LTE Band13 Test Data

Report No. ENS2309250189W00207R Page 16 and Page 17

Appendix A: Effective (Isotropic) Radiated Power Output Data

Report No. ENS2309250189W00207R Page 37

Appendix B: Peak-to-Average Ratio

Report No. ENS2309250189W00207R Page 20

Appendix C: 26dB Bandwidth and Occupied Bandwidth

Report No. ENS2309250189W00207R Page 22

Appendix D: Band Edge

Report No. ENS2309250189W00207R Page 23

Appendix E: Conducted Spurious Emission

Report No. ENS2309250189W00207R Page 36

Appendix F: Frequency Stability

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	23.96	PASS
Band13	5MHz	QPSK	23205	1RB#12	24.12	PASS
Band13	5MHz	QPSK	23205	1RB#24	24.04	PASS
Band13	5MHz	QPSK	23205	12RB#0	22.98	PASS
Band13	5MHz	QPSK	23205	12RB#6	22.97	PASS
Band13	5MHz	QPSK	23205	12RB#13	23.00	PASS
Band13	5MHz	QPSK	23205	25RB#0	23.08	PASS
Band13	5MHz	QPSK	23230	1RB#0	24.19	PASS
Band13	5MHz	QPSK	23230	1RB#12	24.14	PASS
Band13	5MHz	QPSK	23230	1RB#24	24.16	PASS
Band13	5MHz	QPSK	23230	12RB#0	23.02	PASS
Band13	5MHz	QPSK	23230	12RB#6	23.06	PASS
Band13	5MHz	QPSK	23230	12RB#13	23.02	PASS
Band13	5MHz	QPSK	23230	25RB#0	23.03	PASS
Band13	5MHz	QPSK	23255	1RB#0	24.09	PASS
Band13	5MHz	QPSK	23255	1RB#12	24.23	PASS
Band13	5MHz	QPSK	23255	1RB#24	24.07	PASS
Band13	5MHz	QPSK	23255	12RB#0	22.97	PASS
Band13	5MHz	QPSK	23255	12RB#6	23.00	PASS
Band13	5MHz	QPSK	23255	12RB#13	23.01	PASS
Band13	5MHz	QPSK	23255	25RB#0	23.08	PASS
Band13	5MHz	16QAM	23205	1RB#0	23.18	PASS
Band13	5MHz	16QAM	23205	1RB#12	23.29	PASS
Band13	5MHz	16QAM	23205	1RB#24	23.24	PASS
Band13	5MHz	16QAM	23205	12RB#0	22.01	PASS
Band13	5MHz	16QAM	23205	12RB#6	22.03	PASS
Band13	5MHz	16QAM	23205	12RB#13	22.08	PASS
Band13	5MHz	16QAM	23205	25RB#0	22.07	PASS
Band13	5MHz	16QAM	23230	1RB#0	23.16	PASS
Band13	5MHz	16QAM	23230	1RB#12	23.13	PASS
Band13	5MHz	16QAM	23230	1RB#24	23.24	PASS
Band13	5MHz	16QAM	23230	12RB#0	22.09	PASS
Band13	5MHz	16QAM	23230	12RB#6	22.08	PASS

Band13	5MHz	16QAM	23230	12RB#13	22.01	PASS
Band13	5MHz	16QAM	23230	25RB#0	22.06	PASS
Band13	5MHz	16QAM	23255	1RB#0	23.29	PASS
Band13	5MHz	16QAM	23255	1RB#12	23.43	PASS
Band13	5MHz	16QAM	23255	1RB#24	23.36	PASS
Band13	5MHz	16QAM	23255	12RB#0	22.04	PASS
Band13	5MHz	16QAM	23255	12RB#6	22.06	PASS
Band13	5MHz	16QAM	23255	12RB#13	22.10	PASS
Band13	5MHz	16QAM	23255	25RB#0	22.02	PASS
Band13	10MHz	QPSK	23230	1RB#0	24.00	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.97	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.99	PASS
Band13	10MHz	QPSK	23230	25RB#0	23.12	PASS
Band13	10MHz	QPSK	23230	25RB#12	23.12	PASS
Band13	10MHz	QPSK	23230	25RB#25	23.09	PASS
Band13	10MHz	QPSK	23230	50RB#0	23.03	PASS
Band13	10MHz	16QAM	23230	1RB#0	23.14	PASS
Band13	10MHz	16QAM	23230	1RB#24	23.21	PASS
Band13	10MHz	16QAM	23230	1RB#49	23.16	PASS
Band13	10MHz	16QAM	23230	25RB#0	22.09	PASS
Band13	10MHz	16QAM	23230	25RB#12	22.10	PASS
Band13	10MHz	16QAM	23230	25RB#25	22.07	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.86	PASS

Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	5.26	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.17	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.23	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	6.03	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	6.03	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.10	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.14	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.03	13	PASS

Test Graphs

Band13-5MHz-QPSK-23205-25RB#0

Band13-5MHz-QPSK-23230-25RB#0

Band13-5MHz-QPSK-23255-25RB#0

Band13-5MHz-16QAM-23205-25RB#0

Band13-5MHz-16QAM-23230-25RB#0

Band13-5MHz-16QAM-23255-25RB#0

Band13-10MHz-QPSK-23230-50RB#0

Band13-10MHz-16QAM-23230-50RB#0

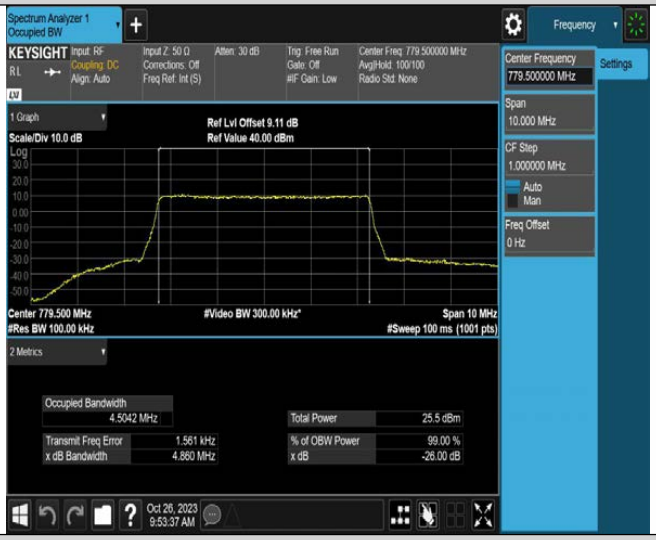
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

