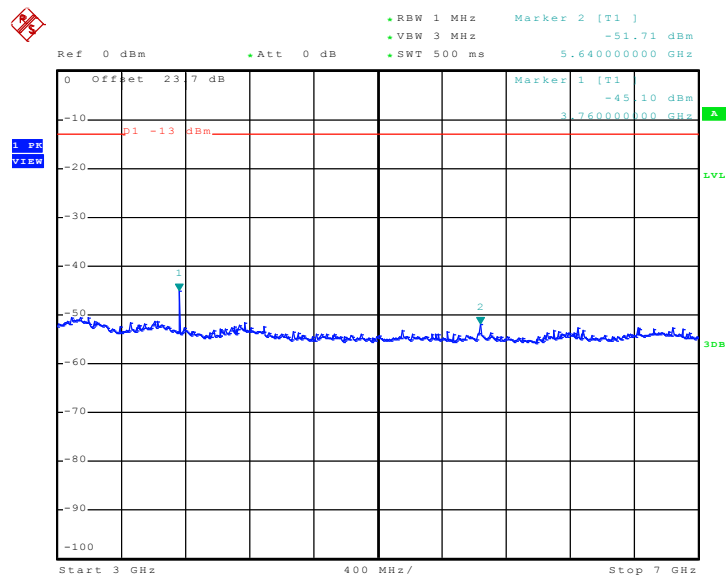
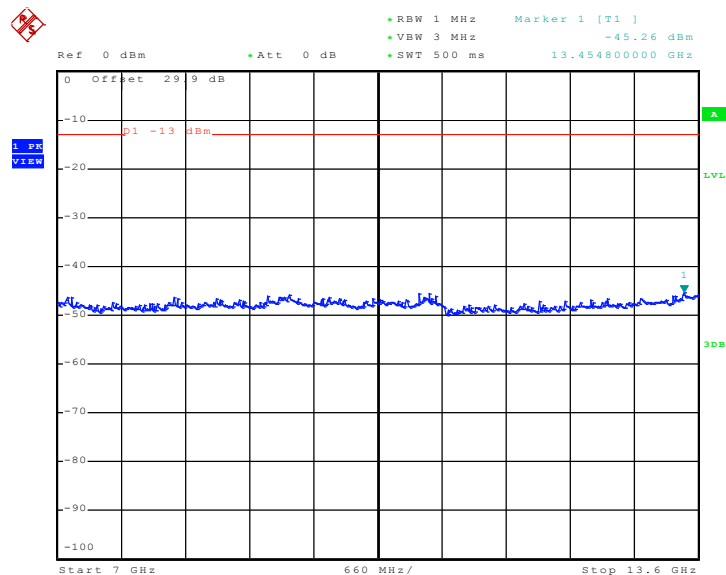


### Conducted Emission Plot between 3GHz ~ 7GHz



Date: 13.MAR.2010 06:09:47

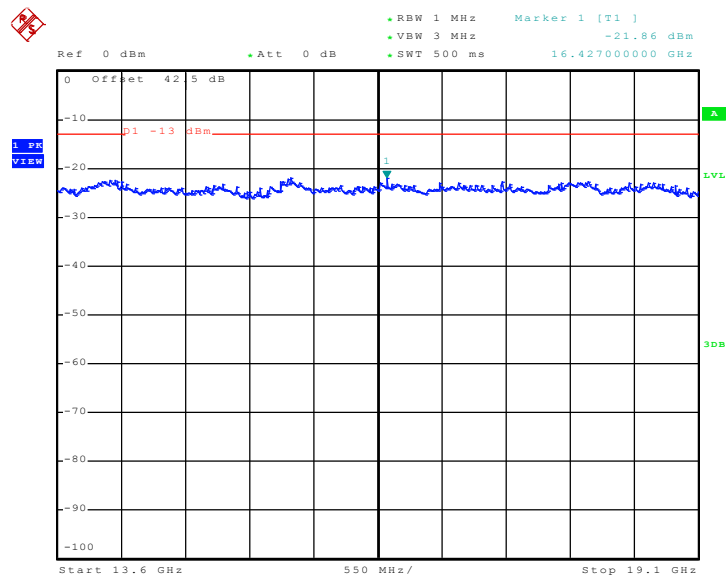
### Conducted Emission Plot between 7GHz ~ 13.6GHz



Date: 13.MAR.2010 06:13:23



Conducted Emission Plot between 13.6GHz ~ 19.1GHz

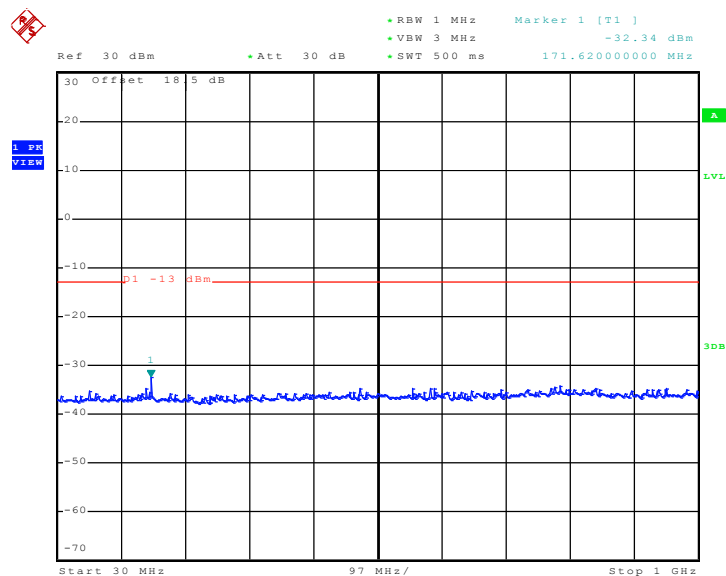


Date: 13.MAR.2010 06:15:45



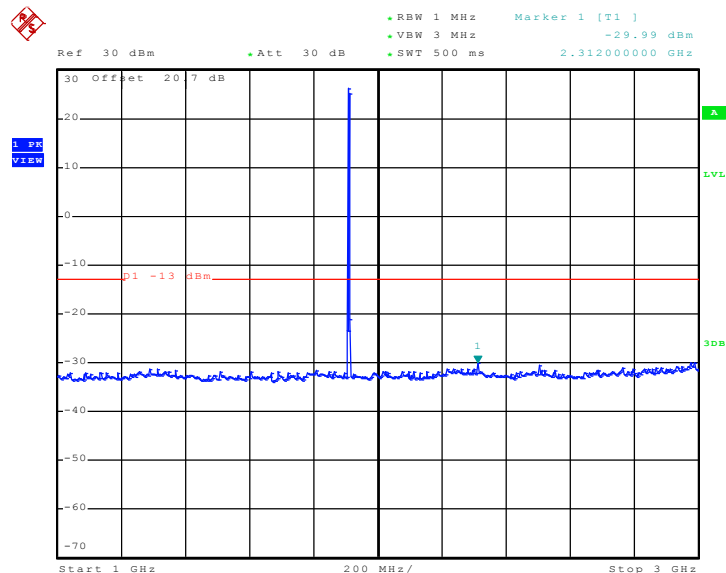
|             |             |           |       |
|-------------|-------------|-----------|-------|
| Band :      | GSM1900     | Channel : | CH810 |
| Test Mode : | GPRS 8 Link |           |       |

Conducted Emission Plot between 30MHz ~ 1GHz



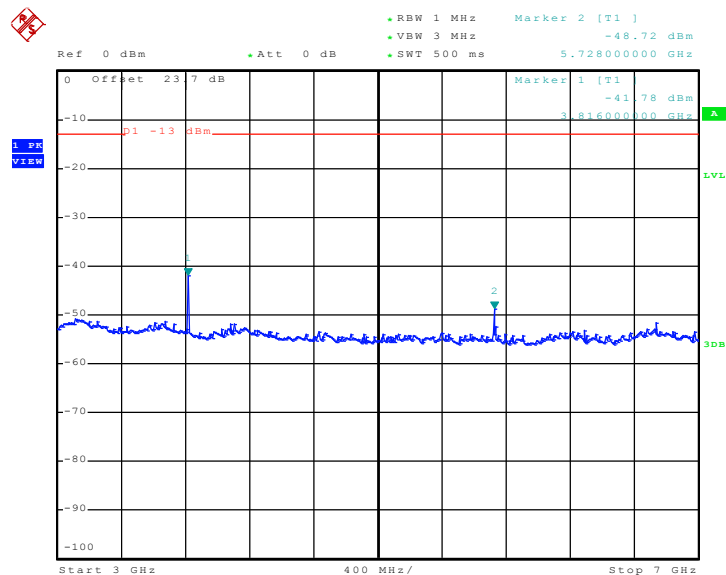
Date: 13.MAR.2010 06:02:29

Conducted Emission Plot between 1GHz ~ 3GHz



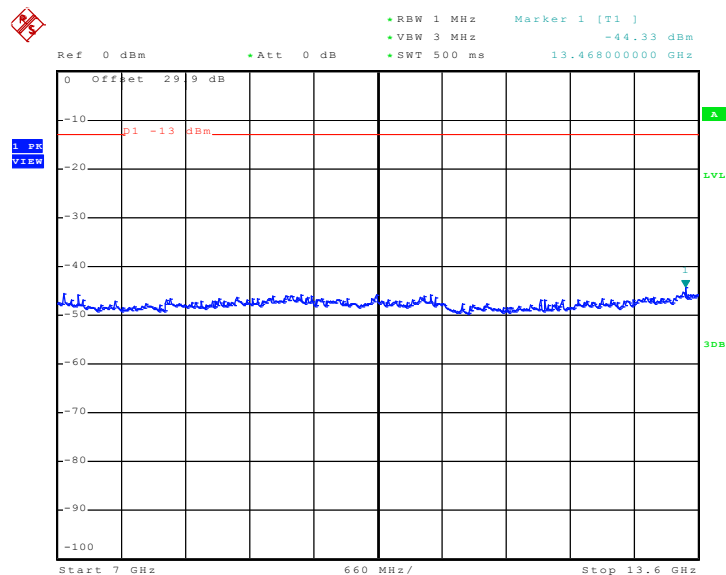
Date: 13.MAR.2010 06:07:11

### Conducted Emission Plot between 3GHz ~ 7GHz



Date: 13.MAR.2010 06:08:46

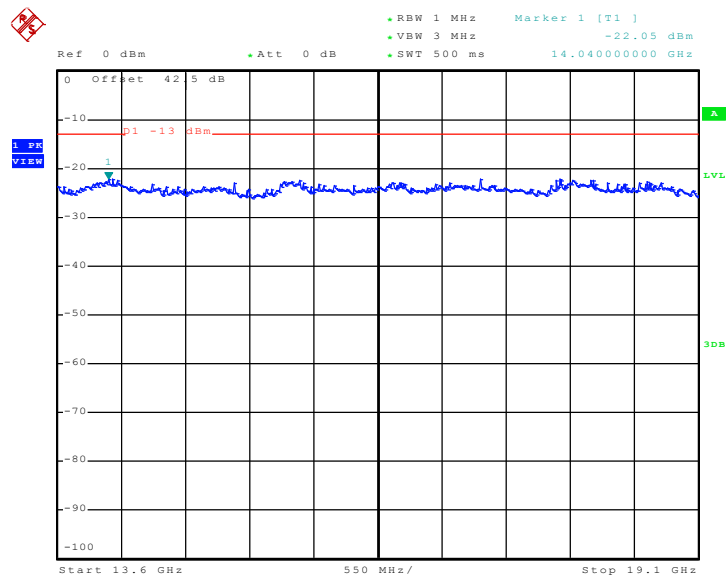
### Conducted Emission Plot between 7GHz ~ 13.6GHz



Date: 13.MAR.2010 06:14:17



Conducted Emission Plot between 13.6GHz ~ 19.1GHz

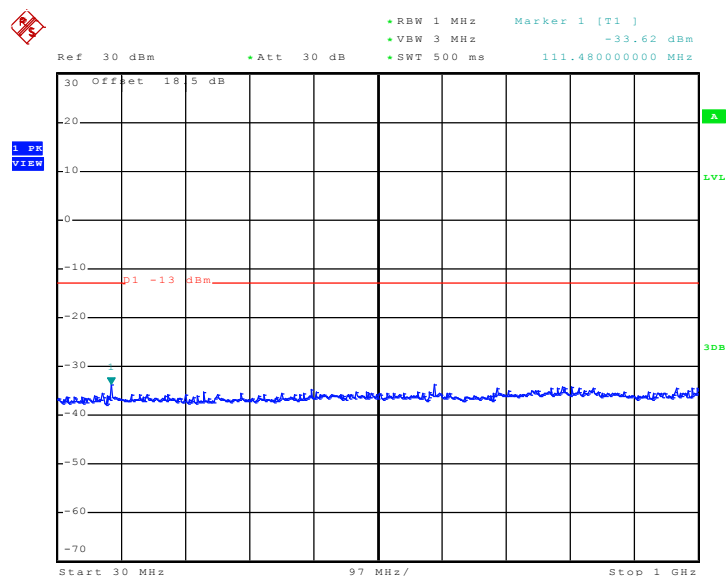


Date: 13.MAR.2010 06:15:09



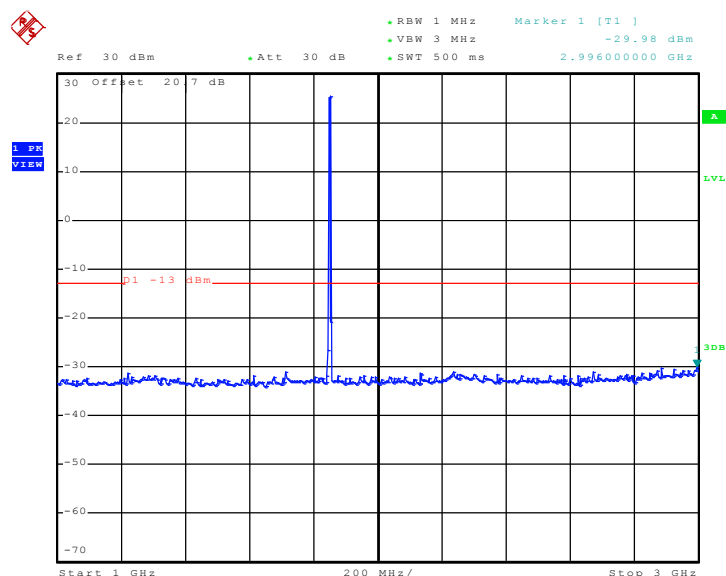
|             |             |           |       |
|-------------|-------------|-----------|-------|
| Band :      | GSM1900     | Channel : | CH512 |
| Test Mode : | EDGE 8 Link |           |       |

Conducted Emission Plot between 30MHz ~ 1GHz



Date: 13.MAR.2010 06:25:19

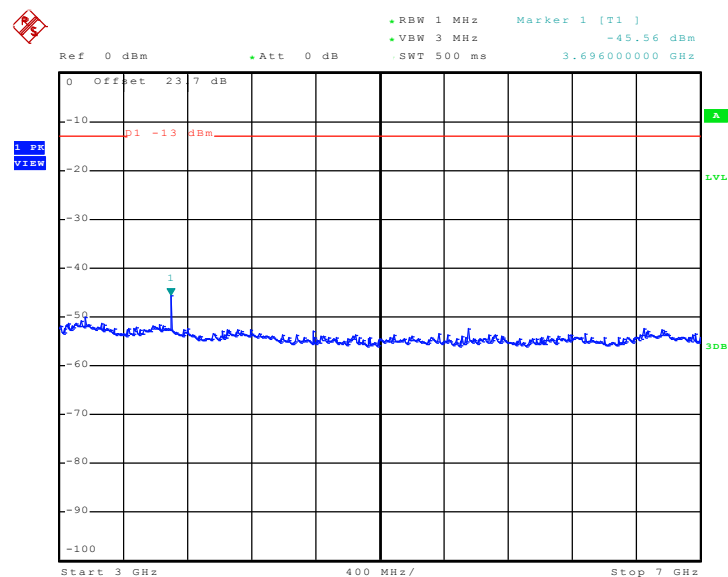
Conducted Emission Plot between 1GHz ~ 3GHz



Date: 13.MAR.2010 06:30:51

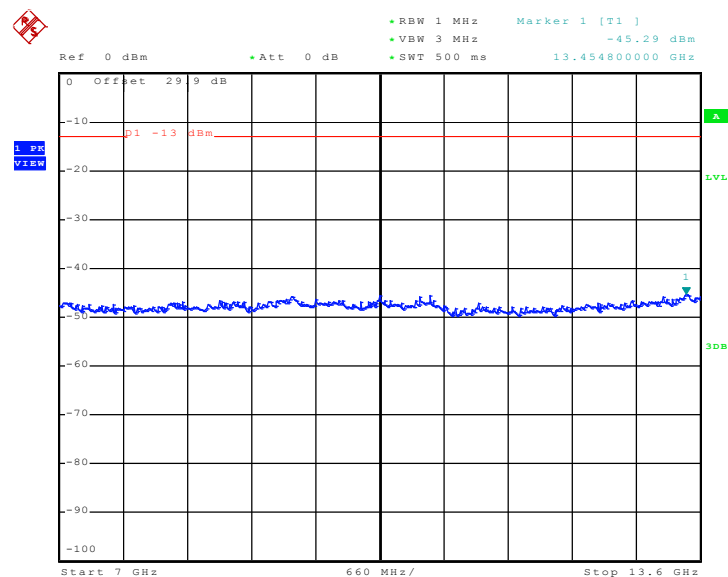


### Conducted Emission Plot between 3GHz ~ 7GHz



Date: 13.MAR.2010 06:32:42

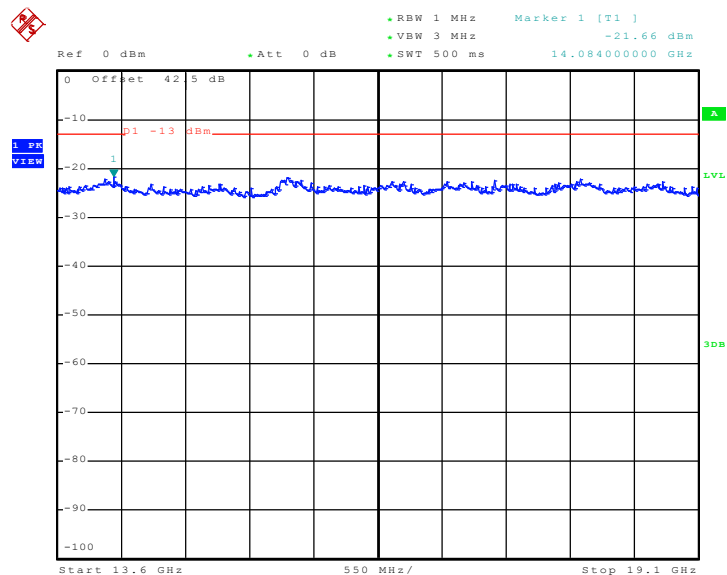
### Conducted Emission Plot between 7GHz ~ 13.6GHz



Date: 13.MAR.2010 06:36:43



Conducted Emission Plot between 13.6GHz ~ 19.1GHz

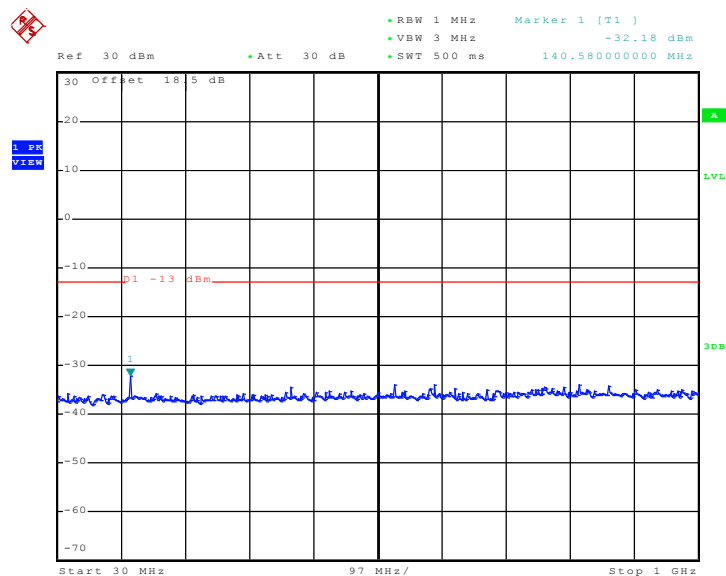


Date: 13.MAR.2010 06:37:44



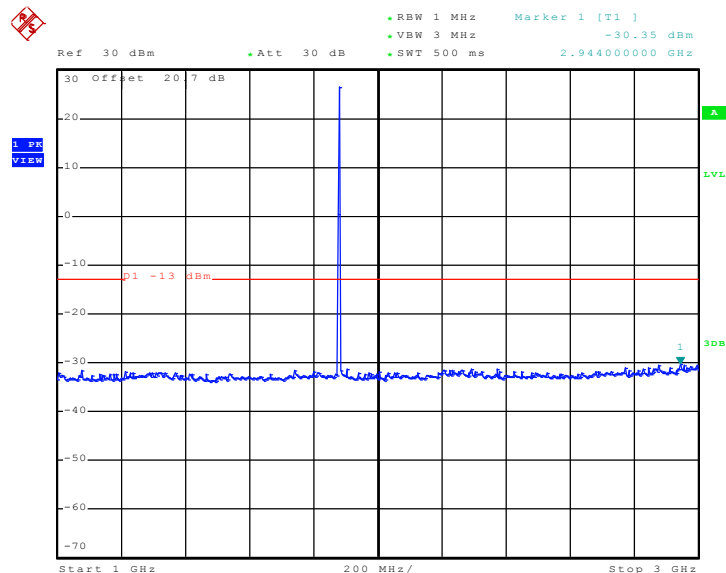
|             |             |           |       |
|-------------|-------------|-----------|-------|
| Band :      | GSM1900     | Channel : | CH661 |
| Test Mode : | EDGE 8 Link |           |       |

Conducted Emission Plot between 30MHz ~ 1GHz

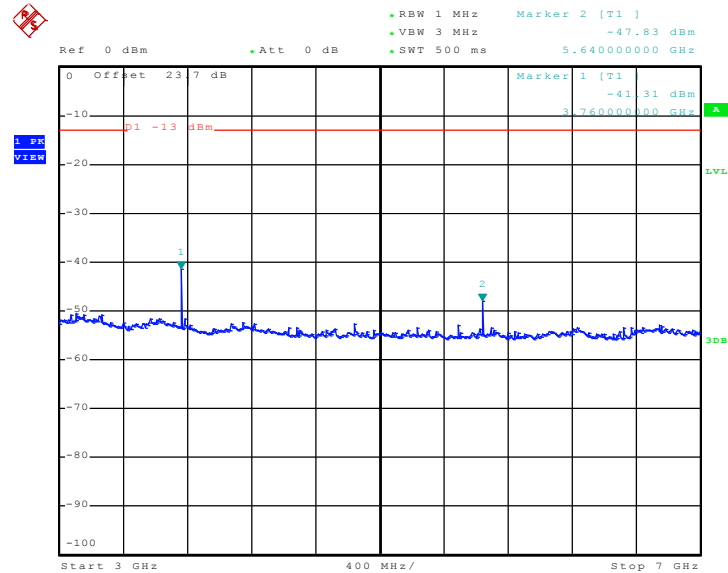


Date: 13.MAR.2010 06:24:43

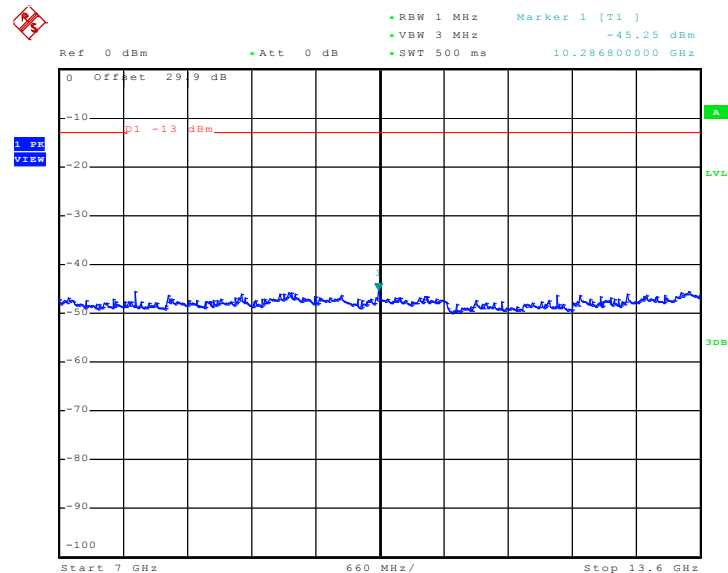
Conducted Emission Plot between 1GHz ~ 3GHz



Date: 13.MAR.2010 06:29:37

**Conducted Emission Plot between 3GHz ~ 7GHz**


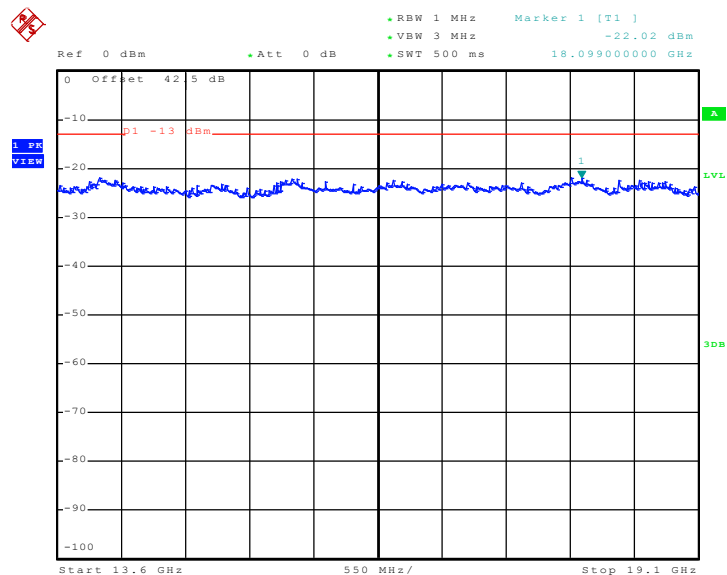
Date: 13.MAR.2010 06:33:29

**Conducted Emission Plot between 7GHz ~ 13.6GHz**


Date: 13.MAR.2010 06:36:01



Conducted Emission Plot between 13.6GHz ~ 19.1GHz

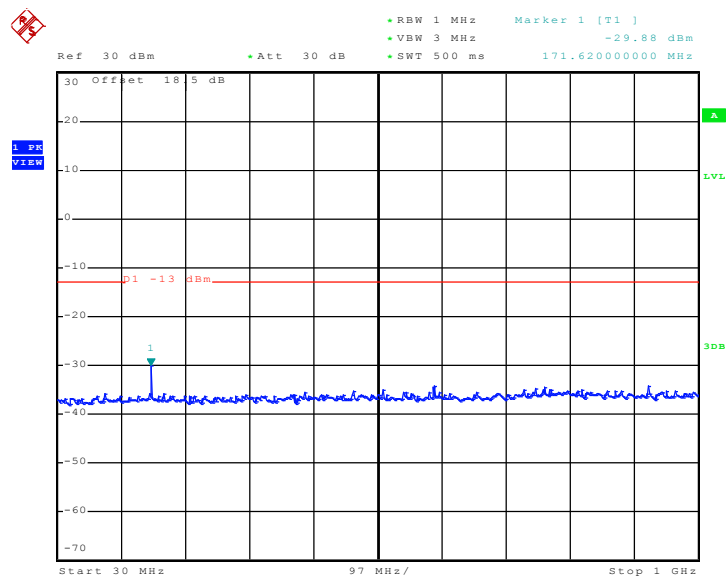


Date: 13.MAR.2010 06:38:46



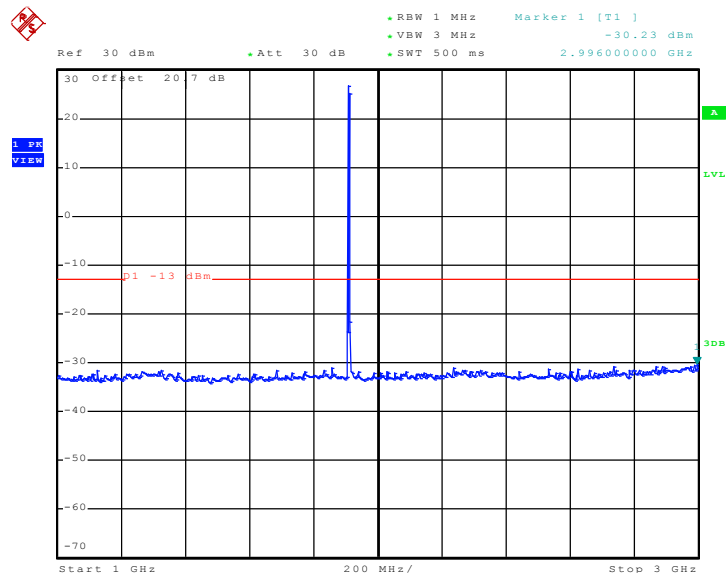
|             |             |           |       |
|-------------|-------------|-----------|-------|
| Band :      | GSM1900     | Channel : | CH810 |
| Test Mode : | EDGE 8 Link |           |       |

