



WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge



Highest Band Edge



WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge



Highest Band Edge





WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge



Date: 20 SEP.2019 20:42:00

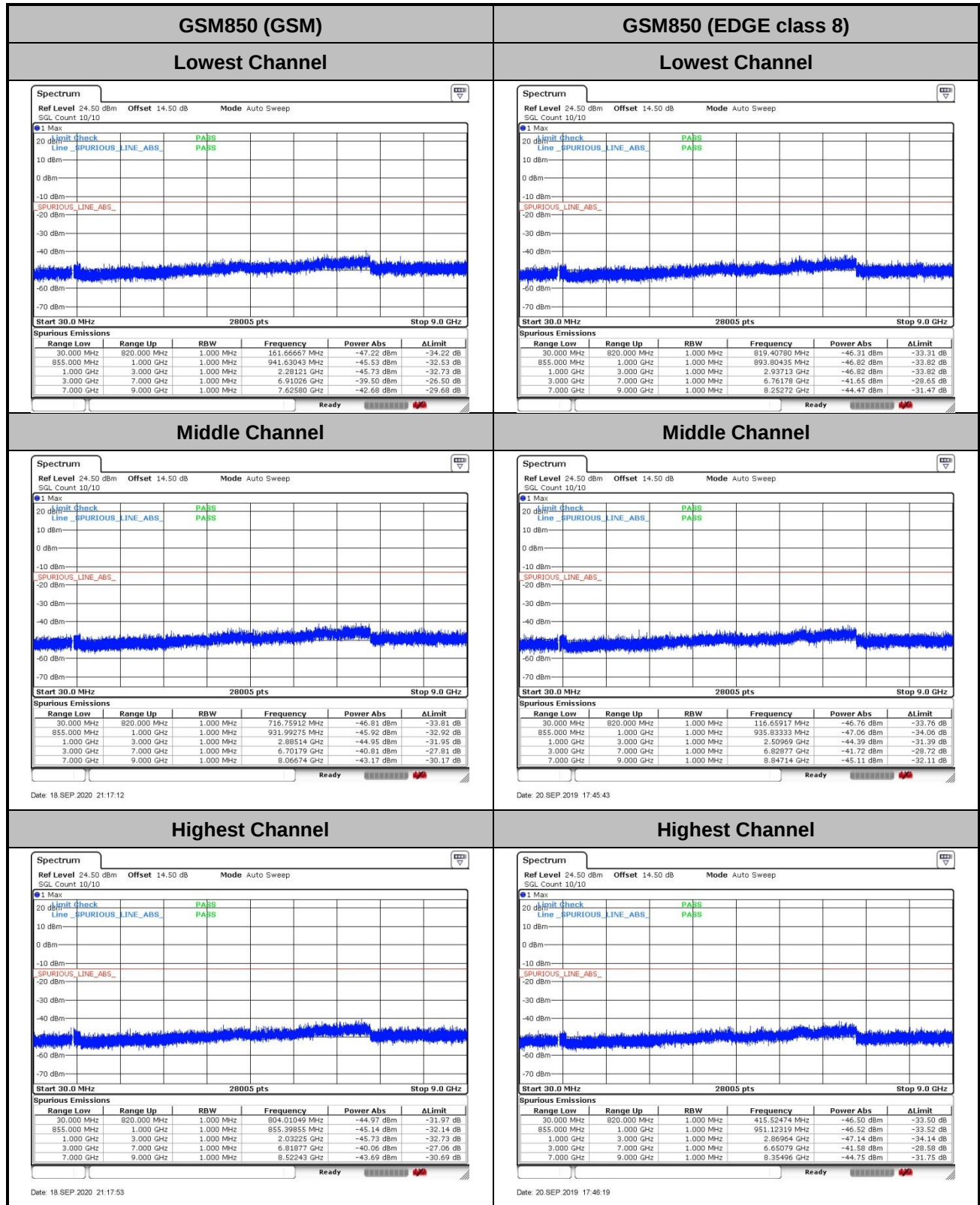
Highest Band Edge



Date: 20 SEP.2019 20:42:52



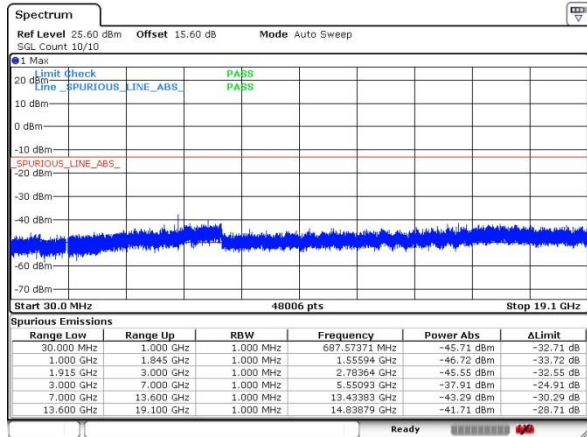
Conducted Spurious Emission





GSM1900 (GSM)

