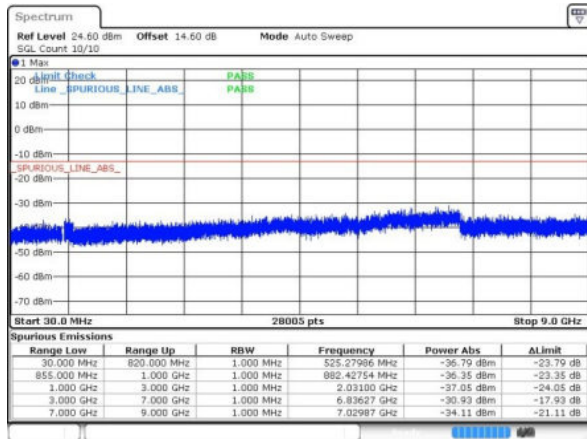




Conducted Spurious Emission

GSM850 (GSM)

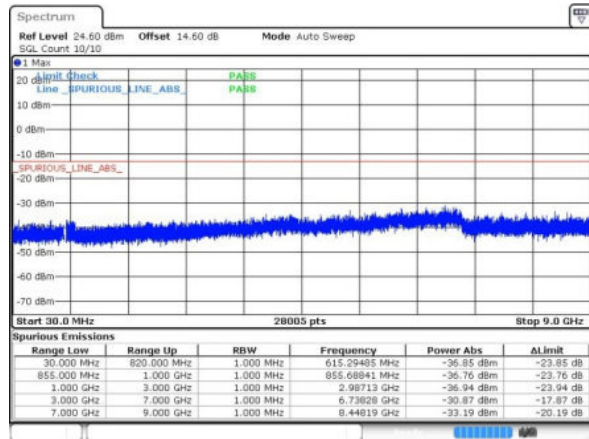
Lowest Channel



Date: 2 DEC 2016 02:20:18

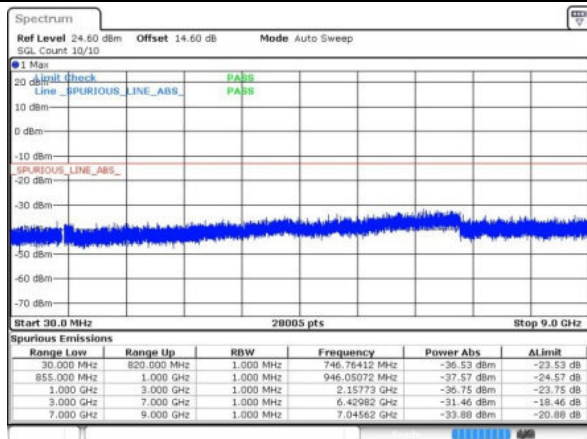
GSM850 (EDGE class 8)

Lowest Channel



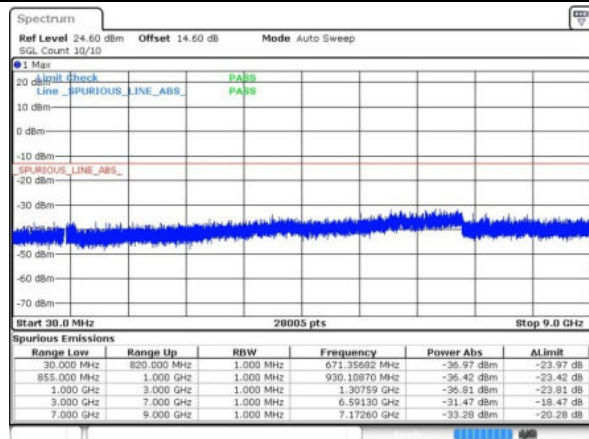
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Middle Channel



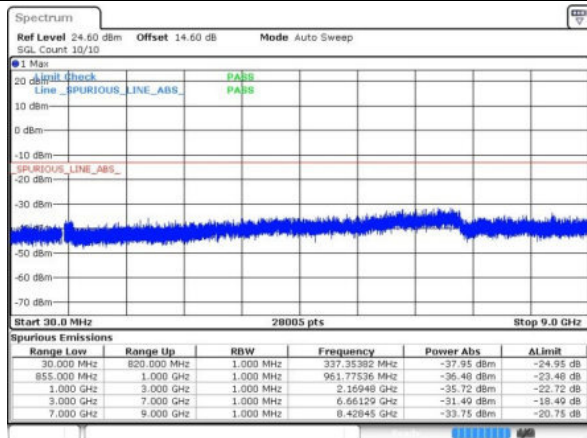
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Middle Channel



