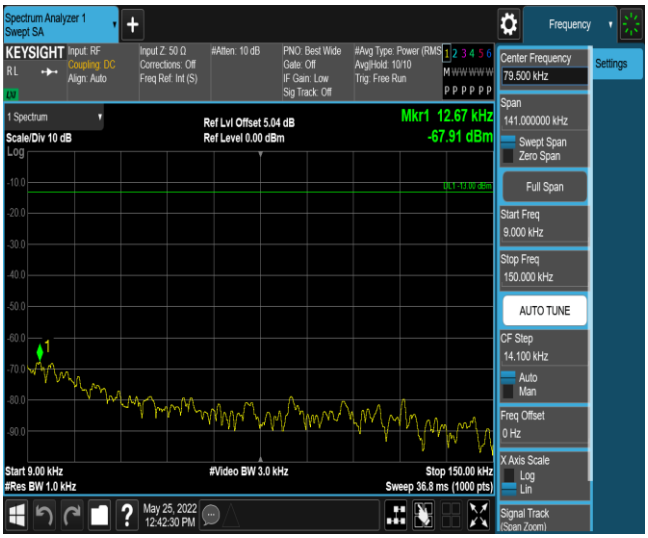
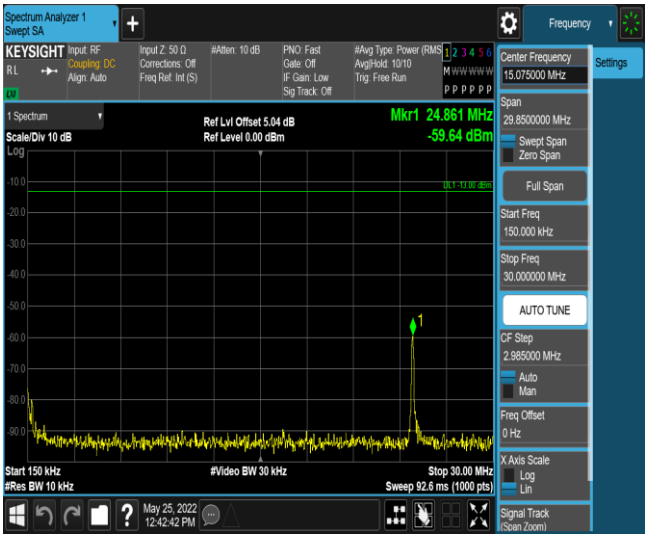
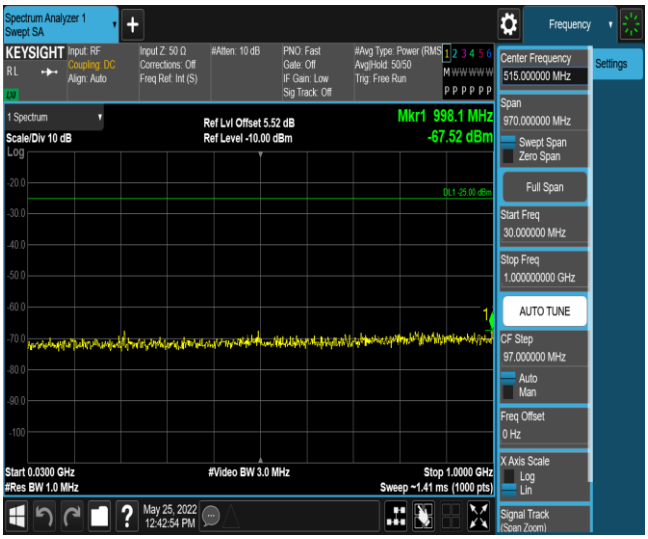