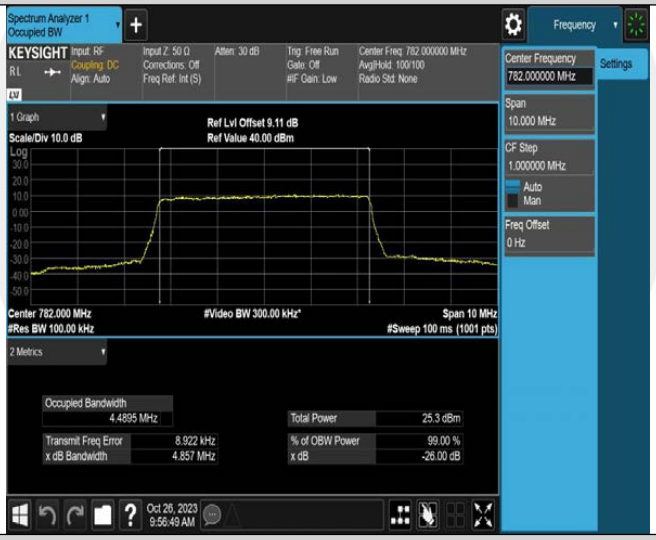
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5042	4.860	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.4895	4.857	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.4873	4.837	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5146	4.882	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.4928	4.847	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.4890	4.861	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9678	9.519	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9644	9.513	PASS

