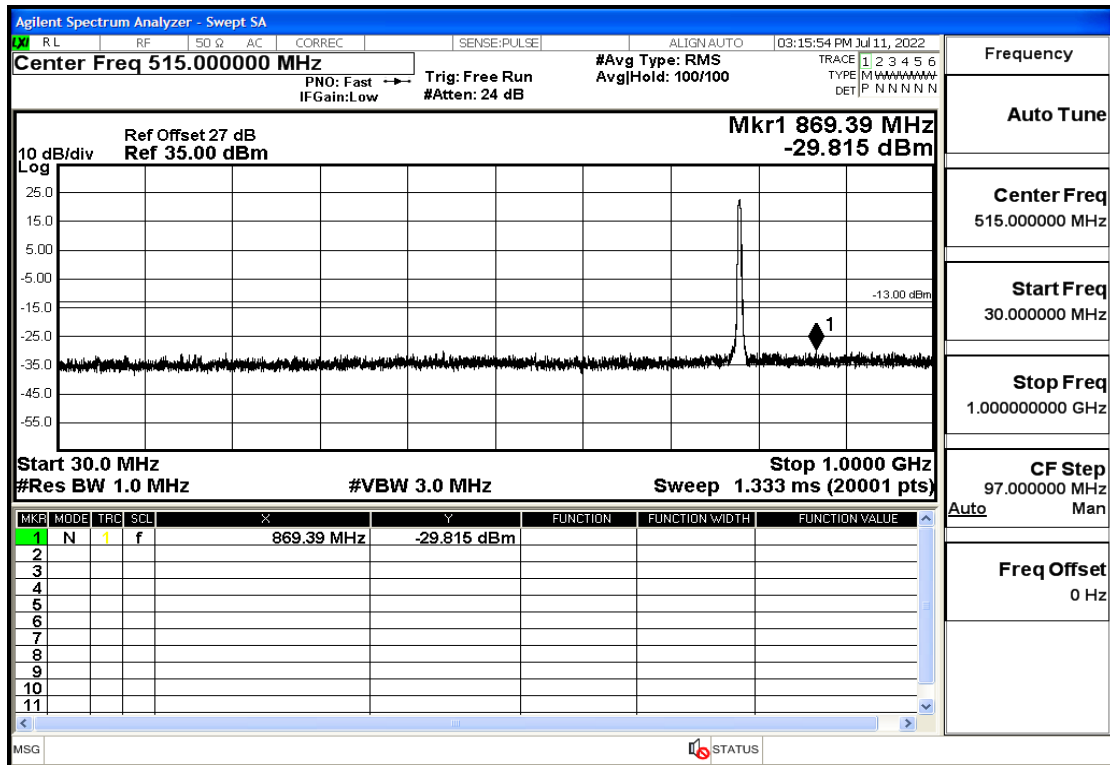
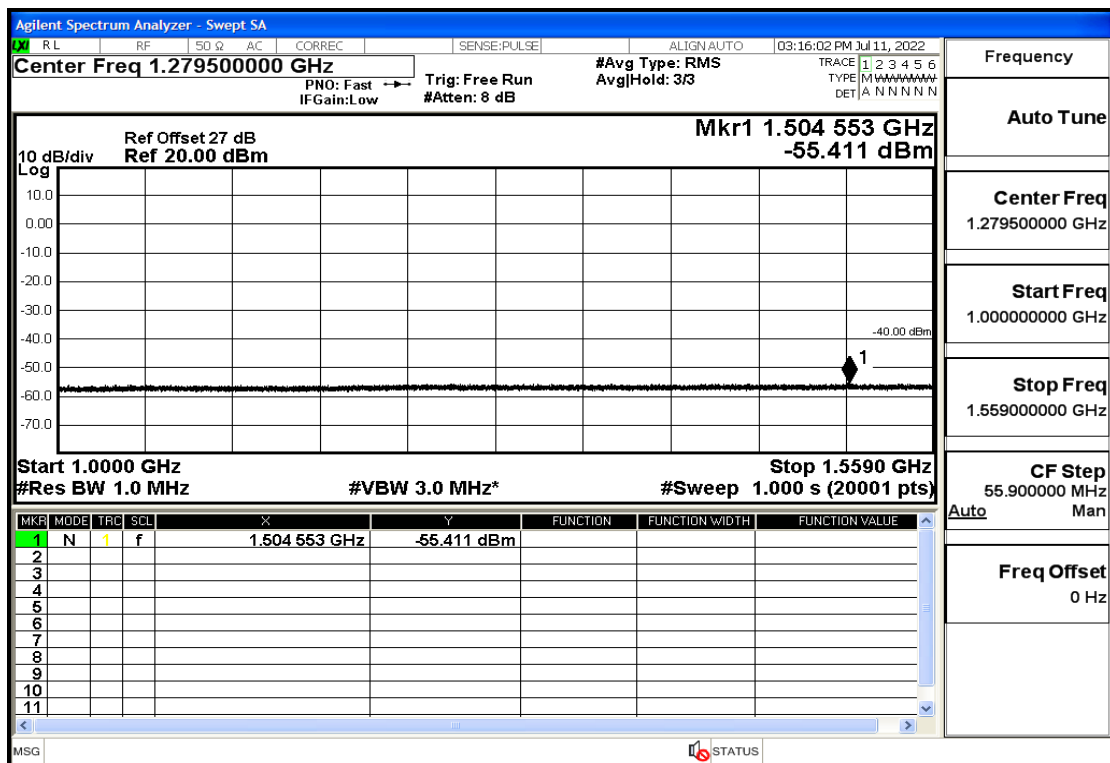


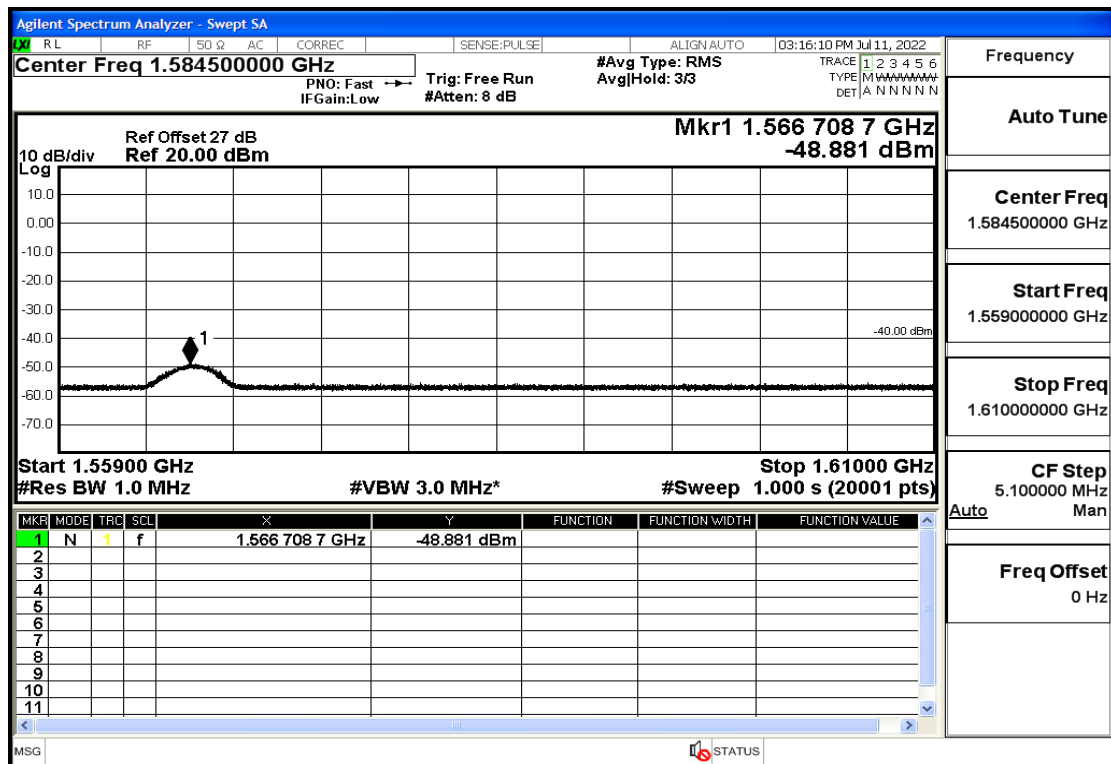
OB13-5-784.5-QPSK-12#LOW@30mHz-1GHz@Pass



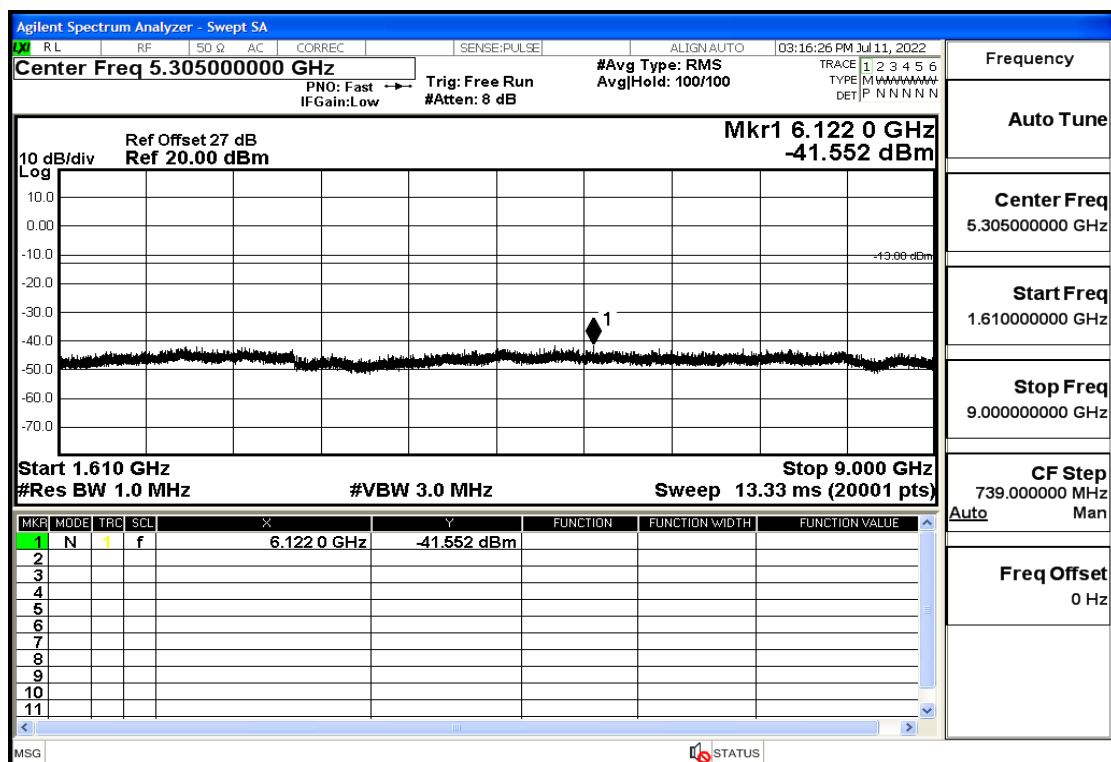
OB13-5-784.5-QPSK-12#LOW@1GHz-1.559GHz@Pass



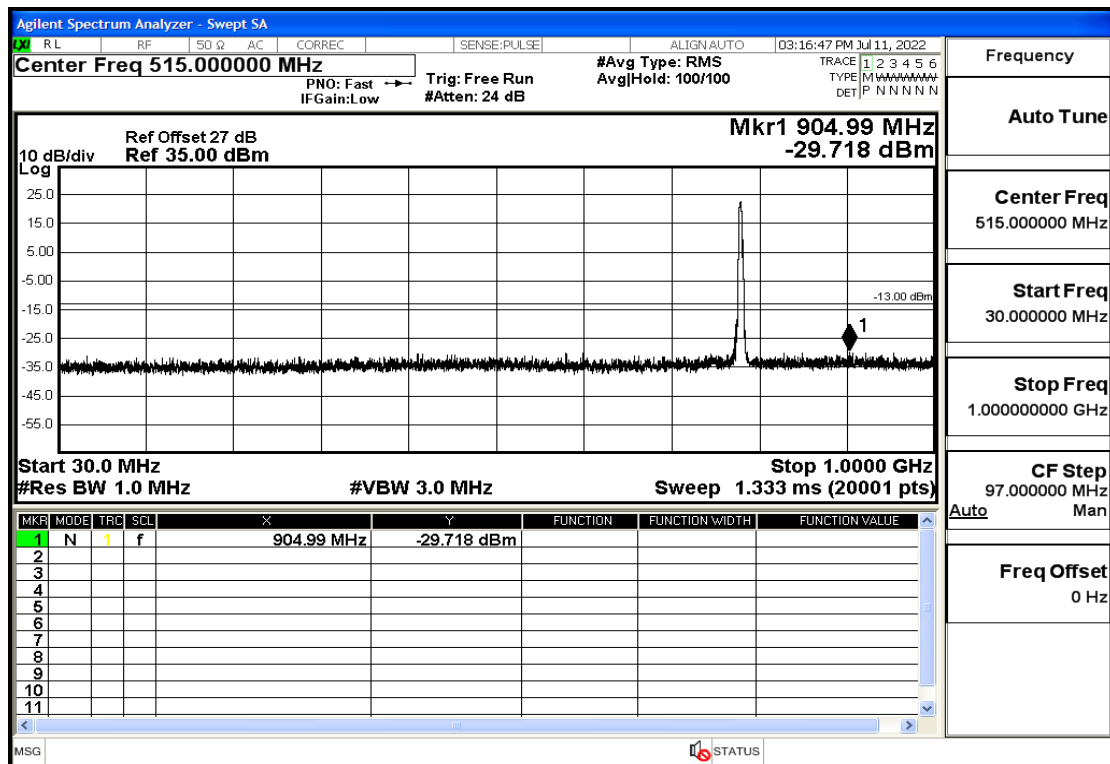
OB13-5-784.5-QPSK-12#LOW@1.559GHz-1.61GHz@Pass



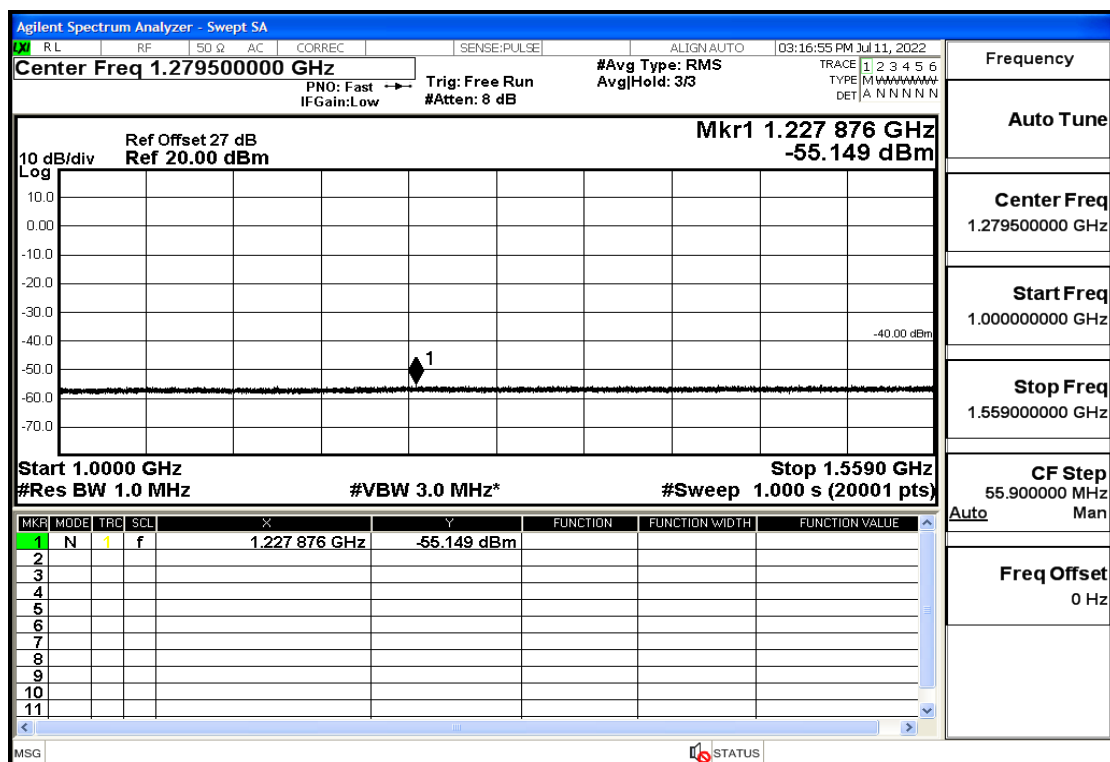
OB13-5-784.5-QPSK-12#LOW@1.61GHz-9GHz@Pass



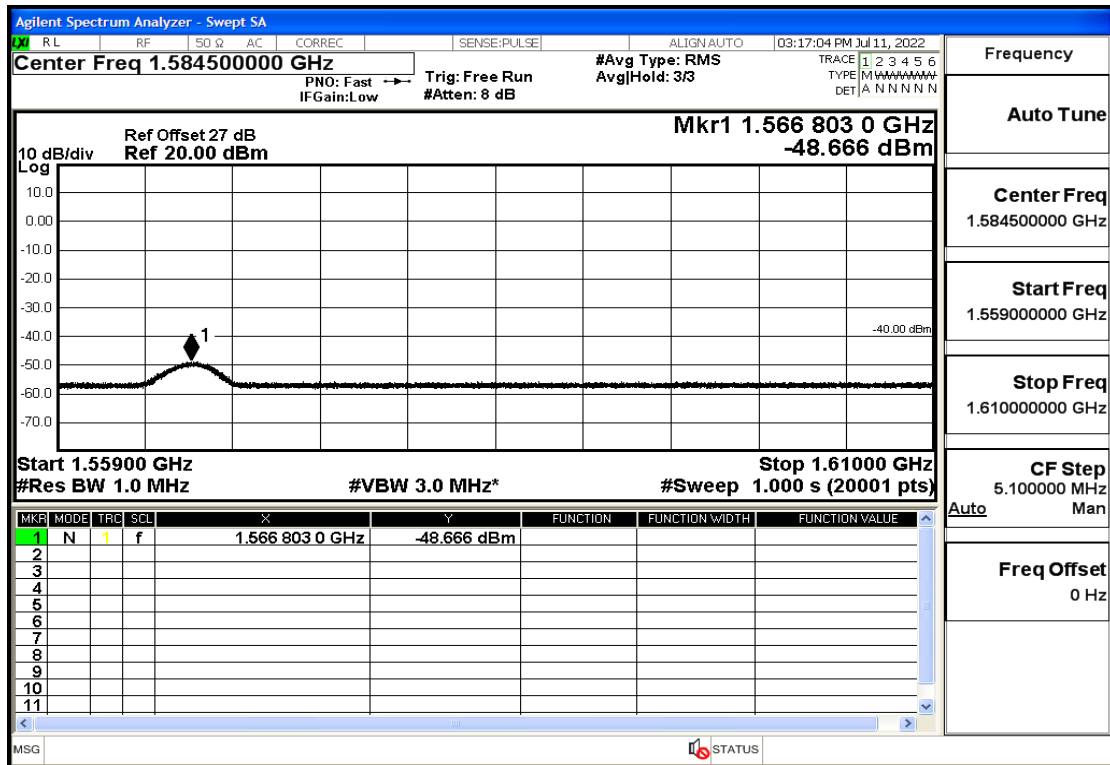
OB13-5-784.5-QPSK-12#MID@30mHz-1GHz@Pass



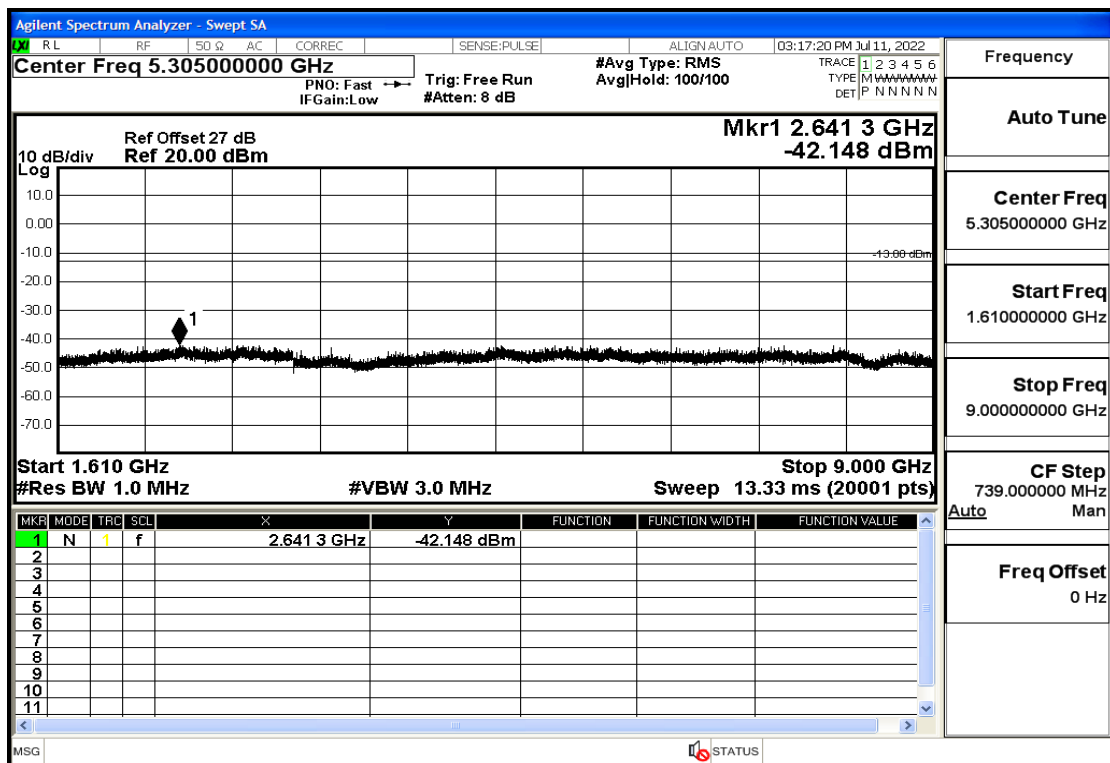
OB13-5-784.5-QPSK-12#MID@1GHz-1.559GHz@Pass



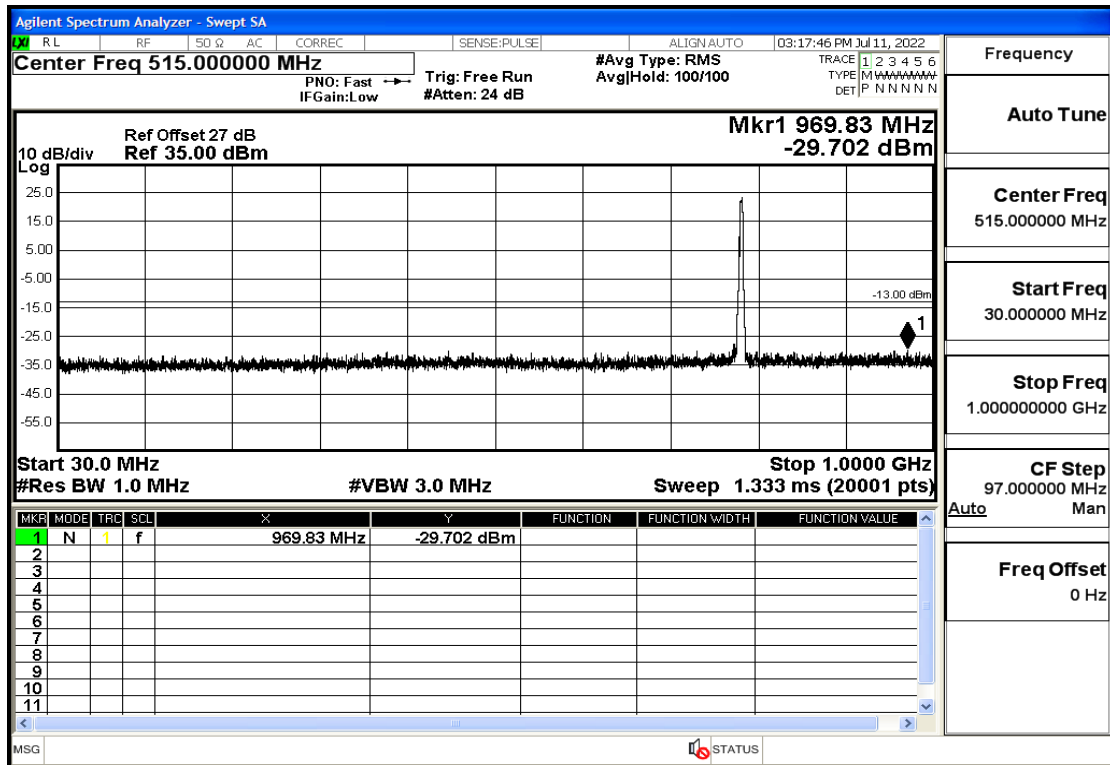
OB13-5-784.5-QPSK-12#MID@1.559GHz-1.61GHz@Pass