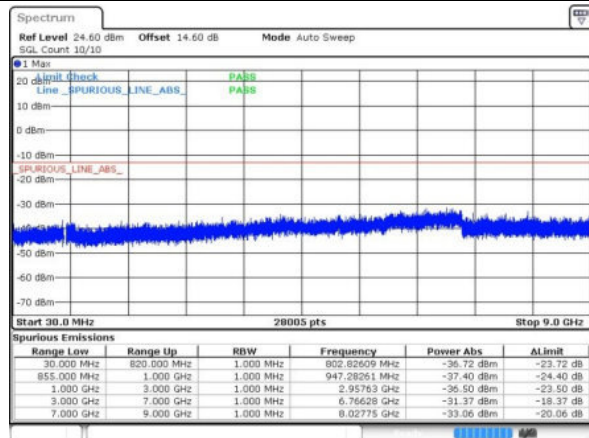
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Highest Channel



Date: 2 DEC 2016 02:25:10

Highest Channel

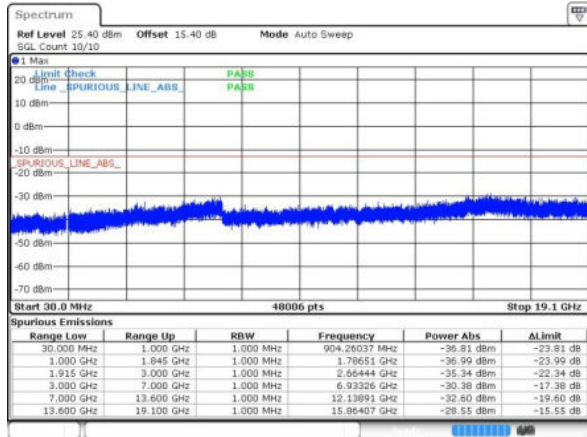


Date: 2 DEC 2016 03:08:15



GSM1900 (GSM)

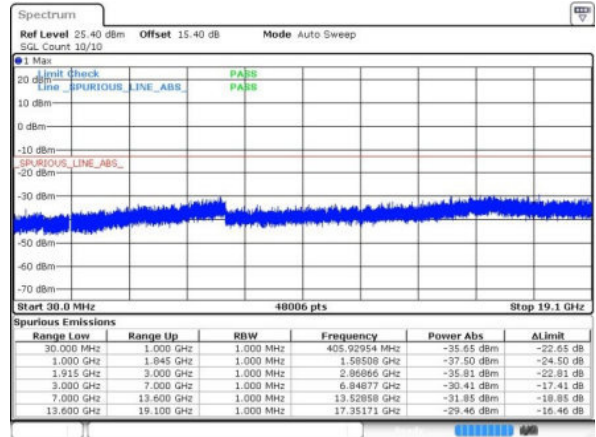
Lowest Channel



Date: 2 DEC 2016 04:53:55

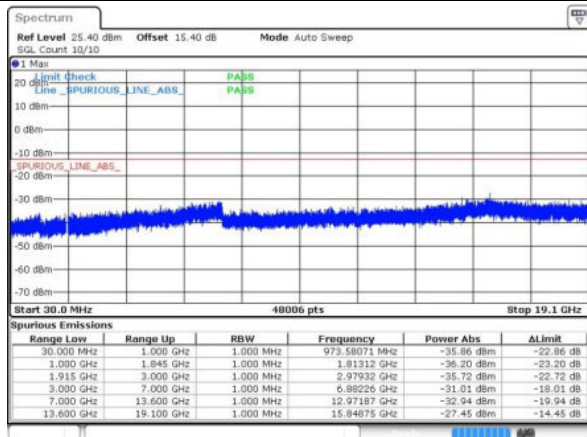
GSM1900 (EDGE class 8)