Conducted Emission Plot between 30MHz ~ 1GHz

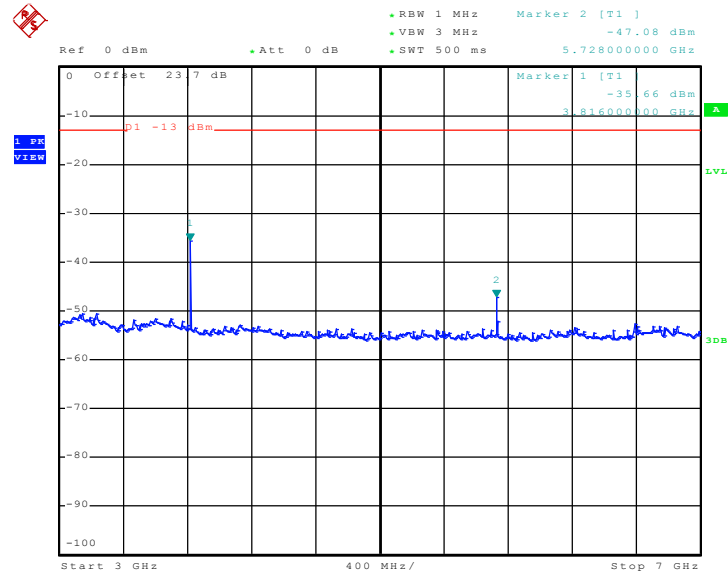


Date: 13.MAR.2010 06:25:42

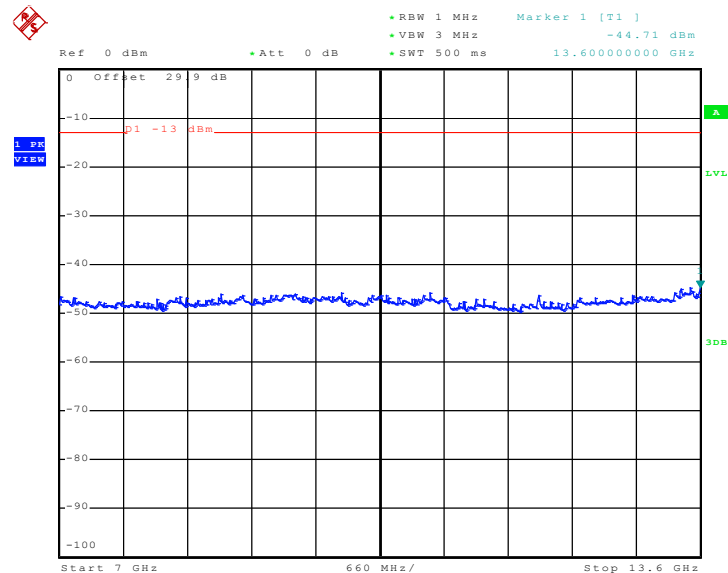
Conducted Emission Plot between 1GHz ~ 3GHz



Date: 13.MAR.2010 06:28:41

**Conducted Emission Plot between 3GHz ~ 7GHz**


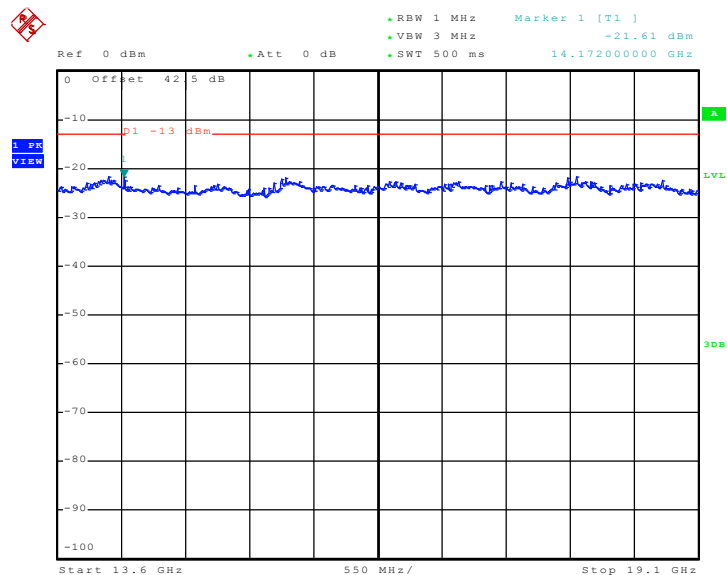
Date: 13.MAR.2010 06:34:06

**Conducted Emission Plot between 7GHz ~ 13.6GHz**


Date: 13.MAR.2010 06:35:18



Conducted Emission Plot between 13.6GHz ~ 19.1GHz

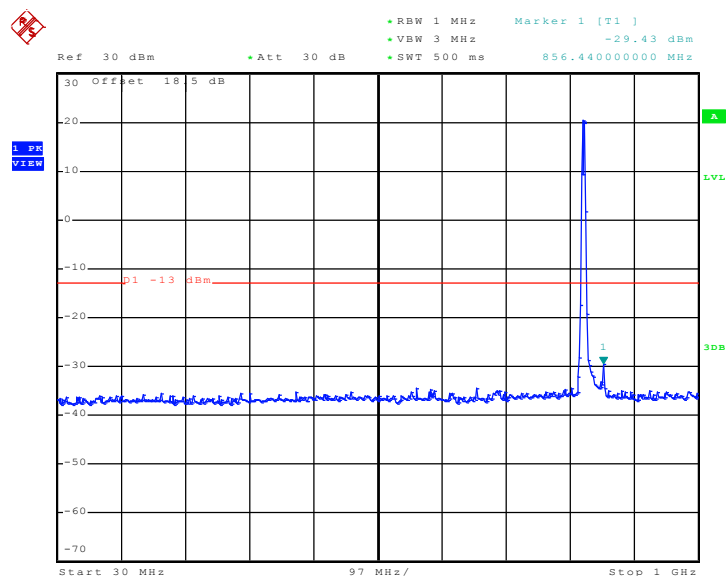


Date: 13.MAR.2010 06:39:30



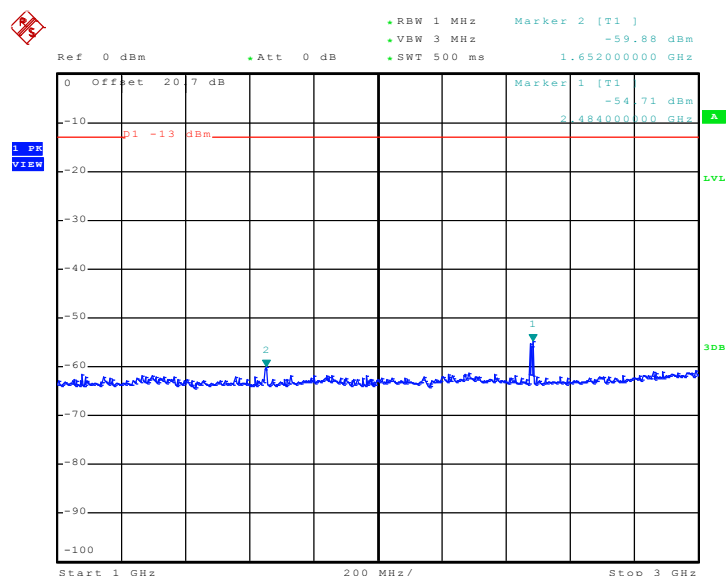
|             |                   |           |        |
|-------------|-------------------|-----------|--------|
| Band :      | WCDMA Band V      | Channel : | CH4132 |
| Test Mode : | RMC 12.2Kbps Link |           |        |

Conducted Emission Plot between 30MHz ~ 1GHz



Date: 13.MAR.2010 07:38:22

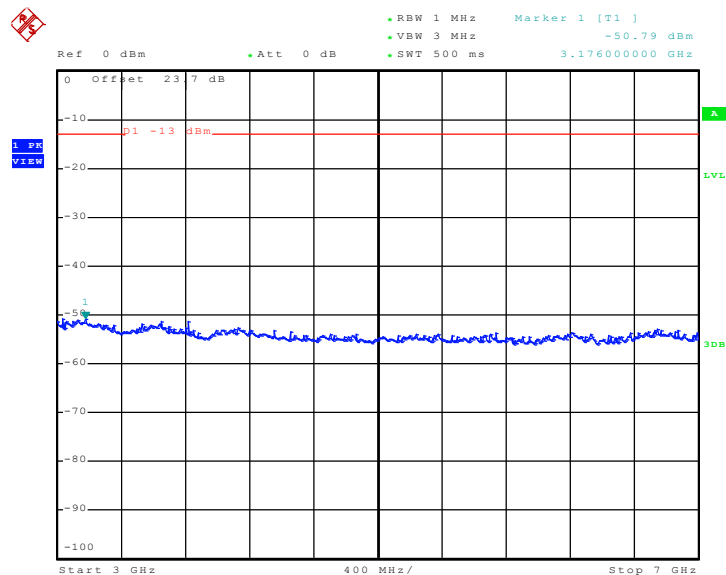
Conducted Emission Plot between 1GHz ~ 3GHz



Date: 13.MAR.2010 07:45:25

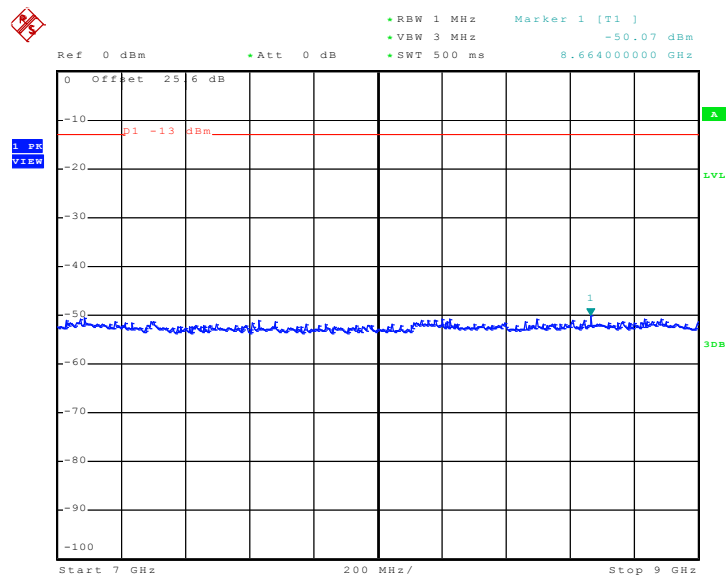


## Conducted Emission Plot between 3GHz ~ 7GHz



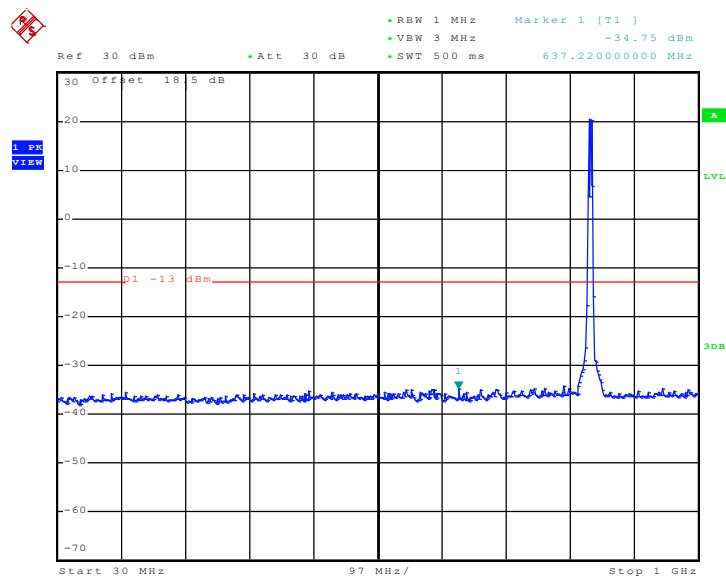
Date: 13.MAR.2010 07:49:20

## Conducted Emission Plot between 7GHz ~ 9GHz

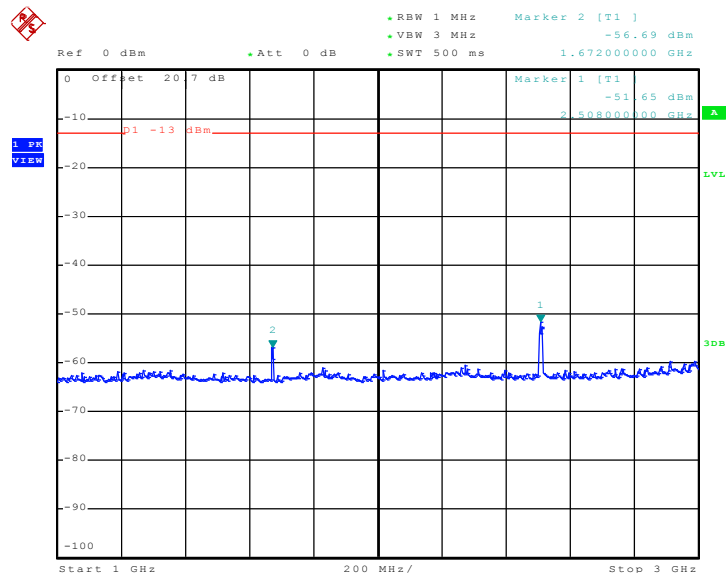


Date: 13.MAR.2010 07:50:16

|                    |                   |                  |        |
|--------------------|-------------------|------------------|--------|
| <b>Band :</b>      | WCDMA Band V      | <b>Channel :</b> | CH4182 |
| <b>Test Mode :</b> | RMC 12.2Kbps Link |                  |        |

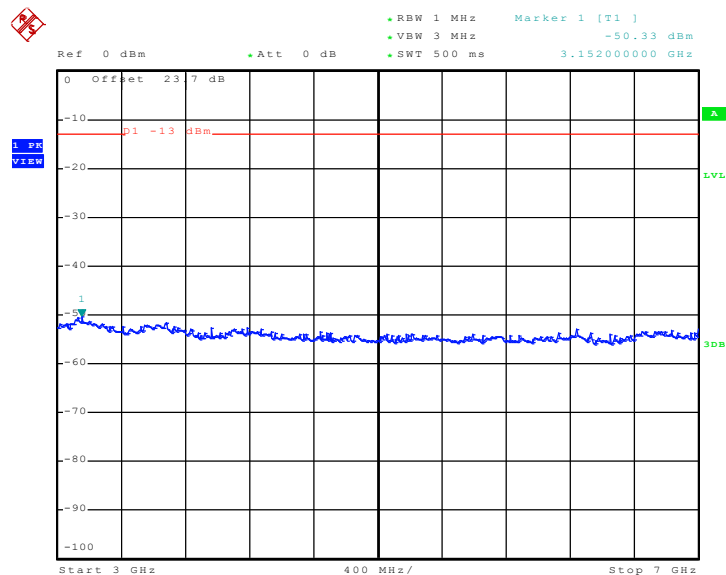
**Conducted Emission Plot between 30MHz ~ 1GHz**


Date: 13.MAR.2010 07:37:50

**Conducted Emission Plot between 1GHz ~ 3GHz**


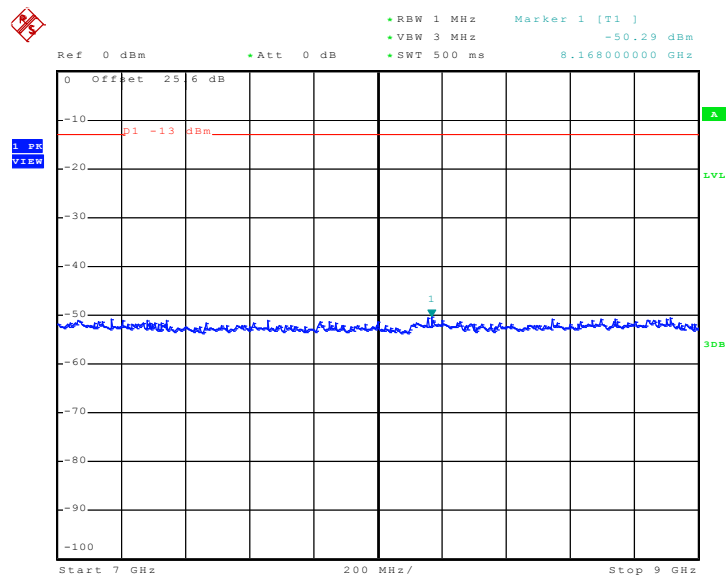
Date: 13.MAR.2010 07:46:03

## Conducted Emission Plot between 3GHz ~ 7GHz



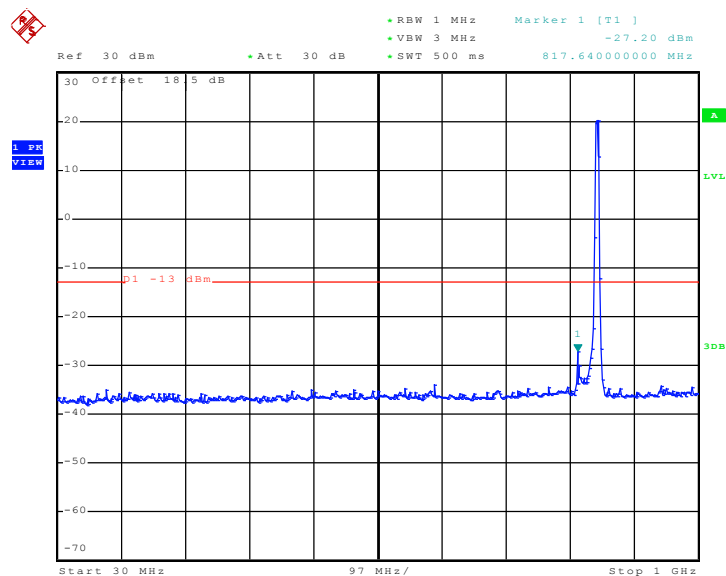
Date: 13.MAR.2010 07:48:36

## Conducted Emission Plot between 7GHz ~ 9GHz

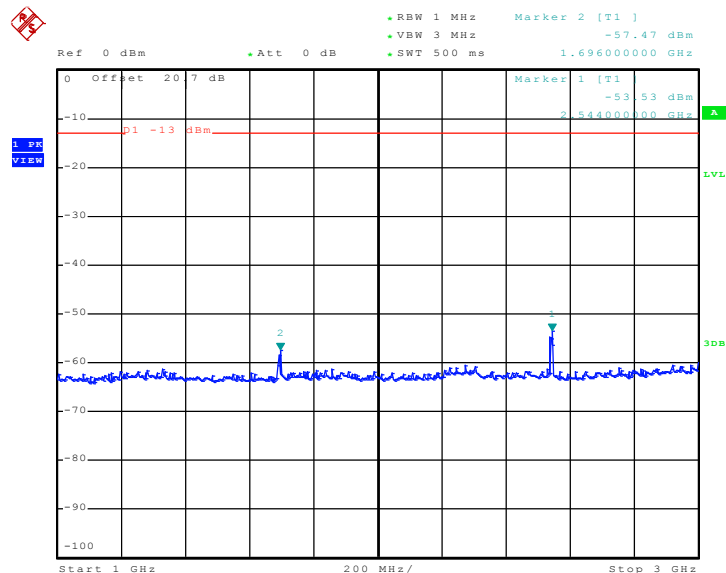


Date: 13.MAR.2010 07:50:54

|                    |                   |                  |        |
|--------------------|-------------------|------------------|--------|
| <b>Band :</b>      | WCDMA Band V      | <b>Channel :</b> | CH4233 |
| <b>Test Mode :</b> | RMC 12.2Kbps Link |                  |        |

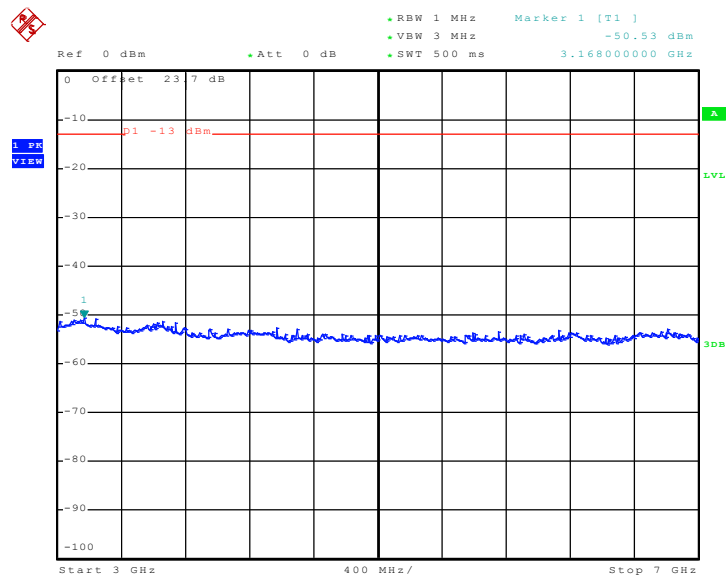
**Conducted Emission Plot between 30MHz ~ 1GHz**


Date: 13.MAR.2010 07:39:50

**Conducted Emission Plot between 1GHz ~ 3GHz**


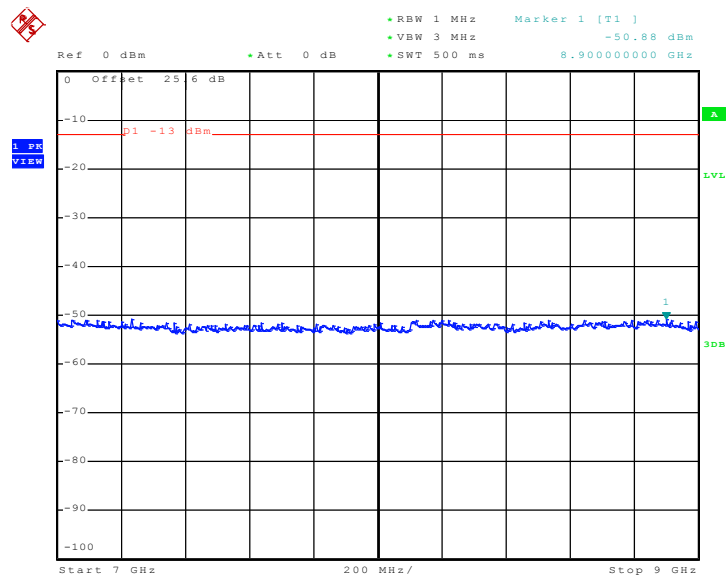
Date: 13.MAR.2010 07:46:46

## Conducted Emission Plot between 3GHz ~ 7GHz



Date: 13.MAR.2010 07:47:53

## Conducted Emission Plot between 7GHz ~ 9GHz

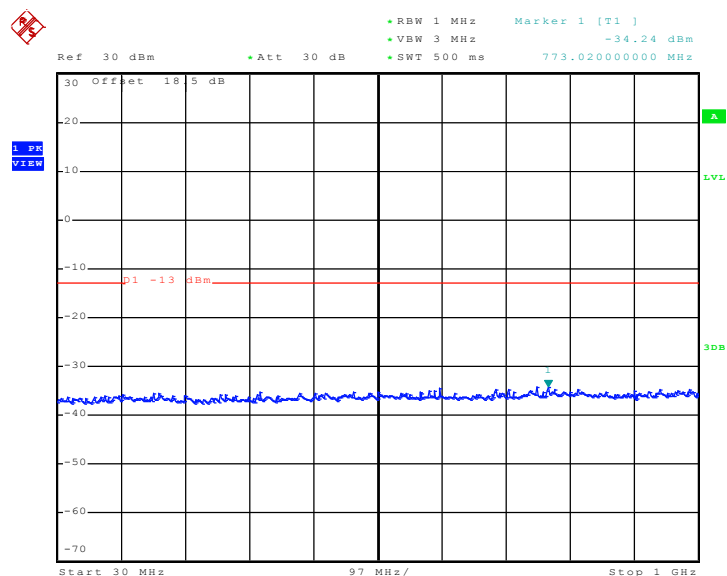


Date: 13.MAR.2010 07:51:39



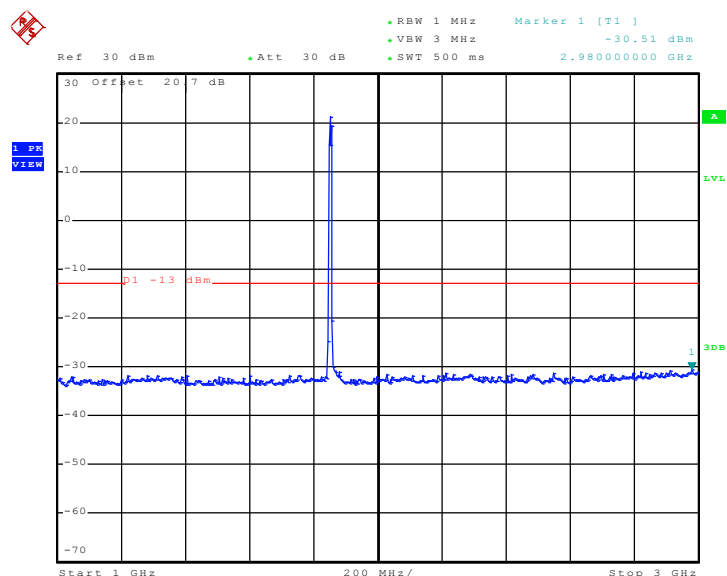
|             |                   |           |        |
|-------------|-------------------|-----------|--------|
| Band :      | WCDMA Band II     | Channel : | CH9262 |
| Test Mode : | RMC 12.2Kbps Link |           |        |

Conducted Emission Plot between 30MHz ~ 1GHz



Date: 13.MAR.2010 07:56:38

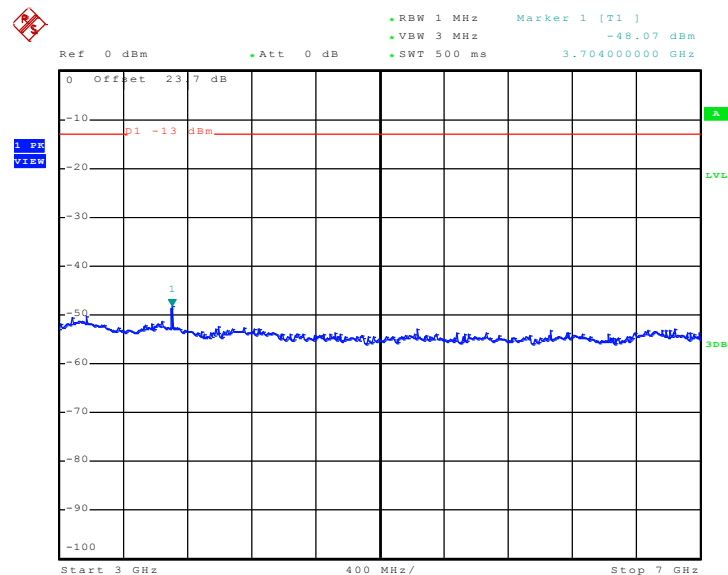
Conducted Emission Plot between 1GHz ~ 3GHz



