

Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0017	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0075	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0059	
-20	Normal Voltage	0.0022	
-30	Normal Voltage	0.0073	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0008	

Note:

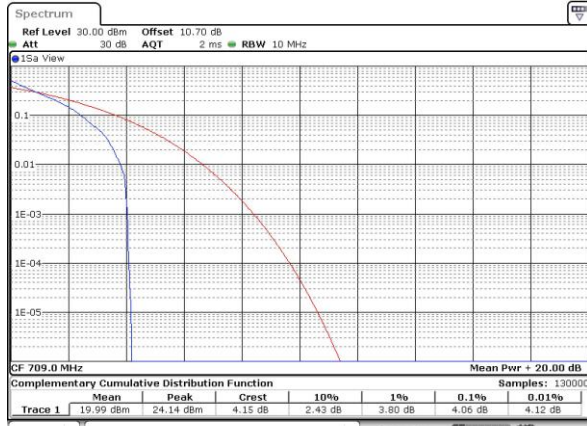
1. Normal Voltage =4.0 V. ; Battery End Point (BEP) =3.7 V. ; Maximum Voltage =4.0 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



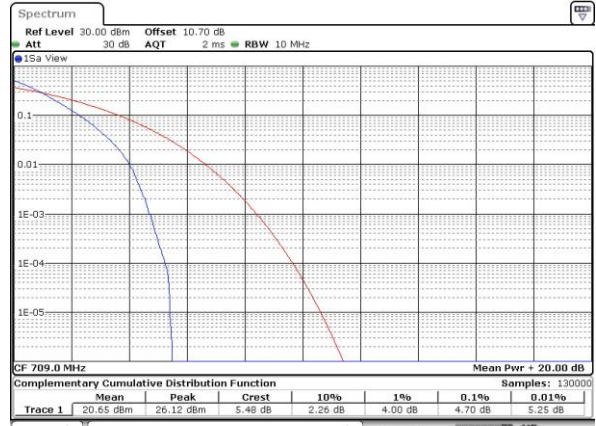
LTE Band 17

Peak-to-Average Ratio

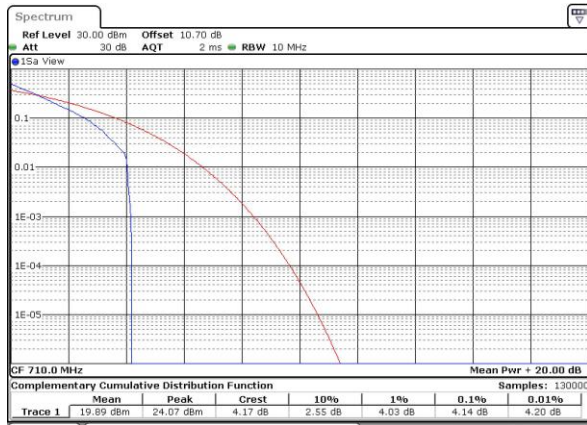
Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.06	4.7	4.87	5.59	PASS
Middle CH	4.14	4.78	4.93	5.68	
Highest CH	4.14	4.75	4.87	5.62	

LTE Band 17 / 10MHz / QPSK
Lowest Channel / 1RB


Date: 2 MAY 2017 20:42:19

Lowest Channel / Full RB


Date: 2 MAY 2017 20:42:29

Middle Channel/ 1RB


Date: 2 MAY 2017 20:42:38

Middle Channel / Full RB


Date: 2 MAY 2017 20:42:48

Highest Channel/ 1RB


Date: 2 MAY 2017 20:42:57

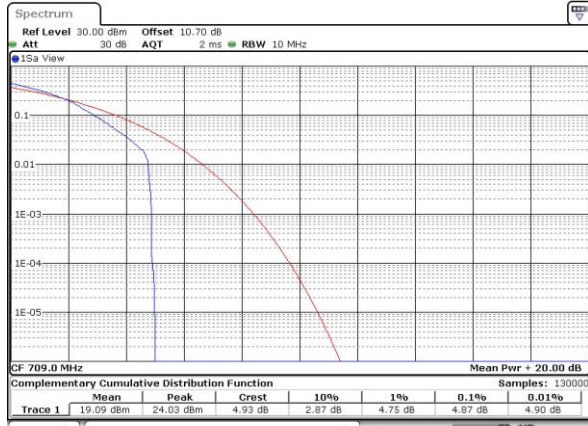
Highest Channel / Full RB


Date: 2 MAY 2017 20:43:18

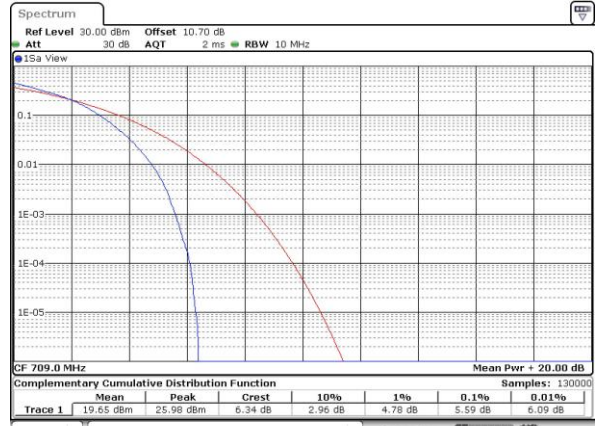


LTE Band 17 / 10MHz / 16QAM

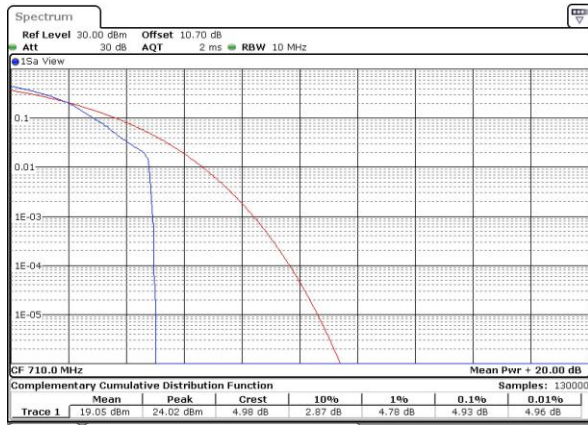
Lowest Channel / 1RB



Lowest Channel / Full RB



Middle Channel/ 1RB



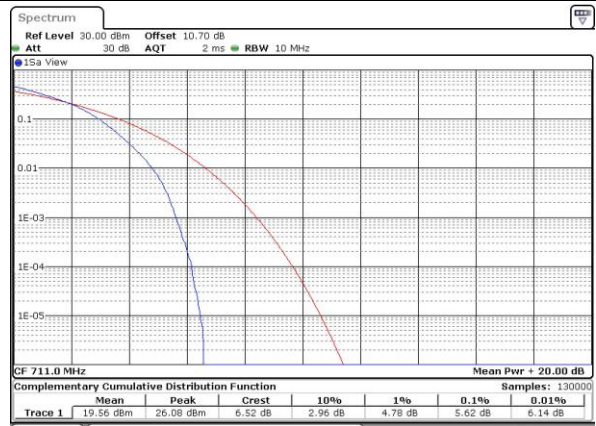
Middle Channel / Full RB



Highest Channel/ 1RB



Highest Channel / Full RB





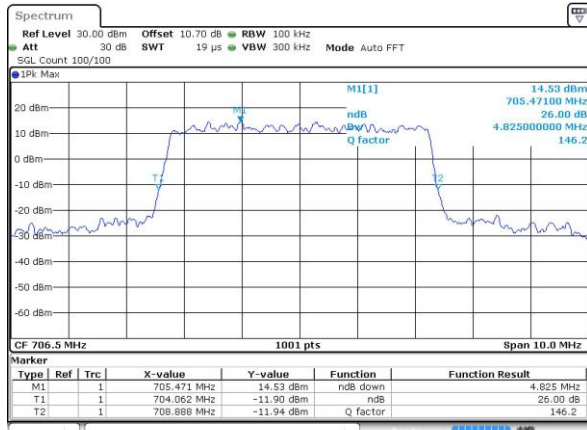
26dB Bandwidth

Mode	LTE Band 17 : 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	-	-	-	-	4.825	4.885	9.69	9.73	-	-	-	-
Middle CH	-	-	-	-	4.905	4.975	9.75	9.77	-	-	-	-
Highest CH	-	-	-	-	4.925	4.825	9.77	9.69	-	-	-	-