Lowest Channel

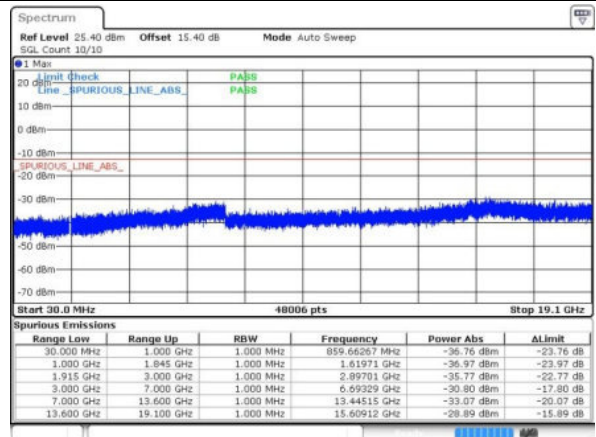


Date: 2 DEC 2016 05:39:49

Middle Channel

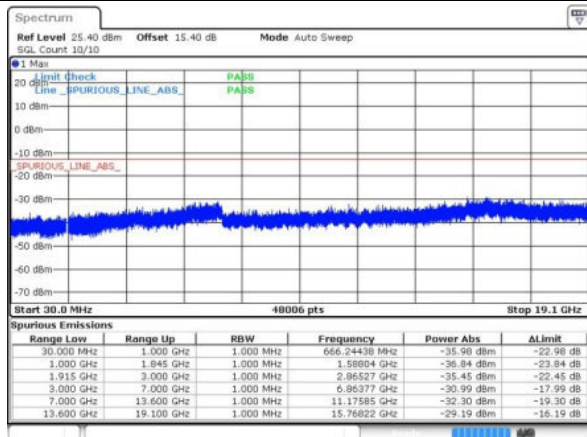


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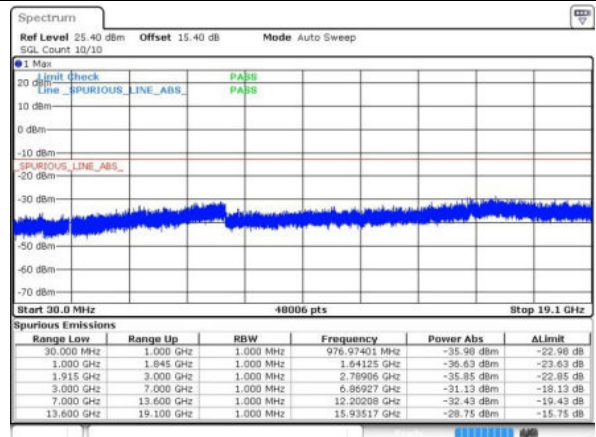


Date: 2 DEC 2016 05:41:11

Highest Channel



Date: 2 DEC 2016 04:57:08

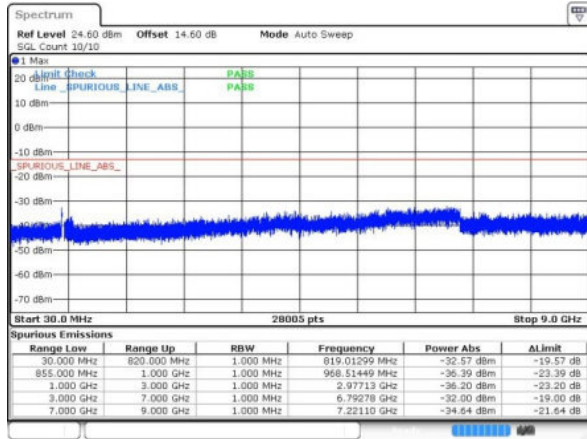


Date: 2 DEC 2016 05:42:39



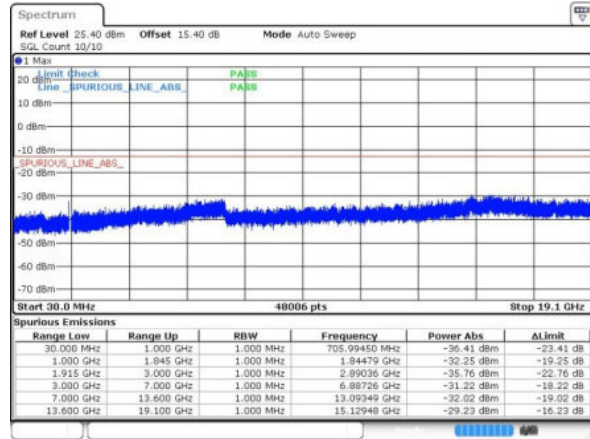
WCDMA Band V (RMC 12.2Kbps)

