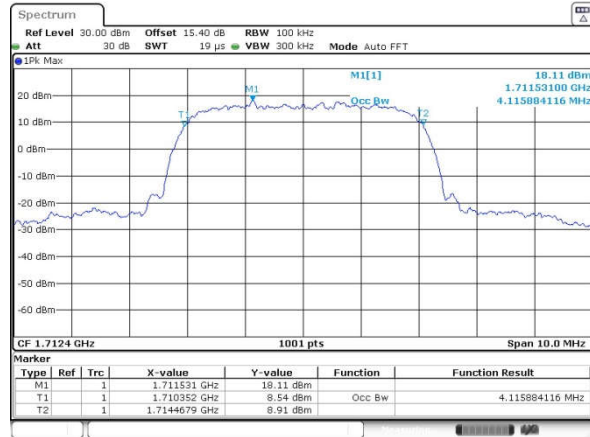


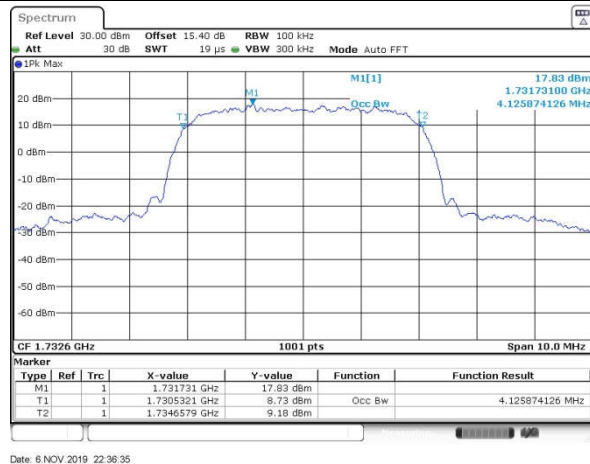


WCDMA Band IV (RMC 12.2Kbps)

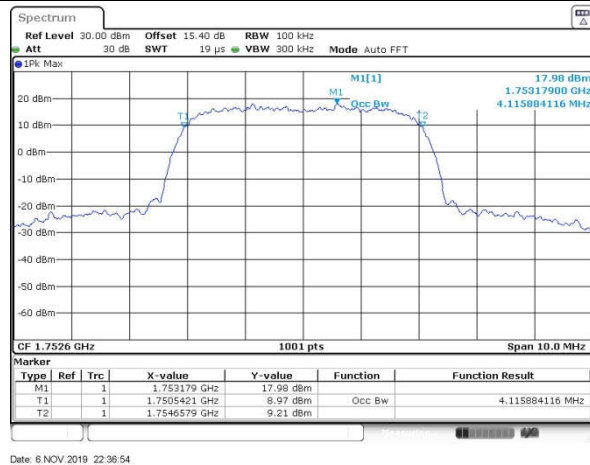
Lowest Channel



Middle Channel



Highest Channel





Conducted Band Edge

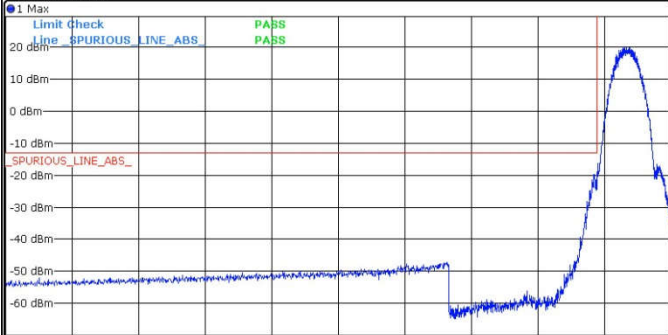
GSM850 (GPRS class 8)

Lowest Band Edge

Highest Band Edge

Spectrum

Ref Level 29.50 dBm Offset 14.50 dB Mode Auto Sweep
SGL Count 50/50



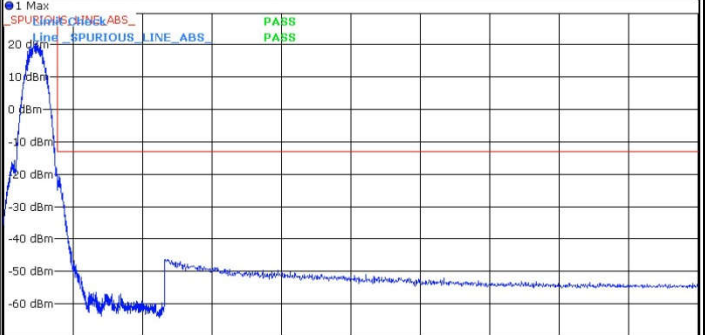
Start 820.0 MHz 2003 pts Stop 824.5 MHz					
Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.98651 MHz	-47.22 dBm	-34.22 dB
823.000 MHz	824.000 MHz	3.000 kHz	823.98104 MHz	-19.90 dBm	-6.90 dB
824.000 MHz	824.500 MHz	10.000 kHz	824.17615 MHz	19.92 dBm	-15.08 dB

Ready

Date: 6 NOV 2019 18:25:09

Spectrum

Ref Level 29.50 dBm Offset 14.50 dB Mode Auto Sweep
SGL Count 50/50



Start 848.5 MHz 2003 pts Stop 855.0 MHz					
Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
848.500 MHz	849.000 MHz	10.000 kHz	848.80689 MHz	20.35 dBm	-14.65 dB
849.000 MHz	850.000 MHz	3.000 kHz	849.01896 MHz	-20.50 dBm	-7.50 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.02747 MHz	-46.27 dBm	-33.27 dB

Ready

Date: 6 NOV 2019 18:22:46

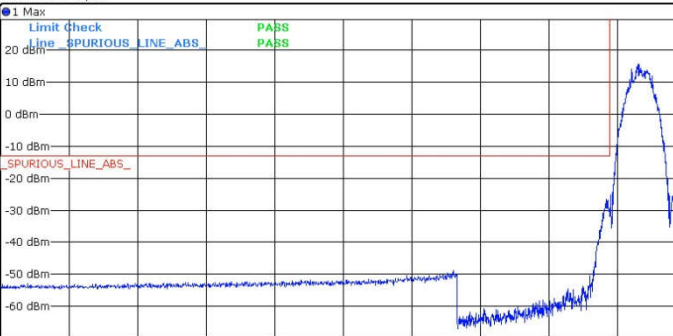
GSM850 (EDGE class 8)