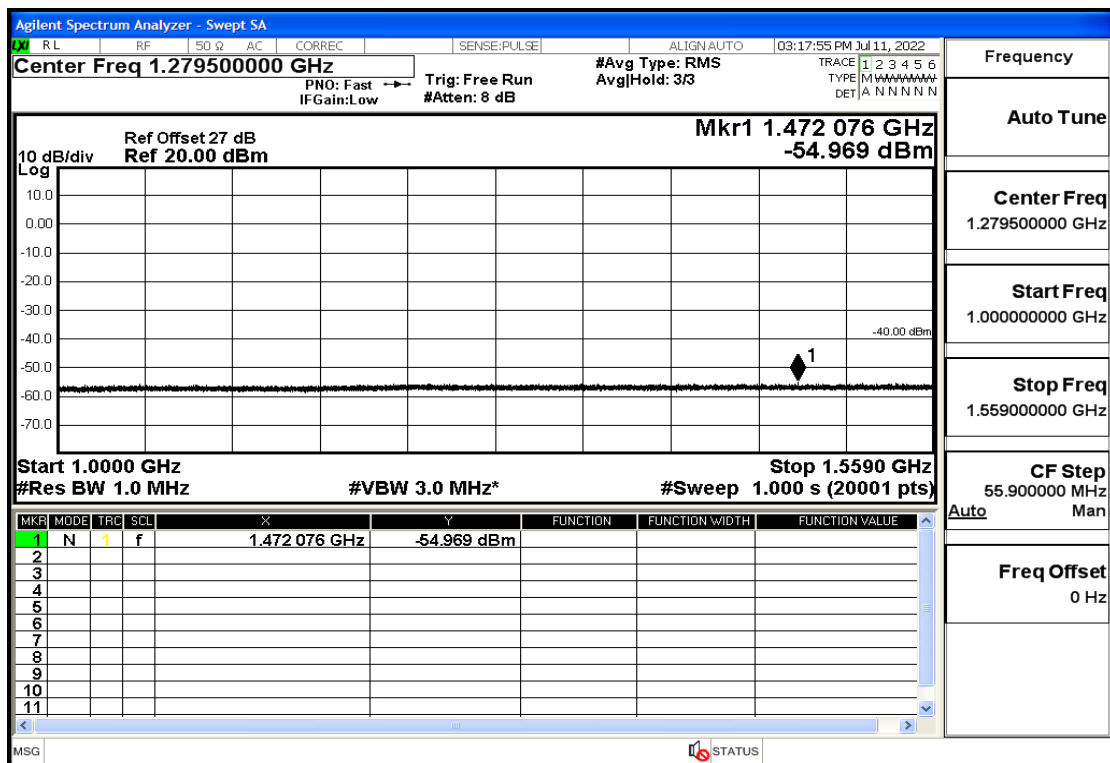
OB13-5-784.5-QPSK-12#MID@1.61GHz-9GHz@Pass



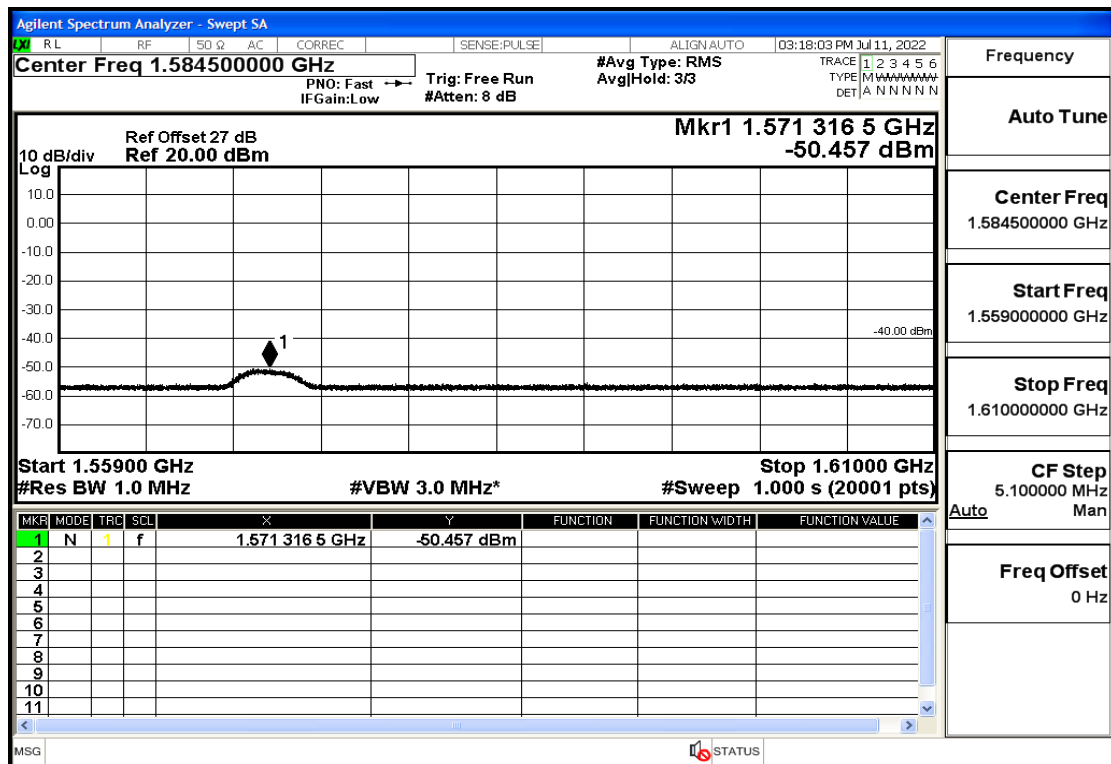
OB13-5-784.5-QPSK-12#HIGH@30mHz-1GHz@Pass



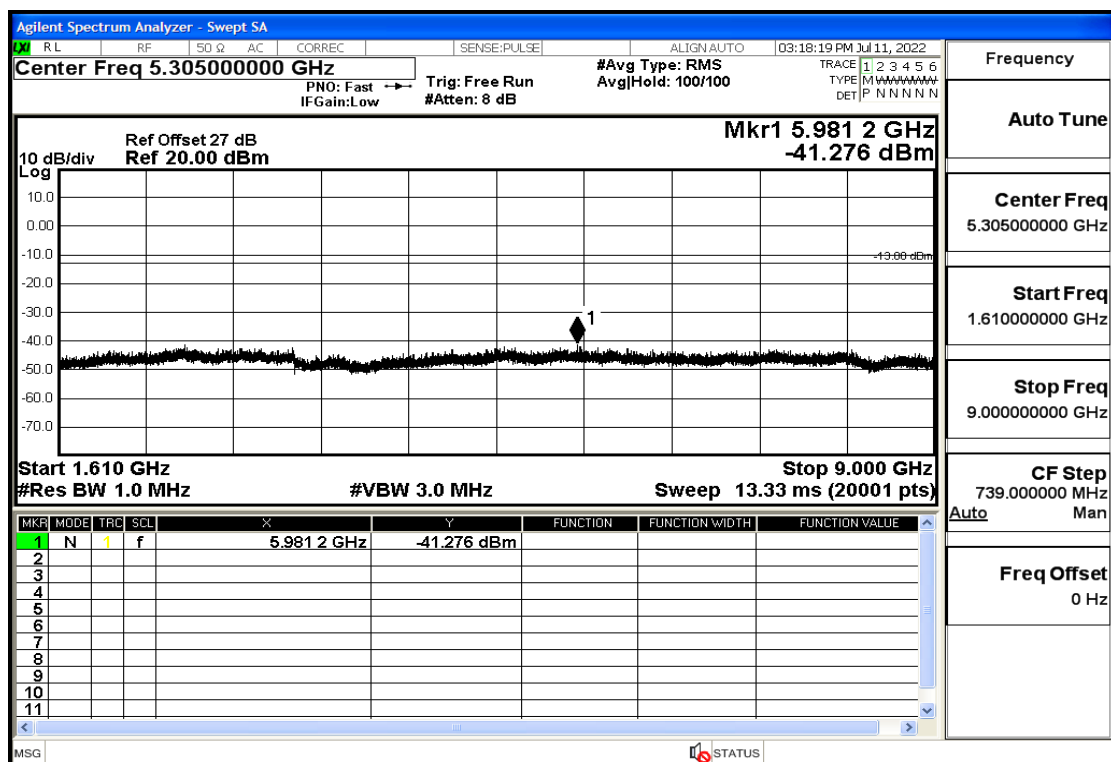
OB13-5-784.5-QPSK-12#HIGH@1GHz-1.559GHz@Pass



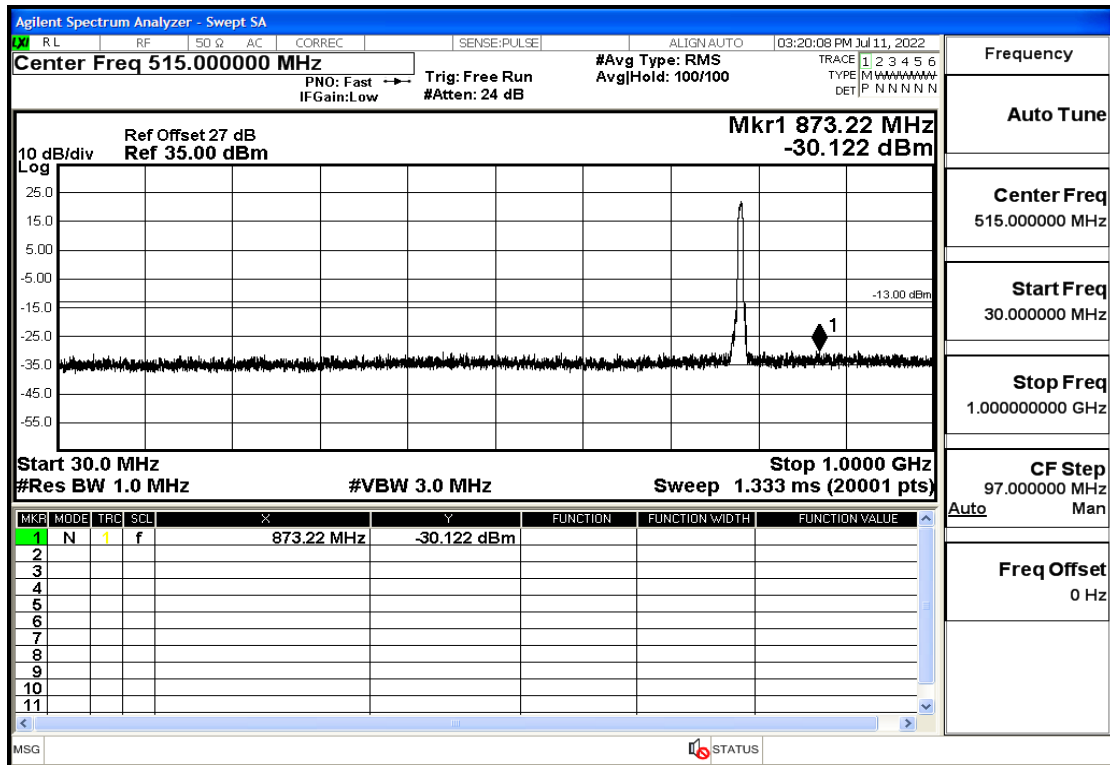
OB13-5-784.5-QPSK-12#HIGH@1.559GHz-1.61GHz@Pass



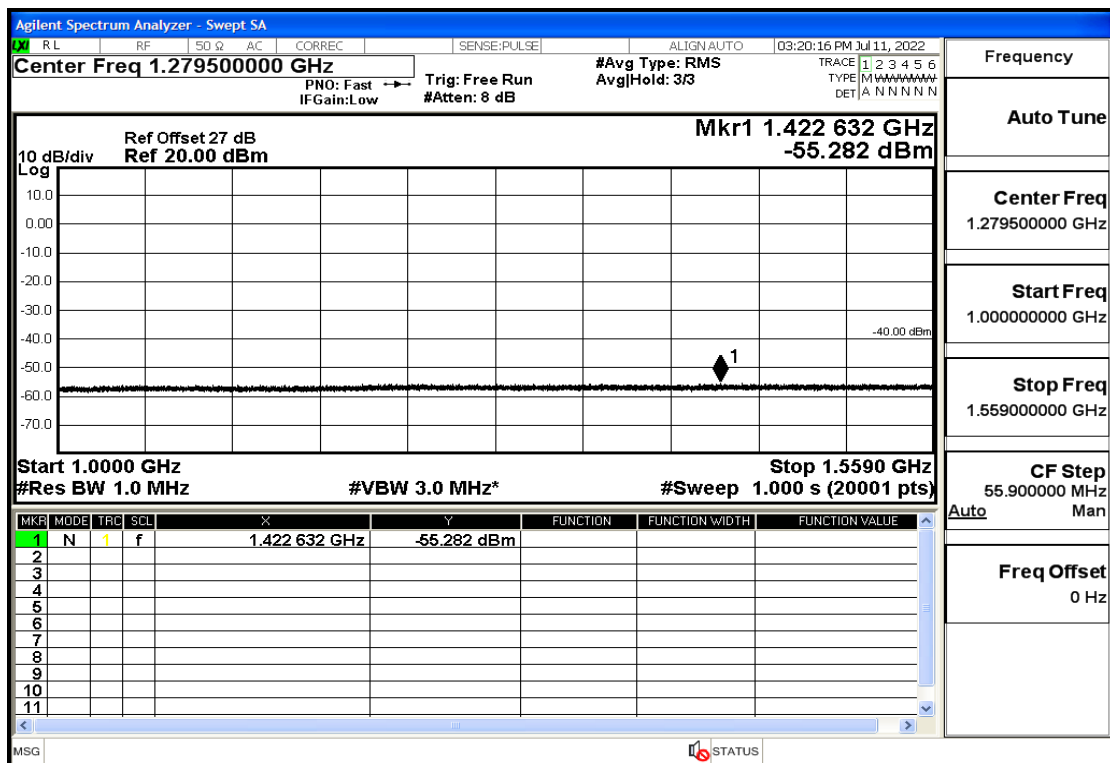
OB13-5-784.5-QPSK-12#HIGH@1.61GHz-9GHz@Pass



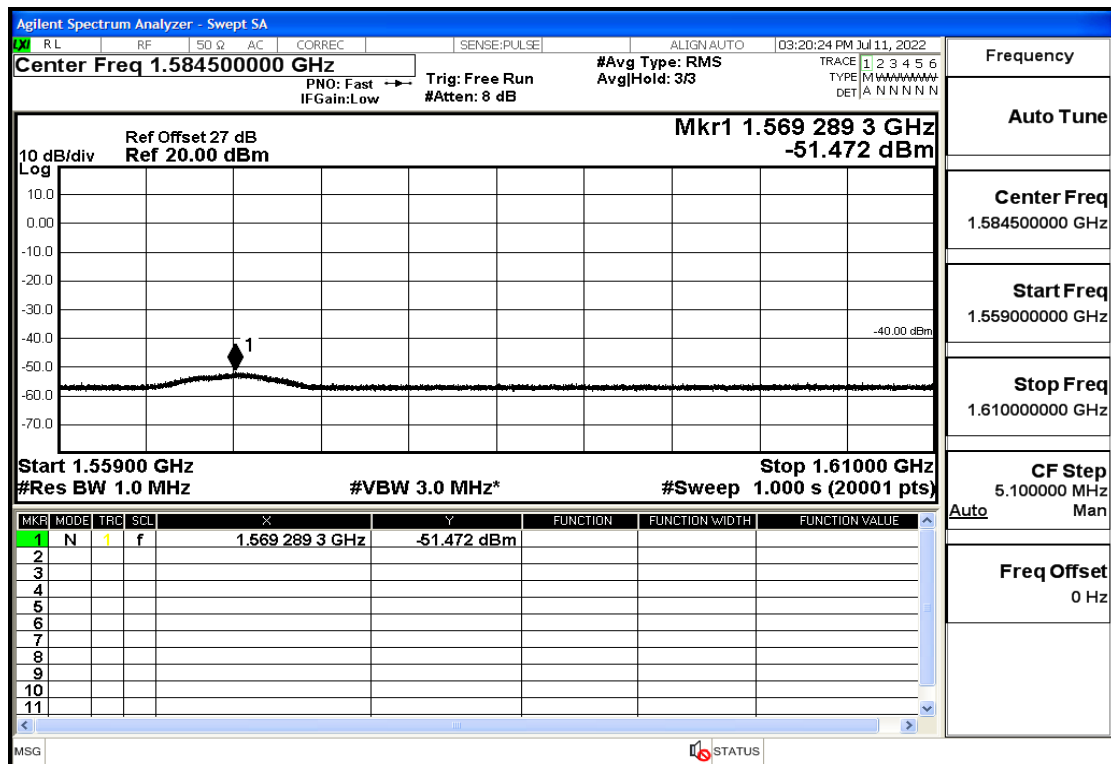
OB13-5-784.5-Q16-25#LOW@30mHz-1GHz@Pass



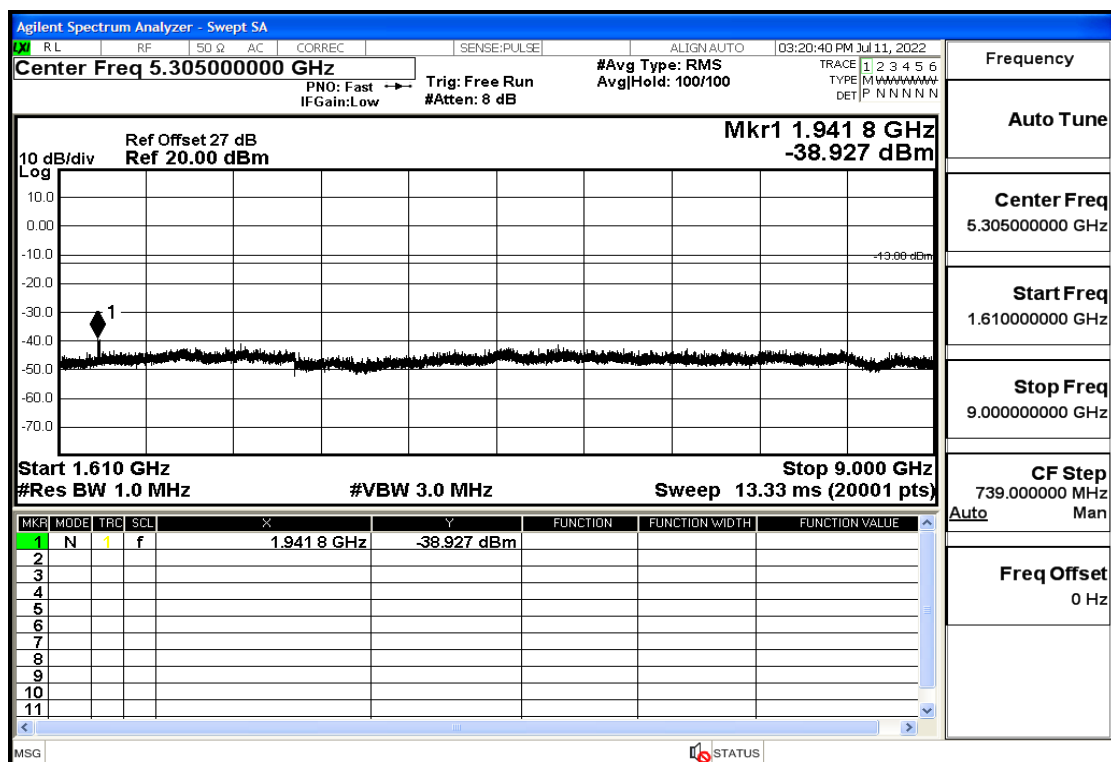
OB13-5-784.5-Q16-25#LOW@1GHz-1.559GHz@Pass



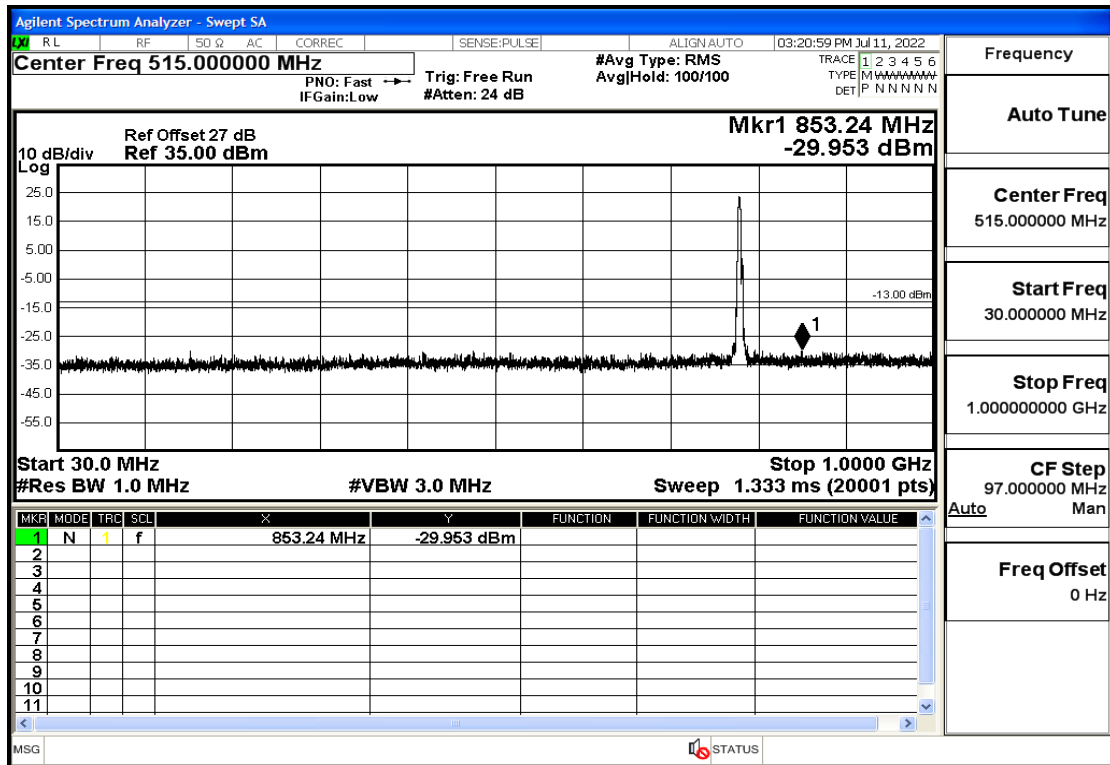
OB13-5-784.5-Q16-25#LOW@1.559GHz-1.61GHz@Pass



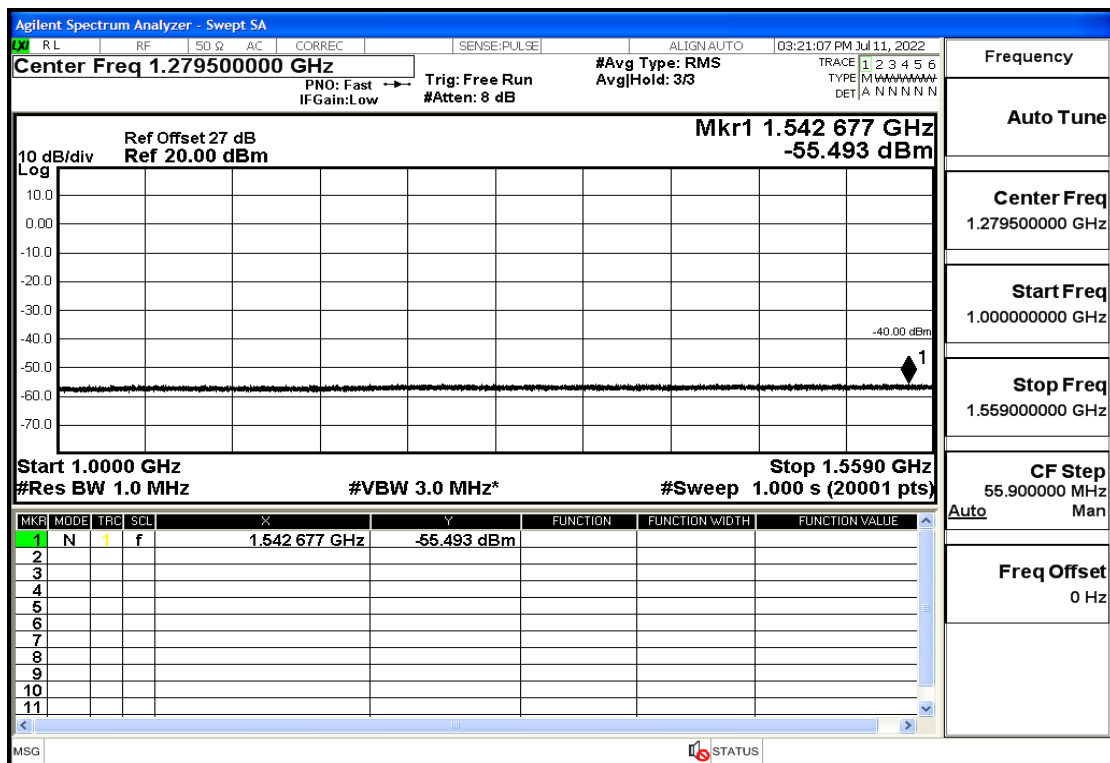
OB13-5-784.5-Q16-25#LOW@1.61GHz-9GHz@Pass



