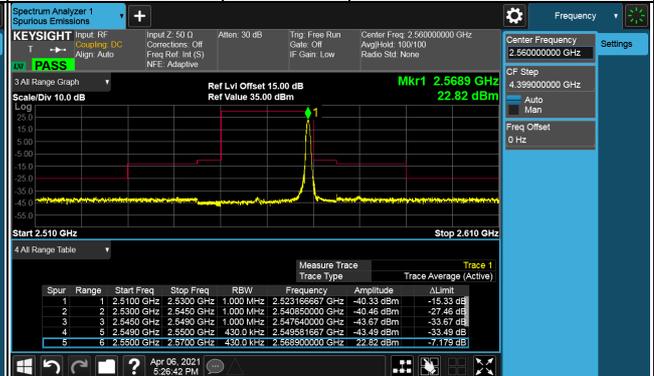## LTE Band 7, Channel Bandwidth 20MHz
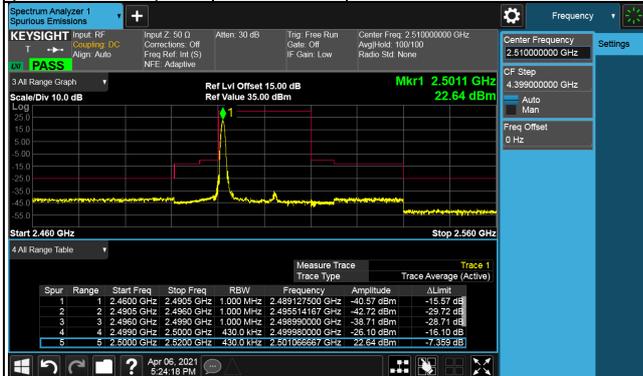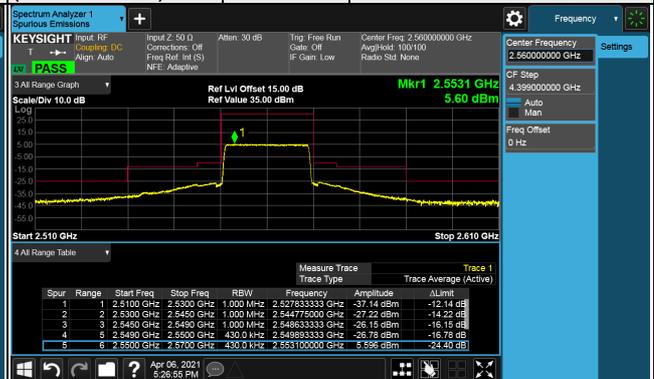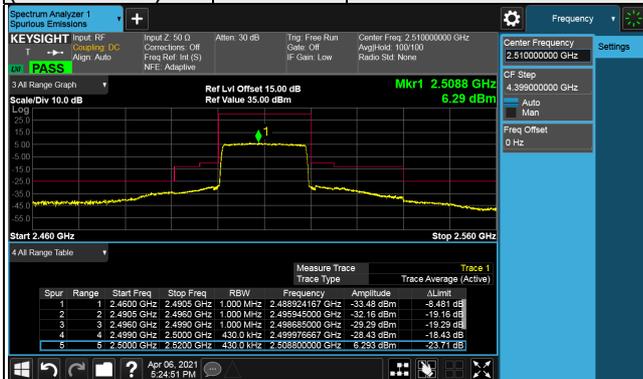
Channel 20850 (2510.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 21350 (2560.0MHz)	QPSK	1 RB / 99 RB Offset

Channel 20850 (2510.0MHz)	QPSK	100 RB / 0 RB Offset	Channel 21350 (2560.0MHz)	QPSK	100 RB / 0 RB Offset

Band Edge

LTE Band 12, Channel Bandwidth 1.4MHz			
Channel 23017 (699.7MHz)	QPSK	1 RB / 0 RB Offset	

Channel 23173 (715.3MHz)	QPSK	1 RB / 5 RB Offset

Channel 23017 (699.7MHz)	QPSK	6 RB / 0 RB Offset

Channel 23173 (715.3MHz)	QPSK	6 RB / 0 RB Offset
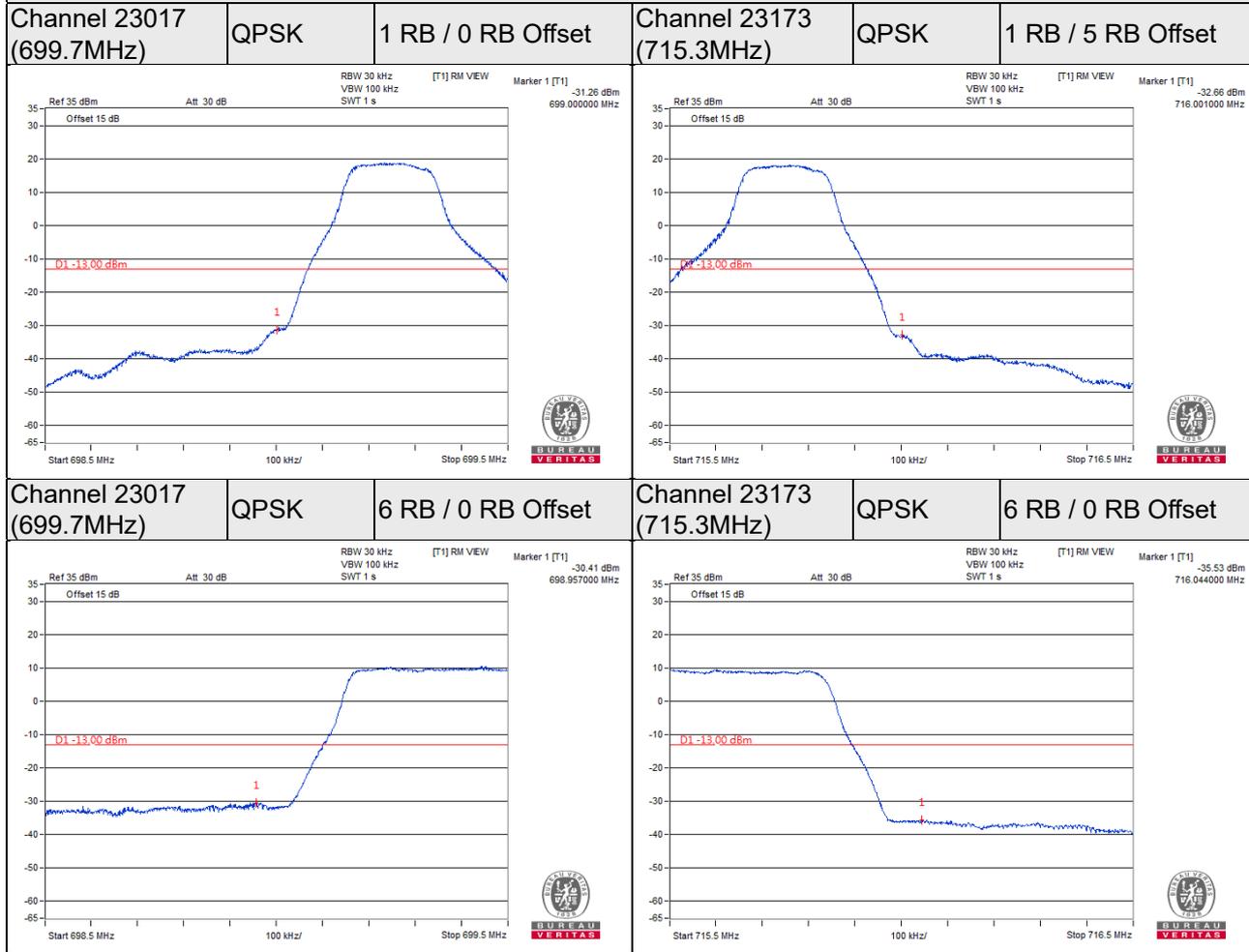
LTE Band 12, Channel Bandwidth 3MHz							
Channel 23025 (700.5MHz)	QPSK	1 RB / 0 RB Offset		Channel 23165 (714.5MHz)	QPSK	1 RB / 14RB Offset	
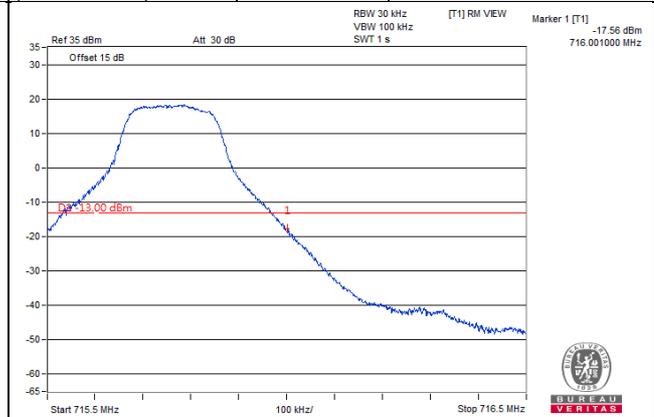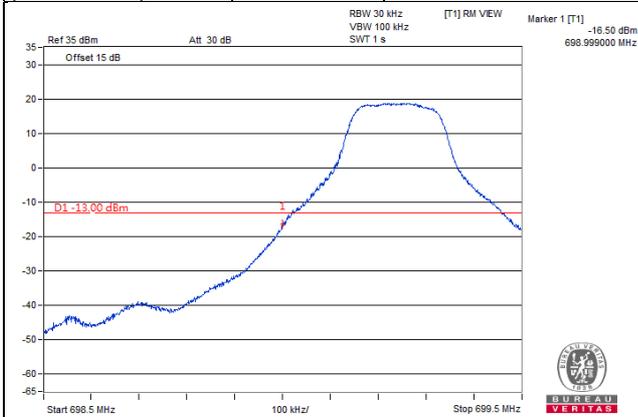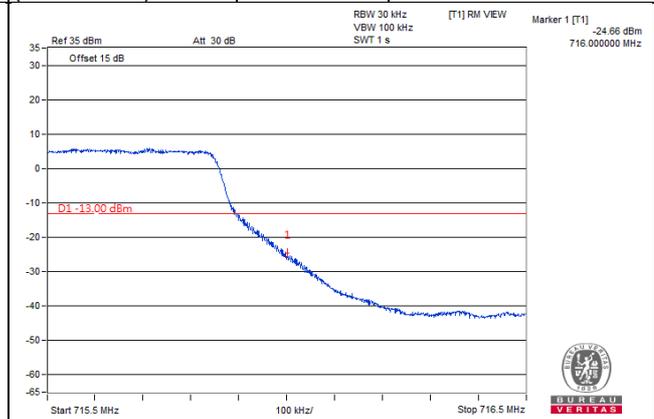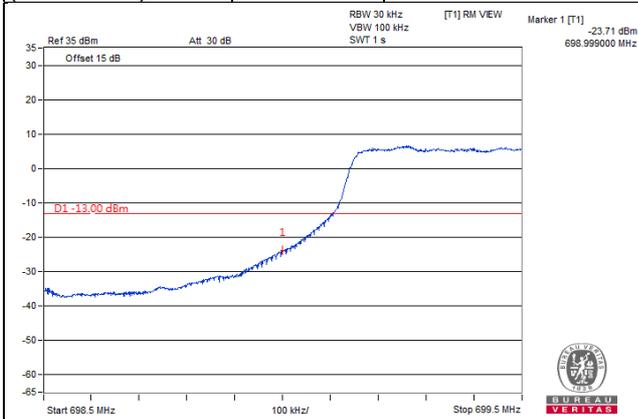
Channel 23025 (700.5MHz)	QPSK	15 RB / 0 RB Offset		Channel 23165 (714.5MHz)	QPSK	15 RB / 0 RB Offset	

