

RF Test Data for LTE (Conducted Measurement)

Product Name: FastHelp Home Emergency Alert Device – V4-4G

Trade Mark: FastHelp

Test Model: FH-V4-4G

Sample ID: TZ210702403-1#

FCC ID: 2AJG4-FH-V4-4G

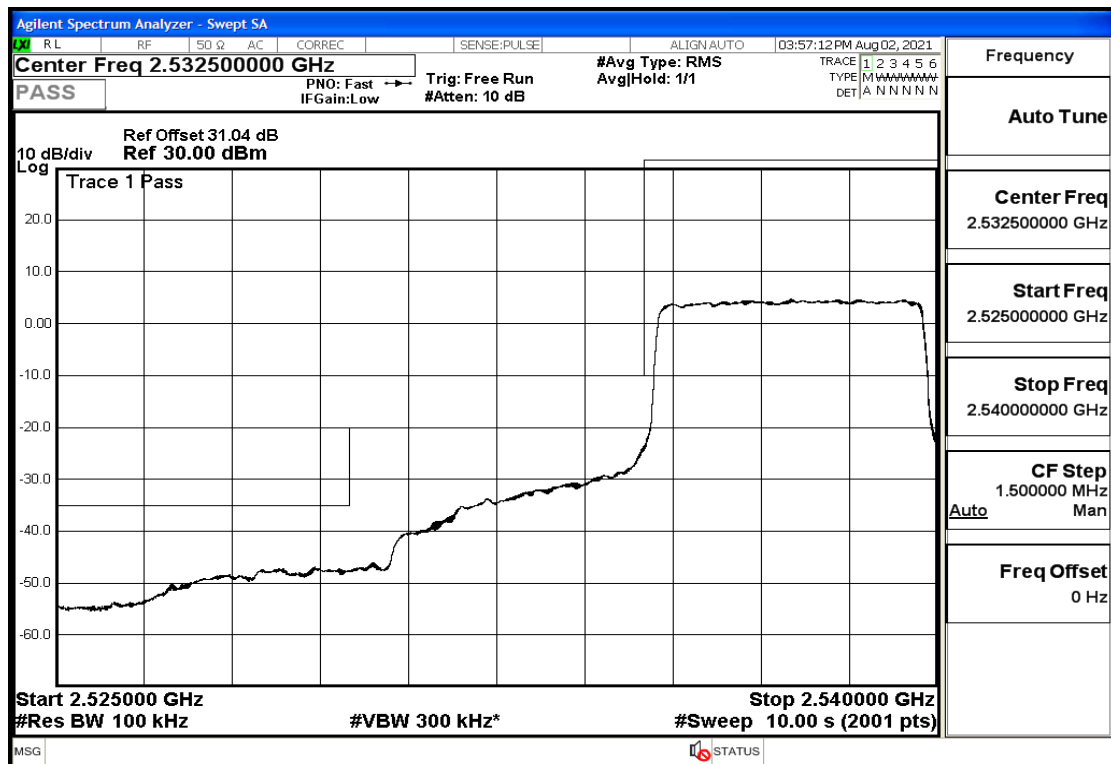
Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
Remark:	For LTE Band41

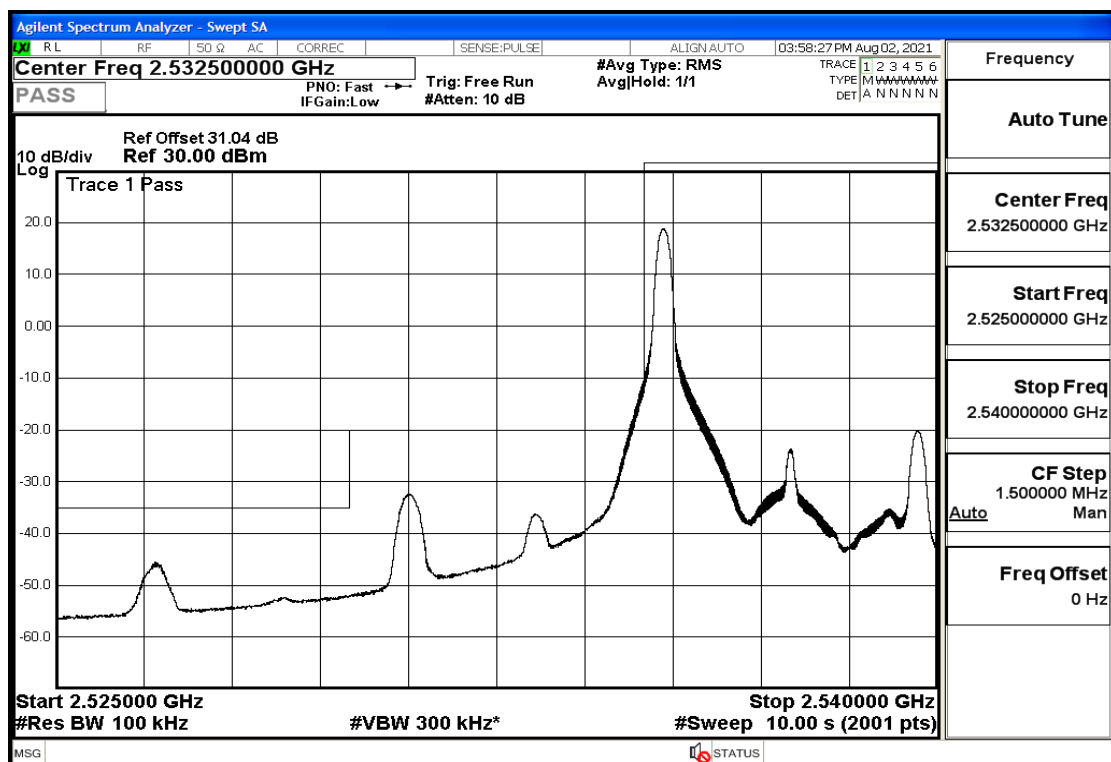
Band Edge and Emission Mask

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Conclusion
Band41	5	2537.5	QPSK	25	LOW	Pass
Band41	5	2537.5	QPSK	1	LOW	Pass
Band41	5	2537.5	16QAM	25	LOW	Pass
Band41	5	2537.5	16QAM	1	LOW	Pass
Band41	5	2652.5	QPSK	25	LOW	Pass
Band41	5	2652.5	QPSK	1	HIGH	Pass
Band41	5	2652.5	16QAM	25	LOW	Pass
Band41	5	2652.5	16QAM	1	HIGH	Pass

