



## WCDMA Band V (RMC 12.2Kbps)

## Lowest Channel



## WCDMA Band II (RMC 12.2Kbps)

## Lowest Channel



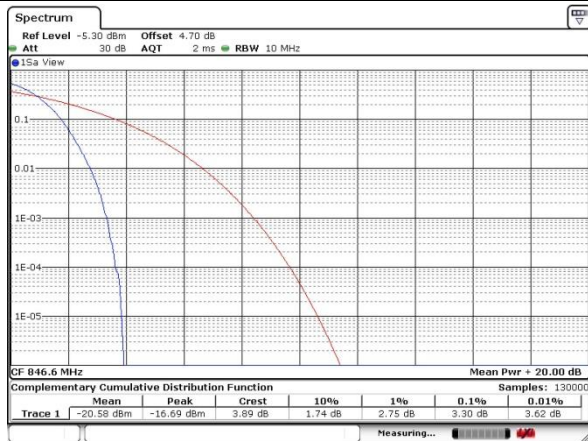
## Middle Channel



## Middle Channel



## Highest Channel

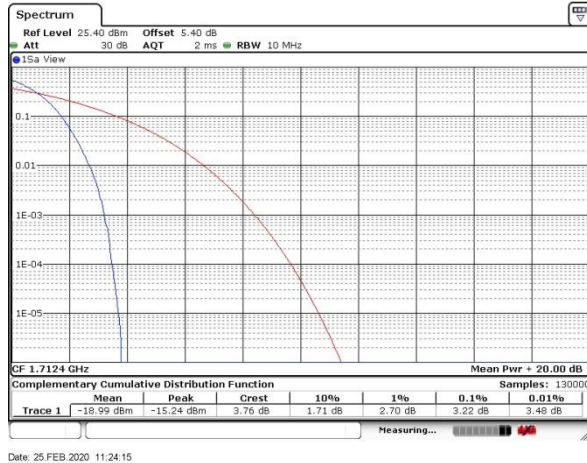


## Highest Channel

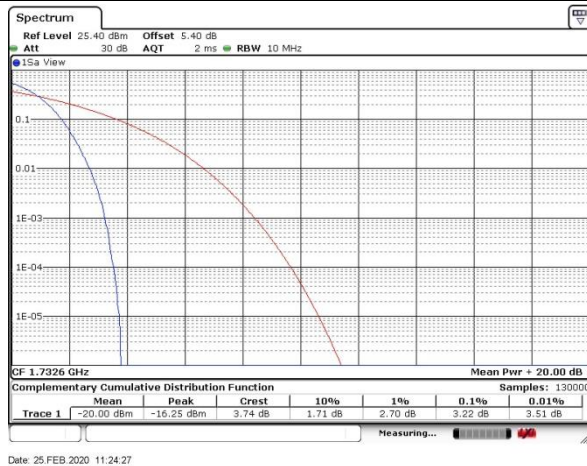


### WCDMA Band IV (RMC 12.2Kbps)

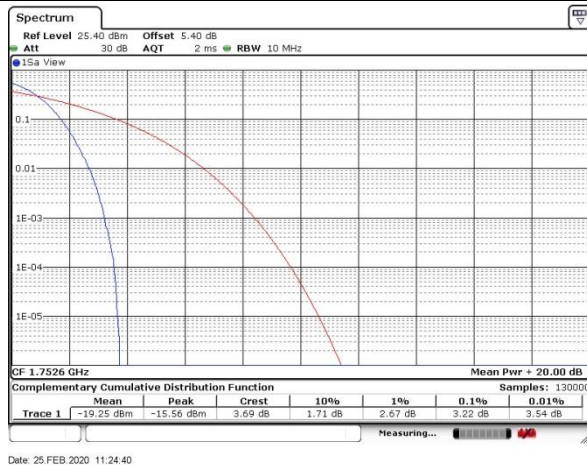
#### Lowest Channel



#### Middle Channel



#### Highest Channel



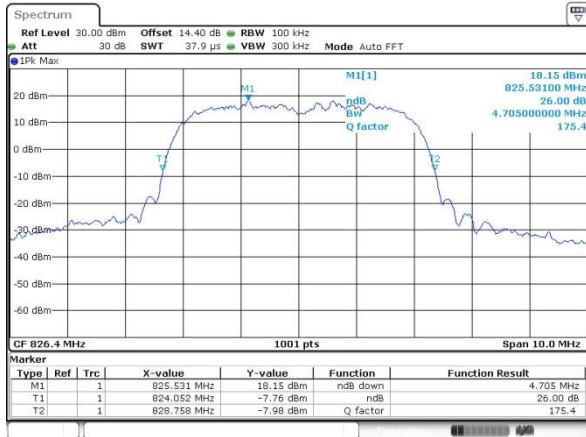
**26dB Bandwidth**

| Mode       | WCDMA Band V(MHz) | WCDMA Band II(MHz) | WCDMA Band IV(MHz) |
|------------|-------------------|--------------------|--------------------|
| Mod.       | RMC 12.2Kbps      | RMC 12.2Kbps       | RMC 12.2Kbps       |
| Lowest CH  | 4.705             | 4.705              | 4.695              |
| Middle CH  | 4.735             | 4.705              | 4.695              |
| Highest CH | 4.705             | 4.695              | 4.705              |



