

Appendix Test Data(Conducted) for LTE Band7

Product Name: FH Emergency Medical Device - V1-4G
Trade Mark: FastHelp
Test Model: FH-V1-4G
FCC ID: 2AJG4-FH-V1-4G

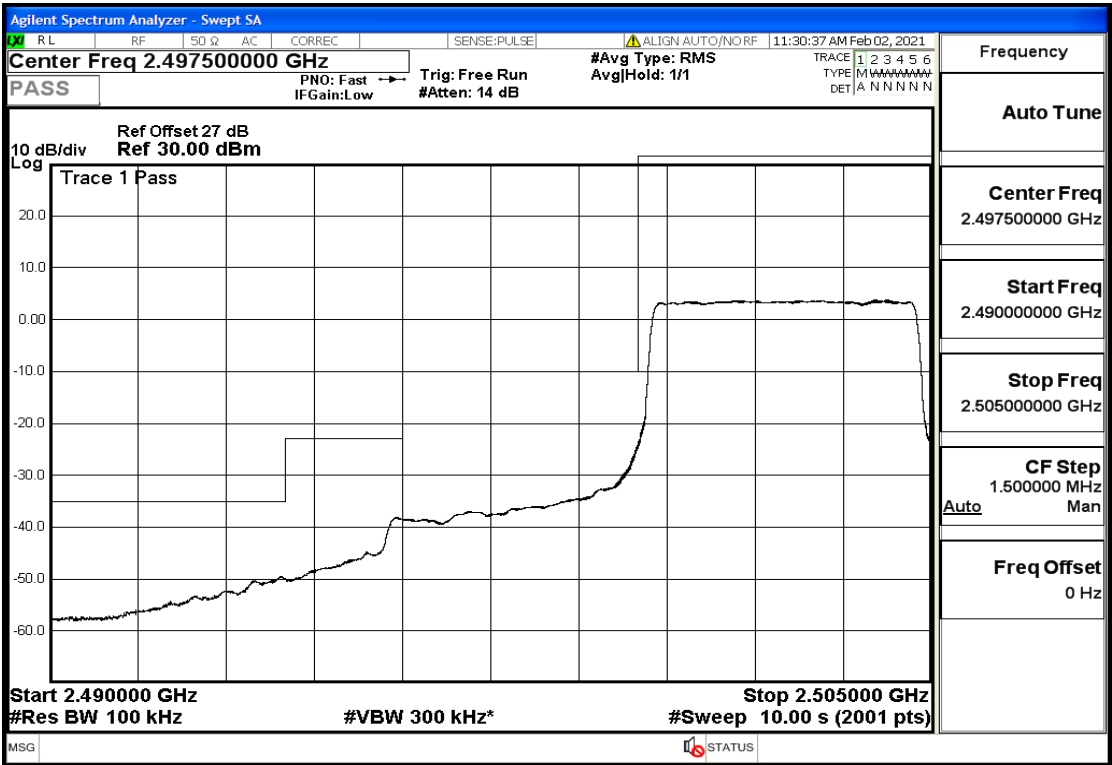
Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	For Band 7

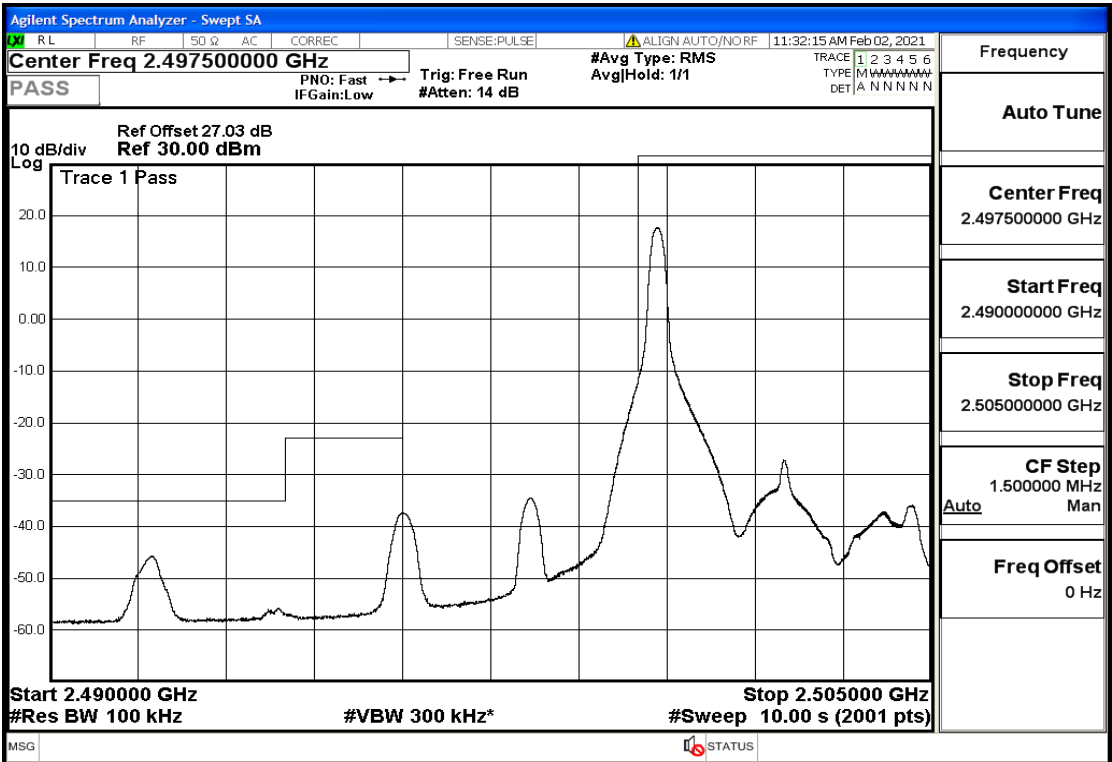
Band Edge and Emission Mask

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Conclusion
Band7	5	2502.5	QPSK	25	LOW	Pass
Band7	5	2502.5	QPSK	1	LOW	Pass
Band7	5	2502.5	16QAM	25	LOW	Pass
Band7	5	2502.5	16QAM	1	LOW	Pass
Band7	5	2567.5	QPSK	25	LOW	Pass
Band7	5	2567.5	QPSK	1	HIGH	Pass
Band7	5	2567.5	16QAM	25	LOW	Pass
Band7	5	2567.5	16QAM	1	HIGH	Pass

