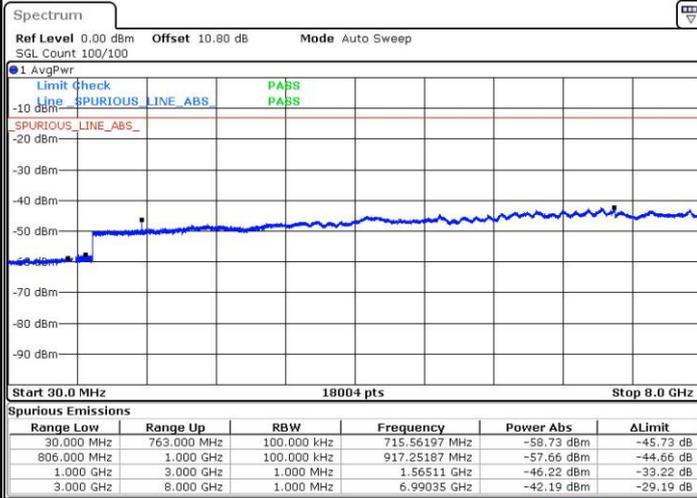




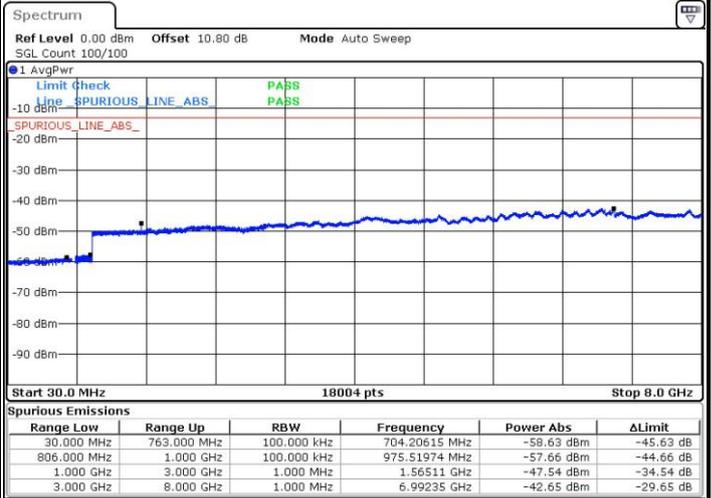
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 20 DEC 2016 15:35:45

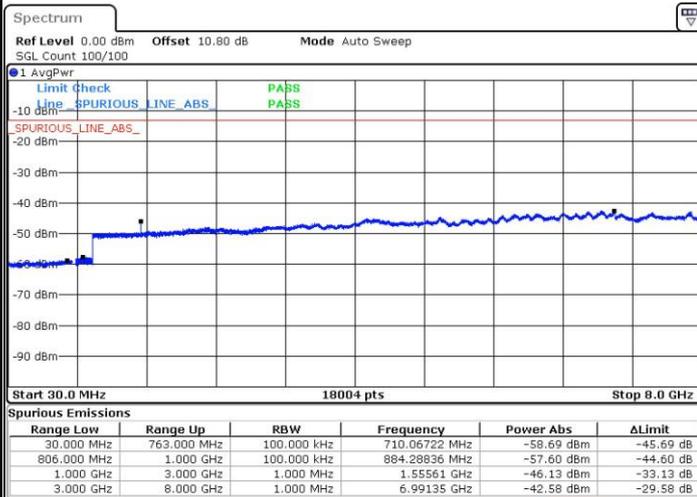
Highest Channel / 16QAM



Date: 20 DEC 2016 15:36:39

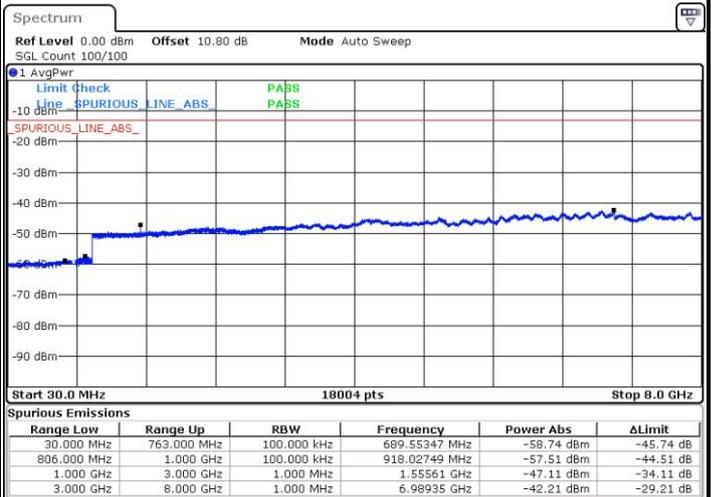
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 20 DEC 2016 15:49:05

Middle Channel / 16QAM



Date: 20 DEC 2016 15:48:10



**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	0.0069	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0063	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0087	
-30	Normal Voltage	0.0074	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

**Note:**

1. Normal Voltage =3.8 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.



## LTE Band 17

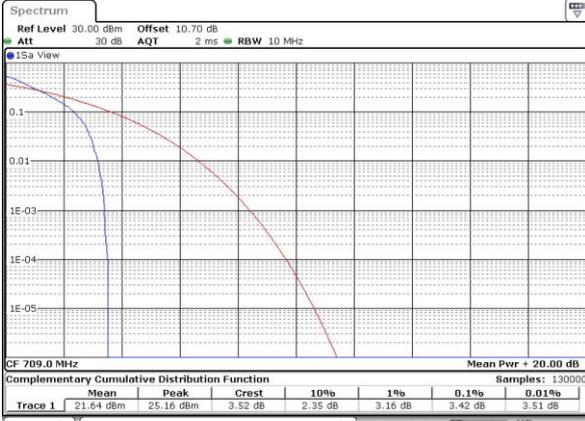
### Peak-to-Average Ratio

Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.42	4.52	4.38	5.39	<b>PASS</b>
Middle CH	3.13	4.55	4.41	5.36	
Highest CH	3.1	4.55	4.14	5.36	