LTE Band 12, Channel Bandwidth 5MHz						
Channel 23035 (701.5MHz)	QPSK	1 RB / 0 RB Offset		Channel 23155 (713.5MHz)	QPSK	1 RB / 24RB Offset
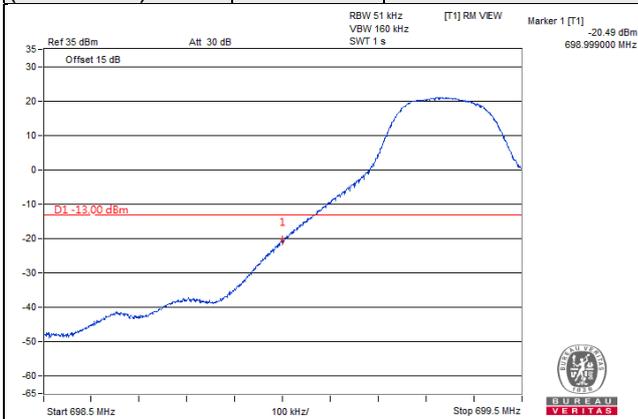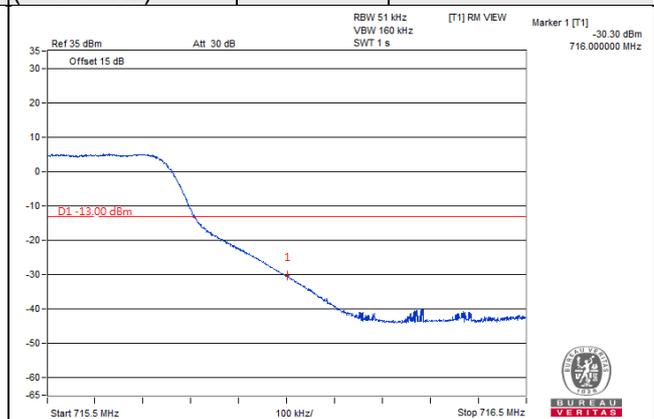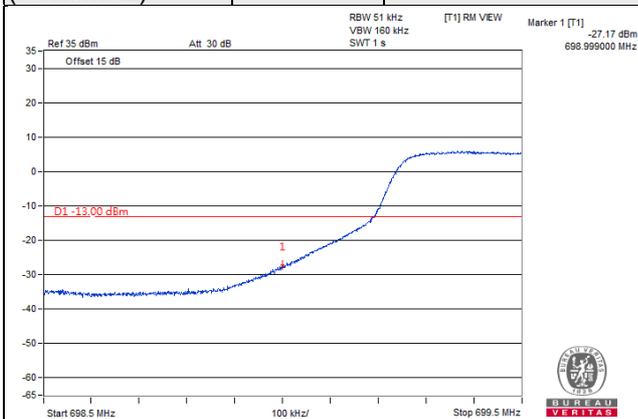
Channel 23035 (701.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 23155 (713.5MHz)	QPSK	25 RB / 0 RB Offset

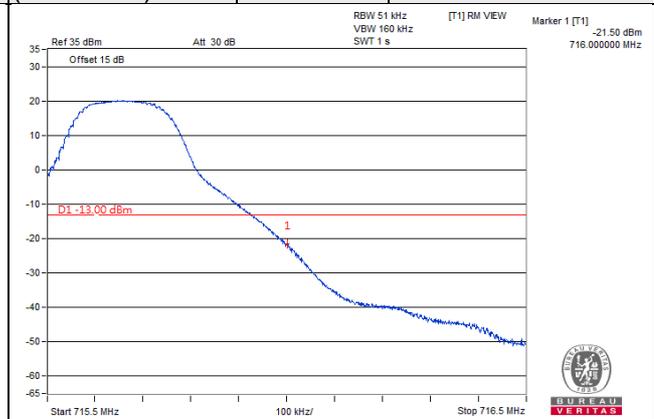| LTE Band 12, Channel Bandwidth 10MHz						
Channel 23060 (704.0MHz)	QPSK	1 RB / 0 RB Offset		Channel 23130 (711.0MHz)	QPSK	1 RB / 24RB Offset
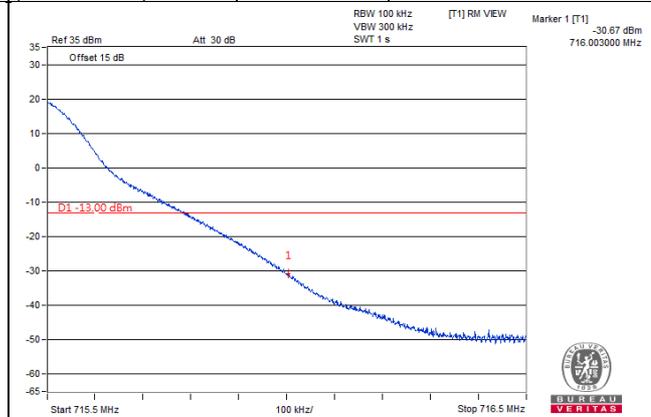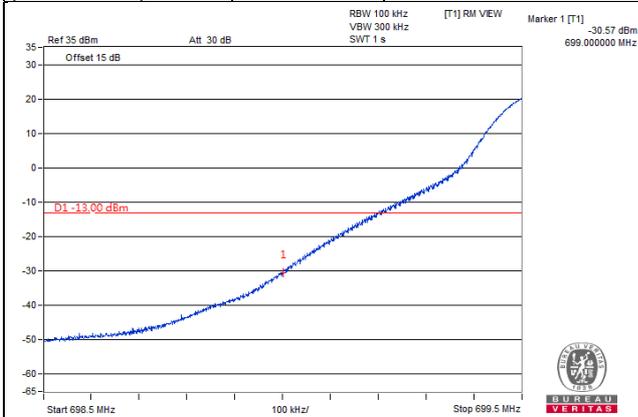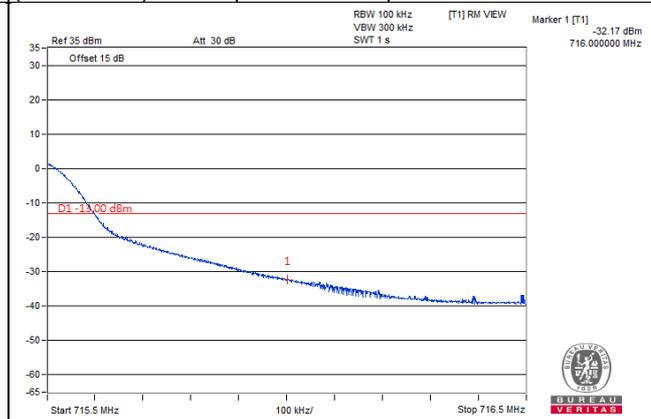
Channel 23060 (704.0MHz)	QPSK	50 RB / 0 RB Offset		Channel 23130 (711.0MHz)	QPSK	25 RB / 0 RB Offset
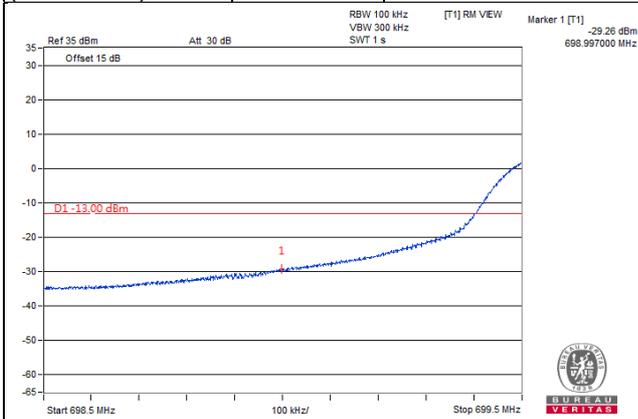
Band Edge

