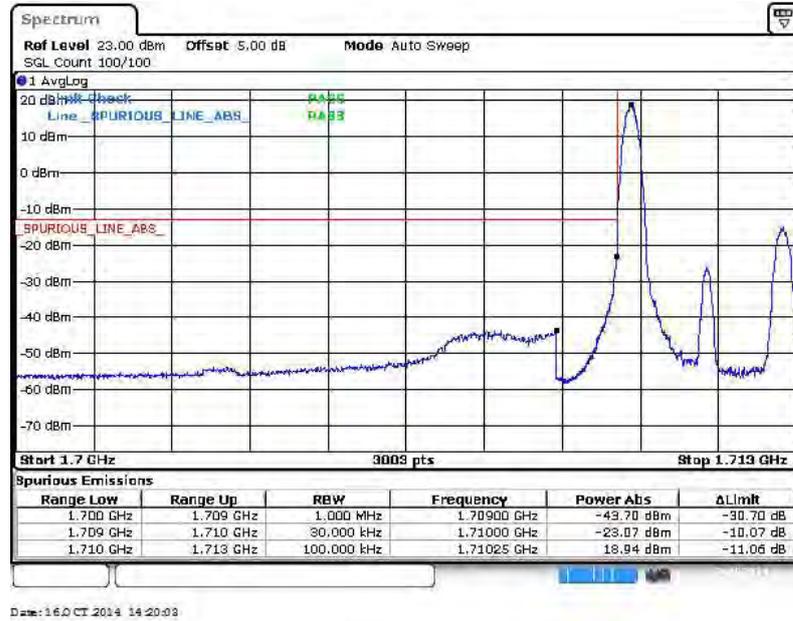


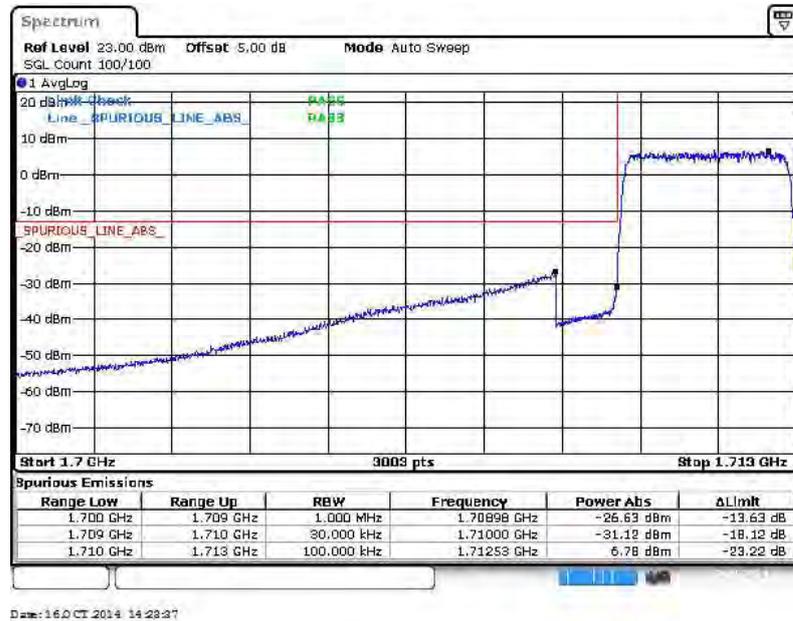


Band :	LTE Band 4	Band Width :	3MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

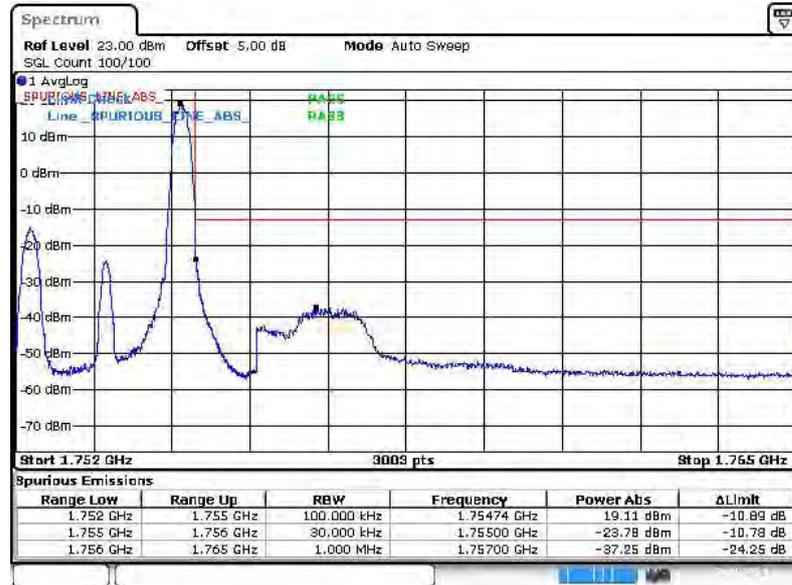


Lower Band Edge Plot for 16QAM-RB Size 15, RB Offset 0



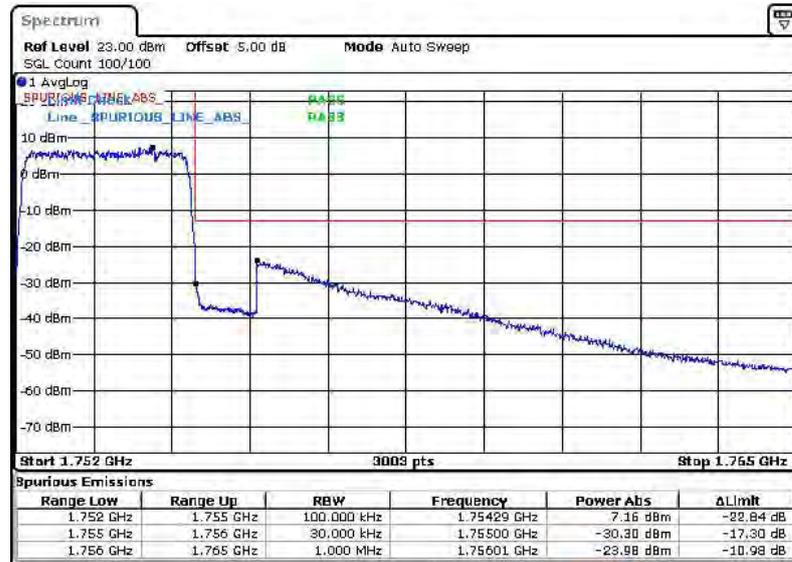


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 14



Date: 16 OCT 2014 14:24:49

Higher Band Edge Plot for 16QAM-RB Size 15, RB Offset 0

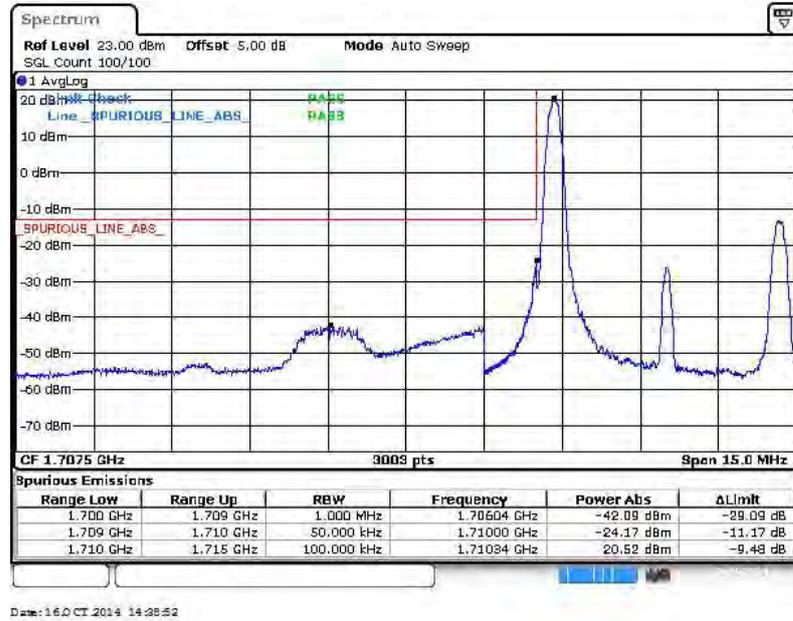


Date: 16 OCT 2014 14:28:22

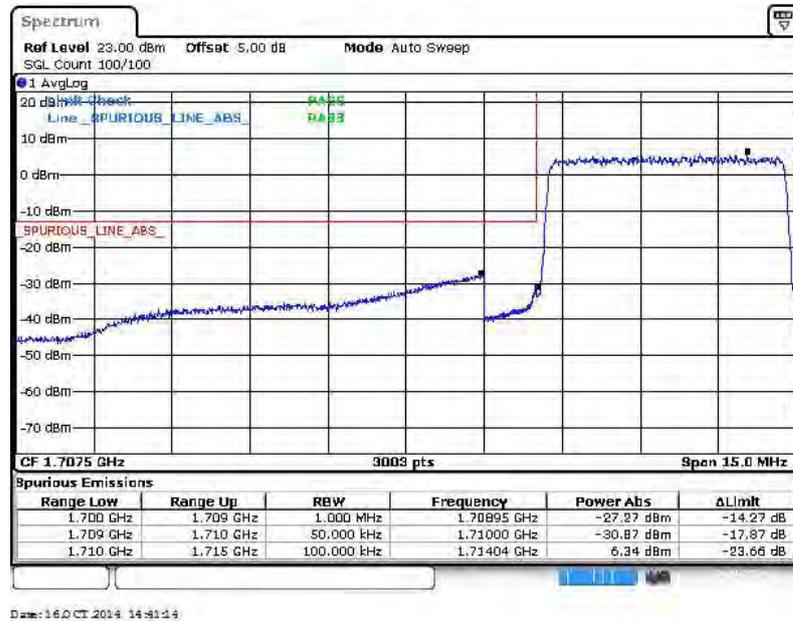


Band :	LTE Band 4	Band Width :	5MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

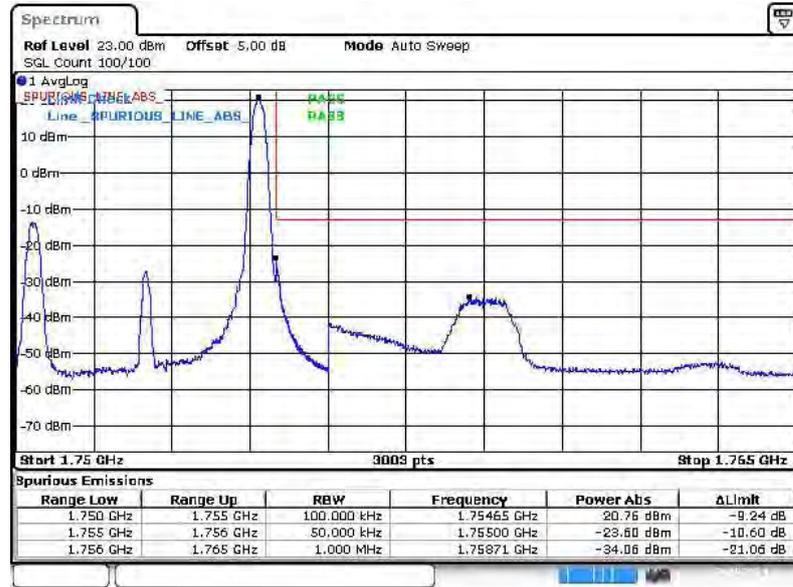


Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0





Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 16 OCT 2014 14:43:27

Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

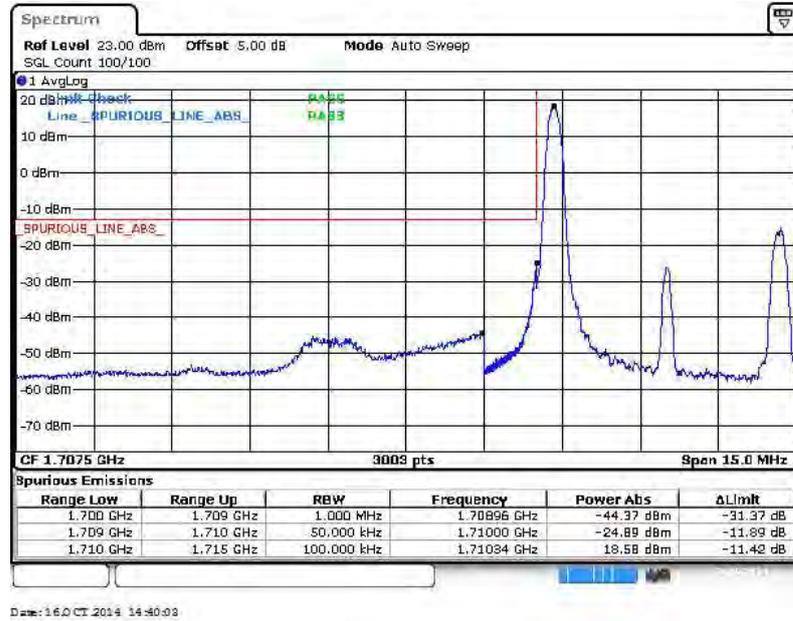


Date: 16 OCT 2014 14:47:10

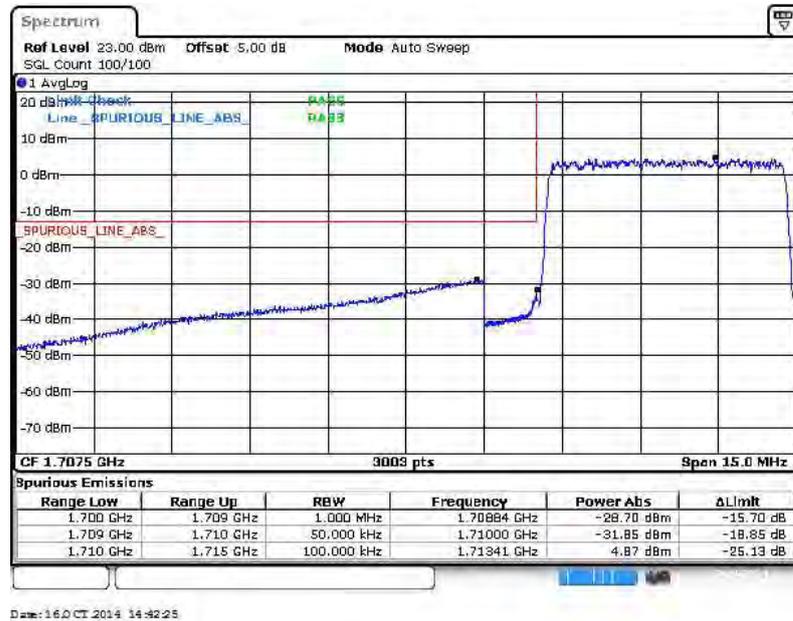


Band :	LTE Band 4	Band Width :	5MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

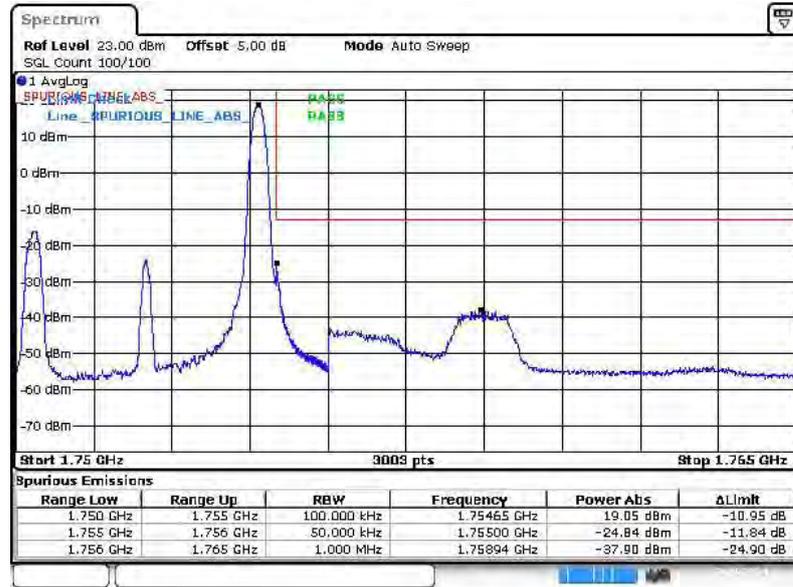


Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0





Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 16 OCT 2014 14:44:48

Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0

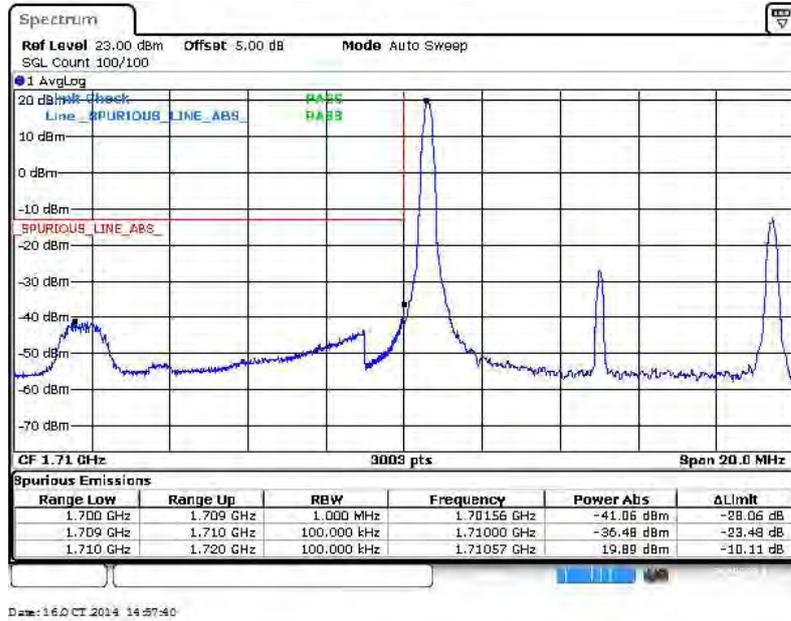


Date: 16 OCT 2014 14:45:59

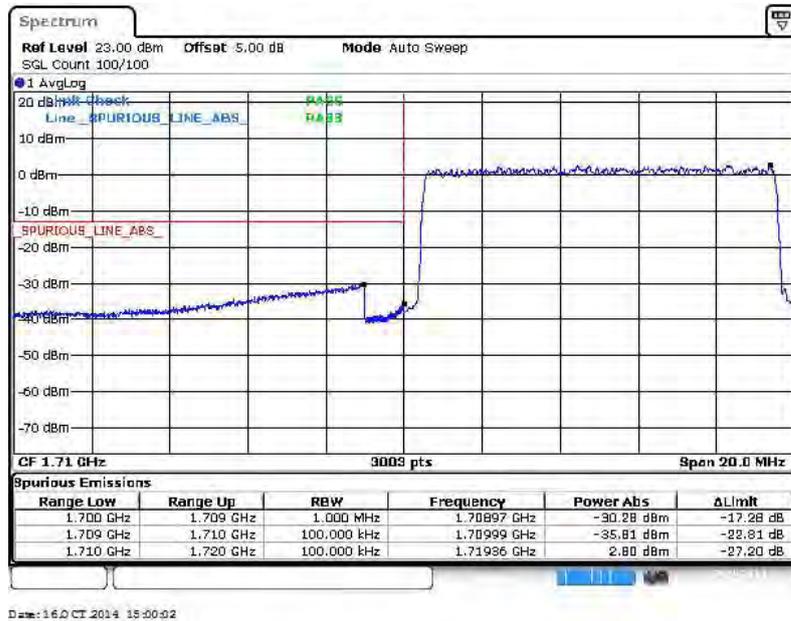


Band :	LTE Band 4	Band Width :	10MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

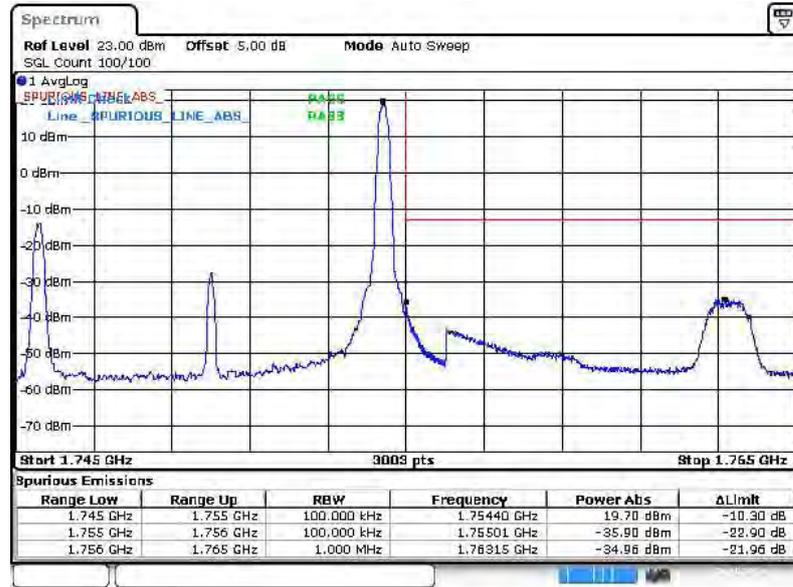


Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



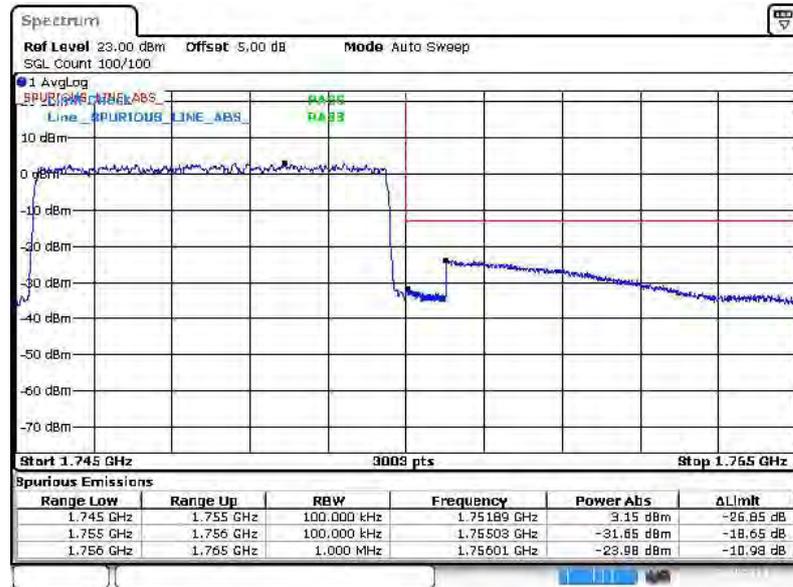


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 16 OCT 2014 15:02:25

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

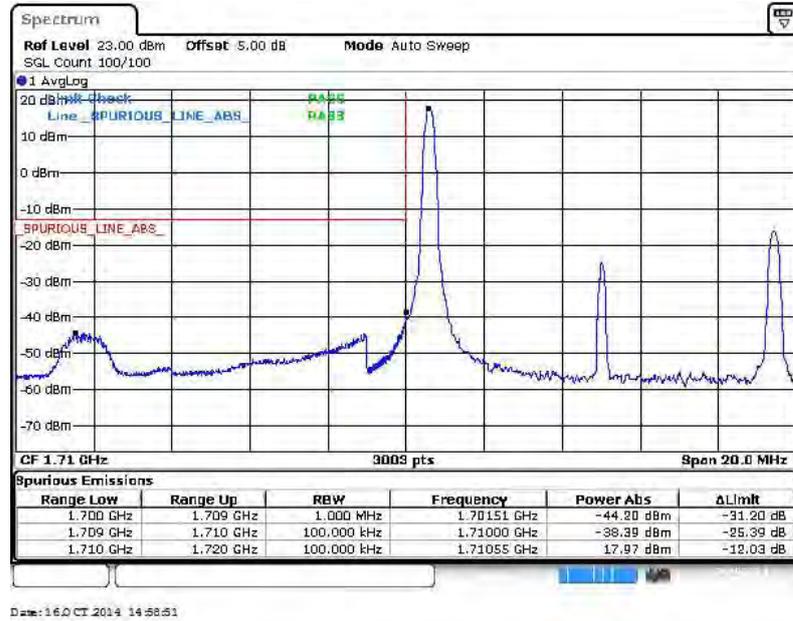


Date: 16 OCT 2014 15:06:00

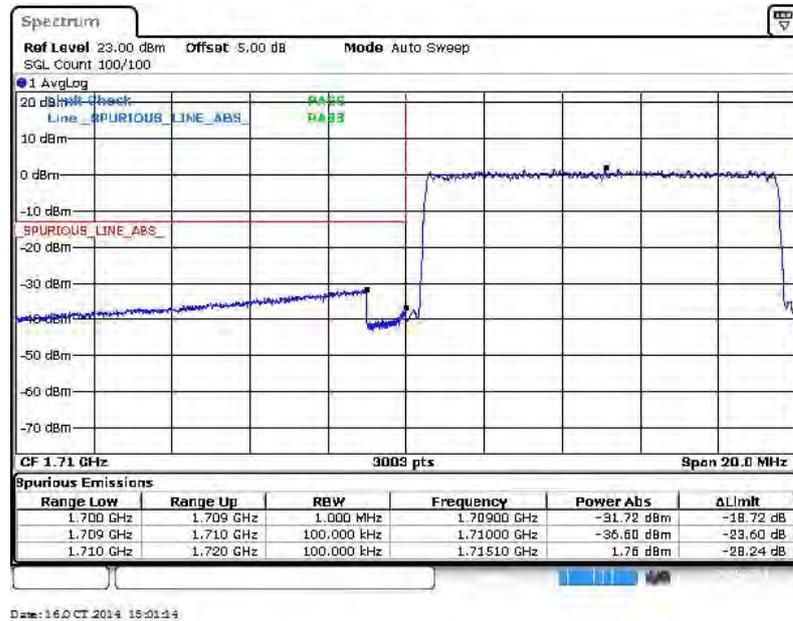


Band :	LTE Band 4	Band Width :	10MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

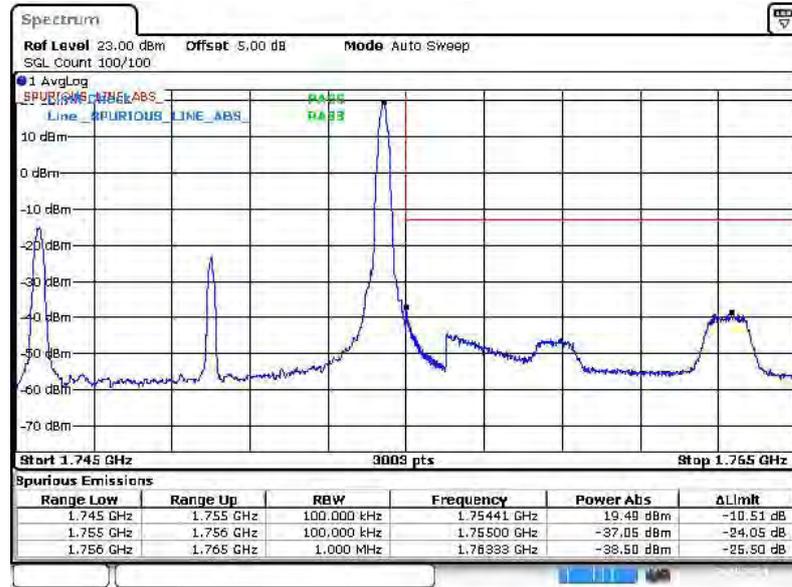


Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



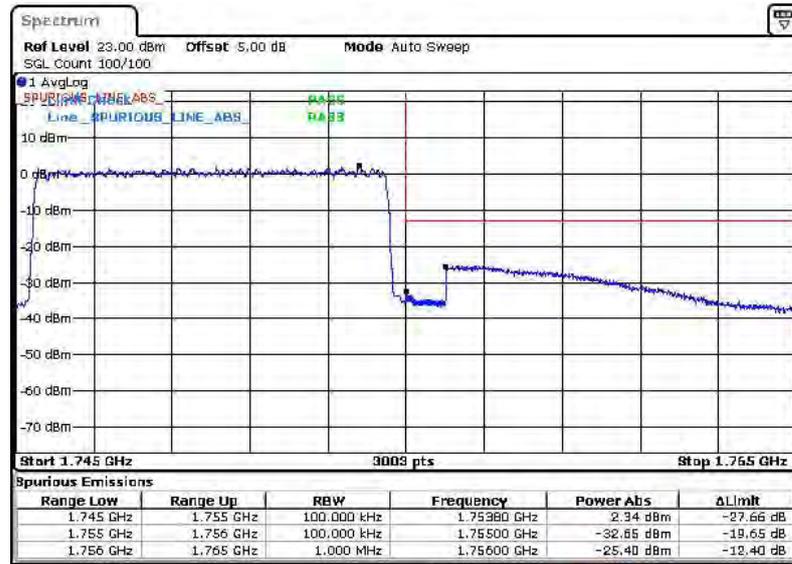


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Date: 16 OCT 2014 15:03:26

Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0

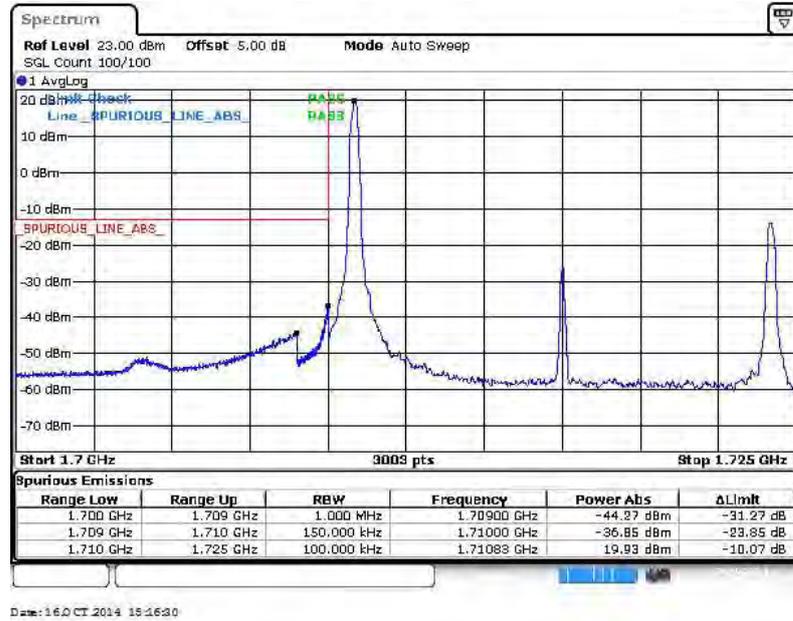


Date: 16 OCT 2014 15:04:48

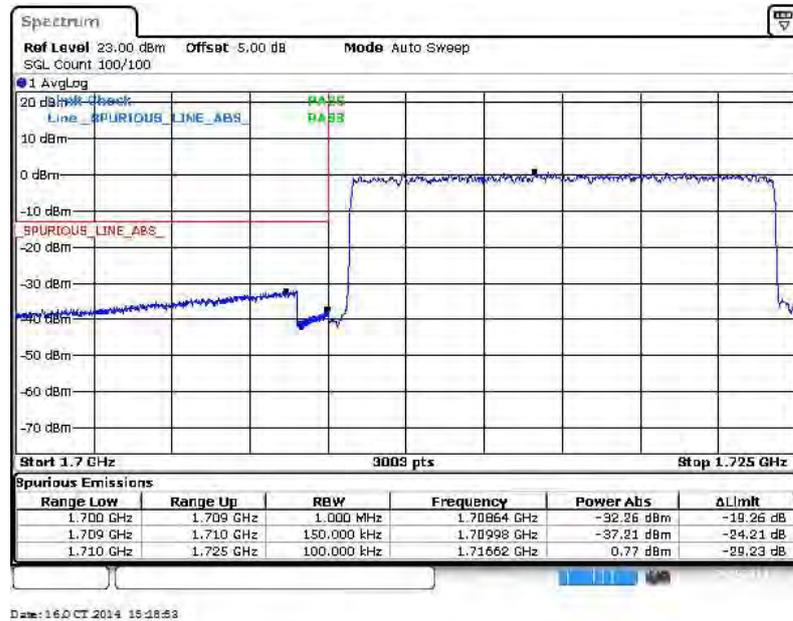


Band :	LTE Band 4	Band Width :	15MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

