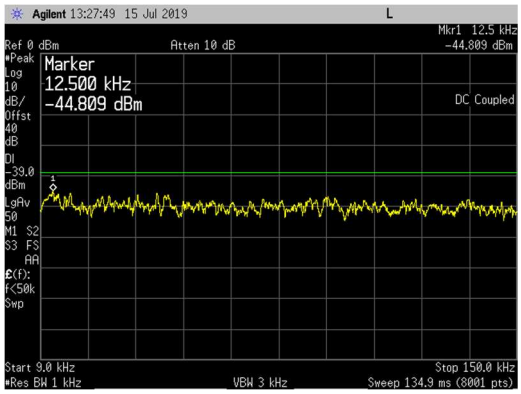
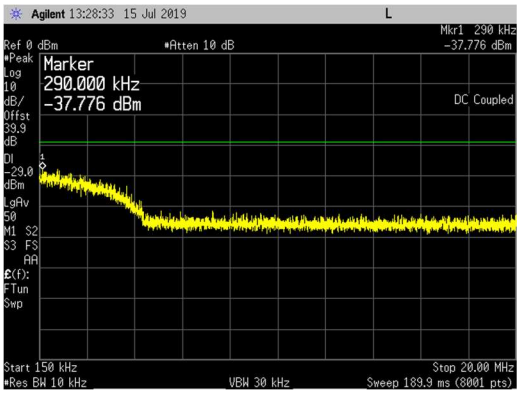
LTE3 & LTE5 Ch BWs _ 16QAM _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

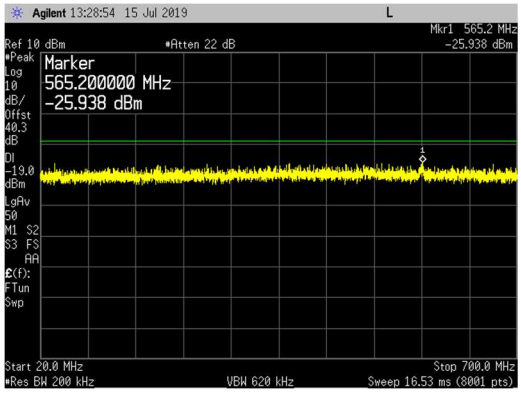
9kHz to 150kHz



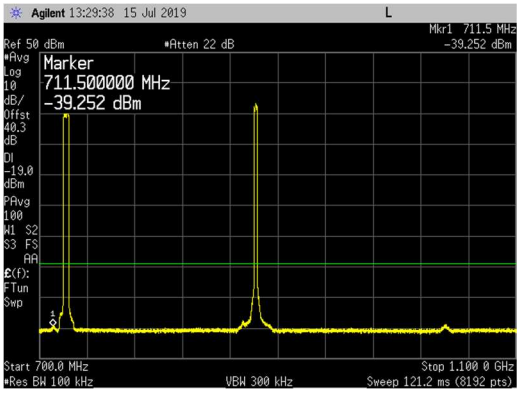
150kHz to 20MHz



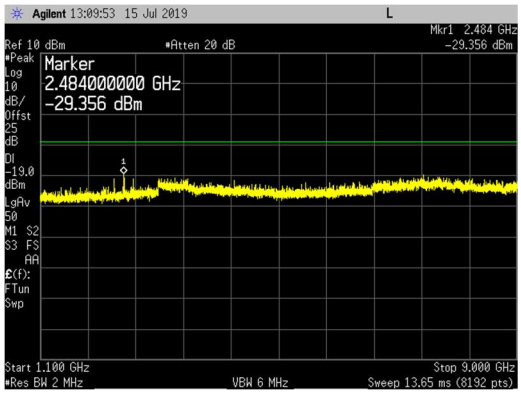
20MHz to 700MHz



700MHz to 1100MHz

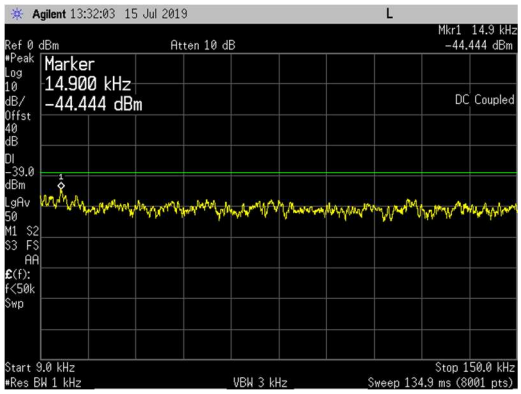


1.1GHz to 9GHz

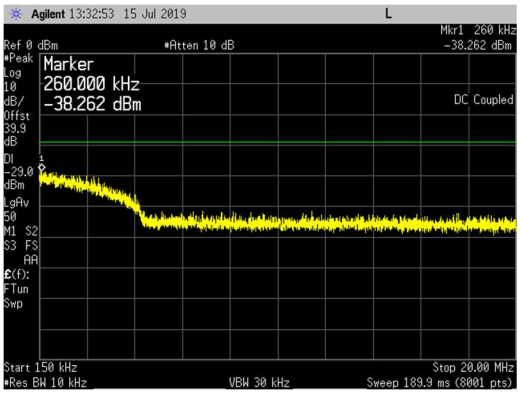


LTE3 & LTE5 Ch BWs _ 64QAM _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

