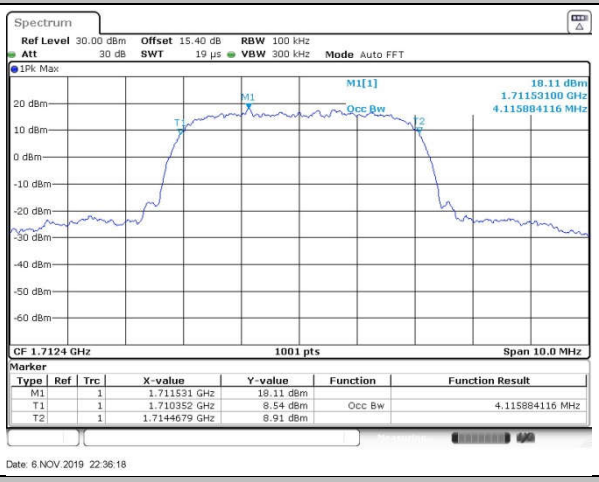
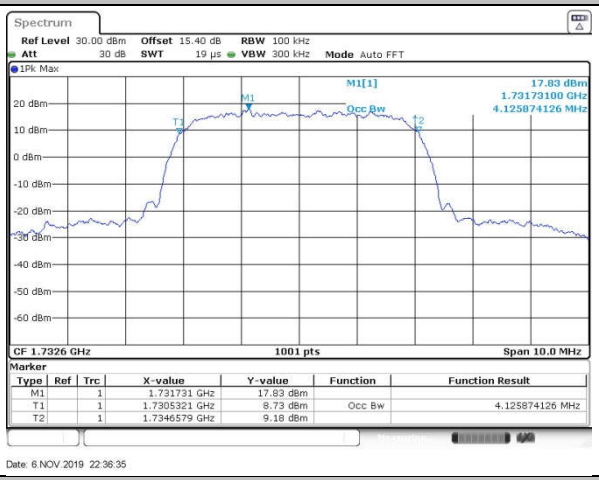
WCDMA Band IV (RMC 12.2Kbps)

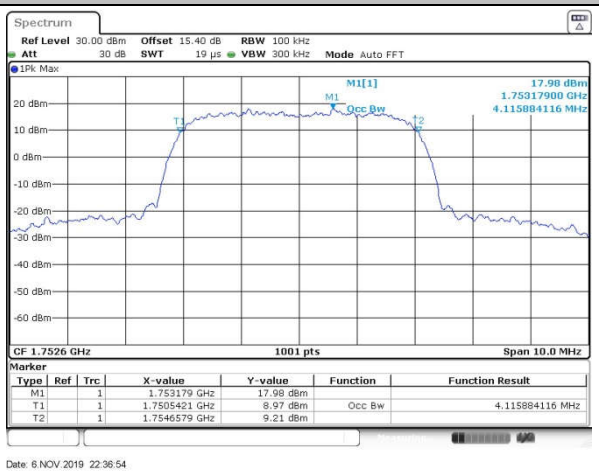
Lowest Channel



Middle Channel



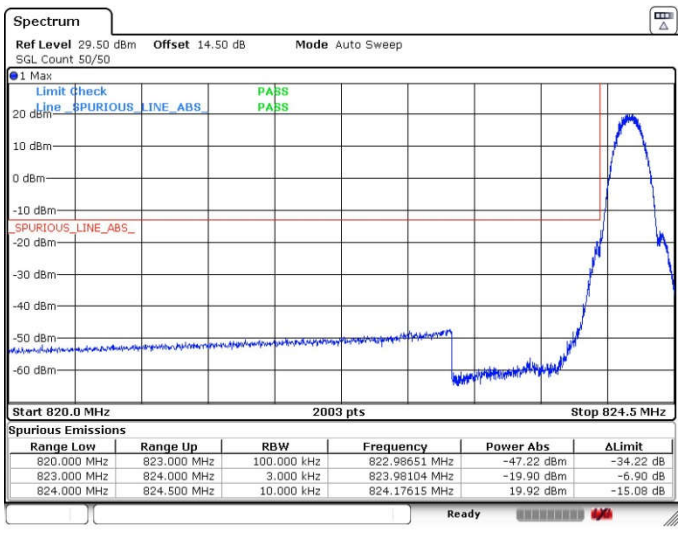
Highest Channel



Conducted Band Edge

GSM850 (GPRS class 8)

Lowest Band Edge



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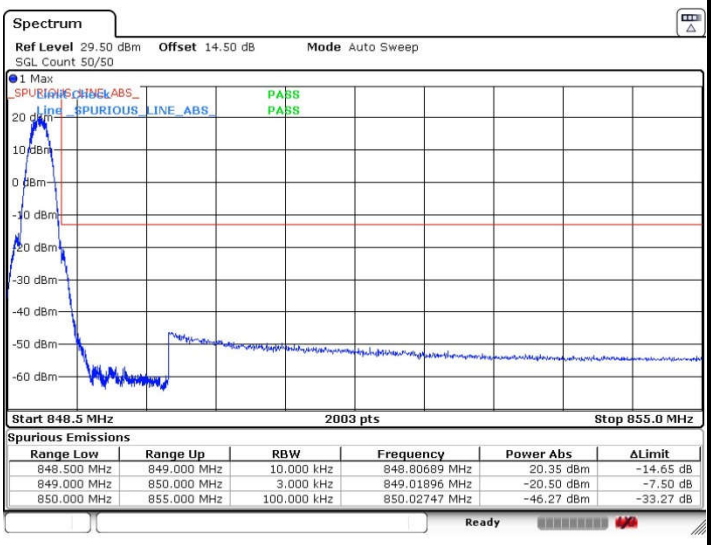
Highest Band Edge