Test Graphs

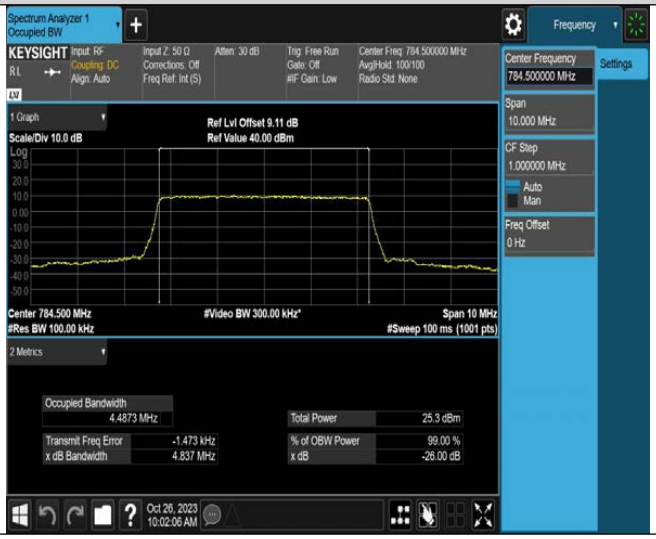
Band13-5MHz-QPSK-23205-25RB#0



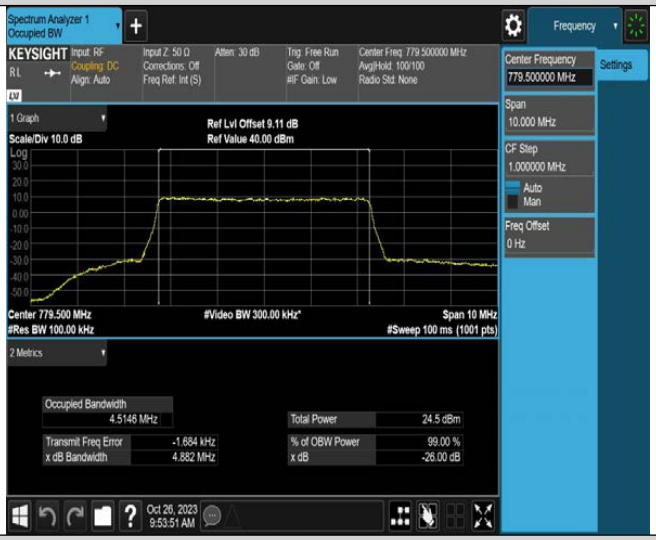
Band13-5MHz-QPSK-23230-25RB#0



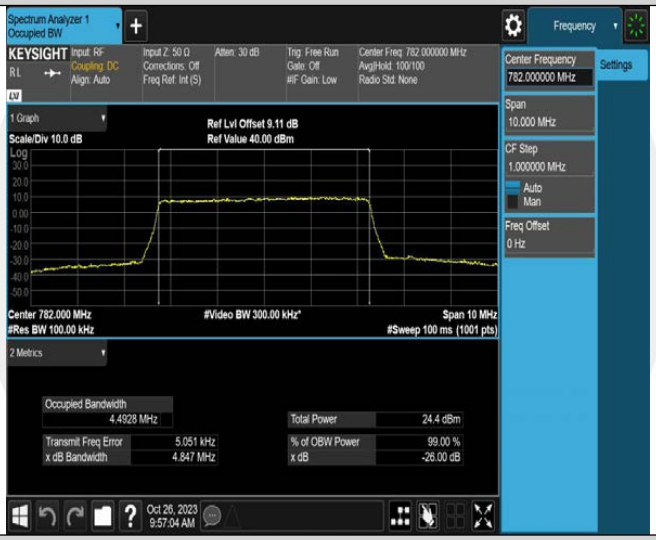
Band13-5MHz-QPSK-23255-25RB#0



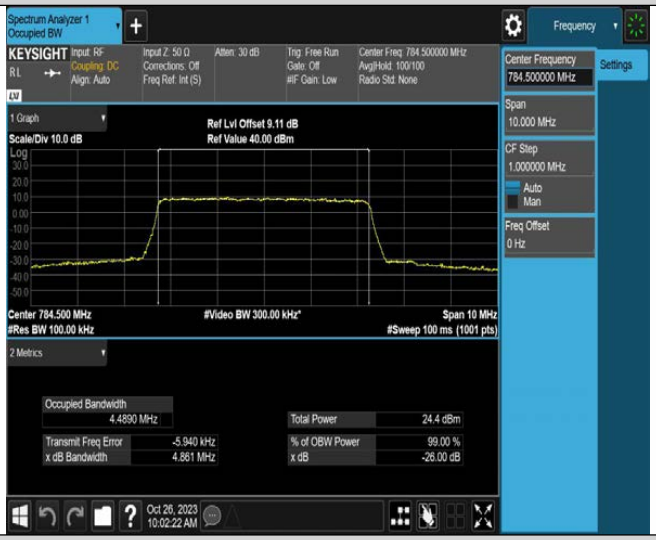
Band13-5MHz-16QAM-23205-25RB#0



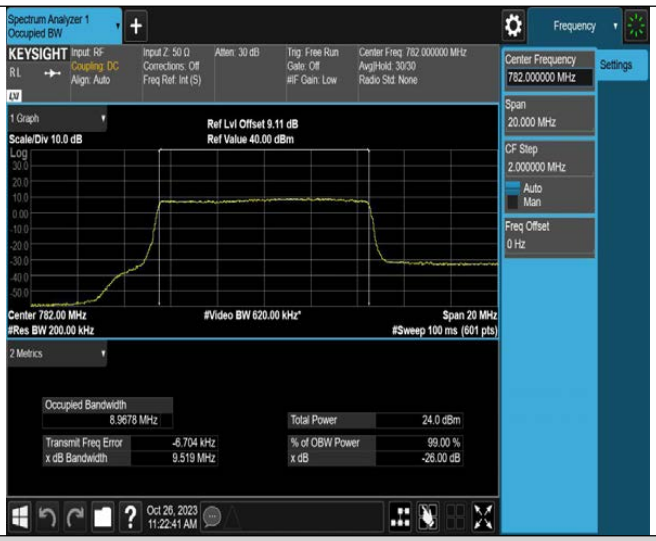
Band13-5MHz-16QAM-23230-25RB#0



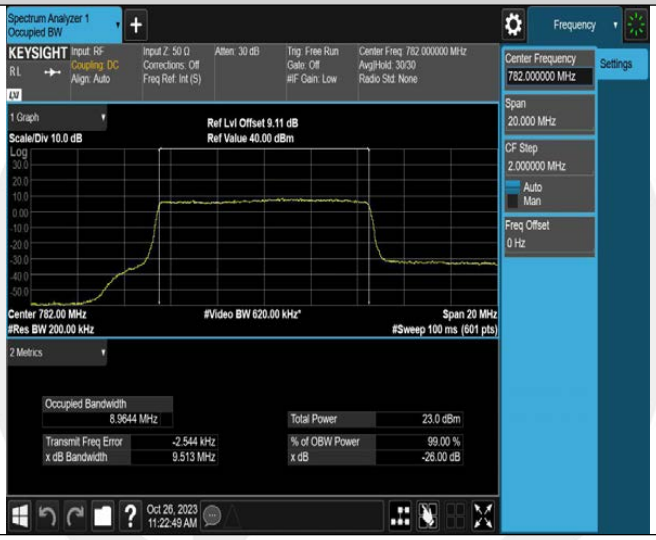
Band13-5MHz-16QAM-23255-25RB#0



Band13-10MHz-QPSK-23230-50RB#0



Band13-10MHz-16QAM-23230-50RB#0



Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	-25.72	PASS
Band13	5MHz	QPSK	23255	25RB#0	-27.16	PASS
Band13	5MHz	16QAM	23205	25RB#0	-26.90	PASS
Band13	5MHz	16QAM	23255	25RB#0	-27.66	PASS
Band13	10MHz	QPSK	23230	50RB#0	-28.79,-30.17	PASS
Band13	10MHz	16QAM	23230	50RB#0	-30.84,-31.21	PASS

Test Graphs

Band13-5MHz-QPSK-23205-25RB#0

Band13-5MHz-QPSK-23255-25RB#0

Band13-5MHz-16QAM-23205-25RB#0

Band13-5MHz-16QAM-23255-25RB#0

Band13-10MHz-QPSK-23230-50RB#0

Band13-10MHz-16QAM-23230-50RB#0

Appendix E: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	Range1:30~1000MHz	-46.19	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range3:763~775MHz	-69.83	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range4:793~805MHz	-70.78	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range2:1000~10000MHz	-36.36	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range5:1559~1610MHz	-60.99	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range1:30~1000MHz	-45.21	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range3:763~775MHz	-73.72	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range4:793~805MHz	-66.04	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range2:1000~10000MHz	-36.39	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range5:1559~1610MHz	-61.9	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range1:30~1000MHz	-46.55	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range3:763~775MHz	-73.72	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range4:793~805MHz	-60.78	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range2:1000~10000MHz	-36.28	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range5:1559~1610MHz	-60.35	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range1:30~1000MHz	-45.38	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range3:763~7	-69.26	PASS

					75MHz		
Band13	5MHz	16QAM	23205	1RB#0	Range4:793~805MHz	-72.6	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range2:1000~10000MHz	-35.23	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range5:1559~1610MHz	-59.9	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range1:30~1000MHz	-45.62	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range3:763~775MHz	-73.5	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range4:793~805MHz	-70.74	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range2:1000~10000MHz	-36.03	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range5:1559~1610MHz	-60.03	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range1:30~1000MHz	-44.08	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range3:763~775MHz	-74.1	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range4:793~805MHz	-61.42	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range2:1000~10000MHz	-35.77	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range5:1559~1610MHz	-60.92	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range1:30~1000MHz	-44.9	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range3:763~775MHz	-71.45	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range4:793~805MHz	-67.05	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range2:1000~10000MHz	-35.71	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range5:1559~1610MHz	-61.32	PASS

Band13	10MHz	16QAM	23230	1RB#0	Range1:30~1000MHz	-46.04	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range3:763~775MHz	-71.13	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range4:793~805MHz	-69.4	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range2:1000~10000MHz	-35.88	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range5:1559~1610MHz	-61	PASS

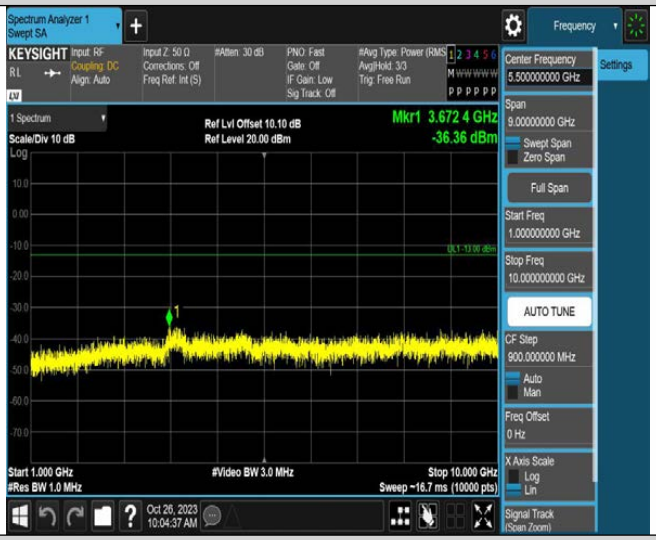
Test Graphs

Band13-5MHz-QPSK-23205-1RB#0-Range1:30~1000MHz

Band13-5MHz-QPSK-23205-1RB#0-Range3:763~775MHz

Band13-5MHz-QPSK-23205-1RB#0-Range4:793~805MHz

Band13-5MHz-QPSK-23205-1RB#0-Range2:1000~10000MHz



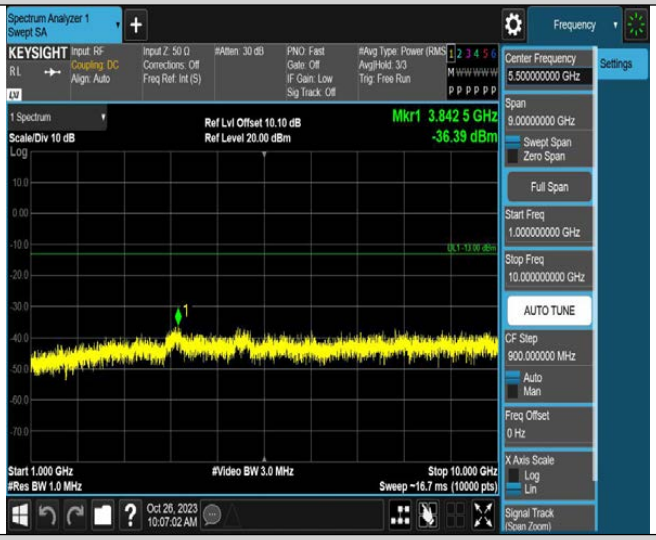
Band13-5MHz-QPSK-23205-1RB#0-Range5:1559~1610MHz

