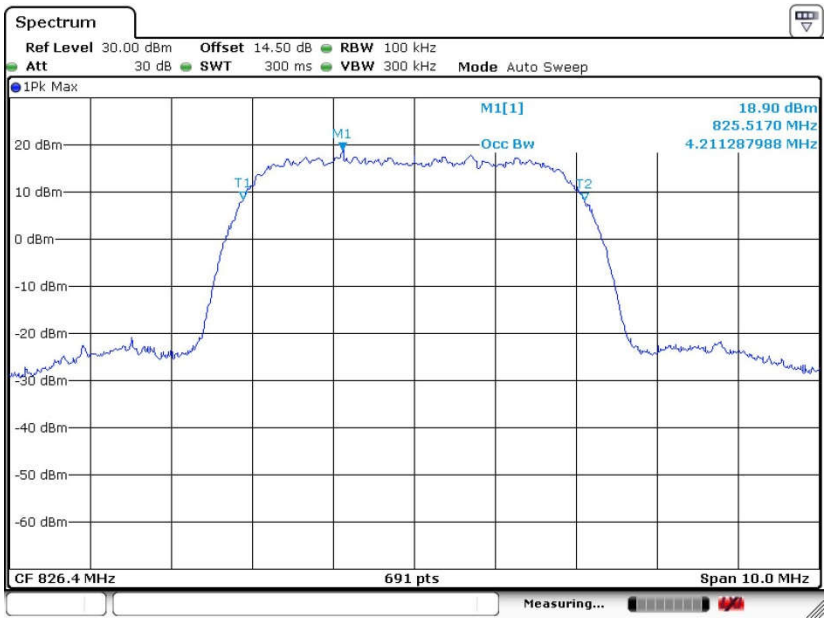
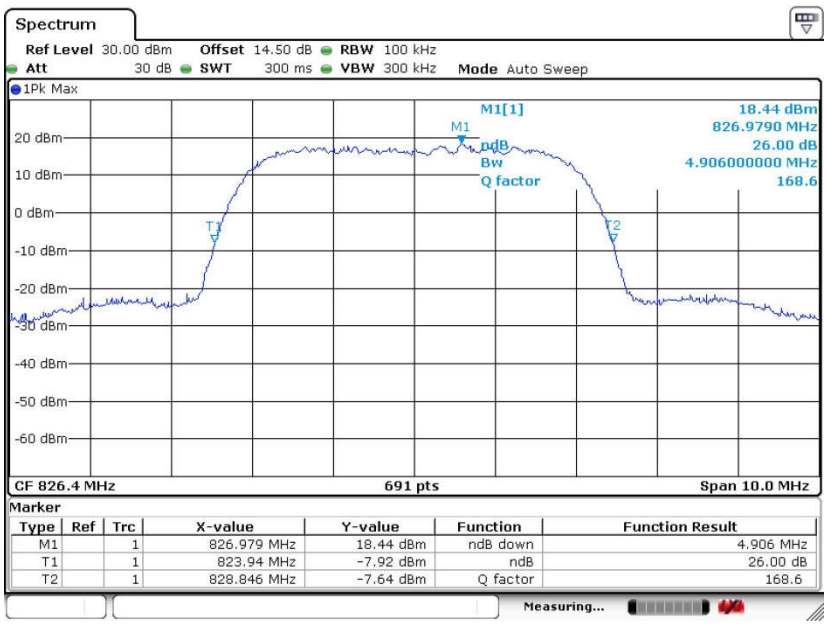
Band :	WCDMA Band V	Test Mode :	RMC 12.2Kbps Link (QPSK)

99% Occupied Bandwidth Plot on Channel 4132 (826.4 MHz)



Date: 13.OCT.2015 21:56:19

26dB Bandwidth Plot on Channel 4132 (826.4 MHz)

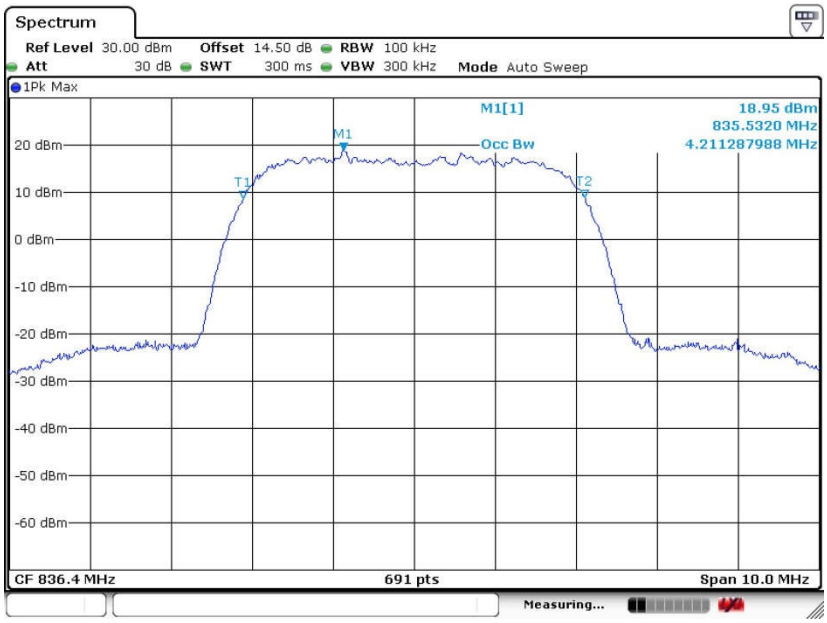


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	826.979 MHz	18.44 dBm	ndB down	4.906 MHz
T1		1	823.94 MHz	-7.92 dBm	ndB	26.00 dB
T2		1	828.846 MHz	-7.64 dBm	Q factor	168.6

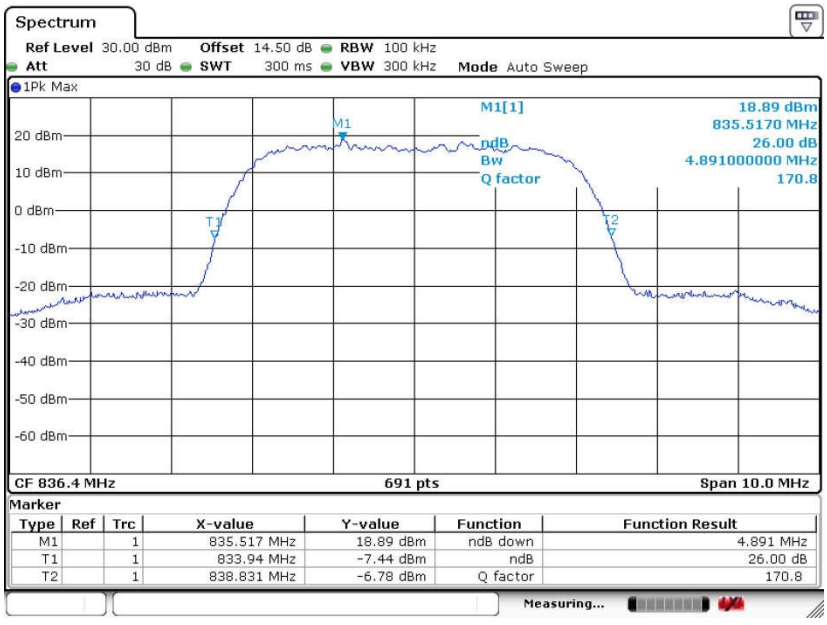
Date: 13.OCT.2015 22:00:44

99% Occupied Bandwidth Plot on Channel 4182 (836.4 MHz)



Date: 13.OCT.2015 21:57:42

26dB Bandwidth Plot on Channel 4182 (836.4 MHz)

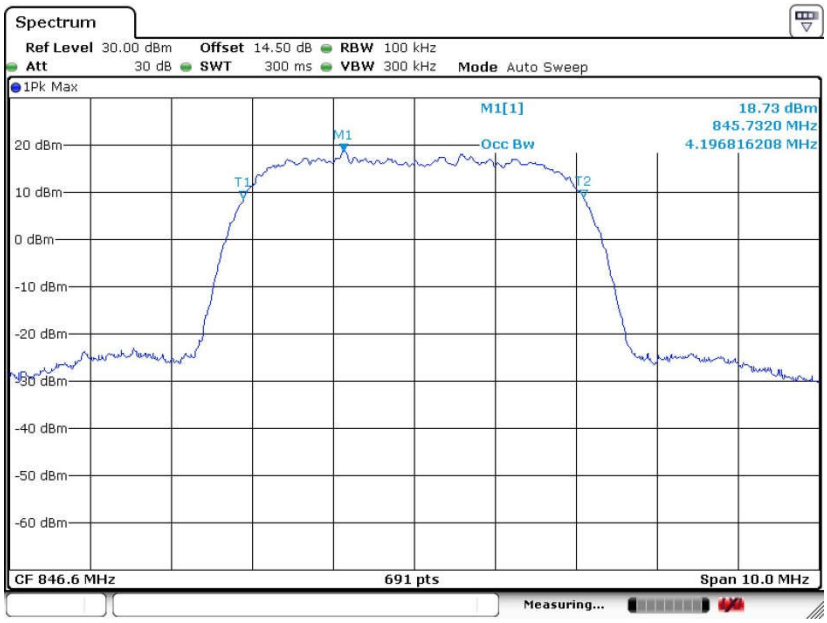


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	835.517 MHz	18.89 dBm	ndB down	4.891 MHz
T1		1	833.94 MHz	-7.44 dBm	ndB	26.00 dB
T2		1	838.831 MHz	-6.78 dBm	Q factor	170.8

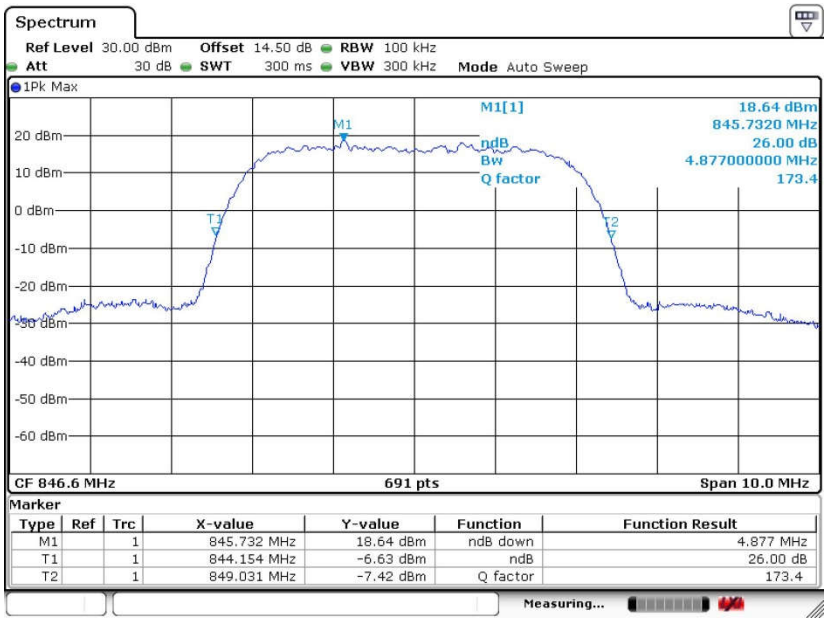
Date: 13.OCT.2015 22:01:53

99% Occupied Bandwidth Plot on Channel 4233 (846.6 MHz)



Date: 13.OCT.2015 21:59:29

26dB Bandwidth Plot on Channel 4233 (846.6 MHz)



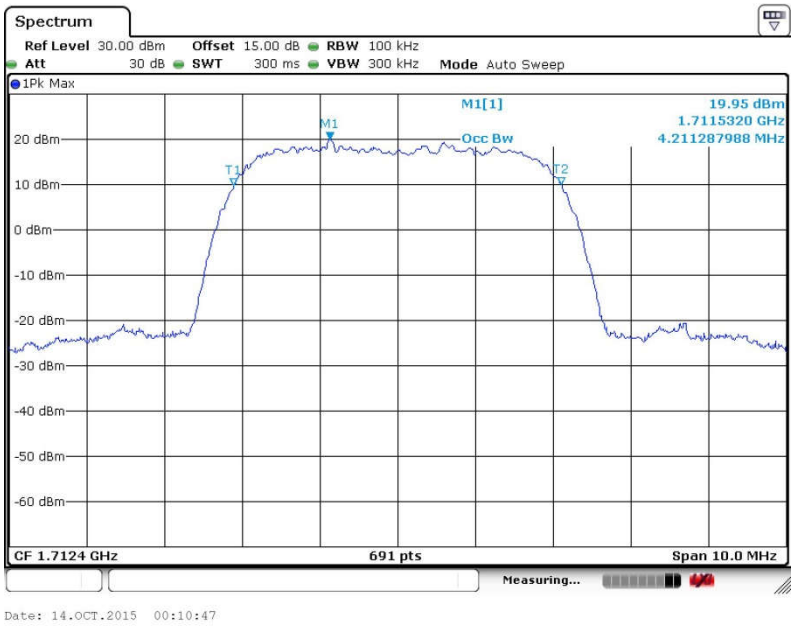
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	845.732 MHz	18.64 dBm	ndB down	4.877 MHz
T1		1	844.154 MHz	-6.63 dBm	ndB	26.00 dB
T2		1	849.031 MHz	-7.42 dBm	Q factor	173.4

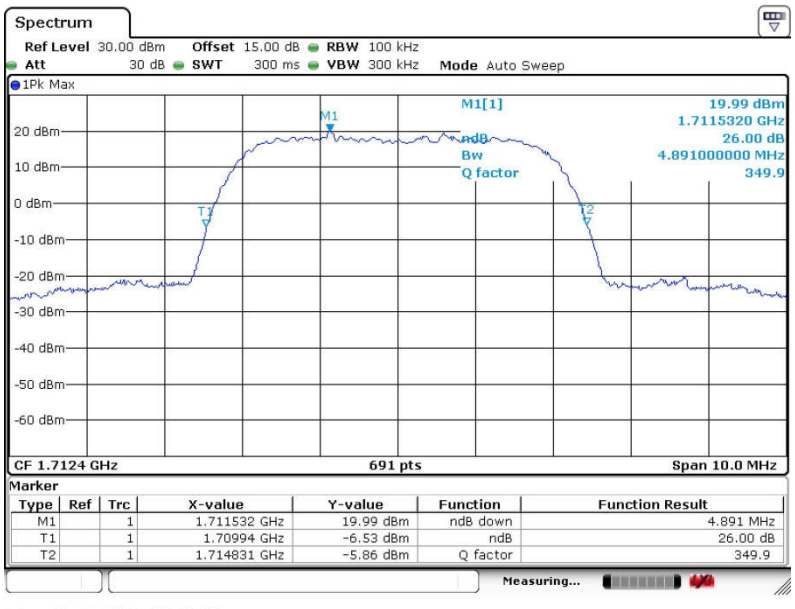
Date: 13.OCT.2015 22:03:01

Band :	WCDMA Band IV	Test Mode :	RMC 12.2Kbps Link (QPSK)

99% Occupied Bandwidth Plot on Channel 1312 (1712.4 MHz)



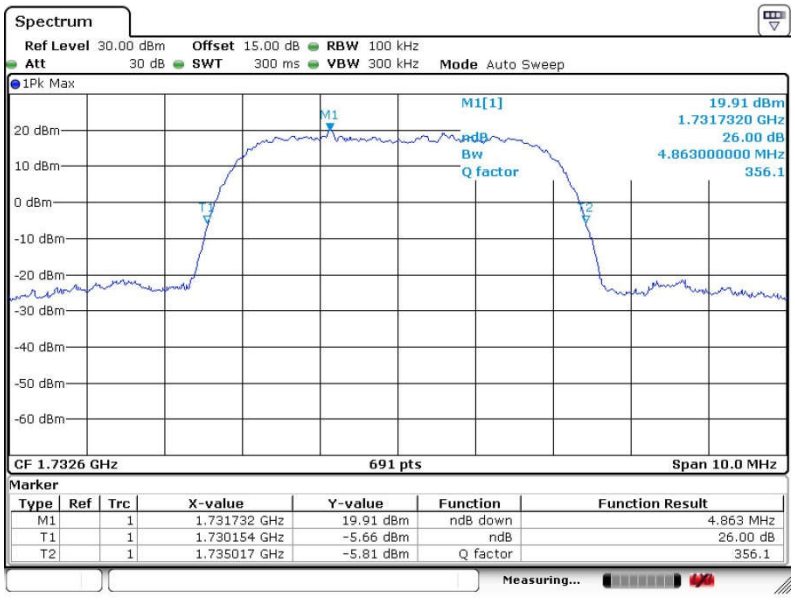
26dB Bandwidth Plot on Channel 1312 (1712.4 MHz)