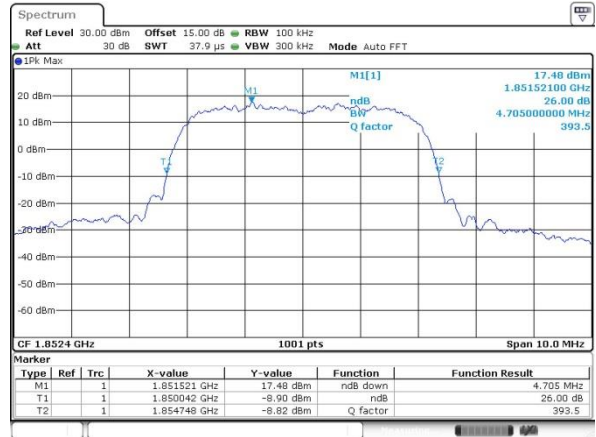
## WCDMA Band V (RMC 12.2Kbps)

## Lowest Channel

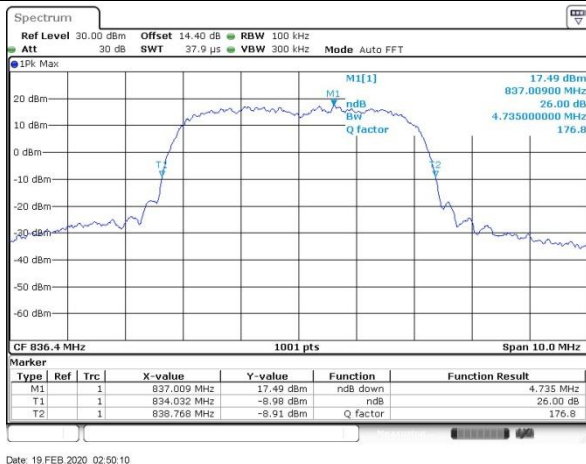


## WCDMA Band II (RMC 12.2Kbps)

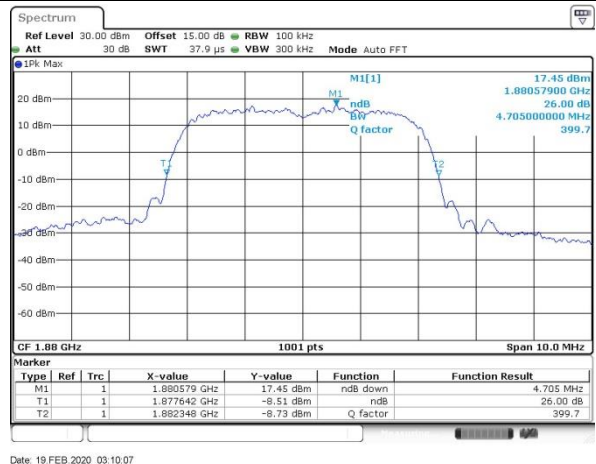
## Lowest Channel



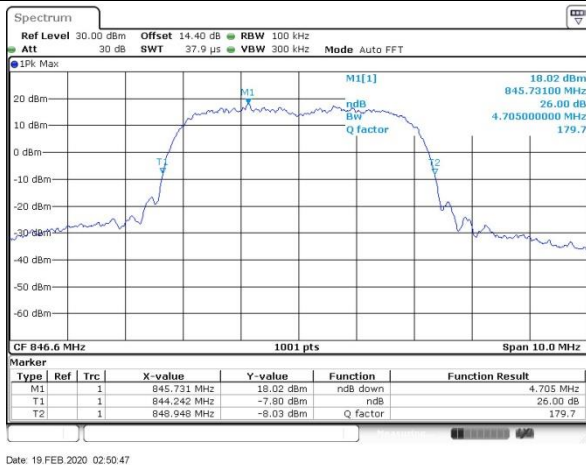
## Middle Channel



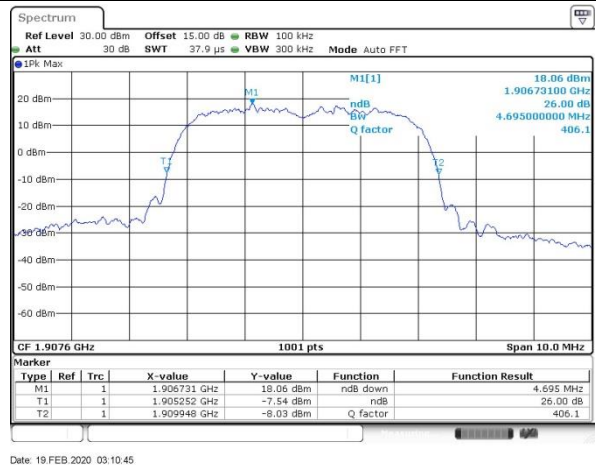
## Middle Channel



## Highest Channel



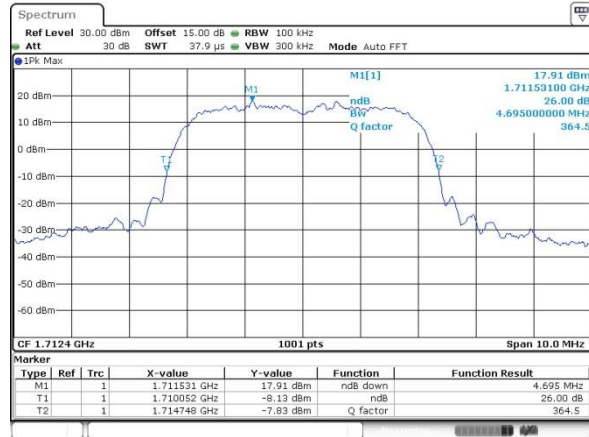
## Highest Channel





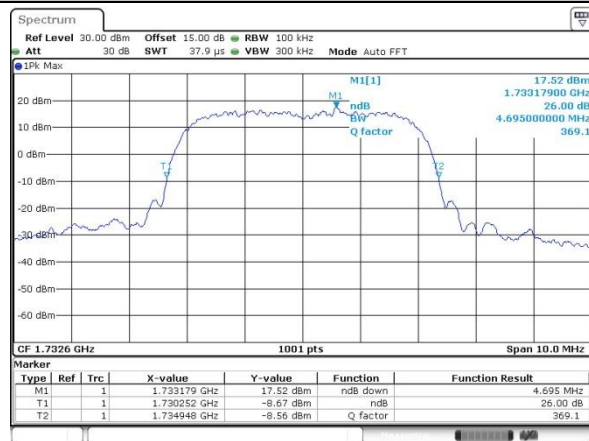
## WCDMA Band IV (RMC 12.2Kbps)

