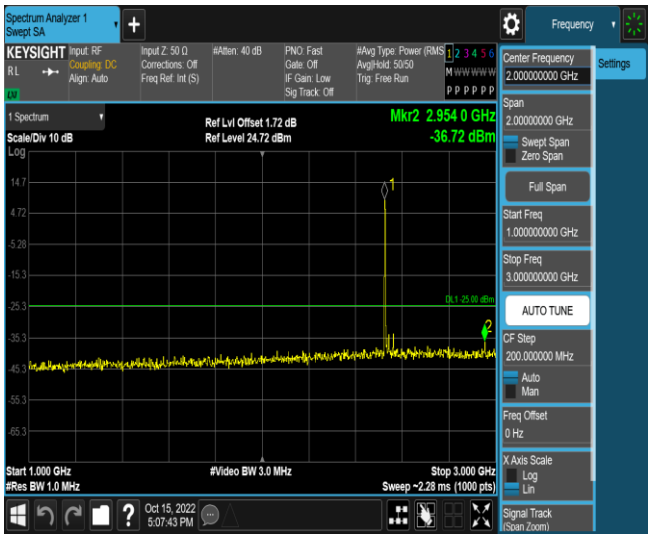
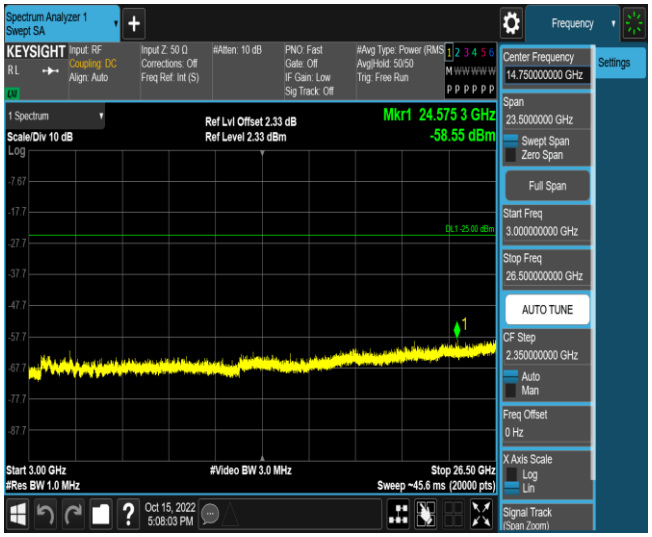
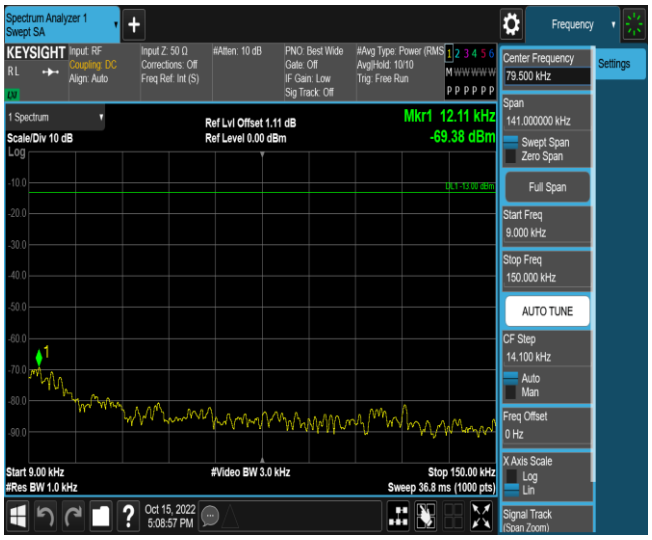


