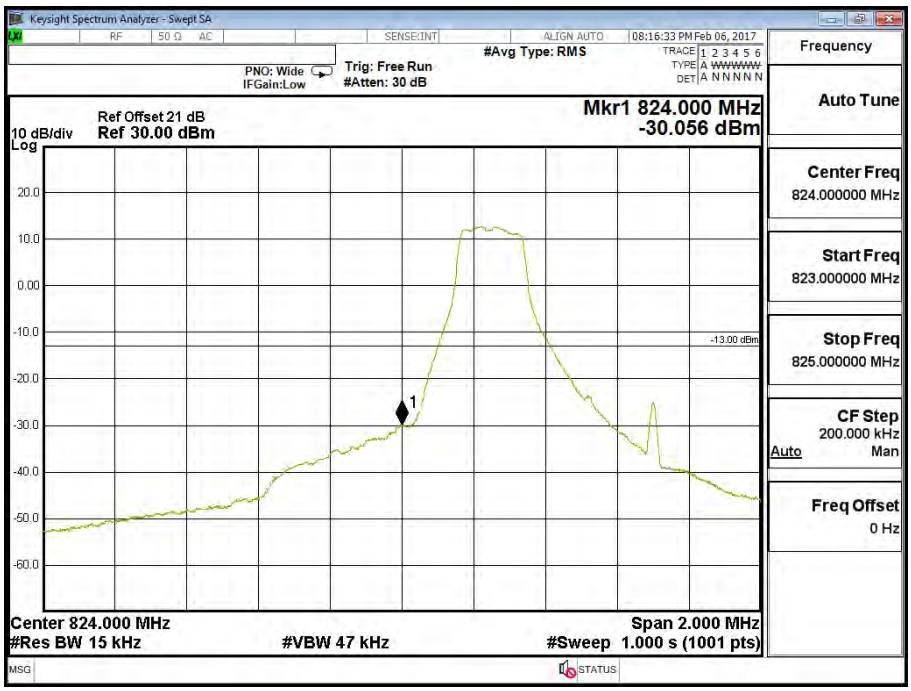
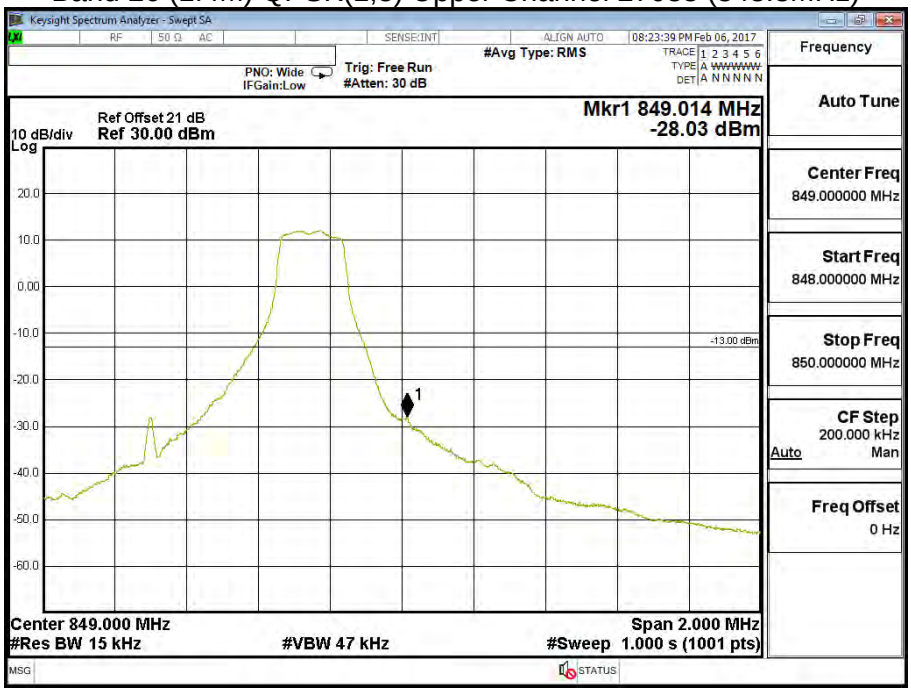
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	Block Edge Test (Band 26 (1.4M))		

Band 26 (1.4M) QPSK(1,0) Lower Channel 26797 (824.7MHz)

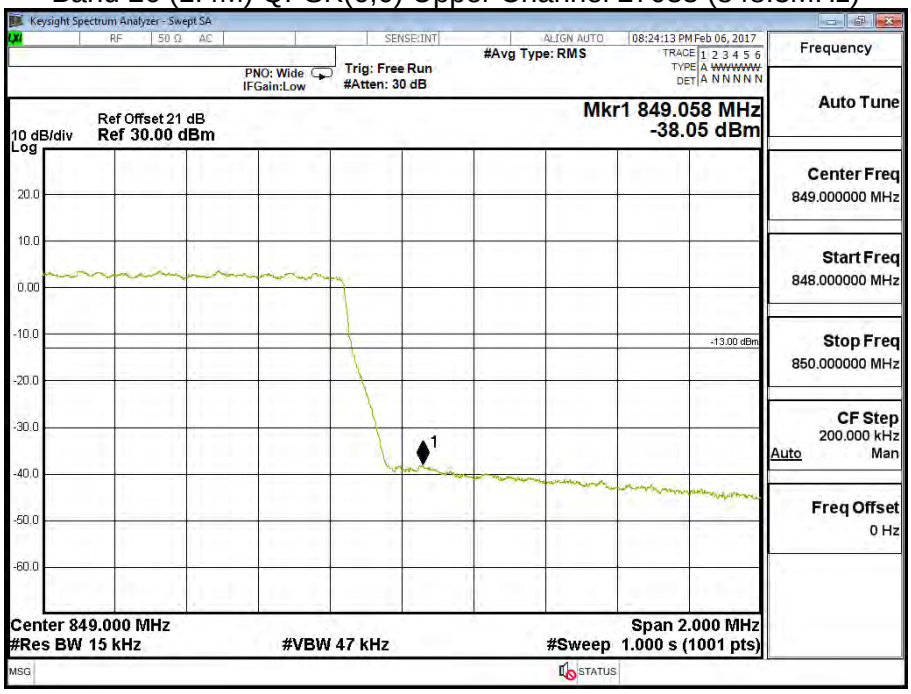


Band 26 (1.4M) QPSK(1,5) Upper Channel 27033 (848.3MHz)

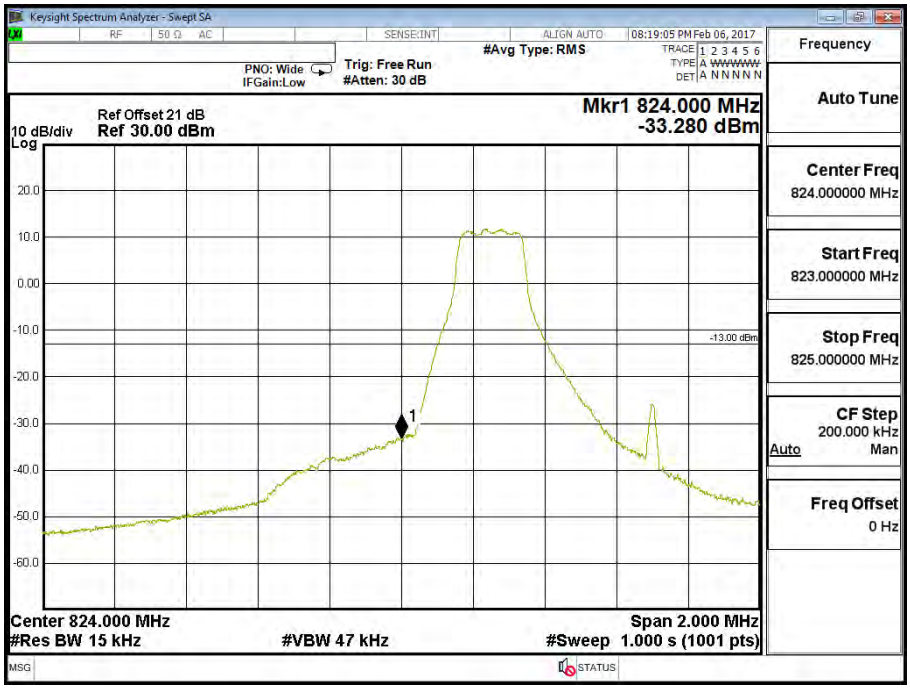


Band 26 (1.4M) QPSK(6,0) Lower Channel 26797 (824.7MHz)

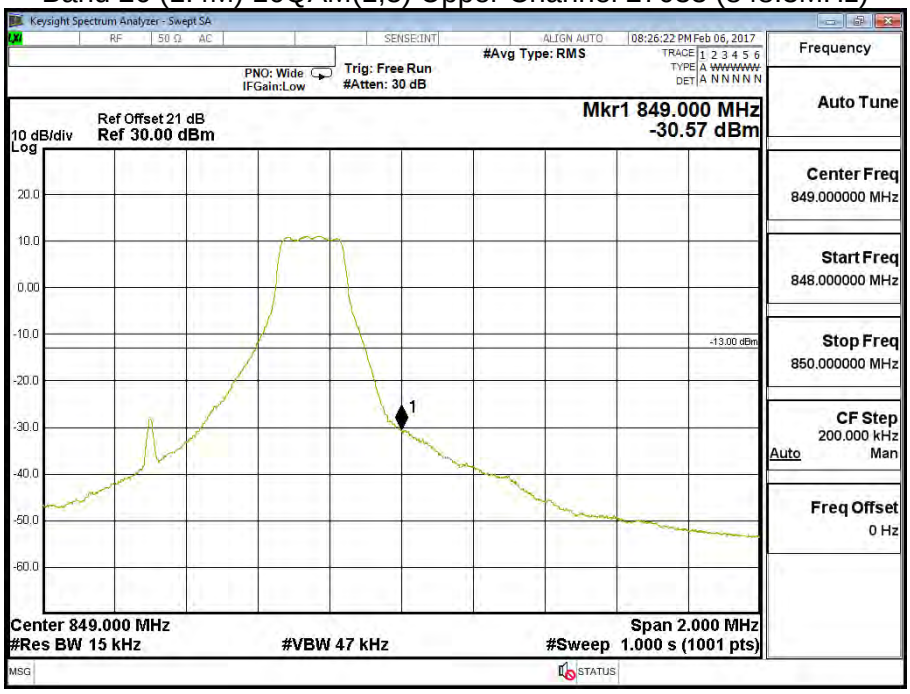
Band 26 (1.4M) QPSK(6,0) Upper Channel 27033 (848.3MHz)



Band 26 (1.4M) 16QAM(1,0) Lower Channel 26797 (824.7MHz)

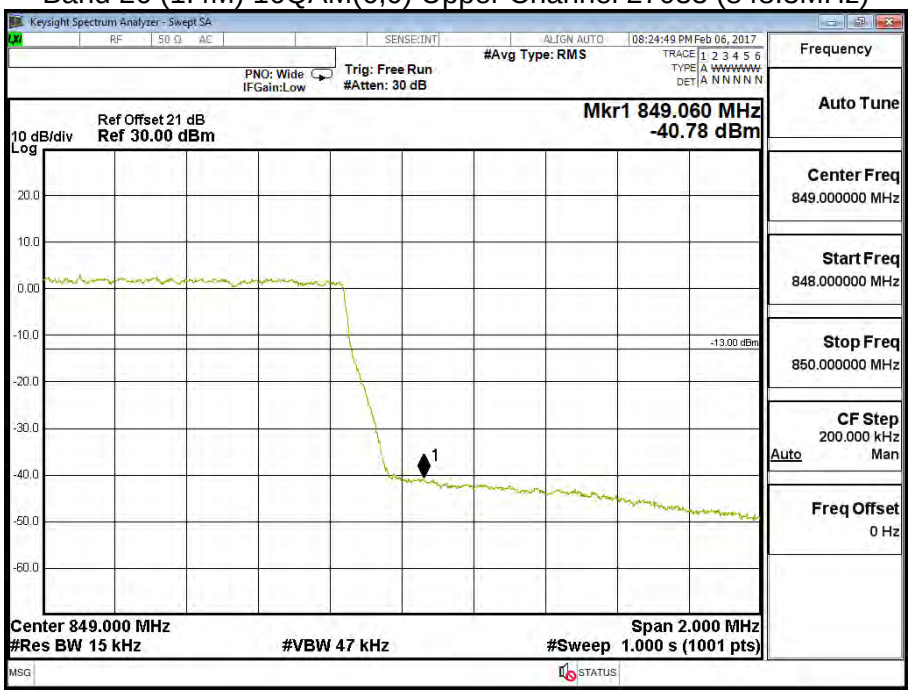


Band 26 (1.4M) 16QAM(1,5) Upper Channel 27033 (848.3MHz)



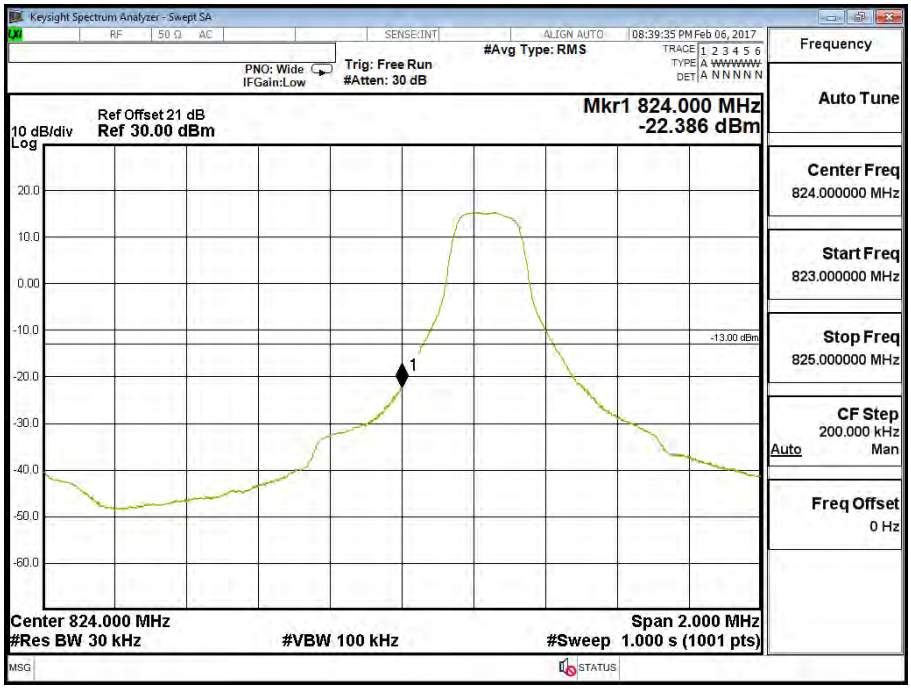
Band 26 (1.4M) 16QAM(6,0) Lower Channel 26797 (824.7MHz)

Band 26 (1.4M) 16QAM(6,0) Upper Channel 27033 (848.3MHz)

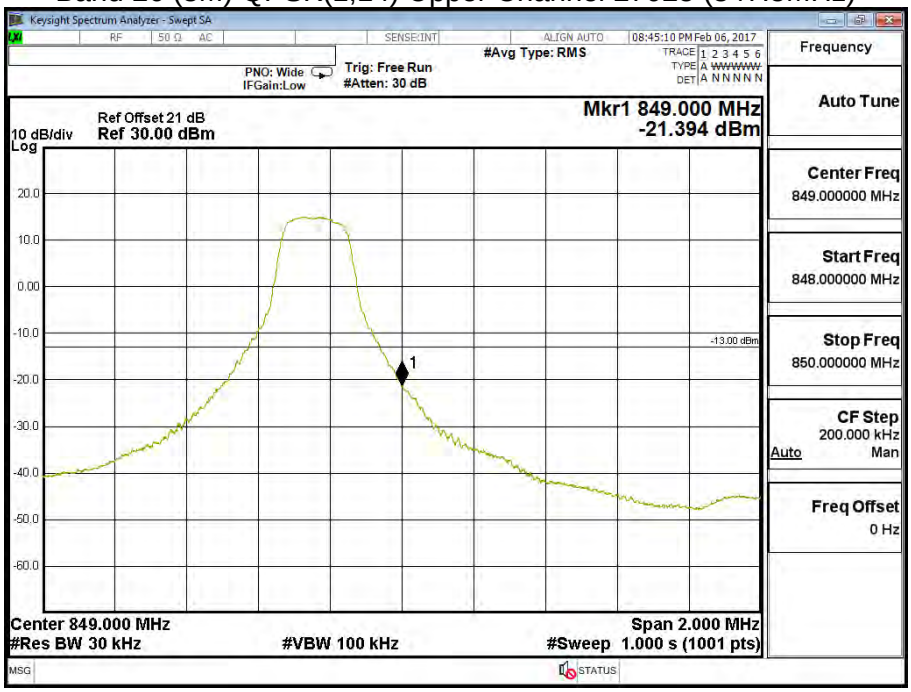


Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	Block Edge Test (Band 26 (3M))		

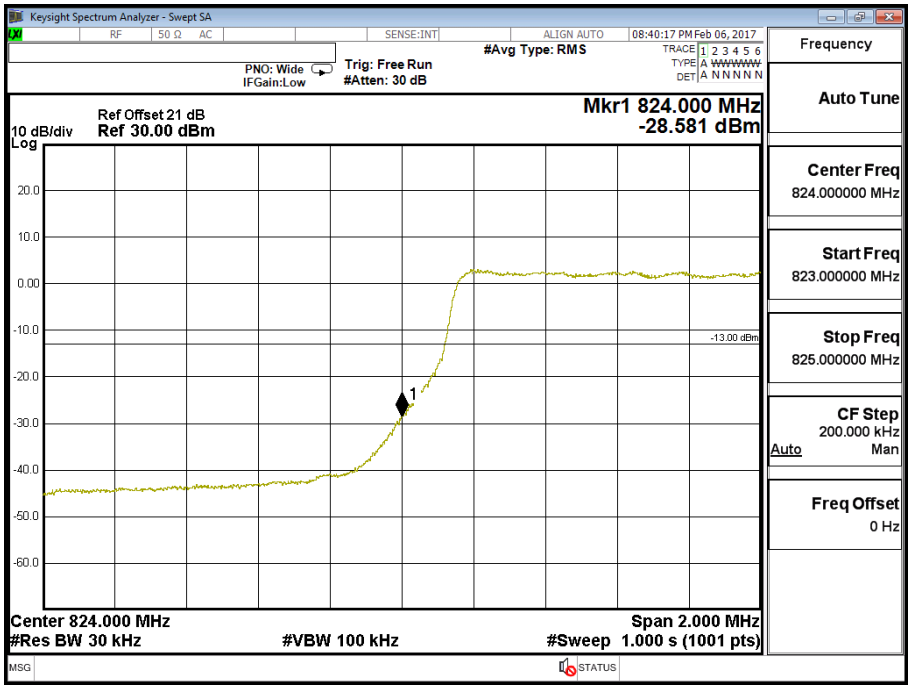
Band 26 (3M) QPSK(1,0) Lower Channel 26805 (825.5MHz)



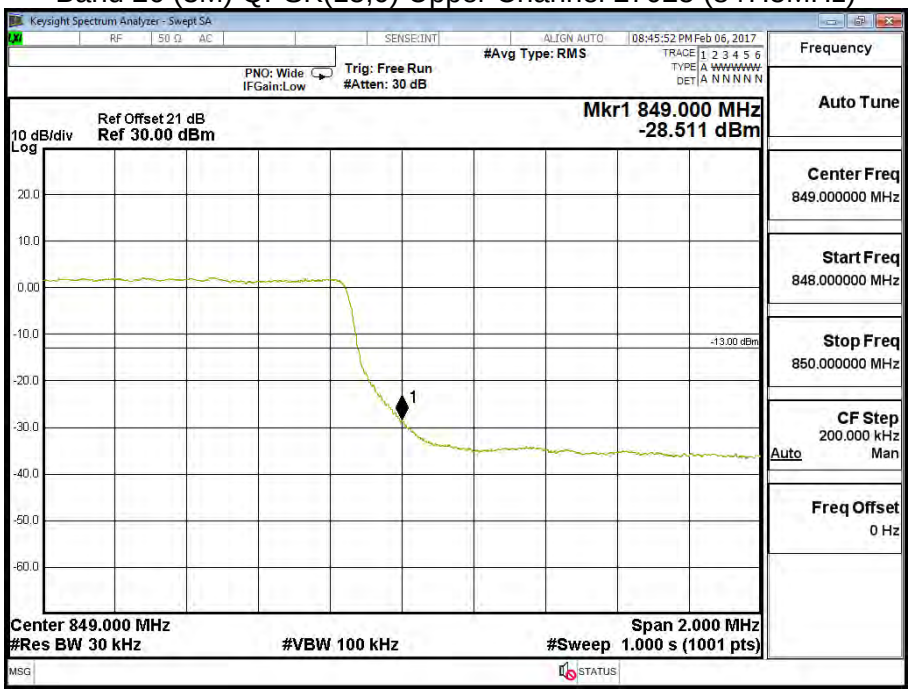
Band 26 (3M) QPSK(1,14) Upper Channel 27025 (847.5MHz)



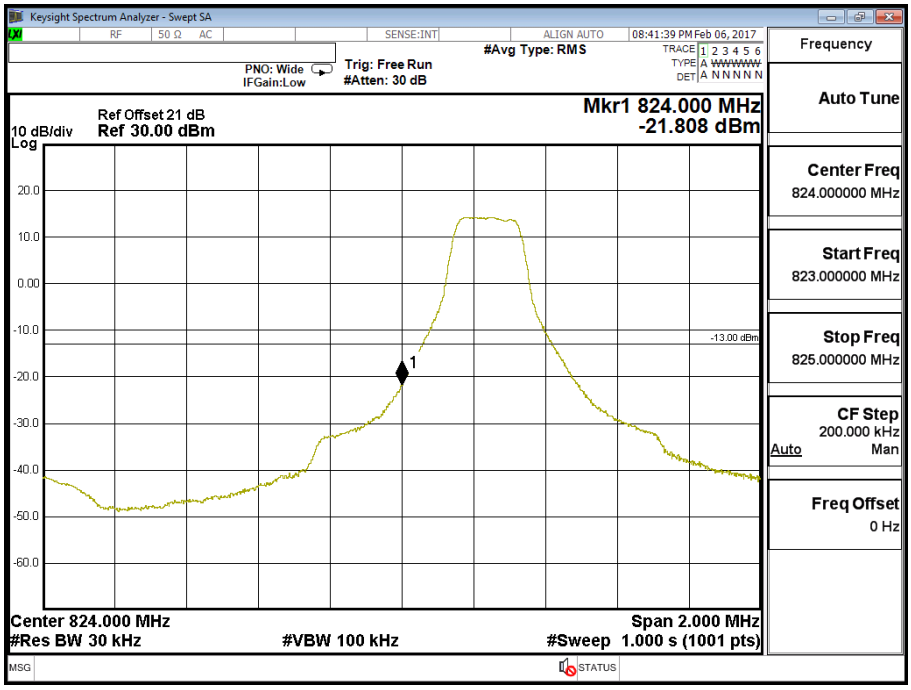
Band 26 (3M) QPSK(15,0) Lower Channel 26805 (825.5MHz)



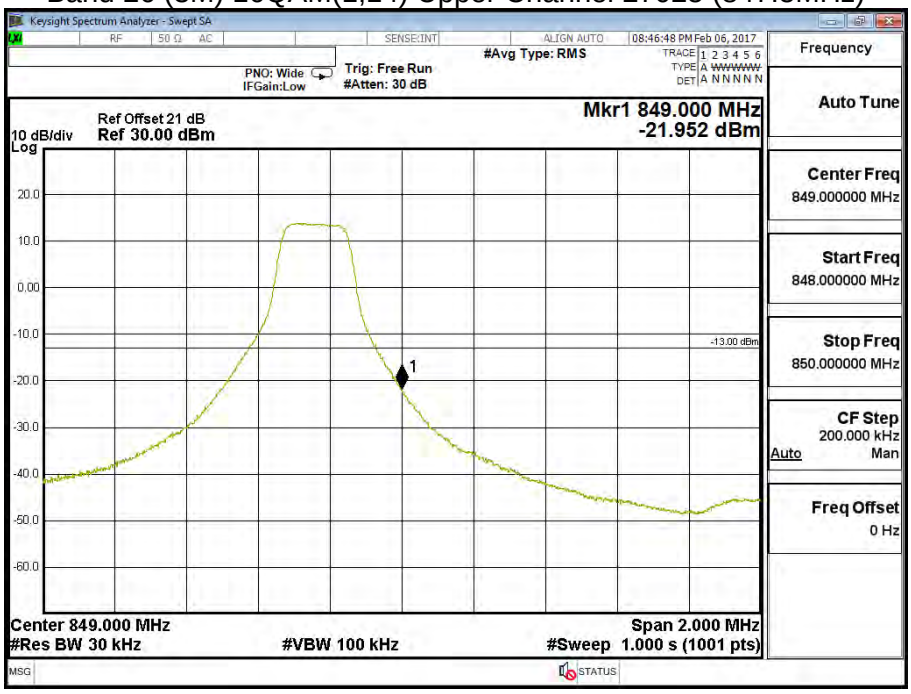
Band 26 (3M) QPSK(15,0) Upper Channel 27025 (847.5MHz)



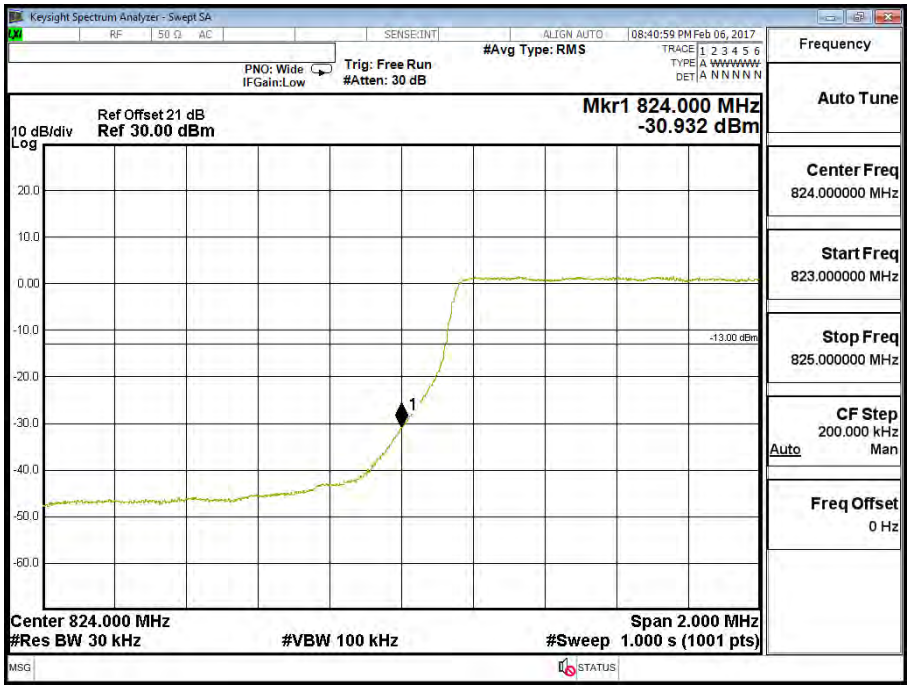
Band 26 (3M) 16QAM(1,0) Lower Channel 26805 (825.5MHz)



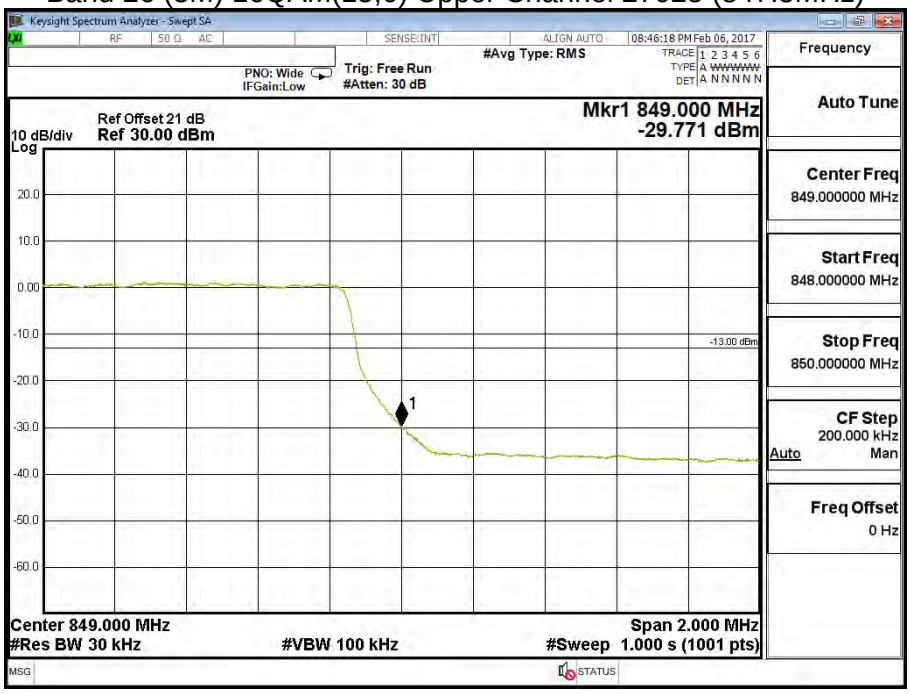
Band 26 (3M) 16QAM(1,14) Upper Channel 27025 (847.5MHz)



Band 26 (3M) 16QAM(15,0) Lower Channel 26805 (825.5MHz)

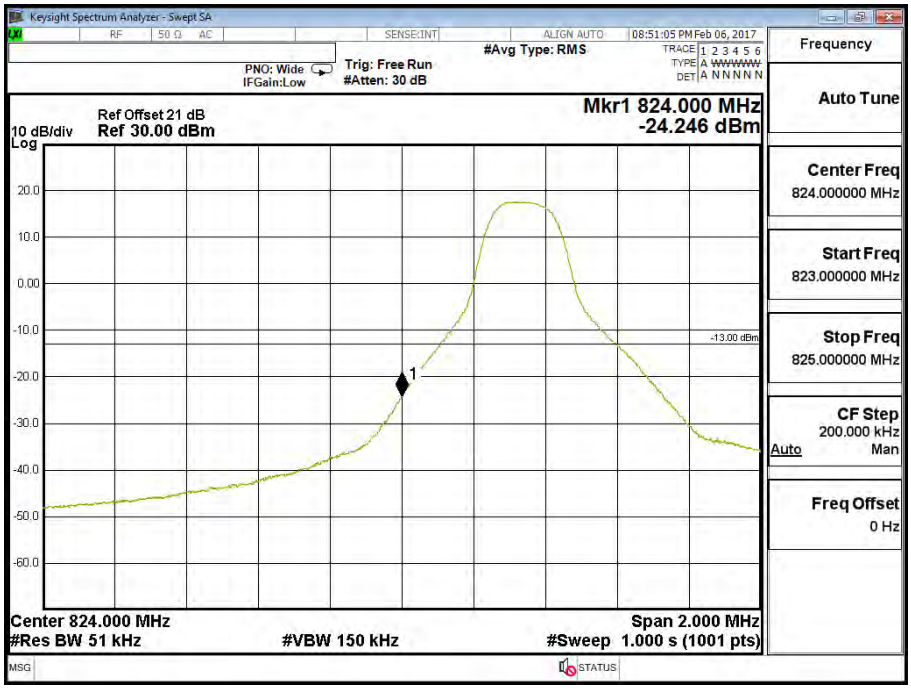


Band 26 (3M) 16QAM(15,0) Upper Channel 27025 (847.5MHz)

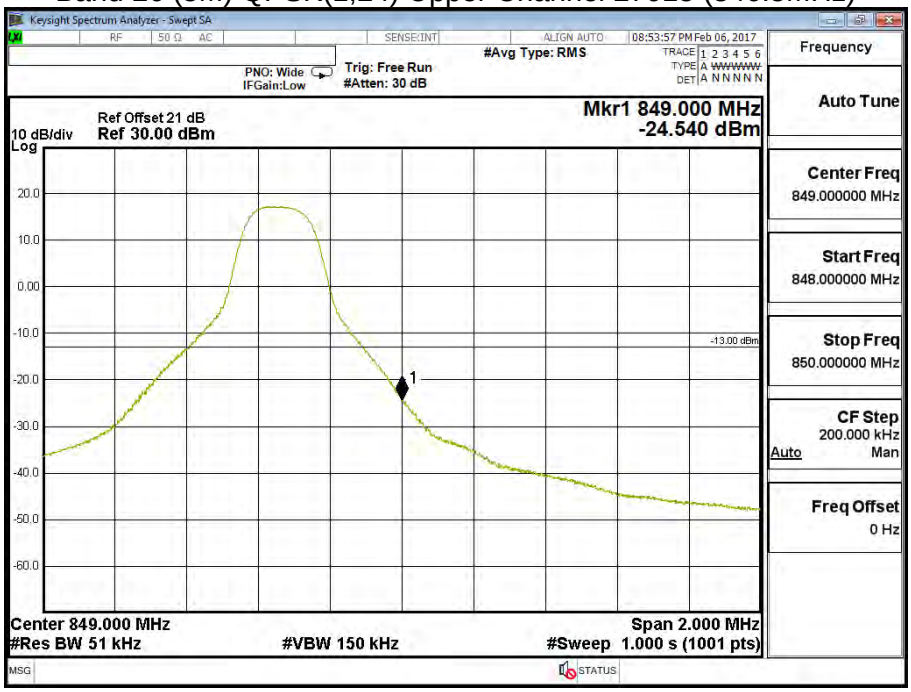


Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	Block Edge Test (Band 26 (5M))		

