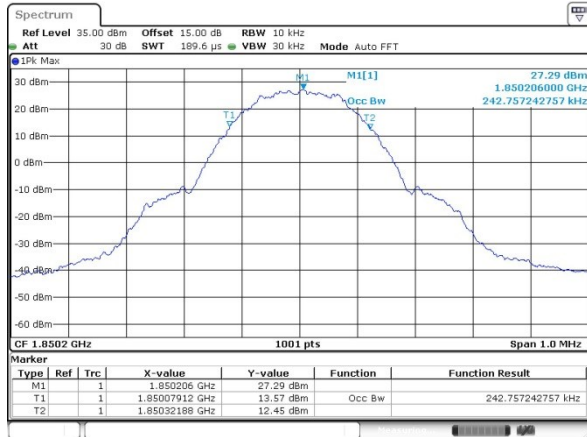




GSM1900 (GPRS class 8)

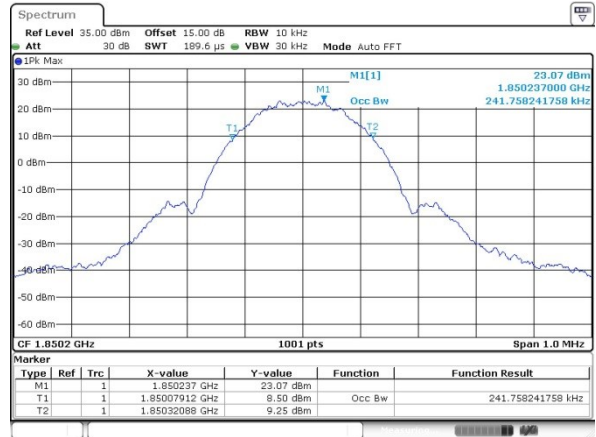
Lowest Channel



Date: 3 APR 2019 19:21:05

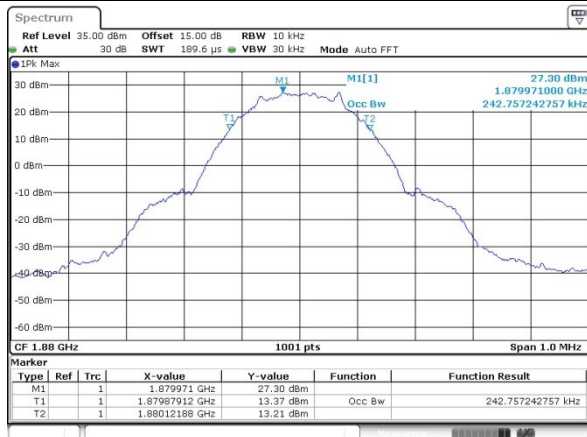
GSM1900 (EDGE class 8)

Lowest Channel



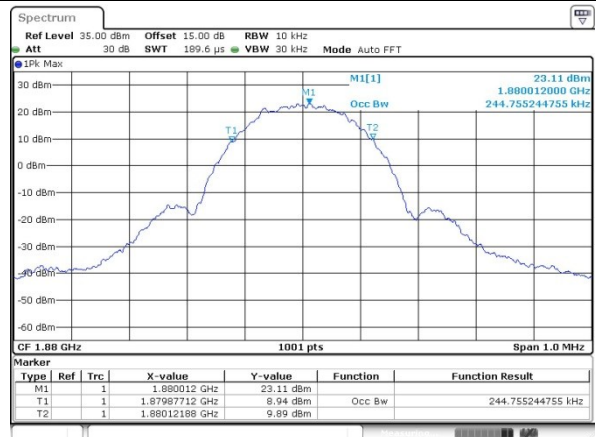
Date: 3 APR 2019 19:42:19

Middle Channel



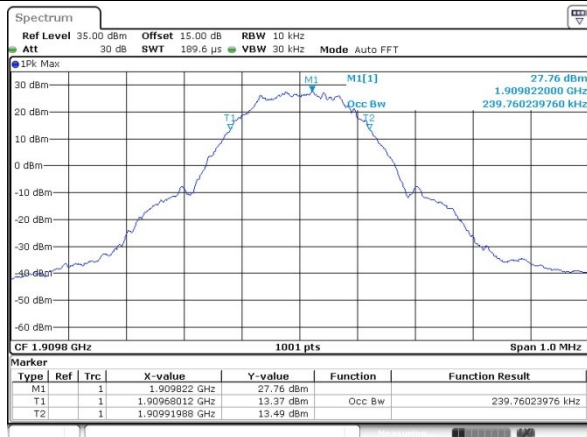
Date: 3 APR 2019 19:21:39

Middle Channel



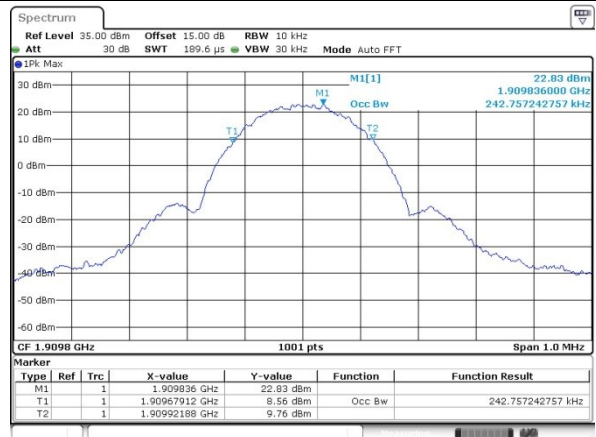
Date: 3 APR 2019 19:42:52

Highest Channel



Date: 3 APR 2019 19:22:14

Highest Channel

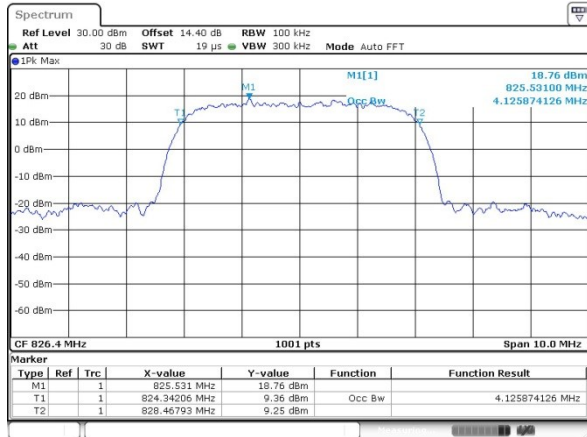


Date: 3 APR 2019 19:43:25



WCDMA Band V (RMC 12.2Kbps)

