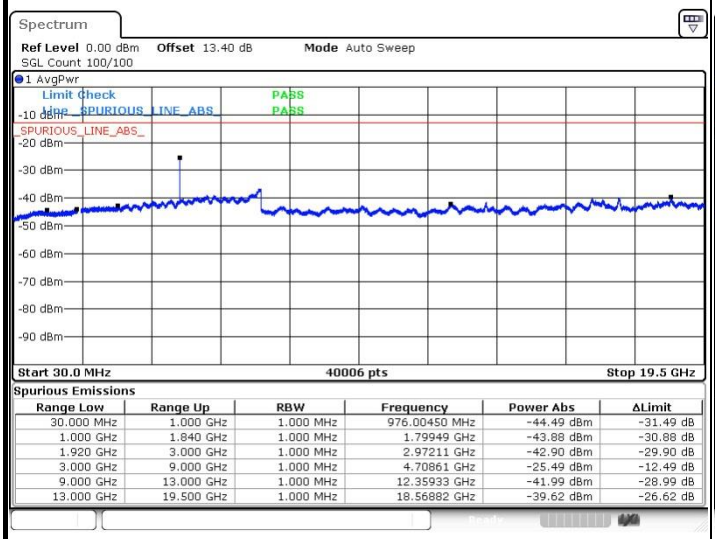
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	754.95502 MHz	-44.45 dBm	-31.45 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.78522 GHz	-43.95 dBm	-30.95 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.95843 GHz	-42.88 dBm	-29.88 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.94892 GHz	-36.37 dBm	-23.37 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.37833 GHz	-42.06 dBm	-29.06 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57182 GHz	-39.94 dBm	-26.94 dB

Date: 23.AUG.2015 09:11:02

LTE Band 2 / 10MHz

Lowest Channel / QPSK

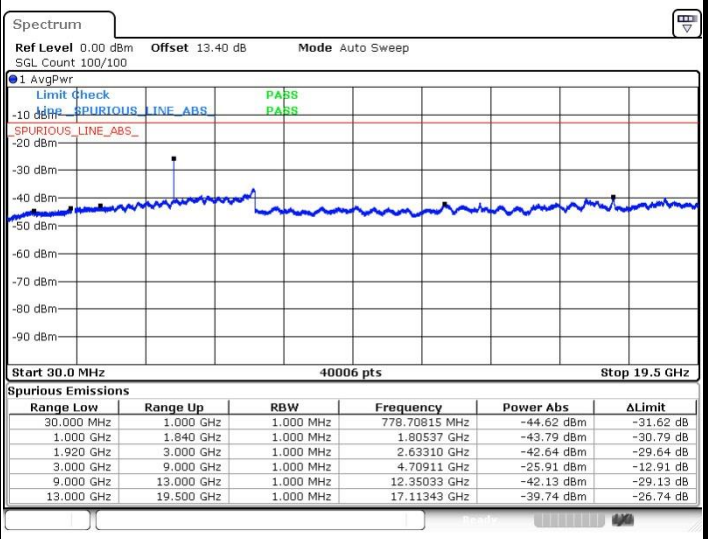


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	976.00450 MHz	-44.49 dBm	-31.49 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.79949 GHz	-43.88 dBm	-30.88 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.97211 GHz	-42.90 dBm	-29.90 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.70861 GHz	-25.49 dBm	-12.49 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.35933 GHz	-41.99 dBm	-28.99 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.56882 GHz	-39.62 dBm	-26.62 dB

Date: 23.AUG.2015 09:17:24

Lowest Channel / 16QAM



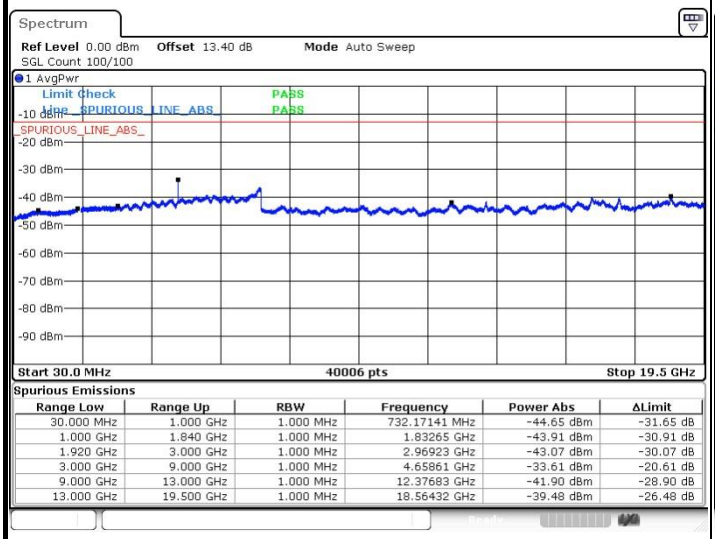
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	778.70815 MHz	-44.62 dBm	-31.62 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.80537 GHz	-43.79 dBm	-30.79 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.63310 GHz	-42.64 dBm	-29.64 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.70911 GHz	-25.91 dBm	-12.91 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.35033 GHz	-42.13 dBm	-29.13 dB
13.000 GHz	19.500 GHz	1.000 MHz	17.11343 GHz	-39.74 dBm	-26.74 dB

Date: 23.AUG.2015 09:18:22

LTE Band 2 / 10MHz

Middle Channel / QPSK

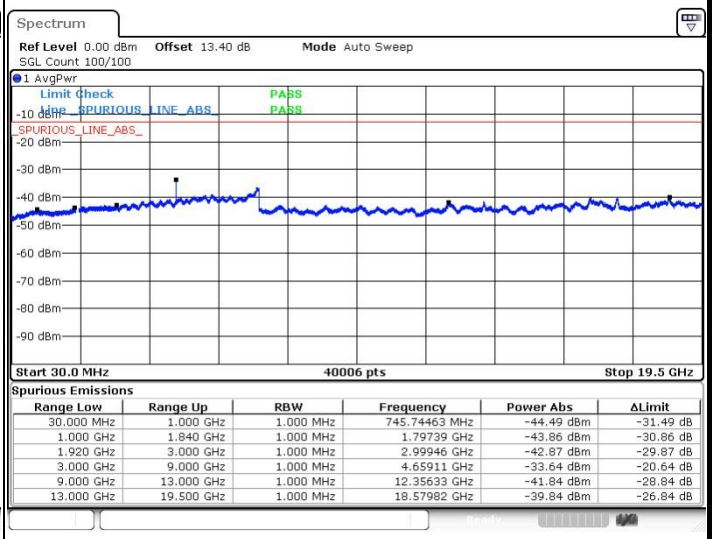


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	732.17141 MHz	-44.65 dBm	-31.65 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83265 GHz	-43.91 dBm	-30.91 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.96923 GHz	-43.07 dBm	-30.07 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.65861 GHz	-33.61 dBm	-20.61 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.37683 GHz	-41.90 dBm	-28.90 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.56432 GHz	-39.48 dBm	-26.48 dB

Date: 23.AUG.2015 09:20:08

Middle Channel / 16QAM

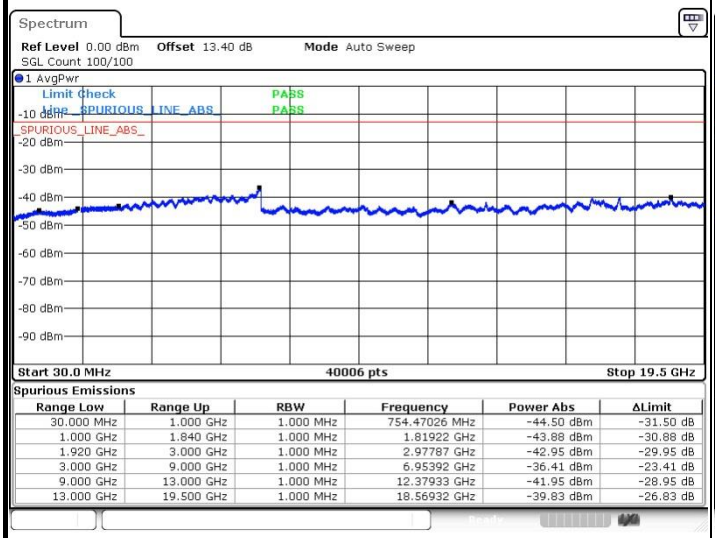


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	745.74463 MHz	-44.49 dBm	-31.49 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.79739 GHz	-43.86 dBm	-30.86 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.99946 GHz	-42.87 dBm	-29.87 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.65911 GHz	-33.64 dBm	-20.64 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.35633 GHz	-41.84 dBm	-28.84 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57982 GHz	-39.84 dBm	-26.84 dB