99% Occupied Bandwidth Plot on Channel 1413 (1732.6 MHz)

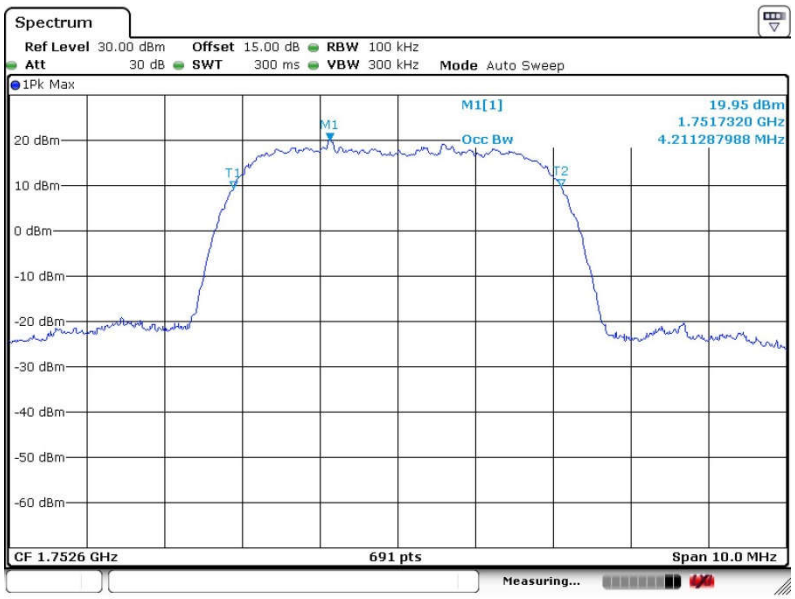
Date: 14.OCT.2015 00:12:15

26dB Bandwidth Plot on Channel 1413 (1732.6 MHz)



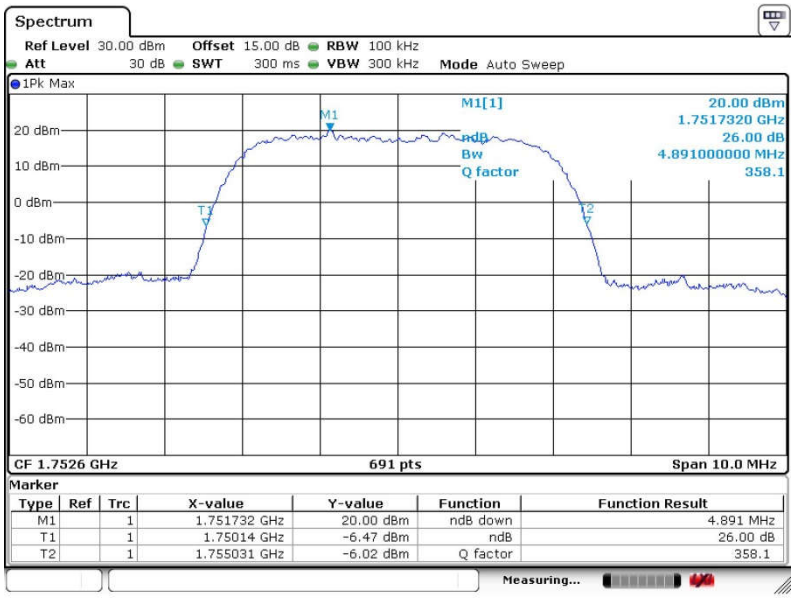
Date: 14.OCT.2015 00:16:26

99% Occupied Bandwidth Plot on Channel 1513 (1752.6 MHz)



Date: 14.OCT.2015 00:13:30

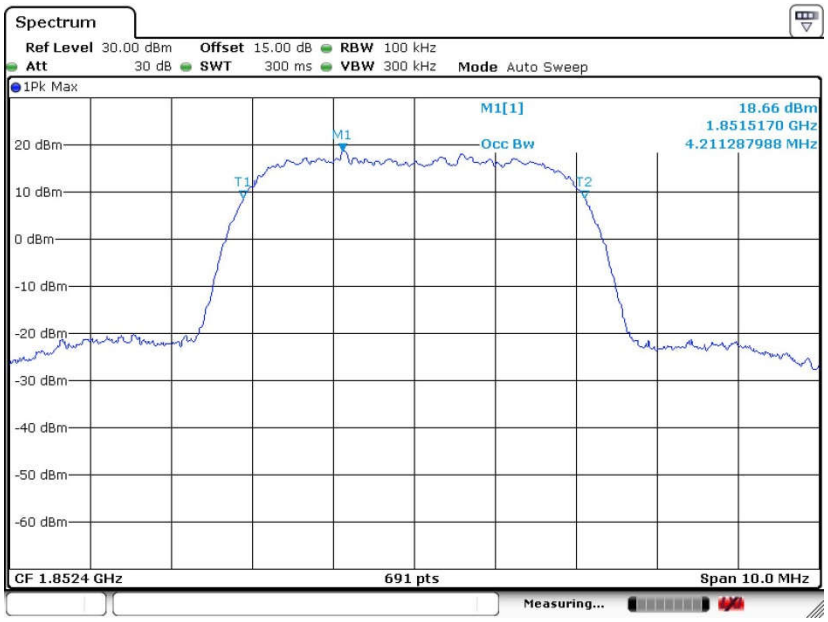
26dB Bandwidth Plot on Channel 1513 (1752.6 MHz)



Date: 14.OCT.2015 00:17:43

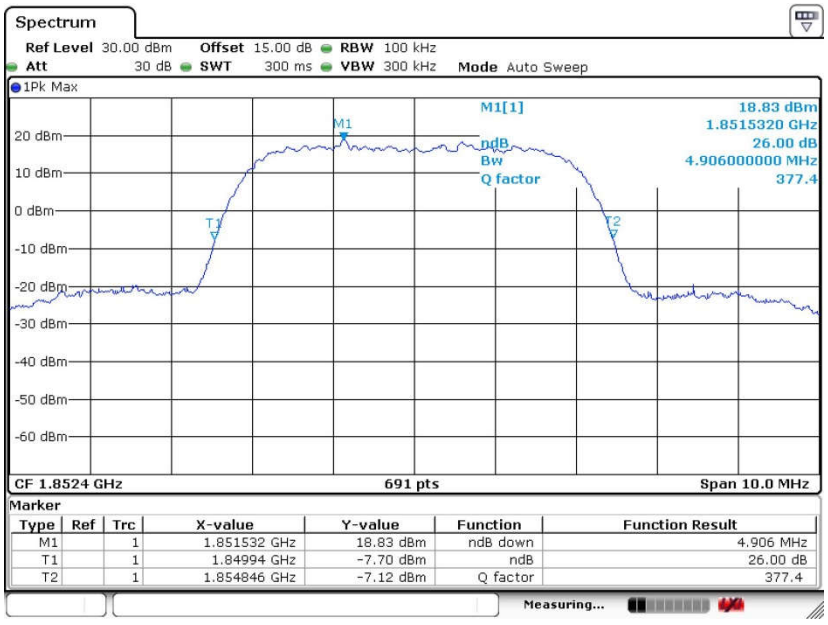
Band :	WCDMA Band II	Test Mode :	RMC 12.2Kbps Link (QPSK)

99% Occupied Bandwidth Plot on Channel 9262 (1852.4 MHz)



Date: 13.OCT.2015 23:07:10

26dB Bandwidth Plot on Channel 9262 (1852.4 MHz)

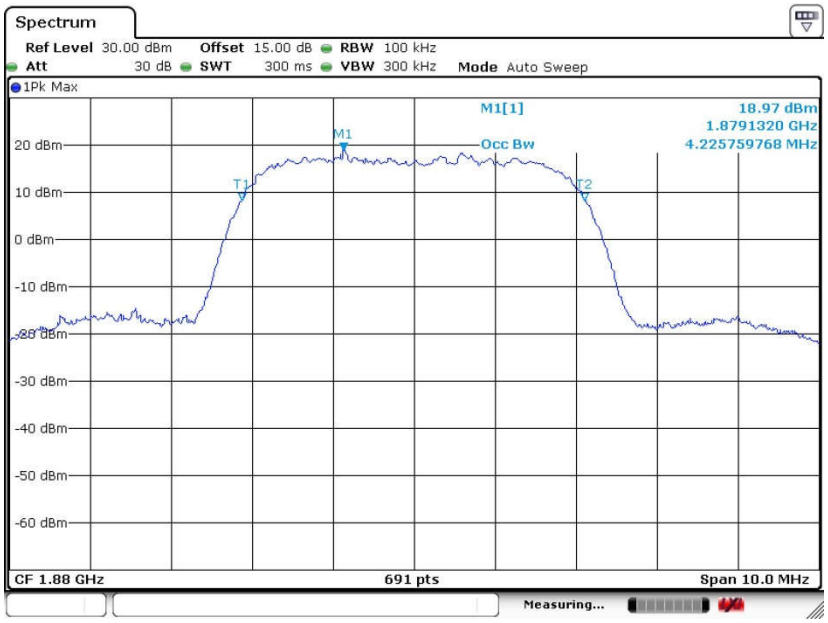


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.851532 GHz	18.83 dBm	ndB down	4.906 MHz
T1		1	1.84994 GHz	-7.70 dBm	ndB	26.00 dB
T2		1	1.854846 GHz	-7.12 dBm	Q factor	377.4

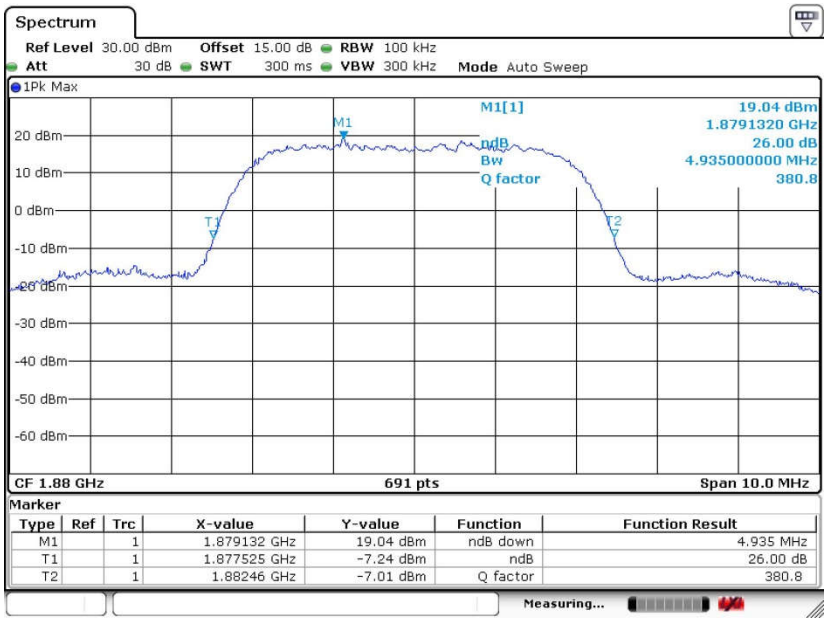
Date: 13.OCT.2015 23:14:03

99% Occupied Bandwidth Plot on Channel 9400 (1880.0 MHz)



Date: 13.OCT.2015 23:08:55

26dB Bandwidth Plot on Channel 9400 (1880.0 MHz)

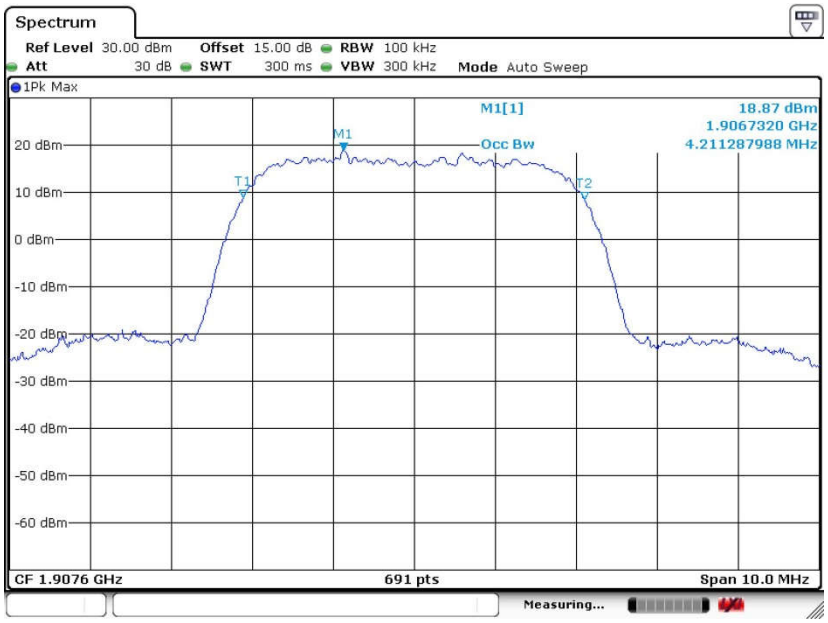


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.879132 GHz	19.04 dBm	ndB down	4.935 MHz
T1		1	1.877525 GHz	-7.24 dBm	ndB	26.00 dB
T2		1	1.88246 GHz	-7.01 dBm	Q factor	380.8

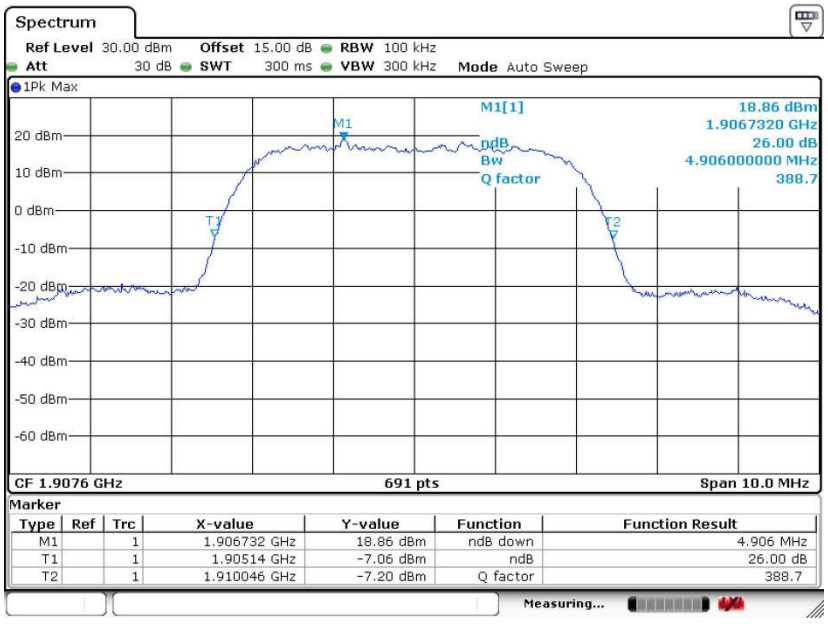
Date: 13.OCT.2015 23:15:16

99% Occupied Bandwidth Plot on Channel 9538 (1907.6 MHz)



Date: 13.OCT.2015 23:11:22

26dB Bandwidth Plot on Channel 9538 (1907.6 MHz)



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	1.906732 GHz	18.86 dBm	ndB down	4.906 MHz
T1		1	1.90514 GHz	-7.06 dBm	ndB	26.00 dB
T2		1	1.910046 GHz	-7.20 dBm	Q factor	388.7

Date: 13.OCT.2015 23:16:23

3.5 Band Edge Measurement

3.5.1 Description of Band Edge Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

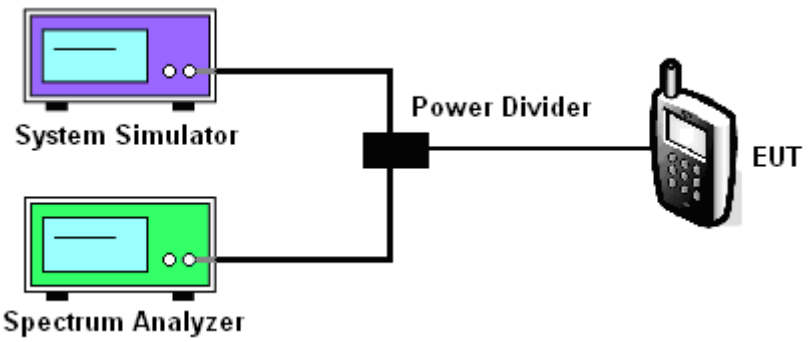
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The band edges of low and high channels for the highest RF powers were measured.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)
   = P(W) - [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
   = -13dBm.