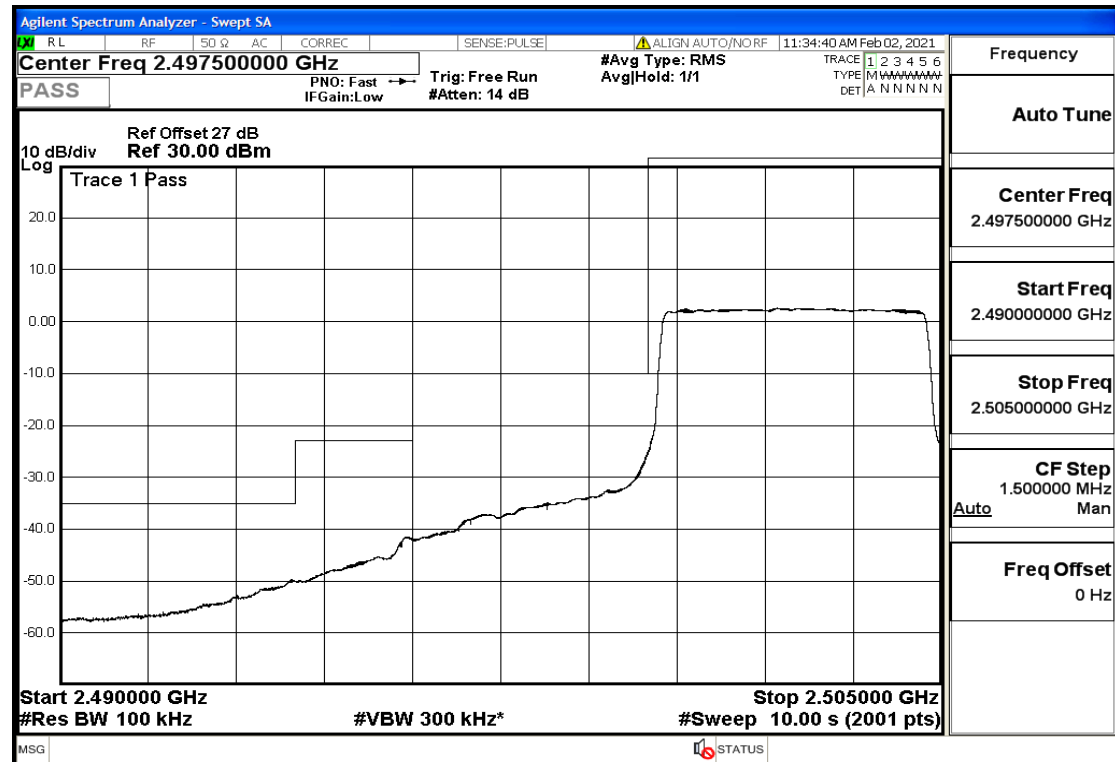
Band7-5-2502.5-QPSK-25#LOW@Pass



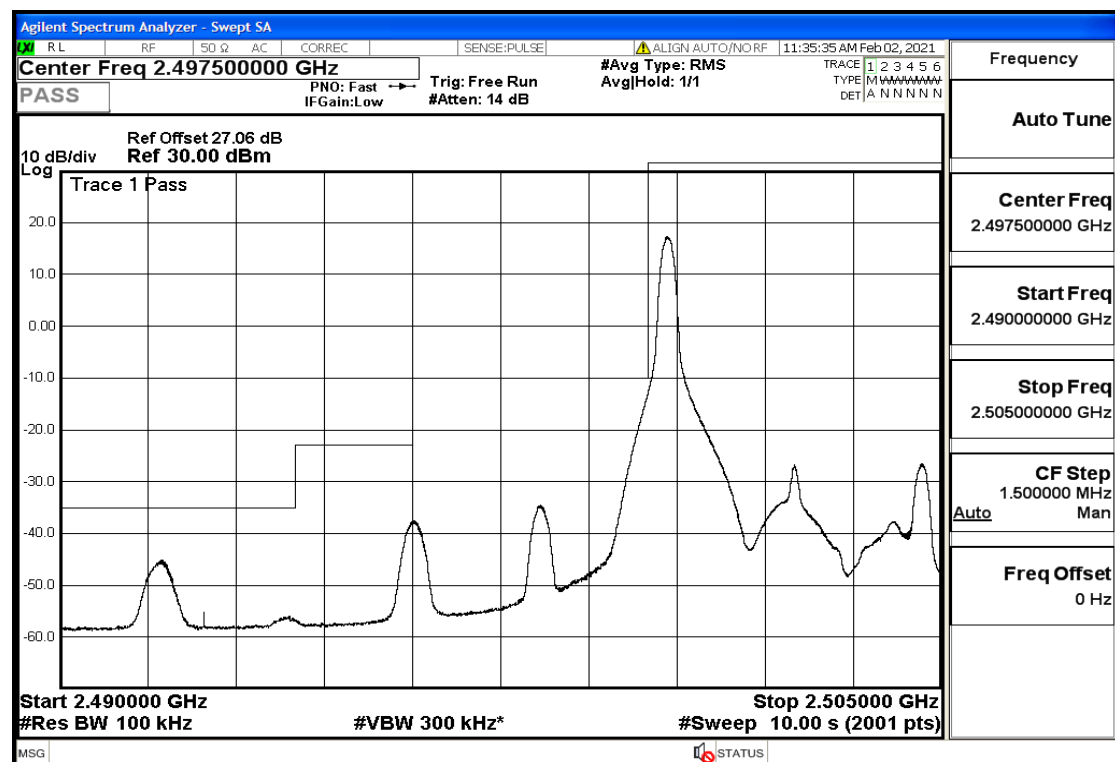
Band7-5-2502.5-QPSK-1#LOW@Pass



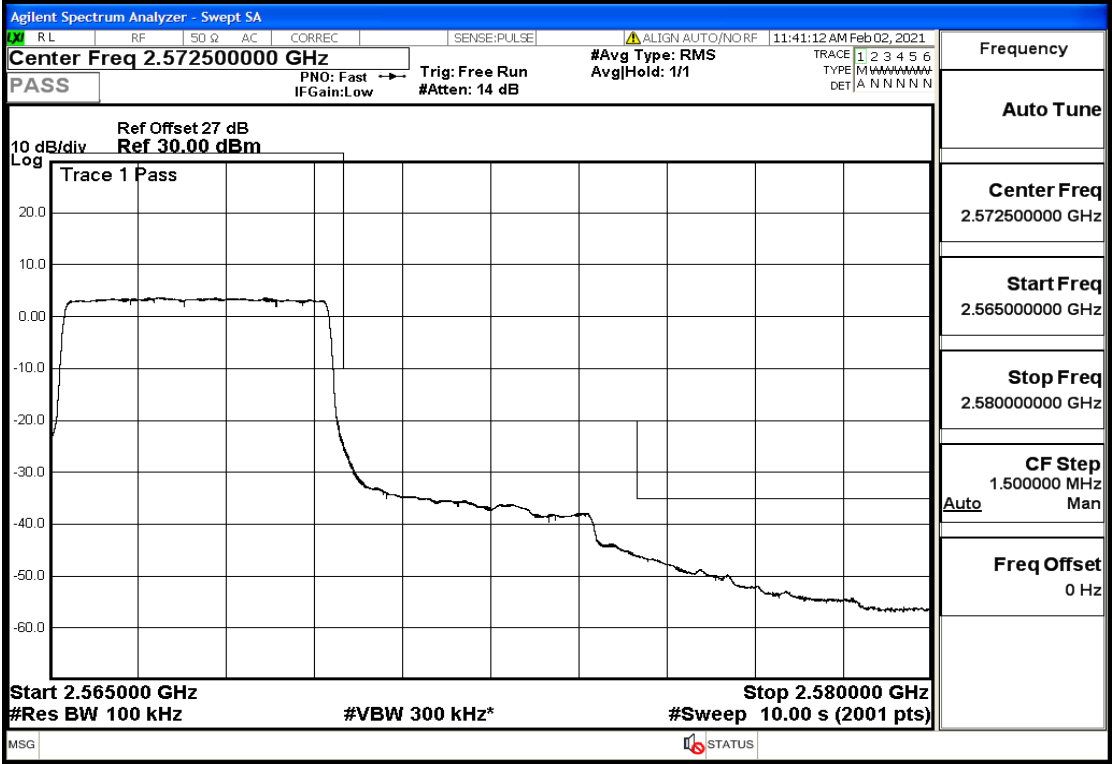
Band7-5-2502.5-16QAM-25#LOW@Pass



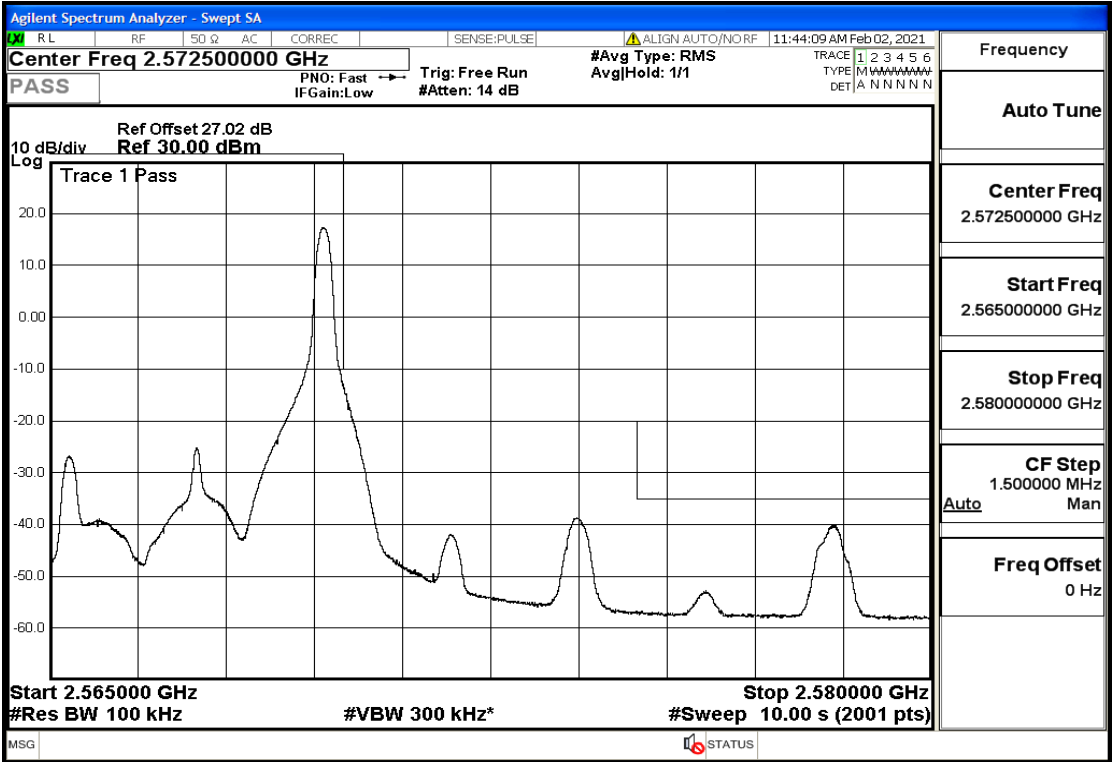
Band7-5-2502.5-16QAM-1#LOW@Pass



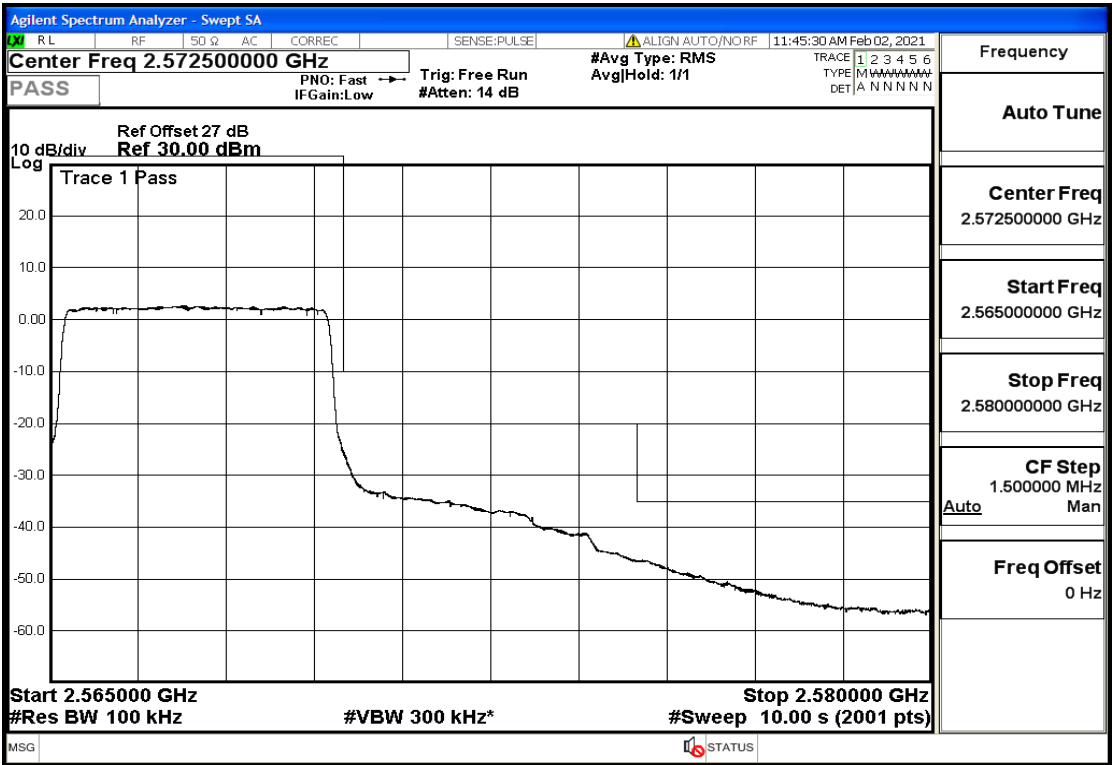
Band7-5-2567.5-QPSK-25#LOW@Pass



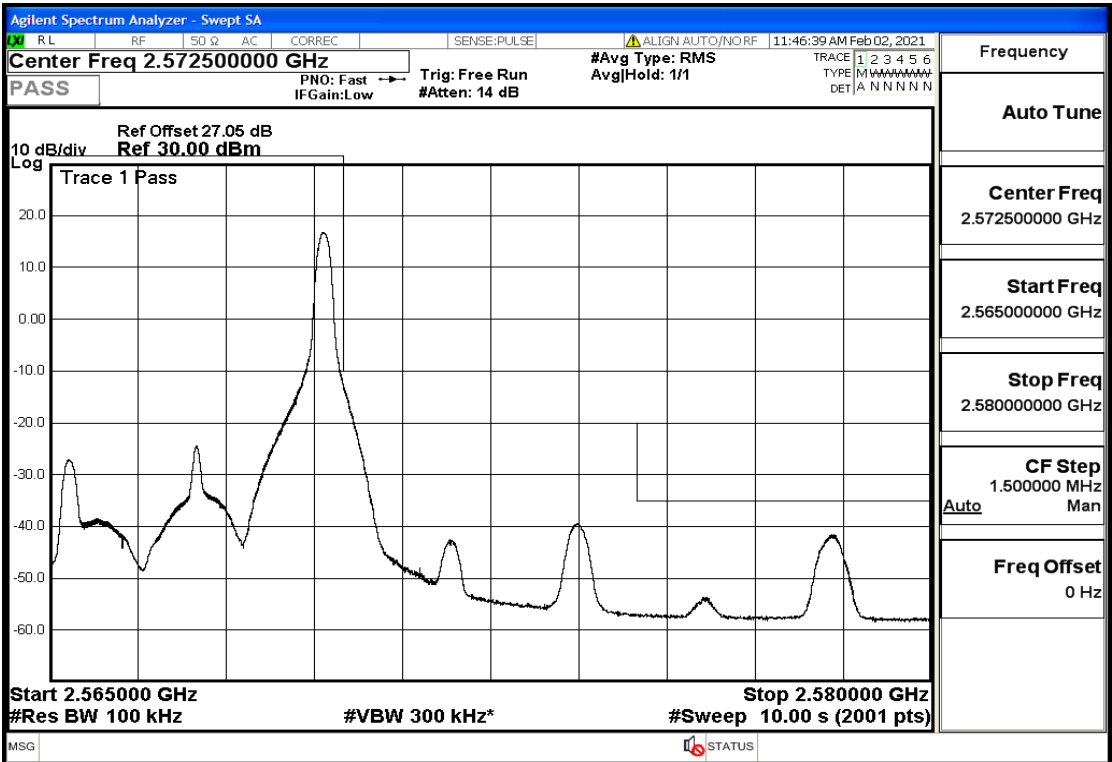
Band7-5-2567.5-QPSK-1#HIGH@Pass



Band7-5-2567.5-16QAM-25#LOW@Pass



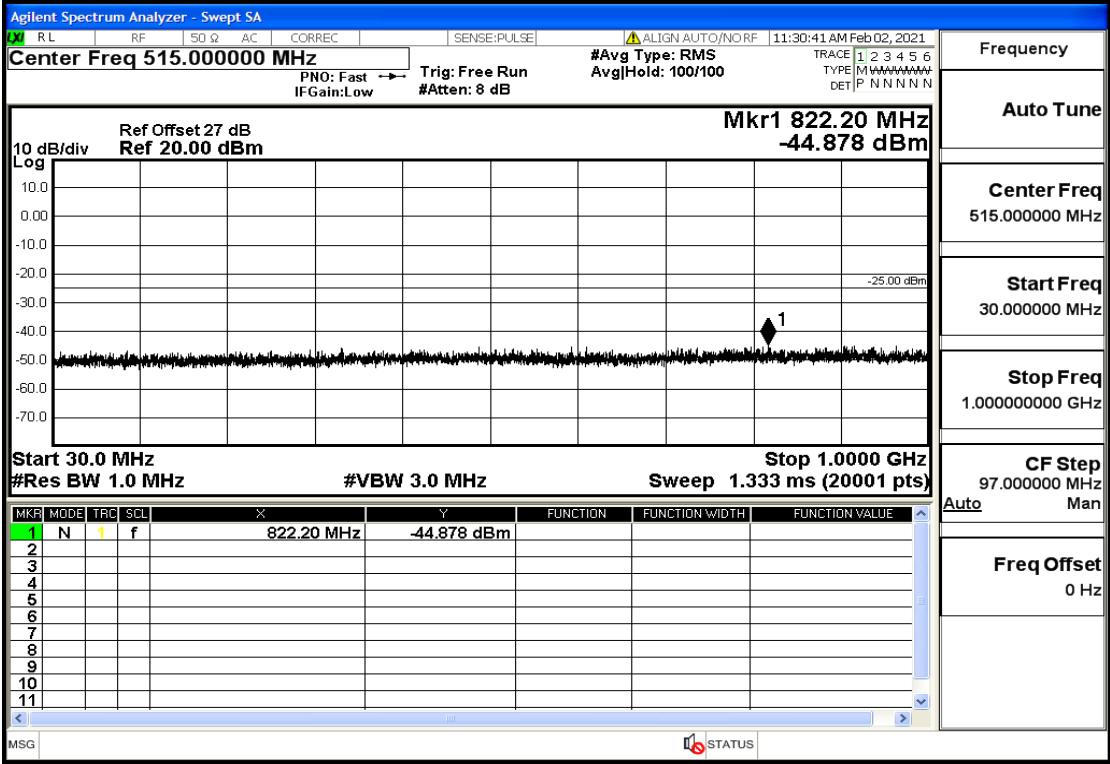
Band7-5-2567.5-16QAM-1#HIGH@Pass



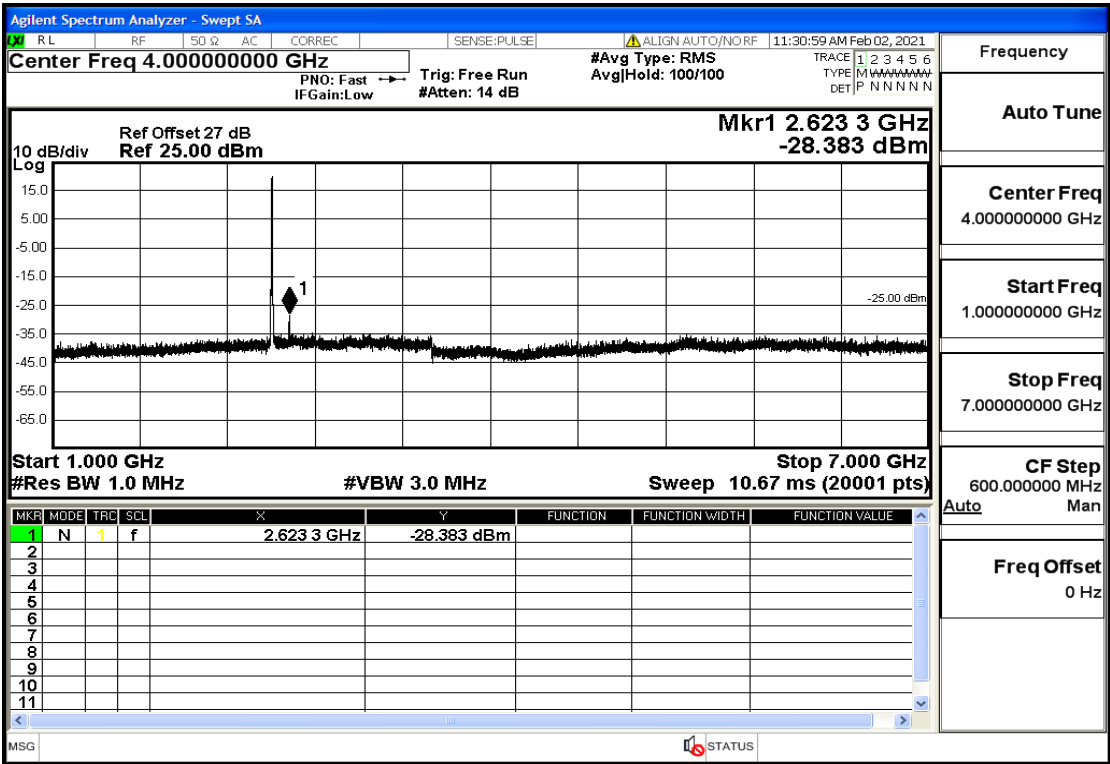
Conducted Spurious Emission

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Test Condition	Transmitter Spurious Emission(Pass/Fail)
OB7	5	2502.5	QPSK	25	LOW	30mHz-1GHz	Pass
OB7	5	2502.5	QPSK	25	LOW	1GHz-7GHz	Pass
OB7	5	2502.5	QPSK	25	LOW	7GHz-13.6GHz	Pass
OB7	5	2502.5	QPSK	25	LOW	13.6GHz-20GHz	Pass
OB7	5	2502.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB7	5	2502.5	QPSK	1	LOW	1GHz-7GHz	Pass
OB7	5	2502.5	QPSK	1	LOW	7GHz-13.6GHz	Pass
OB7	5	2502.5	QPSK	1	LOW	13.6GHz-20GHz	Pass
OB7	5	2502.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB7	5	2502.5	QPSK	1	HIGH	1GHz-7GHz	Pass
OB7	5	2502.5	QPSK	1	HIGH	7GHz-13.6GHz	Pass
OB7	5	2502.5	QPSK	1	HIGH	13.6GHz-20GHz	Pass
