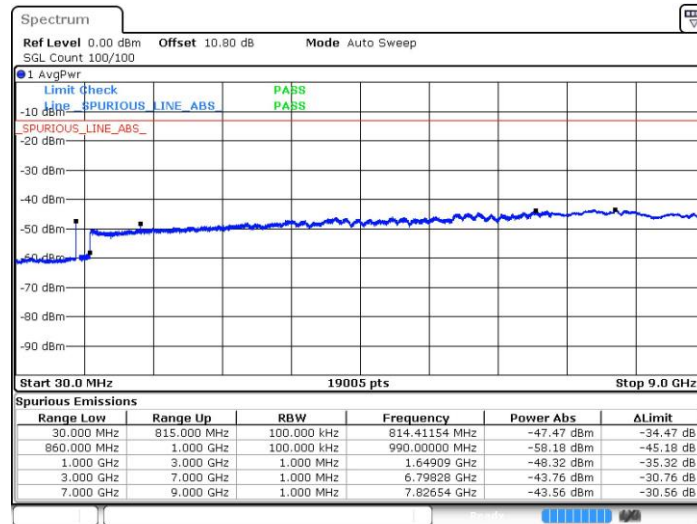


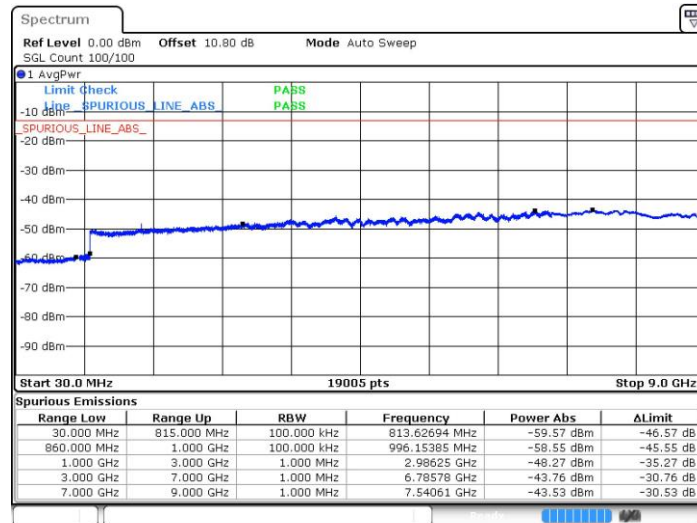


LTE Band 5 / 5MHz

Lowest Channel / QPSK



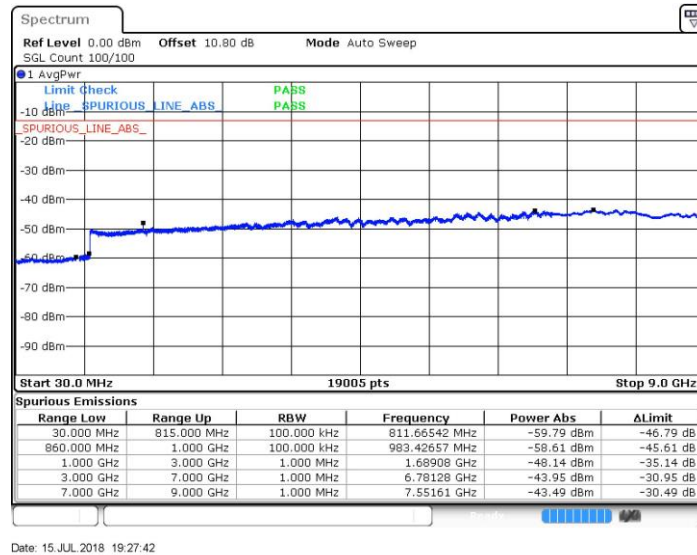
Middle Channel / QPSK





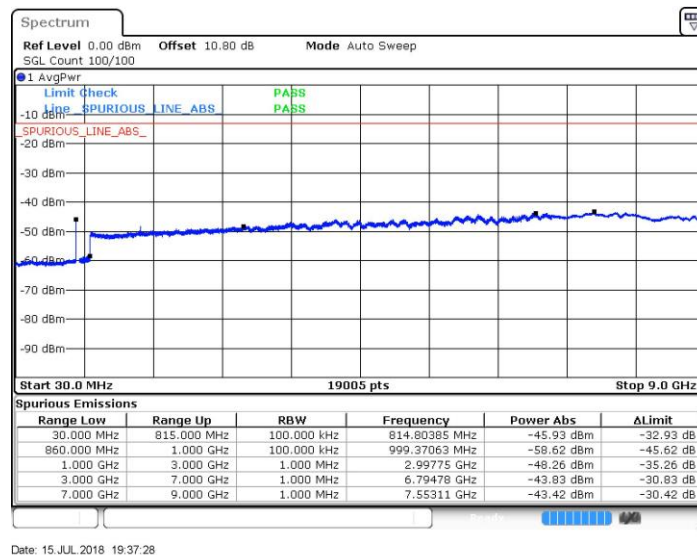
LTE Band 5 / 5MHz

Highest Channel / QPSK



LTE Band 5 / 10MHz

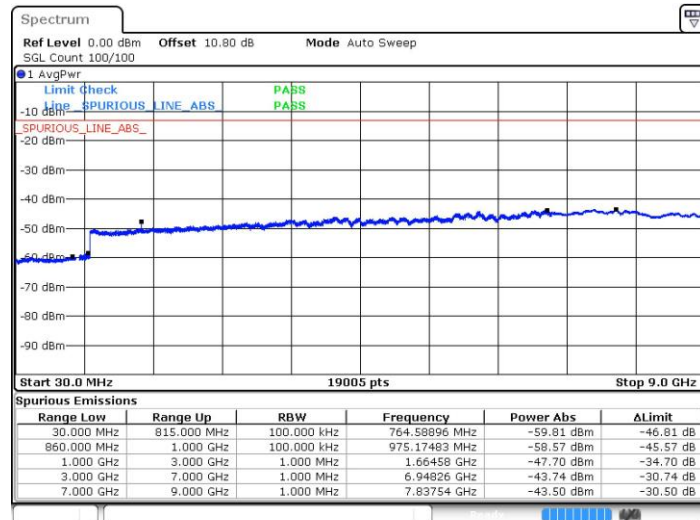
Lowest Channel / QPSK





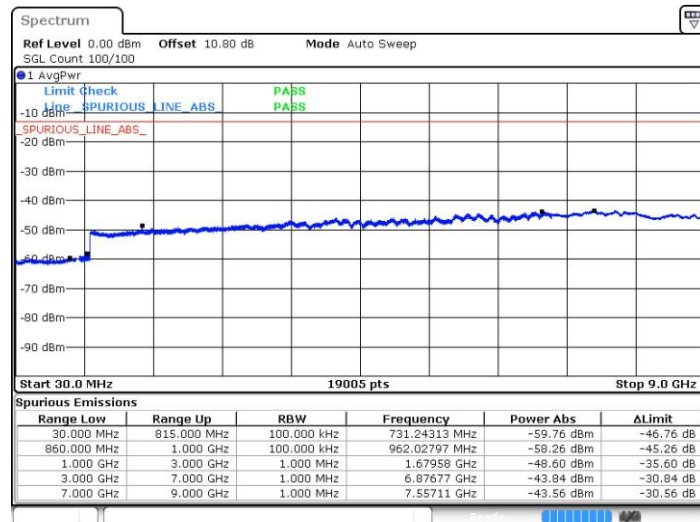
LTE Band 5 / 10MHz

Middle Channel / QPSK



Date: 15 JUL 2018 19:40:34

Highest Channel / QPSK



Date: 15 JUL 2018 19:50:21

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	0.0043	PASS
40	Normal Voltage	0.0038	
30	Normal Voltage	0.0051	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0062	
-10	Normal Voltage	0.0000	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0049	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0061	

Note:

1. Normal Voltage =12.0 V. ; Battery End Point (BEP) =10.8 V. ; Maximum Voltage =13.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

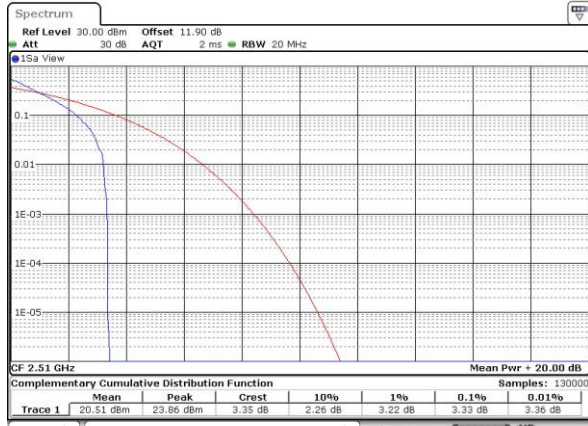
**LTE Band 7****Peak-to-Average Ratio**

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.33	4.32	-	-	PASS
Middle CH	3.71	4.29	-	-	
Highest CH	3.42	4.29	-	-	