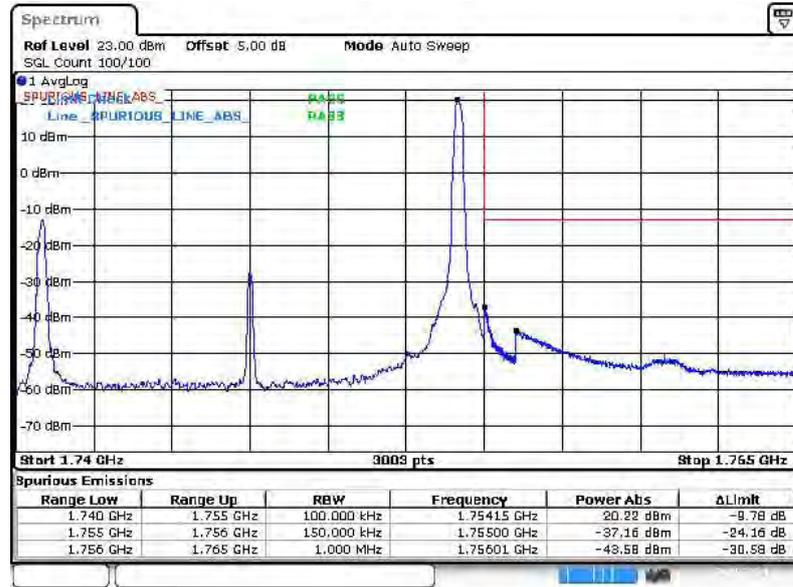


Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



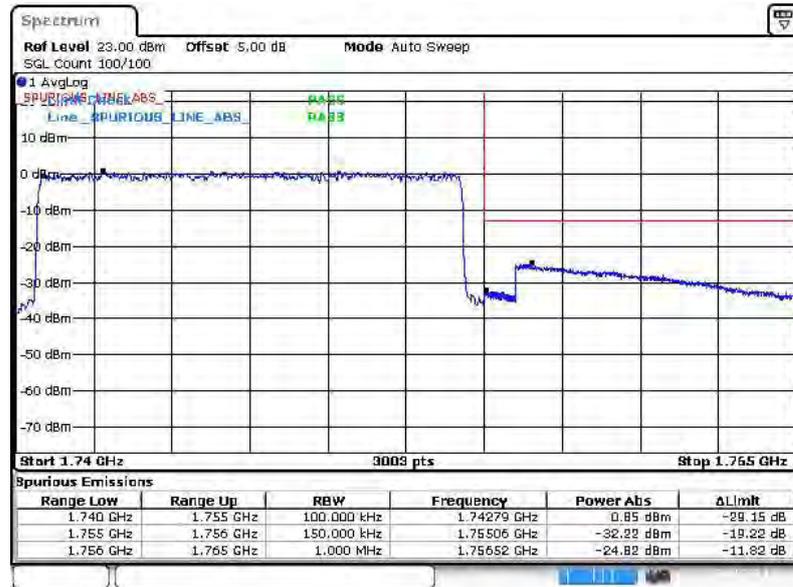


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74



Date: 16 OCT 2014 15:21:15

Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0

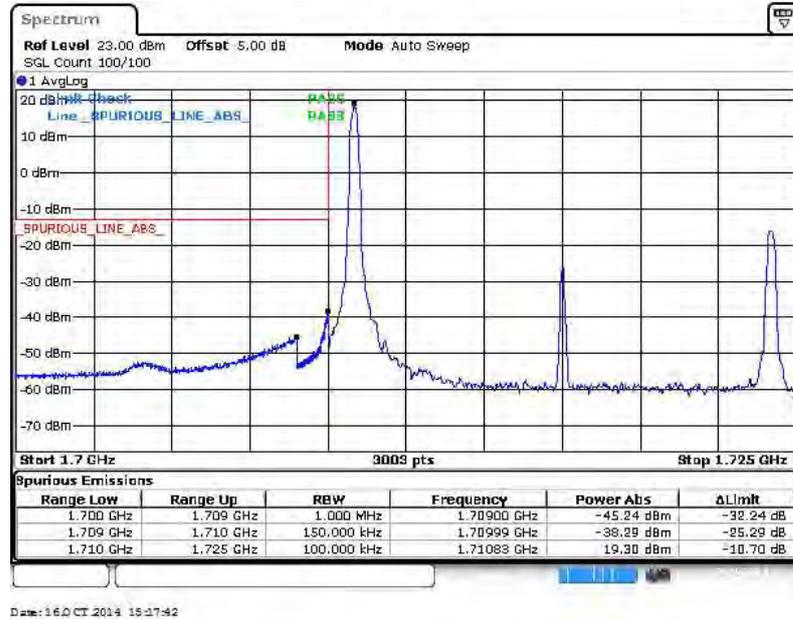


Date: 16 OCT 2014 15:24:49

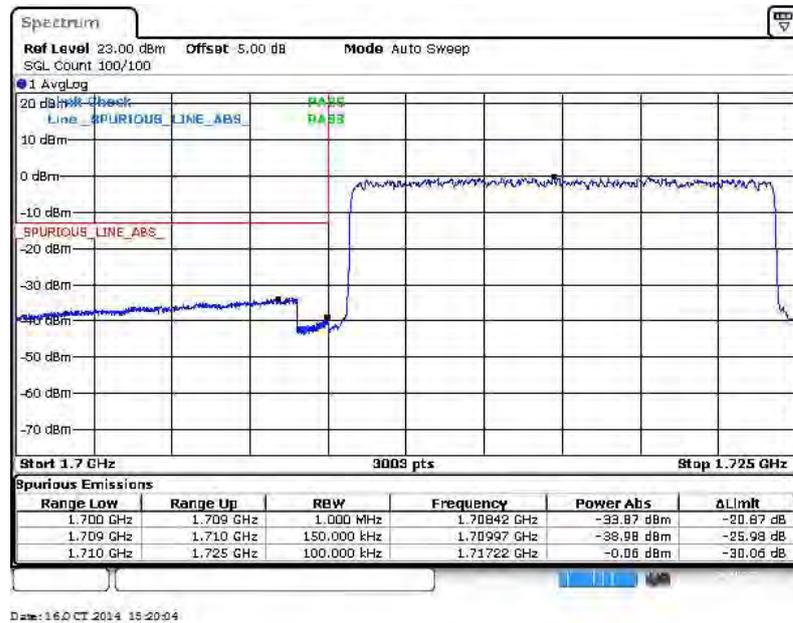


Band :	LTE Band 4	Band Width :	15MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

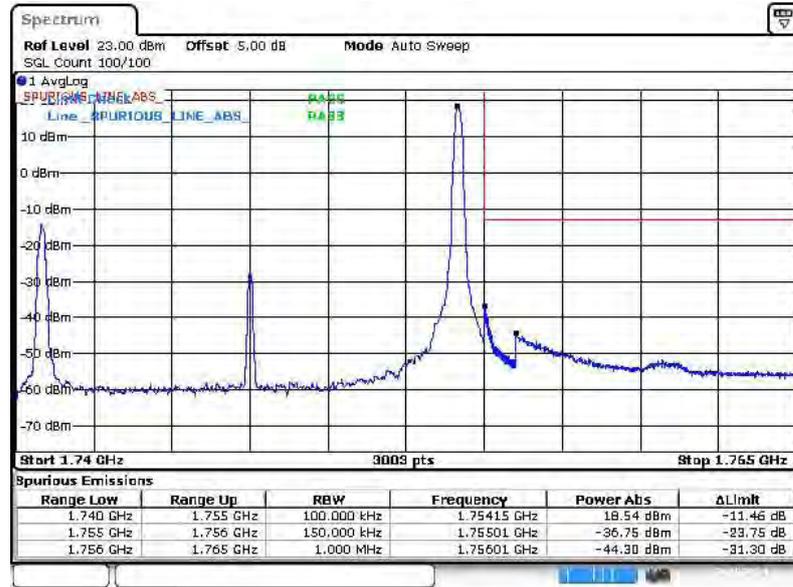


Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



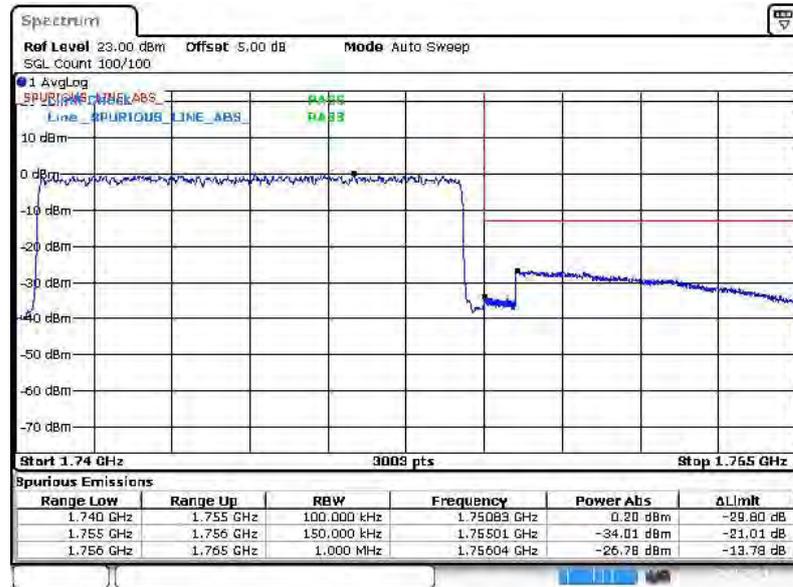


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74



Date: 16 OCT 2014 15:22:27

Higher Band Edge Plot for 16QAM-RB Size 75, RB Offset 0

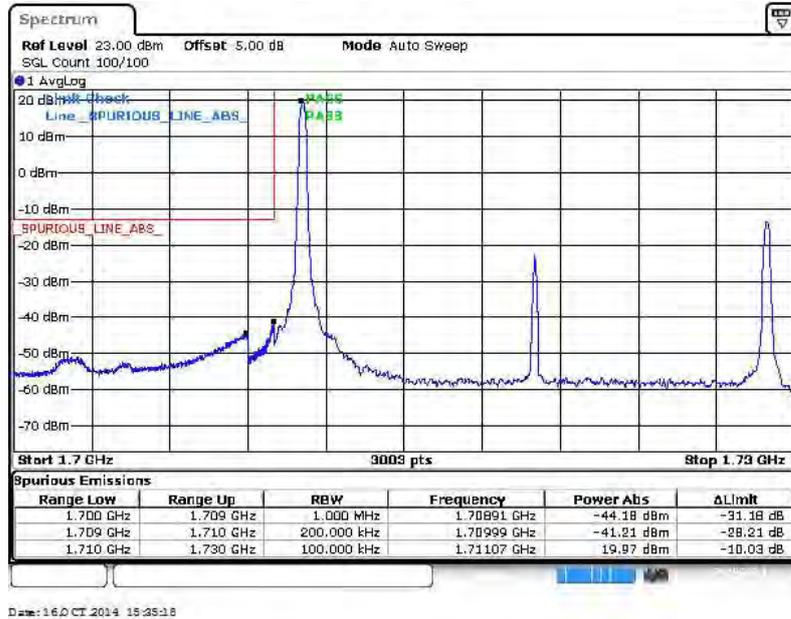


Date: 16 OCT 2014 15:23:28

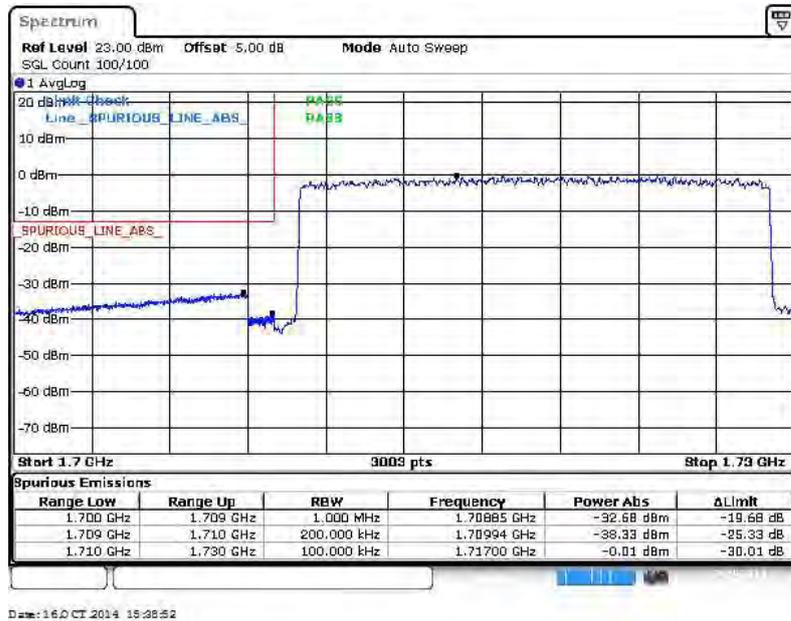


Band :	LTE Band 4	Band Width :	20MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

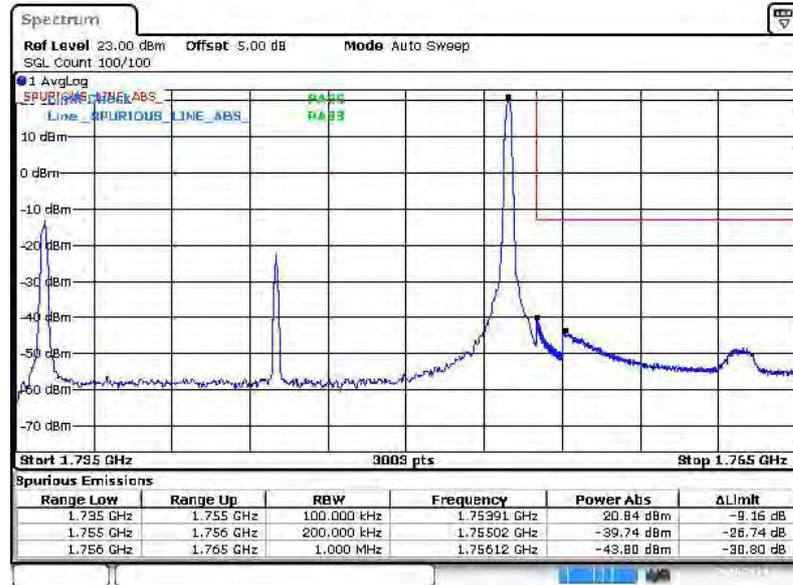


Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0



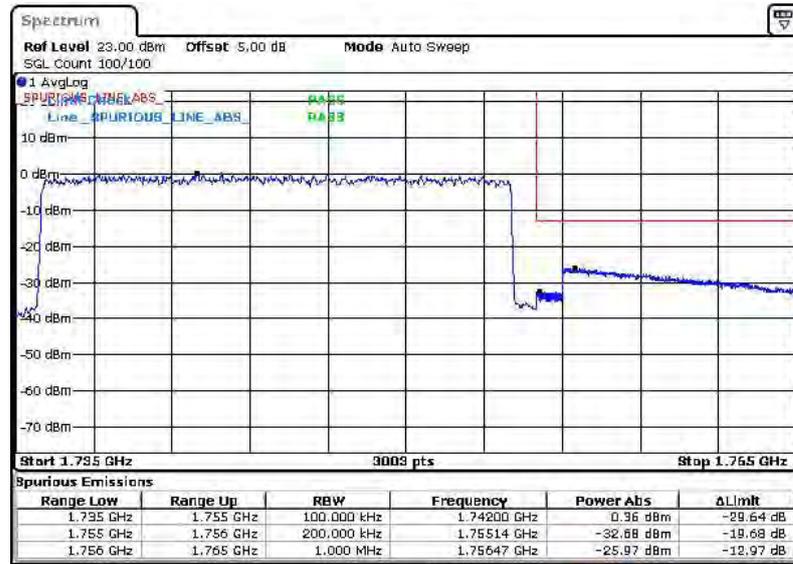


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99



Date: 16 OCT 2014 15:40:03

Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0

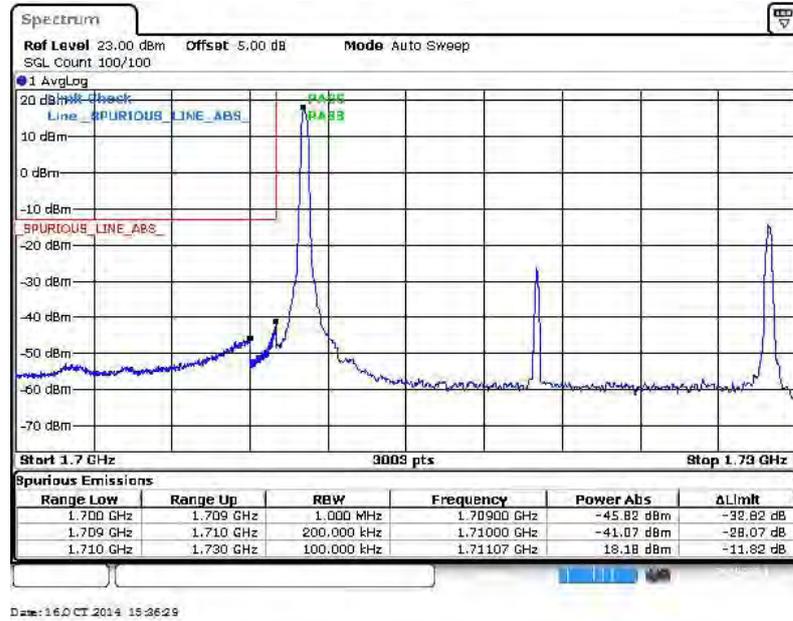


Date: 16 OCT 2014 15:43:27

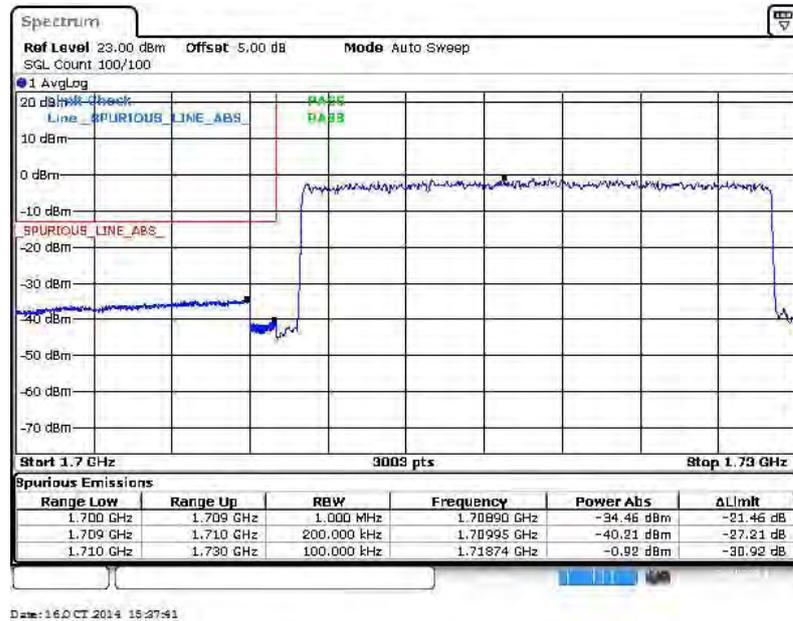


Band :	LTE Band 4	Band Width :	20MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

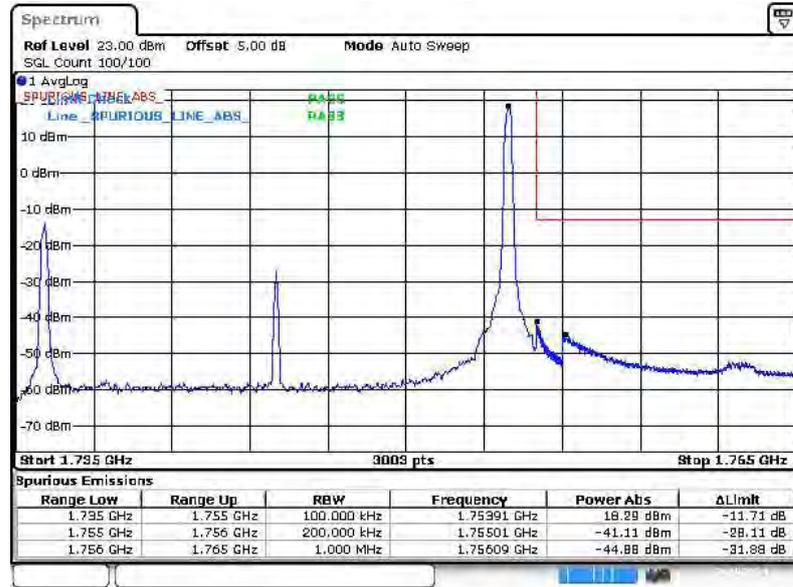


Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



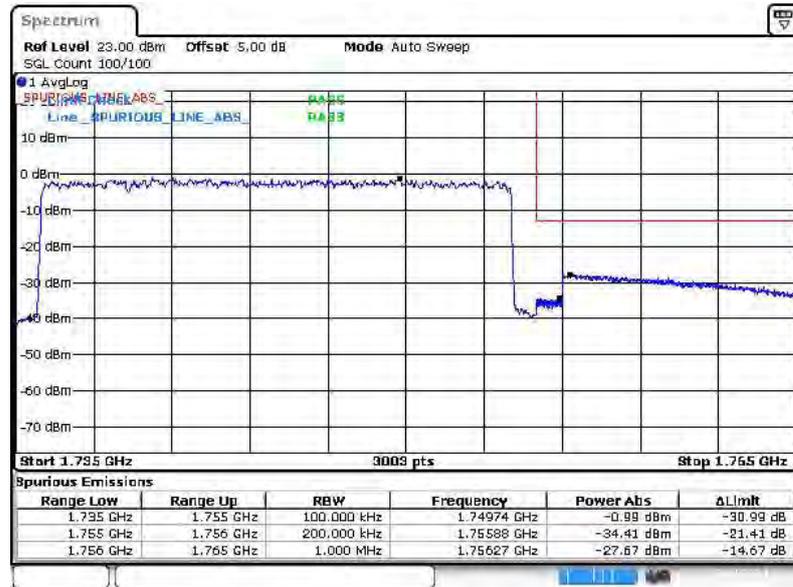


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99



Date: 16 OCT 2014 15:41:14

Higher Band Edge Plot for 16QAM-RB Size 100, RB Offset 0

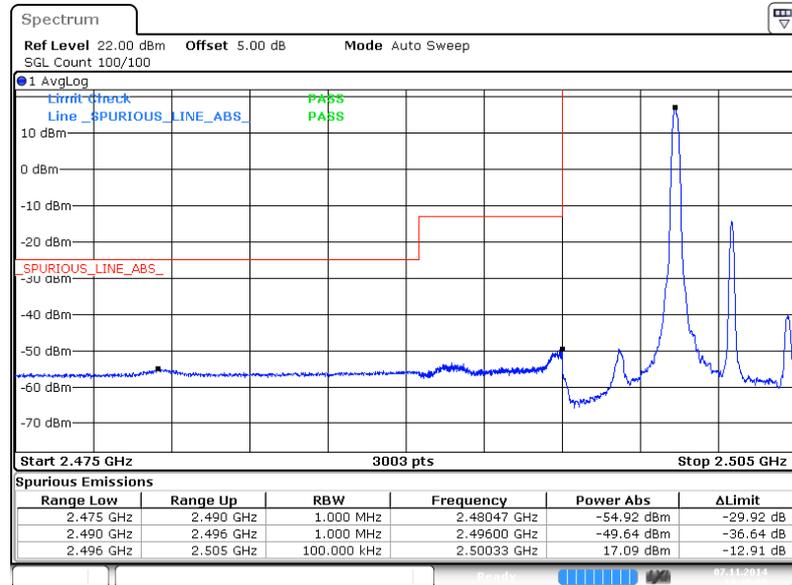


Date: 16 OCT 2014 15:42:26



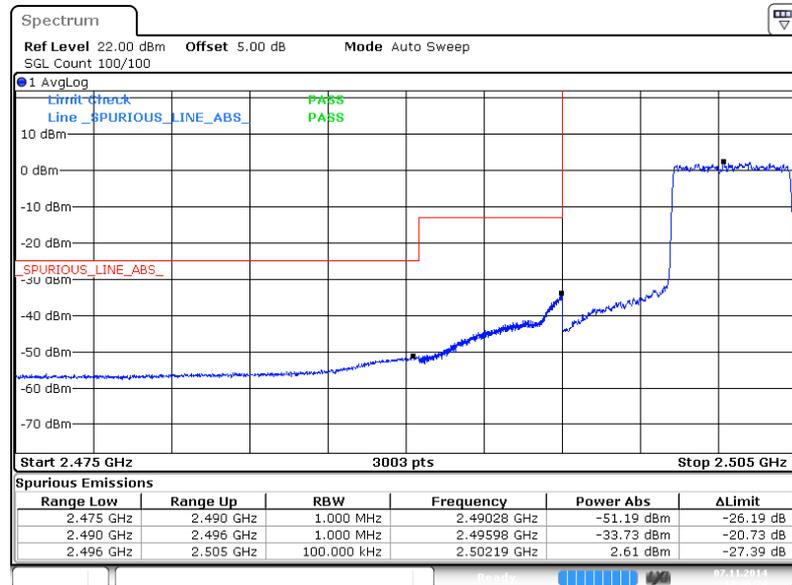
Band :	LTE Band 7	Band Width :	5MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 7 NOV. 2014 14:45:05

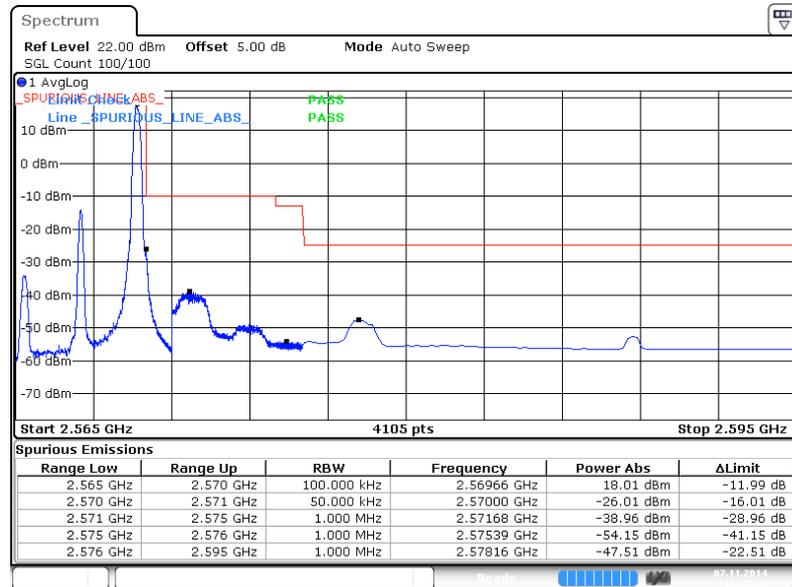
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 7 NOV. 2014 14:46:23

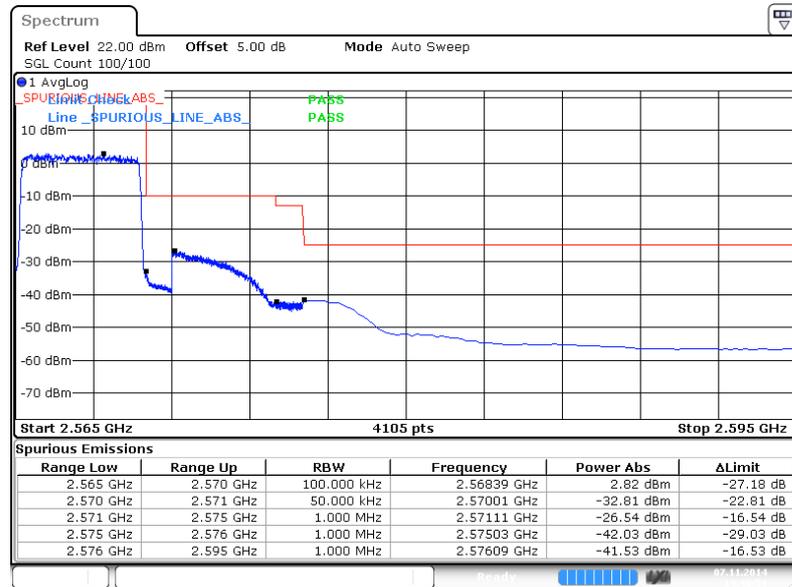


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 7 NOV. 2014 14:47:32

Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

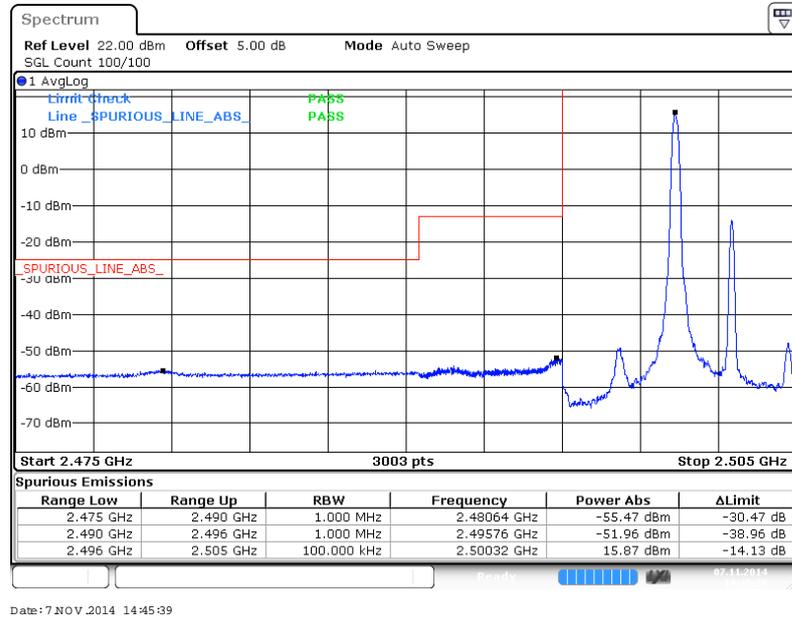


Date: 7 NOV. 2014 14:48:51

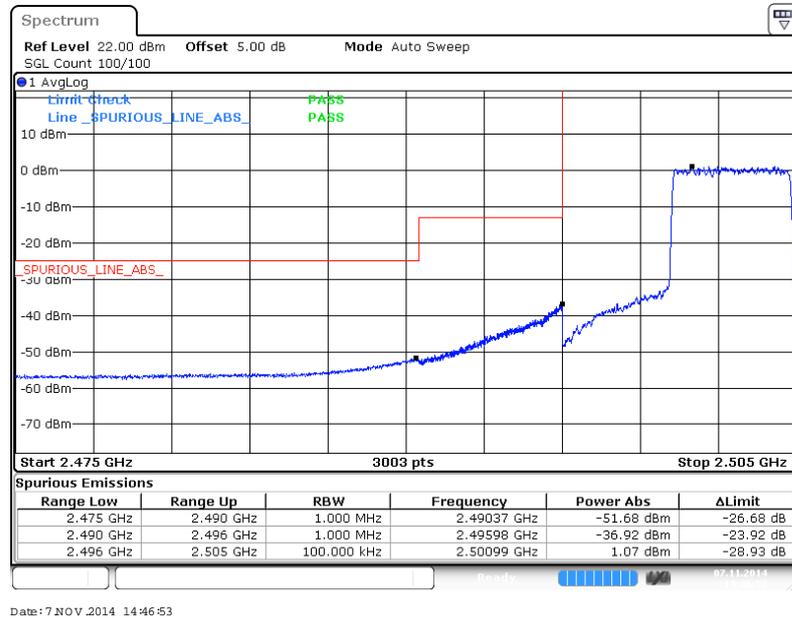


Band :	LTE Band 7	Band Width :	5MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