OB7	5	2535	QPSK	25	LOW	30mHz-1GHz	Pass
OB7	5	2535	QPSK	25	LOW	1GHz-7GHz	Pass
OB7	5	2535	QPSK	25	LOW	7GHz-13.6GHz	Pass
OB7	5	2535	QPSK	25	LOW	13.6GHz-20GHz	Pass
OB7	5	2535	QPSK	1	LOW	30mHz-1GHz	Pass
OB7	5	2535	QPSK	1	LOW	1GHz-7GHz	Pass
OB7	5	2535	QPSK	1	LOW	7GHz-13.6GHz	Pass
OB7	5	2535	QPSK	1	LOW	13.6GHz-20GHz	Pass
OB7	5	2535	QPSK	1	HIGH	30mHz-1GHz	Pass
OB7	5	2535	QPSK	1	HIGH	1GHz-7GHz	Pass
OB7	5	2535	QPSK	1	HIGH	7GHz-13.6GHz	Pass
OB7	5	2535	QPSK	1	HIGH	13.6GHz-20GHz	Pass
OB7	5	2567.5	QPSK	25	LOW	30mHz-1GHz	Pass
OB7	5	2567.5	QPSK	25	LOW	1GHz-7GHz	Pass
OB7	5	2567.5	QPSK	25	LOW	7GHz-13.6GHz	Pass
OB7	5	2567.5	QPSK	25	LOW	13.6GHz-20GHz	Pass
OB7	5	2567.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB7	5	2567.5	QPSK	1	LOW	1GHz-7GHz	Pass
OB7	5	2567.5	QPSK	1	LOW	7GHz-13.6GHz	Pass
OB7	5	2567.5	QPSK	1	LOW	13.6GHz-20GHz	Pass
OB7	5	2567.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB7	5	2567.5	QPSK	1	HIGH	1GHz-7GHz	Pass
OB7	5	2567.5	QPSK	1	HIGH	7GHz-13.6GHz	Pass
OB7	5	2567.5	QPSK	1	HIGH	13.6GHz-20GHz	Pass

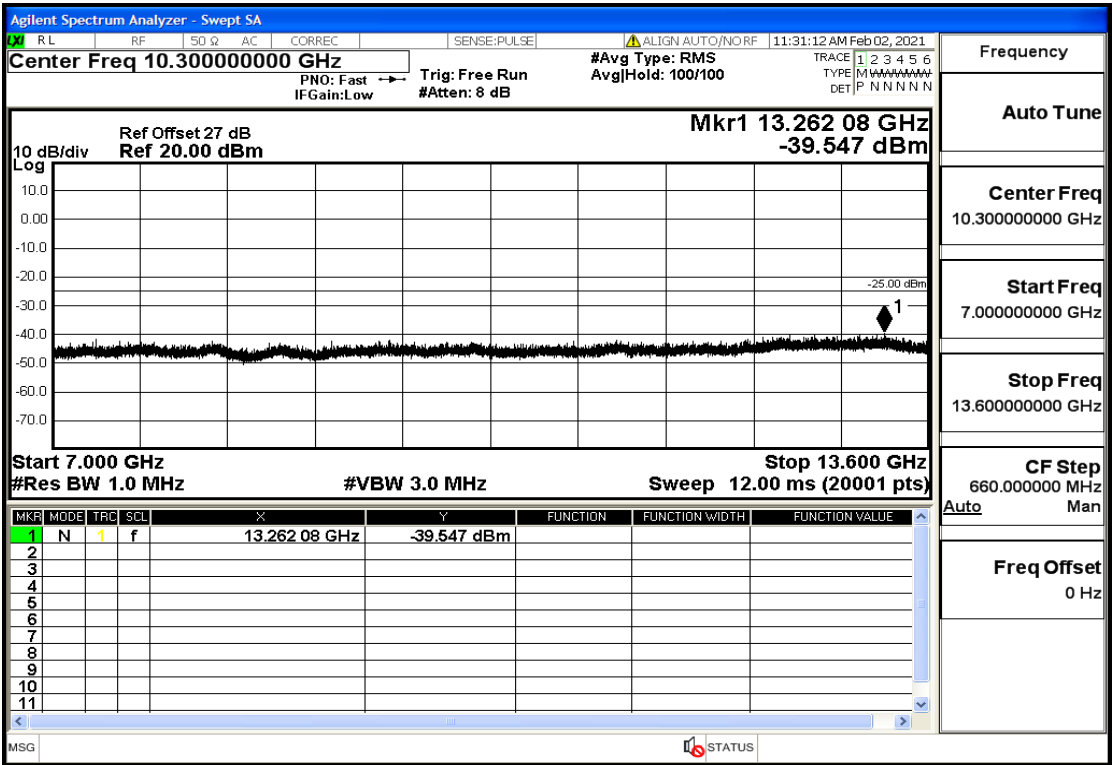
OB7-5-2502.5-QPSK-25#LOW@30mHz-1GHz@Pass



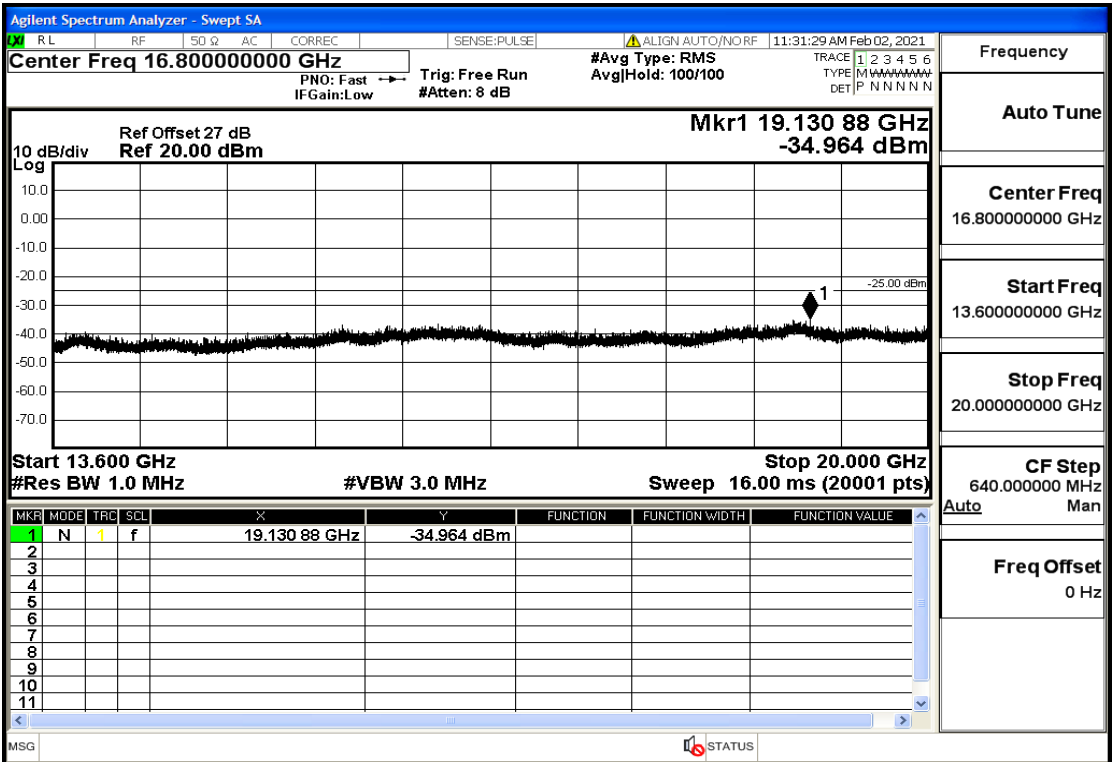
OB7-5-2502.5-QPSK-25#LOW@1GHz-7GHz@Pass



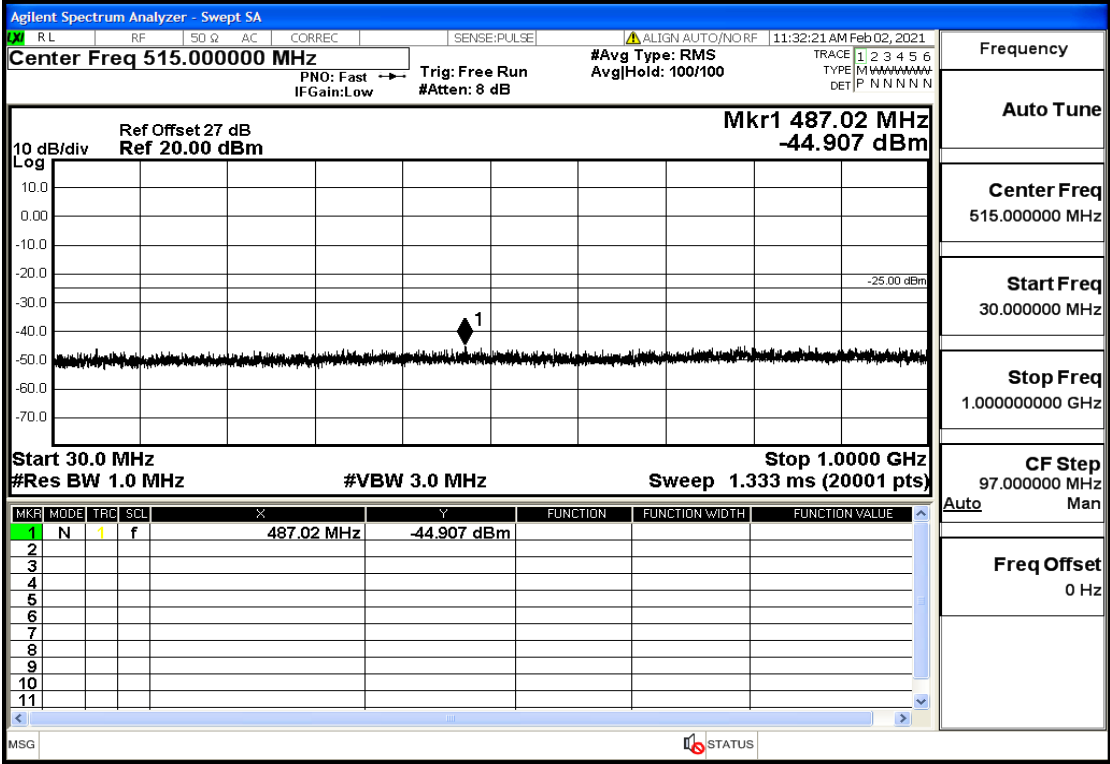
OB7-5-2502.5-QPSK-25#LOW@7GHz-13.6GHz@Pass



