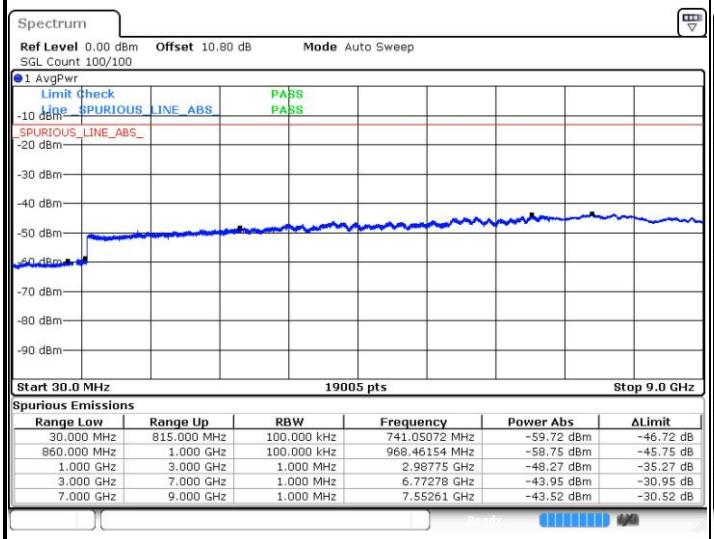
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM

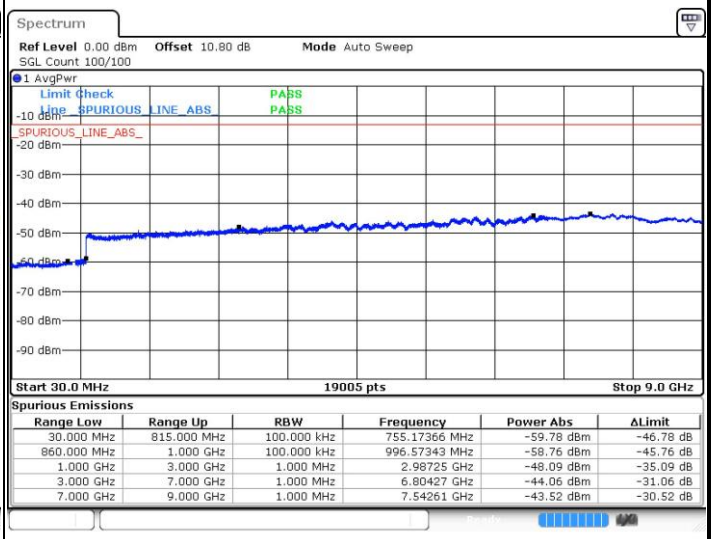


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	741.05072 MHz	-59.72 dBm	-46.72 dB
860.000 MHz	1.000 GHz	100.000 kHz	968.46154 MHz	-58.75 dBm	-45.75 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98775 GHz	-48.27 dBm	-35.27 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.77278 GHz	-43.95 dBm	-30.95 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.55261 GHz	-43.52 dBm	-30.52 dB

Date: 12.JUN.2018 22:09:41

Middle Channel / 64QAM

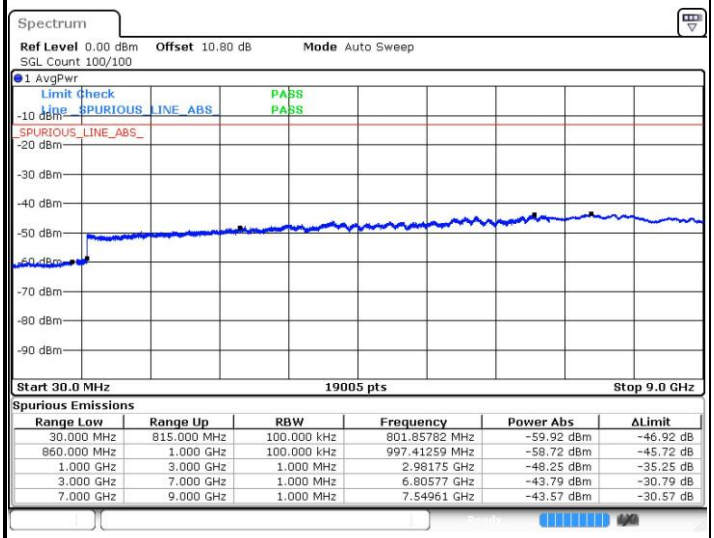


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	755.17366 MHz	-59.78 dBm	-46.78 dB
860.000 MHz	1.000 GHz	100.000 kHz	996.57343 MHz	-58.76 dBm	-45.76 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98725 GHz	-48.09 dBm	-35.09 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.80427 GHz	-44.06 dBm	-31.06 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54261 GHz	-43.52 dBm	-30.52 dB

Date: 12.JUN.2018 22:10:56

Highest Channel / 64QAM



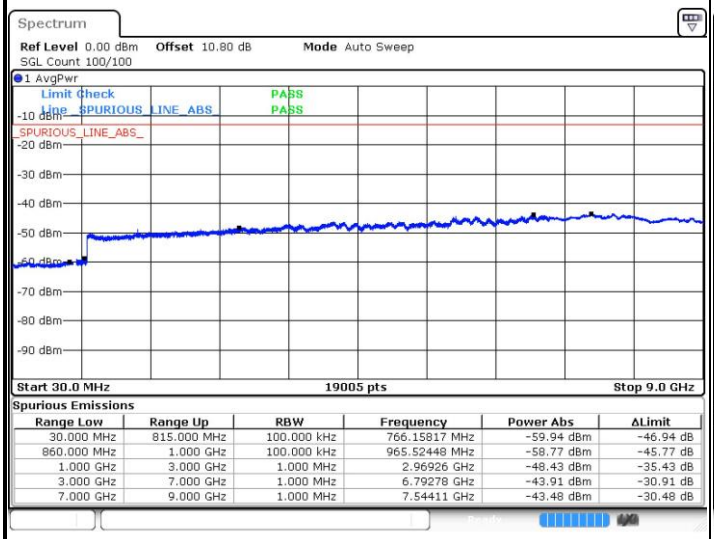
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	801.85782 MHz	-59.92 dBm	-46.92 dB
860.000 MHz	1.000 GHz	100.000 kHz	997.41259 MHz	-58.72 dBm	-45.72 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98175 GHz	-48.25 dBm	-35.25 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.80577 GHz	-43.79 dBm	-30.79 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54961 GHz	-43.57 dBm	-30.57 dB

Date: 12.JUN.2018 22:15:30

LTE Band 5 / 3MHz

Lowest Channel / 64QAM

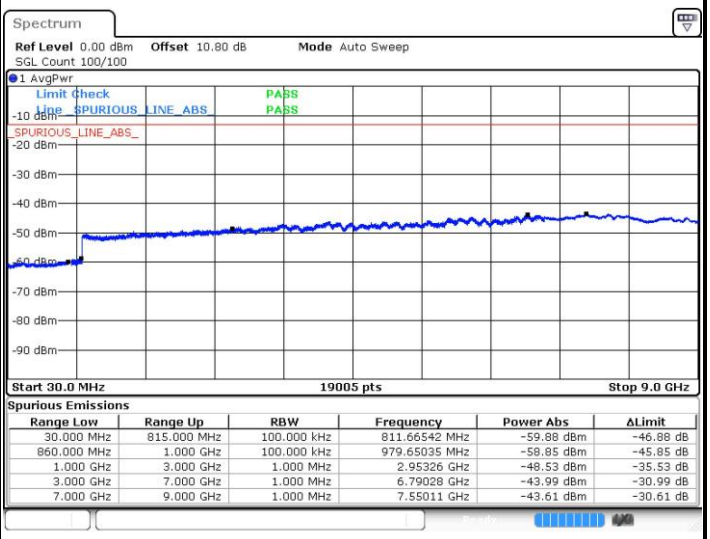


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	766.15817 MHz	-59.94 dBm	-46.94 dB
860.000 MHz	1.000 GHz	100.000 kHz	965.52448 MHz	-58.77 dBm	-45.77 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.96926 GHz	-48.43 dBm	-35.43 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.79278 GHz	-43.91 dBm	-30.91 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54411 GHz	-43.48 dBm	-30.48 dB

Date: 12.JUN.2018 21:37:08

Middle Channel / 64QAM

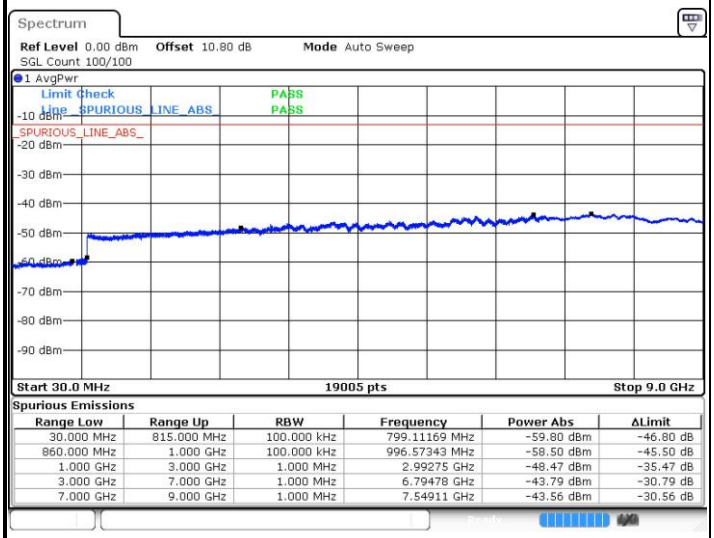


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	811.66542 MHz	-59.88 dBm	-46.88 dB
860.000 MHz	1.000 GHz	100.000 kHz	979.65035 MHz	-58.85 dBm	-45.85 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.95326 GHz	-48.53 dBm	-35.53 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.79028 GHz	-43.99 dBm	-30.99 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.55011 GHz	-43.61 dBm	-30.61 dB

Date: 12.JUN.2018 21:38:23

Highest Channel / 64QAM



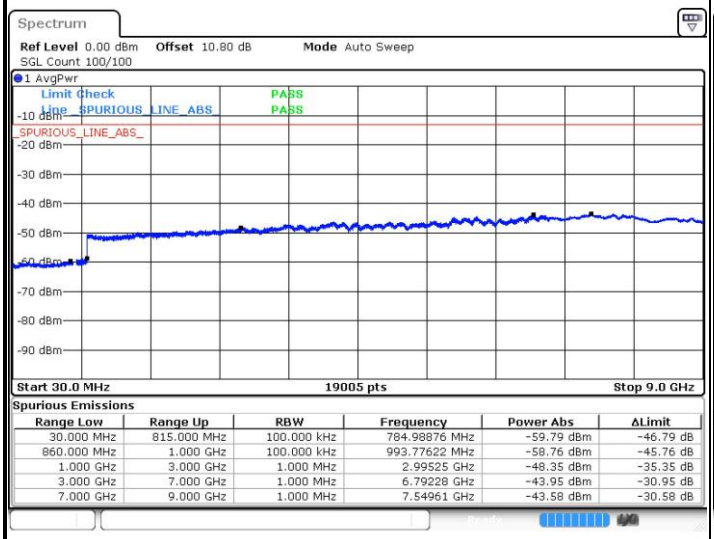
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	799.11169 MHz	-59.80 dBm	-46.80 dB
860.000 MHz	1.000 GHz	100.000 kHz	996.57343 MHz	-58.50 dBm	-45.50 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99275 GHz	-48.47 dBm	-35.47 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.79478 GHz	-43.79 dBm	-30.79 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54911 GHz	-43.56 dBm	-30.56 dB

