

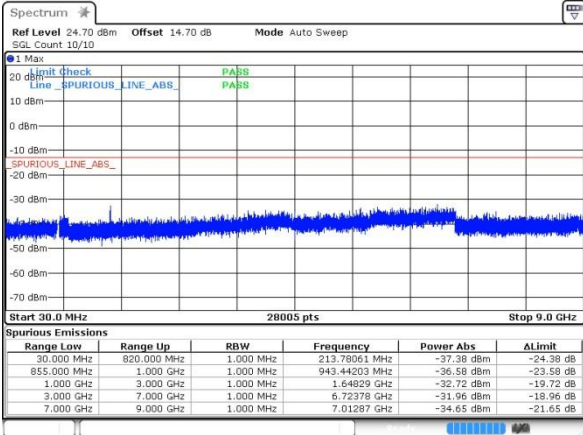


Conducted Spurious Emission



GSM850 (GSM)

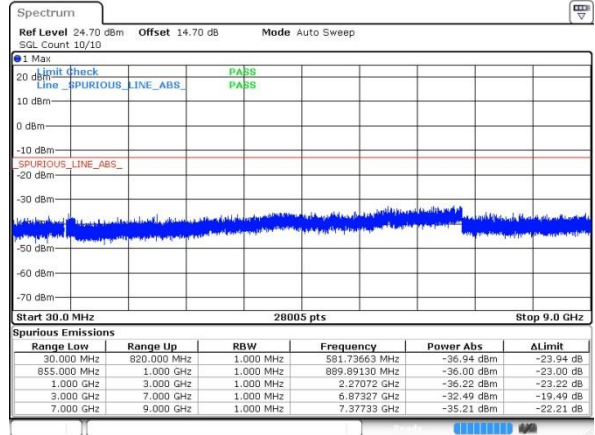
Lowest Channel



Date: 26 JUN 2019 02:03:09

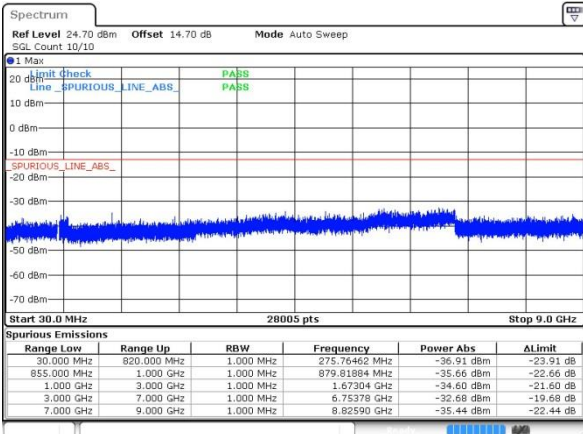
GSM850 (EDGE class 8)

