

**Occupied Bandwidth**

Mode	LTE Band 2 : 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	1.09	1.09	2.72	2.72	4.51	4.50	9.01	9.03	13.52	13.52	18.42	18.54
Middle CH	1.09	1.09	2.73	2.72	4.52	4.52	9.03	9.07	13.49	13.46	18.38	18.54
Highest CH	1.10	1.09	2.73	2.72	4.50	4.50	9.07	9.07	13.40	13.46	18.42	18.30

Mode	LTE Band 4 : 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	1.09	1.09	2.72	2.72	4.51	4.51	8.99	8.97	13.49	13.49	18.50	18.42
Middle CH	1.09	1.09	2.73	2.72	4.51	4.51	8.99	9.05	13.46	13.46	18.30	18.50
Highest CH	1.09	1.09	2.69	2.71	4.49	4.51	9.01	8.99	13.49	13.43	18.62	18.42

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	-	-	-	-	4.50	4.51	9.05	9.07	13.49	13.49	18.26	18.46
Middle CH	-	-	-	-	4.50	4.51	8.99	8.99	13.49	13.49	18.38	18.62
Highest CH	-	-	-	-	4.49	4.49	9.03	9.07	13.46	13.49	18.34	18.10

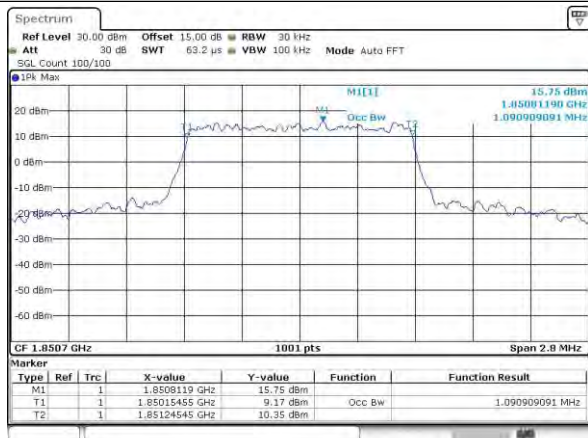
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.71	2.72	4.53	4.49	9.05	9.05	-	-	-	-
Middle CH	1.09	1.09	2.73	2.72	4.50	4.49	9.05	9.07	-	-	-	-
Highest CH	1.09	1.09	2.73	2.71	4.51	4.48	9.03	8.99	-	-	-	-

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	-	-	-	-	4.51	4.50	8.97	9.03	-	-	-	-
Middle CH	-	-	-	-	4.50	4.51	9.03	9.01	-	-	-	-
Highest CH	-	-	-	-	4.52	4.51	8.99	8.99	-	-	-	-