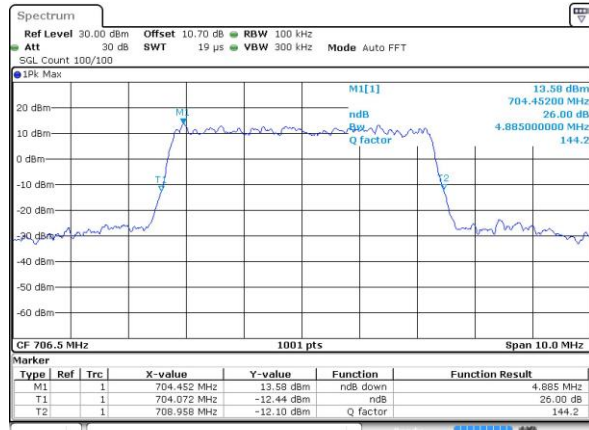
LTE Band 17

Lowest Channel / 5MHz / QPSK



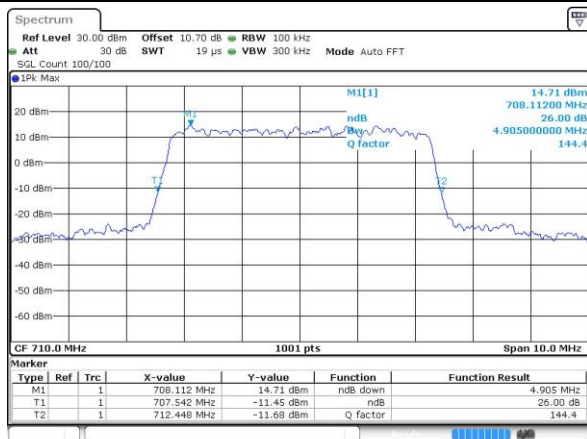
Date: 2 MAY 2017 20:06:02

Lowest Channel / 5MHz / 16QAM



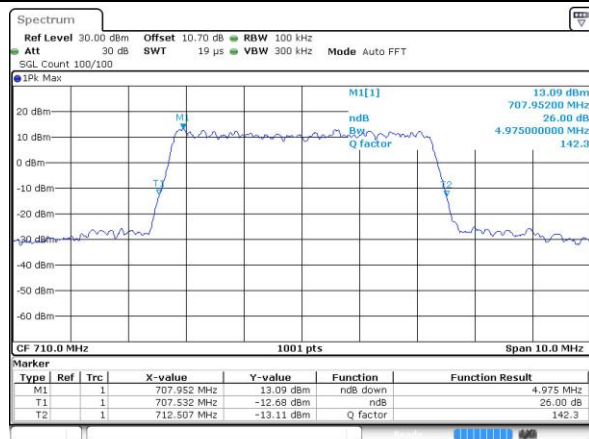
Date: 2 MAY 2017 20:06:12

Middle Channel / 5MHz / QPSK



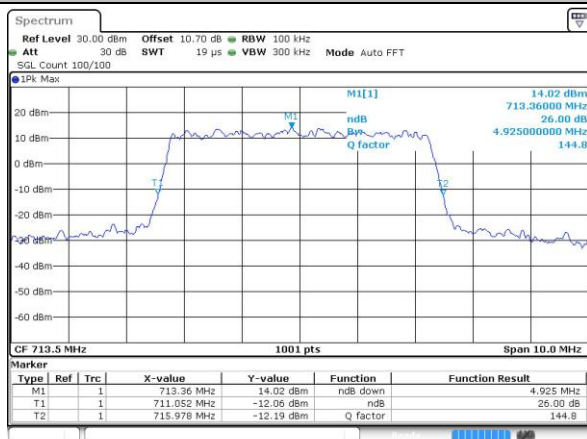
Date: 2 MAY 2017 20:13:08

Middle Channel / 5MHz / 16QAM



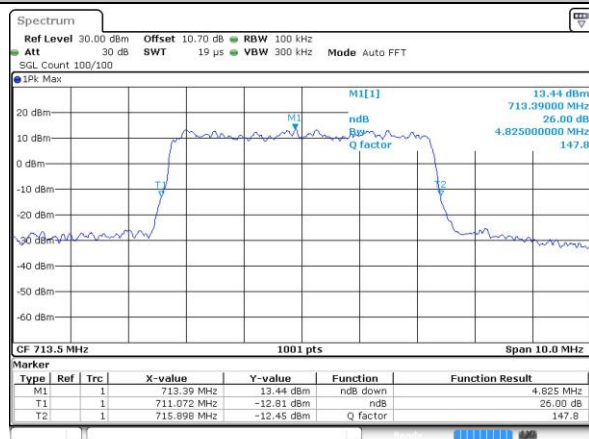
Date: 2 MAY 2017 20:13:19

Highest Channel / 5MHz / QPSK



Date: 2 MAY 2017 20:15:38

Highest Channel / 5MHz / 16QAM

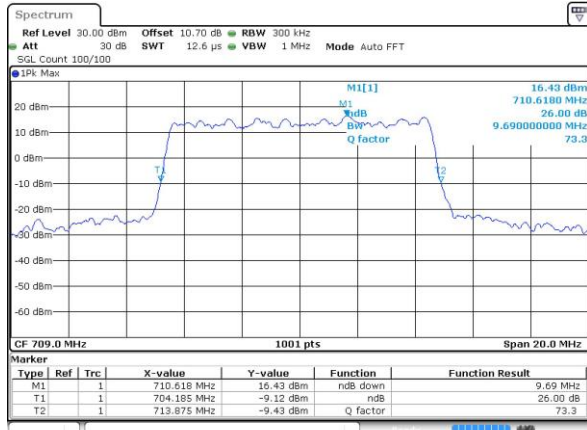


Date: 2 MAY 2017 20:15:49



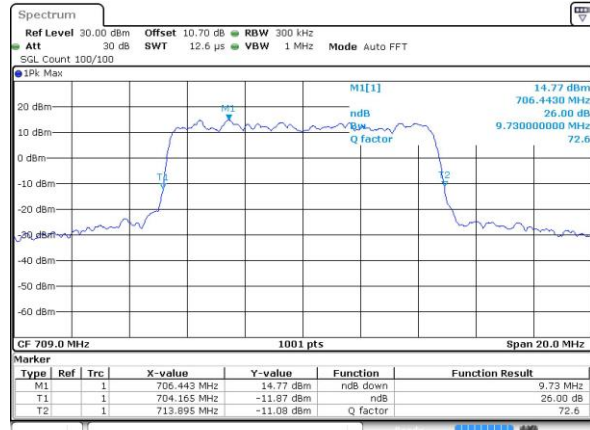
LTE Band 17

Lowest Channel / 10MHz / QPSK



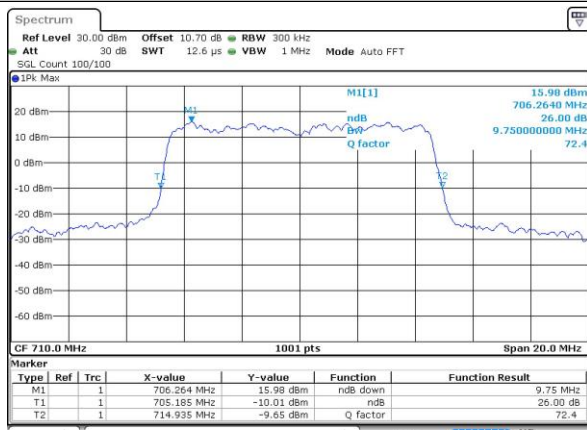
Date: 2 MAY 2017 20:22:45

Lowest Channel / 10MHz / 16QAM



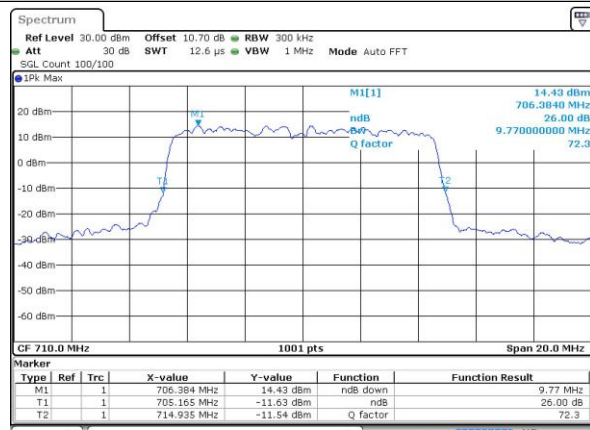
Date: 2 MAY 2017 20:22:55

Middle Channel / 10MHz / QPSK



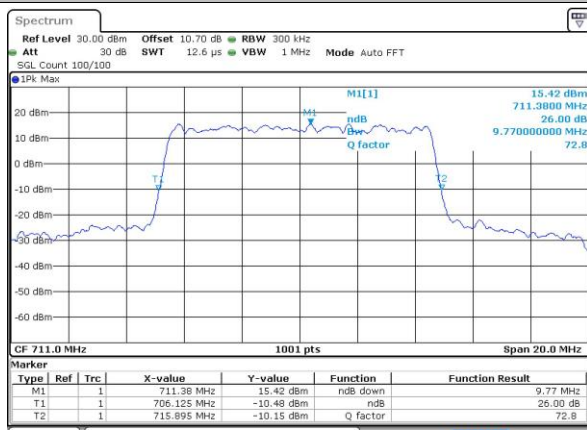
Date: 2 MAY 2017 20:29:51

Middle Channel / 10MHz / 16QAM



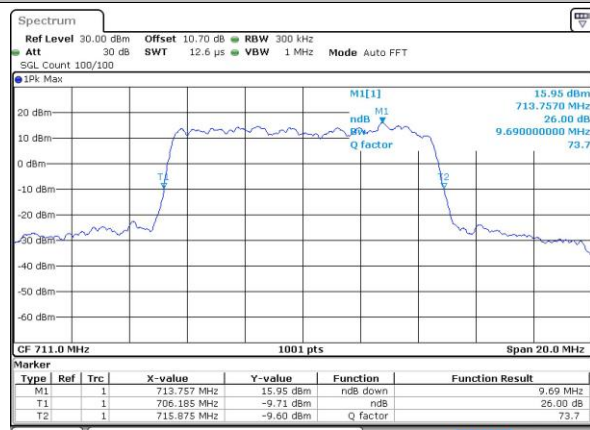
Date: 2 MAY 2017 20:30:02

Highest Channel / 10MHz / QPSK



Date: 2 MAY 2017 20:32:21

Highest Channel / 10MHz / 16QAM



Date: 2 MAY 2017 20:32:32



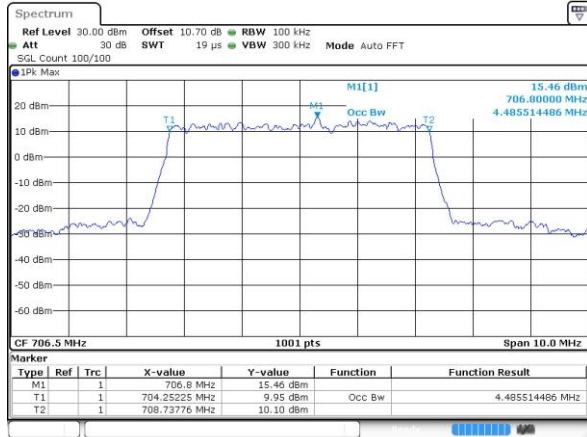
Occupied Bandwidth

Mode	LTE Band 17 : 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	-	-	-	-	4.49	4.49	8.97	8.97	-	-	-	-
Middle CH	-	-	-	-	4.48	4.51	8.97	9.03	-	-	-	-
Highest CH	-	-	-	-	4.49	4.5	9.03	8.97	-	-	-	-