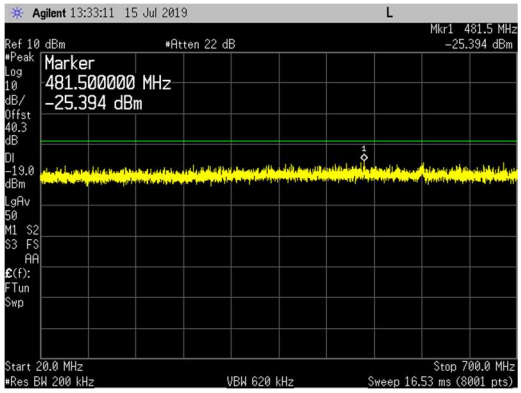
9kHz to 150kHz



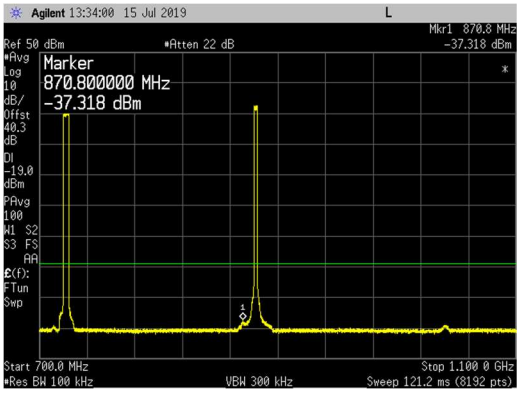
150kHz to 20MHz



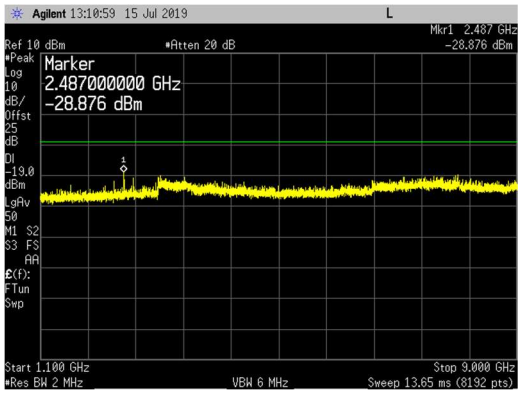
20MHz to 700MHz



700MHz to 1100MHz

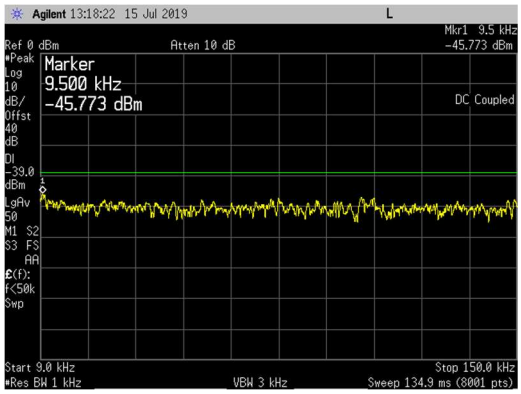


1.1GHz to 9GHz

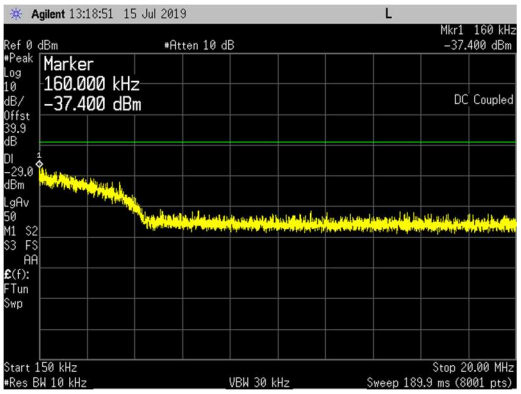


LTE3 & LTE5 Ch BWs _ 256QAM _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

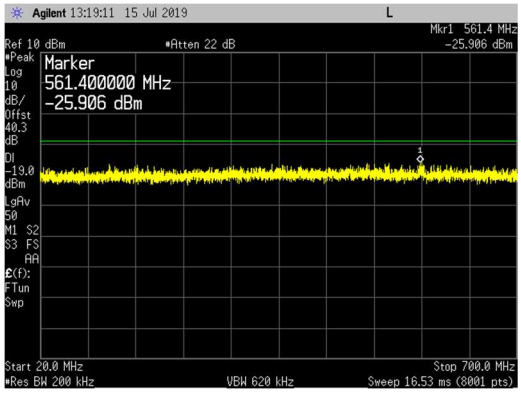
9kHz to 150kHz



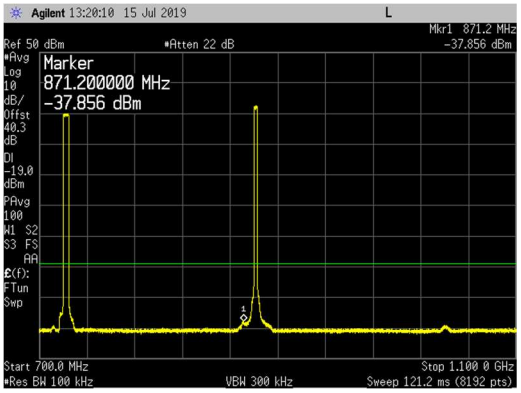
150kHz to 20MHz



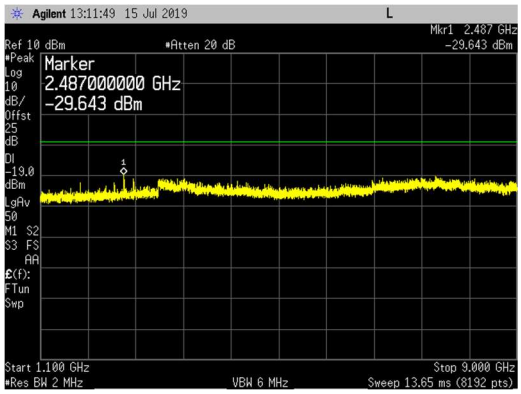
20MHz to 700MHz



700MHz to 1100MHz

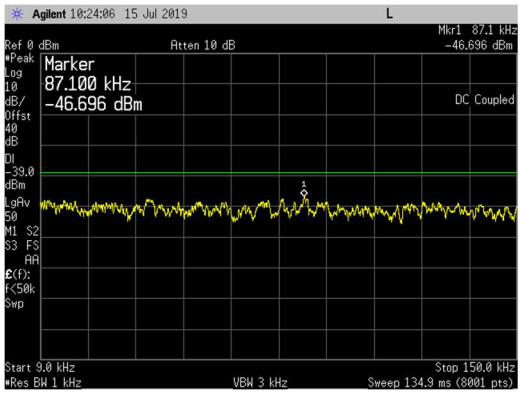


1.1GHz to 9GHz

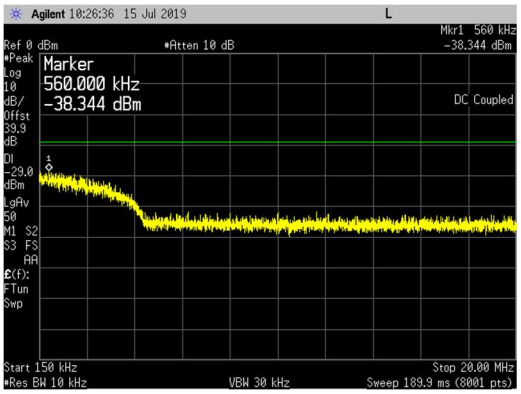


LTE5 & LTE5 Ch BWs _ QPSK _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

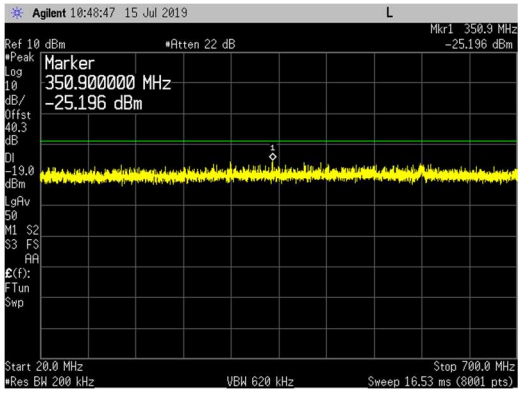
9kHz to 150kHz



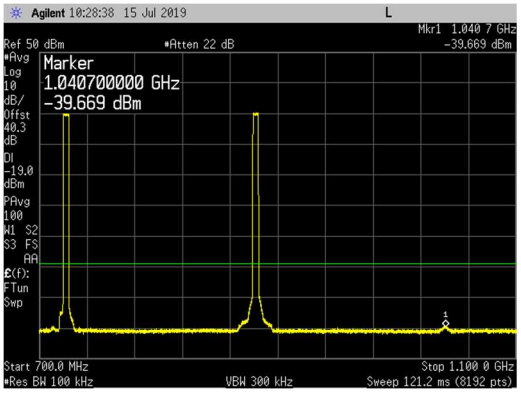
150kHz to 20MHz



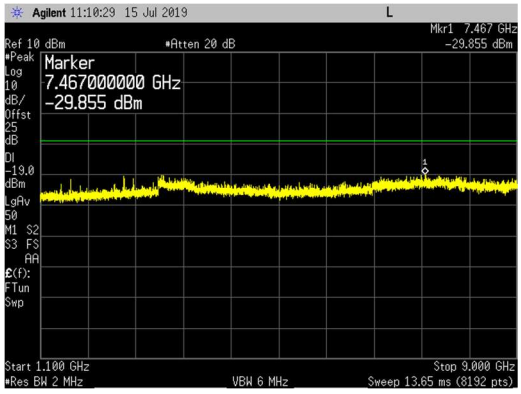
20MHz to 700MHz



700MHz to 1100MHz

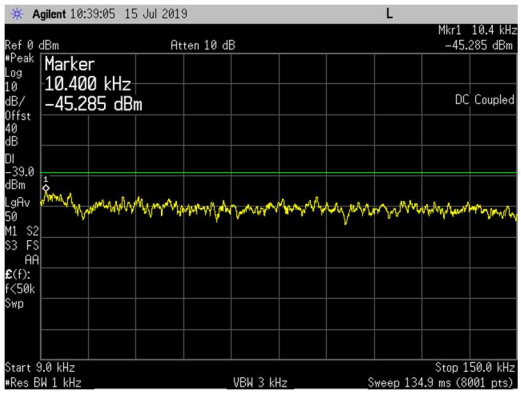


1.1GHz to 9GHz

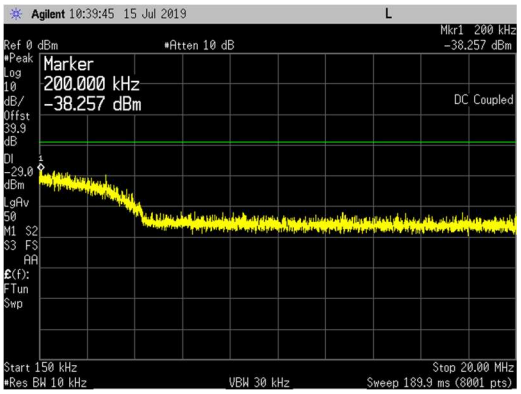


LTE5 & LTE5 Ch BWs _ 16QAM _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