Date: 13.MAR.2010 08:02:17

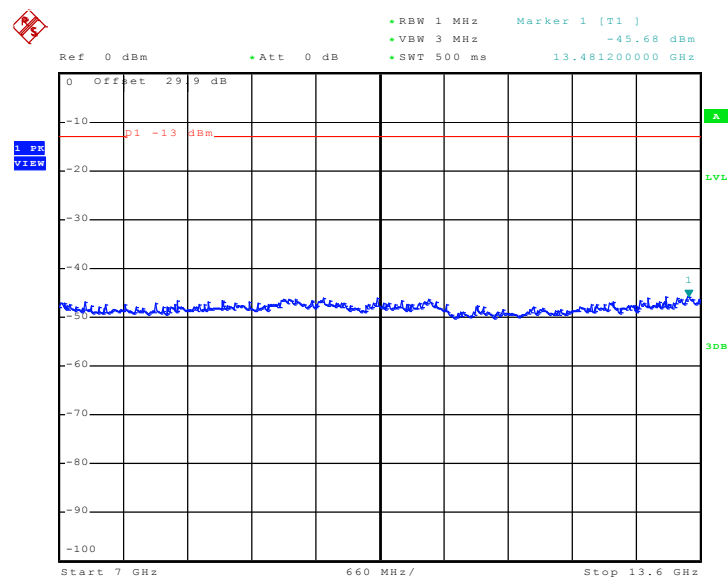


### Conducted Emission Plot between 3GHz ~ 7GHz



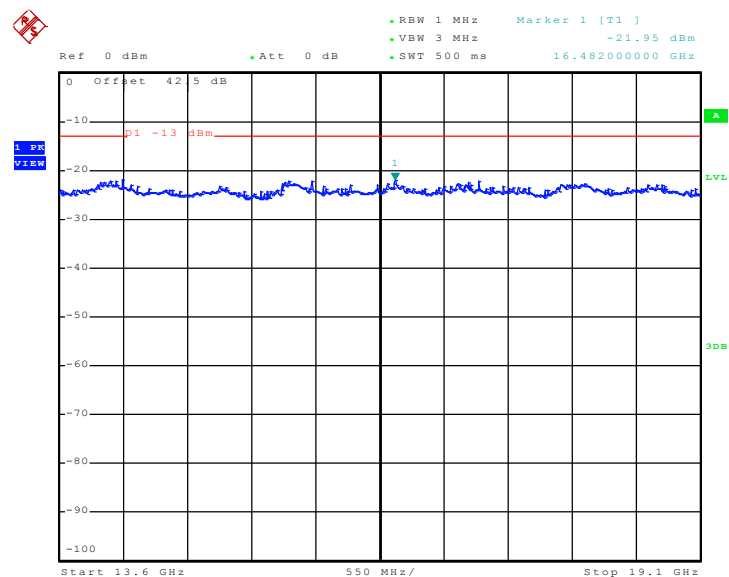
Date: 13.MAR.2010 08:03:48

### Conducted Emission Plot between 7GHz ~ 13.6GHz



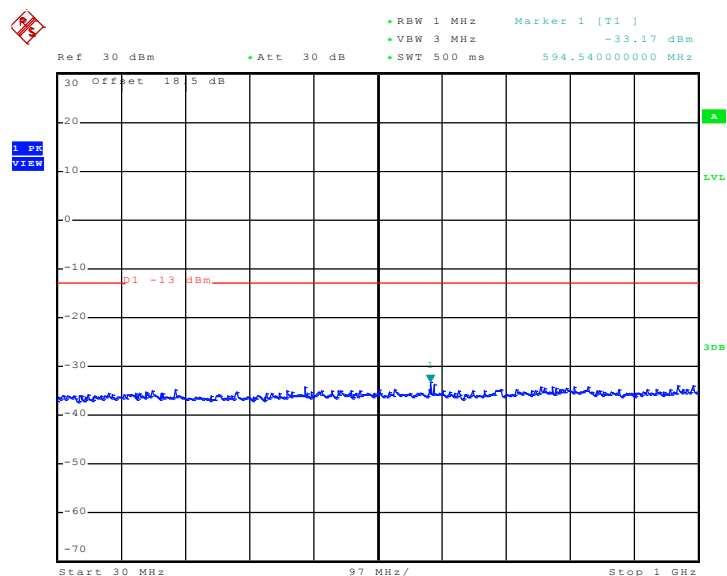
Date: 13.MAR.2010 08:07:17

### Conducted Emission Plot between 13.6GHz ~ 19.1GHz

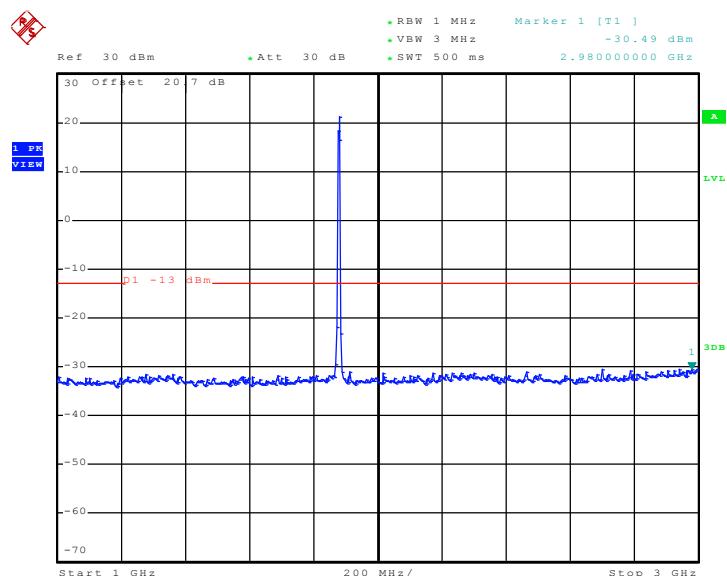


Date: 13.MAR.2010 08:08:18

|                    |                   |                  |        |
|--------------------|-------------------|------------------|--------|
| <b>Band :</b>      | WCDMA Band II     | <b>Channel :</b> | CH9400 |
| <b>Test Mode :</b> | RMC 12.2Kbps Link |                  |        |

**Conducted Emission Plot between 30MHz ~ 1GHz**


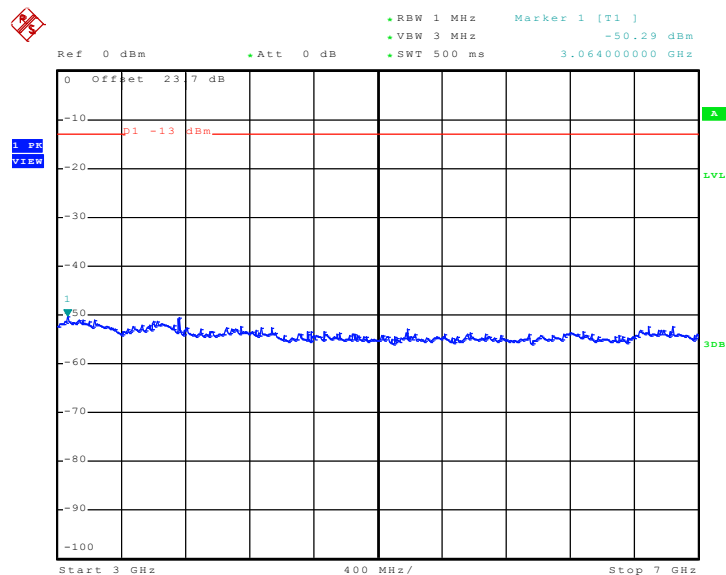
Date: 13.MAR.2010 07:58:08

**Conducted Emission Plot between 1GHz ~ 3GHz**


Date: 13.MAR.2010 08:01:23

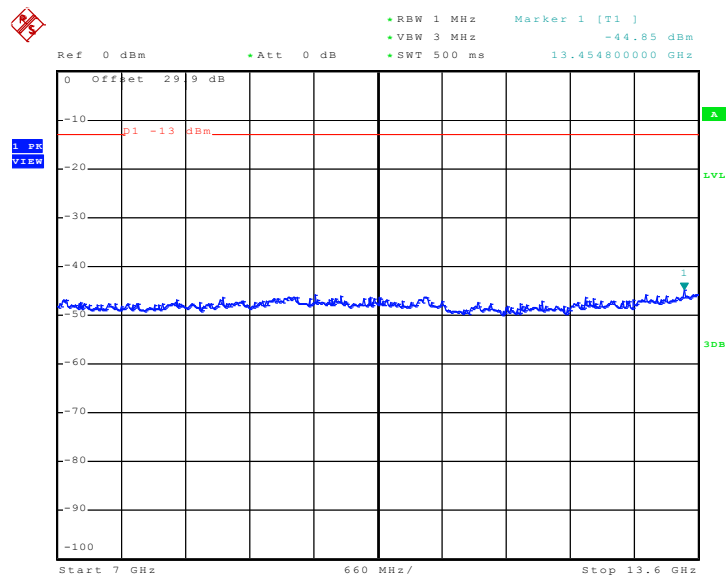


## Conducted Emission Plot between 3GHz ~ 7GHz



Date: 13.MAR.2010 08:04:30

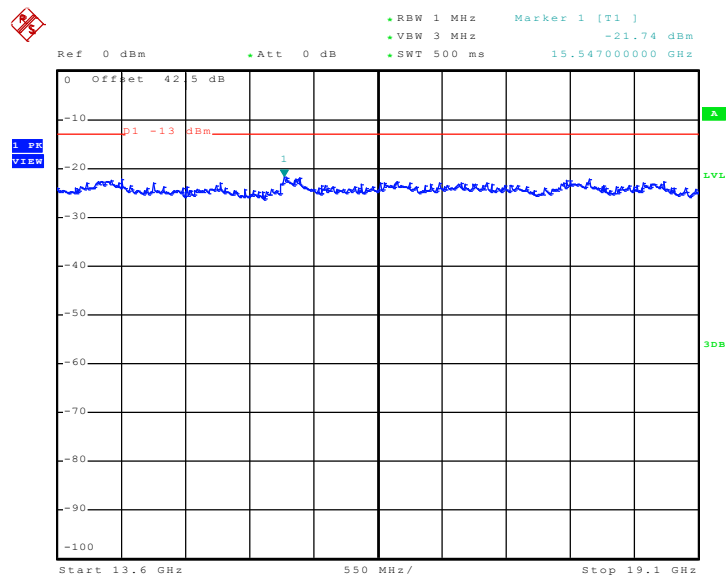
## Conducted Emission Plot between 7GHz ~ 13.6GHz



Date: 13.MAR.2010 08:06:41



Conducted Emission Plot between 13.6GHz ~ 19.1GHz

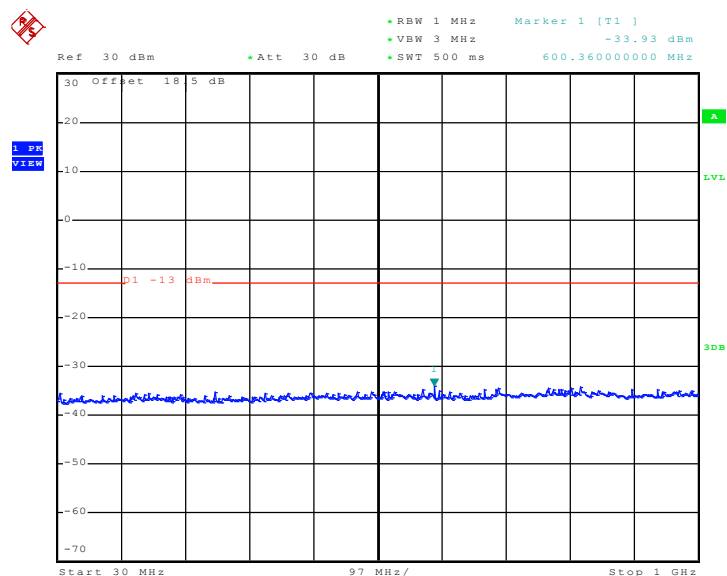


Date: 13.MAR.2010 08:08:57



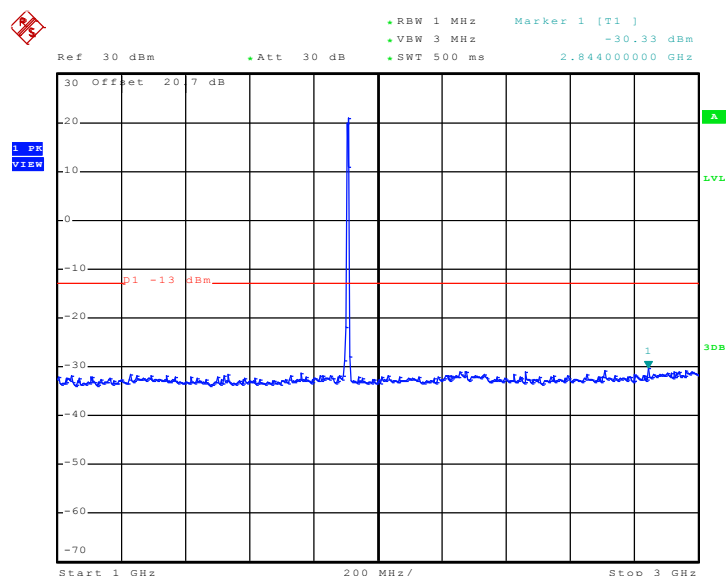
|             |                   |           |        |
|-------------|-------------------|-----------|--------|
| Band :      | WCDMA Band II     | Channel : | CH9538 |
| Test Mode : | RMC 12.2Kbps Link |           |        |

Conducted Emission Plot between 30MHz ~ 1GHz



Date: 13.MAR.2010 07:58:50

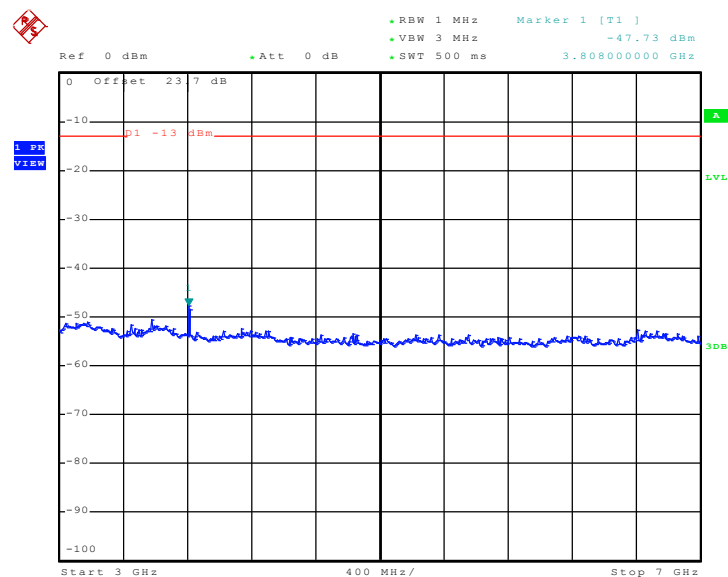
Conducted Emission Plot between 1GHz ~ 3GHz



Date: 13.MAR.2010 08:00:07

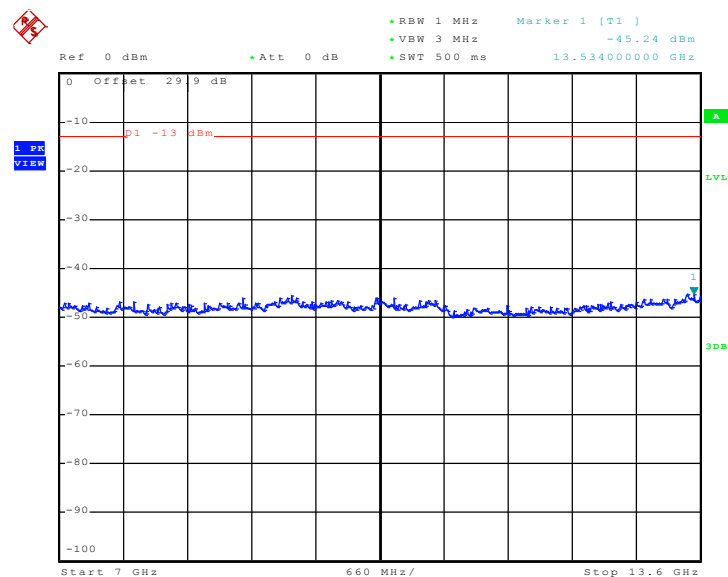


### Conducted Emission Plot between 3GHz ~ 7GHz



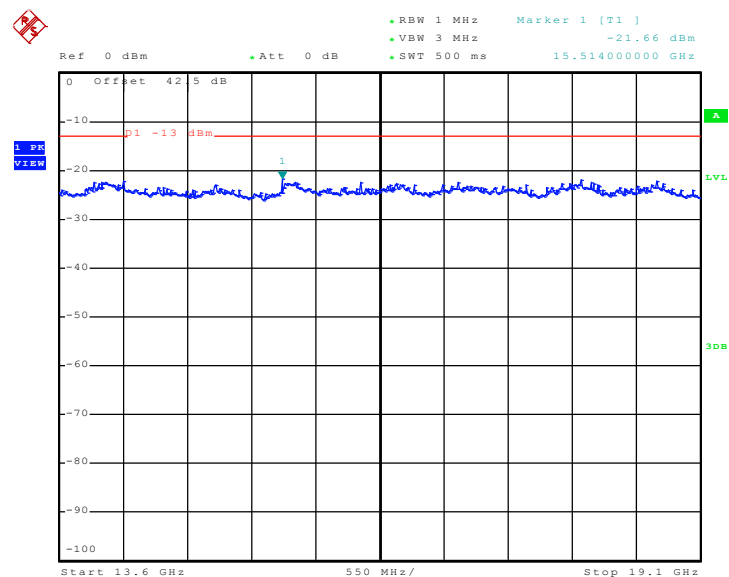
Date: 13.MAR.2010 08:05:07

### Conducted Emission Plot between 7GHz ~ 13.6GHz



Date: 13.MAR.2010 08:06:01

### Conducted Emission Plot between 13.6GHz ~ 19.1GHz



Date: 13.MAR.2010 08:09:33

### 3.5 Field Strength of Spurious Radiation Measurement

#### 3.5.1 Description of Field Strength of Spurious Radiated Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-C-2004. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

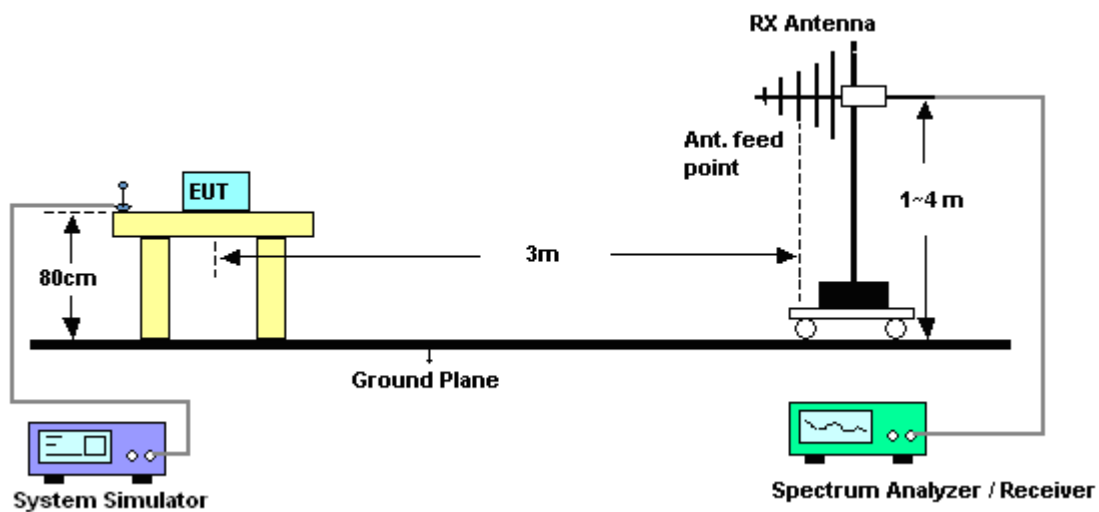
#### 3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.5.3 Test Procedures

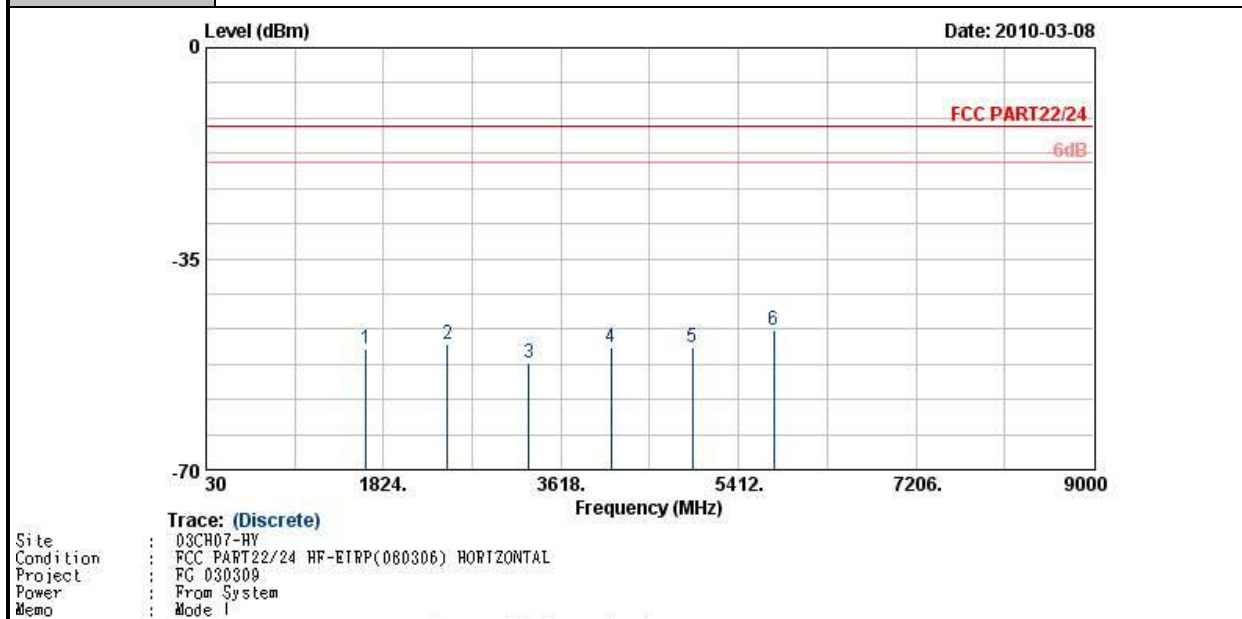
1. The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, Sweep = 500ms, Taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10.  $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11.  $ERP \text{ (dBm)} = EIRP - 2.15$

### 3.5.4 Test Setup



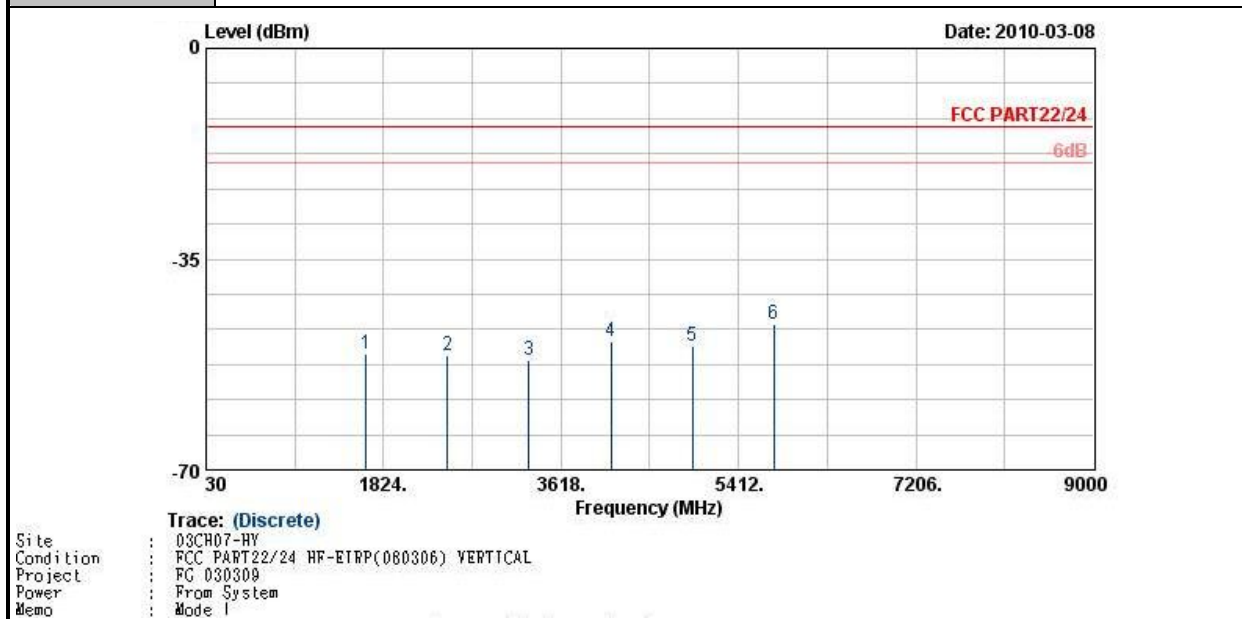
**3.5.5 Test Result of Field Strength of Spurious Radiated**

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | GPRS 8 Link_Channel 128<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1648.4               | -49.99         | -13              | -36.99                  | -59.18                    | -50.17                   | 3.10                       | 5.43                          | H                       | Pass   |
| 2472.6               | -49.08         | -13              | -36.08                  | -62.46                    | -49.07                   | 3.89                       | 6.03                          | H                       | Pass   |
| 3296.8               | -52.43         | -13              | -39.43                  | -66.14                    | -53.99                   | 4.16                       | 7.87                          | H                       | Pass   |
| 4121.0               | -49.64         | -13              | -36.64                  | -66.27                    | -51.61                   | 4.88                       | 9.00                          | H                       | Pass   |
| 4945.2               | -49.76         | -13              | -36.76                  | -67.39                    | -52.15                   | 5.09                       | 9.63                          | H                       | Pass   |
| 5769.4               | -46.93         | -13              | -33.93                  | -68.58                    | -49.64                   | 5.54                       | 10.40                         | H                       | Pass   |

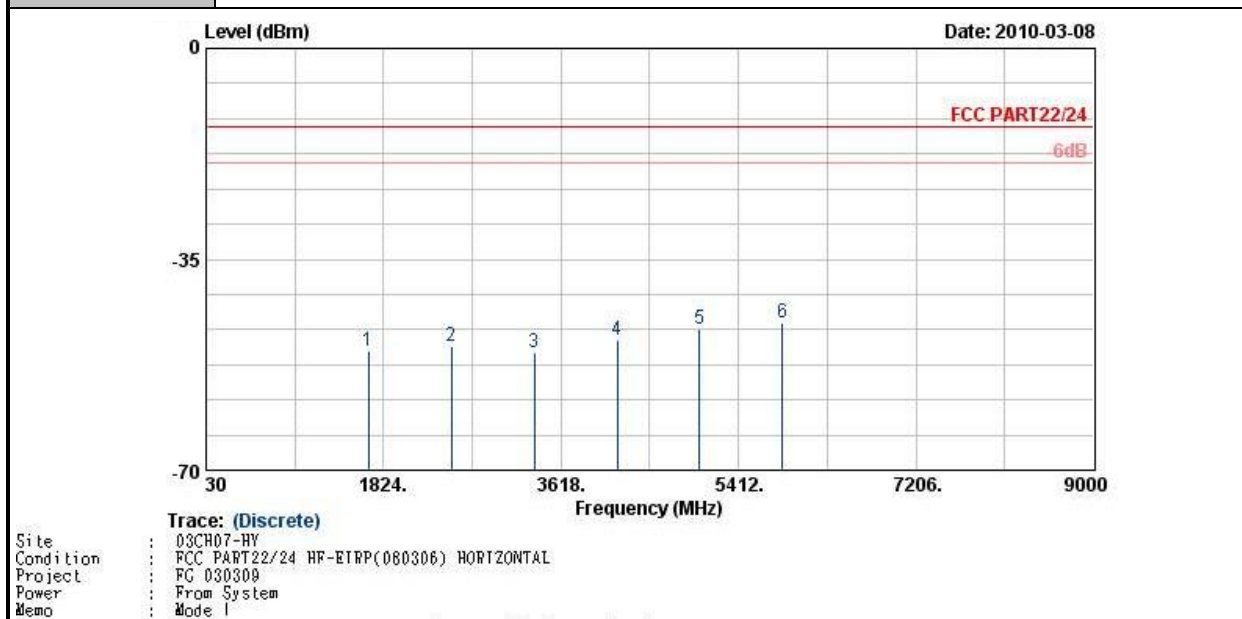
|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | GPRS 8 Link_Channel 128<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1648.4               | -50.66         | -13              | -37.66                  | -59.85                    | -50.84                   | 3.10                       | 5.43                          | V                       | Pass   |
| 2474.0               | -51.00         | -13              | -38.00                  | -63.86                    | -50.99                   | 3.89                       | 6.03                          | V                       | Pass   |
| 3296.8               | -51.76         | -13              | -38.76                  | -66.05                    | -53.32                   | 4.16                       | 7.87                          | V                       | Pass   |
| 4121.0               | -48.67         | -13              | -35.67                  | -65.68                    | -50.64                   | 4.88                       | 9.00                          | V                       | Pass   |
| 4945.2               | -49.56         | -13              | -36.56                  | -67.35                    | -51.95                   | 5.09                       | 9.63                          | V                       | Pass   |
| 5769.4               | -45.92         | -13              | -32.92                  | -68.00                    | -48.63                   | 5.54                       | 10.40                         | V                       | Pass   |

