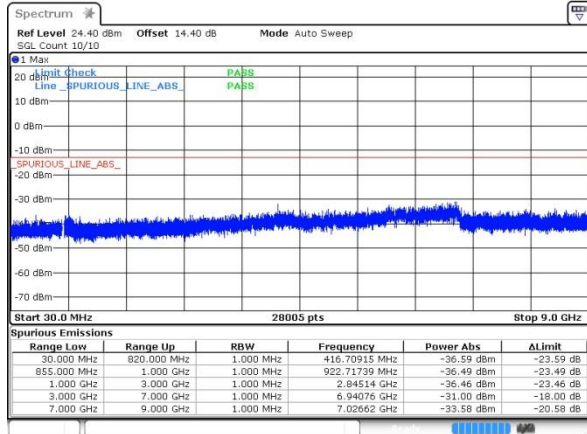




Conducted Spurious Emission

GSM850 (GSM)

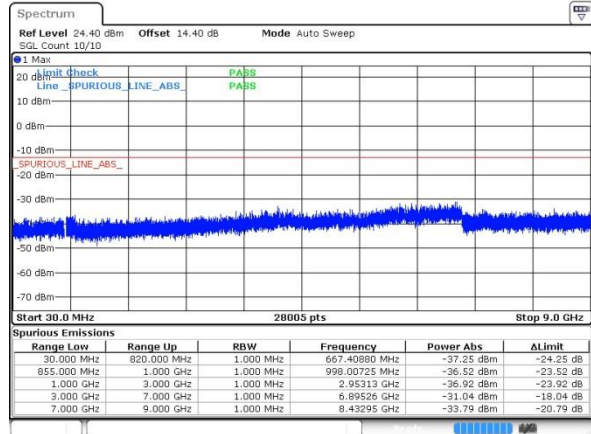
Lowest Channel



Date: 16 MAY 2018 08:58:26

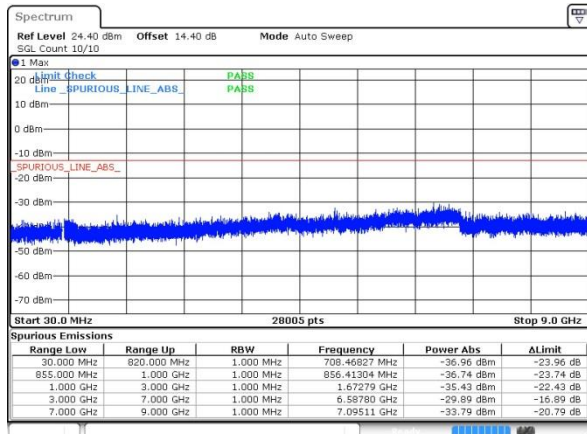
GSM850 (EDGE class 8)