Lowest Channel

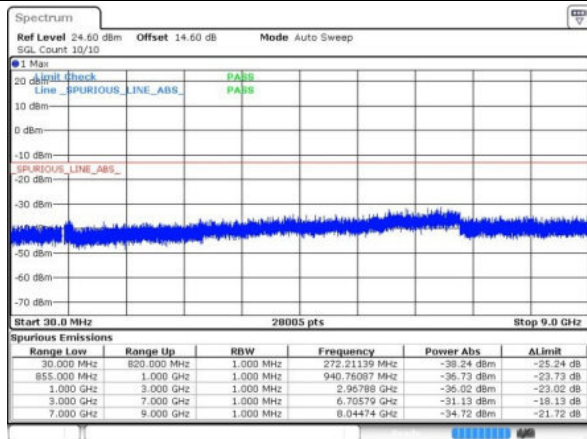


WCDMA Band II (RMC 12.2Kbps)

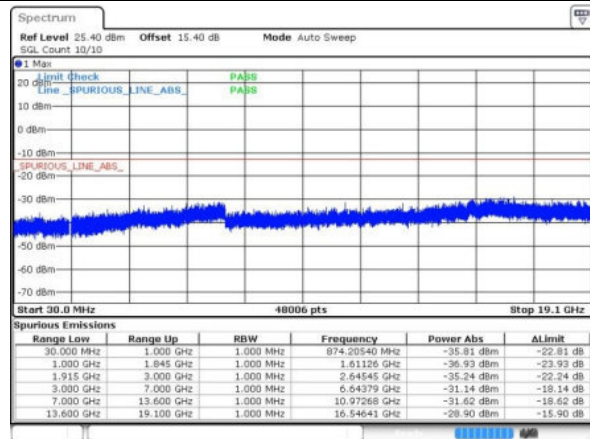
Lowest Channel



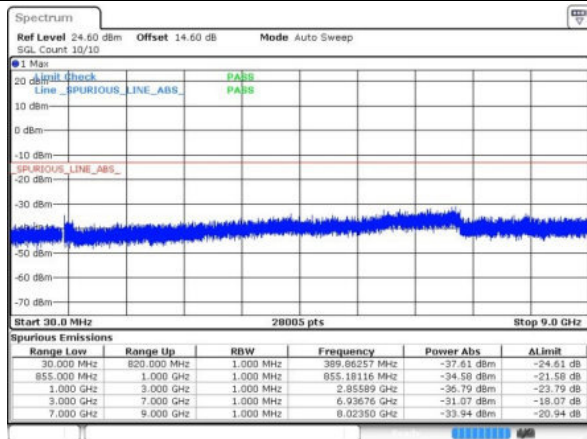
Middle Channel



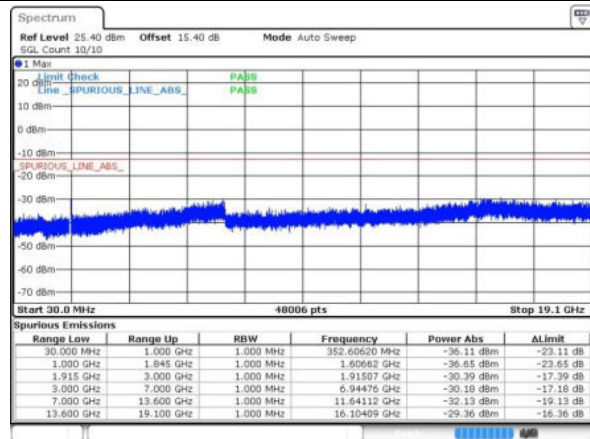
Middle Channel



Highest Channel



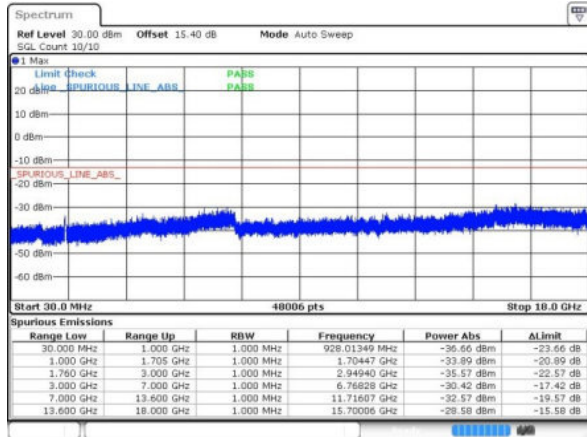
