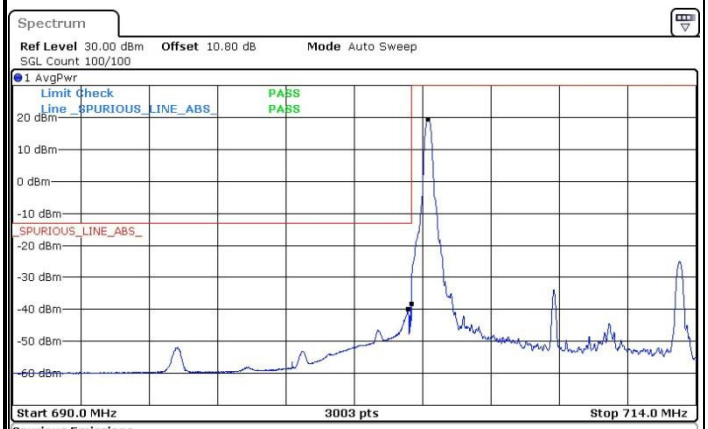
LTE Band 17 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

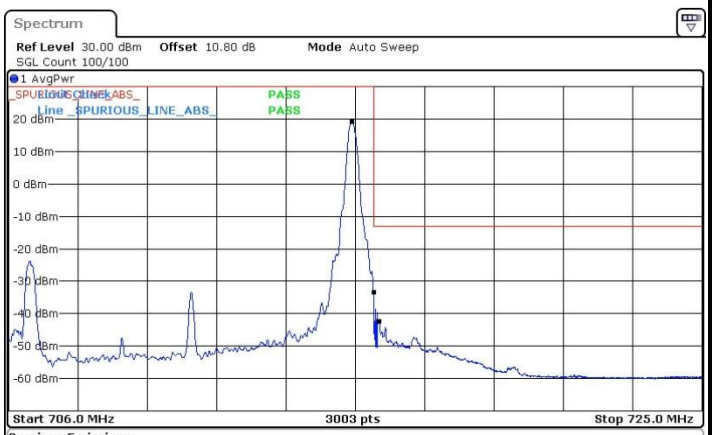


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-39.91 dBm	-26.91 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.99815 MHz	-38.31 dBm	-25.31 dB
704.000 MHz	714.000 MHz	100.000 kHz	704.58442 MHz	19.32 dBm	-10.68 dB

Date: 15.JUN.2016 13:49:03

Highest Band Edge / 1 RB

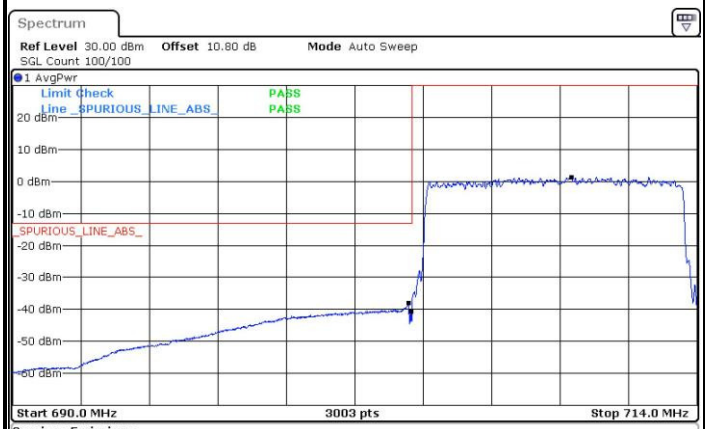


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.41558 MHz	19.15 dBm	-10.85 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00504 MHz	-33.35 dBm	-20.35 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.14890 MHz	-42.47 dBm	-29.47 dB

Date: 15.JUN.2016 14:41:18

Lowest Band Edge / Full RB

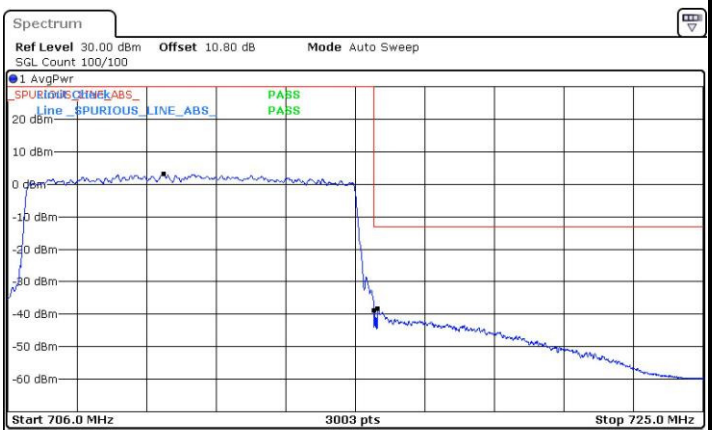


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	703.900 MHz	100.000 kHz	703.89306 MHz	-38.11 dBm	-25.11 dB
703.900 MHz	704.000 MHz	30.000 kHz	703.98407 MHz	-40.85 dBm	-27.85 dB
704.000 MHz	714.000 MHz	100.000 kHz	709.57942 MHz	1.36 dBm	-28.64 dB

Date: 15.JUN.2016 13:51:31

Highest Band Edge / Full RB



Spurious Emissions

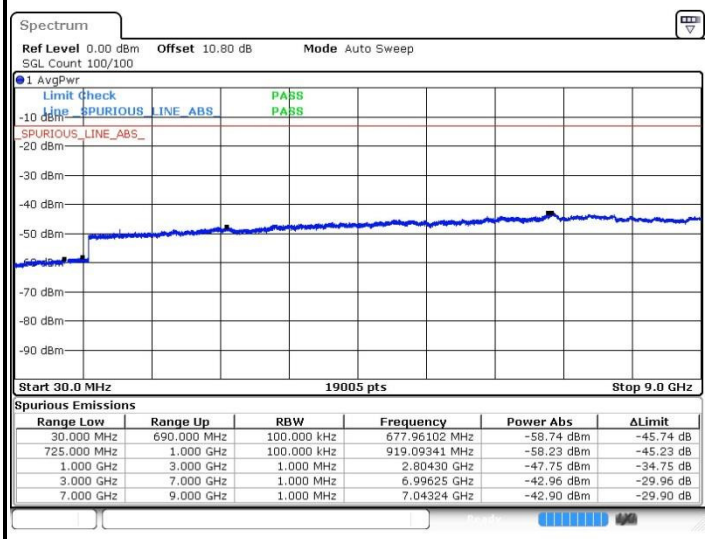
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	710.25075 MHz	3.19 dBm	-26.81 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00375 MHz	-38.73 dBm	-25.73 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-38.32 dBm	-25.32 dB