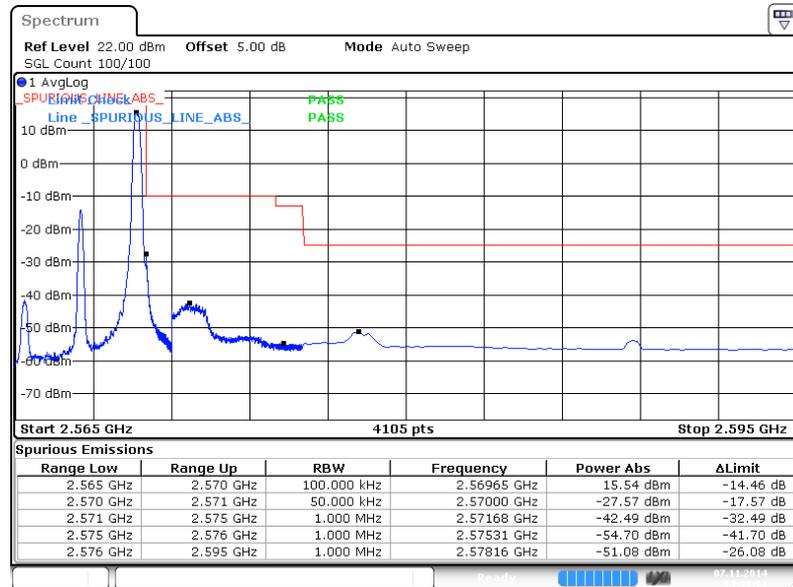


Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



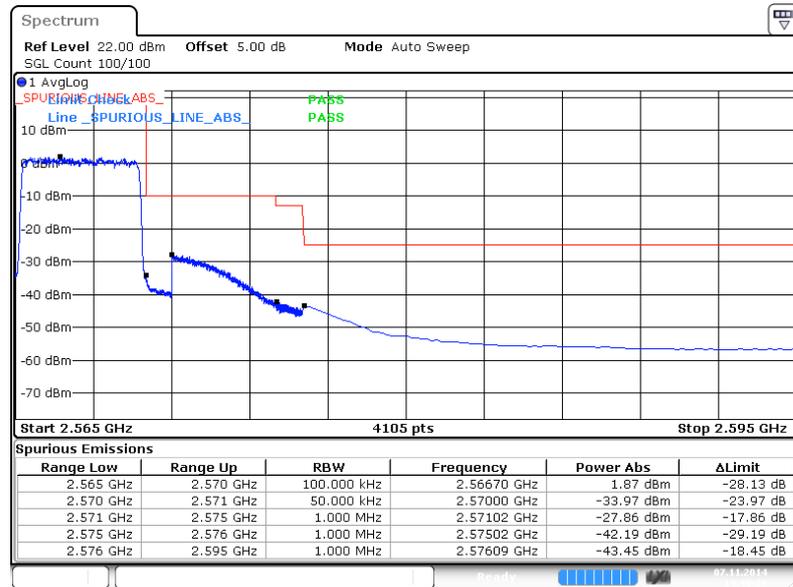


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 7 NOV. 2014 14:48:12

Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0

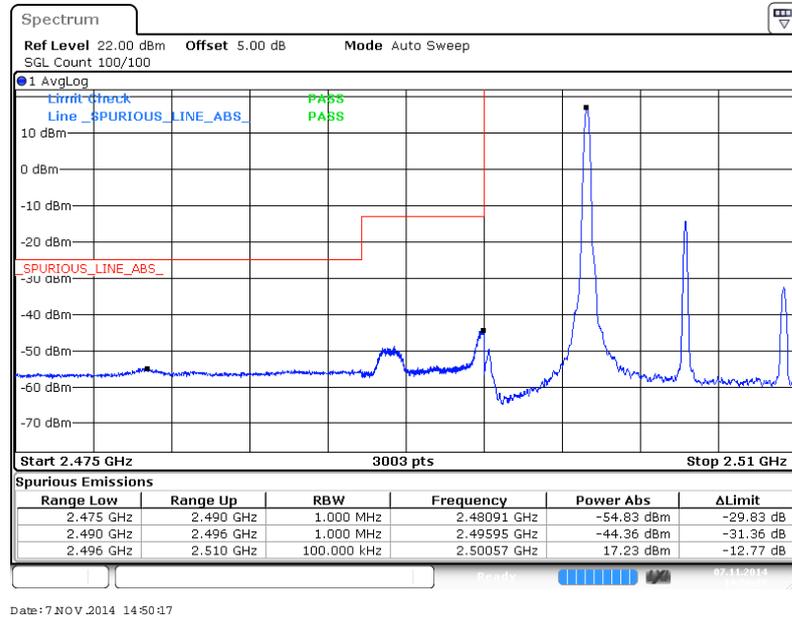


Date: 7 NOV. 2014 14:49:26

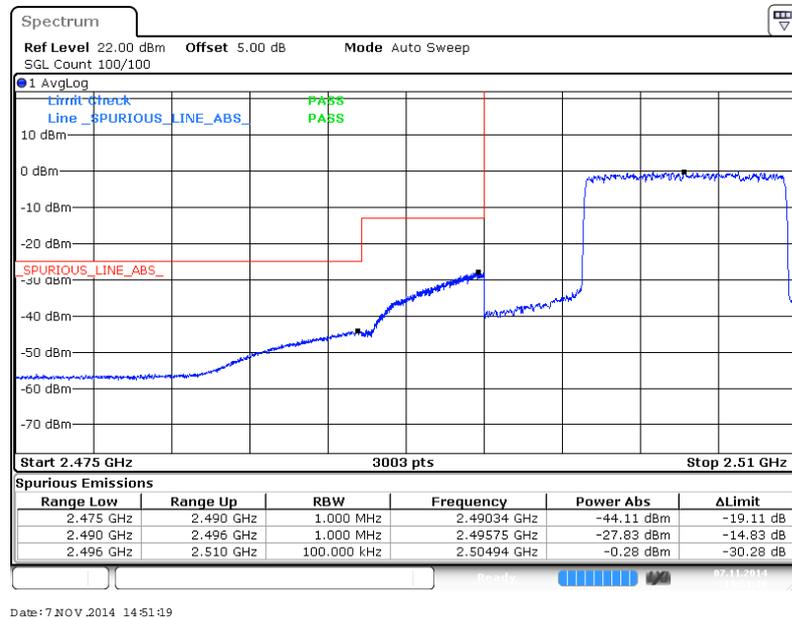


Band :	LTE Band 7	Band Width :	10MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

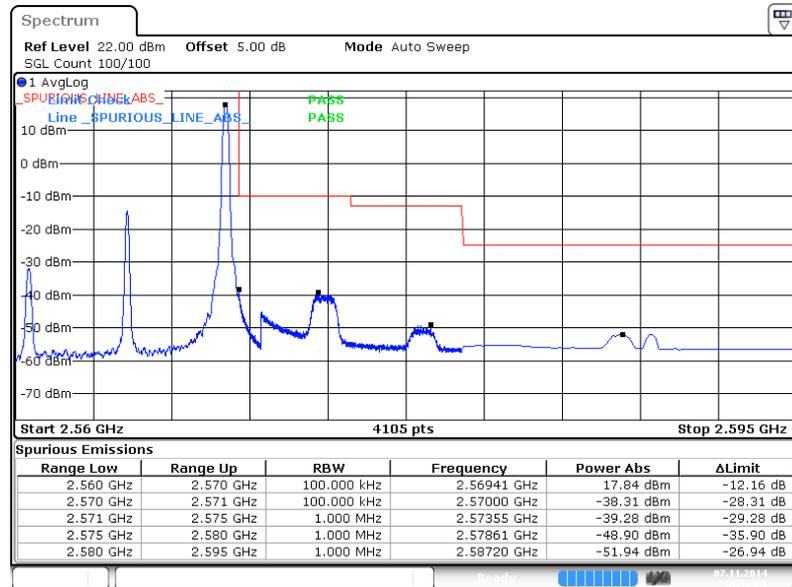


Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0



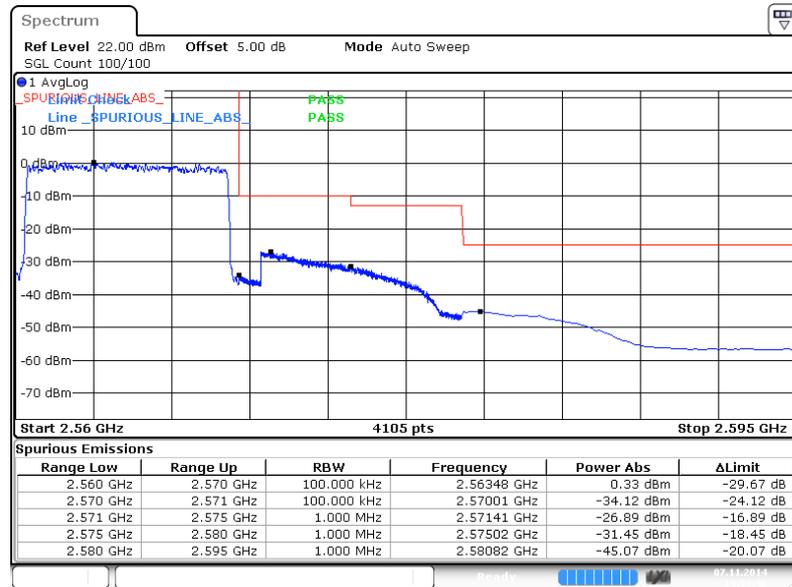


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 7 NOV. 2014 14:52:25

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

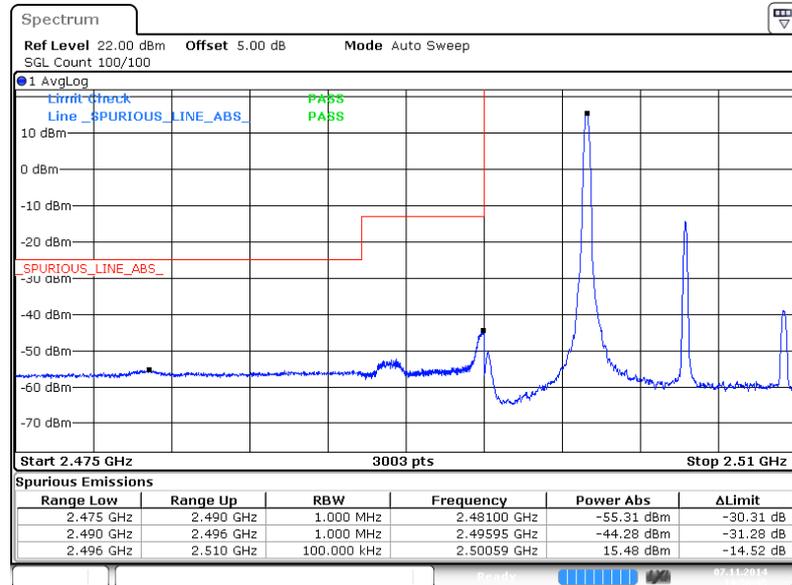


Date: 7 NOV. 2014 14:53:46



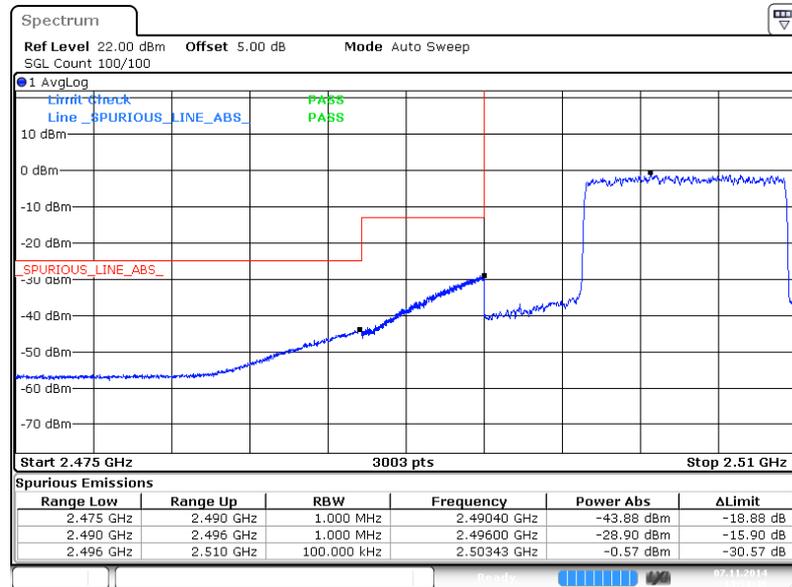
Band :	LTE Band 7	Band Width :	10MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 7 NOV. 2014 14:50:45

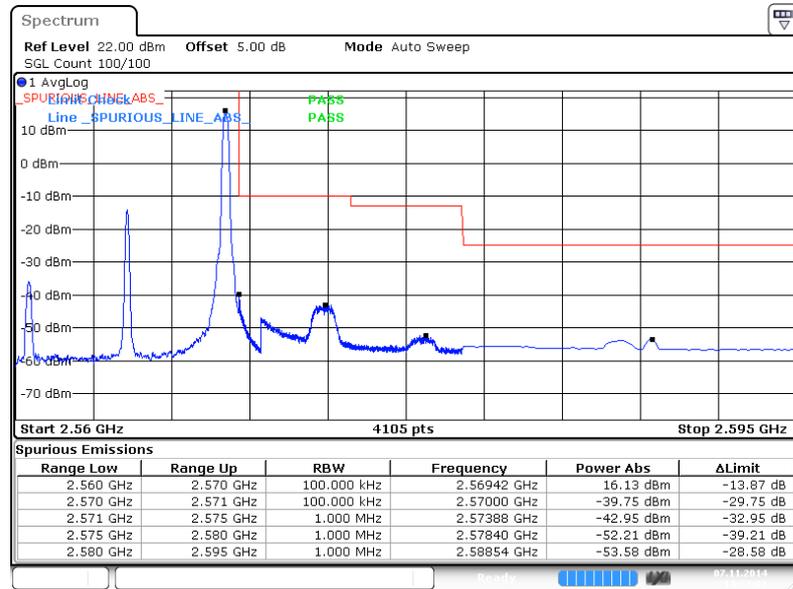
Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Date: 7 NOV. 2014 14:51:46

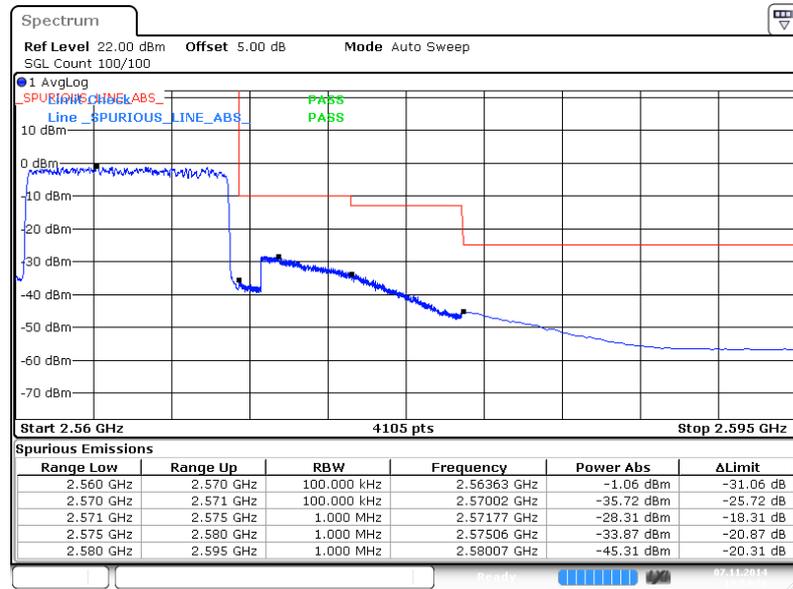


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Date: 7 NOV. 2014 14:53:01

Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0

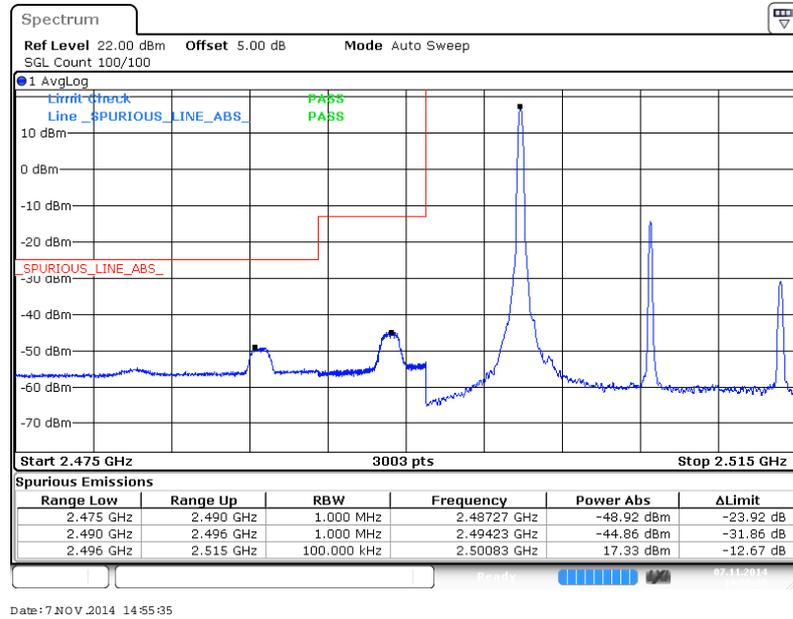


Date: 7 NOV. 2014 14:54:30

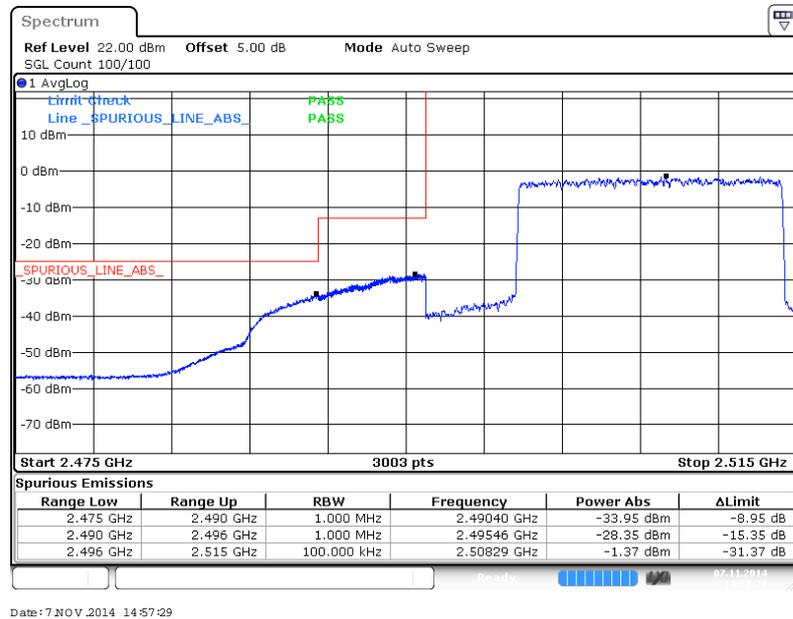


Band :	LTE Band 7	Band Width :	15MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

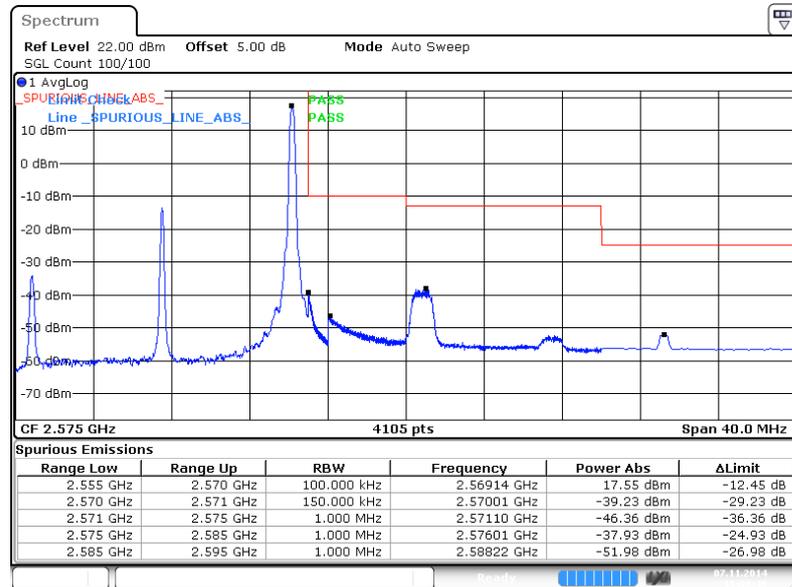


Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



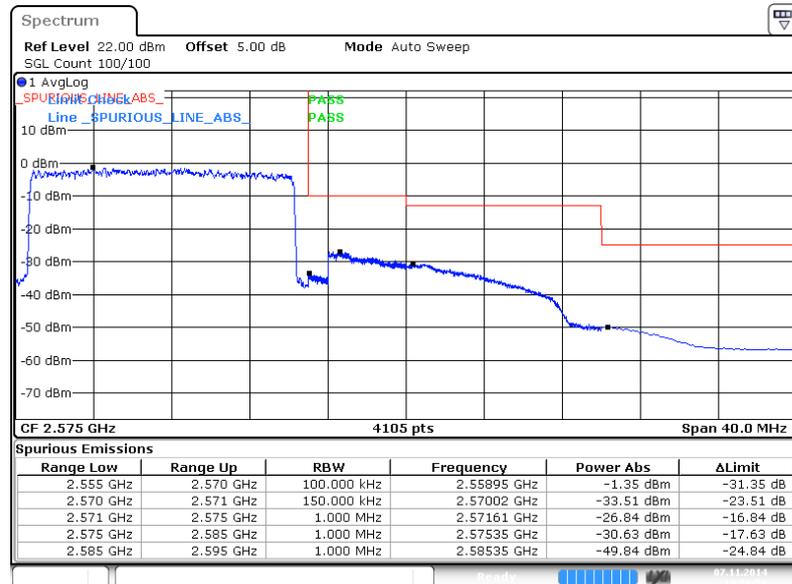


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74



Date: 7 NOV. 2014 15:00:46

Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0

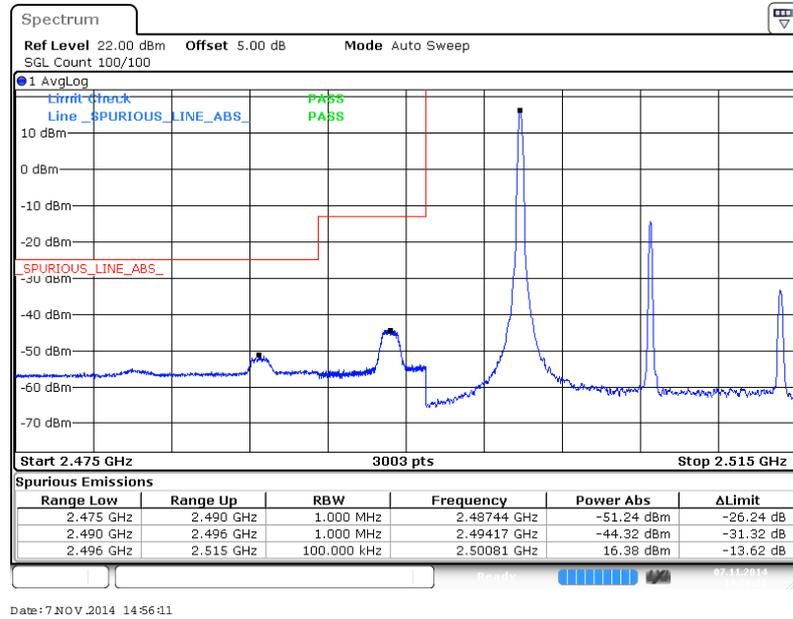


Date: 7 NOV. 2014 14:58:50

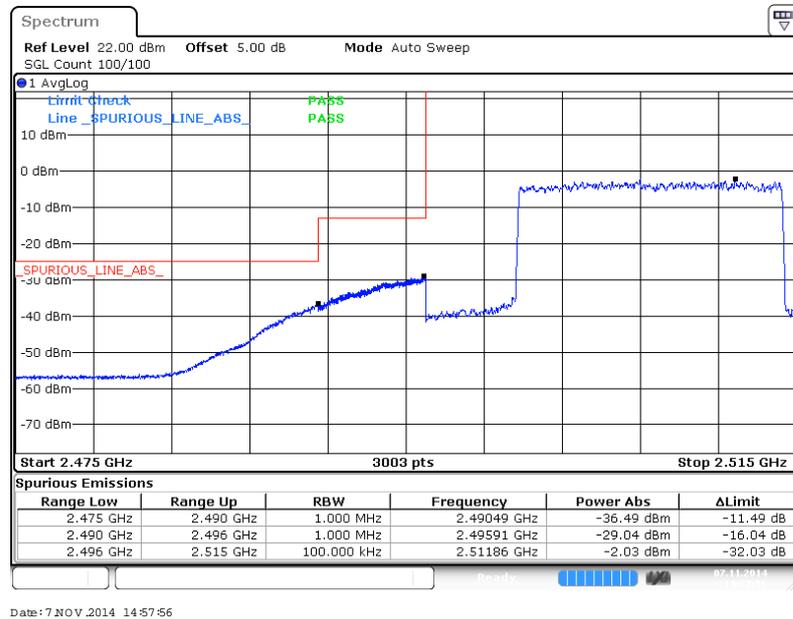


Band :	LTE Band 7	Band Width :	15MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

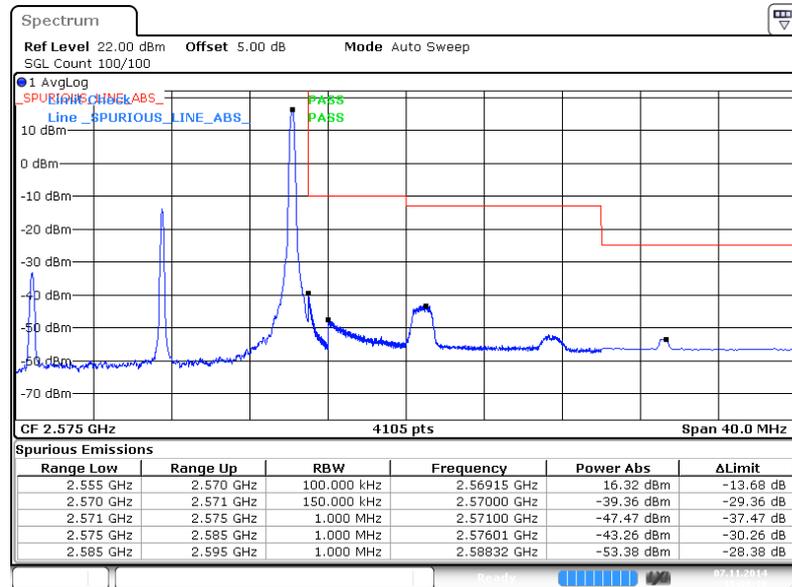


Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



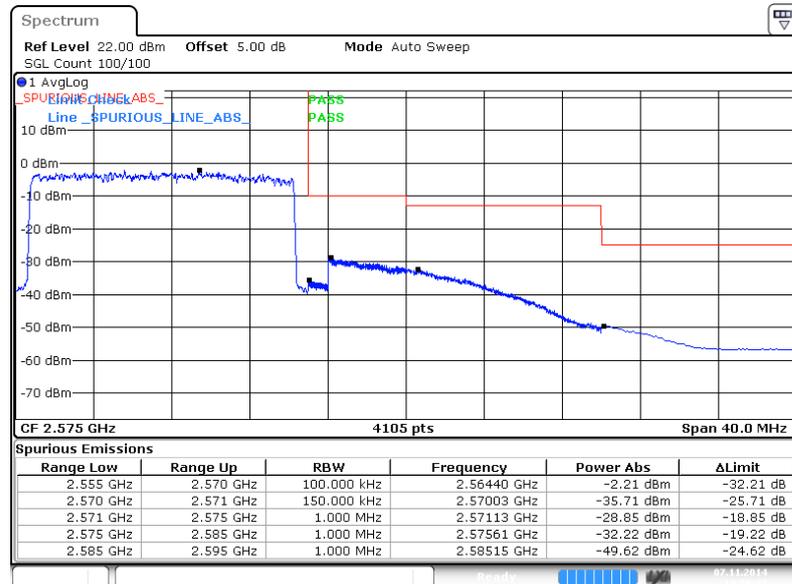


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74



Date: 7 NOV. 2014 15:00:18

Higher Band Edge Plot for 16QAM-RB Size 75, RB Offset 0

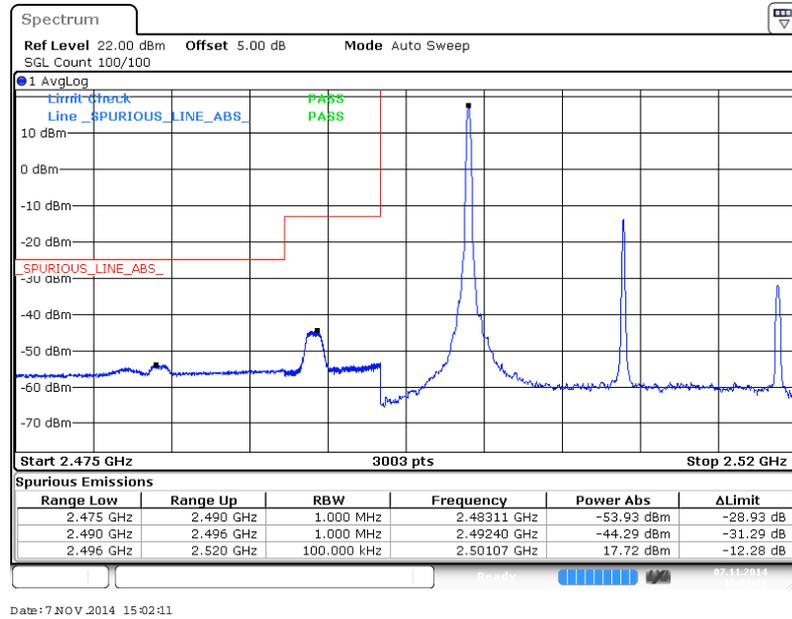


Date: 7 NOV. 2014 14:59:42

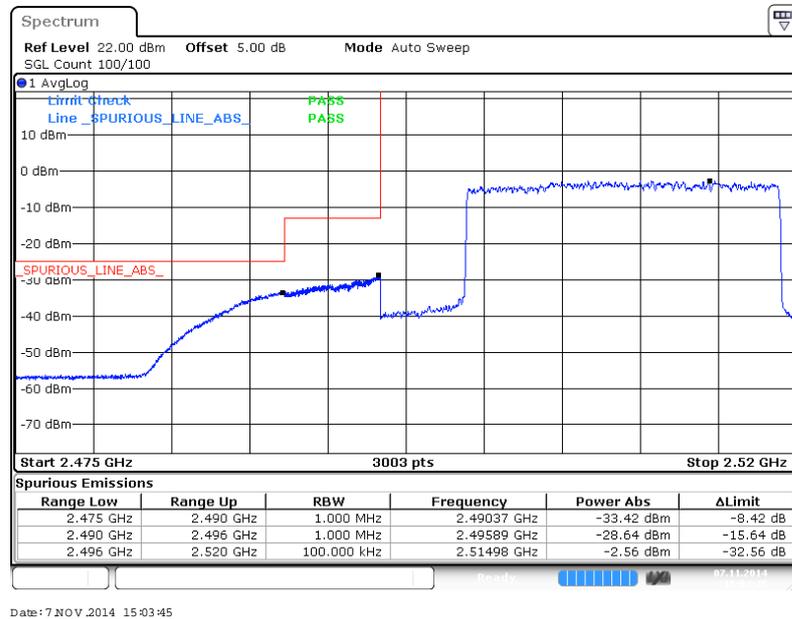


Band :	LTE Band 7	Band Width :	20MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