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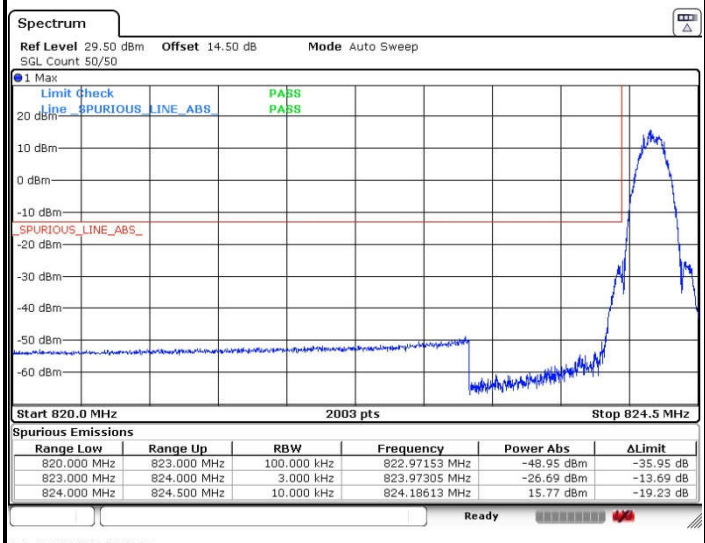
GSM850 (EDGE class 8)

Lowest Band Edge



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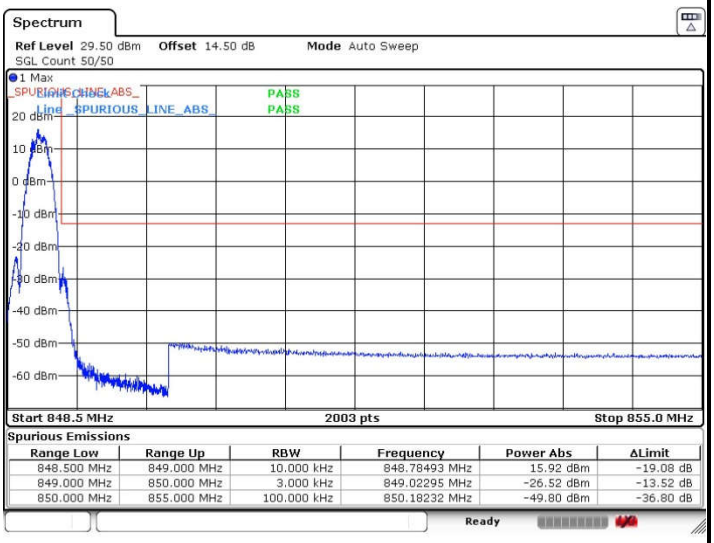
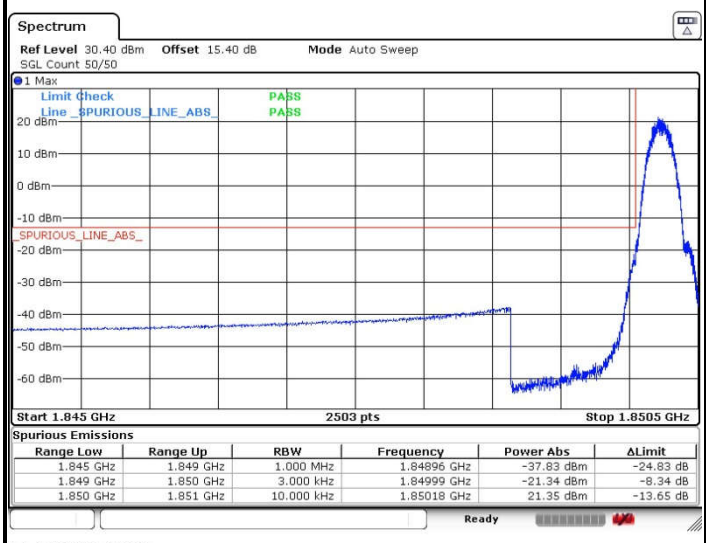
Highest Band Edge



Date: 6.NOV.2019 21:14:01

GSM1900 (GPRS class 8)

Lowest Band Edge



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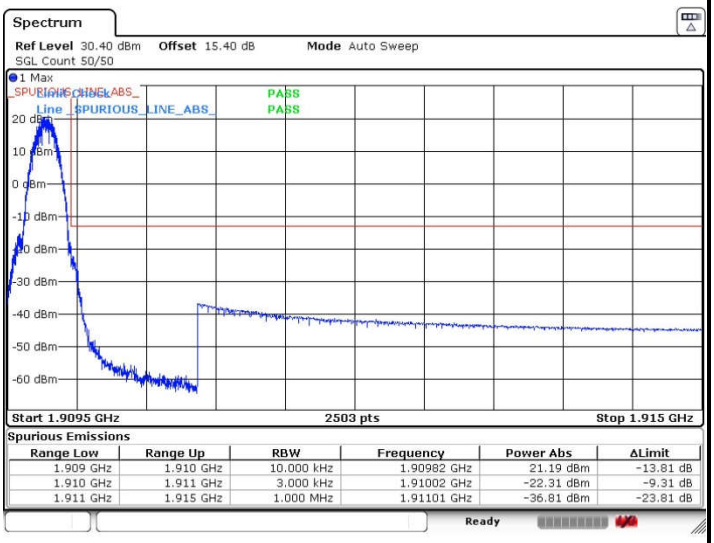
Highest Band Edge