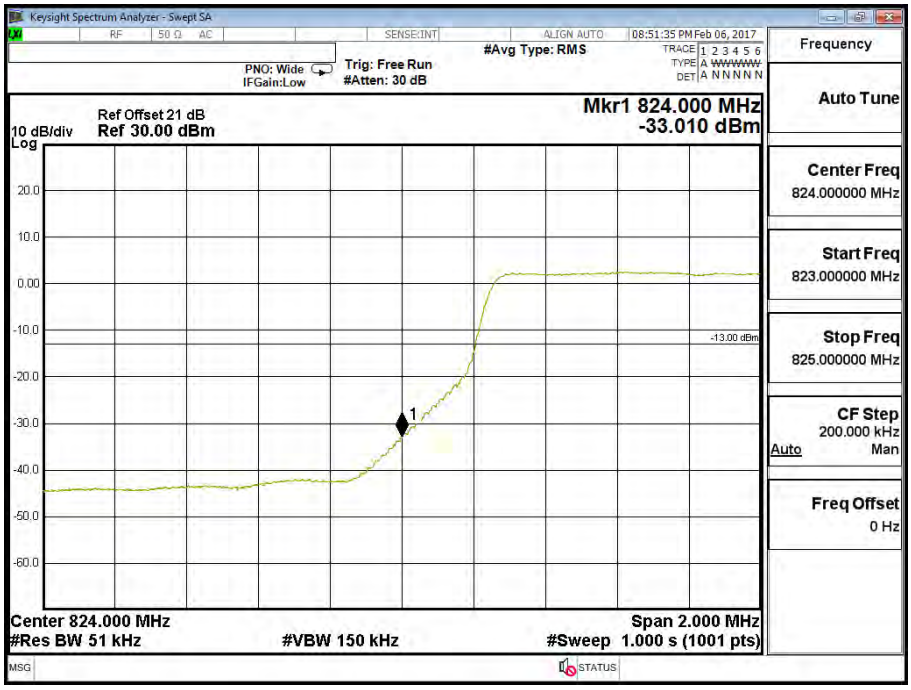
Band 26 (5M) QPSK(1,0) Lower Channel 26815 (826.5MHz)



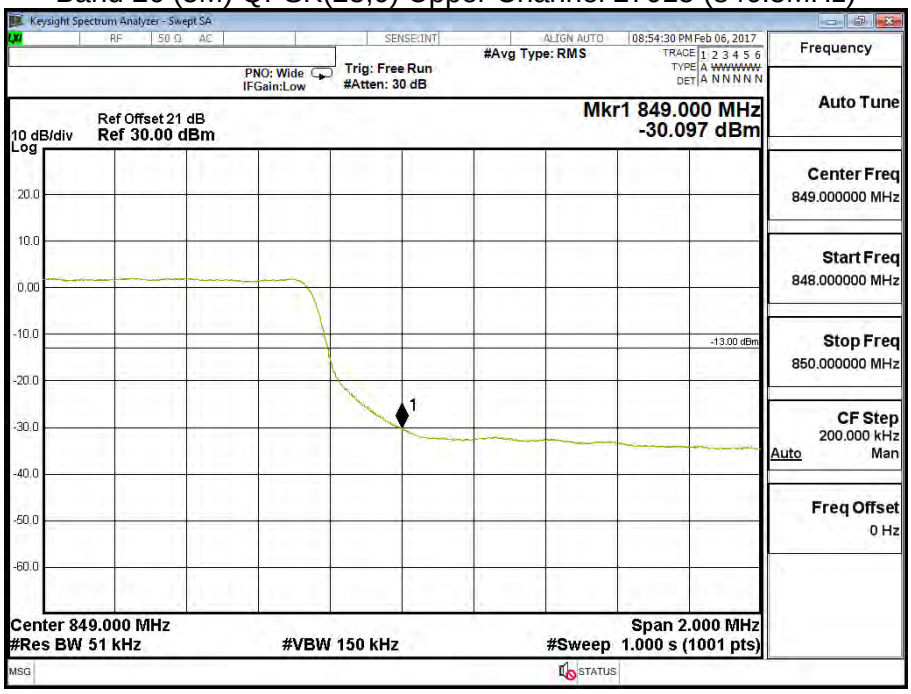
Band 26 (5M) QPSK(1,24) Upper Channel 27015 (846.5MHz)



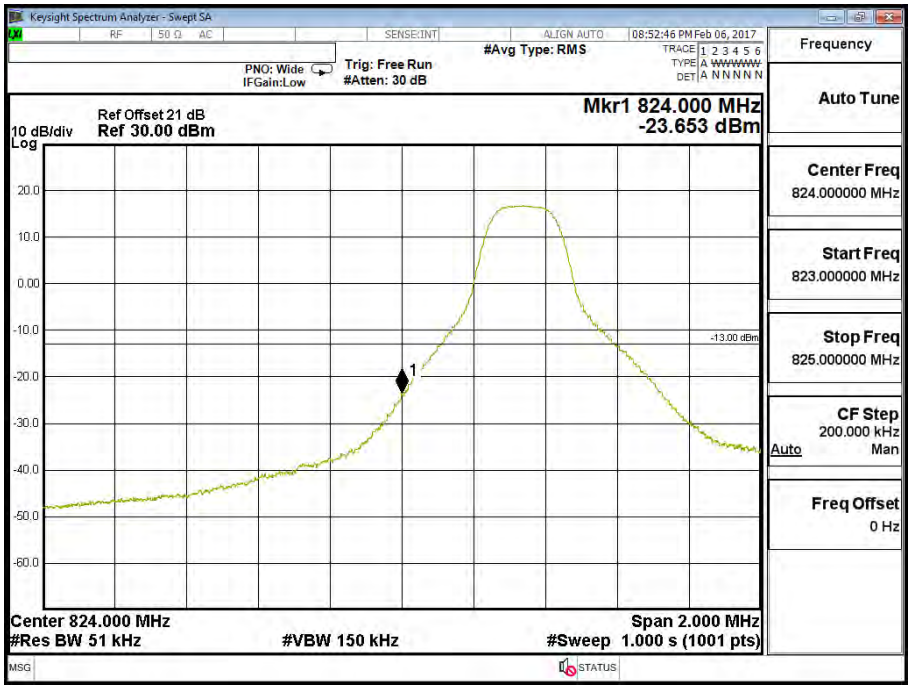
Band 26 (5M) QPSK(25,0) Lower Channel 26815 (826.5MHz)



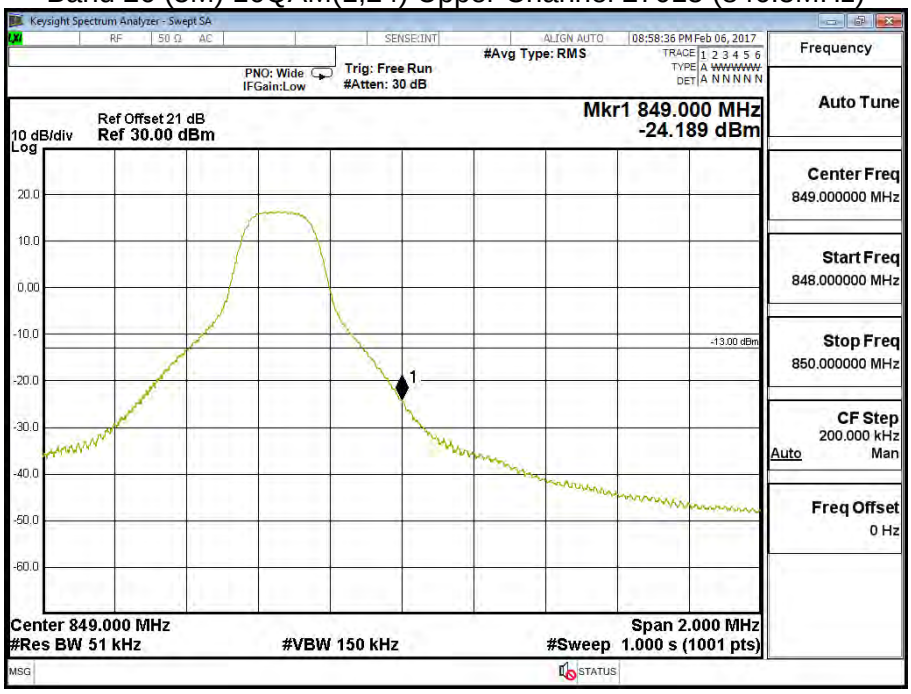
Band 26 (5M) QPSK(25,0) Upper Channel 27015 (846.5MHz)



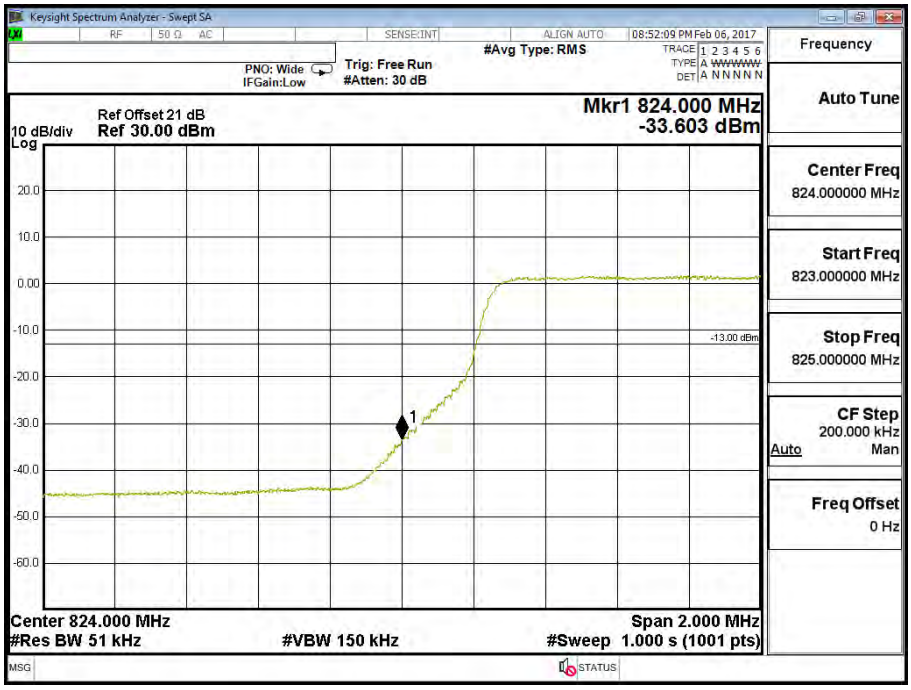
Band 26 (5M) 16QAM(1,0) Lower Channel 26815 (826.5MHz)



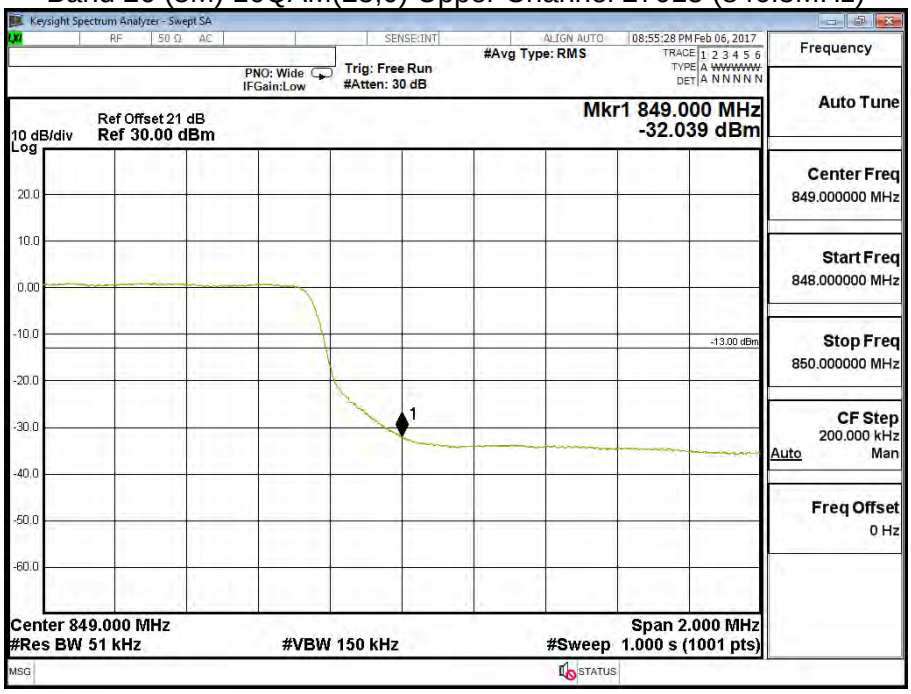
Band 26 (5M) 16QAM(1,24) Upper Channel 27015 (846.5MHz)



Band 26 (5M) 16QAM(25,0) Lower Channel 26815 (826.5MHz)

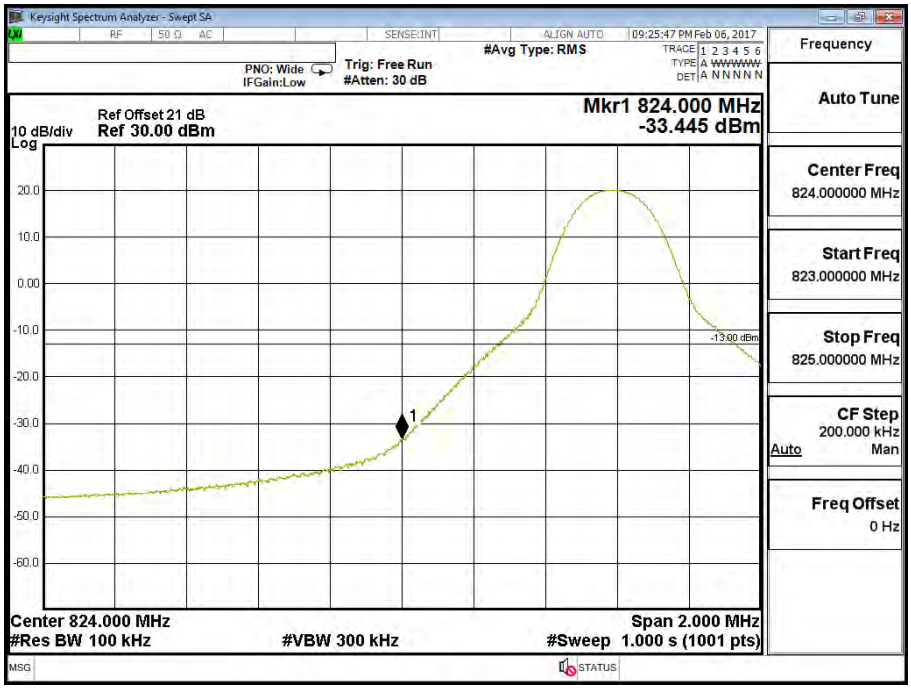


Band 26 (5M) 16QAM(25,0) Upper Channel 27015 (846.5MHz)

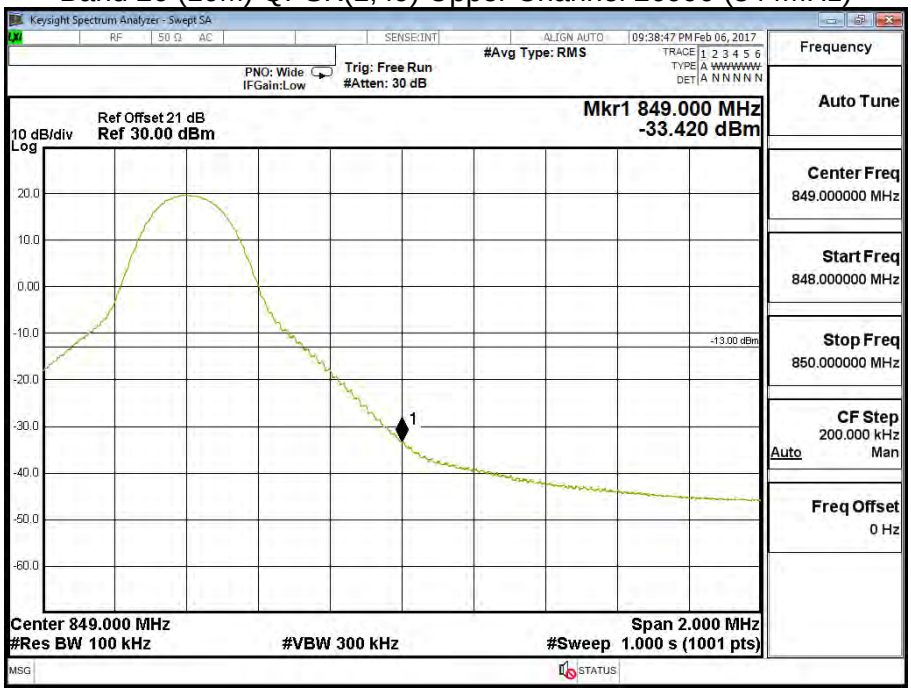


Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	Block Edge Test (Band 26 (10M))		

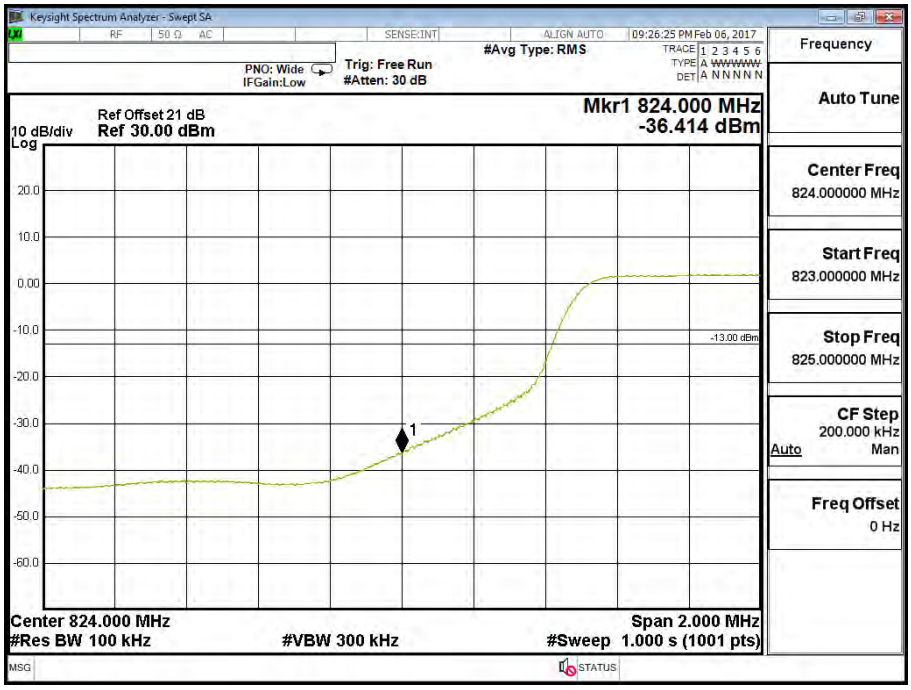
Band 26 (10M) QPSK(1,0) Lower Channel 26840 (829MHz)



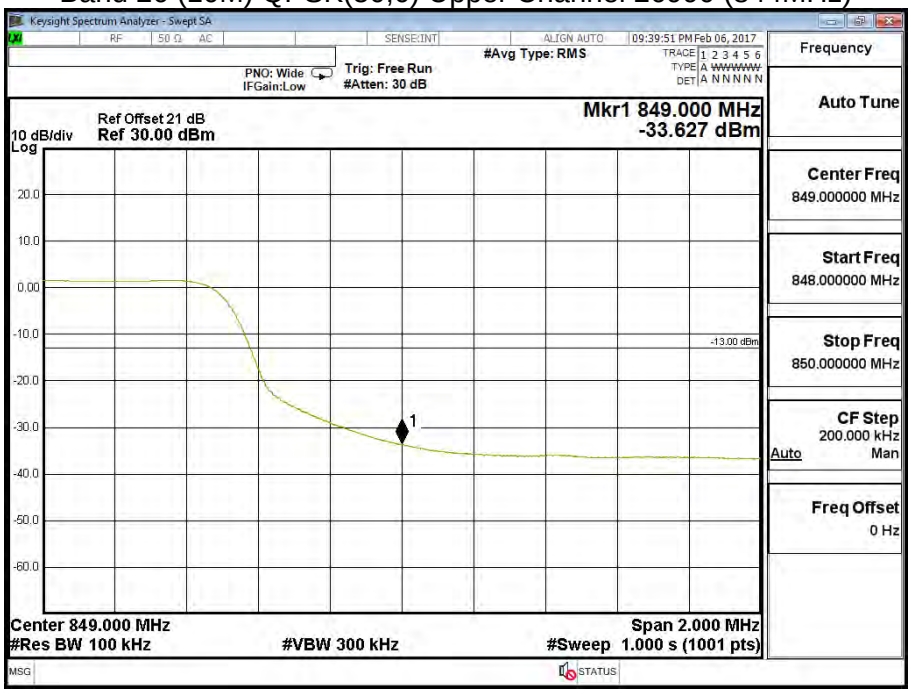
Band 26 (10M) QPSK(1,49) Upper Channel 26990 (844MHz)



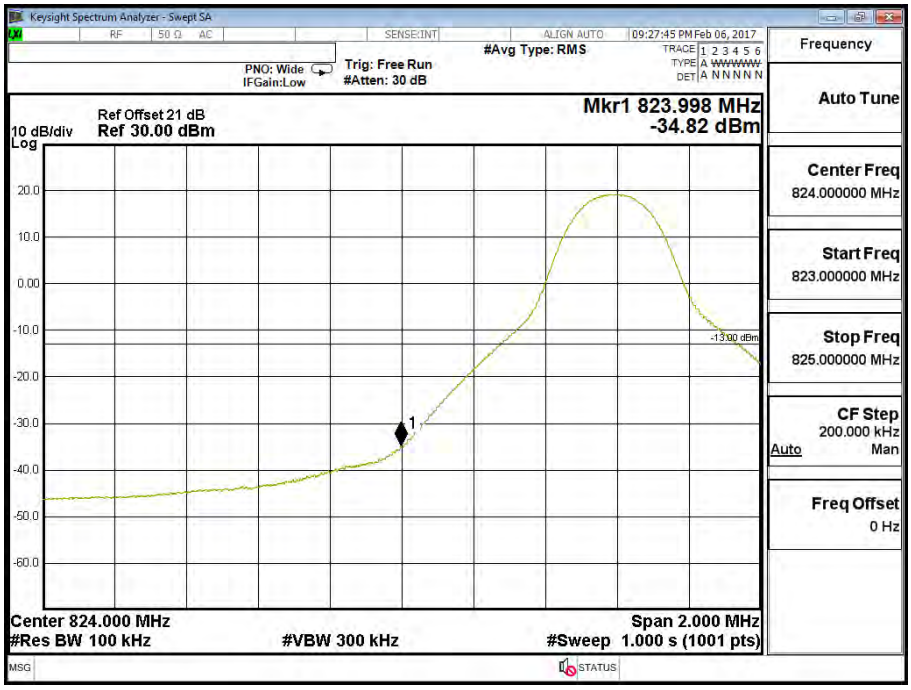
Band 26 (10M) QPSK(50,0) Lower Channel 26840 (829MHz)



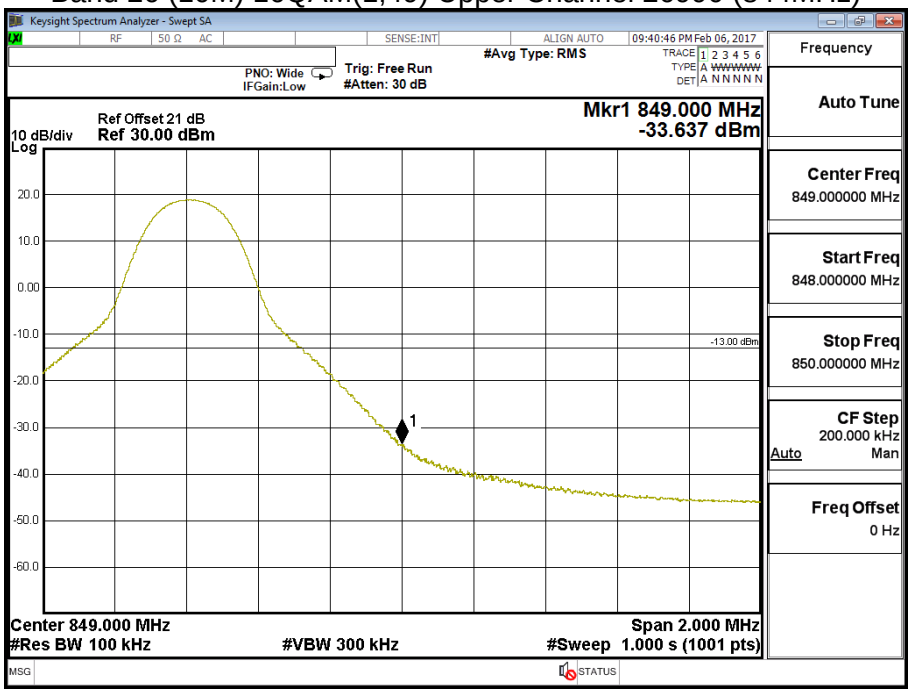
Band 26 (10M) QPSK(50,0) Upper Channel 26990 (844MHz)



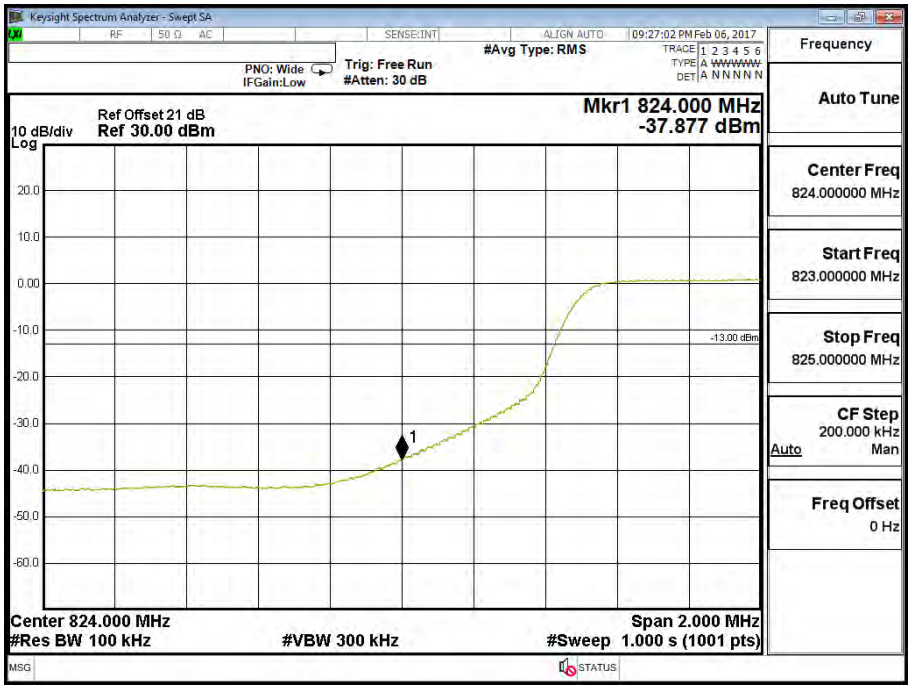
Band 26 (10M) 16QAM(1,0) Lower Channel 26840 (829MHz)



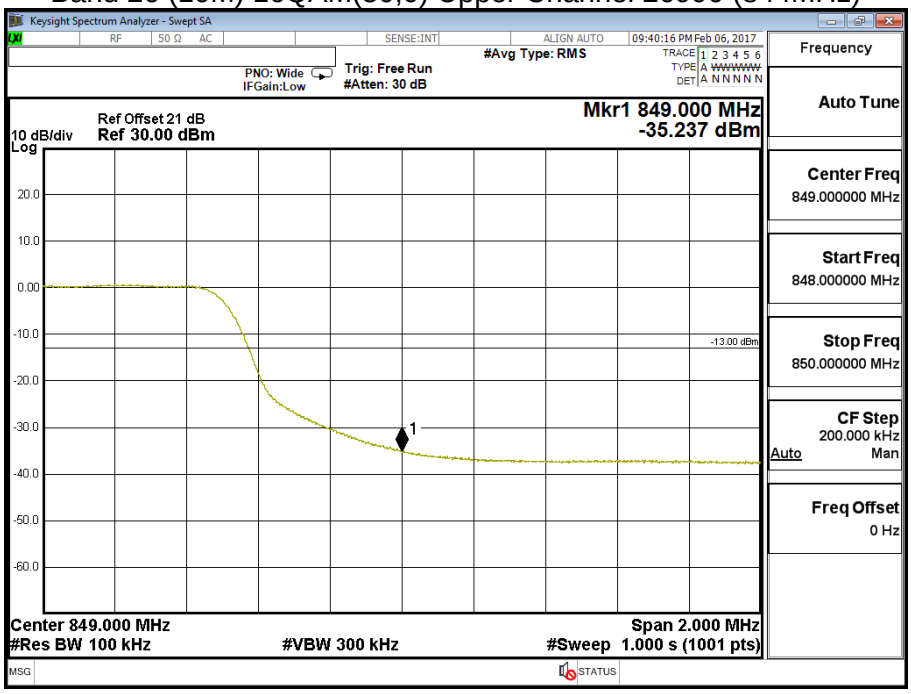
Band 26 (10M) 16QAM(1,49) Upper Channel 26990 (844MHz)



Band 26 (10M) 16QAM(50,0) Lower Channel 26840 (829MHz)

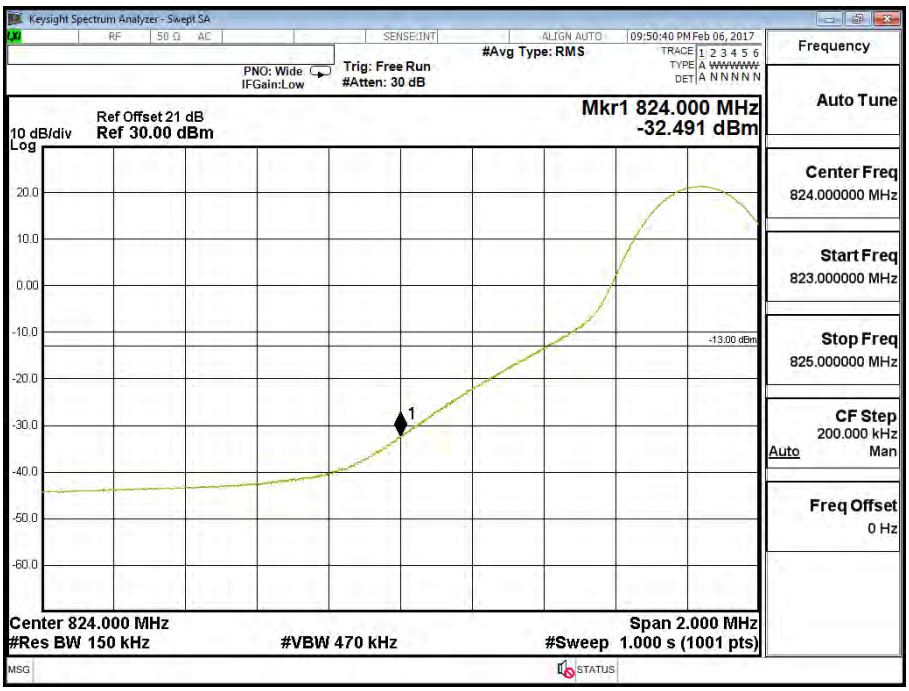


Band 26 (10M) 16QAM(50,0) Upper Channel 26990 (844MHz)

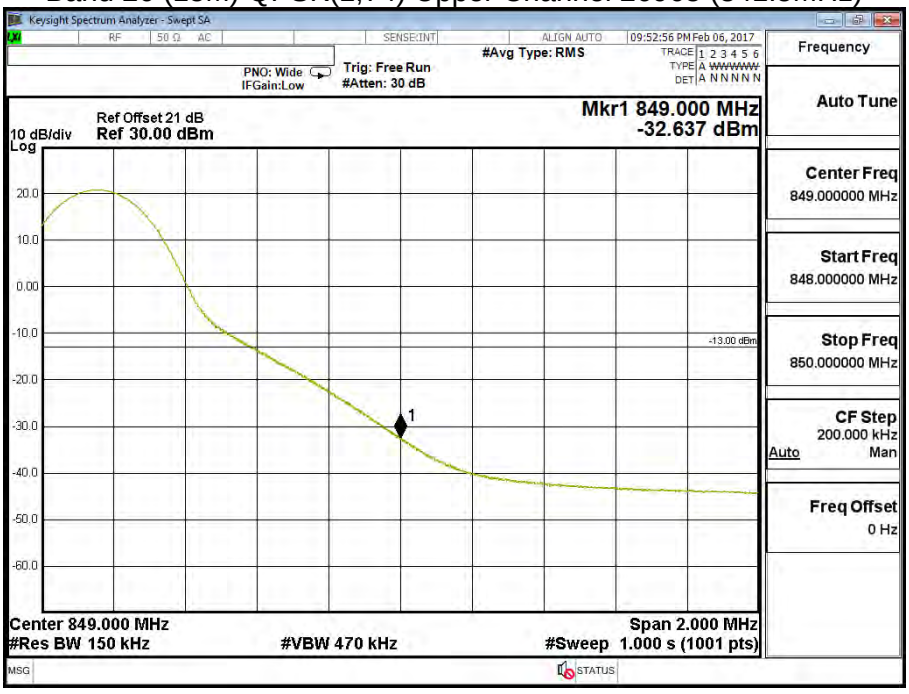


Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	Block Edge Test (Band 26 (15M))		