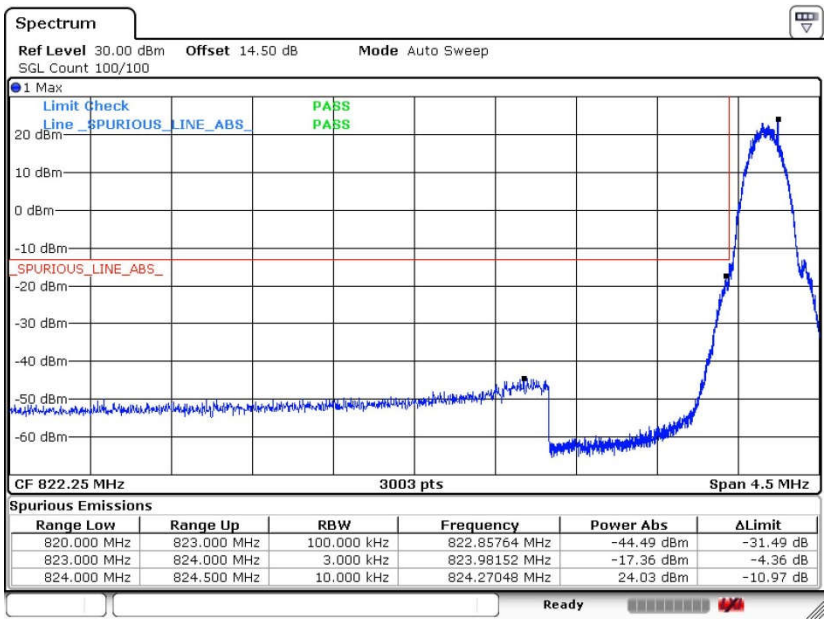
3.5.4 Test Setup



3.5.5 Test Result (Plots) of Conducted Band Edge

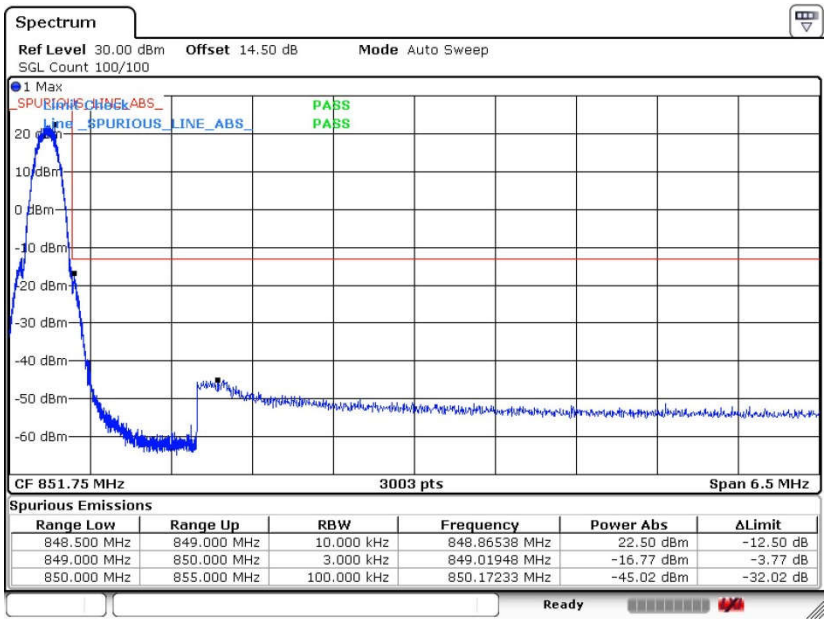
Band :	GSM850	Test Mode :	GSM Link (GMSK)

Lower Band Edge Plot on Channel 128 (824.2 MHz)



Date: 13.OCT.2015 20:37:24

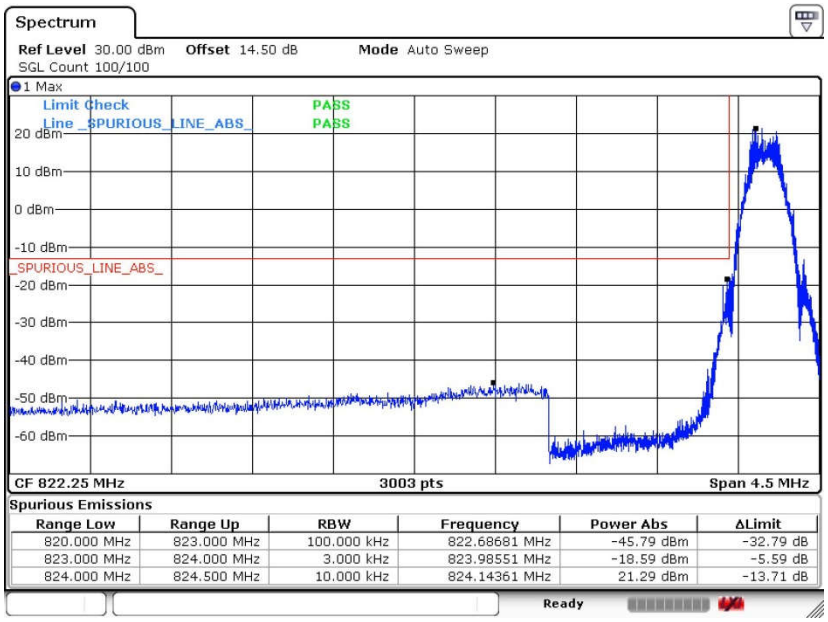
Higher Band Edge Plot on Channel 251 (848.8 MHz)



Date: 13.OCT.2015 20:41:31

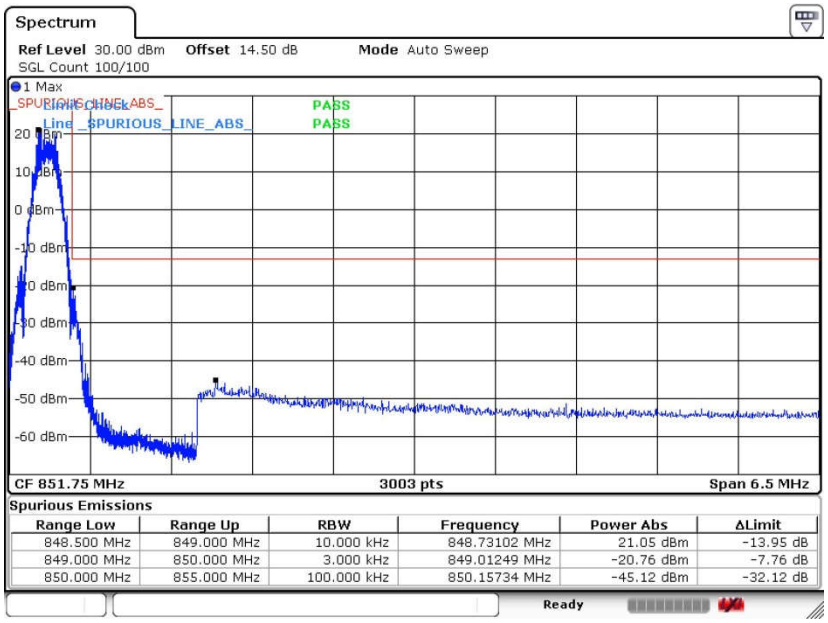
Band :	GSM850	Test Mode :	EDGE class 8 Link (8PSK)

Lower Band Edge Plot on Channel 128 (824.2 MHz)



Date: 13.OCT.2015 21:45:54

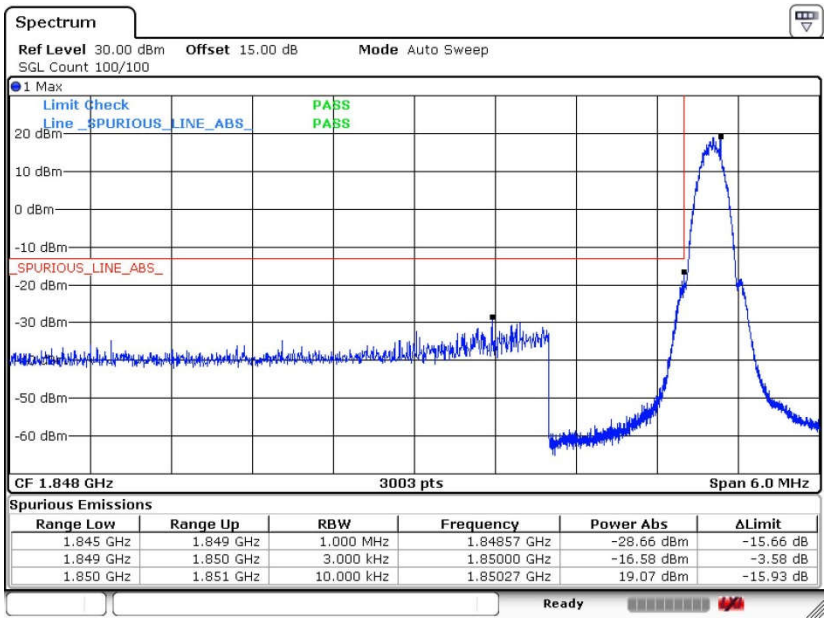
Higher Band Edge Plot on Channel 251 (848.8 MHz)



Date: 13.OCT.2015 21:50:26

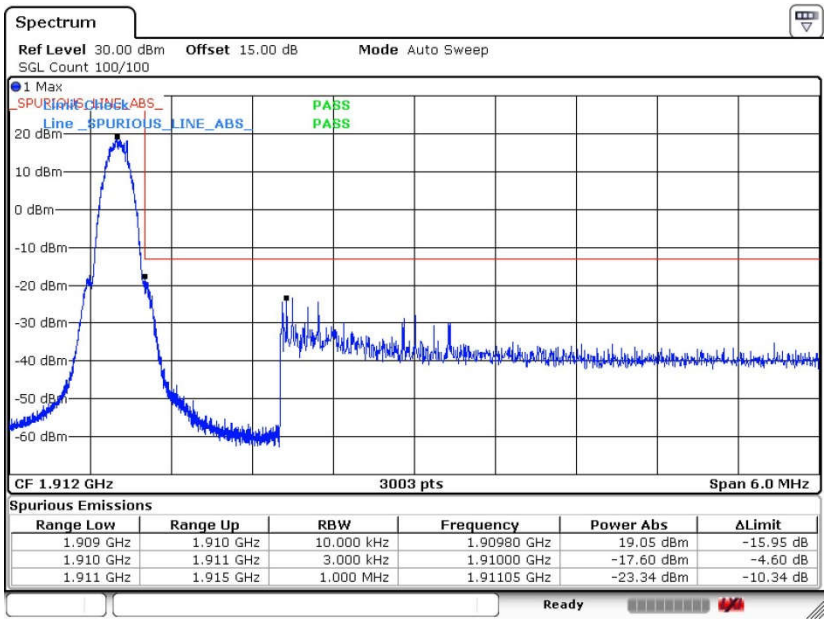
Band :	GSM1900	Test Mode :	GSM Link (GMSK)

Lower Band Edge Plot on Channel 512 (1850.2 MHz)



Date: 13.OCT.2015 22:20:01

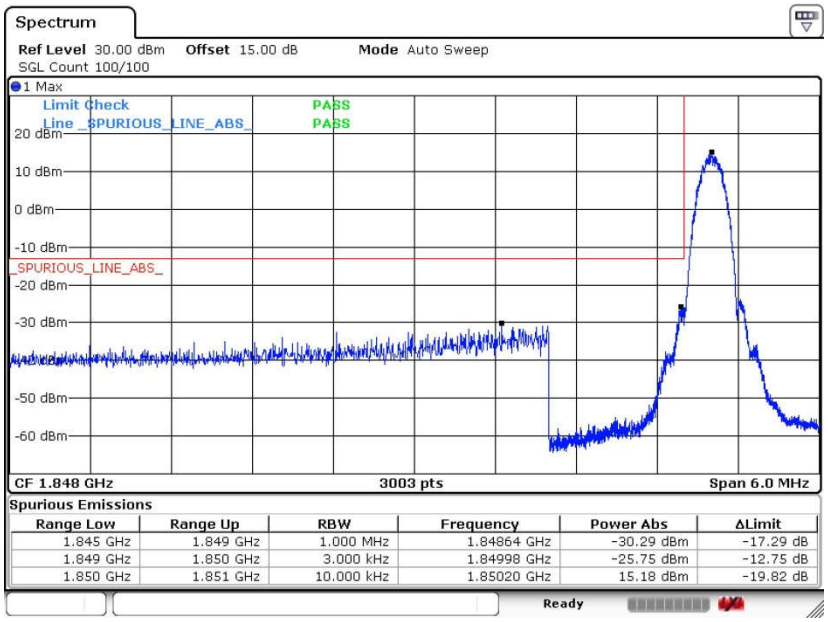
Higher Band Edge Plot on Channel 810 (1909.8 MHz)



Date: 14.OCT.2015 20:19:10

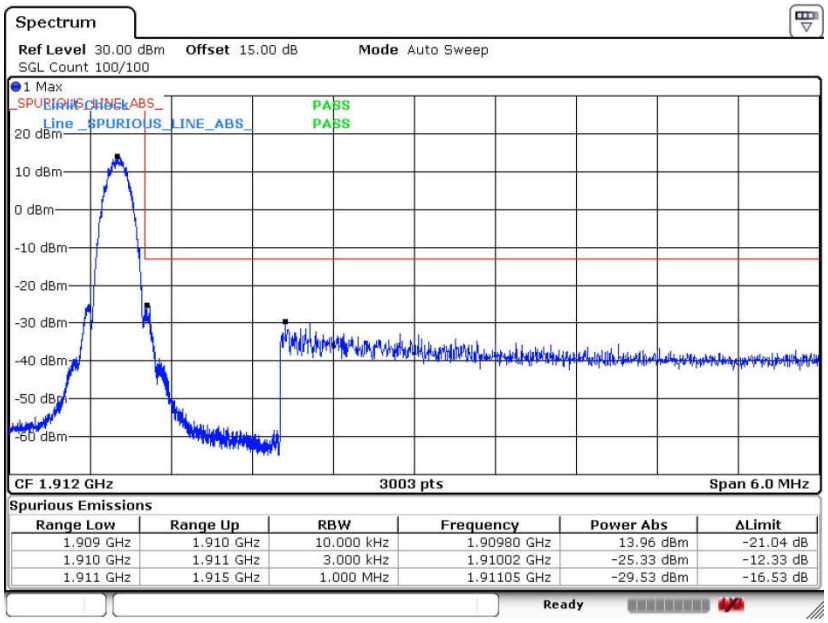
Band :	GSM1900	Test Mode :	EDGE class 8 Link (8PSK)