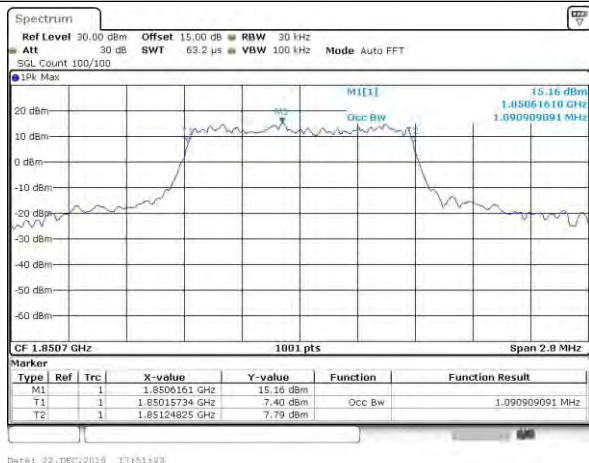


## LTE Band 2

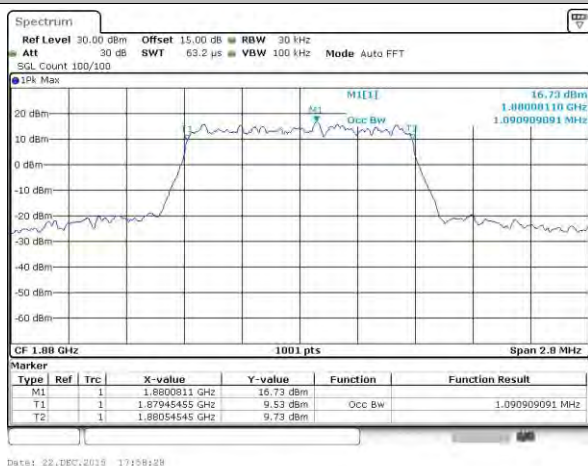
## Lowest Channel / 1.4MHz / QPSK



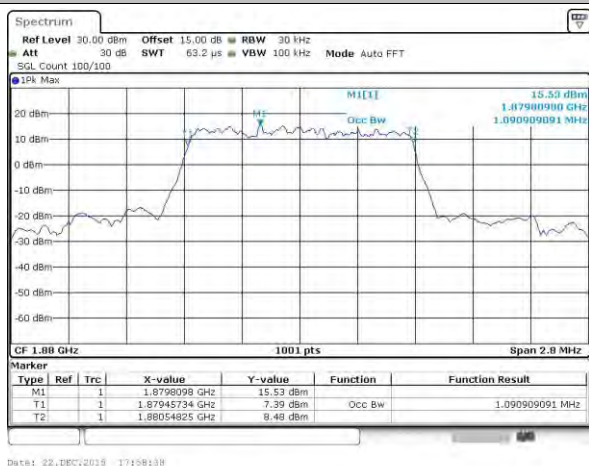
## Lowest Channel / 1.4MHz / 16QAM



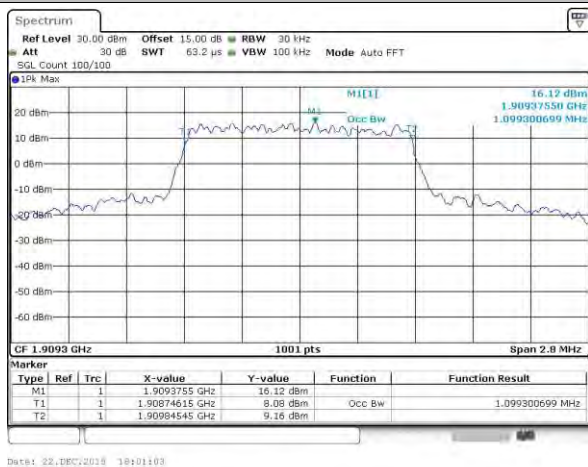
## Middle Channel / 1.4MHz / QPSK



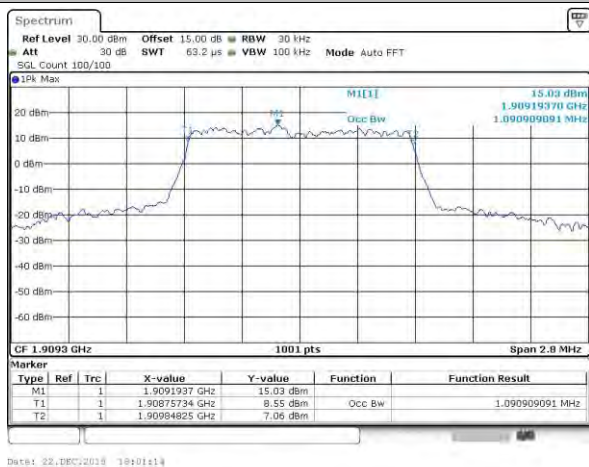
## Middle Channel / 1.4MHz / 16QAM



## Highest Channel / 1.4MHz / QPSK



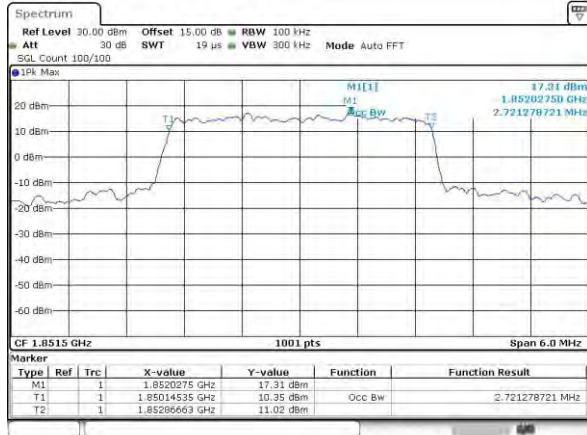
## Highest Channel / 1.4MHz / 16QAM



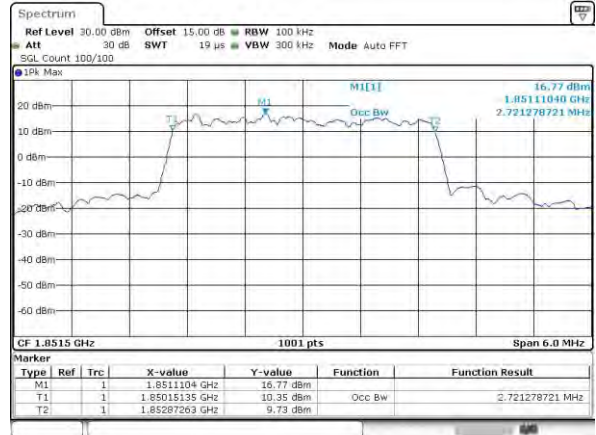


## LTE Band 2

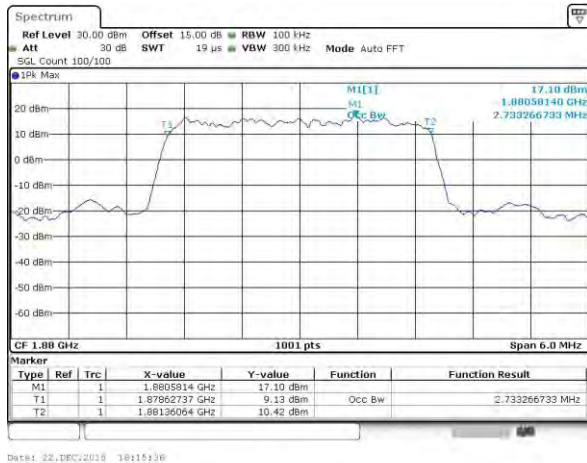
## Lowest Channel / 3MHz / QPSK



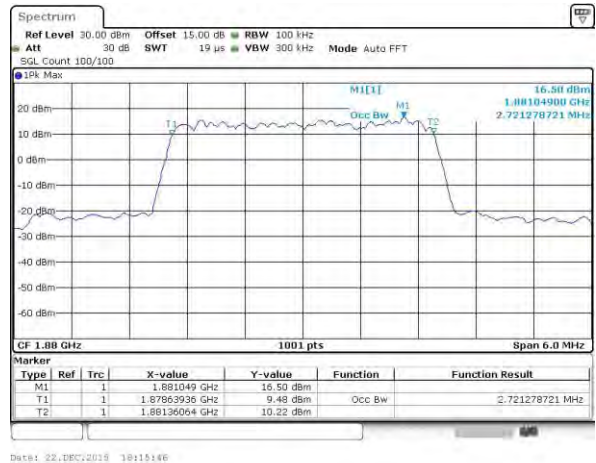
## Lowest Channel / 3MHz / 16QAM



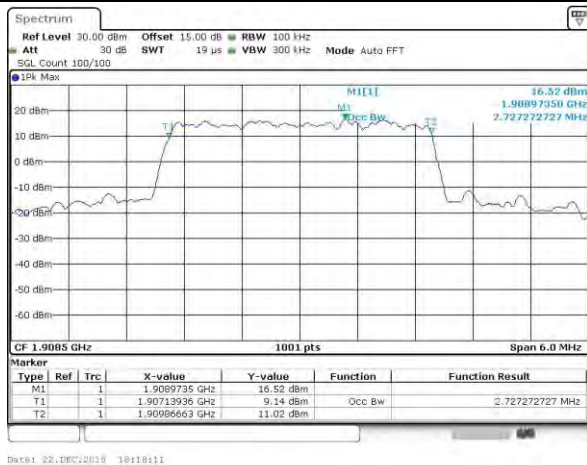
## Middle Channel / 3MHz / QPSK



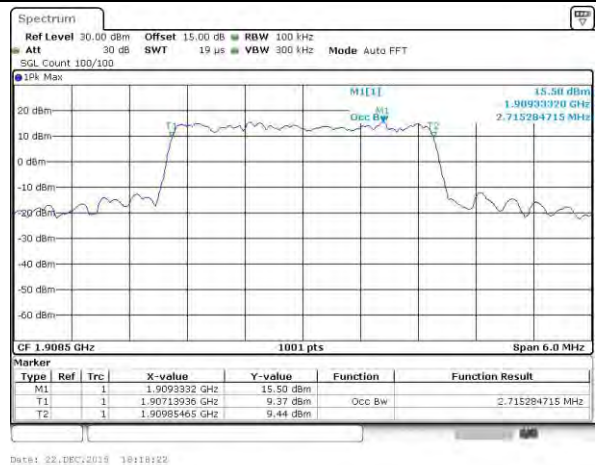
## Middle Channel / 3MHz / 16QAM



## Highest Channel / 3MHz / QPSK



## Highest Channel / 3MHz / 16QAM

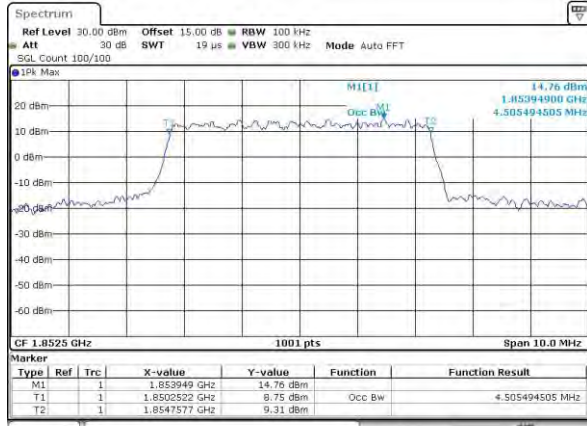




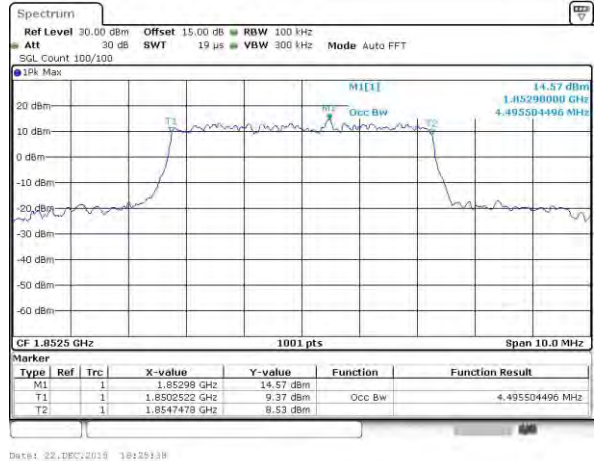


## LTE Band 2

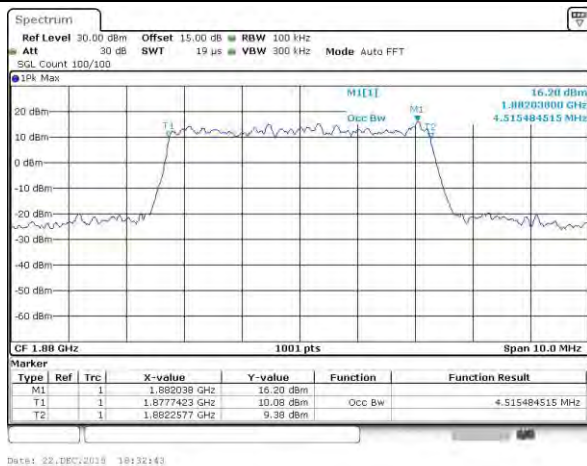
## Lowest Channel / 5MHz / QPSK



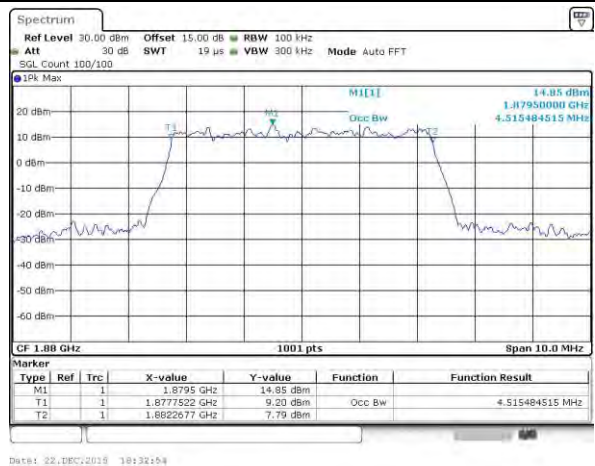
## Lowest Channel / 5MHz / 16QAM



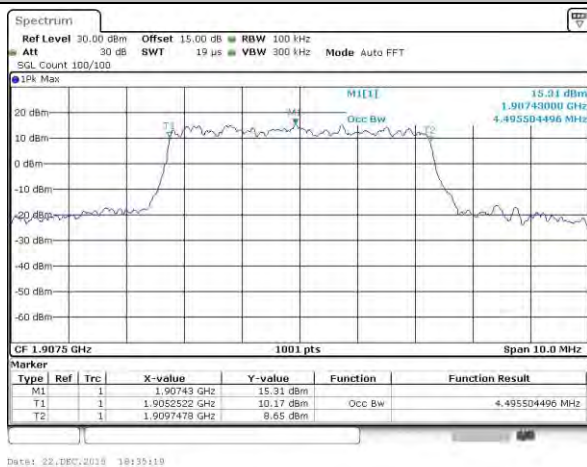
## Middle Channel / 5MHz / QPSK



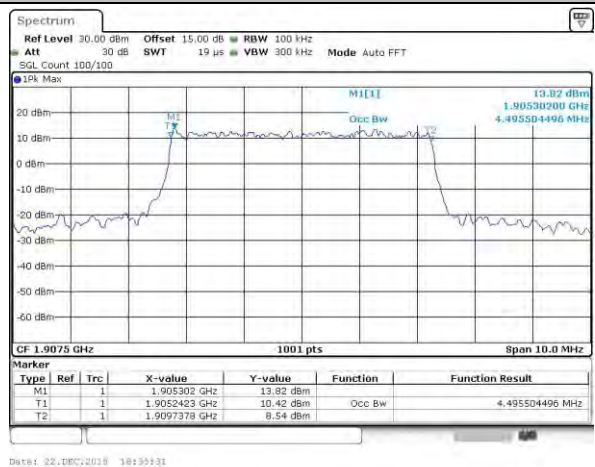
## Middle Channel / 5MHz / 16QAM



## Highest Channel / 5MHz / QPSK



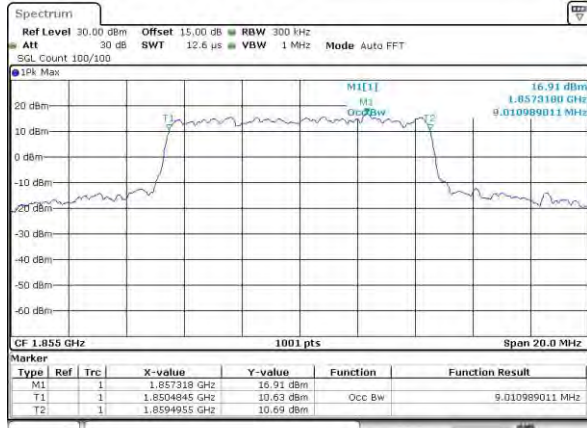
## Highest Channel / 5MHz / 16QAM



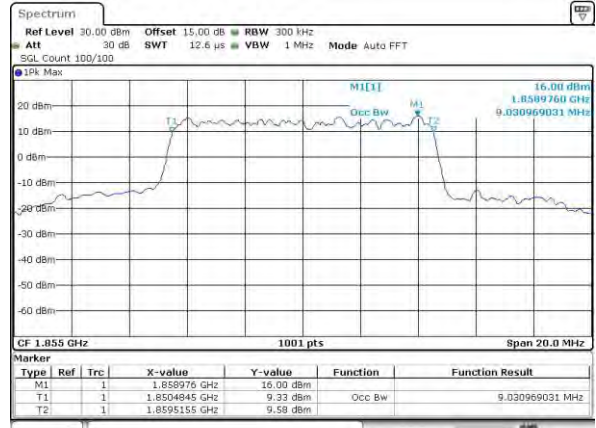


## LTE Band 2

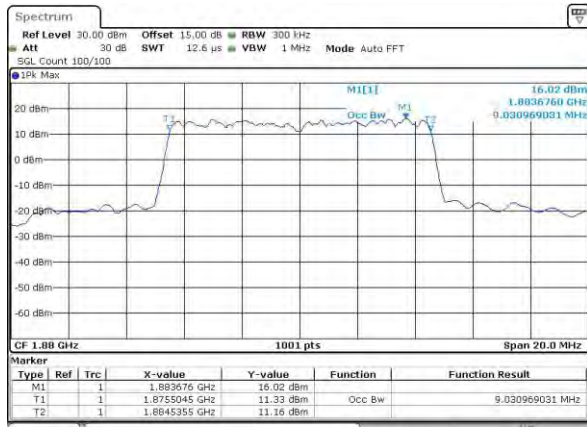
## Lowest Channel / 10MHz / QPSK



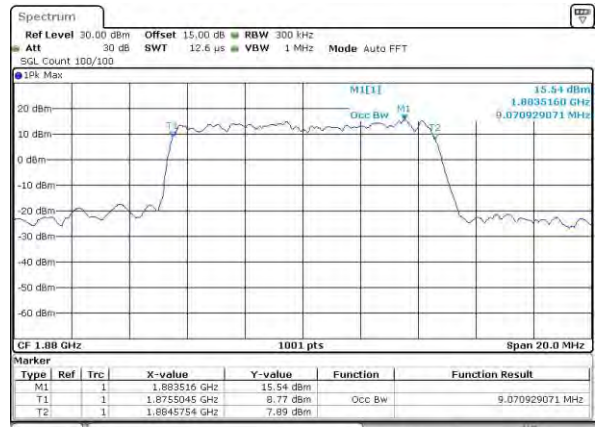
## Lowest Channel / 10MHz / 16QAM



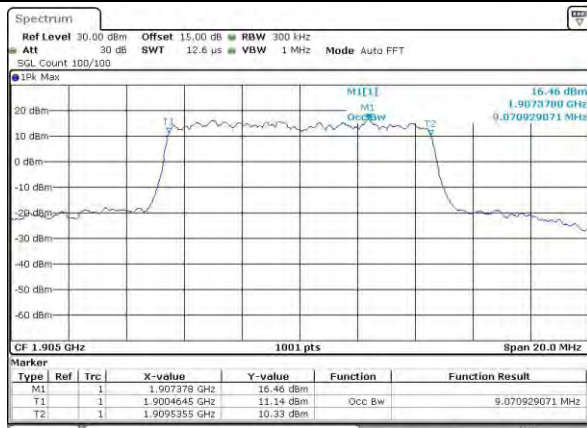
## Middle Channel / 10MHz / QPSK



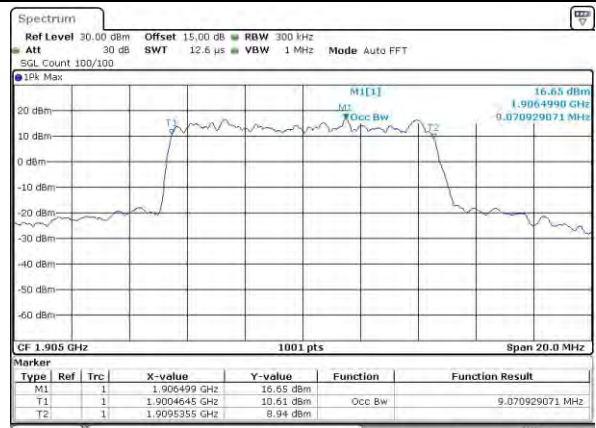
## Middle Channel / 10MHz / 16QAM



## Highest Channel / 10MHz / QPSK



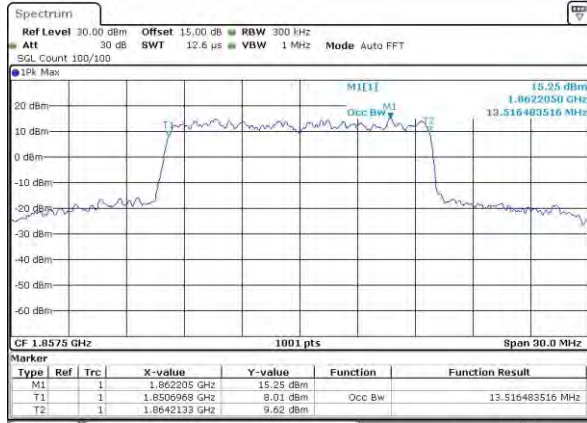
## Highest Channel / 10MHz / 16QAM





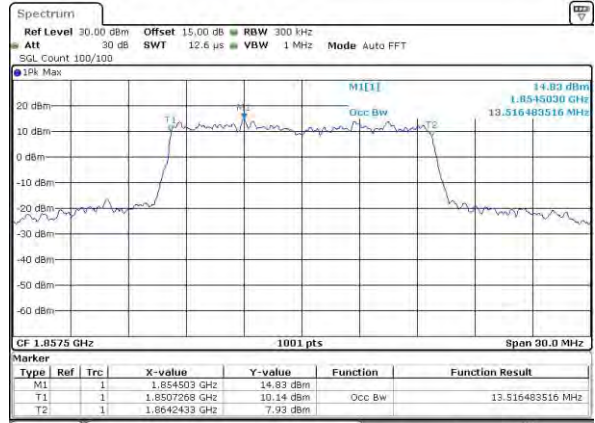
LTE Band 2

Lowest Channel / 15MHz / QPSK



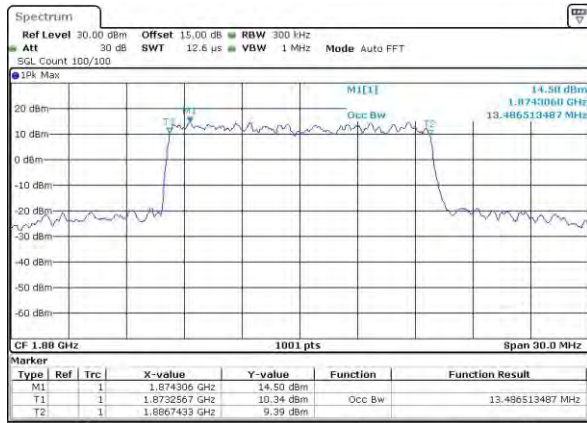
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Lowest Channel / 15MHz / 16QAM



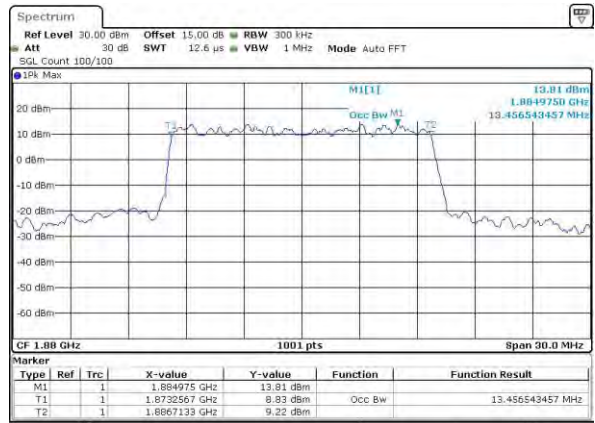
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Middle Channel / 15MHz / QPSK



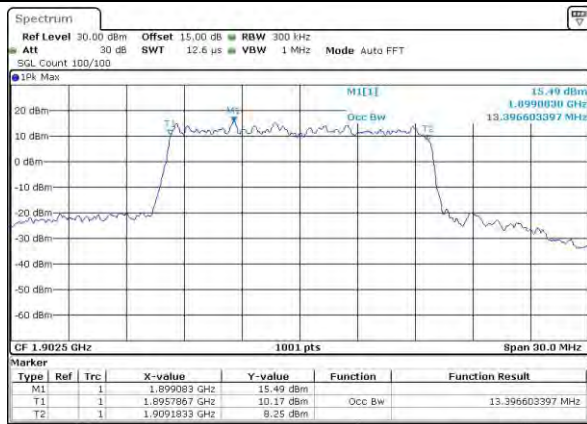
Date: 22, DEC 2018 18:07:10

Middle Channel / 15MHz / 16QAM



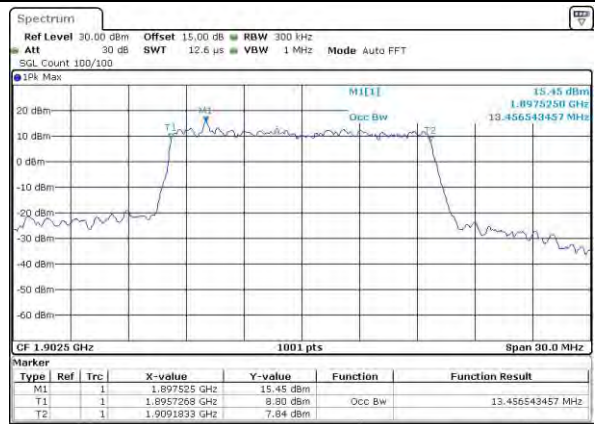
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Highest Channel / 15MHz / QPSK



Date: 22, DEC 2018 18:08:16

Highest Channel / 15MHz / 16QAM



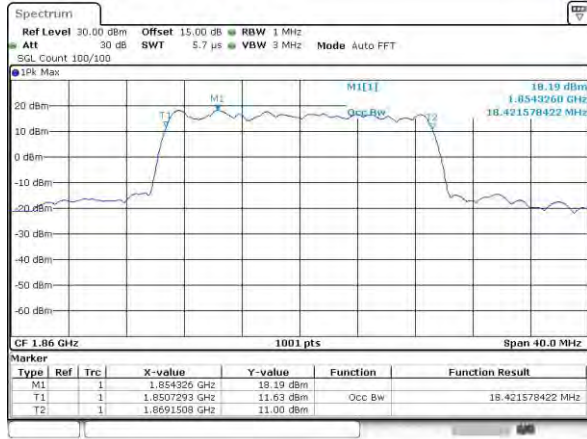
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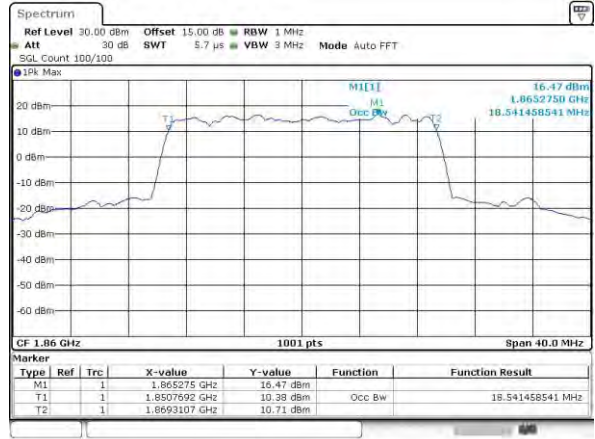
LTE Band 2