Date: 12.JUN.2018 21:42:57

LTE Band 5 / 5MHz

Lowest Channel / 64QAM

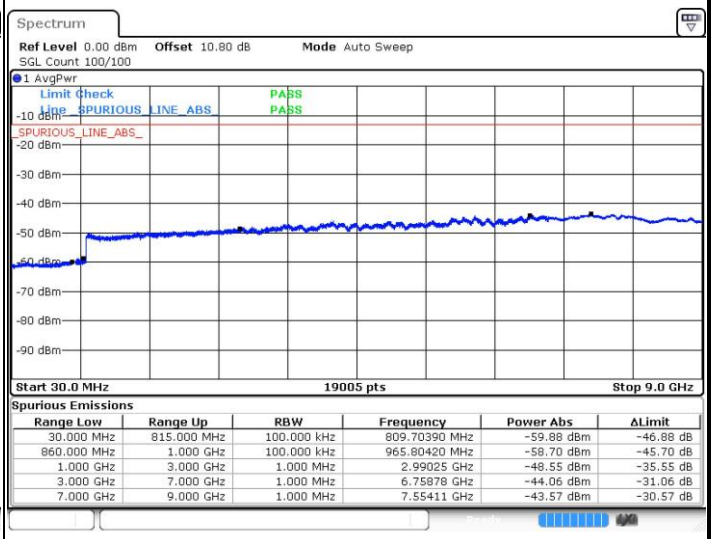


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	784.98876 MHz	-59.79 dBm	-46.79 dB
860.000 MHz	1.000 GHz	100.000 kHz	993.77622 MHz	-58.76 dBm	-45.76 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99525 GHz	-48.35 dBm	-35.35 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.79228 GHz	-43.95 dBm	-30.95 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54961 GHz	-43.58 dBm	-30.58 dB

Date: 12.JUN.2018 21:47:31

Middle Channel / 64QAM

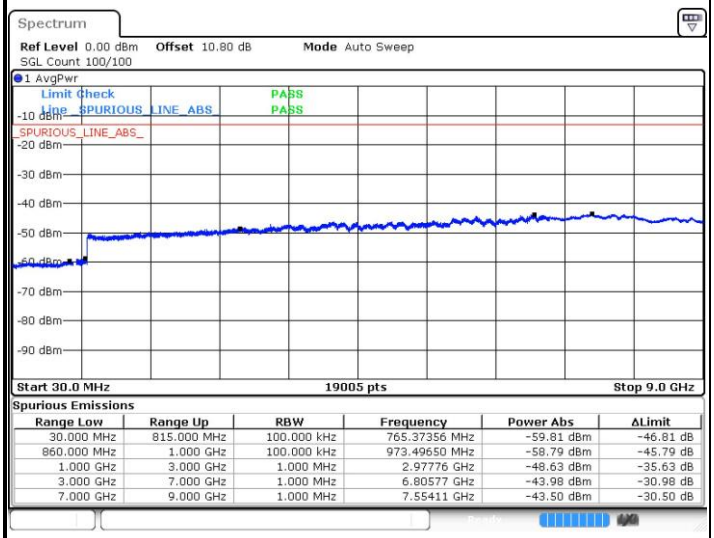


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	809.70390 MHz	-59.88 dBm	-46.88 dB
860.000 MHz	1.000 GHz	100.000 kHz	965.80420 MHz	-58.70 dBm	-45.70 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99025 GHz	-48.55 dBm	-35.55 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.75878 GHz	-44.06 dBm	-31.06 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.55411 GHz	-43.57 dBm	-30.57 dB

Date: 12.JUN.2018 21:48:46

Highest Channel / 64QAM



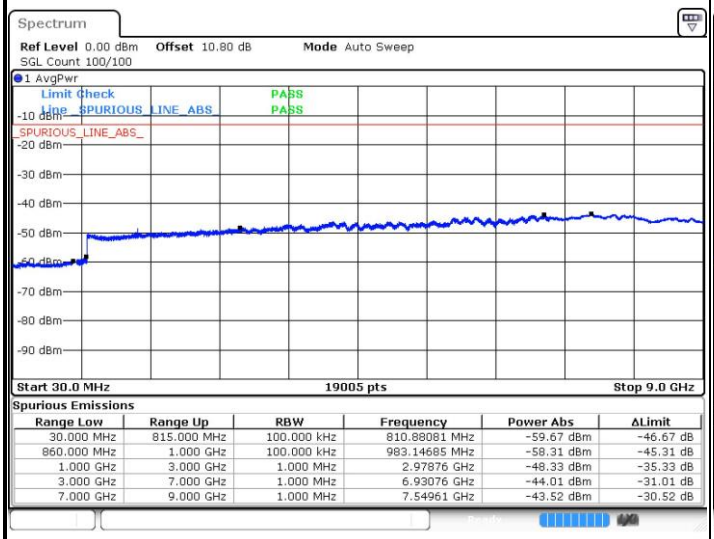
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	765.37356 MHz	-59.81 dBm	-46.81 dB
860.000 MHz	1.000 GHz	100.000 kHz	973.49650 MHz	-58.79 dBm	-45.79 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.97776 GHz	-48.63 dBm	-35.63 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.80577 GHz	-43.98 dBm	-30.98 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.55411 GHz	-43.50 dBm	-30.50 dB

Date: 12.JUN.2018 21:53:19

LTE Band 5 / 10MHz

Lowest Channel / 64QAM

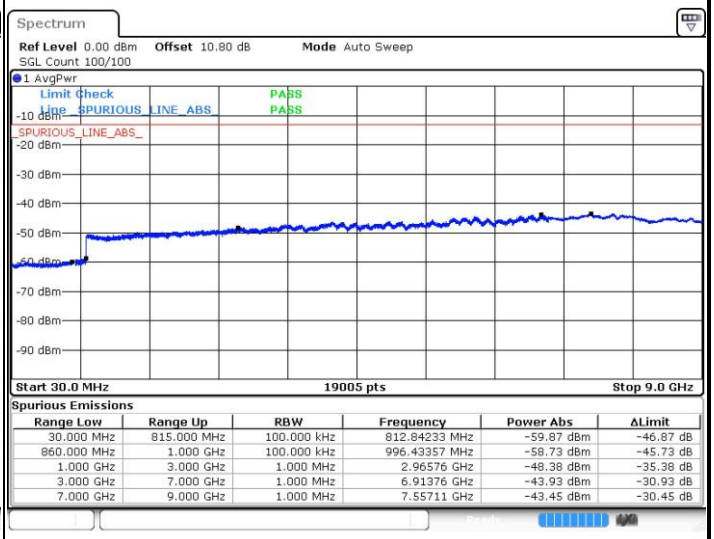


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	810.88081 MHz	-59.67 dBm	-46.67 dB
860.000 MHz	1.000 GHz	100.000 kHz	983.14685 MHz	-58.31 dBm	-45.31 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.97876 GHz	-48.33 dBm	-35.33 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93076 GHz	-44.01 dBm	-31.01 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54961 GHz	-43.52 dBm	-30.52 dB

Date: 12.JUN.2018 21:57:53

Middle Channel / 64QAM

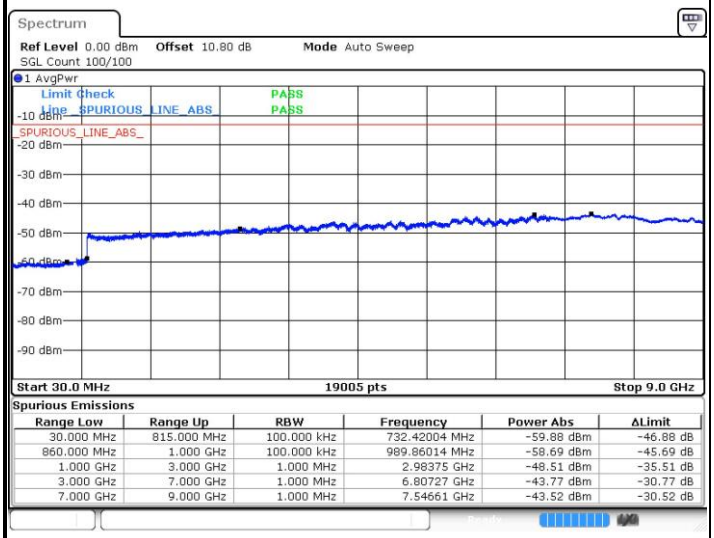


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	812.84233 MHz	-59.87 dBm	-46.87 dB
860.000 MHz	1.000 GHz	100.000 kHz	996.43357 MHz	-58.73 dBm	-45.73 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.96576 GHz	-48.38 dBm	-35.38 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91376 GHz	-43.93 dBm	-30.93 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.55711 GHz	-43.45 dBm	-30.45 dB

Date: 12.JUN.2018 21:59:08

Highest Channel / 64QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	732.42004 MHz	-59.88 dBm	-46.88 dB
860.000 MHz	1.000 GHz	100.000 kHz	989.86014 MHz	-58.69 dBm	-45.69 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98375 GHz	-48.51 dBm	-35.51 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.80727 GHz	-43.77 dBm	-30.77 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.54661 GHz	-43.52 dBm	-30.52 dB

Date: 12.JUN.2018 22:05:07

Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0011	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0061	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0006	

Note:

1. Normal Voltage =3.8 V.；Battery End Point (BEP) =3.5 V.；Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

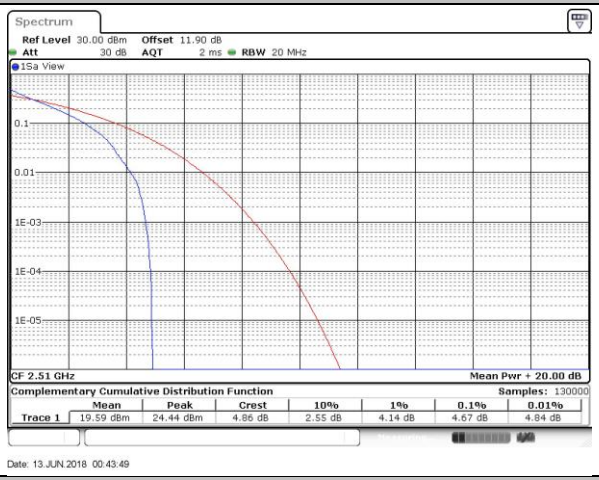
LTE Band 7

Peak-to-Average Ratio

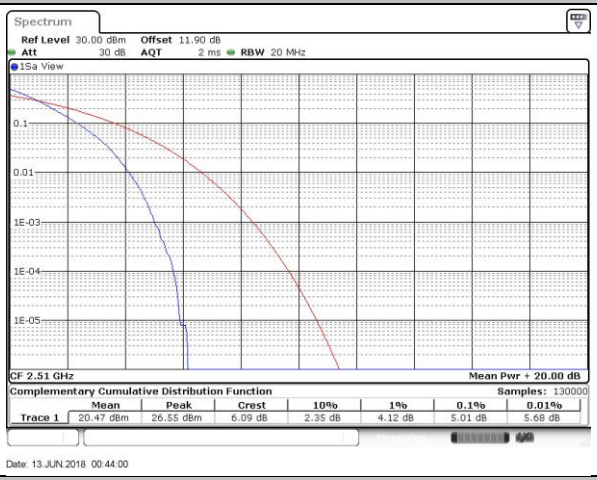
Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.67	5.01	5.97	5.88	PASS
Middle CH	5.25	5.13	6.09	5.94	
Highest CH	4.7	5.28	5.94	6.26	
Mode	LTE Band 7 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.58	6.06	-	-	PASS
Middle CH	6.67	6.09	-	-	
Highest CH	6.29	6.26	-	-	