Lower Band Edge Plot on Channel 512 (1850.2 MHz)



Date: 14.OCT.2015 20:01:43

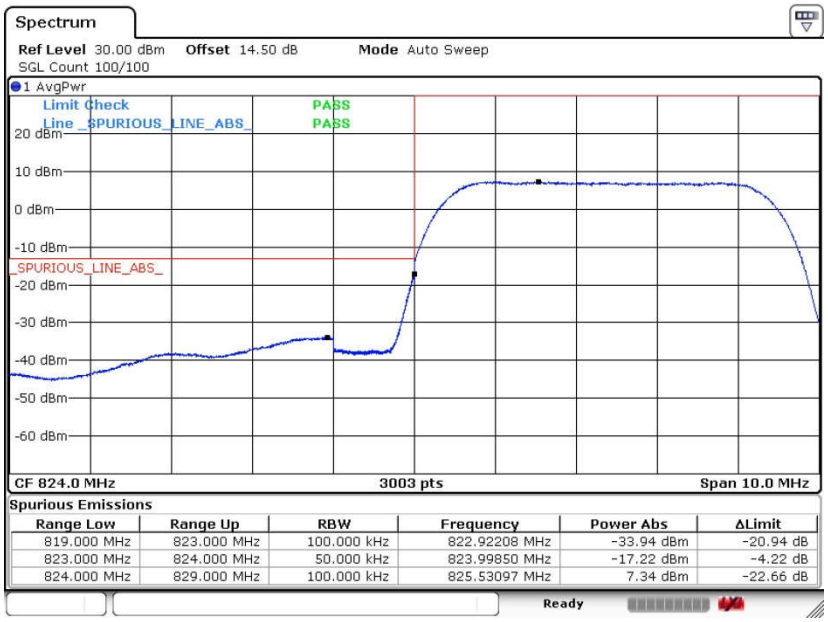
Higher Band Edge Plot on Channel 810 (1909.8 MHz)



Date: 14.OCT.2015 20:08:01

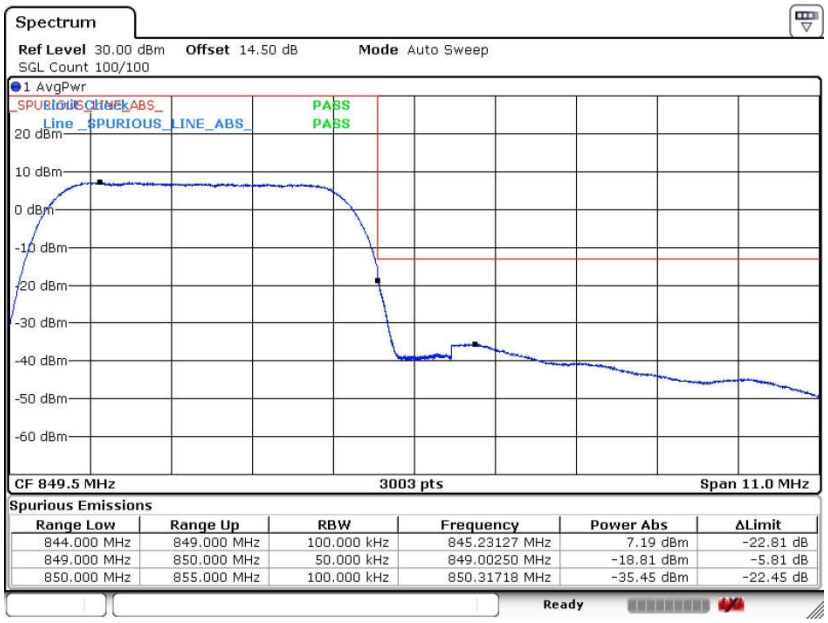
Band :	WCDMA Band V	Test Mode :	RMC 12.2Kbps Link (QPSK)

Lower Band Edge Plot on Channel 4132 (826.4 MHz)



Date: 13.OCT.2015 22:03:57

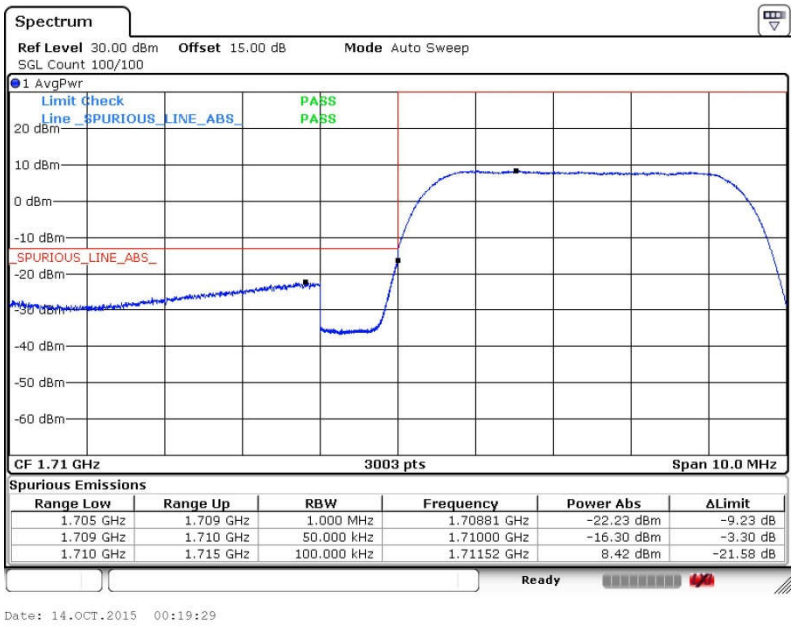
Higher Band Edge Plot on Channel 4233 (846.6 MHz)



Date: 13.OCT.2015 22:05:28

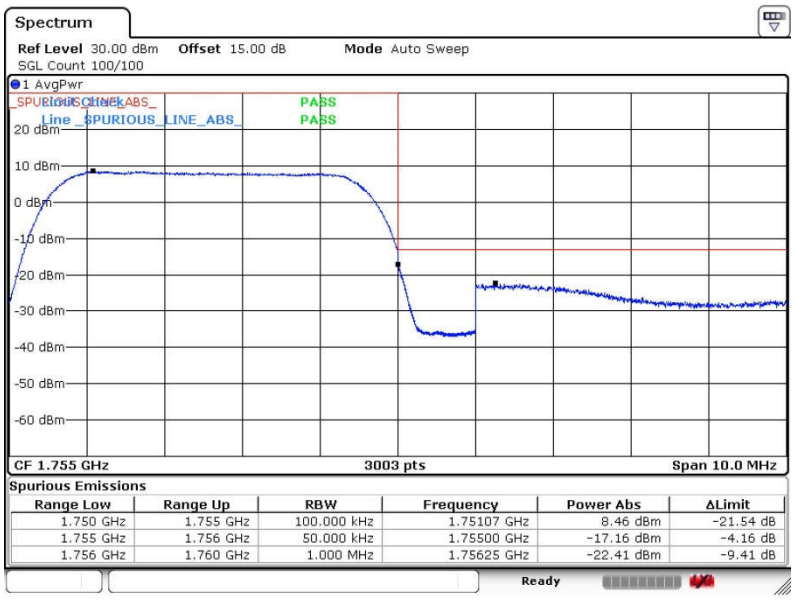
Band :	WCDMA Band IV	Test Mode :	RMC 12.2Kbps Link (QPSK)

Lower Band Edge Plot on Channel 1312 (1712.4 MHz)



Date: 14.OCT.2015 00:19:29

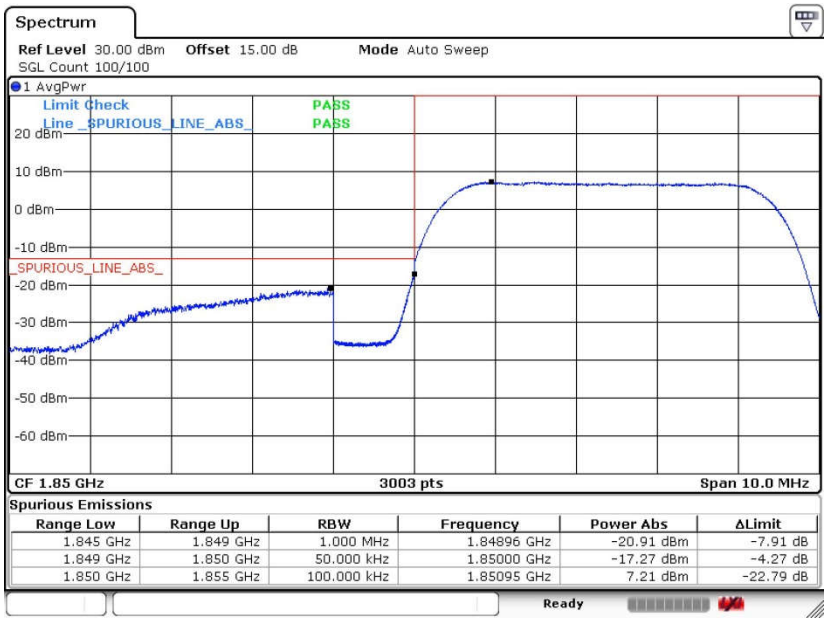
Higher Band Edge Plot on Channel 1513 (1752.6 MHz)



Date: 14.OCT.2015 00:18:47

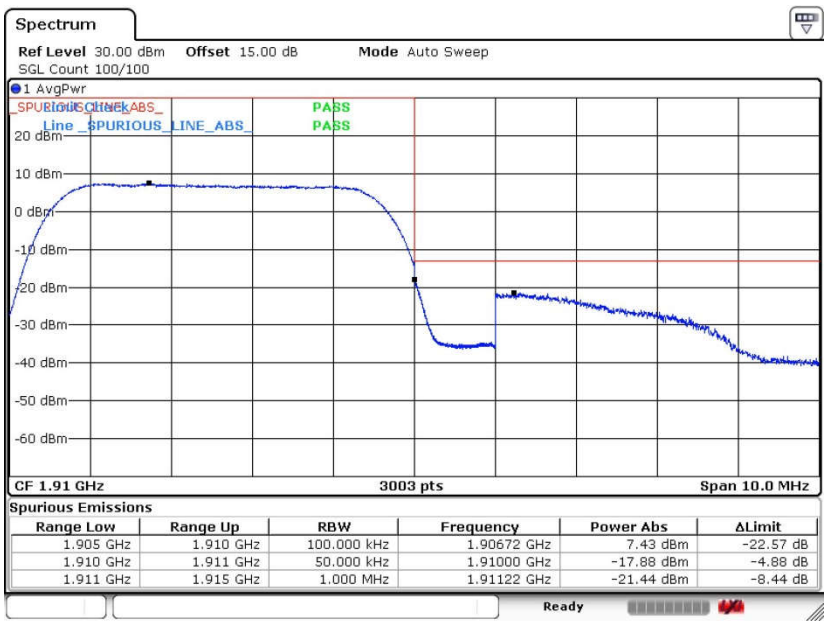
Band :	WCDMA Band II	Test Mode :	RMC 12.2Kbps Link (QPSK)

Lower Band Edge Plot on Channel 9262 (1852.4 MHz)



Date: 13.OCT.2015 23:18:03

Higher Band Edge Plot on Channel 9538 (1907.6 MHz)



Date: 13.OCT.2015 23:17:22

3.6 Conducted Spurious Emission Measurement

3.6.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10^{th} harmonic.

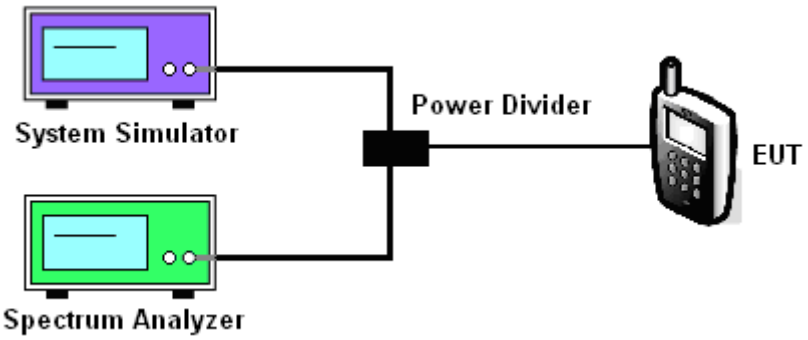
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)
   = P(W) - [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
   = -13dBm.

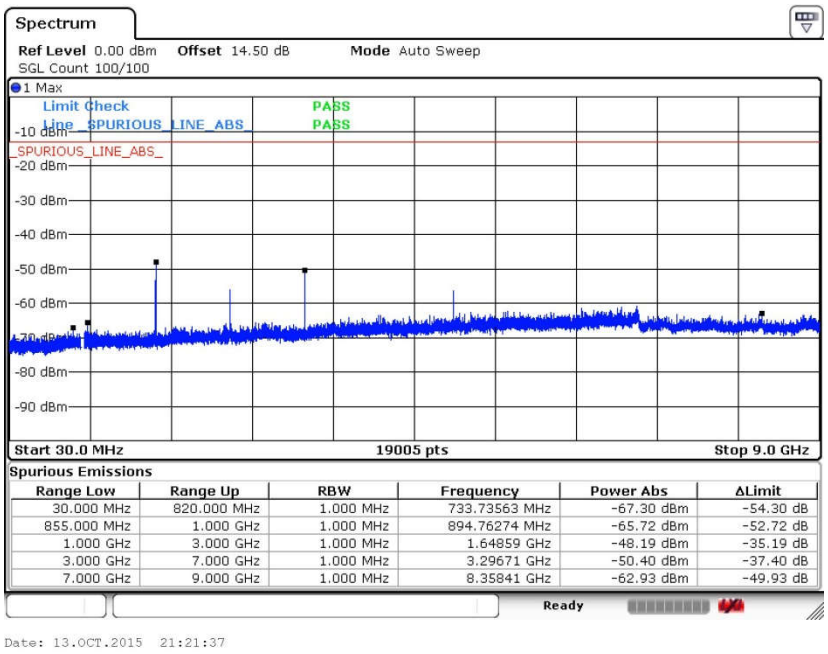
3.6.4 Test Setup



3.6.5 Test Result (Plots) of Conducted Spurious Emission

Band :	GSM850	Channel :	CH128
Test Mode :	GSM Link (GMSK)	Frequency :	824.2 MHz

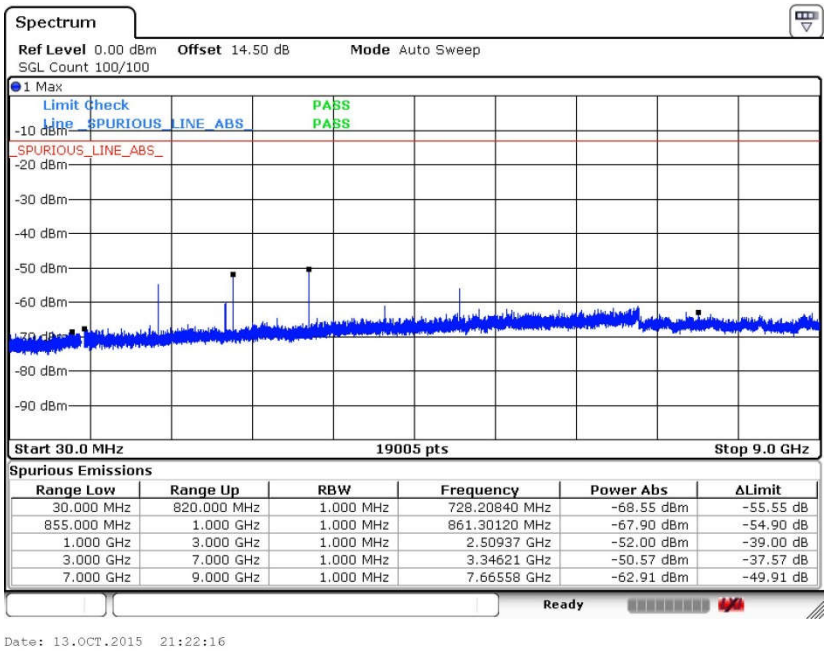
Conducted Spurious Emission Plot between 30MHz ~ 9GHz



