

### 9.1.2 PROVISIONS APPLICABLE

On any frequency outside frequency band of the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least  $43+10\log(P)$  dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.

Attestation of Global Compliance

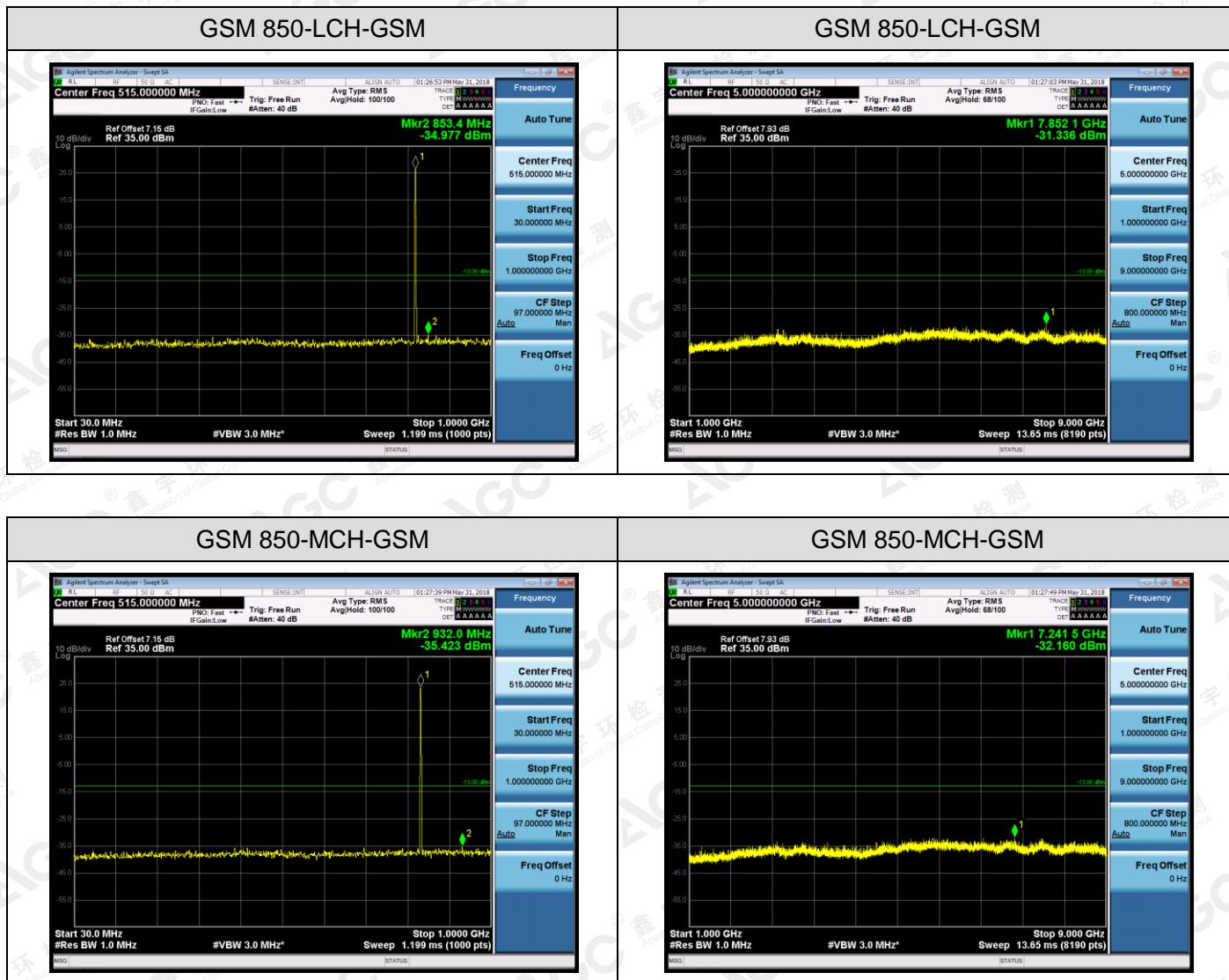
Tel: +86-755 2908 1955 Fax: +86-755 2600 8484 E-mail: [agc@agc-cert.com](mailto:agc@agc-cert.com) 400 089 2118  
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Baoan District, Shenzhen, Guangdong China

### 9.1.3 MEASUREMENT RESULT

#### Test Results

Test Band=GSM850/GSM1900

Test Mode=GSM/EDGE

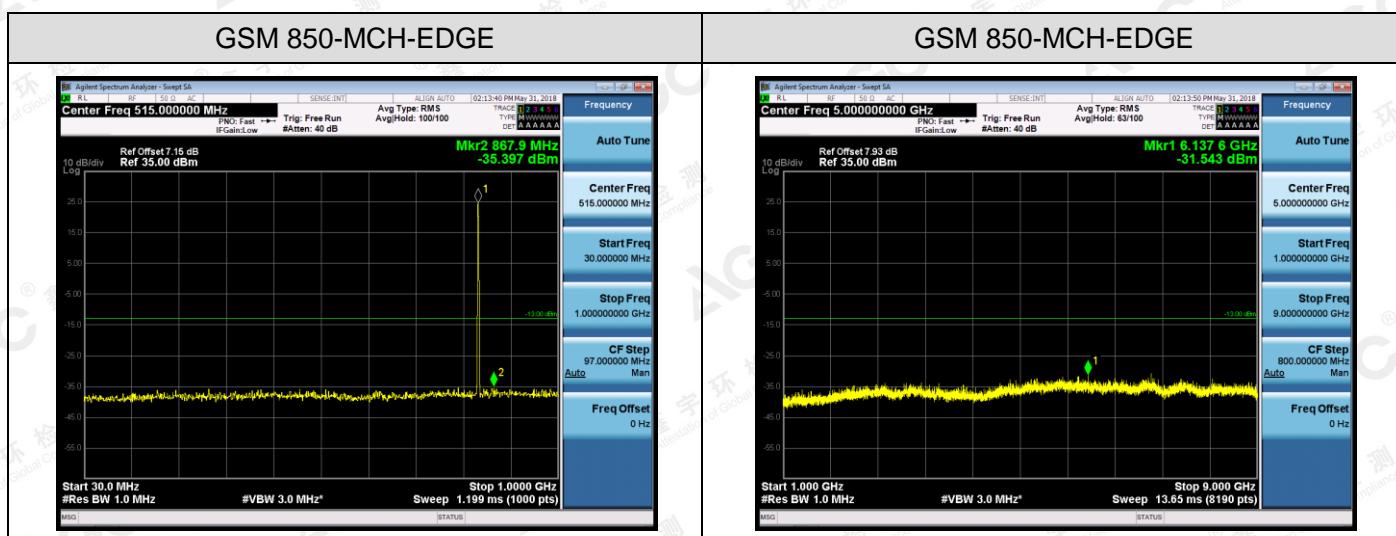
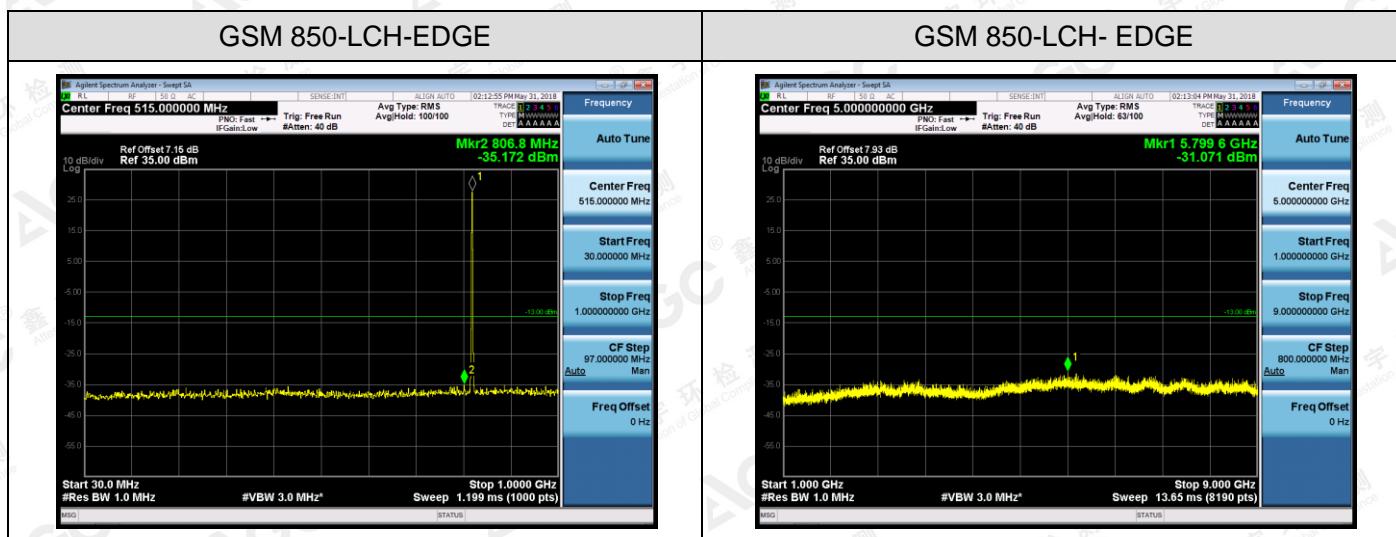
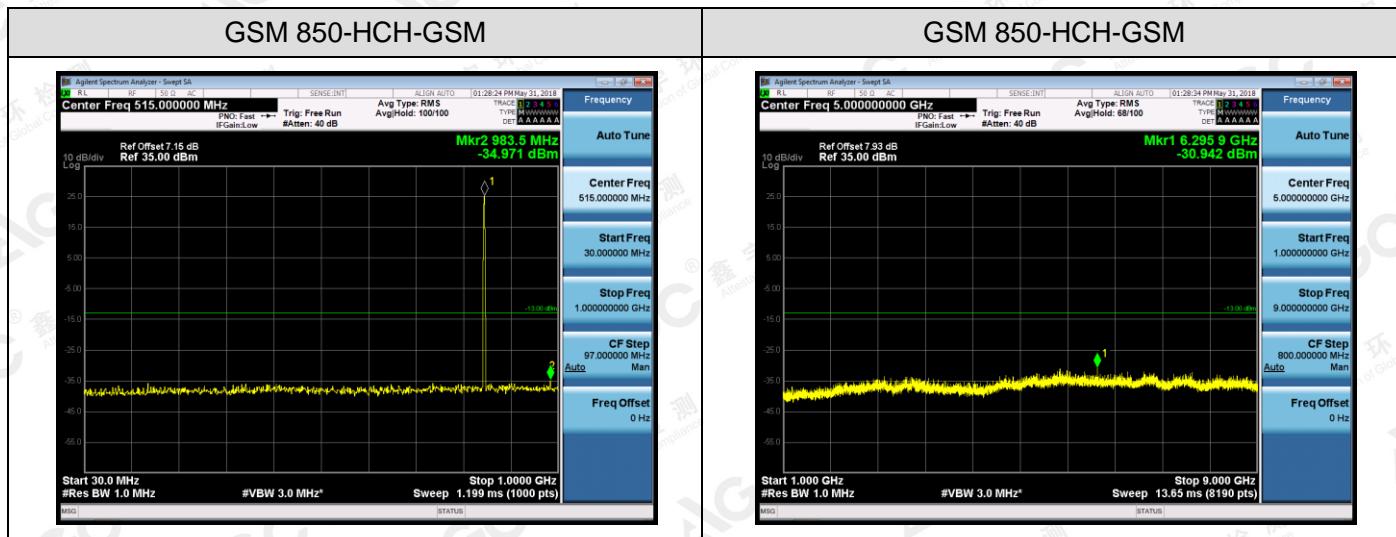