Highest Channel



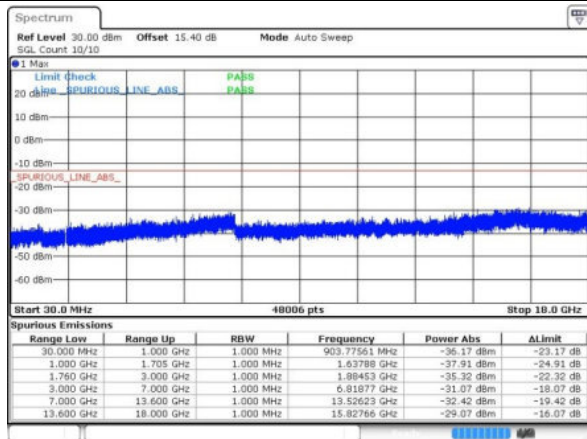


WCDMA Band IV (RMC 12.2Kbps)

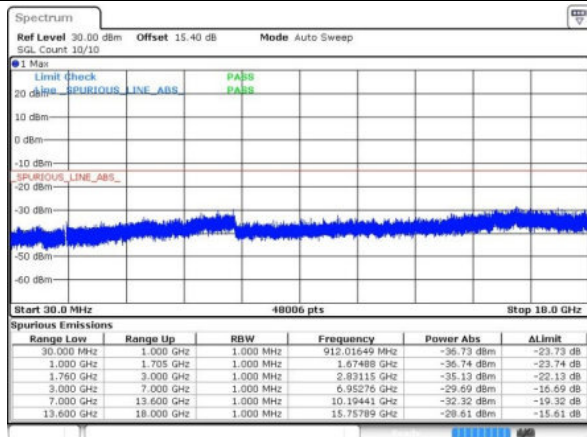
Lowest Channel



Middle Channel



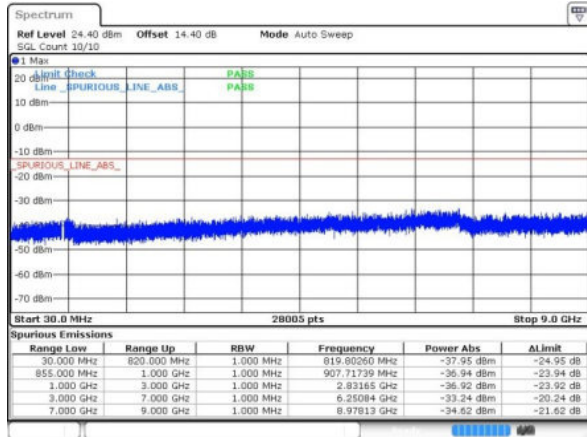
Highest Channel





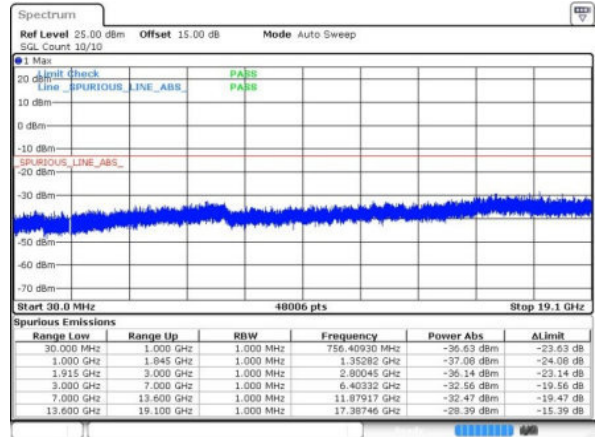
CDMA BC0 (1XRTT)