Lowest Channel



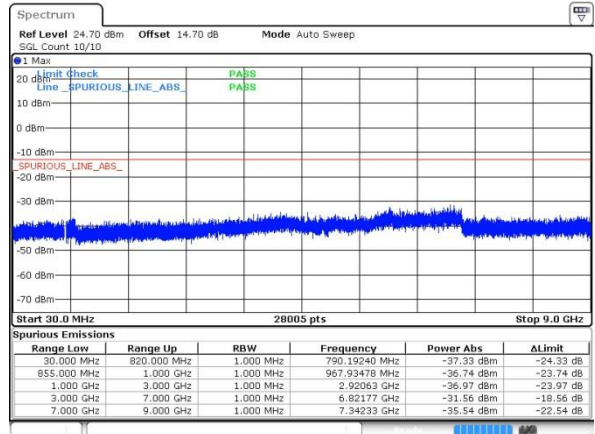
Date: 26 JUN 2019 03:18:02

Middle Channel



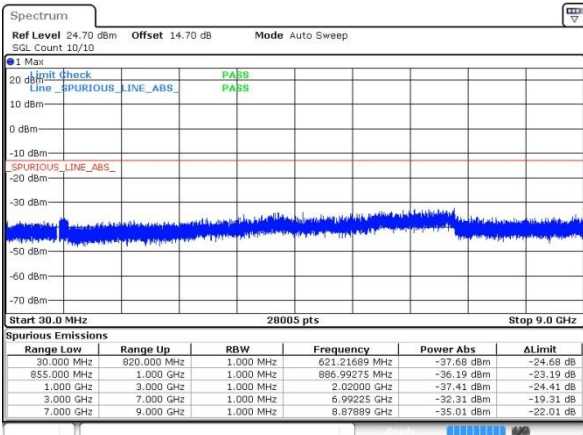
Date: 26 JUN 2019 02:04:28

Middle Channel



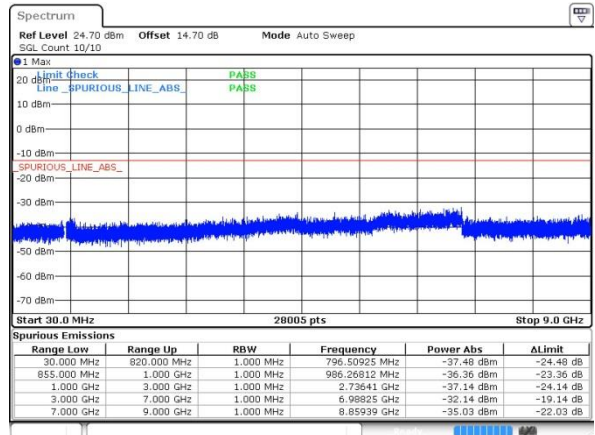
Date: 26 JUN 2019 03:21:21

Highest Channel



Date: 26 JUN 2019 02:05:46

Highest Channel

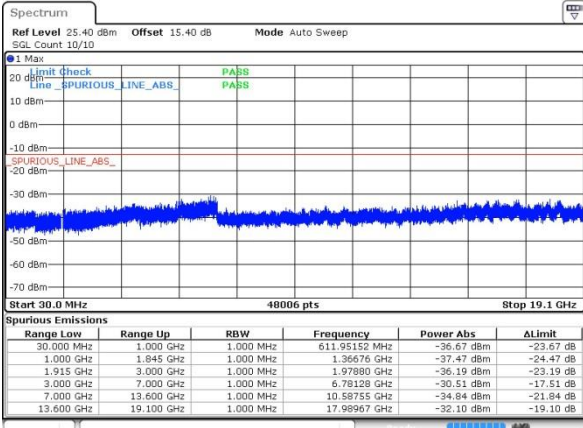


Date: 26 JUN 2019 03:22:47



GSM1900 (GSM)

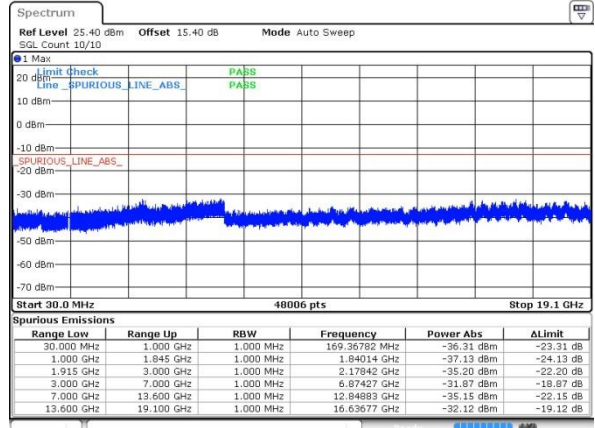
Lowest Channel



Date: 26 JUN 2019 04:10:53

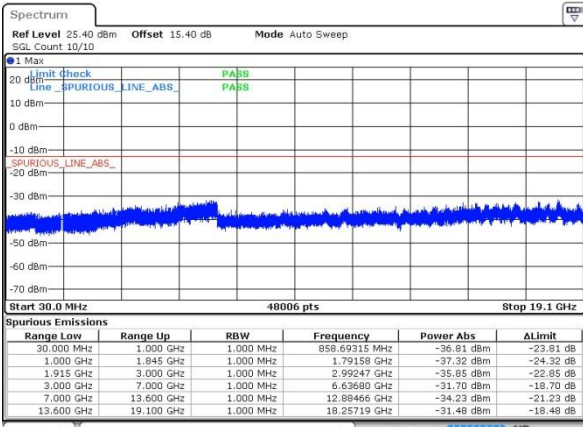
GSM1900 (EDGE class 8)