Band13-5MHz-QPSK-23230-1RB#0-Range1:30~1000MHz

Band13-5MHz-QPSK-23230-1RB#0-Range3:763~775MHz

Band13-5MHz-QPSK-23230-1RB#0-Range4:793~805MHz

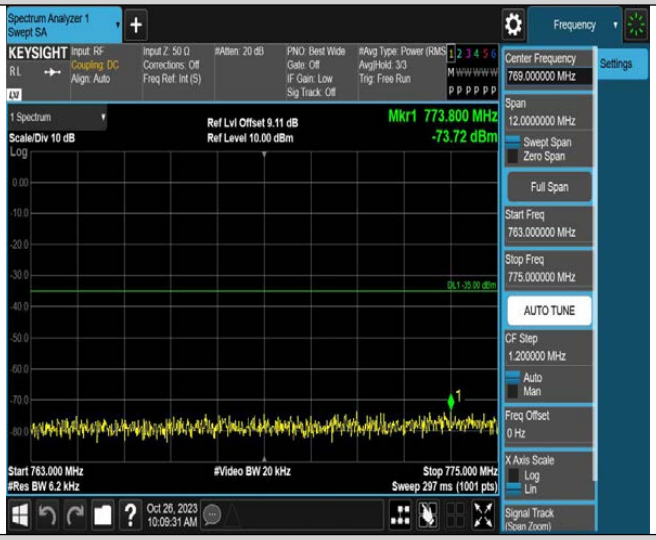
Band13-5MHz-QPSK-23230-1RB#0-Range2:1000~10000MHz



Band13-5MHz-QPSK-23230-1RB#0-Range5:1559~1610MHz

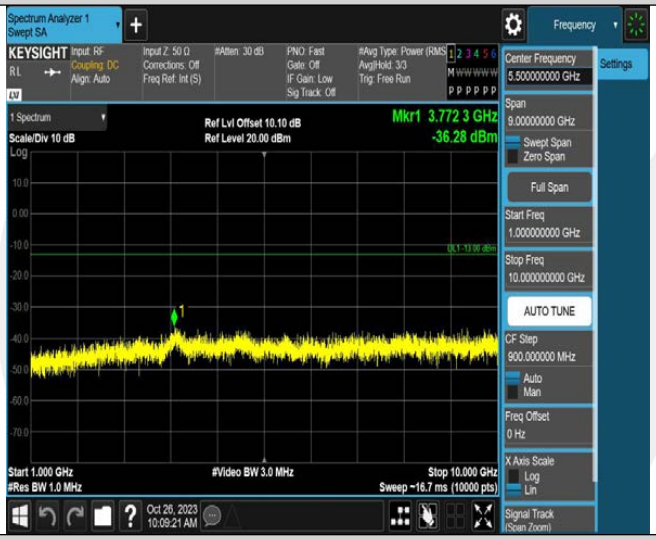
Band13-5MHz-QPSK-23255-1RB#0-Range1:30~1000MHz

Band13-5MHz-QPSK-23255-1RB#0-Range3:763~775MHz



Band13-5MHz-QPSK-23255-1RB#0-Range4:793~805MHz

Band13-5MHz-QPSK-23255-1RB#0-Range2:1000~10000MHz



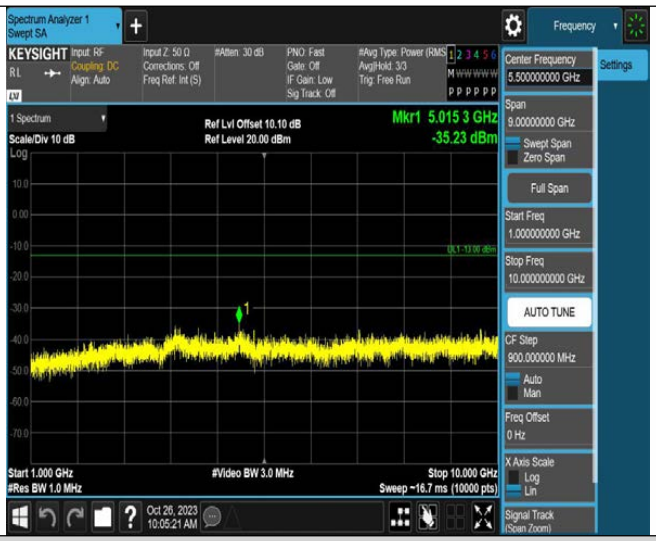
Band13-5MHz-QPSK-23255-1RB#0-Range5:1559~1610MHz

Band13-5MHz-16QAM-23205-1RB#0-Range1:30~1000MHz

Band13-5MHz-16QAM-23205-1RB#0-Range3:763~775MHz

Band13-5MHz-16QAM-23205-1RB#0-Range4:793~805MHz

Band13-5MHz-16QAM-23205-1RB#0-Range2:1000~10000MHz



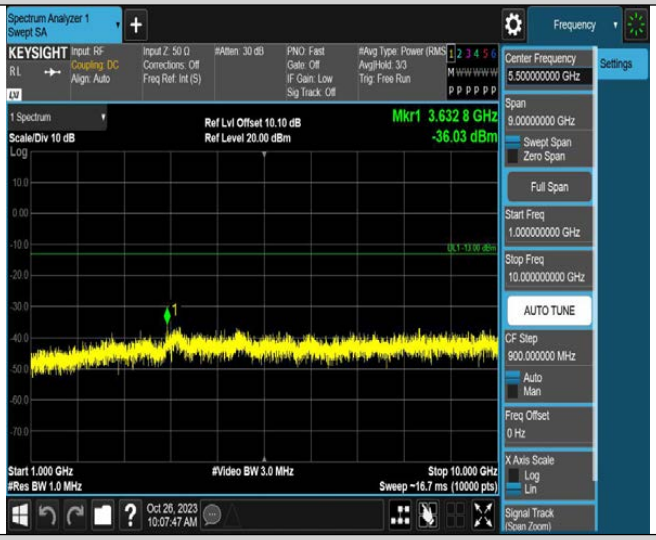
Band13-5MHz-16QAM-23205-1RB#0-Range5:1559~1610MHz

Band13-5MHz-16QAM-23230-1RB#0-Range1:30~1000MHz

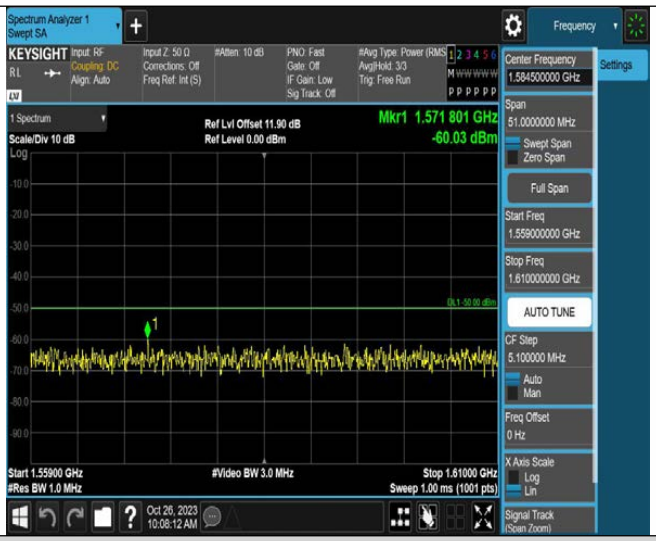
Band13-5MHz-16QAM-23230-1RB#0-Range3:763~775MHz

