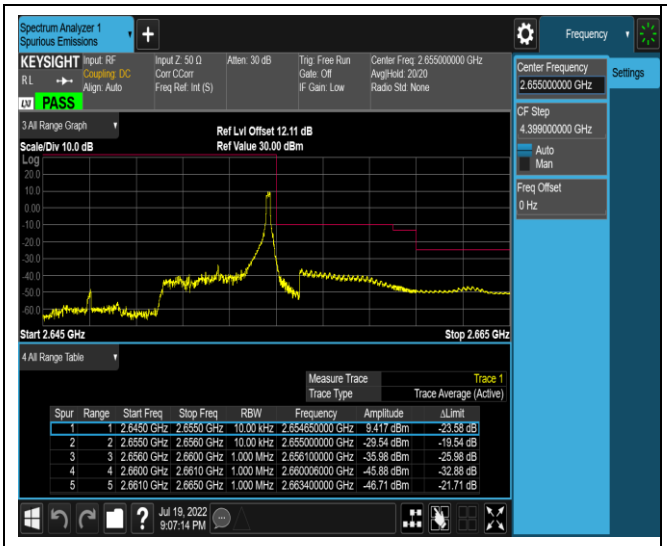
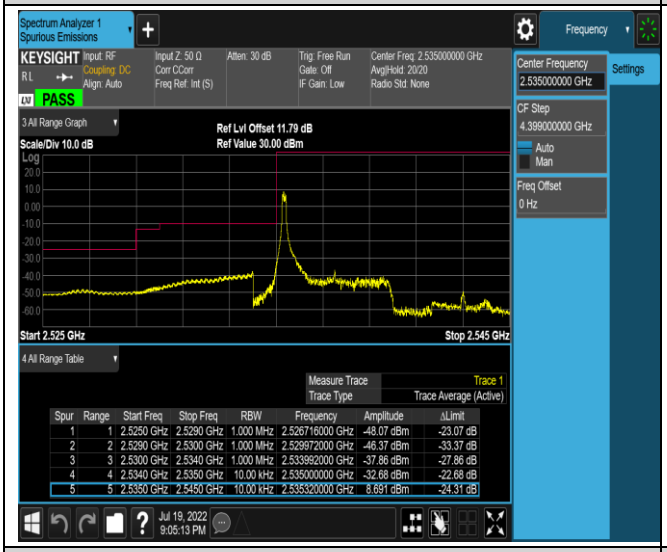
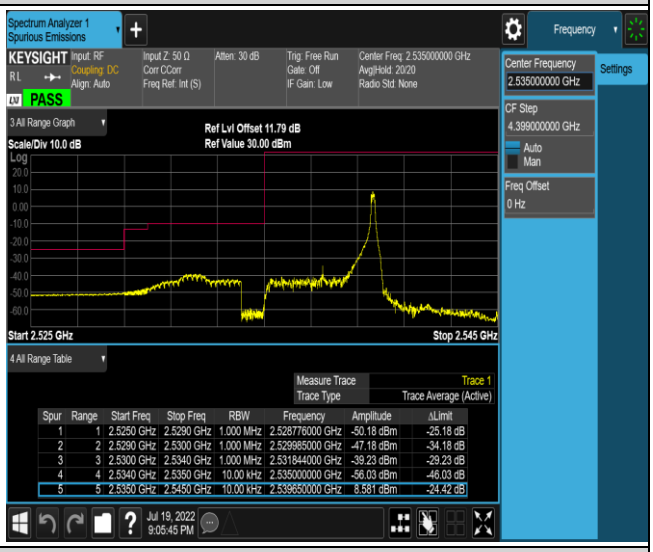