Lowest Band Edge

Highest Band Edge

Spectrum

Ref Level 29.50 dBm Offset 14.50 dB Mode Auto Sweep
SGL Count 50/50



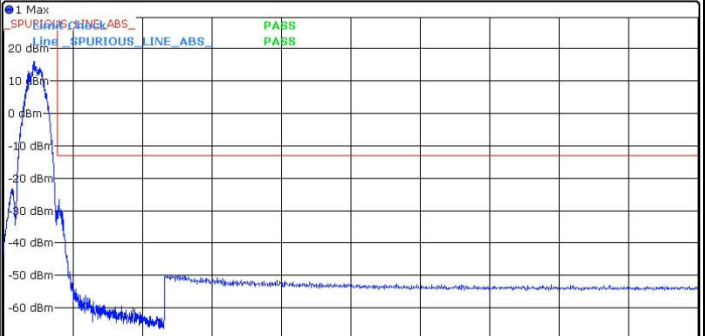
Start 820.0 MHz 2003 pts Stop 824.5 MHz					
Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.97153 MHz	-48.95 dBm	-35.95 dB
823.000 MHz	824.000 MHz	3.000 kHz	823.97305 MHz	-26.69 dBm	-13.69 dB
824.000 MHz	824.500 MHz	10.000 kHz	824.18613 MHz	15.77 dBm	-19.23 dB

Ready

Date: 6 NOV 2019 21:16:13

Spectrum

Ref Level 29.50 dBm Offset 14.50 dB Mode Auto Sweep
SGL Count 50/50



Start 848.5 MHz 2003 pts Stop 855.0 MHz					
Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
848.500 MHz	849.000 MHz	10.000 kHz	848.78493 MHz	15.92 dBm	-19.08 dB
849.000 MHz	850.000 MHz	3.000 kHz	849.02295 MHz	-26.52 dBm	-13.52 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.18232 MHz	-49.80 dBm	-36.80 dB

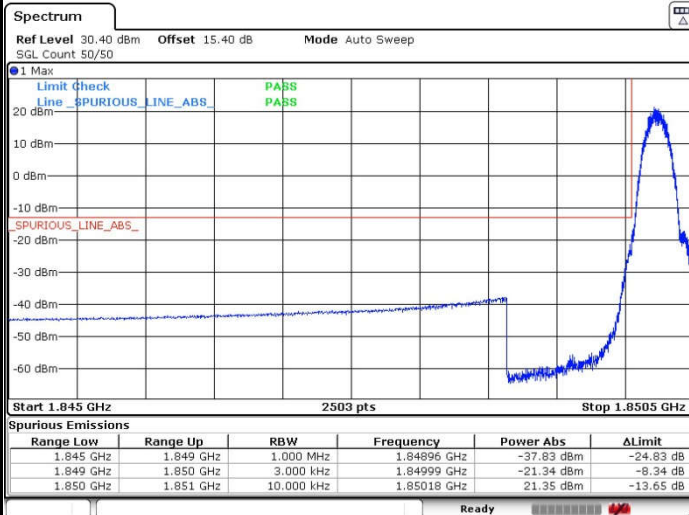
Ready

Date: 6 NOV 2019 21:14:01



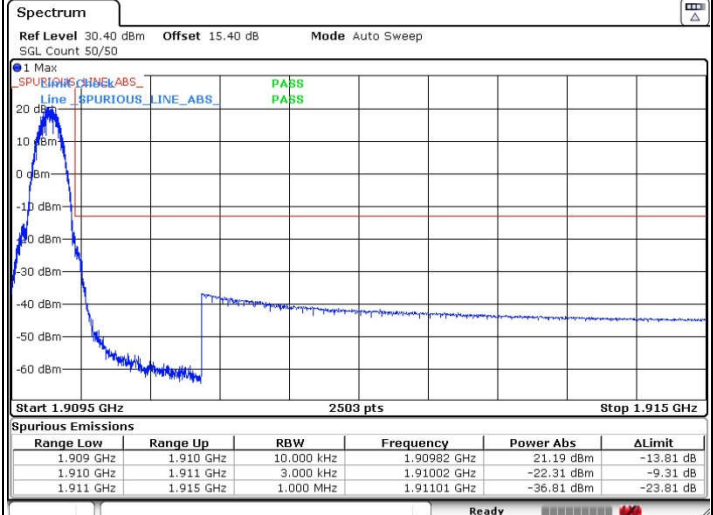
GSM1900 (GPRS class 8)

Lowest Band Edge



Date: 6 NOV. 2019 21:33:01

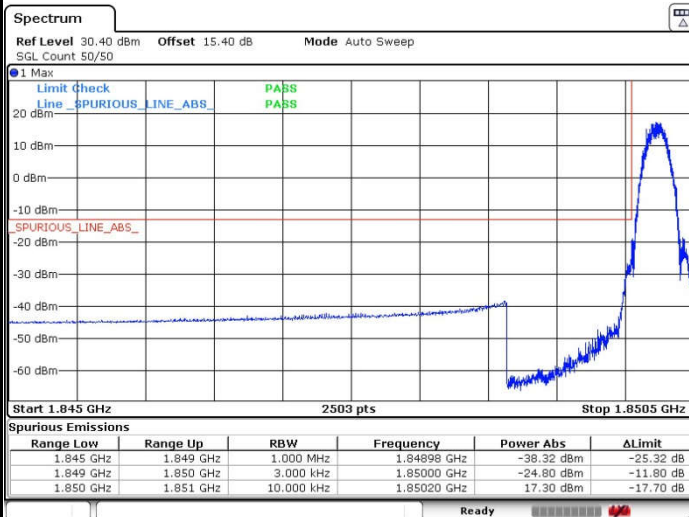
Highest Band Edge



Date: 6 NOV. 2019 21:31:12

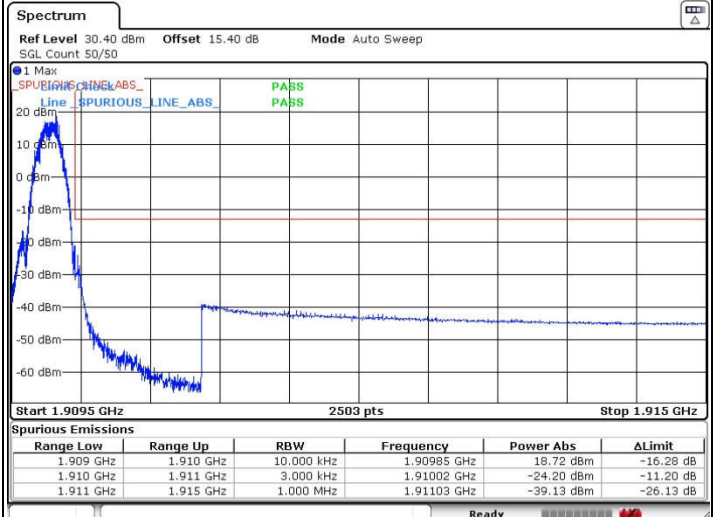
GSM1900 (EDGE class 8)