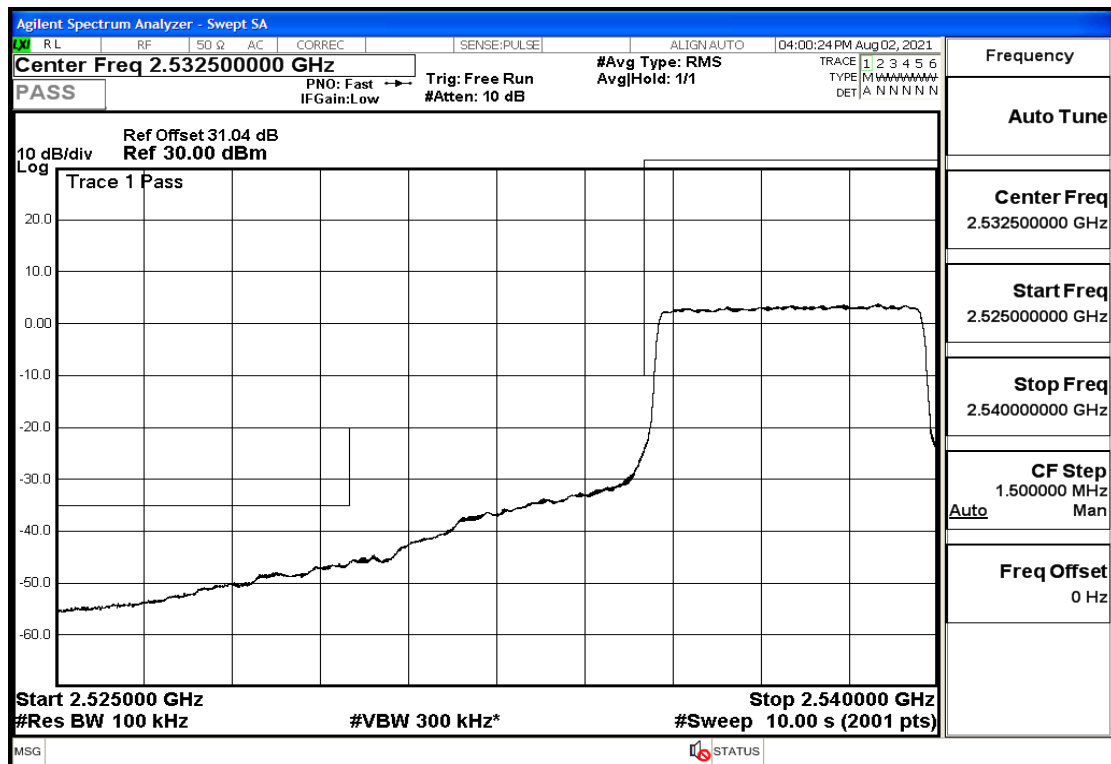
Band41-5-2537.5-QPSK-25#LOW@Pass



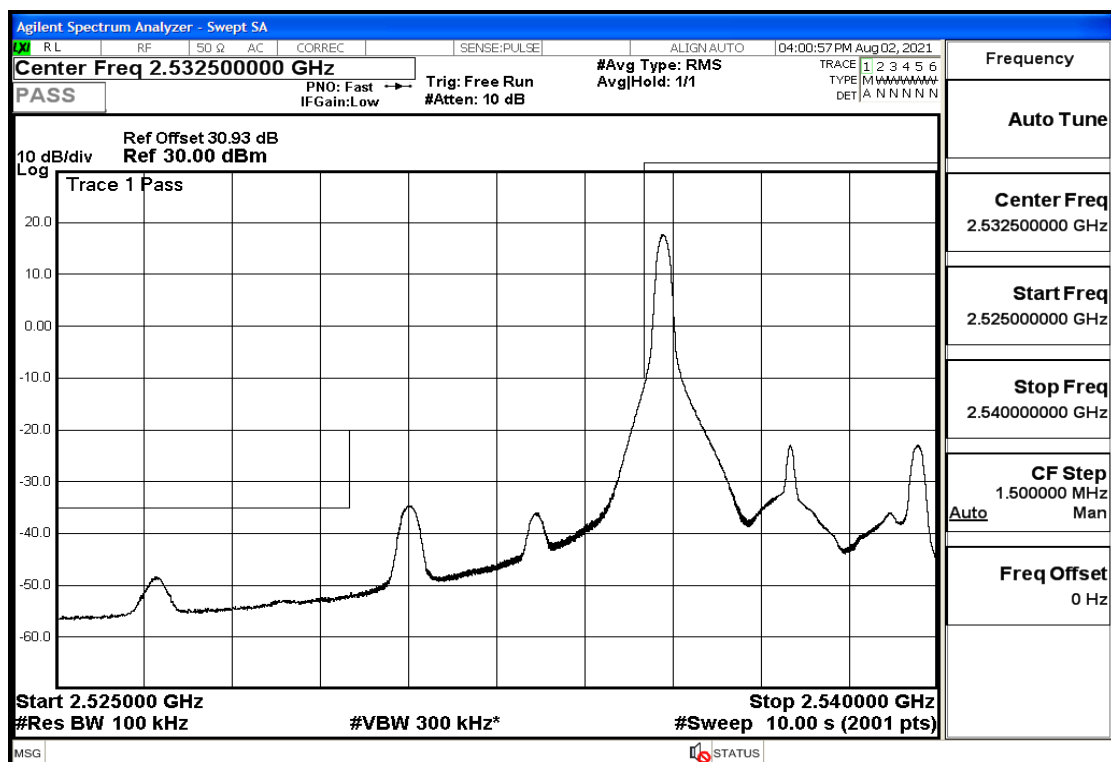
Band41-5-2537.5-QPSK-1#LOW@Pass



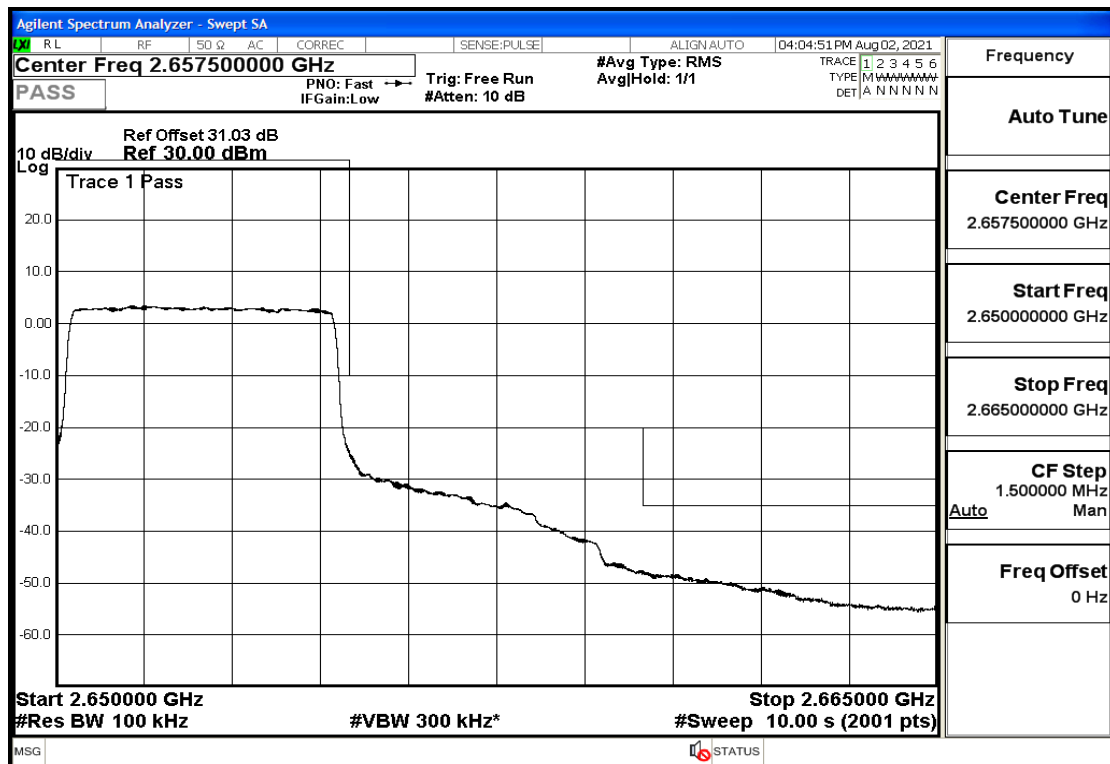
Band41-5-2537.5-16QAM-25#LOW@Pass



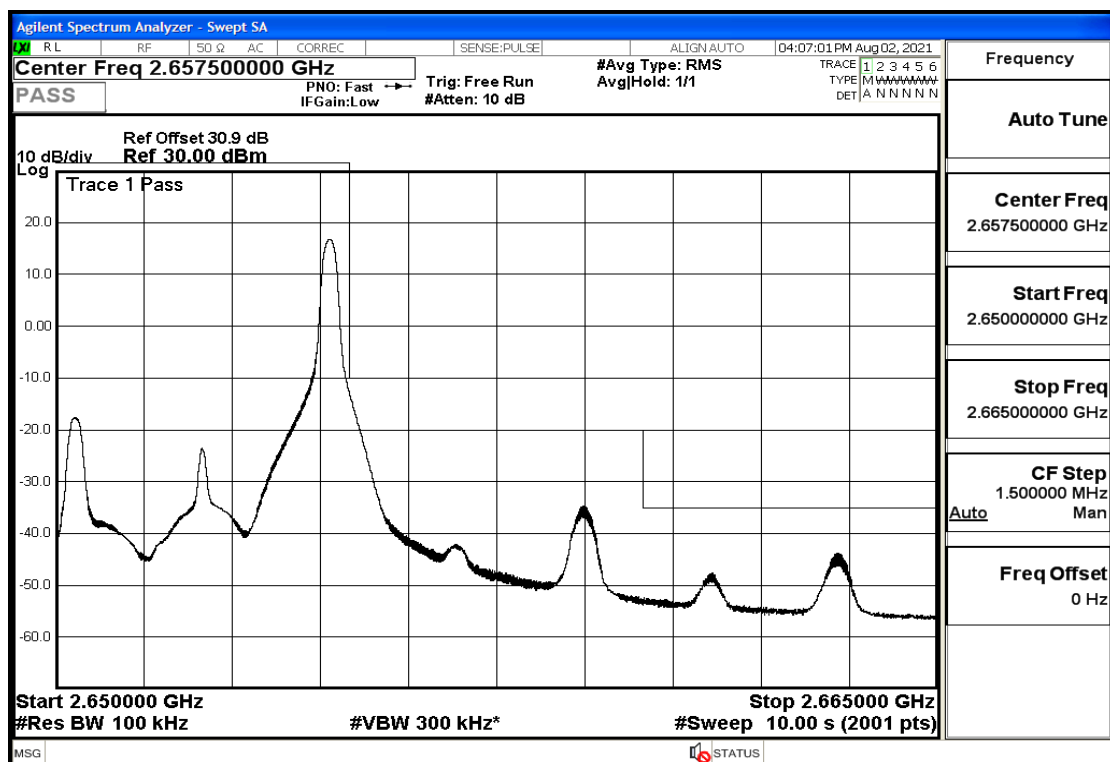
Band41-5-2537.5-16QAM-1#LOW@Pass



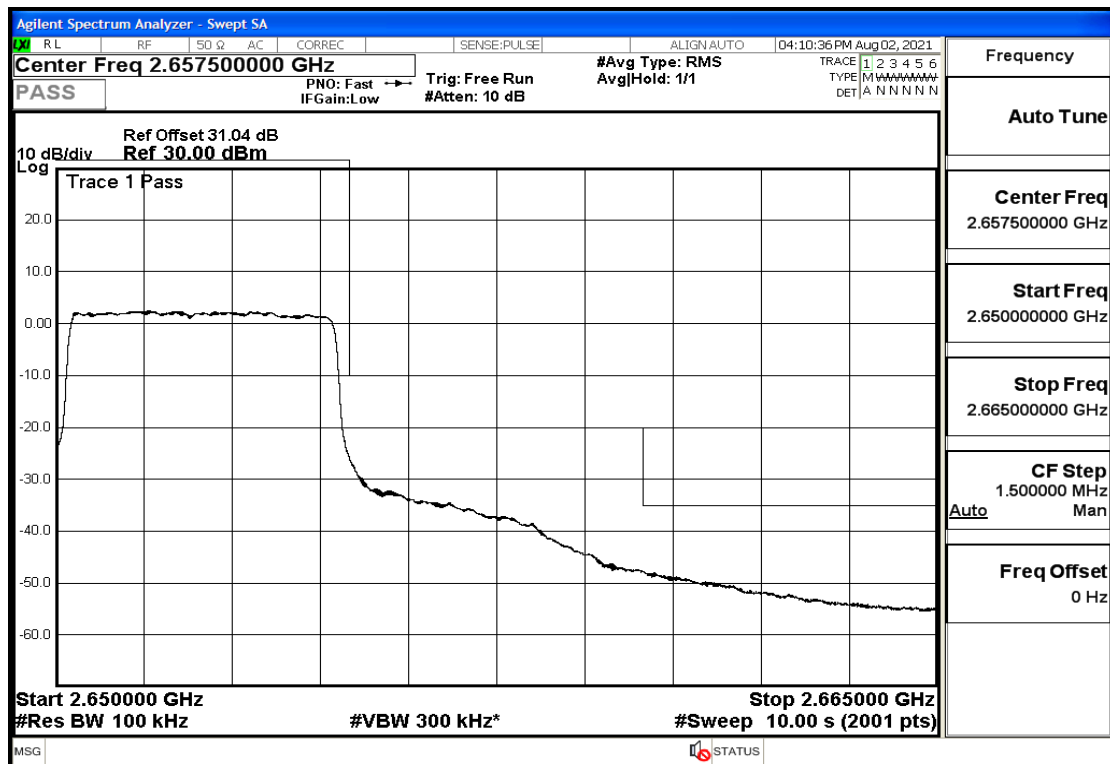
Band41-5-2652.5-QPSK-25#LOW@Pass



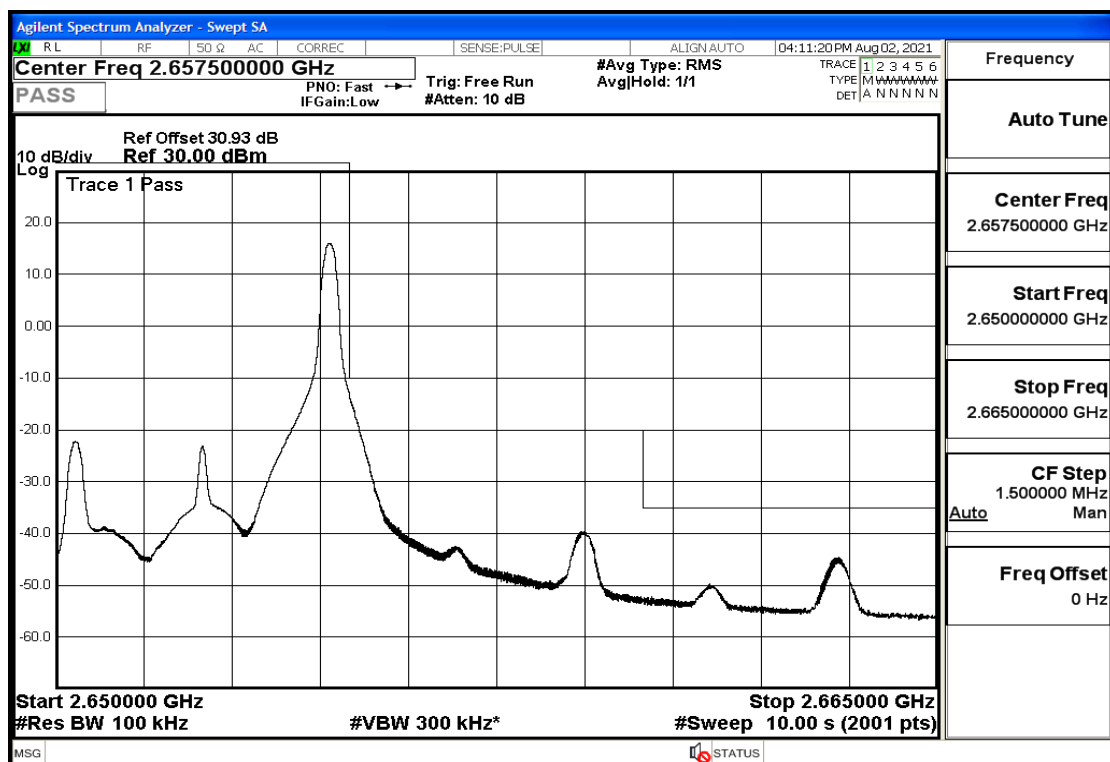
Band41-5-2652.5-QPSK-1#HIGH@Pass



Band41-5-2652.5-16QAM-25#LOW@Pass



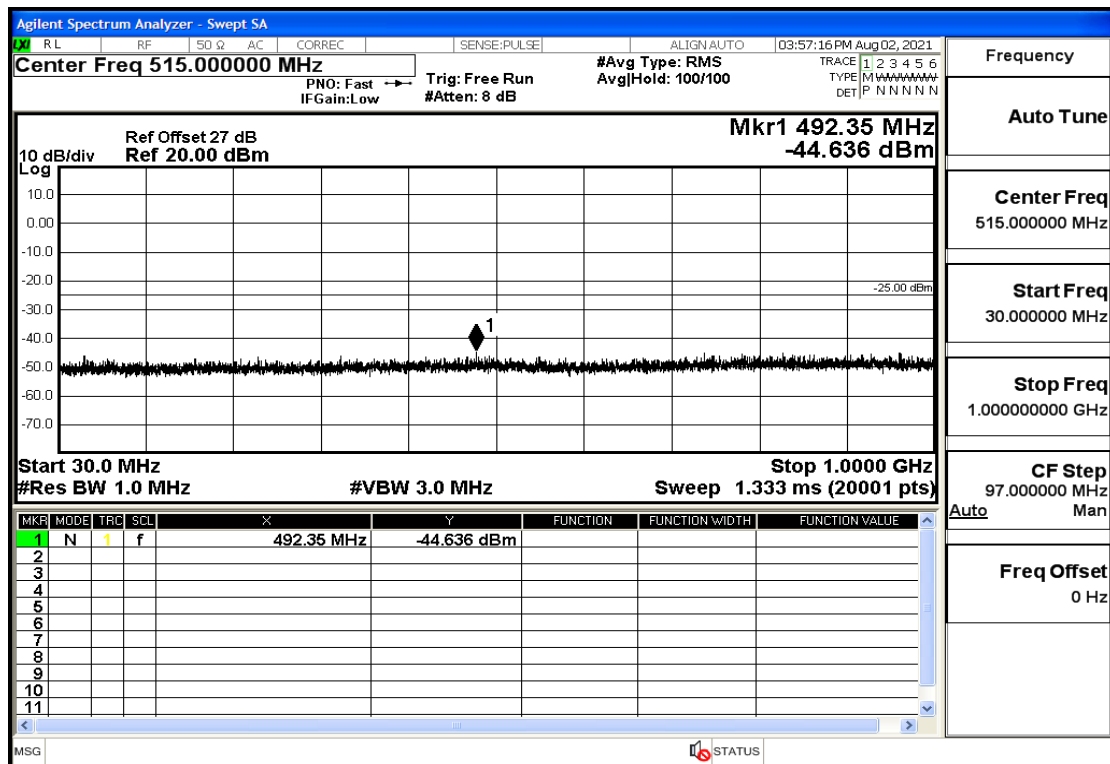
Band41-5-2652.5-16QAM-1#HIGH@Pass



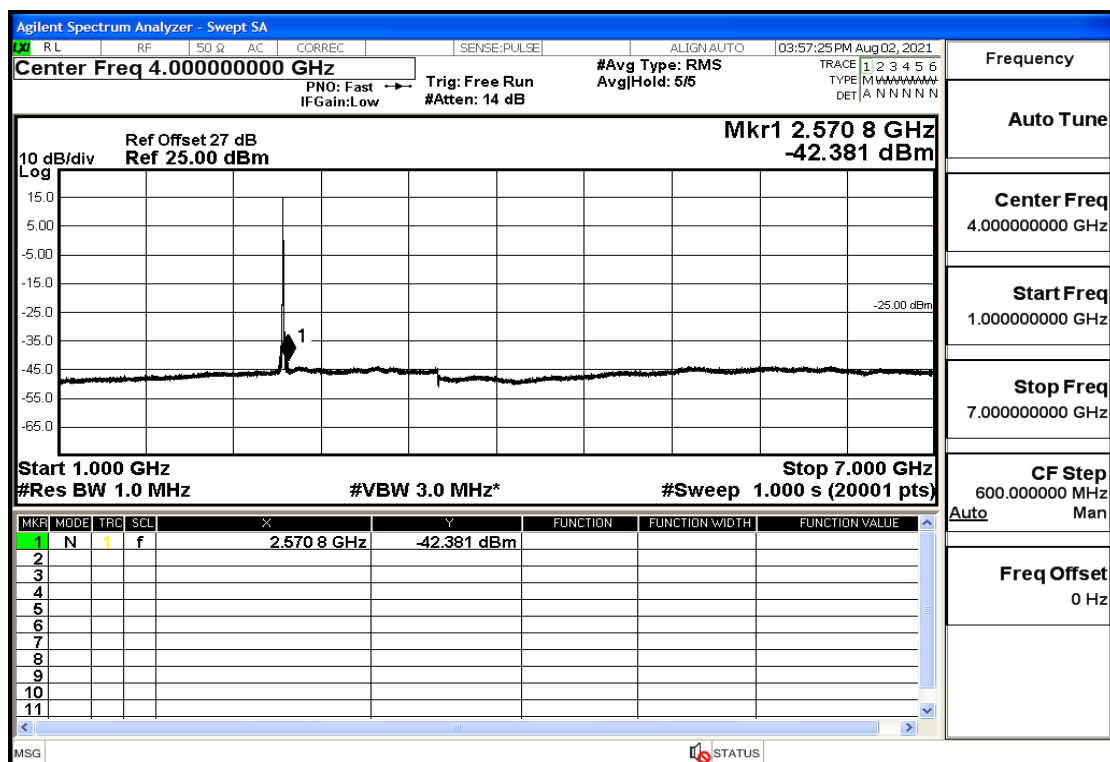
Conducted Spurious Emission

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Test Condition	Transmitter Spurious Emission(Pass/Fail)
OB41	5	2537.5	QPSK	25	LOW	30mHz-1GHz	Pass
OB41	5	2537.5	QPSK	25	LOW	1GHz-7GHz	Pass
OB41	5	2537.5	QPSK	25	LOW	7GHz-13.6GHz	Pass
OB41	5	2537.5	QPSK	25	LOW	13.6GHz-26.5GHz	Pass
OB41	5	2537.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB41	5	2537.5	QPSK	1	LOW	1GHz-7GHz	Pass
OB41	5	2537.5	QPSK	1	LOW	7GHz-13.6GHz	Pass
OB41	5	2537.5	QPSK	1	LOW	13.6GHz-26.5GHz	Pass
OB41	5	2537.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB41	5	2537.5	QPSK	1	HIGH	1GHz-7GHz	Pass
OB41	5	2537.5	QPSK	1	HIGH	7GHz-13.6GHz	Pass
OB41	5	2537.5	QPSK	1	HIGH	13.6GHz-26.5GHz	Pass
OB41	5	2593	QPSK	25	LOW	30mHz-1GHz	Pass
OB41	5	2593	QPSK	25	LOW	1GHz-7GHz	Pass
OB41	5	2593	QPSK	25	LOW	7GHz-13.6GHz	Pass
OB41	5	2593	QPSK	25	LOW	13.6GHz-26.5GHz	Pass
OB41	5	2593	QPSK	1	LOW	30mHz-1GHz	Pass
OB41	5	2593	QPSK	1	LOW	1GHz-7GHz	Pass
OB41	5	2593	QPSK	1	LOW	7GHz-13.6GHz	Pass
OB41	5	2593	QPSK	1	LOW	13.6GHz-26.5GHz	Pass
OB41	5	2593	QPSK	1	HIGH	30mHz-1GHz	Pass
OB41	5	2593	QPSK	1	HIGH	1GHz-7GHz	Pass
OB41	5	2593	QPSK	1	HIGH	7GHz-13.6GHz	Pass
OB41	5	2593	QPSK	1	HIGH	13.6GHz-26.5GHz	Pass
OB41	5	2652.5	QPSK	25	LOW	30mHz-1GHz	Pass
OB41	5	2652.5	QPSK	25	LOW	1GHz-7GHz	Pass
OB41	5	2652.5	QPSK	25	LOW	7GHz-13.6GHz	Pass
OB41	5	2652.5	QPSK	25	LOW	13.6GHz-26.5GHz	Pass
OB41	5	2652.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB41	5	2652.5	QPSK	1	LOW	1GHz-7GHz	Pass
OB41	5	2652.5	QPSK	1	LOW	7GHz-13.6GHz	Pass
OB41	5	2652.5	QPSK	1	LOW	13.6GHz-26.5GHz	Pass
OB41	5	2652.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB41	5	2652.5	QPSK	1	HIGH	1GHz-7GHz	Pass
OB41	5	2652.5	QPSK	1	HIGH	7GHz-13.6GHz	Pass
OB41	5	2652.5	QPSK	1	HIGH	13.6GHz-26.5GHz	Pass

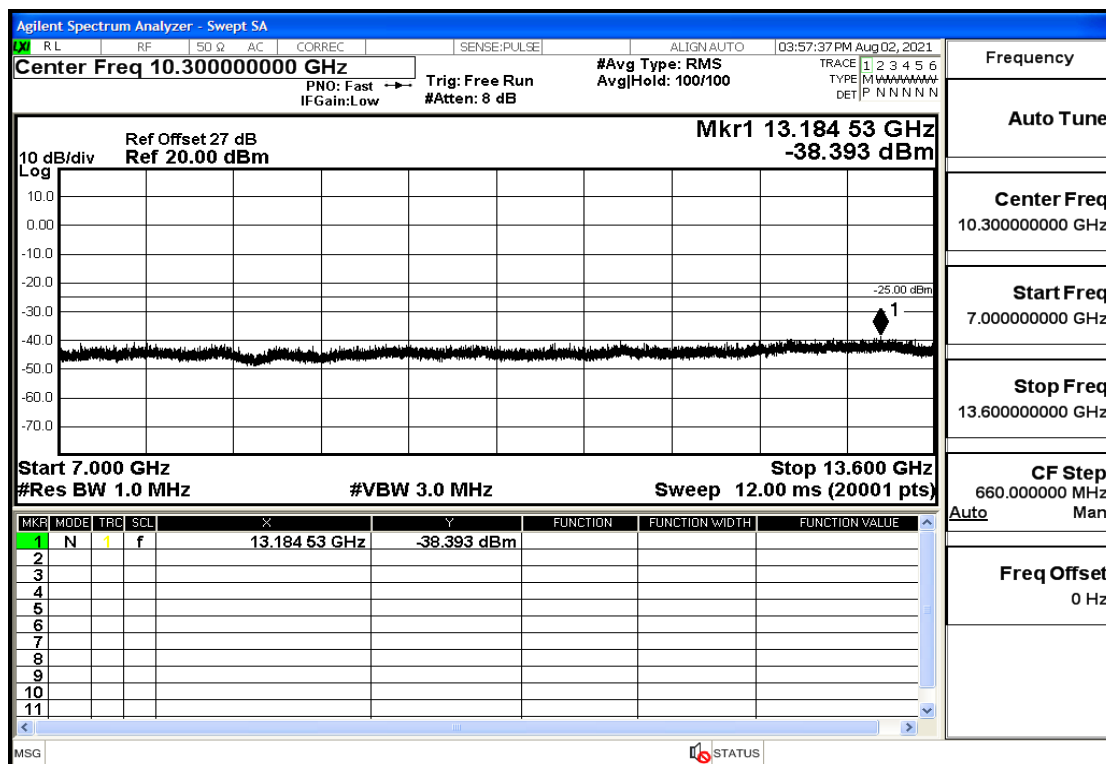
OB41-5-2537.5-QPSK-25#LOW@30mHz-1GHz@Pass



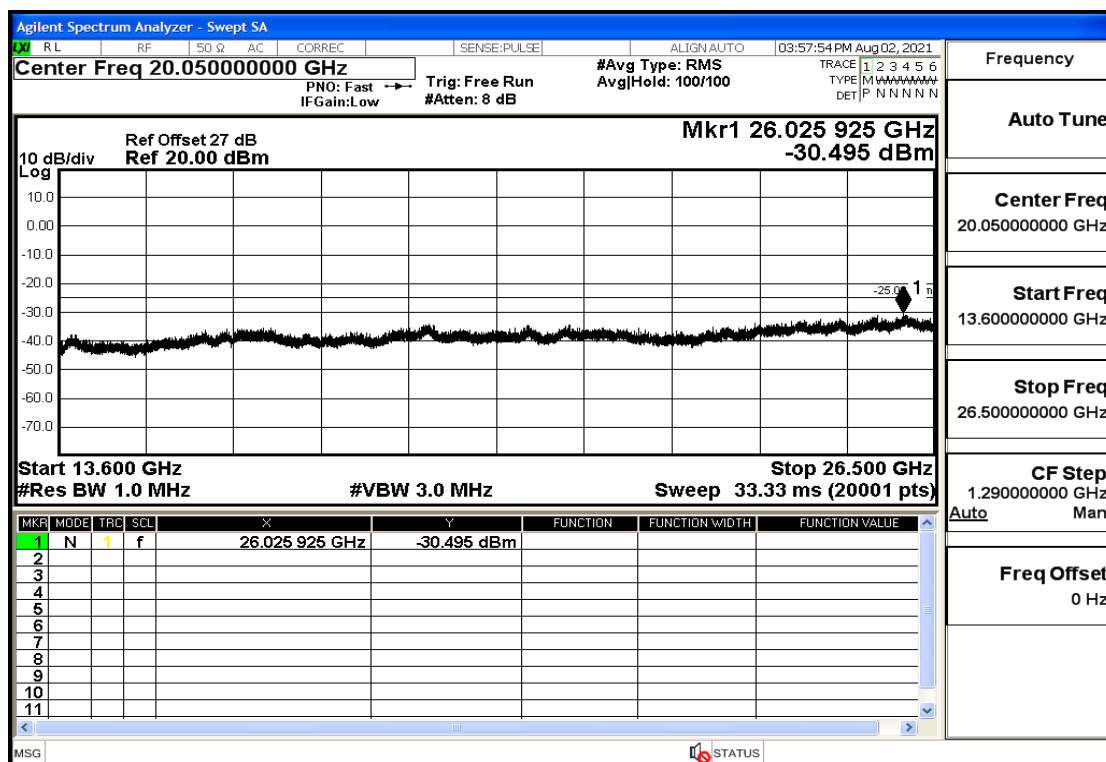
OB41-5-2537.5-QPSK-25#LOW@1GHz-7GHz@Pass