Date: 15.JUN.2016 14:43:44

Conducted Spurious Emission

LTE Band 17 / 5MHz

Lowest Channel / QPSK

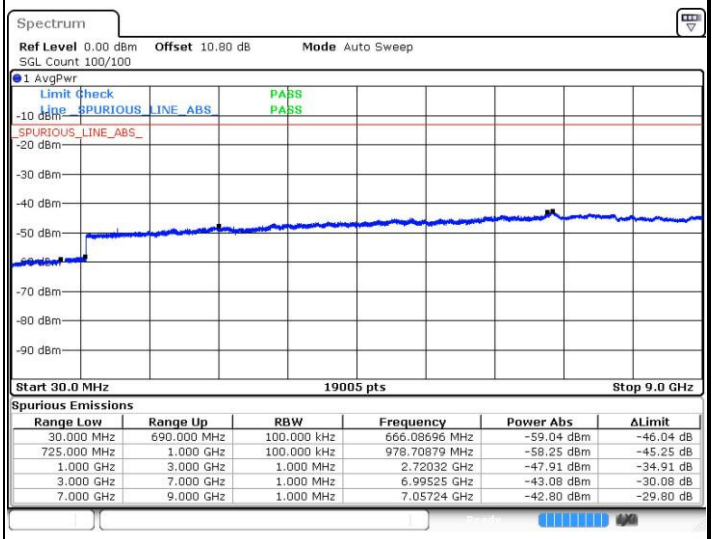


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	677.96102 MHz	-58.74 dBm	-45.74 dB
725.000 MHz	1.000 GHz	100.000 kHz	919.09341 MHz	-58.23 dBm	-45.23 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.80430 GHz	-47.75 dBm	-34.75 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99625 GHz	-42.96 dBm	-29.96 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04324 GHz	-42.90 dBm	-29.90 dB

Date: 15.JUN.2016 13:34:21

Lowest Channel / 16QAM

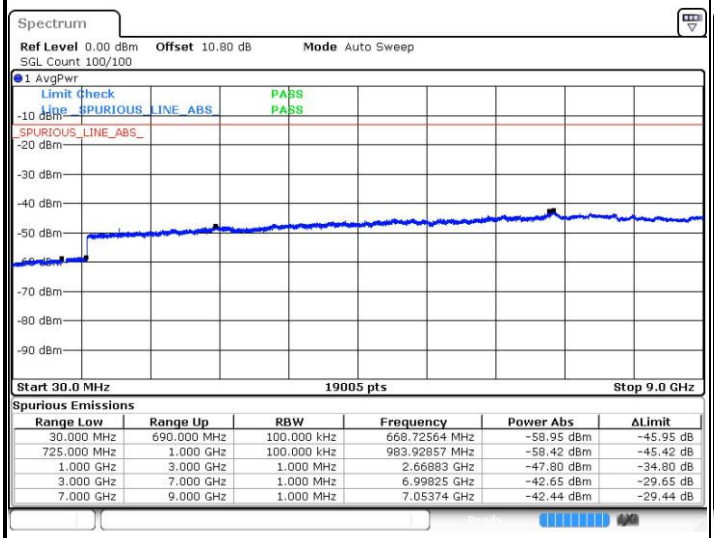


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	666.08696 MHz	-59.04 dBm	-46.04 dB
725.000 MHz	1.000 GHz	100.000 kHz	978.70879 MHz	-58.25 dBm	-45.25 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.72032 GHz	-47.91 dBm	-34.91 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99525 GHz	-43.08 dBm	-30.08 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05724 GHz	-42.80 dBm	-29.80 dB

Date: 15.JUN.2016 13:35:23

Middle Channel / QPSK

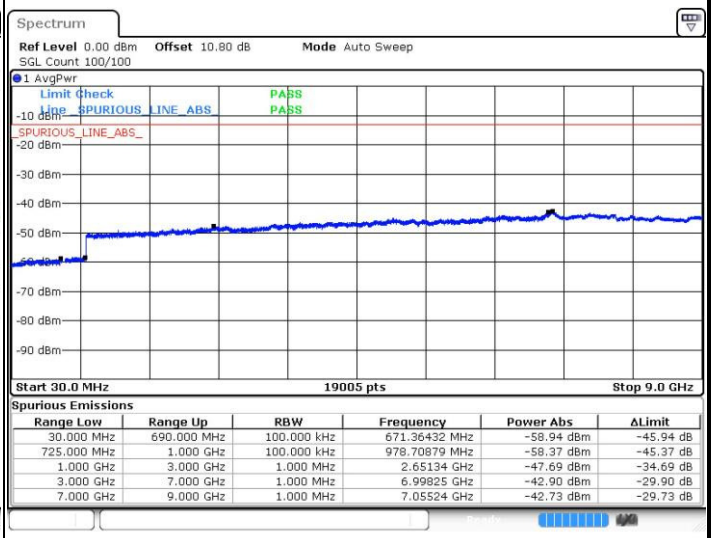


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	668.72564 MHz	-58.95 dBm	-45.95 dB
725.000 MHz	1.000 GHz	100.000 kHz	983.92857 MHz	-58.42 dBm	-45.42 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.66883 GHz	-47.80 dBm	-34.80 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99825 GHz	-42.65 dBm	-29.65 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05374 GHz	-42.44 dBm	-29.44 dB

Date: 15.JUN.2016 13:37:10

Middle Channel / 16QAM



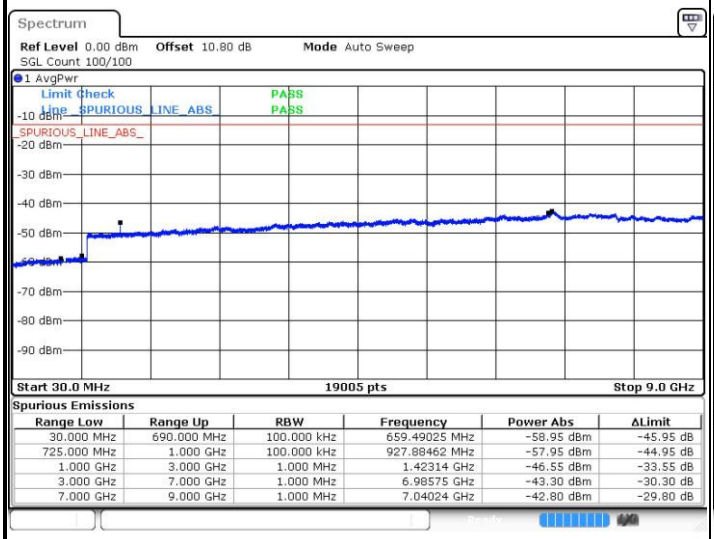
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	671.36432 MHz	-58.94 dBm	-45.94 dB
725.000 MHz	1.000 GHz	100.000 kHz	978.70879 MHz	-58.37 dBm	-45.37 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.65134 GHz	-47.69 dBm	-34.69 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99825 GHz	-42.90 dBm	-29.90 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05524 GHz	-42.73 dBm	-29.73 dB

