

## 8.4 TEST RESULTS

### GSM

EUT Name	DiLink	Model	DiLink 3.0F
Sample No.	E20211217696105-0006	Test Mode	GSM
Power supply	DC 12V	Environmental Conditions	Temp:23.2℃;Humi:44%RH
Test Date	2022-04-08	Test Site	/
Tested By	Zhang Shuangshuang	Reviewed by	Zhao Zetian

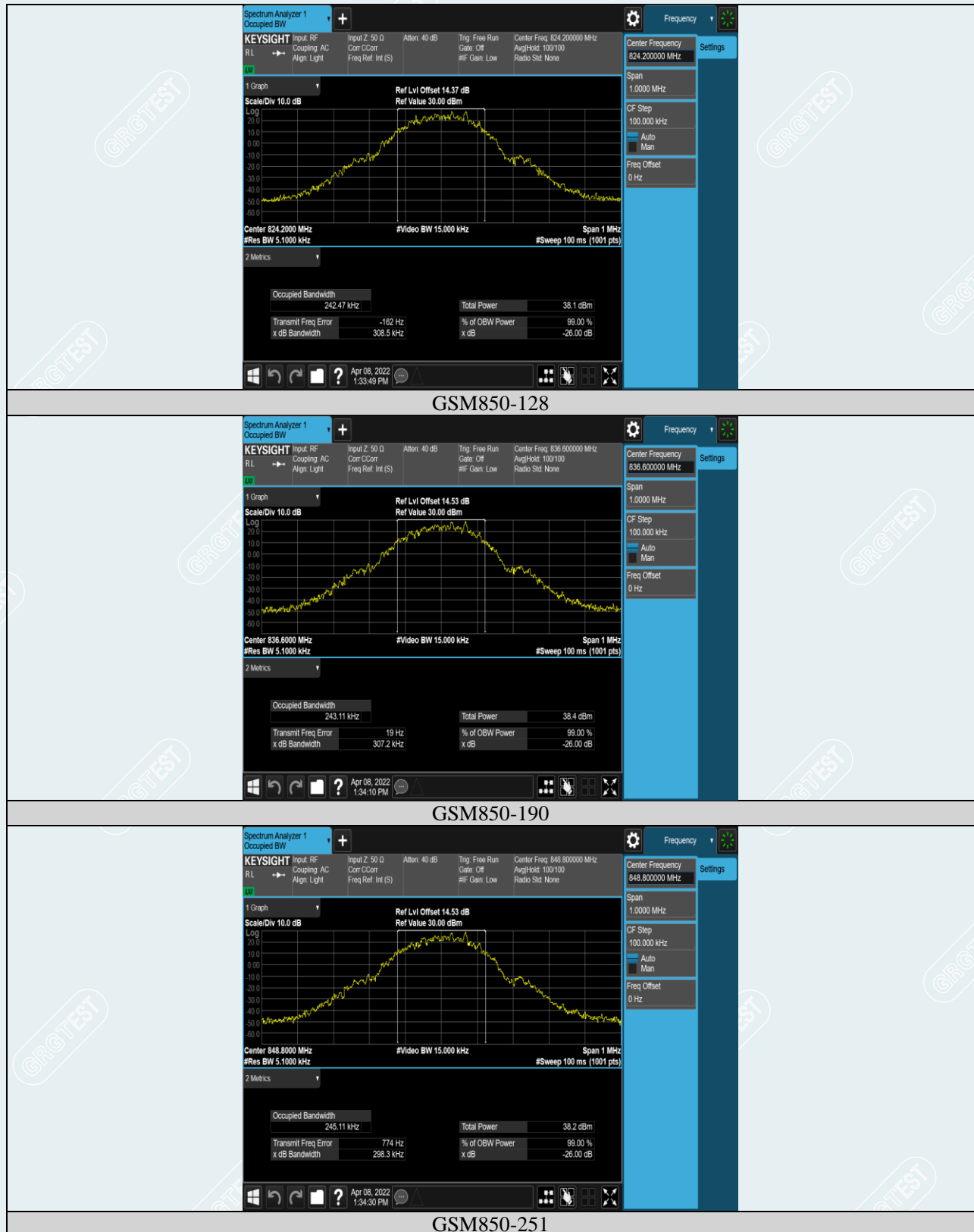
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	0.24247	0.3085	---	PASS
GSM850	190	0.24311	0.3072	---	PASS
GSM850	251	0.24511	0.2983	---	PASS
GPRS850	128	0.24617	0.3110	---	PASS
GPRS850	190	0.24710	0.3176	---	PASS
GPRS850	251	0.24071	0.3085	---	PASS
EGPRS850	128	0.24518	0.3098	---	PASS
EGPRS850	190	0.24428	0.3160	---	PASS
EGPRS850	251	0.24436	0.3046	---	PASS
GSM1900	512	0.24278	0.3034	---	PASS
GSM1900	661	0.24217	0.3010	---	PASS
GSM1900	810	0.24002	0.3086	---	PASS
GPRS1900	512	0.24324	0.3072	---	PASS
GPRS1900	661	0.24747	0.3145	---	PASS
GPRS1900	810	0.24719	0.3140	---	PASS
EGPRS1900	512	0.24588	0.3091	---	PASS
EGPRS1900	661	0.24624	0.3067	---	PASS
EGPRS1900	810	0.24402	0.3184	---	PASS

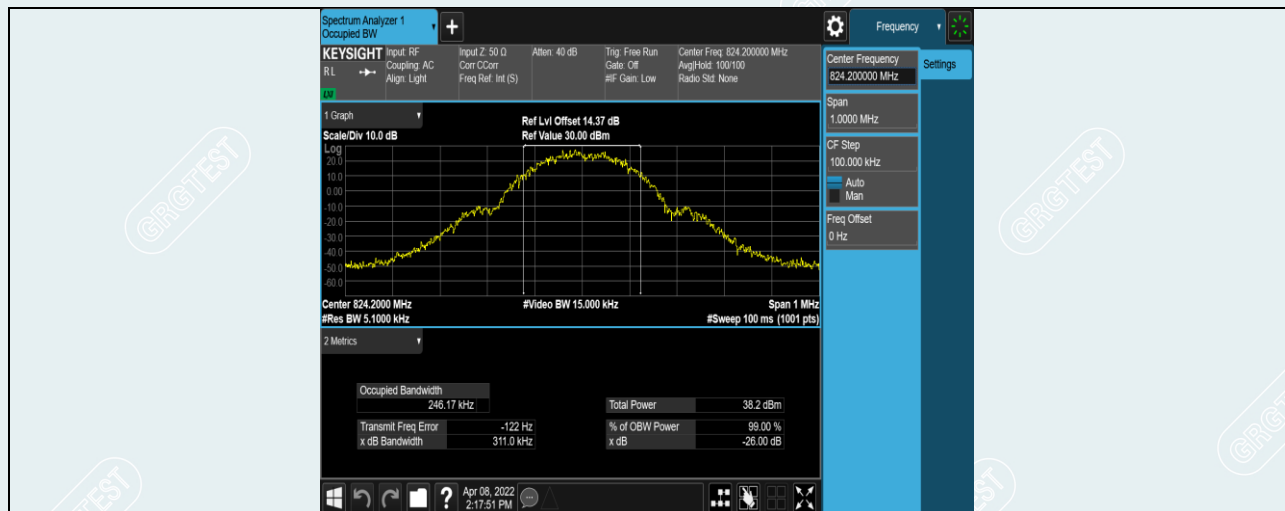
### WCDMA

EUT Name	DiLink	Model	DiLink 3.0F
Sample No.	E20211217696105-0006	Test Mode	WCDMA
Power supply	DC 12V	Environmental Conditions	Temp:22.5℃;Humi:46%RH
Test Date	2022-04-11 to 2022-04-19	Test Site	/
Tested By	Zhang Shuangshuang	Reviewed by	Zhao Zetian

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	4.1252	4.698	---	PASS
Band2	9400	4.1326	4.703	---	PASS
Band2	9538	4.1278	4.697	---	PASS
Band4	1312	4.1250	4.700	---	PASS
Band4	1413	4.1378	4.701	---	PASS
Band4	1513	4.1277	4.708	---	PASS
Band5	4132	4.1327	4.708	---	PASS
Band5	4182	4.1306	4.725	---	PASS
Band5	4233	4.1431	4.733	---	PASS

## GSM

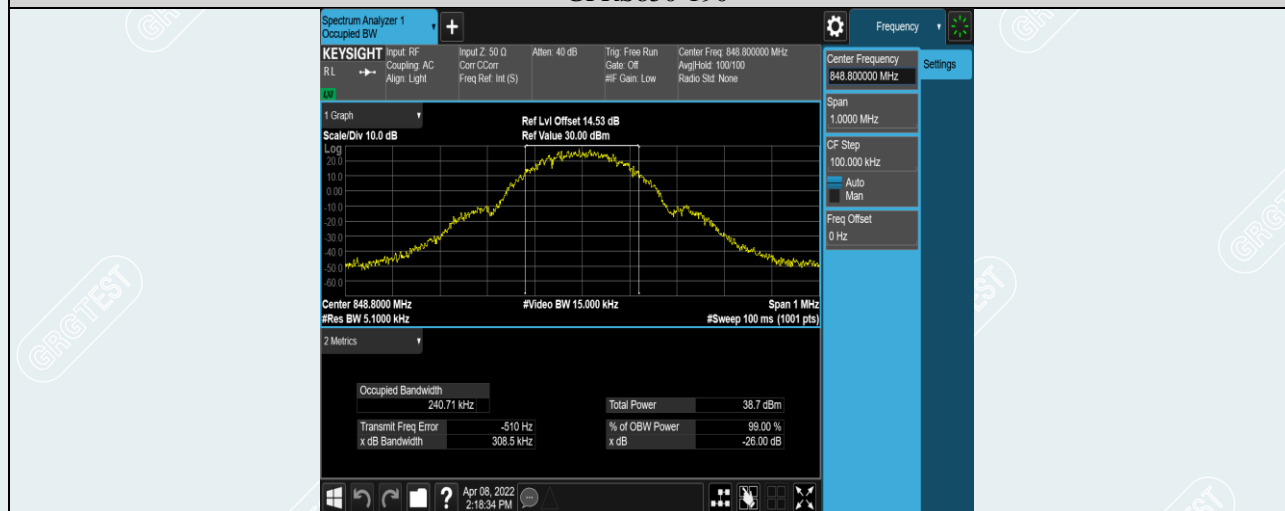




GPRS850-128



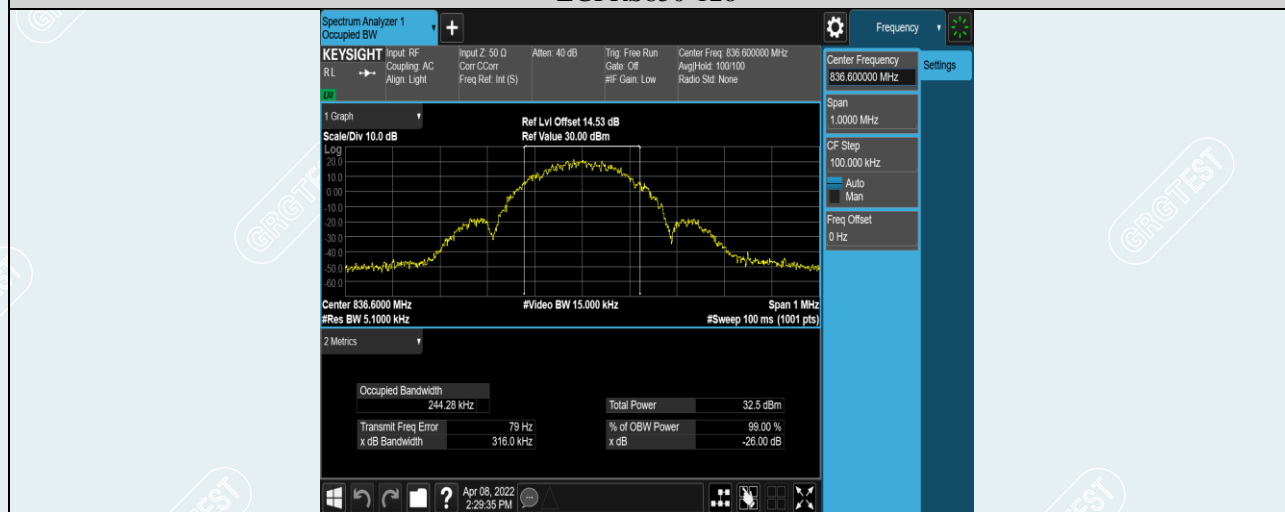
GPRS850-190



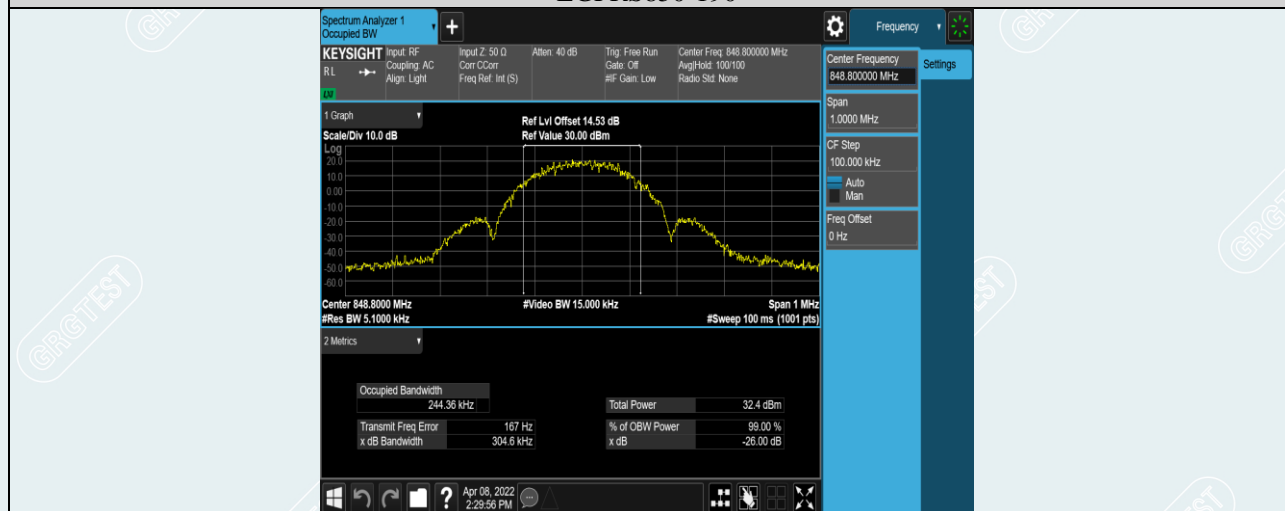
GPRS850-251



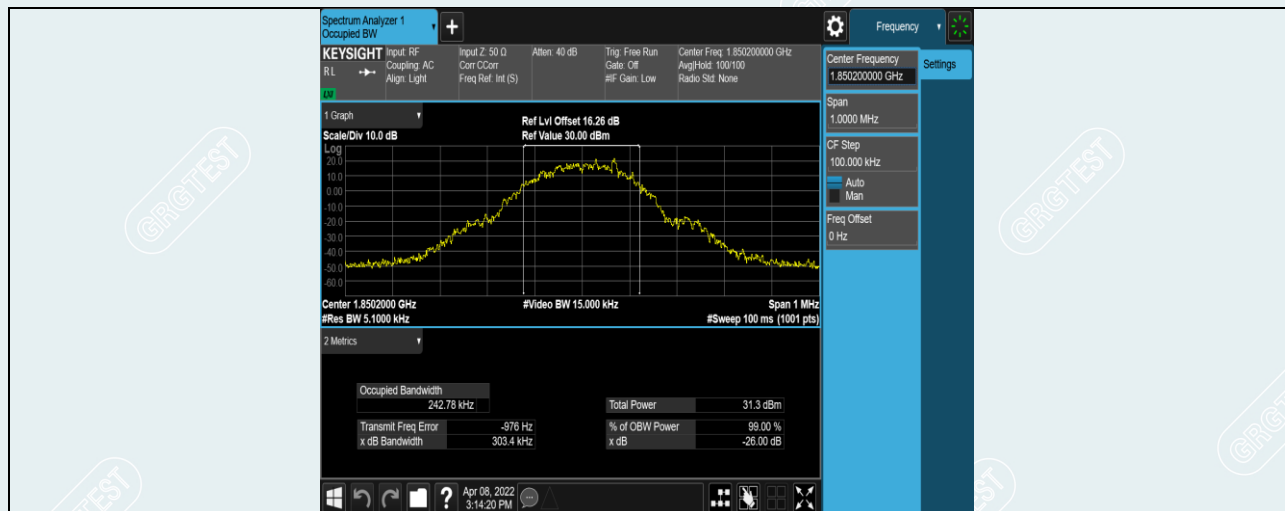
EGPRS850-128



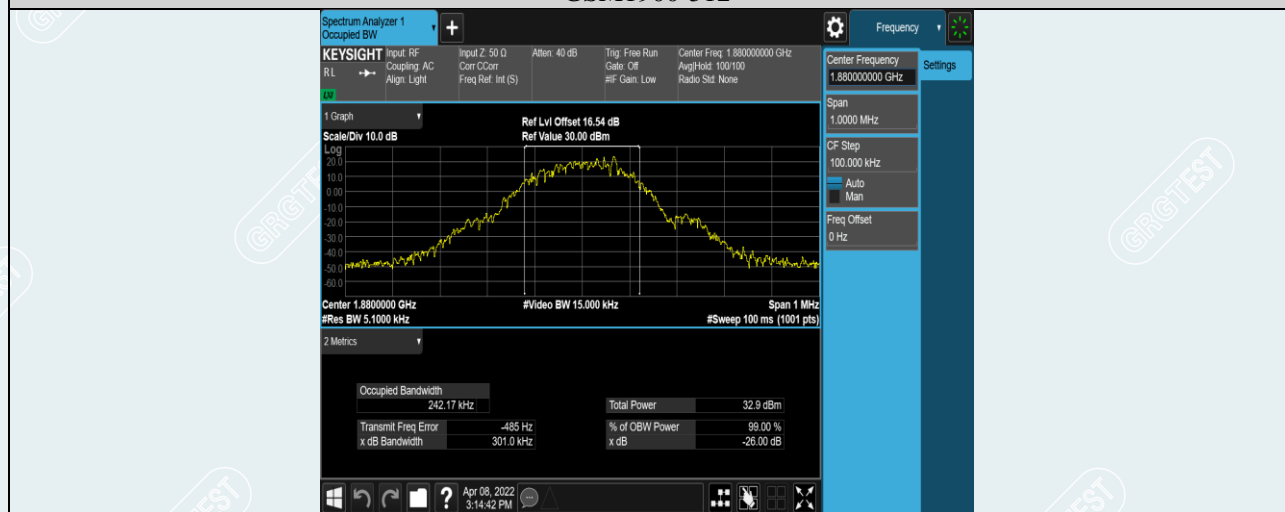
EGPRS850-190



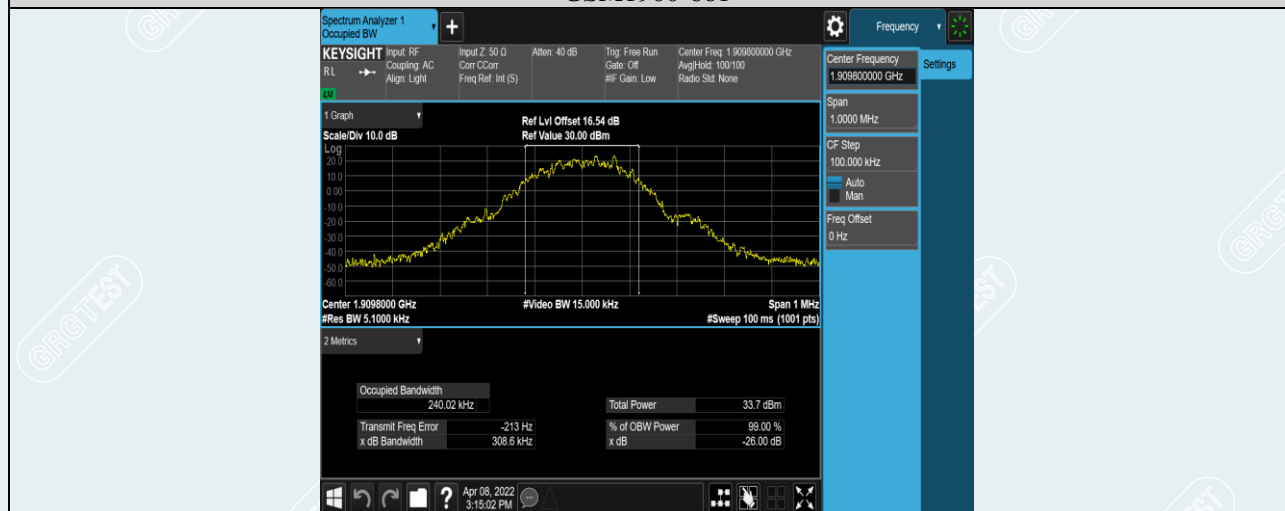
EGPRS850-251



## GSM1900-512

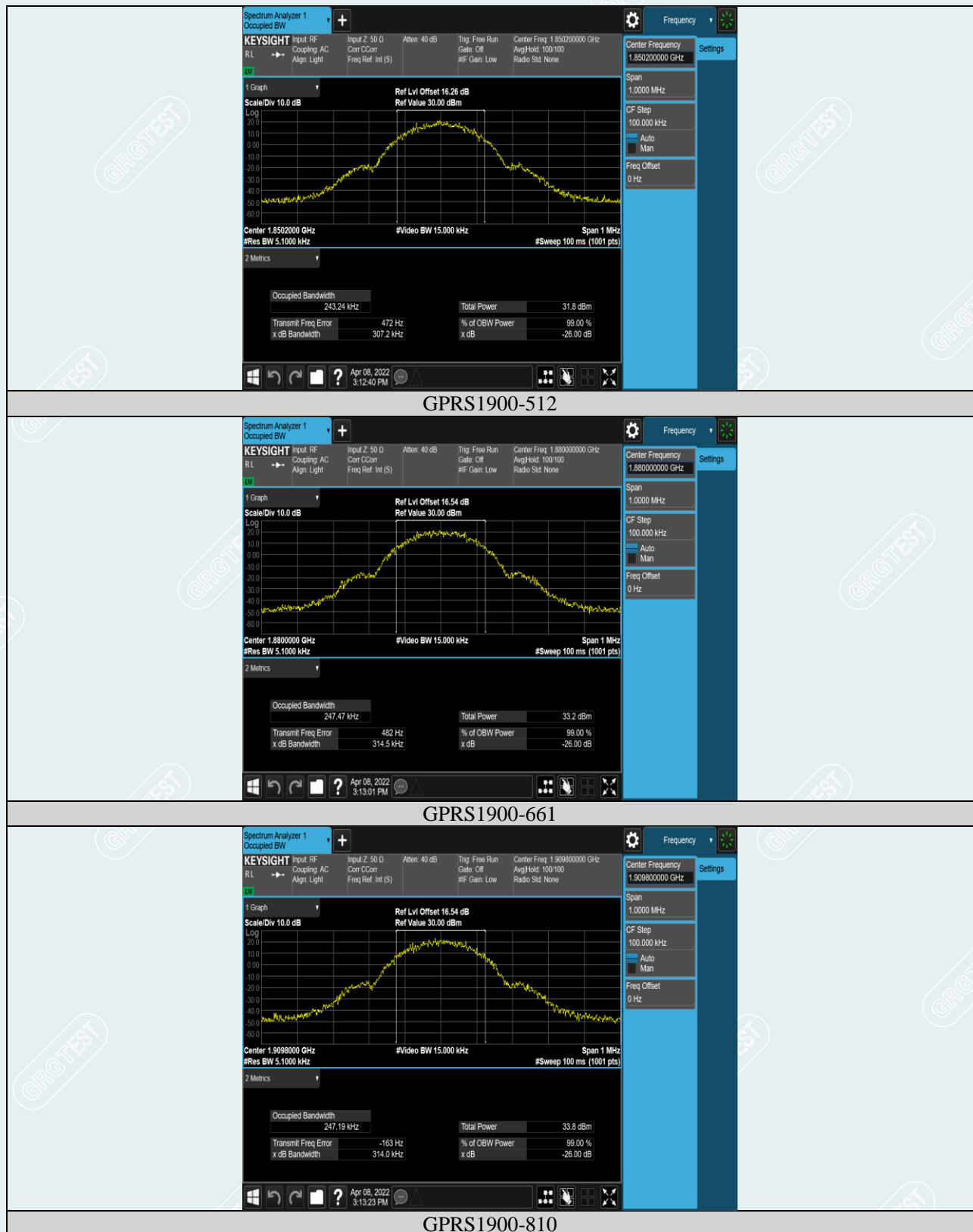


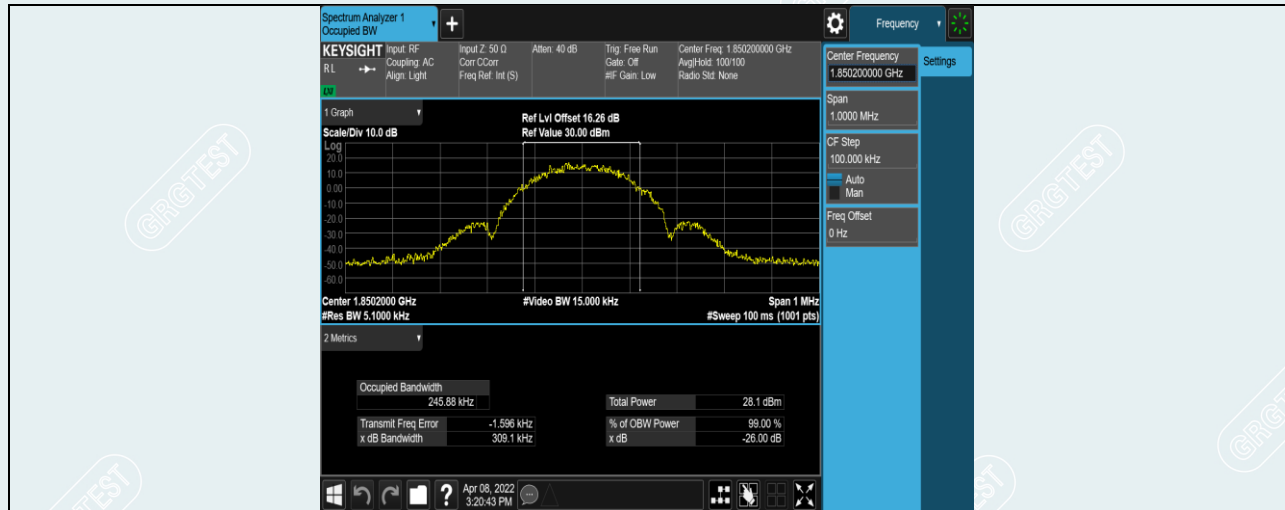
## GSM1900-661



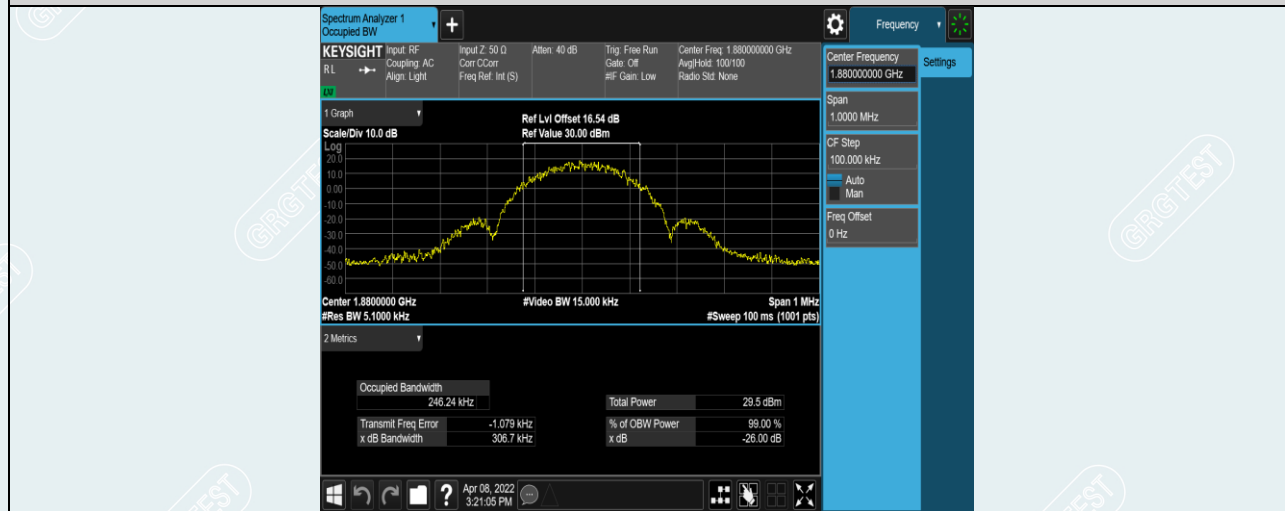
## GSM1900-810



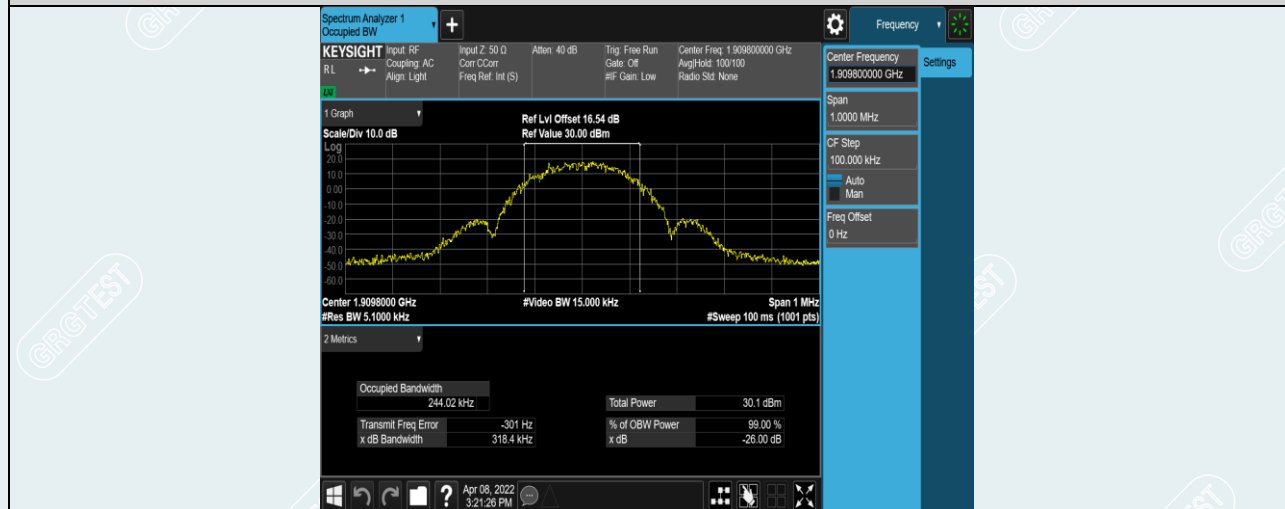




## EGPRS1900-512

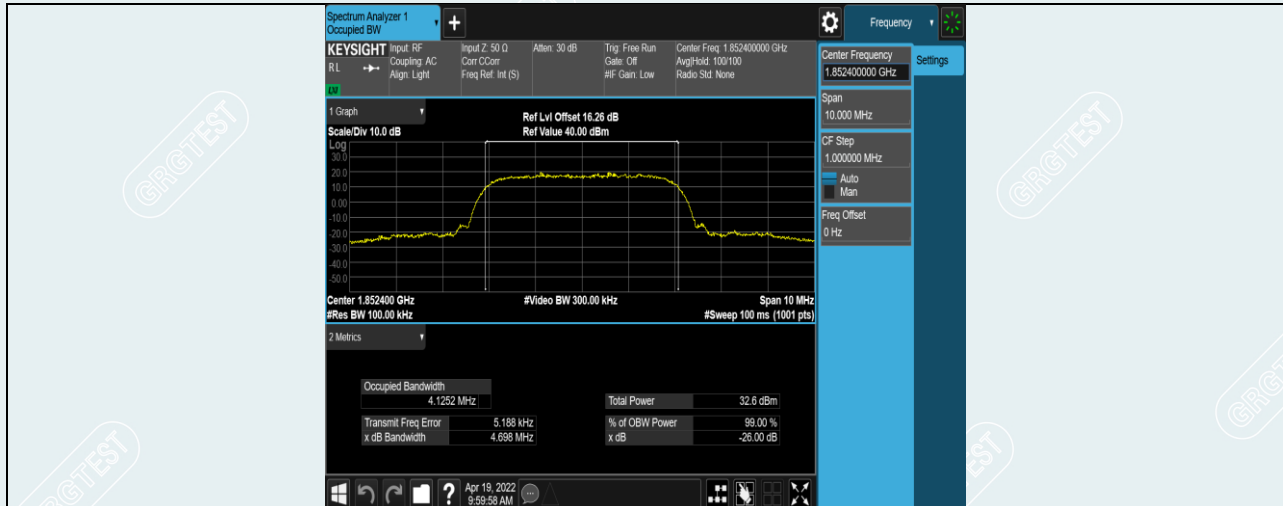


## EGPRS1900-661

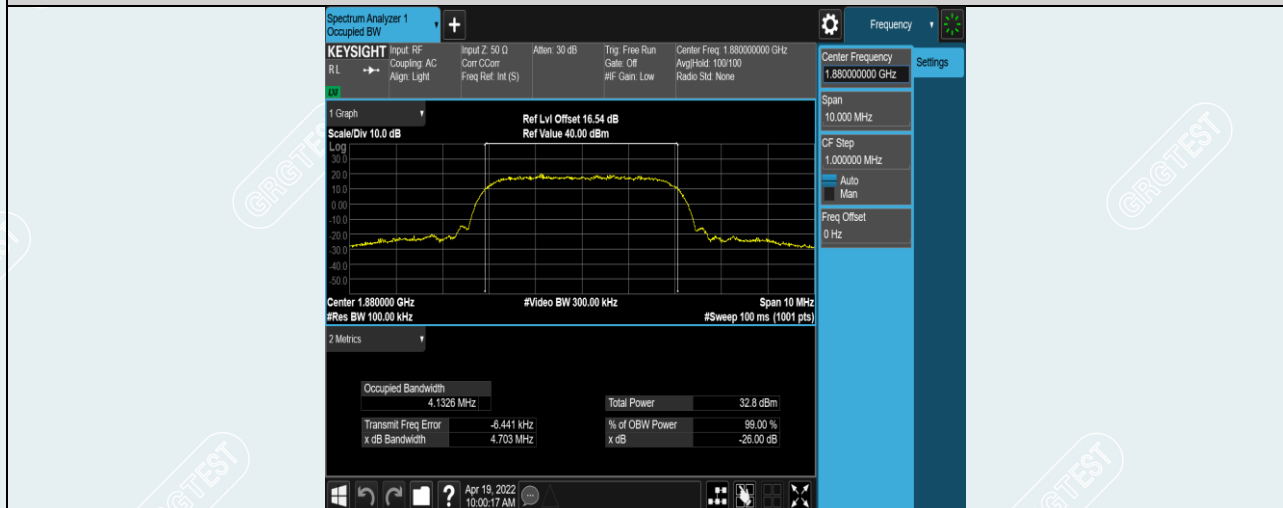


## EGPRS1900-810

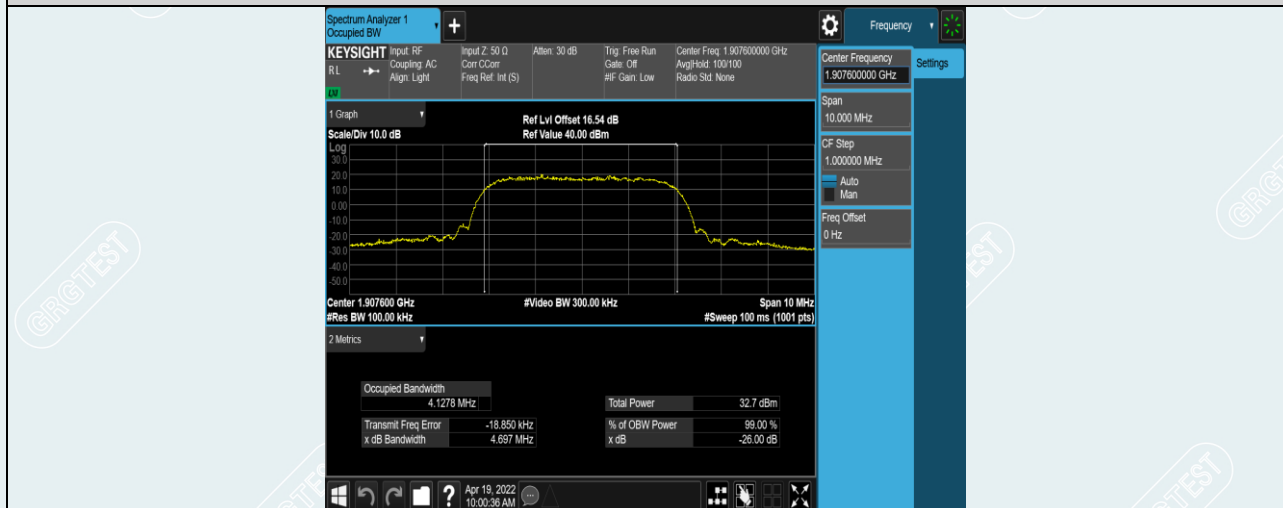
## WCDMA



Band2-9262

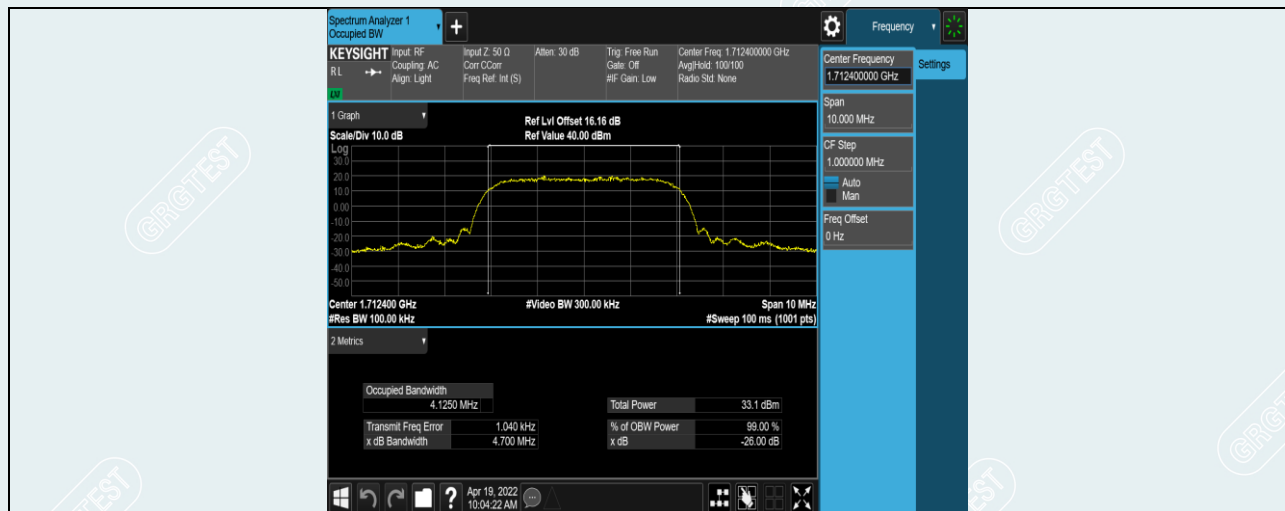


Band2-9400

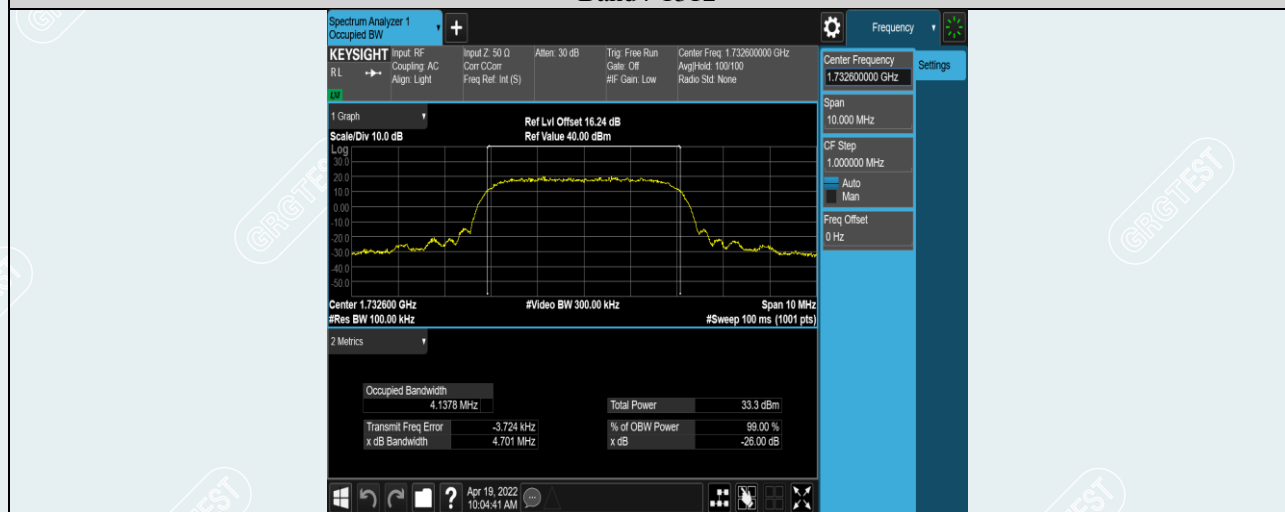


Band2-9538

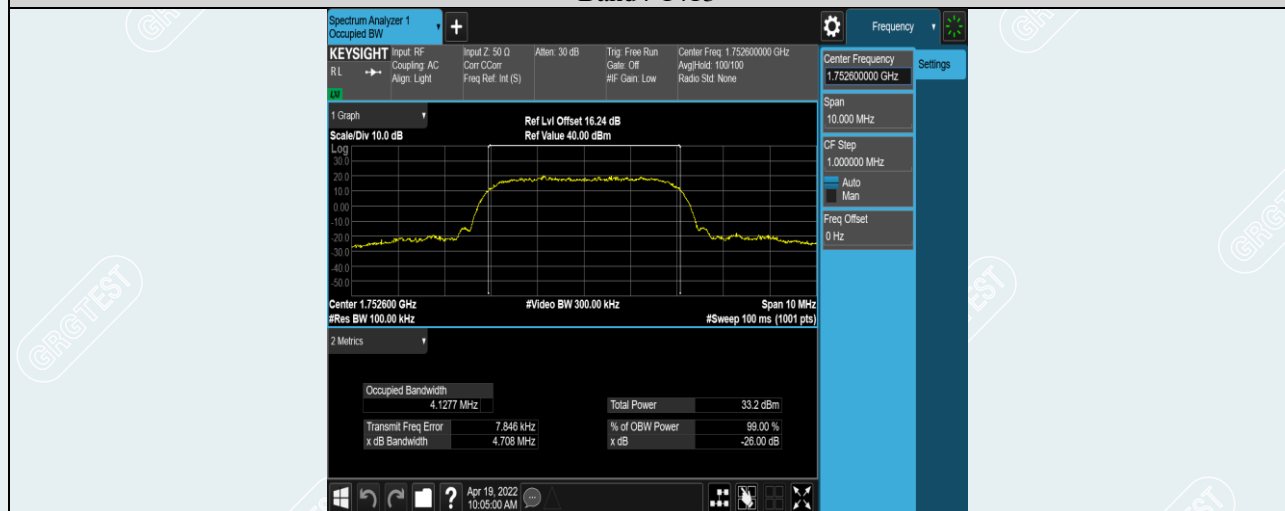




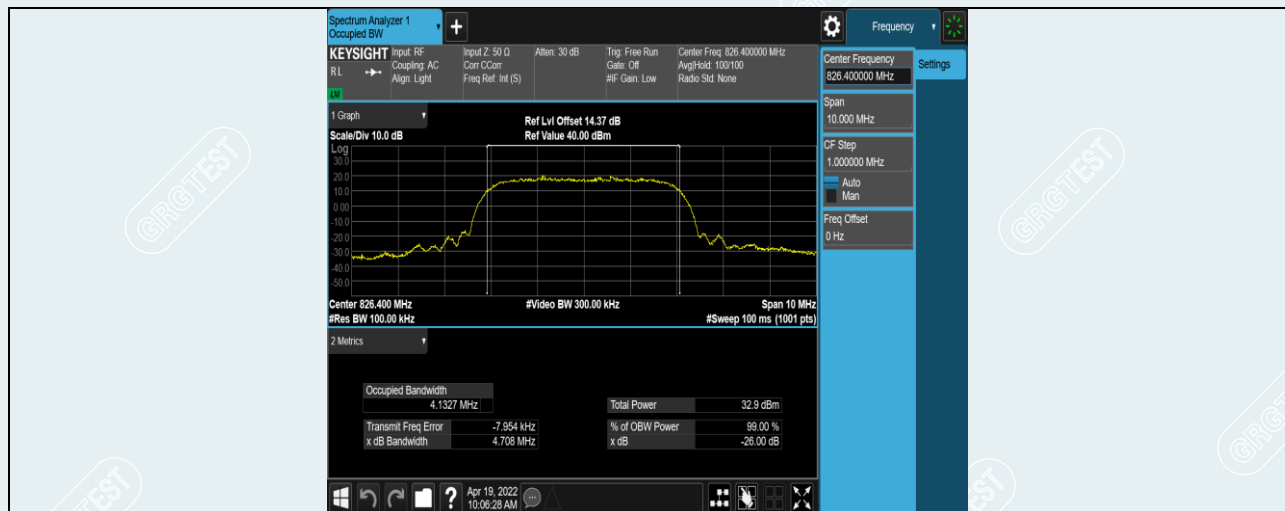
Band4-1312



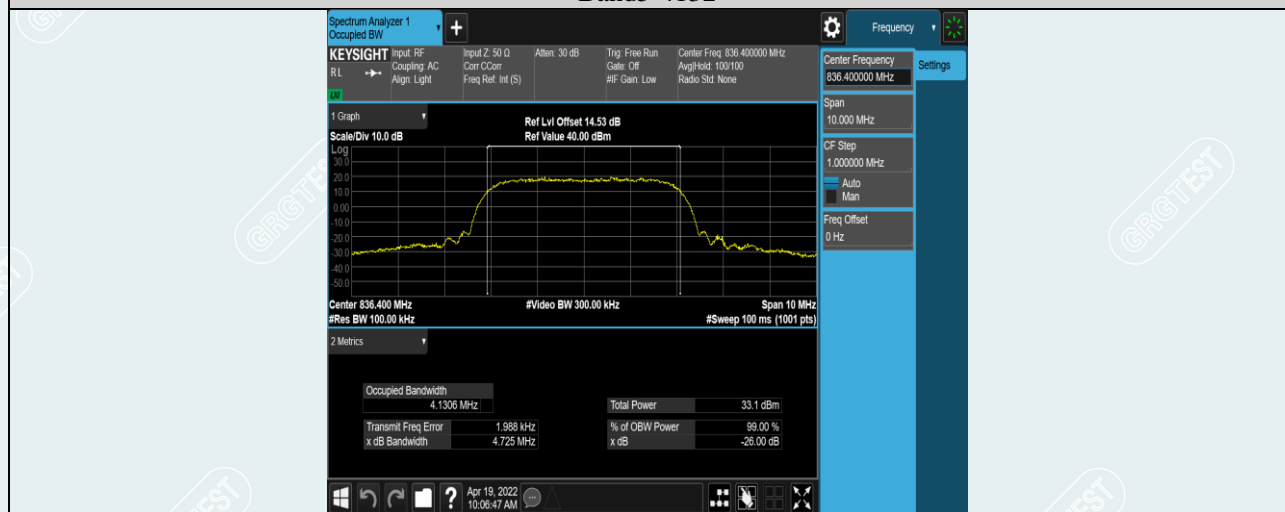
Band4-1413



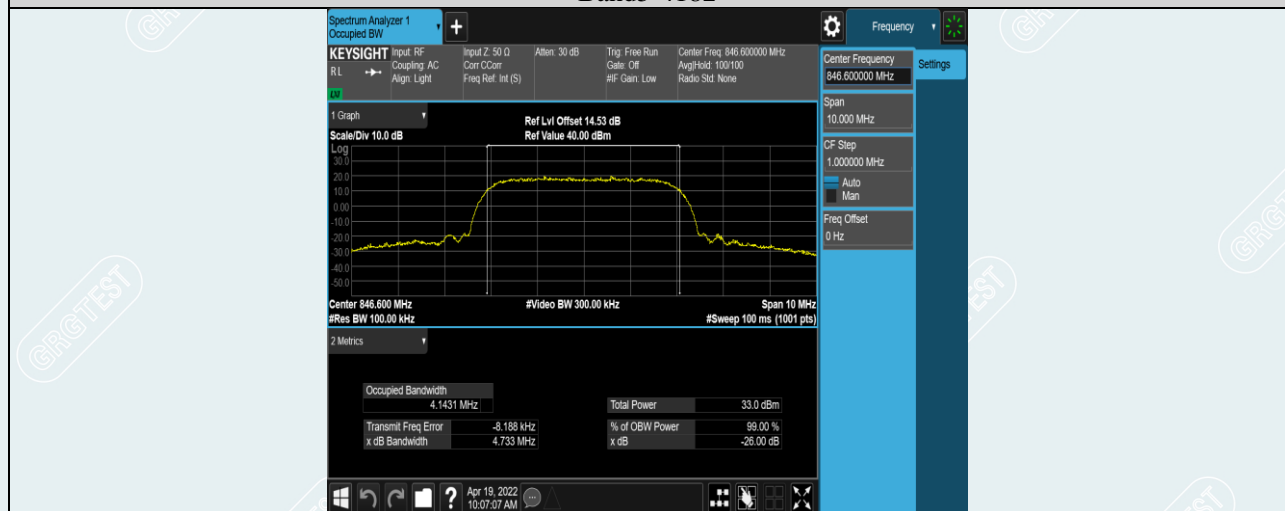
Band4-1513



Band5-4132



Band5-4182



Band5-4233

## 9. BAND EDGES COMPLIANCE

### 9.1 LIMIT

According to FCC section 22.917(b)(1), 24.238(a)(b), 27.53(h)(1)(3)(i), the power of any emission 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.

### 9.2 TEST PROCEDURES

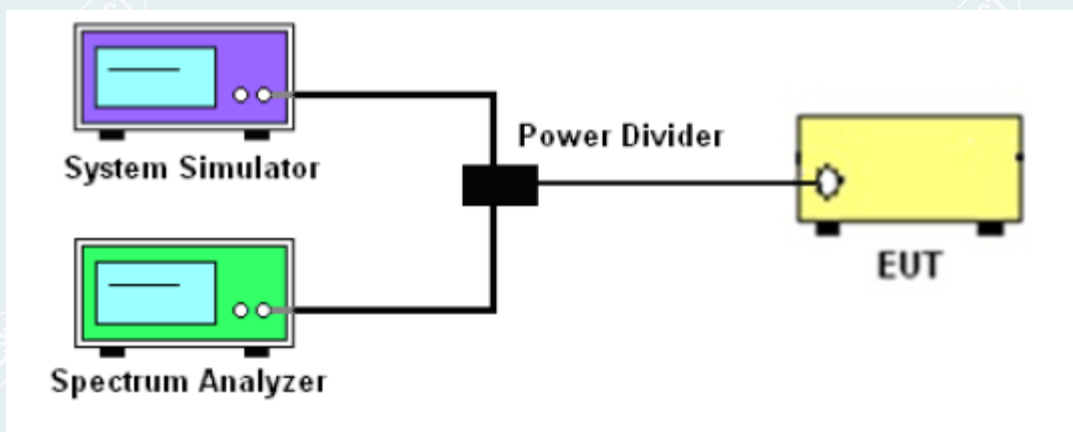
Measurement Procedure: FCC KDB 971168 D01 V03r01 Section 6

The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyser, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at two frequencies (low channel and high channel).in the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of 100kHz or 1% of the emission bandwidth of the fundamental emission of the transmitter may be employed. The EUT emission bandwidth is measured as the width of the signal between two points, outside of which all emission are attenuated at least 26dB below the transmitter power. The video bandwidth of the spectrum analyzer was set at thrice the resolution bandwidth. Detector Mode was set to peak or peak hold power.

#### Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3.  $RBW \geq 1\%$  of the emission bandwidth
4.  $VBW \geq 3 \times RBW$
5. Detector = RMS
6. Number of sweep points  $\geq 2 \times \text{Span}/RBW$
7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
8. Sweep time = auto couple
9. The trace was allowed to stabilize

### 9.3 TEST SETUP

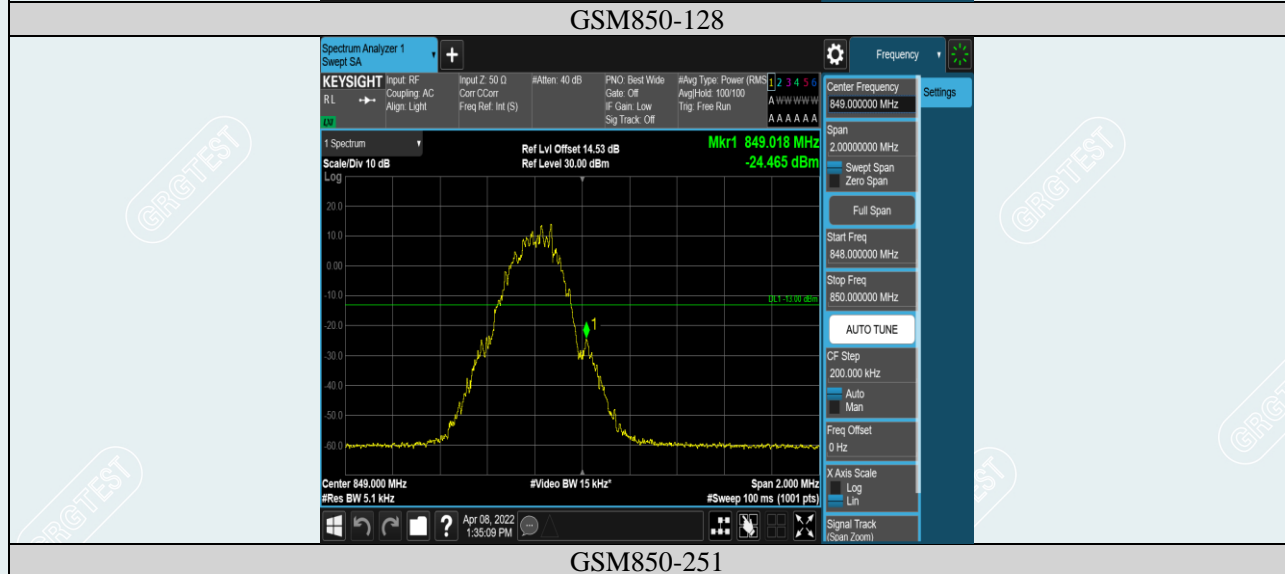
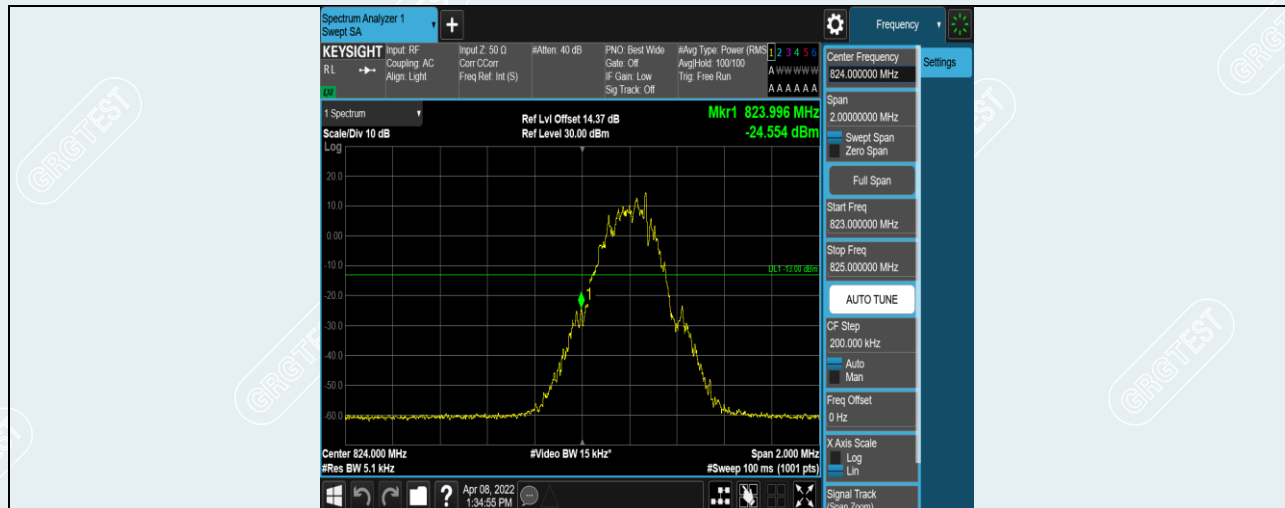


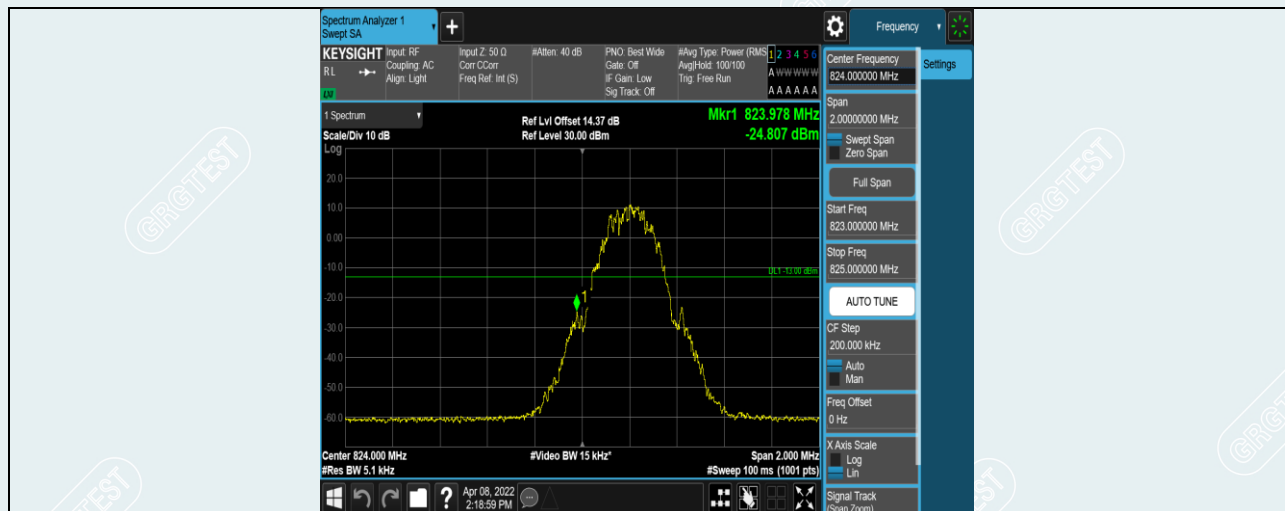
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## 9.4 TEST RESULTS

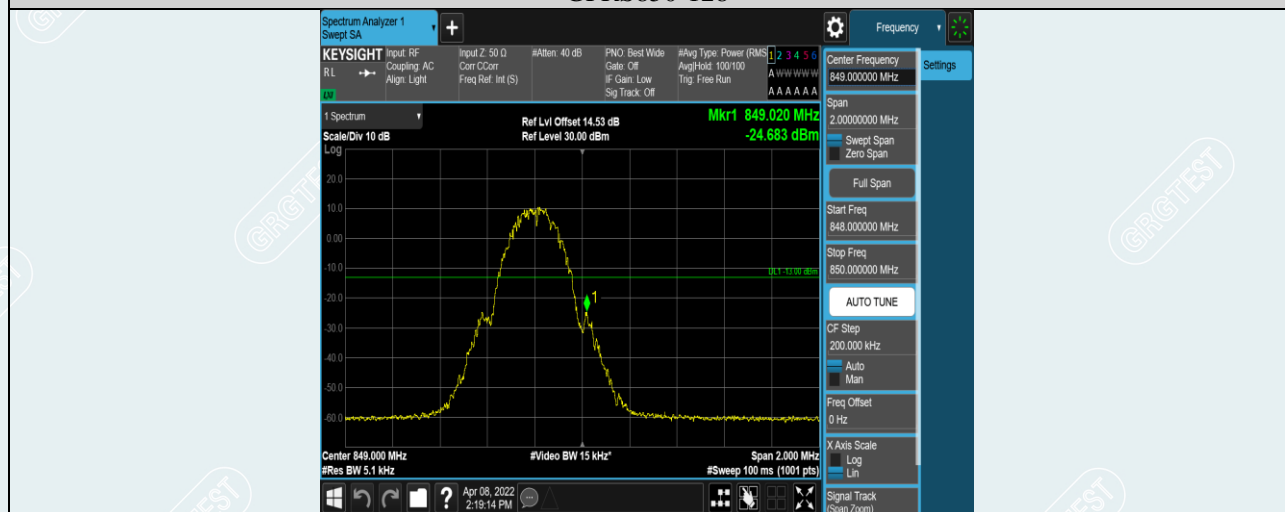
### GSM

EUT Name	DiLink	Model	DiLink 3.0F
Sample No.	E20211217696105-0006	Test Mode	GSM
Power supply	DC 12V	Environmental Conditions	Temp:22.9℃;Humi:46%RH
Test Date	2022-04-08	Test Site	/
Tested By	Zhang Shuangshuang	Reviewed by	Zhao Zetian

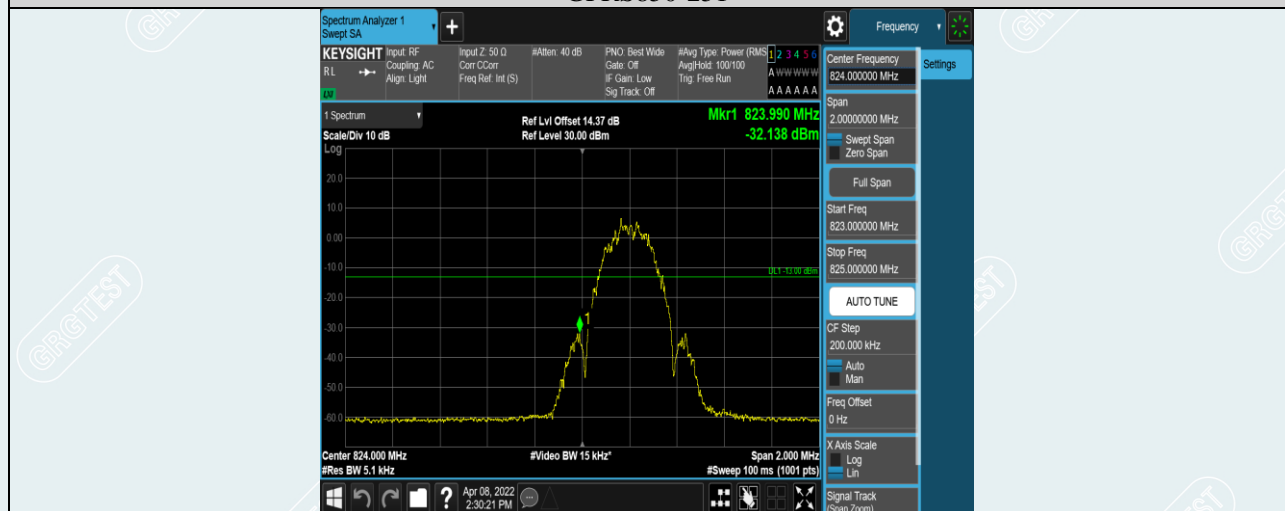




GPRS850-128

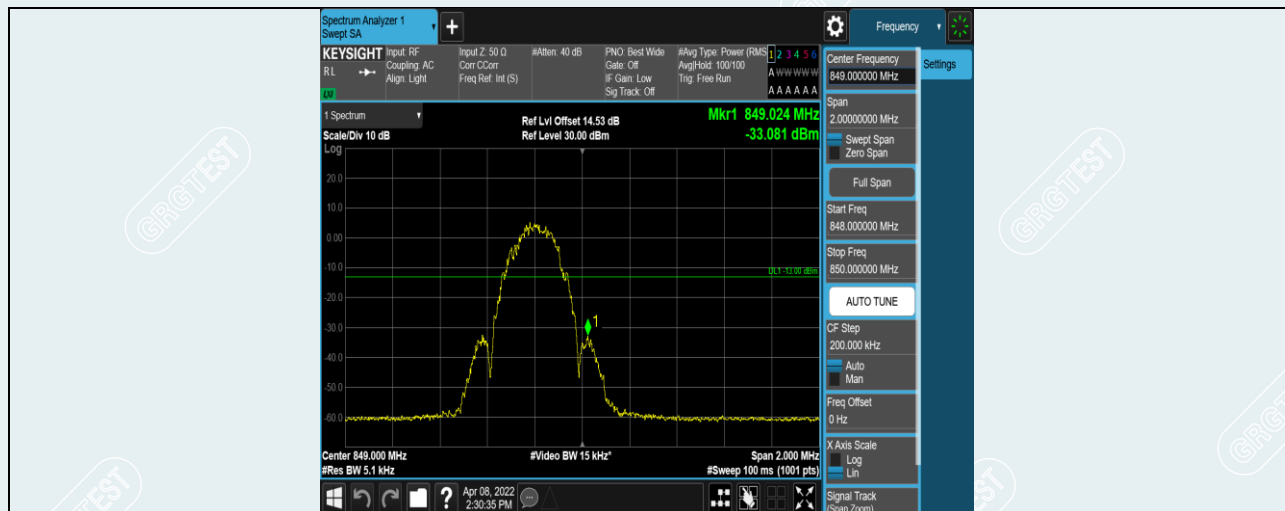


GPRS850-251

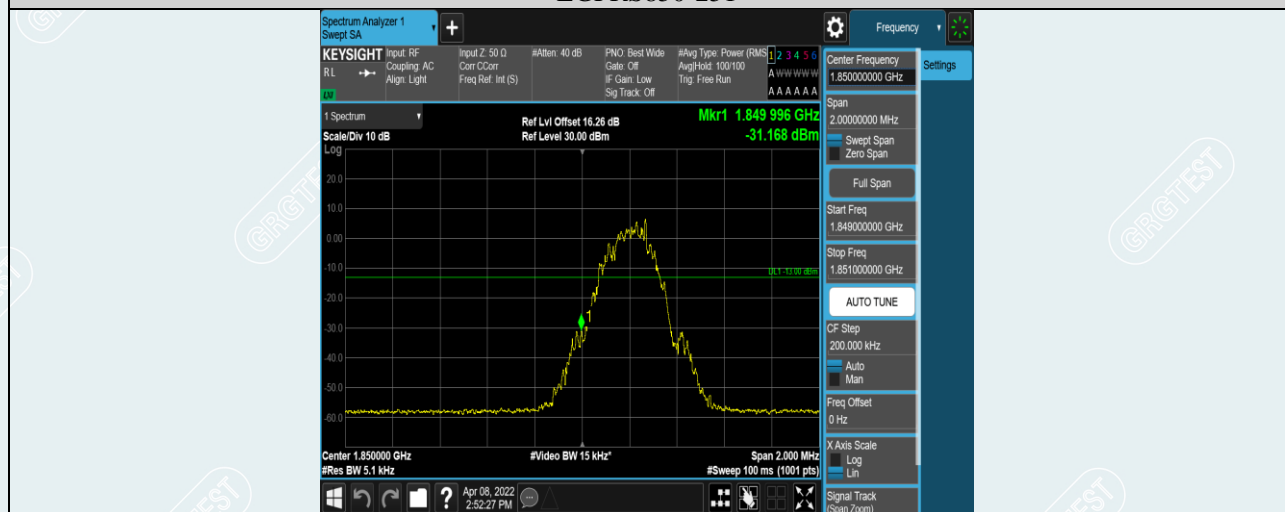


EGPRS850-128

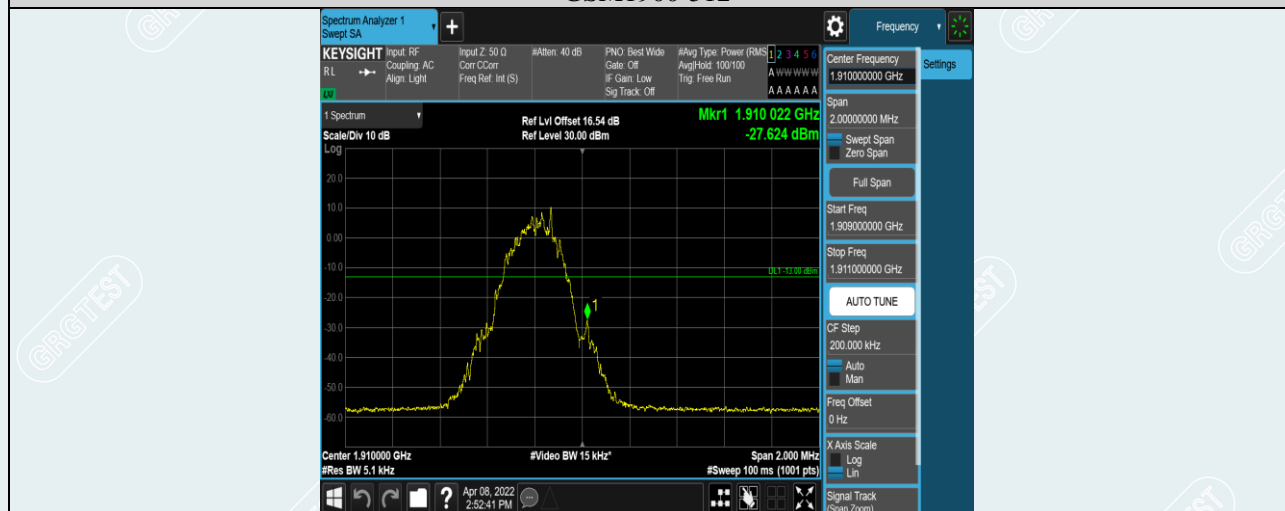




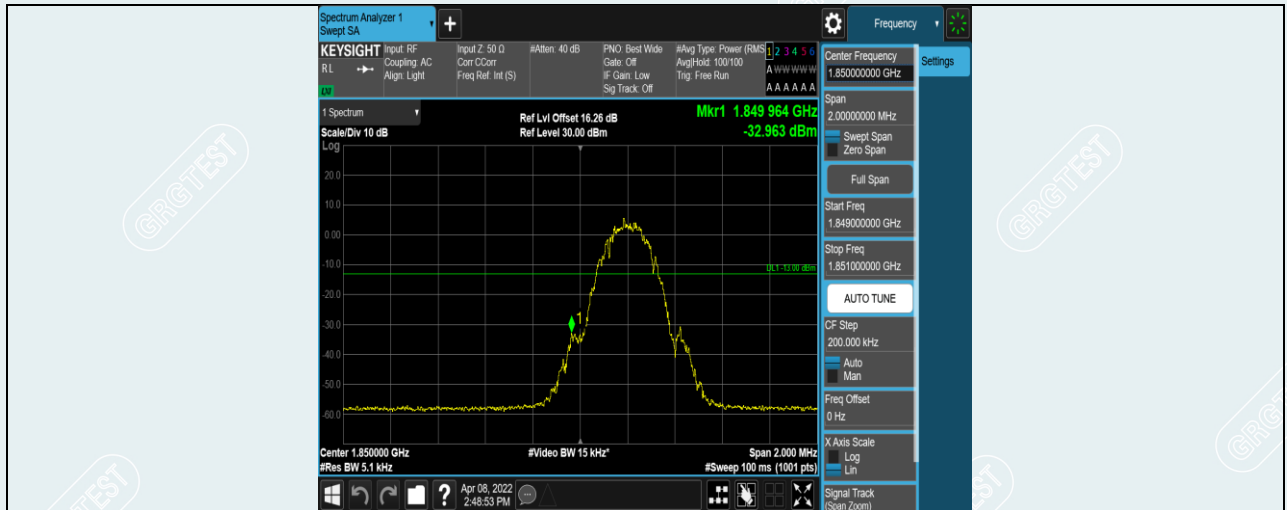
EGPRS850-251



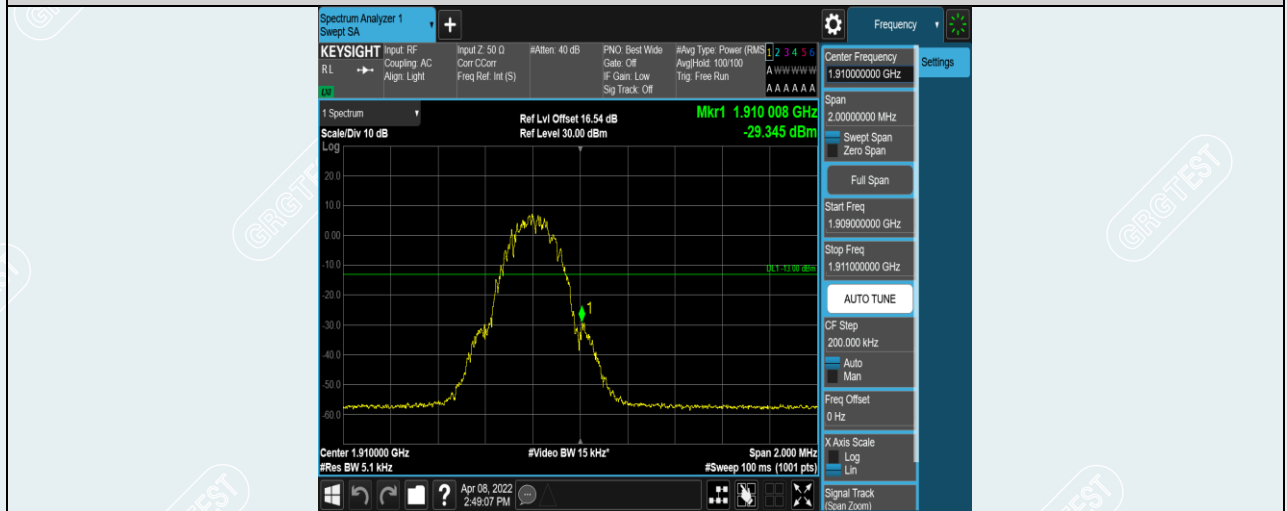
GSM1900-512



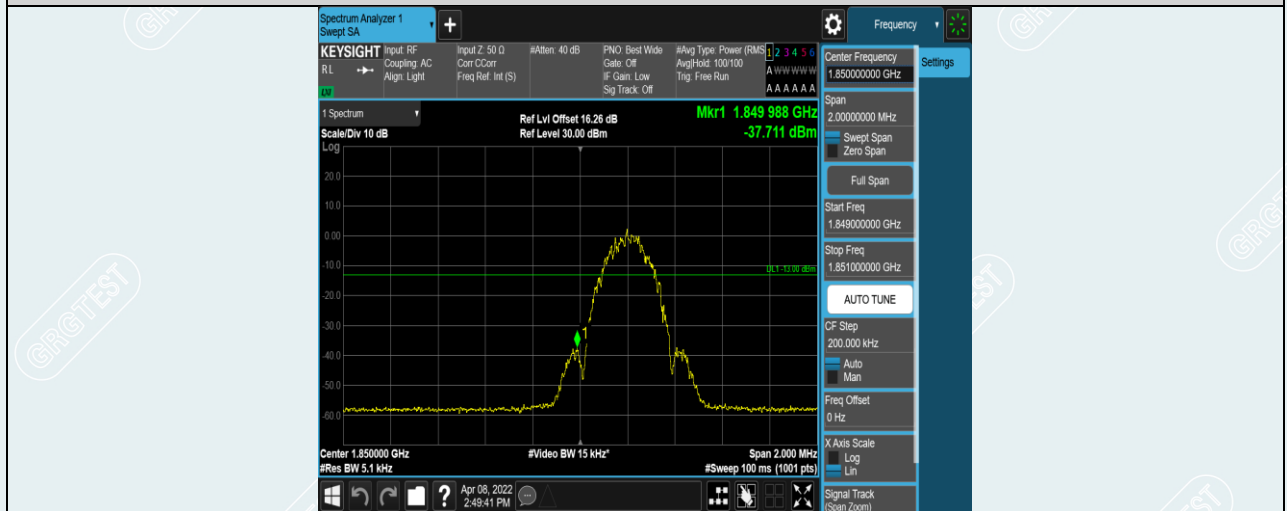
GSM1900-810



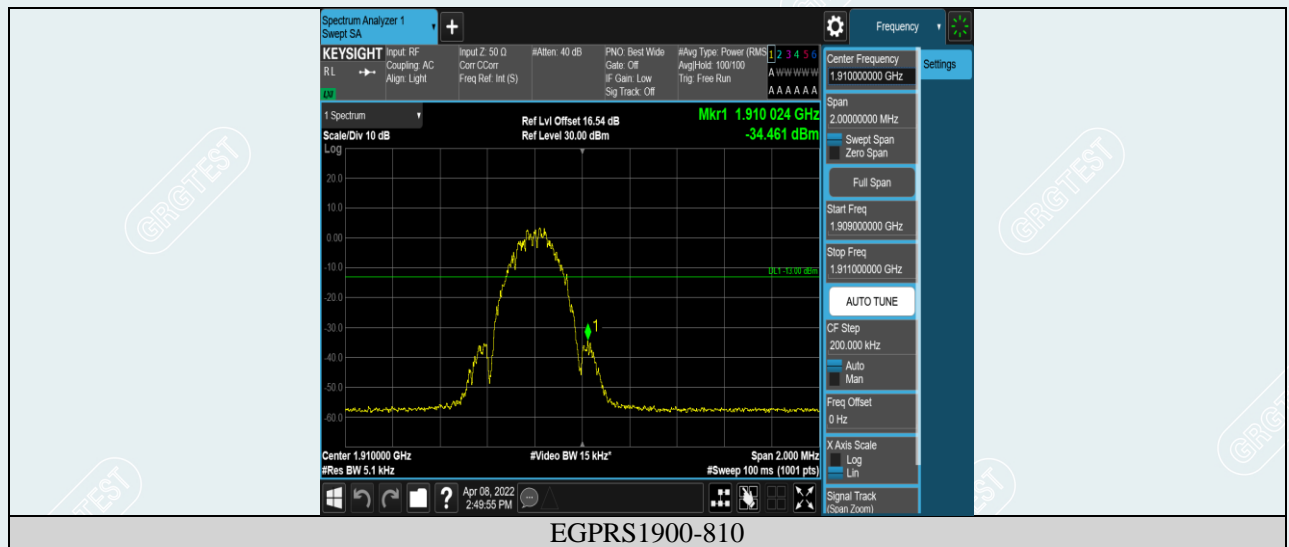
GPRS1900-512



GPRS1900-810



EGPRS1900-512



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## WCDMA

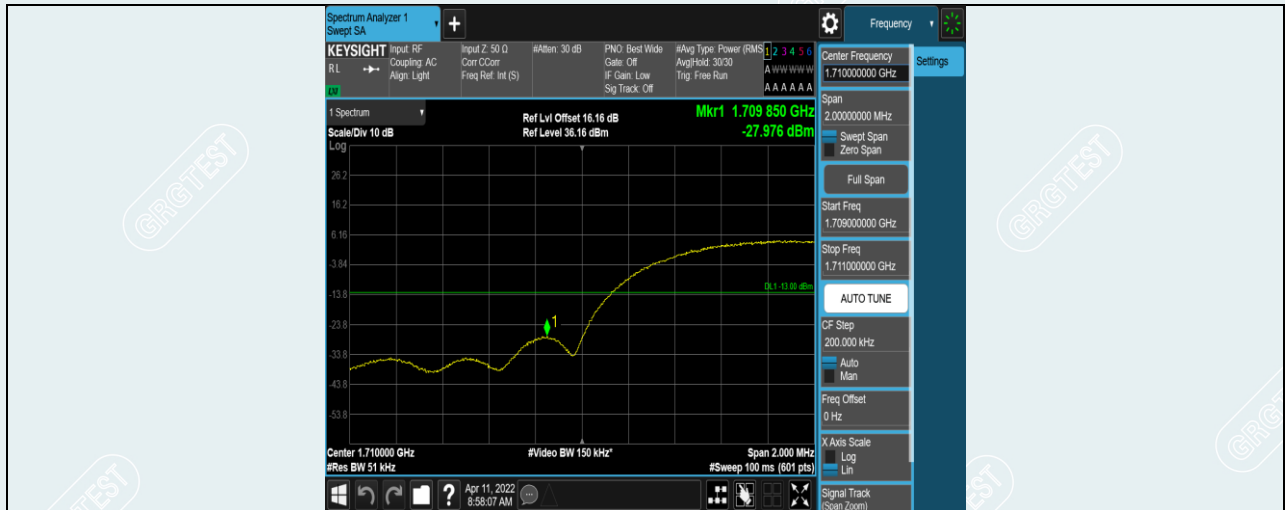
EUT Name	DiLink	Model	DiLink 3.0F
Sample No.	E20211217696105-0006	Test Mode	WCDMA
Power supply	DC 12V	Environmental Conditions	Temp:22.3 °C;Humi:48%RH
Test Date	2022-04-11	Test Site	/
Tested By	Zhang Shuangshuang	Reviewed by	Zhao Zetian



Band2-9262



Band2-9538



Band4-1312

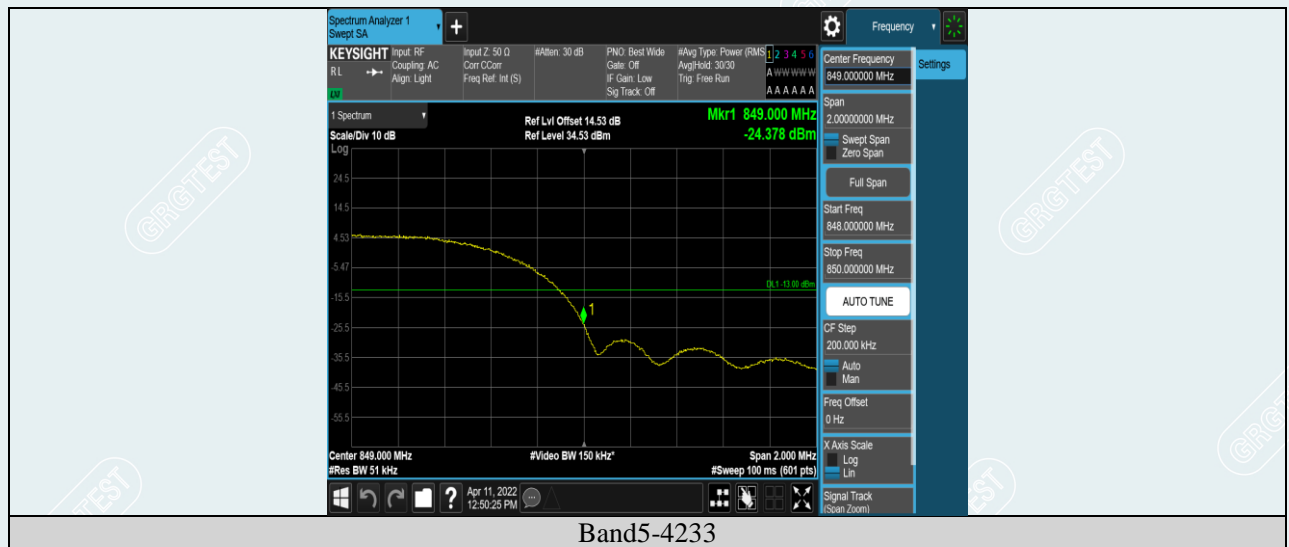


Band4-1513



Band5-4132





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## 10. SPURIOUS EMISSION AT ANTENNA TERMINAL

### 10.1 LIMIT

According to FCC section 22.917(a), 24.238(a)(b), 27.53(h)(1), the power of any emission 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.

### 10.2 TEST PROCEDURES

Measurement Procedure: FCC KDB 971168 D01 V03r01

The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyzer, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel). The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. 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 emission are attenuated at least 26 dB below the transmitter power.

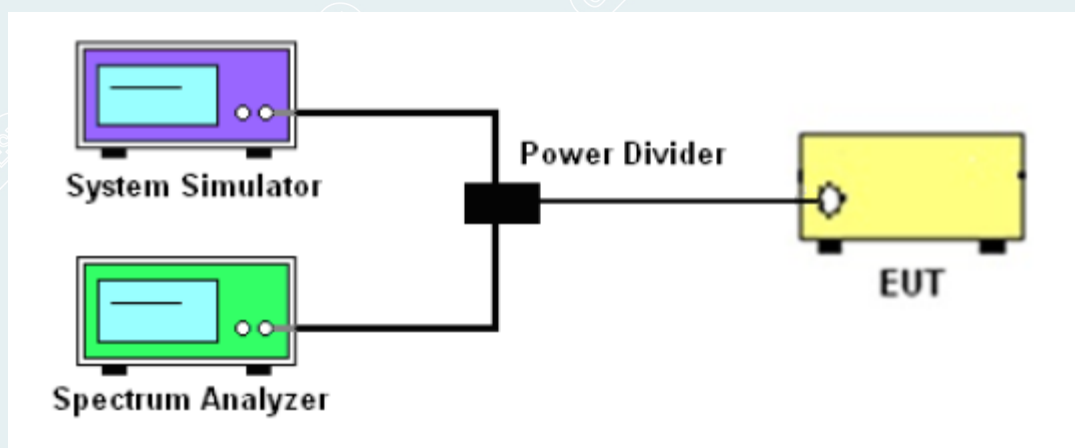
#### Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least 10\*the fundamental frequency (separated into at least two plots per channel)
2. Detector=RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

#### Remark:

The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.

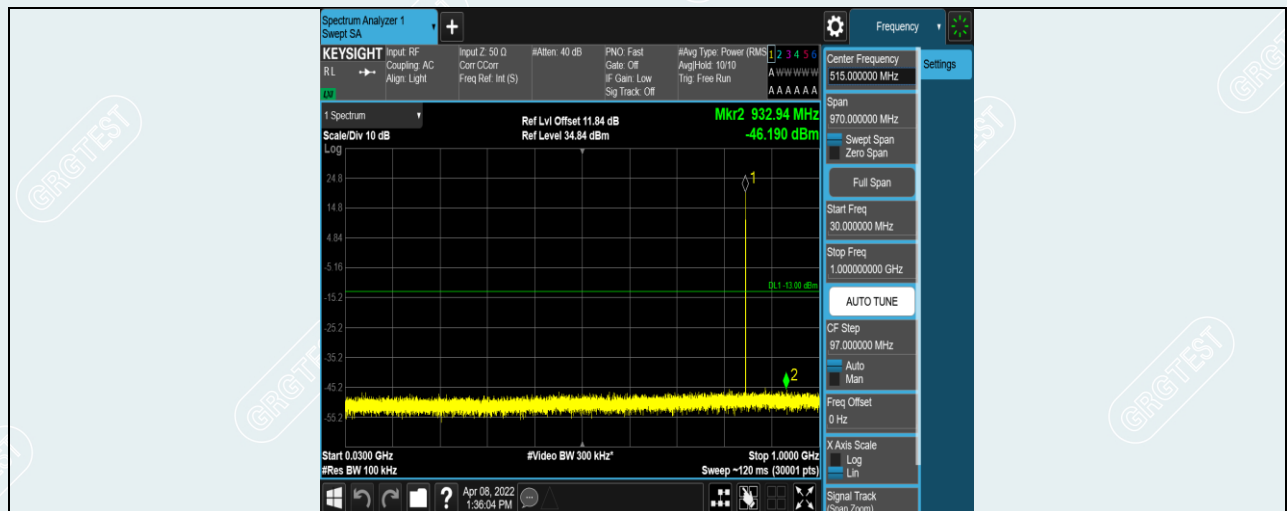
### 10.3 TEST SETUP



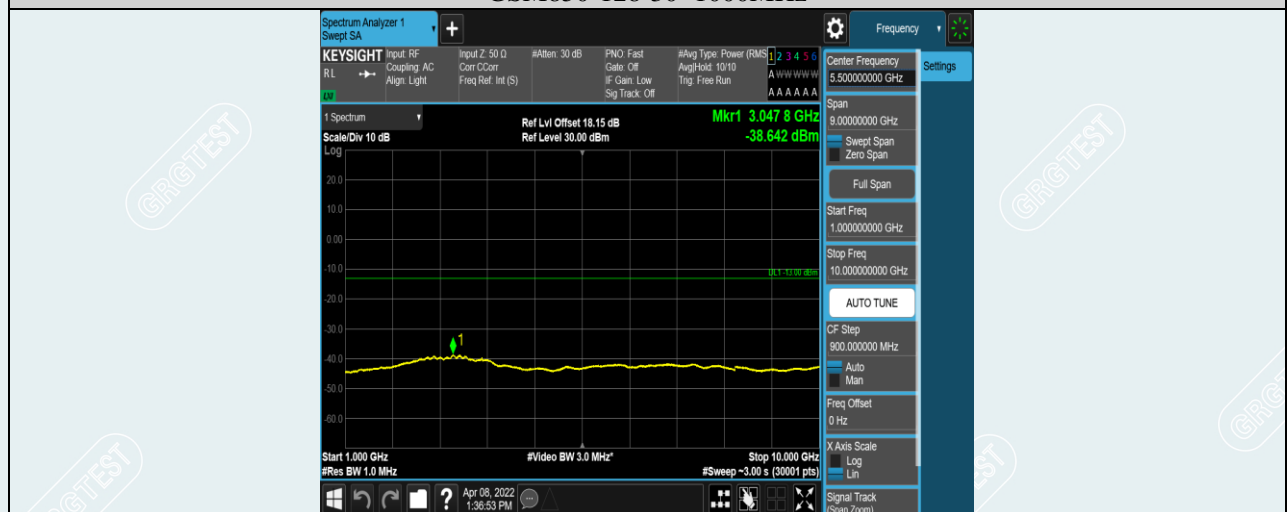
## 10.4 TEST RESULTS

## GSM

EUT Name	DiLink	Model	DiLink 3.0F
Sample No.	E20211217696105-0006	Test Mode	GSM
Power supply	DC 12V	Environmental Conditions	Temp:22.1 °C;Humi:42%RH
Test Date	2022-04-08	Test Site	/
Tested By	Zhang Shuangshuang	Reviewed by	Zhao Zetian



GSM850-128-30~1000MHz



GSM850-128-1000~10000MHz