Lowest Channel



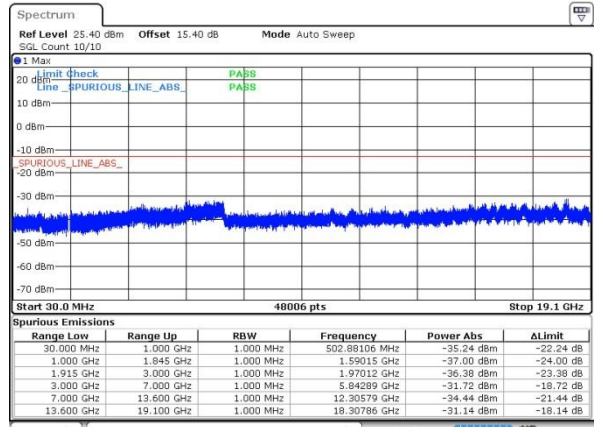
Date: 26 JUN 2019 05:04:37

Middle Channel



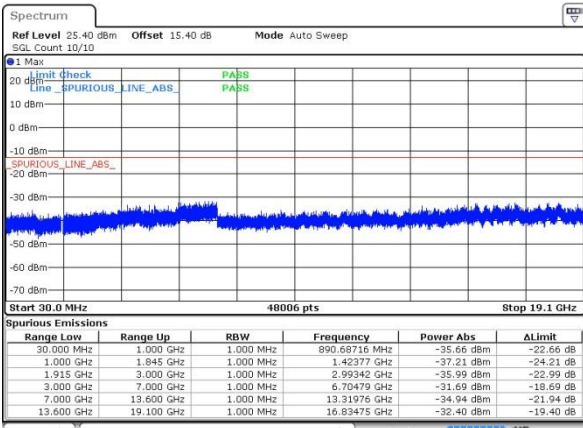
Date: 26 JUN 2019 04:12:14

Middle Channel



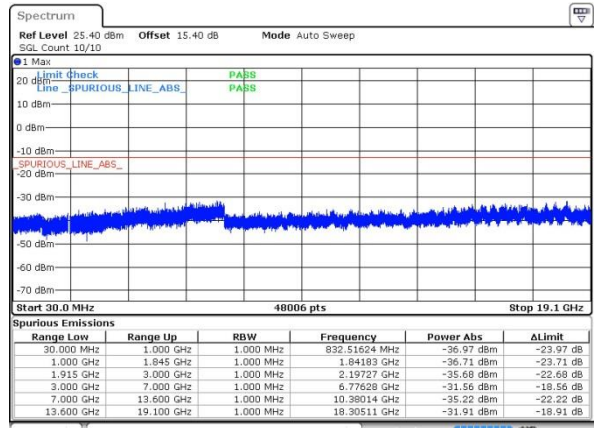
Date: 26 JUN 2019 05:07:19

Highest Channel



Date: 26 JUN 2019 04:13:46

Highest Channel

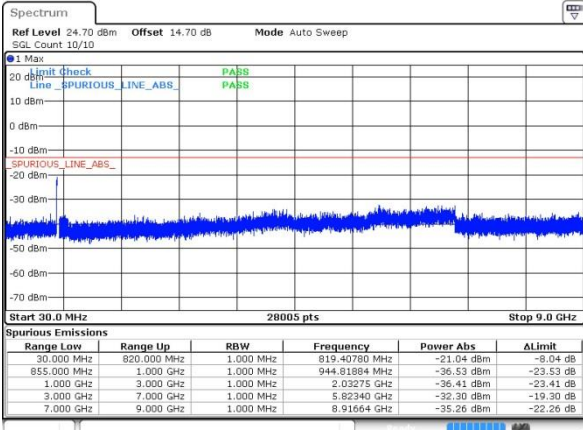


Date: 26 JUN 2019 05:08:42



WCDMA Band V (RMC 12.2Kbps)

