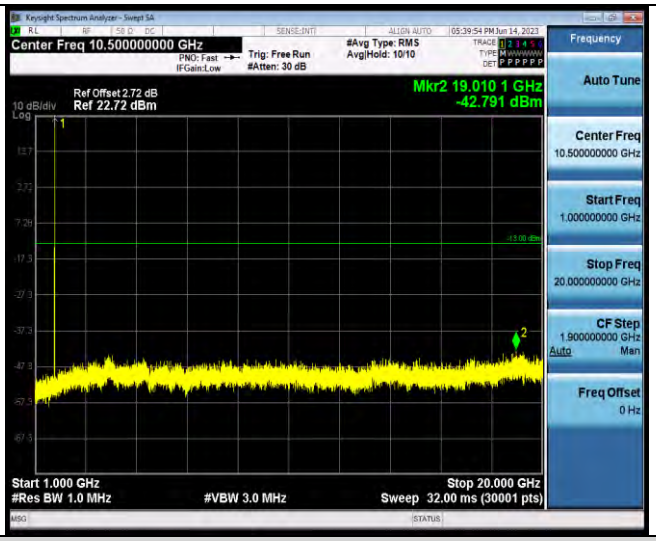
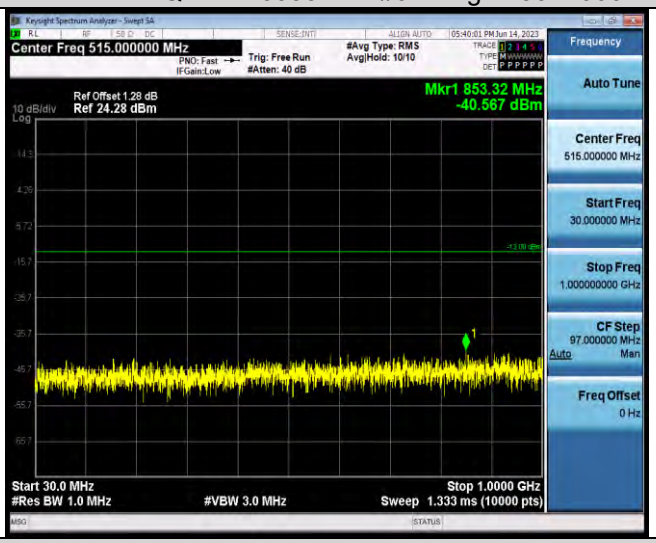
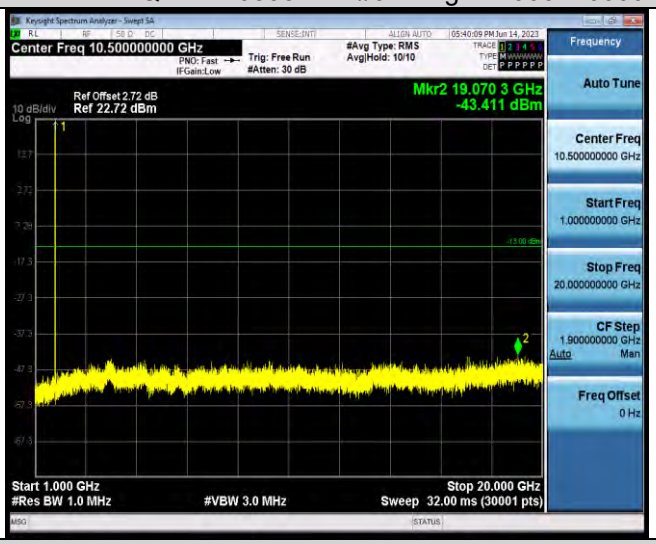


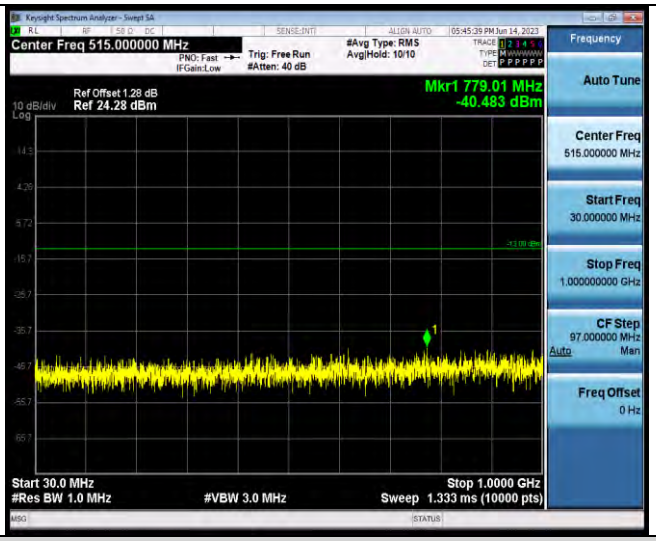
Band4-1.4MHz-QPSK-20393-1RB#0-Range1:30~1000MHz



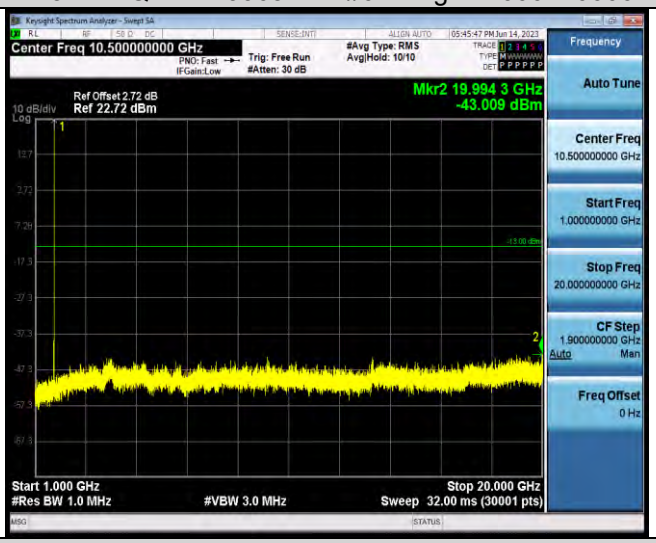
Band4-1.4MHz-QPSK-20393-1RB#0-Range2:1000~20000MHz



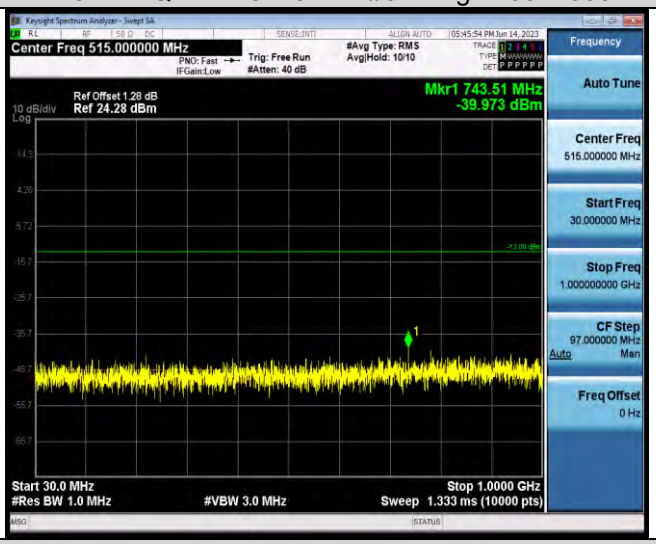
Band4-3MHz-QPSK-19965-1RB#0-Range1:30~1000MHz



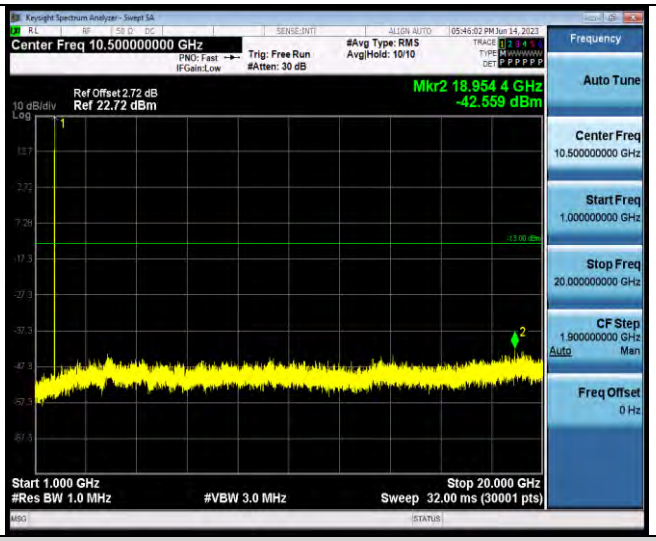
Band4-3MHz-QPSK-19965-1RB#0-Range2:1000~20000MHz



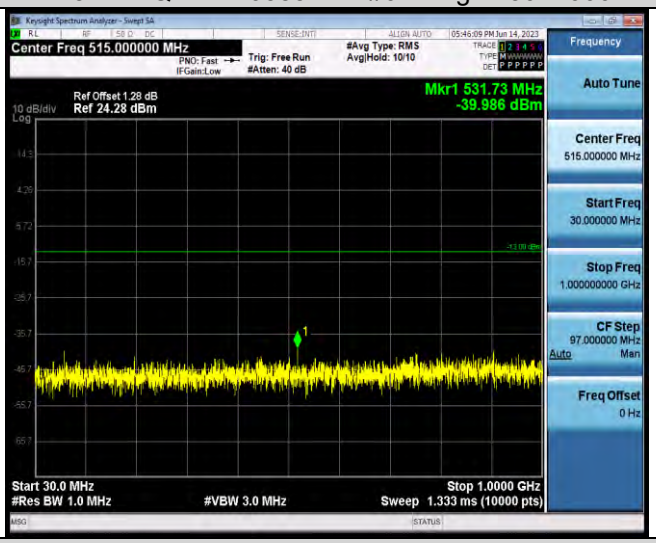
Band4-3MHz-QPSK-20175-1RB#0-Range1:30~1000MHz



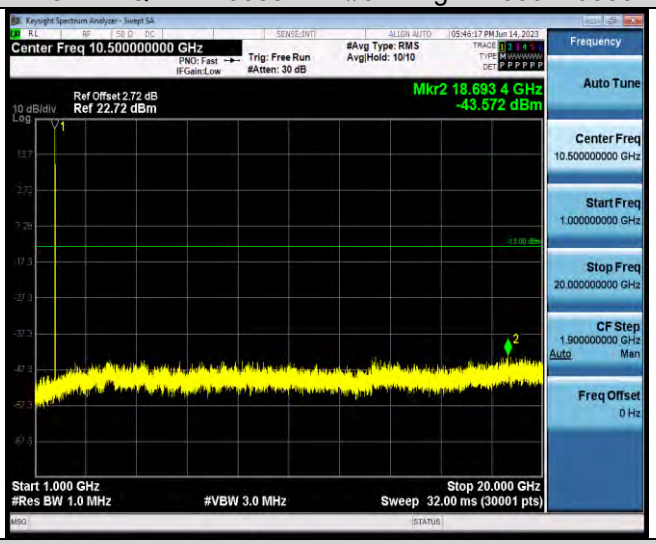
Band4-3MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz



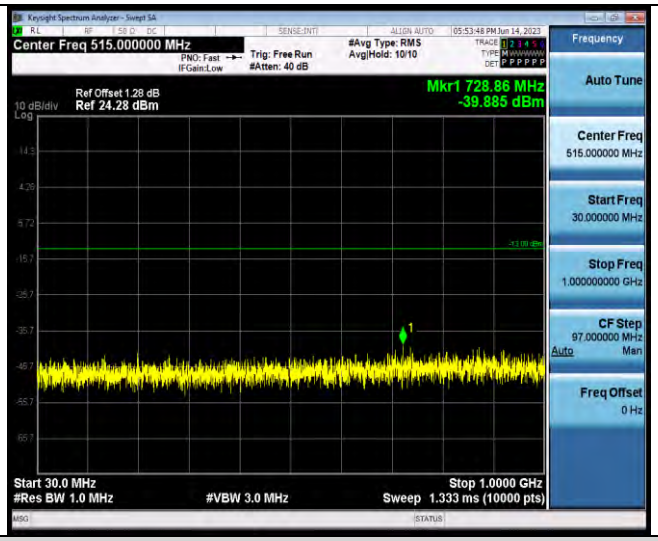
Band4-3MHz-QPSK-20385-1RB#0-Range1:30~1000MHz



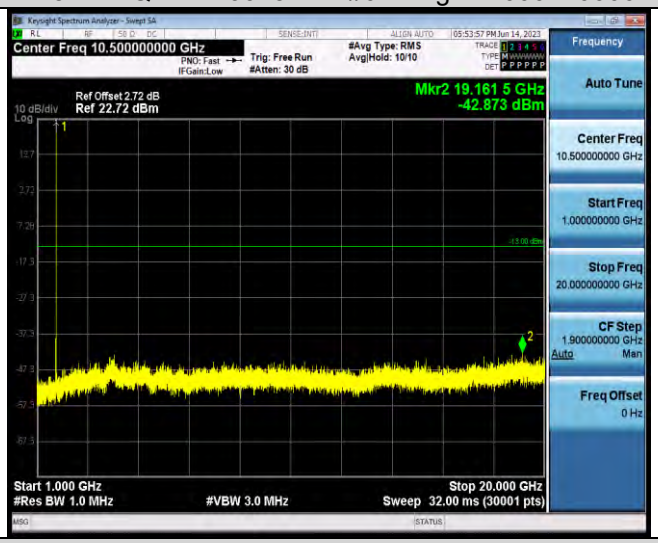
Band4-3MHz-QPSK-20385-1RB#0-Range2:1000~20000MHz



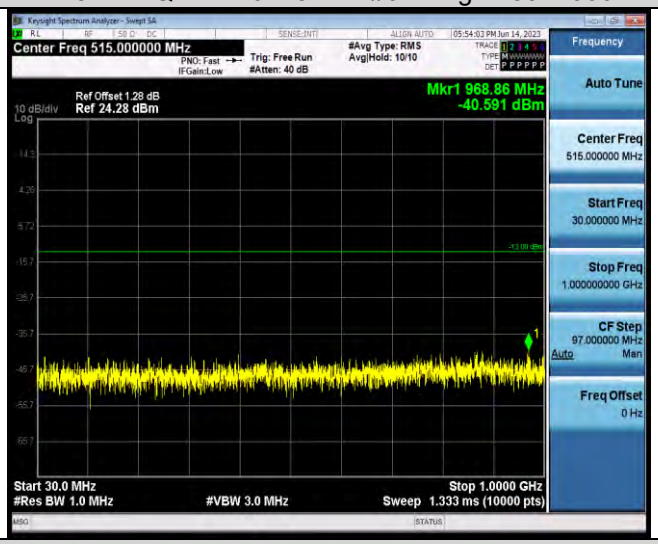
Band4-5MHz-QPSK-19975-1RB#0-Range1:30~1000MHz