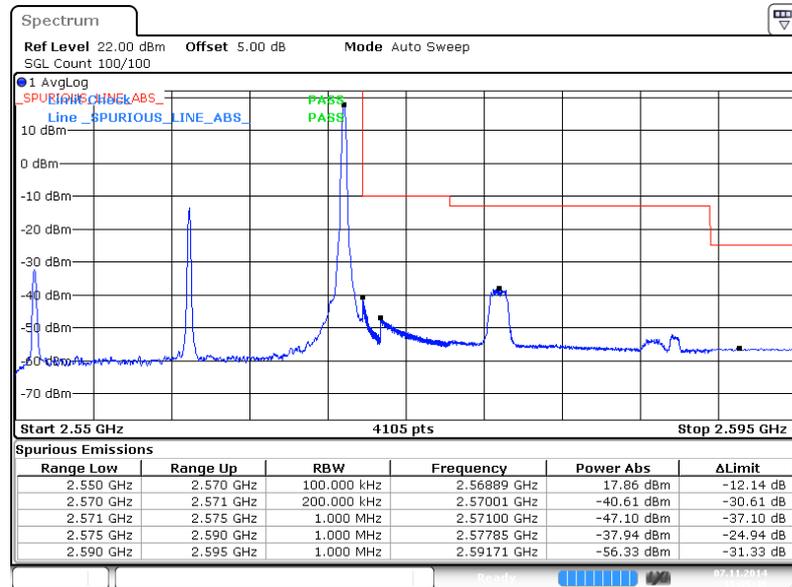


Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0



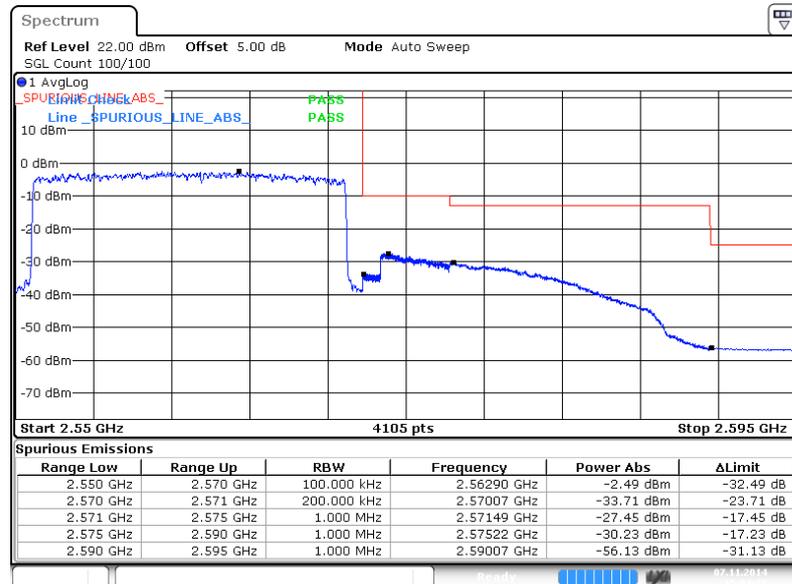


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99



Date: 7 NOV 2014 15:05:39

Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0

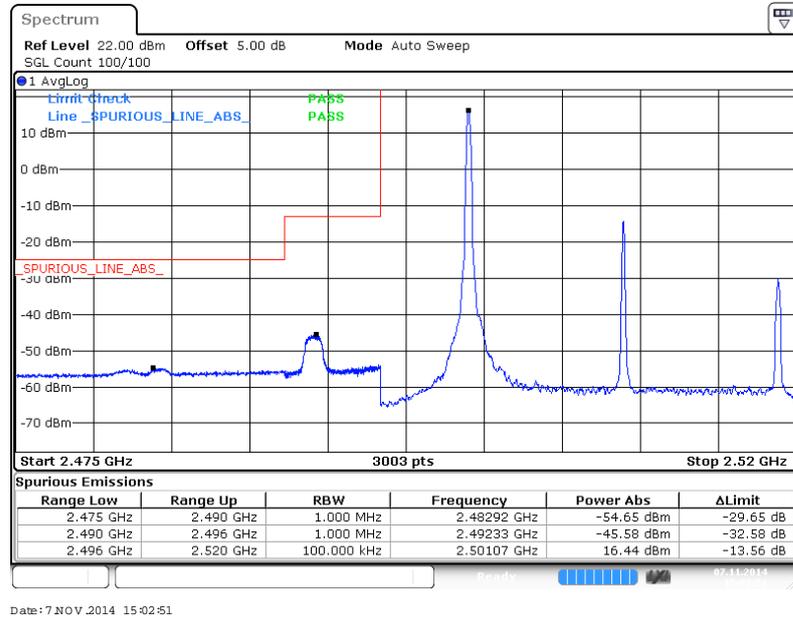


Date: 7 NOV 2014 15:04:13

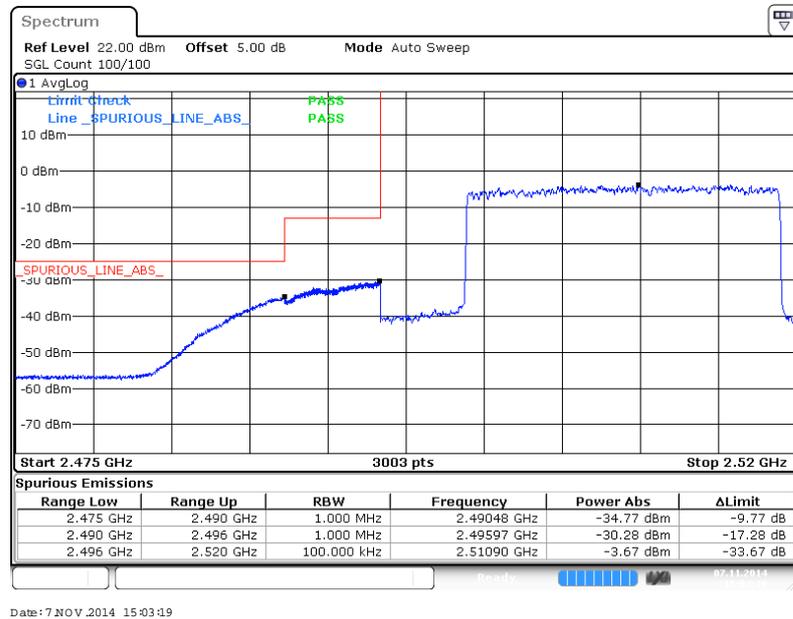


Band :	LTE Band 7	Band Width :	20MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

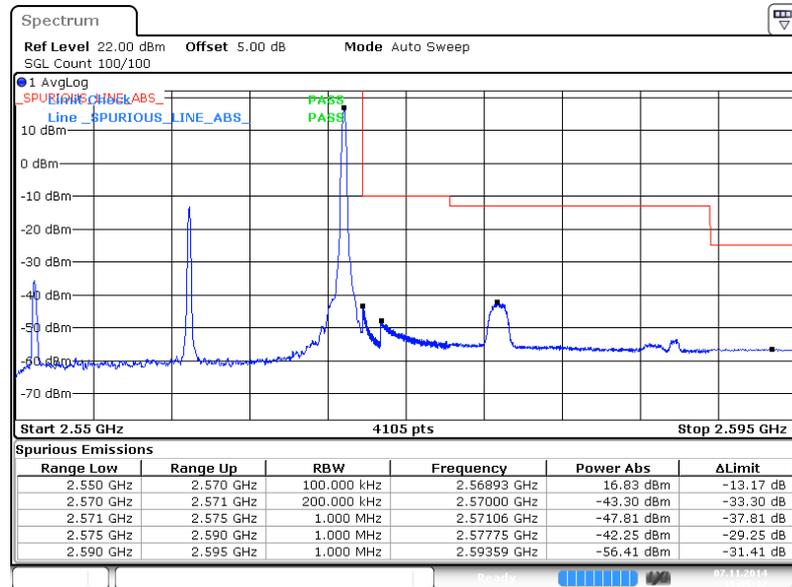


Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



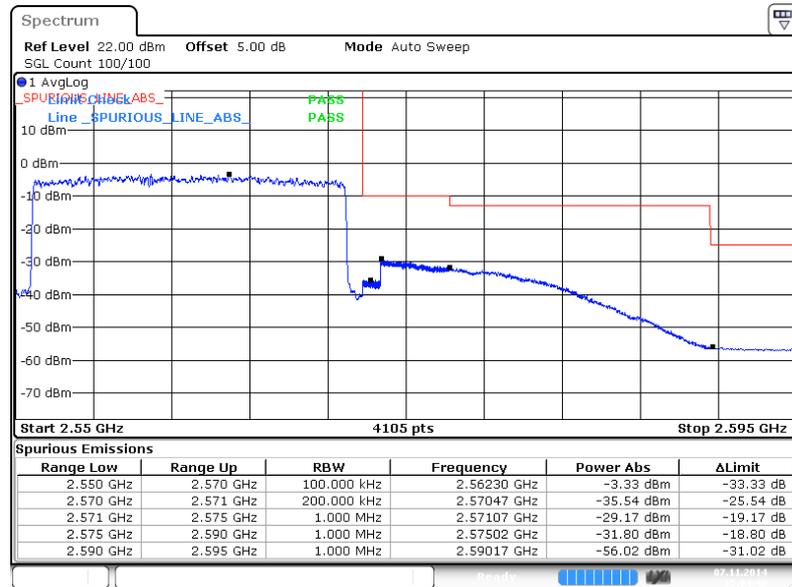


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99



Date: 7 NOV. 2014 15:05:13

Higher Band Edge Plot for 16QAM-RB Size 100, RB Offset 0

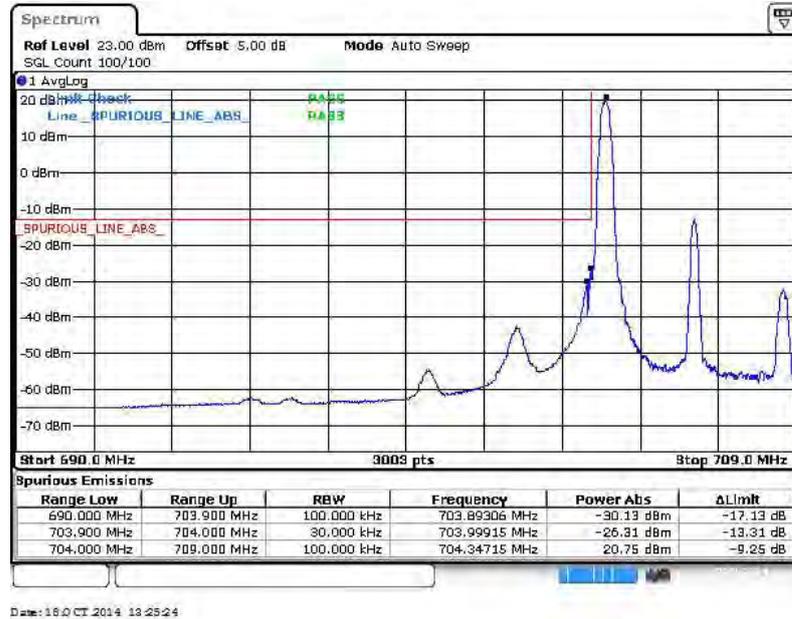


Date: 7 NOV. 2014 15:04:40

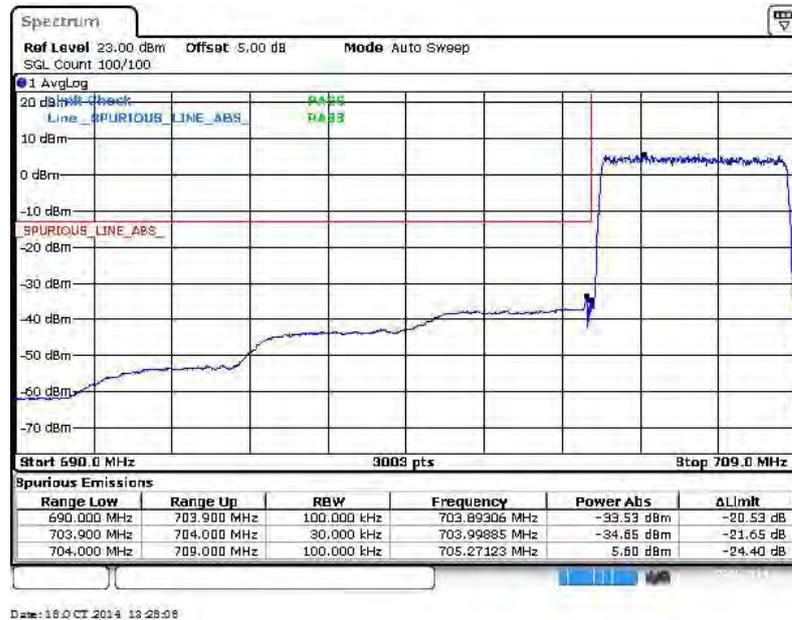


Band :	LTE Band 17	Band Width :	5MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

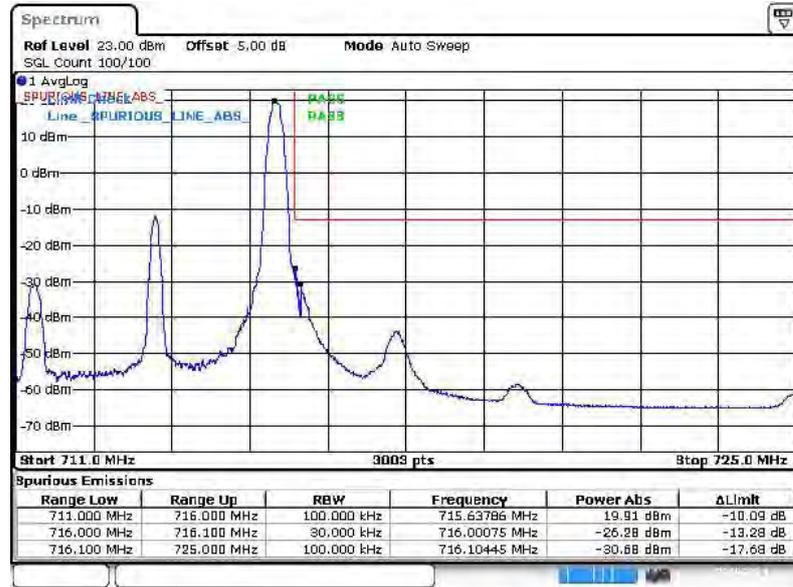


Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



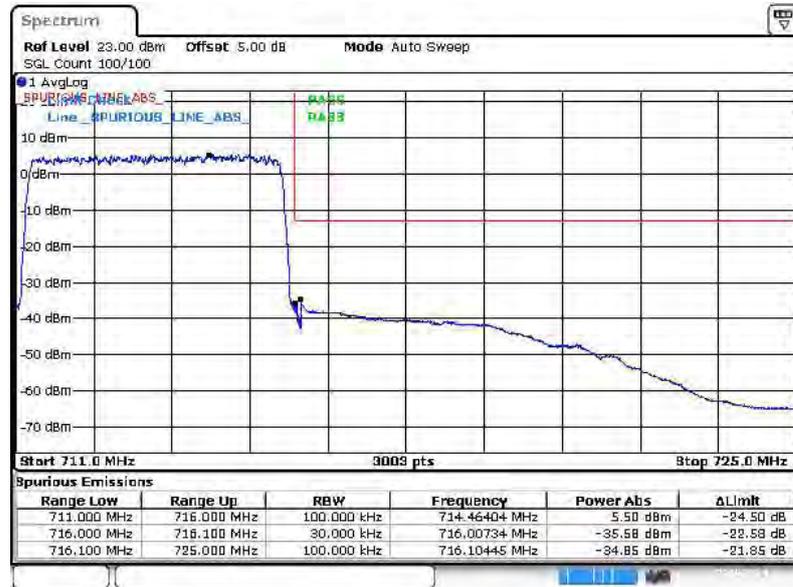


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 16 OCT 2014 13:26:43

Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

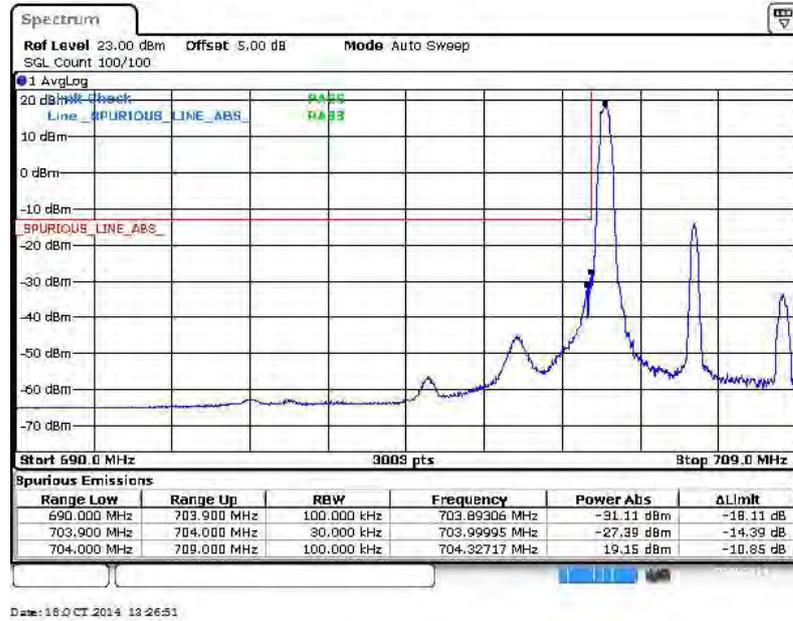


Date: 16 OCT 2014 13:29:09

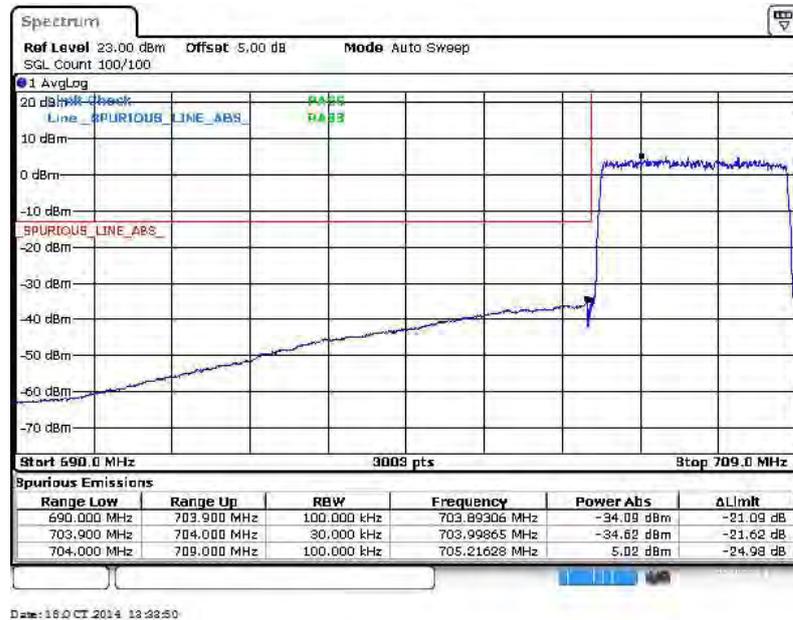


Band :	LTE Band 17	Band Width :	5MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

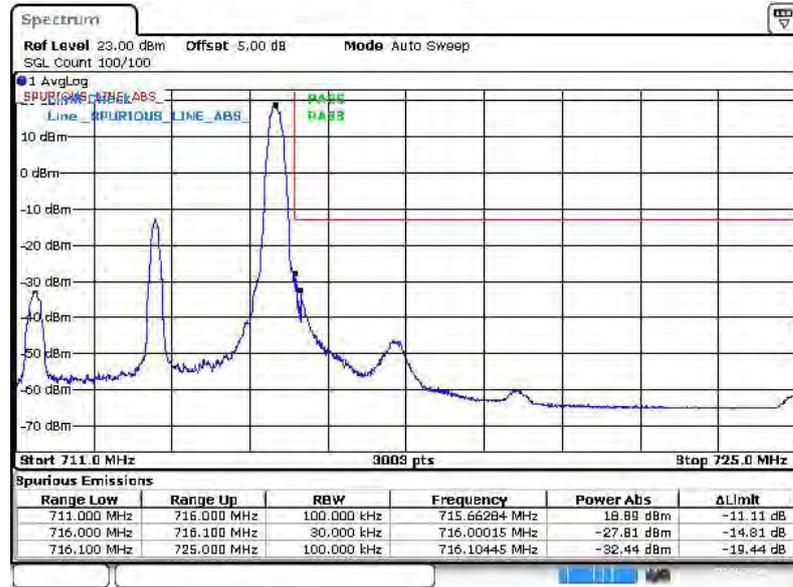


Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0





Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 16 OCT 2014 13:38:04

Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0

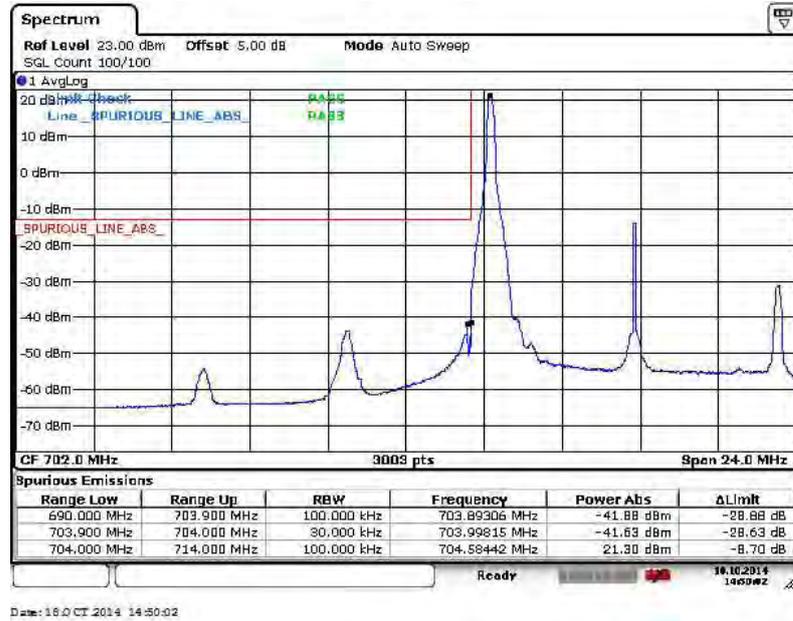


Date: 16 OCT 2014 13:40:26

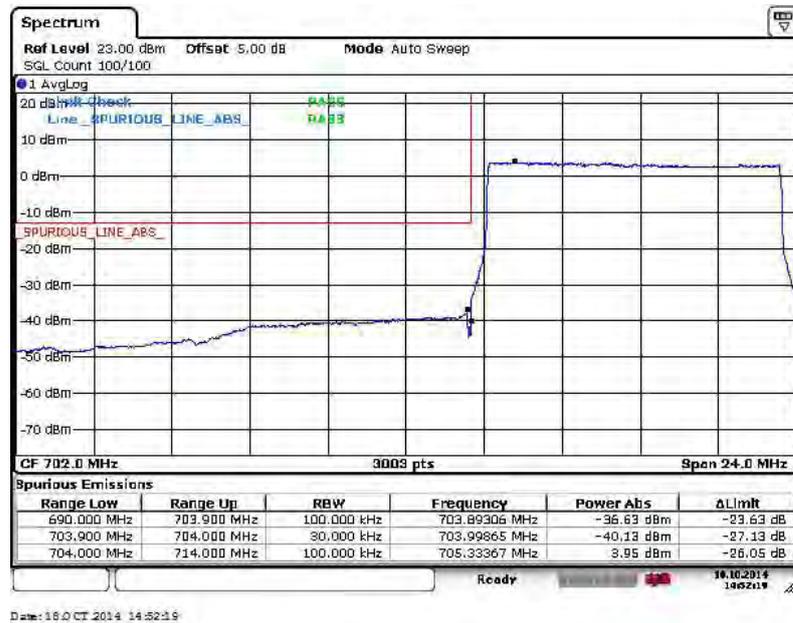


Band :	LTE Band 17	Band Width :	10MHz / QPSK
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Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0

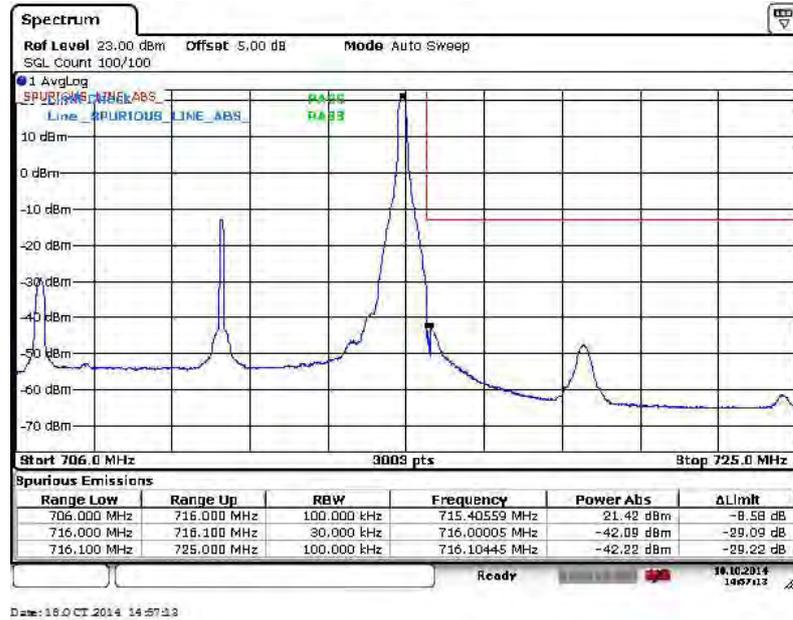


Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0

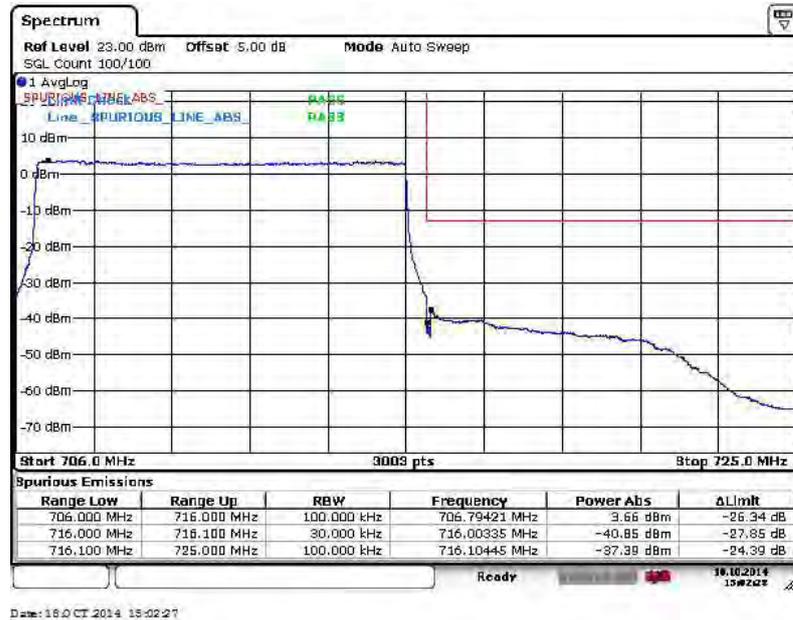




Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



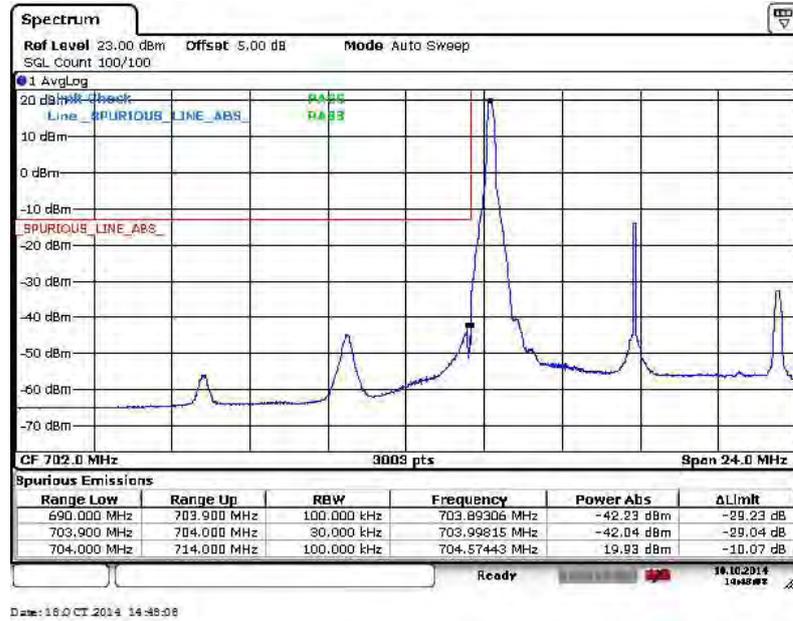
Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0



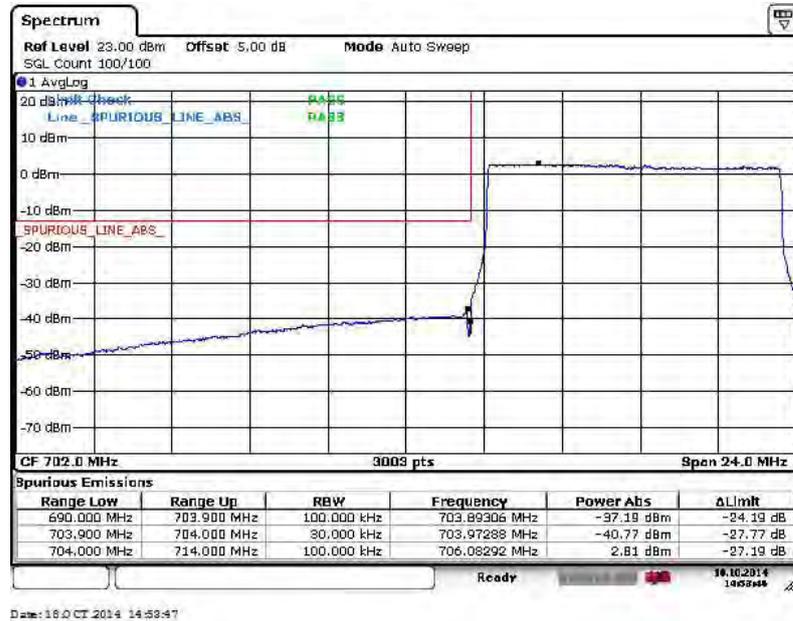


Band :	LTE Band 17	Band Width :	10MHz / 16QAM
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Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0

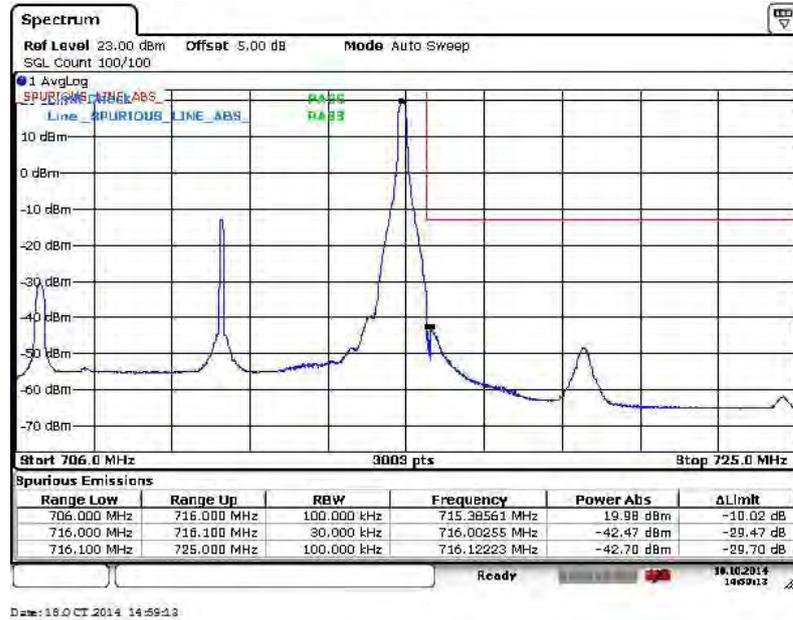


Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0

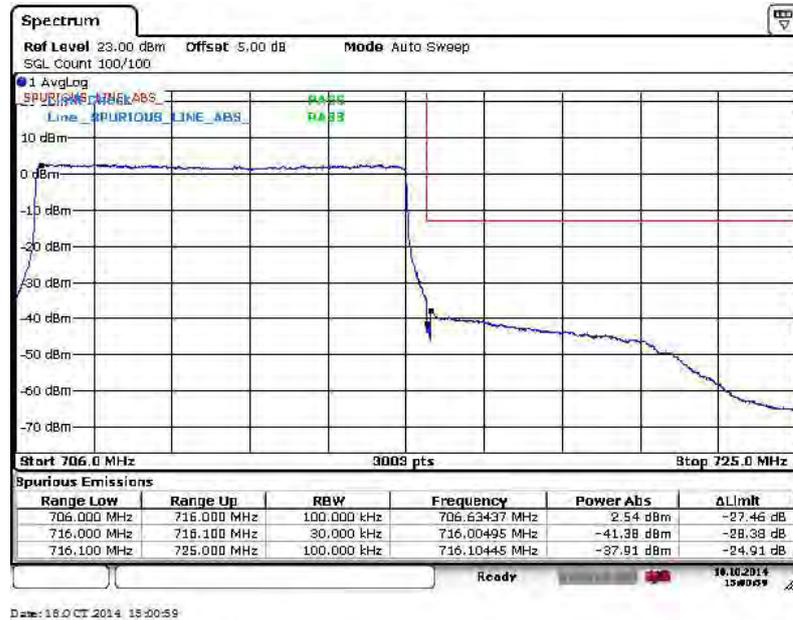




Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0





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.

