

# TEST REPORT

Report No.: BCTC2301721503-5E

Applicant: SHENZHEN YUNJI INTELLIGENT TECHNOLOGY  
CO.,LTD

Product Name: Smart Phone

Model/Type  
reference: WP22

Tested Date: 2023-01-11 to 2023-02-07

Issued Date: 2023-02-07

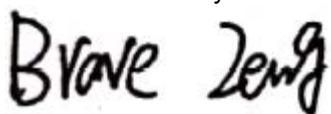
**Shenzhen BCTC Testing Co., Ltd.**



## FCC ID: 2ANMU-WP22SPU

Product Name: Smart Phone  
Trademark: OUKITEL  
Model/Type reference: WP22  
WP22 S, WP22 Pro, WP22 Ultra  
Prepared For: SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD  
Address: A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE,  
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Manufacturer: SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD  
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Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road,  
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Sample Received Date: 2023-01-11  
Sample tested Date: 2023-01-11 to 2023-02-07  
Issue Date: 2023-02-07  
Report No.: BCTC2301721503-5E  
Test Standards: FCC CFR Title 47 Part 2  
FCC CFR Title 47 Part22 Subpart H  
FCC CFR Title 47 Part24 Subpart E  
FCC CFR Title 47 Part27 Subpart L  
ANSI/ TIA/ EIA-603-D-2010  
FCC KDB 971168 D01 Power Meas. License Digital Systems v02v02  
Test Results: PASS  
Remark: This is GSM & WCDMAradio test report.

Tested by:



Brave Zeng/ Project Handler

Approved by:



Zero Zhou/Reviewer

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

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(Note: N/A Means Not Applicable)

**1. Version**

| Report No.        | Issue Date | Description | Approved |
|-------------------|------------|-------------|----------|
| BCTC2301721503-5E | 2023-02-07 | Original    | Valid    |
|                   |            |             |          |

## 2. Test Summary

The Product has been tested according to the following specifications:

| No. | Test Parameter                            | Clause No.                                     | Results |
|-----|-------------------------------------------|------------------------------------------------|---------|
| 1   | RF Exposure                               | §1.1307, §2.1093                               | PASS    |
| 2   | RF Output Power                           | §22.913 (a), §24.232 (c), §27.50 (d),          | PASS    |
| 3   | Peak-to-average Ratio(PAR) of Transmitter | §24.232(d), §22.913, §27.50(d),                | PASS    |
| 4   | Emission Bandwidth                        | §22.917 (b), §24.238(b), §27.53(g)             | PASS    |
| 5   | Spurious Emissions at Antenna Terminal    | §22.917 (a), §24.238 (a), §27.53(g), §27.53(h) | PASS    |
| 6   | Spurious Radiation Emissions              | §22.917 (a), §24.238 (a), §27.53(g), §27.53(h) | PASS    |
| 7   | Out of Band Emissions                     | §22.917 (a), §24.238 (a), §27.53(g), §27.53(h) | PASS    |
| 8   | Frequency Stability                       | §22.355, §24.235, §27.54                       | PASS    |

### 3. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

| No. | Item                                               | Uncertainty |
|-----|----------------------------------------------------|-------------|
| 1   | 3m chamber Radiated spurious emission(30MHz-1GHz)  | U=4.3dB     |
| 2   | 3m chamber Radiated spurious emission(9KHz-30MHz)  | U=3.7dB     |
| 3   | 3m chamber Radiated spurious emission(1GHz-18GHz)  | U=4.5dB     |
| 4   | 3m chamber Radiated spurious emission(18GHz-40GHz) | U=3.34dB    |
| 5   | Conducted Emission (150kHz-30MHz)                  | U=3.20dB    |
| 6   | Conducted Adjacent channel power                   | U=1.38dB    |
| 7   | Conducted output power uncertainty Above 1G        | U=1.576dB   |
| 8   | Conducted output power uncertainty below 1G        | U=1.28dB    |
| 9   | humidity uncertainty                               | U=5.3%      |
| 10  | Temperature uncertainty                            | U=0.59°C    |

## 4. Product Information And Test Setup

### 4.1 Product Information

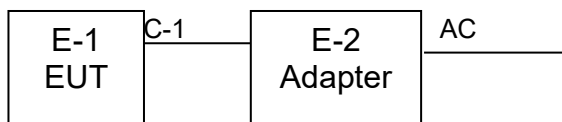
|                        |                                                                                                                                                                                                                                                                                                                  |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model/Type reference:  | WP22<br>WP22 S, WP22 Pro, WP22 Ultra                                                                                                                                                                                                                                                                             |
| Model differences:     | All the model are the same circuit and RF module, except model names.                                                                                                                                                                                                                                            |
| Hardware Version:      | HCT-S930MB-A2                                                                                                                                                                                                                                                                                                    |
| Software Version:      | OUKITEK_WP22_V04                                                                                                                                                                                                                                                                                                 |
| Operation Frequency:   | GSM/GPRS/EGPRS 850: TX: 824~849MHz; RX: 869~894MHz;<br>GSM/GPRS/EGPRS 1900: TX:1850~1910MHz; RX:1930~1990MHz;<br>WCDMA Band II: TX: 1852.40~1907.60MHz; Rx: 1932.60~1987.40MHz;<br>WCDMA Band IV: TX: 1712.40~1752.60MHz; RX: 2112.60 – 2452.40MHz<br>WCDMA Band V: TX: 826.40~846.60MHz; RX: 871.40~ 891.60MHz; |
| GPRS Class:            | Class 12                                                                                                                                                                                                                                                                                                         |
| Max RF Output Power:   | GSM/GPRS/EGPRS 850: 33.54 dBm,<br>GSM/GPRS/EGPRS 1900: 29.42 dBm<br>WCDMA Band II: 23.34 dBm<br>WCDMA Band IV: 22.82 dBm<br>WCDMA Band V: 24.48 dBm                                                                                                                                                              |
| Type of Modulation:    | GSM with GMSK Modulation<br>WCDMA Mode with BPSK Modulation<br>HSDPA Mode with QPSK, 16QAM Modulation<br>HSUPA Mode with QPSK, 16QAM Modulation                                                                                                                                                                  |
| Type of Emission:      | GSM/GPRS 850: 248KGXW<br>EGPRS 850:253KG7W<br>GSM/GPRS 1900: 249KGXW<br>EGPRS 1900:253KG7W<br>WCDMA Band II: 4M20F9W<br>WCDMA Band IV: 4M19F9W<br>WCDMA Band V: 4M18F9W                                                                                                                                          |
| Antenna installation:  | Internal antenna                                                                                                                                                                                                                                                                                                 |
| Antenna Gain:          | GSM850: -0.18 dBi<br>GSM1900: 0.1 dBi<br>WCDMA Band II: 0.1 dBi<br>WCDMA Band IV: 0.06 dBi<br>WCDMA Band V: -0.12 dBi                                                                                                                                                                                            |
| Connecting I/O Port(s) | Please refer to the User's Manual                                                                                                                                                                                                                                                                                |
| Ratings:               | DC 5V from adapter/DC 3.7V from battery<br>Model: HJ-FC010K7-US<br>Input: 100-240V~50/60Hz 0.6A                                                                                                                                                                                                                  |
| Adapter Information:   | Output: DC 5V 2.0A<br>DC 9V 2.0A<br>DC 12V 1.5A                                                                                                                                                                                                                                                                  |
| Remark:                | The antenna gain of the product is provided by the customer, and the test data is affected by the customer information.                                                                                                                                                                                          |

## 4.2 Test Setup Configuration

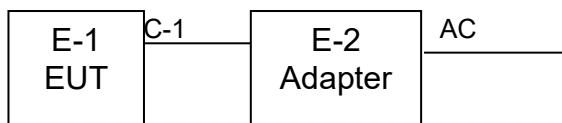
See test photographs attached in *EUT TEST SETUP PHOTOGRAPHS* for the actual connections between Product and support equipment.

Conducted Emission:

Conducted Emission:



Radiated Spurious Emission



## 4.3 Support Equipment

| No. | Device Type | Brand   | Model         | Series No. | Note      |
|-----|-------------|---------|---------------|------------|-----------|
| E-1 | Smart Phone | OUKITEL | WP22          | N/A        | EUT       |
| E-2 | Adapter     | N/A     | HJ-FC010K7-US | N/A        | Auxiliary |

| Item | Shielded Type | Ferrite Core | Length | Note                |
|------|---------------|--------------|--------|---------------------|
| C-1  | N/A           | N/A          | 1M     | DC cable unshielded |

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

#### 4.5 Test Mode

| Testing Configure                                                                                                                    |                   |                   |                |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|----------------|
| Support Band                                                                                                                         | Support Standard  | Channel Frequency | Channel Number |
| GSM 850                                                                                                                              | GSM/GPRS/EGPRS    | 824.2 MHz         | 128            |
|                                                                                                                                      |                   | 836.6 MHz         | 190            |
|                                                                                                                                      |                   | 848.8 MHz         | 251            |
| PCS 1900                                                                                                                             | GSM/GPRS/EGPRS    | 1850.2 MHz        | 512            |
|                                                                                                                                      |                   | 1880.0 MHz        | 661            |
|                                                                                                                                      |                   | 1909.8 MHz        | 810            |
| WCDMA<br>Band II                                                                                                                     | WCDMA/HSDPA/HSUPA | 1852.4 MHz        | 9262           |
|                                                                                                                                      |                   | 1880.0 MHz        | 9400           |
|                                                                                                                                      |                   | 1907.6 MHz        | 9538           |
| WCDMA<br>Band IV                                                                                                                     | WCDMA/HSDPA/HSUPA | 1712.4 MHz        | 1312           |
|                                                                                                                                      |                   | 1740 MHz          | 1450           |
|                                                                                                                                      |                   | 1752.6 MHz        | 1513           |
| WCDMA<br>Band V                                                                                                                      | WCDMA/HSDPA/HSUPA | 826.4 MHz         | 4132           |
|                                                                                                                                      |                   | 836.4 MHz         | 4182           |
|                                                                                                                                      |                   | 846.6 MHz         | 4233           |
| Note 1: the transmitter has been tested on the communications mode of WCDMA, HSDPA, HSUPA compliance test and record the worst case. |                   |                   |                |
| Note 2: Both the SIM 1 and SIM 2 were tested, the worst mode is the SIM 1, the data recording in the report.                         |                   |                   |                |

##### EUT Cable List and Details

| Cable Description | Length (M) | Shielded/Unshielded | With Core/Without Core |
|-------------------|------------|---------------------|------------------------|
| /                 | /          | /                   | /                      |
| /                 | /          | /                   | /                      |

##### Auxiliary Equipment List and Details

| Description | Manufacturer | Model | Serial Number |
|-------------|--------------|-------|---------------|
| /           | /            | /     | /             |

##### Special Cable List and Details

| Cable Description | Length (M) | Shielded/Unshielded | With Core/Without Core |
|-------------------|------------|---------------------|------------------------|
| /                 | /          | /                   | /                      |

## 5. Test Facility And Test Instrument Used

### 5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address:1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.  
FCC Test Firm Registration Number: 712850  
IC Registered No.: 23583

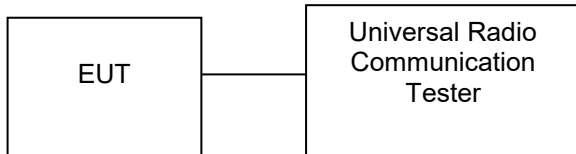
### 5.2 Test Instrument Used

| Radiated Emissions Test (966 Chamber01) |              |                   |            |               |               |
|-----------------------------------------|--------------|-------------------|------------|---------------|---------------|
| Equipment                               | Manufacturer | Model#            | Serial#    | Last Cal.     | Next Cal.     |
| 966 chamber                             | ChengYu      | 966 Room          | 966        | Jun. 06. 2020 | Jun. 05, 2023 |
| Receiver                                | R&S          | ESR3              | 102075     | May 24, 2022  | May 23, 2023  |
| Receiver                                | R&S          | ESRP              | 101154     | May 24, 2022  | May 23, 2023  |
| Amplifier                               | Schwarzbeck  | BBV9744           | 9744-0037  | May 24, 2022  | May 23, 2023  |
| TRILOG Broadband Antenna                | Schwarzbeck  | VULB9163          | 942        | May 26, 2022  | May 25, 2023  |
| Loop Antenna(9KHz -30MHz)               | Schwarzbeck  | FMZB1519B         | 00014      | May 26, 2022  | May 25, 2023  |
| Amplifier                               | SKET         | LAPA_01G18 G-45dB | \          | May 24, 2022  | May 23, 2023  |
| Horn Antenna                            | Schwarzbeck  | BBHA9120D         | 1541       | Jun. 06, 2022 | Jun. 05, 2023 |
| Amplifier(18G Hz-40GHz)                 | MITEQ        | TTA1840-35-HG     | 2034381    | May 26, 2022  | May 25, 2023  |
| Horn Antenna(18G Hz-40GHz)              | Schwarzbeck  | BBHA9170          | 00822      | Jun. 06, 2022 | Jun. 05, 2023 |
| Spectrum Analyzer9kHz-40GHz             | R&S          | FSP40             | 100363     | May 24, 2022  | May 23, 2023  |
| Communication test set                  | R&S          | CMW500            | 126173     | Nov.8,2022    | Nov.7,2023    |
| Software                                | Frad         | EZ-EMC            | FA-03A2 RE | \             | \             |

## 6. RF Output Power

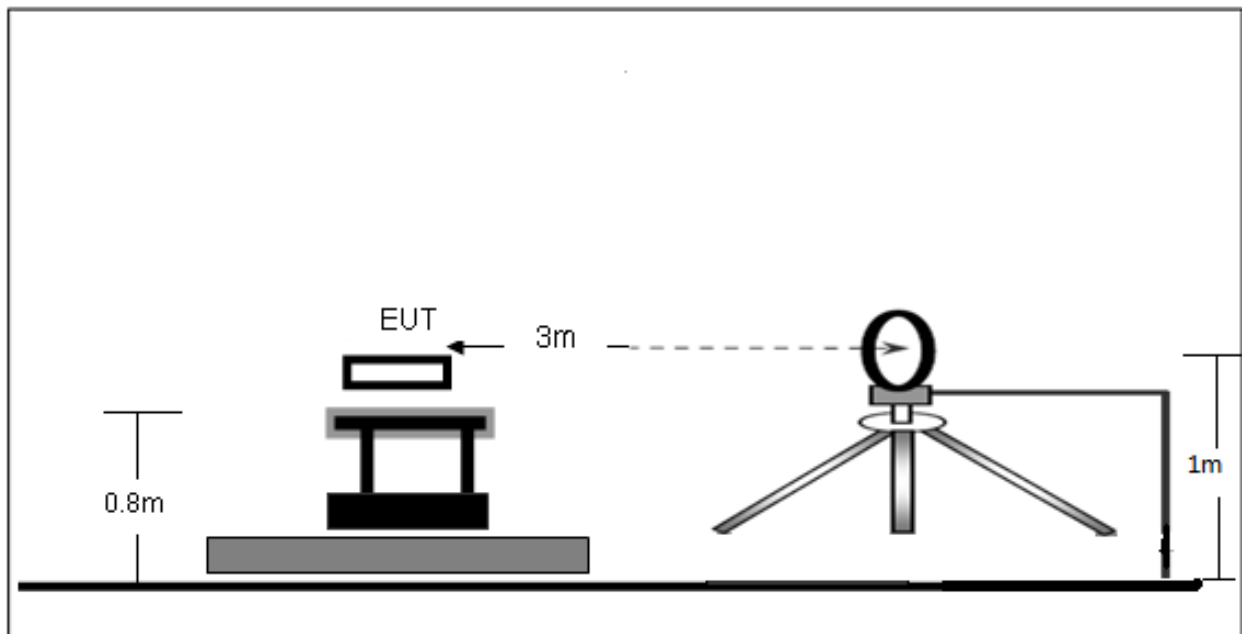
### 6.1 Block Diagram Of Test Setup

Conducted output power test method:

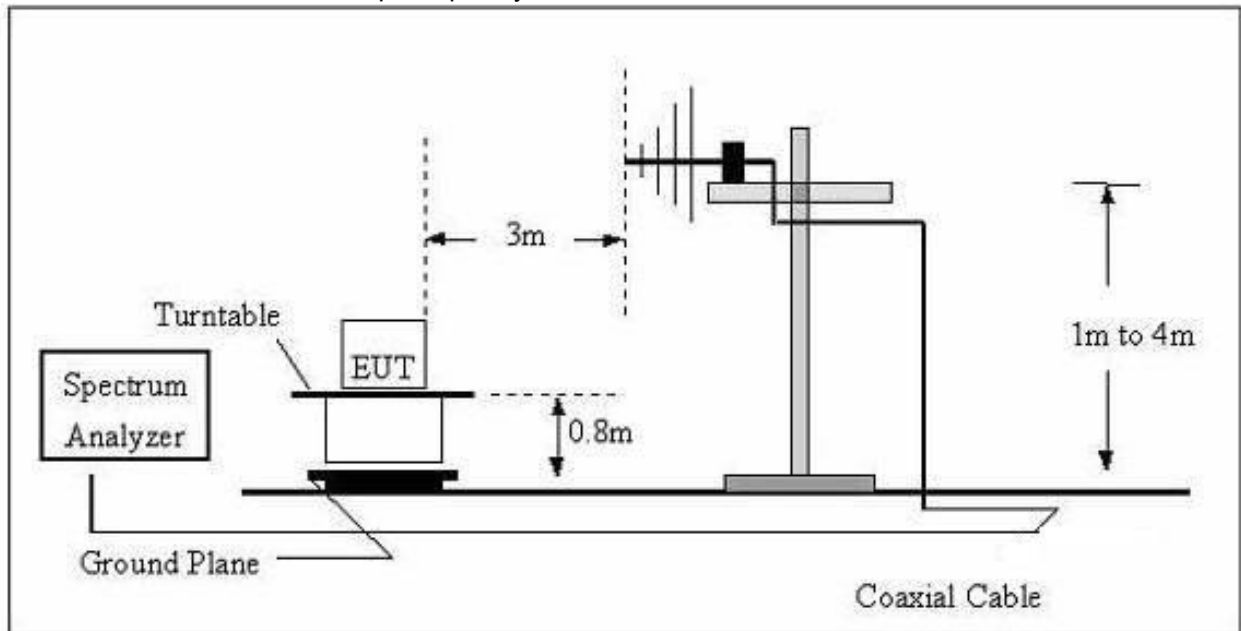


Radiated power test method:

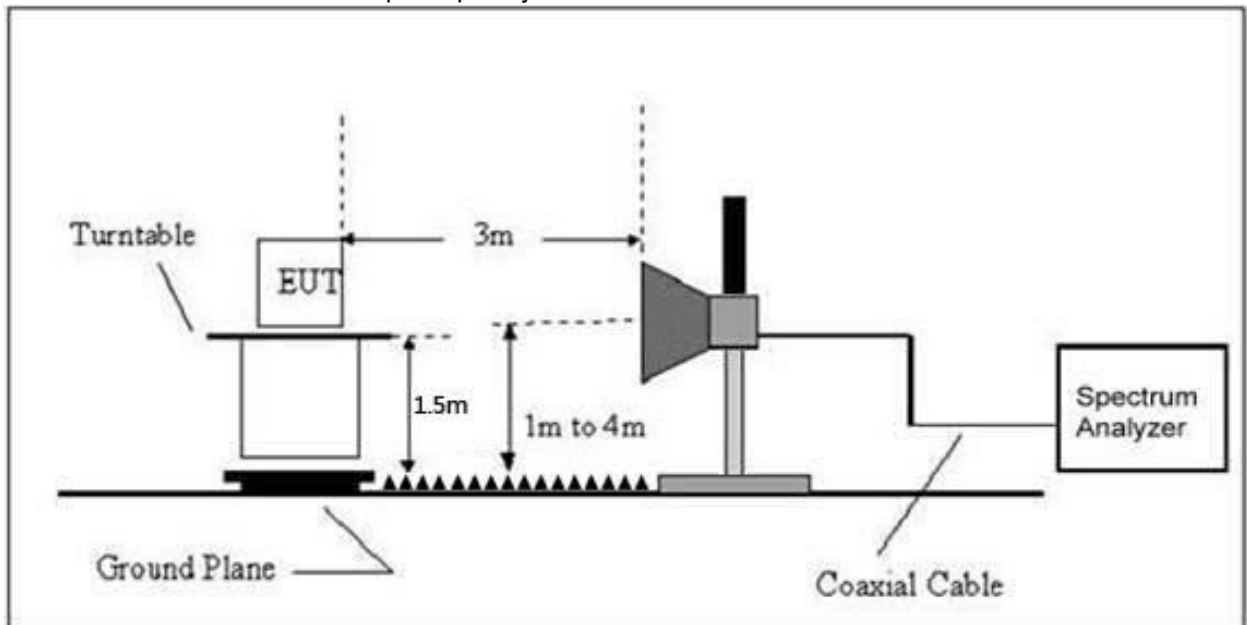
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



## 6.2 Limit

According to §22.913(a)(2), The ERP of mobile and portable stations transmitters and auxiliary test transmitters must not exceed 7 Watts.

According to §24.232 (c), Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50(d)(4), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

### 6.3 Test procedure

Radiated power test method:

1. The setup of EUT is according with per ANSI/TIA Standard 603D and ANSI C63.4-2014 measurement procedure.
2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
3. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
4. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

### 6.4 Test Result

ERP For GSM Mode GSM850

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 22H Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 824.2           | H           | 1.5            | 0              | 29.09               | -1.38               | 27.71             | 38.45                     | PASS   |
| 824.2           | V           | 1.5            | 0              | 27.97               | -1.38               | 26.59             | 38.45                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 836.6           | H           | 1.5            | 0              | 28.19               | -1.10               | 27.09             | 38.45                     | PASS   |
| 836.6           | V           | 1.5            | 0              | 27.99               | -1.10               | 26.89             | 38.45                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 848.8           | H           | 1.5            | 0              | 28.16               | -0.82               | 27.34             | 38.45                     | PASS   |
| 848.8           | V           | 1.5            | 0              | 27.78               | -0.82               | 26.96             | 38.45                     | PASS   |

EIRP For GSM Mode PCS1900

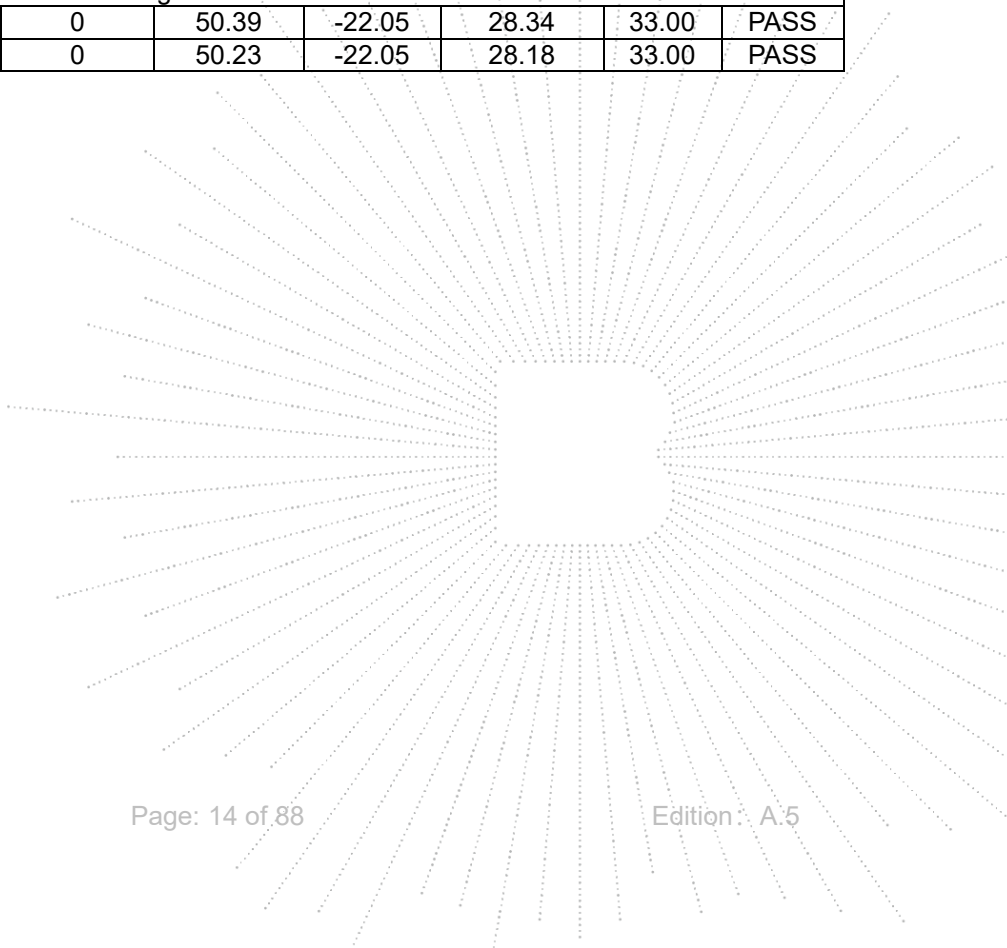
| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 24E Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 1850.2          | H           | 1.5            | 0              | 49.83               | -22.26              | 27.57             | 33.00                     | PASS   |
| 1850.2          | V           | 1.5            | 0              | 49.70               | -22.26              | 27.44             | 33.00                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 1880            | H           | 1.5            | 0              | 49.77               | -22.16              | 27.61             | 33.00                     | PASS   |
| 1880            | V           | 1.5            | 0              | 49.33               | -22.16              | 27.17             | 33.00                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 1909.8          | H           | 1.5            | 0              | 49.34               | -22.05              | 27.29             | 33.00                     | PASS   |
| 1909.8          | V           | 1.5            | 0              | 49.62               | -22.05              | 27.57             | 33.00                     | PASS   |

## ERP For GPRS Mode GSM850

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 22H Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 824.2           | H           | 1.5            | 0              | 27.83               | -1.38               | 26.45             | 38.45                     | PASS   |
| 824.2           | V           | 1.5            | 0              | 28.13               | -1.38               | 26.75             | 38.45                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 836.6           | H           | 1.5            | 0              | 28.31               | -1.10               | 27.21             | 38.45                     | PASS   |
| 836.6           | V           | 1.5            | 0              | 28.14               | 1.10                | 29.24             | 38.45                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 848.8           | H           | 1.5            | 0              | 28.35               | -0.82               | 27.53             | 38.45                     | PASS   |
| 848.8           | V           | 1.5            | 0              | 27.51               | -0.82               | 26.69             | 38.45                     | PASS   |

## EIRP For GPRS Mode PCS1900

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 24E Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 1850.2          | H           | 1.5            | 0              | 50.12               | -22.26              | 27.86             | 33.00                     | PASS   |
| 1850.2          | V           | 1.5            | 0              | 50.05               | -22.26              | 27.79             | 33.00                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 1880            | H           | 1.5            | 0              | 49.48               | -22.16              | 27.32             | 33.00                     | PASS   |
| 1880            | V           | 1.5            | 0              | 49.30               | -22.16              | 27.14             | 33.00                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 1909.8          | H           | 1.5            | 0              | 50.39               | -22.05              | 28.34             | 33.00                     | PASS   |
| 1909.8          | V           | 1.5            | 0              | 50.23               | -22.05              | 28.18             | 33.00                     | PASS   |



## ERP For EGPRS Mode GSM850

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 22H Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 824.2           | H           | 1.5            | 0              | 26.72               | -1.38               | 25.34             | 38.45                     | PASS   |
| 824.2           | V           | 1.5            | 0              | 26.56               | -1.38               | 25.18             | 38.45                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 836.6           | H           | 1.5            | 0              | 27.97               | -1.10               | 26.87             | 38.45                     | PASS   |
| 836.6           | V           | 1.5            | 0              | 27.18               | 1.10                | 28.28             | 38.45                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 848.8           | H           | 1.5            | 0              | 27.72               | -0.82               | 26.90             | 38.45                     | PASS   |
| 848.8           | V           | 1.5            | 0              | 26.57               | -0.82               | 25.75             | 38.45                     | PASS   |

## EIRP For EGPRS Mode PCS1900

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 24E Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 1850.2          | H           | 1.5            | 0              | 50.16               | -22.26              | 27.90             | 33.00                     | PASS   |
| 1850.2          | V           | 1.5            | 0              | 48.50               | -22.26              | 26.24             | 33.00                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 1880            | H           | 1.5            | 0              | 50.07               | -22.16              | 27.91             | 33.00                     | PASS   |
| 1880            | V           | 1.5            | 0              | 48.88               | -22.16              | 26.72             | 33.00                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 1909.8          | H           | 1.5            | 0              | 48.54               | -22.05              | 26.49             | 33.00                     | PASS   |
| 1909.8          | V           | 1.5            | 0              | 48.95               | -22.05              | 26.90             | 33.00                     | PASS   |

## EIRP For WCDMA Mode Band II

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 24E Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 1852.4          | H           | 1.5            | 0              | 40.13               | -22.25              | 17.88             | 33.00                     | PASS   |
| 1852.4          | V           | 1.5            | 0              | 39.89               | -22.25              | 17.64             | 33.00                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 1880            | H           | 1.5            | 0              | 40.97               | -22.16              | 18.81             | 33.00                     | PASS   |
| 1880            | V           | 1.5            | 0              | 39.41               | -22.16              | 17.25             | 33.00                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 1907.6          | H           | 1.5            | 0              | 41.10               | -22.06              | 19.04             | 33.00                     | PASS   |
| 1907.6          | V           | 1.5            | 0              | 39.54               | -22.06              | 17.48             | 33.00                     | PASS   |

## EIRP For HSDPA Mode Band II

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 24E Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 1852.4          | H           | 1.5            | 0              | 39.92               | -22.25              | 17.67             | 33.00                     | PASS   |
| 1852.4          | V           | 1.5            | 0              | 40.08               | -22.25              | 17.83             | 33.00                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 1880            | H           | 1.5            | 0              | 39.93               | -22.16              | 17.77             | 33.00                     | PASS   |
| 1880            | V           | 1.5            | 0              | 40.16               | -22.16              | 18.00             | 33.00                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 1907.6          | H           | 1.5            | 0              | 39.70               | -22.06              | 17.64             | 33.00                     | PASS   |
| 1907.6          | V           | 1.5            | 0              | 39.94               | -22.06              | 17.88             | 33.00                     | PASS   |

## EIRP For HSUPA Mode Band II

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 24E Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 1852.4          | H           | 1.5            | 0              | 40.04               | -22.25              | 17.79             | 33.00                     | PASS   |
| 1852.4          | V           | 1.5            | 0              | 40.04               | -22.25              | 17.79             | 33.00                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 1880            | H           | 1.5            | 0              | 39.32               | -22.16              | 17.16             | 33.00                     | PASS   |
| 1880            | V           | 1.5            | 0              | 39.26               | -22.16              | 17.10             | 33.00                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 1907.6          | H           | 1.5            | 0              | 40.88               | -22.06              | 18.82             | 33.00                     | PASS   |
| 1907.6          | V           | 1.5            | 0              | 39.47               | -22.06              | 17.41             | 33.00                     | PASS   |

## EIRP For WCDMA Mode Band IV

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 27L Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 1712.4          | H           | 1.5            | 0              | 39.76               | -22.71              | 17.05             | 33.00                     | PASS   |
| 1712.4          | V           | 1.5            | 0              | 39.31               | -22.71              | 16.60             | 33.00                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 1740            | H           | 1.5            | 0              | 40.60               | -22.67              | 17.93             | 33.00                     | PASS   |
| 1740            | V           | 1.5            | 0              | 39.31               | -22.67              | 16.64             | 33.00                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 1752.6          | H           | 1.5            | 0              | 40.86               | -22.60              | 18.26             | 33.00                     | PASS   |
| 1752.6          | V           | 1.5            | 0              | 40.14               | -22.60              | 17.54             | 33.00                     | PASS   |

## EIRP For HSDPA Mode Band IV

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 27L Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 1712.4          | H           | 1.5            | 0              | 39.60               | -22.71              | 16.89             | 33.00                     | PASS   |
| 1712.4          | V           | 1.5            | 0              | 39.62               | -22.71              | 16.91             | 33.00                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 1740            | H           | 1.5            | 0              | 39.67               | -22.67              | 17.00             | 33.00                     | PASS   |
| 1740            | V           | 1.5            | 0              | 39.99               | -22.67              | 17.32             | 33.00                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 1752.6          | H           | 1.5            | 0              | 39.51               | -22.60              | 16.91             | 33.00                     | PASS   |
| 1752.6          | V           | 1.5            | 0              | 40.10               | -22.60              | 17.50             | 33.00                     | PASS   |

## EIRP For HSUPA Mode Band IV

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 27L Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 1712.4          | H           | 1.5            | 0              | 39.36               | -22.71              | 16.65             | 33.00                     | PASS   |
| 1712.4          | V           | 1.5            | 0              | 39.58               | -22.71              | 16.87             | 33.00                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 1740            | H           | 1.5            | 0              | 40.94               | -22.67              | 18.27             | 33.00                     | PASS   |
| 1740            | V           | 1.5            | 0              | 39.35               | -22.67              | 16.68             | 33.00                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 1752.6          | H           | 1.5            | 0              | 40.06               | -22.60              | 17.46             | 33.00                     | PASS   |
| 1752.6          | V           | 1.5            | 0              | 39.59               | -22.60              | 16.99             | 33.00                     | PASS   |

## ERP For WCDMA Mode Band V

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 22H Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 826.4           | H           | 1.5            | 0              | 17.67               | -1.33               | 16.34             | 38.45                     | PASS   |
| 826.4           | V           | 1.5            | 0              | 17.85               | -1.33               | 16.52             | 38.45                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 836.4           | H           | 1.5            | 0              | 17.53               | -1.10               | 16.43             | 38.45                     | PASS   |
| 836.4           | V           | 1.5            | 0              | 17.45               | -1.10               | 16.35             | 38.45                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 846.6           | H           | 1.5            | 0              | 19.24               | -0.87               | 18.37             | 38.45                     | PASS   |
| 846.6           | V           | 1.5            | 0              | 18.01               | -0.87               | 17.14             | 38.45                     | PASS   |

## ERP For HSDPA Mode Band V

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 22H Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 826.4           | H           | 1.5            | 0              | 18.63               | -1.33               | 17.30             | 38.45                     | PASS   |
| 826.4           | V           | 1.5            | 0              | 17.92               | -1.33               | 16.59             | 38.45                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 836.4           | H           | 1.5            | 0              | 18.65               | -1.10               | 17.55             | 38.45                     | PASS   |
| 836.4           | V           | 1.5            | 0              | 18.09               | -1.10               | 16.99             | 38.45                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 846.6           | H           | 1.5            | 0              | 17.92               | -0.87               | 17.05             | 38.45                     | PASS   |
| 846.6           | V           | 1.5            | 0              | 18.06               | -0.87               | 17.19             | 38.45                     | PASS   |

## ERP For HSUPA Mode Band V

| Frequency (MHz) | Polar (H/V) | Height (Meter) | Table (Degree) | Reading Level (dBm) | Correct Factor (dB) | Measurement (dBm) | FCC Part 22H Limits (dBm) | Result |
|-----------------|-------------|----------------|----------------|---------------------|---------------------|-------------------|---------------------------|--------|
| Low Channel     |             |                |                |                     |                     |                   |                           |        |
| 826.4           | H           | 1.5            | 0              | 19.22               | -1.33               | 17.89             | 38.45                     | PASS   |
| 826.4           | V           | 1.5            | 0              | 17.74               | -1.33               | 16.41             | 38.45                     | PASS   |
| Middle Channel  |             |                |                |                     |                     |                   |                           |        |
| 836.4           | H           | 1.5            | 0              | 18.12               | -1.10               | 17.02             | 38.45                     | PASS   |
| 836.4           | V           | 1.5            | 0              | 17.35               | -1.10               | 16.25             | 38.45                     | PASS   |
| High Channel    |             |                |                |                     |                     |                   |                           |        |
| 846.6           | H           | 1.5            | 0              | 19.01               | -0.87               | 18.14             | 38.45                     | PASS   |
| 846.6           | V           | 1.5            | 0              | 18.19               | -0.87               | 17.32             | 38.45                     | PASS   |