Lowest Band Edge



Date: 6 NOV. 2019 21:53:41

Highest Band Edge

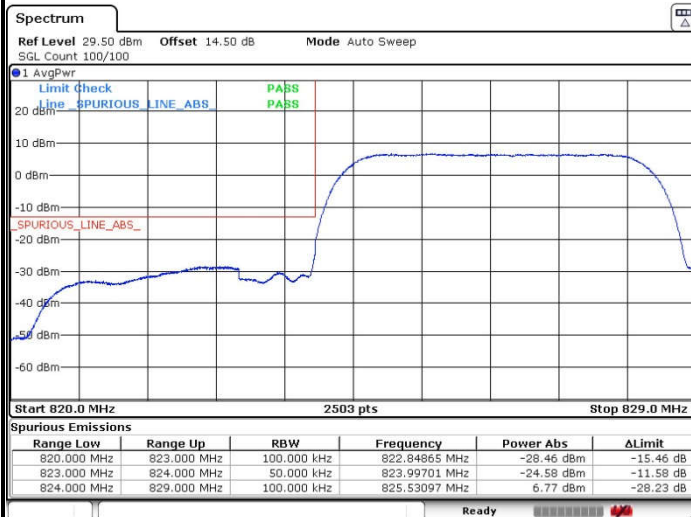


Date: 6 NOV. 2019 21:51:44

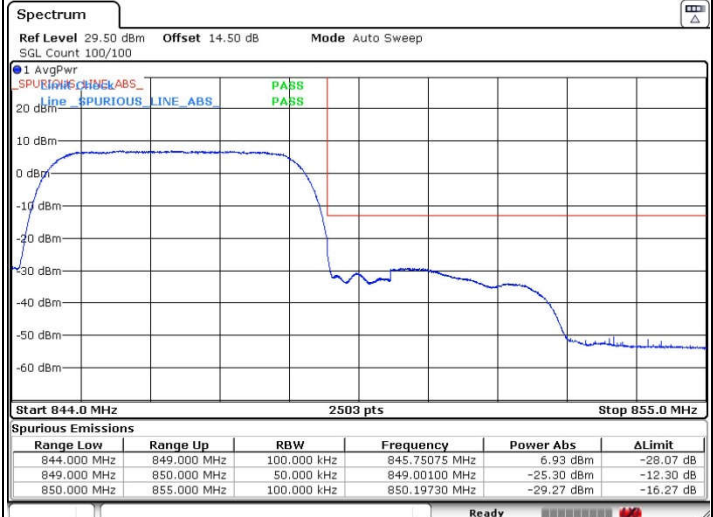


WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge

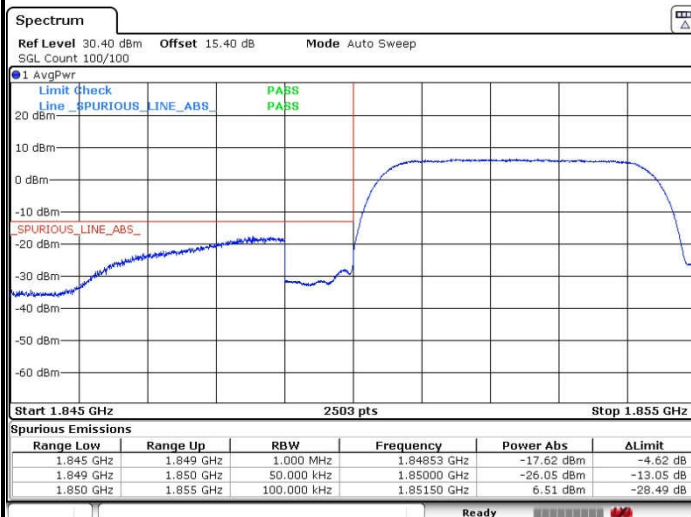


Highest Band Edge

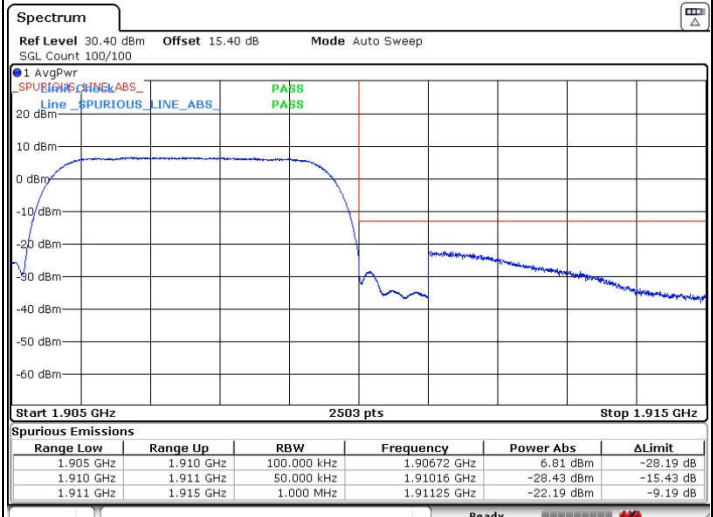


WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge



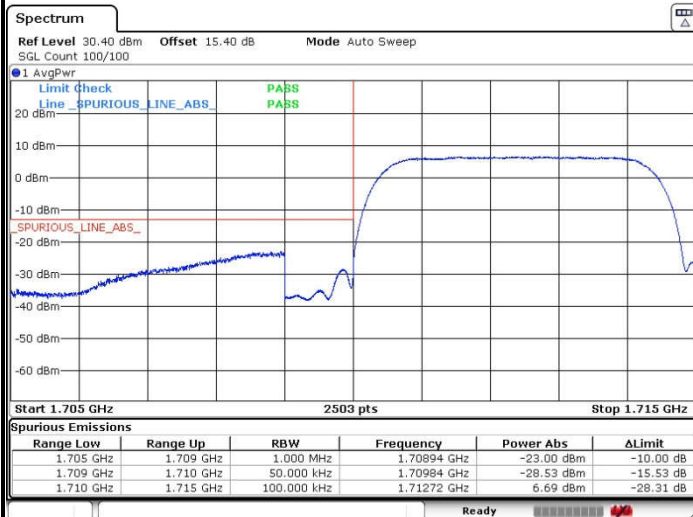
Highest Band Edge





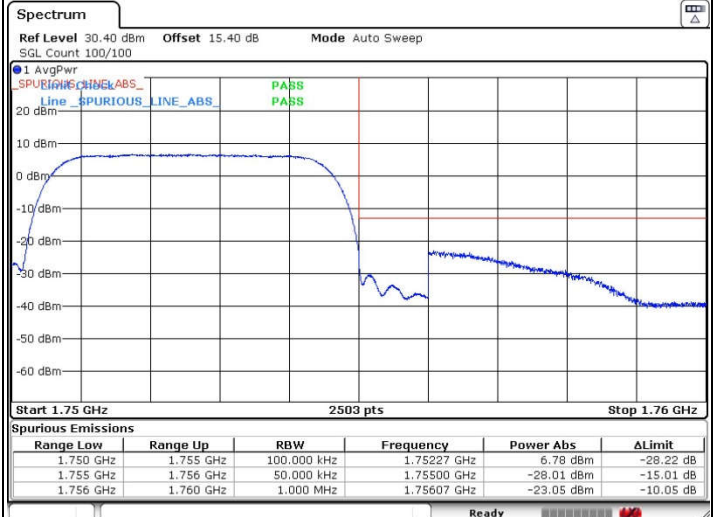
WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge



Date: 6 NOV. 2019 22:39:41

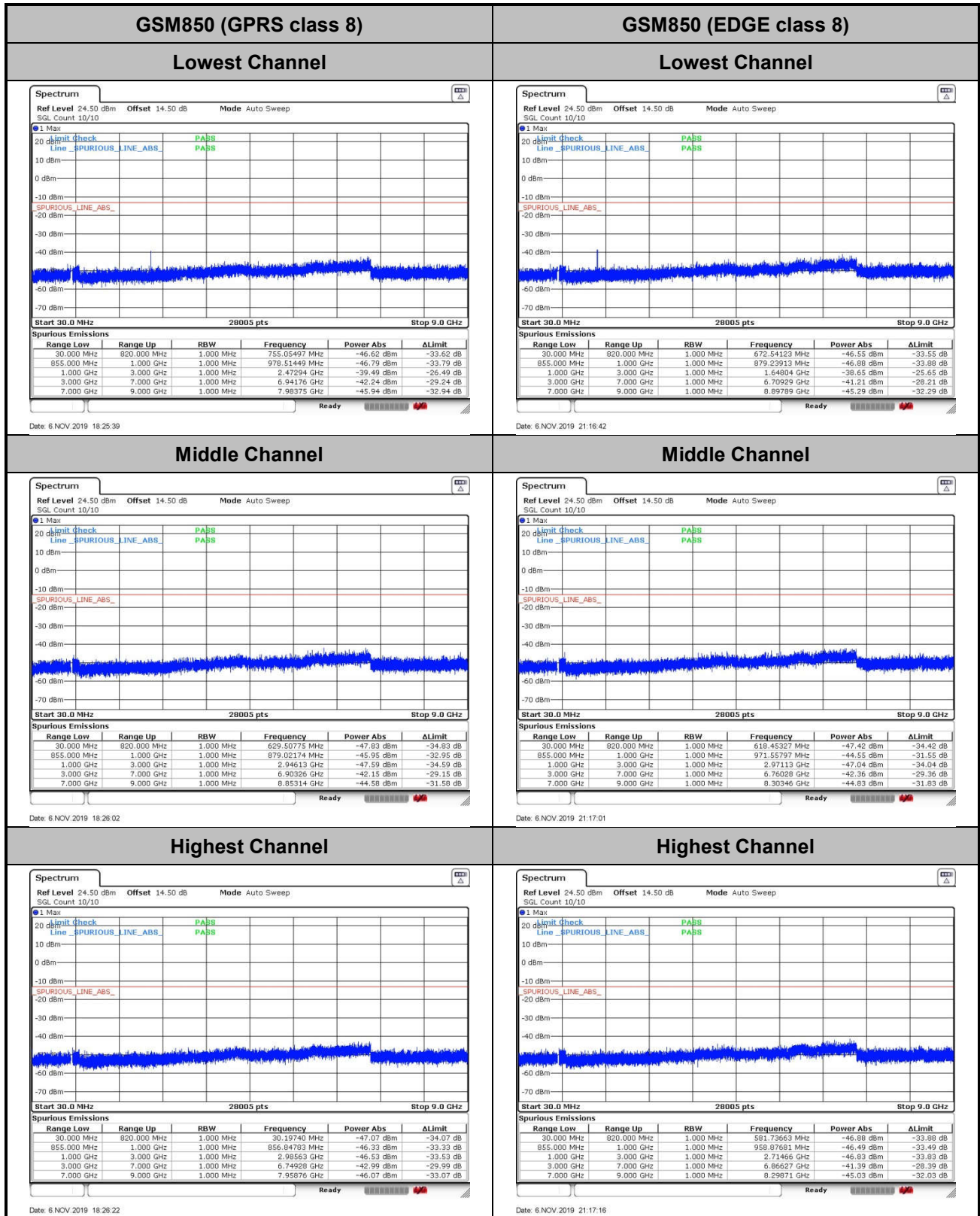
Highest Band Edge



Date: 6 NOV. 2019 22:38:47



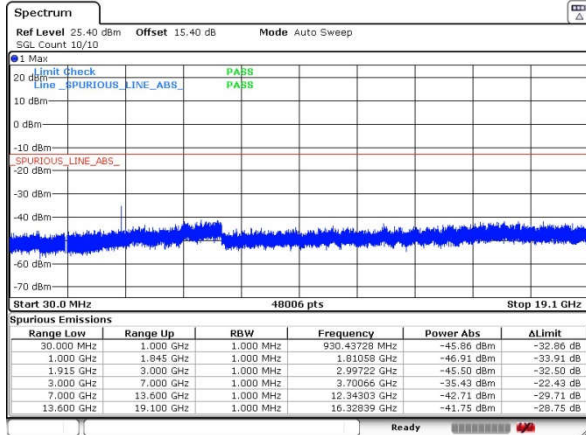
Conducted Spurious Emission





GSM1900 (GPRS class 8)