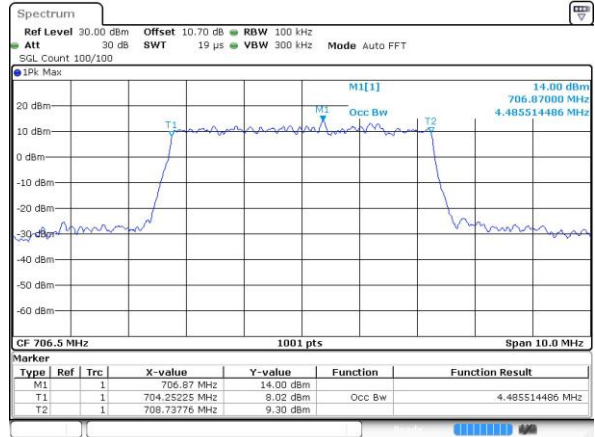


LTE Band 17

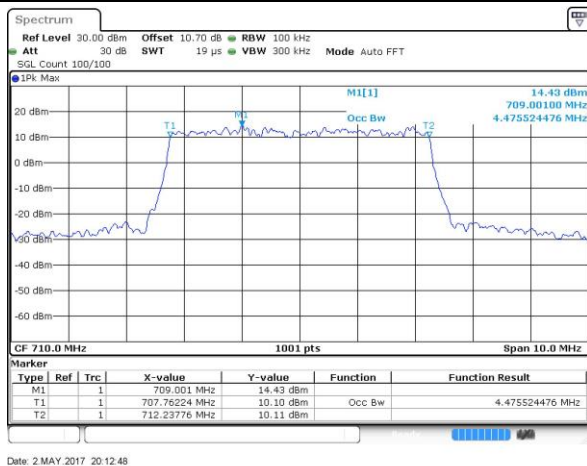
Lowest Channel / 5MHz / QPSK



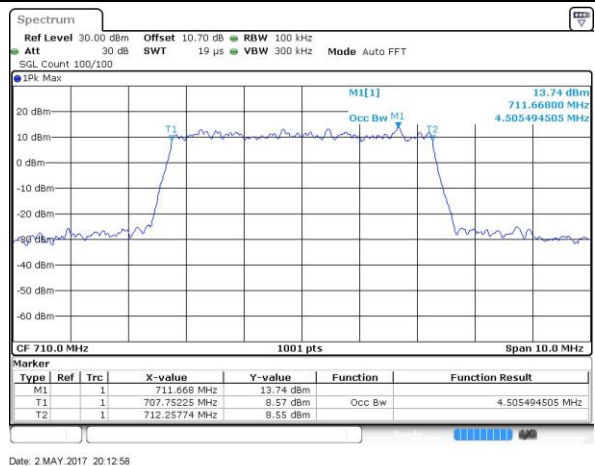
Lowest Channel / 5MHz / 16QAM



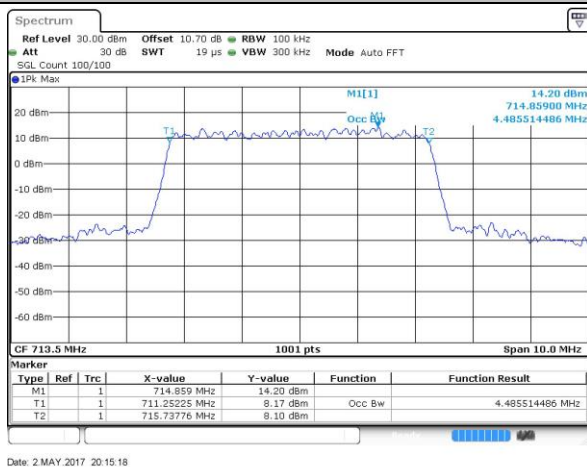
Middle Channel / 5MHz / QPSK



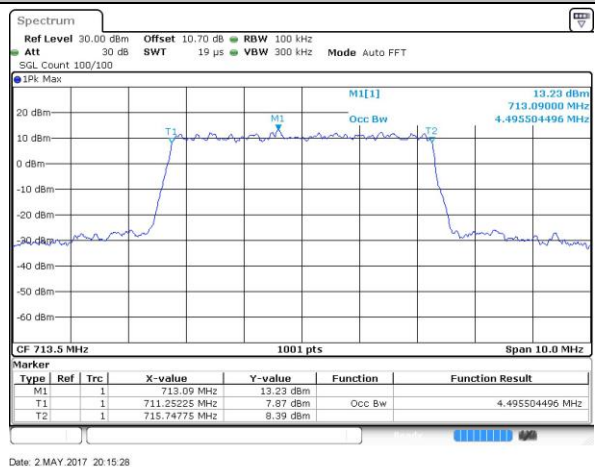
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