Band7-20MHz-16QAM-21100-1RB#0-Range5:3000~26500MHz

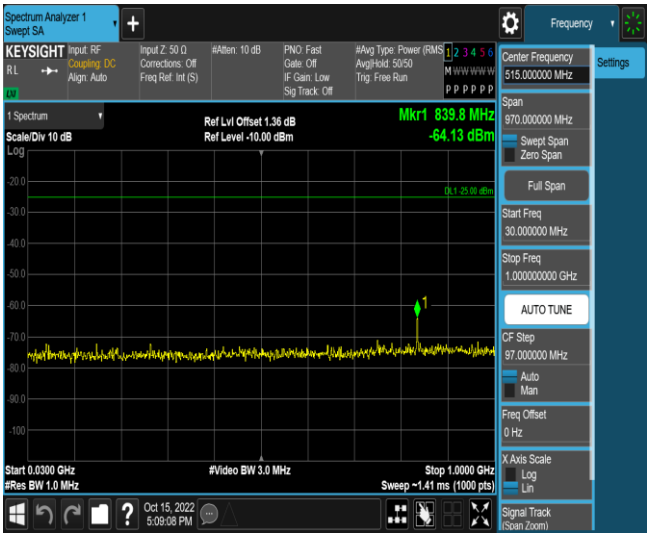


Band7-20MHz-16QAM-21350-1RB#0-Range1:0.009~0.15MHz

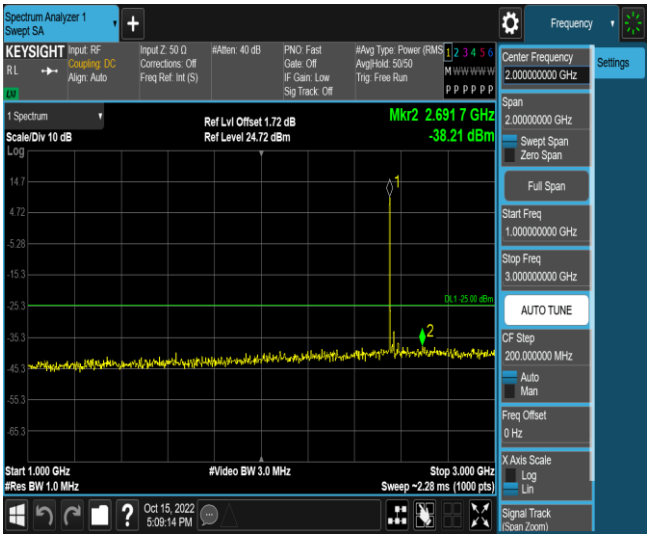


Band7-20MHz-16QAM-21350-1RB#0-Range2:0.15~30MHz

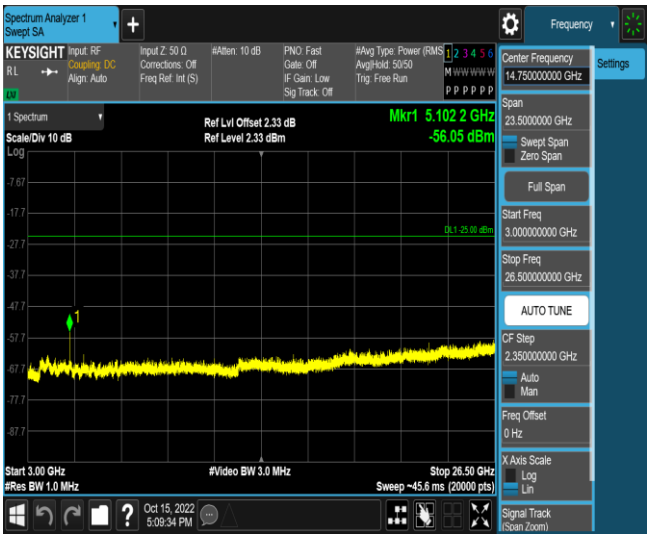
Band7-20MHz-16QAM-21350-1RB#0-Range3:30~1000MHz



Band7-20MHz-16QAM-21350-1RB#0-Range4:1000~3000MHz



Band7-20MHz-16QAM-21350-1RB#0-Range5:3000~26500MHz


Spectrum Analyzer 1
Swept SA
Frequency
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: 50/50
Trig: Free Run
Center Frequency
14.750000000 GHz
Settings
Span
23.5000000 GHz
Swept Span
Zero Span
Full Span
Start Freq
3.000000000 GHz
Stop Freq
26.500000000 GHz
AUTO TUNE
CF Step
2.350000000 GHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 2.33 dB
Ref Level 2.33 dBm
Mkr1 5.102 2 GHz
-56.05 dBm
D1 -25.00 dBm
Start 3.00 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz
Stop 26.50 GHz
Sweep ~45.6 ms (20000 pts)
Oct 15, 2022
5:09:34 PM

Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	VL	NT	7.88	0.003149	±2.5	PASS
Band7	5MHz	QPSK	20775	25RB#0	VN	NT	-14.33	-0.005726	±2.5	PASS
Band7	5MHz	QPSK	20775	25RB#0	VH	NT	-13.40	-0.005355	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	VL	NT	5.88	0.002320	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	VN	NT	15.58	0.006146	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	VH	NT	9.23	0.003641	±2.5	PASS
Band7	5MHz	QPSK	21425	25RB#0	VL	NT	-10.30	-0.004012	±2.5	PASS
Band7	5MHz	QPSK	21425	25RB#0	VN	NT	14.49	0.005644	±2.5	PASS
Band7	5MHz	QPSK	21425	25RB#0	VH	NT	-8.61	-0.003353	±2.5	PASS
Band7	5MHz	16QAM	20775	25RB#0	VL	NT	-8.91	-0.003560	±2.5	PASS
Band7	5MHz	16QAM	20775	25RB#0	VN	NT	-17.11	-0.006837	±2.5	PASS
Band7	5MHz	16QAM	20775	25RB#0	VH	NT	-13.85	-0.005534	±2.5	PASS
Band7	5MHz	16QAM	21100	25RB#0	VL	NT	-3.48	-0.001373	±2.5	PASS
Band7	5MHz	16QAM	21100	25RB#0	VN	NT	8.61	0.003396	±2.5	PASS
Band7	5MHz	16QAM	21100	25RB#0	VH	NT	5.04	0.001988	±2.5	PASS
Band7	5MHz	16QAM	21425	25RB#0	VL	NT	-13.13	-0.005114	±2.5	PASS
Band7	5MHz	16QAM	21425	25RB#0	VN	NT	-6.69	-0.002606	±2.5	PASS
Band7	5MHz	16QAM	21425	25RB#0	VH	NT	6.17	0.002403	±2.5	PASS
Band7	10MHz	QPSK	20800	50RB#0	VL	NT	-10.11	-0.004036	±2.5	PASS
Band7	10MHz	QPSK	20800	50RB#0	VN	NT	-7.84	-0.003130	±2.5	PASS
Band7	10MHz	QPSK	20800	50RB#0	VH	NT	-16.64	-0.006643	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	VL	NT	-15.76	-0.006217	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	VN	NT	-9.47	-0.003736	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	VH	NT	-11.12	-0.004387	±2.5	PASS
Band7	10MHz	QPSK	21400	50RB#0	VL	NT	6.71	0.002616	±2.5	PASS
Band7	10MHz	QPSK	21400	50RB#0	VN	NT	13.59	0.005298	±2.5	PASS
Band7	10MHz	QPSK	21400	50RB#0	VH	NT	-6.92	-0.002698	±2.5	PASS
Band7	10MHz	16QAM	20800	50RB#0	VL	NT	-18.83	-0.007517	±2.5	PASS
Band7	10MHz	16QAM	20800	50RB#0	VN	NT	-6.22	-0.002483	±2.5	PASS
Band7	10MHz	16QAM	20800	50RB#0	VH	NT	-19.34	-0.007721	±2.5	PASS
Band7	10MHz	16QAM	21100	50RB#0	VL	NT	-17.57	-0.006931	±2.5	PASS
Band7	10MHz	16QAM	21100	50RB#0	VN	NT	-13.86	-0.005467	±2.5	PASS
Band7	10MHz	16QAM	21100	50RB#0	VH	NT	-7.84	-0.003093	±2.5	PASS
Band7	10MHz	16QAM	21400	50RB#0	VL	NT	-7.97	-0.003107	±2.5	PASS