LTE Band 7 / 20MHz / QPSK

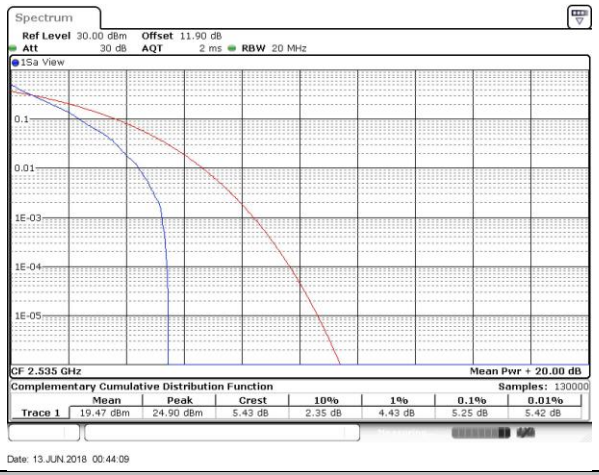
Lowest Channel / 1RB



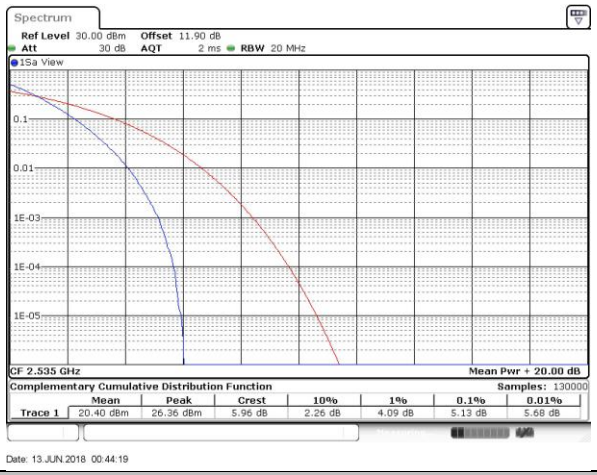
Lowest Channel / Full RB



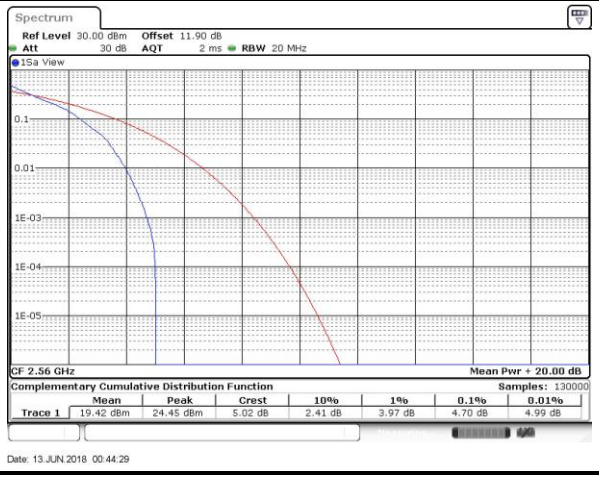
Middle Channel / 1RB



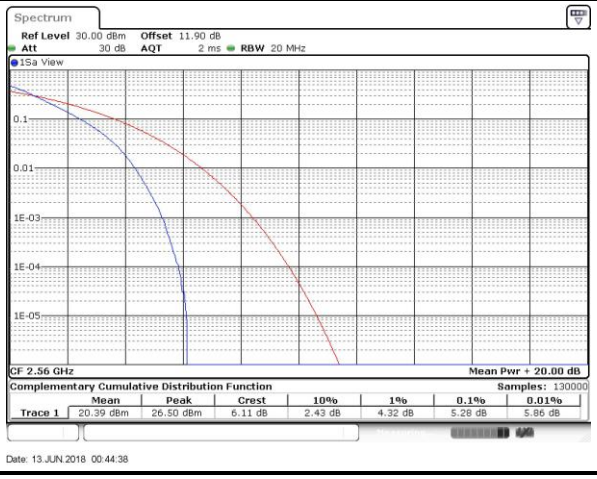
Middle Channel / Full RB



Highest Channel / 1RB

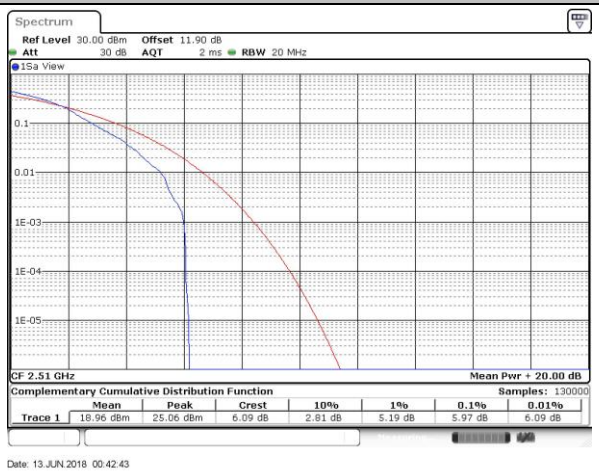


Highest Channel / Full RB

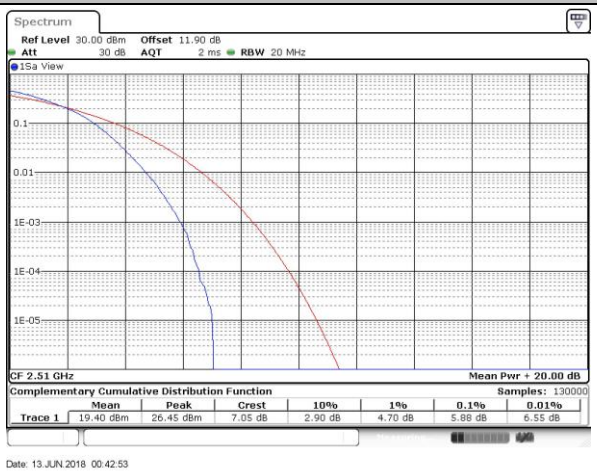


LTE Band 7 / 20MHz / 16QAM

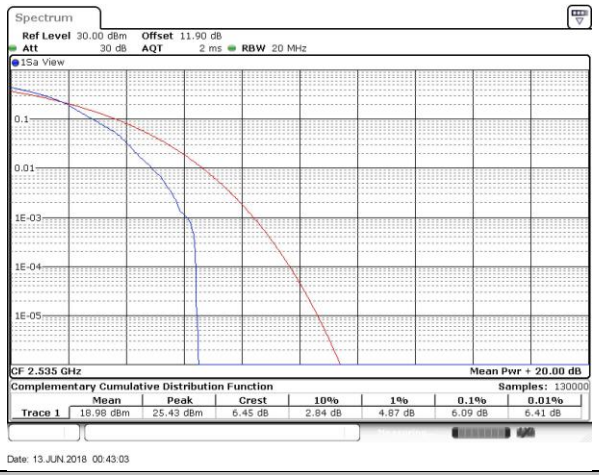
Lowest Channel / 1RB



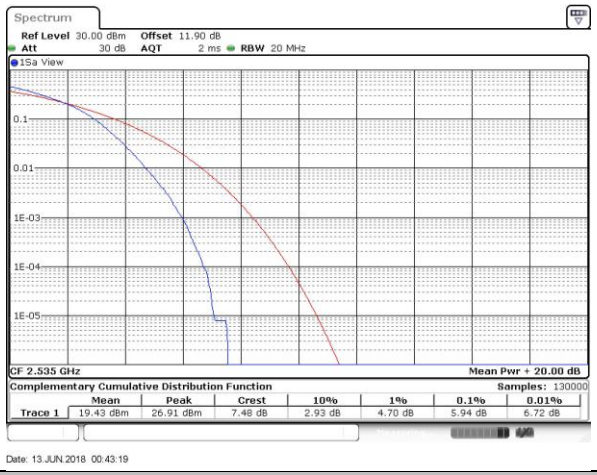
Lowest Channel / Full RB



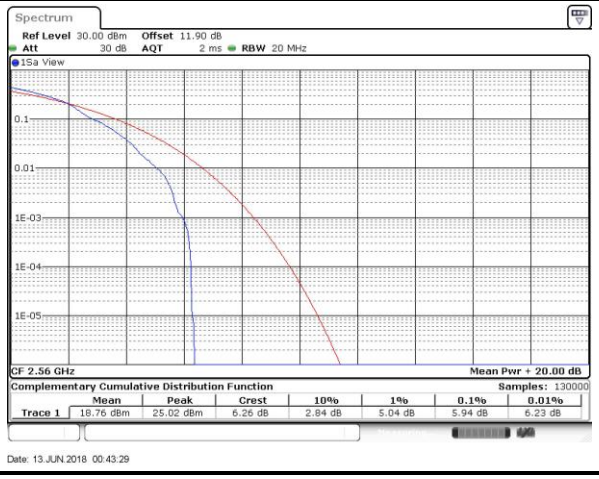
Middle Channel / 1RB



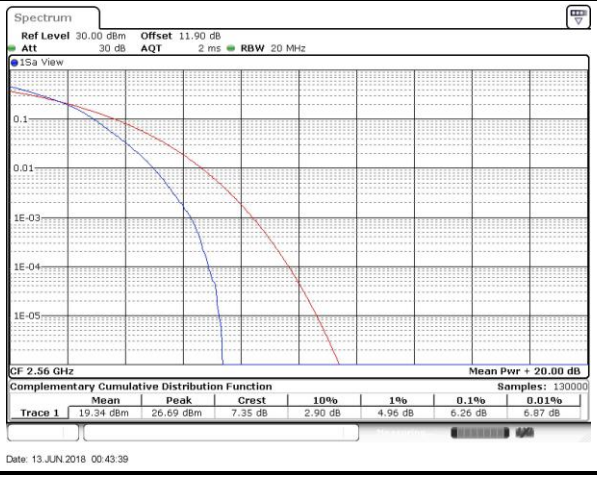
Middle Channel / Full RB



Highest Channel / 1RB

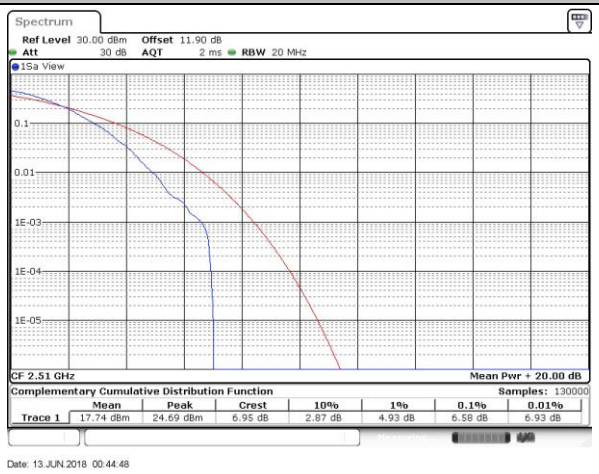


Highest Channel / Full RB

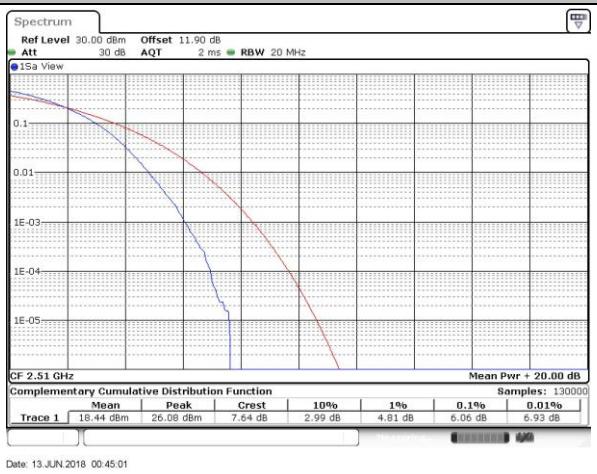


LTE Band 7 / 20MHz / 64QAM

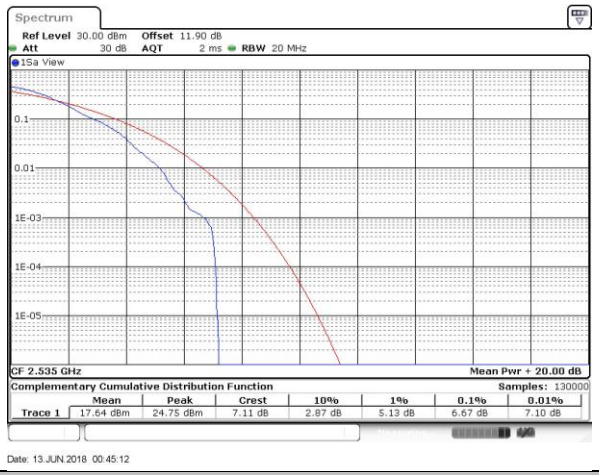
Lowest Channel / 1RB



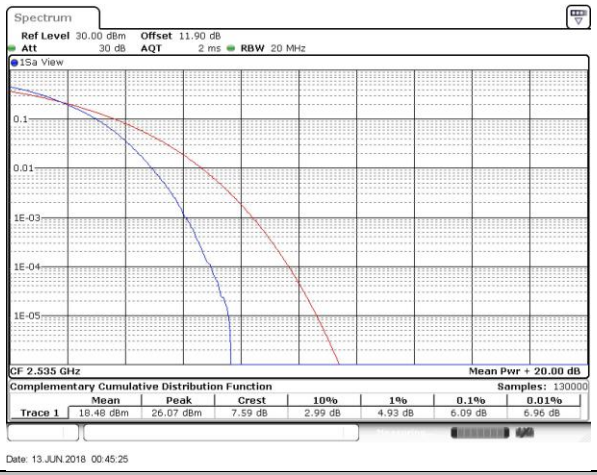