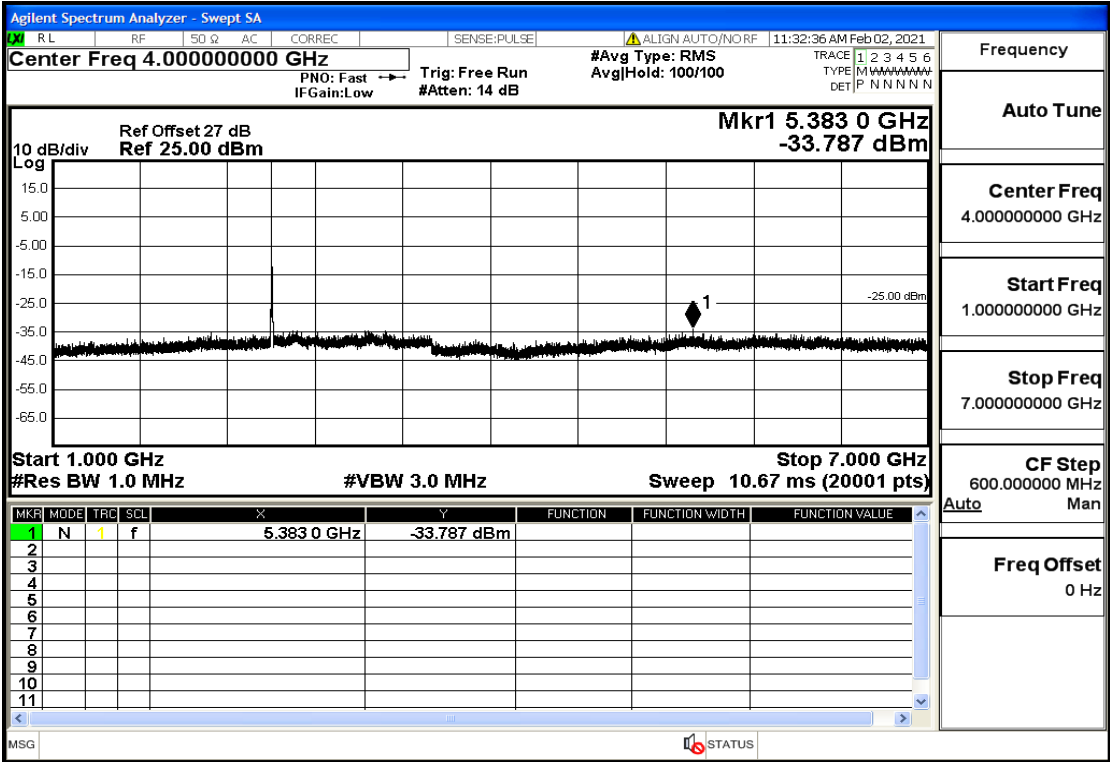
OB7-5-2502.5-QPSK-25#LOW@13.6GHz-20GHz@Pass



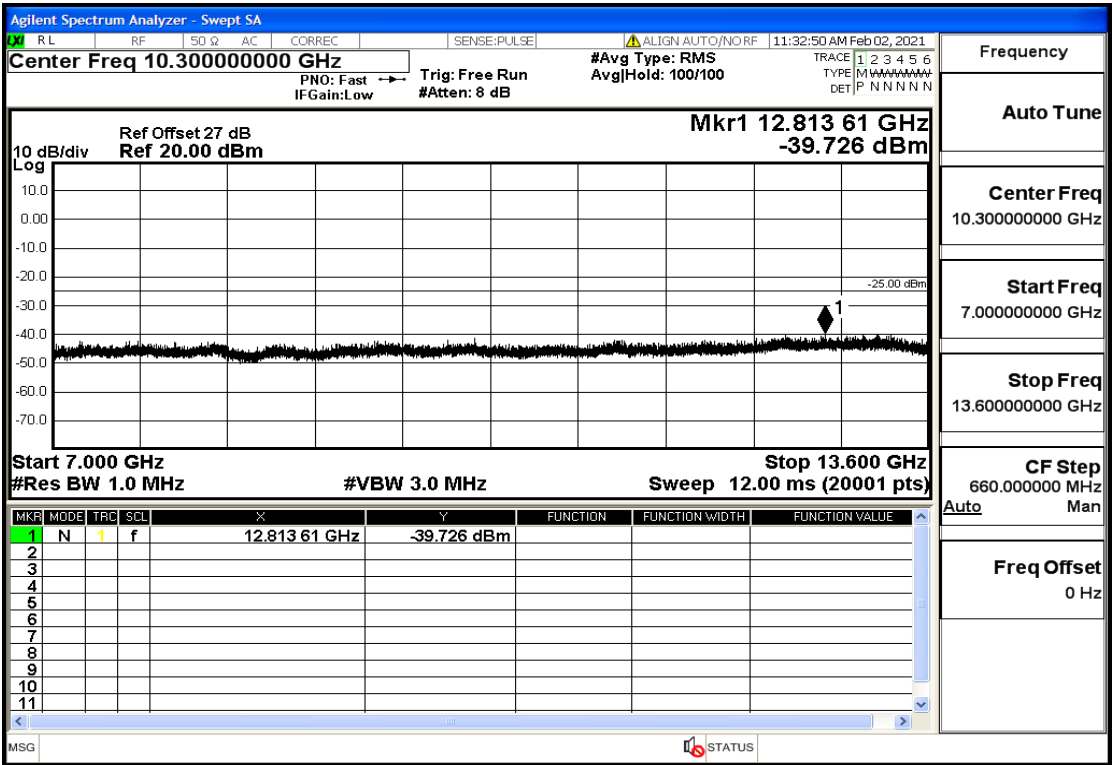
OB7-5-2502.5-QPSK-1#LOW@30mHz-1GHz@Pass



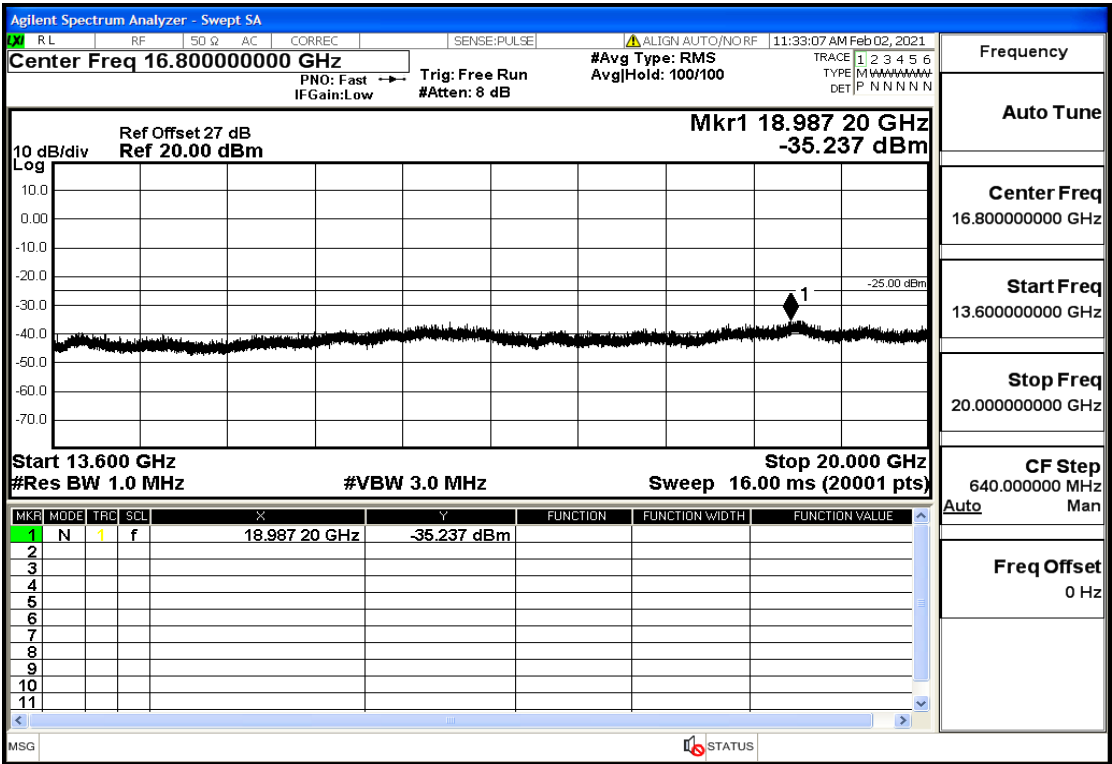
OB7-5-2502.5-QPSK-1#LOW@1GHz-7GHz@Pass



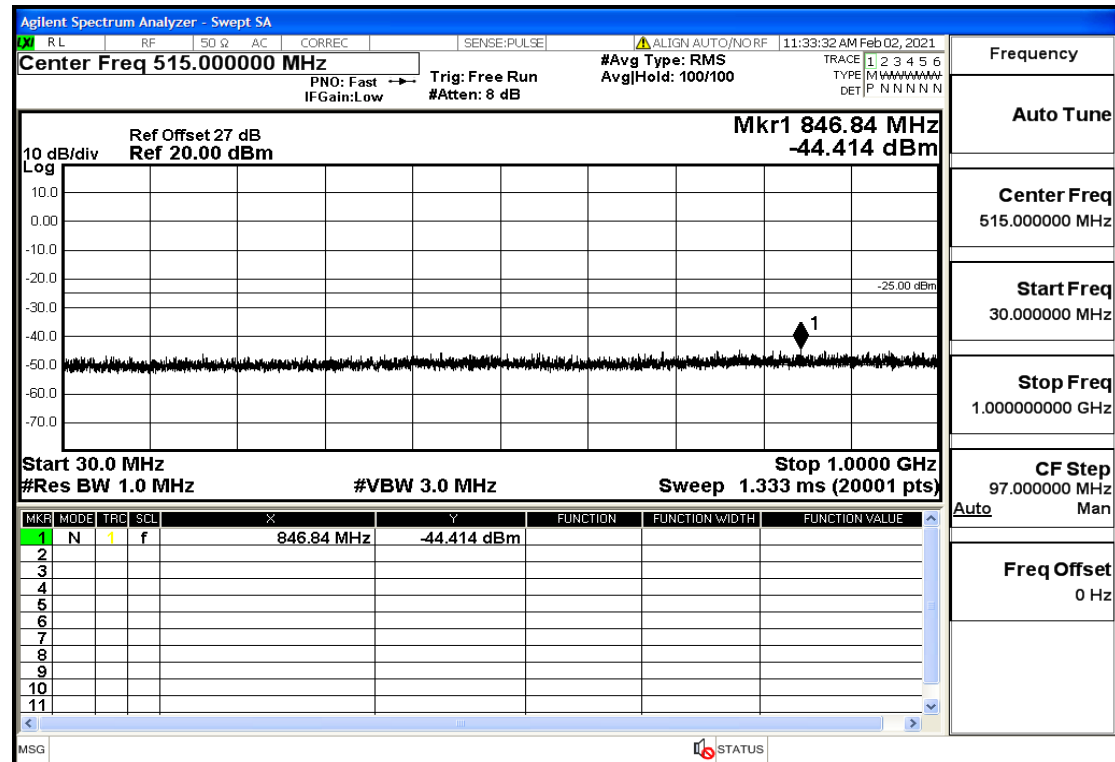
OB7-5-2502.5-QPSK-1#LOW@7GHz-13.6GHz@Pass