Lowest Channel

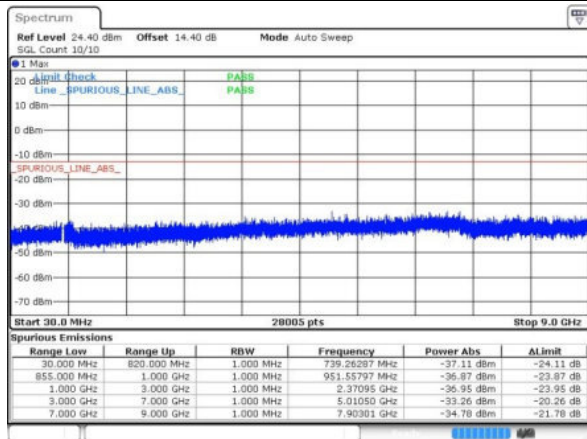


CDMA BC1 (1XRTT)

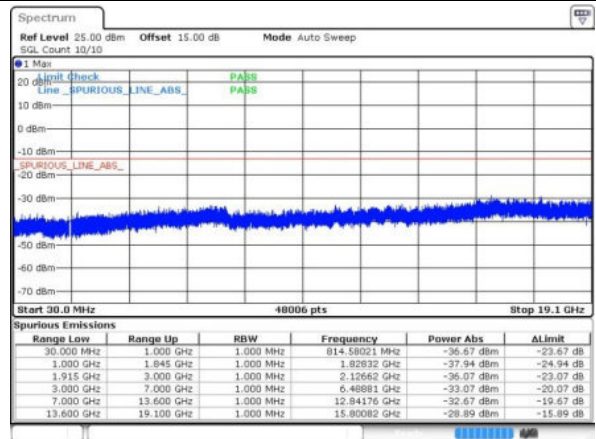
Lowest Channel



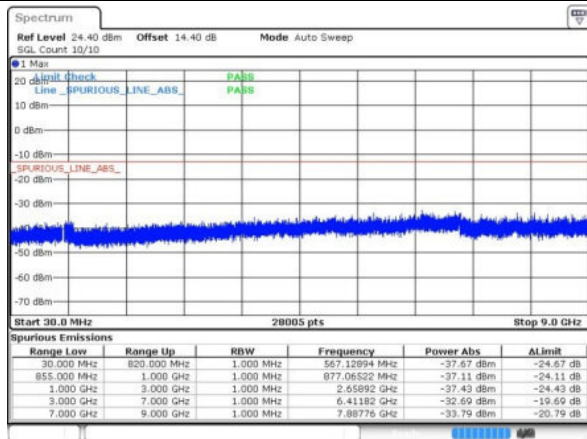
Middle Channel



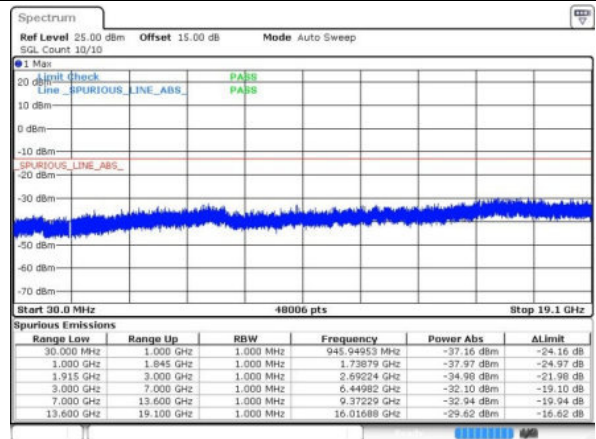
Middle Channel



Highest Channel



Highest Channel



**Frequency Stability**

Test Conditions	Middle Channel	GSM850 (GSM)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0060	0.0048	PASS
40	Normal Voltage	0.0036	0.0036	
30	Normal Voltage	0.0012	0.0108	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0024	0.0084	
0	Normal Voltage	0.0143	0.0072	
-10	Normal Voltage	0.0120	0.0060	
-20	Normal Voltage	0.0132	0.0036	
-30	Normal Voltage	0.0072	0.0024	
20	Maximum Voltage	0.0084	0.0060	
20	Normal Voltage	0.0096	0.0012	
20	Battery End Point	0.0048	0.0132	