Band41-5MHz-16QAM-40065-1RB#0

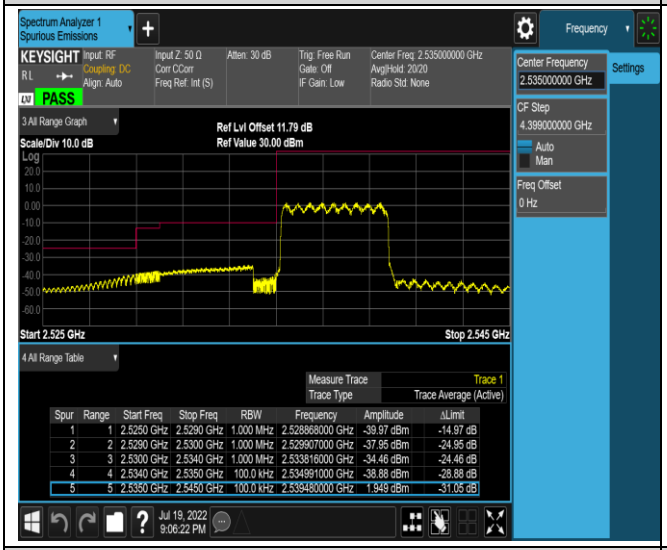
Band41-5MHz-16QAM-40065-1RB#24



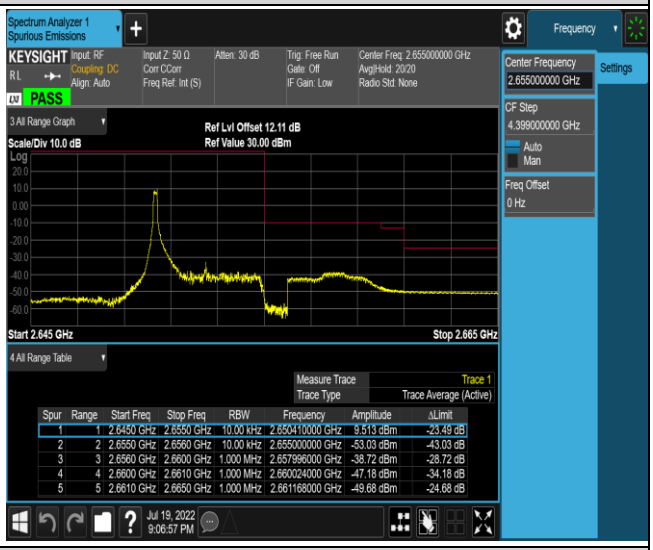
Band41-5MHz-16QAM-40065-25RB#0



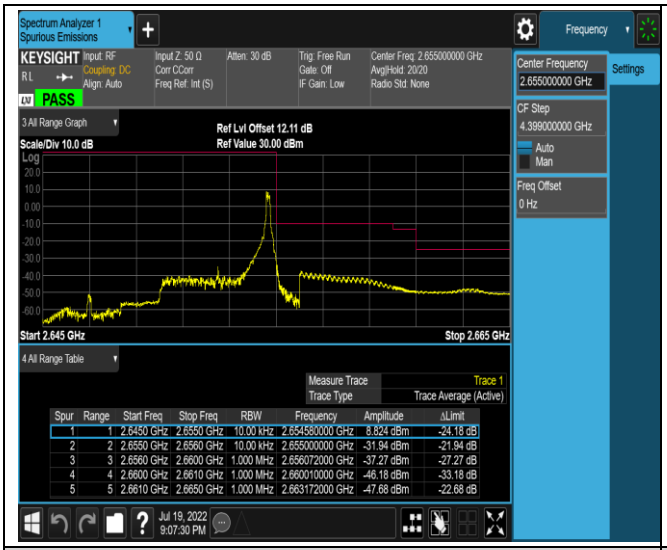
Band41-5MHz-16QAM-41215-1RB#0



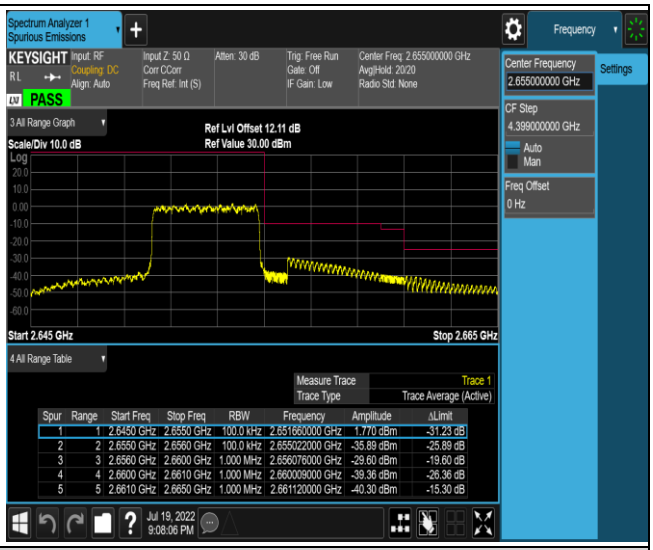
Band41-5MHz-16QAM-41215-1RB#24



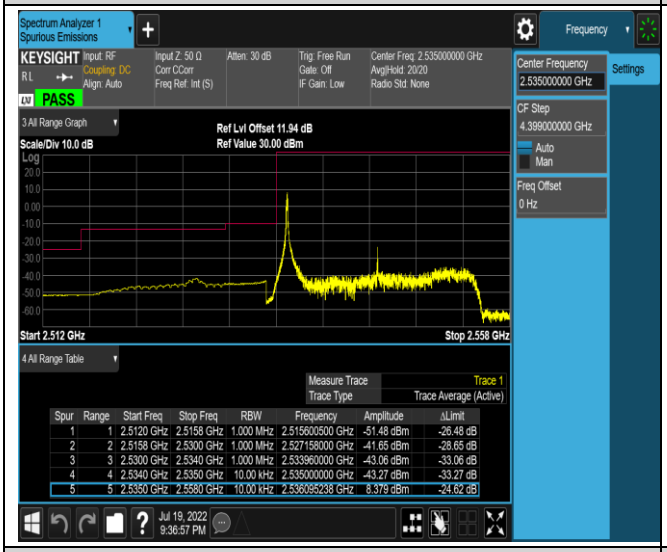
Band41-5MHz-16QAM-41215-25RB#0



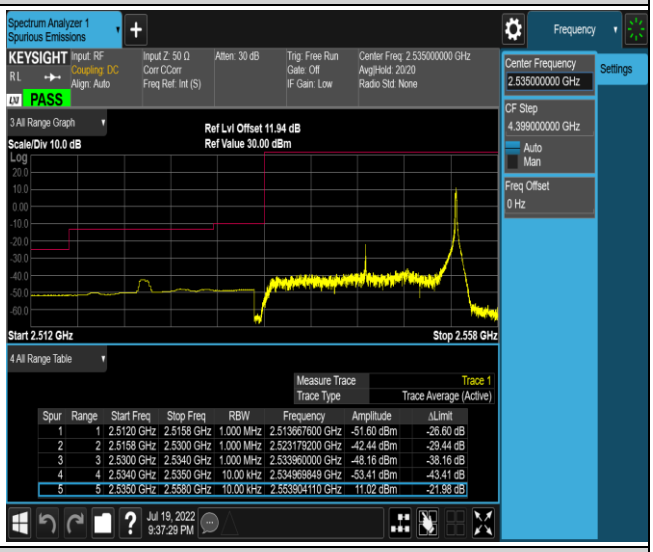
Band41-20MHz-QPSK-40140-1RB#0



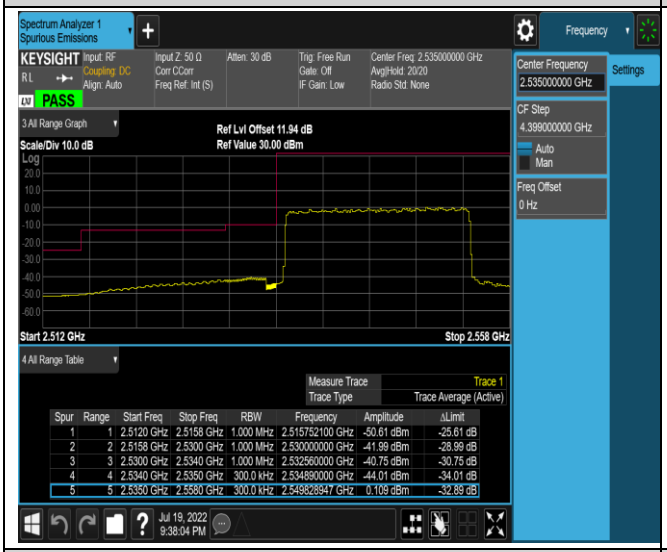
Band41-20MHz-QPSK-40140-1RB#99



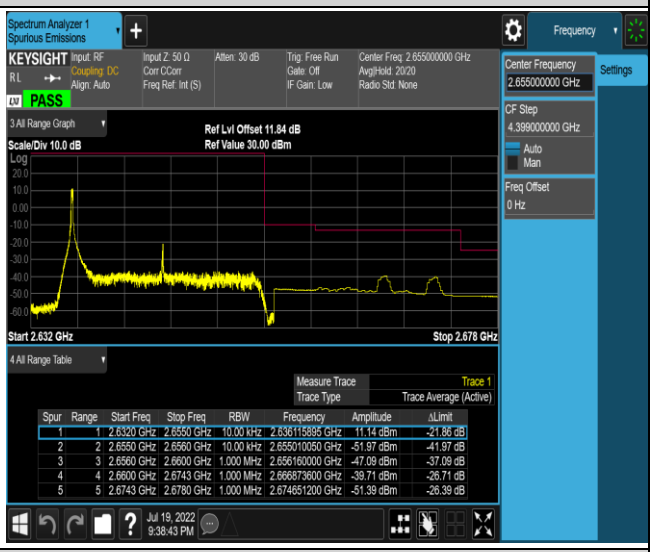
Band41-20MHz-QPSK-40140-100RB#0



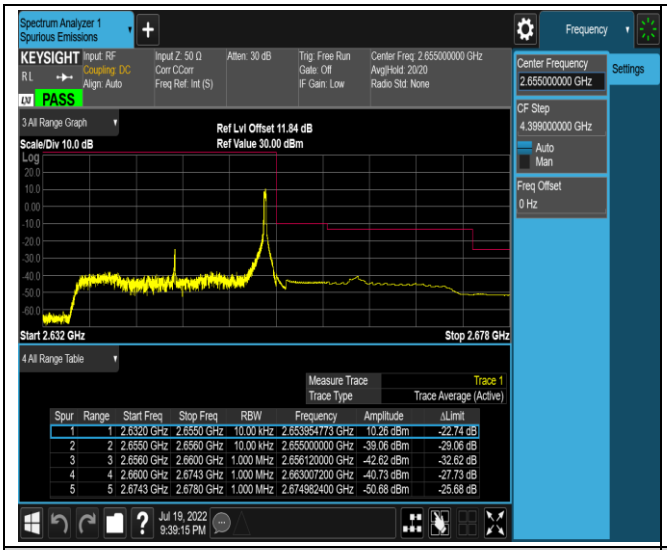
Band41-20MHz-QPSK-41140-1RB#0



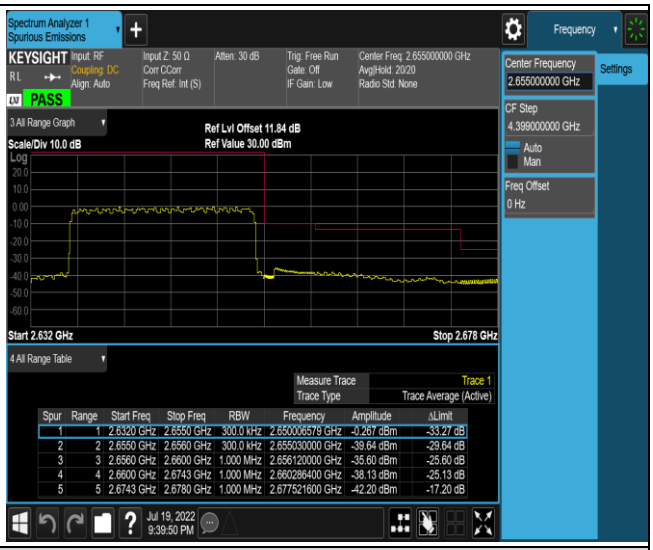
Band41-20MHz-QPSK-41140-1RB#99



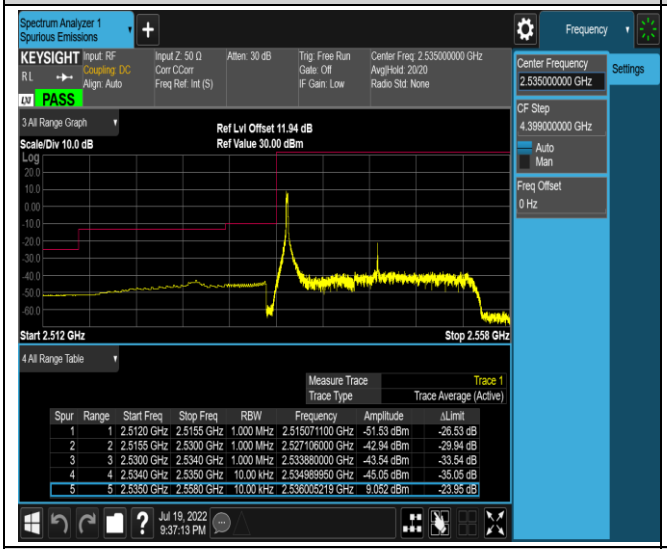
Band41-20MHz-QPSK-41140-100RB#0



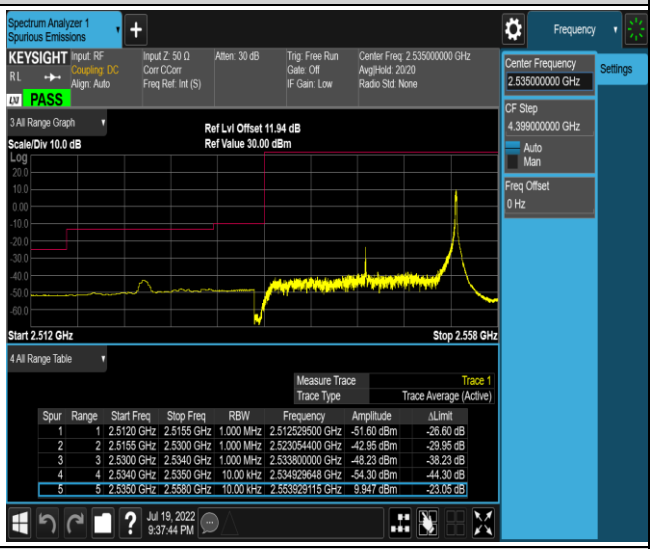
Band41-20MHz-16QAM-40140-1RB#0



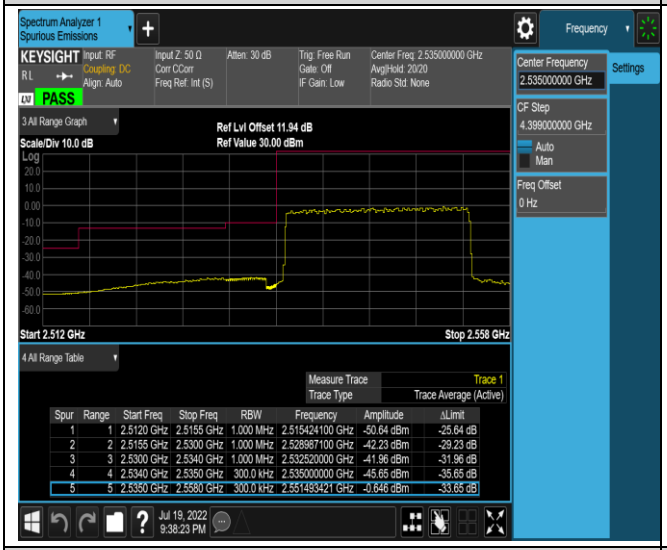
Band41-20MHz-16QAM-40140-1RB#99



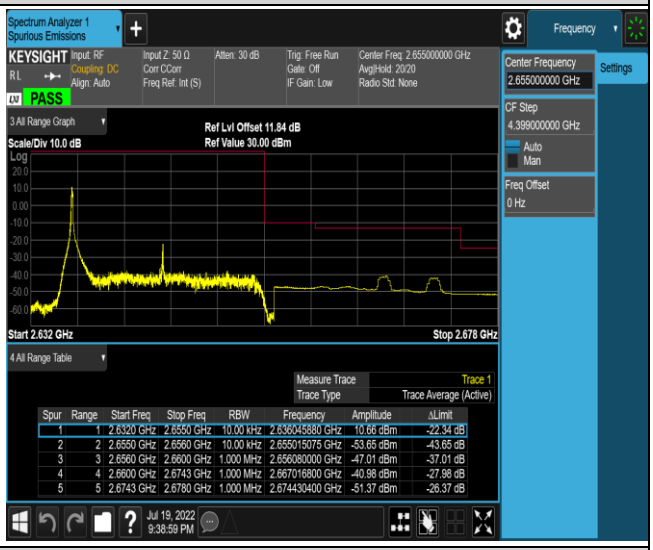
Band41-20MHz-16QAM-40140-100RB#0



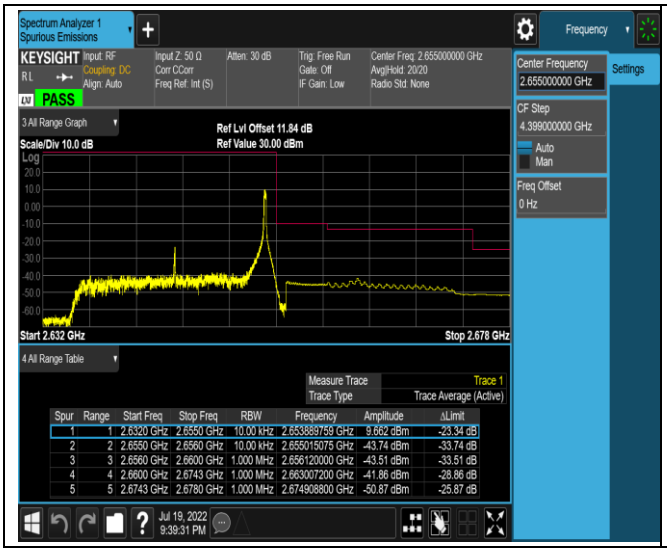
Band41-20MHz-16QAM-41140-1RB#0

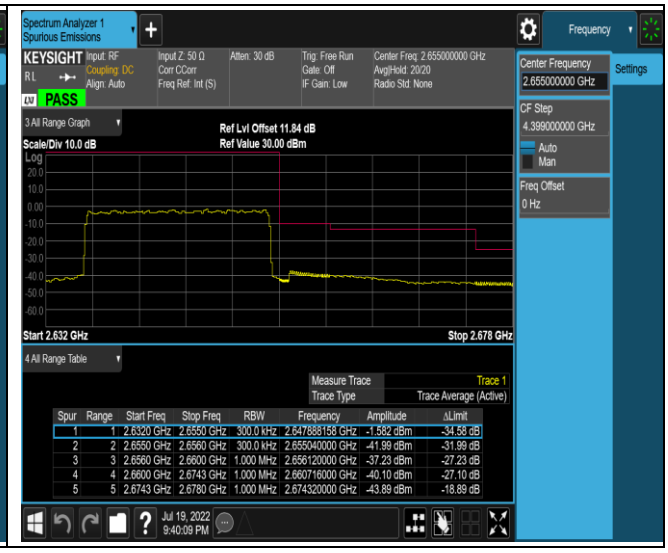


Band41-20MHz-16QAM-41140-1RB#99



Band41-20MHz-16QAM-41140-100RB#0


Spectrum Analyzer 1
Spurious Emissions
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
Atten: 30 dB
Trig: Free Run
Gate: Off
IF Gain: Low
Center Freq: 2.655000000 GHz
Avg|Hold: 20/20
Radio Std: None
Frequency
Settings
PASS
Center Frequency
2.655000000 GHz
CF Step
4.399000000 GHz
Auto
Man
Freq Offset
0 Hz
3 All Range Graph
Ref Lvl Offset 11.84 dB
