9.1.2 PROVISIONS APPLICABLE

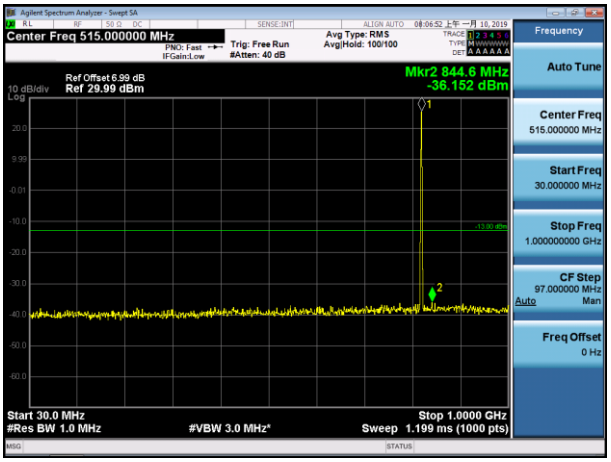
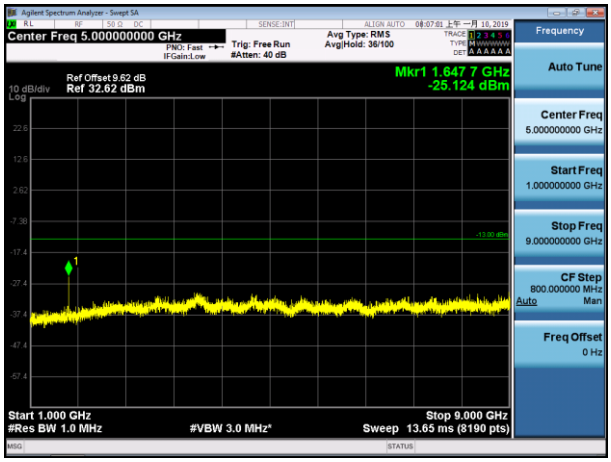
On any frequency outside frequency band of the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

9.1.3MEASUREMENT RESULT

Test Results

Test Band=GSM850/GSM1900

Test Mode=GSM/EDGE

GSM 850-LCH-GSM	GSM 850-LCH-GSM
	

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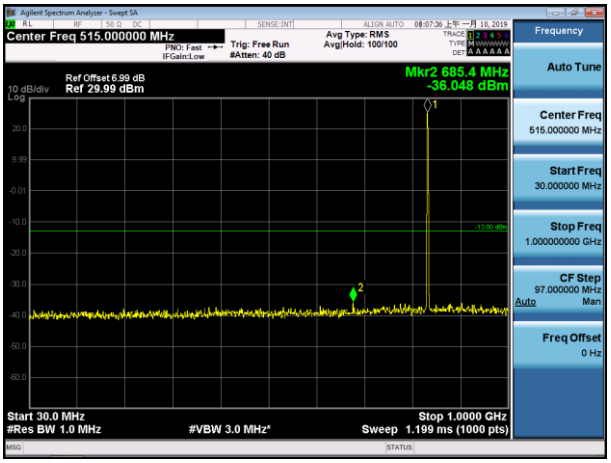	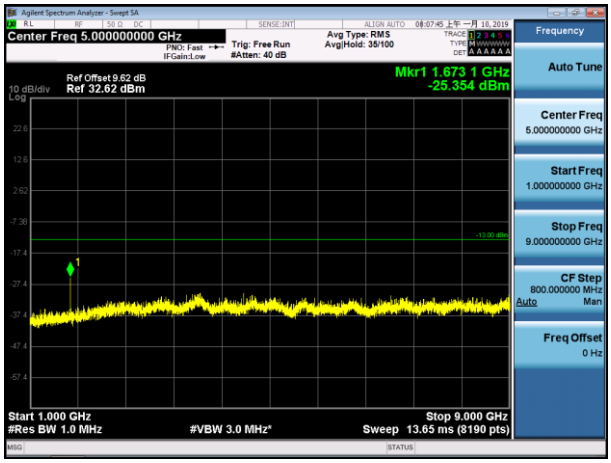

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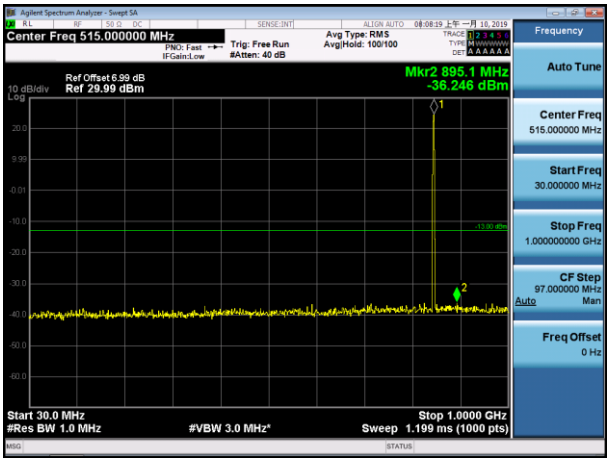	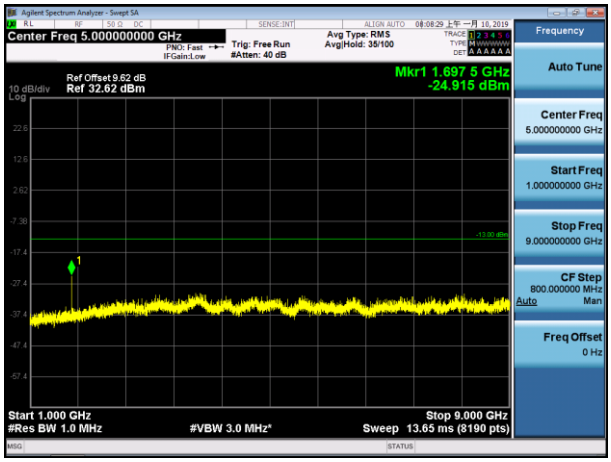

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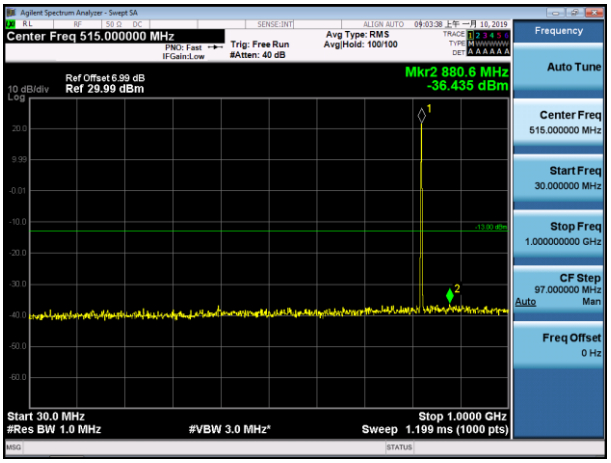	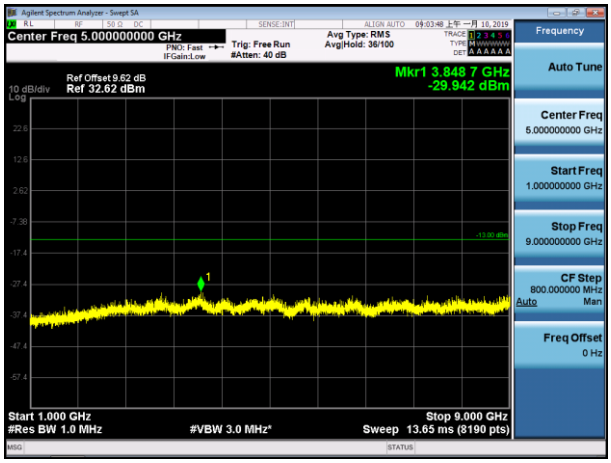

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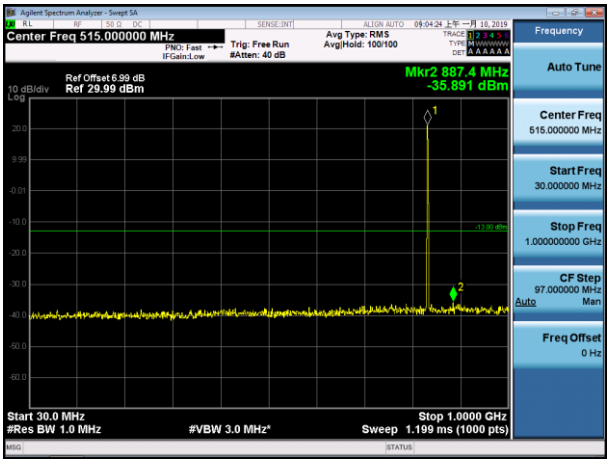	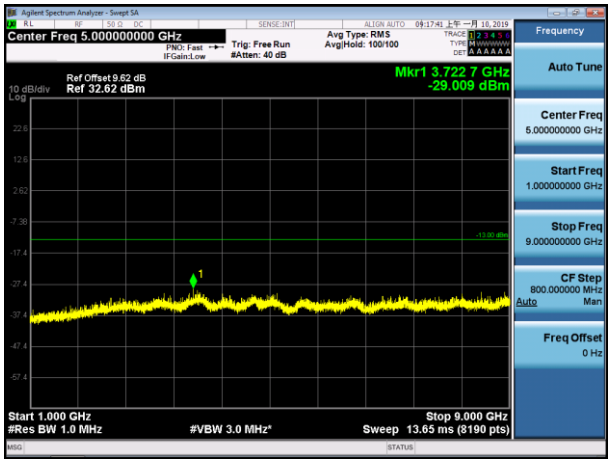

