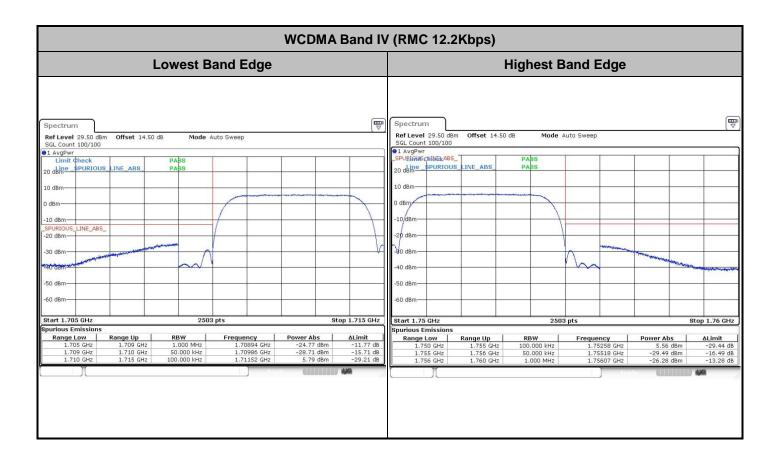


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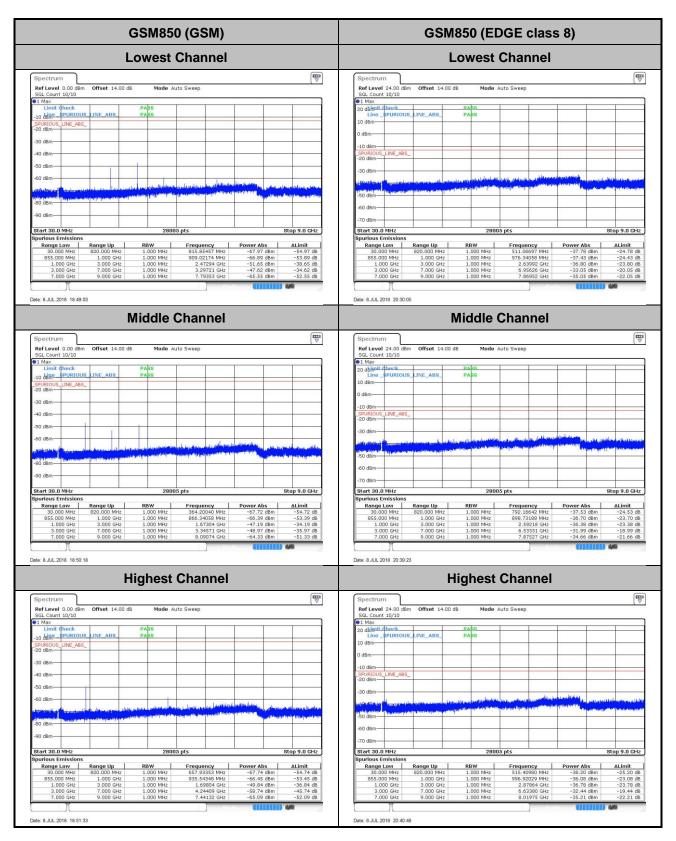


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## **Conducted Spurious Emission**