Date: 23.AUG.2015 09:21:06

Highest Channel / QPSK

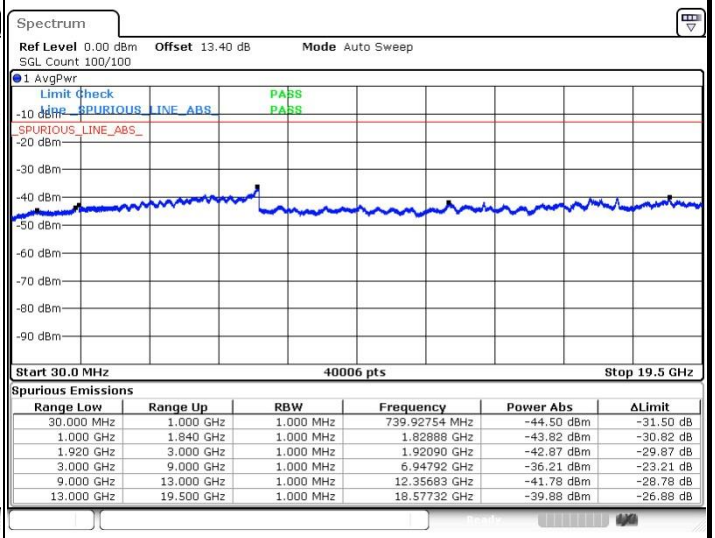


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	754.47026 MHz	-44.50 dBm	-31.50 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.81922 GHz	-43.88 dBm	-30.88 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.97787 GHz	-42.95 dBm	-29.95 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.95392 GHz	-36.41 dBm	-23.41 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.37933 GHz	-41.95 dBm	-28.95 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.56932 GHz	-39.83 dBm	-26.83 dB

Date: 23.AUG.2015 09:27:28

Highest Channel / 16QAM



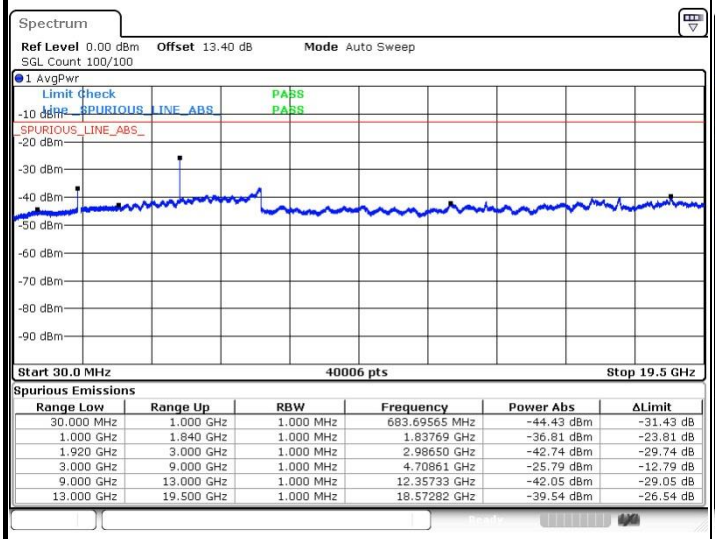
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	739.92754 MHz	-44.50 dBm	-31.50 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.82888 GHz	-43.82 dBm	-30.82 dB
1.920 GHz	3.000 GHz	1.000 MHz	1.92090 GHz	-42.87 dBm	-29.87 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.94792 GHz	-36.21 dBm	-23.21 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.35683 GHz	-41.78 dBm	-28.78 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57732 GHz	-39.88 dBm	-26.88 dB

Date: 23.AUG.2015 09:28:27

LTE Band 2 / 15MHz

Lowest Channel / QPSK

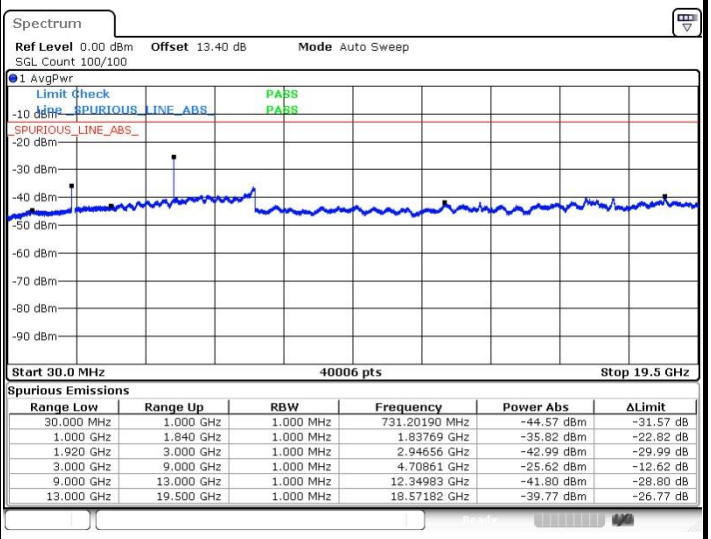


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	683.69565 MHz	-44.43 dBm	-31.43 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83769 GHz	-36.81 dBm	-23.81 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.98650 GHz	-42.74 dBm	-29.74 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.70861 GHz	-25.79 dBm	-12.79 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.35733 GHz	-42.05 dBm	-29.05 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57282 GHz	-39.54 dBm	-26.54 dB

Date: 23.AUG.2015 09:34:49

Lowest Channel / 16QAM

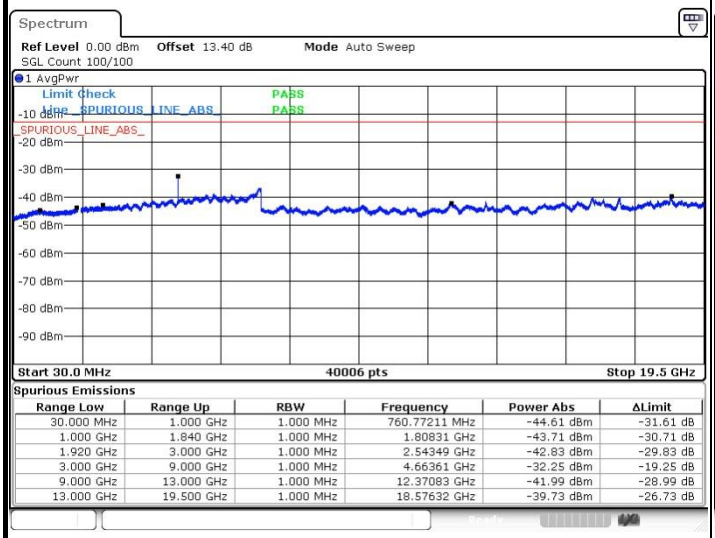


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	731.20190 MHz	-44.57 dBm	-31.57 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83769 GHz	-35.82 dBm	-22.82 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.94656 GHz	-42.99 dBm	-29.99 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.70861 GHz	-25.62 dBm	-12.62 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.34983 GHz	-41.80 dBm	-28.80 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57182 GHz	-39.77 dBm	-26.77 dB

Date: 23.AUG.2015 09:35:47

Middle Channel / QPSK

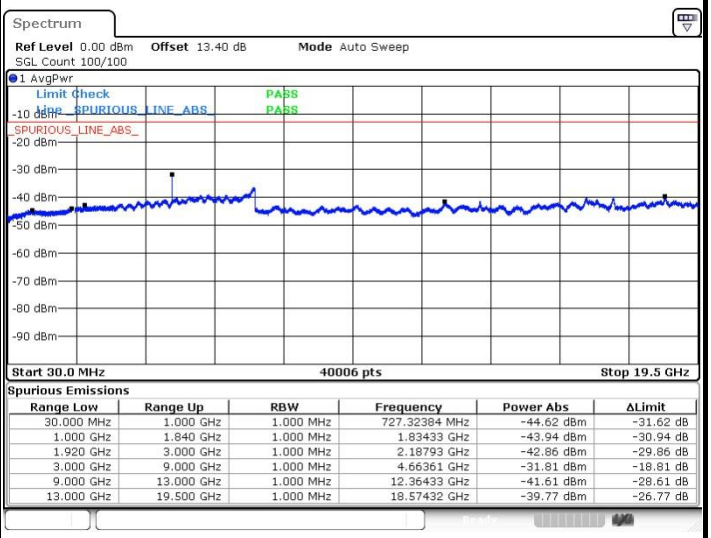


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	760.77211 MHz	-44.61 dBm	-31.61 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.80831 GHz	-43.71 dBm	-30.71 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.54349 GHz	-42.83 dBm	-29.83 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.66361 GHz	-32.25 dBm	-19.25 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.37083 GHz	-41.99 dBm	-28.99 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57632 GHz	-39.73 dBm	-26.73 dB

Date: 23.AUG.2015 09:37:33

Middle Channel / 16QAM



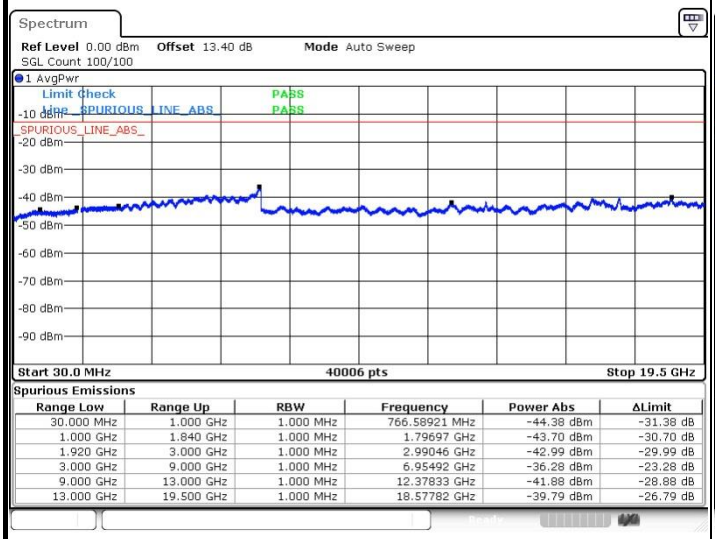
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	727.32384 MHz	-44.62 dBm	-31.62 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83433 GHz	-43.94 dBm	-30.94 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.18793 GHz	-42.86 dBm	-29.86 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.66361 GHz	-31.81 dBm	-18.81 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.36433 GHz	-41.61 dBm	-28.61 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57432 GHz	-39.77 dBm	-26.77 dB