Ref Value 30.00 dBm
Scale/Div 10.0 dB
Log
Start 2.632 GHz
Stop 2.678 GHz
4 All Range Table
Measure Trace
Trace 1
Trace Type
Trace Average (Active)
Spur Range Start Freq Stop Freq RBW Frequency Amplitude ΔLimit
1 1 2.6320 GHz 2.6550 GHz 10.00 kHz 2.653889759 GHz 9.662 dBm -23.34 dB
2 2 2.6550 GHz 2.6560 GHz 10.00 kHz 2.655015075 GHz -43.74 dBm -33.74 dB
3 3 2.6560 GHz 2.6600 GHz 1.000 MHz 2.656120000 GHz -43.51 dBm -33.51 dB
4 4 2.6600 GHz 2.6743 GHz 1.000 MHz 2.663007200 GHz -41.86 dBm -28.86 dB
5 5 2.6743 GHz 2.6780 GHz 1.000 MHz 2.674908800 GHz -50.87 dBm -25.87 dB
Jul 19, 2022
9:39:31 PM


Spectrum Analyzer 1
Spurious Emissions
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
Atten: 30 dB
Trig: Free Run
Gate: Off
IF Gain: Low
Center Freq: 2.655000000 GHz
Avg|Hold: 20/20
Radio Std: None
Frequency
Settings
PASS
Center Frequency
2.655000000 GHz
CF Step
4.399000000 GHz
Auto
Man
Freq Offset
0 Hz
3 All Range Graph
Ref Lvl Offset 11.84 dB
Ref Value 30.00 dBm
Scale/Div 10.0 dB
Log
Start 2.632 GHz
Stop 2.678 GHz
4 All Range Table
Measure Trace
Trace 1
Trace Type
Trace Average (Active)
Spur Range Start Freq Stop Freq RBW Frequency Amplitude ΔLimit
1 1 2.6320 GHz 2.6550 GHz 300.0 kHz 2.647888158 GHz -1.582 dBm -34.58 dB
2 2 2.6550 GHz 2.6560 GHz 300.0 kHz 2.655040000 GHz -41.99 dBm -31.99 dB
3 3 2.6560 GHz 2.6600 GHz 1.000 MHz 2.656120000 GHz -37.23 dBm -27.23 dB
4 4 2.6600 GHz 2.6743 GHz 1.000 MHz 2.660716000 GHz -40.10 dBm -27.10 dB
5 5 2.6743 GHz 2.6780 GHz 1.000 MHz 2.674320000 GHz -43.89 dBm -18.89 dB
Jul 19, 2022
9:40:09 PM

Appendix E: Conducted Spurious Emission

Test Result (worst case)