Lowest Channel



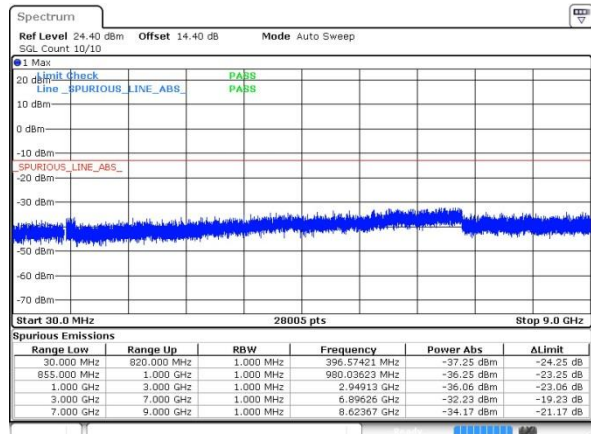
Date: 16 MAY 2018 14:08:03

Middle Channel



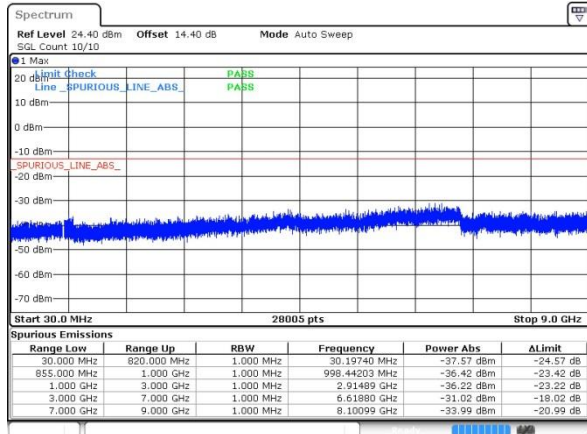
Date: 16 MAY 2018 08:59:43

Middle Channel



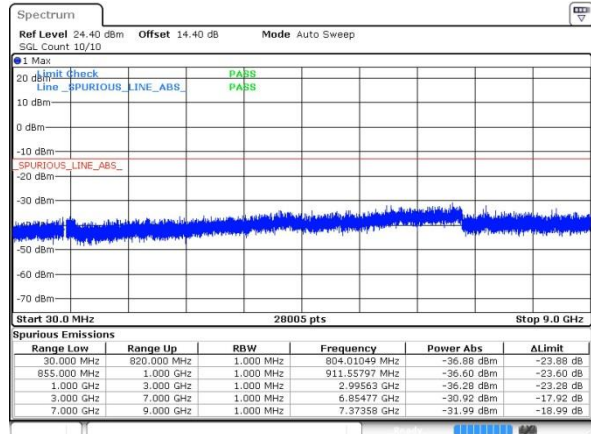
Date: 16 MAY 2018 14:09:21

Highest Channel



Date: 16 MAY 2018 09:01:01

Highest Channel

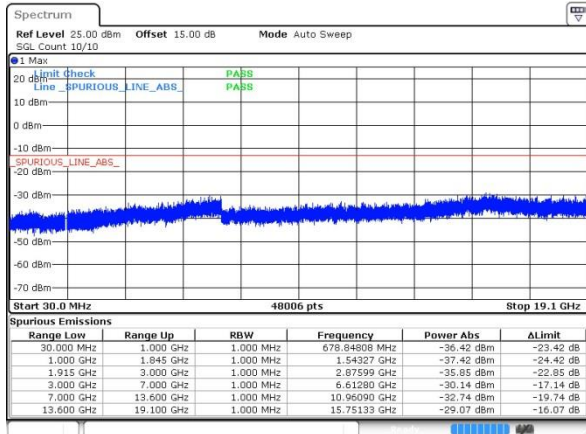


Date: 16 MAY 2018 14:11:02



GSM1900 (GSM)

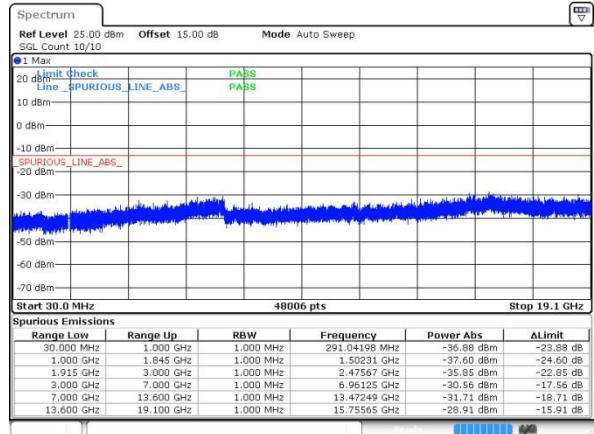
Lowest Channel



Date: 16 MAY 2018 09:22:53

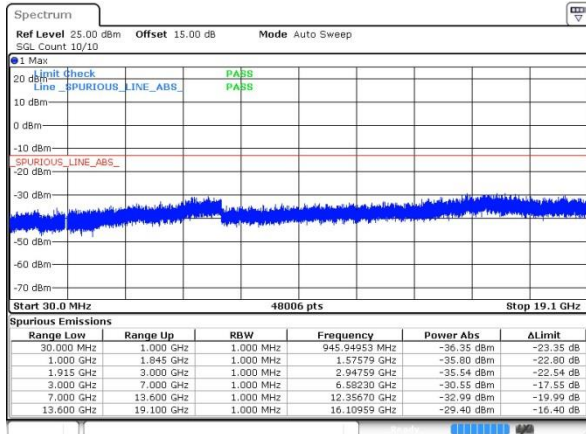
GSM1900 (EDGE class 8)