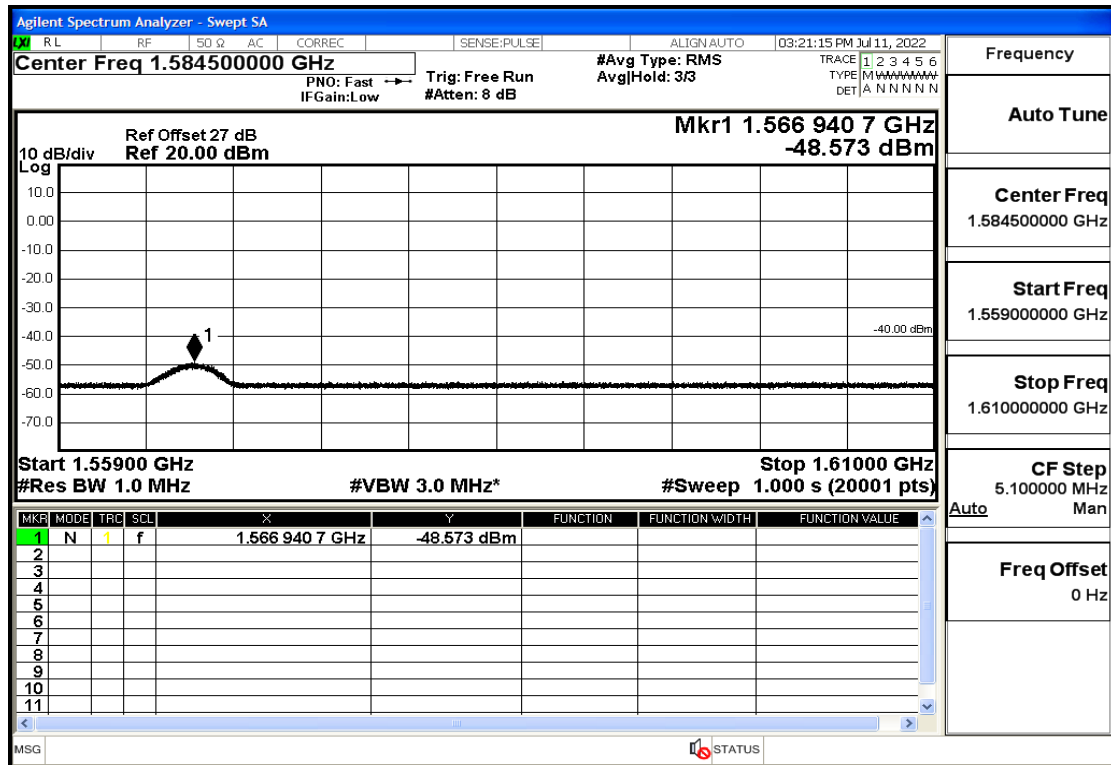
OB13-5-784.5-Q16-12#LOW@30mHz-1GHz@Pass



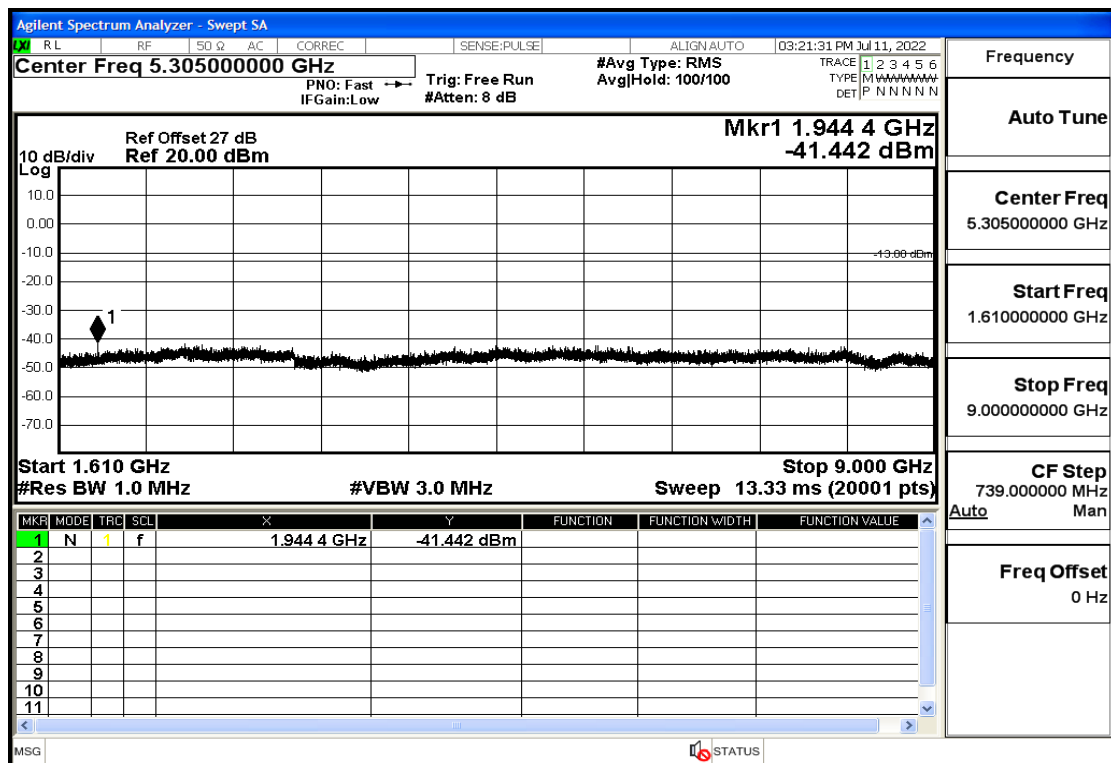
OB13-5-784.5-Q16-12#LOW@1GHz-1.559GHz@Pass



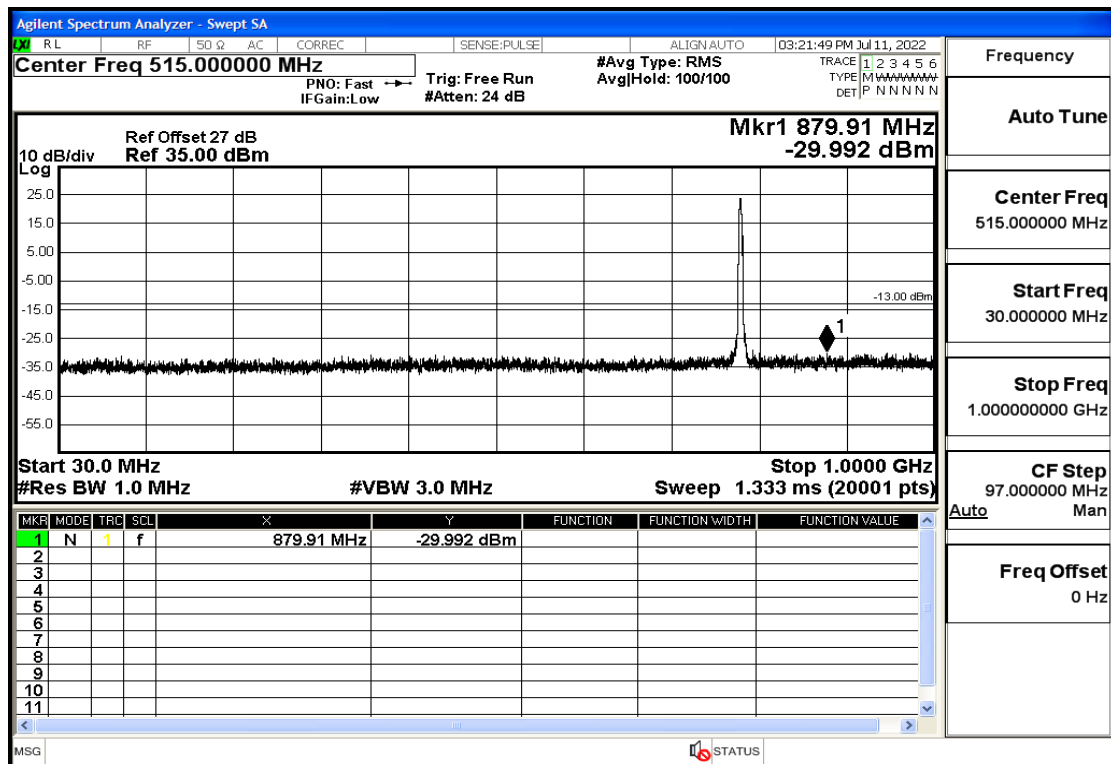
OB13-5-784.5-Q16-12#LOW@1.559GHz-1.61GHz@Pass



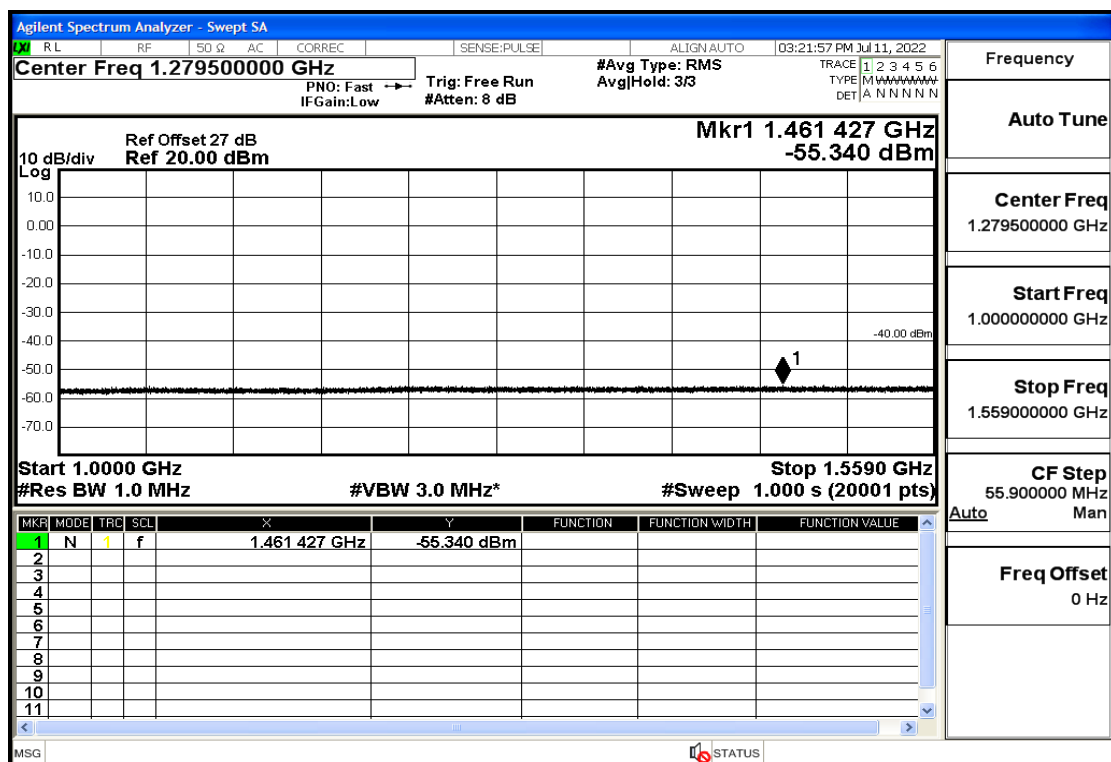
OB13-5-784.5-Q16-12#LOW@1.61GHz-9GHz@Pass



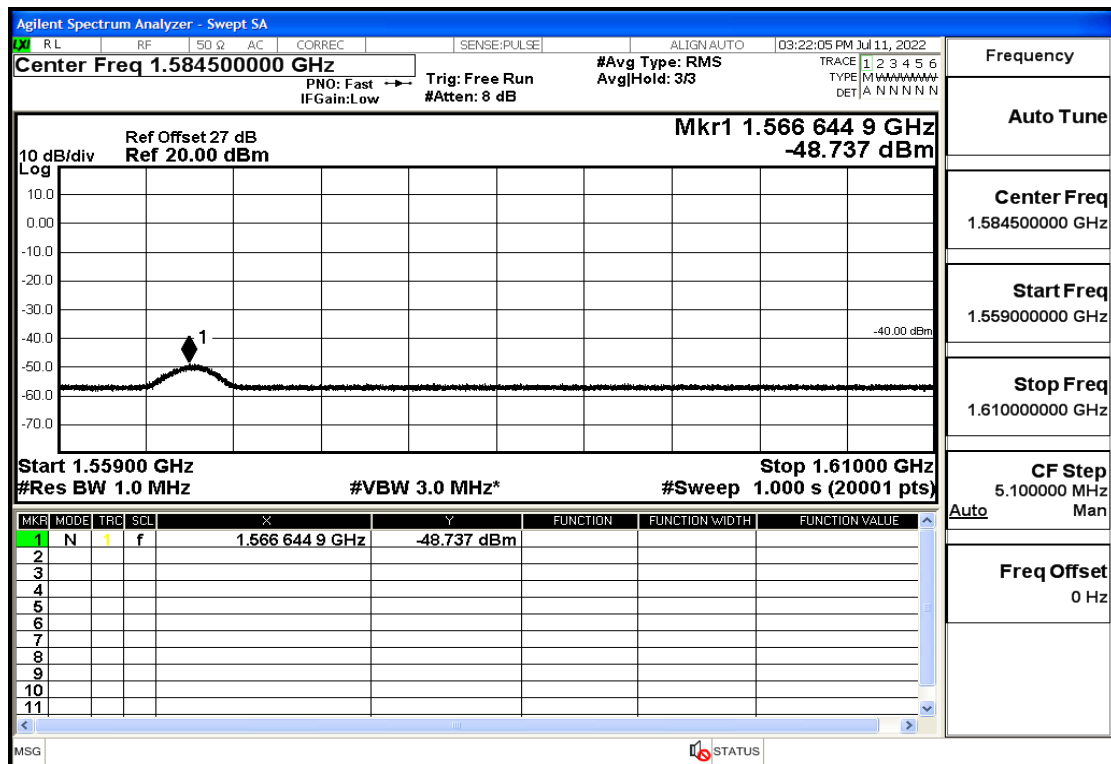
OB13-5-784.5-Q16-12#MID@30mHz-1GHz@Pass



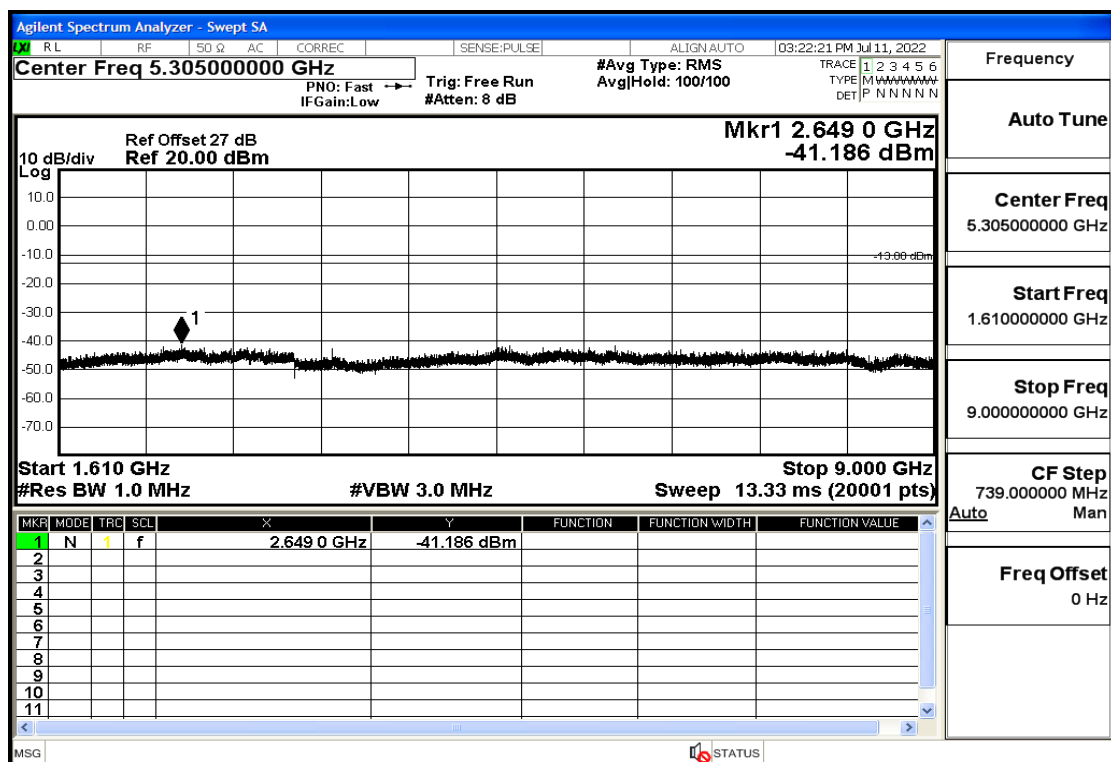
OB13-5-784.5-Q16-12#MID@1GHz-1.559GHz@Pass



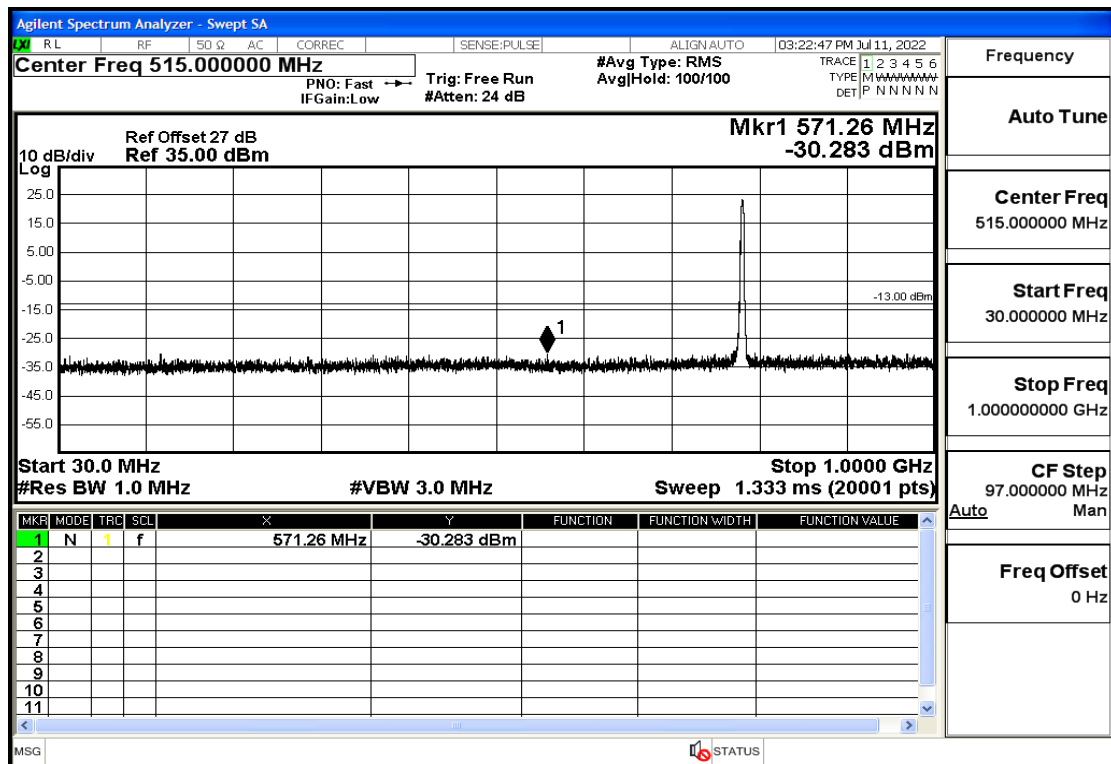
OB13-5-784.5-Q16-12#MID@1.559GHz-1.61GHz@Pass



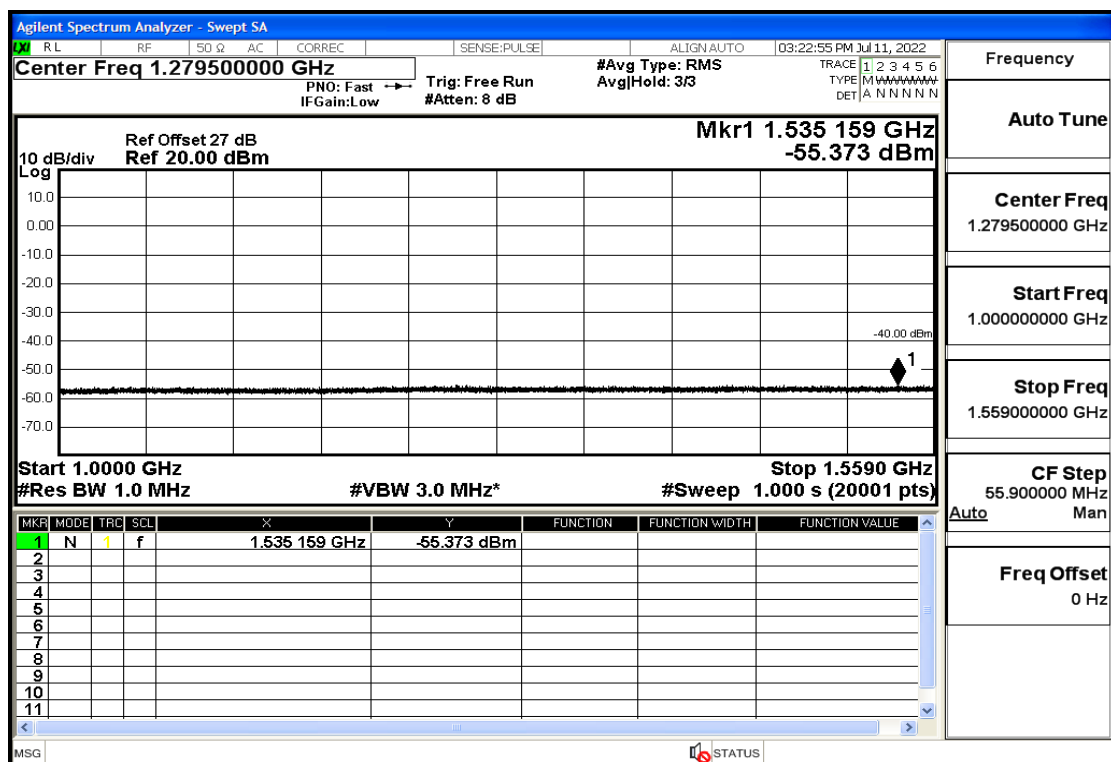
OB13-5-784.5-Q16-12#MID@1.61GHz-9GHz@Pass



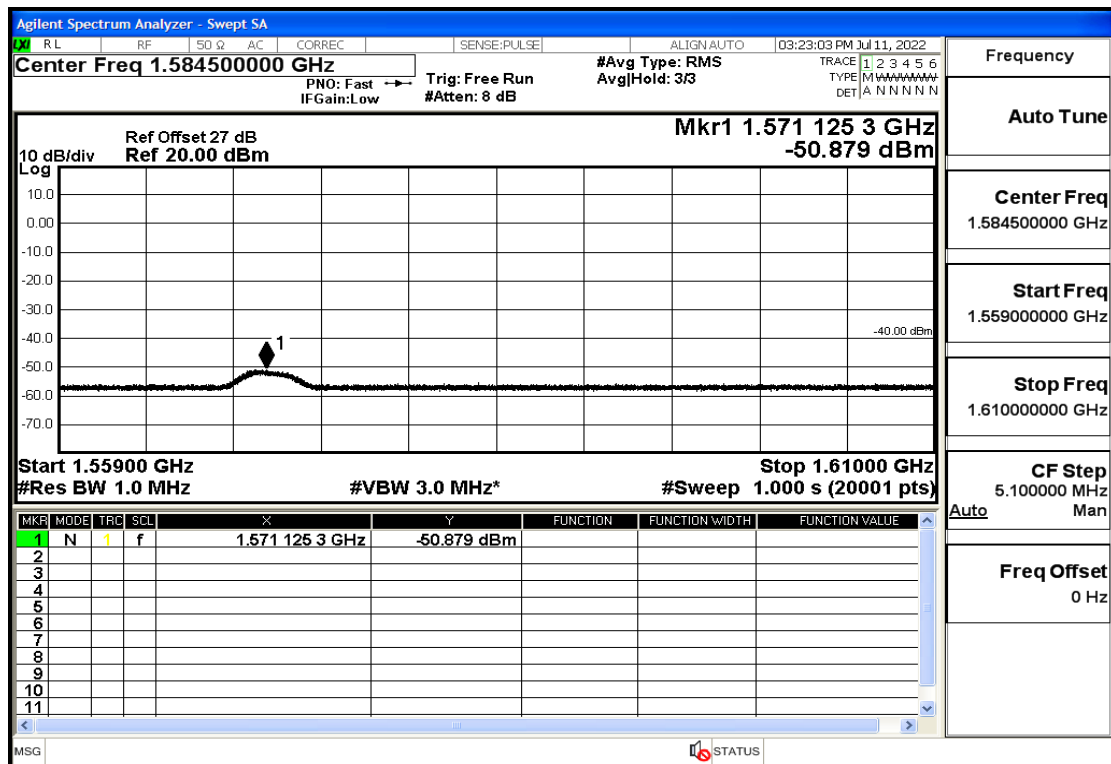
OB13-5-784.5-Q16-12#HIGH@30mHz-1GHz@Pass