Lowest Channel / 20MHz / QPSK



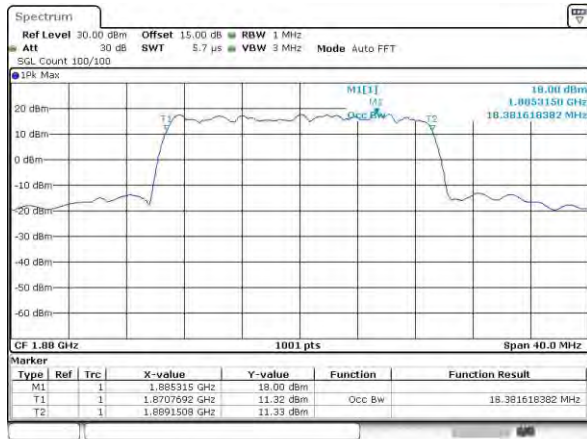
Date: 22, DEC, 2015 19:16:50

Lowest Channel / 20MHz / 16QAM



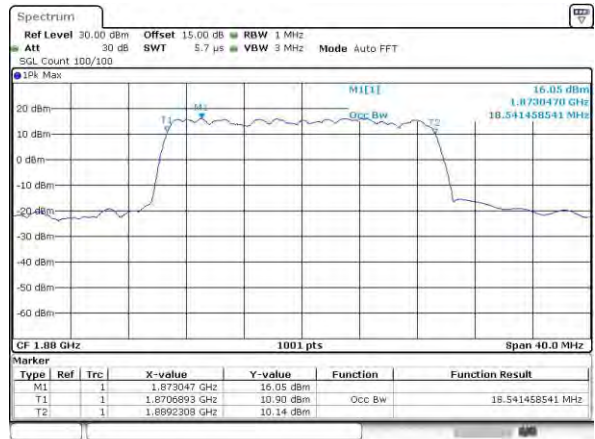
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Middle Channel / 20MHz / QPSK



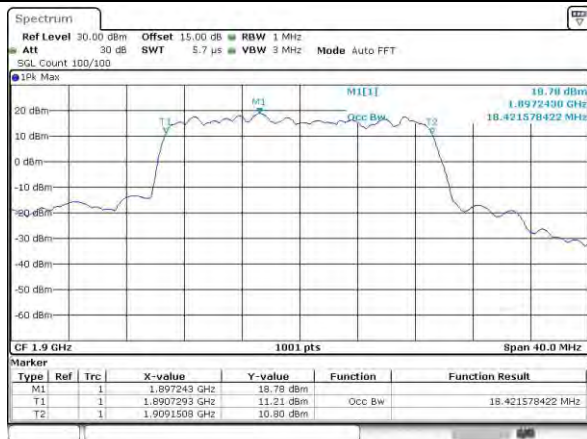
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Middle Channel / 20MHz / 16QAM



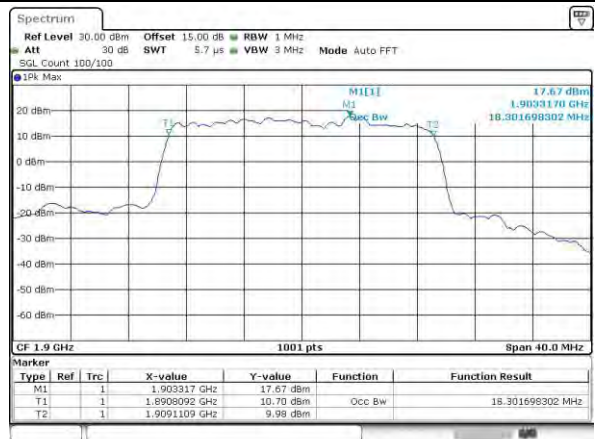
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Highest Channel / 20MHz / QPSK



Date: 22, DEC, 2015 19:16:43

Highest Channel / 20MHz / 16QAM

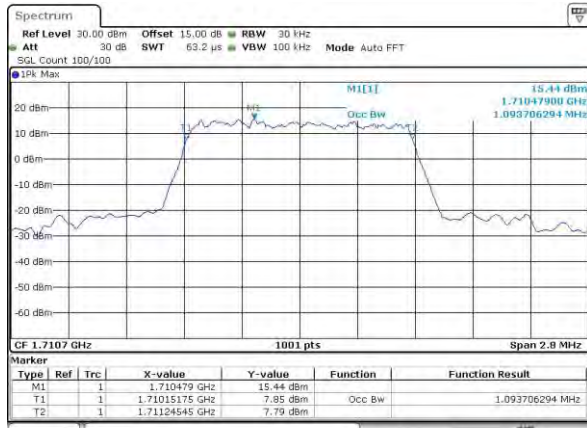


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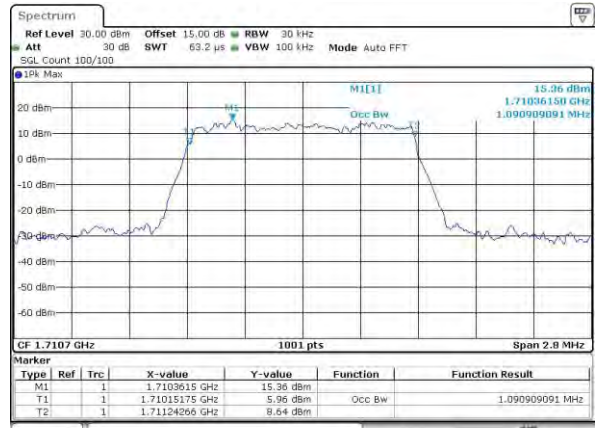