Lowest Channel

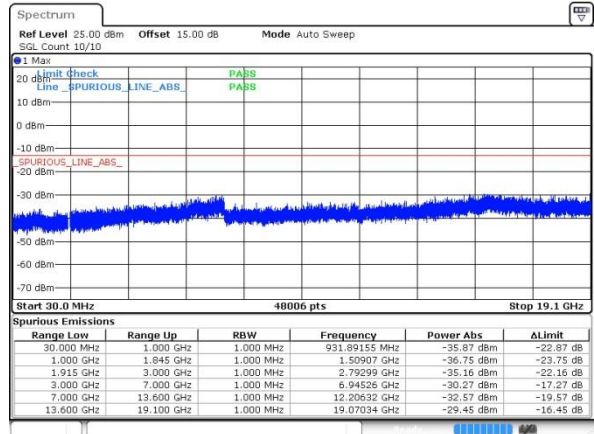


Date: 16 MAY 2018 14:32:12

Middle Channel

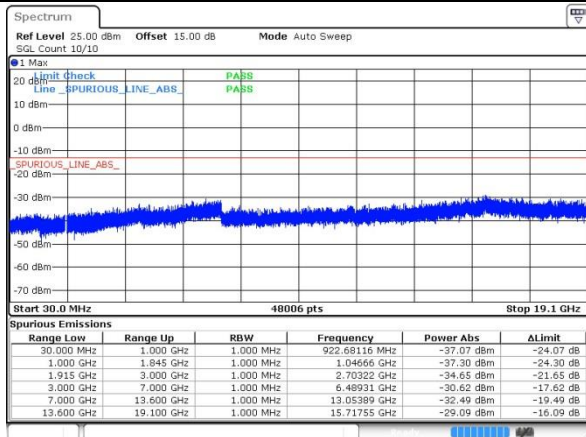


Date: 16 MAY 2018 09:24:10

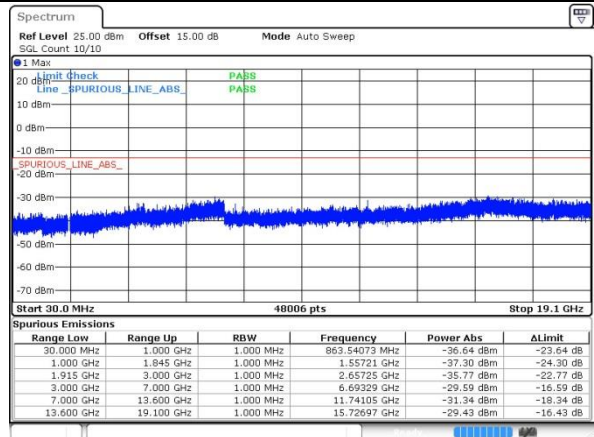


Date: 16 MAY 2018 14:33:30

Highest Channel



Date: 16 MAY 2018 09:25:28

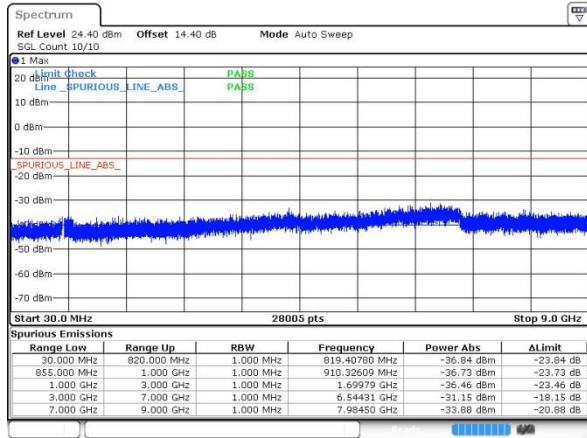


Date: 16 MAY 2018 14:34:54



WCDMA Band V (RMC 12.2Kbps)