Date: 15.JUN.2016 13:38:13

LTE Band 17 / 5MHz

Highest Channel / QPSK

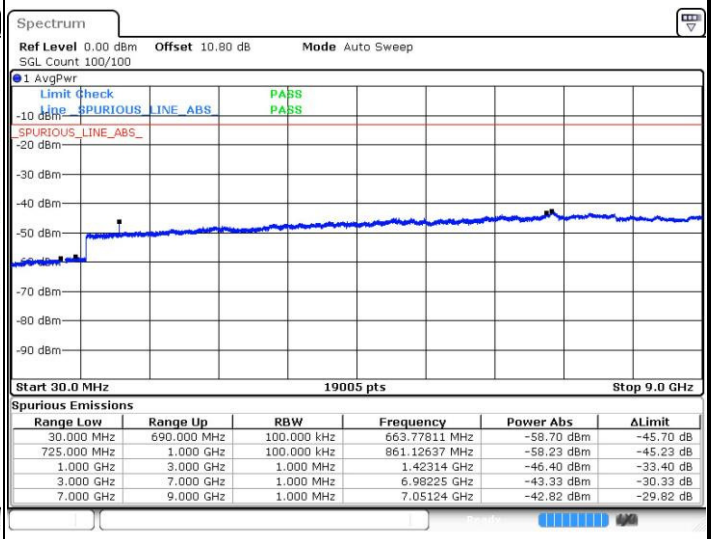


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	659.49025 MHz	-58.95 dBm	-45.95 dB
725.000 MHz	1.000 GHz	100.000 kHz	927.88462 MHz	-57.95 dBm	-44.95 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.42314 GHz	-46.55 dBm	-33.55 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98575 GHz	-43.30 dBm	-30.30 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04024 GHz	-42.80 dBm	-29.80 dB

Date: 15.JUN.2016 13:44:49

Highest Channel / 16QAM



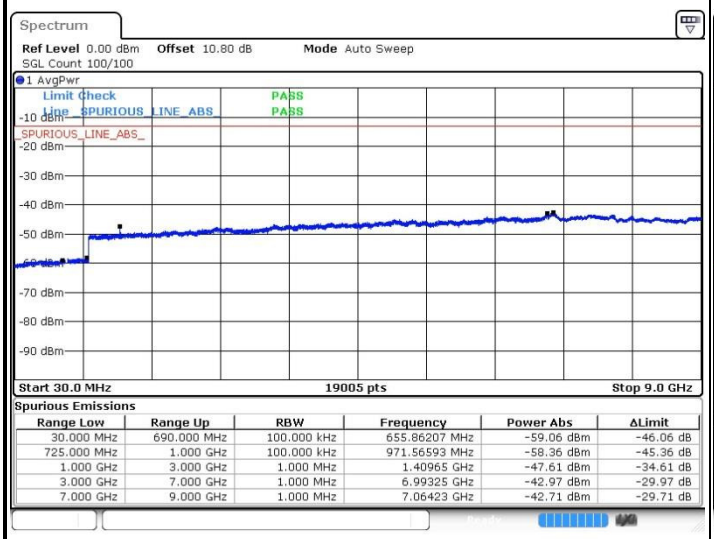
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	663.77811 MHz	-58.70 dBm	-45.70 dB
725.000 MHz	1.000 GHz	100.000 kHz	861.12637 MHz	-58.23 dBm	-45.23 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.42314 GHz	-46.40 dBm	-33.40 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98225 GHz	-43.33 dBm	-30.33 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05124 GHz	-42.82 dBm	-29.82 dB

Date: 15.JUN.2016 13:45:52

LTE Band 17 / 10MHz

Lowest Channel / QPSK

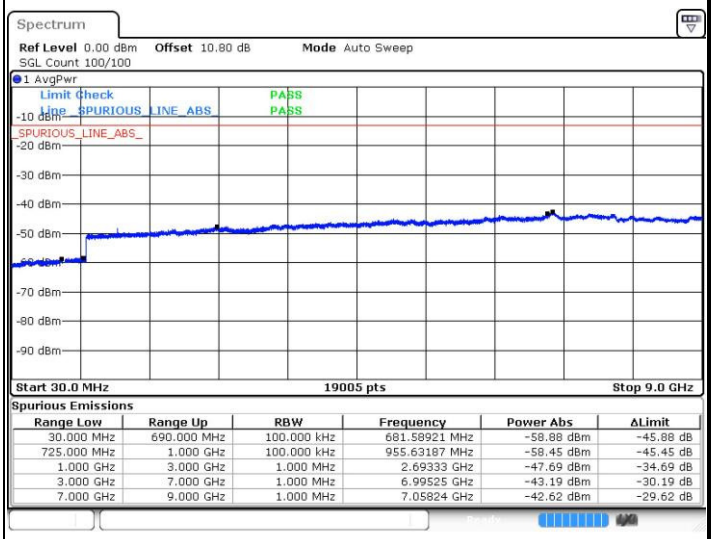


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	655.86207 MHz	-59.06 dBm	-46.06 dB
725.000 MHz	1.000 GHz	100.000 kHz	971.56593 MHz	-58.36 dBm	-45.36 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.40965 GHz	-47.61 dBm	-34.61 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99325 GHz	-42.97 dBm	-29.97 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.06423 GHz	-42.71 dBm	-29.71 dB

Date: 15.JUN.2016 14:34:18

Lowest Channel / 16QAM



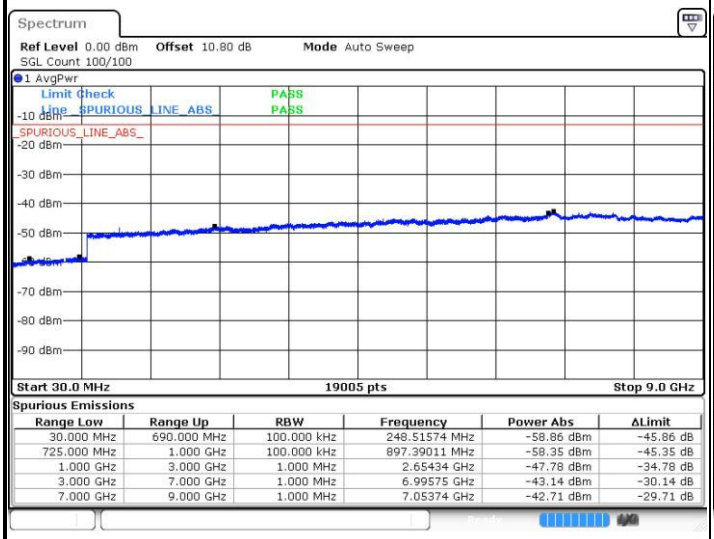
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	681.58921 MHz	-58.88 dBm	-45.88 dB
725.000 MHz	1.000 GHz	100.000 kHz	955.63187 MHz	-58.45 dBm	-45.45 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.69333 GHz	-47.69 dBm	-34.69 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99525 GHz	-43.19 dBm	-30.19 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05824 GHz	-42.62 dBm	-29.62 dB

