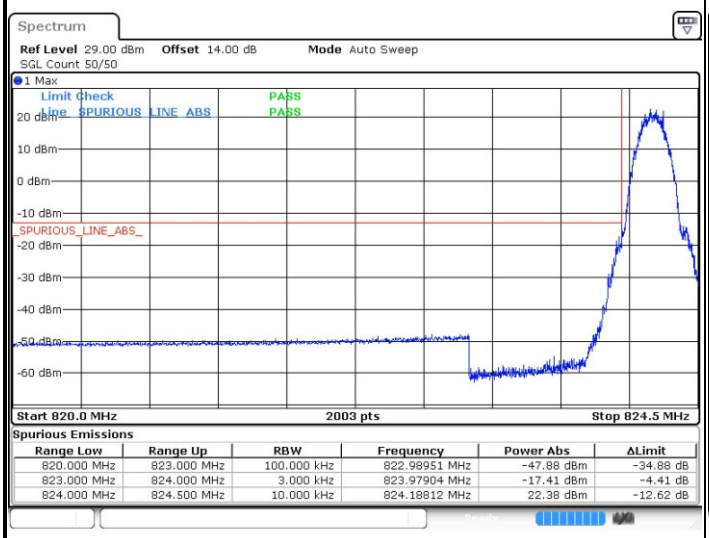
Conducted Band Edge

GSM850 (GSM)

Lowest Band Edge

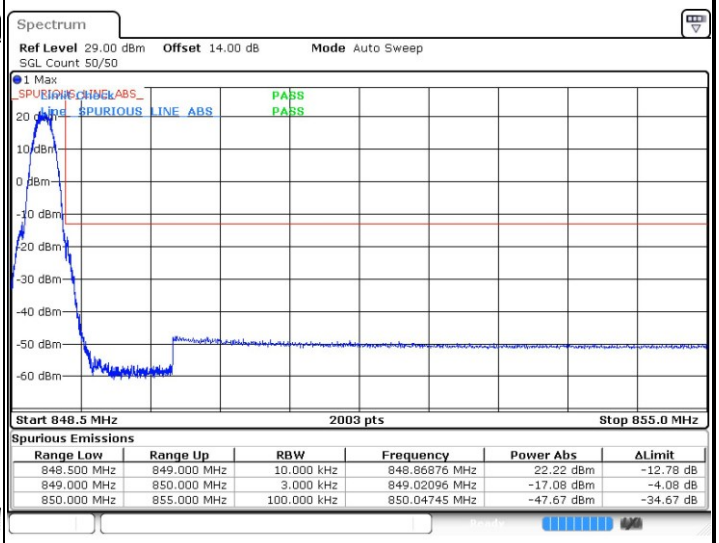


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.98951 MHz	-47.88 dBm	-34.88 dB
823.000 MHz	824.000 MHz	3.000 kHz	823.97904 MHz	-17.41 dBm	-4.41 dB
824.000 MHz	824.500 MHz	10.000 kHz	824.18812 MHz	22.38 dBm	-12.62 dB

Date: 23.AUG.2017 21:53:12

Highest Band Edge



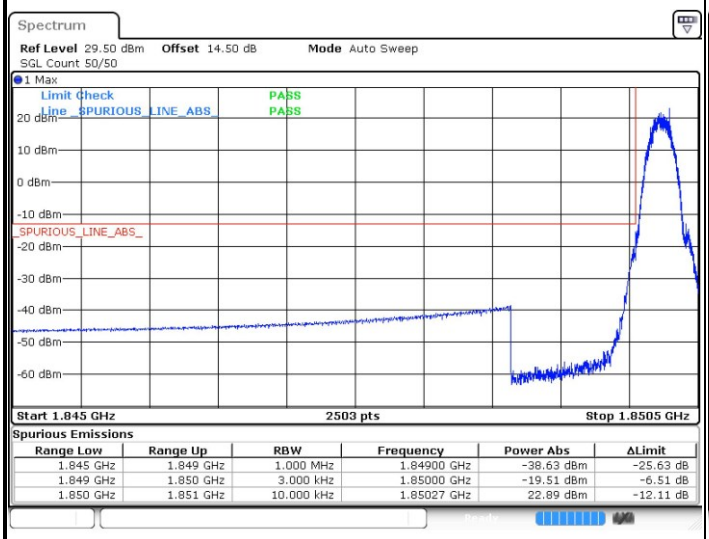
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
848.500 MHz	849.000 MHz	10.000 kHz	848.86876 MHz	22.22 dBm	-12.78 dB
849.000 MHz	850.000 MHz	3.000 kHz	849.02096 MHz	-17.08 dBm	-4.08 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.04745 MHz	-47.67 dBm	-34.67 dB