Lowest Channel / Full RB



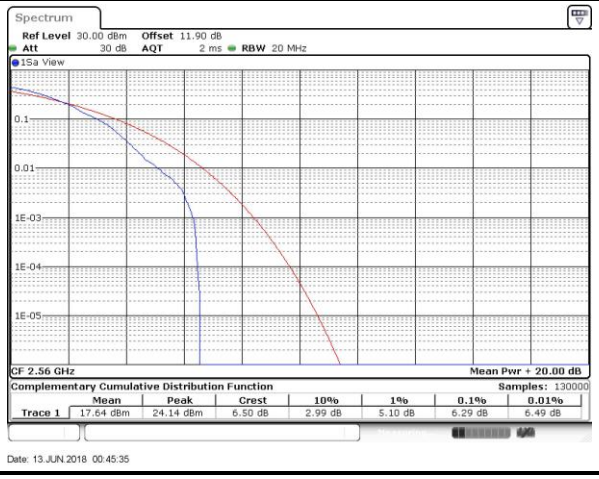
Middle Channel / 1RB



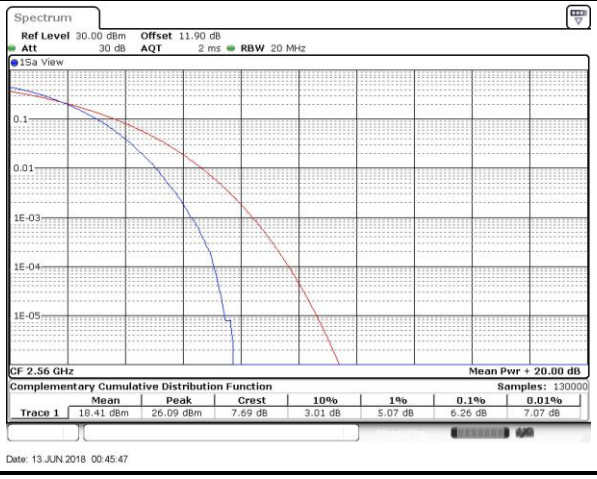
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

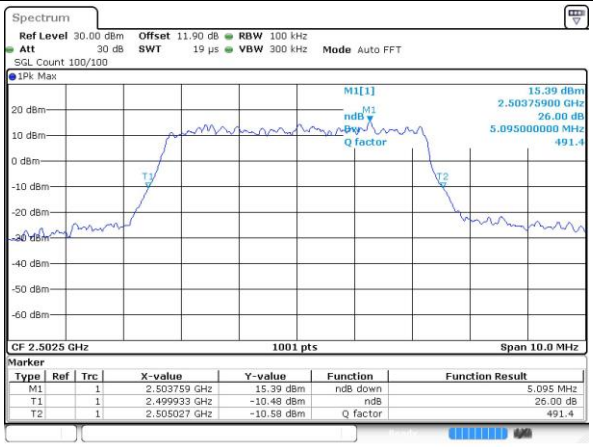


26dB Bandwidth

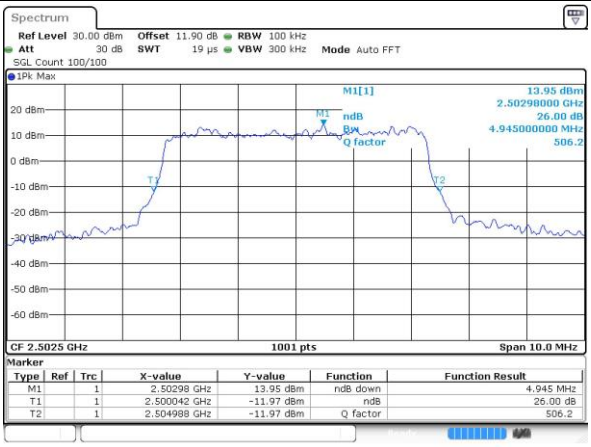
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.10	4.95	9.73	9.85	14.60	14.72	20.14	20.22
Middle CH	-	-	-	-	5.12	5.03	9.65	9.89	14.69	14.63	20.30	20.30
Highest CH	-	-	-	-	5.08	5.05	9.67	10.05	14.51	14.87	20.10	20.18
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	5.09	-	9.85	-	14.75	-	20.26	-
Middle CH	-	-	-	-	5.00	-	9.73	-	14.54	-	20.14	-
Highest CH	-	-	-	-	4.98	-	9.99	-	14.93	-	20.30	-

LTE Band 7

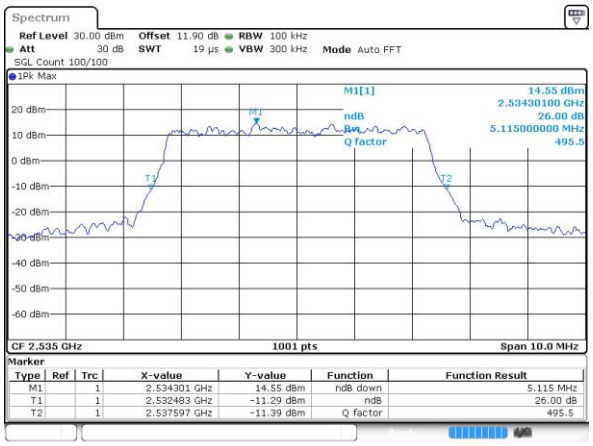
Lowest Channel / 5MHz / QPSK



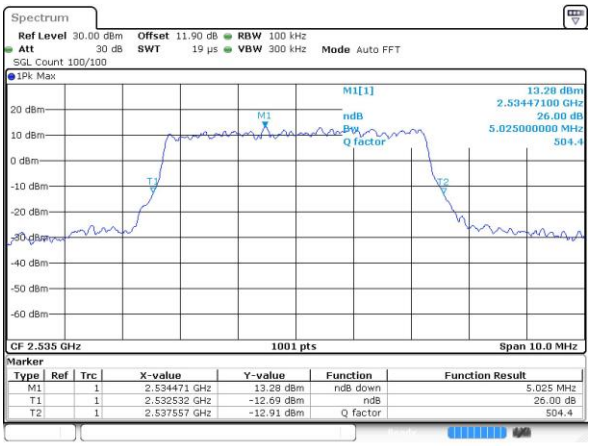
Lowest Channel / 5MHz / 16QAM



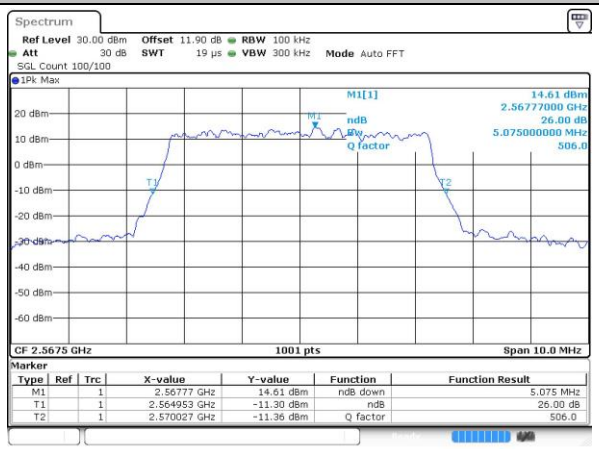
Middle Channel / 5MHz / QPSK



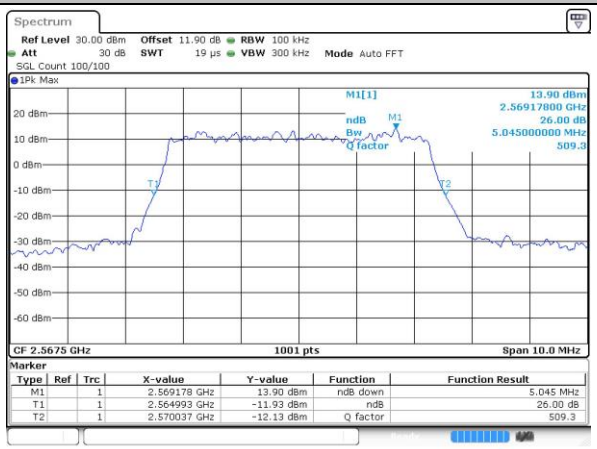
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