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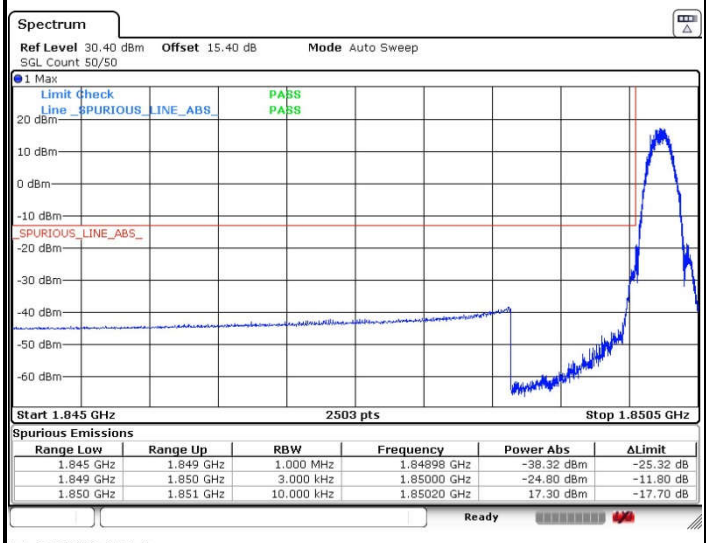
GSM1900 (EDGE class 8)

Lowest Band Edge



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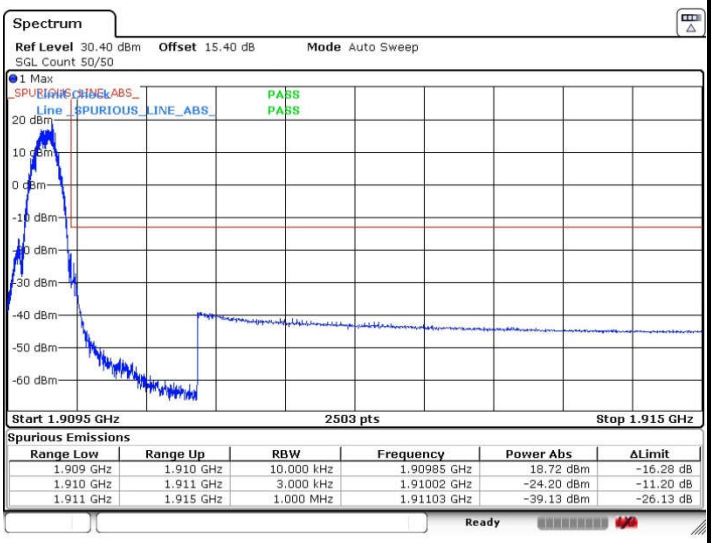
Highest Band Edge



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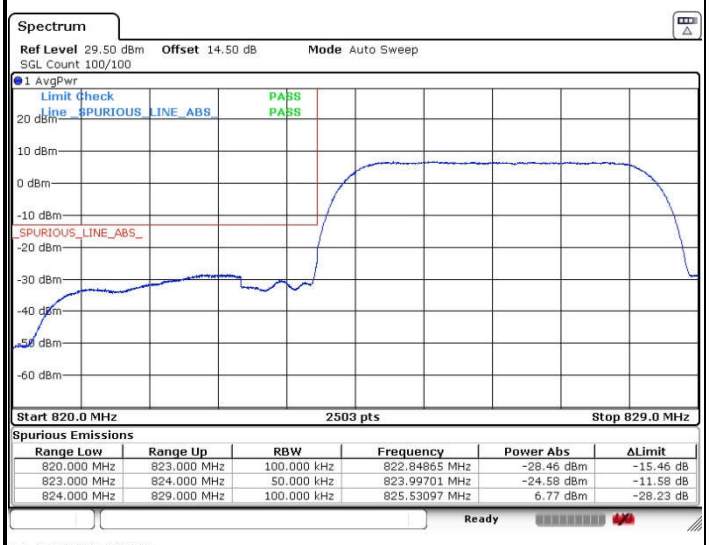
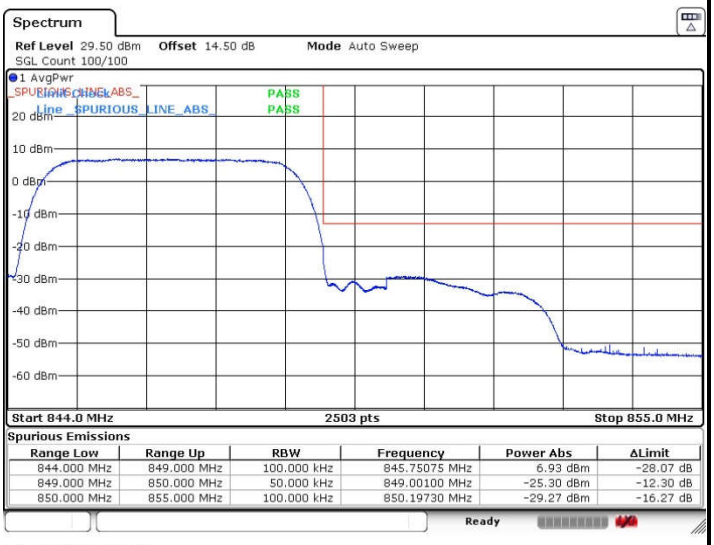
WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge



Date: 6.NOV.2019 22:06:32

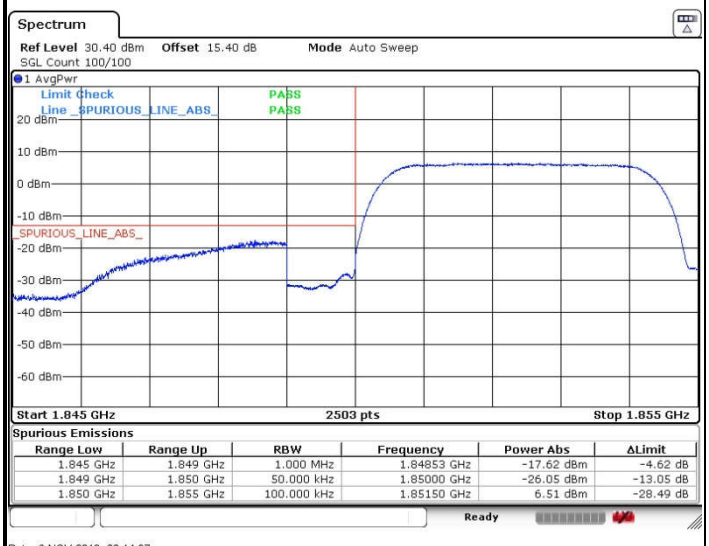
Highest Band Edge



Date: 6.NOV.2019 22:05:34

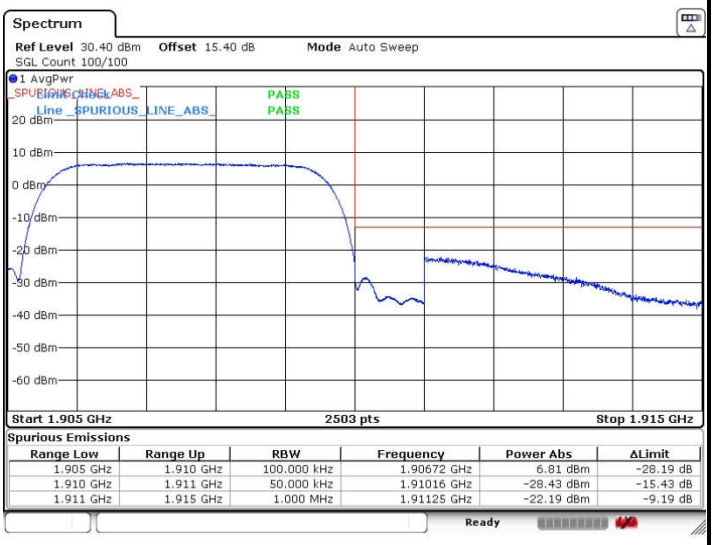
WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge



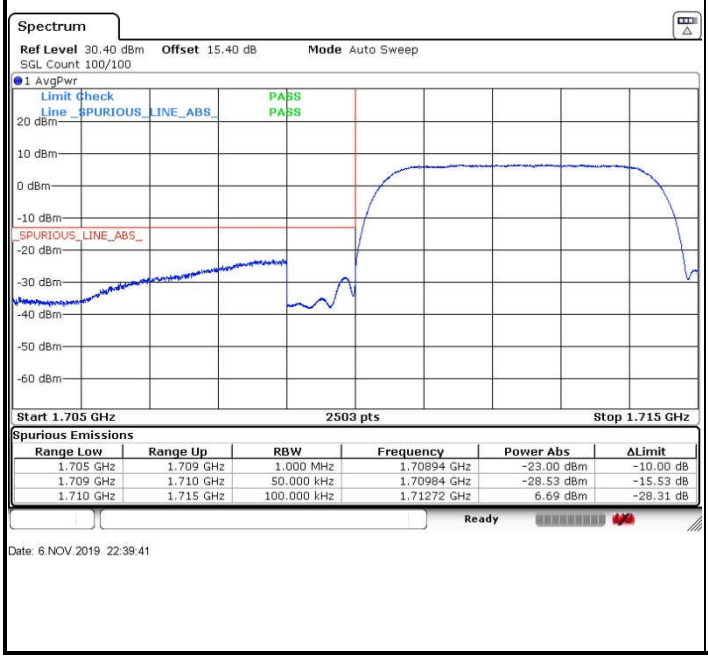
Date: 6.NOV.2019 22:14:37

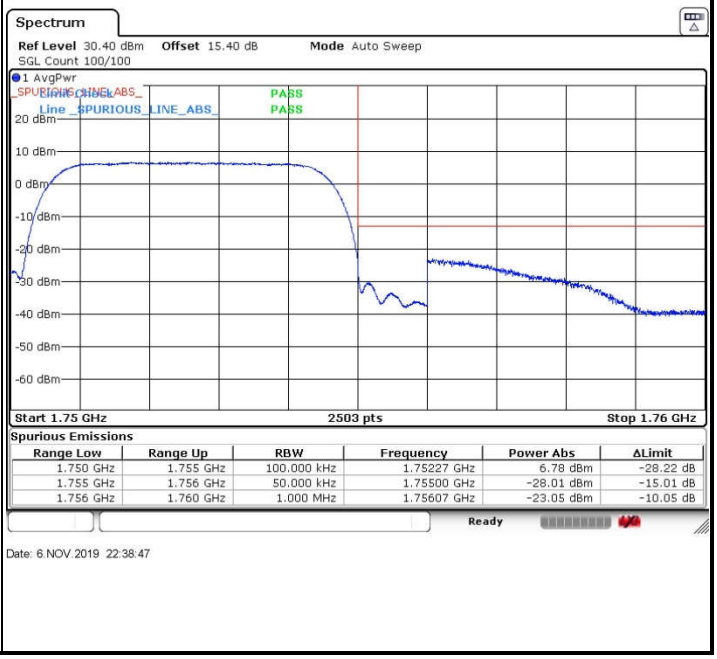
Highest Band Edge



Date: 6.NOV.2019 22:13:43

WCDMA Band IV (RMC 12.2Kbps)	
Lowest Band Edge	**Highest Band Edge**

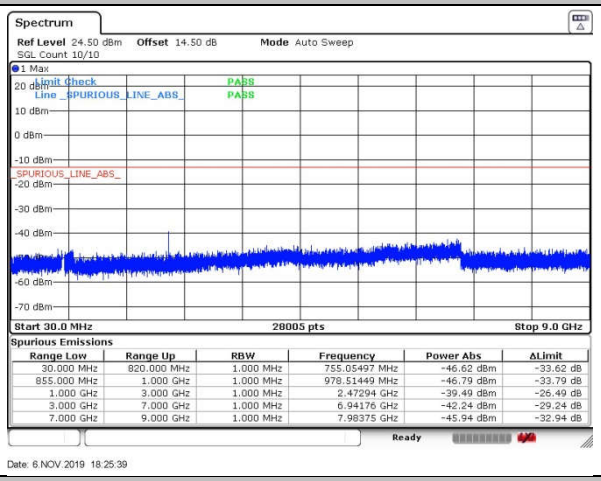




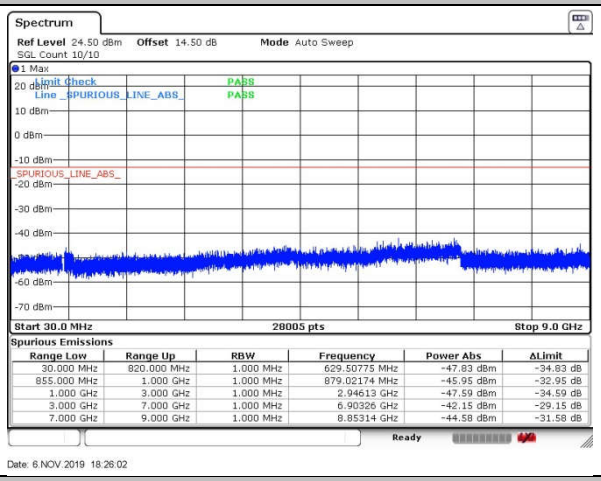
Conducted Spurious Emission

GSM850 (GPRS class 8)

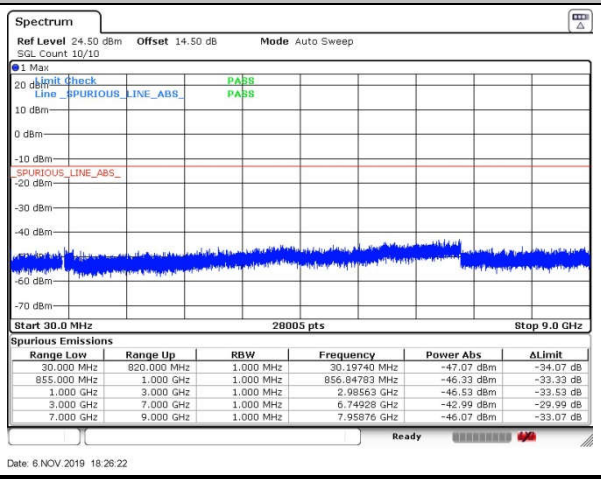
Lowest Channel



Middle Channel

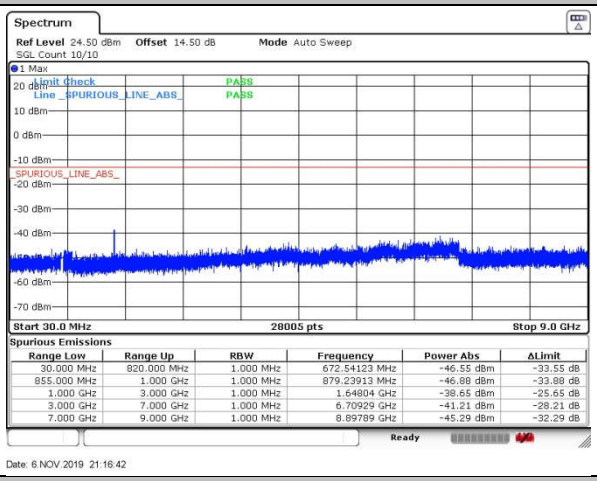


Highest Channel

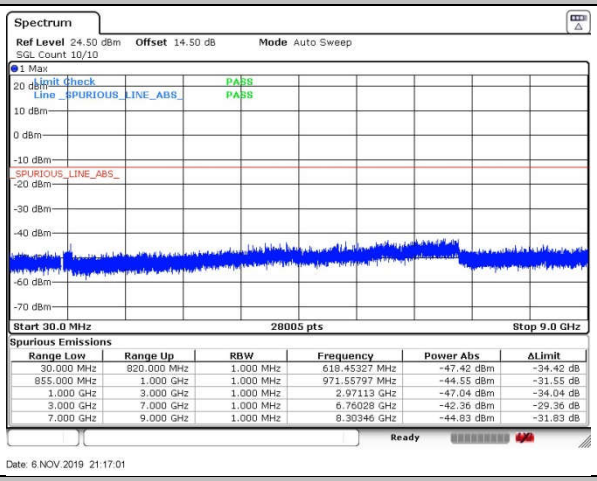


GSM850 (EDGE class 8)