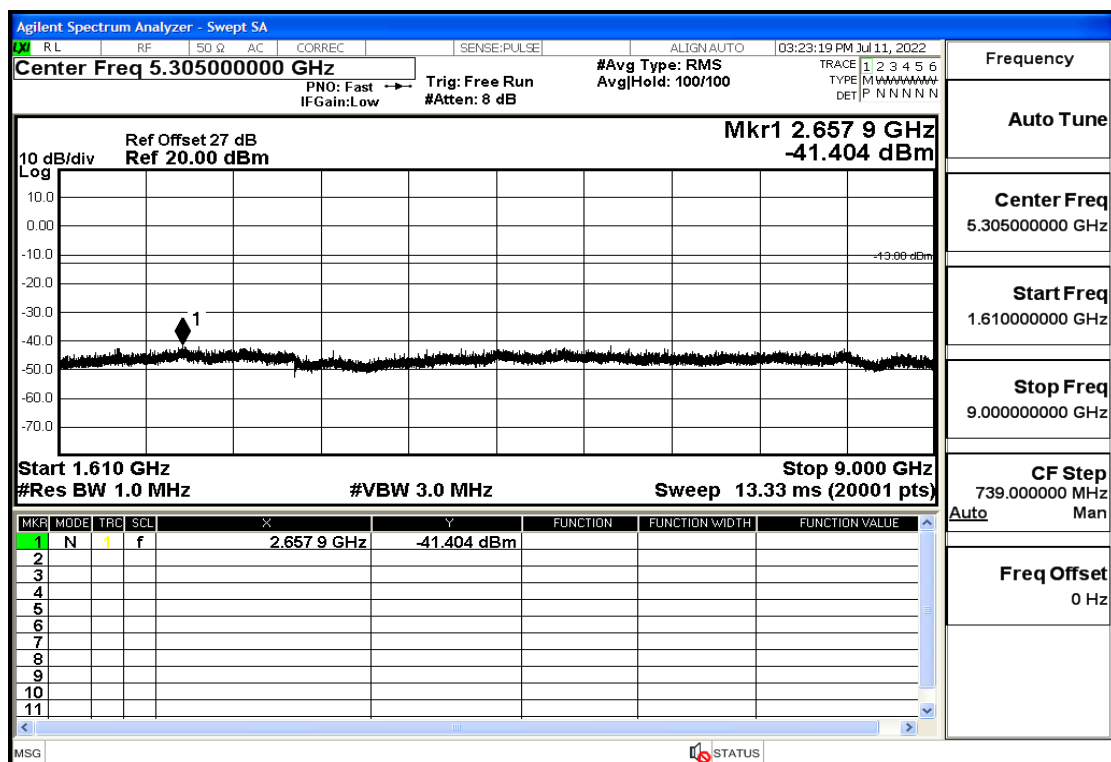
OB13-5-784.5-Q16-12#HIGH@1GHz-1.559GHz@Pass



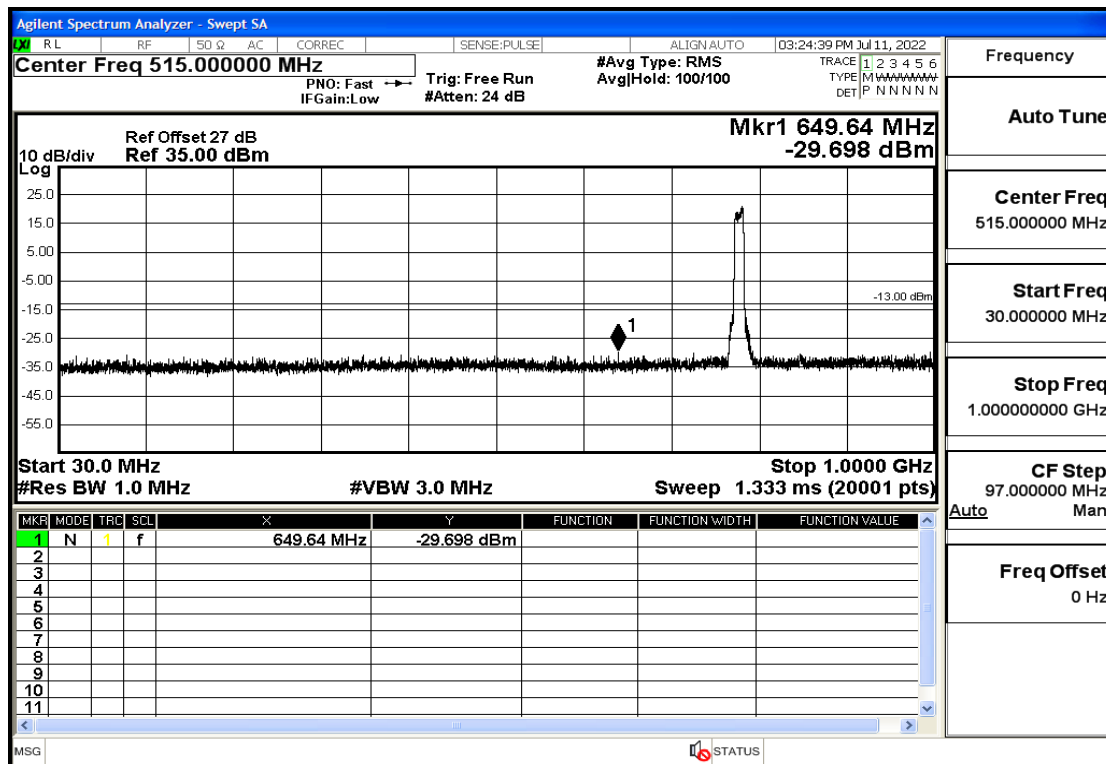
OB13-5-784.5-Q16-12#HIGH@1.559GHz-1.61GHz@Pass



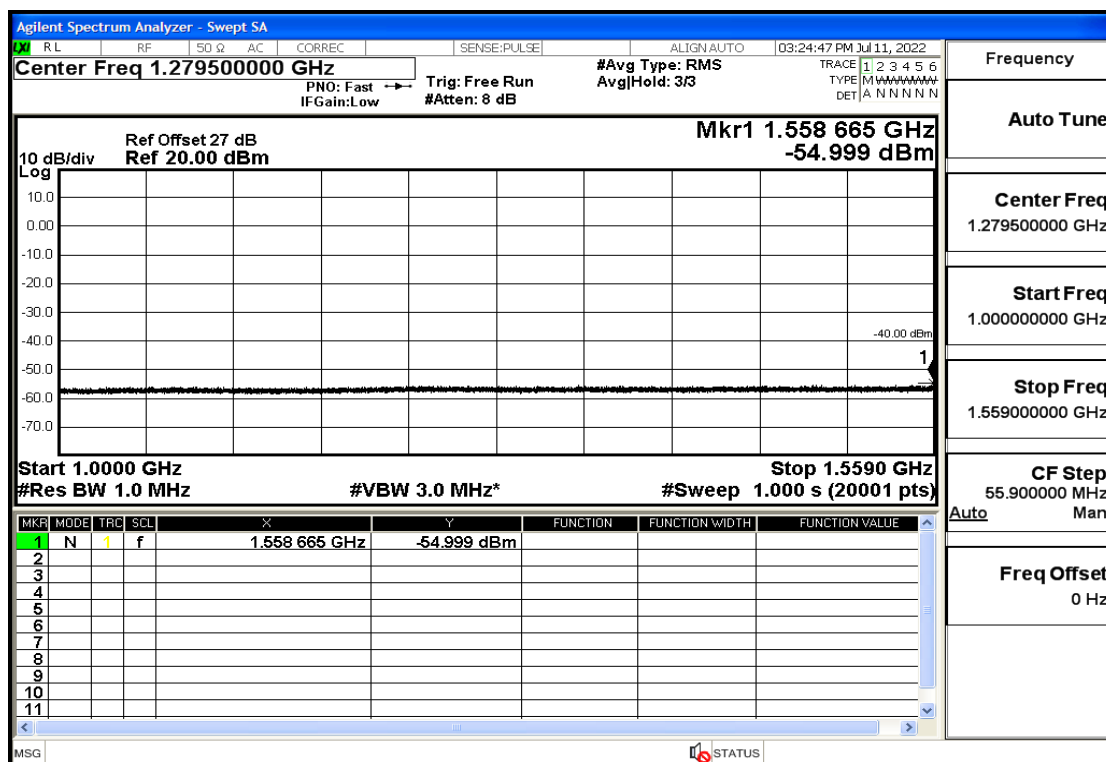
OB13-5-784.5-Q16-12#HIGH@1.61GHz-9GHz@Pass



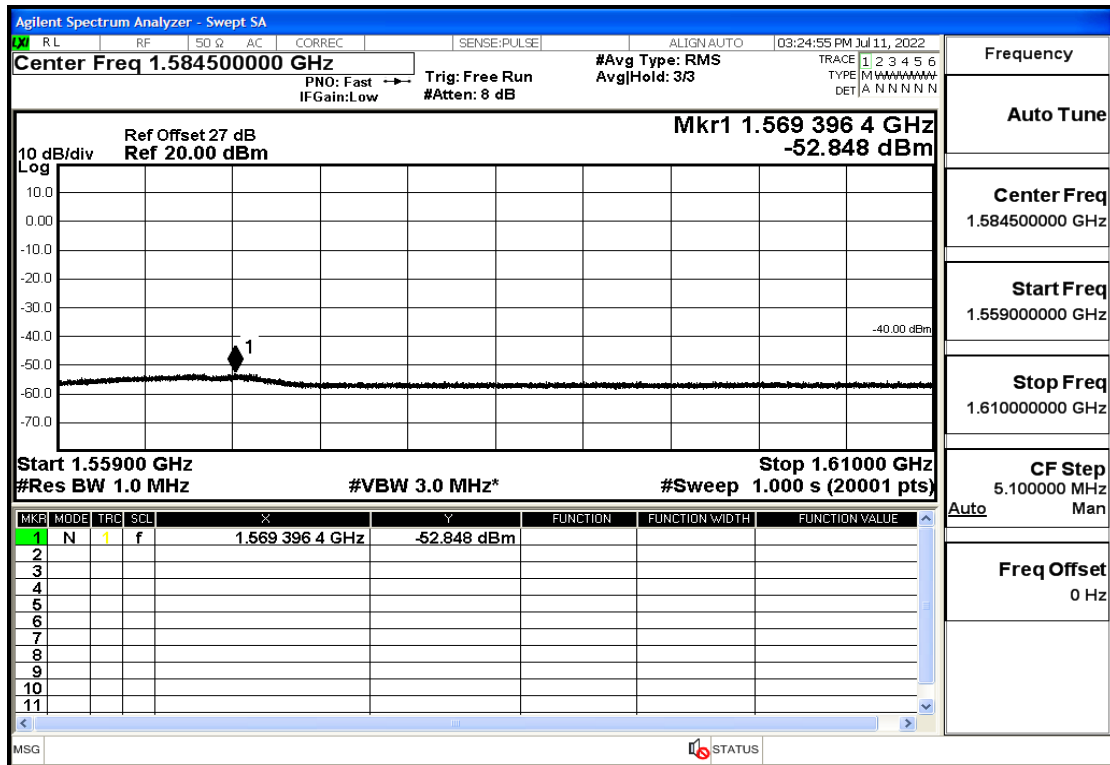
OB13-10-782-QPSK-50#LOW@30mHz-1GHz@Pass



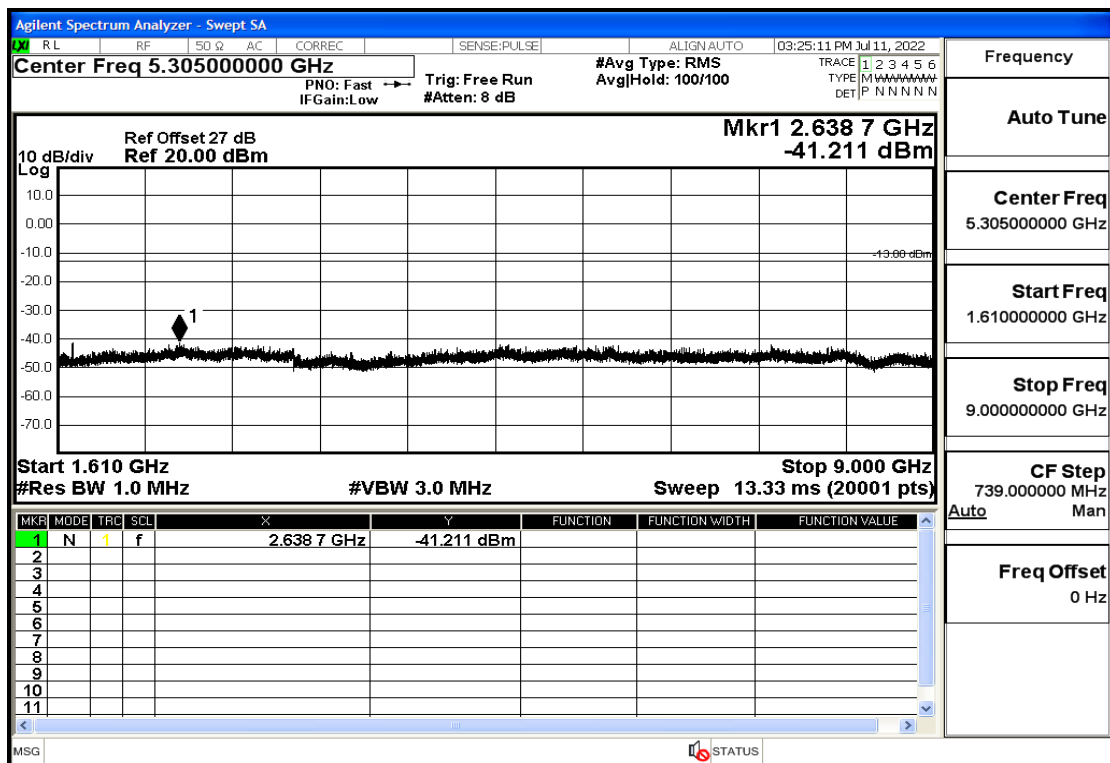
OB13-10-782-QPSK-50#LOW@1GHz-1.559GHz@Pass



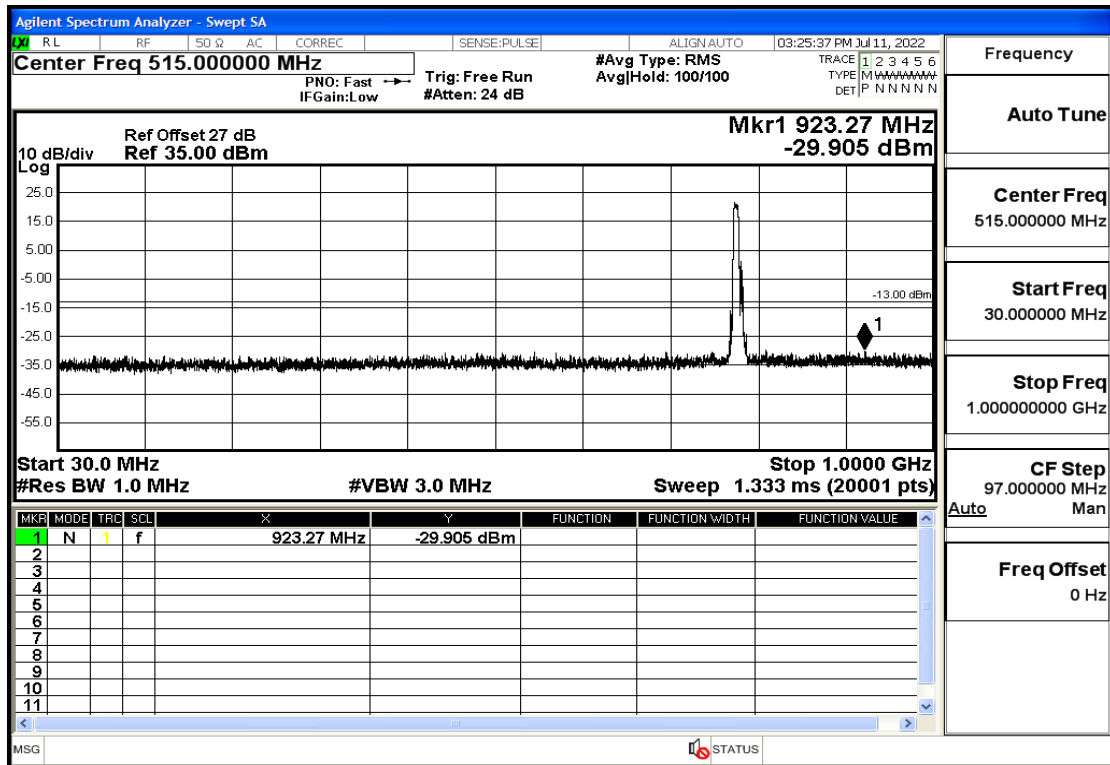
OB13-10-782-QPSK-50#LOW@1.559GHz-1.61GHz@Pass



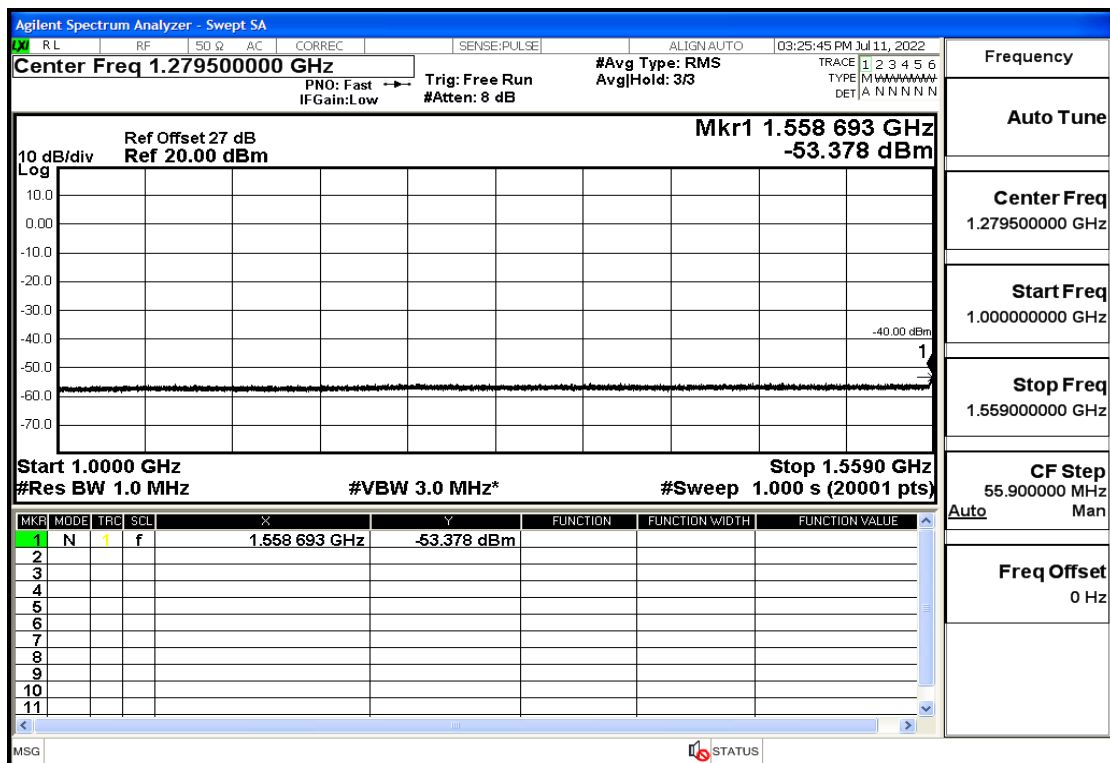
OB13-10-782-QPSK-50#LOW@1.61GHz-9GHz@Pass



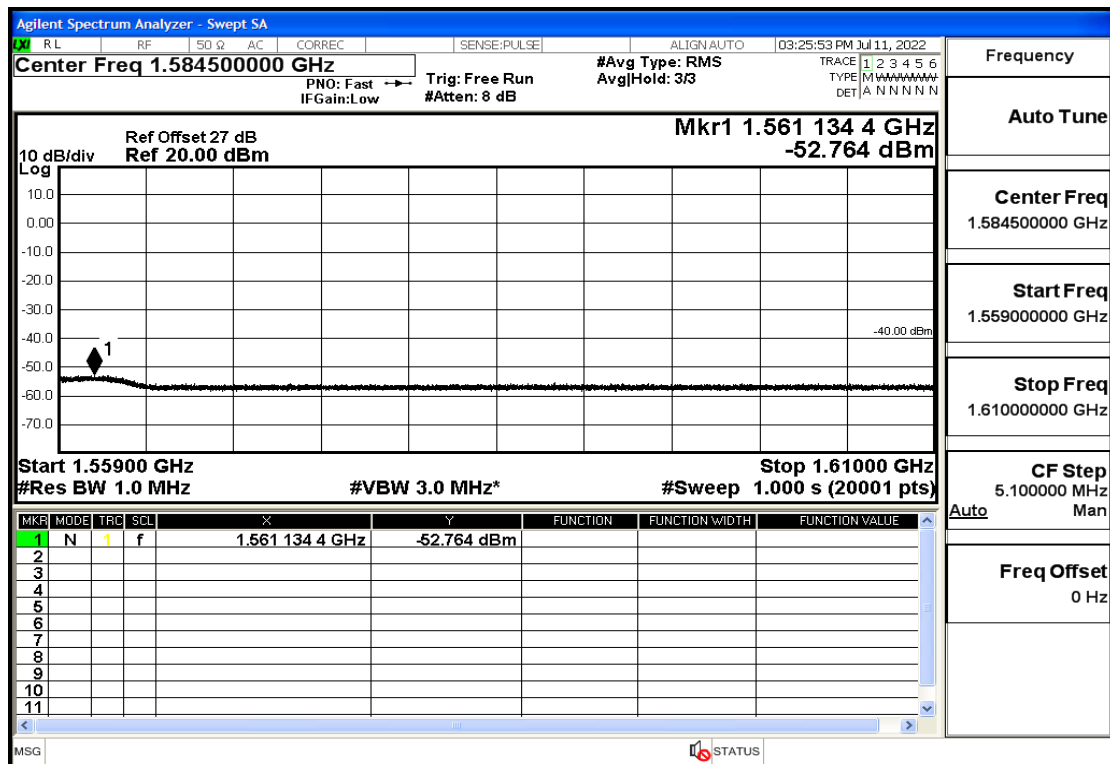
OB13-10-782-QPSK-25#LOW@30mHz-1GHz@Pass



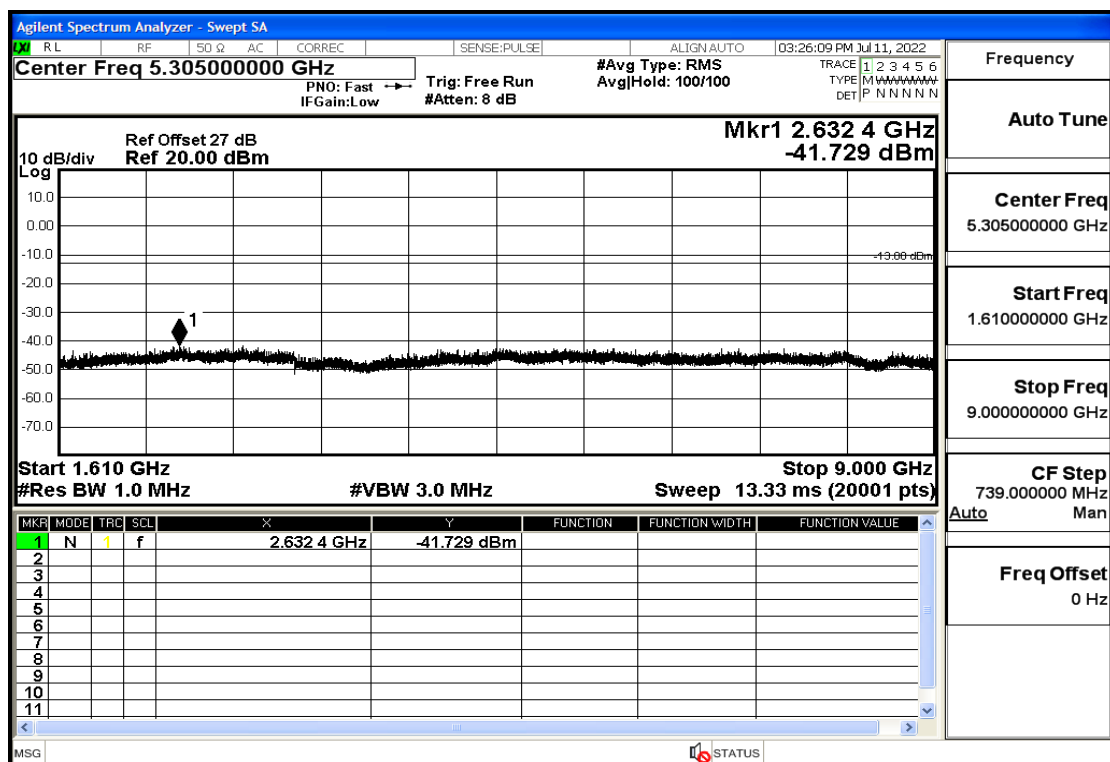
OB13-10-782-QPSK-25#LOW@1GHz-1.559GHz@Pass