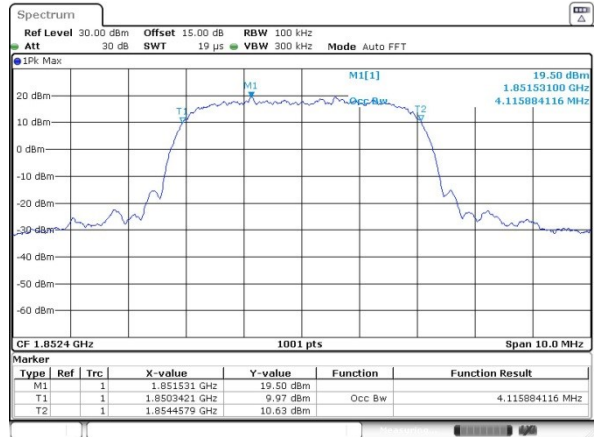
Lowest Channel



Date: 3 APR 2019 19:58:13

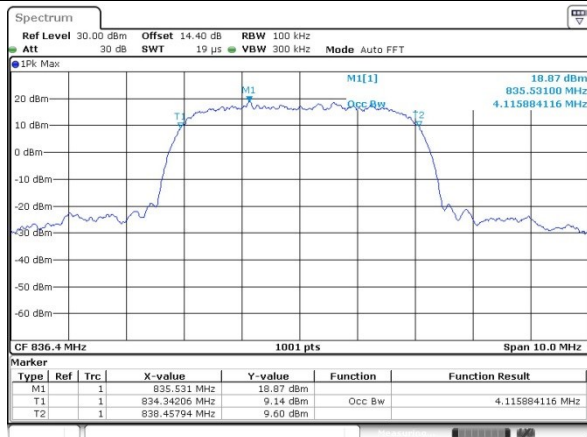
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



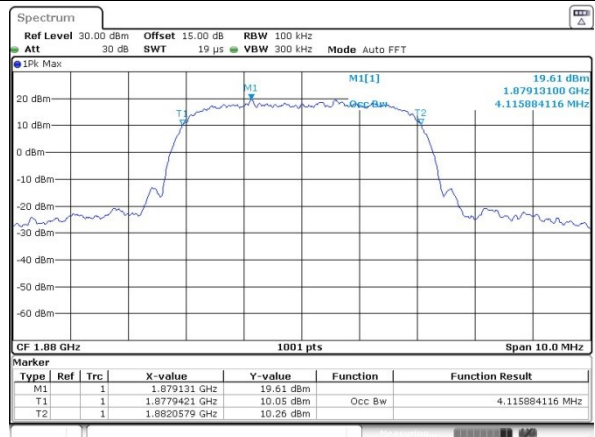
Date: 4 APR 2019 08:44:51

Middle Channel



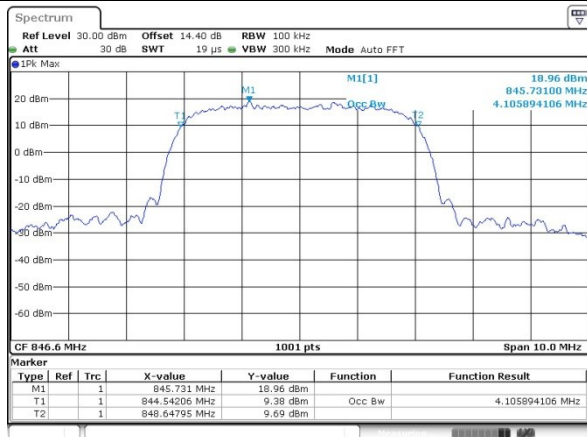
Date: 3 APR 2019 19:58:47

Middle Channel



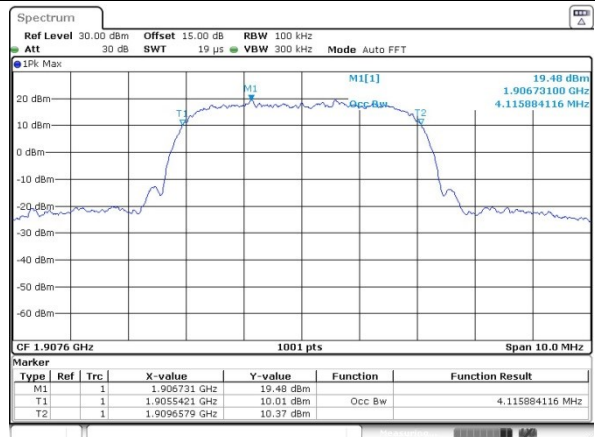
Date: 4 APR 2019 08:45:35

Highest Channel



Date: 3 APR 2019 19:59:20

Highest Channel

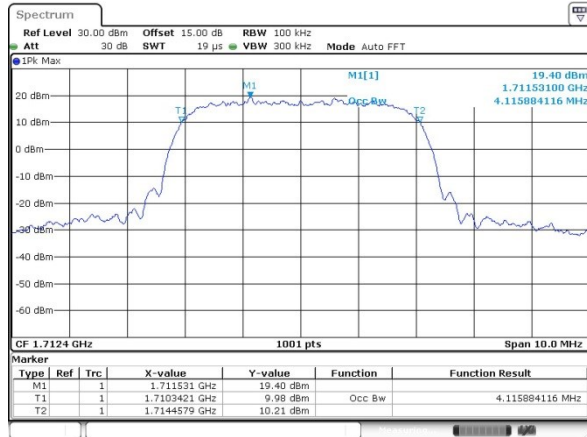


Date: 4 APR 2019 08:46:08

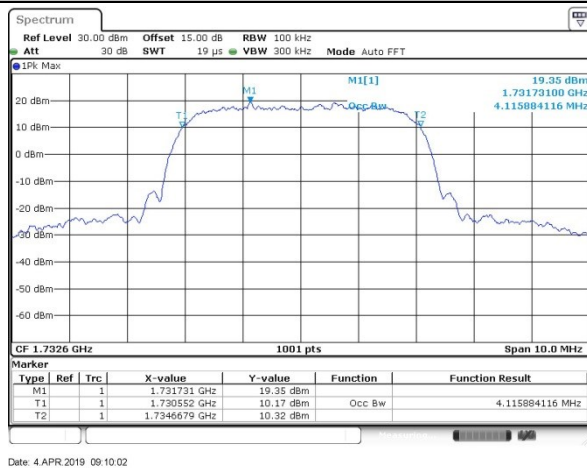


WCDMA Band IV (RMC 12.2Kbps)