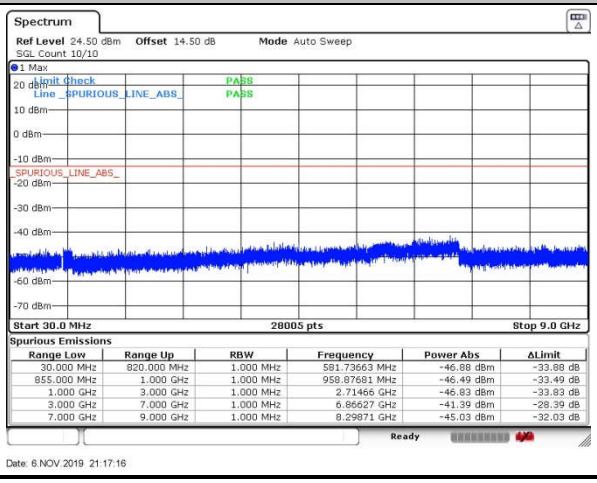
Lowest Channel

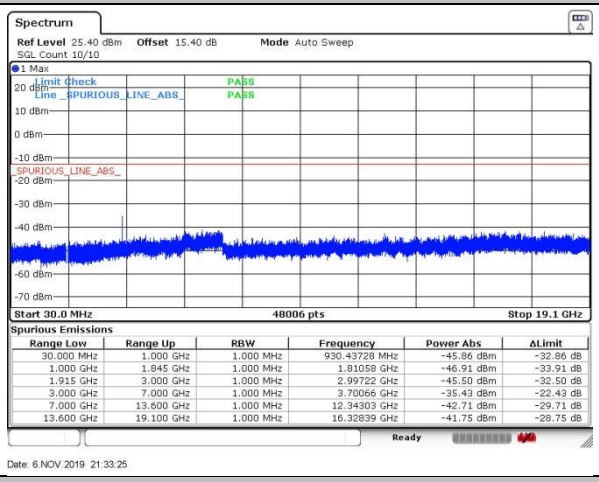
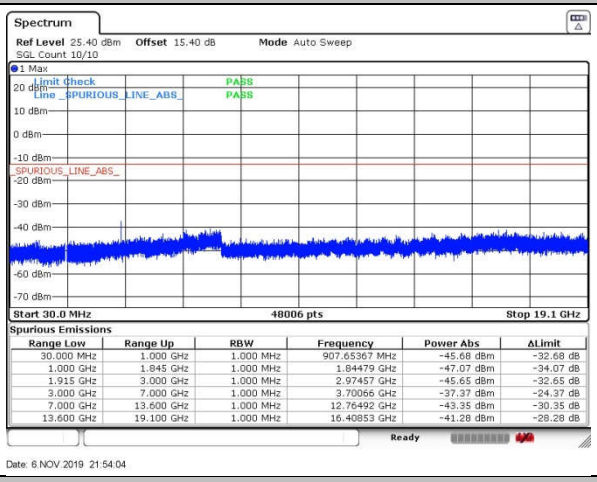
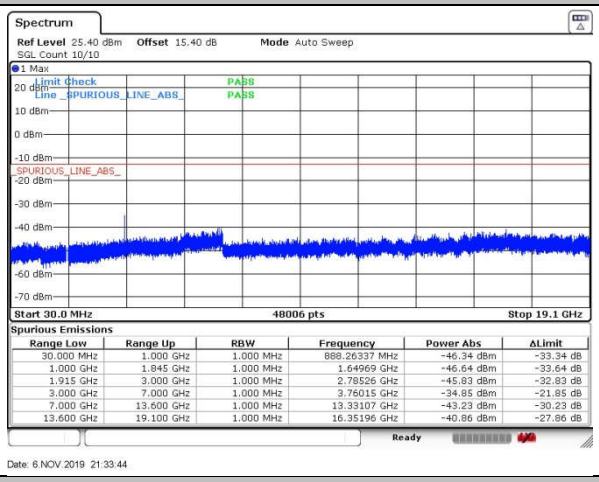
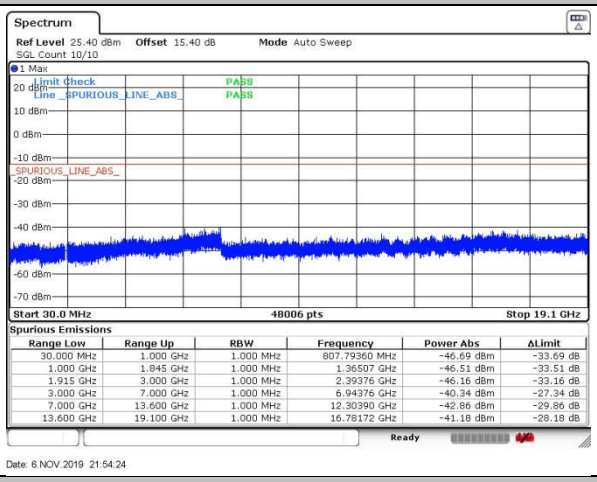
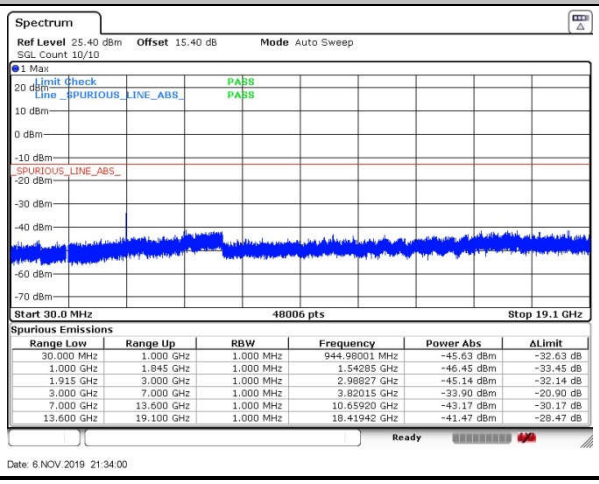
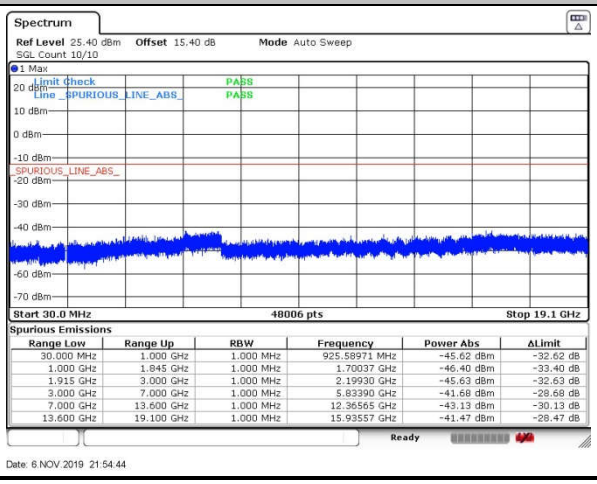


