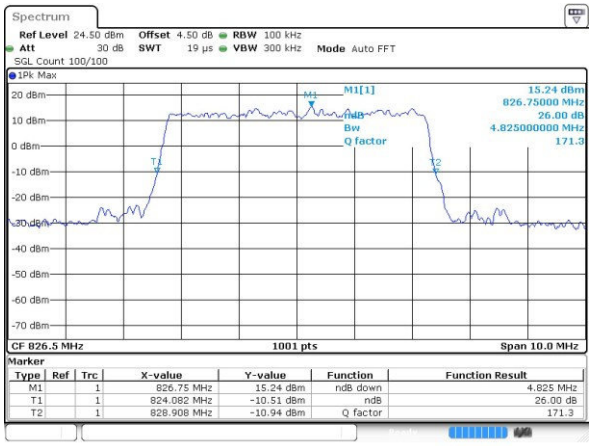
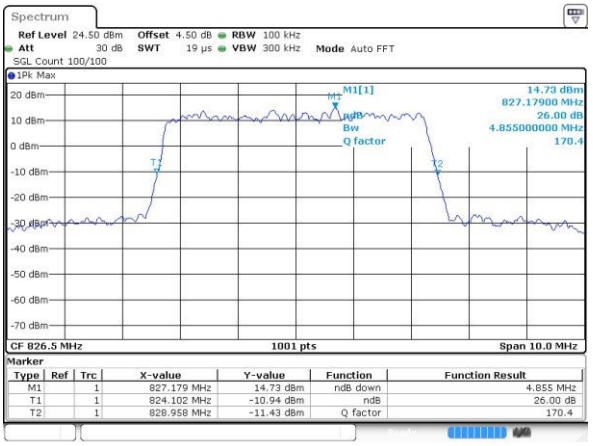
## LTE Band 5