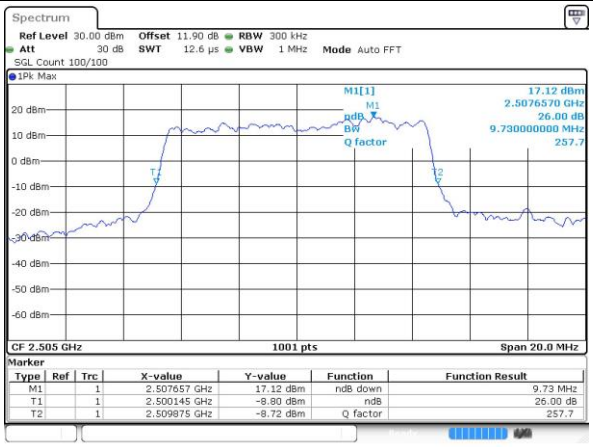


Highest Channel / 5MHz / 16QAM

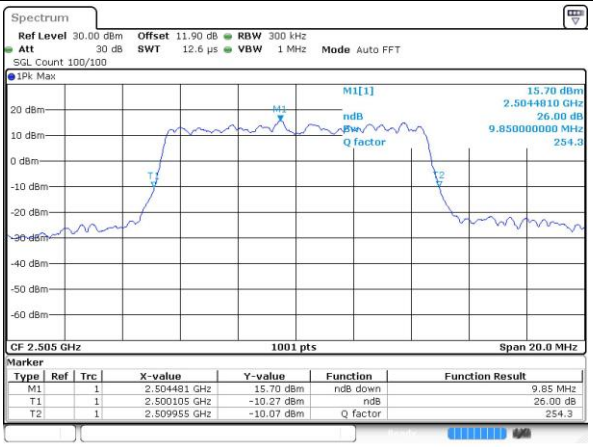


LTE Band 7

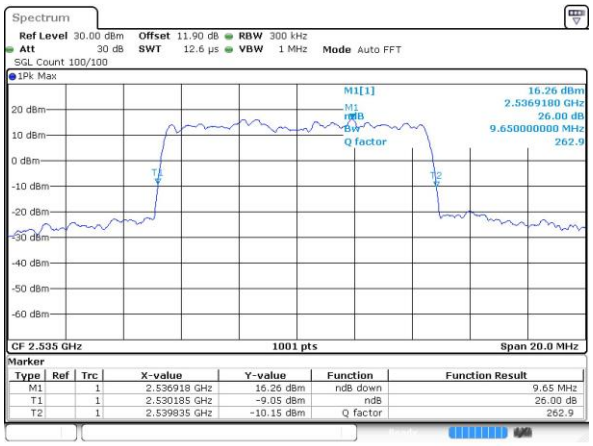
Lowest Channel / 10MHz / QPSK



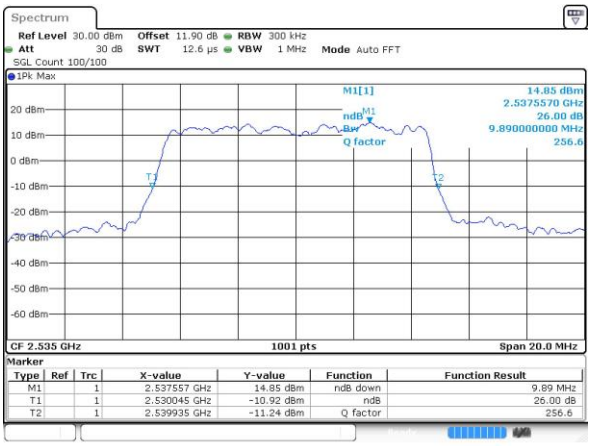
Lowest Channel / 10MHz / 16QAM



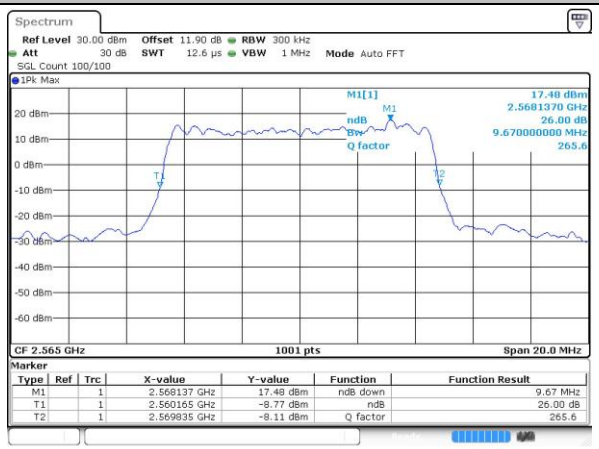
Middle Channel / 10MHz / QPSK



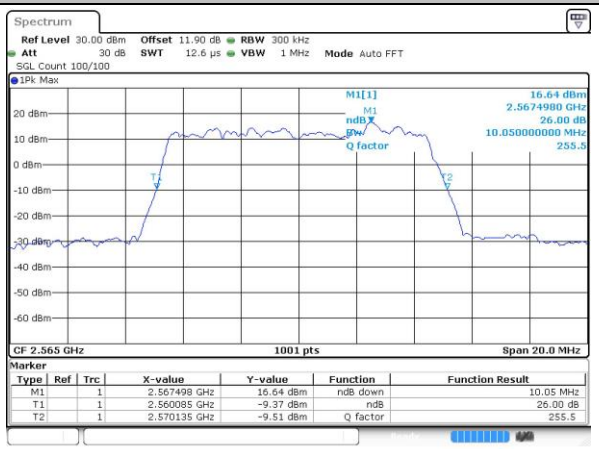
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

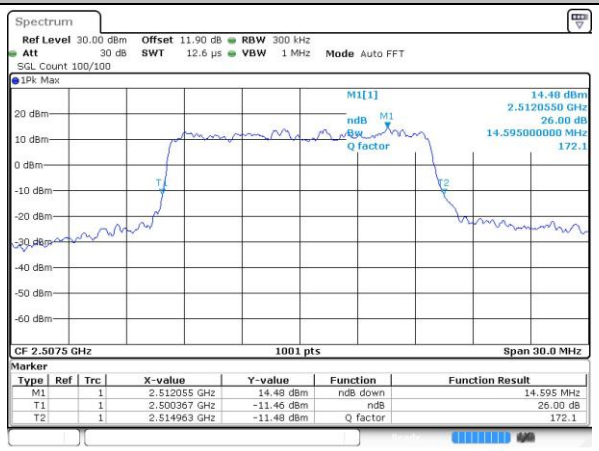


Highest Channel / 10MHz / 16QAM

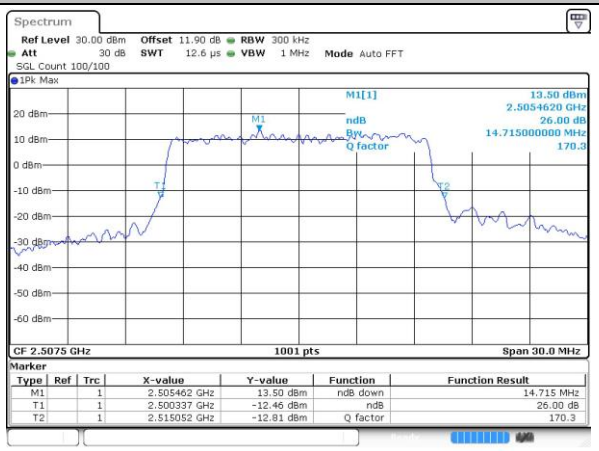


LTE Band 7

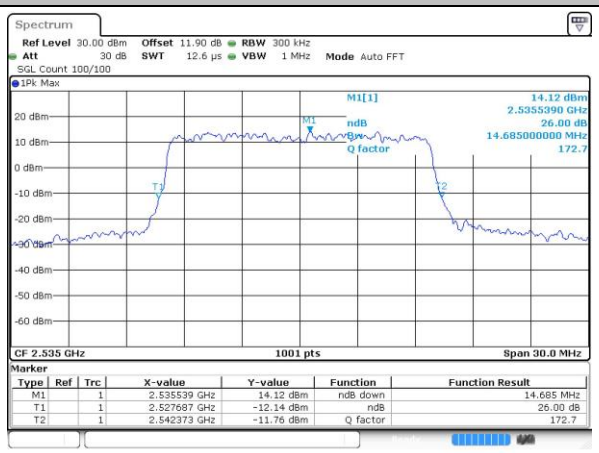
Lowest Channel / 15MHz / QPSK



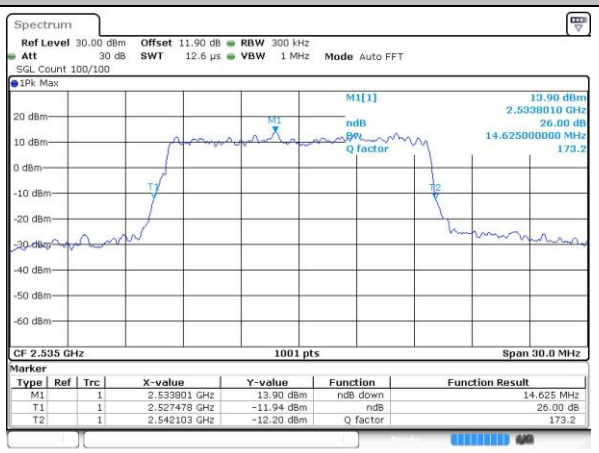
Lowest Channel / 15MHz / 16QAM



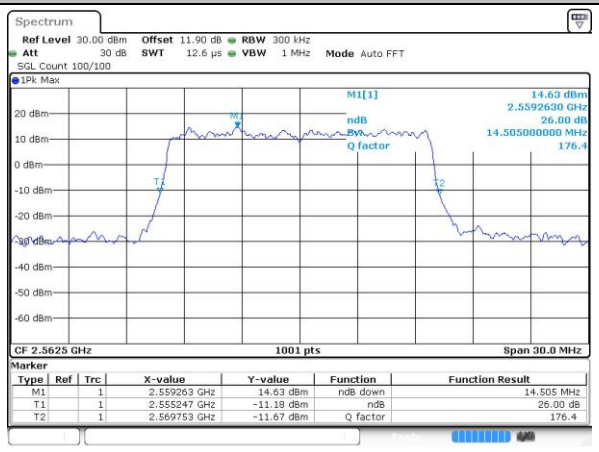
Middle Channel / 15MHz / QPSK



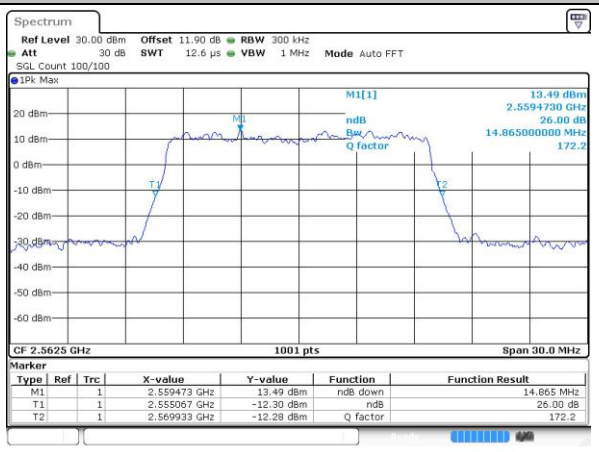
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

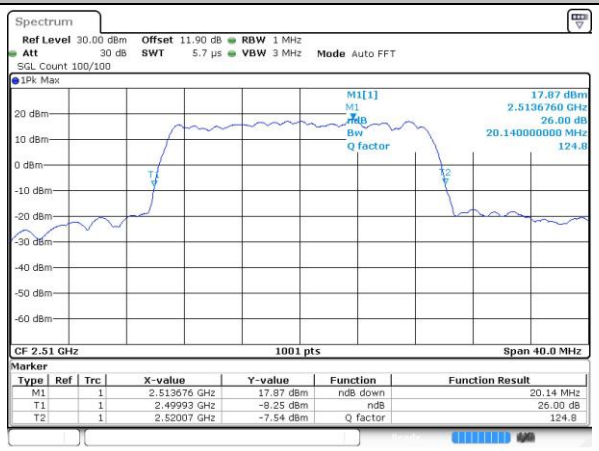


Highest Channel / 15MHz / 16QAM

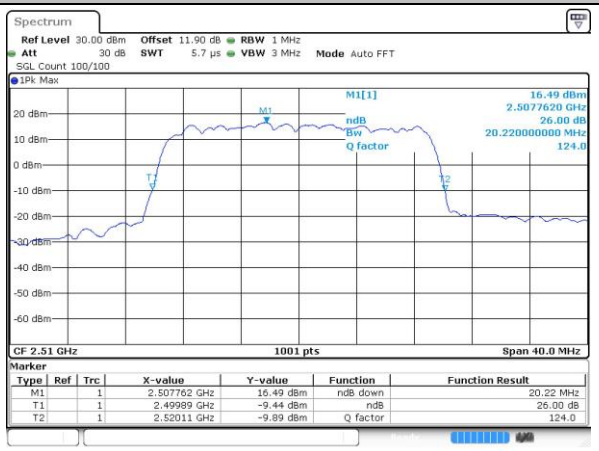


LTE Band 7

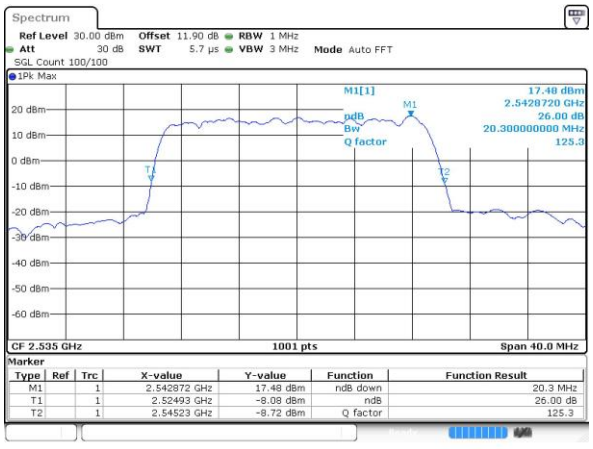
Lowest Channel / 20MHz / QPSK



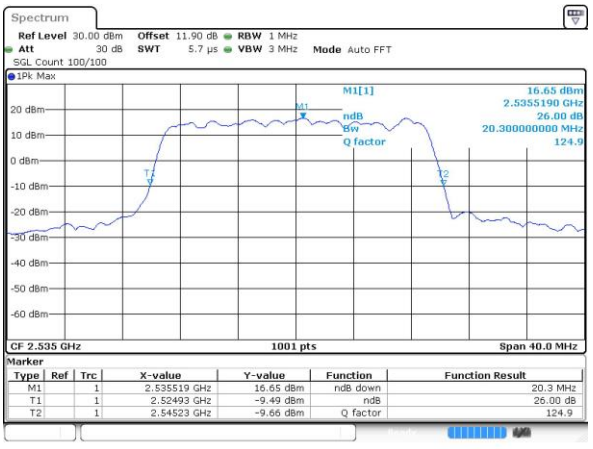
Lowest Channel / 20MHz / 16QAM



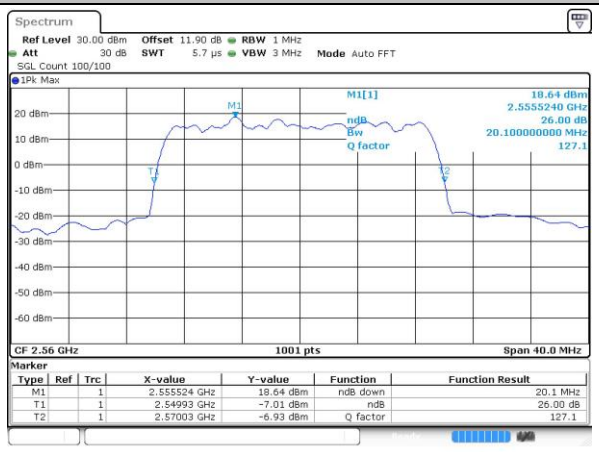
Middle Channel / 20MHz / QPSK



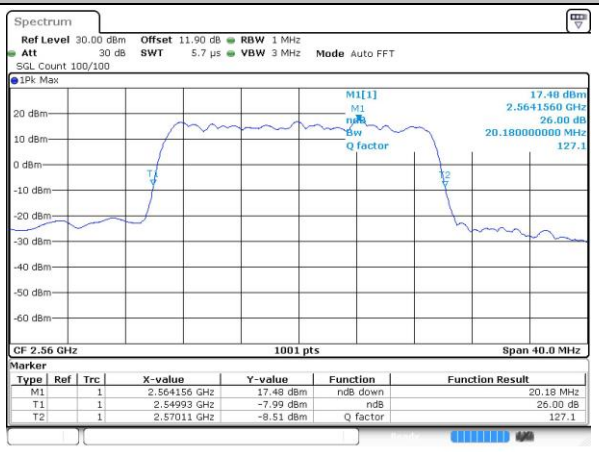
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