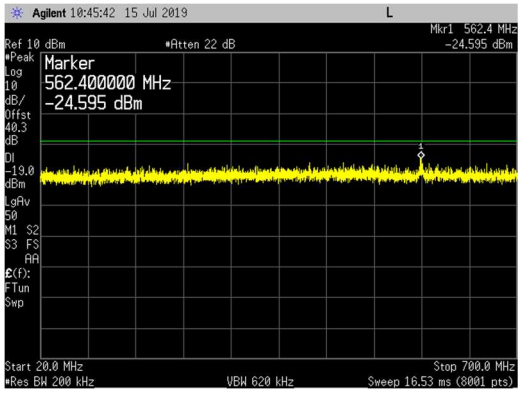
9kHz to 150kHz



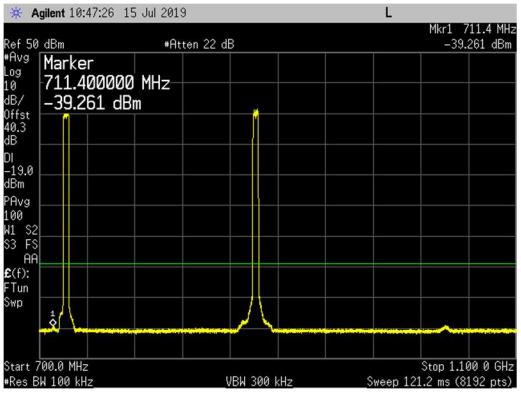
150kHz to 20MHz



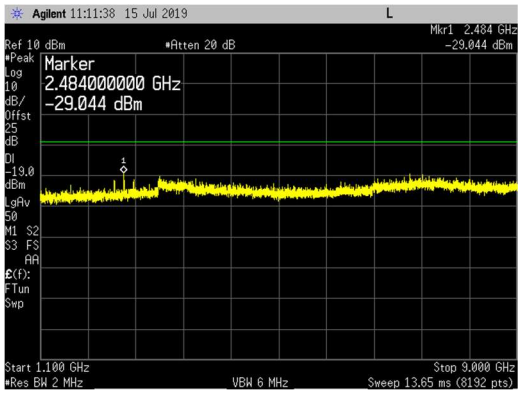
20MHz to 700MHz



700MHz to 1100MHz

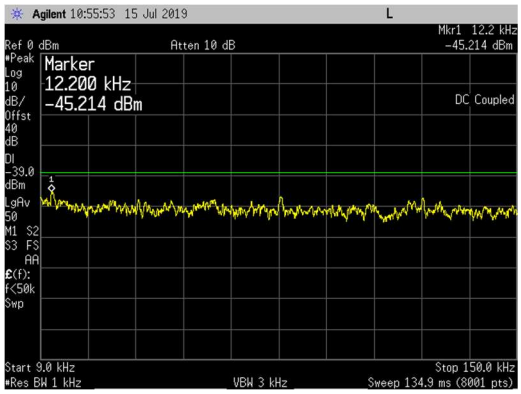


1.1GHz to 9GHz

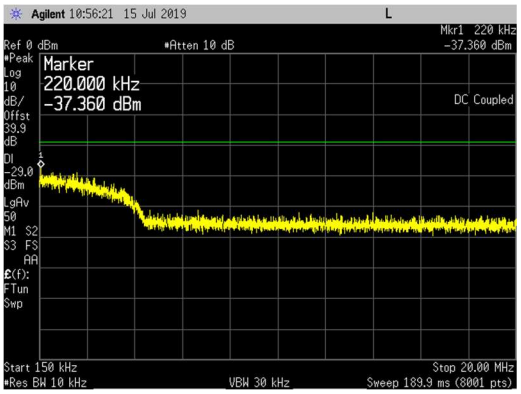


LTE5 & LTE5 Ch BWs _ 64QAM _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

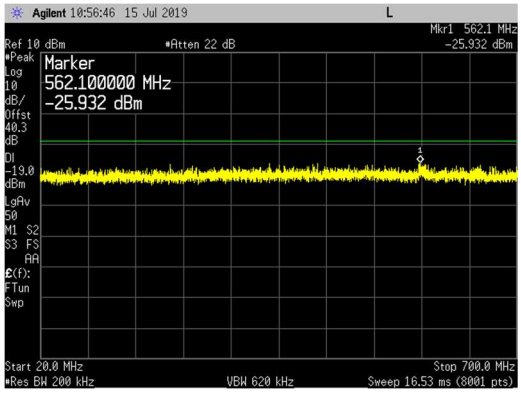
9kHz to 150kHz



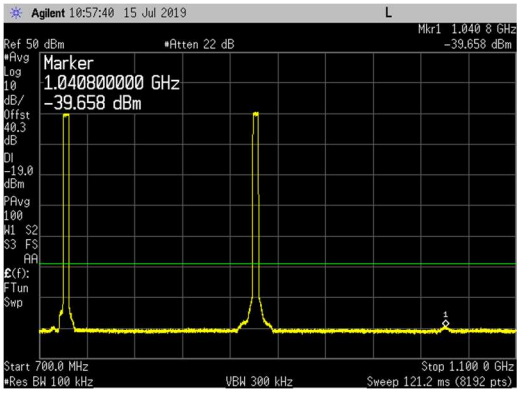
150kHz to 20MHz



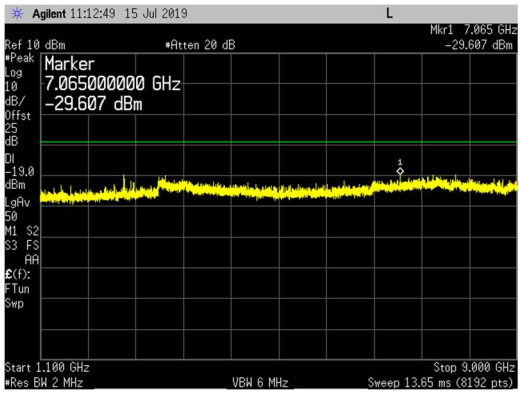
20MHz to 700MHz



700MHz to 1100MHz

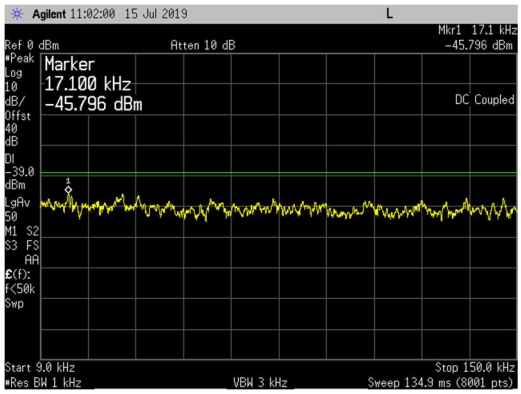


1.1GHz to 9GHz

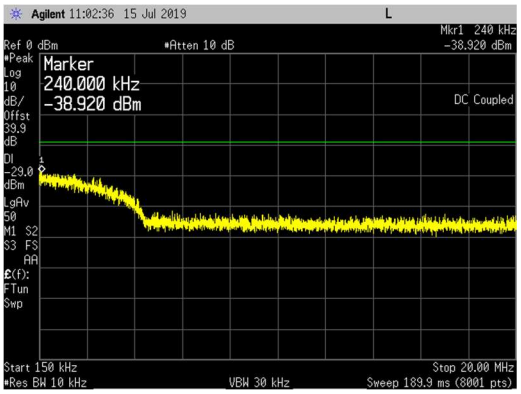


LTE5 & LTE5 Ch BWs _ 256QAM _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