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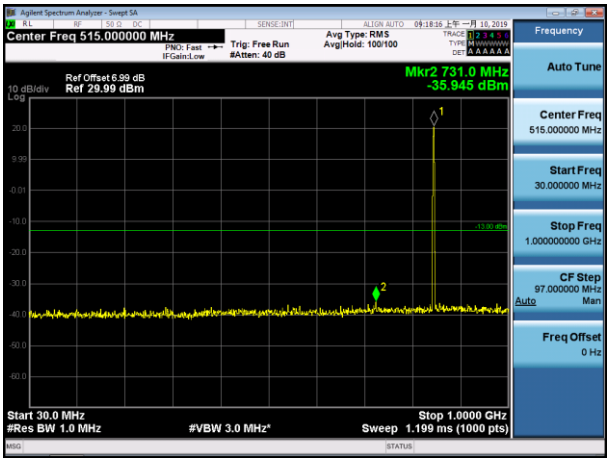	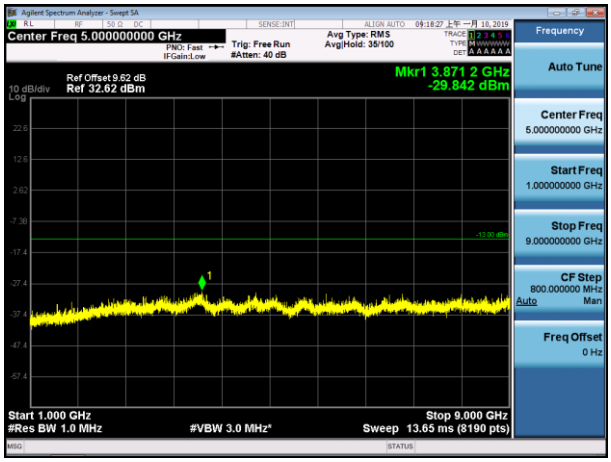

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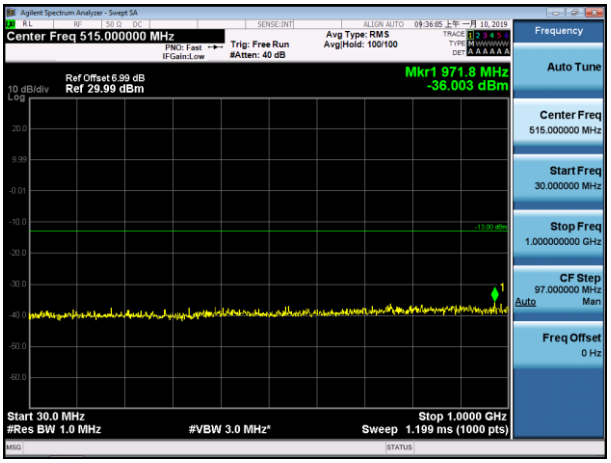
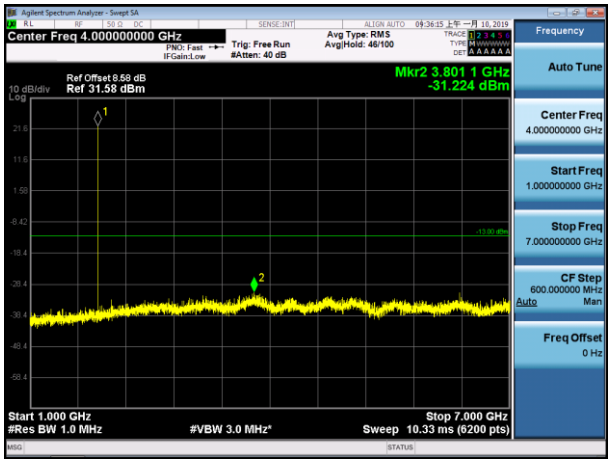
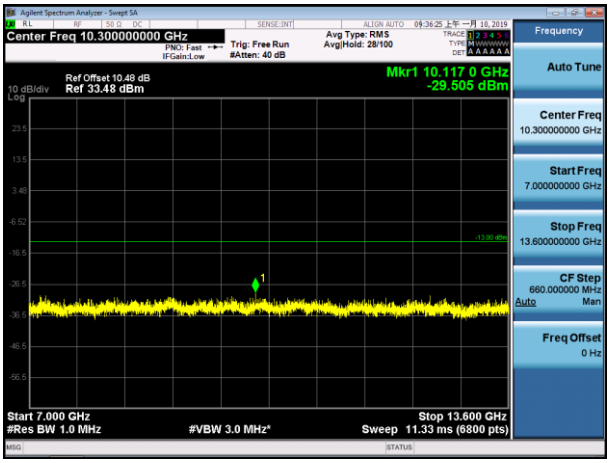
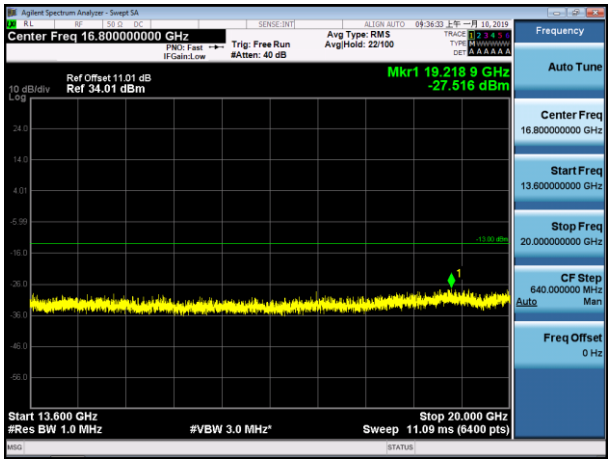
	

GSM 1900-LCH-GSM	GSM 1900-LCH-GSM
	

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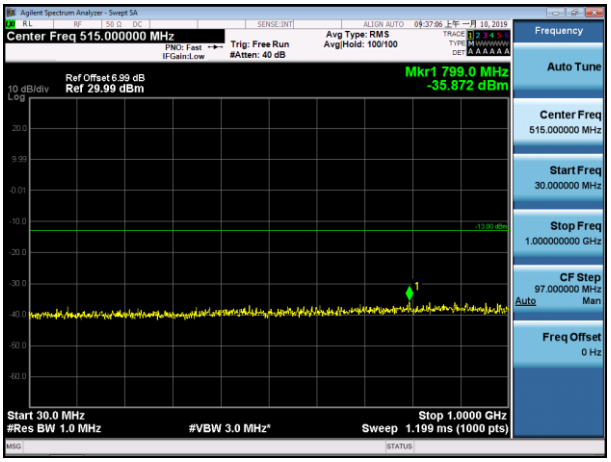	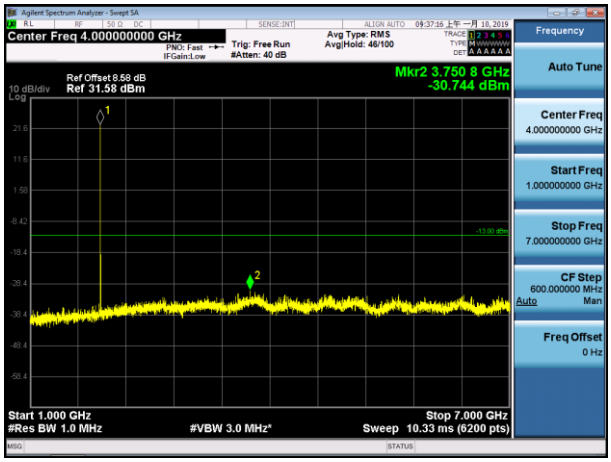

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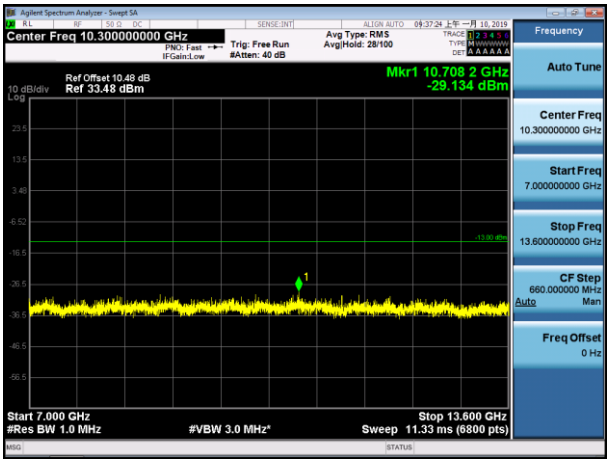	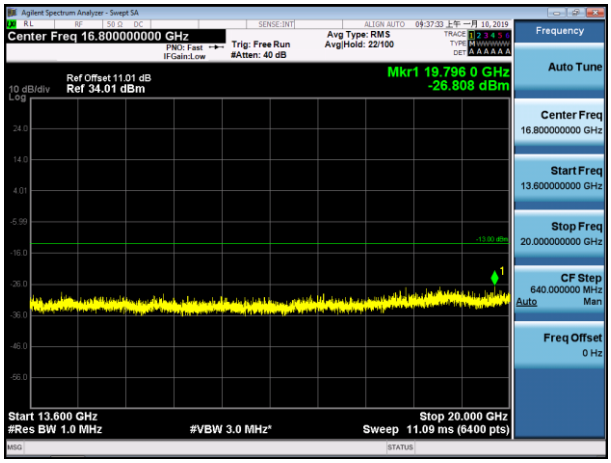