Date: 23.AUG.2017 21:54:40

GSM1900 (GSM)

Lowest Band Edge

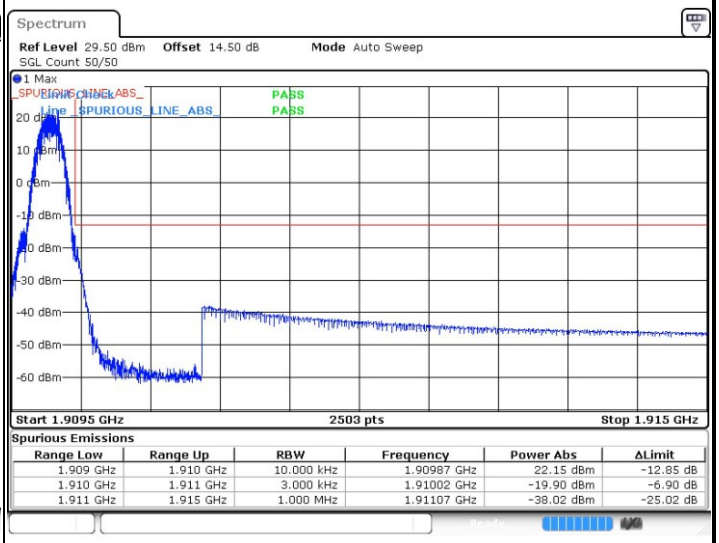


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84900 GHz	-38.63 dBm	-25.63 dB
1.849 GHz	1.850 GHz	3.000 kHz	1.85000 GHz	-19.51 dBm	-6.51 dB
1.850 GHz	1.851 GHz	10.000 kHz	1.85027 GHz	22.89 dBm	-12.11 dB

Date: 23.AUG.2017 22:16:50

Highest Band Edge



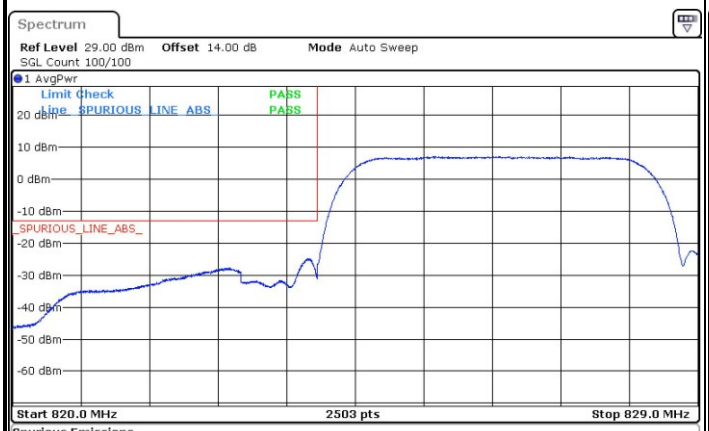
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.909 GHz	1.910 GHz	10.000 kHz	1.90987 GHz	22.15 dBm	-12.85 dB
1.910 GHz	1.911 GHz	3.000 kHz	1.91002 GHz	-19.90 dBm	-6.90 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91107 GHz	-38.02 dBm	-25.02 dB