For Band 7

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 $55 + 10 \log (P)$ dB.

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

3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

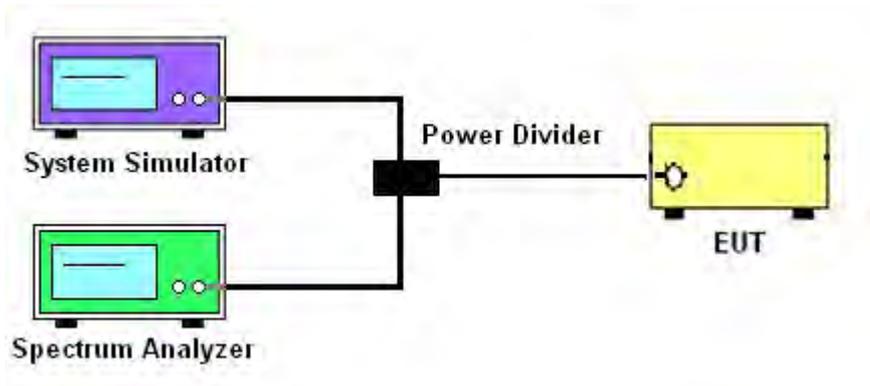
1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

7. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
= -13dBm.

<For Band 7>

The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)
= P(W)- [55 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)
= -25dBm.

3.6.4 Test Setup

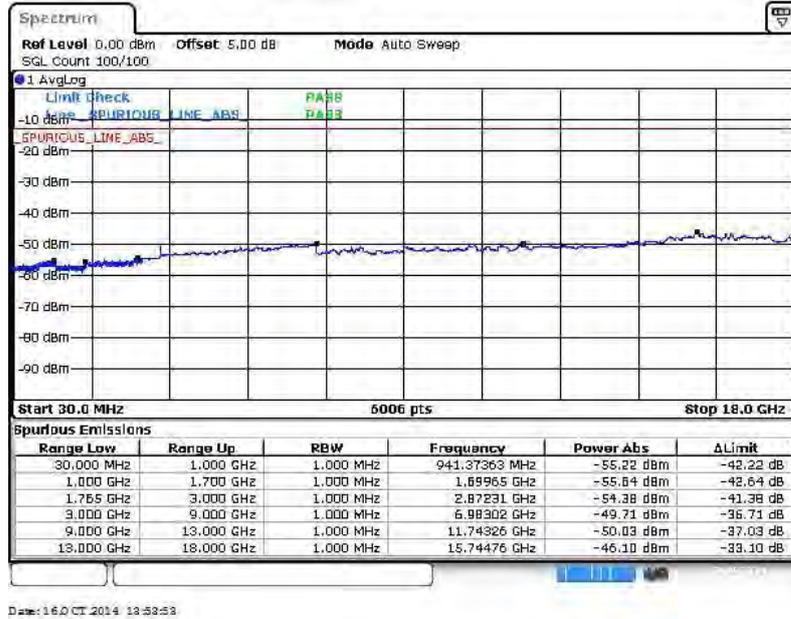




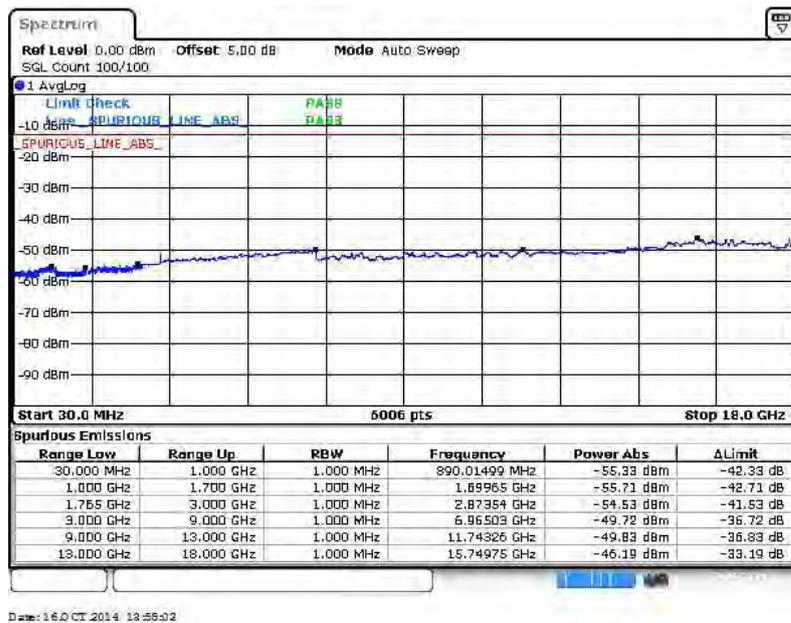
3.6.5 Test Result (Plots) of Conducted Spurious Emission

Band :	LTE Band 4	Channel :	CH19957 (Low)
Band Width :	1.4MHz		

QPSK (RB Size 3, RB Offset 1)



16QAM (RB Size 1, RB Offset 2)



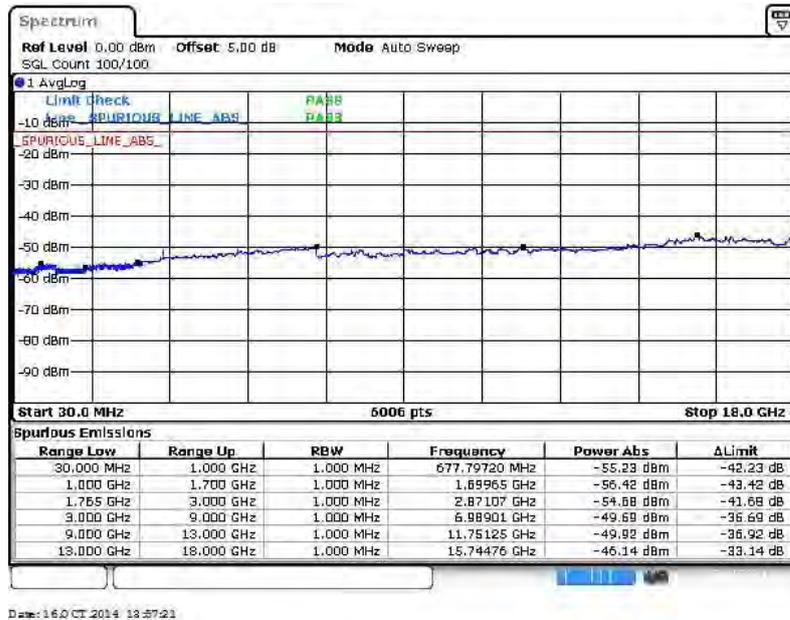


Band :	LTE Band 4	Channel :	CH20175 (Middle)
Band Width :	1.4MHz		

QPSK (RB Size 3, RB Offset 1)



16QAM (RB Size 1, RB Offset 2)





Band :	LTE Band 4	Channel :	CH20393 (High)
Band Width :	1.4MHz		

QPSK (RB Size 3, RB Offset 1)



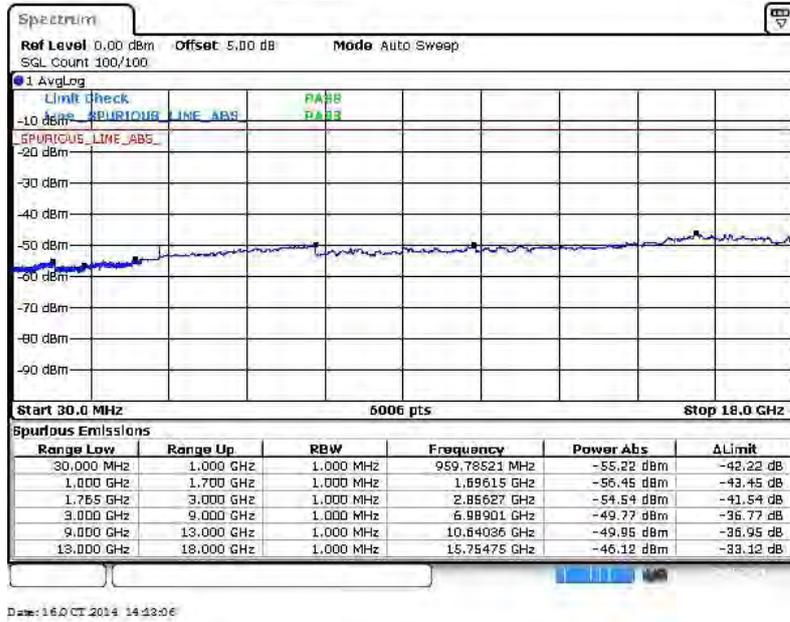
16QAM (RB Size 1, RB Offset 2)



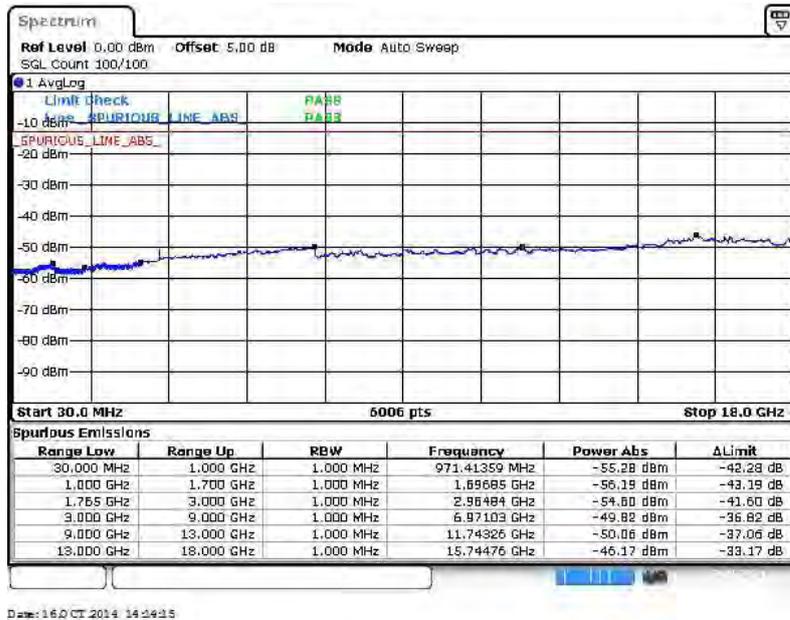


Band :	LTE Band 4	Channel :	CH19965 (Low)
Band Width :	3MHz		

QPSK (RB Size 1, RB Offset 0)



16QAM (RB Size 1, RB Offset 7)





Band :	LTE Band 4	Channel :	CH20175 (Middle)
Band Width :	3MHz		

QPSK (RB Size 1, RB Offset 0)



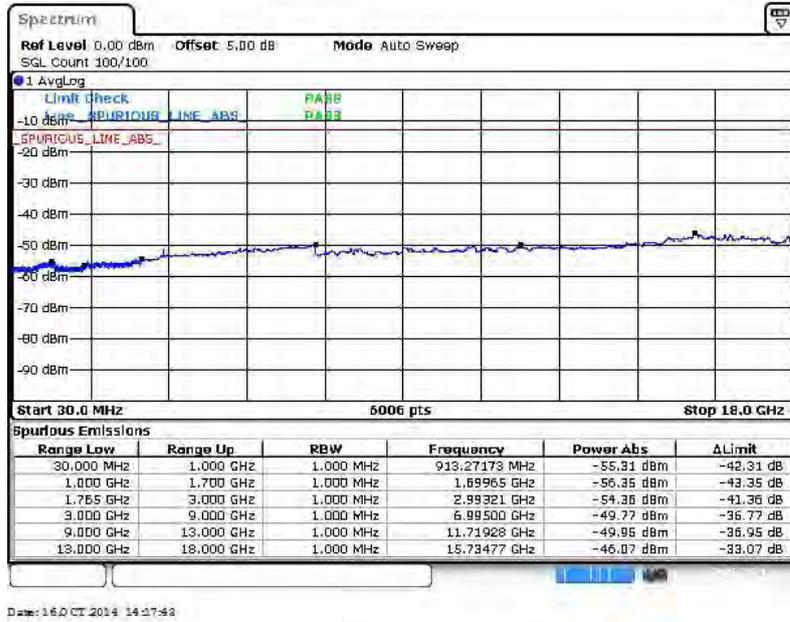
16QAM (RB Size 1, RB Offset 7)



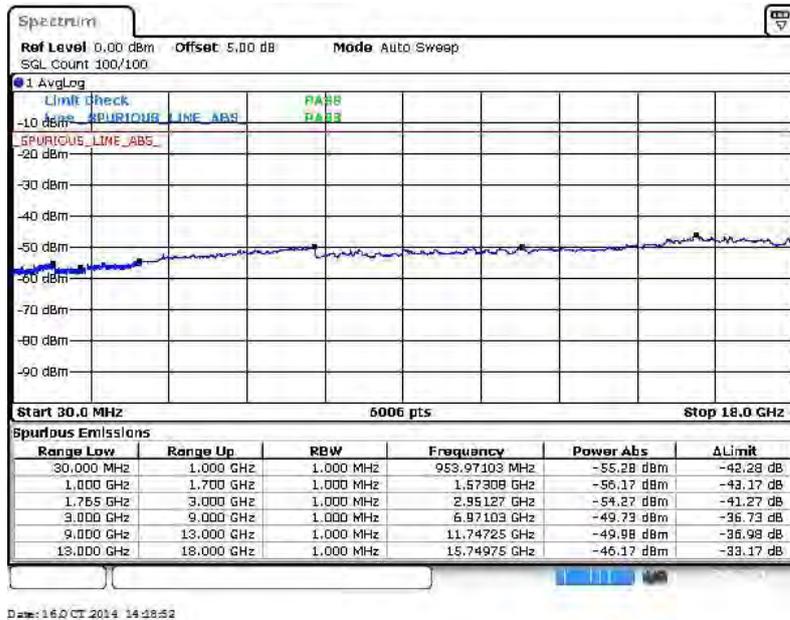


Band :	LTE Band 4	Channel :	CH20385 (High)
Band Width :	3MHz		

QPSK (RB Size 1, RB Offset 0)



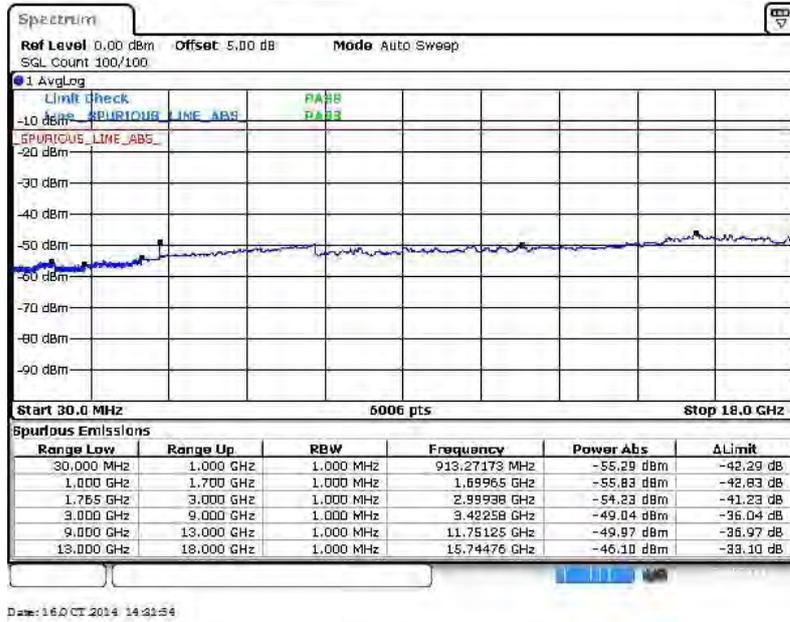
16QAM (RB Size 1, RB Offset 7)



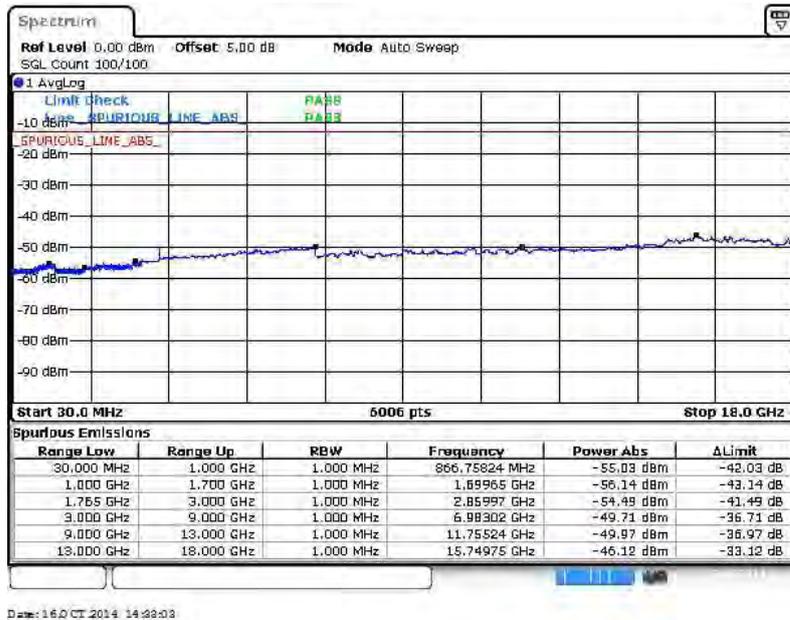


Band :	LTE Band 4	Channel :	CH19975 (Low)
Band Width :	5MHz		

QPSK (RB Size 1, RB Offset 0)



16QAM (RB Size 1, RB Offset 0)





Band :	LTE Band 4	Channel :	CH20175 (Middle)
Band Width :	5MHz		

QPSK (RB Size 1, RB Offset 0)



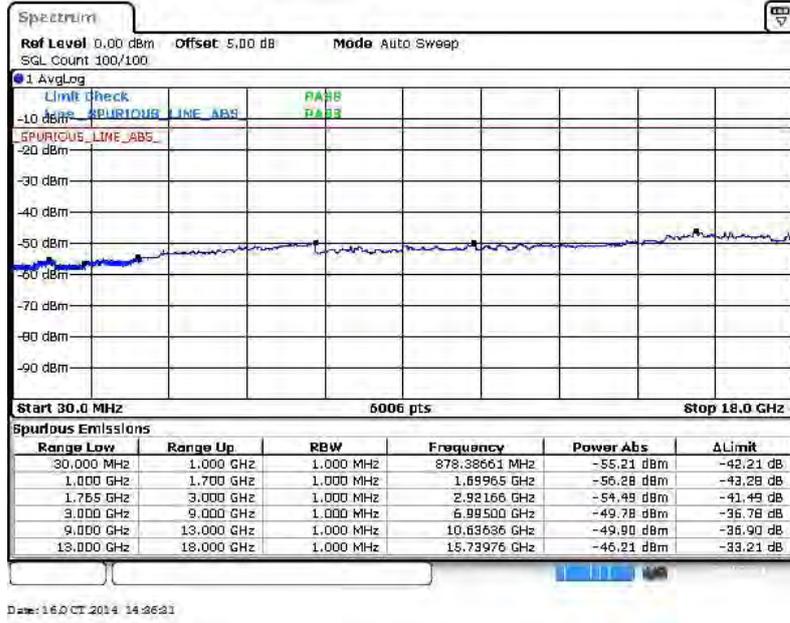
16QAM (RB Size 1, RB Offset 0)



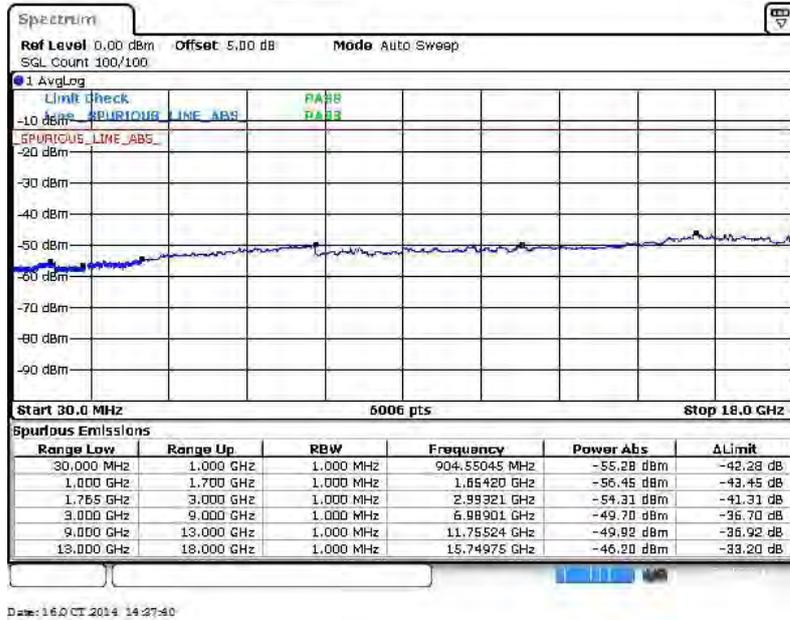


Band :	LTE Band 4	Channel :	CH20375 (High)
Band Width :	5MHz		

QPSK (RB Size 1, RB Offset 0)



16QAM (RB Size 1, RB Offset 0)





Band :	LTE Band 4	Channel :	CH20000 (Low)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 24)



16QAM (RB Size 1, RB Offset 24)





Band :	LTE Band 4	Channel :	CH20175 (Middle)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 24)



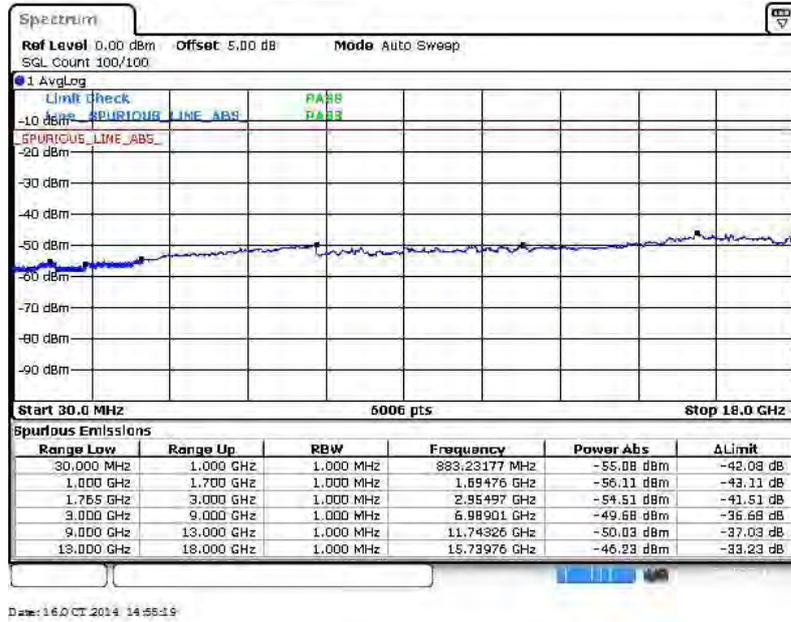
16QAM (RB Size 1, RB Offset 24)





Band :	LTE Band 4	Channel :	CH20350 (High)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 24)



16QAM (RB Size 1, RB Offset 24)





Band :	LTE Band 4	Channel :	CH20025 (Low)
Band Width :	15MHz		

QPSK (RB Size 1, RB Offset 74)



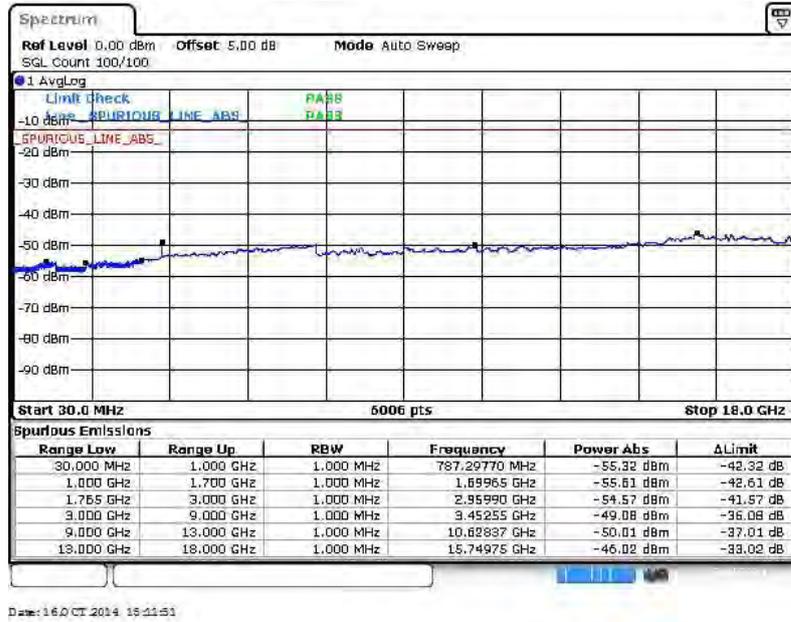
16QAM (RB Size 1, RB Offset 0)



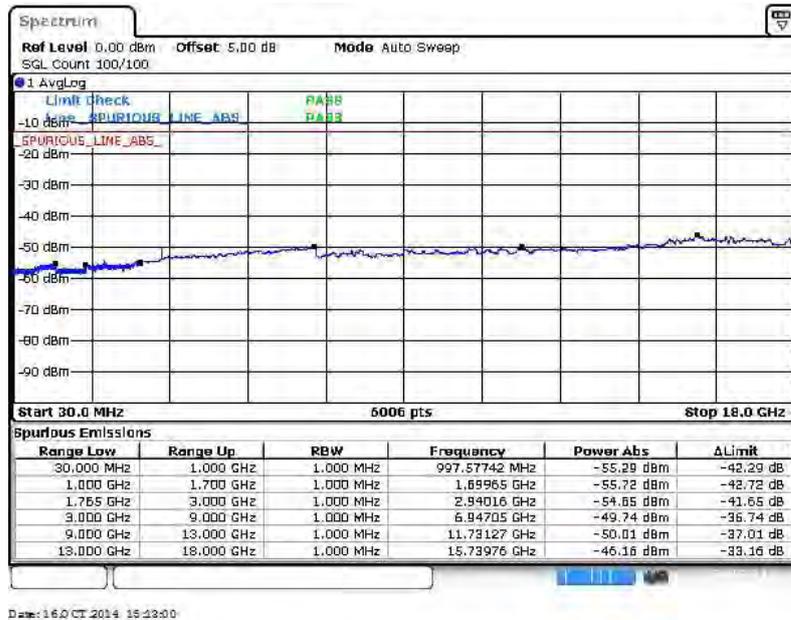


Band :	LTE Band 4	Channel :	CH20175 (Middle)
Band Width :	15MHz		

QPSK (RB Size 1, RB Offset 74)



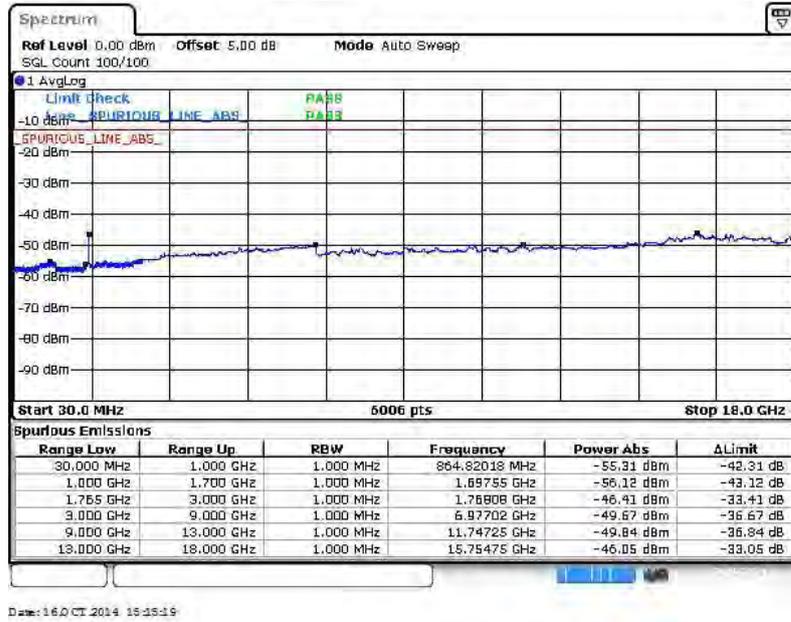
16QAM (RB Size 1, RB Offset 0)



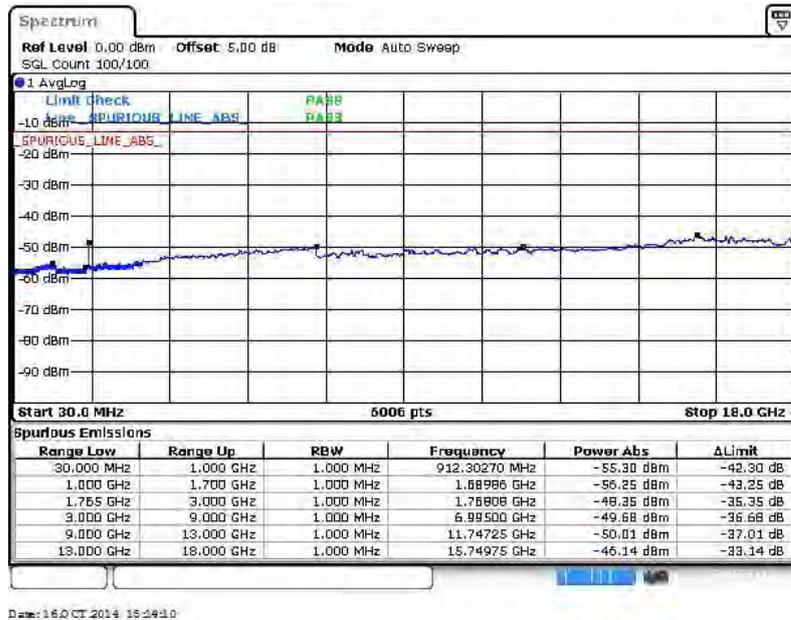


Band :	LTE Band 4	Channel :	CH20325 (High)
Band Width :	15MHz		

QPSK (RB Size 1, RB Offset 74)



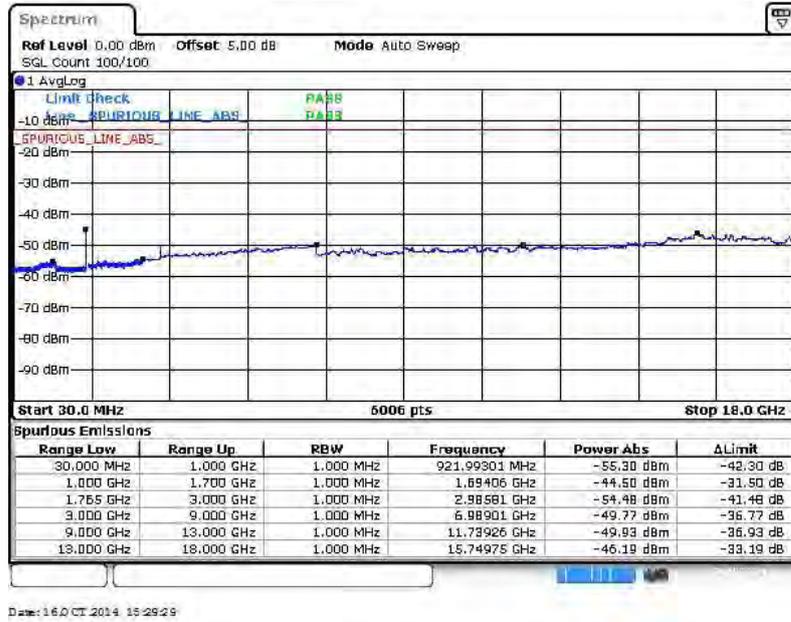
16QAM (RB Size 1, RB Offset 0)