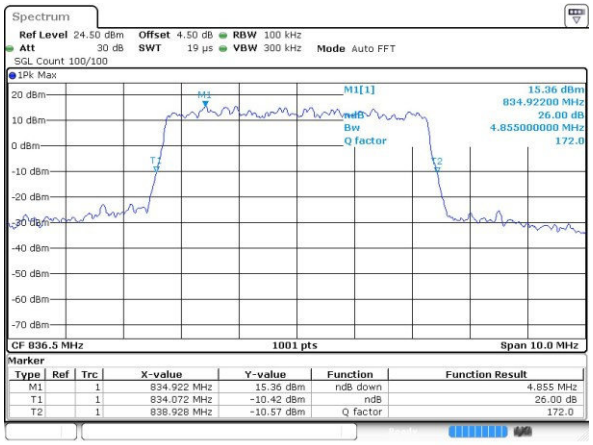
### Lowest Channel / 5MHz / QPSK



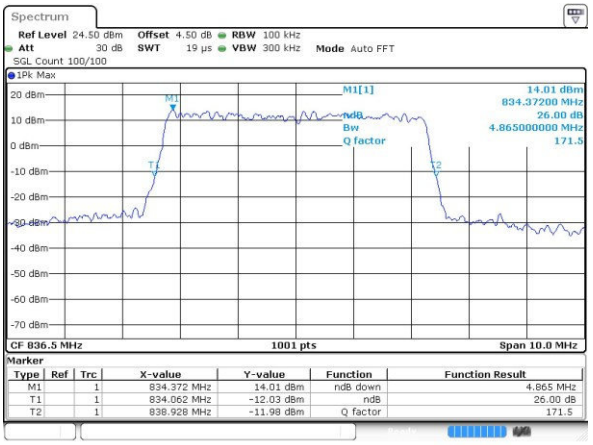

### Lowest Channel / 5MHz / 16QAM



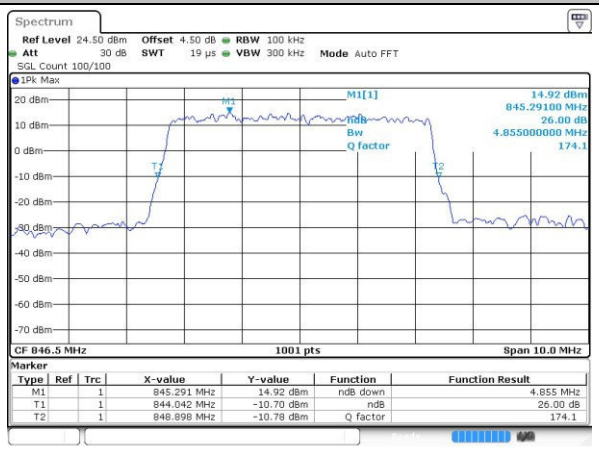

### Middle Channel / 5MHz / QPSK



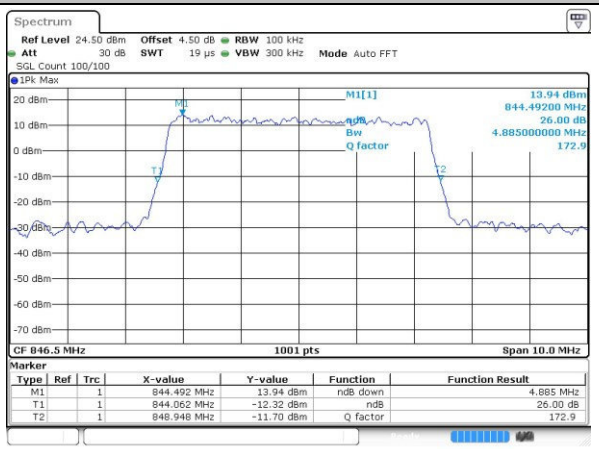

### Middle Channel / 5MHz / 16QAM




### Highest Channel / 5MHz / QPSK

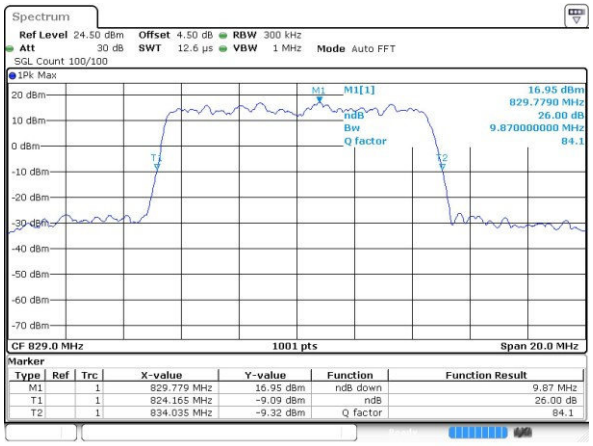



### Highest Channel / 5MHz / 16QAM

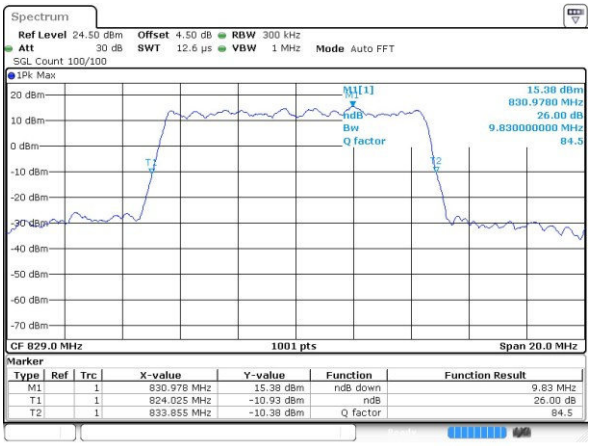


## LTE Band 5

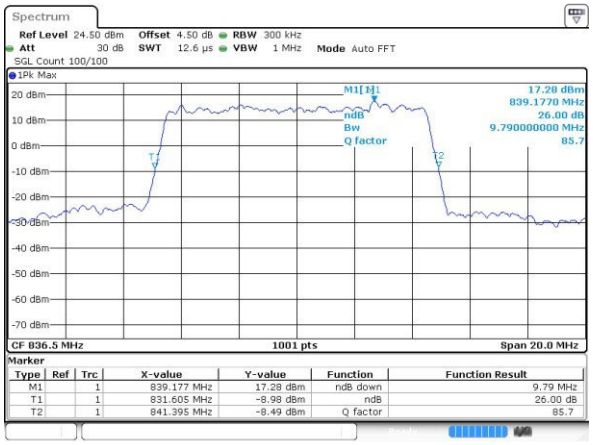
### Lowest Channel / 10MHz / QPSK



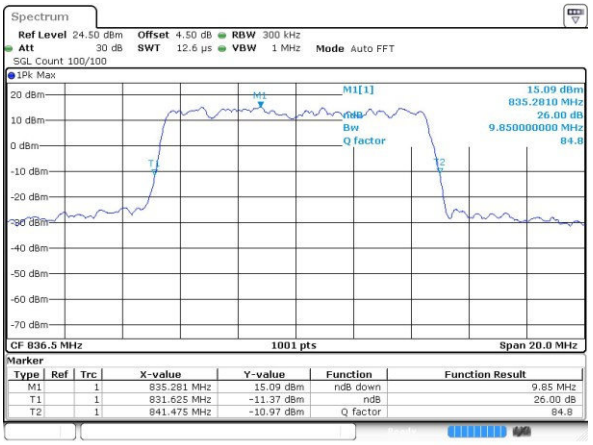

### Lowest Channel / 10MHz / 16QAM



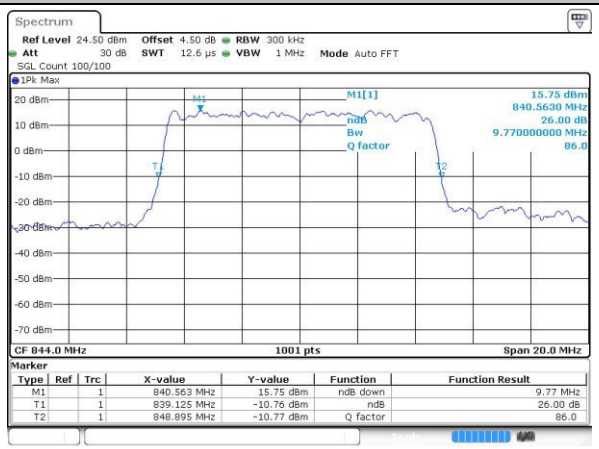

### Middle Channel / 10MHz / QPSK



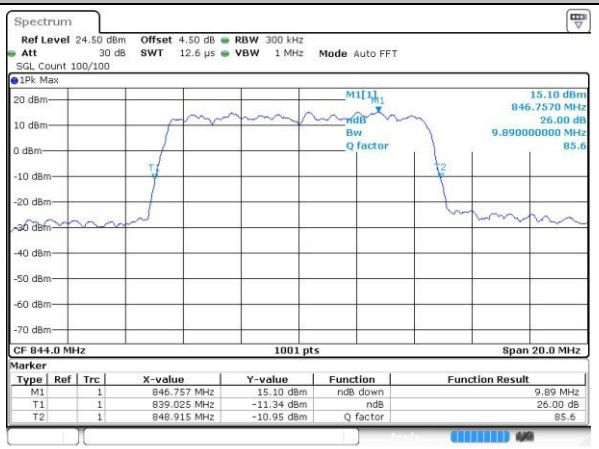

### Middle Channel / 10MHz / 16QAM




### Highest Channel / 10MHz / QPSK

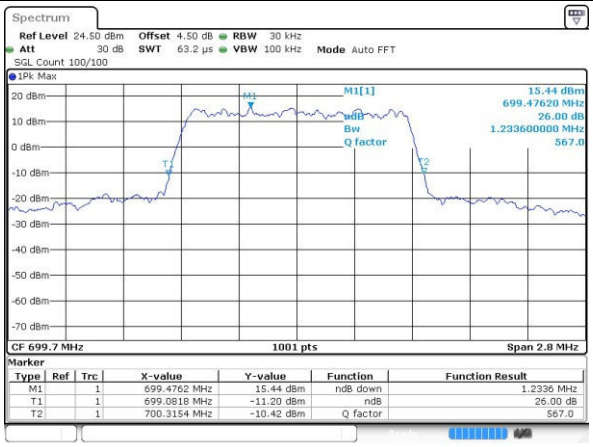



### Highest Channel / 10MHz / 16QAM

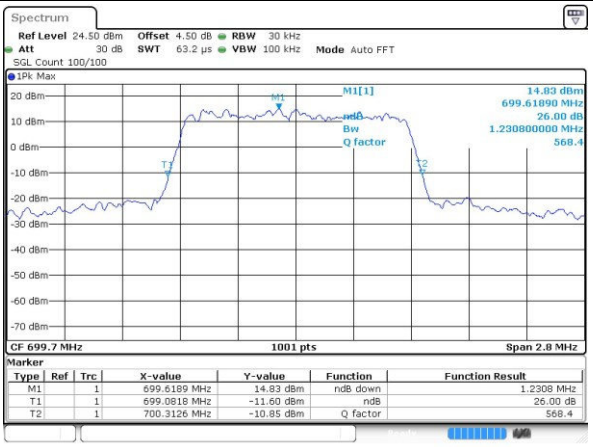


## LTE Band 12

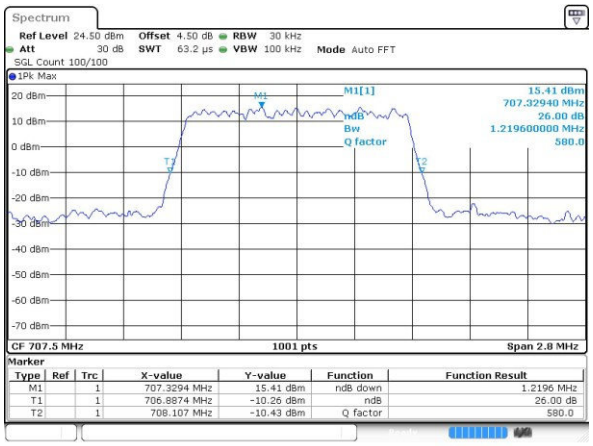
### Lowest Channel / 1.4MHz / QPSK



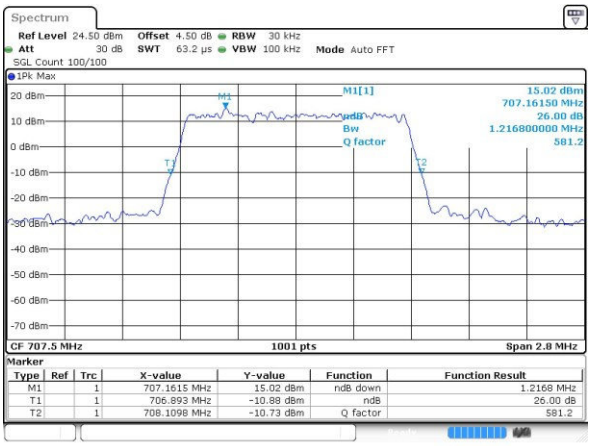

### Lowest Channel / 1.4MHz / 16QAM



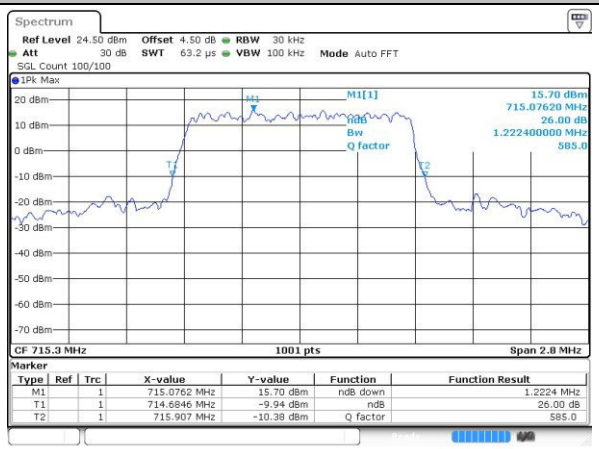

### Middle Channel / 1.4MHz / QPSK



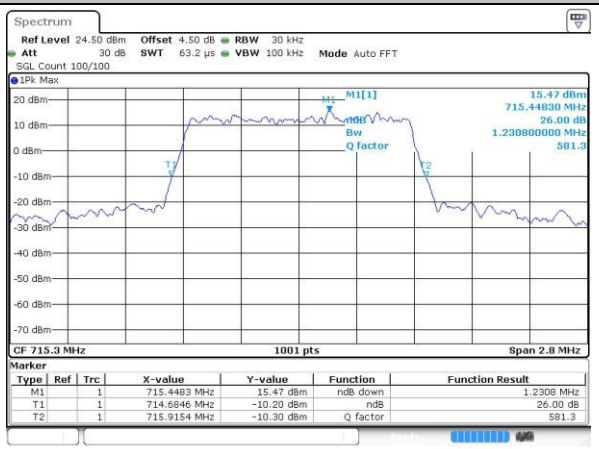

### Middle Channel / 1.4MHz / 16QAM




### Highest Channel / 1.4MHz / QPSK

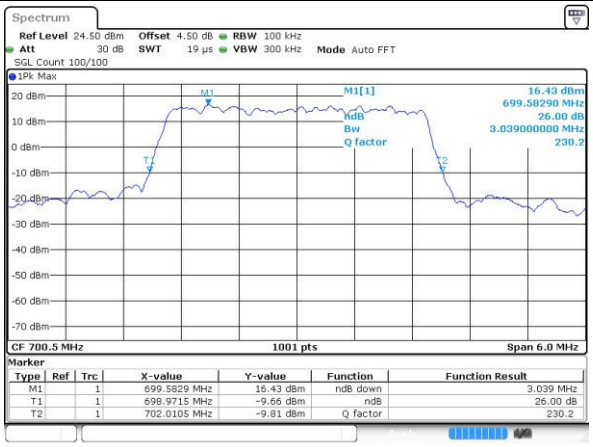



### Highest Channel / 1.4MHz / 16QAM

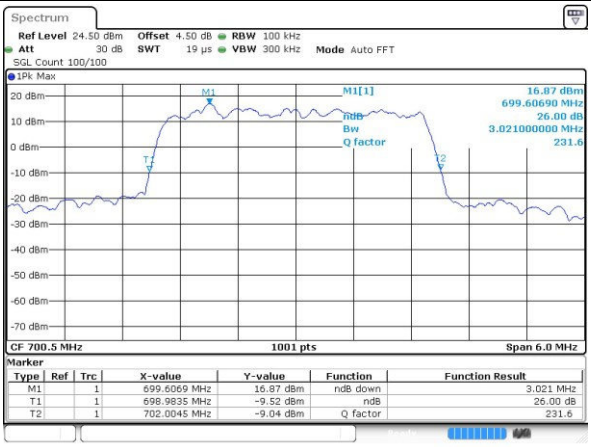