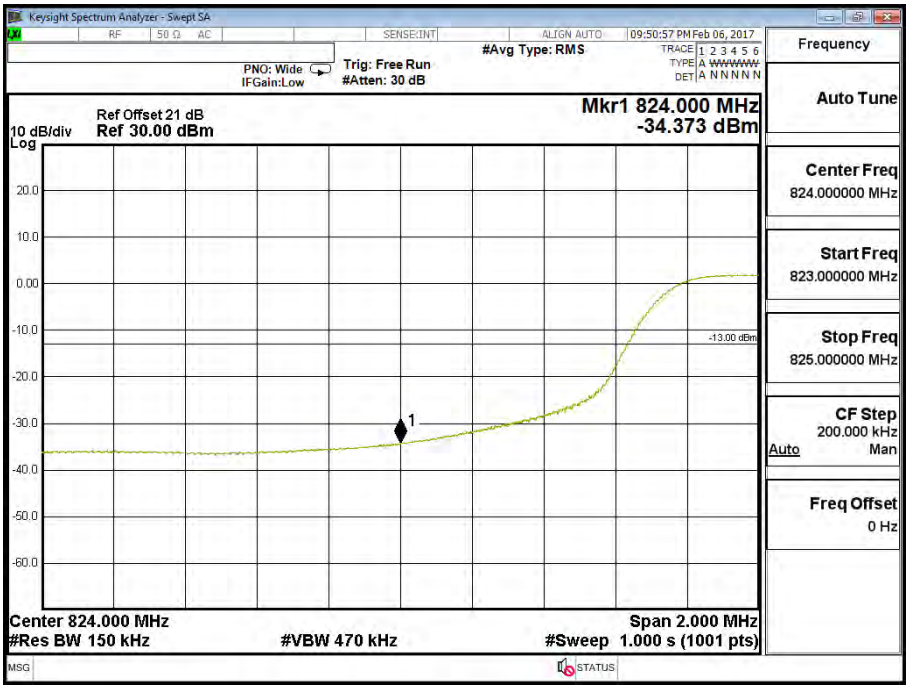
Band 26 (15M) QPSK(1,0) Lower Channel 26865 (831.5MHz)



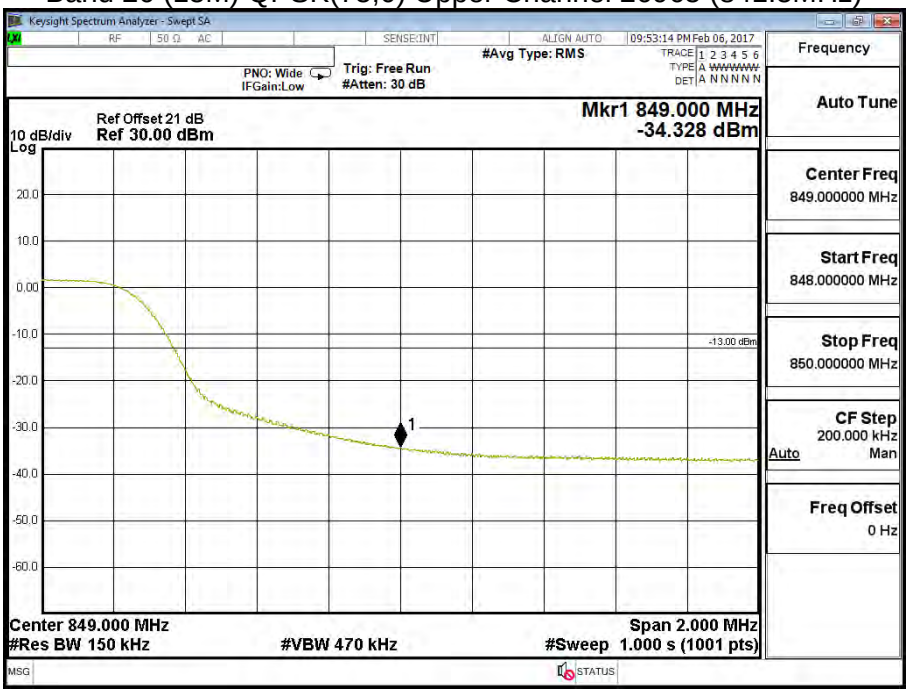
Band 26 (15M) QPSK(1,74) Upper Channel 26965 (841.5MHz)



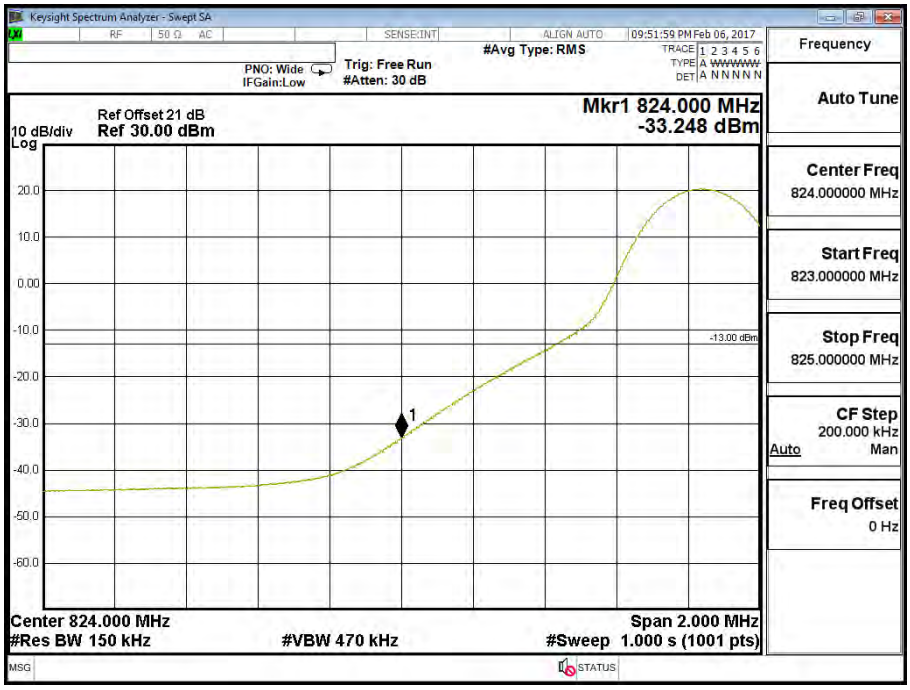
Band 26 (15M) QPSK(75,0) Lower Channel 26865 (831.5MHz)



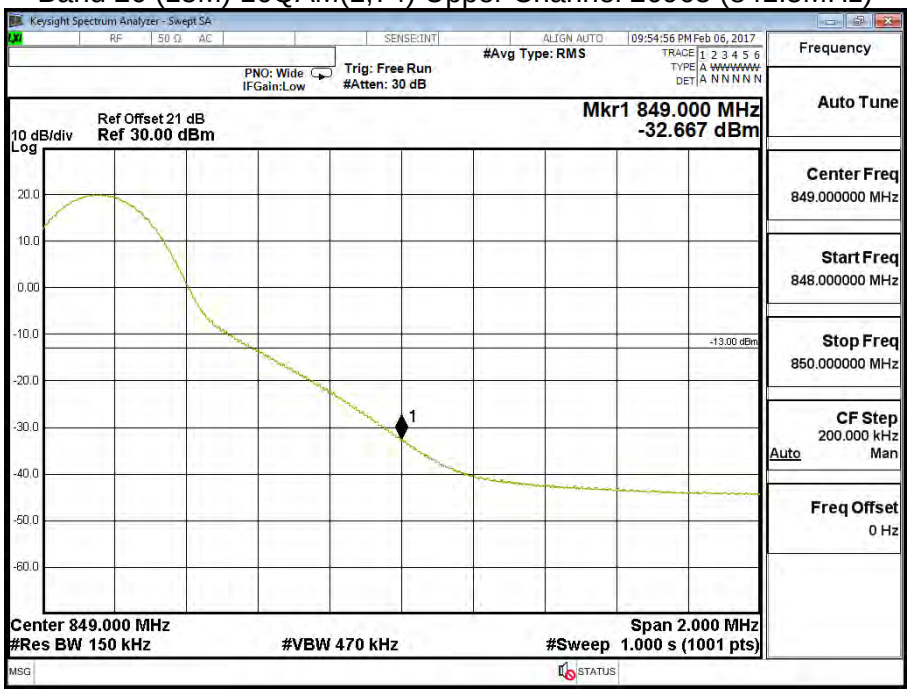
Band 26 (15M) QPSK(75,0) Upper Channel 26965 (841.5MHz)



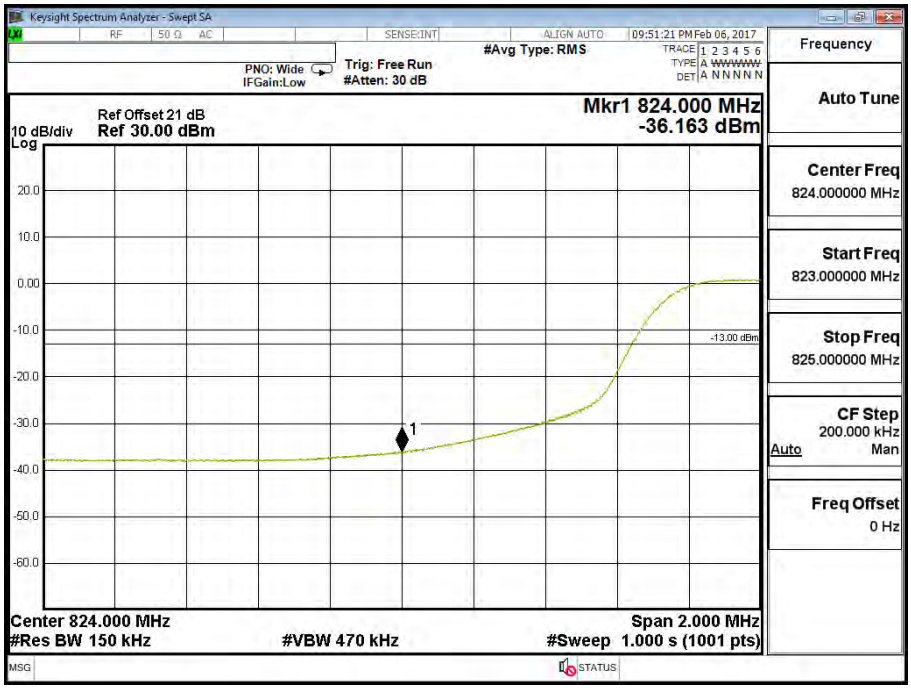
Band 26 (15M) 16QAM(1,0) Lower Channel 26865 (831.5MHz)



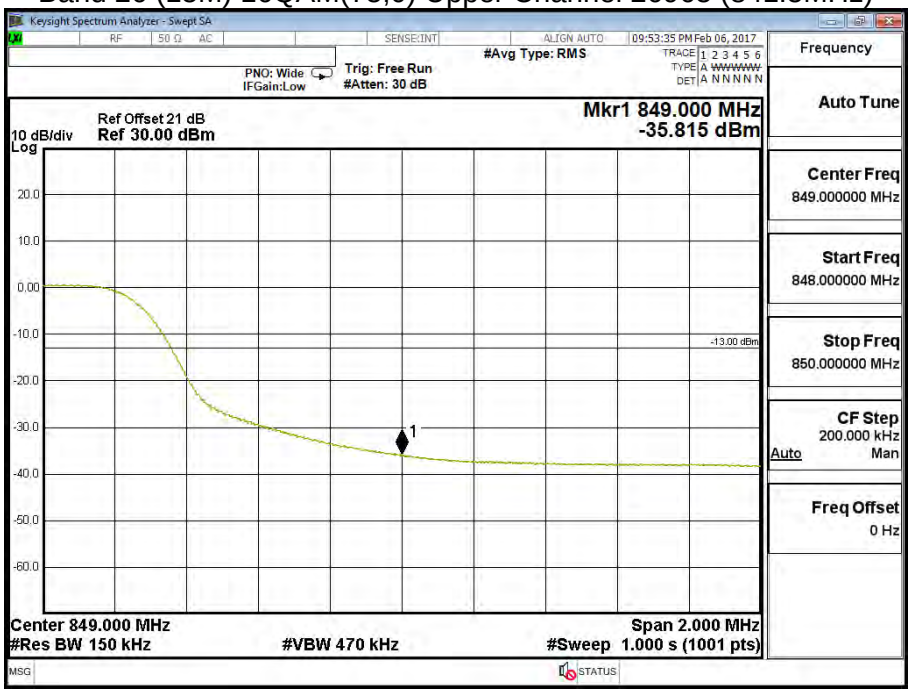
Band 26 (15M) 16QAM(1,74) Upper Channel 26965 (841.5MHz)



Band 26 (15M) 16QAM(75,0) Lower Channel 26865 (831.5MHz)

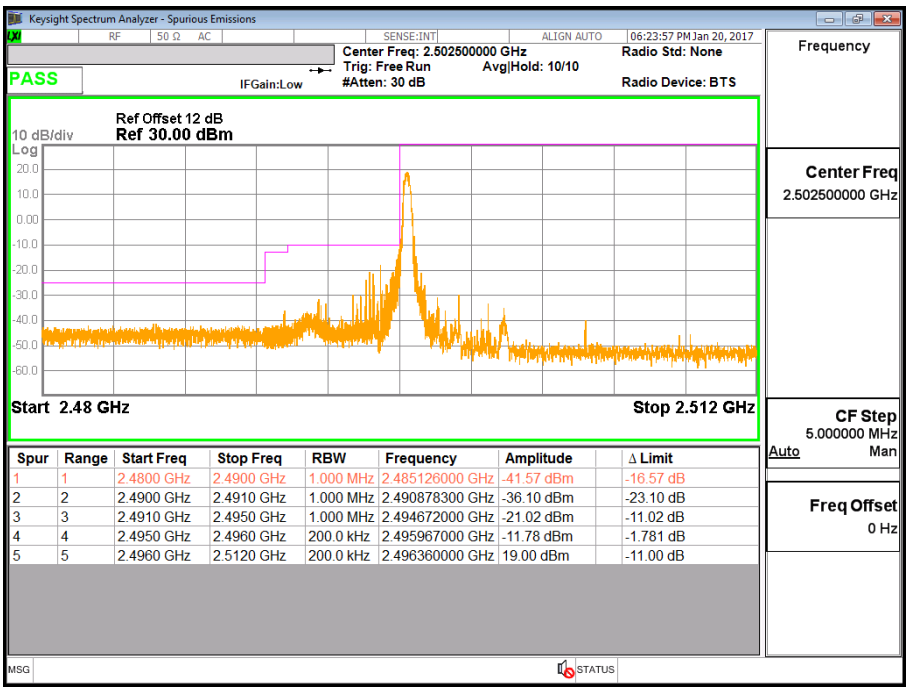


Band 26 (15M) 16QAM(75,0) Upper Channel 26965 (841.5MHz)



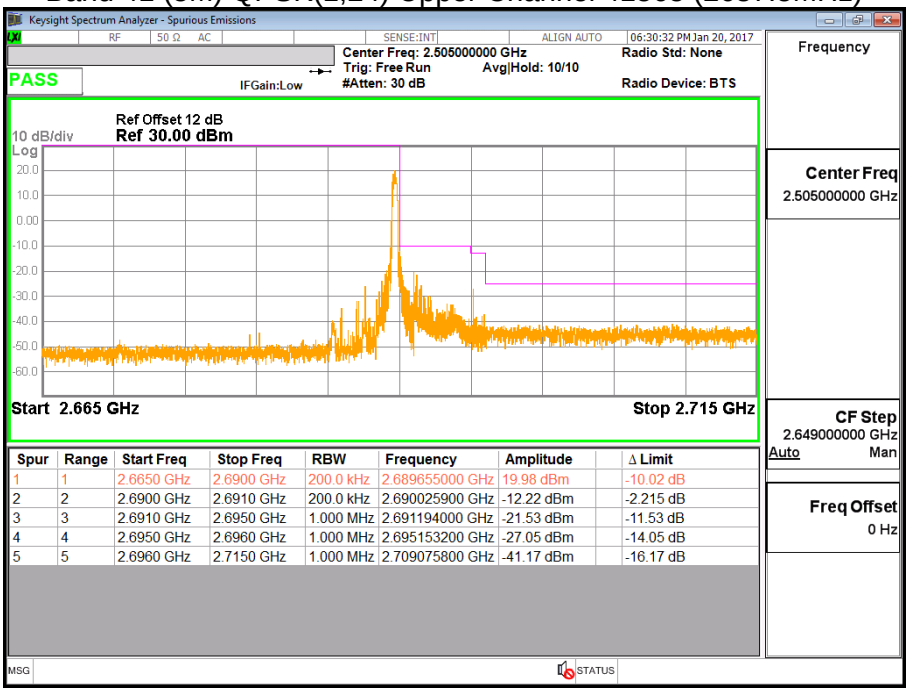
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2017/01/20	Test Site	CTR
Test Condition	Block Edge Test (Band 41 (5M))		

Band 41 (5M) QPSK(1,0) Lower Channel 39675 (2498.5MHz)



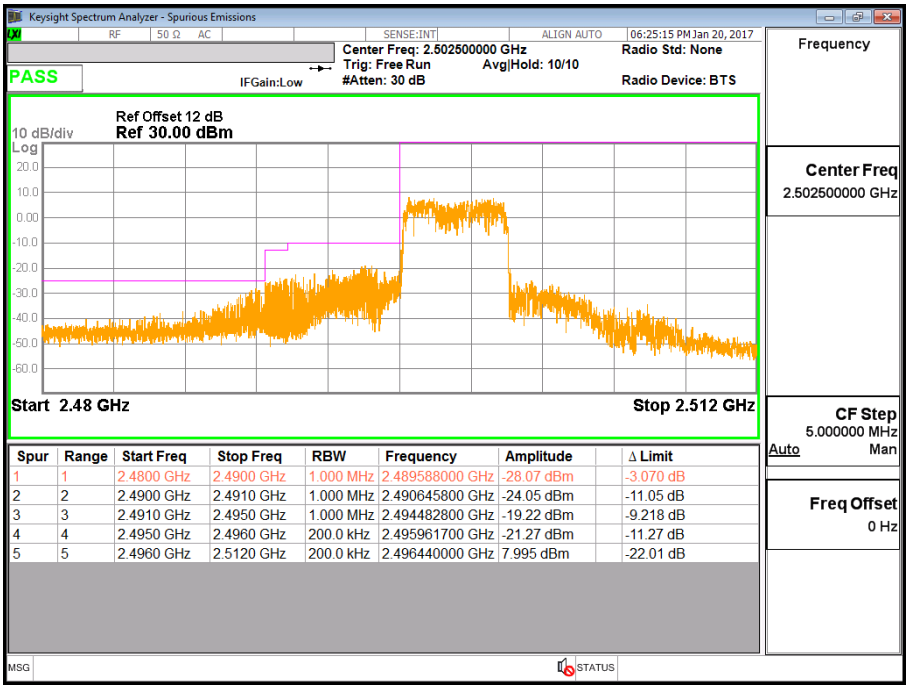
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4800 GHz	2.4900 GHz	1.000 MHz	2.485126000 GHz	-41.57 dBm	-16.57 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490878300 GHz	-36.10 dBm	-23.10 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494672000 GHz	-21.02 dBm	-11.02 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495967000 GHz	-11.78 dBm	-1.781 dB
5	5	2.4960 GHz	2.5120 GHz	200.0 kHz	2.496360000 GHz	19.00 dBm	-11.00 dB

Band 41 (5M) QPSK(1,24) Upper Channel 41565 (2687.5MHz)



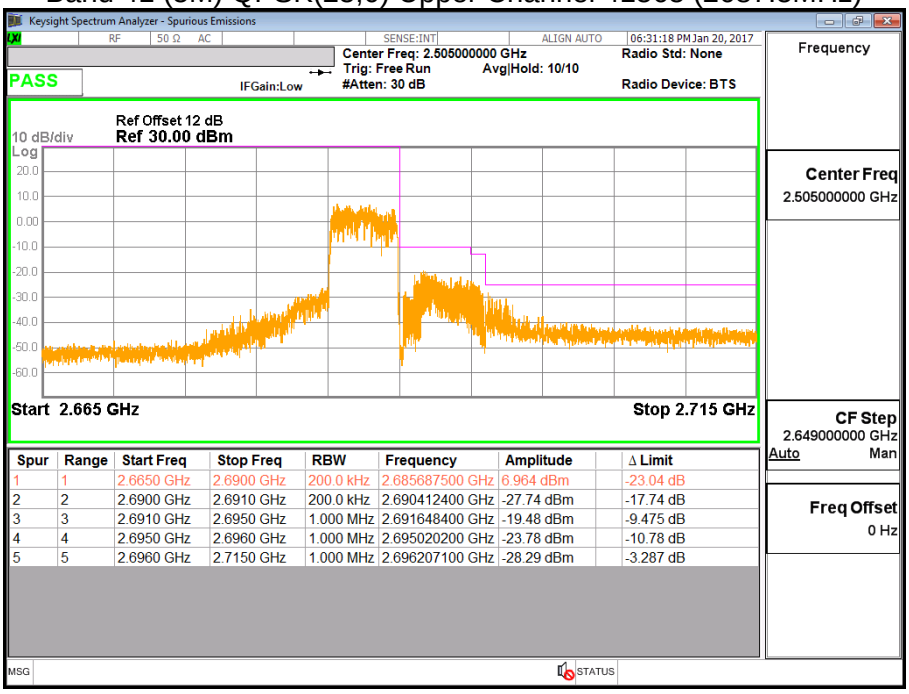
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.689655000 GHz	19.98 dBm	-10.02 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690025900 GHz	-12.22 dBm	-2.215 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691194000 GHz	-21.53 dBm	-11.53 dB
4	4	2.6950 GHz	2.6960 GHz	1.000 MHz	2.695153200 GHz	-27.05 dBm	-14.05 dB
5	5	2.6960 GHz	2.7150 GHz	1.000 MHz	2.709075800 GHz	-41.17 dBm	-16.17 dB

Band 41 (5M) QPSK(25,0) Lower Channel 39675 (2498.5MHz)



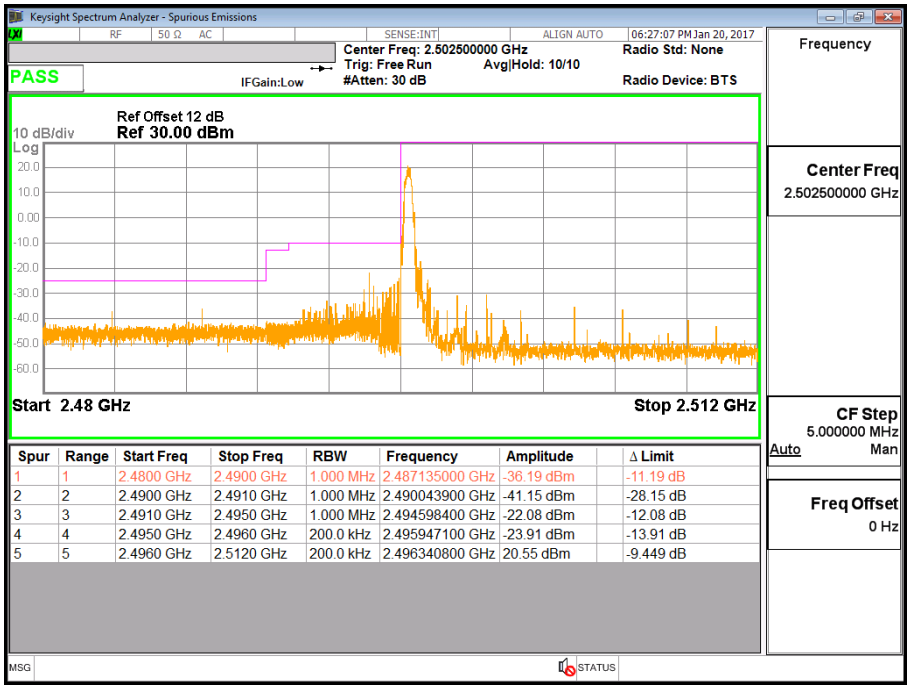
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4800 GHz	2.4900 GHz	1.000 MHz	2.489588000 GHz	-28.07 dBm	-3.070 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490645800 GHz	-24.05 dBm	-11.05 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494482800 GHz	-19.22 dBm	-9.218 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495961700 GHz	-21.27 dBm	-11.27 dB
5	5	2.4960 GHz	2.5120 GHz	200.0 kHz	2.496440000 GHz	7.995 dBm	-22.01 dB

Band 41 (5M) QPSK(25,0) Upper Channel 41565 (2687.5MHz)



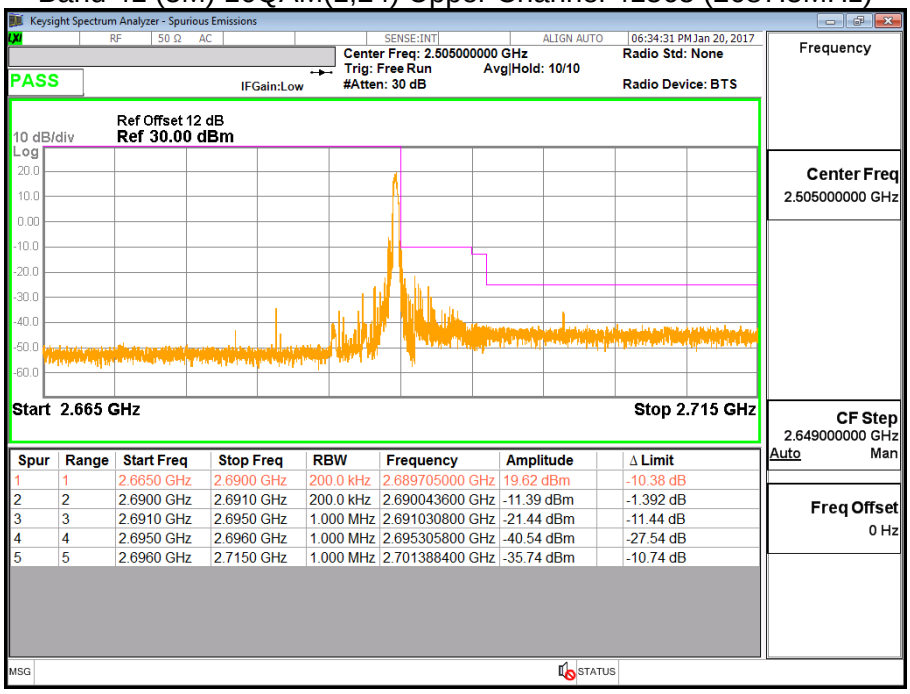
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.685687500 GHz	6.964 dBm	-23.04 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690412400 GHz	-27.74 dBm	-17.74 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691648400 GHz	-19.48 dBm	-9.475 dB
4	4	2.6950 GHz	2.6960 GHz	1.000 MHz	2.695020200 GHz	-23.78 dBm	-10.78 dB
5	5	2.6960 GHz	2.7150 GHz	1.000 MHz	2.696207100 GHz	-28.29 dBm	-3.287 dB

Band 41 (5M) 16QAM(1,0) Lower Channel 39675 (2498.5MHz)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4800 GHz	2.4900 GHz	1.000 MHz	2.487135000 GHz	-36.19 dBm	-11.19 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490043900 GHz	-41.15 dBm	-28.15 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494598400 GHz	-22.08 dBm	-12.08 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495947100 GHz	-23.91 dBm	-13.91 dB
5	5	2.4960 GHz	2.5120 GHz	200.0 kHz	2.496340800 GHz	20.55 dBm	-9.449 dB

Band 41 (5M) 16QAM(1,24) Upper Channel 41565 (2687.5MHz)

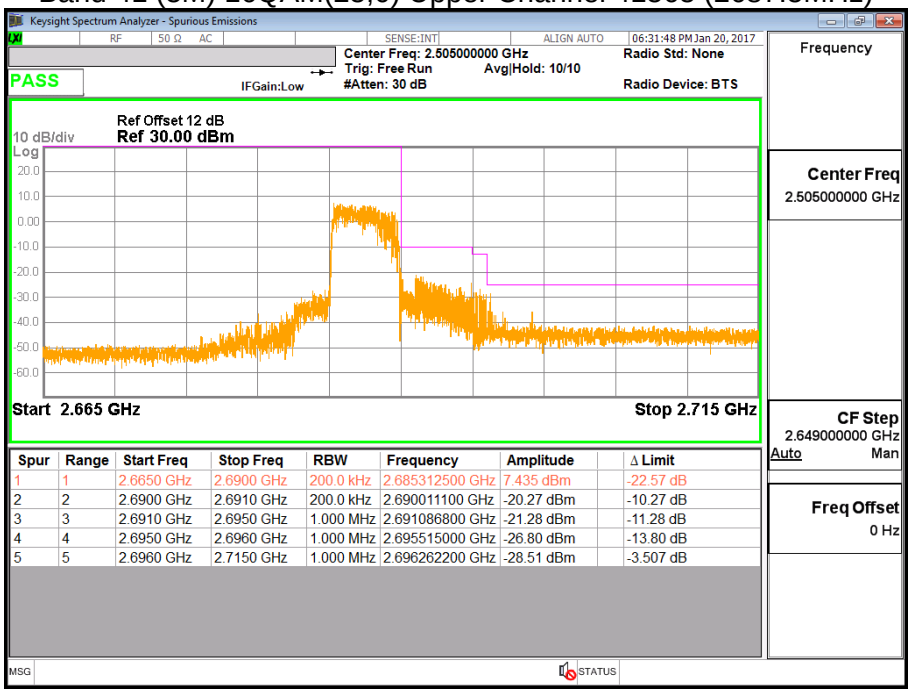


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.689705000 GHz	19.62 dBm	-10.38 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690043600 GHz	-11.39 dBm	-1.392 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691030800 GHz	-21.44 dBm	-11.44 dB
4	4	2.6950 GHz	2.6960 GHz	1.000 MHz	2.695305800 GHz	-40.54 dBm	-27.54 dB
5	5	2.6960 GHz	2.7150 GHz	1.000 MHz	2.701388400 GHz	-35.74 dBm	-10.74 dB

Band 41 (5M) 16QAM(25,0) Lower Channel 39675 (2498.5MHz)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4800 GHz	2.4900 GHz	1.000 MHz	2.489797000 GHz	-28.45 dBm	-3.448 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490552900 GHz	-26.51 dBm	-13.51 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494896400 GHz	-20.10 dBm	-10.10 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495181400 GHz	-27.53 dBm	-17.53 dB
5	5	2.4960 GHz	2.5120 GHz	200.0 kHz	2.499102400 GHz	8.008 dBm	-21.99 dB

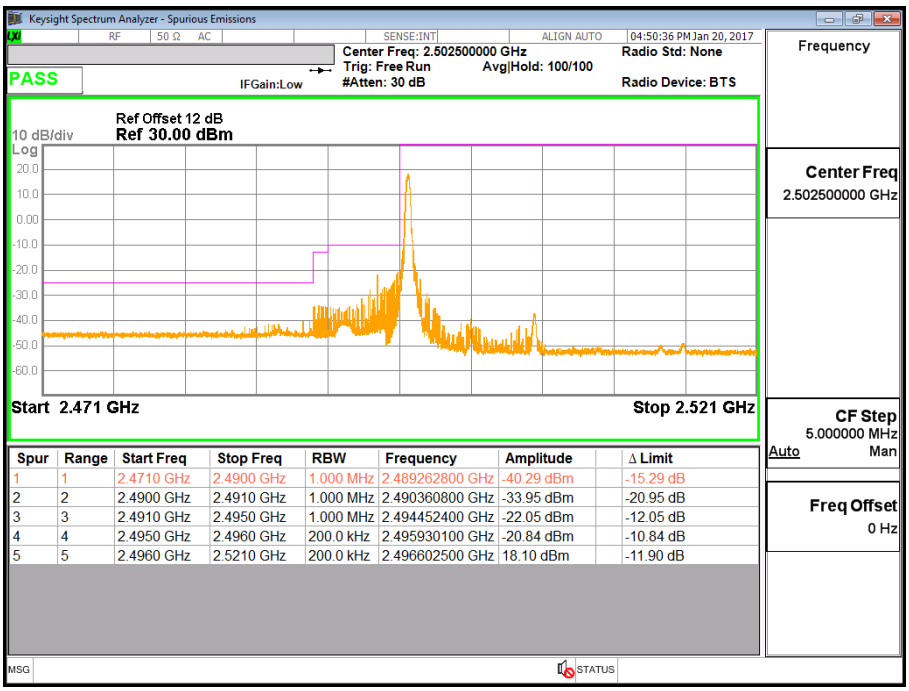
Band 41 (5M) 16QAM(25,0) Upper Channel 41565 (2687.5MHz)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.685312500 GHz	7.435 dBm	-22.57 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690011100 GHz	-20.27 dBm	-10.27 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691086800 GHz	-21.28 dBm	-11.28 dB
4	4	2.6950 GHz	2.6960 GHz	1.000 MHz	2.695515000 GHz	-26.80 dBm	-13.80 dB
5	5	2.6960 GHz	2.7150 GHz	1.000 MHz	2.696262200 GHz	-28.51 dBm	-3.507 dB