Band :	LTE Band 4	Channel :	CH20050 (Low)
Band Width :	20MHz		

QPSK (RB Size 1, RB Offset 49)



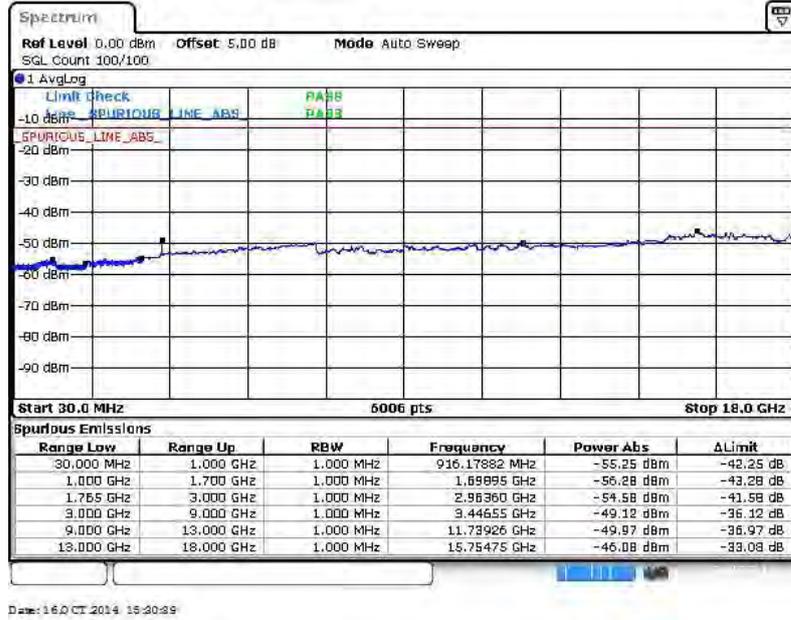
16QAM (RB Size 1, RB Offset 49)





Band :	LTE Band 4	Channel :	CH20175 (Middle)
Band Width :	20MHz		

QPSK (RB Size 1, RB Offset 49)



16QAM (RB Size 1, RB Offset 49)





Band :	LTE Band 4	Channel :	CH20300 (High)
Band Width :	20MHz		

QPSK (RB Size 1, RB Offset 49)



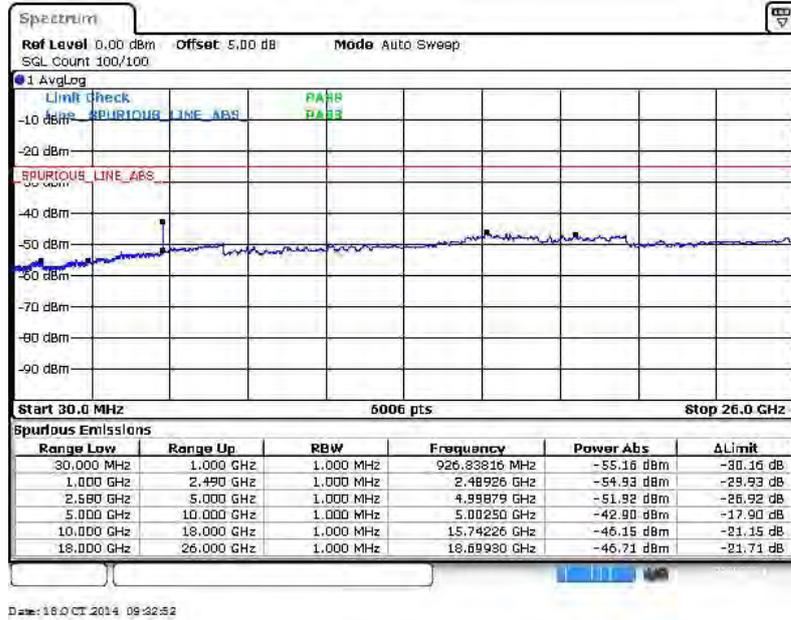
16QAM (RB Size 1, RB Offset 49)



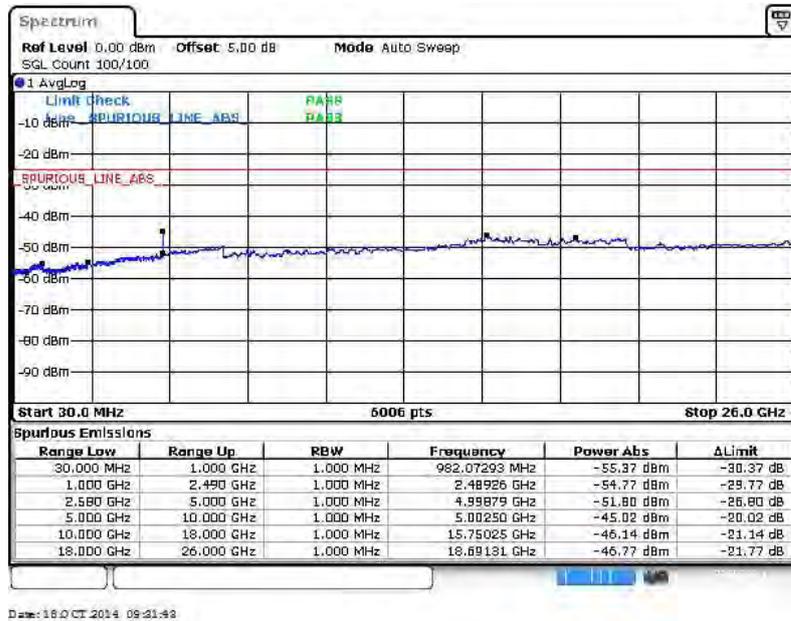


Band :	LTE Band 7	Channel :	CH20775 (Low)
Band Width :	5MHz		

QPSK (RB Size 1, RB Offset 24)



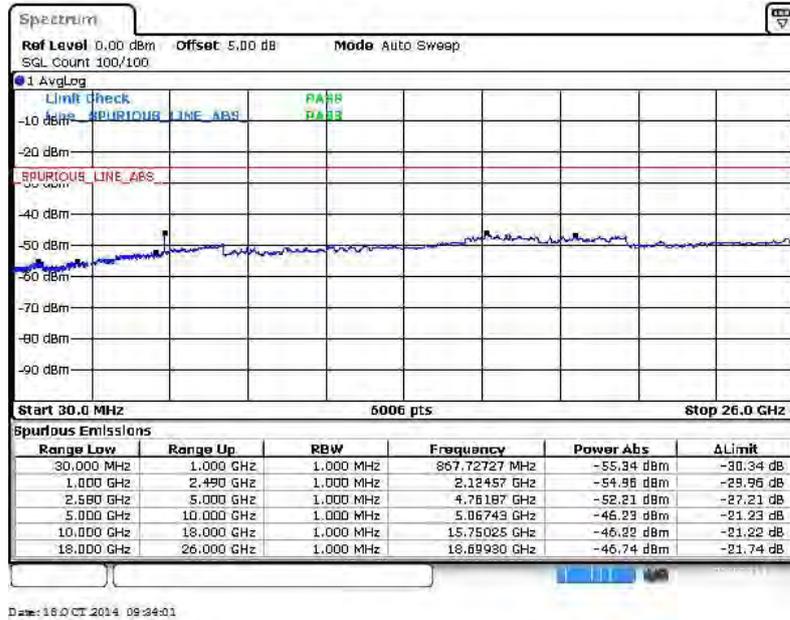
16QAM (RB Size 1, RB Offset 12)



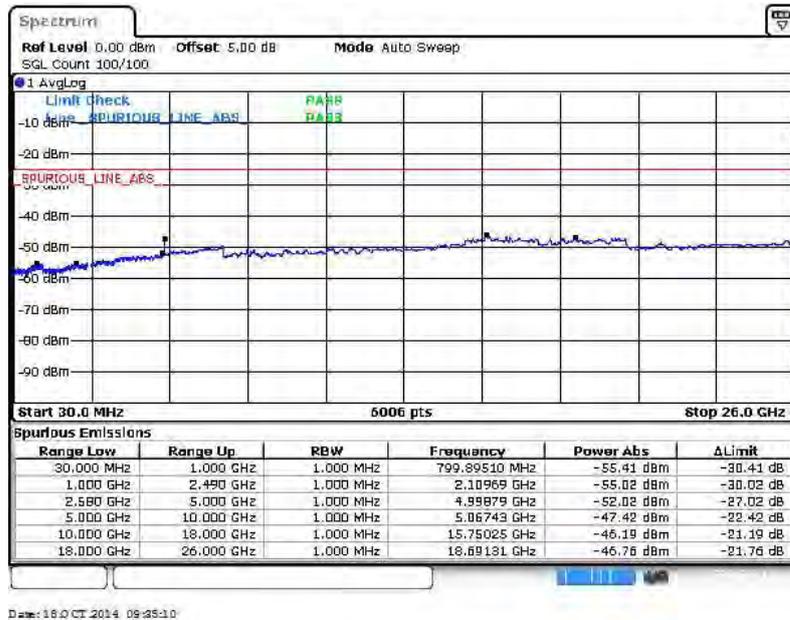


Band :	LTE Band 7	Channel :	CH21100 (Middle)
Band Width :	5MHz		

QPSK (RB Size 1, RB Offset 12)



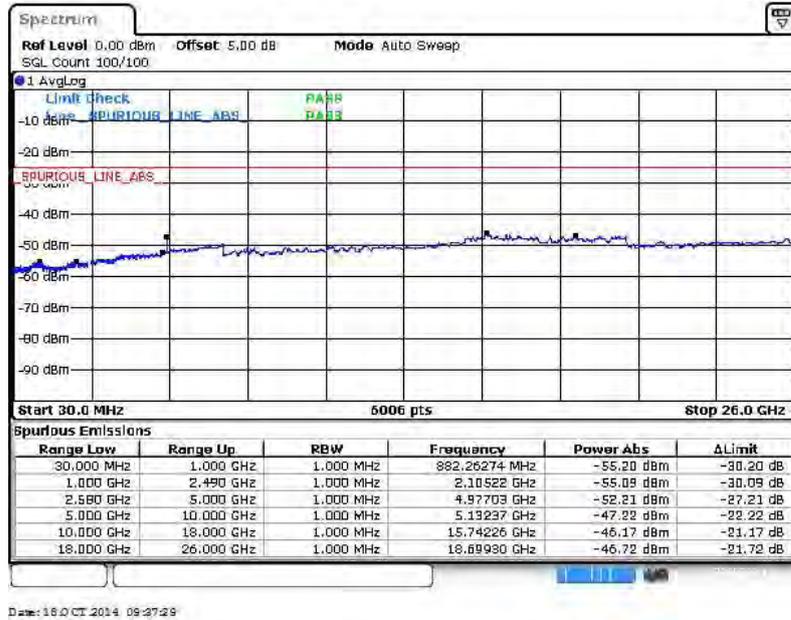
16QAM (RB Size 1, RB Offset 0)



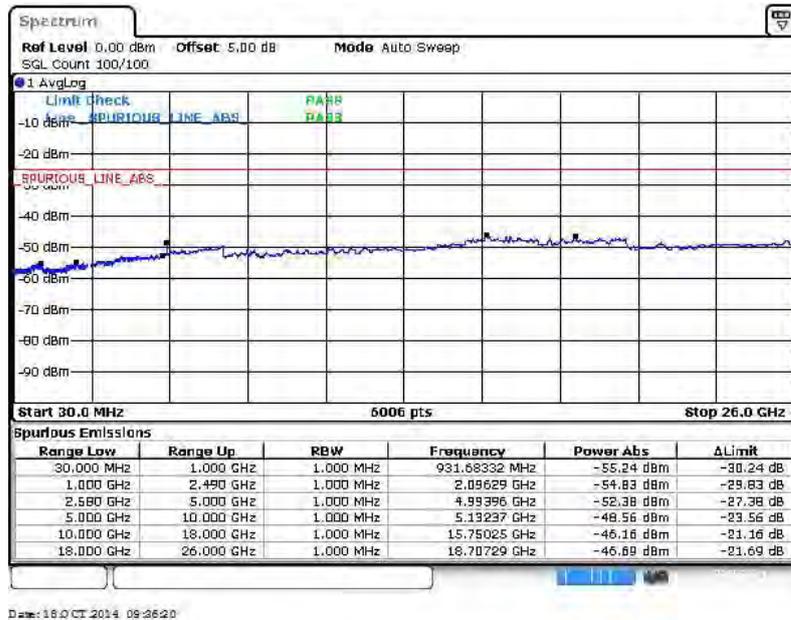


Band :	LTE Band 7	Channel :	CH21425 (High)
Band Width :	5MHz		

QPSK (RB Size 1, RB Offset 12)



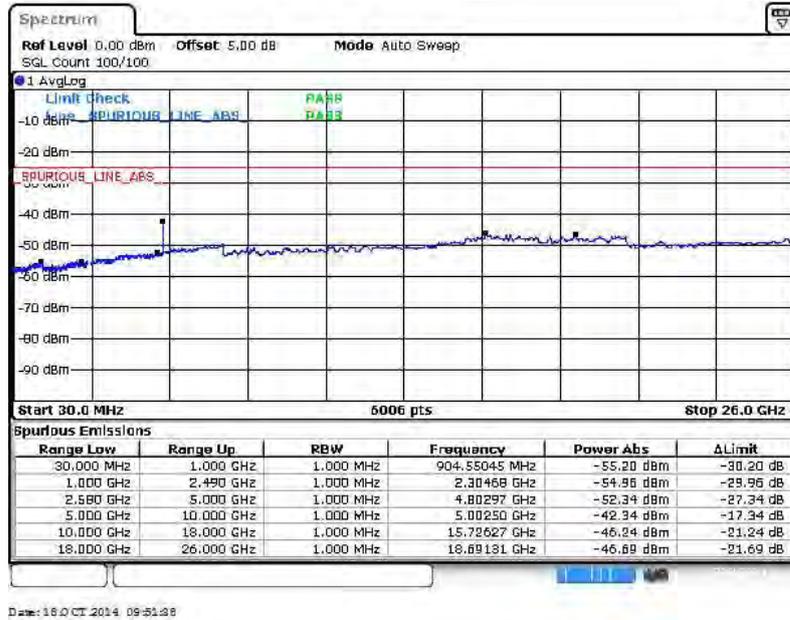
16QAM (RB Size 1, RB Offset 12)



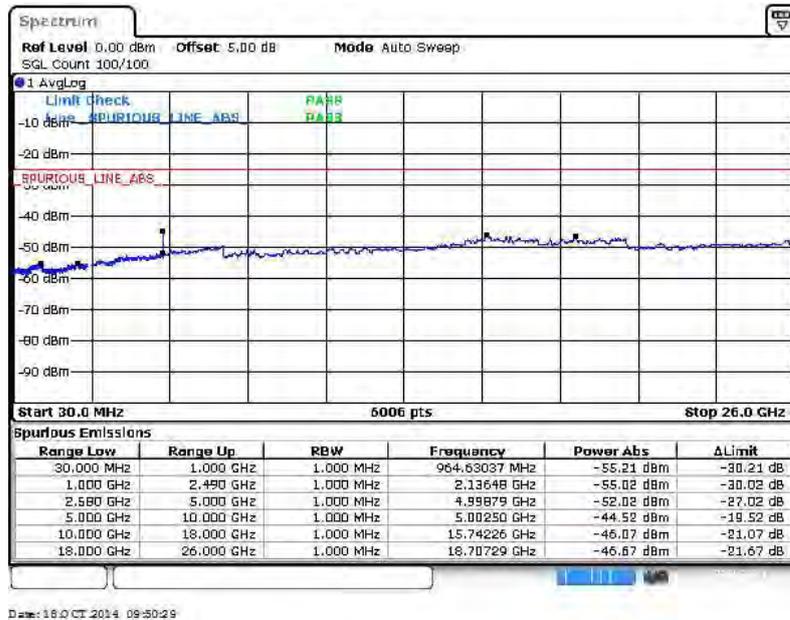


Band :	LTE Band 7	Channel :	CH20800 (Low)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 49)



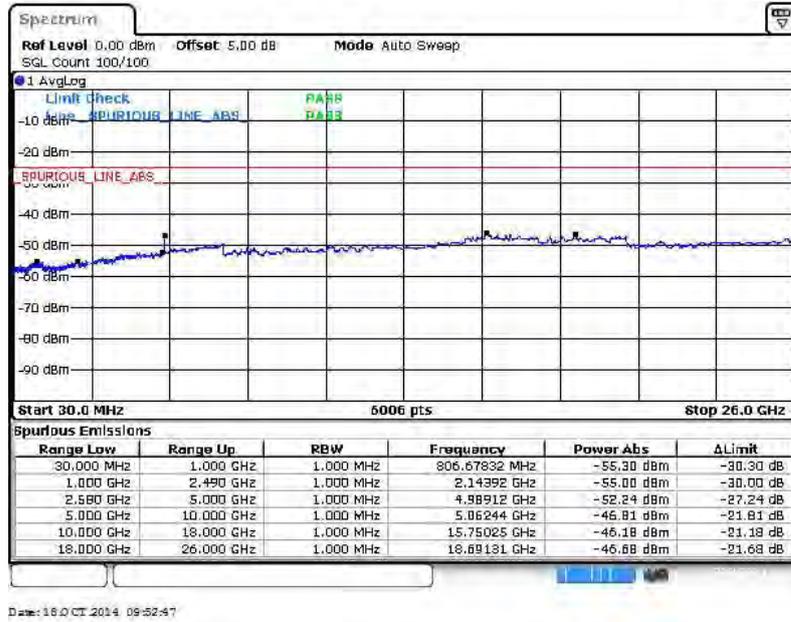
16QAM (RB Size 1, RB Offset 49)



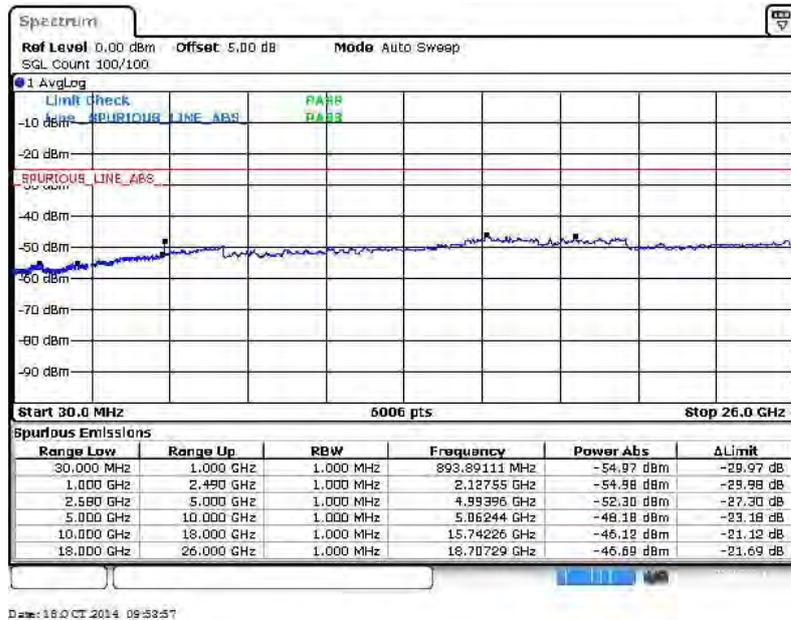


Band :	LTE Band 7	Channel :	CH21100 (Middle)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 24)



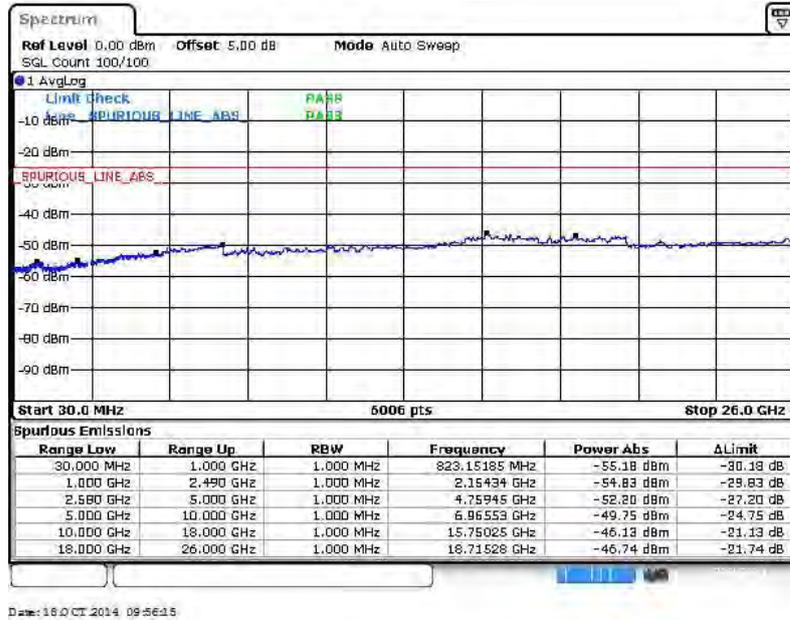
16QAM (RB Size 1, RB Offset 49)



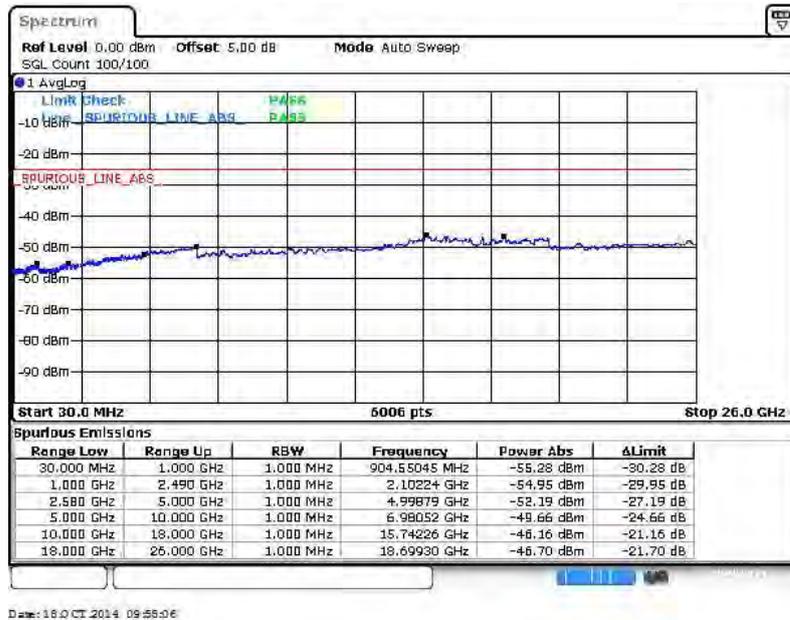


Band :	LTE Band 7	Channel :	CH21400 (High)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 0)



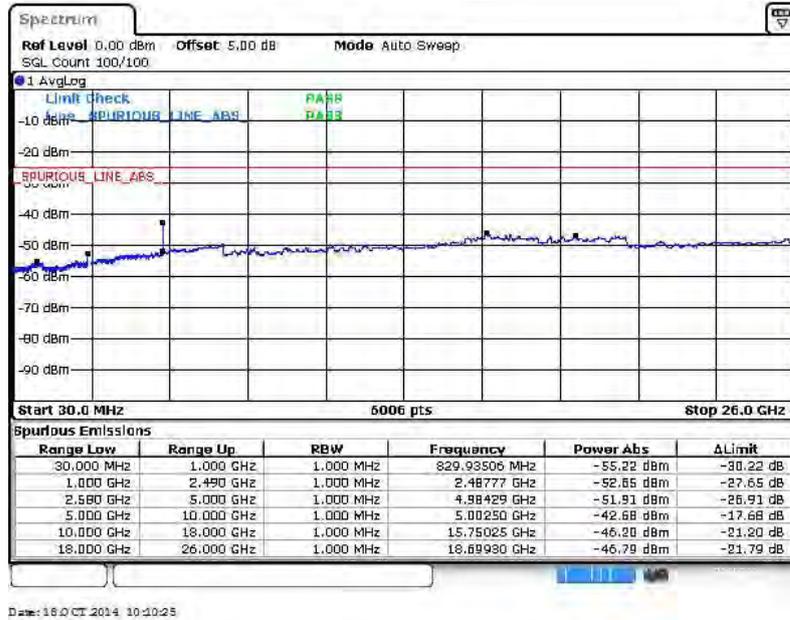
16QAM (RB Size 1, RB Offset 24)



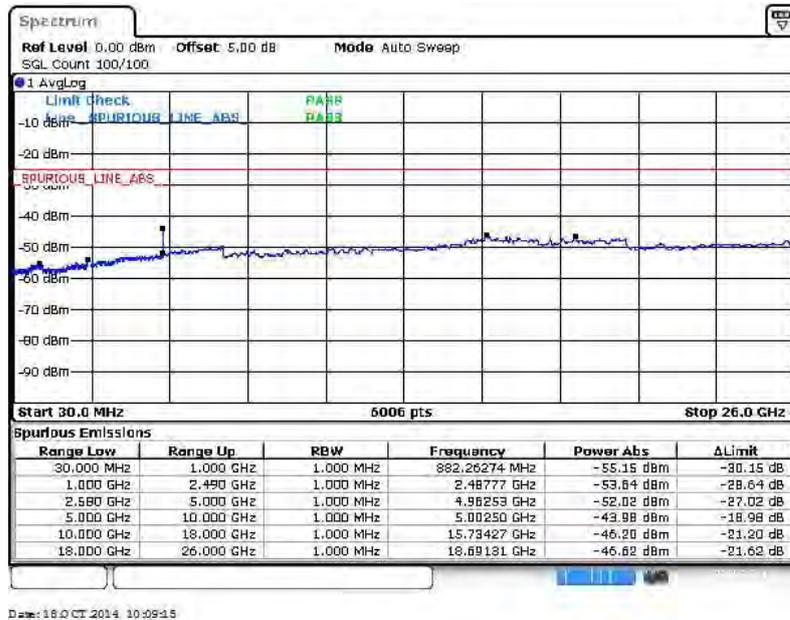


Band :	LTE Band 7	Channel :	CH20825 (Low)
Band Width :	15MHz		

QPSK (RB Size 1, RB Offset 74)



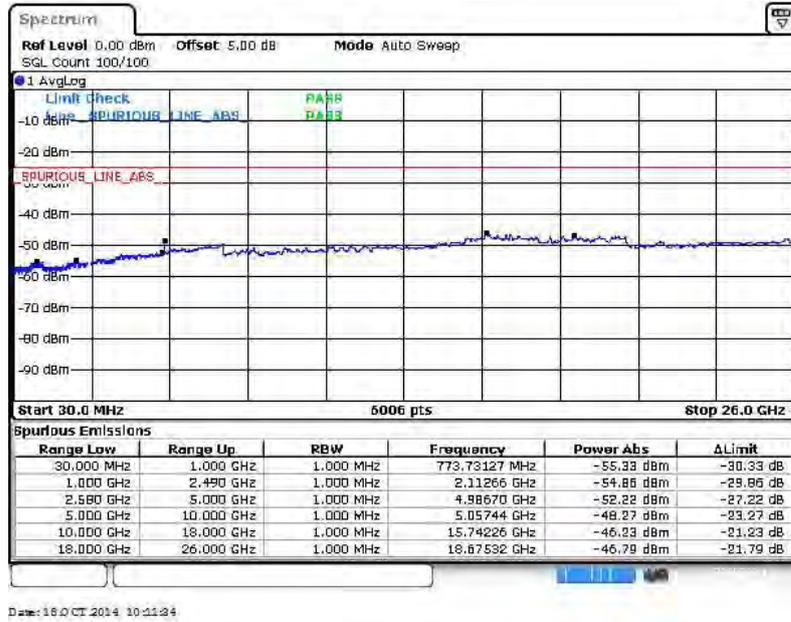
16QAM (RB Size 1, RB Offset 0)



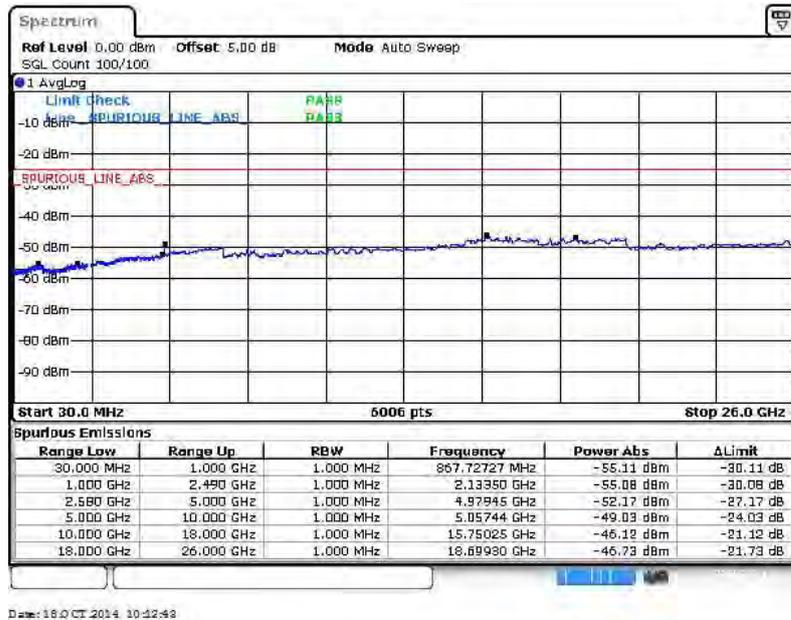


Band :	LTE Band 7	Channel :	CH21100 (Middle)
Band Width :	15MHz		

QPSK (RB Size 1, RB Offset 37)



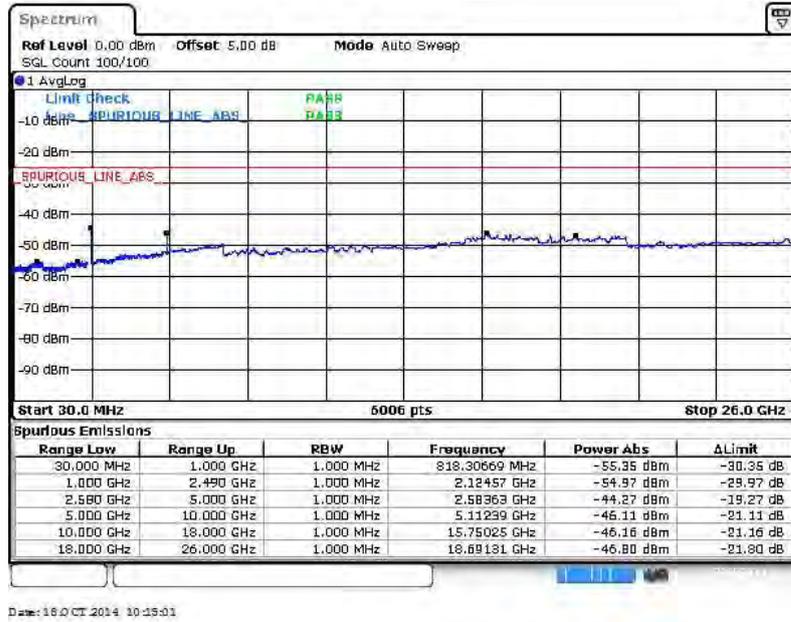
16QAM (RB Size 1, RB Offset 37)