Date: 15.JUN.2016 14:35:21

LTE Band 17 / 10MHz

Middle Channel / QPSK

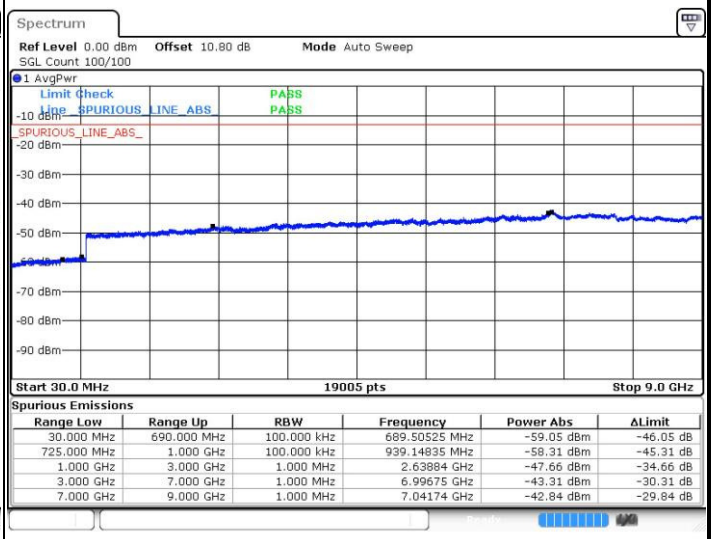


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	248.51574 MHz	-58.86 dBm	-45.86 dB
725.000 MHz	1.000 GHz	100.000 kHz	897.39011 MHz	-58.35 dBm	-45.35 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.65434 GHz	-47.78 dBm	-34.78 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99575 GHz	-43.14 dBm	-30.14 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05374 GHz	-42.71 dBm	-29.71 dB

Date: 15.JUN.2016 14:37:08

Middle Channel / 16QAM

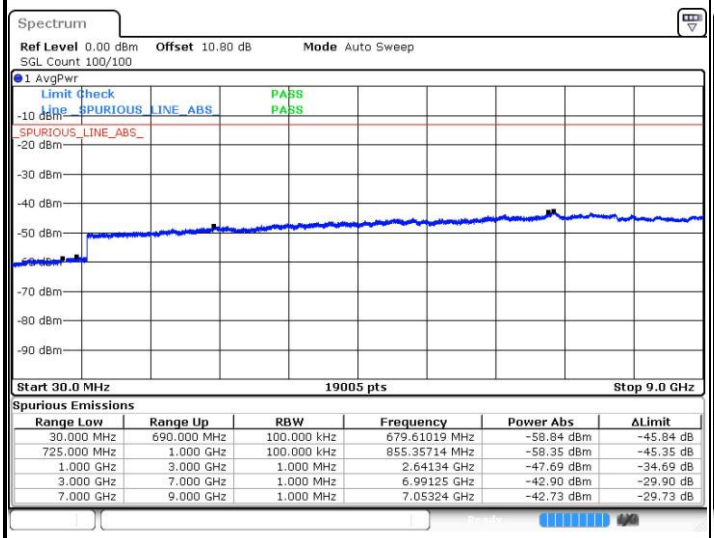


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.50525 MHz	-59.05 dBm	-46.05 dB
725.000 MHz	1.000 GHz	100.000 kHz	939.14835 MHz	-58.31 dBm	-45.31 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.63884 GHz	-47.66 dBm	-34.66 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99675 GHz	-43.31 dBm	-30.31 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04174 GHz	-42.84 dBm	-29.84 dB

Date: 15.JUN.2016 14:38:10

Highest Channel / QPSK

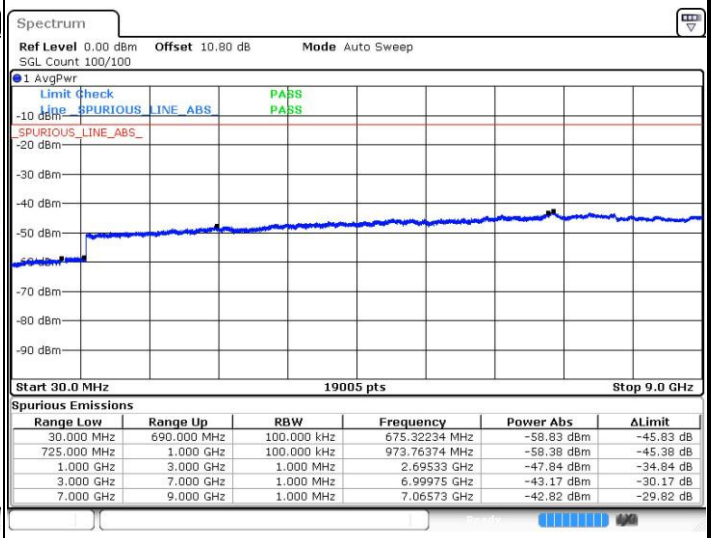


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	679.61019 MHz	-58.84 dBm	-45.84 dB
725.000 MHz	1.000 GHz	100.000 kHz	855.35714 MHz	-58.35 dBm	-45.35 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.64134 GHz	-47.69 dBm	-34.69 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99125 GHz	-42.90 dBm	-29.90 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05324 GHz	-42.73 dBm	-29.73 dB

Date: 15.JUN.2016 15:31:50

Highest Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	675.32234 MHz	-58.83 dBm	-45.83 dB
725.000 MHz	1.000 GHz	100.000 kHz	973.76374 MHz	-58.38 dBm	-45.38 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.69533 GHz	-47.84 dBm	-34.84 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99975 GHz	-43.17 dBm	-30.17 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.06573 GHz	-42.82 dBm	-29.82 dB

Date: 15.JUN.2016 15:32:53

Frequency Stability

Test Conditions		LTE Band 17 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0096	PASS
40	Normal Voltage	0.0099	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0123	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0121	
-20	Normal Voltage	0.0014	
-30	Normal Voltage	0.0089	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0021	

Note:

1. Normal Voltage = 3.9 V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.35 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

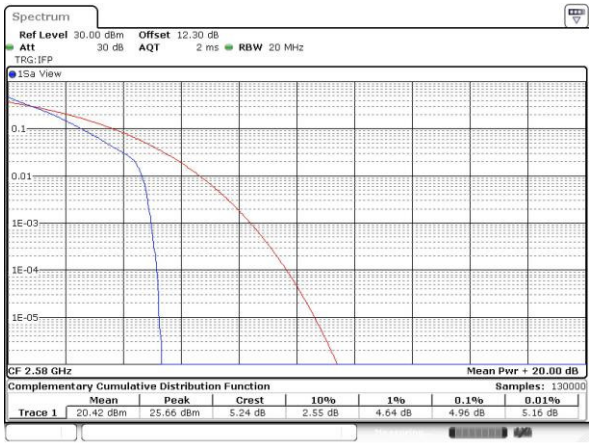
LTE Band 38

Peak-to-Average Ratio

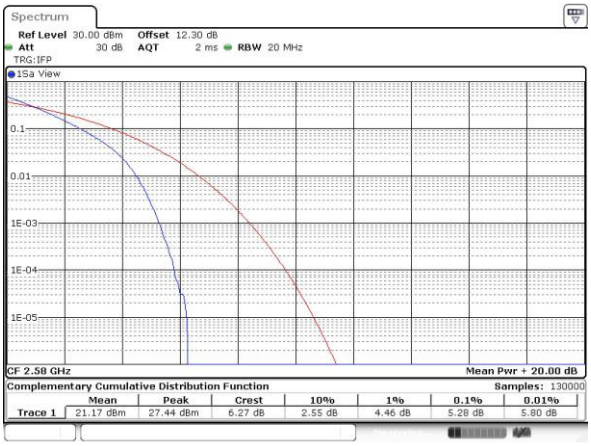
Mode	LTE Band 38 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.96	5.28	5.74	6.2	PASS
Middle CH	4.99	5.45	6.17	6.43	
Highest CH	5.1	5.62	6.09	6.58	