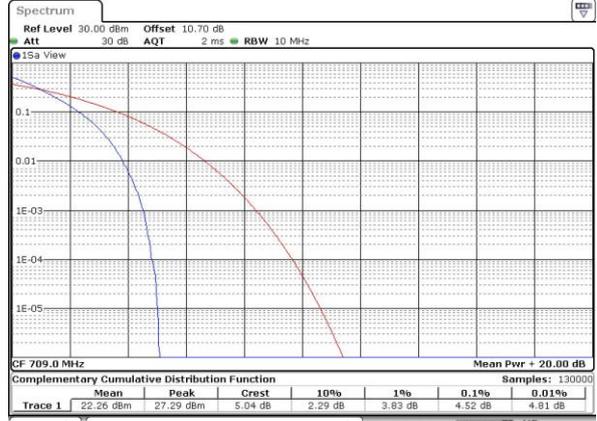
LTE Band 17 / 10MHz / QPSK

Lowest Channel / 1RB



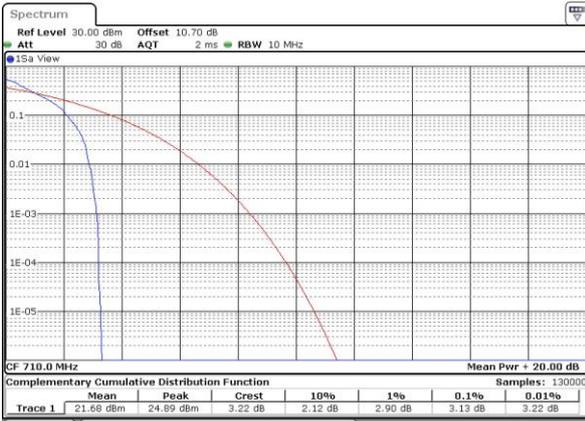
Date: 21 DEC 2016 11:07:23

Lowest Channel / Full RB



Date: 21 DEC 2016 11:07:33

Middle Channel / 1RB



Date: 21 DEC 2016 11:07:43

Middle Channel / Full RB



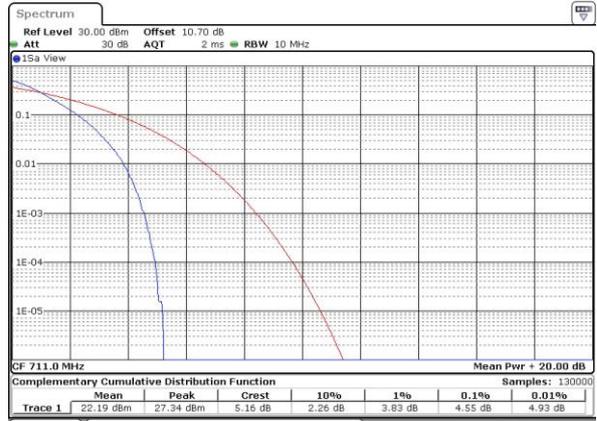
Date: 21 DEC 2016 11:07:54

Highest Channel / 1RB



Date: 21 DEC 2016 11:08:03

Highest Channel / Full RB

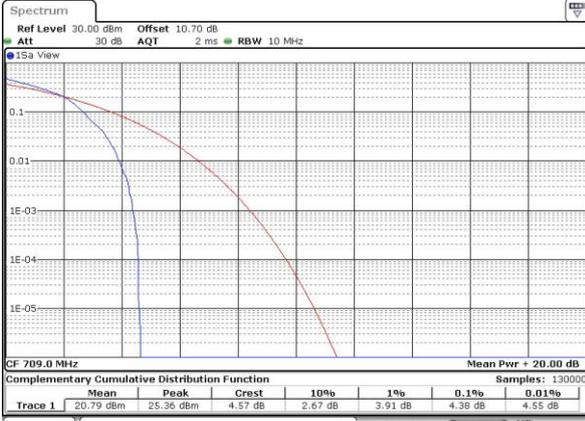


Date: 21 DEC 2016 11:08:13



LTE Band 17 / 10MHz / 16QAM

Lowest Channel / 1RB



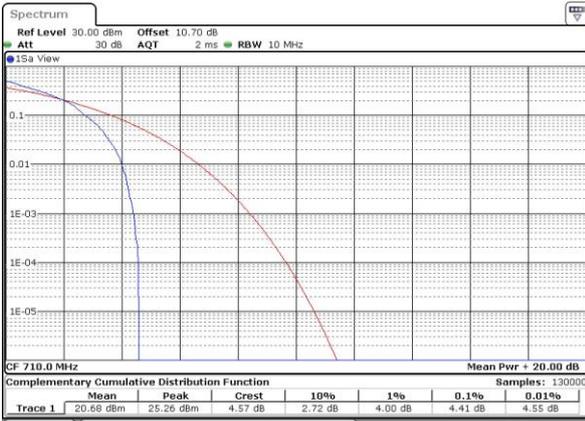
Date: 21 DEC 2016 11:08:44

Lowest Channel / Full RB



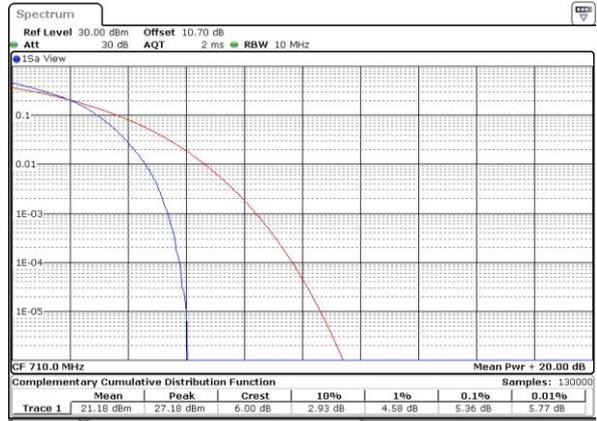
Date: 21 DEC 2016 11:06:20

Middle Channel / 1RB



Date: 21 DEC 2016 11:06:30

Middle Channel / Full RB



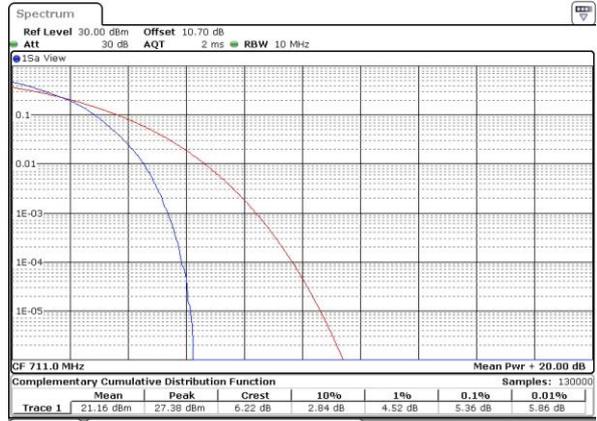
Date: 21 DEC 2016 11:06:50

Highest Channel / 1RB



Date: 21 DEC 2016 11:07:01

Highest Channel / Full RB



Date: 21 DEC 2016 11:07:13



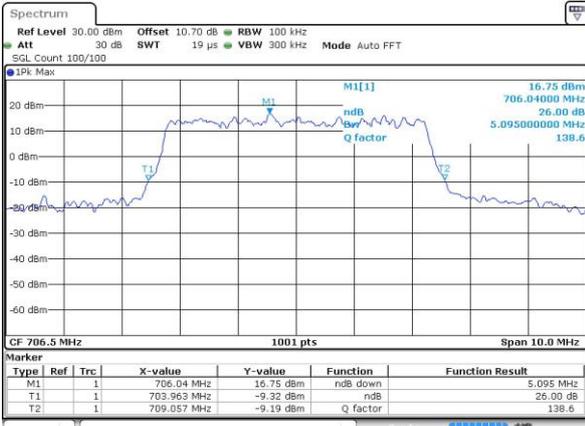
**26dB Bandwidth**

Mode	LTE Band 17 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.10	4.95	9.91	9.79	-	-	-	-
Middle CH	-	-	-	-	4.97	4.96	9.85	9.67	-	-	-	-
Highest CH	-	-	-	-	4.95	5.02	9.99	9.65	-	-	-	-