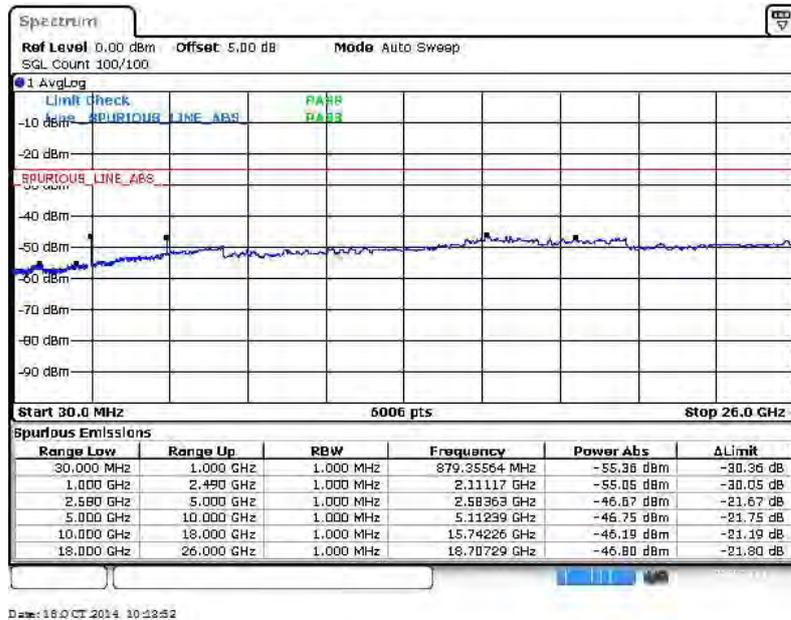


Band :	LTE Band 7	Channel :	CH21375 (High)
Band Width :	15MHz		

QPSK (RB Size 1, RB Offset 37)



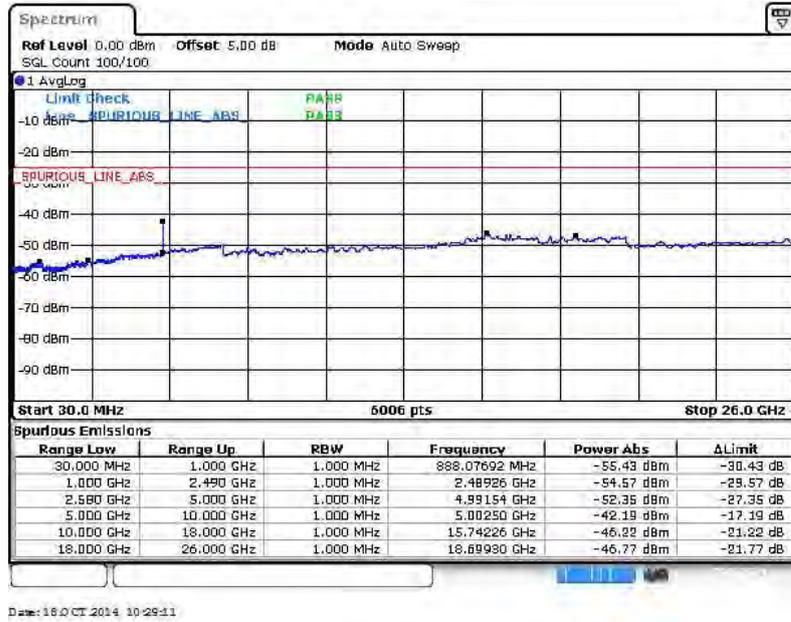
16QAM (RB Size 1, RB Offset 0)



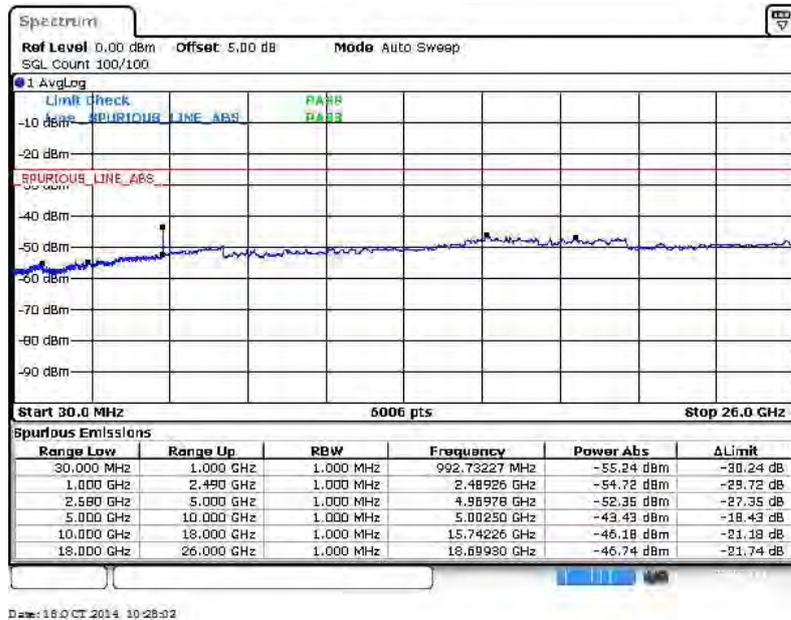


Band :	LTE Band 7	Channel :	CH20850 (Low)
Band Width :	20MHz		

QPSK (RB Size 1, RB Offset 49)



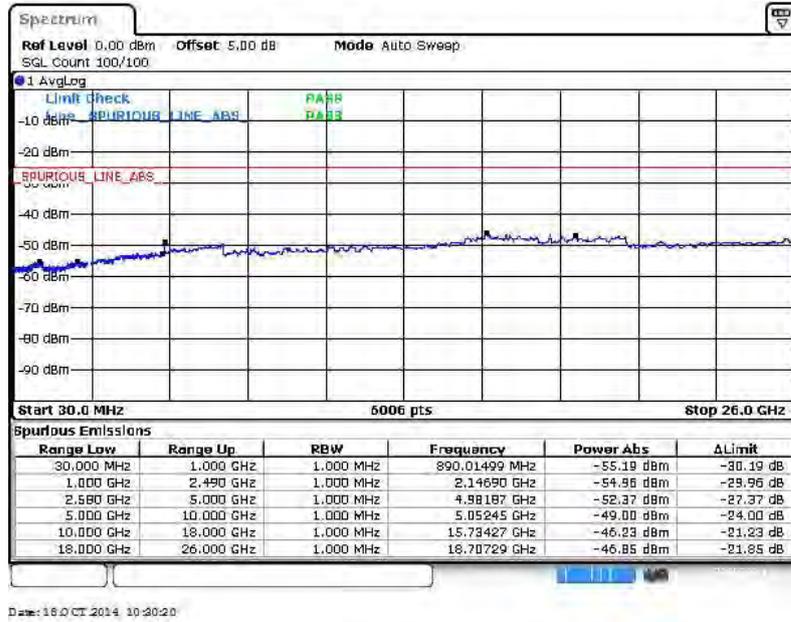
16QAM (RB Size 1, RB Offset 0)



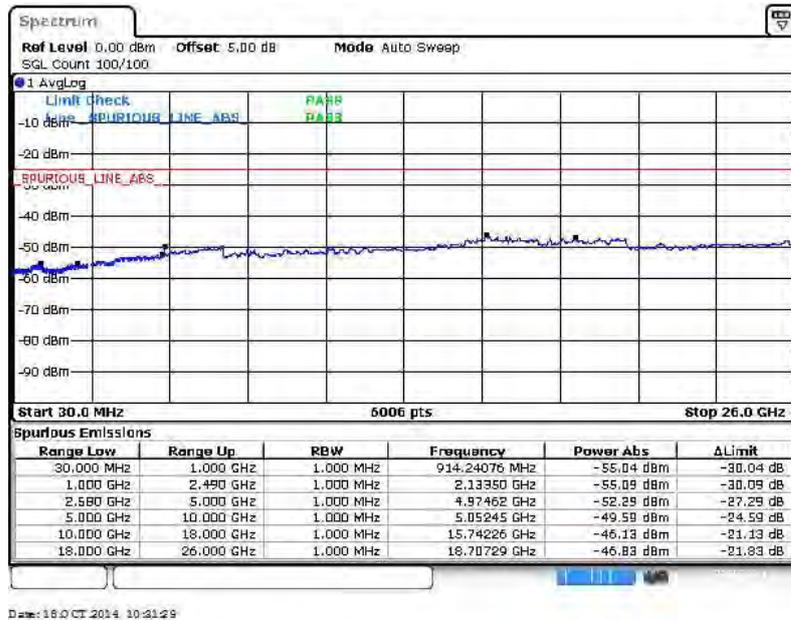


Band :	LTE Band 7	Channel :	CH21100 (Middle)
Band Width :	20MHz		

QPSK (RB Size 1, RB Offset 49)



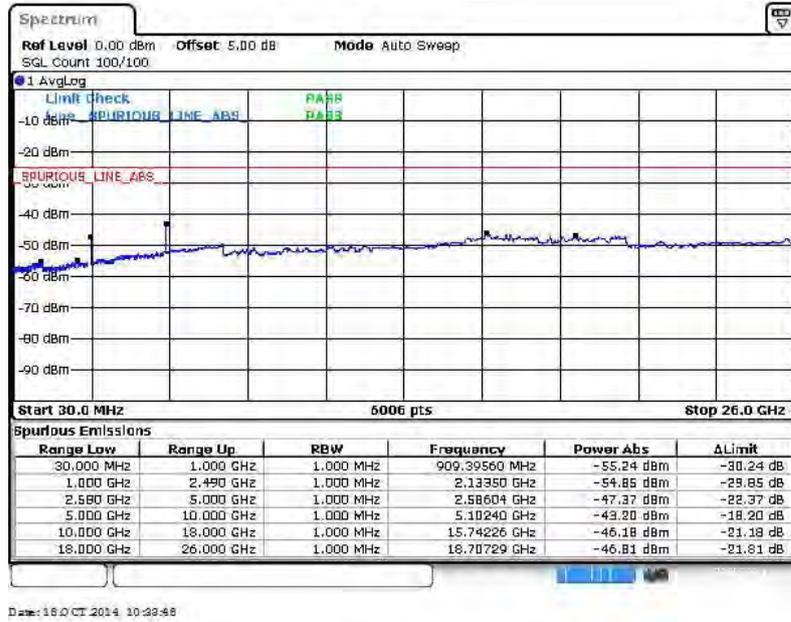
16QAM (RB Size 1, RB Offset 99)



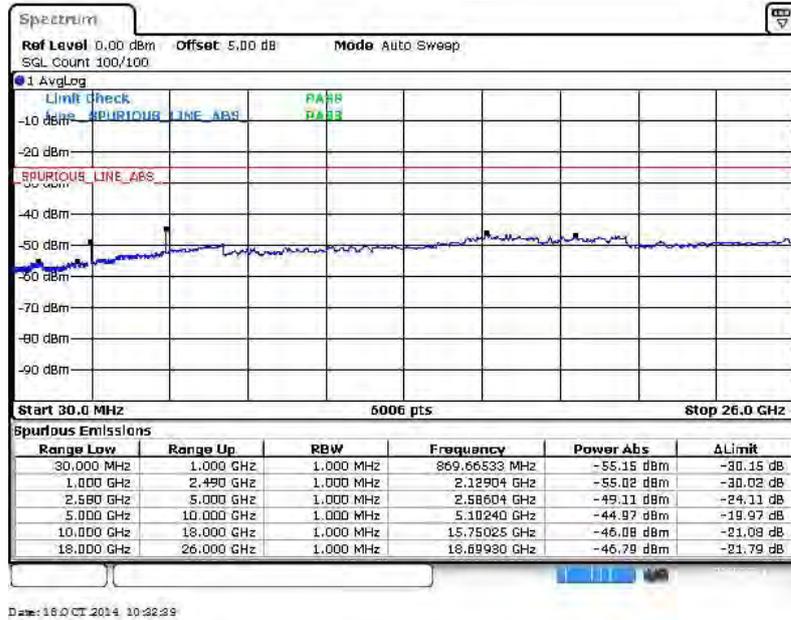


Band :	LTE Band 7	Channel :	CH21350 (High)
Band Width :	20MHz		

QPSK (RB Size 1, RB Offset 49)



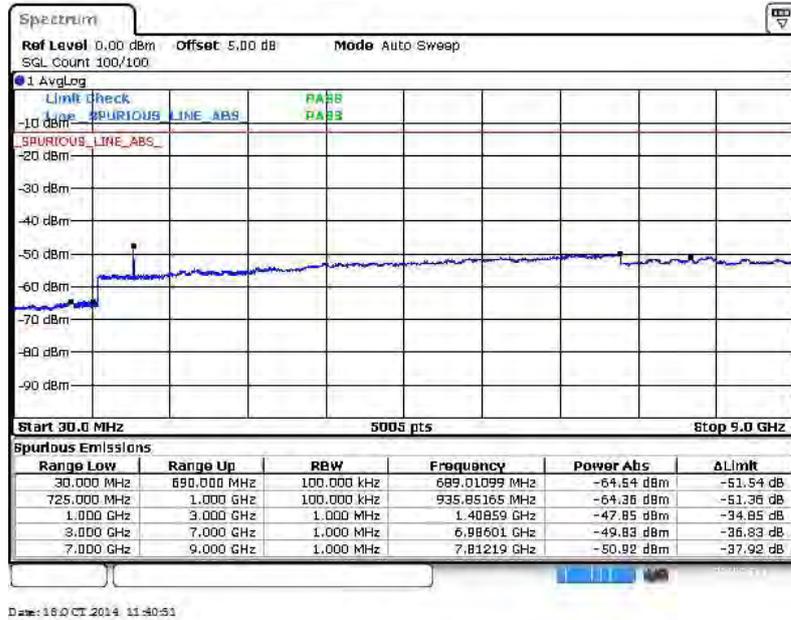
16QAM (RB Size 1, RB Offset 49)



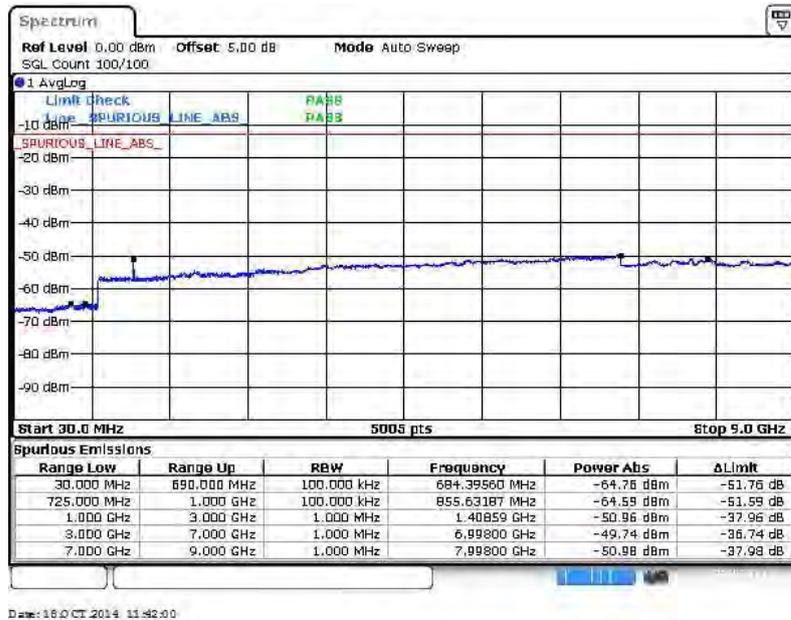


Band :	LTE Band 17	Channel :	CH23755 (Low)
Band Width :	5MHz		

QPSK (RB Size 1, RB Offset 24)



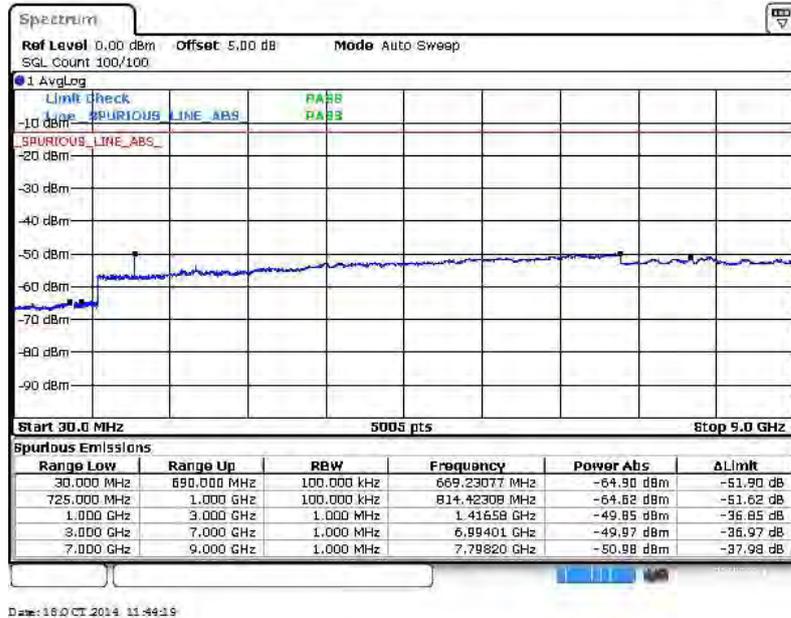
16QAM (RB Size 1, RB Offset 0)



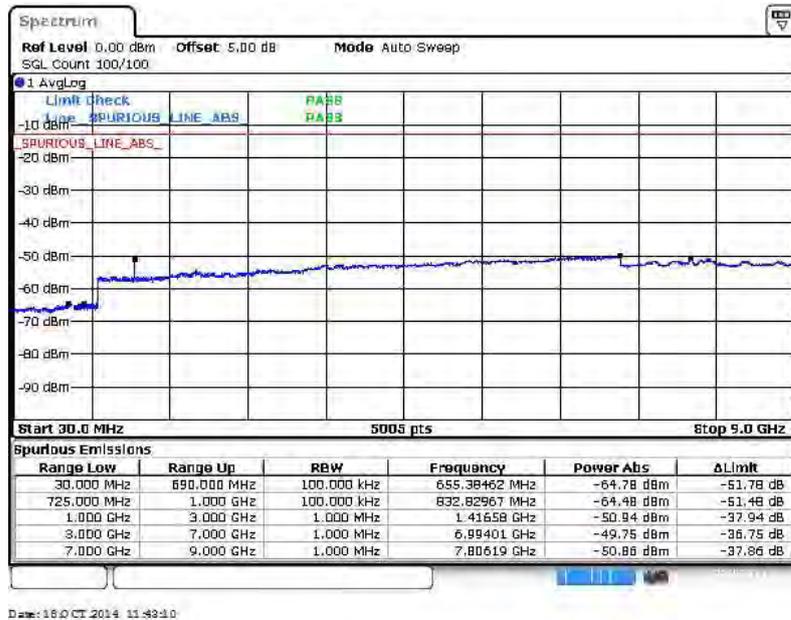


Band :	LTE Band 17	Channel :	CH23790 (Middle)
Band Width :	5MHz		

QPSK (RB Size 1, RB Offset 24)



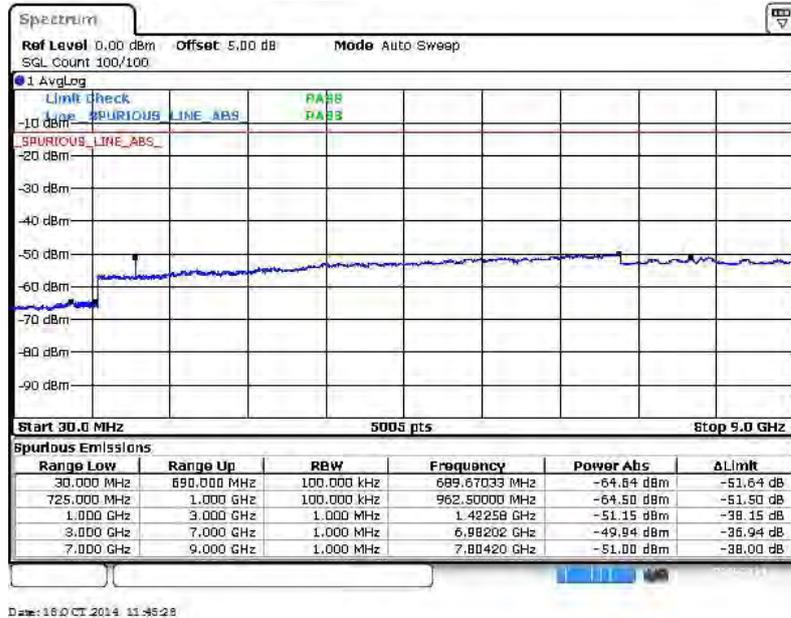
16QAM (RB Size 1, RB Offset 0)



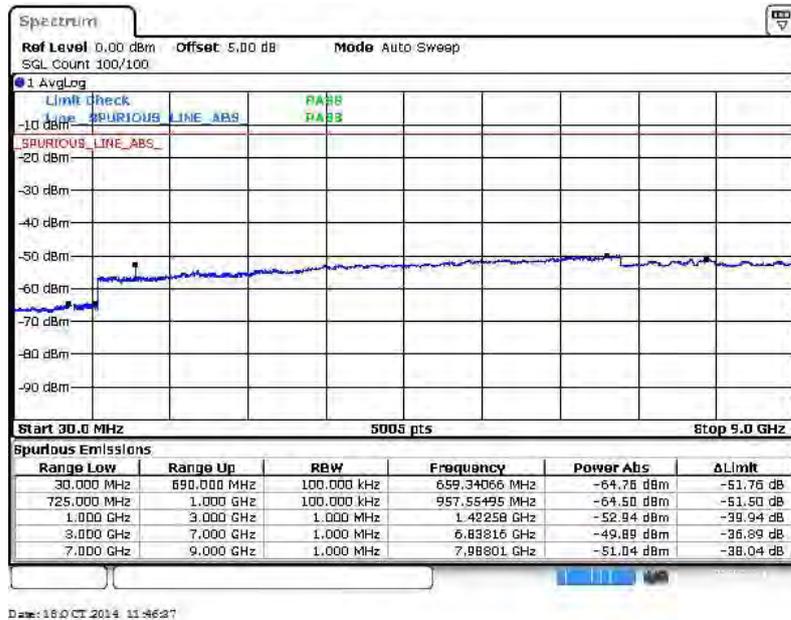


Band :	LTE Band 17	Channel :	CH23825 (High)
Band Width :	5MHz		

QPSK (RB Size 1, RB Offset 24)



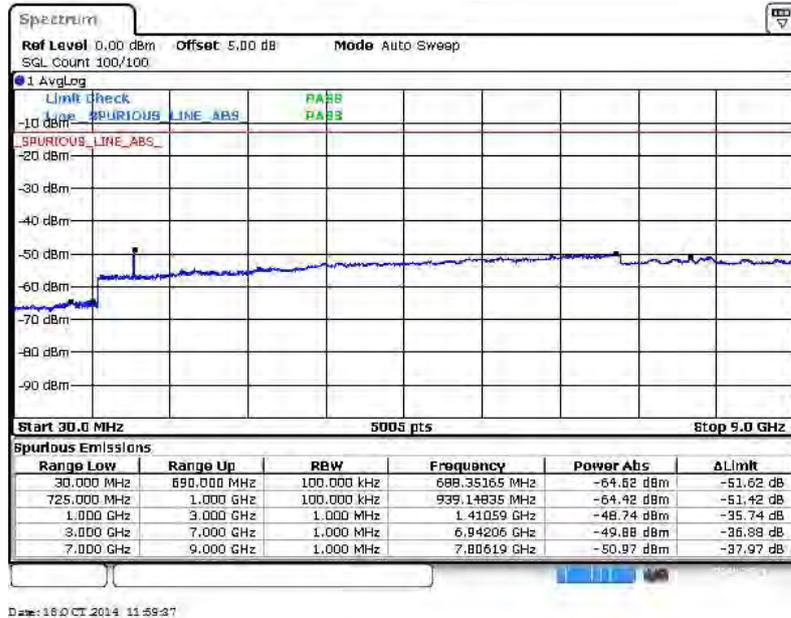
16QAM (RB Size 1, RB Offset 0)



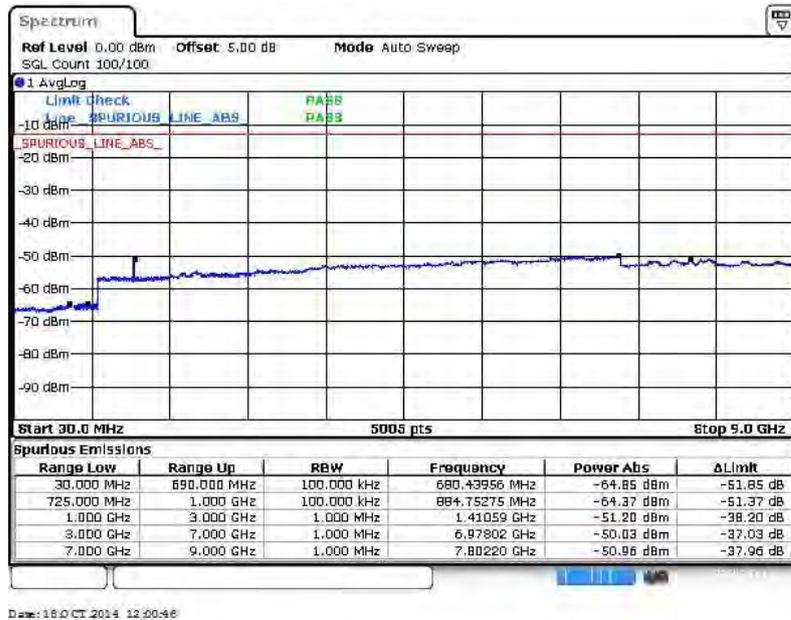


Band :	LTE Band 17	Channel :	CH23780 (Low)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 49)



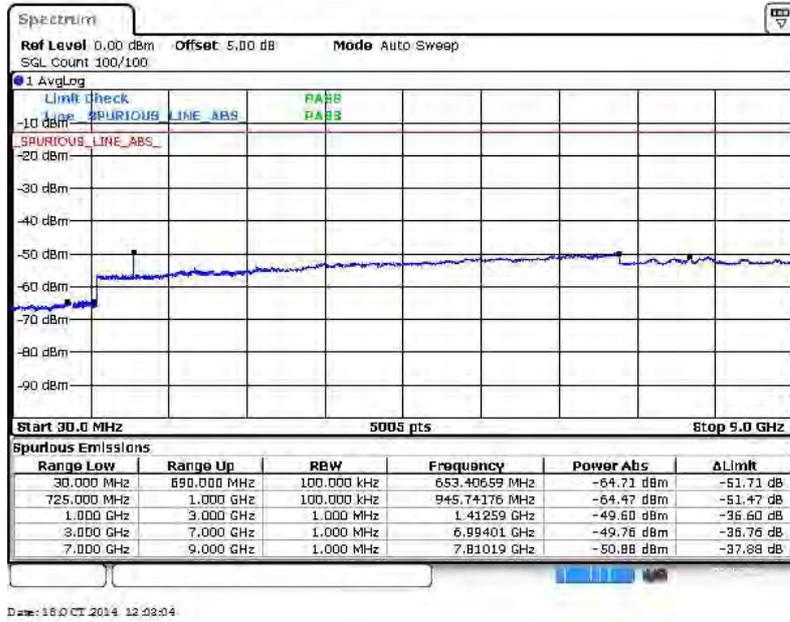
16QAM (RB Size 1, RB Offset 24)



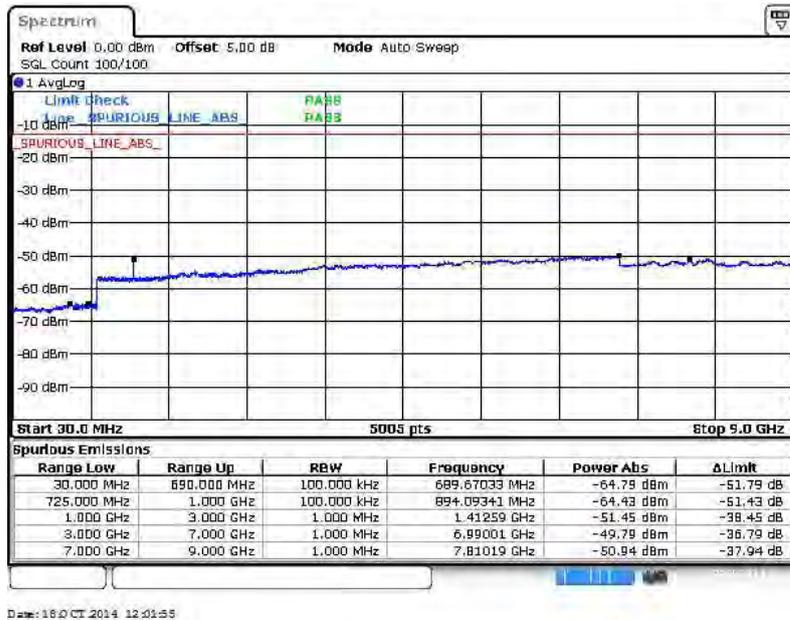


Band :	LTE Band 17	Channel :	CH23790 (Middle)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 49)



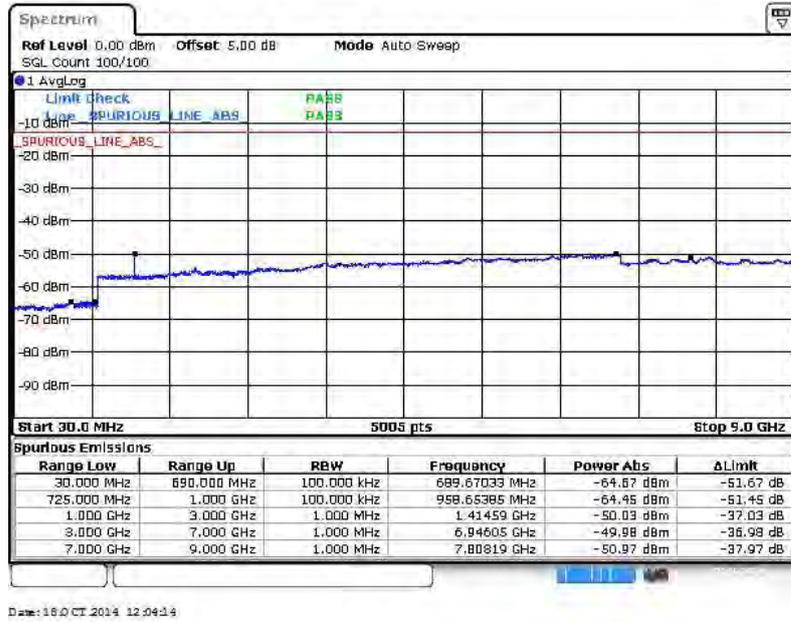
16QAM (RB Size 1, RB Offset 24)



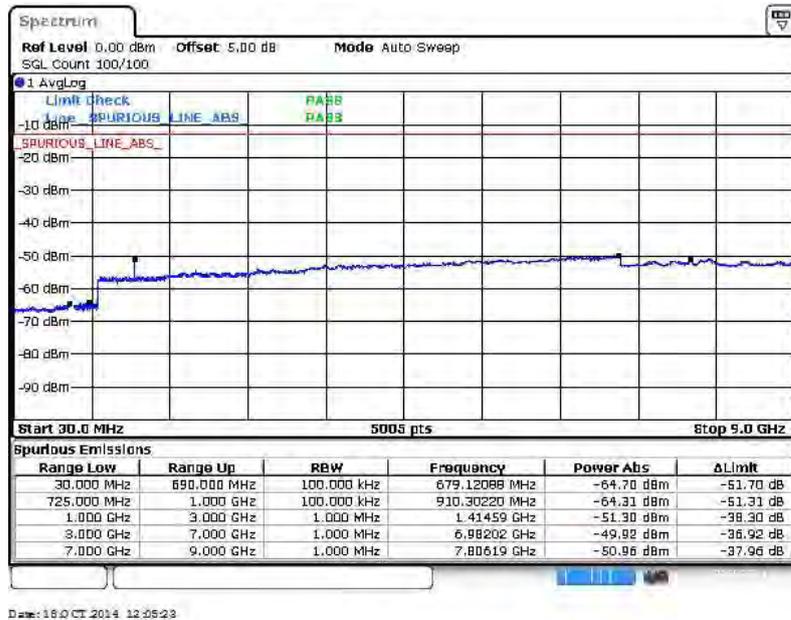


Band :	LTE Band 17	Channel :	CH23800 (High)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 49)



16QAM (RB Size 1, RB Offset 24)





3.7 Radiated Spurious Emission Measurement

3.7.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-C-2004. 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.