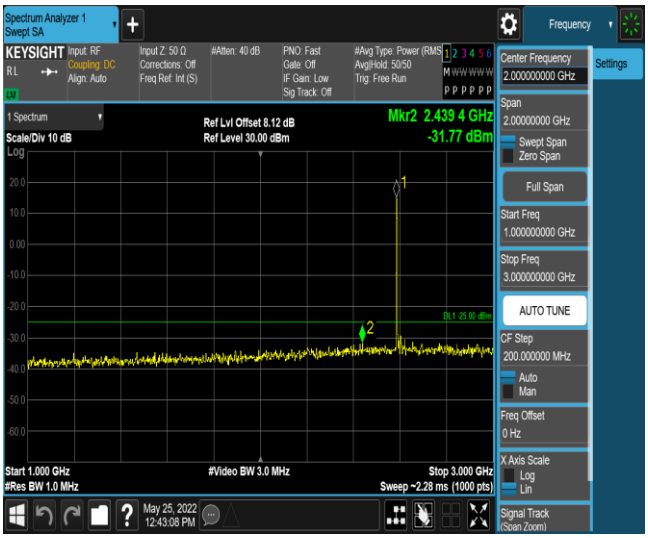
Band38-20MHz-16QAM-38000-1RB#0-Range1:0.009~0.15MHz



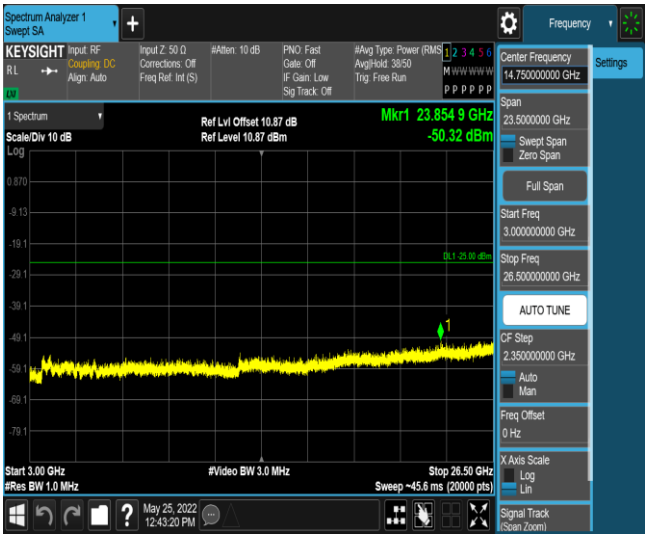
Band38-20MHz-16QAM-38000-1RB#0-Range2:0.15~30MHz



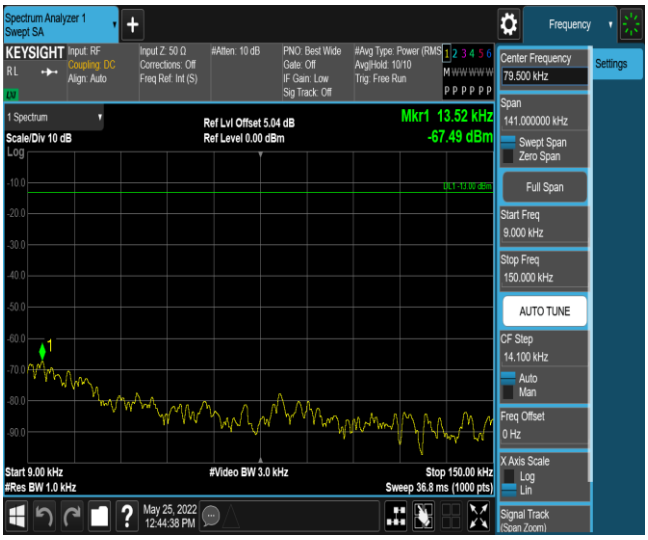
Band38-20MHz-16QAM-38000-1RB#0-Range3:30~1000MHz



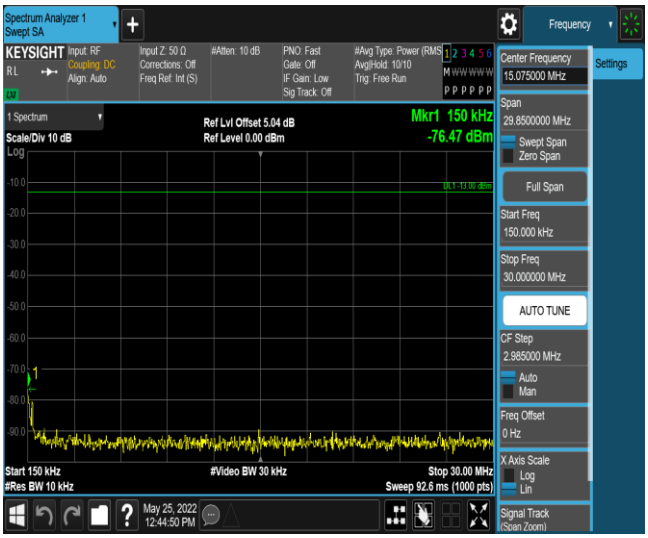
Band38-20MHz-16QAM-38000-1RB#0-Range4:1000~3000MHz