## LTE Band 4

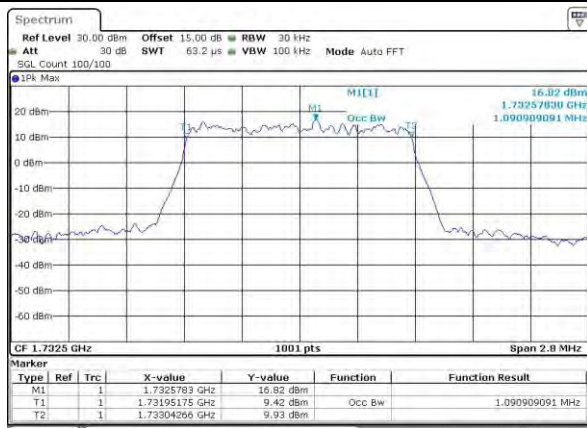
## Lowest Channel / 1.4MHz / QPSK



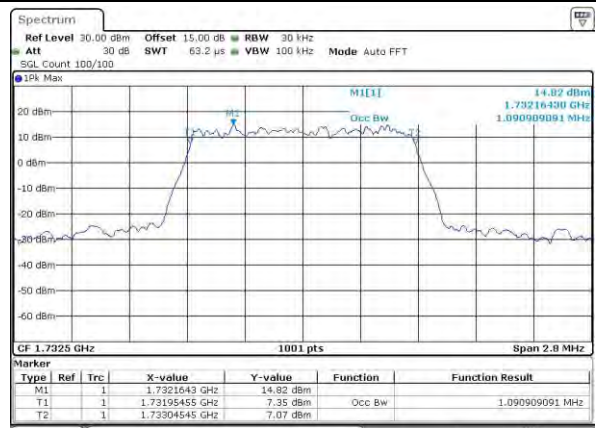
## Lowest Channel / 1.4MHz / 16QAM



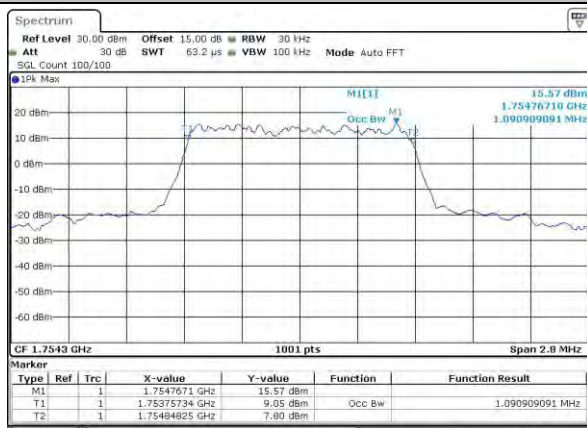
## Middle Channel / 1.4MHz / QPSK



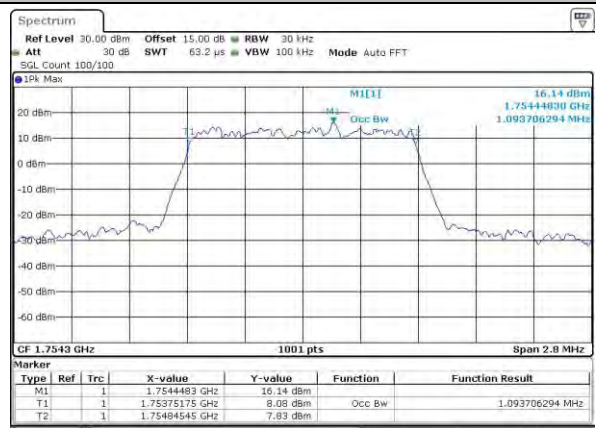
## Middle Channel / 1.4MHz / 16QAM



## Highest Channel / 1.4MHz / QPSK



## Highest Channel / 1.4MHz / 16QAM

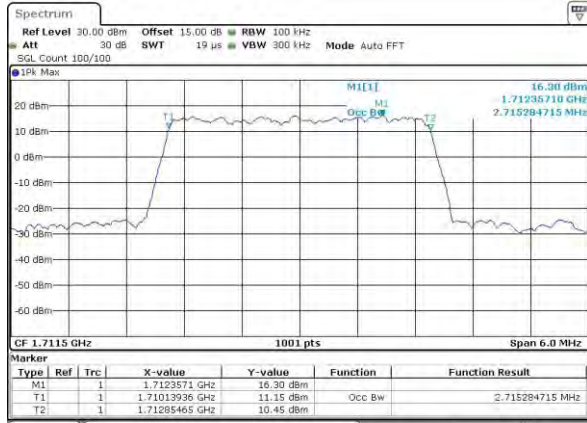




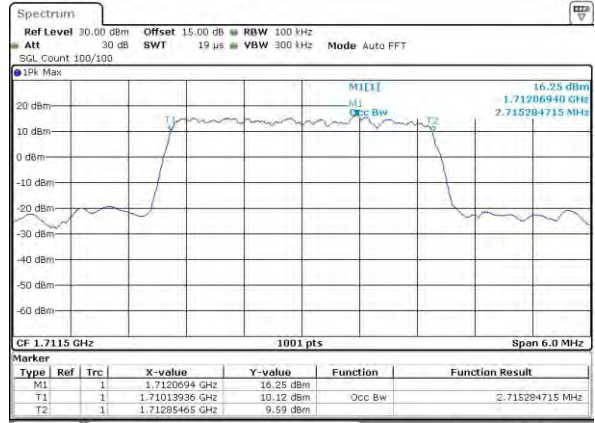


## LTE Band 4

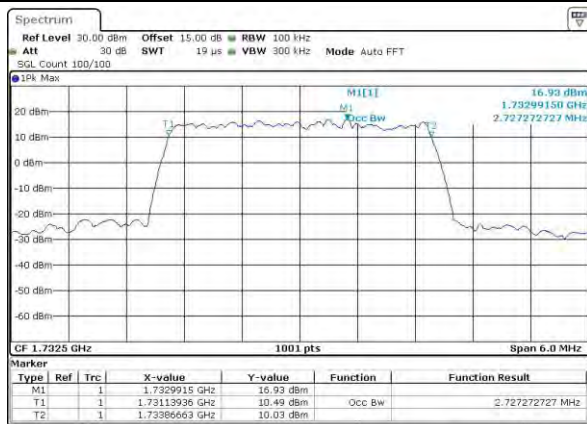
## Lowest Channel / 3MHz / QPSK



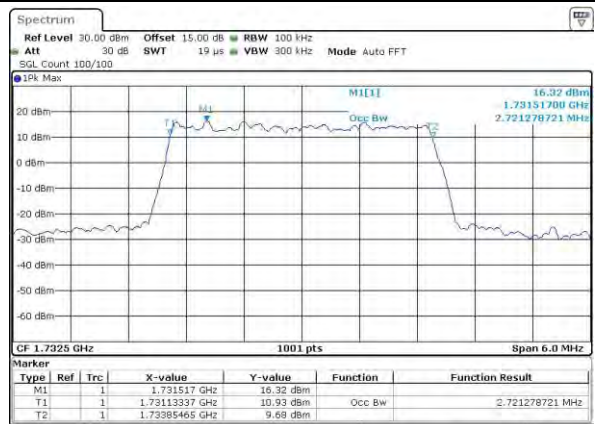
## Lowest Channel / 3MHz / 16QAM



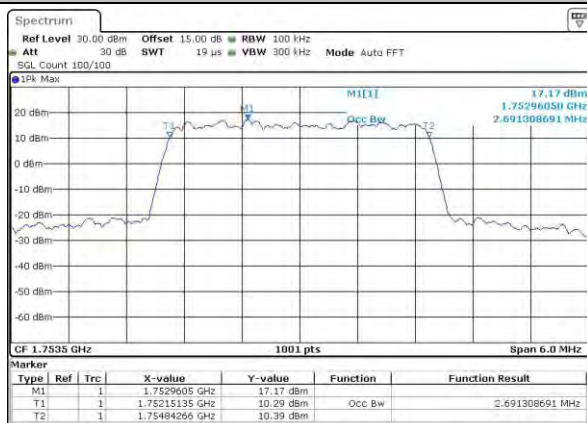
## Middle Channel / 3MHz / QPSK



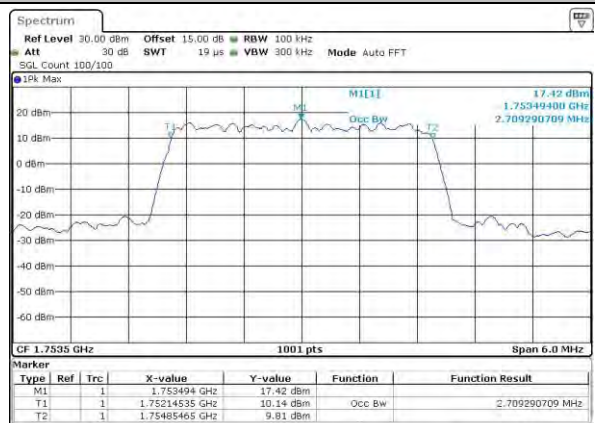
## Middle Channel / 3MHz / 16QAM



## Highest Channel / 3MHz / QPSK



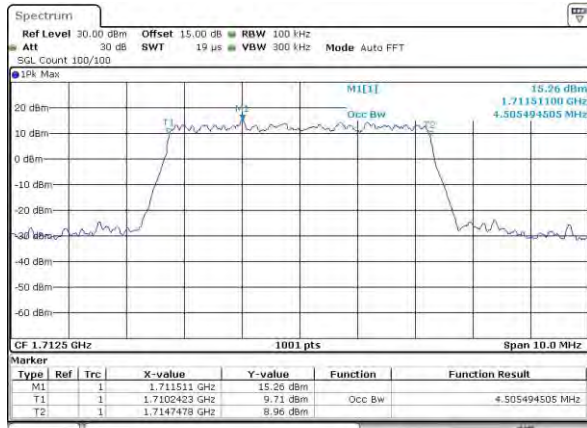
## Highest Channel / 3MHz / 16QAM





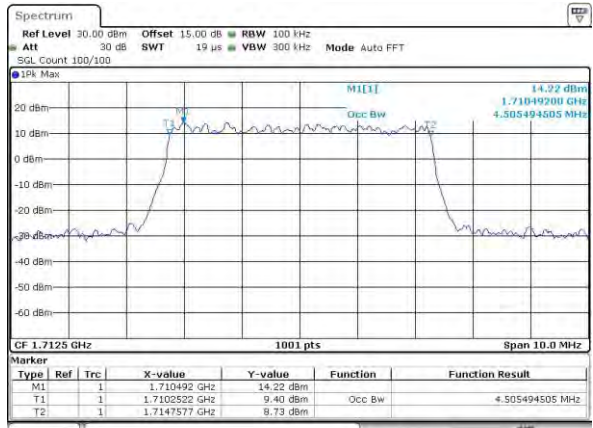
LTE Band 4

Lowest Channel / 5MHz / QPSK



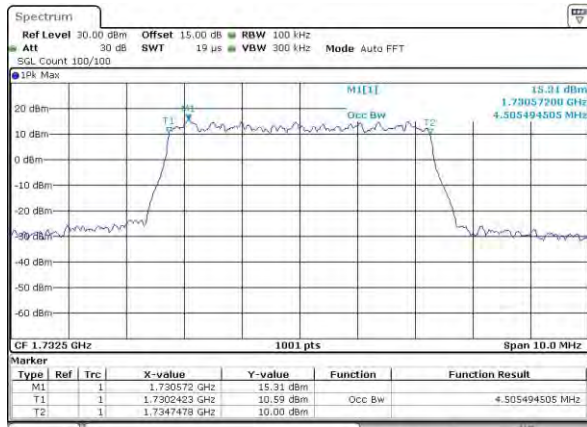
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Lowest Channel / 5MHz / 16QAM



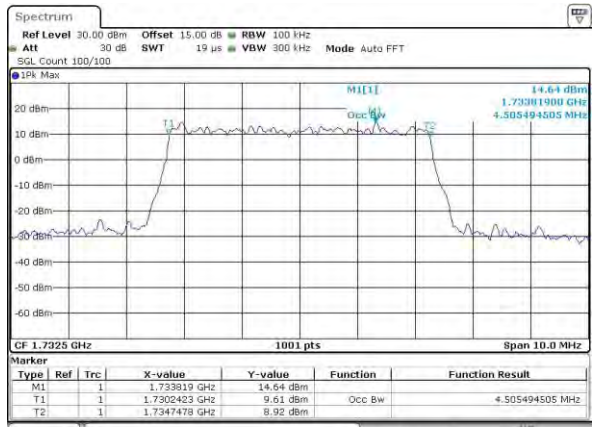
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Middle Channel / 5MHz / QPSK



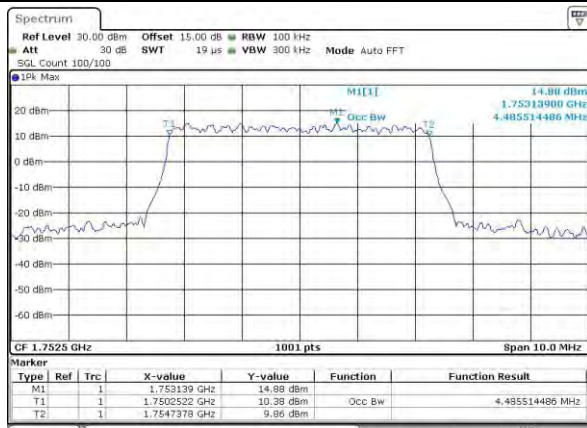
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Middle Channel / 5MHz / 16QAM



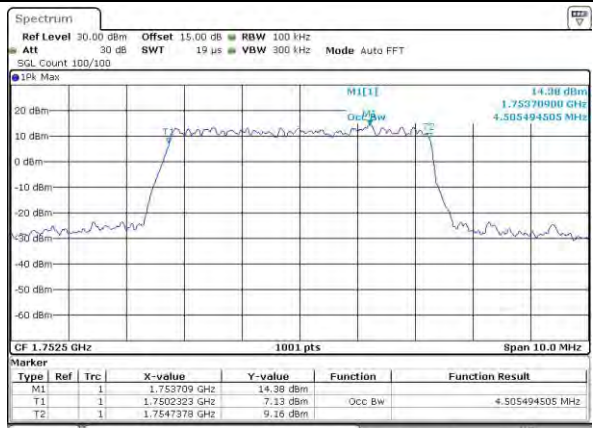
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Highest Channel / 5MHz / QPSK



Date: 22, DEC, 2016 21:40:30

Highest Channel / 5MHz / 16QAM

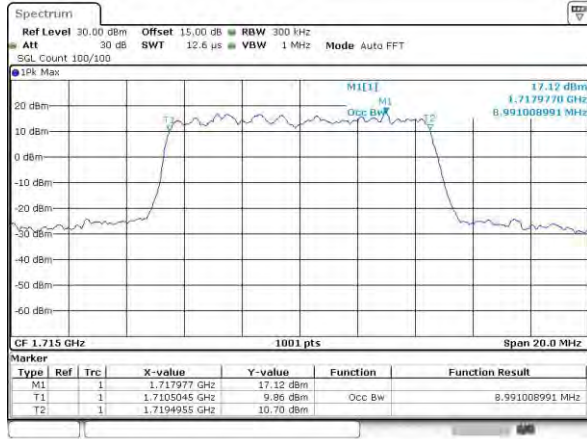


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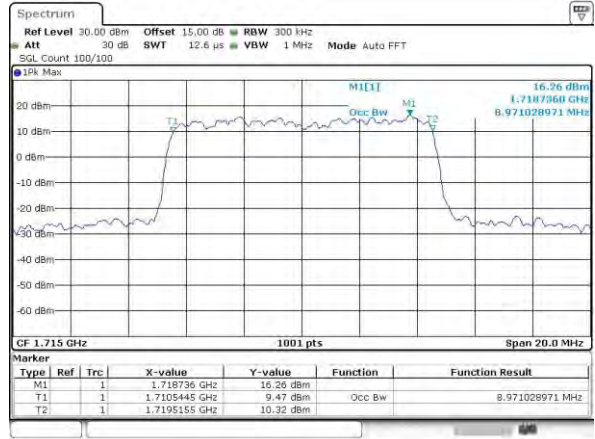


LTE Band 4

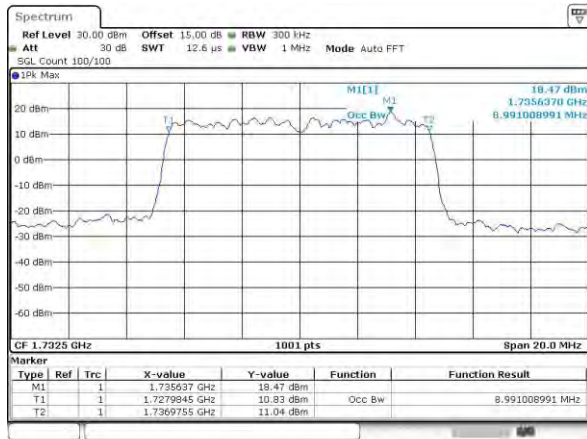
Lowest Channel / 10MHz / QPSK



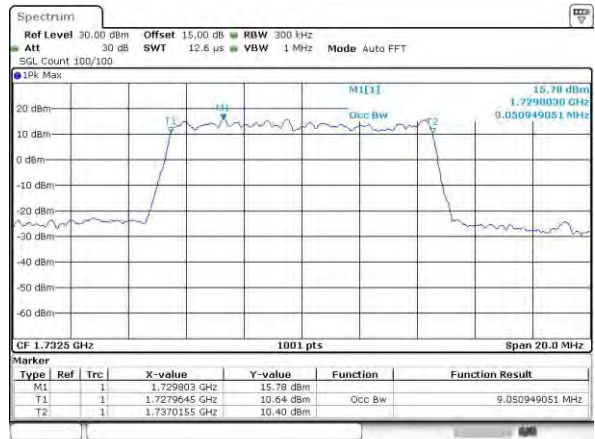
Lowest Channel / 10MHz / 16QAM



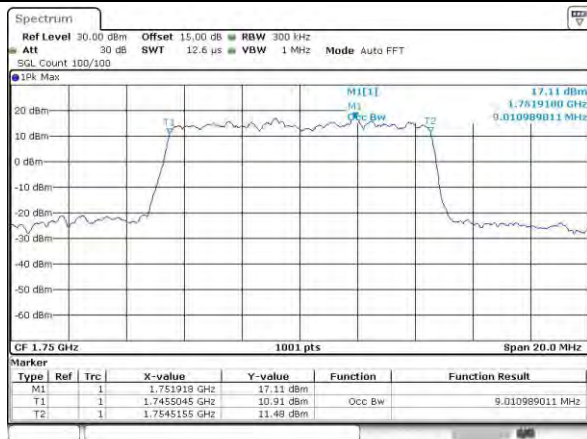
Middle Channel / 10MHz / QPSK



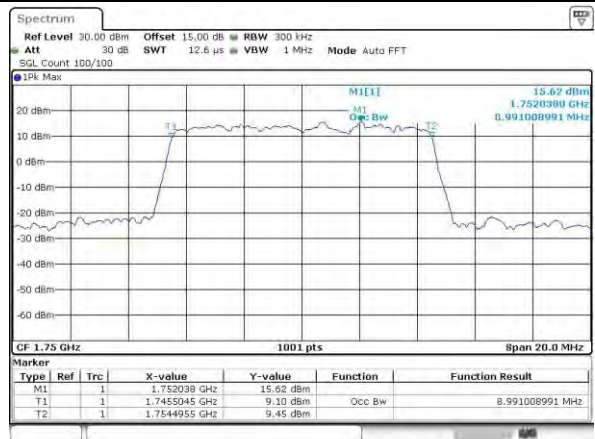
Middle Channel / 10MHz / 16QAM



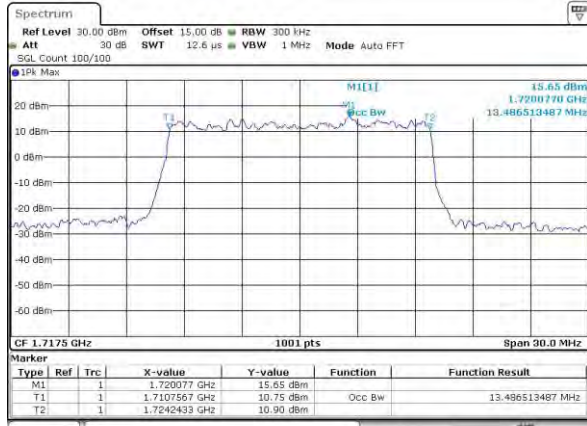
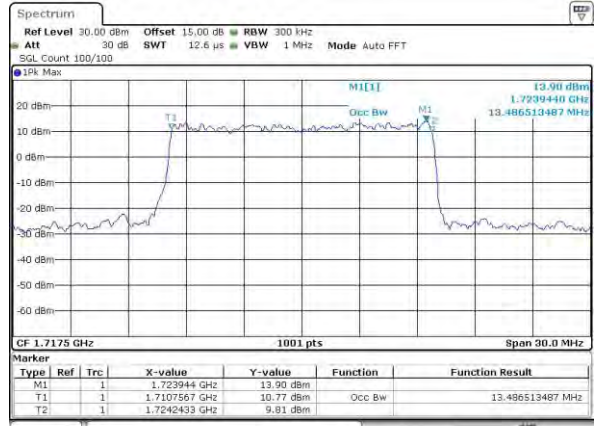
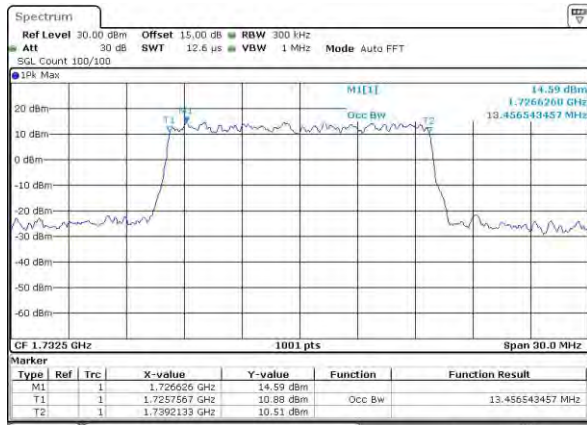
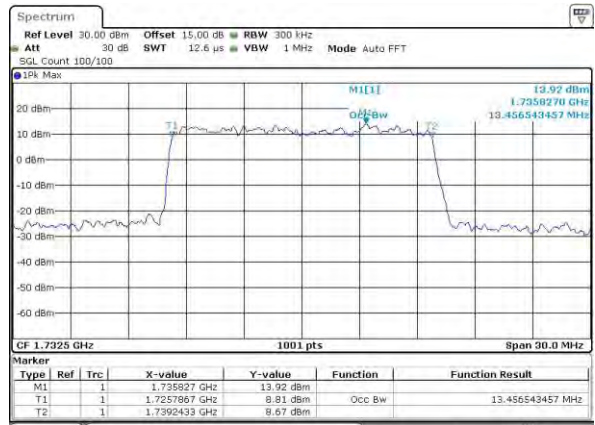
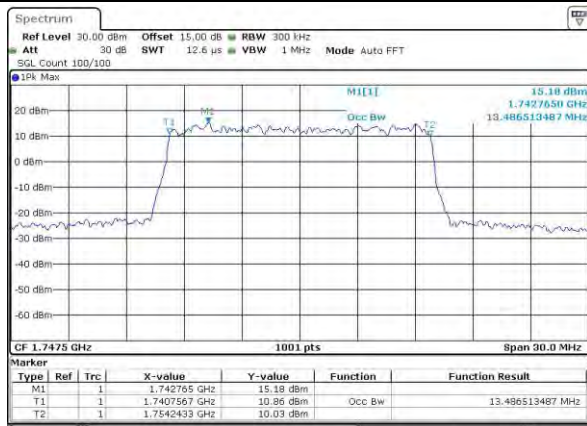
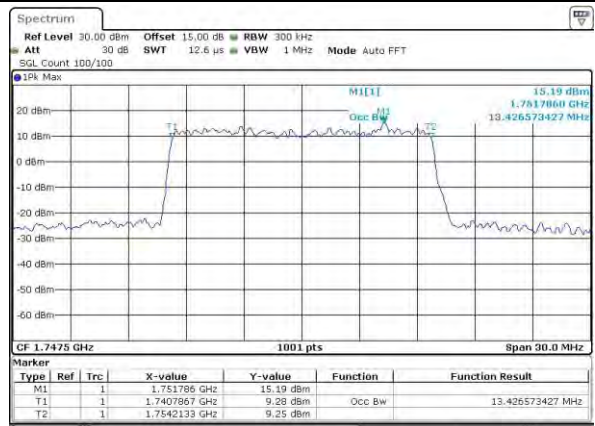
Highest Channel / 10MHz / QPSK