LTE Band 38 / 20MHz / QPSK

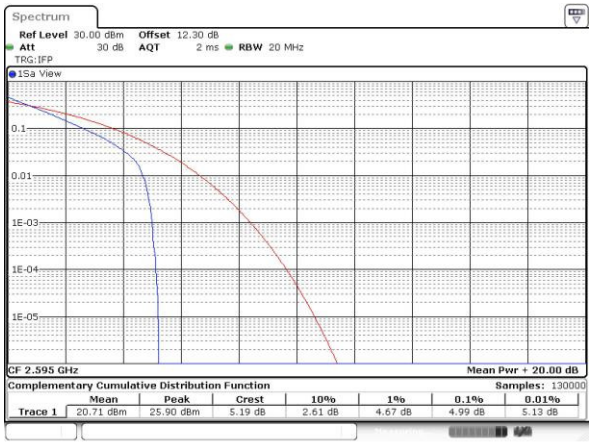
Lowest Channel / 1RB



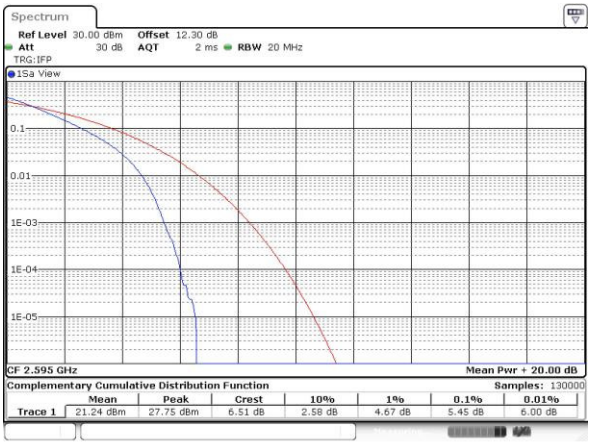
Lowest Channel / Full RB



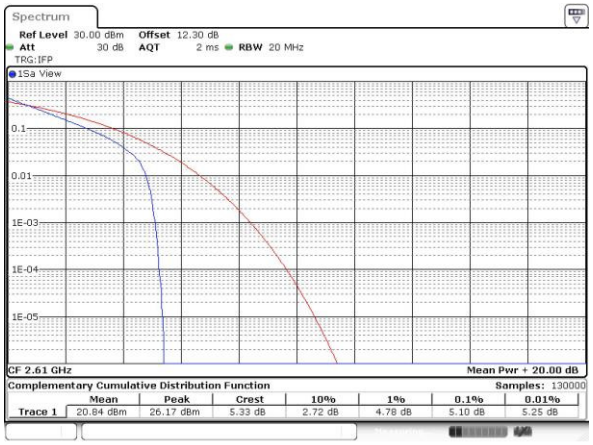
Middle Channel / 1RB



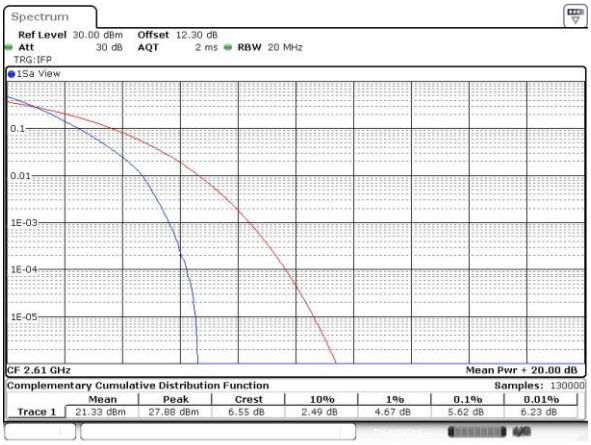
Middle Channel / Full RB



Highest Channel / 1RB

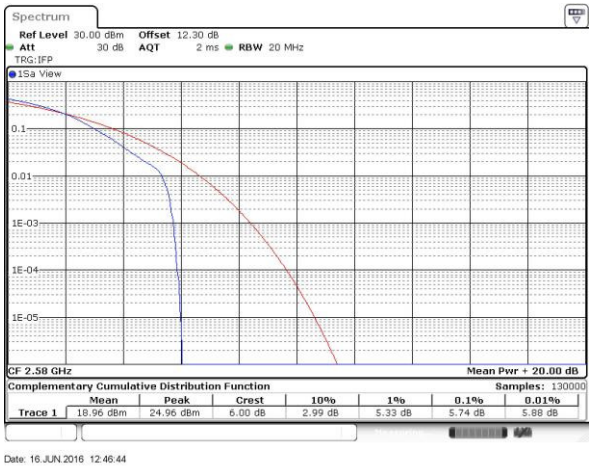


Highest Channel / Full RB

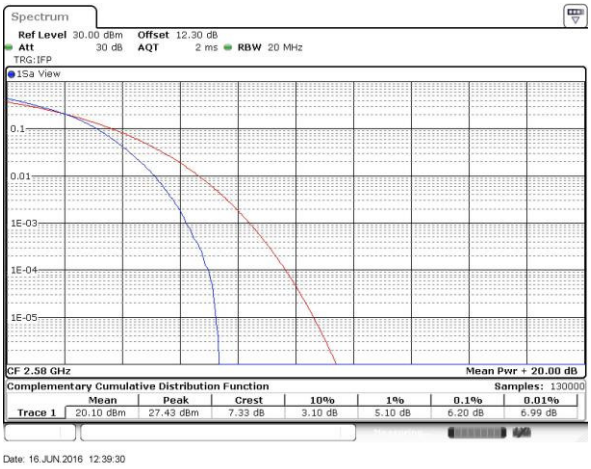


LTE Band 38 / 20MHz / 16QAM

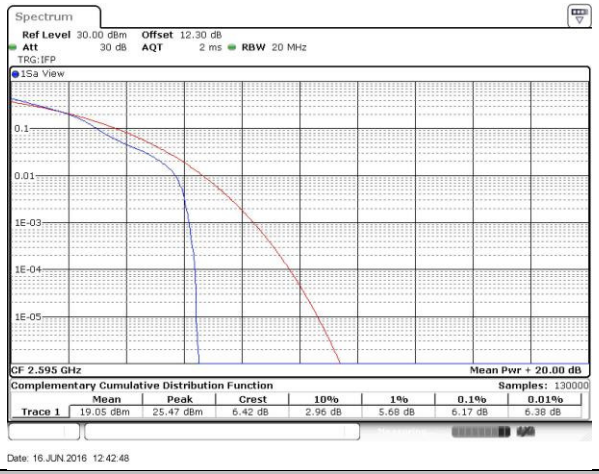
Lowest Channel / 1RB



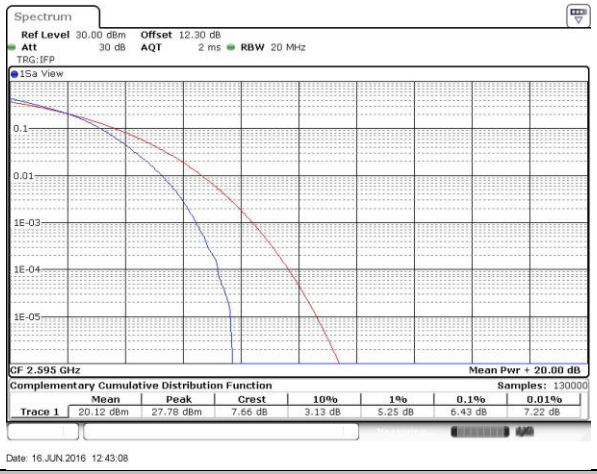