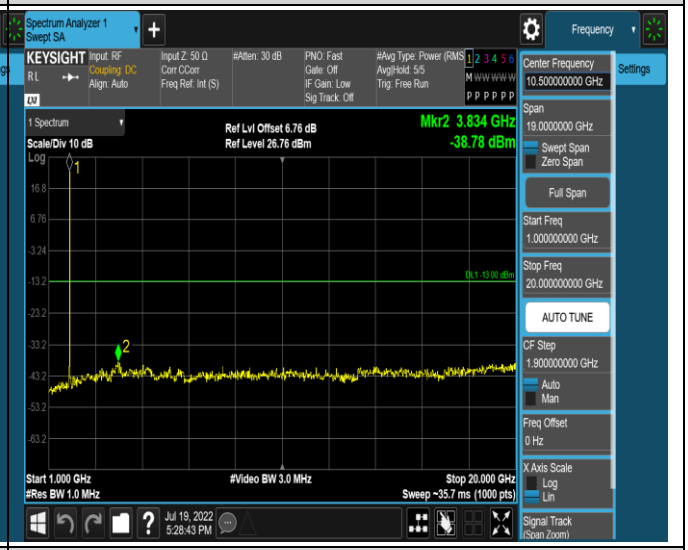
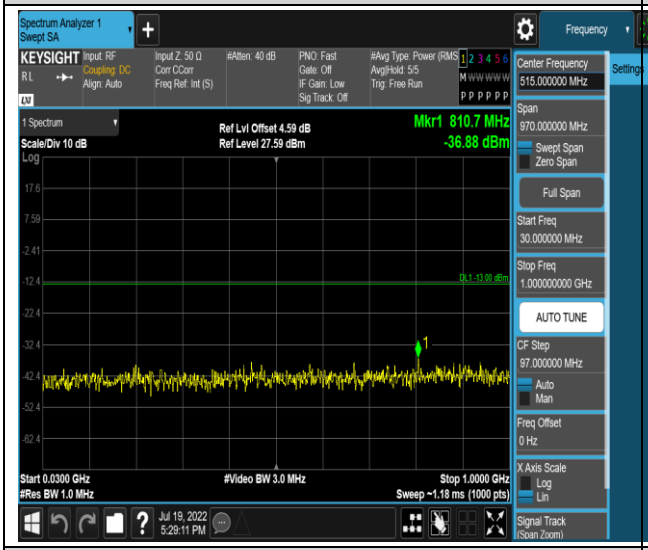
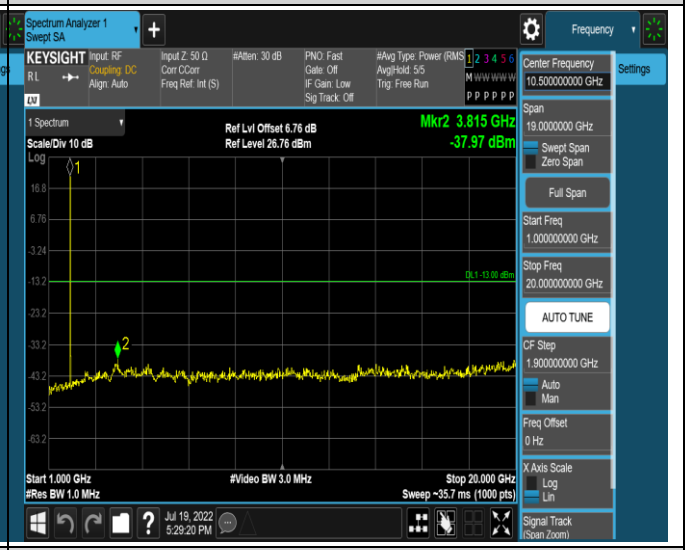
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band2	1.4MHz	QPSK	18607	1RB#0	Range1:30~1000MHz	-38.52	PASS
Band2	1.4MHz	QPSK	18607	1RB#0	Range2:1000~20000MHz	-38.78	PASS
Band2	1.4MHz	QPSK	18900	1RB#0	Range1:30~1000MHz	-36.88	PASS
Band2	1.4MHz	QPSK	18900	1RB#0	Range2:1000~20000MHz	-37.97	PASS
Band2	1.4MHz	QPSK	19193	1RB#0	Range1:30~1000MHz	-37.59	PASS
Band2	1.4MHz	QPSK	19193	1RB#0	Range2:1000~20000MHz	-38.14	PASS
Band2	1.4MHz	16QAM	18607	1RB#0	Range1:30~1000MHz	-37.72	PASS
Band2	1.4MHz	16QAM	18607	1RB#0	Range2:1000~20000MHz	-37.91	PASS
Band2	1.4MHz	16QAM	18900	1RB#0	Range1:30~1000MHz	-38.14	PASS
Band2	1.4MHz	16QAM	18900	1RB#0	Range2:1000~20000MHz	-38.19	PASS
Band2	1.4MHz	16QAM	19193	1RB#0	Range1:30~1000MHz	-38.5	PASS
Band2	1.4MHz	16QAM	19193	1RB#0	Range2:1000~20000MHz	-37.86	PASS
Band2	20MHz	QPSK	18700	1RB#0	Range1:30~1000MHz	-39.04	PASS
Band2	20MHz	QPSK	18700	1RB#0	Range2:1000~20000MHz	-37.84	PASS
Band2	20MHz	QPSK	18900	1RB#0	Range1:30~1000MHz	-37.96	PASS
Band2	20MHz	QPSK	18900	1RB#0	Range2:1000~20000MHz	-38.59	PASS
Band2	20MHz	QPSK	19100	1RB#0	Range1:30~1000MHz	-38.53	PASS
Band2	20MHz	QPSK	19100	1RB#0	Range2:1000~20000MHz	-38.42	PASS
Band2	20MHz	16QAM	18700	1RB#0	Range1:30~1000MHz	-37.24	PASS
Band2	20MHz	16QAM	18700	1RB#0	Range2:1000~20000MHz	-38.15	PASS
Band2	20MHz	16QAM	18900	1RB#0	Range1:30~1000MHz	-37.63	PASS
Band2	20MHz	16QAM	18900	1RB#0	Range2:1000~20000MHz	-38.18	PASS
Band2	20MHz	16QAM	19100	1RB#0	Range1:30~1000MHz	-38.12	PASS
Band2	20MHz	16QAM	19100	1RB#0	Range2:1000~20000MHz	-38.42	PASS
Band4	1.4MHz	QPSK	19957	1RB#0	Range1:30~1000MHz	-37.9	PASS
Band4	1.4MHz	QPSK	19957	1RB#0	Range2:1000~20000MHz	-38.25	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	Range1:30~1000MHz	-38.01	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	Range2:1000~20000MHz	-38.69	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	Range1:30~1000MHz	-39.13	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	Range2:1000~20000MHz	-38.34	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	Range1:30~1000MHz	-37.66	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	Range2:1000~20000MHz	-38.43	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	Range1:30~1000MHz	-37.93	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	Range2:1000~20000MHz	-38.27	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	Range1:30~1000MHz	-37.51	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	Range2:1000~20000MHz	-38.87	PASS

Band4	20MHz	QPSK	20050	1RB#0	Range1:30~1000MHz	-37.62	PASS
Band4	20MHz	QPSK	20050	1RB#0	Range2:1000~20000MHz	-37.49	PASS
Band4	20MHz	QPSK	20175	1RB#0	Range1:30~1000MHz	-37.98	PASS
Band4	20MHz	QPSK	20175	1RB#0	Range2:1000~20000MHz	-36.73	PASS
Band4	20MHz	QPSK	20300	1RB#0	Range1:30~1000MHz	-36.77	PASS
Band4	20MHz	QPSK	20300	1RB#0	Range2:1000~20000MHz	-38.45	PASS
Band4	20MHz	16QAM	20050	1RB#0	Range1:30~1000MHz	-37.37	PASS
Band4	20MHz	16QAM	20050	1RB#0	Range2:1000~20000MHz	-38	PASS
Band4	20MHz	16QAM	20175	1RB#0	Range1:30~1000MHz	-38.03	PASS
Band4	20MHz	16QAM	20175	1RB#0	Range2:1000~20000MHz	-38.5	PASS
Band4	20MHz	16QAM	20300	1RB#0	Range1:30~1000MHz	-37.11	PASS
Band4	20MHz	16QAM	20300	1RB#0	Range2:1000~20000MHz	-38.49	PASS
Band5	1.4MHz	QPSK	20407	1RB#0	Range1:30~1000MHz	-47.12	PASS
Band5	1.4MHz	QPSK	20407	1RB#0	Range2:1000~10000MHz	-37.05	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	Range1:30~1000MHz	-47.11	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	Range2:1000~10000MHz	-38.6	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	Range1:30~1000MHz	-46.96	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	Range2:1000~10000MHz	-36.95	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	Range1:30~1000MHz	-46.61	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	Range2:1000~10000MHz	-36.39	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	Range1:30~1000MHz	-47.08	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	Range2:1000~10000MHz	-36.18	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	Range1:30~1000MHz	-47.13	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	Range2:1000~10000MHz	-38.69	PASS
Band5	10MHz	QPSK	20450	1RB#0	Range1:30~1000MHz	-46.91	PASS
Band5	10MHz	QPSK	20450	1RB#0	Range2:1000~10000MHz	-35.77	PASS
Band5	10MHz	QPSK	20525	1RB#0	Range1:30~1000MHz	-46.32	PASS
Band5	10MHz	QPSK	20525	1RB#0	Range2:1000~10000MHz	-35.32	PASS
Band5	10MHz	QPSK	20600	1RB#0	Range1:30~1000MHz	-47.14	PASS
Band5	10MHz	QPSK	20600	1RB#0	Range2:1000~10000MHz	-38.41	PASS
Band5	10MHz	16QAM	20450	1RB#0	Range1:30~1000MHz	-46.95	PASS
Band5	10MHz	16QAM	20450	1RB#0	Range2:1000~10000MHz	-36.03	PASS
Band5	10MHz	16QAM	20525	1RB#0	Range1:30~1000MHz	-47.01	PASS
Band5	10MHz	16QAM	20525	1RB#0	Range2:1000~10000MHz	-37.1	PASS
Band5	10MHz	16QAM	20600	1RB#0	Range1:30~1000MHz	-46.32	PASS
Band5	10MHz	16QAM	20600	1RB#0	Range2:1000~10000MHz	-38.33	PASS
Band7	5MHz	QPSK	20775	1RB#0	Range1:30~1000MHz	-47.26	PASS
Band7	5MHz	QPSK	20775	1RB#0	Range2:1000~27000MHz	-36.06	PASS
Band7	5MHz	QPSK	21100	1RB#0	Range1:30~1000MHz	-48.12	PASS
Band7	5MHz	QPSK	21100	1RB#0	Range2:1000~27000MHz	-34.84	PASS
Band7	5MHz	QPSK	21425	1RB#0	Range1:30~1000MHz	-47.67	PASS
Band7	5MHz	QPSK	21425	1RB#0	Range2:1000~27000MHz	-34.87	PASS