## Lowest Channel



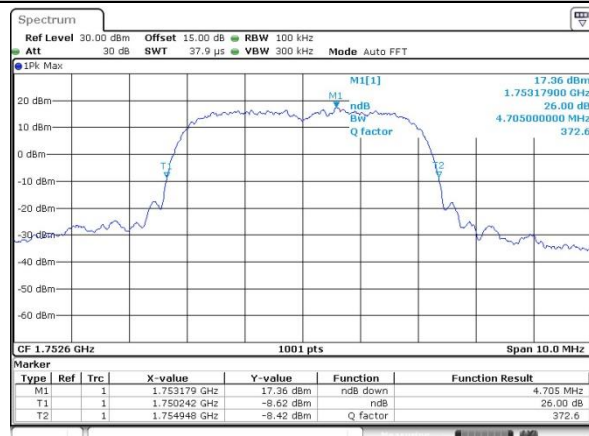
Date: 19 FEB 2020 03:36:51

## Middle Channel



Date: 19 FEB 2020 03:37:22

## Highest Channel



Date: 19 FEB 2020 03:37:52

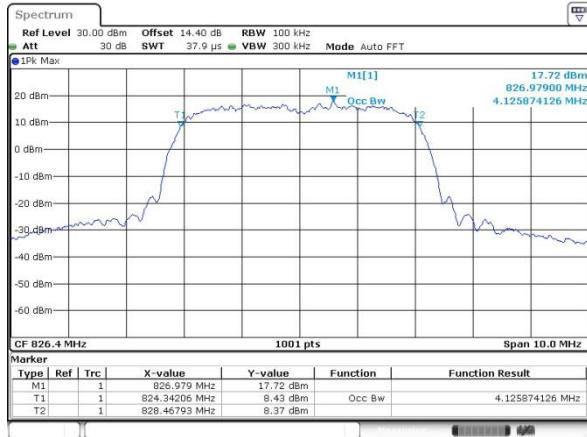
**Occupied Bandwidth**

| Mode       | WCDMA Band V(MHz) | WCDMA Band II(MHz) | WCDMA Band IV(MHz) |
|------------|-------------------|--------------------|--------------------|
| Mod.       | RMC 12.2Kbps      | RMC 12.2Kbps       | RMC 12.2Kbps       |
| Lowest CH  | 4.126             | 4.126              | 4.126              |
| Middle CH  | 4.126             | 4.126              | 4.116              |
| Highest CH | 4.136             | 4.126              | 4.116              |



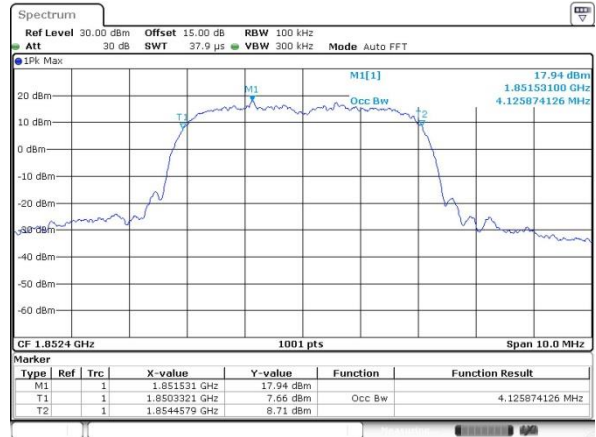
## WCDMA Band V (RMC 12.2Kbps)

