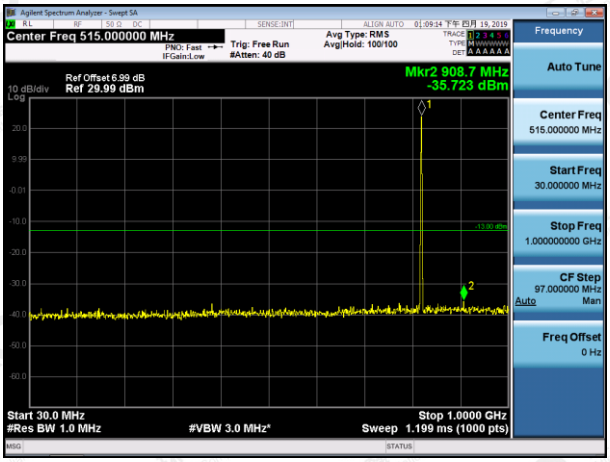
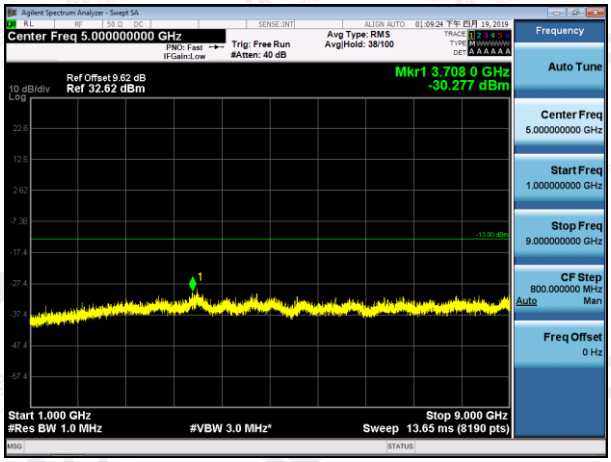
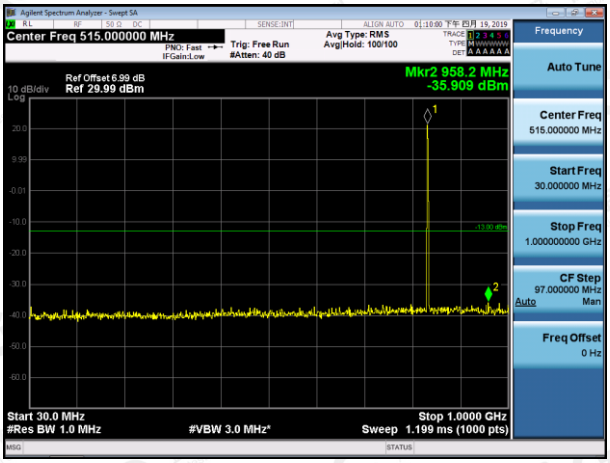
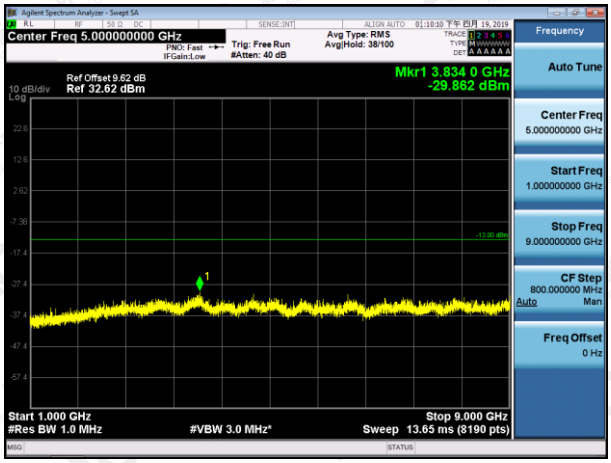
9.1.3MEASUREMENT RESULT

Test Results

Test Band=GSM850/PCS1900

Test Mode=GSM/EDGE

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

GSM 850-MCH-GSM	GSM 850-MCH-GSM
	

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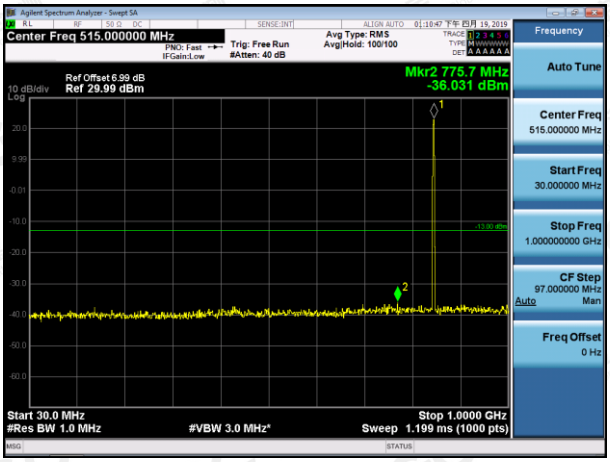
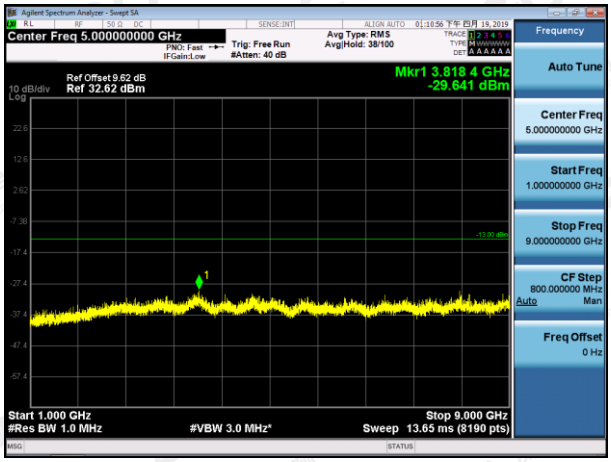
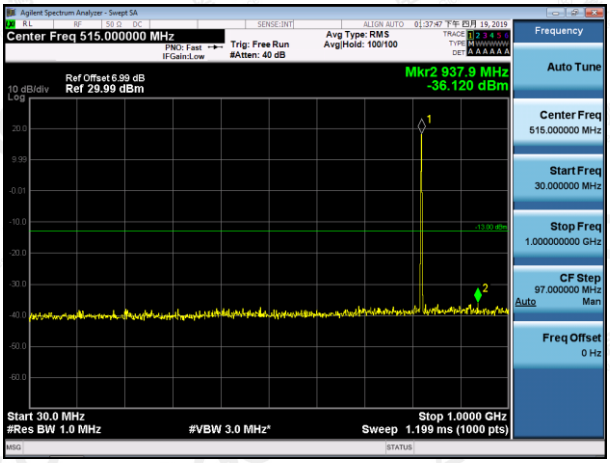
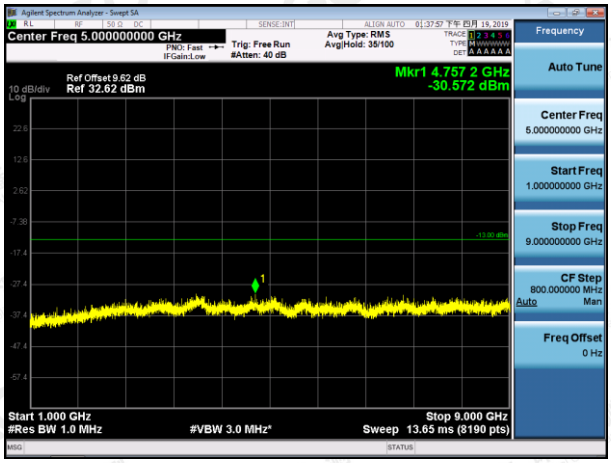
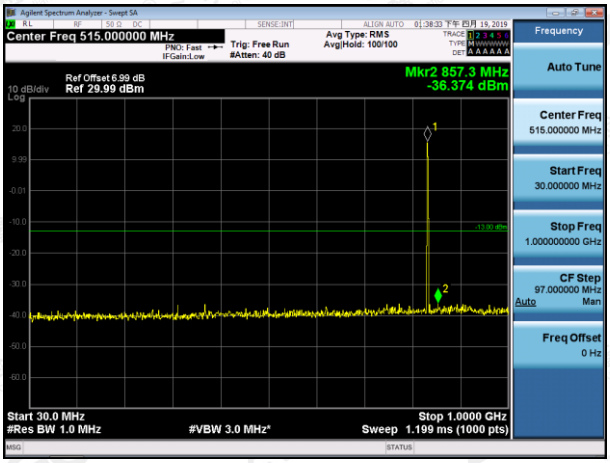
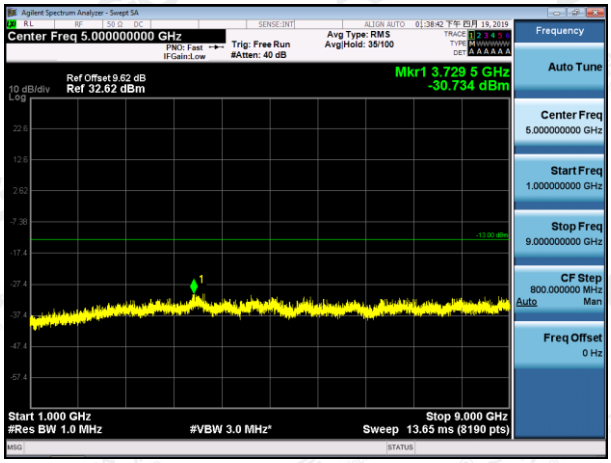
GSM 850-HCH-GSM	GSM 850-HCH-GSM
	