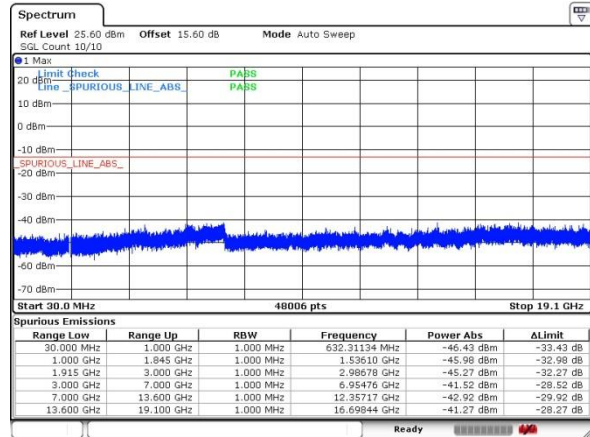
Lowest Channel



Date: 20 SEP 2019 19:55:26

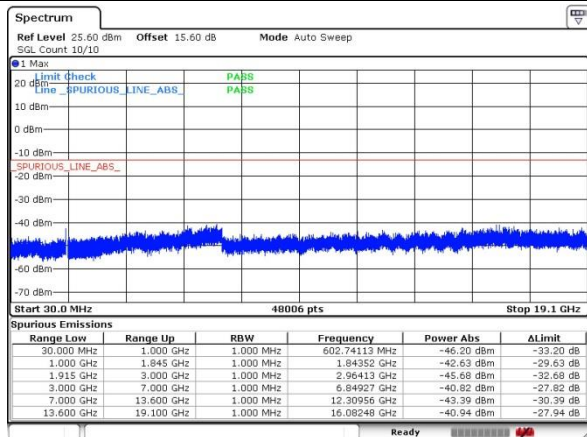
GSM1900 (EDGE class 8)

Lowest Channel



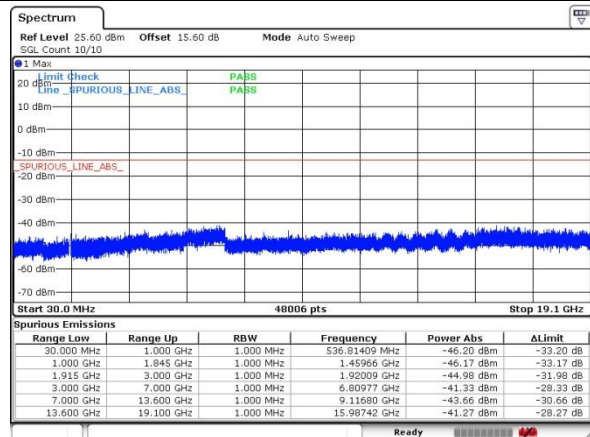
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Middle Channel



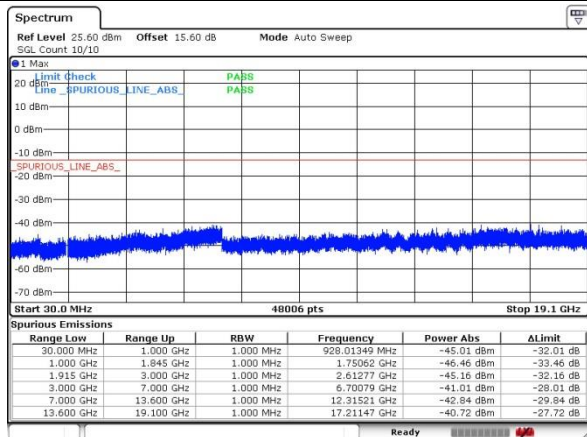
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Middle Channel