## Lowest Channel

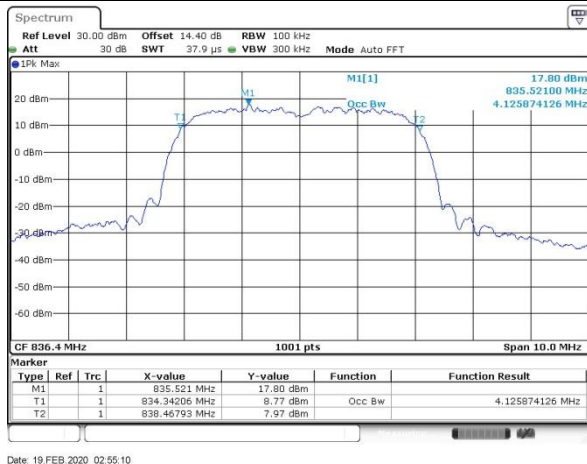


## WCDMA Band II (RMC 12.2Kbps)

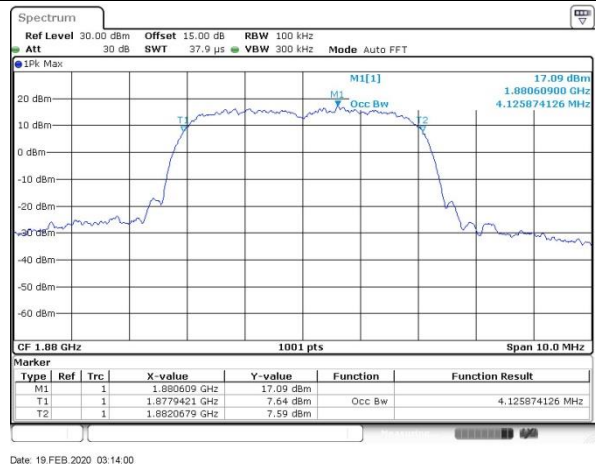
## Lowest Channel



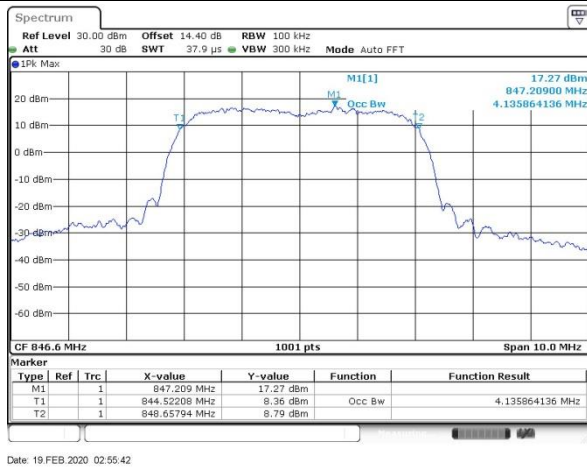
## Middle Channel



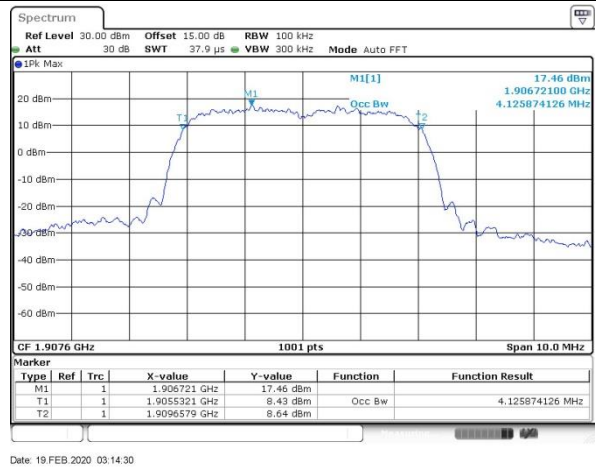
## Middle Channel



## Highest Channel



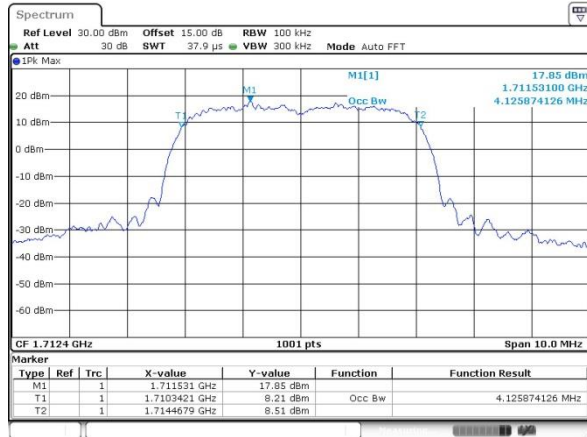
## Highest Channel



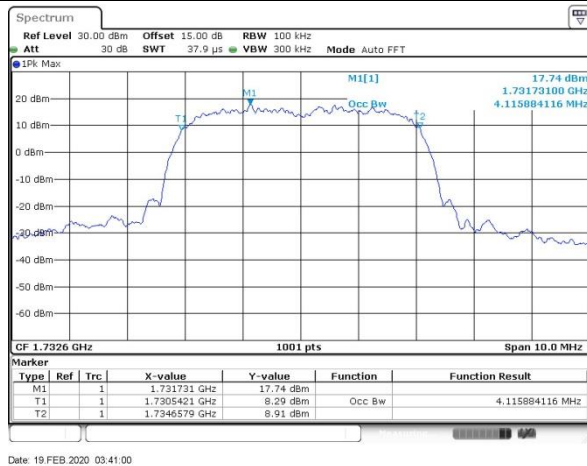


### WCDMA Band IV (RMC 12.2Kbps)

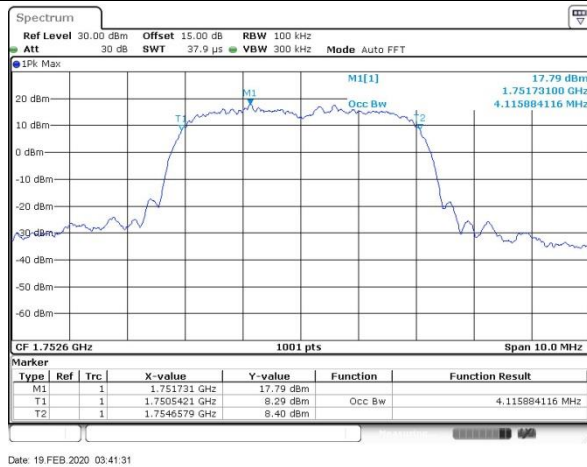
#### Lowest Channel

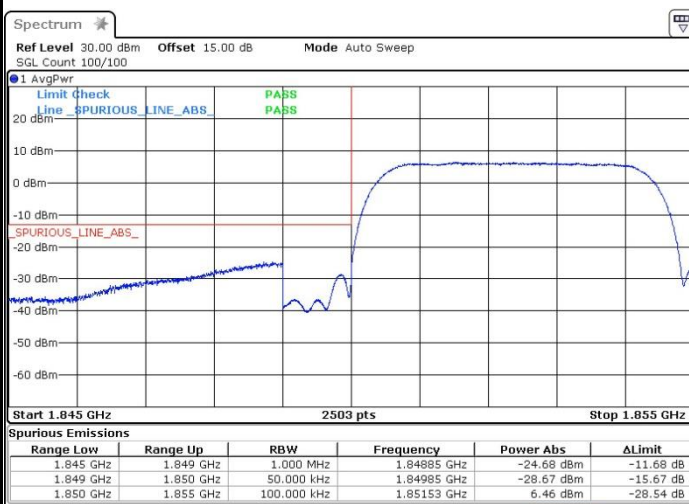