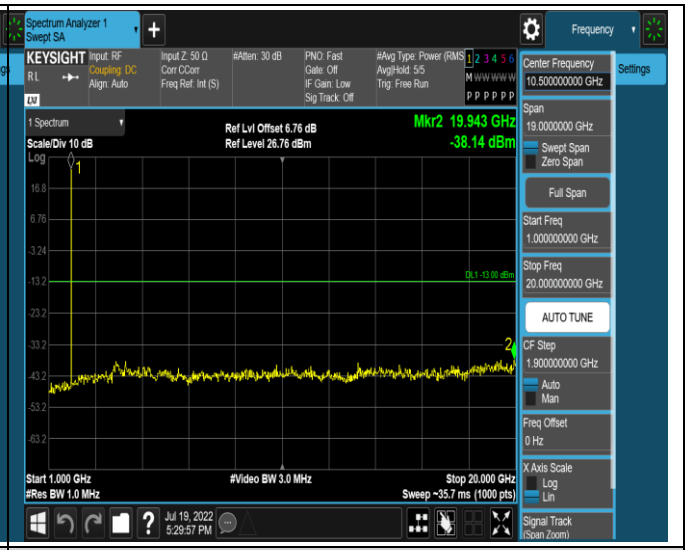
Band7	5MHz	16QAM	20775	1RB#0	Range1:30~1000MHz	-46.77	PASS
Band7	5MHz	16QAM	20775	1RB#0	Range2:1000~27000MHz	-35.38	PASS
Band7	5MHz	16QAM	21100	1RB#0	Range1:30~1000MHz	-47.53	PASS
Band7	5MHz	16QAM	21100	1RB#0	Range2:1000~27000MHz	-35.68	PASS
Band7	5MHz	16QAM	21425	1RB#0	Range1:30~1000MHz	-47.14	PASS
Band7	5MHz	16QAM	21425	1RB#0	Range2:1000~27000MHz	-34.89	PASS
Band7	20MHz	QPSK	20850	1RB#0	Range1:30~1000MHz	-48.24	PASS
Band7	20MHz	QPSK	20850	1RB#0	Range2:1000~27000MHz	-35.43	PASS
Band7	20MHz	QPSK	21100	1RB#0	Range1:30~1000MHz	-47.88	PASS
Band7	20MHz	QPSK	21100	1RB#0	Range2:1000~27000MHz	-35.55	PASS
Band7	20MHz	QPSK	21350	1RB#0	Range1:30~1000MHz	-47.97	PASS
Band7	20MHz	QPSK	21350	1RB#0	Range2:1000~27000MHz	-34.35	PASS
Band7	20MHz	16QAM	20850	1RB#0	Range1:30~1000MHz	-47.78	PASS
Band7	20MHz	16QAM	20850	1RB#0	Range2:1000~27000MHz	-34.22	PASS
Band7	20MHz	16QAM	21100	1RB#0	Range1:30~1000MHz	-46.21	PASS
Band7	20MHz	16QAM	21100	1RB#0	Range2:1000~27000MHz	-34.65	PASS
Band7	20MHz	16QAM	21350	1RB#0	Range1:30~1000MHz	-47.94	PASS
Band7	20MHz	16QAM	21350	1RB#0	Range2:1000~27000MHz	-35.98	PASS
Band41	5MHz	QPSK	40065	1RB#0	Range1:30~1000MHz	-47.75	PASS
Band41	5MHz	QPSK	40065	1RB#0	Range2:1000~27000MHz	-35.53	PASS
Band41	5MHz	QPSK	40640	1RB#0	Range1:30~1000MHz	-46.13	PASS
Band41	5MHz	QPSK	40640	1RB#0	Range2:1000~27000MHz	-35.27	PASS
Band41	5MHz	QPSK	41215	1RB#0	Range1:30~1000MHz	-48.19	PASS
Band41	5MHz	QPSK	41215	1RB#0	Range2:1000~27000MHz	-34.44	PASS
Band41	5MHz	16QAM	40065	1RB#0	Range1:30~1000MHz	-46.56	PASS
Band41	5MHz	16QAM	40065	1RB#0	Range2:1000~27000MHz	-34.09	PASS
Band41	5MHz	16QAM	40640	1RB#0	Range1:30~1000MHz	-46.8	PASS
Band41	5MHz	16QAM	40640	1RB#0	Range2:1000~27000MHz	-35.56	PASS
Band41	5MHz	16QAM	41215	1RB#0	Range1:30~1000MHz	-47.4	PASS
Band41	5MHz	16QAM	41215	1RB#0	Range2:1000~27000MHz	-35.49	PASS
Band41	20MHz	QPSK	40140	1RB#0	Range1:30~1000MHz	-47.75	PASS
Band41	20MHz	QPSK	40140	1RB#0	Range2:1000~27000MHz	-35.89	PASS
Band41	20MHz	QPSK	40640	1RB#0	Range1:30~1000MHz	-47.11	PASS
Band41	20MHz	QPSK	40640	1RB#0	Range2:1000~27000MHz	-35.85	PASS
Band41	20MHz	QPSK	41140	1RB#0	Range1:30~1000MHz	-48.16	PASS
Band41	20MHz	QPSK	41140	1RB#0	Range2:1000~27000MHz	-33.75	PASS
Band41	20MHz	16QAM	40140	1RB#0	Range1:30~1000MHz	-47.6	PASS
Band41	20MHz	16QAM	40140	1RB#0	Range2:1000~27000MHz	-35.24	PASS
Band41	20MHz	16QAM	40640	1RB#0	Range1:30~1000MHz	-47.8	PASS
Band41	20MHz	16QAM	40640	1RB#0	Range2:1000~27000MHz	-35.28	PASS
Band41	20MHz	16QAM	41140	1RB#0	Range1:30~1000MHz	-47.54	PASS
Band41	20MHz	16QAM	41140	1RB#0	Range2:1000~27000MHz	-34.8	PASS

Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

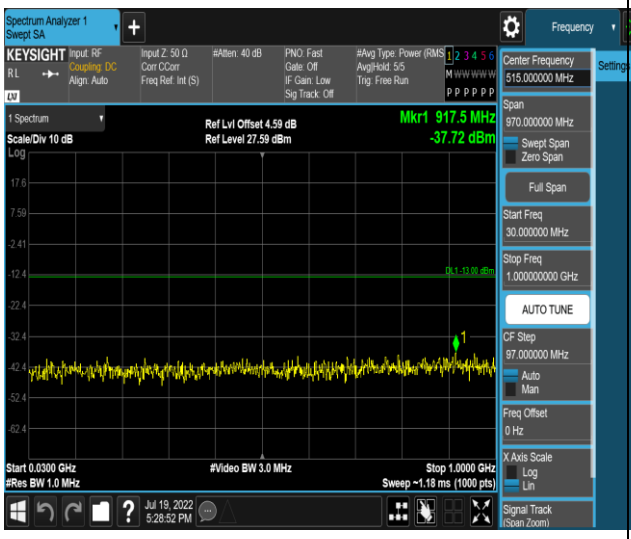
Test Graphs

Band2-1.4MHz-QPSK-18607-1RB#0-Range1:30~1000MHz	Band2-1.4MHz-QPSK-18607-1RB#0-Range2:1000~20000MHz
	
Band2-1.4MHz-QPSK-18900-1RB#0-Range1:30~1000MHz	Band2-1.4MHz-QPSK-18900-1RB#0-Range2:1000~20000MHz
	
Band2-1.4MHz-QPSK-19193-1RB#0-Range1:30~1000MHz	Band2-1.4MHz-QPSK-19193-1RB#0-Range2:1000~20000MHz

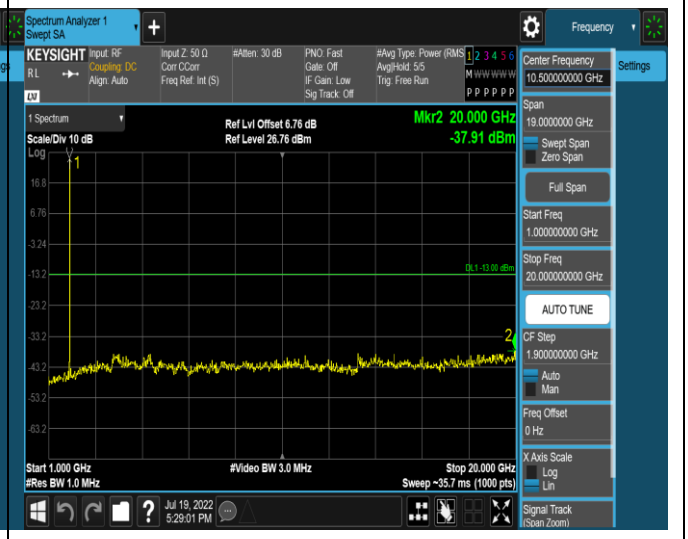
Band2-1.4MHz-16QAM-18607-1RB#0-Range1:30~1000MHz