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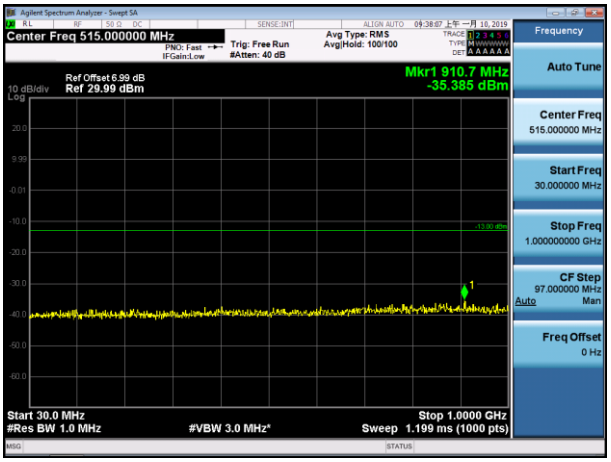	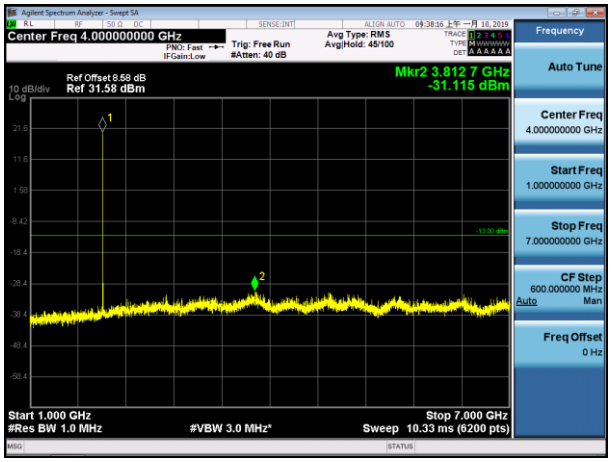

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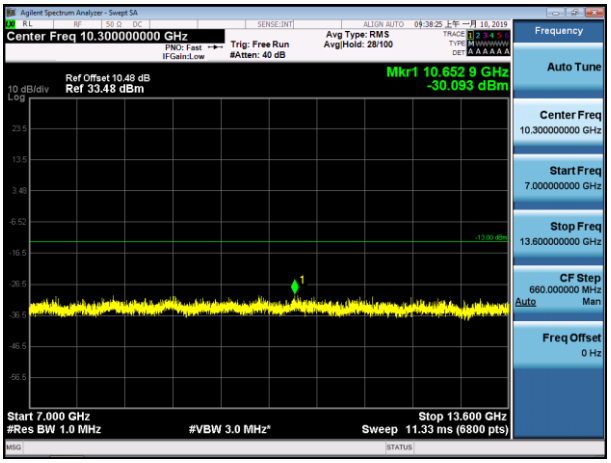	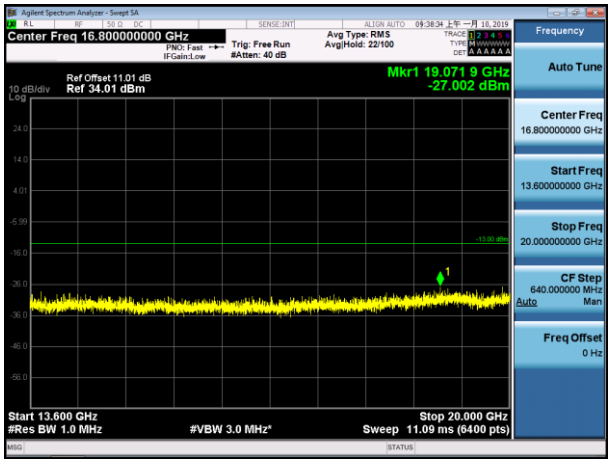

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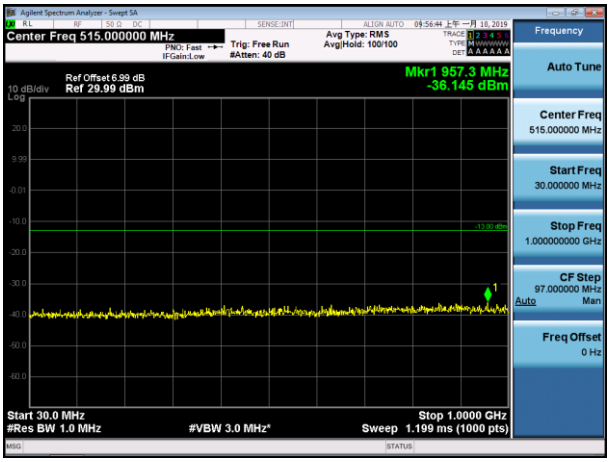	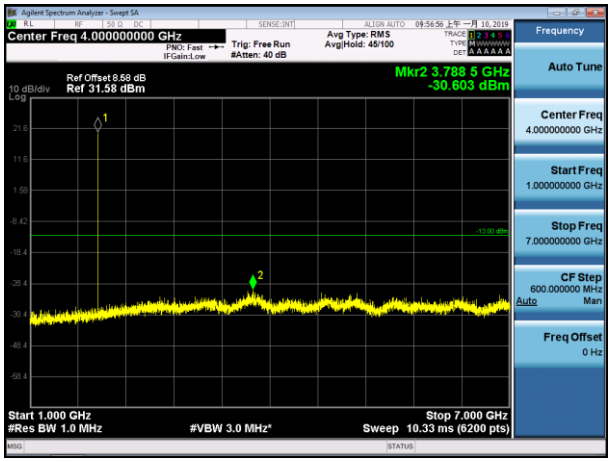

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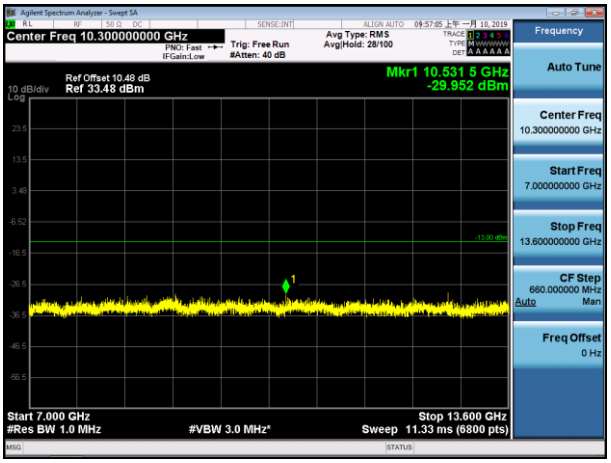	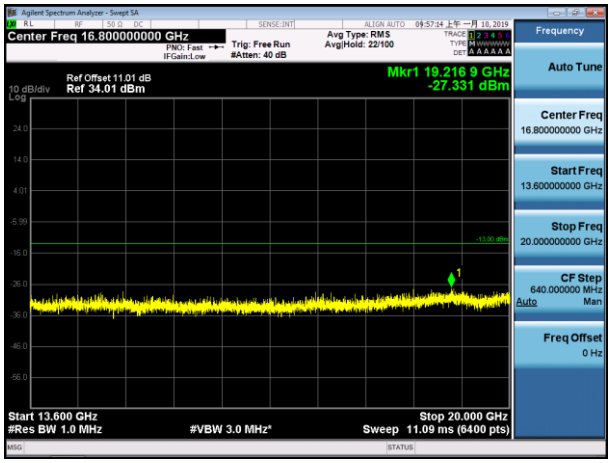

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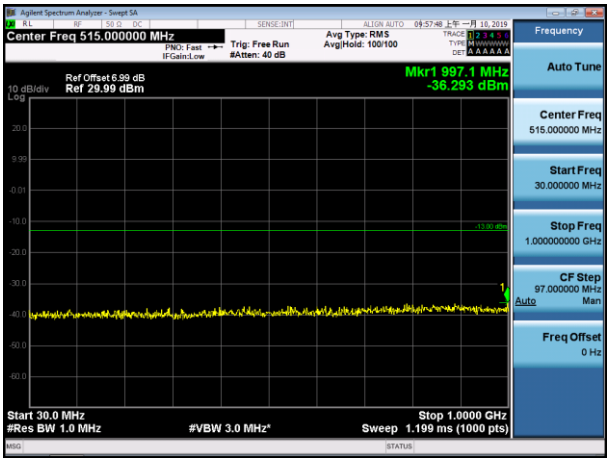	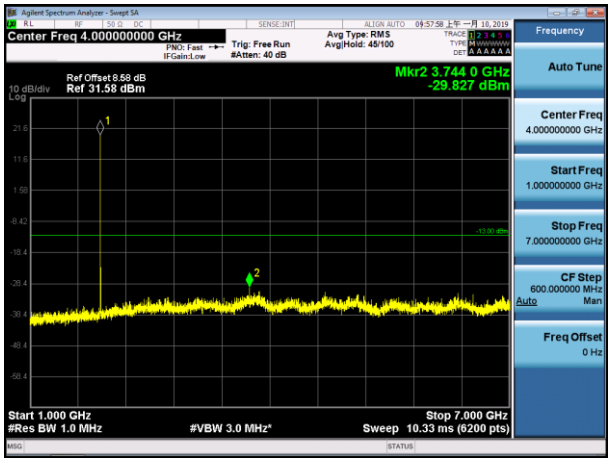