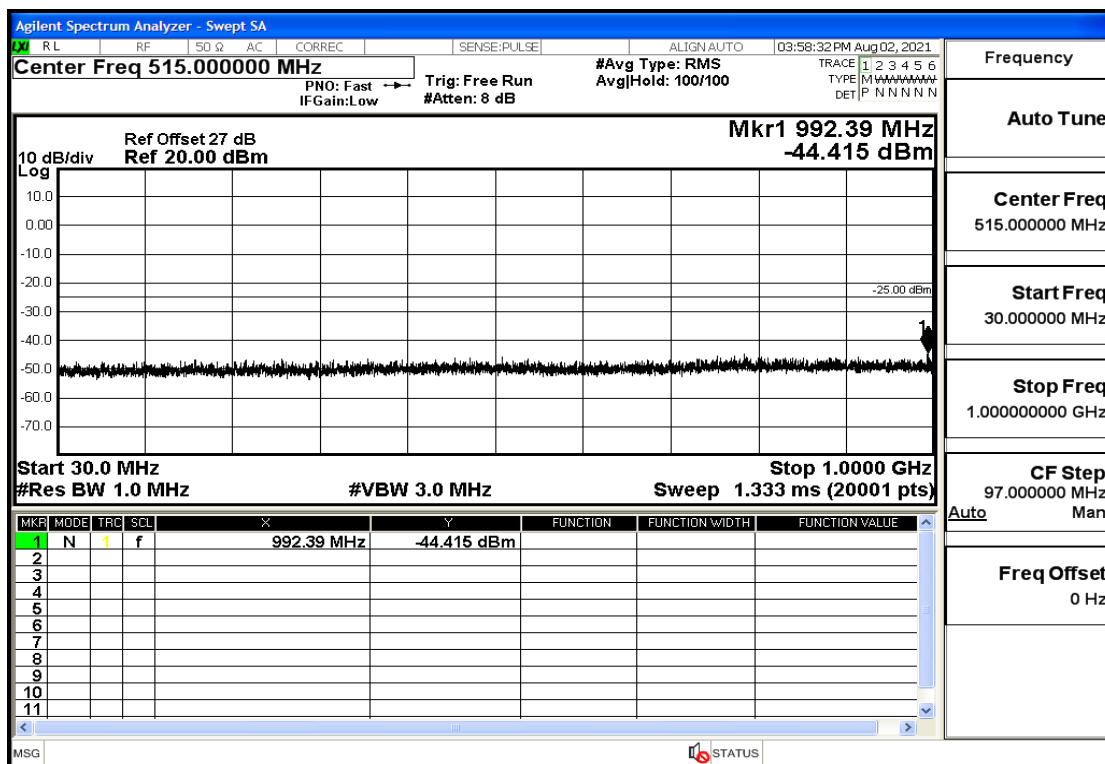
OB41-5-2537.5-QPSK-25#LOW@7GHz-13.6GHz@Pass



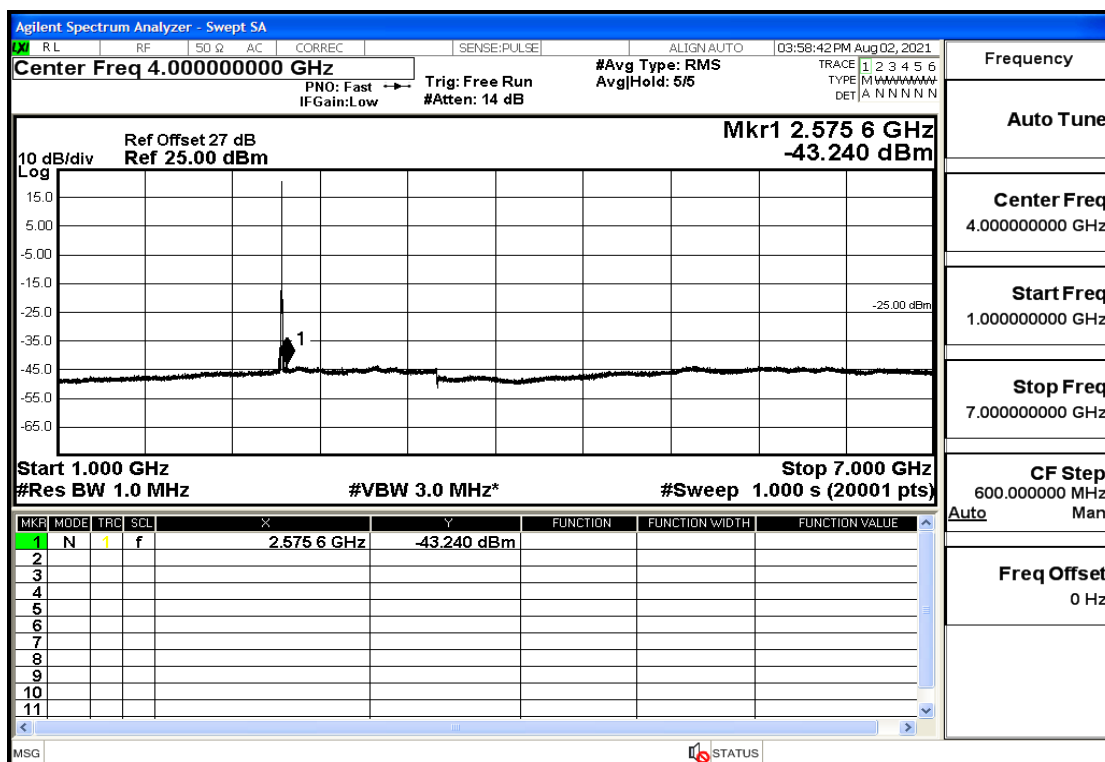
OB41-5-2537.5-QPSK-25#LOW@13.6GHz-26.5GHz@Pass



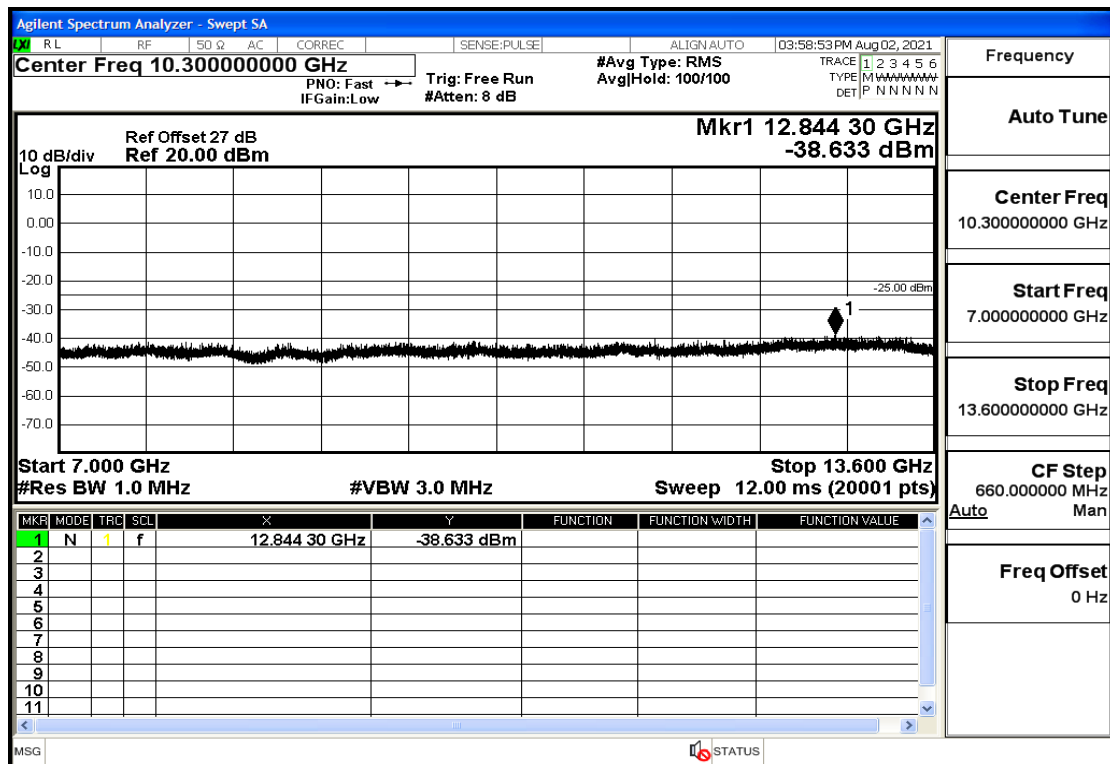
OB41-5-2537.5-QPSK-1#LOW@30mHz-1GHz@Pass



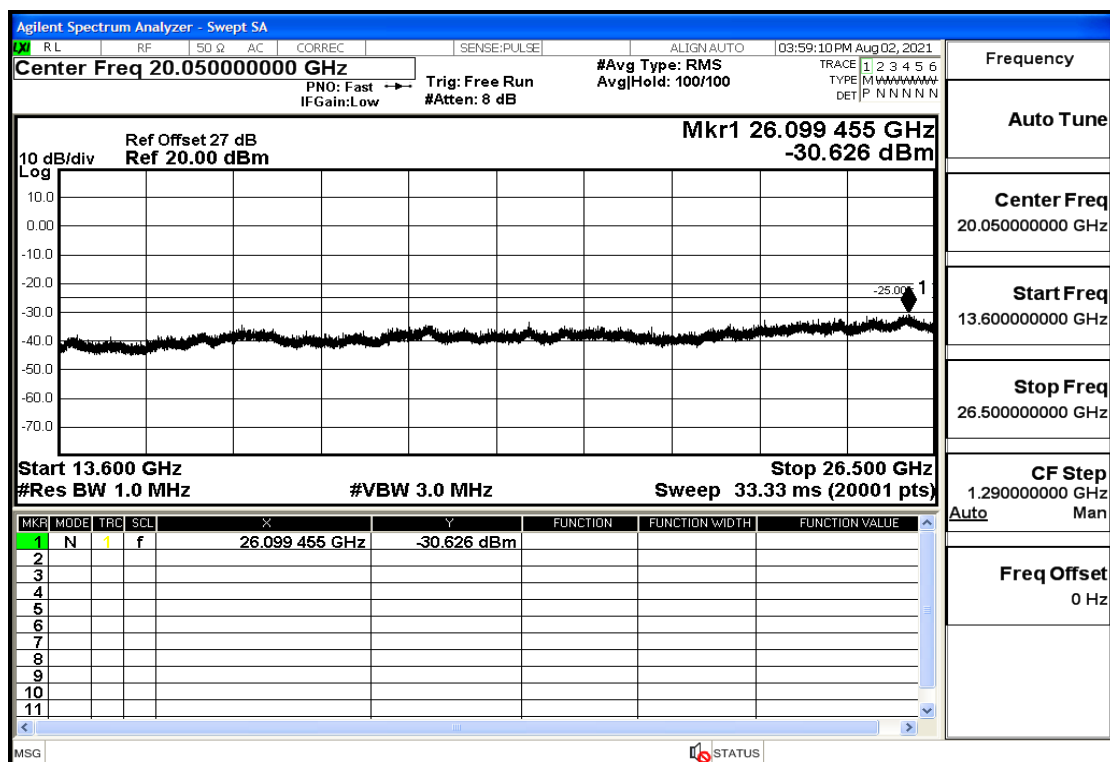
OB41-5-2537.5-QPSK-1#LOW@1GHz-7GHz@Pass



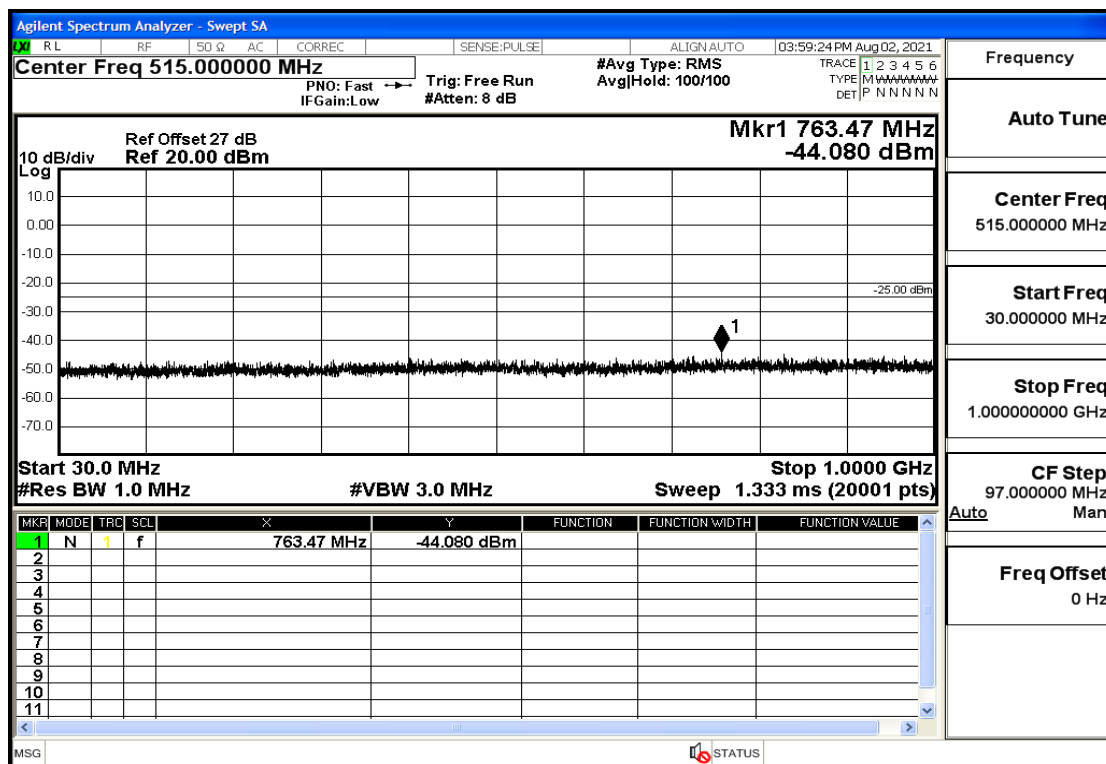
OB41-5-2537.5-QPSK-1#LOW@7GHz-13.6GHz@Pass



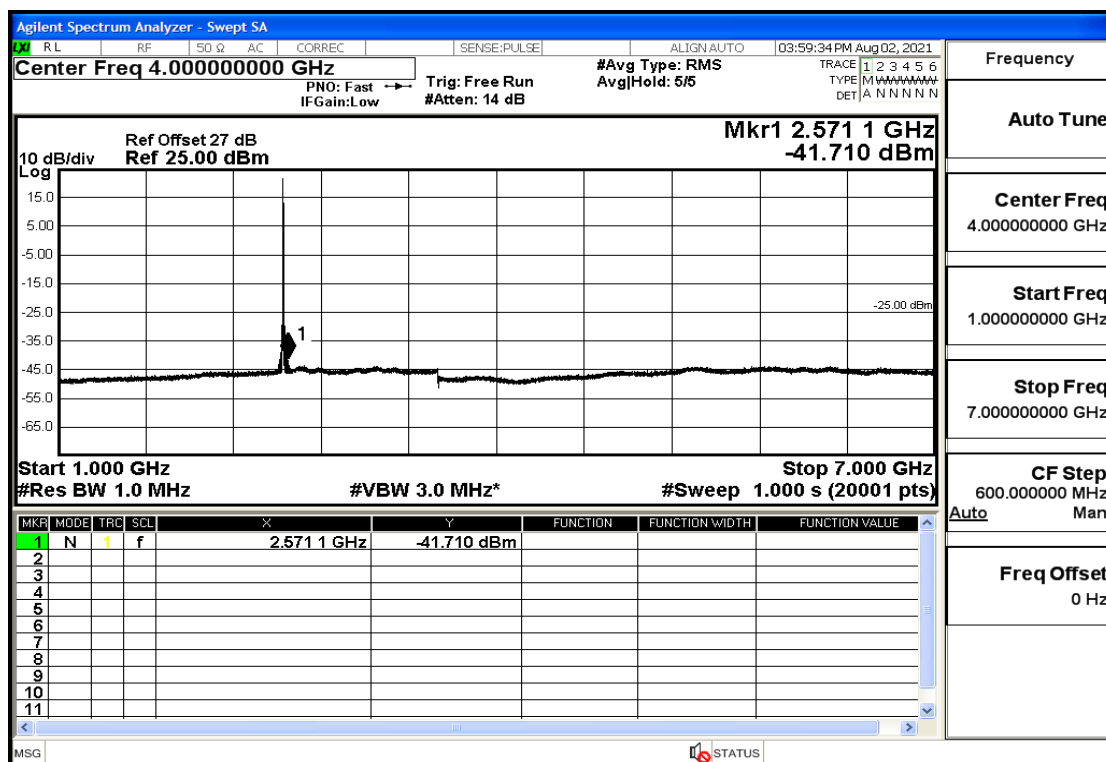
OB41-5-2537.5-QPSK-1#LOW@13.6GHz-26.5GHz@Pass



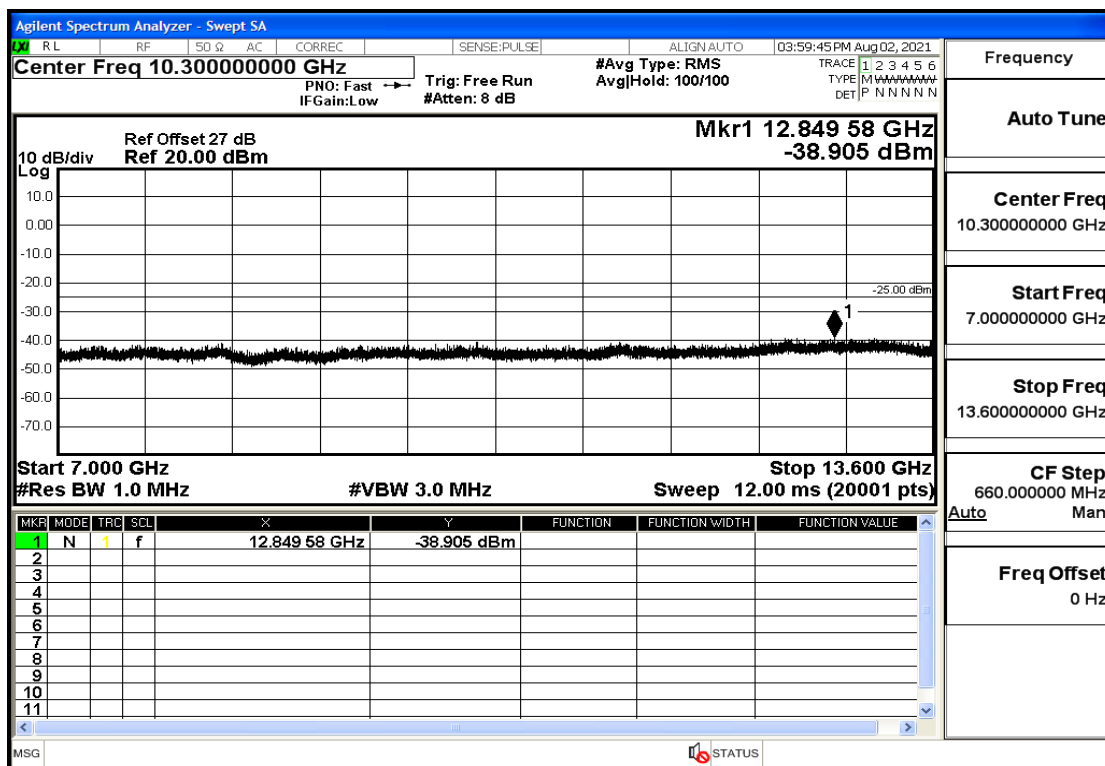
OB41-5-2537.5-QPSK-1#HIGH@30mHz-1GHz@Pass