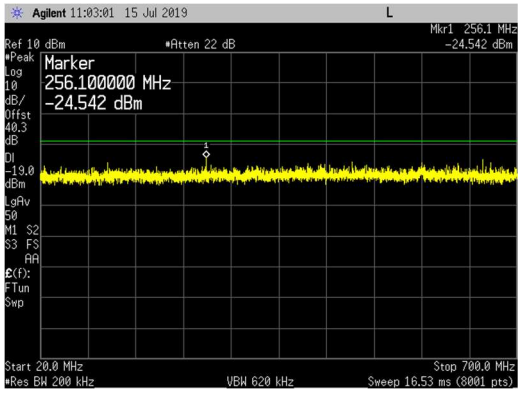
9kHz to 150kHz



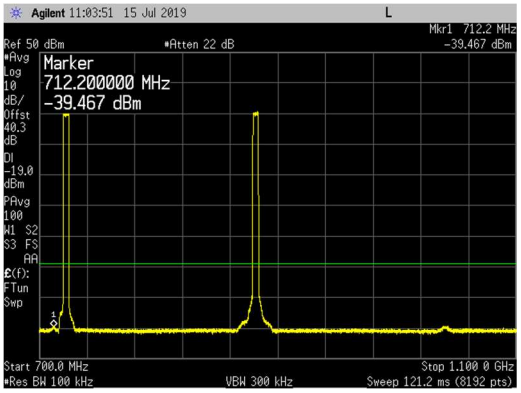
150kHz to 20MHz



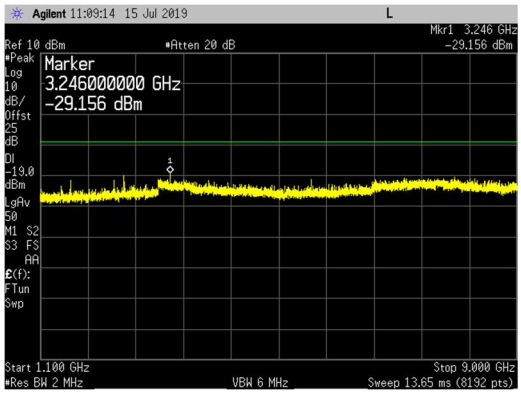
20MHz to 700MHz



700MHz to 1100MHz

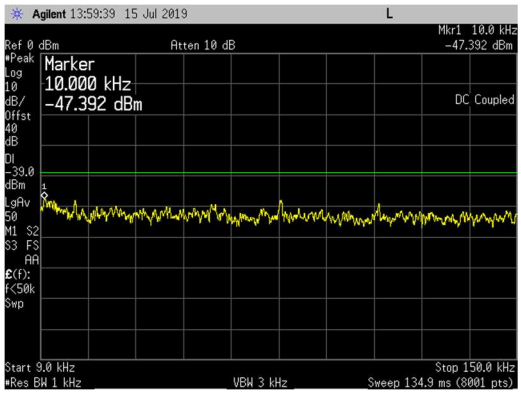


1.1GHz to 9GHz

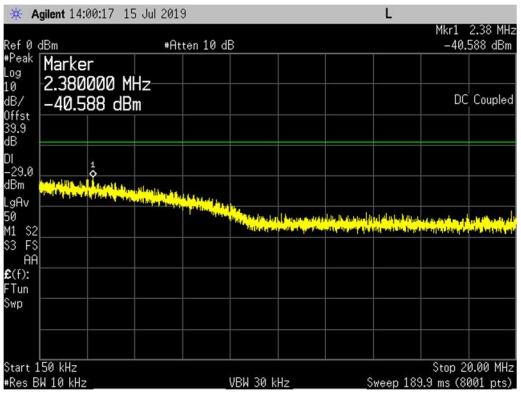


LTE10 & LTE10 Ch BWs _ QPSK _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

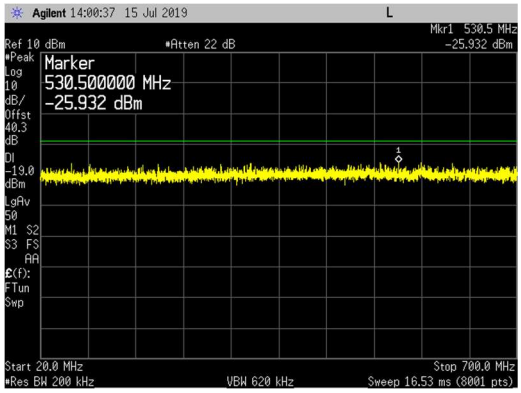
9kHz to 150kHz



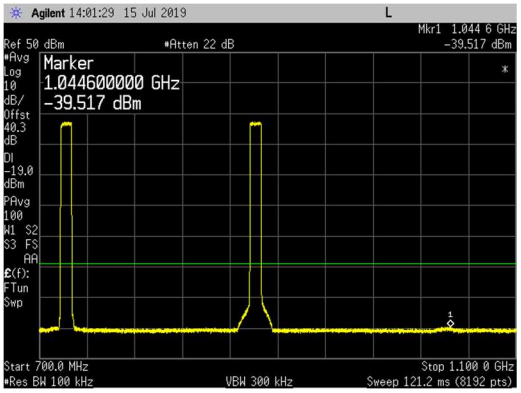
150kHz to 20MHz



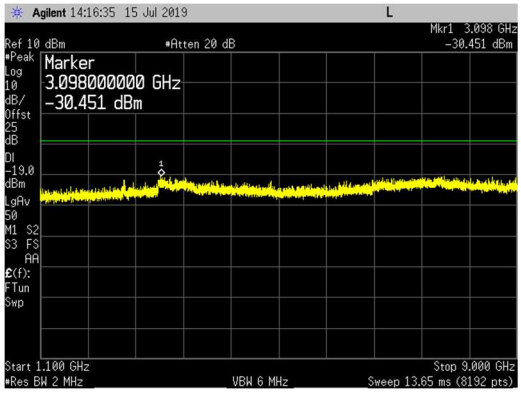
20MHz to 700MHz



700MHz to 1100MHz

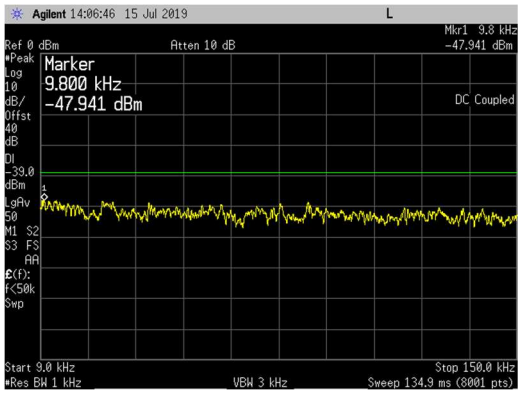


1.1GHz to 9GHz

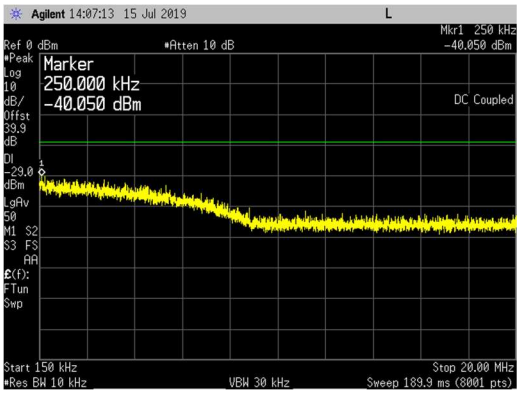


LTE10 & LTE10 Ch BWs _ 16QAM _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