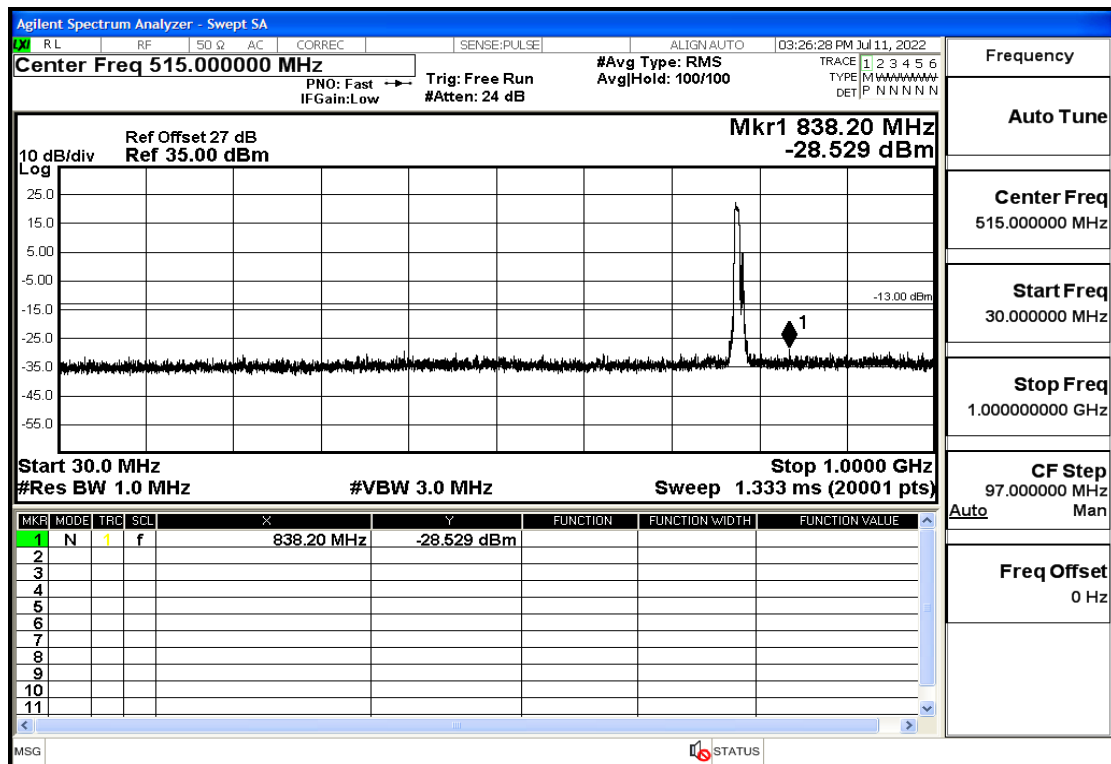
OB13-10-782-QPSK-25#LOW@1.559GHz-1.61GHz@Pass



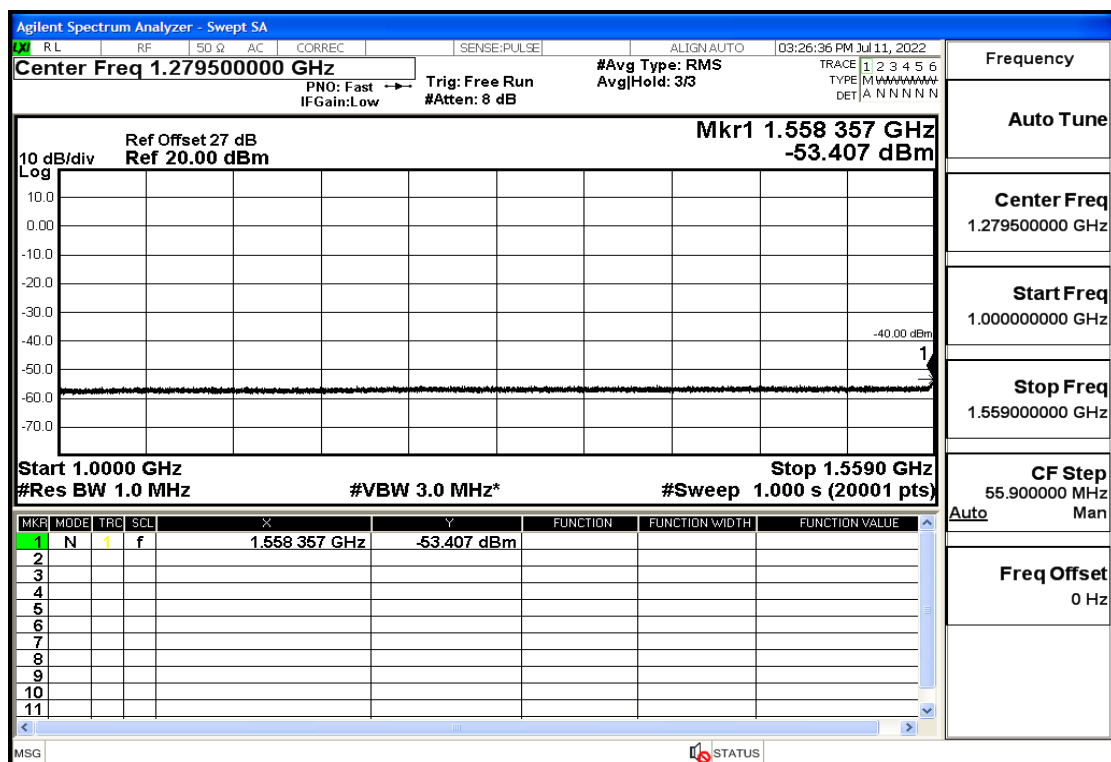
OB13-10-782-QPSK-25#LOW@1.61GHz-9GHz@Pass



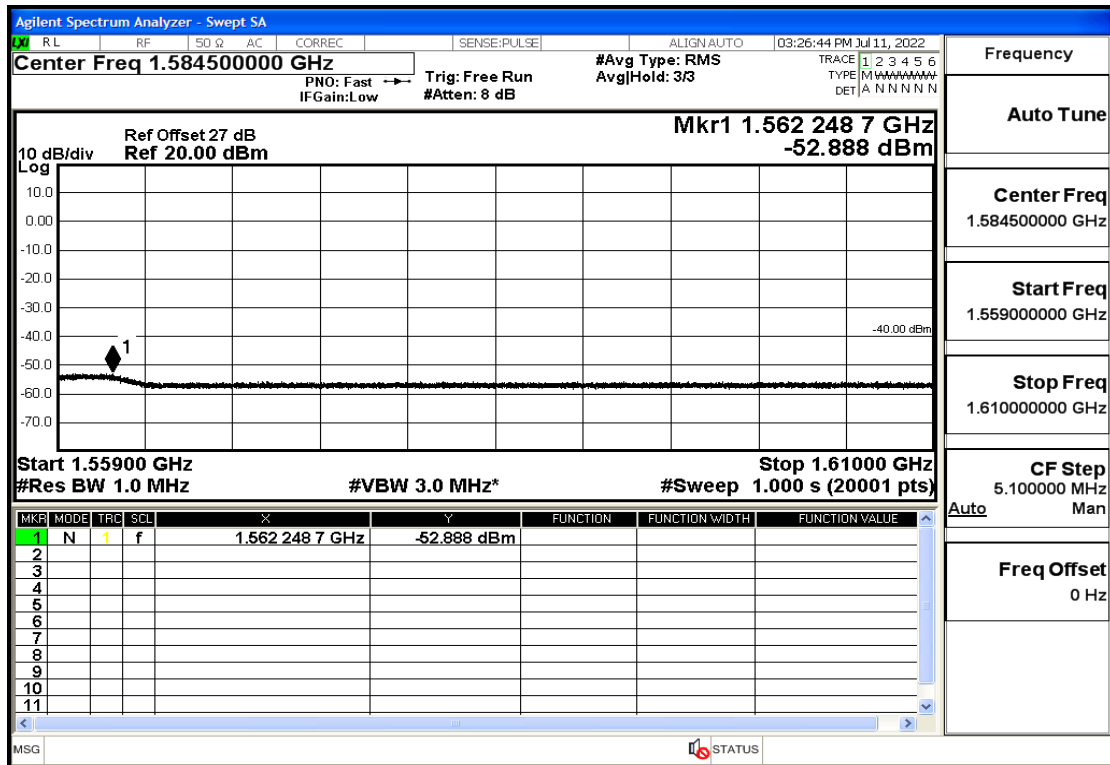
OB13-10-782-QPSK-25#MID@30mHz-1GHz@Pass



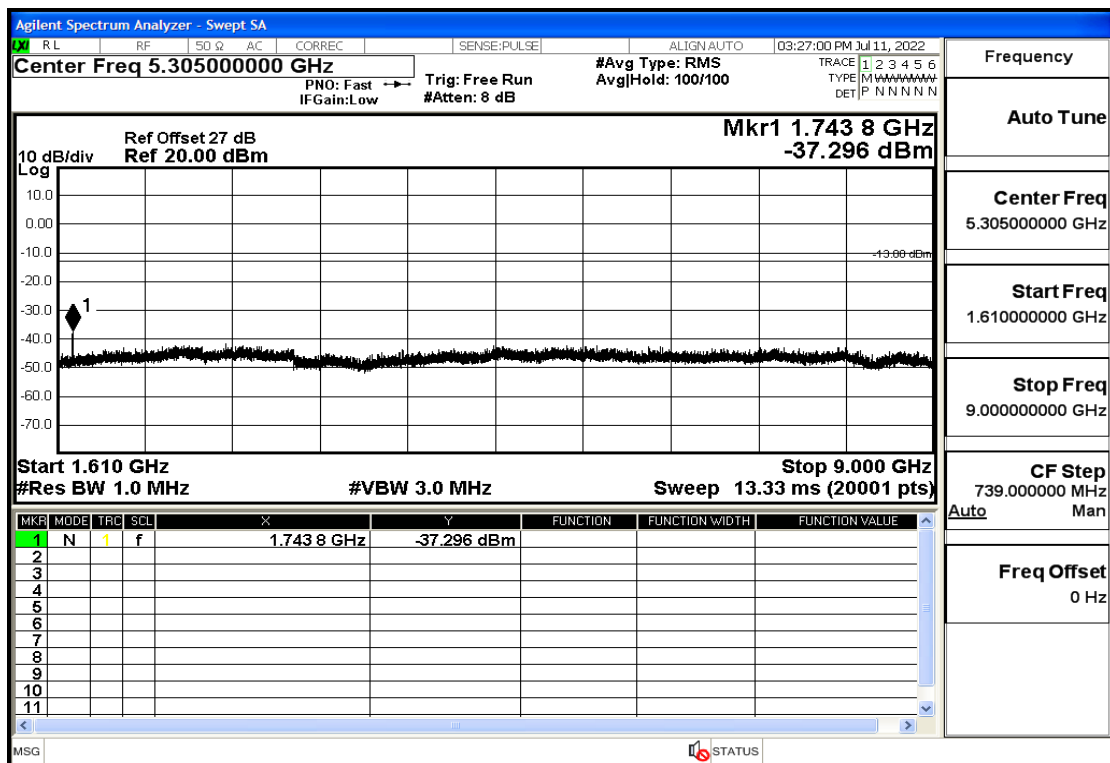
OB13-10-782-QPSK-25#MID@1GHz-1.559GHz@Pass



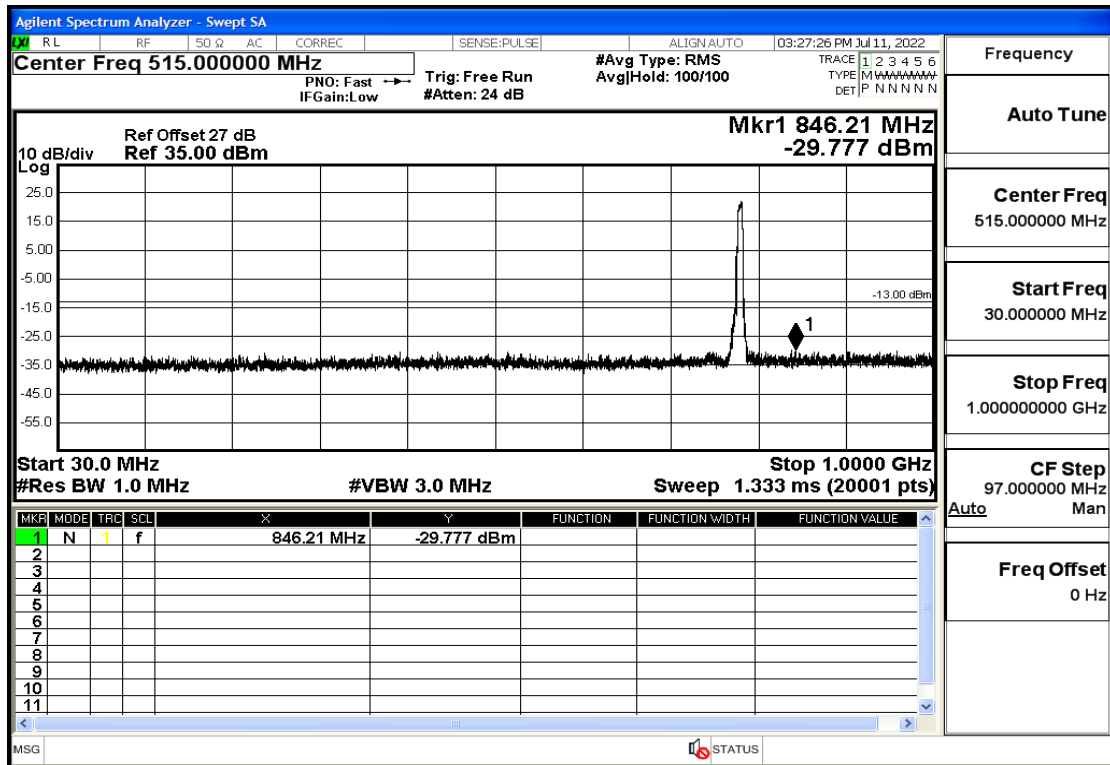
OB13-10-782-QPSK-25#MID@1.559GHz-1.61GHz@Pass



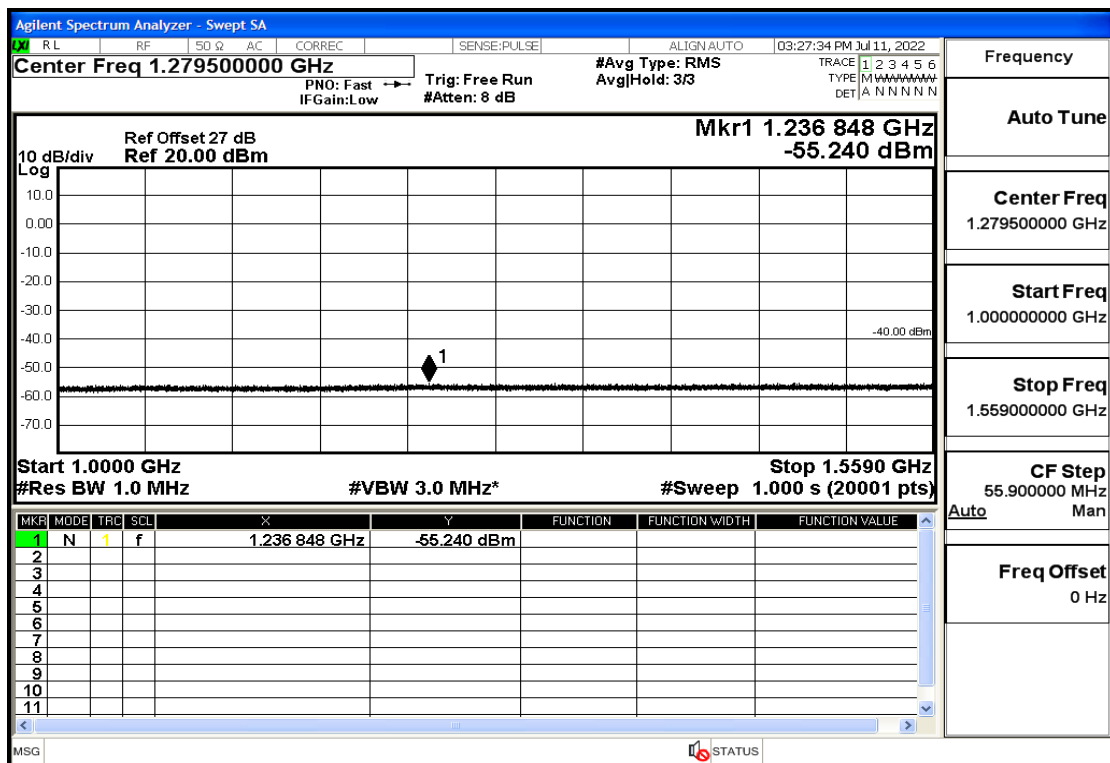
OB13-10-782-QPSK-25#MID@1.61GHz-9GHz@Pass



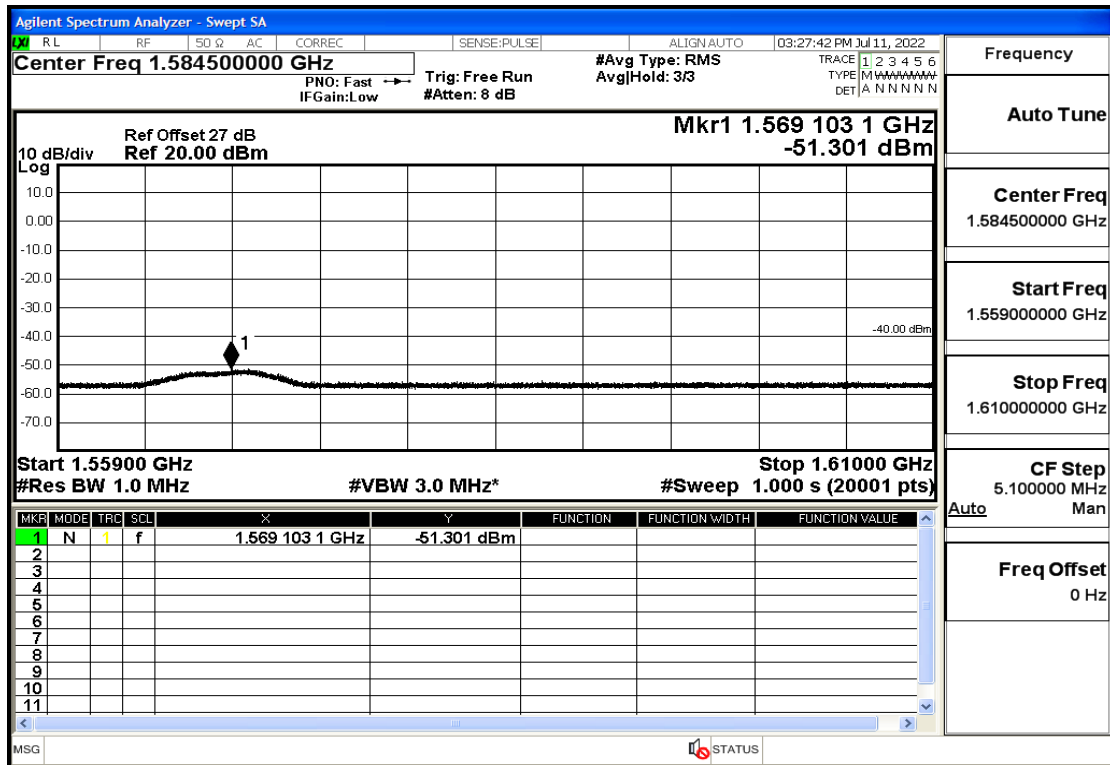
OB13-10-782-QPSK-25#HIGH@30mHz-1GHz@Pass



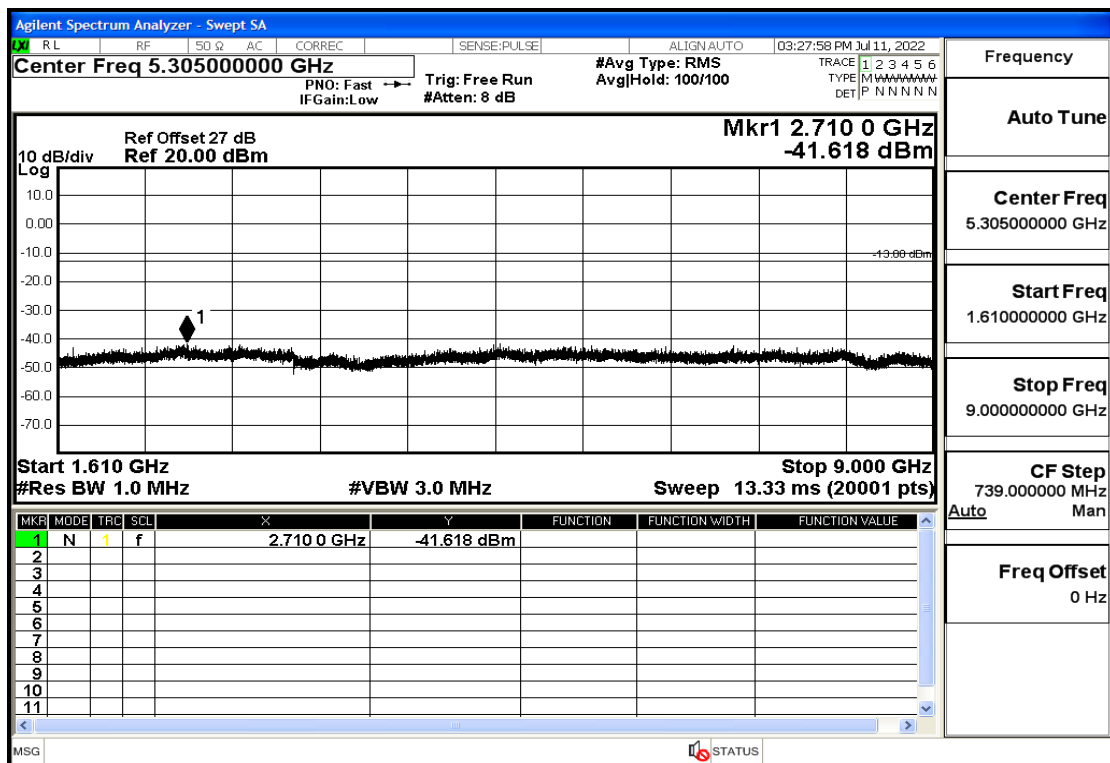
OB13-10-782-QPSK-25#HIGH@1GHz-1.559GHz@Pass