Date: 13.OCT.2015 21:21:37

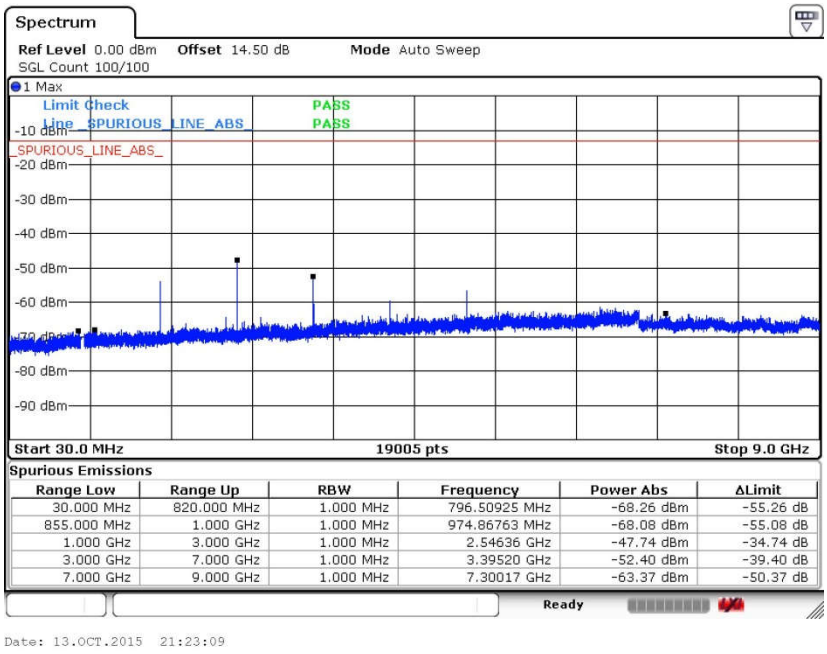
Band :	GSM850	Channel :	CH189
Test Mode :	GSM Link (GMSK)	Frequency :	836.4 MHz

Conducted Spurious Emission Plot between 30MHz ~ 9GHz



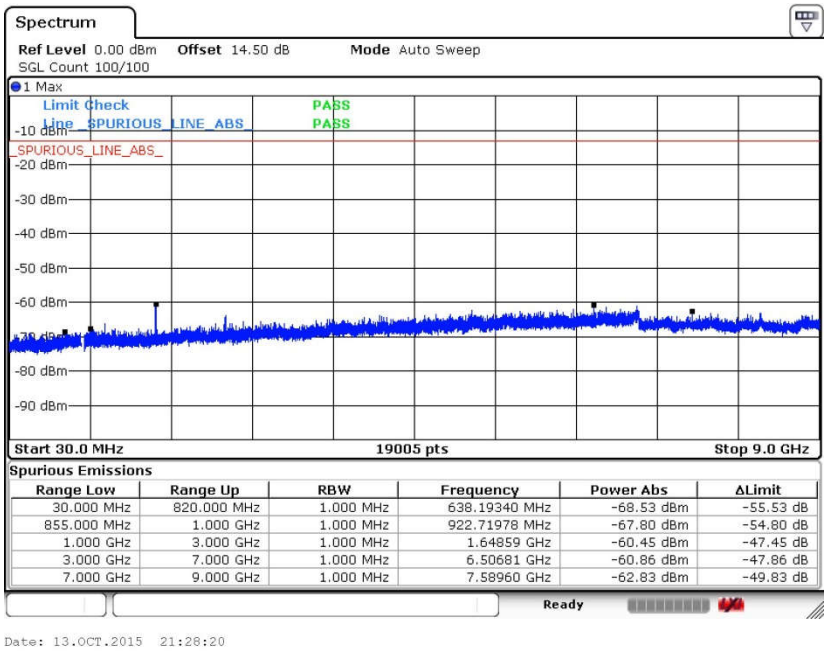
Band :	GSM850	Channel :	CH 251
Test Mode :	GSM Link (GMSK)	Frequency :	848.8 MHz

Conducted Spurious Emission Plot between 30MHz ~ 9GHz



Band :	GSM850	Channel :	CH128
Test Mode :	EDGE class 8 Link (8PSK)	Frequency :	824.2 MHz

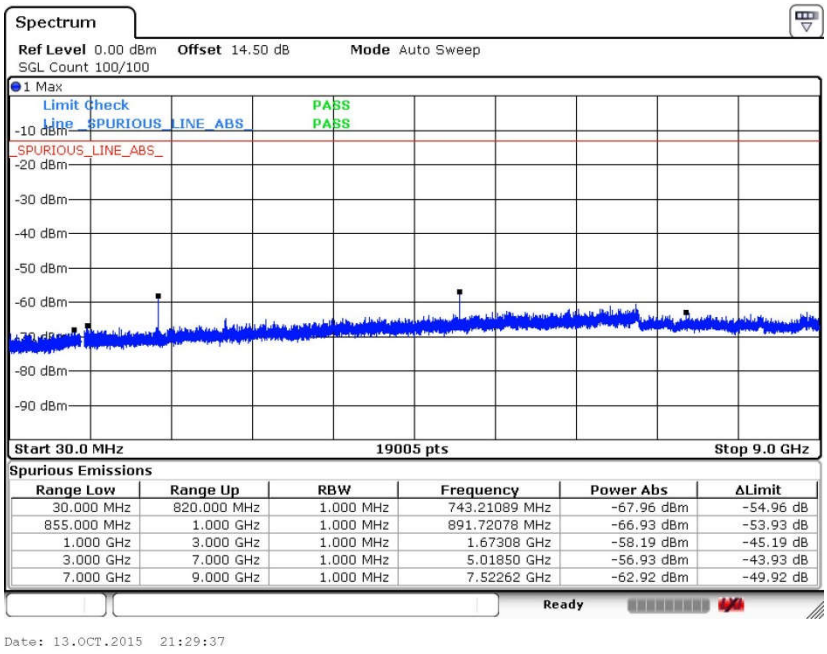
Conducted Spurious Emission Plot between 30MHz ~ 9GHz



Date: 13.OCT.2015 21:28:20

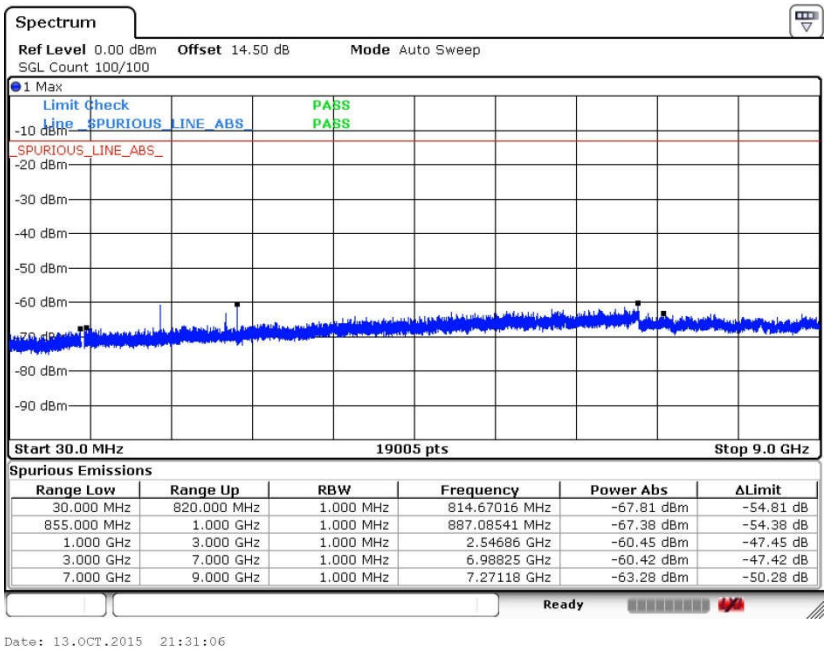
Band :	GSM850	Channel :	CH189
Test Mode :	EDGE class 8 Link (8PSK)	Frequency :	836.4 MHz

Conducted Spurious Emission Plot between 30MHz ~ 9GHz



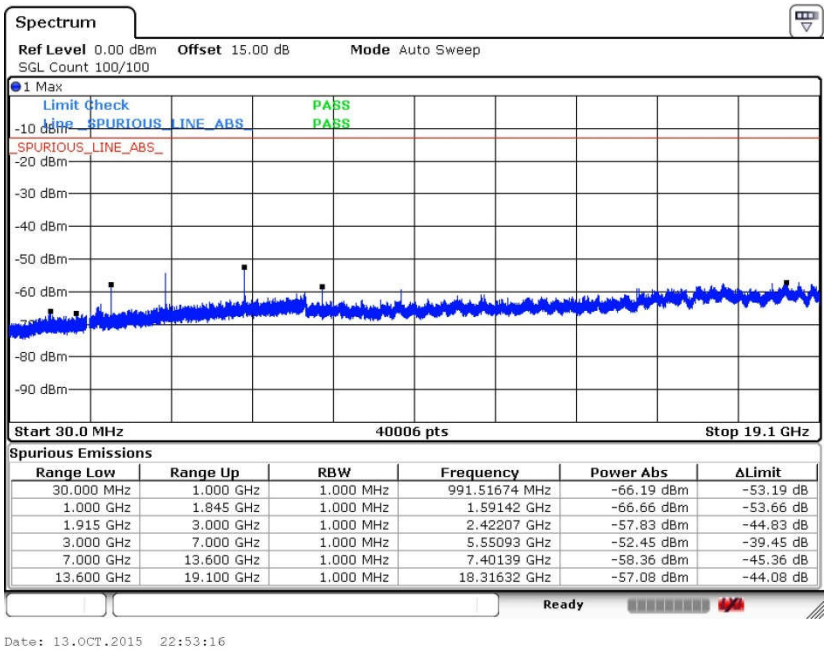
Band :	GSM850	Channel :	CH251
Test Mode :	EDGE class 8 Link (8PSK)	Frequency :	848.8 MHz

Conducted Spurious Emission Plot between 30MHz ~ 9GHz



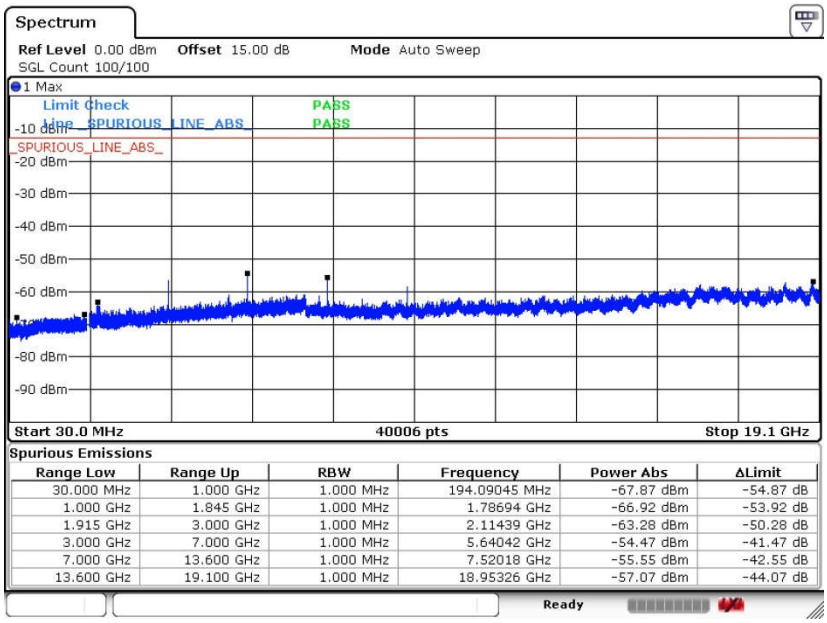
Band :	GSM1900	Channel :	CH512
Test Mode :	GSM Link (GMSK)	Frequency :	1850.2 MHz

Conducted Spurious Emission Plot between 30MHz ~ 19.1GHz



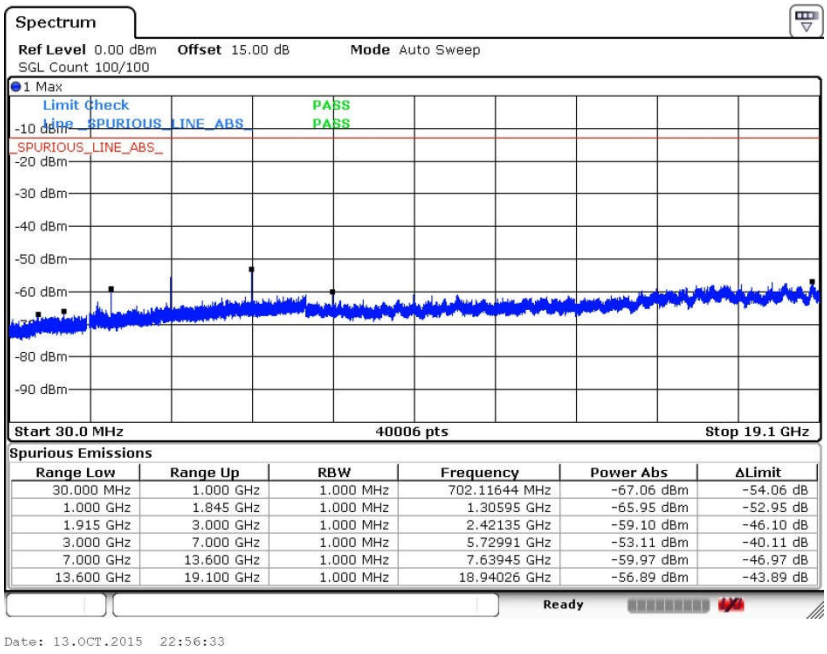
Band :	GSM1900	Channel :	CH661
Test Mode :	GSM Link (GMSK)	Frequency :	1880.0 MHz

Conducted Spurious Emission Plot between 30MHz ~ 19.1GHz



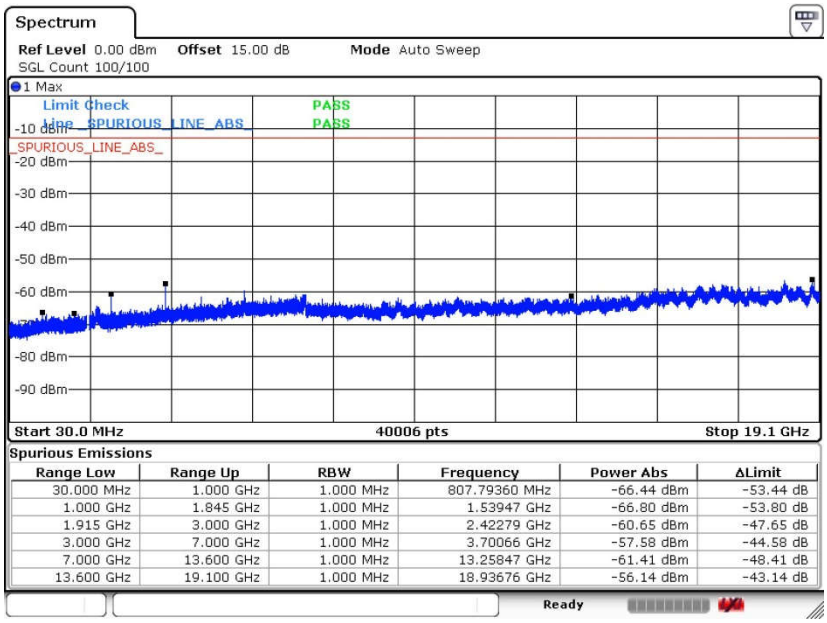
Band :	GSM1900	Channel :	CH810
Test Mode :	GSM Link (GMSK)	Frequency :	1909.8 MHz

Conducted Spurious Emission Plot between 30MHz ~ 19.1GHz



Band :	GSM1900	Channel :	CH512
Test Mode :	EDGE class 8 Link (8PSK)	Frequency :	1850.2 MHz