Band13-5MHz-16QAM-23230-1RB#0-Range4:793~805MHz

Band13-5MHz-16QAM-23230-1RB#0-Range2:1000~10000MHz



Band13-5MHz-16QAM-23230-1RB#0-Range5:1559~1610MHz

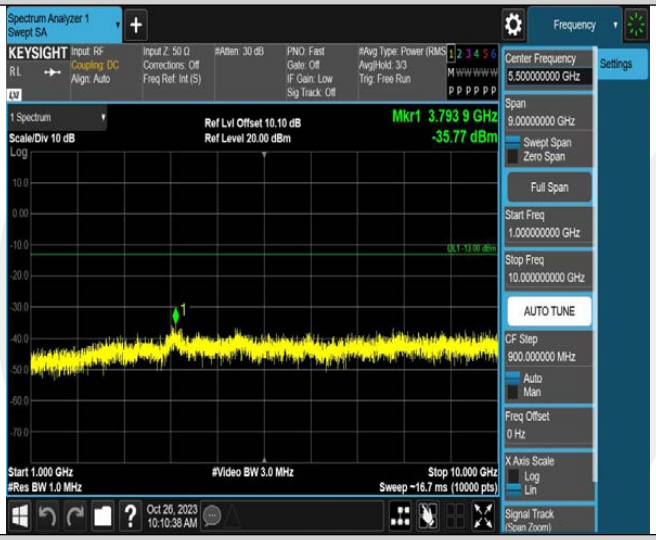


Band13-5MHz-16QAM-23255-1RB#0-Range1:30~1000MHz

Band13-5MHz-16QAM-23255-1RB#0-Range3:763~775MHz

Band13-5MHz-16QAM-23255-1RB#0-Range4:793~805MHz

Band13-5MHz-16QAM-23255-1RB#0-Range2:1000~10000MHz



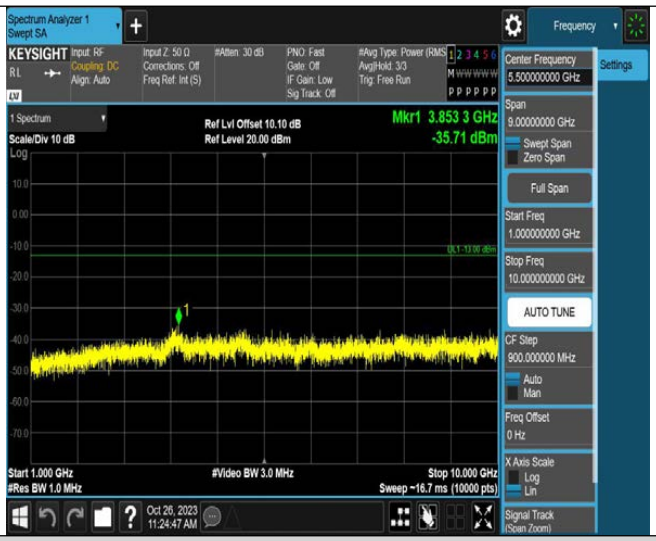
Band13-5MHz-16QAM-23255-1RB#0-Range5:1559~1610MHz

Band13-10MHz-QPSK-23230-1RB#0-Range1:30~1000MHz

Band13-10MHz-QPSK-23230-1RB#0-Range3:763~775MHz

Band13-10MHz-QPSK-23230-1RB#0-Range4:793~805MHz

Band13-10MHz-QPSK-23230-1RB#0-Range2:1000~10000MHz



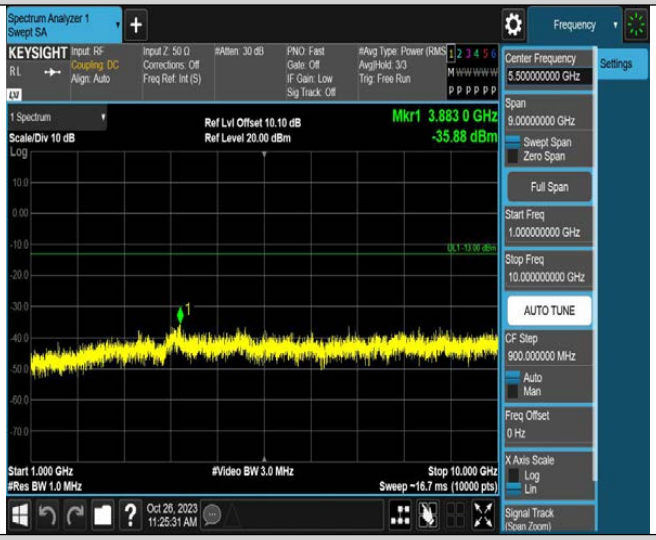
Band13-10MHz-QPSK-23230-1RB#0-Range5:1559~1610MHz

Band13-10MHz-16QAM-23230-1RB#0-Range1:30~1000MHz

Band13-10MHz-16QAM-23230-1RB#0-Range3:763~775MHz

Band13-10MHz-16QAM-23230-1RB#0-Range4:793~805MHz

Band13-10MHz-16QAM-23230-1RB#0-Range2:1000~10000MHz



Band13-10MHz-16QAM-23230-1RB#0-Range5:1559~1610MHz

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
#Atten: 10 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Avg|Hold: 3/3
Trig: Free Run
Frequency
Settings
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 11.90 dB
Ref Level 0.00 dBm
Mkr1 1.579 706 GHz
-61.00 dBm
Center Frequency
1.584500000 GHz
Span
51.0000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
1.559000000 GHz
Stop Freq
1.610000000 GHz
AUTO TUNE
CF Step
5.100000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Start 1.55900 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz
Stop 1.61000 GHz
Sweep 1.00 ms (1001 pts)
Oct 26, 2023
11:25:56 AM

Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	VL	NT	3.30	0.004233	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	VN	NT	6.51	0.008352	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	VH	NT	-2.70	-0.003464	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VL	NT	-7.72	-0.009872	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VN	NT	-5.31	-0.006790	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VH	NT	-2.79	-0.003568	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VL	NT	8.85	0.011281	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VN	NT	3.63	0.004627	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VH	NT	3.62	0.004614	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VL	NT	2.96	0.003797	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VN	NT	-5.24	-0.006722	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VH	NT	-1.99	-0.002553	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VL	NT	-2.13	-0.002724	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VN	NT	-4.46	-0.005703	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VH	NT	-2.36	-0.003018	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VL	NT	4.31	0.005494	±2.5	PASS

Band13	5MHz	16QAM	23255	25RB#0	VN	NT	9.27	0.011816	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VH	NT	3.86	0.004920	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VL	NT	-8.23	-0.010524	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VN	NT	-4.09	-0.005230	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	-7.78	-0.009949	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VL	NT	-7.72	-0.009872	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VN	NT	-5.41	-0.006918	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VH	NT	2.07	0.002647	±2.5	PASS