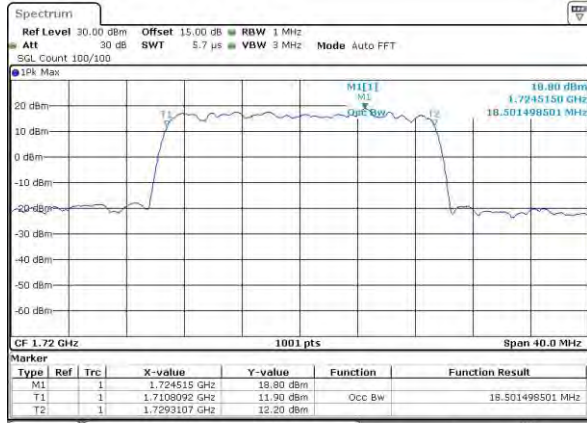
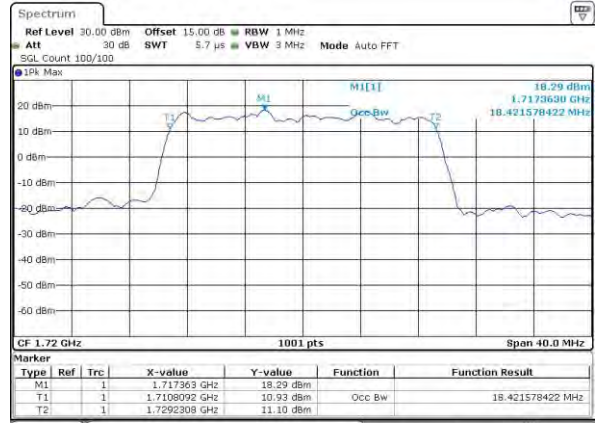
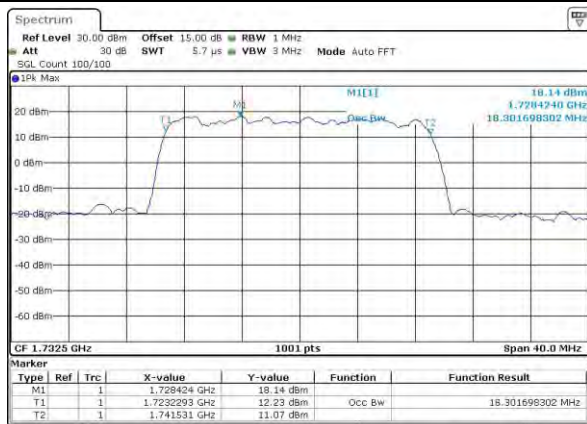
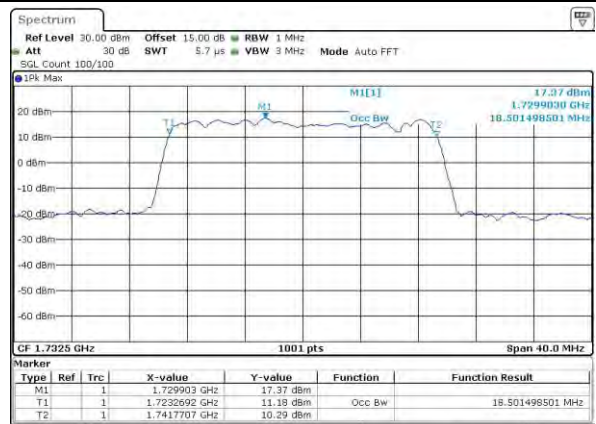
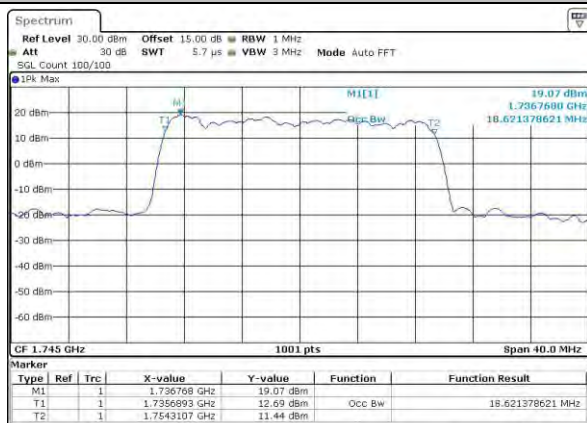
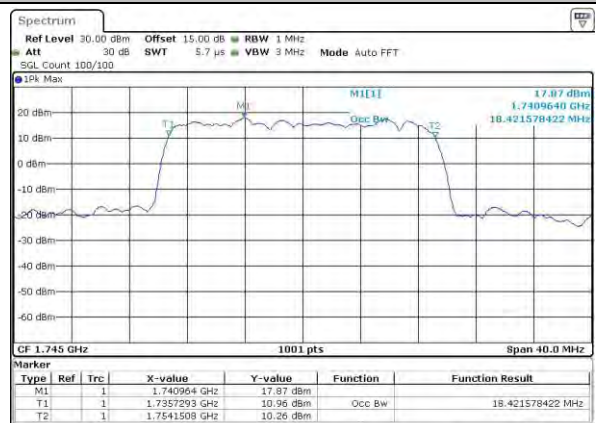


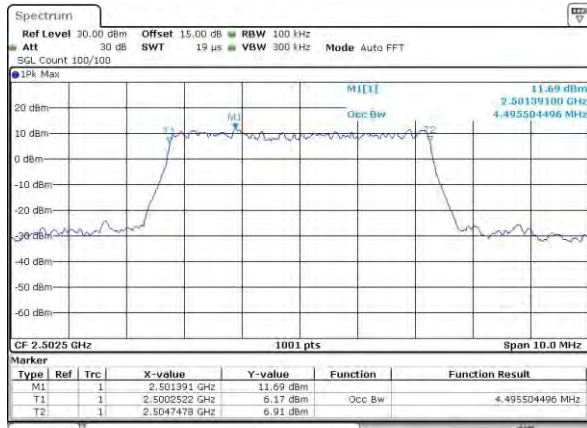
Highest Channel / 10MHz / 16QAM



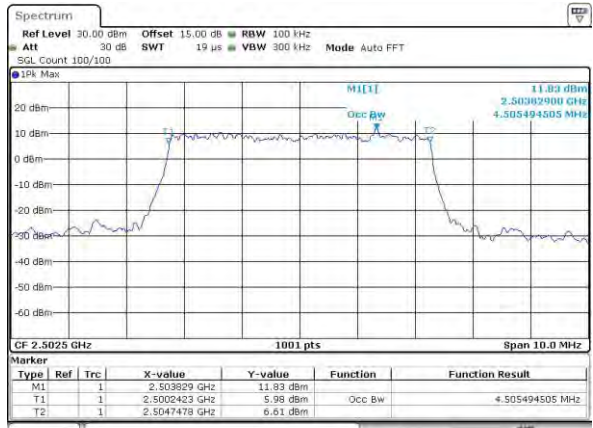


**LTE Band 4****Lowest Channel / 15MHz / QPSK****Lowest Channel / 15MHz / 16QAM****Middle Channel / 15MHz / QPSK****Middle Channel / 15MHz / 16QAM****Highest Channel / 15MHz / QPSK****Highest Channel / 15MHz / 16QAM**

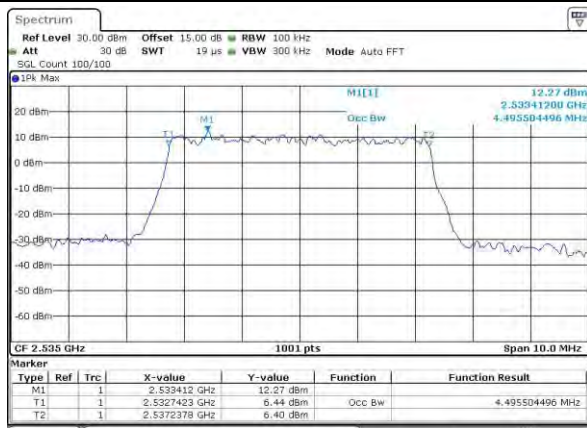
**LTE Band 4****Lowest Channel / 20MHz / QPSK****Lowest Channel / 20MHz / 16QAM****Middle Channel / 20MHz / QPSK****Middle Channel / 20MHz / 16QAM****Highest Channel / 20MHz / QPSK****Highest Channel / 20MHz / 16QAM**