## LTE Band 12

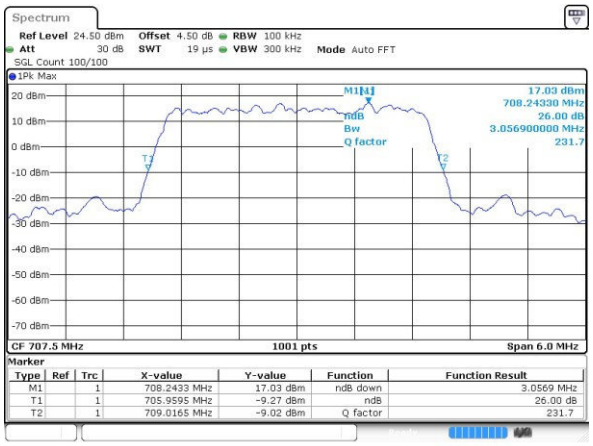
### Lowest Channel / 3MHz / QPSK



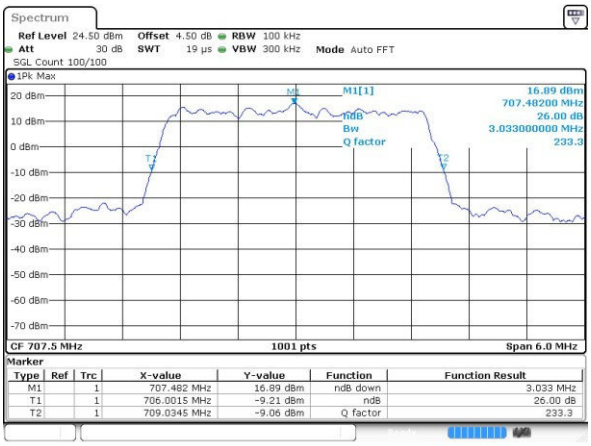

### Lowest Channel / 3MHz / 16QAM



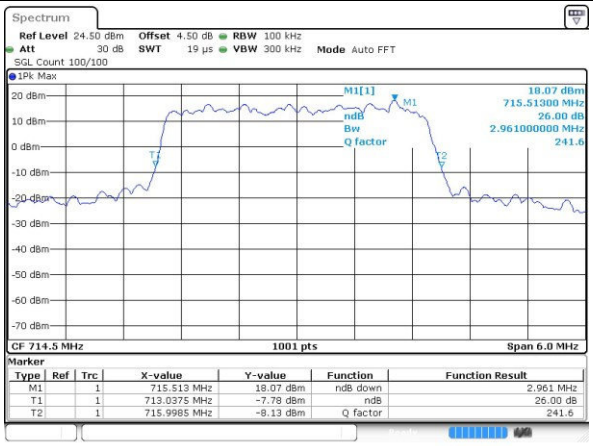

### Middle Channel / 3MHz / QPSK



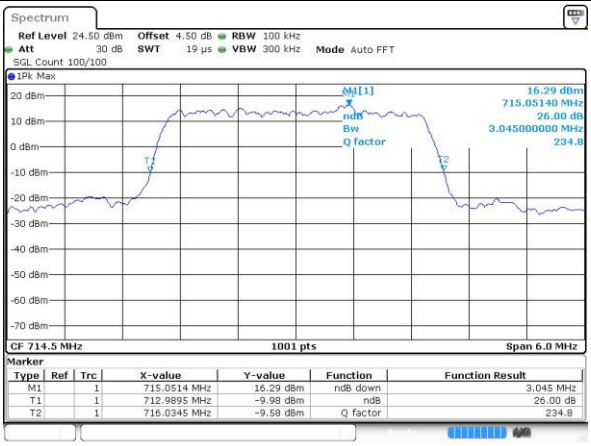

### Middle Channel /3MHz / 16QAM




### Highest Channel /3MHz / QPSK

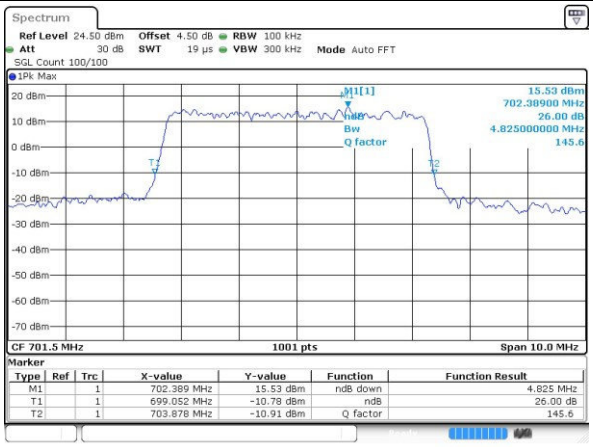



### Highest Channel /3MHz / 16QAM

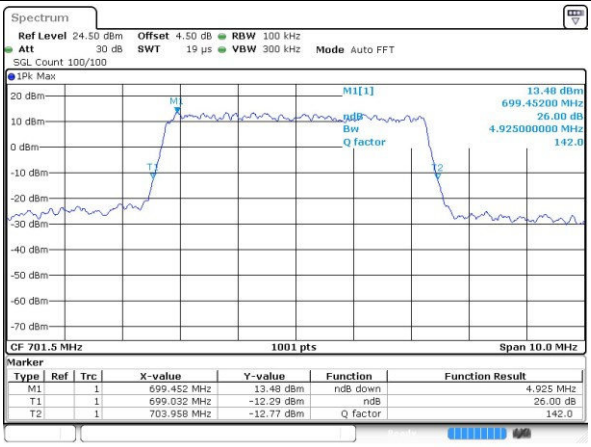


## LTE Band 12

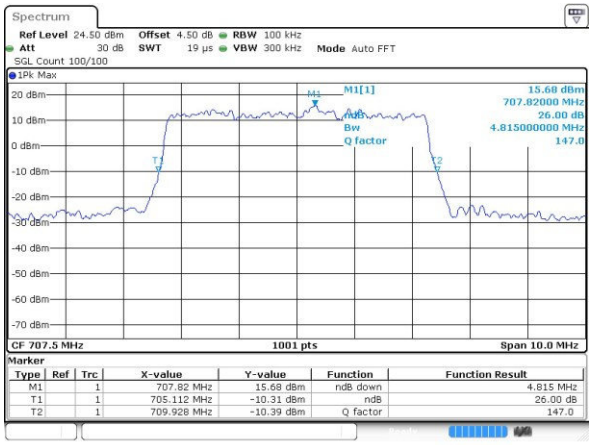
### Lowest Channel / 5MHz / QPSK



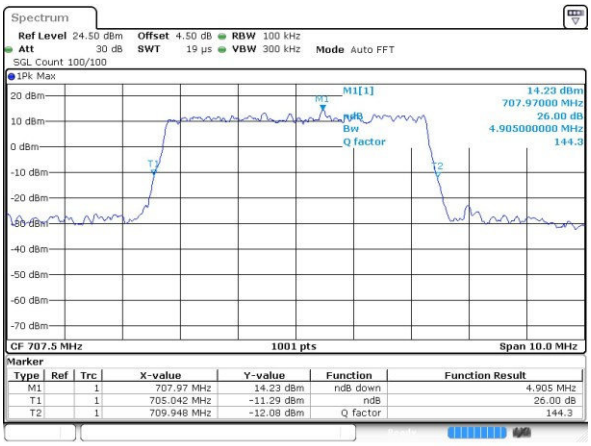

### Lowest Channel / 5MHz / 16QAM



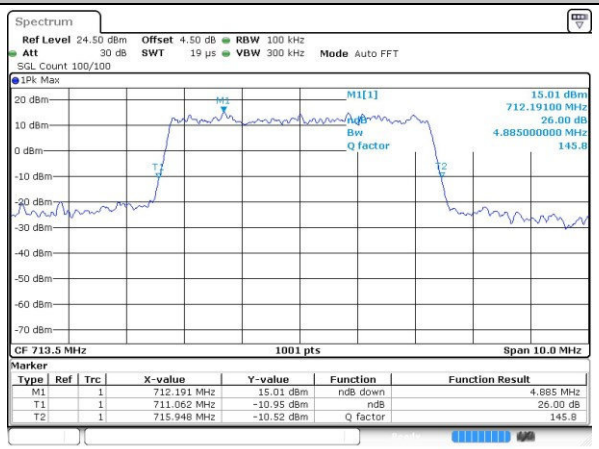

### Middle Channel / 5MHz / QPSK



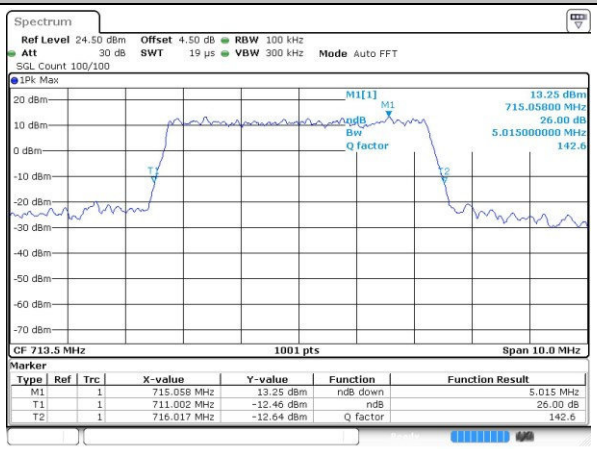

### Middle Channel / 5MHz / 16QAM




### Highest Channel / 5MHz / QPSK

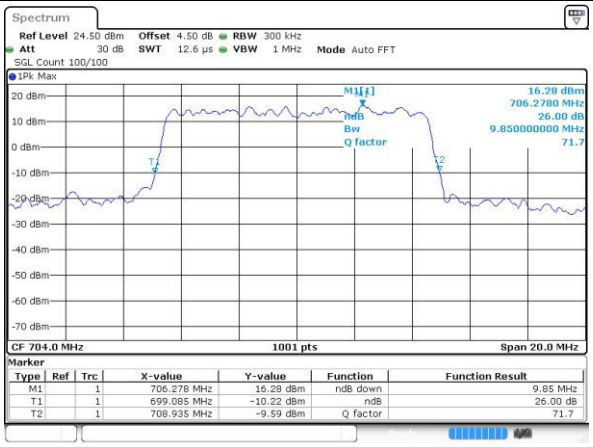



### Highest Channel / 5MHz / 16QAM

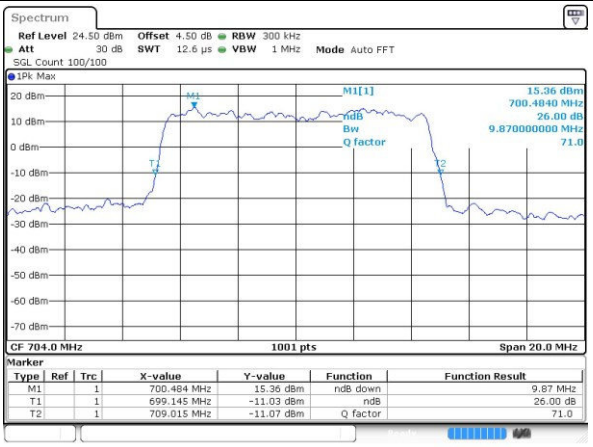


## LTE Band 12

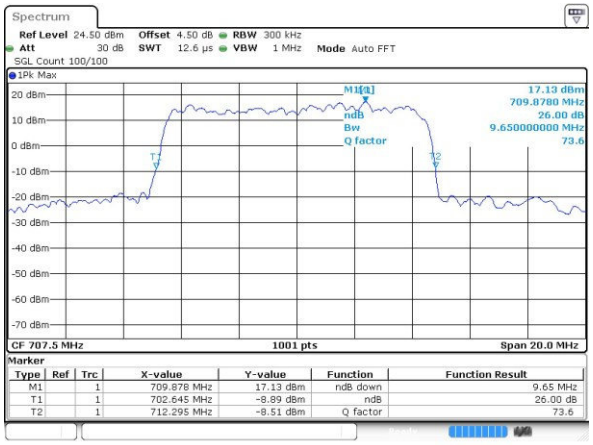
### Lowest Channel / 10MHz / QPSK



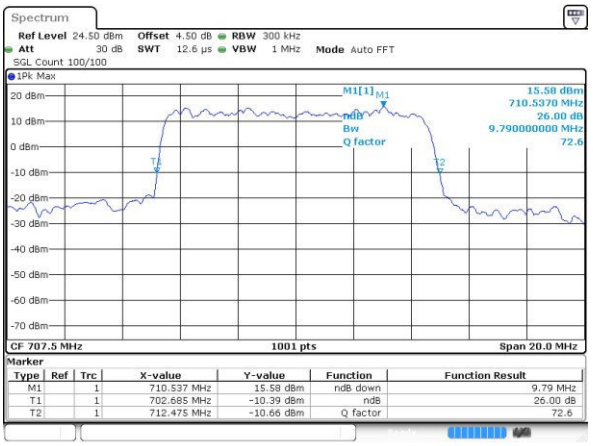

### Lowest Channel / 10MHz / 16QAM



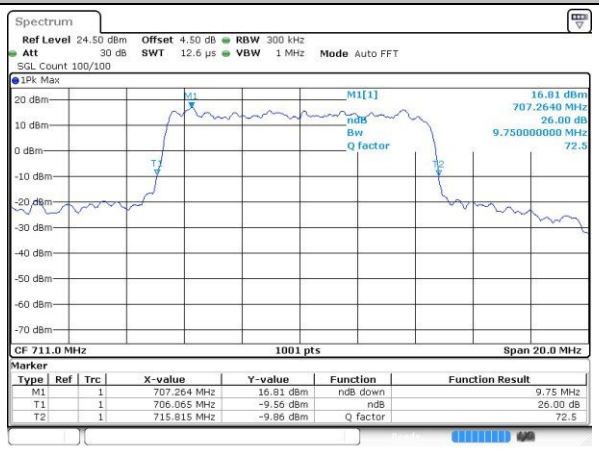

### Middle Channel / 10MHz / QPSK



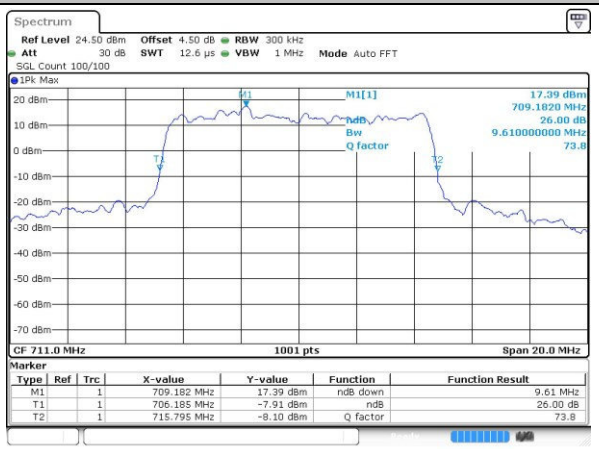

