



GSM1900 (GSM)

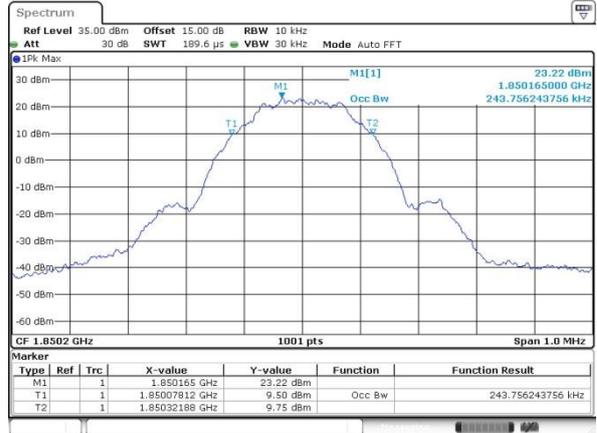
Lowest Channel



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GSM1900 (EDGE class 8)

Lowest Channel



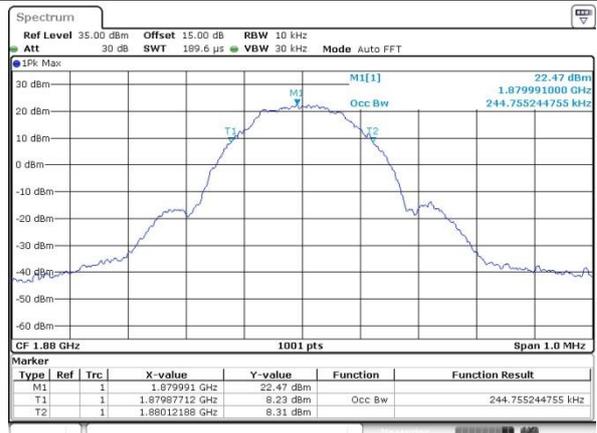
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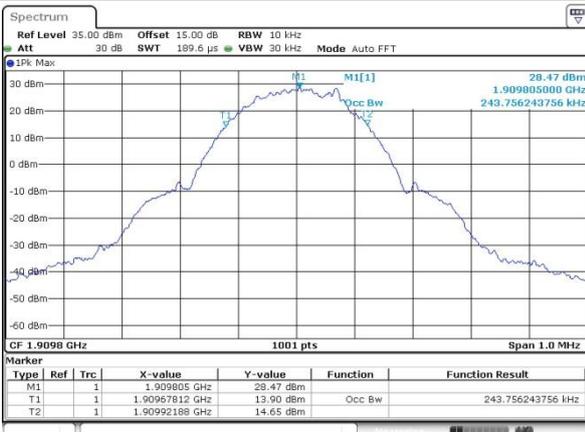
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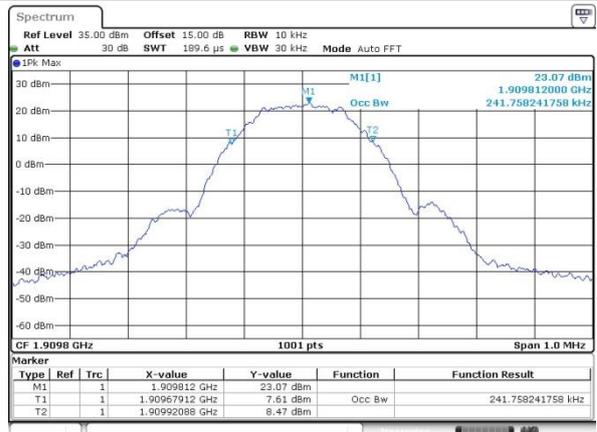
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Highest Channel



Date: 30 JUN 2016 02:48:06

Highest Channel

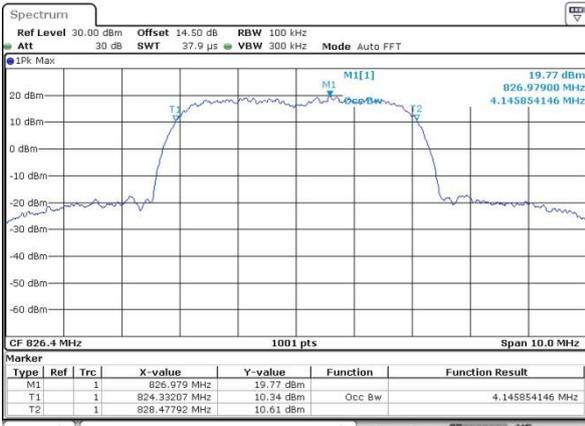


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WCDMA Band V (RMC 12.2Kbps)