The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



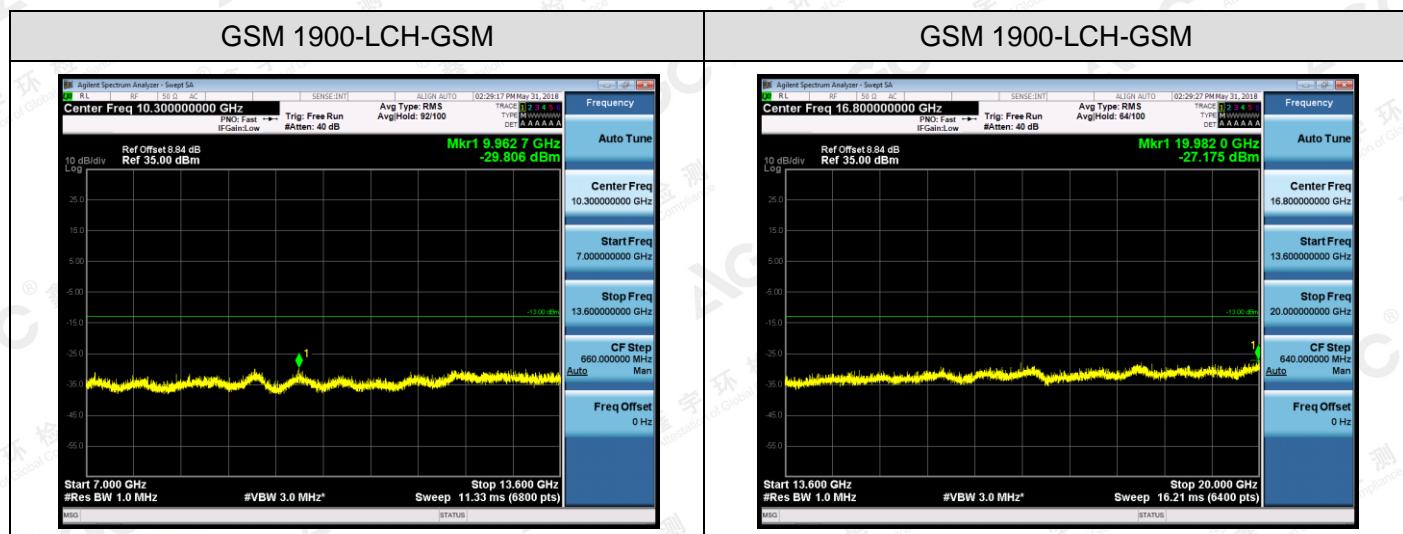
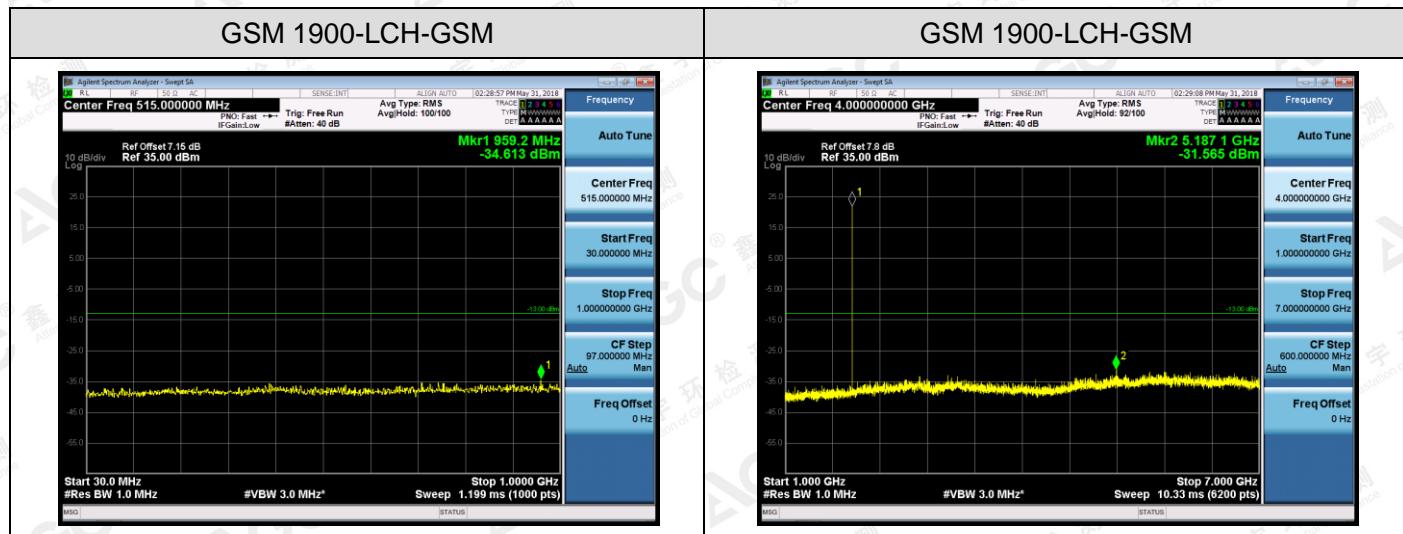
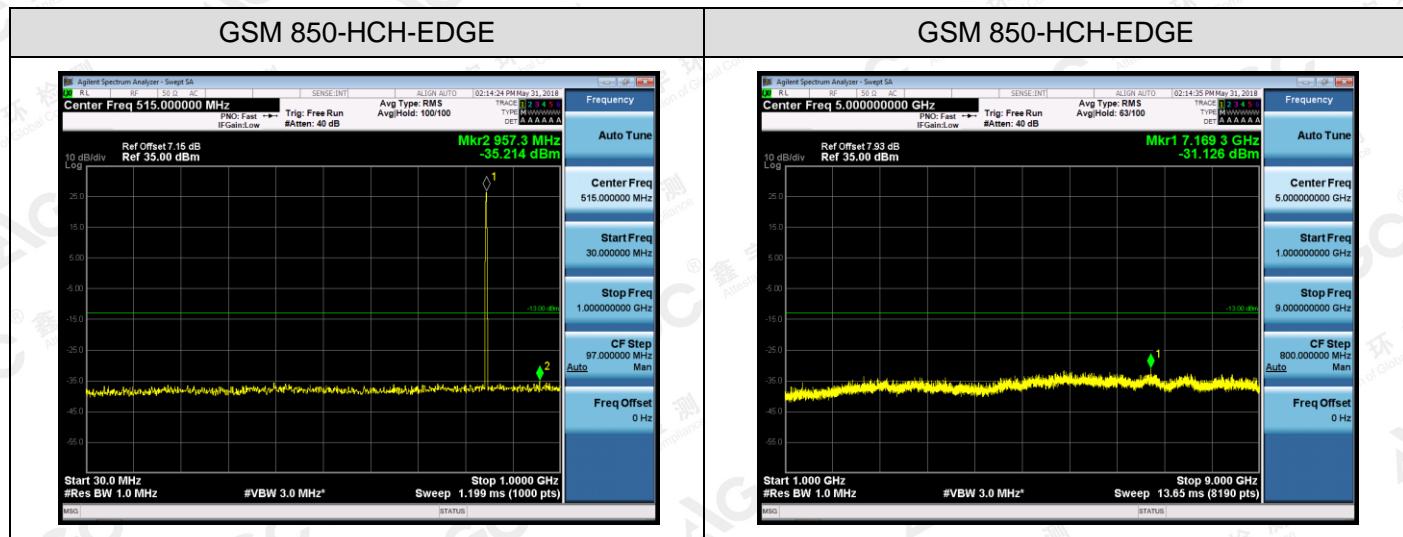
Attestation of Global Compliance

Tel: +86-755 2908 1955 Fax: +86-755 2600 8484 E-mail: [agc@agc-cert.com](mailto:agc@agc-cert.com) 400 089 2118  
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Baoan District, Shenzhen, Guangdong China