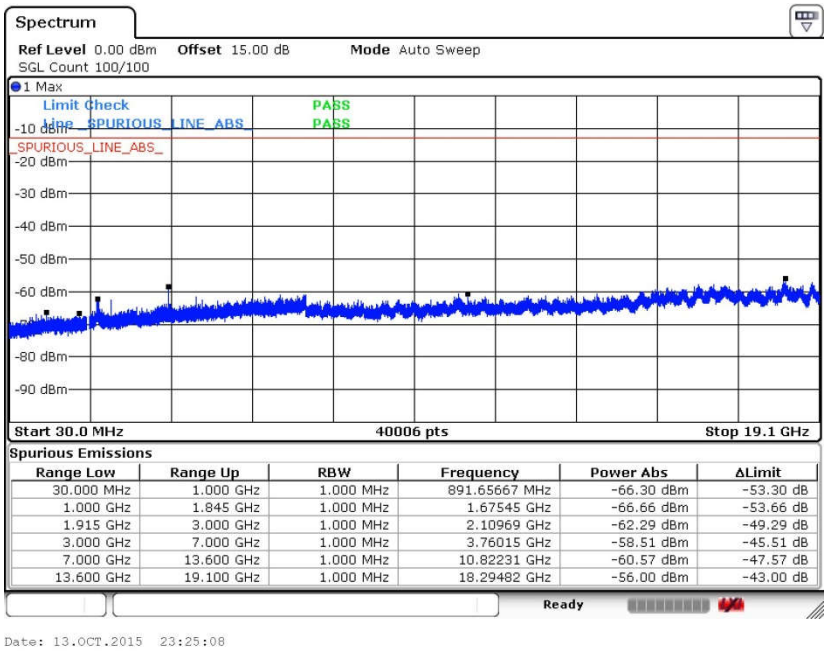
Conducted Spurious Emission Plot between 30MHz ~ 19.1GHz



Date: 13.OCT.2015 23:24:03

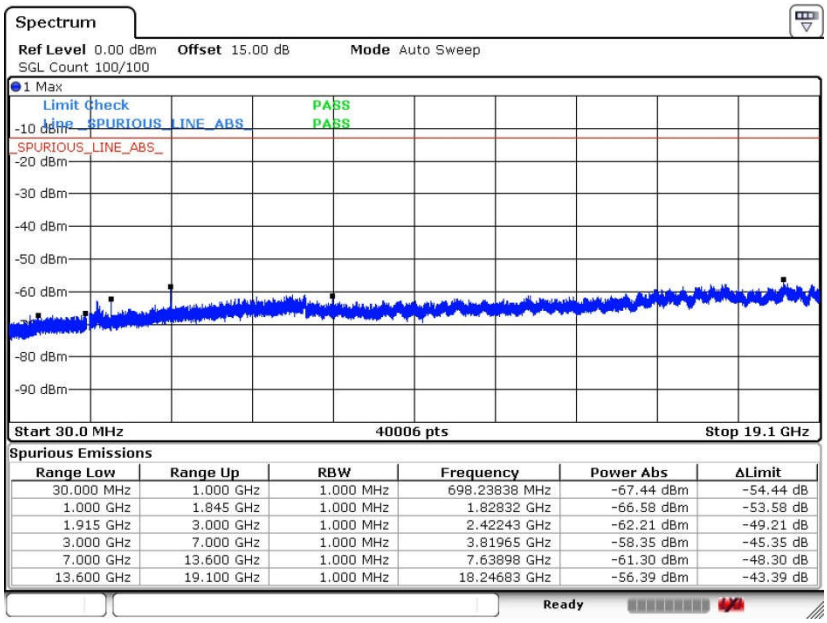
Band :	GSM1900	Channel :	CH661
Test Mode :	EDGE class 8 Link (8PSK)	Frequency :	1880.0 MHz

Conducted Spurious Emission Plot between 30MHz ~ 19.1GHz



Band :	GSM1900	Channel :	CH810
Test Mode :	EDGE class 8 Link (8PSK)	Frequency :	1909.8 MHz

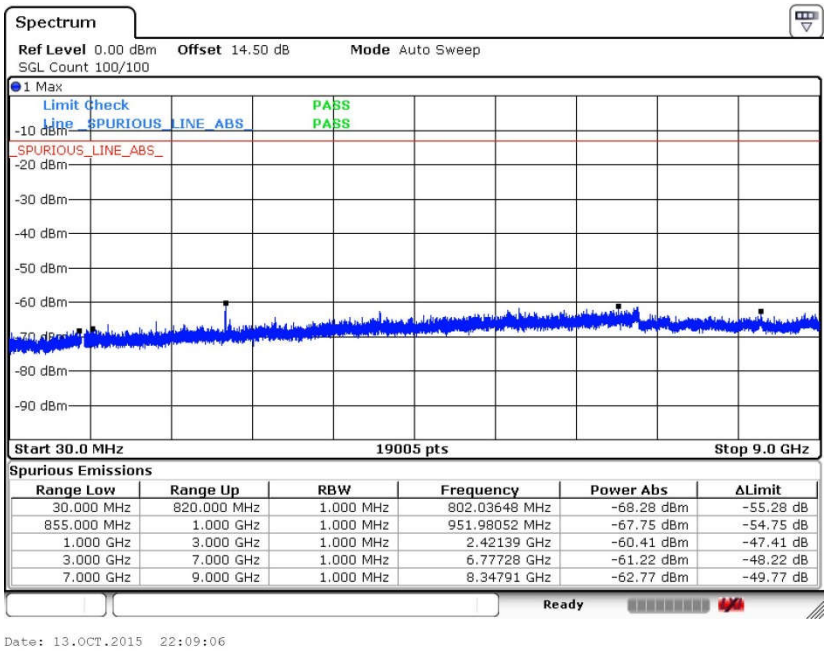
Conducted Spurious Emission Plot between 30MHz ~ 19.1GHz



Date: 13.OCT.2015 23:27:37

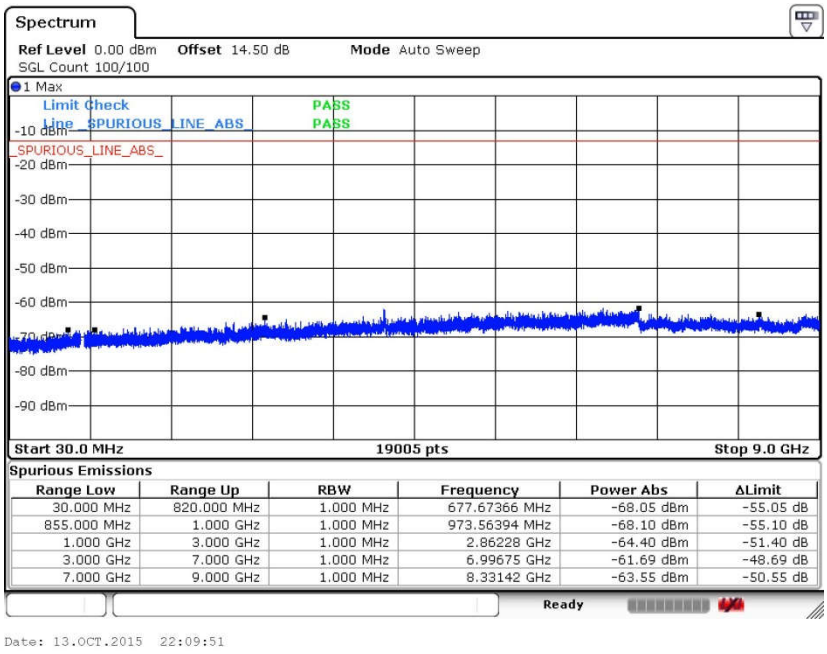
Band :	WCDMA Band V	Channel :	CH4132
Test Mode :	RMC 12.2Kbps Link (QPSK)	Frequency :	826.4 MHz

Conducted Spurious Emission Plot between 30MHz ~ 9GHz



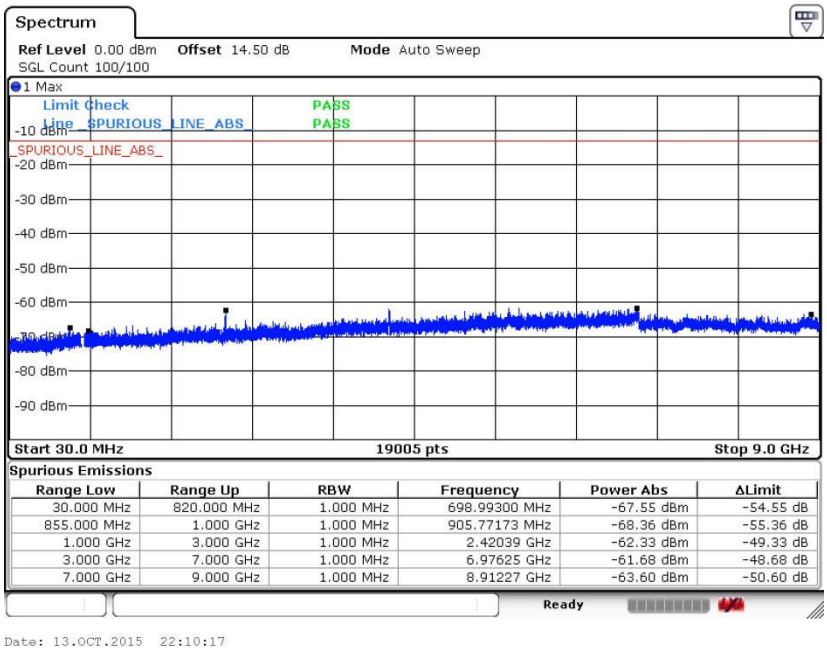
Band :	WCDMA Band V	Channel :	CH4182
Test Mode :	RMC 12.2Kbps Link (QPSK)	Frequency :	836.4 MHz

Conducted Spurious Emission Plot between 30MHz ~ 9GHz



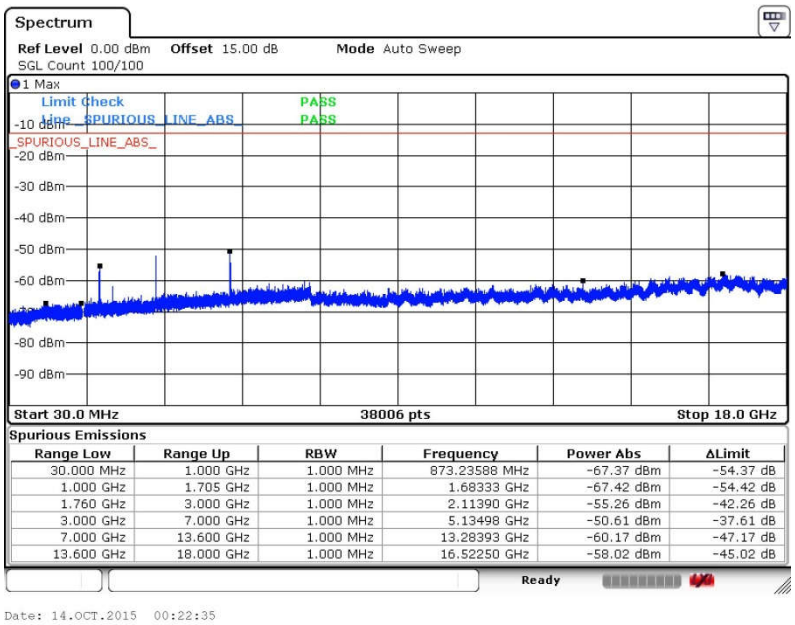
Band :	WCDMA Band V	Channel :	CH4233
Test Mode :	RMC 12.2Kbps Link (QPSK)	Frequency :	846.6 MHz

Conducted Spurious Emission Plot between 30MHz ~ 9GHz



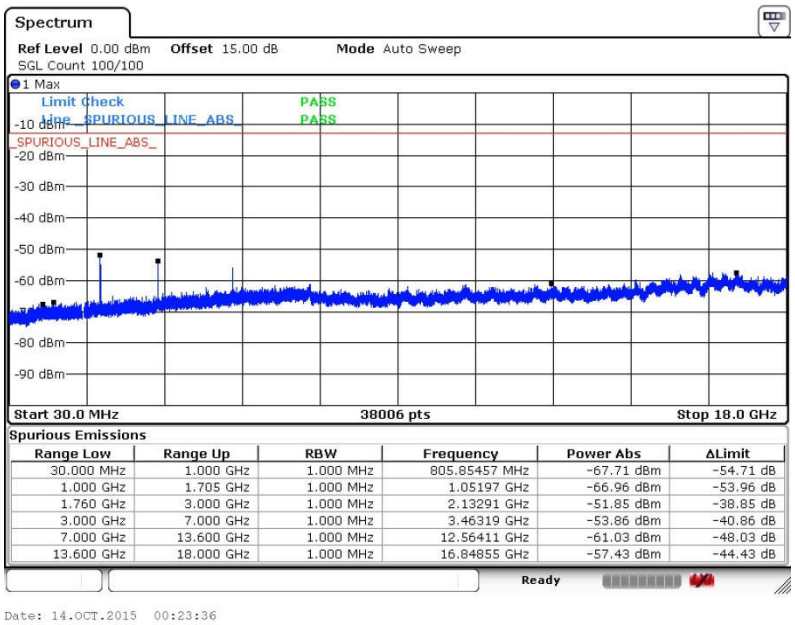
Band :	WCDMA Band IV	Channel :	CH1312
Test Mode :	RMC 12.2Kbps Link (QPSK)	Frequency :	1712.4 MHz

Conducted Spurious Emission Plot between 30MHz ~ 18GHz



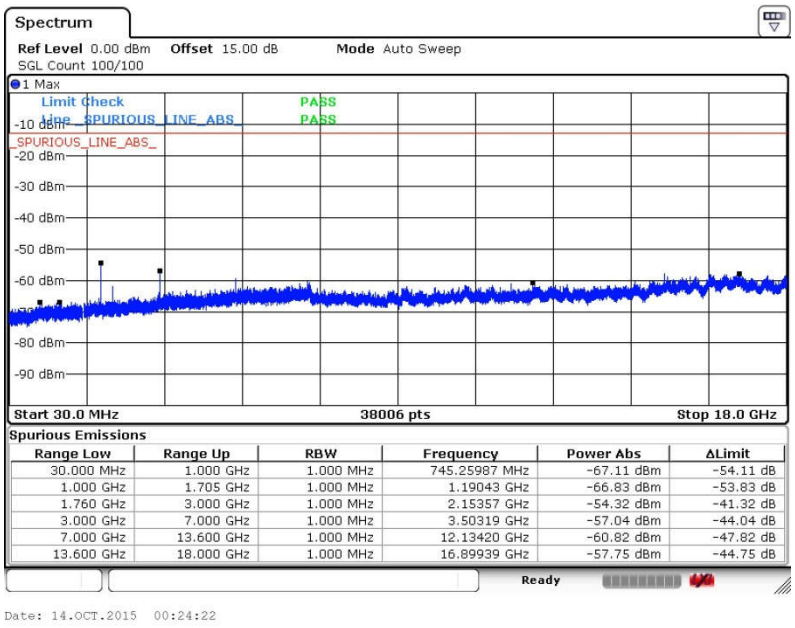
Band :	WCDMA Band IV	Channel :	CH1413
Test Mode :	RMC 12.2Kbps Link (QPSK)	Frequency :	1732.6 MHz