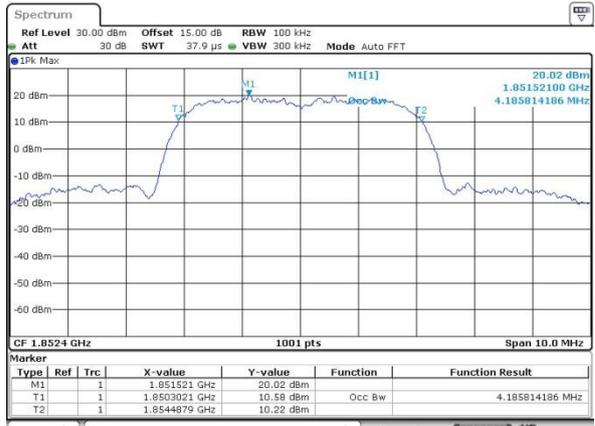
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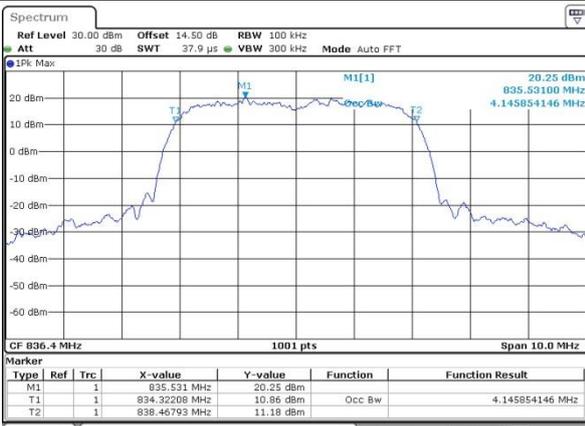
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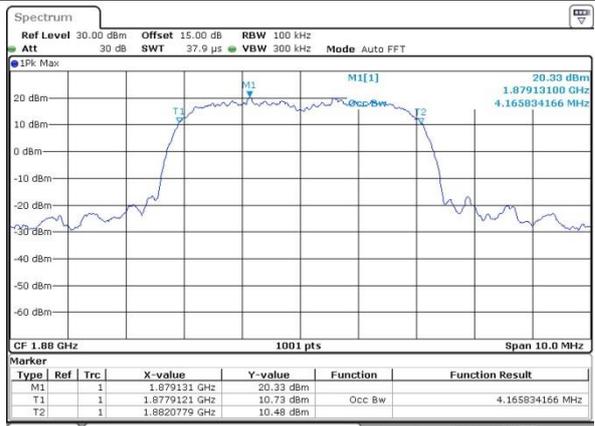
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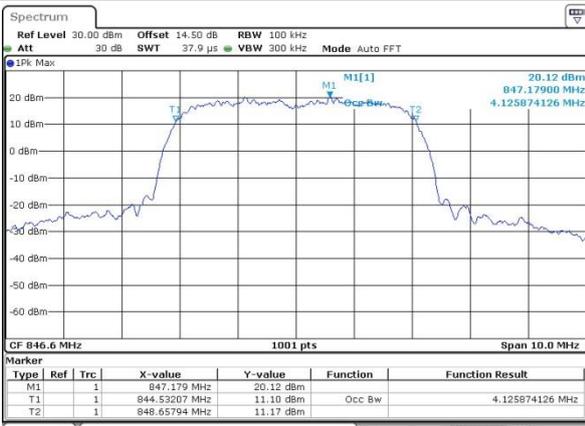
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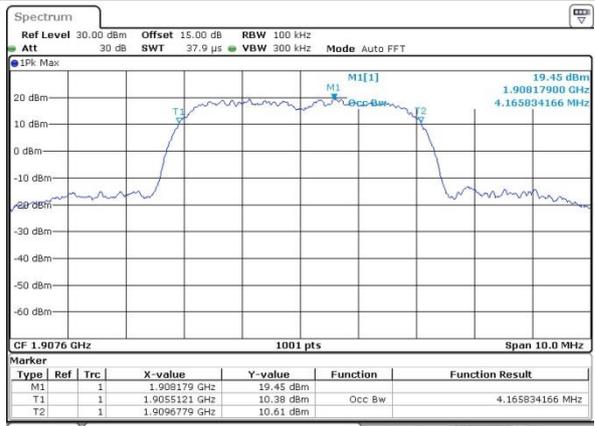
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Highest Channel



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Highest Channel

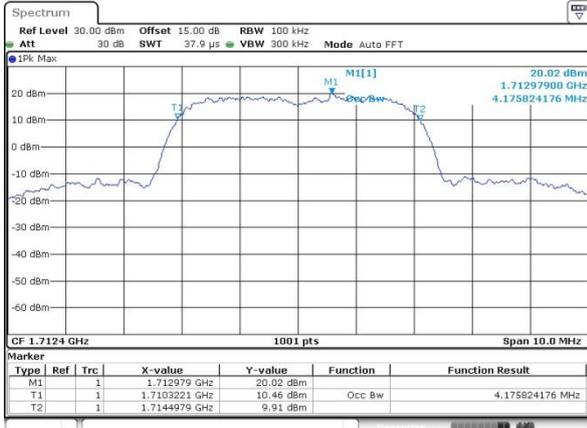


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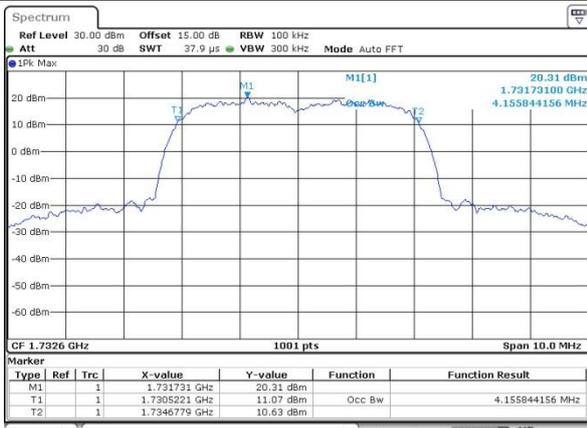
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



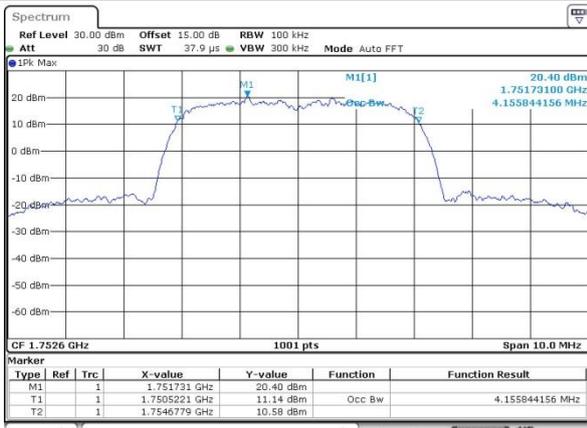
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Middle Channel