LTE Band 13, Channel Bandwidth 5MHz						

Channel 23205 (779.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 23255 (784.5MHz)	QPSK	1 RB / 24 RB Offset

Channel 23205 (779.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 23255 (784.5MHz)	QPSK	25 RB / 0 RB Offset

LTE Band 13, Channel Bandwidth 10MHz						
Channel 23230 (782.0MHz)	QPSK	1 RB / 0 RB Offset		Channel 23230 (782.0MHz)	QPSK	1 RB / 49 RB Offset

Channel 23230 (782.0MHz)	QPSK	50 RB / 0 RB Offset		Channel 23230 (782.0MHz)	QPSK	50 RB / 0 RB Offset

LTE Band 13, Channel Bandwidth 5MHz						
Channel 23205 (779.5MHz)	QPSK	1 RB / 0 RB Offset		Channel 23255 (784.5MHz)	QPSK	1 RB / 24 RB Offset

Channel 23205 (779.5MHz)	QPSK	25 RB / 0 RB Offset		Channel 23255 (784.5MHz)	QPSK	25 RB / 0 RB Offset

For the 763-775MHz and 793-805MHz band, the FCC limit is 65+10log(P[watt]) in a 6.25 kHz bandwidth. Since it was not possible to set the resolution bandwidth to 6.25 kHz with the available equipment, a bandwidth of 10 kHz was used instead to show compliance, and the correction factor is compensated at the spectrum. By using a 10 kHz bandwidth on the spectrum analyzer.

LTE Band 13, Channel Bandwidth 10MHz						
Channel 23230 (782.0MHz)	QPSK	1 RB / 0 RB Offset		Channel 23230 (782.0MHz)	QPSK	1 RB / 49 RB Offset
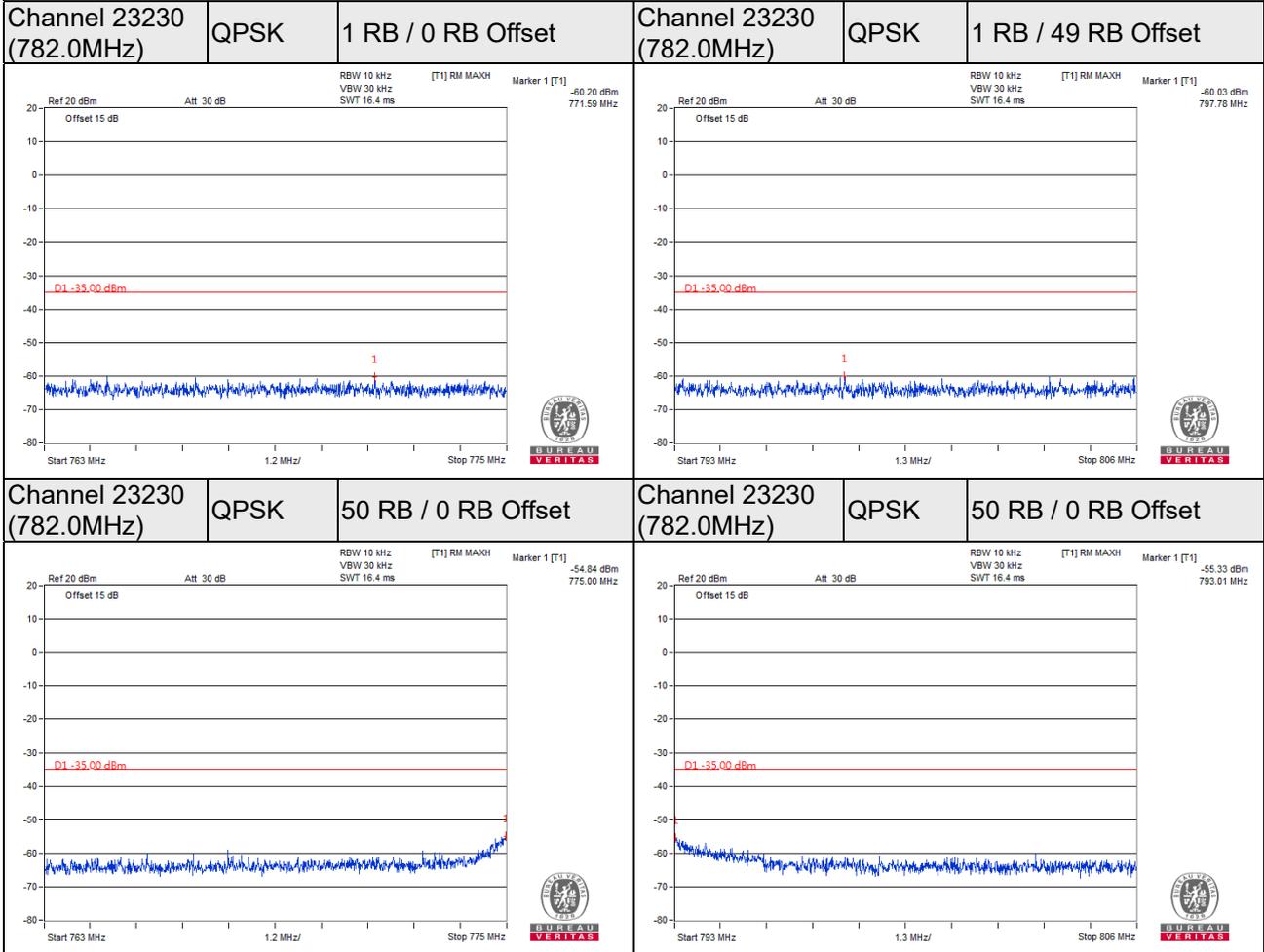
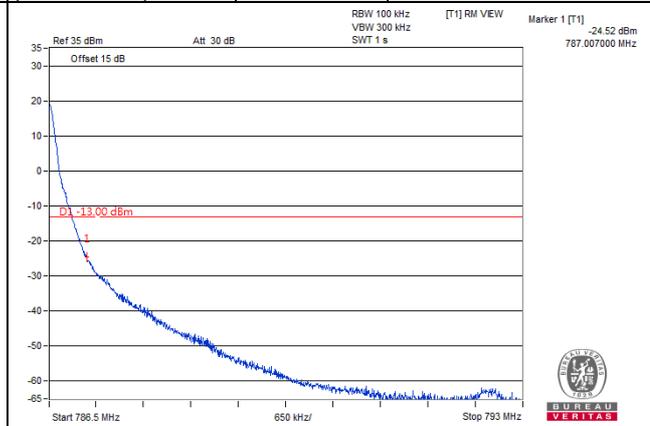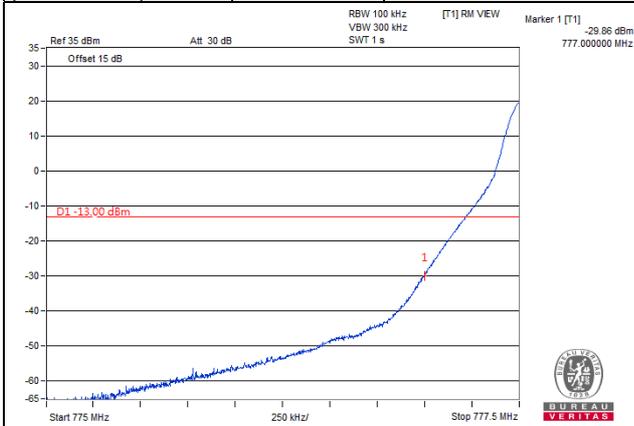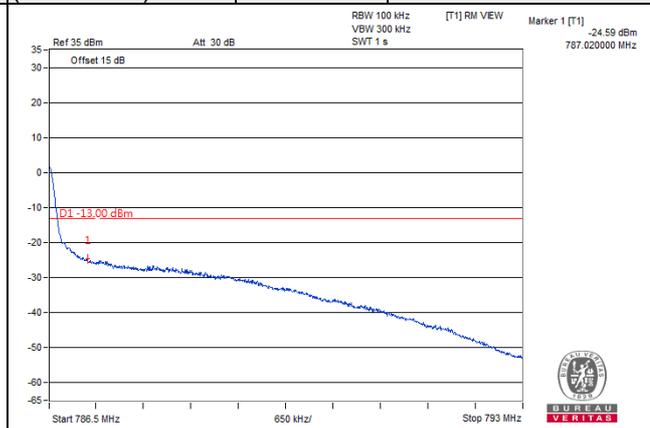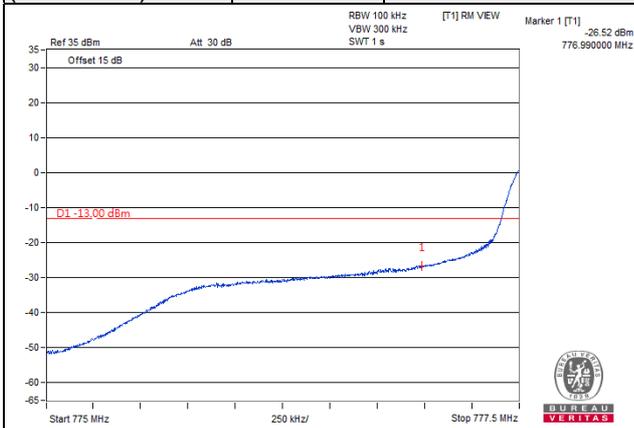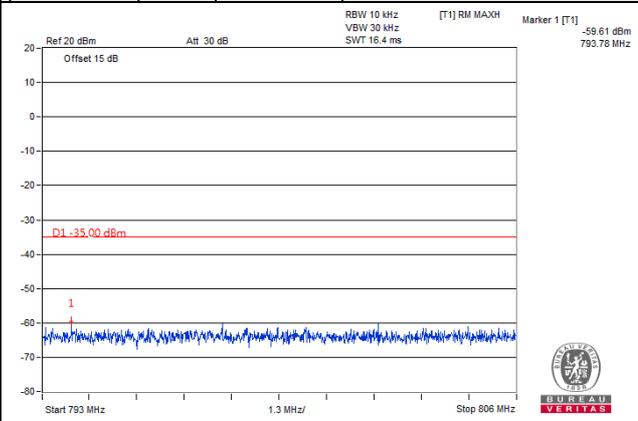| Channel 23230 (782.0MHz)	QPSK	50 RB / 0 RB Offset		Channel 23230 (782.0MHz)	QPSK	50 RB / 0 RB Offset