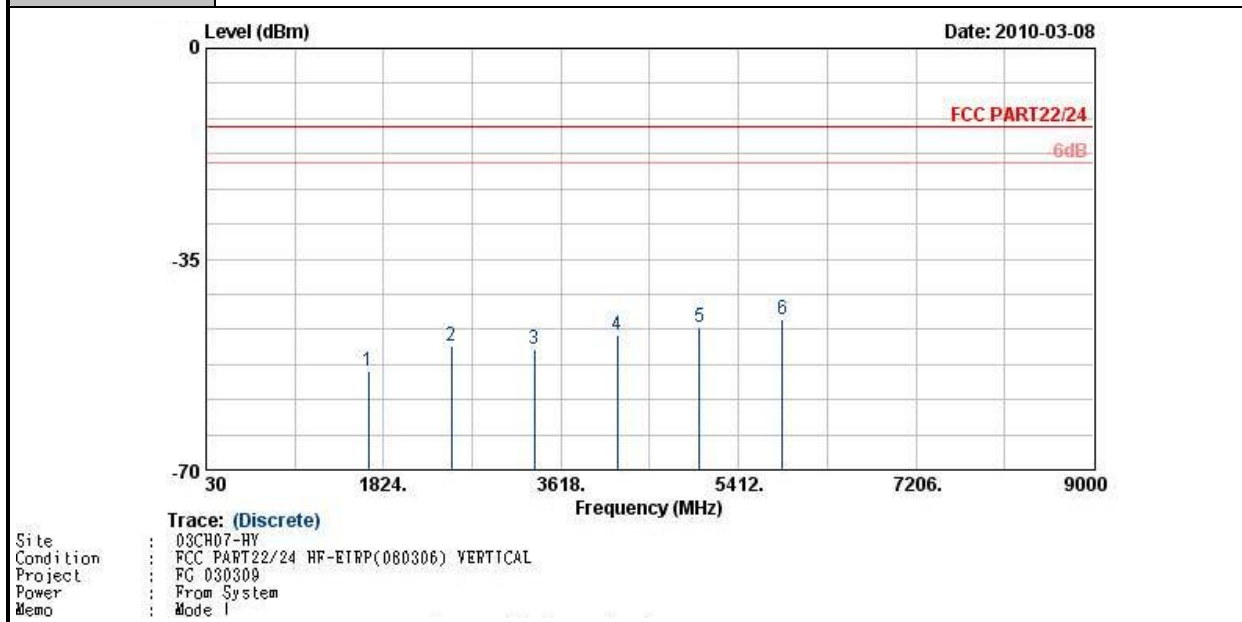


|                 |                                                                                  |                     |            |
|-----------------|----------------------------------------------------------------------------------|---------------------|------------|
| Band :          | GSM850                                                                           | Temperature :       | 25~26°C    |
| Test Mode :     | GPRS 8 Link_Channel 189<br>(With USB Cable)                                      | Relative Humidity : | 47~48%     |
| Test Engineer : | Kay Wang                                                                         | Polarization :      | Horizontal |
| Remark :        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                     |            |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|--------|
| 1674.0               | -50.26         | -13              | -37.26                  | -59.12                  | -50.11                   | 3.39                       | 5.39                        | H                     | Pass   |
| 2509.2               | -49.48         | -13              | -36.48                  | -63.13                  | -49.74                   | 3.71                       | 6.12                        | H                     | Pass   |
| 3345.6               | -50.40         | -13              | -37.40                  | -65.27                  | -53.12                   | 3.13                       | 8.00                        | H                     | Pass   |
| 4184                 | -48.35         | -13              | -35.35                  | -66.85                  | -52.19                   | 3.01                       | 9.00                        | H                     | Pass   |
| 5018.4               | -46.52         | -13              | -33.52                  | -66.73                  | -51.49                   | 2.61                       | 9.73                        | H                     | Pass   |
| 5854.8               | -45.45         | -13              | -32.45                  | -68.26                  | -49.32                   | 4.38                       | 10.40                       | H                     | Pass   |

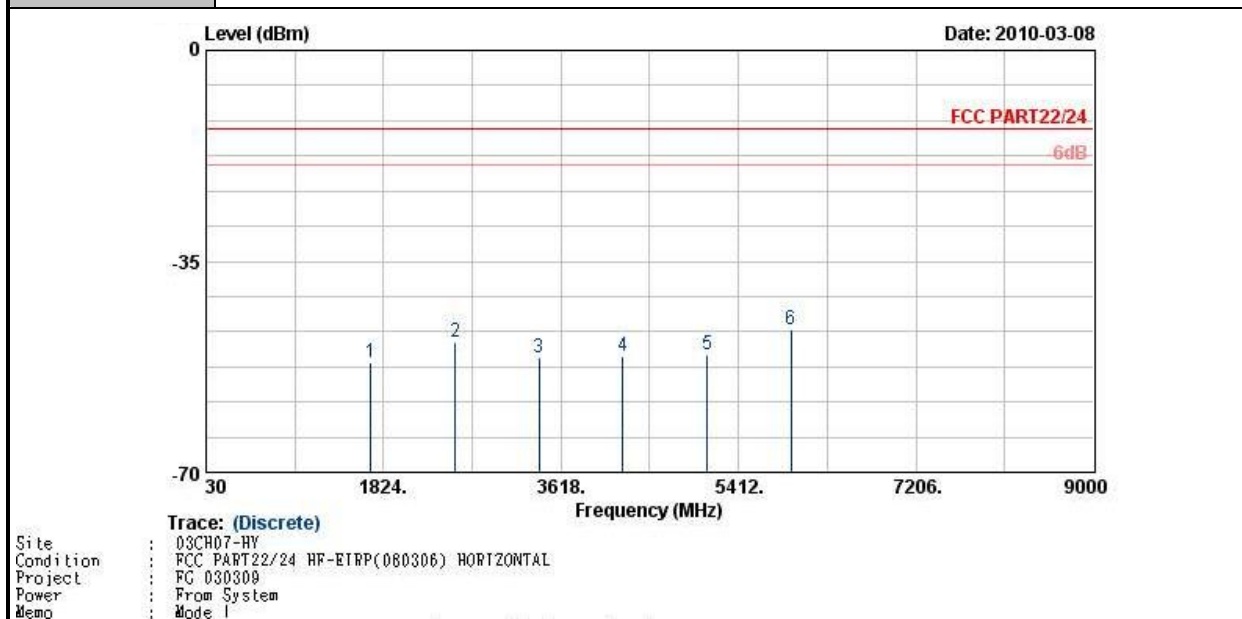
|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | GPRS 8 Link_Channel 189<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1674.0               | -53.71         | -13              | -40.71                  | -63.81                    | -53.56                   | 3.39                       | 5.39                          | V                       | Pass   |
| 2509.2               | -49.39         | -13              | -36.39                  | -62.52                    | -49.65                   | 3.71                       | 6.12                          | V                       | Pass   |
| 3345.6               | -50.09         | -13              | -37.09                  | -65.54                    | -52.81                   | 3.13                       | 8.00                          | V                       | Pass   |
| 4184.0               | -47.67         | -13              | -34.67                  | -66.55                    | -51.51                   | 3.01                       | 9.00                          | V                       | Pass   |
| 5018.4               | -46.36         | -13              | -33.36                  | -66.73                    | -51.33                   | 2.61                       | 9.73                          | V                       | Pass   |
| 5854.8               | -45.02         | -13              | -32.02                  | -68.26                    | -48.89                   | 4.38                       | 10.40                         | V                       | Pass   |

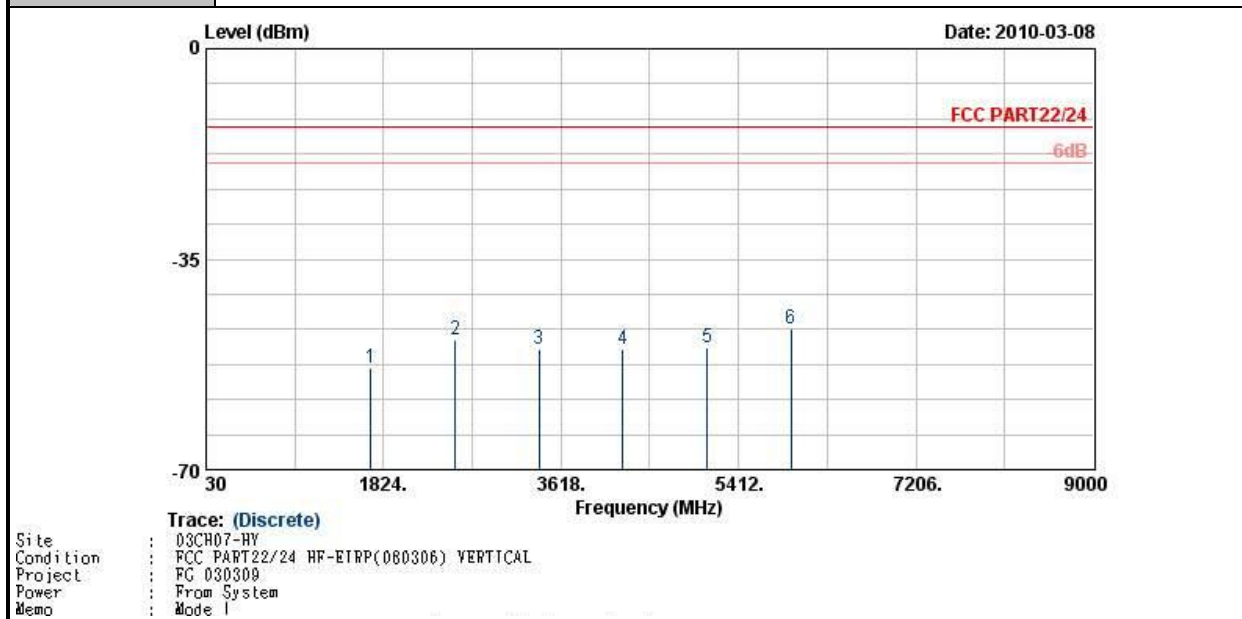


|                 |                                                                                  |                     |            |
|-----------------|----------------------------------------------------------------------------------|---------------------|------------|
| Band :          | GSM850                                                                           | Temperature :       | 25~26°C    |
| Test Mode :     | GPRS 8 Link_Channel 251<br>(With USB Cable)                                      | Relative Humidity : | 47~48%     |
| Test Engineer : | Kay Wang                                                                         | Polarization :      | Horizontal |
| Remark :        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                     |            |



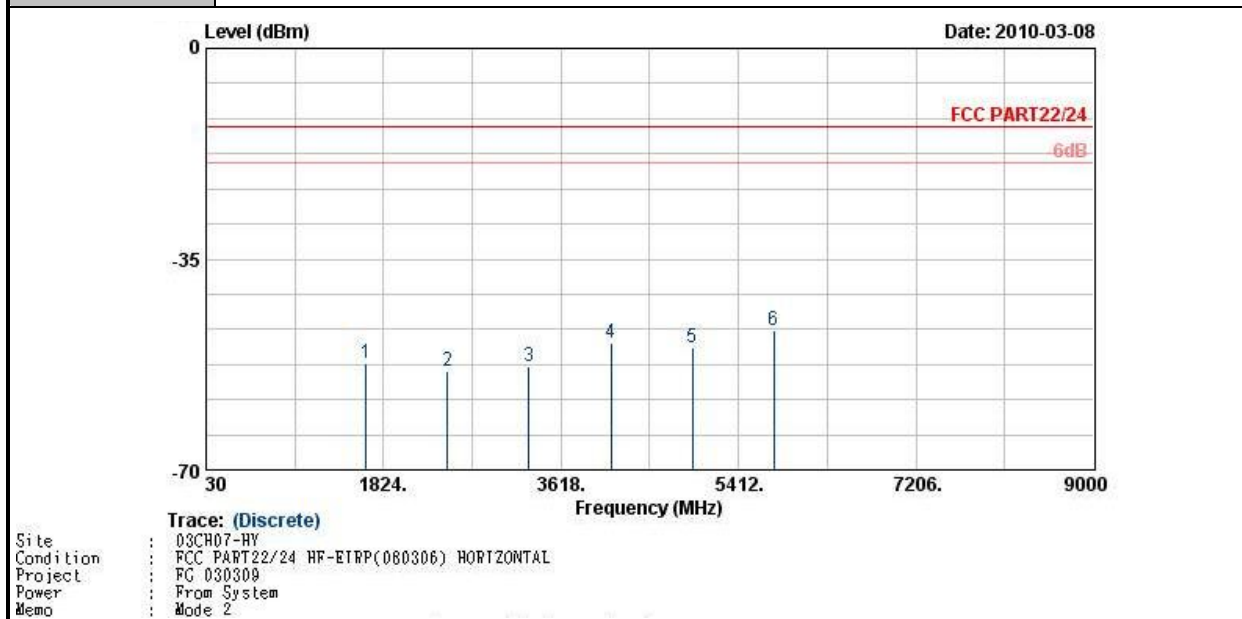
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1697.6               | -51.68         | -13              | -38.68                  | -60.87                    | -51.86                   | 3.02                       | 5.35                          | H                       | Pass   |
| 2546.4               | -48.50         | -13              | -35.50                  | -62.2                     | -48.81                   | 3.73                       | 6.19                          | H                       | Pass   |
| 3395.2               | -50.93         | -13              | -37.93                  | -65.07                    | -52.92                   | 3.98                       | 8.12                          | H                       | Pass   |
| 4244.0               | -50.71         | -13              | -37.71                  | -67.38                    | -52.72                   | 4.84                       | 9.00                          | H                       | Pass   |
| 5092.8               | -50.40         | -13              | -37.40                  | -67.95                    | -52.71                   | 5.36                       | 9.82                          | H                       | Pass   |
| 5941.6               | -46.33         | -13              | -33.33                  | -67.69                    | -48.75                   | 5.83                       | 10.40                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | GPRS 8 Link_Channel 251<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



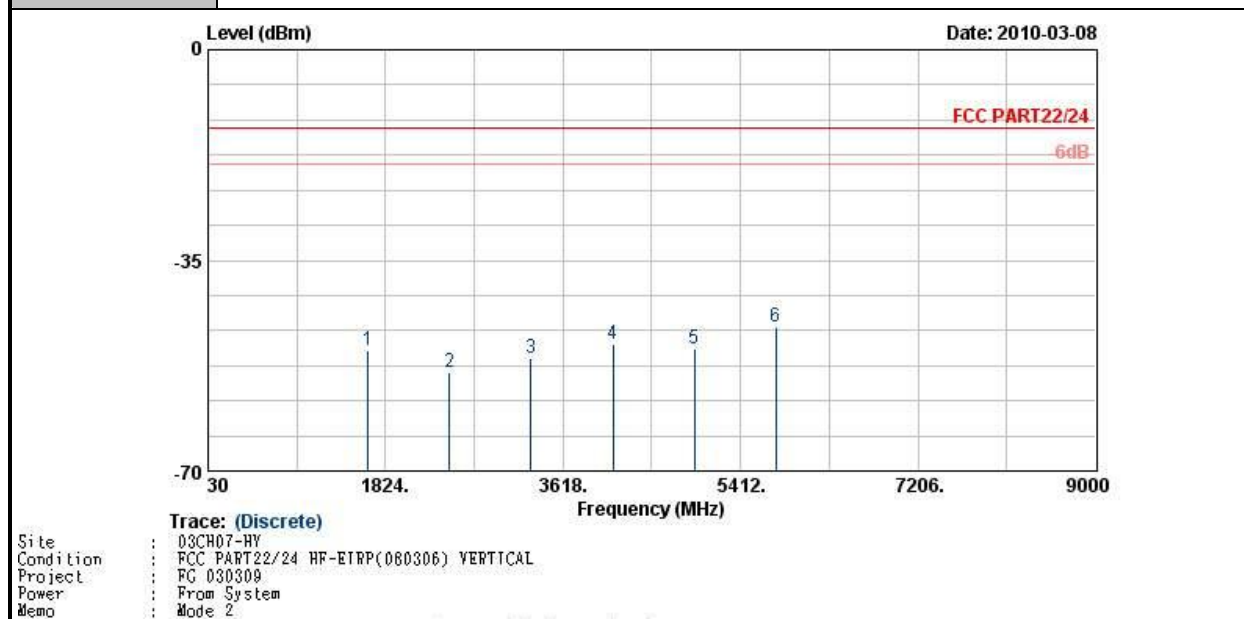
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1697.6               | -53.02         | -13              | -40.02                  | -63.45                    | -53.2                    | 3.02                       | 5.35                          | V                       | Pass   |
| 2546.4               | -48.32         | -13              | -35.32                  | -61.50                    | -48.63                   | 3.73                       | 6.19                          | V                       | Pass   |
| 3395.2               | -50.02         | -13              | -37.02                  | -64.74                    | -52.01                   | 3.98                       | 8.12                          | V                       | Pass   |
| 4244.0               | -50.00         | -13              | -37.00                  | -67.05                    | -52.01                   | 4.84                       | 9.00                          | V                       | Pass   |
| 5092.8               | -49.73         | -13              | -36.73                  | -67.44                    | -52.04                   | 5.36                       | 9.82                          | V                       | Pass   |
| 5941.6               | -46.70         | -13              | -33.70                  | -68.49                    | -49.12                   | 5.83                       | 10.40                         | V                       | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 128<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



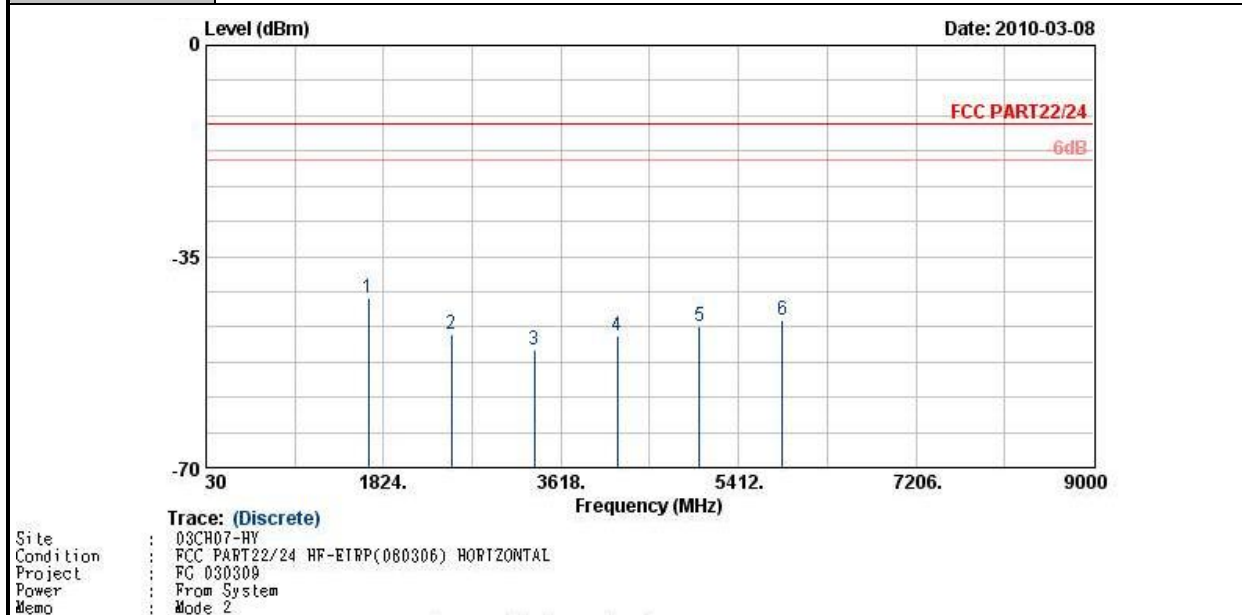
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1648.4               | -52.32         | -13              | -39.32                  | -61.51                    | -52.50                   | 3.10                       | 5.43                          | H                       | Pass   |
| 2472.6               | -53.71         | -13              | -40.71                  | -67.09                    | -53.70                   | 3.89                       | 6.03                          | H                       | Pass   |
| 3296.8               | -52.75         | -13              | -39.75                  | -66.46                    | -54.31                   | 4.16                       | 7.87                          | H                       | Pass   |
| 4121.0               | -49.03         | -13              | -36.03                  | -65.66                    | -51.00                   | 4.88                       | 9.00                          | H                       | Pass   |
| 4945.2               | -49.81         | -13              | -36.81                  | -67.44                    | -52.20                   | 5.09                       | 9.63                          | H                       | Pass   |
| 5769.4               | -46.76         | -13              | -33.76                  | -68.41                    | -49.47                   | 5.54                       | 10.40                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 128<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



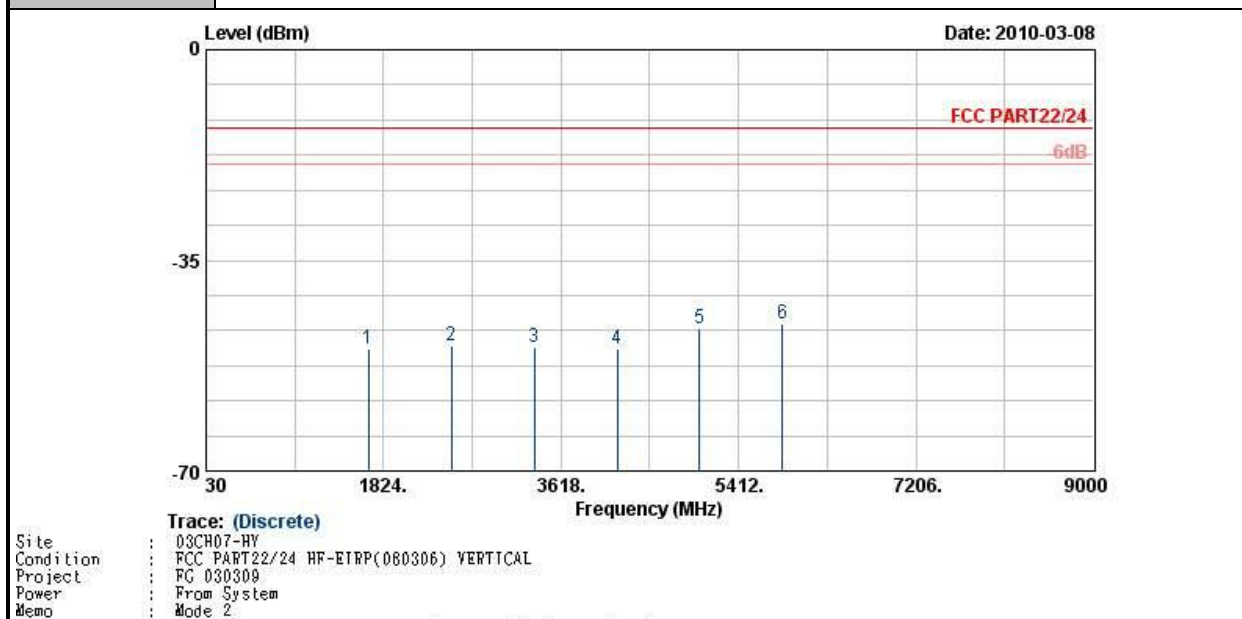
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1648.4               | -50.02         | -13              | -37.02                  | -62.45                    | -50.20                   | 3.10                       | 5.43                          | V                       | Pass   |
| 2474.0               | -53.58         | -13              | -40.58                  | -66.44                    | -53.57                   | 3.89                       | 6.03                          | V                       | Pass   |
| 3296.8               | -51.18         | -13              | -38.18                  | -65.47                    | -52.74                   | 4.16                       | 7.87                          | V                       | Pass   |
| 4121.0               | -48.95         | -13              | -35.95                  | -65.96                    | -50.92                   | 4.88                       | 9.00                          | V                       | Pass   |
| 4945.2               | -49.64         | -13              | -36.64                  | -67.43                    | -52.03                   | 5.09                       | 9.63                          | V                       | Pass   |
| 5769.4               | -46.08         | -13              | -33.08                  | -68.16                    | -48.79                   | 5.54                       | 10.40                         | V                       | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 189<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



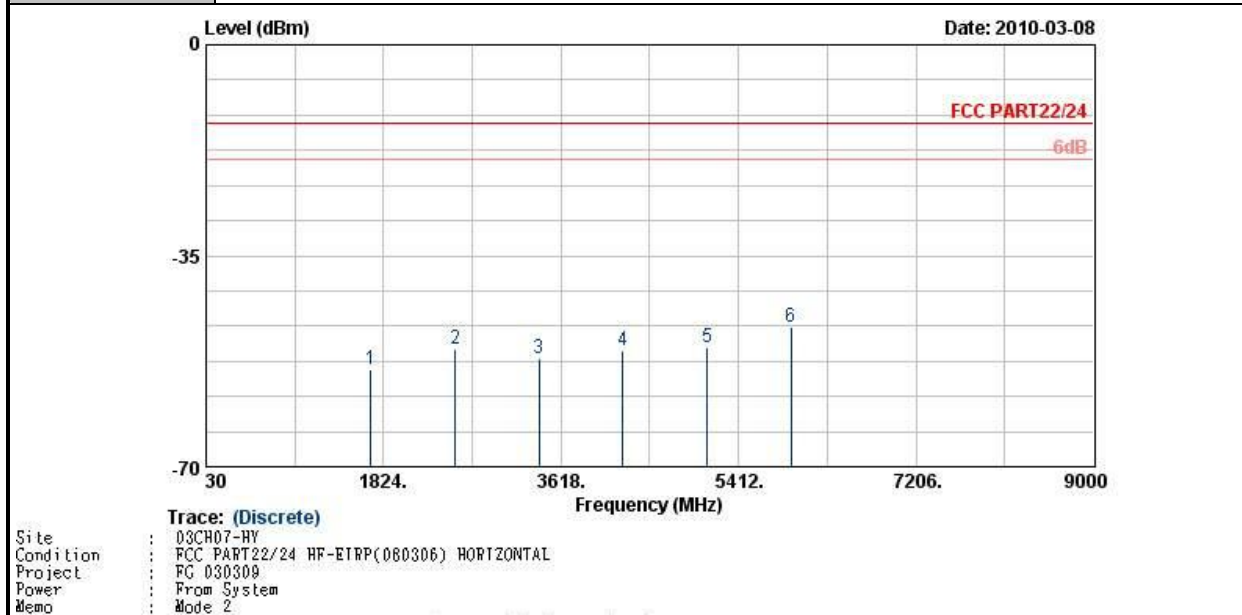
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1674.0               | -41.95         | -13              | -28.95                  | -50.81                    | -41.8                    | 3.39                       | 5.39                          | H                       | Pass   |
| 2509.2               | -47.96         | -13              | -34.96                  | -61.61                    | -48.22                   | 3.71                       | 6.12                          | H                       | Pass   |
| 3345.6               | -50.47         | -13              | -37.47                  | -65.34                    | -53.19                   | 3.13                       | 8.00                          | H                       | Pass   |
| 4184.0               | -48.18         | -13              | -35.18                  | -66.68                    | -52.02                   | 3.01                       | 9.00                          | H                       | Pass   |
| 5018.4               | -46.63         | -13              | -33.63                  | -66.84                    | -51.60                   | 2.61                       | 9.73                          | H                       | Pass   |
| 5854.8               | -45.49         | -13              | -32.49                  | -68.3                     | -49.36                   | 4.38                       | 10.40                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 189<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



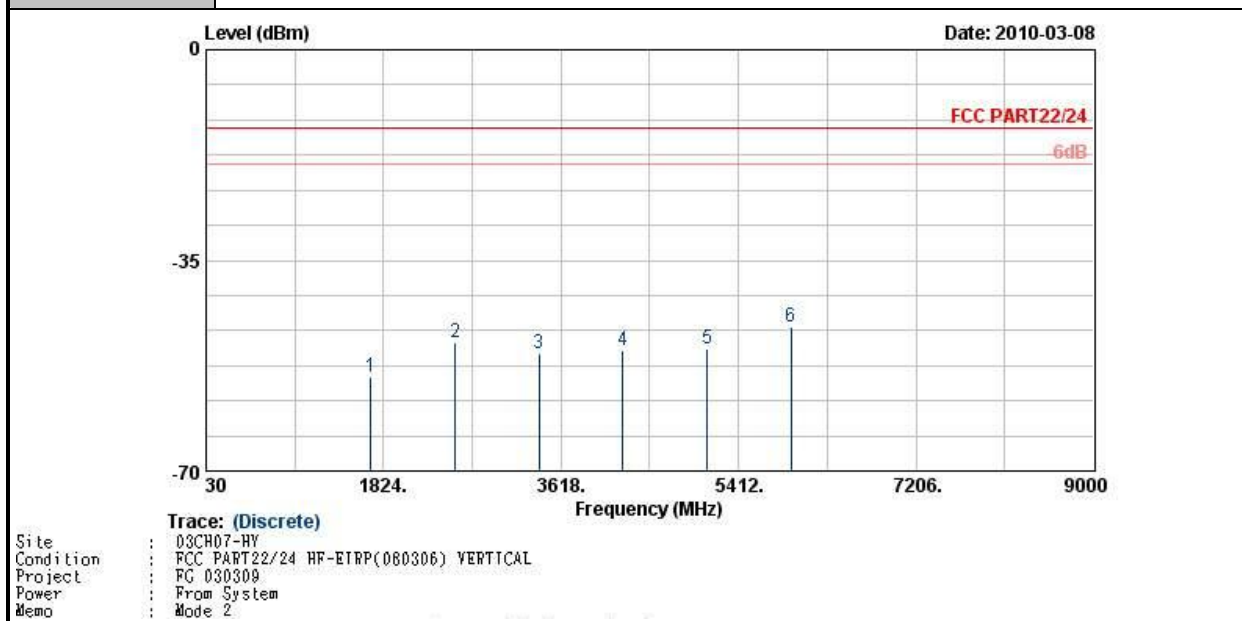
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1674.0               | -49.74         | -13              | -36.74                  | -59.84                    | -49.59                   | 3.39                       | 5.39                          | V                       | Pass   |
| 2509.2               | -49.15         | -13              | -36.15                  | -62.28                    | -49.41                   | 3.71                       | 6.12                          | V                       | Pass   |
| 3345.6               | -49.37         | -13              | -36.37                  | -64.82                    | -52.09                   | 3.13                       | 8.00                          | V                       | Pass   |
| 4184.0               | -47.64         | -13              | -34.64                  | -66.52                    | -51.48                   | 3.01                       | 9.00                          | V                       | Pass   |
| 5018.4               | -46.38         | -13              | -33.38                  | -66.75                    | -51.35                   | 2.61                       | 9.73                          | V                       | Pass   |
| 5854.8               | -45.41         | -13              | -32.41                  | -68.65                    | -49.28                   | 4.38                       | 10.40                         | V                       | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 251<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



