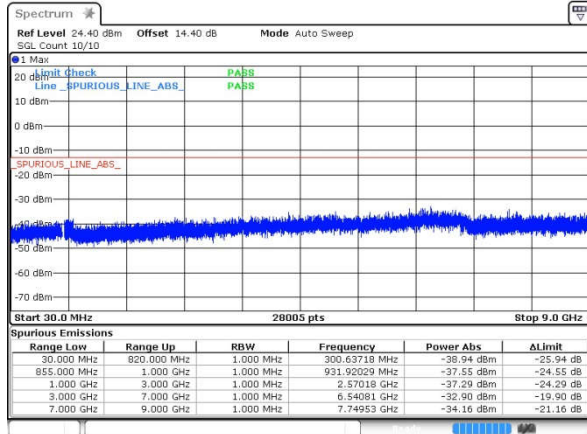




Conducted Spurious Emission

GSM850 (GSM)

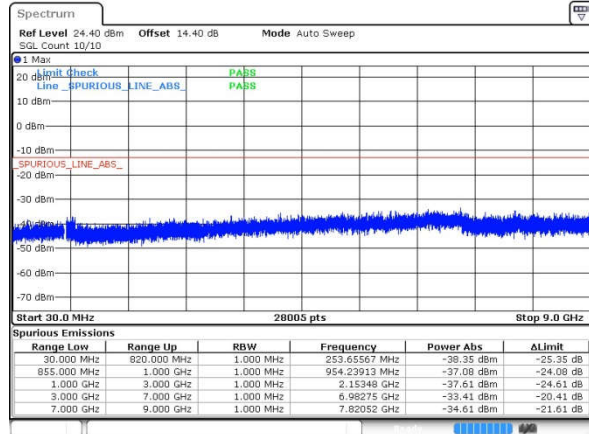
Lowest Channel



Date: 23 MAR 2017 01:22:45

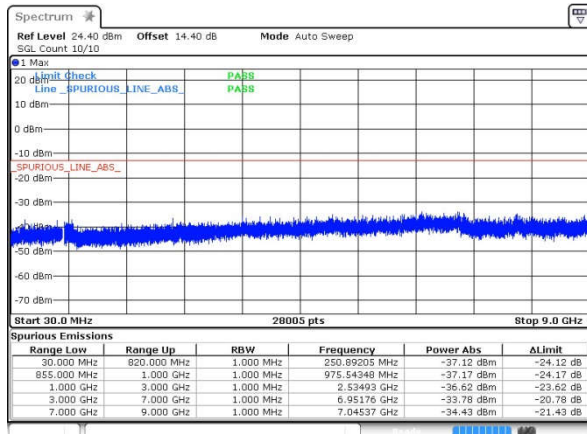
GSM850 (EDGE class 8)