For Band 7

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 $55 + 10 \log (P)$ dB.

For LTE Band 17

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

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 EUT was placed on a rotatable wooden table with 0.8 meter above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
= -13dBm.

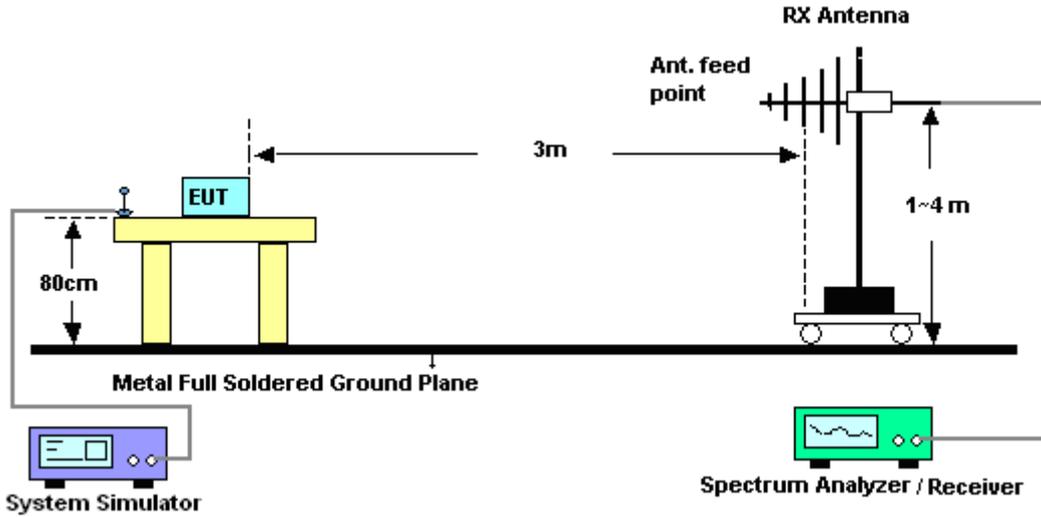
For Band 7

The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)
= P(W)- [55 + 10log(P)] (dB)
= [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)
= -25dBm.

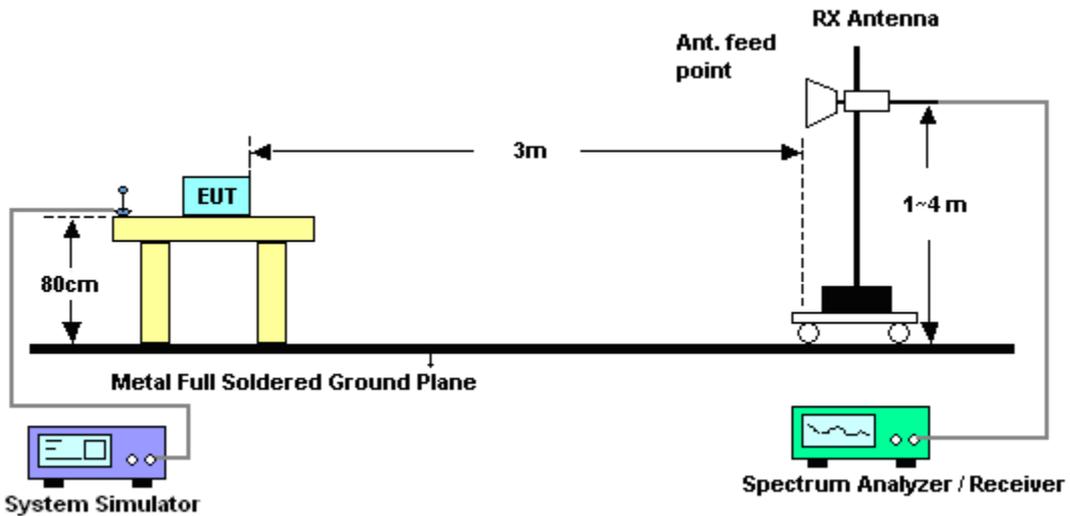
11. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
12. ERP (dBm) = EIRP - 2.15

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 :	LTE Band 4 for CH19957				Temperature :	22~23°C			
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0				Relative Humidity :	42~43%			
Test Engineer :	Star Wei				Polarization :	Horizontal			
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-41.59	-13	-28.59	-49.55	-46.99	2.2	7.60	H	Pass
5130	-54.81	-13	-41.81	-64.68	-61.59	3.12	9.90	H	Pass
6840	-57.98	-13	-44.98	-66.27	-65.87	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH19957				Temperature :	22~23°C			
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0				Relative Humidity :	42~43%			
Test Engineer :	Star Wei				Polarization :	Vertical			
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-45.44	-13	-32.44	-52.81	-50.84	2.2	7.6	V	Pass
5130	-57.78	-13	-44.78	-65.75	-64.56	3.12	9.9	V	Pass
6840	-54.78	-13	-41.78	-65.3	-62.67	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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	-53.29	-13	-40.29	-57.66	-58.69	2.2	7.60	H	Pass
5199	-54.22	-13	-41.22	-64.09	-61.00	3.12	9.90	H	Pass
6927	-58.32	-13	-45.32	-66.61	-66.21	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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	-53.01	-13	-40.01	-57.64	-58.41	2.2	7.6	V	Pass
5196	-56.23	-13	-43.23	-64.2	-63.01	3.12	9.9	V	Pass
6927	-56.12	-13	-43.12	-66.64	-64.01	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20393	Temperature :	22~23°C						
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3507	-59.73	-13	-46.73	-61.96	-65.13	2.2	7.60	H	Pass
5260.8	-57.69	-13	-44.69	-67.56	-64.47	3.12	9.90	H	Pass
7014	-59.13	-13	-46.13	-67.42	-67.02	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20393	Temperature :	22~23°C						
Test Mode :	1.4MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3507	-62.16	-13	-49.16	-63.18	-67.56	2.2	7.6	V	Pass
5260.8	-57.02	-13	-44.02	-64.99	-63.80	3.12	9.9	V	Pass
7014	-57.01	-13	-44.01	-67.53	-64.90	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH19965		Temperature :	22~23°C					
Test Mode :	3MHz QPSK RB Size 1 Offset 0		Relative Humidity :	42~43%					
Test Engineer :	Star Wei		Polarization :	Horizontal					
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-46.39	-13	-33.39	-53.47	-51.79	2.2	7.60	H	Pass
5130	-54.70	-13	-41.70	-64.57	-61.48	3.12	9.90	H	Pass
6840	-58.93	-13	-45.93	-67.22	-66.82	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH19965		Temperature :	22~23°C					
Test Mode :	3MHz QPSK RB Size 1 Offset 0		Relative Humidity :	42~43%					
Test Engineer :	Star Wei		Polarization :	Vertical					
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-52.76	-13	-39.76	-53.78	-58.16	2.2	7.6	V	Pass
5130	-57.50	-13	-44.50	-65.47	-64.28	3.12	9.9	V	Pass
6840	-57.06	-13	-44.06	-67.58	-64.95	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	3MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3462	-53.20	-13	-40.20	-57.57	-58.60	2.2	7.60	H	Pass
5196	-49.31	-13	-36.31	-61.69	-56.09	3.12	9.90	H	Pass
6924	-58.80	-13	-45.80	-67.09	-66.69	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	3MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3462	-55.17	-13	-42.17	-58.72	-60.57	2.2	7.6	V	Pass
5193	-57.54	-13	-44.54	-65.51	-64.32	3.12	9.9	V	Pass
6924	-55.52	-13	-42.52	-66.04	-63.41	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20385	Temperature :	22~23°C						
Test Mode :	3MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3504	-60.25	-13	-47.25	-62.48	-65.65	2.2	7.60	H	Pass
5254.5	-56.64	-13	-43.64	-66.51	-63.42	3.12	9.90	H	Pass
7005	-59.27	-13	-46.27	-67.56	-67.16	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20385	Temperature :	22~23°C						
Test Mode :	3MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3504	-61.62	-13	-48.62	-62.64	-67.02	2.2	7.6	V	Pass
5254.5	-59.61	-13	-46.61	-67.58	-66.39	3.12	9.9	V	Pass
7005	-55.22	-13	-42.22	-65.74	-63.11	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH19975				Temperature :	22~23°C			
Test Mode :	5MHz QPSK RB Size 1 Offset 0				Relative Humidity :	42~43%			
Test Engineer :	Star Wei				Polarization :	Horizontal			
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-52.25	-13	-39.25	-54.48	-57.65	2.2	7.60	H	Pass
5130	-56.66	-13	-43.66	-66.53	-63.44	3.12	9.90	H	Pass
6840	-56.80	-13	-43.80	-66.67	-64.69	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH19975				Temperature :	22~23°C			
Test Mode :	5MHz QPSK RB Size 1 Offset 0				Relative Humidity :	42~43%			
Test Engineer :	Star Wei				Polarization :	Vertical			
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-44.92	-13	-31.92	-52.4	-50.32	2.2	7.6	V	Pass
5130	-58.50	-13	-45.50	-66.47	-65.28	3.12	9.9	V	Pass
6840	-59.25	-13	-46.25	-67.22	-67.14	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20175				Temperature :	22~23°C			
Test Mode :	5MHz QPSK RB Size 1 Offset 0				Relative Humidity :	42~43%			
Test Engineer :	Star Wei				Polarization :	Horizontal			
Remark :	Spurious emissions within 30-10th harmonic 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
3459	-51.81	-13	-38.81	-56.84	-57.21	2.2	7.60	H	Pass
5193	-46.89	-13	-33.89	-60.51	-53.67	3.12	9.90	H	Pass
6921	-58.13	-13	-45.13	-66.42	-66.02	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20175				Temperature :	22~23°C			
Test Mode :	5MHz QPSK RB Size 1 Offset 0				Relative Humidity :	42~43%			
Test Engineer :	Star Wei				Polarization :	Vertical			
Remark :	Spurious emissions within 30-10th harmonic 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
3459	-54.50	-13	-41.50	-58.45	-59.90	2.2	7.6	V	Pass
5193	-56.52	-13	-43.52	-64.49	-63.30	3.12	9.9	V	Pass
6921	-55.70	-13	-42.70	-66.22	-63.59	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20375				Temperature :	22~23°C			
Test Mode :	5MHz QPSK RB Size 1 Offset 0				Relative Humidity :	42~43%			
Test Engineer :	Star Wei				Polarization :	Horizontal			
Remark :	Spurious emissions within 30-10th harmonic 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
3501	-59.25	-13	-46.25	-61.48	-64.65	2.2	7.60	H	Pass
5250	-57.27	-13	-44.27	-67.14	-64.05	3.12	9.90	H	Pass
6999	-56.90	-13	-43.90	-65.19	-64.79	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20375				Temperature :	22~23°C			
Test Mode :	5MHz QPSK RB Size 1 Offset 0				Relative Humidity :	42~43%			
Test Engineer :	Star Wei				Polarization :	Vertical			
Remark :	Spurious emissions within 30-10th harmonic 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
3501	-59.12	-13	-46.12	-60.26	-64.52	2.2	7.6	V	Pass
5250	-59.32	-13	-46.32	-67.29	-66.10	3.12	9.9	V	Pass
6999	-56.97	-13	-43.97	-67.49	-64.86	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20000	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-50.20	-13	-37.20	-56.05	-55.60	2.2	7.60	H	Pass
5130	-59.56	-13	-46.56	-69.43	-66.34	3.12	9.90	H	Pass
6840	-58.56	-13	-45.56	-66.85	-66.45	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20000	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-64.83	-13	-51.83	-65.85	-70.23	2.2	7.6	V	Pass
5130	-61.11	-13	-48.11	-69.08	-67.89	3.12	9.9	V	Pass
6840	-56.66	-13	-43.66	-67.18	-64.55	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3456	-55.73	-13	-42.73	-58.96	-61.13	2.2	7.60	H	Pass
5184	-57.33	-13	-44.33	-67.20	-64.11	3.12	9.90	H	Pass
6909	-57.38	-13	-44.38	-65.67	-65.27	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3456	-51.63	-13	-38.63	-57.08	-57.03	2.2	7.6	V	Pass
5184	-60.07	-13	-47.07	-68.04	-66.85	3.12	9.9	V	Pass
6909	-56.11	-13	-43.11	-66.63	-64.00	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20350		Temperature :	22~23°C					
Test Mode :	10MHz QPSK RB Size 1 Offset 0		Relative Humidity :	42~43%					
Test Engineer :	Star Wei		Polarization :	Horizontal					
Remark :	Spurious emissions within 30-10th harmonic 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
3489	-57.00	-13	-44.00	-59.96	-62.40	2.2	7.60	H	Pass
5235	-58.66	-13	-45.66	-68.53	-65.44	3.12	9.90	H	Pass
6981	-58.83	-13	-45.83	-67.12	-66.72	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20350		Temperature :	22~23°C					
Test Mode :	10MHz QPSK RB Size 1 Offset 0		Relative Humidity :	42~43%					
Test Engineer :	Star Wei		Polarization :	Vertical					
Remark :	Spurious emissions within 30-10th harmonic 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
3489	-51.55	-13	-38.55	-57.03	-56.95	2.2	7.6	V	Pass
5235	-60.70	-13	-47.70	-68.67	-67.48	3.12	9.9	V	Pass
6981	-55.31	-13	-42.31	-65.83	-63.20	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20025	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-47.01	-13	-34.01	-53.91	-52.41	2.2	7.60	H	Pass
5130	-57.04	-13	-44.04	-66.91	-63.82	3.12	9.90	H	Pass
6840	-58.11	-13	-45.11	-66.40	-66.00	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20025	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-44.55	-13	-31.55	-52.16	-49.95	2.2	7.6	V	Pass
5130	-58.78	-13	-45.78	-66.75	-65.56	3.12	9.9	V	Pass
6840	-55.98	-13	-42.98	-66.5	-63.87	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3450	-53.84	-13	-40.84	-58.18	-59.24	2.2	7.60	H	Pass
5175	-57.57	-13	-44.57	-67.44	-64.35	3.12	9.90	H	Pass
6900	-58.51	-13	-45.51	-66.80	-66.40	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3450	-54.61	-13	-41.61	-58.49	-60.01	2.2	7.6	V	Pass
5175	-59.56	-13	-46.56	-67.53	-66.34	3.12	9.9	V	Pass
6900	-56.00	-13	-43.00	-66.52	-63.89	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20325	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3480	-56.15	-13	-43.15	-59.22	-61.55	2.2	7.60	H	Pass
5220	-56.42	-13	-43.42	-66.29	-63.20	3.12	9.90	H	Pass
6960	-57.62	-13	-44.62	-65.91	-65.51	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20325	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3480	-54.73	-13	-41.73	-58.53	-60.13	2.2	7.6	V	Pass
5220	-58.15	-13	-45.15	-66.12	-64.93	3.12	9.9	V	Pass
6960	-56.54	-13	-43.54	-67.06	-64.43	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20050	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-47.66	-13	-34.66	-54.31	-53.06	2.2	7.60	H	Pass
5133	-55.12	-13	-42.12	-64.99	-61.90	3.12	9.90	H	Pass
6840	-58.33	-13	-45.33	-66.62	-66.22	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20050	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3420	-49.18	-13	-36.18	-55.41	-54.58	2.2	7.6	V	Pass
5130	-58.13	-13	-45.13	-66.1	-64.91	3.12	9.9	V	Pass
6840	-56.05	-13	-43.05	-66.57	-63.94	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3447	-53.06	-13	-40.06	-57.44	-58.46	2.2	7.60	H	Pass
5167	-57.25	-13	-44.25	-67.12	-64.03	3.12	9.90	H	Pass
6891	-58.29	-13	-45.29	-66.58	-66.18	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20175	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3447	-59.35	-13	-46.35	-60.46	-64.75	2.2	7.6	V	Pass
5167	-59.31	-13	-46.31	-67.28	-66.09	3.12	9.9	V	Pass
6891	-56.68	-13	-43.68	-67.2	-64.57	2.98	10.87	V	Pass



Band :	LTE Band 4 for CH20300	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
3471	-53.79	-13	-40.79	-58.13	-59.19	2.2	7.60	H	Pass
5208	-53.09	-13	-40.09	-63.68	-59.87	3.12	9.90	H	Pass
6939	-57.89	-13	-44.89	-66.18	-65.78	2.98	10.87	H	Pass

Band :	LTE Band 4 for CH20300	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
3471	-49.93	-13	-36.93	-55.87	-55.33	2.2	7.6	V	Pass
5205	-59.48	-13	-46.48	-67.45	-66.26	3.12	9.9	V	Pass
6939	-55.83	-13	-42.83	-66.35	-63.72	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH20775	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5000	-51.10	-25	-26.10	-57.90	-56.50	2.2	7.60	H	Pass
7500	-53.83	-25	-28.83	-65.37	-60.61	3.12	9.90	H	Pass
10000	-49.56	-25	-24.56	-64.40	-57.45	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH20775	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5000	-47.48	-25	-22.48	-57.82	-52.88	2.2	7.6	V	Pass
7500	-52.11	-25	-27.11	-66.2	-58.89	3.12	9.9	V	Pass
10000	-53.06	-25	-28.06	-65.71	-60.95	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH21100	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5066	-54.96	-25	-29.96	-60.42	-60.36	2.2	7.60	H	Pass
7597	-54.86	-25	-29.86	-66.40	-61.64	3.12	9.90	H	Pass
10128	-51.74	-25	-26.74	-66.58	-59.63	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH21100	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5066	-55.27	-25	-30.27	-62.29	-60.67	2.2	7.6	V	Pass
7597	-51.68	-25	-26.68	-65.77	-58.46	3.12	9.9	V	Pass
10128	-53.24	-25	-28.24	-65.89	-61.13	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH21425	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5129	-53.61	-25	-28.61	-59.47	-59.01	2.2	7.60	H	Pass
7697	-53.40	-25	-28.40	-64.94	-60.18	3.12	9.90	H	Pass
10260	-50.95	-25	-25.95	-65.79	-58.84	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH21425	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5129	-49.22	-25	-24.22	-58.88	-54.62	2.2	7.6	V	Pass
7697	-50.01	-25	-25.01	-64.1	-56.79	3.12	9.9	V	Pass
10260	-52.93	-25	-27.93	-65.58	-60.82	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH20800	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5000	-47.82	-25	-22.82	-55.95	-53.22	2.2	7.60	H	Pass
7500	-54.56	-25	-29.56	-66.10	-61.34	3.12	9.90	H	Pass
10000	-50.82	-25	-25.82	-65.66	-58.71	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH20800	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5000	-48.82	-25	-23.82	-58.56	-54.22	2.2	7.6	V	Pass
7500	-52.27	-25	-27.27	-66.36	-59.05	3.12	9.9	V	Pass
10000	-53.17	-25	-28.17	-65.82	-61.06	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH21100	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5060	-50.24	-25	-25.24	-57.40	-55.64	2.2	7.60	H	Pass
7589	-54.35	-25	-29.35	-65.89	-61.13	3.12	9.90	H	Pass
10120	-50.41	-25	-25.41	-65.25	-58.30	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH21100	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5060	-45.60	-25	-20.60	-56.64	-51.00	2.2	7.6	V	Pass
7590	-51.60	-25	-26.60	-65.69	-58.38	3.12	9.9	V	Pass
10120	-52.76	-25	-27.76	-65.41	-60.65	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH21400	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5120	-62.44	-25	-37.44	-64.08	-67.84	2.2	7.60	H	Pass
7680	-55.09	-25	-30.09	-66.63	-61.87	3.12	9.90	H	Pass
10240	-50.25	-25	-25.25	-65.09	-58.14	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH21400	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5120	-57.53	-25	-32.53	-64.08	-62.93	2.2	7.6	V	Pass
7682	-50.12	-25	-25.12	-64.21	-56.90	3.12	9.9	V	Pass
10240	-52.00	-25	-27.00	-64.65	-59.89	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH20825	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5000	-48.29	-25	-23.29	-56.31	-53.69	2.2	7.60	H	Pass
7499	-54.53	-25	-29.53	-66.07	-61.31	3.12	9.90	H	Pass
10000	-53.08	-25	-28.08	-67.92	-60.97	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH20825	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5000	-51.87	-25	-26.87	-60.51	-57.27	2.2	7.6	V	Pass
7500	-52.70	-25	-27.70	-66.79	-59.48	3.12	9.9	V	Pass
10000	-55.69	-25	-30.69	-68.34	-63.58	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH21100	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5054	-53.49	-25	-28.49	-59.41	-58.89	2.2	7.60	H	Pass
7582	-54.38	-25	-29.38	-65.92	-61.16	3.12	9.90	H	Pass
10112	-51.45	-25	-26.45	-66.29	-59.34	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH21100	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5057	-51.98	-25	-26.98	-60.58	-57.38	2.2	7.6	V	Pass
7586	-51.13	-25	-26.13	-65.22	-57.91	3.12	9.9	V	Pass
10112	-53.62	-25	-28.62	-66.27	-61.51	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH21375	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5111	-63.39	-25	-38.39	-65.03	-68.79	2.2	7.60	H	Pass
7665	-54.95	-25	-29.95	-66.49	-61.73	3.12	9.90	H	Pass
10220	-51.56	-25	-26.56	-66.40	-59.45	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH21375	Temperature :	22~23°C						
Test Mode :	15MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5111	-58.89	-25	-33.89	-65.44	-64.29	2.2	7.6	V	Pass
7665	-52.70	-25	-27.70	-66.79	-59.48	3.12	9.9	V	Pass
10220	-52.65	-25	-27.65	-65.3	-60.54	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH20850	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5000	-47.78	-25	-22.78	-55.91	-53.18	2.2	7.60	H	Pass
7500	-54.44	-25	-29.44	-65.98	-61.22	3.12	9.90	H	Pass
10000	-53.69	-25	-28.69	-68.53	-61.58	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH20850	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5000	-51.95	-25	-26.95	-60.56	-57.35	2.2	7.6	V	Pass
7500	-52.76	-25	-27.76	-66.85	-59.54	3.12	9.9	V	Pass
10000	-56.26	-25	-31.26	-68.91	-64.15	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH21100	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5051	-52.09	-25	-27.09	-58.77	-57.49	2.2	7.60	H	Pass
7574	-54.54	-25	-29.54	-66.08	-61.32	3.12	9.90	H	Pass
10100	-53.12	-25	-28.12	-67.96	-61.01	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH21100	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5051	-54.85	-25	-29.85	-62.13	-60.25	2.2	7.6	V	Pass
7574	-52.92	-25	-27.92	-67.01	-59.70	3.12	9.9	V	Pass
10100	-54.46	-25	-29.46	-67.11	-62.35	2.98	10.87	V	Pass



Band :	LTE Band 7 for CH21350	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
5102	-60.88	-25	-35.88	-62.52	-66.28	2.2	7.60	H	Pass
7650	-56.10	-25	-31.10	-67.64	-62.88	3.12	9.90	H	Pass
10200	-51.70	-25	-26.70	-66.54	-59.59	2.98	10.87	H	Pass

Band :	LTE Band 7 for CH21350	Temperature :	22~23°C						
Test Mode :	20MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
5102	-53.96	-25	-28.96	-60.51	-59.36	2.2	7.6	V	Pass
7649	-52.75	-25	-27.75	-66.84	-59.53	3.12	9.9	V	Pass
10200	-54.05	-25	-29.05	-66.7	-61.94	2.98	10.87	V	Pass



Band :	LTE Band 17 for CH23755	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
1408	-76.57	-13	-63.57	-65.54	-79.82	2.2	7.60	H	Pass
2114	-66.62	-13	-53.62	-63.14	-71.25	3.12	9.90	H	Pass
2818	-60.85	-13	-47.85	-58.52	-66.59	2.98	10.87	H	Pass

Band :	LTE Band 17 for CH23755	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
1408	-72.98	-13	-59.98	-67.03	-76.23	2.2	7.6	V	Pass
2112	-67.31	-13	-54.31	-67.59	-71.94	3.12	9.9	V	Pass
2816	-67.71	-13	-54.71	-67.99	-73.45	2.98	10.87	V	Pass



Band :	LTE Band 17 for CH23790	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
1416	-76.27	-13	-63.27	-65.24	-79.52	2.2	7.60	H	Pass
2124	-65.99	-13	-52.99	-62.51	-70.62	3.12	9.90	H	Pass
2832	-60.15	-13	-47.15	-58.14	-65.89	2.98	10.87	H	Pass

Band :	LTE Band 17 for CH23790	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
1416	-71.92	-13	-58.92	-65.97	-75.17	2.2	7.6	V	Pass
2122	-66.17	-13	-53.17	-66.45	-70.80	3.12	9.9	V	Pass
2831	-65.69	-13	-52.69	-65.97	-71.43	2.98	10.87	V	Pass



Band :	LTE Band 17 for CH23825	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
1422	-75.91	-13	-62.91	-64.88	-79.16	2.2	7.60	H	Pass
2134	-66.81	-13	-53.81	-63.33	-71.44	3.12	9.90	H	Pass
2846	-68.44	-13	-55.44	-64.96	-74.18	2.98	10.87	H	Pass

Band :	LTE Band 17 for CH23825	Temperature :	22~23°C						
Test Mode :	5MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
1422	-71.88	-13	-58.88	-65.93	-75.13	2.2	7.6	V	Pass
2133	-65.98	-13	-52.98	-66.26	-70.61	3.12	9.9	V	Pass
2844	-67.95	-13	-54.95	-68.23	-73.69	2.98	10.87	V	Pass



Band :	LTE Band 17 for CH23780	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
1408	-77.47	-13	-64.47	-66.44	-80.72	2.2	7.60	H	Pass
2114	-66.06	-13	-53.06	-62.58	-70.69	3.12	9.90	H	Pass
2820	-64.95	-13	-51.95	-61.47	-70.69	2.98	10.87	H	Pass

Band :	LTE Band 17 for CH23780	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
1408	-72.07	-13	-59.07	-66.12	-75.32	2.2	7.6	V	Pass
2112	-66.14	-13	-53.14	-66.42	-70.77	3.12	9.9	V	Pass
2820	-62.16	-13	-49.16	-62.44	-67.90	2.98	10.87	V	Pass



Band :	LTE Band 17 for CH23790	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
1410	-77.18	-13	-64.18	-66.15	-80.43	2.2	7.60	H	Pass
2118	-65.85	-13	-52.85	-62.37	-70.48	3.12	9.90	H	Pass
2824	-64.33	-13	-51.33	-60.85	-70.07	2.98	10.87	H	Pass

Band :	LTE Band 17 for CH23790	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
1410	-72.66	-13	-59.66	-66.71	-75.91	2.2	7.6	V	Pass
2116	-62.58	-13	-49.58	-62.86	-67.21	3.12	9.9	V	Pass
2822	-59.17	-13	-46.17	-61.01	-64.91	2.98	10.87	V	Pass



Band :	LTE Band 17 for CH23800	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-10th harmonic 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
1412	-77.52	-13	-64.52	-66.49	-80.77	2.2	7.60	H	Pass
2118	-70.70	-13	-57.70	-67.22	-75.33	3.12	9.90	H	Pass
2828	-66.96	-13	-53.96	-63.48	-72.70	2.98	10.87	H	Pass

Band :	LTE Band 17 for CH23800	Temperature :	22~23°C						
Test Mode :	10MHz QPSK RB Size 1 Offset 0	Relative Humidity :	42~43%						
Test Engineer :	Star Wei	Polarization :	Vertical						
Remark :	Spurious emissions within 30-10th harmonic 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
1412	-71.75	-13	-58.75	-65.8	-75.00	2.2	7.6	V	Pass
2118	-66.50	-13	-53.50	-66.78	-71.13	3.12	9.9	V	Pass
2828	-65.60	-13	-52.60	-65.88	-71.34	2.98	10.87	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 $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

3.8.2 Measuring Instruments

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

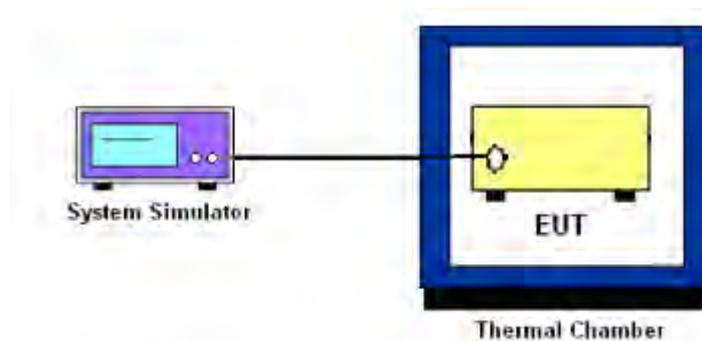
3.8.3 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. 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.
3. With power OFF, the temperature was raised in 10°C step 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 EUT was placed in a temperature chamber at $25\pm 5^{\circ}\text{C}$ and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

3.8.5 Test Setup





3.8.6 Test Result of Temperature Variation (FCC)

Band :	LTE Band 4 (QPSK)	Limit (ppm) :	within authorized band
Temperature (°C)	BW 10MHz		Result
	Deviation (ppm)		
50	0.0133		PASS
40	0.0058		
30	0.0029		
20(Ref.)	0.0000		
10	0.0012		
0	0.0029		
-10	0.0063		
-20	0.0104		
-30	0.0127		

Band :	LTE Band 7 (QPSK)	Limit (ppm) :	within authorized band
Temperature (°C)	BW 10MHz		Result
	Deviation (ppm)		
50	0.0063		PASS
40	0.0043		
30	0.0024		
20(Ref.)	0.0000		
10	0.0020		
0	0.0008		
-10	0.0012		
-20	0.0051		
-30	0.0071		



Band :	LTE Band 17 (QPSK)	Limit (ppm) :	within authorized band
Temperature (°C)	BW 10MHz		Result
	Deviation (ppm)		
50	0.0282		PASS
40	0.0155		
30	0.0099		
20(Ref.)	0.0000		
10	0.0042		
0	0.0042		
-10	0.0127		
-20	0.0211		
-30	0.0310		

3.8.7 Test Result of Voltage Variation (FCC)

Band	Bandwidth	Voltage (Volt)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 4	10M	4.2	0.0017	(Note 3.)	PASS
		Normal	0.0017		
		3.5	0.0012		
LTE Band 7	10M	4.2	0.0008	(Note 3.)	PASS
		Normal	0.0016		
		3.5	0.0004		
LTE Band 17	10M	4.2	0.0000	(Note 3.)	PASS
		Normal	0.0028		
		3.5	0.0028		

Remark:

1. Normal Voltage = 3.8V.
2. The manufacturer declared that the EUT could work properly between voltage 3.5V ~ 4.2V.
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	FSV30	101338	9kHz~30GHz	May 04, 2014	Oct. 16, 2014~ Nov. 07, 2014	May 03, 2015	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Dec. 10, 2013	Oct. 16, 2014~ Nov. 07, 2014	Dec. 09, 2014	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 05, 2013	Oct. 24, 2014	Nov. 04, 2014	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP30	101399	9kHz~30GHz	May 04, 2014	Oct. 24, 2014	May 03, 2015	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Jan. 08, 2014	Oct. 24, 2014	Jan. 07, 2015	Radiation (03CH01-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75959	1GHz~18GHz	Jan. 08, 2014	Oct. 24, 2014	Jan. 07, 2015	Radiation (03CH01-KS)
Active Horn Antenna	com-power	AHA-118	701030	1GHz~18GHz	Nov. 18, 2013	Oct. 24, 2014	Nov. 17, 2014	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA17024 9	15GHz~40GHz	Mar. 10, 2014	Oct. 24, 2014	Mar. 09, 2015	Radiation (03CH01-KS)
Amplifier	com-power	PA-103A	161073	1MHz~1GHz	May 04, 2014	Oct. 24, 2014	May 03, 2015	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02371	1GHz~26.5GHz	Dec. 10, 2013	Oct. 24, 2014	Dec. 09, 2014	Radiation (03CH01-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Oct. 24, 2014	NCR	Radiation (03CH01-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Oct. 24, 2014	NCR	Radiation (03CH01-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Oct. 24, 2014	NCR	Radiation (03CH01-KS)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.5
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