For the 763-775MHz and 793-805MHz band, the FCC limit is 65+10log(P[watt]) in a 6.25 kHz bandwidth. Since it was not possible to set the resolution bandwidth to 6.25 kHz with the available equipment, a bandwidth of 10 kHz was used instead to show compliance, and the correction factor is compensated at the spectrum. By using a 10 kHz bandwidth on the spectrum analyzer.

Band Edge

LTE Band 17, Channel Bandwidth 5MHz					
Channel 23755 (706.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 23825 (713.5MHz)	QPSK	1 RB / 24 RB Offset

Channel 23755 (706.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 23825 (713.5MHz)	QPSK	25 RB / 0 RB Offset

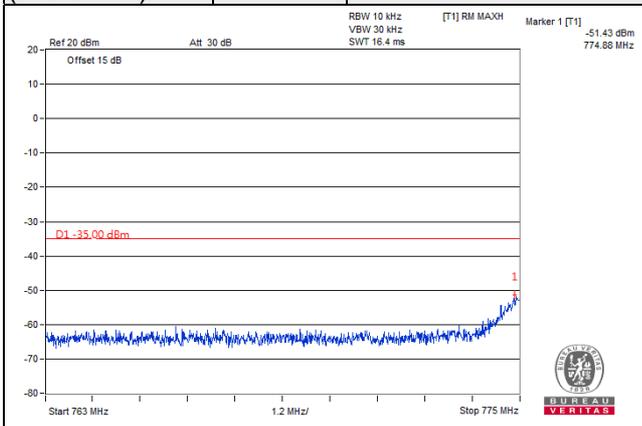| LTE Band 17, Channel Bandwidth 10MHz					
Channel 23780 (709.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 23800 (711.0MHz)	QPSK	1 RB / 49 RB Offset
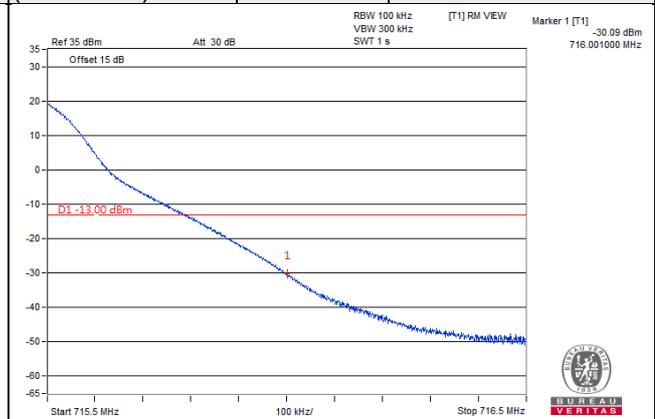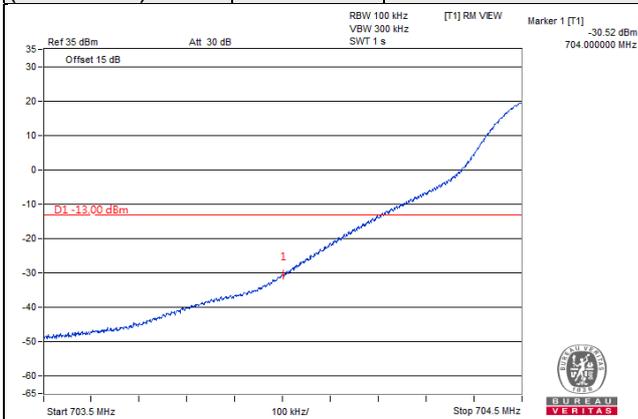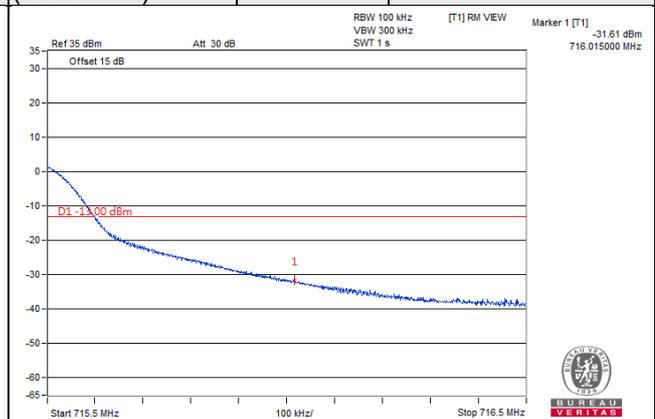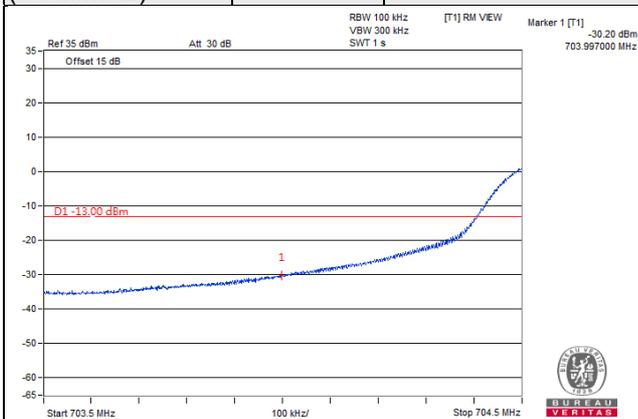
Channel 23780 (709.0MHz)	QPSK	50 RB / 0 RB Offset	Channel 23800 (711.0MHz)	QPSK	50 RB / 0 RB Offset
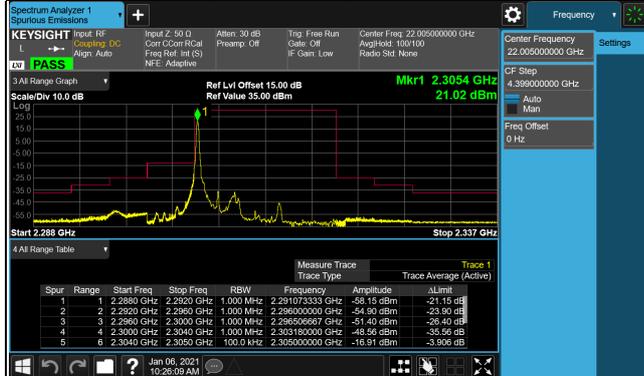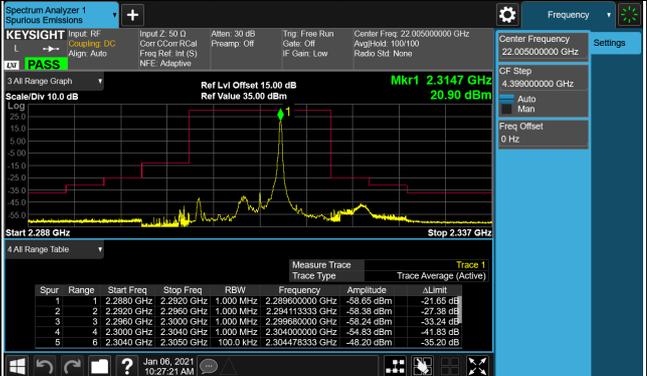
Emission Mask

| LTE Band 30, Channel Bandwidth 5MHz |

| Channel 27685 (2307.5MHz) | QPSK | 1 RB / 0 RB Offset | Channel 27735 (2312.5MHz) | QPSK | 1 RB / 24 RB Offset |

| Channel 27685 (2307.5MHz) | QPSK | 25 RB / 0 RB Offset | Channel 27735 (2312.5MHz) | QPSK | 25 RB / 0 RB Offset |