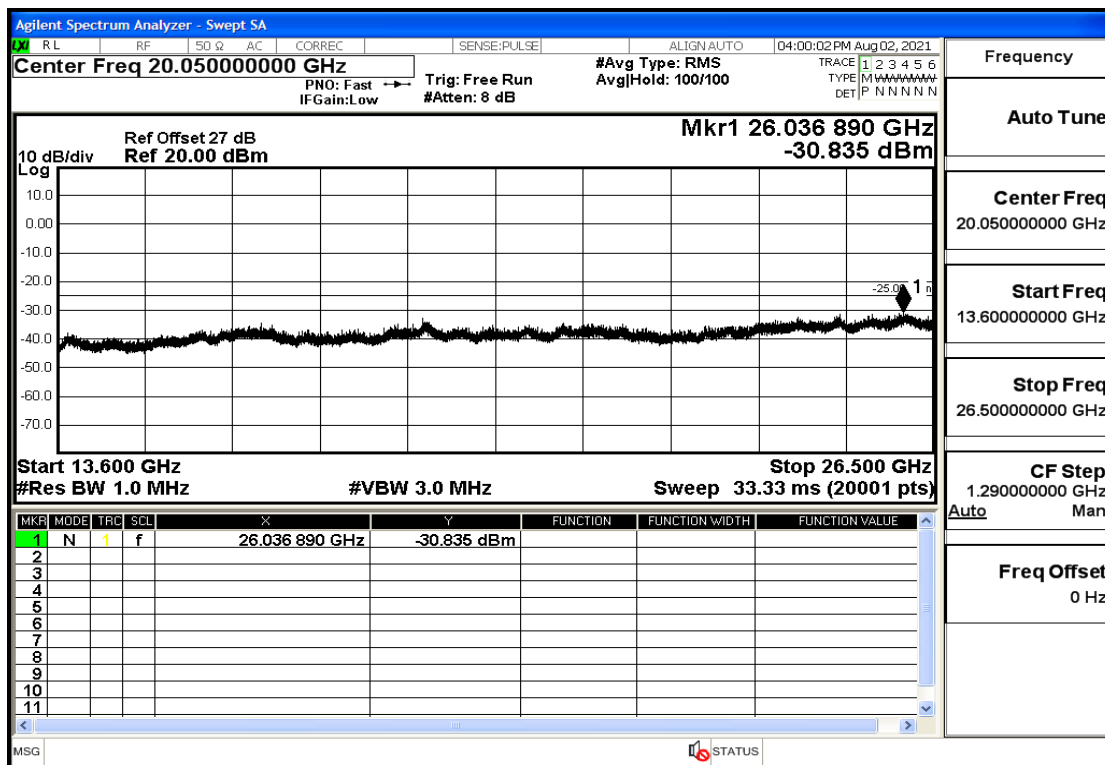
OB41-5-2537.5-QPSK-1#HIGH@1GHz-7GHz@Pass



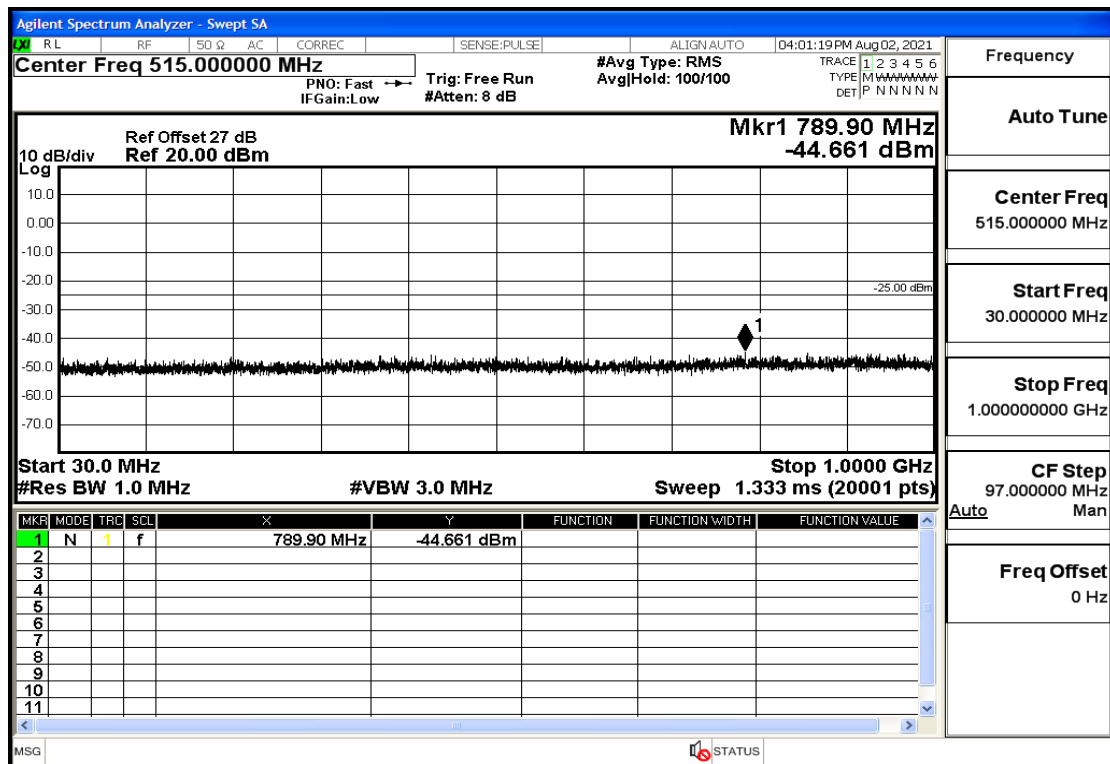
OB41-5-2537.5-QPSK-1#HIGH@7GHz-13.6GHz@Pass



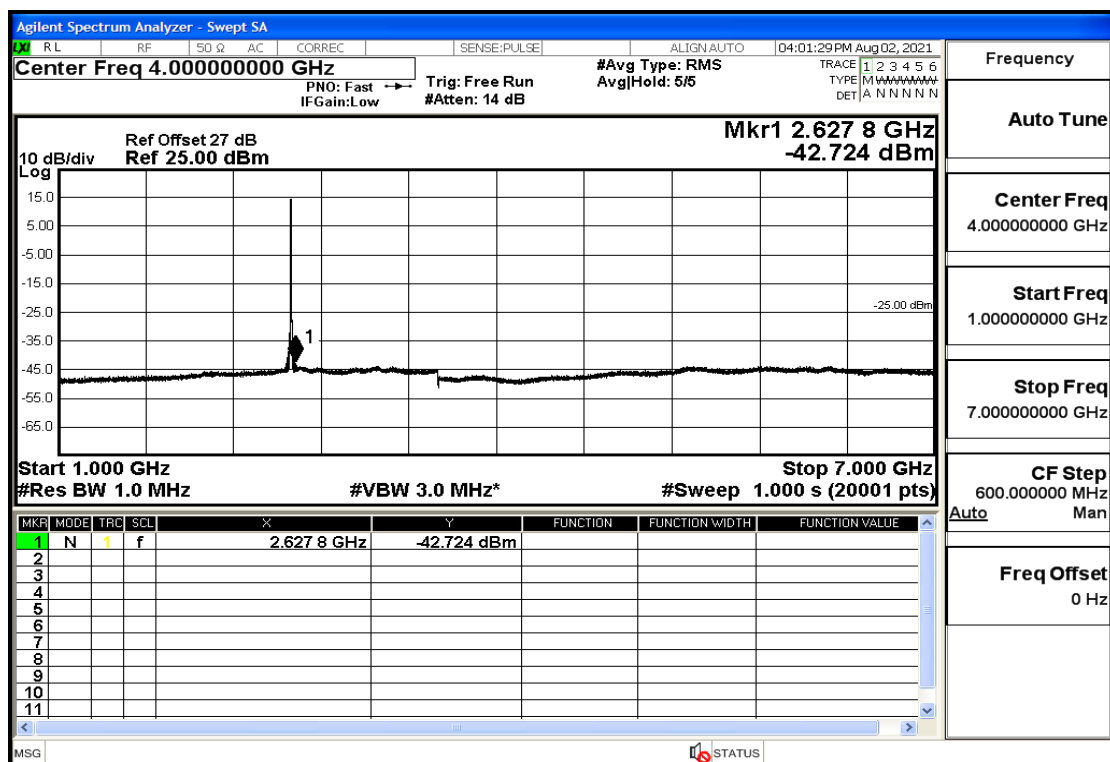
OB41-5-2537.5-QPSK-1#HIGH@13.6GHz-26.5GHz@Pass



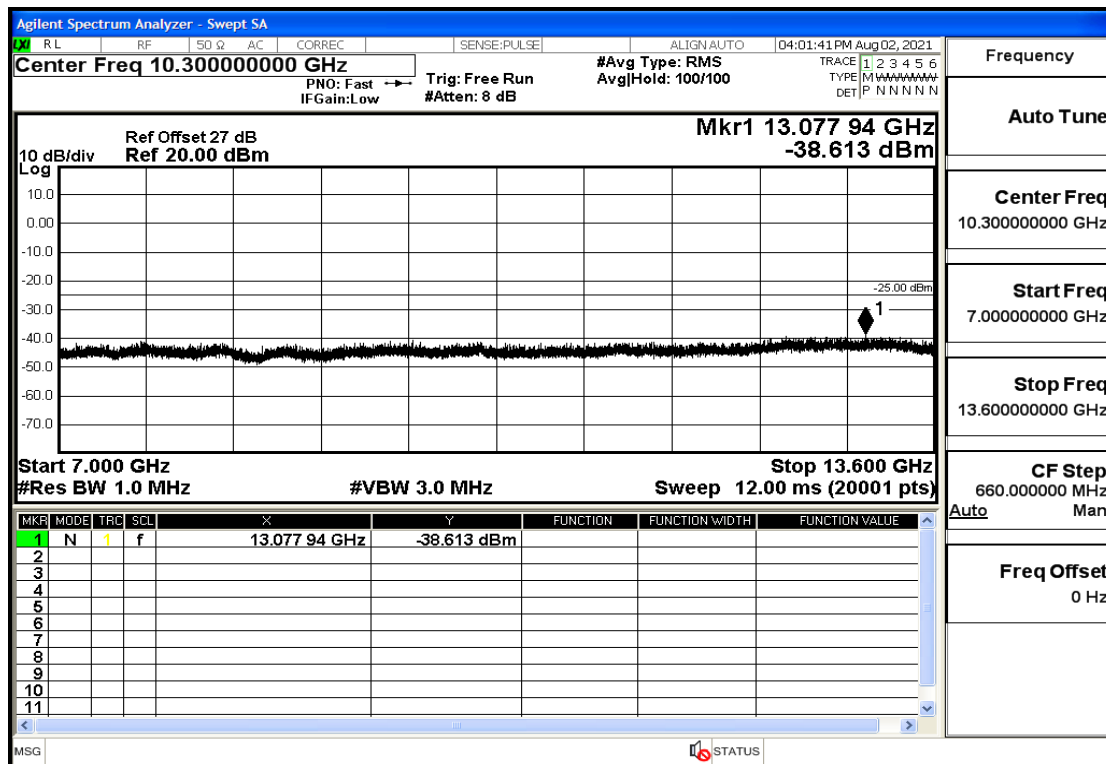
OB41-5-2593-QPSK-25#LOW@30mHz-1GHz@Pass



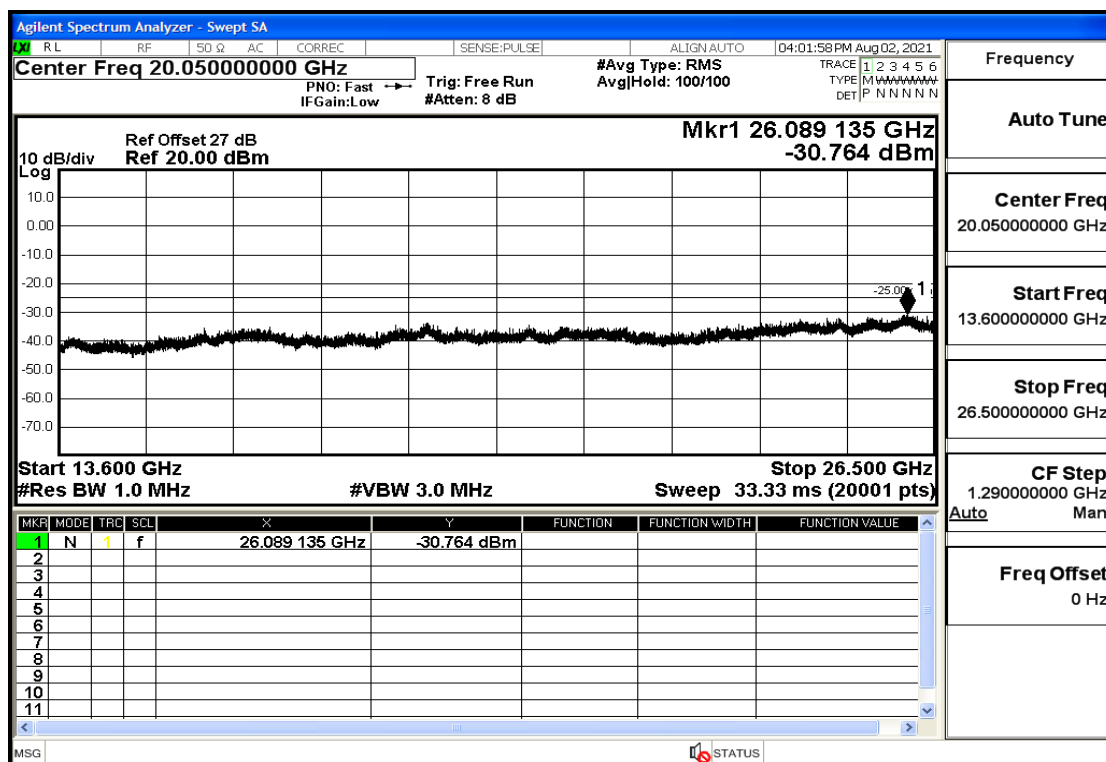
OB41-5-2593-QPSK-25#LOW@1GHz-7GHz@Pass



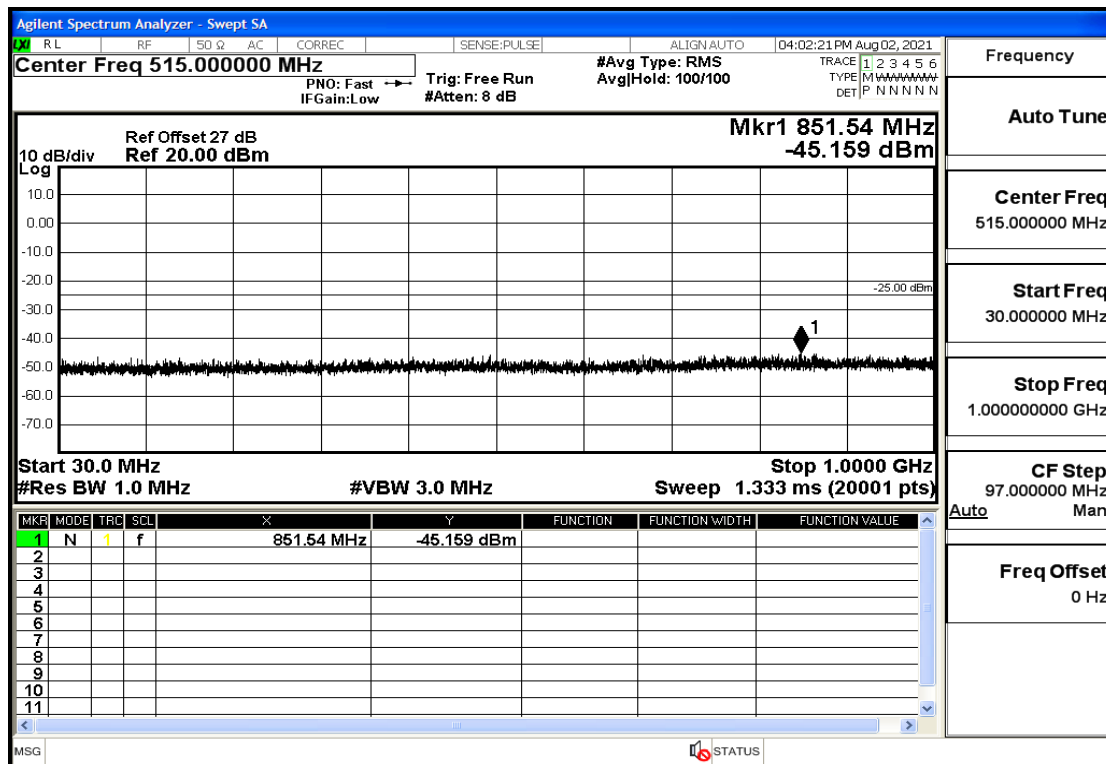
OB41-5-2593-QPSK-25#LOW@7GHz-13.6GHz@Pass



