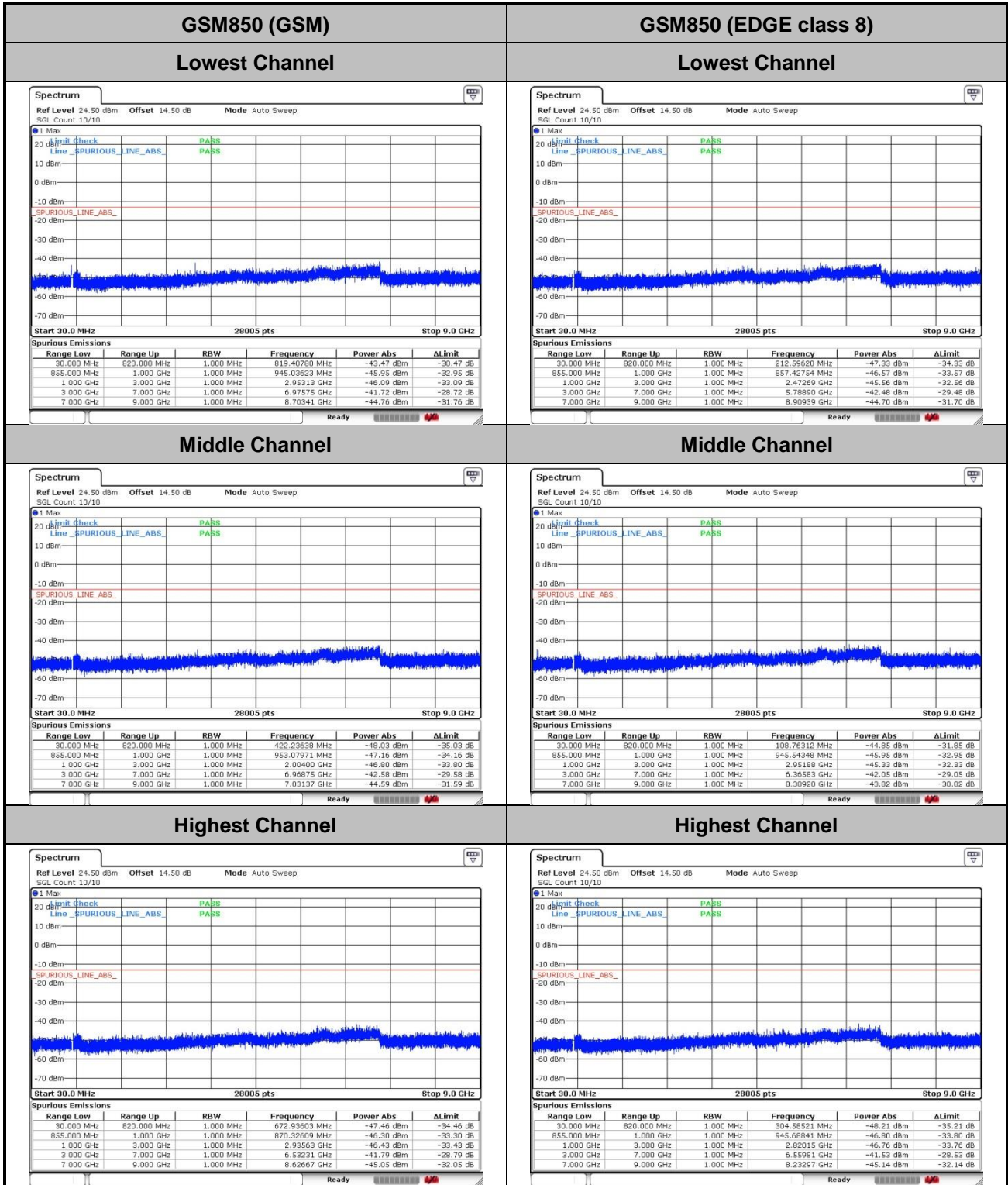




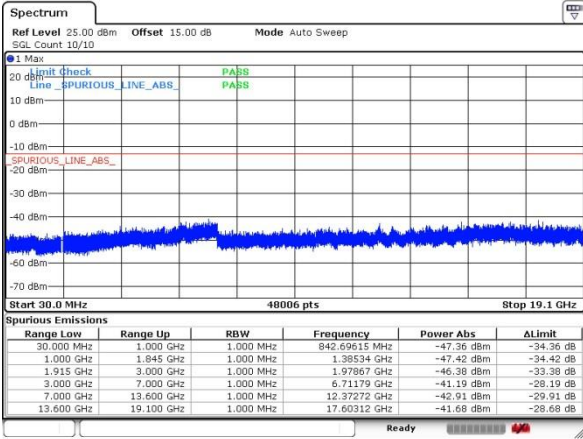
# Conducted Spurious Emission





GSM1900 (GSM)