Lowest Channel



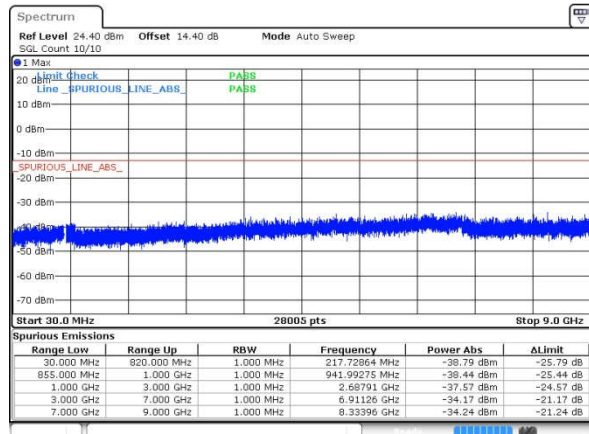
Date: 23 MAR 2017 02:04:28

Middle Channel



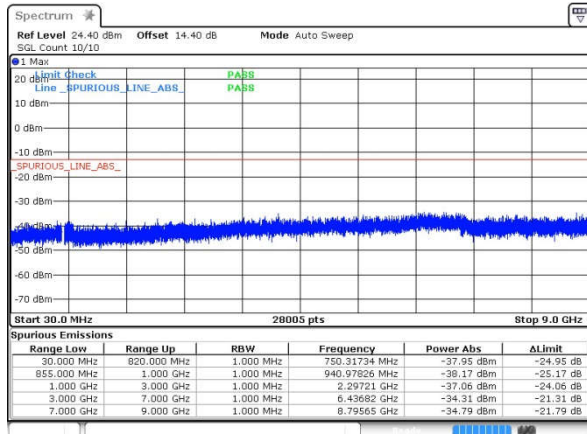
Date: 23 MAR 2017 01:24:09

Middle Channel



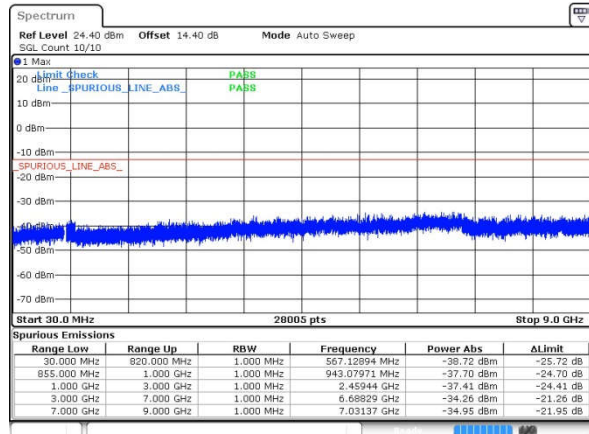
Date: 23 MAR 2017 02:05:57

Highest Channel



Date: 23 MAR 2017 01:25:32

Highest Channel

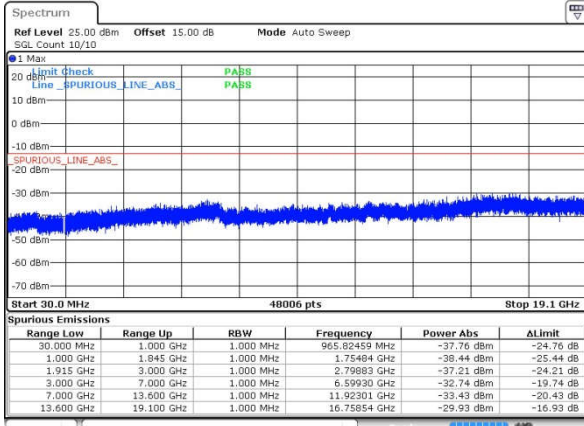


Date: 23 MAR 2017 02:07:44



GSM1900 (GSM)

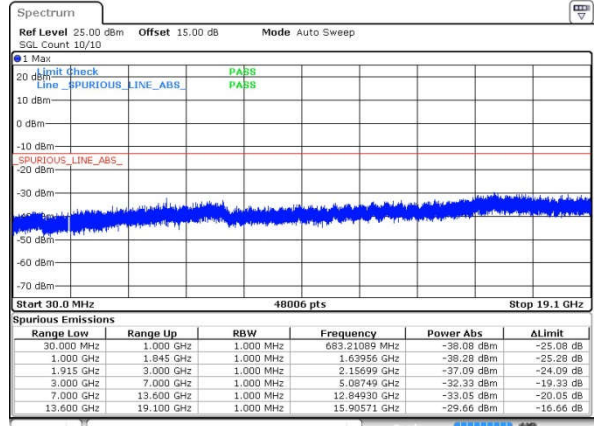
Lowest Channel



Date: 23 MAR 2017 02:30:02

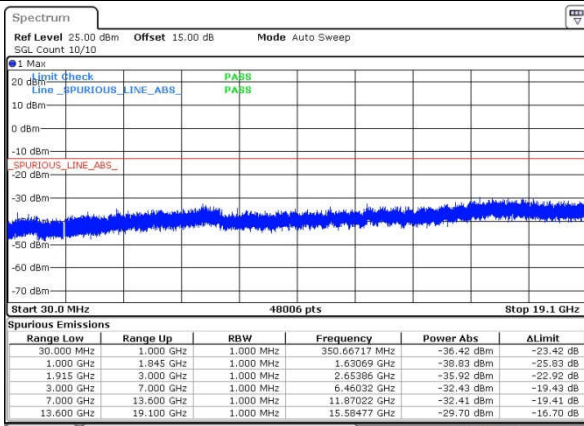
GSM1900 (EDGE class 8)