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

GSM 850-MCH-EDGE	GSM 850-MCH-EDGE
	

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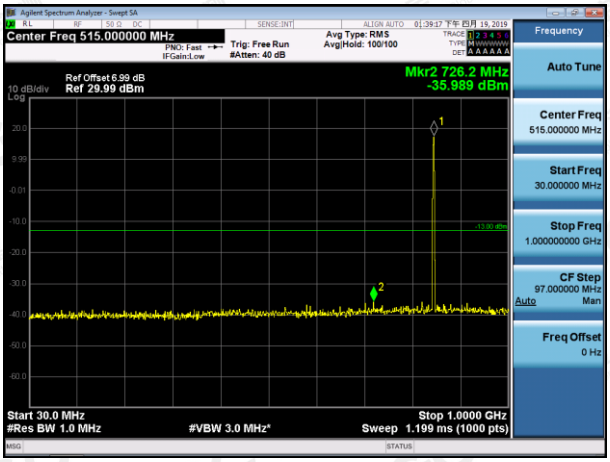
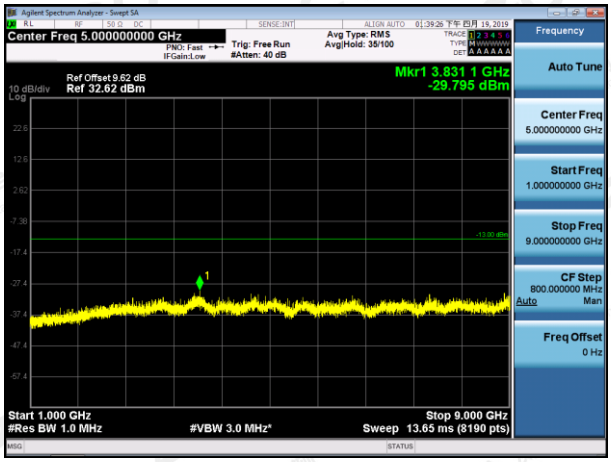
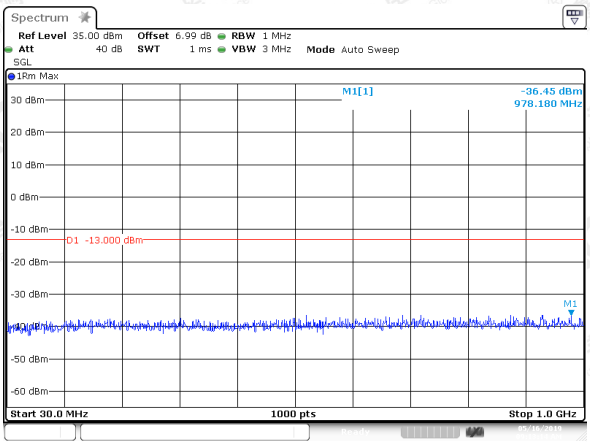
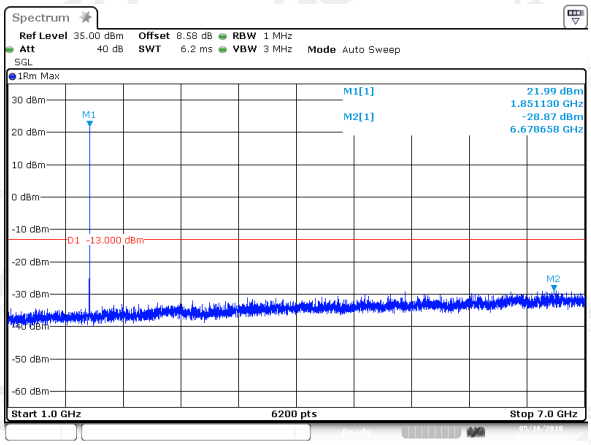
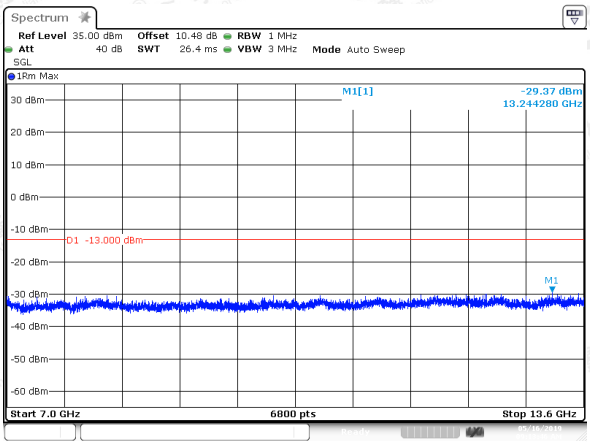
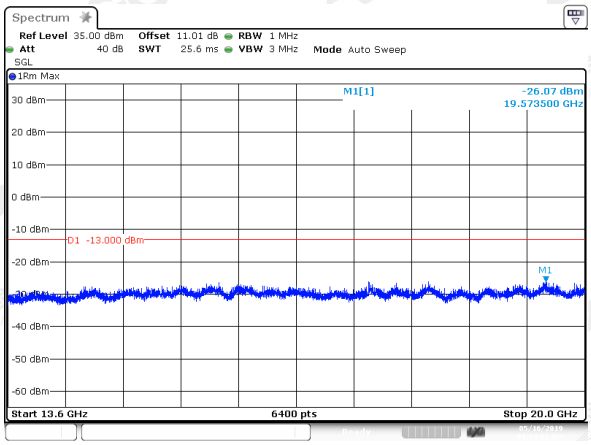
GSM 850-HCH-EDGE	GSM 850-HCH-EDGE
	

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

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

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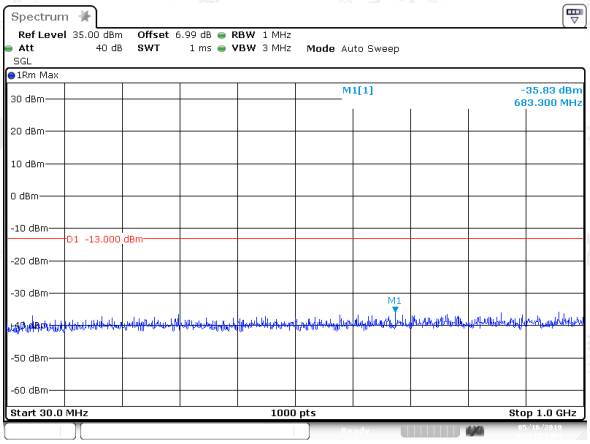
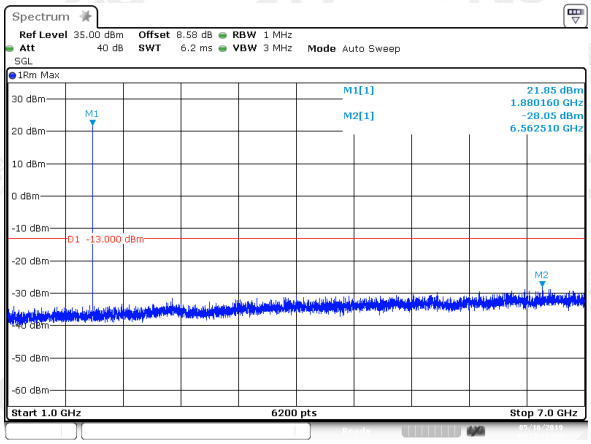
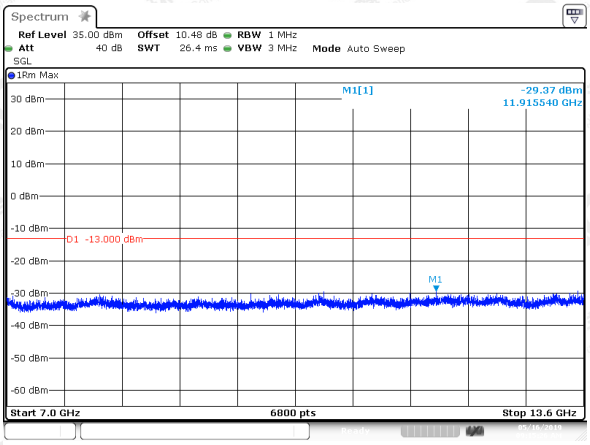
PCS 1900-MCH-GSM