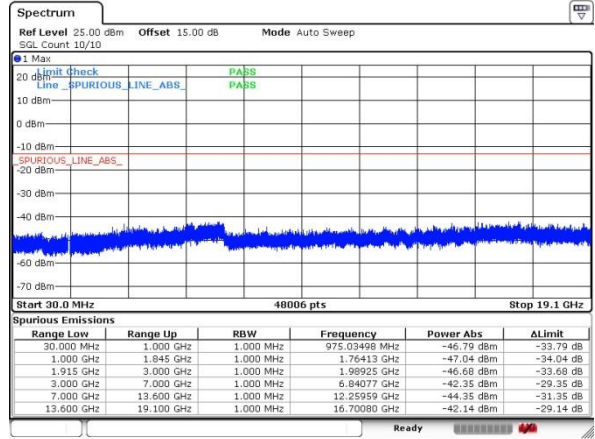
Lowest Channel



Date: 20 DEC 2019 22:28:15

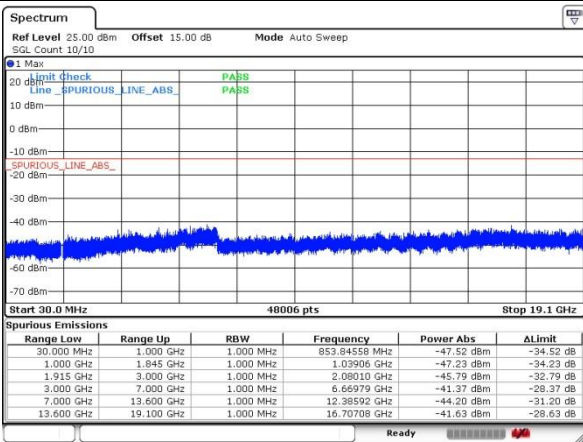
GSM1900 (EDGE class 8)

Lowest Channel



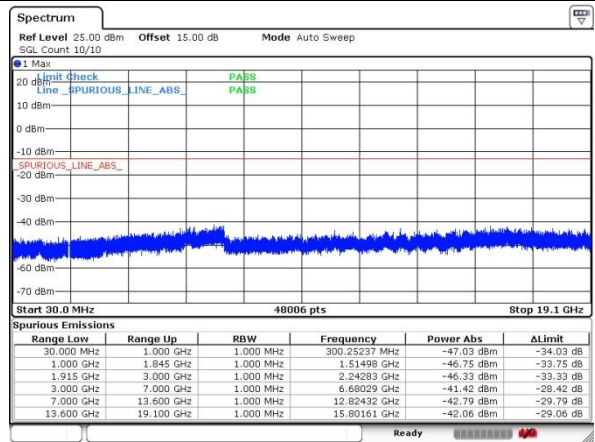
Date: 20 DEC 2019 23:11:33

Middle Channel



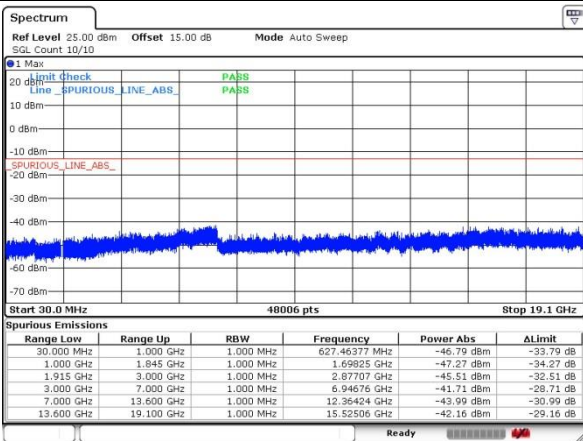
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Middle Channel