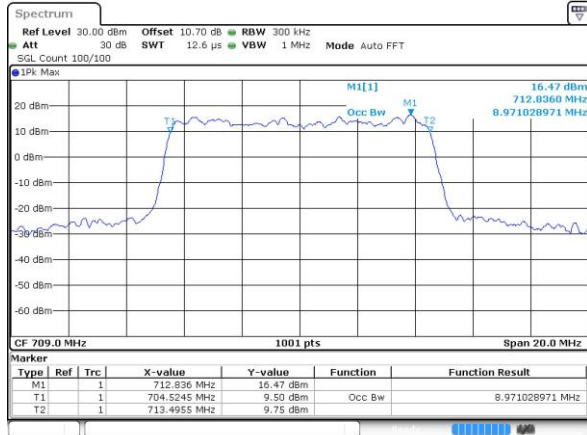
Highest Channel / 5MHz / 16QAM





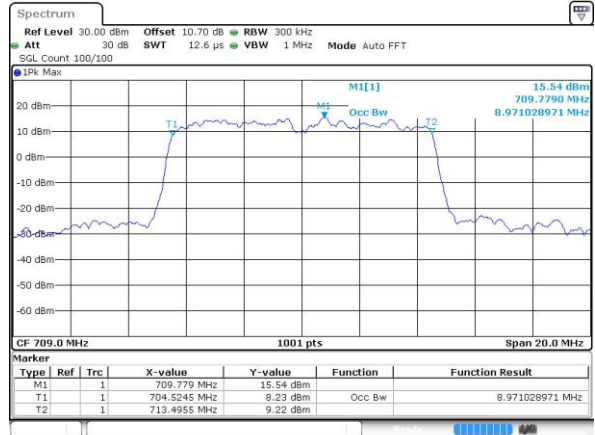
LTE Band 17

Lowest Channel / 10MHz / QPSK



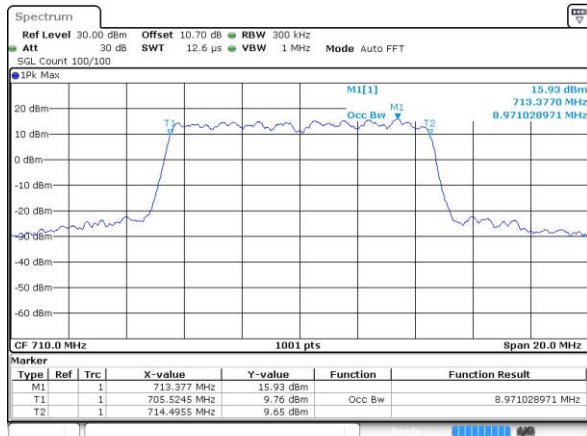
Date: 2 MAY 2017 20:22:24

Lowest Channel / 10MHz / 16QAM



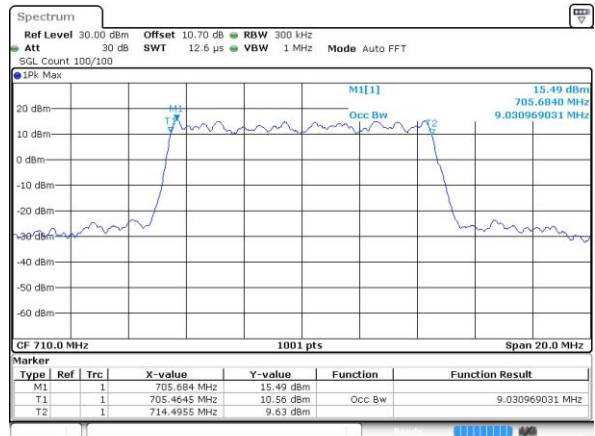
Date: 2 MAY 2017 20:22:34

Middle Channel / 10MHz / QPSK



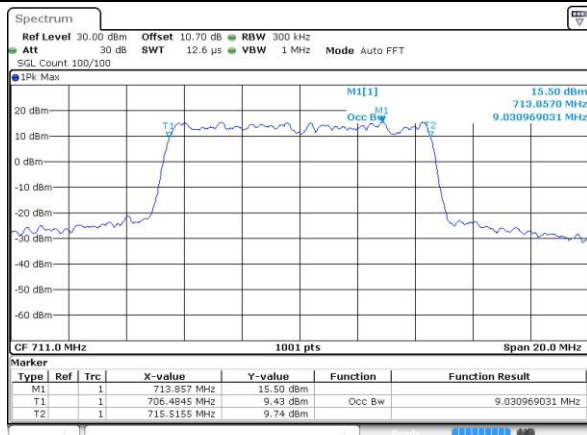
Date: 2 MAY 2017 20:29:31

Middle Channel / 10MHz / 16QAM



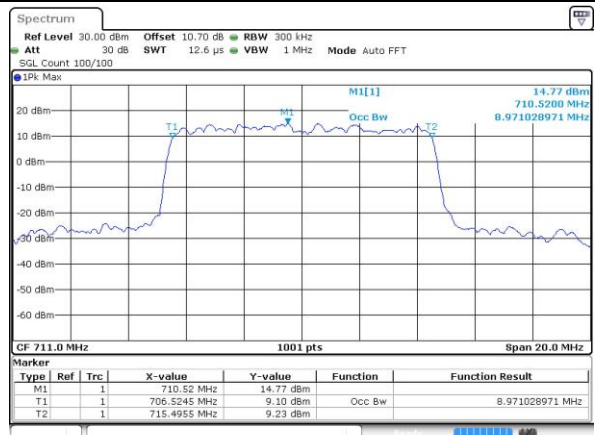
Date: 2 MAY 2017 20:29:41

Highest Channel / 10MHz / QPSK

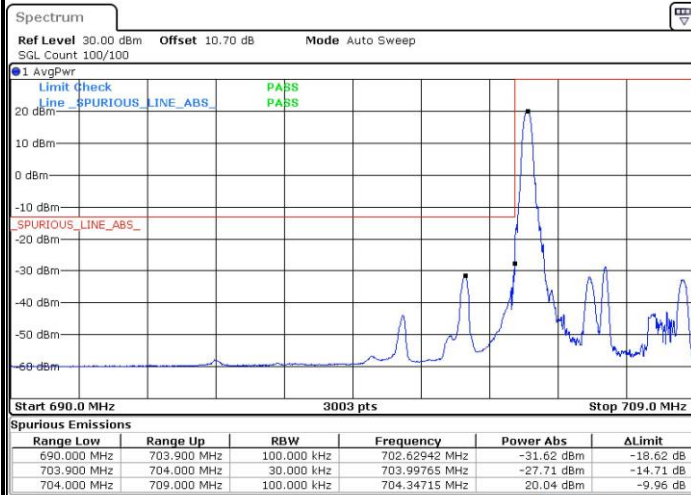
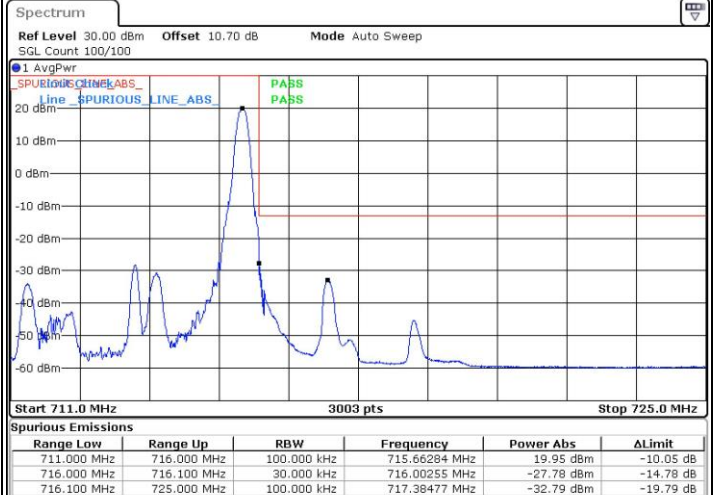
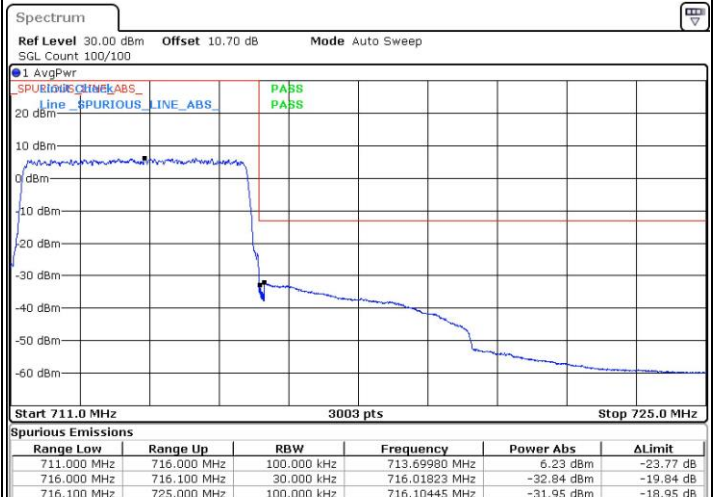


Date: 2 MAY 2017 20:32:00

Highest Channel / 10MHz / 16QAM



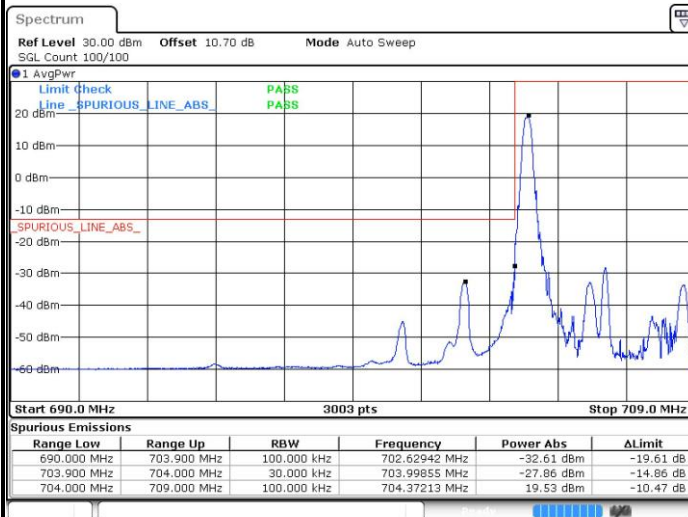
Date: 2 MAY 2017 20:32:11

**Conducted Band Edge****LTE Band 17 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

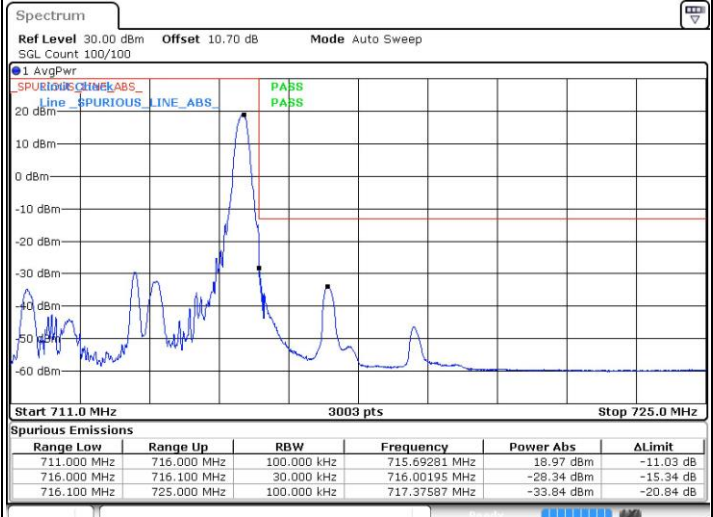


LTE Band 17 / 5MHz / 16QAM

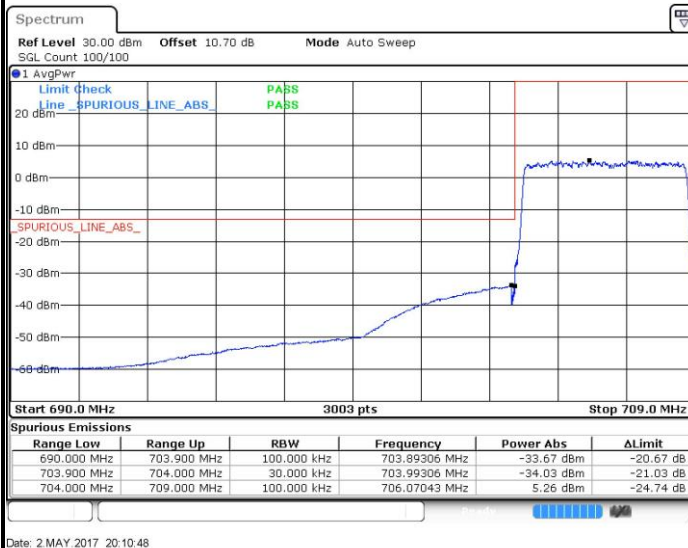
Lowest Band Edge / 1 RB



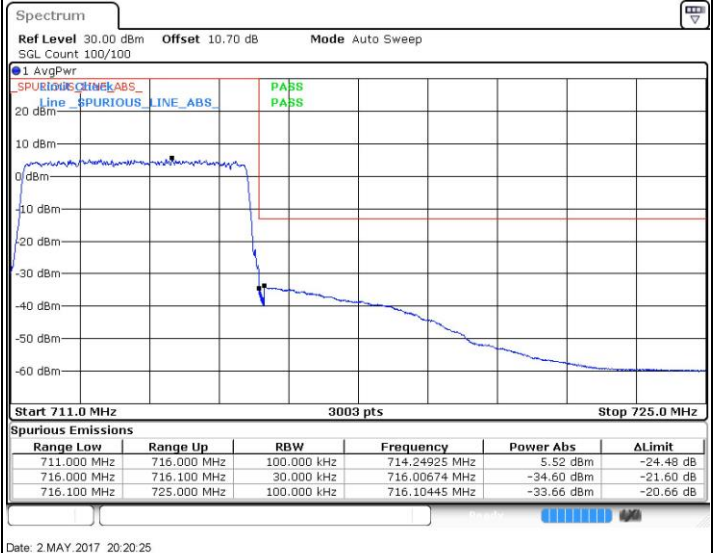
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



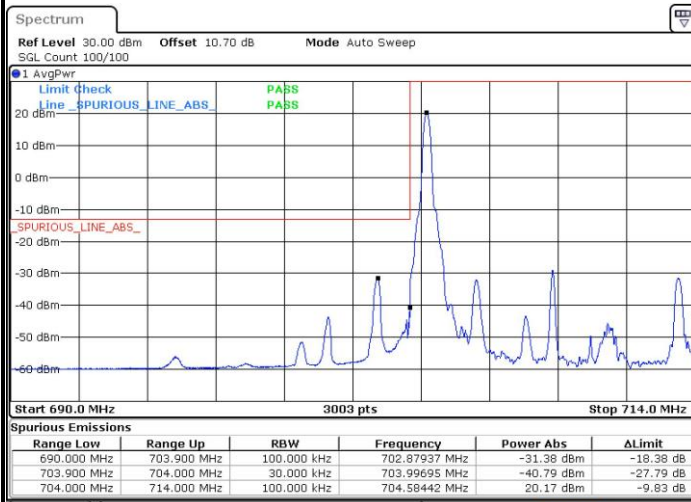
Highest Band Edge / Full RB



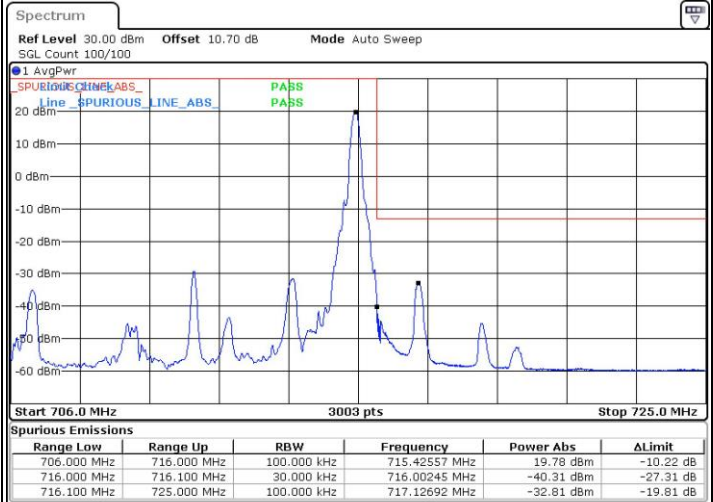


LTE Band 17 / 10MHz / QPSK

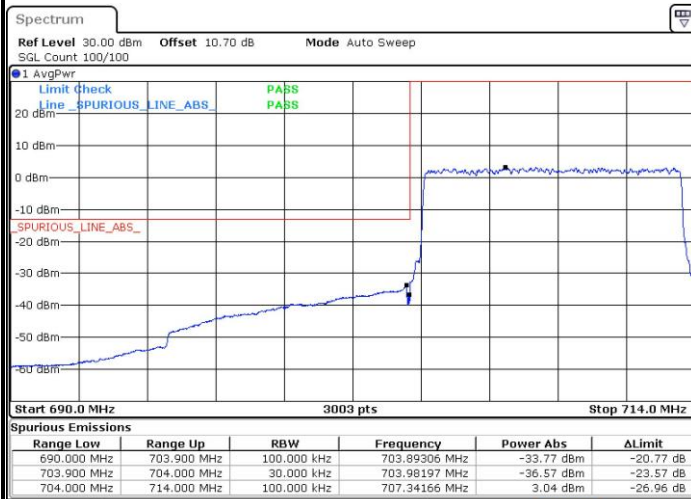
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