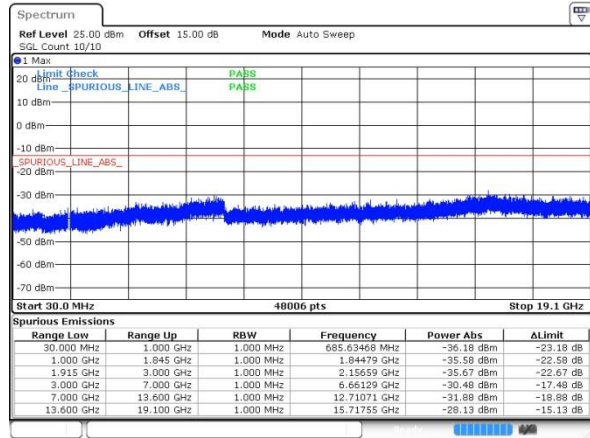
Lowest Channel



Date: 16 MAY 2018 09:41:22

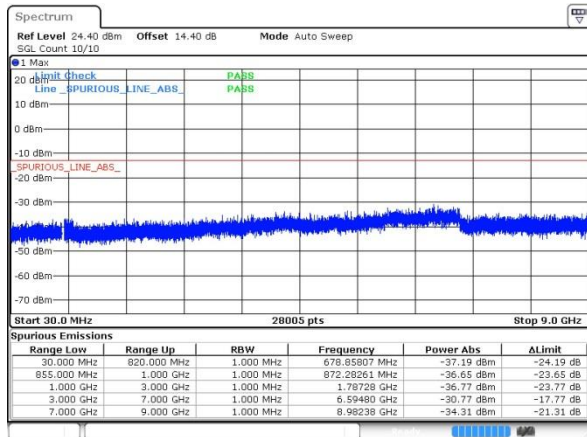
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