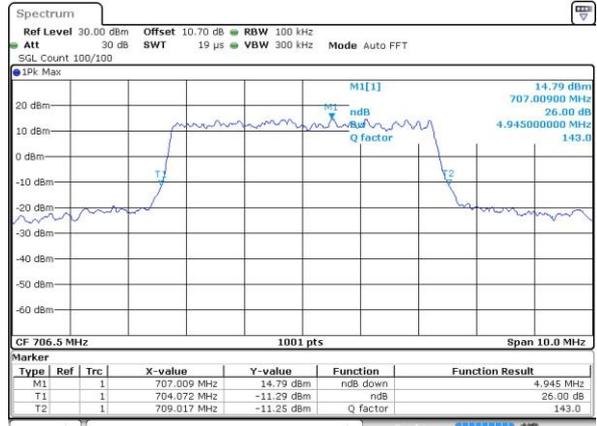
LTE Band 17

Lowest Channel / 5MHz / QPSK



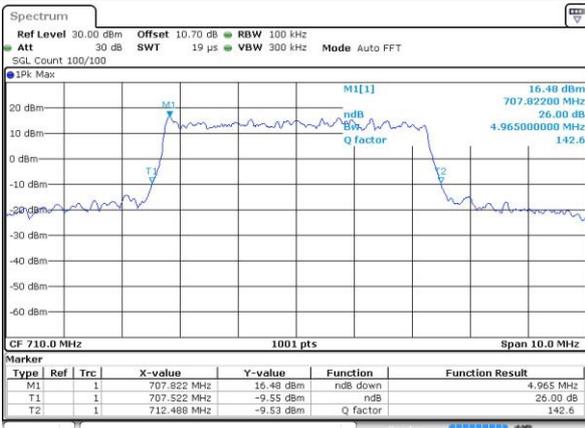
Date: 21 DEC 2016 10:17:14

Lowest Channel / 5MHz / 16QAM



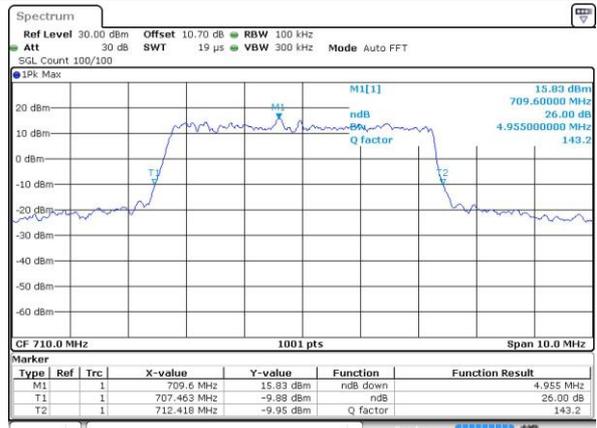
Date: 21 DEC 2016 10:17:25

Middle Channel / 5MHz / QPSK



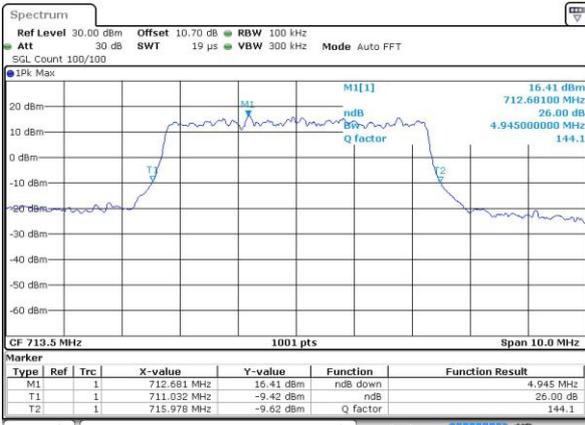
Date: 21 DEC 2016 10:24:21

Middle Channel / 5MHz / 16QAM



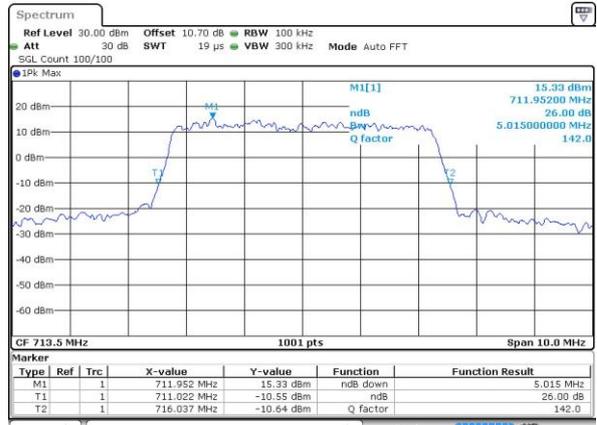
Date: 21 DEC 2016 10:24:31

Highest Channel / 5MHz / QPSK



Date: 21 DEC 2016 10:28:51

Highest Channel / 5MHz / 16QAM

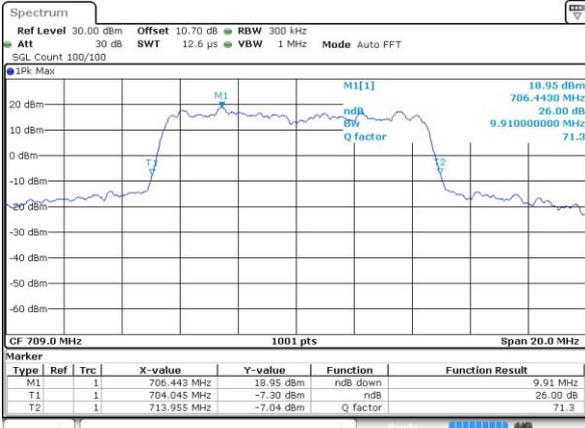


Date: 21 DEC 2016 10:27:01



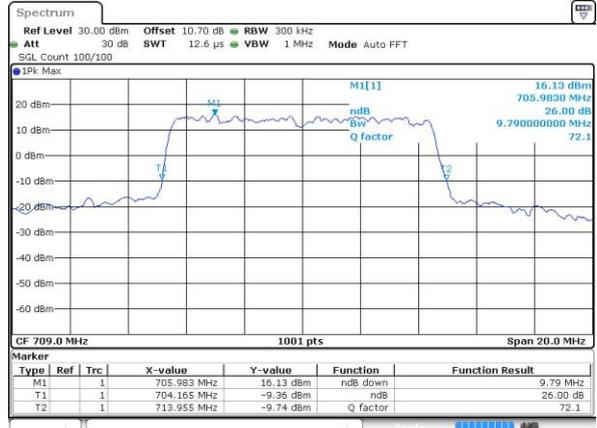
LTE Band 17

Lowest Channel / 10MHz / QPSK



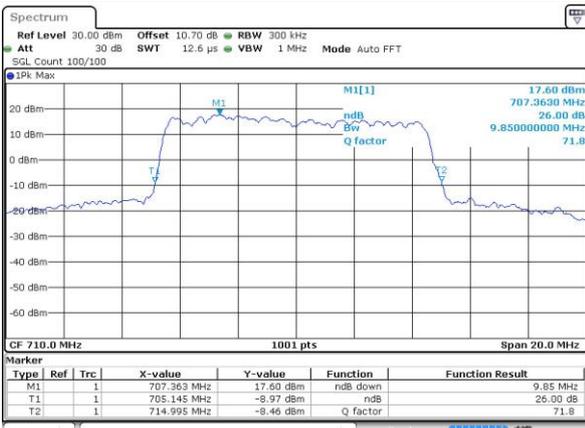
Date: 21 DEC 2016 10:33:57

Lowest Channel / 10MHz / 16QAM



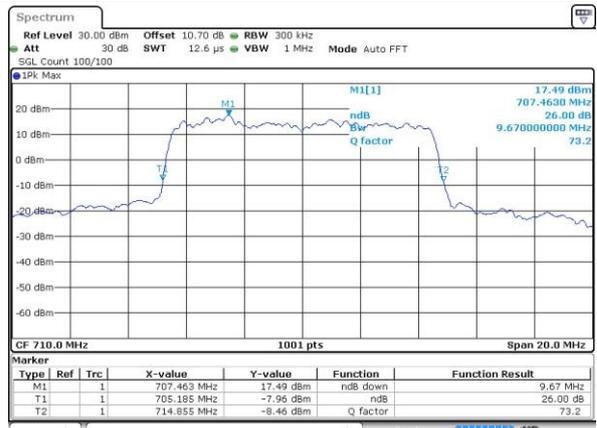
Date: 21 DEC 2016 10:34:07

Middle Channel / 10MHz / QPSK



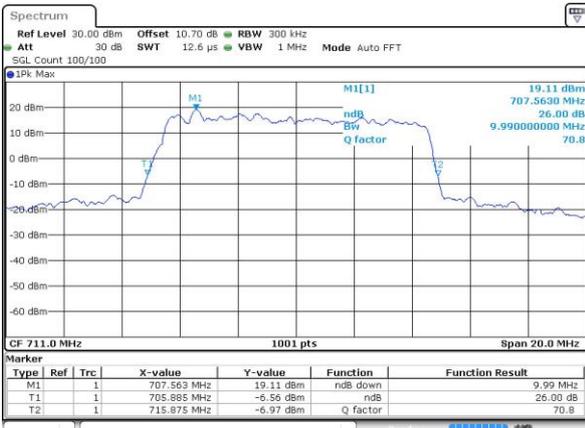
Date: 21 DEC 2016 10:41:03

Middle Channel / 10MHz / 16QAM



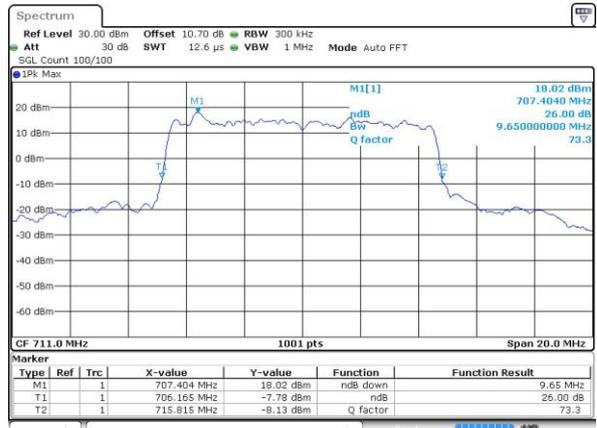
Date: 21 DEC 2016 10:41:14

Highest Channel / 10MHz / QPSK



Date: 21 DEC 2016 10:43:33

Highest Channel / 10MHz / 16QAM



Date: 21 DEC 2016 10:43:44



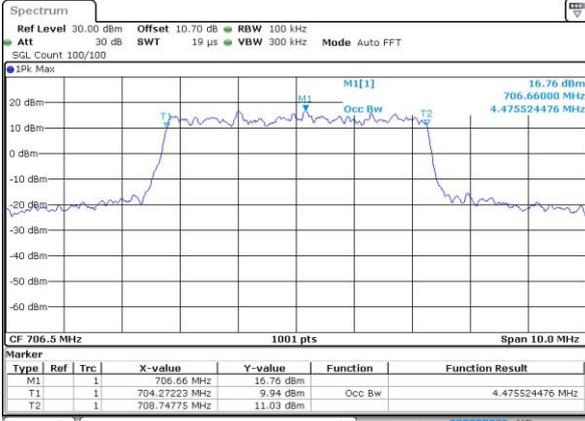
### Occupied Bandwidth

Mode	LTE Band 17 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.48	4.5	9.05	9.09	-	-	-	-
Middle CH	-	-	-	-	4.5	4.57	9.01	9.05	-	-	-	-
Highest CH	-	-	-	-	4.49	4.54	9.03	9.01	-	-	-	-