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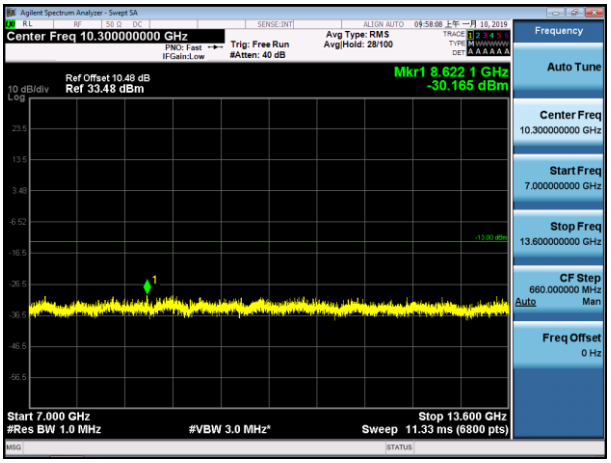	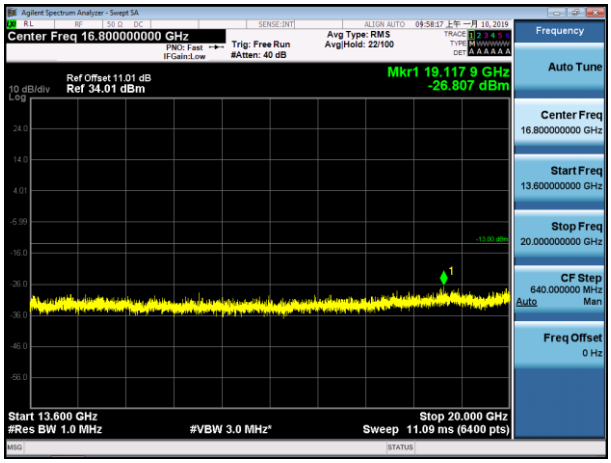

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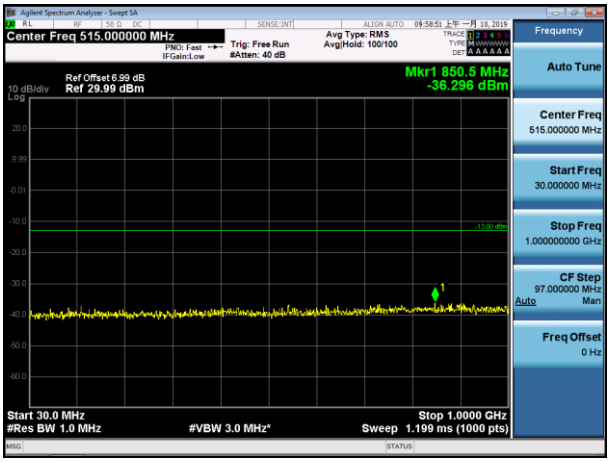	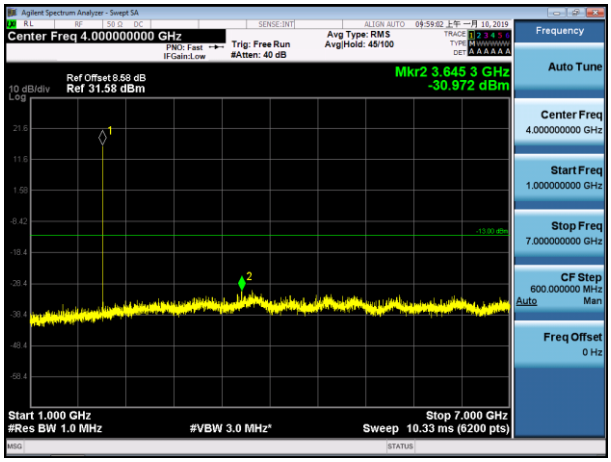

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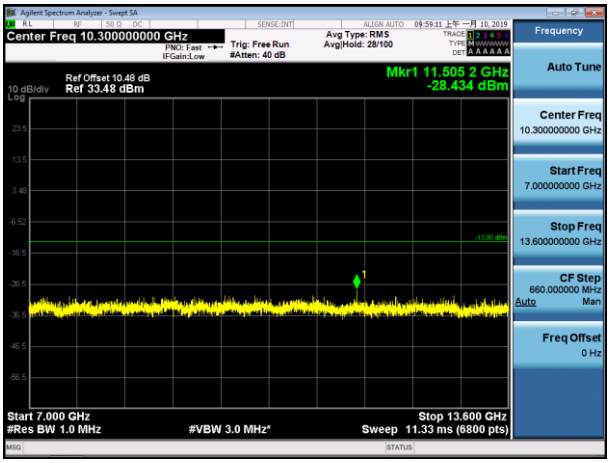
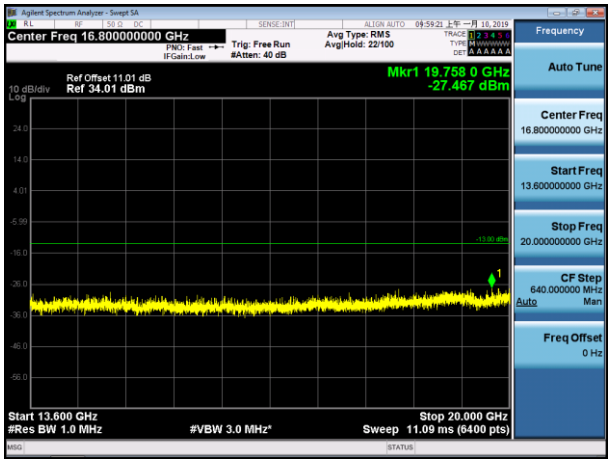
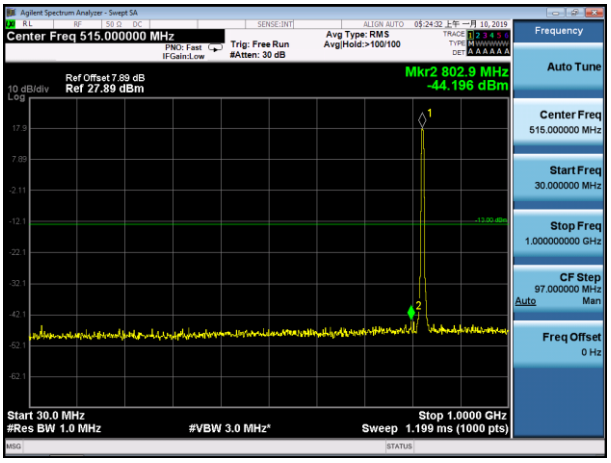
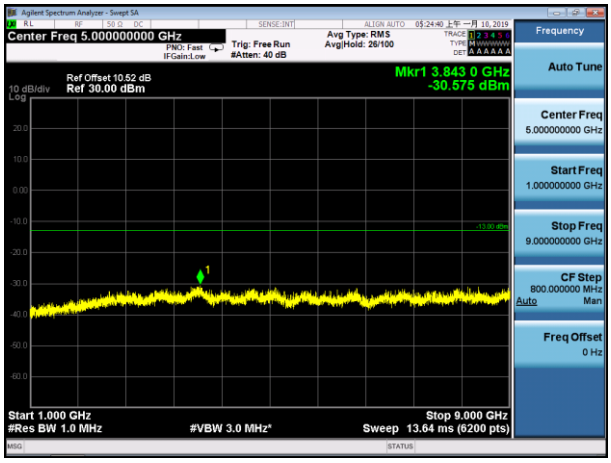
	