### Middle Channel / 10MHz / 16QAM




### Highest Channel / 10MHz / QPSK




### Highest Channel / 10MHz / 16QAM



# 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 | 2.73 | 2.72 | 4.49 | 4.49 | 9.01 | 8.97 | 13.49 | 13.52 | 18.38 | 18.30 |
| Middle CH | 1.08 | 1.10 | 2.70 | 2.73 | 4.51 | 4.50 | 9.09 | 8.97 | 13.43 | 13.37 | 18.26 | 18.46 |
| Highest CH | 1.09 | 1.10 | 2.74 | 2.73 | 4.48 | 4.51 | 9.03 | 9.01 | 13.43 | 13.46 | 18.30 | 18.30 |

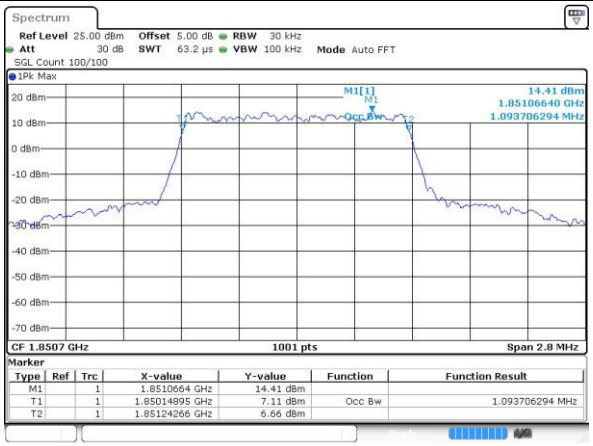
| Mode | LTE Band 4 : 99%OBW(MHz) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Lowest CH | 1.09 | 1.09 | 2.72 | 2.72 | 4.48 | 4.48 | 9.05 | 9.03 | 13.43 | 13.49 | 18.38 | 18.42 |
| Middle CH | 1.09 | 1.09 | 2.70 | 2.73 | 4.50 | 4.49 | 8.99 | 8.99 | 13.43 | 13.52 | 18.38 | 18.34 |
| Highest CH | 1.10 | 1.09 | 2.71 | 2.73 | 4.50 | 4.49 | 9.03 | 8.97 | 13.49 | 13.46 | 18.54 | 18.34 |

| Mode | LTE Band 5 : 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 | 2.74 | 2.73 | 4.49 | 4.49 | 8.95 | 8.97 | - | - | - | - |
| Middle CH | 1.09 | 1.09 | 2.72 | 2.72 | 4.50 | 4.51 | 9.01 | 9.01 | - | - | - | - |
| Highest CH | 1.10 | 1.10 | 2.72 | 2.73 | 4.49 | 4.49 | 9.03 | 9.01 | - | - | - | - |

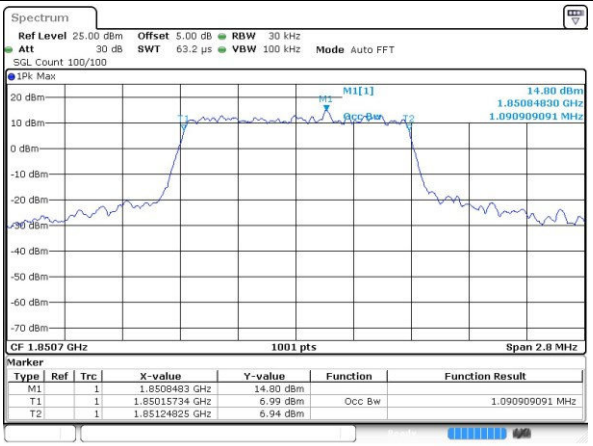
| Mode | LTE Band 12 : 99%OBW(MHz) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Lowest CH | 1.09 | 1.09 | 2.73 | 2.73 | 4.50 | 4.50 | 9.09 | 9.03 | - | - | - | - |
| Middle CH | 1.09 | 1.08 | 2.70 | 2.73 | 4.48 | 4.52 | 8.99 | 8.95 | - | - | - | - |
| Highest CH | 1.10 | 1.09 | 2.73 | 2.72 | 4.52 | 4.50 | 9.01 | 8.99 | - | - | - | - |