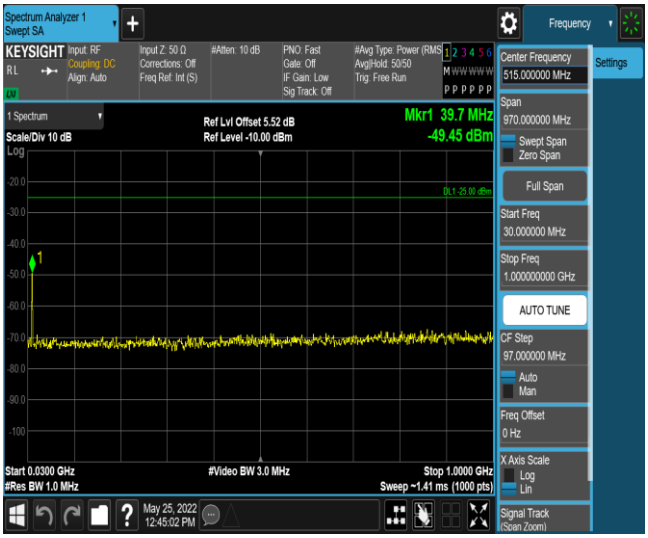
Band38-20MHz-16QAM-38000-1RB#0-Range5:3000~26500MHz



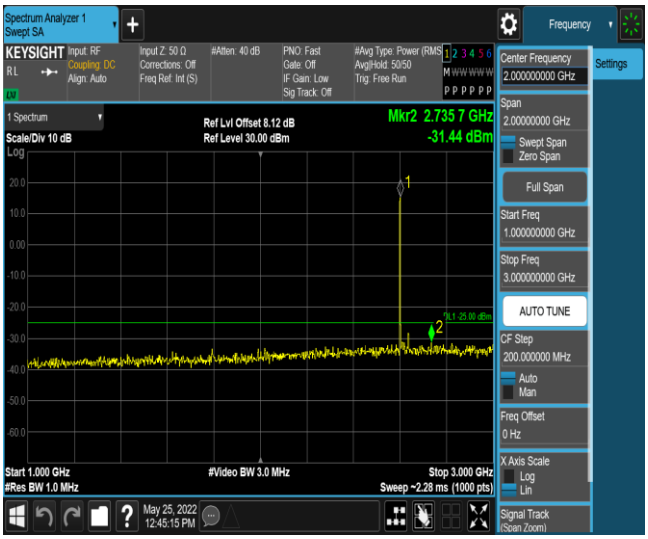
Band38-20MHz-16QAM-38150-1RB#0-Range1:0.009~0.15MHz



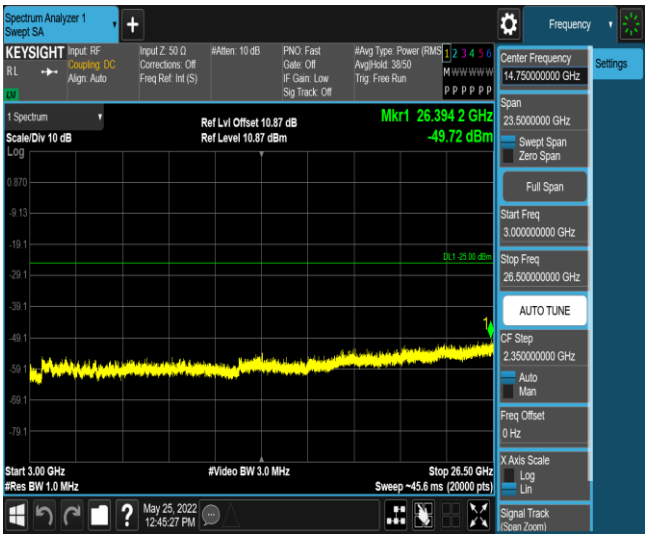
Band38-20MHz-16QAM-38150-1RB#0-Range2:0.15~30MHz