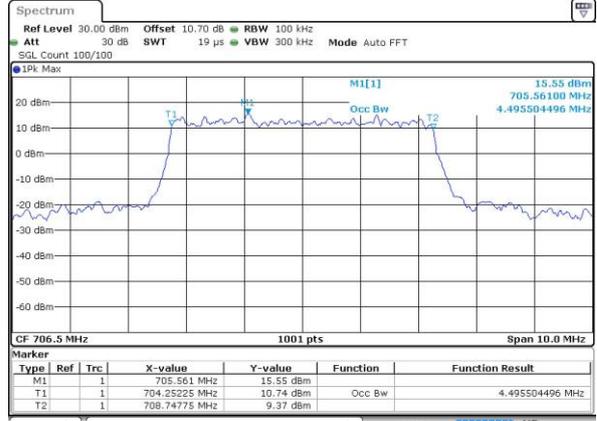
LTE Band 17

Lowest Channel / 5MHz / QPSK



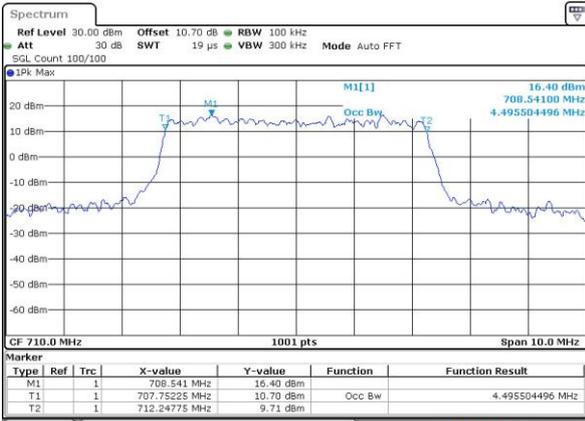
Date: 21 DEC 2016 10:16:54

Lowest Channel / 5MHz / 16QAM



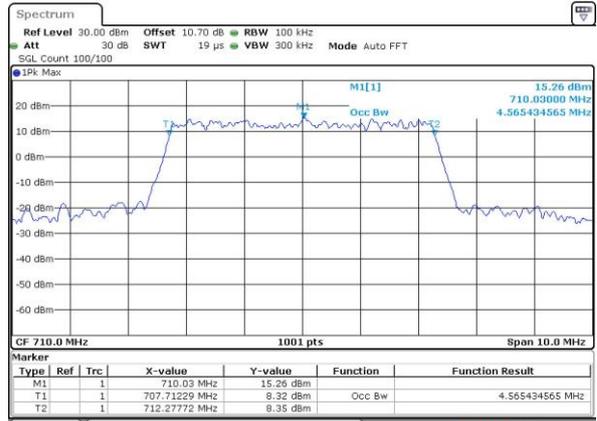
Date: 21 DEC 2016 10:17:04

Middle Channel / 5MHz / QPSK



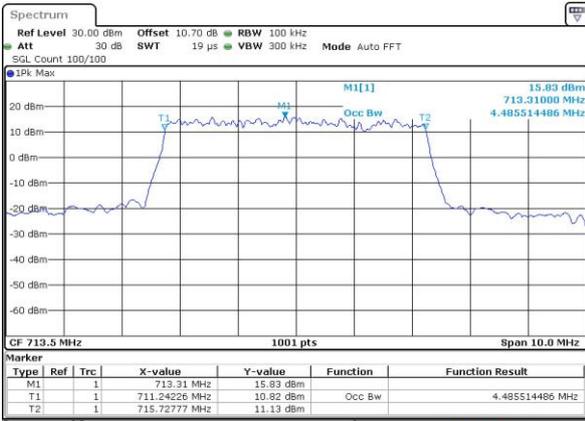
Date: 21 DEC 2016 10:24:00

Middle Channel / 5MHz / 16QAM



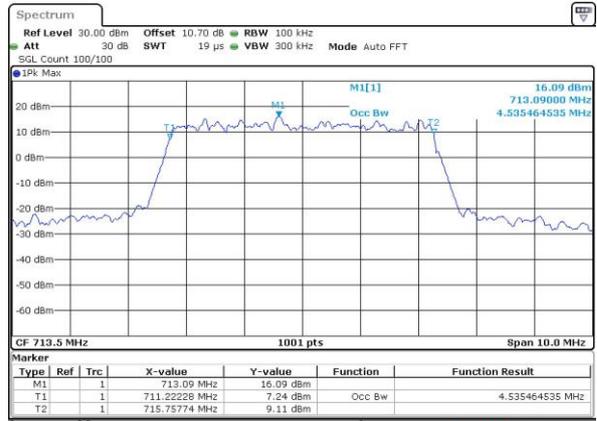
Date: 21 DEC 2016 10:24:11

Highest Channel / 5MHz / QPSK



Date: 21 DEC 2016 10:26:30

Highest Channel / 5MHz / 16QAM

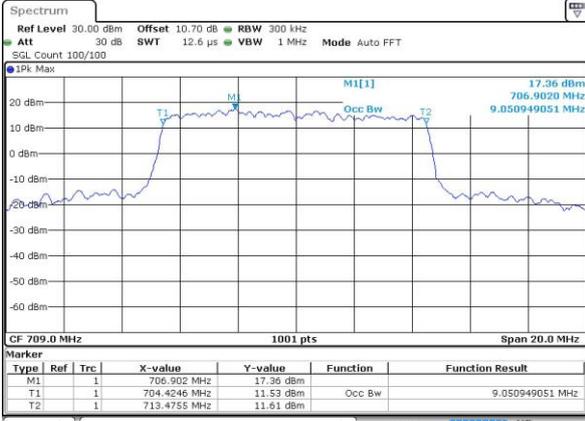


Date: 21 DEC 2016 10:26:40



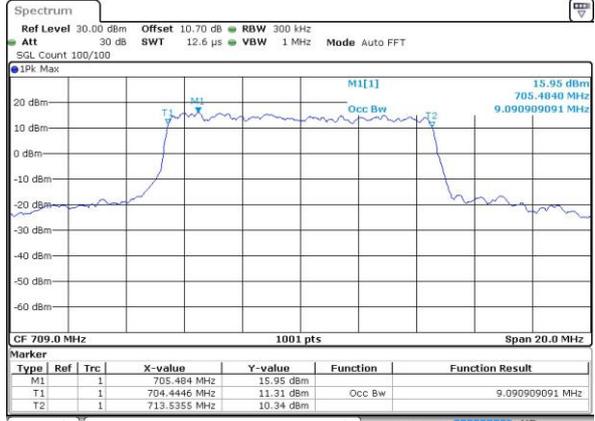
LTE Band 17

Lowest Channel / 10MHz / QPSK



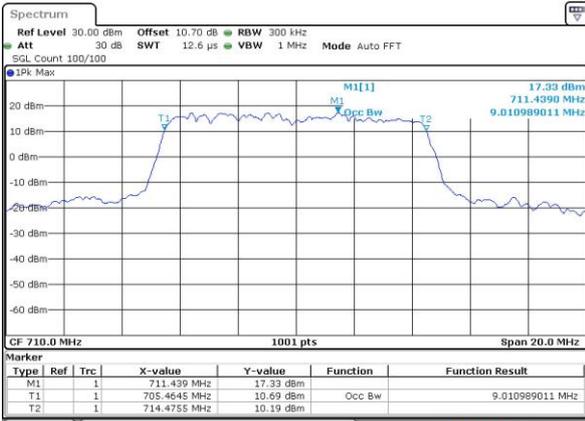
Date: 21 DEC 2016 10:33:36

Lowest Channel / 10MHz / 16QAM



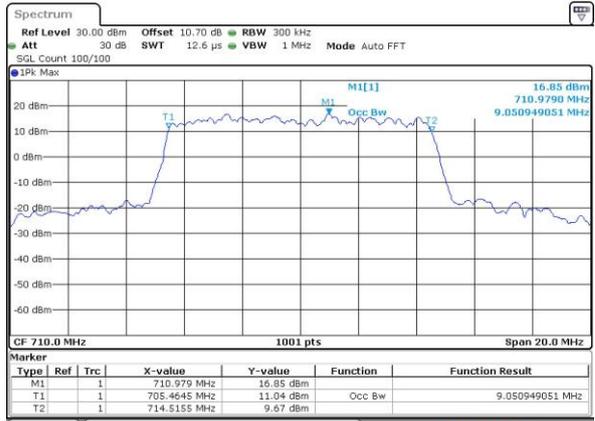
Date: 21 DEC 2016 10:33:47

Middle Channel / 10MHz / QPSK



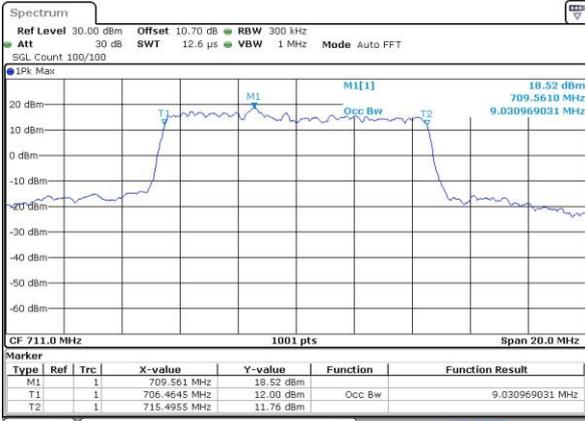
Date: 21 DEC 2016 10:40:43

Middle Channel / 10MHz / 16QAM



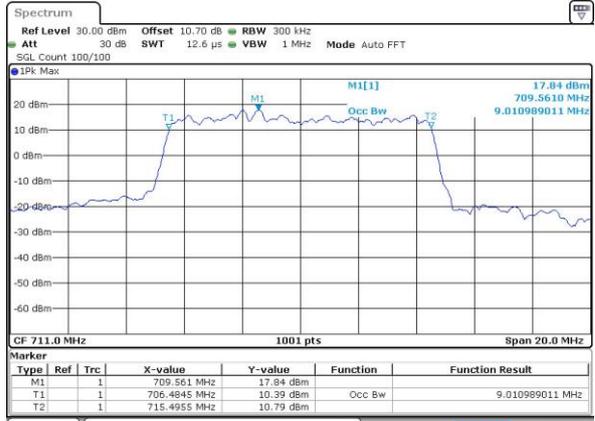
Date: 21 DEC 2016 10:40:53

Highest Channel / 10MHz / QPSK



Date: 21 DEC 2016 10:43:12

Highest Channel / 10MHz / 16QAM



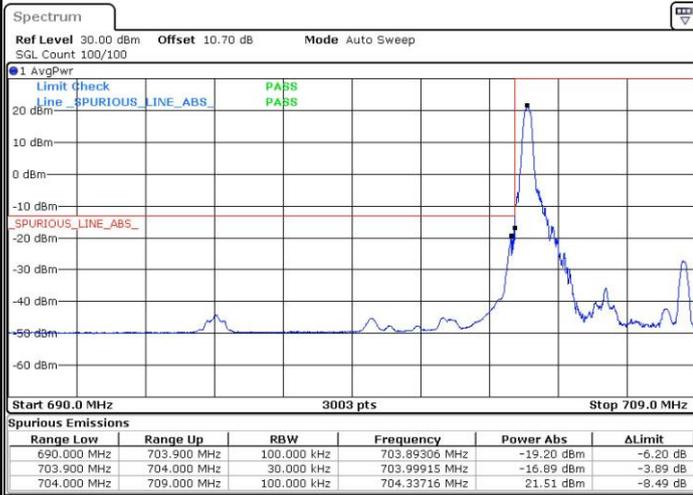
Date: 21 DEC 2016 10:43:23