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	NV	-30	-1.57	-0.002014	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	-20	2.57	0.003297	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	-10	-3.85	-0.004939	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	0	3.35	0.004298	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	10	-1.56	-0.002001	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	20	-6.09	-0.007813	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	30	-6.74	-0.008647	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	40	-7.58	-0.009724	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	50	2.22	0.002848	±2.5	PASS

Band13	5MHz	QPSK	23230	25RB#0	NV	-30	-4.94	-0.006317	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	-20	-3.68	-0.004706	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	-10	-2.36	-0.003018	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	0	2.59	0.003312	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	10	3.93	0.005026	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	20	-3.88	-0.004962	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	30	2.15	0.002749	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	40	-5.78	-0.007391	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	50	2.52	0.003223	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-30	7.28	0.009280	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-20	1.77	0.002256	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-10	5.24	0.006679	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	0	2.02	0.002575	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	10	6.35	0.008094	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	20	4.45	0.005672	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	30	8.91	0.011358	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	40	3.72	0.004742	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	50	10.76	0.013716	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	-30	3.52	0.00451	±2.5	PASS

								6		
Band13	5MHz	16QAM	23205	25RB#0	NV	-20	4.71	0.006042	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	-10	5.14	0.006594	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	0	4.75	0.006094	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	10	-5.01	-0.006427	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	20	-4.19	-0.005375	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	30	4.71	0.006042	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	40	6.91	0.008865	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	50	-3.46	-0.004439	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-30	-3.42	-0.004373	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-20	-6.57	-0.008402	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-10	4.06	0.005192	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	0	3.00	0.003836	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	10	-2.23	-0.002852	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	20	-3.98	-0.005090	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	30	-4.92	-0.006292	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	40	-3.62	-0.004629	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	50	-7.70	-0.009847	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	-30	6.52	0.008311	±2.5	PASS

Band13	5MHz	16QAM	23255	25RB#0	NV	-20	7.57	0.009649	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	-10	7.64	0.009739	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	0	8.47	0.010797	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	10	9.46	0.012059	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	20	9.51	0.012122	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	30	8.78	0.011192	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	40	7.22	0.009203	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	50	5.46	0.006960	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-30	-5.78	-0.007391	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	-7.38	-0.009437	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-10	-2.59	-0.003312	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	-5.35	-0.006841	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	2.29	0.002928	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	-5.22	-0.006675	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	30	2.52	0.003223	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	-7.14	-0.009130	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	-4.52	-0.005780	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-30	-5.44	-0.006957	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-20	-3.85	-0.0049	±2.5	PASS

								23		
Band13	10MHz	16QAM	23230	50RB#0	NV	-10	-5.16	-0.006598	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	0	-6.92	-0.008849	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	10	-8.61	-0.011010	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	20	-4.13	-0.005281	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	30	-6.52	-0.008338	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	40	2.13	0.002724	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	50	-2.19	-0.002801	±2.5	PASS

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	64QAM	23205	1RB#0	23.79	PASS
Band13	5MHz	64QAM	23205	1RB#12	23.90	PASS
Band13	5MHz	64QAM	23205	1RB#24	23.81	PASS
Band13	5MHz	64QAM	23205	12RB#0	22.76	PASS
Band13	5MHz	64QAM	23205	12RB#6	22.78	PASS
Band13	5MHz	64QAM	23205	12RB#13	22.80	PASS
Band13	5MHz	64QAM	23205	25RB#0	22.75	PASS
Band13	5MHz	64QAM	23230	1RB#0	23.86	PASS
Band13	5MHz	64QAM	23230	1RB#12	23.90	PASS
Band13	5MHz	64QAM	23230	1RB#24	23.90	PASS
Band13	5MHz	64QAM	23230	12RB#0	22.77	PASS
Band13	5MHz	64QAM	23230	12RB#6	22.75	PASS
Band13	5MHz	64QAM	23230	12RB#13	22.65	PASS
Band13	5MHz	64QAM	23230	25RB#0	22.67	PASS
Band13	5MHz	64QAM	23255	1RB#0	23.92	PASS
Band13	5MHz	64QAM	23255	1RB#12	24.00	PASS
Band13	5MHz	64QAM	23255	1RB#24	23.90	PASS
Band13	5MHz	64QAM	23255	12RB#0	22.79	PASS
Band13	5MHz	64QAM	23255	12RB#6	22.80	PASS
Band13	5MHz	64QAM	23255	12RB#13	22.84	PASS
Band13	5MHz	64QAM	23255	25RB#0	22.87	PASS
Band13	10MHz	64QAM	23230	1RB#0	23.67	PASS
Band13	10MHz	64QAM	23230	1RB#24	23.70	PASS
Band13	10MHz	64QAM	23230	1RB#49	23.73	PASS
Band13	10MHz	64QAM	23230	25RB#0	22.88	PASS
Band13	10MHz	64QAM	23230	25RB#12	22.87	PASS
Band13	10MHz	64QAM	23230	25RB#25	22.75	PASS
Band13	10MHz	64QAM	23230	50RB#0	22.77	PASS

Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	5.19	13	PASS
Band13	5MHz	64QAM	23230	25RB#0	5.17	13	PASS
Band13	5MHz	64QAM	23255	25RB#0	5.18	13	PASS
Band13	10MHz	64QAM	23230	50RB#0	5.48	13	PASS

Test Graphs

Band13-5MHz-64QAM-23205-25RB#0

Band13-5MHz-64QAM-23230-25RB#0

Band13-5MHz-64QAM-23255-25RB#0

Band13-10MHz-64QAM-23230-50RB#0

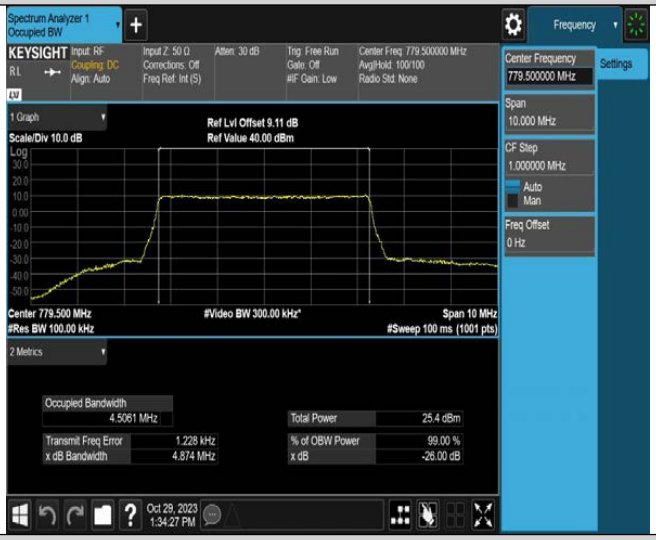
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