Lowest Channel / Full RB



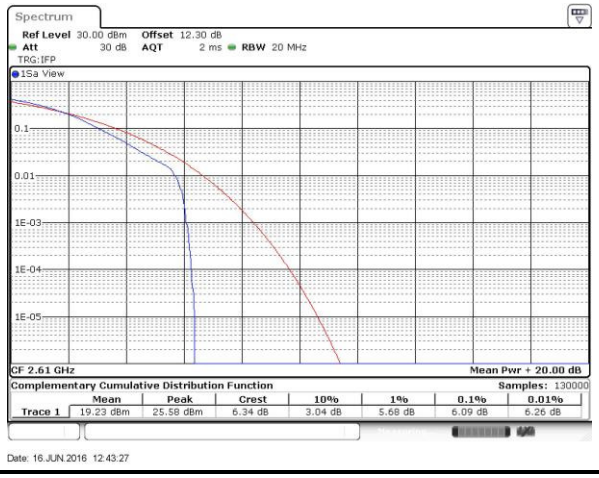
Middle Channel / 1RB



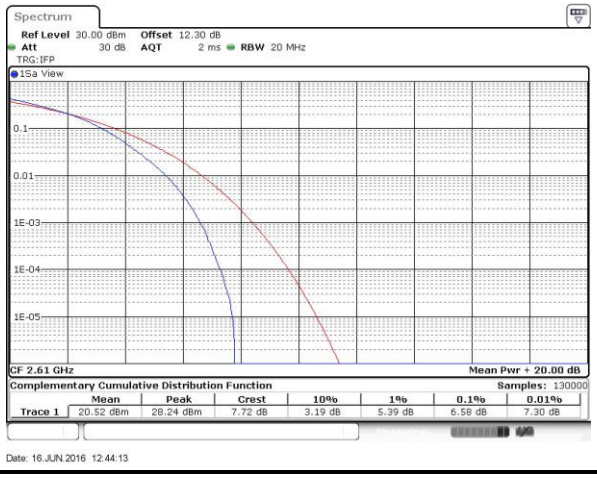
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

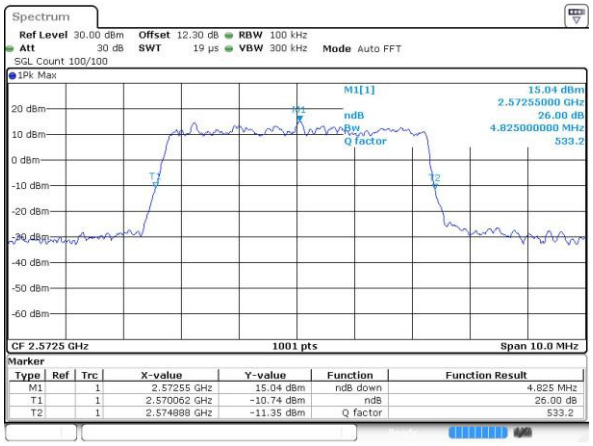


26dB Bandwidth

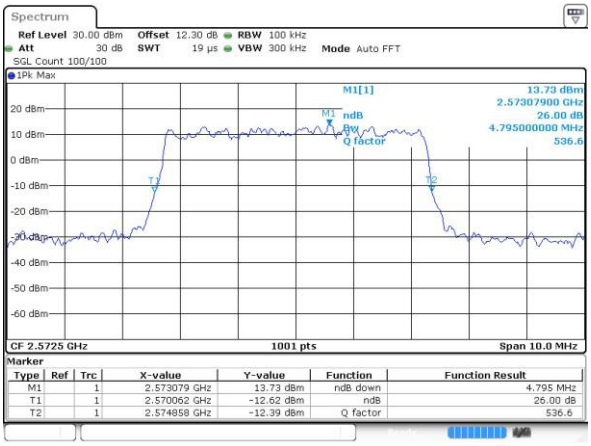
Mode	LTE Band 38 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.83	4.80	9.71	9.77	14.21	14.39	20.18	20.02
Middle CH	-	-	-	-	4.82	4.75	9.63	9.63	14.15	14.54	20.30	20.10
Highest CH	-	-	-	-	4.85	4.84	9.73	9.69	14.36	14.30	20.14	20.06