Note: Normal Voltage = 3.6V. ; Battery End Point (BEP) = 3.85 V. ; Maximum Voltage =4.4V



Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0043	0.0181	PASS
40	Normal Voltage	0.0005	0.0191	
30	Normal Voltage	0.0191	0.0053	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0027	0.0165	
0	Normal Voltage	0.0016	0.0027	
-10	Normal Voltage	0.0154	0.0197	
-20	Normal Voltage	0.0027	0.0021	
-30	Normal Voltage	0.0149	0.0218	
20	Maximum Voltage	0.0138	0.0117	
20	Normal Voltage	0.0128	0.0122	
20	Battery End Point	0.0048	0.0186	

Note:

1. Normal Voltage = 3.6V. ; Battery End Point (BEP) = 3.85 V. ; Maximum Voltage =4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0036	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0060	
0	Normal Voltage	0.0203	
-10	Normal Voltage	0.0108	
-20	Normal Voltage	0.0143	
-30	Normal Voltage	0.0179	
20	Maximum Voltage	0.0155	
20	Normal Voltage	0.0072	
20	Battery End Point	0.0048	

Note: Normal Voltage = 3.6V. ; Battery End Point (BEP) = 3.85 V. ; Maximum Voltage =4.4V



Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0037	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0032	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0043	
-30	Normal Voltage	0.0059	
20	Maximum Voltage	0.0080	
20	Normal Voltage	0.0005	
20	Battery End Point	0.0048	

Note:

1. Normal Voltage = 3.6V. ; Battery End Point (BEP) = 3.85 V. ; Maximum Voltage =4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0029	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0104	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0069	
0	Normal Voltage	0.0087	
-10	Normal Voltage	0.0075	
-20	Normal Voltage	0.0081	
-30	Normal Voltage	0.0052	
20	Maximum Voltage	0.0058	
20	Normal Voltage	0.0012	
20	Battery End Point	0.0023	

Note:

1. Normal Voltage = 3.6V. ; Battery End Point (BEP) = 3.85 V. ; Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Test Conditions	Middle Channel	CDMA BC0 (1xRTT)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0263	
30	Normal Voltage	0.0108	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0179	
0	Normal Voltage	0.0060	
-10	Normal Voltage	0.0048	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0048	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0179	
20	Battery End Point	0.0000	

Note: Normal Voltage = 3.6V. ; Battery End Point (BEP) = 3.85 V. ; Maximum Voltage =4.4V



Test Conditions	Middle Channel	CDMA BC1 (1xRTT)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0032	PASS
40	Normal Voltage	0.0154	
30	Normal Voltage	0.0048	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0069	
-10	Normal Voltage	0.0048	
-20	Normal Voltage	0.0080	
-30	Normal Voltage	0.0053	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0112	
20	Battery End Point	0.0064	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

**Radiated Spurious Emission**

GSM850 (GSM)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-42.88	-13	-29.88	-49.16	-45.20	1.33	5.80	H
	2508	-50.91	-13	-37.91	-60.67	-54.08	1.58	6.90	H
	3345	-66.46	-13	-53.46	-75.67	-69.96	1.85	7.50	H
	1672	-47.82	-13	-34.82	-53.47	-50.14	1.33	5.80	V
	2508	-58.88	-13	-45.88	-66.85	-62.05	1.58	6.90	V
	3345	-66.92	-13	-53.92	-75.94	-70.42	1.85	7.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM850 (EDGE class 8)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-59.75	-13	-46.75	-62.35	-62.07	1.33	5.80	H
	2508	-56.24	-13	-43.24	-65.59	-59.41	1.58	6.90	H
	3345	-66.32	-13	-53.32	-75.53	-69.82	1.85	7.50	H
	1672	-60.02	-13	-47.02	-61.89	-62.34	1.33	5.80	V
	2508	-51.59	-13	-38.59	-60.52	-54.76	1.58	6.90	V
	3345	-66.68	-13	-53.68	-75.70	-70.18	1.85	7.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