Date: 23.AUG.2017 22:18:18

WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge

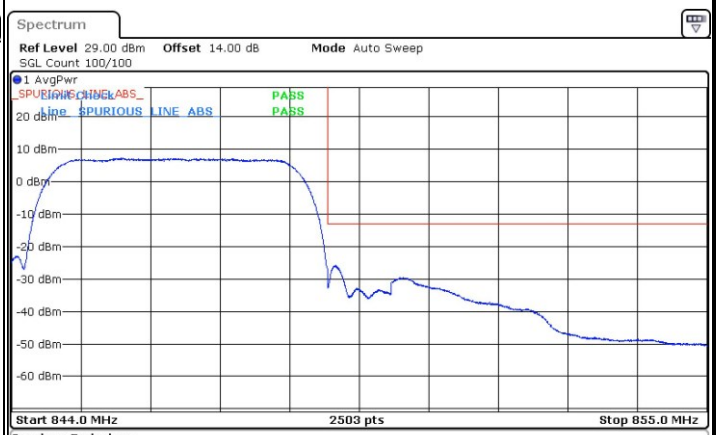


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.85165 MHz	-27.70 dBm	-14.70 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.87126 MHz	-24.84 dBm	-11.84 dB
824.000 MHz	829.000 MHz	100.000 kHz	826.37512 MHz	7.06 dBm	-27.94 dB

Date: 23.AUG.2017 23:35:33

Highest Band Edge



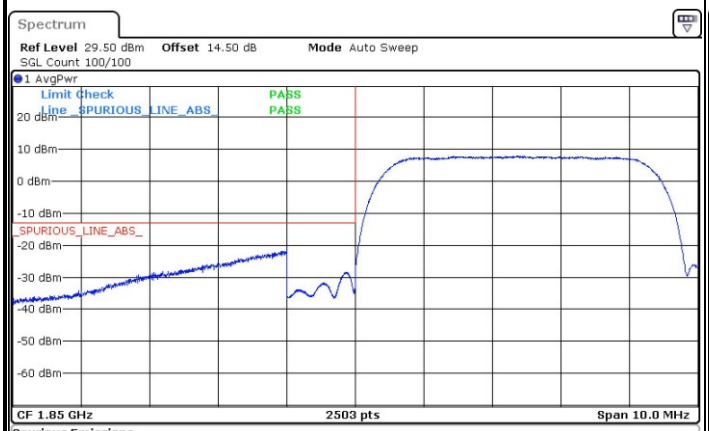
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	845.73077 MHz	7.31 dBm	-27.69 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.11876 MHz	-25.74 dBm	-12.74 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.19231 MHz	-29.61 dBm	-16.61 dB

Date: 23.AUG.2017 23:38:16

WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge

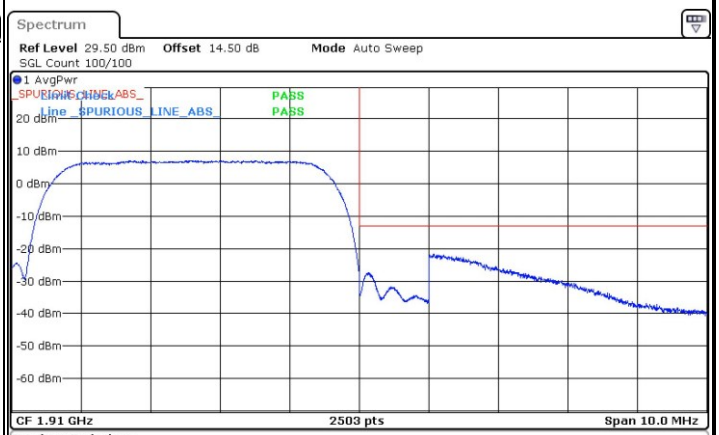


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84900 GHz	-21.80 dBm	-8.80 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.84987 GHz	-28.43 dBm	-15.43 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85239 GHz	7.84 dBm	-27.16 dB