Band38-20MHz-16QAM-38150-1RB#0-Range3:30~1000MHz



Band38-20MHz-16QAM-38150-1RB#0-Range4:1000~3000MHz



Band38-20MHz-16QAM-38150-1RB#0-Range5:3000~26500MHz

Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band38	5MHz	QPSK	37775	25RB#0	VL	NT	-14.55	-0.005656	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	VN	NT	-7.80	-0.003032	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	VH	NT	-5.55	-0.002157	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	VL	NT	-6.38	-0.002459	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	VN	NT	-4.52	-0.001742	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	VH	NT	4.98	0.001919	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	VL	NT	-7.82	-0.002988	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	VN	NT	-17.31	-0.006613	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	VH	NT	-15.06	-0.005754	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	VL	NT	-10.97	-0.004264	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	VN	NT	-22.17	-0.008618	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	VH	NT	-14.13	-0.005493	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	VL	NT	-9.50	-0.003661	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	VN	NT	-8.35	-0.003218	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	VH	NT	-7.14	-0.002751	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	VL	NT	-17.02	-0.006502	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	VN	NT	-10.90	-0.004164	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	VH	NT	-7.78	-0.002972	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	VL	NT	-14.42	-0.005600	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	VN	NT	-10.03	-0.003895	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	VH	NT	-13.98	-0.005429	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	VL	NT	-11.40	-0.004393	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	VN	NT	-10.99	-0.004235	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	VH	NT	-12.77	-0.004921	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	VL	NT	-10.91	-0.004172	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	VN	NT	-14.42	-0.005514	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	VH	NT	-8.84	-0.003380	±2.5	PASS
Band38	10MHz	16QAM	37800	50RB#0	VL	NT	-10.39	-0.004035	±2.5	PASS
Band38	10MHz	16QAM	37800	50RB#0	VN	NT	-13.86	-0.005383	±2.5	PASS
Band38	10MHz	16QAM	37800	50RB#0	VH	NT	-10.04	-0.003899	±2.5	PASS
Band38	10MHz	16QAM	38000	50RB#0	VL	NT	-5.35	-0.002062	±2.5	PASS
Band38	10MHz	16QAM	38000	50RB#0	VN	NT	-7.25	-0.002794	±2.5	PASS
Band38	10MHz	16QAM	38000	50RB#0	VH	NT	7.20	0.002775	±2.5	PASS
Band38	10MHz	16QAM	38200	50RB#0	VL	NT	-2.62	-0.001002	±2.5	PASS

Band38	10MHz	16QAM	38200	50RB#0	VN	NT	-18.70	-0.007151	±2.5	PASS
Band38	10MHz	16QAM	38200	50RB#0	VH	NT	-5.94	-0.002272	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	VL	NT	-14.16	-0.005494	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	VN	NT	-16.06	-0.006231	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	VH	NT	-9.58	-0.003717	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	VL	NT	-8.30	-0.003198	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	VN	NT	-11.97	-0.004613	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	VH	NT	-11.52	-0.004439	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	VL	NT	-8.11	-0.003104	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	VN	NT	-8.00	-0.003062	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	VH	NT	-12.40	-0.004746	±2.5	PASS
Band38	15MHz	16QAM	37825	75RB#0	VL	NT	-18.17	-0.007049	±2.5	PASS
Band38	15MHz	16QAM	37825	75RB#0	VN	NT	-16.81	-0.006522	±2.5	PASS
Band38	15MHz	16QAM	37825	75RB#0	VH	NT	-11.20	-0.004345	±2.5	PASS
Band38	15MHz	16QAM	38000	75RB#0	VL	NT	-10.59	-0.004081	±2.5	PASS
Band38	15MHz	16QAM	38000	75RB#0	VN	NT	-13.66	-0.005264	±2.5	PASS
Band38	15MHz	16QAM	38000	75RB#0	VH	NT	-6.81	-0.002624	±2.5	PASS
Band38	15MHz	16QAM	38175	75RB#0	VL	NT	5.15	0.001971	±2.5	PASS
Band38	15MHz	16QAM	38175	75RB#0	VN	NT	-3.98	-0.001523	±2.5	PASS
Band38	15MHz	16QAM	38175	75RB#0	VH	NT	-8.34	-0.003192	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VL	NT	-5.99	-0.002322	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VN	NT	-10.57	-0.004097	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VH	NT	-4.11	-0.001593	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VL	NT	-12.43	-0.004790	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VN	NT	-17.11	-0.006593	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VH	NT	-13.05	-0.005029	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VL	NT	-8.98	-0.003441	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VN	NT	-15.13	-0.005797	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VH	NT	-7.27	-0.002785	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	VL	NT	-9.60	-0.003721	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	VN	NT	-11.80	-0.004574	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	VH	NT	-10.31	-0.003996	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	VL	NT	-13.03	-0.005021	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	VN	NT	-20.51	-0.007904	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	VH	NT	-12.06	-0.004647	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	VL	NT	-17.68	-0.006774	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	VN	NT	-6.68	-0.002559	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	VH	NT	-16.81	-0.006441	±2.5	PASS