# Conducted Band Edge

## LTE Band 17 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



Date: 21.DEC.2016 10:18:33

### Highest Band Edge / 1 RB



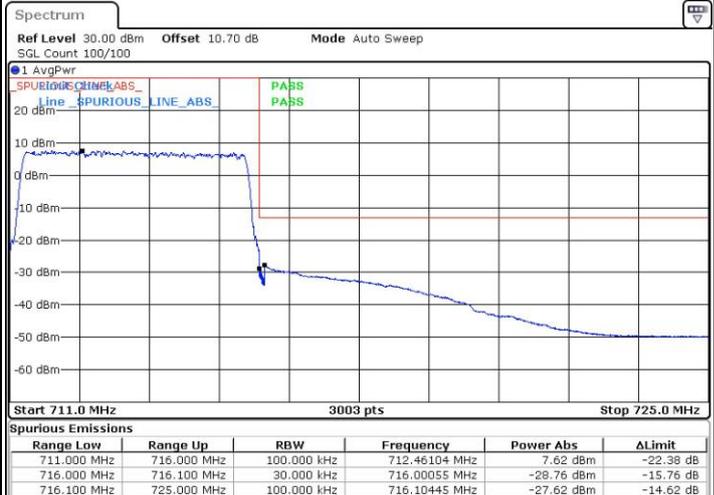
Date: 21.DEC.2016 10:28:10

### Lowest Band Edge / Full RB



Date: 21.DEC.2016 10:20:52

### Highest Band Edge / Full RB

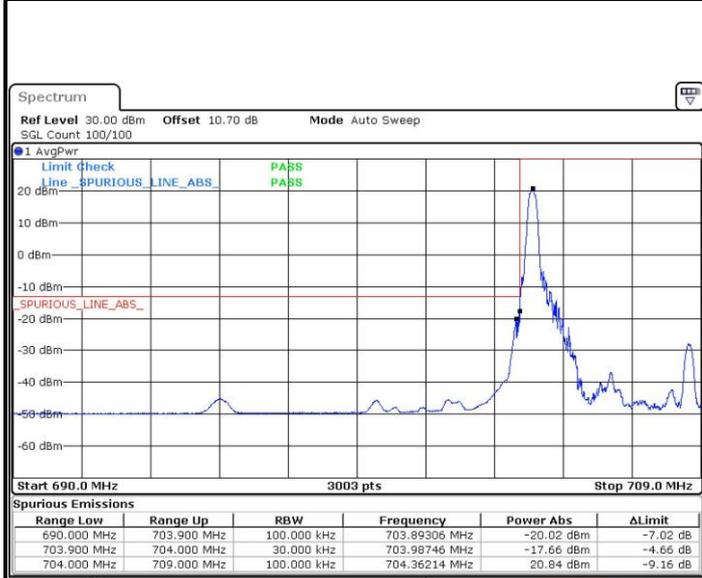


Date: 21.DEC.2016 10:30:28



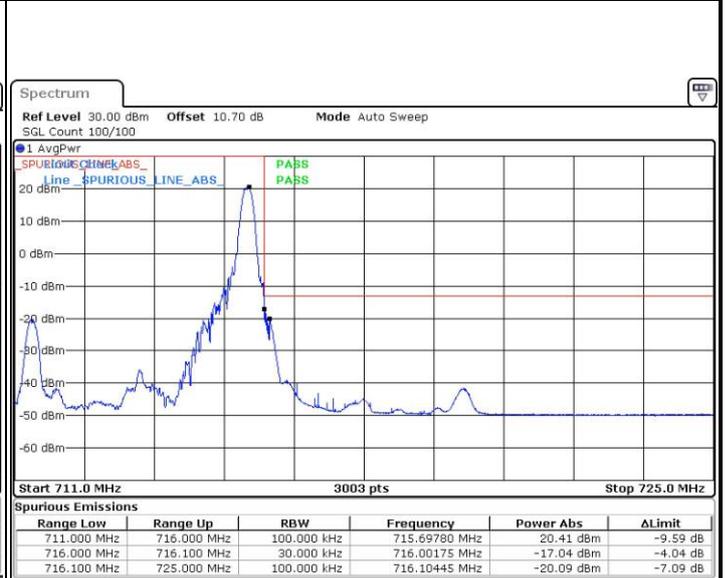
**LTE Band 17 / 5MHz / 16QAM**

**Lowest Band Edge / 1 RB**



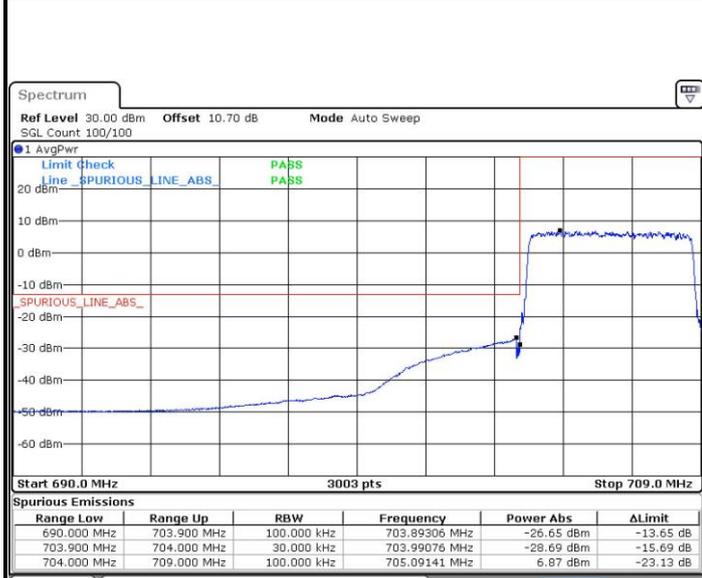
Date: 21 DEC 2016 10:19:43

**Highest Band Edge / 1 RB**



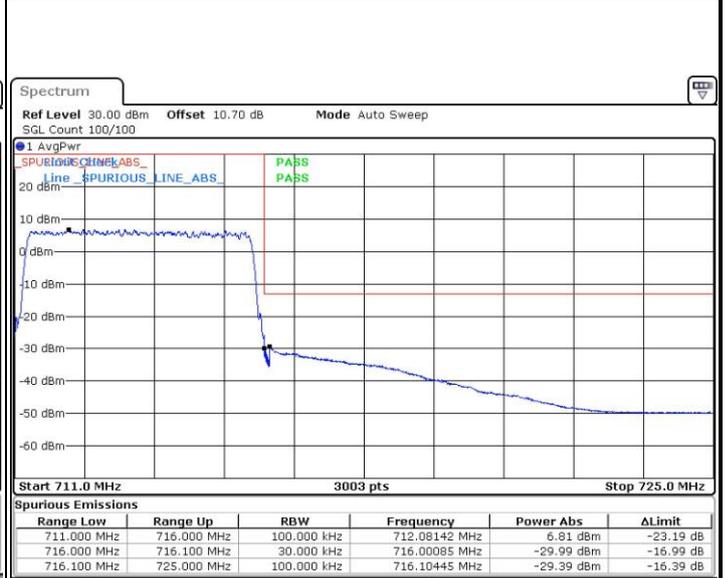
Date: 21 DEC 2016 10:29:19

**Lowest Band Edge / Full RB**



Date: 21 DEC 2016 10:22:01

**Highest Band Edge / Full RB**

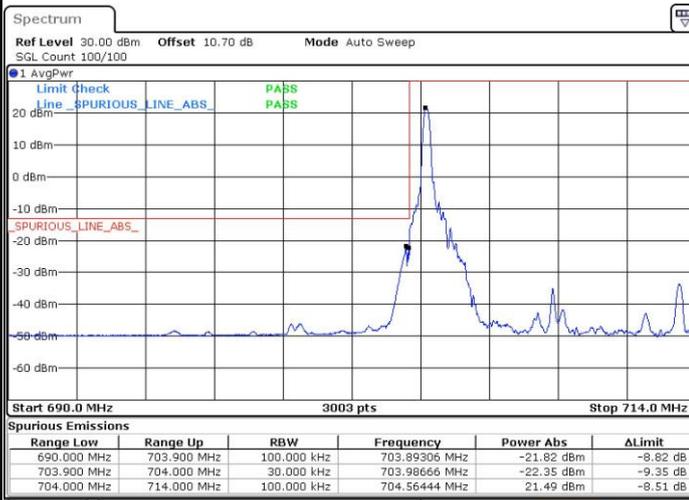


Date: 21 DEC 2016 10:31:37



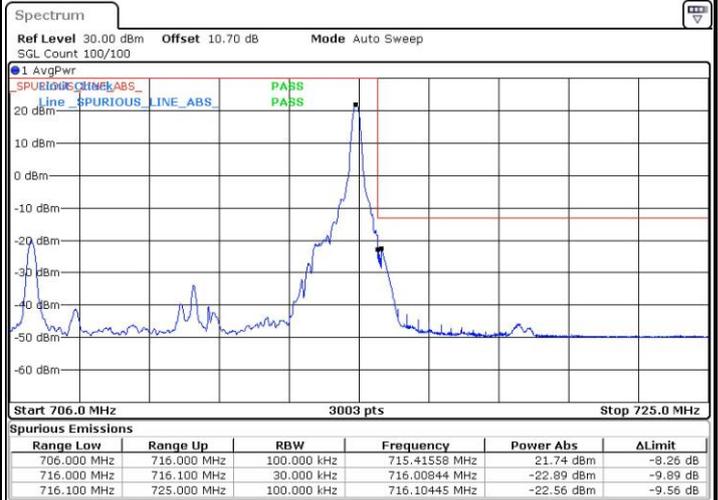
LTE Band 17 / 10MHz / QPSK

Lowest Band Edge / 1 RB



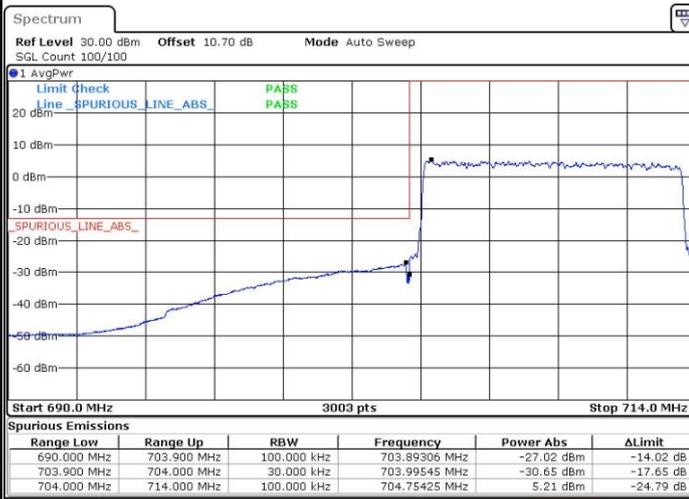
Date: 21 DEC 2016 10:35:16

Highest Band Edge / 1 RB



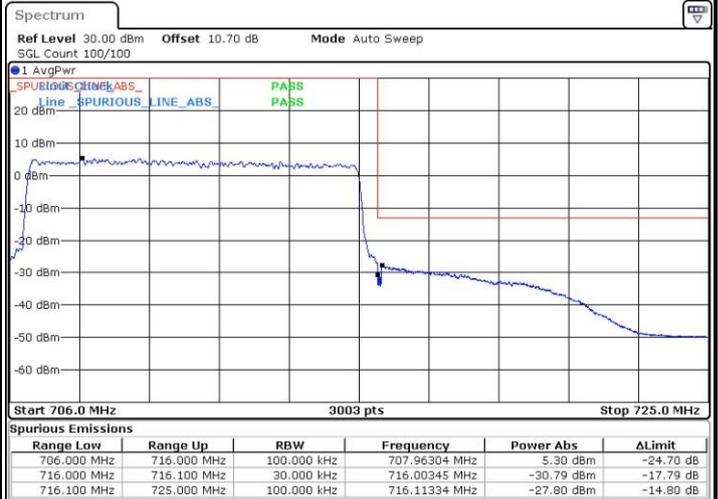
Date: 21 DEC 2016 10:44:52

Lowest Band Edge / Full RB



Date: 21 DEC 2016 10:37:34

Highest Band Edge / Full RB

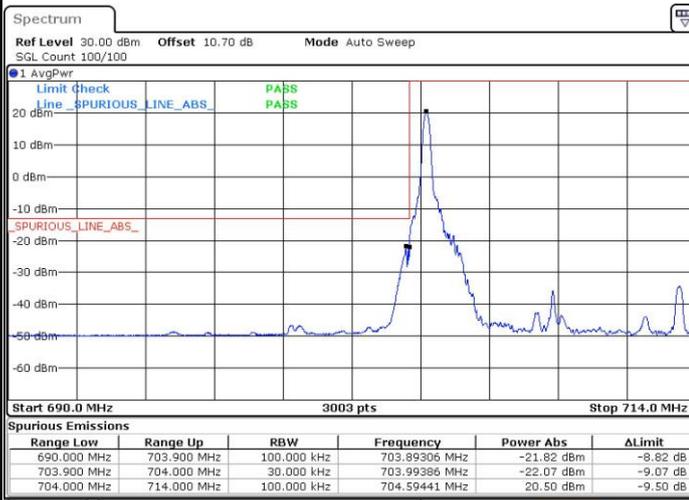


Date: 21 DEC 2016 10:47:11



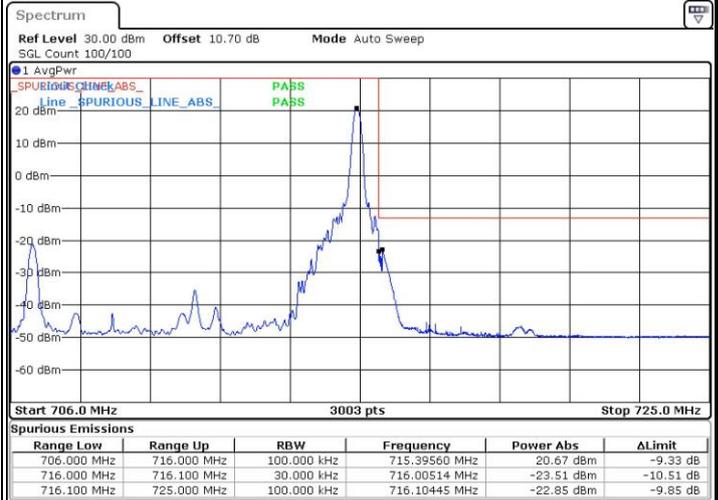
LTE Band 17 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