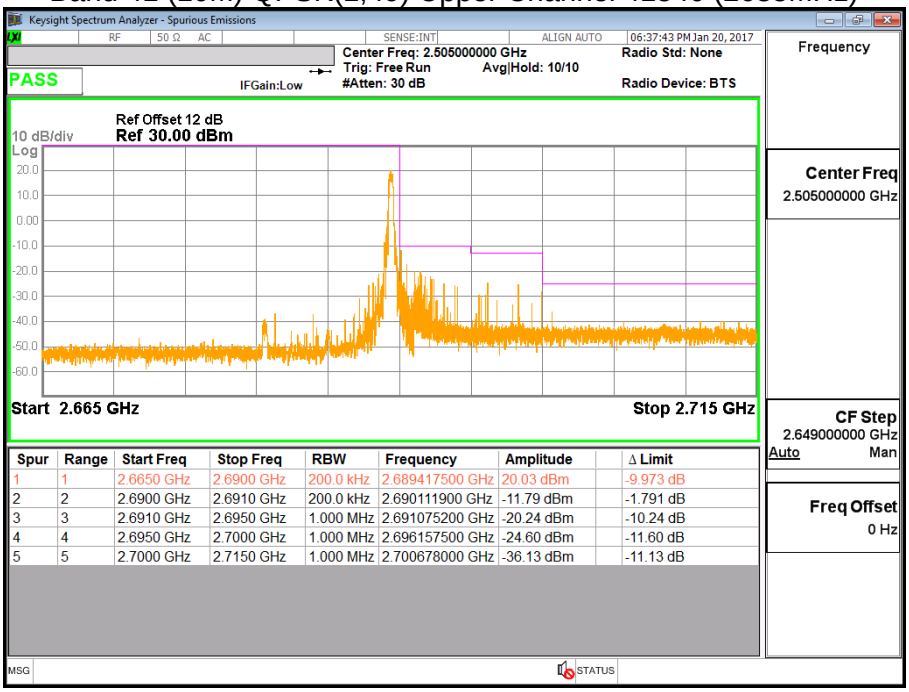
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2017/01/20	Test Site	CTR
Test Condition	Block Edge Test (Band 41 (10M))		

Band 41 (10M) QPSK(1,0) Lower Channel 39700 (2501MHz)



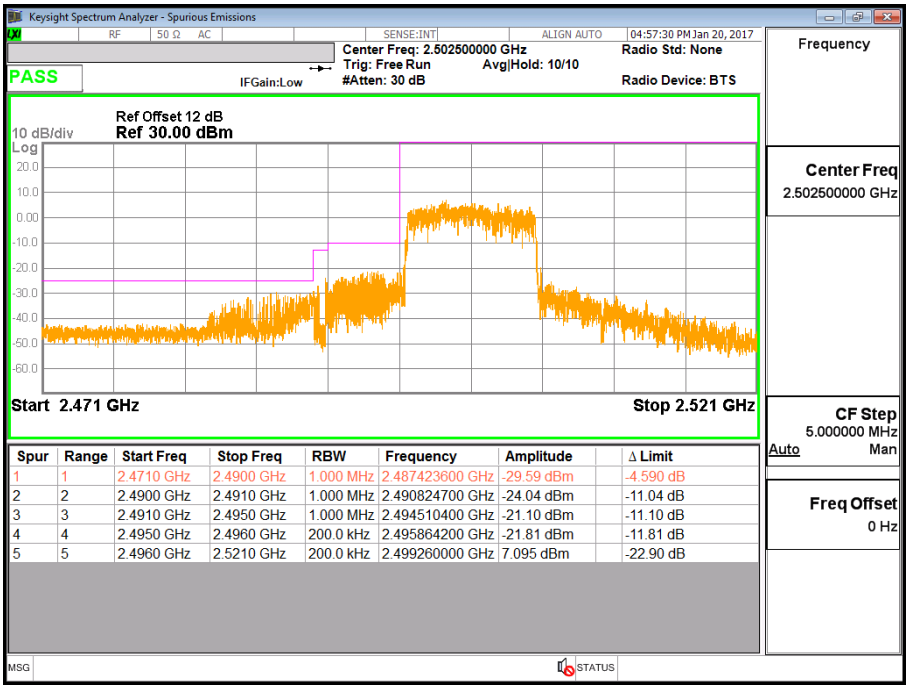
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.489262800 GHz	-40.29 dBm	-15.29 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490360800 GHz	-33.95 dBm	-20.95 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494452400 GHz	-22.05 dBm	-12.05 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495930100 GHz	-20.84 dBm	-10.84 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.496602500 GHz	18.10 dBm	-11.90 dB

Band 41 (10M) QPSK(1,49) Upper Channel 41540 (2685MHz)



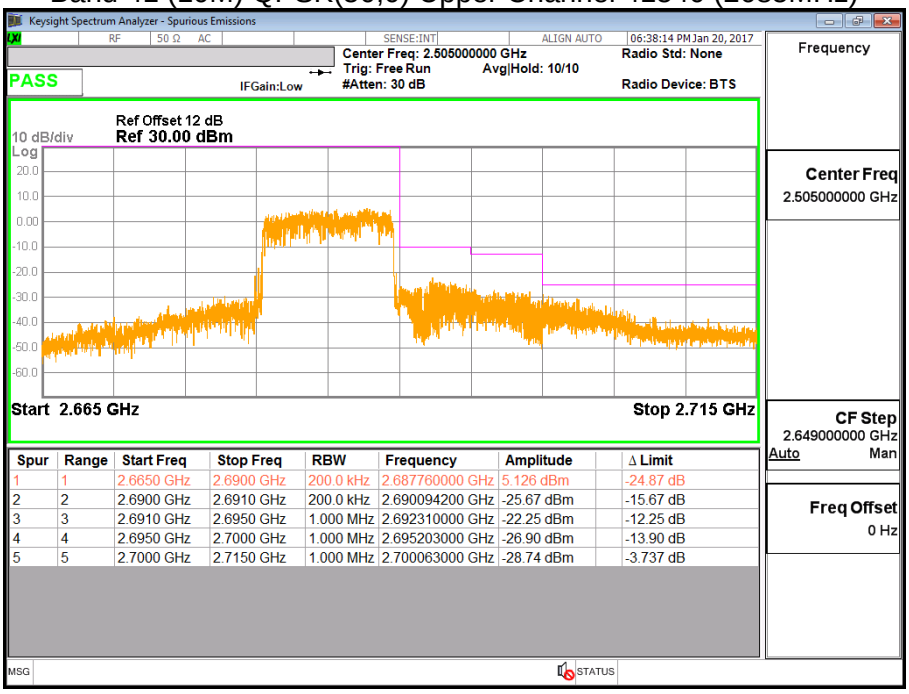
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.689417500 GHz	20.03 dBm	-9.973 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690111900 GHz	-11.79 dBm	-1.791 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691075200 GHz	-20.24 dBm	-10.24 dB
4	4	2.6950 GHz	2.7000 GHz	1.000 MHz	2.696157500 GHz	-24.60 dBm	-11.60 dB
5	5	2.7000 GHz	2.7150 GHz	1.000 MHz	2.700678000 GHz	-36.13 dBm	-11.13 dB

Band 41 (10M) QPSK(50,0) Lower Channel 39700 (2501MHz)



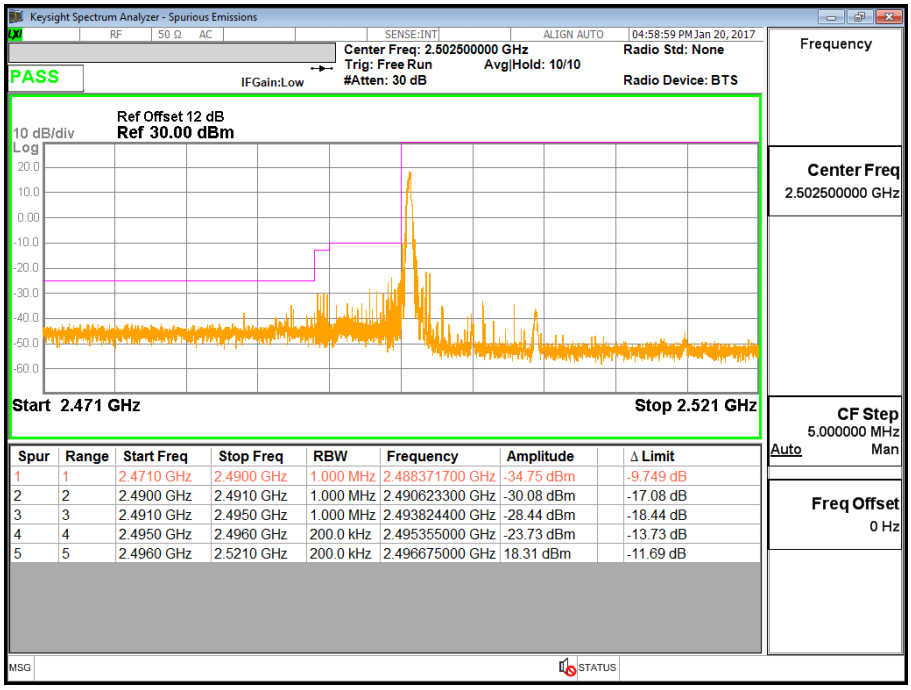
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.487423600 GHz	-29.59 dBm	-4.590 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490824700 GHz	-24.04 dBm	-11.04 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494510400 GHz	-21.10 dBm	-11.10 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495864200 GHz	-21.81 dBm	-11.81 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.499260000 GHz	7.095 dBm	-22.90 dB

Band 41 (10M) QPSK(50,0) Upper Channel 41540 (2685MHz)



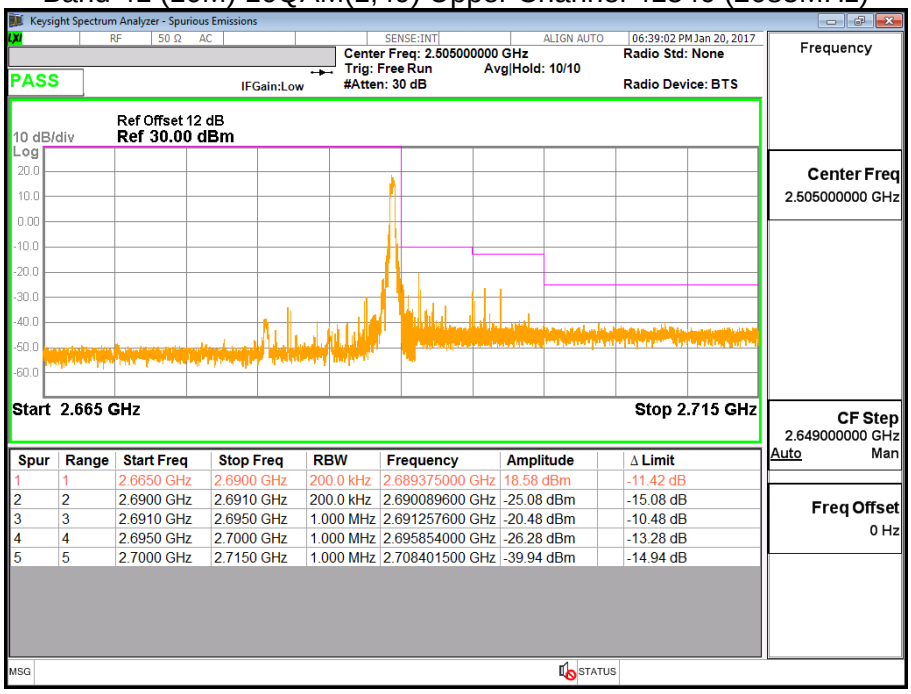
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.687760000 GHz	5.126 dBm	-24.87 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690094200 GHz	-25.67 dBm	-15.67 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.692310000 GHz	-22.25 dBm	-12.25 dB
4	4	2.6950 GHz	2.7000 GHz	1.000 MHz	2.695203000 GHz	-26.90 dBm	-13.90 dB
5	5	2.7000 GHz	2.7150 GHz	1.000 MHz	2.700063000 GHz	-28.74 dBm	-3.737 dB

Band 41 (10M) 16QAM(1,0) Lower Channel 39700 (2501MHz)



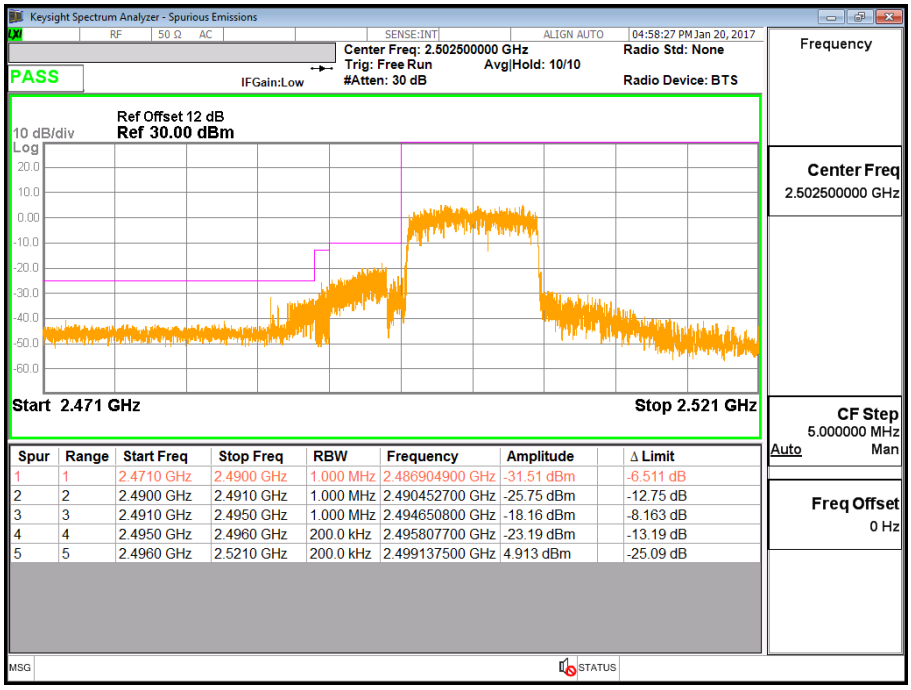
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.488371700 GHz	-34.75 dBm	-9.749 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490623300 GHz	-30.08 dBm	-17.08 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.493824400 GHz	-28.44 dBm	-18.44 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495355000 GHz	-23.73 dBm	-13.73 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.496675000 GHz	18.31 dBm	-11.69 dB

Band 41 (10M) 16QAM(1,49) Upper Channel 41540 (2685MHz)



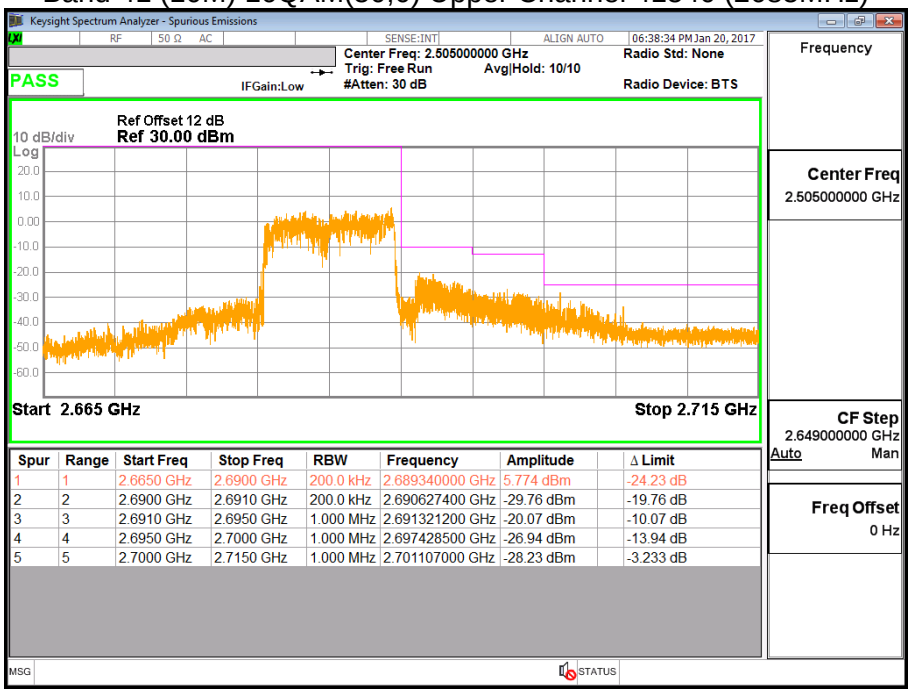
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.689375000 GHz	18.58 dBm	-11.42 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690089600 GHz	-25.08 dBm	-15.08 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691257600 GHz	-20.48 dBm	-10.48 dB
4	4	2.6950 GHz	2.7000 GHz	1.000 MHz	2.695854000 GHz	-26.28 dBm	-13.28 dB
5	5	2.7000 GHz	2.7150 GHz	1.000 MHz	2.708401500 GHz	-39.94 dBm	-14.94 dB

Band 41 (10M) 16QAM(50,0) Lower Channel 39700 (2501MHz)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.486904900 GHz	-31.51 dBm	-6.511 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490452700 GHz	-25.75 dBm	-12.75 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494650800 GHz	-18.16 dBm	-8.163 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495807700 GHz	-23.19 dBm	-13.19 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.499137500 GHz	4.913 dBm	-25.09 dB

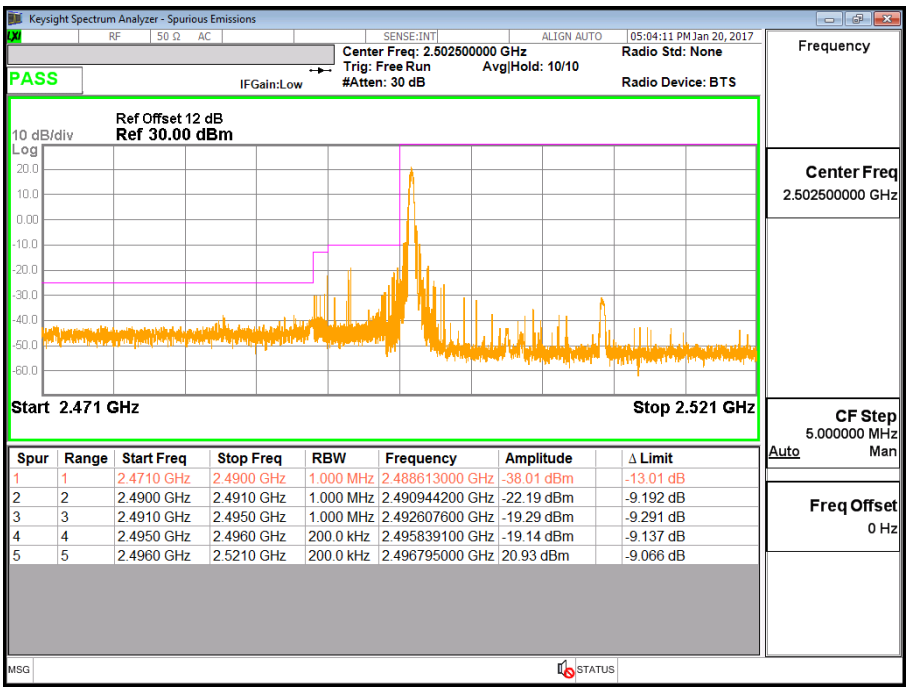
Band 41 (10M) 16QAM(50,0) Upper Channel 41540 (2685MHz)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.689340000 GHz	5.774 dBm	-24.23 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690627400 GHz	-29.76 dBm	-19.76 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691321200 GHz	-20.07 dBm	-10.07 dB
4	4	2.6950 GHz	2.7000 GHz	1.000 MHz	2.697428500 GHz	-26.94 dBm	-13.94 dB
5	5	2.7000 GHz	2.7150 GHz	1.000 MHz	2.701107000 GHz	-28.23 dBm	-3.233 dB

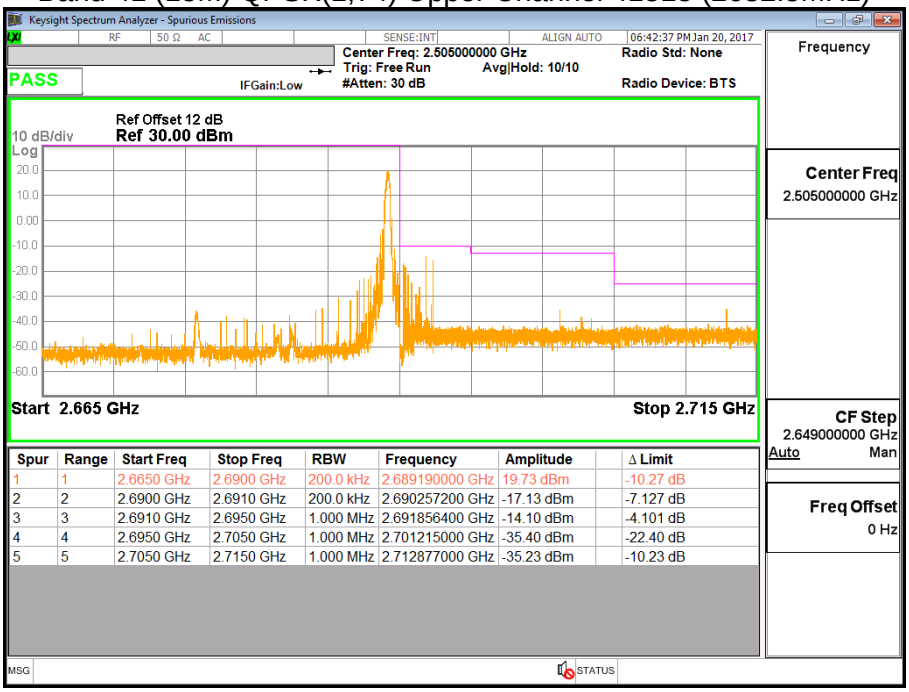
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2017/01/20	Test Site	CTR
Test Condition	Block Edge Test (Band 41 (15M))		

Band 41 (15M)QPSK(1,0) Lower Channel 39725 (2503.5MHz)



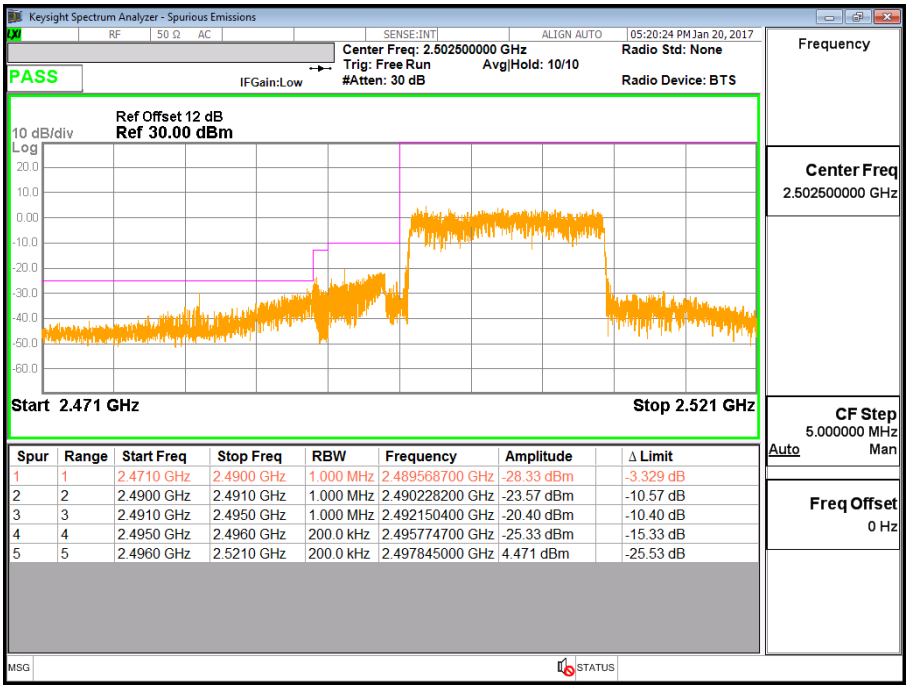
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.488613000 GHz	-38.01 dBm	-13.01 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490944200 GHz	-22.19 dBm	-9.192 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.492607600 GHz	-19.29 dBm	-9.291 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495839100 GHz	-19.14 dBm	-9.137 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.496795000 GHz	20.93 dBm	-9.066 dB

Band 41 (15M) QPSK(1,74) Upper Channel 41515 (2682.5MHz)



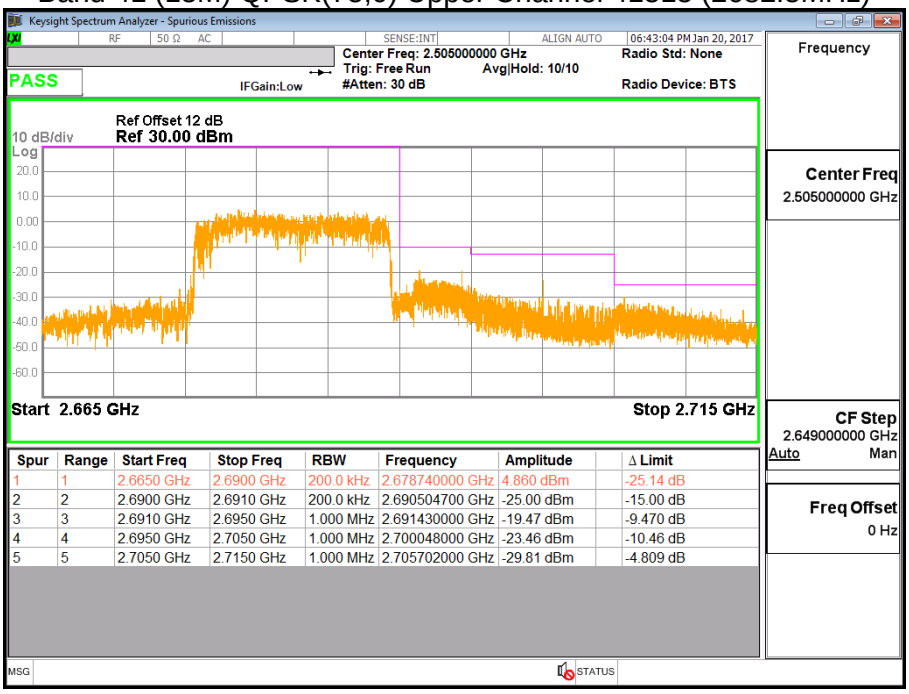
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.689190000 GHz	19.73 dBm	-10.27 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690257200 GHz	-17.13 dBm	-7.127 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691856400 GHz	-14.10 dBm	-4.101 dB
4	4	2.6950 GHz	2.7050 GHz	1.000 MHz	2.701215000 GHz	-35.40 dBm	-22.40 dB
5	5	2.7050 GHz	2.7150 GHz	1.000 MHz	2.712877000 GHz	-35.23 dBm	-10.23 dB

Band 41 (15M) QPSK(75,0) Lower Channel 39725 (2503.5MHz)



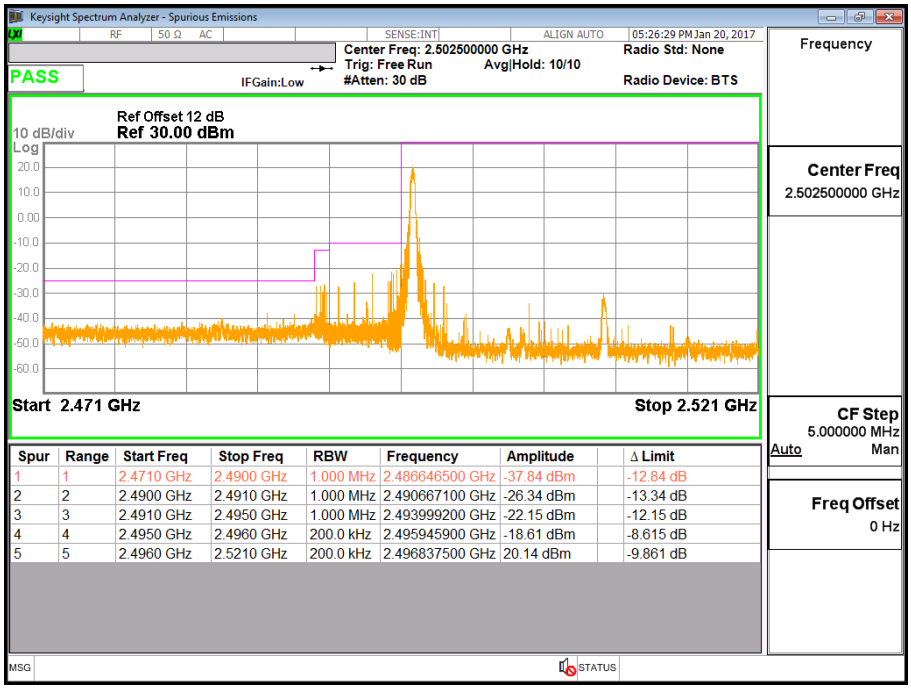
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.489568700 GHz	-28.33 dBm	-3.329 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490228200 GHz	-23.57 dBm	-10.57 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.492150400 GHz	-20.40 dBm	-10.40 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495774700 GHz	-25.33 dBm	-15.33 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.497845000 GHz	4.471 dBm	-25.53 dB

Band 41 (15M) QPSK(75,0) Upper Channel 41515 (2682.5MHz)



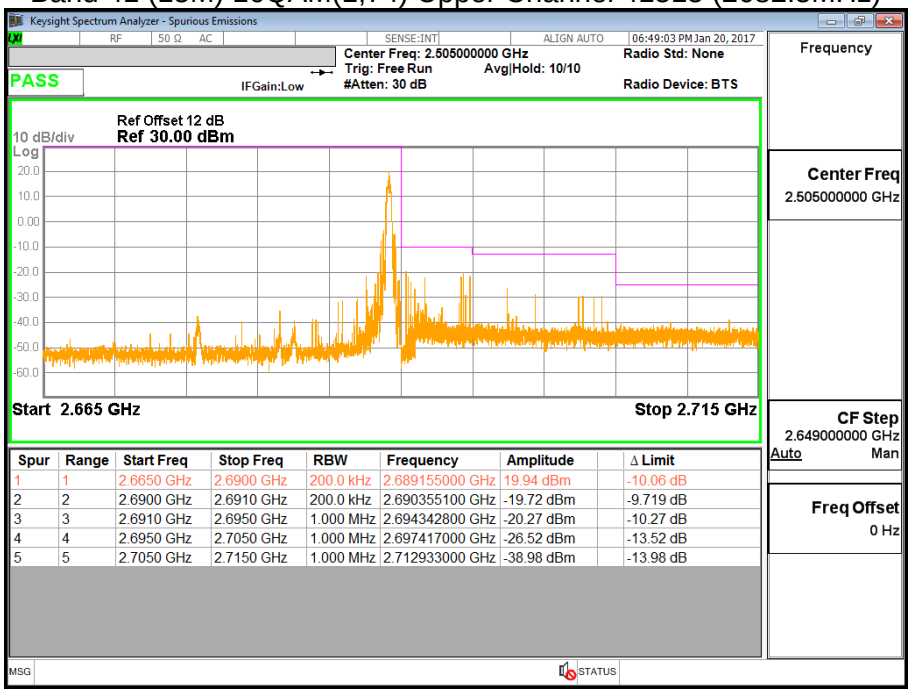
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.678740000 GHz	4.860 dBm	-25.14 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690504700 GHz	-25.00 dBm	-15.00 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691430000 GHz	-19.47 dBm	-9.470 dB
4	4	2.6950 GHz	2.7050 GHz	1.000 MHz	2.700048000 GHz	-23.46 dBm	-10.46 dB
5	5	2.7050 GHz	2.7150 GHz	1.000 MHz	2.705702000 GHz	-29.81 dBm	-4.809 dB

Band 41 (15M) 16QAM(1,0) Lower Channel 39725 (2503.5MHz)