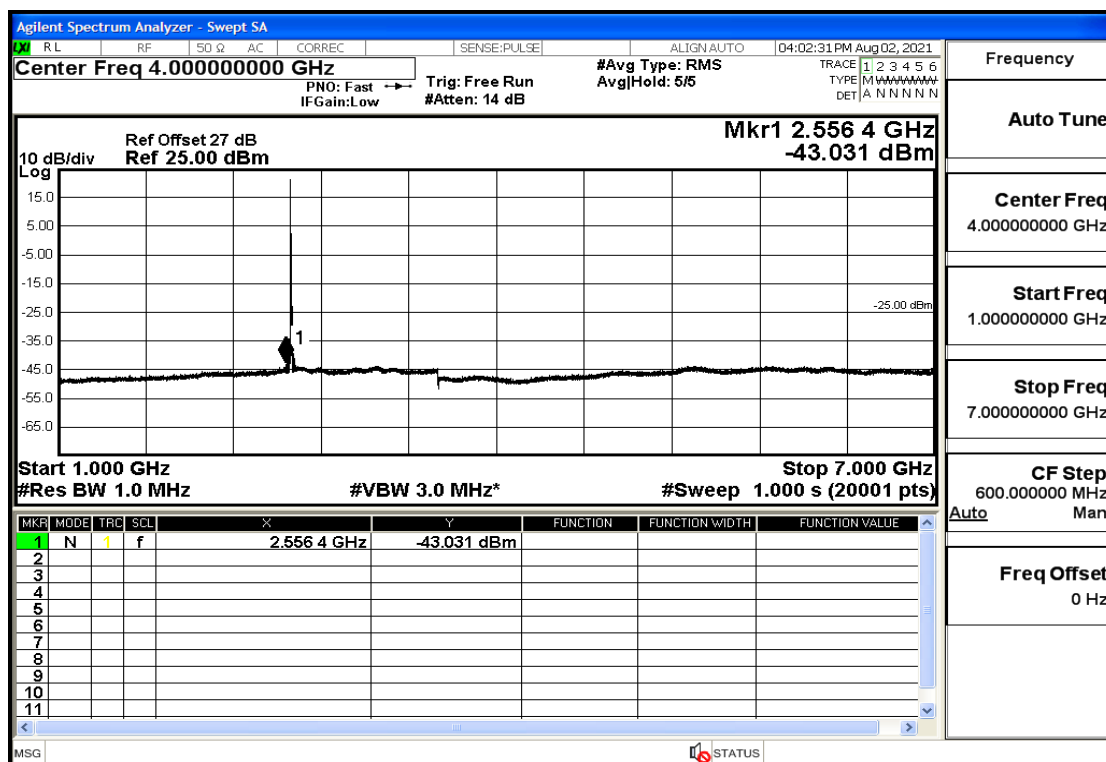
OB41-5-2593-QPSK-25#LOW@13.6GHz-26.5GHz@Pass



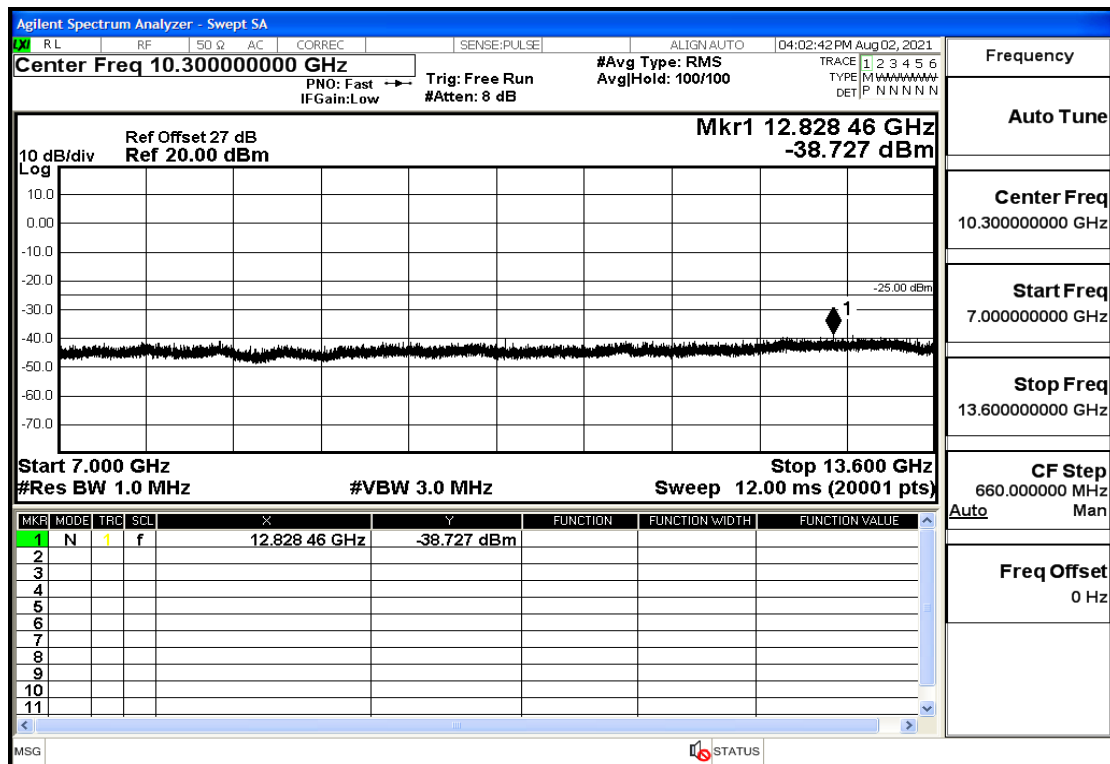
OB41-5-2593-QPSK-1#LOW@30mHz-1GHz@Pass



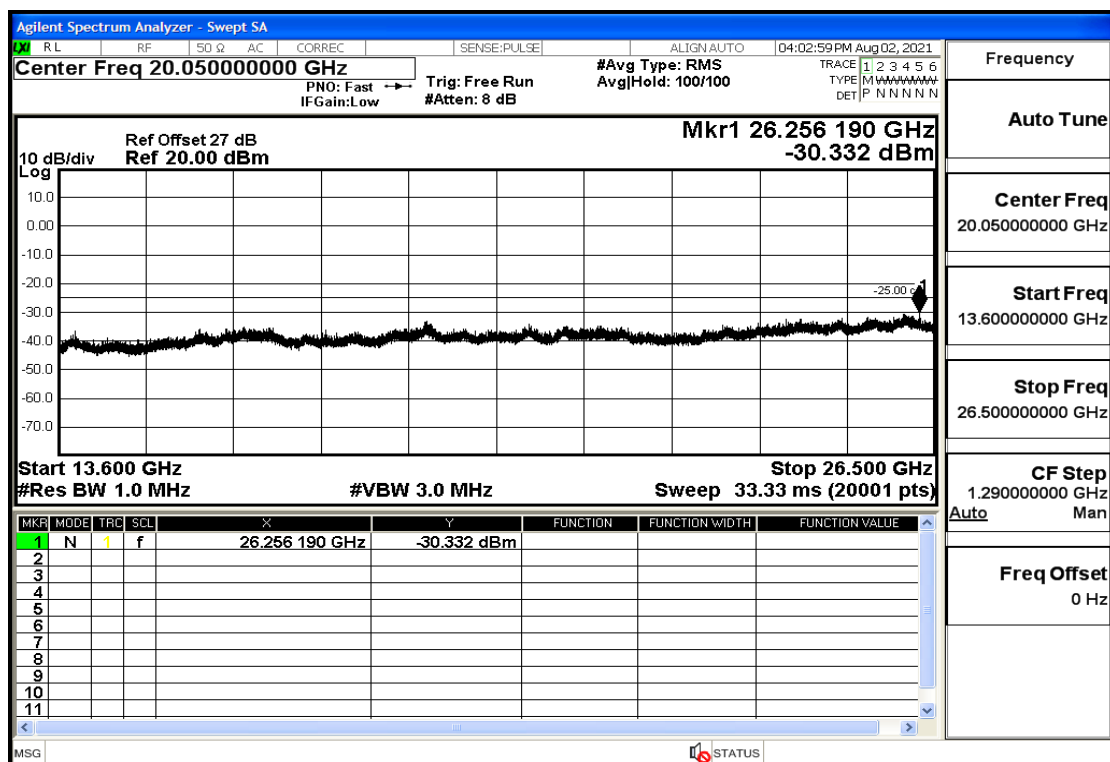
OB41-5-2593-QPSK-1#LOW@1GHz-7GHz@Pass



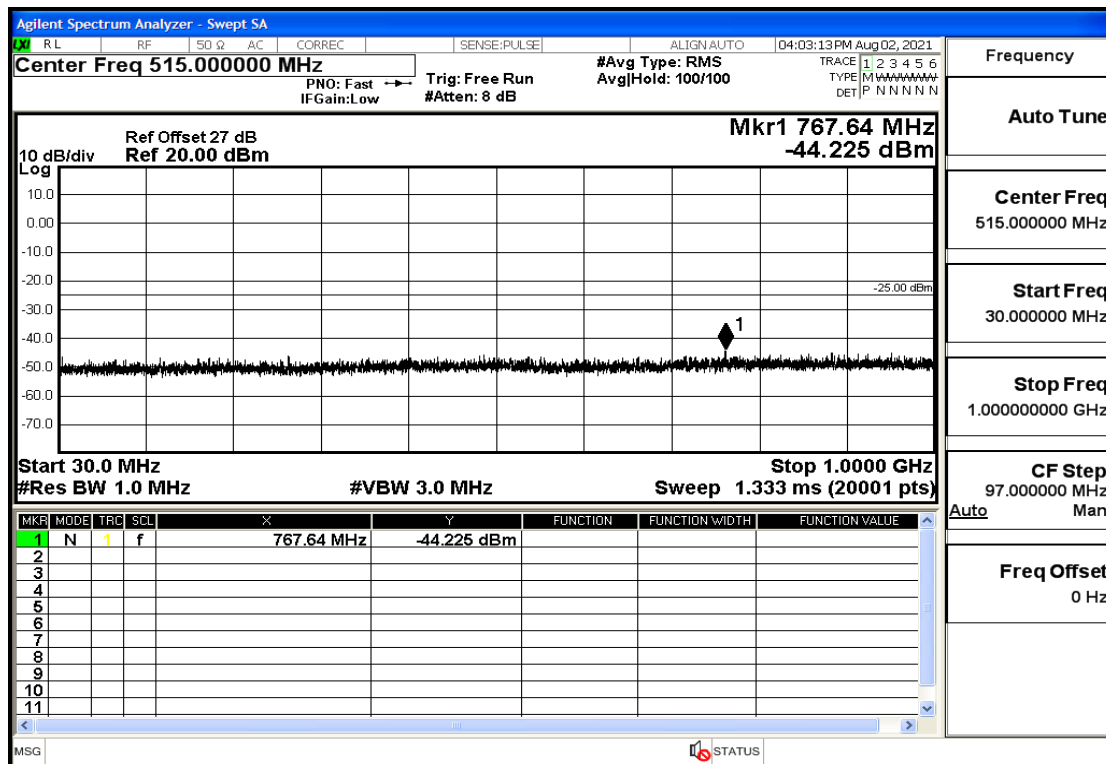
OB41-5-2593-QPSK-1#LOW@7GHz-13.6GHz@Pass



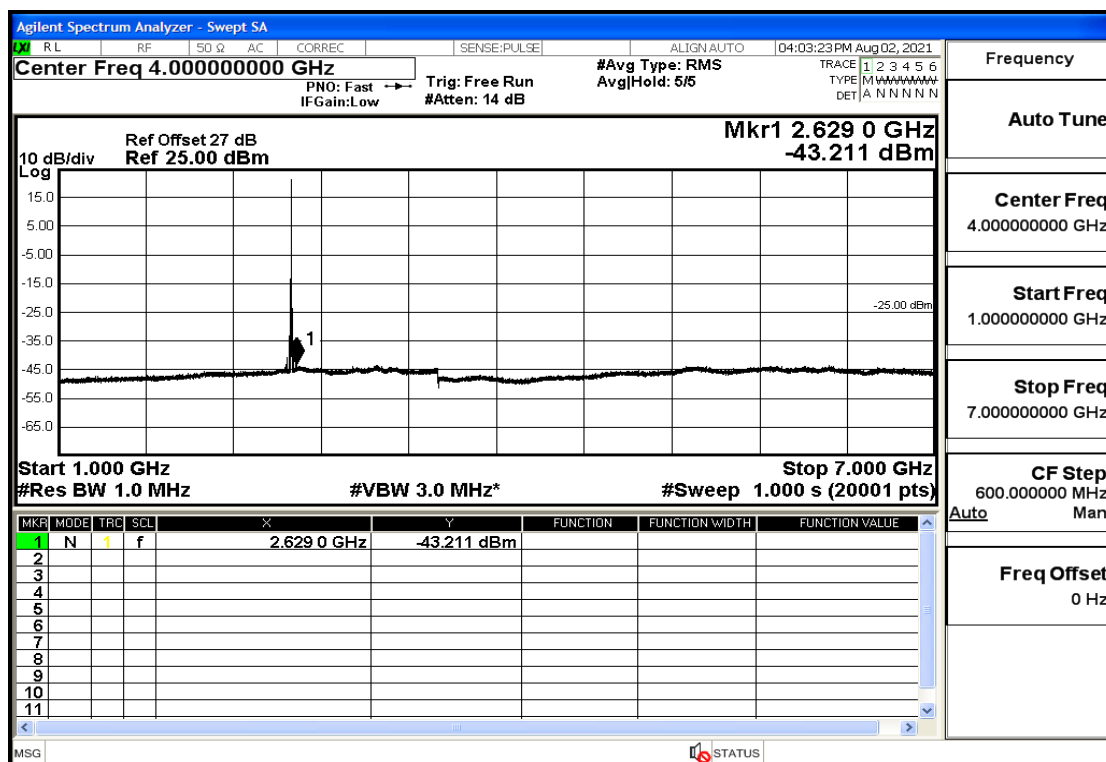
OB41-5-2593-QPSK-1#LOW@13.6GHz-26.5GHz@Pass



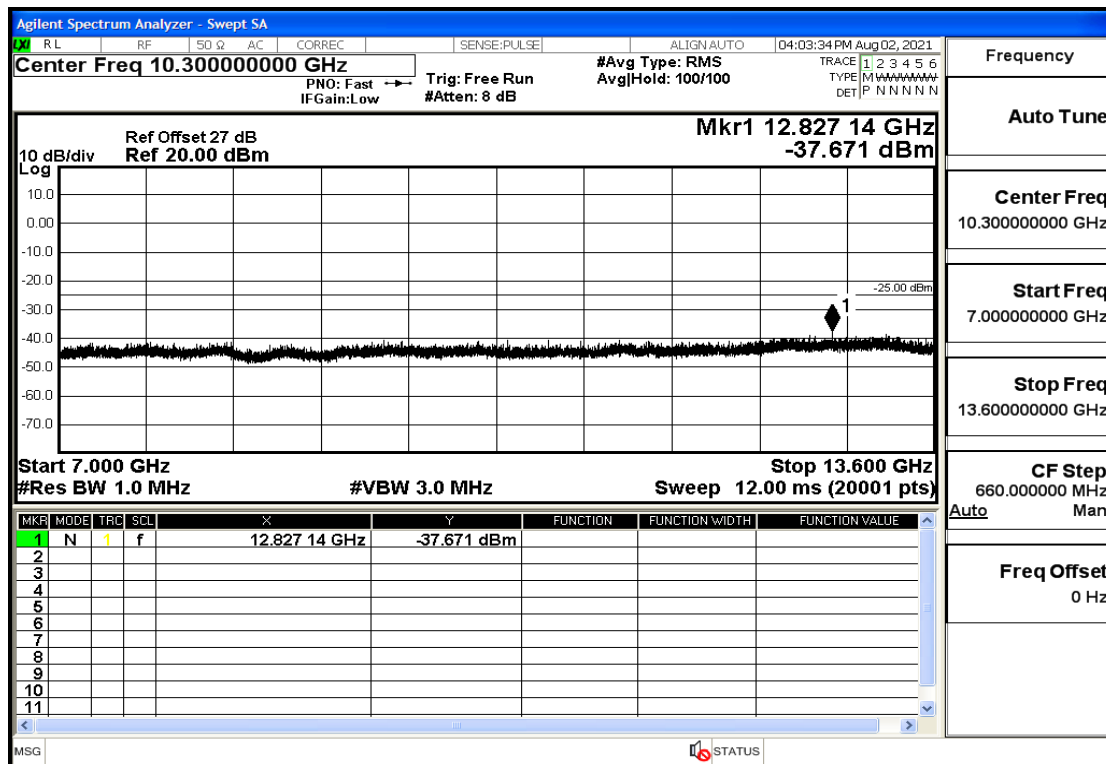
OB41-5-2593-QPSK-1#HIGH@30mHz-1GHz@Pass



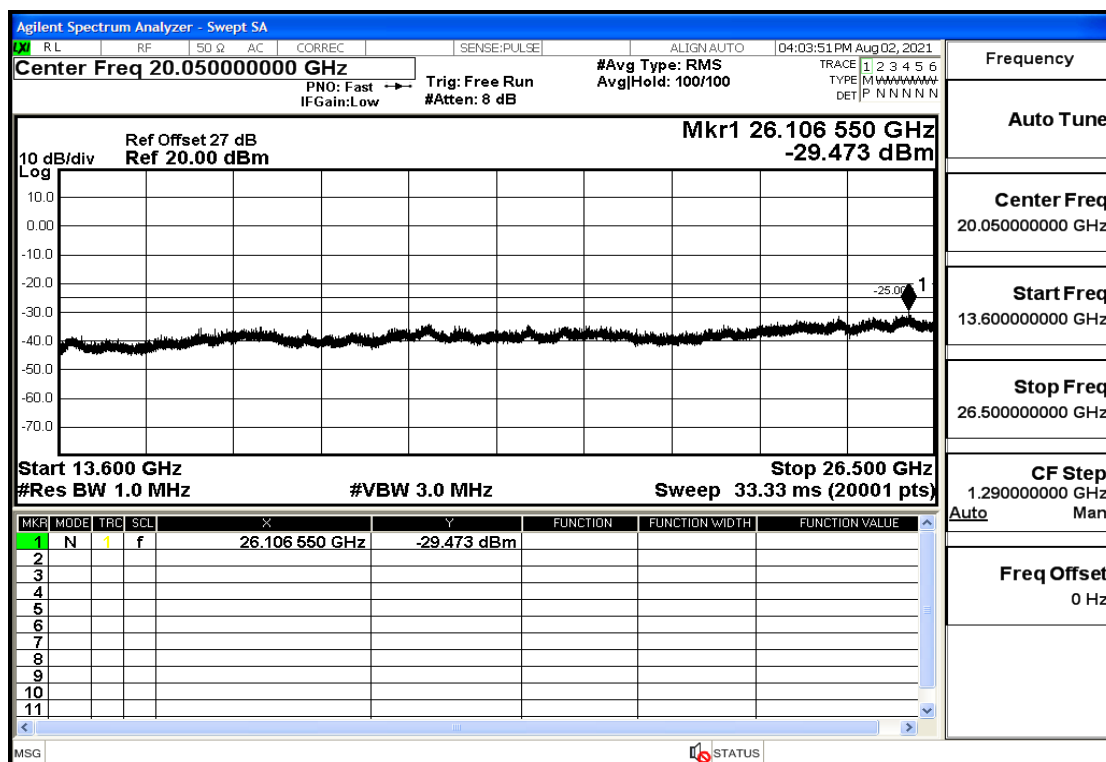
OB41-5-2593-QPSK-1#HIGH@1GHz-7GHz@Pass



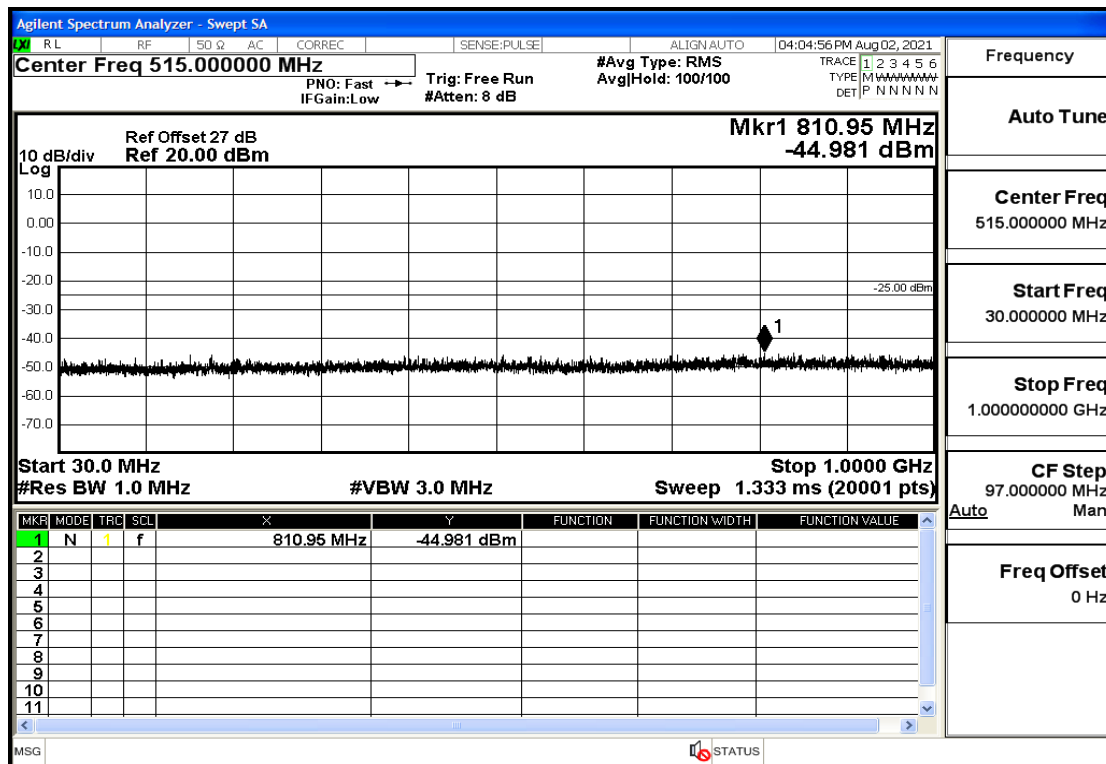
OB41-5-2593-QPSK-1#HIGH@7GHz-13.6GHz@Pass