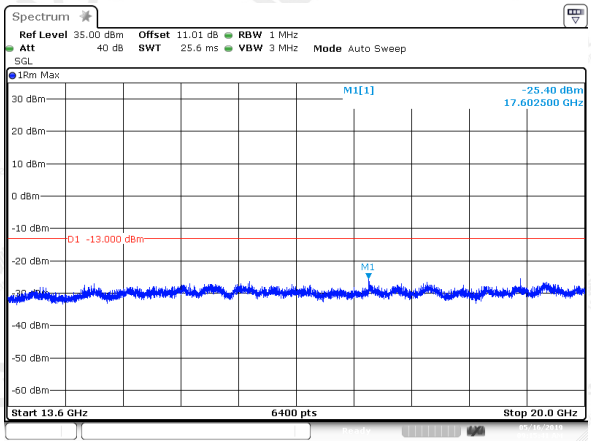
PCS 1900-MCH-GSM



PCS 1900-MCH-GSM



PCS 1900-MCH-GSM



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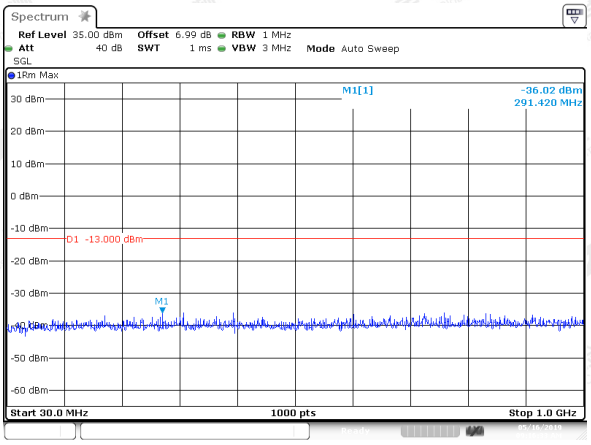
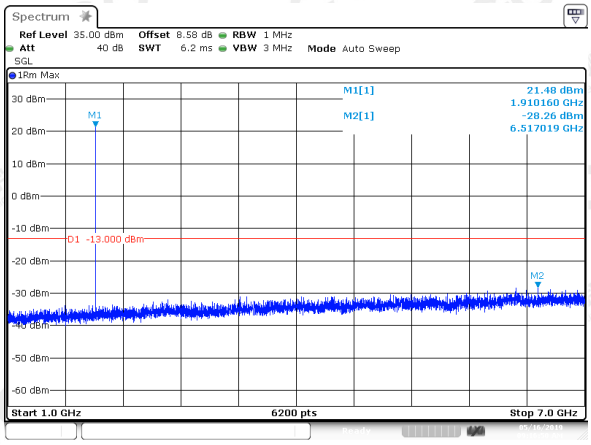
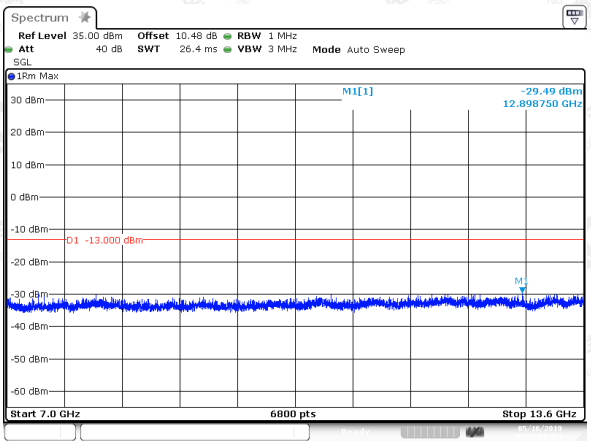
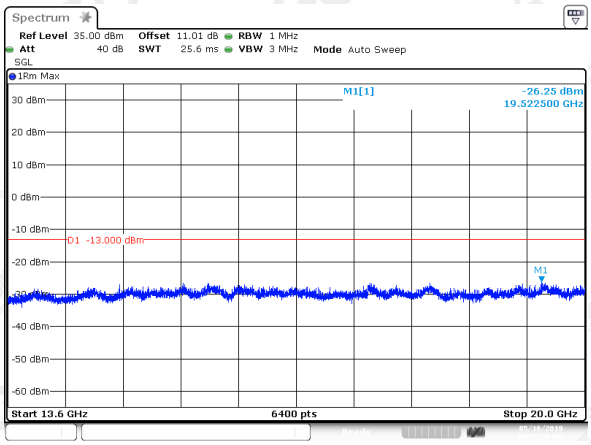
PCS 1900-HCH-GSM	PCS 1900-HCH-GSM
	

PCS 1900-HCH-GSM	PCS 1900-HCH-GSM
	

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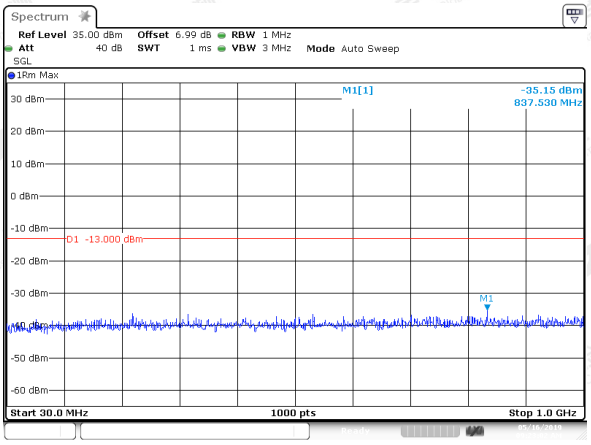
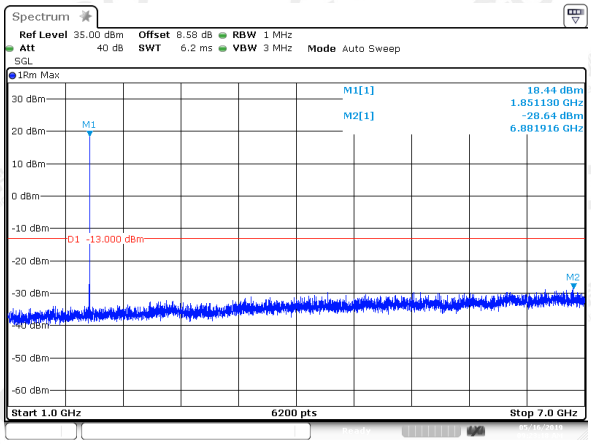
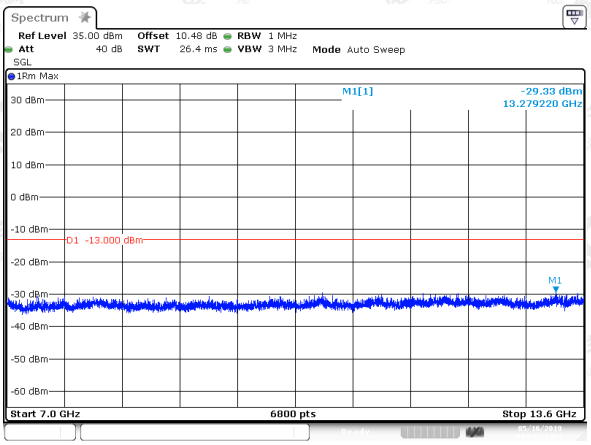
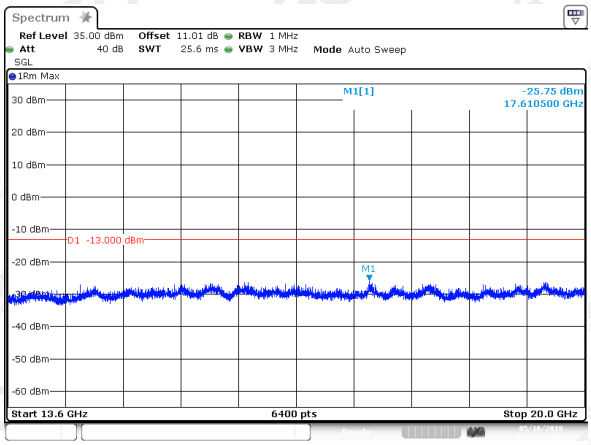
PCS 1900-LCH-EDGE	PCS 1900- LCH-EDGE
	