Conducted Spurious Emission Plot between 30MHz ~ 18GHz



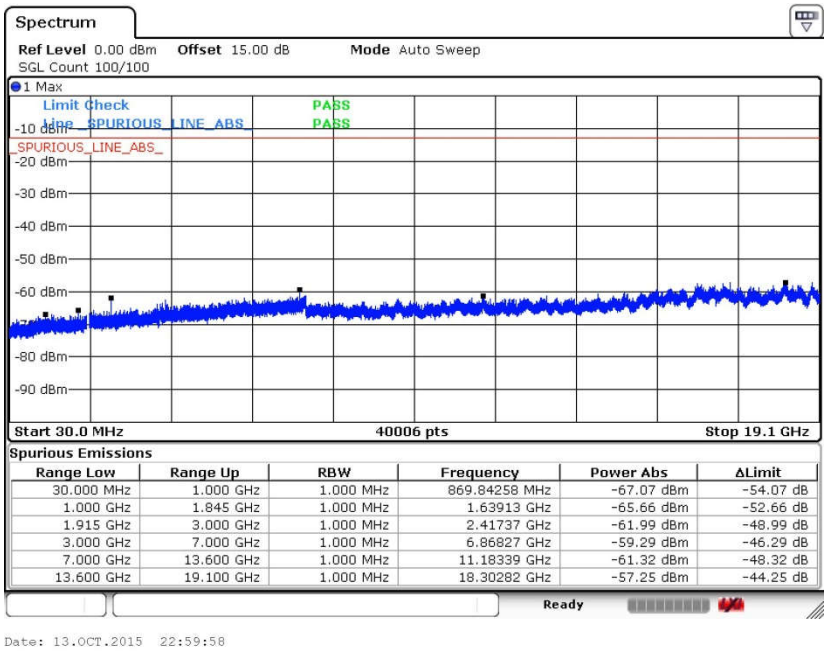
Band :	WCDMA Band IV	Channel :	CH1513
Test Mode :	RMC 12.2Kbps Link (QPSK)	Frequency :	1752.6 MHz

Conducted Spurious Emission Plot between 30MHz ~ 18GHz



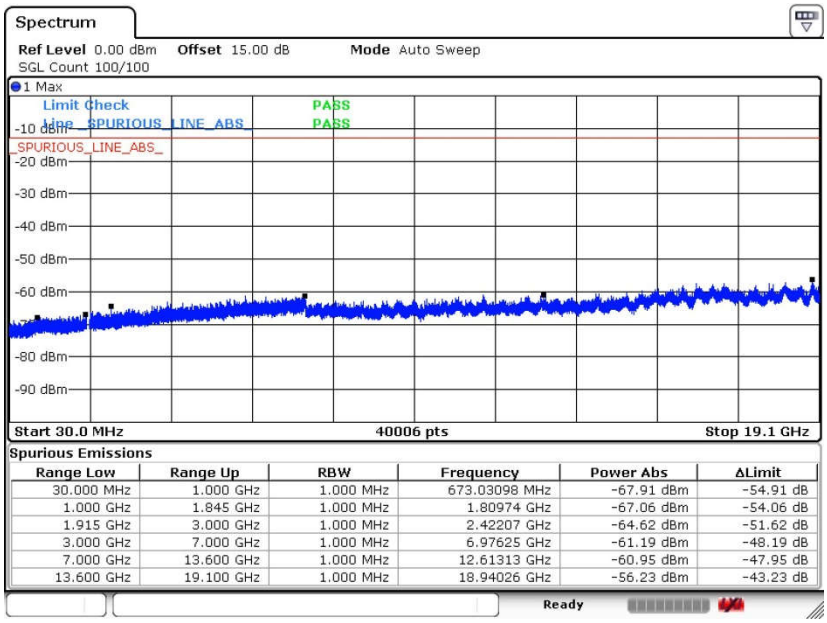
Band :	WCDMA Band II	Channel :	CH9262
Test Mode :	RMC 12.2Kbps Link (QPSK)	Frequency :	1852.4MHz

Conducted Spurious Emission Plot between 30MHz ~ 19.1GHz



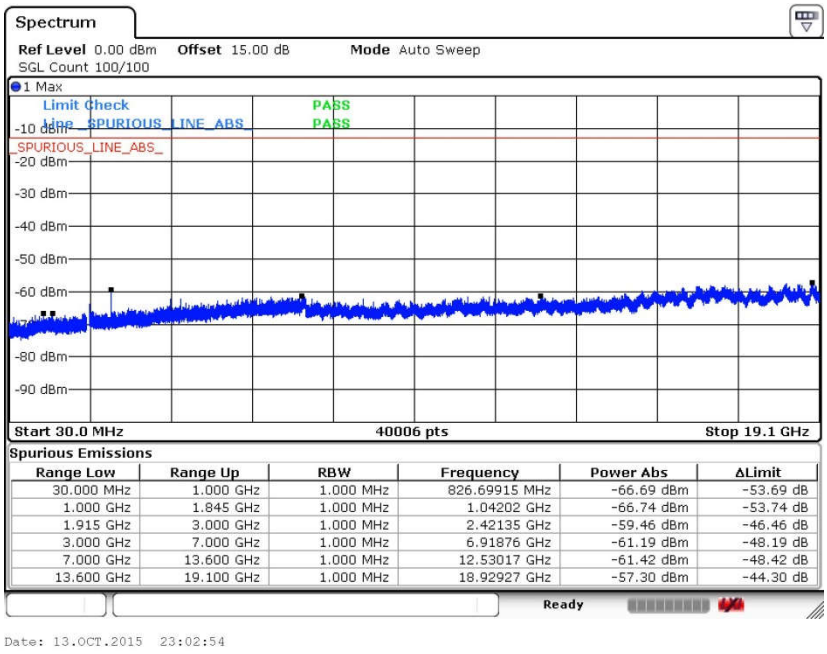
Band :	WCDMA Band II	Channel :	CH9400
Test Mode :	RMC 12.2Kbps Link (QPSK)	Frequency :	1880.0 MHz

Conducted Spurious Emission Plot between 30MHz ~ 19.1GHz



Band :	WCDMA Band II	Channel :	CH9538
Test Mode :	RMC 12.2Kbps Link (QPSK)	Frequency :	1907.6 MHz

Conducted Spurious Emission Plot between 30MHz ~ 19.1GHz



3.7 Field Strength of Spurious Radiation Measurement

3.7.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.7.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.7.3 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-D-2010 Section 2.2.12.
2. The EUT was placed on a rotatable wooden table 0.8 meters above the ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
12. ERP (dBm) = EIRP - 2.15
13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
14. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

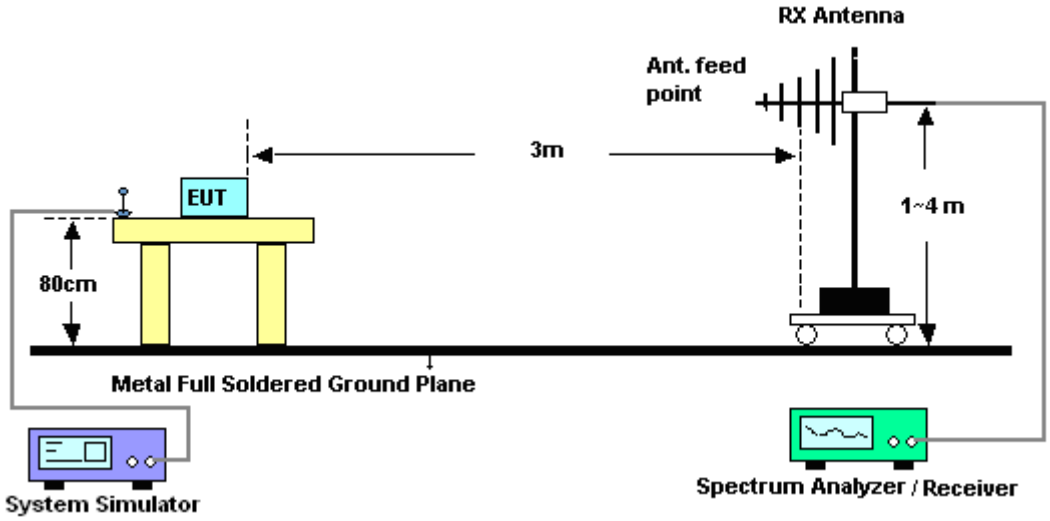
    = P(W) - [43 + 10log(P)] (dB)

    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)

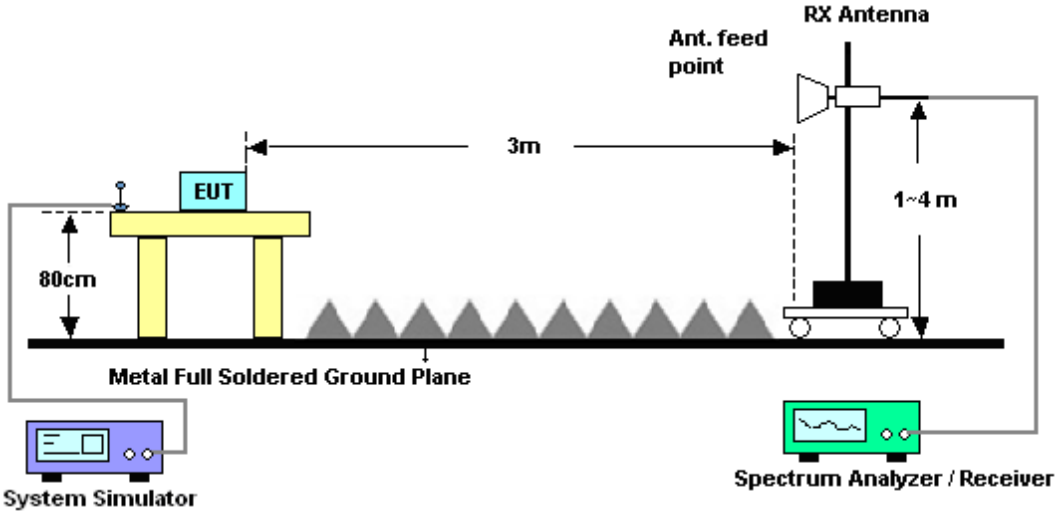
    = -13dBm.

3.7.4 Test Setup

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.7.5 Test Result of Field Strength of Spurious Radiated

Band :	GSM850 for CH128	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1648.4	-48.22	-13	-35.22	-50.95	-54.91	0.56	9.40	H	Pass
2472.6	-53.83	-13	-40.83	-57.73	-61.53	0.75	10.60	H	Pass
3296.8	-57.56	-13	-44.56	-66.86	-67.16	0.85	12.60	H	Pass

Band :	GSM850 for CH128	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1648.4	-41.83	-13	-28.83	-47.26	-48.52	0.56	9.40	V	Pass
2472.6	-45.32	-13	-32.32	-52.37	-53.02	0.75	10.60	V	Pass
3296.8	-60.97	-13	-47.97	-67.83	-70.57	0.85	12.60	V	Pass

Band :	GSM850 for CH189	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1672	-50.53	-13	-37.53	-52.85	-57.22	0.56	9.40	H	Pass
2510	-53.71	-13	-40.71	-57.61	-61.41	0.75	10.60	H	Pass
3346	-58.50	-13	-45.50	-67.80	-68.10	0.85	12.60	H	Pass

Band :	GSM850 for CH189	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1672	-46.18	-13	-33.18	-51.08	-52.87	0.56	9.40	V	Pass
2510	-49.34	-13	-36.34	-55.21	-57.04	0.75	10.60	V	Pass
3346	-61.18	-13	-48.18	-68.04	-70.78	0.85	12.60	V	Pass

Band :	GSM850 for CH251	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1697.6	-50.34	-13	-37.34	-52.66	-57.03	0.56	9.40	H	Pass
2546.4	-55.24	-13	-42.24	-59.14	-62.94	0.75	10.60	H	Pass
3395.2	-58.00	-13	-45.00	-67.30	-67.60	0.85	12.60	H	Pass

Band :	GSM850 for CH251	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1697.6	-44.80	-13	-31.80	-49.73	-51.49	0.56	9.40	V	Pass
2546.4	-55.15	-13	-42.15	-59.53	-62.85	0.75	10.60	V	Pass
3395.2	-60.58	-13	-47.58	-67.44	-70.18	0.85	12.60	V	Pass

Band :	GSM850 for CH128	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1648.4	-55.23	-13	-42.23	-56.84	-61.92	0.56	9.40	H	Pass
2472.6	-59.21	-13	-46.21	-63.11	-66.91	0.75	10.60	H	Pass
3296.8	-58.35	-13	-45.35	-67.65	-67.95	0.85	12.60	H	Pass

Band :	GSM850 for CH128	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1648.4	-48.05	-13	-35.05	-52.25	-54.74	0.56	9.40	V	Pass
2472.6	-55.58	-13	-42.58	-59.96	-63.28	0.75	10.60	V	Pass
3296.8	-60.87	-13	-47.87	-67.73	-70.47	0.85	12.60	V	Pass

Band :	GSM850 for CH189	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1672	-55.55	-13	-42.55	-57.16	-62.24	0.56	9.40	H	Pass
2510	-56.87	-13	-43.87	-60.77	-64.57	0.75	10.60	H	Pass
3346	-58.25	-13	-45.25	-67.55	-67.85	0.85	12.60	H	Pass

Band :	GSM850 for CH189	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1672	-48.42	-13	-35.42	-52.62	-55.11	0.56	9.40	V	Pass
2510	-50.53	-13	-37.53	-55.80	-58.23	0.75	10.60	V	Pass
3346	-60.89	-13	-47.89	-67.75	-70.49	0.85	12.60	V	Pass

Band :	GSM850 for CH251	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1697.6	-49.73	-13	-36.73	-52.16	-56.42	0.56	9.40	H	Pass
2546.4	-57.15	-13	-44.15	-61.05	-64.85	0.75	10.60	H	Pass
3395.2	-57.91	-13	-44.91	-67.21	-67.51	0.85	12.60	H	Pass

Band :	GSM850 for CH251	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1697.6	-47.14	-13	-34.14	-51.74	-53.83	0.56	9.40	V	Pass
2546.4	-54.46	-13	-41.46	-58.84	-62.16	0.75	10.60	V	Pass
3395.2	-61.20	-13	-48.20	-68.06	-70.80	0.85	12.60	V	Pass

Band :	GSM1900 for CH512	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3700.4	-56.36	-13	-43.36	-67.61	-68.09	0.87	12.60	H	Pass
5550.6	-31.02	-13	-18.02	-48.78	-43.05	1.07	13.10	H	Pass
7400.8	-52.31	-13	-39.31	-70.63	-61.92	1.69	11.30	H	Pass
9251	-39.26	-13	-26.26	-62.69	-49.33	1.83	11.90	H	Pass

Band :	GSM1900 for CH512	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3700.4	-56.02	-13	-43.02	-68.49	-67.75	0.87	12.6	V	Pass
5550.6	-32.42	-13	-19.42	-50.53	-44.45	1.07	13.1	V	Pass
7400.8	-51.98	-13	-38.98	-70.2	-61.59	1.69	11.3	V	Pass
9251	-41.96	-13	-28.96	-64.77	-52.03	1.83	11.9	V	Pass

Band :	GSM1900 for CH661	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3760	-53.84	-13	-40.84	-65.09	-65.57	0.87	12.60	H	Pass
5640	-26.92	-13	-13.92	-45.08	-38.95	1.07	13.10	H	Pass
7520	-52.11	-13	-39.11	-70.43	-61.72	1.69	11.30	H	Pass
9400	-39.57	-13	-26.57	-63.00	-49.64	1.83	11.90	H	Pass

Band :	GSM1900 for CH661	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3760	-56.30	-13	-43.30	-68.77	-68.03	0.87	12.6	V	Pass
5640	-29.26	-13	-16.26	-47.73	-41.29	1.07	13.1	V	Pass
7520	-52.10	-13	-39.10	-70.32	-61.71	1.69	11.3	V	Pass
9400	-42.06	-13	-29.06	-64.87	-52.13	1.83	11.9	V	Pass

Band :	GSM1900 for CH810	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3819.6	-55.85	-13	-42.85	-67.10	-67.58	0.87	12.60	H	Pass
5729.4	-30.80	-13	-17.80	-48.53	-42.83	1.07	13.10	H	Pass
7639.2	-51.70	-13	-38.70	-70.02	-61.31	1.69	11.30	H	Pass
9549	-41.12	-13	-28.12	-64.55	-51.19	1.83	11.90	H	Pass