## LTE Band 2

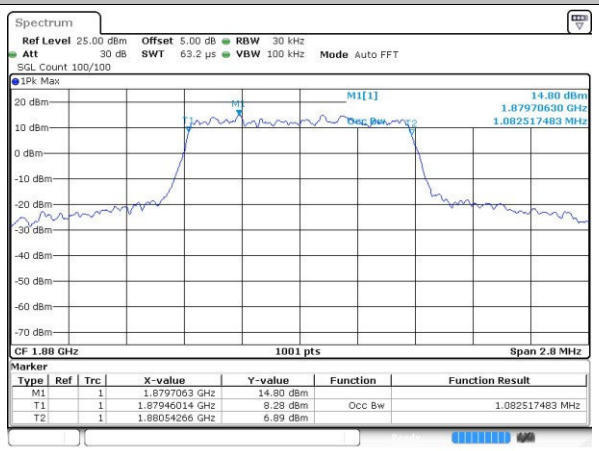
### Lowest Channel / 1.4MHz / QPSK



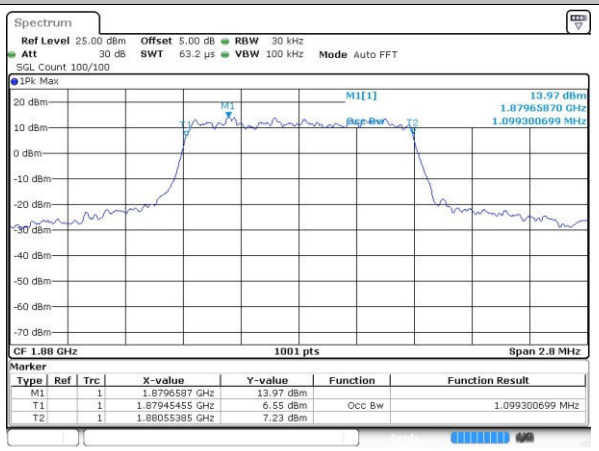

### Lowest Channel / 1.4MHz / 16QAM



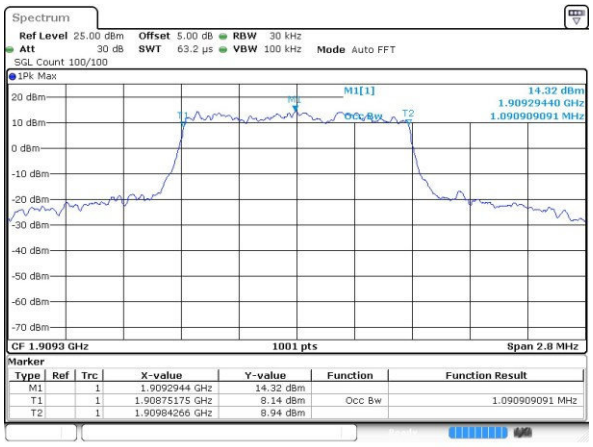

### Middle Channel / 1.4MHz / QPSK



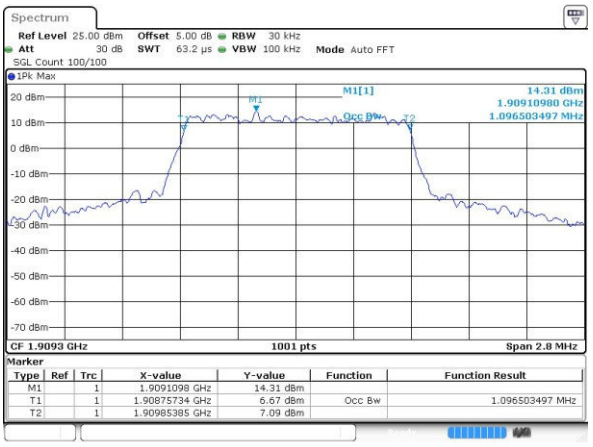

### Middle Channel / 1.4MHz / 16QAM




### Highest Channel / 1.4MHz / QPSK

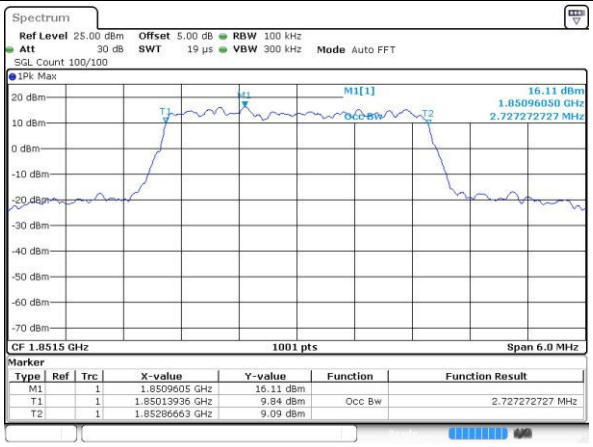



### Highest Channel / 1.4MHz / 16QAM

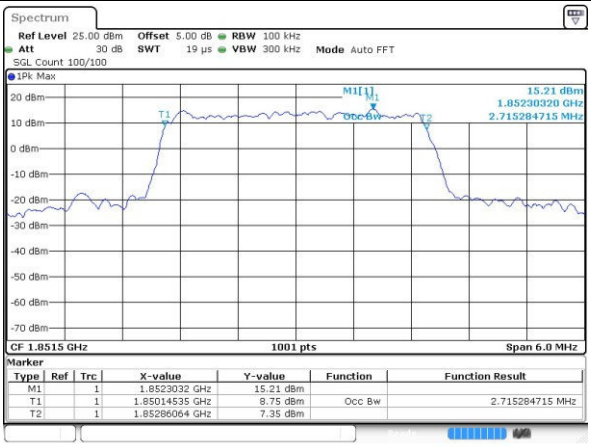


## LTE Band 2

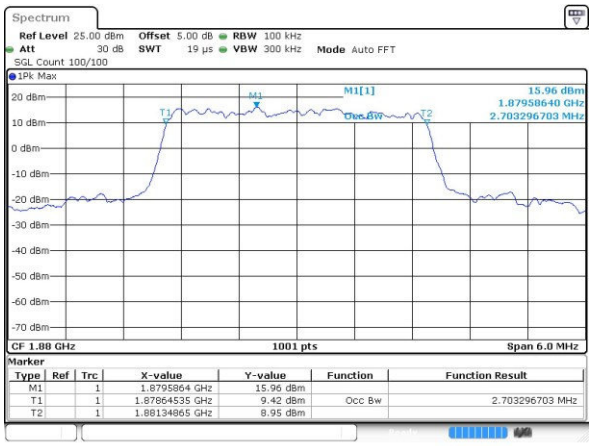
### Lowest Channel / 3MHz / QPSK



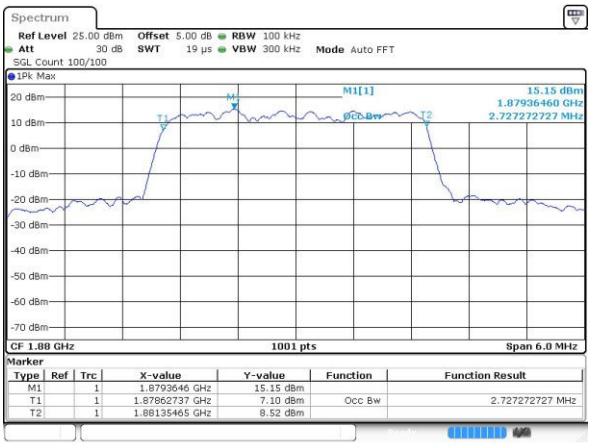

### Lowest Channel / 3MHz / 16QAM



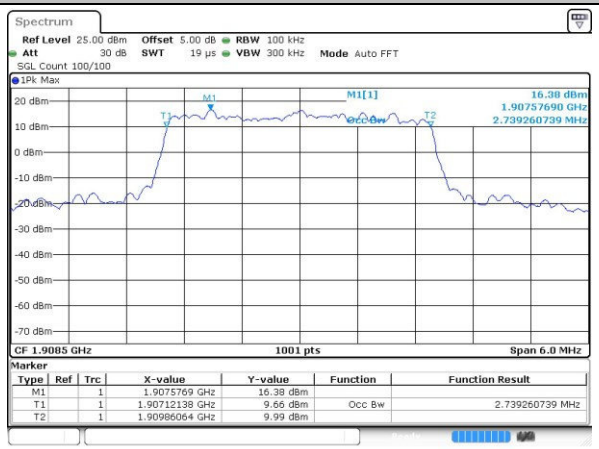

### Middle Channel / 3MHz / QPSK



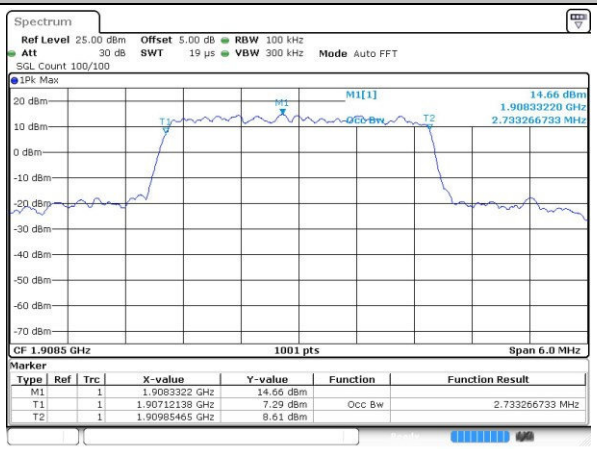

### Middle Channel / 3MHz / 16QAM




### Highest Channel / 3MHz / QPSK

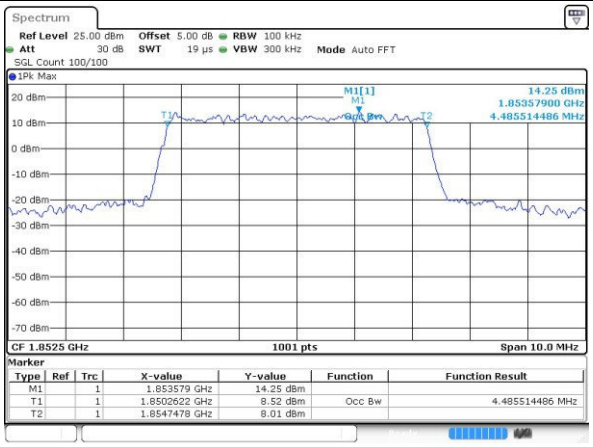



### Highest Channel / 3MHz / 16QAM

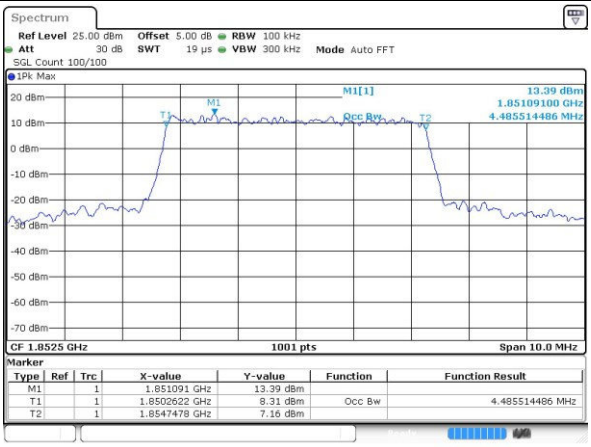