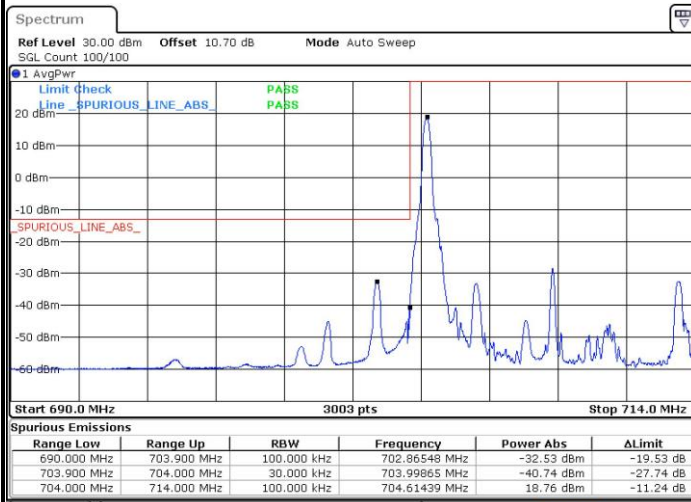
Highest Band Edge / Full RB



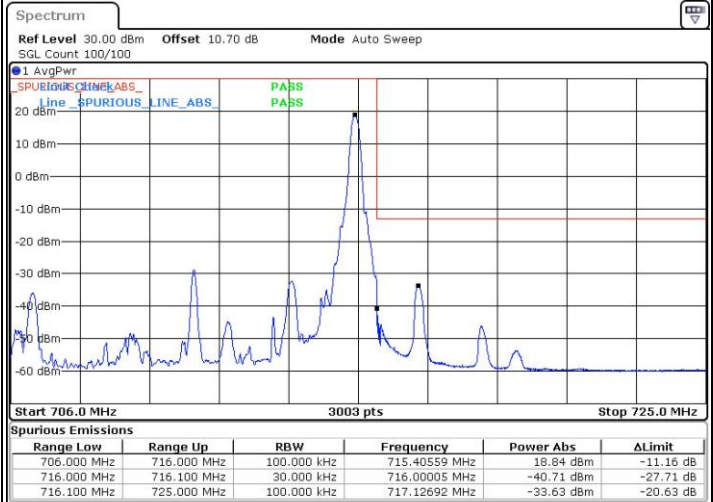


LTE Band 17 / 10MHz / 16QAM

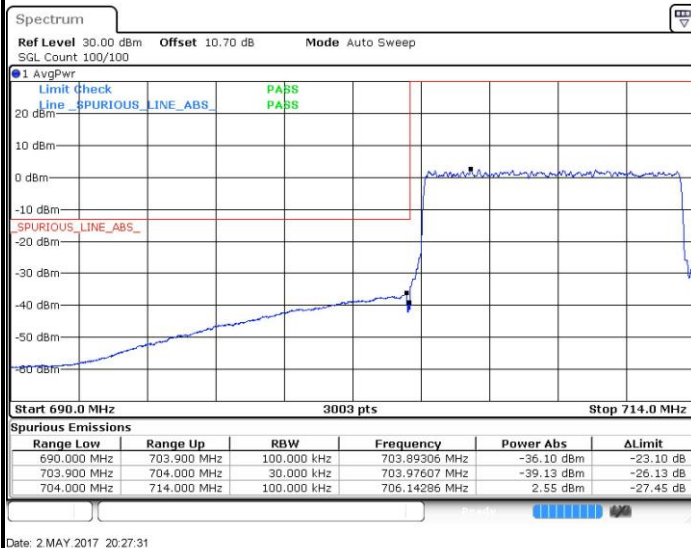
Lowest Band Edge / 1 RB



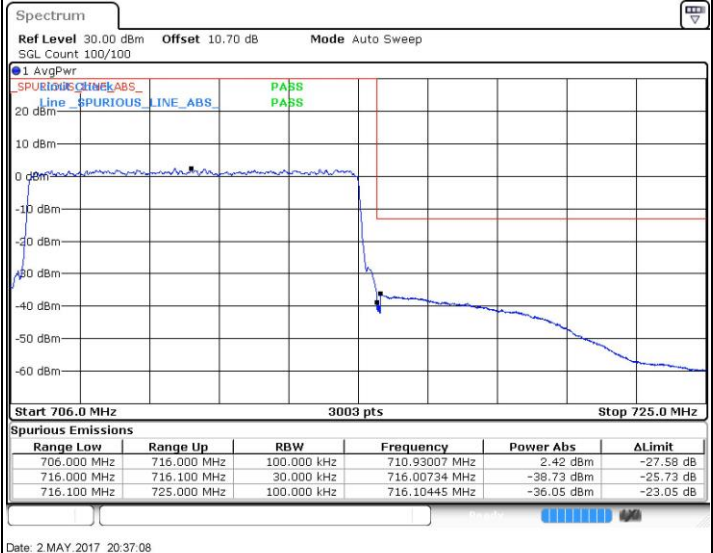
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