Lowest Channel



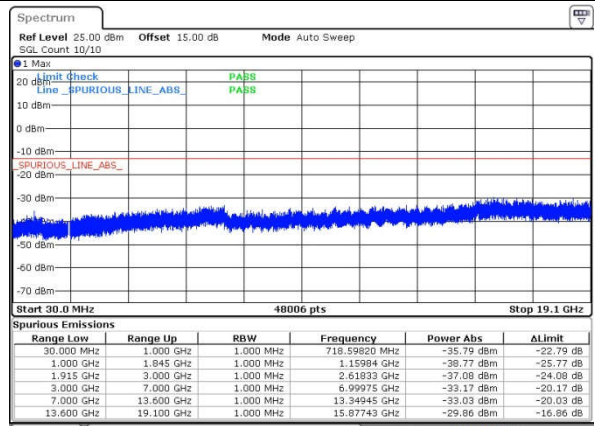
Date: 23 MAR 2017 02:56:53

Middle Channel



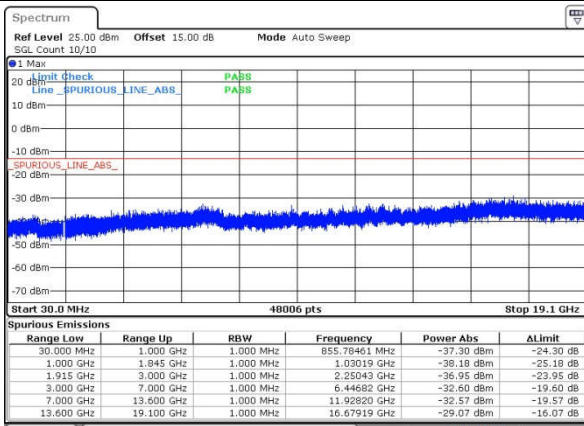
Date: 23 MAR 2017 02:38:43

Middle Channel



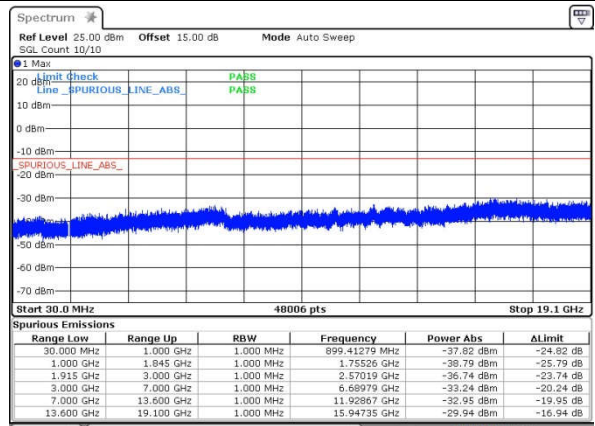
Date: 23 MAR 2017 02:58:18

Highest Channel



Date: 23 MAR 2017 02:40:09

Highest Channel

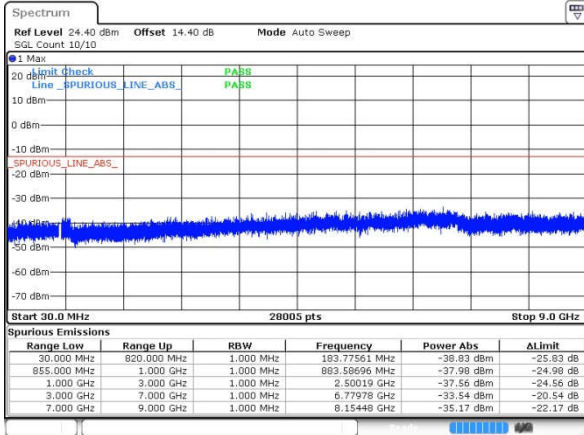


Date: 23 MAR 2017 02:59:52



WCDMA Band V (RMC 12.2Kbps)

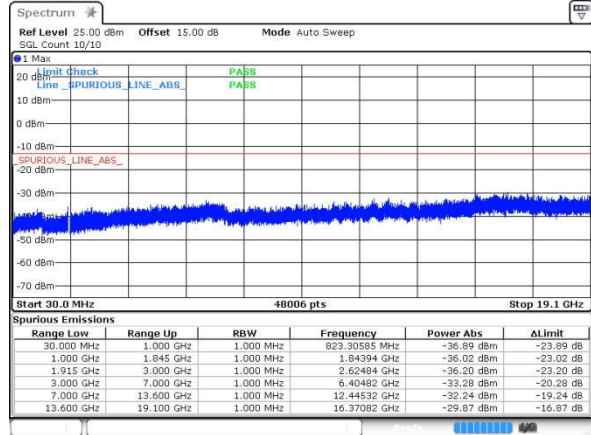
Lowest Channel



Date: 23 MAR 2017 03:53:20

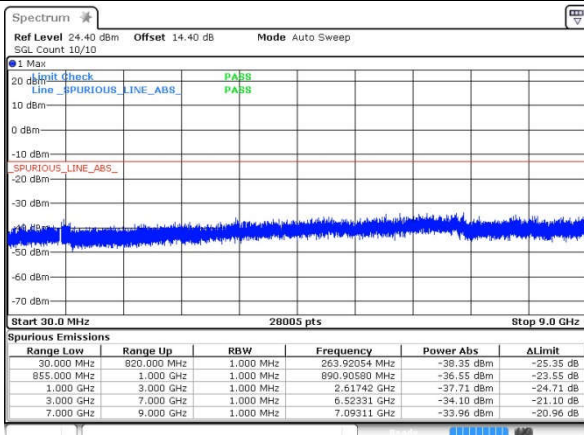
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