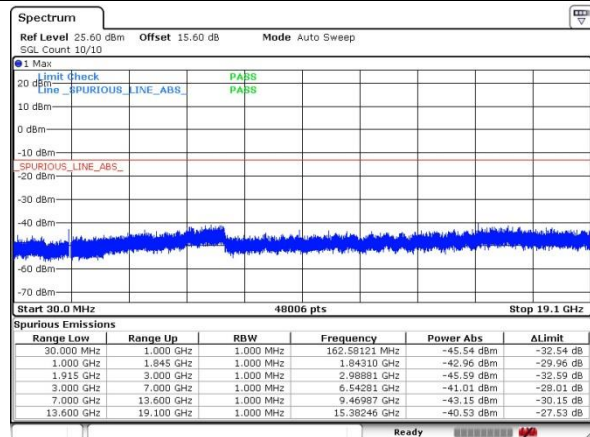
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Highest Channel



Date: 20 SEP 2019 19:56:13

Highest Channel

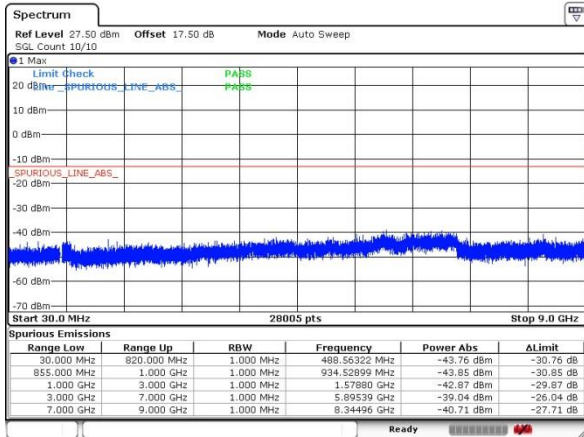


Date: 20 SEP 2019 20:19:32



WCDMA Band V (RMC 12.2Kbps)

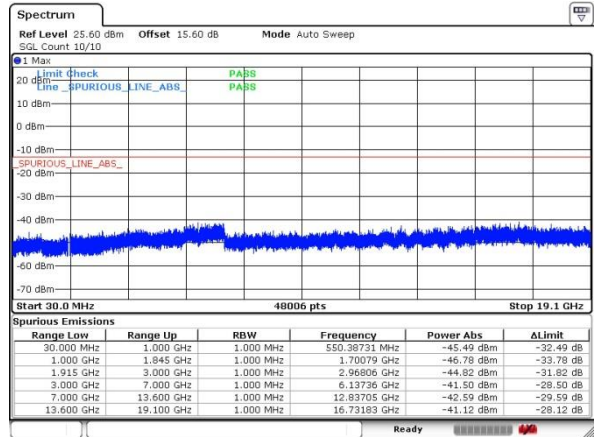
Lowest Channel



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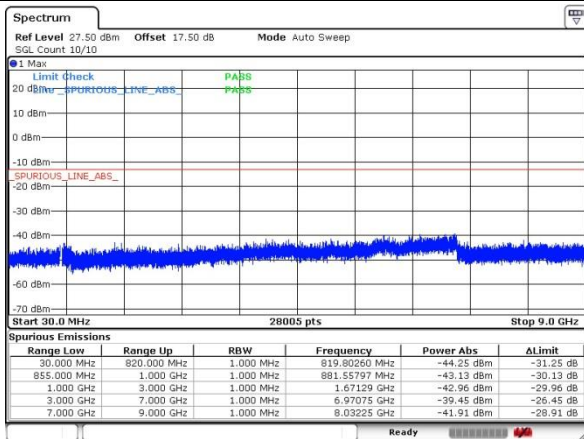
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



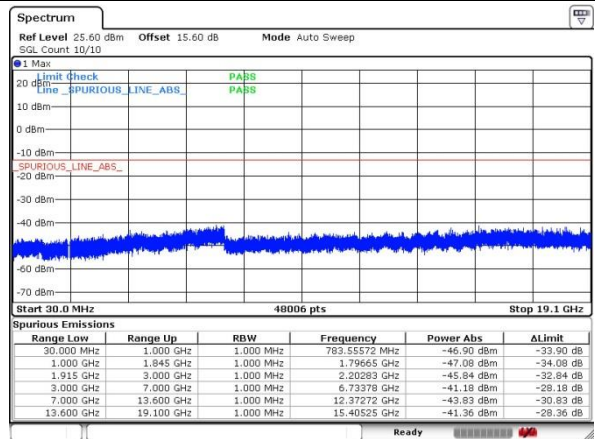
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Middle Channel