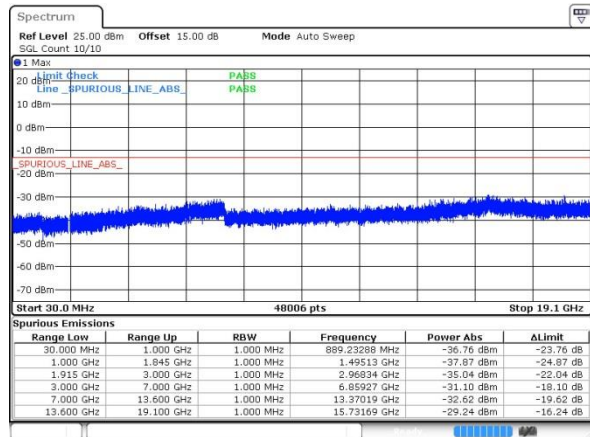
Date: 16 MAY 2018 10:00:50

Middle Channel



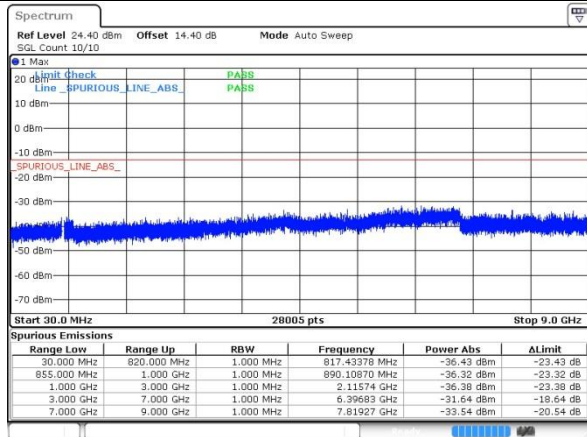
Date: 16 MAY 2018 09:42:40

Middle Channel



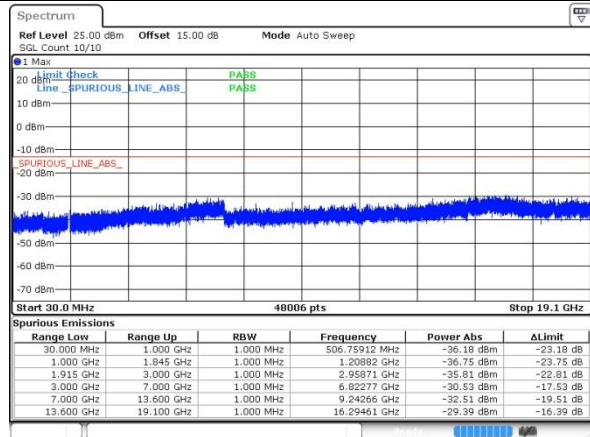
Date: 16 MAY 2018 10:02:08

Highest Channel



Date: 16 MAY 2018 09:43:57

Highest Channel

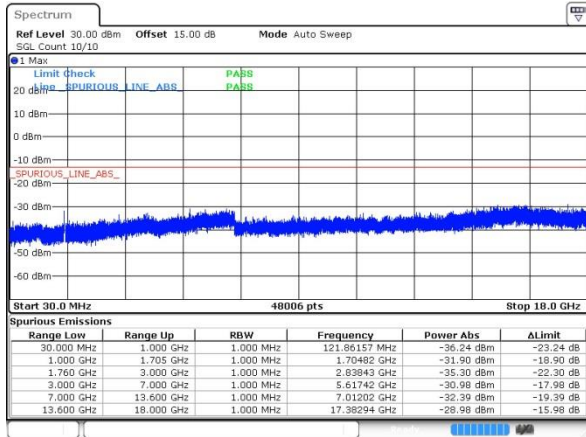


Date: 16 MAY 2018 10:03:26



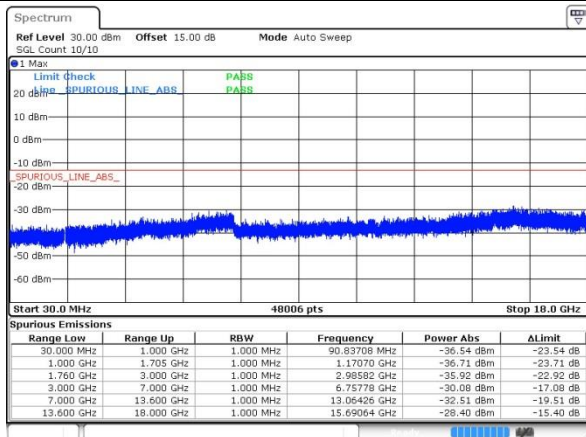
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



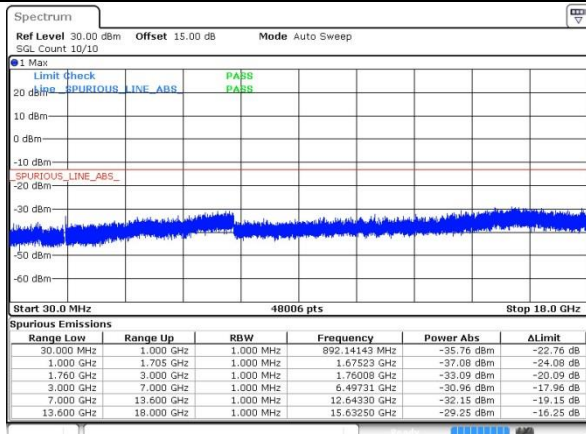
Date: 16 MAY 2018 10:19:28

Middle Channel



Date: 16 MAY 2018 10:20:45

Highest Channel



Date: 16 MAY 2018 10:22:02

**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	0.0012	PASS
40	Normal Voltage	0.0407	0.0072	
30	Normal Voltage	0.0012	0.0442	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0371	0.0598	
0	Normal Voltage	0.0227	0.0478	
-10	Normal Voltage	0.0215	0.0371	
-20	Normal Voltage	0.0012	0.0072	
-30	Normal Voltage	0.0024	0.0383	
20	Maximum Voltage	0.0036	0.0287	
20	Normal Voltage	0.0036	0.0036	
20	Battery End Point	0.0191	0.0263	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) =3.435V. ; Maximum Voltage =4.4 V



Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit
				Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0170	0.0239	PASS
40	Normal Voltage	0.0011	0.0021	
30	Normal Voltage	0.0048	0.0032	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0176	0.0011	
0	Normal Voltage	0.0138	0.0000	
-10	Normal Voltage	0.0016	0.0011	
-20	Normal Voltage	0.0133	0.0053	
-30	Normal Voltage	0.0016	0.0032	
20	Maximum Voltage	0.0160	0.0048	
20	Normal Voltage	0.0005	0.0128	
20	Battery End Point	0.0037	0.0138	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) =3.435V. ; 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 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0036	PASS
40	Normal Voltage	0.0538	
30	Normal Voltage	0.0395	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0179	
0	Normal Voltage	0.0359	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0203	
-30	Normal Voltage	0.0311	
20	Maximum Voltage	0.0514	
20	Normal Voltage	0.0191	
20	Battery End Point	0.0048	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) =3.435V. ; 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	0.0170	PASS
40	Normal Voltage	0.0101	
30	Normal Voltage	0.0021	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0080	
-20	Normal Voltage	0.0032	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0080	
20	Battery End Point	0.0096	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) =3.435V. ; Maximum Voltage =4.4V



Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0167	PASS
40	Normal Voltage	0.0133	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0110	
0	Normal Voltage	0.0075	
-10	Normal Voltage	0.0040	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0069	
20	Maximum Voltage	0.0069	
20	Normal Voltage	0.0098	
20	Battery End Point	0.0023	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) =3.435V. ; 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 Conducted 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	-45.89	-13	-32.89	-48.01	1.333	5.60	H
	2472	-33.60	-13	-20.60	-36.51	1.64	6.70	H
	3294	-56.67	-13	-43.67	-60.03	1.89	7.40	H
	1648	-43.95	-13	-30.95	-46.07	1.33	5.60	V
	2472	-30.78	-13	-17.78	-33.69	1.64	6.70	V
	3294	-55.47	-13	-42.47	-58.83	1.89	7.40	V
Middle	1672	-49.06	-13	-36.06	-51.18	1.333	5.60	H
	2508	-36.17	-13	-23.17	-39.08	1.64	6.70	H
	3348	-56.25	-13	-43.25	-59.61	1.89	7.40	H
	1672	-44.51	-13	-31.51	-46.63	1.33	5.60	V
	2510	-30.07	-13	-17.07	-32.98	1.64	6.70	V
	3348	-57.39	-13	-44.39	-60.75	1.89	7.40	V
Highest	1698	-47.19	-13	-34.19	-49.31	1.333	5.60	H
	2546	-35.41	-13	-22.41	-38.32	1.64	6.70	H
	3396	-56.36	-13	-43.36	-59.72	1.89	7.40	H
	1698	-46.29	-13	-33.29	-48.41	1.33	5.60	V
	2546	-34.21	-13	-21.21	-37.12	1.64	6.70	V
	3396	-55.46	-13	-42.46	-58.82	1.89	7.40	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	-59.45	-13	-46.45	-61.57	1.333	5.60	H
	2472	-51.88	-13	-38.88	-54.79	1.64	6.70	H
	3294	-56.53	-13	-43.53	-59.89	1.89	7.40	H
	1648	-57.08	-13	-44.08	-59.20	1.33	5.60	V
	2472	-46.44	-13	-33.44	-49.35	1.64	6.70	V
	3294	-55.13	-13	-42.13	-58.49	1.89	7.40	V
Middle	1672	-57.65	-13	-44.65	-59.77	1.333	5.60	H
	2510	-53.20	-13	-40.20	-56.11	1.64	6.70	H
	3348	-56.32	-13	-43.32	-59.68	1.89	7.40	H
	1672	-57.71	-13	-44.71	-59.83	1.33	5.60	V
	2510	-50.86	-13	-37.86	-53.77	1.64	6.70	V
	3348	-55.28	-13	-42.28	-58.64	1.89	7.40	V
Highest	1698	-54.13	-13	-41.13	-56.25	1.333	5.60	H
	2546	-47.04	-13	-34.04	-49.95	1.64	6.70	H
	3396	-57.42	-13	-44.42	-60.78	1.89	7.40	H
	1698	-52.17	-13	-39.17	-54.29	1.33	5.60	V
	2546	-43.68	-13	-30.68	-46.59	1.64	6.70	V
	3396	-55.63	-13	-42.63	-58.99	1.89	7.40	V