Temperature

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band38	5MHz	QPSK	37775	25RB#0	NV	-30	-8.11	-0.003153	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	-20	-9.77	-0.003798	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	0	-8.64	-0.003359	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	10	-10.31	-0.004008	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	20	-11.33	-0.004404	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	-30	-5.65	-0.002177	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	-20	5.28	0.002035	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	0	-7.84	-0.003021	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	10	3.78	0.001457	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	20	-5.12	-0.001973	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	-30	-18.30	-0.006991	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	-20	-17.52	-0.006693	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	0	-17.35	-0.006628	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	10	-13.30	-0.005081	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	20	-20.66	-0.007893	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	-30	-13.36	-0.005193	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	-20	-13.99	-0.005438	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	0	-13.00	-0.005053	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	10	-10.64	-0.004136	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	20	-9.53	-0.003705	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	-30	-12.86	-0.004956	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	-20	-17.94	-0.006913	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	0	-21.43	-0.008258	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	10	-21.87	-0.008428	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	20	-20.00	-0.007707	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	-30	-9.81	-0.003748	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	-20	-14.29	-0.005459	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	0	-9.86	-0.003767	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	10	-9.67	-0.003694	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	20	-10.71	-0.004092	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	-30	-13.65	-0.005301	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	-20	-4.73	-0.001837	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	0	-12.85	-0.004990	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	10	-9.70	-0.003767	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	20	-4.19	-0.001627	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	-30	-13.53	-0.005214	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	-20	-13.42	-0.005171	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	0	-7.64	-0.002944	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	10	-12.20	-0.004701	±2.5	PASS