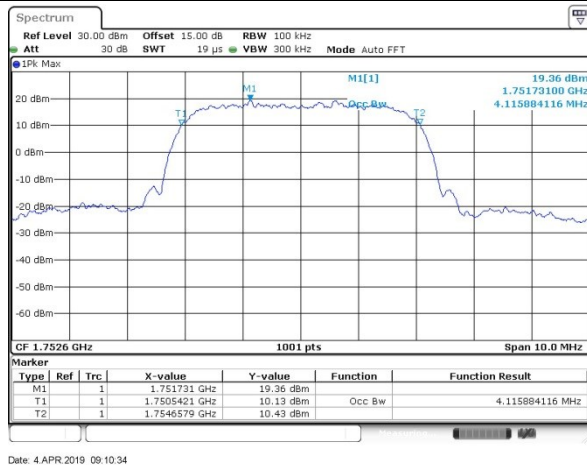
Lowest Channel

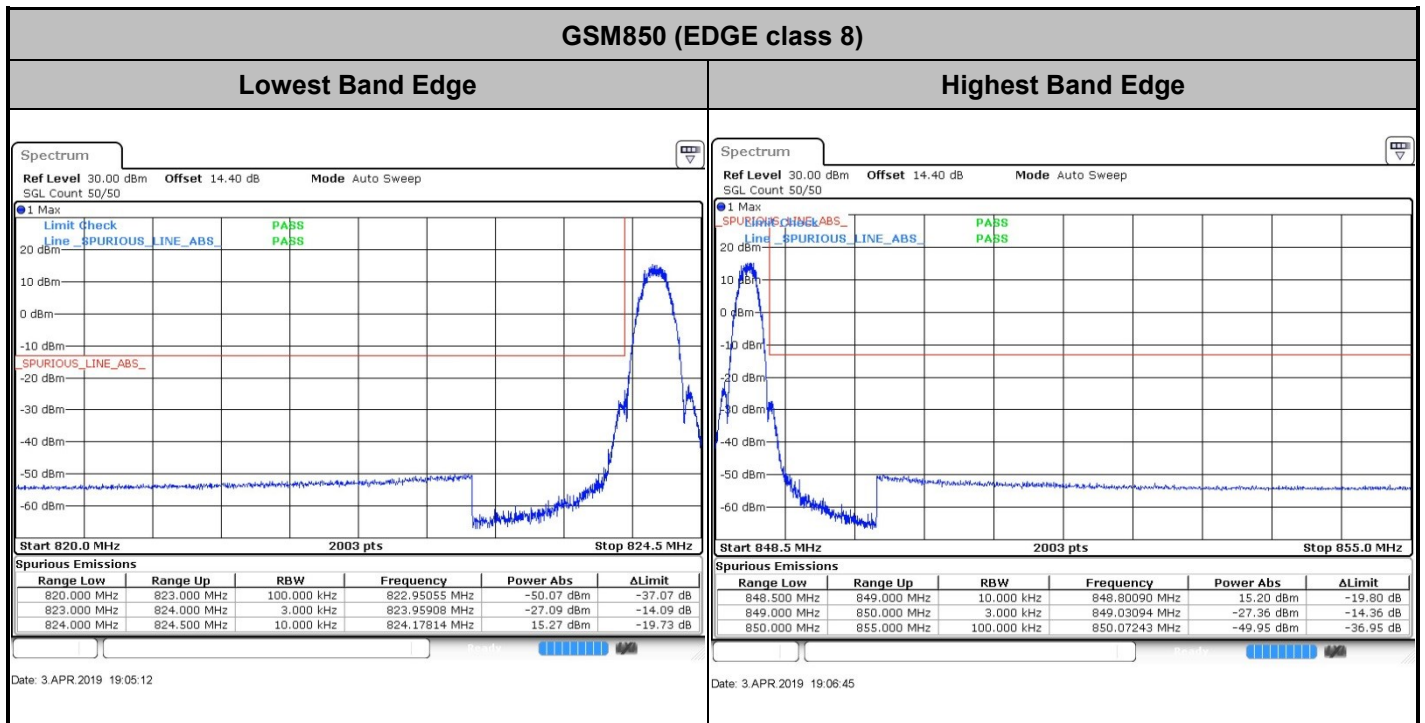
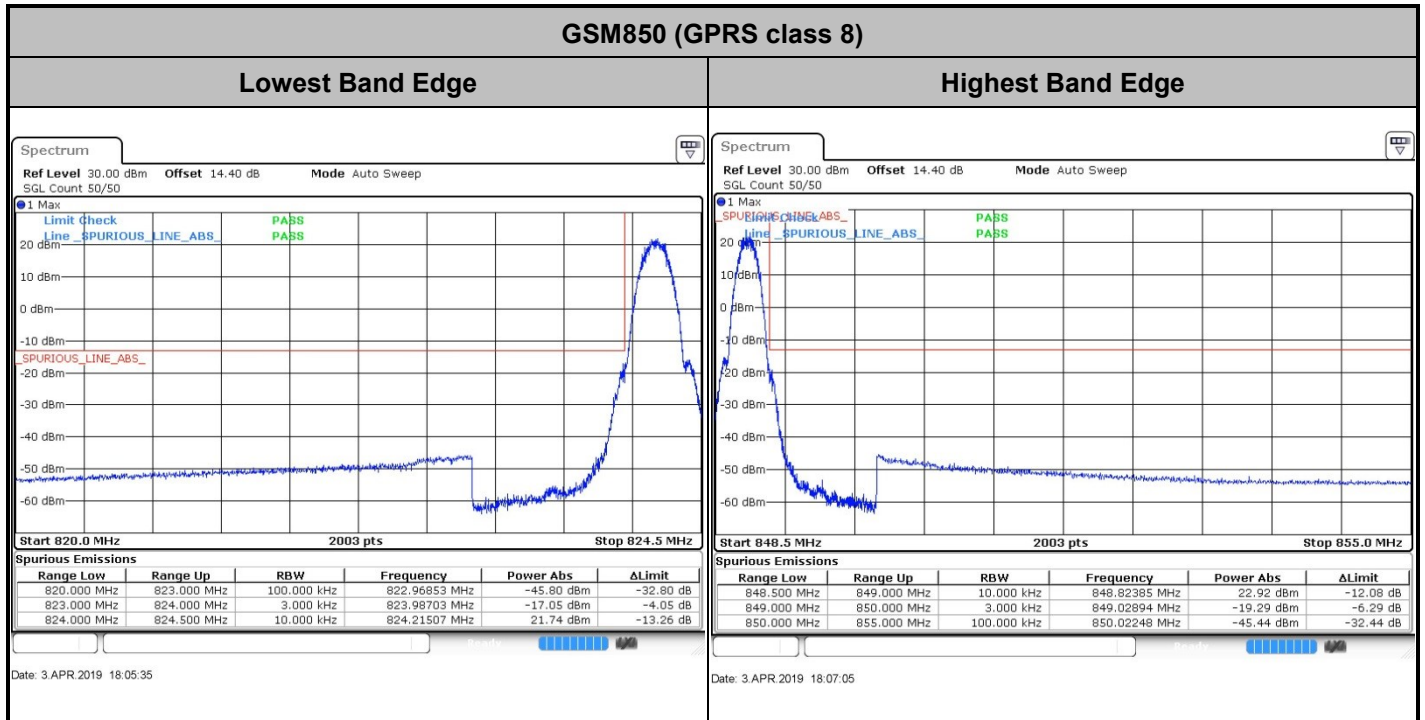