Test Band=WCDMA850/WCDMA1900

Test Mode=UMTS

WCDMA 850-LCH	WCDMA 850-LCH
	

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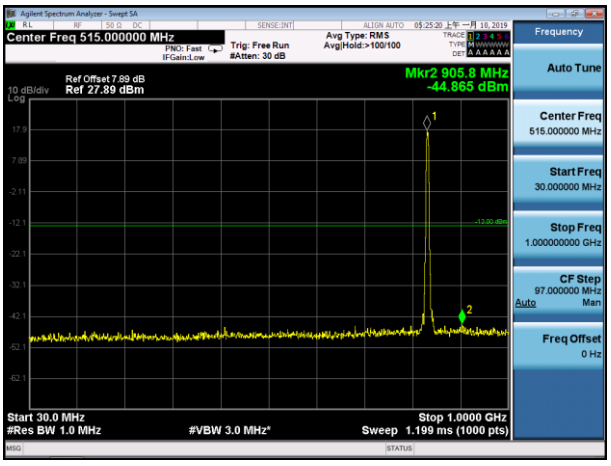	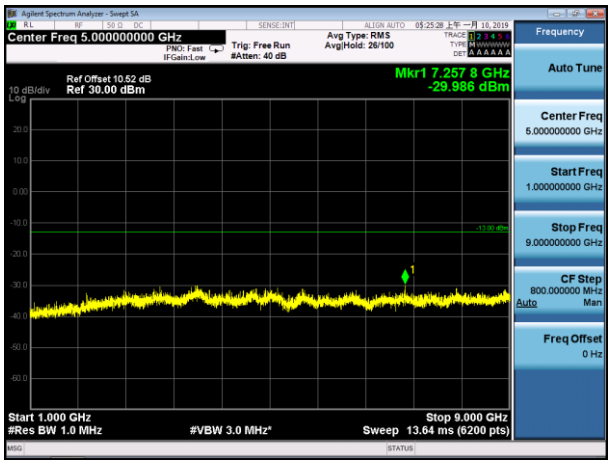

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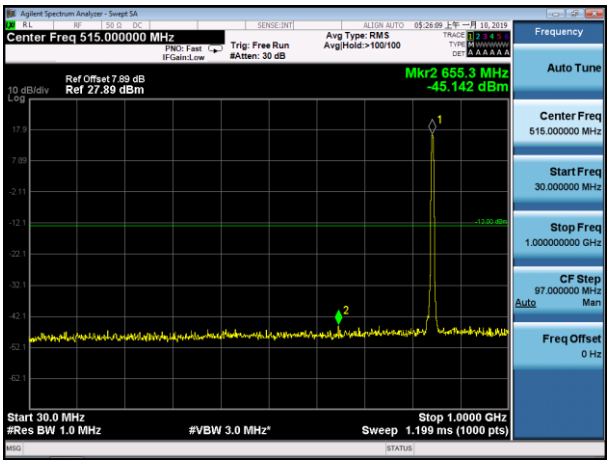	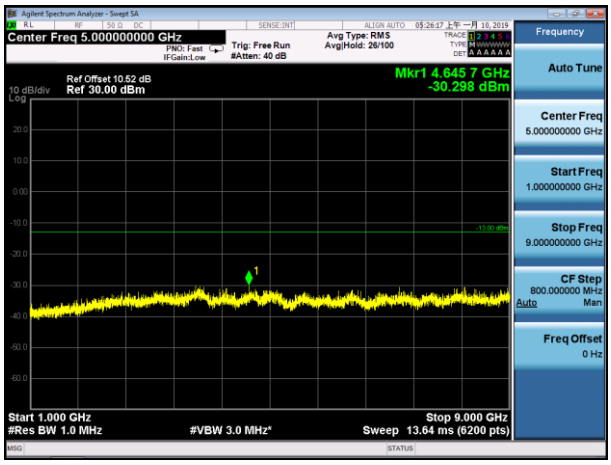

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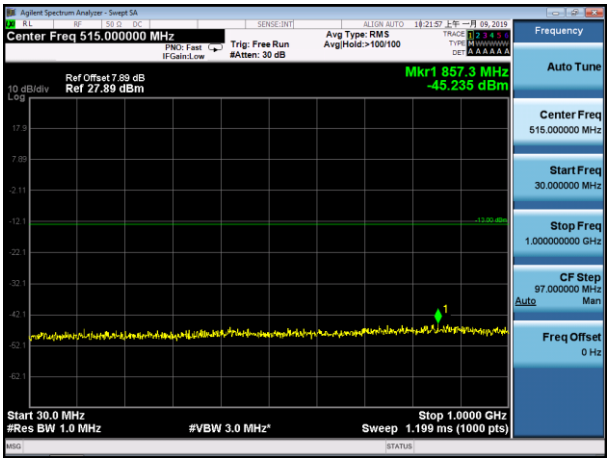
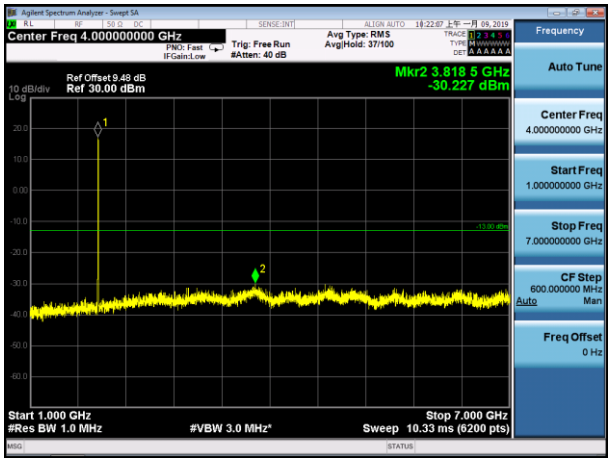
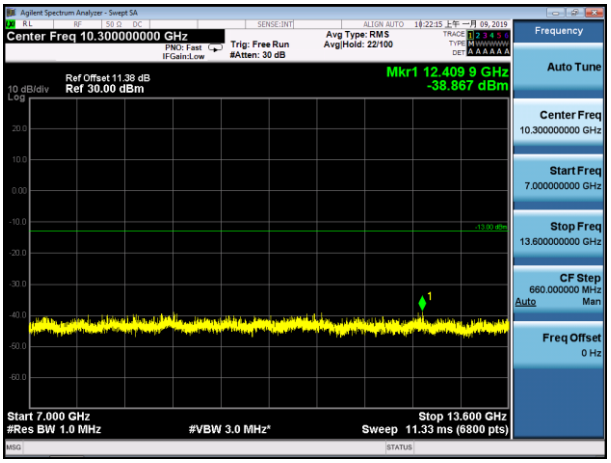
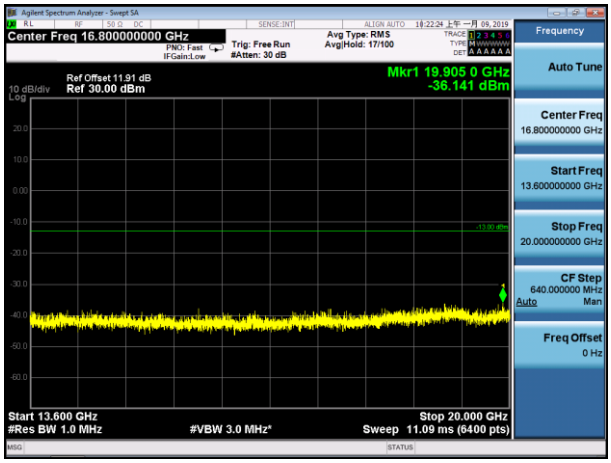
	

WCDMA 1900-LCH	WCDMA 1900-LCH
	

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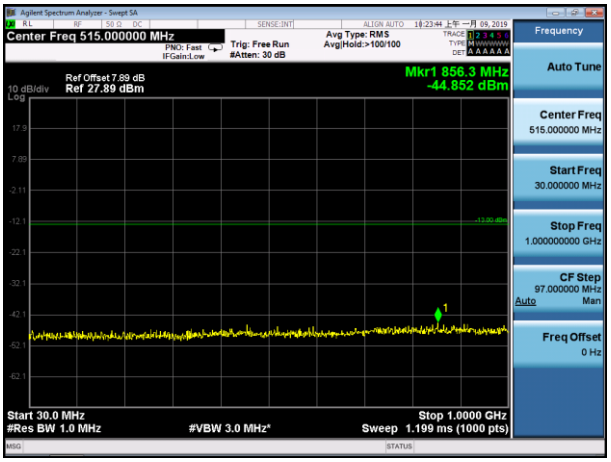	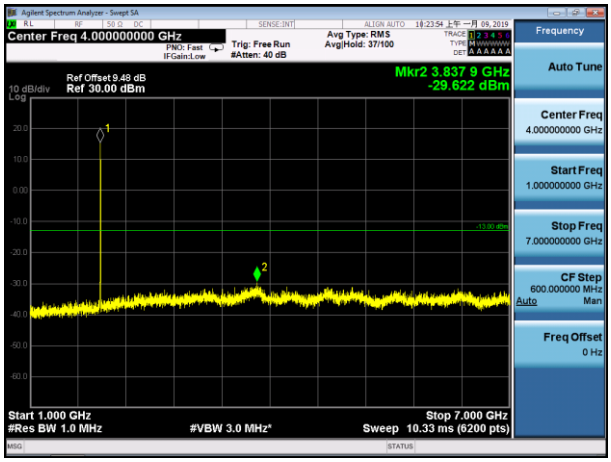