LTE Band 30, Channel Bandwidth 10MHz					
Channel 27710 (2310.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 27710 (2310.0MHz)	QPSK	1 RB / 49 RB Offset
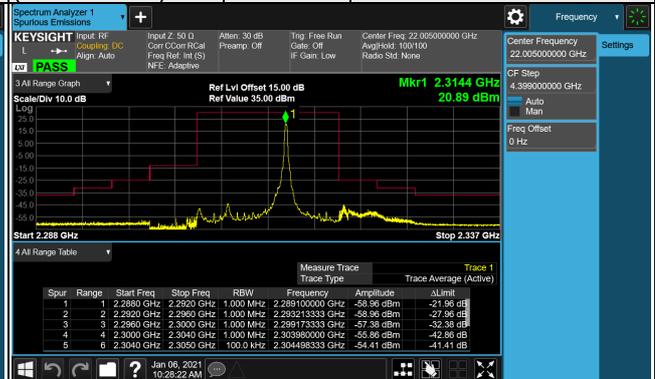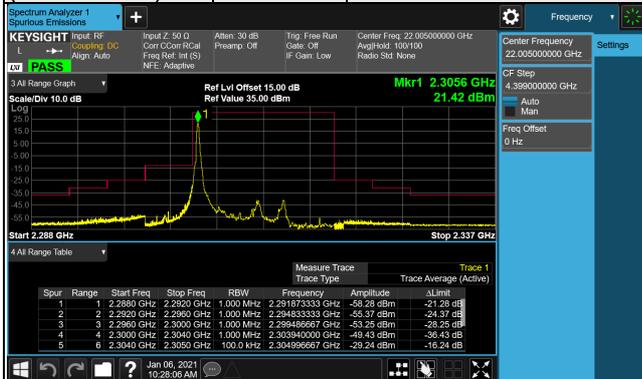
Channel 27710 (2310.0MHz)	QPSK	50 RB / 0 RB Offset			
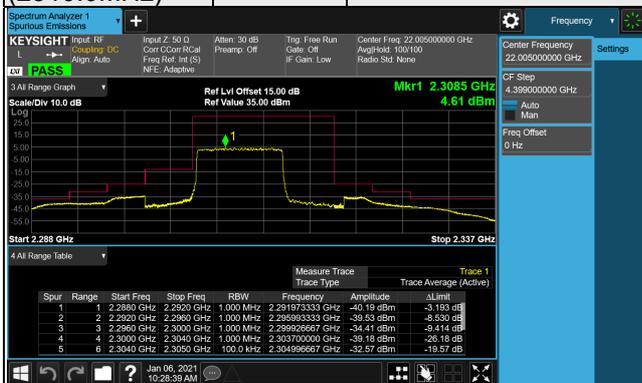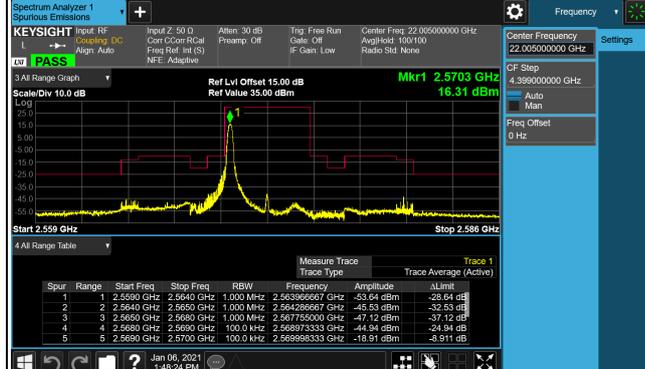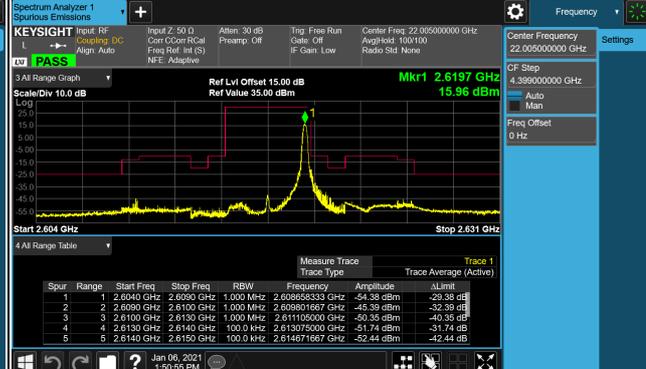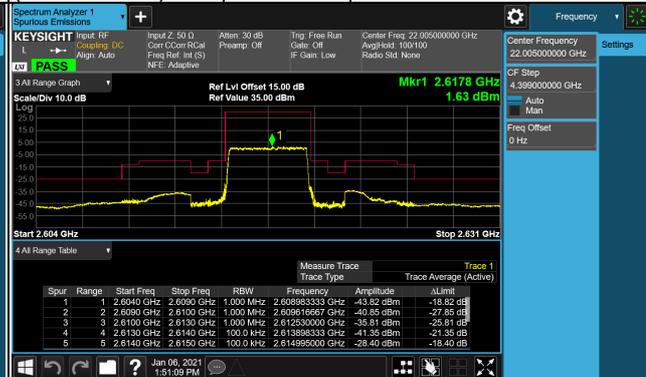
Out-of-Band Emission

LTE Band 38, Channel Bandwidth 5MHz

Channel 37775 (2572.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 38225 (2617.5MHz)	QPSK	1 RB / 24 RB Offset

Channel 37775 (2572.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 38225 (2617.5MHz)	QPSK	25 RB / 0 RB Offset

LTE Band 38, Channel Bandwidth 10MHz						
Channel 37800 (2575.0MHz)	QPSK	1 RB / 0 RB Offset		Channel 38200 (2615.0MHz)	QPSK	1 RB / 49 RB Offset
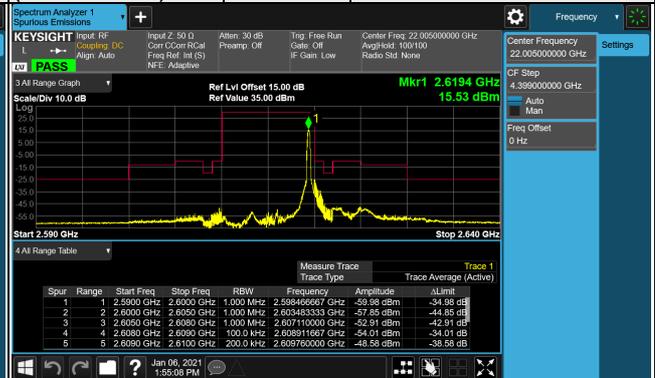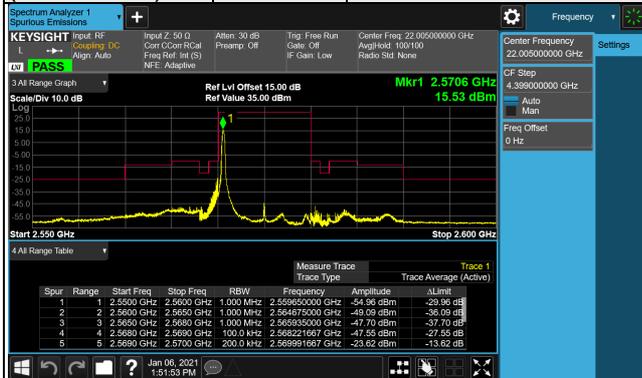
Channel 37800 (2575.0MHz)	QPSK	50 RB / 0 RB Offset		Channel 38200 (2615.0MHz)	QPSK	50 RB / 0 RB Offset
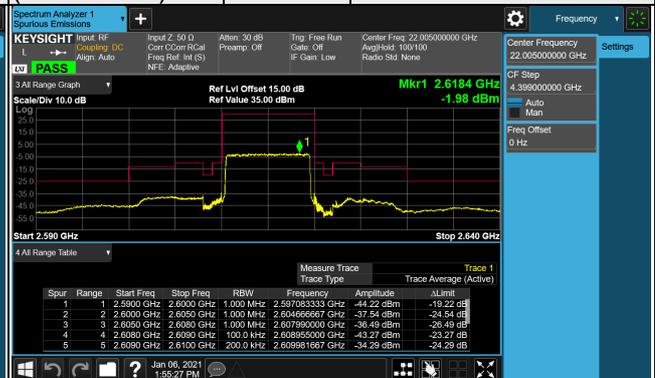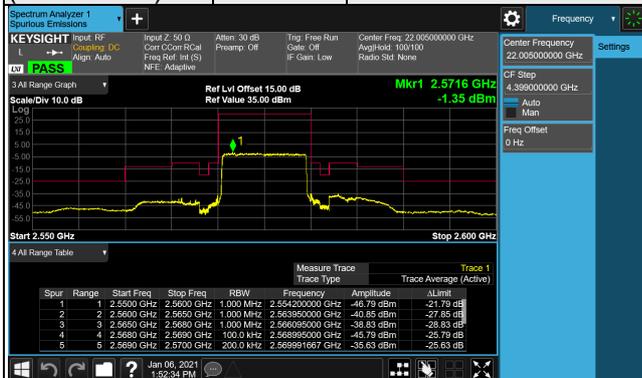
LTE Band 38, Channel Bandwidth 15MHz						
Channel 37825 (2577.5MHz)	QPSK	1 RB / 0 RB Offset		Channel 38175 (2612.5MHz)	QPSK	1 RB / 74 RB Offset