Date: 30 JUN 2016 01:50:41

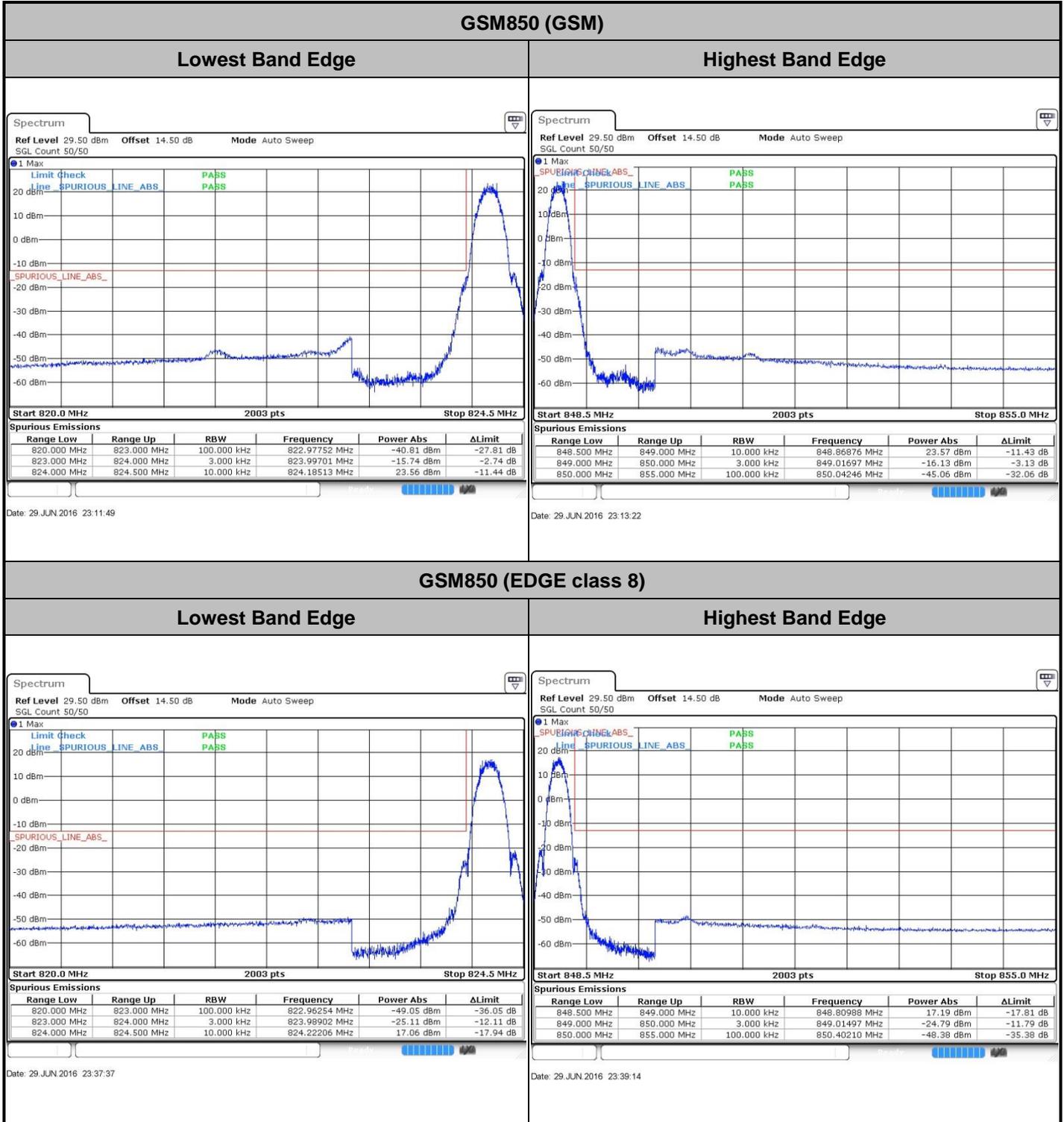
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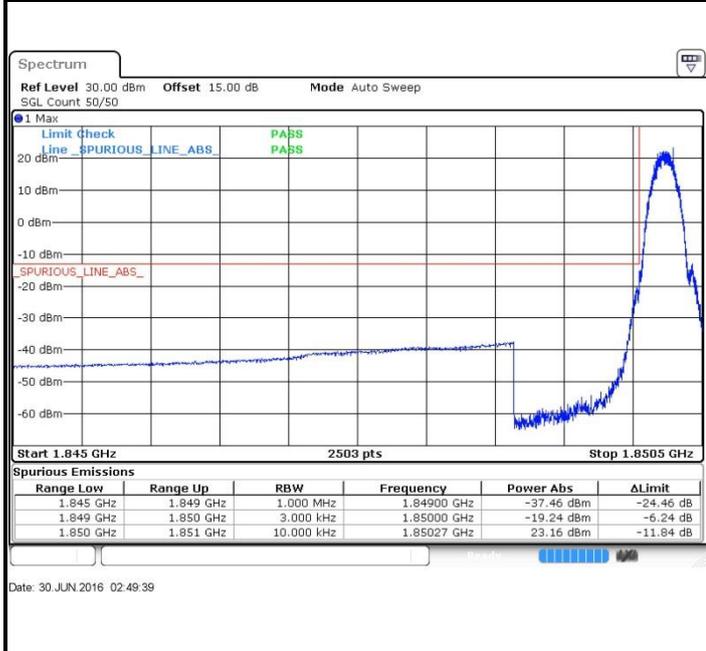
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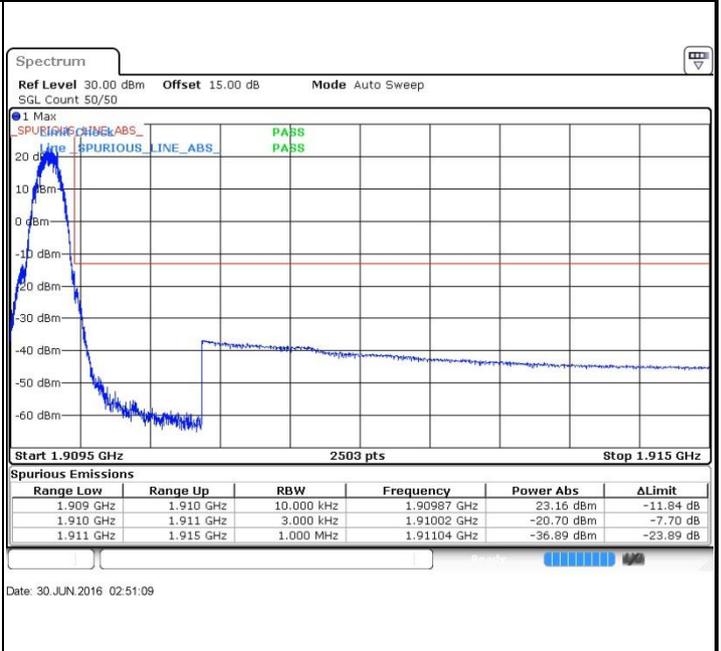


GSM1900 (GSM)