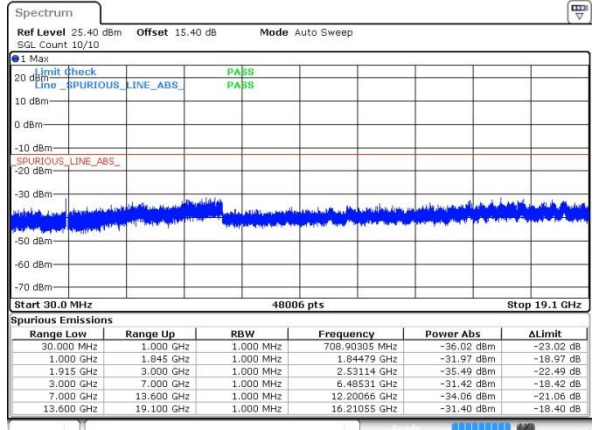
Lowest Channel



Date: 26 JUN 2019 07:33:12

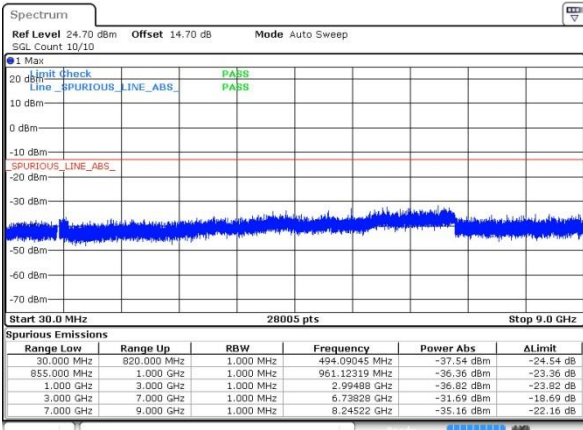
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