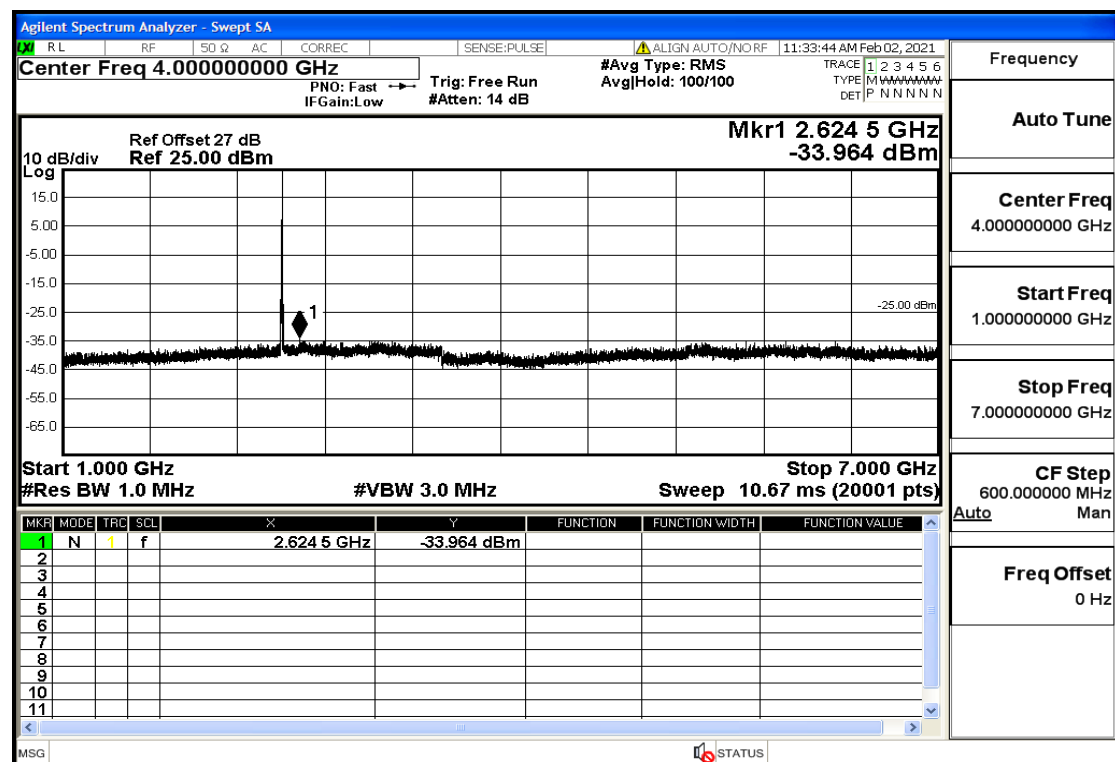
OB7-5-2502.5-QPSK-1#LOW@13.6GHz-20GHz@Pass



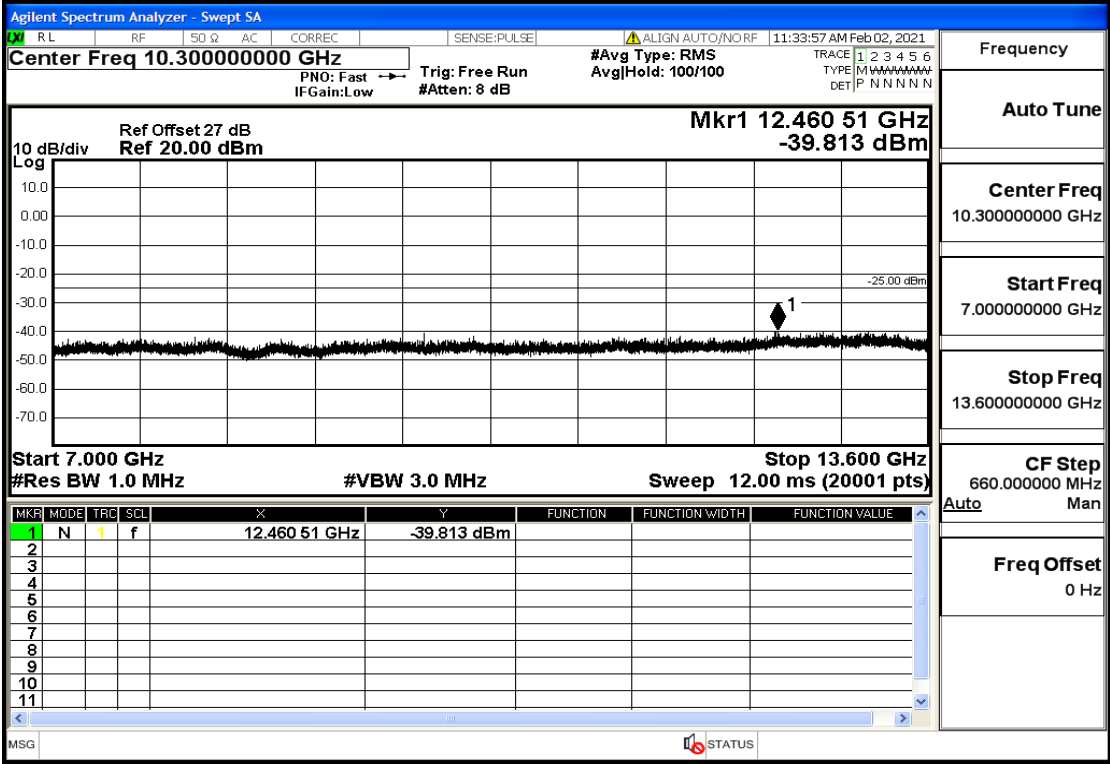
OB7-5-2502.5-QPSK-1#HIGH@30mHz-1GHz@Pass



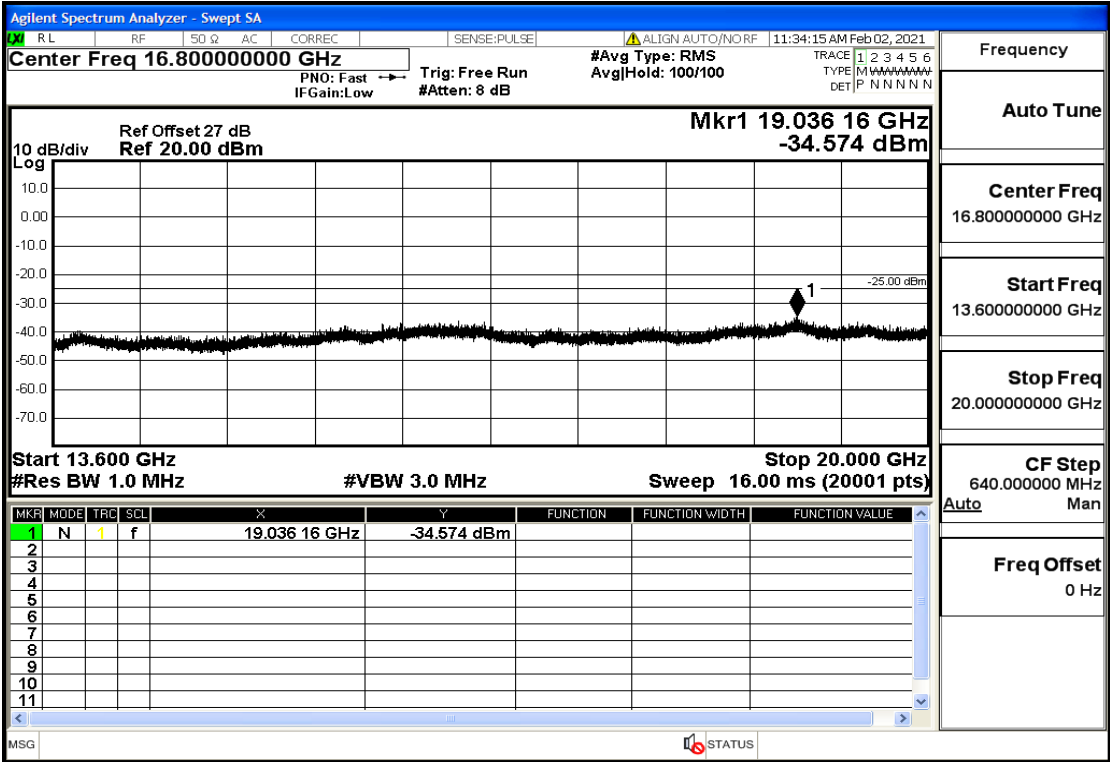
OB7-5-2502.5-QPSK-1#HIGH@1GHz-7GHz@Pass



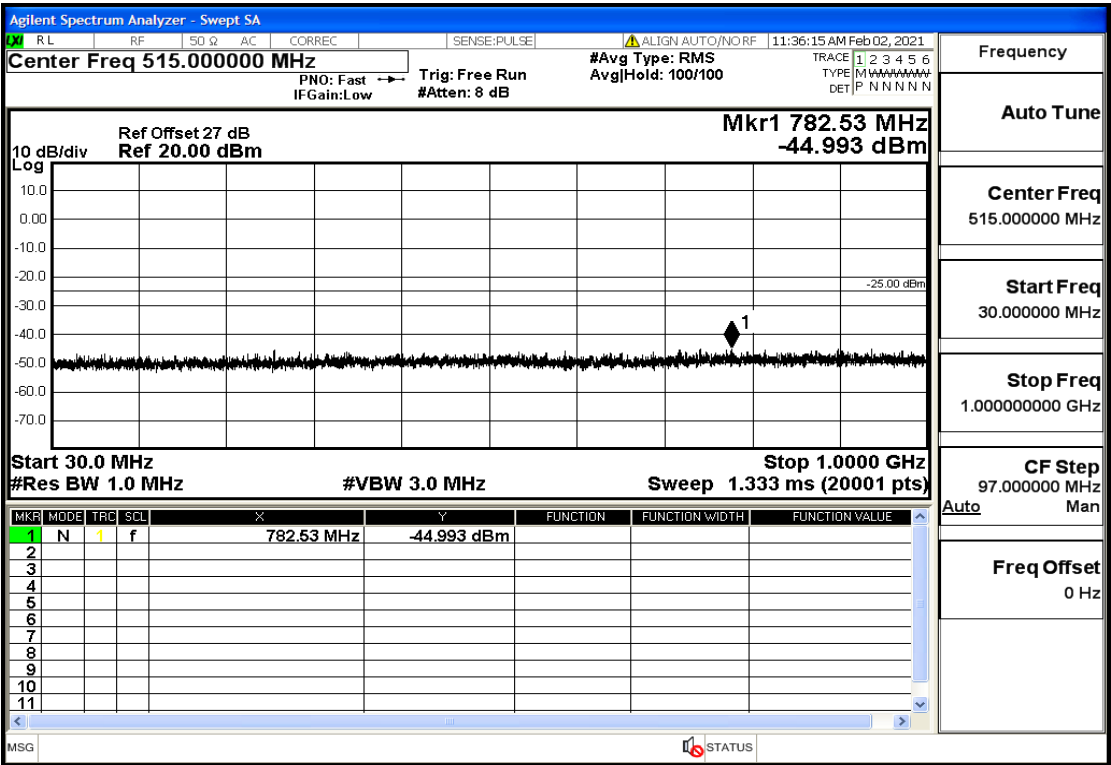
OB7-5-2502.5-QPSK-1#HIGH@7GHz-13.6GHz@Pass