**LTE Band 7****Lowest Channel / 5MHz / QPSK**

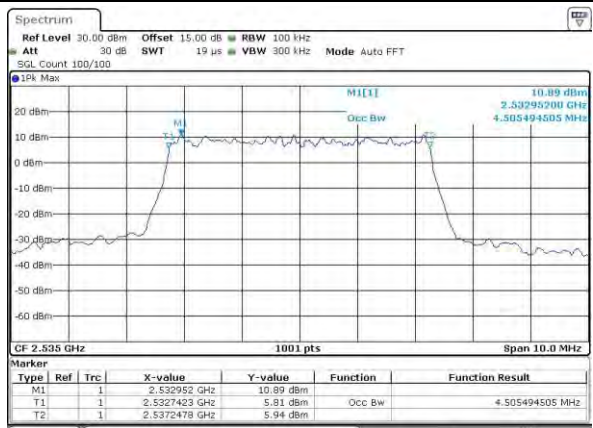
Date: 24.DEC.2016 18:42:10

**Lowest Channel / 5MHz / 16QAM**

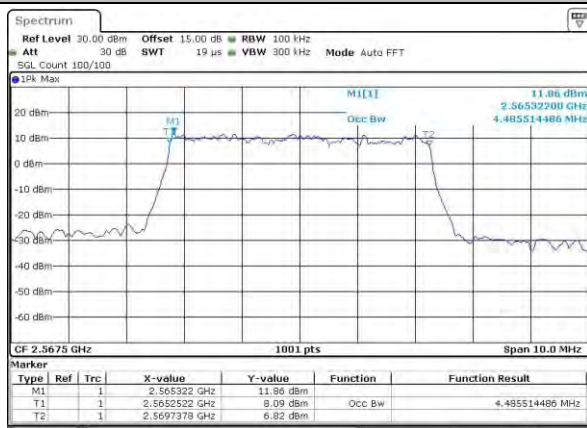
Date: 24.DEC.2016 18:42:15

**Middle Channel / 5MHz / QPSK**

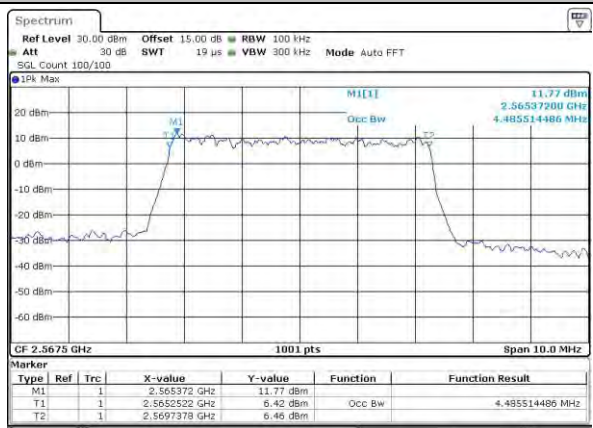
Date: 24.DEC.2016 18:42:16

**Middle Channel / 5MHz / 16QAM**

Date: 24.DEC.2016 18:42:17

**Highest Channel / 5MHz / QPSK**

Date: 24.DEC.2016 18:43:02

**Highest Channel / 5MHz / 16QAM**

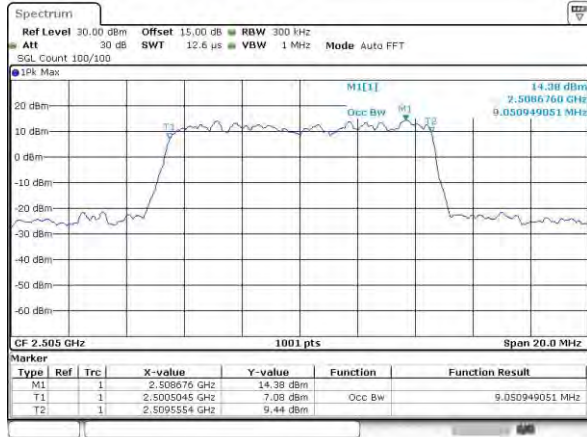
Date: 24.DEC.2016 18:43:15



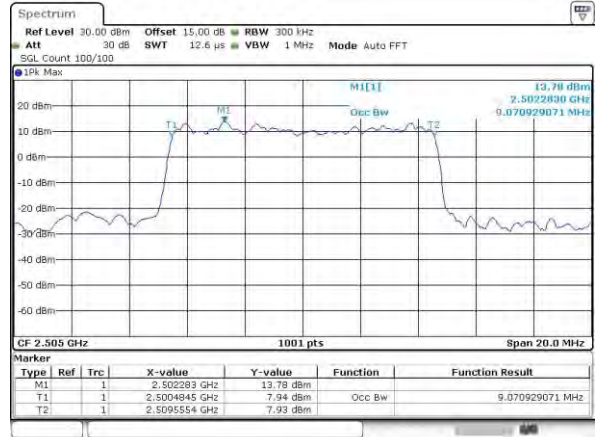


## LTE Band 7

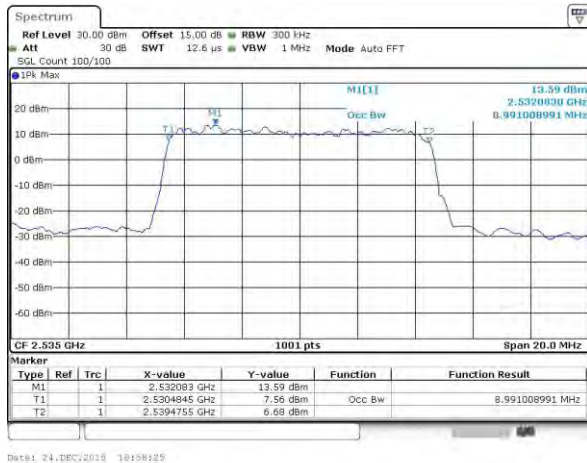
## Lowest Channel / 10MHz / QPSK



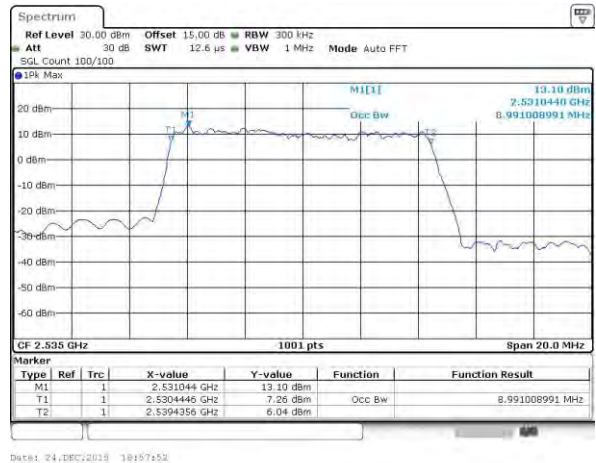
## Lowest Channel / 10MHz / 16QAM



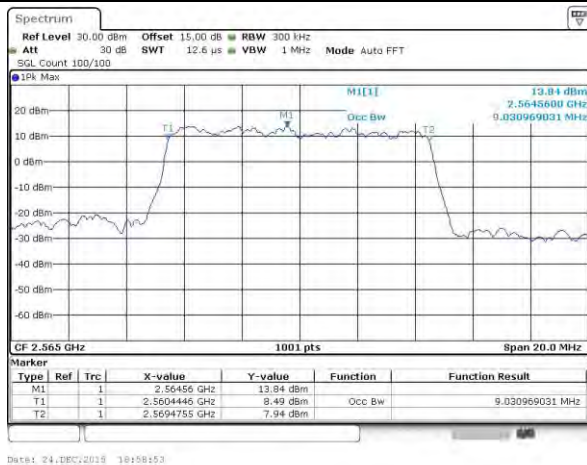
## Middle Channel / 10MHz / QPSK



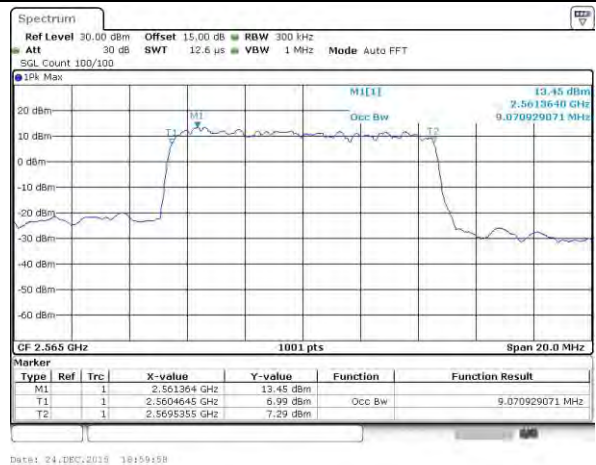
## Middle Channel / 10MHz / 16QAM



## Highest Channel / 10MHz / QPSK



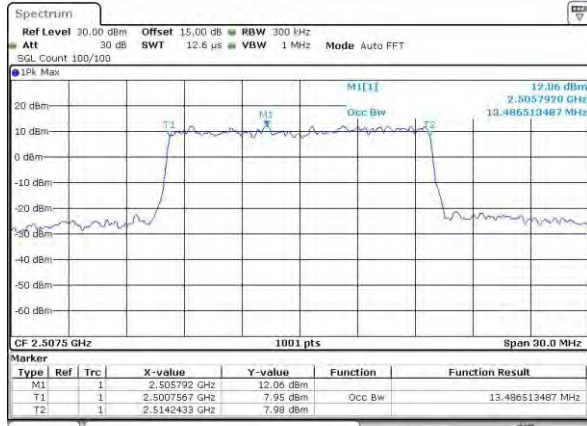
## Highest Channel / 10MHz / 16QAM



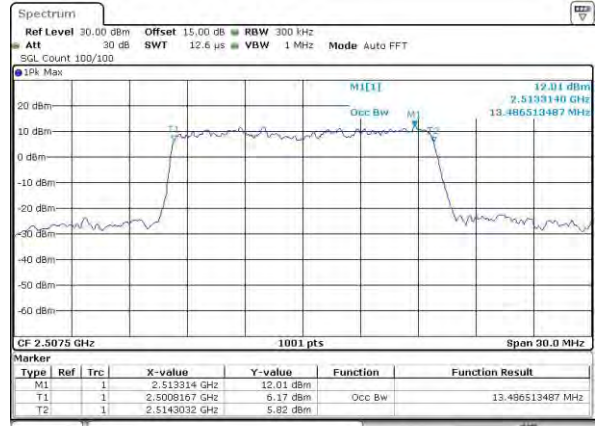


## LTE Band 7

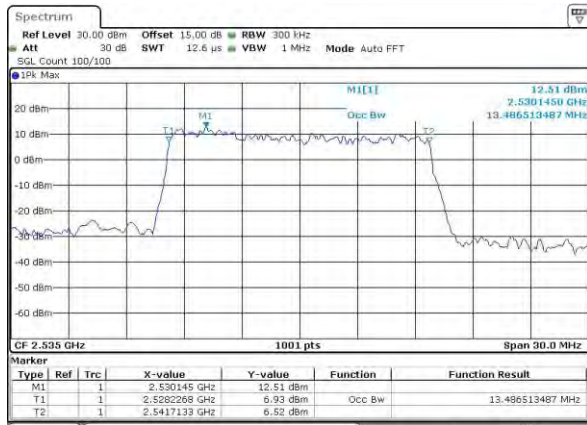
## Lowest Channel / 15MHz / QPSK



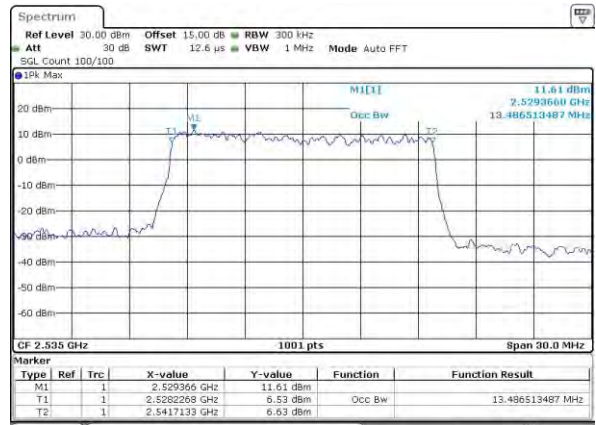
## Lowest Channel / 15MHz / 16QAM



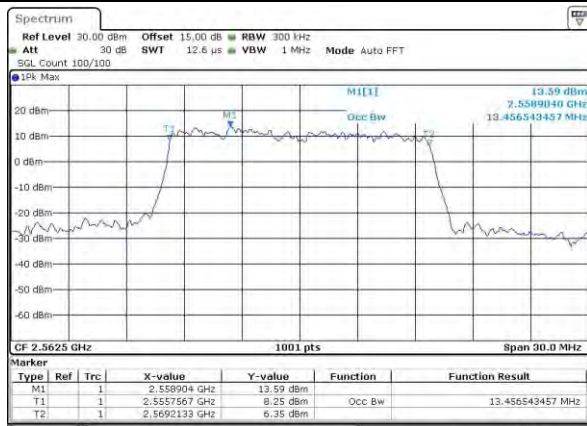
## Middle Channel / 15MHz / QPSK



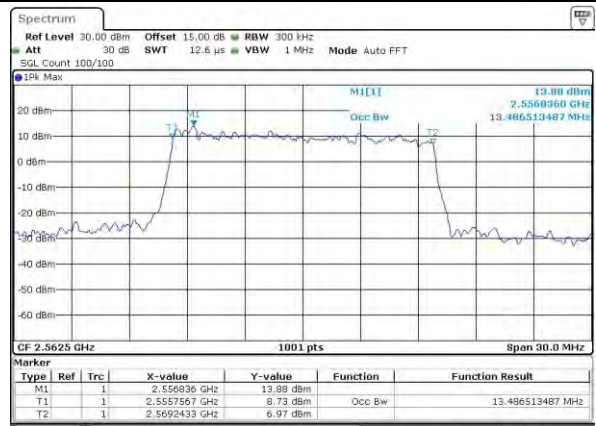
## Middle Channel / 15MHz / 16QAM



## Highest Channel / 15MHz / QPSK



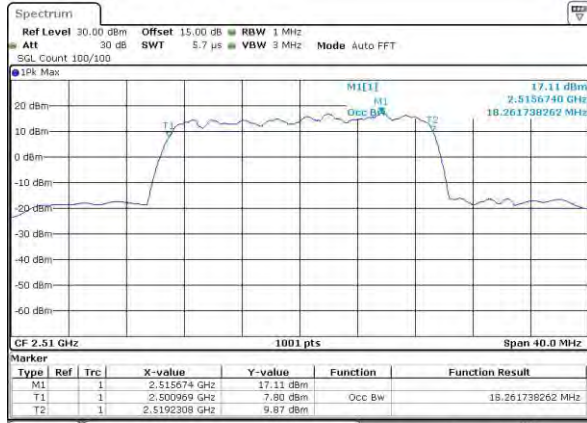
## Highest Channel / 15MHz / 16QAM



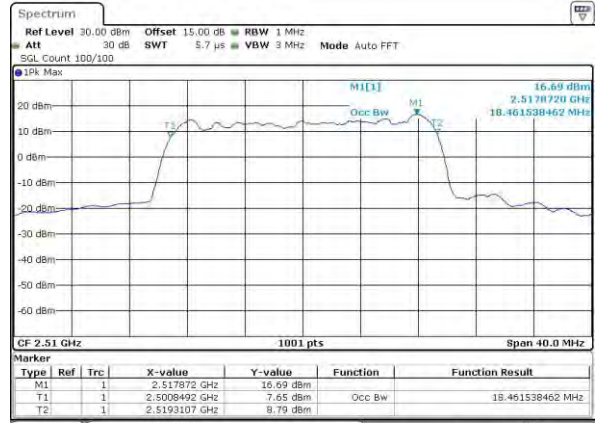


## LTE Band 7

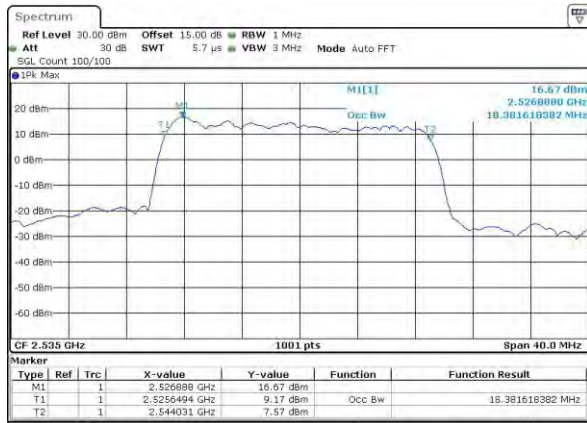
## Lowest Channel / 20MHz / QPSK



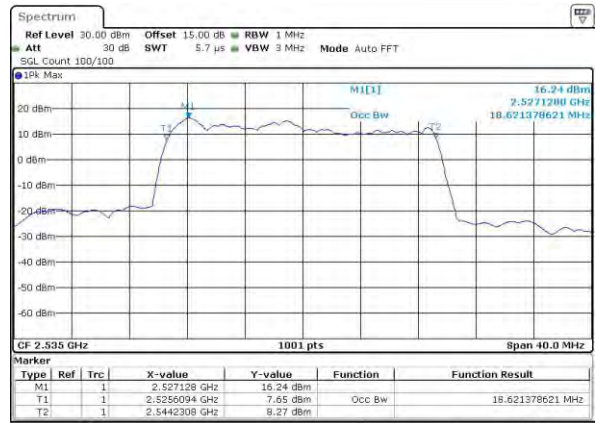
## Lowest Channel / 20MHz / 16QAM



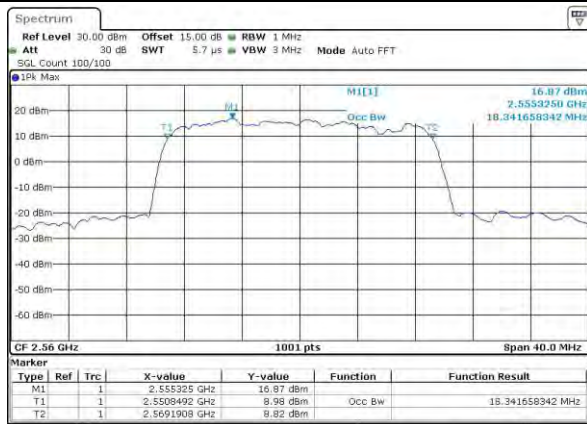