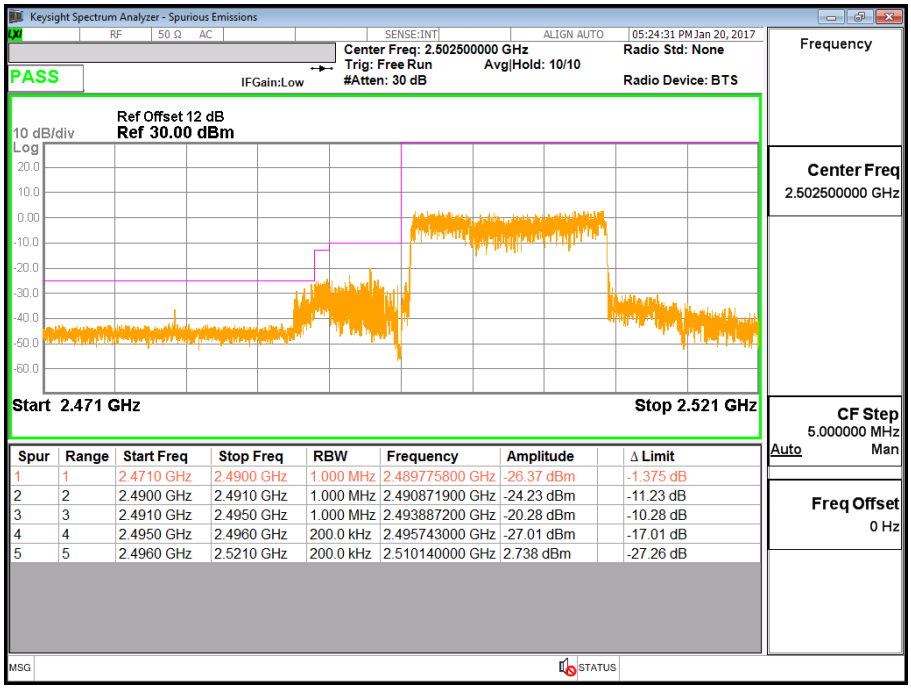
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.486646500 GHz	-37.84 dBm	-12.84 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490667100 GHz	-26.34 dBm	-13.34 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.493999200 GHz	-22.15 dBm	-12.15 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495945900 GHz	-18.61 dBm	-8.615 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.496837500 GHz	20.14 dBm	-9.861 dB

Band 41 (15M) 16QAM(1,74) Upper Channel 41515 (2682.5MHz)



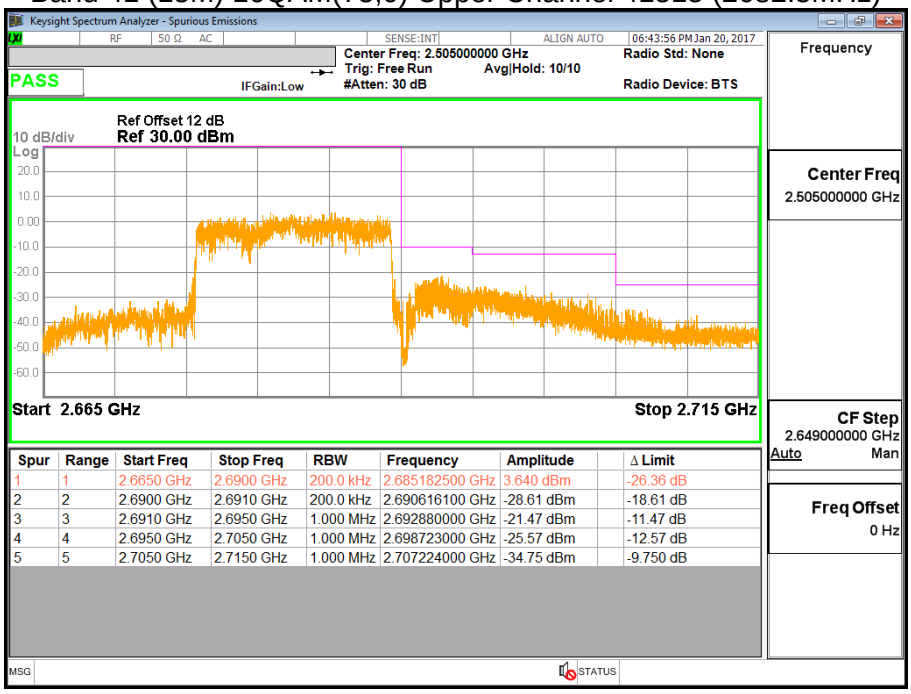
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.689155000 GHz	19.94 dBm	-10.06 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690355100 GHz	-19.72 dBm	-9.719 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.694342800 GHz	-20.27 dBm	-10.27 dB
4	4	2.6950 GHz	2.7050 GHz	1.000 MHz	2.697417000 GHz	-26.52 dBm	-13.52 dB
5	5	2.7050 GHz	2.7150 GHz	1.000 MHz	2.712933000 GHz	-38.98 dBm	-13.98 dB

Band 41 (15M) 16QAM(75,0) Lower Channel 39725 (2503.5MHz)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.489775800 GHz	-26.37 dBm	-1.375 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490871900 GHz	-24.23 dBm	-11.23 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.493887200 GHz	-20.28 dBm	-10.28 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495743000 GHz	-27.01 dBm	-17.01 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.510140000 GHz	2.738 dBm	-27.26 dB

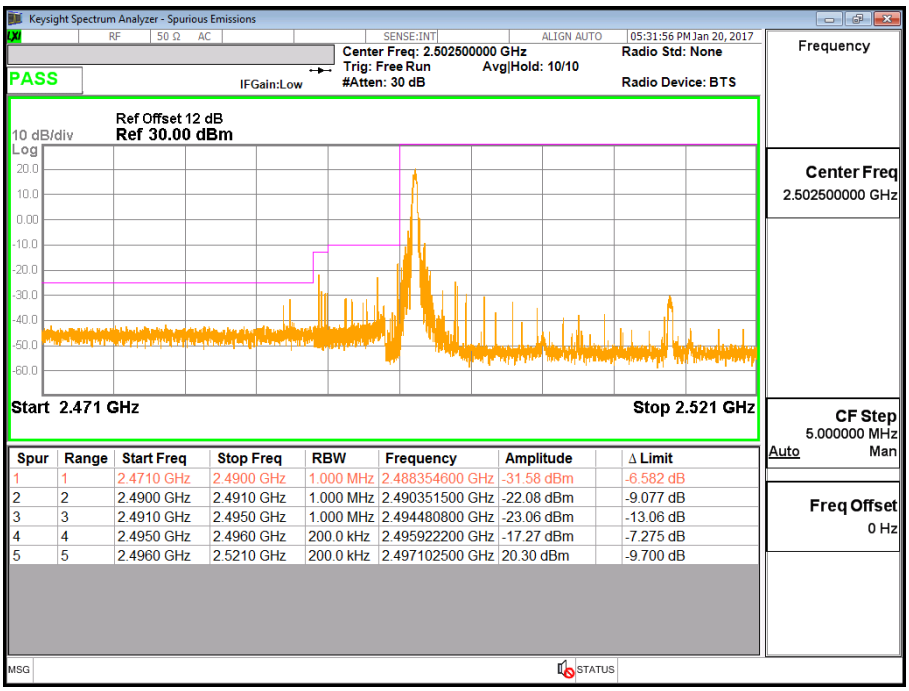
Band 41 (15M) 16QAM(75,0) Upper Channel 41515 (2682.5MHz)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.685182500 GHz	3.640 dBm	-26.36 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690616100 GHz	-28.61 dBm	-18.61 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.692880000 GHz	-21.47 dBm	-11.47 dB
4	4	2.6950 GHz	2.7050 GHz	1.000 MHz	2.698723000 GHz	-25.57 dBm	-12.57 dB
5	5	2.7050 GHz	2.7150 GHz	1.000 MHz	2.707224000 GHz	-34.75 dBm	-9.750 dB

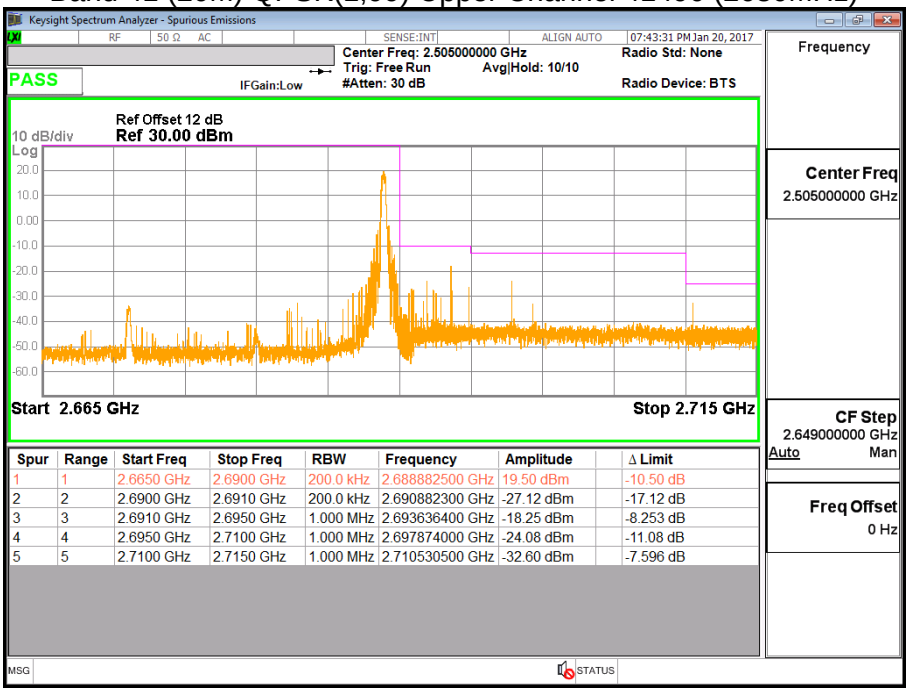
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission At Antenna Terminals (+/-1MHz)		
Date of Test	2017/01/20	Test Site	CTR
Test Condition	Block Edge Test (Band 41 (20M))		

Band 41 (20M)QPSK(1,0) Lower Channel 39750 (2506MHz)



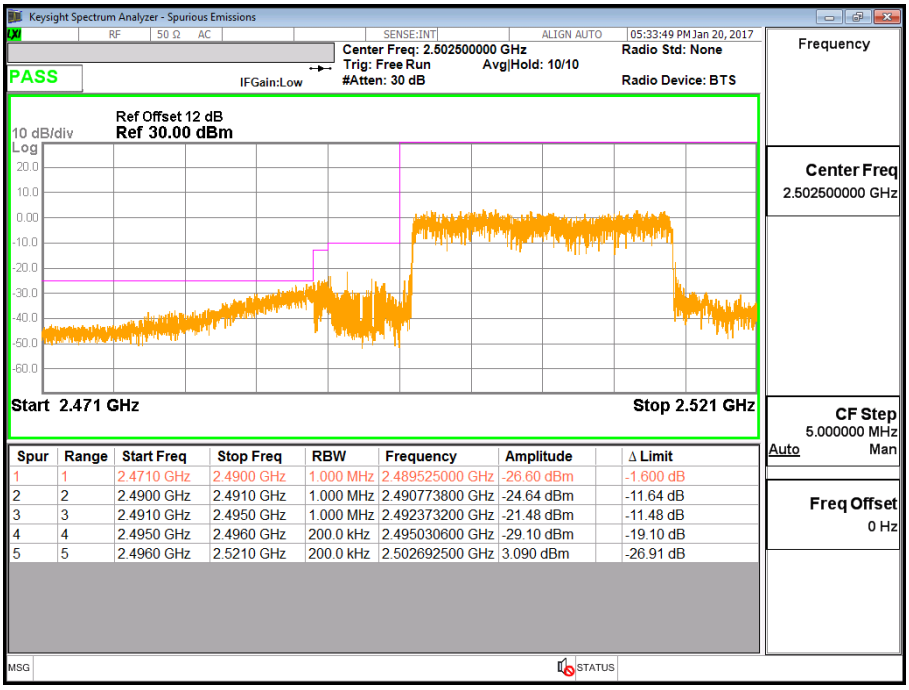
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.488354600 GHz	-31.58 dBm	-6.582 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490351500 GHz	-22.08 dBm	-9.077 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494480800 GHz	-23.06 dBm	-13.06 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495922200 GHz	-17.27 dBm	-7.275 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.497102500 GHz	20.30 dBm	-9.700 dB

Band 41 (20M) QPSK(1,99) Upper Channel 41490 (2680MHz)



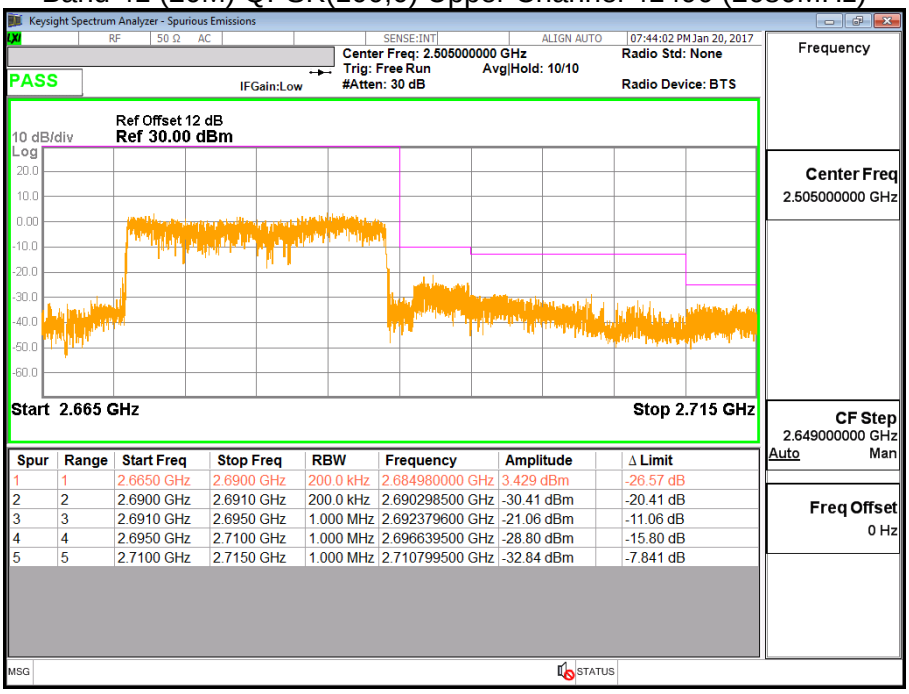
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.688882500 GHz	19.50 dBm	-10.50 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690882300 GHz	-27.12 dBm	-17.12 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.693636400 GHz	-18.25 dBm	-8.253 dB
4	4	2.6950 GHz	2.7100 GHz	1.000 MHz	2.697874000 GHz	-24.08 dBm	-11.08 dB
5	5	2.7100 GHz	2.7150 GHz	1.000 MHz	2.710530500 GHz	-32.60 dBm	-7.596 dB

Band 41 (20M) QPSK(100,0) Lower Channel 39750 (2506MHz)



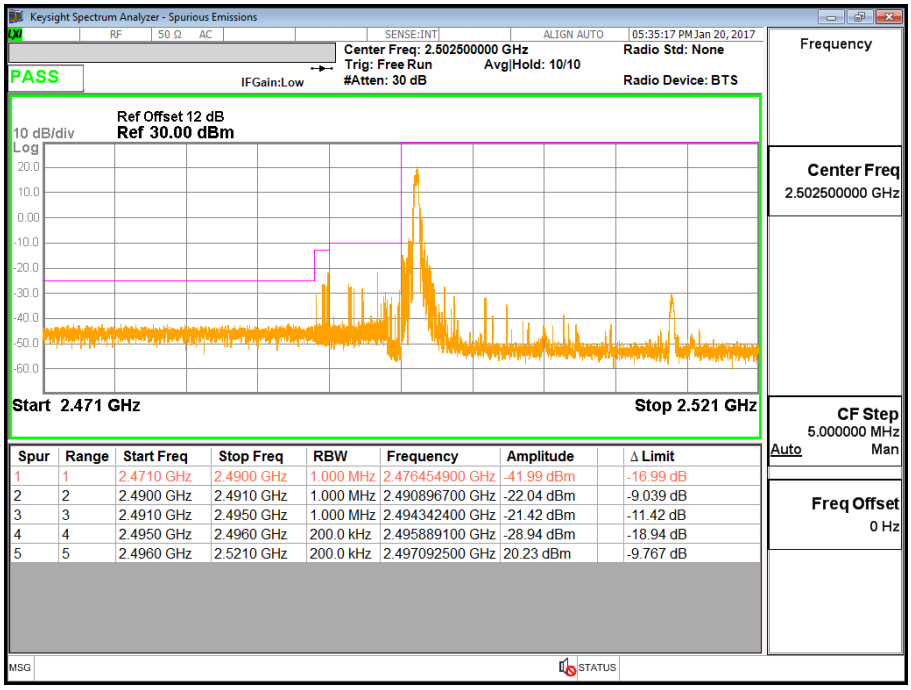
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.489525000 GHz	-26.60 dBm	-1.600 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490773800 GHz	-24.64 dBm	-11.64 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.492373200 GHz	-21.48 dBm	-11.48 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495030600 GHz	-29.10 dBm	-19.10 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.502692500 GHz	3.090 dBm	-26.91 dB

Band 41 (20M) QPSK(100,0) Upper Channel 41490 (2680MHz)



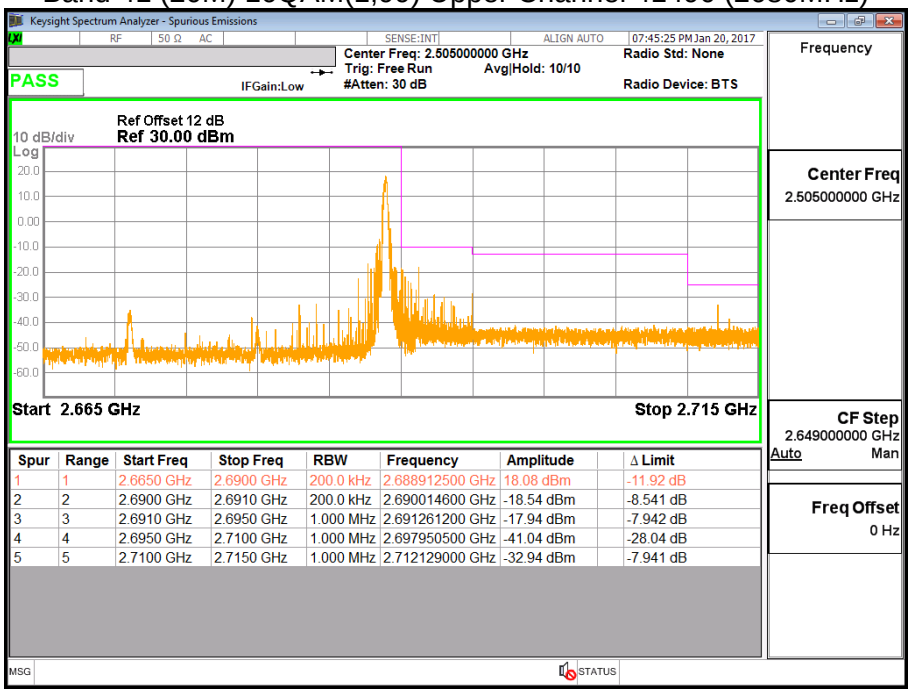
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.684980000 GHz	3.429 dBm	-26.57 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690298500 GHz	-30.41 dBm	-20.41 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.692379600 GHz	-21.06 dBm	-11.06 dB
4	4	2.6950 GHz	2.7100 GHz	1.000 MHz	2.696639500 GHz	-28.80 dBm	-15.80 dB
5	5	2.7100 GHz	2.7150 GHz	1.000 MHz	2.710799500 GHz	-32.84 dBm	-7.841 dB

Band 41 (20M) 16QAM(1,0) Lower Channel 39750 (2506MHz)



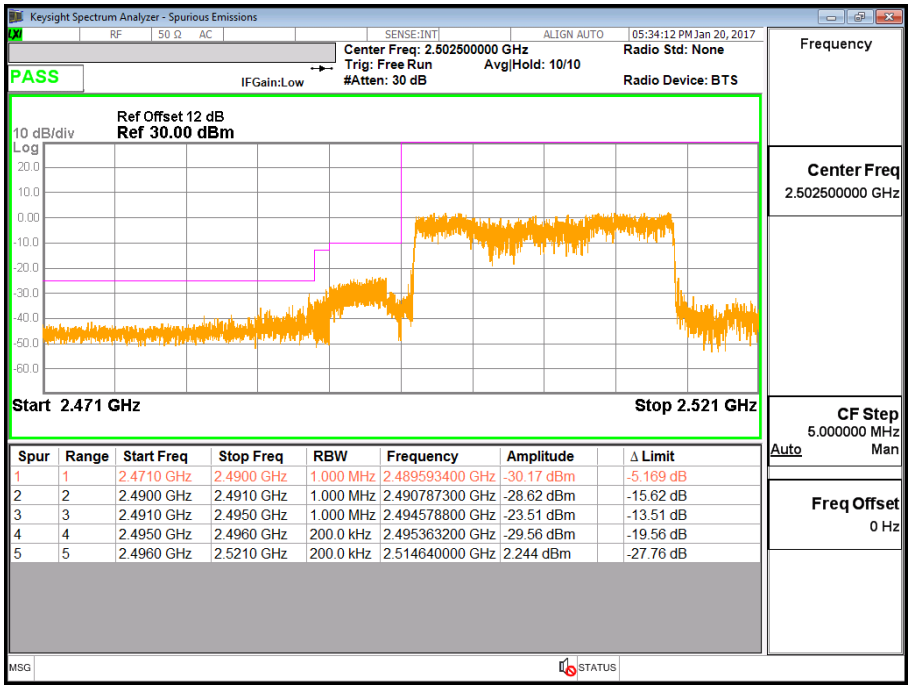
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.476454900 GHz	-41.99 dBm	-16.99 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490896700 GHz	-22.04 dBm	-9.039 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494342400 GHz	-21.42 dBm	-11.42 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495889100 GHz	-28.94 dBm	-18.94 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.497092500 GHz	20.23 dBm	-9.767 dB

Band 41 (20M) 16QAM(1,99) Upper Channel 41490 (2680MHz)



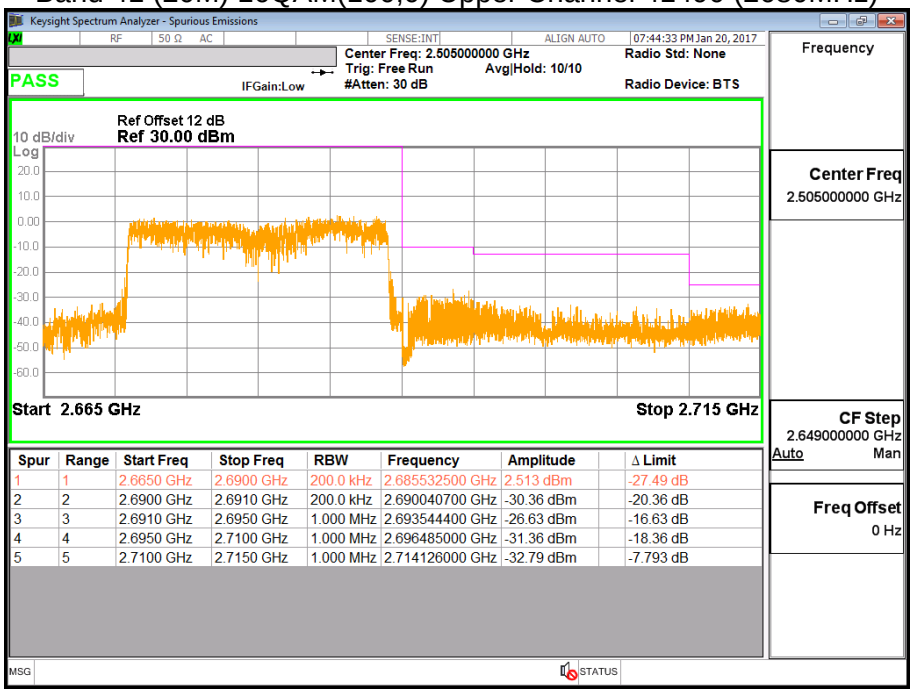
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.688912500 GHz	18.08 dBm	-11.92 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690014600 GHz	-18.54 dBm	-8.541 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691261200 GHz	-17.94 dBm	-7.942 dB
4	4	2.6950 GHz	2.7100 GHz	1.000 MHz	2.697950500 GHz	-41.04 dBm	-28.04 dB
5	5	2.7100 GHz	2.7150 GHz	1.000 MHz	2.712129000 GHz	-32.94 dBm	-7.941 dB

Band 41 (20M) 16QAM(100,0) Lower Channel 39750 (2506MHz)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4710 GHz	2.4900 GHz	1.000 MHz	2.489593400 GHz	-30.17 dBm	-5.169 dB
2	2	2.4900 GHz	2.4910 GHz	1.000 MHz	2.490787300 GHz	-28.62 dBm	-15.62 dB
3	3	2.4910 GHz	2.4950 GHz	1.000 MHz	2.494578800 GHz	-23.51 dBm	-13.51 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495363200 GHz	-29.56 dBm	-19.56 dB
5	5	2.4960 GHz	2.5210 GHz	200.0 kHz	2.514640000 GHz	2.244 dBm	-27.76 dB

Band 41 (20M) 16QAM(100,0) Upper Channel 41490 (2680MHz)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.685532500 GHz	2.513 dBm	-27.49 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690040700 GHz	-30.36 dBm	-20.36 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.693544400 GHz	-26.63 dBm	-16.63 dB
4	4	2.6950 GHz	2.7100 GHz	1.000 MHz	2.696485000 GHz	-31.36 dBm	-18.36 dB
5	5	2.7100 GHz	2.7150 GHz	1.000 MHz	2.714126000 GHz	-32.79 dBm	-7.793 dB

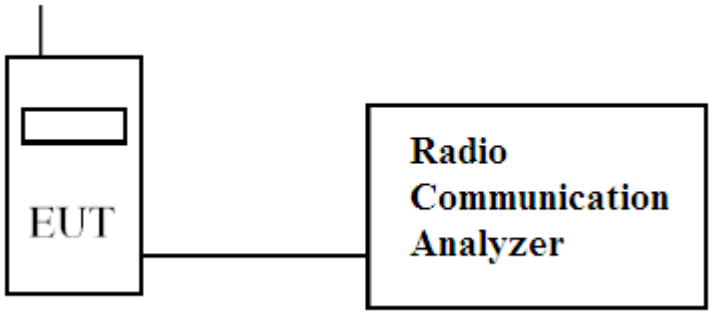
6. Spurious Emission

6.1. Test Specification

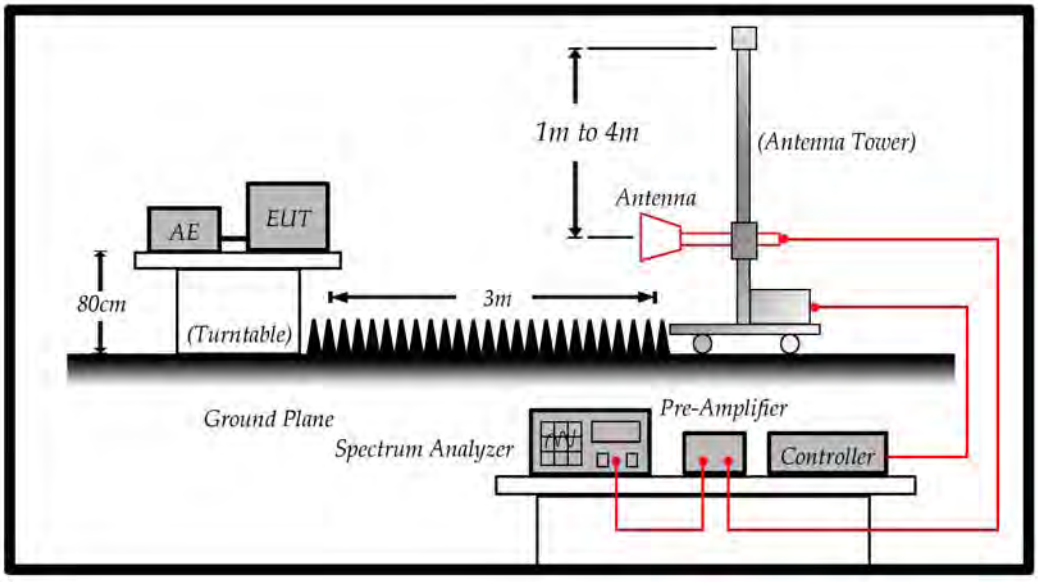
According to Part 2.1051, 2.1053, 22.917, 24.238, 27.53

6.2. Test Setup

6.2.1 Spurious emissions at antenna terminals.



6.2.2 Field strength of spurious radiation.



Note: The Worst case Mode is QPSK Mode for Radiated spurious emissions.

6.3. Limits

Limit	<-13dBm

43 + 10Log(P) down on the carrier where P is the power in Watts.

For LTE Band 41:

Limit	<-25dBm

55 + 10Log(P) down on the carrier where P is the power in Watts.

6.4. Test Procedure

In accordance with Part 2.1051, 2.1053, 22.917, 24.238, 27.53, the spurious emissions from the antenna terminal were measured. The transmitter output power was attenuated using a combination of filters and attenuators and the frequency spectrum investigated from 30MHz to 20GHz. The EUT was set to transmit on full power. The EUT was tested on Low, middle and High channels for both power levels. The resolution and video bandwidth was set to 1MHz/3MHz in accordance with Part 2.1051, 2.1053, 22.917, 24.238, 27.53. The spectrum analyzer detector was set to Max Hold. In addition, measurements were made up to the 10^{th} harmonic of the fundamental. The device was then replaced with a substitution antenna, which input signal was adjusted until the received level matched that of the previously detected emission.
(1) The EUT is tested with maximum rated TX power via the Base Station simulator.
(2) The EUT is tested in three orthogonal planes, The worst case was showing in this report.

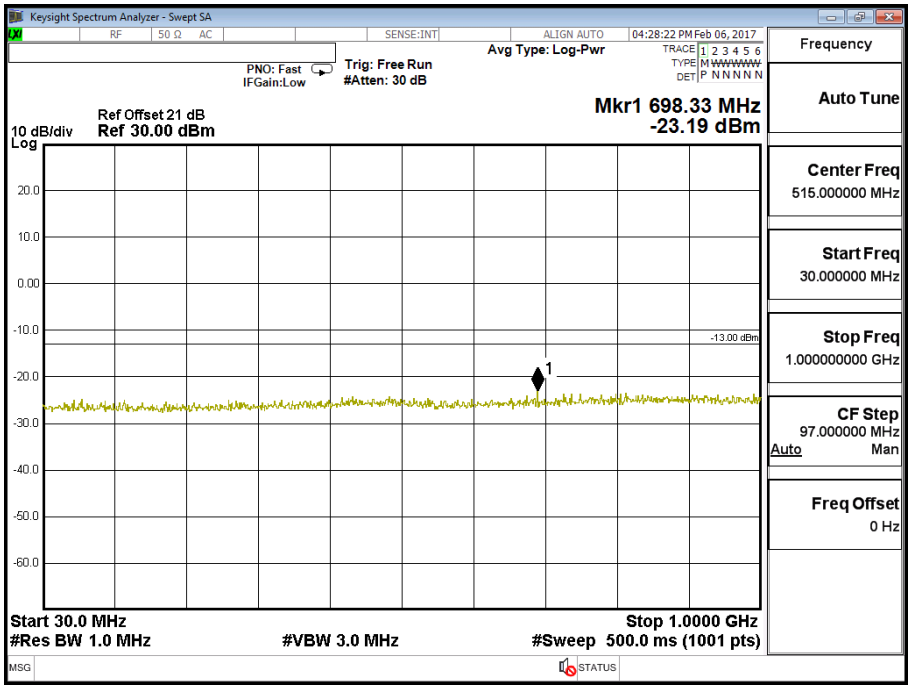
The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to TIA/EIA 603-D on radiated measurement.