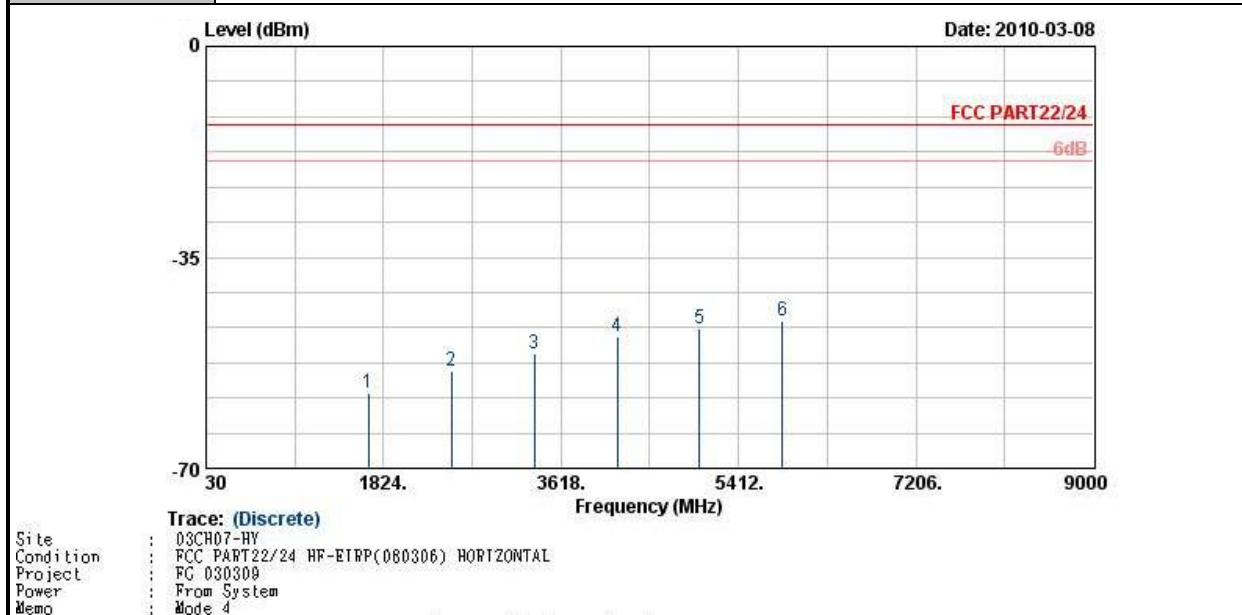
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1697.6               | -53.97         | -13              | -40.97                  | -63.16                    | -54.15                   | 3.02                       | 5.35                          | H                       | Pass   |
| 2546.4               | -50.42         | -13              | -37.42                  | -64.12                    | -50.73                   | 3.73                       | 6.19                          | H                       | Pass   |
| 3395.2               | -51.96         | -13              | -38.96                  | -66.10                    | -53.95                   | 3.98                       | 8.12                          | H                       | Pass   |
| 4244.0               | -50.79         | -13              | -37.79                  | -67.46                    | -52.8                    | 4.84                       | 9.00                          | H                       | Pass   |
| 5092.8               | -50.20         | -13              | -37.20                  | -67.75                    | -52.51                   | 5.36                       | 9.82                          | H                       | Pass   |
| 5941.6               | -46.83         | -13              | -33.83                  | -68.19                    | -49.25                   | 5.83                       | 10.40                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 251<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



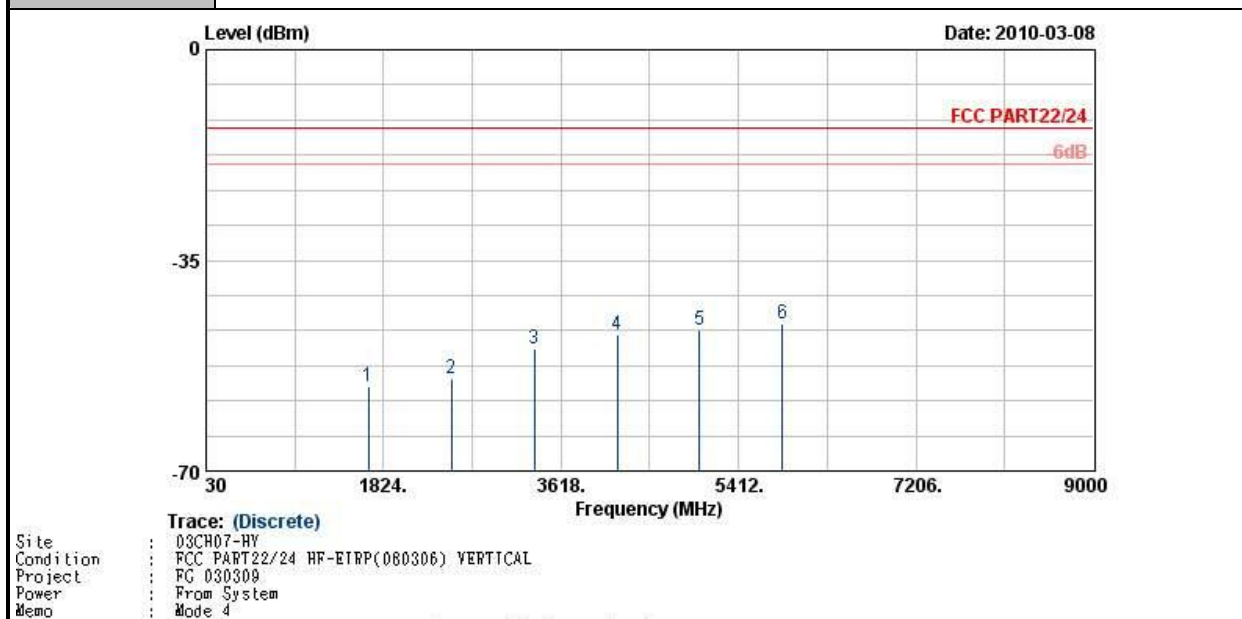
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1697.6               | -54.48         | -13              | -41.48                  | -64.91                    | -54.66                   | 3.02                       | 5.35                          | V                       | Pass   |
| 2546.4               | -48.58         | -13              | -35.58                  | -61.76                    | -48.89                   | 3.73                       | 6.19                          | V                       | Pass   |
| 3395.2               | -50.45         | -13              | -37.45                  | -65.17                    | -52.44                   | 3.98                       | 8.12                          | V                       | Pass   |
| 4244.0               | -49.84         | -13              | -36.84                  | -66.89                    | -51.85                   | 4.84                       | 9.00                          | V                       | Pass   |
| 5092.8               | -49.73         | -13              | -36.73                  | -67.44                    | -52.04                   | 5.36                       | 9.82                          | V                       | Pass   |
| 5941.6               | -46.15         | -13              | -33.15                  | -67.94                    | -48.57                   | 5.83                       | 10.40                         | V                       | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 189<br>(Without USB Cable)                                   | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



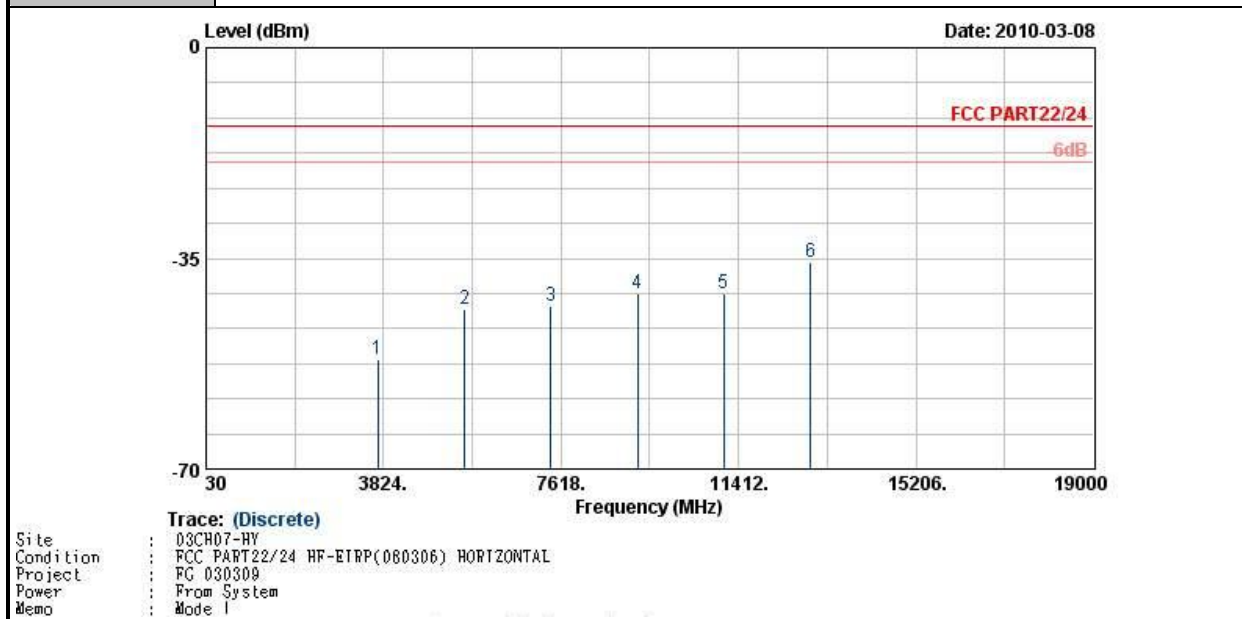
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1674.0               | -57.52         | -13              | -44.52                  | -66.38                    | -57.37                   | 3.39                       | 5.39                          | H                       | Pass   |
| 2509.2               | -53.88         | -13              | -40.88                  | -67.53                    | -54.14                   | 3.71                       | 6.12                          | H                       | Pass   |
| 3345.6               | -50.93         | -13              | -37.93                  | -65.80                    | -53.65                   | 3.13                       | 8.00                          | H                       | Pass   |
| 4184.0               | -48.16         | -13              | -35.16                  | -66.66                    | -52.00                   | 3.01                       | 9.00                          | H                       | Pass   |
| 5018.4               | -46.90         | -13              | -33.90                  | -67.11                    | -51.87                   | 2.61                       | 9.73                          | H                       | Pass   |
| 5854.8               | -45.50         | -13              | -32.50                  | -68.31                    | -49.37                   | 4.38                       | 10.40                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM850                                                                           | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 189<br>(Without USB Cable)                                   | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



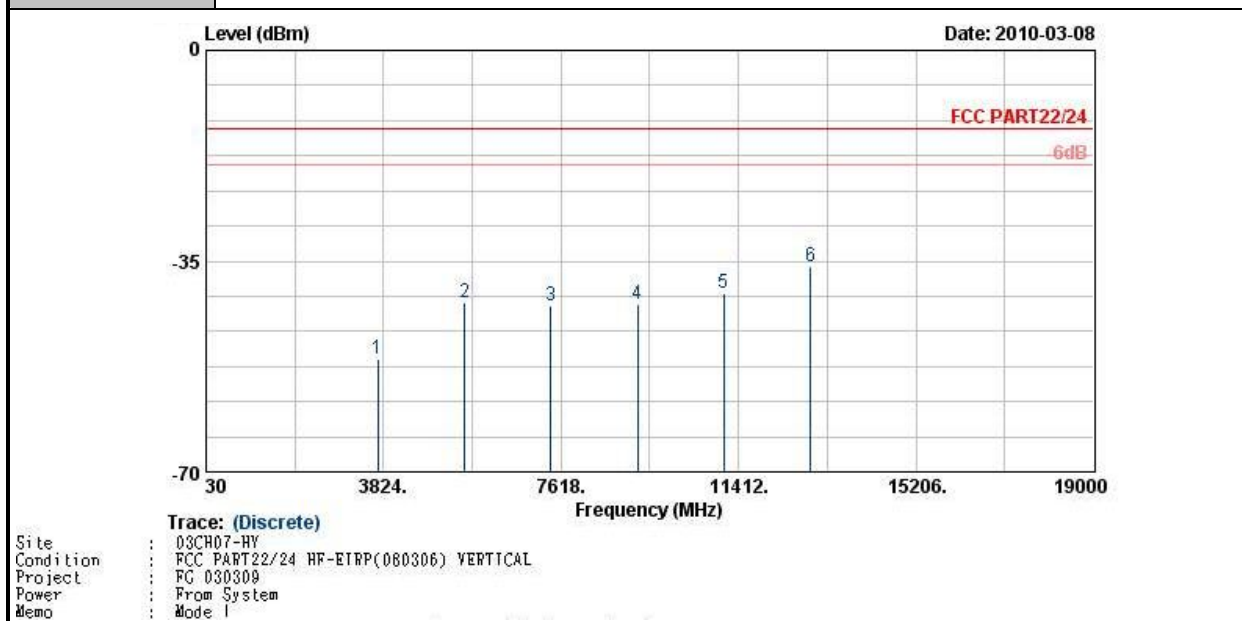
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1674.0               | -56.03         | -13              | -43.03                  | -66.13                    | -55.88                   | 3.39                       | 5.39                          | V                       | Pass   |
| 2509.2               | -54.65         | -13              | -41.65                  | -67.78                    | -54.91                   | 3.71                       | 6.12                          | V                       | Pass   |
| 3345.6               | -49.79         | -13              | -36.79                  | -65.24                    | -52.51                   | 3.13                       | 8.00                          | V                       | Pass   |
| 4184.0               | -47.39         | -13              | -34.39                  | -66.27                    | -51.23                   | 3.01                       | 9.00                          | V                       | Pass   |
| 5018.4               | -46.49         | -13              | -33.49                  | -66.86                    | -51.46                   | 2.61                       | 9.73                          | V                       | Pass   |
| 5854.8               | -45.66         | -13              | -32.66                  | -68.90                    | -49.53                   | 4.38                       | 10.40                         | V                       | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | GPRS 8 Link_Channel 512<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3700.4               | -51.87         | -13              | -38.87                  | -67.20                    | -55.99                   | 4.52                       | 8.64                          | H                       | Pass   |
| 5550.6               | -43.33         | -13              | -30.33                  | -65.26                    | -48.53                   | 5.20                       | 10.40                         | H                       | Pass   |
| 7400.8               | -42.93         | -13              | -29.93                  | -68.43                    | -48.96                   | 6.02                       | 12.05                         | H                       | Pass   |
| 9251.0               | -40.88         | -13              | -27.88                  | -66.86                    | -46.57                   | 7.46                       | 13.15                         | H                       | Pass   |
| 11101.2              | -40.88         | -13              | -27.88                  | -70.04                    | -45.39                   | 8.85                       | 13.36                         | H                       | Pass   |
| 12951.4              | -35.69         | -13              | -22.69                  | -70.16                    | -40.5                    | 8.36                       | 13.17                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | GPRS 8 Link_Channel 512<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3700.4               | -51.26         | -13              | -38.26                  | -66.79                    | -55.38                   | 4.52                       | 8.64                          | V                       | Pass   |
| 5550.6               | -41.94         | -13              | -28.94                  | -66.35                    | -47.14                   | 5.20                       | 10.40                         | V                       | Pass   |
| 7400.8               | -42.53         | -13              | -29.53                  | -68.03                    | -48.56                   | 6.02                       | 12.05                         | V                       | Pass   |
| 9251.0               | -42.03         | -13              | -29.03                  | -68.01                    | -47.72                   | 7.46                       | 13.15                         | V                       | Pass   |
| 11101.2              | -40.32         | -13              | -27.32                  | -69.48                    | -44.83                   | 8.85                       | 13.36                         | V                       | Pass   |
| 12951.4              | -35.87         | -13              | -22.87                  | -70.34                    | -40.68                   | 8.36                       | 13.17                         | V                       | Pass   |

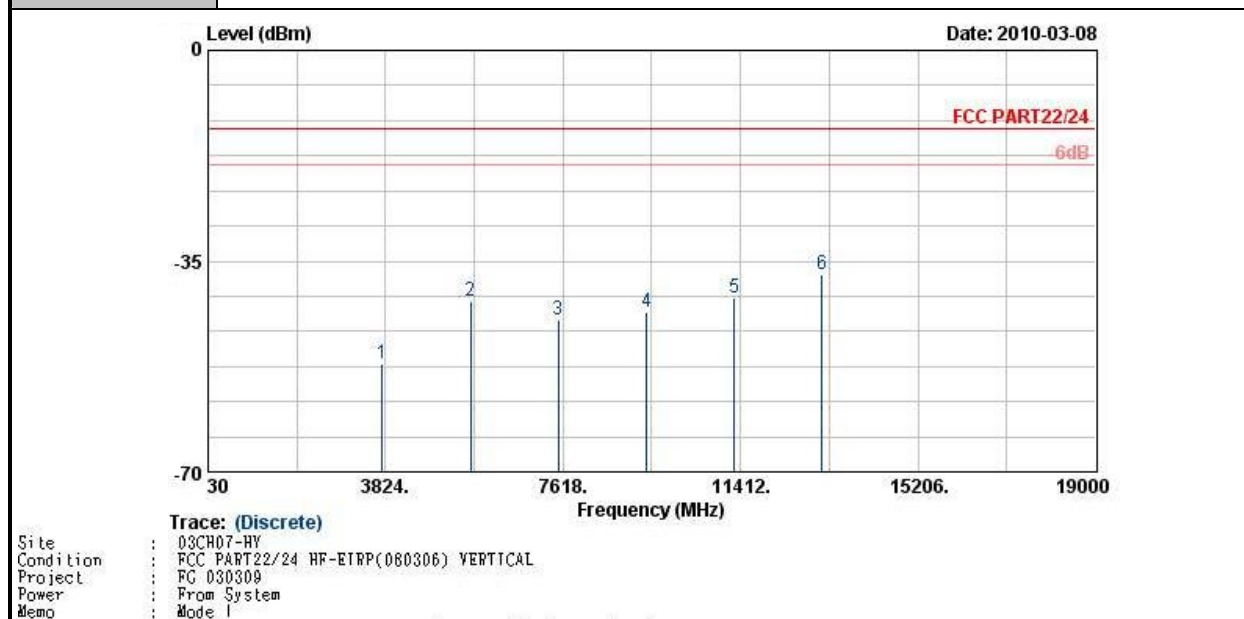


|                 |                                                                                  |                     |            |
|-----------------|----------------------------------------------------------------------------------|---------------------|------------|
| Band :          | GSM1900                                                                          | Temperature :       | 23~24°C    |
| Test Mode :     | GPRS 8 Link_Channel 661<br>(With USB Cable)                                      | Relative Humidity : | 49~54%     |
| Test Engineer : | Cona Huang                                                                       | Polarization :      | Horizontal |
| Remark :        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                     |            |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|--------|
| 3760                 | -53.02         | -13              | -40.02                  | -66.75                  | -55.54                   | 4.88                       | 7.40                        | H                     | Pass   |
| 5640                 | -43.22         | -13              | -30.22                  | -65.69                  | -46.48                   | 5.55                       | 8.81                        | H                     | Pass   |
| 7520                 | -45.50         | -13              | -32.50                  | -68.04                  | -48.57                   | 6.64                       | 9.71                        | H                     | Pass   |
| 9400                 | -44.41         | -13              | -31.41                  | -68.51                  | -48.22                   | 6.91                       | 10.72                       | H                     | Pass   |
| 11280                | -42.05         | -13              | -29.05                  | -70.23                  | -45.58                   | 7.23                       | 10.76                       | H                     | Pass   |
| 13160                | -38.73         | -13              | -25.73                  | -70.62                  | -40.96                   | 8.80                       | 11.03                       | H                     | Pass   |

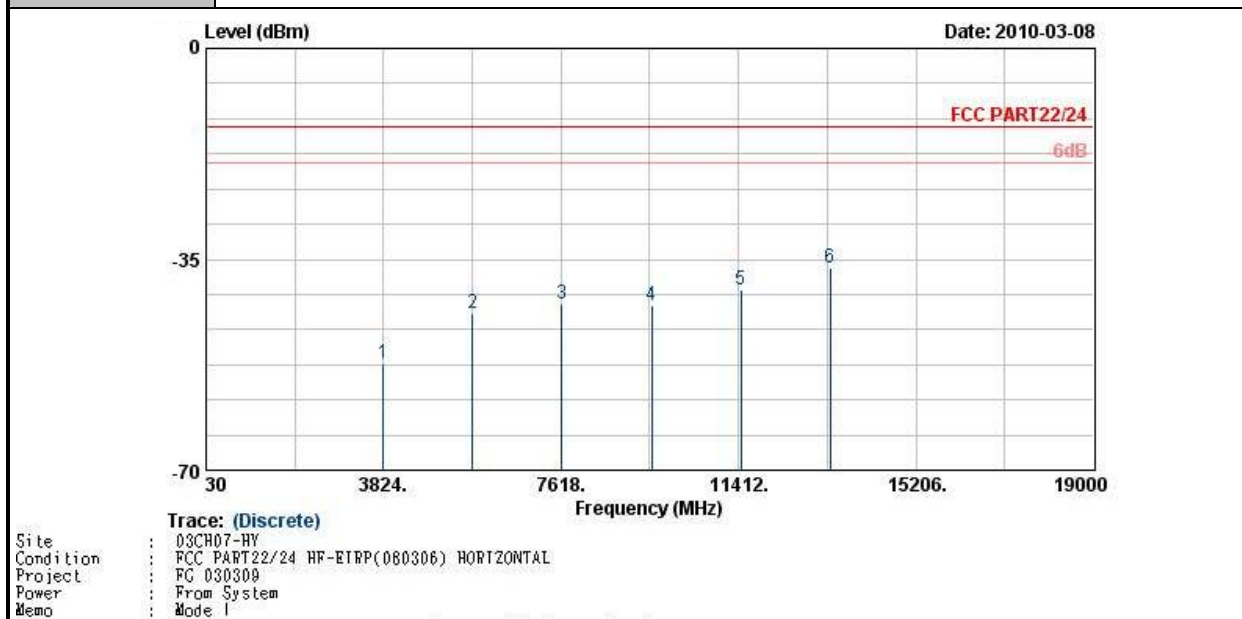
|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | GPRS 8 Link_Channel 661<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3760                 | -51.98         | -13              | -38.98                  | -66.42                    | -55.01                   | 4.88                       | 7.91                          | V                       | Pass   |
| 5640                 | -41.63         | -13              | -28.63                  | -65.06                    | -45.85                   | 5.55                       | 9.77                          | V                       | Pass   |
| 7520                 | -44.78         | -13              | -31.78                  | -68.42                    | -48.95                   | 6.64                       | 10.81                         | V                       | Pass   |
| 9400                 | -43.54         | -13              | -30.54                  | -68.44                    | -48.15                   | 6.91                       | 11.52                         | V                       | Pass   |
| 11280                | -41.03         | -13              | -28.03                  | -69.81                    | -45.16                   | 7.23                       | 11.36                         | V                       | Pass   |
| 13160                | -37.29         | -13              | -24.29                  | -70.31                    | -40.65                   | 8.80                       | 12.16                         | V                       | Pass   |

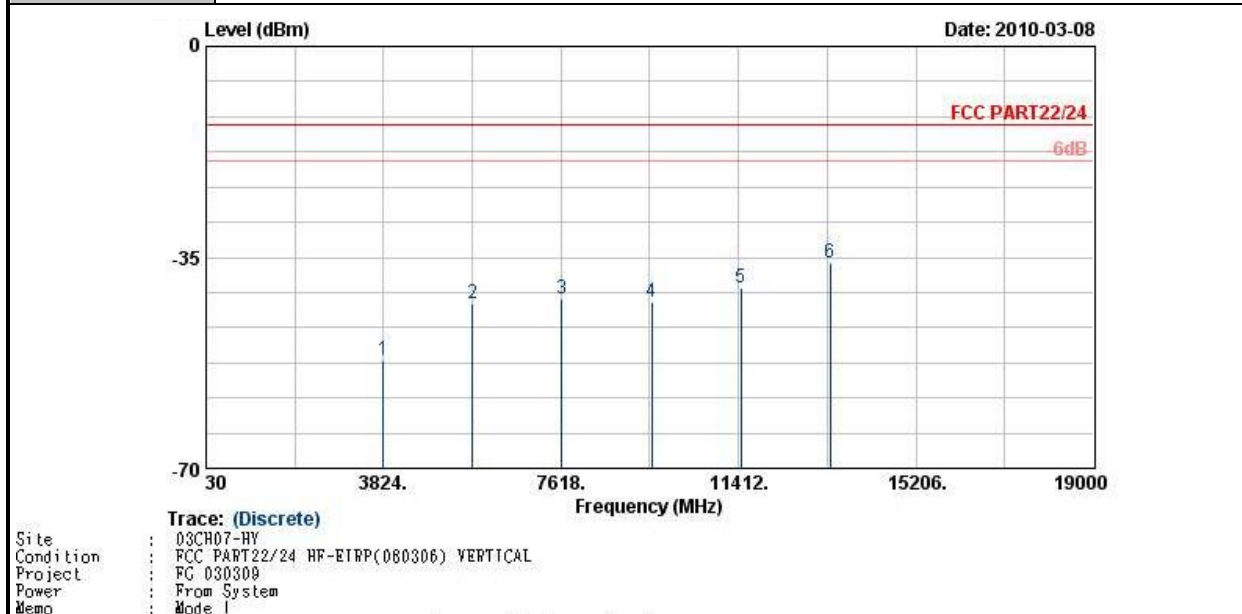


|                 |                                                                                  |                     |            |
|-----------------|----------------------------------------------------------------------------------|---------------------|------------|
| Band :          | GSM1900                                                                          | Temperature :       | 23~24°C    |
| Test Mode :     | GPRS 8 Link_Channel 810<br>(With USB Cable)                                      | Relative Humidity : | 49~54%     |
| Test Engineer : | Cona Huang                                                                       | Polarization :      | Horizontal |
| Remark :        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                     |            |



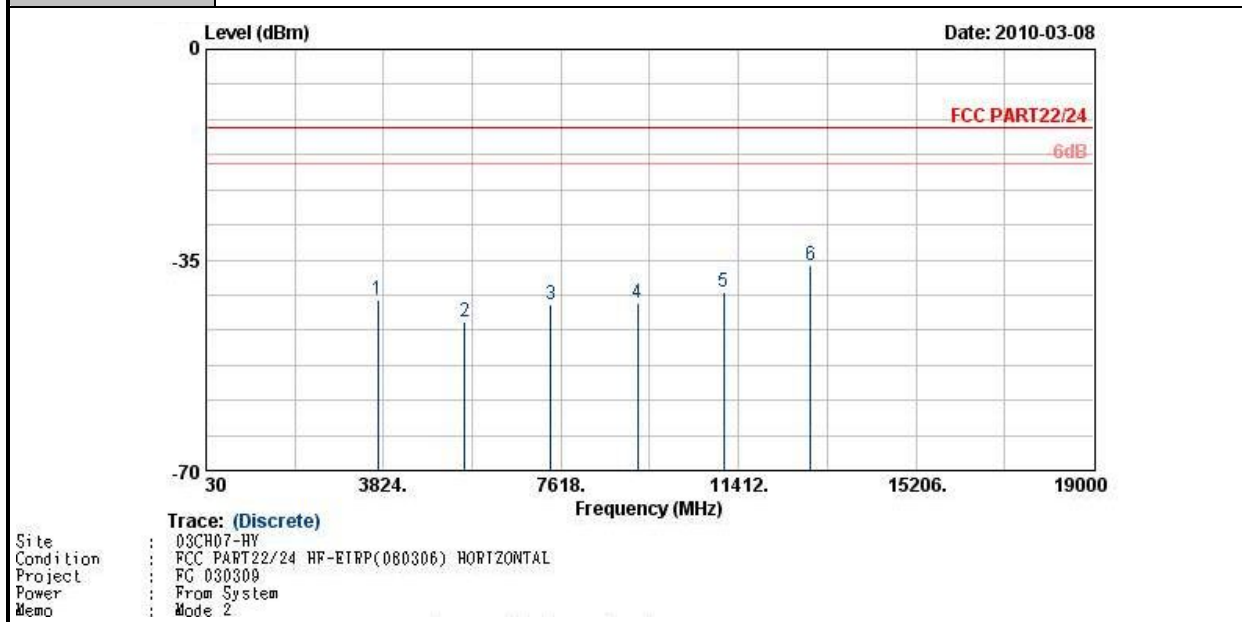
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|--------|
| 3819.6               | -52.24         | -13              | -39.24                  | -67.45                  | -56.24                   | 4.78                       | 8.78                        | H                     | Pass   |
| 5726.0               | -43.89         | -13              | -30.89                  | -65.36                  | -48.63                   | 5.66                       | 10.40                       | H                     | Pass   |
| 7639.2               | -42.46         | -13              | -29.46                  | -67.96                  | -48.49                   | 6.28                       | 12.31                       | H                     | Pass   |
| 9549.0               | -42.56         | -13              | -29.56                  | -68.84                  | -48.55                   | 7.20                       | 13.19                       | H                     | Pass   |
| 11458.8              | -40.10         | -13              | -27.10                  | -69.38                  | -44.73                   | 8.59                       | 13.22                       | H                     | Pass   |
| 13368.6              | -36.52         | -13              | -23.52                  | -70.49                  | -40.83                   | 9.4                        | 13.71                       | H                     | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | GPRS 8 Link_Channel 810<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