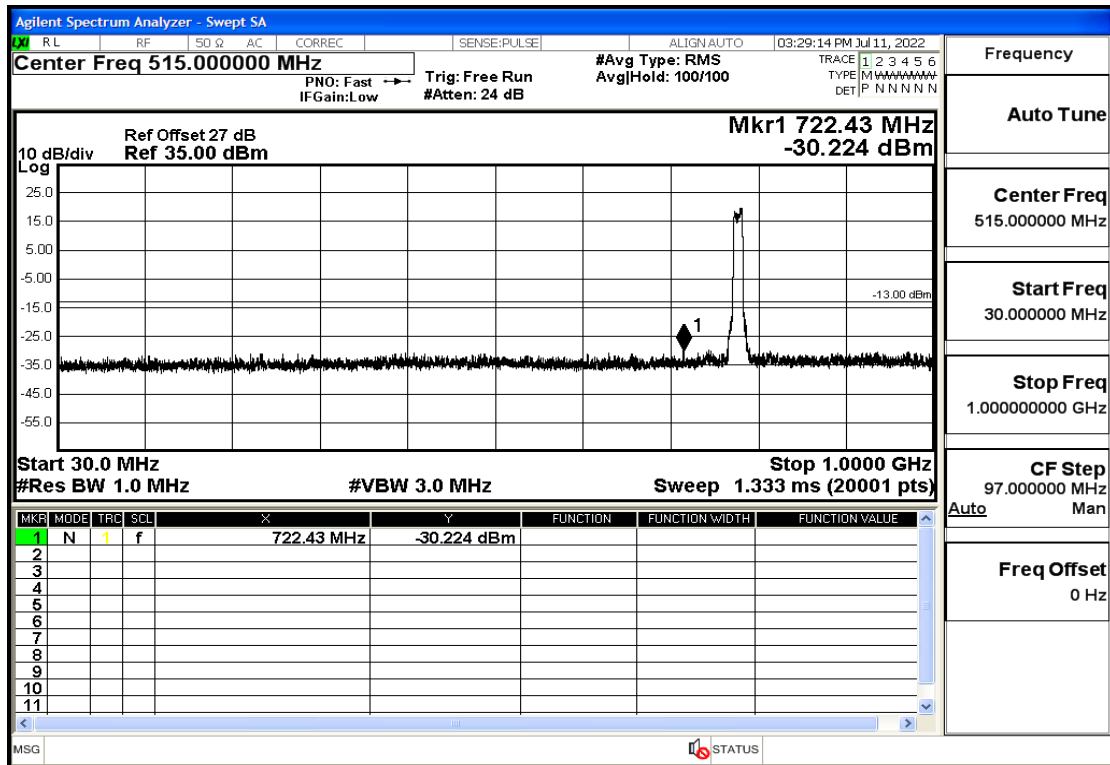
OB13-10-782-QPSK-25#HIGH@1.559GHz-1.61GHz@Pass



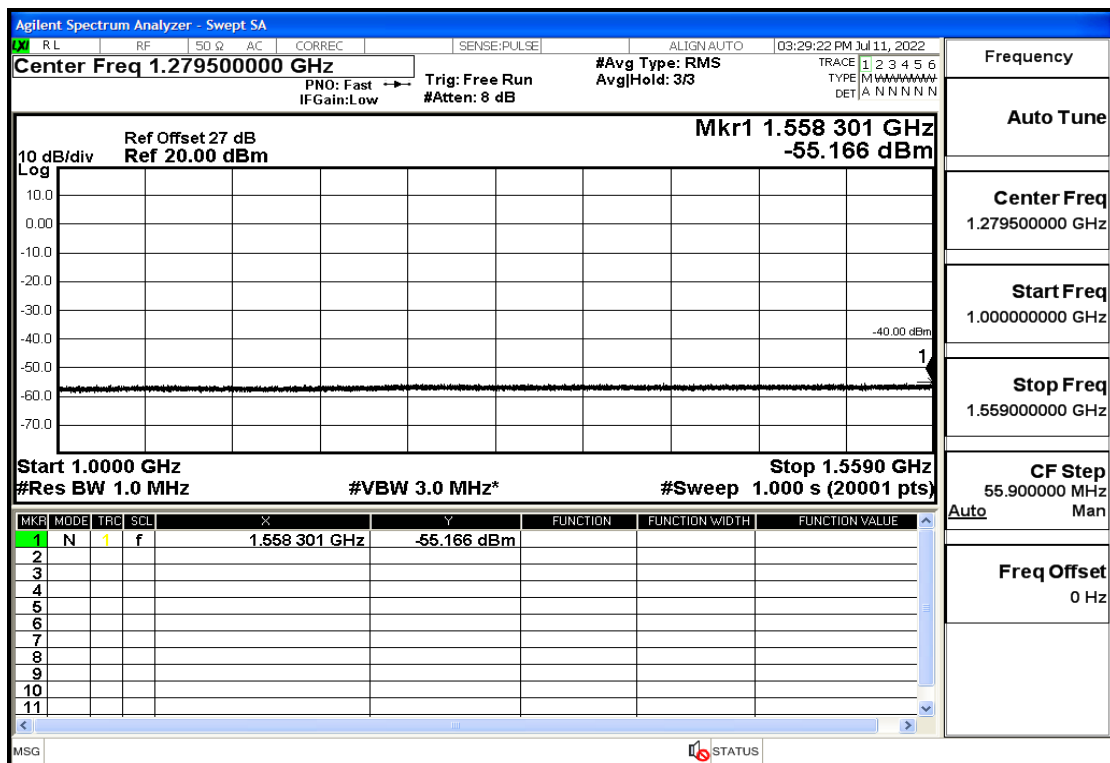
OB13-10-782-QPSK-25#HIGH@1.61GHz-9GHz@Pass



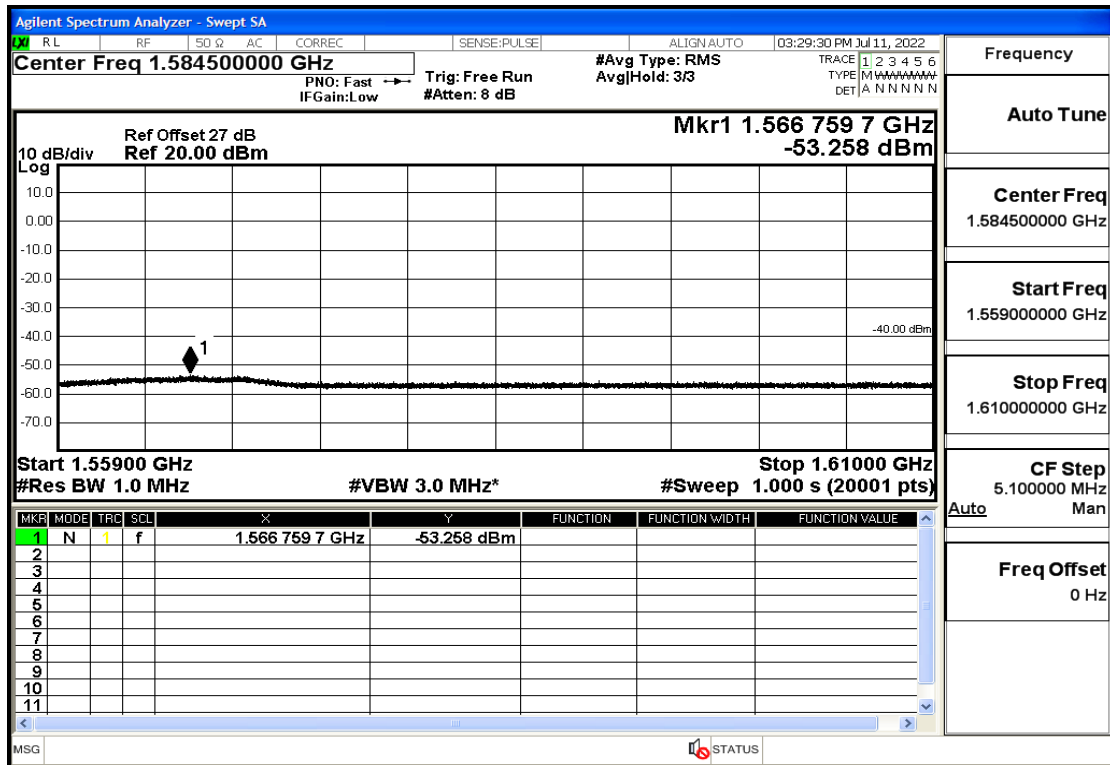
OB13-10-782-Q16-50#LOW@30mHz-1GHz@Pass



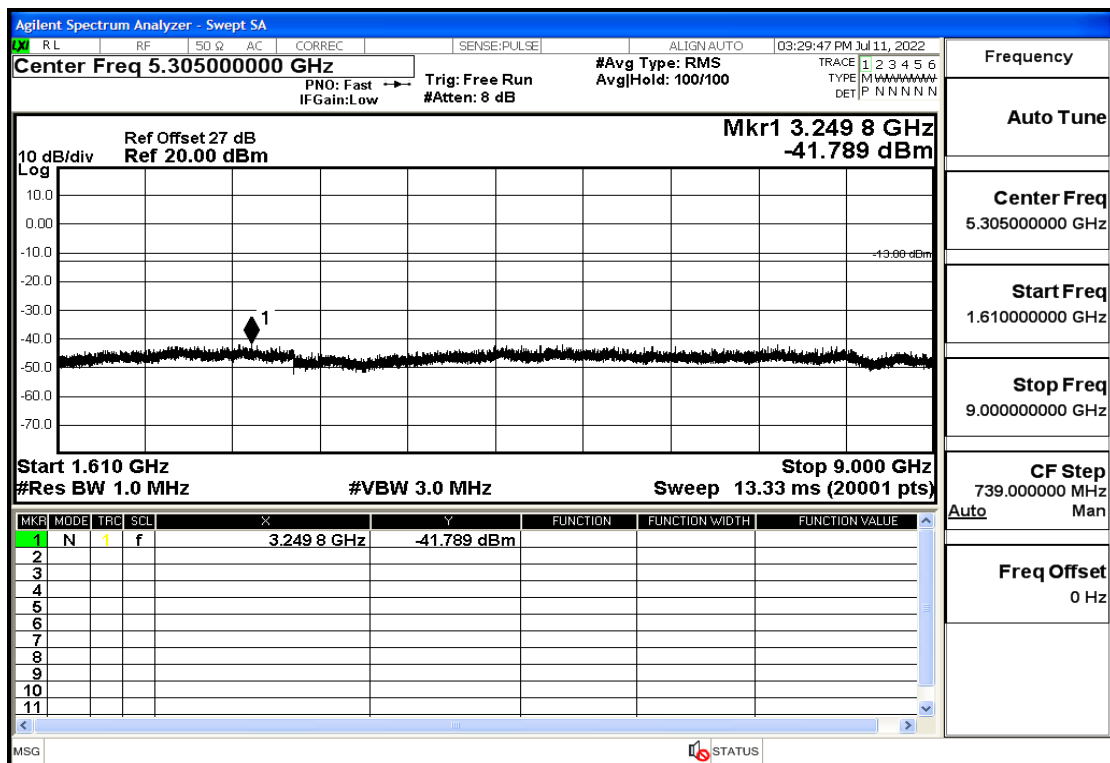
OB13-10-782-Q16-50#LOW@1GHz-1.559GHz@Pass



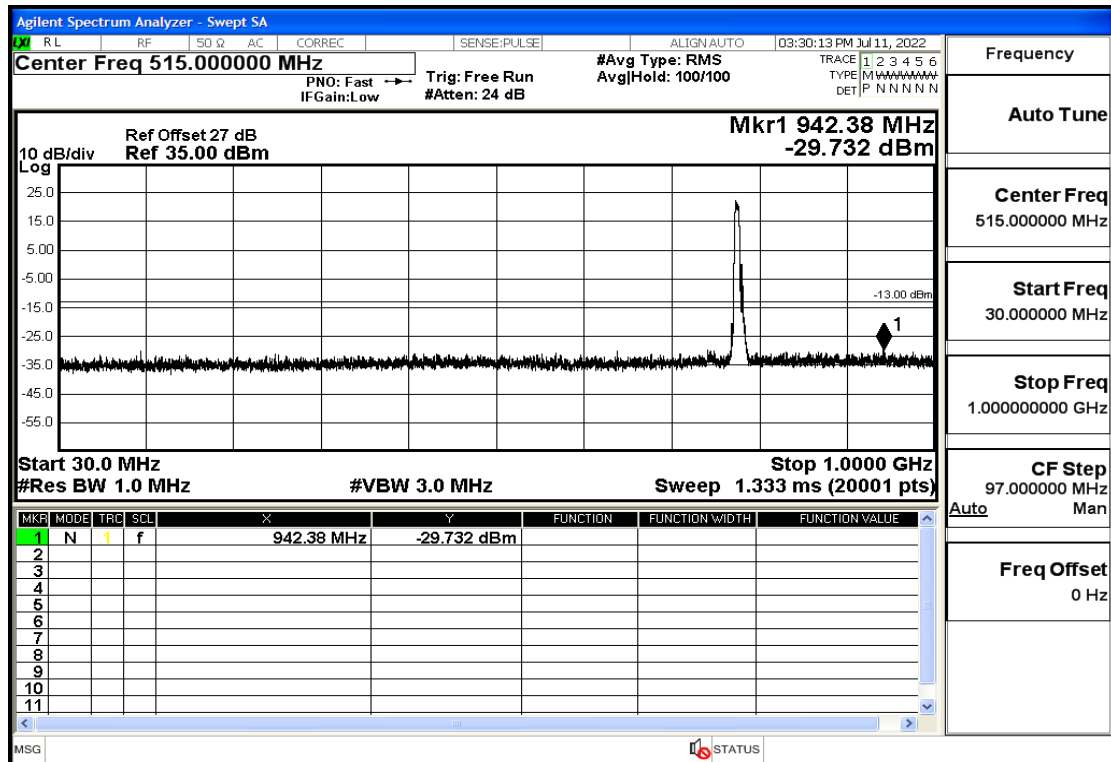
OB13-10-782-Q16-50#LOW@1.559GHz-1.61GHz@Pass



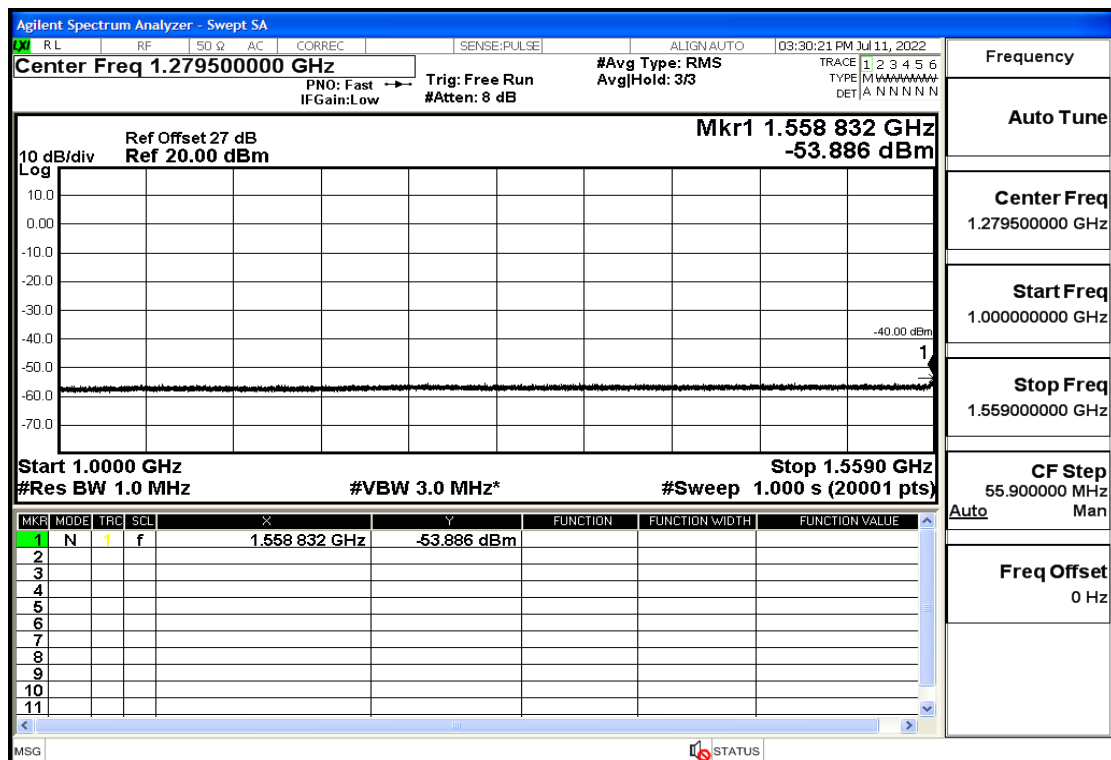
OB13-10-782-Q16-50#LOW@1.61GHz-9GHz@Pass



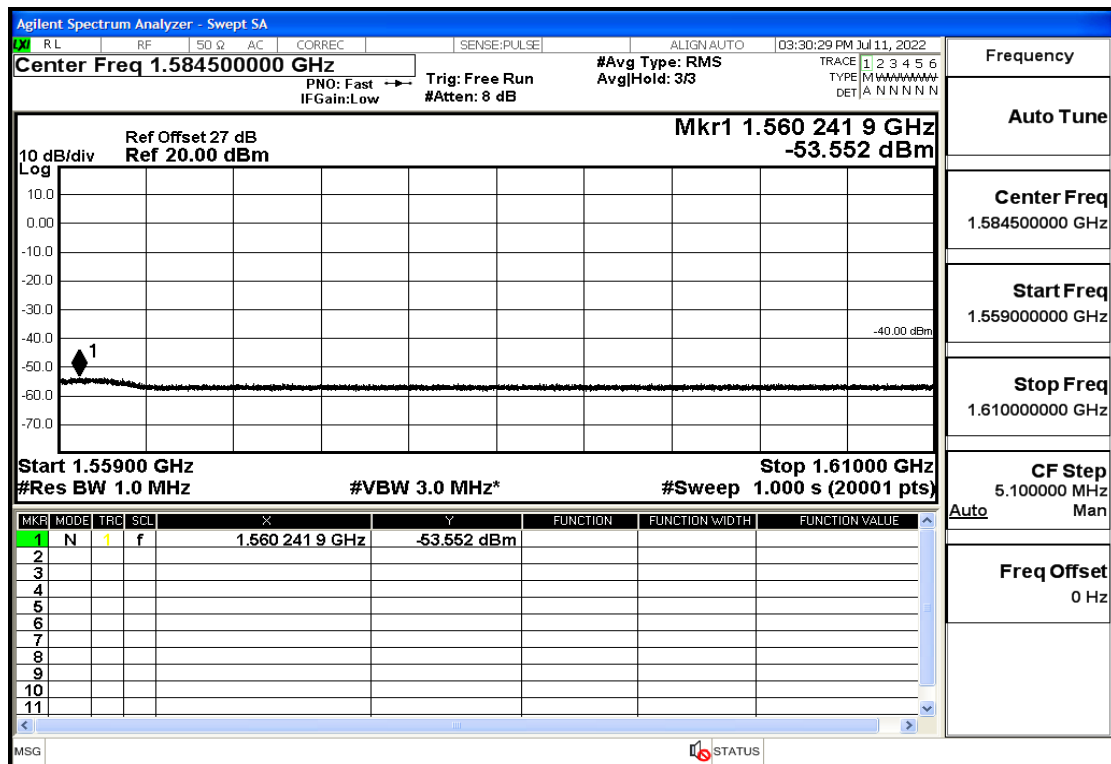
OB13-10-782-Q16-25#LOW@30mHz-1GHz@Pass



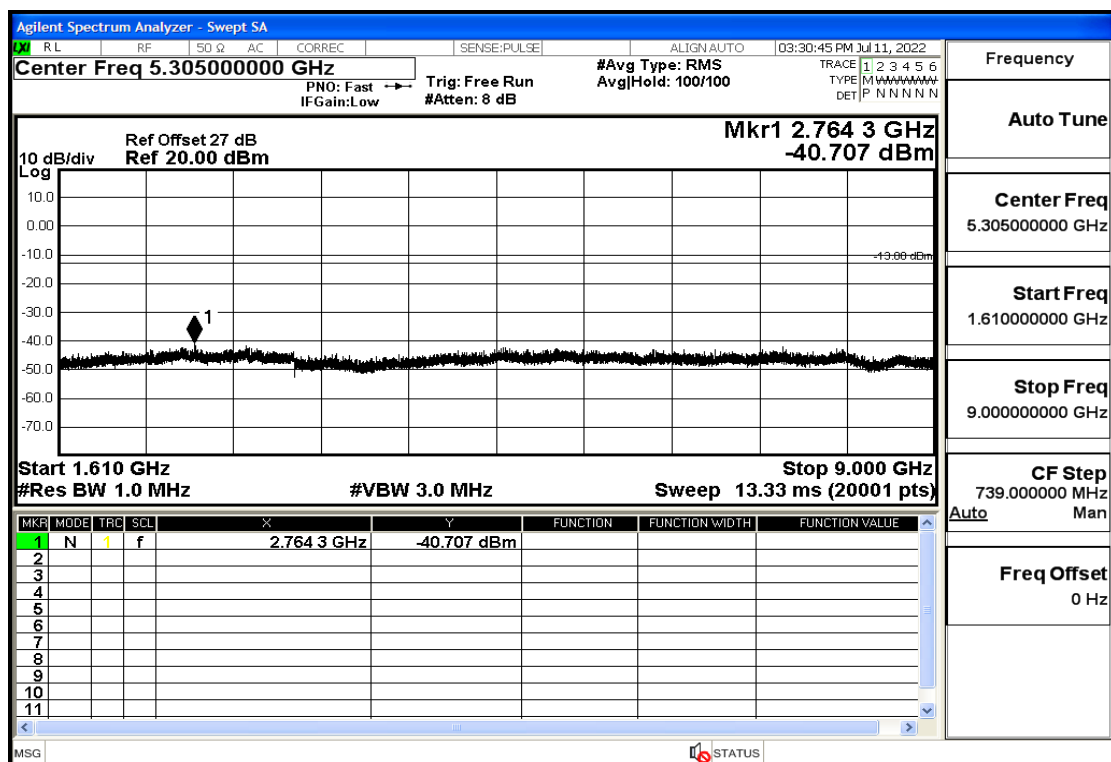
OB13-10-782-Q16-25#LOW@1GHz-1.559GHz@Pass



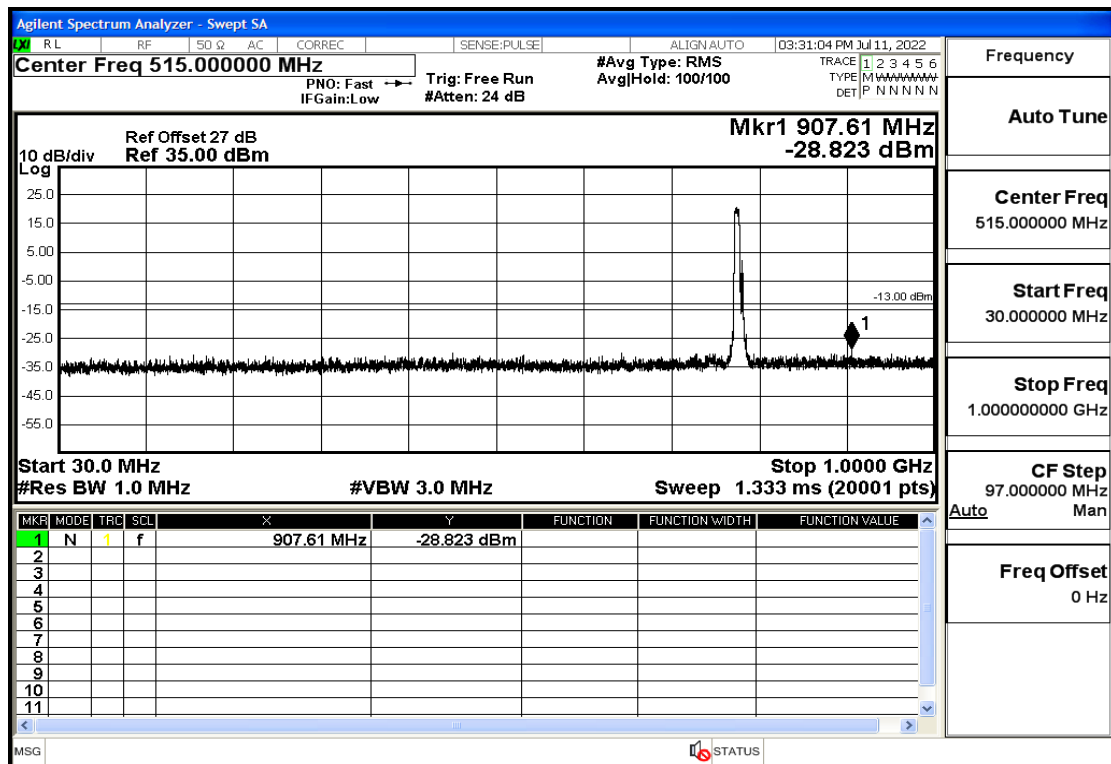
OB13-10-782-Q16-25#LOW@1.559GHz-1.61GHz@Pass