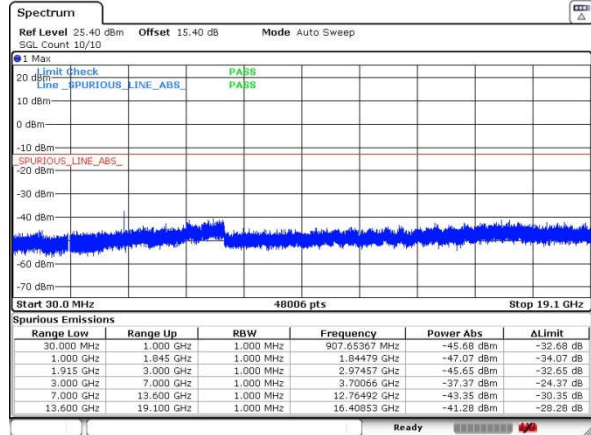
Lowest Channel



Date: 6 NOV 2019 21:33:25

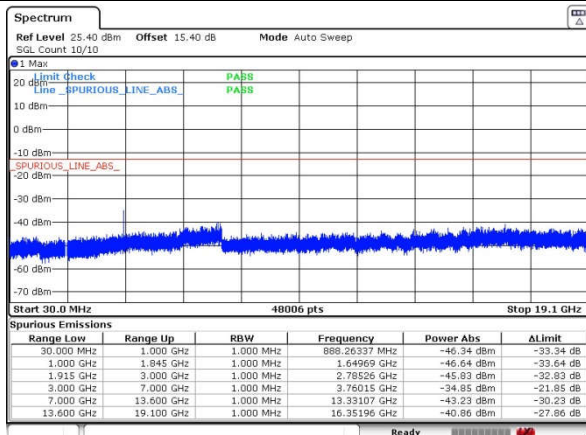
GSM1900 (EDGE class 8)

Lowest Channel



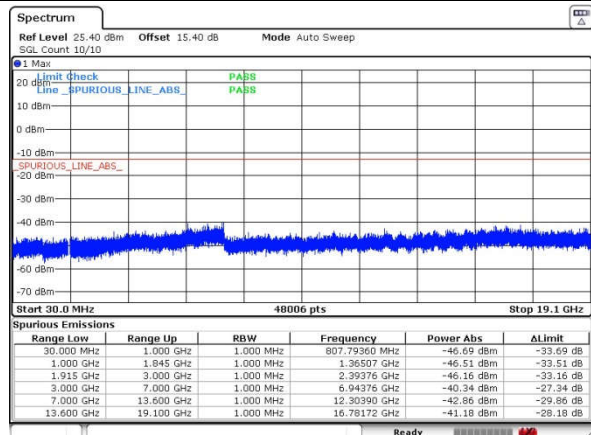
Date: 6 NOV 2019 21:54:04

Middle Channel



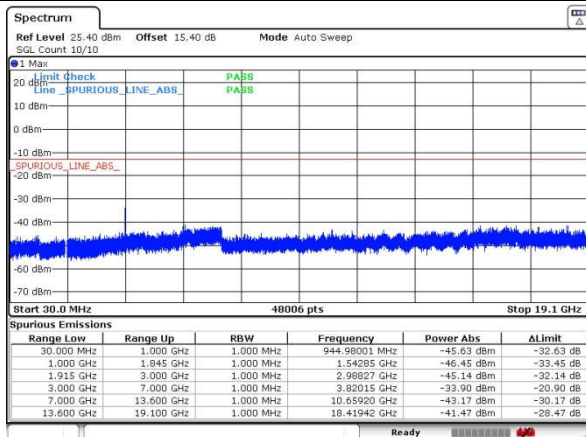
Date: 6 NOV 2019 21:33:44

Middle Channel



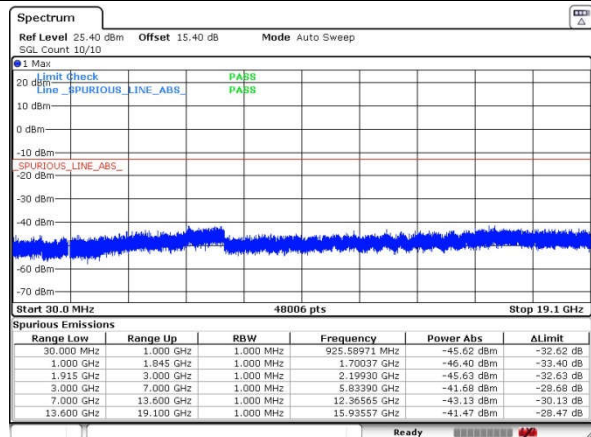
Date: 6 NOV 2019 21:54:24

Highest Channel



Date: 6 NOV 2019 21:34:00

Highest Channel

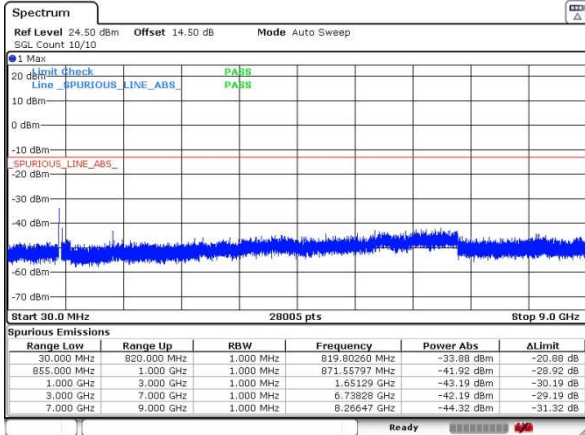


Date: 6 NOV 2019 21:54:44



WCDMA Band V (RMC 12.2Kbps)

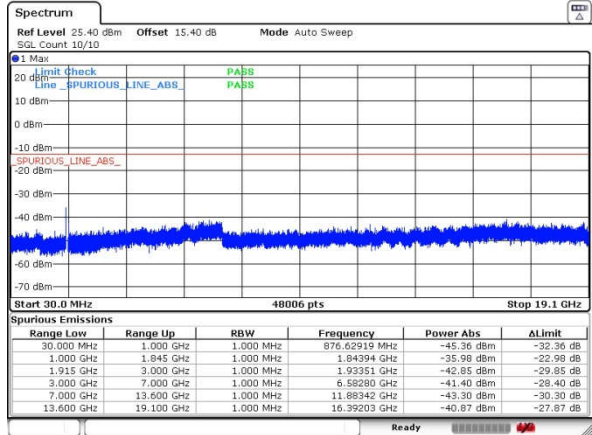
Lowest Channel



Date: 6 NOV 2019 22:07:00

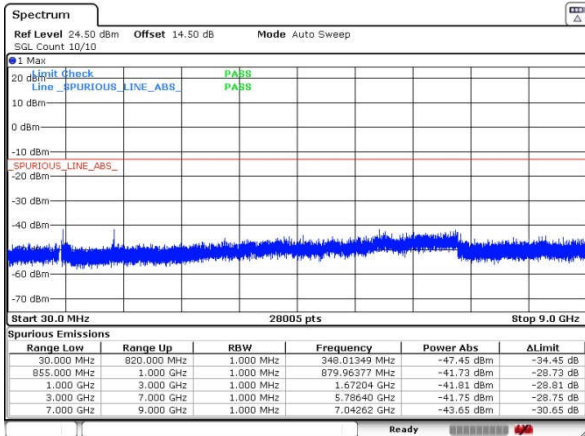
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