Middle Channel



Highest Channel

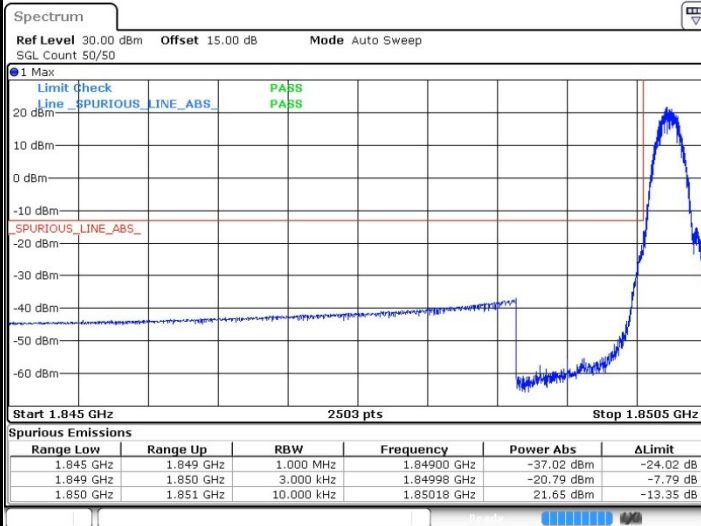


**Conducted Band Edge**

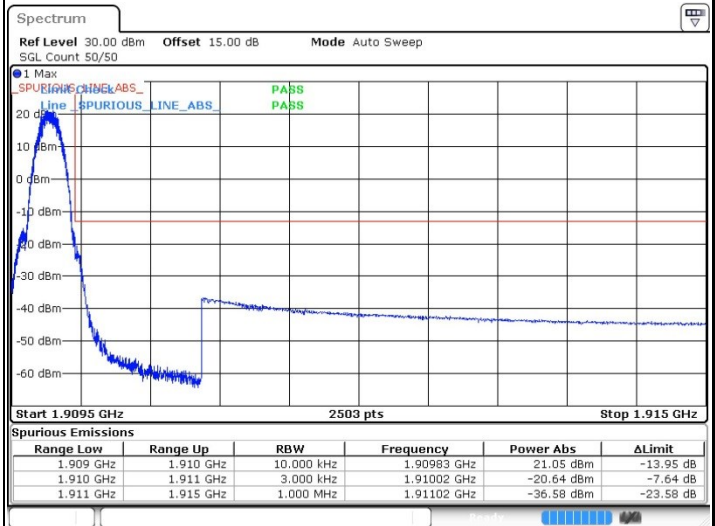


GSM1900 (GPRS class 8)

Lowest Band Edge

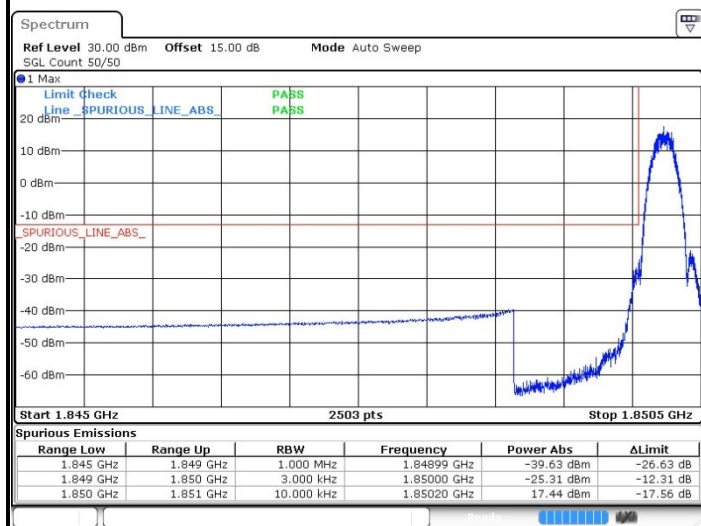


Highest Band Edge

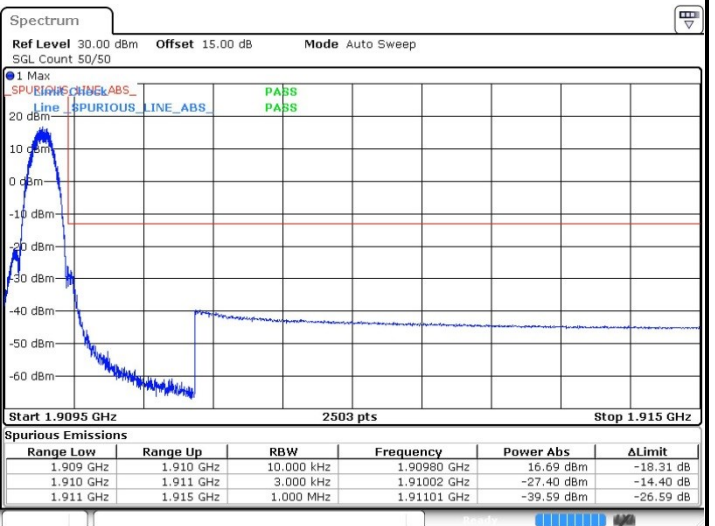


GSM1900 (EDGE class 8)