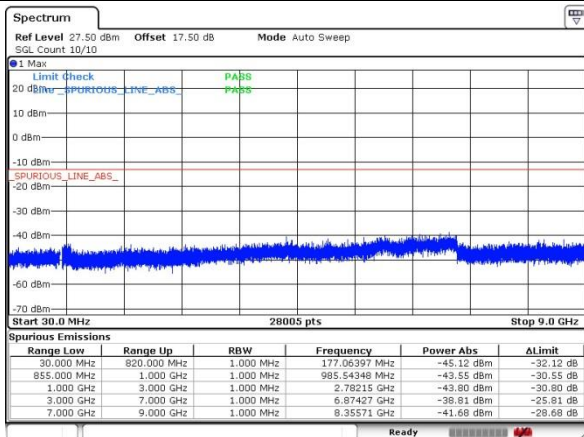
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Middle Channel



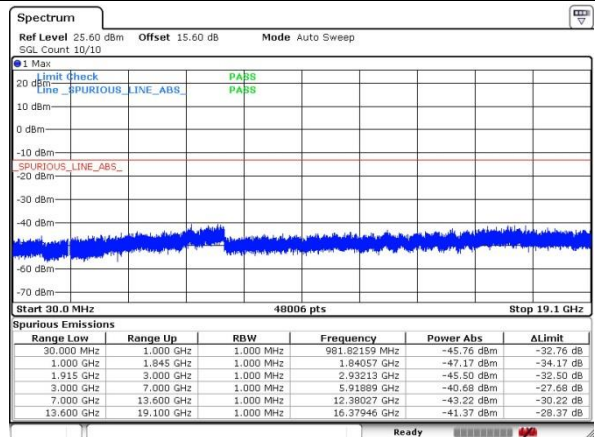
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Highest Channel



Date: 20 SEP 2019 18:27:35

Highest Channel

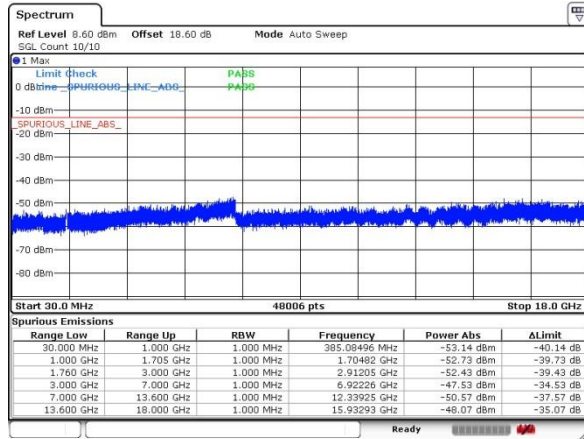


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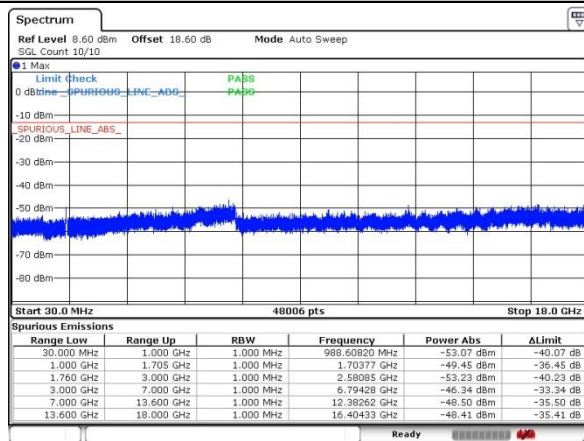
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



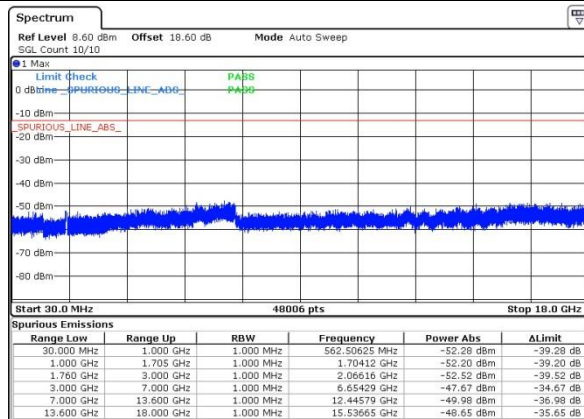
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Middle Channel