Band38	10MHz	QPSK	38000	50RB#0	NV	20	-10.60	-0.004085	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	-30	-11.67	-0.004463	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	-20	-11.47	-0.004386	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	0	-13.73	-0.005250	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	10	-16.42	-0.006279	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	20	-9.60	-0.003671	±2.5	PASS
Band38	10MHz	16QAM	37800	50RB#0	NV	-30	-9.90	-0.003845	±2.5	PASS
Band38	10MHz	16QAM	37800	50RB#0	NV	-20	-11.82	-0.004590	±2.5	PASS
Band38	10MHz	16QAM	37800	50RB#0	NV	0	-6.65	-0.002583	±2.5	PASS
Band38	10MHz	16QAM	37800	50RB#0	NV	10	-16.14	-0.006268	±2.5	PASS
Band38	10MHz	16QAM	37800	50RB#0	NV	20	-14.65	-0.005689	±2.5	PASS
Band38	10MHz	16QAM	38000	50RB#0	NV	-30	8.30	0.003198	±2.5	PASS
Band38	10MHz	16QAM	38000	50RB#0	NV	-20	-14.03	-0.005407	±2.5	PASS
Band38	10MHz	16QAM	38000	50RB#0	NV	0	-10.33	-0.003981	±2.5	PASS
Band38	10MHz	16QAM	38000	50RB#0	NV	10	-7.04	-0.002713	±2.5	PASS
Band38	10MHz	16QAM	38000	50RB#0	NV	20	-11.64	-0.004486	±2.5	PASS
Band38	10MHz	16QAM	38200	50RB#0	NV	-30	-6.29	-0.002405	±2.5	PASS
Band38	10MHz	16QAM	38200	50RB#0	NV	-20	-12.86	-0.004918	±2.5	PASS
Band38	10MHz	16QAM	38200	50RB#0	NV	0	-10.54	-0.004031	±2.5	PASS
Band38	10MHz	16QAM	38200	50RB#0	NV	10	-12.06	-0.004612	±2.5	PASS
Band38	10MHz	16QAM	38200	50RB#0	NV	20	3.32	0.001270	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	-30	-9.10	-0.003531	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	-20	-15.19	-0.005893	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	0	-20.40	-0.007915	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	10	-16.75	-0.006499	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	20	-14.71	-0.005707	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	-30	-5.08	-0.001958	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	-20	-11.59	-0.004466	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	0	-10.89	-0.004197	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	10	7.37	0.002840	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	20	-6.35	-0.002447	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	-30	-11.63	-0.004452	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	-20	-6.59	-0.002522	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	0	-9.58	-0.003667	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	10	4.85	0.001856	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	20	-8.38	-0.003208	±2.5	PASS
Band38	15MHz	16QAM	37825	75RB#0	NV	-30	-5.75	-0.002231	±2.5	PASS
Band38	15MHz	16QAM	37825	75RB#0	NV	-20	-12.85	-0.004985	±2.5	PASS
Band38	15MHz	16QAM	37825	75RB#0	NV	0	-19.81	-0.007686	±2.5	PASS
Band38	15MHz	16QAM	37825	75RB#0	NV	10	-10.30	-0.003996	±2.5	PASS
Band38	15MHz	16QAM	37825	75RB#0	NV	20	-16.28	-0.006316	±2.5	PASS

Band38	15MHz	16QAM	38000	75RB#0	NV	-30	-5.91	-0.002277	±2.5	PASS
Band38	15MHz	16QAM	38000	75RB#0	NV	-20	-8.35	-0.003218	±2.5	PASS
Band38	15MHz	16QAM	38000	75RB#0	NV	0	-8.53	-0.003287	±2.5	PASS
Band38	15MHz	16QAM	38000	75RB#0	NV	10	-11.20	-0.004316	±2.5	PASS
Band38	15MHz	16QAM	38000	75RB#0	NV	20	-13.28	-0.005118	±2.5	PASS
Band38	15MHz	16QAM	38175	75RB#0	NV	-30	-8.27	-0.003166	±2.5	PASS
Band38	15MHz	16QAM	38175	75RB#0	NV	-20	-12.27	-0.004697	±2.5	PASS
Band38	15MHz	16QAM	38175	75RB#0	NV	0	-11.82	-0.004524	±2.5	PASS
Band38	15MHz	16QAM	38175	75RB#0	NV	10	-11.22	-0.004295	±2.5	PASS
Band38	15MHz	16QAM	38175	75RB#0	NV	20	-15.45	-0.005914	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	-30	-9.47	-0.003671	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	-20	-13.00	-0.005039	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	0	-10.91	-0.004229	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	10	9.61	0.003725	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	20	-10.86	-0.004209	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	-30	-13.33	-0.005137	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	-20	-11.49	-0.004428	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	0	-12.66	-0.004879	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	10	-12.43	-0.004790	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	20	-7.97	-0.003071	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	-30	-16.67	-0.006387	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	-20	-7.30	-0.002797	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	0	-12.50	-0.004789	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	10	-17.14	-0.006567	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	20	-15.79	-0.006050	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	-30	-8.45	-0.003275	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	-20	-9.40	-0.003643	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	0	-9.07	-0.003516	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	10	-11.46	-0.004442	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	20	-4.33	-0.001678	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	-30	-7.80	-0.003006	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	-20	-14.10	-0.005434	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	0	-12.07	-0.004651	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	10	-18.55	-0.007148	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	20	-10.30	-0.003969	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	-30	-19.88	-0.007617	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	-20	-19.53	-0.007483	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	0	-14.78	-0.005663	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	10	-16.35	-0.006264	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	20	-21.66	-0.008299	±2.5	PASS