#### Middle Channel



#### Highest Channel

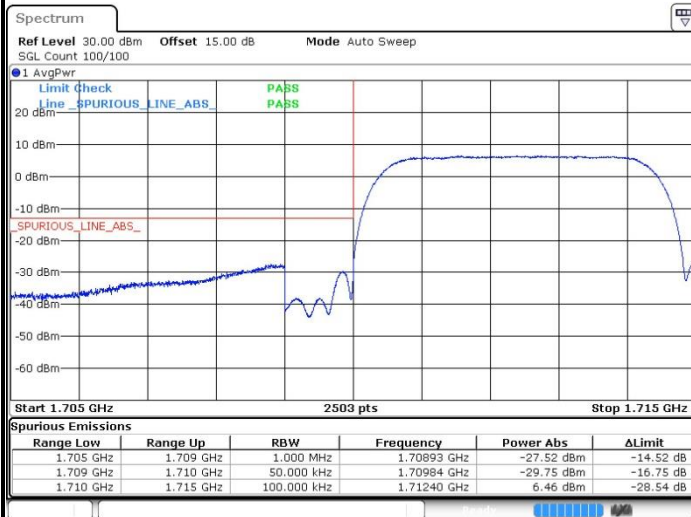


**Conducted Band Edge****WCDMA Band V (RMC 12.2Kbps)****Lowest Band Edge****Highest Band Edge****WCDMA Band II (RMC 12.2Kbps)****Lowest Band Edge****Highest Band Edge**



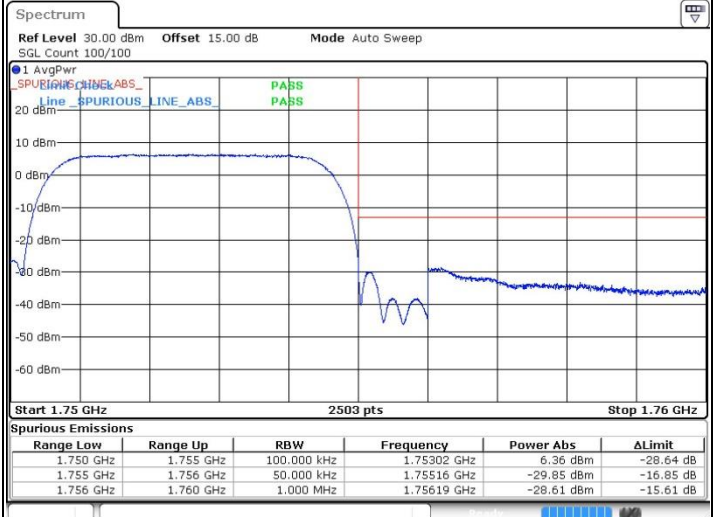
## WCDMA Band IV (RMC 12.2Kbps)

## Lowest Band Edge



Date: 19 FEB 2020 03:44:20

## Highest Band Edge



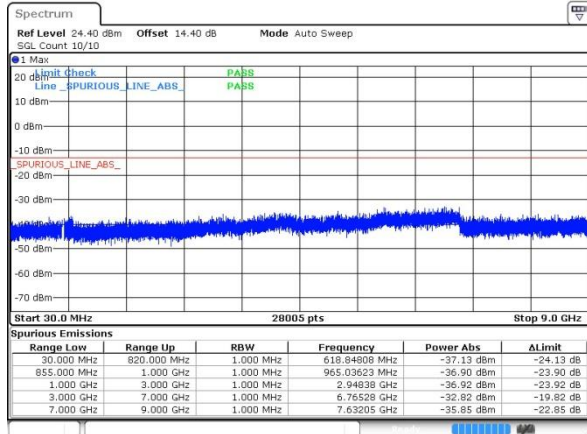
Date: 19 FEB 2020 03:47:08



## Conducted Spurious Emission

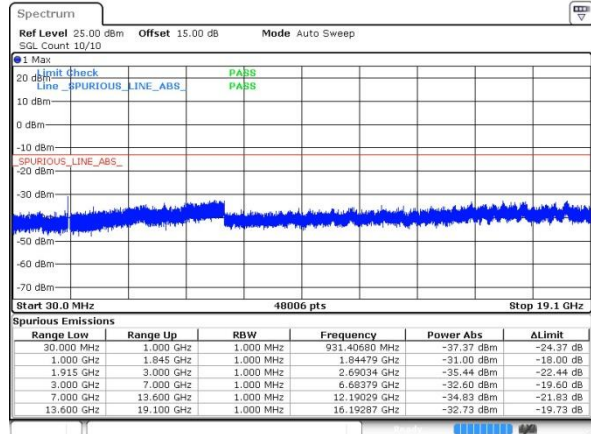
### WCDMA Band V (RMC 12.2Kbps)