Band7	10MHz	16QAM	21400	50RB#0	VN	NT	-10.91	-0.004253	±2.5	PASS
Band7	10MHz	16QAM	21400	50RB#0	VH	NT	-5.48	-0.002136	±2.5	PASS
Band7	15MHz	QPSK	20825	75RB#0	VL	NT	-11.19	-0.004463	±2.5	PASS
Band7	15MHz	QPSK	20825	75RB#0	VN	NT	-7.70	-0.003071	±2.5	PASS
Band7	15MHz	QPSK	20825	75RB#0	VH	NT	-10.69	-0.004263	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	VL	NT	-17.14	-0.006761	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	VN	NT	-8.24	-0.003250	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	VH	NT	-13.92	-0.005491	±2.5	PASS
Band7	15MHz	QPSK	21375	75RB#0	VL	NT	-10.27	-0.004008	±2.5	PASS
Band7	15MHz	QPSK	21375	75RB#0	VN	NT	10.40	0.004059	±2.5	PASS
Band7	15MHz	QPSK	21375	75RB#0	VH	NT	-11.67	-0.004554	±2.5	PASS
Band7	15MHz	16QAM	20825	75RB#0	VL	NT	8.00	0.003190	±2.5	PASS
Band7	15MHz	16QAM	20825	75RB#0	VN	NT	-10.97	-0.004375	±2.5	PASS
Band7	15MHz	16QAM	20825	75RB#0	VH	NT	4.55	0.001815	±2.5	PASS
Band7	15MHz	16QAM	21100	75RB#0	VL	NT	-12.90	-0.005089	±2.5	PASS
Band7	15MHz	16QAM	21100	75RB#0	VN	NT	-7.67	-0.003026	±2.5	PASS
Band7	15MHz	16QAM	21100	75RB#0	VH	NT	8.17	0.003223	±2.5	PASS
Band7	15MHz	16QAM	21375	75RB#0	VL	NT	-8.57	-0.003344	±2.5	PASS
Band7	15MHz	16QAM	21375	75RB#0	VN	NT	-13.89	-0.005420	±2.5	PASS
Band7	15MHz	16QAM	21375	75RB#0	VH	NT	-10.34	-0.004035	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VL	NT	-7.44	-0.002964	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VN	NT	-9.17	-0.003653	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VH	NT	-10.89	-0.004339	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-10.61	-0.004185	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-8.18	-0.003227	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	-13.05	-0.005148	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VL	NT	-16.97	-0.006629	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VN	NT	-17.84	-0.006969	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VH	NT	-19.91	-0.007777	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VL	NT	-12.25	-0.004880	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VN	NT	-6.61	-0.002633	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VH	NT	-9.33	-0.003717	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VL	NT	-8.67	-0.003420	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VN	NT	-13.30	-0.005247	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VH	NT	-3.60	-0.001420	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VL	NT	-12.02	-0.004695	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VN	NT	-14.38	-0.005617	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VH	NT	6.85	0.002676	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	NV	-30	6.38	0.002549	±2.5	PASS
Band7	5MHz	QPSK	20775	25RB#0	NV	-20	3.68	0.001471	±2.5	PASS
Band7	5MHz	QPSK	20775	25RB#0	NV	0	-2.70	-0.001079	±2.5	PASS
Band7	5MHz	QPSK	20775	25RB#0	NV	10	-7.91	-0.003161	±2.5	PASS
Band7	5MHz	QPSK	20775	25RB#0	NV	20	-3.71	-0.001483	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	-30	-9.81	-0.003870	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	-20	-6.41	-0.002529	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	0	6.97	0.002750	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	10	6.42	0.002533	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	20	-8.63	-0.003404	±2.5	PASS
Band7	5MHz	QPSK	21425	25RB#0	NV	-30	-9.84	-0.003833	±2.5	PASS
Band7	5MHz	QPSK	21425	25RB#0	NV	-20	-5.29	-0.002060	±2.5	PASS
Band7	5MHz	QPSK	21425	25RB#0	NV	0	-9.48	-0.003692	±2.5	PASS
Band7	5MHz	QPSK	21425	25RB#0	NV	10	-7.10	-0.002765	±2.5	PASS
Band7	5MHz	QPSK	21425	25RB#0	NV	20	-13.46	-0.005242	±2.5	PASS
Band7	5MHz	16QAM	20775	25RB#0	NV	-30	-3.83	-0.001530	±2.5	PASS
Band7	5MHz	16QAM	20775	25RB#0	NV	-20	11.39	0.004551	±2.5	PASS
Band7	5MHz	16QAM	20775	25RB#0	NV	0	5.61	0.002242	±2.5	PASS
Band7	5MHz	16QAM	20775	25RB#0	NV	10	6.51	0.002601	±2.5	PASS
Band7	5MHz	16QAM	20775	25RB#0	NV	20	-6.65	-0.002657	±2.5	PASS
Band7	5MHz	16QAM	21100	25RB#0	NV	-30	-10.83	-0.004272	±2.5	PASS
Band7	5MHz	16QAM	21100	25RB#0	NV	-20	-10.04	-0.003961	±2.5	PASS
Band7	5MHz	16QAM	21100	25RB#0	NV	0	5.69	0.002245	±2.5	PASS
Band7	5MHz	16QAM	21100	25RB#0	NV	10	13.90	0.005483	±2.5	PASS
Band7	5MHz	16QAM	21100	25RB#0	NV	20	-6.71	-0.002647	±2.5	PASS
Band7	5MHz	16QAM	21425	25RB#0	NV	-30	-15.26	-0.005944	±2.5	PASS
Band7	5MHz	16QAM	21425	25RB#0	NV	-20	-10.06	-0.003918	±2.5	PASS
Band7	5MHz	16QAM	21425	25RB#0	NV	0	-13.32	-0.005188	±2.5	PASS
Band7	5MHz	16QAM	21425	25RB#0	NV	10	-13.45	-0.005239	±2.5	PASS
Band7	5MHz	16QAM	21425	25RB#0	NV	20	-10.53	-0.004101	±2.5	PASS
Band7	10MHz	QPSK	20800	50RB#0	NV	-30	-26.12	-0.010427	±2.5	PASS
Band7	10MHz	QPSK	20800	50RB#0	NV	-20	-17.57	-0.007014	±2.5	PASS
Band7	10MHz	QPSK	20800	50RB#0	NV	0	-14.81	-0.005912	±2.5	PASS
Band7	10MHz	QPSK	20800	50RB#0	NV	10	-11.99	-0.004786	±2.5	PASS
Band7	10MHz	QPSK	20800	50RB#0	NV	20	-13.23	-0.005281	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	-30	-12.76	-0.005034	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	-20	-10.96	-0.004323	±2.5	PASS