Date: 23.AUG.2017 23:17:26

Highest Band Edge



Spurious Emissions

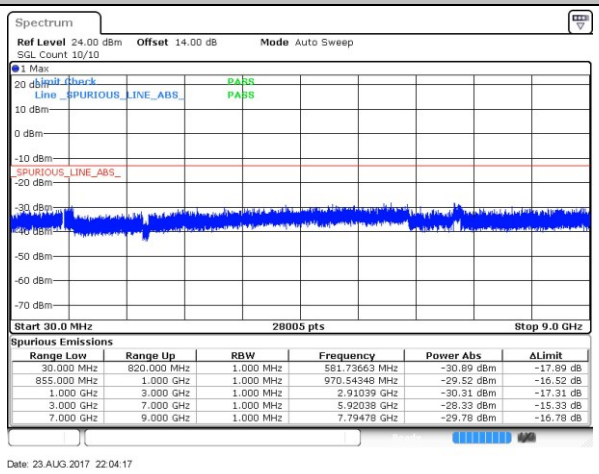
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90852 GHz	7.10 dBm	-27.90 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91012 GHz	-27.41 dBm	-14.41 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91107 GHz	-21.72 dBm	-8.72 dB

Date: 23.AUG.2017 23:20:11

Conducted Spurious Emission

GSM850 (GSM)

Lowest Channel

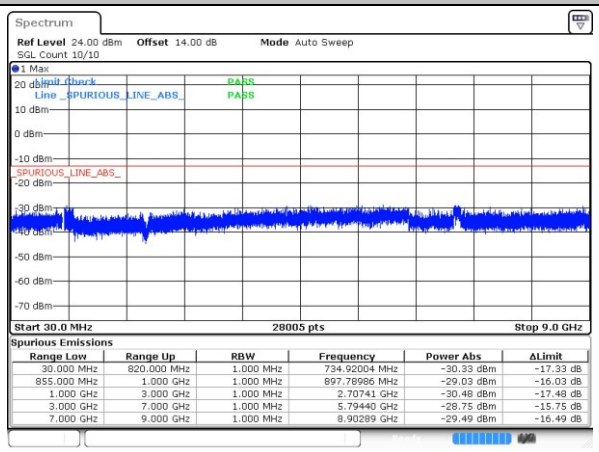


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	581.73663 MHz	-30.89 dBm	-17.89 dB
855.000 MHz	1.000 GHz	1.000 MHz	970.54348 MHz	-29.52 dBm	-16.52 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.91039 GHz	-30.31 dBm	-17.31 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.92038 GHz	-28.33 dBm	-15.33 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.79478 GHz	-29.78 dBm	-16.78 dB

Date: 23.AUG.2017 22:04:17

Middle Channel

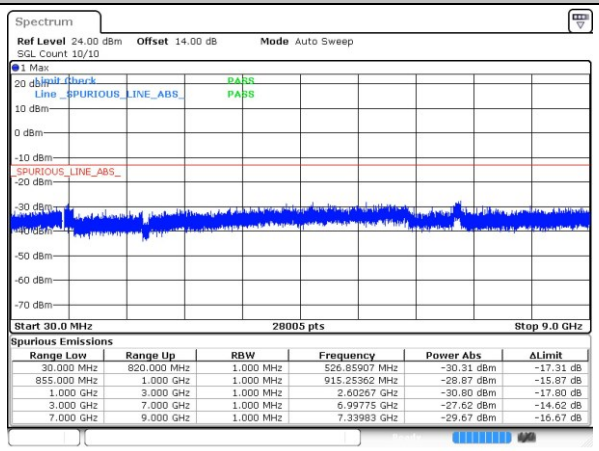


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	734.92004 MHz	-30.33 dBm	-17.33 dB
855.000 MHz	1.000 GHz	1.000 MHz	897.78986 MHz	-29.03 dBm	-16.03 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.70741 GHz	-30.48 dBm	-17.48 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.79440 GHz	-28.75 dBm	-15.75 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.90289 GHz	-29.49 dBm	-16.49 dB