Lowest Band Edge



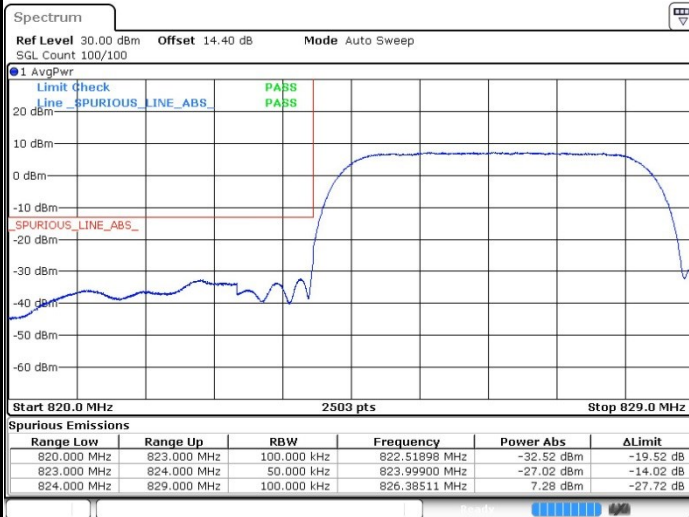
Highest Band Edge





WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge

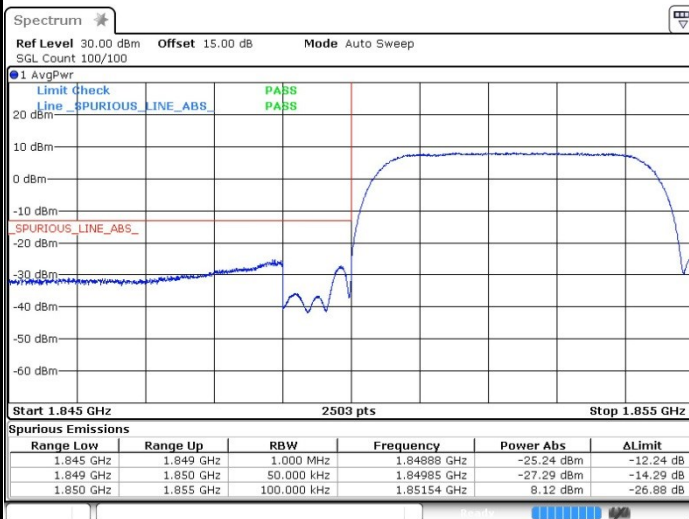


Highest Band Edge

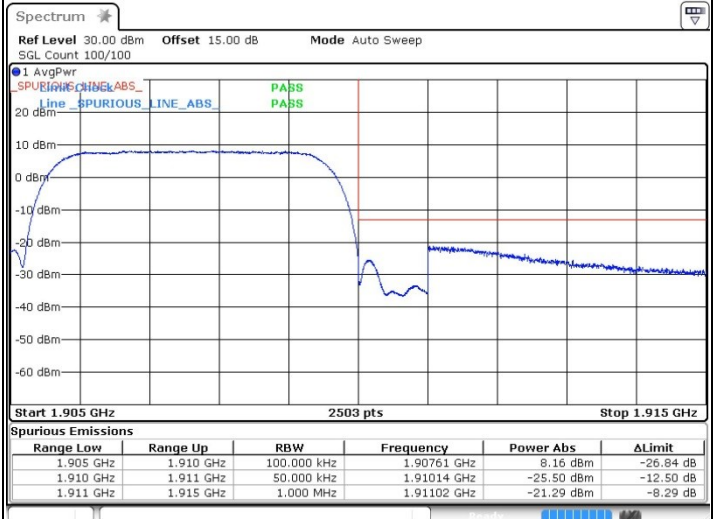


WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge



Highest Band Edge

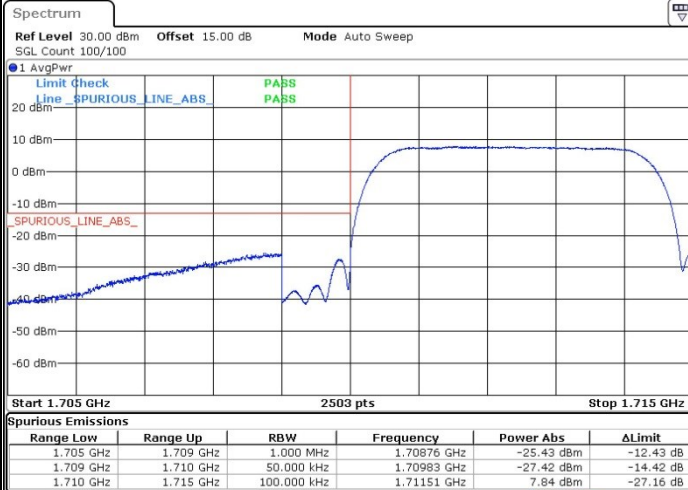




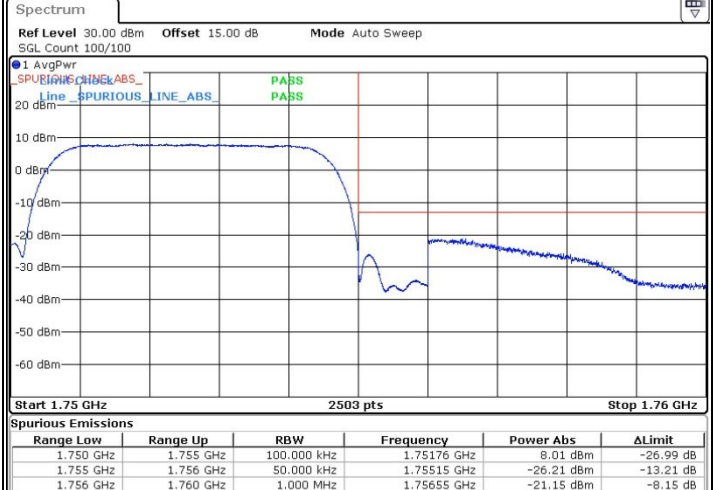
WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge

Highest Band Edge



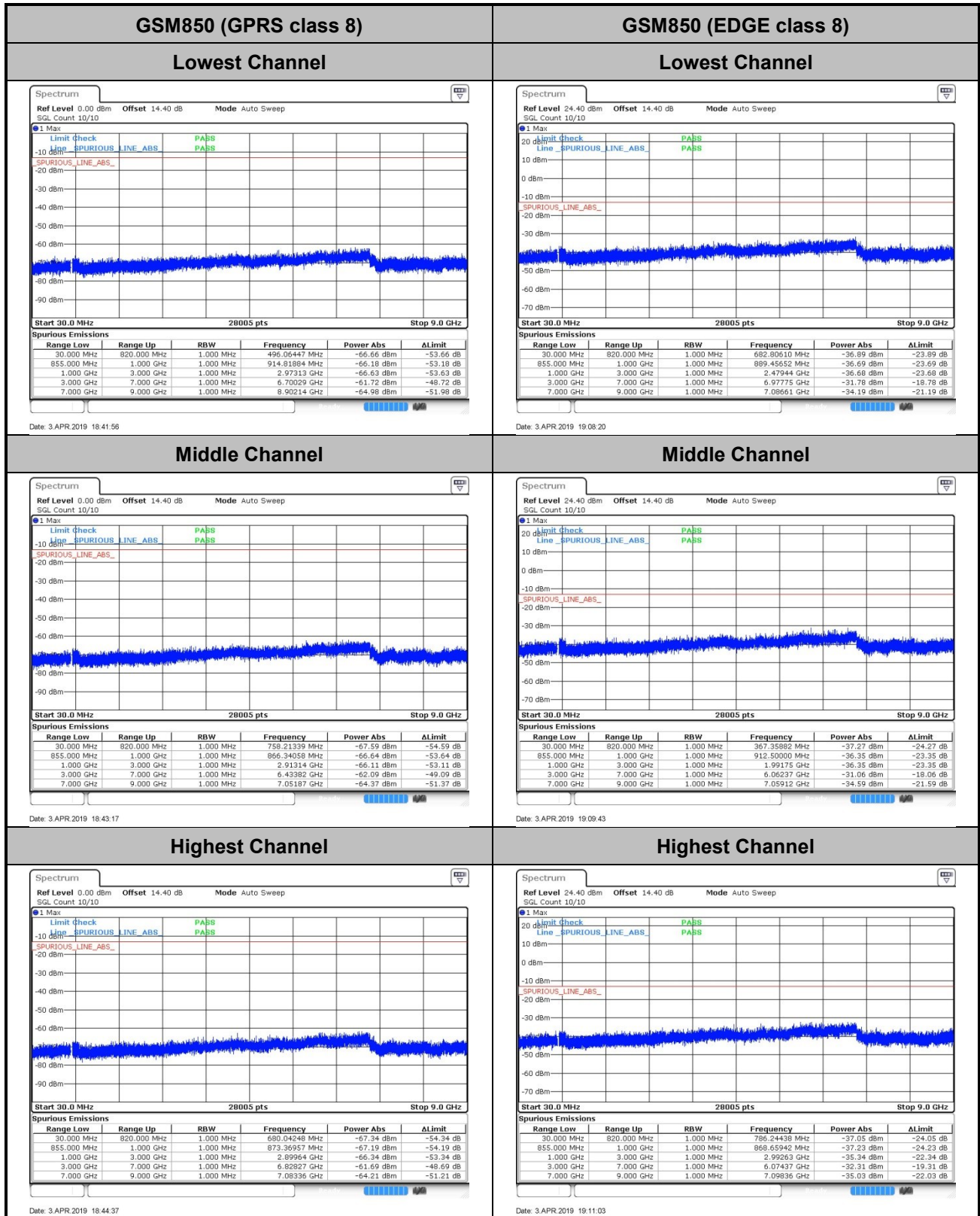
Date: 4 APR 2019 09:13:23



Date: 4 APR 2019 09:16:10



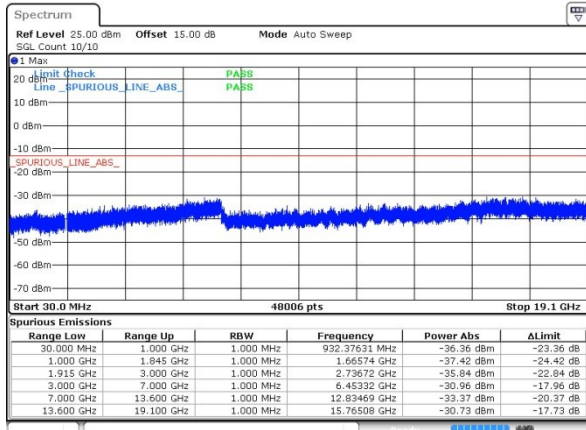
Conducted Spurious Emission





GSM1900 (GPRS class 8)

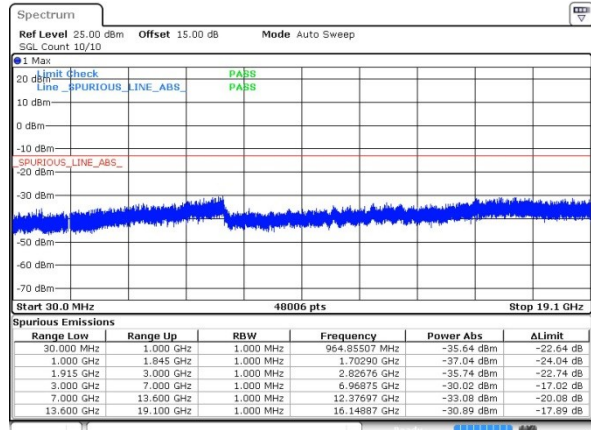
Lowest Channel



Date: 3 APR 2019 19:26:54

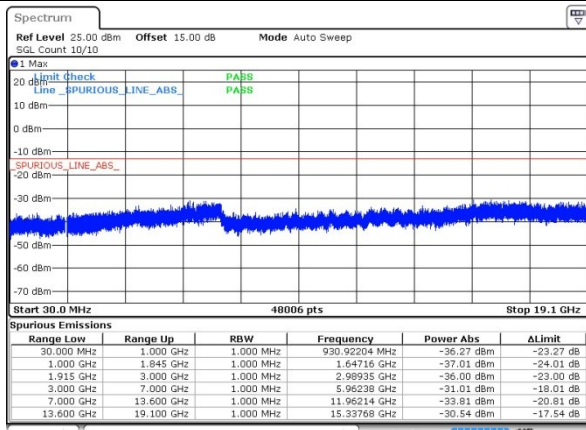
GSM1900 (EDGE class 8)

Lowest Channel



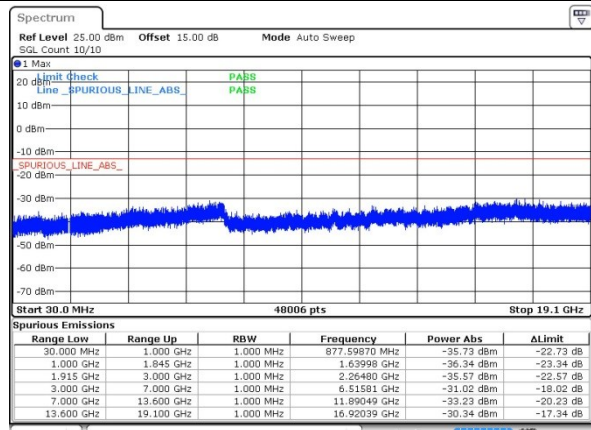
Date: 3 APR 2019 19:47:54

Middle Channel



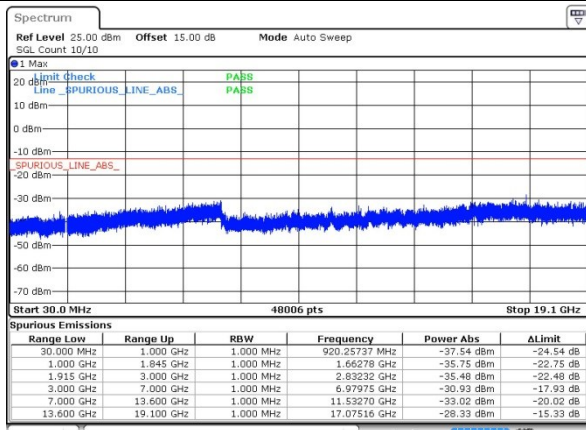
Date: 3 APR 2019 19:28:14

Middle Channel



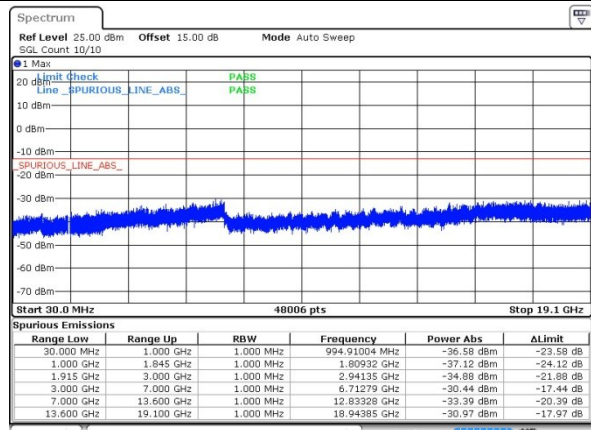
Date: 3 APR 2019 19:49:12

Highest Channel



Date: 3 APR 2019 19:29:34

Highest Channel

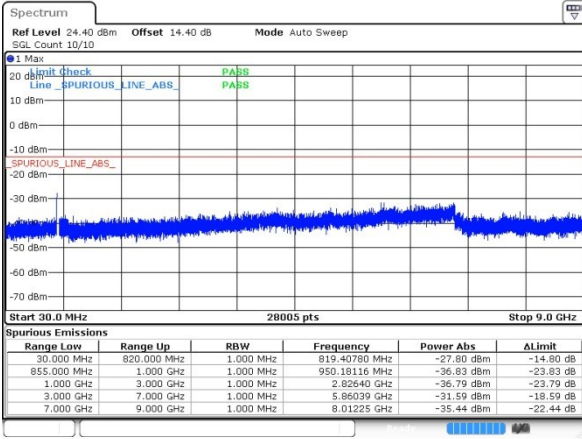


Date: 3 APR 2019 19:50:32



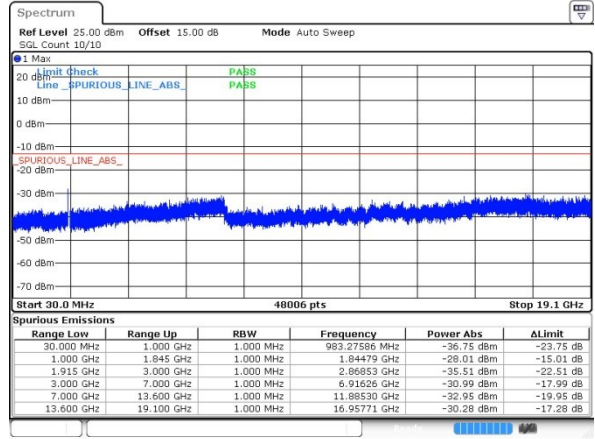
WCDMA Band V (RMC 12.2Kbps)