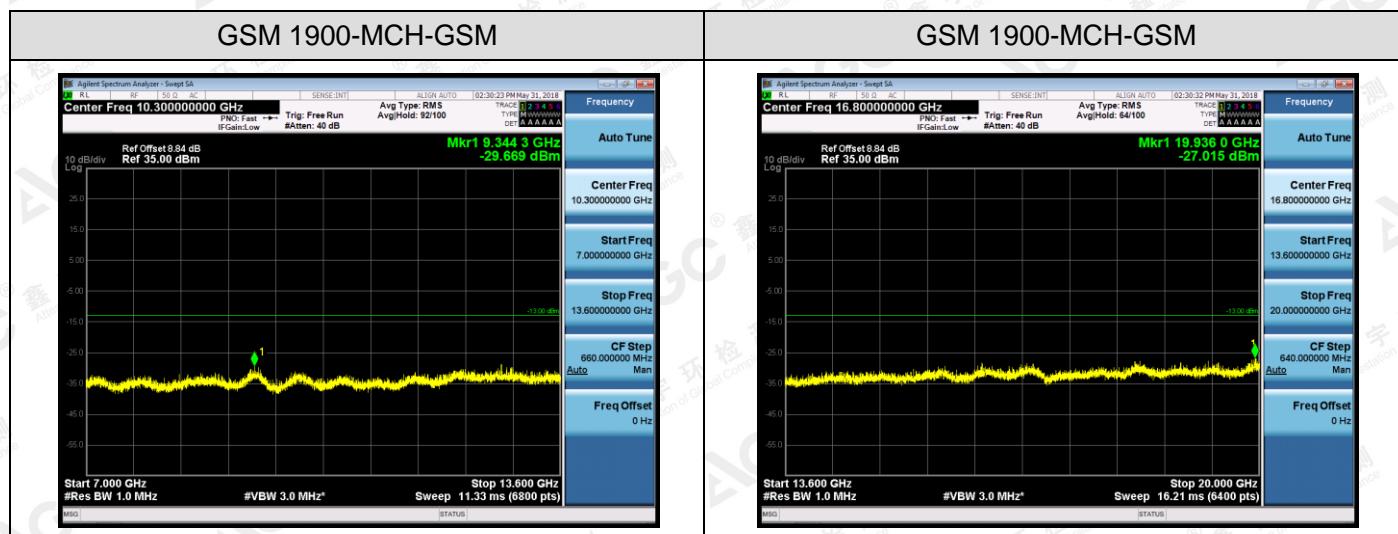
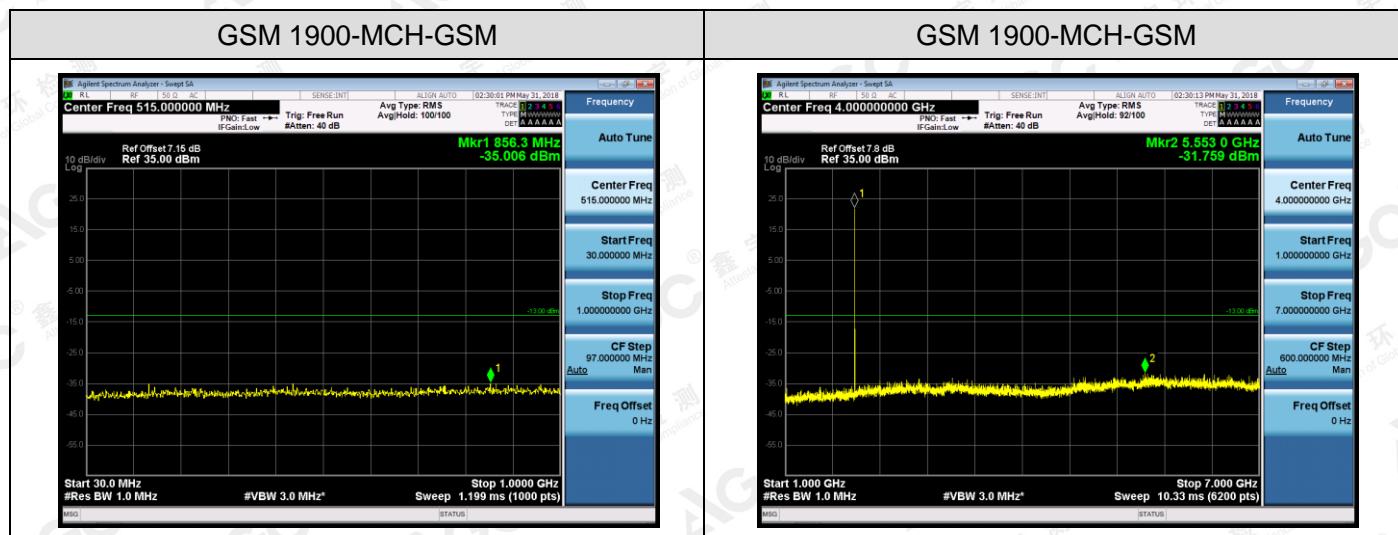
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.





The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



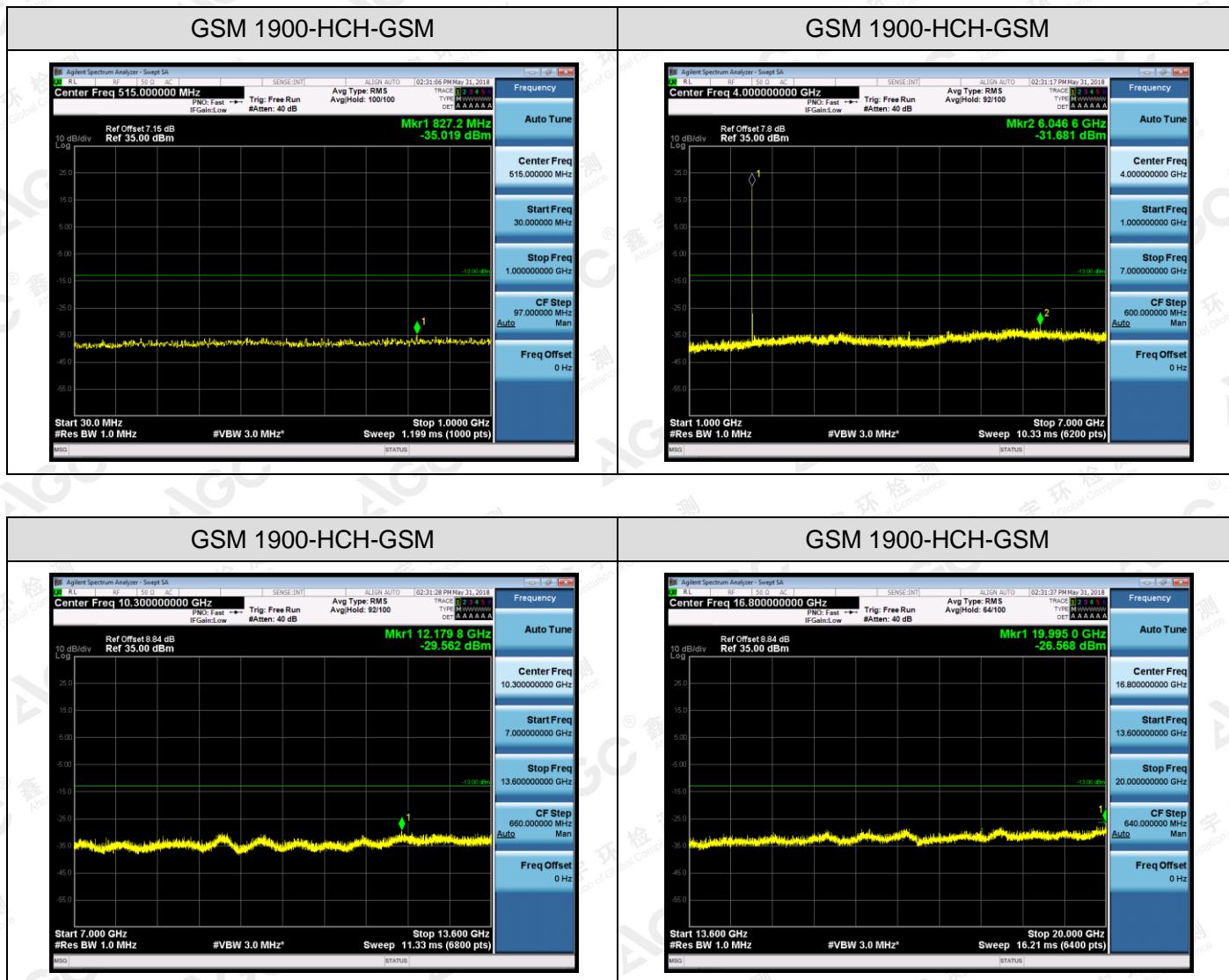


The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



Attestation of Global Compliance

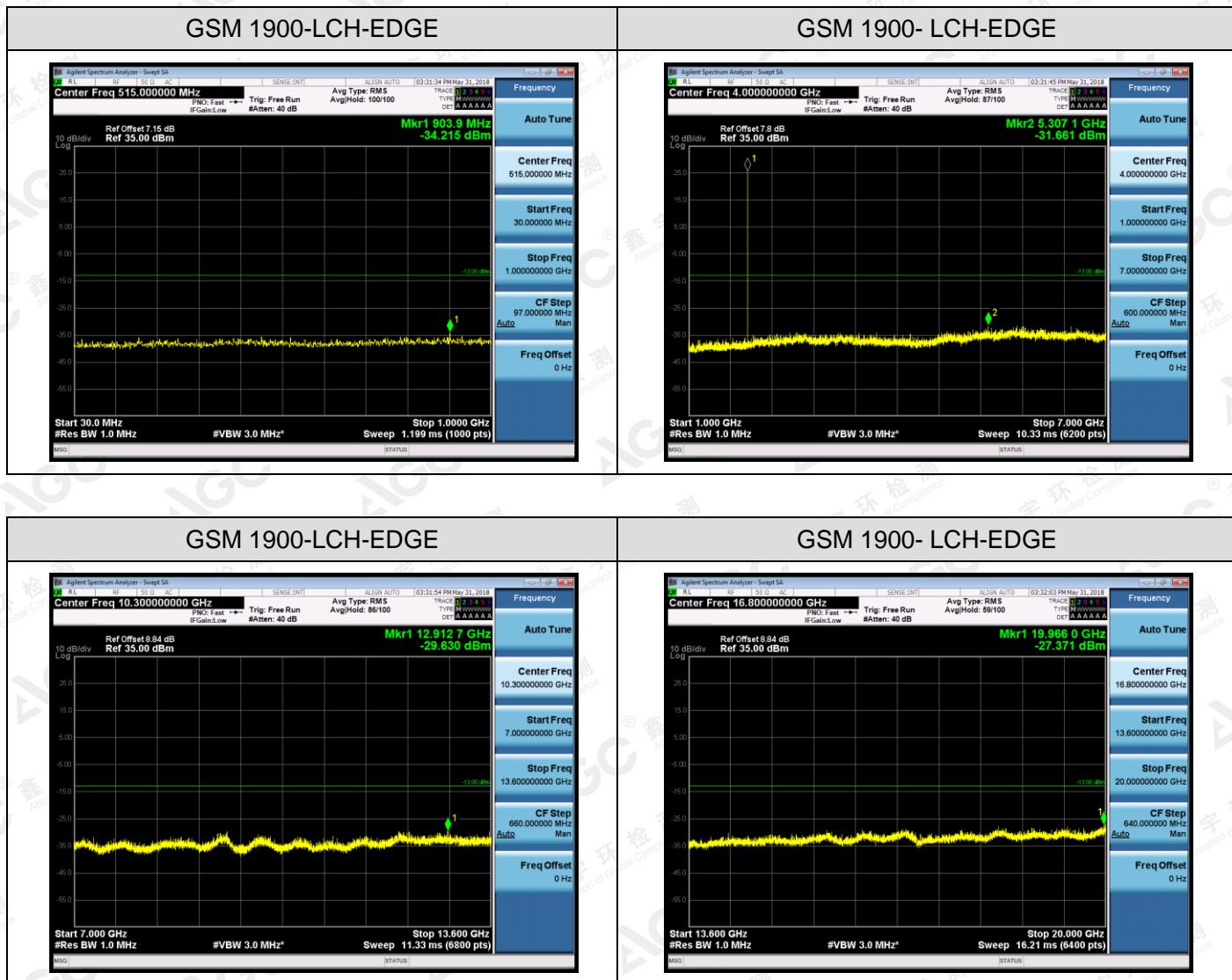
Tel: +86-755 2908 1955 Fax: +86-755 2600 8484 E-mail: [agc@agc-cert.com](mailto:agc@agc-cert.com) 400 089 2118  
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Baoan District, Shenzhen, Guangdong China



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



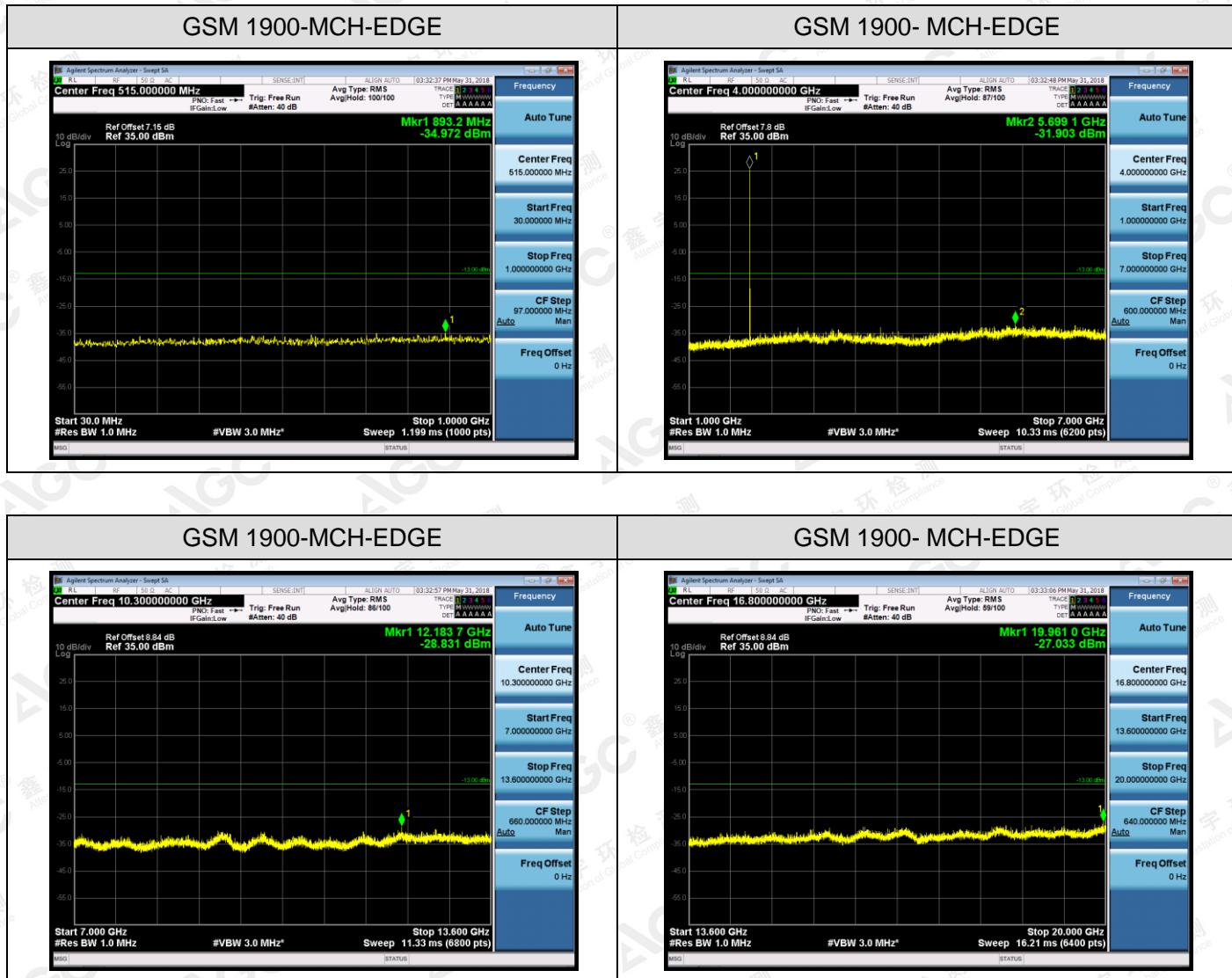
Attestation of Global Compliance



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.

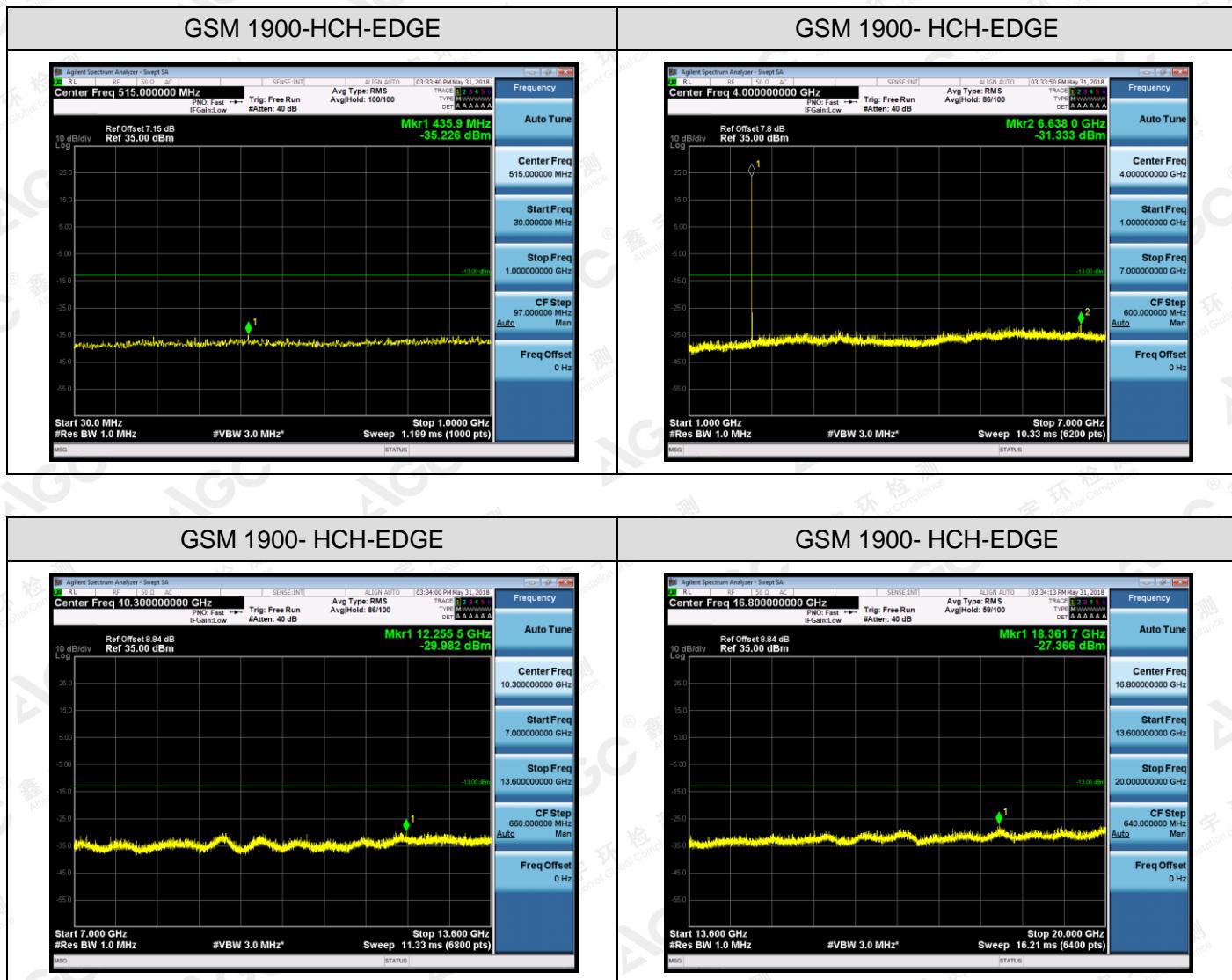


Attestation of Global Compliance



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.





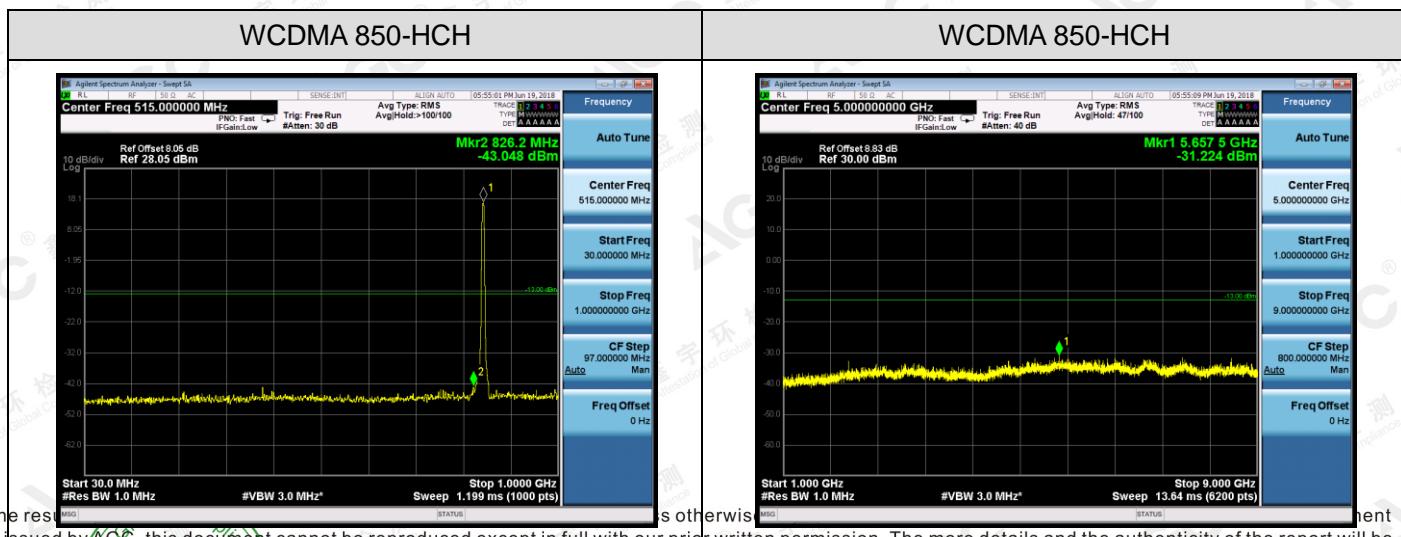
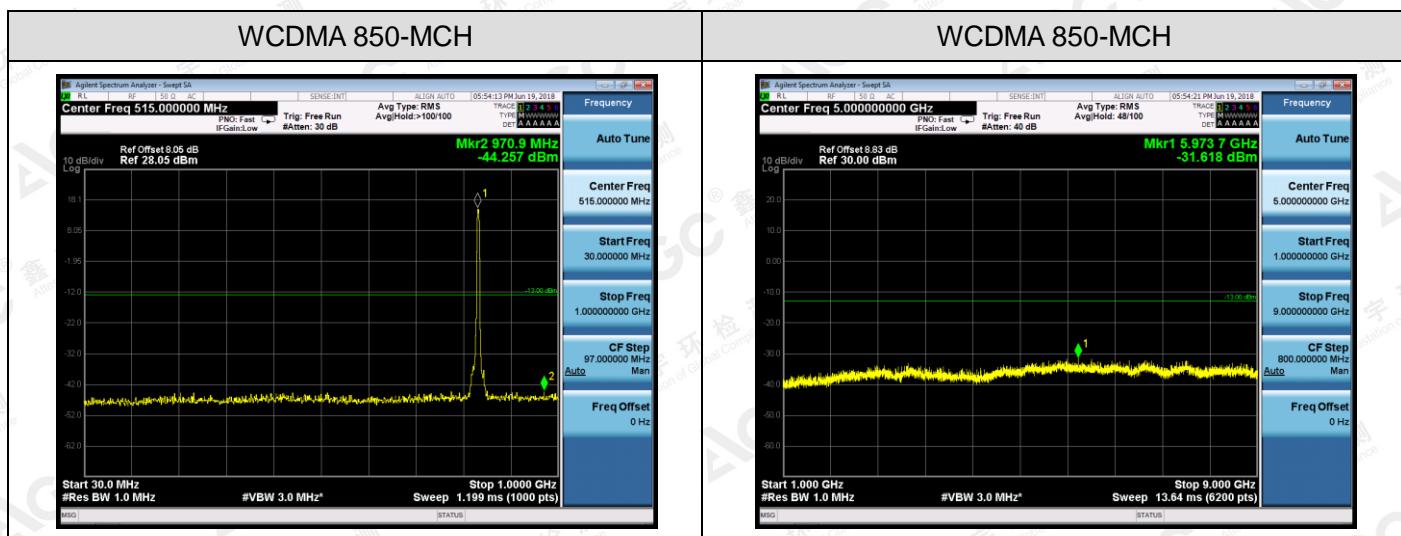
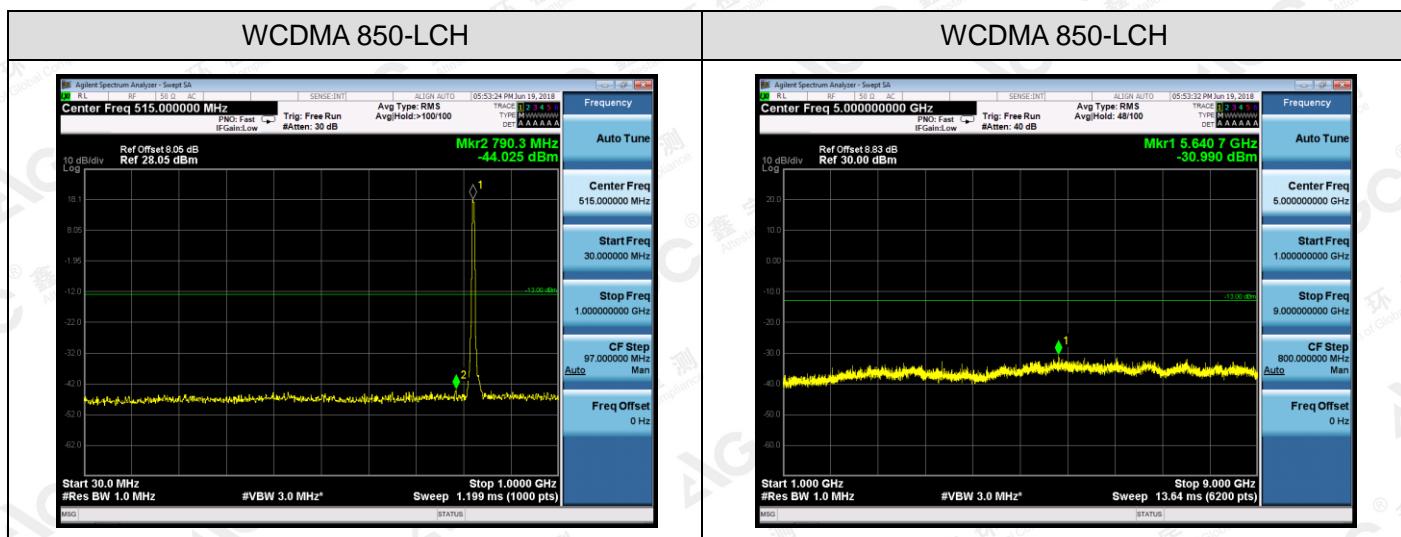
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



Attestation of Global Compliance

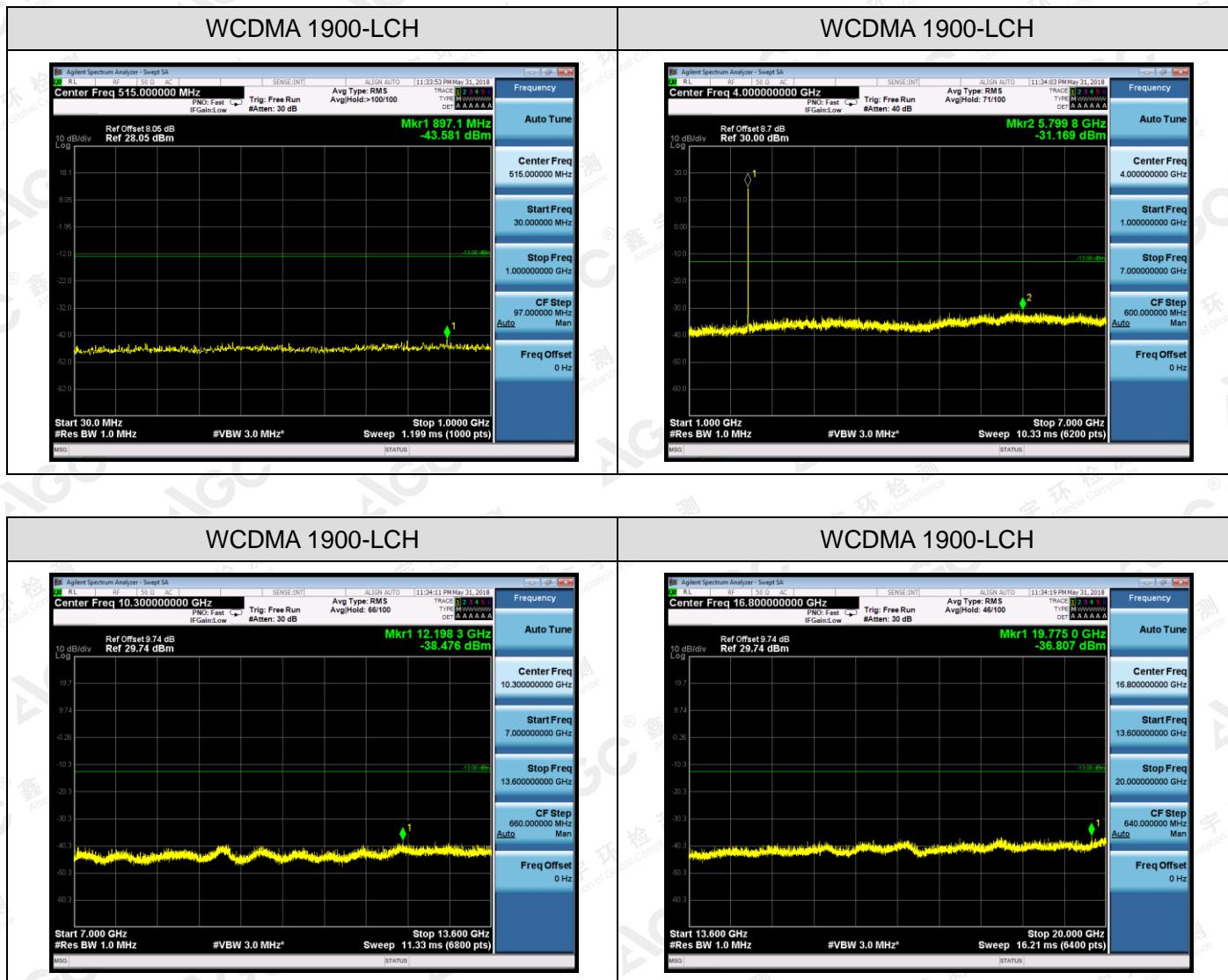
**Test Band=WCDMA850/WCDMA1900**

**Test Mode=UMTS**



The result is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.

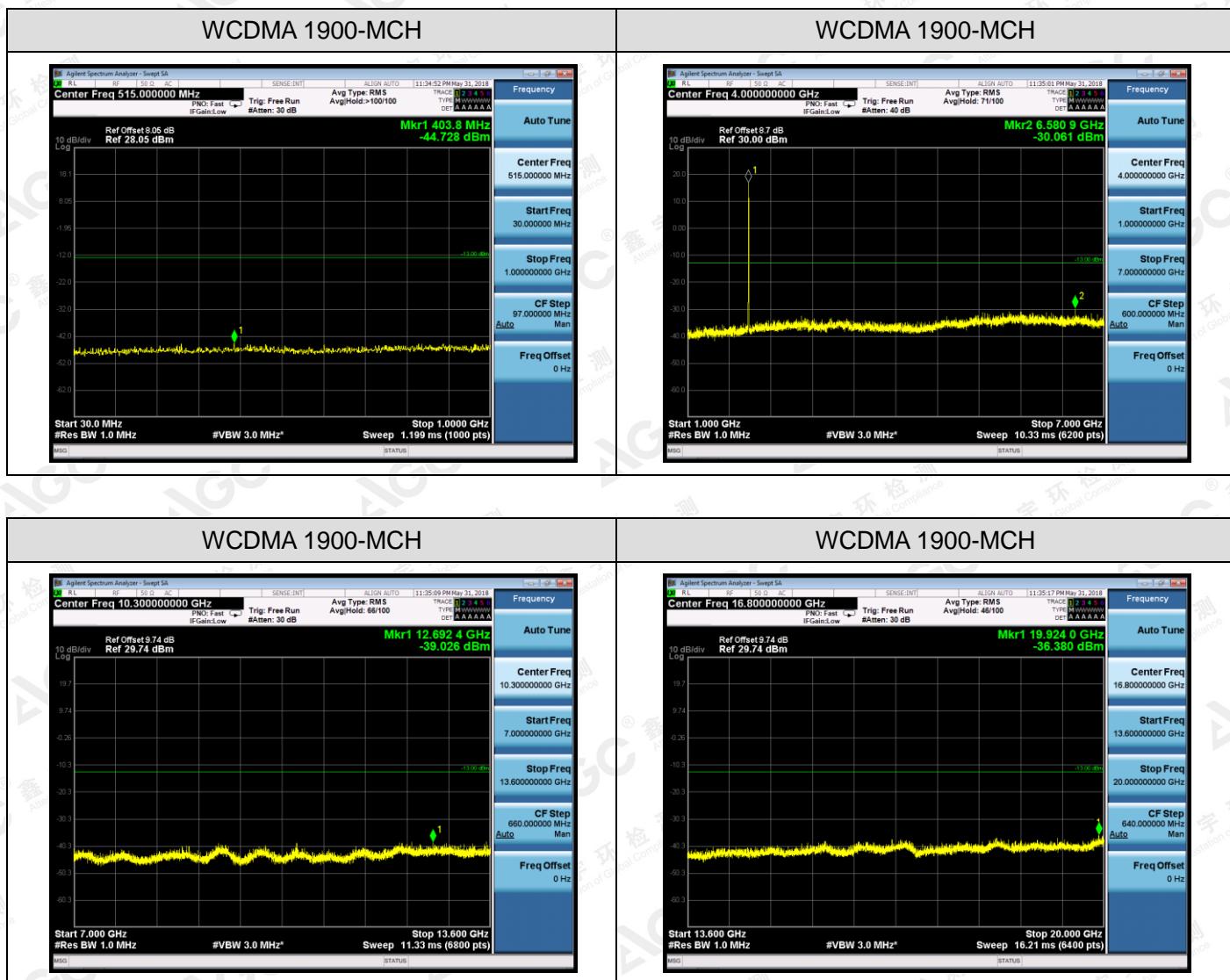




The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



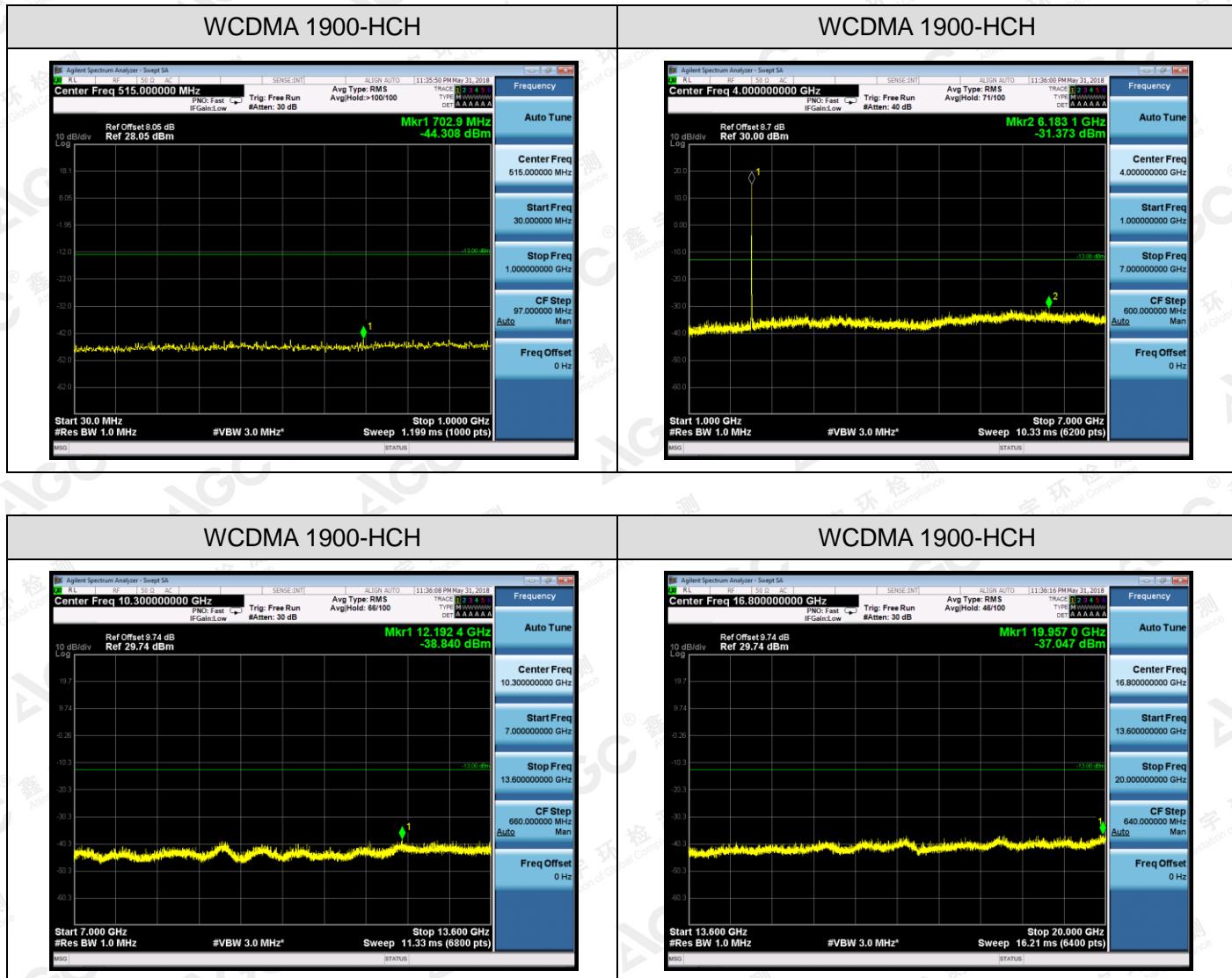
Attestation of Global Compliance



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



Attestation of Global Compliance



**Note:1.** Below 30MHZ no Spurious found and Above is the worst mode data.

2. As no emission found in standby or receive mode, no recording in this report.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



Attestation of Global Compliance

## 9.2 RADIATED SPURIOUS EMISSION

### 9.2.1 MEASUREMENT METHOD

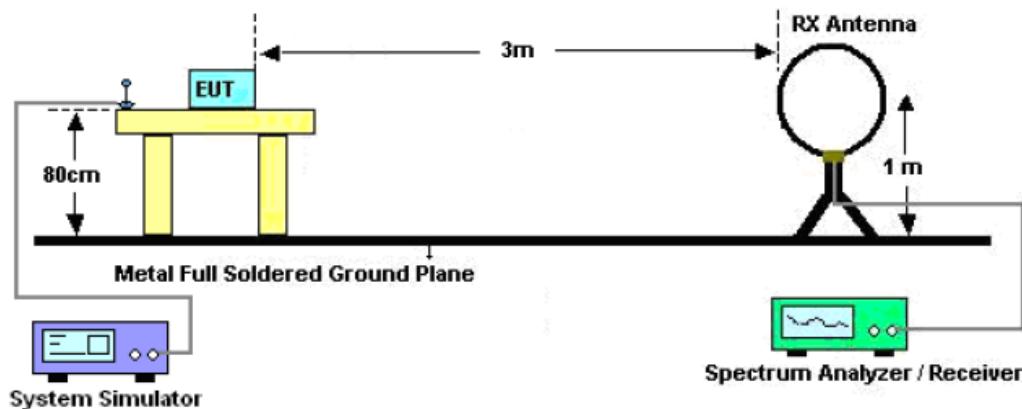
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.

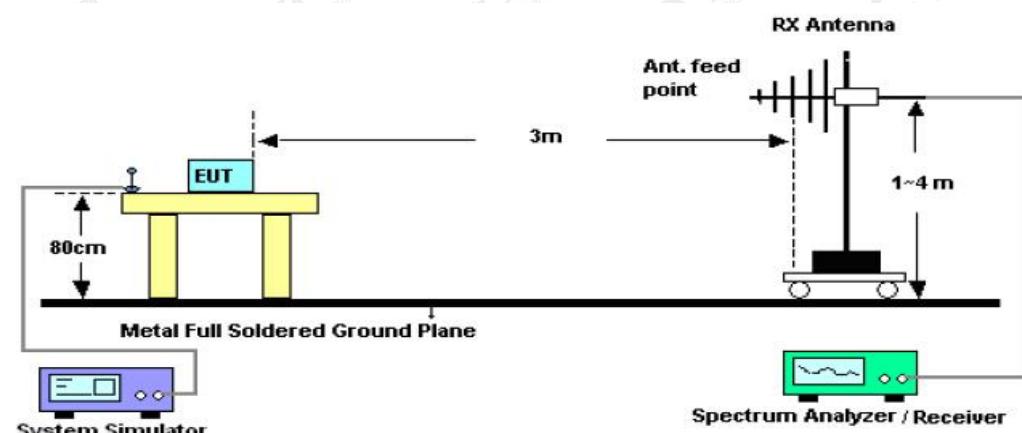


## 9.2.2 TEST SETUP

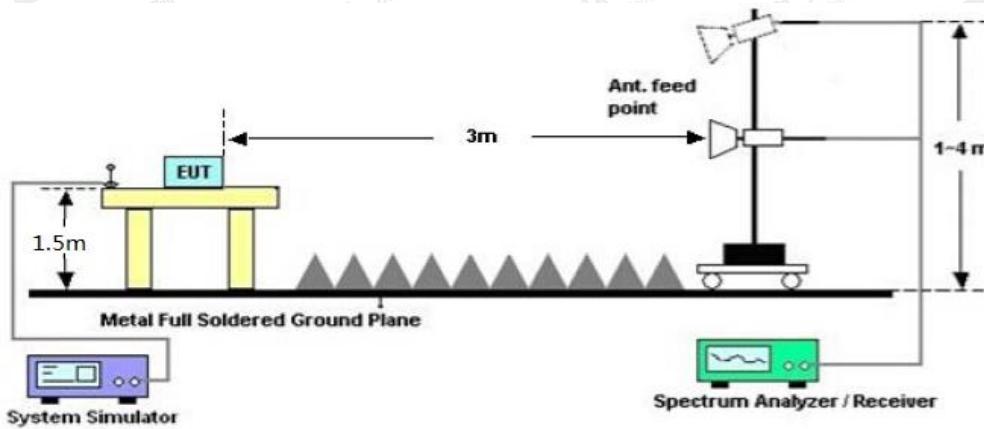
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



### 9.2.3 PROVISIONS APPLICABLE

(a) On any frequency outside a licensee's frequency block (e.g. A, D, B, etc.) within the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least  $43+10\log(P)$  dB. The specification that emissions shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

**Note:** only result the worst condition of each test mode:



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.

Attestation of Global Compliance

Tel: +86-755 2908 1955 Fax: +86-755 2600 8484 E-mail: [agc@agc-cert.com](mailto:agc@agc-cert.com) 400 089 2118  
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Baoan District, Shenzhen, Guangdong China

### 9.2.4 MEASUREMENT RESULT

#### GSM 850:

The Worst Test Results for Channel 251/848.8 MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1967.60	-49.83	-13	-36.83	Horizontal
3436.14	-32.62	-13	-19.62	Horizontal
6854.53	-45.96	-13	-32.96	Horizontal
1967.60	-38.59	-13	-25.59	Vertical
3265.45	-50.46	-13	-37.46	Vertical
6733.63	-32.78	-13	-19.78	Vertical

#### GSM 850(EDGE):

The Worst Test Results for Channel 251/848.8 MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1967.60	-52.28	-13	-39.28	Horizontal
3450.21	-38.92	-13	-25.92	Horizontal
6850.14	-49.13	-13	-36.13	Horizontal
1967.60	-36.79	-13	-23.79	Vertical
3264.47	-51.77	-13	-38.77	Vertical
6736.53	-32.45	-13	-19.45	Vertical

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



**PCS 1900:**

The Worst Test Results for Channel 810/1909.8MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1852.61	-48.28	-13	-35.28	Horizontal
3819.60	-35.77	-13	-22.77	Horizontal
7745.66	-47.88	-13	-34.88	Horizontal
1885.03	-36.38	-13	-23.38	Vertical
3465.18	-48.47	-13	-35.47	Vertical
7656.25	-33.32	-13	-20.32	Vertical

**PCS 1900(EDGE):**

The Worst Test Results for Channel 810/1909.8MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1852.18	-52.53	-13	-39.53	Horizontal
3819.60	-40.26	-13	-27.26	Horizontal
7752.33	-49.96	-13	-36.96	Horizontal
1886.12	-38.54	-13	-25.54	Vertical
3652.22	-48.30	-13	-35.30	Vertical
7655.29	-33.30	-13	-20.30	Vertical

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



**HSPA band II:**

The Worst Test Results for Channel 9538/1907.6MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1872.88	-48.96	-13	-35.96	Horizontal
3815.20	-33.37	-13	-20.37	Horizontal
7633.63	-51.10	-13	-38.10	Horizontal
1815.41	-34.92	-13	-21.92	Vertical
3815.75	-46.98	-13	-33.98	Vertical
7619.56	-32.99	-13	-19.99	Vertical

**HSPA band V:**

The Worst Test Results for Channel 4233/846.6MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1693.36	-52.90	-13	-39.90	Horizontal
3315.16	-34.08	-13	-21.08	Horizontal
6733.97	-48.62	-13	-35.62	Horizontal
1693.36	-34.17	-13	-21.17	Vertical
3380.56	-44.55	-13	-31.55	Vertical
6711.77	-41.42	-13	-28.42	Vertical

**RESULT: PASS**
**Note:**

1. Margin = Emission Level -Limit
2. Below 30MHz no Spurious found and Above is the worst mode data.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



## 10. FREQUENCY STABILITY

### 10.1 MEASUREMENT METHOD

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a "call mode". This is accomplished with the use of R&S CMU200 DIGITAL RADIO COMMUNICATION TESTER.

- 1 Measure the carrier frequency at room temperature.
- 2 Subject the EUT to overnight soak at -10°C.
- 3 With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on channel 661 for PCS 1900 band , channel 190 for GSM 850 band, channel 9400 for UMTS band II and channel 4175 for UMTS band V measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
- 4 Repeat the above measurements at 10°C increments from -10°C to +50°C. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.
- 5 Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1 1/2 hours unpowered, to allow any self-heating to stabilize, before continuing.
- 6 Subject the EUT to overnight soak at +50°C.
- 7 With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
- 8 Repeat the above measurements at 10°C increments from +50°C to -10°C. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.
- 9 At all temperature levels hold the temperature to +/- 0.5°C during the measurement procedure.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



## 10.2 PROVISIONS APPLICABLE

### 10.2.1 FOR HAND CARRIED BATTERY POWERED EQUIPMENT

According to the ANSI/TIA-603-E-2016, the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of between 3.4V DC and 4.35V DC, with a nominal voltage of 3.8V DC. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress. These voltages represent a tolerance of -10 % and +12.5 %. For the purposes of measuring frequency stability these voltage limits are to be used.

### 10.2.2 FOR EQUIPMENT POWERED BY PRIMARY SUPPLY VOLTAGE

According to the ANSI/TIA-603-E-2016, the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. For this EUT section 2.1055(d)(1) applies. This requires varying primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment, the normal environment temperature is 20°C.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



### 10.3 MEASUREMENT RESULT

#### Test Results

##### Frequency Error vs. Voltage:

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.(V)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
GSM850	GSM	LCH	TN	VL	28.99	0.04	±2.5	PASS
			TN	VN	27.89	0.03	±2.5	PASS
			TN	VH	28.67	0.03	±2.5	PASS
		MCH	TN	VL	30.80	0.04	±2.5	PASS
			TN	VN	30.80	0.04	±2.5	PASS
			TN	VH	32.29	0.04	±2.5	PASS
		HCH	TN	VL	29.51	0.03	±2.5	PASS
			TN	VN	30.54	0.04	±2.5	PASS
			TN	VH	30.61	0.04	±2.5	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.(V)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
GSM850	EDGE	LCH	TN	VL	41.13	0.05	±2.5	PASS
			TN	VN	39.42	0.05	±2.5	PASS
			TN	VH	38.81	0.05	±2.5	PASS
		MCH	TN	VL	37.84	0.05	±2.5	PASS
			TN	VN	37.84	0.05	±2.5	PASS
			TN	VH	37.13	0.04	±2.5	PASS
		HCH	TN	VL	35.32	0.04	±2.5	PASS
			TN	VN	35.90	0.04	±2.5	PASS
			TN	VH	34.84	0.04	±2.5	PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



Test Band	Test Mode	Test Channel	Test Temp.	Test Volt. (V)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
PCS 1900	GSM	LCH	TN	VL	135.41	0.07	±2.5	PASS
			TN	VN	139.22	0.08	±2.5	PASS
			TN	VH	136.50	0.07	±2.5	PASS
		MCH	TN	VL	135.73	0.07	±2.5	PASS
			TN	VN	137.21	0.07	±2.5	PASS
			TN	VH	143.87	0.08	±2.5	PASS
		HCH	TN	VL	140.96	0.07	±2.5	PASS
			TN	VN	142.57	0.07	±2.5	PASS
			TN	VH	136.83	0.07	±2.5	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt. (V)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
PCS 1900	EDGE	LCH	TN	VL	162.43	0.09	±2.5	PASS
			TN	VN	150.81	0.08	±2.5	PASS
			TN	VH	148.87	0.08	±2.5	PASS
		MCH	TN	VL	148.32	0.08	±2.5	PASS
			TN	VN	145.12	0.08	±2.5	PASS
			TN	VH	142.09	0.08	±2.5	PASS
		HCH	TN	VL	137.51	0.07	±2.5	PASS
			TN	VN	138.89	0.07	±2.5	PASS
			TN	VH	137.54	0.07	±2.5	PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



**Frequency Error vs. Temperature:**

Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (°C)	Freq. Error (Hz)	Freq. vs. rated (ppm)	Limit (ppm)	Verdict
GSM850	GSM	LCH	VN	-10	30.03	0.04	±2.5	PASS
			VN	0	29.44	0.04	±2.5	PASS
			VN	10	28.41	0.03	±2.5	PASS
			VN	20	26.73	0.03	±2.5	PASS
			VN	30	30.41	0.04	±2.5	PASS
			VN	40	29.83	0.04	±2.5	PASS
			VN	50	27.70	0.03	±2.5	PASS
GSM850	GSM	MCH	VN	-10	30.41	0.04	±2.5	PASS
			VN	0	27.83	0.03	±2.5	PASS
			VN	10	29.96	0.04	±2.5	PASS
			VN	20	29.38	0.04	±2.5	PASS
			VN	30	29.64	0.04	±2.5	PASS
			VN	40	29.64	0.04	±2.5	PASS
			VN	50	30.09	0.04	±2.5	PASS
GSM850	GSM	HCH	VN	-10	32.80	0.04	±2.5	PASS
			VN	0	31.96	0.04	±2.5	PASS
			VN	10	28.41	0.03	±2.5	PASS
			VN	20	31.51	0.04	±2.5	PASS
			VN	30	29.90	0.04	±2.5	PASS
			VN	40	29.83	0.04	±2.5	PASS
			VN	50	32.22	0.04	±2.5	PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (°C)	Freq. Error (Hz)	Freq. vs. rated (ppm)	Limit (ppm)	Verdict
GSM850	EDGE	LCH	VN	-10	47.49	0.06	±2.5	PASS
			VN	0	45.43	0.06	±2.5	PASS
			VN	10	42.46	0.05	±2.5	PASS
			VN	20	39.26	0.05	±2.5	PASS
			VN	30	39.45	0.05	±2.5	PASS
			VN	40	39.91	0.05	±2.5	PASS
			VN	50	37.94	0.05	±2.5	PASS
GSM850	EDGE	MCH	VN	-10	35.87	0.04	±2.5	PASS
			VN	0	36.64	0.04	±2.5	PASS
			VN	10	37.90	0.05	±2.5	PASS
			VN	20	37.29	0.04	±2.5	PASS
			VN	30	38.03	0.05	±2.5	PASS
			VN	40	36.52	0.04	±2.5	PASS
			VN	50	35.61	0.04	±2.5	PASS
GSM850	EDGE	HCH	VN	-10	35.00	0.04	±2.5	PASS
			VN	0	34.13	0.04	±2.5	PASS
			VN	10	35.51	0.04	±2.5	PASS
			VN	20	31.93	0.04	±2.5	PASS
			VN	30	34.55	0.04	±2.5	PASS
			VN	40	34.09	0.04	±2.5	PASS
			VN	50	34.97	0.04	±2.5	PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (°C)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
PCS 1900	GSM	LCH	VN	-10	133.86	0.07	±2.5	PASS
			VN	0	140.57	0.08	±2.5	PASS
			VN	10	135.54	0.07	±2.5	PASS
			VN	20	136.31	0.07	±2.5	PASS
			VN	30	133.73	0.07	±2.5	PASS
			VN	40	135.15	0.07	±2.5	PASS
			VN	50	136.38	0.07	±2.5	PASS
PCS 1900	GSM	MCH	VN	-10	138.38	0.07	±2.5	PASS
			VN	0	139.93	0.07	±2.5	PASS
			VN	10	143.03	0.08	±2.5	PASS
			VN	20	137.47	0.07	±2.5	PASS
			VN	30	136.63	0.07	±2.5	PASS
			VN	40	138.38	0.07	±2.5	PASS
			VN	50	140.83	0.07	±2.5	PASS
PCS 1900	GSM	HCH	VN	-10	142.06	0.07	±2.5	PASS
			VN	0	141.54	0.07	±2.5	PASS
			VN	10	142.32	0.07	±2.5	PASS
			VN	20	142.70	0.07	±2.5	PASS
			VN	30	144.71	0.08	±2.5	PASS
			VN	40	143.28	0.08	±2.5	PASS
			VN	50	143.87	0.08	±2.5	PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



**Frequency Error vs. Voltage:**

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.(V)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
WCDMA850	UMTS	LCH	TN	VL	-13.32	-0.02	±2.5	PASS
			TN	VN	-15.91	-0.02	±2.5	PASS
			TN	VH	-10.21	-0.01	±2.5	PASS
		MCH	TN	VL	-14.33	-0.02	±2.5	PASS
			TN	VN	-10.73	-0.01	±2.5	PASS
			TN	VH	-8.12	-0.01	±2.5	PASS
		HCH	TN	VL	-16.71	-0.02	±2.5	PASS
			TN	VN	-12.60	-0.01	±2.5	PASS
			TN	VH	-13.53	-0.02	±2.5	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.(V)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
WCDMA1900	UMTS	LCH	TN	VL	-45.62	-0.02	±2.5	PASS
			TN	VN	-43.26	-0.02	±2.5	PASS
			TN	VH	-47.90	-0.03	±2.5	PASS
		MCH	TN	VL	-90.00	-0.05	±2.5	PASS
			TN	VN	-141.65	-0.08	±2.5	PASS
			TN	VH	68.85	0.04	±2.5	PASS
		HCH	TN	VL	-38.22	-0.02	±2.5	PASS
			TN	VN	50.26	0.03	±2.5	PASS
			TN	VH	-27.56	-0.01	±2.5	PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



**Frequency Error vs. Temperature:**

Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (°C)	Freq. Error (Hz)	Freq. vs. rated (ppm)	Limit (ppm)	Verdict
WCDMA850	UMTS	LCH	VN	-10	-15.78	-0.02	±2.5	PASS
			VN	0	-6.97	-0.01	±2.5	PASS
			VN	10	-12.04	-0.01	±2.5	PASS
			VN	20	-14.14	-0.02	±2.5	PASS
			VN	30	-12.54	-0.02	±2.5	PASS
			VN	40	-8.58	-0.01	±2.5	PASS
			VN	50	-7.71	-0.01	±2.5	PASS
WCDMA850	UMTS	MCH	VN	-10	-13.18	-0.02	±2.5	PASS
			VN	0	-9.12	-0.01	±2.5	PASS
			VN	10	-12.36	-0.01	±2.5	PASS
			VN	20	-13.96	-0.02	±2.5	PASS
			VN	30	-8.70	-0.01	±2.5	PASS
			VN	40	-15.03	-0.02	±2.5	PASS
			VN	50	-14.33	-0.02	±2.5	PASS
WCDMA850	UMTS	HCH	VN	-10	-11.54	-0.01	±2.5	PASS
			VN	0	-9.78	-0.01	±2.5	PASS
			VN	10	-10.99	-0.01	±2.5	PASS
			VN	20	-12.01	-0.01	±2.5	PASS
			VN	30	-7.39	-0.01	±2.5	PASS
			VN	40	-15.00	-0.02	±2.5	PASS
			VN	50	-12.86	-0.02	±2.5	PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



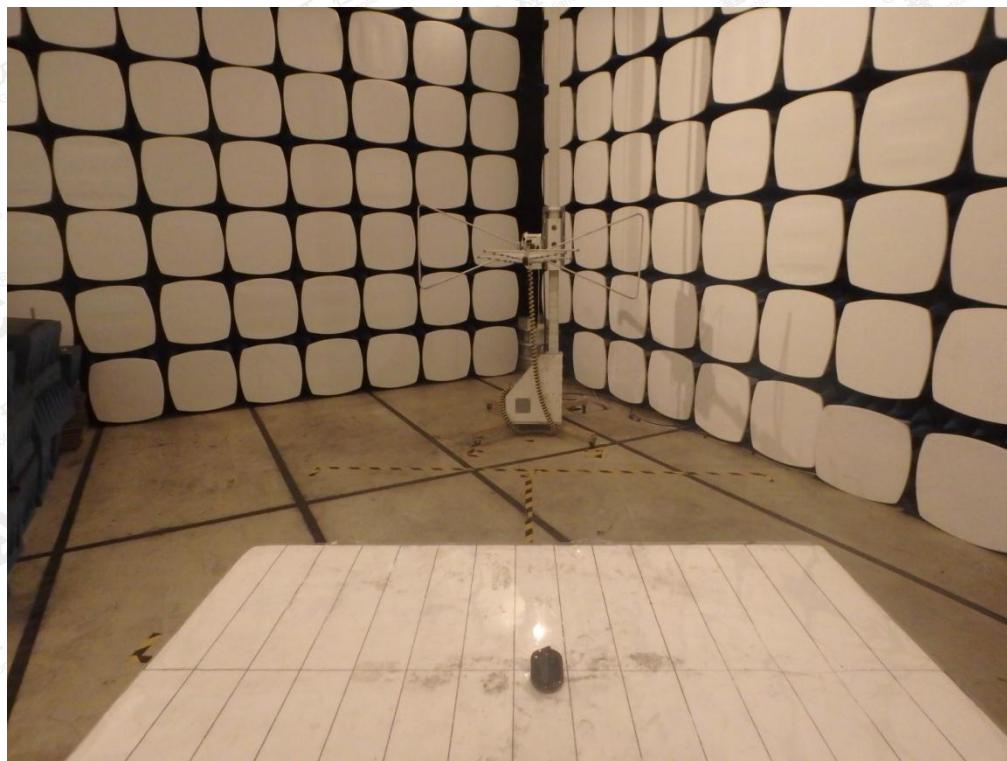
Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (°C)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
WCDMA1900	UMTS	LCH	VN	-10	-15.67	-0.01	±2.5	PASS
			VN	0	-15.91	-0.01	±2.5	PASS
			VN	10	-16.85	-0.01	±2.5	PASS
			VN	20	-23.82	-0.01	±2.5	PASS
			VN	30	-13.14	-0.01	±2.5	PASS
			VN	40	-16.20	-0.01	±2.5	PASS
			VN	50	-18.89	-0.01	±2.5	PASS
WCDMA1900	UMTS	MCH	VN	-10	-14.30	-0.01	±2.5	PASS
			VN	0	-19.45	-0.01	±2.5	PASS
			VN	10	-14.83	-0.01	±2.5	PASS
			VN	20	-12.63	-0.01	±2.5	PASS
			VN	30	-15.99	-0.01	±2.5	PASS
			VN	40	-15.98	-0.01	±2.5	PASS
			VN	50	-17.21	-0.01	±2.5	PASS
WCDMA1900	UMTS	HCH	VN	-10	-8.74	0.00	±2.5	PASS
			VN	0	-13.43	-0.01	±2.5	PASS
			VN	10	-18.88	-0.01	±2.5	PASS
			VN	20	-13.49	-0.01	±2.5	PASS
			VN	30	-13.14	-0.01	±2.5	PASS
			VN	40	-18.01	-0.01	±2.5	PASS
			VN	50	-20.83	-0.01	±2.5	PASS

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.

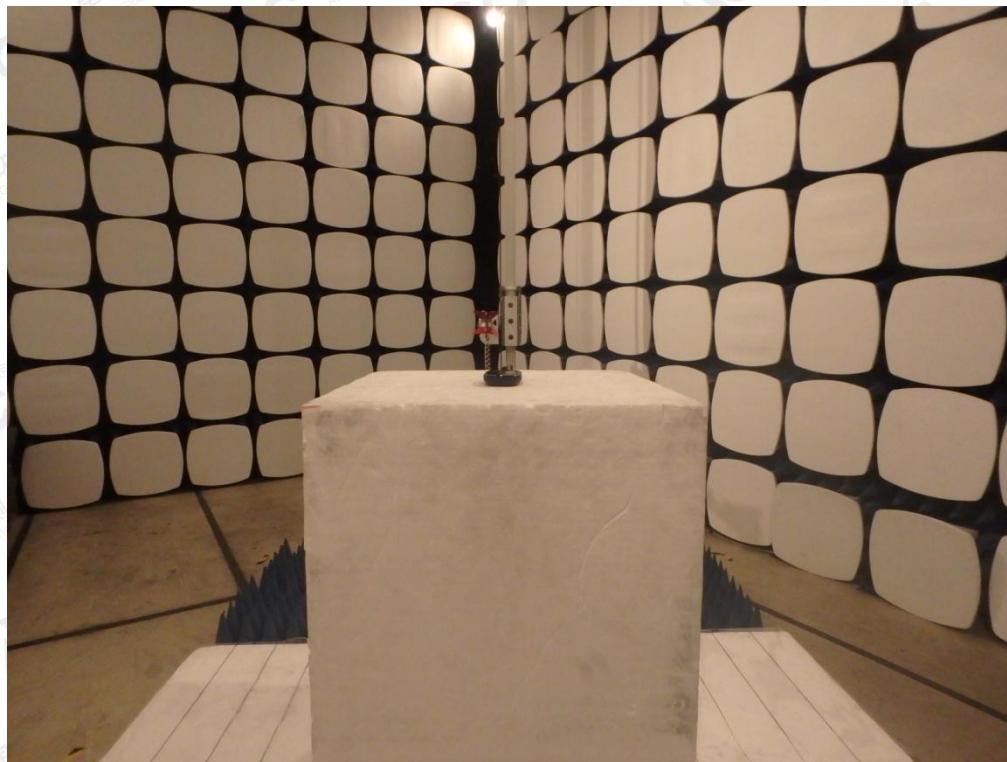


## APPENDIX A: PHOTOGRAPHS OF TEST SETUP

### RADIATED SPURIOUS EMISSION



RADIATED SPURIOUS ABOVE 1G EMISSION



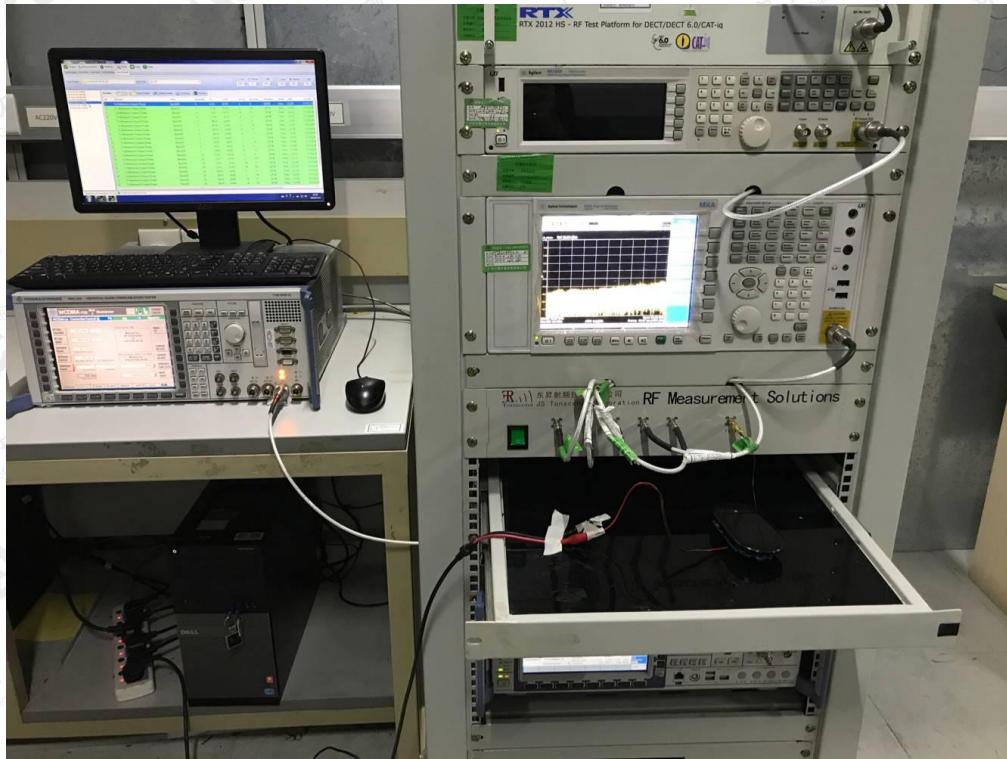
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



Attestation of Global Compliance

Tel: +86-755 2908 1955 Fax: +86-755 2600 8484 E-mail: [agc@agc-cert.com](mailto:agc@agc-cert.com) 400 089 2118  
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Baoan District, Shenzhen, Guangdong China

### CONDUCTED MEASUREMENTS



----END OF REPORT----

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.agc-cert.com>.



Attestation of Global Compliance

Tel: +86-755 2908 1955 Fax: +86-755 2600 8484 E-mail: [agc@agc-cert.com](mailto:agc@agc-cert.com) 400 089 2118  
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Baoan District, Shenzhen, Guangdong China