Date: 23.AUG.2015 09:38:31

LTE Band 2 / 15MHz

Highest Channel / QPSK

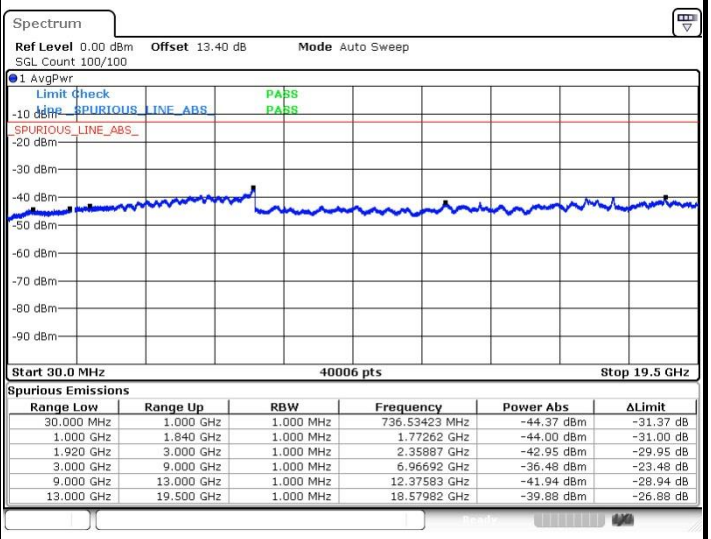


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	766.58921 MHz	-44.38 dBm	-31.38 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.79697 GHz	-43.70 dBm	-30.70 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.99046 GHz	-42.99 dBm	-29.99 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.95492 GHz	-36.28 dBm	-23.28 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.37833 GHz	-41.88 dBm	-28.88 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57782 GHz	-39.79 dBm	-26.79 dB

Date: 23.AUG.2015 09:44:53

Highest Channel / 16QAM



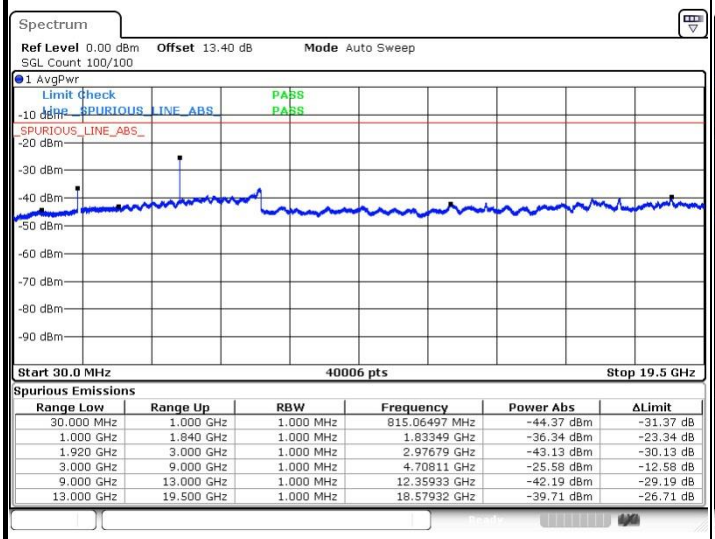
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	736.53423 MHz	-44.37 dBm	-31.37 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.77262 GHz	-44.00 dBm	-31.00 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.35887 GHz	-42.95 dBm	-29.95 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.96692 GHz	-36.48 dBm	-23.48 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.37583 GHz	-41.94 dBm	-28.94 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57982 GHz	-39.88 dBm	-26.88 dB

Date: 23.AUG.2015 09:45:52

LTE Band 2 / 20MHz

Lowest Channel / QPSK

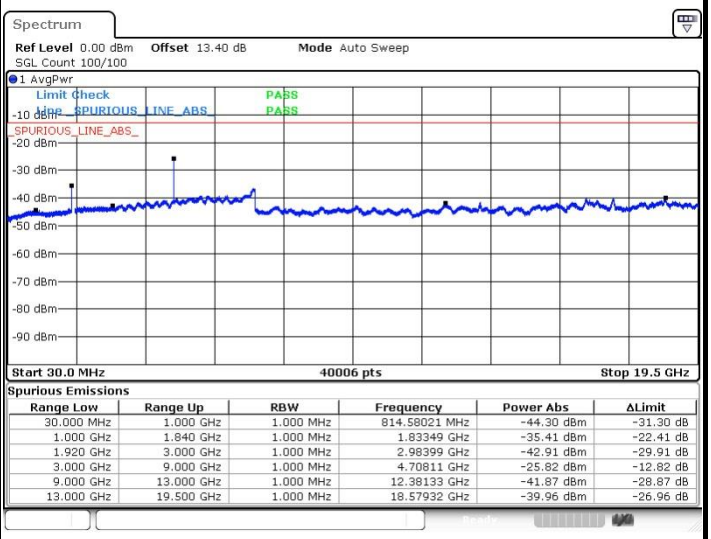


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	815.06497 MHz	-44.37 dBm	-31.37 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83349 GHz	-36.34 dBm	-23.34 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.97679 GHz	-43.13 dBm	-30.13 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.70811 GHz	-25.58 dBm	-12.58 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.35933 GHz	-42.19 dBm	-29.19 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57932 GHz	-39.71 dBm	-26.71 dB

Date: 23.AUG.2015 09:52:15

Lowest Channel / 16QAM



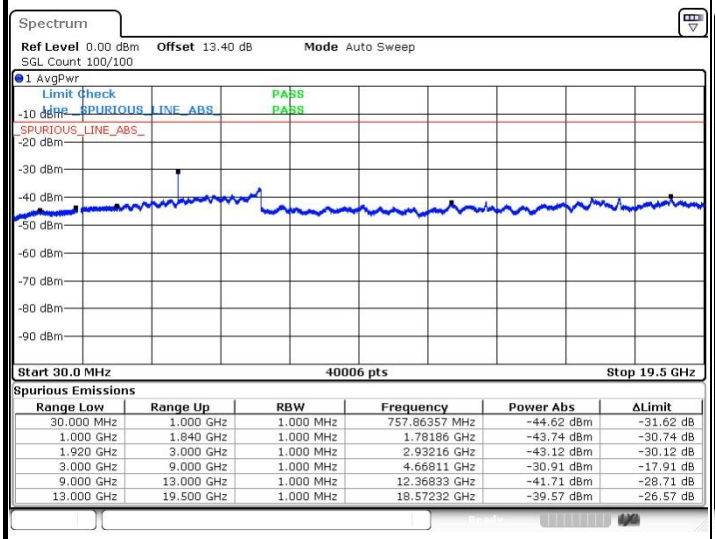
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	814.58021 MHz	-44.30 dBm	-31.30 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83349 GHz	-35.41 dBm	-22.41 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.98399 GHz	-42.91 dBm	-29.91 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.70811 GHz	-25.82 dBm	-12.82 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.38133 GHz	-41.87 dBm	-28.87 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57932 GHz	-39.96 dBm	-26.96 dB

Date: 23.AUG.2015 09:53:13

LTE Band 2 / 20MHz

Middle Channel / QPSK

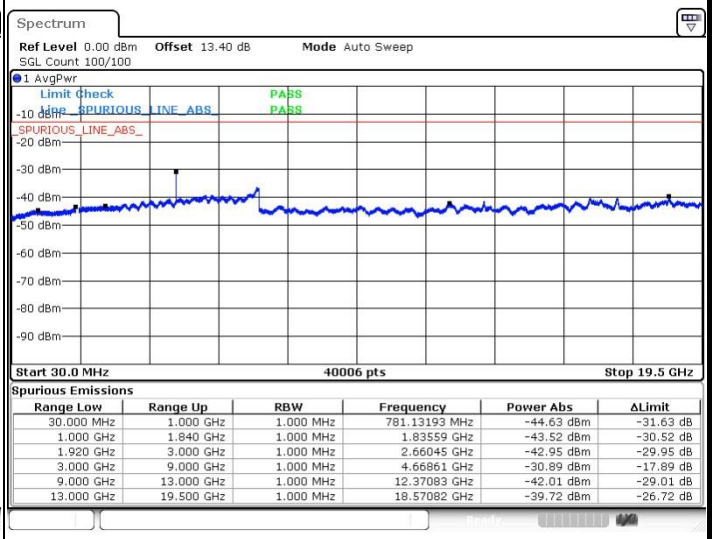


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	757.86357 MHz	-44.62 dBm	-31.62 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.78186 GHz	-43.74 dBm	-30.74 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.93216 GHz	-43.12 dBm	-30.12 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.66811 GHz	-30.91 dBm	-17.91 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.36833 GHz	-41.71 dBm	-28.71 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57232 GHz	-39.57 dBm	-26.57 dB