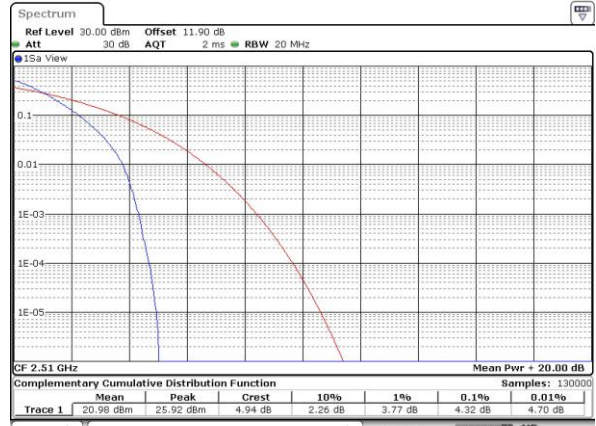


LTE Band 7 / 20MHz / QPSK

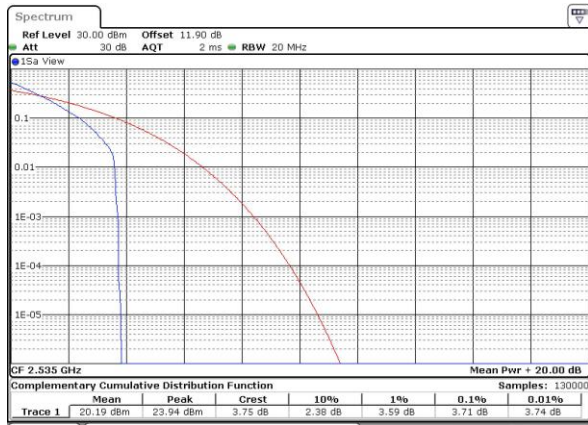
Lowest Channel / 1RB



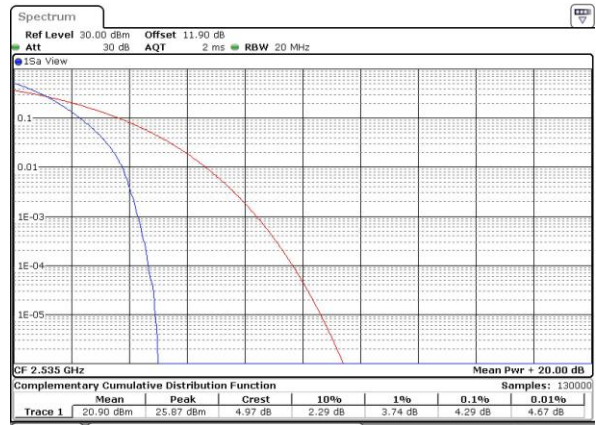
Lowest Channel / Full RB



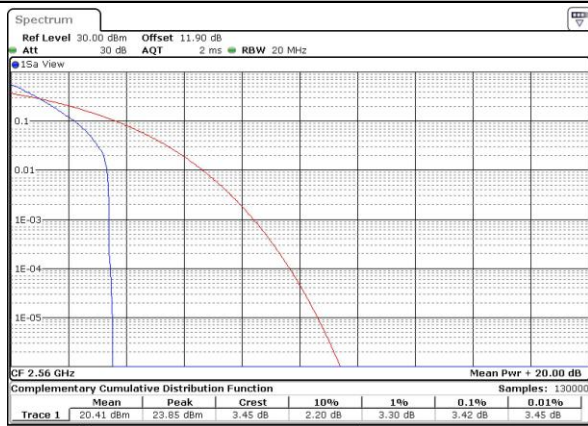
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB





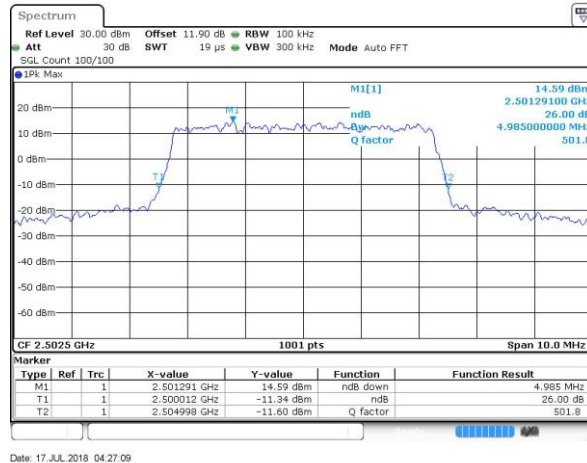
26dB Bandwidth

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	-	-	-	-	4.99	-	9.85	-	14.42	-	20.22	-
Middle CH	-	-	-	-	4.83	-	9.83	-	14.54	-	20.06	-
Highest CH	-	-	-	-	4.89	-	9.71	-	14.27	-	20.14	-