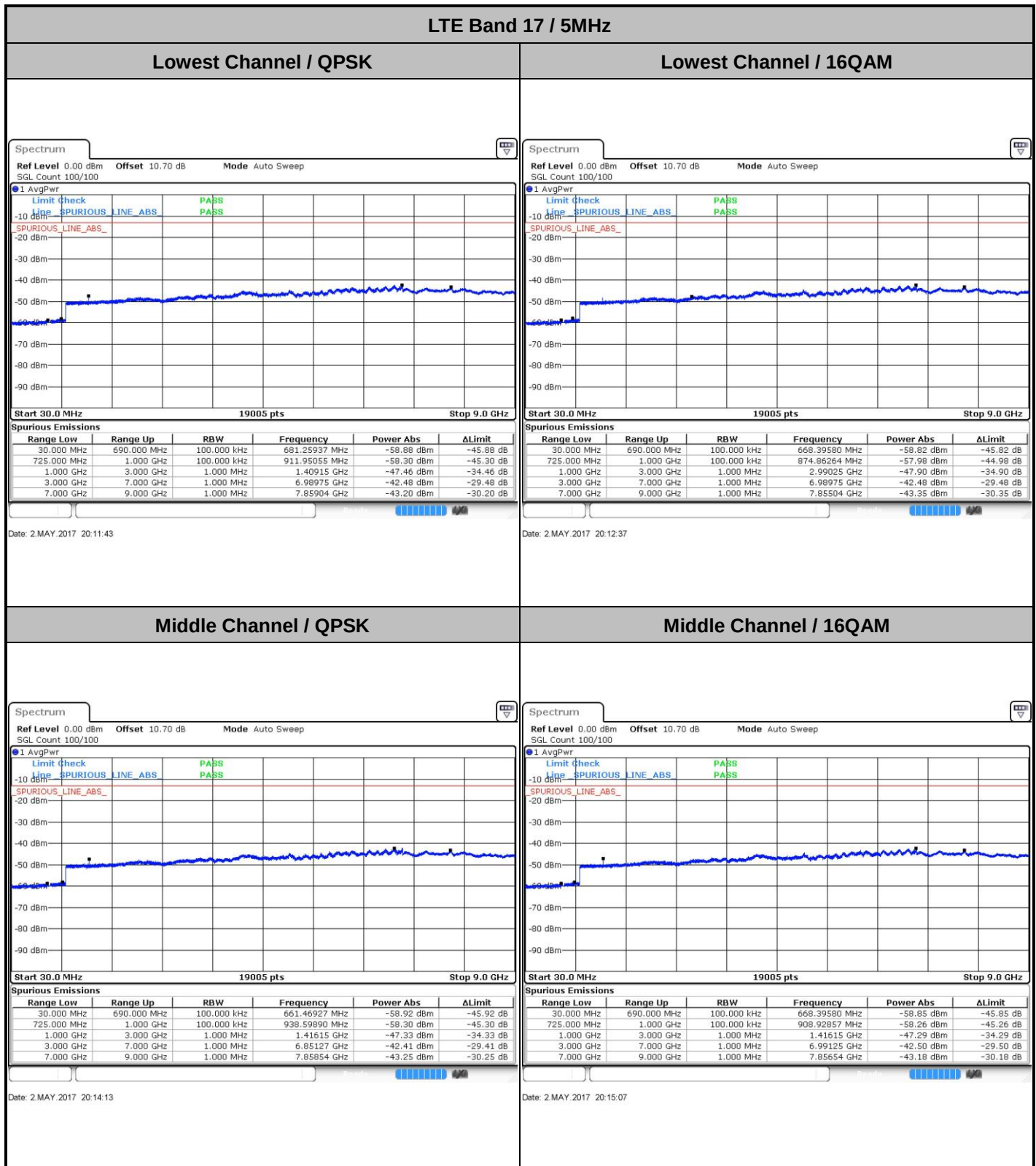


Highest Band Edge / Full RB





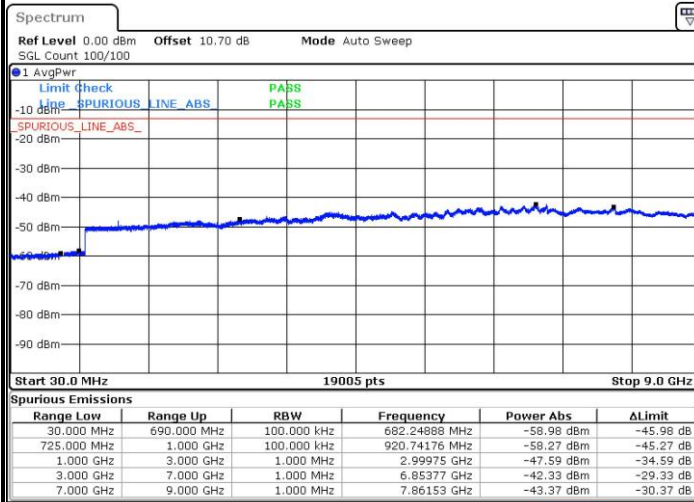
Conducted Spurious Emission





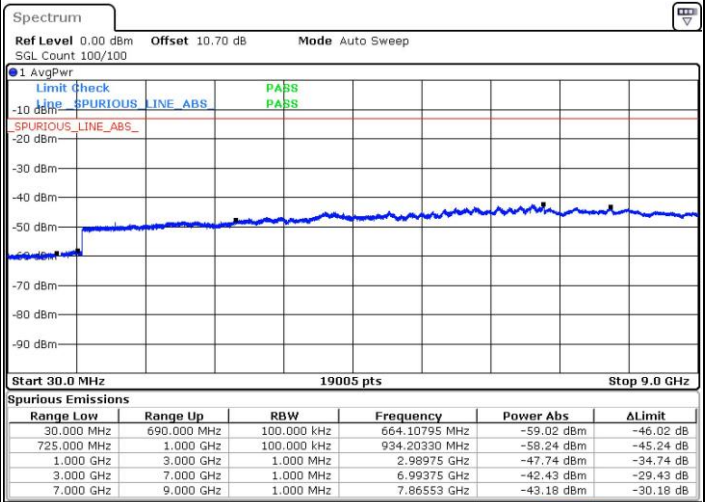
LTE Band 17 / 5MHz

Highest Channel / QPSK



Date: 2 MAY 2017 20:21:20

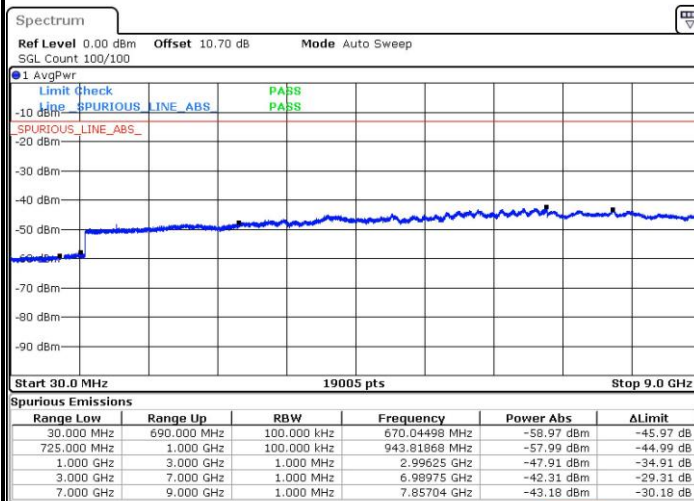
Highest Channel / 16QAM



Date: 2 MAY 2017 20:22:14

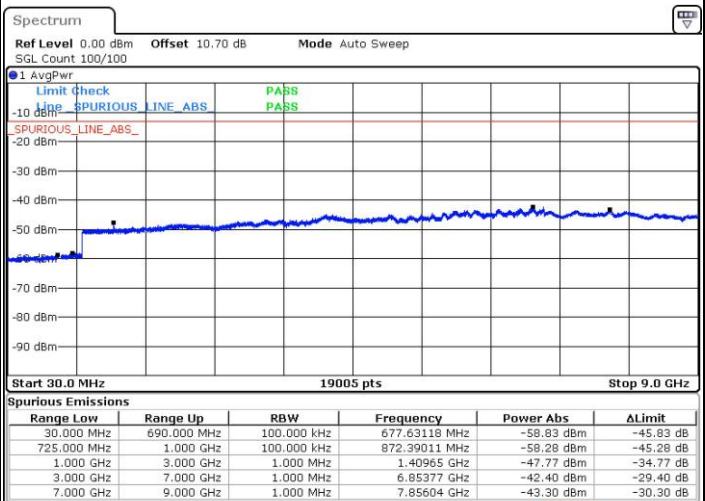
LTE Band 17 / 10MHz

Lowest Channel / QPSK



Date: 2 MAY 2017 20:28:26

Lowest Channel / 16QAM

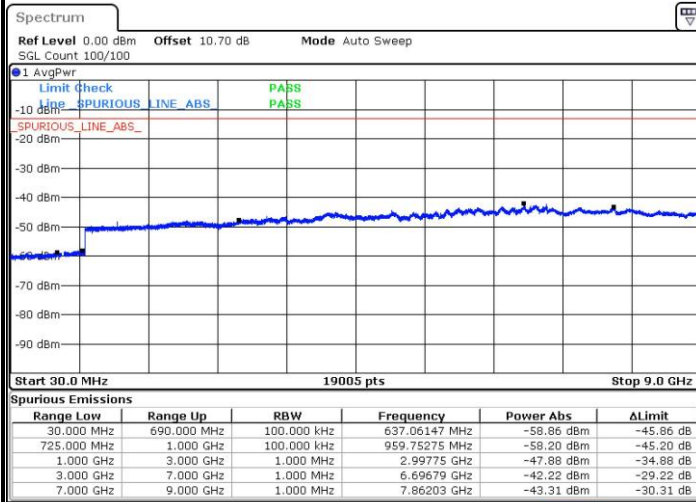


Date: 2 MAY 2017 20:29:20



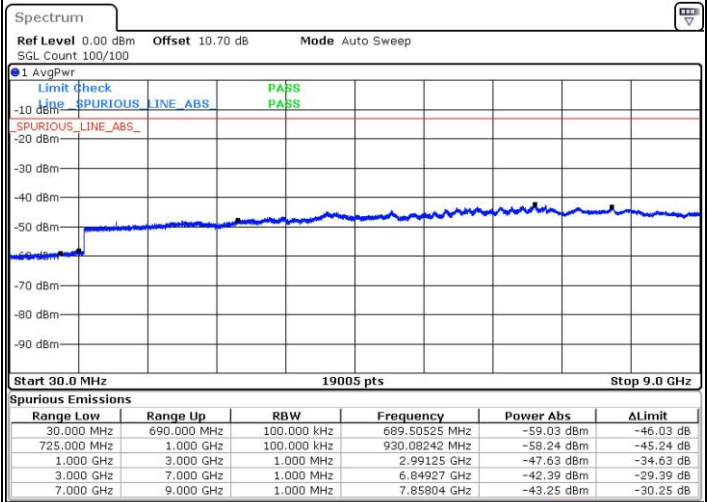
LTE Band 17 / 10MHz

Middle Channel / QPSK



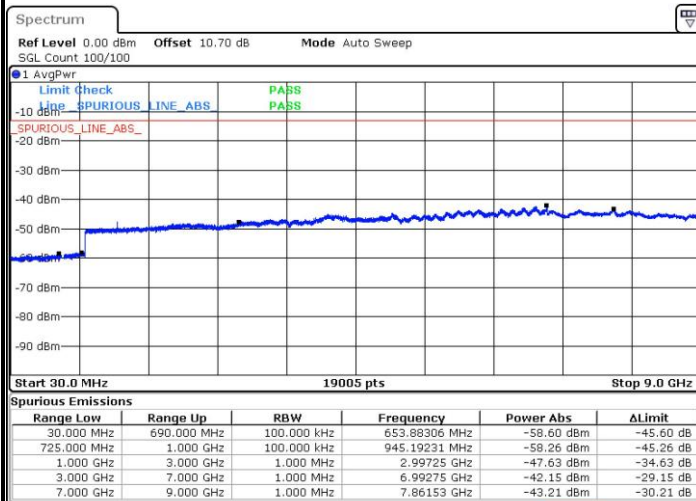
Date: 2 MAY 2017 20:30:56

Middle Channel / 16QAM



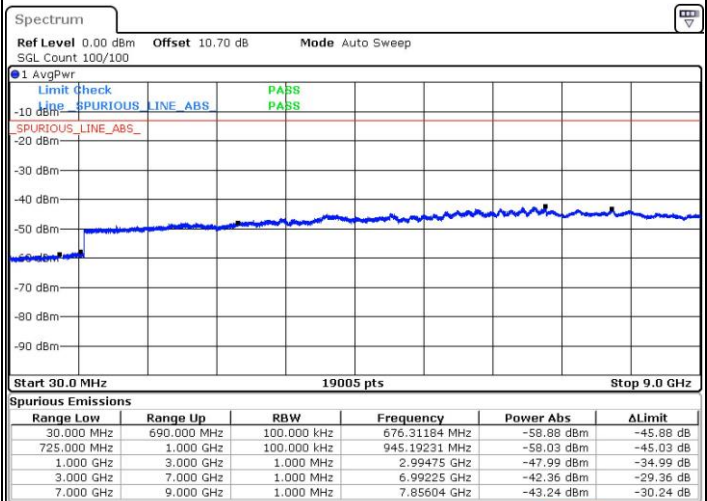
Date: 2 MAY 2017 20:31:50

Highest Channel / QPSK



Date: 2 MAY 2017 20:38:03

Highest Channel / 16QAM



Date: 2 MAY 2017 20:38:57

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	0.0007	PASS
40	Normal Voltage	0.0030	
30	Normal Voltage	0.0093	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0030	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0097	
-20	Normal Voltage	0.0120	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0079	

Note:

1. Normal Voltage =4.0 V. ; Battery End Point (BEP) =3.7 V. ; Maximum Voltage =4.0 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 38

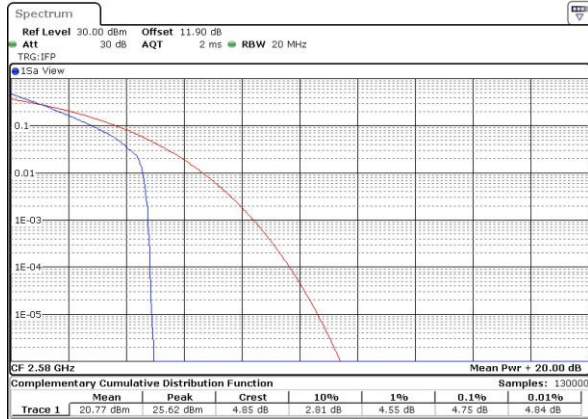
Peak-to-Average Ratio

Mode	LTE Band 38 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.75	5.13	5.42	6.23	PASS
Middle CH	4.35	5.19	5.16	6.2	
Highest CH	4.67	5.19	5.51	6.23	