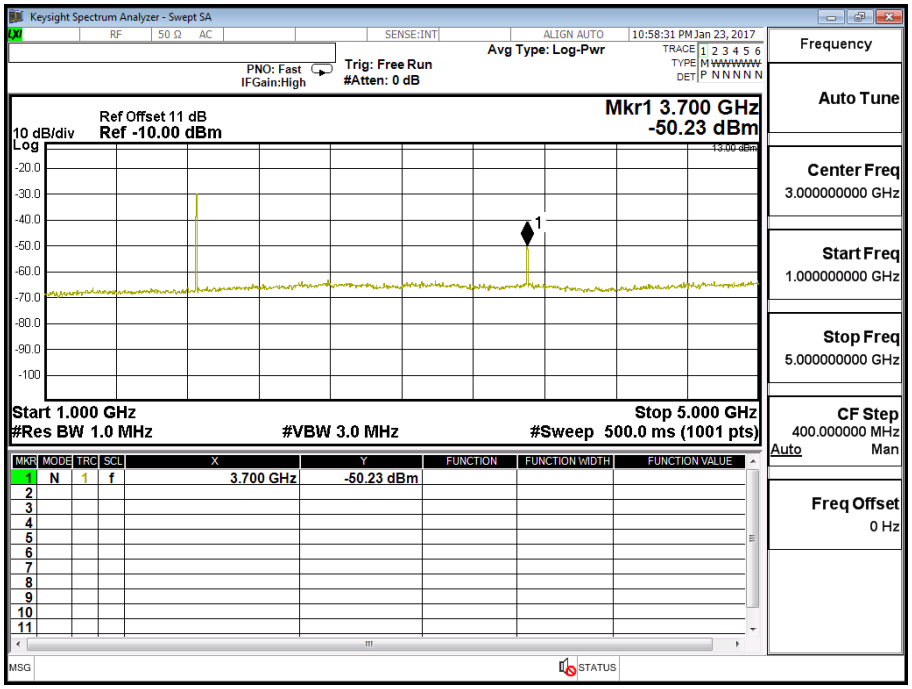
6.5. Test Result of Spurious Emission

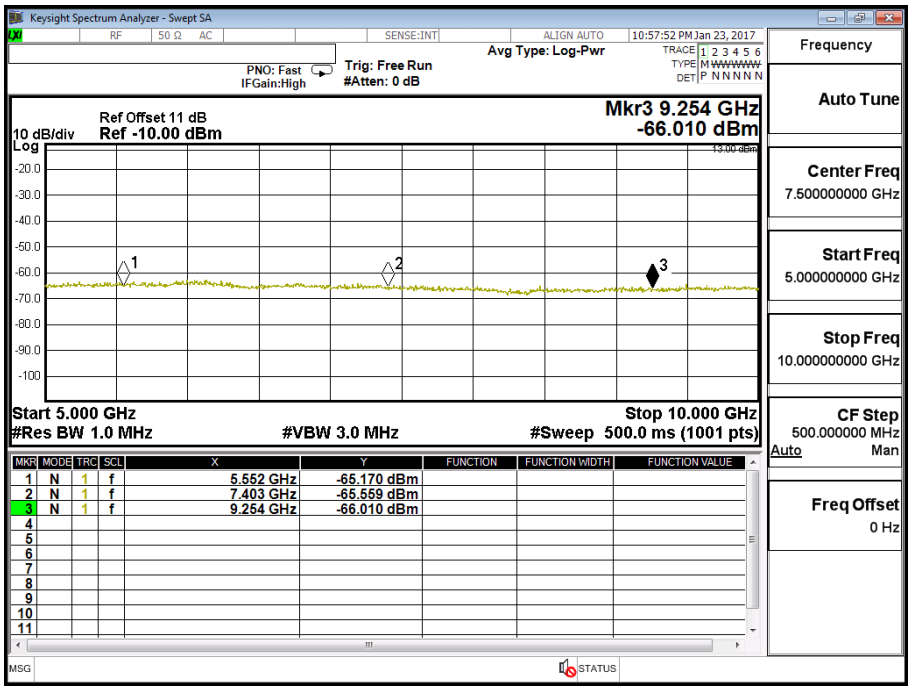
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	LTE-Band 25 (1.4M)	Test Range	30MHz~20GHz

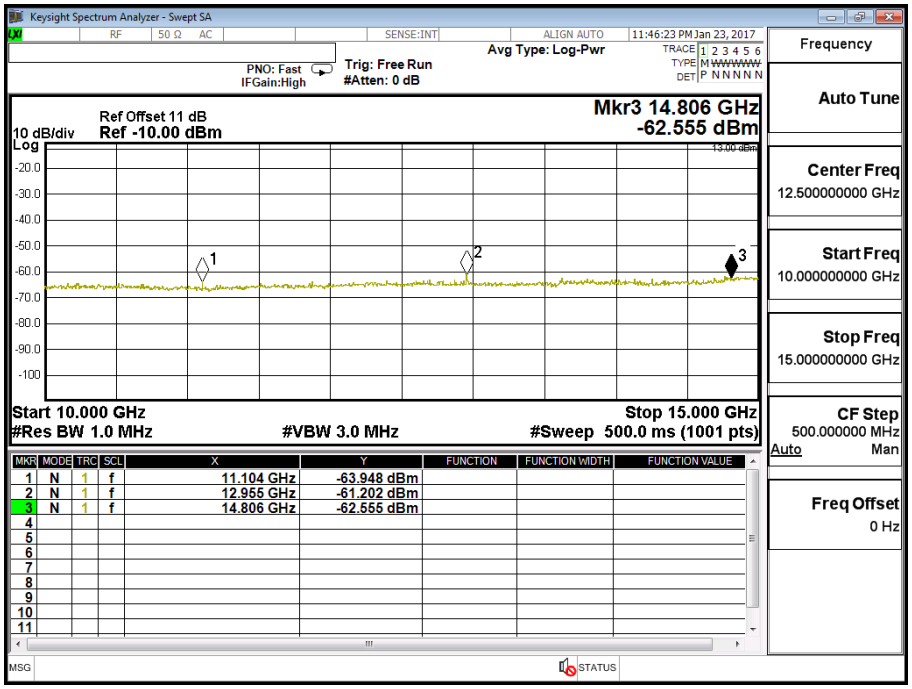
LTE-Band 25 (1.4M) QPSK(1,3) CH26047 (1850.7MHz)

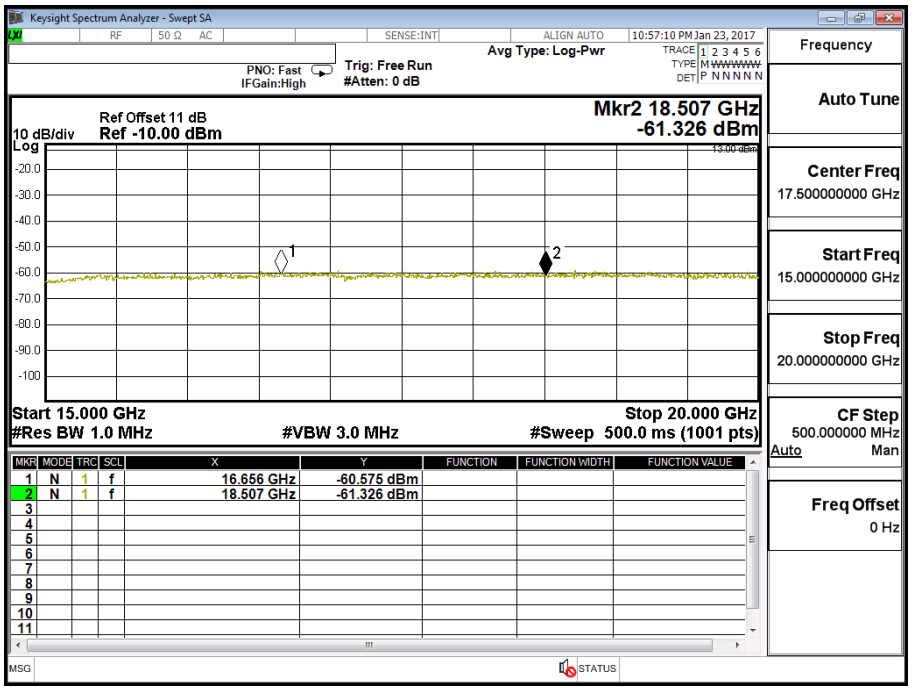
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3700	-50.230	1.1	-49.130	-13
5552	-65.170	1.23	-63.940	-13
7403	-65.559	1.59	-63.969	-13
9254	-66.010	1.89	-64.120	-13
11104	-63.948	2.07	-61.878	-13
12955	-61.202	2.26	-58.942	-13
14806	-62.555	2.64	-59.915	-13
16656	-60.575	3.5	-57.075	-13
18507	-61.326	3.7	-57.626	-13




Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
10:58:31 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Mkr1 3.700 GHz
-50.23 dBm
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 3.700 GHz -50.23 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto Man
Freq Offset
0 Hz


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
10:57:52 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Mkr3 9.254 GHz
-66.010 dBm
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 5.552 GHz -65.170 dBm
2 N 1 f 7.403 GHz -65.559 dBm
3 N 1 f 9.254 GHz -66.010 dBm
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

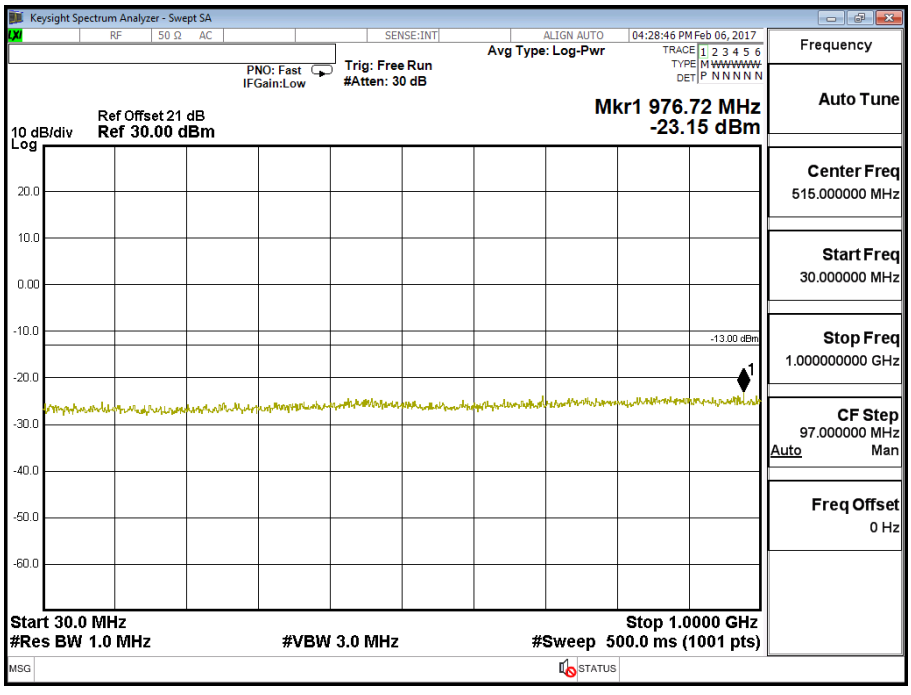

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:46:23 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Mkr3 14.806 GHz
-62.555 dBm
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 11.104 GHz -63.948 dBm
2 N 1 f 12.955 GHz -61.202 dBm
3 N 1 f 14.806 GHz -62.555 dBm
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

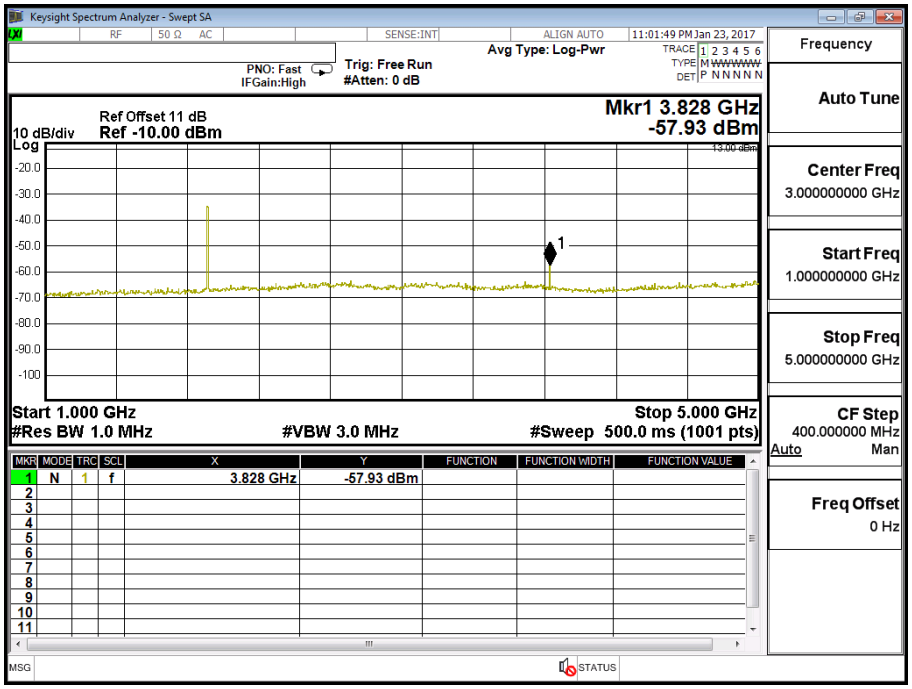

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
10:57:10 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Mkr2 18.507 GHz
-61.326 dBm
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 16.656 GHz -60.575 dBm
2 N 1 f 18.507 GHz -61.326 dBm
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

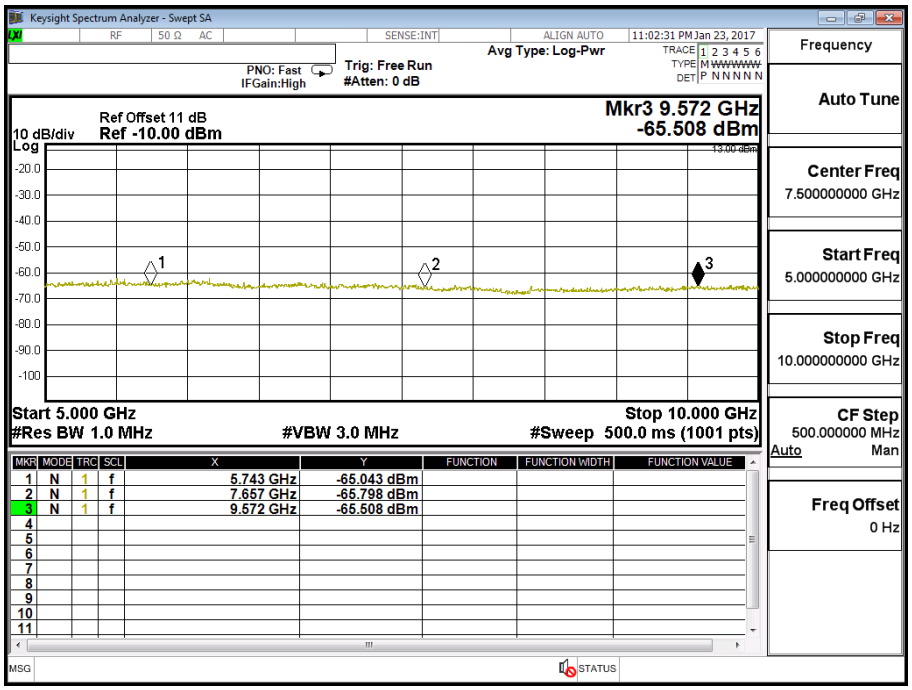
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	LTE-Band 25 (1.4M)	Test Range	30MHz~20GHz

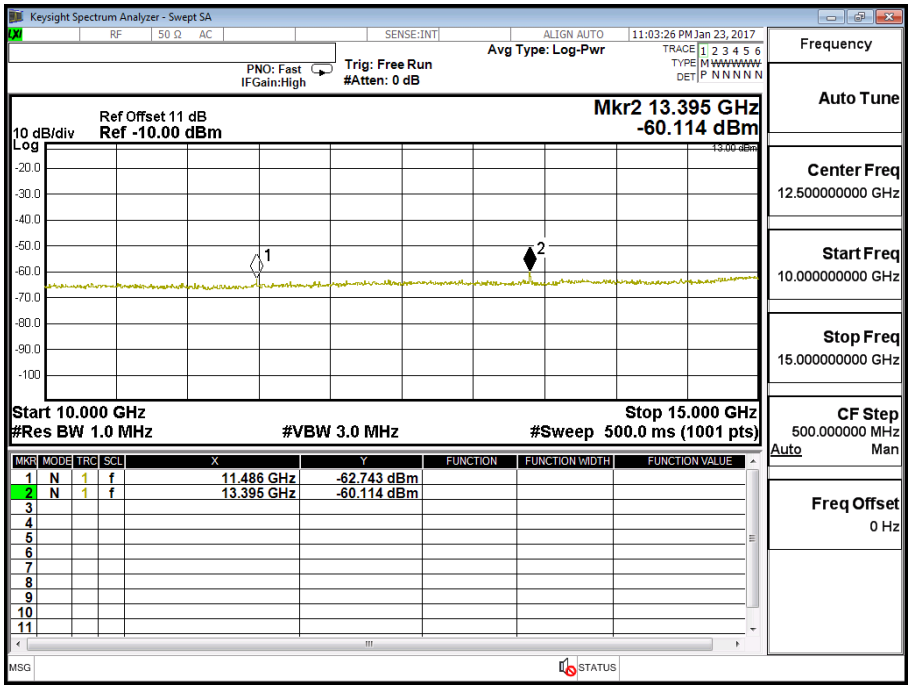
LTE-Band 25 (1.4M) 16QAM(1,0) CH26683 (1914.3MHz)

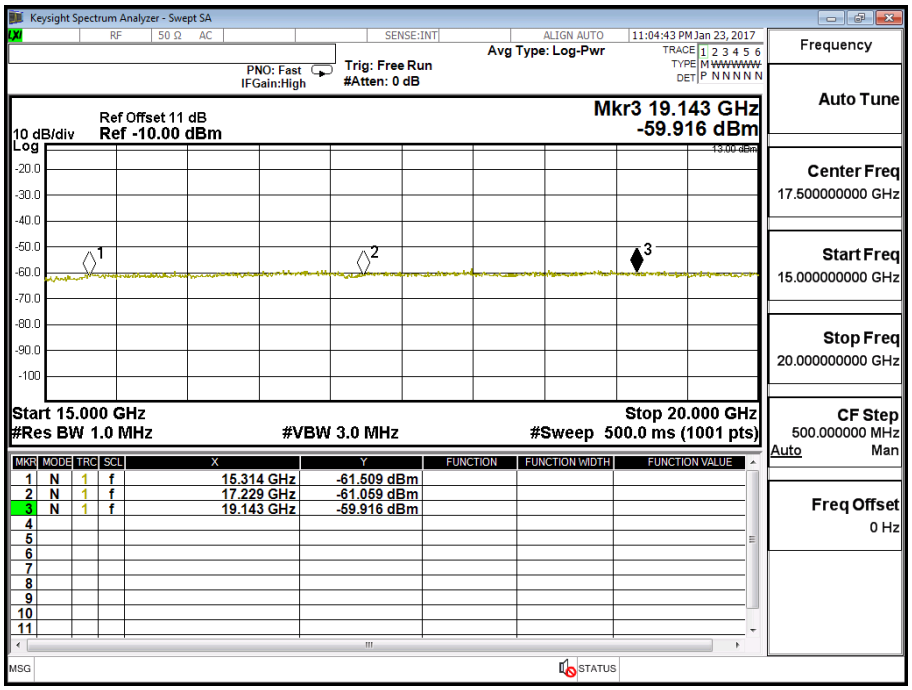
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3828	-57.930	1.1	-56.830	-13
5743	-65.043	1.23	-63.813	-13
7657	-65.798	1.59	-64.208	-13
9572	-65.508	1.89	-63.618	-13
11486	-62.743	2.07	-60.673	-13
13395	-60.114	2.26	-57.854	-13
15314	-61.509	2.64	-58.869	-13
17229	-61.059	3.5	-57.559	-13
19143	-59.916	3.7	-56.216	-13




Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:01:49 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr1 3.828 GHz
-57.93 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 3.828 GHz -57.93 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:02:31 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 9.572 GHz
-65.508 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.743 GHz -65.043 dBm
2 N 1 f 7.657 GHz -65.798 dBm
3 N 1 f 9.572 GHz -65.508 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

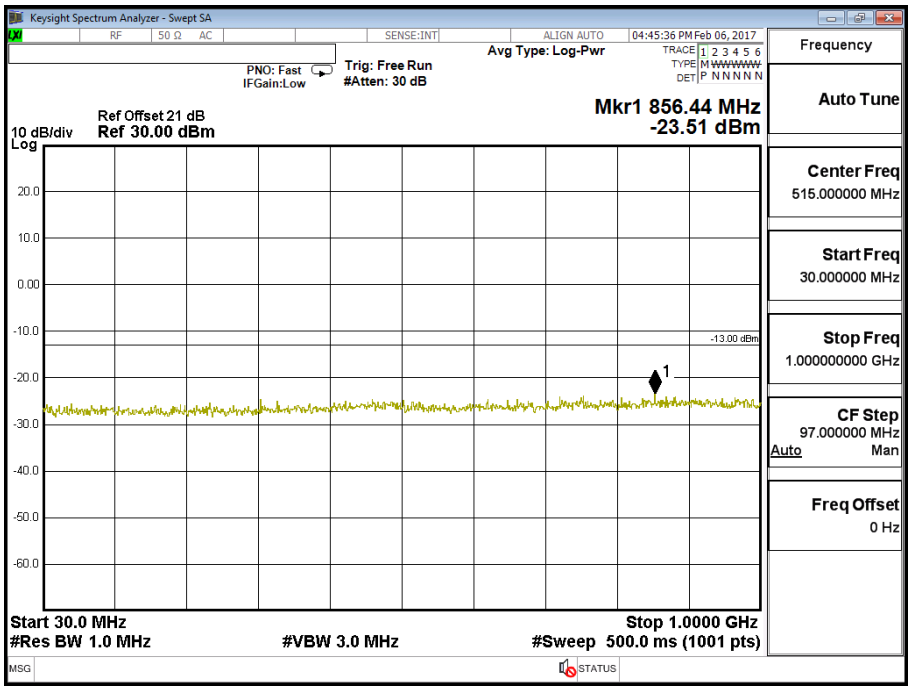

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:03:26 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr2 13.395 GHz
-60.114 dBm
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 11.486 GHz -62.743 dBm
2 N 1 f 13.395 GHz -60.114 dBm
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

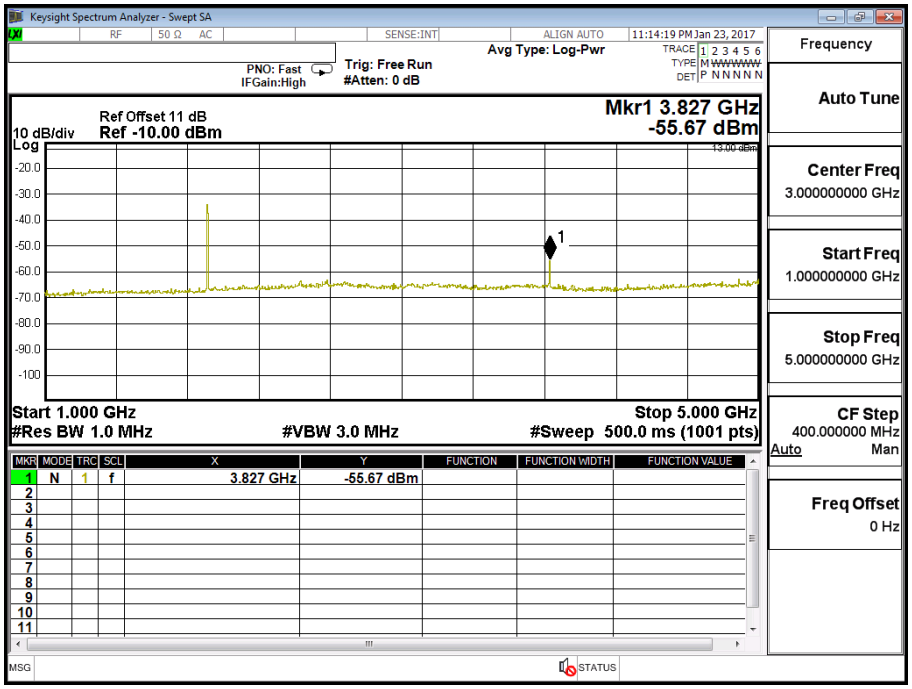

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:04:43 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr3 19.143 GHz
-59.916 dBm
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 15.314 GHz -61.509 dBm
2 N 1 f 17.229 GHz -61.059 dBm
3 N 1 f 19.143 GHz -59.916 dBm
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

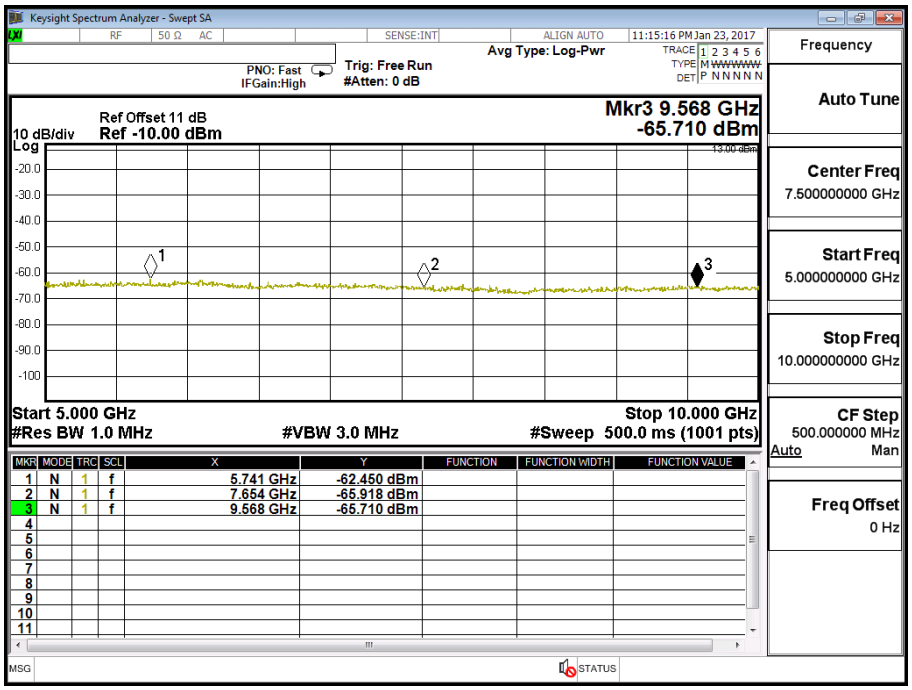
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	LTE-Band 25 (3M)	Test Range	30MHz~20GHz

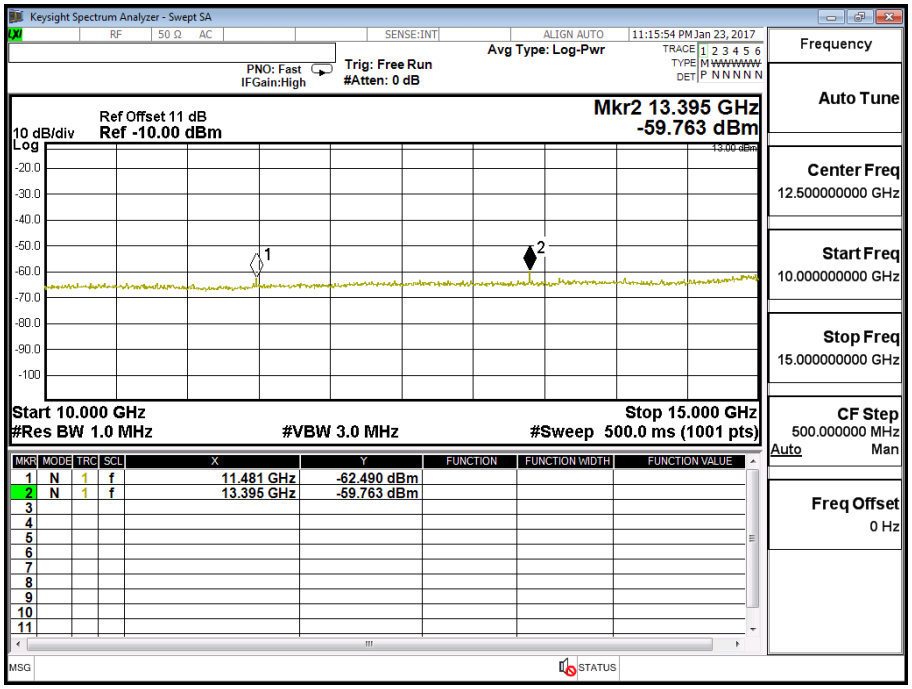
LTE-Band 25 (3M) QPSK(1,7) CH26675 (1913.5MHz)

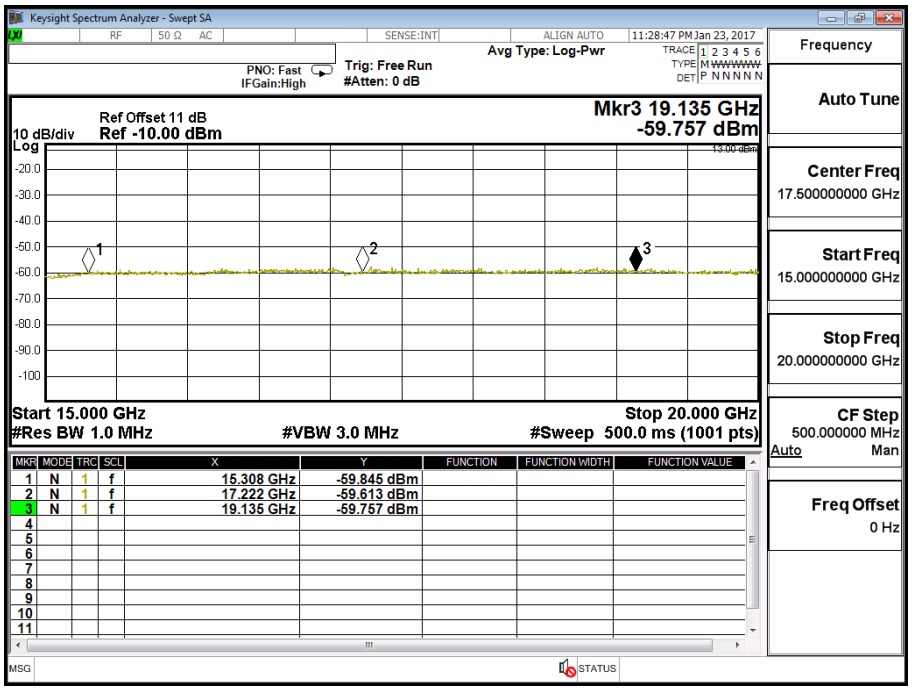
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3827	-55.670	1.1	-54.570	-13
5741	-62.450	1.23	-61.220	-13
7654	-65.918	1.59	-64.328	-13
9568	-65.710	1.89	-63.820	-13
11481	-62.490	2.07	-60.420	-13
13395	-59.763	2.26	-57.503	-13
15308	-59.845	2.64	-57.205	-13
17222	-59.613	3.5	-56.113	-13
19135	-59.757	3.7	-56.057	-13




Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:14:19 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr1 3.827 GHz
-55.67 dBm
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 3.827 GHz -55.67 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:15:16 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr3 9.568 GHz
-65.710 dBm
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 5.741 GHz -62.450 dBm
2 N 1 f 7.654 GHz -65.918 dBm
3 N 1 f 9.568 GHz -65.710 dBm
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

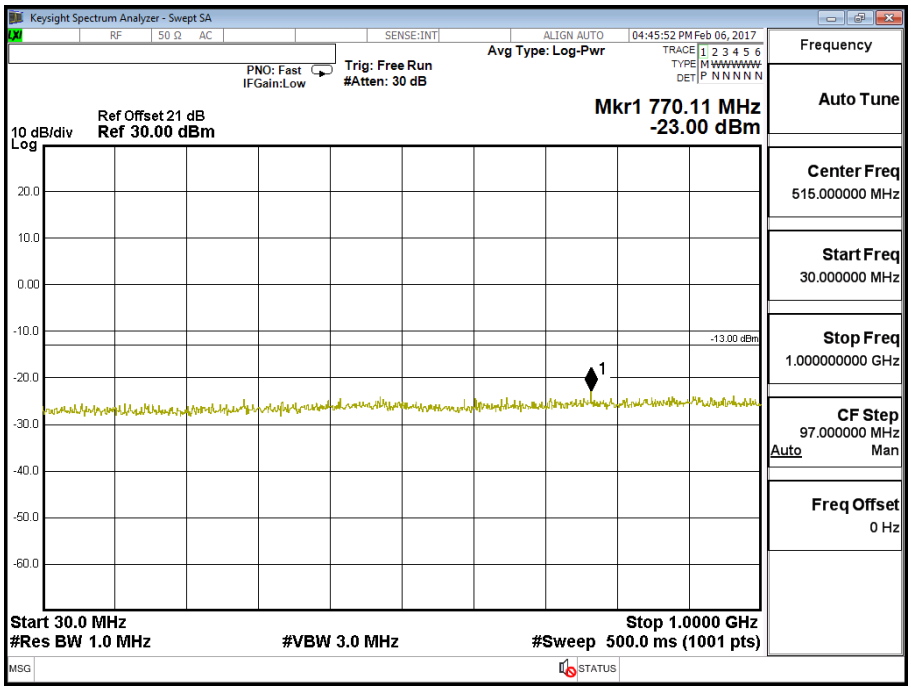

Keysight Spectrum Analyzer - Swept SA
11:15:54 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Mkr2 13.395 GHz
-59.763 dBm
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 11.481 GHz -62.490 dBm
2 N 1 f 13.395 GHz -59.763 dBm
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

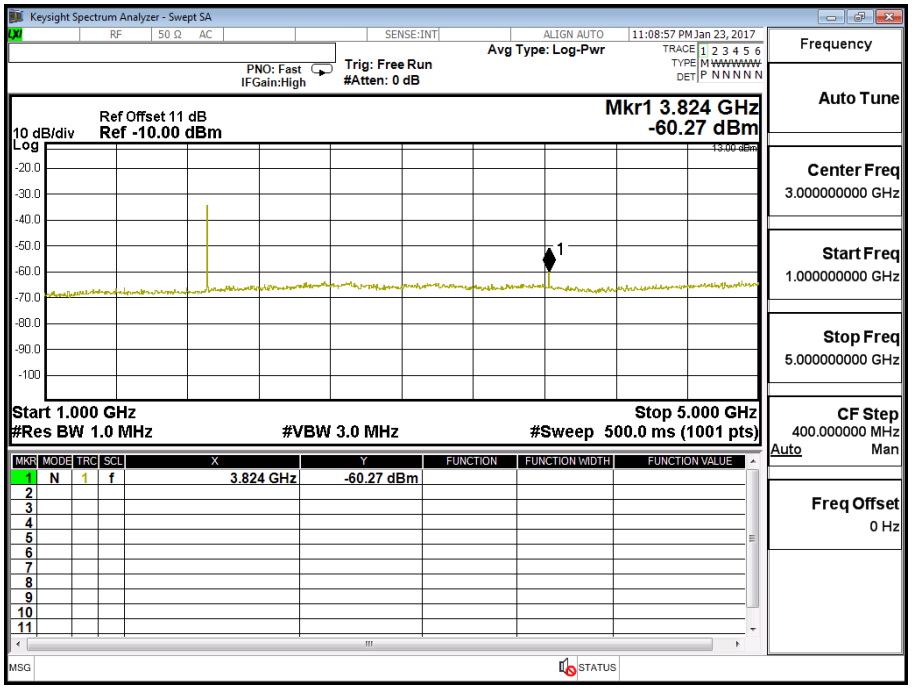

Keysight Spectrum Analyzer - Swept SA
11:28:47 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Mkr3 19.135 GHz
-59.757 dBm
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 15.308 GHz -59.845 dBm
2 N 1 f 17.222 GHz -59.613 dBm
3 N 1 f 19.135 GHz -59.757 dBm
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