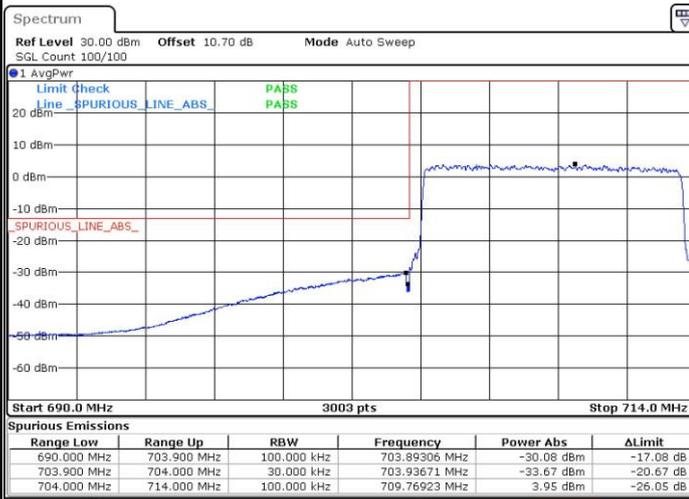
Date: 21.DEC.2016 10:38:25

Highest Band Edge / 1 RB



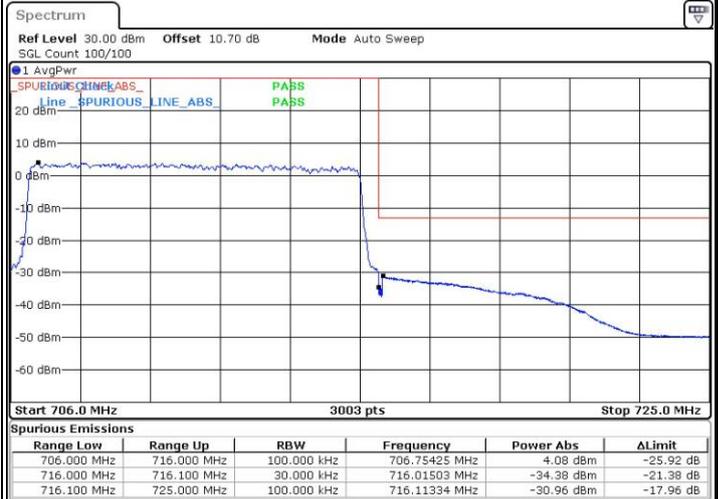
Date: 21.DEC.2016 10:46:01

Lowest Band Edge / Full RB



Date: 21.DEC.2016 10:38:43

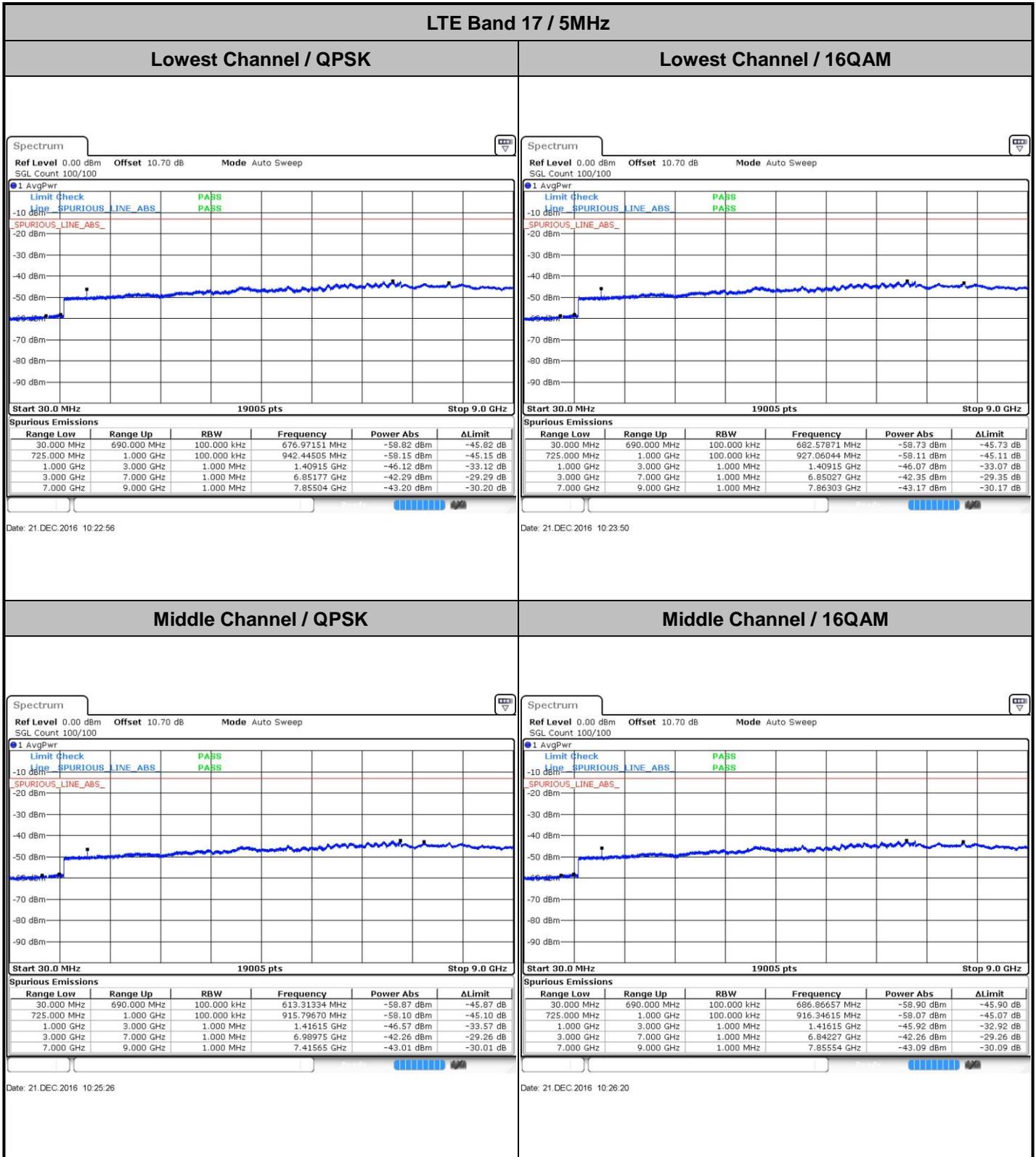
Highest Band Edge / Full RB



Date: 21.DEC.2016 10:48:20



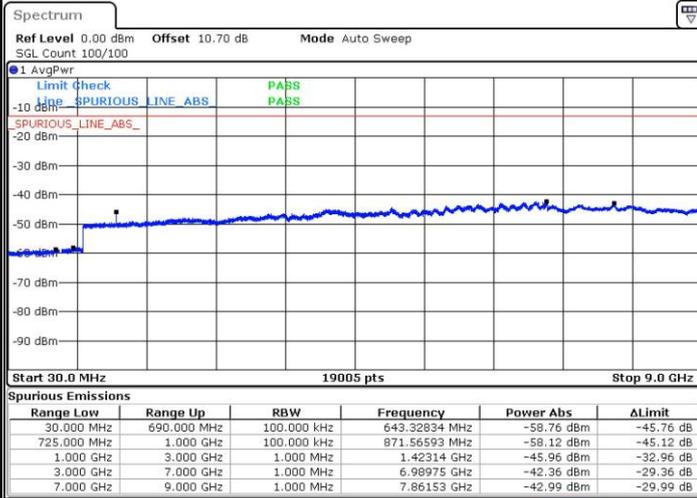
# Conducted Spurious Emission





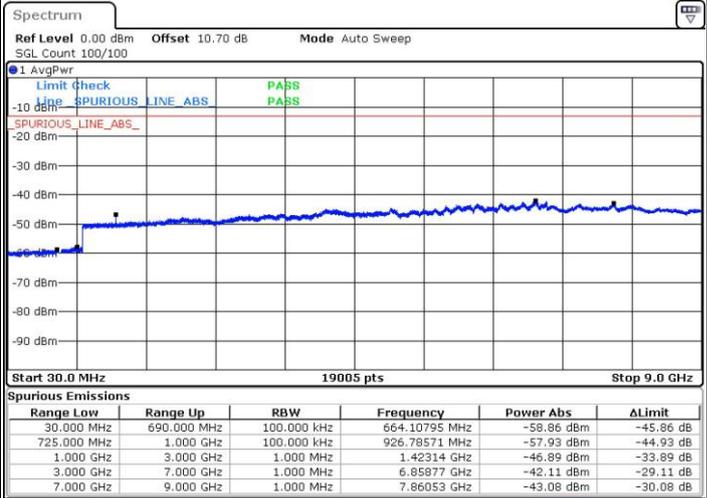
LTE Band 17 / 5MHz

Highest Channel / QPSK



Date: 21.DEC.2016 10:32:32

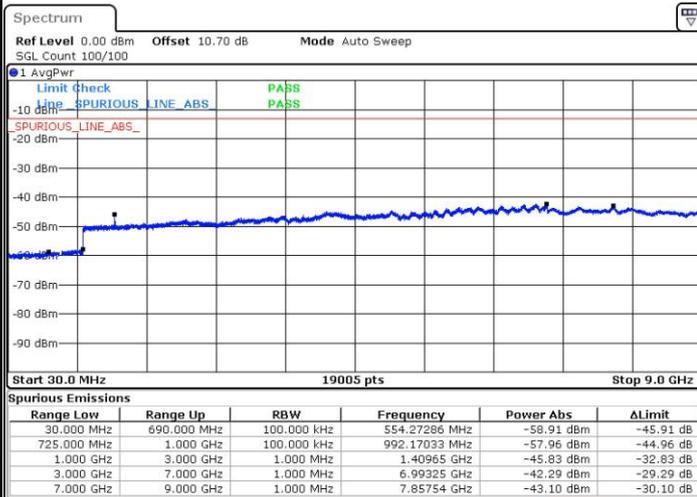
Highest Channel / 16QAM



Date: 21.DEC.2016 10:33:26

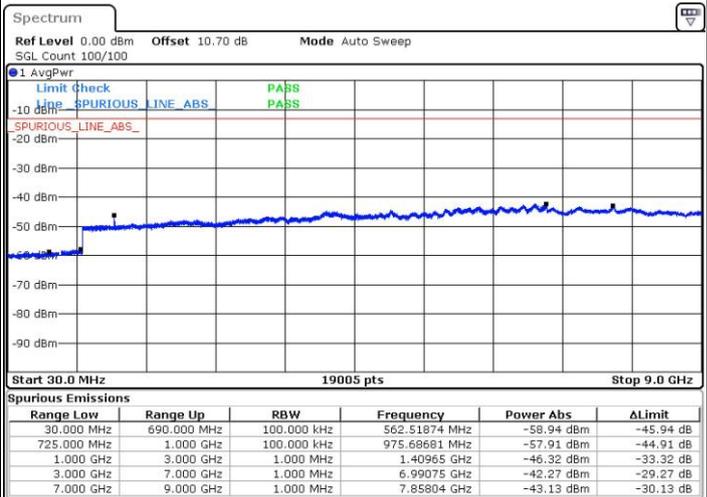
LTE Band 17 / 10MHz

Lowest Channel / QPSK



Date: 21.DEC.2016 10:39:38

Lowest Channel / 16QAM



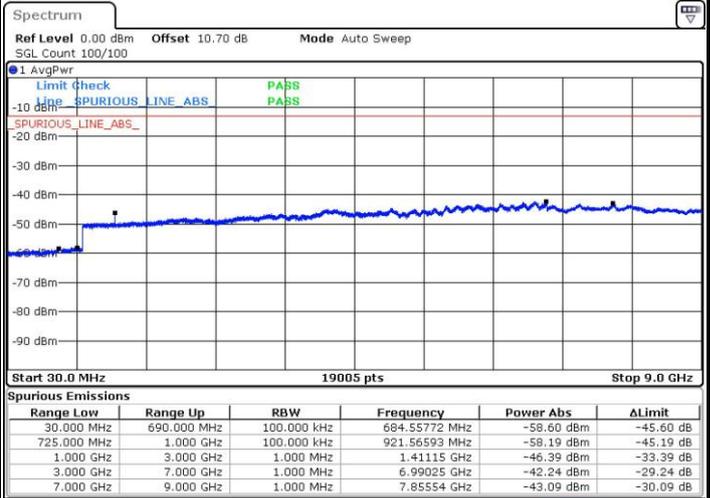
Date: 21.DEC.2016 10:40:32



LTE Band 17 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

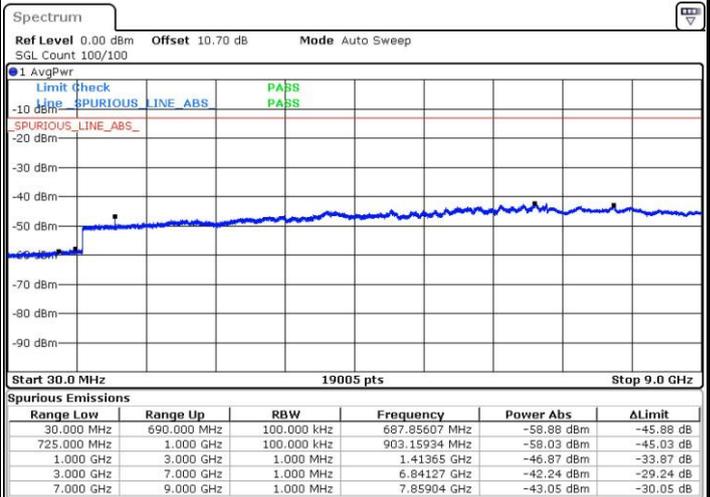
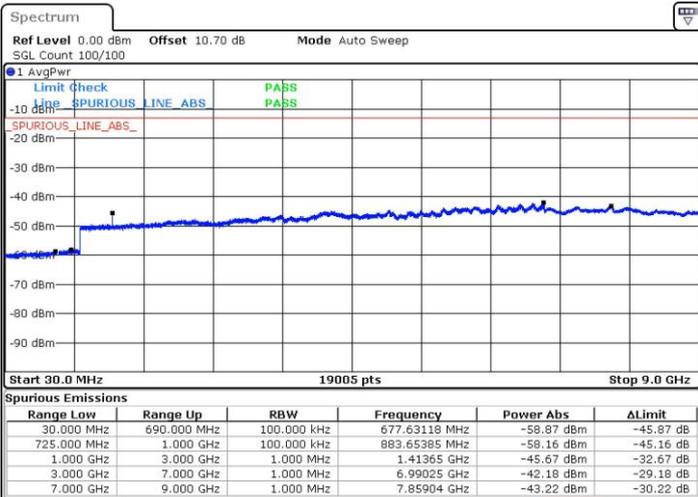


Date: 21.DEC.2016 10:42:08

Date: 21.DEC.2016 10:43:02

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 21.DEC.2016 10:49:14