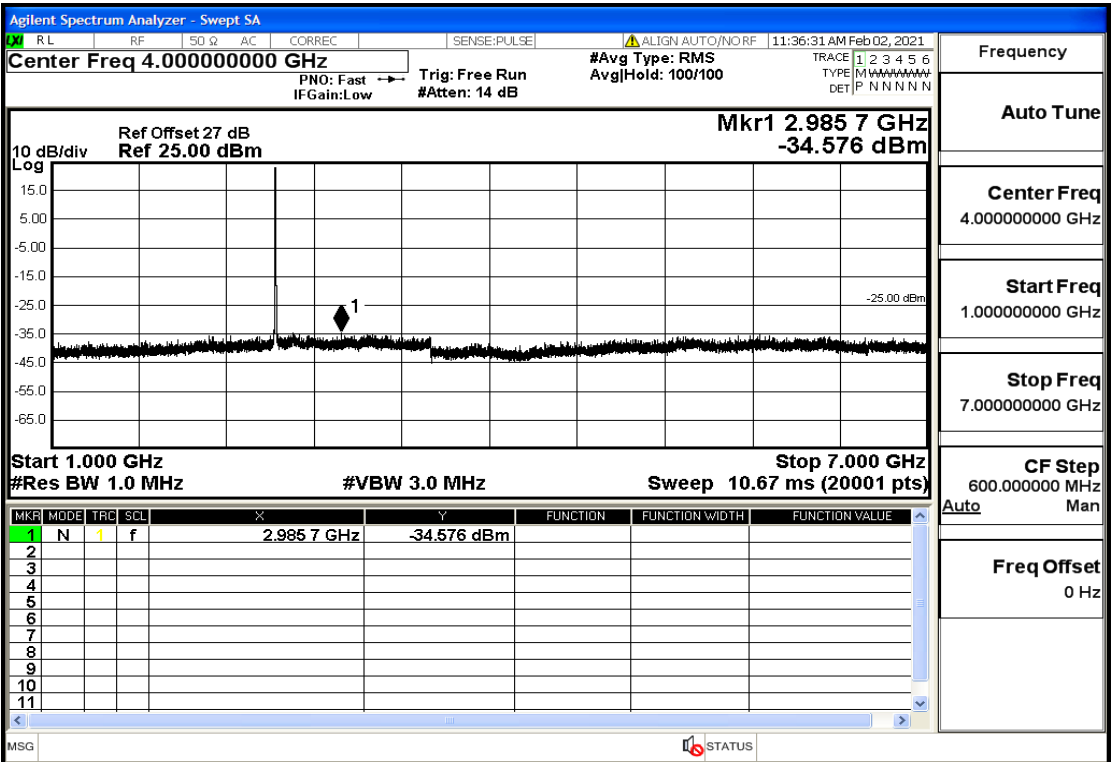
OB7-5-2502.5-QPSK-1#HIGH@13.6GHz-20GHz@Pass



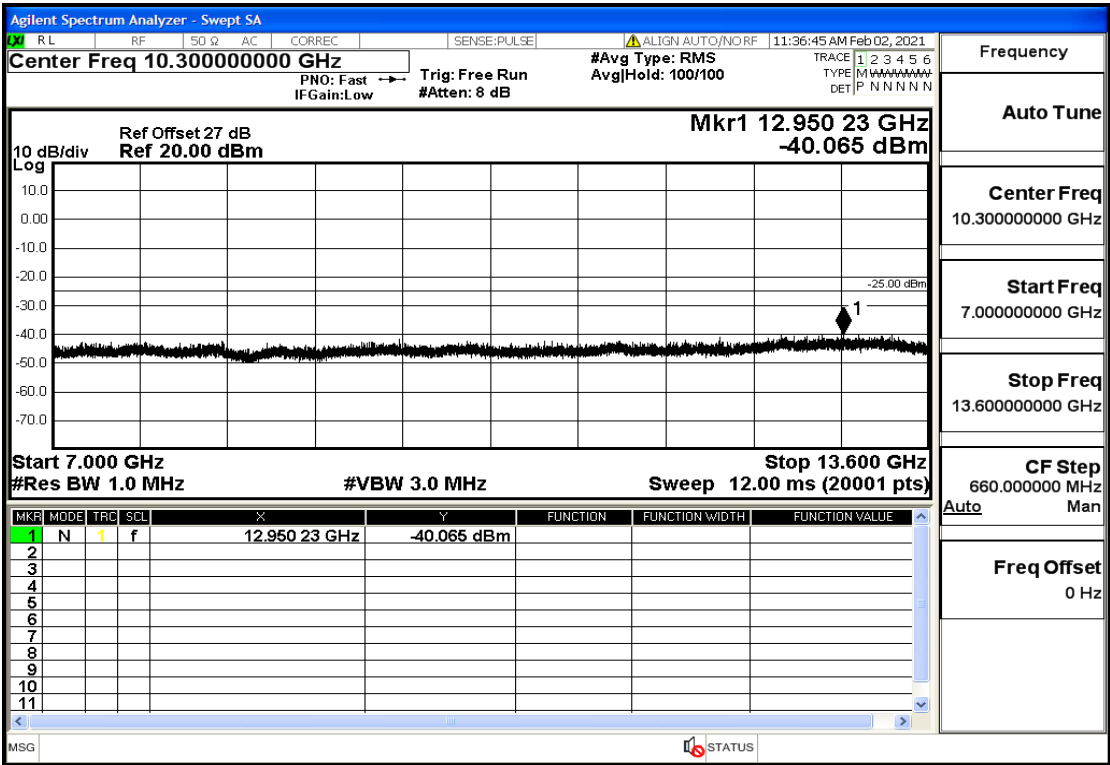
OB7-5-2535-QPSK-25#LOW@30mHz-1GHz@Pass



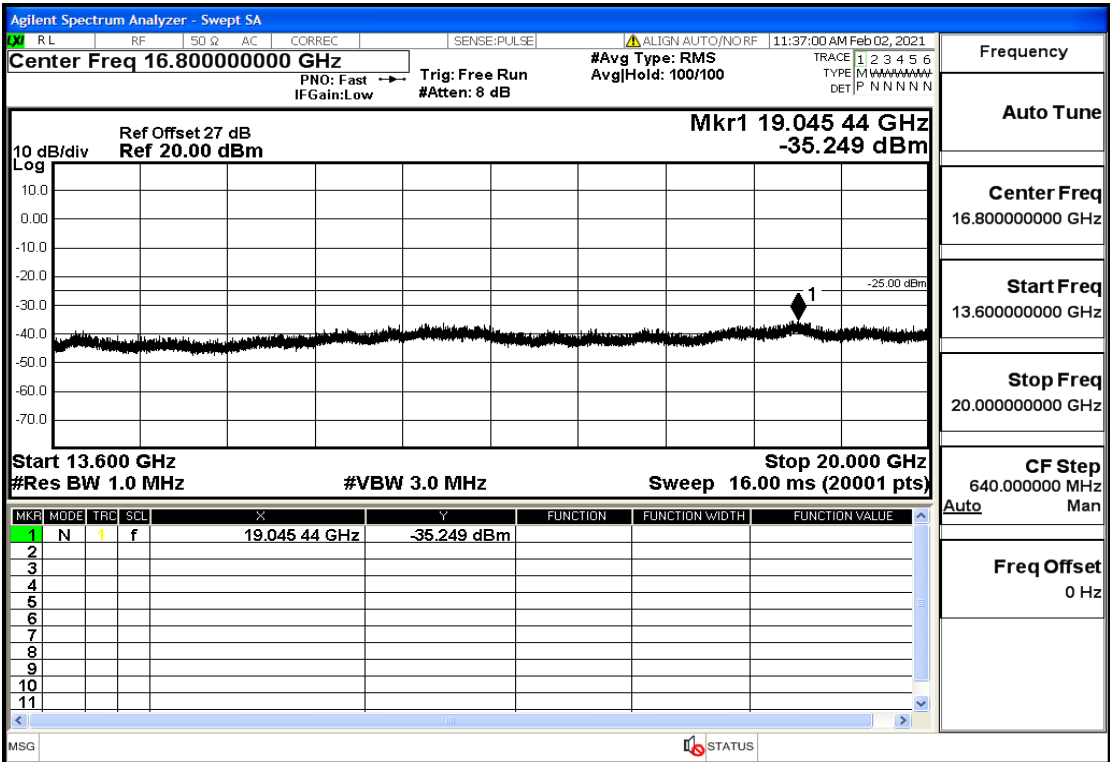
OB7-5-2535-QPSK-25#LOW@1GHz-7GHz@Pass



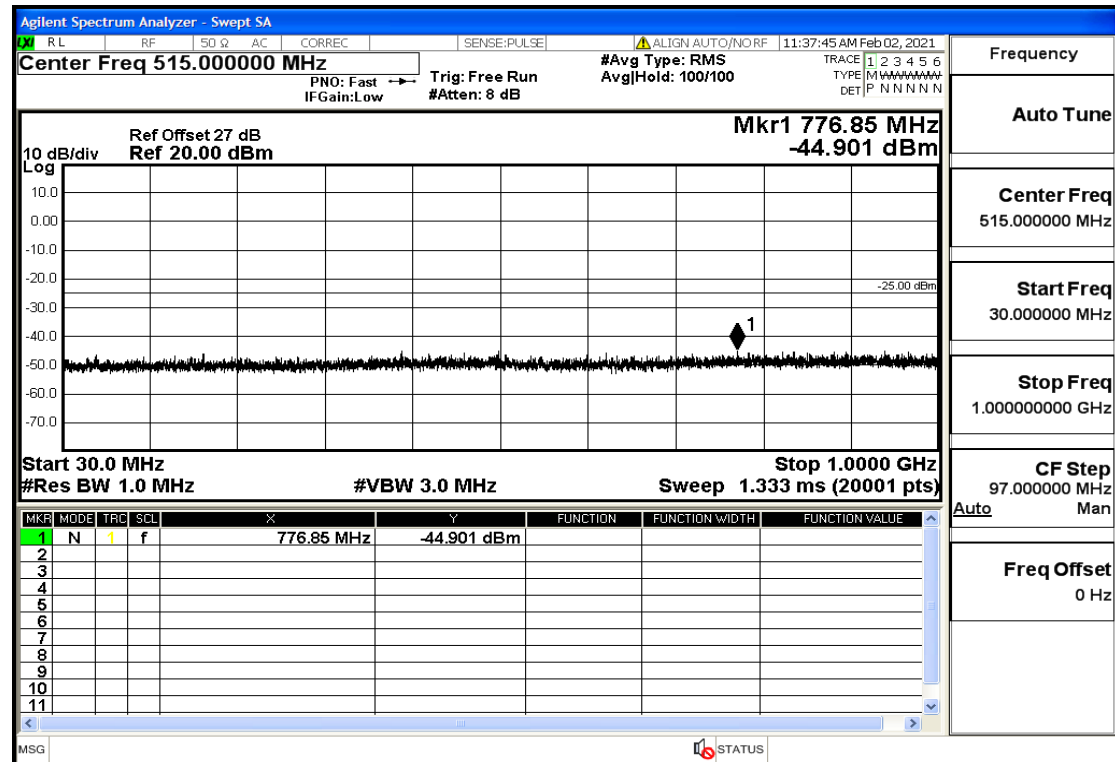
OB7-5-2535-QPSK-25#LOW@7GHz-13.6GHz@Pass



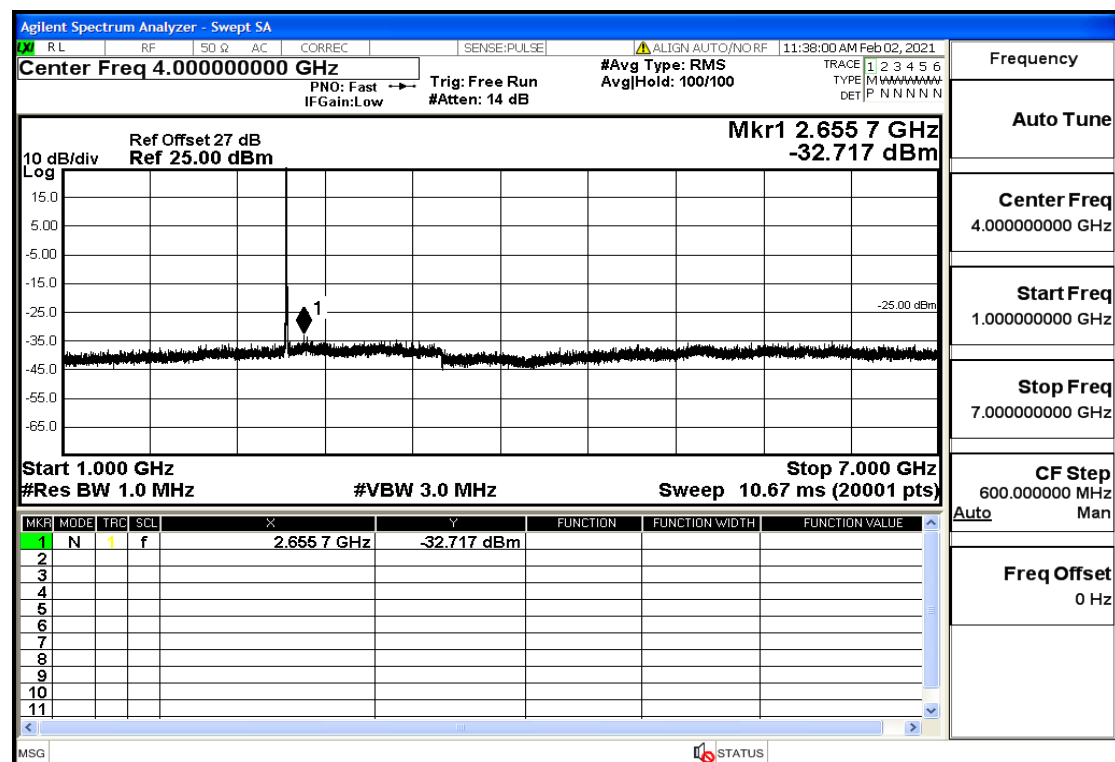
OB7-5-2535-QPSK-25#LOW@13.6GHz-20GHz@Pass