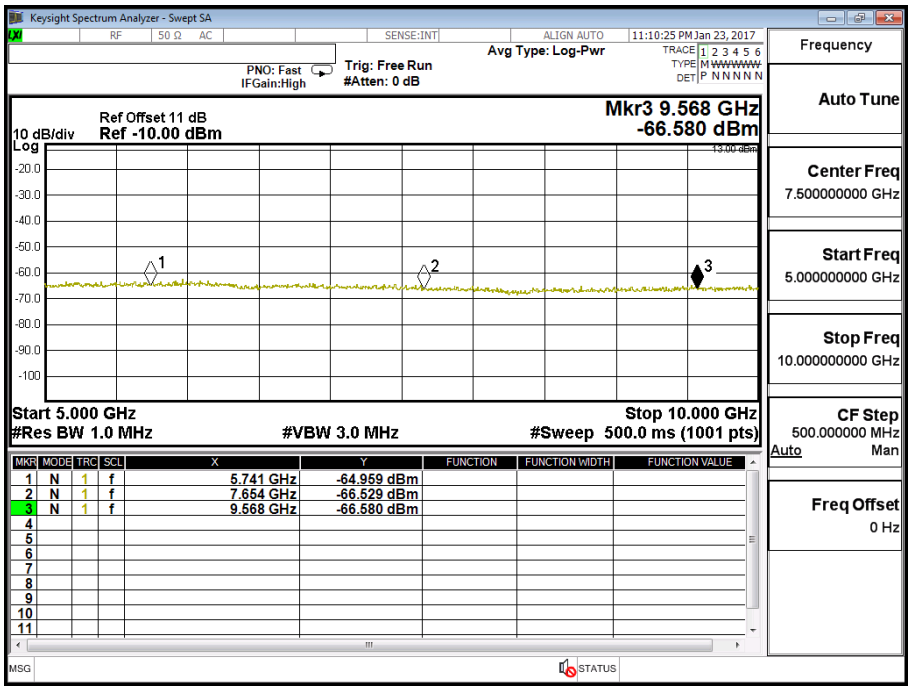
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	LTE-Band 25 (3M)	Test Range	30MHz~20GHz

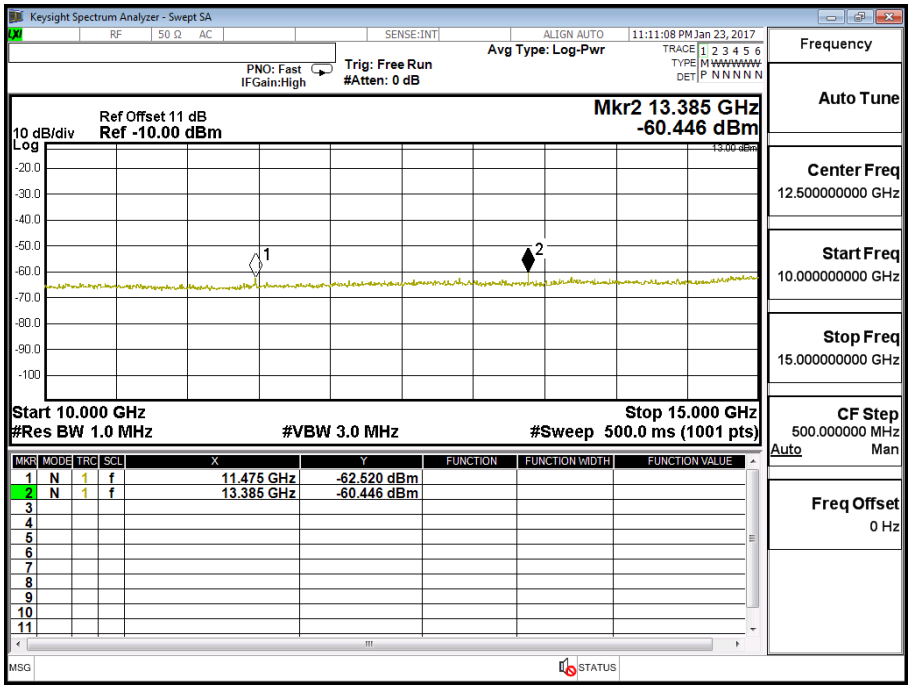
LTE-Band 25 (3M) 16QAM(1,0) CH26675 (1913.5MHz)

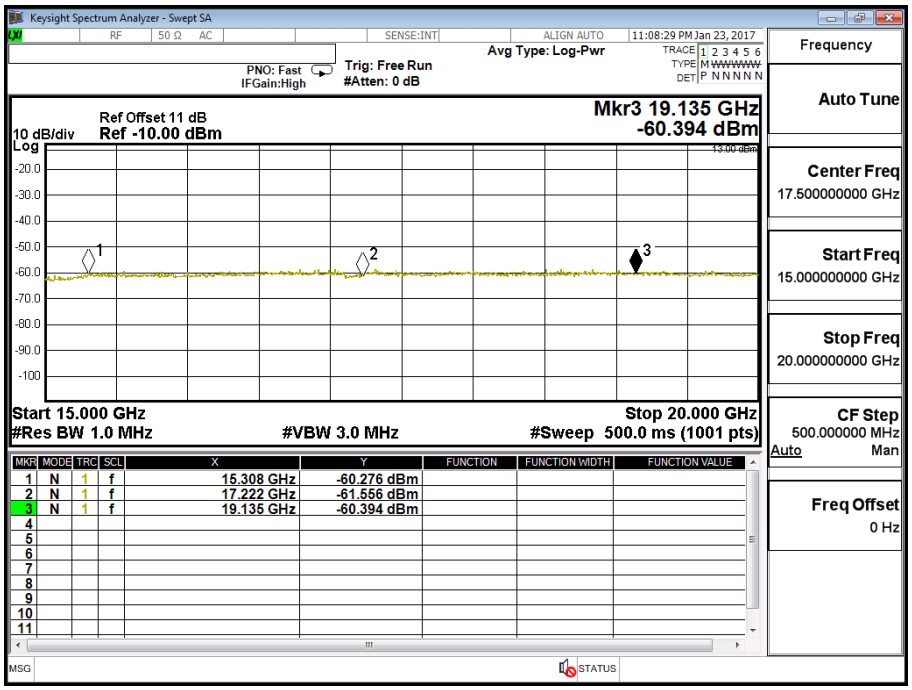
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3824	-60.270	1.1	-59.170	-13
5741	-64.959	1.23	-63.729	-13
7654	-66.529	1.59	-64.939	-13
9568	-66.580	1.89	-64.690	-13
11475	-62.520	2.07	-60.450	-13
13385	-60.446	2.26	-58.186	-13
15308	-60.276	2.64	-57.636	-13
17222	-61.556	3.5	-58.056	-13
19135	-60.394	3.7	-56.694	-13




Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:08:57 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr1 3.824 GHz
-60.27 dBm
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 3.824 GHz -60.27 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto Man
Freq Offset
0 Hz


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:10:25 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr3 9.568 GHz
-66.580 dBm
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 5.741 GHz -64.959 dBm
2 N 1 f 7.654 GHz -66.529 dBm
3 N 1 f 9.568 GHz -66.580 dBm
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

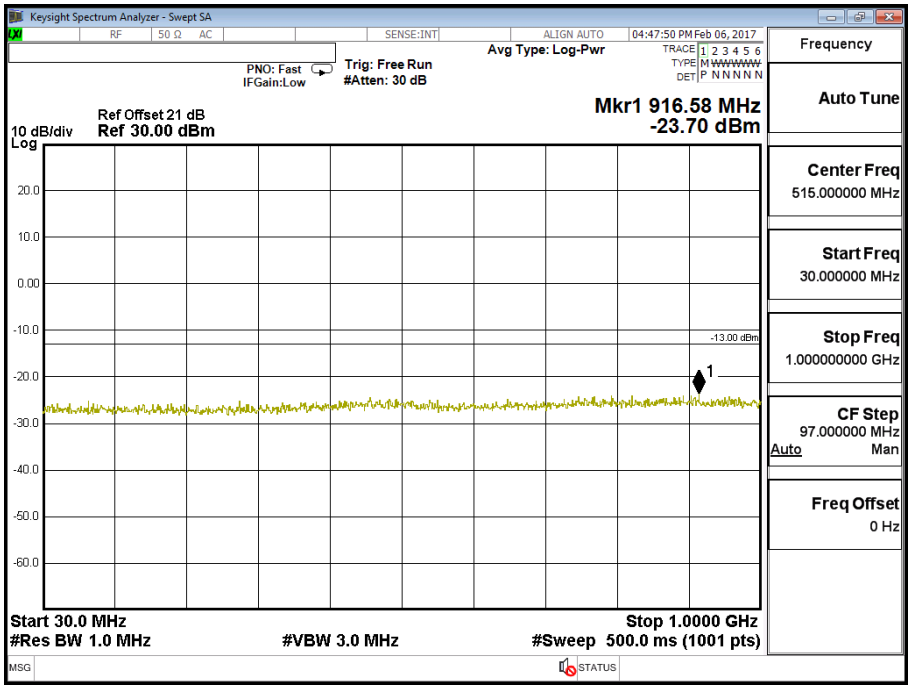

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:11:08 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Mkr2 13.385 GHz
-60.446 dBm
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 11.475 GHz -62.520 dBm
2 N 1 f 13.385 GHz -60.446 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

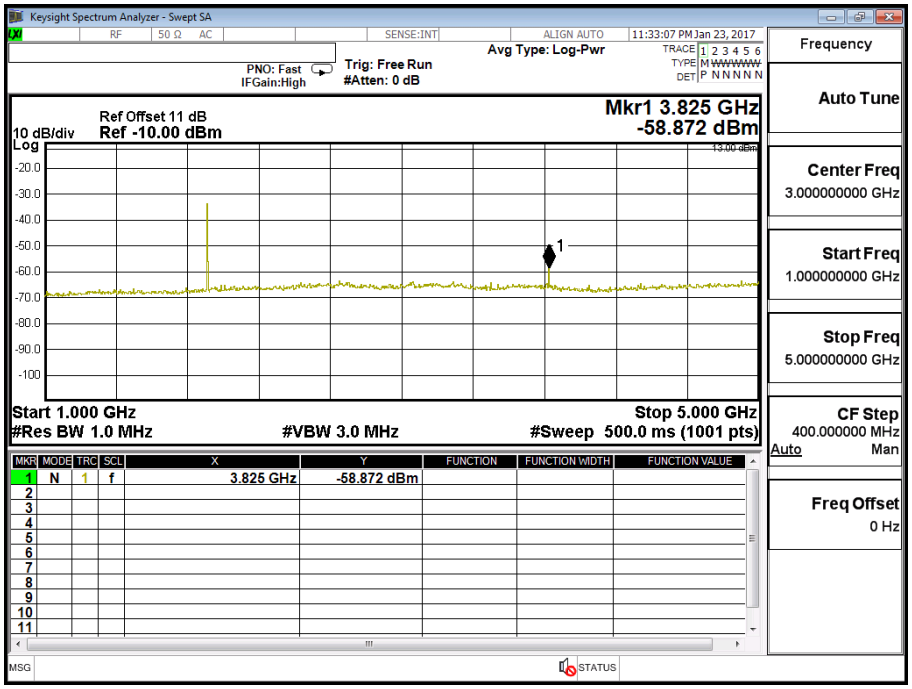

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:08:29 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Mkr3 19.135 GHz
-60.394 dBm
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 15.308 GHz -60.276 dBm
2 N 1 f 17.222 GHz -61.556 dBm
3 N 1 f 19.135 GHz -60.394 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

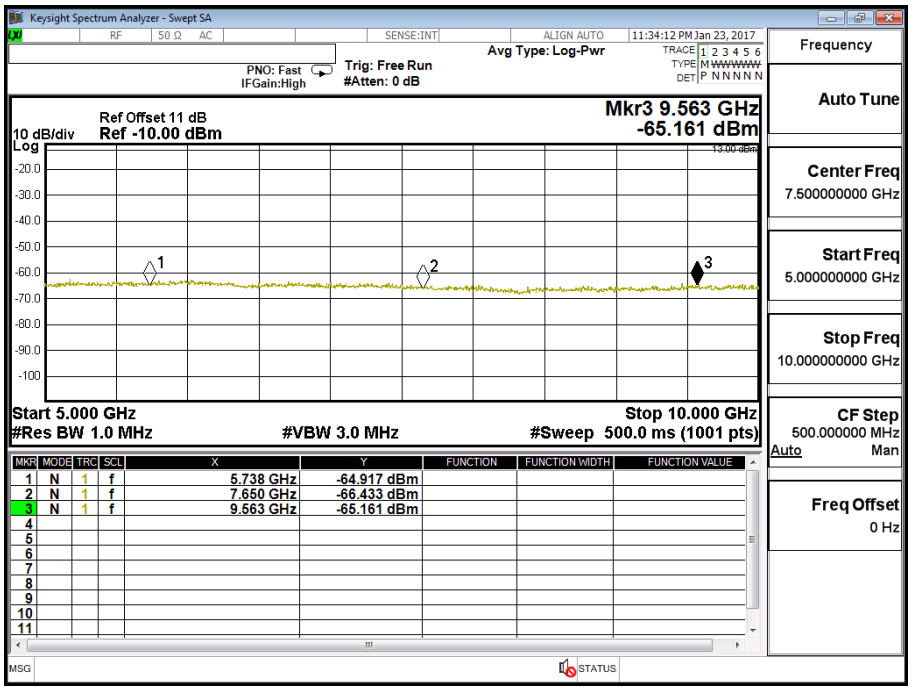
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	LTE-Band 25 (5M)	Test Range	30MHz~20GHz

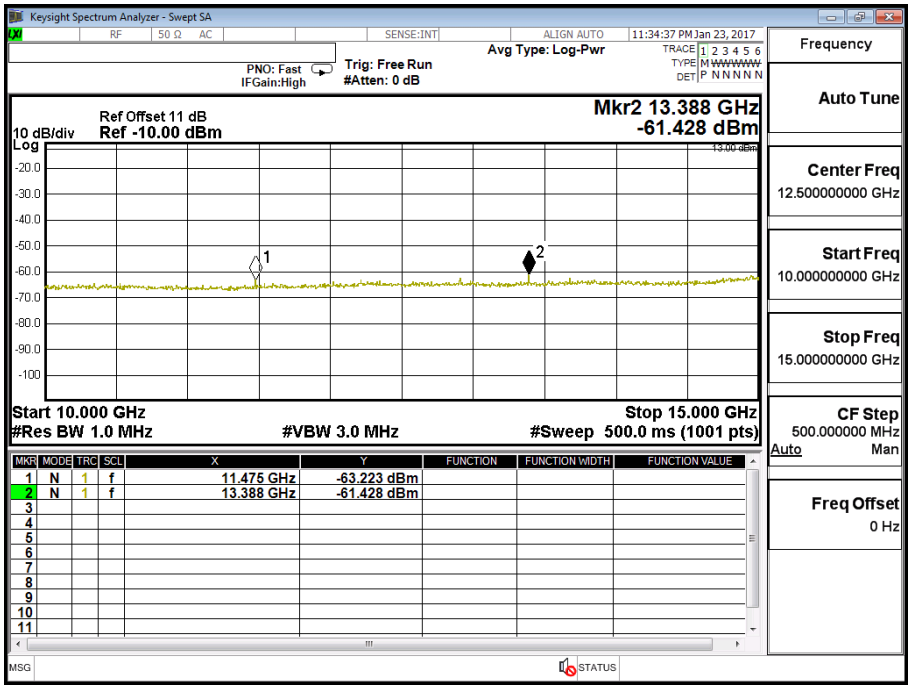
LTE-Band 25 (5M) QPSK(1,12) CH26665 (1912.5MHz)

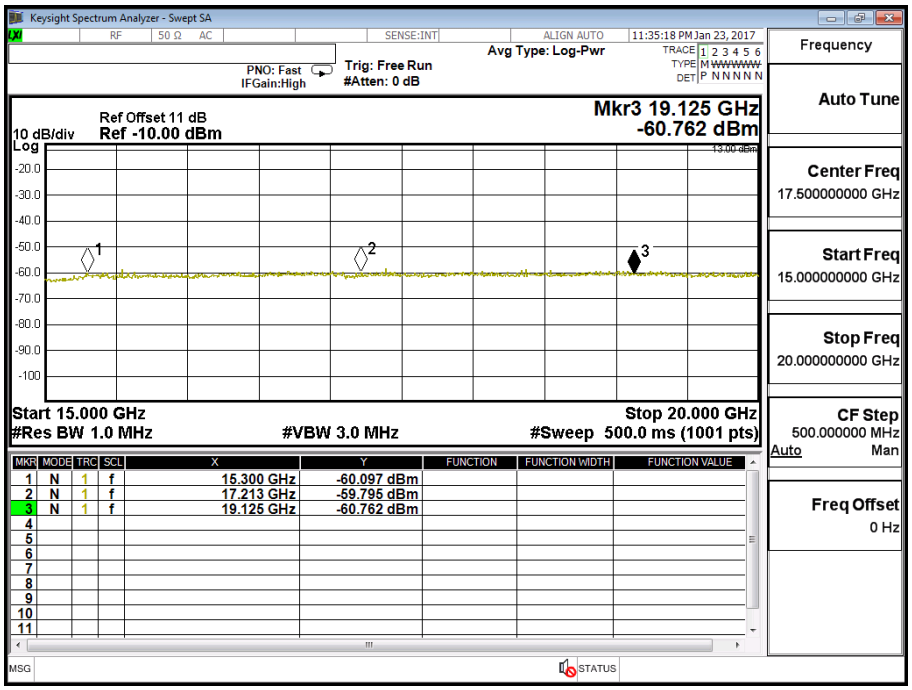
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3825	-58.872	1.1	-57.772	-13
5738	-64.917	1.23	-63.687	-13
7650	-66.433	1.59	-64.843	-13
9563	-65.161	1.89	-63.271	-13
11475	-63.223	2.07	-61.153	-13
13388	-61.428	2.26	-59.168	-13
15300	-60.097	2.64	-57.457	-13
17213	-59.795	3.5	-56.295	-13
19125	-60.762	3.7	-57.062	-13




Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:33:07 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr1 3.825 GHz
-58.872 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 3.825 GHz -58.872 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:34:12 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 9.563 GHz
-65.161 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.738 GHz -64.917 dBm
2 N 1 f 7.650 GHz -66.433 dBm
3 N 1 f 9.563 GHz -65.161 dBm
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

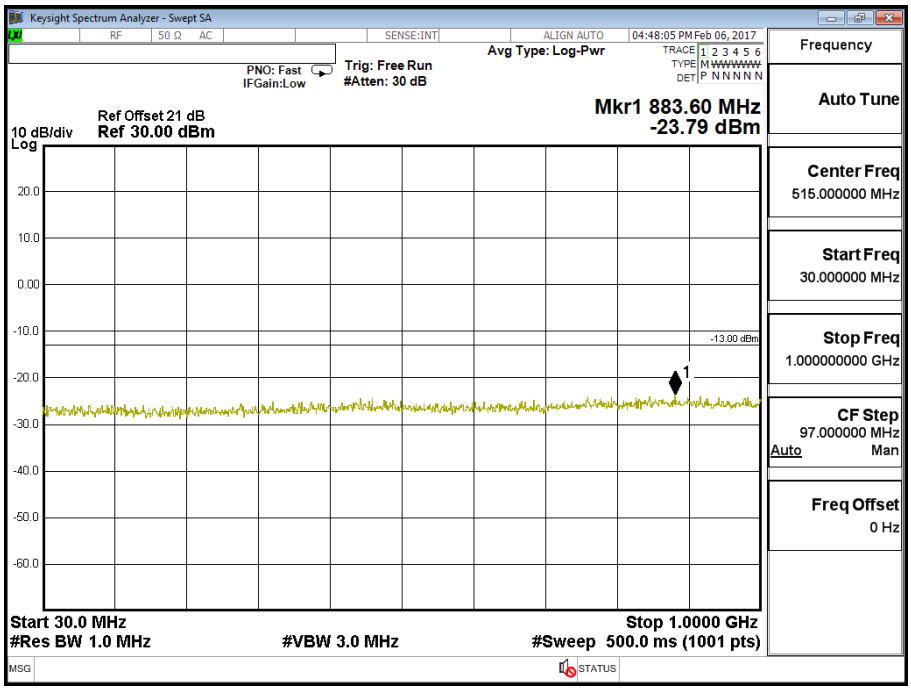

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:34:37 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr2 13.388 GHz
-61.428 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 11.475 GHz -63.223 dBm
2 N 1 f 13.388 GHz -61.428 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

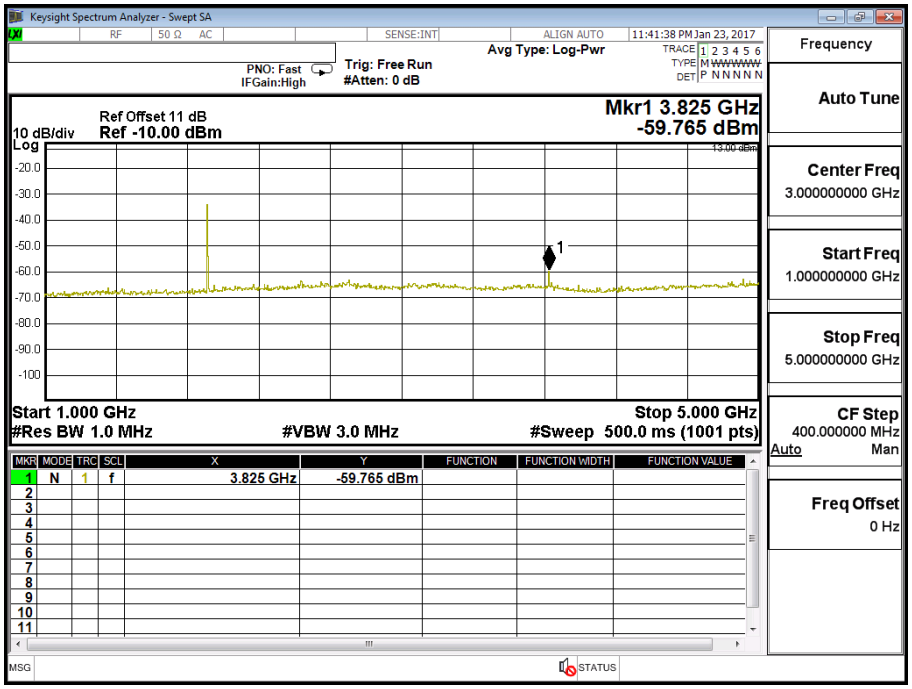

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:35:18 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 19.125 GHz
-60.762 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 15.300 GHz -60.097 dBm
2 N 1 f 17.213 GHz -59.795 dBm
3 N 1 f 19.125 GHz -60.762 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

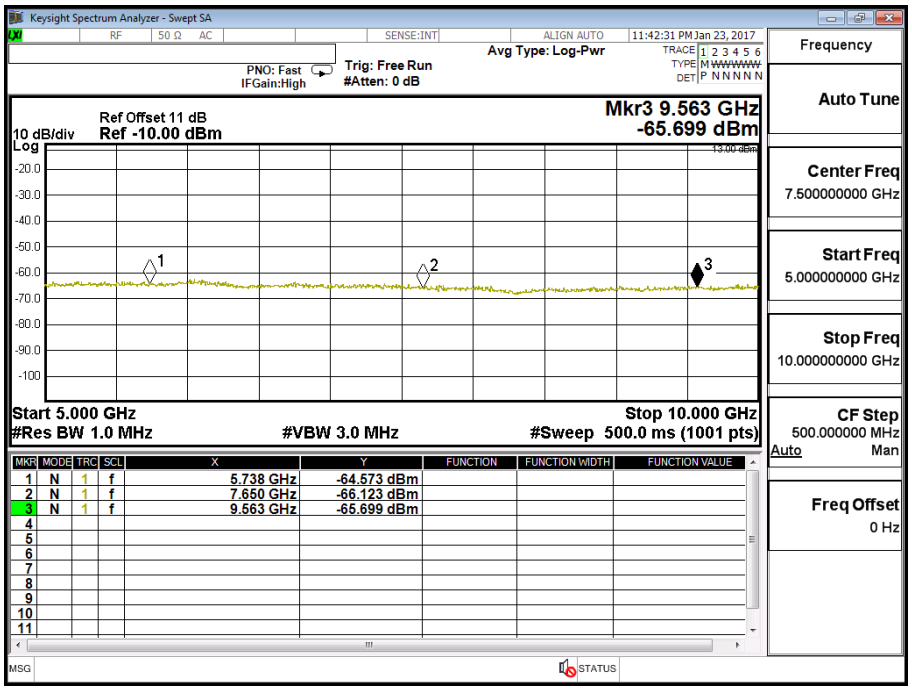
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	LTE-Band 25 (5M)	Test Range	30MHz~20GHz

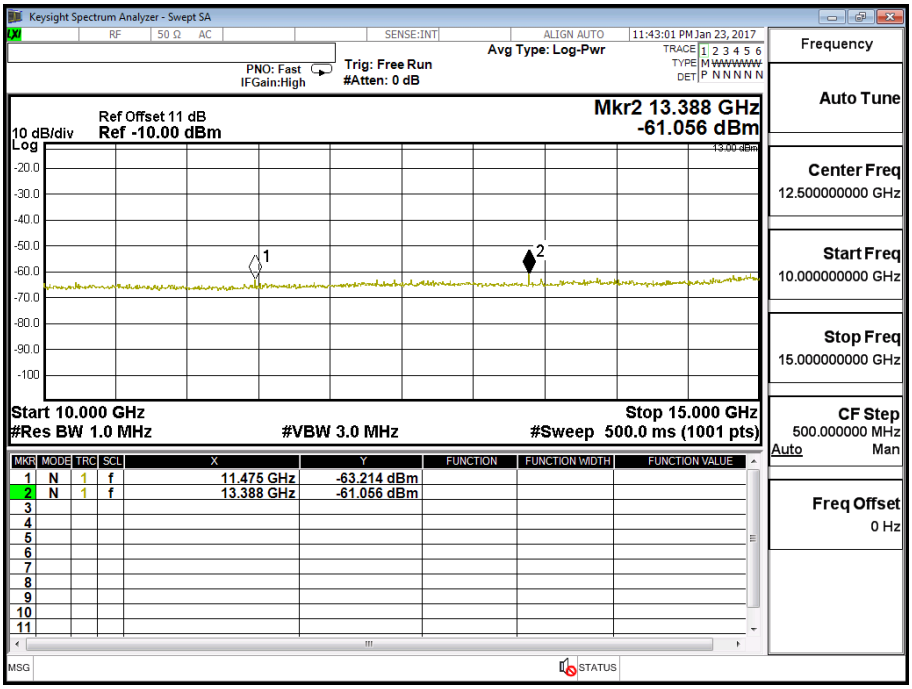
LTE- Band 25 (5M) 16QAM(1,12) CH26665 (1912.5MHz)

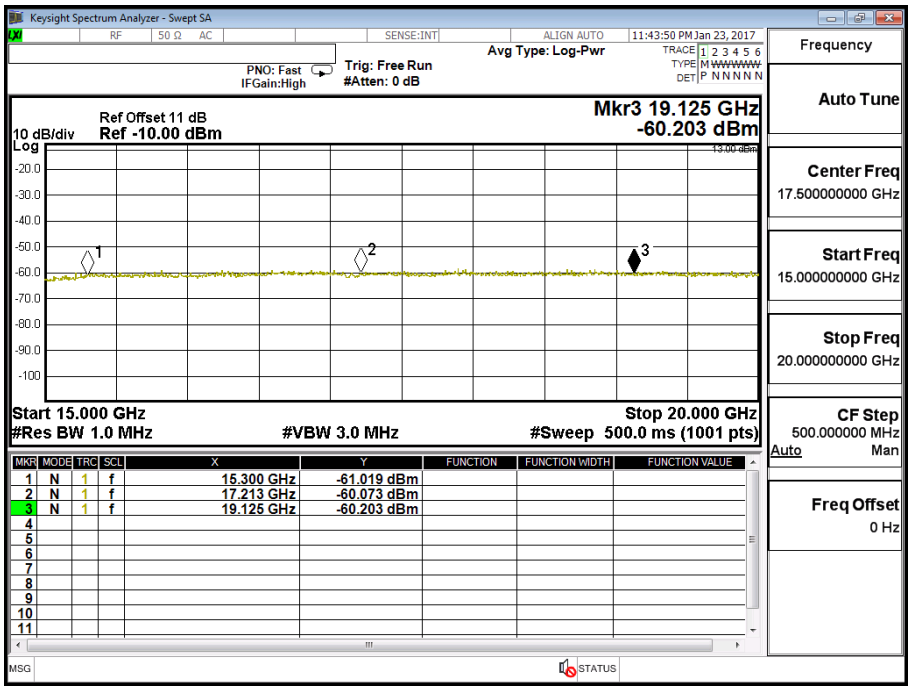
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3825	-59.765	1.1	-58.665	-13
5738	-64.573	1.23	-63.343	-13
7650	-66.123	1.59	-64.533	-13
9563	-65.699	1.89	-63.809	-13
11475	-63.214	2.07	-61.144	-13
13388	-61.056	2.26	-58.796	-13
15300	-61.019	2.64	-58.379	-13
17213	-60.073	3.5	-56.573	-13
19125	-60.203	3.7	-56.503	-13




Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:41:38 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr1 3.825 GHz
-59.765 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 3.825 GHz -59.765 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:42:31 PM Jan 23, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 9.563 GHz
-65.699 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.738 GHz -64.573 dBm
2 N 1 f 7.650 GHz -66.123 dBm
3 N 1 f 9.563 GHz -65.699 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz

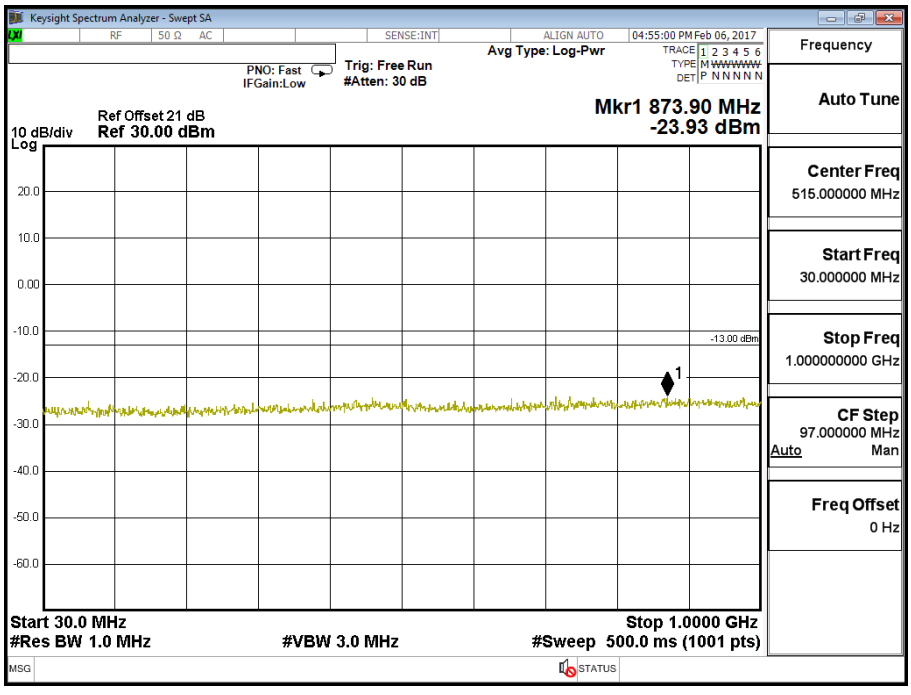

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:43:01 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr2 13.388 GHz
-61.056 dBm
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 11.475 GHz -63.214 dBm
2 N 1 f 13.388 GHz -61.056 dBm
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