PCS 1900-LCH-EDGE	PCS 1900- LCH-EDGE
	

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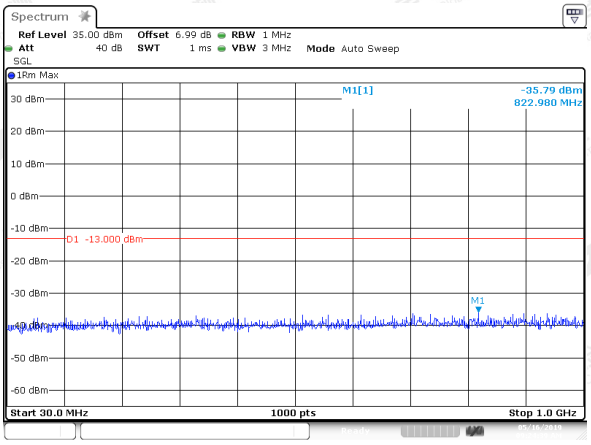
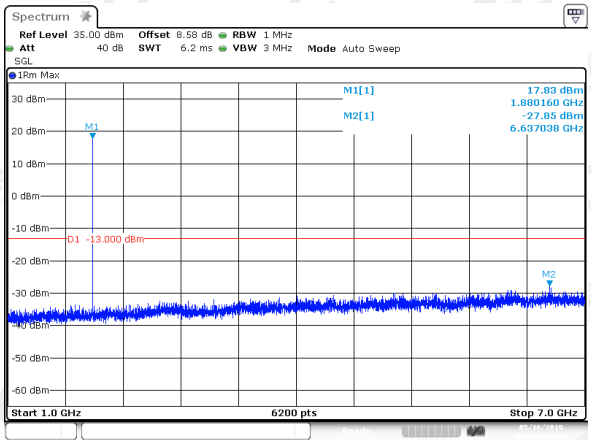
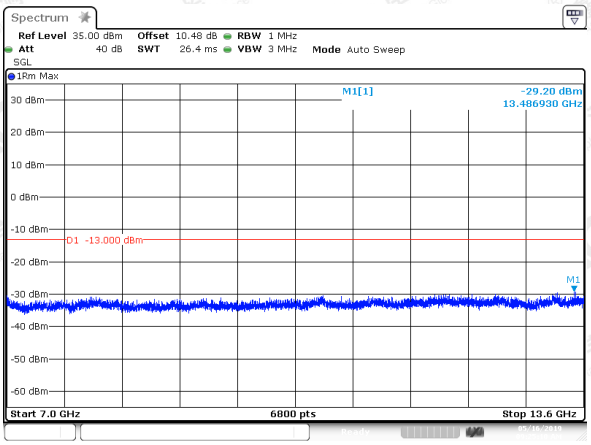
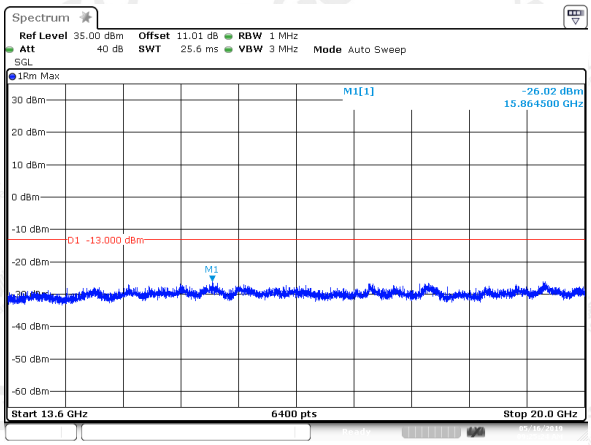
PCS 1900-MCH-EDGE	PCS 1900- MCH-EDGE
	

PCS 1900-MCH-EDGE	PCS 1900- MCH-EDGE
	

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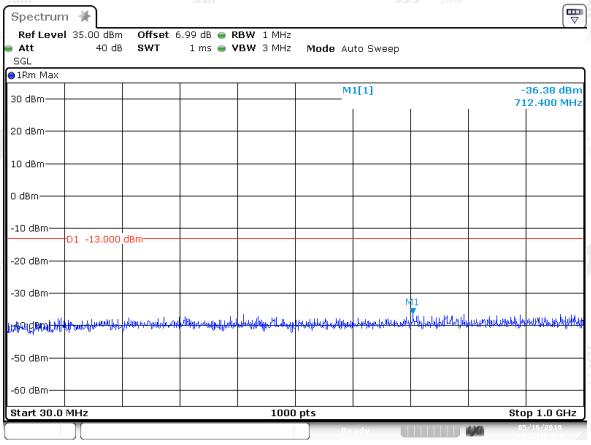
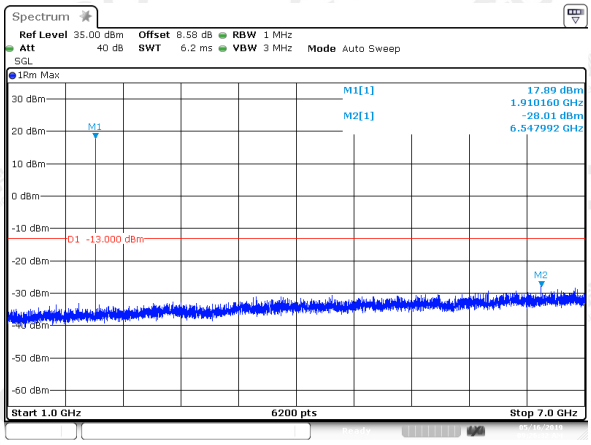
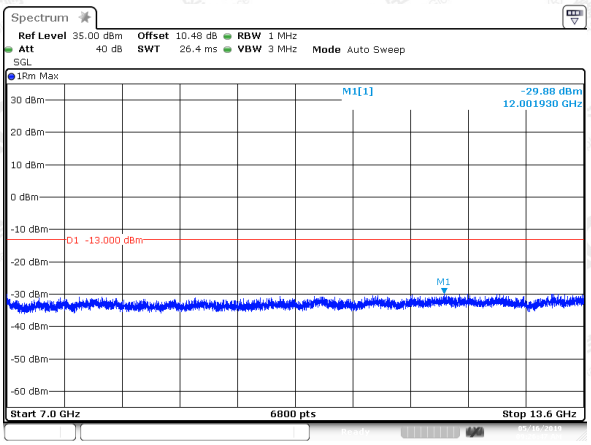
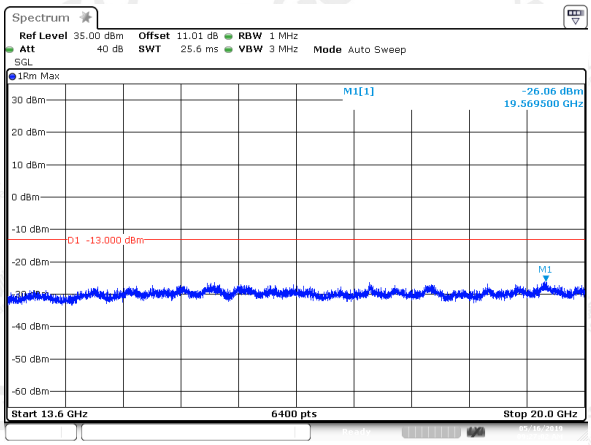
PCS 1900-HCH-EDGE	PCS 1900- HCH-EDGE
	