#### Lowest Channel

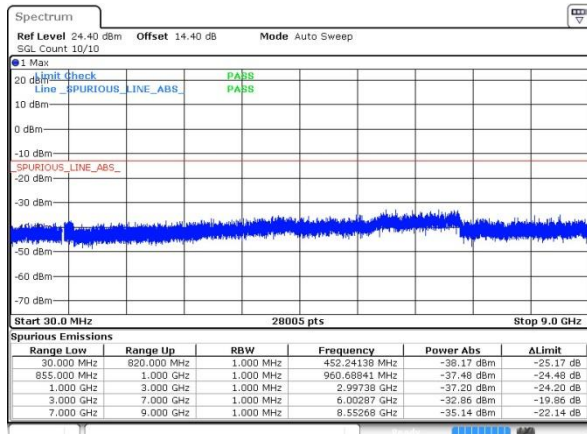


### WCDMA Band II (RMC 12.2Kbps)

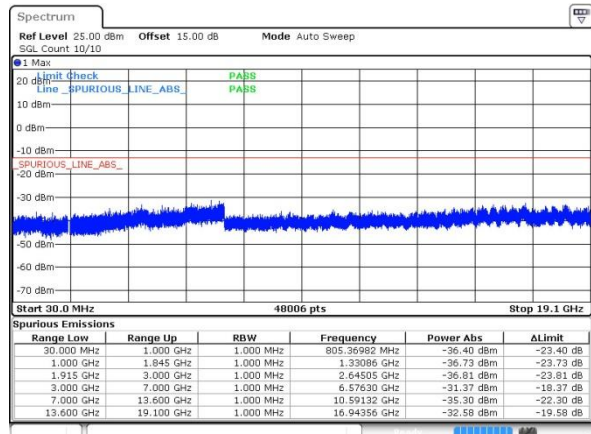
#### Lowest Channel



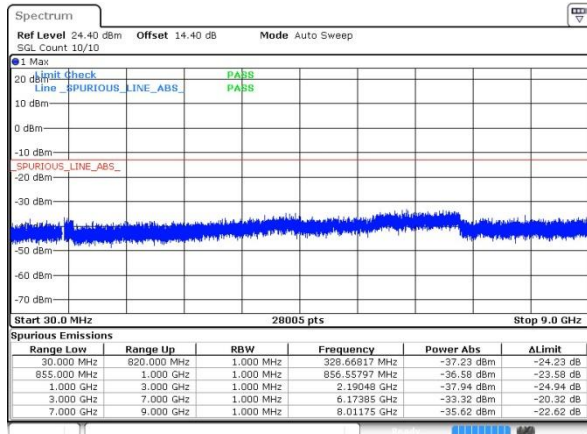
#### Middle Channel



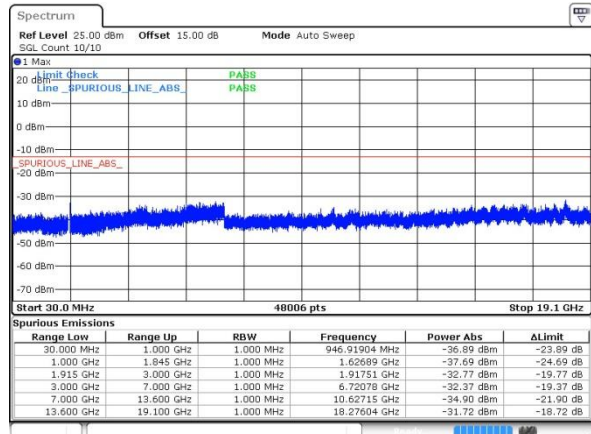
#### Middle Channel



#### Highest Channel



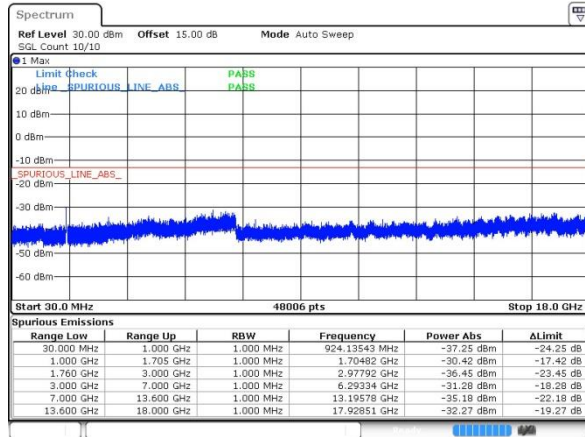
#### Highest Channel



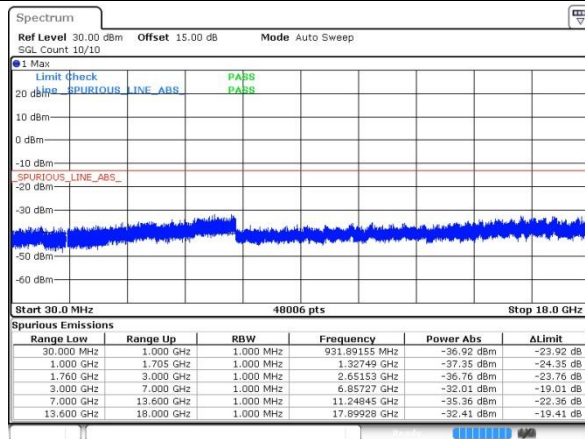


## WCDMA Band IV (RMC 12.2Kbps)

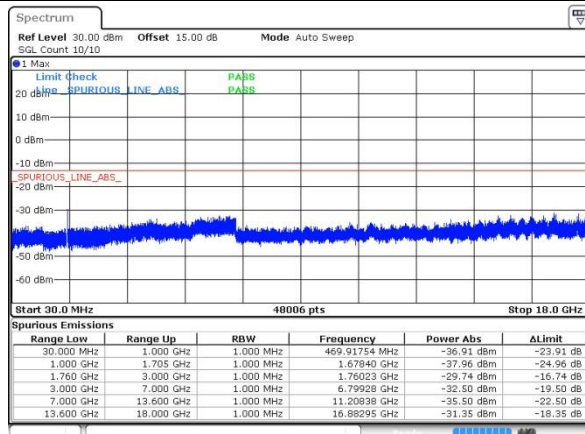
## Lowest Channel



## Middle Channel



## Highest Channel



**Frequency Stability**

| Test Conditions  | Middle Channel    | WCDMA Band V<br>(RMC 12.2KbpsRMC 12.2Kbps) | Limit<br>2.5ppm |
|------------------|-------------------|--------------------------------------------|-----------------|
| Temperature (°C) | Voltage (Volt)    | Deviation (ppm)                            | Result          |
| 50               | Normal Voltage    | 0.0120                                     | PASS            |
| 40               | Normal Voltage    | 0.0096                                     |                 |
| 30               | Normal Voltage    | 0.0060                                     |                 |
| 20(Ref.)         | Normal Voltage    | 0.0000                                     |                 |
| 10               | Normal Voltage    | 0.0155                                     |                 |
| 0                | Normal Voltage    | 0.0060                                     |                 |
| -10              | Normal Voltage    | 0.0096                                     |                 |
| -20              | Normal Voltage    | 0.0036                                     |                 |
| -30              | Normal Voltage    | 0.0108                                     |                 |
| 20               | Maximum Voltage   | 0.0167                                     |                 |
| 20               | Normal Voltage    | 0.0000                                     |                 |
| 20               | Battery End Point | 0.0131                                     |                 |

**Note:** Normal Voltage = 3.8V ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.4V



| Test Conditions  | Middle Channel    | WCDMA Band II<br>(RMC 12.2Kbps) | Limit<br>Note 2. |
|------------------|-------------------|---------------------------------|------------------|
| Temperature (°C) | Voltage (Volt)    | Deviation (ppm)                 | Result           |
| 50               | Normal Voltage    | 0.0085                          | PASS             |
| 40               | Normal Voltage    | 0.0032                          |                  |
| 30               | Normal Voltage    | 0.0005                          |                  |
| 20(Ref.)         | Normal Voltage    | 0.0000                          |                  |
| 10               | Normal Voltage    | 0.0069                          |                  |
| 0                | Normal Voltage    | 0.0085                          |                  |
| -10              | Normal Voltage    | 0.0101                          |                  |
| -20              | Normal Voltage    | 0.0016                          |                  |
| -30              | Normal Voltage    | 0.0117                          |                  |