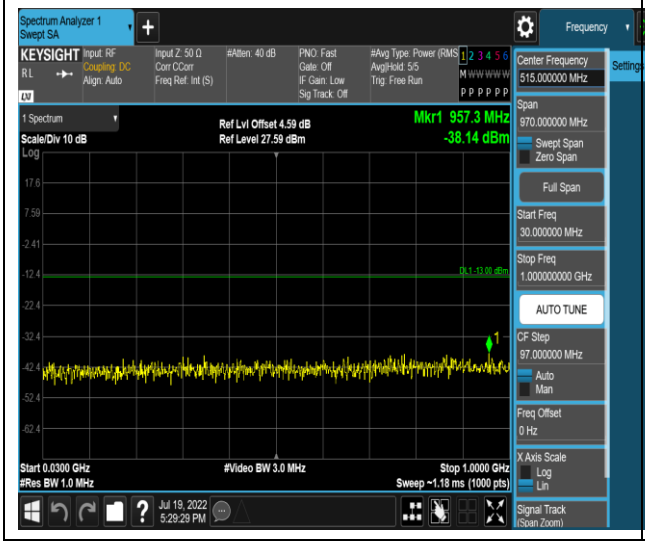
Band2-1.4MHz-16QAM-18607-1RB#0-Range2:1000~20000MHz

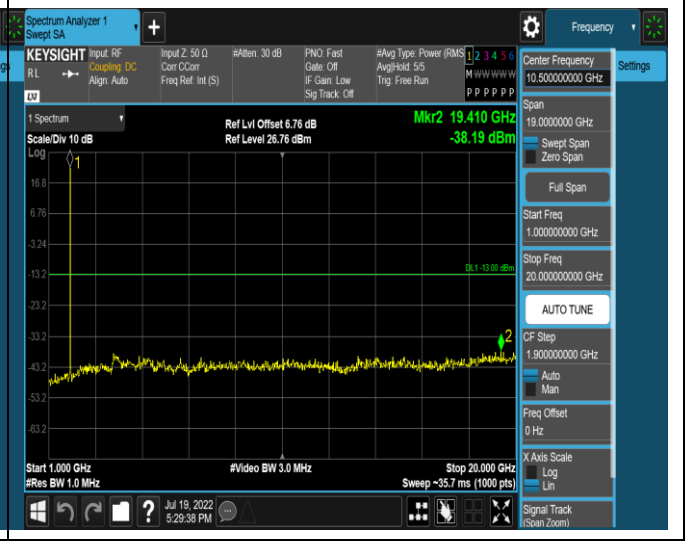


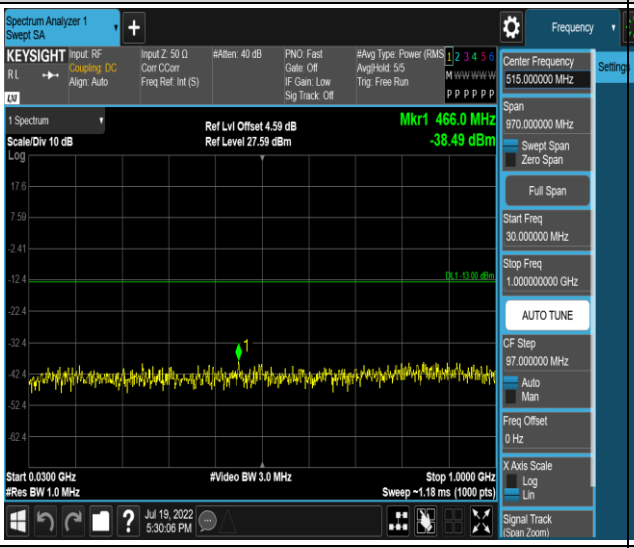
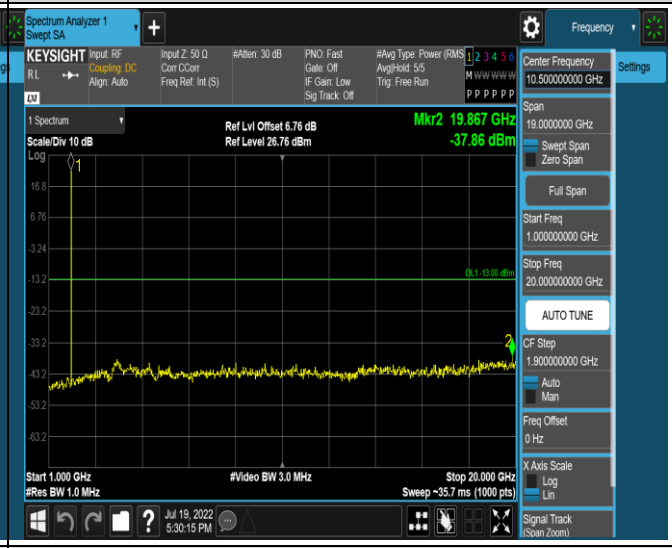
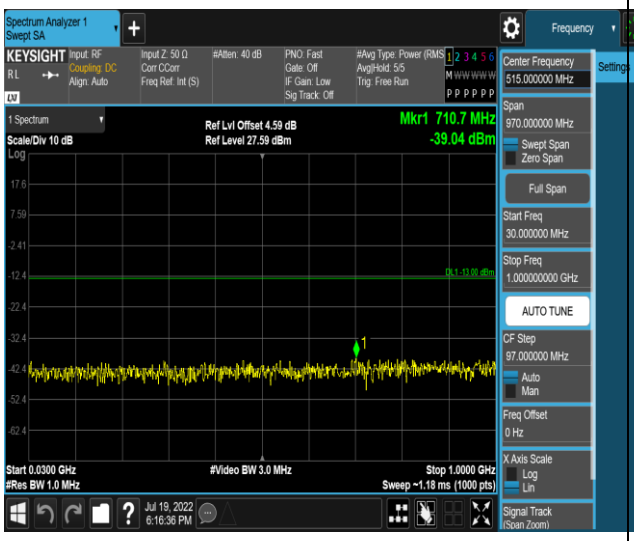
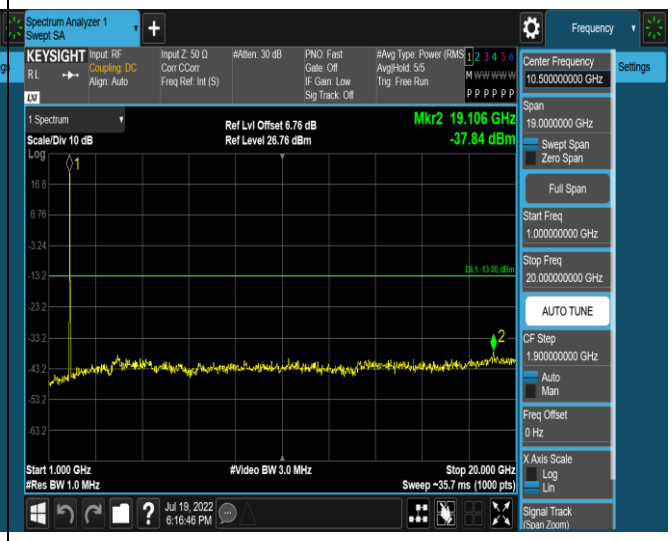
Band2-1.4MHz-16QAM-18900-1RB#0-Range1:30~1000MHz



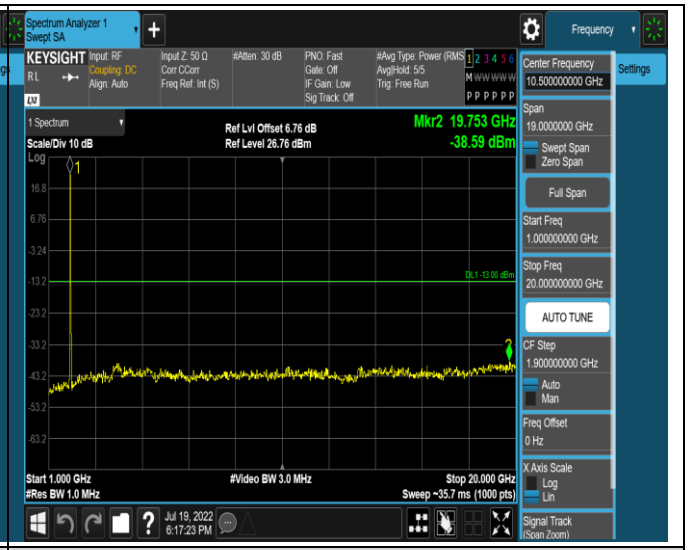
Band2-1.4MHz-16QAM-18900-1RB#0-Range2:1000~20000MHz