PCS 1900- HCH-EDGE	PCS 1900- HCH-EDGE
	

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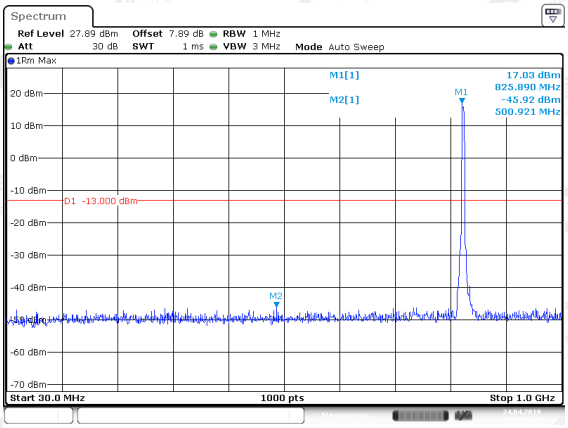
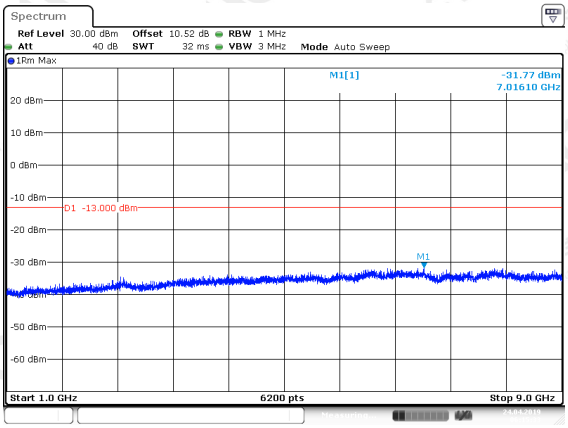
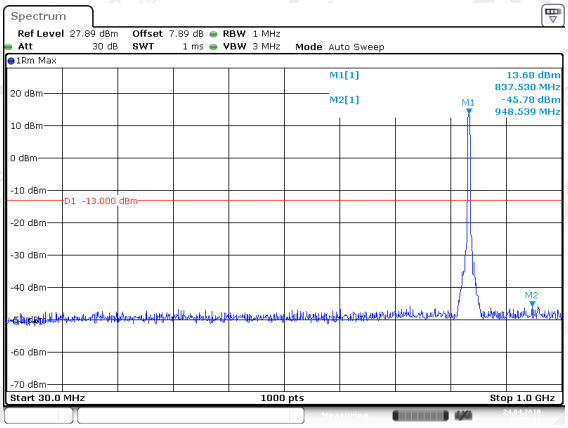
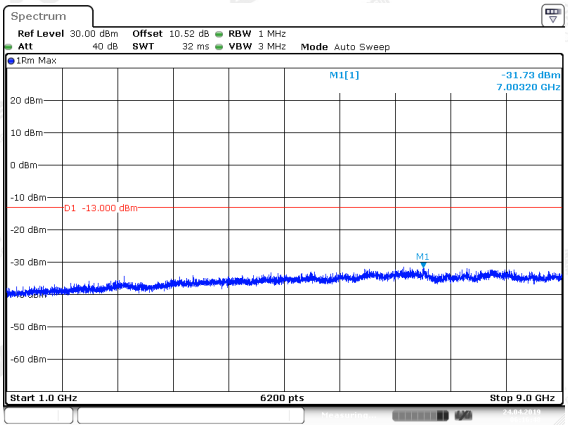
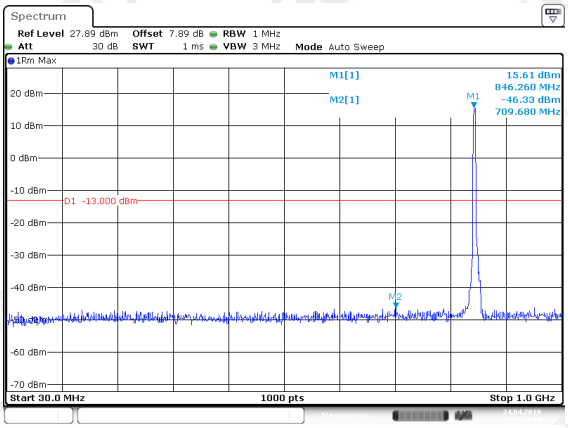
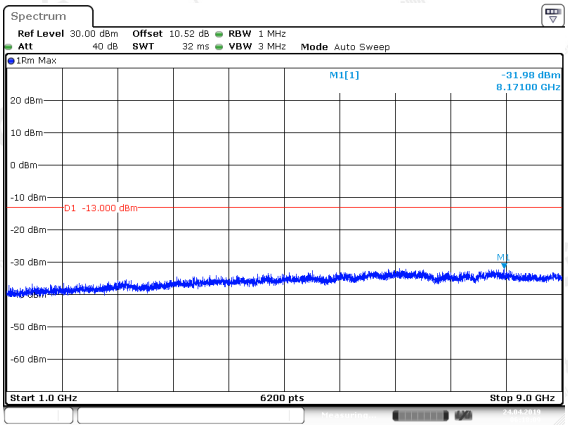
Test Band=WCDMA850/WCDMA1900

Test Mode=UMTS

WCDMA 850-LCH	WCDMA 850-LCH
	

WCDMA 850-MCH	WCDMA 850-MCH
	

WCDMA 850-HCH	WCDMA 850-HCH
	

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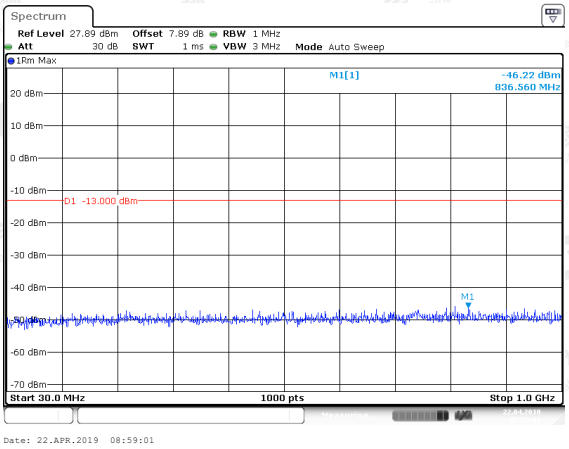
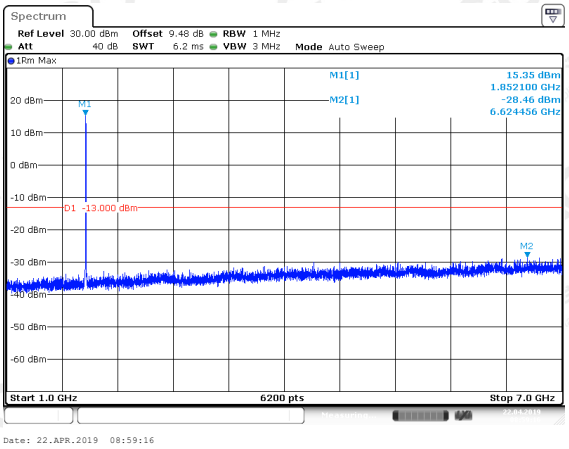
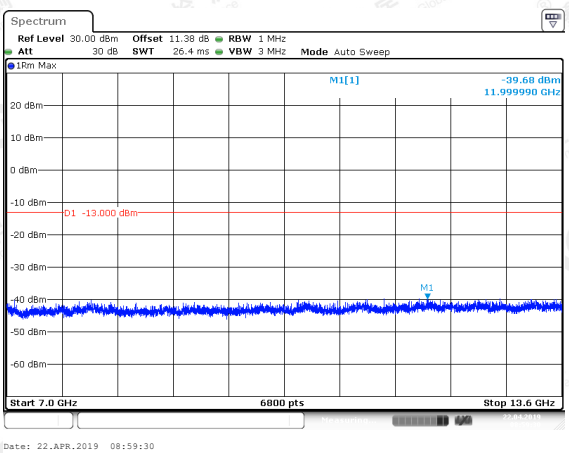
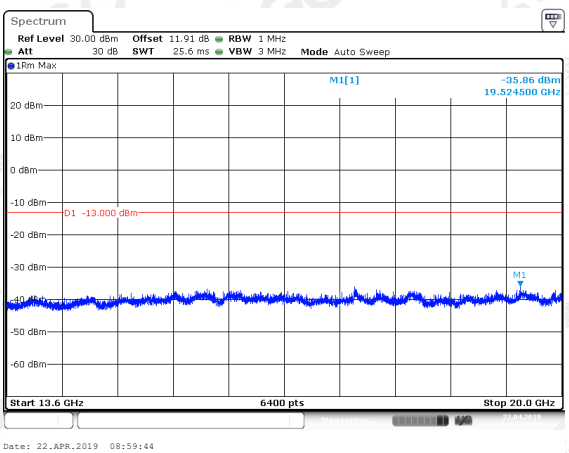
WCDMA 1900-LCH	WCDMA 1900-LCH
	