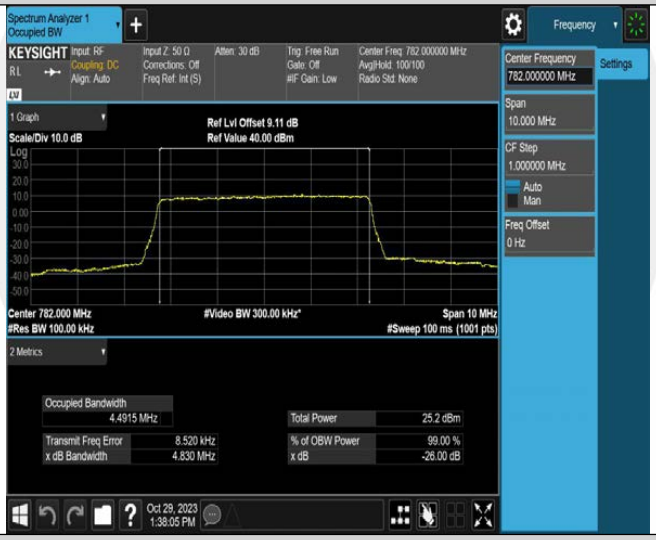
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	4.5061	4.874	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.4915	4.830	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.4863	4.815	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.9731	9.522	PASS

Test Graphs

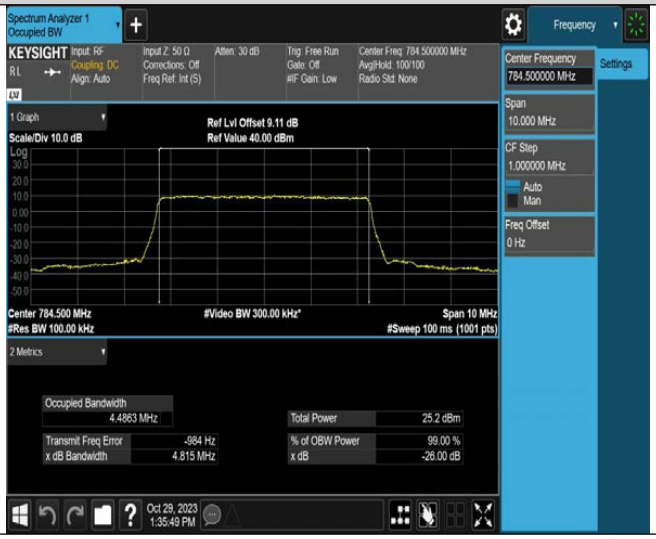
Band13-5MHz-64QAM-23205-25RB#0

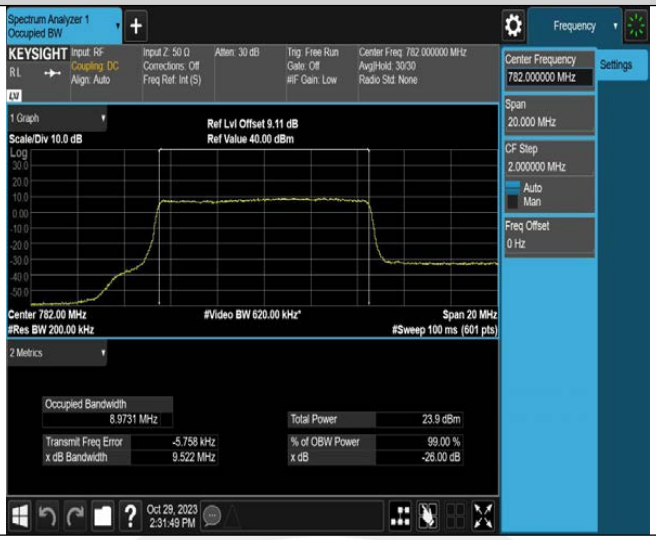


Band13-5MHz-64QAM-23230-25RB#0



Band13-5MHz-64QAM-23255-25RB#0



Band13-10MHz-64QAM-23230-50RB#0


Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	-25.87	PASS
Band13	5MHz	64QAM	23255	25RB#0	-27.94	PASS
Band13	10MHz	64QAM	23230	50RB#0	-28.86,-30.76	PASS

Test Graphs

Band13-5MHz-64QAM-23205-25RB#0

Band13-5MHz-64QAM-23255-25RB#0

Band13-10MHz-64QAM-23230-50RB#0

Appendix E: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	64QAM	23205	1RB#0	Range1:30~1000MHz	-45.6	PASS
Band13	5MHz	64QAM	23205	1RB#0	Range3:763~775MHz	-68.89	PASS
Band13	5MHz	64QAM	23205	1RB#0	Range4:793~805MHz	-71.6	PASS
Band13	5MHz	64QAM	23205	1RB#0	Range2:1000~10000MHz	-36.13	PASS
Band13	5MHz	64QAM	23205	1RB#0	Range5:1559~1610MHz	-60.5	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range1:30~1000MHz	-45.34	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range3:763~775MHz	-72.84	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range4:793~805MHz	-69.28	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range2:1000~10000MHz	-34.67	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range5:1559~1610MHz	-61.35	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range1:30~1000MHz	-45.62	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range3:763~775MHz	-73.49	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range4:793~805MHz	-63.15	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range2:1000~10000MHz	-34.79	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range5:1559~1610MHz	-61.35	PASS
Band13	10MHz	64QAM	23230	1RB#0	Range1:30~1000MHz	-44.43	PASS
Band13	10MHz	64QAM	23230	1RB#0	Range3:763~7	-70.32	PASS

					75MHz		
Band13	10MHz	64QAM	23230	1RB#0	Range4:793~805MHz	-67.87	PASS
Band13	10MHz	64QAM	23230	1RB#0	Range2:1000~10000MHz	-35.99	PASS
Band13	10MHz	64QAM	23230	1RB#0	Range5:1559~1610MHz	-60.14	PASS