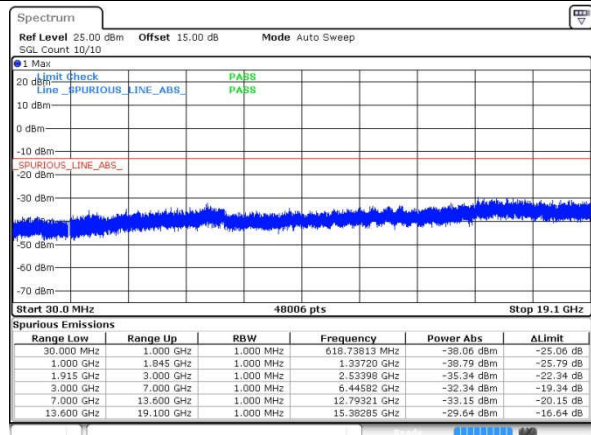
Date: 23 MAR 2017 04:15:15

Middle Channel



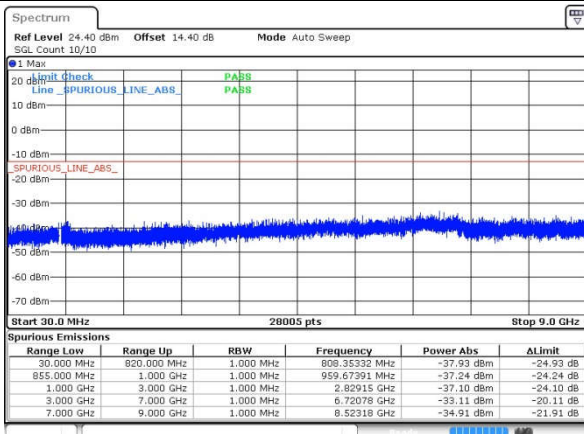
Date: 23 MAR 2017 03:54:38

Middle Channel



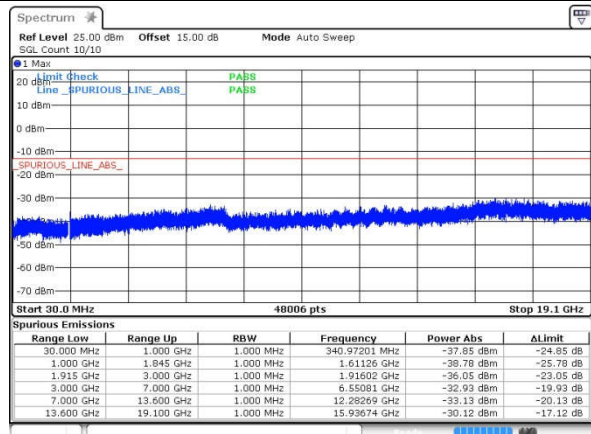
Date: 23 MAR 2017 04:16:38

Highest Channel



Date: 23 MAR 2017 03:56:10

Highest Channel

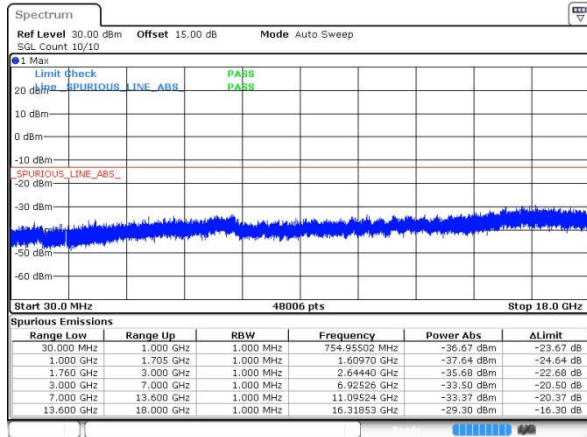


Date: 23 MAR 2017 04:18:02



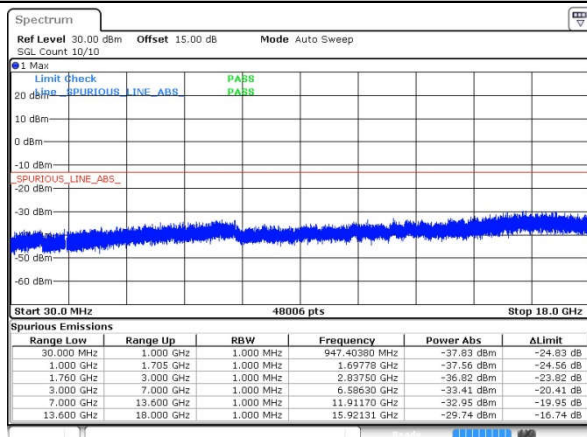
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



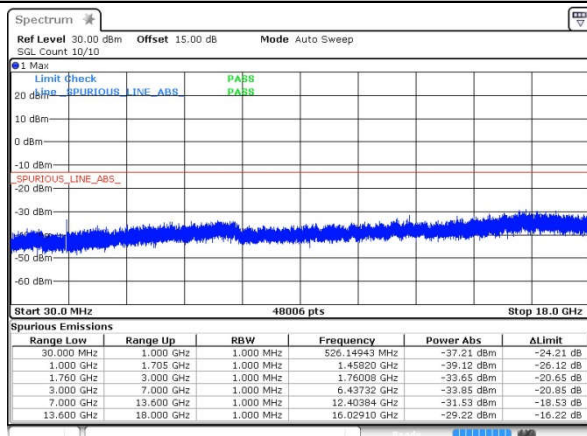
Date: 23 MAR 2017 04:35:13

Middle Channel



Date: 23 MAR 2017 04:36:34

Highest Channel



Date: 23 MAR 2017 04:37:51

**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	0.0036	0.0048	PASS
40	Normal Voltage	0.0012	0.0036	
30	Normal Voltage	0.0012	0.0108	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0036	0.0060	
0	Normal Voltage	0.0132	0.0096	
-10	Normal Voltage	0.0108	0.0084	
-20	Normal Voltage	0.0120	0.0036	
-30	Normal Voltage	0.0060	0.0024	
20	Maximum Voltage	0.0072	0.0036	
20	Normal Voltage	0.0108	0.0012	
20	Battery End Point	0.0060	0.0120	

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	0.0191	PASS
40	Normal Voltage	0.0005	0.0202	
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	0.0021	
-10	Normal Voltage	0.0154	0.0197	
-20	Normal Voltage	0.0032	0.0021	
-30	Normal Voltage	0.0160	0.0223	
20	Maximum Voltage	0.0144	0.0128	
20	Normal Voltage	0.0133	0.0133	
20	Battery End Point	0.0048	0.0186	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 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	WCDMA Band V (RMC 12.2KbpsRMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0060	PASS
40	Normal Voltage	0.0036	
30	Normal Voltage	0.0048	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0084	
0	Normal Voltage	0.0239	
-10	Normal Voltage	0.0108	
-20	Normal Voltage	0.0143	
-30	Normal Voltage	0.0155	
20	Maximum Voltage	0.0132	
20	Normal Voltage	0.0084	
20	Battery End Point	0.0048	

Note: Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.4 V

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	0.0016	
-20	Normal Voltage	0.0032	
-30	Normal Voltage	0.0059	
20	Maximum Voltage	0.0090	
20	Normal Voltage	0.0016	
20	Battery End Point	0.0059	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 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	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0046	PASS
40	Normal Voltage	0.0075	
30	Normal Voltage	0.0092	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0069	
0	Normal Voltage	0.0075	
-10	Normal Voltage	0.0058	
-20	Normal Voltage	0.0075	
-30	Normal Voltage	0.0046	
20	Maximum Voltage	0.0058	
20	Normal Voltage	0.0012	
20	Battery End Point	0.0006	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Appendix B. Test Results of Radiated Test