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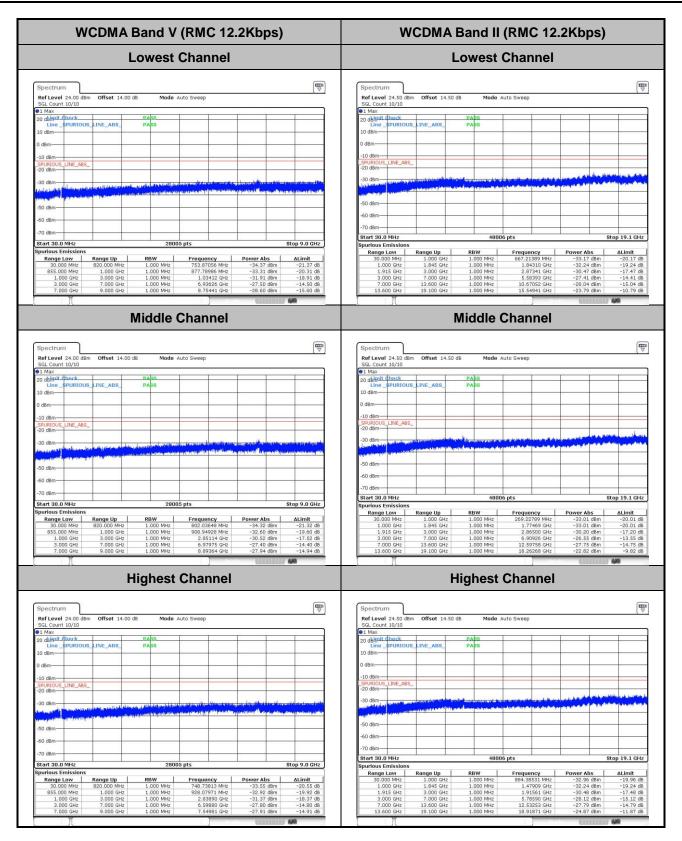
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**GSM1900 (GSM)** GSM1900 (EDGE class 8) **Lowest Channel Lowest Channel** Ref Level 24.50 dBm Offset 14.50 dB Ref Level 24.50 dBm SGL Count 10/10 Offset 14.50 dB it check Start 30.0 MHz Stop 19.1 GHz Start 30.0 MHz Spurious Emiss 48006 pts Stop 19.1 GHz Date: 8.JUL.2018 19:17:14 Date: 8.JUL.2018 19:54:22 **Middle Channel Middle Channel** Start 30.0 MH Stop 19.1 GHz Start 30.0 MHz Spurious Emissions 94.50025 MHz 1.82621 GHz 2.30901 GHz 6.64829 GHz 12.73617 GHz 16.38771 GHz Date: 8.JUL.2018 19:18:29 Date: 8.JUL.2018 20:00:06 **Highest Channel Highest Channel** SGL Count 10/10 nit dheck IRIOUS LINE ABS dBm-LINE\_ABS LINE\_ABS

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WCDMA Band IV (RMC 12.2Kbps) **Lowest Channel** Offset 14.50 dB Start 30.0 MHz **Middle Channel** Ref Level 30.00 dBm Offset 14.50 dB SGL Count 10/10 1 Max Limit dheck Mode Auto Sweep **Highest Channel** 

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# Frequency Stability

Test Conditions	Middle Channel	GSM850 (GSM)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviatio	n (ppm)	Result
50	Normal Voltage	0.0120	0.0042	
40	Normal Voltage	0.0128	0.0022	
30	Normal Voltage	0.0078	0.0022	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0033	0.0070	
0	Normal Voltage	0.0044	0.0024	
-10	Normal Voltage	0.0191	0.0000	PASS
-20	Normal Voltage	0.0114	0.0027	
-30	Normal Voltage	0.0056	0.0034	
20	Maximum Voltage	0.0085	0.0014	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0060	0.0039	

Note: Normal Voltage = 3.83V. ; Battery End Point (BEP) = 3.6V. ; Maximum Voltage =4.4V

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Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation	Result	
50	Normal Voltage	0.0091	0.0030	
40	Normal Voltage	0.0066	0.0008	
30	Normal Voltage	0.0135	0.0026	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0065	0.0012	
0	Normal Voltage	0.0100	0.0040	
-10	Normal Voltage	0.0075	0.0022	PASS
-20	Normal Voltage	0.0111	0.0002	
-30	Normal Voltage	0.0065	0.0023	
20	Maximum Voltage	0.0089	0.0025	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0105	0.0041	

#### Note:

- 1. Normal Voltage = 3.83V. ; 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.

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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	0.0080	
40	Normal Voltage	0.0106	
30	Normal Voltage	0.0087	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0067	
0	Normal Voltage	0.0093	
-10	Normal Voltage	0.0082	PASS
-20	Normal Voltage	0.0291	
-30	Normal Voltage	0.0068	
20	Maximum Voltage	0.0100	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0109	

Note: Normal Voltage = 3.83V. ; Battery End Point (BEP) = 3.6V. ; Maximum Voltage =4.4V

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Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0005	
40	Normal Voltage	0.0043	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0024	PASS
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0037	

#### Note:

- 1. Normal Voltage = 3.83V. ; 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.

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Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0018	
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0167	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0016	PASS
-20	Normal Voltage	0.0042	
-30	Normal Voltage	0.0040	
20	Maximum Voltage	0.0023	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0025	

#### Note:

- 1. Normal Voltage = 3.83V. ; 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.