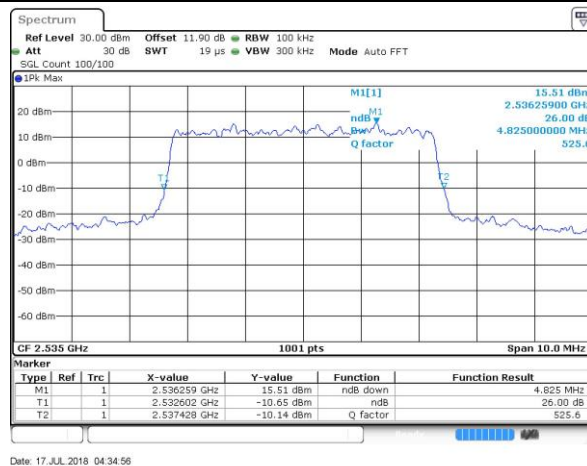


LTE Band 7

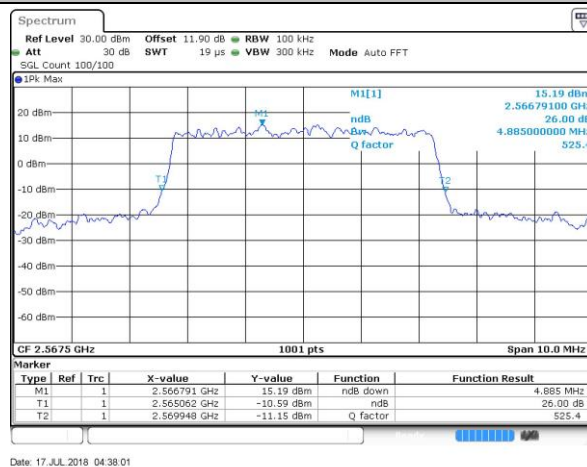
Lowest Channel / 5MHz / QPSK



Middle Channel / 5MHz / QPSK



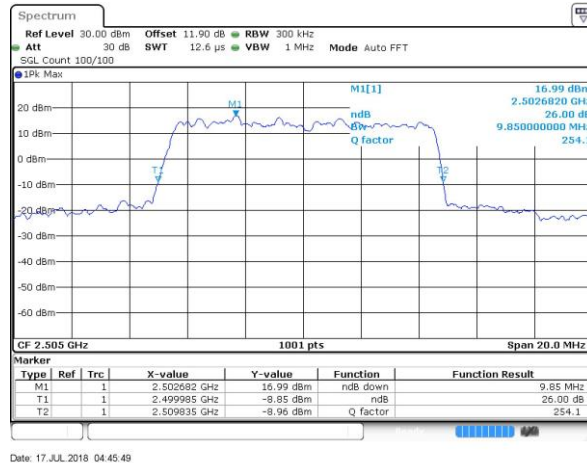
Highest Channel / 5MHz / QPSK



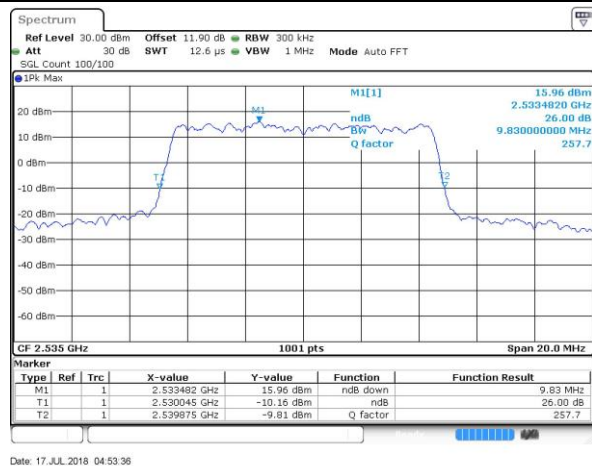


LTE Band 7

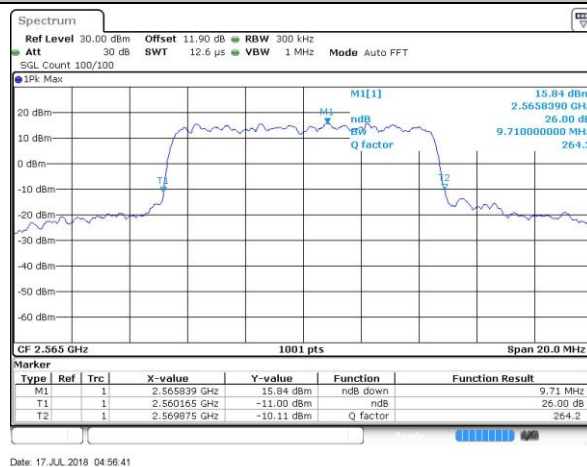
Lowest Channel / 10MHz / QPSK



Middle Channel / 10MHz / QPSK



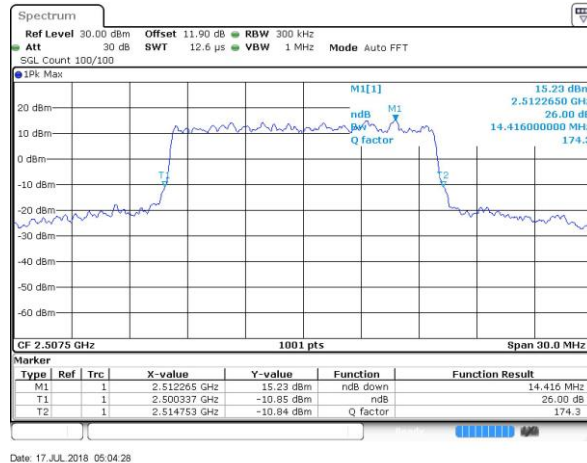
Highest Channel / 10MHz / QPSK



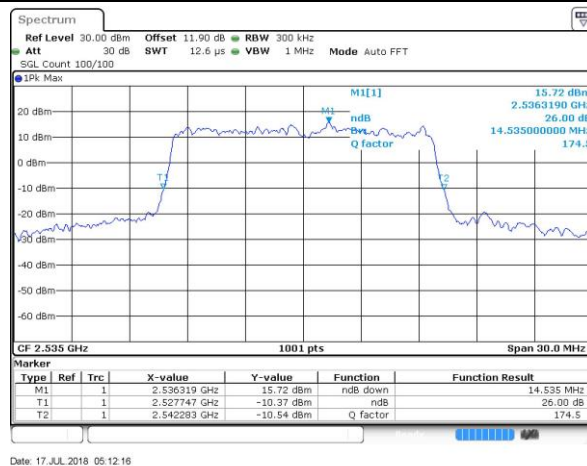


LTE Band 7

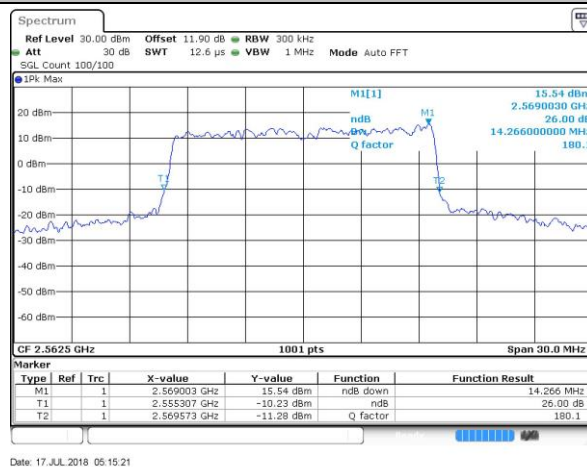
Lowest Channel / 15MHz / QPSK



Middle Channel / 15MHz / QPSK



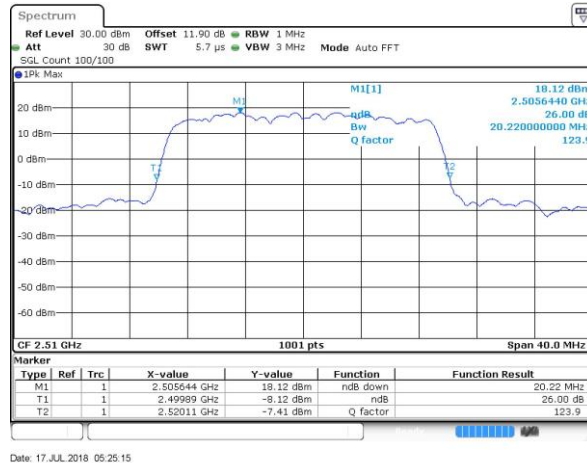
Highest Channel / 15MHz / QPSK



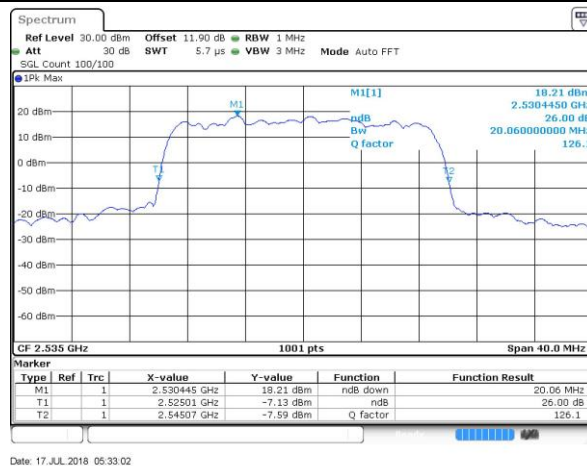


LTE Band 7

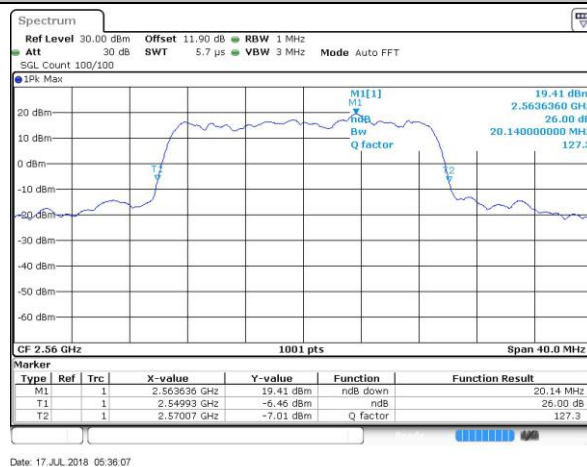
Lowest Channel / 20MHz / QPSK



Middle Channel / 20MHz / QPSK



Highest Channel / 20MHz / QPSK



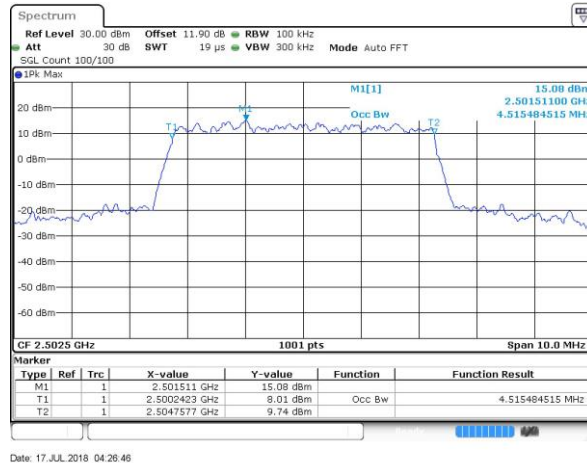
**Occupied Bandwidth**

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	-	9.05	-	13.46	-	18.22	-
Middle CH	-	-	-	-	4.51	-	9.01	-	13.49	-	18.30	-
Highest CH	-	-	-	-	4.50	-	8.99	-	13.43	-	18.30	-