Lowest Band Edge

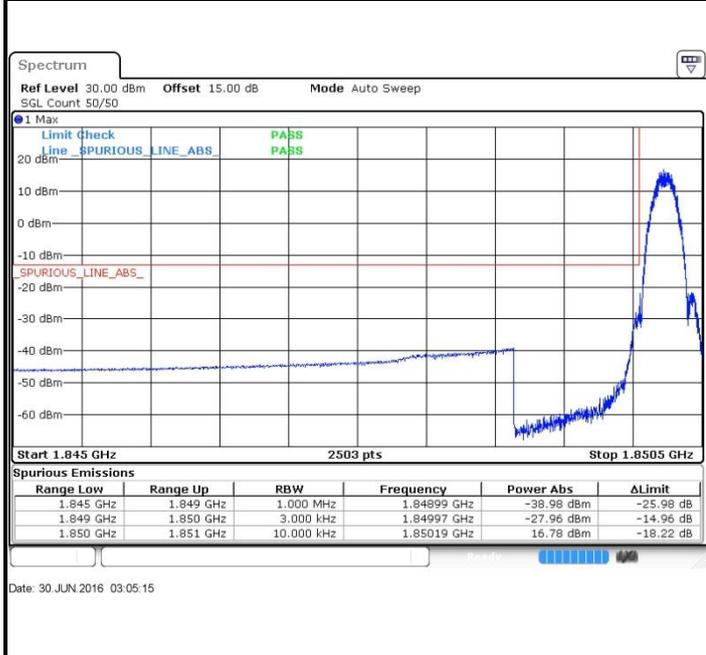


Highest Band Edge

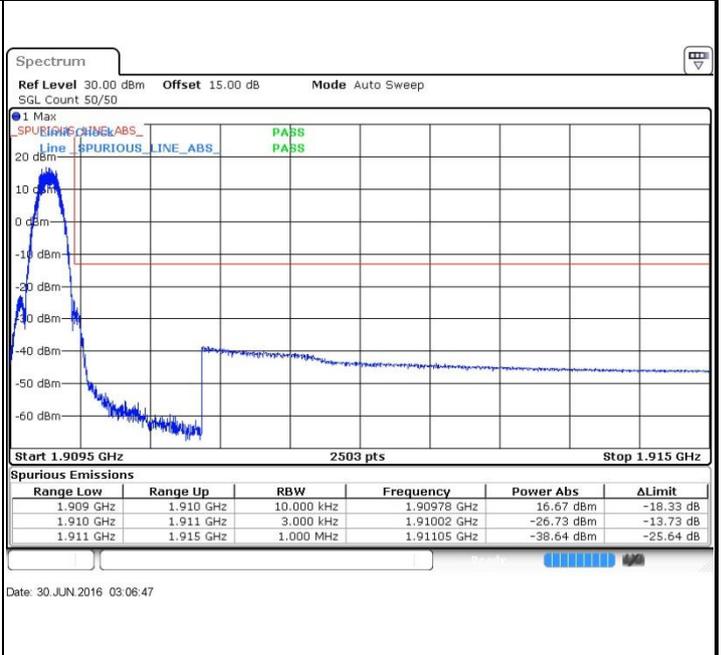


GSM1900 (EDGE class 8)

Lowest Band Edge



Highest Band Edge

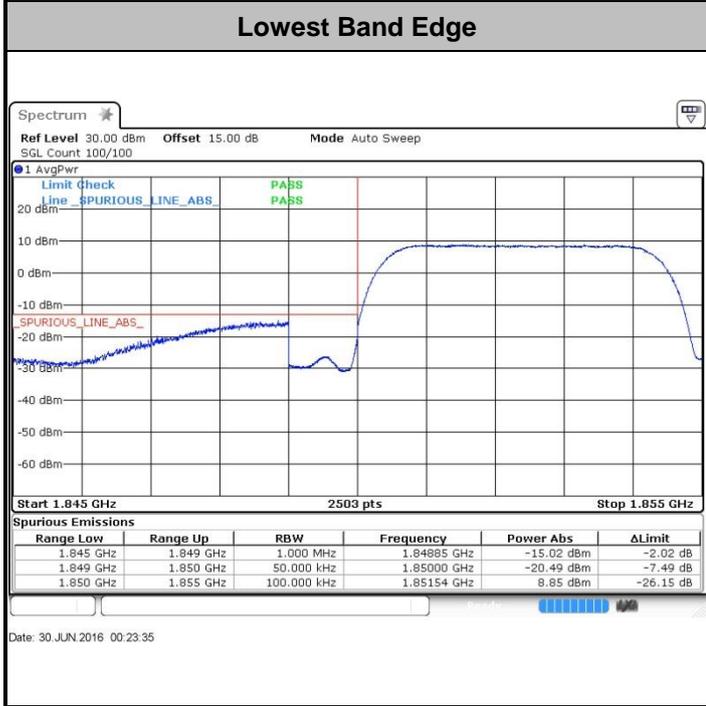




WCDMA Band V (RMC 12.2Kbps)



WCDMA Band II (RMC 12.2Kbps)





WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge

Highest Band Edge

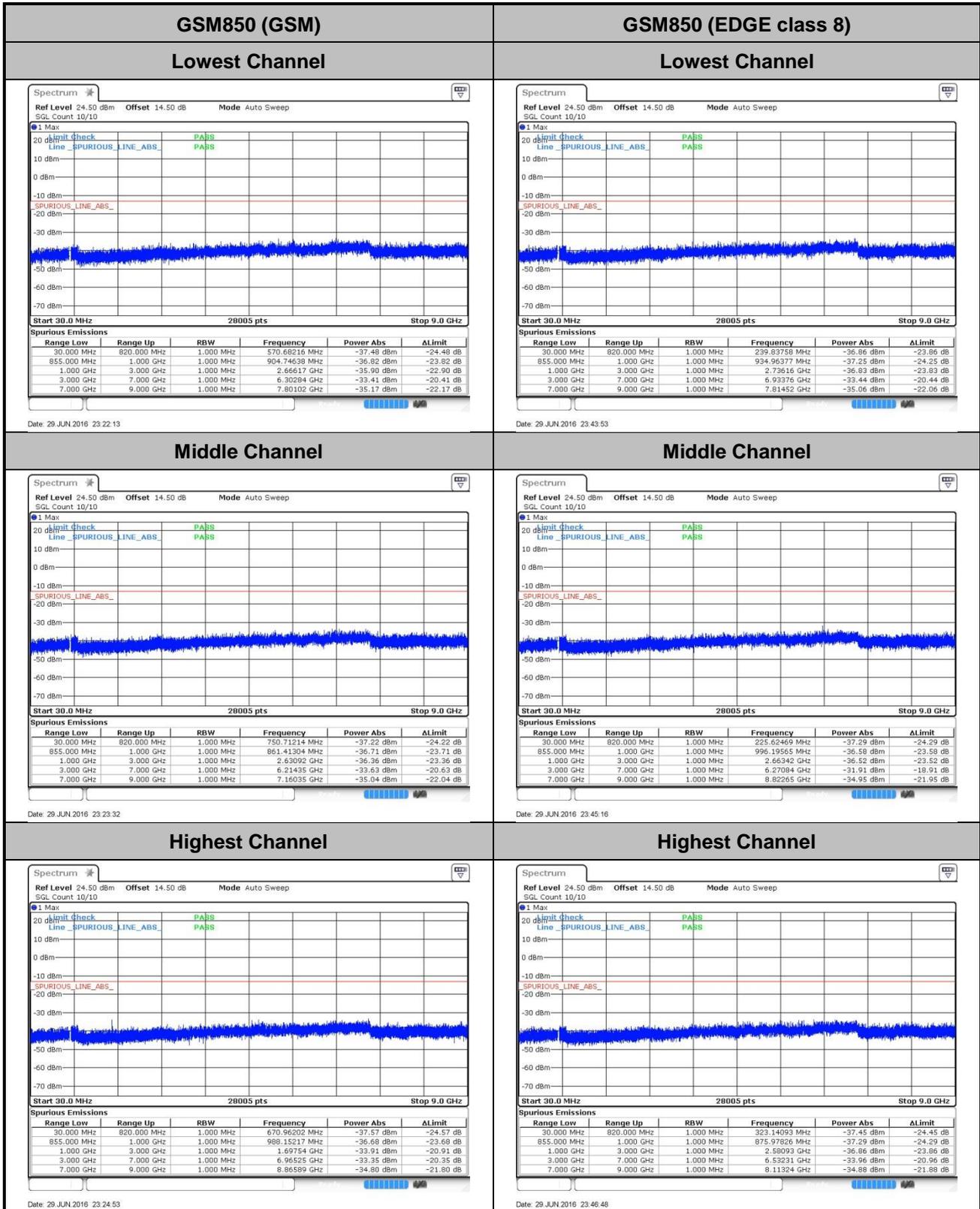


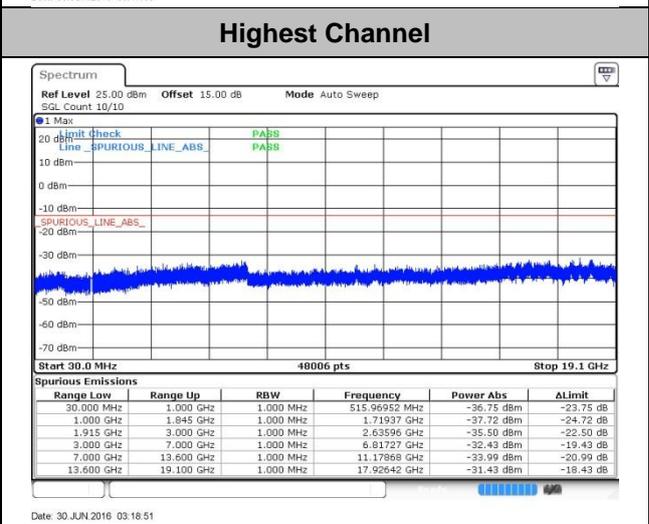
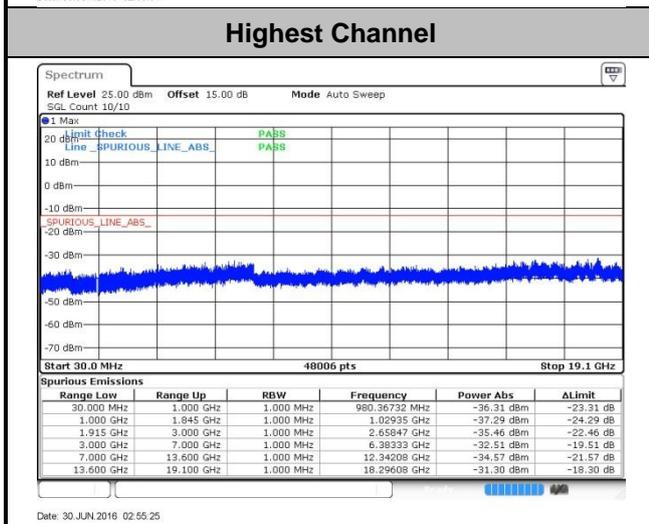
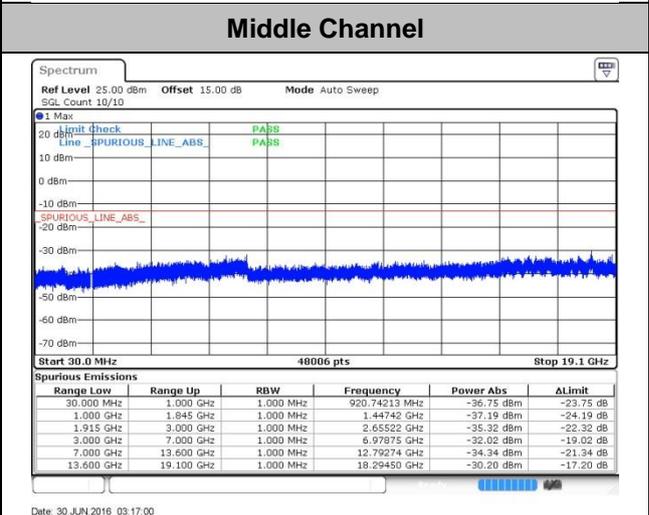
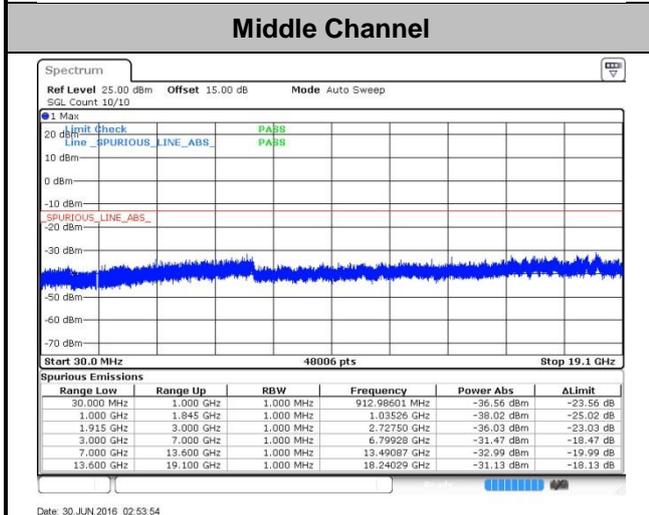
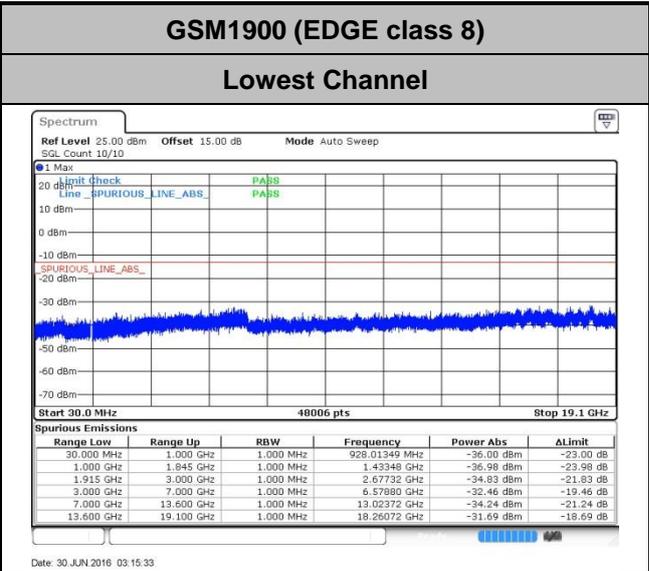
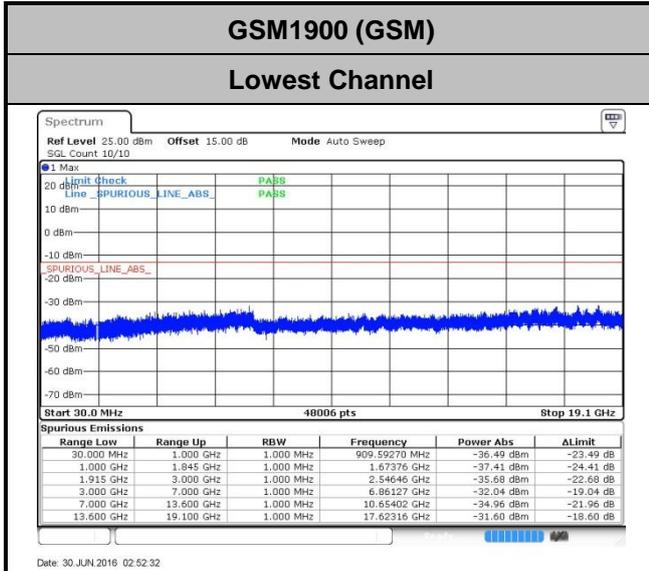
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Date: 1 JUL 2016 04:16:05