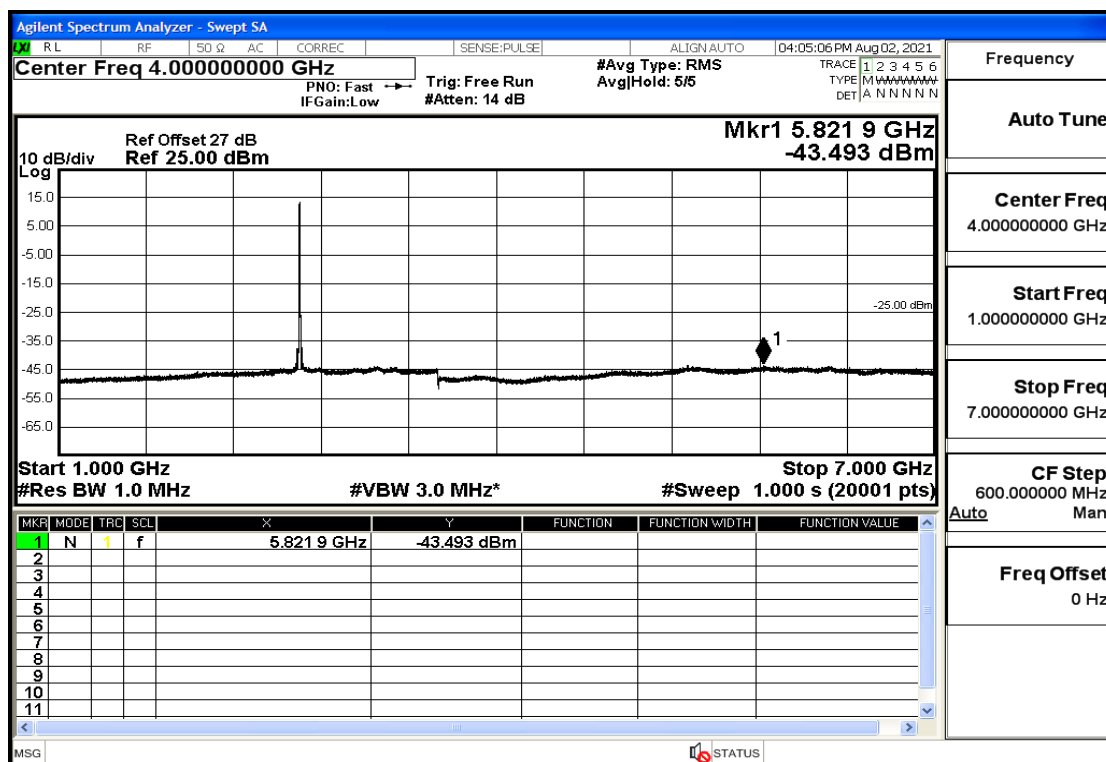
OB41-5-2593-QPSK-1#HIGH@13.6GHz-26.5GHz@Pass



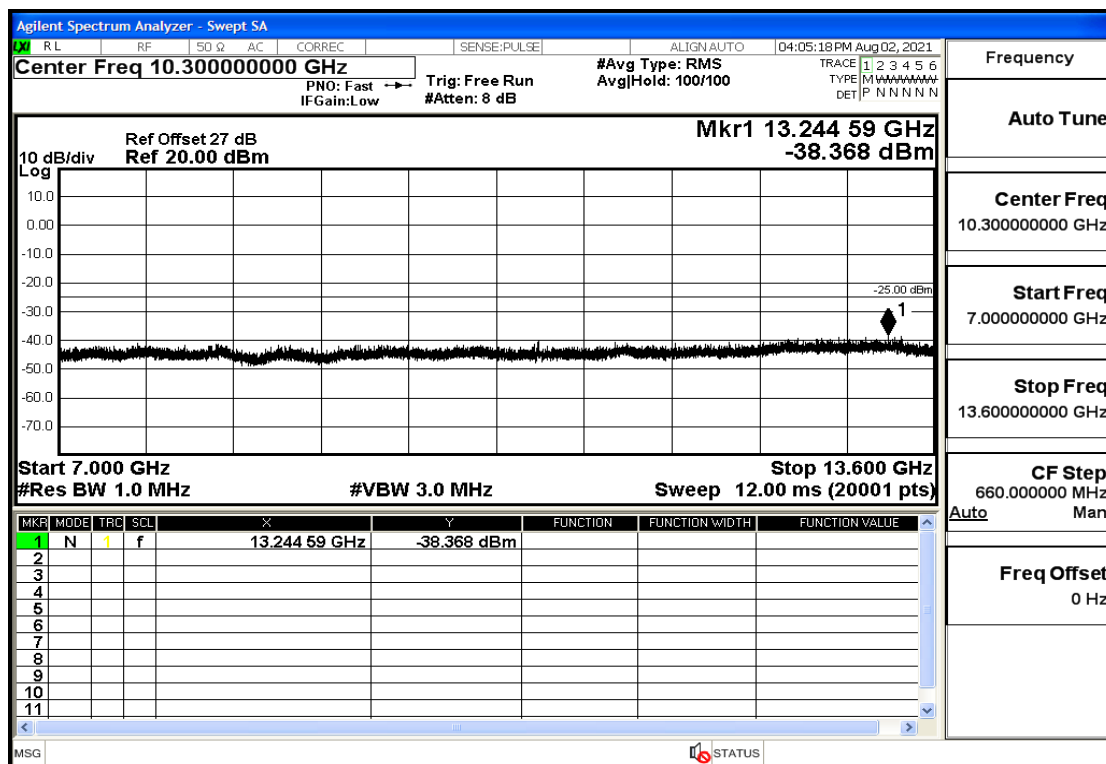
OB41-5-2652.5-QPSK-25#LOW@30mHz-1GHz@Pass



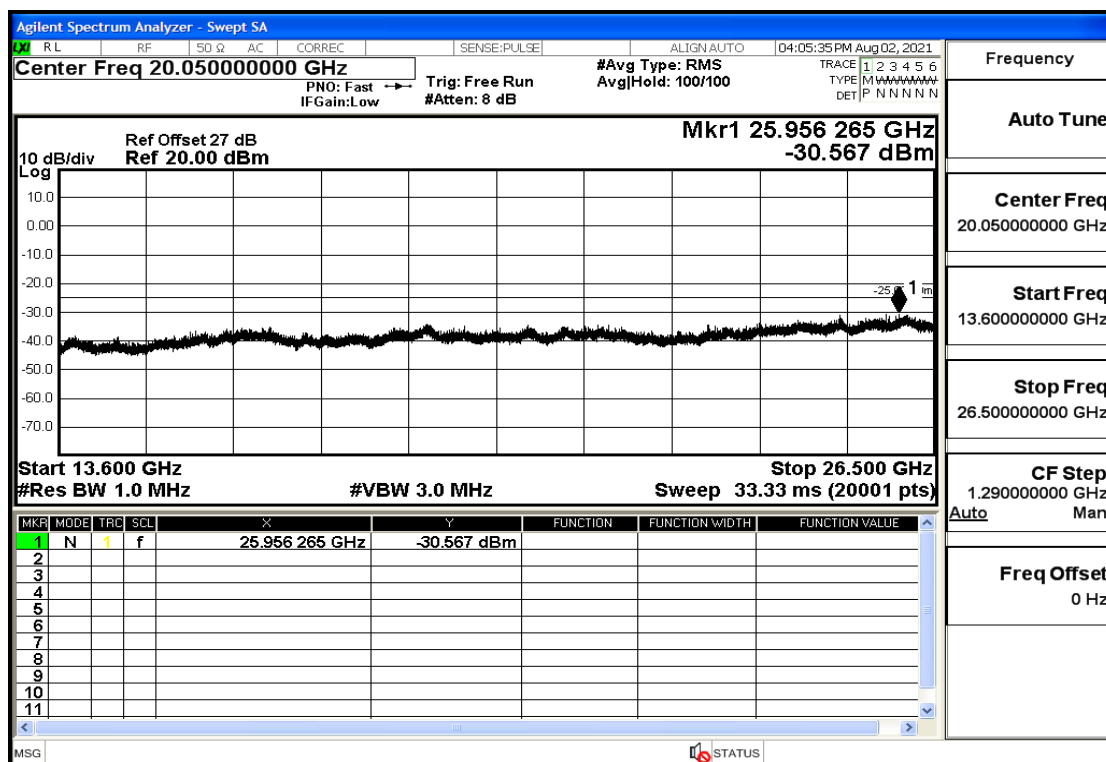
OB41-5-2652.5-QPSK-25#LOW@1GHz-7GHz@Pass



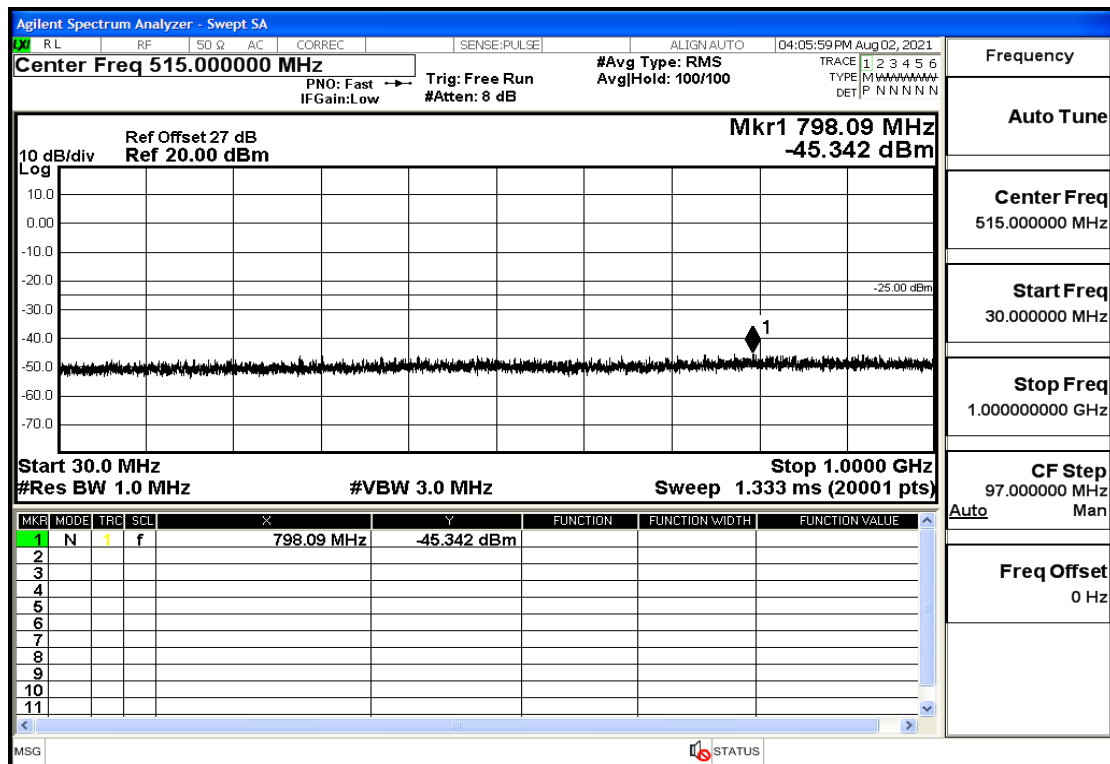
OB41-5-2652.5-QPSK-25#LOW@7GHz-13.6GHz@Pass



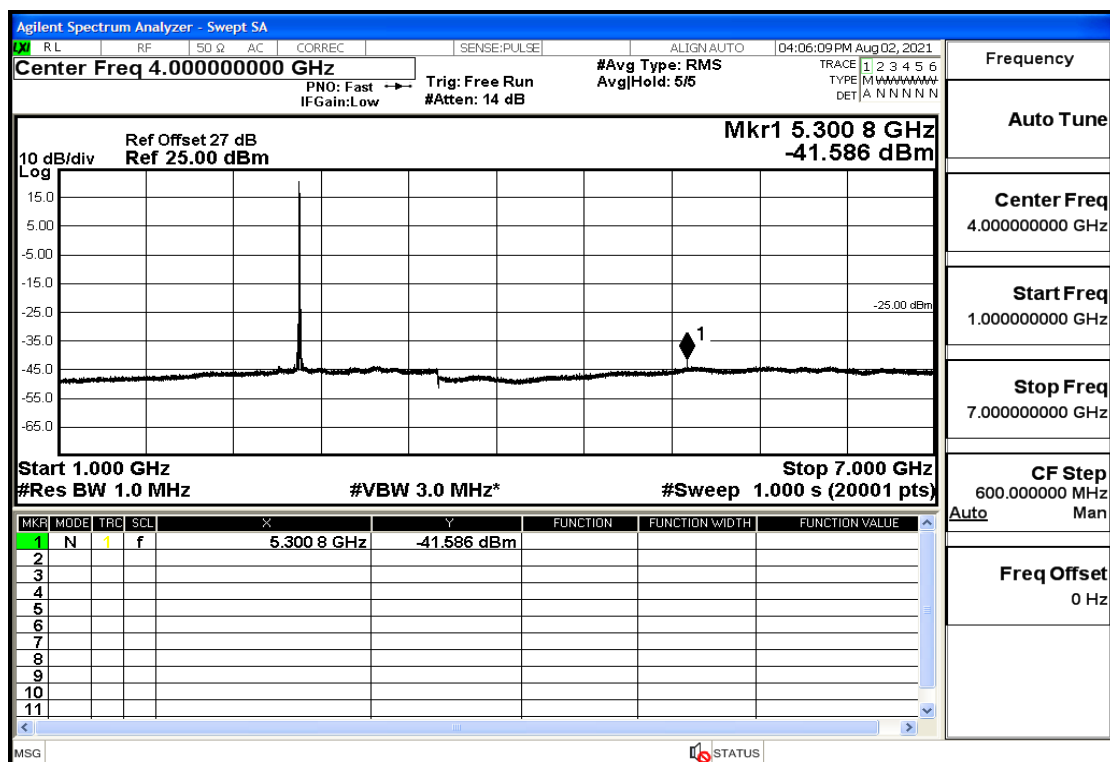
OB41-5-2652.5-QPSK-25#LOW@13.6GHz-26.5GHz@Pass



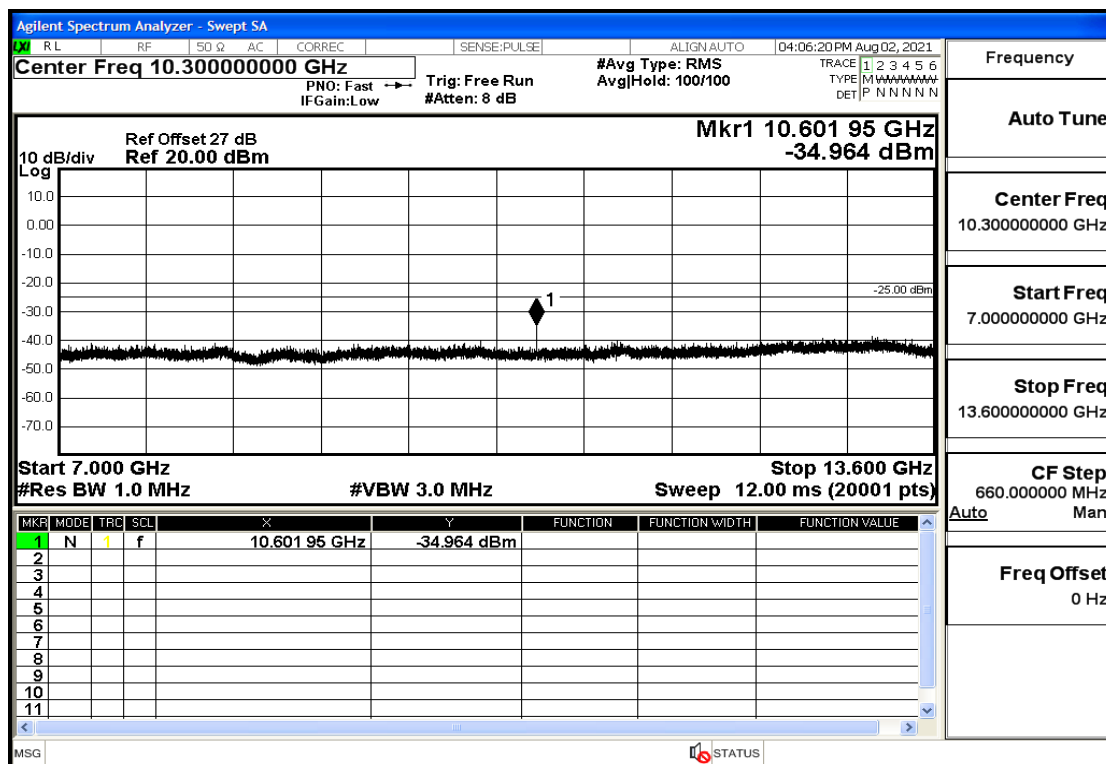
OB41-5-2652.5-QPSK-1#LOW@30mHz-1GHz@Pass