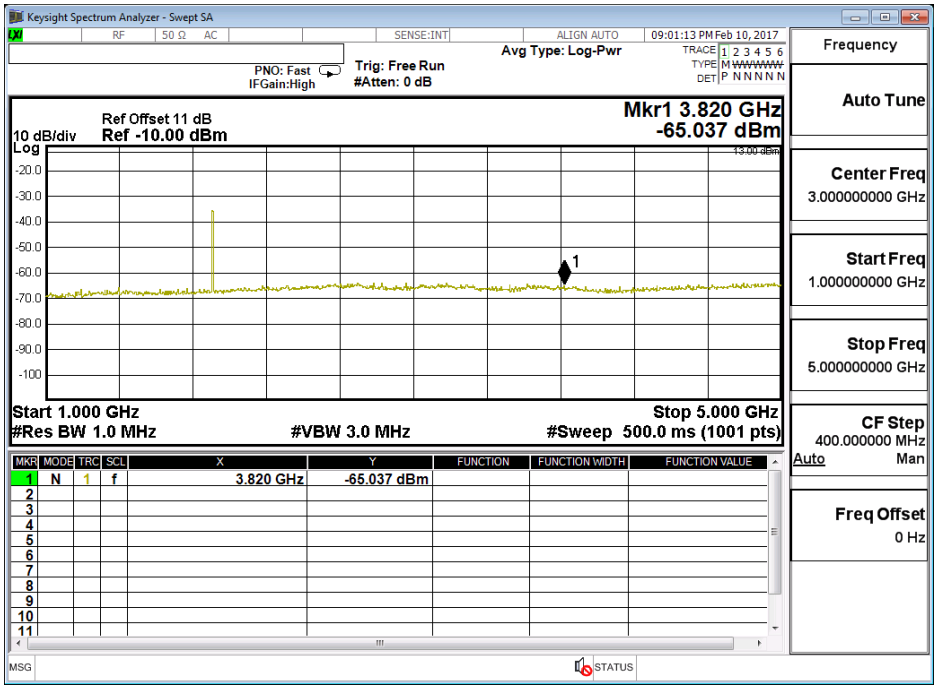

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
11:43:50 PM Jan 23, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr3 19.125 GHz
-60.203 dBm
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 15.300 GHz -61.019 dBm
2 N 1 f 17.213 GHz -60.073 dBm
3 N 1 f 19.125 GHz -60.203 dBm
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

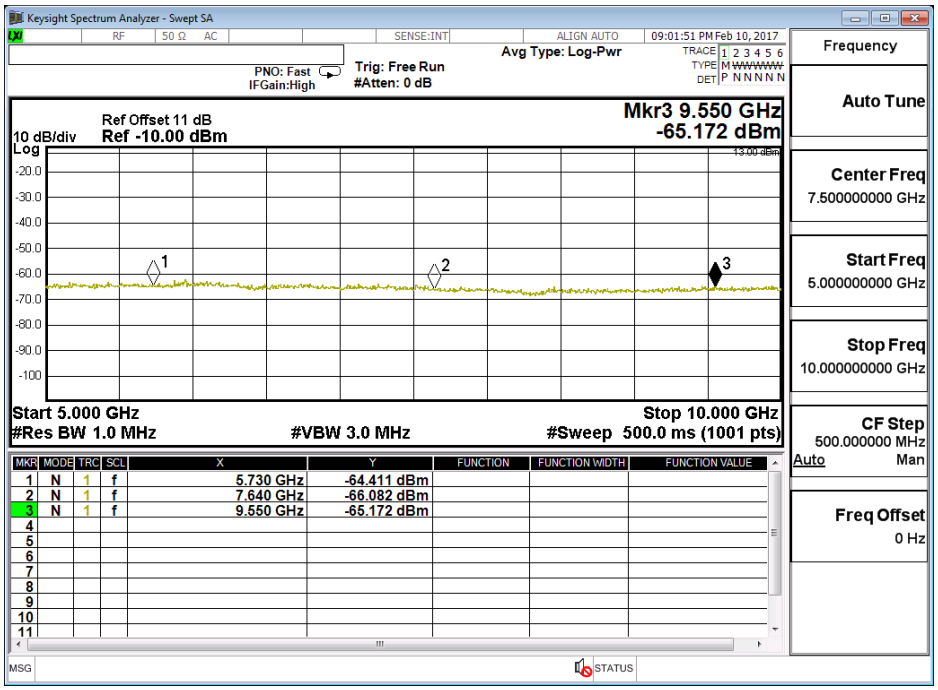
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	LTE-Band 25 (10M)	Test Range	30MHz~20GHz

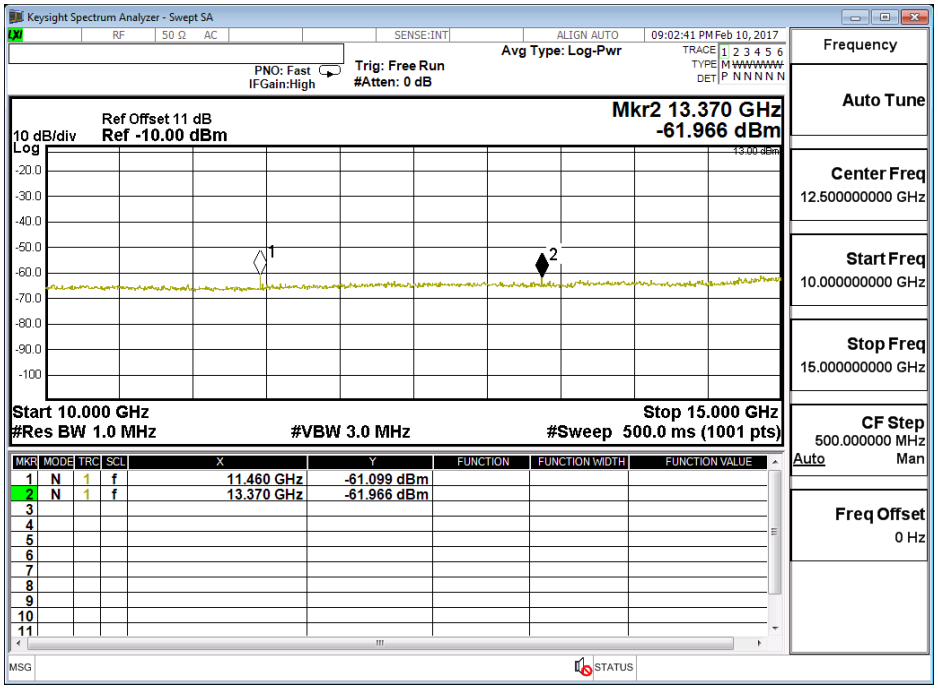
LTE- Band 25 (10M) QPSK(1,24) CH26640 (1910MHz)

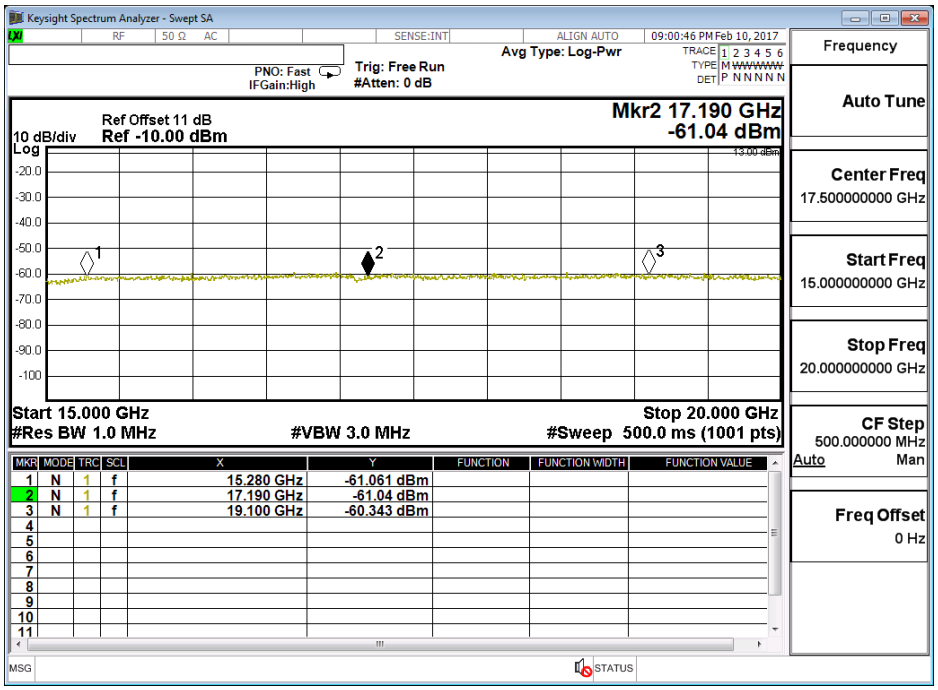
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3820	-65.037	1.1	-63.937	-13
5730	-64.411	1.23	-63.181	-13
7640	-66.082	1.59	-64.492	-13
9550	-65.172	1.89	-63.282	-13
11460	-61.099	2.07	-59.029	-13
13370	-61.966	2.26	-59.706	-13
15280	-61.061	2.64	-58.421	-13
17190	-61.040	3.5	-57.540	-13
19100	-60.343	3.7	-56.643	-13




Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
09:01:13 PM Feb 10, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr1 3.820 GHz
-65.037 dBm
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 3.820 GHz -65.037 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto Man
Freq Offset
0 Hz


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
09:01:51 PM Feb 10, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr3 9.550 GHz
-65.172 dBm
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 5.730 GHz -64.411 dBm
2 N 1 f 7.640 GHz -66.082 dBm
3 N 1 f 9.550 GHz -65.172 dBm
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

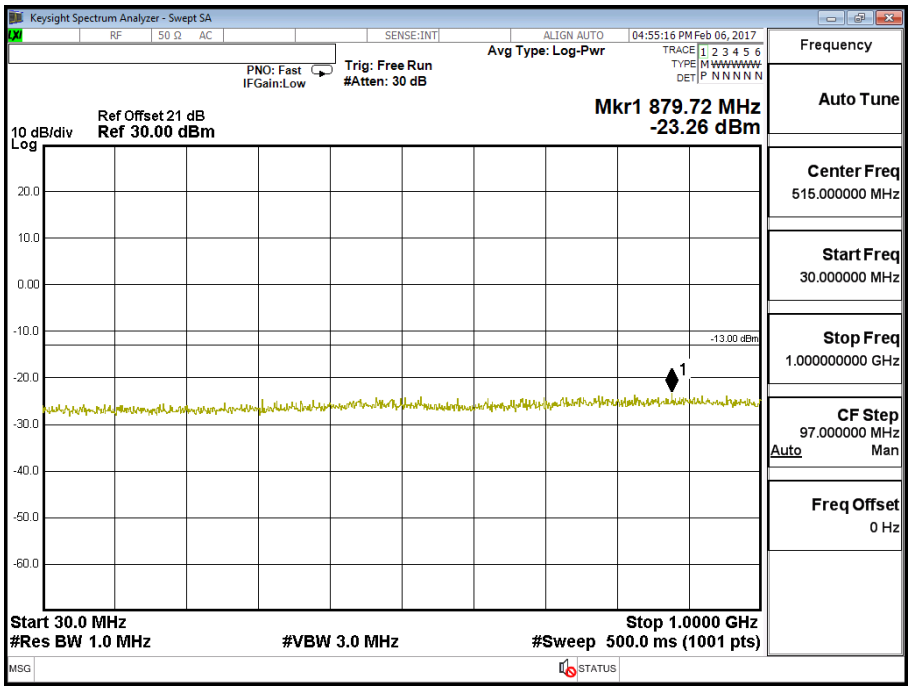

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
09:02:41 PM Feb 10, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr2 13.370 GHz
-61.966 dBm
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 11.460 GHz -61.099 dBm
2 N 1 f 13.370 GHz -61.966 dBm
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

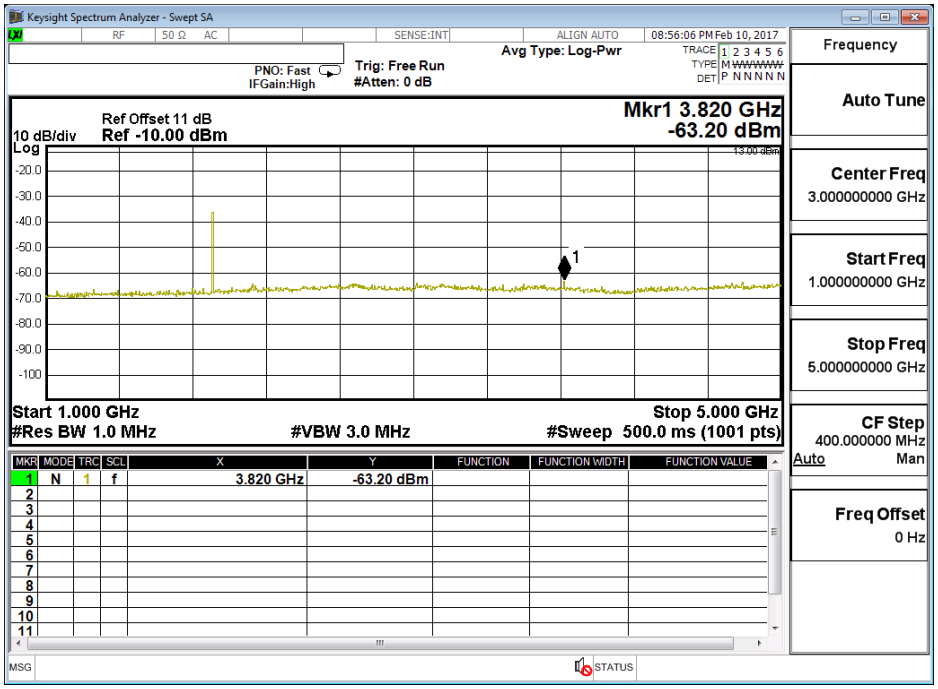

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
09:00:46 PM Feb 10, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr2 17.190 GHz
-61.04 dBm
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 15.280 GHz -61.061 dBm
2 N 1 f 17.190 GHz -61.04 dBm
3 N 1 f 19.100 GHz -60.343 dBm
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

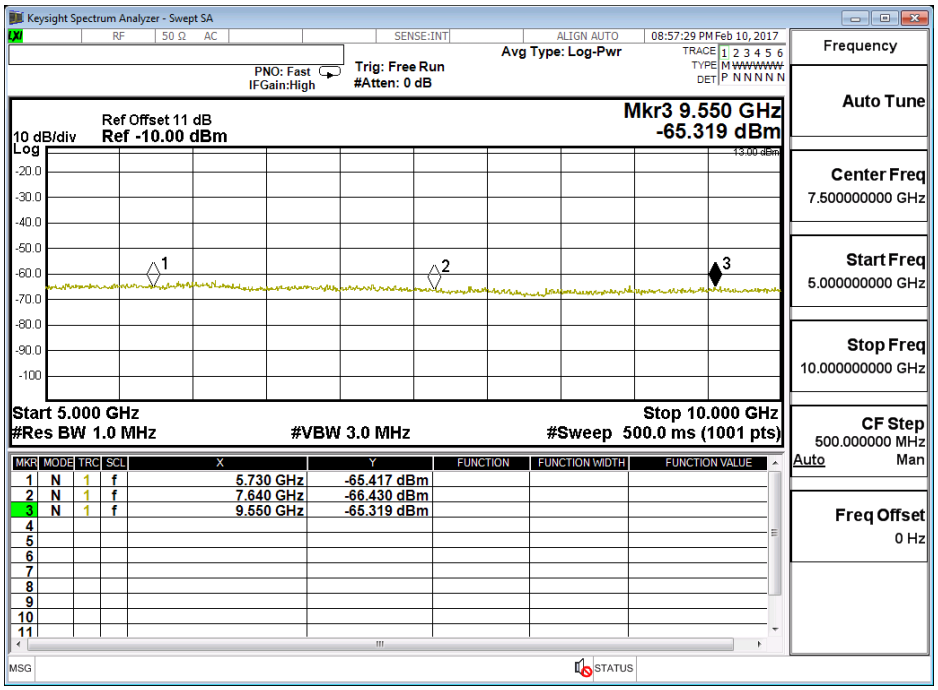
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	LTE-Band 25 (10M)	Test Range	30MHz~20GHz

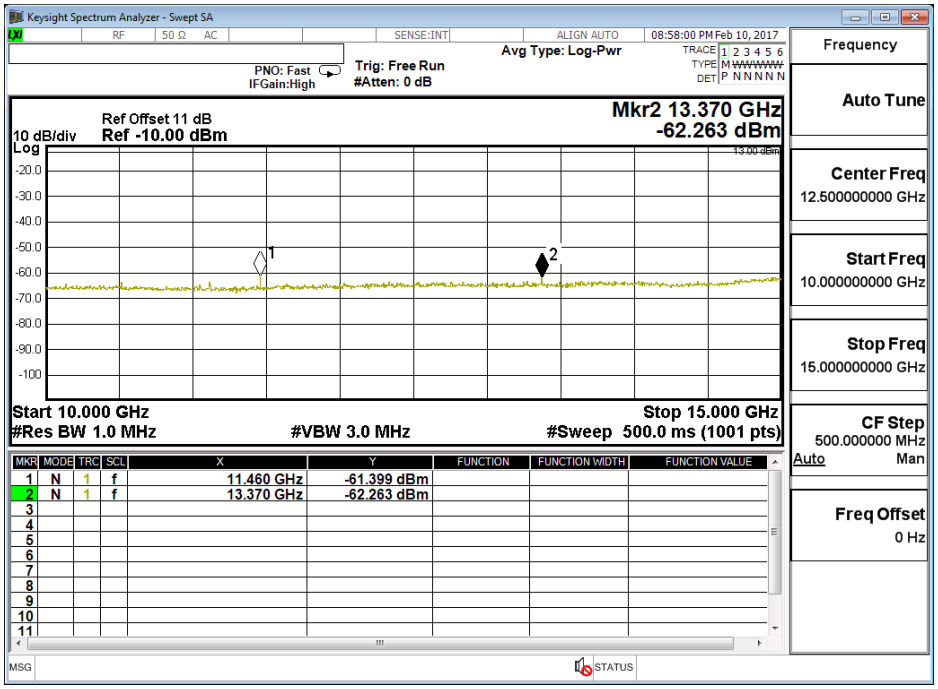
LTE- Band 25 10M 16QAM(1,12) CH26640 (1910MHz)

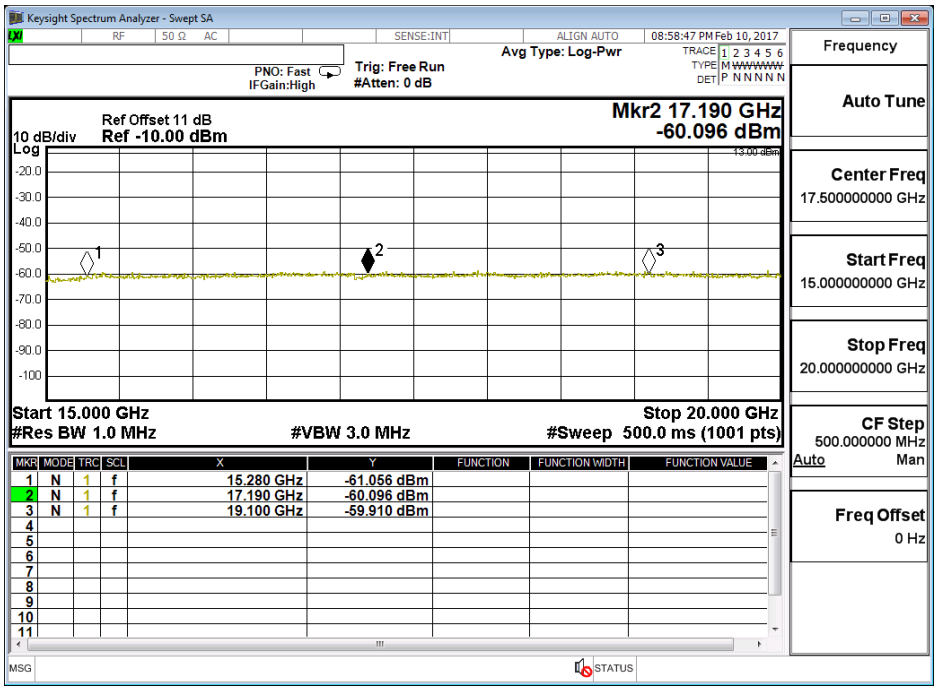
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3820	-63.200	1.1	-62.100	-13
5730	-65.417	1.23	-64.187	-13
7640	-66.430	1.59	-64.840	-13
9550	-65.319	1.89	-63.429	-13
11460	-61.399	2.07	-59.329	-13
13370	-62.263	2.26	-60.003	-13
15280	-61.056	2.64	-58.416	-13
17190	-60.096	3.5	-56.596	-13
19100	-59.910	3.7	-56.210	-13




Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
08:56:06 PM Feb 10, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr1 3.820 GHz
-63.20 dBm
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 3.820 GHz -63.20 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto Man
Freq Offset
0 Hz


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
08:57:29 PM Feb 10, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr3 9.550 GHz
-65.319 dBm
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 5.730 GHz -65.417 dBm
2 N 1 f 7.640 GHz -66.430 dBm
3 N 1 f 9.550 GHz -65.319 dBm
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

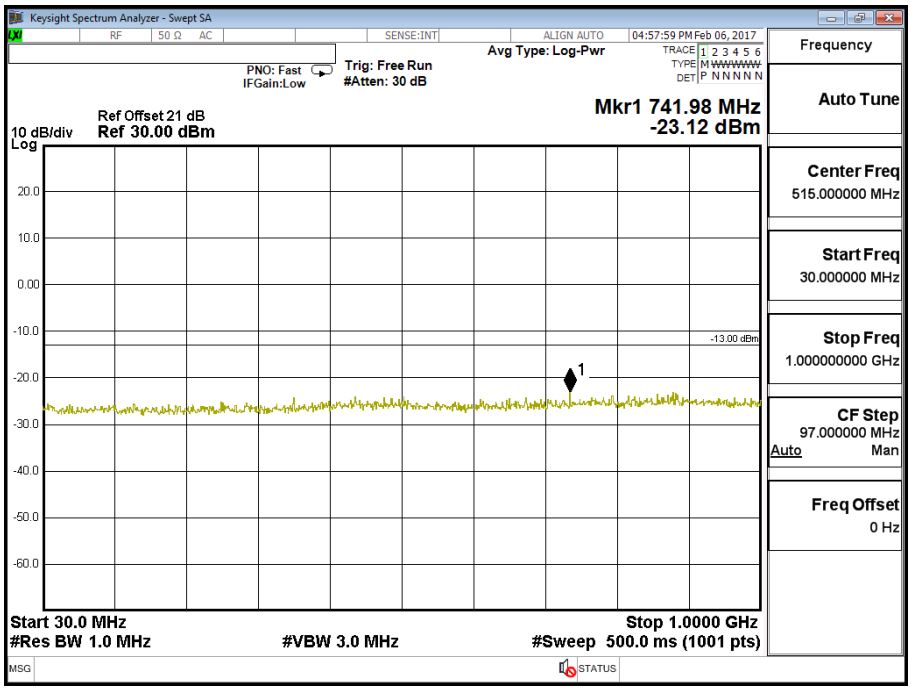

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
08:58:00 PM Feb 10, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr2 13.370 GHz
-62.263 dBm
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 11.460 GHz -61.399 dBm
2 N 1 f 13.370 GHz -62.263 dBm
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

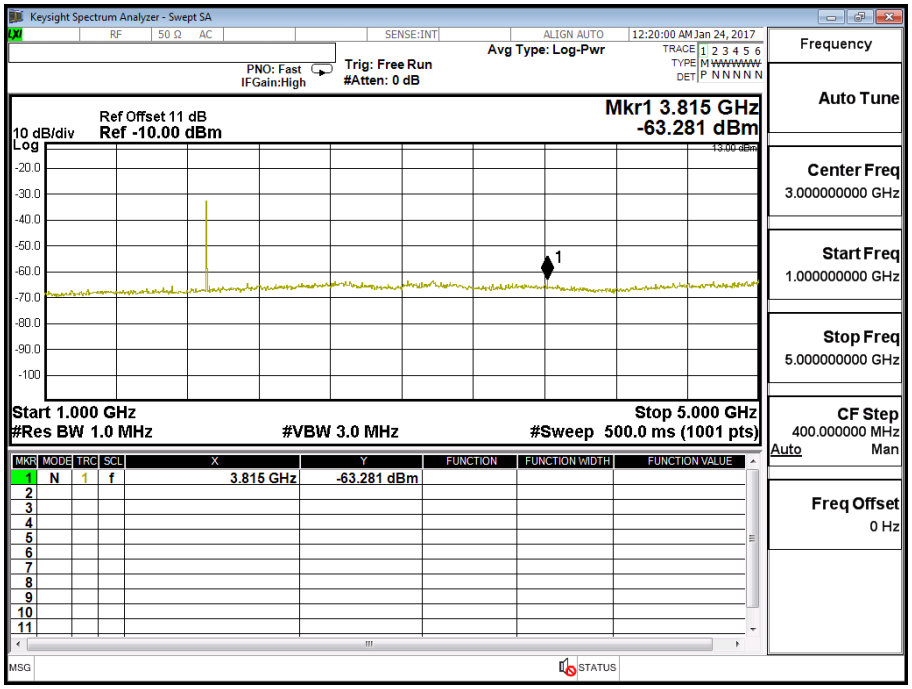

Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
08:58:47 PM Feb 10, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div Ref -10.00 dBm
Log
Mkr2 17.190 GHz
-60.096 dBm
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 15.280 GHz -61.056 dBm
2 N 1 f 17.190 GHz -60.096 dBm
3 N 1 f 19.100 GHz -59.910 dBm
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto Man
Freq Offset
0 Hz

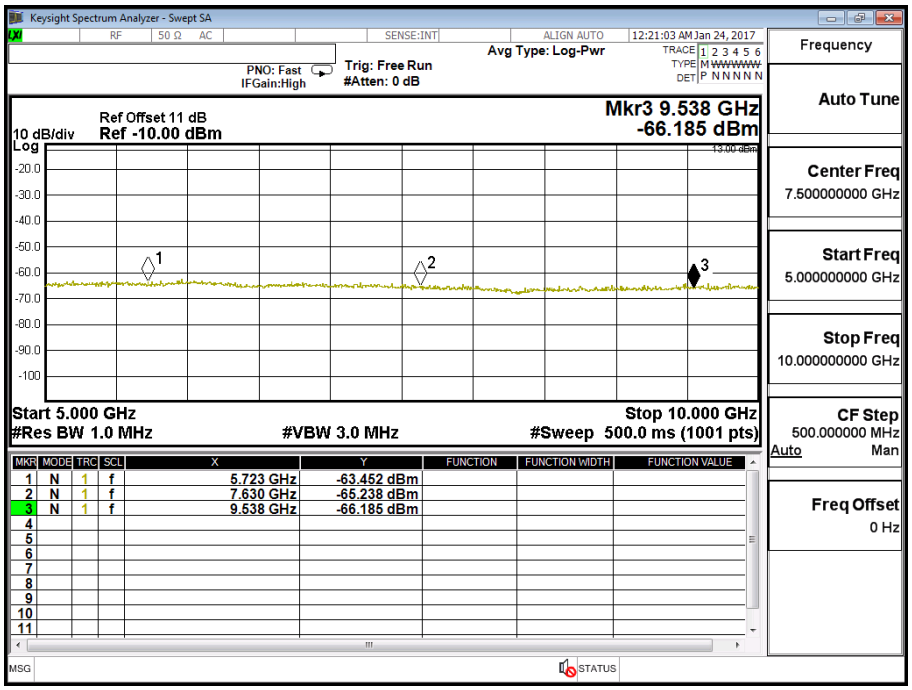
Product	Advanced Industrial 4G/LTE Router, WWAN Failover Manager		
Test Mode	Spurious Emission (Conducted)		
Date of Test	2017/02/06	Test Site	CTR
Test Condition	LTE-Band 25 15M	Test Range	30MHz~20GHz

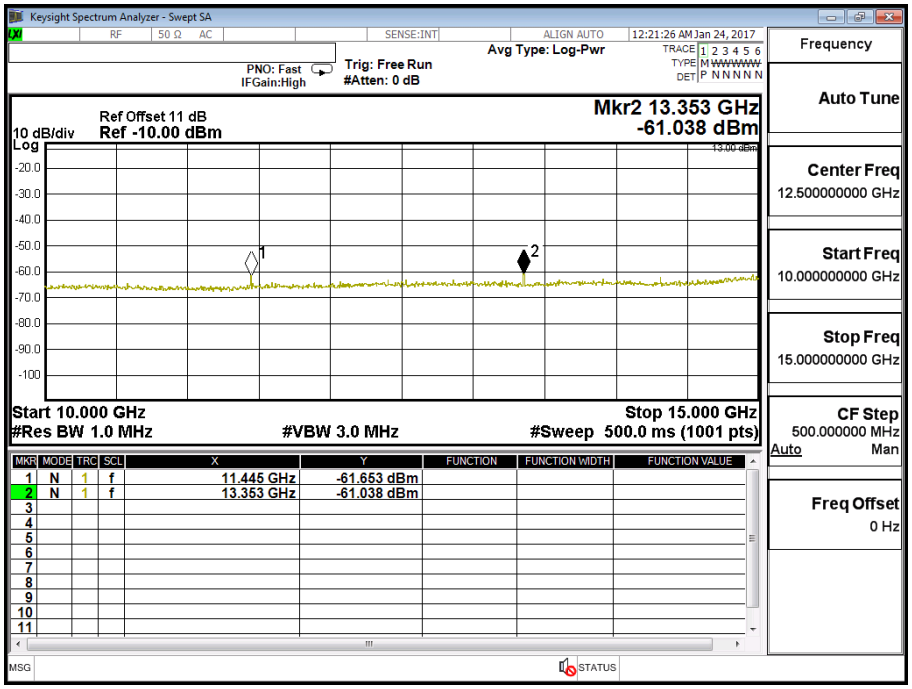
LTE-Band 25 15M QPSK(1,37) CH26615 (1907.5MHz)

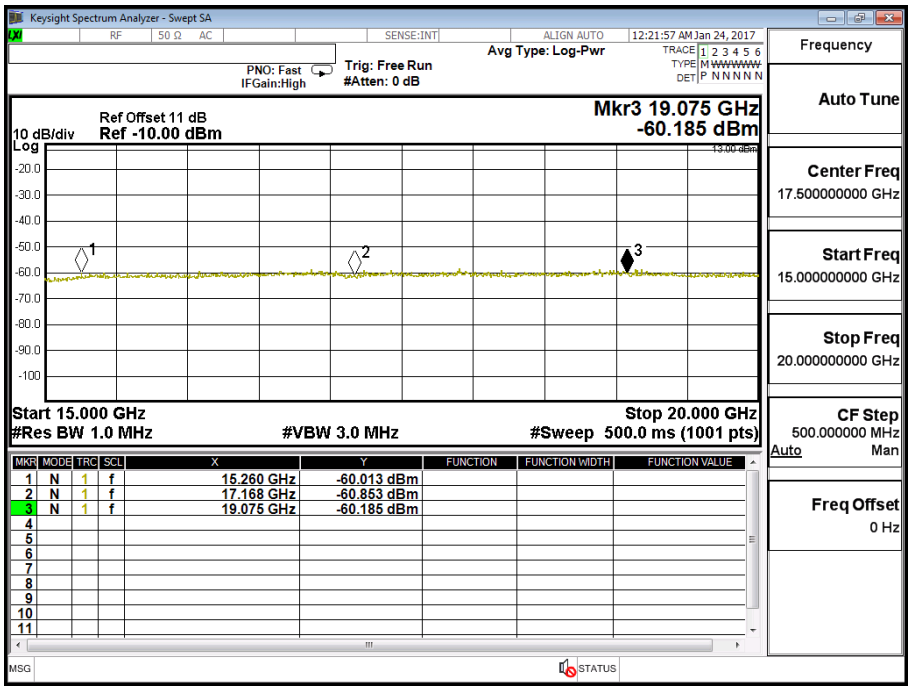
Frequency (MHz)	Reading Level (dBm)	Path Loss (dB)	Emission Level (dBm)	Limit (dBm)
3815	-63.281	1.1	-62.181	-13
5723	-63.452	1.23	-62.222	-13
7630	-65.238	1.59	-63.648	-13
9538	-66.185	1.89	-64.295	-13
11445	-61.653	2.07	-59.583	-13
13353	-61.038	2.26	-58.778	-13
15260	-60.013	2.64	-57.373	-13
17168	-60.853	3.5	-57.353	-13
19075	-60.185	3.7	-56.485	-13




Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
12:20:00 AM Jan 24, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr1 3.815 GHz
-63.281 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 1.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 3.815 GHz -63.281 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
12:21:03 AM Jan 24, 2017
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Log
Mkr3 9.538 GHz
-66.185 dBm
13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
Start 5.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 10.000 GHz
#Sweep 500.0 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.723 GHz -63.452 dBm
2 N 1 f 7.630 GHz -65.238 dBm
3 N 1 f 9.538 GHz -66.185 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
7.500000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
12:21:26 AM Jan 24, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Mkr2 13.353 GHz
-61.038 dBm
Start 10.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 15.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 11.445 GHz -61.653 dBm
2 N 1 f 13.353 GHz -61.038 dBm
Frequency
Auto Tune
Center Freq
12.500000000 GHz
Start Freq
10.000000000 GHz
Stop Freq
15.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz


Keysight Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
12:21:57 AM Jan 24, 2017
Avg Type: Log-Pwr
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Ref Offset 11 dB
10 dB/div
Ref -10.00 dBm
Mkr3 19.075 GHz
-60.185 dBm
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
#Sweep 500.0 ms (1001 pts)
1 N 1 f 15.260 GHz -60.013 dBm
2 N 1 f 17.168 GHz -60.853 dBm
3 N 1 f 19.075 GHz -60.185 dBm
Frequency
Auto Tune
Center Freq
17.500000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
20.000000000 GHz
CF Step
500.000000 MHz
Auto
Man
Freq Offset
0 Hz