Band7	10MHz	QPSK	21100	50RB#0	NV	0	-13.52	-0.005333	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	10	-12.63	-0.004982	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	20	-14.03	-0.005535	±2.5	PASS
Band7	10MHz	QPSK	21400	50RB#0	NV	-30	9.03	0.003520	±2.5	PASS
Band7	10MHz	QPSK	21400	50RB#0	NV	-20	-12.30	-0.004795	±2.5	PASS
Band7	10MHz	QPSK	21400	50RB#0	NV	0	8.27	0.003224	±2.5	PASS
Band7	10MHz	QPSK	21400	50RB#0	NV	10	-9.33	-0.003637	±2.5	PASS
Band7	10MHz	QPSK	21400	50RB#0	NV	20	-7.85	-0.003060	±2.5	PASS
Band7	10MHz	16QAM	20800	50RB#0	NV	-30	-6.51	-0.002599	±2.5	PASS
Band7	10MHz	16QAM	20800	50RB#0	NV	-20	-9.90	-0.003952	±2.5	PASS
Band7	10MHz	16QAM	20800	50RB#0	NV	0	-8.43	-0.003365	±2.5	PASS
Band7	10MHz	16QAM	20800	50RB#0	NV	10	-11.66	-0.004655	±2.5	PASS
Band7	10MHz	16QAM	20800	50RB#0	NV	20	-8.50	-0.003393	±2.5	PASS
Band7	10MHz	16QAM	21100	50RB#0	NV	-30	-14.72	-0.005807	±2.5	PASS
Band7	10MHz	16QAM	21100	50RB#0	NV	-20	-14.39	-0.005677	±2.5	PASS
Band7	10MHz	16QAM	21100	50RB#0	NV	0	-8.34	-0.003290	±2.5	PASS
Band7	10MHz	16QAM	21100	50RB#0	NV	10	-8.96	-0.003535	±2.5	PASS
Band7	10MHz	16QAM	21100	50RB#0	NV	20	-23.20	-0.009152	±2.5	PASS
Band7	10MHz	16QAM	21400	50RB#0	NV	-30	-8.97	-0.003497	±2.5	PASS
Band7	10MHz	16QAM	21400	50RB#0	NV	-20	-7.60	-0.002963	±2.5	PASS
Band7	10MHz	16QAM	21400	50RB#0	NV	0	-11.27	-0.004394	±2.5	PASS
Band7	10MHz	16QAM	21400	50RB#0	NV	10	-10.96	-0.004273	±2.5	PASS
Band7	10MHz	16QAM	21400	50RB#0	NV	20	-9.51	-0.003708	±2.5	PASS
Band7	15MHz	QPSK	20825	75RB#0	NV	-30	-14.71	-0.005866	±2.5	PASS
Band7	15MHz	QPSK	20825	75RB#0	NV	-20	-8.07	-0.003218	±2.5	PASS
Band7	15MHz	QPSK	20825	75RB#0	NV	0	-10.30	-0.004108	±2.5	PASS
Band7	15MHz	QPSK	20825	75RB#0	NV	10	13.83	0.005515	±2.5	PASS
Band7	15MHz	QPSK	20825	75RB#0	NV	20	-9.87	-0.003936	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	-30	-10.24	-0.004039	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	-20	-14.39	-0.005677	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	0	-14.06	-0.005546	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	10	-21.54	-0.008497	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	20	-16.95	-0.006686	±2.5	PASS
Band7	15MHz	QPSK	21375	75RB#0	NV	-30	-14.15	-0.005522	±2.5	PASS
Band7	15MHz	QPSK	21375	75RB#0	NV	-20	-10.61	-0.004140	±2.5	PASS
Band7	15MHz	QPSK	21375	75RB#0	NV	0	-10.06	-0.003926	±2.5	PASS
Band7	15MHz	QPSK	21375	75RB#0	NV	10	-6.44	-0.002513	±2.5	PASS
Band7	15MHz	QPSK	21375	75RB#0	NV	20	-9.13	-0.003563	±2.5	PASS
Band7	15MHz	16QAM	20825	75RB#0	NV	-30	7.52	0.002999	±2.5	PASS
Band7	15MHz	16QAM	20825	75RB#0	NV	-20	-6.59	-0.002628	±2.5	PASS
Band7	15MHz	16QAM	20825	75RB#0	NV	0	-7.80	-0.003111	±2.5	PASS