WCDMA 1900-LCH	WCDMA 1900-LCH
	

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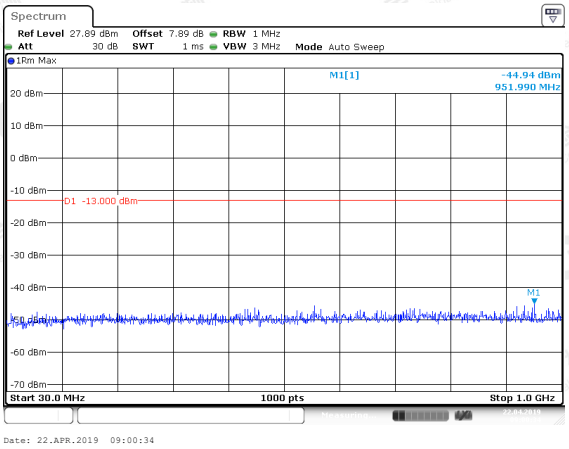
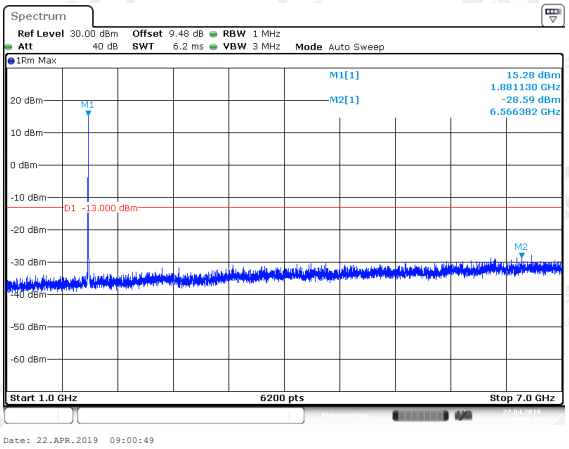
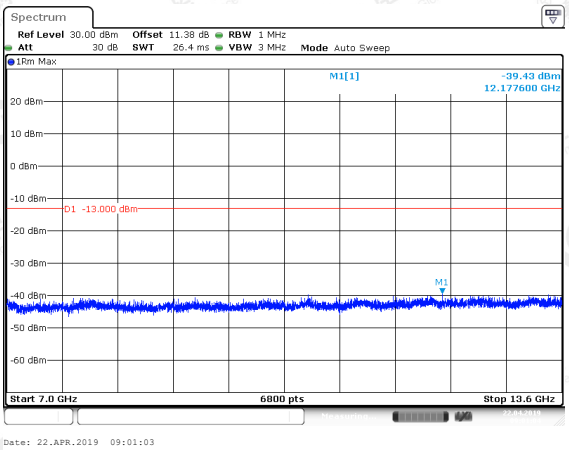
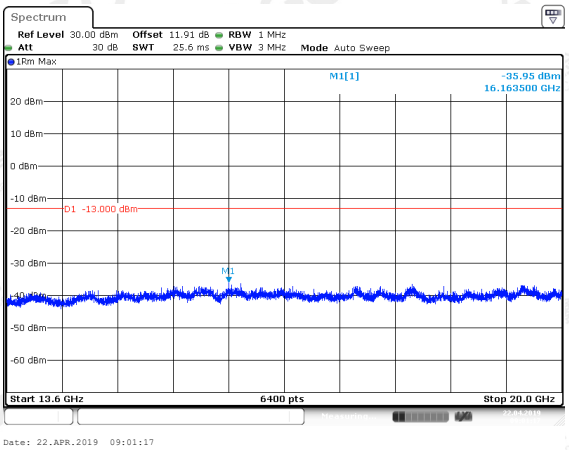
WCDMA 1900-MCH	WCDMA 1900-MCH
	

WCDMA 1900-MCH	WCDMA 1900-MCH
	

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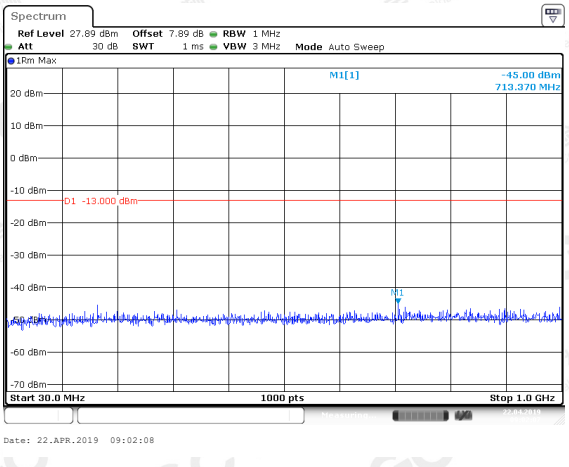
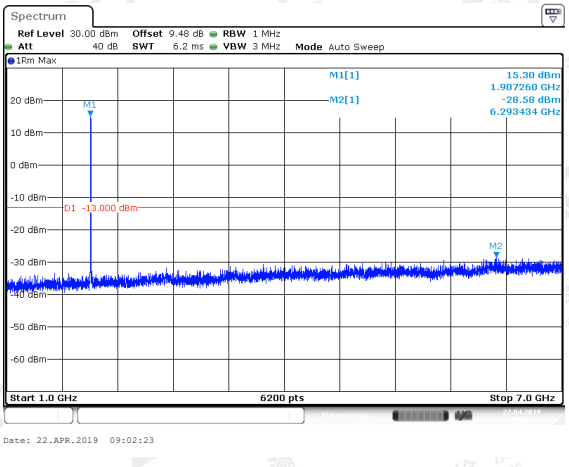
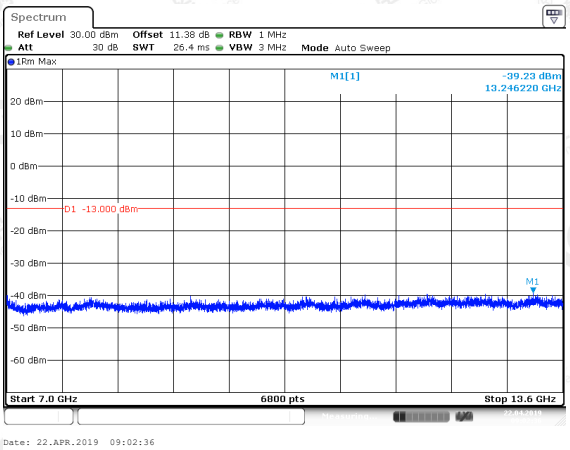
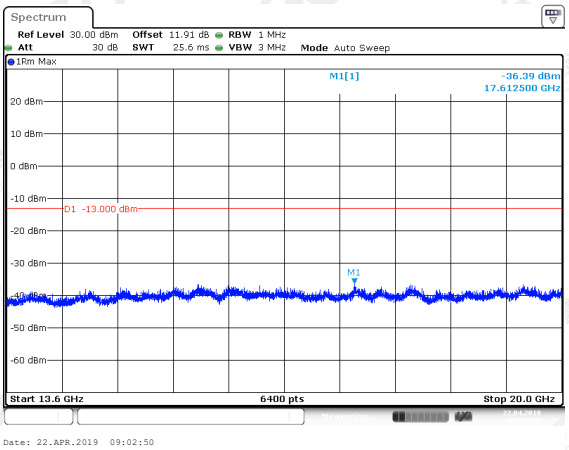
WCDMA 1900-HCH	WCDMA 1900-HCH
	

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.

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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.

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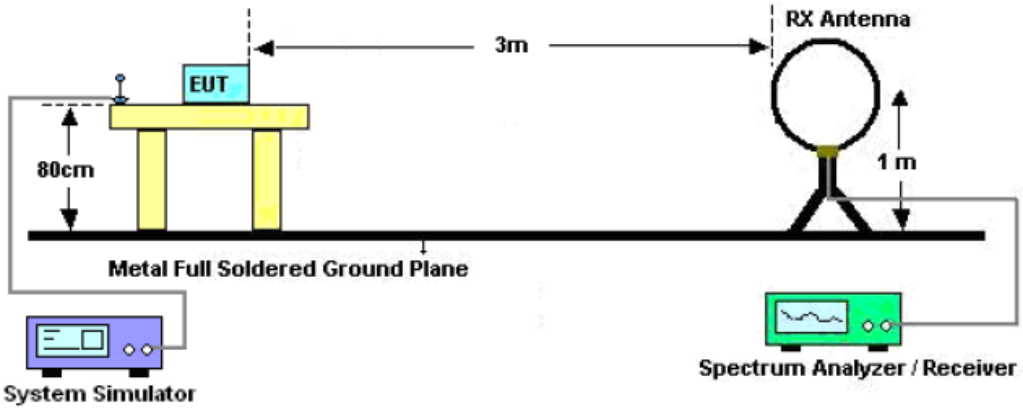
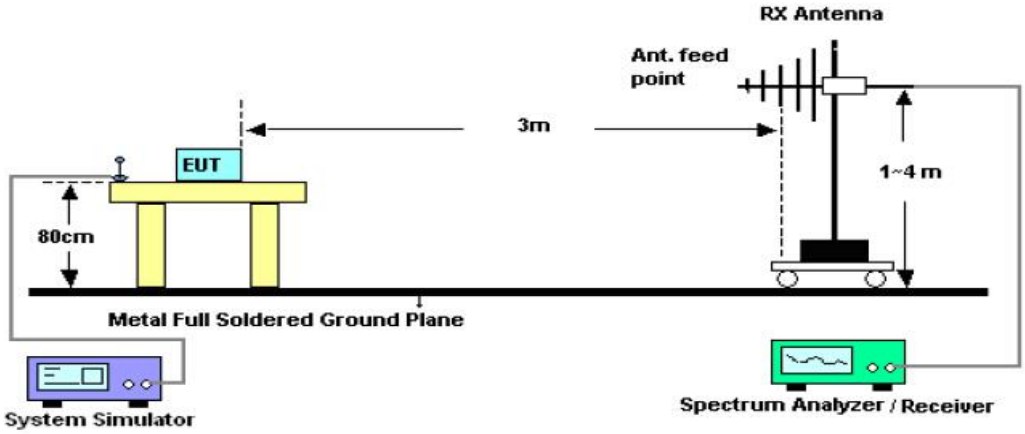
9.2.2 TEST SETUP

