

# FCC Test Report

## ANNEX 3 LTE BAND 2

### FCC ID:2A6DV-HPAD

Applicant: CHINA HAINERGY NEW ENERGY CORP., LTD

Address: Unit 1908, 19/F., Harbour Centre, 25 Harbour Road, Wan Chai, Hong Kong, China.

Manufacturer: CHINA HAINERGY NEW ENERGY CORP., LTD

Address: Unit 1908, 19/F., Harbour Centre, 25 Harbour Road, Wan Chai, Hong Kong, China.

EUT: Tablet

Trade Mark: Haitech

Model Number: HPAD-M2

Date of Receipt: Apr. 13, 2022

Test Date: Apr. 13, 2022 – Apr. 22, 2022

Date of Report: Apr. 22, 2022

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China

Applicable Standards: FCC CFR Title 47 Part22 Subpart H  
FCC CFR Title 47 Part24 Subpart E  
FCC CFR Title 47 Part27  
ANSI/TIA-603-E-2016  
FCC KDB 971168 D01 Power Meas. License Digital Systems v03v01  
ANSI C63.26:2015

Test Result: Pass

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## 1. EMISSION TEST RESULTS

### 1.1. -26dB and 99% Occupied Bandwidth

#### 1.1.1. Test Result

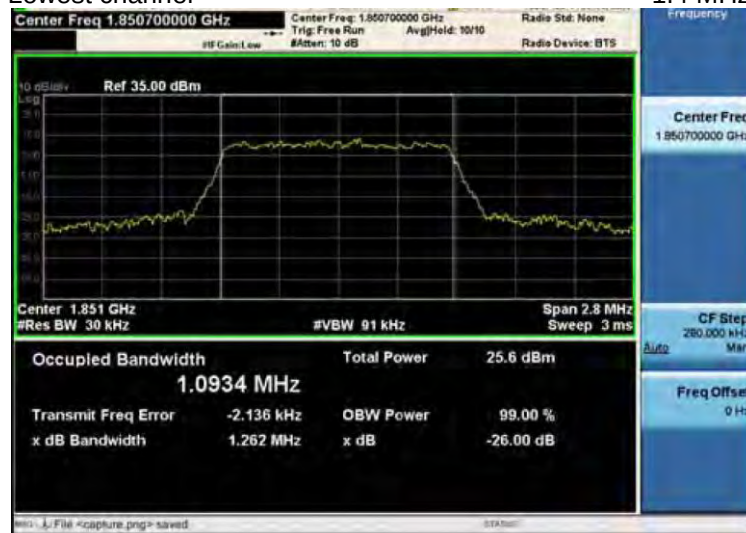
| EUT Mode Bandwidth    | Modulation | Frequency (MHz) | 99% Occupy bandwidth (MHz) | -26dB bandwidth (MHz) |
|-----------------------|------------|-----------------|----------------------------|-----------------------|
| LTE Band 2<br>1.4MHz  | QPSK       | 1850.7          | 1.09                       | 1.26                  |
|                       |            | 1882.5          | 1.09                       | 1.26                  |
|                       |            | 1914.3          | 1.09                       | 1.26                  |
| LTE Band 2<br>1.4 MHz | 16-QAM     | 1850.7          | 1.10                       | 1.29                  |
|                       |            | 1882.5          | 1.10                       | 1.29                  |
|                       |            | 1914.3          | 1.10                       | 1.29                  |
| LTE Band 2<br>3 MHz   | QPSK       | 1851.5          | 2.69                       | 2.97                  |
|                       |            | 1882.5          | 2.69                       | 2.96                  |
|                       |            | 1913.5          | 2.69                       | 2.95                  |
| LTE Band 2<br>3 MHz   | 16-QAM     | 1851.5          | 2.69                       | 2.98                  |
|                       |            | 1882.5          | 2.69                       | 2.98                  |
|                       |            | 1913.5          | 2.69                       | 2.97                  |
| LTE Band 2<br>5 MHz   | QPSK       | 1852.5          | 4.50                       | 4.92                  |
|                       |            | 1882.5          | 4.50                       | 4.93                  |
|                       |            | 1912.5          | 4.50                       | 4.94                  |
| LTE Band 2<br>5 MHz   | 16-QAM     | 1852.5          | 4.51                       | 4.87                  |
|                       |            | 1882.5          | 4.51                       | 4.91                  |
|                       |            | 1912.5          | 4.50                       | 4.91                  |
| LTE Band 2<br>10 MHz  | QPSK       | 1855.0          | 9.01                       | 9.74                  |
|                       |            | 1882.5          | 9.00                       | 9.76                  |
|                       |            | 1910.0          | 9.02                       | 9.74                  |
| LTE Band 2<br>10 MHz  | 16-QAM     | 1855.0          | 8.96                       | 9.68                  |
|                       |            | 1882.5          | 8.97                       | 9.72                  |
|                       |            | 1910.0          | 8.96                       | 9.69                  |
| LTE Band 2<br>15 MHz  | QPSK       | 1857.5          | 13.44                      | 14.60                 |
|                       |            | 1882.5          | 13.46                      | 14.59                 |
|                       |            | 1907.5          | 13.50                      | 14.62                 |
| LTE Band 2<br>15 MHz  | 16-QAM     | 1857.5          | 13.47                      | 16.13                 |
|                       |            | 1882.5          | 13.47                      | 14.57                 |
|                       |            | 1907.5          | 13.46                      | 14.58                 |
| LTE Band 2<br>20 MHz  | QPSK       | 1860.0          | 17.92                      | 19.39                 |
|                       |            | 1882.5          | 17.97                      | 19.41                 |
|                       |            | 1905.0          | 17.95                      | 19.40                 |
| LTE Band 2<br>20 MHz  | 16-QAM     | 1860.0          | 17.99                      | 20.13                 |
|                       |            | 1882.5          | 17.99                      | 19.81                 |
|                       |            | 1905.0          | 17.94                      | 19.44                 |

Note: Measurement Uncertainty:  $\pm 20\text{Hz}$ .

Test plot as follows:

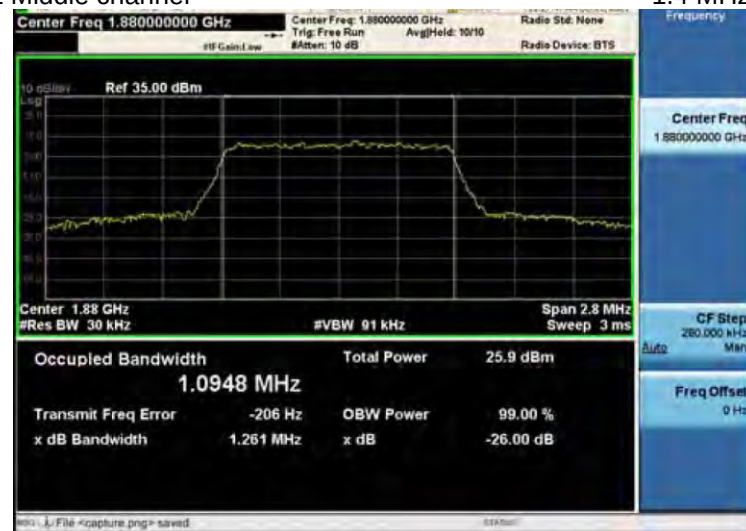
LTE Band 2 Lowest channel

1.4 MHz QPSK



LTE Band 2 Middle channel

1.4 MHz QPSK



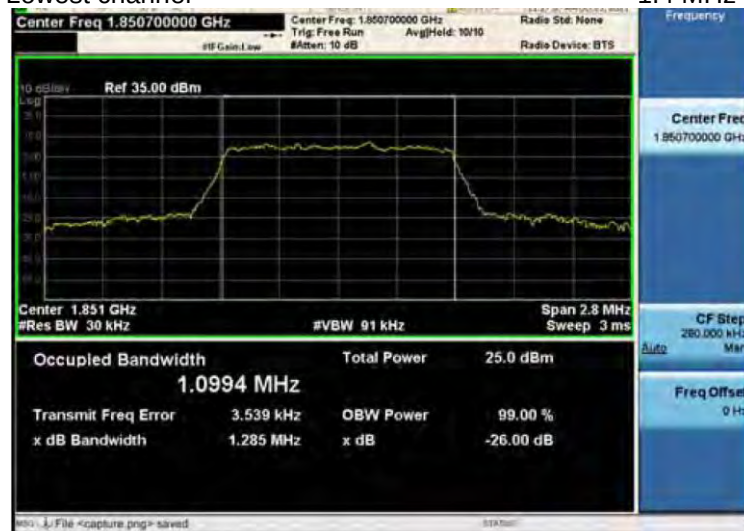
LTE Band 2 Highest channel:

1.4 MHz QPSK



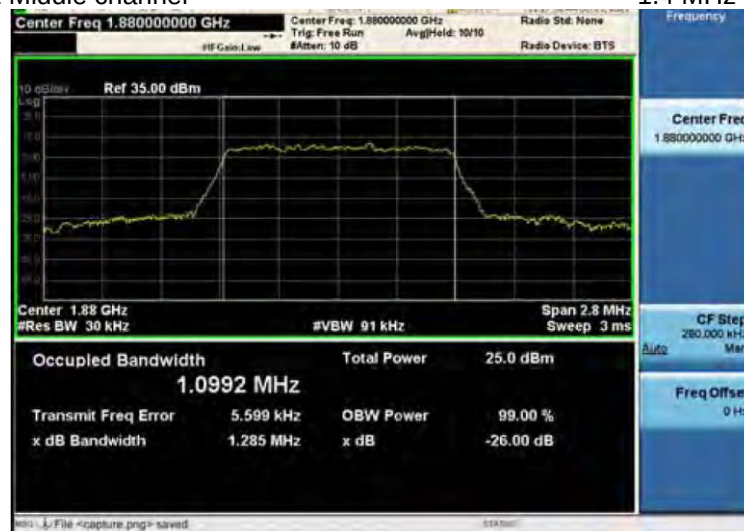
LTE Band 2 Lowest channel

1.4 MHz 16-QAM



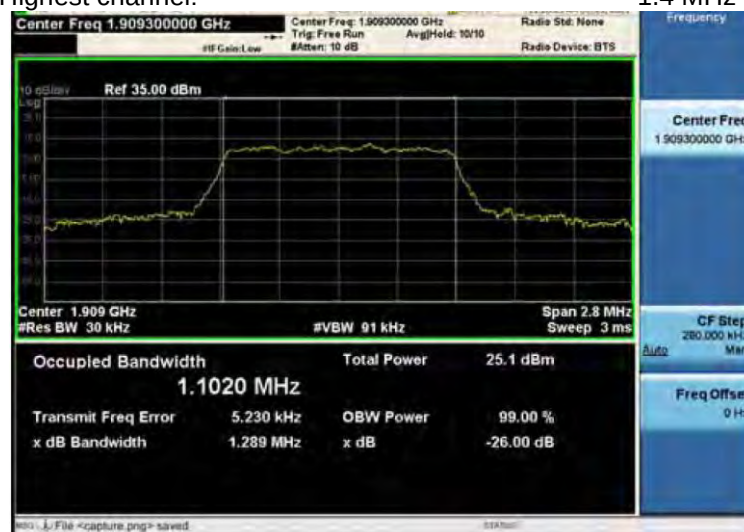
LTE Band 2 Middle channel

1.4 MHz 16-QAM



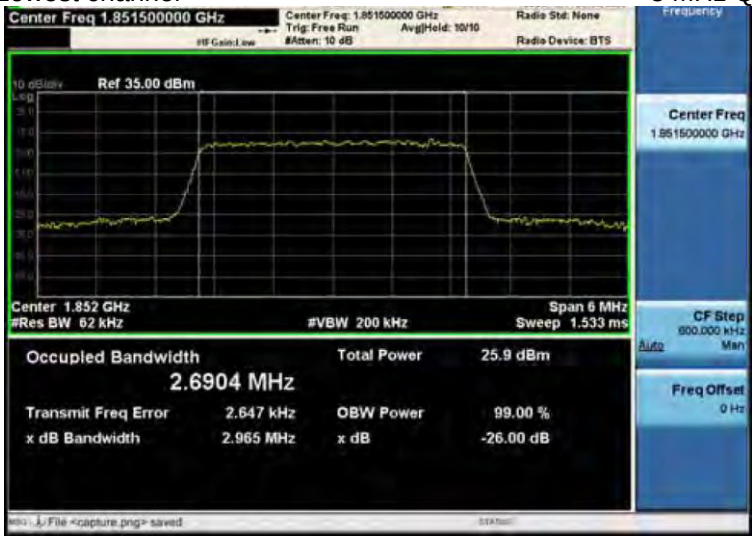
LTE Band 2 Highest channel:

1.4 MHz 16-QAM



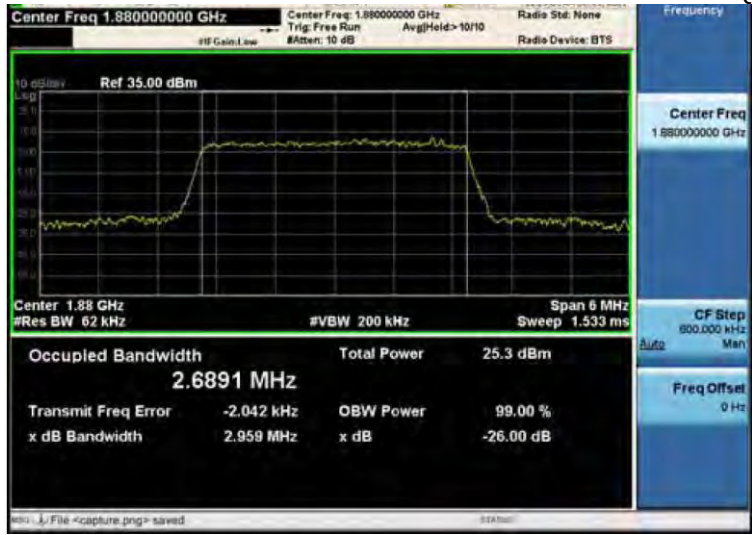
LTE Band 2 Lowest channel

3 MHz QPSK



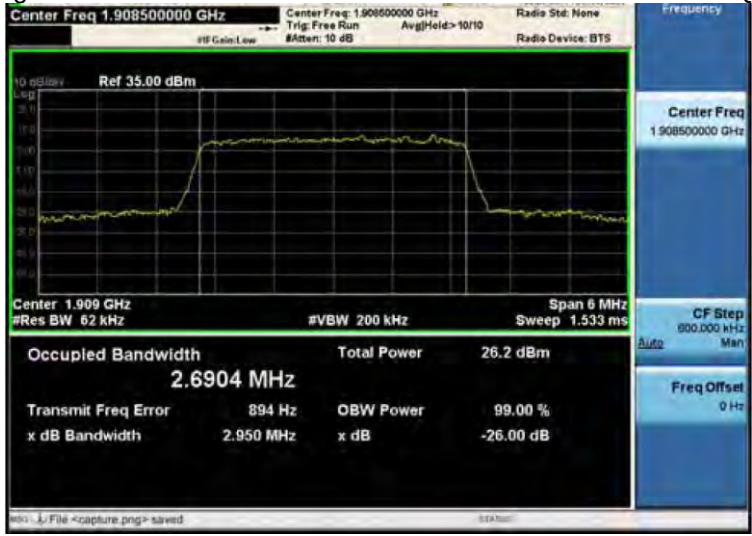
LTE Band 2 Middle channel

3 MHz QPSK



LTE Band 2 Highest channel:

3 MHz QPSK





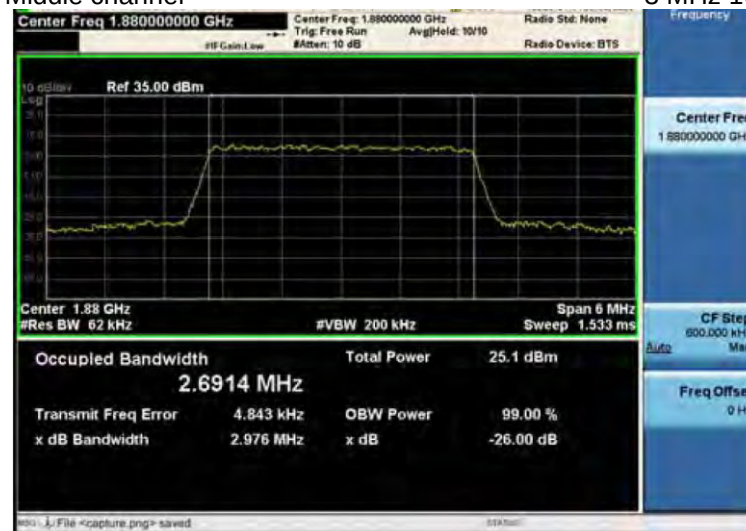
LTE Band 2 Lowest channel

3 MHz 16-QAM



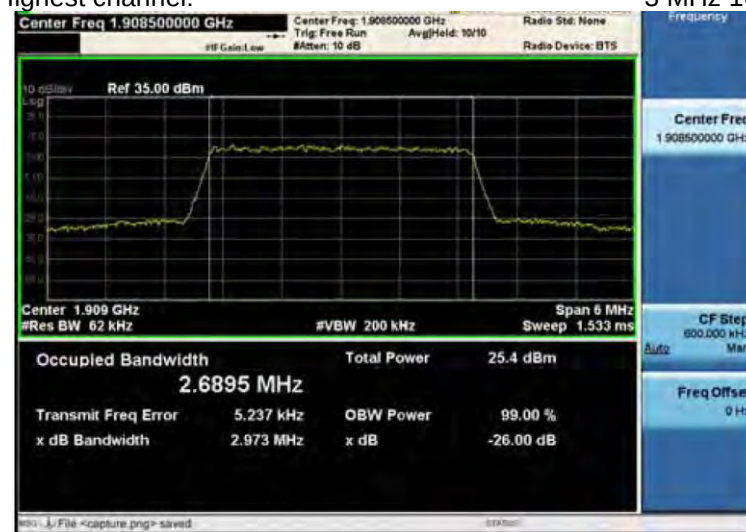
LTE Band 2 Middle channel

3 MHz 16-QAM



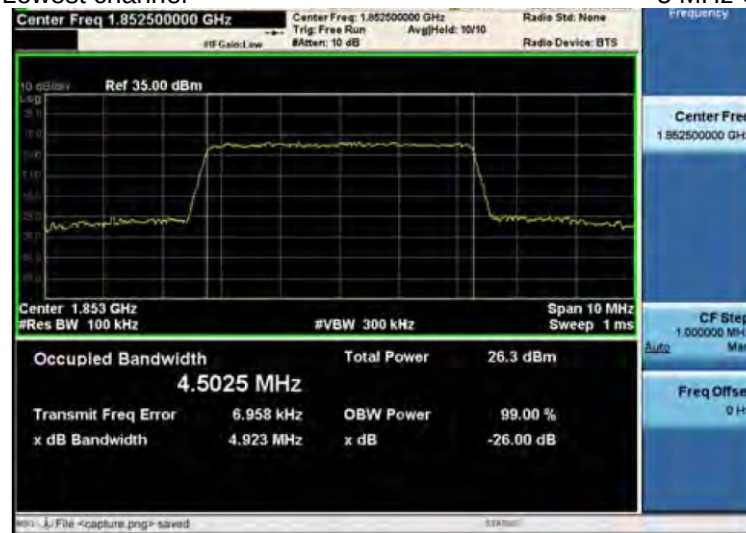
LTE Band 2 Highest channel:

3 MHz 16-QAM



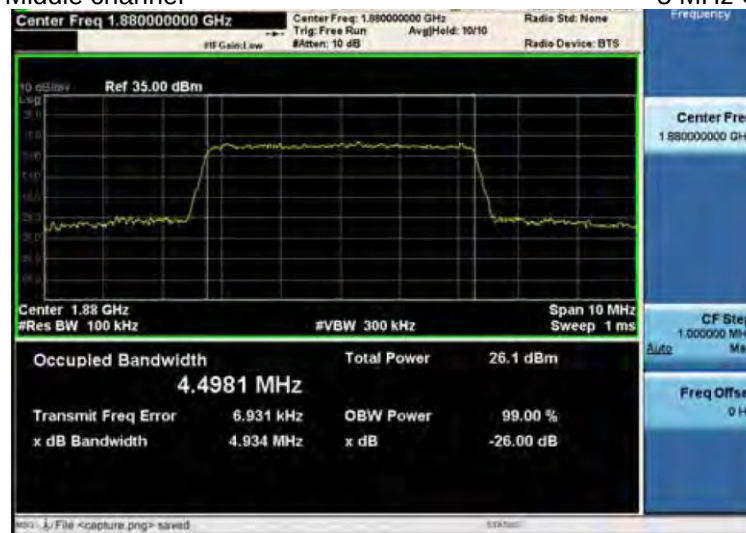
LTE Band 2 Lowest channel

5 MHz QPSK



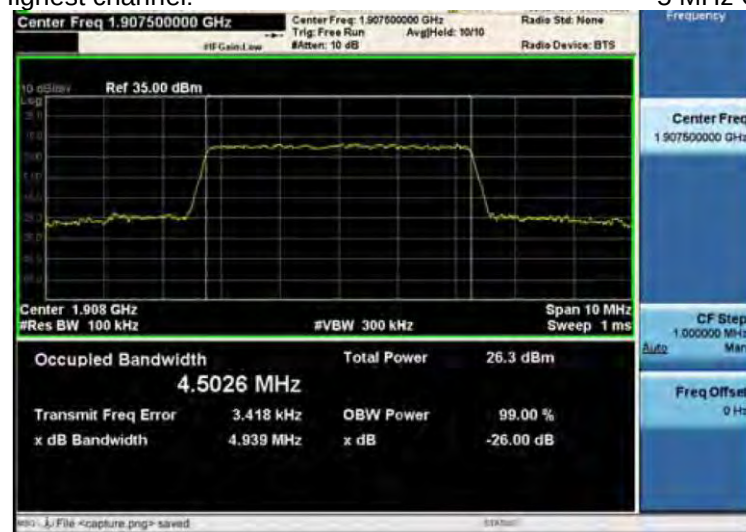
LTE Band 2 Middle channel

5 MHz QPSK



LTE Band 2 Highest channel:

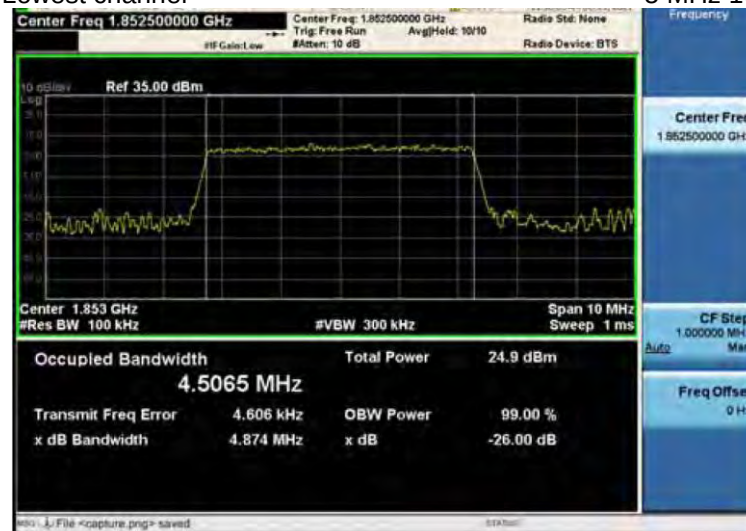
5 MHz QPSK





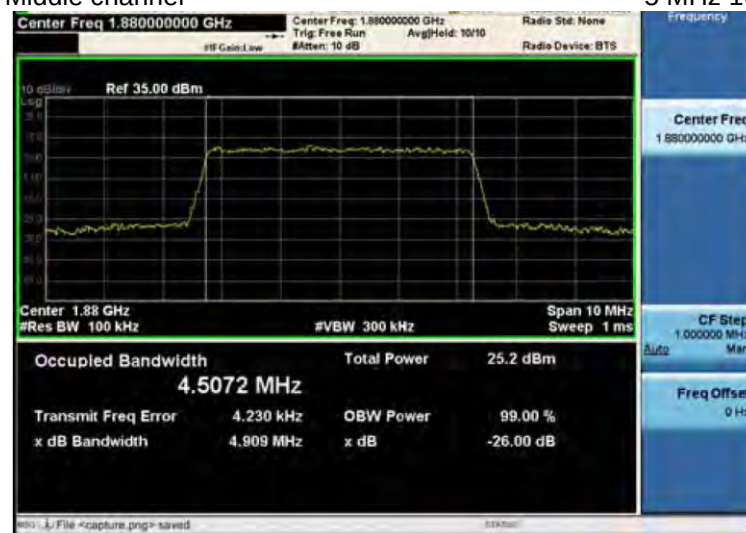
LTE Band 2 Lowest channel

5 MHz 16-QAM



LTE Band 2 Middle channel

5 MHz 16-QAM



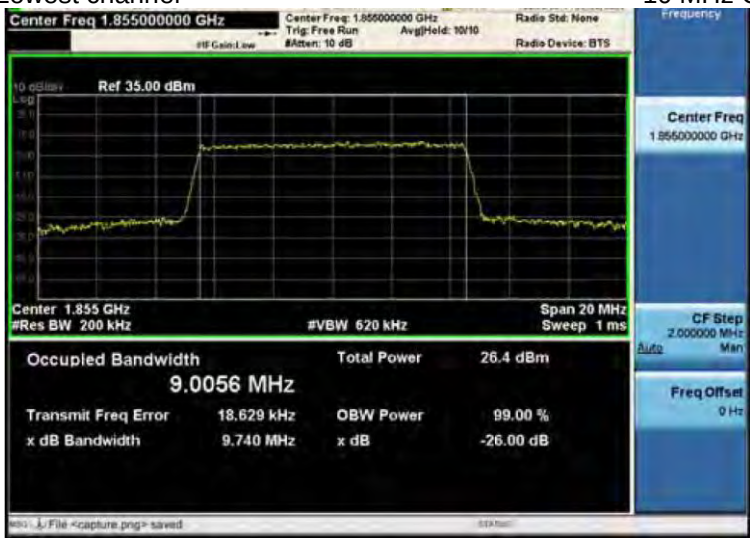
LTE Band 2 Highest channel:

5 MHz 16-QAM



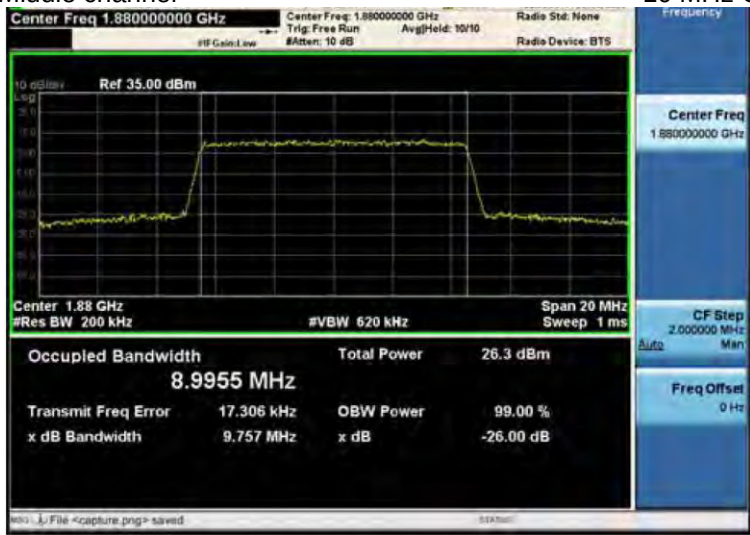
LTE Band 2 Lowest channel

10 MHz QPSK



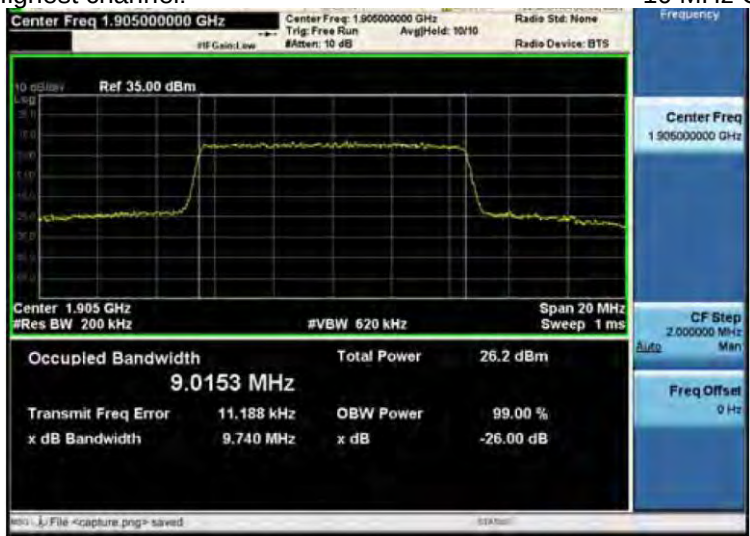
LTE Band 2 Middle channel

10 MHz QPSK



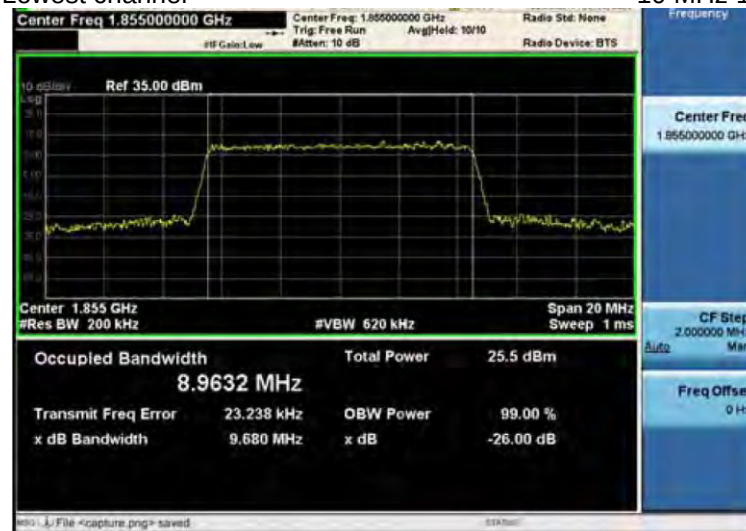
LTE Band 2 Highest channel:

10 MHz QPSK



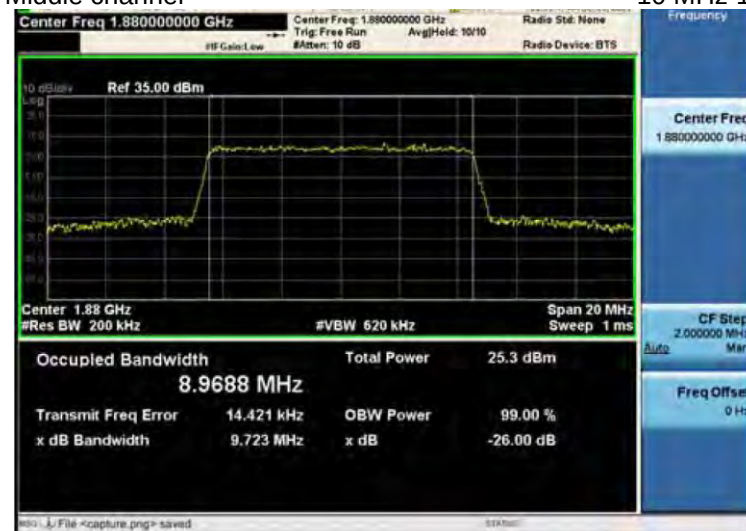
LTE Band 2 Lowest channel

10 MHz 16-QAM



LTE Band 2 Middle channel

10 MHz 16-QAM



LTE Band 2 Highest channel:

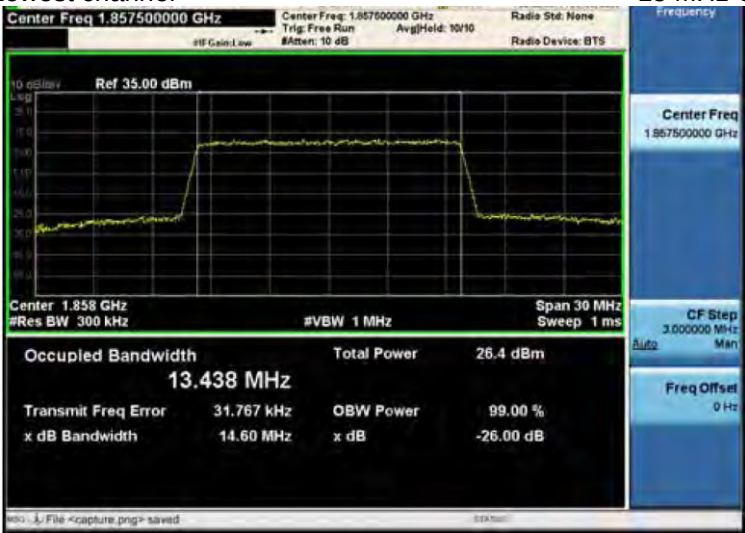
10 MHz 16-QAM





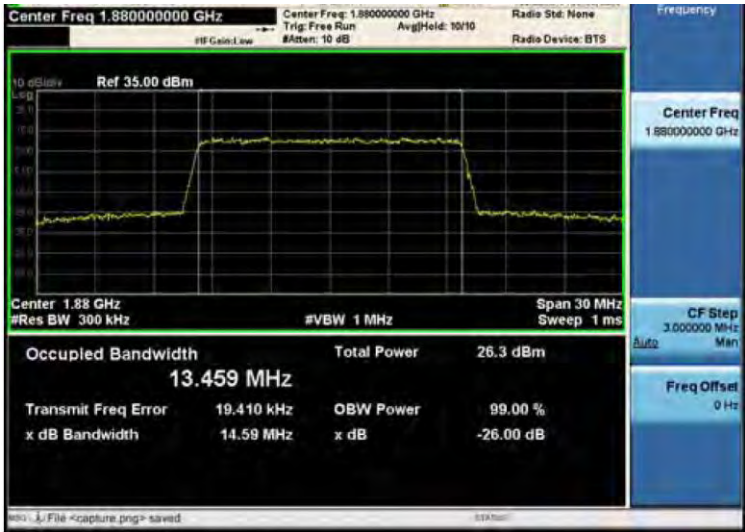
LTE Band 2 Lowest channel

15 MHz QPSK



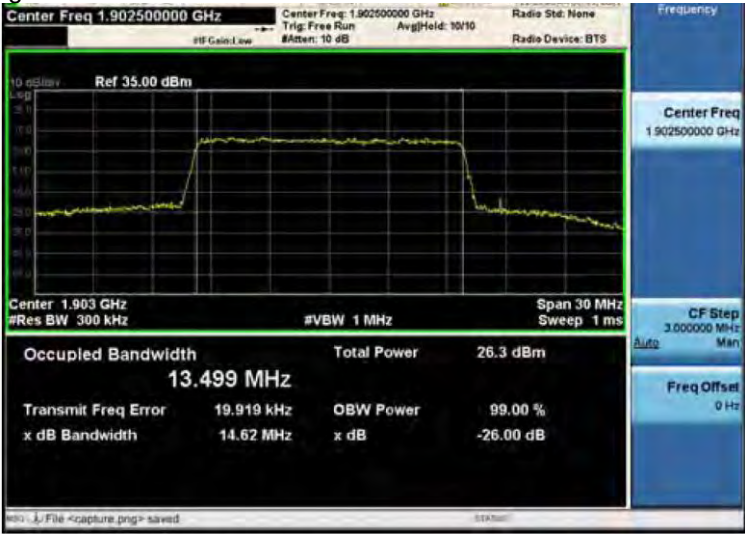
LTE Band 2 Middle channel

15 MHz QPSK



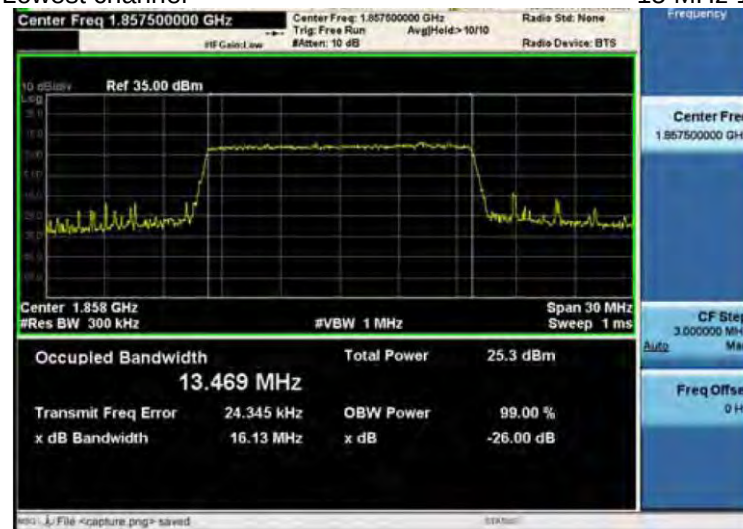
LTE Band 2 Highest channel:

15 MHz QPSK



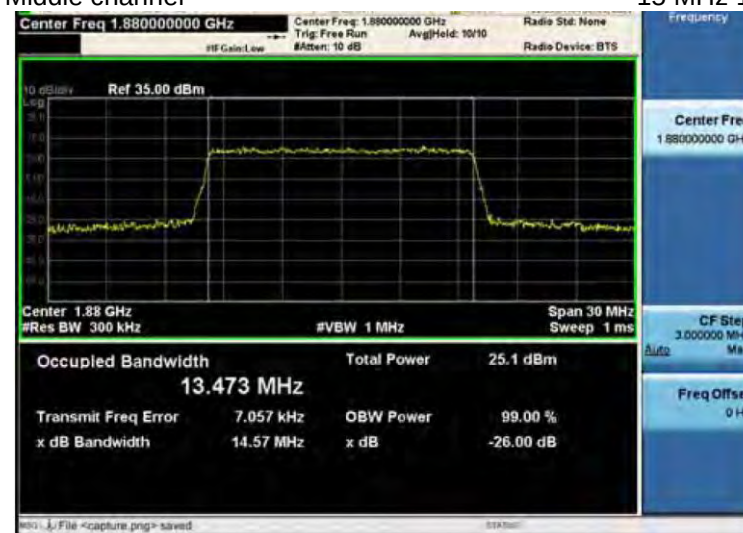
LTE Band 2 Lowest channel

15 MHz 16-QAM



LTE Band 2 Middle channel

15 MHz 16-QAM



LTE Band 2 Highest channel:

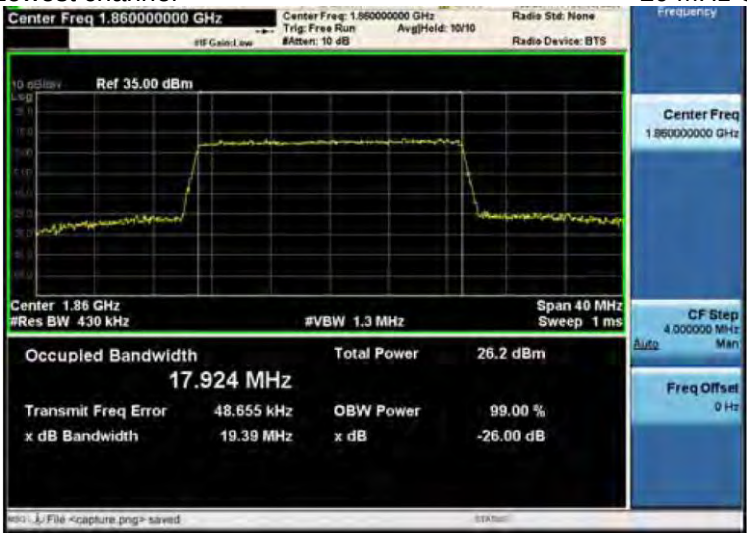
15 MHz 16-QAM





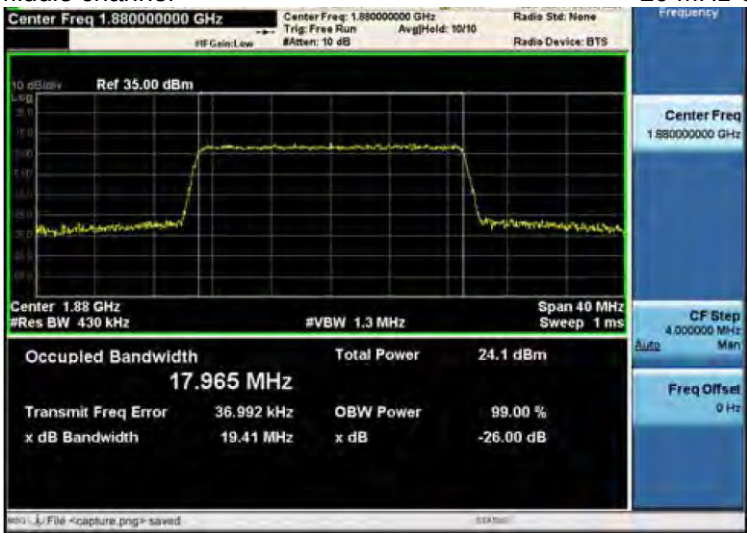
LTE Band 2 Lowest channel

20 MHz QPSK



LTE Band 2 Middle channel

20 MHz QPSK



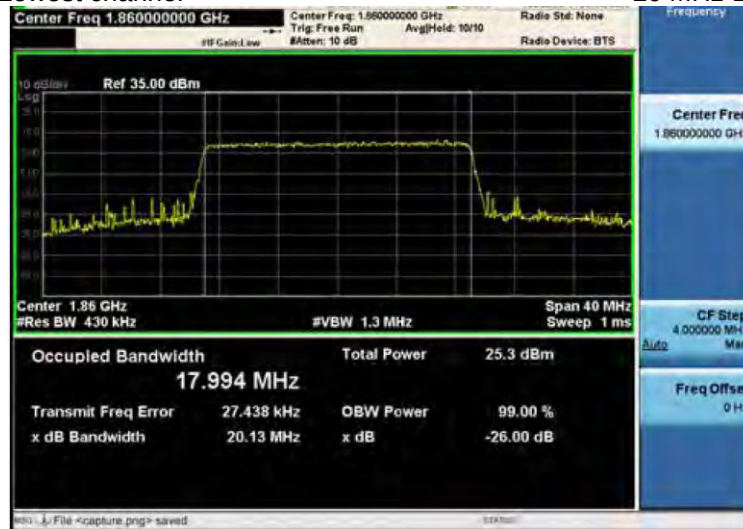
LTE Band 2 Highest channel:

20 MHz QPSK



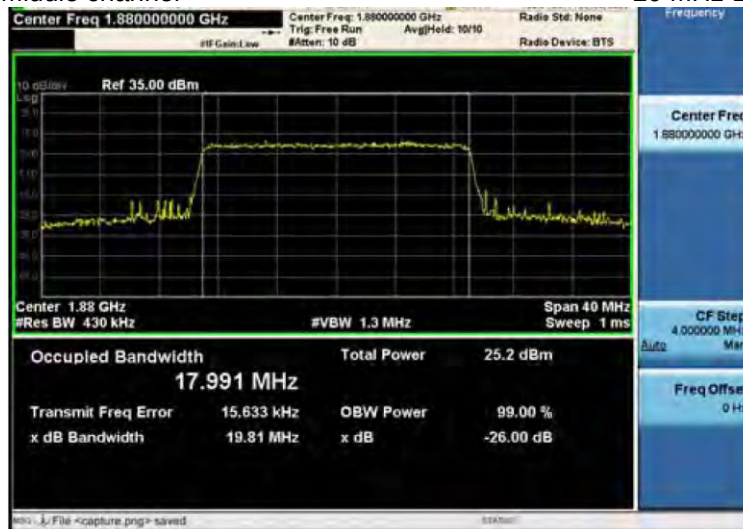
LTE Band 2 Lowest channel

20 MHz 16-QAM



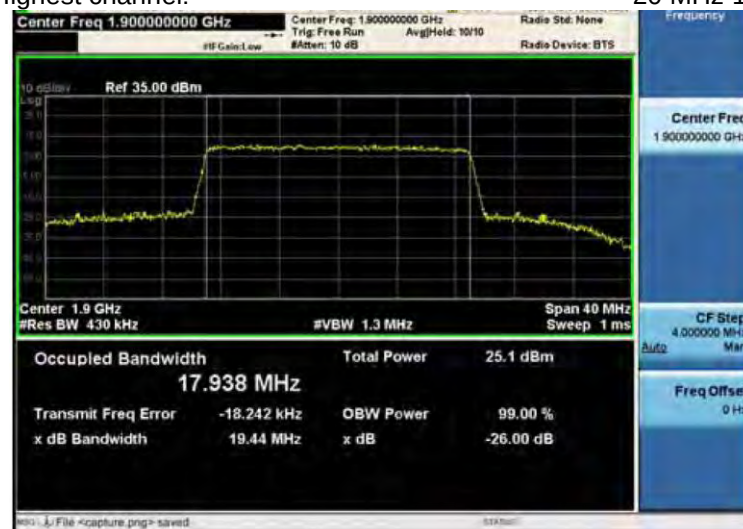
LTE Band 2 Middle channel

20 MHz 16-QAM



LTE Band 2 Highest channel:

20 MHz 16-QAM



## 1.2. Conducted Spurious Emissions

### 1.2.1. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

For LTE mode, the plot only show the QPSK,RB100's data.

Pass, the table and plot please see annex.