Date: 23.AUG.2015 09:54:58

Middle Channel / 16QAM

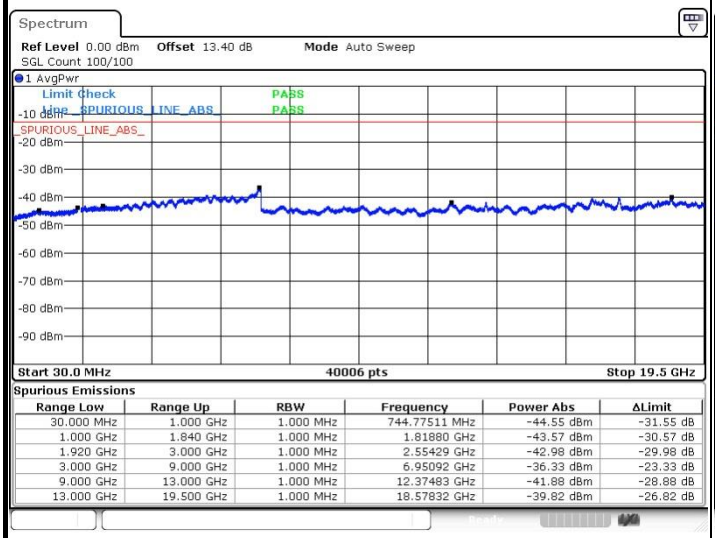


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	781.13193 MHz	-44.63 dBm	-31.63 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83559 GHz	-43.52 dBm	-30.52 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.66045 GHz	-42.95 dBm	-29.95 dB
3.000 GHz	9.000 GHz	1.000 MHz	4.66861 GHz	-30.89 dBm	-17.89 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.37083 GHz	-42.01 dBm	-29.01 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57082 GHz	-39.72 dBm	-26.72 dB

Date: 23.AUG.2015 09:55:56

Highest Channel / QPSK

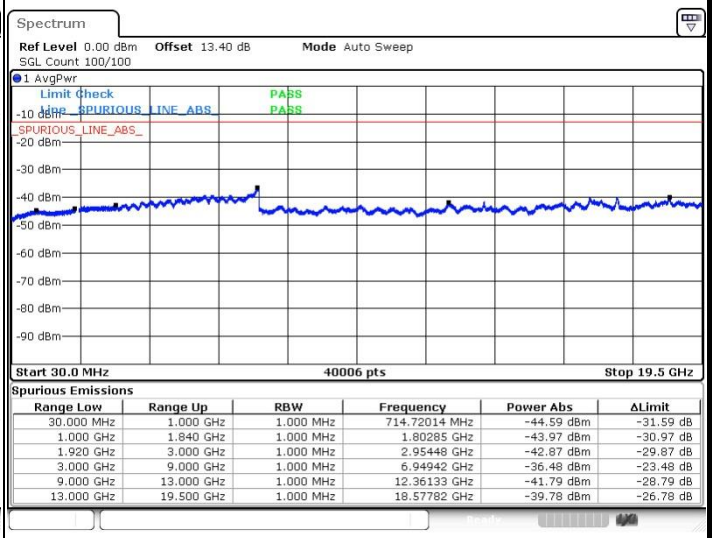


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	744.77511 MHz	-44.55 dBm	-31.55 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.81880 GHz	-43.57 dBm	-30.57 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.55429 GHz	-42.98 dBm	-29.98 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.95092 GHz	-36.33 dBm	-23.33 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.37483 GHz	-41.88 dBm	-28.88 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57832 GHz	-39.82 dBm	-26.82 dB

Date: 23.AUG.2015 10:02:19

Highest Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	714.72014 MHz	-44.59 dBm	-31.59 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.80285 GHz	-43.97 dBm	-30.97 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.95448 GHz	-42.87 dBm	-29.87 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.94942 GHz	-36.48 dBm	-23.48 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.36133 GHz	-41.79 dBm	-28.79 dB
13.000 GHz	19.500 GHz	1.000 MHz	18.57782 GHz	-39.78 dBm	-26.78 dB

Date: 23.AUG.2015 10:03:17

Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0111	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0127	
-30	Normal Voltage	0.0011	
20	Maximum Voltage	0.0120	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0006	

Note:

1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.6 V.；Maximum Voltage =4.2 V

2. The frequency fundamental emissions stay within the authorized frequency block.

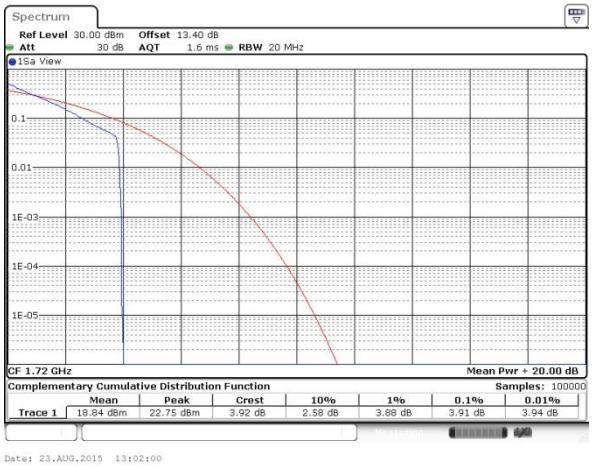
LTE Band 4

Peak-to-Average Ratio

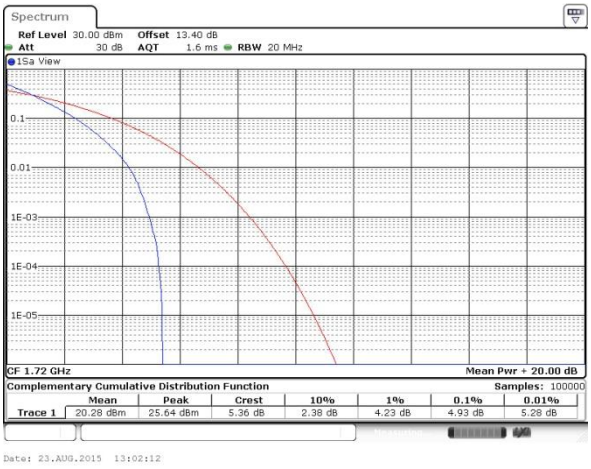
Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.91	4.93	4.87	6.00	PASS
Middle CH	4.12	4.52	5.45	5.74	
Highest CH	4.81	4.58	4.96	5.74	