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## **Appendix B. Test Results of Conducted Test**

### **Radiated Spurious Emission**

				GSM85	0 (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)
	1672.8	-70.04	-13	-57.04	-71.75	-74.41	2.88	9.40	Н
	2509.2	-69.05	-13	-56.05	-75.11	-75.00	2.50	10.60	Н
N 4: -l -ll -	3345.6	-69.38	-13	-56.38	-77.38	-75.20	4.63	12.60	Н
Middle	1672.8	-68.95	-13	-55.95	-70.79	-73.32	2.88	9.40	V
	2509.2	-63.11	-13	-50.11	-69.06	-69.06	2.50	10.60	V
	3345.6	-67.77	-13	-54.77	-75.80	-73.59	4.63	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)			
	1672.8	-70.42	-13	-57.42	-72.13	-74.79	2.88	9.40	Н			
	2509.2	-68.74	-13	-55.74	-74.80	-74.69	2.5	10.60	Н			
NA: -I -II -	3345.6	-67.61	-13	-54.61	-75.61	-73.43	4.63	12.60	Н			
Middle	1672.8	-70.08	-13	-57.08	-71.92	-74.45	2.88	9.40	V			
	2509.2	-68.59	-13	-55.59	-74.54	-74.54	2.50	10.60	V			
	3345.6	-67.99	-13	-54.99	-76.02	-73.81	4.63	12.60	V			

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

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	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)				
	3760.00	-63.19	-13	-50.19	-76.81	-70.79	5.00	12.60	Н				
	5640.00	-62.10	-13	-49.10	-78.70	-67.90	7.30	13.10	Н				
N AC -L-II -	7520.00	-59.05	-13	-46.05	-79.03	-62.62	7.73	11.30	Н				
Middle	3760.00	-62.38	-13	-49.38	-76.71	-69.98	5.00	12.60	V				
	5640.00	-62.40	-13	-49.40	-78.93	-68.20	7.30	13.10	V				
	7520.00	-59.26	-13	-46.26	-78.9	-62.83	7.73	11.30	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)			
	3760.00	-62.87	-13	-49.87	-76.49	-70.47	5.00	12.60	Н			
	5640.00	-62.27	-13	-49.27	-78.87	-68.07	7.30	13.10	Н			
NAC-II-II-	7520.00	-58.69	-13	-45.69	-78.67	-62.26	7.73	11.30	Н			
Middle	3760.00	-62.15	-13	-49.15	-76.48	-69.75	5.00	12.60	V			
	5640.00	-62.33	-13	-49.33	-78.86	-68.13	7.30	13.10	V			
	7520.00	-59.29	-13	-46.29	-78.93	-62.86	7.73	11.30	V			

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

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			WC	DMA Band \	/(RMC 12.2h	(bps)			
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)
	1672.8	-73.53	-13	-60.53	-75.24	-77.90	2.88	9.40	Н
	2509.2	-71.01	-13	-58.01	-77.07	-76.96	2.5	10.60	Н
NA: -I -II -	3345.6	-69.42	-13	-56.42	-77.42	-75.24	4.63	12.60	Н
Middle	1672.8	-73.57	-13	-60.57	-75.41	-77.94	2.88	9.40	V
	2509.2	-71.08	-13	-58.08	-77.03	-77.03	2.50	10.60	V
	3345.6	-69.45	-13	-56.45	-77.48	-75.27	4.63	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)			
	3760.00	-62.05	-13	-49.05	-75.67	-69.65	5.00	12.60	Н			
	5640.00	-62.12	-13	-49.12	-78.72	-67.92	7.30	13.10	Н			
N 4: -l -l l -	7520.00	-59.04	-13	-46.04	-79.02	-62.61	7.73	11.30	Н			
Middle	3760.00	-61.47	-13	-48.47	-75.8	-69.07	5.00	12.60	V			
	5640.00	-62.32	-13	-49.32	-78.85	-68.12	7.30	13.10	V			
	7520.00	-59.31	-13	-46.31	-78.95	-62.88	7.73	11.30	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)			
	3465.2	-60.47	-13	-47.47	-79.80	-68.70	4.37	12.60	Н			
	5197.8	-57.48	-13	-44.48	-81.64	-65.24	4.94	12.70	Н			
NA: dalla	6930.4	-57.55	-13	-44.55	-81.46	-62.93	6.32	11.70	Н			
Middle	3465.2	-63.85	-13	-50.85	-79.93	-72.08	4.37	12.60	V			
	5197.8	-62.12	-13	-49.12	-81.63	-69.88	4.94	12.70	V			
	6930.4	-57.28	-13	-44.28	-81.19	-62.66	6.32	11.70	V			

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

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