Correction Factor= S.G. Power - Cable loss + Antenna Gain- SPA. Reading

**Max. Conducted Output Power**

For Cellular Band (GSM850)

| Band           | GSM850 |       |       |
|----------------|--------|-------|-------|
| Channel        | 128    | 190   | 251   |
| Frequency(MHz) | 824.2  | 836.6 | 848.8 |
| GSM            | 33.54  | 33.52 | 33.53 |
| GPRS Slot -1   | 33.53  | 33.51 | 33.52 |
| GPRS Slot -2   | 32.47  | 32.51 | 32.41 |
| GPRS Slot -3   | 30.34  | 30.43 | 30.26 |
| GPRS Slot -4   | 29.25  | 29.41 | 29.20 |
| EGPRS Slot -1  | 25.66  | 25.73 | 25.20 |
| EGPRS Slot -2  | 24.27  | 24.38 | 23.60 |
| EGPRS Slot -3  | 22.10  | 21.79 | 21.57 |
| EGPRS Slot -4  | 20.67  | 19.85 | 19.40 |

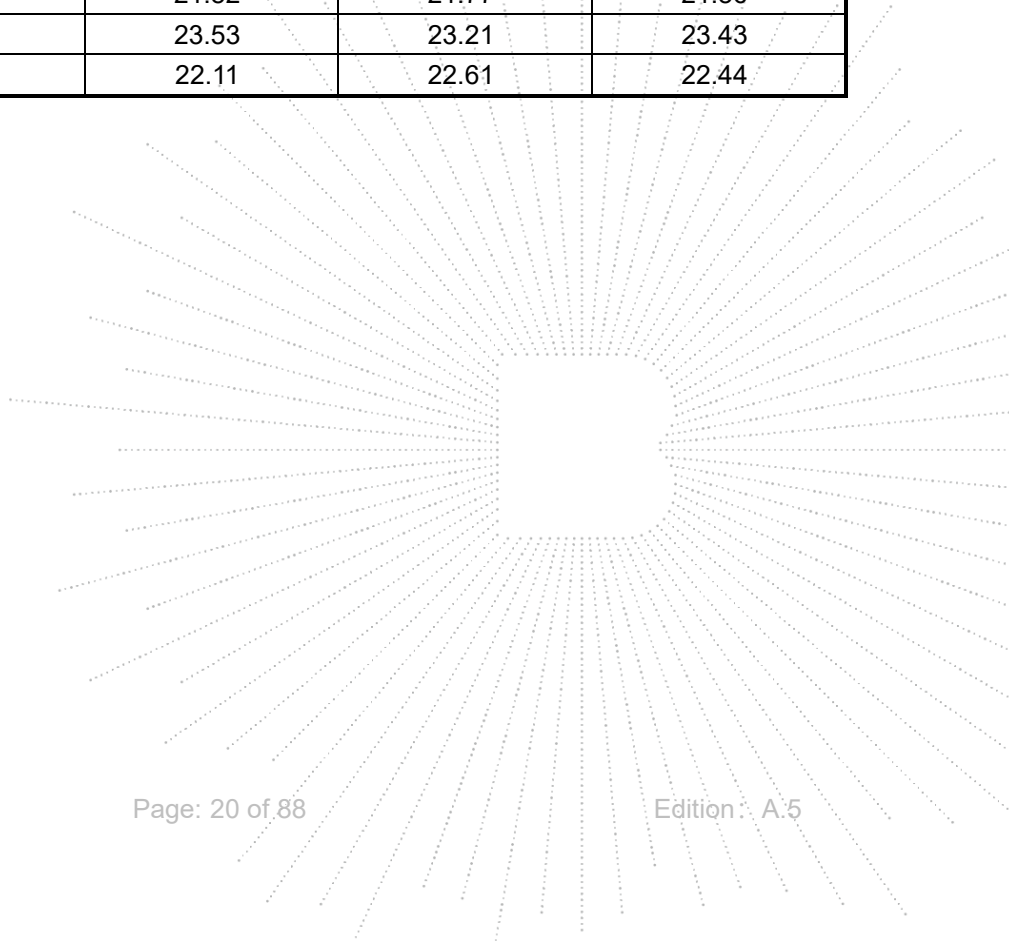
For PCS Band (GSM1900)

| Band           | GSM1900 |       |        |
|----------------|---------|-------|--------|
| Channel        | 512     | 661   | 810    |
| Frequency(MHz) | 1850.2  | 1880  | 1909.8 |
| GSM            | 29.30   | 29.41 | 29.26  |
| GPRS Slot -1   | 29.32   | 29.42 | 29.31  |
| GPRS Slot -2   | 28.48   | 28.59 | 28.45  |
| GPRS Slot -3   | 26.63   | 26.71 | 26.59  |
| GPRS Slot -4   | 25.61   | 25.71 | 25.56  |
| EGPRS Slot -1  | 24.93   | 25.06 | 24.88  |
| EGPRS Slot -2  | 23.76   | 23.46 | 23.99  |
| EGPRS Slot -3  | 21.48   | 21.08 | 21.34  |
| EGPRS Slot -4  | 20.34   | 20.16 | 19.88  |

| Band            | WCDMA Band II |        |        |
|-----------------|---------------|--------|--------|
| Channel         | 9262          | 9400   | 9538   |
| Frequency(MHz)  | 1852.4        | 1880.0 | 1907.6 |
| WCDMA RMC 12.2K | 23.23         | 23.18  | 23.34  |
| HSDPA Subtest-1 | 22.31         | 22.19  | 22.38  |
| HSDPA Subtest-2 | 21.85         | 21.66  | 21.86  |
| HSDPA Subtest-3 | 20.92         | 20.37  | 20.80  |
| HSDPA Subtest-4 | 20.86         | 20.76  | 20.82  |
| HSUPA Subtest-1 | 20.84         | 22.02  | 22.14  |
| HSUPA Subtest-2 | 22.14         | 22.11  | 22.19  |
| HSUPA Subtest-3 | 20.62         | 20.93  | 21.06  |
| HSUPA Subtest-4 | 22.28         | 22.19  | 22.38  |
| HSUPA Subtest-5 | 20.80         | 21.39  | 21.54  |

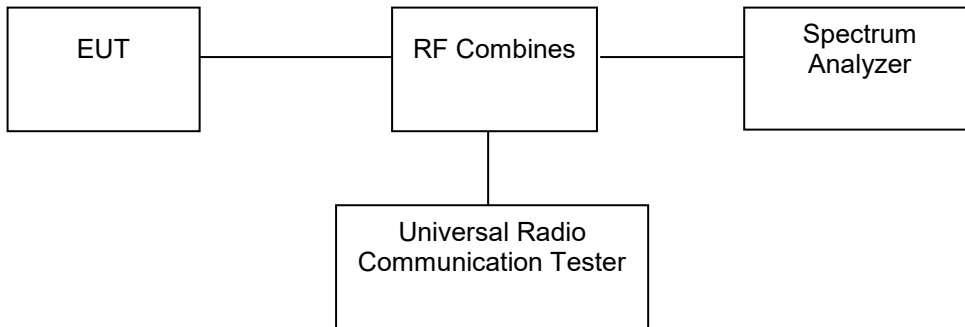
| Band            | WCDMA Band IV |       |        |
|-----------------|---------------|-------|--------|
| Channel         | 1312          | 1450  | 1513   |
| Frequency(MHz)  | 1712.4        | 1740  | 1752.6 |
| WCDMA RMC 12.2K | 22.82         | 22.78 | 22.57  |
| HSDPA Subtest-1 | 21.91         | 21.88 | 21.66  |
| HSDPA Subtest-2 | 21.29         | 21.18 | 21.26  |
| HSDPA Subtest-3 | 20.49         | 20.50 | 19.97  |
| HSDPA Subtest-4 | 20.24         | 20.36 | 20.34  |
| HSUPA Subtest-1 | 20.25         | 21.65 | 21.47  |
| HSUPA Subtest-2 | 21.74         | 21.74 | 21.50  |
| HSUPA Subtest-3 | 20.02         | 20.59 | 20.52  |
| HSUPA Subtest-4 | 21.85         | 21.84 | 21.62  |
| HSUPA Subtest-5 | 20.61         | 21.01 | 20.82  |

| Band            | WCDMA Band V |       |       |
|-----------------|--------------|-------|-------|
| Channel         | 4132         | 4182  | 4233  |
| Frequency(MHz)  | 826.4        | 836.4 | 846.6 |
| WCDMA RMC 12.2K | 24.48        | 24.17 | 24.36 |
| HSDPA Subtest-1 | 23.51        | 23.20 | 23.41 |
| HSDPA Subtest-2 | 23.01        | 22.81 | 23.02 |
| HSDPA Subtest-3 | 21.56        | 21.85 | 21.71 |
| HSDPA Subtest-4 | 22.15        | 21.69 | 22.09 |
| HSUPA Subtest-1 | 22.14        | 23.06 | 23.24 |
| HSUPA Subtest-2 | 23.40        | 23.07 | 23.29 |
| HSUPA Subtest-3 | 21.82        | 21.77 | 21.86 |
| HSUPA Subtest-4 | 23.53        | 23.21 | 23.43 |
| HSUPA Subtest-5 | 22.11        | 22.61 | 22.44 |



## 7. Peak-to-average Ratio(PAR) of Transmitter

### 7.1 Block Diagram Of Test Setup



### 7.2 Limit

According to §24.232(d), Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

According to §27.50(B), the peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

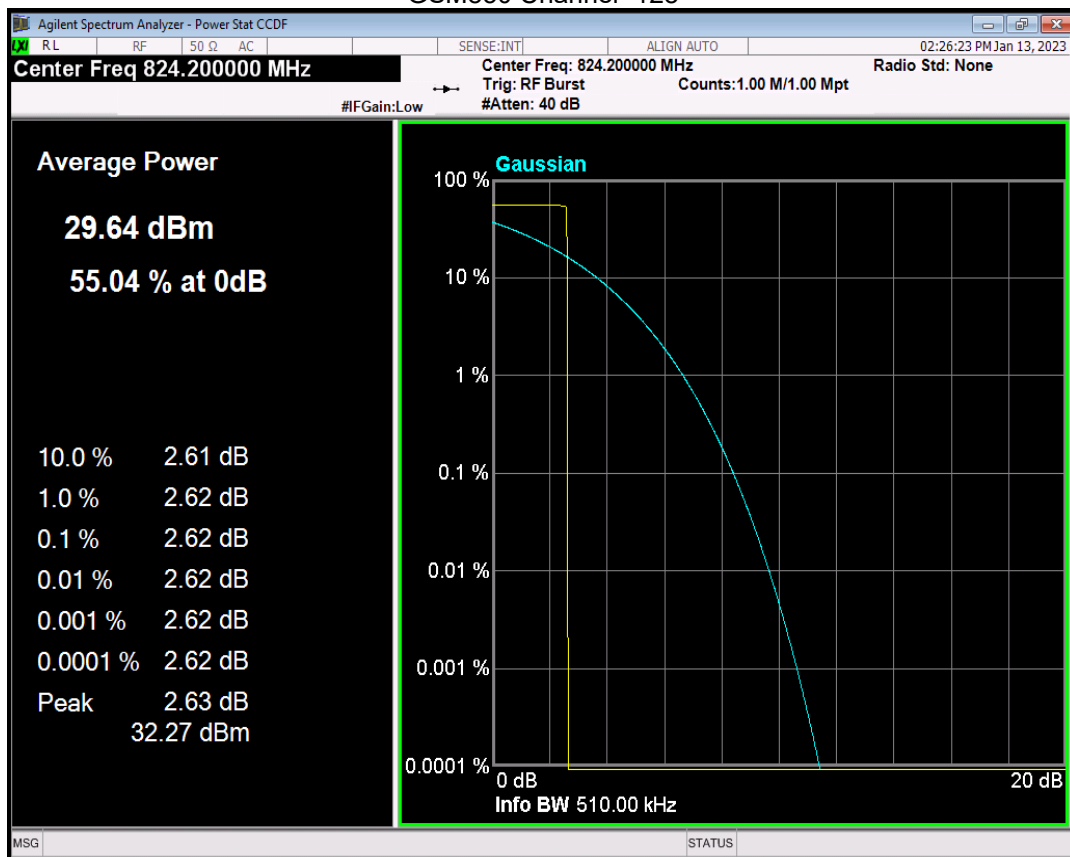
### 7.3 Test procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 30kHz and the peak-to-average ratio (PAR) of the transmission was recorded. Record the maximum PAPR level associated with a probability of 0.1%.

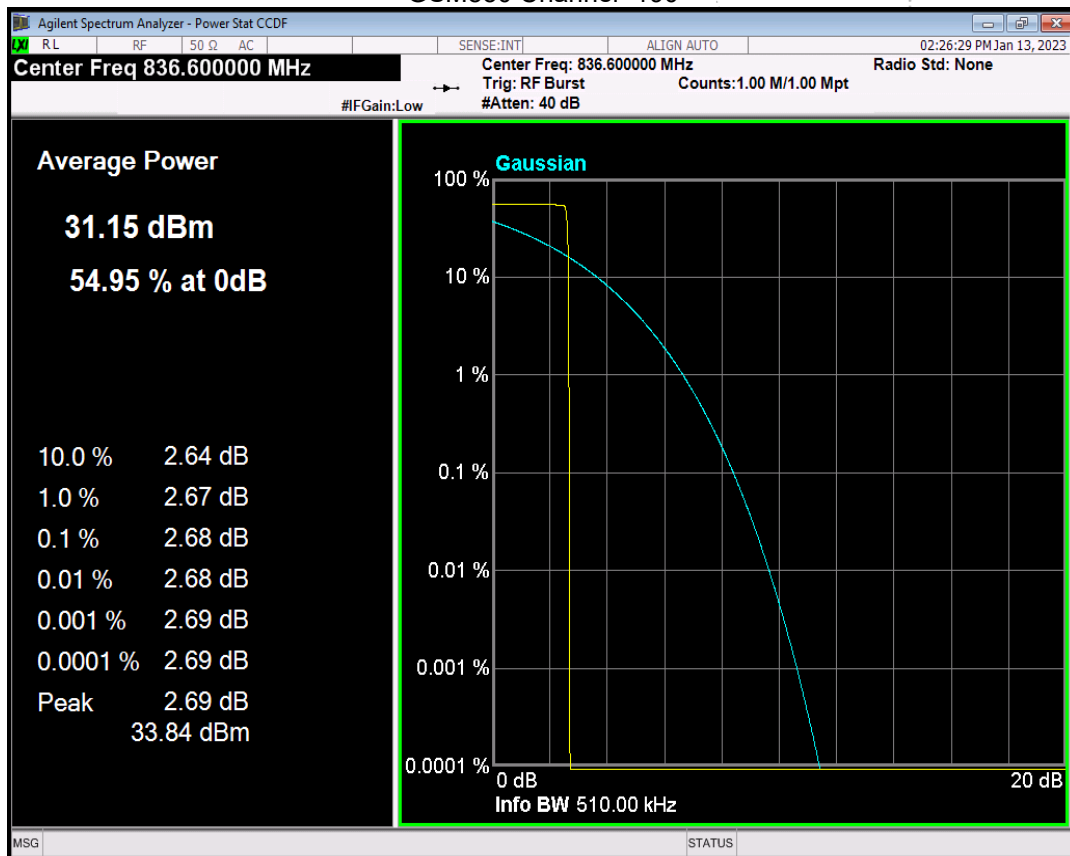
### 7.4 Test Result

| Band     | Channel | Frequency (MHz) | Result (dB) | high Limit (dB) | Verdict |
|----------|---------|-----------------|-------------|-----------------|---------|
| GSM850   | 128     | 824.2           | 2.62        | 13.00           | PASS    |
| GSM850   | 190     | 836.6           | 2.68        | 13.00           | PASS    |
| GSM850   | 251     | 848.8           | 2.62        | 13.00           | PASS    |
| GPRS850  | 128     | 824.2           | 2.66        | 13.00           | PASS    |
| GPRS850  | 190     | 836.6           | 2.71        | 13.00           | PASS    |
| GPRS850  | 251     | 848.8           | 2.65        | 13.00           | PASS    |
| EGPRS850 | 128     | 824.2           | 9.96        | 13.00           | PASS    |
| EGPRS850 | 190     | 836.6           | 10.97       | 13.00           | PASS    |
| EGPRS850 | 251     | 848.8           | 10.08       | 13.00           | PASS    |

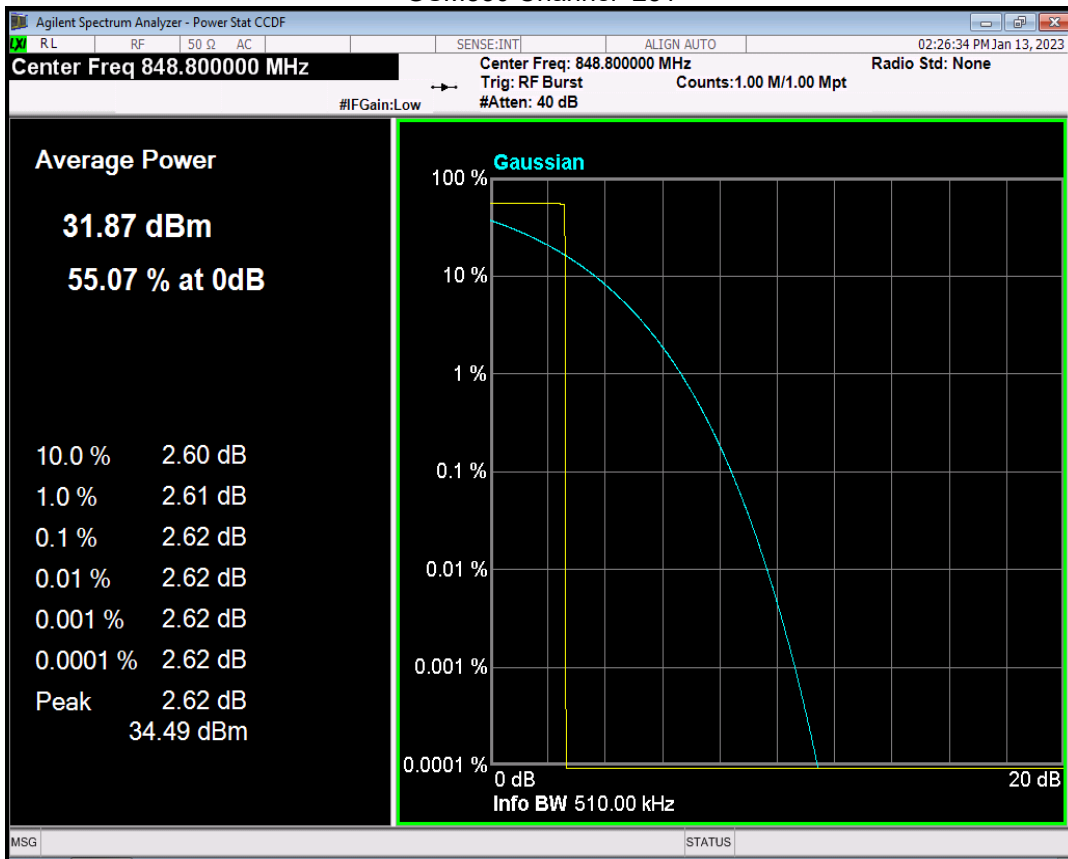
## GSM850 Channel=128



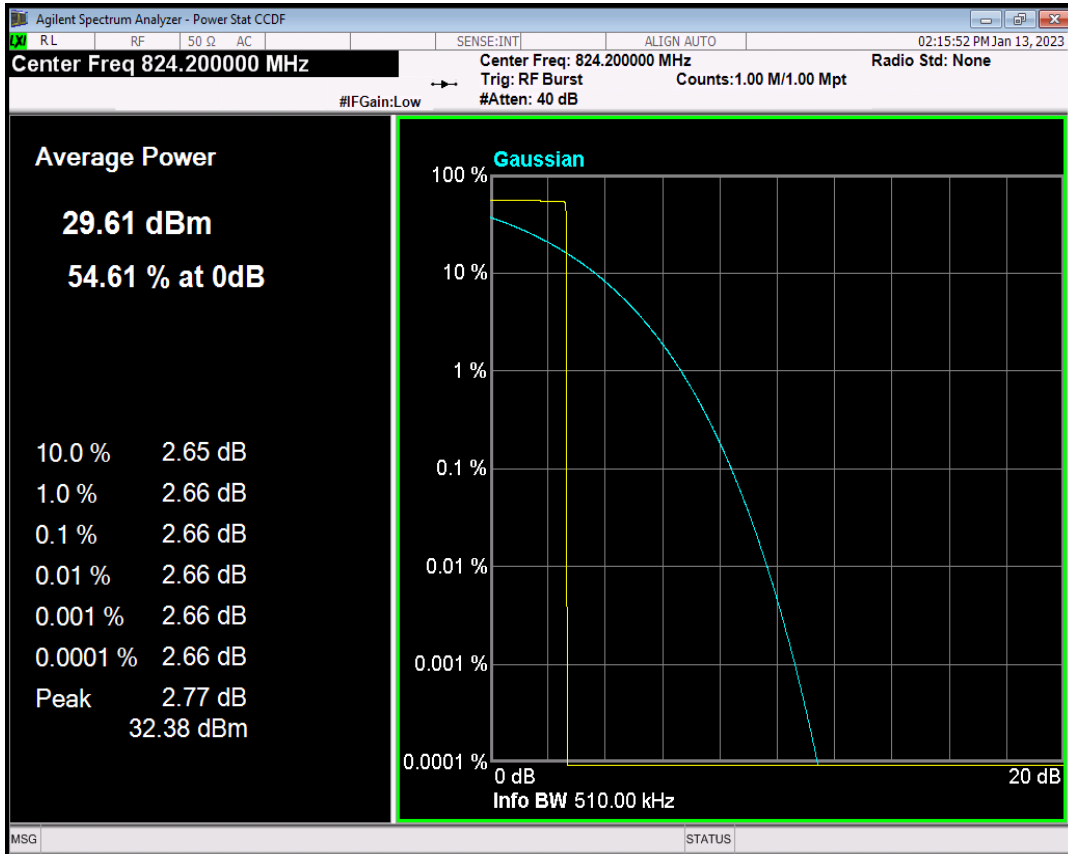
## GSM850 Channel=190



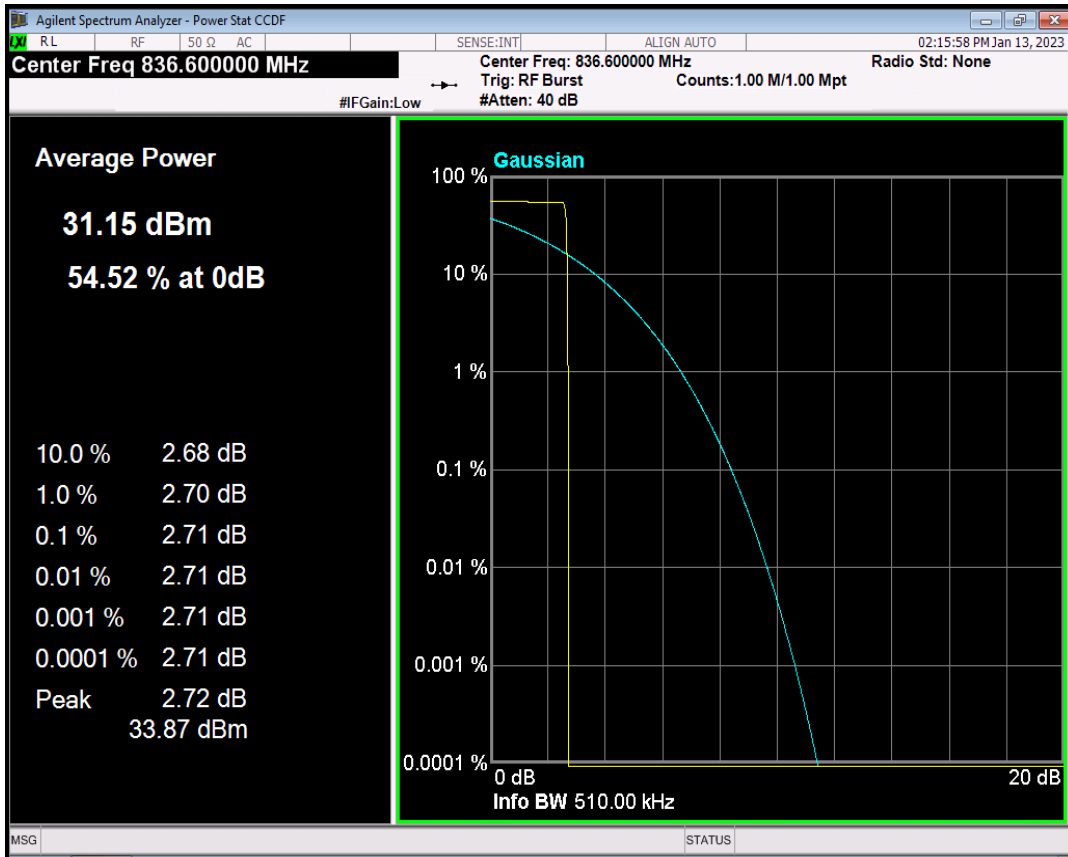
## GSM850 Channel=251



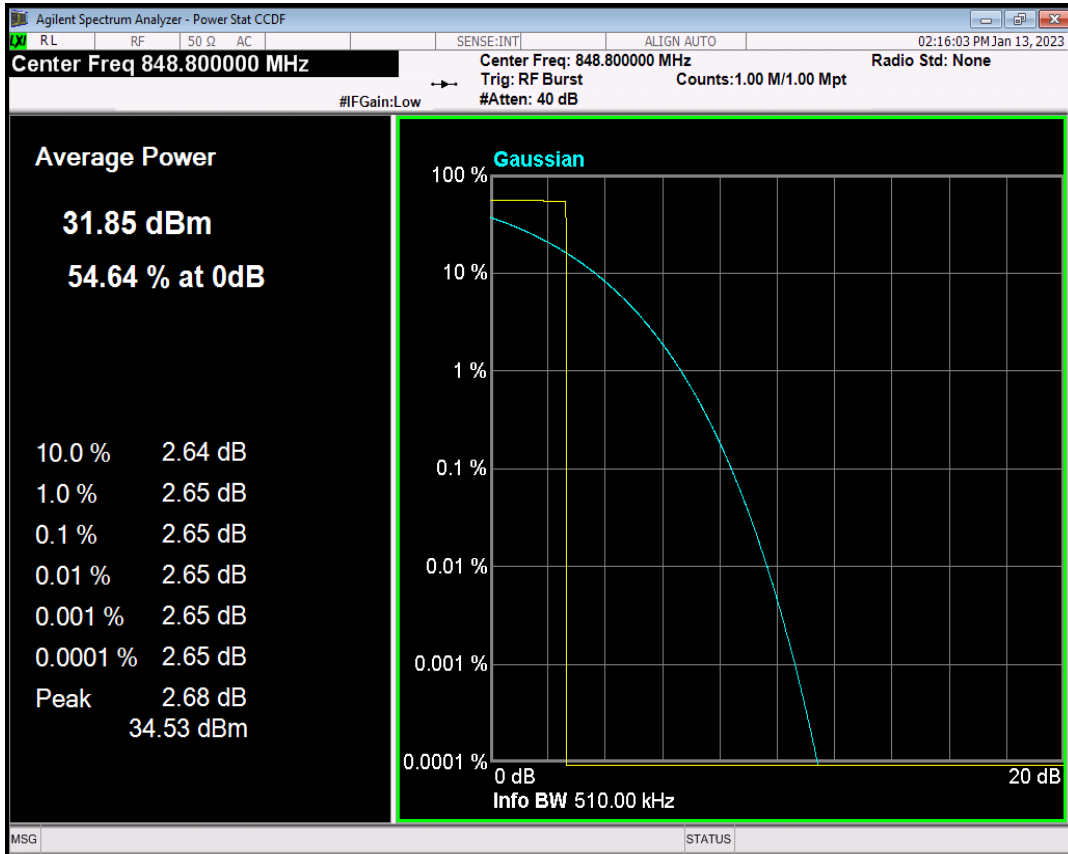
## GPRS850 Channel=128



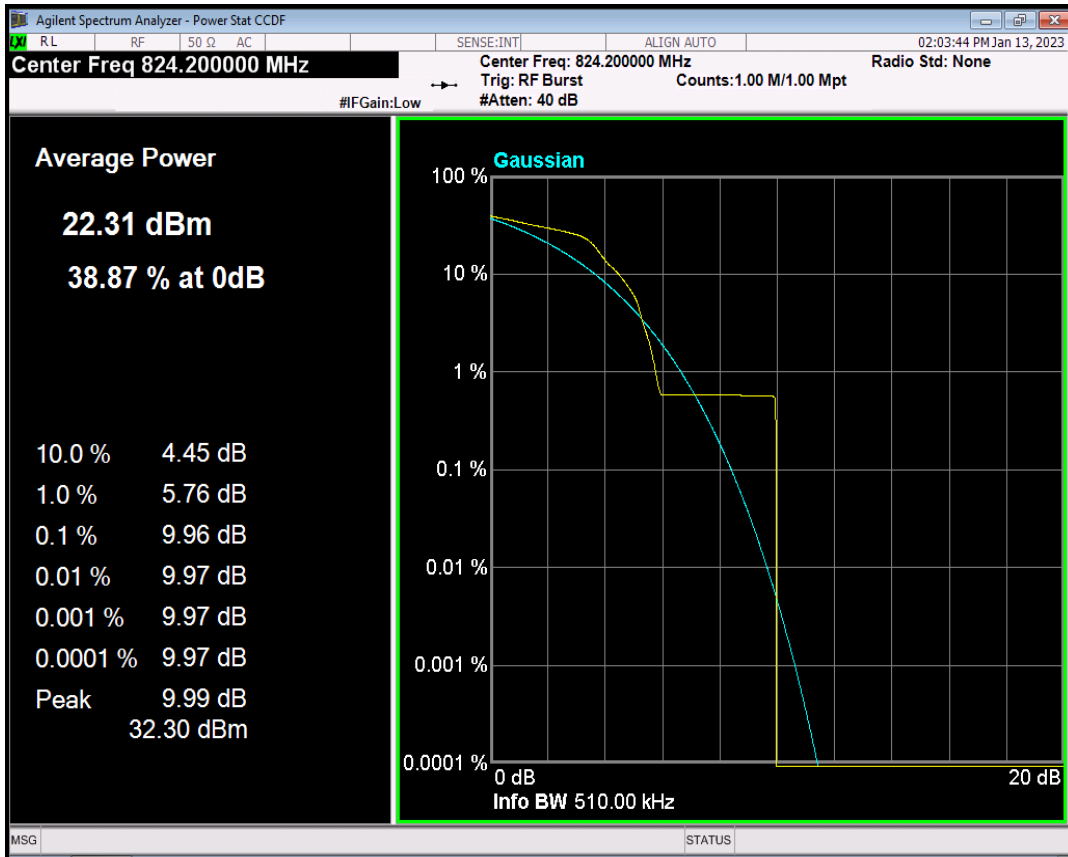
## GPRS850 Channel=190



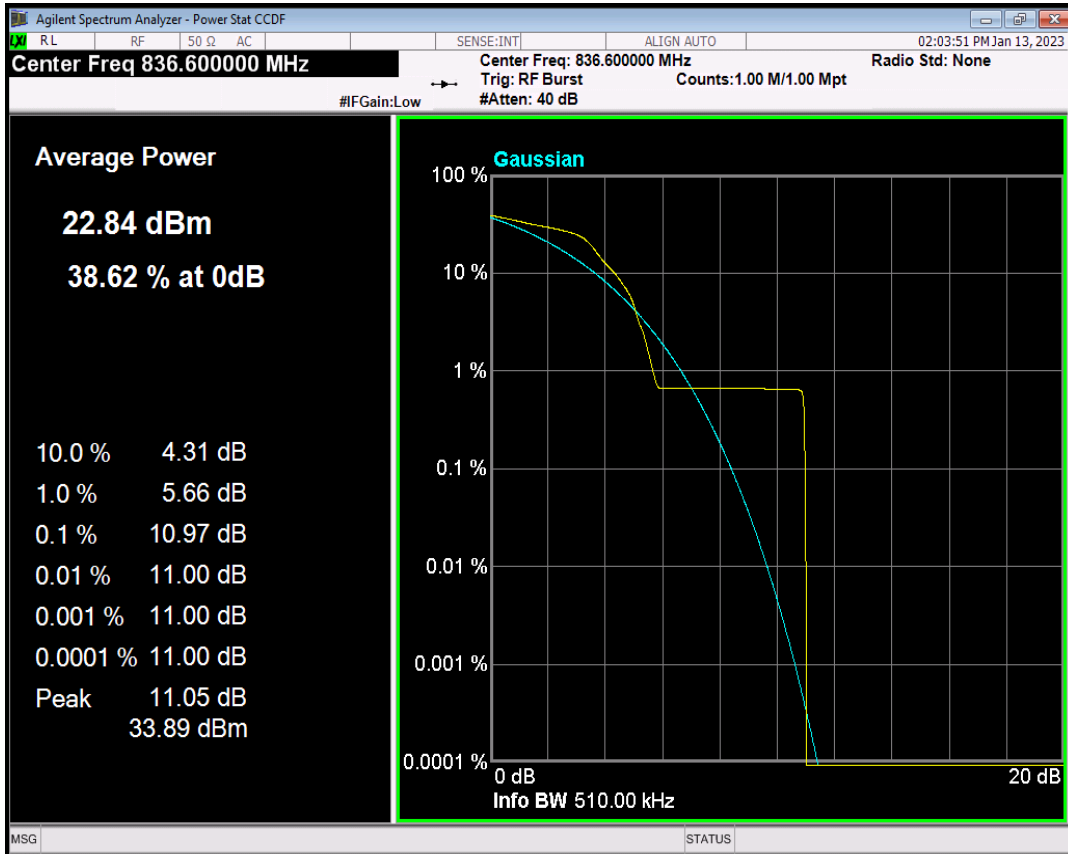
## GPRS850 Channel=251



## EGPRS850 Channel=128



## EGPRS850 Channel=190

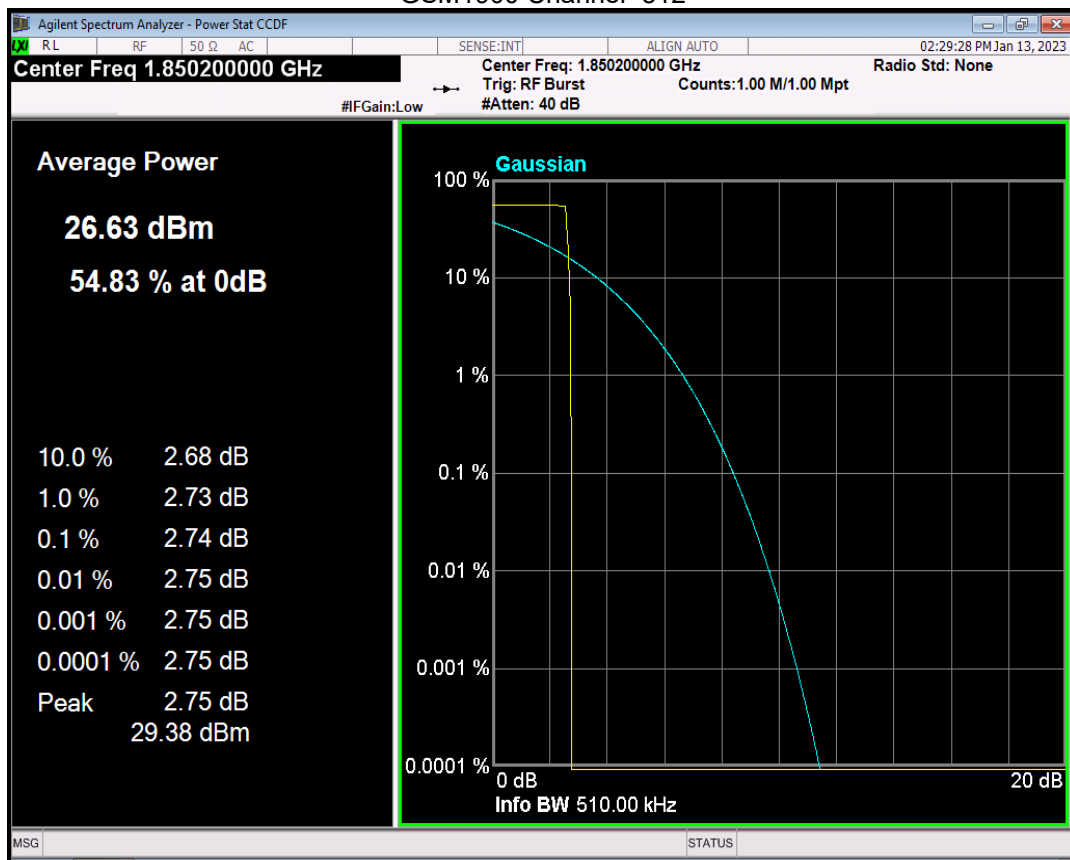


## EGPRS850 Channel=251

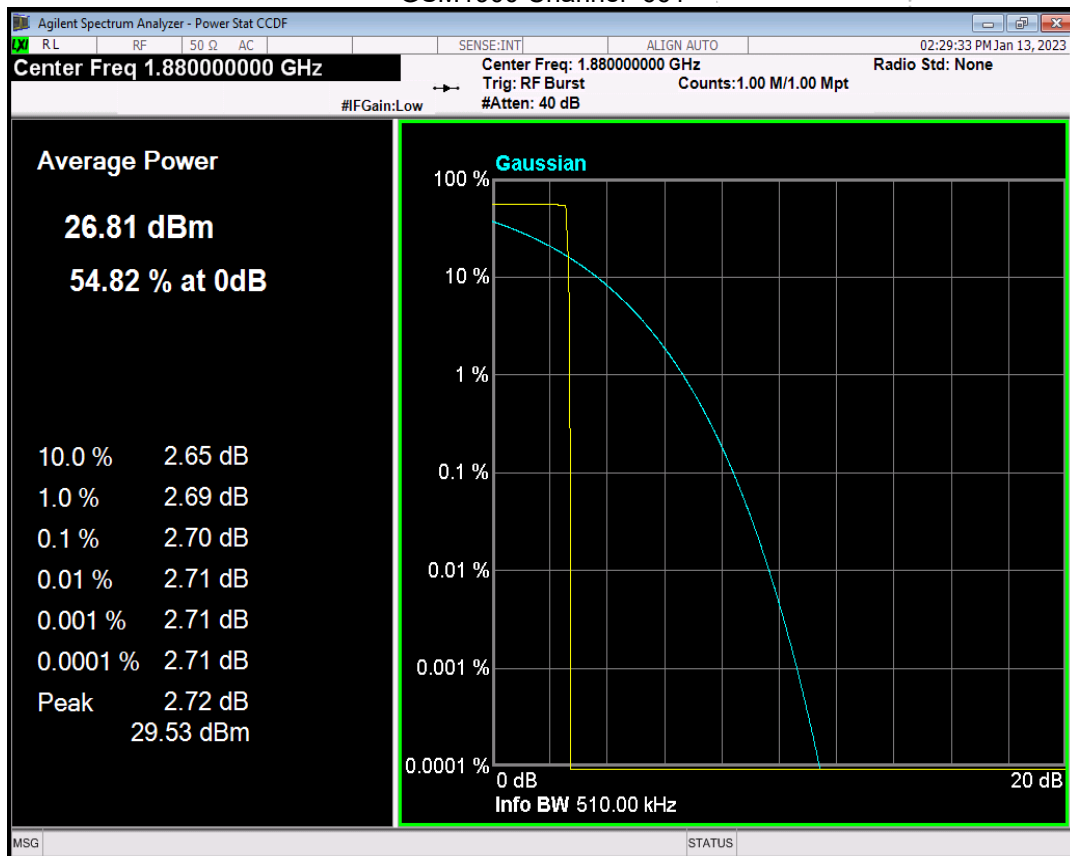


| Band      | Channel | Frequency (MHz) | Result (dB) | high Limit (dB) | Verdict |
|-----------|---------|-----------------|-------------|-----------------|---------|
| GSM1900   | 512     | 1850.2          | 2.74        | 13.00           | PASS    |
| GSM1900   | 661     | 1880            | 2.70        | 13.00           | PASS    |
| GSM1900   | 810     | 1909.8          | 2.77        | 13.00           | PASS    |
| GPRS1900  | 512     | 1850.2          | 2.76        | 13.00           | PASS    |
| GPRS1900  | 661     | 1880            | 2.73        | 13.00           | PASS    |
| GPRS1900  | 810     | 1909.8          | 2.79        | 13.00           | PASS    |
| EGPRS1900 | 512     | 1850.2          | 7.36        | 13.00           | PASS    |
| EGPRS1900 | 661     | 1880            | 7.23        | 13.00           | PASS    |
| EGPRS1900 | 810     | 1909.8          | 7.13        | 13.00           | PASS    |