## LTE Band 2

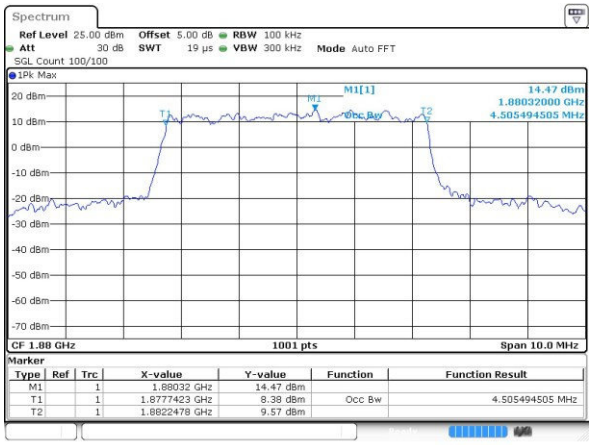
### Lowest Channel / 5MHz / QPSK



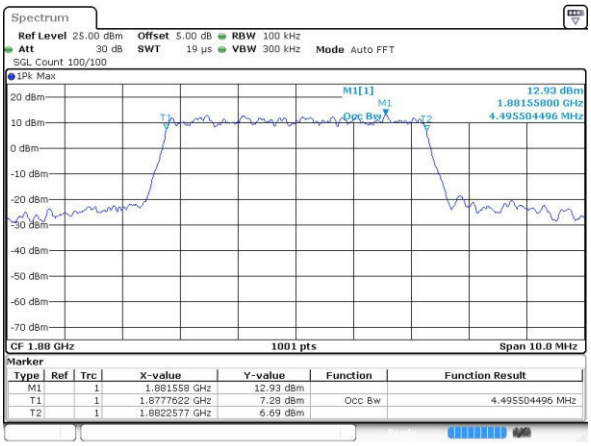

### Lowest Channel / 5MHz / 16QAM



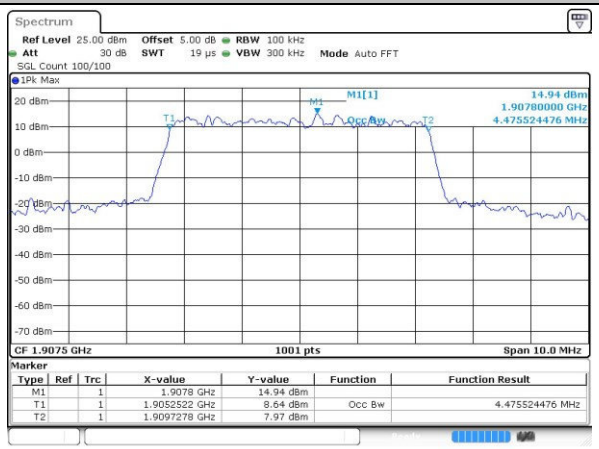

### Middle Channel / 5MHz / QPSK



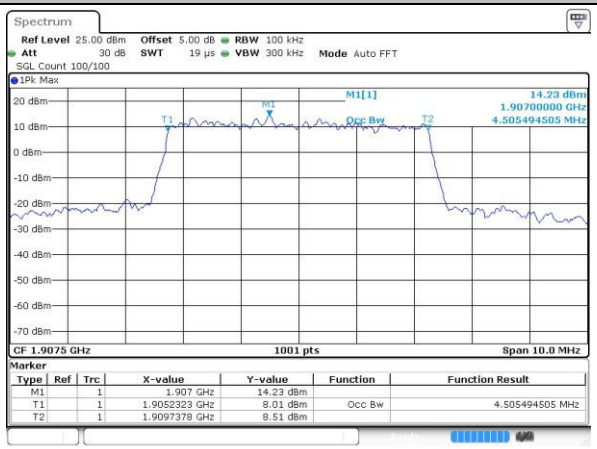

### Middle Channel / 5MHz / 16QAM




### Highest Channel / 5MHz / QPSK

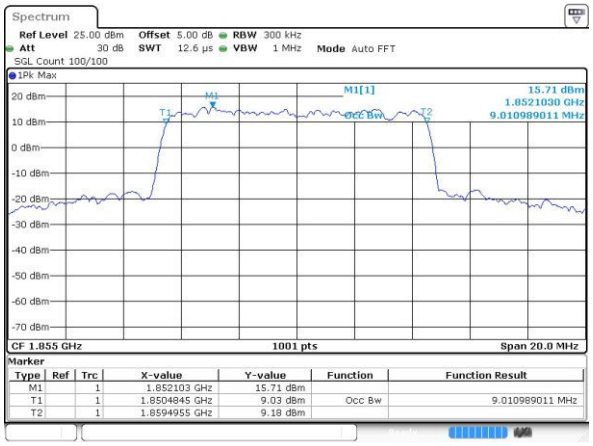



### Highest Channel / 5MHz / 16QAM

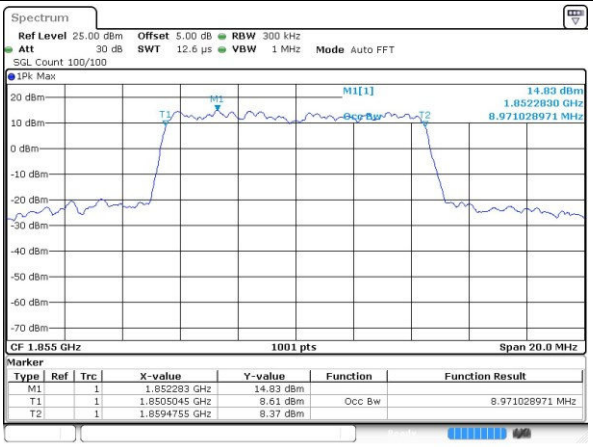


## LTE Band 2

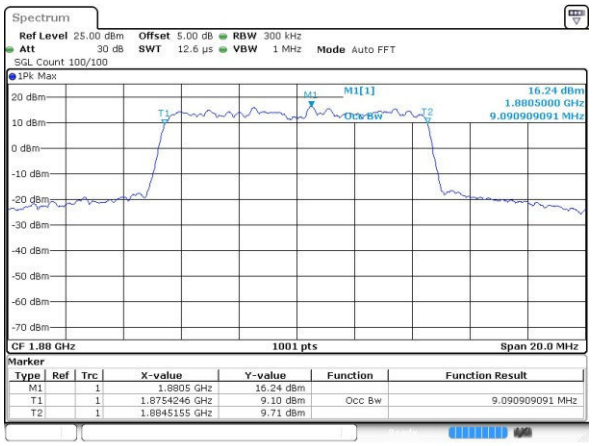
### Lowest Channel / 10MHz / QPSK



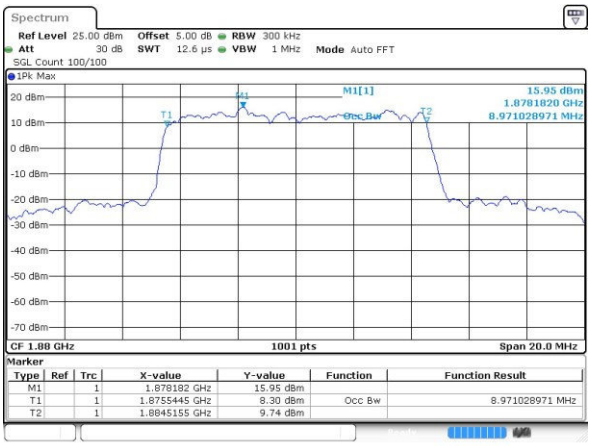

### Lowest Channel / 10MHz / 16QAM



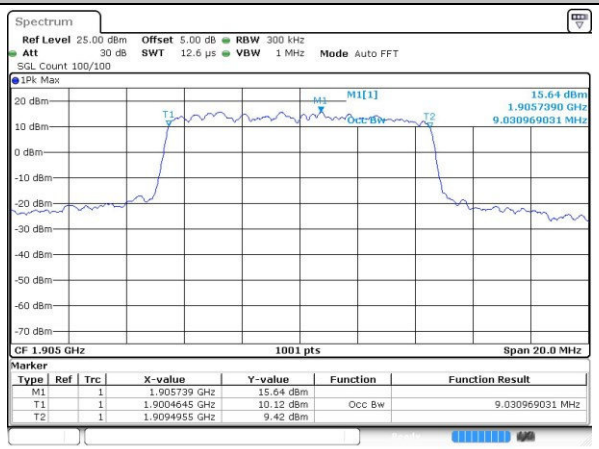

### Middle Channel / 10MHz / QPSK



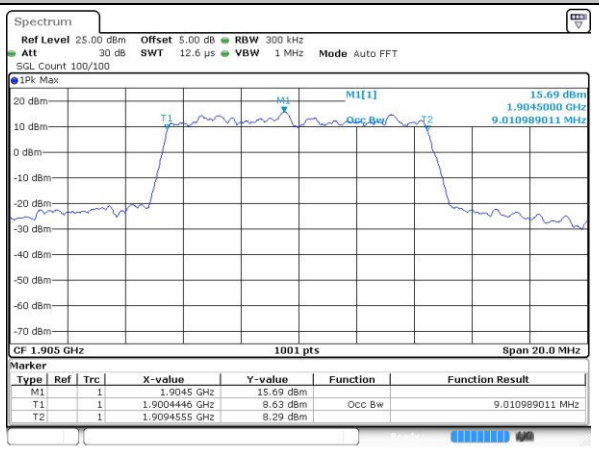

### Middle Channel / 10MHz / 16QAM




### Highest Channel / 10MHz / QPSK

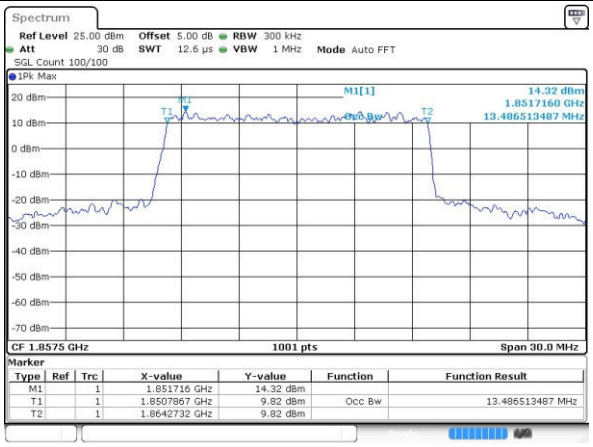



### Highest Channel / 10MHz / 16QAM

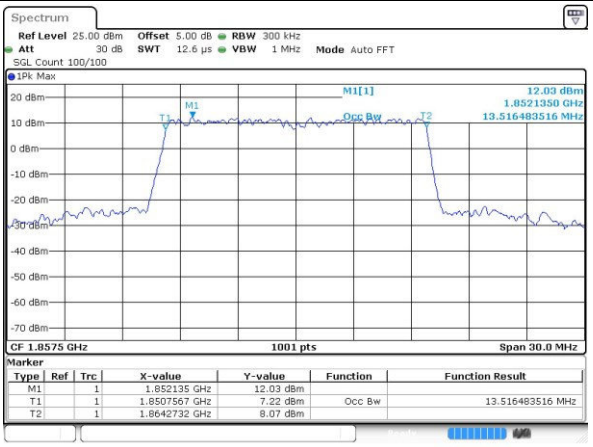


## LTE Band 2

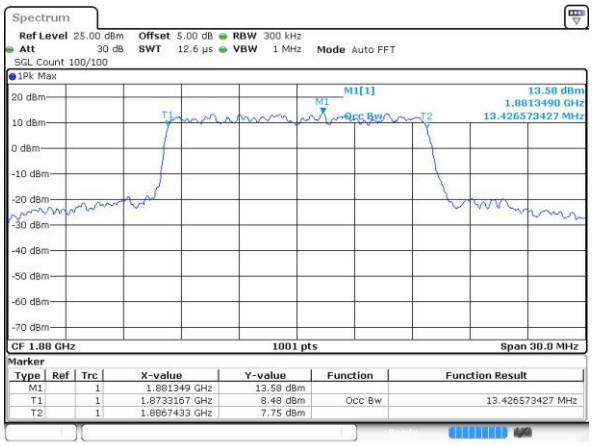