## Middle Channel / 20MHz / QPSK



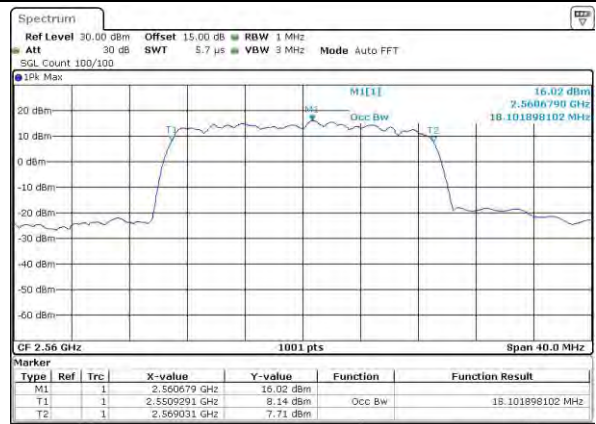
## Middle Channel / 20MHz / 16QAM



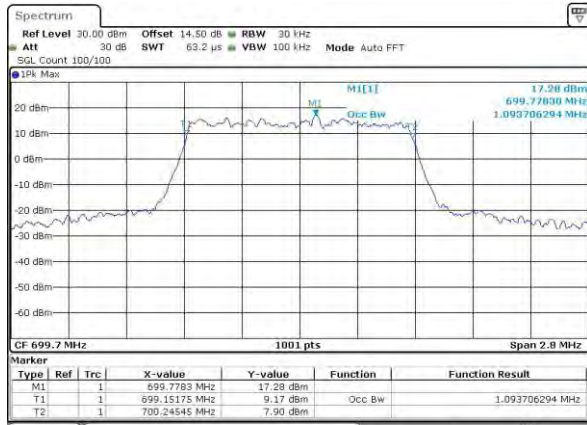
## Highest Channel / 20MHz / QPSK



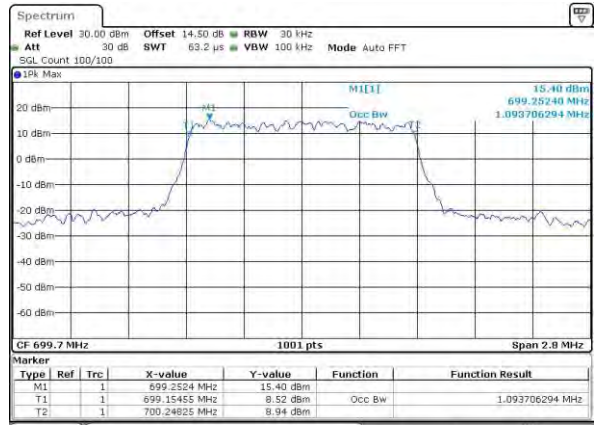
## Highest Channel / 20MHz / 16QAM



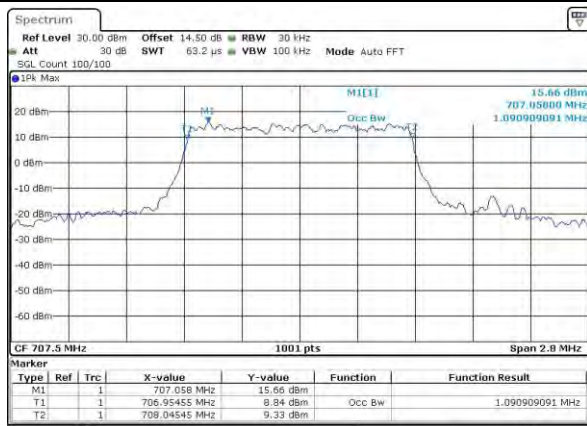


**LTE Band 12****Lowest Channel / 1.4MHz / QPSK**

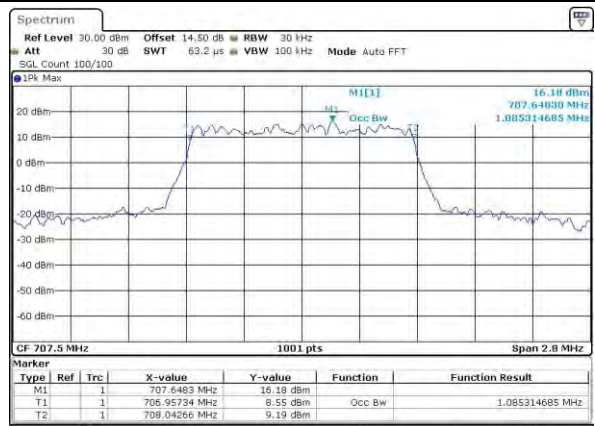
Date: 23, DEC, 2016 19:21:10

**Lowest Channel / 1.4MHz / 16QAM**

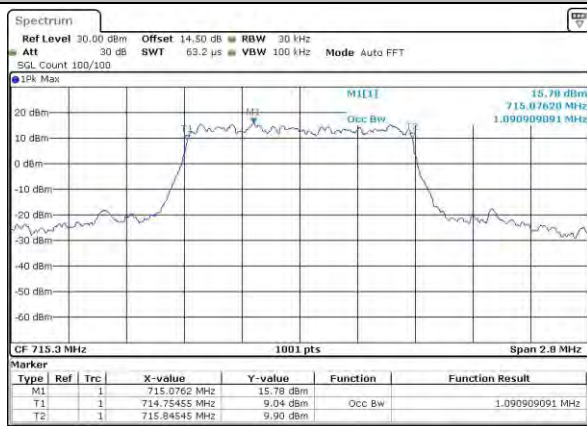
Date: 23, DEC, 2016 19:21:11

**Middle Channel / 1.4MHz / QPSK**

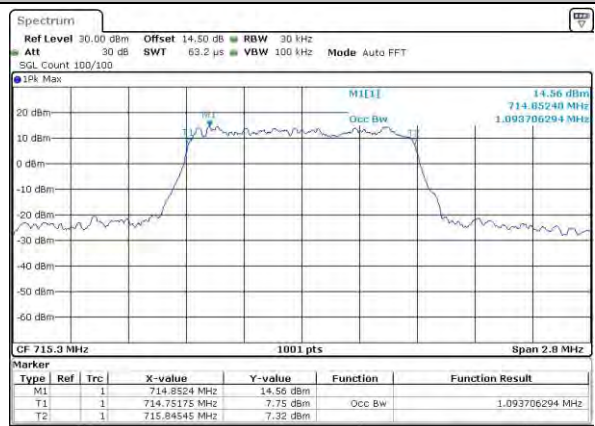
Date: 23, DEC, 2016 19:21:46

**Middle Channel / 1.4MHz / 16QAM**

Date: 23, DEC, 2016 19:21:57

**Highest Channel / 1.4MHz / QPSK**

Date: 23, DEC, 2016 19:24:21

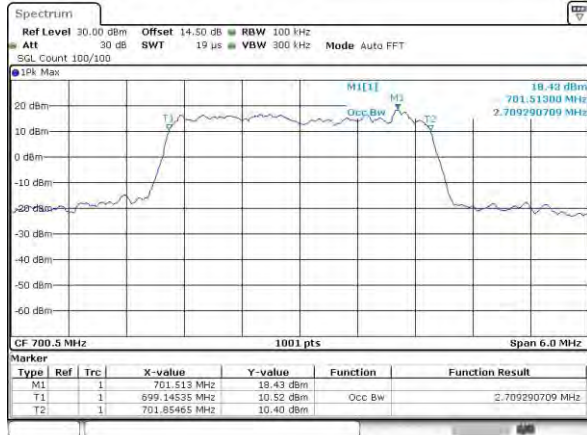
**Highest Channel / 1.4MHz / 16QAM**

Date: 23, DEC, 2016 19:24:32

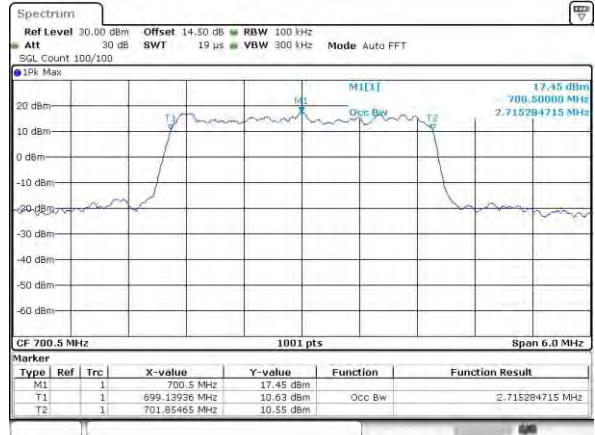


LTE Band 12

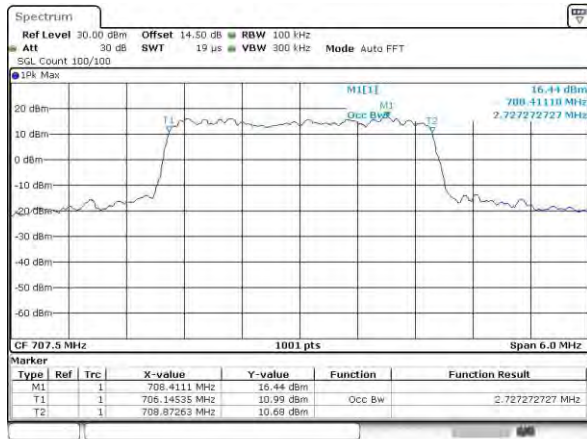
Lowest Channel / 3MHz / QPSK



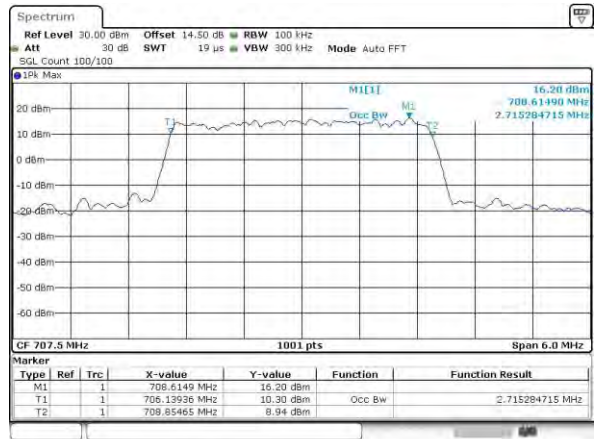
Lowest Channel / 3MHz / 16QAM



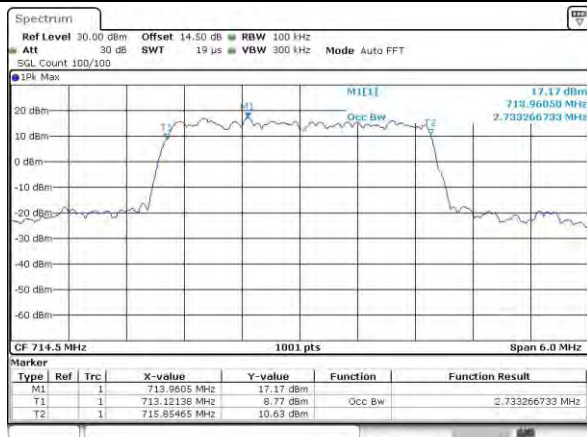
Middle Channel / 3MHz / QPSK



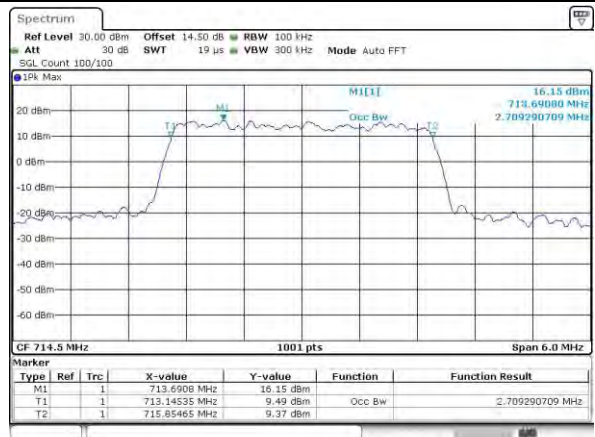
Middle Channel / 3MHz / 16QAM

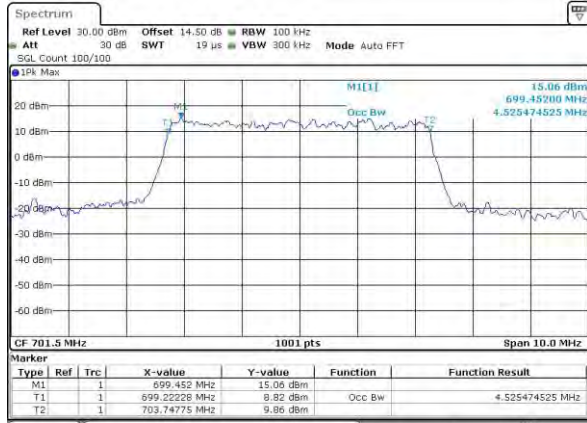
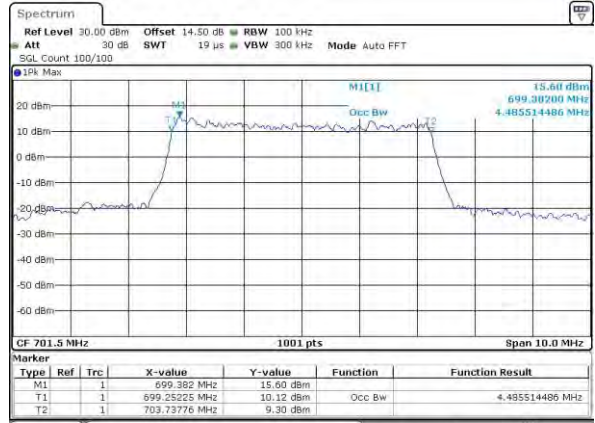
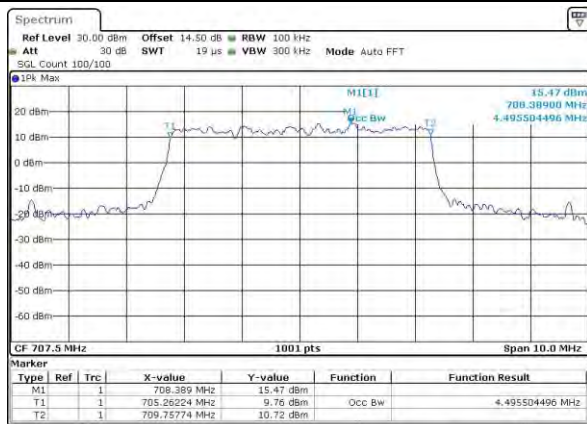
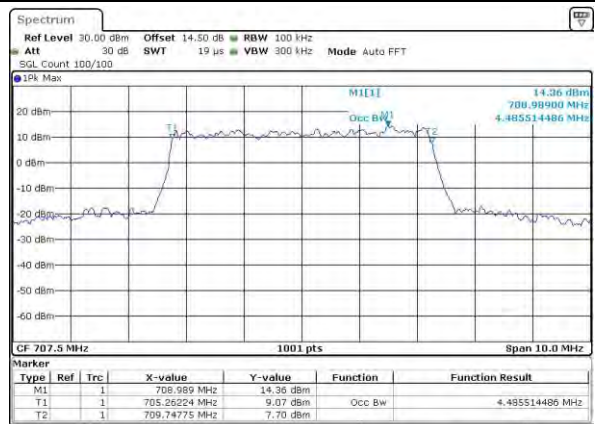
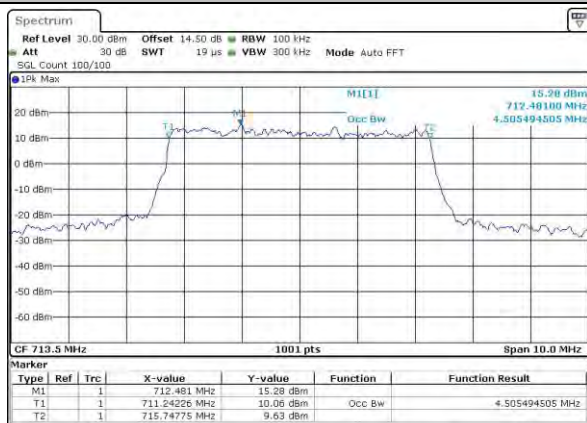
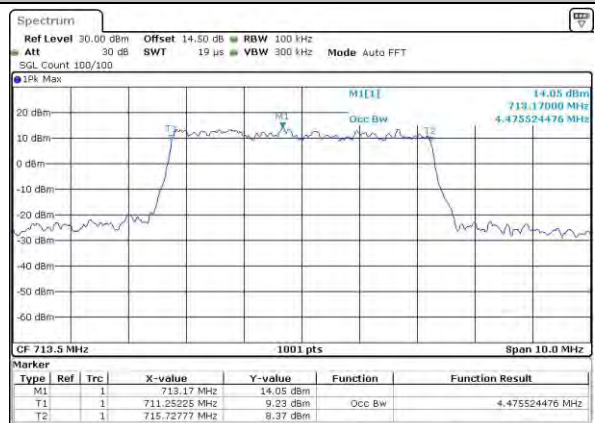


Highest Channel / 3MHz / QPSK



Highest Channel / 3MHz / 16QAM



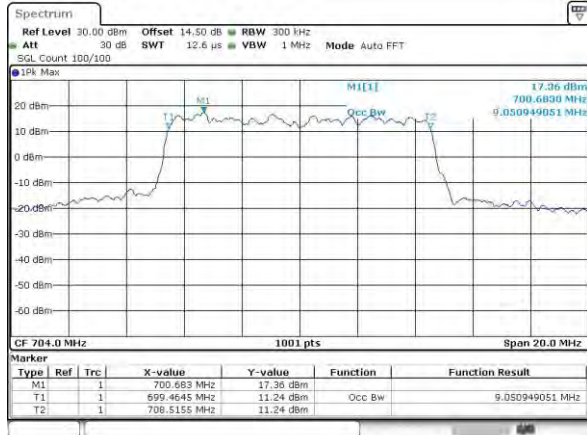
**LTE Band 12****Lowest Channel / 5MHz / QPSK****Lowest Channel / 5MHz / 16QAM****Middle Channel / 5MHz / QPSK****Middle Channel / 5MHz / 16QAM****Highest Channel / 5MHz / QPSK****Highest Channel / 5MHz / 16QAM**