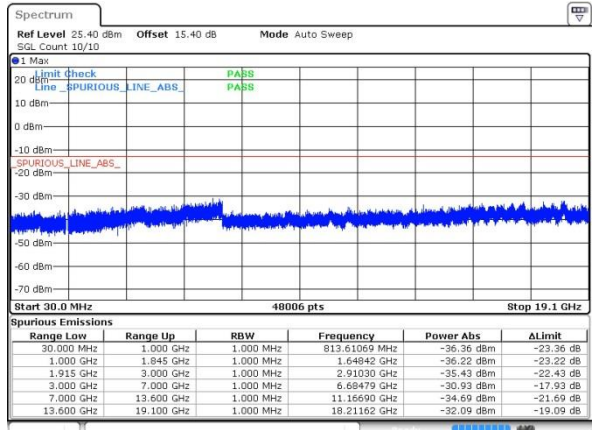
Date: 26 JUN 2019 06:34:19

Middle Channel



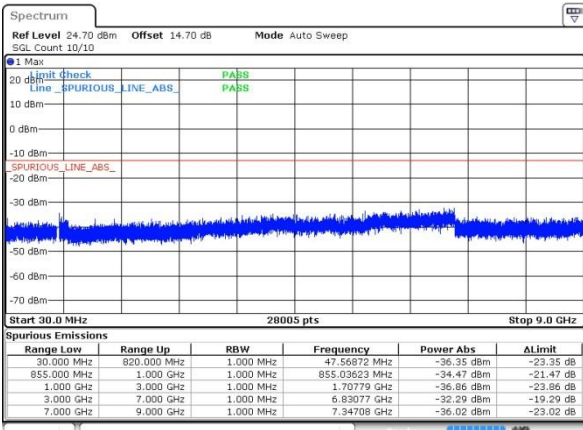
Date: 26 JUN 2019 07:38:35

Middle Channel



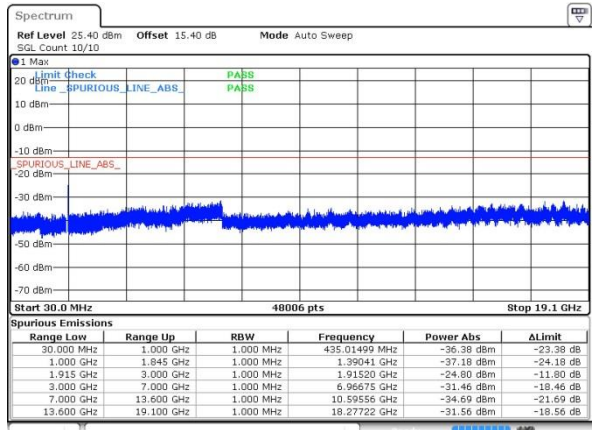
Date: 26 JUN 2019 06:35:45

Highest Channel

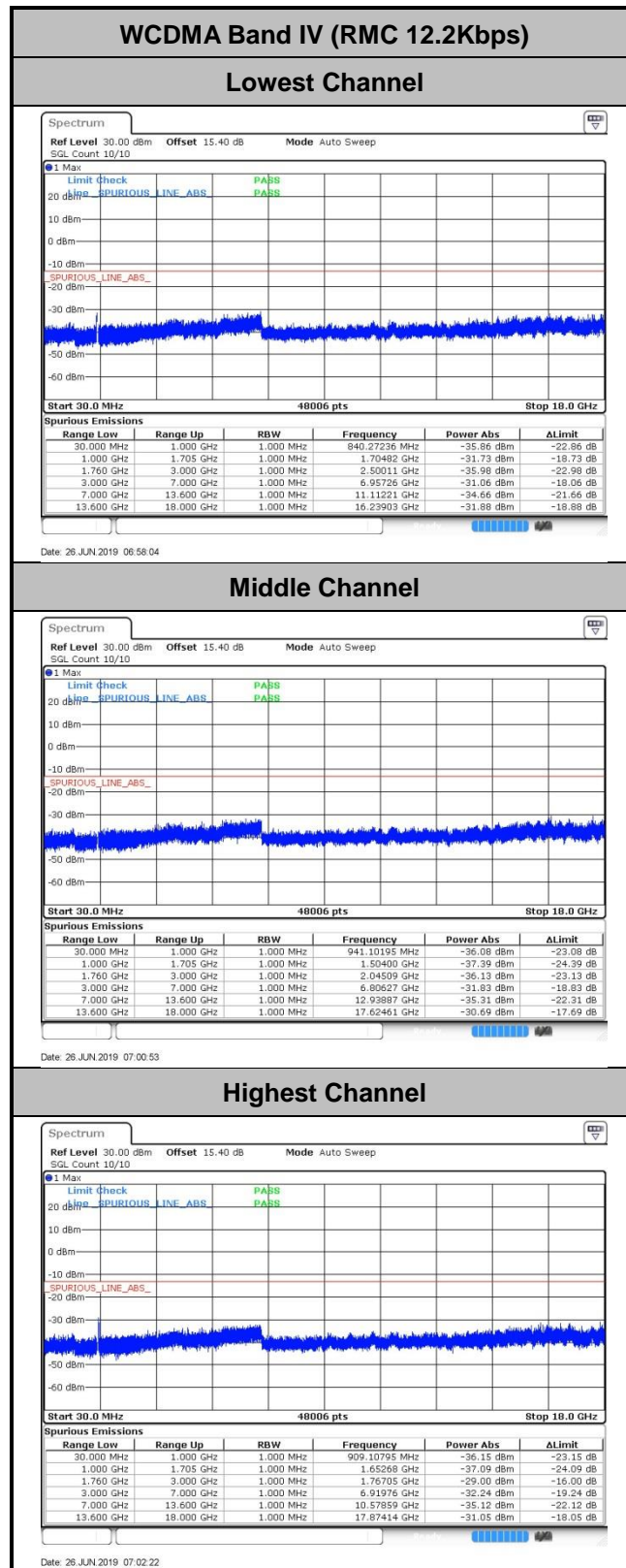


Date: 26 JUN 2019 07:40:03

Highest Channel



Date: 26 JUN 2019 06:37:10





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	0.0132	0.0311	PASS
40	Normal Voltage	0.0072	0.0024	
30	Normal Voltage	0.0203	0.0132	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0048	0.0251	
0	Normal Voltage	0.0108	0.0215	
-10	Normal Voltage	0.0263	0.0072	
-20	Normal Voltage	0.0132	0.0012	
-30	Normal Voltage	0.0239	0.0275	
20	Maximum Voltage	0.0036	0.0060	
20	Normal Voltage	0.0096	0.0012	
20	Battery End Point	0.0191	0.0179	

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0037	0.0005	PASS
40	Normal Voltage	0.0069	0.0032	
30	Normal Voltage	0.0096	0.0170	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0138	0.0149	
0	Normal Voltage	0.0074	0.0011	
-10	Normal Voltage	0.0064	0.0027	
-20	Normal Voltage	0.0043	0.0059	
-30	Normal Voltage	0.0106	0.0016	
20	Maximum Voltage	0.0011	0.0106	
20	Normal Voltage	0.0027	0.0048	
20	Battery End Point	0.0080	0.0016	



Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0084	PASS
40	Normal Voltage	0.0287	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0096	
0	Normal Voltage	0.0060	
-10	Normal Voltage	0.0191	
-20	Normal Voltage	0.0048	
-30	Normal Voltage	0.0036	
20	Maximum Voltage	0.0036	
20	Normal Voltage	0.0048	
20	Battery End Point	0.0239	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0027	PASS
40	Normal Voltage	0.0101	
30	Normal Voltage	0.0085	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0165	
0	Normal Voltage	0.0043	
-10	Normal Voltage	0.0074	
-20	Normal Voltage	0.0016	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0117	
20	Normal Voltage	0.0027	
20	Battery End Point	0.0096	



Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0127	PASS
40	Normal Voltage	0.0058	
30	Normal Voltage	0.0092	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0081	
0	Normal Voltage	0.0029	
-10	Normal Voltage	0.0121	
-20	Normal Voltage	0.0081	
-30	Normal Voltage	0.0087	
20	Maximum Voltage	0.0098	
20	Normal Voltage	0.0023	
20	Battery End Point	0.0063	

Note:

1. Normal Voltage = 3.87V ; Battery End Point (BEP) =3.5V. ; Maximum Voltage =4.45V
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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-55.53	-13	-42.53	-62.50	1.58	10.70	H
	2472	-41.28	-13	-28.28	-49.53	2.102	12.50	H
	3294	-64.79	-13	-51.79	-73.68	2.856	13.90	H
	1648	-59.60	-13	-46.60	-66.57	1.58	10.70	V
	2472	-43.49	-13	-30.49	-51.74	2.10	12.50	V
	3294	-64.69	-13	-51.69	-73.58	2.86	13.90	V
Middle	1672	-52.06	-13	-39.06	-59.03	1.58	10.70	H
	2510	-39.21	-13	-26.21	-47.46	2.102	12.50	H
	3345.6	-64.65	-13	-51.65	-73.54	2.856	13.90	H
	4182	-57.14	-13	-44.14	-65.60	2.689	13.30	H
	5016	-61.21	-13	-48.21	-68.97	3.093	13.00	H
	5856	-57.75	-13	-44.75	-66.52	3.178	14.10	H
	1672	-57.53	-13	-44.53	-64.50	1.58	10.70	V
	2510	-40.03	-13	-27.03	-48.28	2.10	12.50	V
	3348	-64.80	-13	-51.80	-73.69	2.86	13.90	V
	4182	-55.55	-13	-42.55	-64.01	2.69	13.30	V
	5016	-60.62	-13	-47.62	-68.38	3.09	13.00	V
5856	-54.97	-13	-41.97	-63.74	3.18	14.10	V	
Highest	1698	-64.16	-13	-51.16	-71.13	1.58	10.70	H
	2546	-36.77	-13	-23.77	-45.02	2.102	12.50	H
	3395.2	-64.98	-13	-51.98	-73.87	2.856	13.90	H
	4242	-53.23	-13	-40.23	-61.69	2.689	13.30	H
	5092.8	-61.27	-13	-48.27	-69.03	3.093	13.00	H
	5940	-55.28	-13	-42.28	-64.05	3.178	14.10	H
	1698	-60.16	-13	-47.16	-67.13	1.58	10.70	V
	2546	-41.08	-13	-28.08	-49.33	2.10	12.50	V
	3396	-64.67	-13	-51.67	-73.56	2.86	13.90	V
	4244	-55.93	-13	-42.93	-64.39	2.69	13.30	V
	5092.8	-61.25	-13	-48.25	-69.01	3.09	13.00	V
	5940	-56.09	-13	-43.09	-64.86	3.18	14.10	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-66.66	-13	-53.66	-73.63	1.58	10.70	H
	2472	-38.75	-13	-25.75	-47.00	2.102	12.50	H