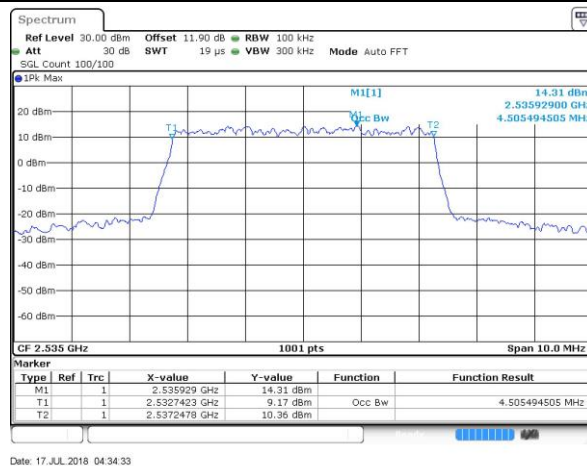


LTE Band 7

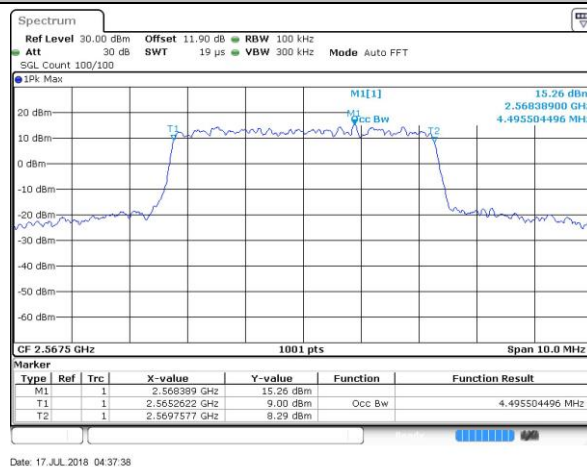
Lowest Channel / 5MHz / QPSK



Middle Channel / 5MHz / QPSK



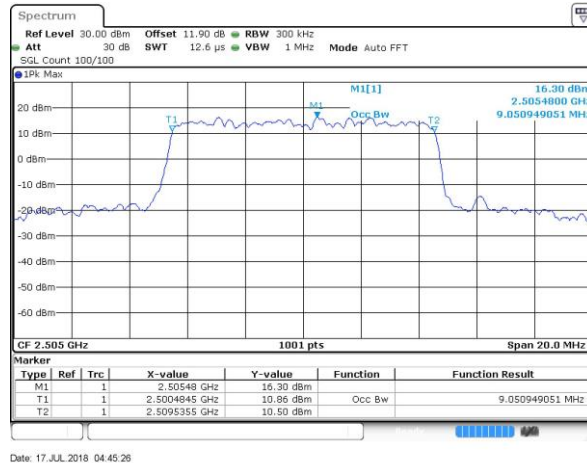
Highest Channel / 5MHz / QPSK



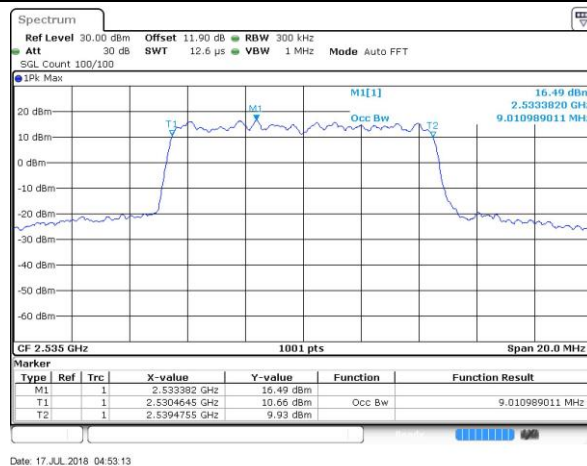


LTE Band 7

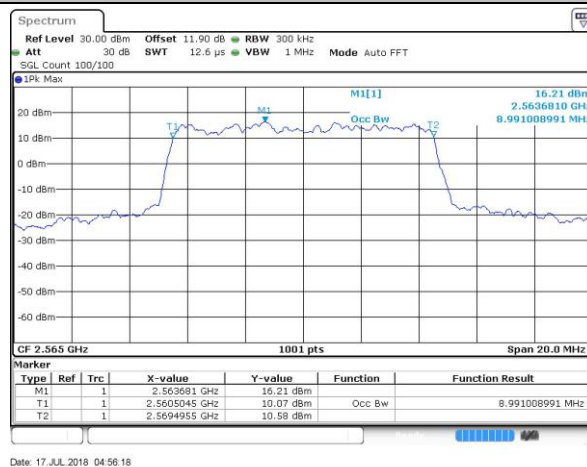
Lowest Channel / 10MHz / QPSK



Middle Channel / 10MHz / QPSK



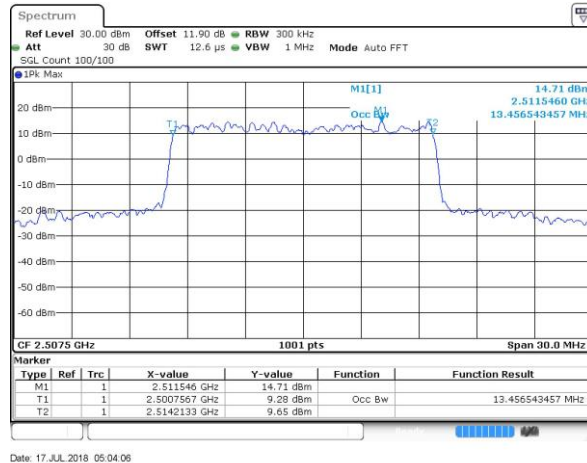
Highest Channel / 10MHz / QPSK



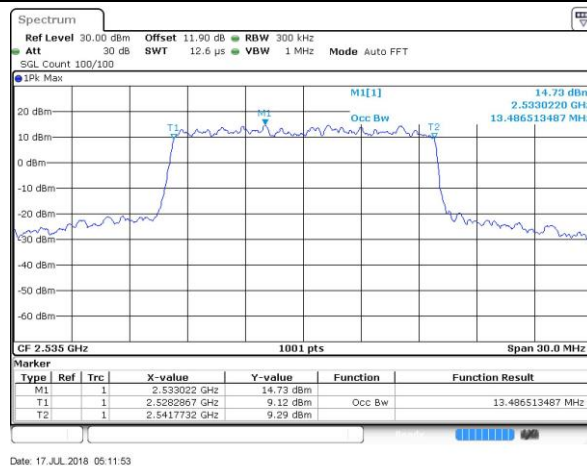


LTE Band 7

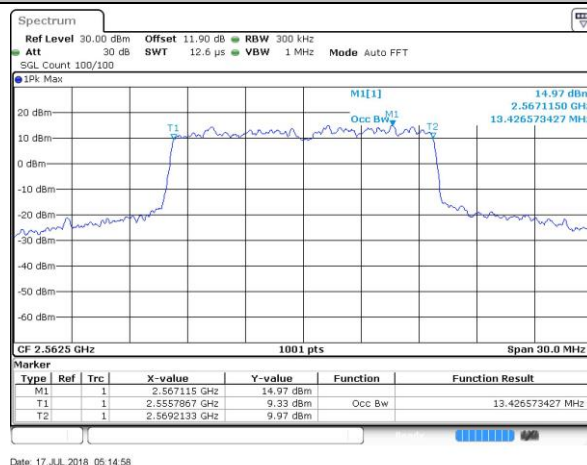
Lowest Channel / 15MHz / QPSK



Middle Channel / 15MHz / QPSK



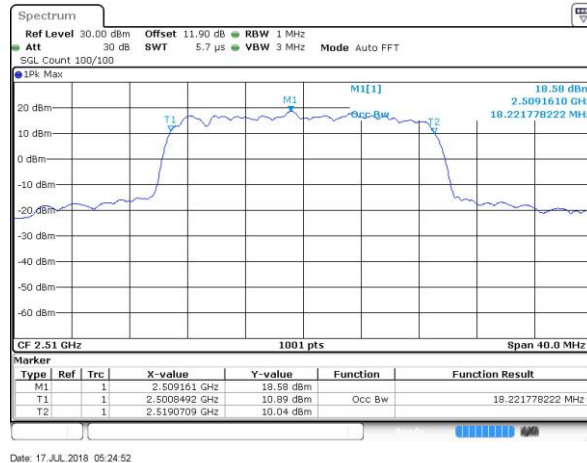
Highest Channel / 15MHz / QPSK



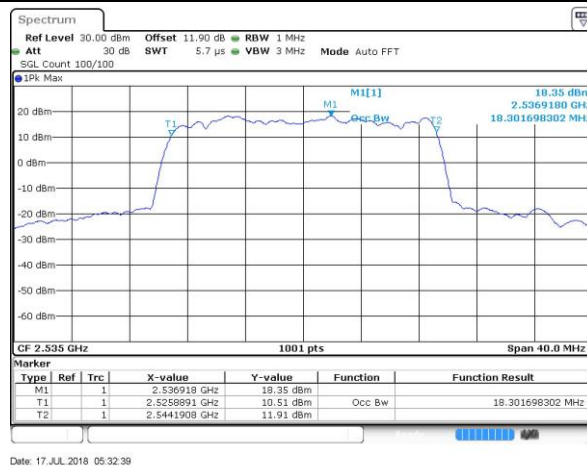


LTE Band 7