LTE Band 4 / 20MHz / QPSK

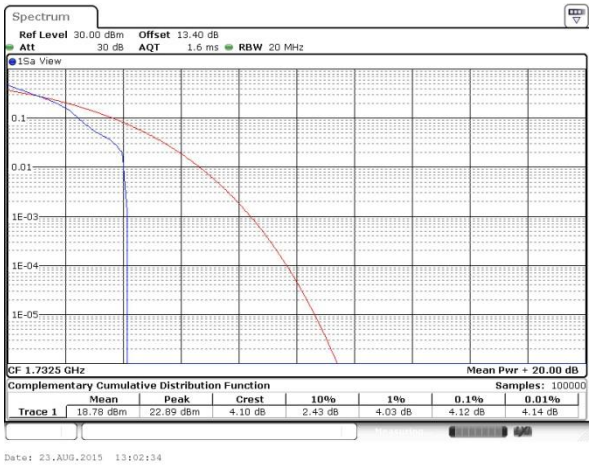
Lowest Channel / 1RB



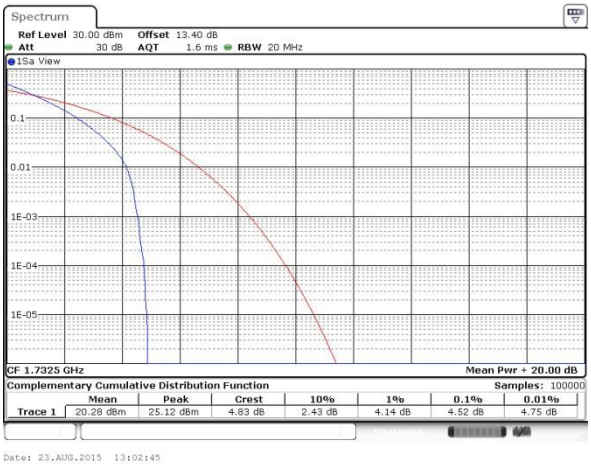
Lowest Channel / Full RB



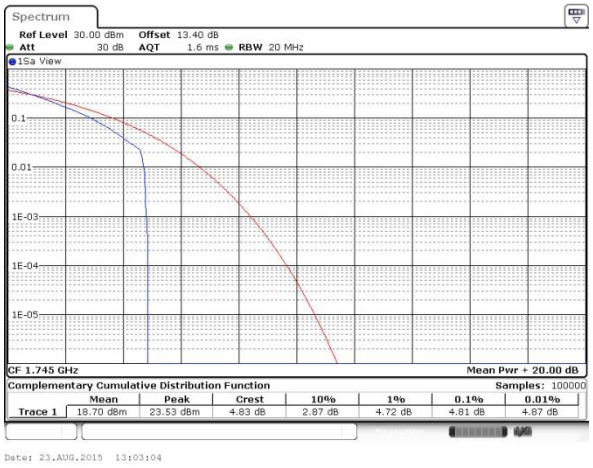
Middle Channel / 1RB



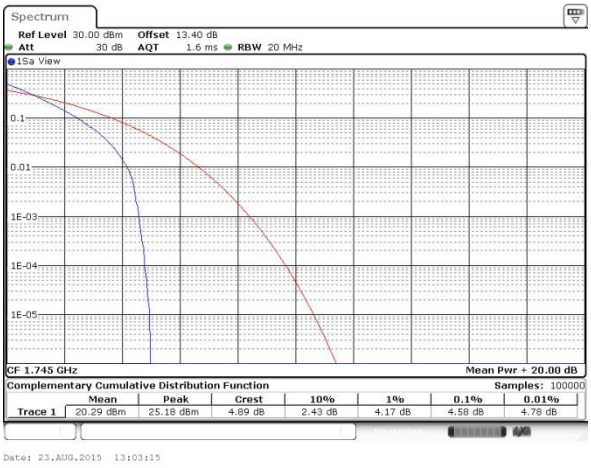
Middle Channel / Full RB



Highest Channel / 1RB

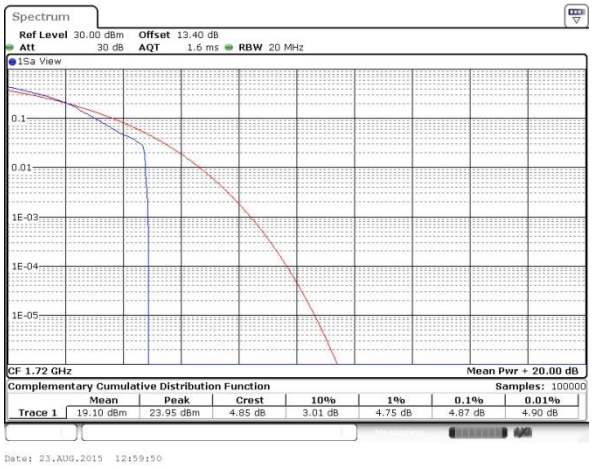


Highest Channel / Full RB

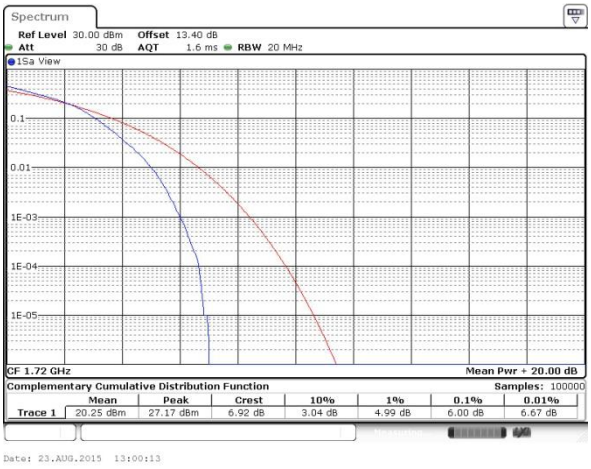


LTE Band 4 / 20MHz / 16QAM

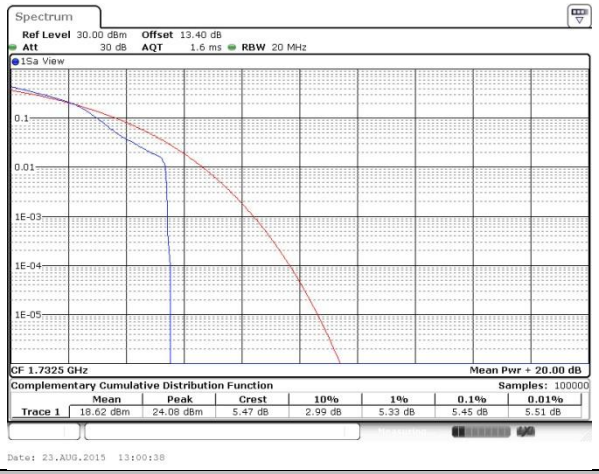
Lowest Channel / 1RB



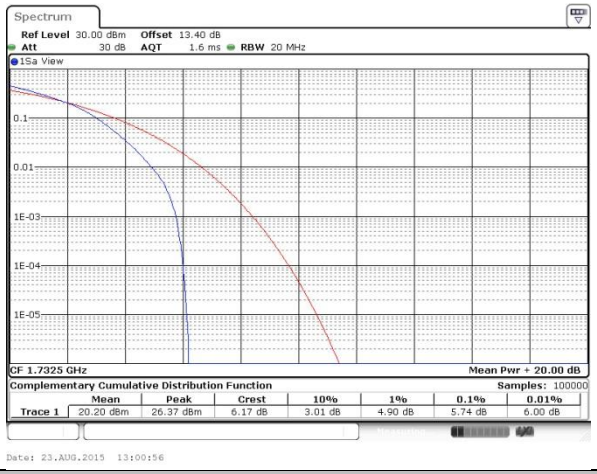
Lowest Channel / Full RB



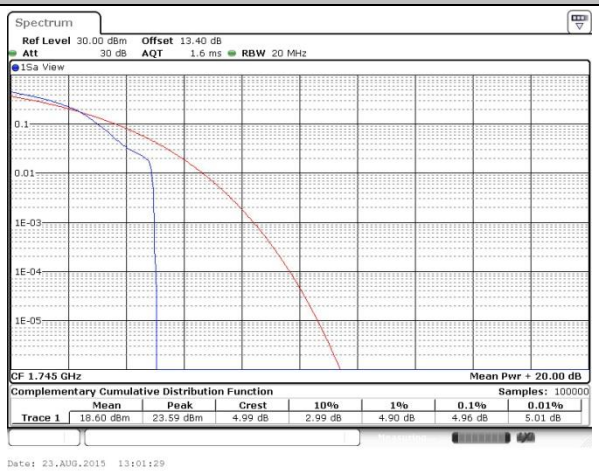
Middle Channel / 1RB



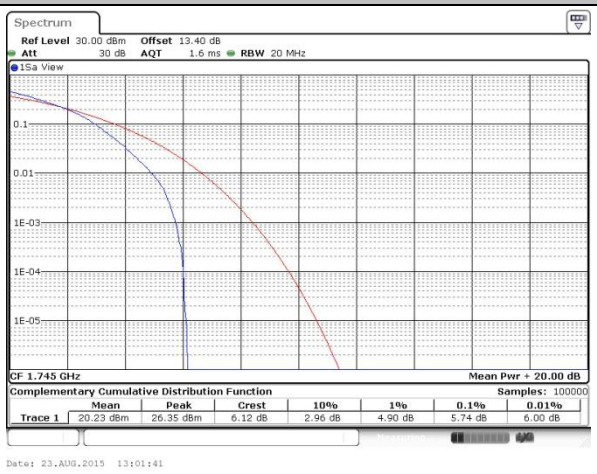
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

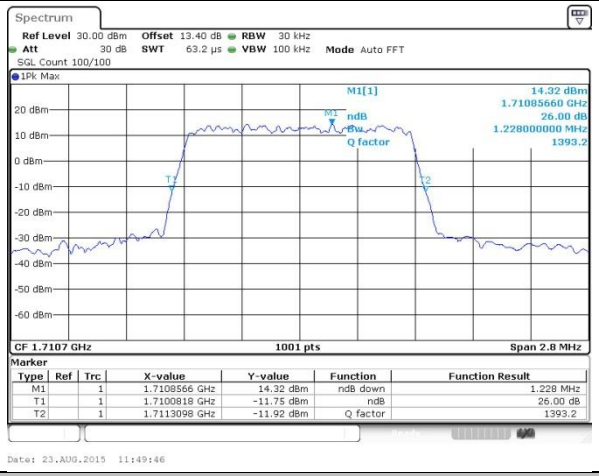


26dB Bandwidth

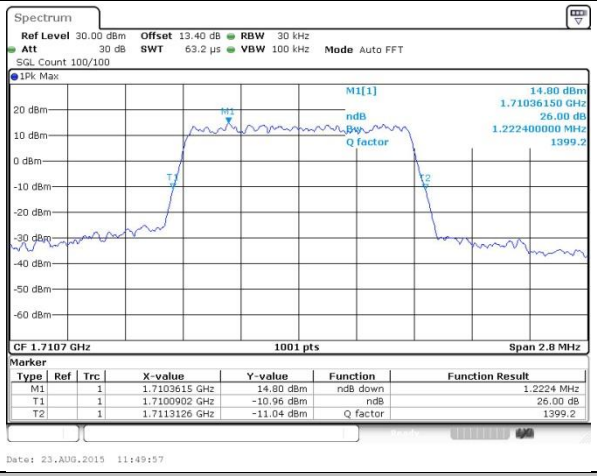
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.23	1.22	3.00	3.04	4.85	4.88	9.81	9.73	14.18	14.48	20.18	20.06
Middle CH	1.23	1.23	3.01	3.02	4.84	4.93	9.77	9.75	14.24	14.42	20.18	20.26
Highest CH	1.22	1.23	3.02	3.07	4.81	4.83	9.93	9.81	14.42	14.21	20.22	20.14