Date: 23.AUG.2017 22:05:33

Highest Channel



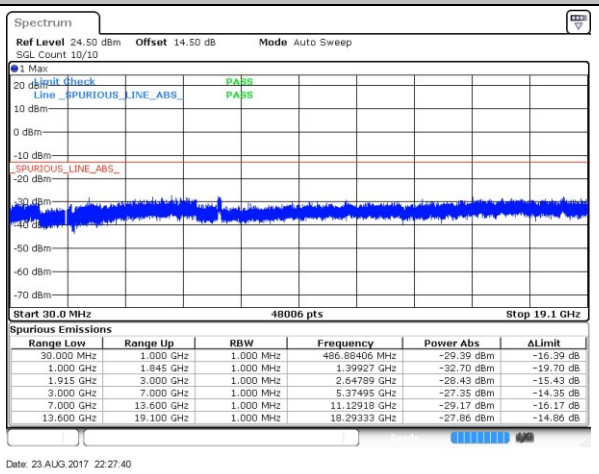
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	526.85907 MHz	-30.31 dBm	-17.31 dB
855.000 MHz	1.000 GHz	1.000 MHz	915.25362 MHz	-28.87 dBm	-15.87 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.60267 GHz	-30.80 dBm	-17.80 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99775 GHz	-27.62 dBm	-14.62 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.33983 GHz	-29.67 dBm	-16.67 dB

Date: 23.AUG.2017 22:06:50

GSM1900 (GSM)

Lowest Channel

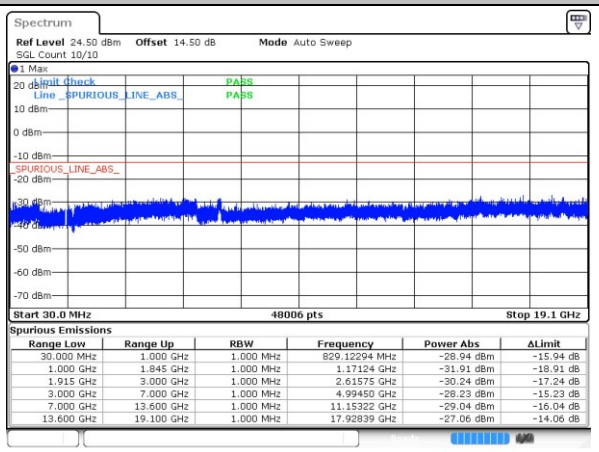


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	486.88406 MHz	-29.39 dBm	-16.39 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.39927 GHz	-32.70 dBm	-19.70 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.64789 GHz	-28.43 dBm	-15.43 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.37495 GHz	-27.35 dBm	-14.35 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.12918 GHz	-29.17 dBm	-16.17 dB
13.600 GHz	19.100 GHz	1.000 MHz	18.29333 GHz	-27.86 dBm	-14.86 dB

Date: 23.AUG.2017 22:27:40

Middle Channel

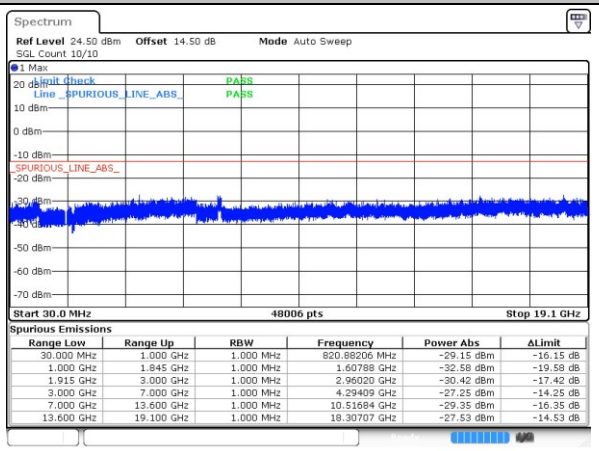


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	829.12294 MHz	-28.94 dBm	-15.94 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.17124 GHz	-31.91 dBm	-18.91 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.61575 GHz	-30.24 dBm	-17.24 dB
3.000 GHz	7.000 GHz	1.000 MHz	4.99450 GHz	-28.23 dBm	-15.23 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.15322 GHz	-29.04 dBm	-16.04 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.92839 GHz	-27.06 dBm	-14.06 dB