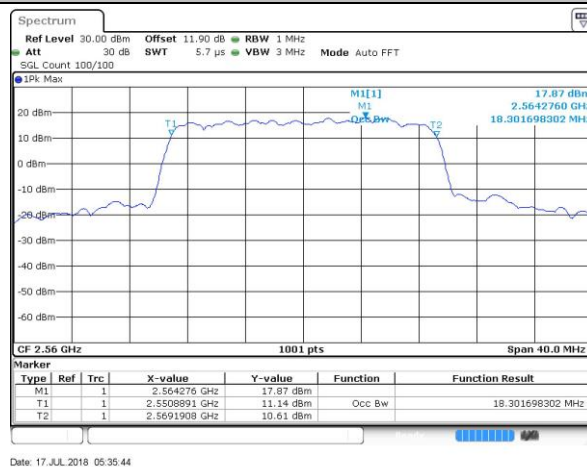
Lowest Channel / 20MHz / QPSK

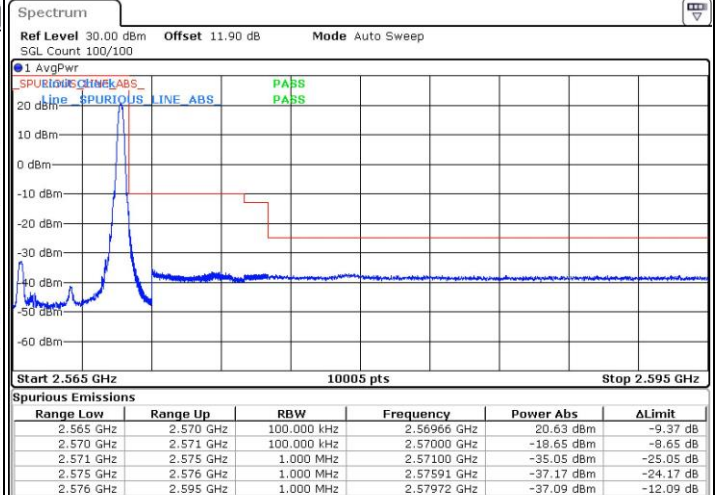


Middle Channel / 20MHz / QPSK



Highest Channel / 20MHz / QPSK

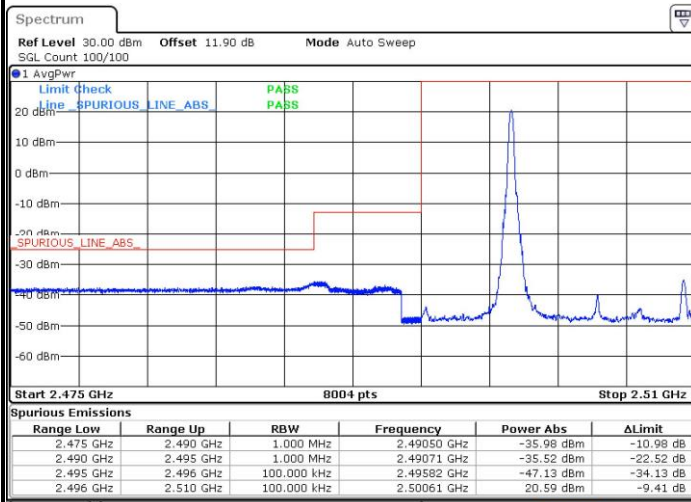


**Conducted Band Edge****LTE Band 7 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

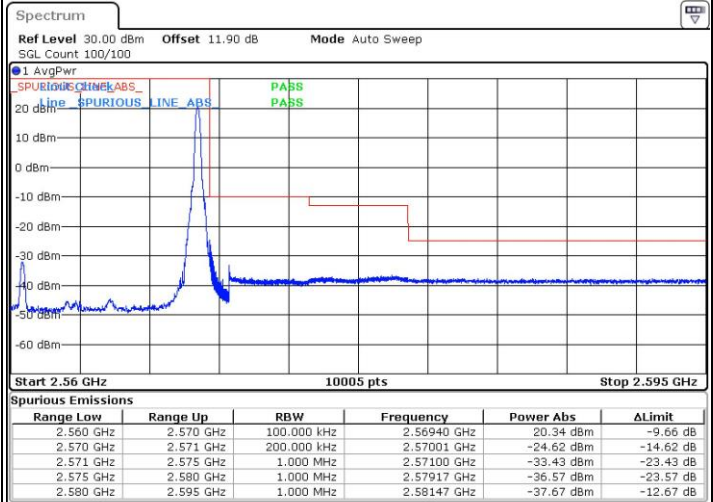


LTE Band 7 / 10MHz / QPSK

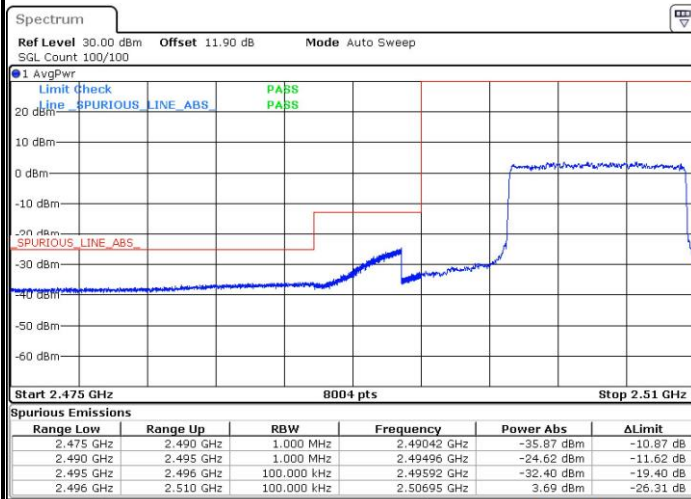
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



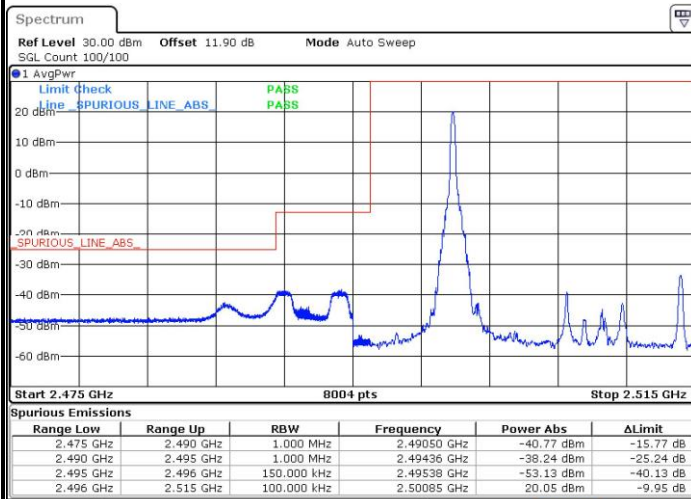
Highest Band Edge / Full RB



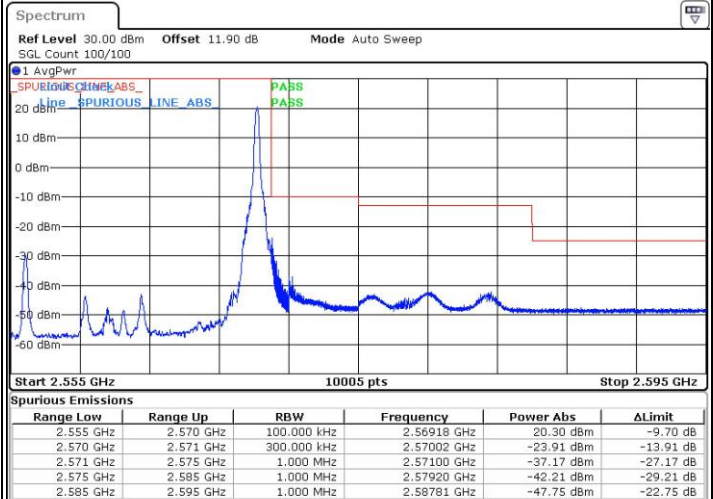


LTE Band 7 / 15MHz / QPSK

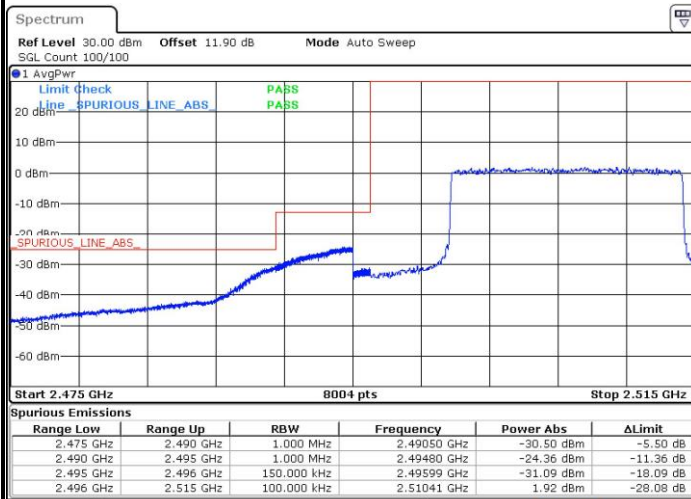
Lowest Band Edge / 1 RB



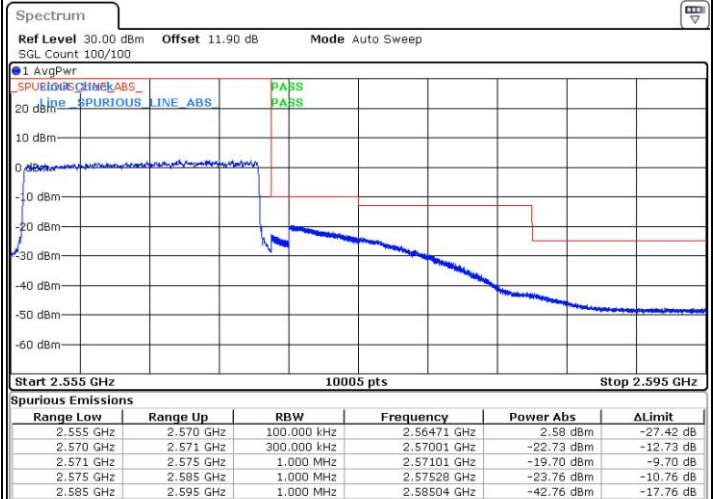
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