Date: 20 SEP 2019 20:44:44

Highest Channel



Date: 20 SEP 2019 20:44:53

**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	0.0108	0.0231	PASS
40	Normal Voltage	0.0257	0.0323	
30	Normal Voltage	0.0036	0.0048	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0024	0.0096	
0	Normal Voltage	0.0287	0.0395	
-10	Normal Voltage	0.0096	0.0347	
-20	Normal Voltage	0.0012	0.0012	
-30	Normal Voltage	0.0084	0.0024	
20	Maximum Voltage	0.0024	0.0012	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0299	0.0096	

Note: Normal Voltage = 3.8V. : Battery End Point (BEP) =3.4V. : 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	0.0021	0.0080	PASS
40	Normal Voltage	0.0016	0.0117	
30	Normal Voltage	0.0011	0.0112	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0027	0.0011	
0	Normal Voltage	0.0080	0.0080	
-10	Normal Voltage	0.0016	0.0021	
-20	Normal Voltage	0.0068	0.0017	
-30	Normal Voltage	0.0117	0.0085	
20	Maximum Voltage	0.0106	0.0037	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0021	0.0027	

Note:

1. Normal Voltage = 3.8V. ; Battery End Point (BEP) =3.4V. ; 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	0.0088	PASS
40	Normal Voltage	0.0245	
30	Normal Voltage	0.0023	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0298	
0	Normal Voltage	0.0243	
-10	Normal Voltage	0.0068	
-20	Normal Voltage	0.0273	
-30	Normal Voltage	0.0036	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0263	

Note: Normal Voltage = 3.8V. ; Battery End Point (BEP) =3.4V. ; 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	0.0018	PASS
40	Normal Voltage	0.0122	
30	Normal Voltage	0.0118	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0174	
0	Normal Voltage	0.0046	
-10	Normal Voltage	0.0143	
-20	Normal Voltage	0.0149	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0032	

Note:

1. Normal Voltage = 3.8V ; Battery End Point (BEP) =3.4V ; 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	0.0035	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0150	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0128	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0144	
-30	Normal Voltage	0.0046	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0032	

Note:

1. Normal Voltage = 3.8V. ; Battery End Point (BEP) =3.4 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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-55.44	-13	-42.44	-62.41	1.58	10.70	H
	2472	-49.54	-13	-36.54	-57.79	2.102	12.50	H
	3294	-64.16	-13	-51.16	-73.05	2.856	13.90	H
	4122	-60.56	-13	-47.56	-69.02	2.689	13.30	H
	1648	-58.87	-13	-45.87	-65.84	1.58	10.70	V
	2472	-41.93	-13	-28.93	-50.18	2.10	12.50	V
	3294	-64.71	-13	-51.71	-73.60	2.86	13.90	V
	4121	-59.14	-13	-46.14	-67.60	2.69	13.30	V
Middle	1672	-55.42	-13	-42.42	-62.39	1.58	10.70	H
	2510	-43.76	-13	-30.76	-52.01	2.102	12.50	H
	3348	-61.96	-13	-48.96	-70.85	2.856	13.90	H
	4182	-57.65	-13	-44.65	-66.11	2.689	13.30	H
	1672	-61.57	-13	-48.57	-68.54	1.58	10.70	V
	2508	-39.97	-13	-26.97	-48.22	2.10	12.50	V
	3348	-63.79	-13	-50.79	-72.68	2.86	13.90	V
	4182	-60.04	-13	-47.04	-68.50	2.69	13.30	V
Highest	1698	-58.43	-13	-45.43	-65.40	1.58	10.70	H
	2546	-43.02	-13	-30.02	-51.27	2.102	12.50	H
	3396	-59.68	-13	-46.68	-68.57	2.856	13.90	H
	4242	-56.74	-13	-43.74	-65.20	2.689	13.30	H
	1698	-64.50	-13	-51.50	-71.47	1.58	10.70	V
	2546	-41.19	-13	-28.19	-49.44	2.10	12.50	V
	3396	-63.87	-13	-50.87	-72.76	2.86	13.90	V
	4244	-58.88	-13	-45.88	-67.34	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)
Lowest	1648	-62.76	-13	-49.76	-69.73	1.58	10.70	H
	2472	-63.22	-13	-50.22	-71.47	2.102	12.50	H
	3294	-65.03	-13	-52.03	-73.92	2.856	13.90	H
	1648	-64.50	-13	-51.50	-71.47	1.58	10.70	V
	2472	-56.51	-13	-43.51	-64.76	2.10	12.50	V
	3294	-65.13	-13	-52.13	-74.02	2.86	13.90	V
Middle	1672	-64.03	-13	-51.03	-71.00	1.58	10.70	H
	2510	-57.42	-13	-44.42	-65.67	2.102	12.50	H
	3348	-64.80	-13	-51.80	-73.69	2.856	13.90	H
	1672	-67.20	-13	-54.20	-74.17	1.58	10.70	V
	2510	-56.64	-13	-43.64	-64.89	2.10	12.50	V
	3348	-64.90	-13	-51.90	-73.79	2.86	13.90	V
Highest	1698	-65.25	-13	-52.25	-72.22	1.58	10.70	H
	2546	-55.98	-13	-42.98	-64.23	2.102	12.50	H
	3396	-64.22	-13	-51.22	-73.11	2.856	13.90	H
	1698	-67.60	-13	-54.60	-74.57	1.58	10.70	V
	2546	-54.57	-13	-41.57	-62.82	2.10	12.50	V
	3396	-64.80	-13	-51.80	-73.69	2.86	13.90	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	-58.56	-13	-45.56	-70.82	2.641	14.90	H
	5550.6	-56.05	-13	-43.05	-67.91	2.94	14.80	H
	7404	-50.64	-13	-37.64	-60.41	3.39	13.16	H
	3699	-58.19	-13	-45.19	-70.45	2.64	14.90	V
	5550.6	-56.13	-13	-43.13	-67.99	2.94	14.80	V
	7404	-50.23	-13	-37.23	-60.00	3.39	13.16	V
Middle	3759	-57.62	-13	-44.62	-69.88	2.641	14.90	H
	5640	-55.74	-13	-42.74	-67.60	2.94	14.80	H
	7524	-50.61	-13	-37.61	-60.38	3.39	13.16	H
	3760	-56.83	-13	-43.83	-69.09	2.64	14.90	V
	5640	-55.06	-13	-42.06	-66.92	2.94	14.80	V
	7524	-50.18	-13	-37.18	-59.95	3.39	13.16	V
Highest	3819	-58.00	-13	-45.00	-70.26	2.641	14.90	H
	5729.4	-55.85	-13	-42.85	-67.71	2.94	14.80	H
	7644	-50.63	-13	-37.63	-60.40	3.39	13.16	H
	3819	-57.74	-13	-44.74	-70.00	2.64	14.90	V
	5729.4	-55.20	-13	-42.20	-67.06	2.94	14.80	V
	7644	-50.21	-13	-37.21	-59.98	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	-58.16	-13	-45.16	-70.42	2.641	14.90	H
	5550	-56.25	-13	-43.25	-68.11	2.94	14.80	H
	7404	-50.50	-13	-37.50	-60.27	3.39	13.16	H
	3699	-58.17	-13	-45.17	-70.43	2.64	14.90	V
	5550	-55.81	-13	-42.81	-67.67	2.94	14.80	V