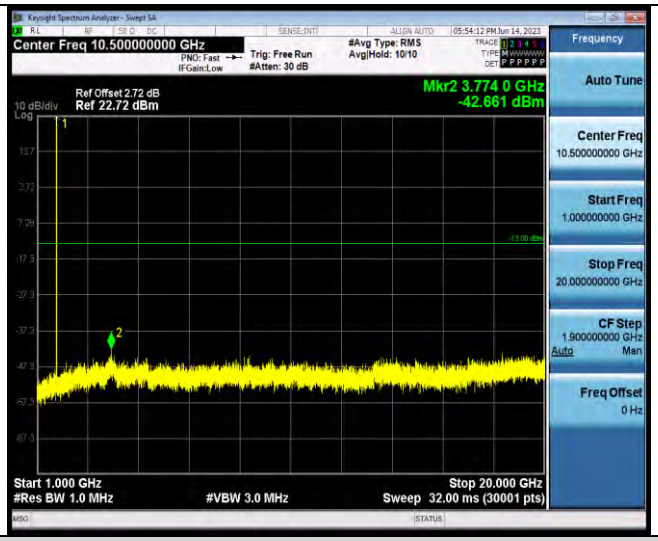
Band4-5MHz-QPSK-19975-1RB#0-Range2:1000~20000MHz



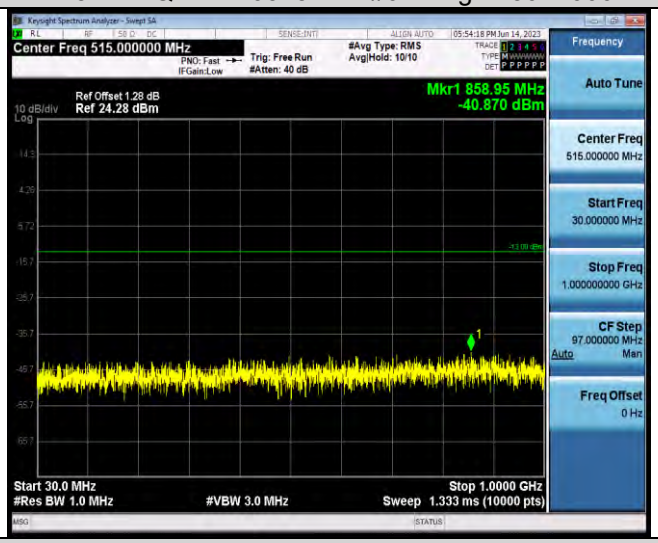
Band4-5MHz-QPSK-20175-1RB#0-Range1:30~1000MHz



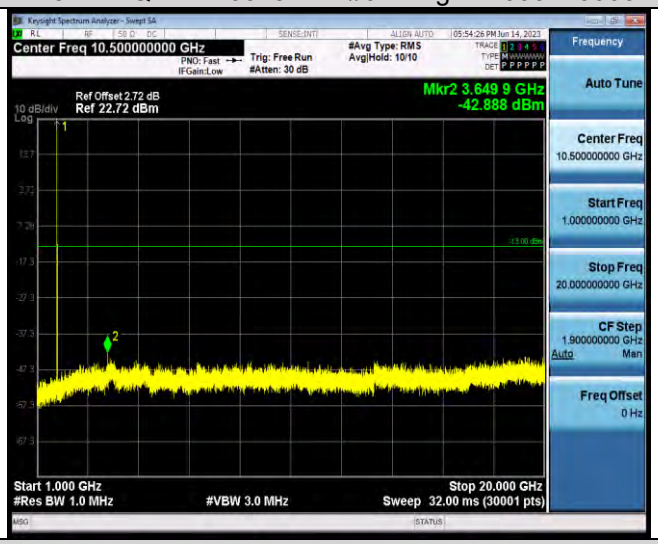
Band4-5MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz



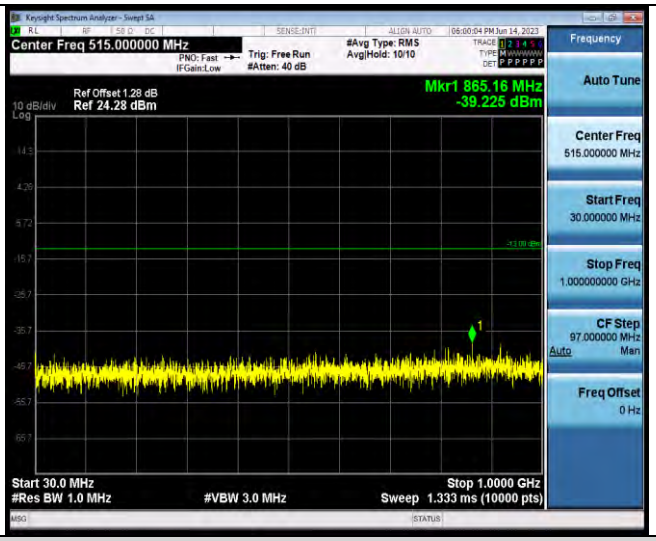
Band4-5MHz-QPSK-20375-1RB#0-Range1:30~1000MHz



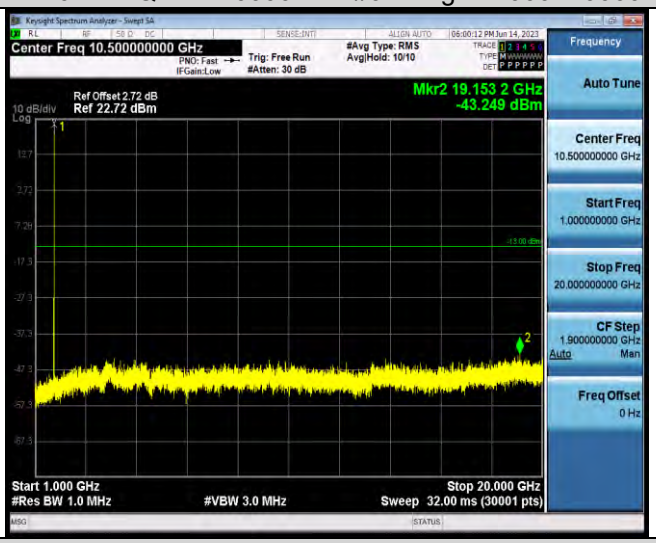
Band4-5MHz-QPSK-20375-1RB#0-Range2:1000~20000MHz



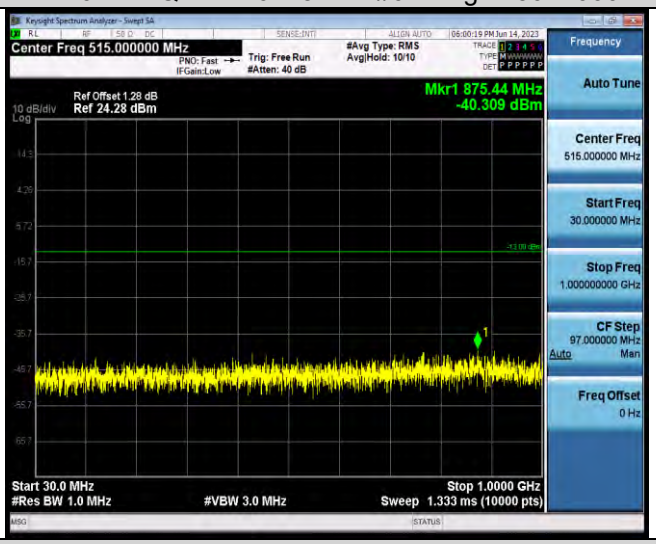
Band4-10MHz-QPSK-20000-1RB#0-Range1:30~1000MHz



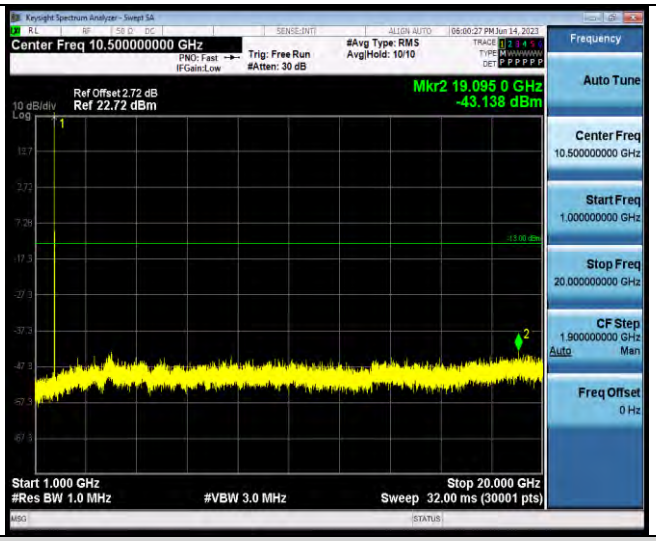
Band4-10MHz-QPSK-20000-1RB#0-Range2:1000~20000MHz



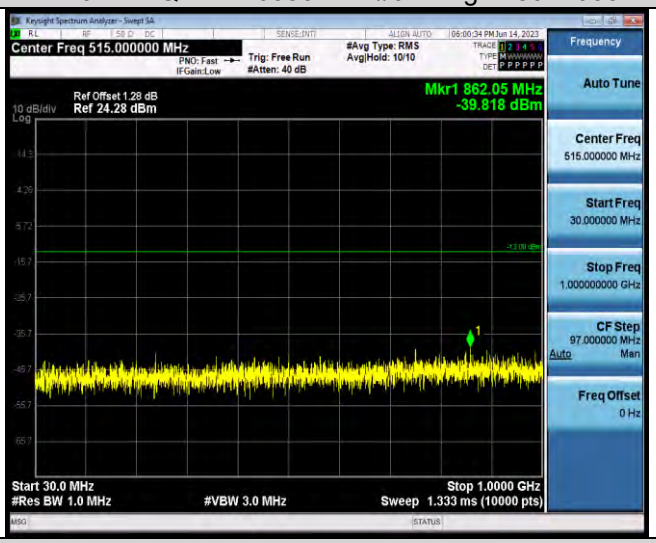
Band4-10MHz-QPSK-20175-1RB#0-Range1:30~1000MHz



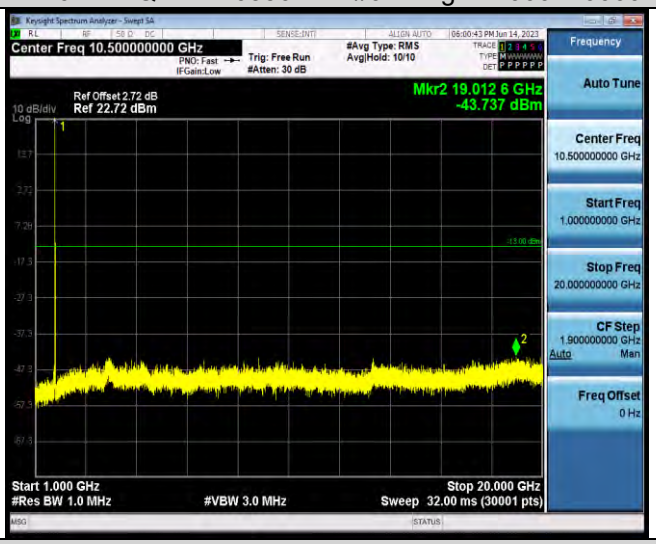
Band4-10MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz



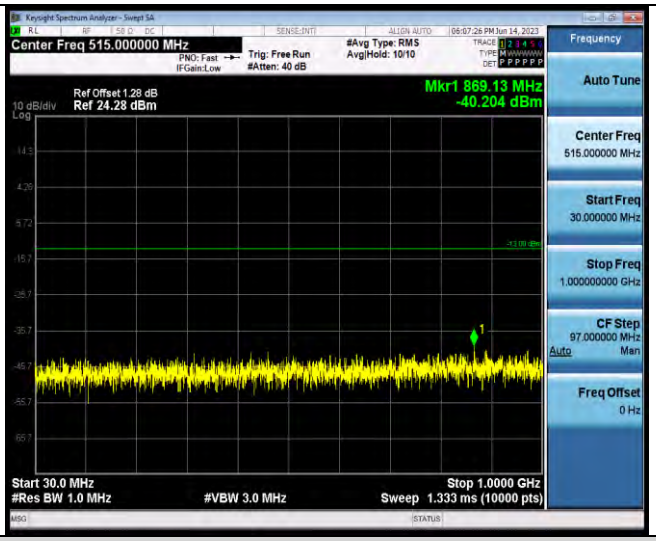
Band4-10MHz-QPSK-20350-1RB#0-Range1:30~1000MHz



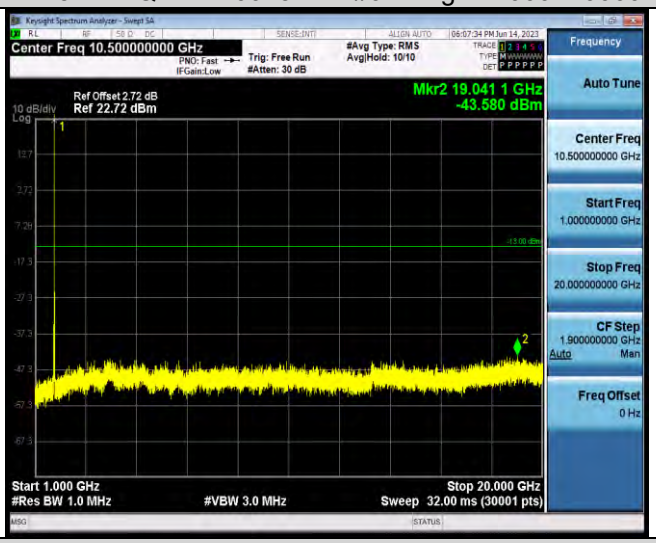
Band4-10MHz-QPSK-20350-1RB#0-Range2:1000~20000MHz



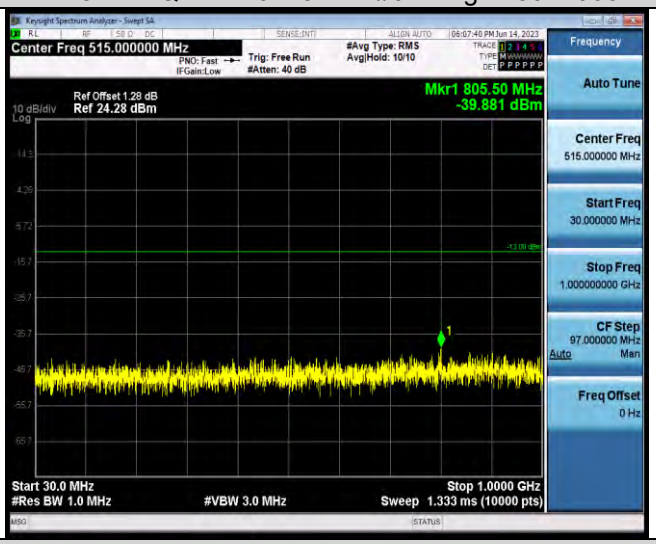
Band4-15MHz-QPSK-20025-1RB#0-Range1:30~1000MHz