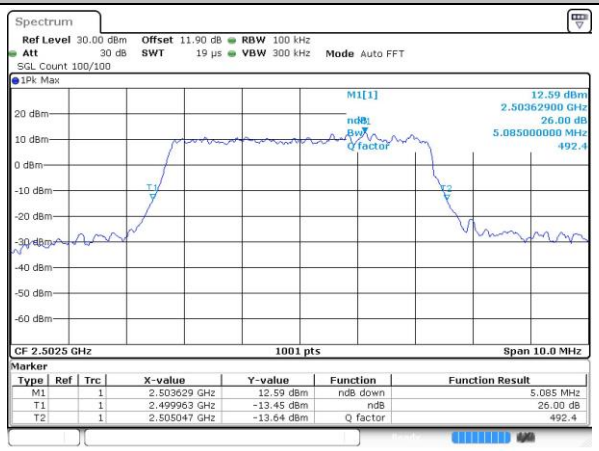


Highest Channel / 20MHz / 16QAM

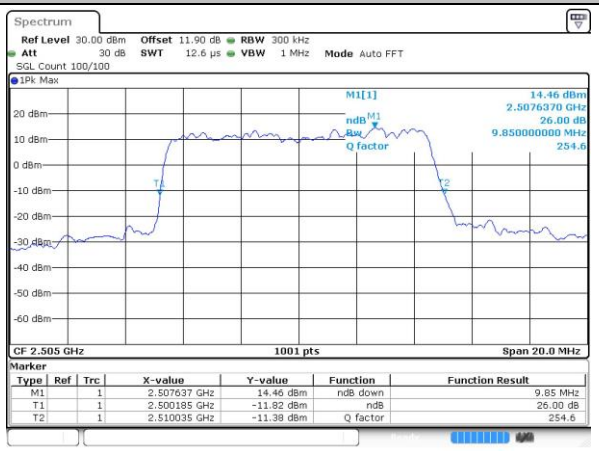


LTE Band 7

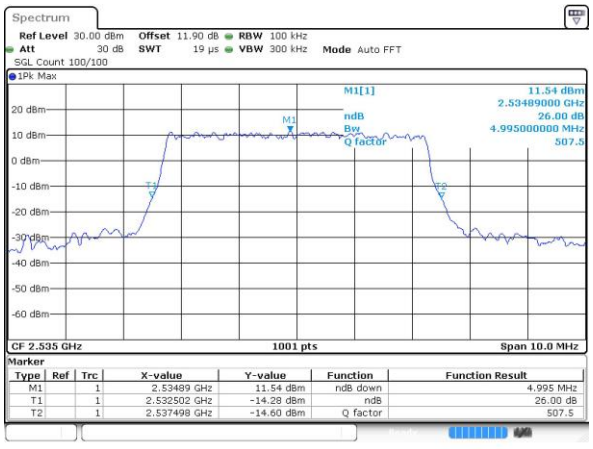
Lowest Channel / 5MHz / 64QAM



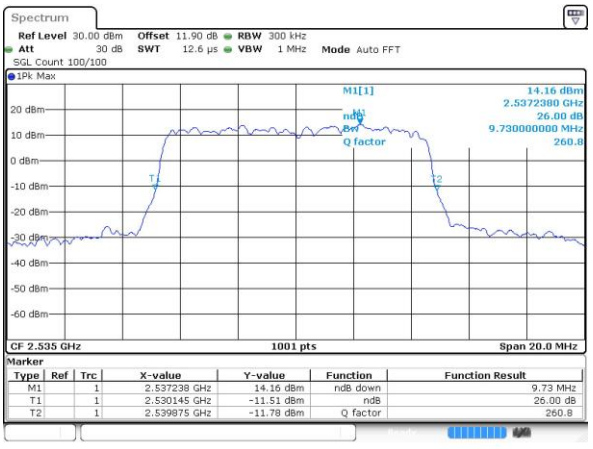
Lowest Channel / 10MHz / 64QAM



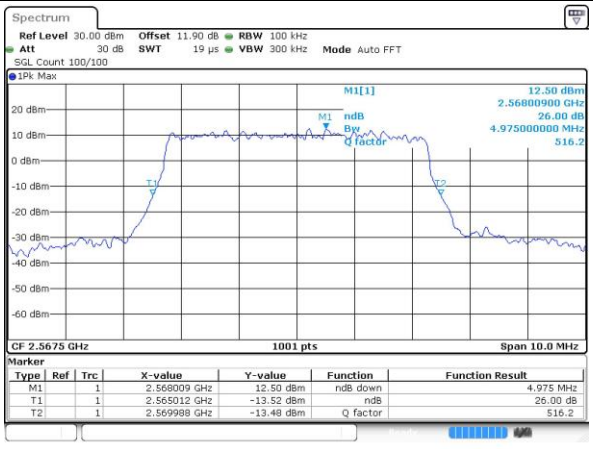
Middle Channel / 5MHz / 64QAM



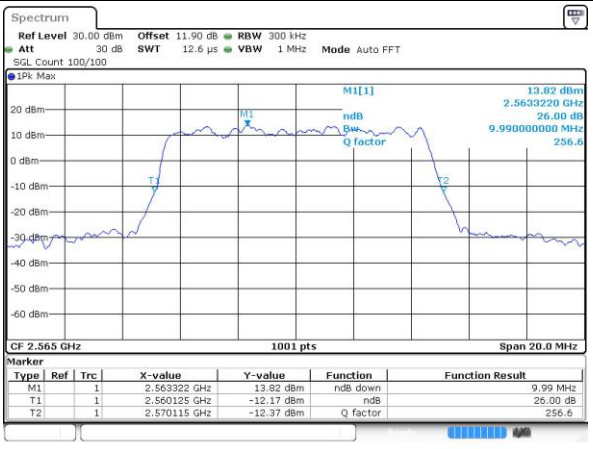
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

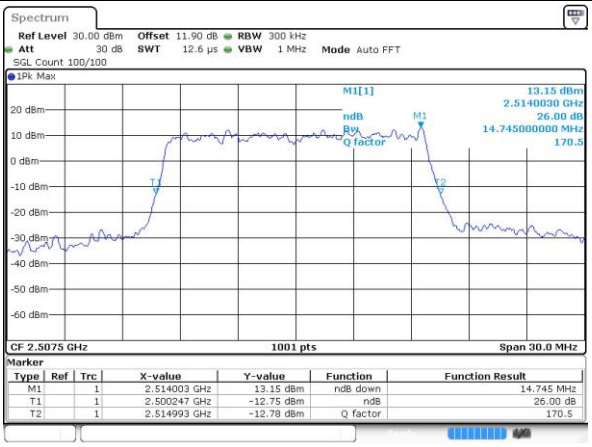


Highest Channel / 10MHz / 64QAM

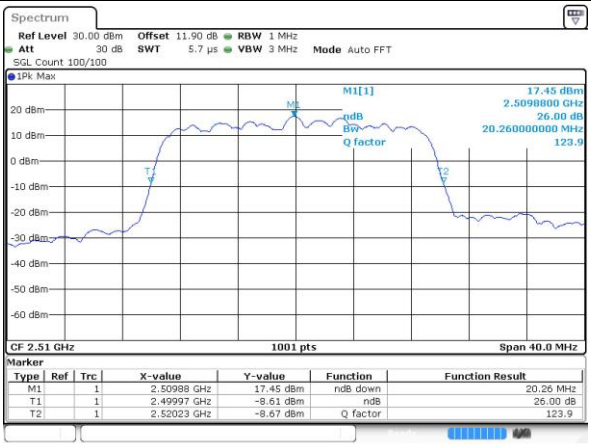


LTE Band 7

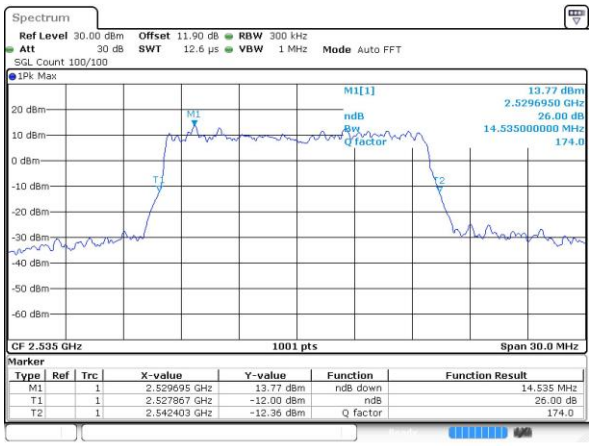
Lowest Channel / 15MHz / 64QAM



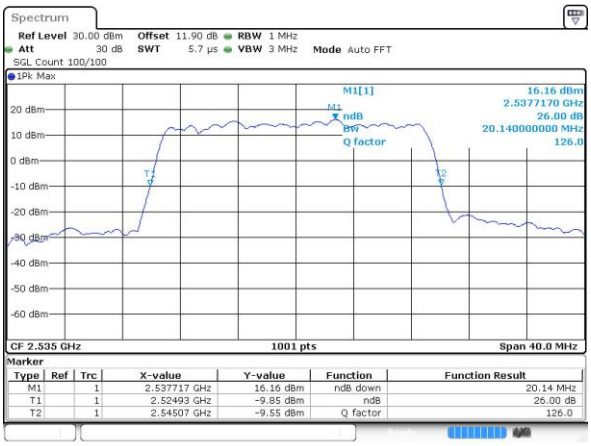
Lowest Channel / 20MHz / 64QAM



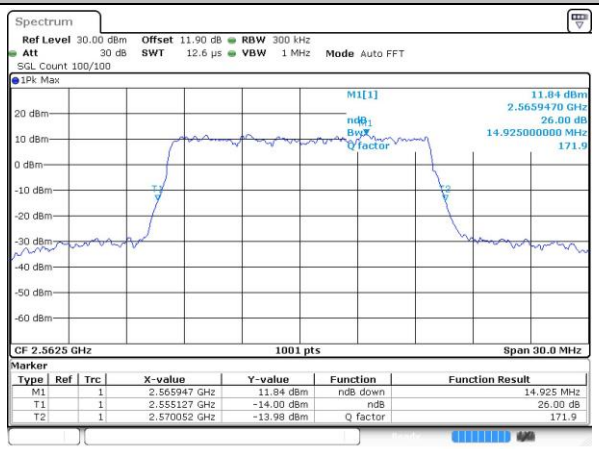
Middle Channel / 15MHz / 64QAM



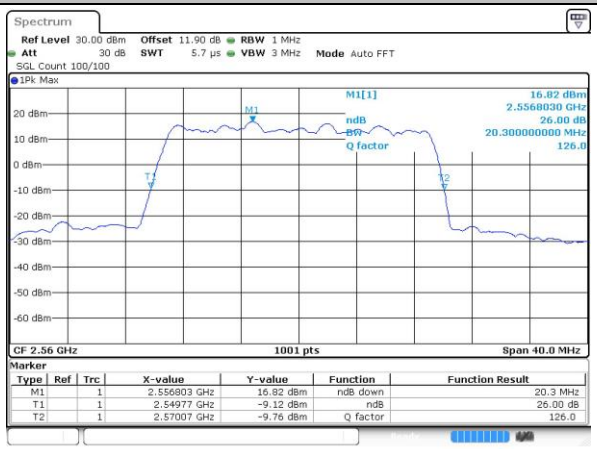
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM



Highest Channel / 20MHz / 64QAM

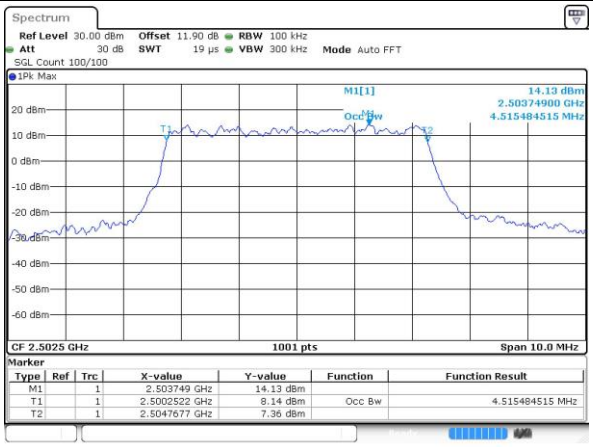


Occupied Bandwidth

Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.52	4.51	9.11	9.03	13.46	13.49	18.42	18.26
Middle CH	-	-	-	-	4.51	4.5	9.01	8.97	13.52	13.52	18.42	18.22
Highest CH	-	-	-	-	4.5	4.51	9.13	8.99	13.4	13.43	18.34	18.5
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.52	-	8.99	-	13.43	-	18.34	-
Middle CH	-	-	-	-	4.52	-	9.09	-	13.40	-	18.22	-
Highest CH	-	-	-	-	4.47	-	9.03	-	13.49	-	18.26	-

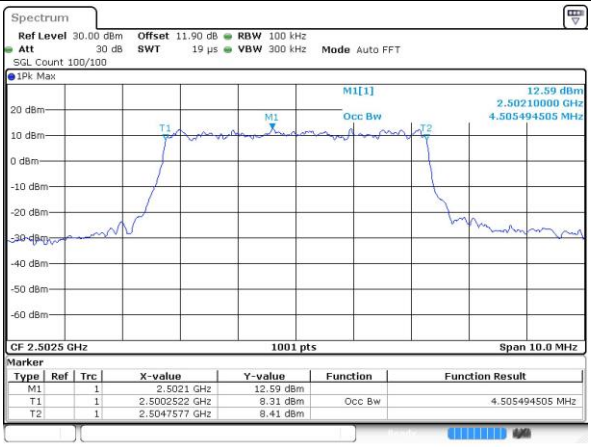
LTE Band 7

Lowest Channel / 5MHz / QPSK



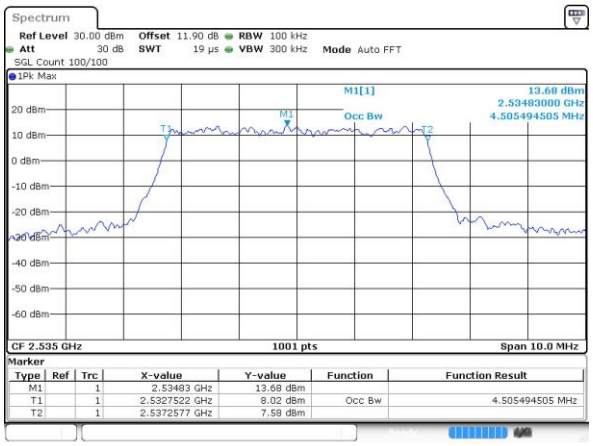
Date: 12.JUN.2018 22:51:01

Lowest Channel / 5MHz / 16QAM



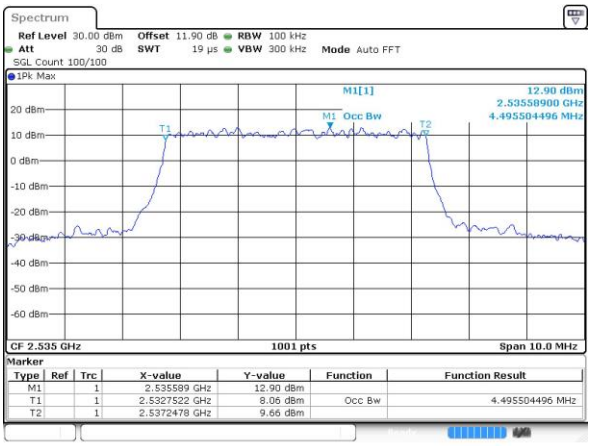
Date: 12.JUN.2018 22:51:12

Middle Channel / 5MHz / QPSK



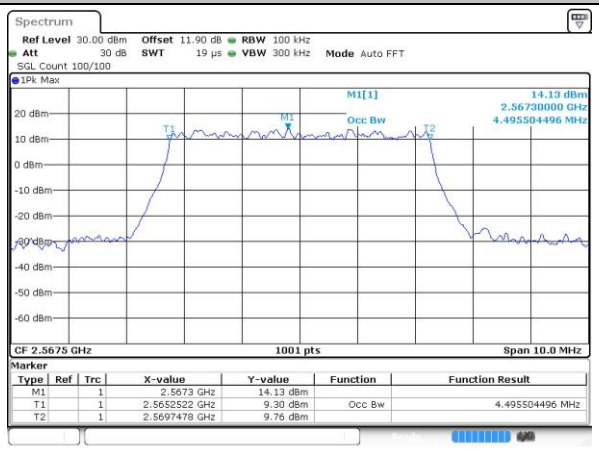
Date: 12.JUN.2018 22:58:10

Middle Channel / 5MHz / 16QAM



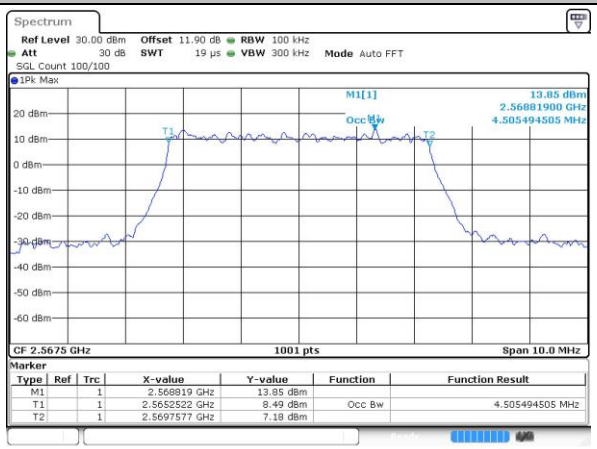
Date: 12.JUN.2018 22:58:21

Highest Channel / 5MHz / QPSK



Date: 12.JUN.2018 23:00:40

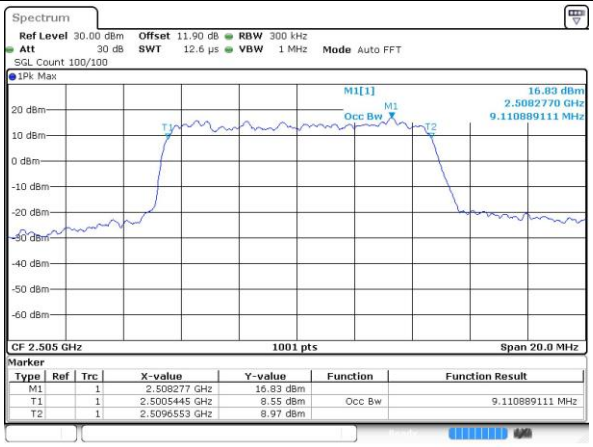
Highest Channel / 5MHz / 16QAM



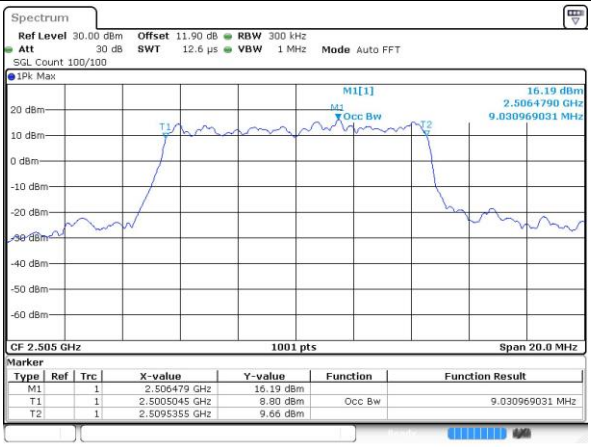
Date: 12.JUN.2018 23:00:51

LTE Band 7

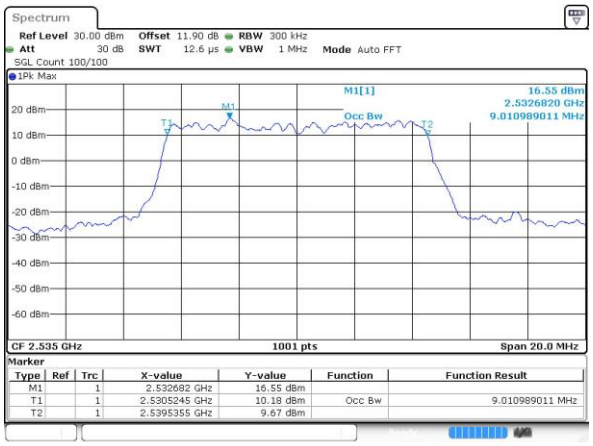
Lowest Channel / 10MHz / QPSK



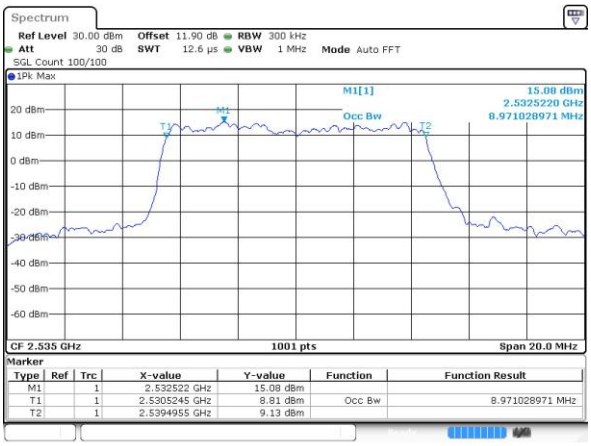
Lowest Channel / 10MHz / 16QAM



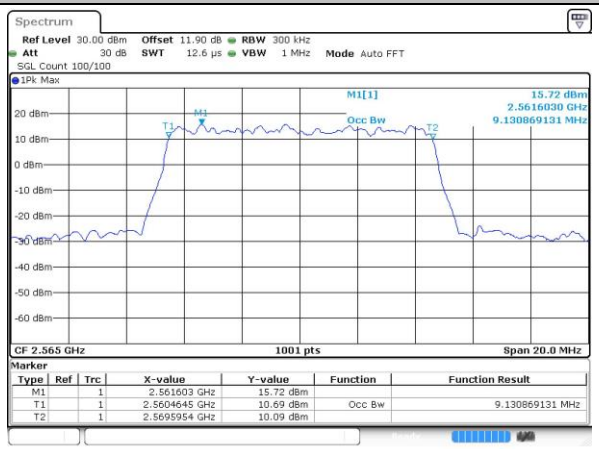
Middle Channel / 10MHz / QPSK



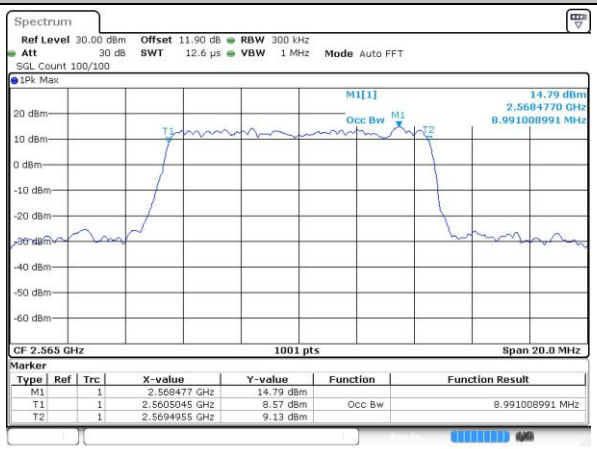
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