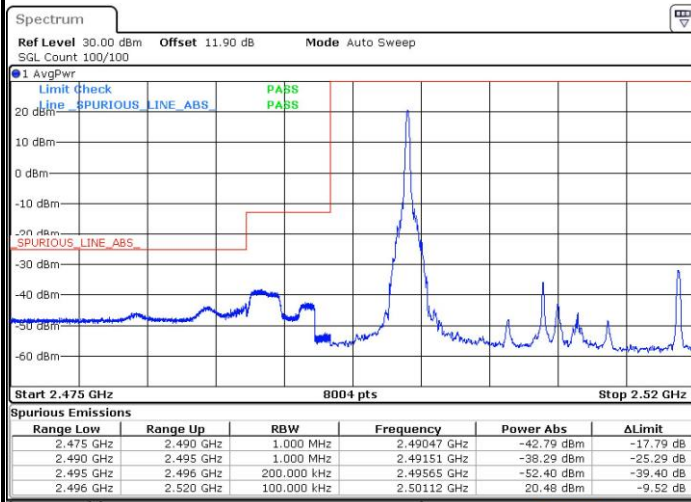
Highest Band Edge / Full RB



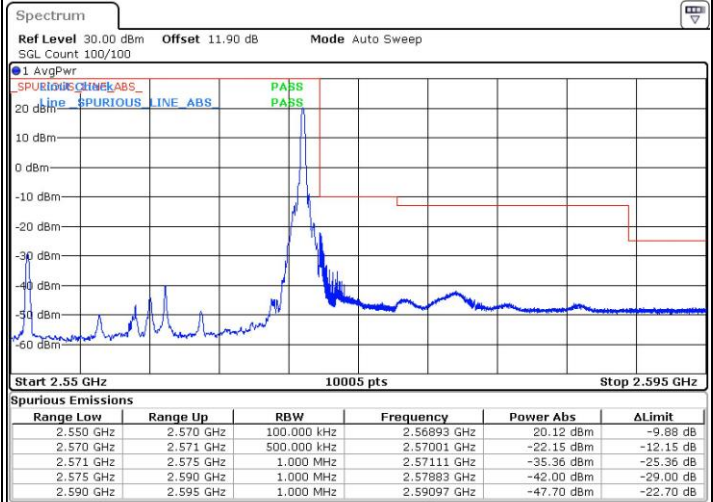


LTE Band 7 / 20MHz / QPSK

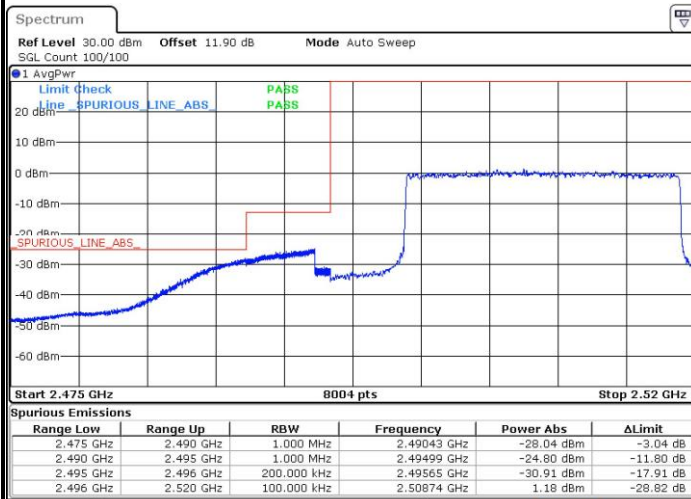
Lowest Band Edge / 1 RB



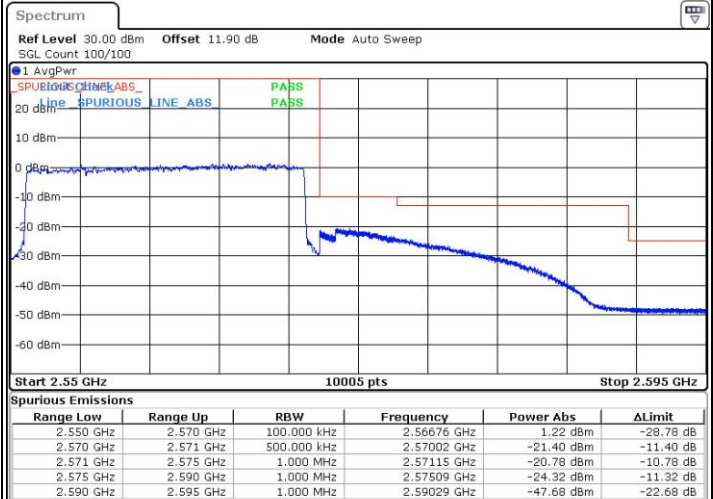
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