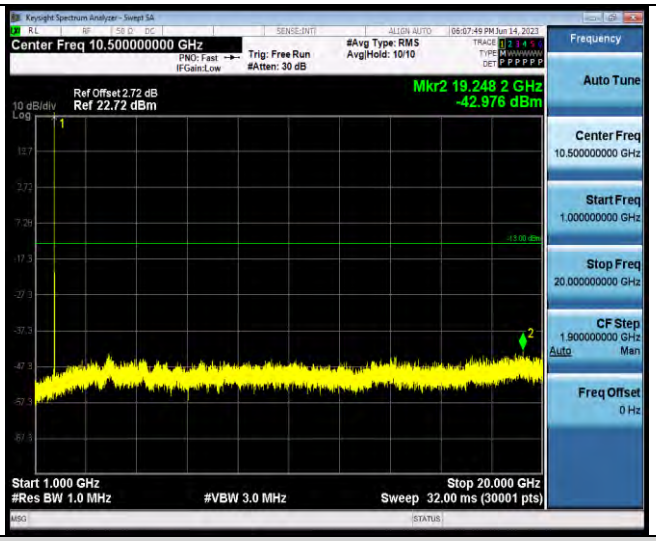
Band4-15MHz-QPSK-20025-1RB#0-Range2:1000~20000MHz



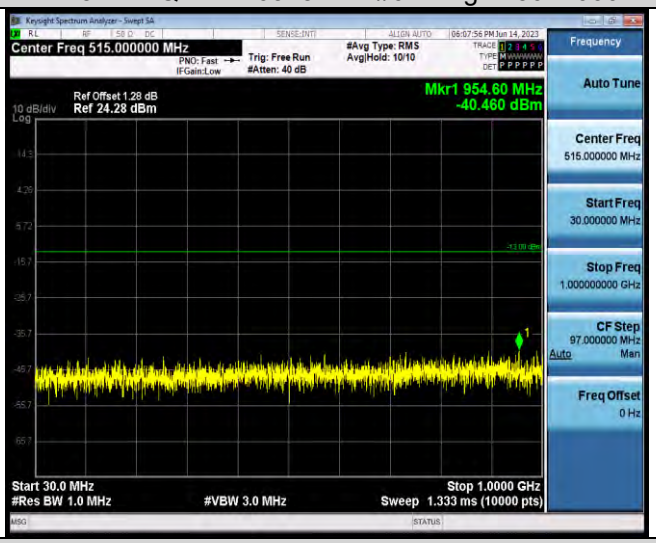
Band4-15MHz-QPSK-20175-1RB#0-Range1:30~1000MHz



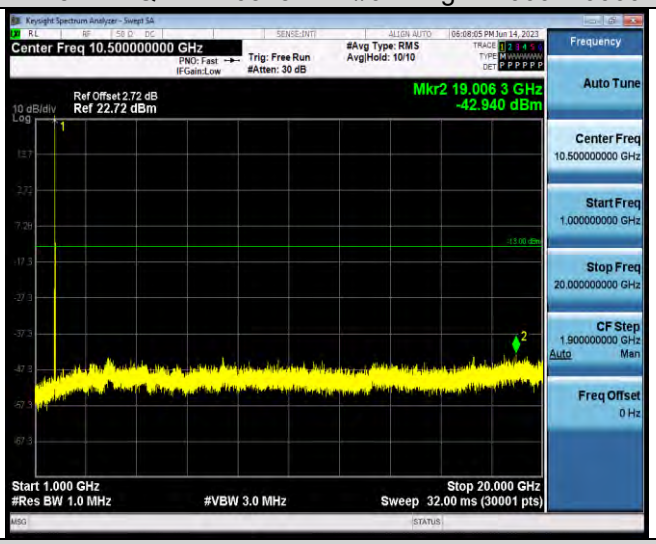
Band4-15MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz



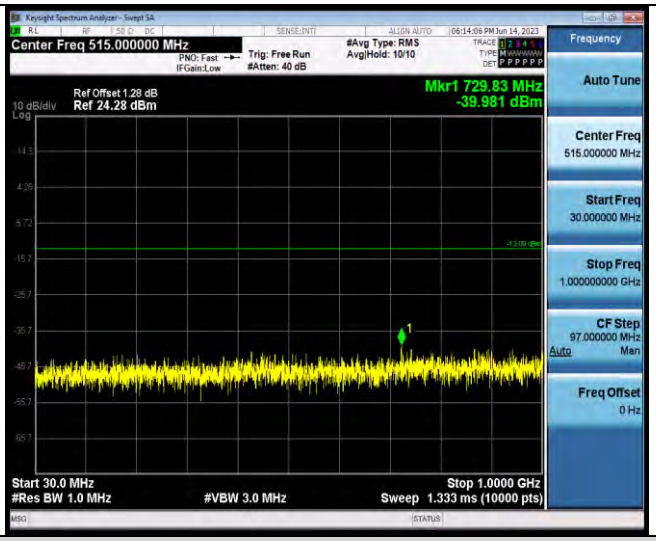
Band4-15MHz-QPSK-20325-1RB#0-Range1:30~1000MHz



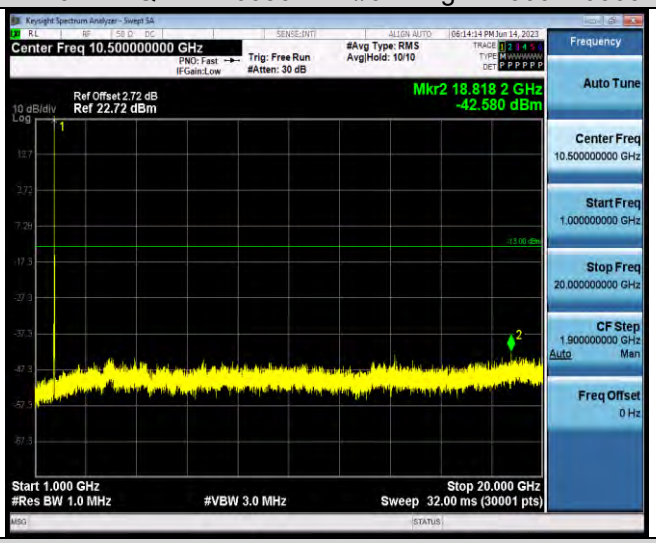
Band4-15MHz-QPSK-20325-1RB#0-Range2:1000~20000MHz



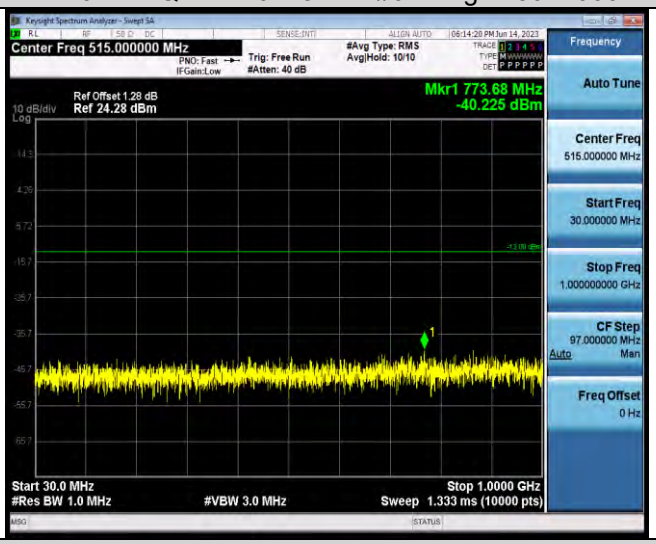
Band4-20MHz-QPSK-20050-1RB#0-Range1:30~1000MHz



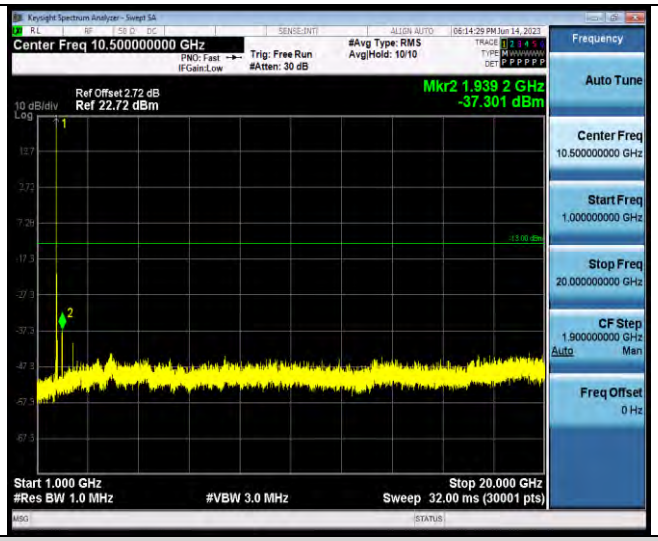
Band4-20MHz-QPSK-20050-1RB#0-Range2:1000~20000MHz



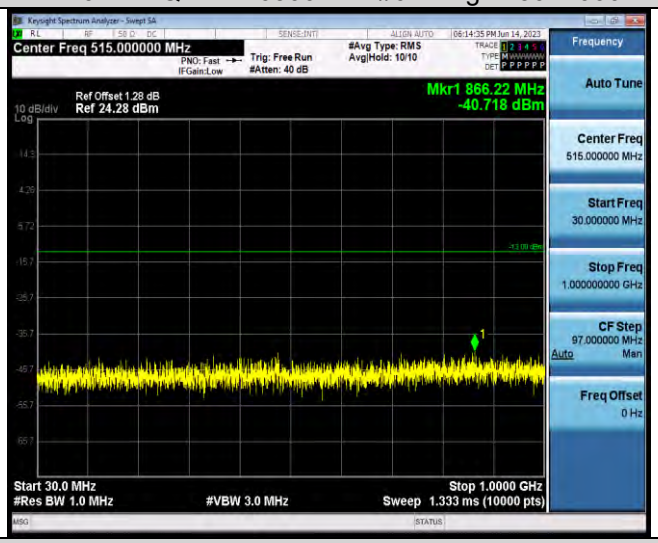
Band4-20MHz-QPSK-20175-1RB#0-Range1:30~1000MHz



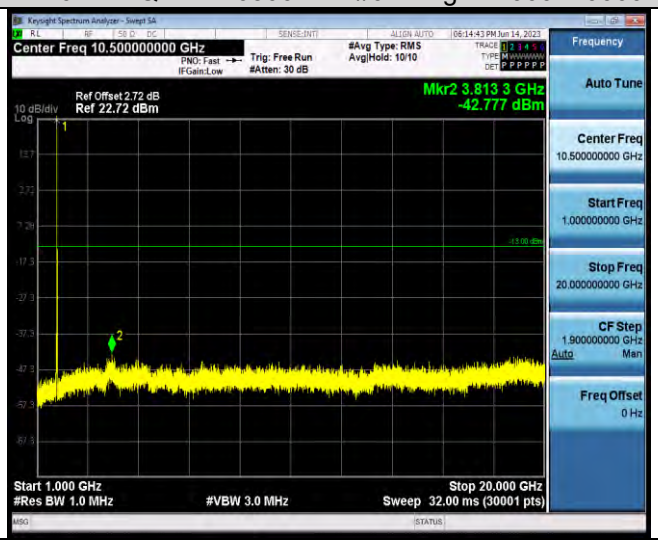
Band4-20MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz



Band4-20MHz-QPSK-20300-1RB#0-Range1:30~1000MHz



Band4-20MHz-QPSK-20300-1RB#0-Range2:1000~20000MHz



FREQUENCY STABILITY

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	VL	NT	3.73	0.002169	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	4.95	0.002878	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	5.15	0.002994	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	3.16	0.001824	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	-3.00	-0.001732	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	3.95	0.002280	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	-3.52	-0.002017	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	-3.78	-0.002166	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	-4.65	-0.002665	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	NV	-30	-2.03	-0.001180	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	4.19	0.002436	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-10	5.22	0.003035	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	5.46	0.003174	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	5.29	0.003076	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	2.98	0.001733	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	2.69	0.001564	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	5.18	0.003012	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	4.22	0.002453	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-30	2.29	0.001322	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	3.83	0.002211	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-10	1.62	0.000935	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	3.68	0.002124	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	1.76	0.001016	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	6.11	0.003527	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	-2.50	-0.001443	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	4.82	0.002782	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	2.66	0.001535	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-30	-2.93	-0.001679	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	-5.59	-0.003203	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-10	-7.17	-0.004109	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	-3.83	-0.002195	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-3.52	-0.002017	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	-5.28	-0.003026	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	-6.27	-0.003593	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	40	-5.08	-0.002911	±2.5	PASS

Band4	20MHz	QPSK	20300	100RB#0	NV	50	-5.75	-0.003295	±2.5	PASS

MAX Deviation calculation

Frequency Stability	Frequency (MHz)	Limit Line(MHz)	Result
fL-|MAX(△f)|	1711.047000	≥1710	PASS
fH+|MAX(△f)|	1753.97200	≤1755	

Note：1. |MAX(△f)| = Max Deviation
2. fL = Occ low channel fl(-13dBm/MHz)
3. fH = Occ High channel fH(-13dBm/MHz)
4. |MAX(△f)| = -7.17 Hz.