	3294	-64.74	-13	-51.74	-73.63	2.856	13.90	H
	4122	-56.52	-13	-43.52	-64.98	2.689	13.30	H
	1648	-65.71	-13	-52.71	-72.68	1.58	10.70	V
	2472	-35.64	-13	-22.64	-43.89	2.10	12.50	V
	3294	-64.75	-13	-51.75	-73.64	2.86	13.90	V
	4122	-59.37	-13	-46.37	-67.83	2.69	13.30	V
Middle	1672	-63.48	-13	-50.48	-70.45	1.58	10.70	H
	2510	-40.65	-13	-27.65	-48.90	2.102	12.50	H
	3348	-65.09	-13	-52.09	-73.98	2.856	13.90	H
	4182	-55.81	-13	-42.81	-64.27	2.689	13.30	H
	1672	-59.85	-13	-46.85	-66.82	1.58	10.70	V
	2510	-40.46	-13	-27.46	-48.71	2.10	12.50	V
	3348	-64.97	-13	-51.97	-73.86	2.86	13.90	V
	4182	-55.31	-13	-42.31	-63.77	2.69	13.30	V
Highest	1698	-63.82	-13	-50.82	-70.79	1.58	10.70	H
	2546	-38.32	-13	-25.32	-46.57	2.102	12.50	H
	3395.2	-65.23	-13	-52.23	-74.12	2.856	13.90	H
	4242	-47.89	-13	-34.89	-56.35	2.689	13.30	H
	5092.8	-61.37	-13	-48.37	-69.13	3.093	13.00	H
	5940	-54.49	-13	-41.49	-63.26	3.178	14.10	H
	1698	-63.99	-13	-50.99	-70.96	1.58	10.70	V
	2546	-40.29	-13	-27.29	-48.54	2.10	12.50	V
	3396	-64.96	-13	-51.96	-73.85	2.86	13.90	V
	4242	-52.29	-13	-39.29	-60.75	2.69	13.30	V
	5092.8	-60.94	-13	-47.94	-68.70	3.09	13.00	V
	5940	-55.11	-13	-42.11	-63.88	3.18	14.10	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3699	-49.11	-13	-36.11	-61.37	2.641	14.90	H
	5550	-35.03	-13	-22.03	-46.89	2.94	14.80	H
	7398	-52.19	-13	-39.19	-61.96	3.39	13.16	H
	3699	-55.93	-13	-42.93	-68.19	2.64	14.90	V
	5550	-33.41	-13	-20.41	-45.27	2.94	14.80	V
	7398	-51.55	-13	-38.55	-61.32	3.39	13.16	V
Middle	3759	-55.37	-13	-42.37	-67.63	2.641	14.90	H
	5640	-38.81	-13	-25.81	-50.67	2.94	14.80	H
	7524	-52.12	-13	-39.12	-61.89	3.39	13.16	H
	3759	-58.37	-13	-45.37	-70.63	2.64	14.90	V
	5640	-36.14	-13	-23.14	-48.00	2.94	14.80	V
	7524	-51.51	-13	-38.51	-61.28	3.39	13.16	V
Highest	3819	-51.02	-13	-38.02	-63.28	2.641	14.90	H
	5730	-44.97	-13	-31.97	-56.83	2.94	14.80	H
	7644	-52.20	-13	-39.20	-61.97	3.39	13.16	H
	3819	-56.33	-13	-43.33	-68.59	2.64	14.90	V
	5730	-41.30	-13	-28.30	-53.16	2.94	14.80	V
	7644	-51.60	-13	-38.60	-61.37	3.39	13.16	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3699	-50.46	-13	-37.46	-62.72	2.641	14.90	H
	5550	-56.87	-13	-43.87	-68.73	2.94	14.80	H
	7404	-52.37	-13	-39.37	-62.14	3.39	13.16	H
	3699	-49.12	-13	-36.12	-61.38	2.64	14.90	V
	5550	-55.55	-13	-42.55	-67.41	2.94	14.80	V
	7404	-51.56	-13	-38.56	-61.33	3.39	13.16	V
Middle	3759	-49.94	-13	-36.94	-62.20	2.641	14.90	H
	5640	-54.21	-13	-41.21	-66.07	2.94	14.80	H
	7524	-52.05	-13	-39.05	-61.82	3.39	13.16	H
	3759	-52.23	-13	-39.23	-64.49	2.64	14.90	V
	5640	-51.15	-13	-38.15	-63.01	2.94	14.80	V
	7524	-51.64	-13	-38.64	-61.41	3.39	13.16	V
Highest	3819	-50.77	-13	-37.77	-63.03	2.641	14.90	H
	5730	-51.76	-13	-38.76	-63.62	2.94	14.80	H
	7644	-52.22	-13	-39.22	-61.99	3.39	13.16	H
	3819	-56.64	-13	-43.64	-68.90	2.64	14.90	V