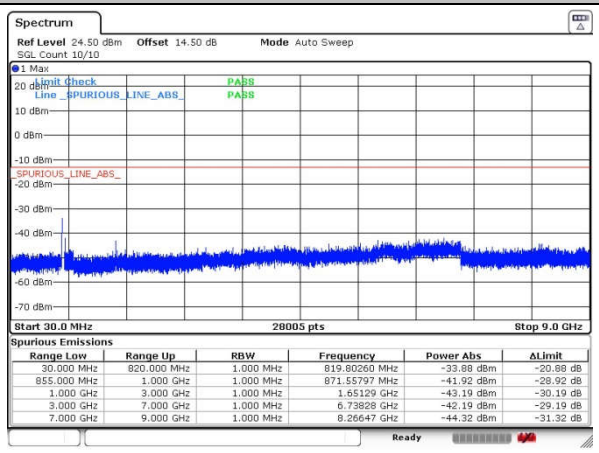
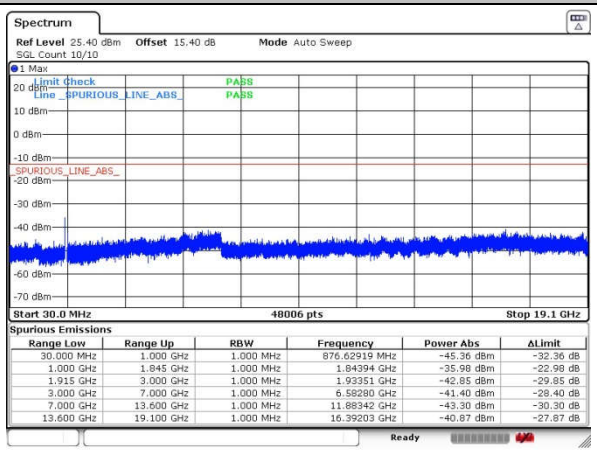
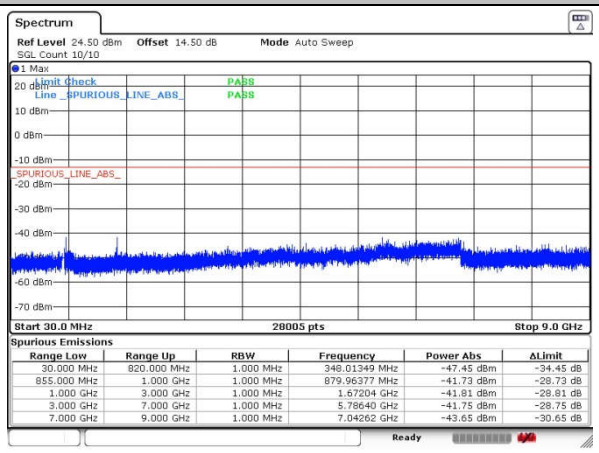
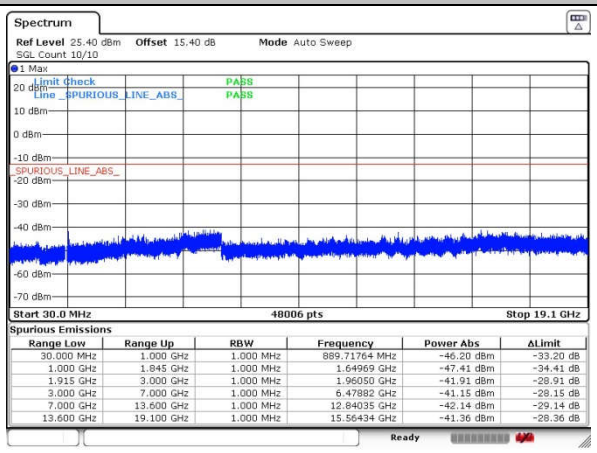
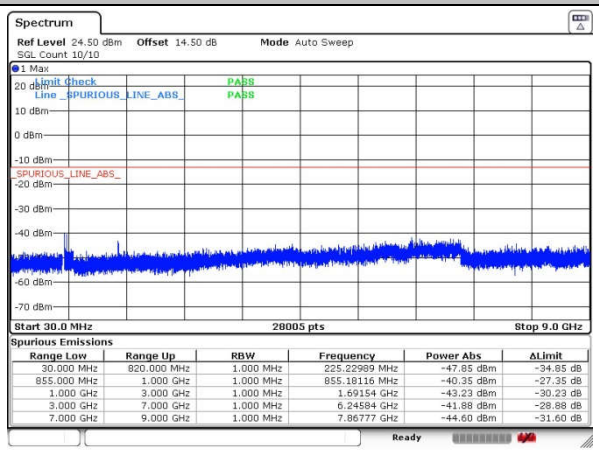
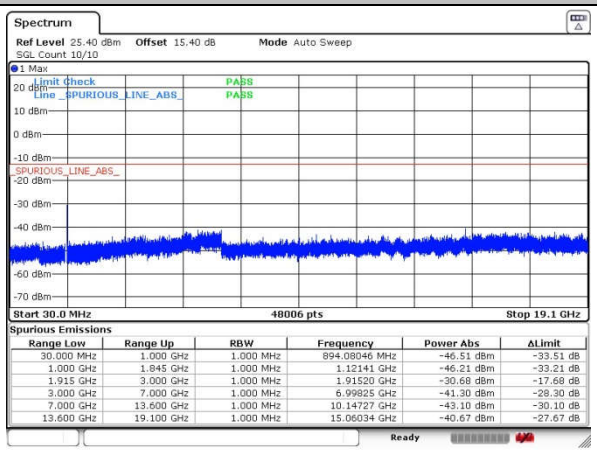
Middle Channel