LTE BAND7

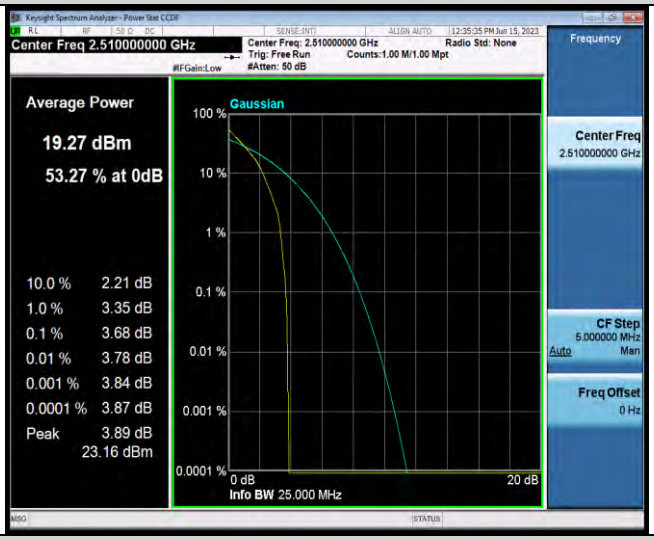
PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

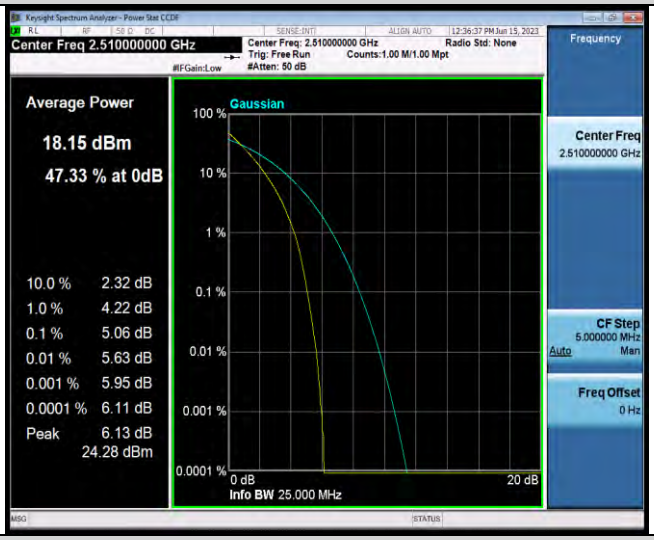
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	1RB#0	3.68	13	PASS
Band7	20MHz	QPSK	20850	100RB#0	5.06	13	PASS
Band7	20MHz	QPSK	21100	1RB#0	4.65	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	4.54	13	PASS
Band7	20MHz	QPSK	21350	1RB#0	3.90	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	5.07	13	PASS
Band7	20MHz	16QAM	20850	1RB#0	4.34	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	5.81	13	PASS
Band7	20MHz	16QAM	21100	1RB#0	5.46	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	5.44	13	PASS
Band7	20MHz	16QAM	21350	1RB#0	4.87	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	5.99	13	PASS

Test Graphs

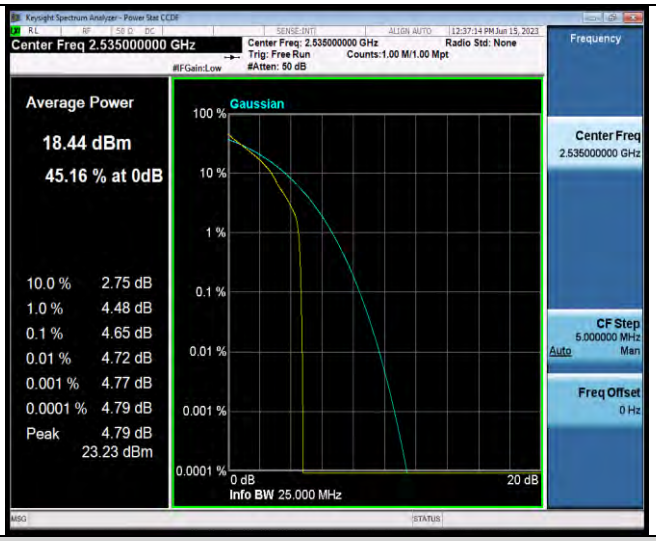
Band7-20MHz-QPSK-20850-1RB#0



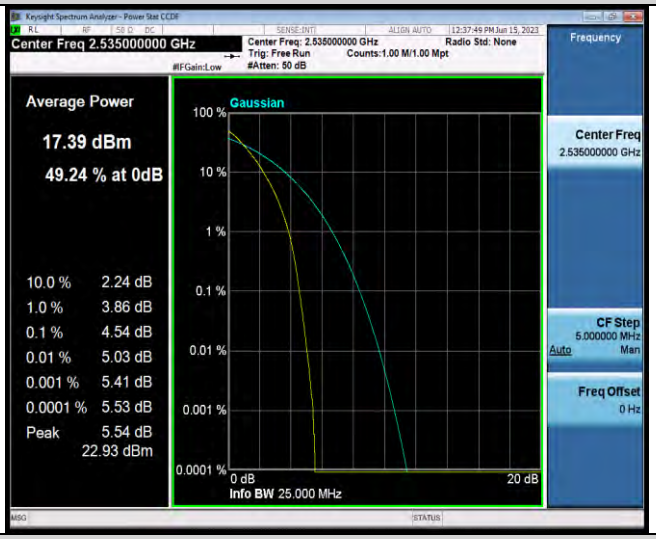
Band7-20MHz-QPSK-20850-100RB#0



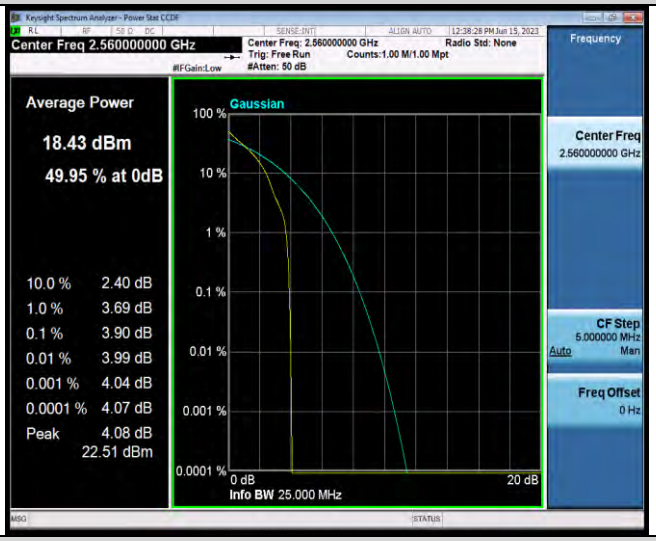
Band7-20MHz-QPSK-21100-1RB#0



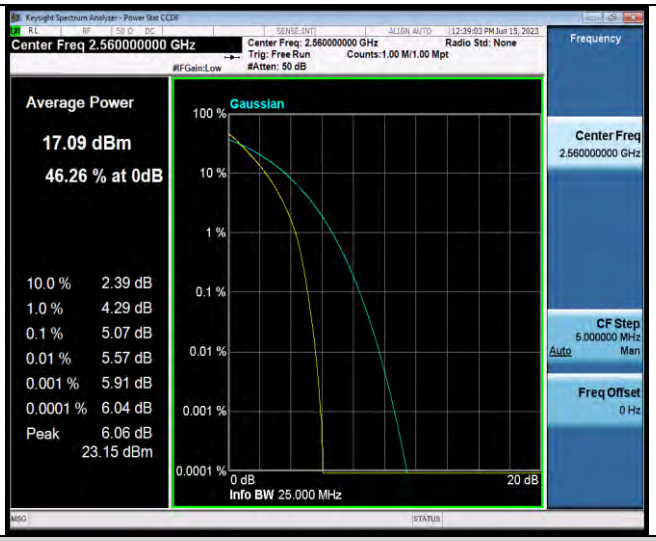
Band7-20MHz-QPSK-21100-100RB#0



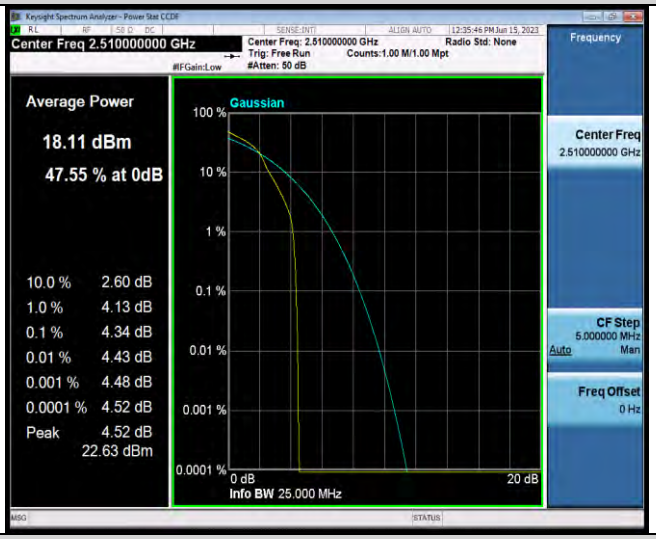
Band7-20MHz-QPSK-21350-1RB#0



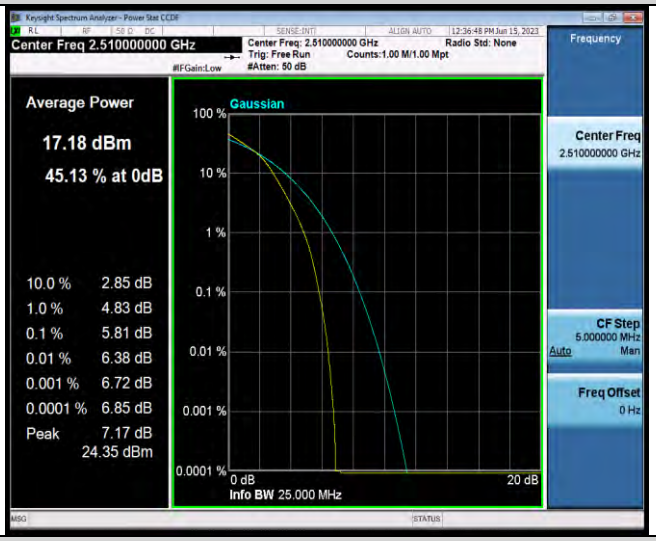
Band7-20MHz-QPSK-21350-100RB#0



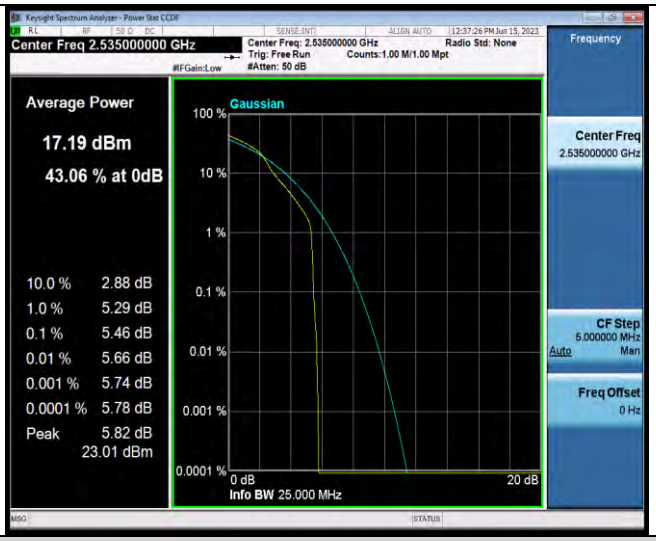
Band7-20MHz-16QAM-20850-1RB#0



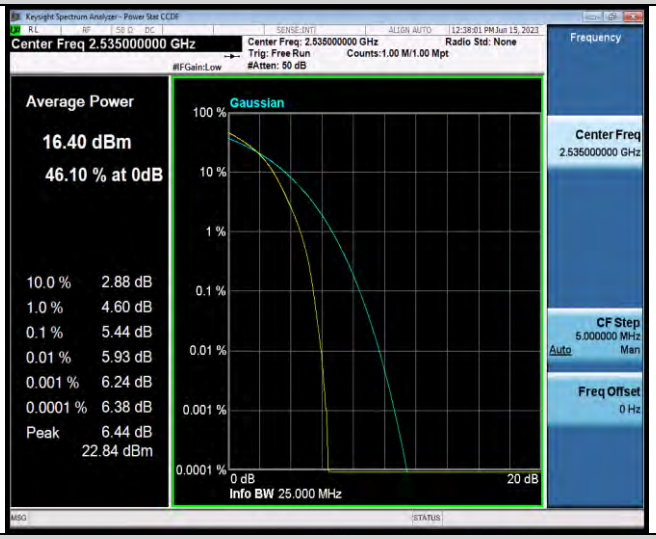
Band7-20MHz-16QAM-20850-100RB#0



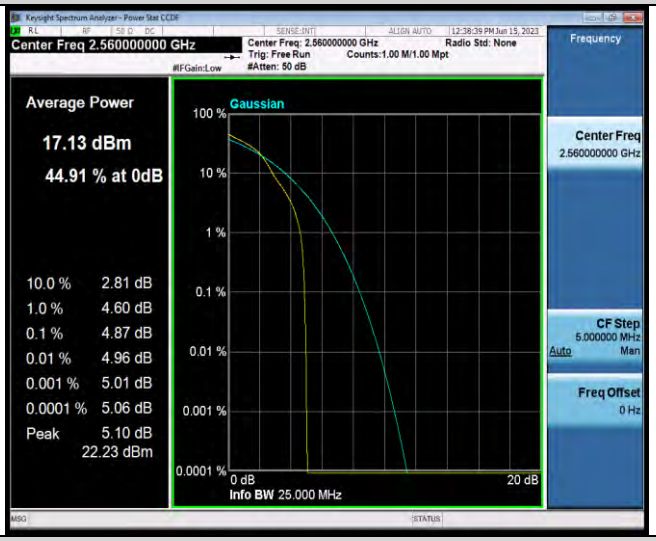
Band7-20MHz-16QAM-21100-1RB#0



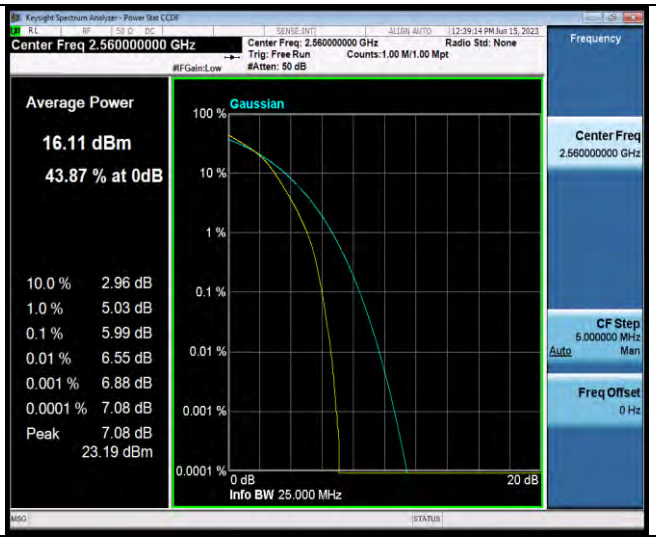
Band7-20MHz-16QAM-21100-100RB#0



Band7-20MHz-16QAM-21350-1RB#0



Band7-20MHz-16QAM-21350-100RB#0


Keysight Spectrum Analyzer - Power Stat CCDF
Center Freq 2.560000000 GHz
Center Freq: 2.560000000 GHz
Trig: Free Run
Counts:1.00 M/1.00 Mpt
#Atten: 50 dB
Radio Std: None
Frequency
Average Power
16.11 dBm
43.87 % at 0dB
10.0 % 2.96 dB
1.0 % 5.03 dB
0.1 % 5.99 dB
0.01 % 6.55 dB
0.001 % 6.88 dB
0.0001 % 7.08 dB
Peak 7.08 dB
23.19 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 25.000 MHz
Center Freq
2.560000000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz

26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.5016	4.884	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.5021	4.894	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.5037	4.885	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.5025	4.878	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.5046	4.877	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.5086	4.910	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.9645	9.579	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.9649	9.573	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.9590	9.577	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.9730	9.577	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.9648	9.521	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.9797	9.599	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.471	14.30	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.439	14.30	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.462	14.28	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.449	14.29	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.434	14.26	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.469	14.28	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.941	18.98	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.840	18.95	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.942	19.01	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.946	19.00	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.855	18.94	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.960	19.01	PASS

Test Graphs

Band7-5MHz-QPSK-20775-25RB#0

Band7-5MHz-QPSK-21100-25RB#0

Band7-5MHz-QPSK-21425-25RB#0

Band7-5MHz-16QAM-20775-25RB#0

Band7-5MHz-16QAM-21100-25RB#0

Band7-5MHz-16QAM-21425-25RB#0

Band7-10MHz-QPSK-20800-50RB#0

Band7-10MHz-QPSK-21100-50RB#0

Band7-10MHz-QPSK-21400-50RB#0

Band7-10MHz-16QAM-20800-50RB#0

Band7-10MHz-16QAM-21100-50RB#0

Band7-10MHz-16QAM-21400-50RB#0

Band7-15MHz-QPSK-20825-75RB#0

Band7-15MHz-QPSK-21100-75RB#0

Band7-15MHz-QPSK-21375-75RB#0

Band7-15MHz-16QAM-20825-75RB#0

Band7-15MHz-16QAM-21100-75RB#0

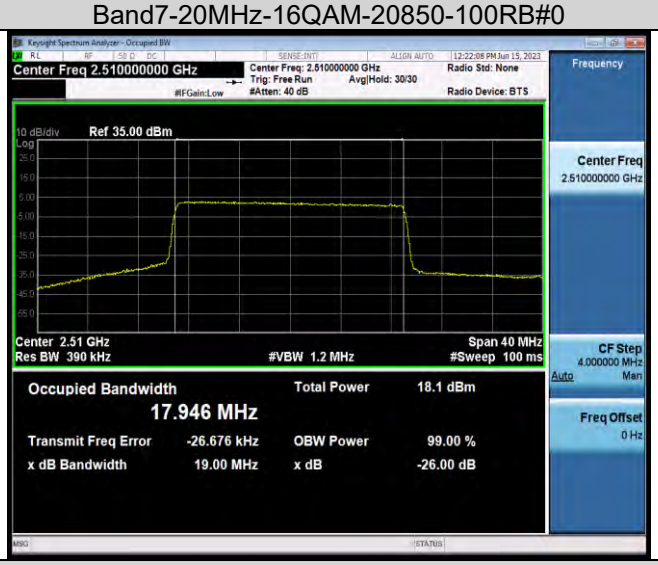
Band7-15MHz-16QAM-21375-75RB#0

Band7-20MHz-QPSK-20850-100RB#0

Band7-20MHz-QPSK-21100-100RB#0

Band7-20MHz-QPSK-21350-100RB#0

Band7-20MHz-16QAM-20850-100RB#0



Band7-20MHz-16QAM-21100-100RB#0

Band7-20MHz-16QAM-21350-100RB#0

Keysight Spectrum Analyzer - Occupied BW
Center Freq 2.560000000 GHz
Center Freq: 2.560000000 GHz
Trig: Free Run
Avg|Hold: 30/30
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
12:23:32 PM Jun 15, 2023
10 dB/div
Ref 35.00 dBm
Center 2.56 GHz
Res BW 390 kHz
#VBW 1.2 MHz
Span 40 MHz
#Sweep 100 ms
Occupied Bandwidth
17.960 MHz
Total Power 17.0 dBm
Transmit Freq Error 15.602 kHz
OBW Power 99.00 %
x dB Bandwidth 19.01 MHz
x dB -26.00 dB
Frequency
Center Freq
2.560000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

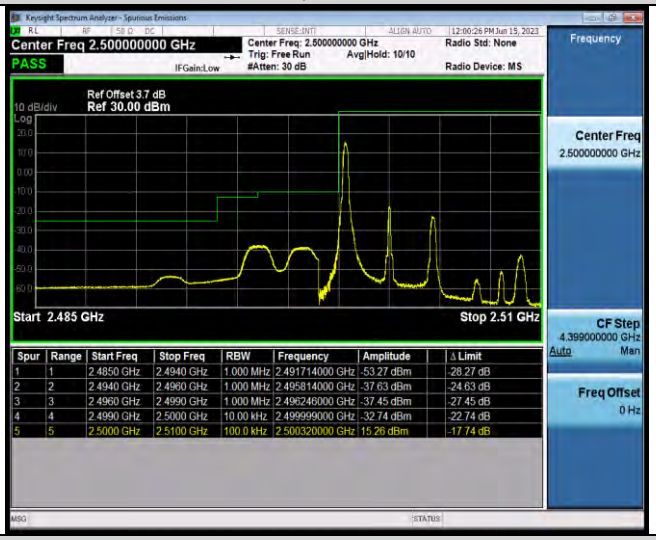
BAND EDGE

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	-53.27,-37.63,-37.45,-32.74	PASS
Band7	5MHz	QPSK	20775	25RB#0	-47.61,-36.18,-23.37,-28.24	PASS
Band7	5MHz	QPSK	21425	1RB#24	-32.80,-39.66,-54.68,-53.12	PASS
Band7	5MHz	QPSK	21425	25RB#0	-30.69,-25.44,-38.72,-40.78	PASS
Band7	5MHz	16QAM	20775	1RB#0	-55.48,-44.47,-45.13,-33.53	PASS
Band7	5MHz	16QAM	20775	25RB#0	-48.20,-39.42,-26.47,-29.76	PASS
Band7	5MHz	16QAM	21425	1RB#24	-37.27,-44.03,-55.58,-53.86	PASS
Band7	5MHz	16QAM	21425	25RB#0	-32.80,-26.96,-39.18,-42.91	PASS
Band7	10MHz	QPSK	20800	1RB#0	-58.55,-40.76,-40.64,-45.22	PASS
Band7	10MHz	QPSK	20800	50RB#0	-48.91,-28.09,-25.13,-26.81	PASS
Band7	10MHz	QPSK	21400	1RB#49	-48.02,-40.42,-39.31,-58.52	PASS
Band7	10MHz	QPSK	21400	50RB#0	-29.64,-26.84,-29.92,-43.32	PASS
Band7	10MHz	16QAM	20800	1RB#0	-58.67,-43.62,-43.55,-45.44	PASS
Band7	10MHz	16QAM	20800	50RB#0	-48.61,-30.91,-27.44,-29.45	PASS
Band7	10MHz	16QAM	21400	1RB#49	-50.15,-43.16,-42.95,-58.70	PASS
Band7	10MHz	16QAM	21400	50RB#0	-31.19,-28.07,-31.55,-42.20	PASS
Band7	15MHz	QPSK	20825	1RB#0	-44.92,-40.66,-46.84,-43.91	PASS
Band7	15MHz	QPSK	20825	75RB#0	-37.19,-28.55,-26.51,-30.49	PASS
Band7	15MHz	QPSK	21375	1RB#74	-47.38,-45.37,-38.74,-58.89	PASS
Band7	15MHz	QPSK	21375	75RB#0	-28.84,-25.44,-27.58,-42.19	PASS
Band7	15MHz	16QAM	20825	1RB#0	-47.51,-43.74,-48.02,-43.88	PASS
Band7	15MHz	16QAM	20825	75RB#0	-40.24,-31.44,-29.60,-32.85	PASS
Band7	15MHz	16QAM	21375	1RB#74	-48.09,-46.60,-41.87,-58.92	PASS
Band7	15MHz	16QAM	21375	75RB#0	-31.28,-27.25,-29.32,-41.83	PASS
Band7	20MHz	QPSK	20850	1RB#0	-50.98,-43.08,-47.60,-50.14	PASS
Band7	20MHz	QPSK	20850	100RB#0	-40.56,-31.92,-28.45,-28.97	PASS
Band7	20MHz	QPSK	21350	1RB#99	-52.23,-48.77,-39.66,-58.81	PASS
Band7	20MHz	QPSK	21350	100RB#0	-29.58,-27.67,-29.39,-47.38	PASS
Band7	20MHz	16QAM	20850	1RB#0	-53.05,-46.03,-48.89,-49.94	PASS
Band7	20MHz	16QAM	20850	100RB#0	-42.38,-34.81,-30.30,-31.38	PASS
Band7	20MHz	16QAM	21350	1RB#99	-52.61,-50.01,-43.28,-59.00	PASS
Band7	20MHz	16QAM	21350	100RB#0	-31.51,-29.43,-30.64,-46.71	PASS