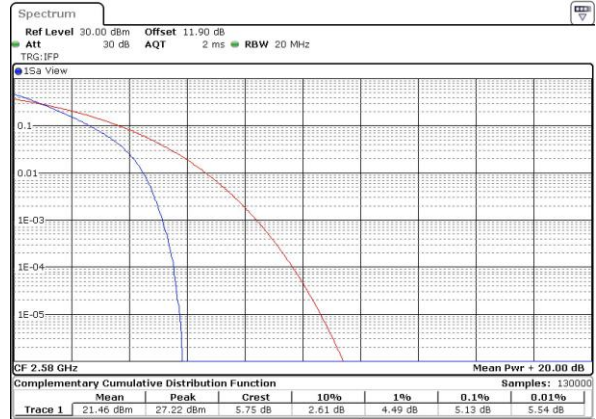


LTE Band 38 / 20MHz / QPSK

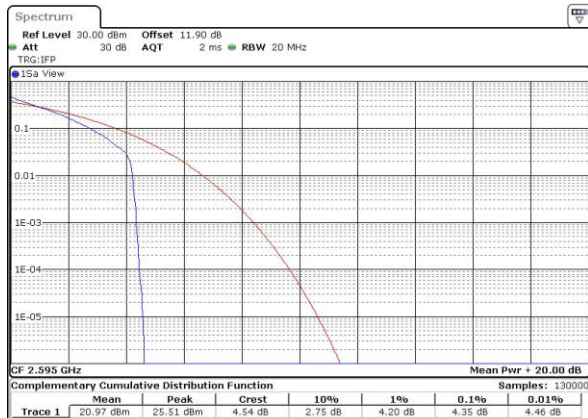
Lowest Channel / 1RB



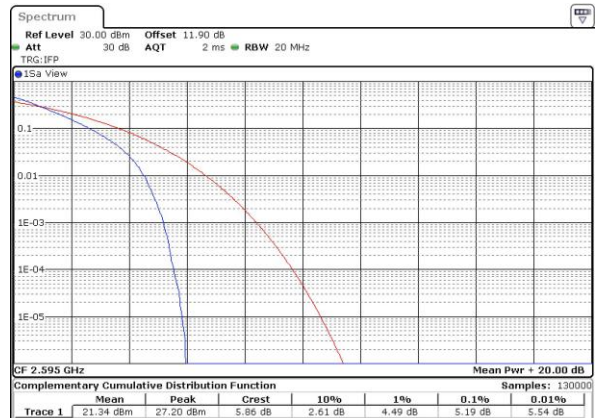
Lowest Channel / Full RB



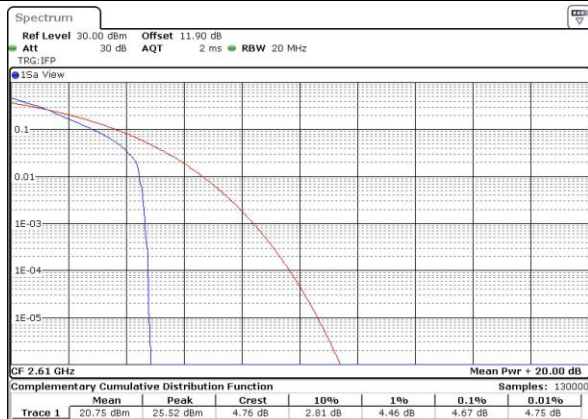
Middle Channel / 1RB



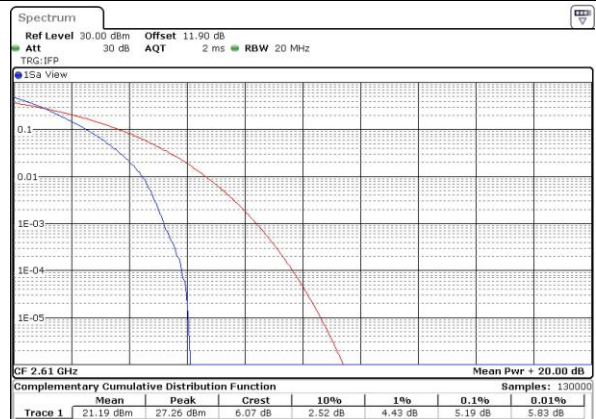
Middle Channel / Full RB

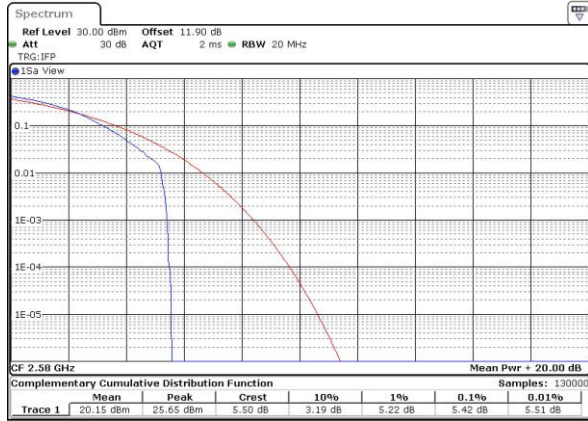
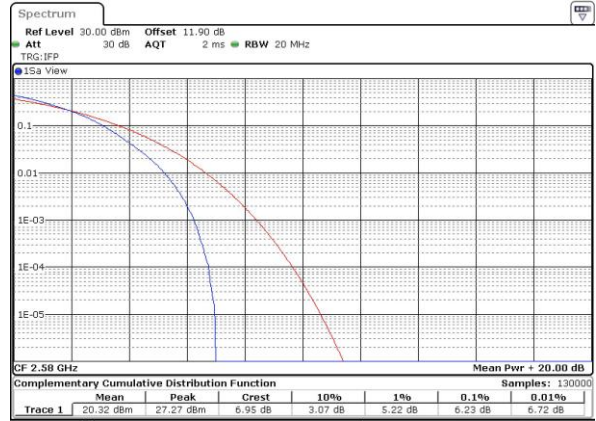
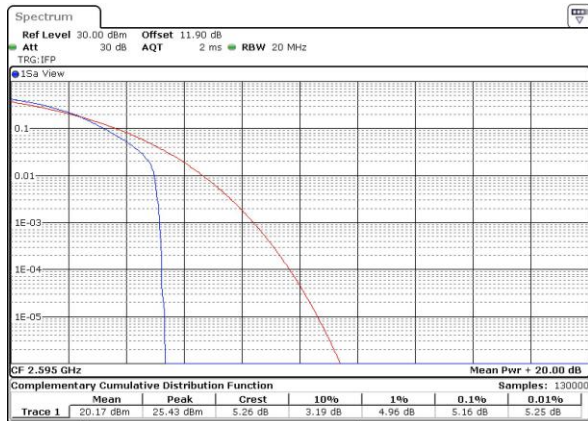
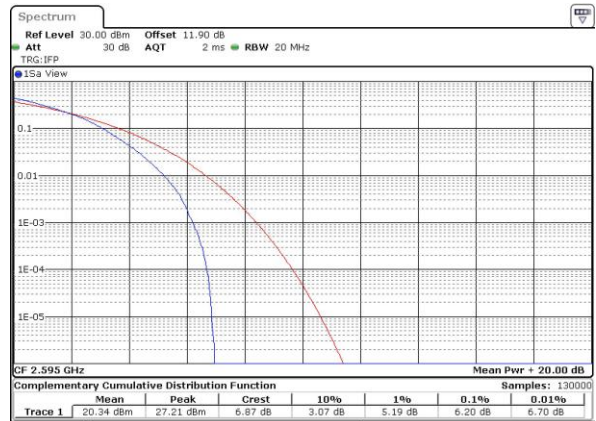
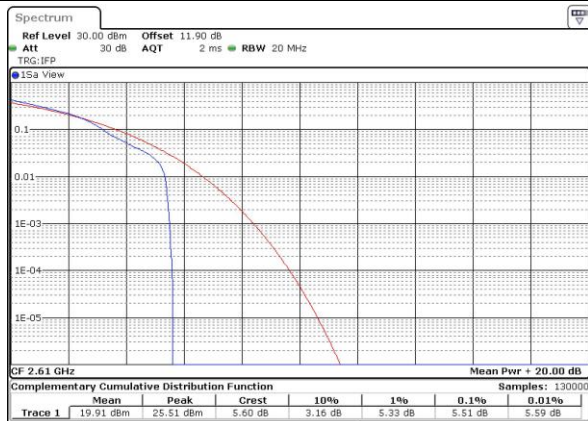
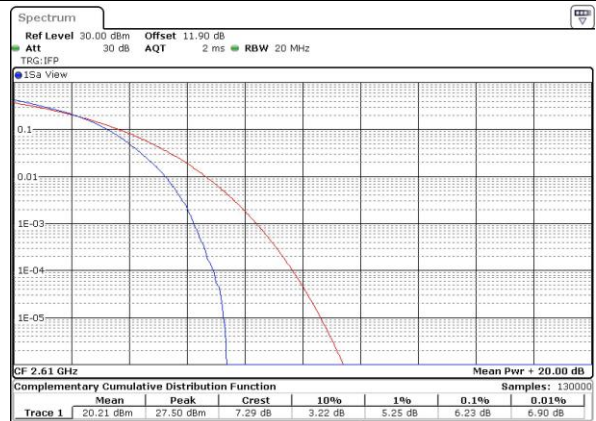


Highest Channel / 1RB



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




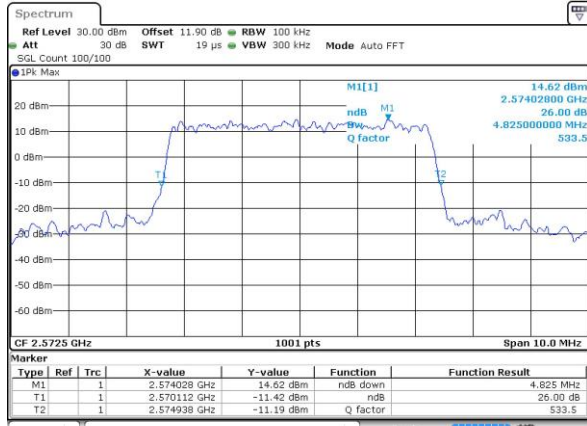
26dB Bandwidth

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	-	-	-	-	4.825	4.795	9.75	9.61	14.386	14.086	20.02	20.06
Middle CH	-	-	-	-	4.935	4.825	9.65	9.89	14.176	14.416	20.14	20.06
Highest CH	-	-	-	-	4.695	4.715	9.69	9.71	14.116	14.416	20.18	20.1