Lowest Channel

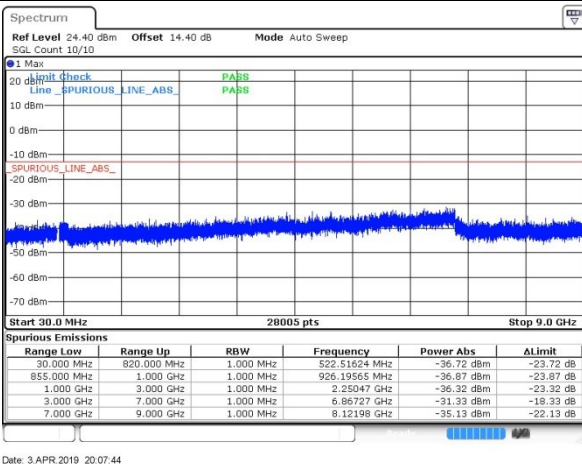


WCDMA Band II (RMC 12.2Kbps)

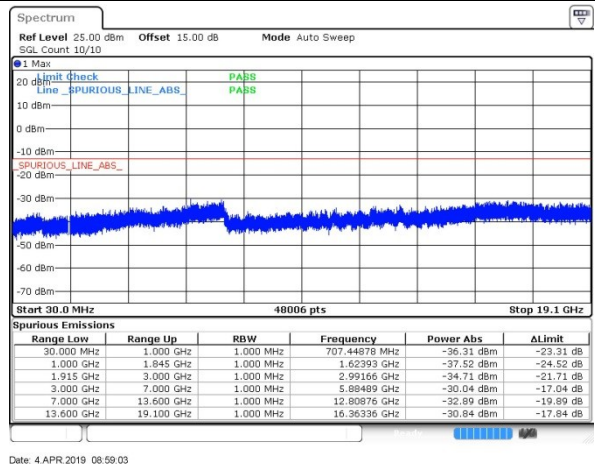
Lowest Channel



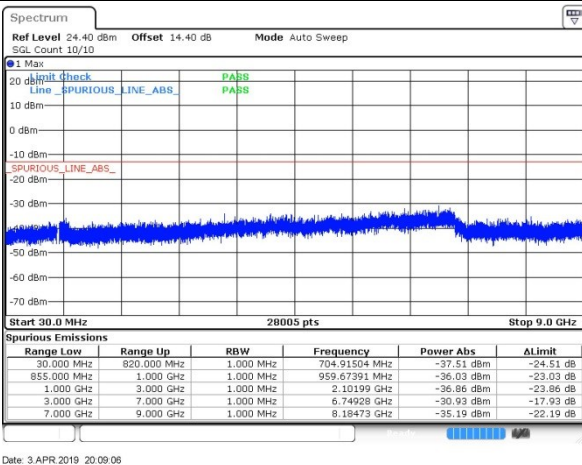
Middle Channel



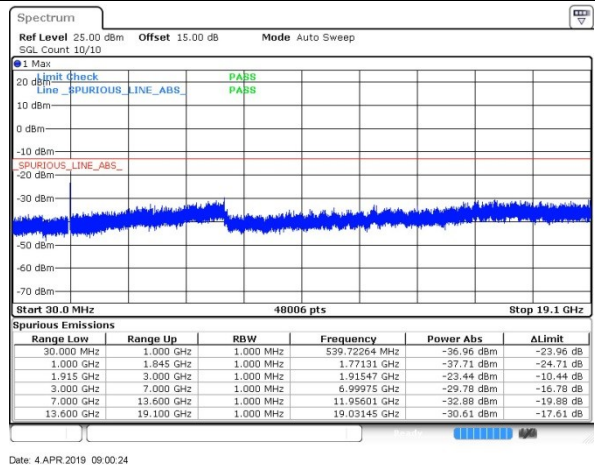
Middle Channel



Highest Channel



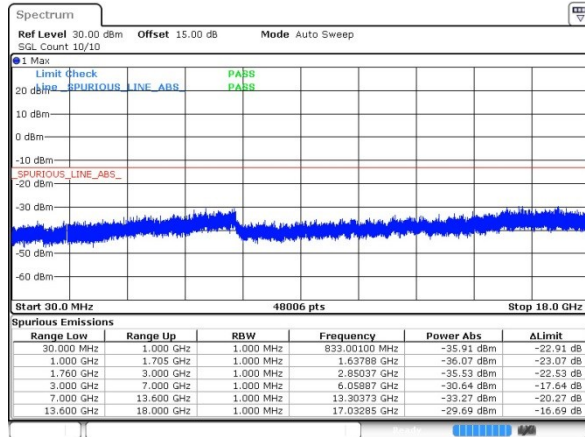
Highest Channel



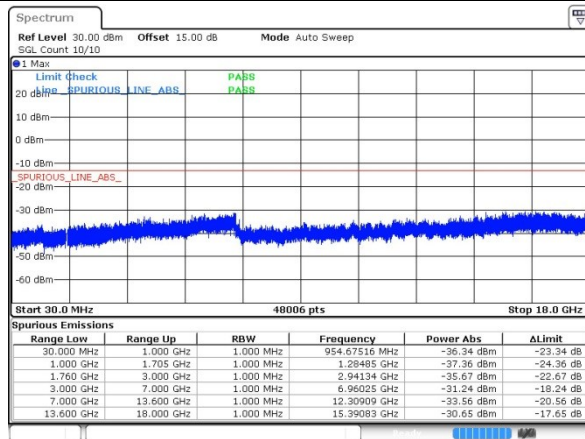


WCDMA Band IV (RMC 12.2Kbps)