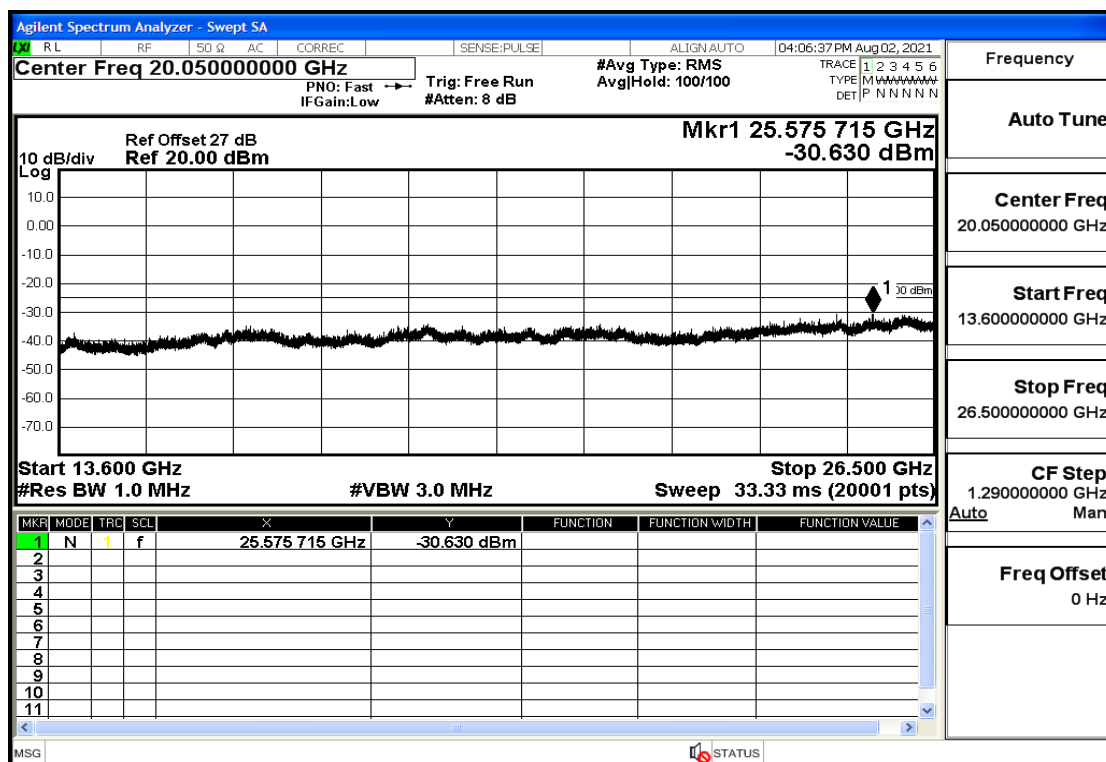
OB41-5-2652.5-QPSK-1#LOW@1GHz-7GHz@Pass



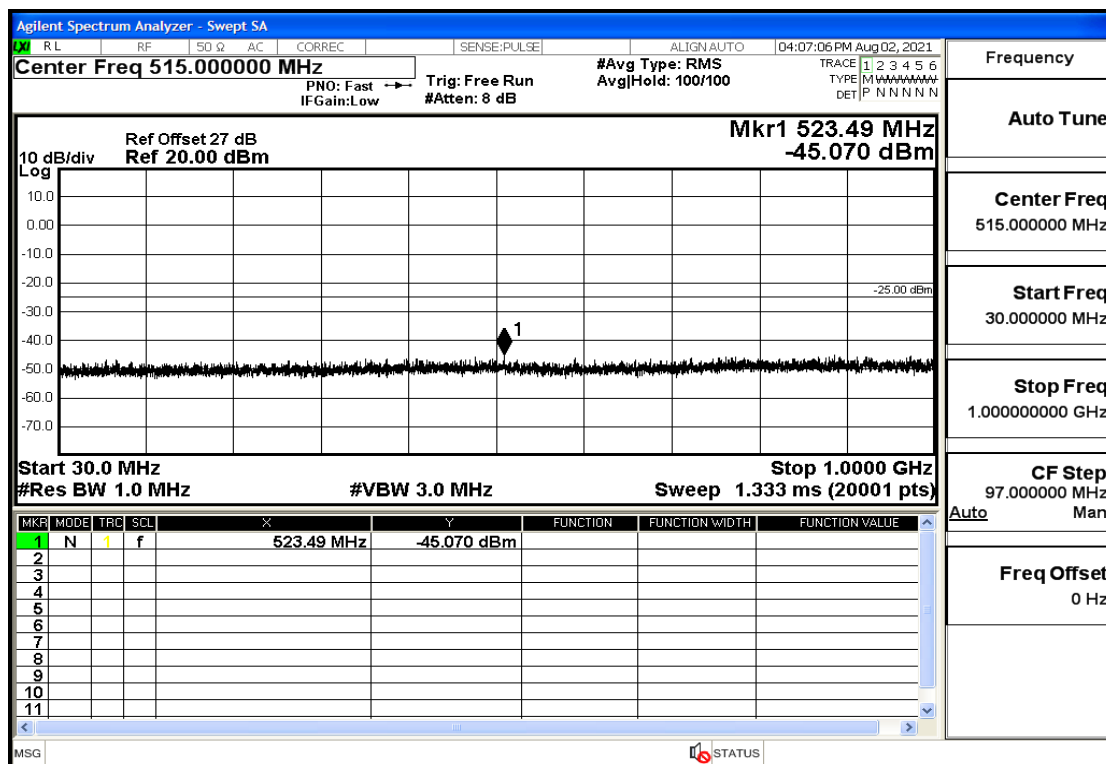
OB41-5-2652.5-QPSK-1#LOW@7GHz-13.6GHz@Pass



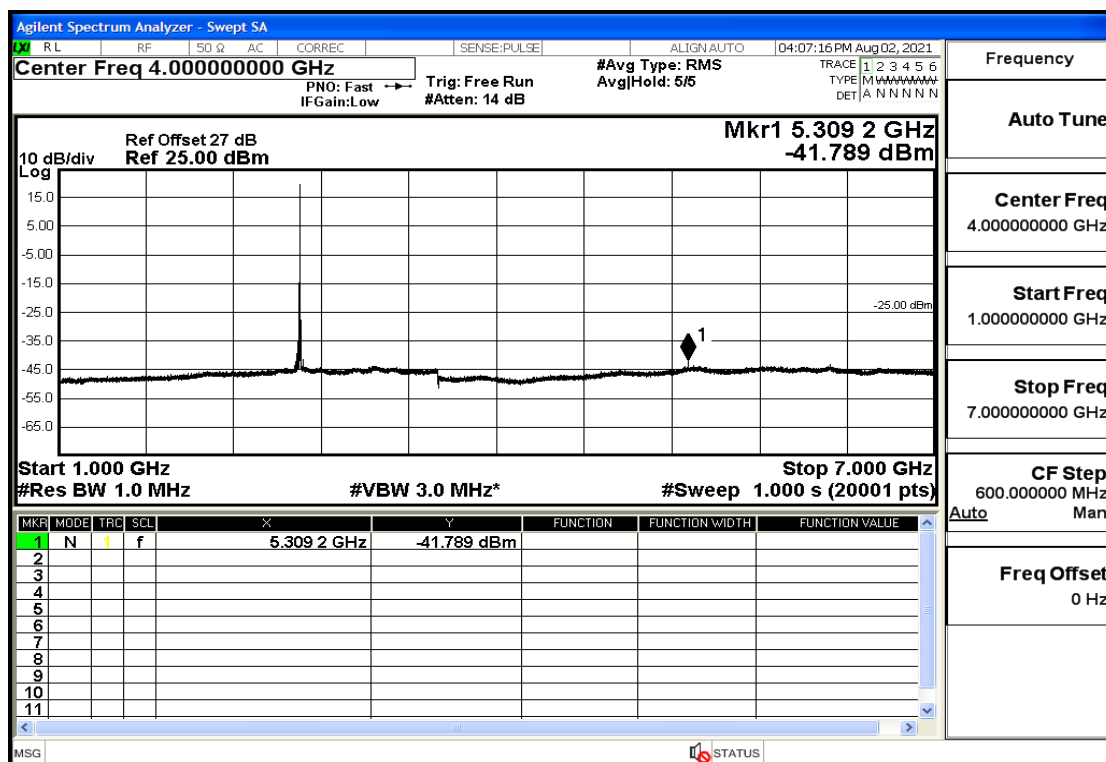
OB41-5-2652.5-QPSK-1#LOW@13.6GHz-26.5GHz@Pass



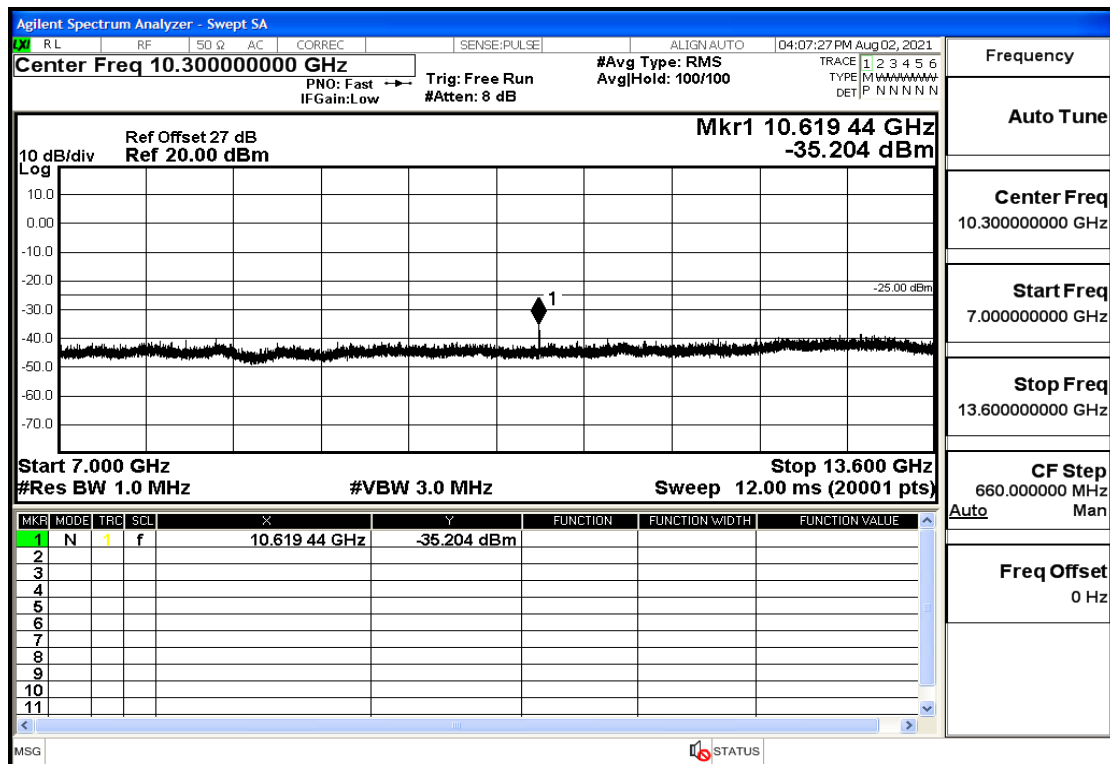
OB41-5-2652.5-QPSK-1#HIGH@30mHz-1GHz@Pass



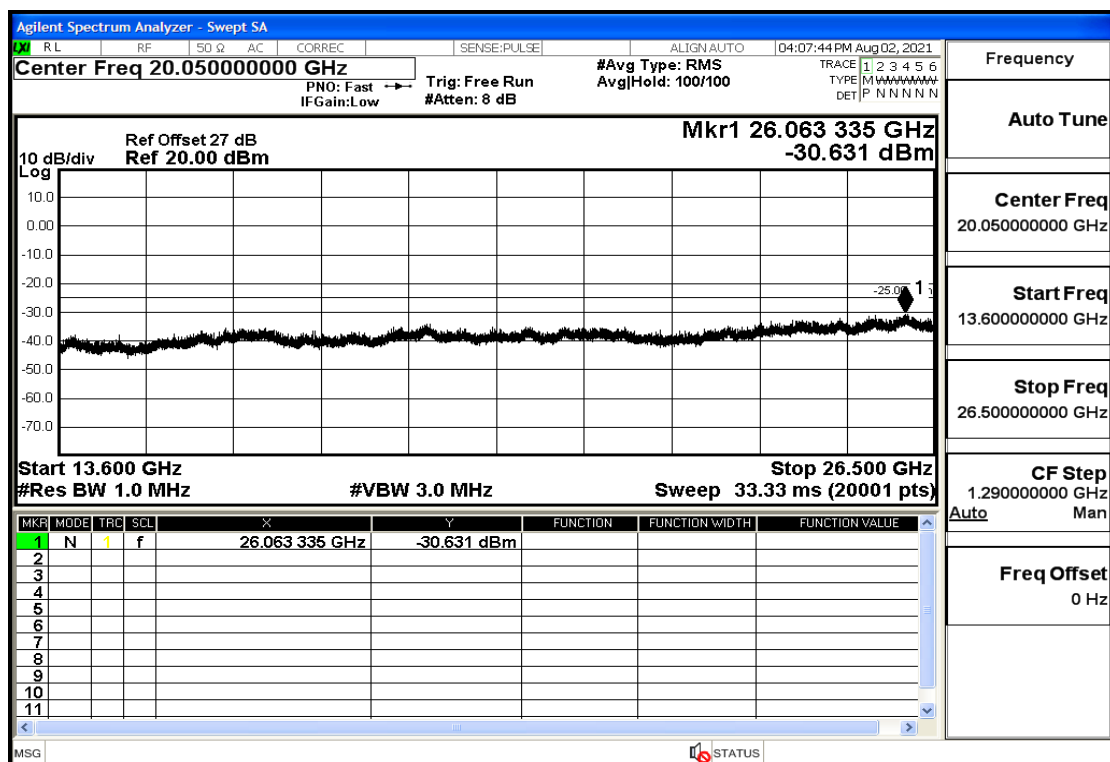
OB41-5-2652.5-QPSK-1#HIGH@1GHz-7GHz@Pass



OB41-5-2652.5-QPSK-1#HIGH@7GHz-13.6GHz@Pass



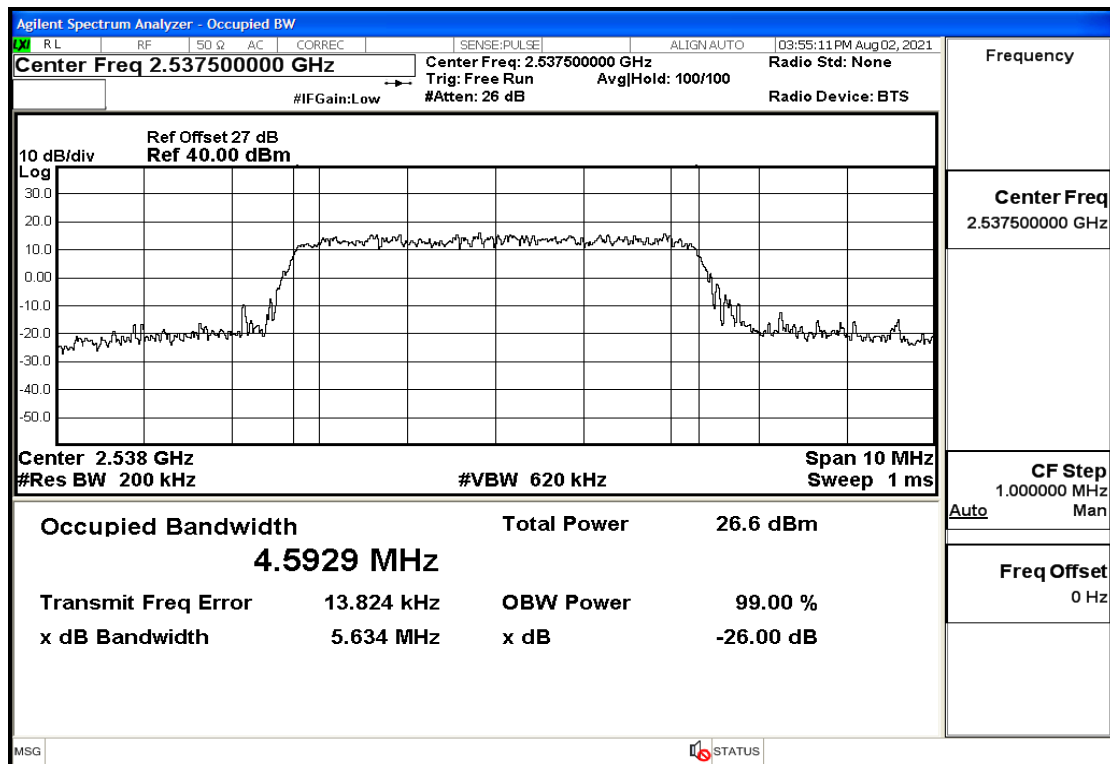
OB41-5-2652.5-QPSK-1#HIGH@13.6GHz-26.5GHz@Pass