### Lowest Channel / 15MHz / QPSK



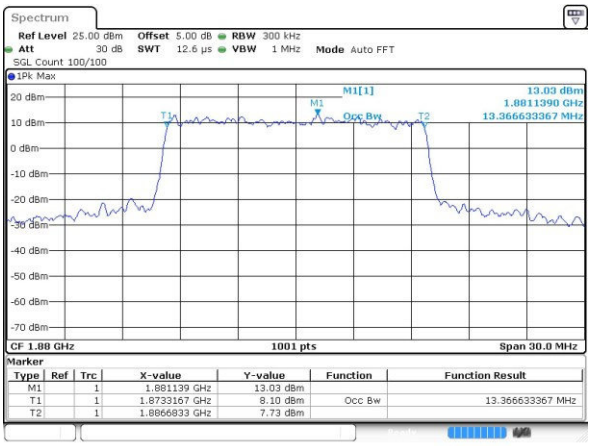

### Lowest Channel / 15MHz / 16QAM



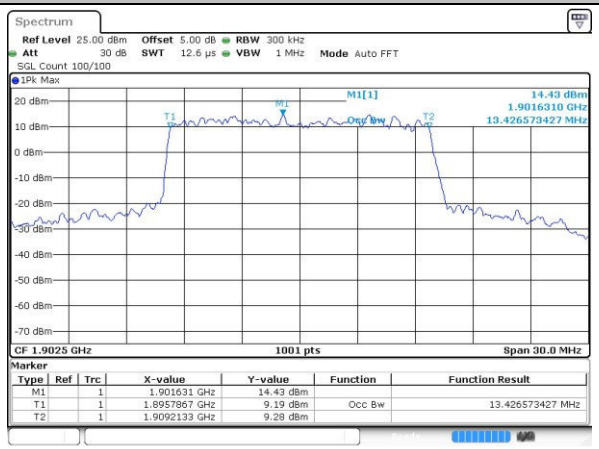

### Middle Channel / 15MHz / QPSK



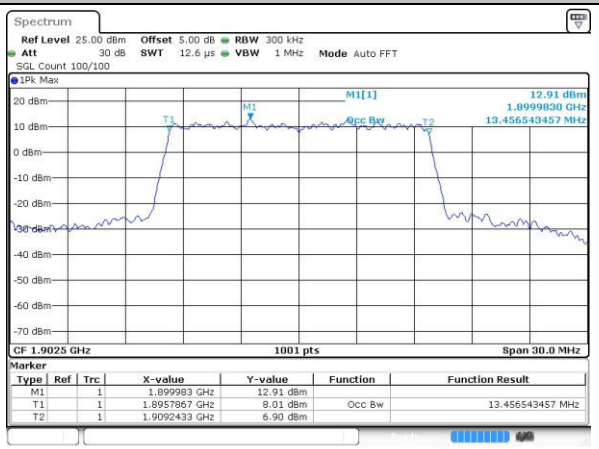

### Middle Channel / 15MHz / 16QAM




### Highest Channel / 15MHz / QPSK

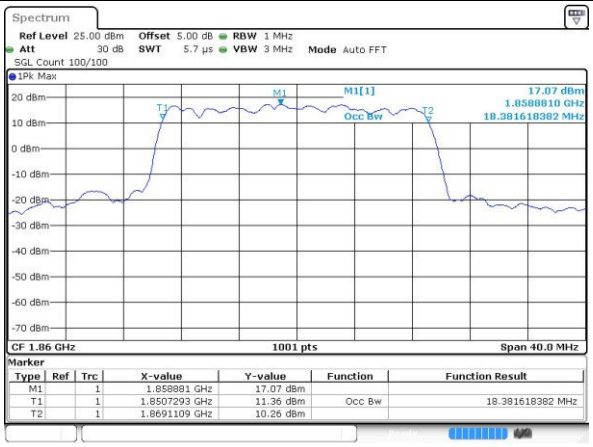



### Highest Channel / 15MHz / 16QAM



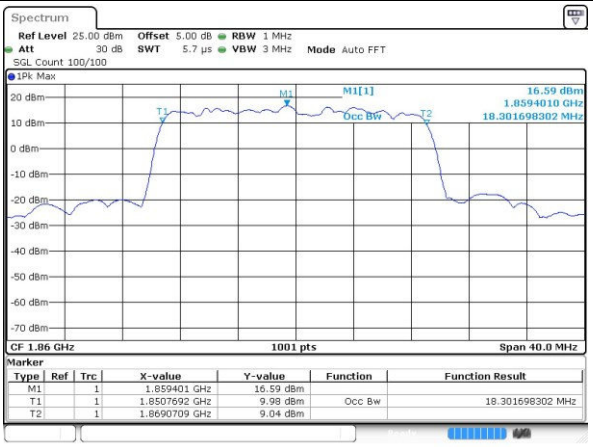
## LTE Band 2

### Lowest Channel / 20MHz / QPSK



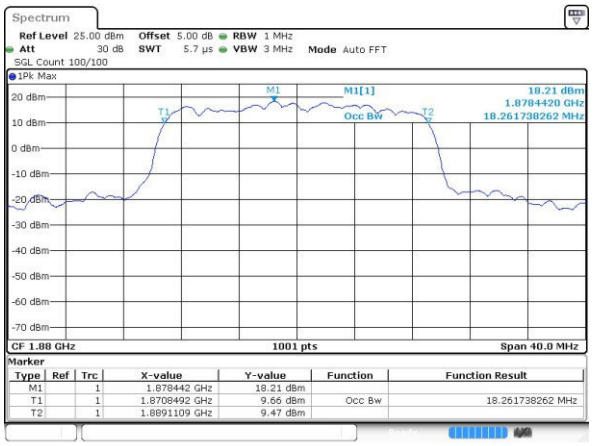

Date: 6.FEB.2017 21:39:00

### Lowest Channel / 20MHz / 16QAM



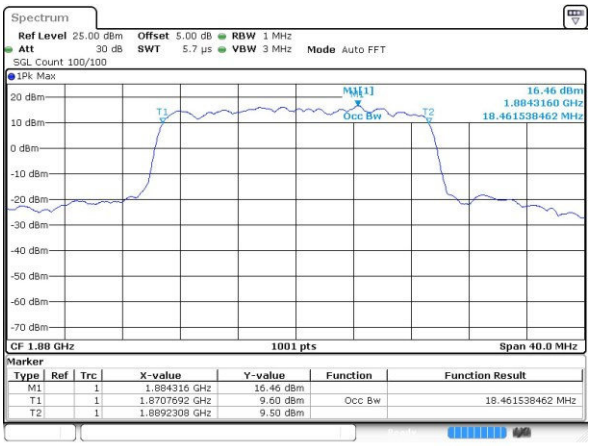

Date: 6.FEB.2017 21:39:11

### Middle Channel / 20MHz / QPSK



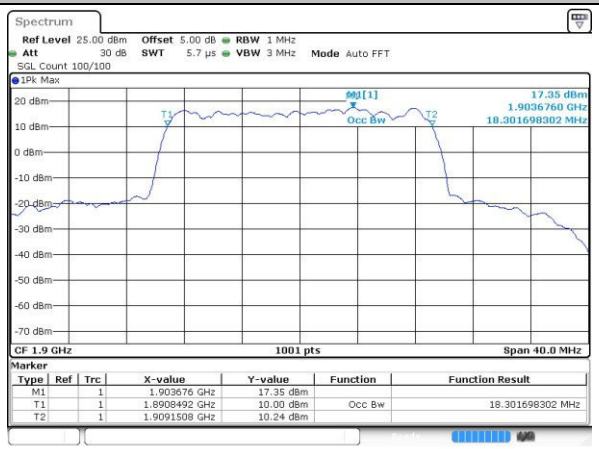

Date: 6.FEB.2017 21:46:05

### Middle Channel / 20MHz / 16QAM



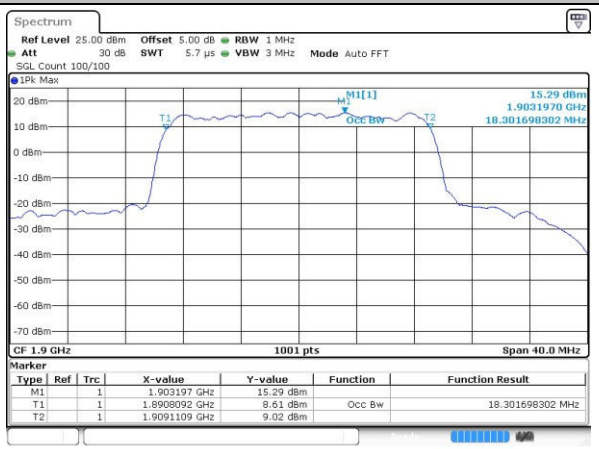

Date: 6.FEB.2017 21:46:16

### Highest Channel / 20MHz / QPSK




Date: 6.FEB.2017 21:48:38

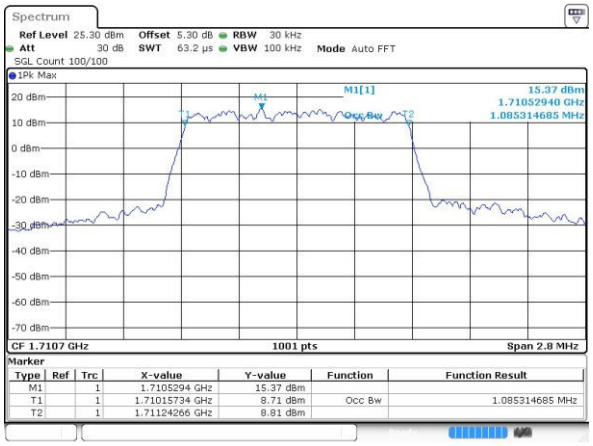