Channel 37825 (2577.5MHz)	QPSK	75 RB / 0 RB Offset		Channel 38175 (2612.5MHz)	QPSK	75 RB / 0 RB Offset
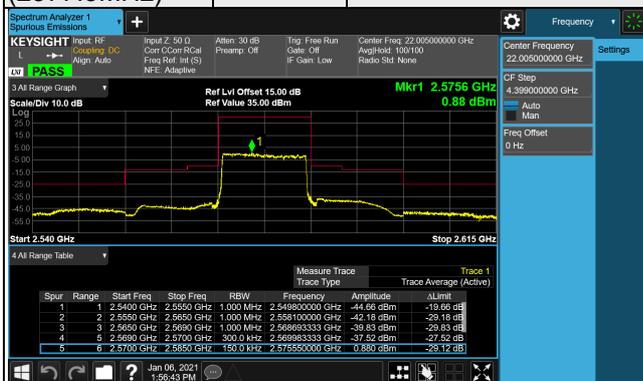
LTE Band 38, Channel Bandwidth 20MHz

Channel 37850 (2580.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 38150 (2610.0MHz)	QPSK	1 RB / 99 RB Offset

Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr RCal Freq Ref: Int (S) NFE: Adaptive Atten: 30 dB Preamp: Off Gate: Off IF Gain: Low Trig: Free Run AvgHold: 100/100 Radio Std: None Center Freq: 22.005000000 GHz
LXI PASS
3 All Range Graph
Scale/Div 10.0 dB
Ref Lvl Offset 15.00 dB Ref Value 35.00 dBm Mkr1 2.5711 GHz 17.48 dBm
Center Frequency 22.005000000 GHz Settings
CF Step 4.399000000 GHz Auto Man
Freq Offset 0 Hz
Start 2.530 GHz Stop 2.630 GHz
4 All Range Table
Measure Trace Trace Type Trace 1 Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.5300 GHz	2.5500 GHz	1.000 MHz	2.549800000 GHz	-50.99 dBm	-25.99 dB
2	2	2.5500 GHz	2.5650 GHz	1.000 MHz	2.564750000 GHz	-45.56 dBm	-32.56 dB
3	3	2.5650 GHz	2.5690 GHz	1.000 MHz	2.568986667 GHz	-45.76 dBm	-35.76 dB
4	5	2.5690 GHz	2.5700 GHz	430.0 kHz	2.569993333 GHz	-27.82 dBm	-17.82 dB
5	6	2.5700 GHz	2.5900 GHz	430.0 kHz	2.571133333 GHz	17.48 dBm	-12.52 dB

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Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr RCal Freq Ref: Int (S) NFE: Adaptive Atten: 30 dB Preamp: Off Gate: Off IF Gain: Low Trig: Free Run AvgHold: 100/100 Radio Std: None Center Freq: 22.005000000 GHz
LXI PASS
3 All Range Graph
Scale/Div 10.0 dB
Ref Lvl Offset 15.00 dB Ref Value 35.00 dBm Mkr1 2.6189 GHz 18.23 dBm
Center Frequency 22.005000000 GHz Settings
CF Step 4.399000000 GHz Auto Man
Freq Offset 0 Hz
Start 2.530 GHz Stop 2.660 GHz
4 All Range Table
Measure Trace Trace Type Trace 1 Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.5600 GHz	2.5800 GHz	1.000 MHz	2.579633333 GHz	-52.91 dBm	-27.91 dB
2	2	2.5800 GHz	2.5950 GHz	1.000 MHz	2.594225000 GHz	-50.57 dBm	-37.57 dB
3	3	2.5950 GHz	2.5990 GHz	1.000 MHz	2.598566667 GHz	-57.88 dBm	-47.88 dB
4	5	2.5990 GHz	2.6000 GHz	430.0 kHz	2.599245000 GHz	-48.74 dBm	-38.74 dB
5	6	2.6000 GHz	2.6200 GHz	430.0 kHz	2.618933333 GHz	18.23 dBm	-11.77 dB

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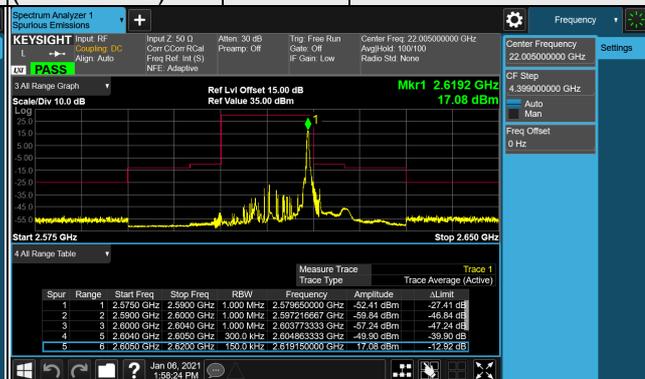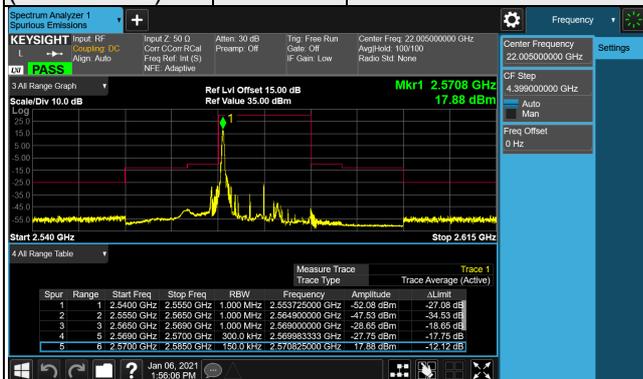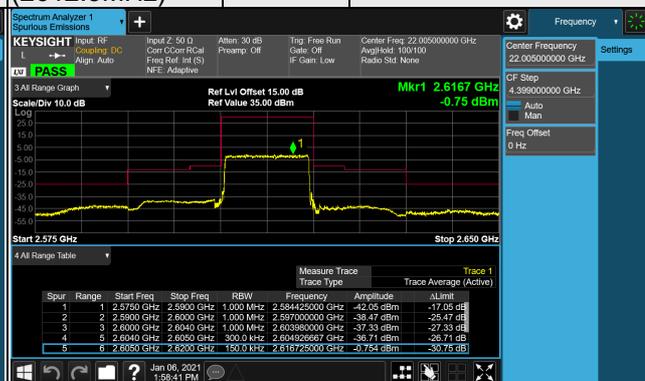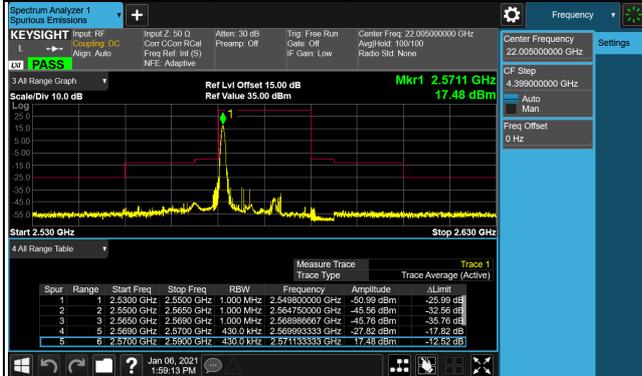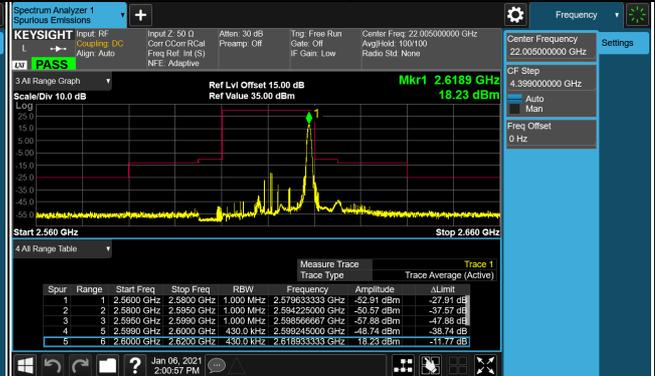| Channel 37850 (2580.0MHz)	QPSK	100 RB / 0 RB Offset	Channel 38150 (2610.0MHz)	QPSK	100 RB / 0 RB Offset

Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr RCal Freq Ref: Int (S) NFE: Adaptive Atten: 30 dB Preamp: Off Gate: Off IF Gain: Low Trig: Free Run AvgHold: 100/100 Radio Std: None Center Freq: 22.005000000 GHz
LXI PASS
3 All Range Graph
Scale/Div 10.0 dB
Ref Lvl Offset 15.00 dB Ref Value 35.00 dBm Mkr1 2.5797 GHz 2.39 dBm
Center Frequency 22.005000000 GHz Settings
CF Step 4.399000000 GHz Auto Man
Freq Offset 0 Hz
Start 2.530 GHz Stop 2.630 GHz
4 All Range Table
Measure Trace Trace Type Trace 1 Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.5300 GHz	2.5500 GHz	1.000 MHz	2.548500000 GHz	-45.10 dBm	-20.10 dB
2	2	2.5500 GHz	2.5650 GHz	1.000 MHz	2.553650000 GHz	-37.03 dBm	-24.03 dB
3	3	2.5650 GHz	2.5690 GHz	1.000 MHz	2.568966667 GHz	-39.64 dBm	-29.64 dB
4	5	2.5690 GHz	2.5700 GHz	430.0 kHz	2.569990000 GHz	-37.12 dBm	-27.12 dB
5	6	2.5700 GHz	2.5900 GHz	430.0 kHz	2.579700000 GHz	2.390 dBm	-27.61 dB

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Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr RCal Freq Ref: Int (S) NFE: Adaptive Atten: 30 dB Preamp: Off Gate: Off IF Gain: Low Trig: Free Run AvgHold: 100/100 Radio Std: None Center Freq: 22.005000000 GHz
LXI PASS
3 All Range Graph
Scale/Div 10.0 dB
Ref Lvl Offset 15.00 dB Ref Value 35.00 dBm Mkr1 2.6130 GHz 2.64 dBm
Center Frequency 22.005000000 GHz Settings
CF Step 4.399000000 GHz Auto Man
Freq Offset 0 Hz
Start 2.560 GHz Stop 2.660 GHz
4 All Range Table
Measure Trace Trace Type Trace 1 Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.5600 GHz	2.5800 GHz	1.000 MHz	2.579766667 GHz	-42.57 dBm	-17.57 dB
2	2	2.5800 GHz	2.5950 GHz	1.000 MHz	2.588500000 GHz	-35.58 dBm	-22.58 dB
3	3	2.5950 GHz	2.5990 GHz	1.000 MHz	2.598506667 GHz	-36.87 dBm	-26.87 dB
4	5	2.5990 GHz	2.6000 GHz	430.0 kHz	2.599990000 GHz	-35.62 dBm	-25.62 dB
5	6	2.6000 GHz	2.6200 GHz	430.0 kHz	2.613000000 GHz	2.643 dBm	-27.36 dB

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Emission Mask

LTE Band 40 (2305MHz ~ 2315MHz), Channel Bandwidth 5MHz		
Channel 38725 (2307.5MHz)	QPSK	1 RB / 0 RB Offset

Channel 38775 (2312.5MHz)	QPSK	1 RB / 24 RB Offset

Channel 38725 (2307.5MHz)	QPSK	25 RB / 0 RB Offset

Channel 38775 (2312.5MHz)	QPSK	25 RB / 0 RB Offset

LTE Band 40 (2305MHz ~ 2315MHz), Channel Bandwidth 10MHz

Channel 38750 (2310.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 38750 (2310.0MHz)	QPSK	1 RB / 49 RB Offset
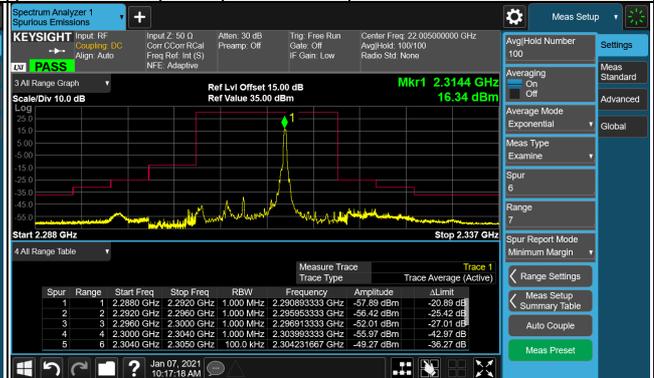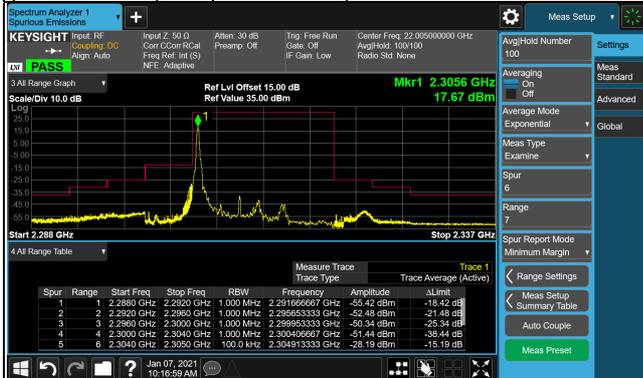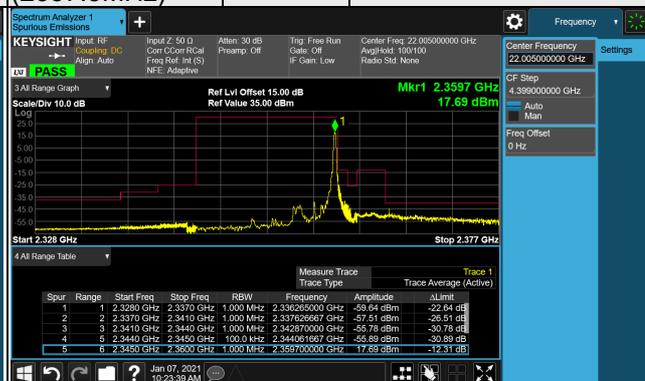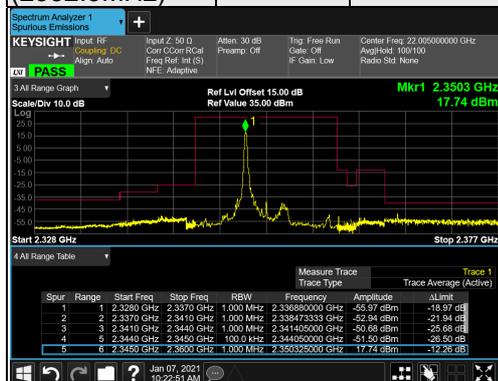
Channel 38750 (2310.0MHz)	QPSK	50 RB / 0 RB Offset

Emission Mask

LTE Band 40 (2350MHz ~ 2360MHz), Channel Bandwidth 5MHz

Channel 39175 (2352.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 39225 (2357.5MHz)	QPSK	1 RB / 24 RB Offset

Channel 39175 (2352.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 39225 (2357.5MHz)	QPSK	25 RB / 0 RB Offset
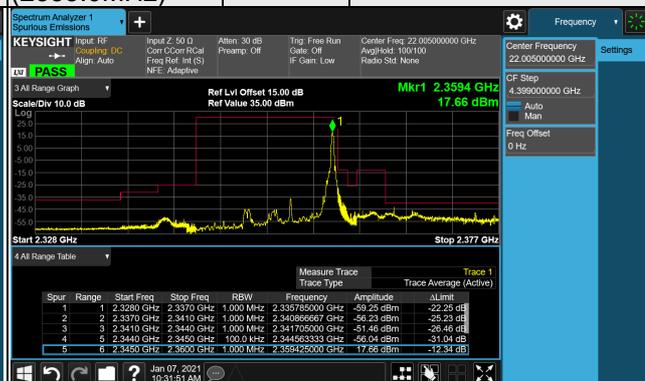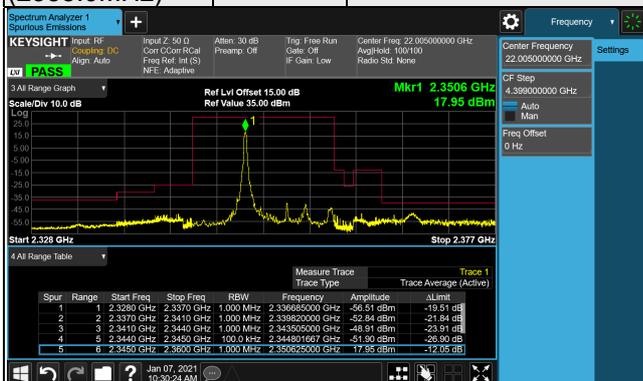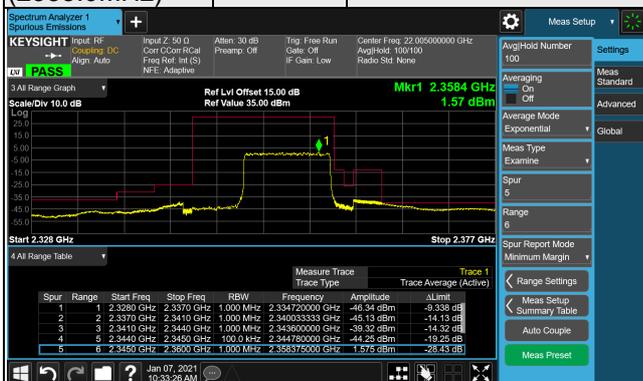
LTE Band 40 (2350MHz ~ 2360MHz), Channel Bandwidth 10MHz					
Channel 39200 (2355.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 39200 (2355.0MHz)	QPSK	1 RB / 49 RB Offset