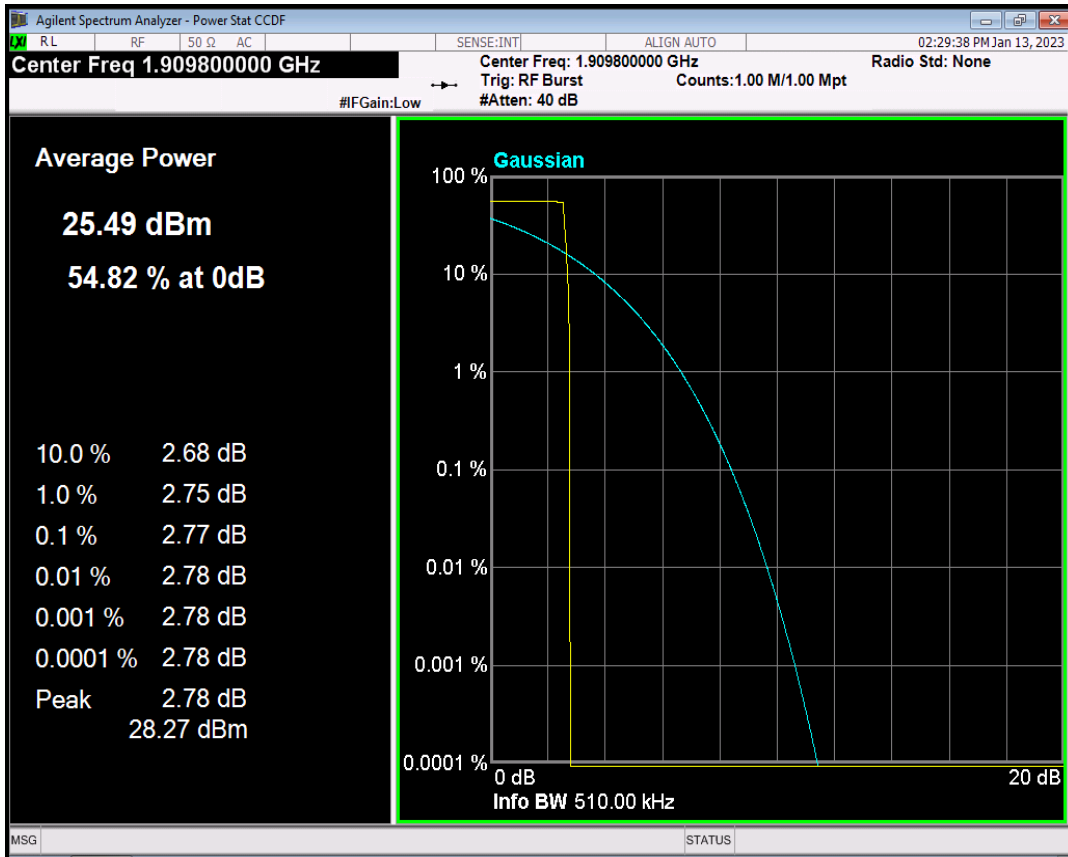
## GSM1900 Channel=512



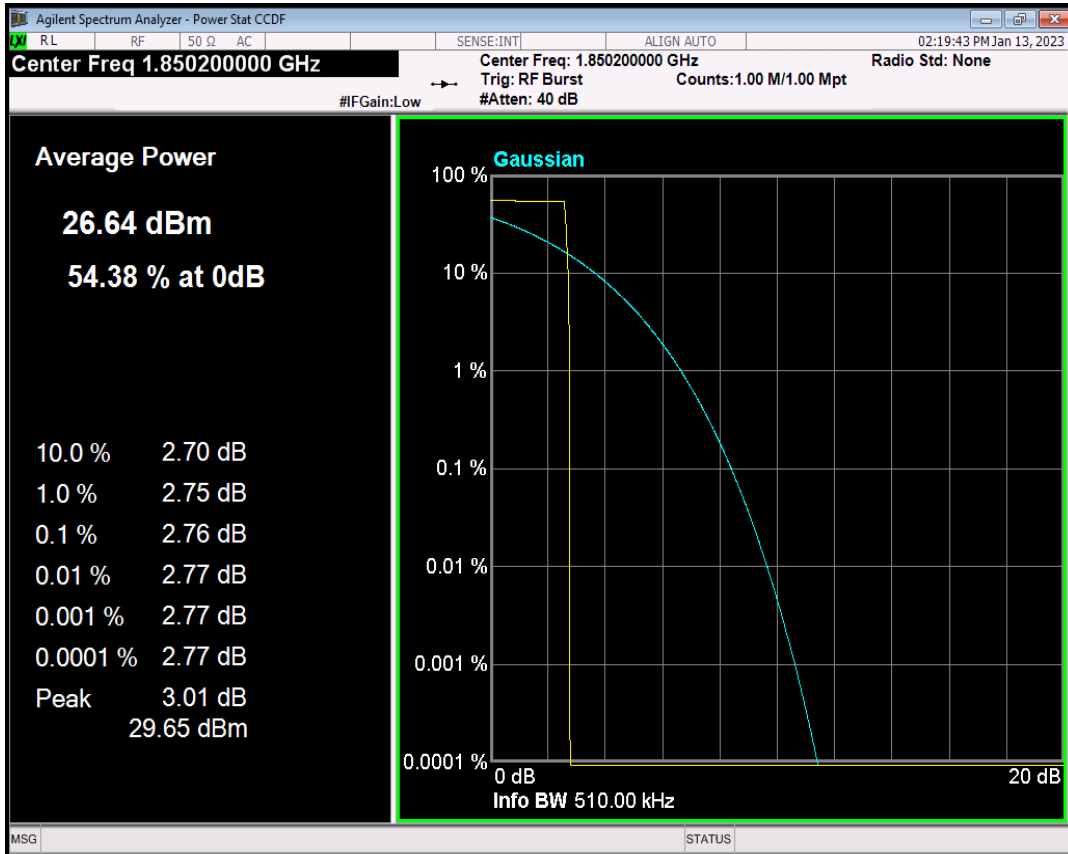
## GSM1900 Channel=661



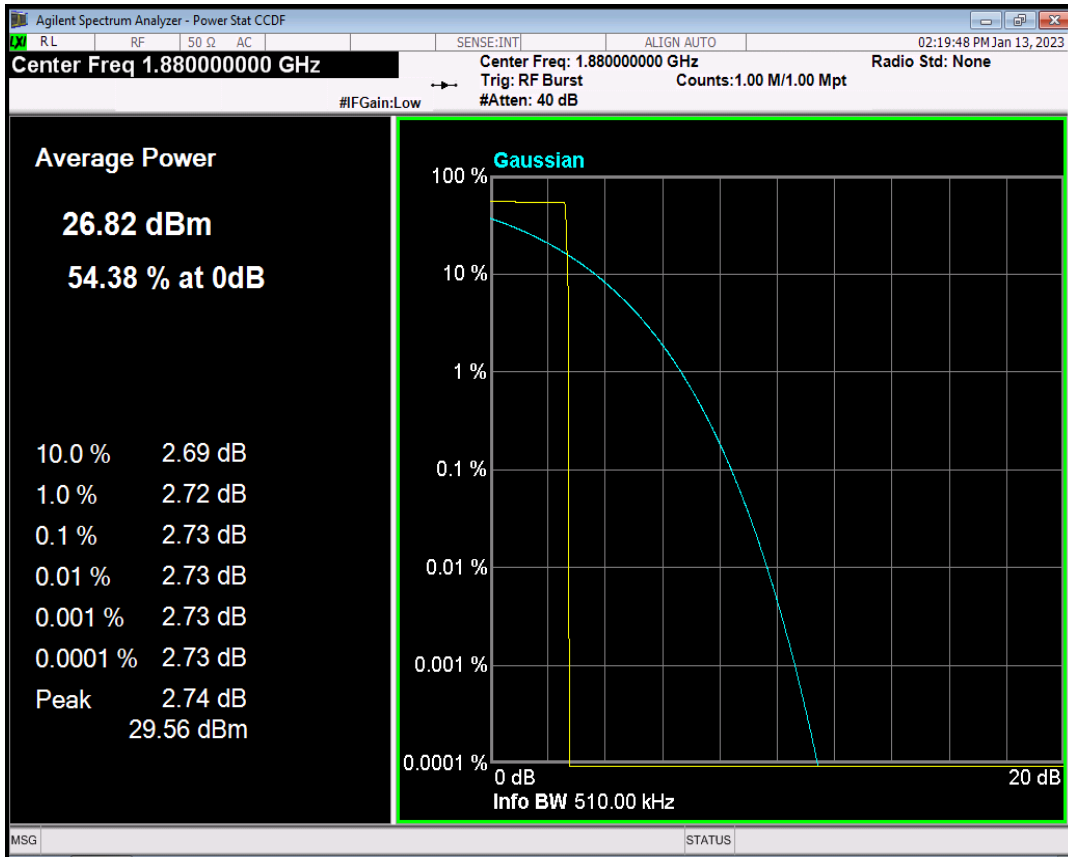
## GSM1900 Channel=810



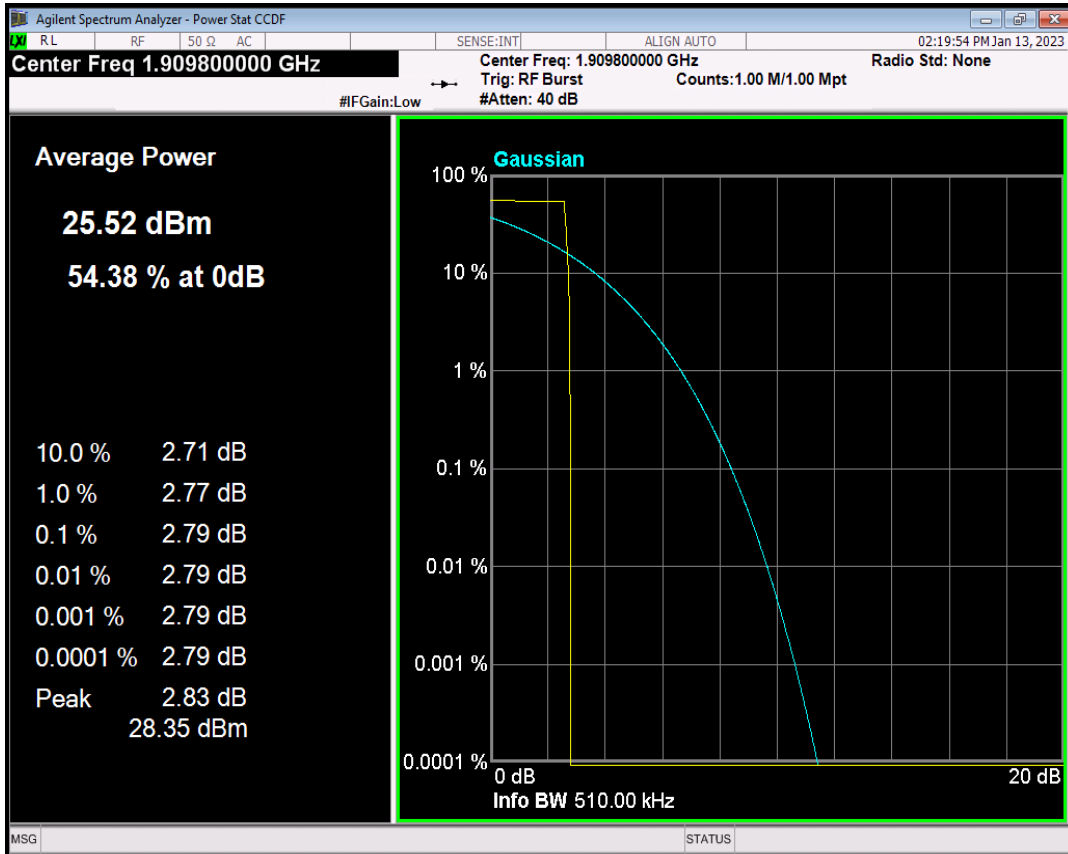
## GPRS1900 Channel=512



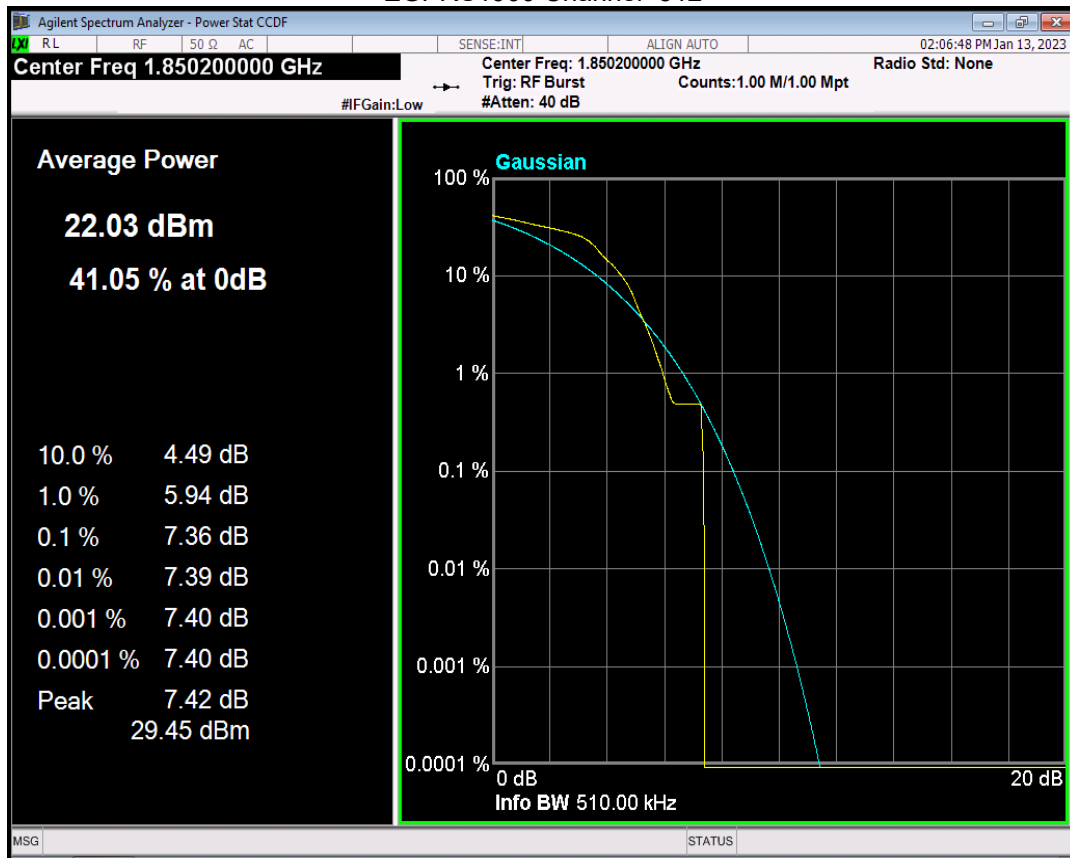
## GPRS1900 Channel=661



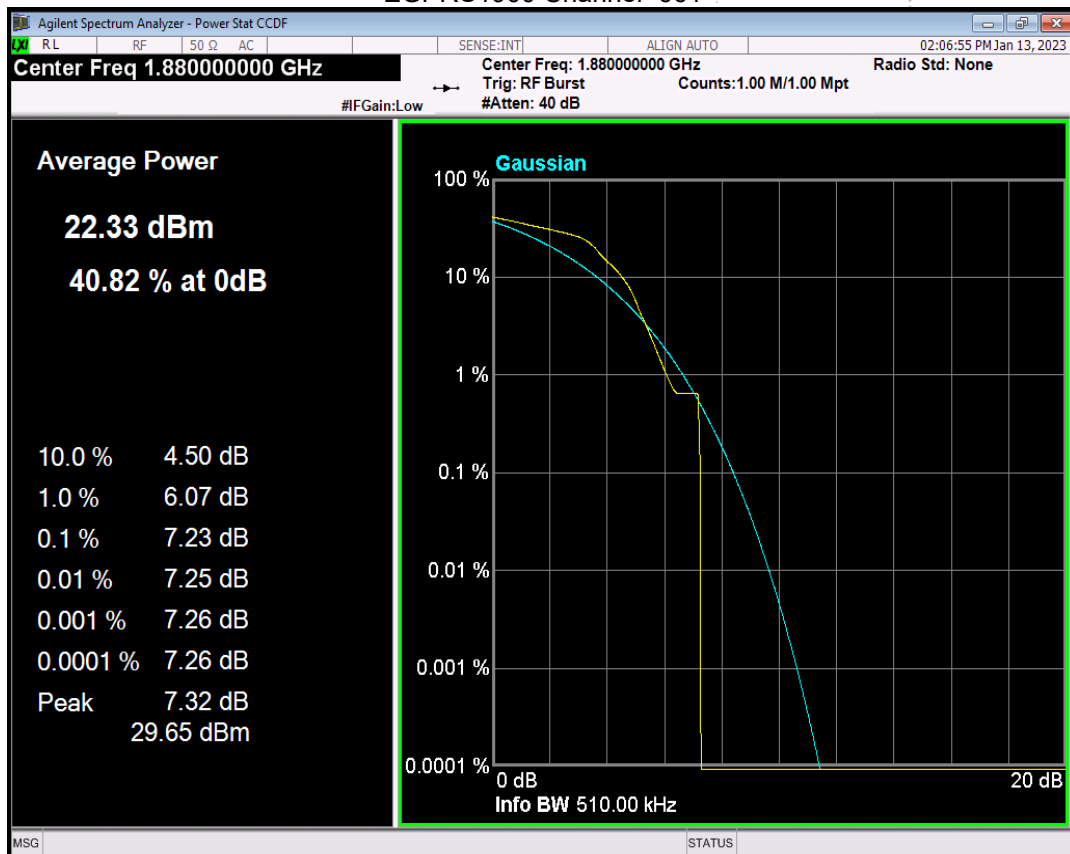
## GPRS1900 Channel=810



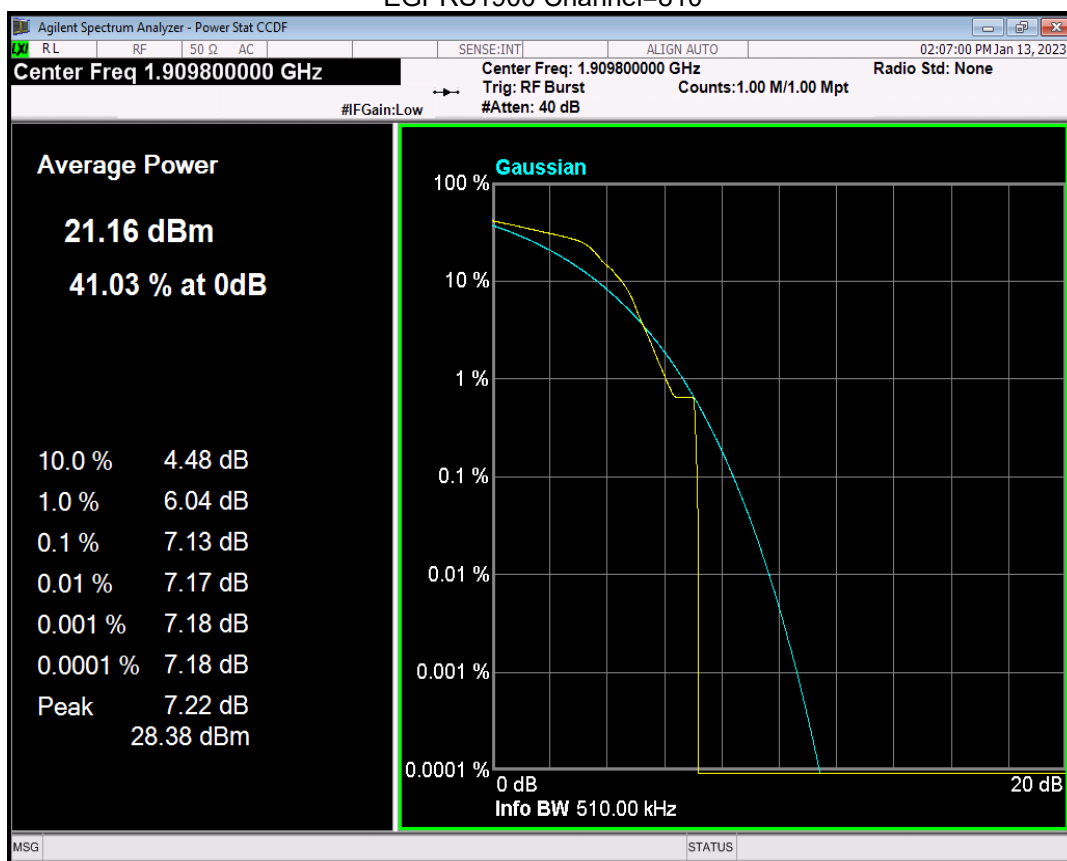
## EGPRS1900 Channel=512



## EGPRS1900 Channel=661



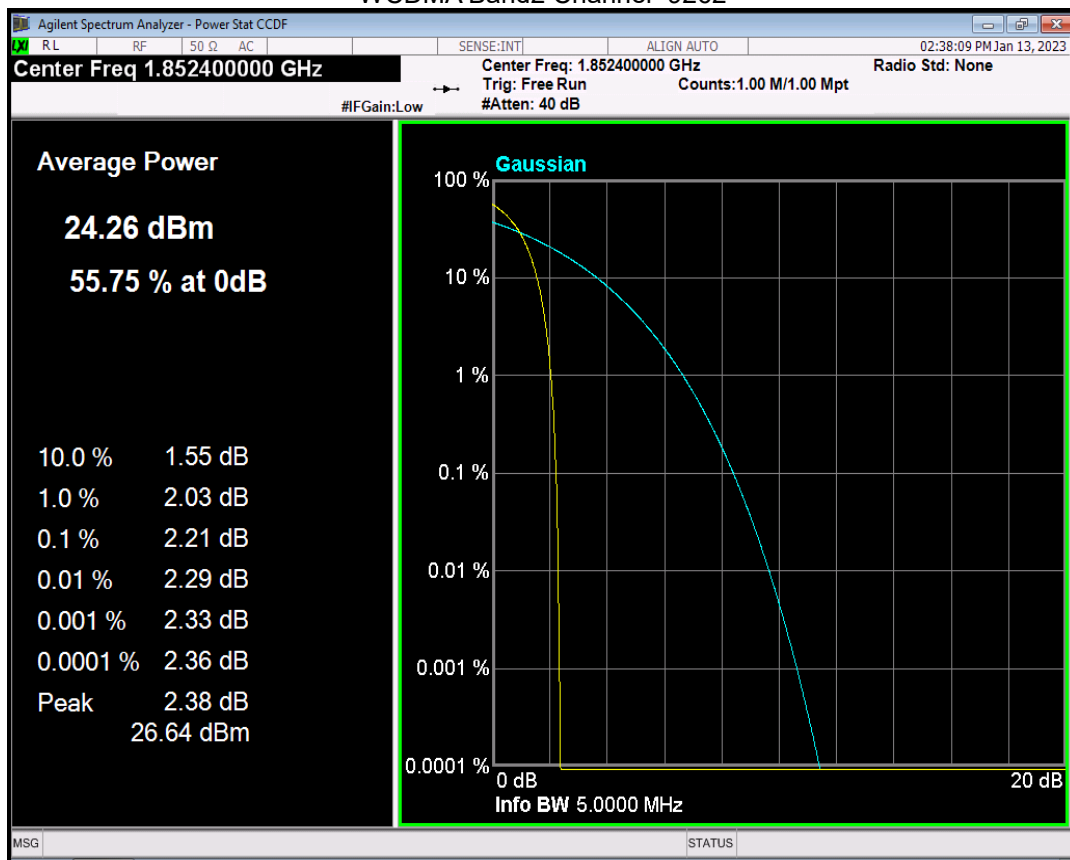
## EGPRS1900 Channel=810



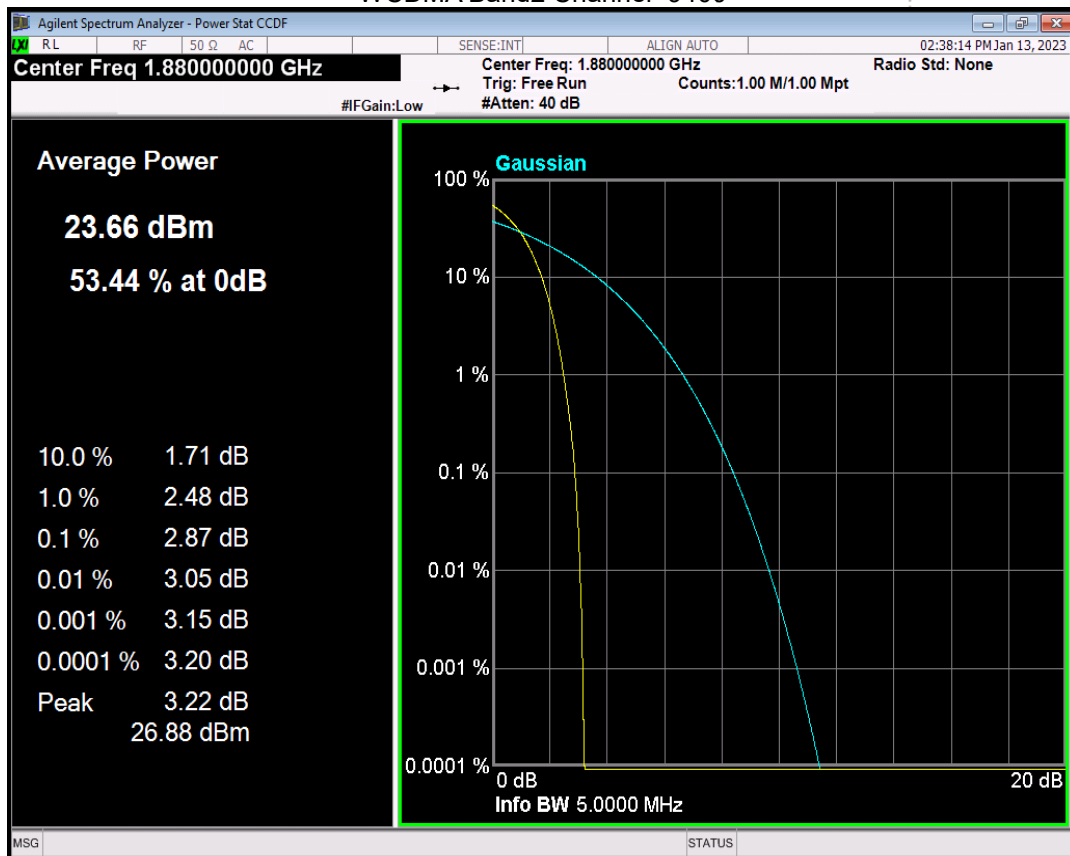
| Band        | Channel | Frequency (MHz) | Result (dB) | high Limit (dB) | Verdict |
|-------------|---------|-----------------|-------------|-----------------|---------|
| WCDMA Band2 | 9262    | 1852.4          | 2.21        | 13              | PASS    |
| WCDMA Band2 | 9400    | 1880            | 2.87        | 13              | PASS    |
| WCDMA Band2 | 9538    | 1907.6          | 2.71        | 13              | PASS    |
| WCDMA Band4 | 1312    | 1712.4          | 3.05        | 13              | PASS    |
| WCDMA Band4 | 1450    | 1740            | 2.31        | 13              | PASS    |
| WCDMA Band4 | 1513    | 1752.6          | 2.69        | 13              | PASS    |
| WCDMA Band5 | 4132    | 826.4           | 2.20        | 13              | PASS    |
| WCDMA Band5 | 4182    | 836.4           | 3.17        | 13              | PASS    |
| WCDMA Band5 | 4233    | 846.6           | 3.22        | 13              | PASS    |

Note: In WCDMA, RMC, HSDPA and HSUPA all three tests only reflect the worst mode RMC.