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)
Lowest	1648.4	-40.15	-13	-27.15	-47.48	-46.84	0.56	9.40	H
	2472.6	-47.93	-13	-34.93	-59.39	-55.64	0.74	10.60	H
	3296.8	-55.96	-13	-42.96	-69.40	-65.56	0.85	12.60	H
	1648.4	-45.63	-13	-32.63	-53.01	-52.32	0.56	9.40	V
	2472.6	-49.93	-13	-36.93	-60.98	-57.64	0.74	10.60	V
	3296.8	-60.14	-13	-47.14	-73.77	-69.74	0.85	12.60	V
Middle	1672.8	-40.62	-13	-27.62	-47.75	-47.31	0.56	9.40	H
	2509.2	-47.17	-13	-34.17	-58.56	-54.88	0.74	10.60	H
	3345.6	-55.01	-13	-42.01	-68.29	-64.61	0.85	12.60	H
	4182	-59.26	-13	-46.26	-75.67	-68.82	0.89	12.60	H
	1672.8	-44.18	-13	-31.18	-51.31	-50.87	0.56	9.40	V
	2509.2	-49.85	-13	-36.85	-60.84	-57.56	0.74	10.60	V
	3345.6	-59.40	-13	-46.40	-72.91	-69.00	0.85	12.60	V
	4182	-61.14	-13	-48.14	-77.79	-70.70	0.89	12.60	V
Highest	1697.6	-38.31	-13	-25.31	-45.58	-45.00	0.56	9.40	H
	2546.4	-51.10	-13	-38.10	-62.22	-58.81	0.74	10.60	H
	3395.2	-53.99	-13	-40.99	-67.17	-63.59	0.85	12.60	H
	1697.6	-47.83	-13	-34.83	-55.10	-54.52	0.56	9.40	V
	2546.4	-51.96	-13	-38.96	-62.86	-59.67	0.74	10.60	V
	3395.2	-58.98	-13	-45.98	-72.51	-68.58	0.85	12.60	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)
Lowest	1648.4	-39.74	-13	-26.74	-47.07	-46.43	0.56	9.40	H
	2472.6	-47.80	-13	-34.80	-59.26	-55.51	0.74	10.60	H
	3296.8	-55.36	-13	-42.36	-68.80	-64.96	0.85	12.60	H
	1648.4	-46.47	-13	-33.47	-53.85	-53.16	0.56	9.40	V
	2472.6	-47.43	-13	-34.43	-58.48	-55.14	0.74	10.60	V
	3296.8	-58.12	-13	-45.12	-71.75	-67.72	0.85	12.60	V
Middle	1672.8	-37.66	-13	-24.66	-44.79	-44.35	0.56	9.40	H
	2509.2	-48.09	-13	-35.09	-59.48	-55.80	0.74	10.60	H
	3345.6	-56.09	-13	-43.09	-69.37	-65.69	0.85	12.60	H
	4182	-59.58	-13	-46.58	-75.99	-69.14	0.89	12.60	H
	1672.8	-49.26	-13	-36.26	-56.39	-55.95	0.56	9.40	V
	2509.2	-49.63	-13	-36.63	-60.62	-57.34	0.74	10.60	V
	3345.6	-60.01	-13	-47.01	-73.52	-69.61	0.85	12.60	V
	4182	-60.53	-13	-47.53	-77.18	-70.09	0.89	12.60	V
Highest	1697.6	-38.65	-13	-25.65	-45.92	-45.34	0.56	9.40	H
	2546.4	-49.67	-13	-36.67	-60.79	-57.38	0.74	10.60	H
	3395.2	-54.93	-13	-41.93	-68.11	-64.53	0.85	12.60	H
	4244	-59.61	-13	-46.61	-76.32	-69.17	0.89	12.60	H
	1697.6	-48.16	-13	-35.16	-55.43	-54.85	0.56	9.40	V
	2546.4	-51.21	-13	-38.21	-62.11	-58.92	0.74	10.60	V
	3395.2	-59.56	-13	-46.56	-73.09	-69.16	0.85	12.60	V
	4244	-61.36	-13	-48.36	-78.40	-70.92	0.89	12.60	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)
Lowest	3700.4	-54.78	-13	-41.78	-70.00	-60.82	6.56	12.60	H
	5550.6	-54.20	-13	-41.20	-73.62	-59.30	8	13.10	H
	7400.8	-37.39	-13	-24.39	-61.79	-39.12	9.57	11.30	H
	9251	-50.66	-13	-37.66	-77.81	-52.11	10.45	11.90	H
	3700.4	-55.76	-13	-42.76	-71.29	-61.80	6.56	12.6	V