Channel 39200 (2355.0MHz)	QPSK	50 RB / 0 RB Offset	
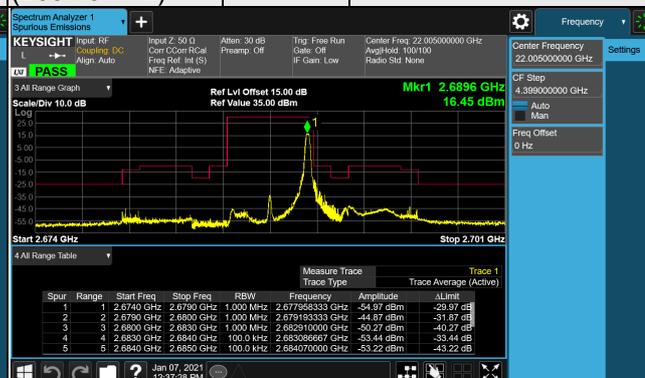
Out-of-Band Emission

LTE Band 41, Channel Bandwidth 5MHz

Channel 39675 (2498.5MHz)	QPSK	1 RB / 0 RB Offset	Channel 41565 (2687.5MHz)	QPSK	1 RB / 24 RB Offset
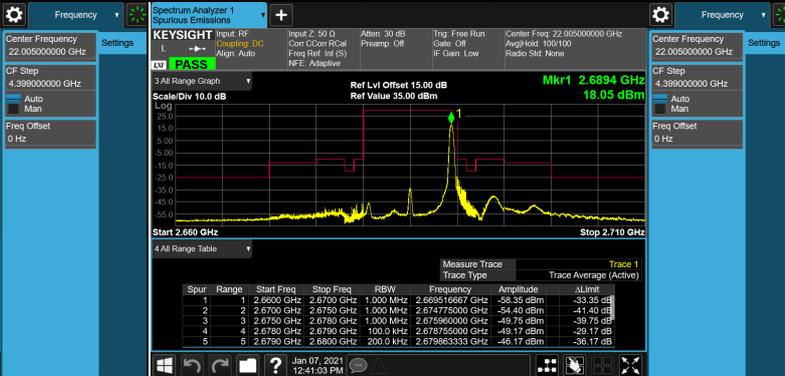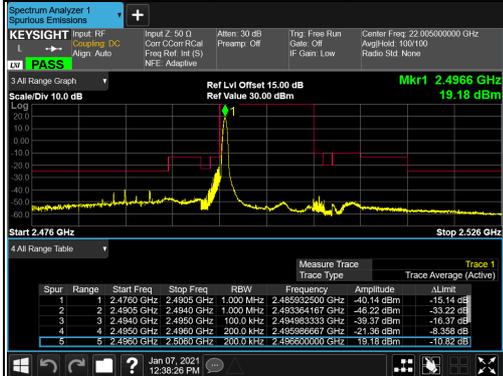
Channel 39675 (2498.5MHz)	QPSK	25 RB / 0 RB Offset	Channel 41565 (2687.5MHz)	QPSK	25 RB / 0 RB Offset

LTE Band 41, Channel Bandwidth 10MHz

Channel 39700 (2501.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 41540 (2685.0MHz)	QPSK	1 RB / 49 RB Offset

Spectrum Analyzer 1 — Spurious Emissions — KEYSIGHT — PASS
Mkr1 2.4966 GHz 19.18 dBm
Start 2.476 GHz Stop 2.526 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.4760 GHz	2.4905 GHz	1.000 MHz	2.485932500 GHz	-40.14 dBm	-15.14 dB
2	2	2.4905 GHz	2.4940 GHz	1.000 MHz	2.493364167 GHz	-46.22 dBm	-33.22 dB
3	3	2.4940 GHz	2.4950 GHz	100.0 kHz	2.494983333 GHz	-39.37 dBm	-16.37 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495986667 GHz	-21.36 dBm	-8.358 dB
5	5	2.4960 GHz	2.5060 GHz	200.0 kHz	2.496600000 GHz	19.18 dBm	-10.82 dB

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Spectrum Analyzer 1 — Spurious Emissions — KEYSIGHT — PASS
Mkr1 2.6894 GHz 18.05 dBm
Start 2.660 GHz Stop 2.710 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.6600 GHz	2.6700 GHz	1.000 MHz	2.669516667 GHz	-58.35 dBm	-33.35 dB
2	2	2.6700 GHz	2.6750 GHz	1.000 MHz	2.674775000 GHz	-54.40 dBm	-41.40 dB
3	3	2.6750 GHz	2.6780 GHz	1.000 MHz	2.675960000 GHz	-49.75 dBm	-39.75 dB
4	4	2.6780 GHz	2.6790 GHz	100.0 kHz	2.678755000 GHz	-49.17 dBm	-29.17 dB
5	5	2.6790 GHz	2.6800 GHz	200.0 kHz	2.679863333 GHz	-46.17 dBm	-36.17 dB

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Channel 39700 (2501.0MHz)	QPSK	50 RB / 0 RB Offset	Channel 41540 (2685.0MHz)	QPSK	50 RB / 0 RB Offset

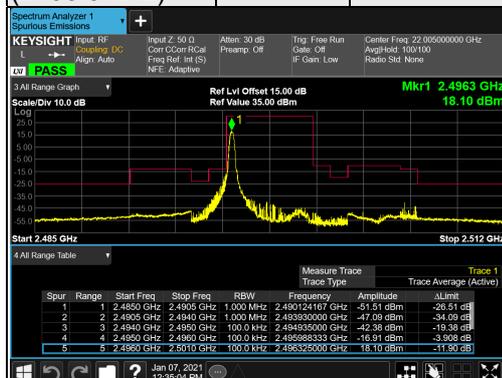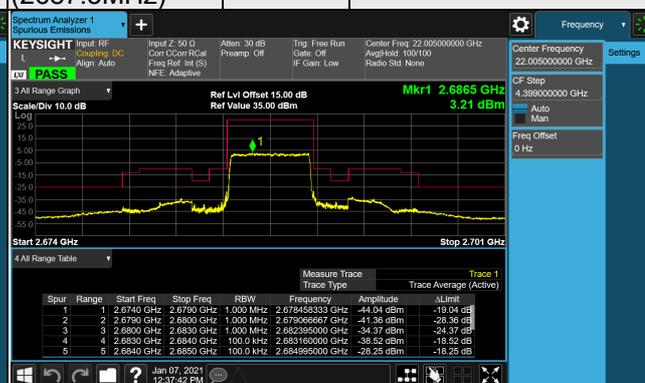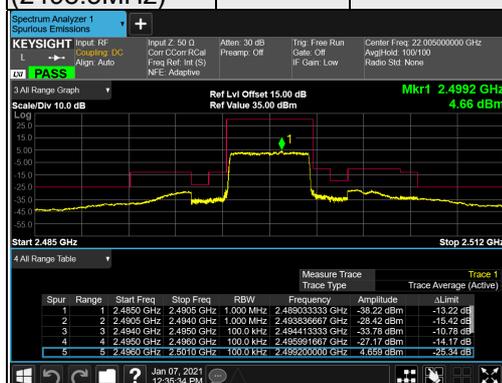Spectrum Analyzer 1 — Spurious Emissions — KEYSIGHT — PASS
Mkr1 2.5023 GHz 2.75 dBm
Start 2.476 GHz Stop 2.526 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.4760 GHz	2.4905 GHz	1.000 MHz	2.490113333 GHz	-31.38 dBm	-6.378 dB
2	2	2.4905 GHz	2.4940 GHz	1.000 MHz	2.491859167 GHz	-28.64 dBm	-15.64 dB
3	3	2.4940 GHz	2.4950 GHz	100.0 kHz	2.494791667 GHz	-35.61 dBm	-12.61 dB
4	4	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495943333 GHz	-31.93 dBm	-18.93 dB
5	5	2.4960 GHz	2.5060 GHz	200.0 kHz	2.502333333 GHz	2.754 dBm	-27.25 dB

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Spectrum Analyzer 1 — Spurious Emissions — KEYSIGHT — PASS
Mkr1 2.6869 GHz 1.92 dBm
Start 2.660 GHz Stop 2.710 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.6600 GHz	2.6700 GHz	1.000 MHz	2.666916667 GHz	-45.36 dBm	-20.36 dB
2	2	2.6700 GHz	2.6750 GHz	1.000 MHz	2.674308333 GHz	-37.67 dBm	-24.67 dB
3	3	2.6750 GHz	2.6780 GHz	1.000 MHz	2.675675000 GHz	-35.87 dBm	-25.87 dB
4	4	2.6780 GHz	2.6790 GHz	100.0 kHz	2.678140000 GHz	-39.39 dBm	-19.39 dB
5	5	2.6790 GHz	2.6800 GHz	200.0 kHz	2.679986667 GHz	-33.55 dBm	-23.55 dB

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