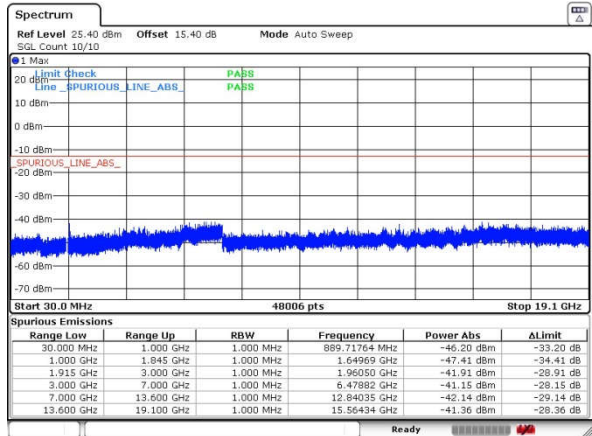
Date: 6 NOV 2019 22:15:01

Middle Channel



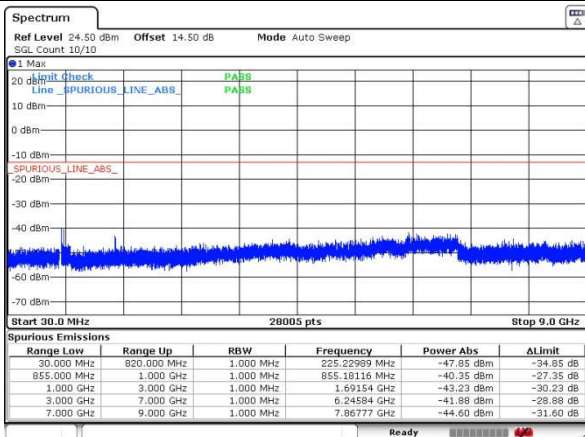
Date: 6 NOV 2019 22:07:19

Middle Channel



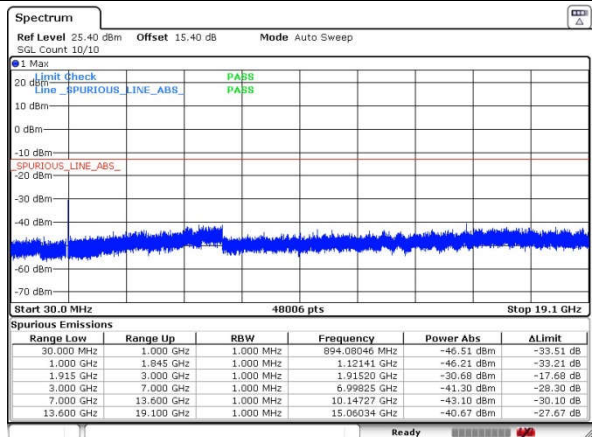
Date: 6 NOV 2019 22:15:30

Highest Channel



Date: 6 NOV 2019 22:07:35

Highest Channel

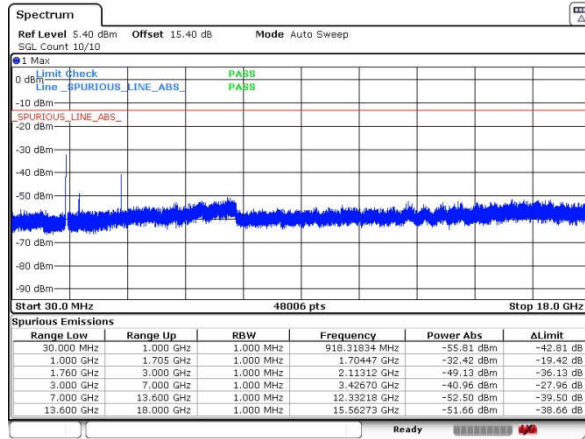


Date: 6 NOV 2019 22:15:48



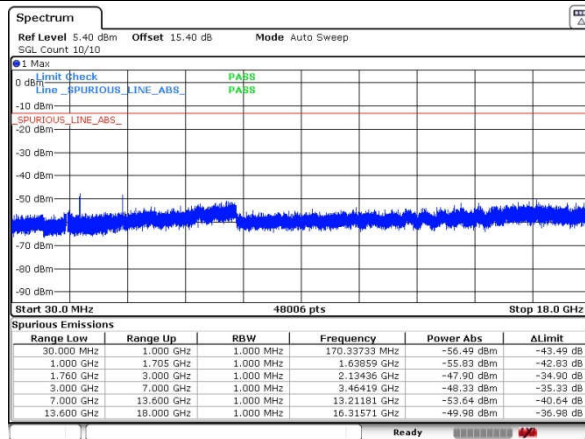
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



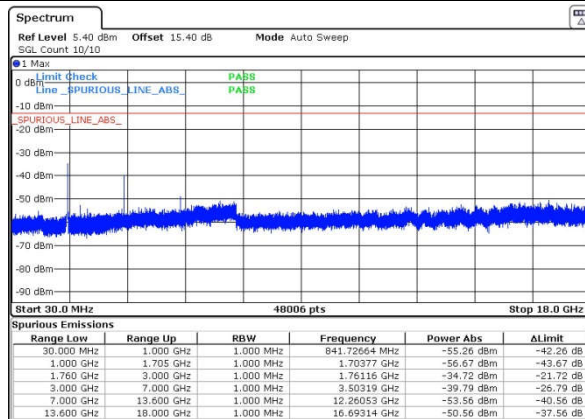
Date: 6 NOV 2019 22:40:08

Middle Channel



Date: 6 NOV 2019 22:40:28

Highest Channel



Date: 6 NOV 2019 22:40:46

**Frequency Stability**

Test Conditions	Middle Channel	GSM850 (GPRS class 8)	GSM850 (EDGE class 8)	Limit
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		2.5ppm
50	Normal Voltage	0.0024	0.0287	PASS
40	Normal Voltage	0.0036	0.0000	
30	Normal Voltage	0.0132	0.0072	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0120	0.0167	
0	Normal Voltage	0.0072	0.0120	
-10	Normal Voltage	0.0012	0.0012	
-20	Normal Voltage	0.0155	0.0155	
-30	Normal Voltage	0.0143	0.0108	
20	Maximum Voltage	0.0096	0.0132	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0024	0.0143	

Note: Normal Voltage = 5V; Battery End Point (BEP) =4.75V; Maximum Voltage =5.25V.