Band :	GSM1900 for CH810	Temperature :	23~25°C
Test Mode :	GSM Link (GMSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3819.6	-53.66	-13	-40.66	-66.13	-65.39	0.87	12.6	V	Pass
5729.4	-30.61	-13	-17.61	-48.9	-42.64	1.07	13.1	V	Pass
7639.2	-51.81	-13	-38.81	-70.03	-61.42	1.69	11.3	V	Pass
9549	-42.23	-13	-29.23	-65.04	-52.30	1.83	11.9	V	Pass

Band :	GSM1900 for CH512	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3700.4	-56.72	-13	-43.72	-67.97	-68.45	0.87	12.60	H	Pass
5550.6	-33.32	-13	-20.32	-50.82	-45.35	1.07	13.10	H	Pass
7400.8	-51.80	-13	-38.80	-70.12	-61.41	1.69	11.30	H	Pass
9251	-39.21	-13	-26.21	-62.64	-49.28	1.83	11.90	H	Pass

Band :	GSM1900 for CH512	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3700.4	-54.41	-13	-41.41	-66.88	-66.14	0.87	12.6	V	Pass
5550.6	-32.34	-13	-19.34	-50.45	-44.37	1.07	13.1	V	Pass
7400.8	-52.11	-13	-39.11	-70.33	-61.72	1.69	11.3	V	Pass
9251	-44.93	-13	-31.93	-67.74	-55.00	1.83	11.9	V	Pass

Band :	GSM1900 for CH661	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3760	-56.40	-13	-43.40	-67.65	-68.13	0.87	12.60	H	Pass
5640	-20.07	-13	-7.07	-38.44	-32.10	1.07	13.10	H	Pass
7520	-51.47	-13	-38.47	-69.79	-61.08	1.69	11.30	H	Pass
9400	-37.17	-13	-24.17	-60.60	-47.24	1.83	11.90	H	Pass

Band :	GSM1900 for CH661	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3760	-53.99	-13	-40.99	-66.46	-65.72	0.87	12.6	V	Pass
5640	-26.22	-13	-13.22	-45.01	-38.25	1.07	13.1	V	Pass
7520	-51.47	-13	-38.47	-69.69	-61.08	1.69	11.3	V	Pass
9400	-45.06	-13	-32.06	-67.87	-55.13	1.83	11.9	V	Pass

Band :	GSM1900 for CH810	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3819.6	-55.91	-13	-42.91	-67.16	-67.64	0.87	12.60	H	Pass
5729.4	-33.32	-13	-20.32	-50.82	-45.35	1.07	13.10	H	Pass
7639.2	-51.80	-13	-38.80	-70.12	-61.41	1.69	11.30	H	Pass
9549	-40.96	-13	-27.96	-64.39	-51.03	1.83	11.90	H	Pass

Band :	GSM1900 for CH810	Temperature :	23~25°C
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3819.6	-52.95	-13	-39.95	-65.42	-64.68	0.87	12.6	V	Pass
5729.4	-26.41	-13	-13.41	-45.19	-38.44	1.07	13.1	V	Pass
7639.2	-51.41	-13	-38.41	-69.63	-61.02	1.69	11.3	V	Pass
9549	-46.19	-13	-33.19	-69	-56.26	1.83	11.9	V	Pass

Band :	WCDMA Band V for CH4132	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1652.8	-61.59	-13	-48.59	-63.20	-68.28	0.56	9.40	H	Pass
2479.2	-62.44	-13	-49.44	-66.34	-70.14	0.75	10.60	H	Pass
3305.6	-58.41	-13	-45.41	-67.71	-68.01	0.85	12.60	H	Pass

Band :	WCDMA Band V for CH4132	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1652.8	-59.88	-13	-46.88	-62.33	-66.57	0.56	9.40	V	Pass
2479.2	-62.47	-13	-49.47	-66.85	-70.17	0.75	10.60	V	Pass
3305.6	-61.31	-13	-48.31	-68.17	-70.91	0.85	12.60	V	Pass

Band :	WCDMA Band V for CH4182	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1672	-59.87	-13	-46.87	-61.48	-66.56	0.56	9.40	H	Pass
2510	-62.87	-13	-49.87	-66.77	-70.57	0.75	10.60	H	Pass
3346	-59.08	-13	-46.08	-68.38	-68.68	0.85	12.60	H	Pass

Band :	WCDMA Band V for CH4182	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1672	-58.63	-13	-45.63	-61.08	-65.32	0.56	9.40	V	Pass
2510	-62.38	-13	-49.38	-66.76	-70.08	0.75	10.60	V	Pass
3346	-61.26	-13	-48.26	-68.12	-70.86	0.85	12.60	V	Pass

Band :	WCDMA Band V for CH4233	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1693.2	-61.48	-13	-48.48	-63.09	-68.17	0.56	9.40	H	Pass
2539.8	-63.59	-13	-50.59	-67.49	-71.29	0.75	10.60	H	Pass
3386.4	-58.48	-13	-45.48	-67.78	-68.08	0.85	12.60	H	Pass

Band :	WCDMA Band V for CH4233	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
1693.2	-58.85	-13	-45.85	-61.30	-65.54	0.56	9.40	V	Pass
2539.8	-62.34	-13	-49.34	-66.72	-70.04	0.75	10.60	V	Pass
3386.4	-61.63	-13	-48.63	-68.49	-71.23	0.85	12.60	V	Pass

Band :	WCDMA Band IV for CH1312	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3424.8	-50.95	-13	-37.95	-62.75	-62.70	0.85	12.60	H	Pass
5137.2	-39.65	-13	-26.65	-55.52	-51.40	0.95	12.70	H	Pass
6849.6	-54.28	-13	-41.28	-70.91	-64.80	1.18	11.70	H	Pass

Band :	WCDMA Band IV for CH1312	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3424.8	-55.40	-13	-42.40	-65.63	-67.19	0.81	12.6	V	Pass
5137.2	-47.33	-13	-34.33	-59.93	-59.08	0.95	12.7	V	Pass
6849.6	-53.60	-13	-40.60	-70.78	-64.17	1.13	11.7	V	Pass

Band :	WCDMA Band IV for CH1413	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3465	-54.61	-13	-41.61	-66.41	-66.36	0.85	12.60	H	Pass
5197.5	-43.54	-13	-30.54	-59.41	-55.29	0.95	12.70	H	Pass
6930	-53.75	-13	-40.75	-70.38	-64.27	1.18	11.70	H	Pass

Band :	WCDMA Band IV for CH1413	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3465	-55.47	-13	-42.47	-65.7	-67.26	0.81	12.6	V	Pass
5197.5	-48.89	-13	-35.89	-61.49	-60.64	0.95	12.7	V	Pass
6930	-53.14	-13	-40.14	-70.32	-63.71	1.13	11.7	V	Pass

Band :	WCDMA Band IV for CH1513	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3505.2	-55.15	-13	-42.15	-66.95	-66.90	0.85	12.60	H	Pass
5257.8	-39.91	-13	-26.91	-55.78	-51.66	0.95	12.70	H	Pass
7010.4	-54.77	-13	-41.77	-71.40	-65.29	1.18	11.70	H	Pass

Band :	WCDMA Band IV for CH1513	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Frank He	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3505.2	-56.95	-13	-43.95	-67.18	-68.74	0.81	12.6	V	Pass
5257.8	-42.48	-13	-29.48	-57.43	-54.23	0.95	12.7	V	Pass
7010.4	-53.23	-13	-40.23	-70.41	-63.80	1.13	11.7	V	Pass

Band :	WCDMA Band II for CH9296	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3704.8	-57.65	-13	-44.65	-68.90	-69.38	0.87	12.60	H	Pass
5557.2	-45.37	-13	-32.37	-61.25	-57.40	1.07	13.10	H	Pass
7409.6	-51.60	-13	-38.60	-69.92	-61.21	1.69	11.30	H	Pass

Band :	WCDMA Band II for CH9296	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3704.8	-56.49	-13	-43.49	-68.96	-68.22	0.87	12.6	V	Pass
5557.2	-41.07	-13	-28.07	-57.39	-53.10	1.07	13.1	V	Pass
7409.6	-51.68	-13	-38.68	-69.9	-61.29	1.69	11.3	V	Pass

Band :	WCDMA Band II for CH9400	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3760	-57.58	-13	-44.58	-68.83	-69.31	0.87	12.60	H	Pass
5640	-42.56	-13	-29.56	-58.44	-54.59	1.07	13.10	H	Pass
7520	-51.10	-13	-38.10	-69.42	-60.71	1.69	11.30	H	Pass

Band :	WCDMA Band II for CH9400	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3760	-56.22	-13	-43.22	-68.69	-67.95	0.87	12.6	V	Pass
5640	-38.56	-13	-25.56	-55.19	-50.59	1.07	13.1	V	Pass
7520	-50.99	-13	-37.99	-69.21	-60.60	1.69	11.3	V	Pass

Band :	WCDMA Band II for CH9538	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3815.2	-56.45	-13	-43.45	-67.70	-68.18	0.87	12.60	H	Pass
5722.8	-40.62	-13	-27.62	-56.50	-52.65	1.07	13.10	H	Pass
7630.4	-50.84	-13	-37.84	-69.16	-60.45	1.69	11.30	H	Pass

Band :	WCDMA Band II for CH9538	Temperature :	23~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	48~52%
Test Engineer :	Cool Wu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

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)	Result
3815.2	-55.90	-13	-42.90	-68.37	-67.63	0.87	12.6	V	Pass
5722.8	-37.39	-13	-24.39	-54.27	-49.42	1.07	13.1	V	Pass
7630.4	-51.44	-13	-38.44	-69.66	-61.05	1.69	11.3	V	Pass

3.8 Frequency Stability Measurement

3.8.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

3.8.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

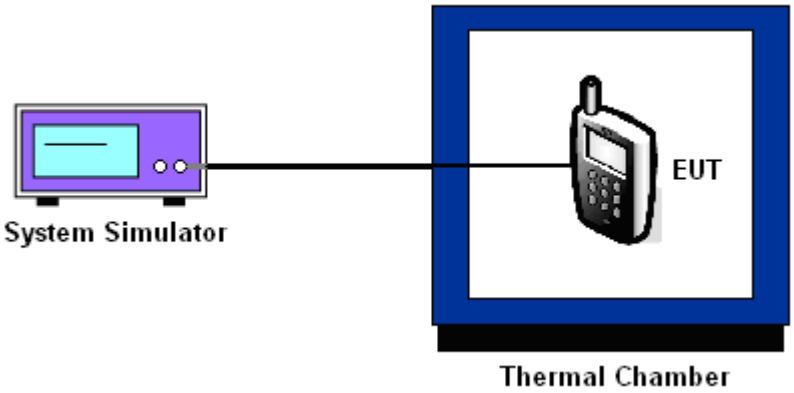
3.8.3 Test Procedures for Temperature Variation

1. The testing follows FCC KDB 971168 v02r02 Section 9.0.
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C steps up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.8.4 Test Procedures for Voltage Variation

1. The testing follows FCC KDB 971168 v02r02 Section 9.0.
2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

3.8.5 Test Setup



3.8.6 Test Result of Temperature Variation

Band :	GSM 850	Channel :	189
Limit (ppm) :	2.5	Frequency :	836.4 MHz

Temperature (°C)	GSM	EDGE class 8	Result
	Deviation (ppm)	Deviation (ppm)	
50	0.0323	0.0036	PASS
40	0.0012	0.0263	
30	0.0311	0.0000	
20(Ref.)	0.0000	0.0000	
10	0.0299	0.0275	
0	0.0311	0.0263	
-10	0.0048	0.0048	
-20	0.0335	0.0072	
-30	0.0359	0.0299	

Band :	GSM 1900	Channel :	661
Limit (ppm) :	within authorized band	Frequency :	1880.0 MHz

Temperature (°C)	GSM	EDGE class 8	Result
	Deviation (ppm)	Deviation (ppm)	
50	0.0021	0.0181	PASS
40	0.0011	0.0005	
30	0.0181	0.0176	
20(Ref.)	0.0000	0.0000	
10	0.0176	0.0016	
0	0.0016	0.0027	
-10	0.0181	0.0181	
-20	0.0016	0.0016	
-30	0.0176	0.0181	

Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Band :	WCDMA Band V	Channel :	4182
Limit (ppm) :	2.5	Frequency :	836.4 MHz

Temperature (°C)	RMC 12.2Kbps	Result
	Deviation (ppm)	
50	0.0132	PASS
40	0.0120	
30	0.0012	
20(Ref.)	0.0000	
10	0.0012	
0	0.0143	
-10	0.0036	
-20	0.0012	
-30	0.0155	

Band :	WCDMA Band IV	Channel :	1413
Limit (ppm) :	within authorized band	Frequency :	1732.6 MHz

Temperature (°C)	RMC 12.2Kbps	Result
	Deviation (ppm)	
50	0.0006	PASS
40	0.0121	
30	0.0115	
20(Ref.)	0.0000	
10	0.0121	
0	0.0023	
-10	0.0133	
-20	0.0115	
-30	0.0006	

Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Band :	WCDMA Band II	Channel :	9400
Limit (ppm) :	within authorized band	Frequency :	1880.0 MHz

Temperature (°C)	RMC 12.2Kbps	Result
	Deviation (ppm)	
50	0.0011	PASS
40	0.0016	
30	0.0011	
20(Ref.)	0.0000	
10	0.0080	
0	0.0090	
-10	0.0016	
-20	0.0027	
-30	0.0096	

Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

3.8.7 Test Result of Voltage Variation

Band & Channel	Mode	Voltage (Volt)	Deviation (ppm)	Limit (ppm)	Result
GSM 850 CH189	GSM	4.2	0.0024	2.5	PASS
		3.8	0.0000		
		BEP	0.0036		
	EDGE class 8	4.2	0.0048		
		3.8	0.0000		
		BEP	0.0024		
GSM 1900 CH661	GSM	4.2	0.0011	(Note 3.)	
		3.8	0.0000		
		BEP	0.0011		
	EDGE class 8	4.2	0.0181		
		3.8	0.0170		
		BEP	0.0186		
WCDMA Band V CH4182	RMC 12.2Kbps	4.2	0.0036	2.5	
		3.8	0.0012		
		BEP	0.0048		
WCDMA Band IV CH1413	RMC 12.2Kbps	4.2	0.0012	(Note 3.)	
		3.8	0.0000		
		BEP	0.0017		
WCDMA Band II CH9400	RMC 12.2Kbps	4.2	0.0005	(Note 3.)	
		3.8	0.0000		
		BEP	0.0016		

Note:

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	9kHz~40GHz	May 05, 2015	Oct. 13, 2015~ Oct. 15, 2015	May 04, 2016	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Aug. 07, 2015	Oct. 13, 2015~ Oct. 15, 2015	Aug. 06, 2016	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2015	Oct. 12, 2015~ Oct. 13, 2015	May 25, 2016	Radiation (03CH01-SZ)
Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz;Max 30dBm	Jun. 07, 2015	Oct. 12, 2015~ Oct. 13, 2015	Jun. 06, 2016	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz~2GHz	Nov. 07, 2014	Oct. 12, 2015~ Oct. 13, 2015	Nov. 06, 2015	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1285	1GHz~18GHz	Jan. 20, 2015	Oct. 12, 2015~ Oct. 13, 2015	Jan. 19, 2016	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Aug. 17, 2015	Oct. 12, 2015~ Oct. 13, 2015	Aug. 16, 2016	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz / 30 dB	Jan. 28, 2015	Oct. 12, 2015~ Oct. 13, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Jan. 28, 2015	Oct. 12, 2015~ Oct. 13, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	May 05, 2015	Oct. 12, 2015~ Oct. 13, 2015	May 04, 2016	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Oct. 12, 2015~ Oct. 13, 2015	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Oct. 12, 2015~ Oct. 13, 2015	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Oct. 12, 2015~ Oct. 13, 2015	NCR	Radiation (03CH01-SZ)

5 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.8dB**