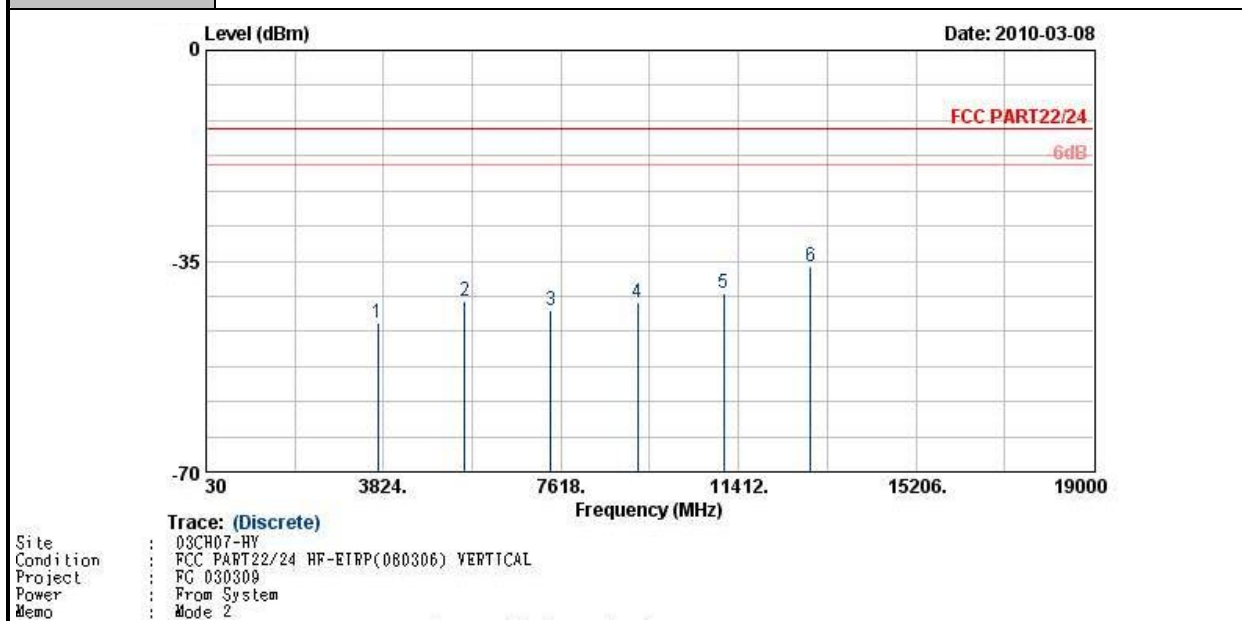
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|--------|
| 3819.6               | -52.14         | -13              | -39.14                  | -67.55                  | -56.14                   | 4.78                       | 8.78                        | V                     | Pass   |
| 5726.0               | -42.65         | -13              | -29.65                  | -66.60                  | -47.39                   | 5.66                       | 10.40                       | V                     | Pass   |
| 7639.2               | -41.81         | -13              | -28.81                  | -67.31                  | -47.84                   | 6.28                       | 12.31                       | V                     | Pass   |
| 9549.0               | -42.53         | -13              | -29.53                  | -68.81                  | -48.52                   | 7.20                       | 13.19                       | V                     | Pass   |
| 11458.8              | -40.06         | -13              | -27.06                  | -69.34                  | -44.69                   | 8.59                       | 13.22                       | V                     | Pass   |
| 13368.6              | -36.04         | -13              | -23.04                  | -70.01                  | -40.35                   | 9.4                        | 13.71                       | V                     | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 512<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



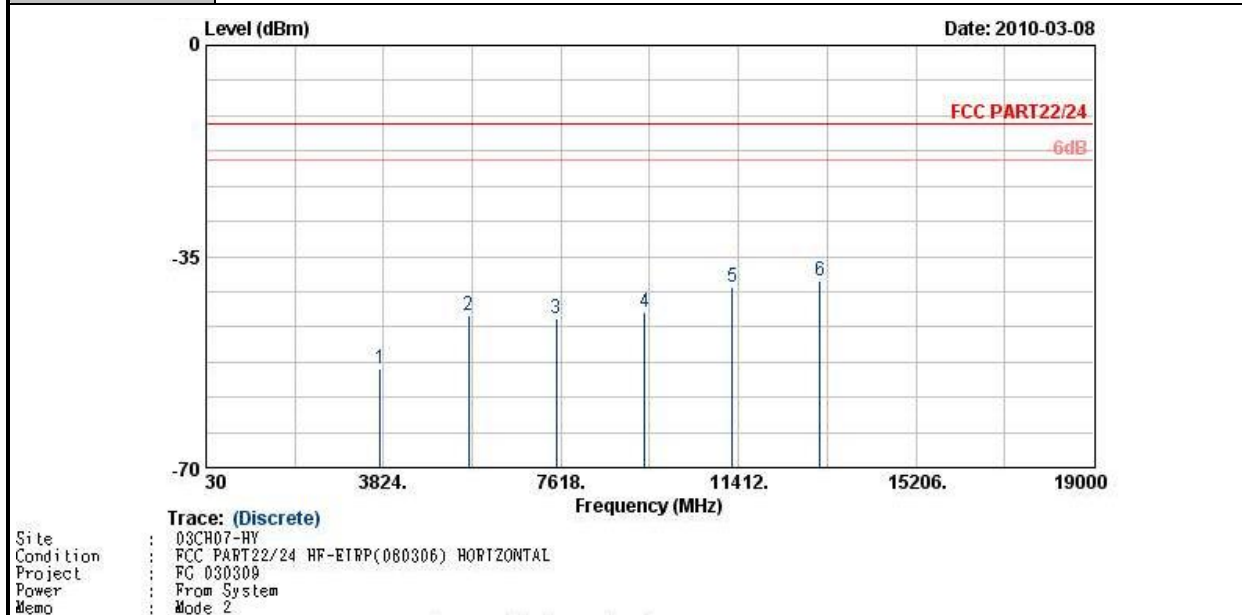
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3700.4               | -41.69         | -13              | -28.69                  | -57.02                    | -45.81                   | 4.52                       | 8.64                          | H                       | Pass   |
| 5550.6               | -45.37         | -13              | -32.37                  | -67.30                    | -50.57                   | 5.20                       | 10.40                         | H                       | Pass   |
| 7400.8               | -42.38         | -13              | -29.38                  | -67.88                    | -48.41                   | 6.02                       | 12.05                         | H                       | Pass   |
| 9251.0               | -42.04         | -13              | -29.04                  | -68.02                    | -47.73                   | 7.46                       | 13.15                         | H                       | Pass   |
| 11101.2              | -40.35         | -13              | -27.35                  | -69.51                    | -44.86                   | 8.85                       | 13.36                         | H                       | Pass   |
| 12951.4              | -35.96         | -13              | -22.96                  | -70.43                    | -40.77                   | 8.36                       | 13.17                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 512<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



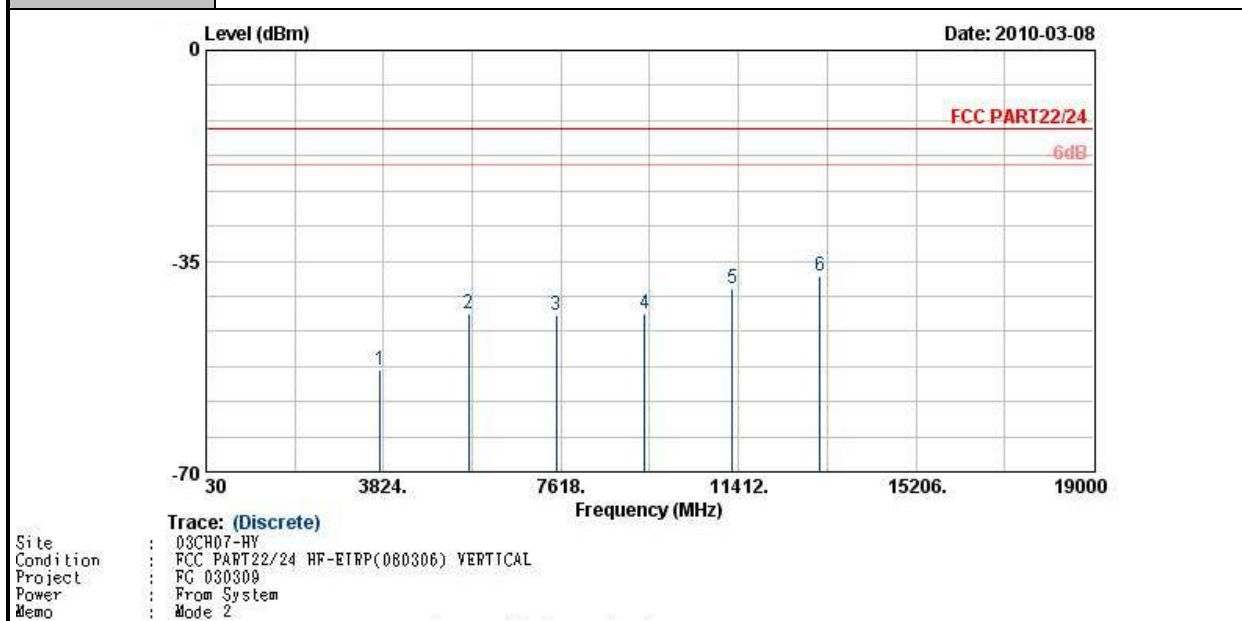
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3700.4               | -45.17         | -13              | -32.17                  | -60.7                     | -49.29                   | 4.52                       | 8.64                          | V                       | Pass   |
| 5550.6               | -41.63         | -13              | -28.63                  | -66.04                    | -46.83                   | 5.20                       | 10.40                         | V                       | Pass   |
| 7400.8               | -43.13         | -13              | -30.13                  | -68.63                    | -49.16                   | 6.02                       | 12.05                         | V                       | Pass   |
| 9251.0               | -41.81         | -13              | -28.81                  | -67.79                    | -47.50                   | 7.46                       | 13.15                         | V                       | Pass   |
| 11101.2              | -40.45         | -13              | -27.45                  | -69.61                    | -44.96                   | 8.85                       | 13.36                         | V                       | Pass   |
| 12951.4              | -36.03         | -13              | -23.03                  | -70.5                     | -40.84                   | 8.36                       | 13.17                         | V                       | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 661<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3760                 | -53.72         | -13              | -40.72                  | -67.45                    | -56.24                   | 4.88                       | 7.40                          | H                       | Pass   |
| 5640                 | -44.85         | -13              | -31.85                  | -67.32                    | -48.11                   | 5.55                       | 8.81                          | H                       | Pass   |
| 7520                 | -45.30         | -13              | -32.30                  | -67.84                    | -48.37                   | 6.64                       | 9.71                          | H                       | Pass   |
| 9400                 | -44.28         | -13              | -31.28                  | -68.38                    | -48.09                   | 6.91                       | 10.72                         | H                       | Pass   |
| 11280                | -40.17         | -13              | -27.17                  | -68.35                    | -43.7                    | 7.23                       | 10.76                         | H                       | Pass   |
| 13160                | -38.95         | -13              | -25.95                  | -70.84                    | -41.18                   | 8.80                       | 11.03                         | H                       | Pass   |

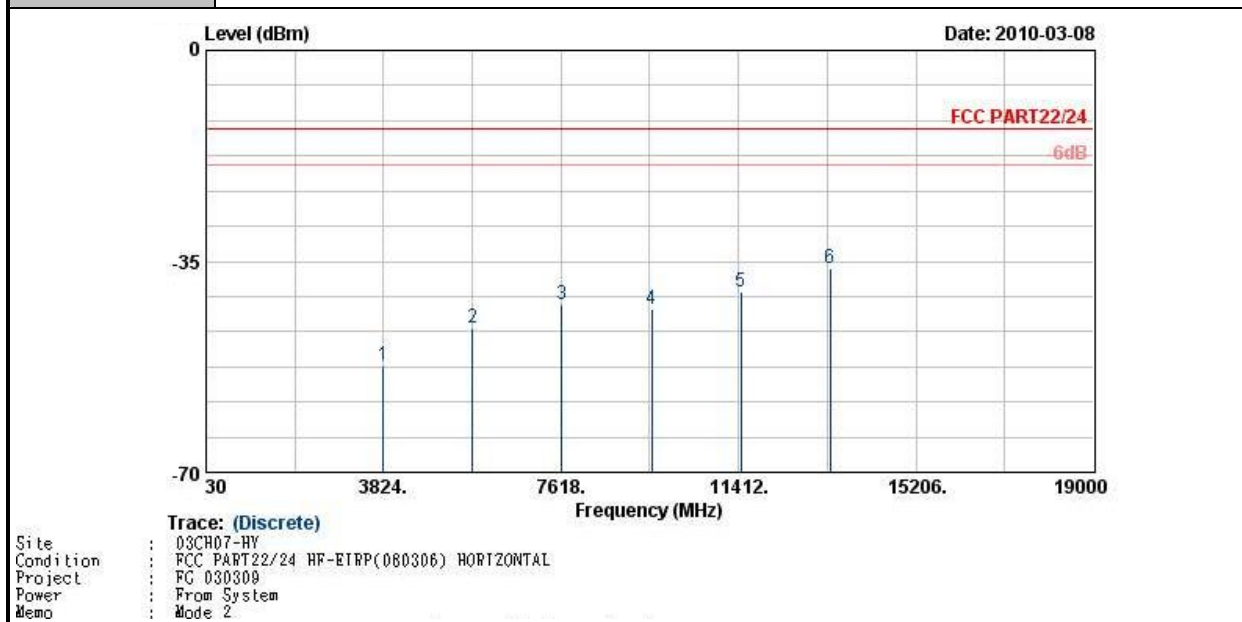
|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 661<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3760                 | -52.98         | -13              | -39.98                  | -67.42                    | -56.01                   | 4.88                       | 7.91                          | V                       | Pass   |
| 5640                 | -43.80         | -13              | -30.80                  | -67.23                    | -48.02                   | 5.55                       | 9.77                          | V                       | Pass   |
| 7520                 | -43.90         | -13              | -30.90                  | -67.54                    | -48.07                   | 6.64                       | 10.81                         | V                       | Pass   |
| 9400                 | -43.68         | -13              | -30.68                  | -68.58                    | -48.29                   | 6.91                       | 11.52                         | V                       | Pass   |
| 11280                | -39.56         | -13              | -26.56                  | -68.34                    | -43.69                   | 7.23                       | 11.36                         | V                       | Pass   |
| 13160                | -37.35         | -13              | -24.35                  | -70.37                    | -40.71                   | 8.80                       | 12.16                         | V                       | Pass   |

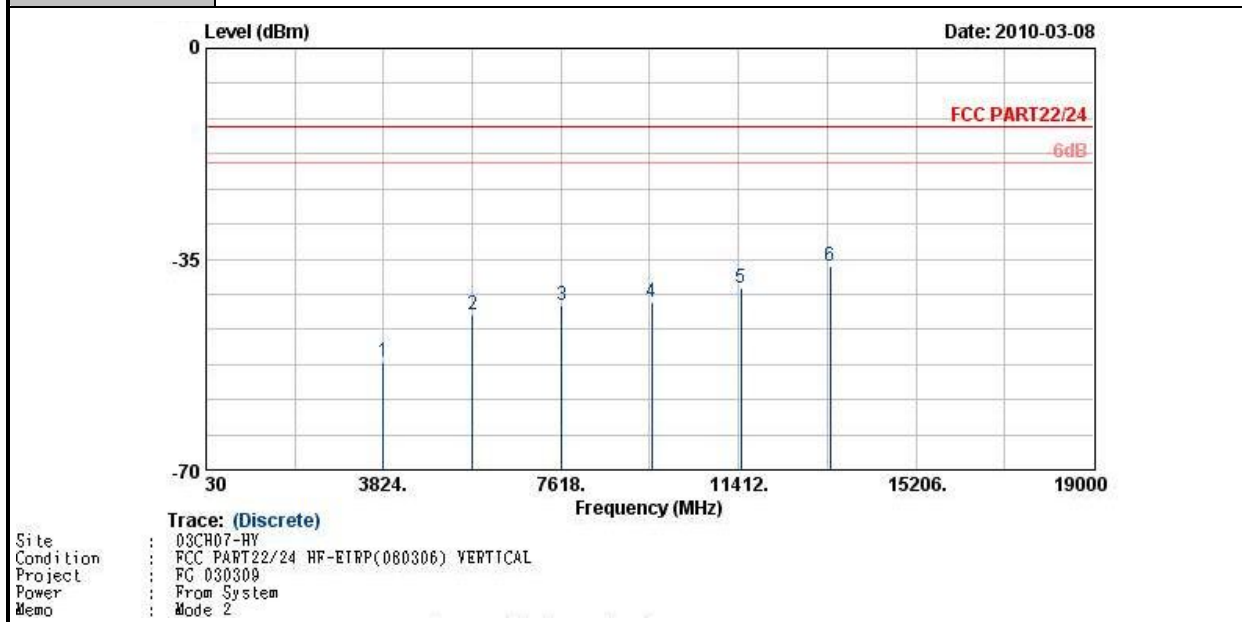


|                 |                                                                                  |                     |            |
|-----------------|----------------------------------------------------------------------------------|---------------------|------------|
| Band :          | GSM1900                                                                          | Temperature :       | 23~24°C    |
| Test Mode :     | EDGE 8 Link_Channel 810<br>(With USB Cable)                                      | Relative Humidity : | 49~54%     |
| Test Engineer : | Cona Huang                                                                       | Polarization :      | Horizontal |
| Remark :        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                     |            |



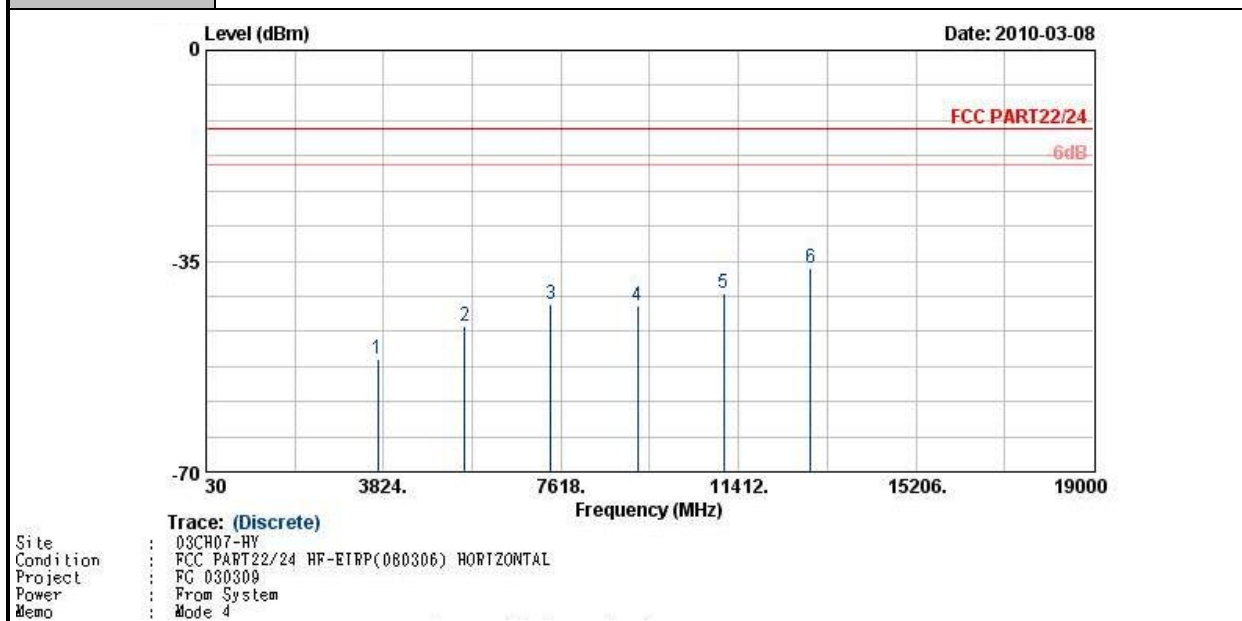
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|--------|
| 3819.6               | -52.43         | -13              | -39.43                  | -67.64                  | -56.43                   | 4.78                       | 8.78                        | H                     | Pass   |
| 5726.0               | -45.99         | -13              | -32.99                  | -67.46                  | -50.73                   | 5.66                       | 10.40                       | H                     | Pass   |
| 7639.2               | -42.12         | -13              | -29.12                  | -67.62                  | -48.15                   | 6.28                       | 12.31                       | H                     | Pass   |
| 9549.0               | -42.87         | -13              | -29.87                  | -69.15                  | -48.86                   | 7.20                       | 13.19                       | H                     | Pass   |
| 11458.8              | -40.01         | -13              | -27.01                  | -69.29                  | -44.64                   | 8.59                       | 13.22                       | H                     | Pass   |
| 13368.6              | -36.29         | -13              | -23.29                  | -70.26                  | -40.6                    | 9.4                        | 13.71                       | H                     | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 810<br>(With USB Cable)                                      | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



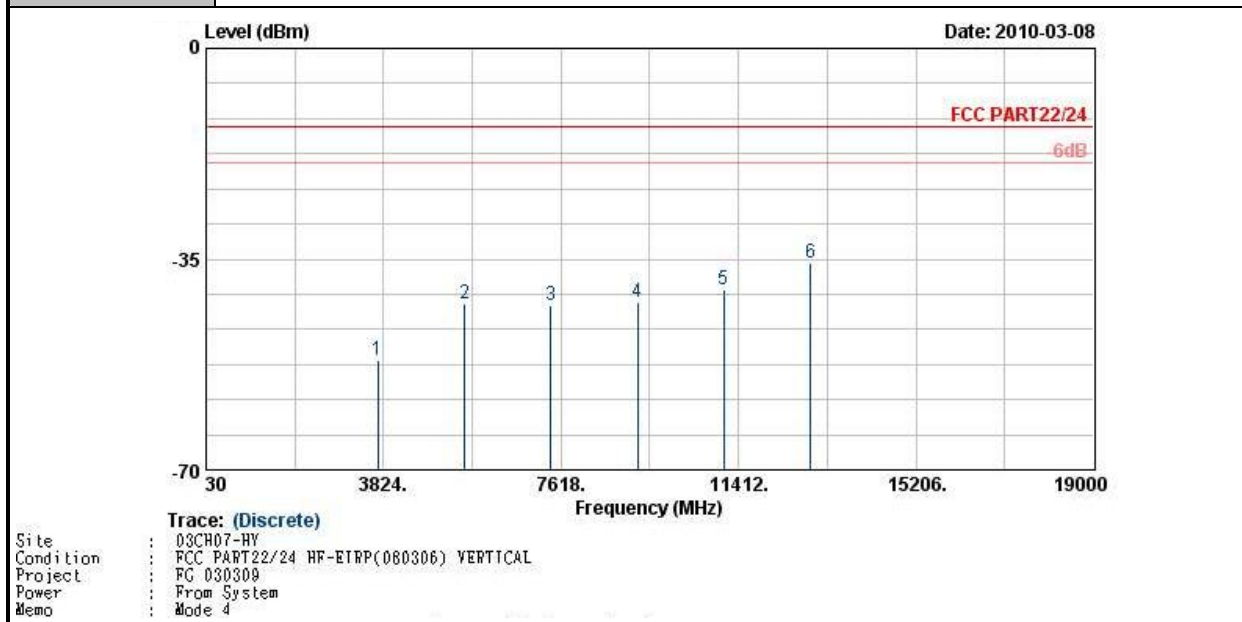
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|--------|
| 3819.6               | -52.04         | -13              | -39.04                  | -67.45                  | -56.04                   | 4.78                       | 8.78                        | V                     | Pass   |
| 5726.0               | -44.35         | -13              | -31.35                  | -68.30                  | -49.09                   | 5.66                       | 10.40                       | V                     | Pass   |
| 7639.2               | -42.60         | -13              | -29.60                  | -68.10                  | -48.63                   | 6.28                       | 12.31                       | V                     | Pass   |
| 9549.0               | -42.26         | -13              | -29.26                  | -68.54                  | -48.25                   | 7.20                       | 13.19                       | V                     | Pass   |
| 11458.8              | -39.69         | -13              | -26.69                  | -68.97                  | -44.32                   | 8.59                       | 13.22                       | V                     | Pass   |
| 13368.6              | -36.13         | -13              | -23.13                  | -70.10                  | -40.44                   | 9.4                        | 13.71                       | V                     | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 512<br>(Without USB Cable)                                   | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



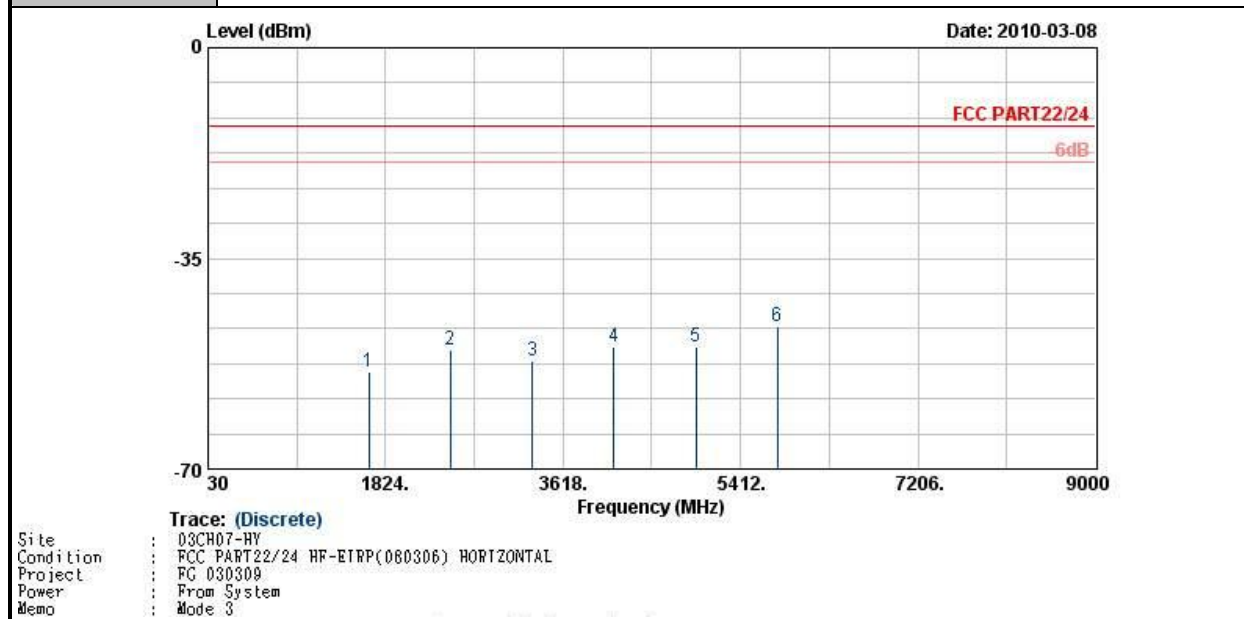
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3700.4               | -51.34         | -13              | -38.34                  | -66.67                    | -55.46                   | 4.52                       | 8.64                          | H                       | Pass   |
| 5550.6               | -45.67         | -13              | -32.67                  | -67.60                    | -50.87                   | 5.20                       | 10.40                         | H                       | Pass   |
| 7400.8               | -42.16         | -13              | -29.16                  | -67.66                    | -48.19                   | 6.02                       | 12.05                         | H                       | Pass   |
| 9251.0               | -42.45         | -13              | -29.45                  | -68.43                    | -48.14                   | 7.46                       | 13.15                         | H                       | Pass   |
| 11101.2              | -40.34         | -13              | -27.34                  | -69.50                    | -44.85                   | 8.85                       | 13.36                         | H                       | Pass   |
| 12951.4              | -36.24         | -13              | -23.24                  | -70.71                    | -41.05                   | 8.36                       | 13.17                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | GSM1900                                                                          | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | EDGE 8 Link_Channel 512<br>(Without USB Cable)                                   | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