LTE Band 2 Lowest channel

1.4MHz



LTE Band 2 middle channel

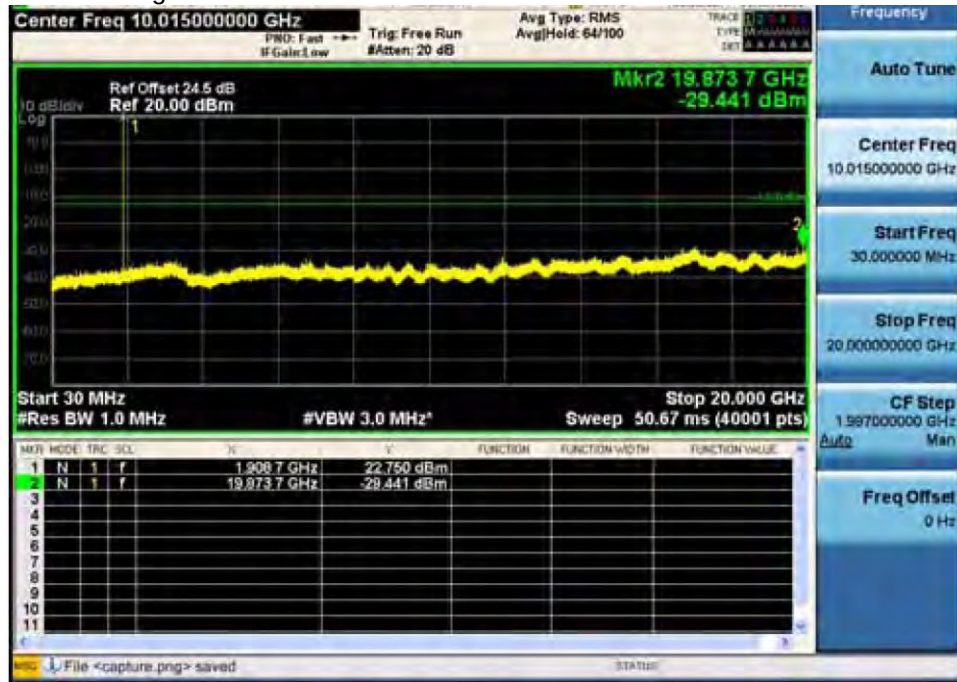
1.4MHz





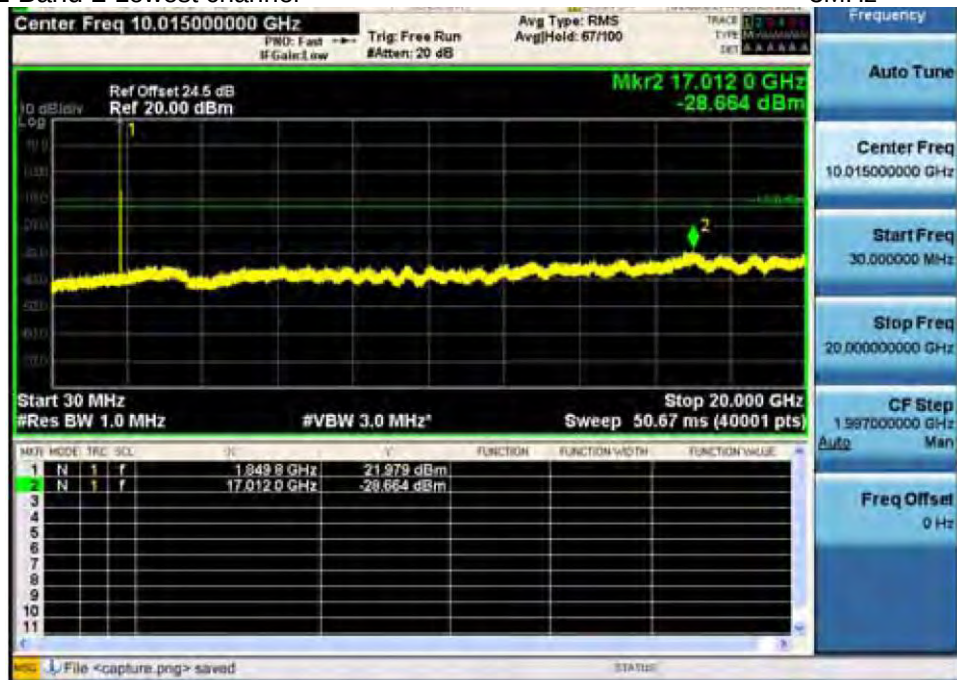
LTE Band 2 high channel

1.4MHz



LTE Band 2 Lowest channel

3MHz





LTE Band 2 middle channel

3MHz



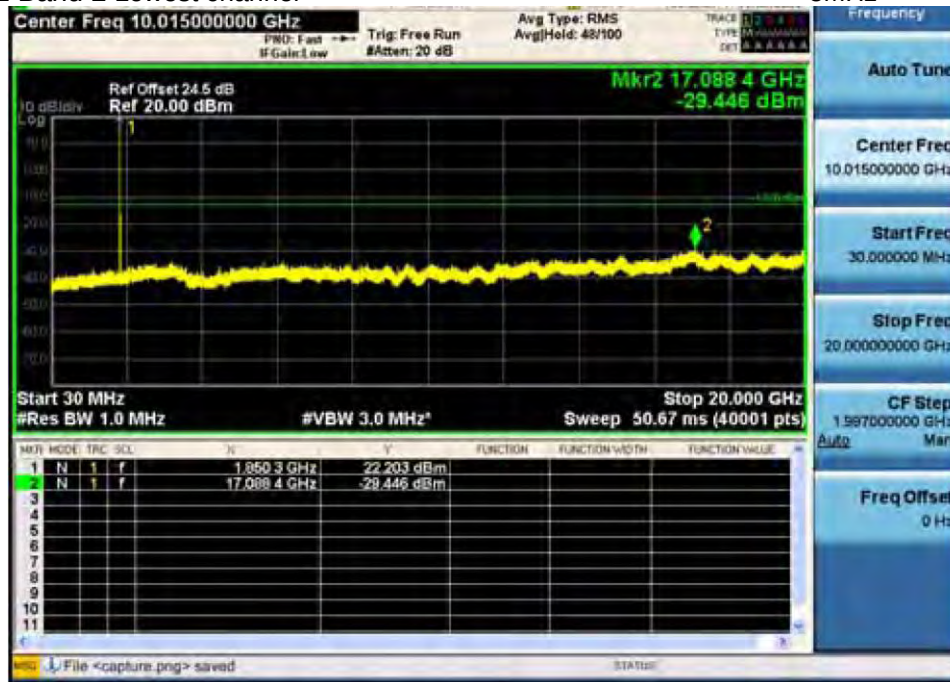
LTE Band 2 high channel

3MHz



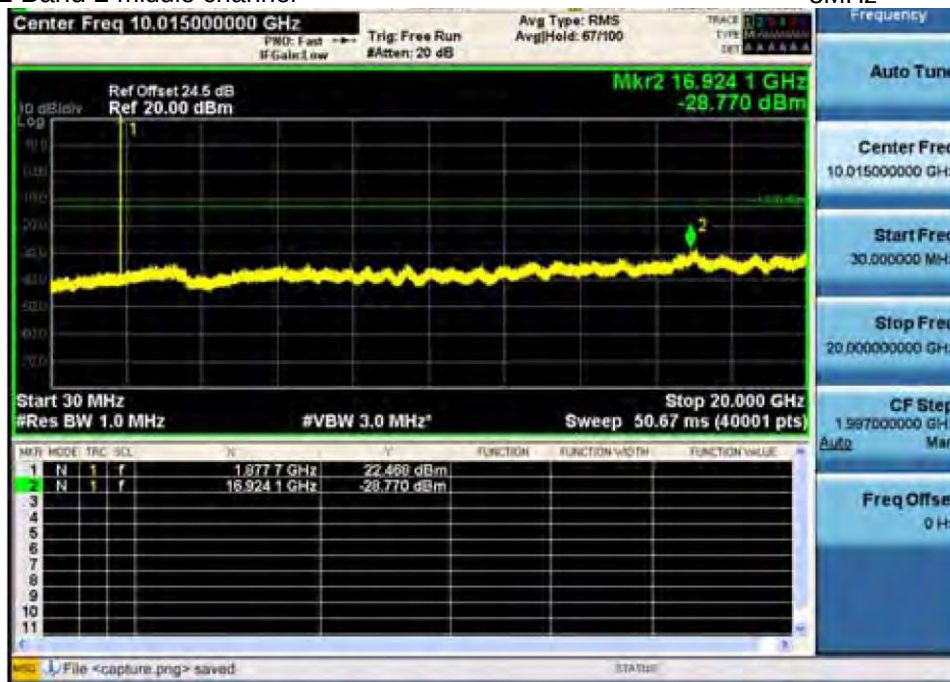
LTE Band 2 Lowest channel

5MHz



LTE Band 2 middle channel

5MHz





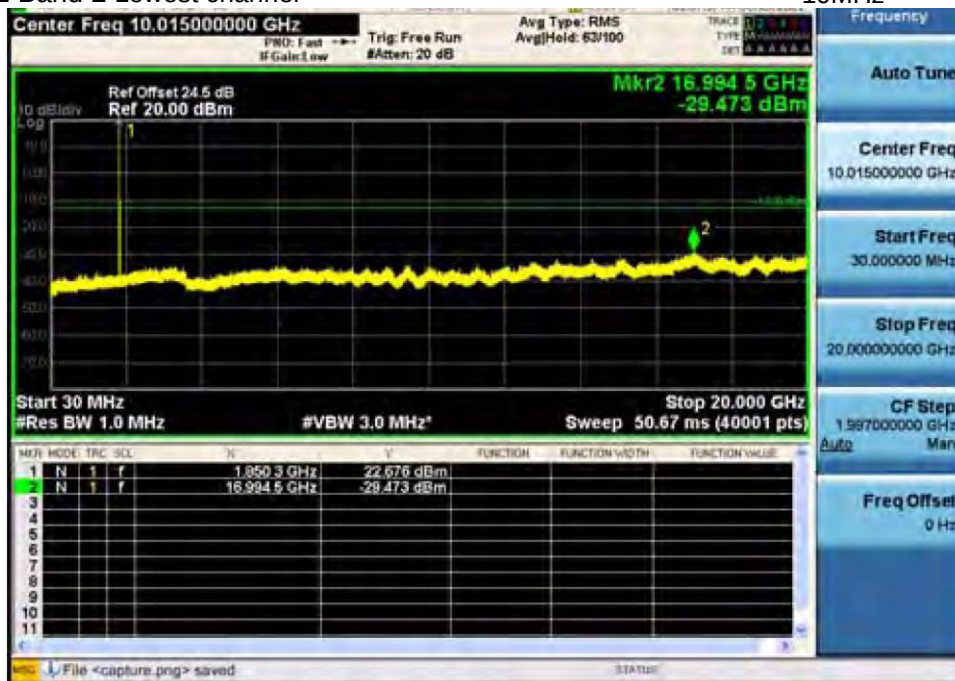
LTE Band 2 high channel

5MHz



LTE Band 2 Lowest channel

10MHz





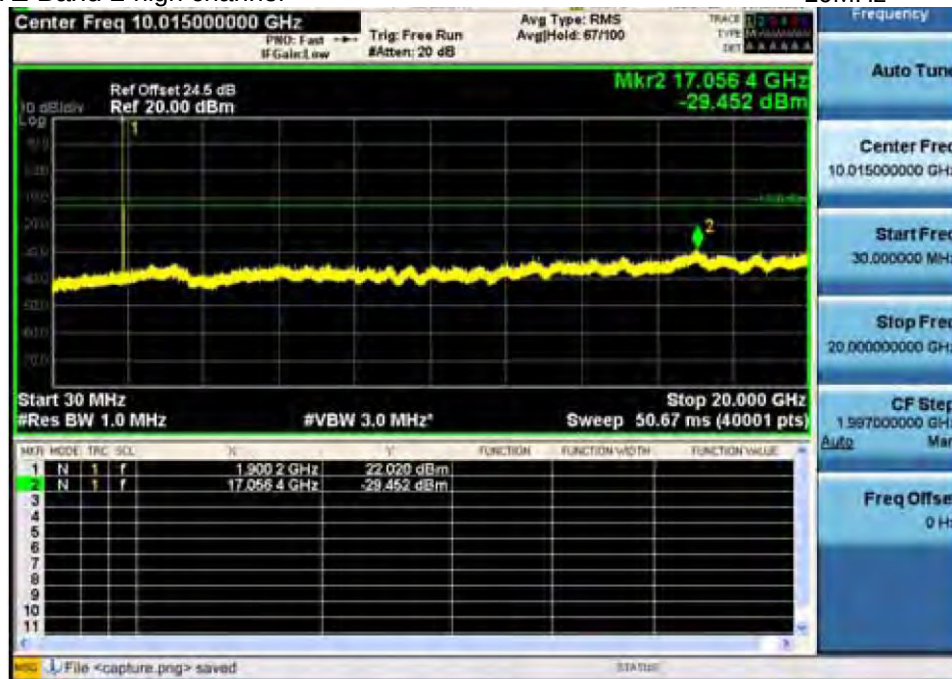
LTE Band 2 middle channel

10MHz



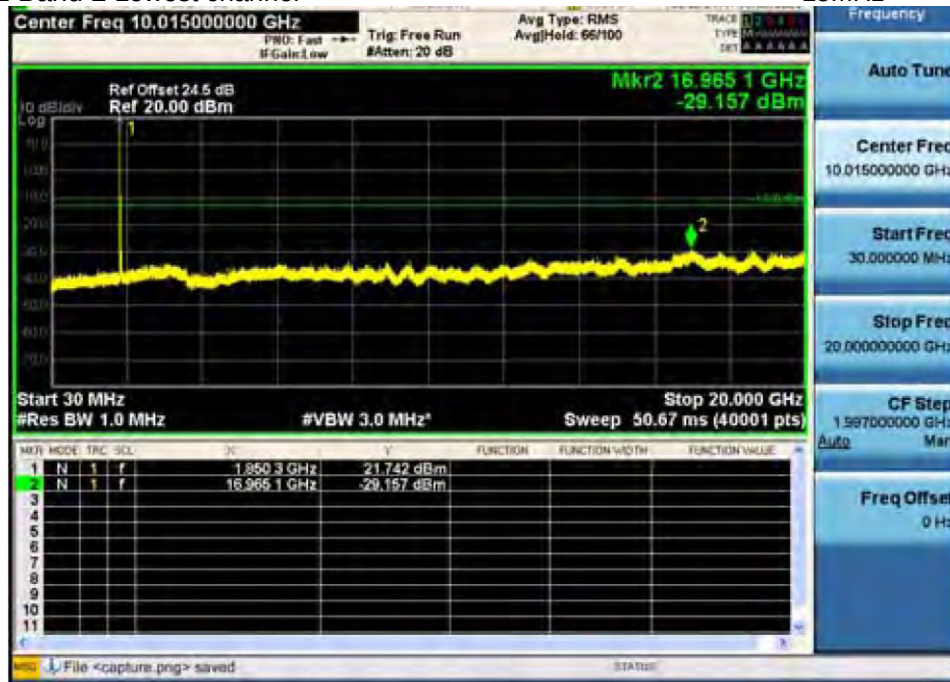
LTE Band 2 high channel

10MHz



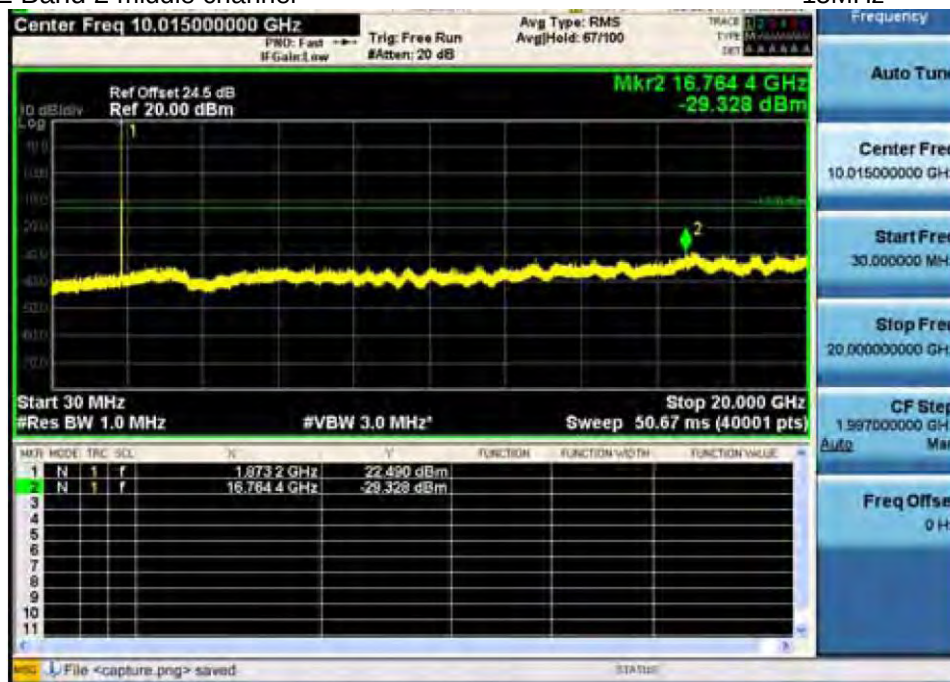