GSM1900 (GSM)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3762	-65.01	-13	-52.01	-68.52	-70.00	1.88	6.87	H
	5640	-55.33	-13	-42.33	-63.52	-62.63	2.38	9.68	H
	7518	-62.77	-13	-49.77	-74.80	-71.84	2.74	11.81	H
	3762	-65.78	-13	-52.78	-69.57	-70.77	1.88	6.87	V
	5640	-59.80	-13	-46.80	-68.37	-67.10	2.38	9.68	V
	7518	-64.58	-13	-51.58	-75.29	-73.65	2.74	11.81	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM1900 (EDGE class 8)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3762	-70.28	-13	-57.28	-73.79	-75.27	1.88	6.87	H
	5610	-58.90	-13	-45.90	-67.09	-66.20	2.38	9.68	H
	7518	-63.61	-13	-50.61	-75.64	-72.68	2.74	11.81	H
	3762	-69.00	-13	-56.00	-72.79	-73.99	1.88	6.87	V
	5610	-58.47	-13	-45.47	-67.04	-65.77	2.38	9.68	V
	7518	-64.64	-13	-51.64	-75.35	-73.71	2.74	11.81	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



WCDMA Band V(RMC 12.2Kbps)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1674	-58.50	-13	-45.50	-61.30	-60.82	1.33	5.80	H
	2506	-58.92	-13	-45.92	-68.27	-62.09	1.58	6.90	H
	3345	-67.25	-13	-54.25	-76.46	-70.75	1.85	7.50	H
	1670	-64.59	-13	-51.59	-66.46	-66.91	1.33	5.80	V
	2509	-64.17	-13	-51.17	-72.14	-67.34	1.58	6.90	V
	3345	-67.10	-13	-54.10	-76.12	-70.60	1.85	7.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band II(RMC 12.2Kbps)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3762	-63.37	-13	-50.37	-66.88	-68.36	1.88	6.87	H
	5640	-62.02	-13	-49.02	-70.21	-69.32	2.38	9.68	H
	7518	-61.56	-13	-48.56	-73.59	-70.63	2.74	11.81	H
	3762	-63.19	-13	-50.19	-66.98	-68.18	1.88	6.87	V
	5640	-60.80	-13	-47.80	-69.37	-68.10	2.38	9.68	V
	7518	-63.05	-13	-50.05	-73.76	-72.12	2.74	11.81	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band IV(RMC 12.2Kbps)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3468	-56.22	-13	-43.22	-63.01	-61.11	1.81	6.70	H
	5196	-60.61	-13	-47.61	-73.29	-67.51	2.23	9.13	H
	6930	-60.09	-13	-47.09	-75.27	-68.15	2.60	10.66	H
	3468	-60.84	-13	-47.84	-66.04	-65.73	1.81	6.70	V
	5196	-59.89	-13	-46.89	-73.44	-66.79	2.23	9.13	V
	6930	-59.68	-13	-46.68	-74.73	-67.74	2.6	10.66	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



CDMA BC0(1xRTT)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-68.61	-13	-55.61	-66.81	-70.43	1.23	5.20	H
	2509	-66.97	-13	-53.97	-71.82	-69.20	1.52	5.90	H
	3346	-66.88	-13	-53.88	-74.44	-69.66	1.77	6.70	H
	1672	-68.73	-13	-55.73	-66.68	-70.55	1.23	5.20	V
	2509	-63.01	-13	-50.01	-71.31	-65.24	1.52	5.90	V
	3346	-63.47	-13	-50.47	-74.57	-66.25	1.77	6.70	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

CDMA BC1(1xRTT)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3762	-63.08	-13	-50.08	-72.09	-67.94	1.93	6.80	H
	5640	-54.88	-13	-41.88	-65.44	-62.18	2.40	9.70	H
	7520	-55.58	-13	-42.58	-70.62	-64.63	2.76	11.81	H
	3762	-62.59	-13	-49.59	-71.9	-67.46	1.93	6.80	V
	5640	-58.18	-13	-45.18	-66.13	-65.48	2.40	9.70	V
	7520	-59.15	-13	-46.15	-71.64	-68.20	2.76	11.81	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.