	5730	-48.04	-13	-35.04	-59.90	2.94	14.80	V
	7644	-51.41	-13	-38.41	-61.18	3.39	13.16	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1652	-69.14	-13	-56.14	-76.11	1.58	10.70	H
	2479.2	-63.65	-13	-50.65	-71.90	2.102	12.50	H
	3306	-64.95	-13	-51.95	-73.84	2.856	13.90	H
	1652.8	-69.89	-13	-56.89	-76.86	1.58	10.70	V
	2480	-64.34	-13	-51.34	-72.59	2.10	12.50	V
	3306	-64.95	-13	-51.95	-73.84	2.86	13.90	V
Middle	1672	-69.61	-13	-56.61	-76.58	1.58	10.70	H
	2512	-56.19	-13	-43.19	-64.44	2.102	12.50	H
	3348	-64.98	-13	-51.98	-73.87	2.856	13.90	H
	1672.8	-69.47	-13	-56.47	-76.44	1.58	10.70	V
	2512	-57.12	-13	-44.12	-65.37	2.10	12.50	V
	3348	-64.98	-13	-51.98	-73.87	2.86	13.90	V
Highest	1694	-69.40	-13	-56.40	-76.37	1.58	10.70	H
	2539.8	-62.06	-13	-49.06	-70.31	2.102	12.50	H
	3384	-65.04	-13	-52.04	-73.93	2.856	13.90	H
	1693.2	-69.22	-13	-56.22	-76.19	1.58	10.70	V
	2540	-64.62	-13	-51.62	-72.87	2.10	12.50	V
	3384	-64.76	-13	-51.76	-73.65	2.86	13.90	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3705	-60.54	-13	-47.54	-72.80	2.641	14.90	H
	5556	-58.68	-13	-45.68	-70.54	2.94	14.80	H
	7404	-52.53	-13	-39.53	-62.30	3.39	13.16	H
	3705	-60.10	-13	-47.10	-72.36	2.64	14.90	V
	5556	-58.06	-13	-45.06	-69.92	2.94	14.80	V
	7404	-51.91	-13	-38.91	-61.68	3.39	13.16	V
Middle	3759	-59.95	-13	-46.95	-72.21	2.641	14.90	H
	5640	-57.01	-13	-44.01	-68.87	2.94	14.80	H
	7524	-52.50	-13	-39.50	-62.27	3.39	13.16	H
	3759	-59.21	-13	-46.21	-71.47	2.64	14.90	V
	5640	-57.38	-13	-44.38	-69.24	2.94	14.80	V
	7524	-51.80	-13	-38.80	-61.57	3.39	13.16	V
Highest	3816	-60.39	-13	-47.39	-72.65	2.641	14.90	H
	5724	-57.48	-13	-44.48	-69.34	2.94	14.80	H
	7632	-51.73	-13	-38.73	-61.50	3.39	13.16	H
	3816	-59.83	-13	-46.83	-72.09	2.64	14.90	V
	5724	-56.97	-13	-43.97	-68.83	2.94	14.80	V
	7632	-51.30	-13	-38.30	-61.07	3.39	13.16	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3426	-62.75	-13	-49.75	-73.49	2.604	13.34	H
	5136	-59.01	-13	-46.01	-69.52	3.011	13.52	H
	6852	-54.84	-13	-41.84	-65.04	3.271	13.47	H
	3426	-63.03	-13	-50.03	-73.77	2.604	13.34	V
	5136	-58.69	-13	-45.69	-69.20	3.011	13.52	V
	6852	-55.07	-13	-42.07	-65.27	3.271	13.47	V
Middle	3465	-63.07	-13	-50.07	-73.81	2.604	13.34	H
	5199	-55.64	-13	-42.64	-66.15	3.011	13.52	H
	6936	-54.17	-13	-41.17	-64.37	3.271	13.47	H
	3465	-63.18	-13	-50.18	-73.92	2.604	13.34	V
	5199	-55.01	-13	-42.01	-65.52	3.011	13.52	V
	6936	-53.95	-13	-40.95	-64.15	3.271	13.47	V
Highest	3504	-62.76	-13	-49.76	-73.50	2.604	13.34	H
	5259	-58.92	-13	-45.92	-69.43	3.011	13.52	H
	7008	-52.62	-13	-39.62	-62.82	3.271	13.47	H
	3504	-62.99	-13	-49.99	-73.73	2.604	13.34	V
	5259	-58.70	-13	-45.70	-69.21	3.011	13.52	V
	7008	-52.87	-13	-39.87	-63.07	3.271	13.47	V

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