| 20               | Maximum Voltage   | 0.0133                          |                  |
| 20               | Normal Voltage    | 0.0000                          |                  |
| 20               | Battery End Point | 0.0032                          |                  |

**Note:**

1. Normal Voltage = 3.8V ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



| Test Conditions  | Middle Channel    | WCDMA Band IV<br>(RMC 12.2Kbps) | Limit<br>Note 2. |
|------------------|-------------------|---------------------------------|------------------|
| Temperature (°C) | Voltage (Volt)    | Deviation (ppm)                 | Result           |
| 50               | Normal Voltage    | 0.0122                          | PASS             |
| 40               | Normal Voltage    | 0.0012                          |                  |
| 30               | Normal Voltage    | 0.0158                          |                  |
| 20(Ref.)         | Normal Voltage    | 0.0000                          |                  |
| 10               | Normal Voltage    | 0.0049                          |                  |
| 0                | Normal Voltage    | 0.0171                          |                  |
| -10              | Normal Voltage    | 0.0024                          |                  |
| -20              | Normal Voltage    | 0.0098                          |                  |
| -30              | Normal Voltage    | 0.0012                          |                  |
| 20               | Maximum Voltage   | 0.0134                          |                  |
| 20               | Normal Voltage    | 0.0000                          |                  |
| 20               | Battery End Point | 0.0037                          |                  |

**Note:**

1. Normal Voltage = 3.8V ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

| GSM850 (GSM) |                   |             |               |                   |                    |                      |                       |                    |
|--------------|-------------------|-------------|---------------|-------------------|--------------------|----------------------|-----------------------|--------------------|
| Channel      | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle       | 1672              | -56.05      | -13           | -43.05            | -63.02             | 1.58                 | 10.70                 | H                  |
|              | 2510              | -57.34      | -13           | -44.34            | -65.59             | 2.102                | 12.50                 | H                  |
|              | 3348              | -61.24      | -13           | -48.24            | -70.13             | 2.856                | 13.90                 | H                  |
|              | 1672              | -56.88      | -13           | -43.88            | -63.85             | 1.58                 | 10.70                 | V                  |
|              | 2510              | -56.29      | -13           | -43.29            | -64.54             | 2.10                 | 12.50                 | V                  |
|              | 3348              | -61.56      | -13           | -48.56            | -70.45             | 2.86                 | 13.90                 | V                  |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