LTE Band 38

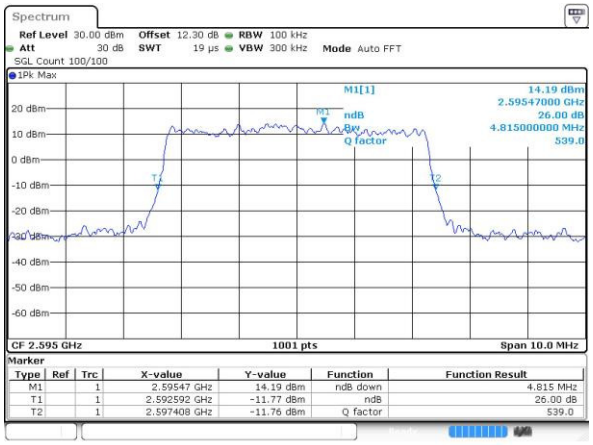
Lowest Channel / 5MHz / QPSK



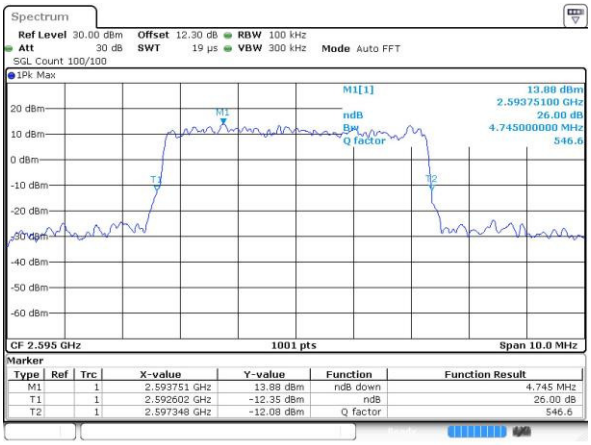
Lowest Channel / 5MHz / 16QAM



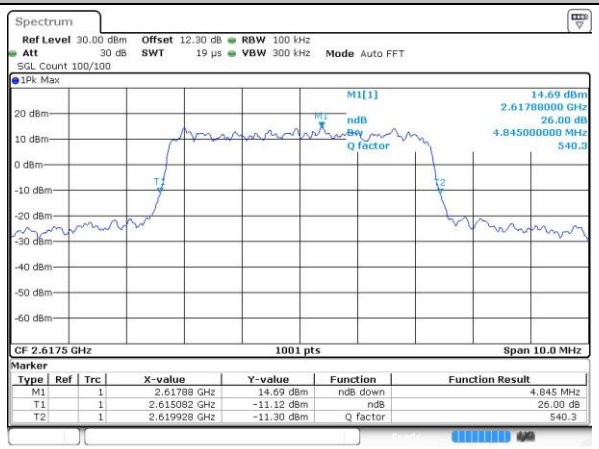
Middle Channel / 5MHz / QPSK



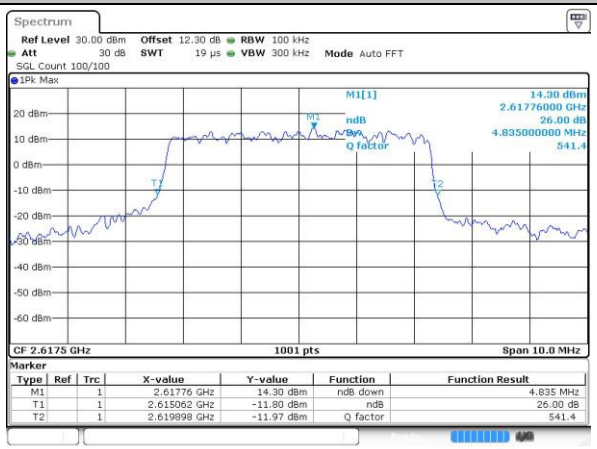
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

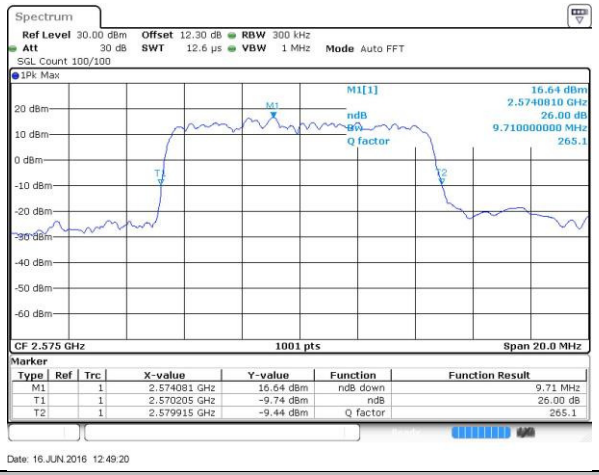


Highest Channel / 5MHz / 16QAM

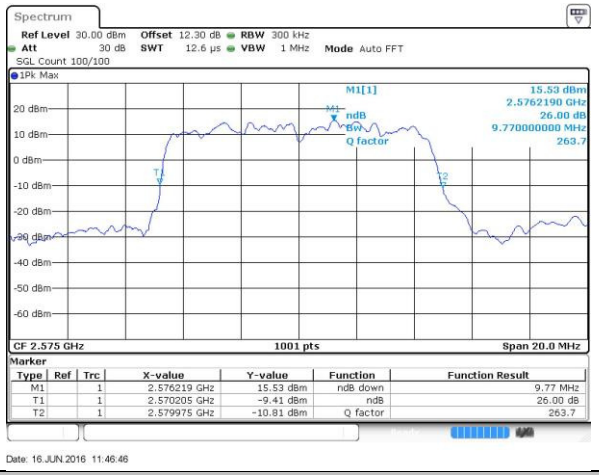


LTE Band 38

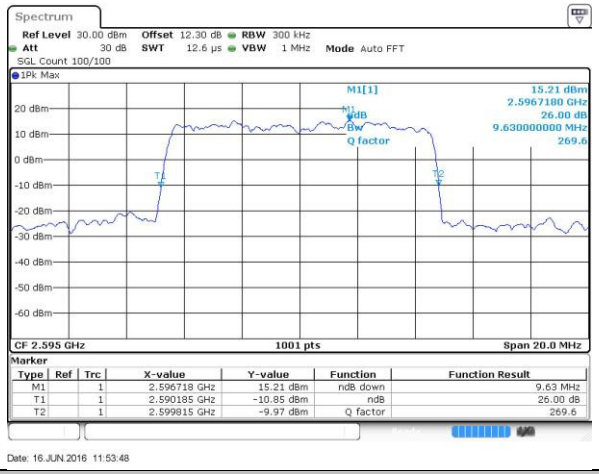
Lowest Channel / 10MHz / QPSK



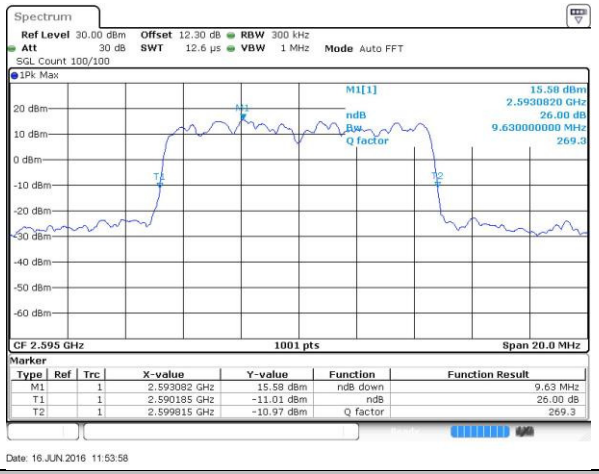
Lowest Channel / 10MHz / 16QAM



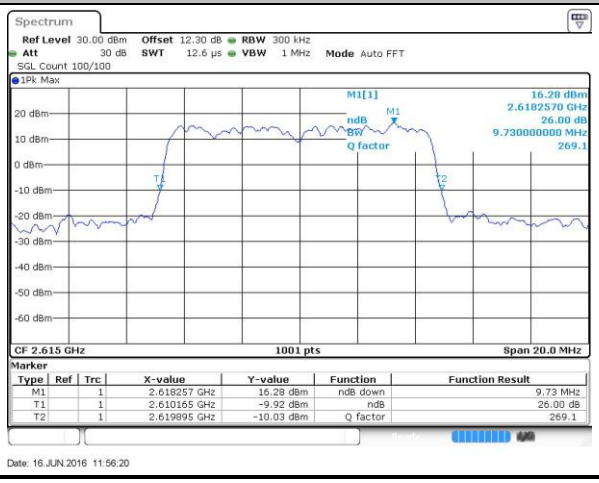
Middle Channel / 10MHz / QPSK



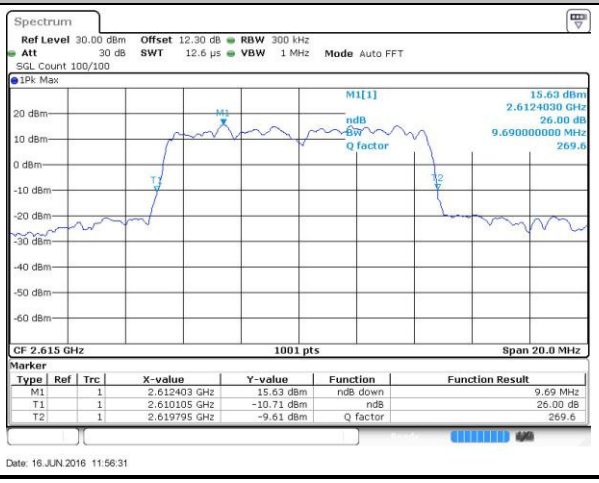
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