Date: 23.AUG.2017 22:28:56

Highest Channel



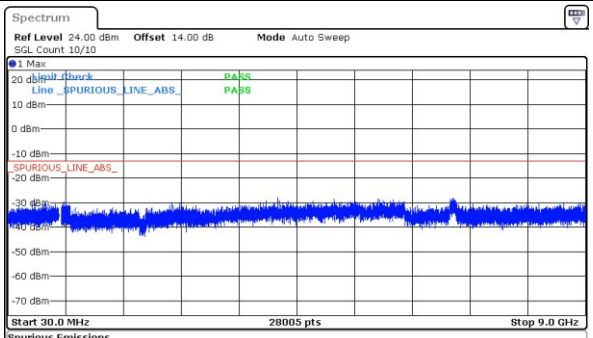
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	820.88206 MHz	-29.15 dBm	-16.15 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.60788 GHz	-32.58 dBm	-19.58 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.96020 GHz	-30.42 dBm	-17.42 dB
3.000 GHz	7.000 GHz	1.000 MHz	4.29409 GHz	-27.25 dBm	-14.25 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.51684 GHz	-29.35 dBm	-16.35 dB
13.600 GHz	19.100 GHz	1.000 MHz	18.30707 GHz	-27.53 dBm	-14.53 dB

Date: 23.AUG.2017 22:30:13

WCDMA Band V (RMC 12.2Kbps)

Lowest Channel

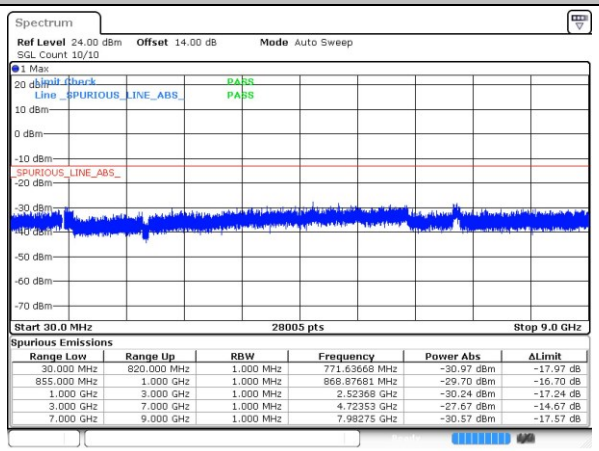


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	407.62869 MHz	-29.52 dBm	-16.52 dB
855.000 MHz	1.000 GHz	1.000 MHz	906.34058 MHz	-29.62 dBm	-16.62 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.69841 GHz	-30.39 dBm	-17.39 dB
3.000 GHz	7.000 GHz	1.000 MHz	4.21910 GHz	-27.99 dBm	-14.99 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.65642 GHz	-30.01 dBm	-17.01 dB

Date: 23.AUG.2017 23:45:52

Middle Channel

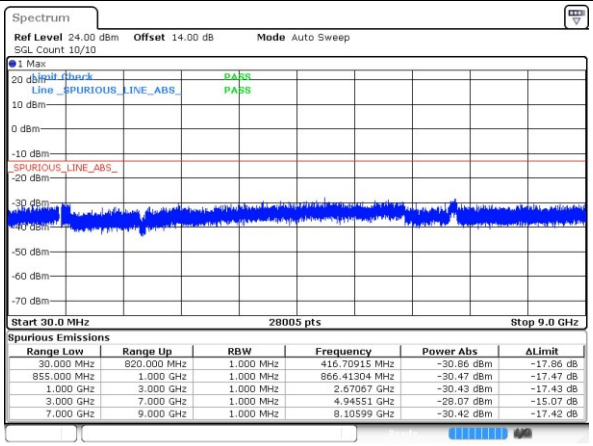


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	771.63668 MHz	-30.97 dBm	-17.97 dB
855.000 MHz	1.000 GHz	1.000 MHz	868.87681 MHz	-29.70 dBm	-16.70 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.52368 GHz	-30.24 dBm	-17.24 dB
3.000 GHz	7.000 GHz	1.000 MHz	4.72353 GHz	-27.67 dBm	-14.67 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.98275 GHz	-30.57 dBm	-17.57 dB