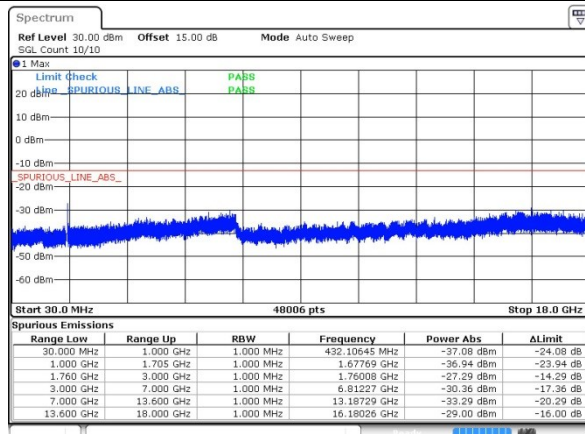
Lowest Channel



Middle Channel



Highest Channel



**Frequency Stability**

Test Conditions	Middle Channel	GSM850 (GPRS class 8)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0048	0.0060	PASS
40	Normal Voltage	0.0526	0.0167	
30	Normal Voltage	0.0120	0.0538	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0574	0.0335	
0	Normal Voltage	0.0191	0.0538	
-10	Normal Voltage	0.0084	0.0466	
-20	Normal Voltage	0.0143	0.0167	
-30	Normal Voltage	0.0108	0.0478	
20	Maximum Voltage	0.0466	0.0514	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0395	0.0395	

Note: Normal Voltage = 3.8V; Battery End Point (BEP) =3.3V; Maximum Voltage =4.3V

Test Conditions	Middle Channel	GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0053	0.0005	PASS
40	Normal Voltage	0.0016	0.0016	
30	Normal Voltage	0.0027	0.0021	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0170	0.0255	
0	Normal Voltage	0.0074	0.0186	
-10	Normal Voltage	0.0160	0.0011	
-20	Normal Voltage	0.0218	0.0037	
-30	Normal Voltage	0.0005	0.0213	
20	Maximum Voltage	0.0053	0.0160	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0133	0.0011	

Note:

1. Normal Voltage = 3.8V; Battery End Point (BEP) =3.3V; Maximum Voltage =4.3V
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
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	2.5ppm Result
50	Normal Voltage	0.0060	PASS
40	Normal Voltage	0.0395	
30	Normal Voltage	0.0442	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0072	
0	Normal Voltage	0.0323	
-10	Normal Voltage	0.0048	
-20	Normal Voltage	0.0167	
-30	Normal Voltage	0.0311	
20	Maximum Voltage	0.0442	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	

Note: Normal Voltage = 3.8V; Battery End Point (BEP) =3.3V; Maximum Voltage =4.3V

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Note 2. Result
50	Normal Voltage	0.0186	PASS
40	Normal Voltage	0.0128	
30	Normal Voltage	0.0165	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0117	
0	Normal Voltage	0.0154	
-10	Normal Voltage	0.0239	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0117	
20	Maximum Voltage	0.0165	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0032	

Note:

1. Normal Voltage = 3.8V; Battery End Point (BEP) =3.3V; Maximum Voltage =4.3V
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	0.0069	PASS
40	Normal Voltage	0.0156	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0058	
-10	Normal Voltage	0.0150	
-20	Normal Voltage	0.0167	
-30	Normal Voltage	0.0092	
20	Maximum Voltage	0.0092	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0167	

Note:

1. Normal Voltage = 3.8V; Battery End Point (BEP) =3.3V; Maximum Voltage =4.3V
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 (GPRS 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	1672.8	-60.52	-13	-47.52	-69.37	-63.77	4.00	9.40	H
	2509.2	-49.22	-13	-36.22	-62.70	-52.79	4.88	10.60	H
	3345.6	-63.08	-13	-50.08	-78.55	-68.01	5.52	12.60	H
	1672.8	-54.08	-13	-41.08	-62.72	-57.33	4.00	9.40	V
	2509.2	-48.32	-13	-35.32	-61.65	-51.89	4.88	10.60	V
	3345.6	-60.43	-13	-47.43	-75.90	-65.36	5.52	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	1673.04	-59.30	-13	-46.30	-68.15	-62.55	4.00	9.40	H
	2509.56	-52.05	-13	-39.05	-65.53	-55.62	4.88	10.60	H
	3346.08	-65.44	-13	-52.44	-80.91	-70.37	5.52	12.60	H
	1673.04	-54.37	-13	-41.37	-63.01	-57.62	4.00	9.40	V
	2509.56	-51.06	-13	-38.06	-64.39	-54.63	4.88	10.60	V
	3346.08	-62.73	-13	-49.73	-78.20	-67.66	5.52	12.60	V

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

GSM1900 (GPRS 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	-64.77	-13	-51.77	-81.77	-71.52	5.85	12.60	H
	5640	-63.44	-13	-50.44	-84.11	-69.24	7.30	13.10	H
	7520	-55.72	-13	-42.72	-81.99	-58.87	8.35	11.50	H
	3760	-64.79	-13	-51.79	-81.83	-71.54	5.85	12.60	V
	5640	-62.34	-13	-49.34	-83.41	-68.14	7.30	13.10	V
	7520	-58.07	-13	-45.07	-84.15	-61.22	8.35	11.50	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	-63.44	-13	-50.44	-80.44	-70.19	5.85	12.60	H
	5640	-61.25	-13	-48.25	-81.92	-67.05	7.30	13.10	H
	7520	-55.80	-13	-42.80	-82.07	-58.95	8.35	11.50	H
	3760	-63.28	-13	-50.28	-80.32	-70.03	5.85	12.60	V
	5640	-61.23	-13	-48.23	-82.3	-67.03	7.30	13.10	V
	7520	-56.57	-13	-43.57	-82.65	-59.72	8.35	11.50	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	1672.8	-69.54	-13	-56.54	-78.39	-72.79	4.00	9.40	H
	2509.2	-66.09	-13	-53.09	-79.57	-69.66	4.88	10.60	H
	3345.6	-65.27	-13	-52.27	-80.74	-70.20	5.52	12.60	H
	1672.8	-69.05	-13	-56.05	-77.69	-72.30	4.00	9.40	V
	2509.2	-66.15	-13	-53.15	-79.48	-69.72	4.88	10.60	V
	3345.6	-65.46	-13	-52.46	-80.93	-70.39	5.52	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	-63.38	-13	-50.38	-80.38	-70.13	5.85	12.60	H
	5640	-62.11	-13	-49.11	-82.78	-67.91	7.30	13.10	H
	7520	-56.69	-13	-43.69	-82.96	-59.84	8.35	11.50	H
	3760	-61.29	-13	-48.29	-78.33	-68.04	5.85	12.60	V
	5640	-60.17	-13	-47.17	-81.24	-65.97	7.30	13.10	V
	7520	-56.73	-13	-43.73	-82.81	-59.88	8.35	11.50	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	-61.32	-13	-48.32	-75.02	-69.29	4.63	12.60	H
	5197.8	-61.25	-13	-48.25	-79.18	-67.70	6.25	12.70	H
	6930.4	-60.73	-13	-47.73	-80.35	-65.50	8.23	13.00	H
	3465.2	-60.40	-13	-47.40	-71.81	-68.37	4.63	12.6	V
	5197.8	-62.77	-13	-49.77	-76.38	-69.22	6.25	12.7	V
	6930.4	-61.38	-13	-48.38	-80.5	-66.15	8.23	13	V

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