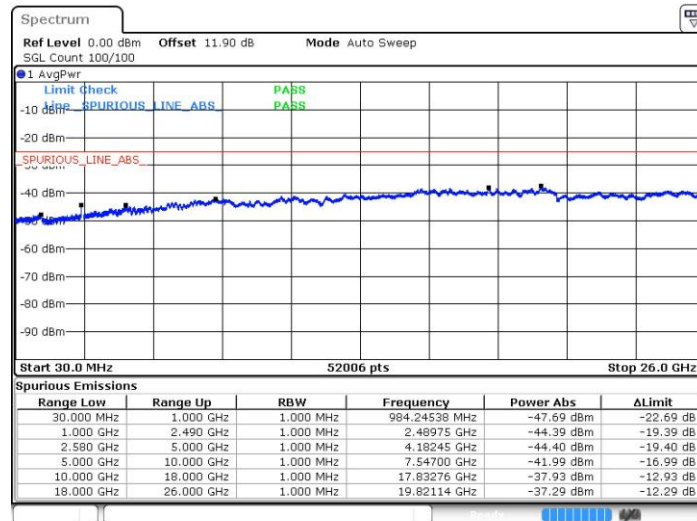
Highest Band Edge / Full RB



Conducted Spurious Emission

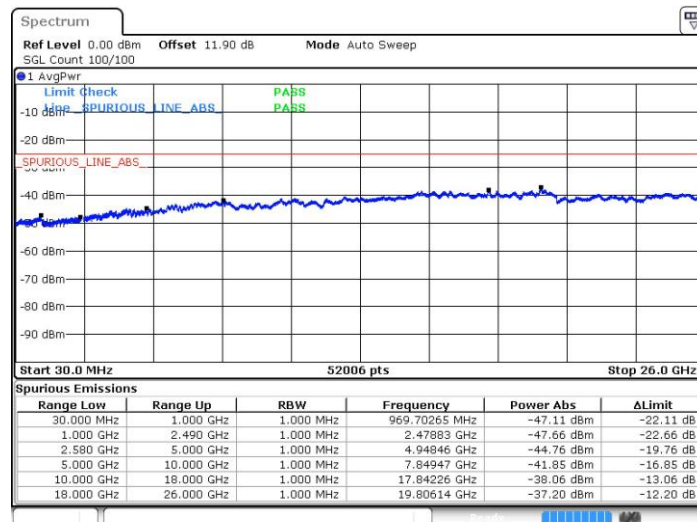
LTE Band 7 / 5MHz

Lowest Channel / QPSK



Date: 17 JUL 2018 04:33:12

Middle Channel / QPSK

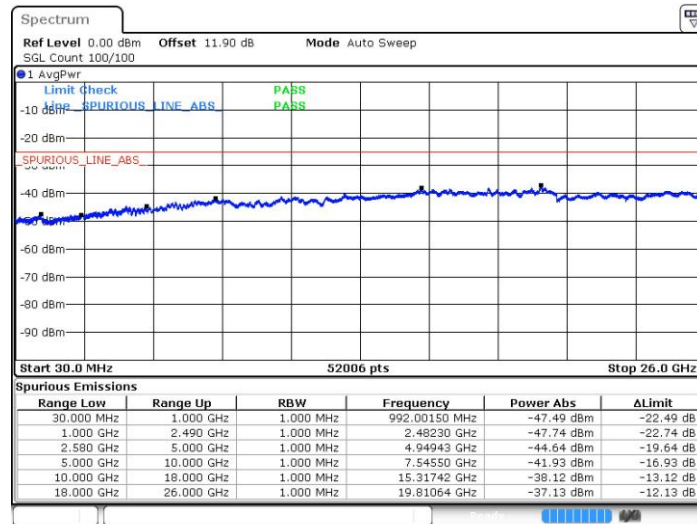


Date: 17 JUL 2018 04:38:17



LTE Band 7 / 5MHz

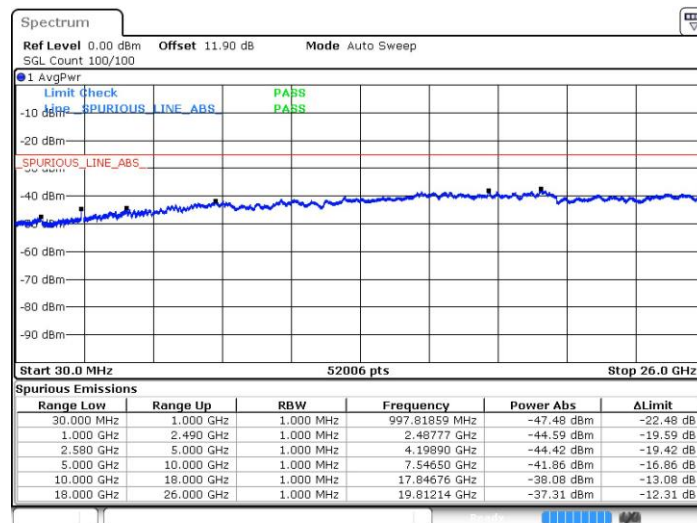
Highest Channel / QPSK



Date: 17 JUL 2018 04:44:05

LTE Band 7 / 10MHz

Lowest Channel / QPSK

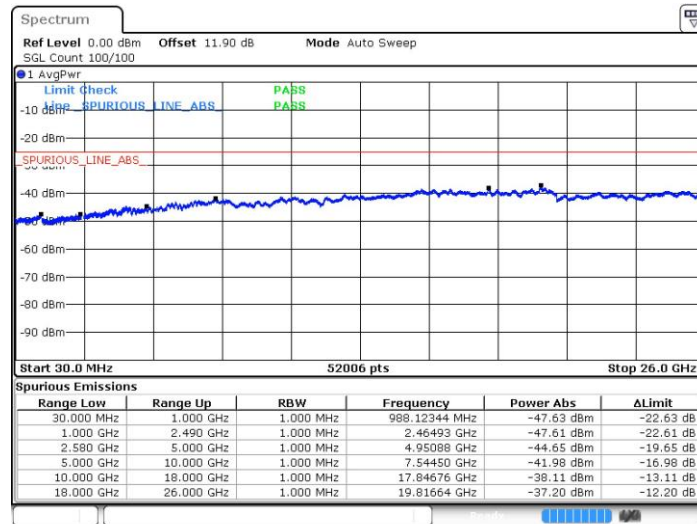


Date: 17 JUL 2018 04:51:52



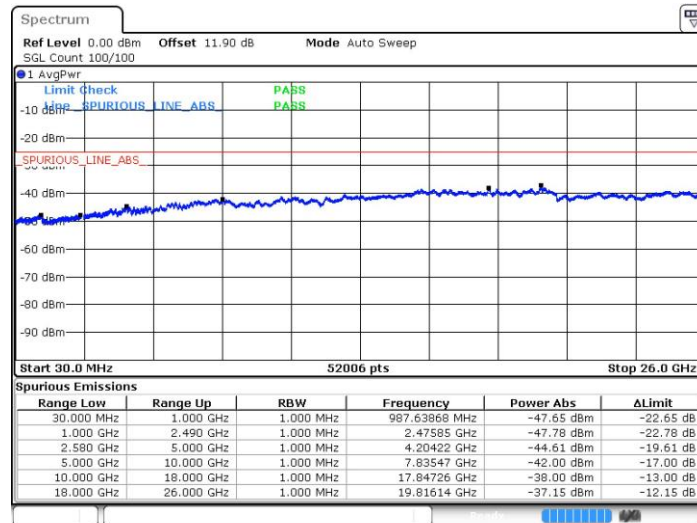
LTE Band 7 / 10MHz

Middle Channel / QPSK



Date: 17 JUL 2018 04:54:57

Highest Channel / QPSK

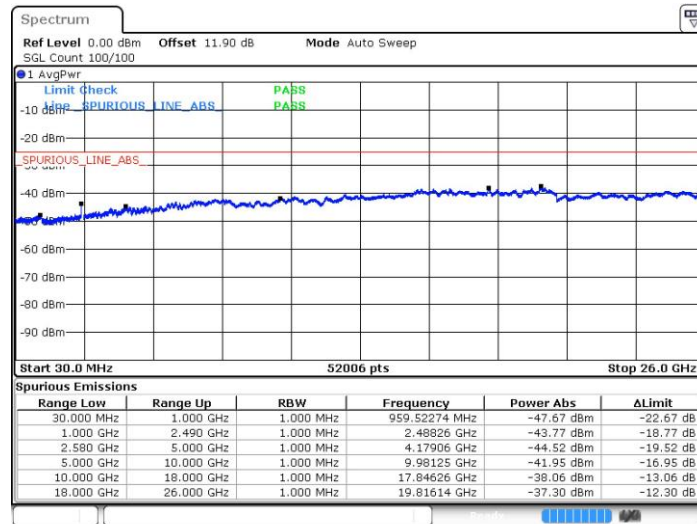


Date: 17 JUL 2018 05:02:44



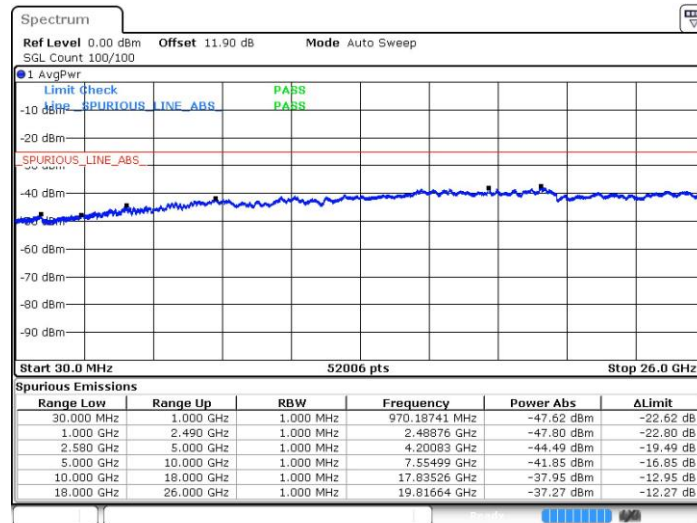
LTE Band 7 / 15MHz

Lowest Channel / QPSK



Date: 17 JUL 2018 05:10:32

Middle Channel / QPSK

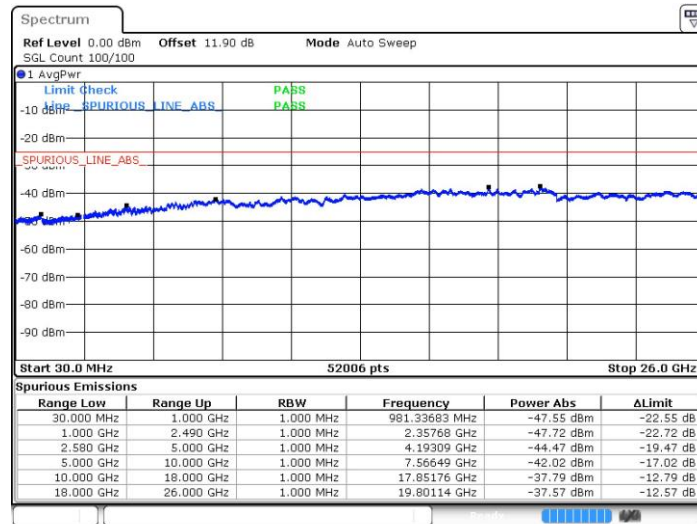


Date: 17 JUL 2018 05:13:37



LTE Band7 / 15MHz

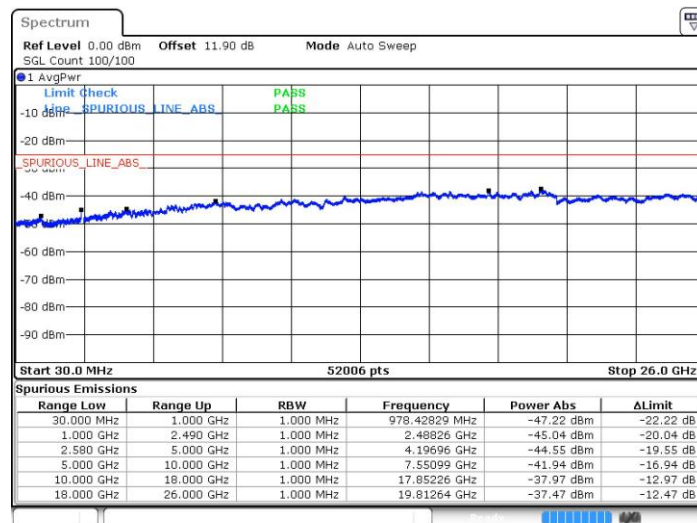
Highest Channel / QPSK



Date: 17 JUL 2018 05:21:25

LTE Band 7 / 20MHz

Lowest Channel / QPSK

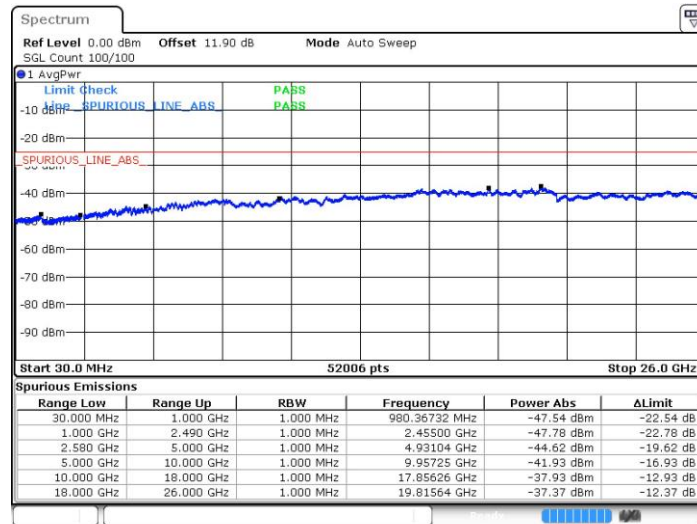


Date: 17 JUL 2018 05:31:18



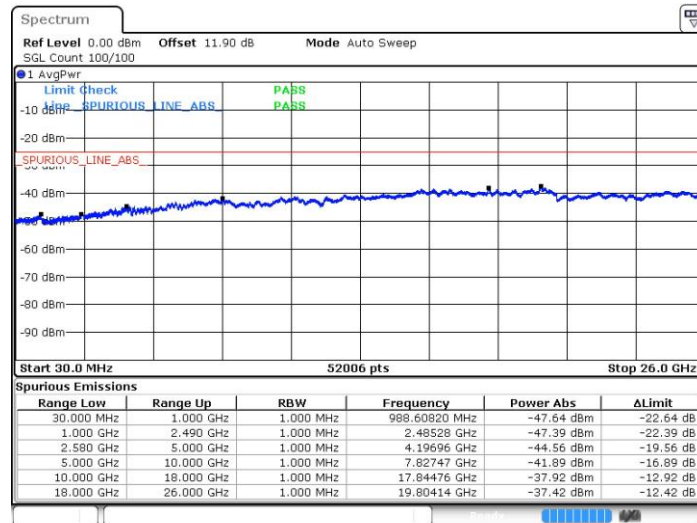
LTE Band 7 / 20MHz

Middle Channel / QPSK



Date: 17 JUL 2018 05:34:23

Highest Channel / QPSK



Date: 17 JUL 2018 05:42:11

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0030	
-10	Normal Voltage	0.0025	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0022	