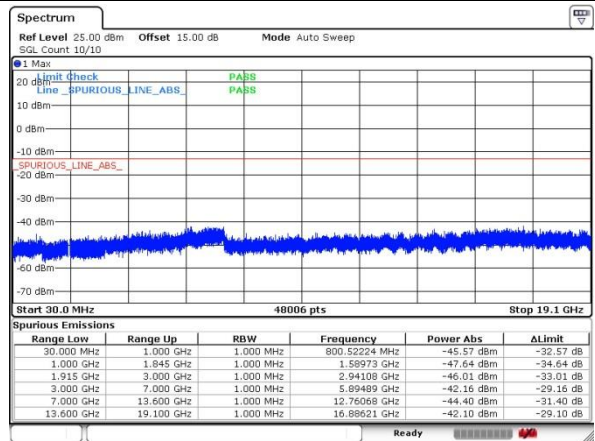
Date: 20 DEC 2019 23:12:02

Highest Channel



Date: 20 DEC 2019 22:30:09

Highest Channel

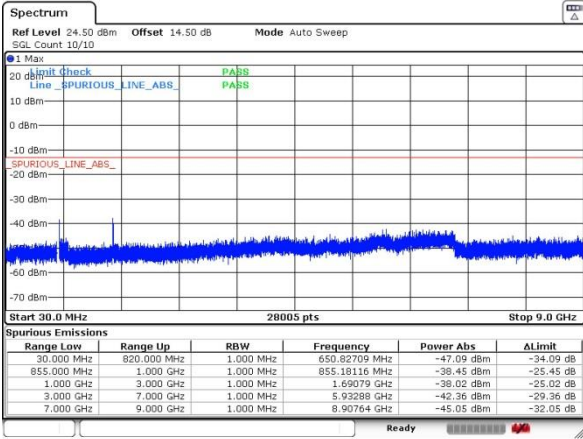


Date: 20 DEC 2019 23:12:14



WCDMA Band V (RMC 12.2Kbps)

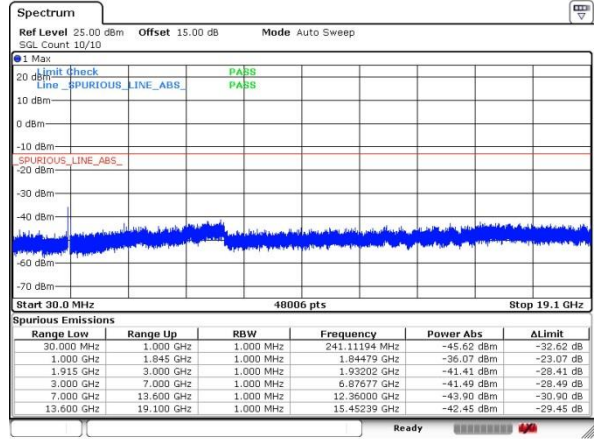
Lowest Channel



Date: 21.DEC.2019 00:01:02

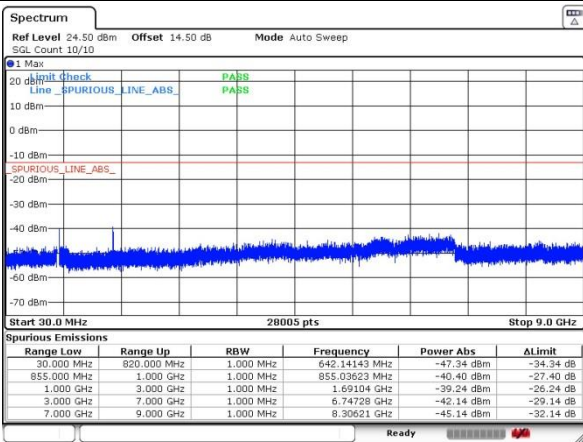
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