### Highest Channel / 20MHz / 16QAM



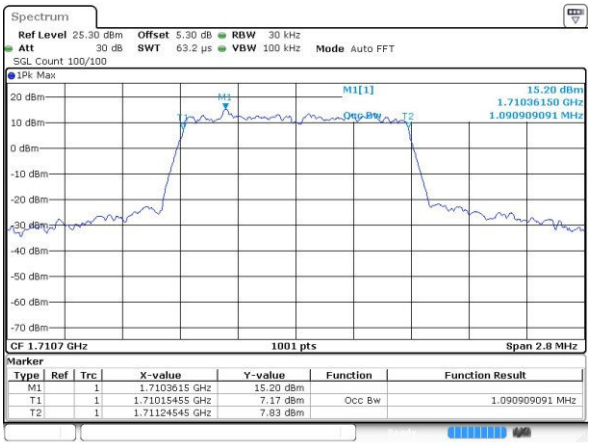

Date: 6.FEB.2017 21:48:49

## LTE Band 4

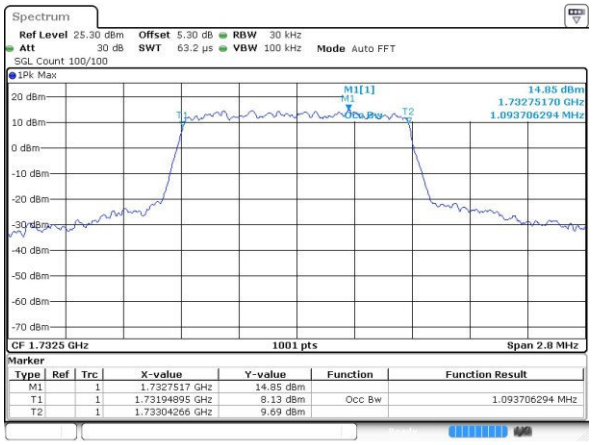
### Lowest Channel / 1.4MHz / QPSK



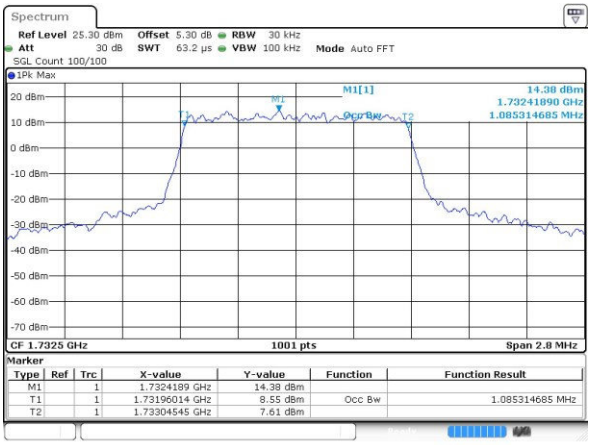

### Lowest Channel / 1.4MHz / 16QAM



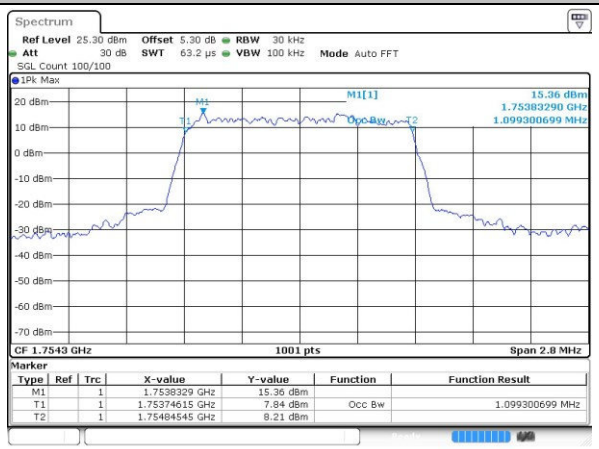

### Middle Channel / 1.4MHz / QPSK



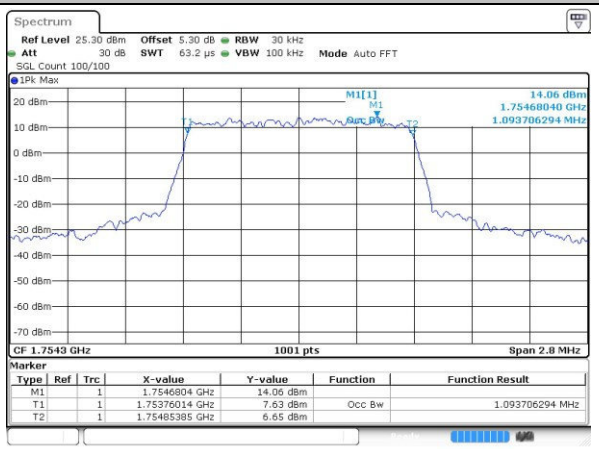

### Middle Channel / 1.4MHz / 16QAM




### Highest Channel / 1.4MHz / QPSK

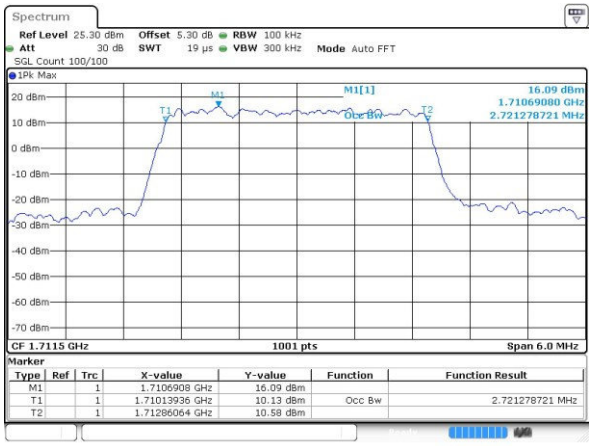



### Highest Channel / 1.4MHz / 16QAM

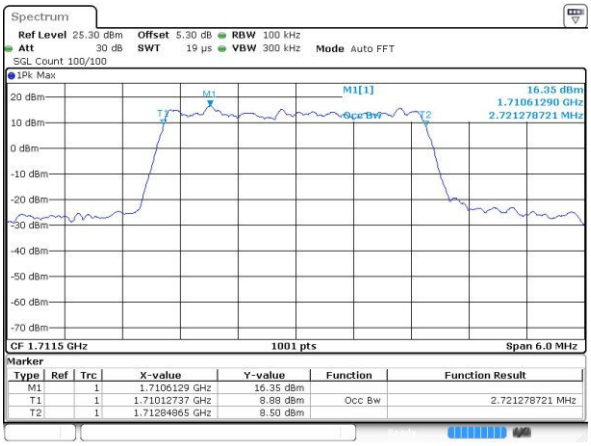


## LTE Band 4

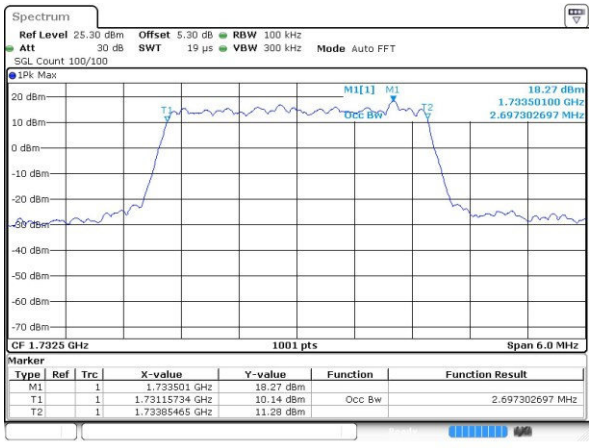
### Lowest Channel / 3MHz / QPSK



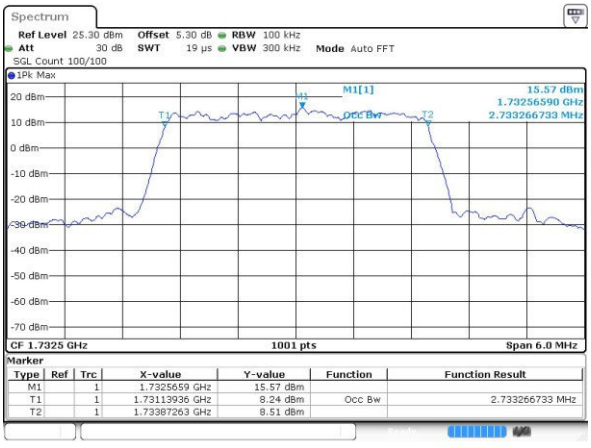

### Lowest Channel / 3MHz / 16QAM



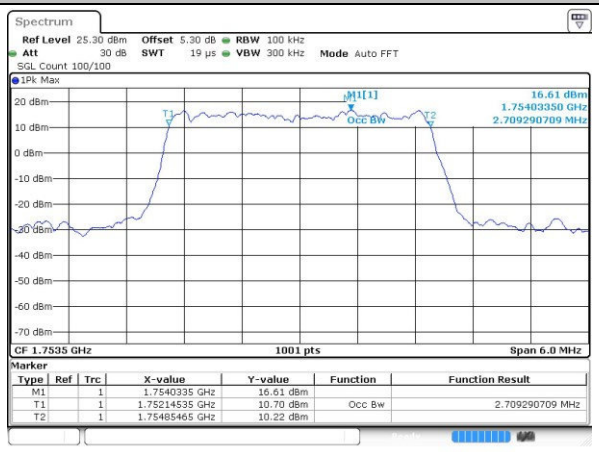

### Middle Channel / 3MHz / QPSK

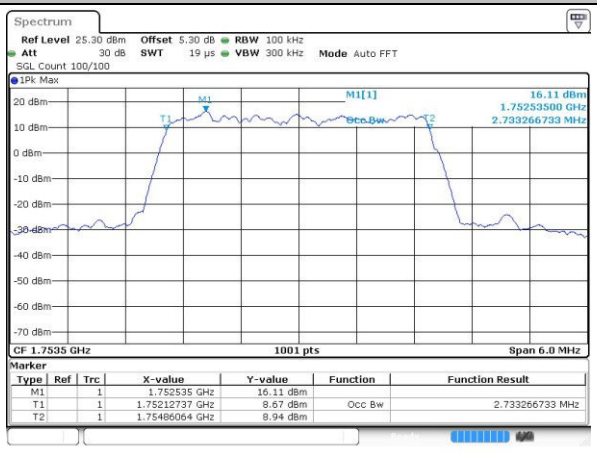



### Middle Channel / 3MHz / 16QAM




### Highest Channel / 3MHz / QPSK




### Highest Channel / 3MHz / 16QAM