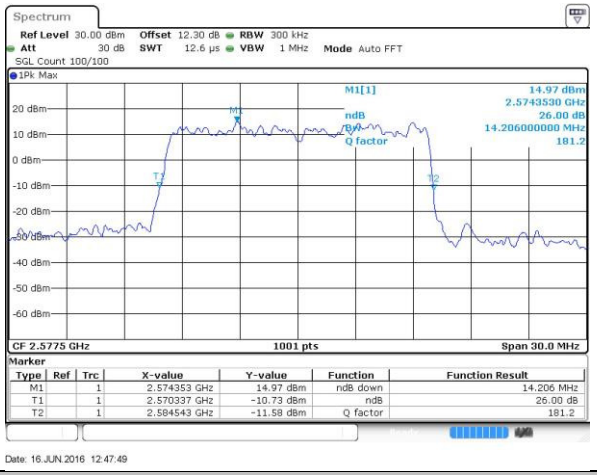


Highest Channel / 10MHz / 16QAM

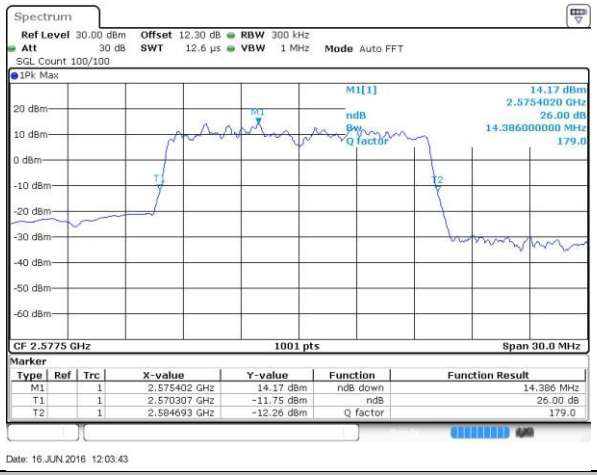


LTE Band 38

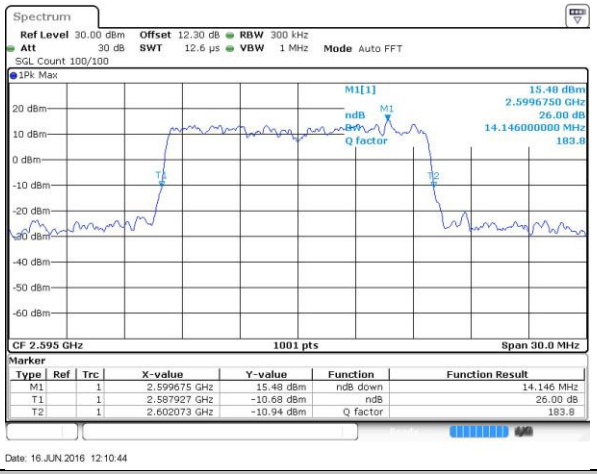
Lowest Channel / 15MHz / QPSK



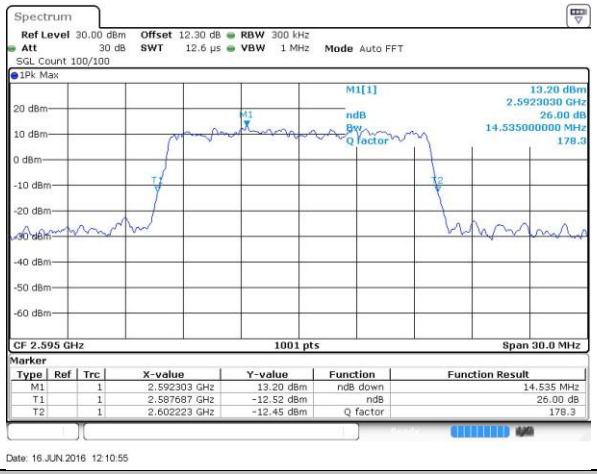
Lowest Channel / 15MHz / 16QAM



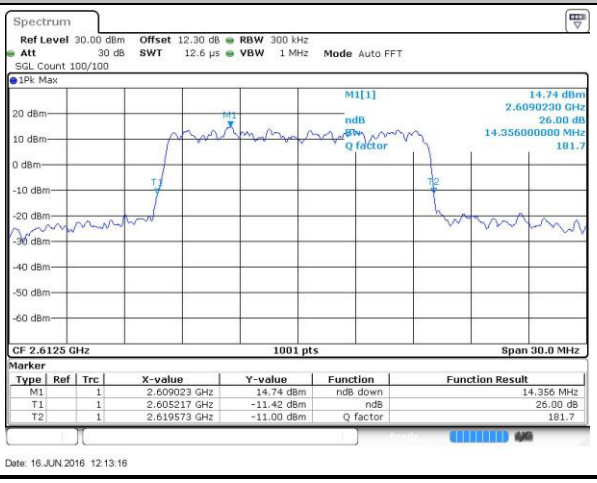
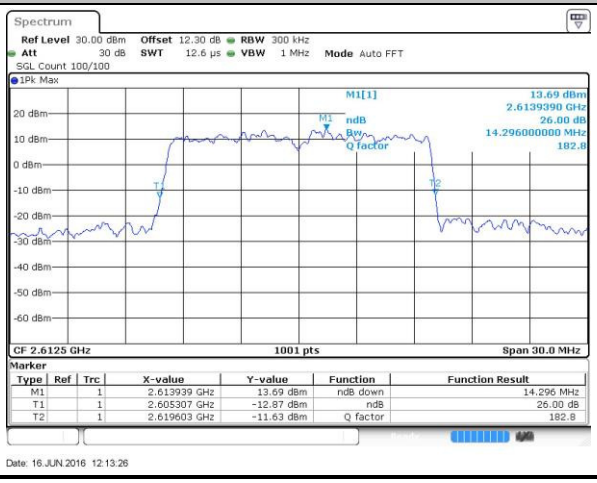
Middle Channel / 15MHz / QPSK



Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



Highest Channel / 15MHz / 16QAM