Date: 21.DEC.2016 10:50:09



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	0.0099	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0107	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0118	
-10	Normal Voltage	0.0086	
-20	Normal Voltage	0.0090	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0010	

Note:

1. Normal Voltage =3.8 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.



## LTE Band 66

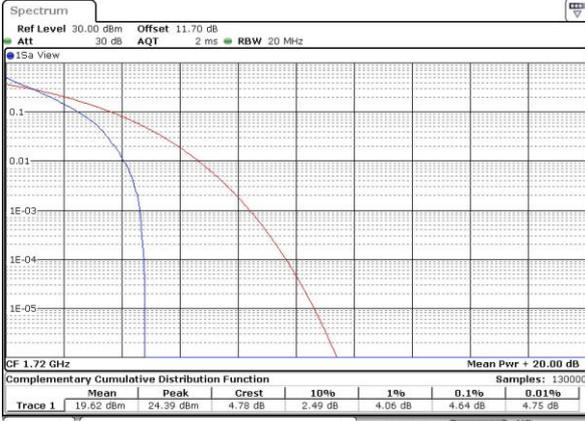
### Peak-to-Average Ratio

Mode	LTE Band 66 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.64	5.13	5.59	6	<b>PASS</b>
Middle CH	4.64	4.78	6	5.86	
Highest CH	4.58	4.93	5.3	5.8	



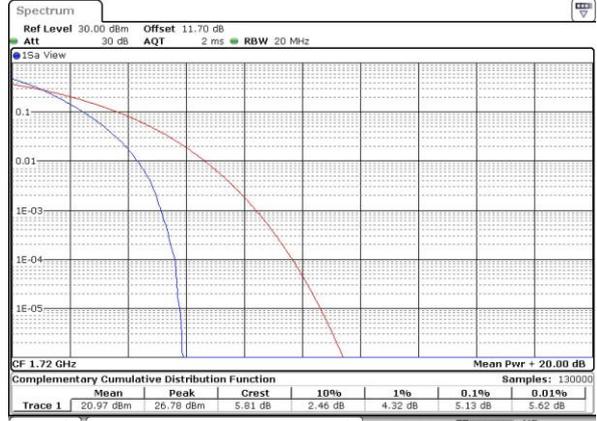
LTE Band 66 / 20MHz / QPSK

Lowest Channel / 1RB



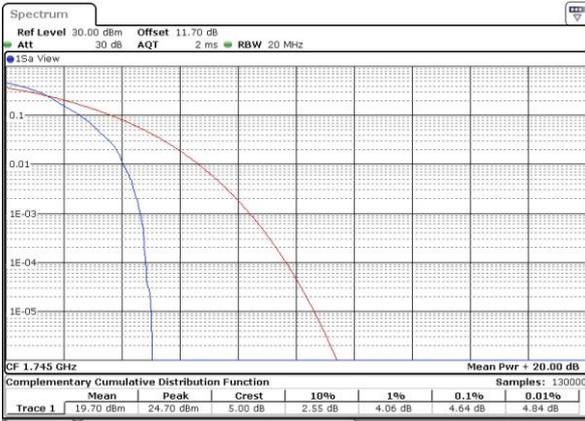
Date: 21 DEC 2016 16:17:30

Lowest Channel / Full RB



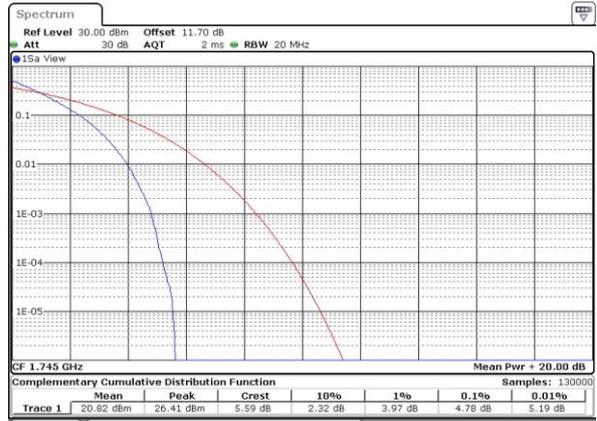
Date: 21 DEC 2016 16:17:54

Middle Channel / 1RB



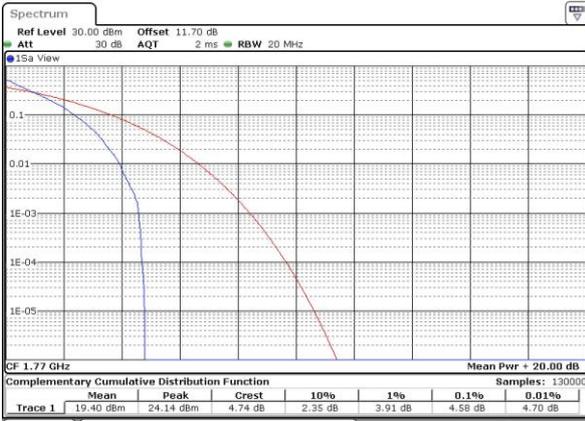
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Middle Channel / Full RB