Note:

1. Normal Voltage =12.0 V. ; Battery End Point (BEP) =10.8 V. ; Maximum Voltage =13.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

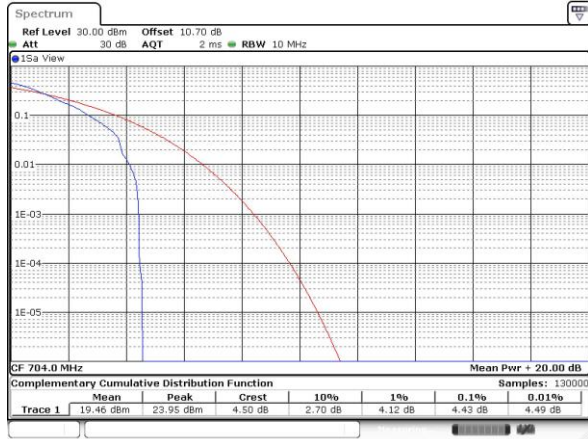
**LTE Band 12****Peak-to-Average Ratio**

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.43	4.78	-	-	PASS
Middle CH	3.91	4.72	-	-	
Highest CH	4.14	4.58	-	-	

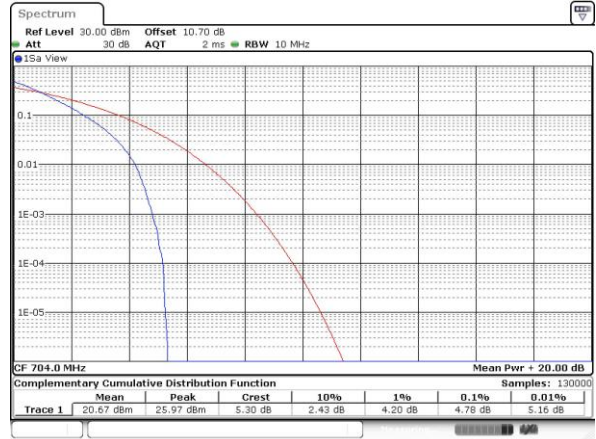


LTE Band 12 / 10MHz / QPSK

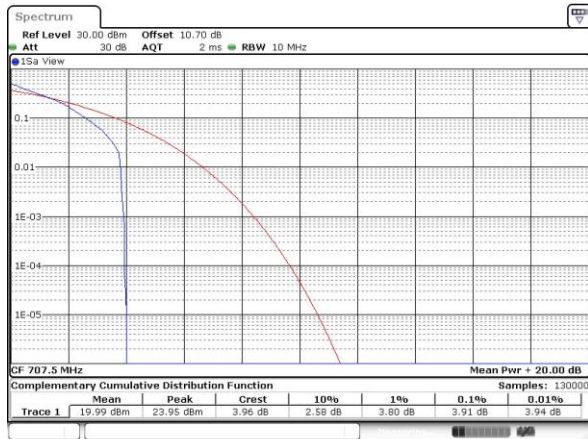
Lowest Channel / 1RB



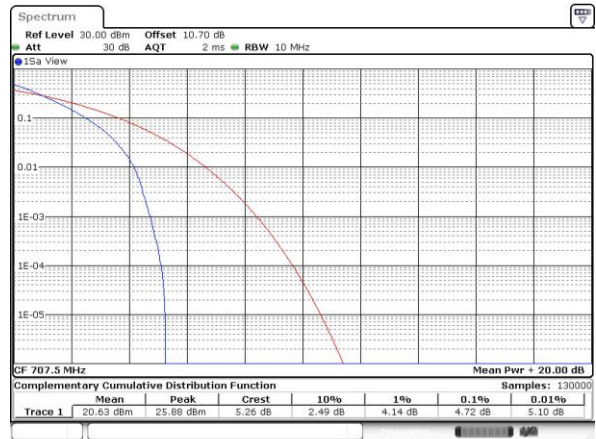
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



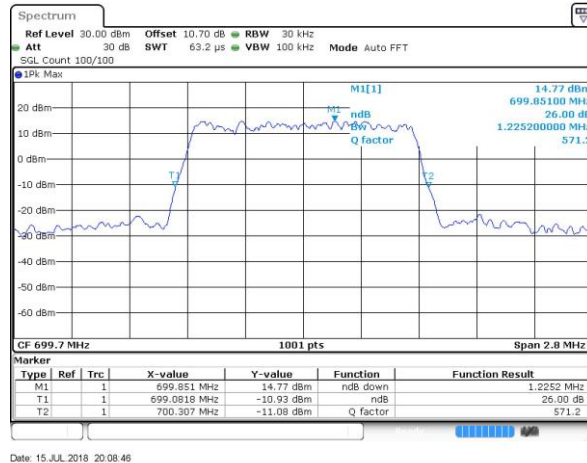
**26dB Bandwidth**

Mode	LTE Band 12 : 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	-	3.01	-	4.92	-	9.75	-	-	-	-	-
Middle CH	1.24	-	3.06	-	4.96	-	9.77	-	-	-	-	-
Highest CH	1.22	-	3.04	-	4.93	-	9.77	-	-	-	-	-

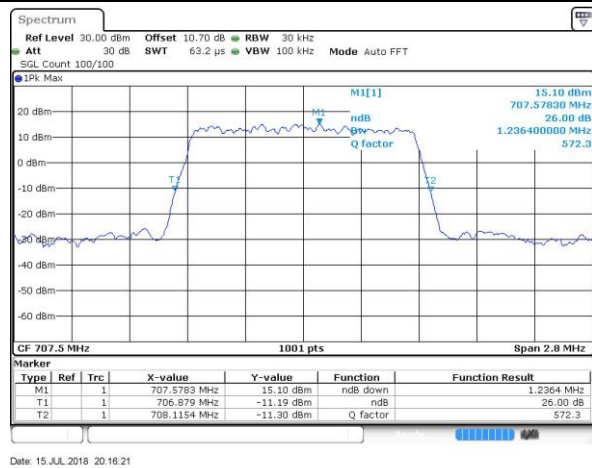


LTE Band 12

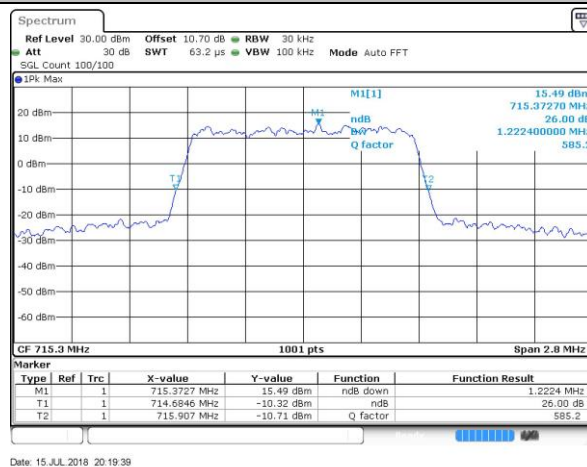
Lowest Channel / 1.4MHz / QPSK

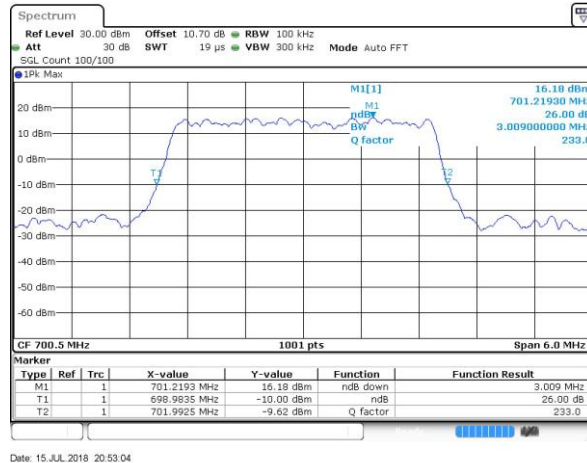
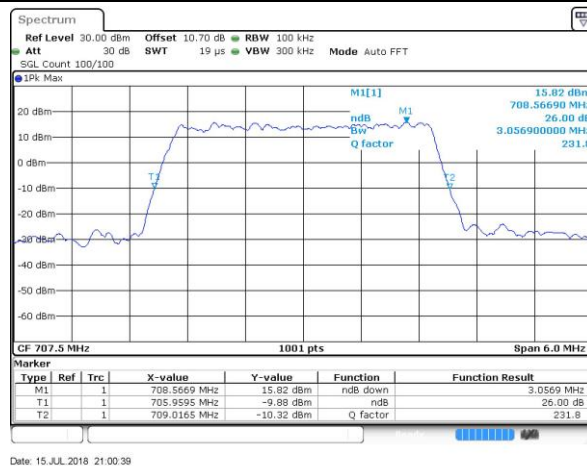


Middle Channel / 1.4MHz / QPSK



Highest Channel / 1.4MHz / QPSK



LTE Band 12
Lowest Channel / 3MHz / QPSK

Middle Channel / 3MHz / QPSK

Highest Channel / 3MHz / QPSK