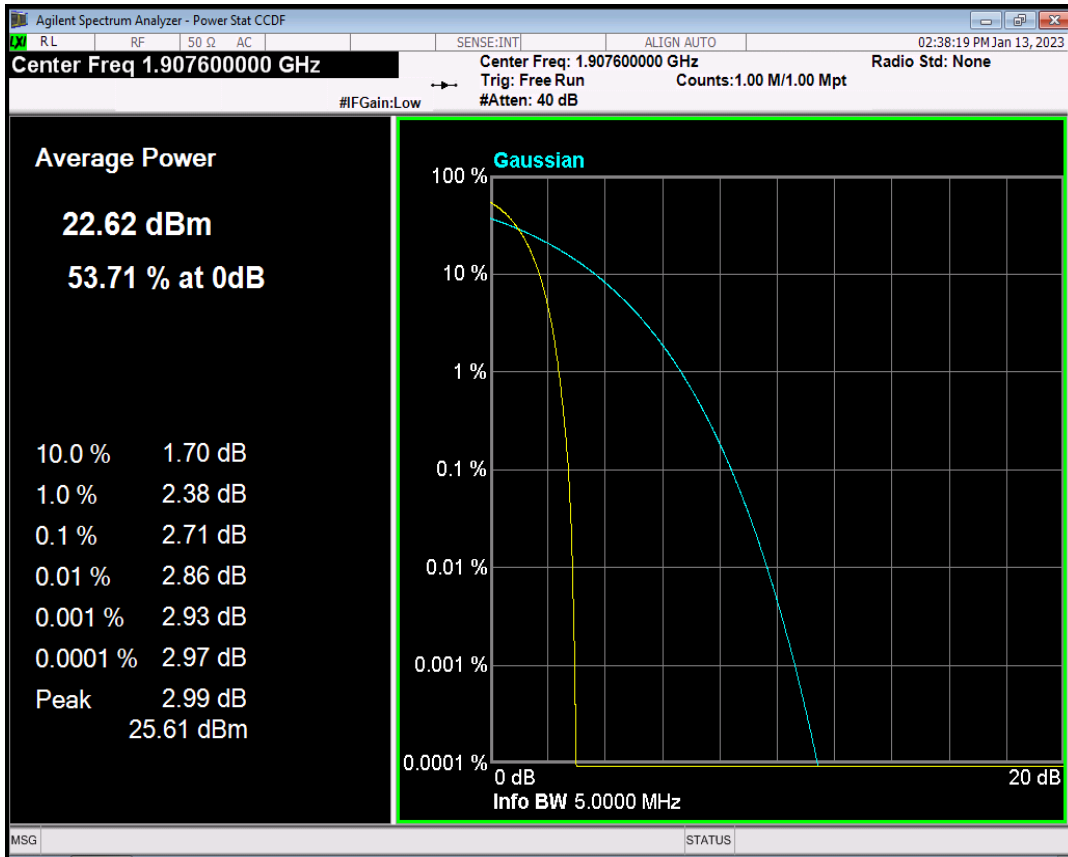
## WCDMA Band2 Channel=9262



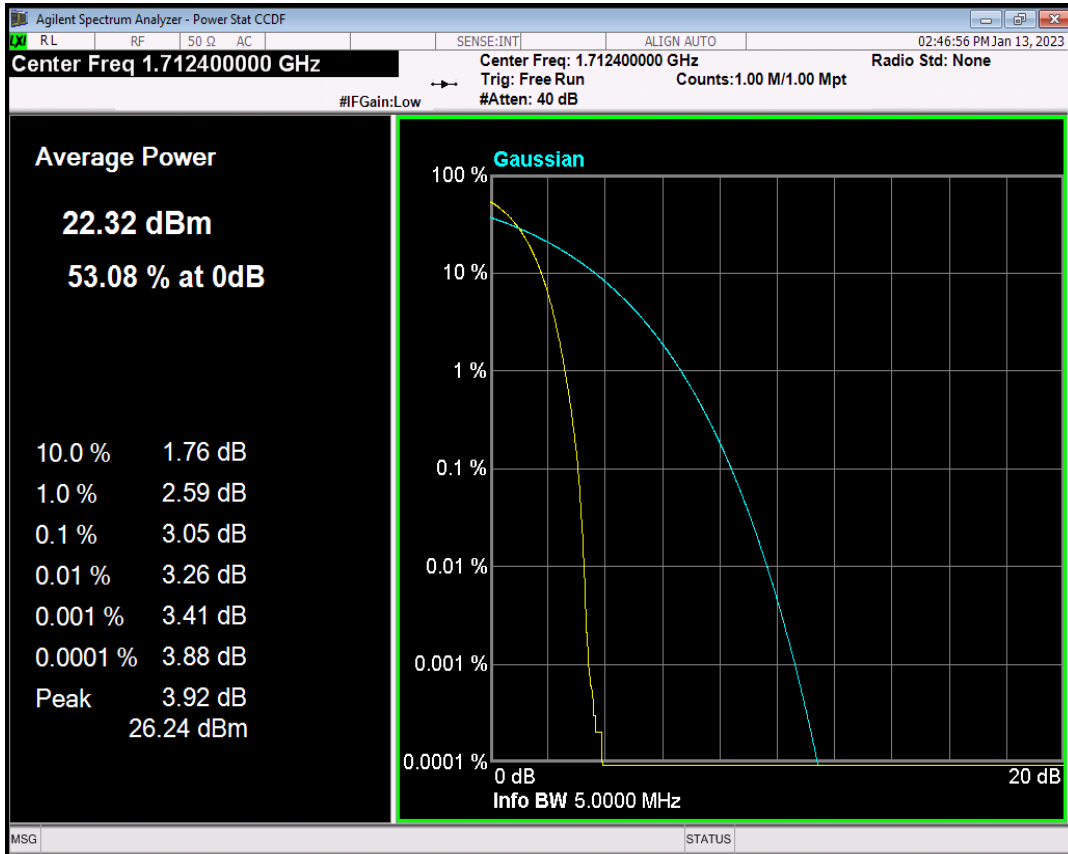
## WCDMA Band2 Channel=9400



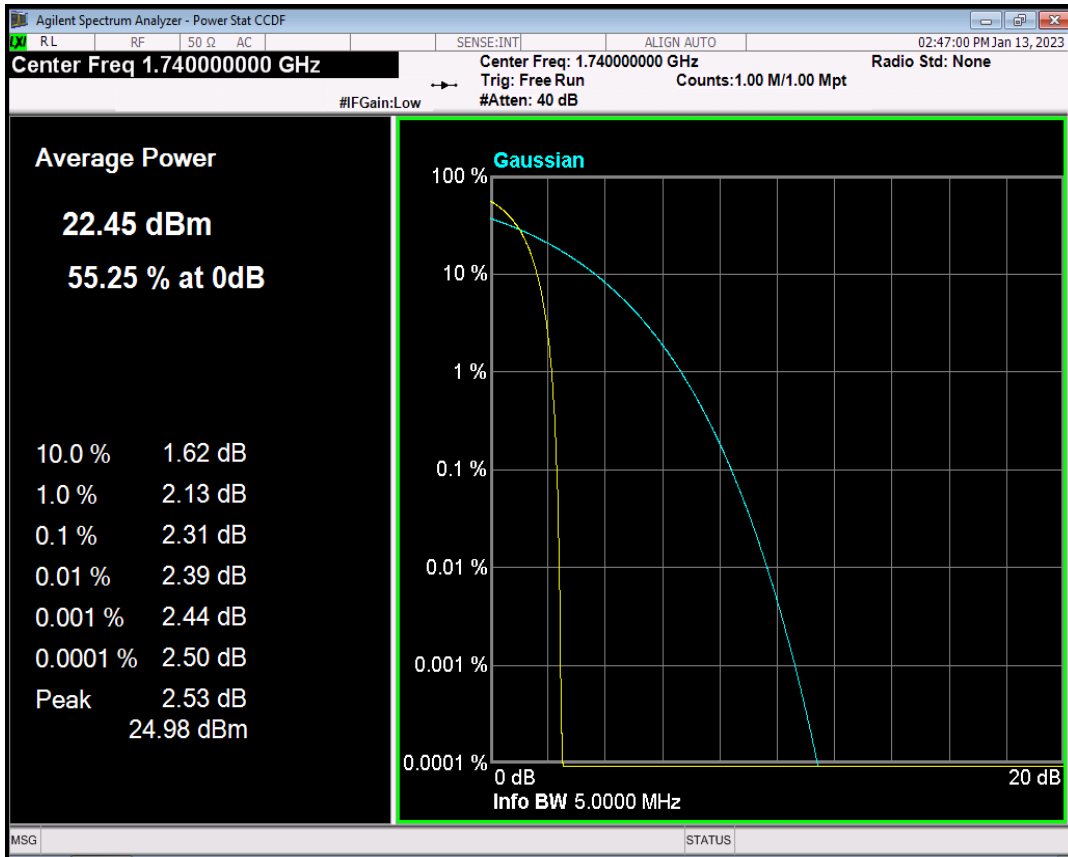
## WCDMA Band2 Channel=9538



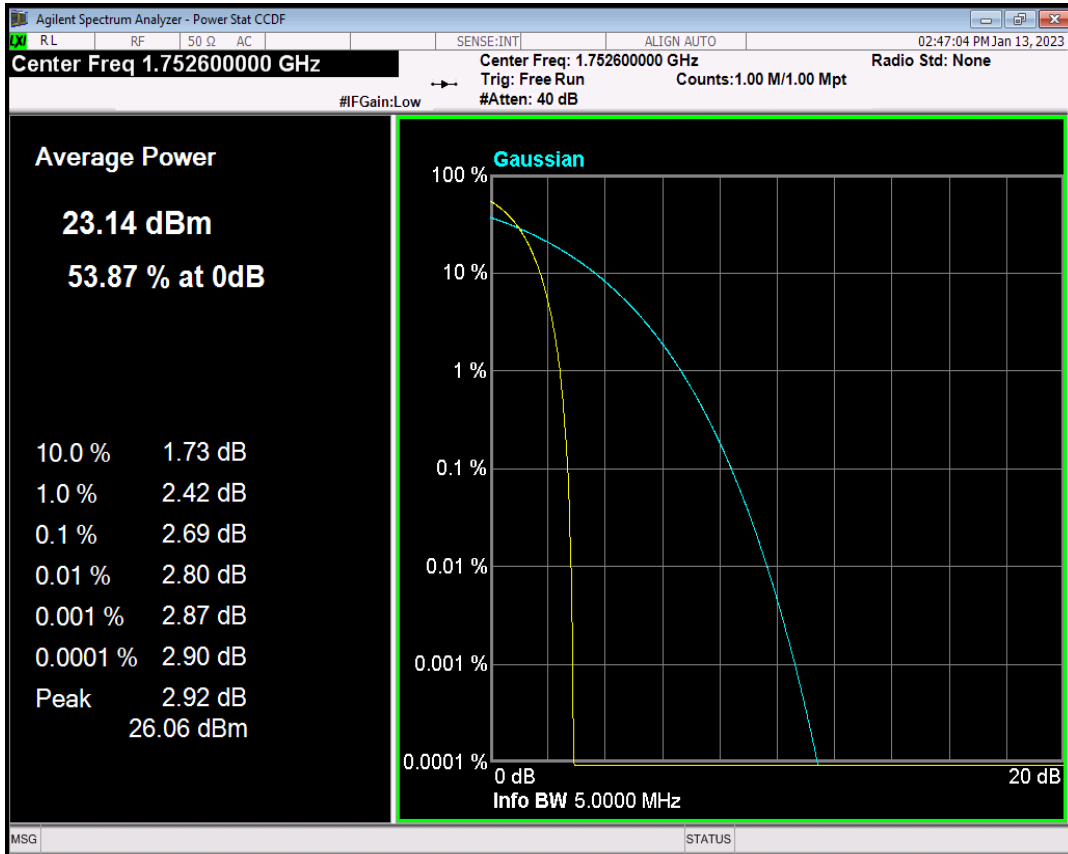
## WCDMA Band4 Channel=1312



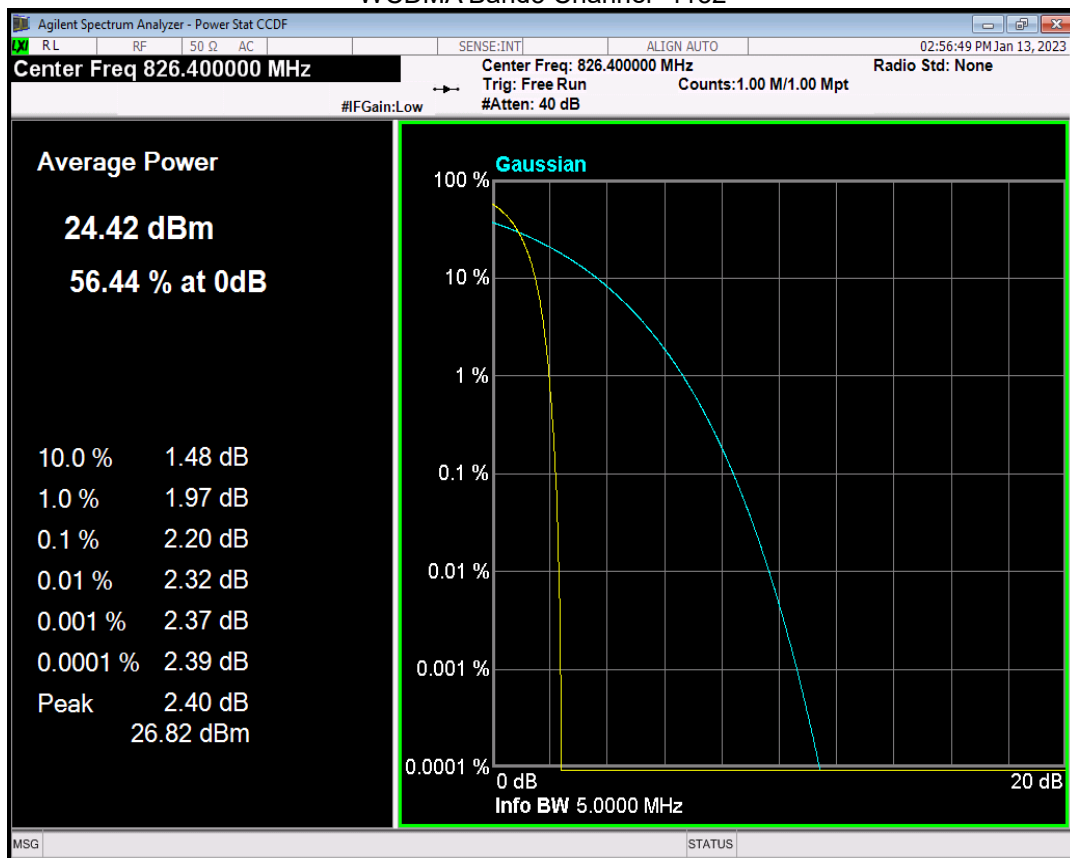
## WCDMA Band4 Channel=1450



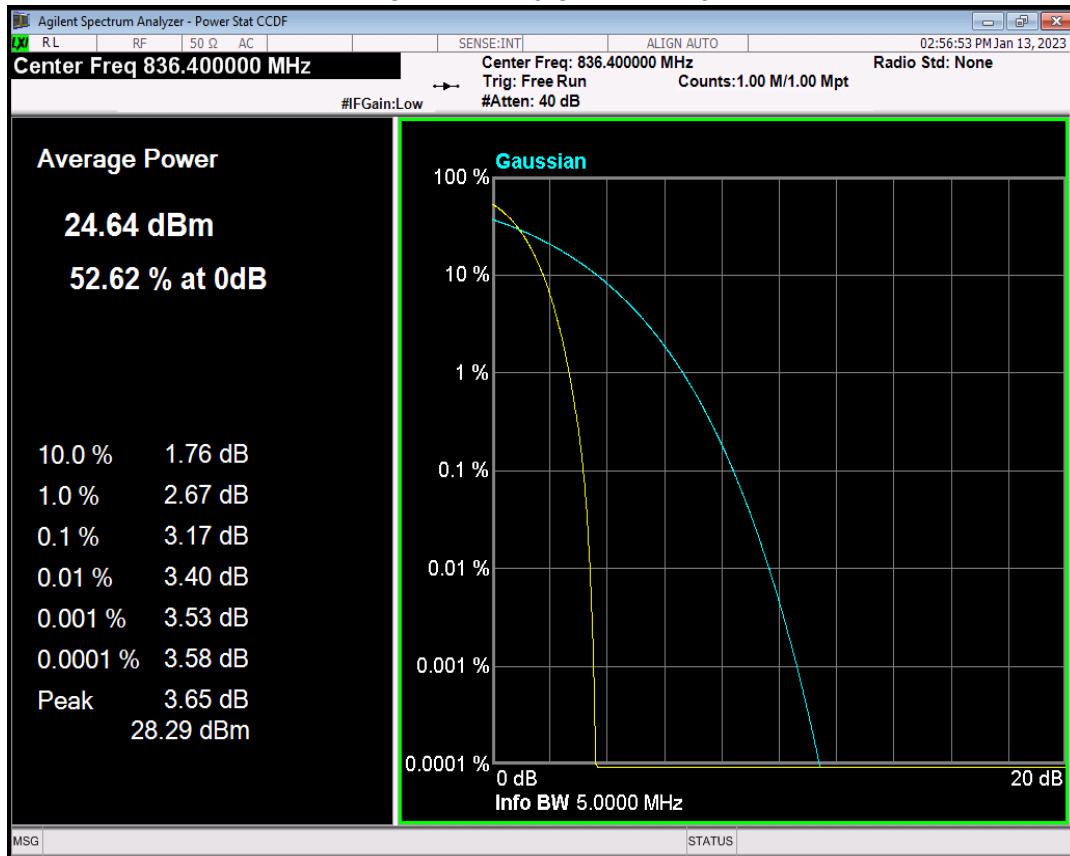
## WCDMA Band4 Channel=1513



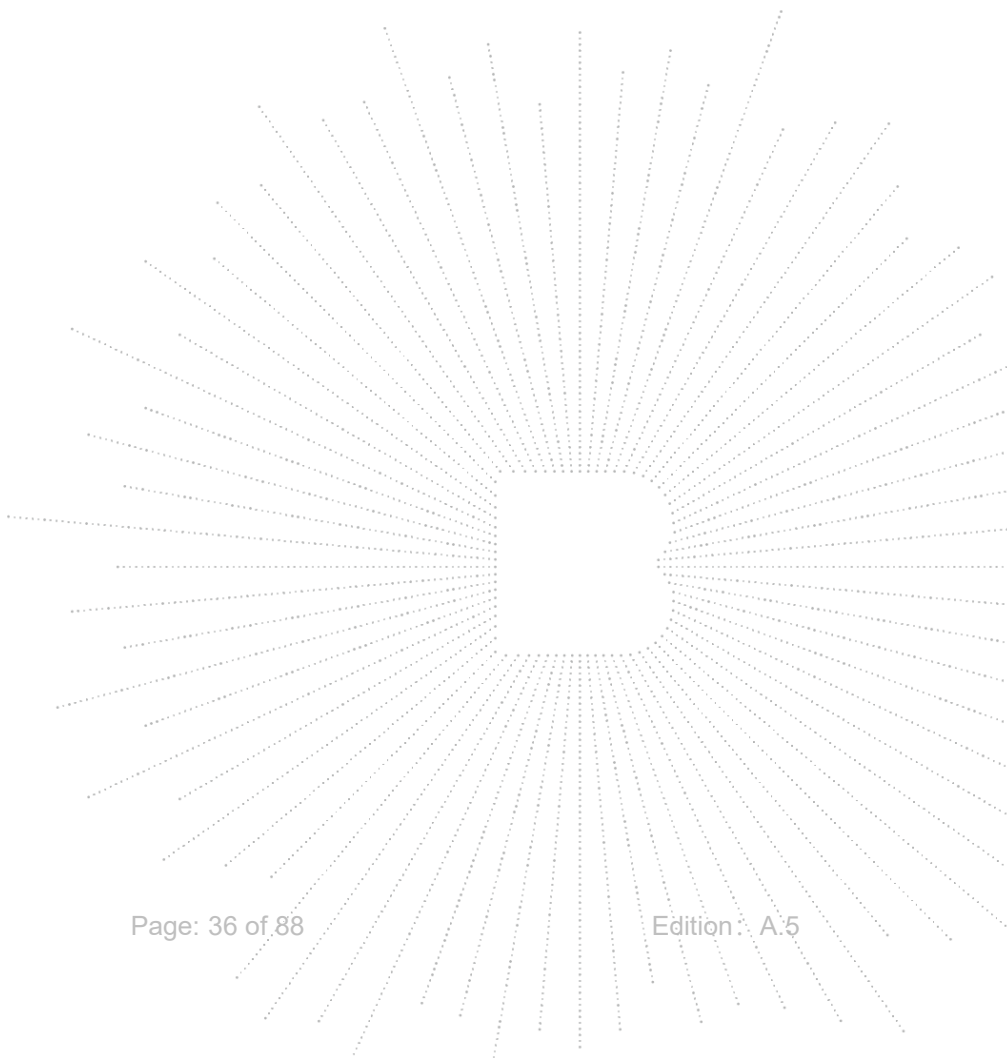
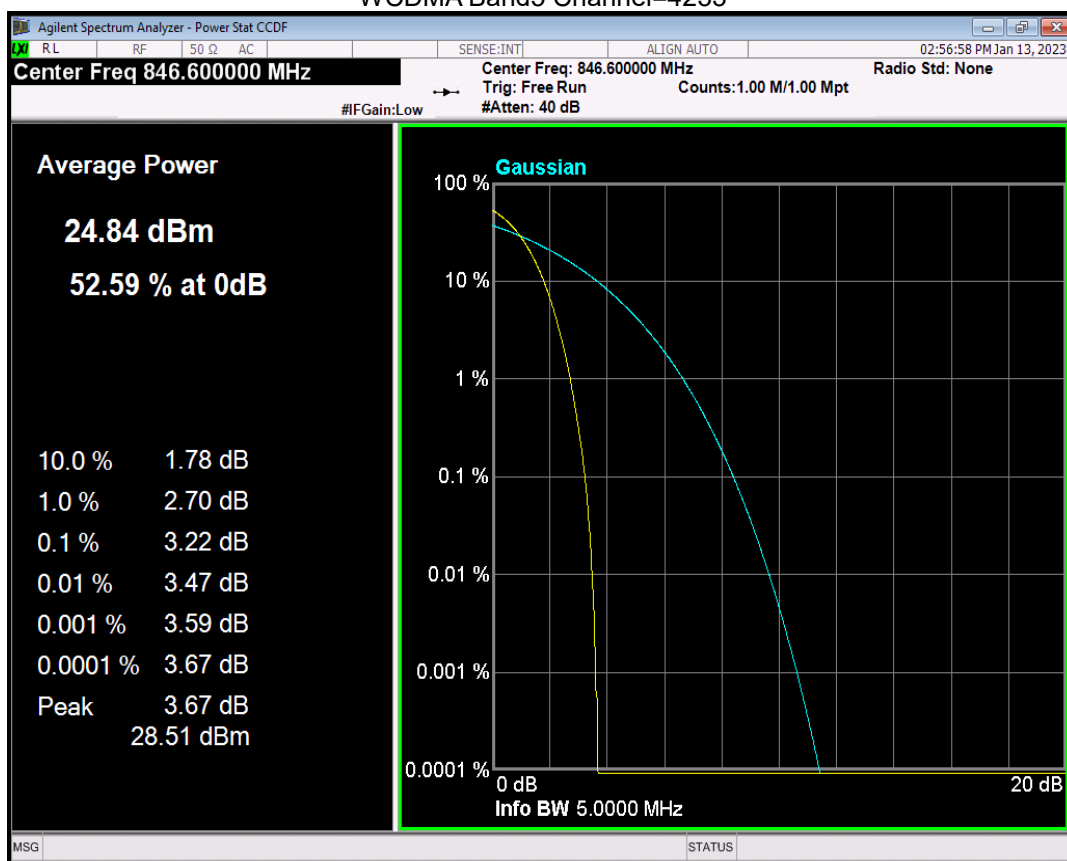
## WCDMA Band5 Channel=4132



## WCDMA Band5 Channel=4182

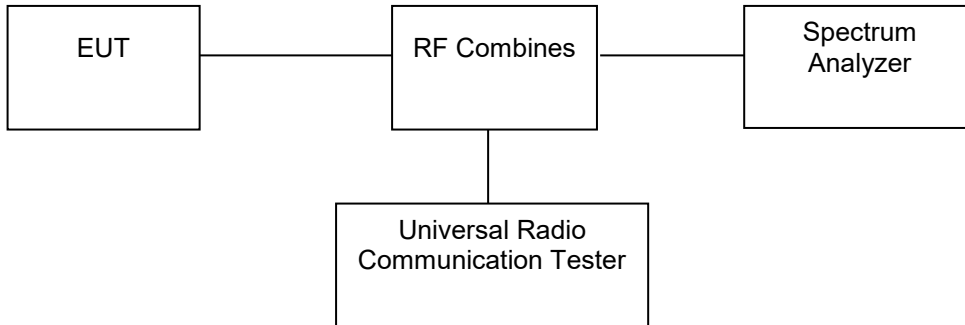


## WCDMA Band5 Channel=4233



## 8. Emission Bandwidth

### 8.1 Block Diagram Of Test Setup



### 8.2 Limit

According to §22.917(b), The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

According to §24.238(b), The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

According to §27.53, The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

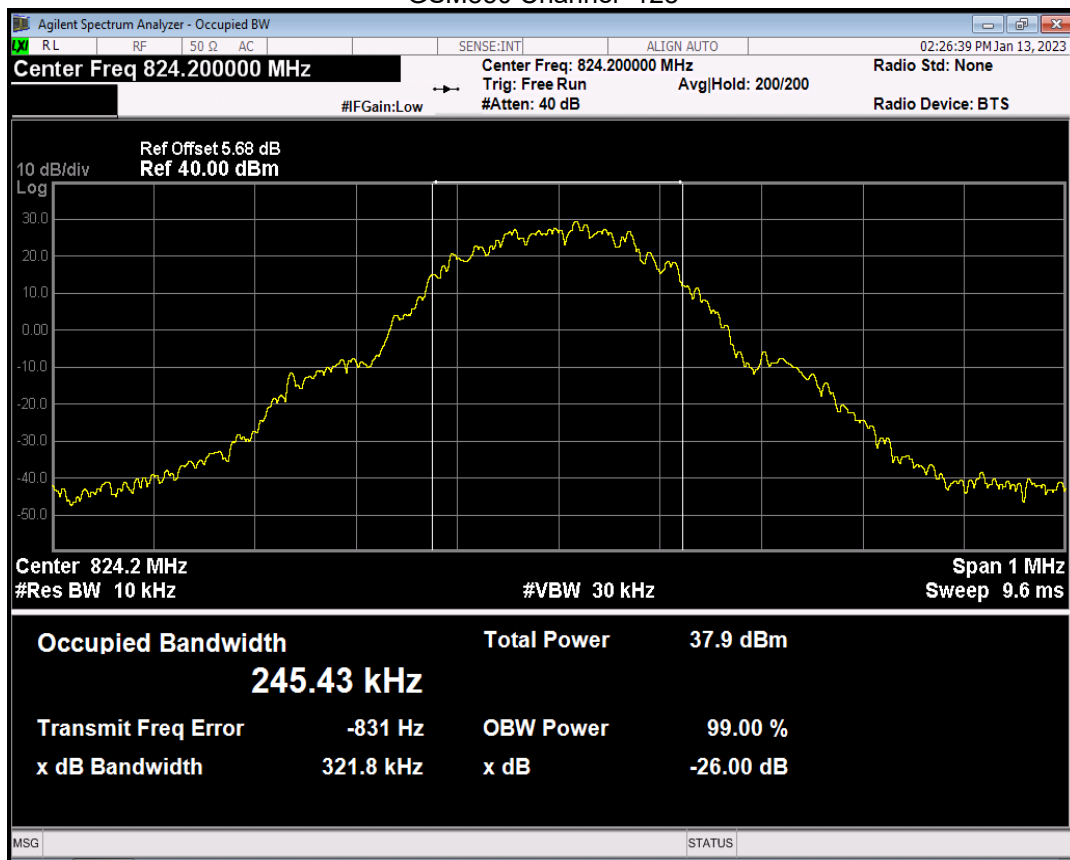
### 8.3 Test procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 10kHz for GSM mode and 100kHz for WCDMA mode, VBW shall be at least 3 times the RBW, and the 26dB bandwidth was recorded.

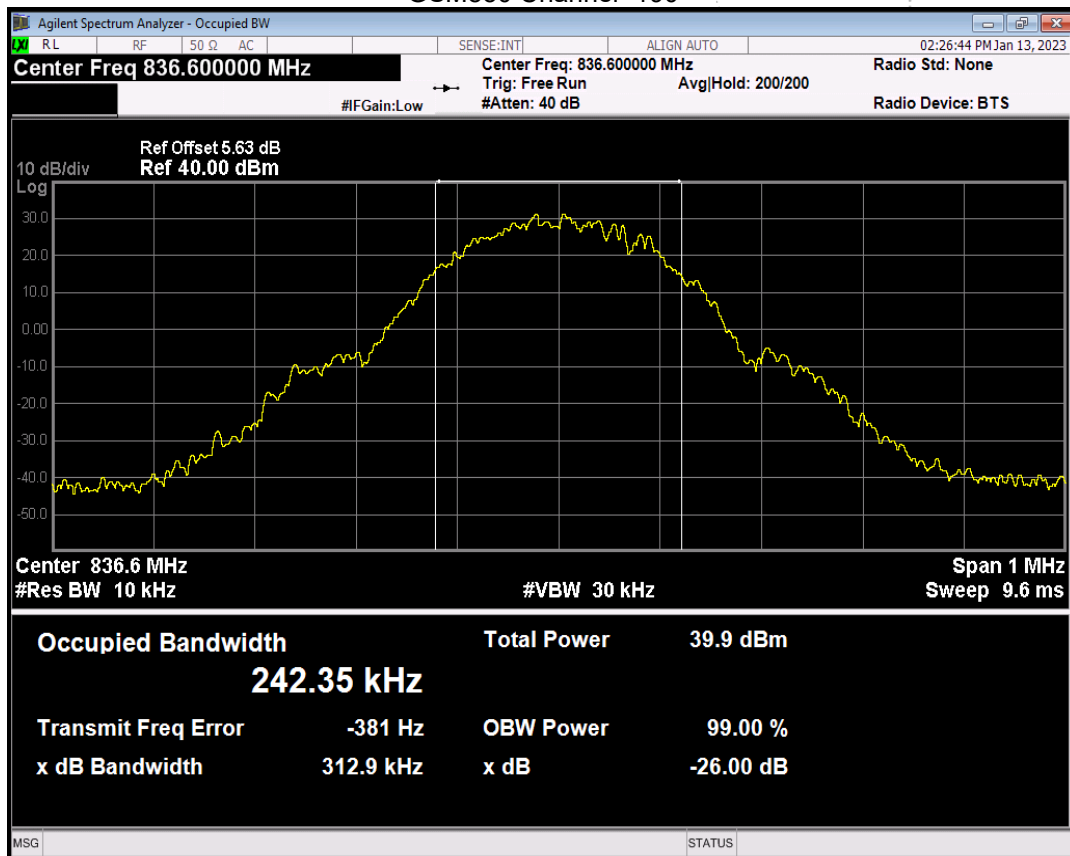
### 8.4 Test Result

| Band     | Channel | Frequency (MHz) | 99% OBW (kHz) | -26dB EBW (kHz) | Verdict |
|----------|---------|-----------------|---------------|-----------------|---------|
| GSM850   | 128     | 824.2           | 245.434       | 321.841         | PASS    |
| GSM850   | 190     | 836.6           | 242.349       | 312.882         | PASS    |
| GSM850   | 251     | 848.8           | 247.948       | 321.690         | PASS    |
| GPRS850  | 128     | 824.2           | 245.397       | 319.281         | PASS    |
| GPRS850  | 190     | 836.6           | 248.160       | 319.151         | PASS    |
| GPRS850  | 251     | 848.8           | 243.971       | 313.730         | PASS    |
| EGPRS850 | 128     | 824.2           | 239.501       | 311.149         | PASS    |
| EGPRS850 | 190     | 836.6           | 253.003       | 334.836         | PASS    |
| EGPRS850 | 251     | 848.8           | 246.518       | 311.790         | PASS    |

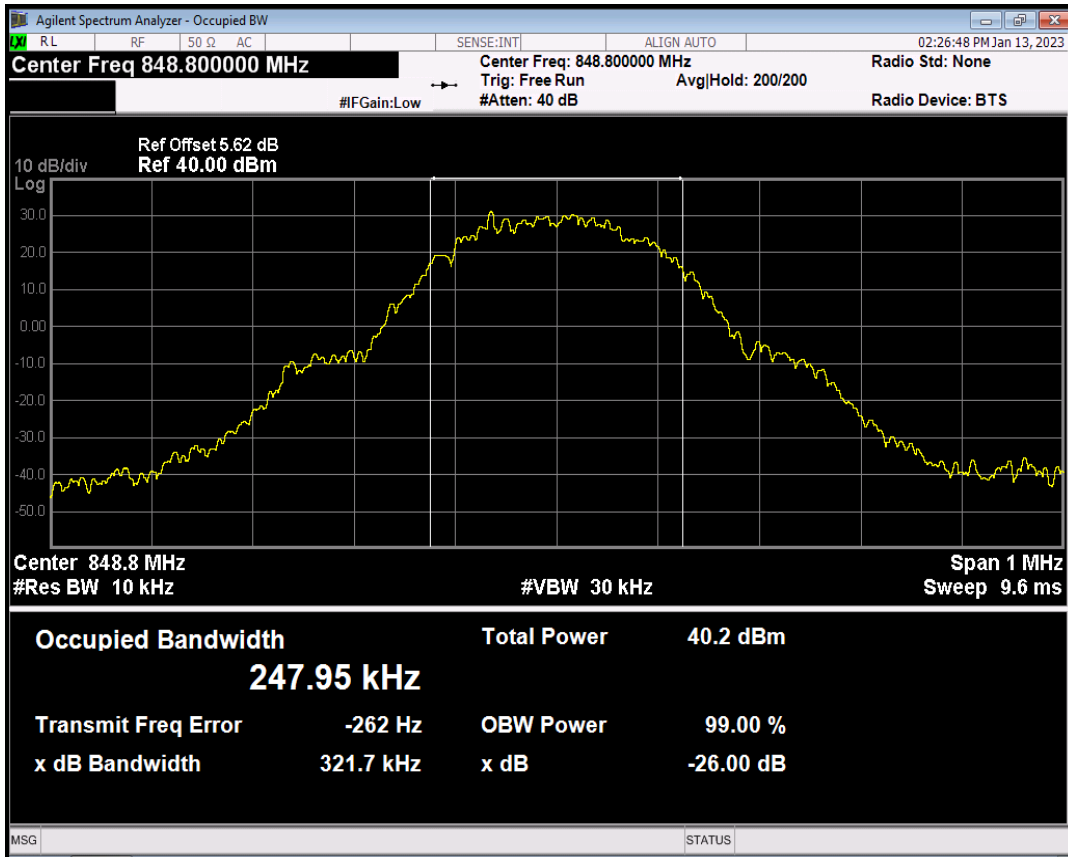
## GSM850 Channel=128



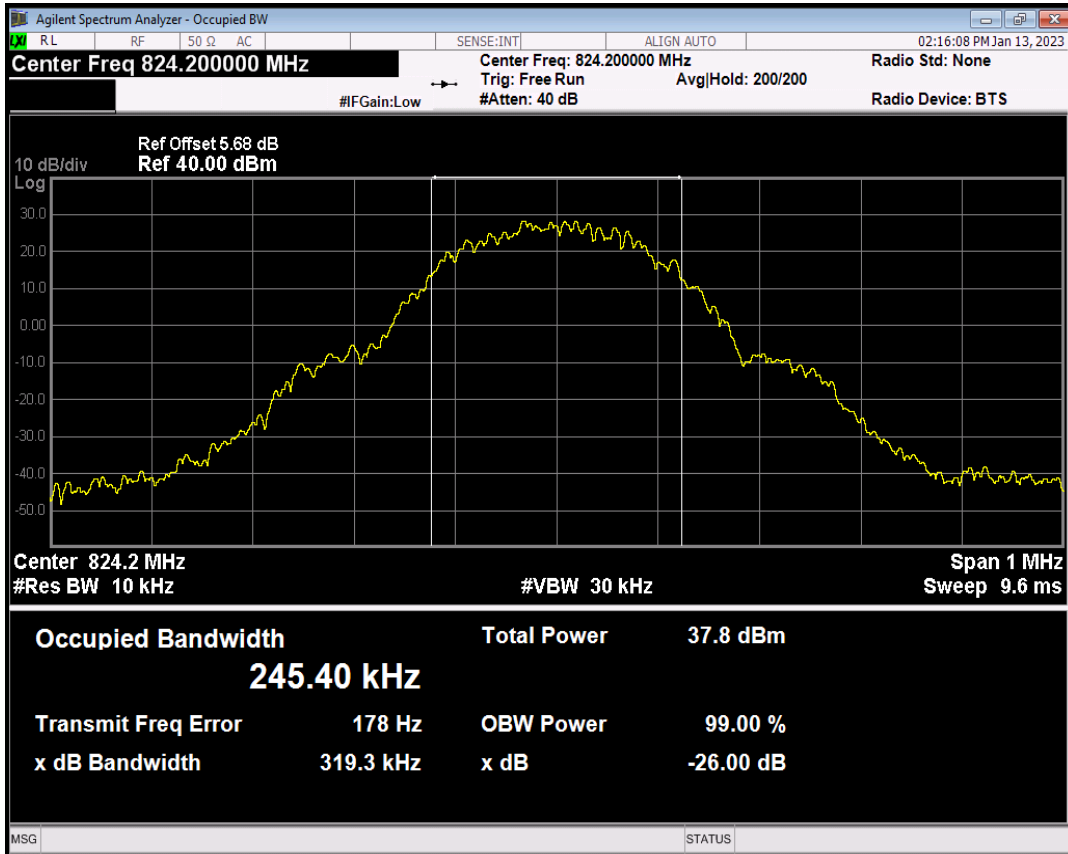
## GSM850 Channel=190



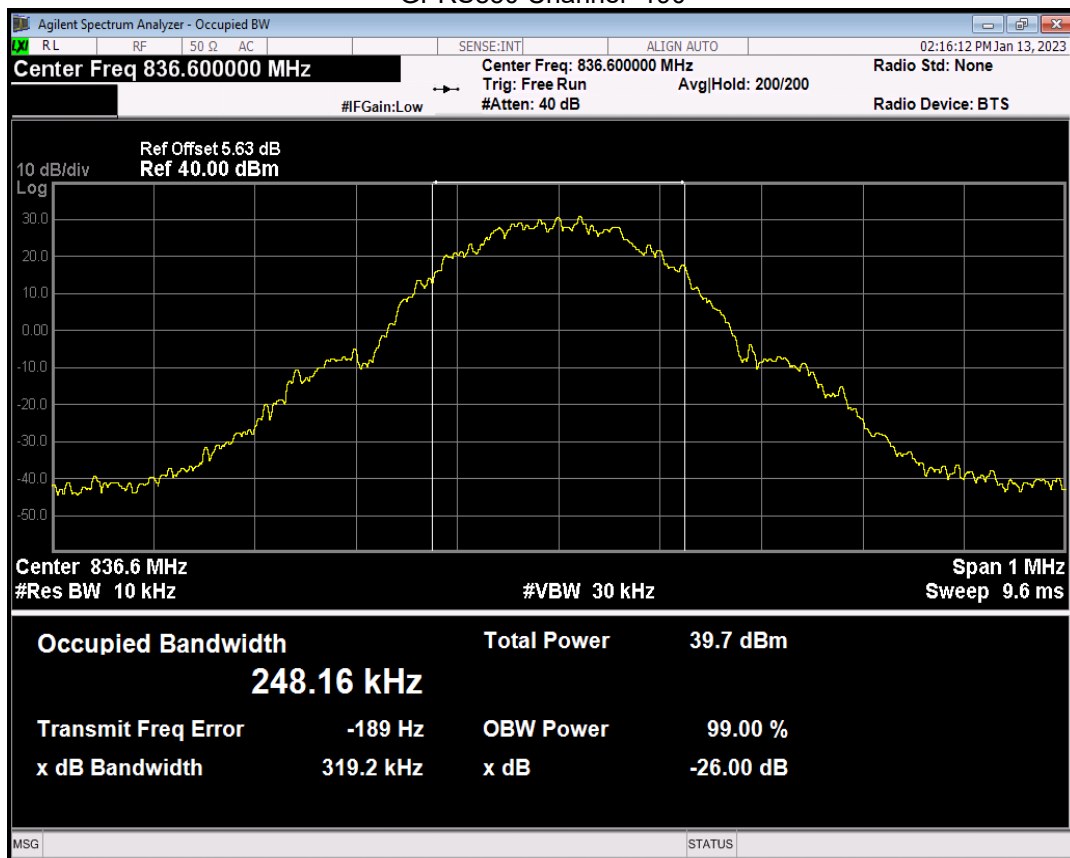
## GSM850 Channel=251



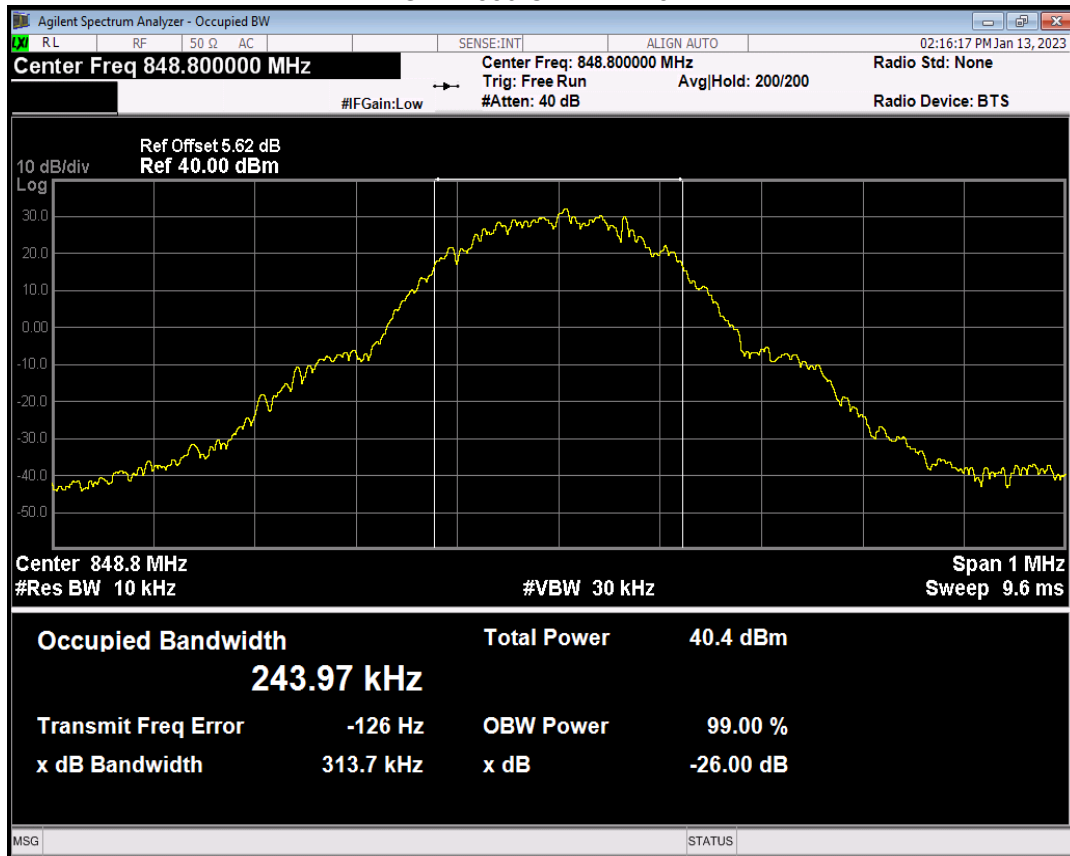
## GPRS850 Channel=128



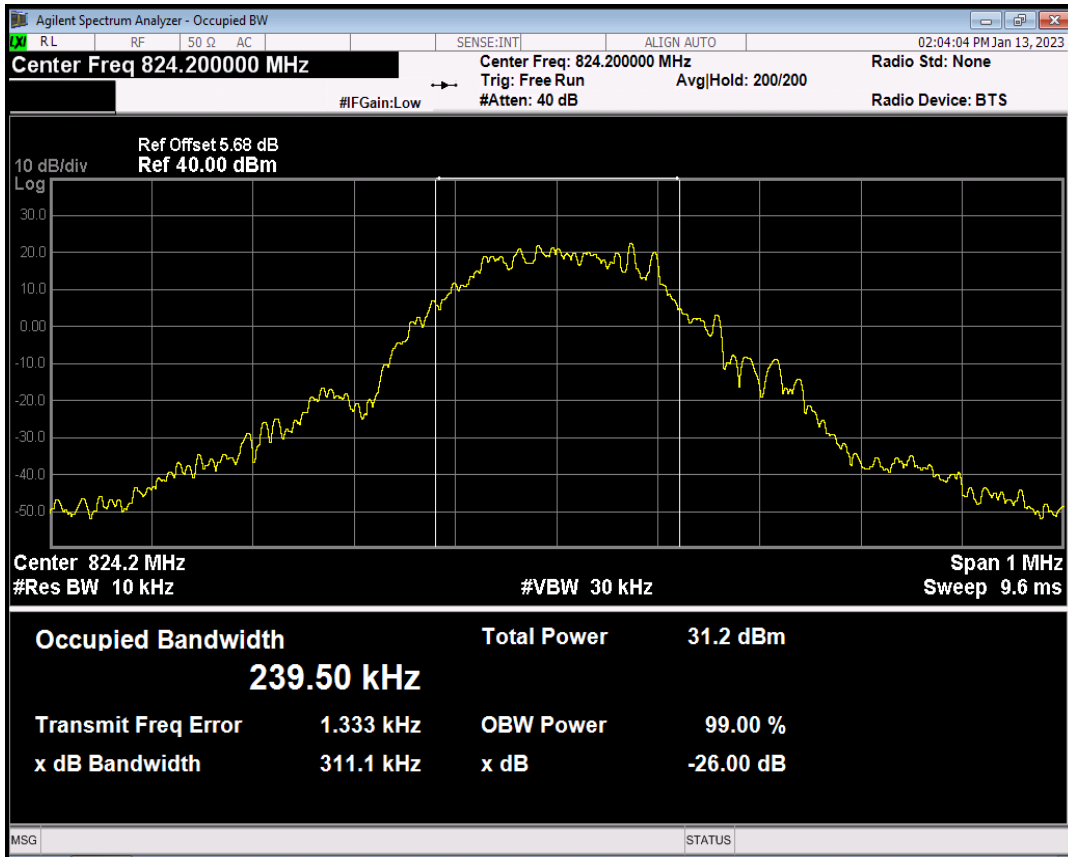
## GPRS850 Channel=190



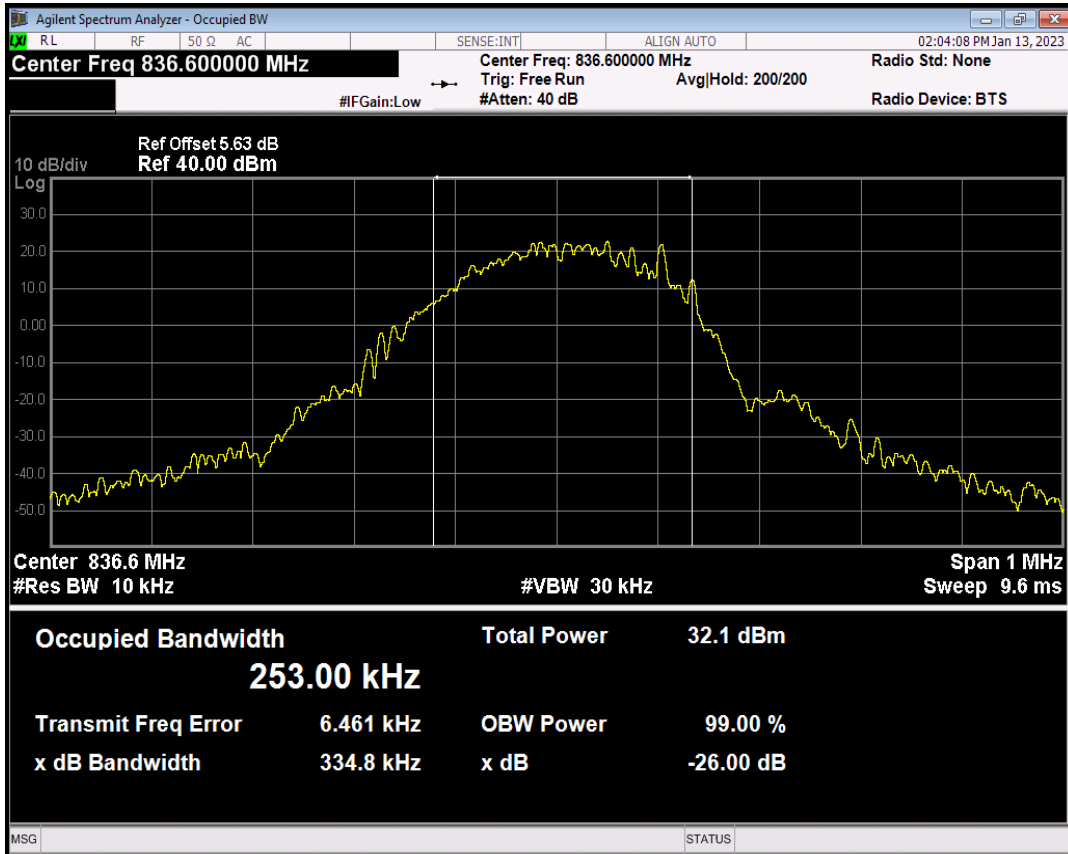
## GPRS850 Channel=251



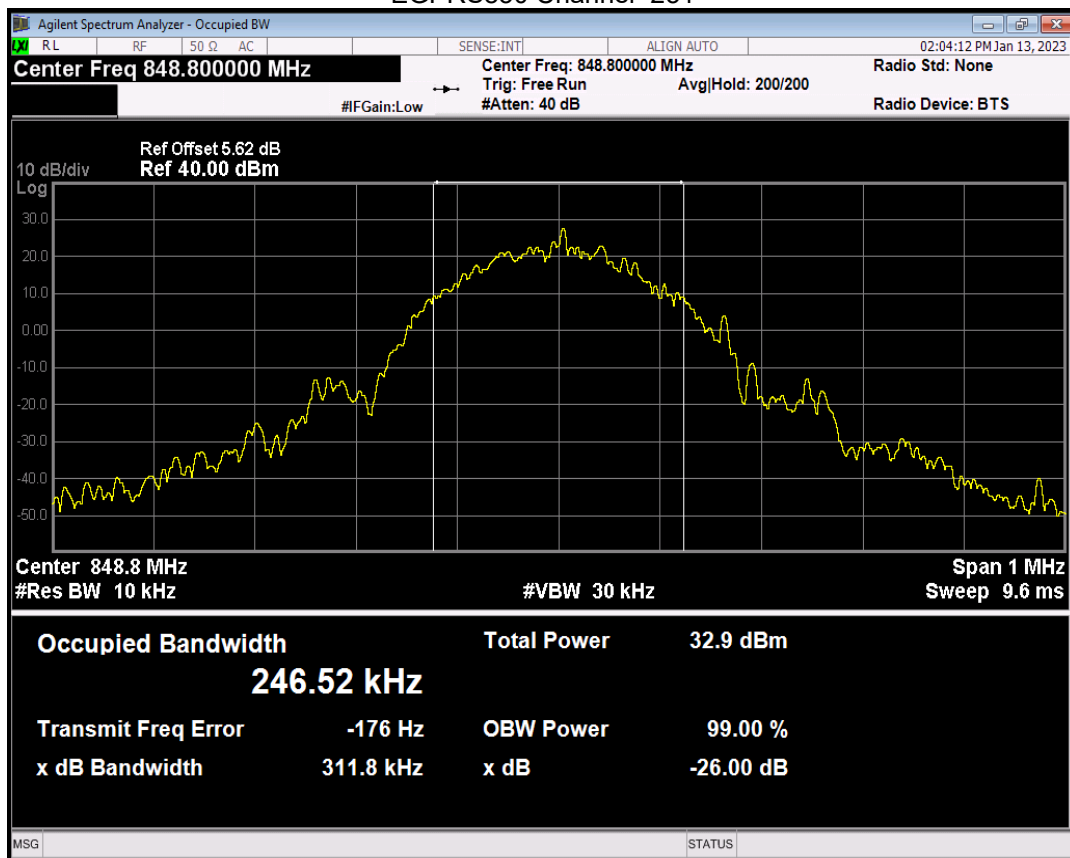
## EGPRS850 Channel=128



## EGPRS850 Channel=190

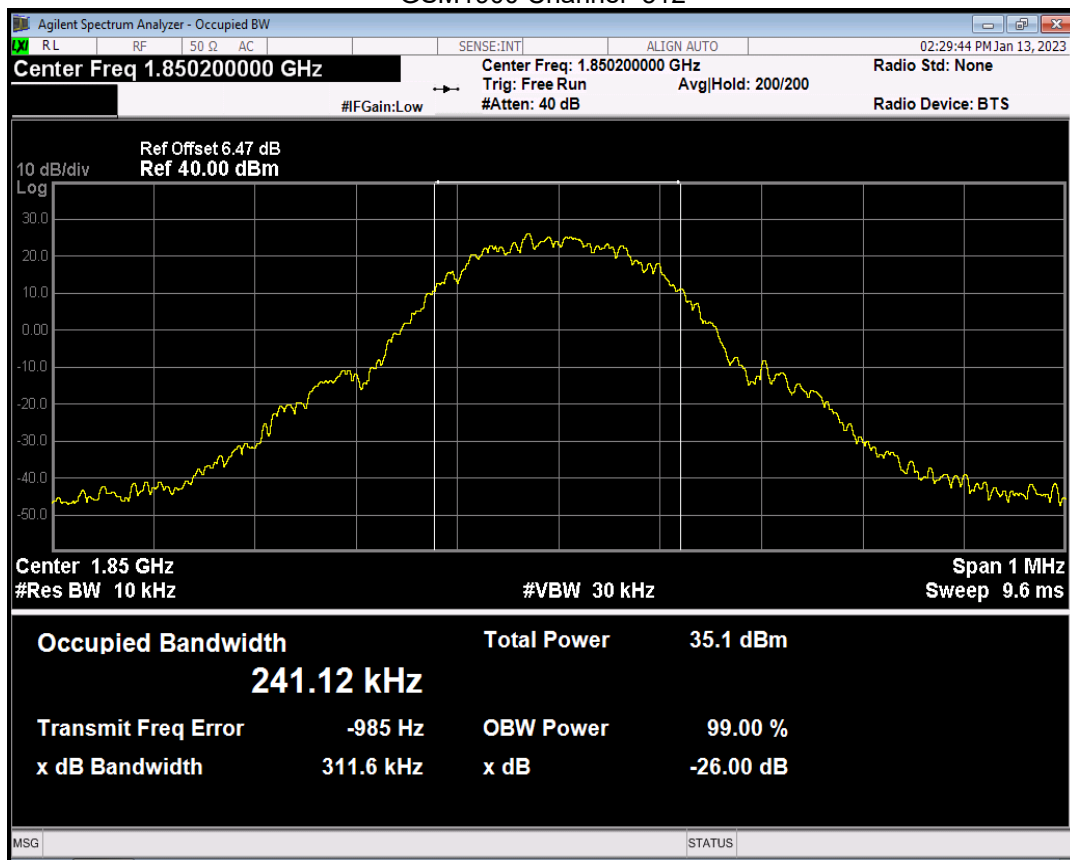


## EGPRS850 Channel=251

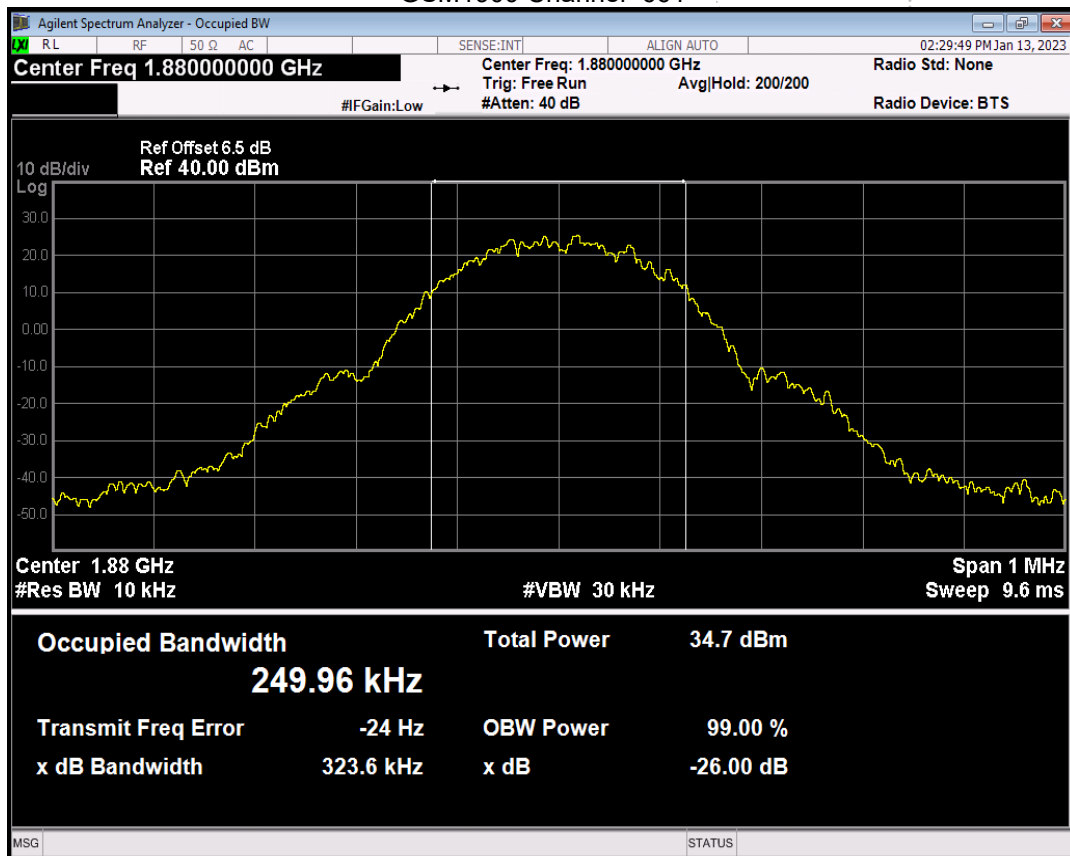


| Band      | Channel | Frequency (MHz) | 99% OBW (kHz) | -26dB EBW (kHz) | Verdict |
|-----------|---------|-----------------|---------------|-----------------|---------|
| GSM1900   | 512     | 1850.2          | 240.240       | 318.440         | PASS    |
| GSM1900   | 661     | 1880            | 245.833       | 318.828         | PASS    |
| GSM1900   | 810     | 1909.8          | 249.088       | 318.800         | PASS    |
| GPRS1900  | 512     | 1850.2          | 240.240       | 318.440         | PASS    |
| GPRS1900  | 661     | 1880            | 245.833       | 318.828         | PASS    |
| GPRS1900  | 810     | 1909.8          | 249.088       | 318.800         | PASS    |
| EGPRS1900 | 512     | 1850.2          | 251.239       | 319.867         | PASS    |
| EGPRS1900 | 661     | 1880            | 249.660       | 317.455         | PASS    |
| EGPRS1900 | 810     | 1909.8          | 253.177       | 319.595         | PASS    |

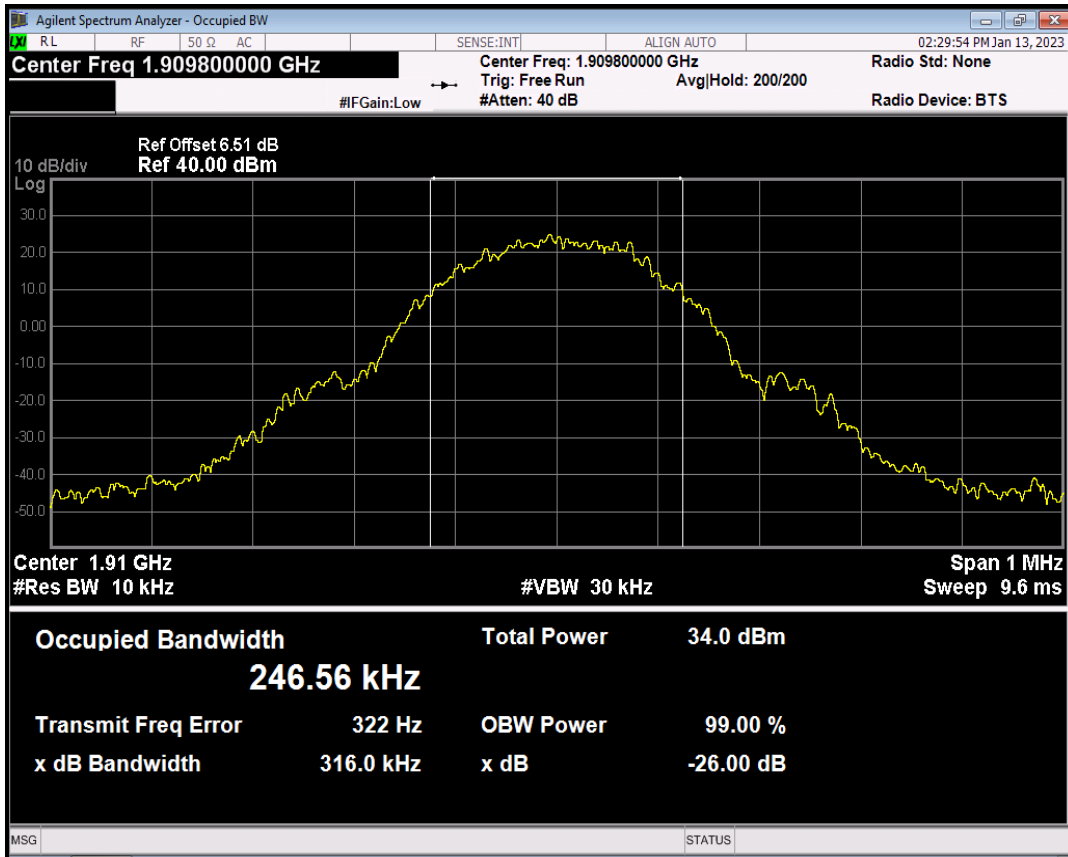
## GSM1900 Channel=512



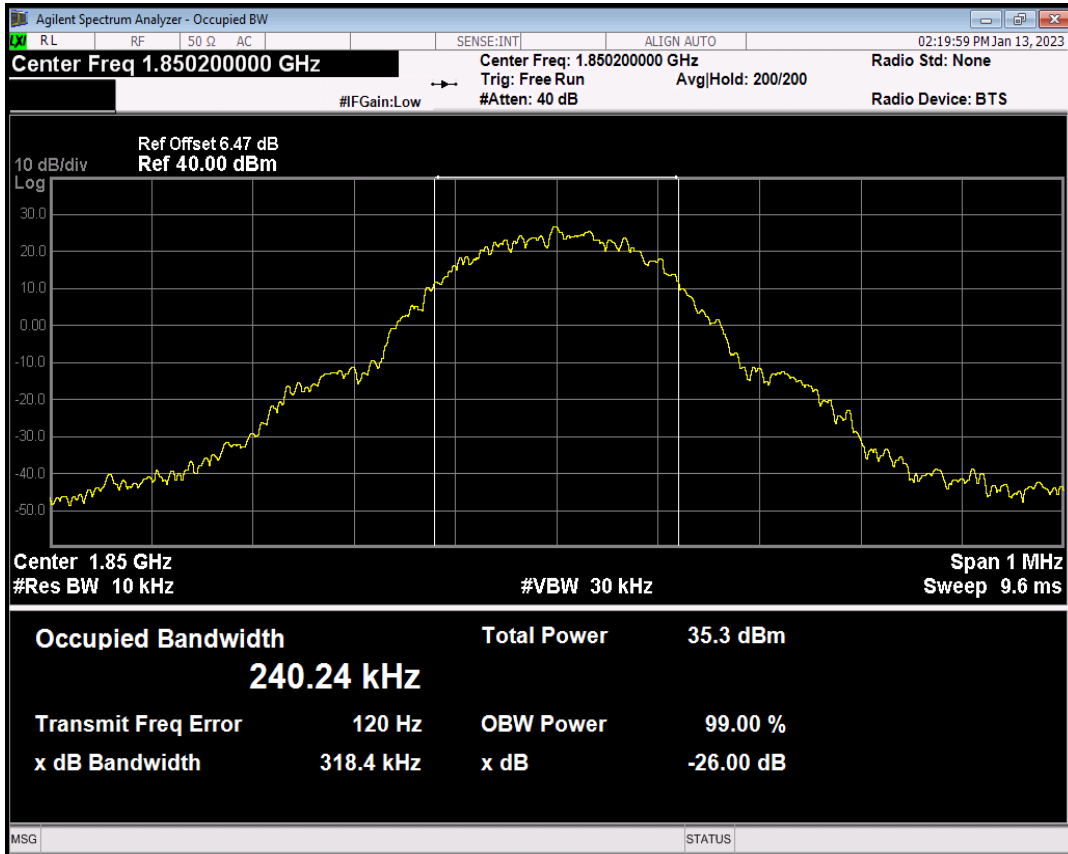
## GSM1900 Channel=661



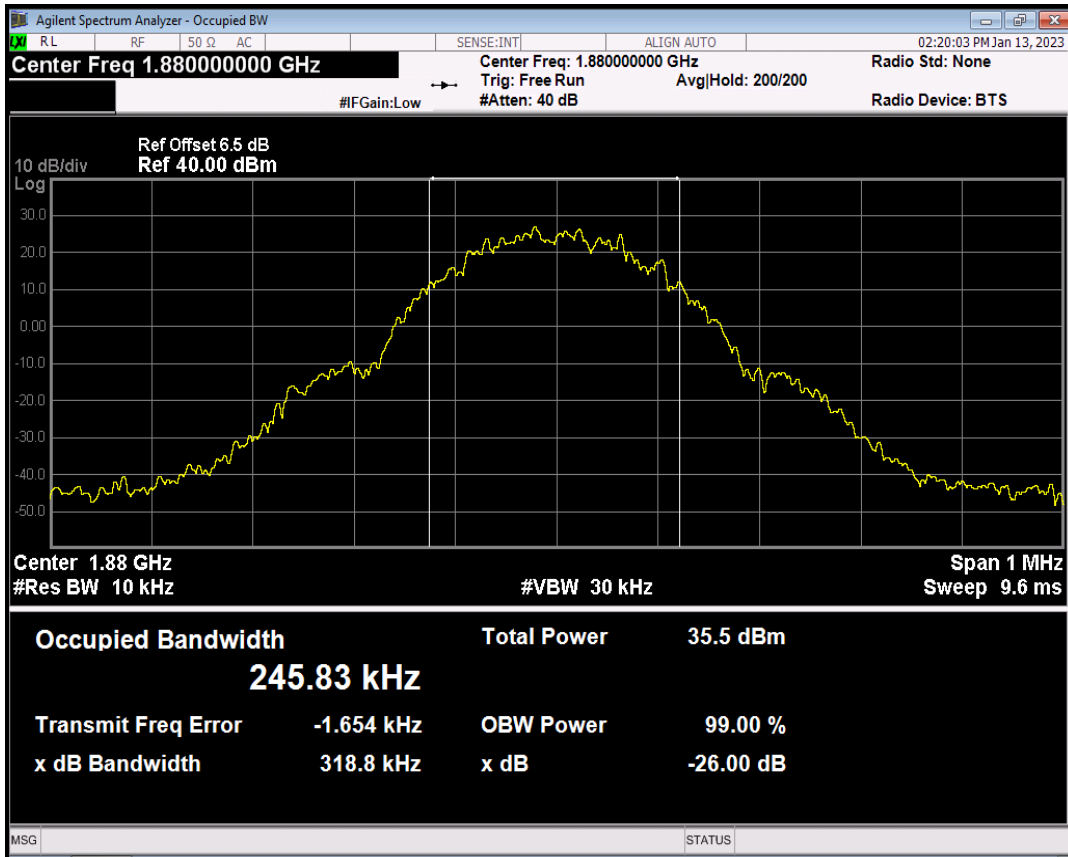
## GSM1900 Channel=810



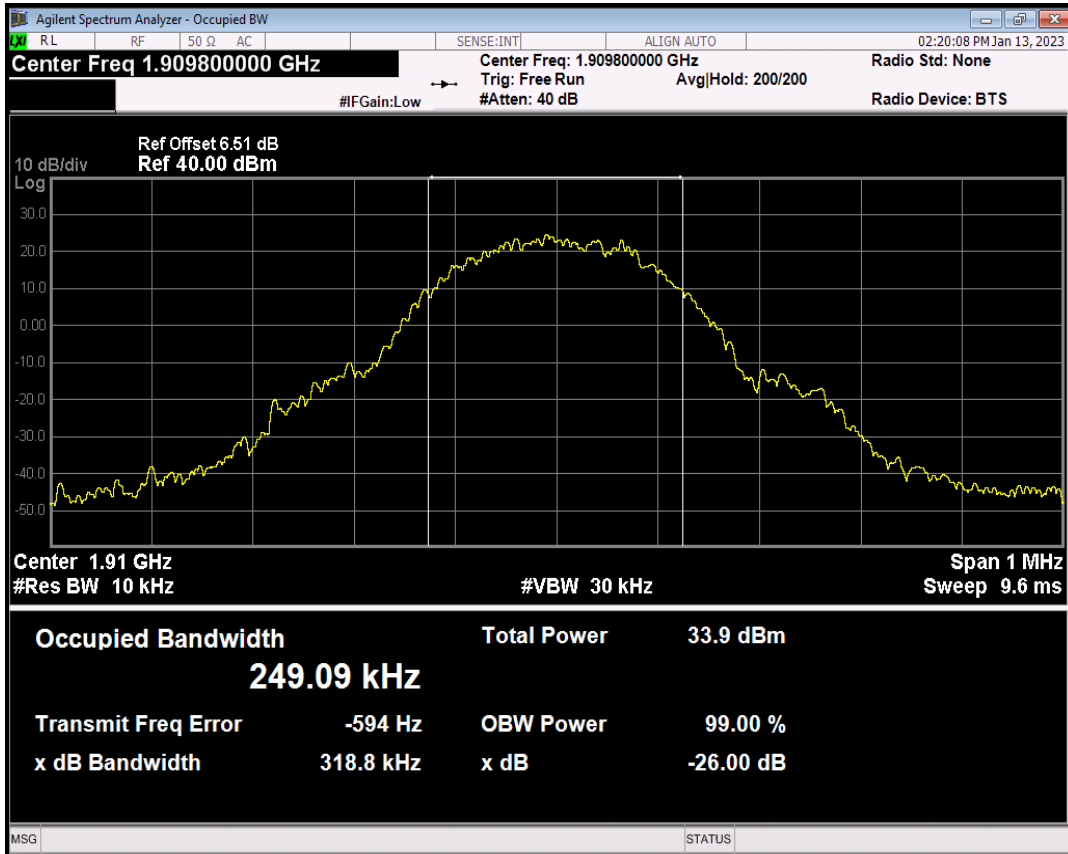
## GPRS1900 Channel=512



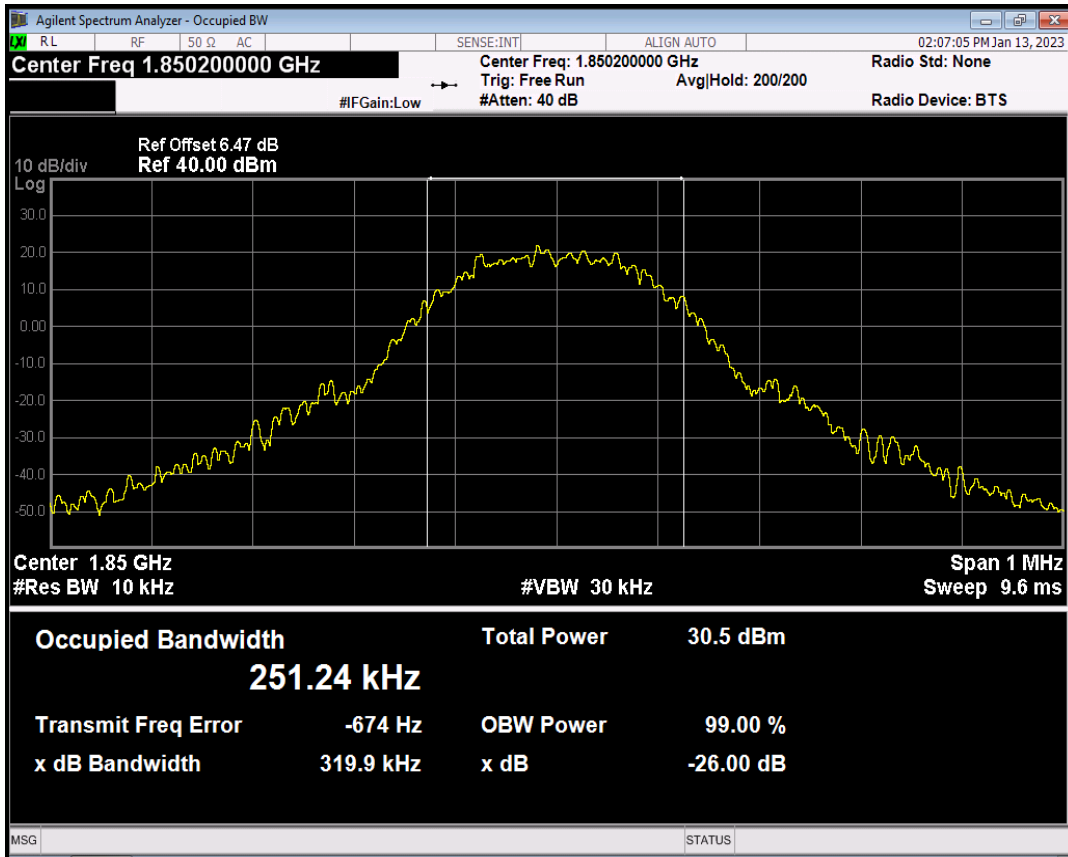
## GPRS1900 Channel=661



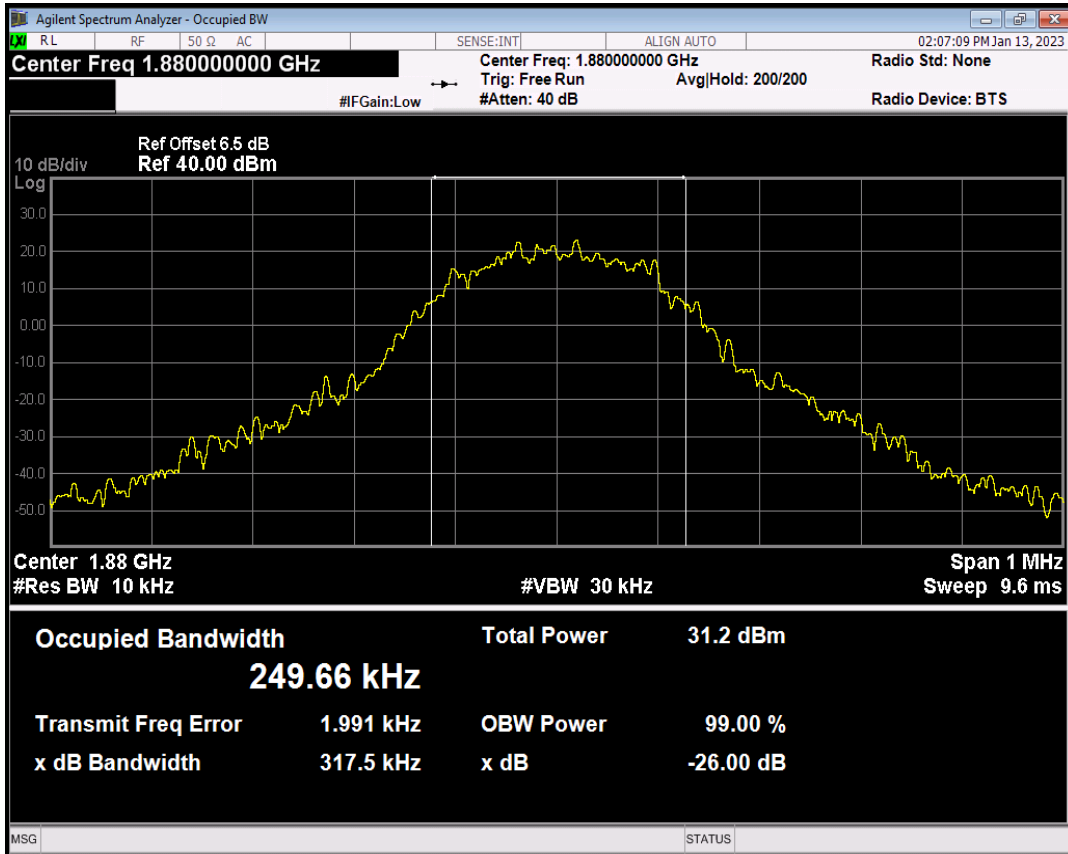
## GPRS1900 Channel=810



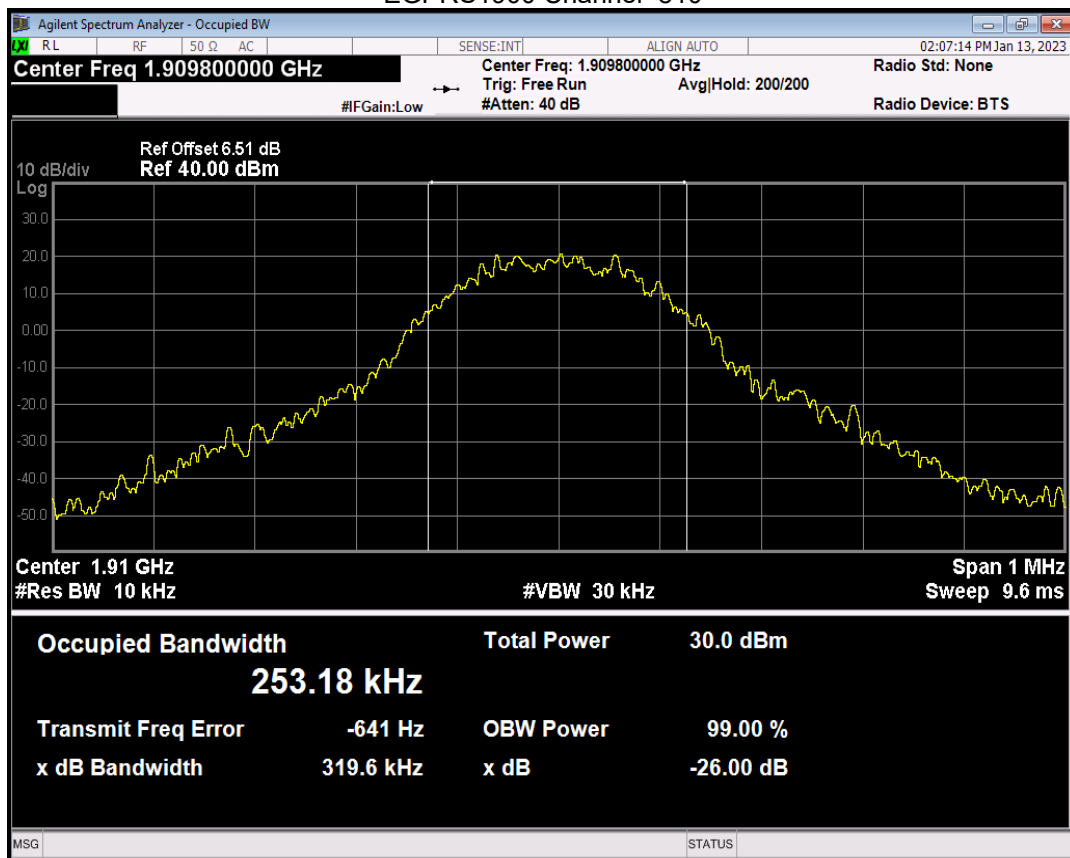
## EGPRS1900 Channel=512



## EGPRS1900 Channel=661



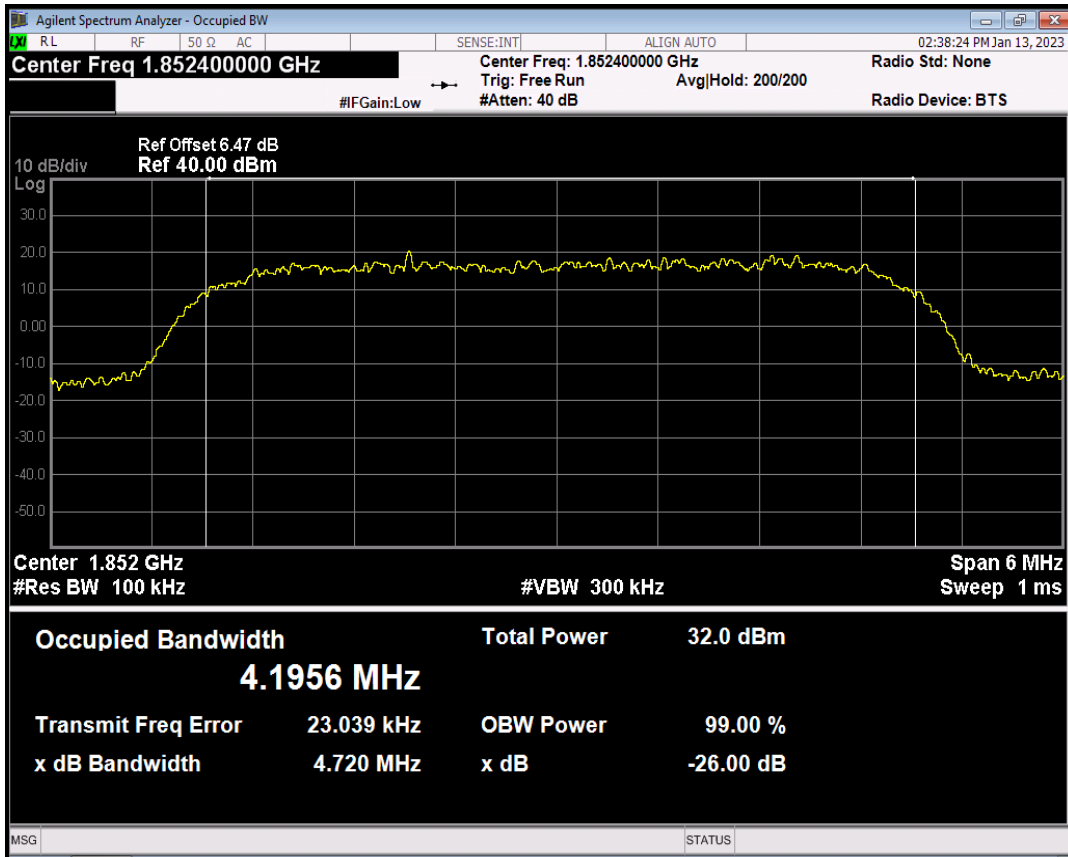
## EGPRS1900 Channel=810



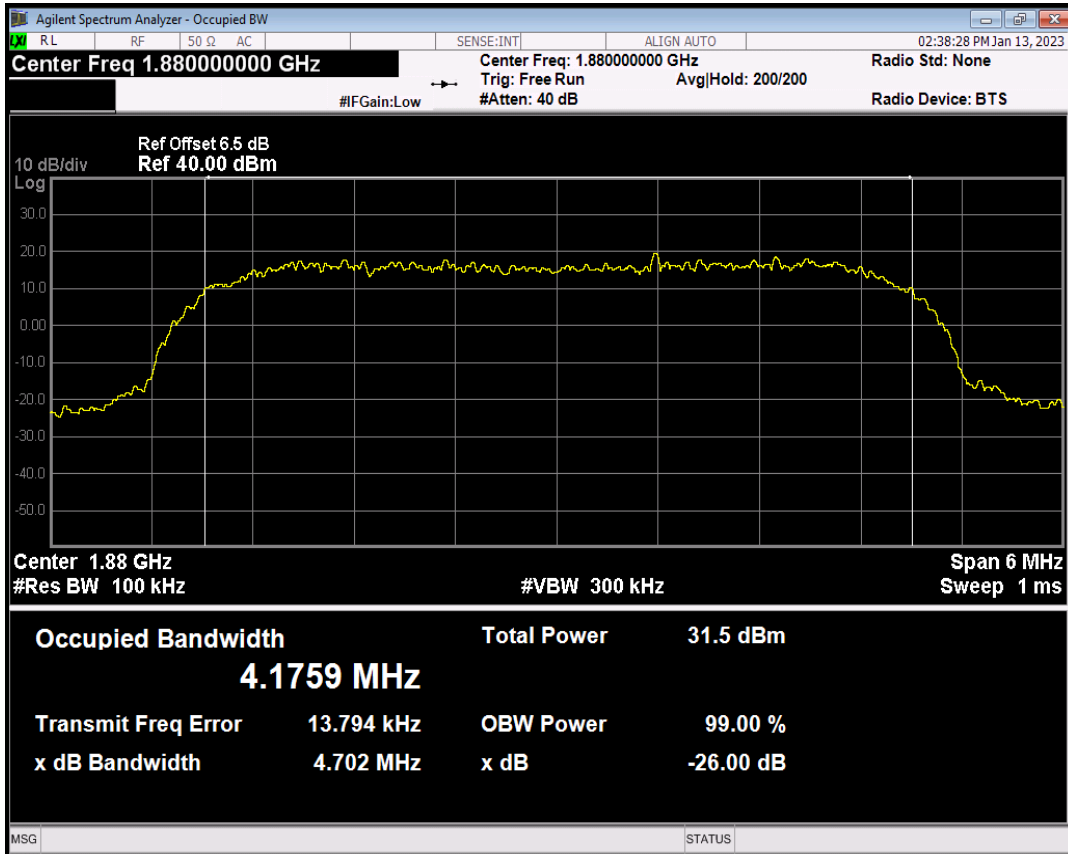
| Band        | Channel | Frequency (MHz) | 99% OBW (kHz) | -26dB EBW (kHz) | Verdict |
|-------------|---------|-----------------|---------------|-----------------|---------|
| WCDMA Band2 | 9262    | 1852.4          | 4195.596      | 4719.628        | PASS    |
| WCDMA Band2 | 9400    | 1880            | 4175.862      | 4701.865        | PASS    |
| WCDMA Band2 | 9538    | 1907.6          | 4169.503      | 4719.855        | PASS    |
| WCDMA Band4 | 1312    | 1712.4          | 4174.821      | 4713.527        | PASS    |
| WCDMA Band4 | 1450    | 1740            | 4188.787      | 4721.147        | PASS    |
| WCDMA Band4 | 1513    | 1752.6          | 4185.621      | 4727.472        | PASS    |
| WCDMA Band5 | 4132    | 826.4           | 4183.092      | 4745.781        | PASS    |
| WCDMA Band5 | 4182    | 836.4           | 4150.582      | 4686.033        | PASS    |
| WCDMA Band5 | 4233    | 846.6           | 4160.727      | 4690.552        | PASS    |

Note: In WCDMA, RMC, HSDPA and HSUPA all three tests only reflect the worst mode RMC.

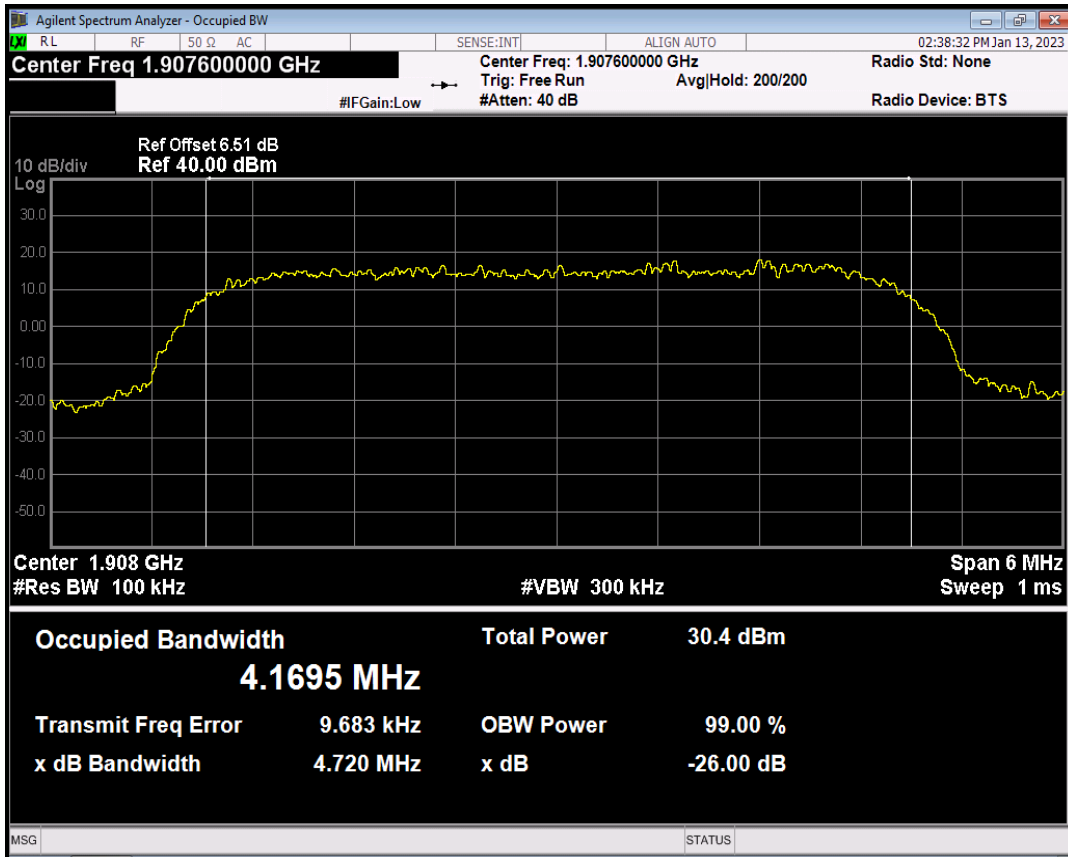
## WCDMA Band2 Channel=9262



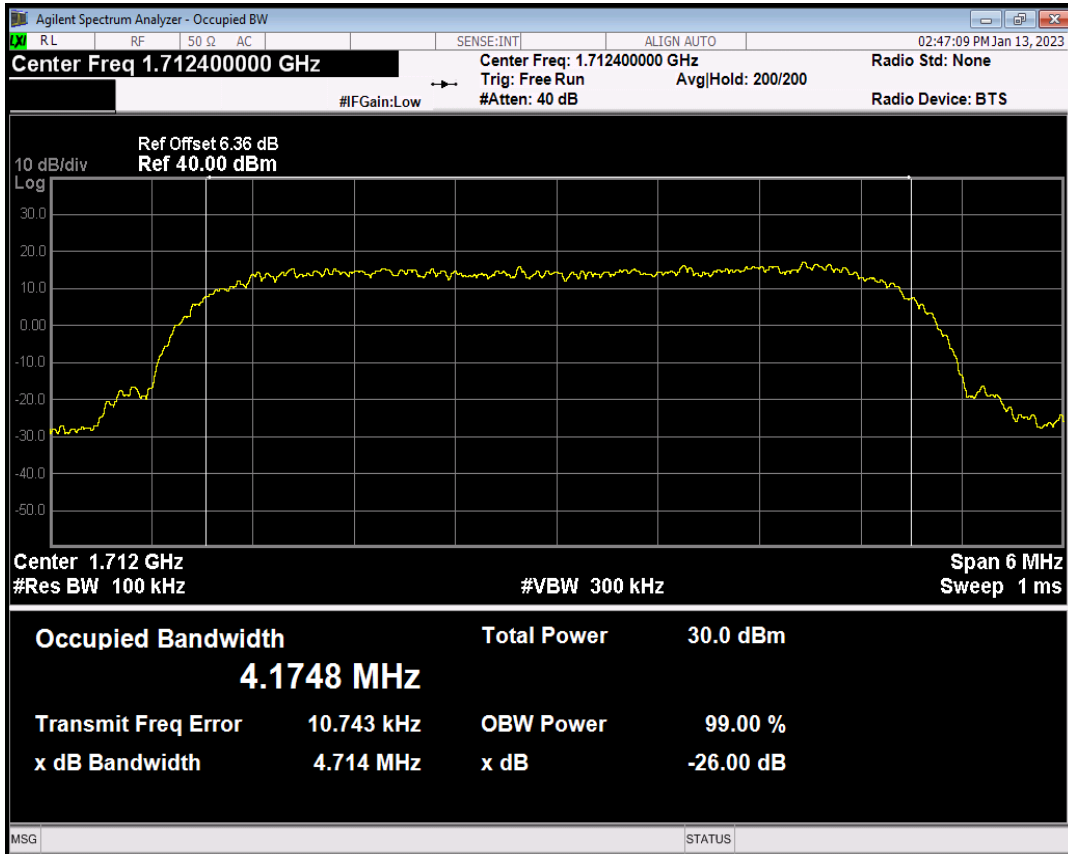
## WCDMA Band2 Channel=9400



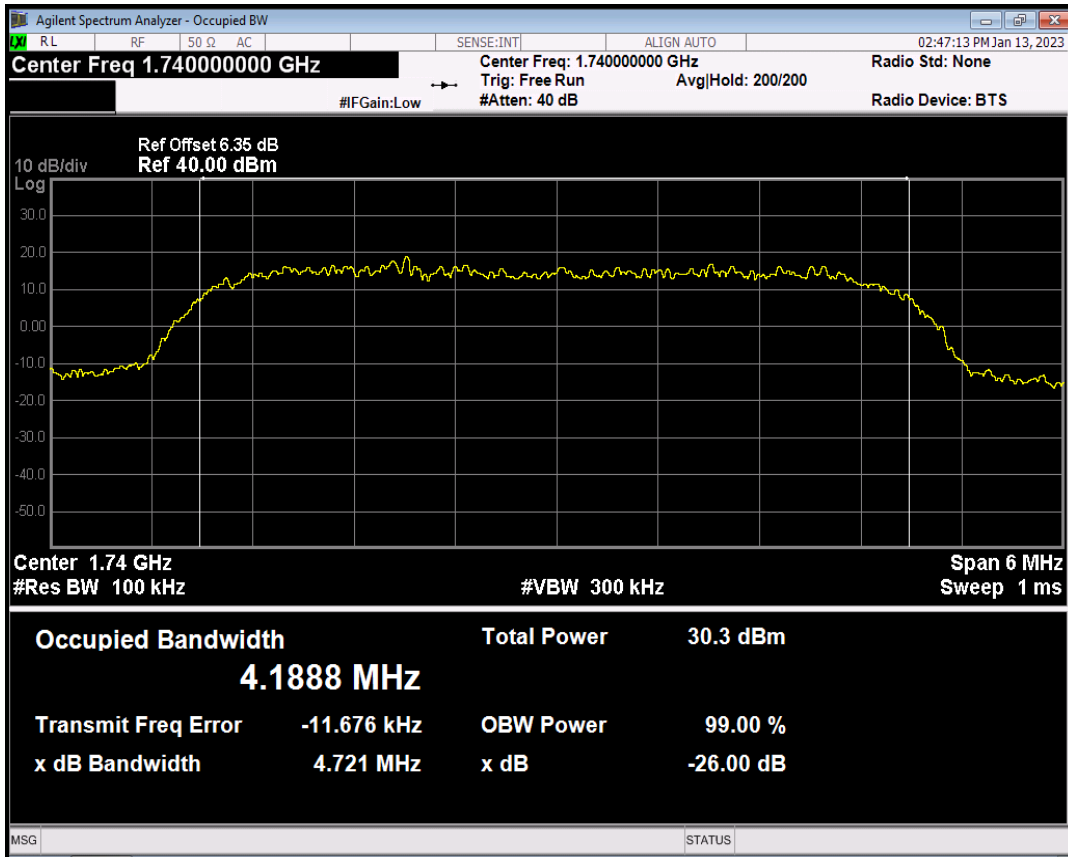
## WCDMA Band2 Channel=9538



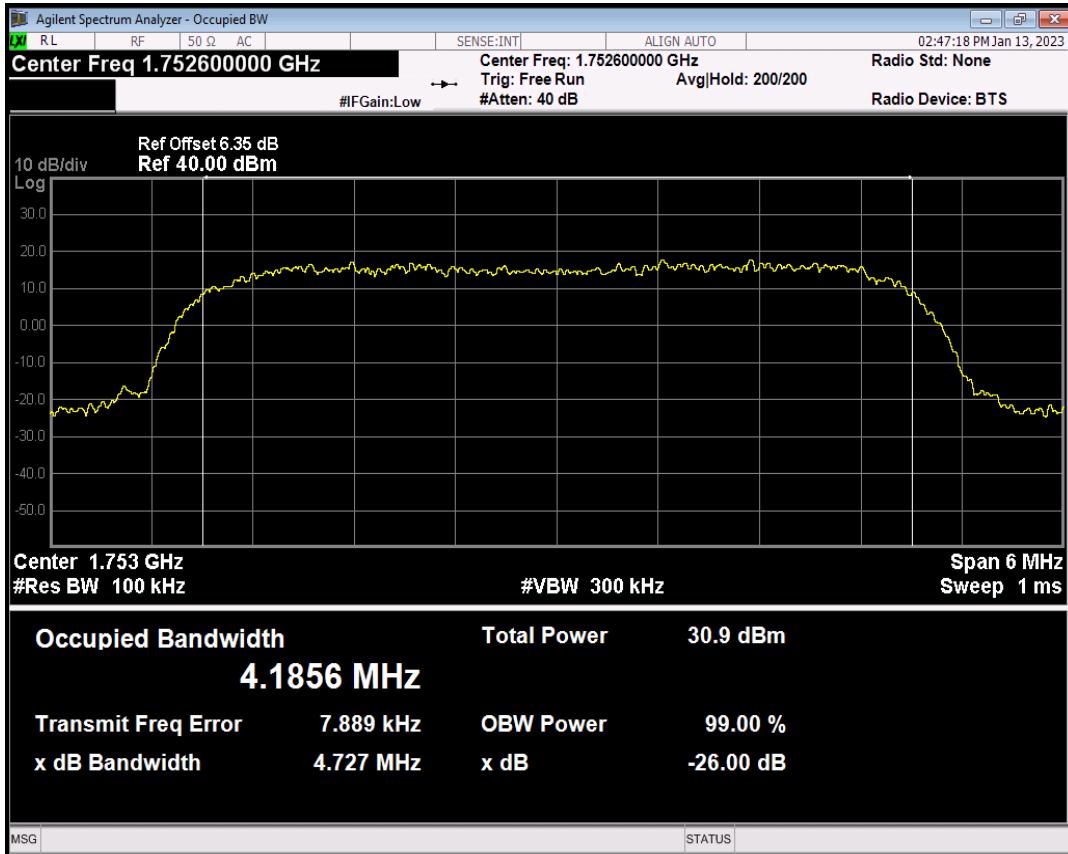
## WCDMA Band4 Channel=1312



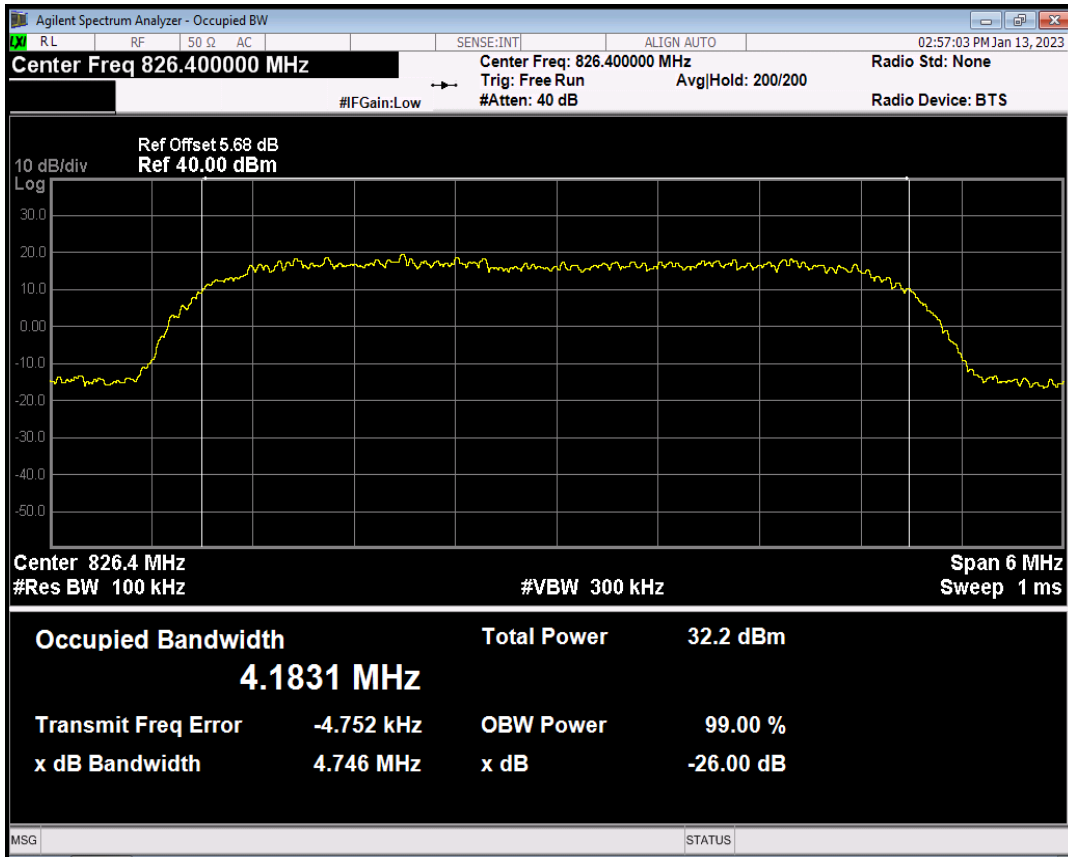
## WCDMA Band4 Channel=1450



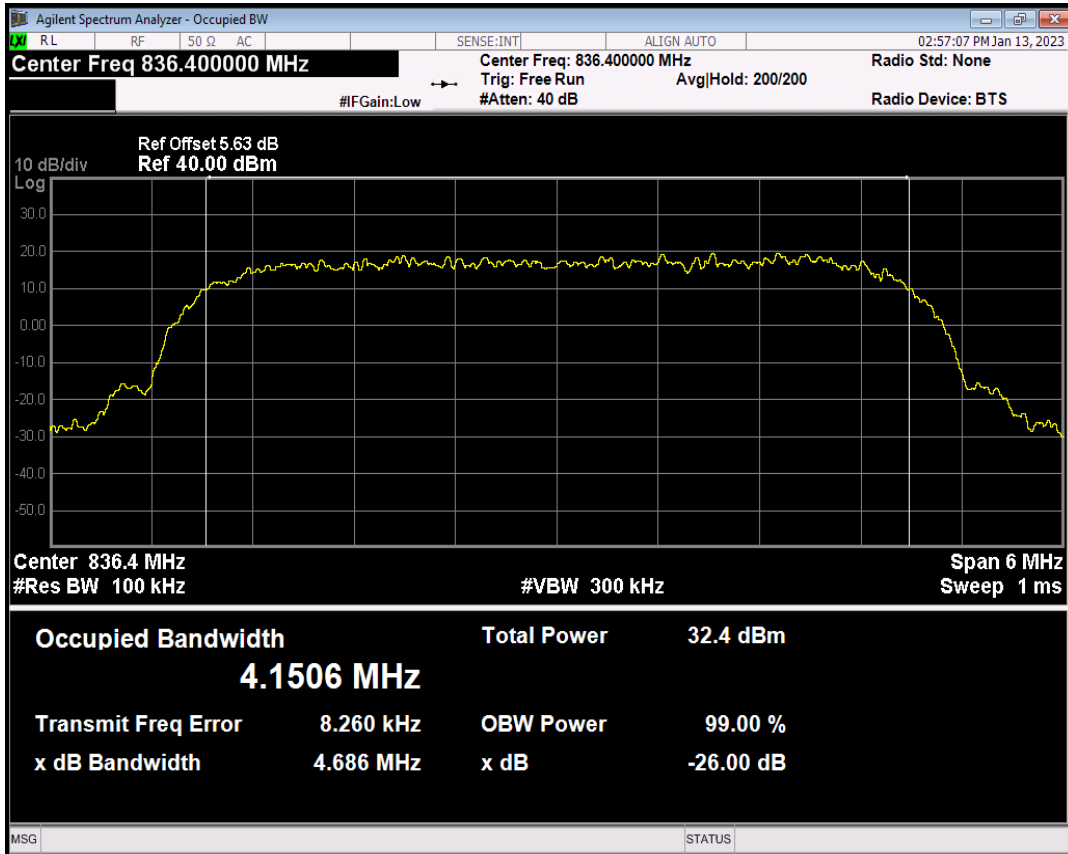
## WCDMA Band4 Channel=1513



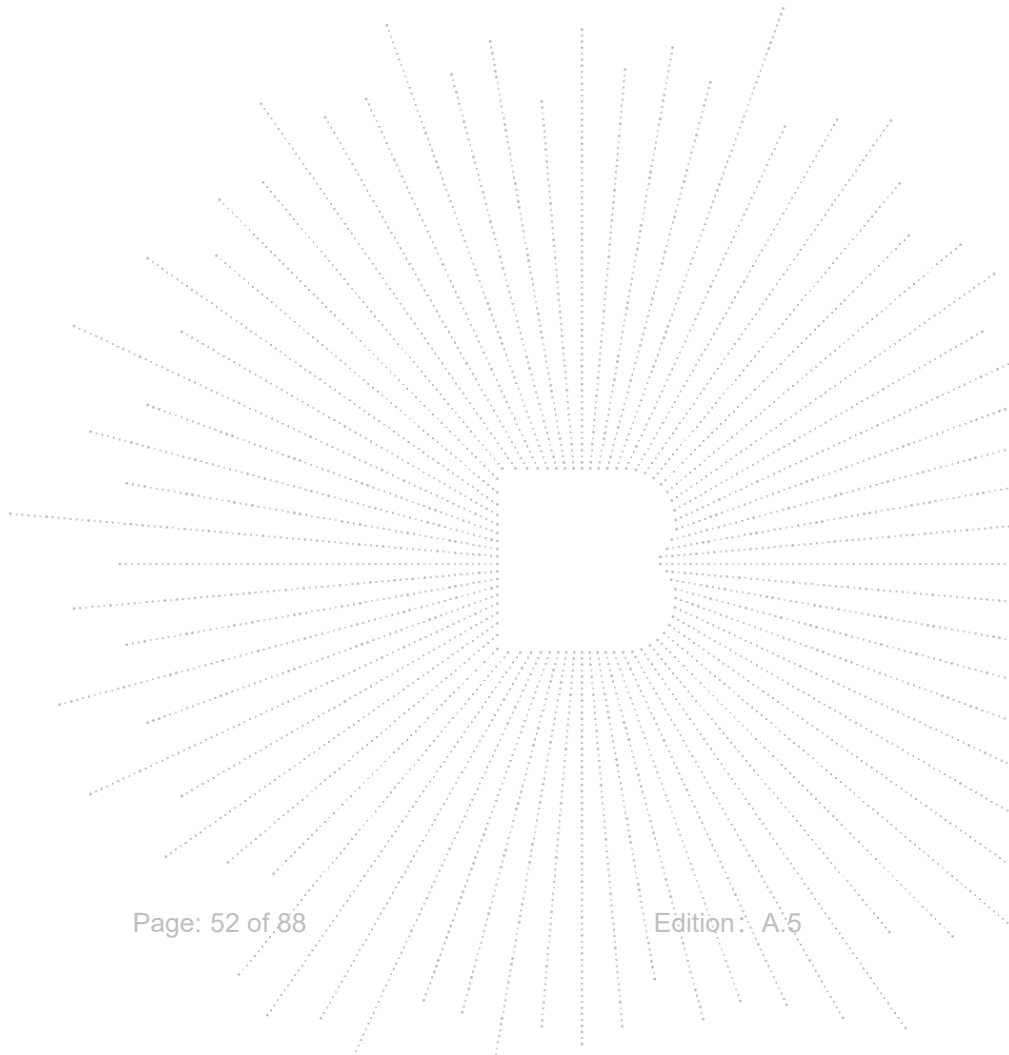
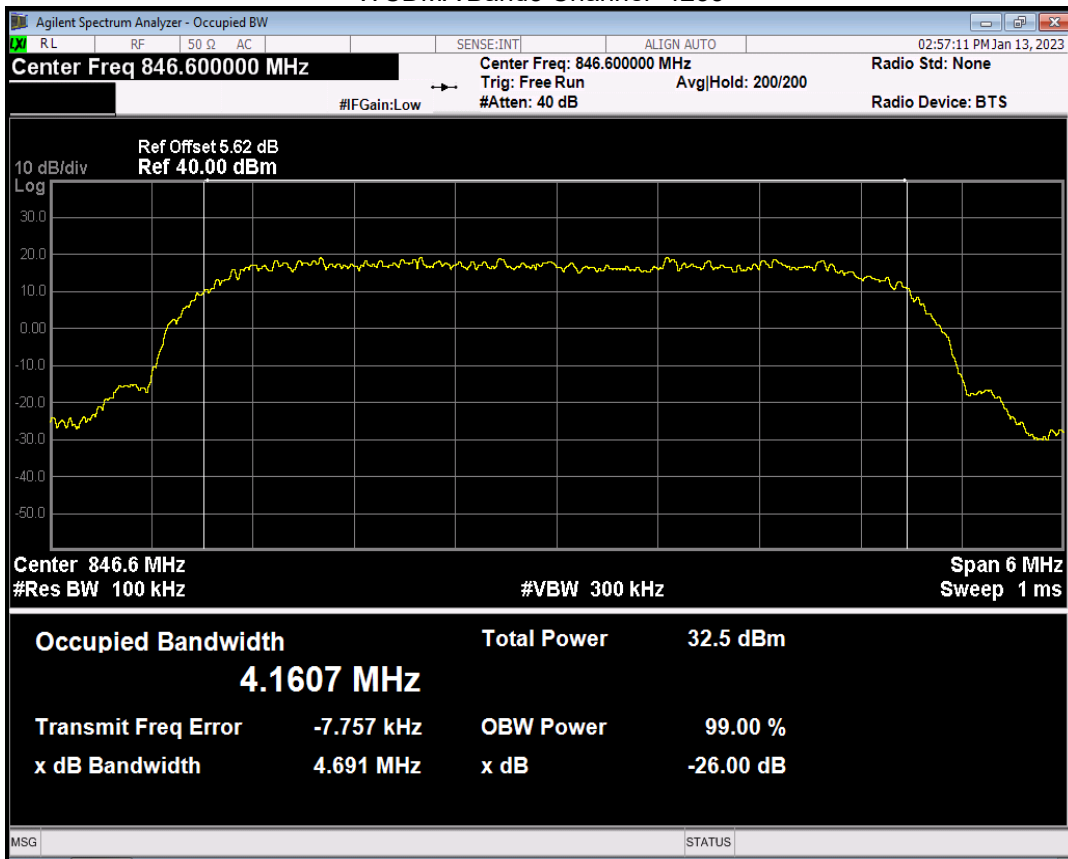
## WCDMA Band5 Channel=4132



## WCDMA Band5 Channel=4182

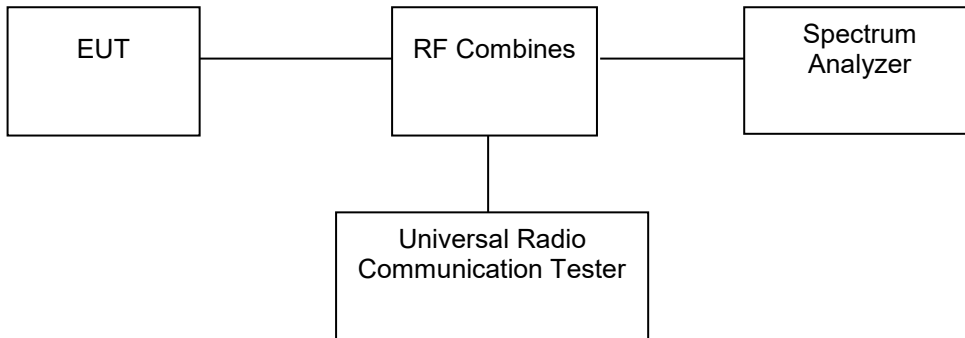


## WCDMA Band5 Channel=4233



## 9. Out of Band Emissions at Antenna Terminal

### 9.1 Block Diagram Of Test Setup



### 9.2 Limit

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

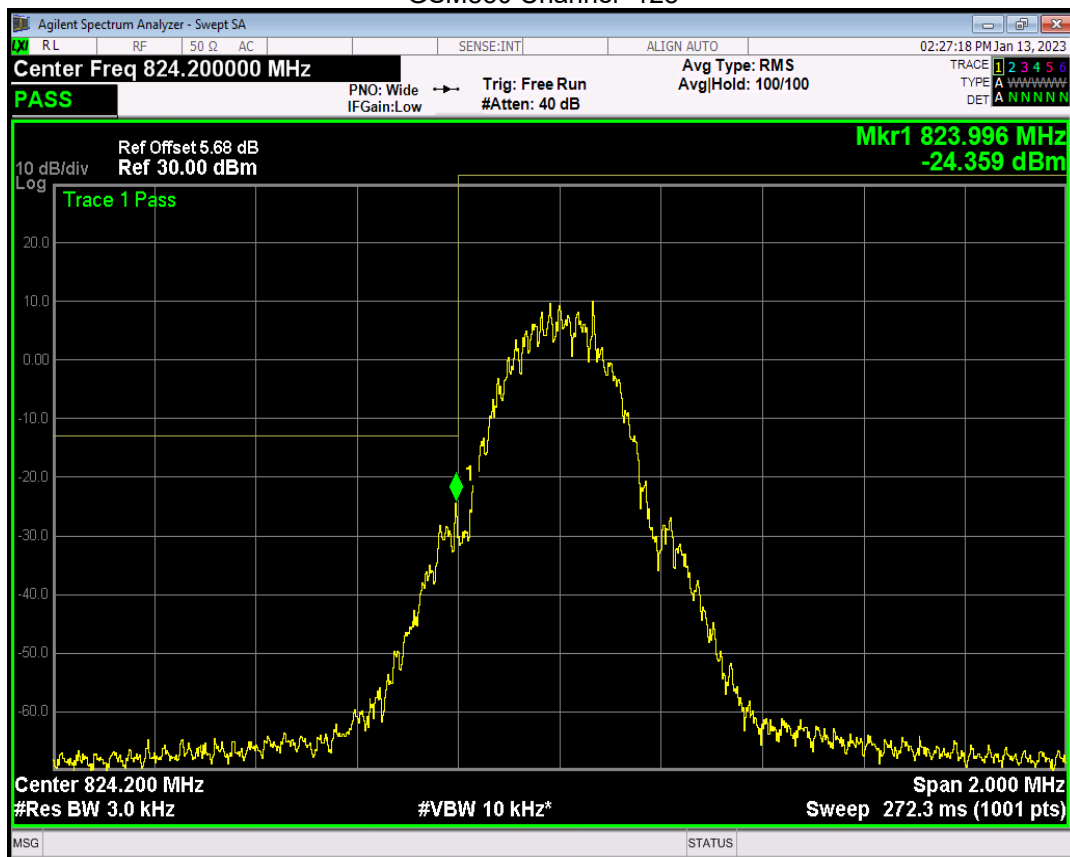
According to §27.53 (h), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

### 9.3 Test procedure

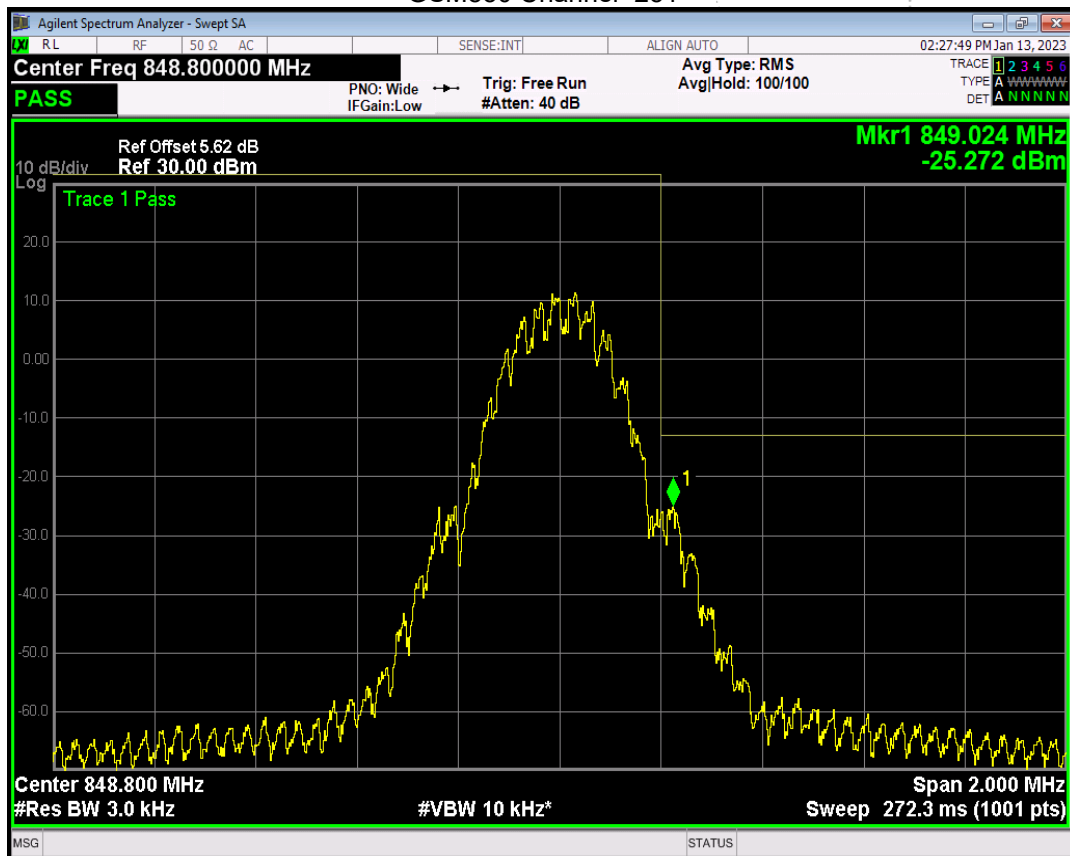
The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 100kHz and 1MHz for the scan frequency from 30MHz to 1GHz and the scan frequency from 1GHz to up to 10<sup>th</sup> harmonic

### 9.4 Test Result

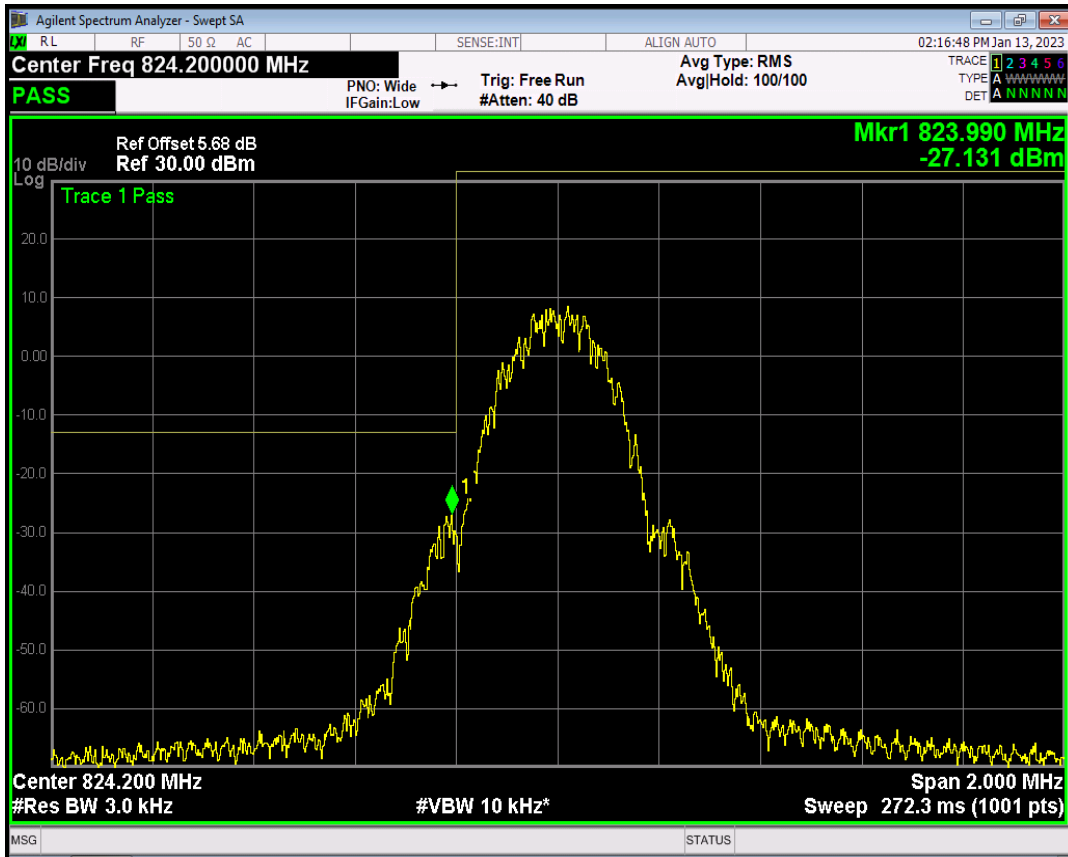
## GSM850 Channel=128



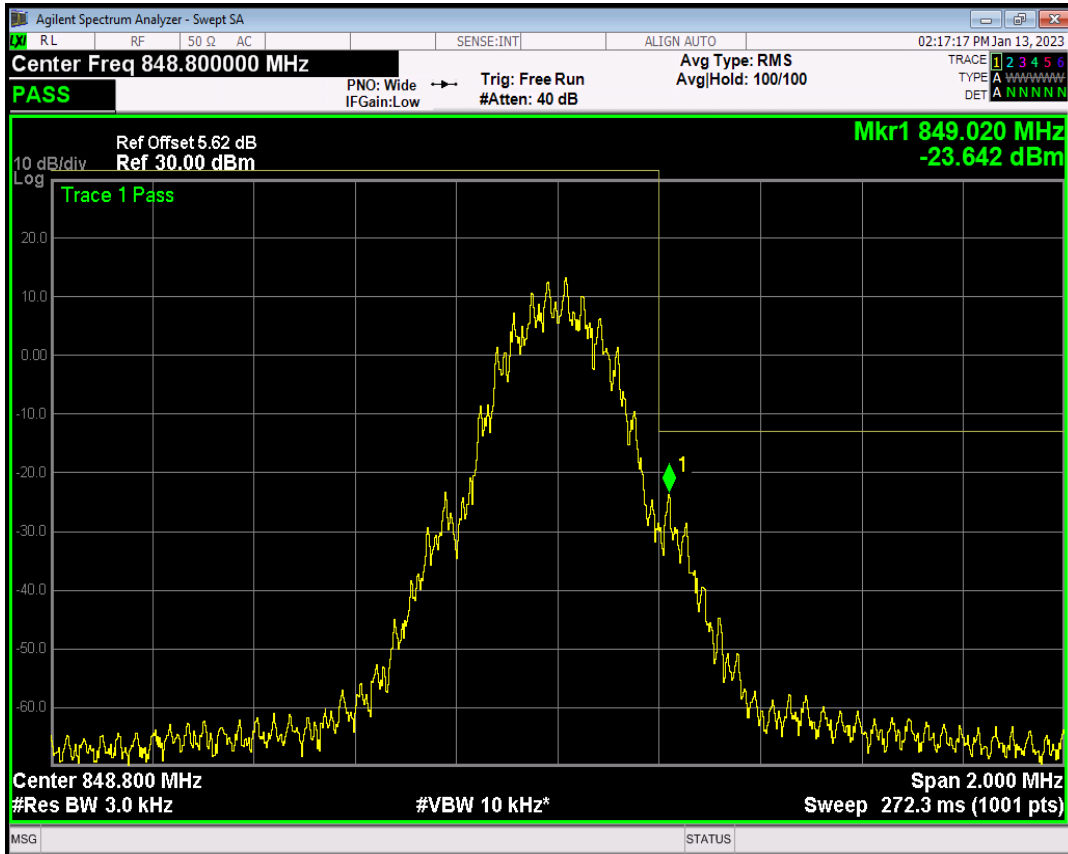
## GSM850 Channel=251



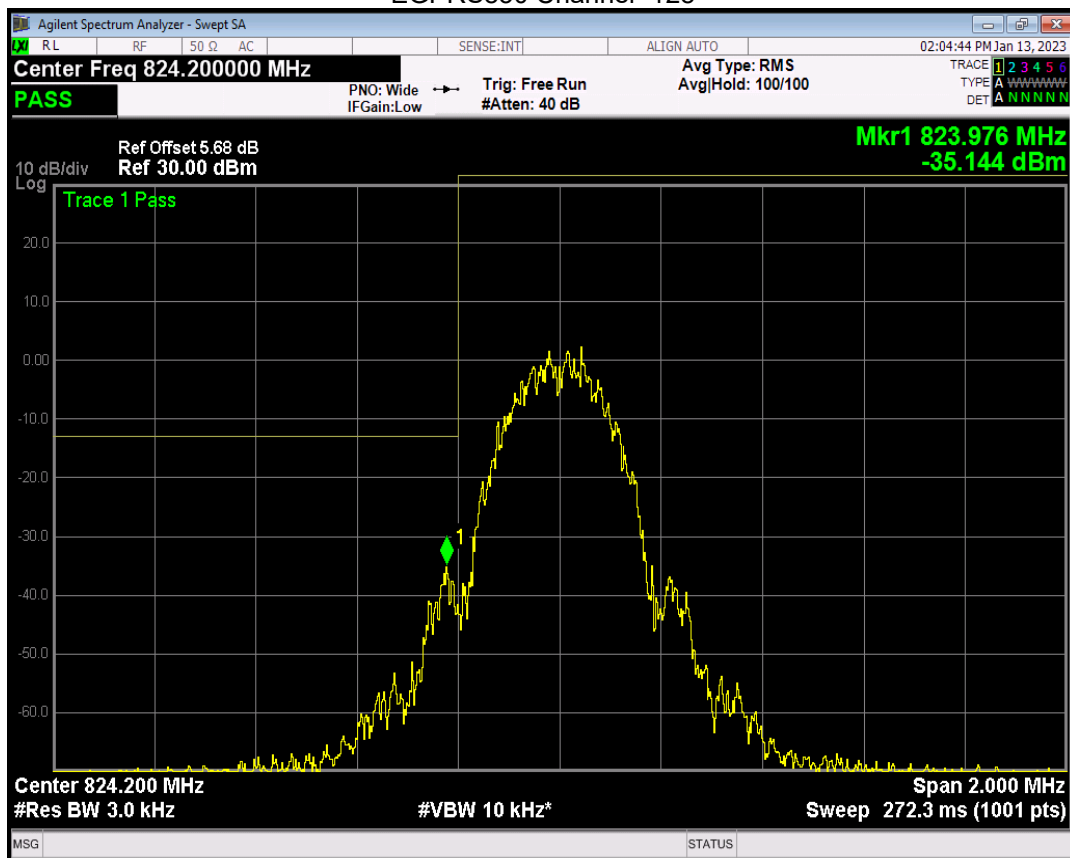
## GPRS850 Channel=128



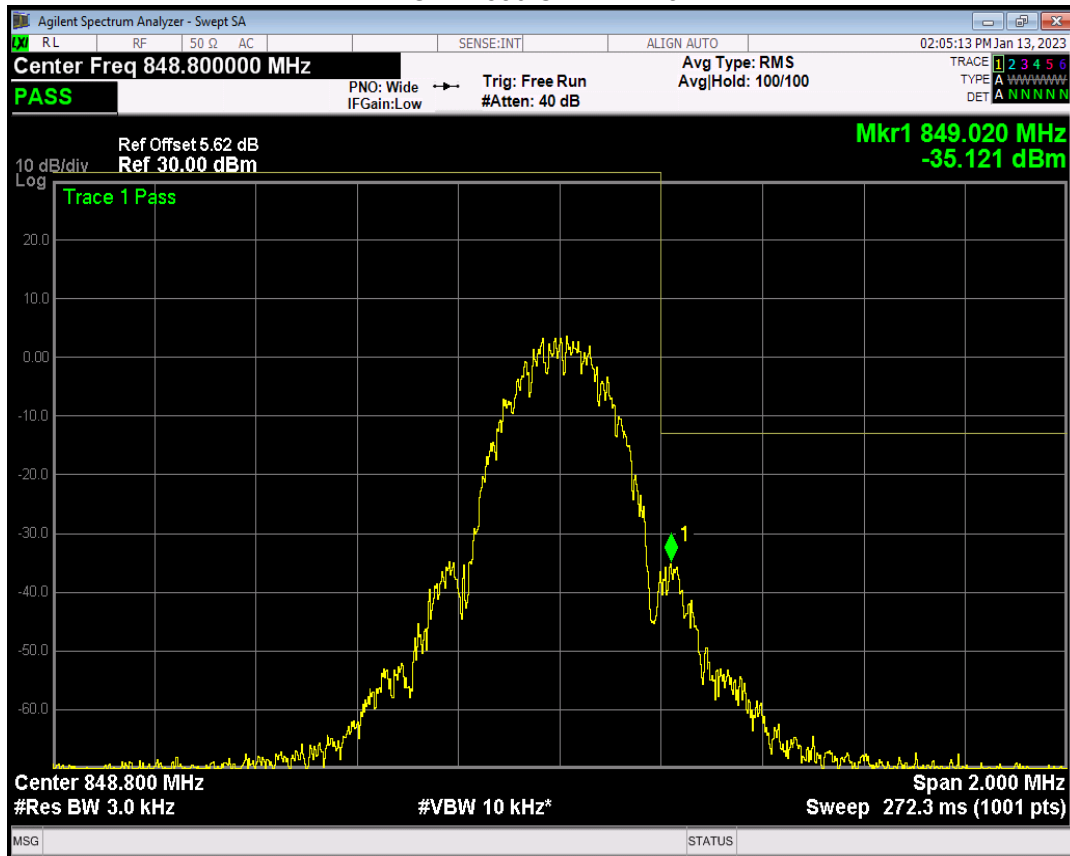
## GPRS850 Channel=251



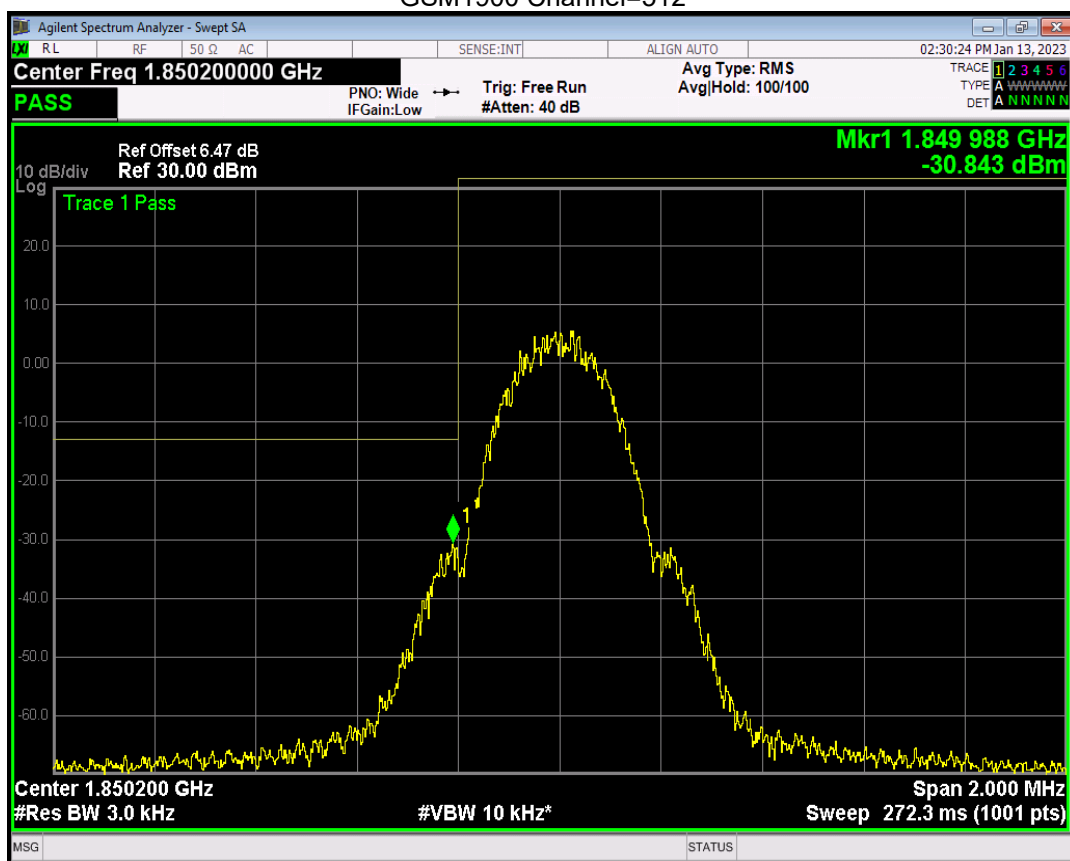
## EGPRS850 Channel=128



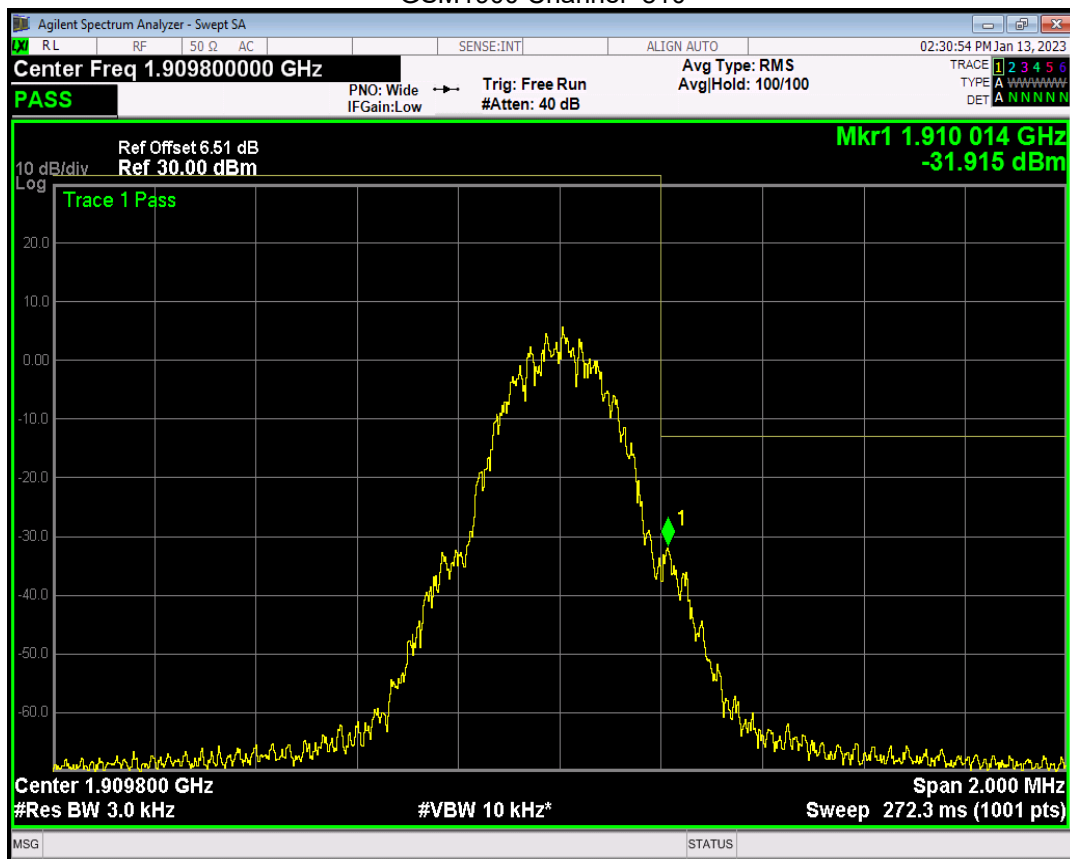
## EGPRS850 Channel=251



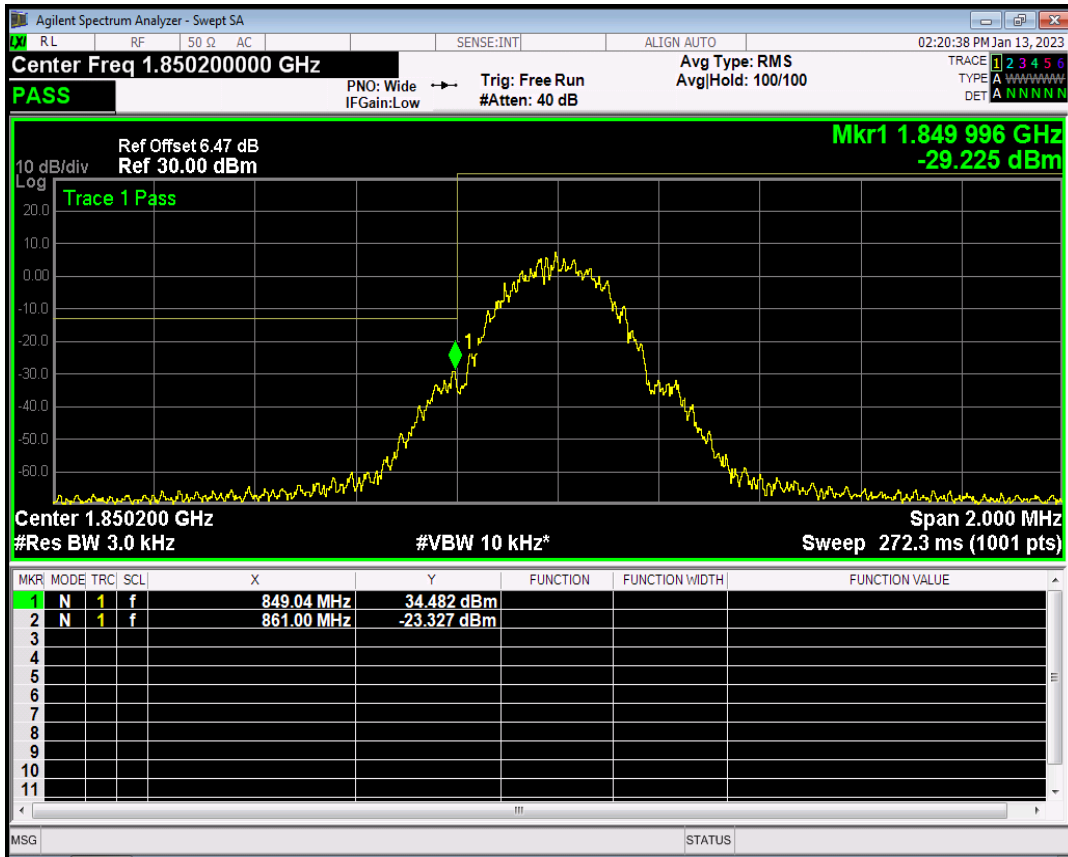
## GSM1900 Channel=512



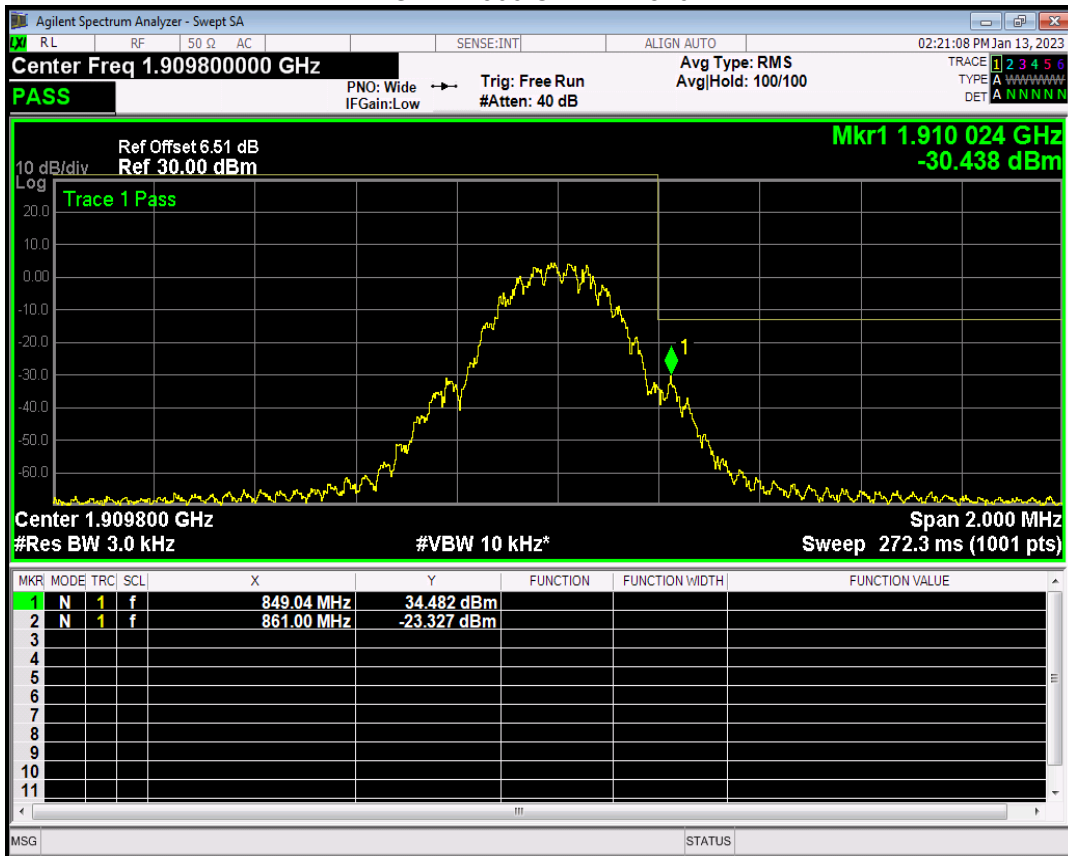
## GSM1900 Channel=810



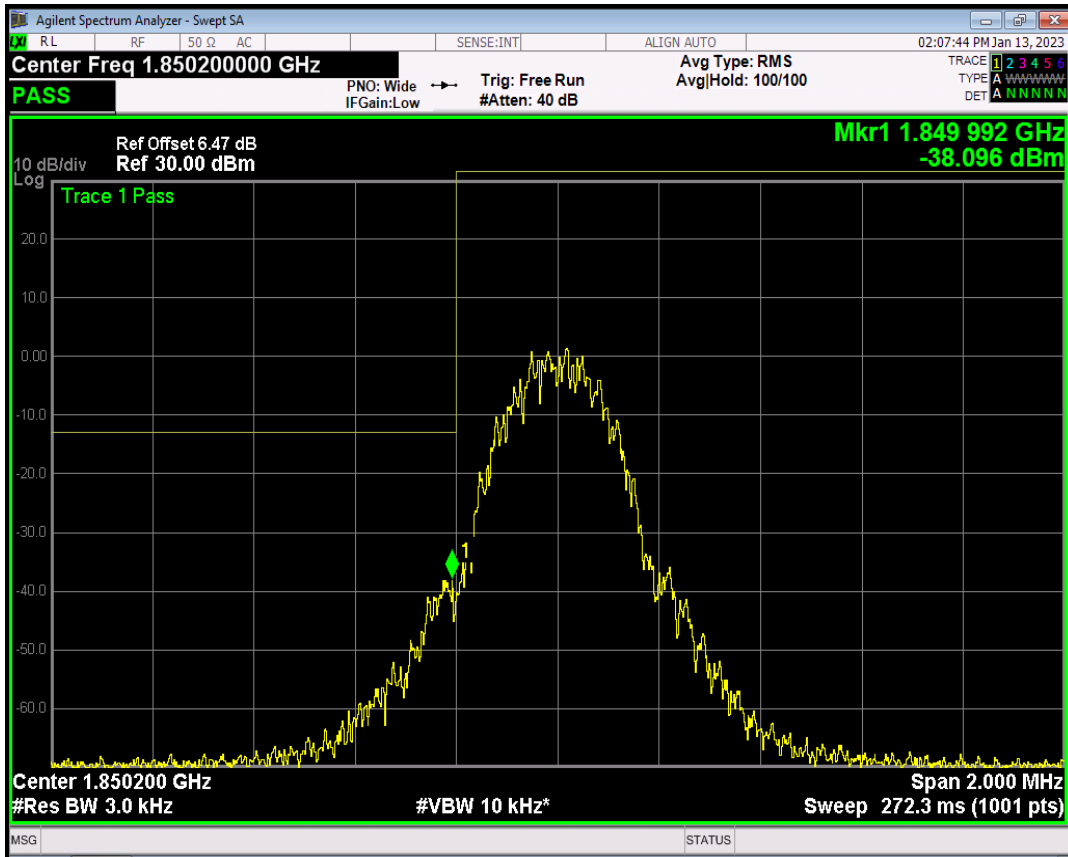
## GPRS1900 Channel=512



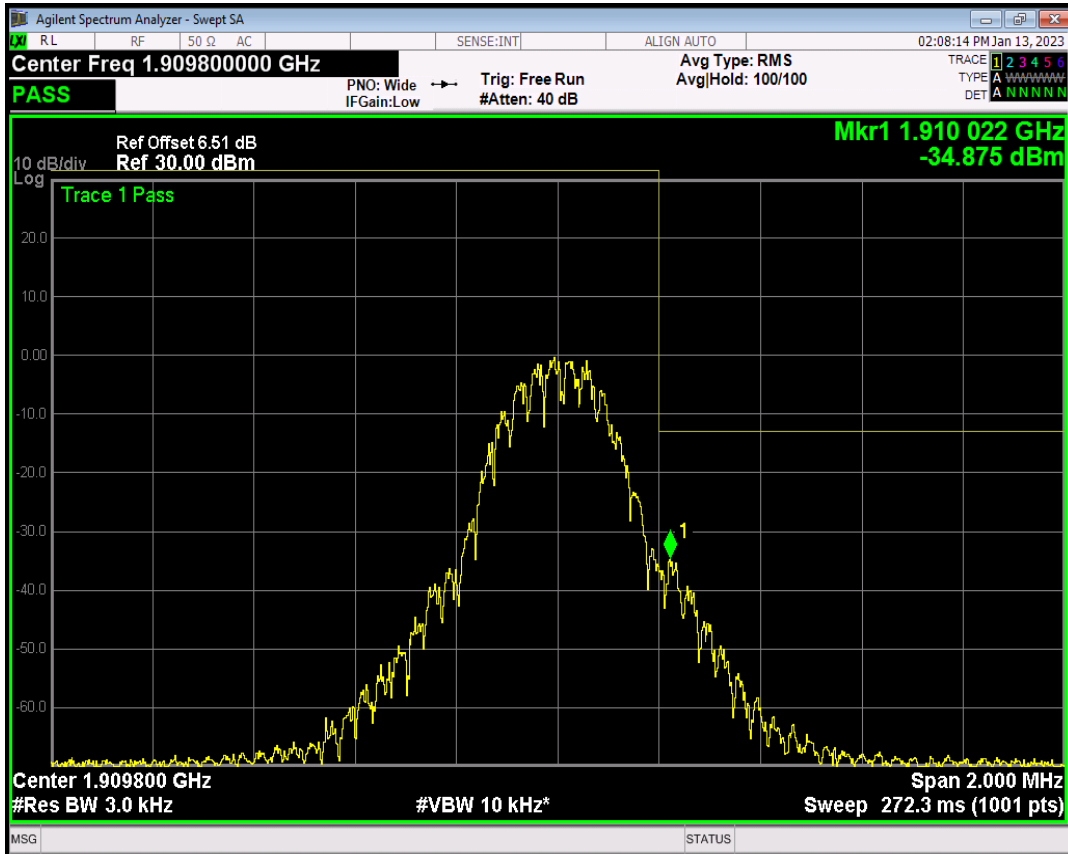
## GPRS1900 Channel=810



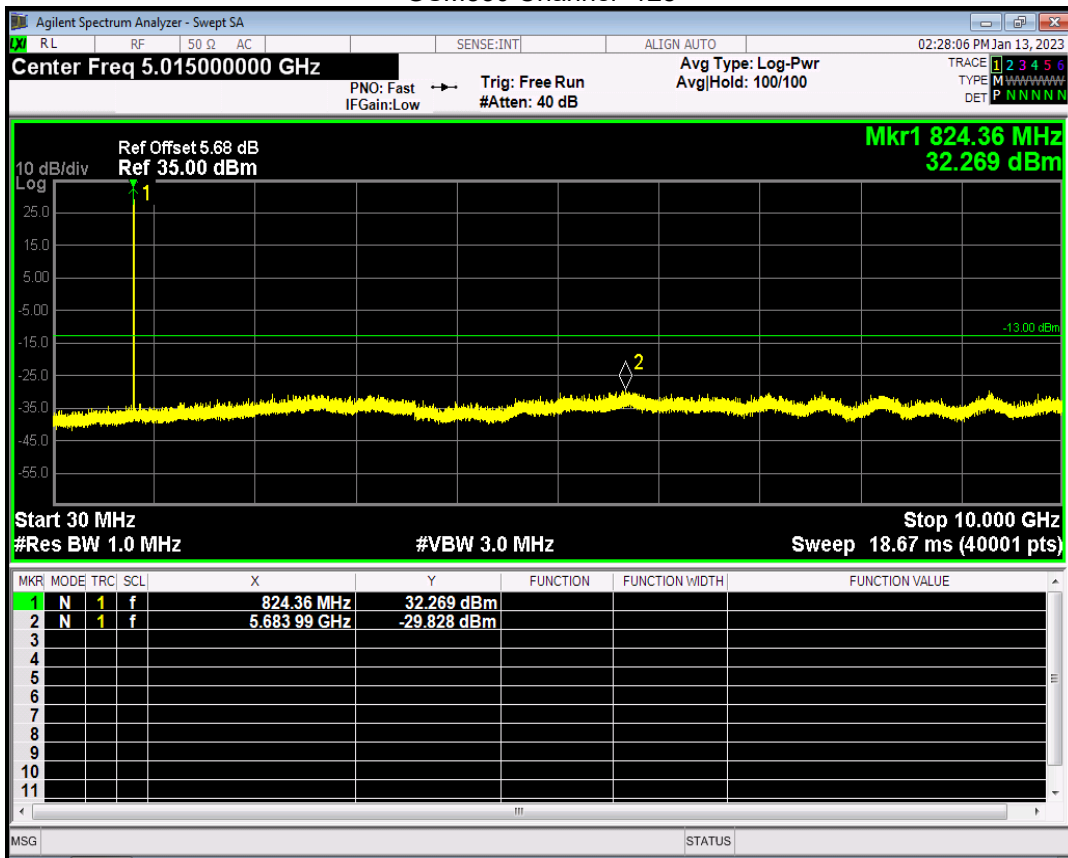
## EGPRS1900 Channel=512



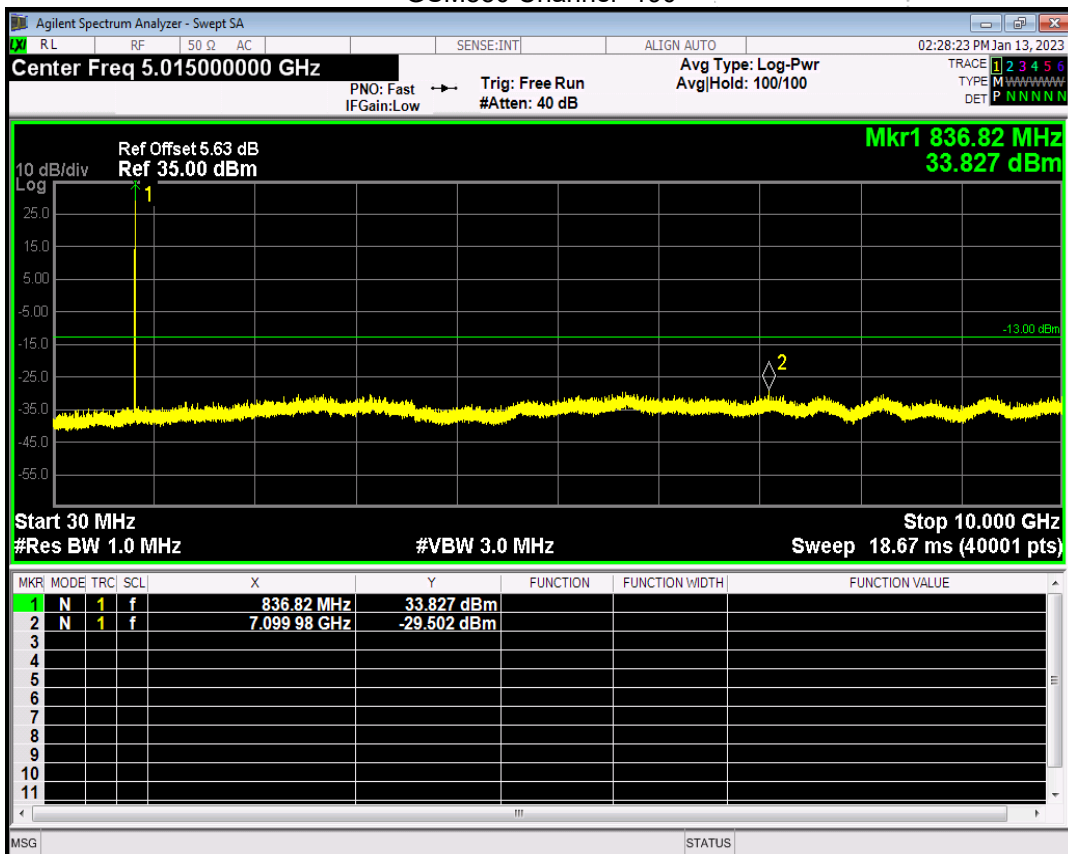
## EGPRS1900 Channel=810



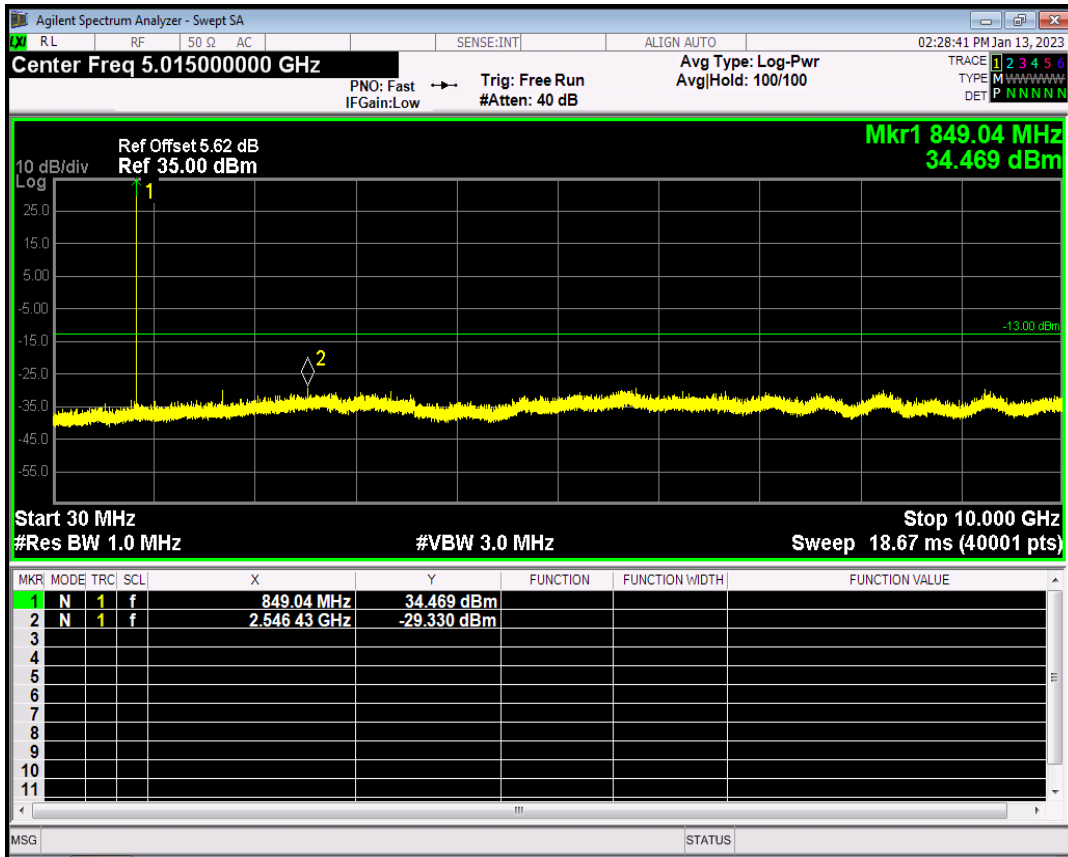
## GSM850 Channel=128



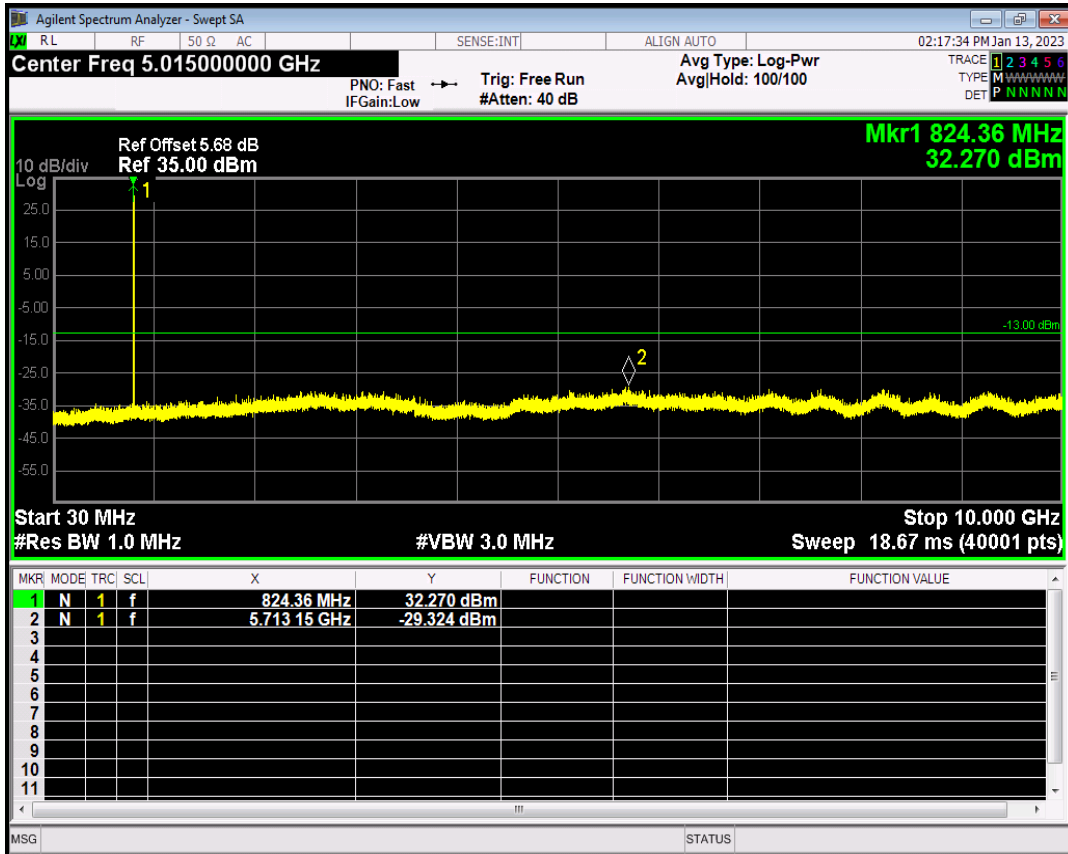
## GSM850 Channel=190



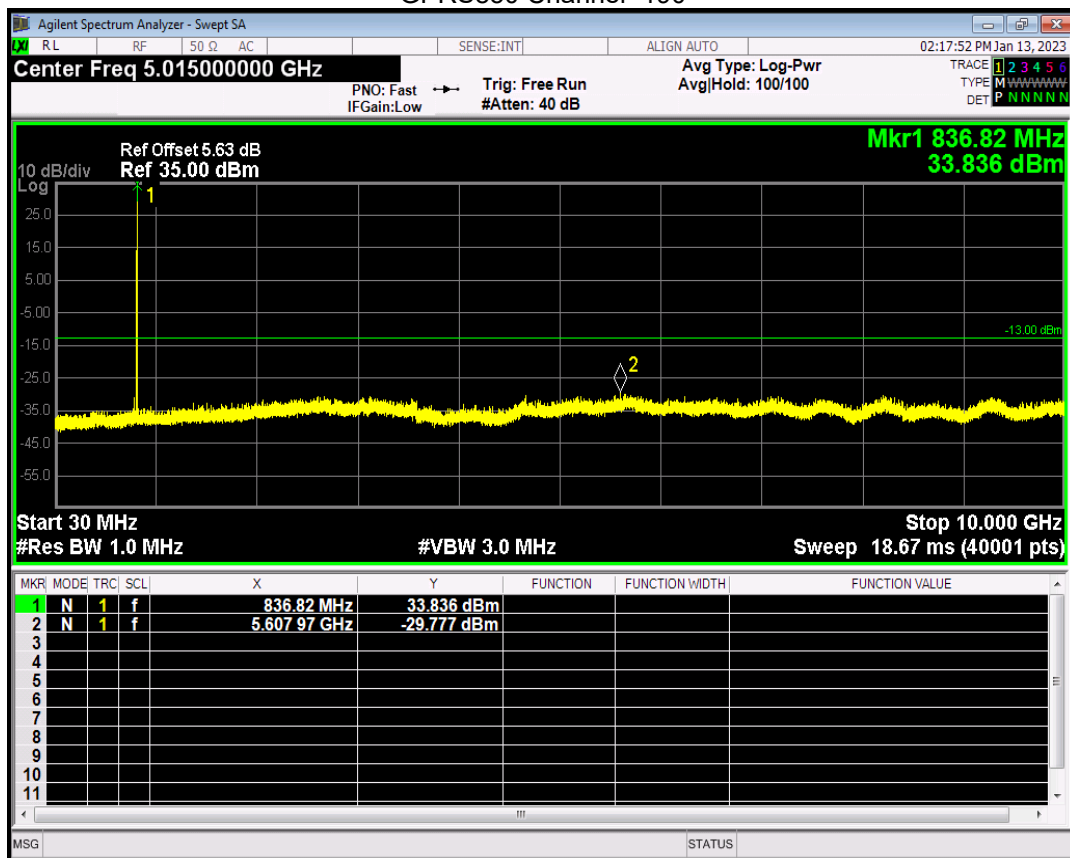
## GSM850 Channel=251



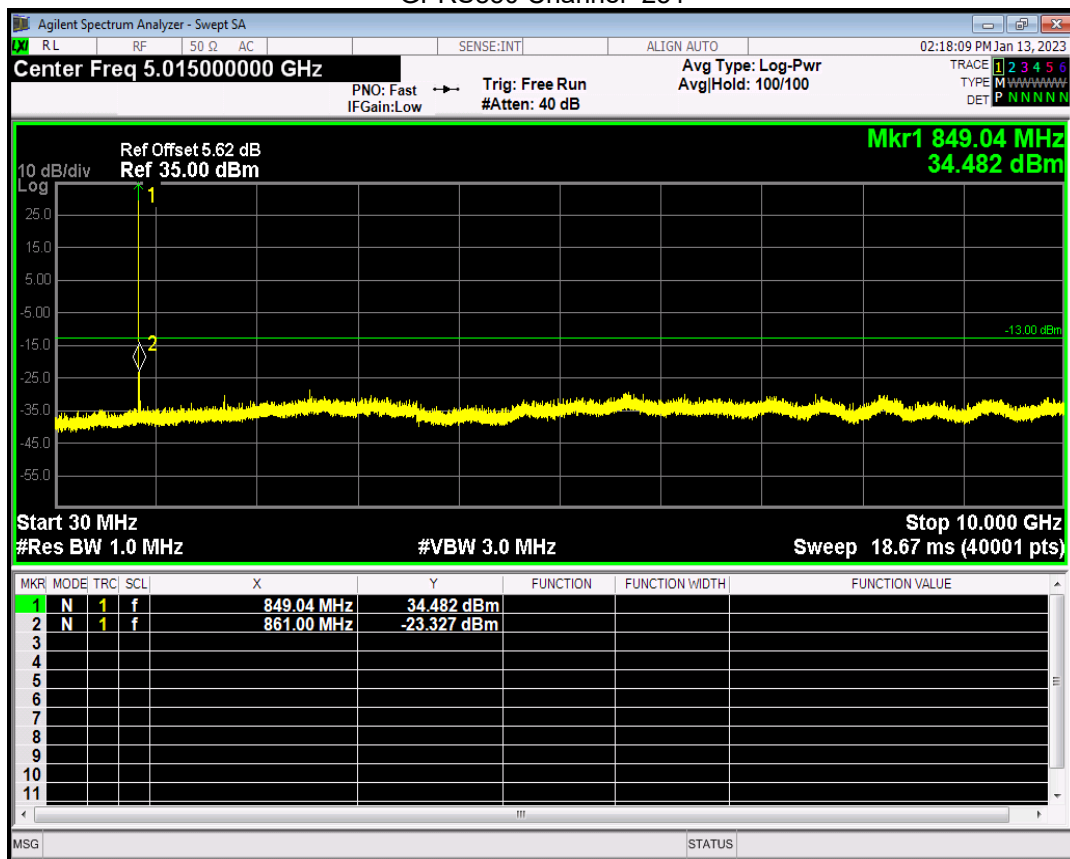
## GPRS850 Channel=128



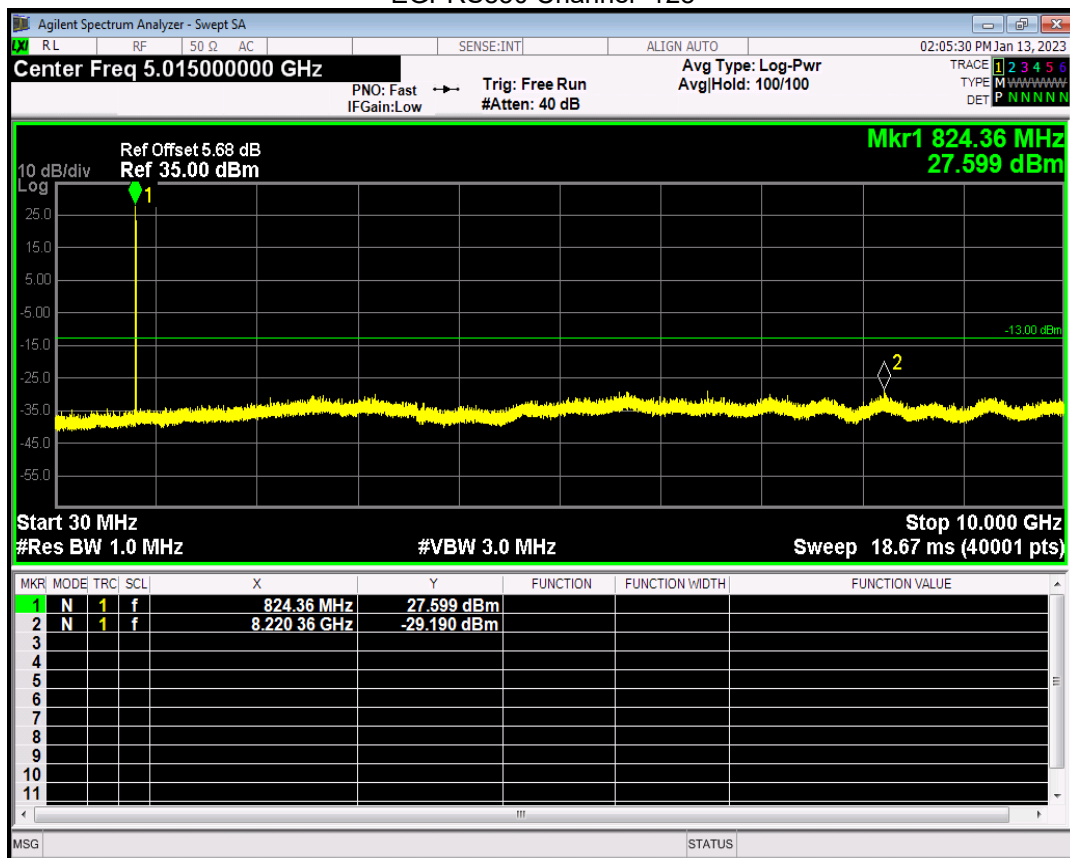
## GPRS850 Channel=190



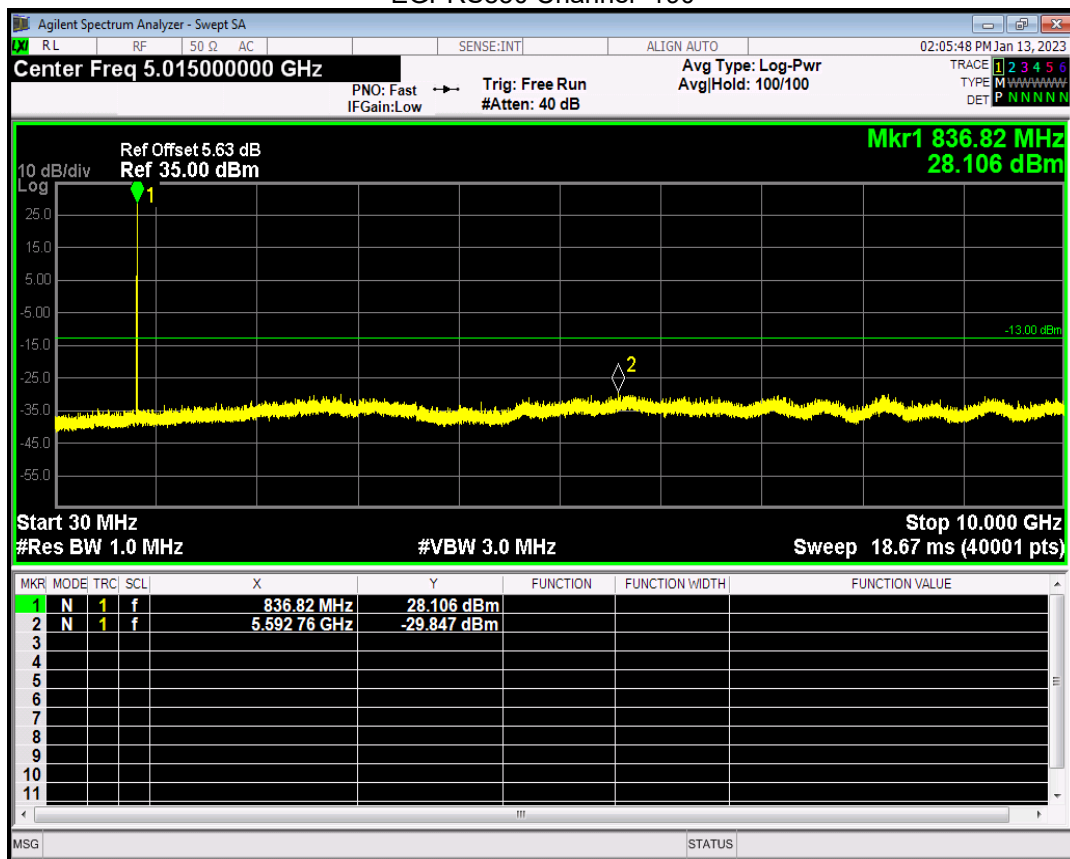
## GPRS850 Channel=251



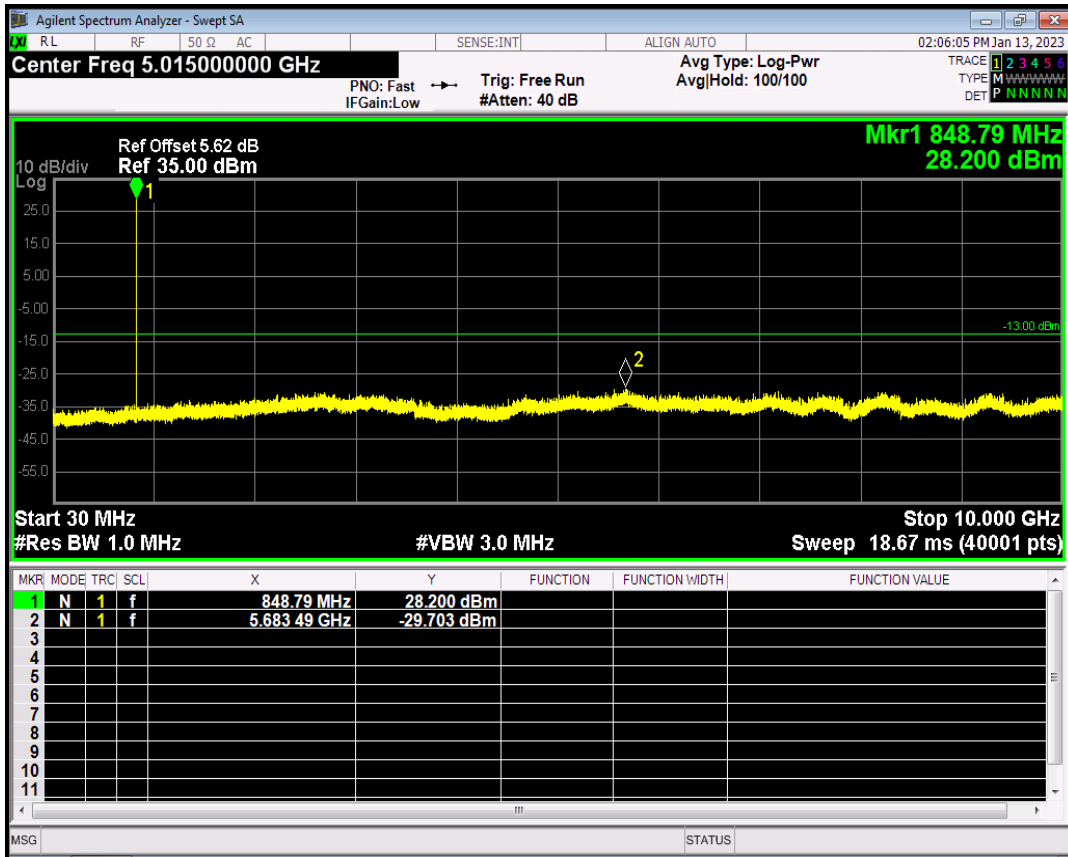
## EGPRS850 Channel=128



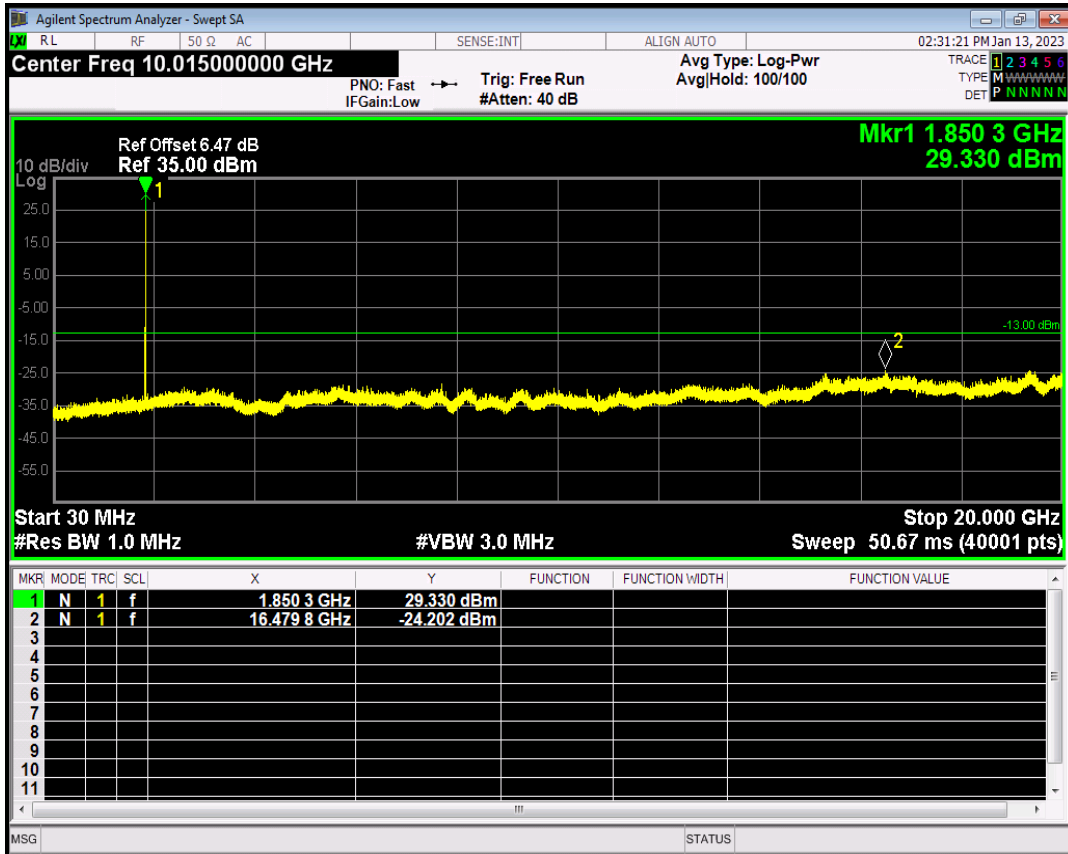
## EGPRS850 Channel=190



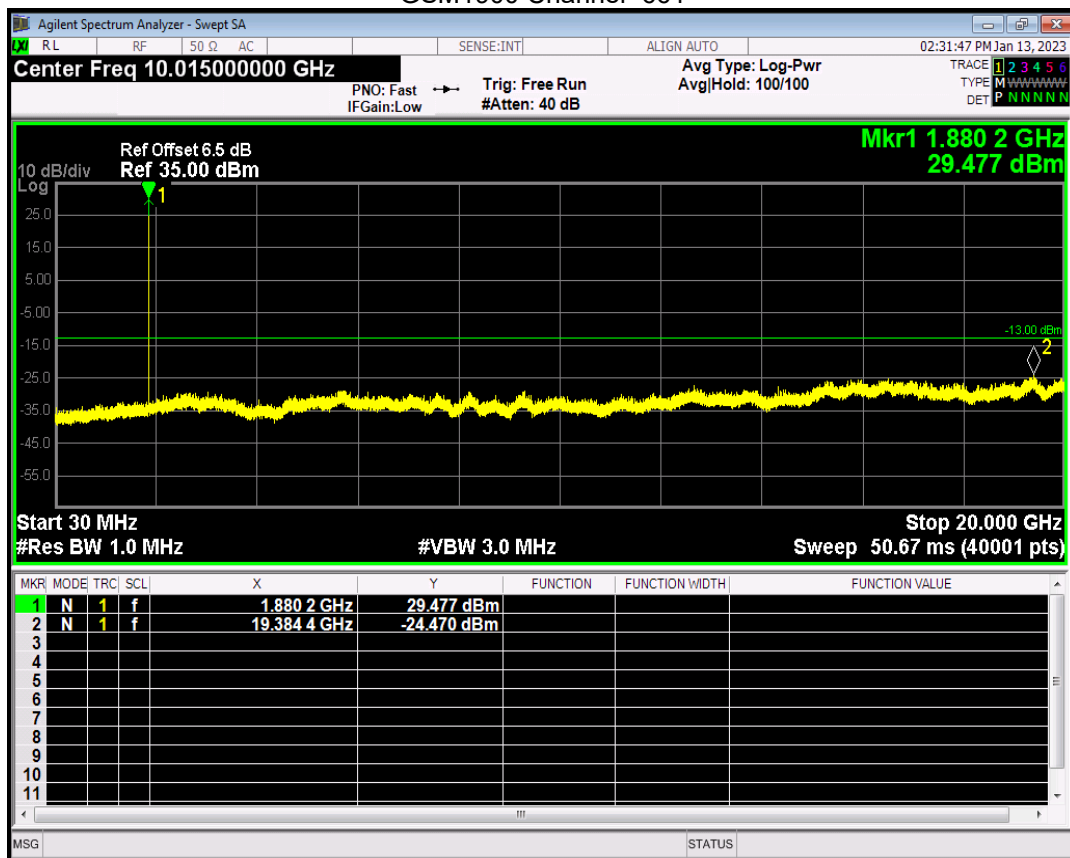
## EGPRS850 Channel=251



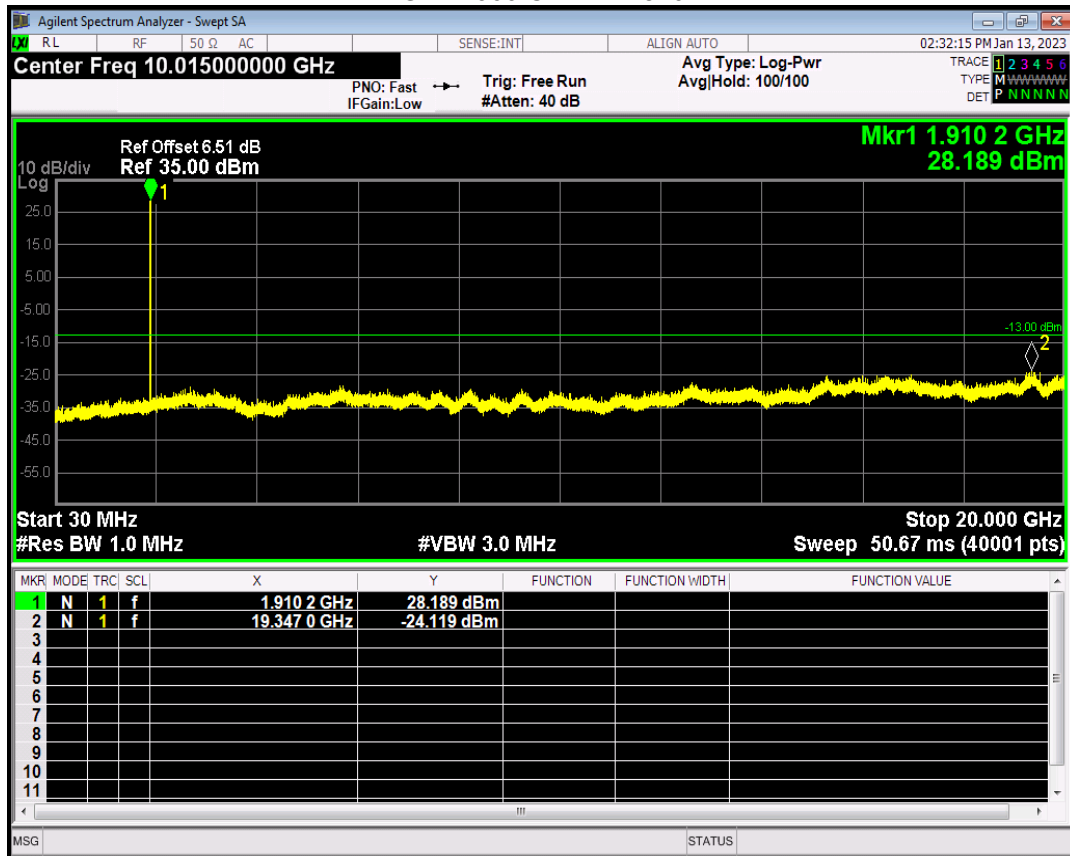
## GSM1900 Channel=512



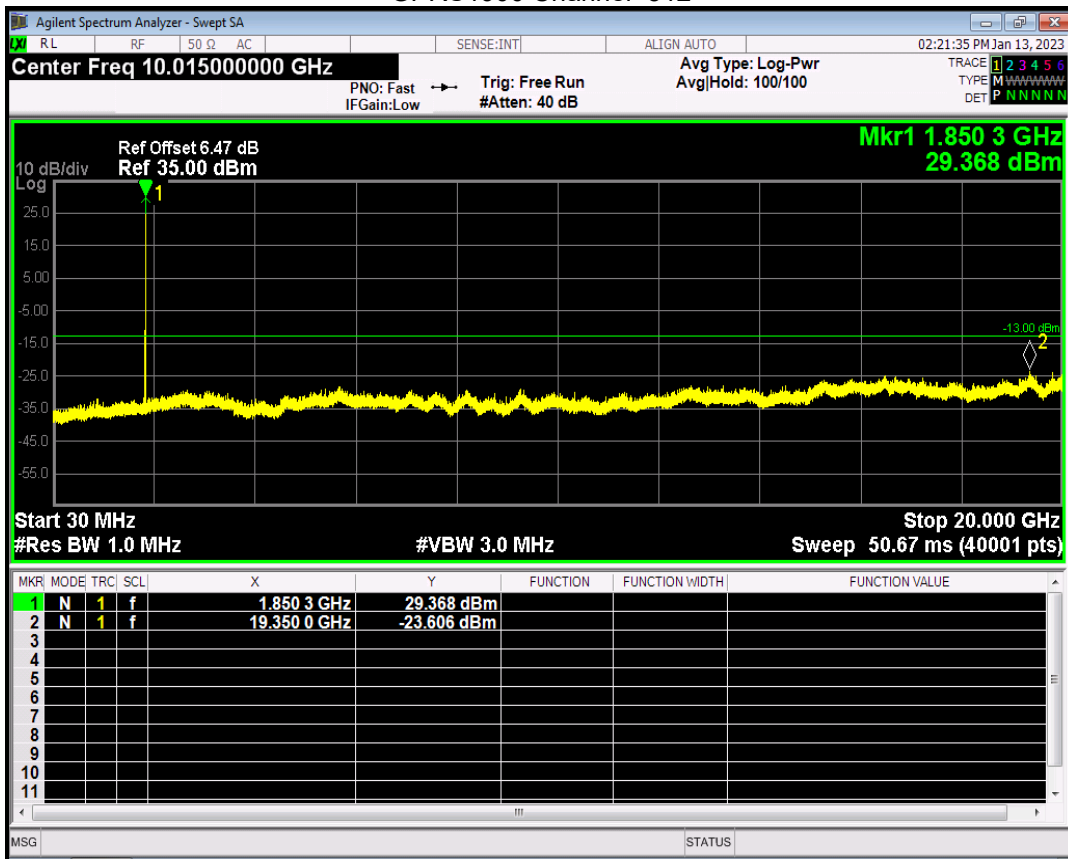
## GSM1900 Channel=661



## GSM1900 Channel=810



## GPRS1900 Channel=512



## GPRS1900 Channel=661