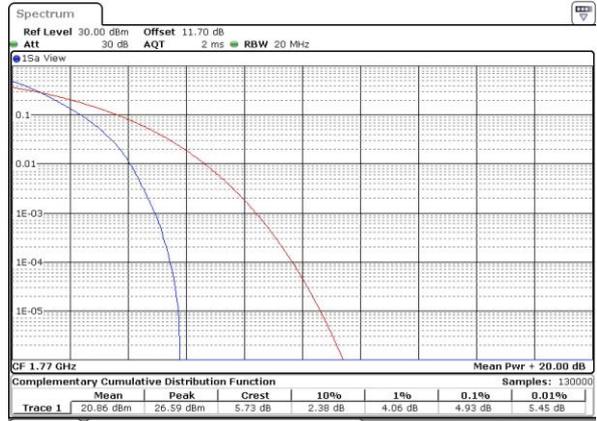
Date: 21 DEC 2016 16:16:07

Highest Channel / 1RB



Date: 21 DEC 2016 16:14:28

Highest Channel / Full RB

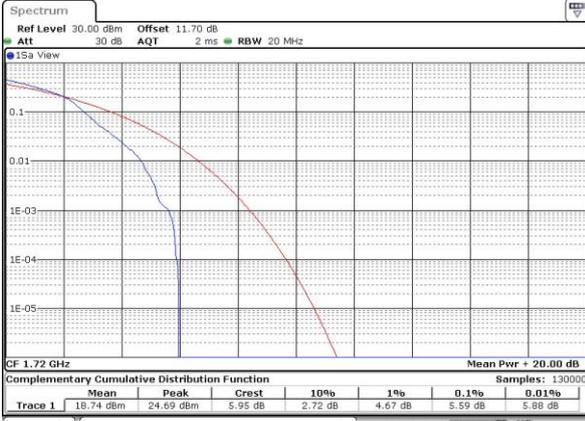


Date: 21 DEC 2016 16:15:01



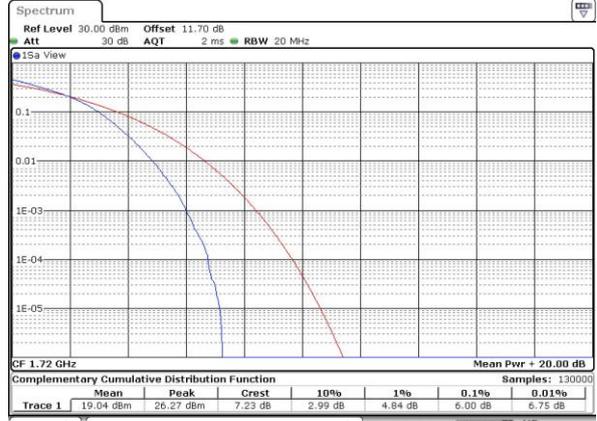
LTE Band 66 / 20MHz / 16QAM

Lowest Channel / 1RB



Date: 21 DEC 2016 16:17:07

Lowest Channel / Full RB



Date: 21 DEC 2016 16:18:33

Middle Channel / 1RB



Date: 21 DEC 2016 16:16:47

Middle Channel / Full RB



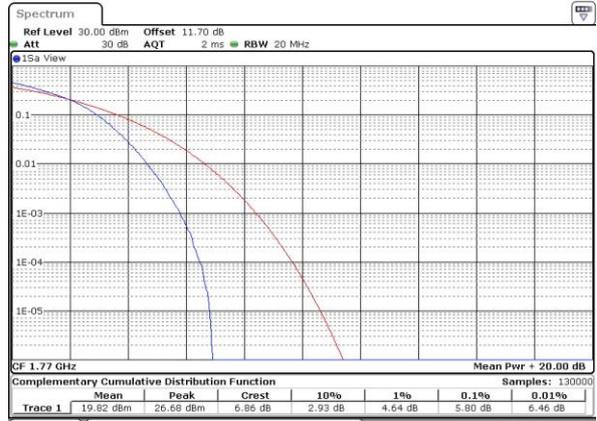
Date: 21 DEC 2016 16:15:44

Highest Channel / 1RB



Date: 21 DEC 2016 16:14:00

Highest Channel / Full RB



Date: 21 DEC 2016 16:15:22



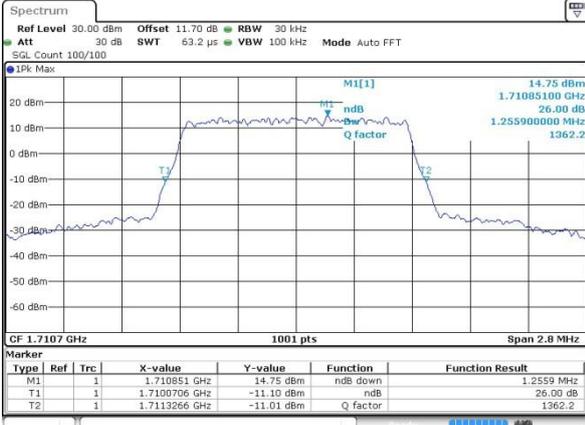
**26dB Bandwidth**

Mode	LTE Band 66 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.256	1.264	2.991	3.003	4.945	4.975	9.83	9.93	14.386	14.625	20.22	20.22
Middle CH	1.248	1.27	3.009	3.003	4.955	4.915	10.25	9.95	14.625	14.386	20.14	20.3
Highest CH	1.228	1.242	3.009	2.979	4.905	5.005	9.91	9.69	14.266	14.625	20.34	20.3



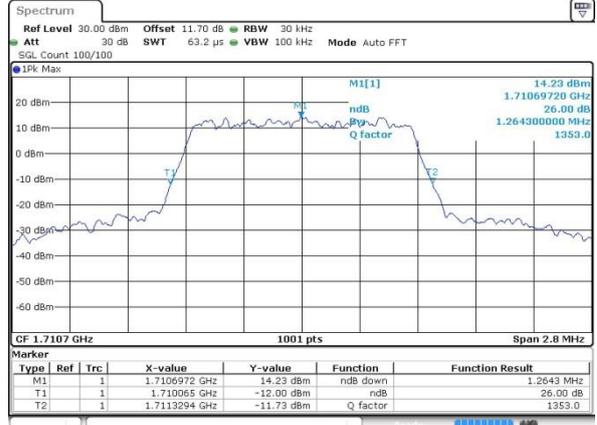
LTE Band 66

Lowest Channel / 1.4MHz / QPSK



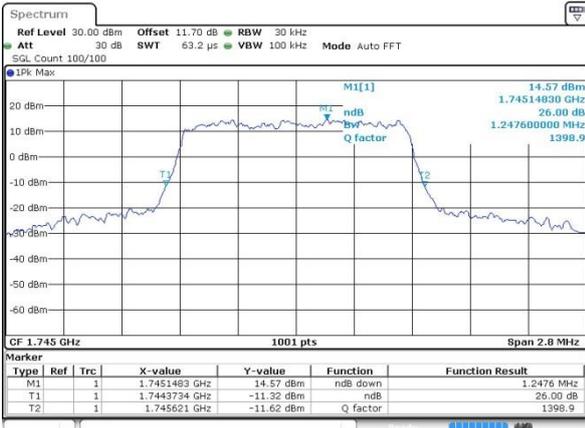
Date: 21 DEC 2016 13:52:36

Lowest Channel / 1.4MHz / 16QAM



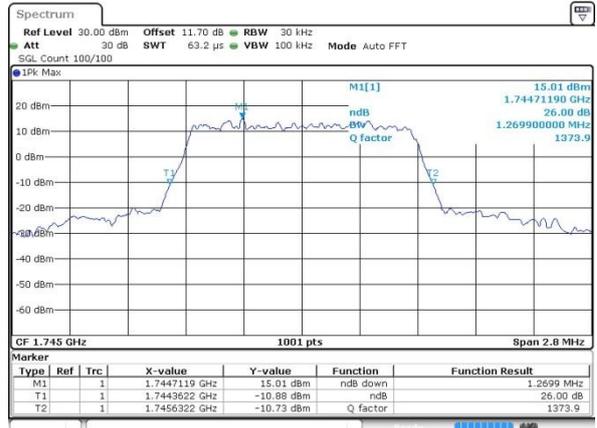
Date: 21 DEC 2016 13:53:14

Middle Channel / 1.4MHz / QPSK



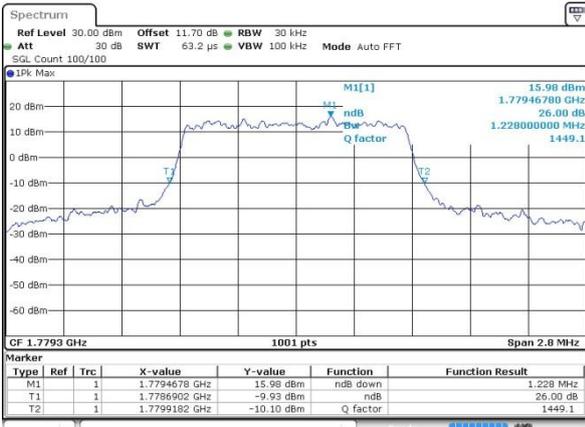
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Middle Channel / 1.4MHz / 16QAM



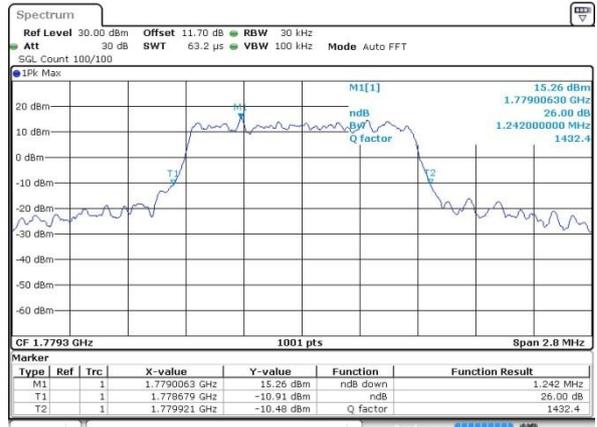
Date: 21 DEC 2016 13:54:33

Highest Channel / 1.4MHz / QPSK



Date: 21 DEC 2016 13:55:51

Highest Channel / 1.4MHz / 16QAM



Date: 21 DEC 2016 13:56:10