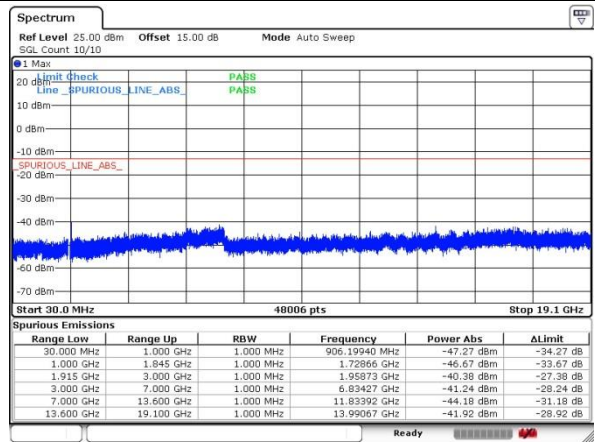
Date: 20.DEC.2019 23:32:57

Middle Channel



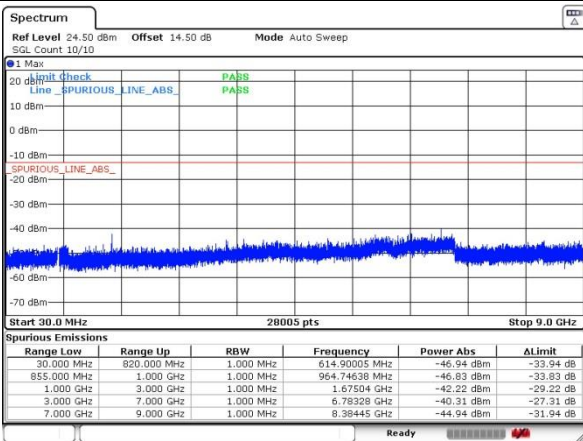
Date: 21.DEC.2019 00:01:24

Middle Channel



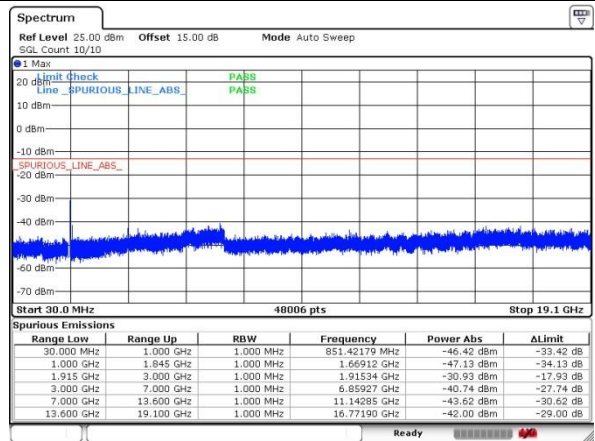
Date: 20.DEC.2019 23:33:21

Highest Channel

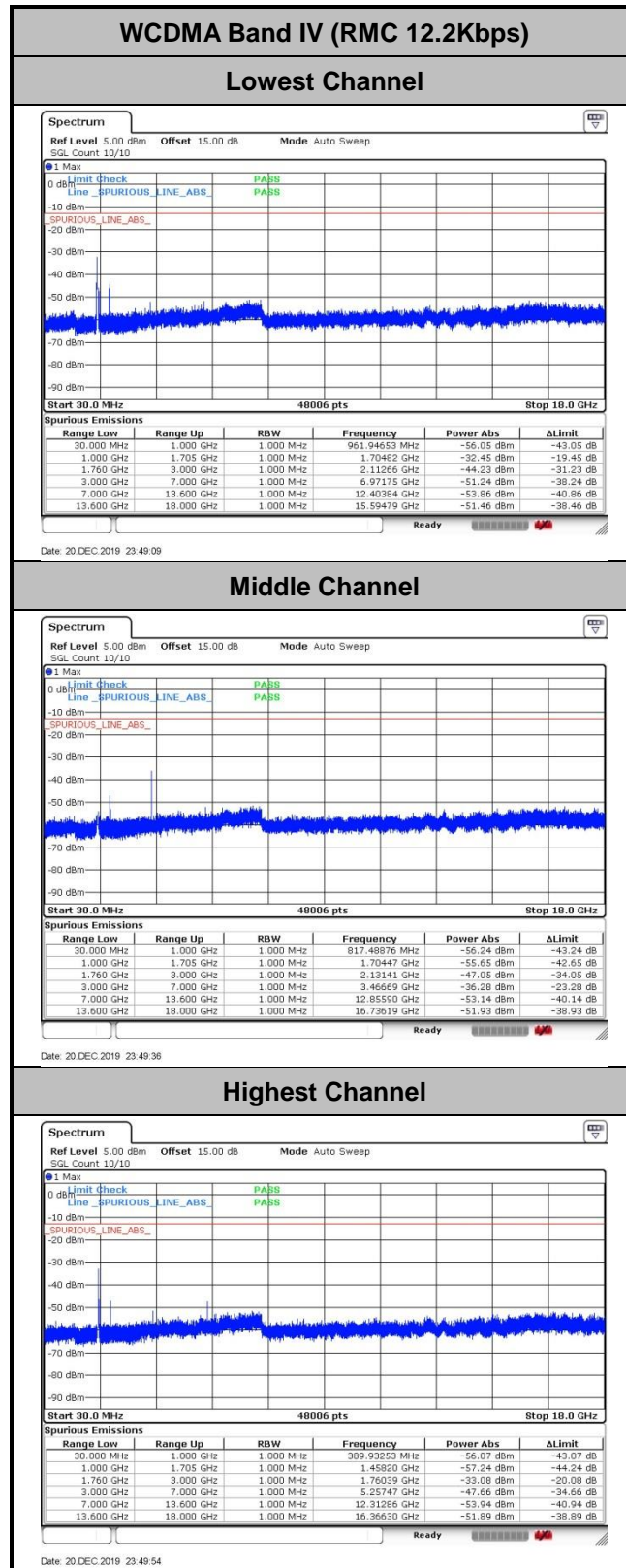


Date: 21.DEC.2019 00:01:48

Highest Channel



Date: 20.DEC.2019 23:33:55





**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	0.0120	0.0251	PASS
40	Normal Voltage	0.0072	0.0239	
30	Normal Voltage	0.0132	0.0084	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0167	0.0167	
0	Normal Voltage	0.0072	0.0012	
-10	Normal Voltage	0.0203	0.0227	
-20	Normal Voltage	0.0227	0.0060	
-30	Normal Voltage	0.0143	0.0108	
20	Maximum Voltage	0.0096	0.0275	
20	Normal Voltage	0.0120	0.0203	
20	Battery End Point	0.0191	0.0036	

**Note:** Normal Voltage = 3.8V ; Battery End Point (BEP) =3.6V. ; 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	0.0011	0.0181	PASS
40	Normal Voltage	0.0005	0.0133	
30	Normal Voltage	0.0037	0.0170	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0133	0.0106	
0	Normal Voltage	0.0106	0.0149	
-10	Normal Voltage	0.0090	0.0170	
-20	Normal Voltage	0.0027	0.0122	
-30	Normal Voltage	0.0000	0.0117	
20	Maximum Voltage	0.0069	0.0117	
20	Normal Voltage	0.0016	0.0138	
20	Battery End Point	0.0128	0.0027	

Note:

1. Normal Voltage = 3.8V ; Battery End Point (BEP) =3.6V. ; 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 12.2KbpsRMC 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	0.0120	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0167	
-10	Normal Voltage	0.0000	
-20	Normal Voltage	0.0131	
-30	Normal Voltage	0.0143	
20	Maximum Voltage	0.0299	
20	Normal Voltage	0.0036	
20	Battery End Point	0.0143	

Note: Normal Voltage = 3.8V ; Battery End Point (BEP) =3.6V. ; 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	0.0027	PASS
40	Normal Voltage	0.0074	
30	Normal Voltage	0.0064	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0053	
0	Normal Voltage	0.0074	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0085	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0048	
20	Battery End Point	0.0000	

**Note:**

- 1. Normal Voltage = 3.8V ; Battery End Point (BEP) =3.6V. ; 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	0.0061	PASS
40	Normal Voltage	0.0171	
30	Normal Voltage	0.0110	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0183	
0	Normal Voltage	0.0195	
-10	Normal Voltage	0.0183	
-20	Normal Voltage	0.0073	
-30	Normal Voltage	0.0158	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0207	