Test Graphs

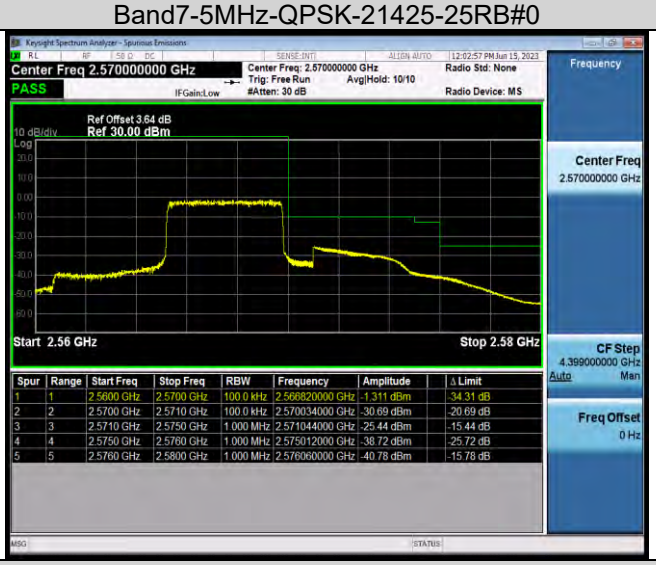
Band7-5MHz-QPSK-20775-1RB#0



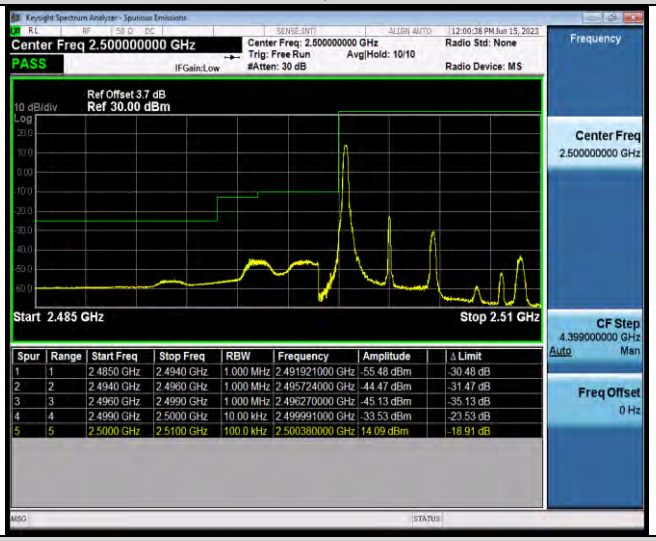
Band7-5MHz-QPSK-20775-25RB#0

Band7-5MHz-QPSK-21425-1RB#24

Band7-5MHz-QPSK-21425-25RB#0

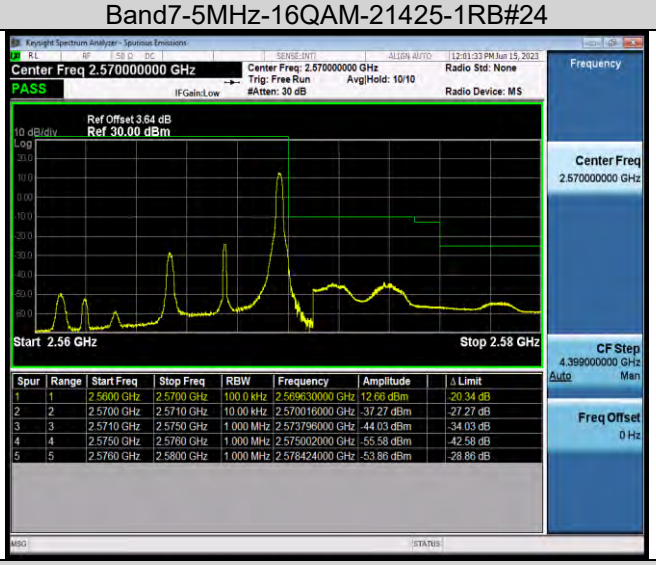


Band7-5MHz-16QAM-20775-1RB#0



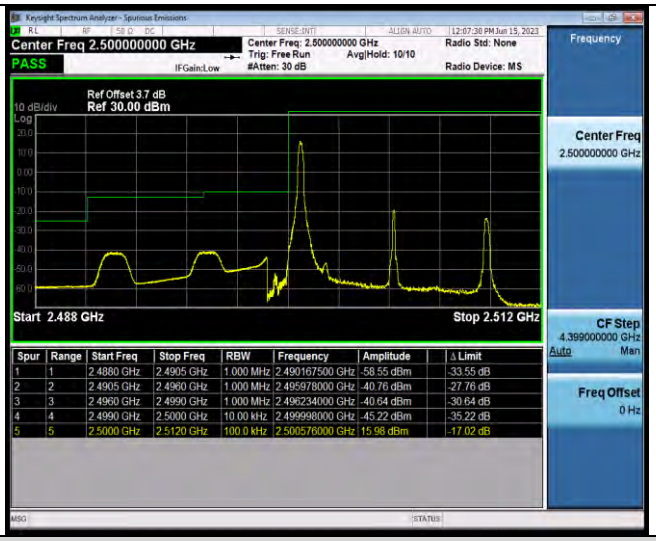
Band7-5MHz-16QAM-20775-25RB#0

Band7-5MHz-16QAM-21425-1RB#24



Band7-5MHz-16QAM-21425-25RB#0

Band7-10MHz-QPSK-20800-1RB#0

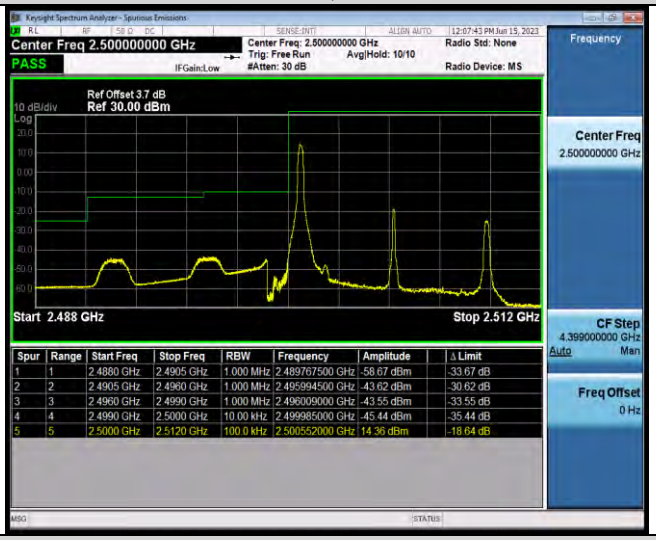


Band7-10MHz-QPSK-20800-50RB#0

Band7-10MHz-QPSK-21400-1RB#49

Band7-10MHz-QPSK-21400-50RB#0

Band7-10MHz-16QAM-20800-1RB#0

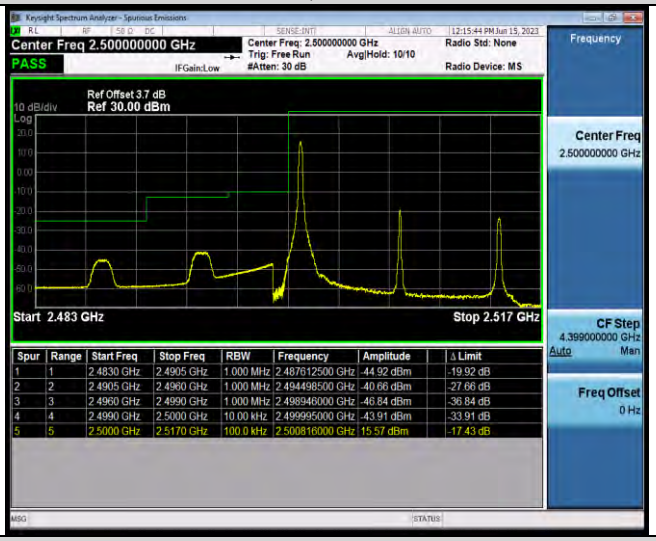


Band7-10MHz-16QAM-20800-50RB#0

Band7-10MHz-16QAM-21400-1RB#49

Band7-10MHz-16QAM-21400-50RB#0

Band7-15MHz-QPSK-20825-1RB#0

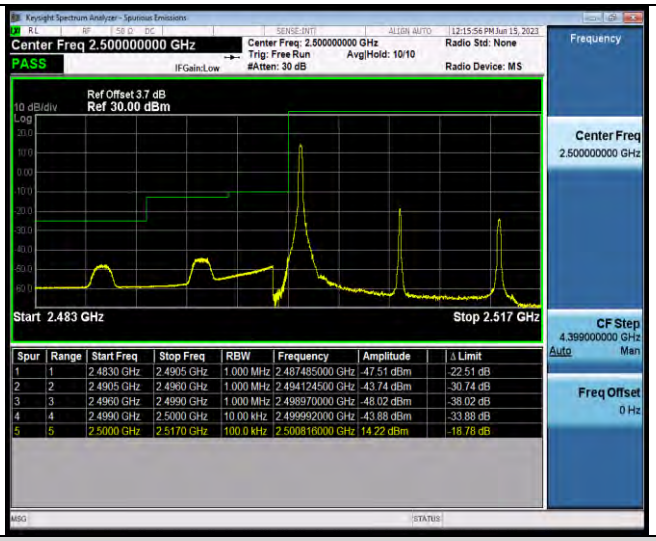


Band7-15MHz-QPSK-20825-75RB#0

Band7-15MHz-QPSK-21375-1RB#74

Band7-15MHz-QPSK-21375-75RB#0

Band7-15MHz-16QAM-20825-1RB#0

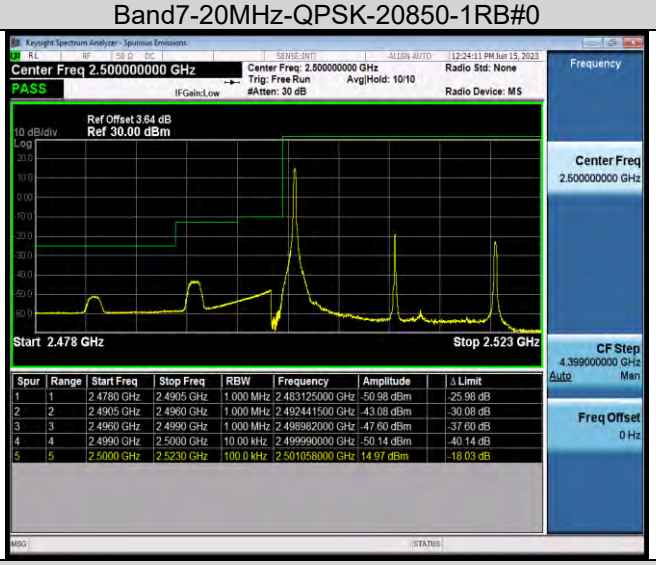


Band7-15MHz-16QAM-20825-75RB#0

Band7-15MHz-16QAM-21375-1RB#74

Band7-15MHz-16QAM-21375-75RB#0

Band7-20MHz-QPSK-20850-1RB#0

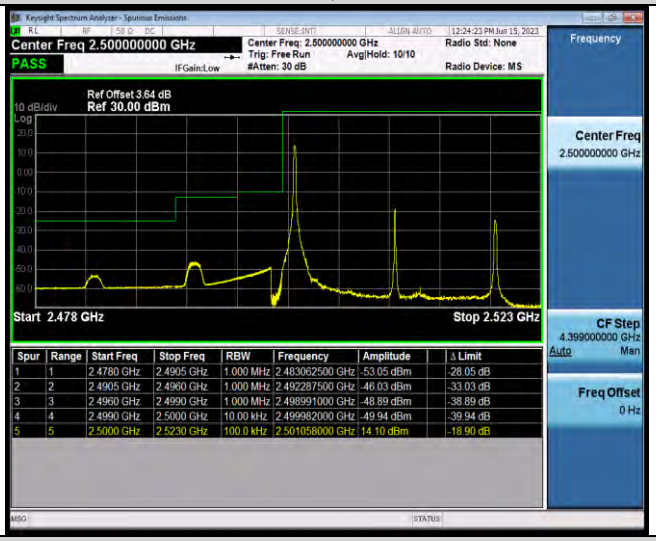


Band7-20MHz-QPSK-20850-100RB#0

Band7-20MHz-QPSK-21350-1RB#99

Band7-20MHz-QPSK-21350-100RB#0

Band7-20MHz-16QAM-20850-1RB#0



Band7-20MHz-16QAM-20850-100RB#0

Band7-20MHz-16QAM-21350-1RB#99

Band7-20MHz-16QAM-21350-100RB#0

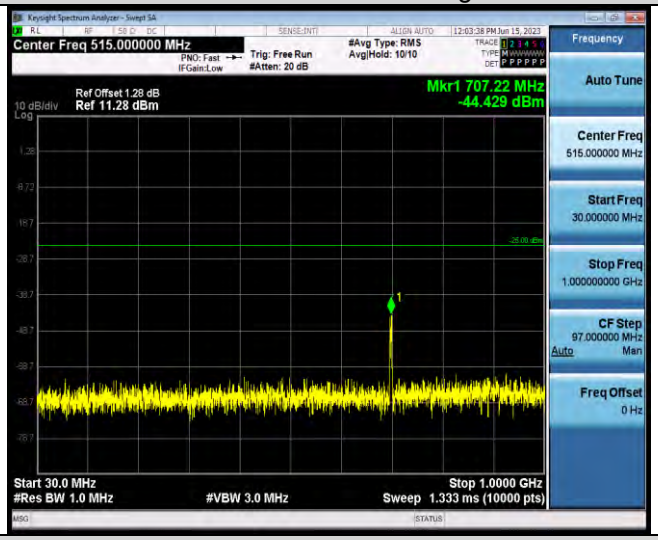
CONDUCTED SPURIOUS EMISSION

Test Result

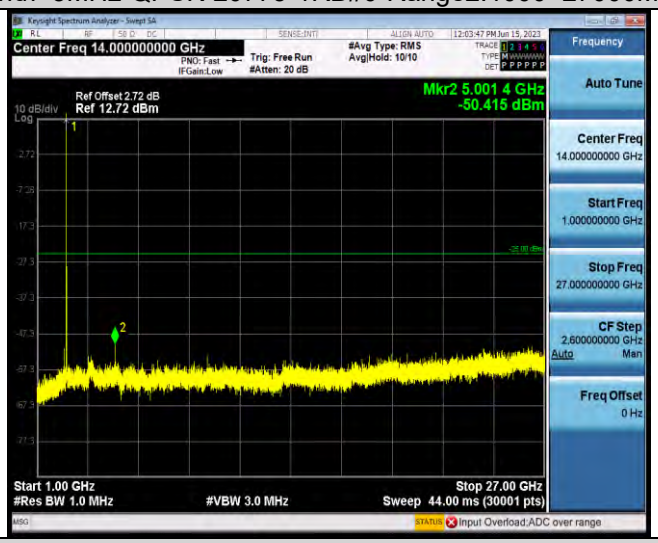
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	Range1:30~1000MHz	-44.43	PASS
Band7	5MHz	QPSK	20775	1RB#0	Range2:1000~27000MHz	-50.42	PASS
Band7	5MHz	QPSK	21100	1RB#0	Range1:30~1000MHz	-60.87	PASS
Band7	5MHz	QPSK	21100	1RB#0	Range2:1000~27000MHz	-49.34	PASS
Band7	5MHz	QPSK	21425	1RB#0	Range1:30~1000MHz	-44.59	PASS
Band7	5MHz	QPSK	21425	1RB#0	Range2:1000~27000MHz	-50.63	PASS
Band7	10MHz	QPSK	20800	1RB#0	Range1:30~1000MHz	-61.41	PASS
Band7	10MHz	QPSK	20800	1RB#0	Range2:1000~27000MHz	-49.41	PASS
Band7	10MHz	QPSK	21100	1RB#0	Range1:30~1000MHz	-60.62	PASS
Band7	10MHz	QPSK	21100	1RB#0	Range2:1000~27000MHz	-48.95	PASS
Band7	10MHz	QPSK	21400	1RB#0	Range1:30~1000MHz	-59.57	PASS
Band7	10MHz	QPSK	21400	1RB#0	Range2:1000~27000MHz	-50.73	PASS
Band7	15MHz	QPSK	20825	1RB#0	Range1:30~1000MHz	-60.34	PASS
Band7	15MHz	QPSK	20825	1RB#0	Range2:1000~27000MHz	-48.73	PASS
Band7	15MHz	QPSK	21100	1RB#0	Range1:30~1000MHz	-61.03	PASS
Band7	15MHz	QPSK	21100	1RB#0	Range2:1000~27000MHz	-50.02	PASS
Band7	15MHz	QPSK	21375	1RB#0	Range1:30~1000MHz	-60.63	PASS
Band7	15MHz	QPSK	21375	1RB#0	Range2:1000~27000MHz	-48.03	PASS
Band7	20MHz	QPSK	20850	1RB#0	Range1:30~1000MHz	-61.11	PASS
Band7	20MHz	QPSK	20850	1RB#0	Range2:1000~27000MHz	-47.6	PASS
Band7	20MHz	QPSK	21100	1RB#0	Range1:30~1000MHz	-60.92	PASS
Band7	20MHz	QPSK	21100	1RB#0	Range2:1000~27000MHz	-49.87	PASS
Band7	20MHz	QPSK	21350	1RB#0	Range1:30~1000MHz	-60.79	PASS
Band7	20MHz	QPSK	21350	1RB#0	Range2:1000~27000MHz	-50.73	PASS

Test Graphs

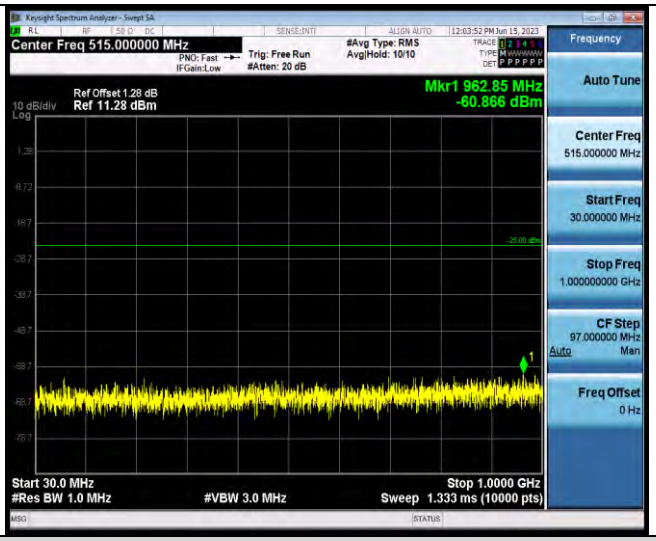
Band7-5MHz-QPSK-20775-1RB#0-Range1:30~1000MHz



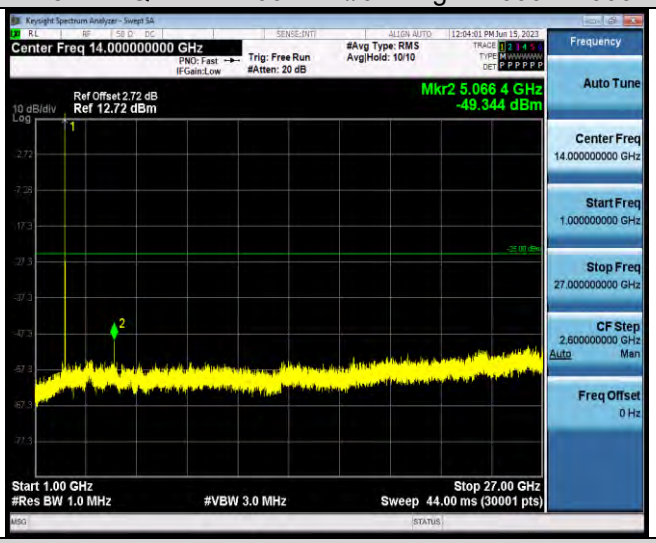
Band7-5MHz-QPSK-20775-1RB#0-Range2:1000~27000MHz



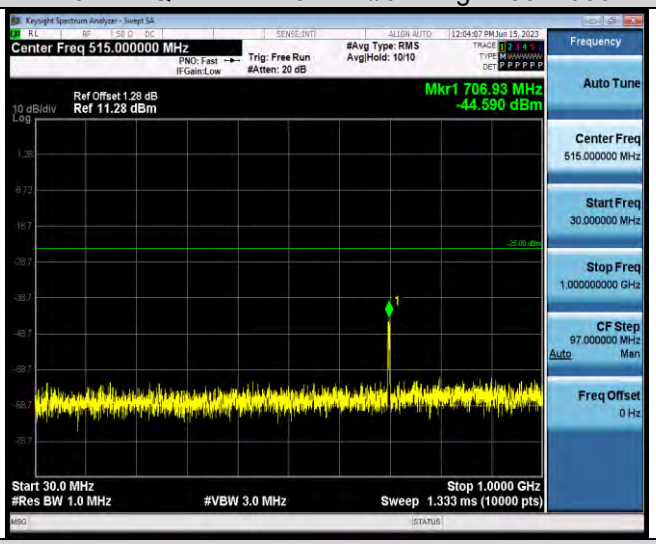
Band7-5MHz-QPSK-21100-1RB#0-Range1:30~1000MHz