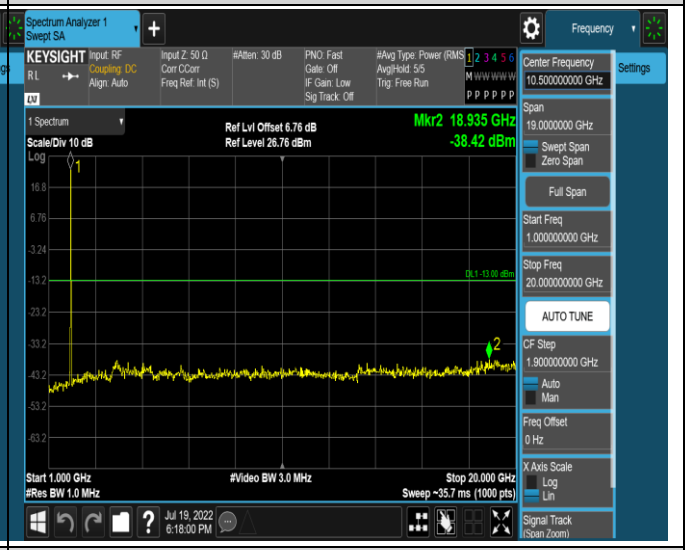
Band2-1.4MHz-16QAM-19193-1RB#0-Range1:30~1000MHz	Band2-1.4MHz-16QAM-19193-1RB#0-Range2:1000~20000MHz
	
Band2-20MHz-QPSK-18700-1RB#0-Range1:30~1000MHz	Band2-20MHz-QPSK-18700-1RB#0-Range2:1000~20000MHz
	
Band2-20MHz-QPSK-18900-1RB#0-Range1:30~1000MHz	Band2-20MHz-QPSK-18900-1RB#0-Range2:1000~20000MHz

Band2-20MHz-QPSK-19100-1RB#0-Range1:30~1000MHz

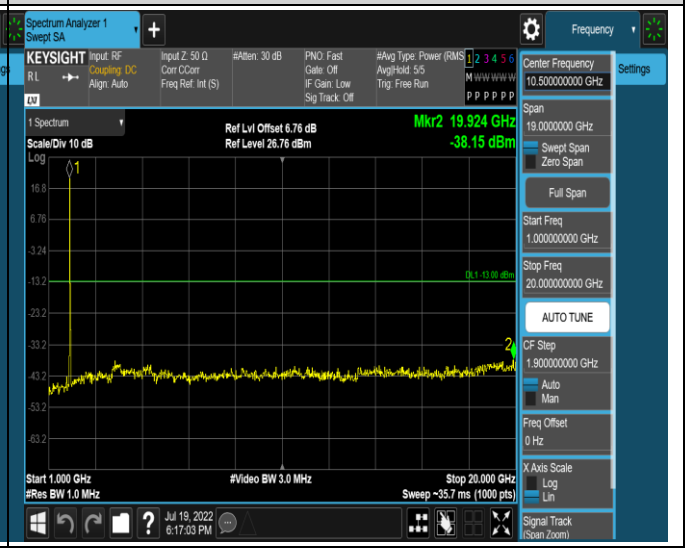


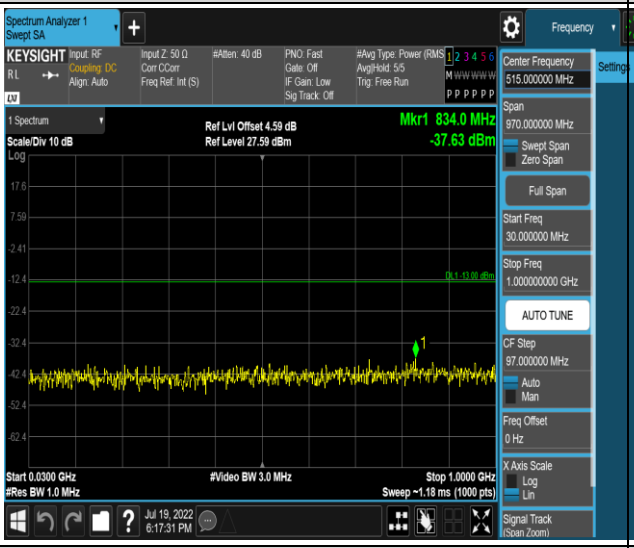
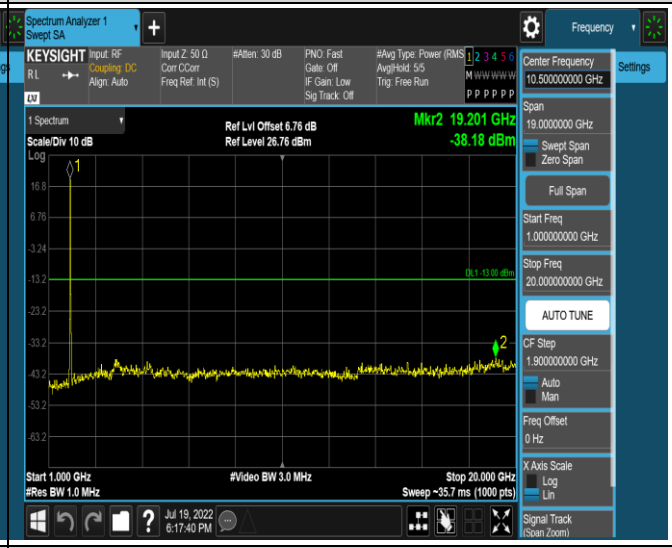
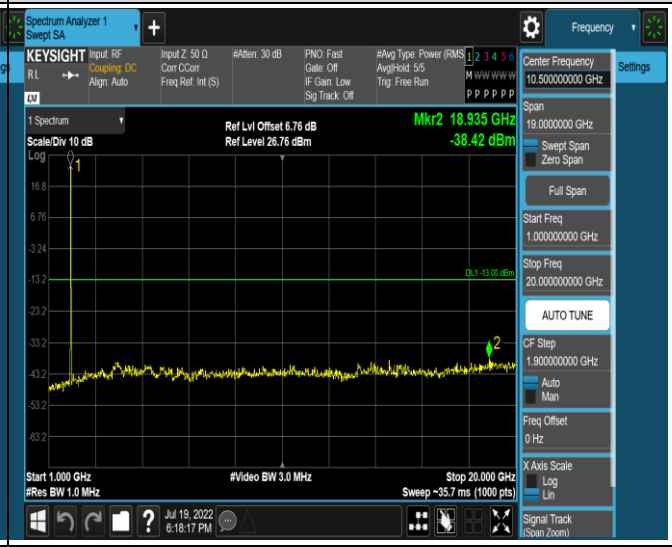
Band2-20MHz-QPSK-19100-1RB#0-Range2:1000~20000MHz

Band2-20MHz-16QAM-18700-1RB#0-Range1:30~1000MHz

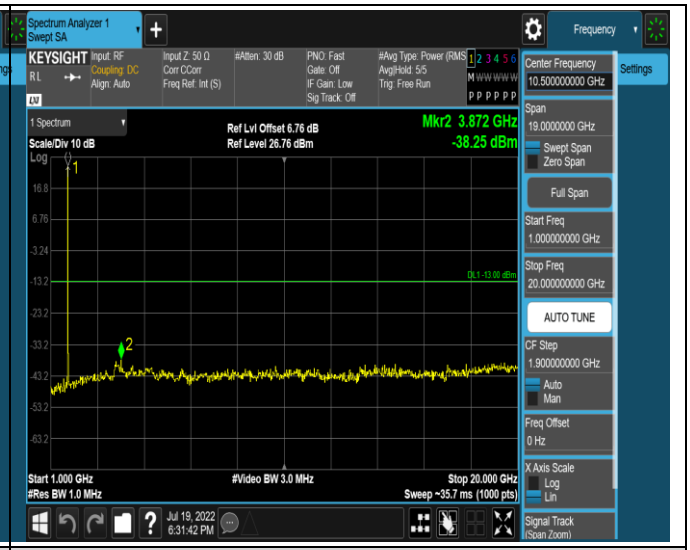


Band2-20MHz-16QAM-18700-1RB#0-Range2:1000~20000MHz

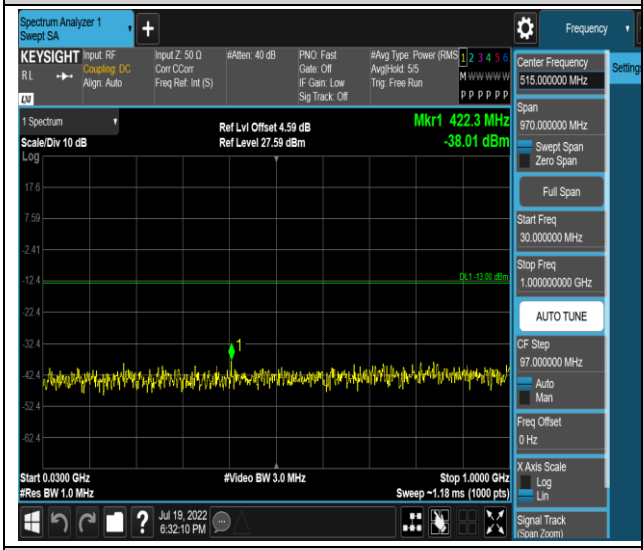


Band2-20MHz-16QAM-18900-1RB#0-Range1:30~1000MHz	Band2-20MHz-16QAM-18900-1RB#0-Range2:1000~20000MHz
	
Band2-20MHz-16QAM-19100-1RB#0-Range1:30~1000MHz	Band2-20MHz-16QAM-19100-1RB#0-Range2:1000~20000MHz
	