	5550.6	-54.87	-13	-41.87	-74.89	-59.97	8	13.1	V
	7400.8	-43.09	-13	-30.09	-67.39	-44.82	9.57	11.3	V
	9251	-51.97	-13	-38.97	-78.37	-53.42	10.45	11.9	V
Middle	3760	-55.36	-13	-42.36	-70.64	-61.40	6.56	12.60	H
	5640	-56.12	-13	-43.12	-75.47	-61.22	8	13.10	H
	7520	-37.38	-13	-24.38	-60.97	-39.11	9.57	11.30	H
	9400	-48.21	-13	-35.21	-75.69	-49.66	10.45	11.90	H
	3760	-54.14	-13	-41.14	-69.69	-60.18	6.56	12.6	V
	5640	-55.00	-13	-42.00	-74.92	-60.10	8	13.1	V
	7520	-43.55	-13	-30.55	-67.19	-45.28	9.57	11.3	V
	9400	-47.25	-13	-34.25	-74.15	-48.70	10.45	11.9	V
Highest	3819.6	-54.04	-13	-41.04	-69.45	-60.08	6.56	12.60	H
	5729.4	-55.51	-13	-42.51	-75.12	-60.61	8	13.10	H
	7639.2	-43.42	-13	-30.42	-66.53	-45.15	9.57	11.30	H
	9549	-43.10	-13	-30.10	-71.26	-44.55	10.45	11.90	H
	3819.6	-51.64	-13	-38.64	-67.27	-57.68	6.56	12.6	V
	5729.4	-56.35	-13	-43.35	-76.66	-61.45	8	13.1	V
	7639.2	-44.48	-13	-31.48	-67.72	-46.21	9.57	11.3	V
	9549	-50.45	-13	-37.45	-77.48	-51.90	10.45	11.9	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)
Lowest	3700.4	-53.27	-13	-40.27	-68.49	-59.31	6.56	12.60	H
	5550.6	-55.78	-13	-42.78	-75.20	-60.88	8	13.10	H
	7400.8	-36.11	-13	-23.11	-60.51	-37.84	9.57	11.30	H
	9251	-51.16	-13	-38.16	-78.31	-52.61	10.45	11.90	H
	3700.4	-53.33	-13	-40.33	-68.86	-59.37	6.56	12.6	V
	5550.6	-53.31	-13	-40.31	-73.33	-58.41	8	13.1	V
	7400.8	-44.54	-13	-31.54	-68.84	-46.27	9.57	11.3	V
	9251	-52.92	-13	-39.92	-79.32	-54.37	10.45	11.9	V
Middle	3760	-49.24	-13	-36.24	-64.52	-55.28	6.56	12.60	H
	5640	-55.80	-13	-42.80	-75.15	-60.90	8	13.10	H
	7520	-37.13	-13	-24.13	-60.72	-38.86	9.57	11.30	H
	9400	-46.50	-13	-33.50	-73.98	-47.95	10.45	11.90	H
	3760	-52.11	-13	-39.11	-67.66	-58.15	6.56	12.6	V
	5640	-54.42	-13	-41.42	-74.34	-59.52	8	13.1	V
	7520	-44.30	-13	-31.30	-67.94	-46.03	9.57	11.3	V
	9400	-50.61	-13	-37.61	-77.51	-52.06	10.45	11.9	V
Highest	3819.6	-53.16	-13	-40.16	-68.57	-59.20	6.56	12.60	H
	5729.4	-57.23	-13	-44.23	-76.84	-62.33	8	13.10	H
	7639.2	-43.21	-13	-30.21	-66.32	-44.94	9.57	11.30	H
	9549	-48.13	-13	-35.13	-76.29	-49.58	10.45	11.90	H
	3819.6	-51.48	-13	-38.48	-67.11	-57.52	6.56	12.6	V
	5729.4	-55.03	-13	-42.03	-75.34	-60.13	8	13.1	V
	7639.2	-44.92	-13	-31.92	-68.16	-46.65	9.57	11.3	V
	9549	-47.97	-13	-34.97	-75	-49.42	10.45	11.9	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)
Lowest	1652.8	-57.36	-13	-44.36	-64.72	-64.05	0.56	9.40	H
	2479.2	-64.23	-13	-51.23	-75.69	-71.94	0.74	10.60	H
	3305.6	-63.41	-13	-50.41	-76.80	-73.01	0.85	12.60	H
	1652.8	-58.75	-13	-45.75	-66.16	-65.44	0.56	9.40	V
	2479.2	-64.70	-13	-51.70	-75.75	-72.41	0.74	10.60	V
	3305.6	-63.30	-13	-50.30	-76.89	-72.90	0.85	12.60	V