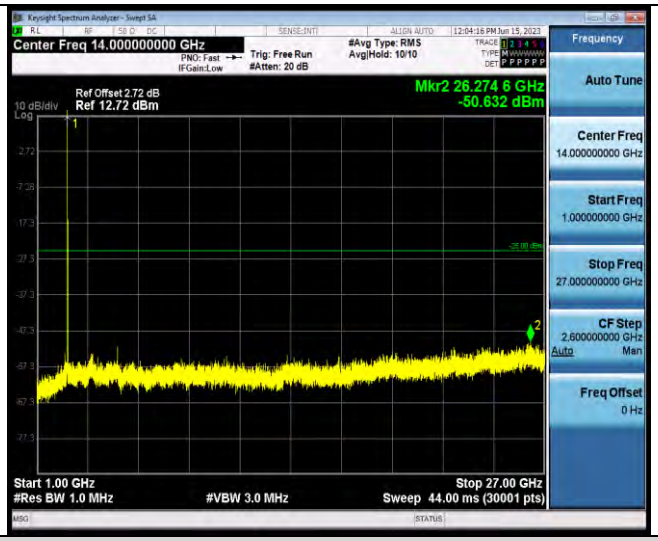
Band7-5MHz-QPSK-21100-1RB#0-Range2:1000~27000MHz



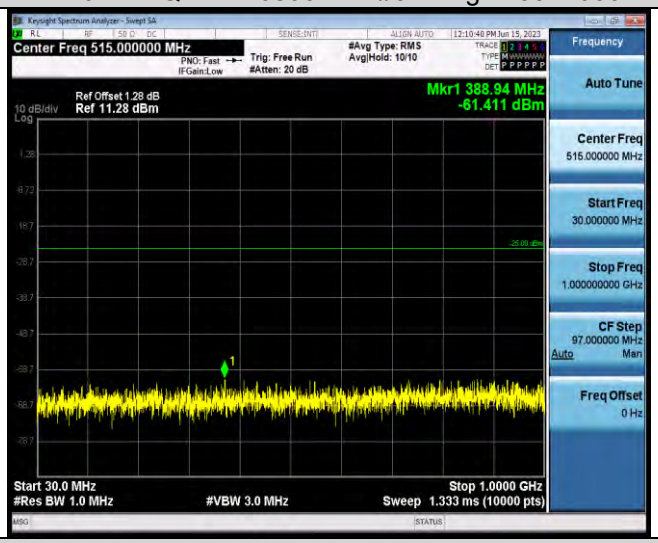
Band7-5MHz-QPSK-21425-1RB#0-Range1:30~1000MHz



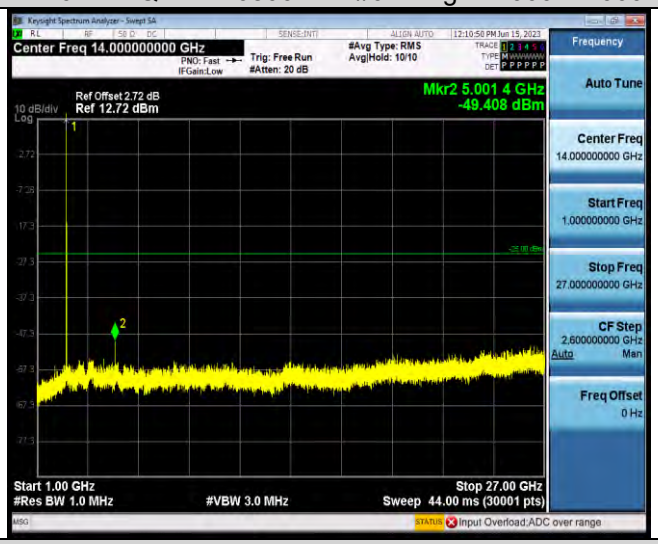
Band7-5MHz-QPSK-21425-1RB#0-Range2:1000~27000MHz



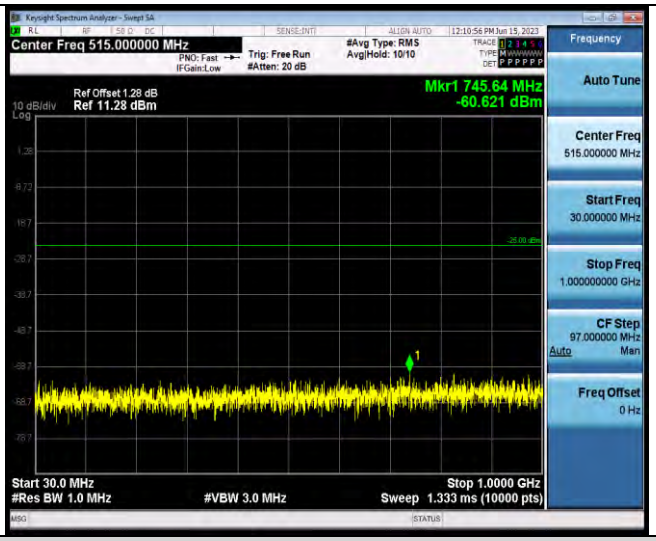
Band7-10MHz-QPSK-20800-1RB#0-Range1:30~1000MHz



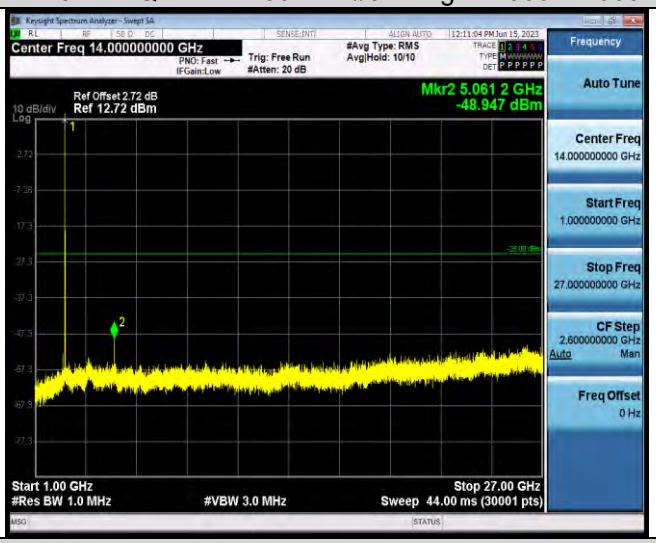
Band7-10MHz-QPSK-20800-1RB#0-Range2:1000~27000MHz



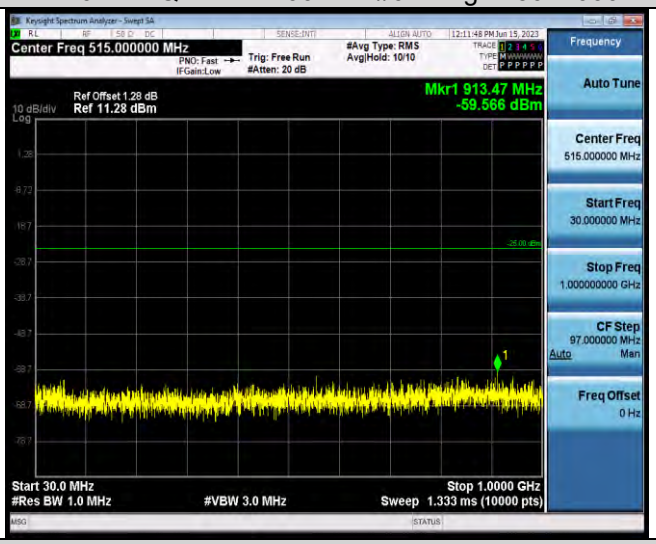
Band7-10MHz-QPSK-21100-1RB#0-Range1:30~1000MHz



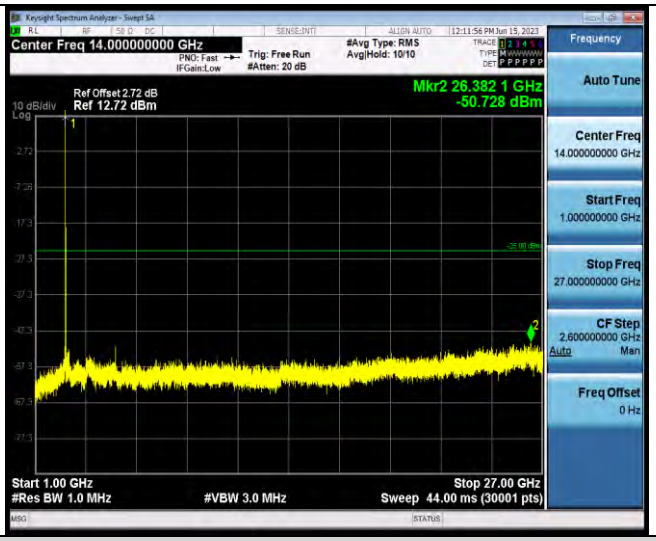
Band7-10MHz-QPSK-21100-1RB#0-Range2:1000~27000MHz



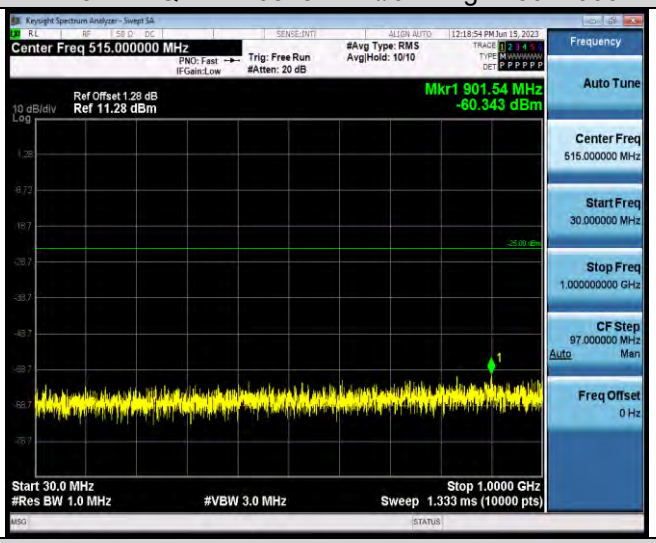
Band7-10MHz-QPSK-21400-1RB#0-Range1:30~1000MHz



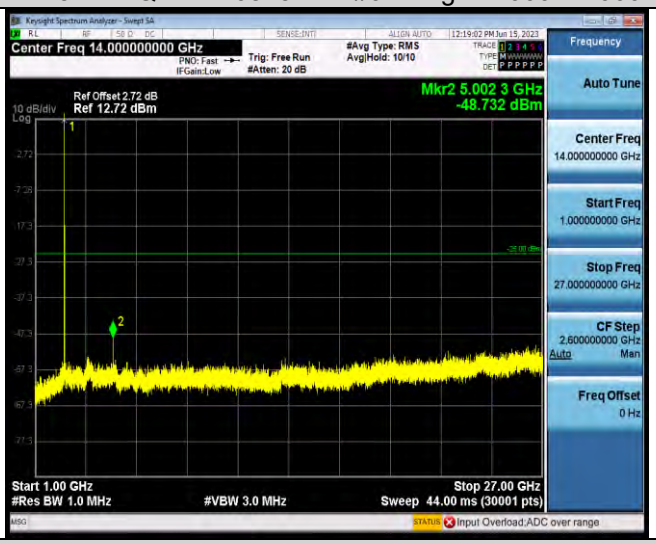
Band7-10MHz-QPSK-21400-1RB#0-Range2:1000~27000MHz



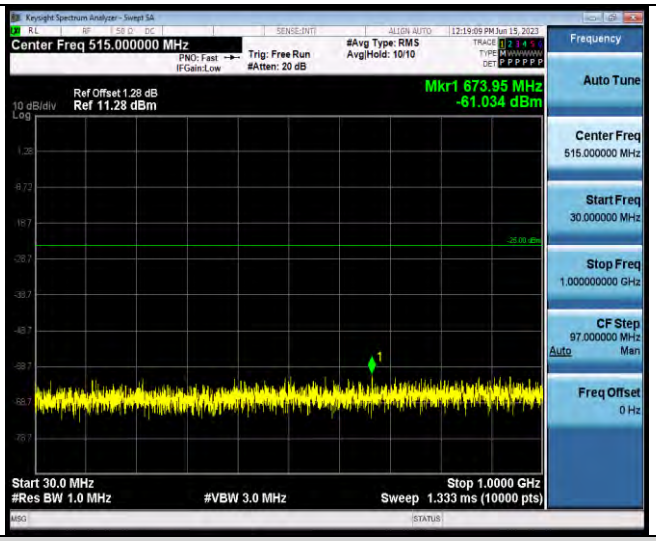
Band7-15MHz-QPSK-20825-1RB#0-Range1:30~1000MHz



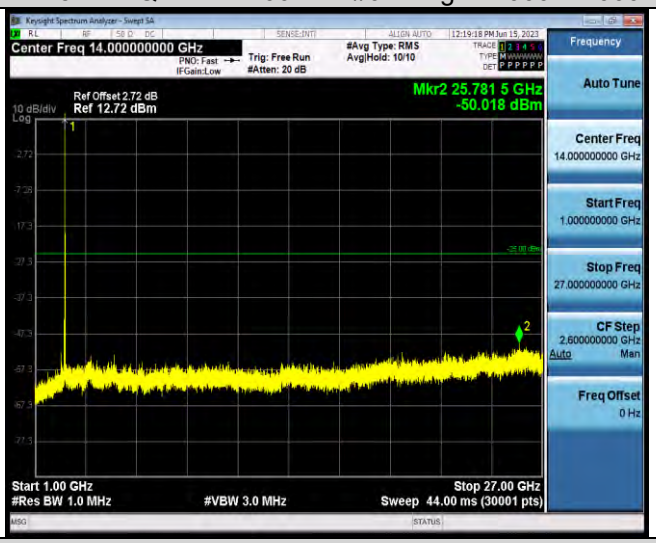
Band7-15MHz-QPSK-20825-1RB#0-Range2:1000~27000MHz



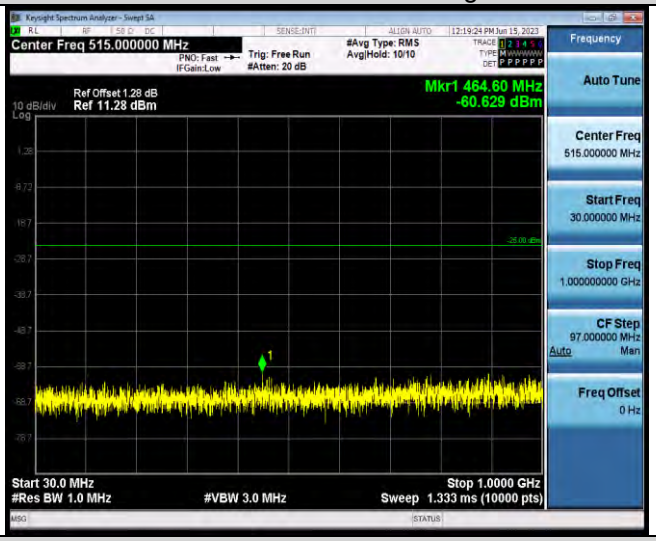
Band7-15MHz-QPSK-21100-1RB#0-Range1:30~1000MHz