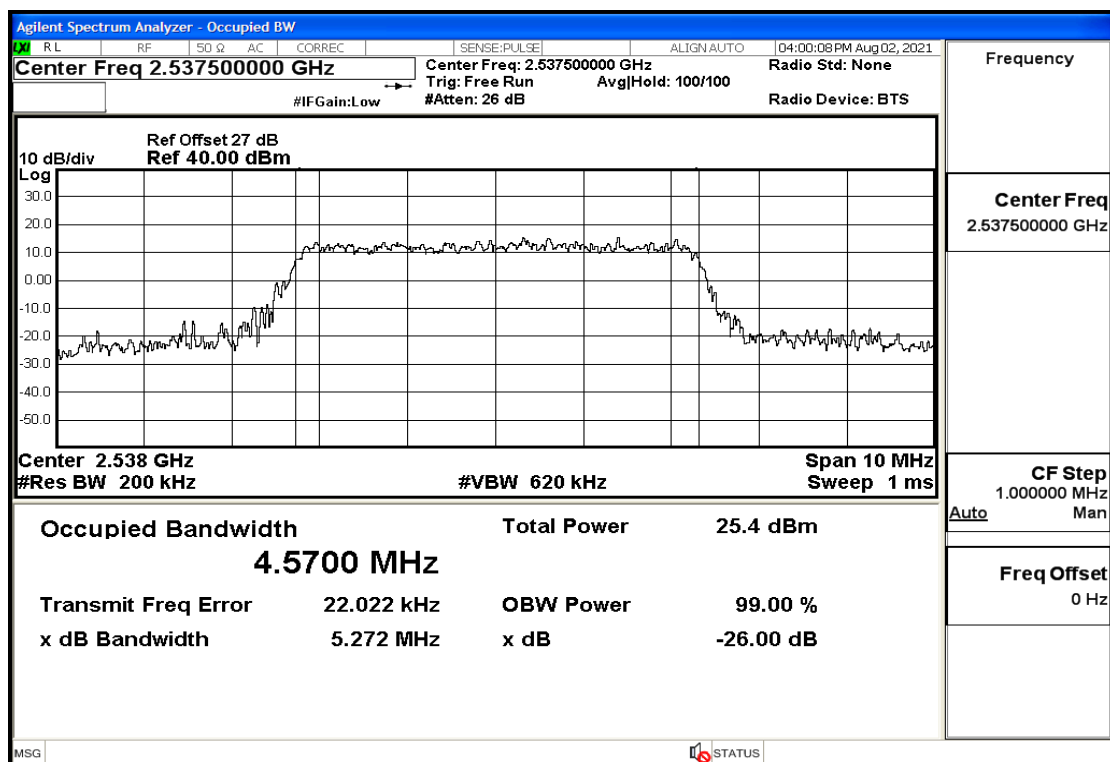
Emission bandwidth and OBW

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Occupied Bandwidth(KHz)	Emission Bandwidth(KHz)	Limit
Band41	5	2537.5	QPSK	25	LOW	4592.9	5634	No limit
Band41	5	2537.5	16QAM	25	LOW	4570	5272	No limit
Band41	5	2593	QPSK	25	LOW	4579.1	5205	No limit
Band41	5	2593	16QAM	25	LOW	4583.5	5202	No limit
Band41	5	2652.5	QPSK	25	LOW	4595.1	5080	No limit
Band41	5	2652.5	16QAM	25	LOW	4595.6	5223	No limit

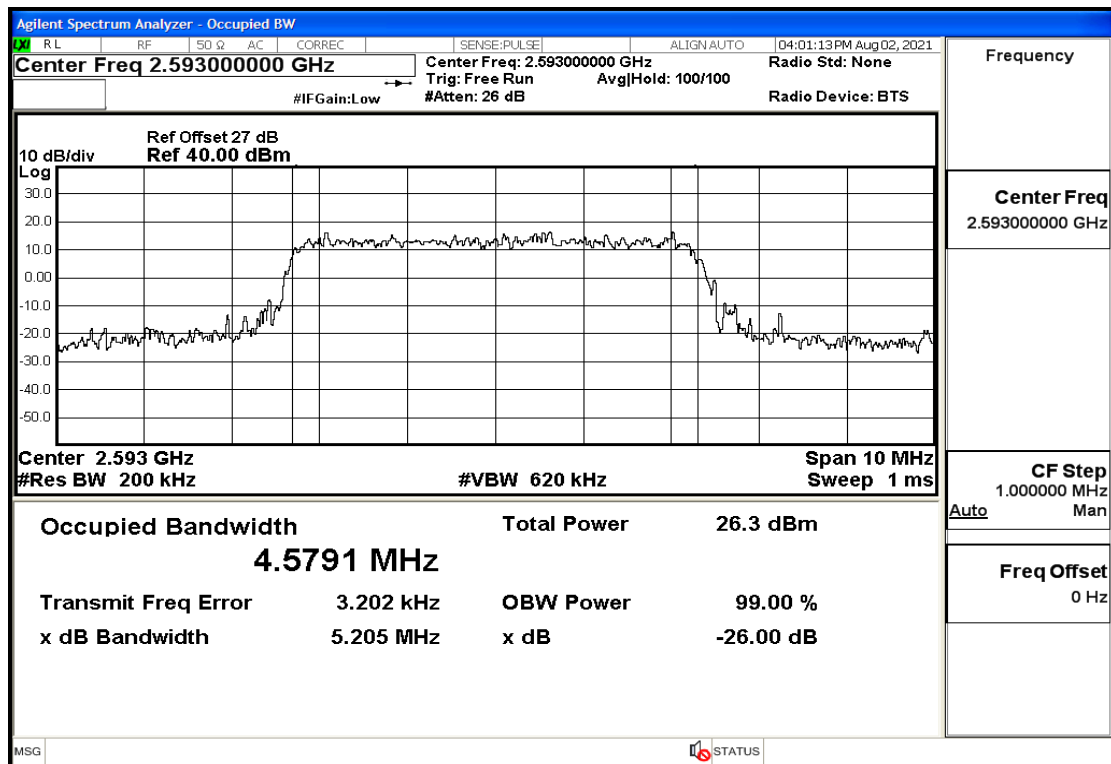
Band41-5-2537.5-QPSK-25#LOW@26dB and 99PCT Bandwidth



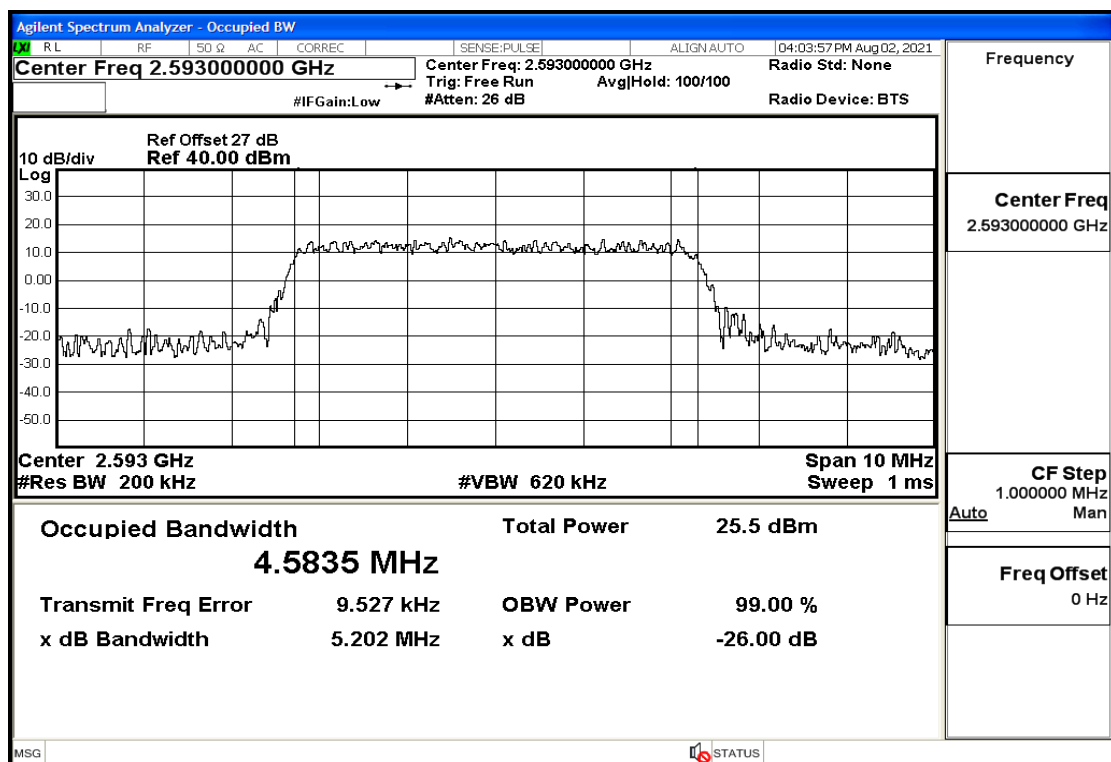
Band41-5-2537.5-16QAM-25#LOW@26dB and 99PCT Bandwidth



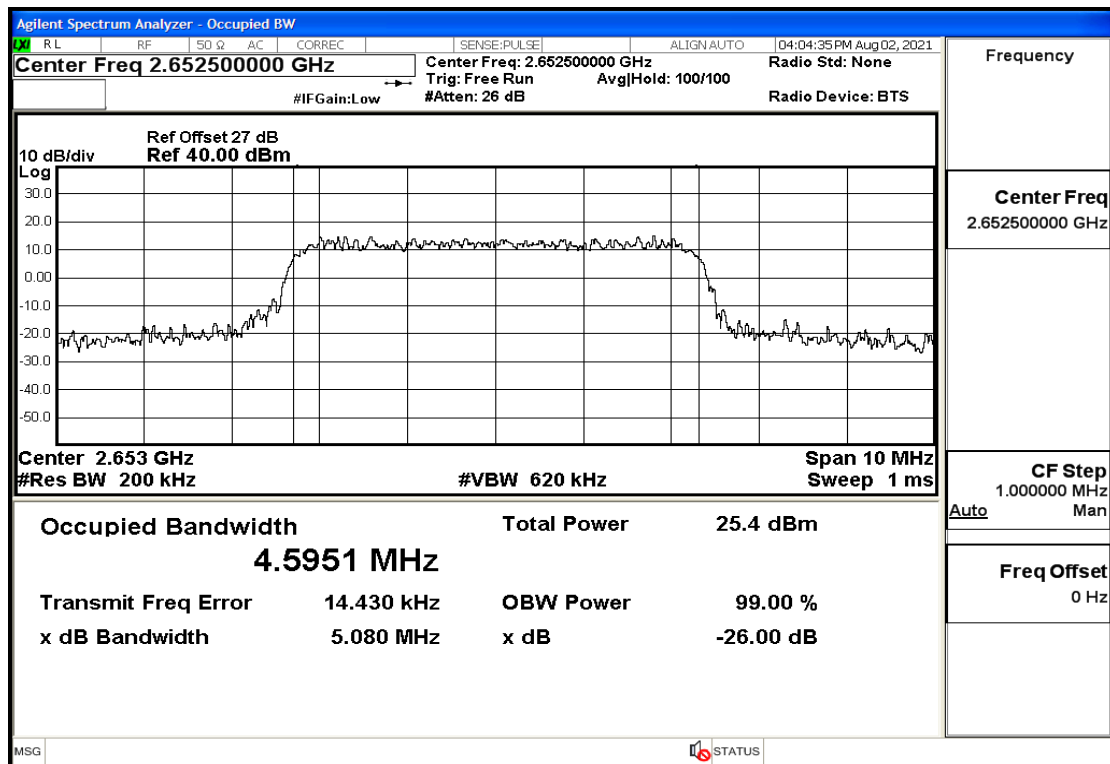
Band41-5-2593-QPSK-25#LOW@26dB and 99PCT Bandwidth



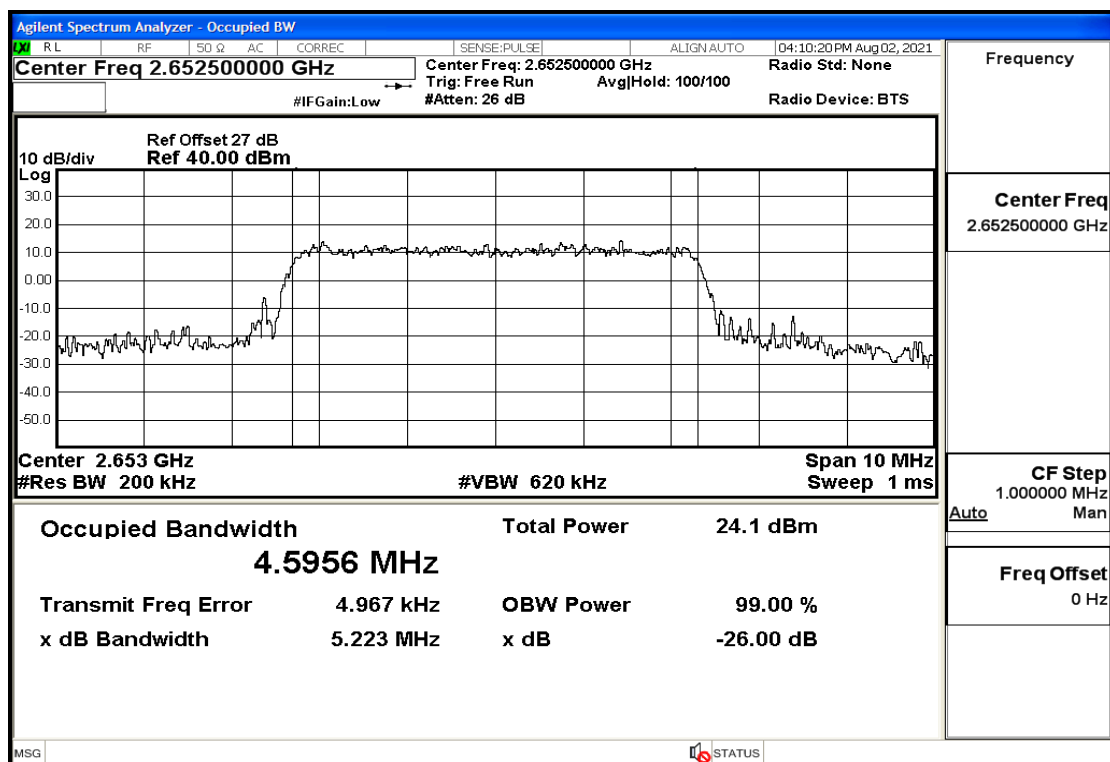
Band41-5-2593-16QAM-25#LOW@26dB and 99PCT Bandwidth



Band41-5-2652.5-QPSK-25#LOW@26dB and 99PCT Bandwidth



Band41-5-2652.5-16QAM-25#LOW@26dB and 99PCT Bandwidth



Frequency Stability

Test Conditions		LTE Band 41(QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0656	PASS
40	Normal Voltage	0.0381	
30	Normal Voltage	0.0186	
20(Ref.)	Normal Voltage	0.0243	
10	Normal Voltage	0.0663	
0	Normal Voltage	0.0166	
-10	Normal Voltage	0.0494	
-20	Normal Voltage	0.0390	
-30	Normal Voltage	0.0189	
20	Maximum Voltage	0.0195	
20	Normal Voltage	0.0291	
20	Battery End Point	0.0584	

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
Band41	5	2537.5	QPSK	25	LOW	19.83	25.66	5.83	13	0.94	20.77	33	Pass
Band41	5	2537.5	QPSK	12	LOW	19.65	25.23	5.58	13	0.94	20.59	33	Pass
Band41	5	2537.5	QPSK	12	MID	19.65	25.24	5.59	13	0.94	20.59	33	Pass
Band41	5	2537.5	QPSK	12	HIGH	19.81	25.6	5.79	13	0.94	20.75	33	Pass
Band41	5	2537.5	QPSK	1	LOW	20.64	24.92	4.28	13	0.94	21.58	33	Pass
Band41	5	2537.5	QPSK	1	MID	20.99	25.1	4.11	13	0.94	21.93	33	Pass
Band41	5	2537.5	QPSK	1	HIGH	20.95	25.35	4.4	13	0.94	21.89	33	Pass
Band41	5	2537.5	16QAM	25	LOW	18.65	24.66	6.01	13	0.94	19.59	33	Pass
Band41	5	2537.5	16QAM	12	LOW	18.68	25.32	6.64	13	0.94	19.62	33	Pass
Band41	5	2537.5	16QAM	12	MID	18.69	25.25	6.56	13	0.94	19.63	33	Pass
Band41	5	2537.5	16QAM	12	HIGH	18.95	25.39	6.44	13	0.94	19.89	33	Pass
Band41	5	2537.5	16QAM	1	LOW	19.81	24.59	4.78	13	0.94	20.75	33	Pass
Band41	5	2537.5	16QAM	1	MID	20.21	24.92	4.71	13	0.94	21.15	33	Pass
Band41	5	2537.5	16QAM	1	HIGH	20.07	24.91	4.84	13	0.94	21.01	33	Pass
Band41	5	2593	QPSK	25	LOW	19.63	25.59	5.96	13	0.94	20.57	33	Pass
Band41	5	2593	QPSK	12	LOW	19.95	25.3	5.35	13	0.94	20.89	33	Pass
Band41	5	2593	QPSK	12	MID	19.96	25.27	5.31	13	0.94	20.9	33	Pass
Band41	5	2593	QPSK	12	HIGH	19.84	25.32	5.48	13	0.94	20.78	33	Pass
Band41	5	2593	QPSK	1	LOW	21.16	24.81	3.65	13	0.94	22.1	33	Pass
Band41	5	2593	QPSK	1	MID	21.27	24.89	3.62	13	0.94	22.21	33	Pass
Band41	5	2593	QPSK	1	HIGH	20.95	24.97	4.02	13	0.94	21.89	33	Pass
Band41	5	2593	16QAM	25	LOW	18.81	25.22	6.41	13	0.94	19.75	33	Pass
Band41	5	2593	16QAM	12	LOW	18.78	24.79	6.01	13	0.94	19.72	33	Pass
Band41	5	2593	16QAM	12	MID	18.79	24.87	6.08	13	0.94	19.73	33	Pass
Band41	5	2593	16QAM	12	HIGH	18.66	24.75	6.09	13	0.94	19.6	33	Pass
Band41	5	2593	16QAM	1	LOW	19.87	24.61	4.74	13	0.94	20.81	33	Pass
Band41	5	2593	16QAM	1	MID	20.05	24.61	4.56	13	0.94	20.99	33	Pass
Band41	5	2593	16QAM	1	HIGH	19.7	24.63	4.93	13	0.94	20.64	33	Pass
Band41	5	2652.5	QPSK	25	LOW	18.56	24.36	5.8	13	0.94	19.5	33	Pass
Band41	5	2652.5	QPSK	12	LOW	18.48	24.19	5.71	13	0.94	19.42	33	Pass
Band41	5	2652.5	QPSK	12	MID	18.52	24.27	5.75	13	0.94	19.46	33	Pass
Band41	5	2652.5	QPSK	12	HIGH	18.28	24.01	5.73	13	0.94	19.22	33	Pass
Band41	5	2652.5	QPSK	1	LOW	19.62	24.03	4.41	13	0.94	20.56	33	Pass
Band41	5	2652.5	QPSK	1	MID	19.58	23.93	4.35	13	0.94	20.52	33	Pass
Band41	5	2652.5	QPSK	1	HIGH	19.1	23.84	4.74	13	0.94	20.04	33	Pass
Band41	5	2652.5	16QAM	25	LOW	17.58	24.83	7.25	13	0.94	18.52	33	Pass
Band41	5	2652.5	16QAM	12	LOW	17.63	24.36	6.73	13	0.94	18.57	33	Pass
Band41	5	2652.5	16QAM	12	MID	17.66	24.2	6.54	13	0.94	18.6	33	Pass
Band41	5	2652.5	16QAM	12	HIGH	17.45	23.96	6.51	13	0.94	18.39	33	Pass
Band41	5	2652.5	16QAM	1	LOW	18.55	24.05	5.5	13	0.94	19.49	33	Pass

Band41	5	2652.5	16QAM	1	MID	18.51	23.86	5.35	13	0.94	19.45	33	Pass
Band41	5	2652.5	16QAM	1	HIGH	17.89	23.63	5.74	13	0.94	18.83	33	Pass