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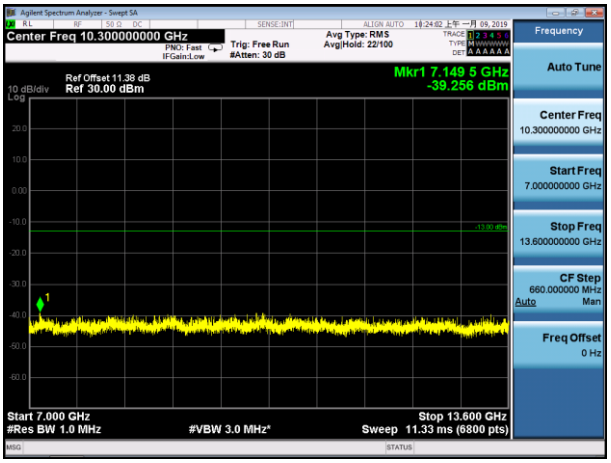
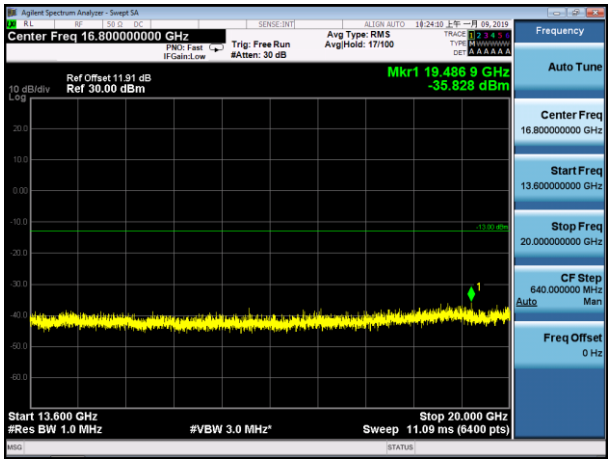
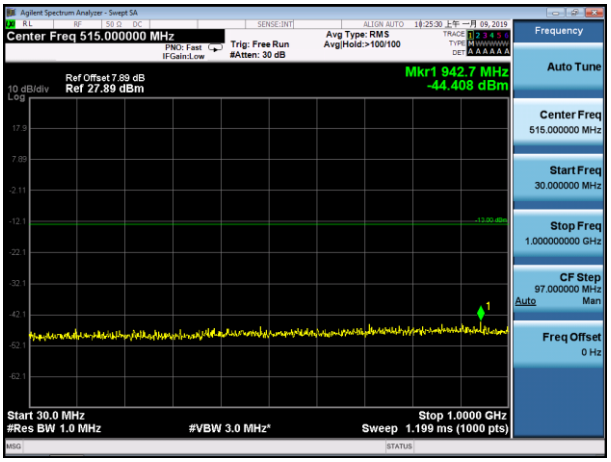
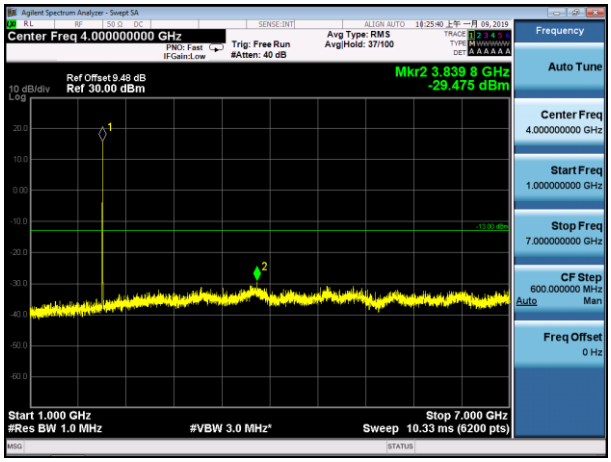
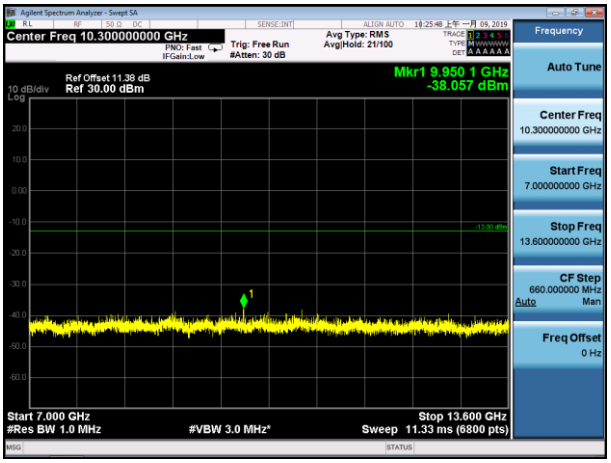
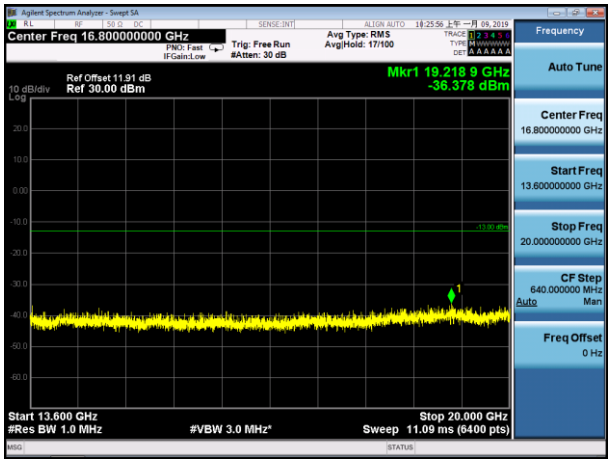
	

WCDMA 1900-HCH	WCDMA 1900-HCH
	

WCDMA 1900-HCH	WCDMA 1900-HCH
	

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.

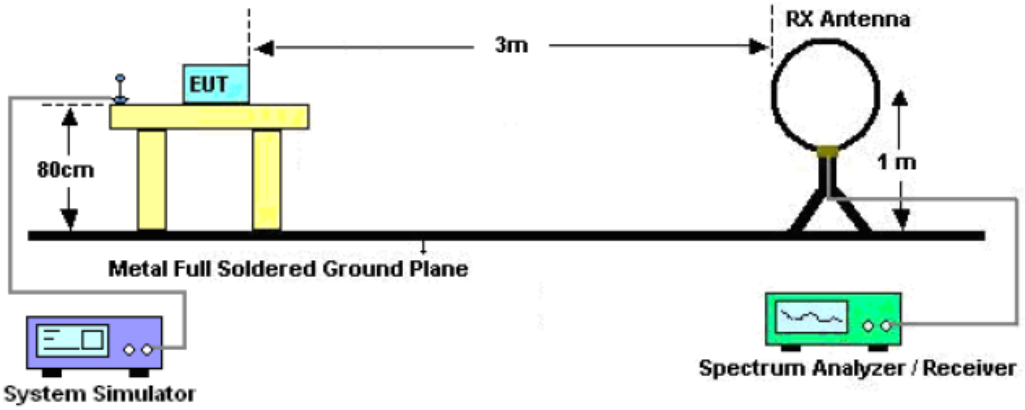
9.2 RADIATED SPURIOUS EMISSION

9.2.1MEASUREMENT METHOD

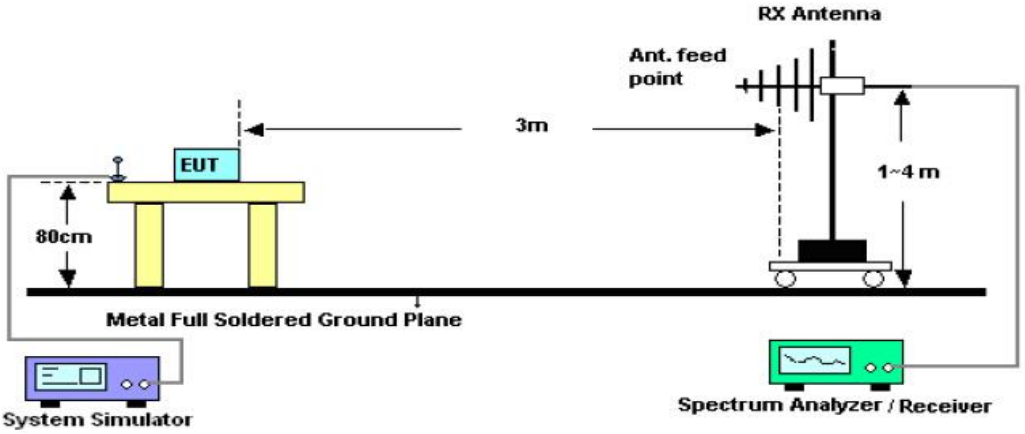
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated 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.