Highest Channel

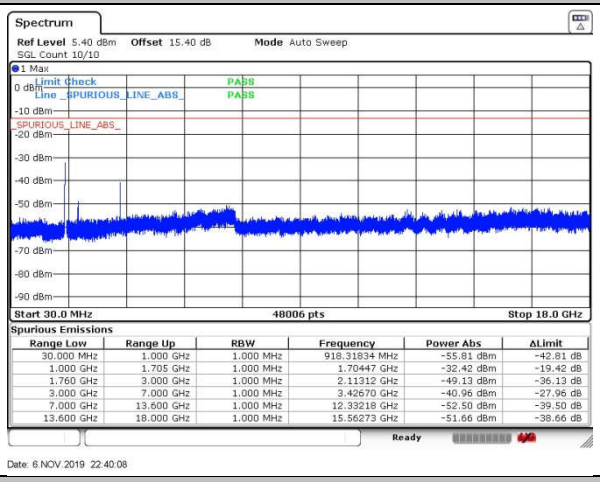


GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

WCDMA Band IV (RMC 12.2Kbps)

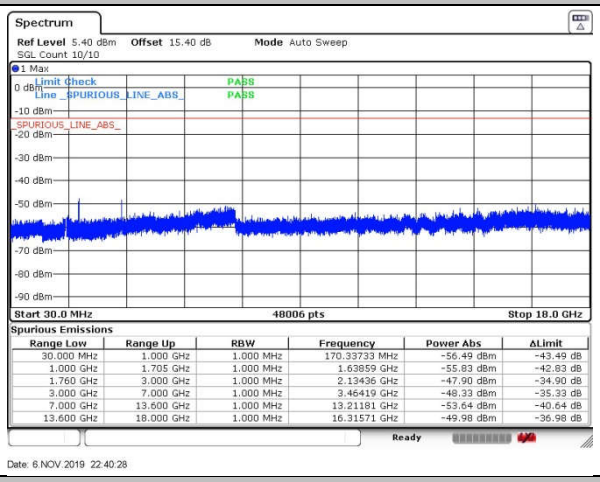
Lowest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	918.31834 MHz	-55.81 dBm	-42.81 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.70447 GHz	-32.42 dBm	-19.42 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.11312 GHz	-49.13 dBm	-36.13 dB
3.000 GHz	7.000 GHz	1.000 MHz	3.42670 GHz	-40.96 dBm	-27.96 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.33218 GHz	-52.50 dBm	-39.50 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.56273 GHz	-51.66 dBm	-38.66 dB

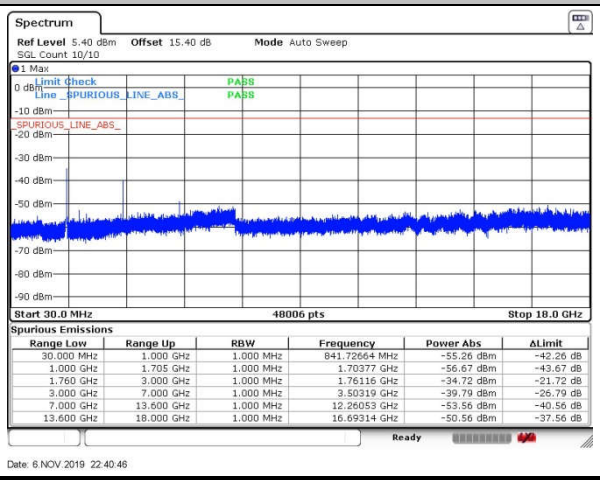
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	170.33733 MHz	-56.49 dBm	-43.49 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.63859 GHz	-55.83 dBm	-42.83 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.13436 GHz	-47.90 dBm	-34.90 dB
3.000 GHz	7.000 GHz	1.000 MHz	3.46419 GHz	-48.33 dBm	-35.33 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.21181 GHz	-53.64 dBm	-40.64 dB
13.600 GHz	18.000 GHz	1.000 MHz	16.31571 GHz	-49.98 dBm	-36.98 dB

Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	841.72664 MHz	-55.26 dBm	-42.26 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.70377 GHz	-56.67 dBm	-43.67 dB
1.760 GHz	3.000 GHz	1.000 MHz	1.76116 GHz	-34.72 dBm	-21.72 dB
3.000 GHz	7.000 GHz	1.000 MHz	3.50319 GHz	-39.79 dBm	-26.79 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.26053 GHz	-53.56 dBm	-40.56 dB
13.600 GHz	18.000 GHz	1.000 MHz	16.69314 GHz	-50.56 dBm	-37.56 dB

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	0.0024	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 Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
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.