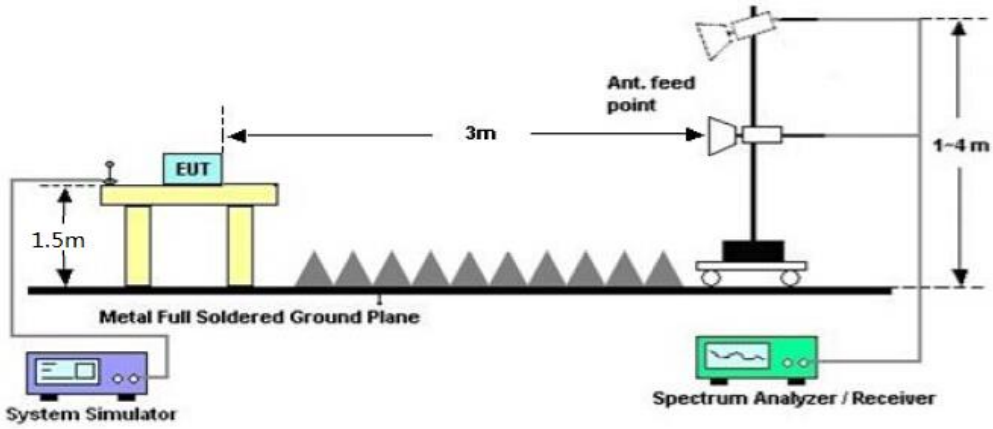
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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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:

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9.2.4 MEASUREMENT RESULT

GSM 850:

The Worst Test Results for Channel 251/848.8 MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1967.60	-49.13	-13	-36.13	Horizontal
3056.17	-47.14	-13	-34.14	Horizontal
6739.25	-45.53	-13	-32.53	Horizontal
1967.60	-48.66	-13	-35.66	Vertical
3426.04	-46.68	-13	-33.68	Vertical
6534.14	-45.38	-13	-32.38	Vertical

GSM 850(EDGE 8):

The Worst Test Results for Channel 251/848.8 MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1967.60	-49.15	-13	-36.15	Horizontal
3246.33	-48.21	-13	-35.21	Horizontal
6718.12	-47.40	-13	-34.40	Horizontal
1967.60	-49.46	-13	-36.46	Vertical
3569.44	-47.23	-13	-34.23	Vertical
6153.09	-46.50	-13	-33.50	Vertical

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PCS 1900:

The Worst Test Results for Channel 810/1909.8MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1456.52	-49.10	-13	-36.10	Horizontal
3819.60	-47.96	-13	-34.96	Horizontal
7456.18	-45.75	-13	-32.75	Horizontal
1462.12	-48.35	-13	-35.35	Vertical
3819.60	-47.50	-13	-34.50	Vertical
6946.19	-46.09	-13	-33.09	Vertical

PCS 1900(EDGE):

The Worst Test Results for Channel 810/1909.8MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1694.52	-50.60	-13	-37.60	Horizontal
3819.60	-49.80	-13	-36.80	Horizontal
7041.59	-47.61	-13	-34.61	Horizontal
1746.11	-50.35	-13	-37.35	Vertical
3819.60	-49.63	-13	-36.63	Vertical
7028.52	-48.53	-13	-35.53	Vertical

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HSPA band II:

The Worst Test Results for Channel 9538/1907.6MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1619.05	-45.61	-13	-32.61	Horizontal
3815.20	-45.07	-13	-32.07	Horizontal
7563.28	-43.90	-13	-30.90	Horizontal
1596.28	-46.06	-13	-33.06	Vertical
3815.20	-45.41	-13	-32.41	Vertical
7436.55	-43.10	-13	-30.10	Vertical

HSPA band V:

The Worst Test Results for Channel 4233/846.6MHz				
Frequency (MHz)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Comment
1693.20	-47.48	-13	-34.48	Horizontal
2856.58	-47.22	-13	-34.22	Horizontal
5943.17	-45.57	-13	-32.57	Horizontal
1693.20	-46.45	-13	-33.45	Vertical
2139.77	-45.54	-13	-32.54	Vertical
5894.32	-45.04	-13	-32.04	Vertical

RESULT: PASS

Note:

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

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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.

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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 3.4VDC and 4.2VDC, with a nominal voltage of 3.7VDC. 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.

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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	7.10	0.008614	±2.5	PASS
			TN	VN	5.49	0.006661	±2.5	PASS
			TN	VH	7.36	0.008930	±2.5	PASS
		MCH	TN	VL	10.91	0.013041	±2.5	PASS
			TN	VN	6.33	0.007566	±2.5	PASS
			TN	VH	8.72	0.010423	±2.5	PASS
		HCH	TN	VL	8.59	0.010120	±2.5	PASS
			TN	VN	11.30	0.013313	±2.5	PASS
			TN	VH	13.04	0.015363	±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	5.17	0.006273	±2.5	PASS
			TN	VN	3.87	0.004695	±2.5	PASS
			TN	VH	6.33	0.007680	±2.5	PASS
		MCH	TN	VL	6.46	0.007722	±2.5	PASS
			TN	VN	8.65	0.010339	±2.5	PASS
			TN	VH	2.58	0.003084	±2.5	PASS
		HCH	TN	VL	8.33	0.009814	±2.5	PASS
			TN	VN	3.68	0.004336	±2.5	PASS
			TN	VH	6.33	0.007458	±2.5	PASS

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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	17.69	0.009561	PASS
			TN	VN	25.63	0.013853	PASS
			TN	VH	28.99	0.015669	PASS
		MCH	TN	VL	16.79	0.008931	PASS
			TN	VN	13.11	0.006973	PASS
			TN	VH	14.33	0.007622	PASS
		HCH	TN	VL	27.38	0.014337	PASS
			TN	VN	24.92	0.013048	PASS
			TN	VH	25.31	0.013253	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	18.08	0.009772	PASS
			TN	VN	21.76	0.011761	PASS
			TN	VH	17.50	0.009458	PASS
		MCH	TN	VL	14.21	0.007559	PASS
			TN	VN	11.95	0.006356	PASS
			TN	VH	15.82	0.008415	PASS
		HCH	TN	VL	20.79	0.010886	PASS
			TN	VN	22.47	0.011766	PASS
			TN	VH	21.24	0.011122	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.

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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	9.81	0.011902	±2.5	PASS
			VN	0	8.07	0.009791	±2.5	PASS
			VN	10	5.68	0.006892	±2.5	PASS
			VN	20	6.65	0.008068	±2.5	PASS
			VN	30	7.49	0.009088	±2.5	PASS
			VN	40	6.13	0.007438	±2.5	PASS
			VN	50	3.75	0.004550	±2.5	PASS
GSM850	GSM	MCH	VN	-10	7.30	0.008726	±2.5	PASS
			VN	0	5.10	0.006096	±2.5	PASS
			VN	10	10.27	0.012276	±2.5	PASS
			VN	20	5.68	0.006789	±2.5	PASS
			VN	30	6.52	0.007793	±2.5	PASS
			VN	40	7.30	0.008726	±2.5	PASS
			VN	50	7.55	0.009025	±2.5	PASS
GSM850	GSM	HCH	VN	-10	10.46	0.012323	±2.5	PASS
			VN	0	11.43	0.013466	±2.5	PASS
			VN	10	8.65	0.010191	±2.5	PASS
			VN	20	11.17	0.013160	±2.5	PASS
			VN	30	10.07	0.011864	±2.5	PASS
			VN	40	9.75	0.011487	±2.5	PASS
			VN	50	9.81	0.011557	±2.5	PASS

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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	9.62	0.011672	±2.5	PASS
			VN	0	10.85	0.013164	±2.5	PASS
			VN	10	9.30	0.011284	±2.5	PASS
			VN	20	10.53	0.012776	±2.5	PASS
			VN	30	7.23	0.008772	±2.5	PASS
			VN	40	-0.71	-0.000861	±2.5	PASS
			VN	50	3.03	0.003676	±2.5	PASS
GSM850	EDGE	MCH	VN	-10	6.20	0.007411	±2.5	PASS
			VN	0	6.13	0.007327	±2.5	PASS
			VN	10	3.10	0.003705	±2.5	PASS
			VN	20	2.78	0.003323	±2.5	PASS
			VN	30	8.91	0.010650	±2.5	PASS
			VN	40	12.01	0.014356	±2.5	PASS
			VN	50	11.30	0.013507	±2.5	PASS
GSM850	EDGE	HCH	VN	-10	12.85	0.015139	±2.5	PASS
			VN	0	2.45	0.002886	±2.5	PASS
			VN	10	5.29	0.006232	±2.5	PASS
			VN	20	8.85	0.010426	±2.5	PASS
			VN	30	8.20	0.009661	±2.5	PASS
			VN	40	5.88	0.006927	±2.5	PASS
			VN	50	6.46	0.007611	±2.5	PASS