Date: 23.AUG.2017 23:47:08

Highest Channel



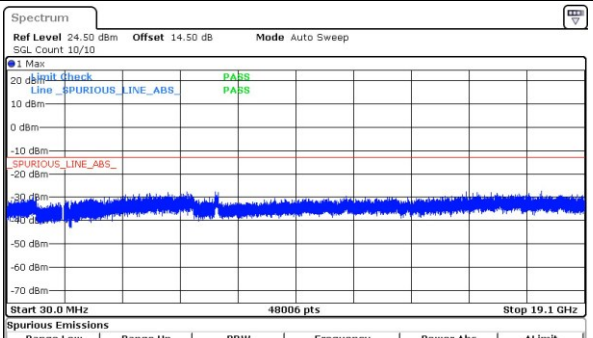
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	416.70915 MHz	-30.86 dBm	-17.86 dB
855.000 MHz	1.000 GHz	1.000 MHz	866.41304 MHz	-30.47 dBm	-17.47 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.67067 GHz	-30.43 dBm	-17.43 dB
3.000 GHz	7.000 GHz	1.000 MHz	4.94551 GHz	-28.07 dBm	-15.07 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.10599 GHz	-30.42 dBm	-17.42 dB

Date: 23.AUG.2017 23:48:25

WCDMA Band II (RMC 12.2Kbps)

Lowest Channel

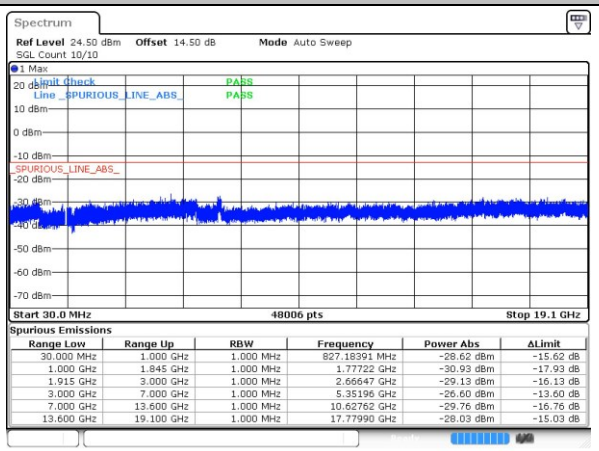


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	910.07746 MHz	-29.70 dBm	-16.70 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.77849 GHz	-32.40 dBm	-19.40 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.80493 GHz	-30.46 dBm	-17.46 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.97138 GHz	-27.70 dBm	-14.70 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.23525 GHz	-29.66 dBm	-16.66 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.67816 GHz	-27.51 dBm	-14.51 dB

Date: 23.AUG.2017 22:59:54

Middle Channel

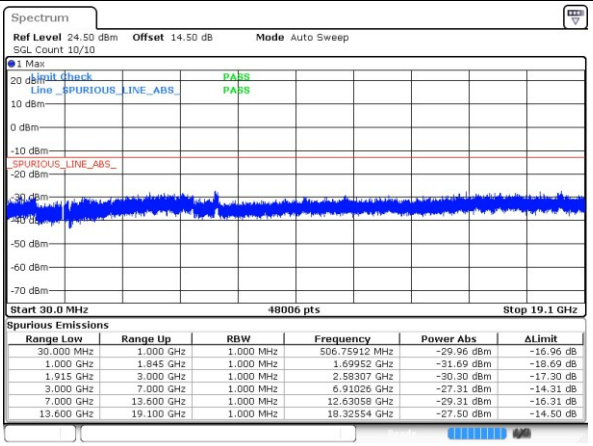


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	827.18391 MHz	-28.62 dBm	-15.62 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.77722 GHz	-30.93 dBm	-17.93 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.66647 GHz	-29.13 dBm	-16.13 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.35196 GHz	-26.60 dBm	-13.60 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.62762 GHz	-29.76 dBm	-16.76 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.77990 GHz	-28.03 dBm	-15.03 dB

Date: 23.AUG.2017 23:01:10

Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	506.75912 MHz	-29.96 dBm	-16.96 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.69952 GHz	-31.69 dBm	-18.69 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.58307 GHz	-30.30 dBm	-17.30 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91026 GHz	-27.31 dBm	-14.31 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.63058 GHz	-29.31 dBm	-16.31 dB
13.600 GHz	19.100 GHz	1.000 MHz	18.32554 GHz	-27.50 dBm	-14.50 dB