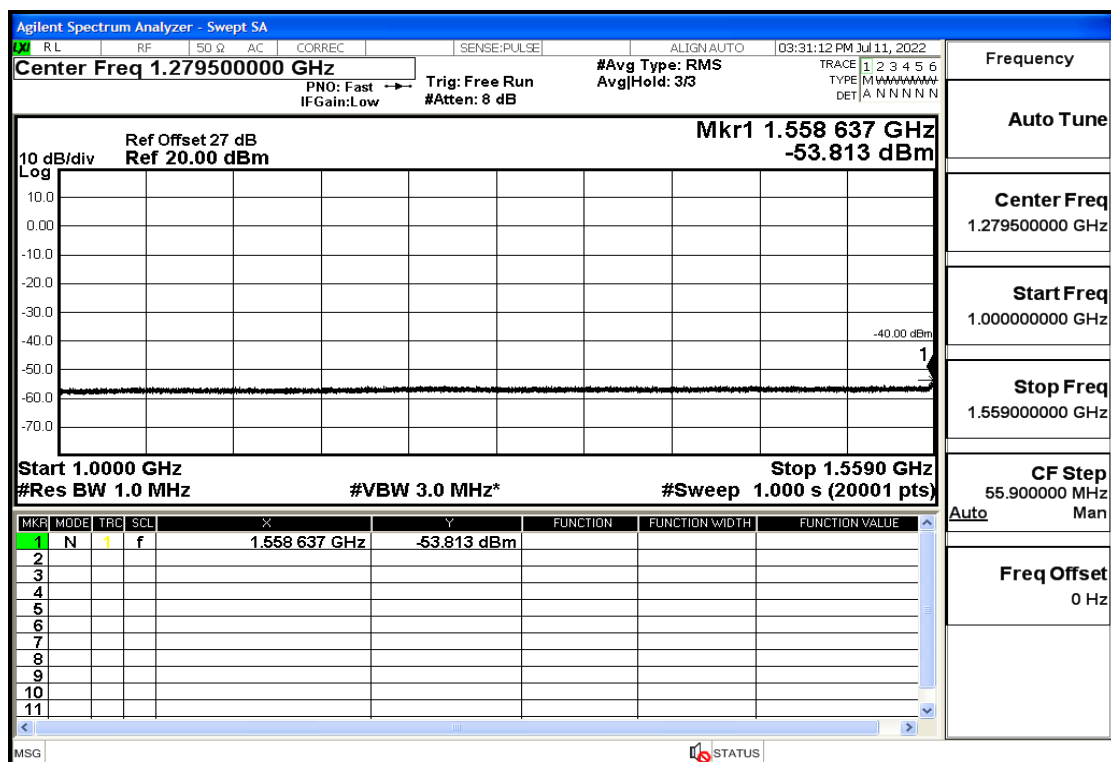
OB13-10-782-Q16-25#LOW@1.61GHz-9GHz@Pass



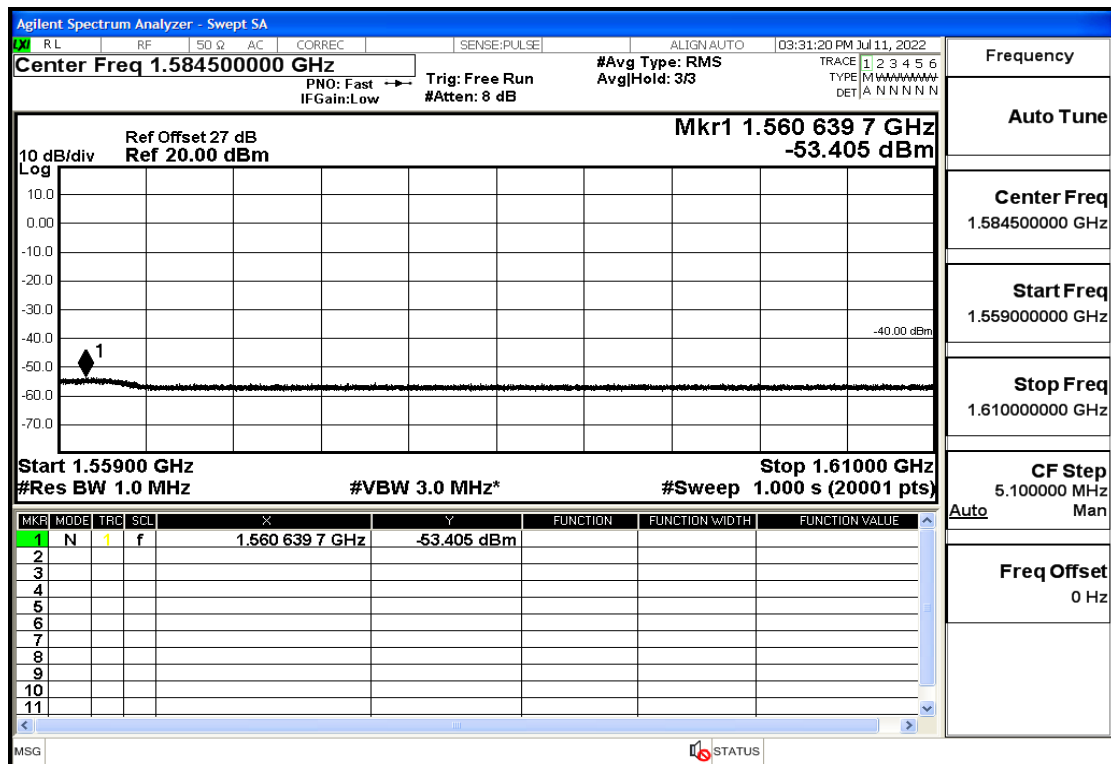
OB13-10-782-Q16-25#MID@30mHz-1GHz@Pass



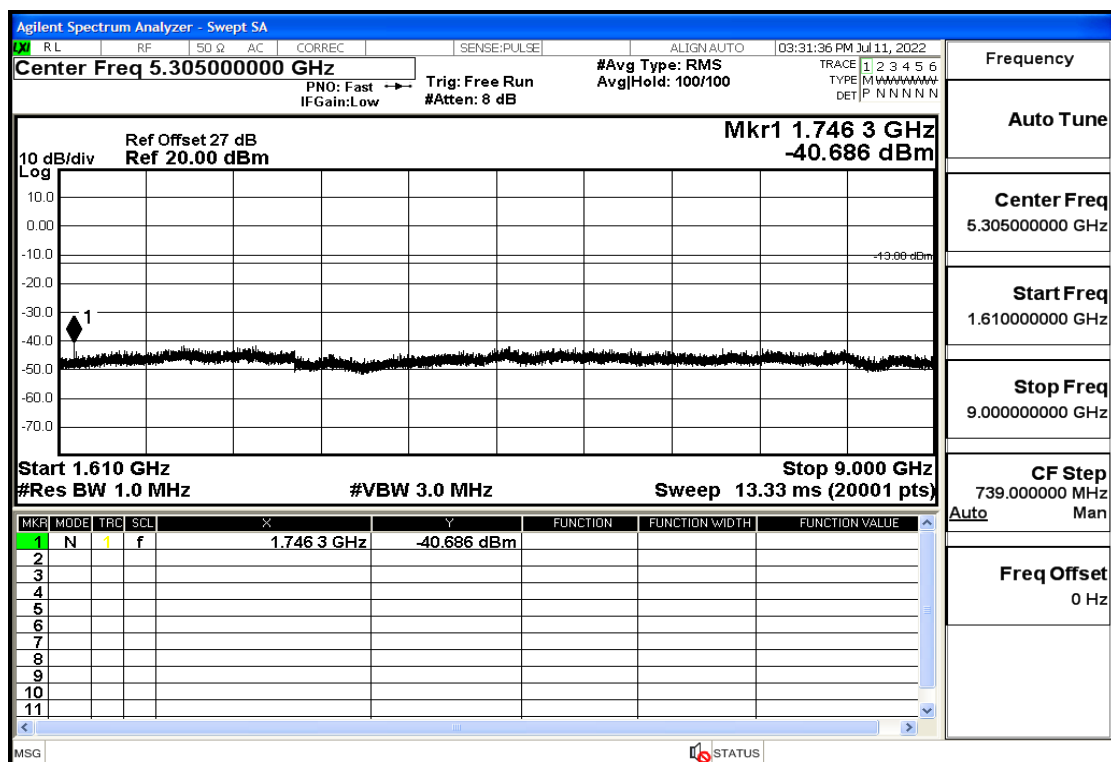
OB13-10-782-Q16-25#MID@1GHz-1.559GHz@Pass



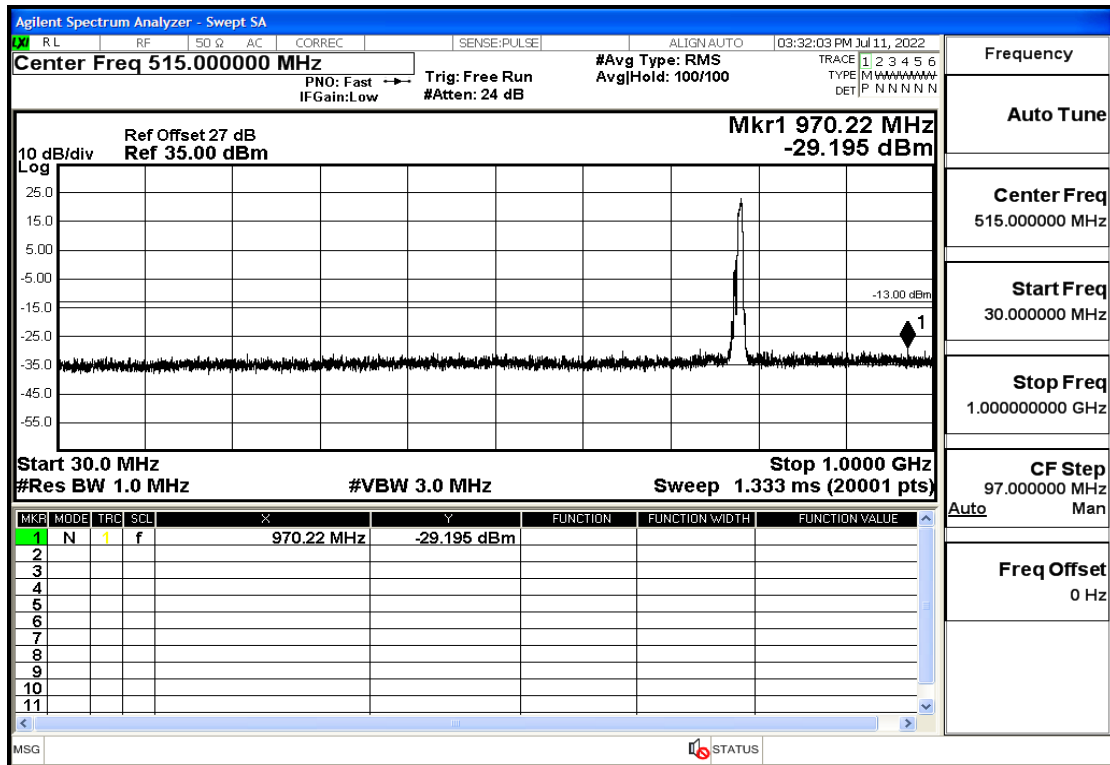
OB13-10-782-Q16-25#MID@1.559GHz-1.61GHz@Pass



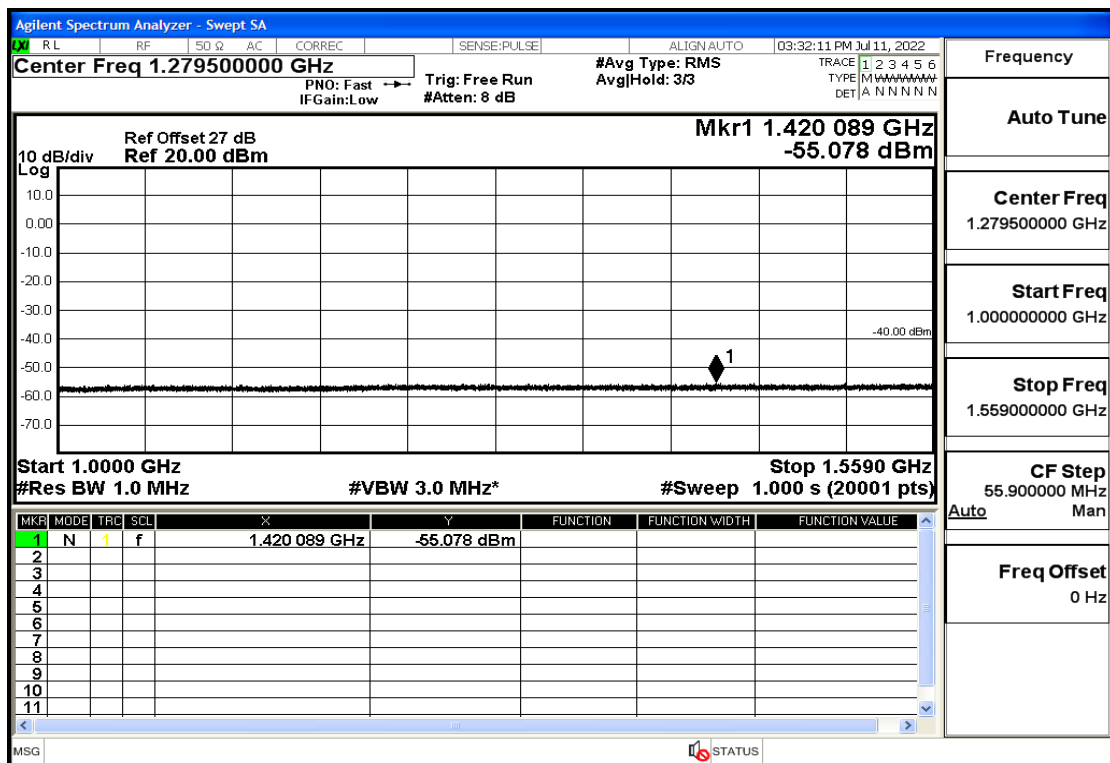
OB13-10-782-Q16-25#MID@1.61GHz-9GHz@Pass



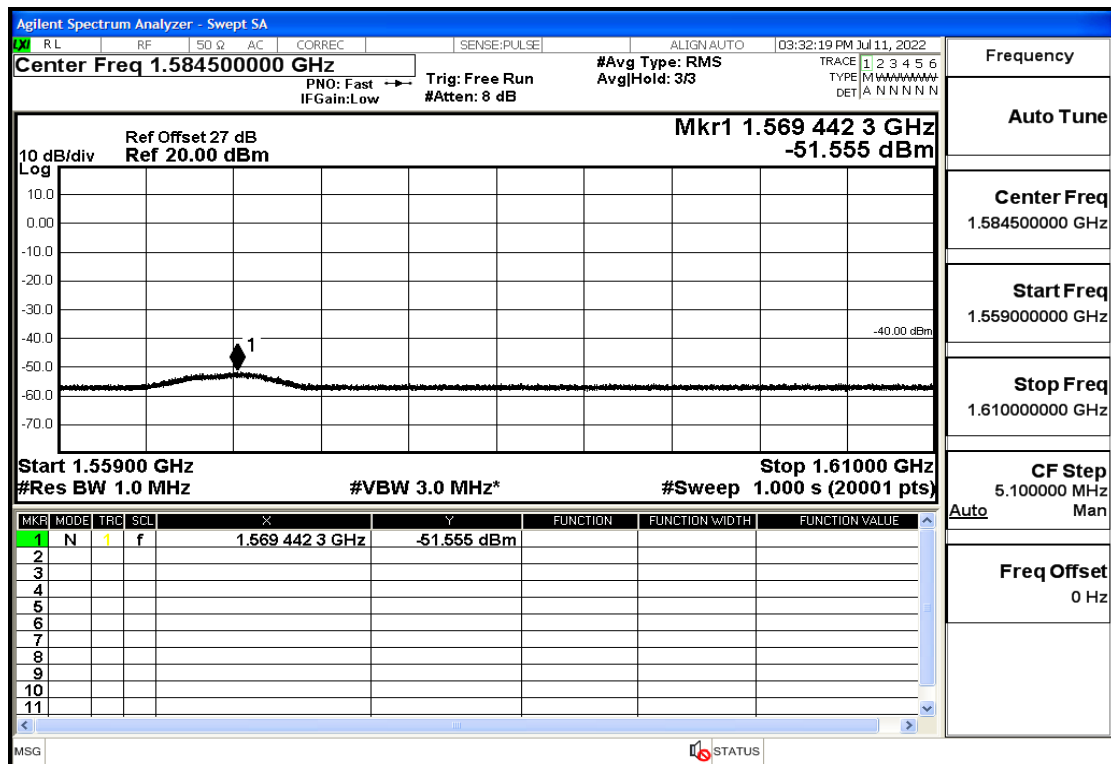
OB13-10-782-Q16-25#HIGH@30mHz-1GHz@Pass



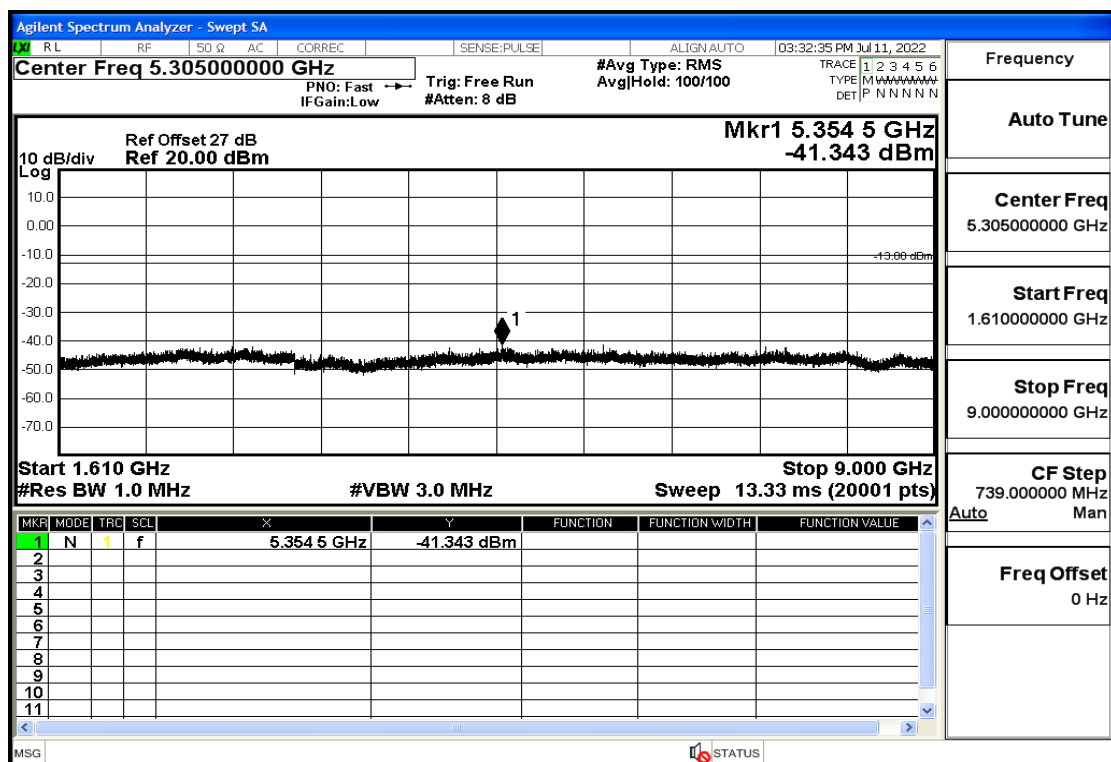
OB13-10-782-Q16-25#HIGH@1GHz-1.559GHz@Pass



OB13-10-782-Q16-25#HIGH@1.559GHz-1.61GHz@Pass



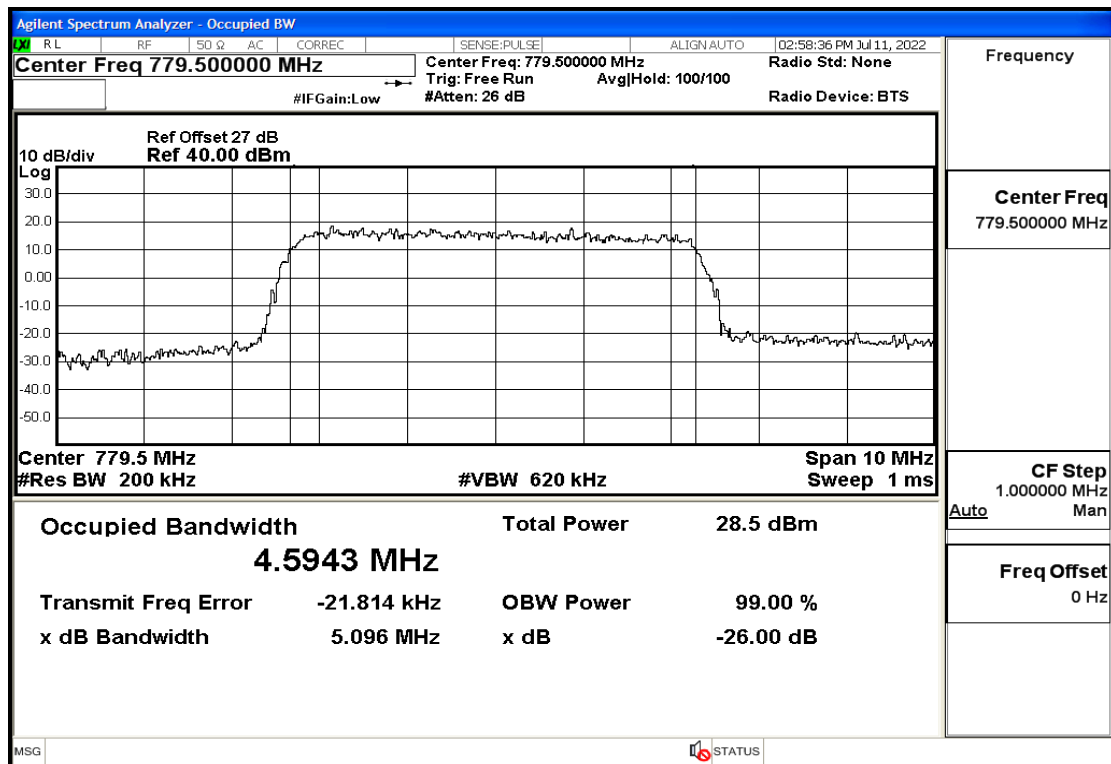
OB13-10-782-Q16-25#HIGH@1.61GHz-9GHz@Pass



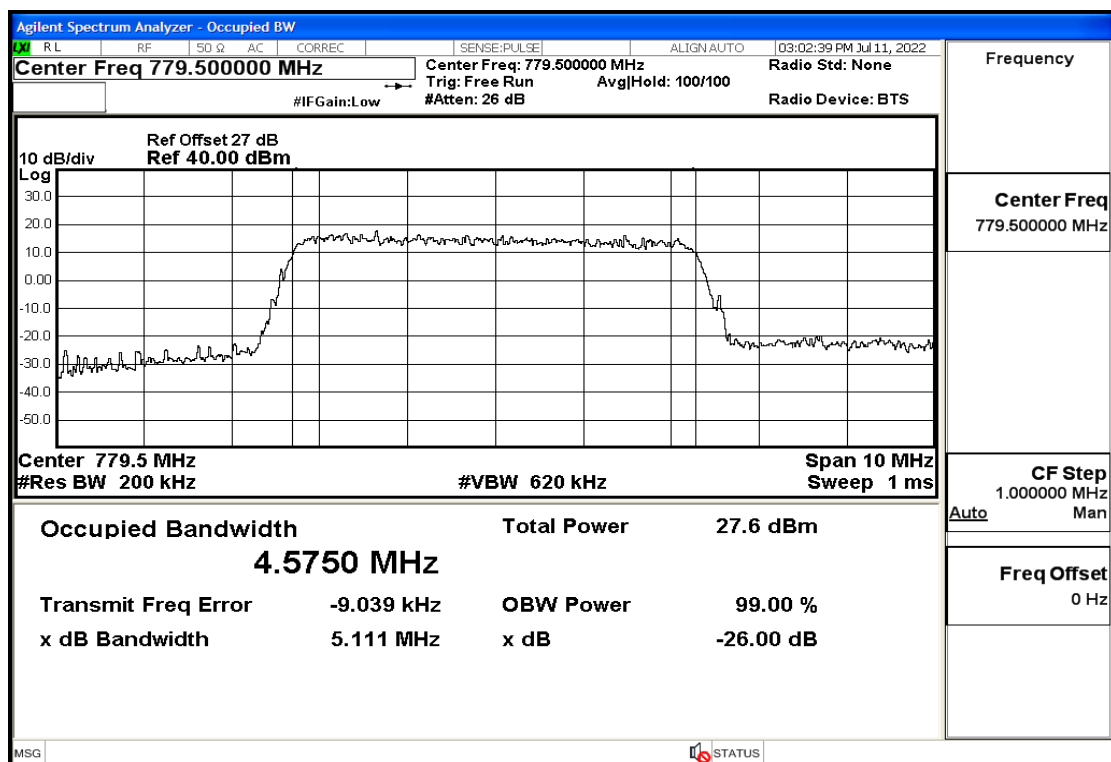
Emission bandwidth and OBW

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Occupied Bandwidth(KHz)	Emission Bandwidth(KHz)	Limit
Band13	5	779.5	QPSK	25	LOW	4594.3	5096	No limit
Band13	5	779.5	16QAM	25	LOW	4575	5111	No limit
Band13	5	782	QPSK	25	LOW	4591	5071	No limit
Band13	5	782	16QAM	25	LOW	4591.9	5097	No limit
Band13	5	784.5	QPSK	25	LOW	4554.8	5003	No limit
Band13	5	784.5	16QAM	25	LOW	4561.2	5041	No limit
Band13	10	782	QPSK	50	LOW	9182.3	10110	No limit
Band13	10	782	16QAM	50	LOW	9153	10110	No limit