9.2.2 TEST SETUP

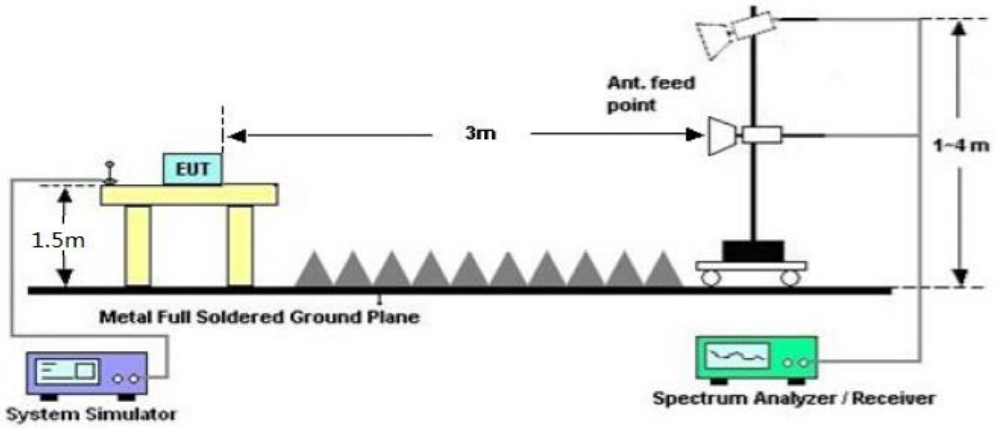
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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+10Log(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:

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)	
1697.60	-48.47	-13	-35.47	Horizontal
3256.42	-45.33	-13	-32.33	Horizontal
6012.34	-42.15	-13	-29.15	Horizontal
1697.60	-45.65	-13	-32.65	Vertical
3091.00	-43.29	-13	-30.29	Vertical
6063.52	-42.42	-13	-29.42	Vertical

GSM 850(EDGE):

The Worst Test Results for Channel 251/848.8 MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1697.60	-51.44	-13	-38.44	Horizontal
3241.36	-48.65	-13	-35.65	Horizontal
6649.42	-45.43	-13	-32.43	Horizontal
1697.60	-49.23	-13	-36.23	Vertical
3317.36	-46.28	-13	-33.28	Vertical
6352.10	-45.42	-13	-32.42	Vertical

PCS 1900:

The Worst Test Results for Channel 810/1909.8MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1845.42	-45.52	-13	-32.52	Horizontal
3819.60	-43.23	-13	-30.23	Horizontal
7325.19	-35.19	-13	-22.19	Horizontal
1820.81	-47.42	-13	-34.42	Vertical
3819.60	-47.18	-13	-34.18	Vertical
7065.18	-36.33	-13	-23.33	Vertical

PCS 1900(EDGE):

The Worst Test Results for Channel 810/1909.8MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1352.44	-45.55	-13	-32.55	Horizontal
3819.60	-40.19	-13	-27.19	Horizontal
6946.02	-35.42	-13	-22.42	Horizontal
1523.74	-44.23	-13	-31.23	Vertical
3819.60	-41.15	-13	-28.15	Vertical
6293.22	-38.44	-13	-25.44	Vertical

HSPA band II:

The Worst Test Results for Channel 9538/1907.6MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1856.33	-48.92	-13	-35.92	Horizontal
3815.20	-44.33	-13	-31.33	Horizontal
7583.36	-33.14	-13	-20.14	Horizontal
1796.52	-49.42	-13	-36.42	Vertical
3815.20	-42.41	-13	-29.41	Vertical
7288.42	-34.56	-13	-21.56	Vertical

HSPA band V:

The Worst Test Results for Channel 4233/846.6MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1693.2	-40.18	-13	-27.18	Horizontal
3431.33	-38.42	-13	-25.42	Horizontal
6183.46	-33.12	-13	-20.12	Horizontal
1693.20	-40.42	-13	-27.42	Vertical
3514.25	-39.55	-13	-26.55	Vertical
6158.77	-33.35	-13	-20.35	Vertical

RESULT: PASS

Note:

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

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℃.

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℃ increments from -10℃ to +50℃. 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℃.

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℃ increments from +50℃ to -10℃. 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℃ during the measurement procedure.

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 10.8VDC and 13.2VDC, with a nominal voltage of 12VDC. 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^{o}C.

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	-12.79	-0.015518	±2.5	PASS
			TN	VN	-9.04	-0.010968	±2.5	PASS
			TN	VH	-16.21	-0.019668	±2.5	PASS
		MCH	TN	VL	-4.26	-0.005092	±2.5	PASS
			TN	VN	-2.45	-0.002929	±2.5	PASS
			TN	VH	-5.29	-0.006323	±2.5	PASS
		HCH	TN	VL	-4.91	-0.005785	±2.5	PASS
			TN	VN	-4.33	-0.005101	±2.5	PASS
			TN	VH	-2.13	-0.002509	±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	-31.93	-0.038741	±2.5	PASS
			TN	VN	-4.07	-0.004938	±2.5	PASS
			TN	VH	22.44	0.027226	±2.5	PASS
		MCH	TN	VL	15.08	0.018025	±2.5	PASS
			TN	VN	18.37	0.021958	±2.5	PASS
			TN	VH	12.46	0.014894	±2.5	PASS
		HCH	TN	VL	14.92	0.017578	±2.5	PASS
			TN	VN	15.14	0.017837	±2.5	PASS
			TN	VH	9.17	0.010803	±2.5	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt. (V)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Verdict
PCS 1900	GSM	LCH	TN	VL	-4.00	-0.002162	PASS
			TN	VN	4.52	0.002443	PASS
			TN	VH	11.17	0.006037	PASS
		MCH	TN	VL	-0.71	-0.000378	PASS
			TN	VN	-0.06	-0.000032	PASS
			TN	VH	-2.20	-0.001170	PASS
		HCH	TN	VL	-1.49	-0.000780	PASS
			TN	VN	-8.39	-0.004393	PASS
			TN	VH	-9.23	-0.004833	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt. (V)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Verdict
PCS 1900	EDGE	LCH	TN	VL	-17.85	-0.009648	PASS
			TN	VN	23.60	0.012755	PASS
			TN	VH	28.35	0.015323	PASS
		MCH	TN	VL	30.15	0.016037	PASS
			TN	VN	27.09	0.014410	PASS
			TN	VH	30.77	0.016367	PASS
		HCH	TN	VL	23.89	0.012509	PASS
			TN	VN	24.70	0.012933	PASS
			TN	VH	25.83	0.013525	PASS

Note: Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very samll. As such it is determined that channels at the band edge would remain in-band when the maximum measured frequency deviation noted duing the frequency stability tests is applied. Therefore the device is detemined to remain operating in band over the temperture and voltage range as tested.

Frequency Error vs. Temperature:

Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (℃)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
GSM850	GSM	LCH	VN	-10	-14.14	-0.017156	±2.5	PASS
			VN	0	-10.53	-0.012776	±2.5	PASS
			VN	10	-13.43	-0.016295	±2.5	PASS
			VN	20	-8.78	-0.010653	±2.5	PASS
			VN	30	-12.07	-0.014645	±2.5	PASS
			VN	40	-8.20	-0.009949	±2.5	PASS
			VN	50	-11.30	-0.013710	±2.5	PASS
GSM850	GSM	MCH	VN	-10	-12.59	-0.015275	±2.5	PASS
			VN	0	-7.17	-0.008699	±2.5	PASS
			VN	10	-13.04	-0.015587	±2.5	PASS
			VN	20	-10.33	-0.012348	±2.5	PASS
			VN	30	-13.56	-0.016208	±2.5	PASS
			VN	40	-8.27	-0.009885	±2.5	PASS
			VN	50	-8.14	-0.009730	±2.5	PASS
GSM850	GSM	HCH	VN	-10	-10.85	-0.012969	±2.5	PASS
			VN	0	-9.30	-0.011116	±2.5	PASS
			VN	10	-13.62	-0.016280	±2.5	PASS
			VN	20	-10.59	-0.012658	±2.5	PASS
			VN	30	-12.14	-0.014303	±2.5	PASS
			VN	40	-11.69	-0.013772	±2.5	PASS
			VN	50	-13.17	-0.015516	±2.5	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (℃)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
GSM850	EDGE	LCH	VN	-10	18.69	0.022677	±2.5	PASS
			VN	0	6.68	0.008105	±2.5	PASS
			VN	10	8.88	0.010774	±2.5	PASS
			VN	20	14.56	0.017666	±2.5	PASS
			VN	30	16.37	0.019862	±2.5	PASS
			VN	40	19.86	0.024096	±2.5	PASS
			VN	50	19.21	0.023307	±2.5	PASS
GSM850	EDGE	MCH	VN	-10	19.92	0.024169	±2.5	PASS
			VN	0	18.40	0.022325	±2.5	PASS
			VN	10	15.72	0.018790	±2.5	PASS
			VN	20	12.30	0.014702	±2.5	PASS
			VN	30	17.40	0.020798	±2.5	PASS
			VN	40	15.30	0.018288	±2.5	PASS
			VN	50	18.79	0.022460	±2.5	PASS
GSM850	EDGE	HCH	VN	-10	13.53	0.016173	±2.5	PASS
			VN	0	17.76	0.021229	±2.5	PASS
			VN	10	11.17	0.013352	±2.5	PASS
			VN	20	9.20	0.010997	±2.5	PASS
			VN	30	9.72	0.011451	±2.5	PASS
			VN	40	10.94	0.012889	±2.5	PASS
			VN	50	12.72	0.014986	±2.5	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (℃)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Verdict
PCS 1900	GSM	LCH	VN	-10	9.75	0.005270	PASS
			VN	0	12.98	0.007015	PASS
			VN	10	17.69	0.009561	PASS
			VN	20	4.84	0.002616	PASS
			VN	30	9.49	0.005129	PASS
			VN	40	9.30	0.005026	PASS
			VN	50	13.62	0.007361	PASS
PCS 1900	GSM	MCH	VN	-10	2.45	0.001324	PASS
			VN	0	6.91	0.003735	PASS
			VN	10	0.71	0.000378	PASS
			VN	20	-1.10	-0.000585	PASS
			VN	30	-3.10	-0.001649	PASS
			VN	40	0.06	0.000032	PASS
			VN	50	-1.36	-0.000723	PASS
PCS 1900	GSM	HCH	VN	-10	1.03	0.000548	PASS
			VN	0	-1.94	-0.001032	PASS
			VN	10	-3.36	-0.001787	PASS
			VN	20	-0.52	-0.000277	PASS
			VN	30	-11.17	-0.005849	PASS
			VN	40	-10.07	-0.005273	PASS
			VN	50	-8.85	-0.004634	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp (℃).	Freq.Error (Hz)	Freq.vs.rated (ppm)	Verdict
GSM1900	EDGE	LCH	VN	-30	31.09	0.016804	PASS
			VN	-20	35.81	0.019355	PASS
			VN	-10	34.38	0.018582	PASS
			VN	0	30.45	0.016458	PASS
			VN	10	33.03	0.017852	PASS
			VN	20	28.83	0.015582	PASS
			VN	30	31.45	0.016998	PASS
			VN	40	28.67	0.015496	PASS
			VN	50	30.61	0.016544	PASS
GSM1900	EDGE	MCH	VN	-30	22.96	0.012213	PASS
			VN	-20	25.83	0.013739	PASS
			VN	-10	29.67	0.015782	PASS
			VN	0	22.83	0.012144	PASS
			VN	10	23.25	0.012367	PASS
			VN	20	22.73	0.012090	PASS
			VN	30	30.35	0.016144	PASS
			VN	40	26.09	0.013878	PASS
			VN	50	22.96	0.012213	PASS
GSM1900	EDGE	HCH	VN	-30	25.28	0.013237	PASS
			VN	-20	23.79	0.012457	PASS
			VN	-10	23.67	0.012394	PASS
			VN	0	21.60	0.011310	PASS
			VN	10	27.89	0.014604	PASS
			VN	20	23.92	0.012525	PASS
			VN	30	22.47	0.011766	PASS
			VN	40	18.66	0.009771	PASS
			VN	50	17.47	0.009148	PASS