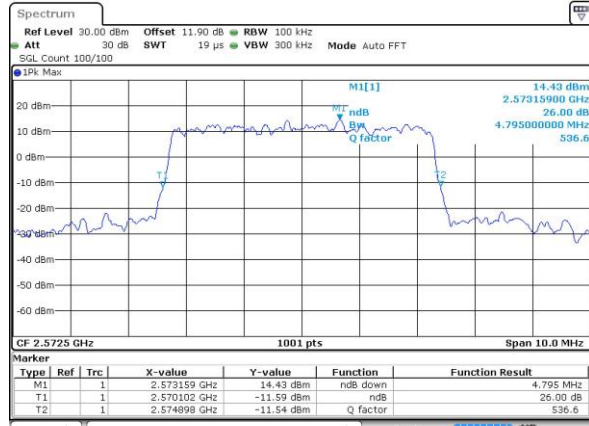
LTE Band 38

Lowest Channel / 5MHz / QPSK



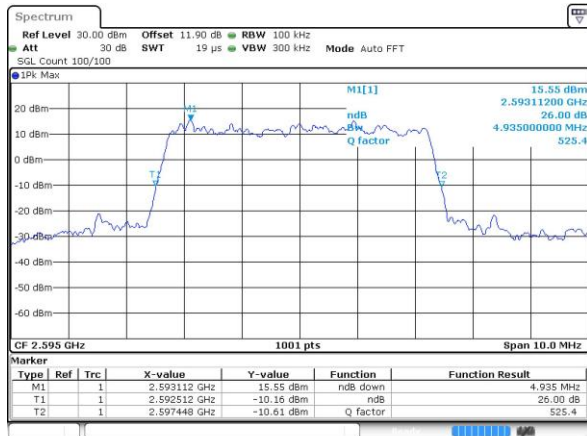
Date: 2 MAY 2017 20:50:09

Lowest Channel / 5MHz / 16QAM



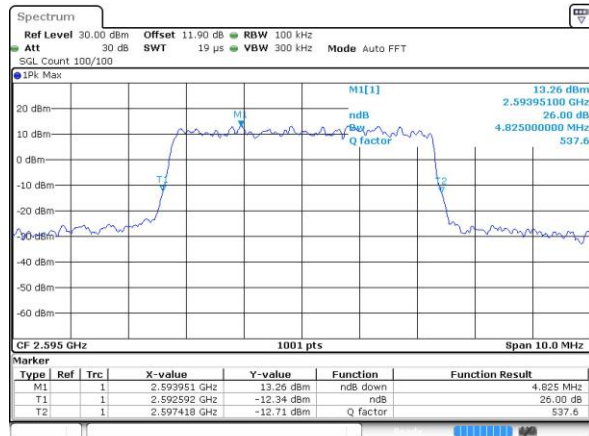
Date: 2 MAY 2017 20:50:20

Middle Channel / 5MHz / QPSK



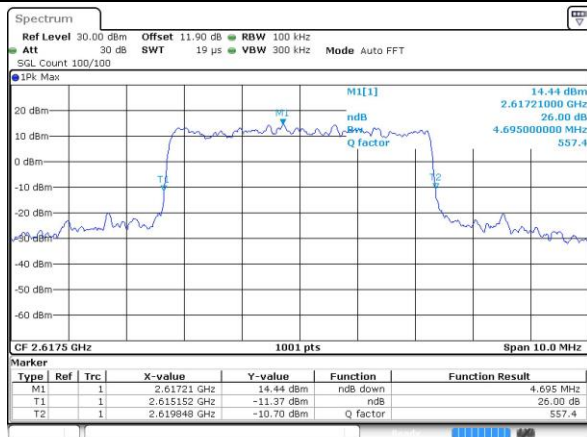
Date: 2 MAY 2017 20:50:51

Middle Channel / 5MHz / 16QAM



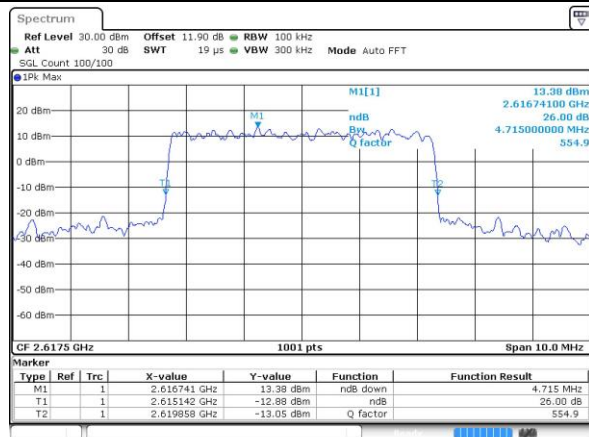
Date: 2 MAY 2017 20:51:01

Highest Channel / 5MHz / QPSK



Date: 2 MAY 2017 20:51:32

Highest Channel / 5MHz / 16QAM

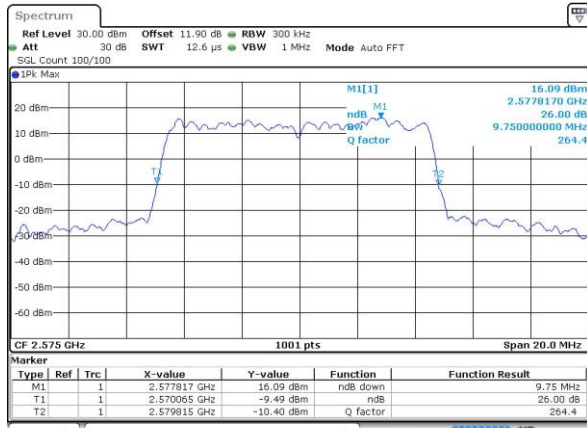


Date: 2 MAY 2017 20:51:43



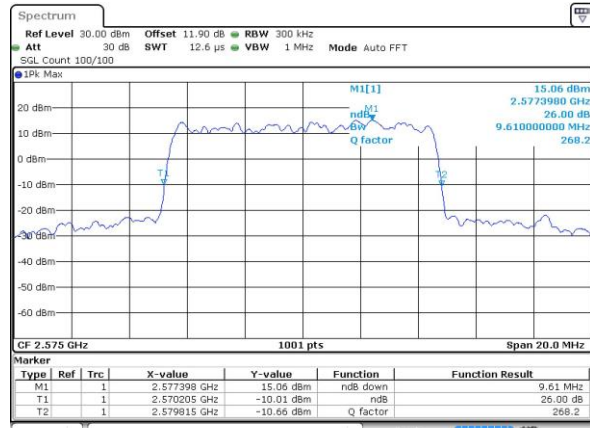
LTE Band 38

Lowest Channel / 10MHz / QPSK



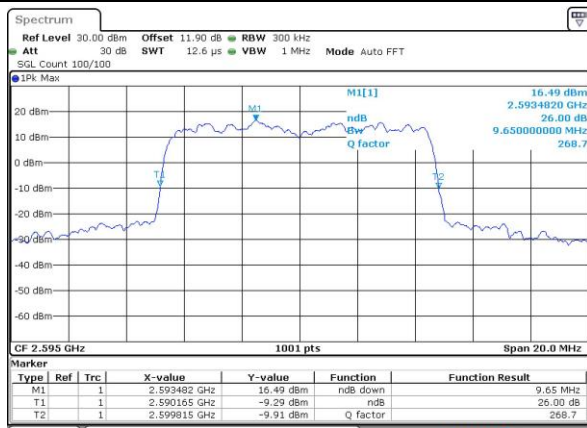
Date: 2 MAY 2017 20:52:14

Lowest Channel / 10MHz / 16QAM



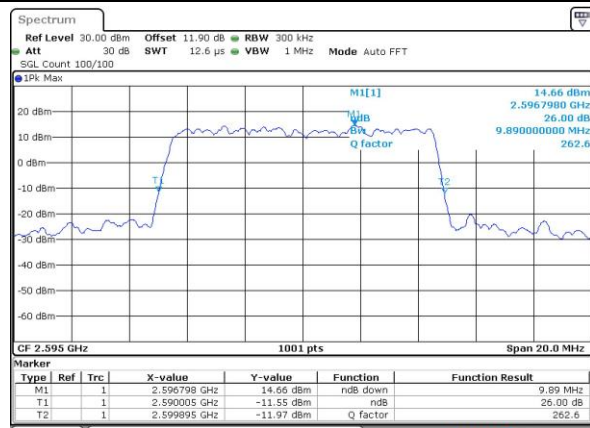
Date: 2 MAY 2017 20:52:24

Middle Channel / 10MHz / QPSK



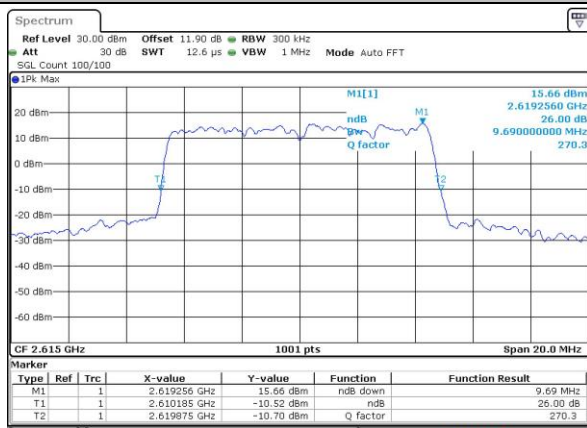
Date: 2 MAY 2017 20:52:55

Middle Channel / 10MHz / 16QAM



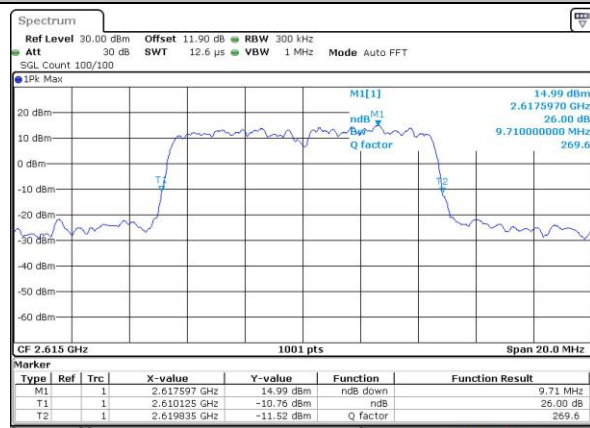
Date: 2 MAY 2017 20:53:06

Highest Channel / 10MHz / QPSK



Date: 2 MAY 2017 20:53:37

Highest Channel / 10MHz / 16QAM



Date: 2 MAY 2017 20:53:47