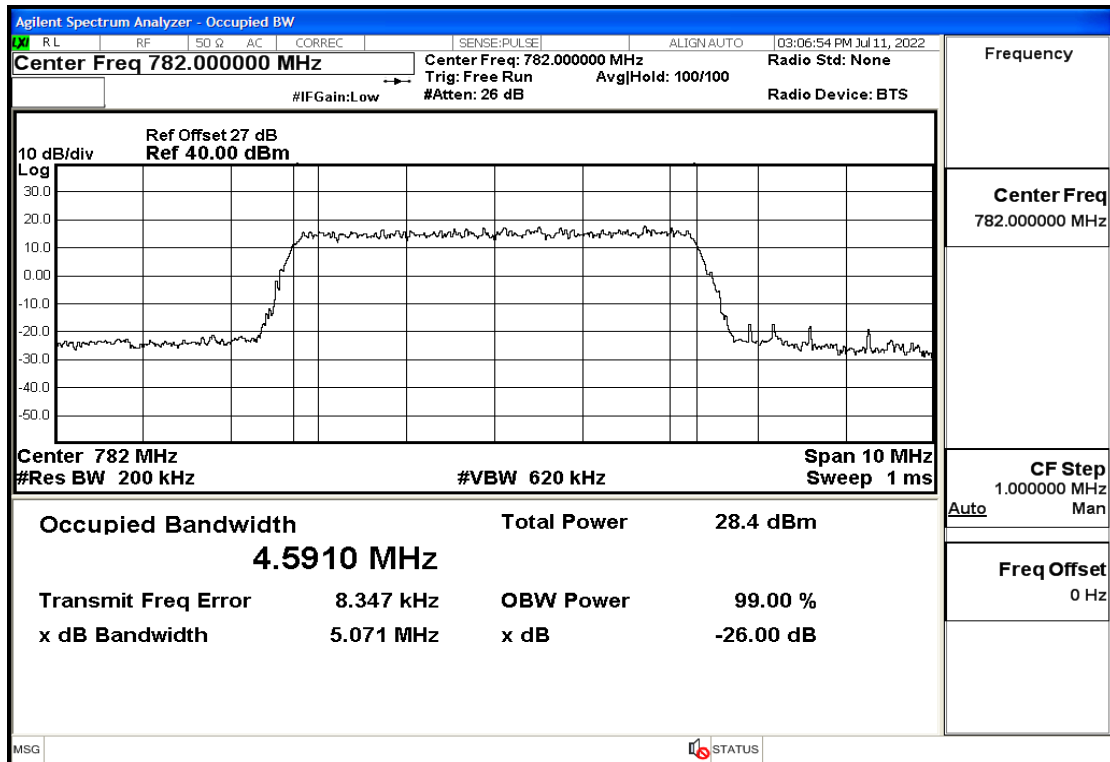
Band13-5-779.5-QPSK-25#LOW@26dB and 99PCT Bandwidth



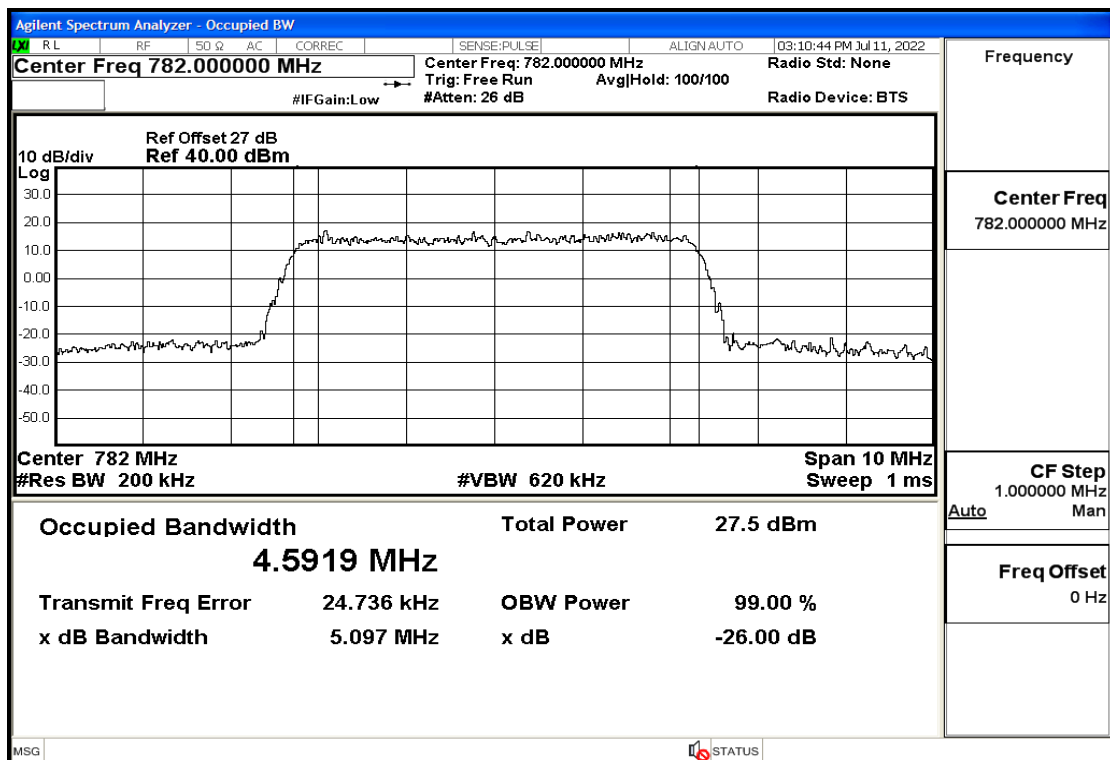
Band13-5-779.5-16QAM-25#LOW@26dB and 99PCT Bandwidth



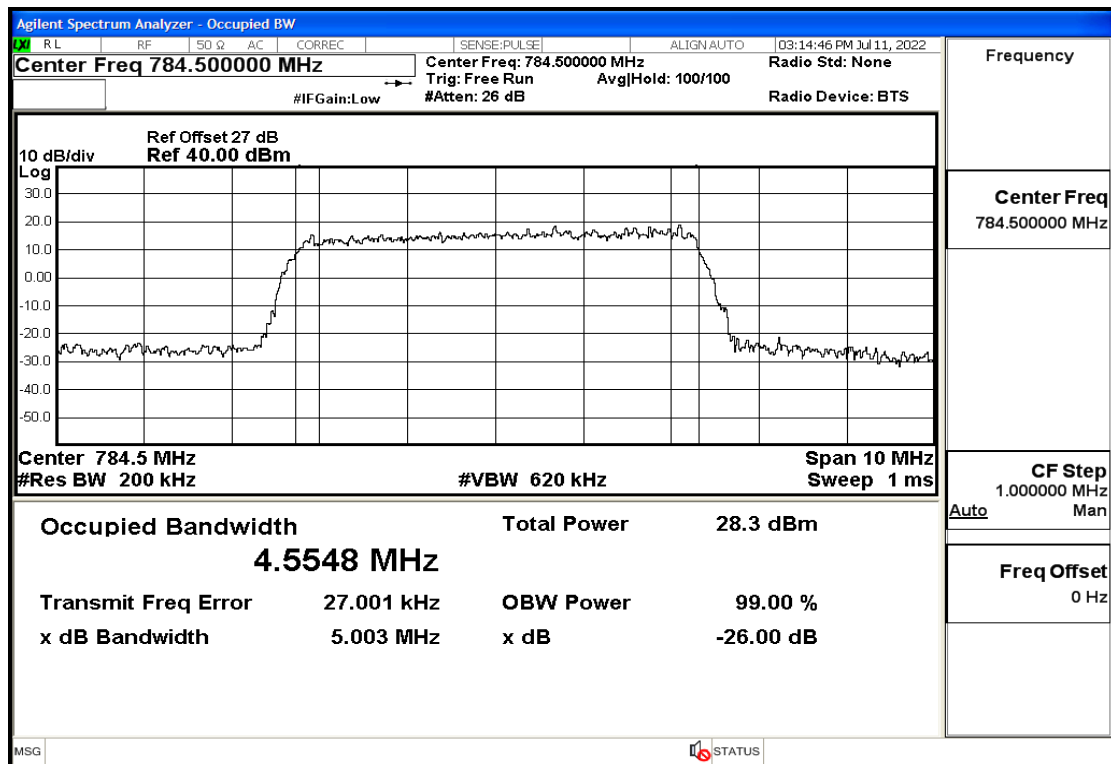
Band13-5-782-QPSK-25#LOW@26dB and 99PCT Bandwidth



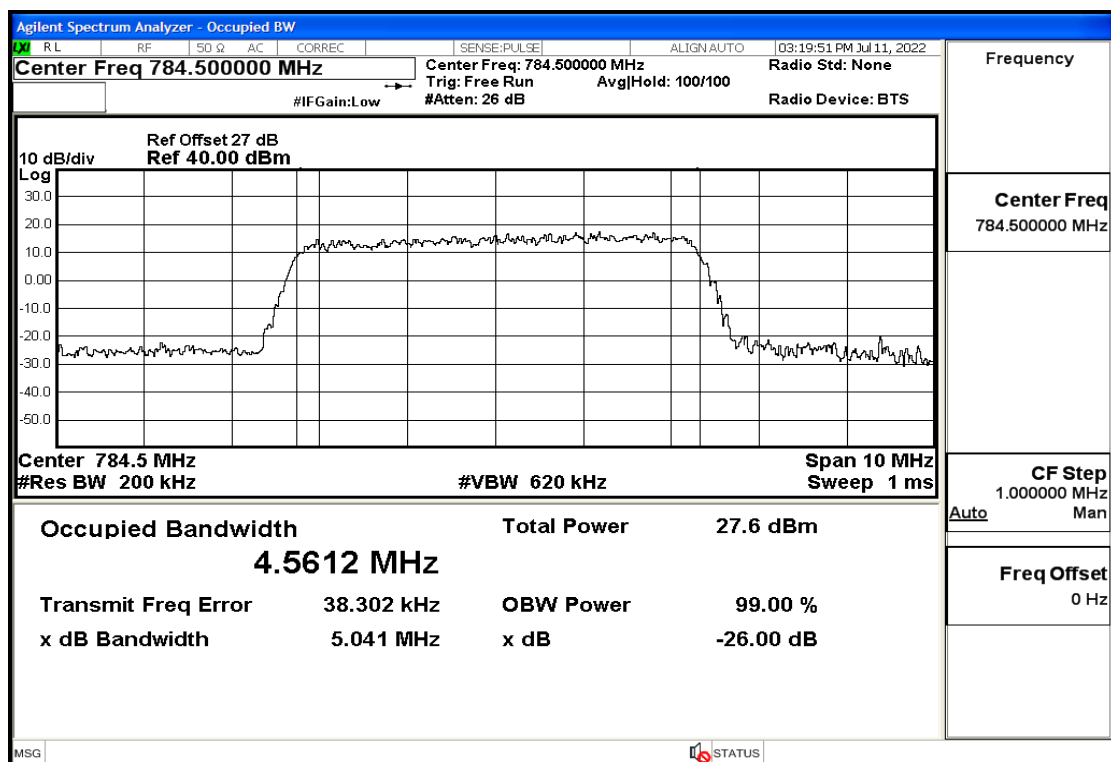
Band13-5-782-16QAM-25#LOW@26dB and 99PCT Bandwidth



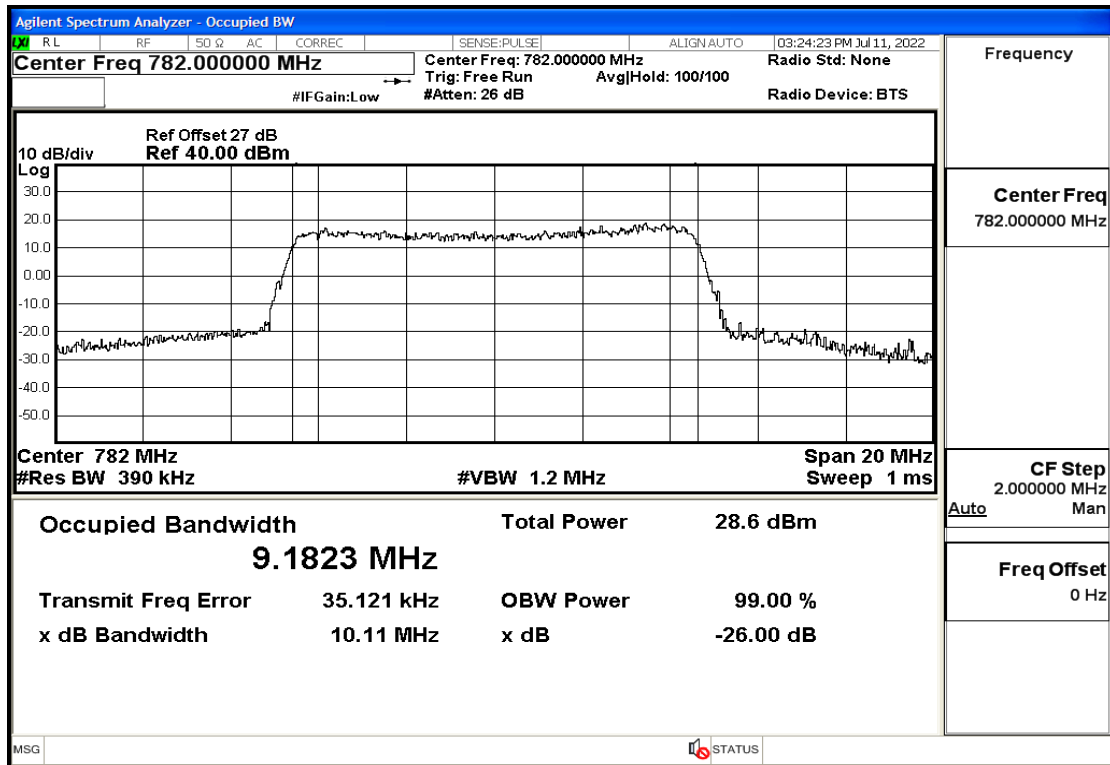
Band13-5-784.5-QPSK-25#LOW@26dB and 99PCT Bandwidth



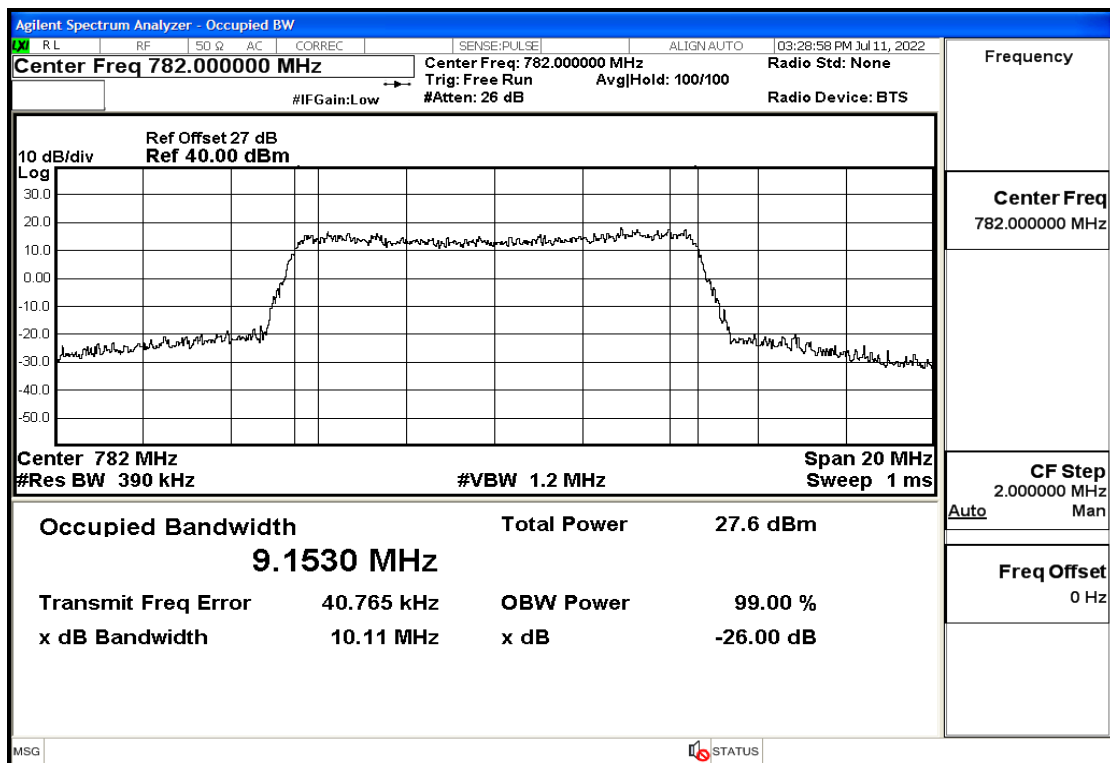
Band13-5-784.5-16QAM-25#LOW@26dB and 99PCT Bandwidth



Band13-10-782-QPSK-50#LOW@26dB and 99PCT Bandwidth



Band13-10-782-16QAM-50#LOW@26dB and 99PCT Bandwidth



Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0665	PASS
40	Normal Voltage	0.0343	
30	Normal Voltage	0.0180	
20(Ref.)	Normal Voltage	0.0254	
10	Normal Voltage	0.0665	
0	Normal Voltage	0.0164	
-10	Normal Voltage	0.0475	
-20	Normal Voltage	0.0331	
-30	Normal Voltage	0.0177	
20	Maximum Voltage	0.0197	
20	Normal Voltage	0.0279	
20	Battery End Point	0.0595	

Peak and Average Power

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Average Power	Peak Power	Peak to Average(dB)	limit(dB)	AntGain(dBi)	ERP/EIRP(dBm)	Limit(dBm)	Conclusion
Band13	5	779.5	QPSK	25	LOW	21.08	27.64	6.56	13	0.5	19.43	34.8	Pass
Band13	5	779.5	QPSK	12	LOW	21.22	27.15	5.93	13	0.5	19.57	34.8	Pass
Band13	5	779.5	QPSK	12	MID	21.25	27.12	5.87	13	0.5	19.6	34.8	Pass
Band13	5	779.5	QPSK	12	HIGH	21.1	27.62	6.52	13	0.5	19.45	34.8	Pass
Band13	5	779.5	QPSK	1	LOW	22.18	27.22	5.04	13	0.5	20.53	34.8	Pass
Band13	5	779.5	QPSK	1	MID	22.12	28.24	6.12	13	0.5	20.47	34.8	Pass
Band13	5	779.5	QPSK	1	HIGH	22.05	28.63	6.58	13	0.5	20.4	34.8	Pass
Band13	5	779.5	16QAM	25	LOW	20.21	27.96	7.75	13	0.5	18.56	34.8	Pass
Band13	5	779.5	16QAM	12	LOW	20.56	27.57	7.01	13	0.5	18.91	34.8	Pass
Band13	5	779.5	16QAM	12	MID	20.6	27.53	6.93	13	0.5	18.95	34.8	Pass
Band13	5	779.5	16QAM	12	HIGH	20.08	27.91	7.83	13	0.5	18.43	34.8	Pass
Band13	5	779.5	16QAM	1	LOW	20.74	26.22	5.48	13	0.5	19.09	34.8	Pass
Band13	5	779.5	16QAM	1	MID	20.48	26.55	6.07	13	0.5	18.83	34.8	Pass
Band13	5	779.5	16QAM	1	HIGH	20.64	26.71	6.07	13	0.5	18.99	34.8	Pass
Band13	5	782	QPSK	25	LOW	21.15	27.75	6.6	13	0.5	19.5	34.8	Pass
Band13	5	782	QPSK	12	LOW	21.23	28.17	6.94	13	0.5	19.58	34.8	Pass
Band13	5	782	QPSK	12	MID	21.15	28.07	6.92	13	0.5	19.5	34.8	Pass
Band13	5	782	QPSK	12	HIGH	20.96	27.92	6.96	13	0.5	19.31	34.8	Pass
Band13	5	782	QPSK	1	LOW	22.12	27.9	5.78	13	0.5	20.47	34.8	Pass
Band13	5	782	QPSK	1	MID	22.24	27.67	5.43	13	0.5	20.59	34.8	Pass
Band13	5	782	QPSK	1	HIGH	22.1	27.18	5.08	13	0.5	20.45	34.8	Pass
Band13	5	782	16QAM	25	LOW	20.07	27.61	7.54	13	0.5	18.42	34.8	Pass
Band13	5	782	16QAM	12	LOW	20.17	27.35	7.18	13	0.5	18.52	34.8	Pass
Band13	5	782	16QAM	12	MID	20.19	27.36	7.17	13	0.5	18.54	34.8	Pass
Band13	5	782	16QAM	12	HIGH	20.7	27.65	6.95	13	0.5	19.05	34.8	Pass
Band13	5	782	16QAM	1	LOW	21.29	27.42	6.13	13	0.5	19.64	34.8	Pass
Band13	5	782	16QAM	1	MID	21.39	27.52	6.13	13	0.5	19.74	34.8	Pass
Band13	5	782	16QAM	1	HIGH	21.16	26.94	5.78	13	0.5	19.51	34.8	Pass
Band13	5	784.5	QPSK	25	LOW	20.97	27.28	6.31	13	0.5	19.32	34.8	Pass
Band13	5	784.5	QPSK	12	LOW	21.09	27.23	6.14	13	0.5	19.44	34.8	Pass
Band13	5	784.5	QPSK	12	MID	21.06	27.17	6.11	13	0.5	19.41	34.8	Pass
Band13	5	784.5	QPSK	12	HIGH	21.08	26.78	5.7	13	0.5	19.43	34.8	Pass
Band13	5	784.5	QPSK	1	LOW	22	27.8	5.8	13	0.5	20.35	34.8	Pass
Band13	5	784.5	QPSK	1	MID	22.06	27.22	5.16	13	0.5	20.41	34.8	Pass
Band13	5	784.5	QPSK	1	HIGH	22.04	26.7	4.66	13	0.5	20.39	34.8	Pass
Band13	5	784.5	16QAM	25	LOW	20.34	27.97	7.63	13	0.5	18.69	34.8	Pass
Band13	5	784.5	16QAM	12	LOW	20.45	27.32	6.87	13	0.5	18.8	34.8	Pass
Band13	5	784.5	16QAM	12	MID	20.43	27.5	7.07	13	0.5	18.78	34.8	Pass
Band13	5	784.5	16QAM	12	HIGH	20.33	26.93	6.6	13	0.5	18.68	34.8	Pass
Band13	5	784.5	16QAM	1	LOW	20.78	27.58	6.8	13	0.5	19.13	34.8	Pass

Band13	5	784.5	16QAM	1	MID	20.68	26.89	6.21	13	0.5	19.03	34.8	Pass
Band13	5	784.5	16QAM	1	HIGH	20.65	26.45	5.8	13	0.5	19	34.8	Pass
Band13	10	782	QPSK	50	LOW	21.21	27.65	6.44	13	0.5	19.56	34.8	Pass
Band13	10	782	QPSK	25	LOW	21.16	27.8	6.64	13	0.5	19.51	34.8	Pass
Band13	10	782	QPSK	25	MID	21.15	27.78	6.63	13	0.5	19.5	34.8	Pass
Band13	10	782	QPSK	25	HIGH	20.99	27.44	6.45	13	0.5	19.34	34.8	Pass
Band13	10	782	QPSK	1	LOW	22.1	26.74	4.64	13	0.5	20.45	34.8	Pass
Band13	10	782	QPSK	1	MID	22.18	27.44	5.26	13	0.5	20.53	34.8	Pass
Band13	10	782	QPSK	1	HIGH	22.12	26.52	4.4	13	0.5	20.47	34.8	Pass
Band13	10	782	16QAM	50	LOW	20.06	27.96	7.9	13	0.5	18.41	34.8	Pass
Band13	10	782	16QAM	25	LOW	20.15	27.67	7.52	13	0.5	18.5	34.8	Pass
Band13	10	782	16QAM	25	MID	20.18	27.76	7.58	13	0.5	18.53	34.8	Pass
Band13	10	782	16QAM	25	HIGH	20.49	27.66	7.17	13	0.5	18.84	34.8	Pass
Band13	10	782	16QAM	1	LOW	21.35	27.09	5.74	13	0.5	19.7	34.8	Pass
Band13	10	782	16QAM	1	MID	21.48	28.13	6.65	13	0.5	19.83	34.8	Pass
Band13	10	782	16QAM	1	HIGH	21.38	26.92	5.54	13	0.5	19.73	34.8	Pass