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



GSM1900 (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	3699	-57.51	-13	-44.51	-59.23	5.08	6.80	H
	5550	-50.93	-13	-37.93	-52.60	8.03	9.70	H
	7401	-50.25	-13	-37.25	-52.63	9.43	11.81	H
	3699	-57.14	-13	-44.14	-58.86	5.08	6.80	V
	5550	-51.68	-13	-38.68	-53.35	8.03	9.70	V
	7401	-50.40	-13	-37.40	-52.78	9.43	11.81	V
Middle	3759	-57.48	-13	-44.48	-59.20	5.08	6.80	H
	5640	-49.51	-13	-36.51	-51.18	8.03	9.70	H
	7521	-50.02	-13	-37.02	-52.40	9.43	11.81	H
	3759	-57.45	-13	-44.45	-59.17	5.08	6.80	V
	5640	-46.42	-13	-33.42	-48.09	8.03	9.70	V
	7521	-49.74	-13	-36.74	-52.12	9.43	11.81	V
Highest	3819	-57.95	-13	-44.95	-59.67	5.08	6.80	H
	5730	-52.00	-13	-39.00	-53.67	8.03	9.70	H
	7638	-50.08	-13	-37.08	-52.46	9.43	11.81	H
	3819	-57.47	-13	-44.47	-59.19	5.08	6.80	V
	5730	-51.25	-13	-38.25	-52.92	8.03	9.70	V
	7638	-50.08	-13	-37.08	-52.46	9.43	11.81	V

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



GSM1900 (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	3699	-57.48	-13	-44.48	-59.20	5.08	6.80	H
	5550	-55.18	-13	-42.18	-56.85	8.03	9.70	H
	7401	-50.05	-13	-37.05	-52.43	9.43	11.81	H
	3699	-57.28	-13	-44.28	-59.00	5.08	6.80	V
	5550	-55.07	-13	-42.07	-56.74	8.03	9.70	V
	7401	-49.95	-13	-36.95	-52.33	9.43	11.81	V
Middle	3759	-57.76	-13	-44.76	-59.48	5.08	6.80	H
	5640	-54.95	-13	-41.95	-56.62	8.03	9.70	H
	7521	-49.99	-13	-36.99	-52.37	9.43	11.81	H
	3759	-57.40	-13	-44.40	-59.12	5.08	6.80	V
	5640	-54.75	-13	-41.75	-56.42	8.03	9.70	V
	7521	-49.84	-13	-36.84	-52.22	9.43	11.81	V
Highest	3819	-57.99	-13	-44.99	-59.71	5.08	6.80	H
	5730	-54.83	-13	-41.83	-56.50	8.03	9.70	H
	7638	-50.15	-13	-37.15	-52.53	9.43	11.81	H
	3819	-57.66	-13	-44.66	-59.38	5.08	6.80	V
	5730	-54.67	-13	-41.67	-56.34	8.03	9.70	V
	7638	-49.79	-13	-36.79	-52.17	9.43	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1652	-59.14	-13	-46.14	-61.26	1.333	5.60	H
	2480	-48.64	-13	-35.64	-51.55	1.64	6.70	H
	3306	-56.02	-13	-43.02	-59.38	1.89	7.40	H
	1652	-55.04	-13	-42.04	-57.16	1.33	5.60	V
	2480	-39.00	-13	-26.00	-41.91	1.64	6.70	V
	3306	-54.76	-13	-41.76	-58.12	1.89	7.40	V
Middle	1672	-56.76	-13	-43.76	-58.88	1.333	5.60	H
	2510	-46.68	-13	-33.68	-49.59	1.64	6.70	H
	3348	-56.54	-13	-43.54	-59.90	1.89	7.40	H
	1672	-55.47	-13	-42.47	-57.59	1.33	5.60	V
	2510	-44.69	-13	-31.69	-47.60	1.64	6.70	V
	3348	-55.08	-13	-42.08	-58.44	1.89	7.40	V
Highest	1694	-57.79	-13	-44.79	-59.91	1.333	5.60	H
	2540	-48.45	-13	-35.45	-51.36	1.64	6.70	H
	3384	-56.25	-13	-43.25	-59.61	1.89	7.40	H
	1694	-58.63	-13	-45.63	-60.75	1.33	5.60	V
	2540	-44.98	-13	-31.98	-47.89	1.64	6.70	V
	3384	-55.10	-13	-42.10	-58.46	1.89	7.40	V