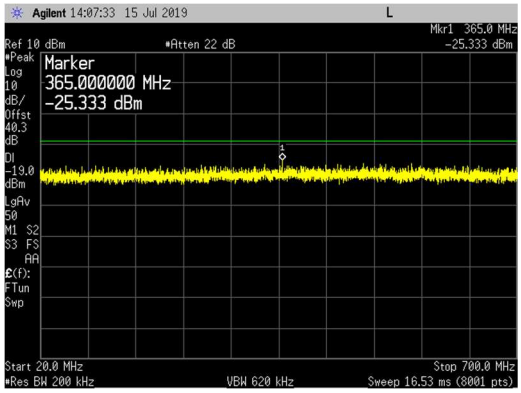
9kHz to 150kHz



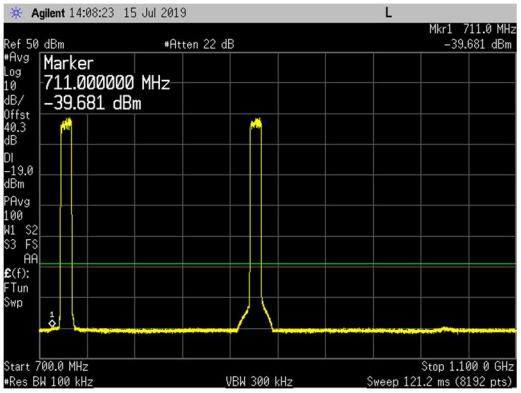
150kHz to 20MHz



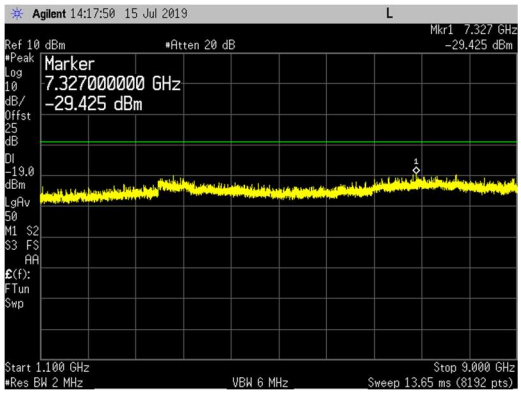
20MHz to 700MHz



700MHz to 1100MHz

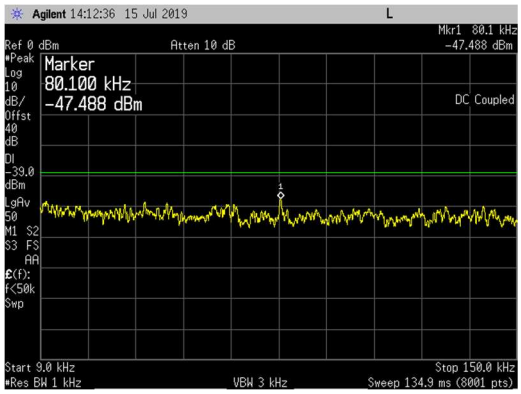


1.1GHz to 9GHz

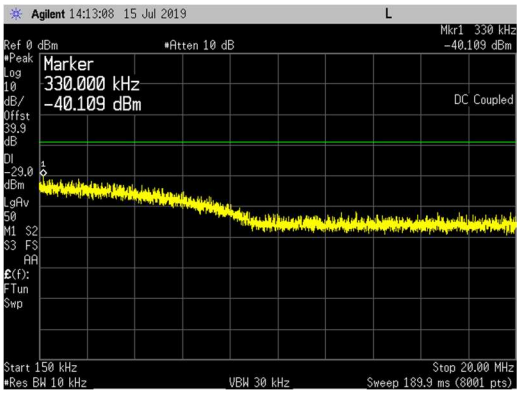


LTE10 & LTE10 Ch BWs _ 64QAM _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

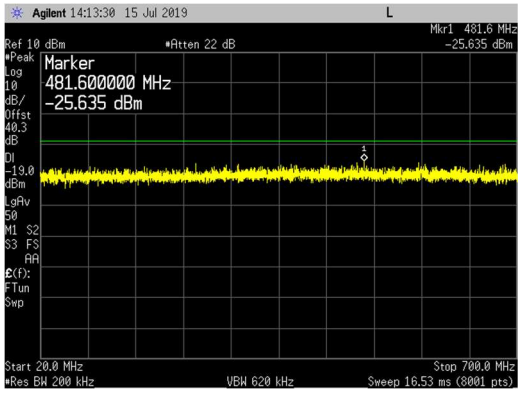
9kHz to 150kHz



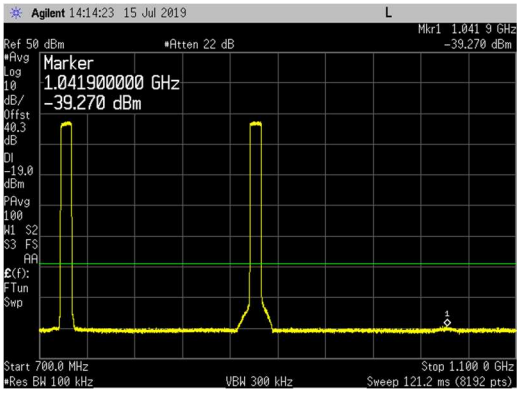
150kHz to 20MHz



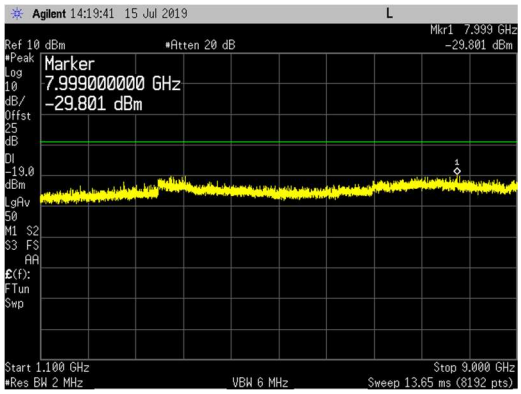
20MHz to 700MHz



700MHz to 1100MHz

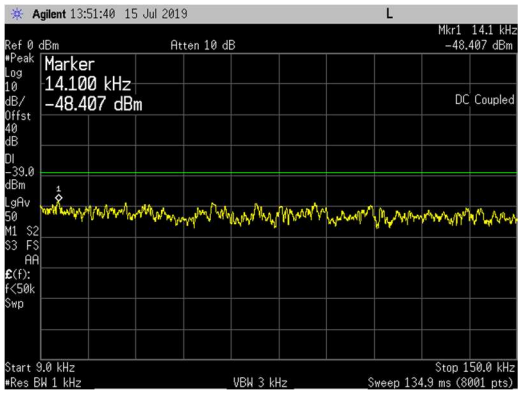


1.1GHz to 9GHz

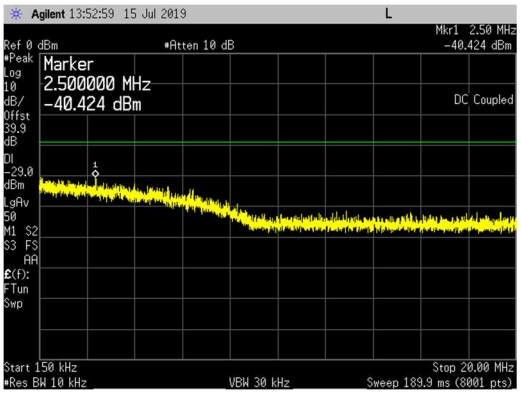


LTE10 & LTE10 Ch BWs _ 256QAM _ Middle Channels (722.5MHz and 881.5MHz) at 40 watts/carrier:

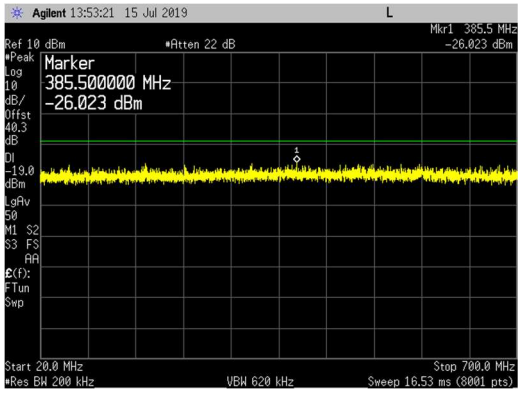
9kHz to 150kHz



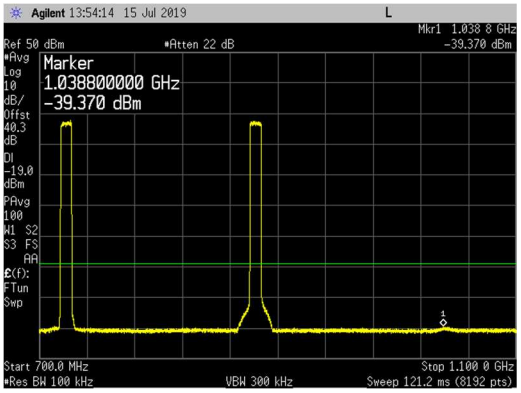
150kHz to 20MHz



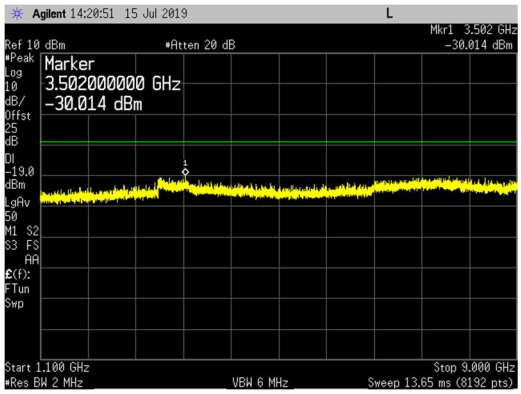
20MHz to 700MHz



700MHz to 1100MHz

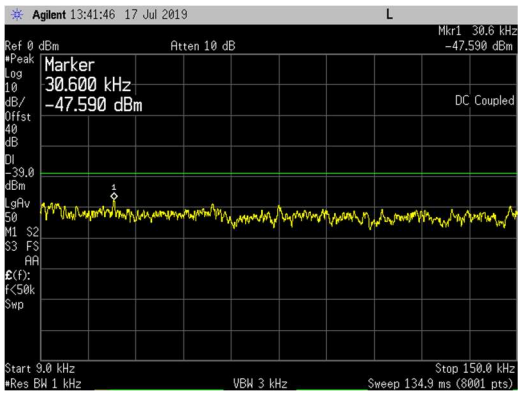


1.1GHz to 9GHz

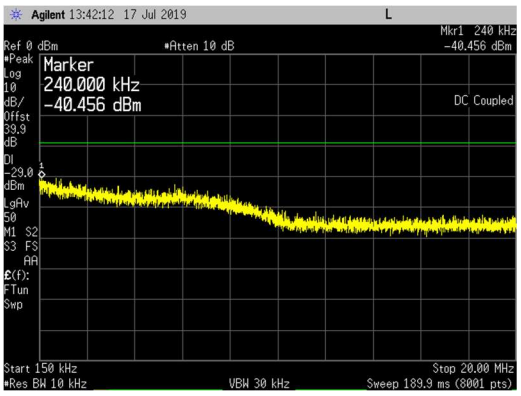


Multicarrier Multiband_ QPSK_ Band 5 LTE1.4 (869.7, 871.1 & 893.3MHz at 13 watts/carrier) and Band 29 LTE5 (719.5 & 725.5MHz at 20 watts/carrier):

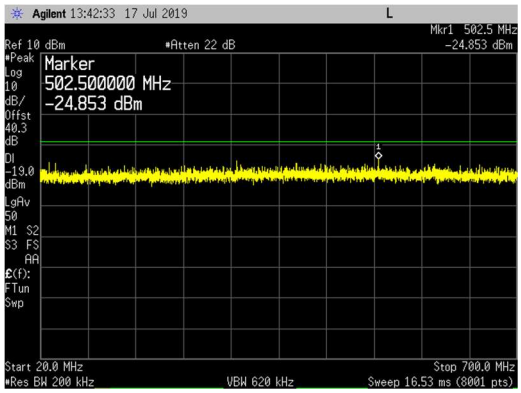
9kHz to 150kHz



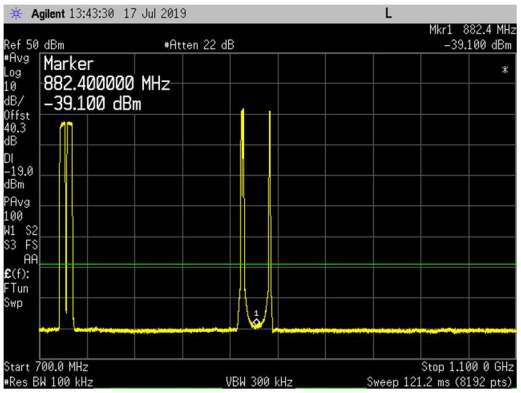
150kHz to 20MHz



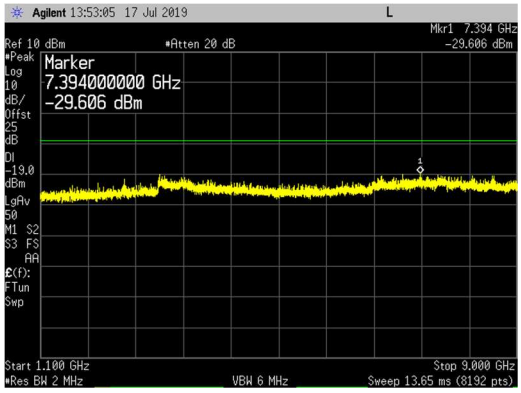
20MHz to 700MHz



700MHz to 1100MHz

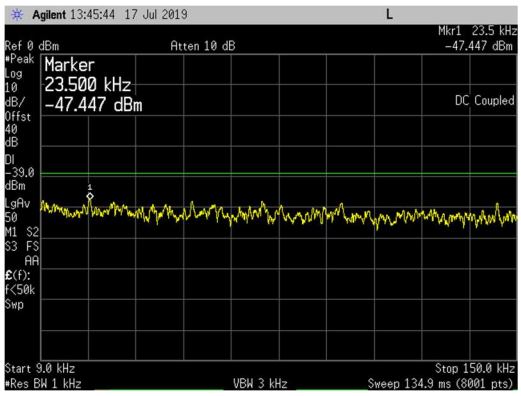


1.1GHz to 9GHz

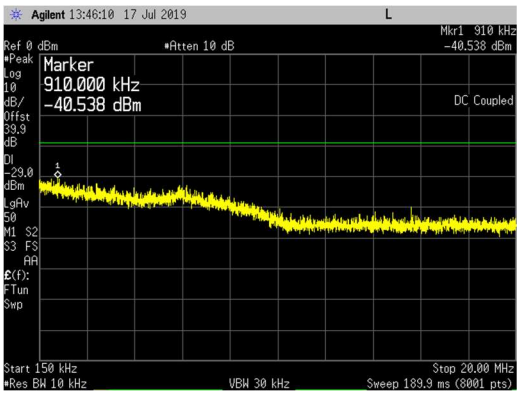


Multicarrier Multiband_ 16QAM_ Band 5 LTE1.4 (869.7, 871.1 & 893.3MHz at 13 watts/carrier) and Band 29 LTE5 (719.5 & 725.5MHz at 20 watts/carrier):