LTE Band 4

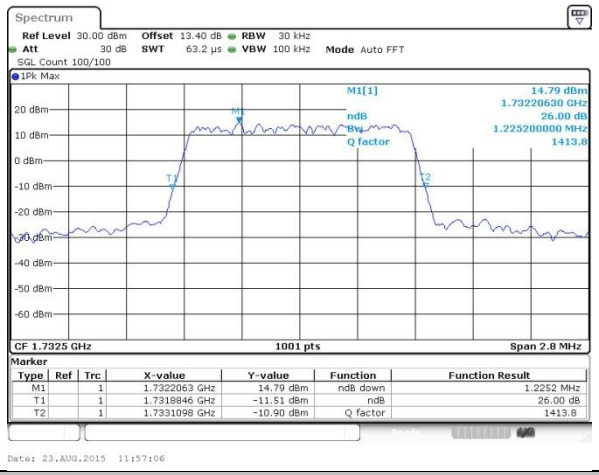
Lowest Channel / 1.4MHz / QPSK



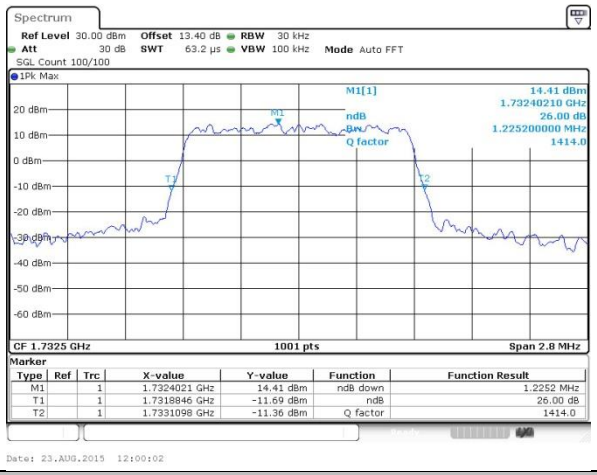
Lowest Channel / 1.4MHz / 16QAM



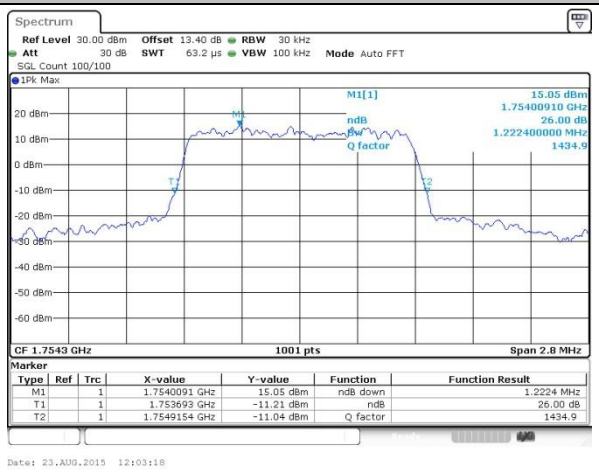
Middle Channel / 1.4MHz / QPSK



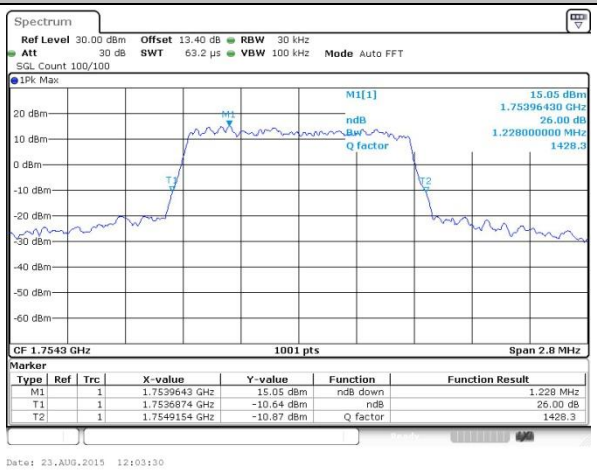
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