| GSM850 (EDGE) |                   |             |               |                   |                    |                      |                       |                    |
|---------------|-------------------|-------------|---------------|-------------------|--------------------|----------------------|-----------------------|--------------------|
| Channel       | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle        | 1672              | -56.69      | -13           | -43.69            | -63.66             | 1.58                 | 10.70                 | H                  |
|               | 2510              | -57.41      | -13           | -44.41            | -65.66             | 2.102                | 12.50                 | H                  |
|               | 3348              | -61.47      | -13           | -48.47            | -70.36             | 2.856                | 13.90                 | H                  |
|               | 1672              | -58.24      | -13           | -45.24            | -65.21             | 1.58                 | 10.70                 | V                  |
|               | 2510              | -58.57      | -13           | -45.57            | -66.82             | 2.10                 | 12.50                 | V                  |
|               | 3348              | -61.65      | -13           | -48.65            | -70.54             | 2.86                 | 13.90                 | V                  |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| GSM1900 (GSM) |                      |                 |                  |                         |                          |                            |                             |                       |
|---------------|----------------------|-----------------|------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel       | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Middle        | 3759                 | -55.80          | -13              | -42.80                  | -68.06                   | 2.641                      | 14.90                       | H                     |
|               | 5640                 | -51.55          | -13              | -38.55                  | -63.41                   | 2.94                       | 14.80                       | H                     |
|               | 7524                 | -46.88          | -13              | -33.88                  | -56.65                   | 3.39                       | 13.16                       | H                     |
|               | 3759                 | -56.14          | -13              | -43.14                  | -68.40                   | 2.64                       | 14.90                       | V                     |
|               | 5640                 | -52.26          | -13              | -39.26                  | -64.12                   | 2.94                       | 14.80                       | V                     |
|               | 7524                 | -46.19          | -13              | -33.19                  | -55.96                   | 3.39                       | 13.16                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

| GSM1900 (EDGE) |                      |                 |                  |                         |                          |                            |                             |                       |
|----------------|----------------------|-----------------|------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel        | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Middle         | 3759                 | -56.08          | -13              | -43.08                  | -68.34                   | 2.64                       | 14.90                       | H                     |
|                | 5640                 | -52.07          | -13              | -39.07                  | -63.93                   | 2.94                       | 14.80                       | H                     |
|                | 7524                 | -46.83          | -13              | -33.83                  | -56.60                   | 3.39                       | 13.16                       | H                     |
|                | 3759                 | -55.60          | -13              | -42.60                  | -67.86                   | 2.64                       | 14.90                       | V                     |
|                | 5640                 | -52.21          | -13              | -39.21                  | -64.07                   | 2.94                       | 14.80                       | V                     |
|                | 7524                 | -46.69          | -13              | -33.69                  | -56.46                   | 3.39                       | 13.16                       | V                     |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

| WCDMA Band V (RMC 12.2Kbps) |                   |             |               |                   |                    |                      |                       |                    |
|-----------------------------|-------------------|-------------|---------------|-------------------|--------------------|----------------------|-----------------------|--------------------|
| Channel                     | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle                      | 1672              | -66.69      | -13           | -53.69            | -73.66             | 1.58                 | 10.70                 | H                  |
|                             | 2510              | -63.47      | -13           | -50.47            | -71.72             | 2.102                | 12.50                 | H                  |
|                             | 3348              | -61.51      | -13           | -48.51            | -70.40             | 2.856                | 13.90                 | H                  |
|                             | 1672              | -66.44      | -13           | -53.44            | -73.41             | 1.58                 | 10.70                 | V                  |
|                             | 2510              | -63.56      | -13           | -50.56            | -71.81             | 2.10                 | 12.50                 | V                  |
|                             | 3348              | -61.79      | -13           | -48.79            | -70.68             | 2.86                 | 13.90                 | V                  |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

| WCDMA Band II (RMC 12.2Kbps) |                   |              |               |                   |                    |                      |                       |                    |
|------------------------------|-------------------|--------------|---------------|-------------------|--------------------|----------------------|-----------------------|--------------------|
| Channel                      | Frequency ( MHz ) | EIRP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle                       | 3759              | -55.98       | -13           | -42.98            | -68.24             | 2.64                 | 14.90                 | H                  |
|                              | 5640              | -52.14       | -13           | -39.14            | -64.00             | 2.94                 | 14.80                 | H                  |
|                              | 7524              | -47.01       | -13           | -34.01            | -56.78             | 3.39                 | 13.16                 | H                  |
|                              | 3759              | -56.08       | -13           | -43.08            | -68.34             | 2.64                 | 14.90                 | V                  |
|                              | 5640              | -52.26       | -13           | -39.26            | -64.12             | 2.94                 | 14.80                 | V                  |
|                              | 7524              | -46.49       | -13           | -33.49            | -56.26             | 3.39                 | 13.16                 | V                  |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

| WCDMA Band IV(RMC 12.2Kbps) |                   |              |               |                   |                    |                      |                       |                    |
|-----------------------------|-------------------|--------------|---------------|-------------------|--------------------|----------------------|-----------------------|--------------------|
| Channel                     | Frequency ( MHz ) | EIRP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle                      | 3465              | -59.61       | -13           | -46.61            | -70.35             | 2.604                | 13.34                 | H                  |
|                             | 5199              | -53.16       | -13           | -40.16            | -63.67             | 3.011                | 13.52                 | H                  |
|                             | 6936              | -48.71       | -13           | -35.71            | -58.91             | 3.271                | 13.47                 | H                  |
|                             | 3465              | -59.54       | -13           | -46.54            | -70.28             | 2.604                | 13.34                 | V                  |
|                             | 5199              | -52.87       | -13           | -39.87            | -63.38             | 3.011                | 13.52                 | V                  |
|                             | 6936              | -48.17       | -13           | -35.17            | -58.37             | 3.271                | 13.47                 | V                  |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.