**Note:**

1. Normal Voltage = 3.8V ; Battery End Point (BEP) =3.6V. ; 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 )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-55.77	-13	-42.77	-62.74	1.58	10.70	H
	2510	-51.66	-13	-38.66	-59.91	2.102	12.50	H
	3348	-59.39	-13	-46.39	-68.28	2.856	13.90	H
	4182	-56.61	-13	-43.61	-65.07	2.689	13.30	H
	1672	-59.52	-13	-46.52	-66.49	1.58	10.70	V
	2510	-53.22	-13	-40.22	-61.47	2.10	12.50	V
	3348	-61.10	-13	-48.10	-69.99	2.86	13.90	V
	4182	-56.58	-13	-43.58	-65.04	2.69	13.30	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)
Middle	1672	-55.57	-13	-42.57	-62.54	1.58	10.70	H
	2510	-51.82	-13	-38.82	-60.07	2.102	12.50	H
	3348	-61.48	-13	-48.48	-70.37	2.856	13.90	H
	4182	-56.84	-13	-43.84	-65.30	2.689	13.30	H
	1672	-60.07	-13	-47.07	-67.04	1.58	10.70	V
	2510	-52.37	-13	-39.37	-60.62	2.10	12.50	V
	3348	-61.32	-13	-48.32	-70.21	2.86	13.90	V
	4182	-56.82	-13	-43.82	-65.28	2.69	13.30	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)
Middle	3759	-38.74	-13	-25.74	-51.00	2.641	14.90	H
	5640	-44.73	-13	-31.73	-56.59	2.94	14.80	H
	7524	-50.70	-13	-37.70	-60.47	3.39	13.16	H
	9396	-44.80	-13	-31.80	-55.28	4.00	14.48	H
	11280	-45.48	-13	-32.48	-54.99	4.23	13.74	H
	13164	-34.04	-13	-21.04	-43.88	4.49	14.32	H
	3759	-42.92	-13	-29.92	-55.18	2.64	14.90	V
	5640	-44.38	-13	-31.38	-56.24	2.94	14.80	V
	7524	-49.89	-13	-36.89	-59.66	3.39	13.16	V
	9396	-45.86	-13	-32.86	-56.34	4.00	14.48	V
	11280	-44.41	-13	-31.41	-53.92	4.23	13.74	V
	13164	-33.64	-13	-20.64	-43.48	4.49	14.32	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)
Middle	3759	-38.56	-13	-25.56	-50.82	2.641	14.90	H
	5640	-44.70	-13	-31.70	-56.56	2.94	14.80	H
	7524	-50.92	-13	-37.92	-60.69	3.39	13.16	H
	9396	-45.43	-13	-32.43	-55.91	4.00	14.48	H
	11280	-45.57	-13	-32.57	-55.08	4.23	13.74	H
	13164	-33.35	-13	-20.35	-43.19	4.49	14.32	H
	3759	-43.27	-13	-30.27	-55.53	2.64	14.90	V
	5640	-43.35	-13	-30.35	-55.21	2.94	14.80	V
	7524	-50.43	-13	-37.43	-60.20	3.39	13.16	V
	9396	-46.68	-13	-33.68	-57.16	4.00	14.48	V
	11280	-44.92	-13	-31.92	-54.43	4.23	13.74	V
	13164	-35.48	-13	-22.48	-45.32	4.49	14.32	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)
Middle	1672	-67.47	-13	-54.47	-74.44	1.58	10.70	H
	2510	-63.48	-13	-50.48	-71.73	2.102	12.50	H
	3348	-64.01	-13	-51.01	-72.90	2.856	13.90	H
	1672	-68.12	-13	-55.12	-75.09	1.58	10.70	V
	2510	-63.61	-13	-50.61	-71.86	2.10	12.50	V
	3348	-64.04	-13	-51.04	-72.93	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)
Middle	3759	-52.49	-13	-39.49	-64.75	2.641	14.90	H
	5640	-55.50	-13	-42.50	-67.36	2.94	14.80	H
	7524	-50.79	-13	-37.79	-60.56	3.39	13.16	H
	3759	-53.94	-13	-40.94	-66.20	2.64	14.90	V
	5640	-55.08	-13	-42.08	-66.94	2.94	14.80	V
	7524	-50.29	-13	-37.29	-60.06	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)
Middle	3465	-57.40	-13	-44.40	-68.14	2.604	13.34	H
	5199	-56.84	-13	-43.84	-67.35	3.011	13.52	H
	6936	-53.11	-13	-40.11	-63.31	3.271	13.47	H
	3465	-57.84	-13	-44.84	-68.58	2.604	13.34	V
	5199	-56.93	-13	-43.93	-67.44	3.011	13.52	V
	6936	-52.71	-13	-39.71	-62.91	3.271	13.47	V

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