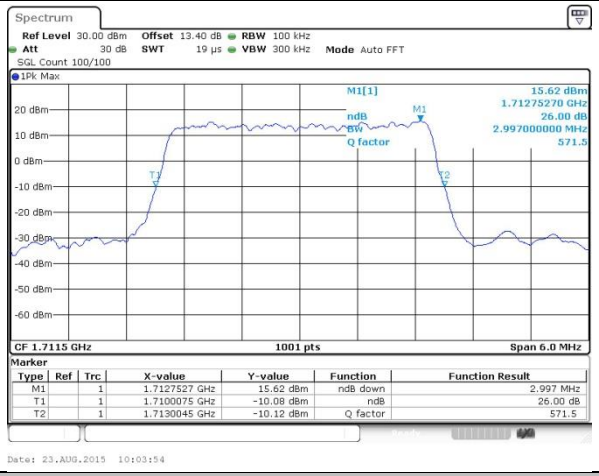


Highest Channel / 1.4MHz / 16QAM

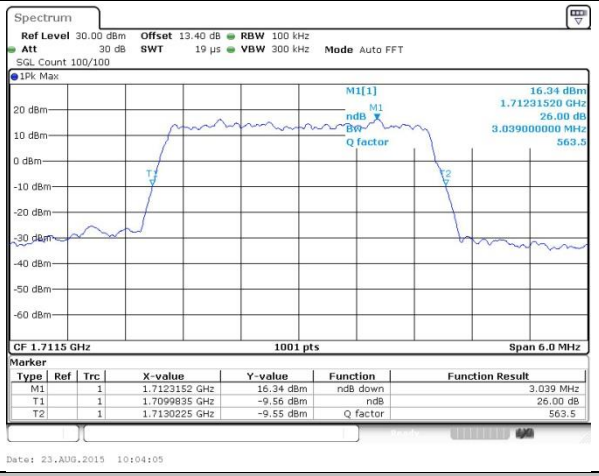


LTE Band 4

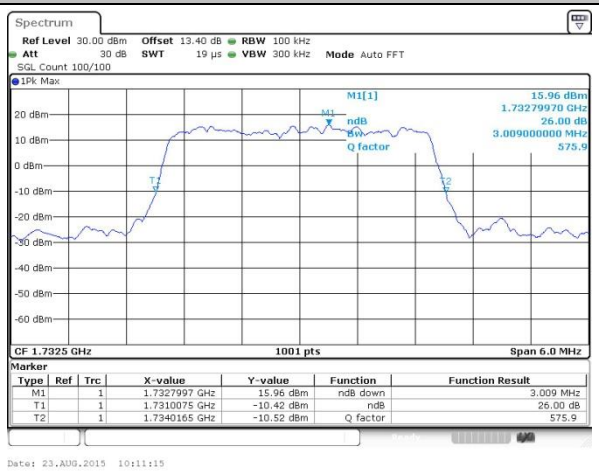
Lowest Channel / 3MHz / QPSK



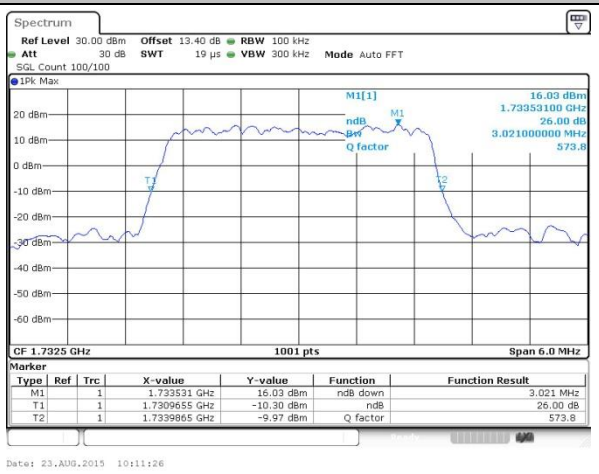
Lowest Channel / 3MHz / 16QAM



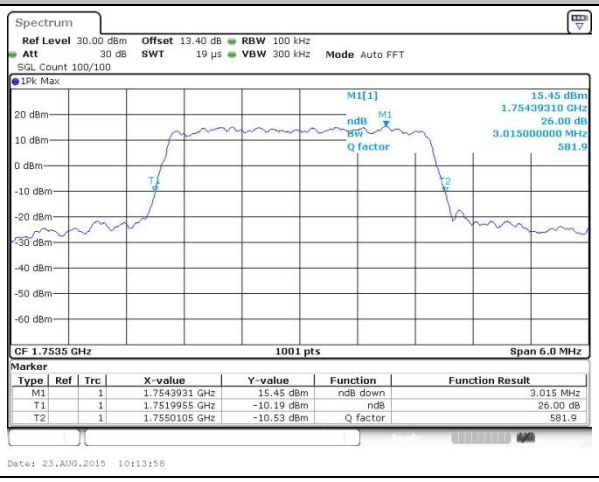
Middle Channel / 3MHz / QPSK



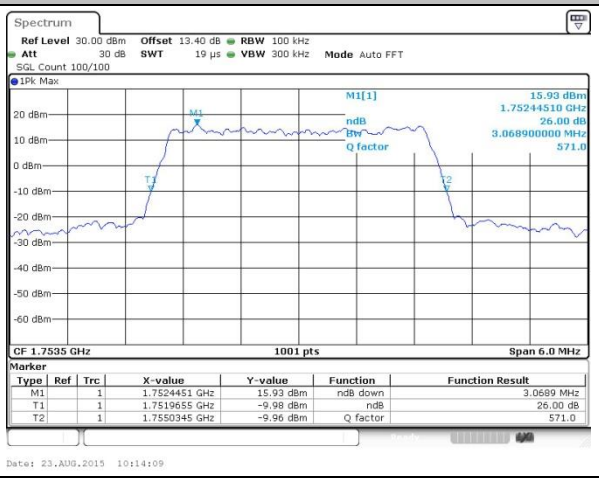
Middle Channel /3MHz / 16QAM



Highest Channel /3MHz / QPSK

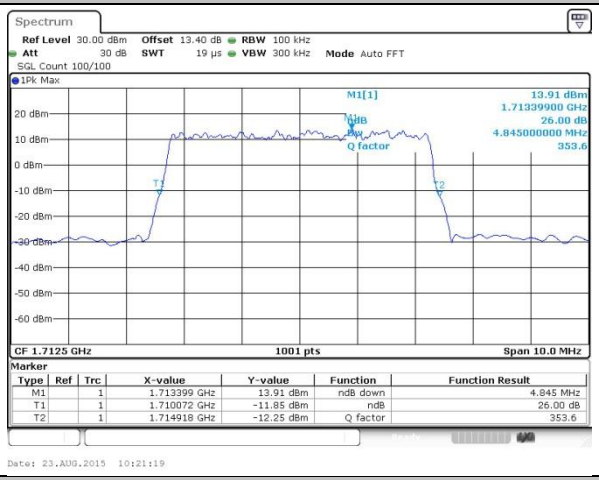


Highest Channel /3MHz / 16QAM

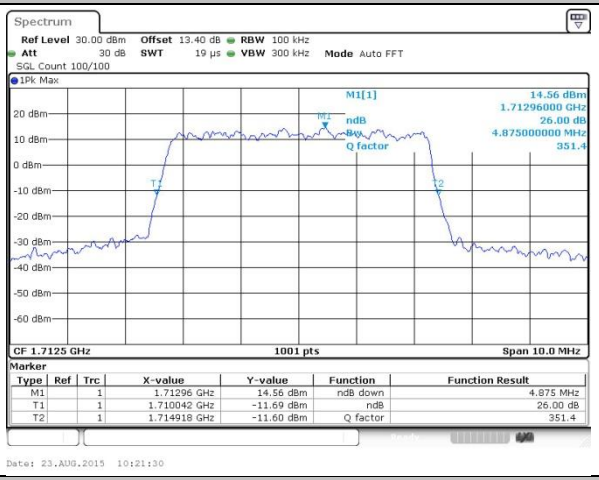


LTE Band 4

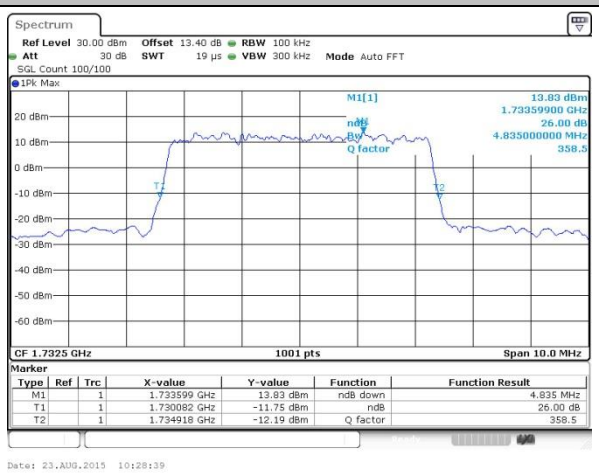
Lowest Channel / 5MHz / QPSK



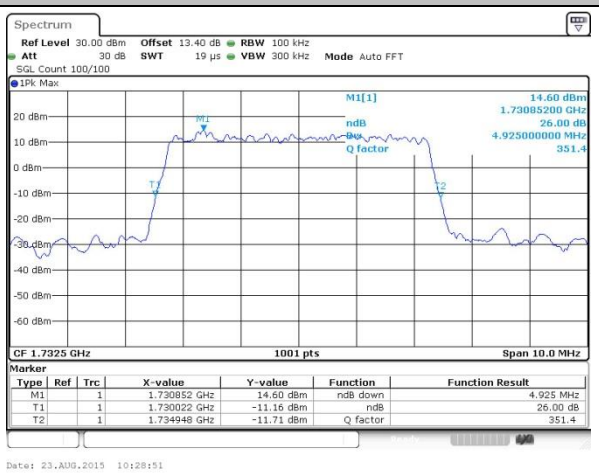
Lowest Channel / 5MHz / 16QAM



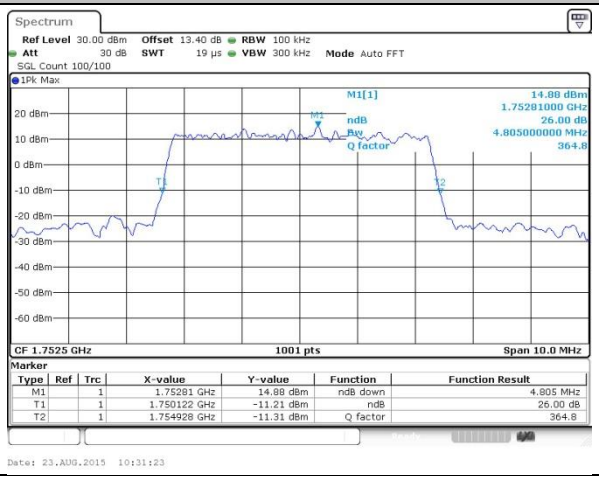
Middle Channel / 5MHz / QPSK



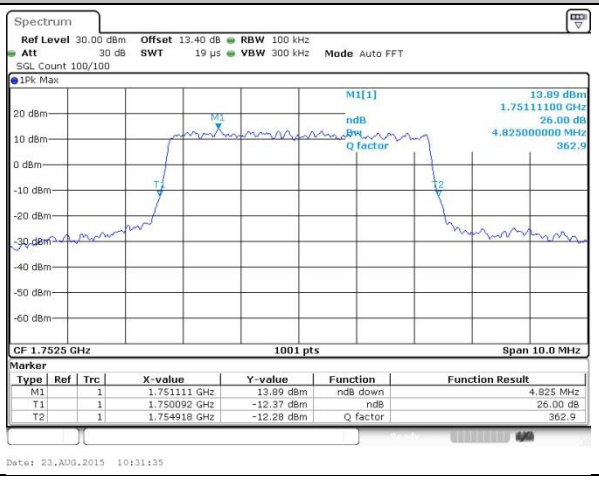
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