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Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (℃)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Verdict
PCS 1900	GSM	LCH	VN	-10	21.37	0.011550	PASS
			VN	0	22.79	0.012318	PASS
			VN	10	20.40	0.011026	PASS
			VN	20	22.28	0.012042	PASS
			VN	30	20.73	0.011204	PASS
			VN	40	21.18	0.011447	PASS
			VN	50	16.85	0.009107	PASS
PCS 1900	GSM	MCH	VN	-10	16.01	0.008516	PASS
			VN	0	16.72	0.008894	PASS
			VN	10	11.95	0.006356	PASS
			VN	20	17.11	0.009101	PASS
			VN	30	12.40	0.006596	PASS
			VN	40	18.73	0.009963	PASS
			VN	50	14.46	0.007691	PASS
PCS 1900	GSM	HCH	VN	-10	16.72	0.008755	PASS
			VN	0	25.76	0.013488	PASS
			VN	10	24.99	0.013085	PASS
			VN	20	26.35	0.013797	PASS
			VN	30	28.41	0.014876	PASS
			VN	40	32.67	0.017107	PASS
			VN	50	24.47	0.012813	PASS

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Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (℃)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Verdict
GSM1900	EDGE	LCH	VN	-10	40.03	0.021635	PASS
			VN	0	37.52	0.020279	PASS
			VN	10	38.61	0.020868	PASS
			VN	20	37.45	0.020241	PASS
			VN	30	39.91	0.021571	PASS
			VN	40	26.28	0.014204	PASS
			VN	50	38.42	0.020765	PASS
GSM1900	EDGE	MCH	VN	-10	37.65	0.020027	PASS
			VN	0	33.64	0.017894	PASS
			VN	10	17.76	0.009447	PASS
			VN	20	11.11	0.005910	PASS
			VN	30	31.12	0.016553	PASS
			VN	40	27.89	0.014835	PASS
			VN	50	15.50	0.008245	PASS
GSM1900	EDGE	HCH	VN	-10	28.54	0.014944	PASS
			VN	0	24.02	0.012577	PASS
			VN	10	19.05	0.009975	PASS
			VN	20	9.69	0.005074	PASS
			VN	30	28.48	0.014913	PASS
			VN	40	42.23	0.022112	PASS
			VN	50	7.10	0.003718	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.

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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	-0.46	-0.00056	±2.5	PASS
			TN	VN	-1.31	-0.00159	±2.5	PASS
			TN	VH	-1.08	-0.00131	±2.5	PASS
		MCH	TN	VL	1.36	0.001626	±2.5	PASS
			TN	VN	0.55	0.000658	±2.5	PASS
			TN	VH	2.70	0.003228	±2.5	PASS
		HCH	TN	VL	0.46	0.000543	±2.5	PASS
			TN	VN	4.52	0.005339	±2.5	PASS
			TN	VH	2.93	0.003461	±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	-8.83	-0.00477	PASS
			TN	VN	-12.18	-0.00658	PASS
			TN	VH	-6.90	-0.00372	PASS
		MCH	TN	VL	-10.89	-0.00579	PASS
			TN	VN	-7.83	-0.00416	PASS
			TN	VH	-4.67	-0.00248	PASS
		HCH	TN	VL	-8.70	-0.00456	PASS
			TN	VN	-5.68	-0.00298	PASS
			TN	VH	-6.79	-0.00356	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.

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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	6.04	0.007309	±2.5	PASS
			VN	0	2.55	0.003086	±2.5	PASS
			VN	10	-22.43	-0.02714	±2.5	PASS
			VN	20	-0.21	-0.00025	±2.5	PASS
			VN	30	-2.66	-0.00322	±2.5	PASS
			VN	40	1.17	0.001416	±2.5	PASS
			VN	50	-0.53	-0.00064	±2.5	PASS
WCDMA850	UMTS	MCH	VN	-10	2.67	0.003192	±2.5	PASS
			VN	0	-1.19	-0.00142	±2.5	PASS
			VN	10	1.05	0.001255	±2.5	PASS
			VN	20	-1.57	-0.00188	±2.5	PASS
			VN	30	1.85	0.002212	±2.5	PASS
			VN	40	6.33	0.007568	±2.5	PASS
			VN	50	3.66	0.004376	±2.5	PASS
WCDMA850	UMTS	HCH	VN	-10	-4.53	-0.00535	±2.5	PASS
			VN	0	0.17	0.000201	±2.5	PASS
			VN	10	3.45	0.004075	±2.5	PASS
			VN	20	2.69	0.003177	±2.5	PASS
			VN	30	3.66	0.004323	±2.5	PASS
			VN	40	5.54	0.006544	±2.5	PASS
			VN	50	4.94	0.005835	±2.5	PASS

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Test Band	Test Mode	Test Channel	Test Volt.	Test Tem. (℃)	Freq.Error (Hz)	Freq.vs.rated (ppm)	Verdict
WCDMA1900	UMTS	LCH	VN	-10	-10.12	-0.00546	PASS
			VN	0	-10.86	-0.00586	PASS
			VN	10	-6.03	-0.00326	PASS
			VN	20	-8.44	-0.00456	PASS
			VN	30	-11.49	-0.0062	PASS
			VN	40	-7.05	-0.00381	PASS
			VN	50	-6.30	-0.0034	PASS
WCDMA1900	UMTS	MCH	VN	-10	-11.76	-0.00626	PASS
			VN	0	-8.00	-0.00426	PASS
			VN	10	-6.91	-0.00368	PASS
			VN	20	-6.18	-0.00329	PASS
			VN	30	-2.21	-0.00118	PASS
			VN	40	-4.06	-0.00216	PASS
			VN	50	-8.90	-0.00473	PASS
WCDMA1900	UMTS	HCH	VN	-10	-3.75	-0.00197	PASS
			VN	0	-8.83	-0.00463	PASS
			VN	10	-3.56	-0.00187	PASS
			VN	20	-5.07	-0.00266	PASS
			VN	30	-9.89	-0.00518	PASS
			VN	40	-5.91	-0.0031	PASS
			VN	50	-9.90	-0.00519	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.

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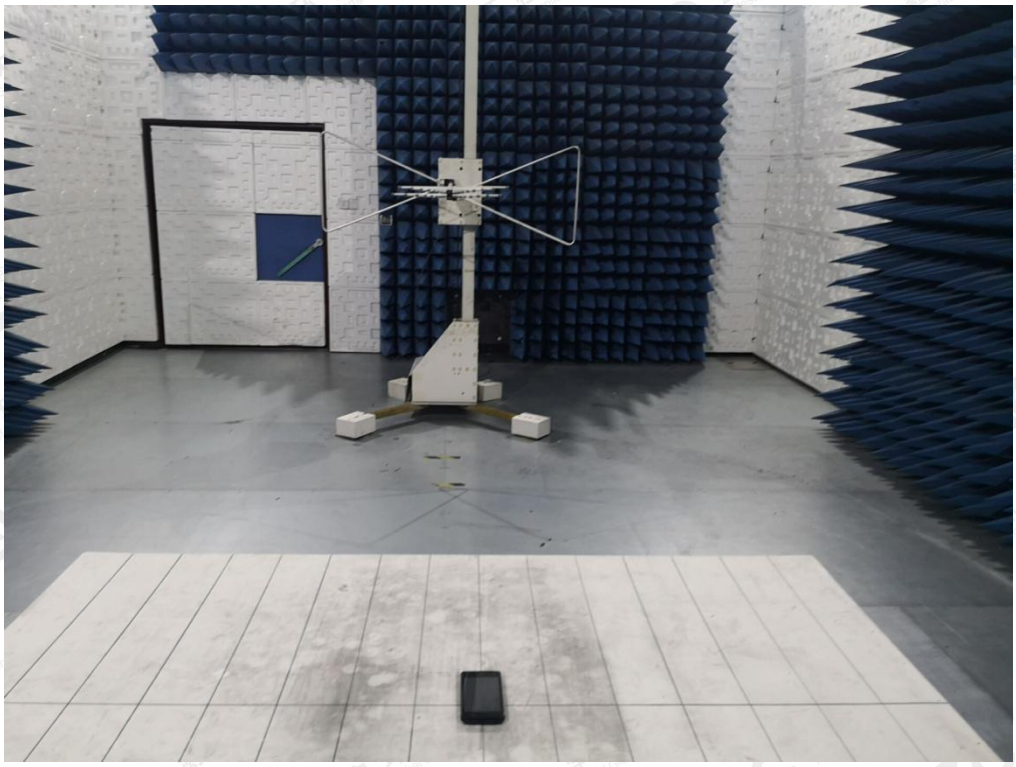
APPENDIX A: PHOTOGRAPHS OF TEST SETUP

RADIATED SPURIOUS EMISSION



RADIATED SPURIOUS ABOVE 1G EMISSION

----END OF REPORT----

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