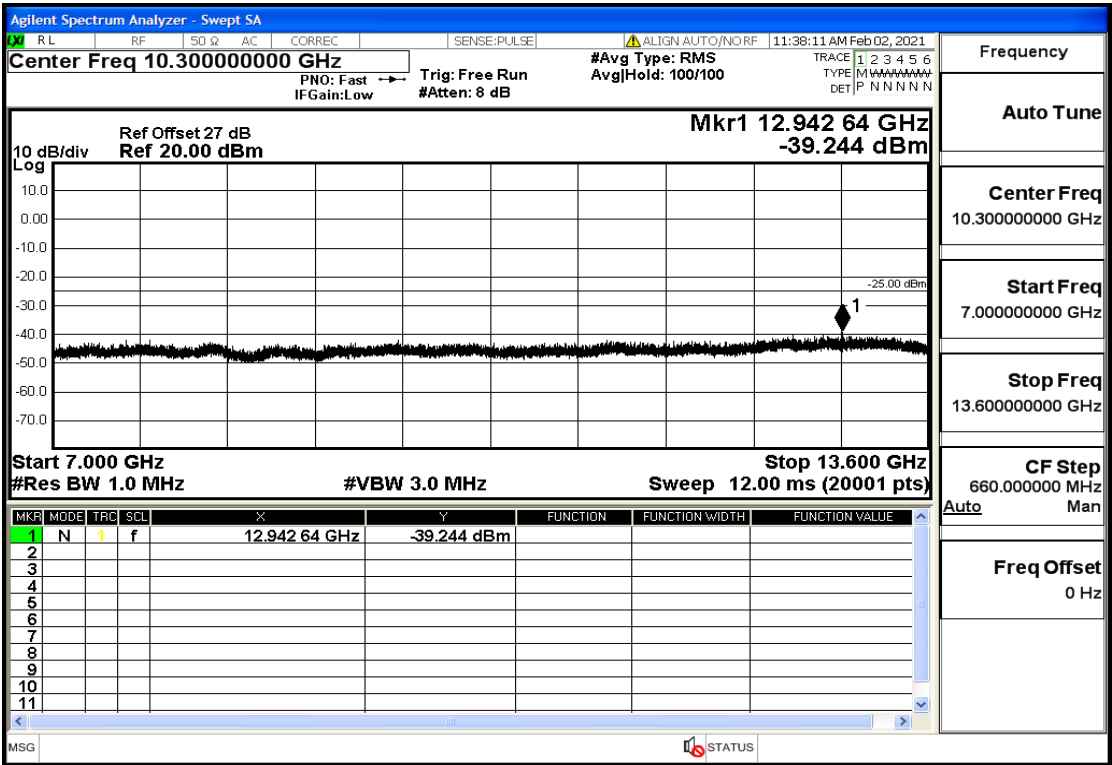
OB7-5-2535-QPSK-1#LOW@30mHz-1GHz@Pass



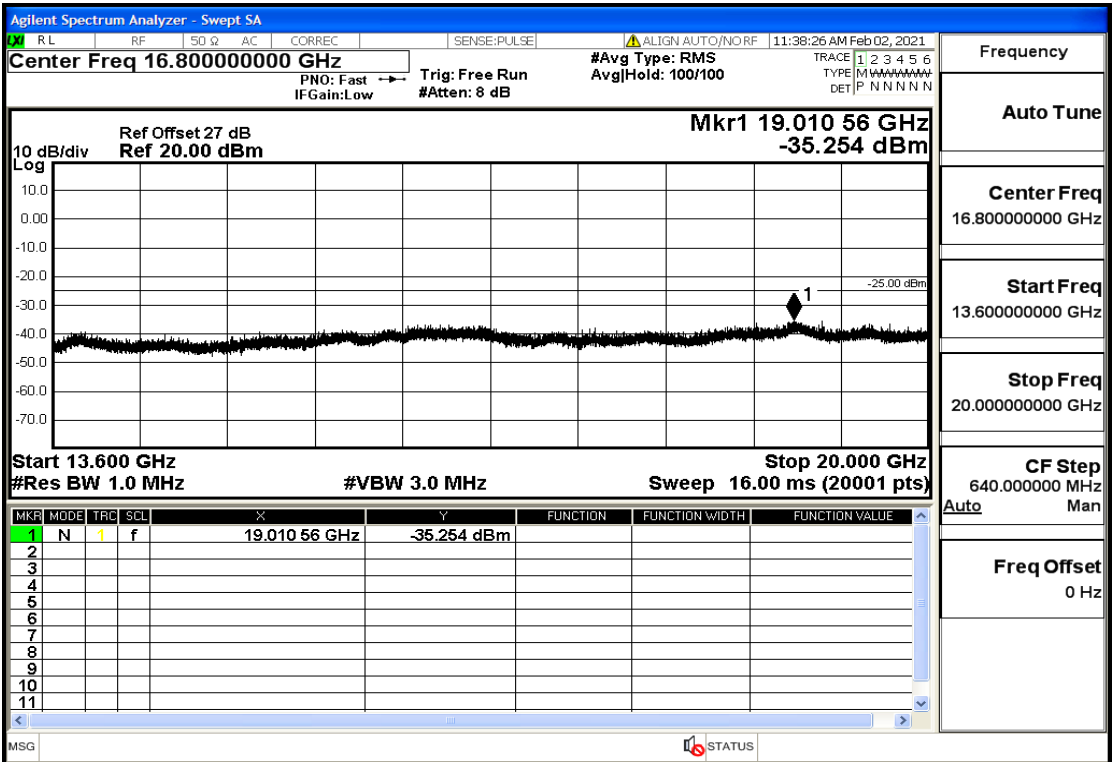
OB7-5-2535-QPSK-1#LOW@1GHz-7GHz@Pass



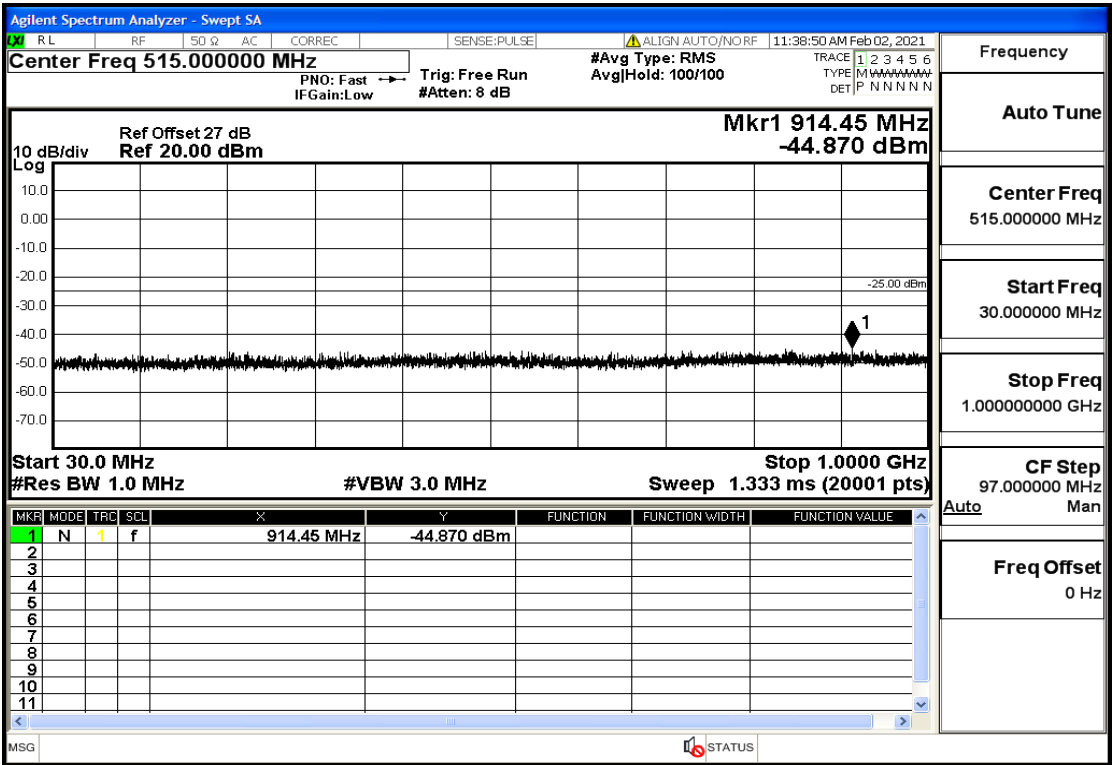
OB7-5-2535-QPSK-1#LOW@7GHz-13.6GHz@Pass



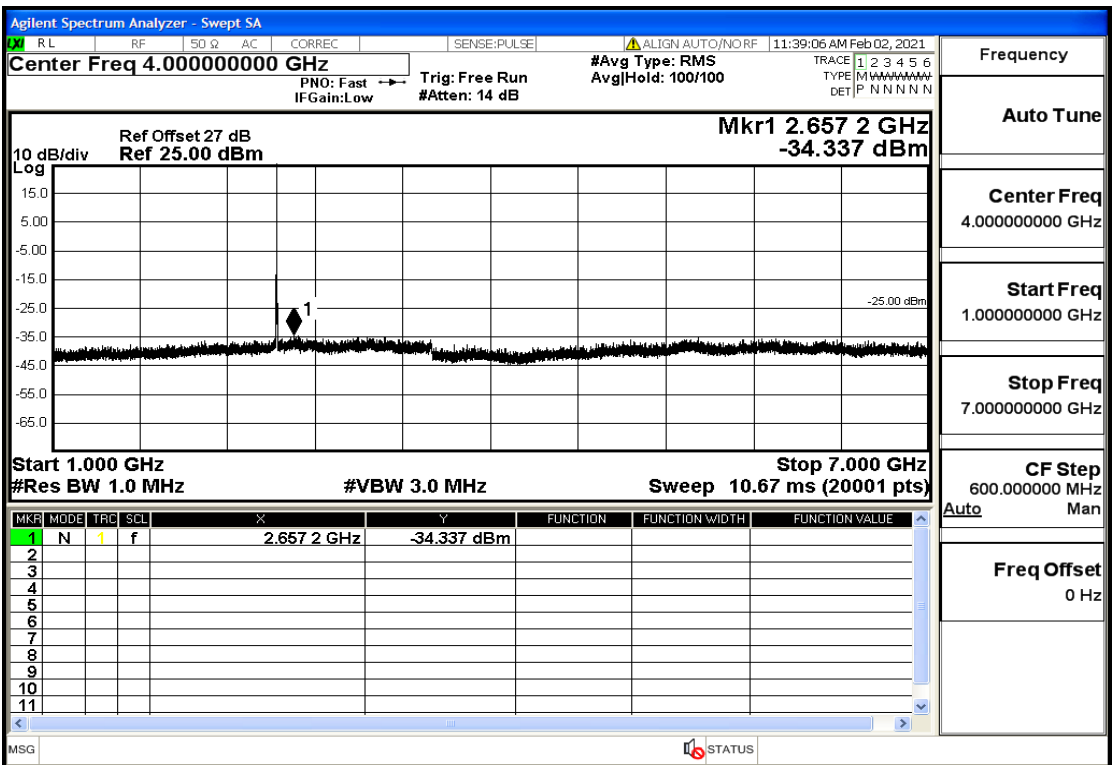
OB7-5-2535-QPSK-1#LOW@13.6GHz-20GHz@Pass