Middle	1672.8	-57.02	-13	-44.02	-64.15	-63.71	0.56	9.40	H
	2509.2	-63.49	-13	-50.49	-74.88	-71.20	0.74	10.60	H
	3345.6	-63.09	-13	-50.09	-76.37	-72.69	0.85	12.60	H
	1672.8	-58.11	-13	-45.11	-65.24	-64.80	0.56	9.40	V
	2509.2	-63.81	-13	-50.81	-74.80	-71.52	0.74	10.60	V
	3345.6	-62.82	-13	-49.82	-76.33	-72.42	0.85	12.60	V
Highest	1693.2	-53.00	-13	-40.00	-60.27	-59.69	0.56	9.40	H
	2539.8	-62.95	-13	-49.95	-74.06	-70.66	0.74	10.60	H
	3386.4	-63.13	-13	-50.13	-76.35	-72.73	0.85	12.60	H
	1693.2	-55.90	-13	-42.90	-63.17	-62.59	0.56	9.40	V
	2539.8	-63.98	-13	-50.98	-74.87	-71.69	0.74	10.60	V
	3386.4	-62.48	-13	-49.48	-76.00	-72.08	0.85	12.60	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)
Lowest	3704.8	-56.36	-13	-43.36	-71.58	-62.40	6.56	12.60	H
	5557.2	-59.14	-13	-46.14	-78.56	-64.24	8	13.10	H
	7409.6	-54.43	-13	-41.43	-78.83	-56.16	9.57	11.30	H
	3704.8	-61.10	-13	-48.10	-76.63	-67.14	6.56	12.6	V
	5557.2	-58.73	-13	-45.73	-78.75	-63.83	8	13.1	V
	7409.6	-54.96	-13	-41.96	-79.26	-56.69	9.57	11.3	V
Middle	3760	-56.11	-13	-43.11	-71.39	-62.15	6.56	12.60	H
	5640	-60.22	-13	-47.22	-79.57	-65.32	8	13.10	H
	7520	-55.80	-13	-42.80	-79.39	-57.53	9.57	11.30	H
	3760	-57.95	-13	-44.95	-73.5	-63.99	6.56	12.6	V
	5640	-59.90	-13	-46.90	-79.82	-65.00	8	13.1	V
	7520	-55.81	-13	-42.81	-79.45	-57.54	9.57	11.3	V
Highest	3815.2	-59.82	-13	-46.82	-75.22	-65.86	6.56	12.60	H
	5722.8	-59.09	-13	-46.09	-78.70	-64.19	8	13.10	H
	7630.4	-55.81	-13	-42.81	-78.89	-57.54	9.57	11.30	H
	3815.2	-57.93	-13	-44.93	-73.55	-63.97	6.56	12.6	V
	5722.8	-58.65	-13	-45.65	-78.96	-63.75	8	13.1	V
	7630.4	-55.55	-13	-42.55	-78.76	-57.28	9.57	11.3	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)
Lowest	3424.8	-55.34	-13	-42.34	-68.84	-61.76	6.18	12.60	H
	5137.2	-58.25	-13	-45.25	-77.59	-63.21	7.74	12.70	H
	6849.6	-56.88	-13	-43.88	-78.46	-59.58	9	11.70	H
	3424.8	-52.91	-13	-39.91	-66.76	-59.33	6.18	12.60	V
	5137.2	-58.57	-13	-45.57	-78.64	-63.53	7.74	12.70	V
	6849.6	-56.50	-13	-43.50	-78.68	-59.20	9	11.70	V
Middle	3465.2	-58.04	-13	-45.04	-71.86	-64.46	6.18	12.60	H
	5197.8	-59.42	-13	-46.42	-78.75	-64.38	7.74	12.70	H
	6930.4	-56.77	-13	-43.77	-78.96	-59.47	9	11.70	H
	3465.2	-58.59	-13	-45.59	-72.77	-65.01	6.18	12.60	V
	5197.8	-59.24	-13	-46.24	-79.24	-64.20	7.74	12.70	V
	6930.4	-56.47	-13	-43.47	-79.19	-59.17	9	11.70	V
Highest	3505.2	-56.79	-13	-43.79	-70.92	-63.21	6.18	12.60	H
	5257.8	-59.16	-13	-46.16	-78.20	-64.12	7.74	12.70	H
	7010.4	-56.06	-13	-43.06	-78.85	-58.76	9	11.70	H
	3505.2	-56.07	-13	-43.07	-70.57	-62.49	6.18	12.60	V
	5257.8	-59.02	-13	-46.02	-78.46	-63.98	7.74	12.70	V
	7010.4	-55.88	-13	-42.88	-79.13	-58.58	9	11.70	V

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