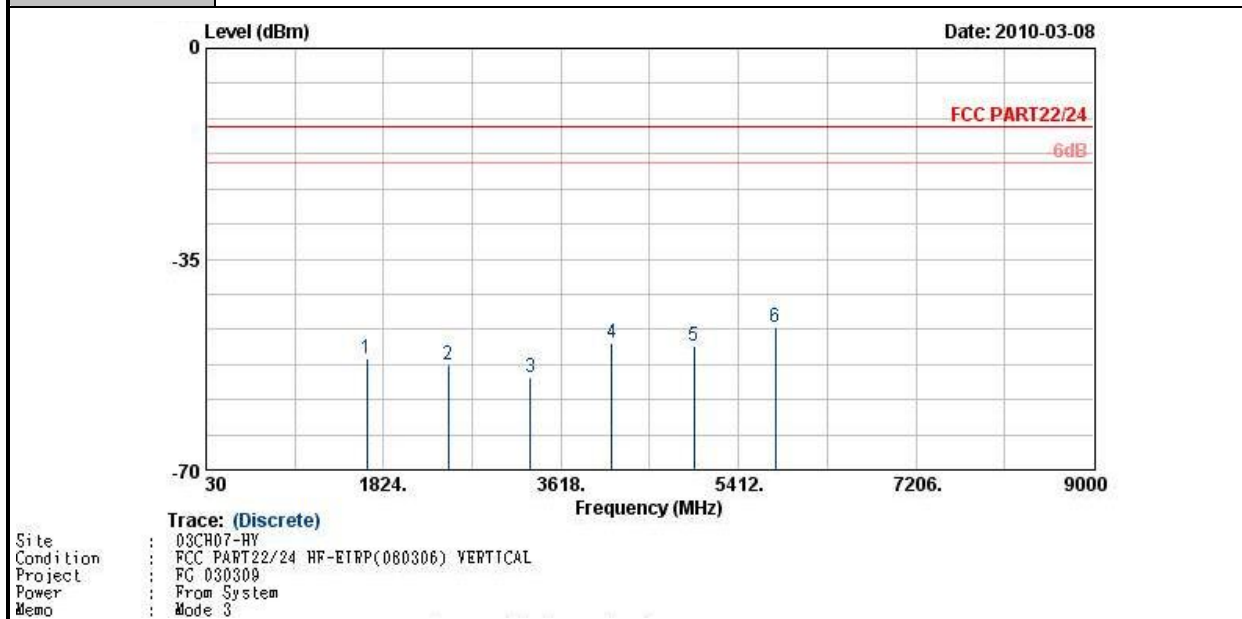
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3700.4               | -51.87         | -13              | -38.87                  | -67.4                     | -55.99                   | 4.52                       | 8.64                          | V                       | Pass   |
| 5550.6               | -42.49         | -13              | -29.49                  | -66.9                     | -47.69                   | 5.20                       | 10.40                         | V                       | Pass   |
| 7400.8               | -42.57         | -13              | -29.57                  | -68.07                    | -48.60                   | 6.02                       | 12.05                         | V                       | Pass   |
| 9251.0               | -42.16         | -13              | -29.16                  | -68.14                    | -47.85                   | 7.46                       | 13.15                         | V                       | Pass   |
| 11101.2              | -40.19         | -13              | -27.19                  | -69.35                    | -44.7                    | 8.85                       | 13.36                         | V                       | Pass   |
| 12951.4              | -35.70         | -13              | -22.70                  | -70.17                    | -40.51                   | 8.36                       | 13.17                         | V                       | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | WCDMA Band V                                                                     | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | RMC 12.2Kbps Link_Channel 4132<br>(With USB Cable)                               | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



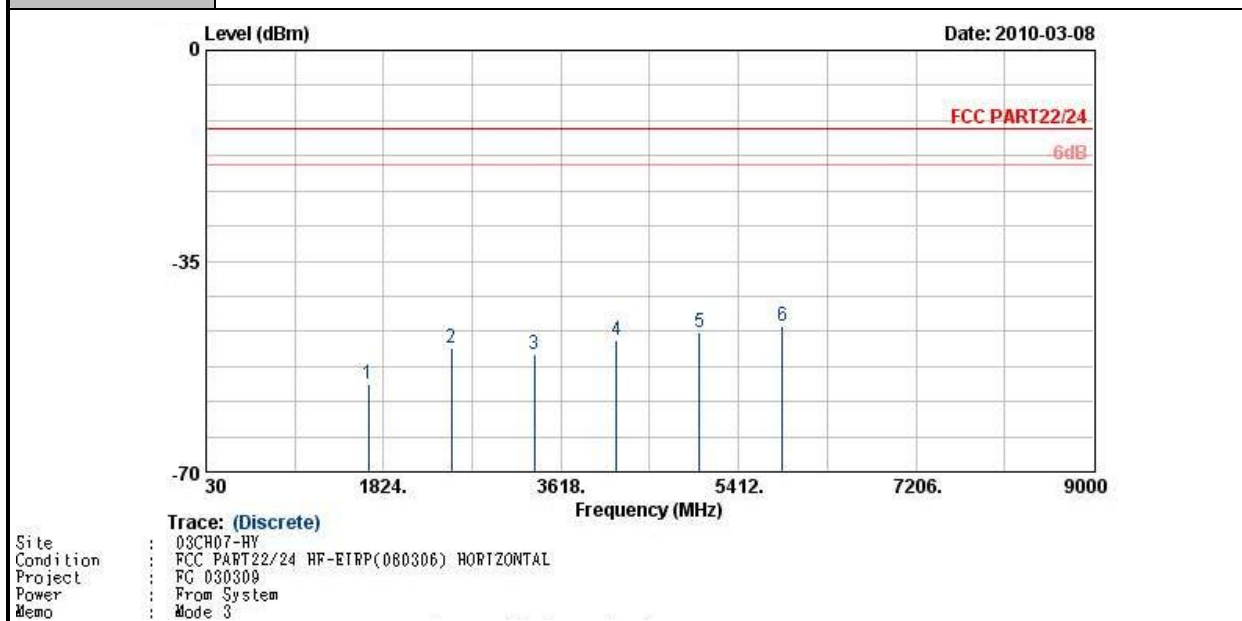
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1652.8               | -53.78         | -13              | -40.78                  | -62.97                    | -53.96                   | 3.10                       | 5.43                          | H                       | Pass   |
| 2479.2               | -50.25         | -13              | -37.25                  | -63.63                    | -50.24                   | 3.89                       | 6.03                          | H                       | Pass   |
| 3305.6               | -51.93         | -13              | -38.93                  | -65.64                    | -53.49                   | 4.16                       | 7.87                          | H                       | Pass   |
| 4132.0               | -49.79         | -13              | -36.79                  | -66.42                    | -51.76                   | 4.88                       | 9.00                          | H                       | Pass   |
| 4958.4               | -49.81         | -13              | -36.81                  | -67.44                    | -52.20                   | 5.09                       | 9.63                          | H                       | Pass   |
| 5784.8               | -46.40         | -13              | -33.40                  | -68.05                    | -49.11                   | 5.54                       | 10.40                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | WCDMA Band V                                                                     | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | RMC 12.2Kbps Link_Channel 4132<br>(With USB Cable)                               | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



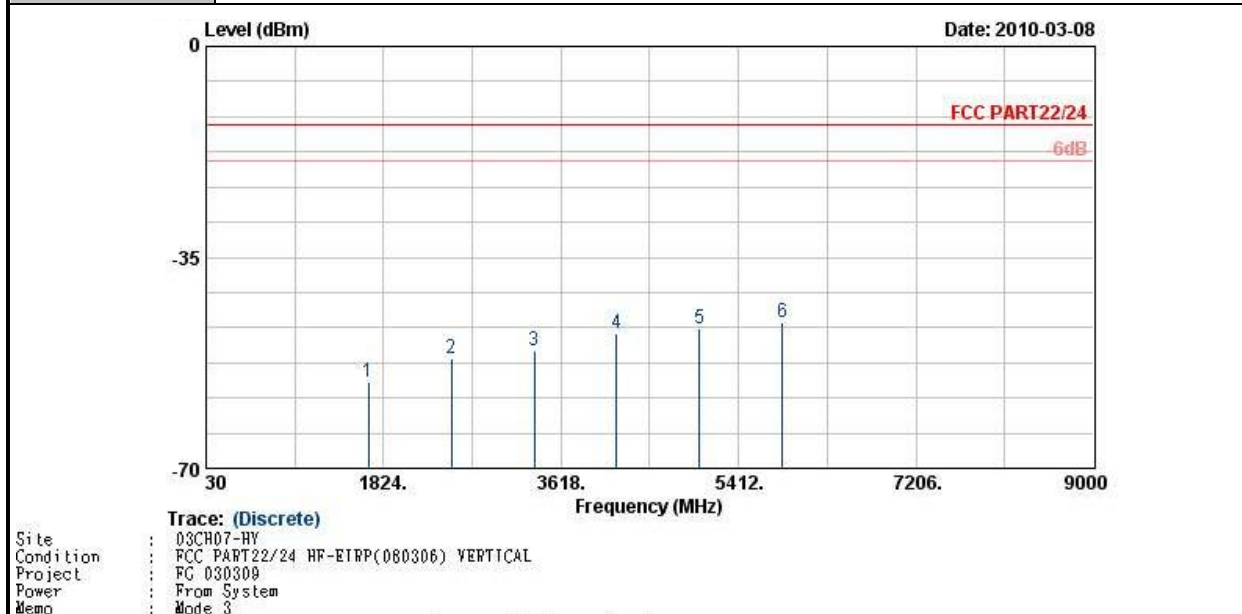
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1652.8               | -51.53         | -13              | -38.53                  | -61.96                    | -51.71                   | 3.10                       | 5.43                          | V                       | Pass   |
| 2479.2               | -52.52         | -13              | -39.52                  | -65.38                    | -52.51                   | 3.89                       | 6.03                          | V                       | Pass   |
| 3305.6               | -54.61         | -13              | -41.61                  | -68.90                    | -56.17                   | 4.16                       | 7.87                          | V                       | Pass   |
| 4132.0               | -49.05         | -13              | -36.05                  | -66.06                    | -51.02                   | 4.88                       | 9.00                          | V                       | Pass   |
| 4958.4               | -49.40         | -13              | -36.40                  | -67.19                    | -51.79                   | 5.09                       | 9.63                          | V                       | Pass   |
| 5784.8               | -46.28         | -13              | -33.28                  | -68.36                    | -48.99                   | 5.54                       | 10.40                         | V                       | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | WCDMA Band V                                                                     | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | RMC 12.2Kbps Link_Channel 4182<br>(With USB Cable)                               | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1672.8               | -55.30         | -13              | -42.30                  | -64.16                    | -55.15                   | 3.39                       | 5.39                          | H                       | Pass   |
| 2509.2               | -49.53         | -13              | -36.53                  | -63.18                    | -49.79                   | 3.71                       | 6.12                          | H                       | Pass   |
| 3345.6               | -50.58         | -13              | -37.58                  | -65.45                    | -53.30                   | 3.13                       | 8.00                          | H                       | Pass   |
| 4182.0               | -48.14         | -13              | -35.14                  | -66.64                    | -51.98                   | 3.01                       | 9.00                          | H                       | Pass   |
| 5018.4               | -46.79         | -13              | -33.79                  | -67                       | -51.76                   | 2.61                       | 9.73                          | H                       | Pass   |
| 5854.8               | -45.76         | -13              | -32.76                  | -68.57                    | -49.63                   | 4.38                       | 10.40                         | H                       | Pass   |

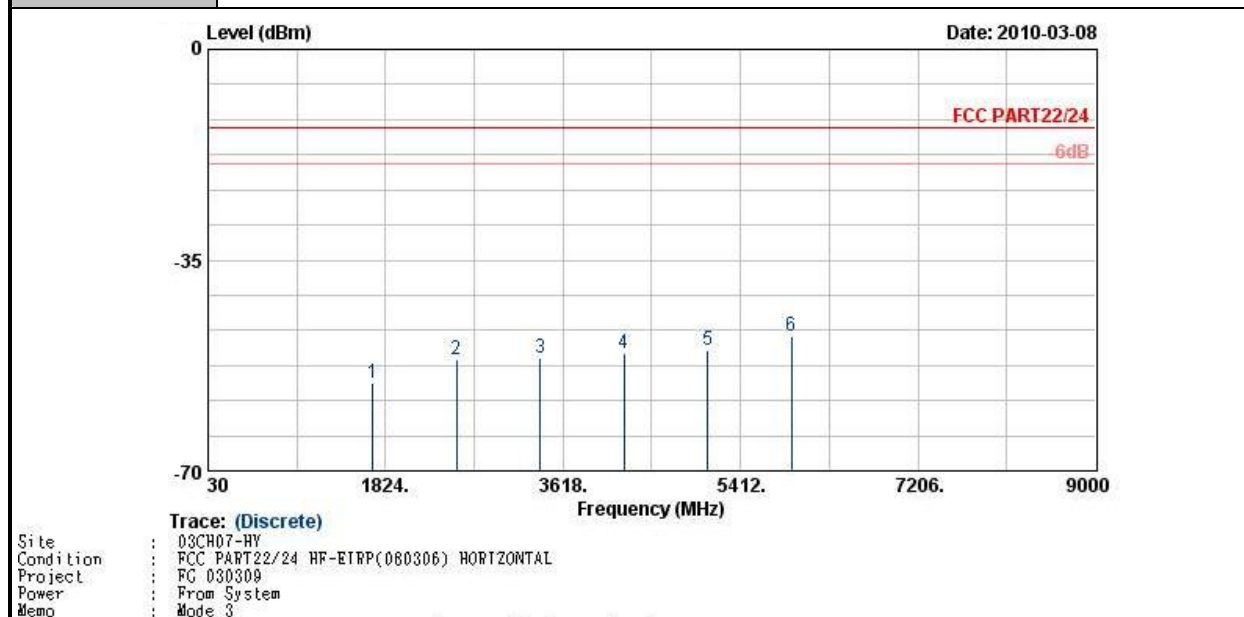
|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | WCDMA Band V                                                                     | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | RMC 12.2Kbps Link_Channel 4182<br>(With USB Cable)                               | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) | Result |
|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|--------|
| 1672.8               | -55.68         | -13              | -42.68                  | -65.78                  | -55.53                   | 3.39                       | 5.39                        | V                     | Pass   |
| 2509.2               | -51.77         | -13              | -38.77                  | -64.90                  | -52.03                   | 3.71                       | 6.12                        | V                     | Pass   |
| 3345.6               | -50.58         | -13              | -37.58                  | -66.03                  | -53.30                   | 3.13                       | 8.00                        | V                     | Pass   |
| 4182.0               | -47.68         | -13              | -34.68                  | -66.56                  | -51.52                   | 3.01                       | 9.00                        | V                     | Pass   |
| 5018.4               | -46.72         | -13              | -33.72                  | -67.09                  | -51.69                   | 2.61                       | 9.73                        | V                     | Pass   |
| 5854.8               | -45.79         | -13              | -32.79                  | -69.03                  | -49.66                   | 4.38                       | 10.40                       | V                     | Pass   |

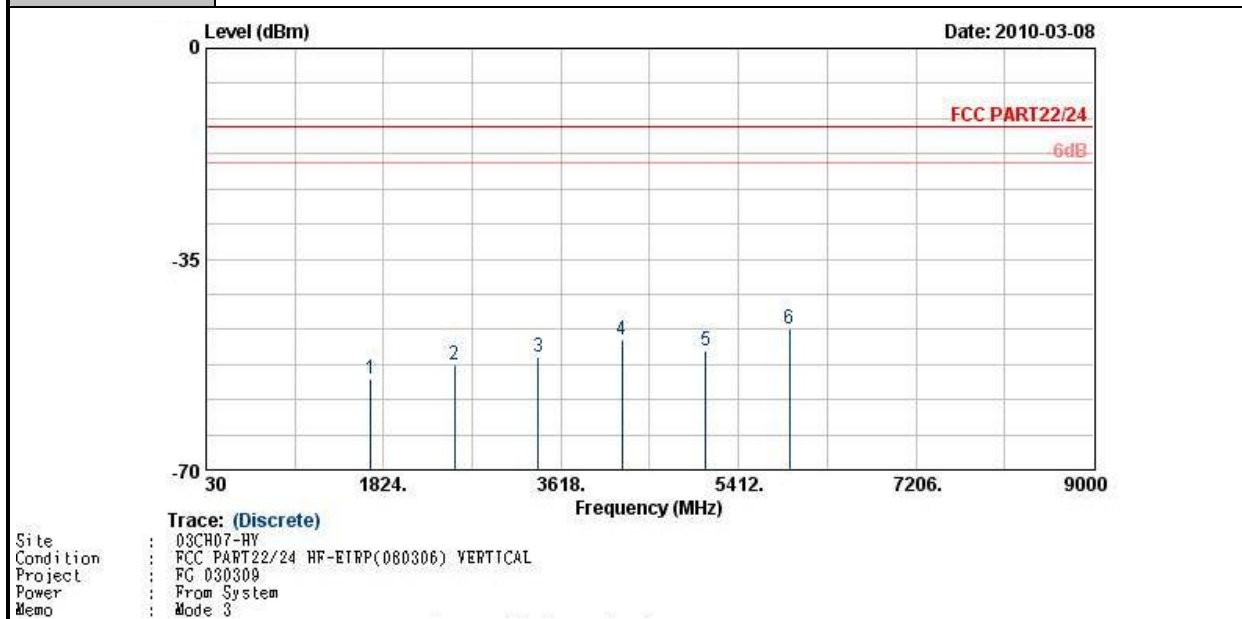


|                 |                                                                                  |                     |            |
|-----------------|----------------------------------------------------------------------------------|---------------------|------------|
| Band :          | WCDMA Band V                                                                     | Temperature :       | 23~24°C    |
| Test Mode :     | RMC 12.2Kbps Link_Channel 4233<br>(With USB Cable)                               | Relative Humidity : | 49~54%     |
| Test Engineer : | Cona Huang                                                                       | Polarization :      | Horizontal |
| Remark :        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                     |            |



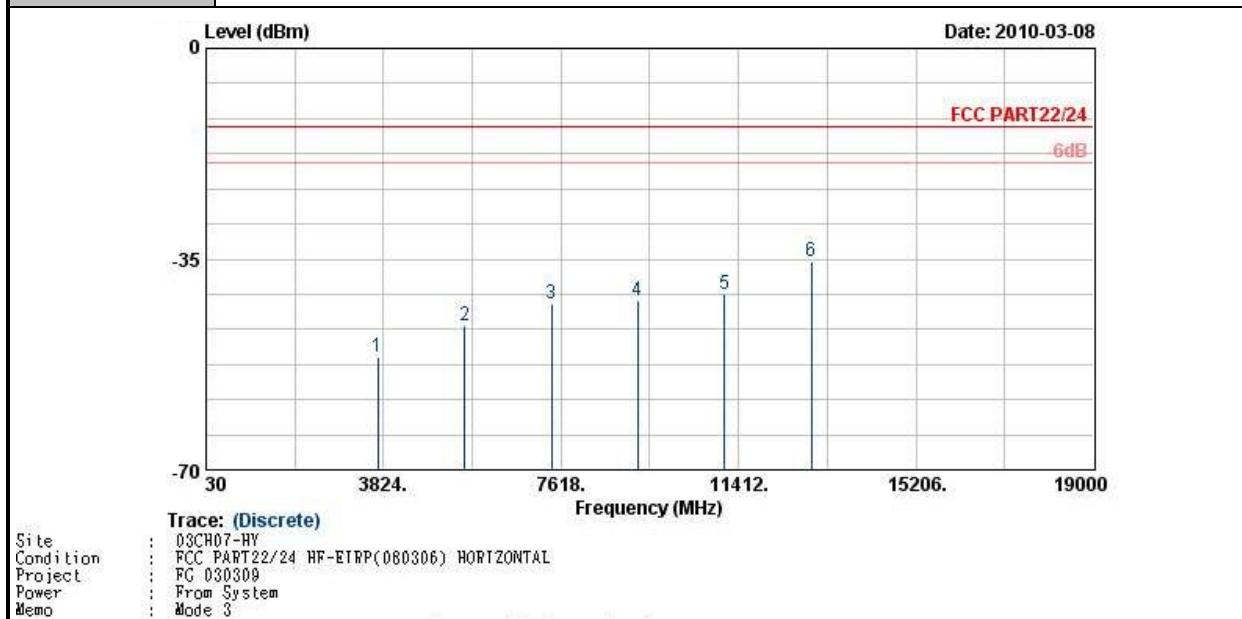
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1693.2               | -55.31         | -13              | -42.31                  | -64.50                    | -55.49                   | 3.02                       | 5.35                          | H                       | Pass   |
| 2539.8               | -51.42         | -13              | -38.42                  | -65.12                    | -51.73                   | 3.73                       | 6.19                          | H                       | Pass   |
| 3386.4               | -51.29         | -13              | -38.29                  | -65.43                    | -53.28                   | 3.98                       | 8.12                          | H                       | Pass   |
| 4233.0               | -50.45         | -13              | -37.45                  | -67.12                    | -52.46                   | 4.84                       | 9.00                          | H                       | Pass   |
| 5079.6               | -50.03         | -13              | -37.03                  | -67.58                    | -52.34                   | 5.36                       | 9.82                          | H                       | Pass   |
| 5926.6               | -47.51         | -13              | -34.51                  | -68.87                    | -49.93                   | 5.83                       | 10.40                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | WCDMA Band V                                                                     | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | RMC 12.2Kbps Link_Channel 4233<br>(With USB Cable)                               | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



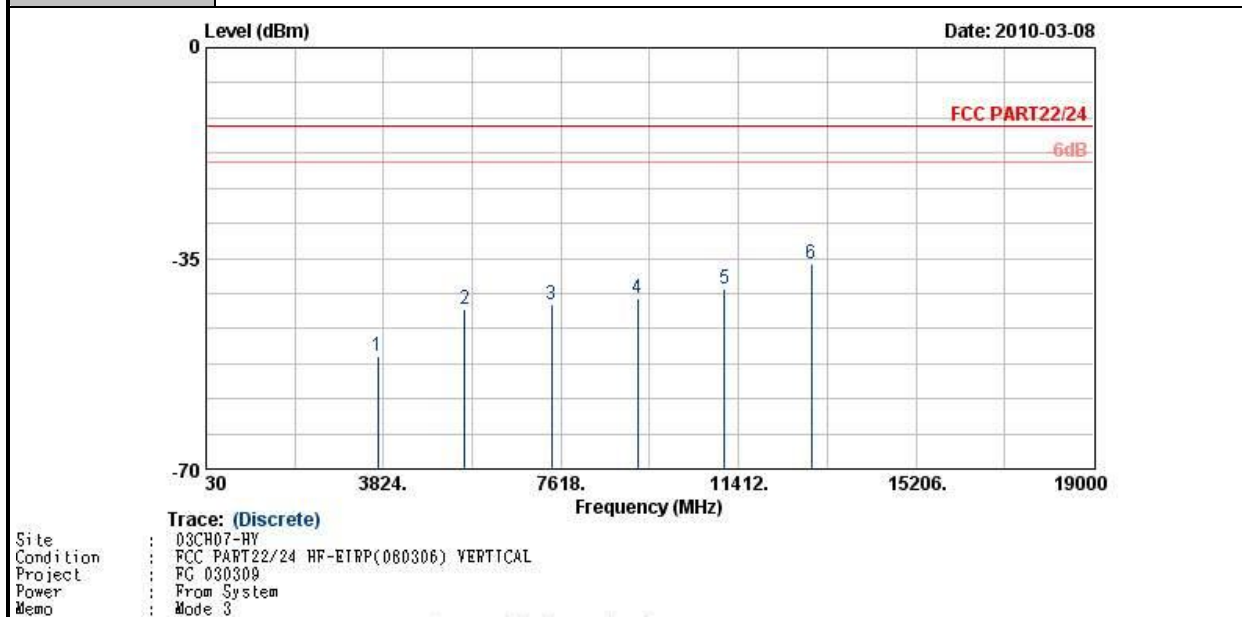
| Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 1693.2               | -54.79         | -13              | -41.79                  | -65.22                    | -54.97                   | 3.02                       | 5.35                          | V                       | Pass   |
| 2539.8               | -52.69         | -13              | -39.69                  | -65.87                    | -53.00                   | 3.73                       | 6.19                          | V                       | Pass   |
| 3386.4               | -51.24         | -13              | -38.24                  | -65.96                    | -53.23                   | 3.98                       | 8.12                          | V                       | Pass   |
| 4233.0               | -48.47         | -13              | -35.47                  | -65.52                    | -50.48                   | 4.84                       | 9.00                          | V                       | Pass   |
| 5079.6               | -50.19         | -13              | -37.19                  | -67.90                    | -52.50                   | 5.36                       | 9.82                          | V                       | Pass   |
| 5926.6               | -46.67         | -13              | -33.67                  | -68.46                    | -49.09                   | 5.83                       | 10.40                         | V                       | Pass   |

|                        |                                                                                  |                            |            |
|------------------------|----------------------------------------------------------------------------------|----------------------------|------------|
| <b>Band :</b>          | WCDMA Band II                                                                    | <b>Temperature :</b>       | 23~24°C    |
| <b>Test Mode :</b>     | RMC 12.2Kbps Link_Channel 9262<br>(With USB Cable)                               | <b>Relative Humidity :</b> | 49~54%     |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Horizontal |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |            |



| Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|-----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3704.8               | -51.14          | -13              | -38.14                  | -66.47                    | -55.26                   | 4.52                       | 8.64                          | H                       | Pass   |
| 5557.2               | -46.02          | -13              | -33.02                  | -67.95                    | -51.22                   | 5.20                       | 10.40                         | H                       | Pass   |
| 7409.6               | -42.50          | -13              | -29.50                  | -68.00                    | -48.53                   | 6.02                       | 12.05                         | H                       | Pass   |
| 9262.0               | -41.77          | -13              | -28.77                  | -67.75                    | -47.46                   | 7.46                       | 13.15                         | H                       | Pass   |
| 11114.4              | -40.75          | -13              | -27.75                  | -69.91                    | -45.26                   | 8.85                       | 13.36                         | H                       | Pass   |
| 12966.8              | -35.46          | -13              | -22.46                  | -69.93                    | -40.27                   | 8.36                       | 13.17                         | H                       | Pass   |

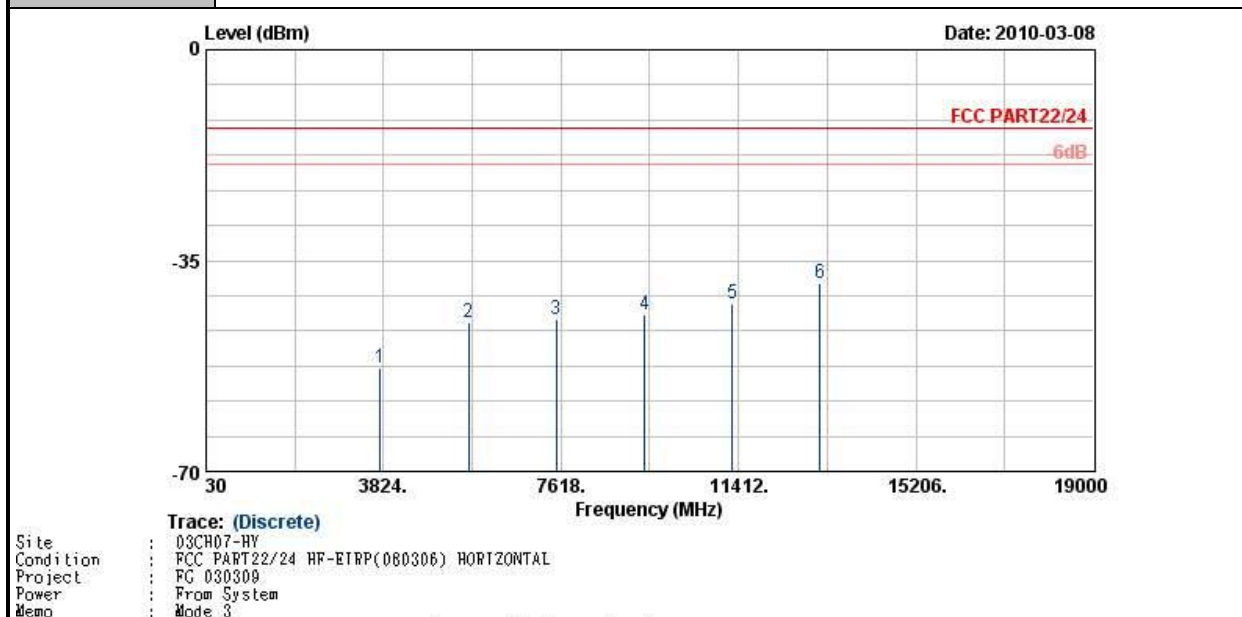
|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | WCDMA Band II                                                                    | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | RMC 12.2Kbps Link_Channel 9262<br>(With USB Cable)                               | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



| Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|-----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3704.8               | -51.26          | -13              | -38.26                  | -66.79                    | -55.38                   | 4.52                       | 8.64                          | V                       | Pass   |
| 5557.2               | -43.42          | -13              | -30.42                  | -67.83                    | -48.62                   | 5.20                       | 10.40                         | V                       | Pass   |
| 7409.6               | -42.68          | -13              | -29.68                  | -68.18                    | -48.71                   | 6.02                       | 12.05                         | V                       | Pass   |
| 9262.0               | -41.58          | -13              | -28.58                  | -67.56                    | -47.27                   | 7.46                       | 13.15                         | V                       | Pass   |
| 11114.4              | -40.02          | -13              | -27.02                  | -69.18                    | -44.53                   | 8.85                       | 13.36                         | V                       | Pass   |
| 12966.8              | -35.95          | -13              | -22.95                  | -70.42                    | -40.76                   | 8.36                       | 13.17                         | V                       | Pass   |