LTE Band 2 Lowest channel

15MHz



LTE Band 2 middle channel

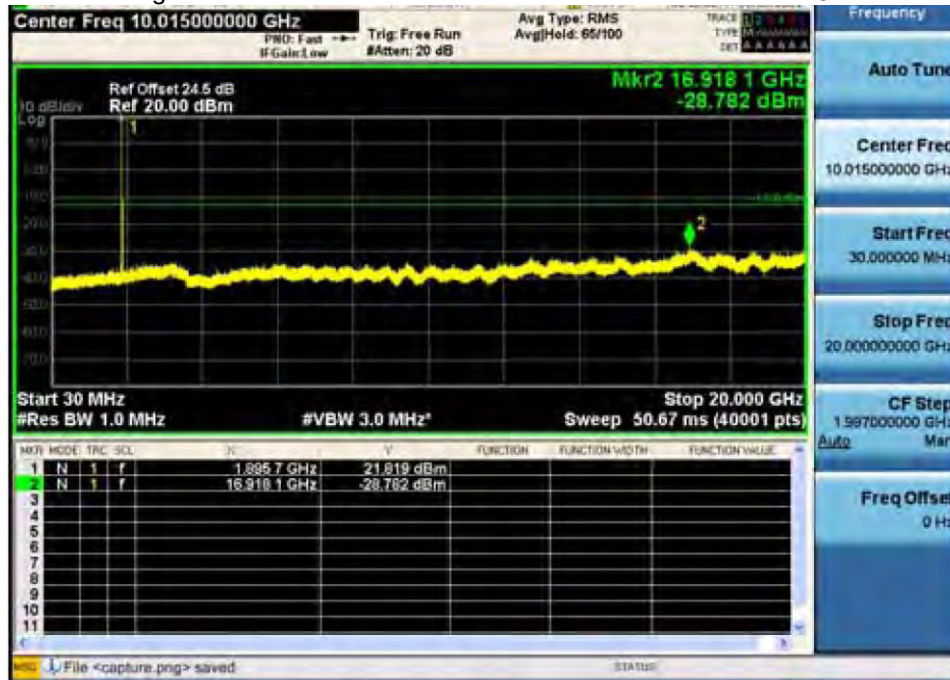
15MHz





LTE Band 2 high channel

15MHz



LTE Band 2 Lowest channel

20MHz





LTE Band 2 middle channel

20MHz



LTE Band 2 high channel

20MHz



### 1.3. Conducted Out of Band Emissions

#### 1.3.1. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

LTE Band 2 Lowest channel

1.4MHz 1RB



LTE Band 2 Lowest channel

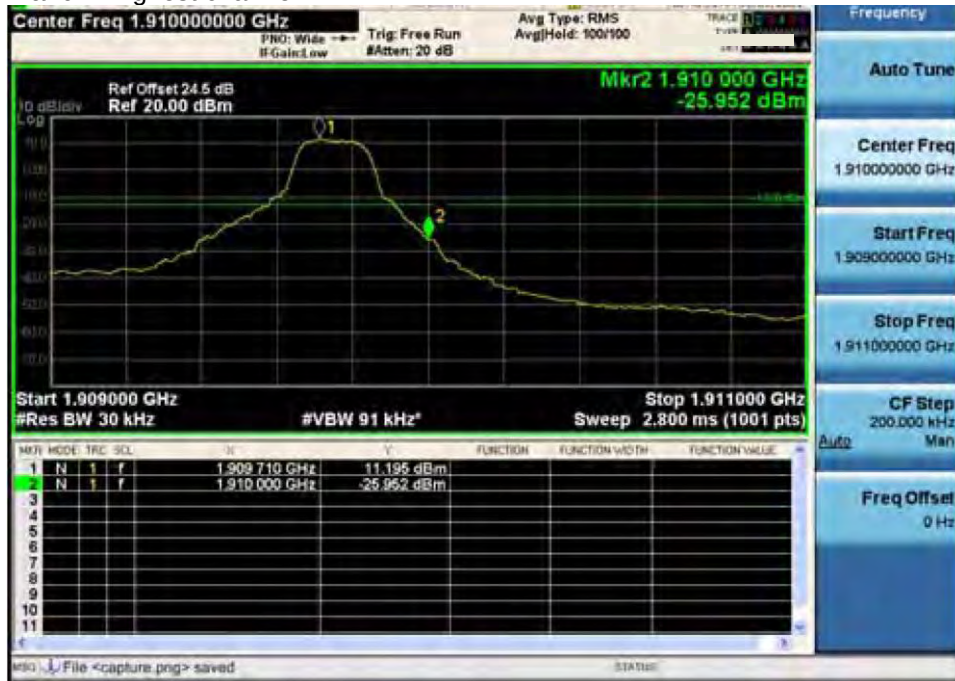
1.4MHz 6RB





LTE Band 2 Highest channel:

1.4MHz 1RB



LTE Band 2 Highest channel:

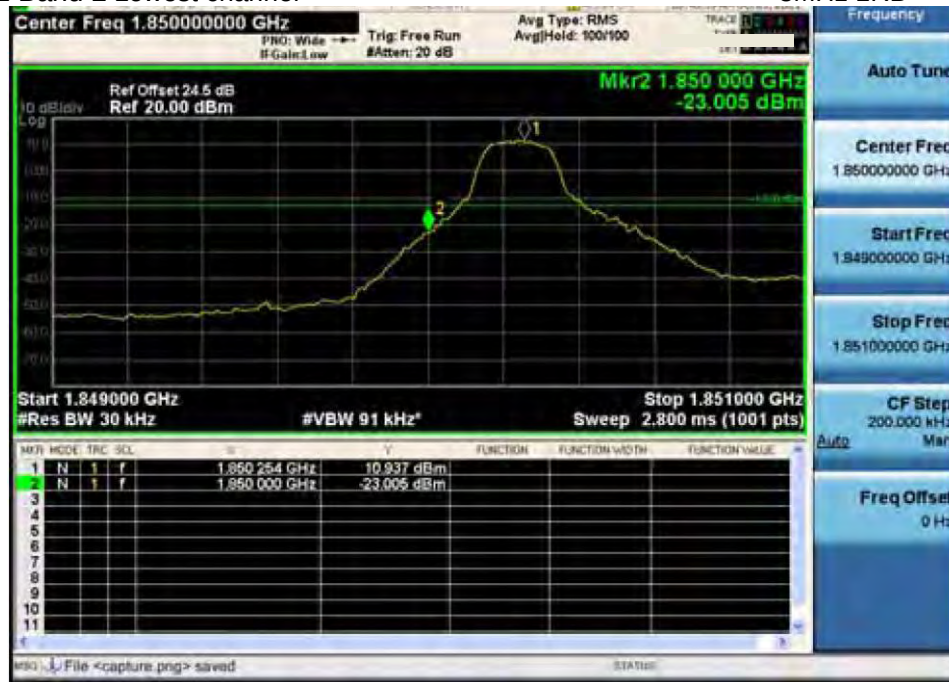
1.4MHz 6RB





LTE Band 2 Lowest channel

3MHz 1RB



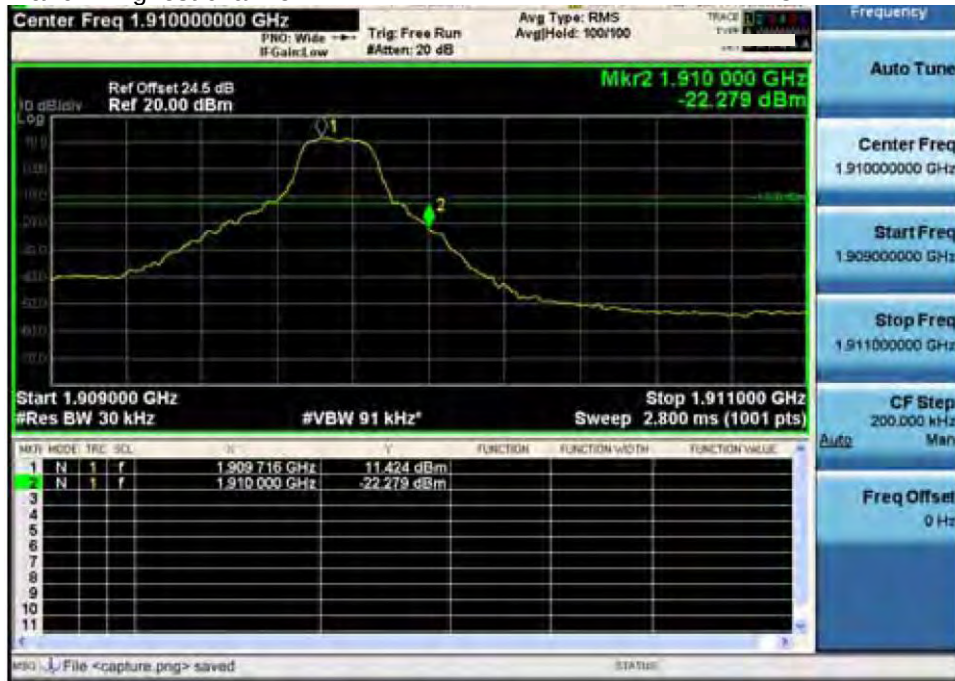
LTE Band 2 Lowest channel

3MHz 15RB



LTE Band 2 Highest channel:

3MHz 1RB



LTE Band 2 Highest channel:

3MHz 15RB





5MHz 1RB



5MHz 25RB





LTE Band 2 Highest channel:

5MHz 1RB



LTE Band 2 Highest channel:

5MHz 25RB



LTE Band 2 Lowest channel

10MHz 1RB



LTE Band 2 Lowest channel

10MHz 50RB





LTE Band 2 Highest channel:

10MHz 1RB



LTE Band 2 Highest channel:

10MHz 50RB





LTE Band 2 Lowest channel

15MHz 1RB



LTE Band 2 Lowest channel

15MHz 75RB



LTE Band 2 Highest channel:

15MHz 1RB



LTE Band 2 Highest channel:

15MHz 75RB





LTE Band 2 Lowest channel

20MHz 1RB



LTE Band 2 Lowest channel

20MHz 75RB





LTE Band 2 Highest channel:

20MHz 1RB



LTE Band 2 Highest channel:

20MHz 75RB



\*\*\*\*\* END \*\*\*\*\*