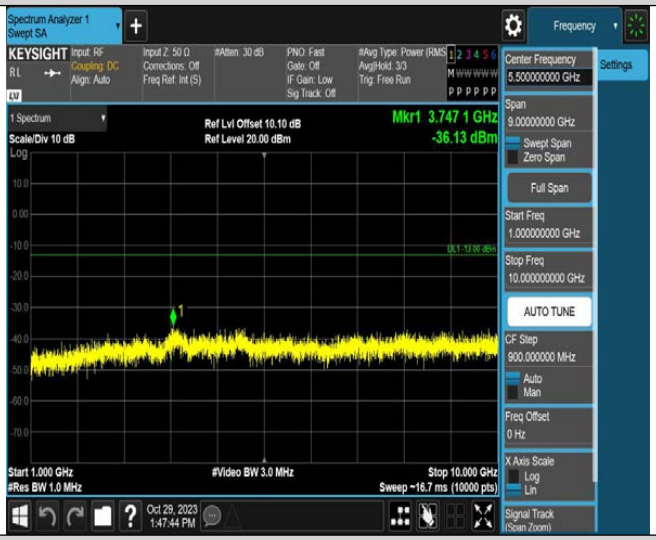
Test Graphs

Band13-5MHz-64QAM-23205-1RB#0-Range1:30~1000MHz

Band13-5MHz-64QAM-23205-1RB#0-Range3:763~775MHz

Band13-5MHz-64QAM-23205-1RB#0-Range4:793~805MHz

Band13-5MHz-64QAM-23205-1RB#0-Range2:1000~10000MHz



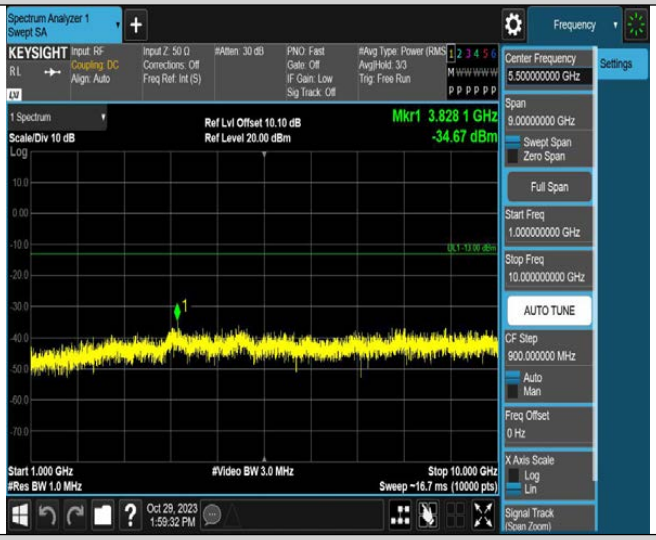
Band13-5MHz-64QAM-23205-1RB#0-Range5:1559~1610MHz

Band13-5MHz-64QAM-23230-1RB#0-Range1:30~1000MHz

Band13-5MHz-64QAM-23230-1RB#0-Range3:763~775MHz

Band13-5MHz-64QAM-23230-1RB#0-Range4:793~805MHz

Band13-5MHz-64QAM-23230-1RB#0-Range2:1000~10000MHz



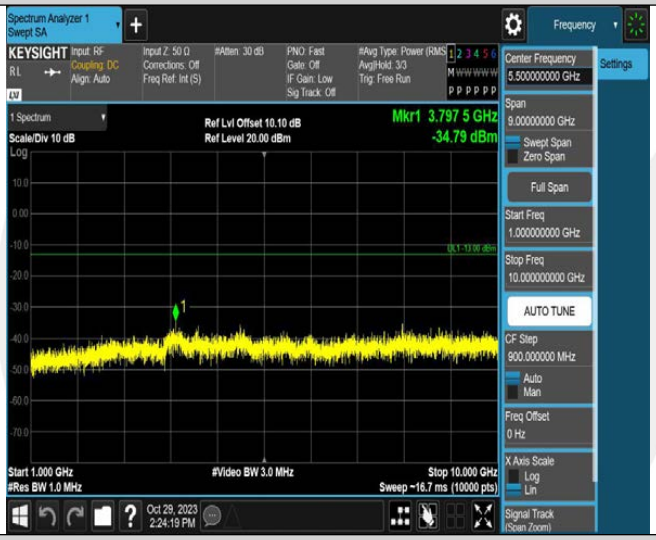
Band13-5MHz-64QAM-23230-1RB#0-Range5:1559~1610MHz

Band13-5MHz-64QAM-23255-1RB#0-Range1:30~1000MHz

Band13-5MHz-64QAM-23255-1RB#0-Range3:763~775MHz

Band13-5MHz-64QAM-23255-1RB#0-Range4:793~805MHz

Band13-5MHz-64QAM-23255-1RB#0-Range2:1000~10000MHz



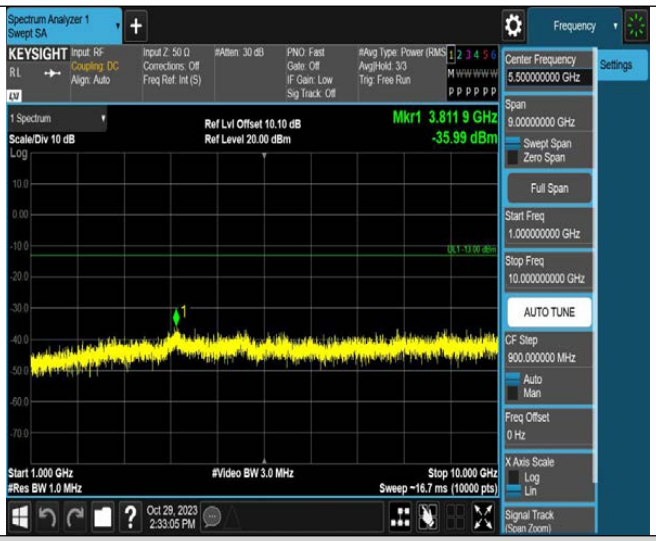
Band13-5MHz-64QAM-23255-1RB#0-Range5:1559~1610MHz

Band13-10MHz-64QAM-23230-1RB#0-Range1:30~1000MHz

Band13-10MHz-64QAM-23230-1RB#0-Range3:763~775MHz

Band13-10MHz-64QAM-23230-1RB#0-Range4:793~805MHz

Band13-10MHz-64QAM-23230-1RB#0-Range2:1000~10000MHz



Band13-10MHz-64QAM-23230-1RB#0-Range5:1559~1610MHz

Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	VL	NT	2.35	0.003015	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	VN	NT	-4.08	-0.005234	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	VH	NT	3.81	0.004888	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	VL	NT	-8.75	-0.011189	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	VN	NT	-4.01	-0.005128	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	VH	NT	-7.11	-0.009092	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	VL	NT	7.12	0.009076	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	VN	NT	10.03	0.012785	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	VH	NT	-4.26	-0.005430	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	VL	NT	3.60	0.004604	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	VN	NT	-8.28	-0.010588	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	VH	NT	-2.40	-0.003069	±2.5	PASS

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	NV	-30	-5.39	-0.006915	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	-20	9.24	0.011854	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	-10	-3.49	-0.0044	±2.5	PASS

								77		
Band13	5MHz	64QAM	23205	25RB#0	NV	0	-3.81	-0.004888	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	10	8.64	0.011084	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	20	8.23	0.010558	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	30	3.83	0.004913	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	40	7.25	0.009301	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	50	-5.44	-0.006979	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	-30	-8.84	-0.011304	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	-20	-7.20	-0.009207	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	-10	-2.90	-0.003708	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	0	-3.22	-0.004118	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	10	-3.55	-0.004540	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	20	-10.53	-0.013465	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	30	-4.03	-0.005153	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	40	-7.00	-0.008951	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	50	-7.84	-0.010026	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	-30	6.82	0.008693	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	-20	9.44	0.012033	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	-10	10.53	0.013423	±2.5	PASS

Band13	5MHz	64QAM	23255	25RB#0	NV	0	3.92	0.004997	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	10	7.88	0.010045	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	20	8.58	0.010937	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	30	9.63	0.012275	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	40	3.00	0.003824	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	50	3.05	0.003888	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	-30	-1.75	-0.002238	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	-20	-5.98	-0.007647	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	-10	-7.70	-0.009847	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	0	3.96	0.005064	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	10	-8.35	-0.010678	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	20	-2.69	-0.003440	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	30	5.92	0.007570	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	40	-6.90	-0.008824	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	50	3.40	0.004348	±2.5	PASS