Band4-1.4MHz-QPSK-19957-1RB#0-Range1:30~1000MHz	Band4-1.4MHz-QPSK-19957-1RB#0-Range2:1000~20000MHz

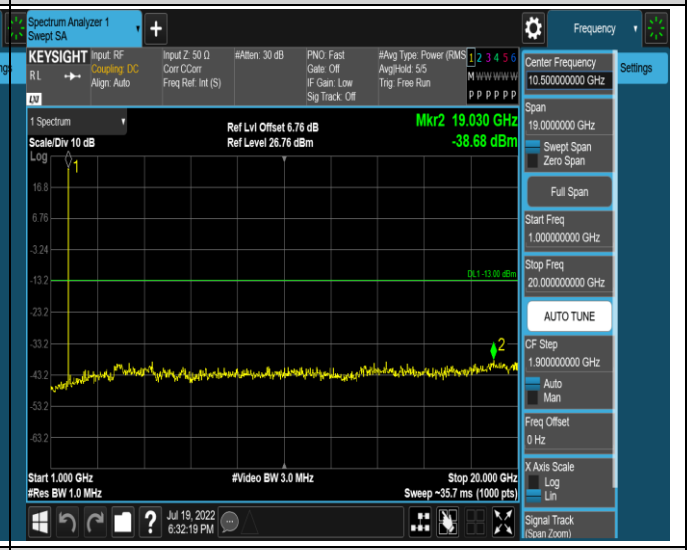
Band4-1.4MHz-QPSK-20175-1RB#0-Range1:30~1000MHz



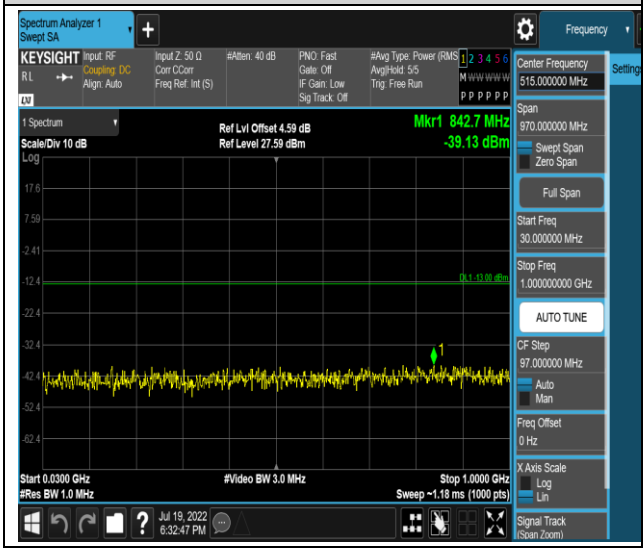
Band4-1.4MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz

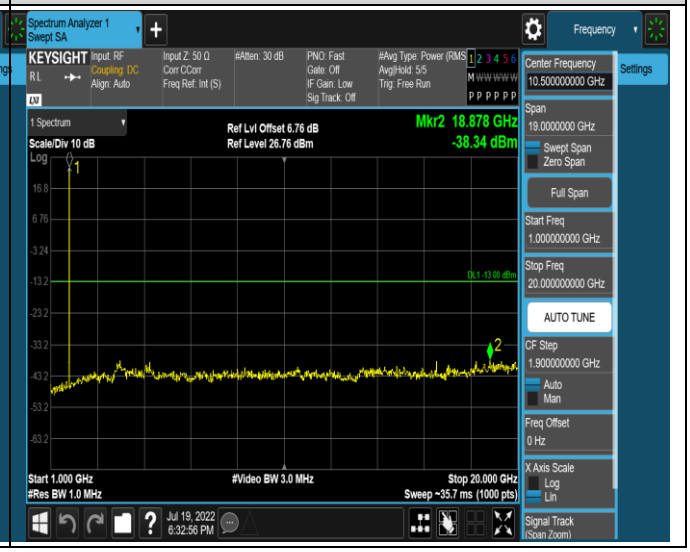


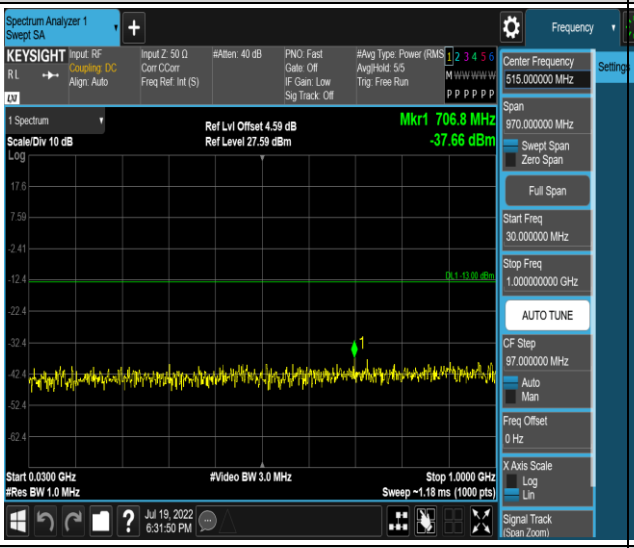
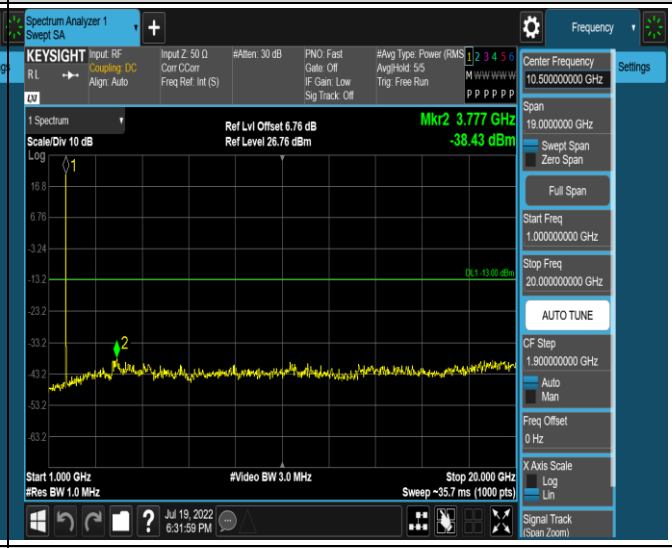
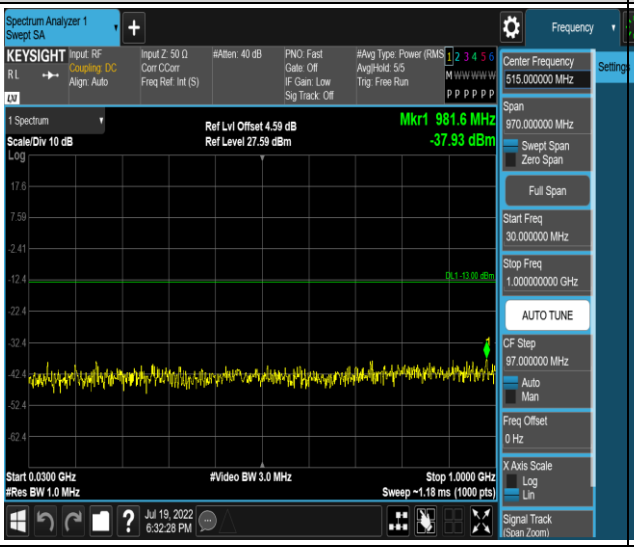
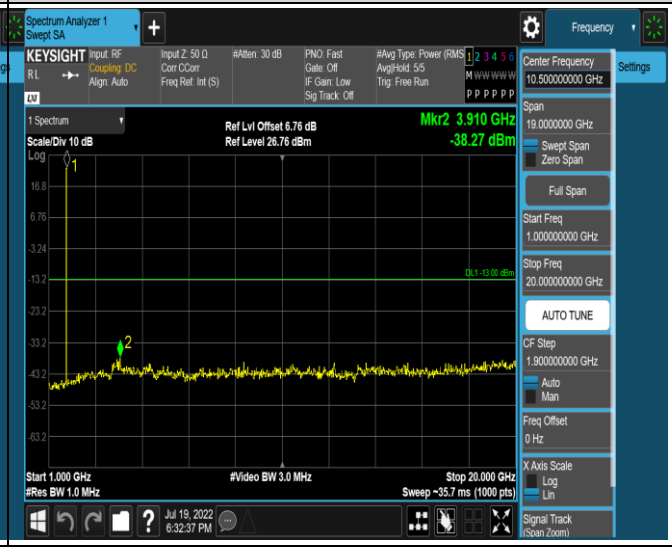
Band4-1.4MHz-QPSK-20393-1RB#0-Range1:30~1000MHz



Band4-1.4MHz-QPSK-20393-1RB#0-Range2:1000~20000MHz





Band4-1.4MHz-16QAM-19957-1RB#0-Range1:30~1000MHz	Band4-1.4MHz-16QAM-19957-1RB#0-Range2:1000~20000MHz
	
Band4-1.4MHz-16QAM-20175-1RB#0-Range1:30~1000MHz	Band4-1.4MHz-16QAM-20175-1RB#0-Range2:1000~20000MHz
	
Band4-1.4MHz-16QAM-20393-1RB#0-Range1:30~1000MHz	Band4-1.4MHz-16QAM-20393-1RB#0-Range2:1000~20000MHz