Date: 23.AUG.2017 23:02:27

Frequency Stability

Test Conditions	Middle Channel	GSM850 (GSM)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0423	PASS
40	Normal Voltage	0.0361	
30	Normal Voltage	0.0357	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0234	
0	Normal Voltage	0.0197	
-10	Normal Voltage	0.0277	
-20	Normal Voltage	0.0209	
-30	Normal Voltage	0.0304	
20	Maximum Voltage	0.0276	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0311	

Note: Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.5 V.；Maximum Voltage =4.3 V

Test Conditions	Middle Channel	GSM1900 (GSM)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0175	PASS
40	Normal Voltage	0.0124	
30	Normal Voltage	0.0128	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0104	
0	Normal Voltage	0.0150	
-10	Normal Voltage	0.0066	
-20	Normal Voltage	0.0082	
-30	Normal Voltage	0.0139	
20	Maximum Voltage	0.0043	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0055	

Note:

1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.5 V.；Maximum Voltage =4.3 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	0.0036	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0213	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0135	
0	Normal Voltage	0.0195	
-10	Normal Voltage	0.0261	
-20	Normal Voltage	0.0215	
-30	Normal Voltage	0.0171	
20	Maximum Voltage	0.0263	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0048	

Note: Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.5 V.；Maximum Voltage =4.3 V

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0021	PASS
40	Normal Voltage	0.0037	
30	Normal Voltage	0.0037	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0048	
0	Normal Voltage	0.0066	
-10	Normal Voltage	0.0034	
-20	Normal Voltage	0.0053	
-30	Normal Voltage	0.0184	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0064	

Note:

1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.5 V.；Maximum Voltage =4.3 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

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	-42.29	-13	-29.29	-49.42	-48.98	0.56	9.40	H
	2510	-61.19	-13	-48.19	-72.58	-68.90	0.74	10.60	H
	3346	-63.36	-13	-50.36	-76.64	-72.96	0.85	12.60	H
	1672	-50.31	-13	-37.31	-57.44	-57.00	0.56	9.40	V
	2510	-64.21	-13	-51.21	-75.20	-71.92	0.74	10.60	V
	3346	-62.99	-13	-49.99	-76.50	-72.59	0.85	12.60	V

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

GSM1900 (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	3760	-54.36	-13	-41.36	-69.64	-60.40	6.56	12.60	H
	5640	-51.99	-13	-38.99	-71.34	-57.09	8	13.10	H
	7520	-57.60	-13	-44.60	-81.19	-59.33	9.57	11.30	H
	3760	-57.67	-13	-44.67	-73.22	-63.71	6.56	12.6	V
	5640	-53.36	-13	-40.36	-73.28	-58.46	8	13.1	V
	7520	-56.35	-13	-43.35	-79.99	-58.08	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	1672.8	-49.76	-13	-36.76	-56.89	-56.45	0.56	9.40	H
	2509.2	-65.20	-13	-52.20	-76.59	-72.91	0.74	10.60	H
	3345.6	-63.54	-13	-50.54	-76.82	-73.14	0.85	12.60	H
	1672.8	-57.73	-13	-44.73	-64.86	-64.42	0.56	9.40	V
	2509.2	-65.58	-13	-52.58	-76.57	-73.29	0.74	10.60	V
	3345.6	-63.78	-13	-50.78	-77.29	-73.38	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	-59.83	-13	-46.83	-75.11	-65.87	6.56	12.60	H
	5640	-52.65	-13	-39.65	-72.00	-57.75	8	13.10	H
	7520	-57.18	-13	-44.18	-80.77	-58.91	9.57	11.30	H
	3760	-59.76	-13	-46.76	-75.31	-65.80	6.56	12.6	V
	5640	-50.68	-13	-37.68	-70.6	-55.78	8	13.1	V
	7520	-57.18	-13	-44.18	-80.82	-58.91	9.57	11.3	V

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