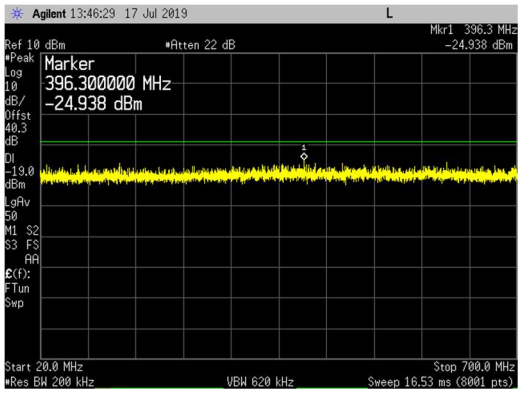
9kHz to 150kHz



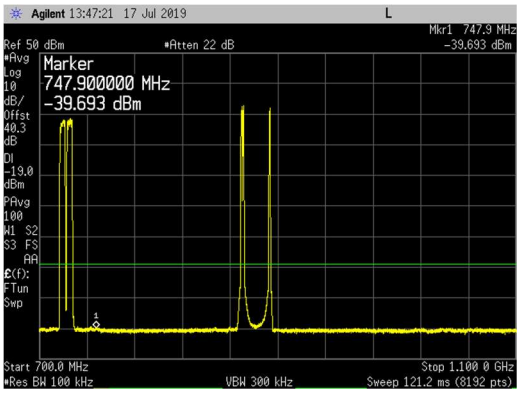
150kHz to 20MHz



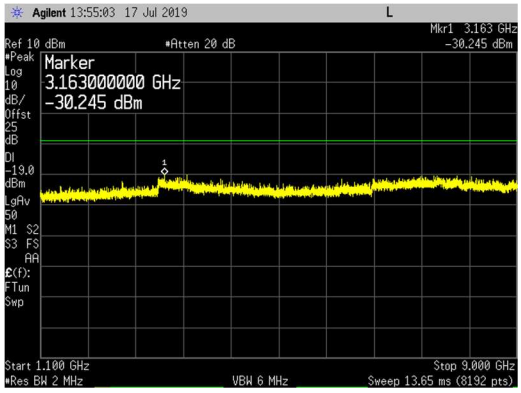
20MHz to 700MHz



700MHz to 1100MHz

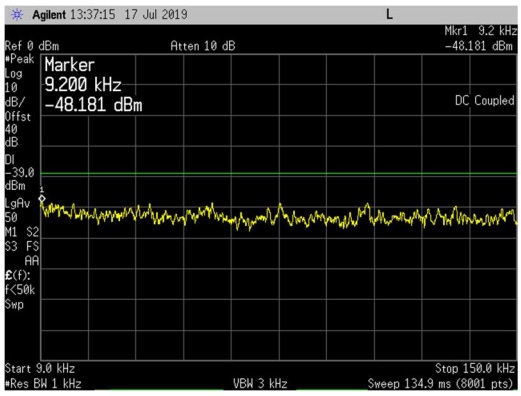


1.1GHz to 9GHz

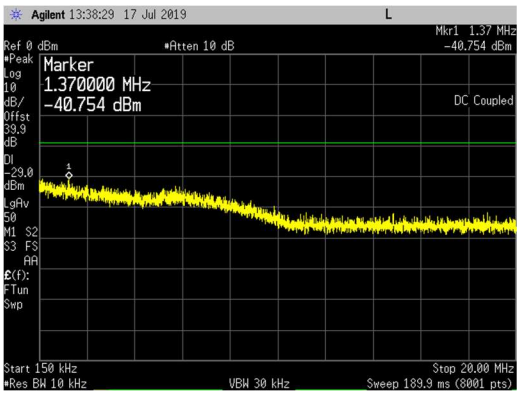


Multicarrier Multiband_ 64QAM_ Band 5 LTE1.4 (869.7, 871.1 & 893.3MHz at 13 watts/carrier) and Band 29 LTE5 (719.5 & 725.5MHz at 20 watts/carrier):

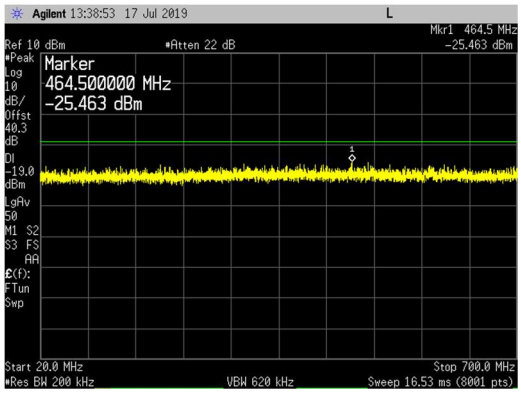
9kHz to 150kHz



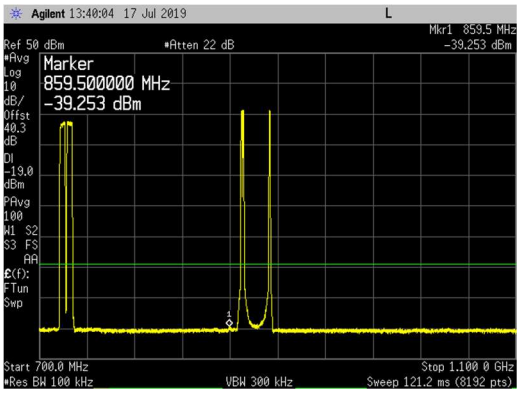
150kHz to 20MHz



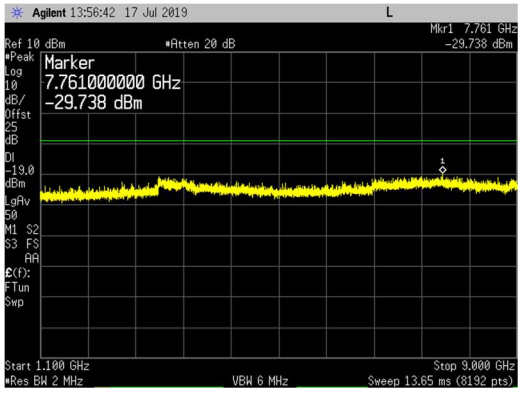
20MHz to 700MHz



700MHz to 1100MHz

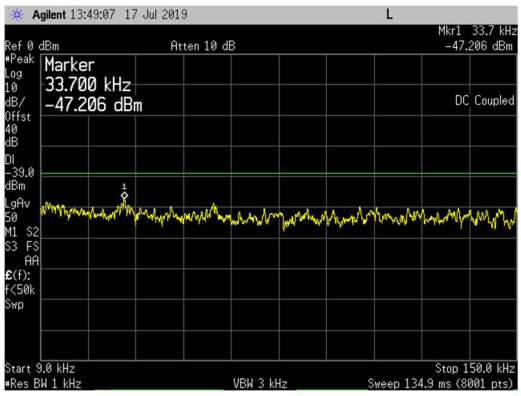


1.1GHz to 9GHz

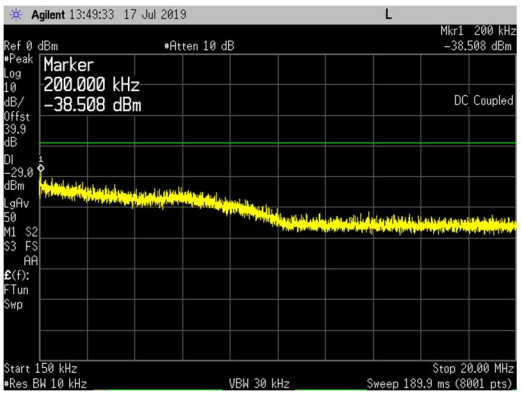


Multicarrier Multiband_ 256QAM_ Band 5 LTE1.4 (869.7, 871.1 & 893.3MHz at 13 watts/carrier) and Band 29 LTE5 (719.5 & 725.5MHz at 20 watts/carrier):