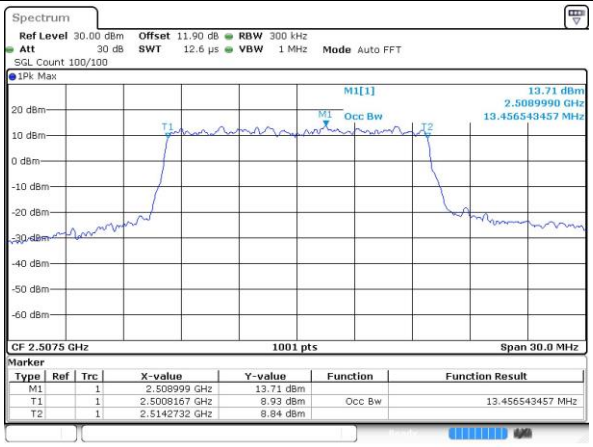


Highest Channel / 10MHz / 16QAM



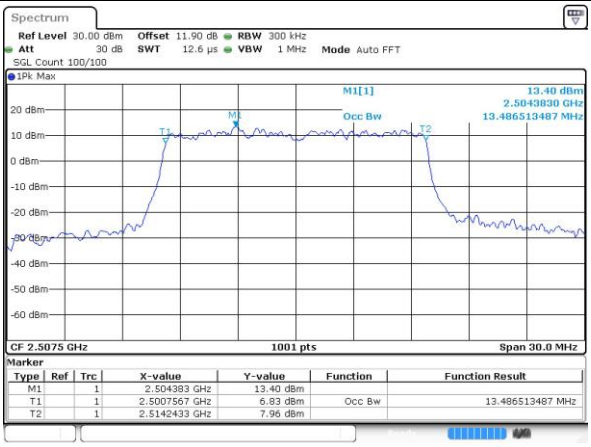
LTE Band 7

Lowest Channel / 15MHz / QPSK



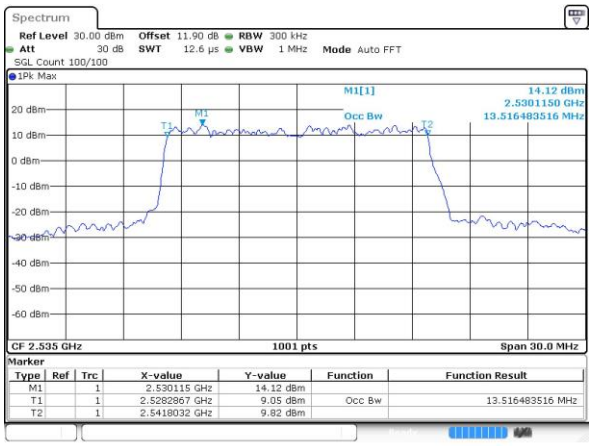
Date: 12.JUN.2018 23:42:50

Lowest Channel / 15MHz / 16QAM



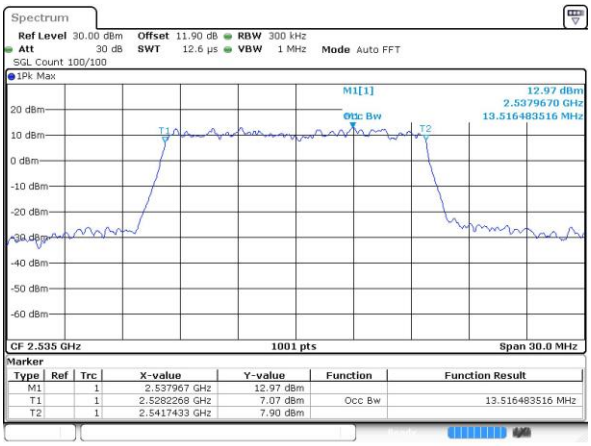
Date: 12.JUN.2018 23:43:01

Middle Channel / 15MHz / QPSK



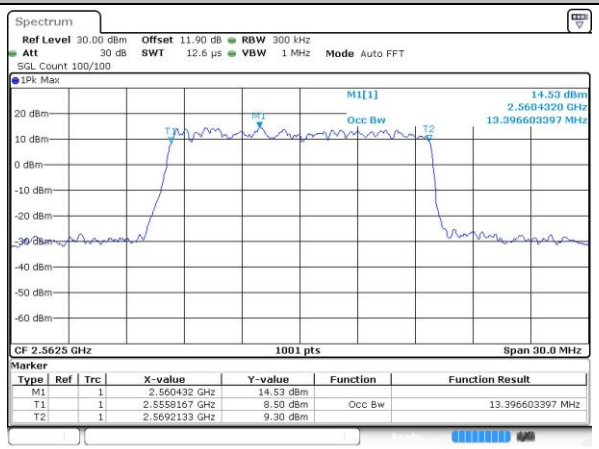
Date: 12.JUN.2018 23:49:59

Middle Channel / 15MHz / 16QAM



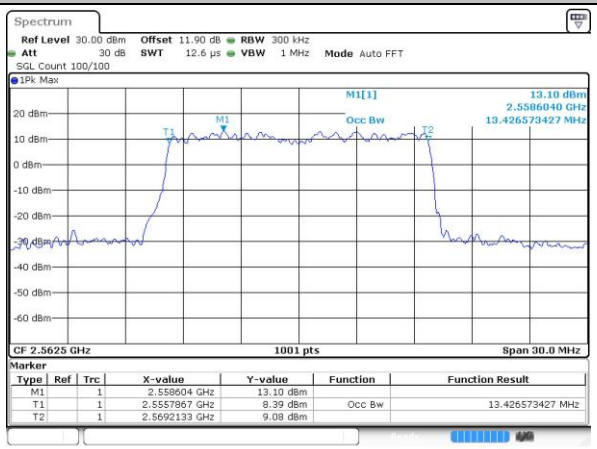
Date: 12.JUN.2018 23:50:09

Highest Channel / 15MHz / QPSK



Date: 12.JUN.2018 23:52:28

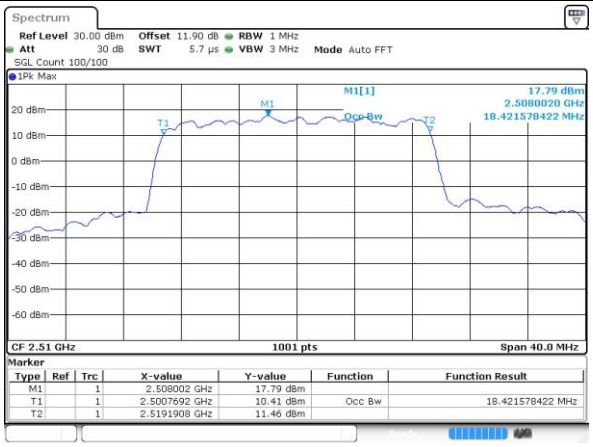
Highest Channel / 15MHz / 16QAM



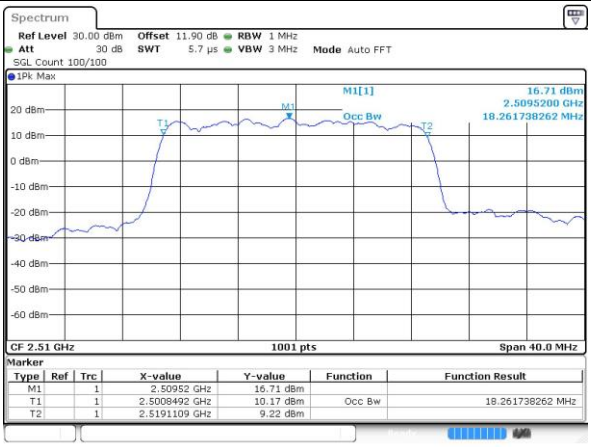
Date: 12.JUN.2018 23:52:39

LTE Band 7

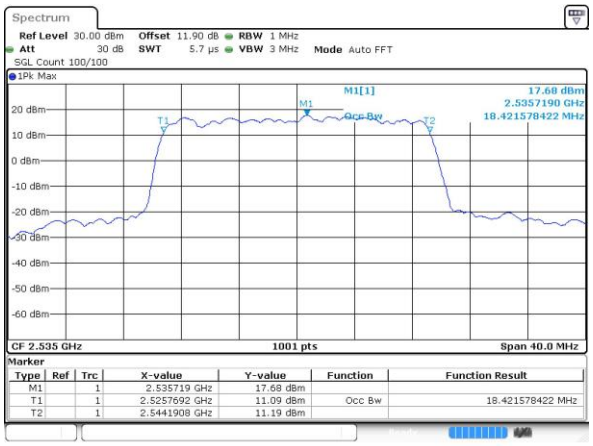
Lowest Channel / 20MHz / QPSK



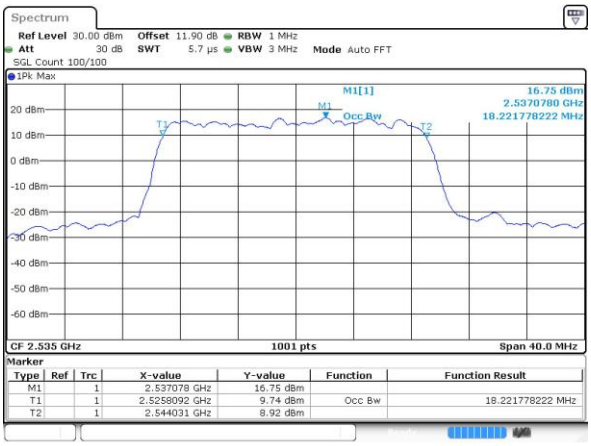
Lowest Channel / 20MHz / 16QAM



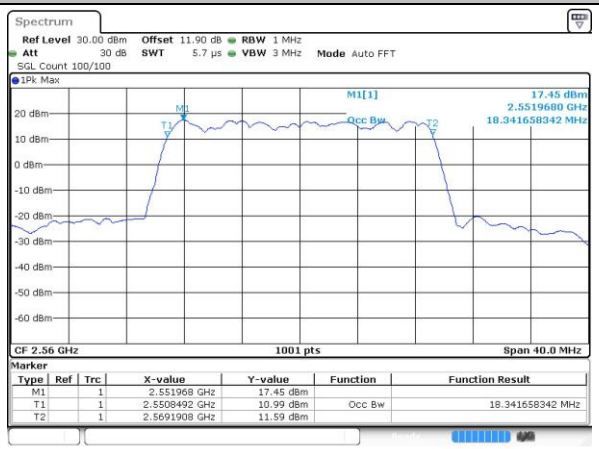
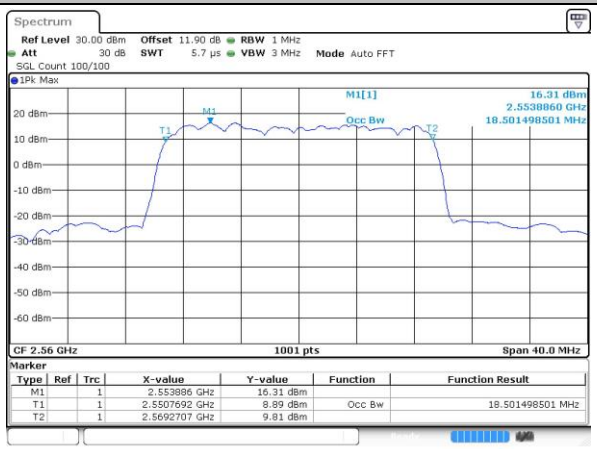
Middle Channel / 20MHz / QPSK



Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM