

**Shenzhen UnionTrust Quality and Technology Co., Ltd.**

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

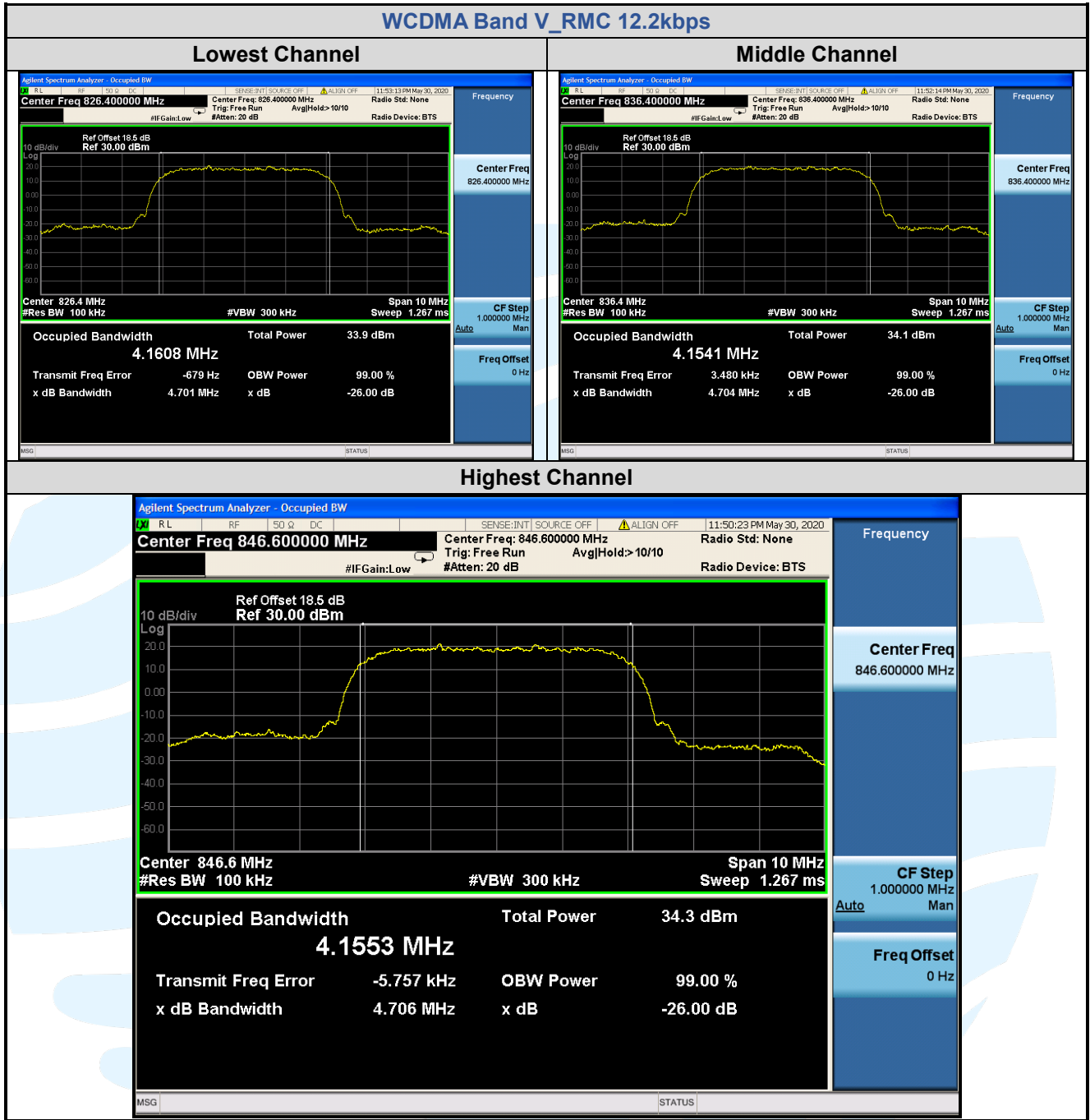
Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC23G-V1.0



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## 5.6 BAND EDGE AT ANTENNA TERMINALS

**Test Requirement:** FCC 47 CFR Part 2.1051,  
 FCC 47 CFR Part 22.917(a),  
 FCC 47 CFR Part 24.238(a),  
 FCC 47 CFR Part 27.53(h)(1)

**Test Method:** ANSI C63.26-2015 & KDB 971168 D01v03r01

**Limit:**  
 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. The emission limit equal to -13 dBm.

**Test Procedure:**  
 The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer.

For each band edge measurement:

- 1) Set the spectrum analyzer span to include the block edge frequency.
- 2) Set a marker to point the corresponding band edge frequency in each test case.
- 3) Set display line at -13 dBm
- 4) Set resolution bandwidth to at least 1% of emission bandwidth.
- 5) Set spectrum analyzer with RMS detector.
- 6) Record the max trace plot into the test report

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

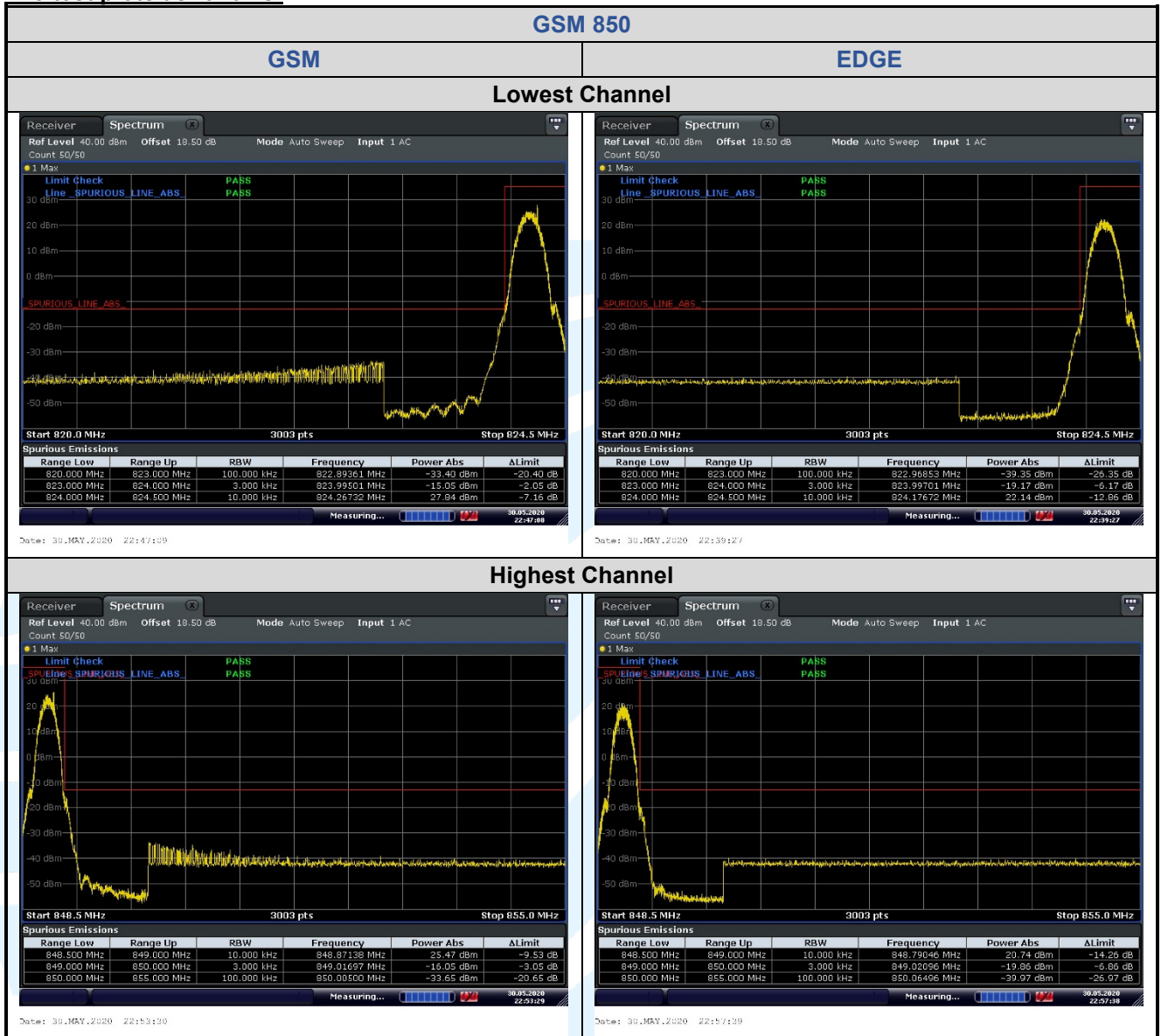
**Test Setup:** Refer to section 4.2.2 for details.

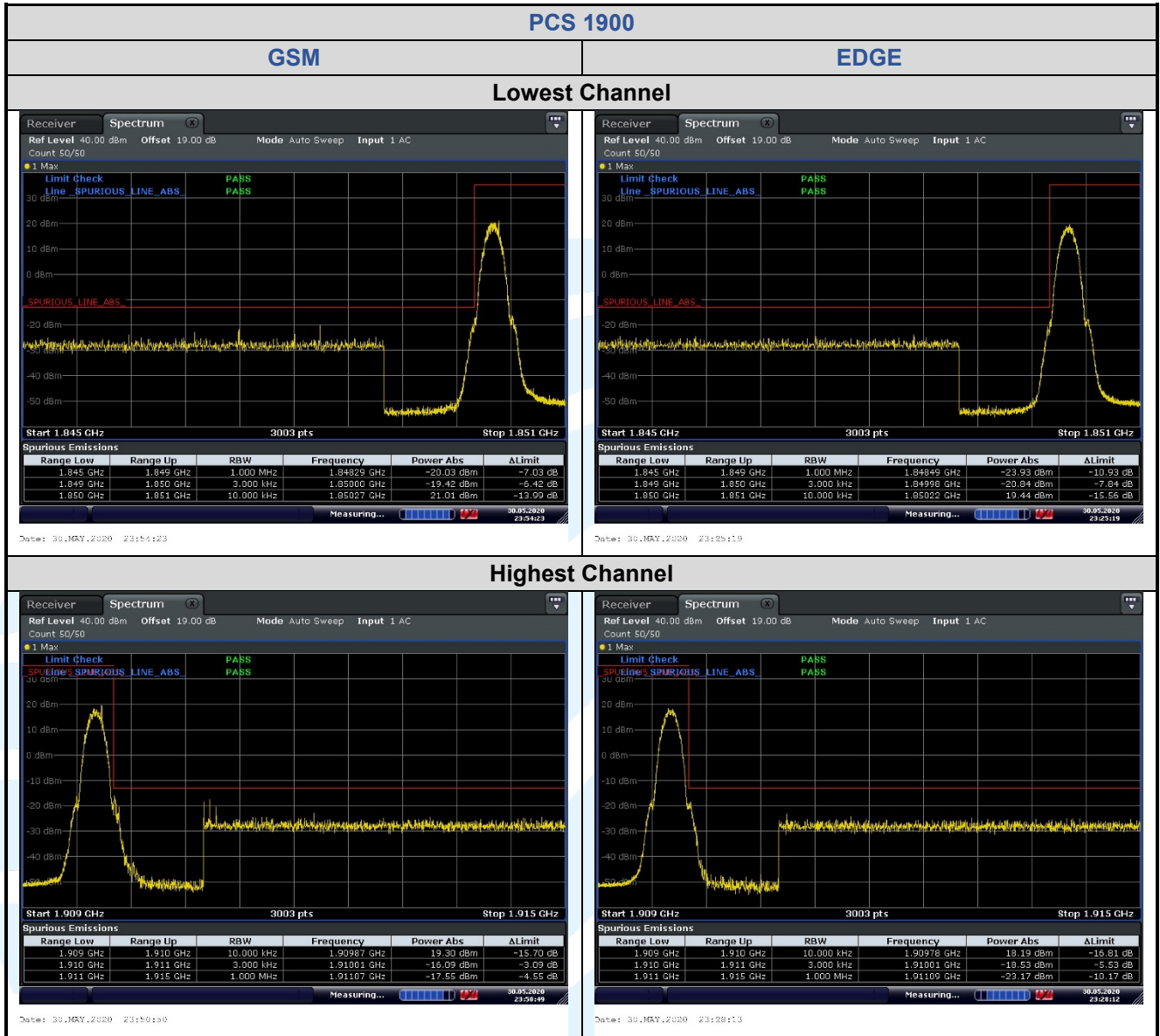
**Instruments Used:** Refer to section 3 for details

**Test Mode:** Link mode

**Test Results:** Pass

The test plots as follows:





**WCDMA Band II\_RMC 12.2kbps** **WCDMA Band IV\_RMC 12.2kbps**

**Lowest Channel**

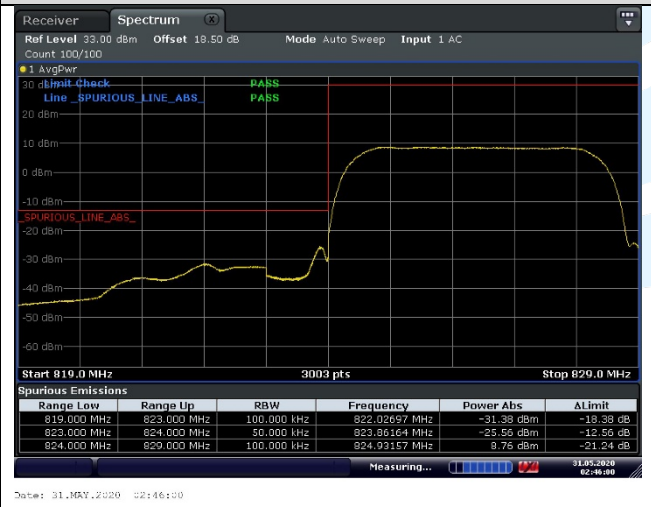


**Highest Channel**



**WCDMA Band V\_RMC 12.2kbps**

**Lowest Channel**



**Highest Channel**



### 5.7 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

**Test Requirement:** FCC 47 CFR Part 2.1051,  
 FCC 47 CFR Part 22.917(a)(b),  
 FCC 47 CFR Part 24.238(a)(b),  
 FCC 47 CFR Part 27.53(h)(1)

**Test Method:** ANSI C63.26-2015 & KDB 971168 D01v03r01

**Limit:**  
 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. The emission limit equal to -13 dBm.

**Test Procedure:**  
 The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range. b. Measuring frequency range is from 30 MHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

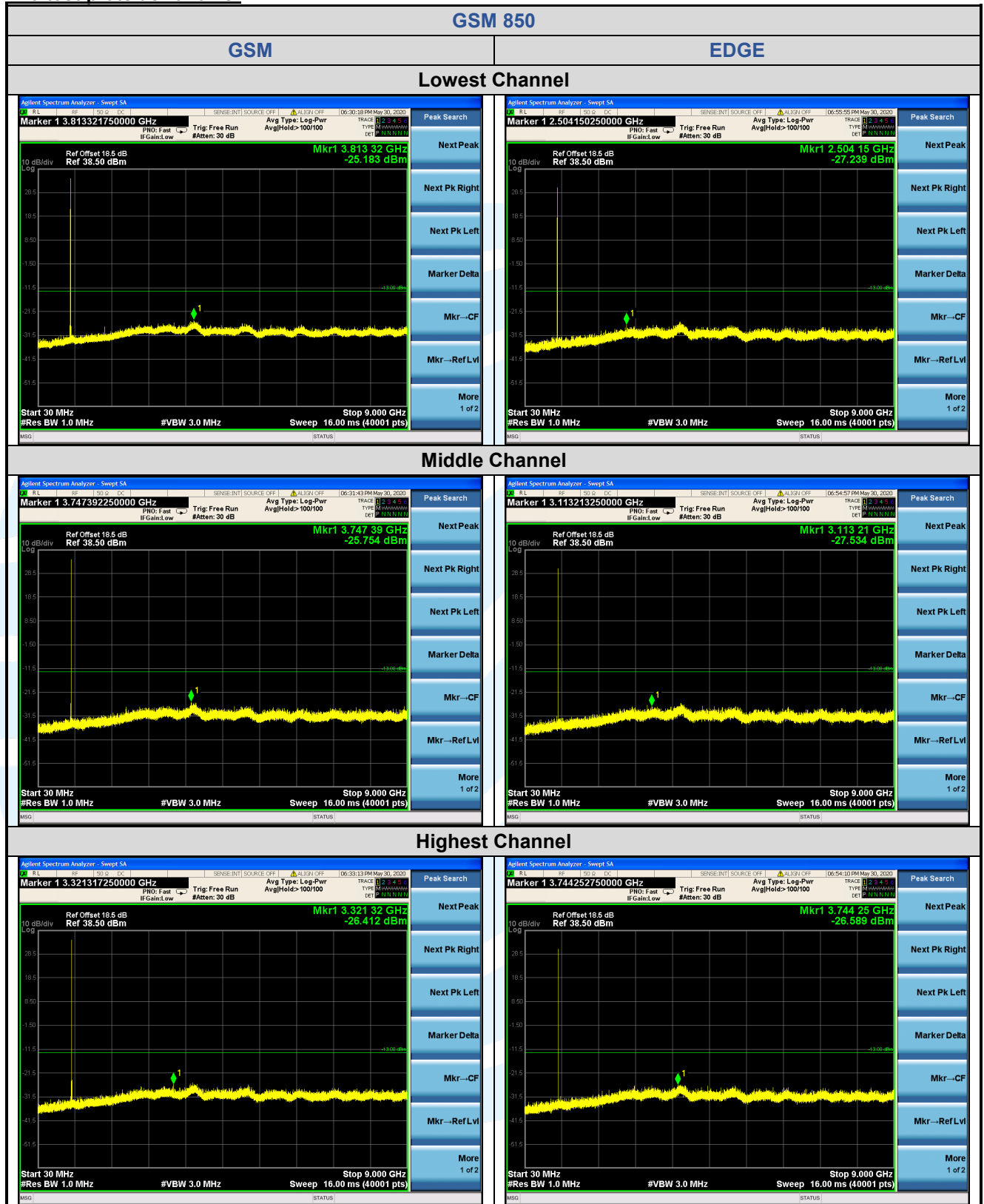
**Test Setup:** Refer to section 4.2.2 for details.

**Instruments Used:** Refer to section 3 for details

**Test Mode:** Link mode

**Test Results:** Pass

The test plots as follows:



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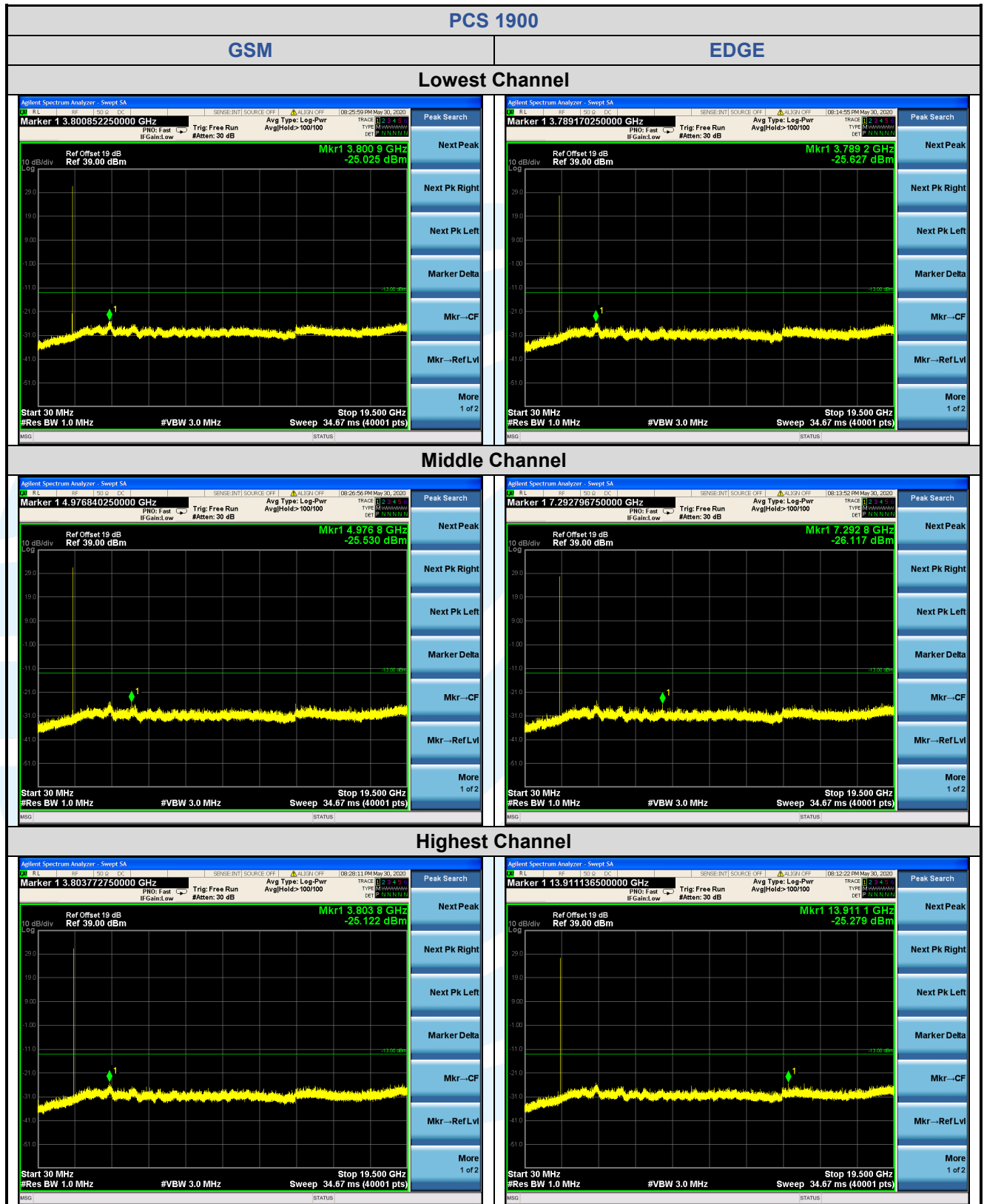
Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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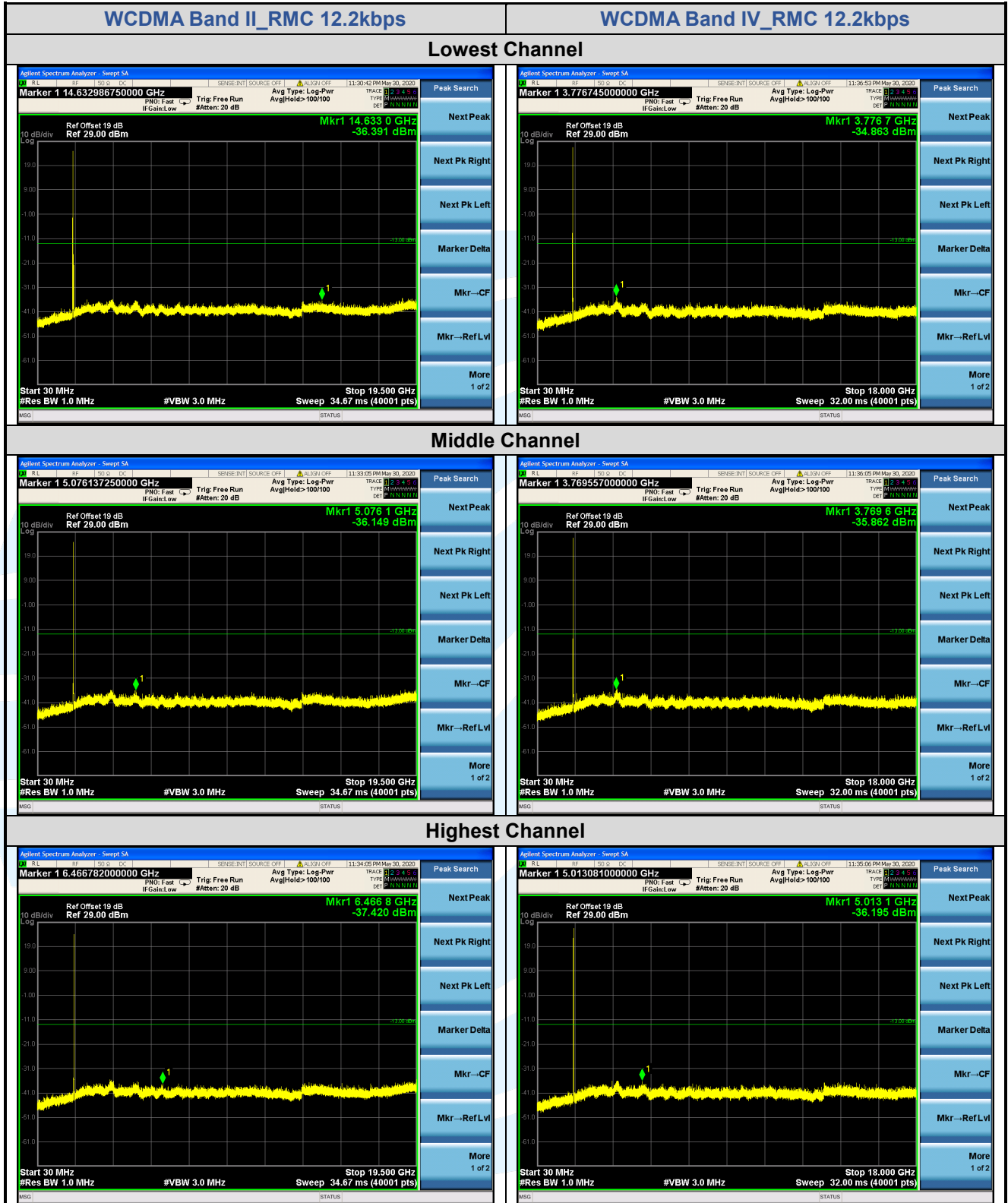
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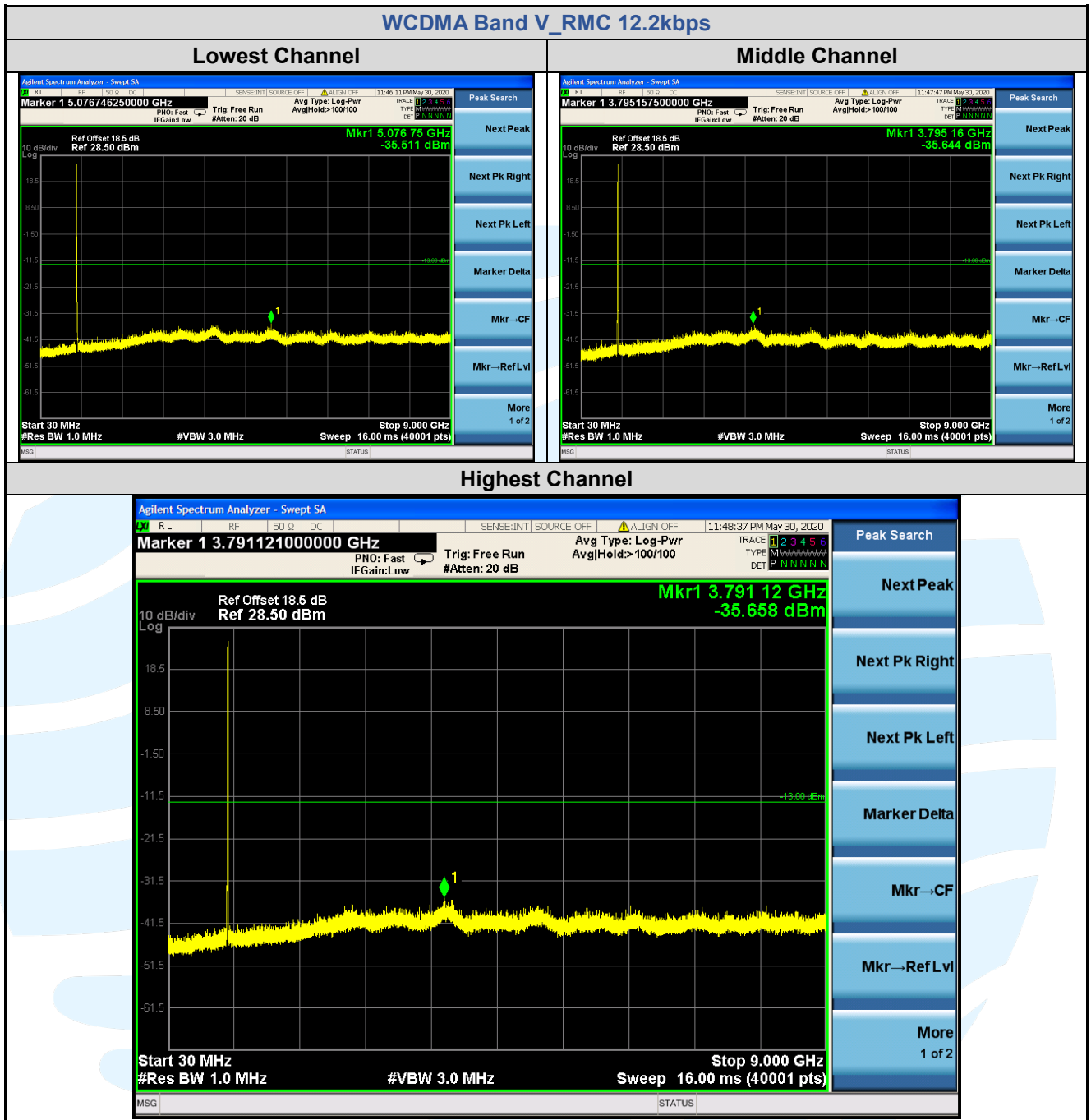
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**Remark:**

1) All the above radiation data, the fundamental frequency is not marked, it may exceed the limit, please ignore it.

### 5.8 FIELD STRENGTH OF SPURIOUS RADIATION

**Test Requirement:** FCC 47 CFR Part 2.1053,  
 FCC 47 CFR Part 22.917(a)(b),  
 FCC 47 CFR Part 24.238(a)(b),  
 FCC 47 CFR Part 27.53(h)(1)

**Test Method:** ANSI C63.26-2015 & KDB 971168 D01v03r01 Section 7

**Limits:**

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. The emission limit equal to -13 dBm.

**Test Setup:** Refer to section 4.2.1 for details.

**Test Procedures:** KDB 971168 D01v03r01 Section 7

**Equipment Used:** Refer to section 3 for details.

**Test Result:** Pass

**The measurement data as follows:**

**Below 1G**

GSM 850							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
GPRS_ Lowest Channel							
1	31.735	-83.27	30.97	-52.30	-13.00	-39.30	Horizontal
2	137.840	-88.17	26.44	-61.73	-13.00	-48.73	Horizontal
3	708.694	-87.17	40.57	-46.60	-13.00	-33.60	Horizontal
4	30.212	-90.92	32.70	-58.22	-13.00	-45.22	Vertical
5	307.105	-87.66	30.74	-56.92	-13.00	-43.92	Vertical
6	698.804	-88.39	39.21	-49.18	-13.00	-36.18	Vertical
GPRS_ Middle Channel							
1	30.639	-92.05	32.20	-59.85	-13.00	-46.85	Horizontal
2	205.746	-88.55	27.27	-61.28	-13.00	-48.28	Horizontal
3	698.804	-88.81	40.35	-48.46	-13.00	-35.46	Horizontal
4	34.527	-88.41	29.84	-58.57	-13.00	-45.57	Vertical
5	379.178	-89.05	32.79	-56.26	-13.00	-43.26	Vertical
6	703.731	-88.50	39.24	-49.26	-13.00	-36.26	Vertical
GPRS_ Middle Channel							
1	30.855	-91.76	32.09	-59.67	-13.00	-46.67	Horizontal
2	278.331	-89.23	30.12	-59.11	-13.00	-46.11	Horizontal
3	723.793	-87.85	39.85	-48.00	-13.00	-35.00	Horizontal
4	30.425	-91.73	32.56	-59.17	-13.00	-46.17	Vertical
5	250.486	-89.12	29.48	-59.64	-13.00	-46.64	Vertical
6	734.037	-87.78	38.81	-48.97	-13.00	-35.97	Vertical

PCS 1900							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
<b>GPRS_ Lowest Channel</b>							
1	35.511	-89.26	29.61	-59.65	-13.00	-46.65	Horizontal
2	781.961	-88.13	40.64	-47.49	-13.00	-34.49	Horizontal
3	958.714	-87.01	43.16	-43.85	-13.00	-30.85	Horizontal
4	30.212	-91.43	32.70	-58.73	-13.00	-45.73	Vertical
5	149.968	-88.61	25.95	-62.66	-13.00	-49.66	Vertical
6	938.714	-86.87	41.58	-45.29	-13.00	-32.29	Vertical
<b>GPRS_ Middle Channel</b>							
1	32.870	-83.20	31.02	-52.18	-13.00	-39.18	Horizontal
2	338.855	-88.89	32.17	-56.72	-13.00	-43.72	Horizontal
3	965.474	-86.65	43.26	-43.39	-13.00	-30.39	Horizontal
4	30.855	-91.46	32.28	-59.18	-13.00	-46.18	Vertical
5	231.853	-89.53	28.48	-61.05	-13.00	-48.05	Vertical
6	972.283	-86.85	42.40	-44.45	-13.00	-31.45	Vertical
<b>GPRS_ Highest Channel</b>							
1	32.640	-87.71	31.14	-56.57	-13.00	-43.57	Horizontal
2	292.364	-89.45	30.44	-59.01	-13.00	-46.01	Horizontal
3	992.997	-87.62	44.13	-43.49	-13.00	-30.49	Horizontal
4	30.425	-90.92	32.56	-58.36	-13.00	-45.36	Vertical
5	278.331	-87.80	30.12	-57.68	-13.00	-44.68	Vertical
6	992.997	-87.32	43.30	-44.02	-13.00	-31.02	Vertical

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WCDMA Band II							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
<b>RMC 12.2kbps_ Lowest Channel</b>							
1	31.513	-91.17	31.74	-59.43	-13.00	-46.43	Horizontal
2	439.473	-88.02	34.68	-53.34	-13.00	-40.34	Horizontal
3	952.000	-86.27	43.04	-43.23	-13.00	-30.23	Horizontal
4	30.855	-91.74	32.28	-59.46	-13.00	-46.46	Vertical
5	280.294	-89.67	30.16	-59.51	-13.00	-46.51	Vertical
6	958.714	-86.80	41.87	-44.93	-13.00	-31.93	Vertical
<b>RMC 12.2kbps_ Middle Channel</b>							
1	32.184	-84.37	31.38	-52.99	-13.00	-39.99	Horizontal
2	418.378	-89.16	34.53	-54.63	-13.00	-41.63	Horizontal
3	986.044	-86.73	43.86	-42.87	-13.00	-29.87	Horizontal
4	33.101	-90.71	30.79	-59.92	-13.00	-46.92	Vertical
5	338.855	-89.26	31.99	-57.27	-13.00	-44.27	Vertical
6	965.474	-86.72	42.13	-44.59	-13.00	-31.59	Vertical
<b>RMC 12.2kbps_ Highest Channel</b>							
1	32.640	-85.04	31.14	-53.90	-13.00	-40.90	Horizontal
2	288.284	-88.48	30.35	-58.13	-13.00	-45.13	Horizontal
3	992.997	-87.77	44.13	-43.64	-13.00	-30.64	Horizontal
4	31.513	-90.82	31.84	-58.98	-13.00	-45.98	Vertical
5	282.270	-88.24	30.21	-58.03	-13.00	-45.03	Vertical
6	972.283	-86.93	42.40	-44.53	-13.00	-31.53	Vertical

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WCDMA Band IV							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
<b>RMC 12.2kbps_ Lowest Channel</b>							
1	32.640	-84.51	31.14	-53.37	-13.00	-40.37	Horizontal
2	200.043	-88.77	27.02	-61.75	-13.00	-48.75	Horizontal
3	965.474	-86.54	43.26	-43.28	-13.00	-30.28	Horizontal
4	32.411	-91.53	31.25	-60.28	-13.00	-47.28	Vertical
5	360.977	-89.30	32.65	-56.65	-13.00	-43.65	Vertical
6	925.613	-87.12	41.68	-45.44	-13.00	-32.44	Vertical
<b>RMC 12.2kbps_ Middle Channel</b>							
1	32.640	-84.51	31.14	-53.37	-13.00	-40.37	Horizontal
2	348.514	-89.29	32.65	-56.64	-13.00	-43.64	Horizontal
3	986.044	-86.99	43.86	-43.13	-13.00	-30.13	Horizontal
4	31.292	-91.24	31.99	-59.25	-13.00	-46.25	Vertical
5	322.590	-88.82	31.02	-57.80	-13.00	-44.80	Vertical
6	986.044	-87.11	43.00	-44.11	-13.00	-31.11	Vertical
<b>RMC 12.2kbps_ Highest Channel</b>							
1	34.770	-87.60	30.00	-57.60	-13.00	-44.60	Horizontal
2	395.507	-89.18	34.26	-54.92	-13.00	-41.92	Horizontal
3	938.714	-86.81	42.67	-44.14	-13.00	-31.14	Horizontal
4	34.770	-89.51	29.68	-59.83	-13.00	-46.83	Vertical
5	250.486	-89.51	29.48	-60.03	-13.00	-47.03	Vertical
6	965.474	-86.91	42.13	-44.78	-13.00	-31.78	Vertical

WCDMA Band V							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
<b>RMC 12.2kbps_ Lowest Channel</b>							
1	31.073	-91.91	33.71	-58.20	-13.00	-45.20	Horizontal
2	146.839	-90.13	27.01	-63.12	-13.00	-50.12	Horizontal
3	965.474	-88.70	44.29	-44.41	-13.00	-31.41	Horizontal
4	30.425	-94.08	34.16	-59.92	-13.00	-46.92	Vertical
5	341.244	-91.22	31.85	-59.37	-13.00	-46.37	Vertical
6	972.283	-87.40	44.47	-42.93	-13.00	-29.93	Vertical
<b>RMC 12.2kbps_ Middle Channel</b>							
1	32.184	-90.35	32.91	-57.44	-13.00	-44.44	Horizontal
2	177.518	-89.63	27.86	-61.77	-13.00	-48.77	Horizontal
3	986.044	-87.53	45.16	-42.37	-13.00	-29.37	Horizontal
4	30.425	-92.47	34.16	-58.31	-13.00	-45.31	Vertical
5	311.452	-89.13	30.45	-58.68	-13.00	-45.68	Vertical
6	992.997	-87.38	45.49	-41.89	-13.00	-28.89	Vertical
<b>RMC 12.2kbps_ Highest Channel</b>							
1	30.000	-91.24	34.45	-56.79	-13.00	-43.79	Horizontal
2	403.934	-89.71	33.32	-56.39	-13.00	-43.39	Horizontal
3	979.139	-87.89	44.76	-43.13	-13.00	-30.13	Horizontal
4	30.212	-91.73	34.30	-57.43	-13.00	-44.43	Vertical
5	227.016	-89.44	28.36	-61.08	-13.00	-48.08	Vertical
6	979.139	-87.06	44.76	-42.30	-13.00	-29.30	Vertical

**Above 1G**

GSM 850							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
<b>GPRS_ Lowest Channel</b>							
1	2472.600	-48.48	11.44	-37.04	-13.00	-24.04	Horizontal
2	3296.800	-53.12	13.32	-39.80	-13.00	-26.80	Horizontal
3	2472.600	-51.60	11.24	-40.36	-13.00	-27.36	Vertical
4	3296.800	-54.34	13.02	-41.32	-13.00	-28.32	Vertical
<b>GPRS_ Middle Channel</b>							
1	2509.800	-56.99	11.46	-45.53	-13.00	-32.53	Horizontal
2	3346.400	-58.48	13.47	-45.01	-13.00	-32.01	Horizontal
3	2509.800	-51.83	11.26	-40.57	-13.00	-27.57	Vertical
4	3346.400	-52.84	13.17	-39.67	-13.00	-26.67	Vertical
<b>GPRS_ Highest Channel</b>							
1	2546.400	-48.39	11.46	-36.93	-13.00	-23.93	Horizontal
2	3395.200	-55.35	13.62	-41.73	-13.00	-28.73	Horizontal
3	2546.400	-48.28	11.25	-37.03	-13.00	-24.03	Vertical
4	3395.200	-53.83	13.32	-40.51	-13.00	-27.51	Vertical

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PCS 1900							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
<b>GPRS_ Lowest Channel</b>							
1	3700.400	-69.99	15.35	-54.64	-13.00	-41.64	Horizontal
2	5550.600	-66.84	17.05	-49.79	-13.00	-36.79	Horizontal
3	3700.400	-69.77	15.09	-54.68	-13.00	-41.68	Vertical
4	5550.600	-65.57	16.85	-48.72	-13.00	-35.72	Vertical
<b>GPRS_ Middle Channel</b>							
1	3760.000	-64.47	15.54	-48.93	-13.00	-35.93	Horizontal
2	5640.000	-67.16	17.18	-49.98	-13.00	-36.98	Horizontal
3	3760.000	-65.78	15.29	-50.49	-13.00	-37.49	Vertical
4	5640.000	-64.99	16.98	-48.01	-13.00	-35.01	Vertical
<b>GPRS_ Highest Channel</b>							
1	3819.600	-70.16	15.73	-54.43	-13.00	-41.43	Horizontal
2	5729.400	-68.29	17.51	-50.78	-13.00	-37.78	Horizontal
3	3819.600	-65.45	15.49	-49.96	-13.00	-36.96	Vertical
4	5729.400	-67.58	17.31	-50.27	-13.00	-37.27	Vertical

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WCDMA Band II							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
<b>RMC 12.2kbps_ Lowest Channel</b>							
1	3704.800	-59.95	15.37	-44.58	-13.00	-31.58	Horizontal
2	5557.200	-57.06	17.05	-40.01	-13.00	-27.01	Horizontal
3	3704.800	-59.85	15.11	-44.74	-13.00	-31.74	Vertical
4	5557.200	-57.92	16.85	-41.07	-13.00	-28.07	Vertical
<b>RMC 12.2kbps_ Middle Channel</b>							
1	3760.000	-65.90	15.54	-50.36	-13.00	-37.36	Horizontal
2	5640.000	-64.46	17.18	-47.28	-13.00	-34.28	Horizontal
3	3760.000	-63.23	15.29	-47.94	-13.00	-34.94	Vertical
4	5640.000	-61.26	16.98	-44.28	-13.00	-31.28	Vertical
<b>RMC 12.2kbps_ Highest Channel</b>							
1	3815.200	-66.19	15.72	-50.47	-13.00	-37.47	Horizontal
2	5722.800	-61.94	17.48	-44.46	-13.00	-31.46	Horizontal
3	3815.200	-63.47	15.48	-47.99	-13.00	-34.99	Vertical
4	5722.800	-62.05	17.28	-44.77	-13.00	-31.77	Vertical

WCDMA Band IV							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
<b>RMC 12.2kbps_ Lowest Channel</b>							
1	3424.800	-66.12	13.80	-52.32	-13.00	-39.32	Horizontal
2	5137.200	-61.73	16.37	-45.36	-13.00	-32.36	Horizontal
3	3424.800	-66.19	13.50	-52.69	-13.00	-39.69	Vertical
4	5137.200	-59.36	16.03	-43.33	-13.00	-30.33	Vertical
<b>RMC 12.2kbps_ Middle Channel</b>							
1	3464.800	-61.95	14.07	-47.88	-13.00	-34.88	Horizontal
2	5197.200	-61.28	16.60	-44.68	-13.00	-31.68	Horizontal
3	3464.800	-60.90	13.77	-47.13	-13.00	-34.13	Vertical
4	5197.200	-58.03	16.28	-41.75	-13.00	-28.75	Vertical
<b>RMC 12.2kbps_ Highest Channel</b>							
1	3505.200	-63.90	14.34	-49.56	-13.00	-36.56	Horizontal
2	5257.800	-59.86	16.72	-43.14	-13.00	-30.14	Horizontal
3	3505.200	-60.98	14.04	-46.94	-13.00	-33.94	Vertical
4	5257.800	-58.29	16.42	-41.87	-13.00	-28.87	Vertical

**Shenzhen UnionTrust Quality and Technology Co., Ltd.**

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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WCDMA Band V							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
<b>RMC 12.2kbps_ Lowest Channel</b>							
1	1652.800	-65.30	3.22	-62.08	-13.00	-49.08	Horizontal
2	2479.200	-64.14	11.45	-52.69	-13.00	-39.69	Horizontal
3	1652.800	-64.49	3.30	-61.19	-13.00	-48.19	Vertical
4	2479.200	-61.75	11.25	-50.50	-13.00	-37.50	Vertical
<b>RMC 12.2kbps_ Middle Channel</b>							
1	1672.800	-64.83	3.44	-61.39	-13.00	-48.39	Horizontal
2	2509.200	-64.72	11.46	-53.26	-13.00	-40.26	Horizontal
3	1672.800	-63.77	3.50	-60.27	-13.00	-47.27	Vertical
4	2509.200	-61.09	11.26	-49.83	-13.00	-36.83	Vertical
<b>RMC 12.2kbps_ Highest Channel</b>							
1	1693.200	-65.19	3.66	-61.53	-13.00	-48.53	Horizontal
2	2539.800	-67.77	11.46	-56.31	-13.00	-43.31	Horizontal
3	1693.200	-63.32	3.71	-59.61	-13.00	-46.61	Vertical
4	2539.800	-68.70	11.25	-57.45	-13.00	-44.45	Vertical

Remark:

1. Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.
2. Result = Reading + Correct Factor.
3. Margin = Result – Limit
4. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different modulations in exploratory test. Subsequently, only the worst case emissions are reported.

### 5.9 FREQUENCY STABILITY

**Test Requirement:** FCC 47 CFR Part 2.1055 &  
 FCC 47 CFR Part 22.355 &  
 FCC 47 CFR Part 24.235 &  
 FCC 47 CFR Part 27.54

**Test Method:** ANSI C63.26-2015 & KDB 971168 D01v03r01

**Limits:**

**FCC 47 CFR Part 22.355,**

The carrier frequency shall not depart from the reference frequency in excess of  $\pm 2.5$  ppm for mobile stations.

**FCC 47 CFR Part 24.235, FCC 47 CFR Part 27.54**

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

**Test Setup:** Refer to section 4.2.2 for details.

**Test Procedures:**

- 1) Use CMW 500 with Frequency Error measurement capability.
  - a) Temp. =  $-30^{\circ}$  to  $+50^{\circ}\text{C}$
  - b) Voltage = low voltage, 3.5 Vdc, Normal, 3.8 Vdc and High voltage, 4.2 Vdc.

2) Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to  $20^{\circ}\text{C}$  and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until  $+50^{\circ}\text{C}$  is reached.

3) Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

**Equipment Used:** Refer to section 3 for details.

**Test Result:** Pass

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature ( $^{\circ}\text{C}$ )	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
<b>GSM 850 1Tx-slot</b>							
GMSK	190 / 836.6	VL	TN	-11	-0.0131	$\pm 2.5$	Pass
		VN		8	0.0096	$\pm 2.5$	Pass
		VH		13	0.0155	$\pm 2.5$	Pass
		VN	50	6	0.0072	$\pm 2.5$	Pass
			40	-8	-0.0096	$\pm 2.5$	Pass
			30	-7	-0.0084	$\pm 2.5$	Pass
			20	11	0.0131	$\pm 2.5$	Pass
			10	8	0.0096	$\pm 2.5$	Pass
			0	9	0.0108	$\pm 2.5$	Pass
			-10	6	0.0072	$\pm 2.5$	Pass
			-20	8	0.0096	$\pm 2.5$	Pass
			-30	12	0.0143	$\pm 2.5$	Pass

Modulation	Channel/ Frequency (MHz)	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail	
		(Vdc)	(°C)	(Hz)	(ppm)	(ppm)		
<b>EDGE 850 1Tx-slot</b>								
8PSK	190 / 836.6	VL	TN	12	0.0143	± 2.5	Pass	
		VN		8	0.0096	± 2.5	Pass	
		VH		11	0.0131	± 2.5	Pass	
		VN	50	50	-8	-0.0096	± 2.5	Pass
			40	40	-9	-0.0108	± 2.5	Pass
			30	30	12	0.0143	± 2.5	Pass
			20	20	11	0.0131	± 2.5	Pass
			10	10	11	0.0131	± 2.5	Pass
			0	0	-9	-0.0108	± 2.5	Pass
			-10	-10	8	0.0096	± 2.5	Pass
			-20	-20	10	0.0120	± 2.5	Pass
			-30	-30	12	0.0143	± 2.5	Pass

Modulation	Channel/ Frequency (MHz)	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail	
		(Vdc)	(°C)	(Hz)	(ppm)	(ppm)		
<b>WCDMA Band V RMC 12.2Kbps</b>								
BPSK	4182 / 836.4	VL	TN	10	0.0120	± 2.5	Pass	
		VN		8	0.0096	± 2.5	Pass	
		VH		12	0.0143	± 2.5	Pass	
		VN	50	50	9	0.0108	± 2.5	Pass
			40	40	12	0.0143	± 2.5	Pass
			30	30	8	0.0096	± 2.5	Pass
			20	20	11	0.0132	± 2.5	Pass
			10	10	9	0.0108	± 2.5	Pass
			0	0	12	0.0143	± 2.5	Pass
			-10	-10	11	0.0132	± 2.5	Pass
			-20	-20	13	0.0155	± 2.5	Pass
			-30	-30	-8	-0.0096	± 2.5	Pass

Modulation	Channel/ Frequency (MHz)	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail	
		(Vdc)	(°C)	(Hz)	(ppm)	(ppm)		
<b>GSM 1900 1Tx-slot</b>								
GMSK	661 / 1880.0	VL	TN	11	0.0059	Note 1	Pass	
		VN		10	0.0053		Pass	
		VH		-9	-0.0048		Pass	
		VN	50	50	9		0.0048	Pass
			40	40	10		0.0053	Pass
			30	30	12		0.0064	Pass
			20	20	11		0.0059	Pass
			10	10	8		0.0043	Pass
			0	0	13		0.0069	Pass
			-10	-10	8		0.0043	Pass
			-20	-20	9		0.0048	Pass
			-30	-30	13		0.0069	Pass

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Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
<b>EDGE 1900 1Tx-slot</b>							
8PSK	661 / 1880.0	VL	TN	11	0.0059	Note 1	Pass
		VN		12	0.0064		Pass
		VH		10	0.0053		Pass
		VN	50	12	0.0064		Pass
			40	15	0.0080		Pass
			30	-9	-0.0048		Pass
			20	11	0.0059		Pass
			10	8	0.0043		Pass
			0	-7	-0.0037		Pass
			-10	13	0.0069		Pass
			-20	10	0.0053		Pass
			-30	-11	-0.0059		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
<b>WCDMA Band II RMC 12.2Kbps</b>							
BPSK	9400 / 1880.0	VL	TN	9	0.0048	Note 1	Pass
		VN		11	0.0059		Pass
		VH		11	0.0059		Pass
		VN	50	12	0.0064		Pass
			40	-9	-0.0048		Pass
			30	9	0.0048		Pass
			20	13	0.0069		Pass
			10	8	0.0043		Pass
			0	-8	-0.0043		Pass
			-10	11	0.0059		Pass
			-20	9	0.0048		Pass
			-30	12	0.0064		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
<b>WCDMA Band IV RMC 12.2Kbps</b>							
BMSK	1412 / 1732.4	VL	TN	-9	-0.0052	Note 1	Pass
		VN		13	0.0075		Pass
		VH		10	0.0058		Pass
		VN	50	13	0.0075		Pass
			40	9	0.0052		Pass
			30	-7	-0.0040		Pass
			20	-9	-0.0052		Pass
			10	11	0.0063		Pass
			0	-13	-0.0075		Pass
			-10	-7	-0.0040		Pass
			-20	-9	-0.0052		Pass
			-30	12	0.0069		Pass

**Note1:** The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

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Fax: +86-755-28230886

E-mail: info@uttlab.com

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## APPENDIX 1 PHOTOS OF TEST SETUP

See test photos attached in Appendix 1 for the actual connections between Product and support equipment.

## APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal photos.

\*\*\* End of Report \*\*\*

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