Note: Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very samll. As such it is determined that channels at the band edge would remain in-band when the maximum measured frequency deviation noted duing the frequency stability tests is applied. Therefore the device is detemined to remain operating in band over the temperture and voltage range as tested.

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	1.28	0.001549	±2.5	PASS
			TN	VN	2.75	0.003328	±2.5	PASS
			TN	VH	0.02	0.000024	±2.5	PASS
		MCH	TN	VL	-1.57	-0.001877	±2.5	PASS
			TN	VN	2.12	0.002535	±2.5	PASS
			TN	VH	0.63	0.000753	±2.5	PASS
		HCH	TN	VL	-2.01	-0.002374	±2.5	PASS
			TN	VN	2.35	0.002776	±2.5	PASS
			TN	VH	-7.98	-0.009426	±2.5	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.(V)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Verdict
WCDMA1900	UMTS	LCH	TN	VL	0.27	0.000146	PASS
			TN	VN	3.94	0.002127	PASS
			TN	VH	11.49	0.006203	PASS
		MCH	TN	VL	2.64	0.001404	PASS
			TN	VN	0.14	0.000074	PASS
			TN	VH	-0.70	-0.000372	PASS
		HCH	TN	VL	-12.51	-0.006558	PASS
			TN	VN	-6.41	-0.003360	PASS
			TN	VH	-3.62	-0.001898	PASS

Note: Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very samll. As such it is determined that channels at the band edge would remain in-band when the maximum measured frequency deviation noted duing the frequency stability tests is applied. Therefore the device is detemined to remain operating in band over the temperture and voltage range as tested.

Frequency Error vs. Temperature:

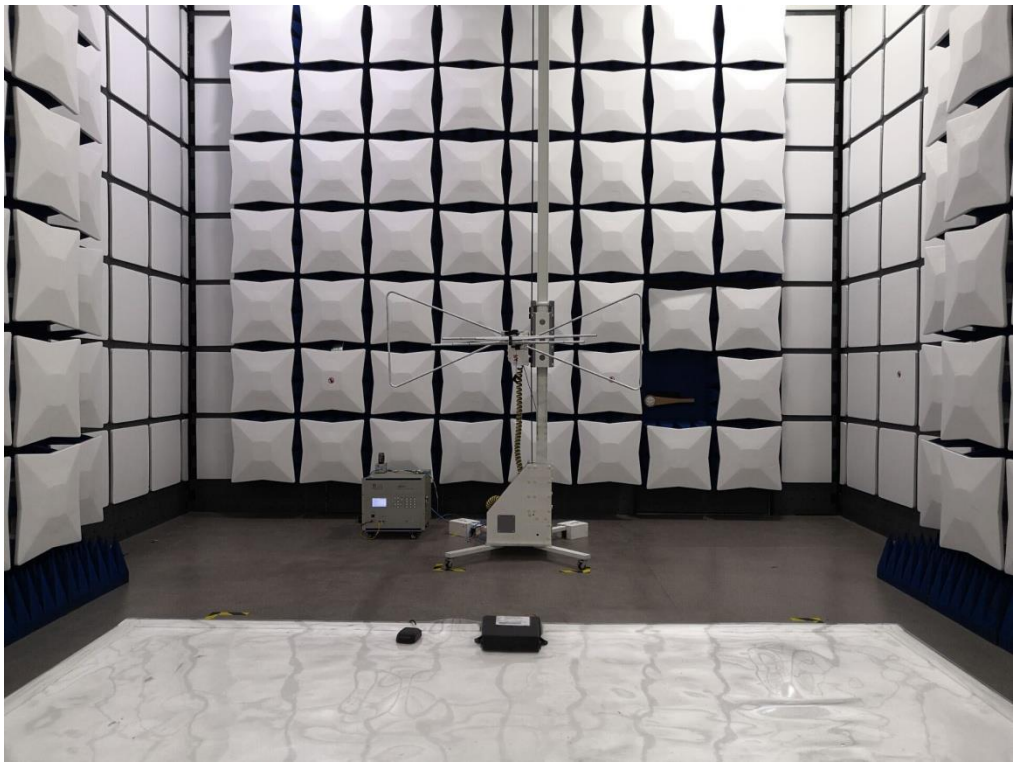
Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (℃)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Limit (ppm)	Verdict
WCDMA850	UMTS	LCH	VN	-10	0.60	0.000726	±2.5	PASS
			VN	0	4.84	0.005857	±2.5	PASS
			VN	10	-1.88	-0.002275	±2.5	PASS
			VN	20	-3.75	-0.004538	±2.5	PASS
			VN	30	4.56	0.005518	±2.5	PASS
			VN	40	-3.77	-0.004562	±2.5	PASS
			VN	50	1.22	0.001476	±2.5	PASS
WCDMA850	UMTS	MCH	VN	-10	2.61	0.003121	±2.5	PASS
			VN	0	-4.07	-0.004866	±2.5	PASS
			VN	10	-7.51	-0.008979	±2.5	PASS
			VN	20	-1.21	-0.001447	±2.5	PASS
			VN	30	-1.95	-0.002331	±2.5	PASS
			VN	40	-0.32	-0.000383	±2.5	PASS
			VN	50	5.81	0.006946	±2.5	PASS
WCDMA850	UMTS	HCH	VN	-10	3.39	0.004004	±2.5	PASS
			VN	0	-0.55	-0.000650	±2.5	PASS
			VN	10	2.17	0.002563	±2.5	PASS
			VN	20	1.33	0.001571	±2.5	PASS
			VN	30	1.05	0.001240	±2.5	PASS
			VN	40	-0.89	-0.001051	±2.5	PASS
			VN	50	-4.26	-0.005032	±2.5	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (℃)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Verdict
WCDMA1900	UMTS	LCH	VN	-10	-14.42	-0.007784	PASS
			VN	0	8.54	0.004610	PASS
			VN	10	-2.98	-0.001609	PASS
			VN	20	8.56	0.004621	PASS
			VN	30	-2.43	-0.001312	PASS
			VN	40	-4.00	-0.002159	PASS
			VN	50	6.36	0.003433	PASS
WCDMA1900	UMTS	MCH	VN	-10	6.33	0.003367	PASS
			VN	0	2.37	0.001261	PASS
			VN	10	-2.24	-0.001191	PASS
			VN	20	0.82	0.000436	PASS
			VN	30	5.63	0.002995	PASS
			VN	40	4.64	0.002468	PASS
			VN	50	-0.21	-0.000112	PASS
WCDMA1900	UMTS	HCH	VN	-10	5.57	0.002920	PASS
			VN	0	6.03	0.003161	PASS
			VN	10	5.26	0.002757	PASS
			VN	20	1.65	0.000865	PASS
			VN	30	-9.96	-0.005221	PASS
			VN	40	-8.79	-0.004608	PASS
			VN	50	-7.19	-0.003769	PASS

Note: Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very samll. As such it is determined that channels at the band edge would remain in-band when the maximum measured frequency deviation noted duing the frequency stability tests is applied. Therefore the device is detemined to remain operating in band over the temperture and voltage range as tested.

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

RADIATED SPURIOUS EMISSION



RADIATED SPURIOUS ABOVE 1G EMISSION

----END OF REPORT----