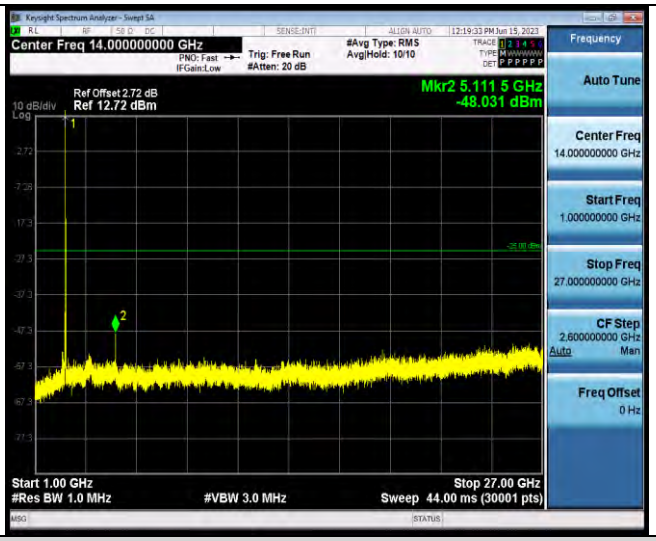
Band7-15MHz-QPSK-21100-1RB#0-Range2:1000~27000MHz



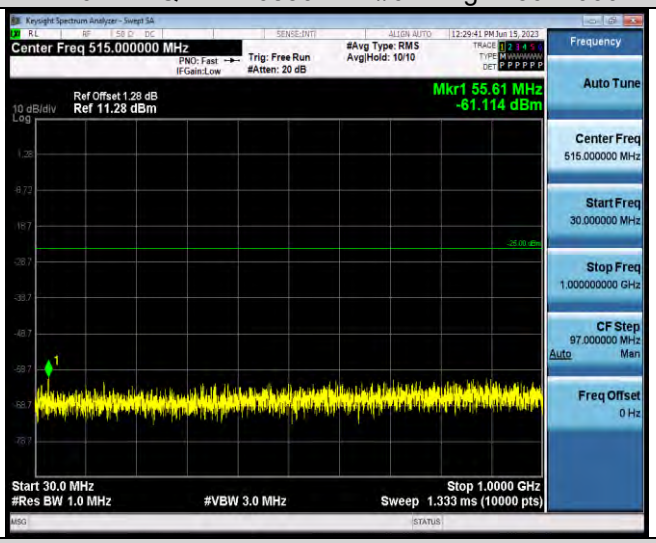
Band7-15MHz-QPSK-21375-1RB#0-Range1:30~1000MHz



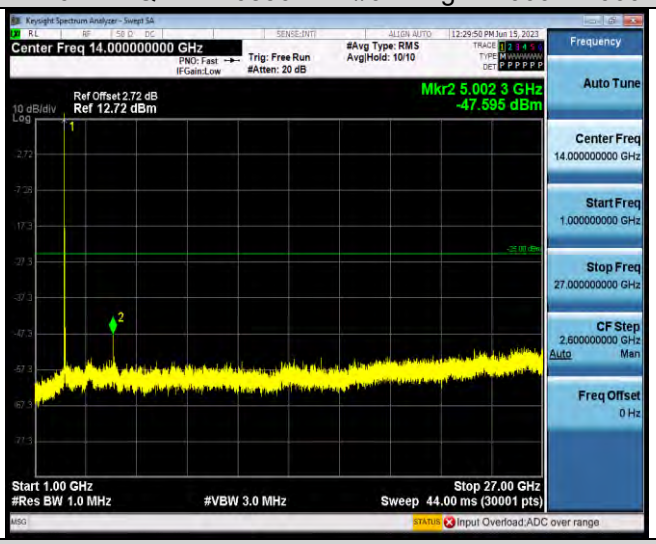
Band7-15MHz-QPSK-21375-1RB#0-Range2:1000~27000MHz



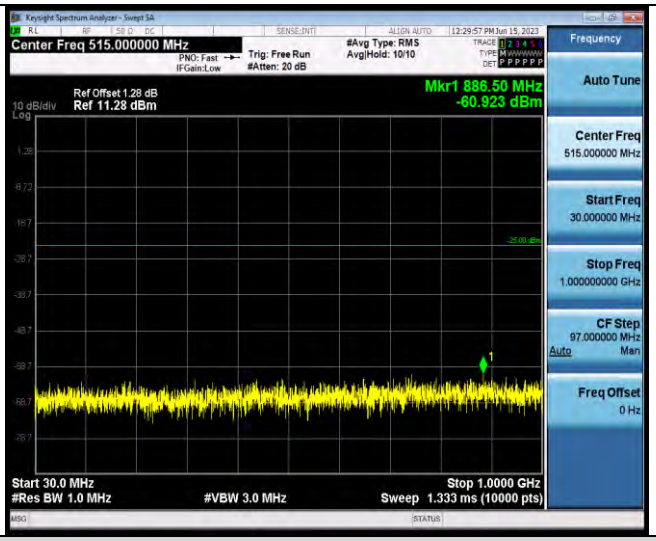
Band7-20MHz-QPSK-20850-1RB#0-Range1:30~1000MHz



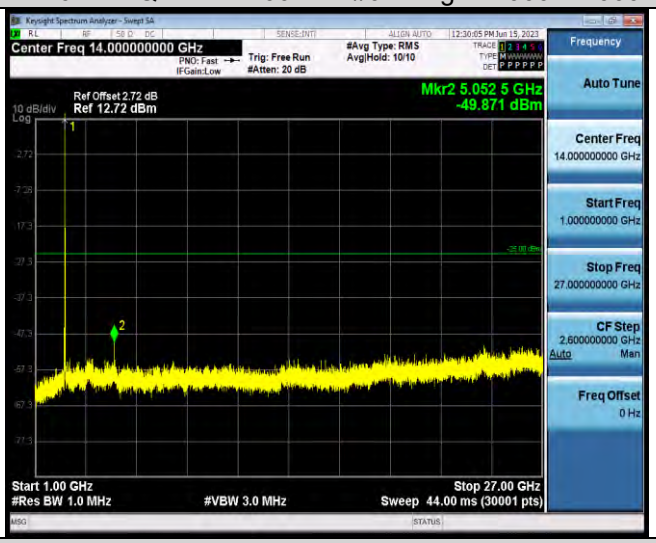
Band7-20MHz-QPSK-20850-1RB#0-Range2:1000~27000MHz



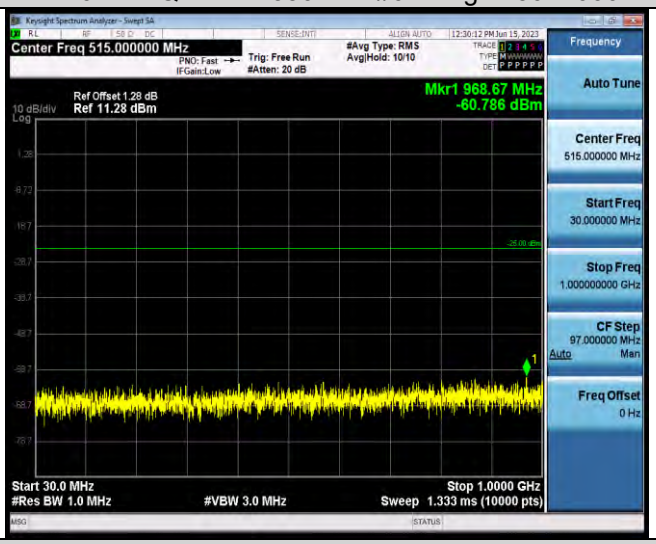
Band7-20MHz-QPSK-21100-1RB#0-Range1:30~1000MHz



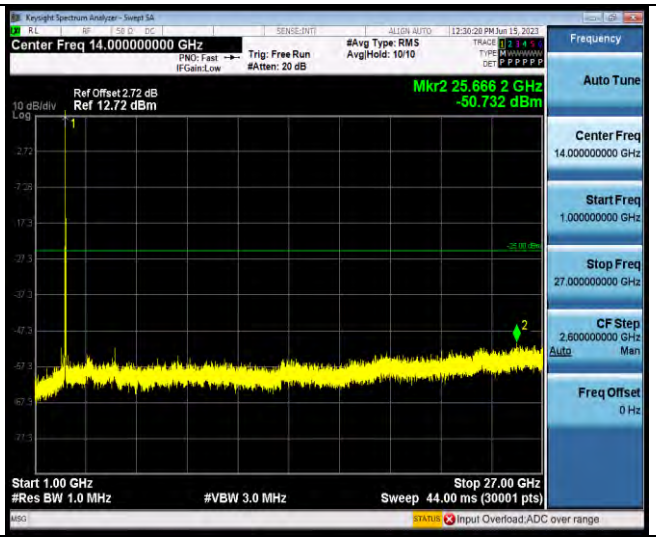
Band7-20MHz-QPSK-21100-1RB#0-Range2:1000~27000MHz



Band7-20MHz-QPSK-21350-1RB#0-Range1:30~1000MHz



Band7-20MHz-QPSK-21350-1RB#0-Range2:1000~27000MHz


Keysight Spectrum Analyzer - Swept SA
Center Freq 14.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 10/10
12:30:28 PM Jun 15, 2023
Frequency
Auto Tune
Ref Offset 2.72 dB
10 dB/div
Ref 12.72 dBm
Log
Mkr2 25.666 2 GHz
-50.732 dBm
Center Freq
14.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
27.000000000 GHz
CF Step
2.600000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 1.00 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 27.00 GHz
Sweep 44.00 ms (30001 pts)
Input Overload;ADC over range

FREQUENCY STABILITY

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	VL	NT	-5.15	-0.002052	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VN	NT	8.07	0.003215	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VH	NT	10.66	0.004247	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-9.06	-0.003574	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-4.99	-0.001968	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	-4.96	-0.001957	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VL	NT	3.92	0.001531	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VN	NT	4.42	0.001727	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VH	NT	-4.71	-0.001840	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	NV	-30	5.58	0.002223	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-20	7.72	0.003076	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-10	12.96	0.005163	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	0	4.69	0.001869	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	10	6.49	0.002586	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	20	10.34	0.004120	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	30	5.59	0.002227	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	40	11.03	0.004394	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	50	11.07	0.004410	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-7.75	-0.003057	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	-5.81	-0.002292	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-10	-9.38	-0.003700	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-6.81	-0.002686	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-6.11	-0.002410	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	-4.46	-0.001759	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	-5.38	-0.002122	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-5.52	-0.002178	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	-4.99	-0.001968	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-30	-3.53	-0.001379	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-20	-4.26	-0.001664	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-10	8.03	0.003137	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	0	-4.25	-0.001660	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	10	4.08	0.001594	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	20	-7.04	-0.002750	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	30	5.89	0.002301	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	40	-3.95	-0.001543	±2.5	PASS

Band7	20MHz	QPSK	21350	100RB#0	NV	50	-4.16	-0.001625	±2.5	PASS

MAX Deviation calculation

Frequency Stability	Frequency (MHz)	Limit Line(MHz)	Result
fL-|MAX(△f)|	2501.029500	≥2500	PASS
fH+|MAX(△f)|	2568.971000	≤2570	

Note：1. |MAX(△f)| = Max Deviation
2. fL = Occ low channel fl(-13dBm/MHz)
3. fH = Occ High channel fH(-13dBm/MHz)
4. |MAX(△f)| = 12.96 Hz.

LTE BAND12

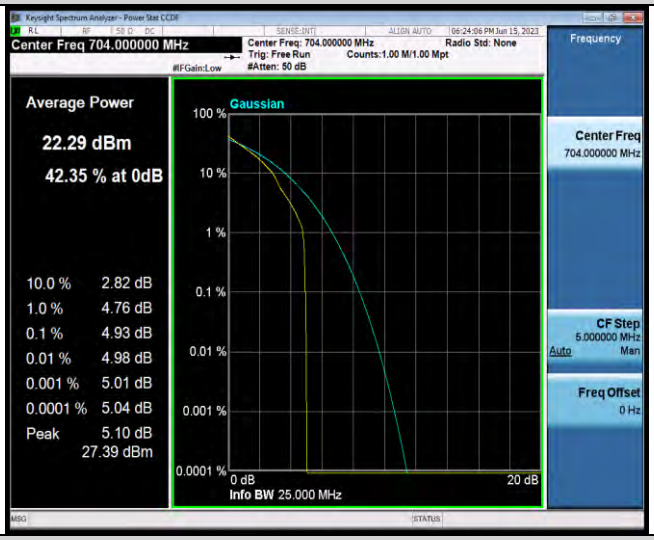
PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

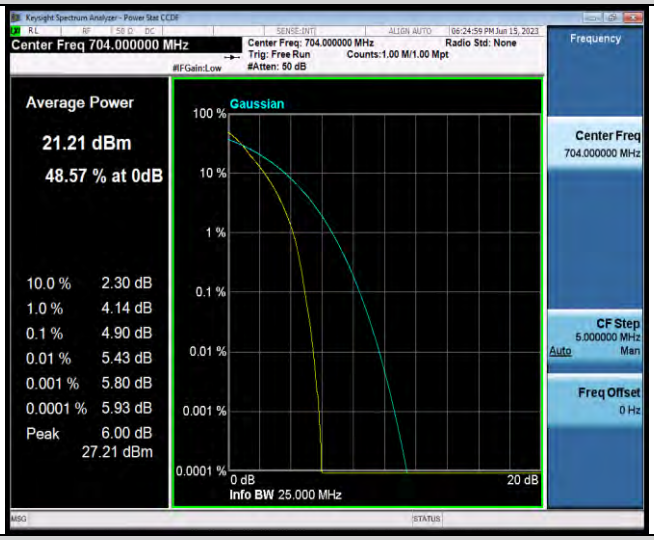
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	1RB#0	4.93	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	4.90	13	PASS
Band12	10MHz	QPSK	23095	1RB#0	4.36	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.19	13	PASS
Band12	10MHz	QPSK	23130	1RB#0	3.70	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.28	13	PASS
Band12	10MHz	16QAM	23060	1RB#0	5.76	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	5.80	13	PASS
Band12	10MHz	16QAM	23095	1RB#0	5.22	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	5.97	13	PASS
Band12	10MHz	16QAM	23130	1RB#0	4.52	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.13	13	PASS

Test Graphs

Band12-10MHz-QPSK-23060-1RB#0



Band12-10MHz-QPSK-23060-50RB#0



Band12-10MHz-QPSK-23095-1RB#0