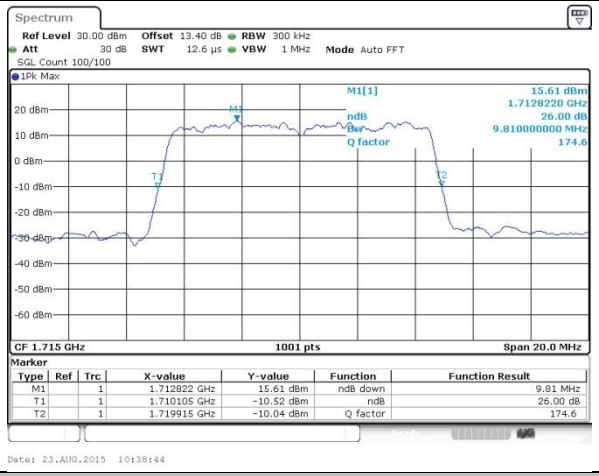


Highest Channel / 5MHz / 16QAM

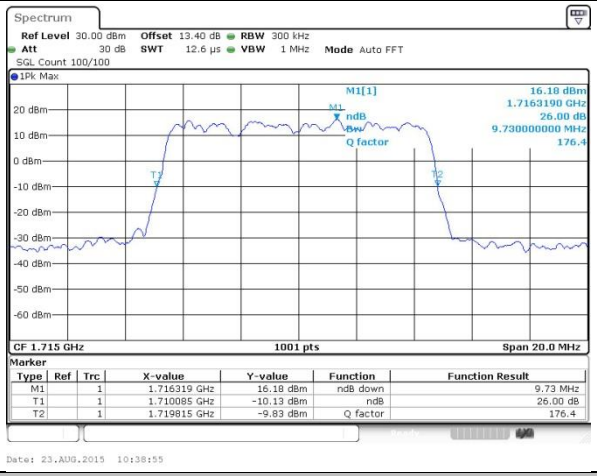


LTE Band 4

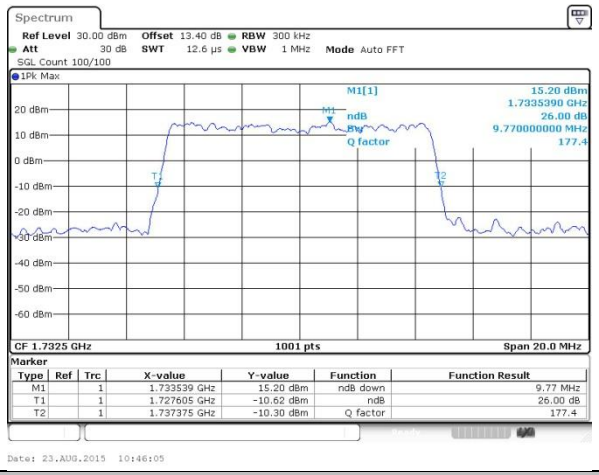
Lowest Channel / 10MHz / QPSK



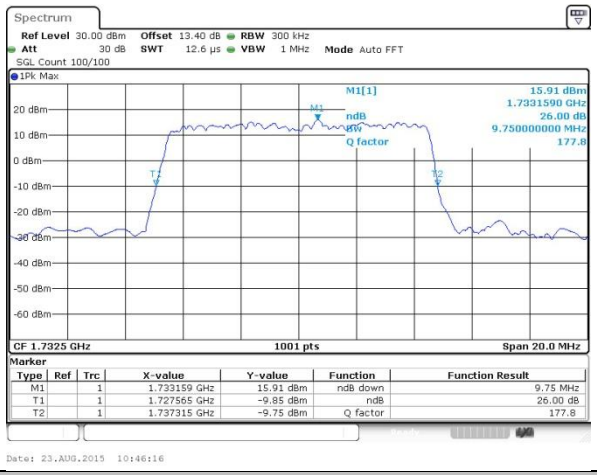
Lowest Channel / 10MHz / 16QAM



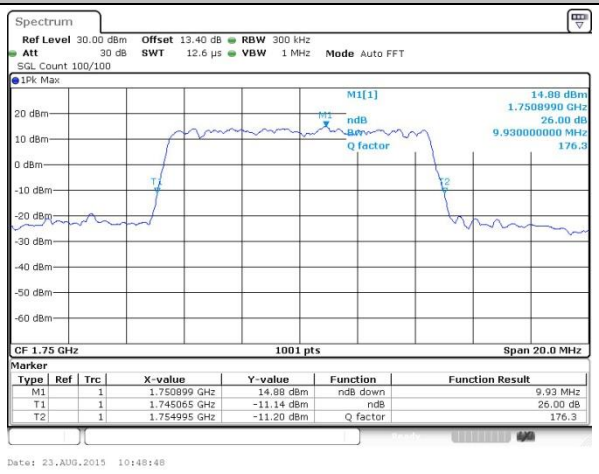
Middle Channel / 10MHz / QPSK



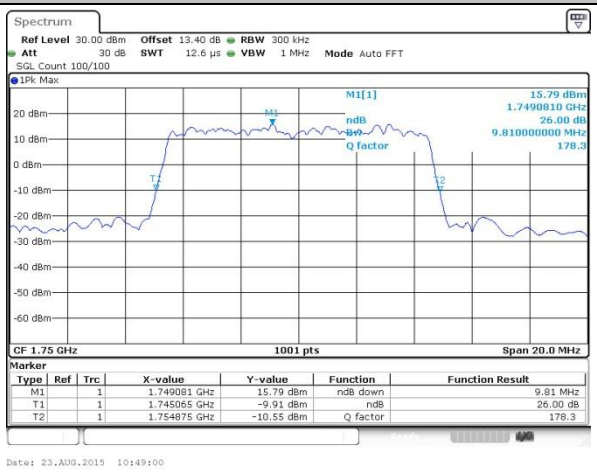
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

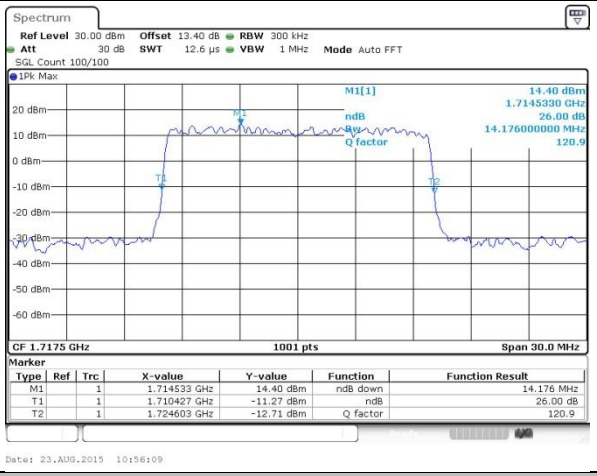


Highest Channel / 10MHz / 16QAM

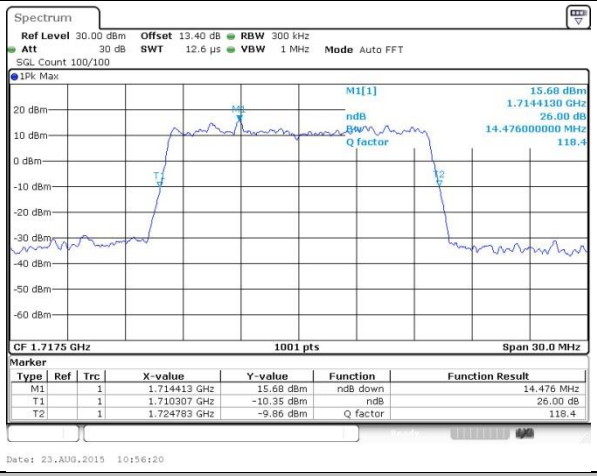


LTE Band 4

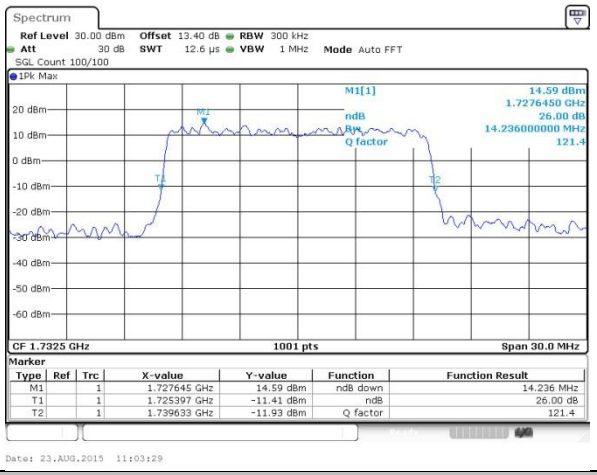
Lowest Channel / 15MHz / QPSK



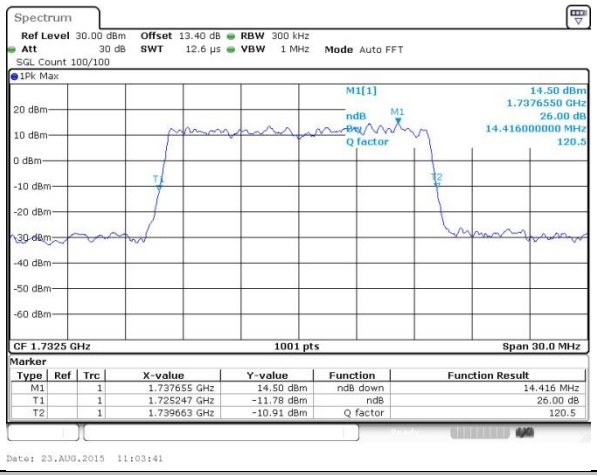
Lowest Channel / 15MHz / 16QAM



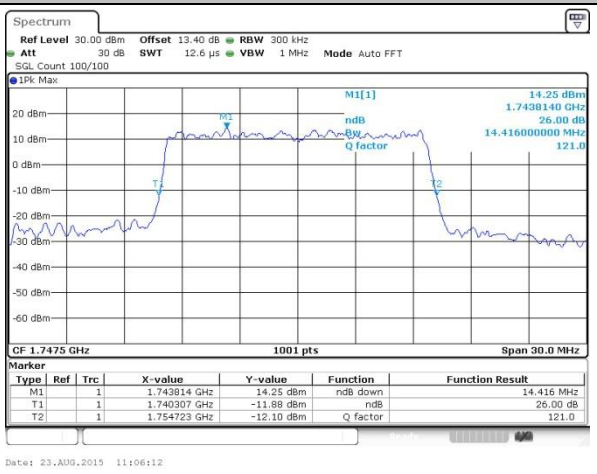
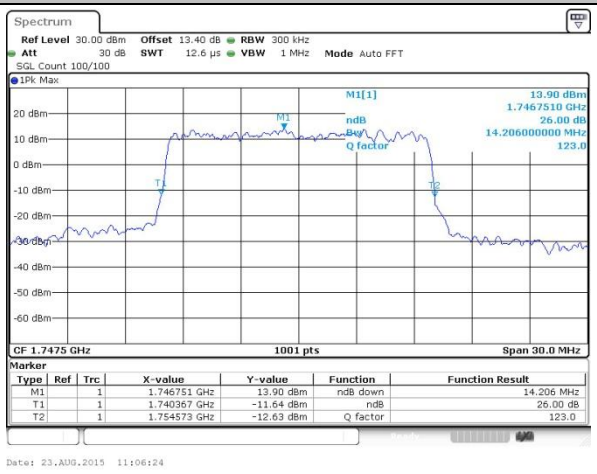
Middle Channel / 15MHz / QPSK



Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



Highest Channel / 15MHz / 16QAM