Conducted Spurious Emission

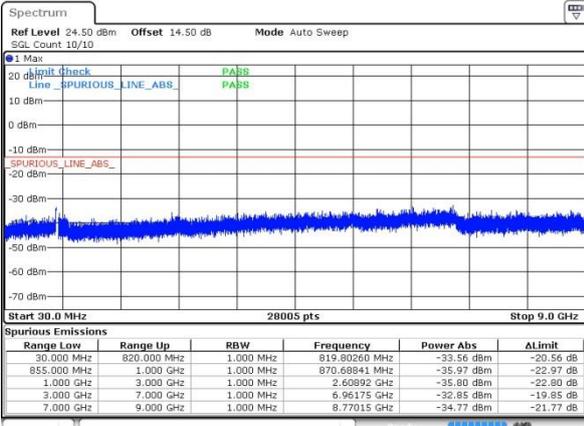






WCDMA Band V (RMC 12.2Kbps)

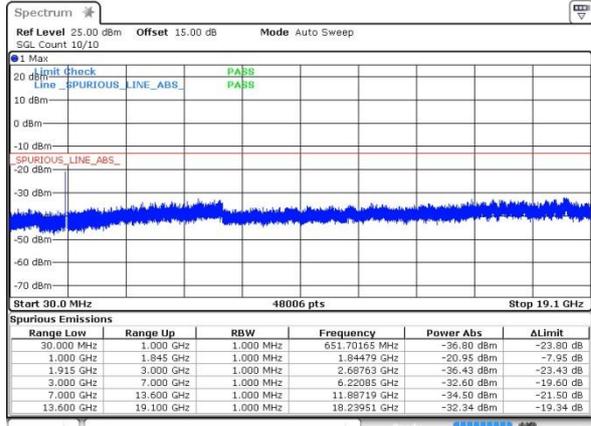
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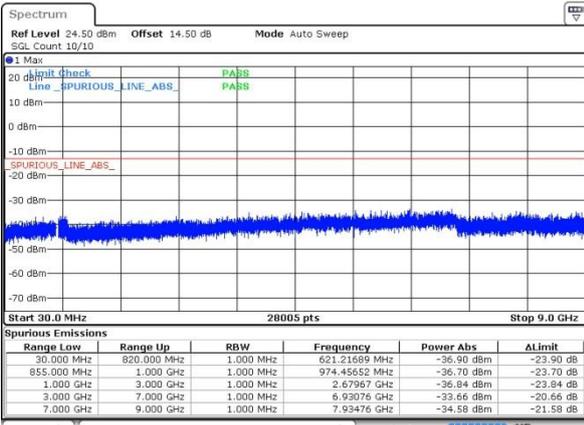
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Lowest Channel