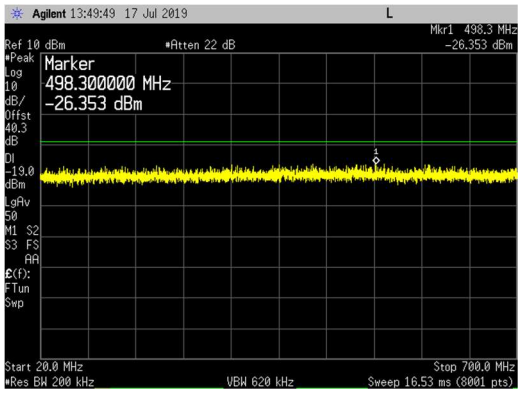
9kHz to 150kHz



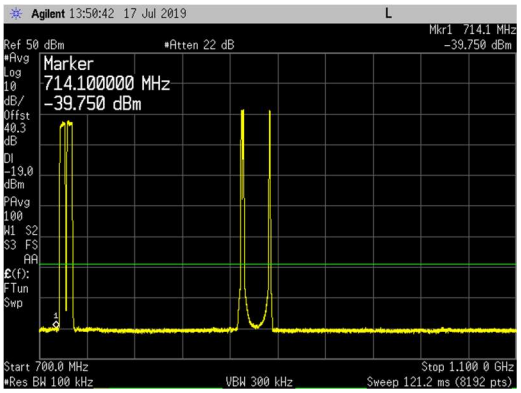
150kHz to 20MHz



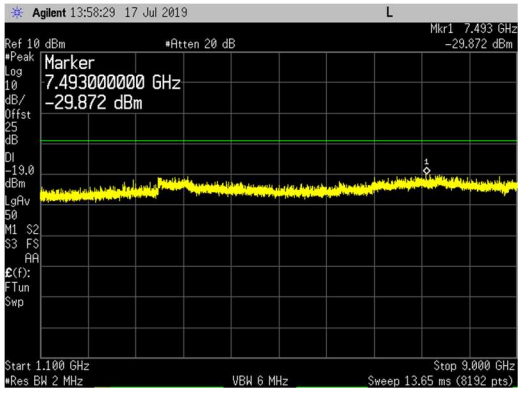
20MHz to 700MHz



700MHz to 1100MHz

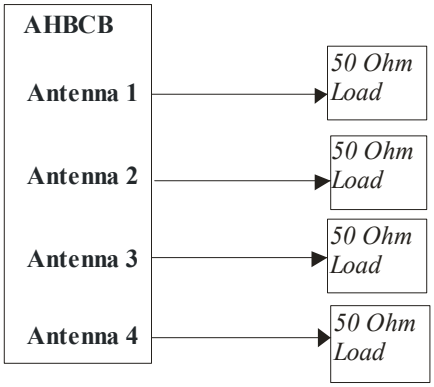


1.1GHz to 9GHz



Transmitter Radiated Spurious Emissions

During radiated emission testing all antenna ports of the base station were terminated with 50ohm termination blocks as shown in the diagram below.



See ANSI C63.26-2015 paragraph 5.1 for details of test setup requirements. Based on antenna port conducted spurious emissions tests results, preliminary scans for radiated spurious emissions were performed in 30MHz – 9GHz frequency range.

One radiated emission test configuration (with the external cooling fan) was used to prove compliance for both 3GPP Band 5 and the 3GPP Band 29 frequency bands. The 3GPP Band 5 transmitters were enabled at maximum power on all four ports. The bottom, middle and top frequency channels for Band 5 were enabled. The 3GPP Band 29 transmitters were enabled at maximum power on antenna ports 1 & 2 (antenna ports 3 & 4 do not support Band 29 operations). The bottom and top frequency channels for Band 29 were enabled. The test includes channel bandwidth with the highest spectral density for both frequency bands. The carrier configurations for the radiated emission testing are provided below. Final maximized radiated emissions were measured in these modes.

Frequency Band	Antenna Port	RF Bandwidth	EARFCN	Transmit Frequency	Carrier & Port Power
Band 5	1	1.4 MHz	2407 (Bottom Channel)	869.7 MHz	40 Watts & 80 Watts
Band 5	2	1.4 MHz	2525 (Middle Channel)	881.5 MHz	40 Watts & 80 Watts
Band 5	3	1.4 MHz	2525 (Middle Channel)	881.5 MHz	40 Watts & 40 Watts
Band 5	4	1.4 MHz	2643 (Top Channel)	893.3 MHz	40 Watts & 40 Watts
Band 29	1	5 MHz	9685 (Bottom Channel)	719.5 MHz	40 Watts & 80 Watts
Band 29	2	5 MHz	9745 (Top Channel)	725.5 MHz	40 Watts & 80 Watts

Band 5 & Band 29 Carriers Enabled Simultaneously at Maximum Power

RE Data

A three-meter measurement distance was used for radiated emission measurements. The highest radiated emissions detected were more than 20dB below the three-meter limit of 82.2dBuV/m (equivalent to -13dBm EIRP). Since all maximized measurements were more than 20dB below these levels, substitution measurements were not performed. TILE software was used for all preliminary scans and plots that are included on the following pages.

Frequency	Peaks Raw	Antenna	Pre Amp	Cables	Peaks	Limit	Margin	Tower	Turntable	Polarity
MHz	dBuV/m	dB	dB	dB	dBuV/m	dBuV/m	dB	cm	Degrees	H/V
8174.73	27.009	36.861	-32.48	5.649	37.039	81.7	-44.661	100	210	H
687.5	49.623	21.5	-36.54	2.273	36.856	81.7	-44.844	113	344	H
687.495	48.729	21.5	-36.54	2.273	35.962	81.7	-45.738	100	263	V
2573.23	36.264	28.978	-33.962	4.404	35.684	81.7	-46.016	100	359	V
750.011	47.573	21.401	-36.51	2.465	34.929	81.7	-46.771	149	359	V
937.489	44.483	23.8	-36.335	2.952	34.9	81.7	-46.8	172	359	V
1864.17	33.156	27.213	-34.7	8.649	34.318	81.7	-47.382	100	359	H
1879.2	31.042	27.304	-34.679	9.169	32.836	81.7	-48.864	100	359	H
1880.52	30.86	27.312	-34.677	9.215	32.71	81.7	-48.99	100	359	V
2260.89	34.739	27.603	-34.31	4.425	32.457	81.7	-49.243	100	359	V
937.496	41.292	23.8	-36.335	2.952	31.709	81.7	-49.991	100	341	H
5610.14	23.896	34.079	-32.164	5.34	31.151	81.7	-50.549	100	359	H
3226.44	26.631	30.93	-33.615	4.653	28.599	81.7	-53.101	100	359	H
3037.59	27.409	30.28	-33.697	4.516	28.508	81.7	-53.192	100	353	H
562.494	44.297	19.2	-36.735	1.725	28.487	81.7	-53.213	100	274	V
562.486	43.627	19.2	-36.735	1.724	27.816	81.7	-53.884	100	54	H
999.982	37.125	24	-36.16	2.827	27.792	81.7	-53.908	100	359	H
8729.2	18.043	37.588	-32.482	4.19	27.339	81.7	-54.361	100	359	V
999.993	34.259	24	-36.16	2.827	24.926	81.7	-56.774	100	316	V
7633.35	13.064	36.336	-32.357	6.471	23.514	81.7	-58.186	100	359	V
3973.45	15.489	32.626	-32.578	4.95	20.487	81.7	-61.213	100	359	V
32.7515	30.565	20.496	-37.14	0.534	14.455	81.7	-67.245	100	92	H
752.14	24.693	21.514	-36.506	2.474	12.175	81.7	-69.525	156	359	H
55.6583	33.919	6.9	-37.207	0.641	4.253	81.7	-77.447	100	359	V