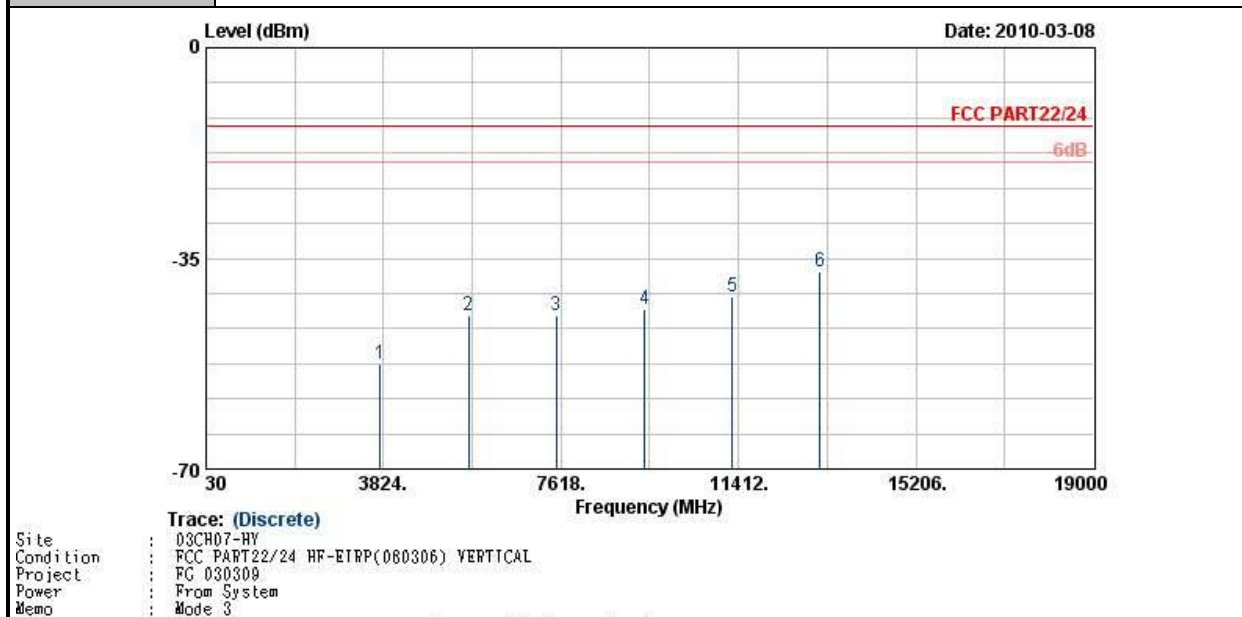


|                 |                                                                                  |                     |            |
|-----------------|----------------------------------------------------------------------------------|---------------------|------------|
| Band :          | WCDMA Band II                                                                    | Temperature :       | 23~24°C    |
| Test Mode :     | RMC 12.2Kbps Link_Channel 9400<br>(With USB Cable)                               | Relative Humidity : | 49~54%     |
| Test Engineer : | Cona Huang                                                                       | Polarization :      | Horizontal |
| Remark :        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                     |            |



| Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|-----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3760                 | -52.85          | -13              | -39.85                  | -66.58                    | -55.37                   | 4.88                       | 7.40                          | H                       | Pass   |
| 5640                 | -45.38          | -13              | -32.38                  | -67.85                    | -48.64                   | 5.55                       | 8.81                          | H                       | Pass   |
| 7520                 | -44.88          | -13              | -31.88                  | -67.42                    | -47.95                   | 6.64                       | 9.71                          | H                       | Pass   |
| 9400                 | -43.99          | -13              | -30.99                  | -68.09                    | -47.80                   | 6.91                       | 10.72                         | H                       | Pass   |
| 11280                | -42.16          | -13              | -29.16                  | -70.34                    | -45.69                   | 7.23                       | 10.76                         | H                       | Pass   |
| 13160                | -38.76          | -13              | -25.76                  | -70.65                    | -40.99                   | 8.8                        | 11.03                         | H                       | Pass   |

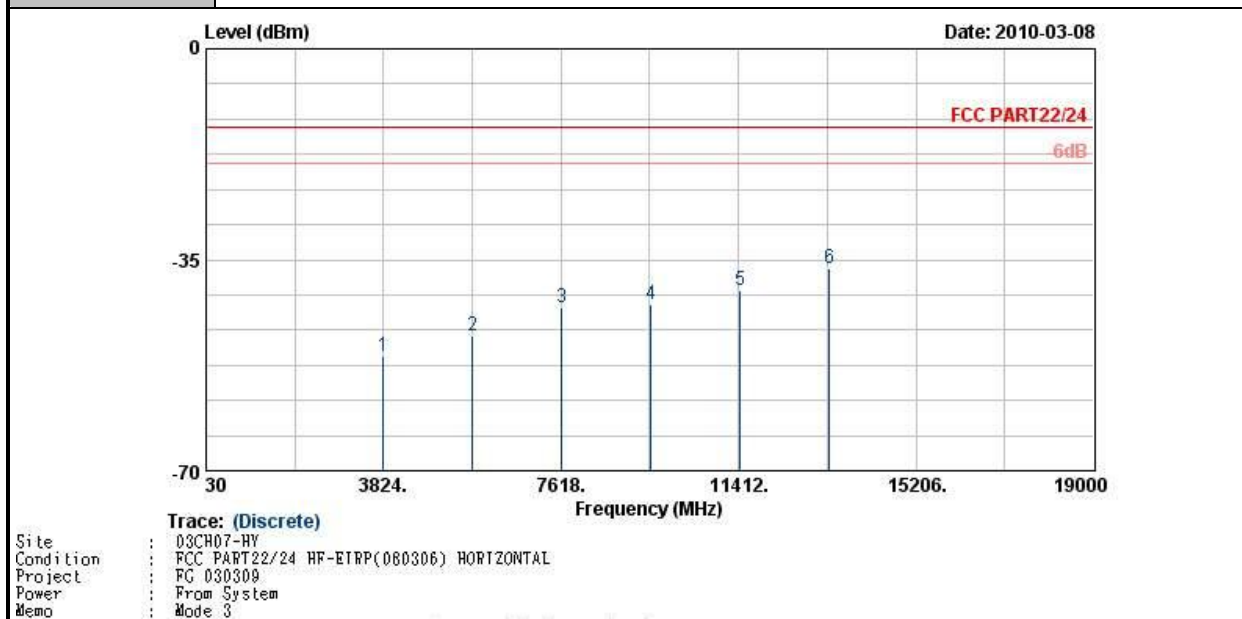
|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | WCDMA Band II                                                                    | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | RMC 12.2Kbps Link_Channel 9400<br>(With USB Cable)                               | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



| Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|-----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3760                 | -52.50          | -13              | -39.50                  | -66.94                    | -55.53                   | 4.88                       | 7.91                          | V                       | Pass   |
| 5640                 | -44.60          | -13              | -31.60                  | -68.03                    | -48.82                   | 5.55                       | 9.77                          | V                       | Pass   |
| 7520                 | -44.55          | -13              | -31.55                  | -68.19                    | -48.72                   | 6.64                       | 10.81                         | V                       | Pass   |
| 9400                 | -43.55          | -13              | -30.55                  | -68.45                    | -48.16                   | 6.91                       | 11.52                         | V                       | Pass   |
| 11280                | -41.25          | -13              | -28.25                  | -70.03                    | -45.38                   | 7.23                       | 11.36                         | V                       | Pass   |
| 13160                | -37.27          | -13              | -24.27                  | -70.29                    | -40.63                   | 8.80                       | 12.16                         | V                       | Pass   |

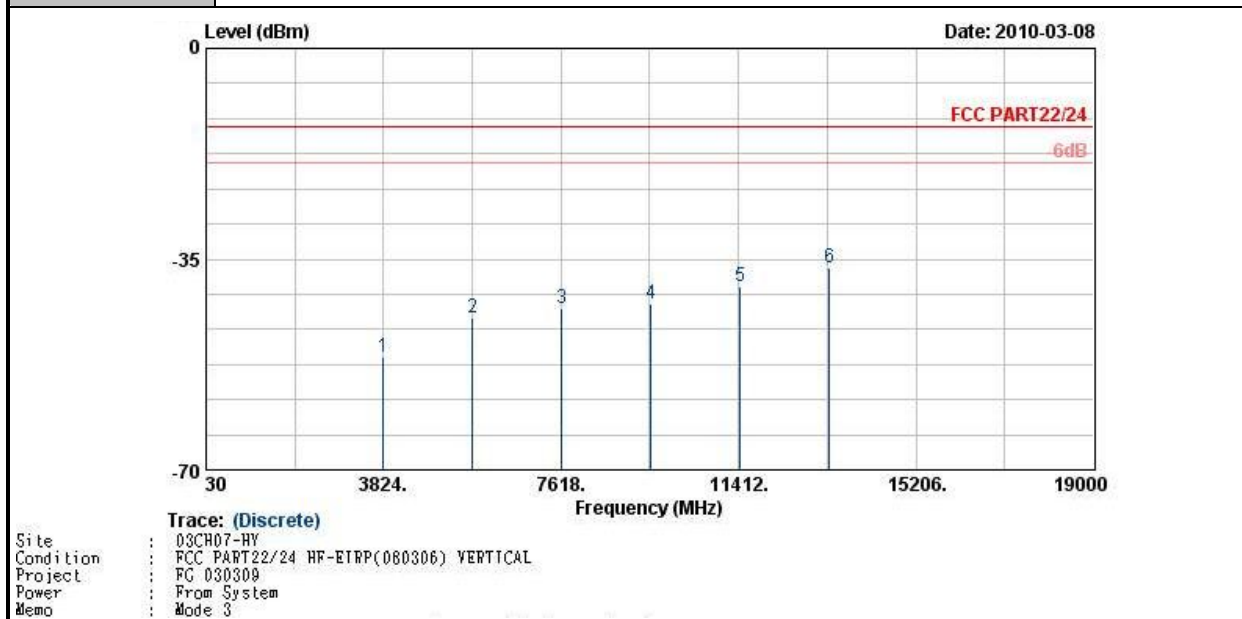


|                 |                                                                                  |                     |            |
|-----------------|----------------------------------------------------------------------------------|---------------------|------------|
| Band :          | WCDMA Band II                                                                    | Temperature :       | 23~24°C    |
| Test Mode :     | RMC 12.2Kbps Link_Channel 9538<br>(With USB Cable)                               | Relative Humidity : | 49~54%     |
| Test Engineer : | Cona Huang                                                                       | Polarization :      | Horizontal |
| Remark :        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                     |            |



| Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|-----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3812.0               | -50.57          | -13              | -37.57                  | -65.12                    | -54.57                   | 4.78                       | 8.78                          | H                       | Pass   |
| 3815.2               | -50.90          | -13              | -37.90                  | -66.11                    | -54.9                    | 4.78                       | 8.78                          | H                       | Pass   |
| 5722.8               | -47.66          | -13              | -34.66                  | -69.13                    | -52.4                    | 5.66                       | 10.40                         | H                       | Pass   |
| 7630.4               | -42.91          | -13              | -29.91                  | -68.41                    | -48.94                   | 6.28                       | 12.31                         | H                       | Pass   |
| 9538.0               | -42.34          | -13              | -29.34                  | -68.62                    | -48.33                   | 7.20                       | 13.19                         | H                       | Pass   |
| 11445.6              | -40.18          | -13              | -27.18                  | -69.46                    | -44.81                   | 8.59                       | 13.22                         | H                       | Pass   |
| 13353.2              | -36.54          | -13              | -23.54                  | -70.51                    | -40.85                   | 9.40                       | 13.71                         | H                       | Pass   |

|                        |                                                                                  |                            |          |
|------------------------|----------------------------------------------------------------------------------|----------------------------|----------|
| <b>Band :</b>          | WCDMA Band II                                                                    | <b>Temperature :</b>       | 23~24°C  |
| <b>Test Mode :</b>     | RMC 12.2Kbps Link_Channel 9538<br>(With USB Cable)                               | <b>Relative Humidity :</b> | 49~54%   |
| <b>Test Engineer :</b> | Cona Huang                                                                       | <b>Polarization :</b>      | Vertical |
| <b>Remark :</b>        | Spurious emissions within 30-1000MHz were found more than 20dB below limit line. |                            |          |



| Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>( dBm ) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>( dBi ) | Polarization<br>( H/V ) | Result |
|----------------------|-----------------|------------------|-------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|-------------------------|--------|
| 3815.2               | -51.31          | -13              | -38.31                  | -66.72                    | -55.31                   | 4.78                       | 8.78                          | V                       | Pass   |
| 5722.8               | -44.64          | -13              | -31.64                  | -68.59                    | -49.38                   | 5.66                       | 10.40                         | V                       | Pass   |
| 7630.4               | -43.17          | -13              | -30.17                  | -68.67                    | -49.20                   | 6.28                       | 12.31                         | V                       | Pass   |
| 9538.0               | -42.30          | -13              | -29.30                  | -68.58                    | -48.29                   | 7.20                       | 13.19                         | V                       | Pass   |
| 11445.6              | -39.56          | -13              | -26.56                  | -68.84                    | -44.19                   | 8.59                       | 13.22                         | V                       | Pass   |
| 13353.2              | -36.53          | -13              | -23.53                  | -70.50                    | -40.84                   | 9.4                        | 13.71                         | V                       | Pass   |

## 3.6 Frequency Stability Measurement

### 3.6.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within  $\pm 0.00025\%$  ( $\pm 2.5\text{ppm}$ ) of the center frequency.

### 3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

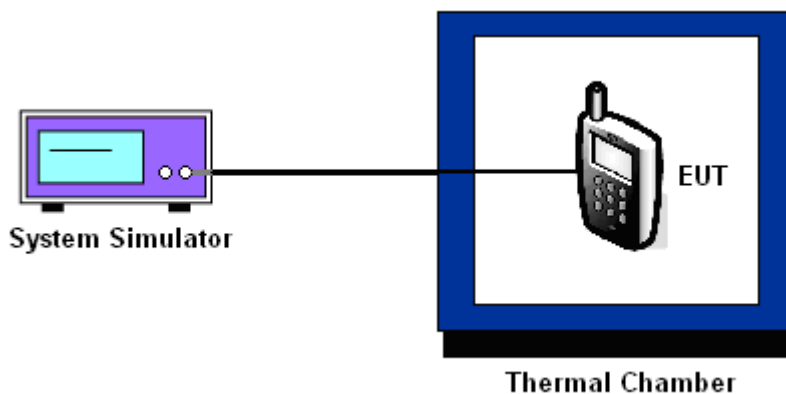
### 3.6.3 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the base station.
2. With power OFF, the temperature was decreased to  $-30^{\circ}\text{C}$  and the EUT was stabilized for three hours. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in  $10^{\circ}\text{C}$  step up to  $50^{\circ}\text{C}$ . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.
4. If the EUT can not be turned on at  $-30^{\circ}\text{C}$ , the testing lowest temperature will be raised in  $10^{\circ}\text{C}$  step until the EUT can be turned on.

### 3.6.4 Test Procedures for Voltage Variation

1. The EUT was placed in a temperature chamber at  $25\pm 5^{\circ}\text{C}$  and connected with the base station.
2. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

### 3.6.5 Test Setup



**3.6.6 Test Result of Temperature Variation**

|                      |         |                  |     |
|----------------------|---------|------------------|-----|
| <b>Band :</b>        | GSM 850 | <b>Channel :</b> | 189 |
| <b>Limit (ppm) :</b> | 2.5     |                  |     |

| Temperature (°C) | GPRS 8          |                 | EDGE 8          |                 | Result |
|------------------|-----------------|-----------------|-----------------|-----------------|--------|
|                  | Freq. Dev. (Hz) | Deviation (ppm) | Freq. Dev. (Hz) | Deviation (ppm) |        |
| -30              | N/A             | N/A             | N/A             | N/A             | PASS   |
| -20              | N/A             | N/A             | N/A             | N/A             |        |
| -15              | -43             | -41             | -0.05           | -0.05           |        |
| -10              | 33              | -47             | 0.04            | -0.06           |        |
| 0                | 42              | -36             | 0.05            | -0.04           |        |
| 10               | 41              | 39              | 0.05            | 0.05            |        |
| 20               | 39              | 24              | 0.05            | 0.03            |        |
| 30               | -33             | 41              | -0.04           | 0.05            |        |
| 40               | -22             | 31              | -0.03           | 0.04            |        |
| 50               | 19              | -33             | 0.02            | -0.04           |        |

**Note:** The manufacturer declared that the EUT could work properly between temperatures -15°C~55°C.

|                      |          |                  |     |
|----------------------|----------|------------------|-----|
| <b>Band :</b>        | GSM 1900 | <b>Channel :</b> | 661 |
| <b>Limit (ppm) :</b> | 2.5      |                  |     |

| Temperature (°C) | GPRS 8          |                 | EDGE 8          |                 | Result |
|------------------|-----------------|-----------------|-----------------|-----------------|--------|
|                  | Freq. Dev. (Hz) | Deviation (ppm) | Freq. Dev. (Hz) | Deviation (ppm) |        |
| -30              | N/A             | N/A             | N/A             | N/A             | PASS   |
| -20              | N/A             | N/A             | N/A             | N/A             |        |
| -15              | -41             | -0.02           | -42             | -0.02           |        |
| -10              | 44              | 0.02            | 33              | 0.02            |        |
| 0                | 39              | 0.02            | 42              | 0.02            |        |
| 10               | 42              | 0.02            | 41              | 0.02            |        |
| 20               | -31             | -0.02           | -29             | -0.02           |        |
| 30               | -37             | -0.02           | -33             | -0.02           |        |
| 40               | -45             | -0.02           | 34              | 0.02            |        |
| 50               | -42             | -0.02           | -42             | -0.02           |        |

**Note:** The manufacturer declared that the EUT could work properly between temperatures -15°C~55°C.

|                      |              |                  |      |
|----------------------|--------------|------------------|------|
| <b>Band :</b>        | WCDMA Band V | <b>Channel :</b> | 4182 |
| <b>Limit (ppm) :</b> | 2.5          |                  |      |

| Temperature (°C) | RMC 12.2Kbps    |                 | Result |
|------------------|-----------------|-----------------|--------|
|                  | Freq. Dev. (Hz) | Deviation (ppm) |        |
| -30              | N/A             | N/A             | PASS   |
| -20              | N/A             | N/A             |        |
| -15              | -18             | -0.02           |        |
| -10              | 21              | 0.02            |        |
| 0                | 22              | 0.03            |        |
| 10               | 16              | 0.02            |        |
| 20               | 17              | 0.02            |        |
| 30               | -21             | -0.02           |        |
| 40               | -19             | -0.02           |        |
| 50               | -11             | -0.01           |        |

**Note:** The manufacturer declared that the EUT could work properly between temperatures -15°C~55°C.

|                      |               |                  |      |
|----------------------|---------------|------------------|------|
| <b>Band :</b>        | WCDMA Band II | <b>Channel :</b> | 9400 |
| <b>Limit (ppm) :</b> | 2.5           |                  |      |

| Temperature (°C) | RMC 12.2Kbps    |                 | Result |
|------------------|-----------------|-----------------|--------|
|                  | Freq. Dev. (Hz) | Deviation (ppm) |        |
| -30              | N/A             | N/A             | PASS   |
| -20              | N/A             | N/A             |        |
| -15              | -24             | -0.01           |        |
| -10              | 22              | 0.01            |        |
| 0                | 19              | 0.01            |        |
| 10               | -19             | -0.01           |        |
| 20               | 16              | 0.01            |        |
| 30               | 23              | 0.01            |        |
| 40               | 22              | 0.01            |        |
| 50               | 16              | 0.01            |        |

**Note:** The manufacturer declared that the EUT could work properly between temperatures -15°C~55°C.

**3.6.7 Test Result of Voltage Variation**

| Band & Channel          | Mode            | Voltage (Volt) | Freq. Dev. (Hz) | Deviation (ppm) | Limit (ppm) | Result |
|-------------------------|-----------------|----------------|-----------------|-----------------|-------------|--------|
| GSM 850<br>CH189        | GPRS 8          | 5.0            | 34              | 0.04            | 2.5         | PASS   |
|                         | EDGE 8          | 5.0            | 40              | 0.05            |             |        |
| GSM 1900<br>CH661       | GPRS 8          | 5.0            | -40             | -0.02           |             |        |
|                         | EDGE 8          | 5.0            | 38              | 0.02            |             |        |
| WCDMA Band V<br>CH4182  | RMC<br>12.2Kbps | 5.0            | 24              | 0.03            |             |        |
| WCDMA Band II<br>CH9400 | RMC<br>12.2Kbps | 5.0            | 21              | 0.01            |             |        |

**Note:** Normal Voltage = 5.0V.

## 4 List of Measuring Equipment

| Instrument                | Manufacturer | Model No. | Serial No.      | Characteristics          | Calibration Date | Due Date      | Remark                |
|---------------------------|--------------|-----------|-----------------|--------------------------|------------------|---------------|-----------------------|
| System Simulator          | R&S          | CMU200    | 116456          | N/A                      | Jun. 05, 2008    | Jun. 04, 2010 | Conducted (TH02-HY)   |
| Spectrum Analyzer         | R&S          | FSP40     | 100055          | 9kHz~40GHz               | Jun. 23, 2009    | Jun. 22, 2010 | Conducted (TH02-HY)   |
| Thermal Chamber           | TEN BILLION  | TTH-D35P  | TBN-930701      | N/A                      | Jul. 29, 2009    | Jul. 28, 2010 | Conducted (TH02-HY)   |
| Bilog Antenna             | SCHAFFNER    | CBL6111C  | 2726            | 30MHz ~ 1GHz             | Oct. 31, 2009    | Oct. 30, 2010 | Radiation (03CH07-HY) |
| Spectrum Analyzer         | R&S          | FSP       | 101067          | 9KHz ~ 30GHz             | Dec. 04, 2009    | Dec. 03, 2010 | Radiation (03CH07-HY) |
| Double Ridge Horn Antenna | ESCO         | 3117      | 00075962        | 1GHz ~ 18GHz             | Aug. 20, 2009    | Aug. 19, 2010 | Radiation (03CH07-HY) |
| SHF-EHF Horn Antenna      | SCHWARZBECK  | BBHA 9170 | BBHA917025<br>1 | 15GHz- 40GHz             | Oct. 14, 2009    | Oct. 13, 2010 | Radiation (03CH07-HY) |
| Pre Amplifier             | Agilent      | 8449B     | 3008A02362      | 1GHz~ 26.5GHz            | Dec.09,2009      | Dec. 08, 2010 | Radiation (03CH07-HY) |
| Pre Amplifier             | COM-POWER    | PA-103A   | 161241          | 10-1000MHz.32dB.<br>GAIN | Mar. 27, 2009    | Mar. 26, 2010 | Radiation (03CH07-HY) |
| Loop Antenna              | R&S          | HFH2-Z2   | 860004/001      | 9 KHz~30 MHz             | May 22, 2008     | May 21, 2010  | Radiation (03CH07-HY) |
| System Simulator          | R&S          | CMU200    | 117997          | N/A                      | May 14, 2009     | May 13, 2011  | -                     |

## 5 Uncertainty of Evaluation

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

| Contribution                                                                             | Uncertainty of $X_i$ |                          | $u(X_i)$ |
|------------------------------------------------------------------------------------------|----------------------|--------------------------|----------|
|                                                                                          | dB                   | Probability Distribution |          |
| Receiver Reading                                                                         | 0.41                 | Normal (k=2)             | 0.21     |
| Antenna Factor Calibration                                                               | 0.83                 | Normal (k=2)             | 0.42     |
| Cable Loss Calibration                                                                   | 0.25                 | Normal (k=2)             | 0.13     |
| Pre-Amplifier Gain Calibration                                                           | 0.27                 | Normal (k=2)             | 0.14     |
| RCV/SPA Specification                                                                    | 2.50                 | Rectangular              | 0.72     |
| Antenna Factor Interpolation for Frequency                                               | 1.00                 | Rectangular              | 0.29     |
| Site Imperfection                                                                        | 1.43                 | Rectangular              | 0.83     |
| Mismatch                                                                                 | +0.39 / -0.41        | U-Shape                  | 0.28     |
| <b>Combined Standard Uncertainty <math>U_c(y)</math></b>                                 | <b>1.27</b>          |                          |          |
| <b>Measuring Uncertainty for a Level of Confidence of 95% (<math>U = 2U_c(y)</math>)</b> | <b>2.54</b>          |                          |          |

### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

| Contribution                                                                                                                  | Uncertainty of $X_i$ |                          | $u(X_i)$ | $C_i$ | $C_i * u(X_i)$ |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------|----------|-------|----------------|
|                                                                                                                               | dB                   | Probability Distribution |          |       |                |
| Receiver Reading                                                                                                              | $\pm 0.10$           | Normal (k=2)             | 0.10     | 1     | 0.10           |
| Antenna Factor Calibration                                                                                                    | $\pm 1.70$           | Normal (k=2)             | 0.85     | 1     | 0.85           |
| Cable Loss Calibration                                                                                                        | $\pm 0.50$           | Normal (k=2)             | 0.25     | 1     | 0.25           |
| Receiver Correction                                                                                                           | $\pm 2.00$           | Rectangular              | 1.15     | 1     | 1.15           |
| Antenna Factor Directional                                                                                                    | $\pm 1.50$           | Rectangular              | 0.87     | 1     | 0.87           |
| Site Imperfection                                                                                                             | $\pm 2.80$           | Triangular               | 1.14     | 1     | 1.14           |
| Mismatch<br>Receiver VSWR $\Gamma_1 = 0.197$<br>Antenna VSWR $\Gamma_2 = 0.194$<br>Uncertainty = $20\log(1-\Gamma_1\Gamma_2)$ | +0.34 / -0.35        | U-Shape                  | 0.244    | 1     | 0.244          |
| <b>Combined Standard Uncertainty <math>U_c(y)</math></b>                                                                      | <b>2.36</b>          |                          |          |       |                |
| <b>Measuring Uncertainty for a Level of Confidence of 95% (<math>U = 2U_c(y)</math>)</b>                                      | <b>4.72</b>          |                          |          |       |                |

## 6 Certification of TAF Accreditation



Certificate No. : L1190-100107

財團法人全國認證基金會  
Taiwan Accreditation Foundation

### Certificate of Accreditation

This is to certify that

**Sporton International Inc.**  
**EMC & Wireless Communications Laboratory**  
No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien,  
Taiwan, R.O.C.

**is accredited in respect of laboratory**

|                                |                                                                                                                                                                                                                                                            |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accreditation Criteria         | : ISO/IEC 17025:2005                                                                                                                                                                                                                                       |
| Accreditation Number           | : 1190                                                                                                                                                                                                                                                     |
| Originally Accredited          | : December 15, 2003                                                                                                                                                                                                                                        |
| Effective Period               | : January 10, 2010 to January 09, 2013                                                                                                                                                                                                                     |
| Accredited Scope               | : Testing Field, see described in the Appendix                                                                                                                                                                                                             |
| Specific Accreditation Program | : Accreditation Program for Designated Testing Laboratory for Commodities Inspection<br>Accreditation Program for Telecommunication Equipment Testing Laboratory<br>Accreditation Program for BSMI Mutual Recognition Arrangement with Foreign Authorities |



Jay-San Chen  
President, Taiwan Accreditation Foundation  
Date : January 07, 2010

Pl, total 21 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix



## **Appendix A. Photographs of EUT**

Please refer to Sporton report number EP030309 as below.