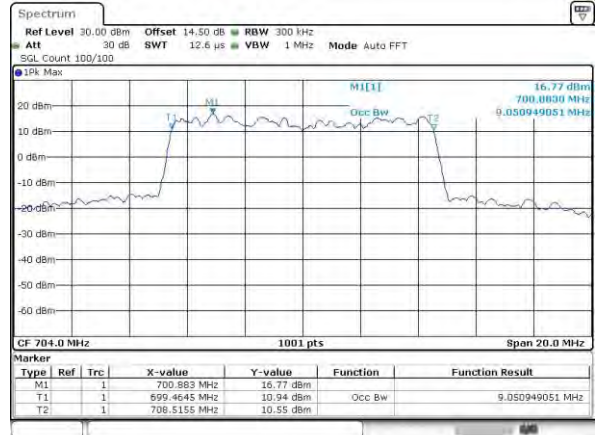


## LTE Band 12

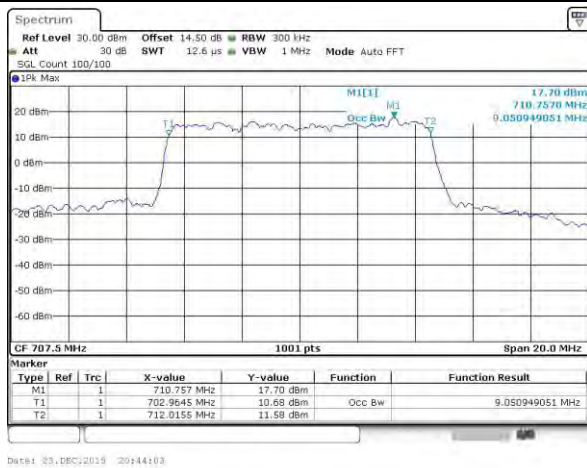
## Lowest Channel / 10MHz / QPSK



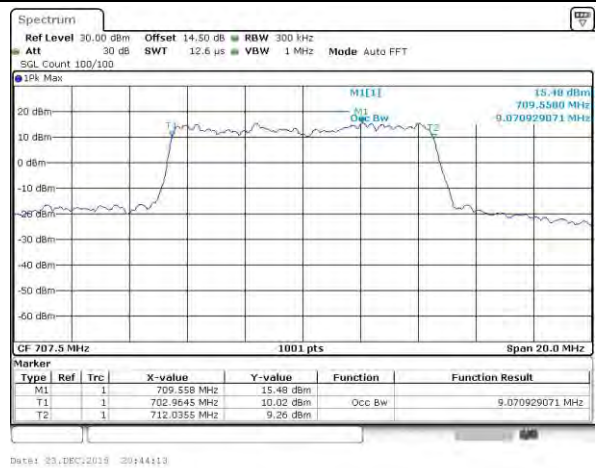
## Lowest Channel / 10MHz / 16QAM



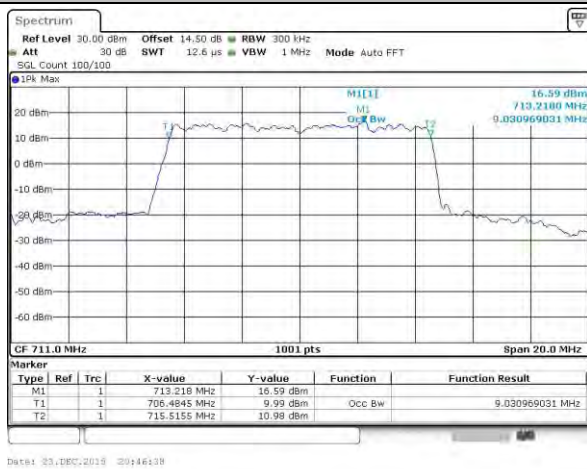
## Middle Channel / 10MHz / QPSK



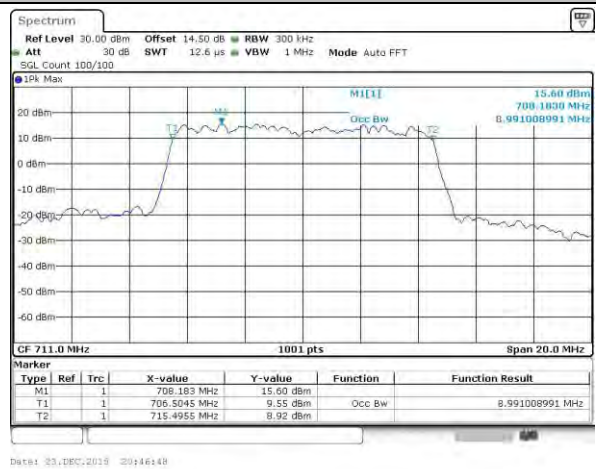
## Middle Channel / 10MHz / 16QAM



## Highest Channel / 10MHz / QPSK



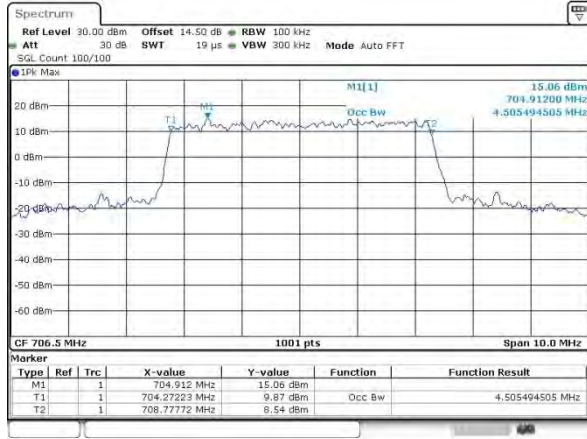
## Highest Channel / 10MHz / 16QAM



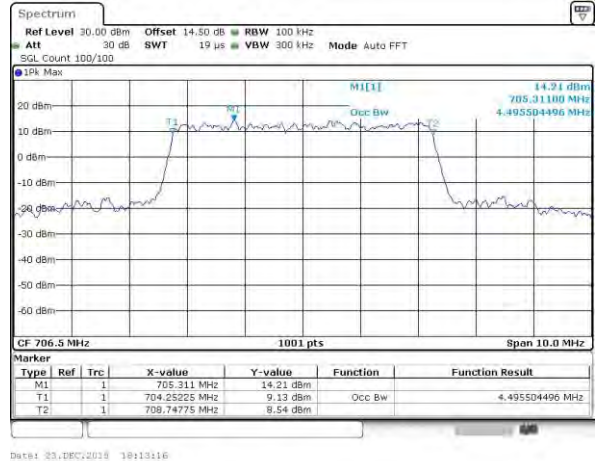


## LTE Band 17

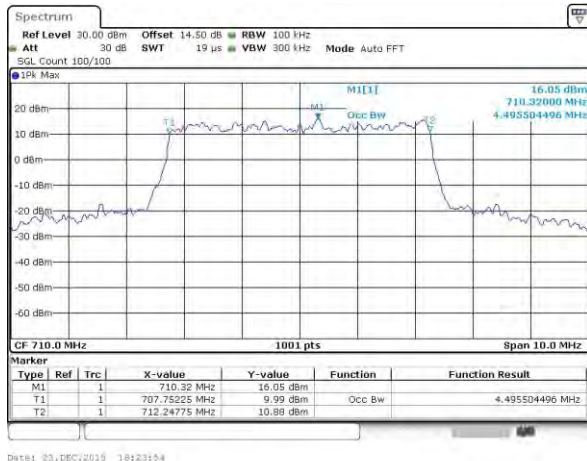
## Lowest Channel / 5MHz / QPSK



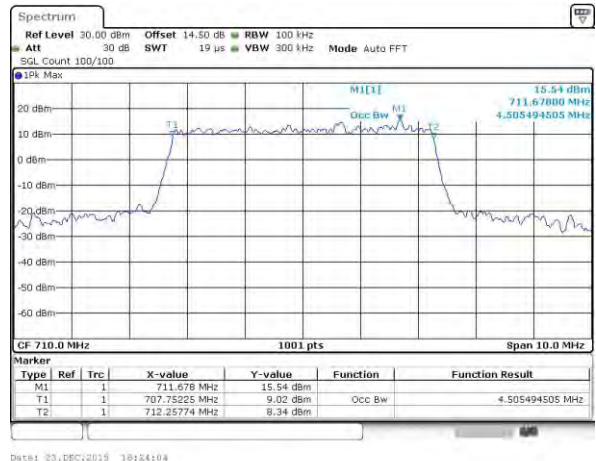
## Lowest Channel / 5MHz / 16QAM



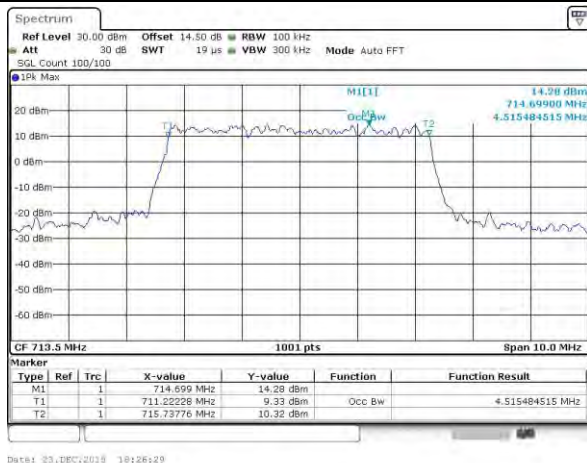
## Middle Channel / 5MHz / QPSK



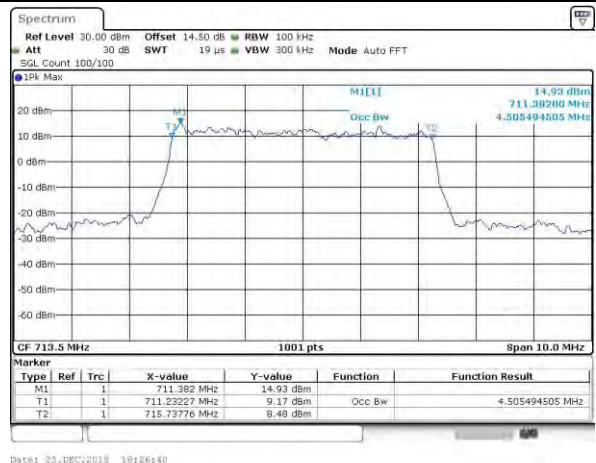
## Middle Channel / 5MHz / 16QAM

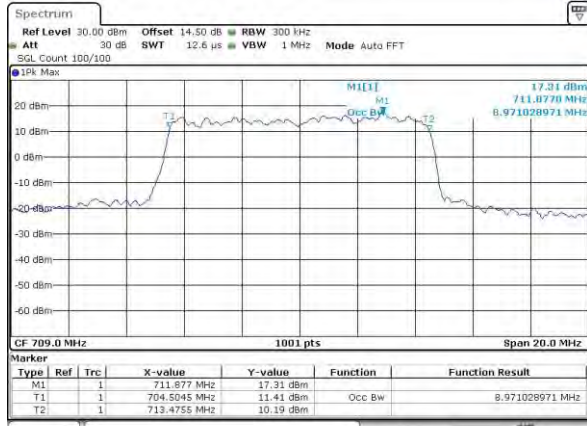
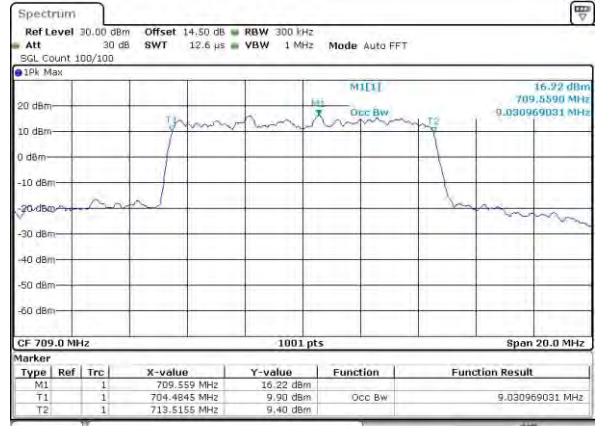
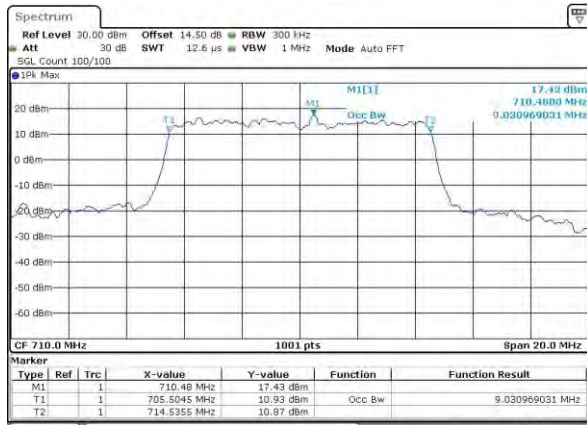
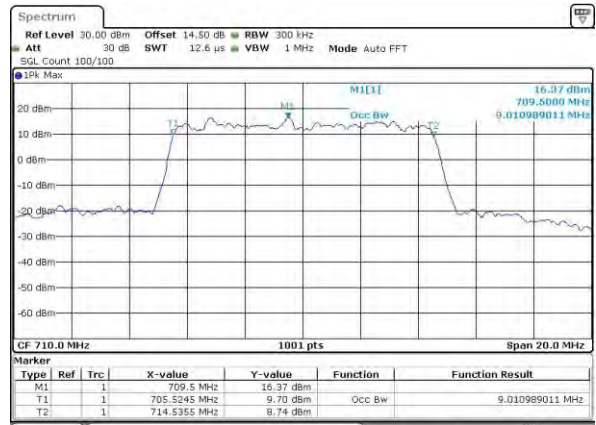
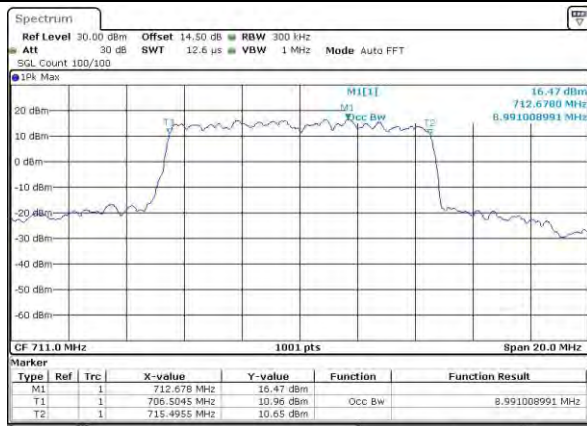


## Highest Channel / 5MHz / QPSK



## Highest Channel / 5MHz / 16QAM



**LTE Band 17****Lowest Channel / 10MHz / QPSK****Lowest Channel / 10MHz / 16QAM****Middle Channel / 10MHz / QPSK****Middle Channel / 10MHz / 16QAM****Highest Channel / 10MHz / QPSK****Highest Channel / 10MHz / 16QAM**