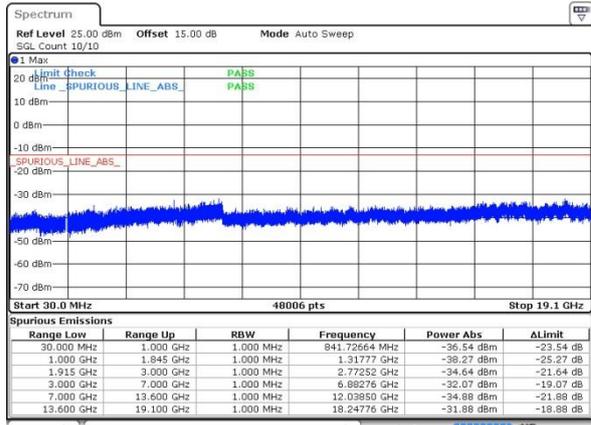
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Middle Channel



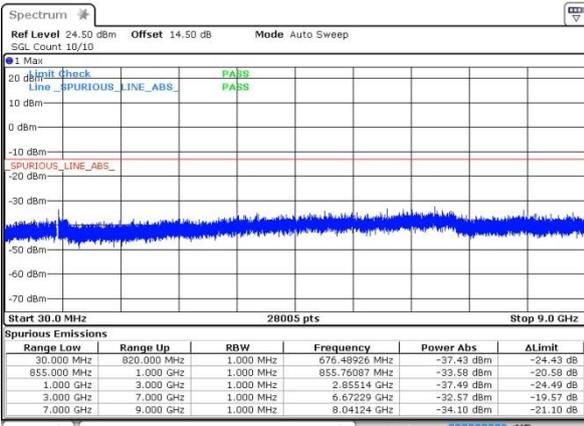
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Middle Channel



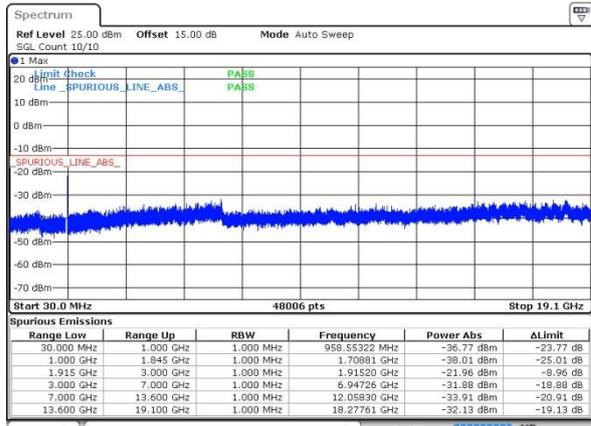
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Highest Channel



Date: 30 JUN 2016 00:07:58

Highest Channel

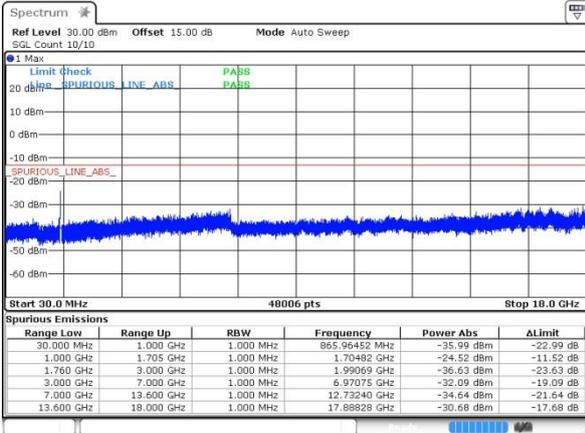


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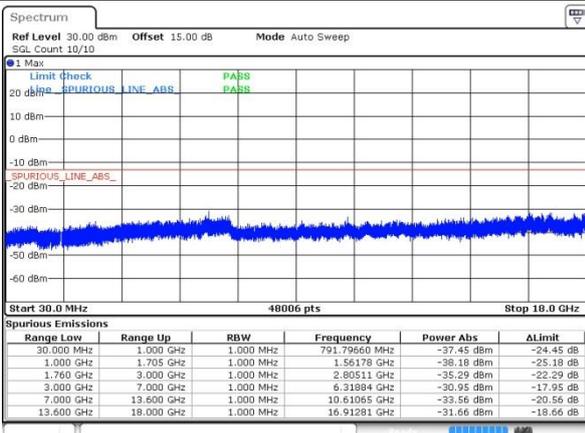
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



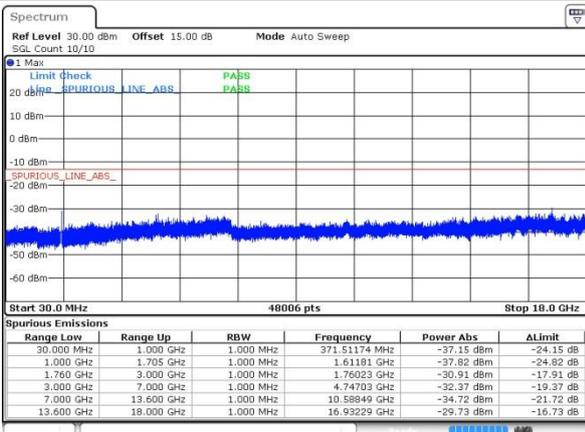
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Middle Channel



Date: 30 JUN 2016 02:37:54

Highest Channel



Date: 30 JUN 2016 02:38:17



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	0.0215	0.0060	PASS
40	Normal Voltage	0.0012	0.0048	
30	Normal Voltage	0.0287	0.0024	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0012	0.0012	
0	Normal Voltage	0.0263	0.0048	
-10	Normal Voltage	0.0215	0.0024	
-20	Normal Voltage	0.0024	0.0036	
-30	Normal Voltage	0.0203	0.0084	
20	Maximum Voltage	0.0024	0.0048	
20	Normal Voltage	0.0048	0.0012	
20	Battery End Point	0.0060	0.0024	

Note: Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.2 V

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0005	0.0011	PASS
40	Normal Voltage	0.0027	0.0027	
30	Normal Voltage	0.0021	0.0048	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0005	0.0011	
0	Normal Voltage	0.0027	0.0011	
-10	Normal Voltage	0.0016	0.0016	
-20	Normal Voltage	0.0027	0.0043	
-30	Normal Voltage	0.0043	0.0032	
20	Maximum Voltage	0.0032	0.0005	
20	Normal Voltage	0.0053	0.0021	
20	Battery End Point	0.0043	0.0037	

Note:

1. Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.2 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	0.0012	PASS
40	Normal Voltage	0.0072	
30	Normal Voltage	0.0048	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0048	
-20	Normal Voltage	0.0060	
-30	Normal Voltage	0.0072	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0036	
20	Battery End Point	0.0072	

Note: Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.2 V

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0101	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0059	
-30	Normal Voltage	0.0032	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0005	
20	Battery End Point	0.0016	

Note:

1. Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.2 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 IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0144	PASS
40	Normal Voltage	0.0052	
30	Normal Voltage	0.0029	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0046	
-10	Normal Voltage	0.0017	
-20	Normal Voltage	0.0219	
-30	Normal Voltage	0.0063	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0017	
20	Battery End Point	0.0035	

Note:

1. Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.2 V
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

ERP/EIRP

Channel	Mode	Horizontal		Vertical	
		ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	GSM850 GSM	27.82	0.6053	16.29	0.0426
Middle		27.41	0.5508	15.80	0.0380
Highest		27.22	0.5272	16.05	0.0403
Lowest	GSM850 EDGE class 8	22.66	0.1845	10.83	0.0121
Middle		22.90	0.1950	11.03	0.0127
Highest		23.69	0.2339	12.15	0.0164
Lowest	WCDMA Band V RMC 12.2Kbps	19.16	0.0824	7.29	0.0054
Middle		19.08	0.0809	7.13	0.0052
Highest		19.31	0.0853	7.57	0.0057
Limit	ERP < 7W	Result		PASS	



Channel	Mode	Horizontal		Vertical	
		EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	GSM1900 GSM	29.66	0.9247	29.26	0.8433
Middle		30.48	1.1169	31.26	1.3366
Highest		30.13	1.0304	30.59	1.1455
Lowest	GSM1900 EDGE class 8	26.94	0.4943	26.73	0.4710
Middle		27.03	0.5047	27.44	0.5546
Highest		26.44	0.4406	26.97	0.4977
Lowest	WCDMA Band II RMC 12.2Kbps	24.99	0.3155	25.27	0.3365
Middle		26.23	0.4198	27.07	0.5093
Highest		25.32	0.3404	25.90	0.3890
Limit	EIRP < 2W	Result		PASS	

Channel	Mode	Horizontal		Vertical	
		EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	WCDMA Band IV RMC 12.2Kbps	23.89	0.2449	22.29	0.1694
Middle		24.45	0.2786	22.75	0.1884
Highest		24.53	0.2838	22.78	0.1897
Limit	EIRP < 1W	Result		PASS	



Radiated Spurious Emission

GSM850 (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)
Middle	1672	-53.05	-13	-40.05	-55.91	-59.74	0.56	9.40	H
	2510	-52.27	-13	-39.27	-58.01	-59.98	0.74	10.60	H
	3346	-57.67	-13	-44.67	-66.48	-67.27	0.85	12.60	H
	1672	-49.75	-13	-36.75	-53.36	-56.44	0.56	9.40	V
	2510	-59.98	-13	-46.98	-65.56	-67.69	0.74	10.60	V
	3346	-58.70	-13	-45.70	-66.84	-68.30	0.85	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)
Middle	1672	-49.37	-13	-36.37	-53.61	-56.06	0.56	9.40	H
	2510	-54.78	-13	-41.78	-60.52	-62.49	0.74	10.60	H
	3346	-57.22	-13	-44.22	-66.03	-66.82	0.85	12.60	H
	1672	-60.77	-13	-47.77	-62.43	-67.46	0.56	9.40	V
	2510	-56.46	-13	-43.46	-62.04	-64.17	0.74	10.60	V
	3346	-58.75	-13	-45.75	-66.89	-68.35	0.85	12.60	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-44.67	-13	-31.67	-58.22	-50.71	6.56	12.60	H
	5640	-46.17	-13	-33.17	-62.11	-51.27	8	13.10	H
	7520	-48.21	-13	-35.21	-66.95	-49.94	9.57	11.30	H
	3760	-39.73	-13	-26.73	-54.23	-45.77	6.56	12.6	V
	5640	-44.05	-13	-31.05	-61.4	-49.15	8	13.1	V
	7520	-48.54	-13	-35.54	-66.94	-50.27	9.57	11.3	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)
Middle	3760	-49.34	-13	-36.34	-62.89	-55.38	6.56	12.60	H
	5640	-52.26	-13	-39.26	-68.20	-57.36	8	13.10	H
	7520	-48.58	-13	-35.58	-67.32	-50.31	9.57	11.30	H
	3760	-53.55	-13	-40.55	-66.9	-59.59	6.56	12.6	V
	5640	-50.79	-13	-37.79	-68.14	-55.89	8	13.1	V
	7520	-48.71	-13	-35.71	-67.11	-50.44	9.57	11.3	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-61.73	-13	-48.73	-64.56	-68.42	0.56	9.40	H
	2510	-61.40	-13	-48.40	-67.14	-69.11	0.74	10.60	H
	3346	-57.73	-13	-44.73	-66.54	-67.33	0.85	12.60	H
	1672	-61.94	-13	-48.94	-63.60	-68.63	0.56	9.40	V
	2510	-60.35	-13	-47.35	-65.93	-68.06	0.74	10.60	V
	3346	-58.07	-13	-45.07	-66.21	-67.67	0.85	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)
Middle	3760	-48.04	-13	-35.04	-61.59	-54.08	6.56	12.60	H
	5640	-51.26	-13	-38.26	-67.20	-56.36	8	13.10	H
	7520	-47.70	-13	-34.70	-66.44	-49.43	9.57	11.30	H
	3760	-53.57	-13	-40.57	-66.92	-59.61	6.56	12.6	V
	5640	-50.71	-13	-37.71	-68.06	-55.81	8	13.1	V
	7520	-48.65	-13	-35.65	-67.05	-50.38	9.57	11.3	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)
Middle	3465.2	-47.75	-13	-34.75	-62.50	-54.17	6.18	12.60	H
	5197.8	-48.85	-13	-35.85	-66.85	-53.81	7.74	12.70	H
	6930.4	-47.83	-13	-34.83	-66.64	-50.53	9	11.70	H
	3465.2	-47.08	-13	-34.08	-58.03	-53.50	6.18	12.60	V
	5197.8	-52.82	-13	-39.82	-65.82	-57.78	7.74	12.70	V
	6930.4	-50.68	-13	-37.68	-67.39	-53.38	9	11.70	V

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