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



WCDMA Band II(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	3705	-57.48	-13	-44.48	-59.20	5.08	6.80	H
	5556	-53.27	-13	-40.27	-54.94	8.03	9.70	H
	7410	-50.28	-13	-37.28	-52.66	9.43	11.81	H
	3705	-56.90	-13	-43.90	-58.62	5.08	6.80	V
	5556	-51.89	-13	-38.89	-53.56	8.03	9.70	V
	7410	-50.16	-13	-37.16	-52.54	9.43	11.81	V
Middle	3759	-55.96	-13	-42.96	-57.68	5.08	6.80	H
	5640	-52.66	-13	-39.66	-54.33	8.03	9.70	H
	7521	-50.05	-13	-37.05	-52.43	9.43	11.81	H
	3759	-56.88	-13	-43.88	-58.60	5.08	6.80	V
	5640	-51.39	-13	-38.39	-53.06	8.03	9.70	V
	7521	-49.79	-13	-36.79	-52.17	9.43	11.81	V
Highest	3816	-56.74	-13	-43.74	-58.46	5.08	6.80	H
	5724	-46.09	-13	-33.09	-47.76	8.03	9.70	H
	7629	-49.66	-13	-36.66	-52.04	9.43	11.81	H
	3816	-57.27	-13	-44.27	-58.99	5.08	6.80	V
	5724	-45.32	-13	-32.32	-46.99	8.03	9.70	V
	7629	-49.34	-13	-36.34	-51.72	9.43	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)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3426	-48.70	-13	-35.70	-52.67	4.87	8.84	H
	5136	-44.93	-13	-31.93	-46.37	7.70	9.14	H
	6849	-51.50	-13	-38.50	-53.19	8.98	10.66	H
	3423	-51.48	-13	-38.48	-55.45	4.87	8.84	V
	5139	-47.32	-13	-34.32	-48.76	7.70	9.14	V
	6849	-51.32	-13	-38.32	-53.01	8.98	10.66	V
Middle	3468	-47.69	-13	-34.69	-51.66	4.87	8.84	H
	5196	-44.96	-13	-31.96	-46.40	7.70	9.14	H
	6930	-51.47	-13	-38.47	-53.16	8.98	10.66	H
	3465	-48.88	-13	-35.88	-52.85	4.87	8.84	V
	5202	-45.60	-13	-32.60	-47.04	7.70	9.14	V
	6930	-51.37	-13	-38.37	-53.06	8.98	10.66	V
Highest	3504	-56.75	-13	-43.75	-60.72	4.87	8.84	H
	5259	-51.98	-13	-38.98	-53.42	7.70	9.14	H
	7011	-50.68	-13	-37.68	-52.37	8.98	10.66	H
	3504	-54.30	-13	-41.30	-58.27	4.87	8.84	V
	5259	-49.66	-13	-36.66	-51.10	7.70	9.14	V
	7011	-50.93	-13	-37.93	-52.62	8.98	10.66	V

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