Band7	15MHz	16QAM	20825	75RB#0	NV	10	6.38	0.002544	±2.5	PASS
Band7	15MHz	16QAM	20825	75RB#0	NV	20	-18.73	-0.007470	±2.5	PASS
Band7	15MHz	16QAM	21100	75RB#0	NV	-30	-13.13	-0.005179	±2.5	PASS
Band7	15MHz	16QAM	21100	75RB#0	NV	-20	-7.97	-0.003144	±2.5	PASS
Band7	15MHz	16QAM	21100	75RB#0	NV	0	-15.28	-0.006028	±2.5	PASS
Band7	15MHz	16QAM	21100	75RB#0	NV	10	-14.23	-0.005613	±2.5	PASS
Band7	15MHz	16QAM	21100	75RB#0	NV	20	-13.23	-0.005219	±2.5	PASS
Band7	15MHz	16QAM	21375	75RB#0	NV	-30	-9.11	-0.003555	±2.5	PASS
Band7	15MHz	16QAM	21375	75RB#0	NV	-20	-6.67	-0.002603	±2.5	PASS
Band7	15MHz	16QAM	21375	75RB#0	NV	0	-5.51	-0.002150	±2.5	PASS
Band7	15MHz	16QAM	21375	75RB#0	NV	10	-9.41	-0.003672	±2.5	PASS
Band7	15MHz	16QAM	21375	75RB#0	NV	20	-12.83	-0.005007	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-30	-10.57	-0.004211	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-20	-9.78	-0.003896	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	0	-8.51	-0.003390	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	10	-12.00	-0.004781	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	20	10.39	0.004139	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-8.15	-0.003215	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	-8.61	-0.003396	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-11.26	-0.004442	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-12.40	-0.004892	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	-17.01	-0.006710	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-30	-16.31	-0.006371	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-20	-14.41	-0.005629	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	0	-11.84	-0.004625	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	10	-12.72	-0.004969	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	20	-3.72	-0.001453	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-30	-7.58	-0.003020	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-20	-7.51	-0.002992	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	0	-13.32	-0.005307	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	10	-14.58	-0.005809	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	20	-13.85	-0.005518	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-30	-11.96	-0.004718	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-20	-15.62	-0.006162	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	0	-13.43	-0.005298	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	10	-6.74	-0.002659	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	20	-15.09	-0.005953	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-30	-14.61	-0.005707	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-20	-13.18	-0.005148	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	0	-11.79	-0.004605	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	10	-14.42	-0.005633	±2.5	PASS

Band7	20MHz	16QAM	21350	100RB#0	NV	20	-10.96	-0.004281	±2.5	PASS