Test Conditions	Middle Channel	GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)	Limit
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Note 2.
50	Normal Voltage	0.0069	0.0090	PASS
40	Normal Voltage	0.0005	0.0101	
30	Normal Voltage	0.0011	0.0027	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0043	0.0021	
0	Normal Voltage	0.0027	0.0085	
-10	Normal Voltage	0.0090	0.0101	
-20	Normal Voltage	0.0080	0.0027	
-30	Normal Voltage	0.0016	0.0011	
20	Maximum Voltage	0.0069	0.0149	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0128	0.0101	

Note:

1. Normal Voltage = 5V; Battery End Point (BEP) =4.75V; Maximum Voltage =5.25V.
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	0.0084	PASS
40	Normal Voltage	0.0143	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0167	
0	Normal Voltage	0.0000	
-10	Normal Voltage	0.0167	
-20	Normal Voltage	0.0167	
-30	Normal Voltage	0.0251	
20	Maximum Voltage	0.0239	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0024	

Note: Normal Voltage = 5V; Battery End Point (BEP) =4.75V; Maximum Voltage =5.25V.

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	0.0016	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0032	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0090	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0080	
20	Maximum Voltage	0.0074	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0085	

Note:

1. Normal Voltage = 5V; Battery End Point (BEP) =4.75V; Maximum Voltage =5.25V.
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	0.0134	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0293	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0049	
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	0.0000	
20	Battery End Point	0.0207	

Note:

1. Normal Voltage = 5V; Battery End Point (BEP) =4.75V; Maximum Voltage =5.25V.
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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-52.96	-13	-39.96	-59.93	1.58	10.70	H
	2472	-39.53	-13	-26.53	-47.78	2.102	12.50	H
	3294	-60.51	-13	-47.51	-69.40	2.856	13.90	H
	4122	-56.11	-13	-43.11	-64.57	2.689	13.30	H
	4944	-58.39	-13	-45.39	-66.15	3.093	13.00	H
	1648	-56.68	-13	-43.68	-63.65	1.58	10.70	V
	2472	-45.75	-13	-32.75	-54.00	2.10	12.50	V
	3294	-62.71	-13	-49.71	-71.60	2.86	13.90	V
	4122	-60.15	-13	-47.15	-68.61	2.69	13.30	V
	4842	-57.34	-13	-44.34	-65.10	3.09	13.00	V
Middle	1672	-51.94	-13	-38.94	-58.91	1.58	10.70	H
	2510	-40.87	-13	-27.87	-49.12	2.102	12.50	H
	3348	-56.84	-13	-43.84	-65.73	2.856	13.90	H
	4182	-51.28	-13	-38.28	-59.74	2.689	13.30	H
	1672	-52.71	-13	-39.71	-59.68	1.58	10.70	V
	2510	-42.73	-13	-29.73	-50.98	2.10	12.50	V
	3348	-62.03	-13	-49.03	-70.92	2.86	13.90	V
	4182	-53.82	-13	-40.82	-62.28	2.69	13.30	V
Highest	1698	-51.35	-13	-38.35	-58.32	1.58	10.70	H
	2546	-39.63	-13	-26.63	-47.88	2.102	12.50	H
	3396	-55.22	-13	-42.22	-64.11	2.856	13.90	H
	4242	-56.01	-13	-43.01	-64.47	2.689	13.30	H
	1698	-55.60	-13	-42.60	-62.57	1.58	10.70	V
	2546	-41.26	-13	-28.26	-49.51	2.10	12.50	V
	3396	-59.67	-13	-46.67	-68.56	2.86	13.90	V
	4242	-55.52	-13	-42.52	-63.98	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	-50.72	-13	-37.72	-57.69	1.58	10.70	H
	2472	-48.63	-13	-35.63	-56.88	2.102	12.50	H
	3294	-54.17	-13	-41.17	-63.06	2.856	13.90	H
	4122	-58.73	-13	-45.73	-67.19	2.689	13.30	H
	1648	-59.92	-13	-46.92	-66.89	1.58	10.70	V
	2472	-45.68	-13	-32.68	-53.93	2.10	12.50	V
	3294	-60.79	-13	-47.79	-69.68	2.86	13.90	V
	4122	-59.82	-13	-46.82	-68.28	2.69	13.30	V
Middle	1672	-28.08	-13	-15.08	-35.05	1.58	10.70	H
	2510	-24.58	-13	-11.58	-32.83	2.102	12.50	H
	3348	-45.69	-13	-32.69	-54.58	2.856	13.90	H
	4182	-51.94	-13	-38.94	-60.40	2.689	13.30	H
	5016	-56.39	-13	-43.39	-64.15	3.093	13.00	H
	1672	-38.07	-13	-25.07	-45.04	1.58	10.70	V
	2510	-37.57	-13	-24.57	-45.82	2.10	12.50	V
	3342	-50.68	-13	-37.68	-59.57	2.86	13.90	V
	4182	-56.73	-13	-43.73	-65.19	2.69	13.30	V
	5018.4	-57.99	-13	-44.99	-65.75	3.09	13.00	V
Highest	1698	-26.46	-13	-13.46	-33.43	1.58	10.70	H
	2546	-28.91	-13	-15.91	-37.16	2.102	12.50	H
	3396	-45.73	-13	-32.73	-54.62	2.856	13.90	H
	4242	-54.38	-13	-41.38	-62.84	2.689	13.30	H
	1698	-42.67	-13	-29.67	-49.64	1.58	10.70	V
	2546	-35.61	-13	-22.61	-43.86	2.10	12.50	V
	3396	-51.67	-13	-38.67	-60.56	2.86	13.90	V
	4242	-57.87	-13	-44.87	-66.33	2.69	13.30	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3699	-57.71	-13	-44.71	-69.97	2.641	14.90	H
	5550	-55.83	-13	-42.83	-67.69	2.94	14.80	H
	7404	-49.90	-13	-36.90	-59.67	3.39	13.16	H
	3700	-57.46	-13	-44.46	-69.72	2.64	14.90	V
	5550	-55.87	-13	-42.87	-67.73	2.94	14.80	V
	7404	-49.48	-13	-36.48	-59.25	3.39	13.16	V
Middle	3759	-57.20	-13	-44.20	-69.46	2.641	14.90	H
	5640	-55.46	-13	-42.46	-67.32	2.94	14.80	H
	7524	-49.98	-13	-36.98	-59.75	3.39	13.16	H
	3759	-56.56	-13	-43.56	-68.82	2.64	14.90	V
	5640	-54.94	-13	-41.94	-66.80	2.94	14.80	V
	7524	-49.57	-13	-36.57	-59.34	3.39	13.16	V
Highest	3819	-57.72	-13	-44.72	-69.98	2.641	14.90	H
	5730	-55.72	-13	-42.72	-67.58	2.94	14.80	H
	7644	-50.31	-13	-37.31	-60.08	3.39	13.16	H
	3819	-57.28	-13	-44.28	-69.54	2.64	14.90	V
	5730	-55.08	-13	-42.08	-66.94	2.94	14.80	V
	7644	-49.77	-13	-36.77	-59.54	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	-58.05	-13	-45.05	-70.31	2.641	14.90	H
	5550	-55.82	-13	-42.82	-67.68	2.94	14.80	H
	7404	-50.27	-13	-37.27	-60.04	3.39	13.16	H
	3699	-57.70	-13	-44.70	-69.96	2.64	14.90	V
	5550	-55.64	-13	-42.64	-67.50	2.94	14.80	V
	7404	-50.13	-13	-37.13	-59.90	3.39	13.16	V
Middle	3759	-57.40	-13	-44.40	-69.66	2.641	14.90	H
	5640	-55.76	-13	-42.76	-67.62	2.94	14.80	H
	7524	-50.42	-13	-37.42	-60.19	3.39	13.16	H
	3759	-57.12	-13	-44.12	-69.38	2.64	14.90	V
	5640	-55.47	-13	-42.47	-67.33	2.94	14.80	V
	7524	-49.88	-13	-36.88	-59.65	3.39	13.16	V
Highest	3819	-57.46	-13	-44.46	-69.72	2.641	14.90	H
	5729.4	-56.03	-13	-43.03	-67.89	2.94	14.80	H
	7644	-50.10	-13	-37.10	-59.87	3.39	13.16	H
	3819	-57.61	-13	-44.61	-69.87	2.64	14.90	V
	5730	-55.84	-13	-42.84	-67.70	2.94	14.80	V
	7644	-49.77	-13	-36.77	-59.54	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	1650	-41.08	-13	-28.08	-48.05	1.58	10.70	H
	2482	-35.78	-13	-22.78	-44.03	2.102	12.50	H
	3306	-52.44	-13	-39.44	-61.33	2.856	13.90	H
	1654	-50.77	-13	-37.77	-57.74	1.58	10.70	V
	2480	-48.11	-13	-35.11	-56.36	2.10	12.50	V
	3306	-58.22	-13	-45.22	-67.11	2.86	13.90	V
Middle	1672	-43.55	-13	-30.55	-50.52	1.58	10.70	H
	2510	-39.78	-13	-26.78	-48.03	2.102	12.50	H
	3342	-57.44	-13	-44.44	-66.33	2.856	13.90	H
	1670	-53.39	-13	-40.39	-60.36	1.58	10.70	V
	2512	-49.53	-13	-36.53	-57.78	2.10	12.50	V
	3342	-60.93	-13	-47.93	-69.82	2.86	13.90	V
Highest	1693.2	-46.34	-13	-33.34	-53.31	1.58	10.70	H
	2540	-42.87	-13	-29.87	-51.12	2.102	12.50	H
	3384	-61.26	-13	-48.26	-70.15	2.856	13.90	H
	1694	-57.87	-13	-44.87	-64.84	1.58	10.70	V
	2540	-53.79	-13	-40.79	-62.04	2.10	12.50	V
	3384	-63.79	-13	-50.79	-72.68	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	-57.51	-13	-44.51	-69.77	2.641	14.90	H
	5557.2	-55.58	-13	-42.58	-67.44	2.94	14.80	H
	7409	-50.09	-13	-37.09	-59.86	3.39	13.16	H
	3704.8	-57.00	-13	-44.00	-69.26	2.64	14.90	V
	5556	-55.62	-13	-42.62	-67.48	2.94	14.80	V
	7409	-49.86	-13	-36.86	-59.63	3.39	13.16	V
Middle	3759	-56.81	-13	-43.81	-69.07	2.641	14.90	H
	5640	-55.08	-13	-42.08	-66.94	2.94	14.80	H
	7524	-50.23	-13	-37.23	-60.00	3.39	13.16	H
	3759	-56.70	-13	-43.70	-68.96	2.64	14.90	V
	5640	-53.96	-13	-40.96	-65.82	2.94	14.80	V
	7524	-49.51	-13	-36.51	-59.28	3.39	13.16	V
Highest	3815.2	-57.51	-13	-44.51	-69.77	2.641	14.90	H
	5724	-55.71	-13	-42.71	-67.57	2.94	14.80	H
	7632	-50.67	-13	-37.67	-60.44	3.39	13.16	H
	3816	-56.56	-13	-43.56	-68.82	2.64	14.90	V
	5722.8	-52.89	-13	-39.89	-64.75	2.94	14.80	V
	7632	-49.21	-13	-36.21	-58.98	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	-56.75	-13	-43.75	-67.49	2.604	13.34	H
	5136	-55.71	-13	-42.71	-66.22	3.011	13.52	H
	6852	-53.34	-13	-40.34	-63.54	3.271	13.47	H
	3424.8	-60.83	-13	-47.83	-71.57	2.604	13.34	V
	5136	-55.86	-13	-42.86	-66.37	3.011	13.52	V
	6852	-52.85	-13	-39.85	-63.05	3.271	13.47	V
Middle	3465	-56.06	-13	-43.06	-66.80	2.604	13.34	H
	5197.8	-53.27	-13	-40.27	-63.78	3.011	13.52	H
	6930	-52.74	-13	-39.74	-62.94	3.271	13.47	H
	3465.2	-60.16	-13	-47.16	-70.90	2.604	13.34	V
	5199	-53.98	-13	-40.98	-64.49	3.011	13.52	V
	6930	-52.33	-13	-39.33	-62.53	3.271	13.47	V
Highest	3504	-52.29	-13	-39.29	-63.03	2.604	13.34	H
	5257.8	-54.96	-13	-41.96	-65.47	3.011	13.52	H
	7008	-51.93	-13	-38.93	-62.13	3.271	13.47	H
	3505	-58.72	-13	-45.72	-69.46	2.604	13.34	V
	5259	-55.76	-13	-42.76	-66.27	3.011	13.52	V
	7008	-50.75	-13	-37.75	-60.95	3.271	13.47	V

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