	7404	-50.05	-13	-37.05	-59.82	3.39	13.16	V
Middle	3759	-57.57	-13	-44.57	-69.83	2.641	14.90	H
	5640	-55.70	-13	-42.70	-67.56	2.94	14.80	H
	7524	-50.46	-13	-37.46	-60.23	3.39	13.16	H
	3759	-57.57	-13	-44.57	-69.83	2.64	14.90	V
	5640	-55.51	-13	-42.51	-67.37	2.94	14.80	V
	7524	-50.01	-13	-37.01	-59.78	3.39	13.16	V
Highest	3819	-57.60	-13	-44.60	-69.86	2.641	14.90	H
	5730	-55.69	-13	-42.69	-67.55	2.94	14.80	H
	7639	-50.19	-13	-37.19	-59.96	3.39	13.16	H
	3819.6	-57.59	-13	-44.59	-69.85	2.64	14.90	V
	5730	-55.52	-13	-42.52	-67.38	2.94	14.80	V
	7639	-49.98	-13	-36.98	-59.75	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	-67.90	-13	-54.90	-74.87	1.58	10.70	H
	2479.2	-63.19	-13	-50.19	-71.44	2.102	12.50	H
	3306	-64.48	-13	-51.48	-73.37	2.856	13.90	H
	1652	-67.99	-13	-54.99	-74.96	1.58	10.70	V
	2479.2	-60.67	-13	-47.67	-68.92	2.10	12.50	V
	3306	-64.42	-13	-51.42	-73.31	2.86	13.90	V
Middle	1672	-67.53	-13	-54.53	-74.50	1.58	10.70	H
	2509.2	-63.13	-13	-50.13	-71.38	2.102	12.50	H
	3348	-65.10	-13	-52.10	-73.99	2.856	13.90	H
	1672.8	-67.30	-13	-54.30	-74.27	1.58	10.70	V
	2510	-61.13	-13	-48.13	-69.38	2.10	12.50	V
	3348	-64.86	-13	-51.86	-73.75	2.86	13.90	V
Highest	1694	-67.59	-13	-54.59	-74.56	1.58	10.70	H
	2539.8	-62.22	-13	-49.22	-70.47	2.102	12.50	H
	3384	-64.61	-13	-51.61	-73.50	2.856	13.90	H
	1693.2	-67.82	-13	-54.82	-74.79	1.58	10.70	V
	2540	-61.65	-13	-48.65	-69.90	2.10	12.50	V
	3384	-65.14	-13	-52.14	-74.03	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	-57.47	-13	-44.47	-69.73	2.641	14.90	H
	5556	-55.99	-13	-42.99	-67.85	2.94	14.80	H
	7409	-49.93	-13	-36.93	-59.70	3.39	13.16	H
	3705	-57.39	-13	-44.39	-69.65	2.64	14.90	V
	5556	-55.75	-13	-42.75	-67.61	2.94	14.80	V
	7409	-49.53	-13	-36.53	-59.30	3.39	13.16	V
Middle	3759	-56.74	-13	-43.74	-69.00	2.641	14.90	H
	5640	-55.67	-13	-42.67	-67.53	2.94	14.80	H
	7524	-50.47	-13	-37.47	-60.24	3.39	13.16	H
	3759	-56.53	-13	-43.53	-68.79	2.64	14.90	V
	5640	-55.10	-13	-42.10	-66.96	2.94	14.80	V
	7524	-49.75	-13	-36.75	-59.52	3.39	13.16	V
Highest	3816	-57.36	-13	-44.36	-69.62	2.641	14.90	H
	5724	-55.76	-13	-42.76	-67.62	2.94	14.80	H
	7632	-50.44	-13	-37.44	-60.21	3.39	13.16	H
	3816	-57.50	-13	-44.50	-69.76	2.64	14.90	V
	5724	-55.49	-13	-42.49	-67.35	2.94	14.80	V
	7632	-49.75	-13	-36.75	-59.52	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	-61.76	-13	-48.76	-72.50	2.604	13.34	H
	5136	-56.54	-13	-43.54	-67.05	3.011	13.52	H
	6849	-53.05	-13	-40.05	-63.25	3.271	13.47	H
	3426	-60.37	-13	-47.37	-71.11	2.604	13.34	V
	5136	-56.50	-13	-43.50	-67.01	3.011	13.52	V
	6849	-52.70	-13	-39.70	-62.90	3.271	13.47	V
Middle	3465	-60.94	-13	-47.94	-71.68	2.604	13.34	H
	5199	-56.57	-13	-43.57	-67.08	3.011	13.52	H
	6932	-52.48	-13	-39.48	-62.68	3.271	13.47	H
	3465	-60.19	-13	-47.19	-70.93	2.604	13.34	V
	5199	-56.60	-13	-43.60	-67.11	3.011	13.52	V
	6932	-52.21	-13	-39.21	-62.41	3.271	13.47	V
Highest	3504	-61.44	-13	-48.44	-72.18	2.604	13.34	H
	5259	-56.73	-13	-43.73	-67.24	3.011	13.52	H
	7008	-51.21	-13	-38.21	-61.41	3.271	13.47	H
	3504	-61.30	-13	-48.30	-72.04	2.604	13.34	V
	5259	-57.01	-13	-44.01	-67.52	3.011	13.52	V
	7008	-50.99	-13	-37.99	-61.19	3.271	13.47	V

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