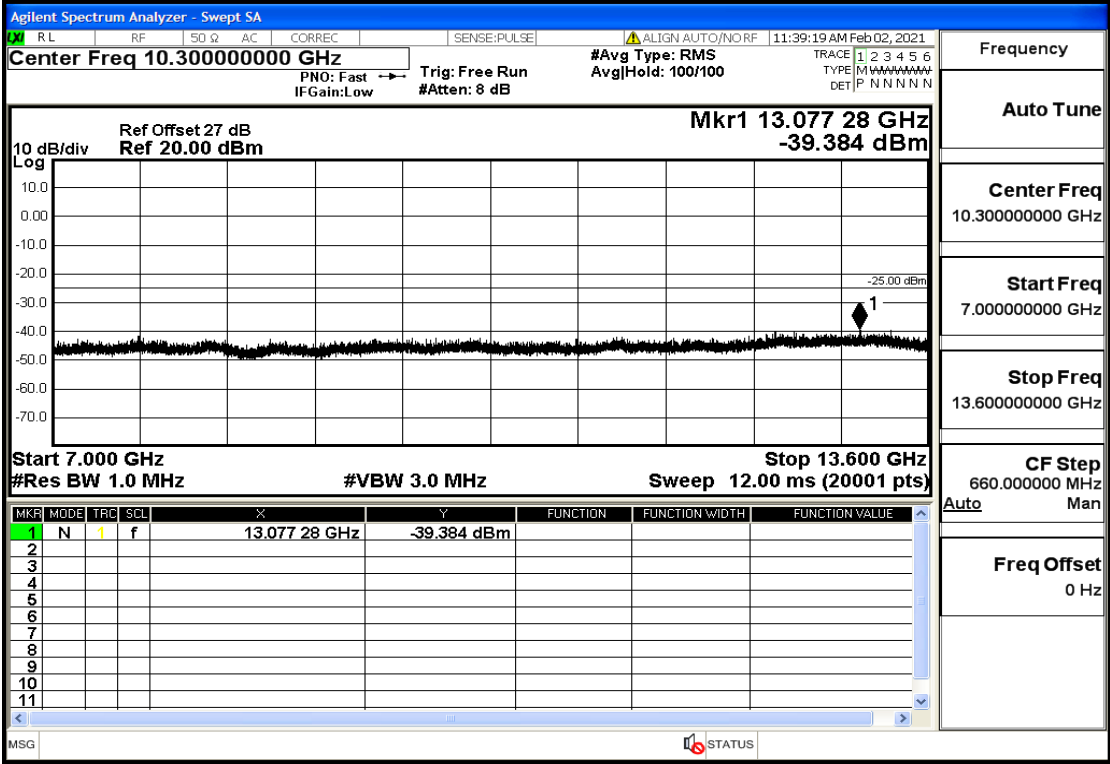
OB7-5-2535-QPSK-1#HIGH@30mHz-1GHz@Pass



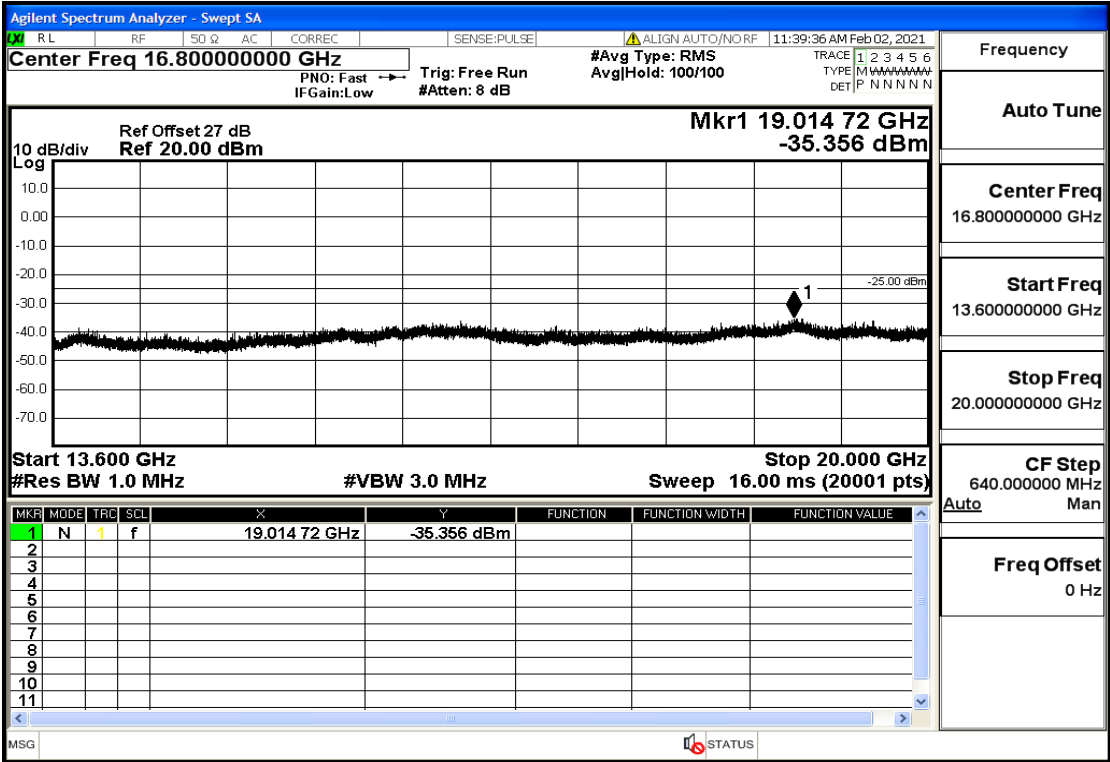
OB7-5-2535-QPSK-1#HIGH@1GHz-7GHz@Pass



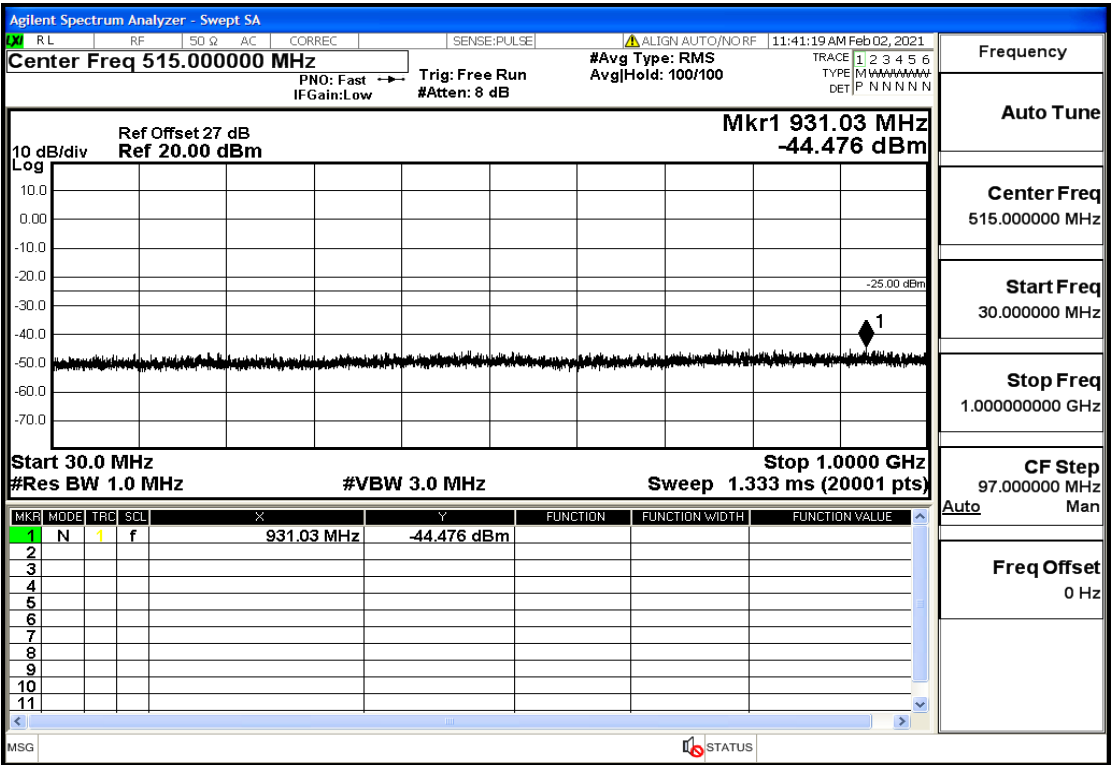
OB7-5-2535-QPSK-1#HIGH@7GHz-13.6GHz@Pass



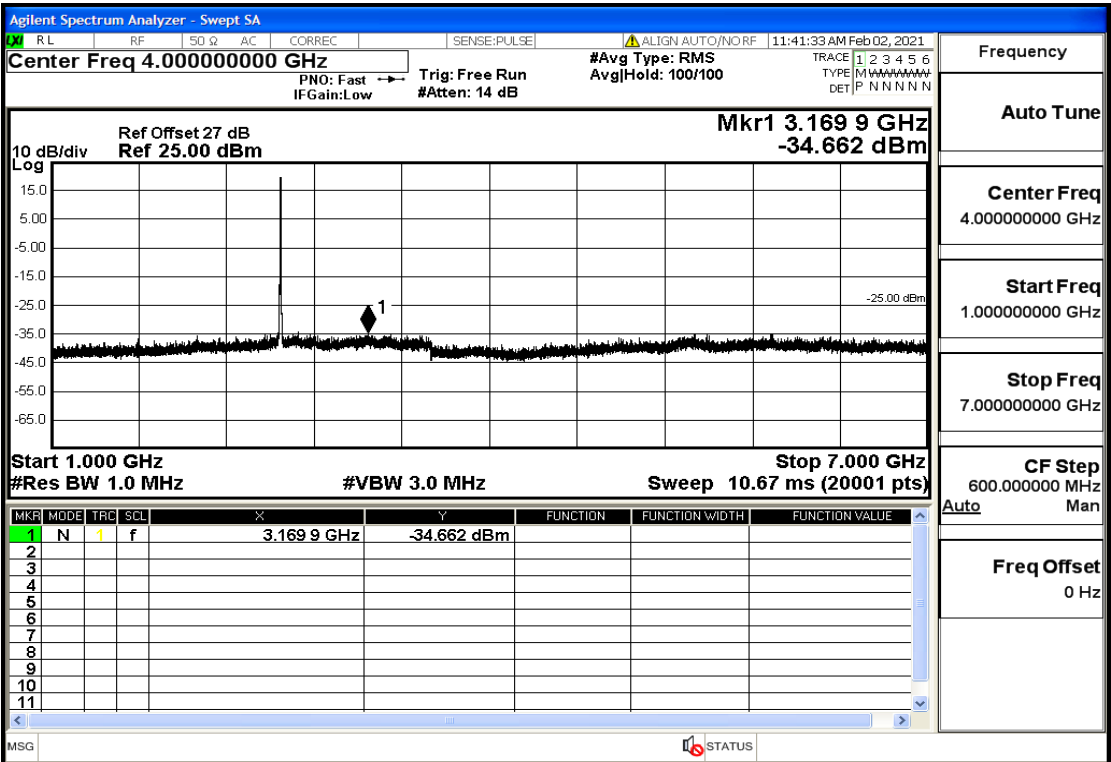
OB7-5-2535-QPSK-1#HIGH@13.6GHz-20GHz@Pass



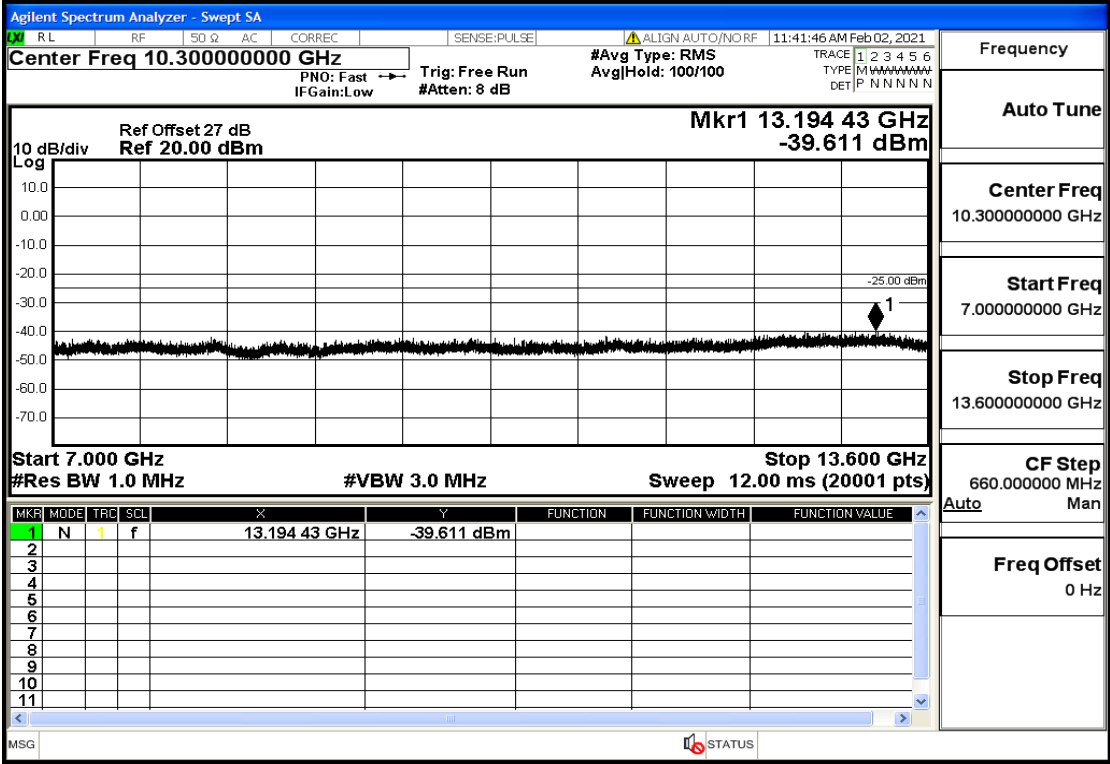
OB7-5-2567.5-QPSK-25#LOW@30mHz-1GHz@Pass



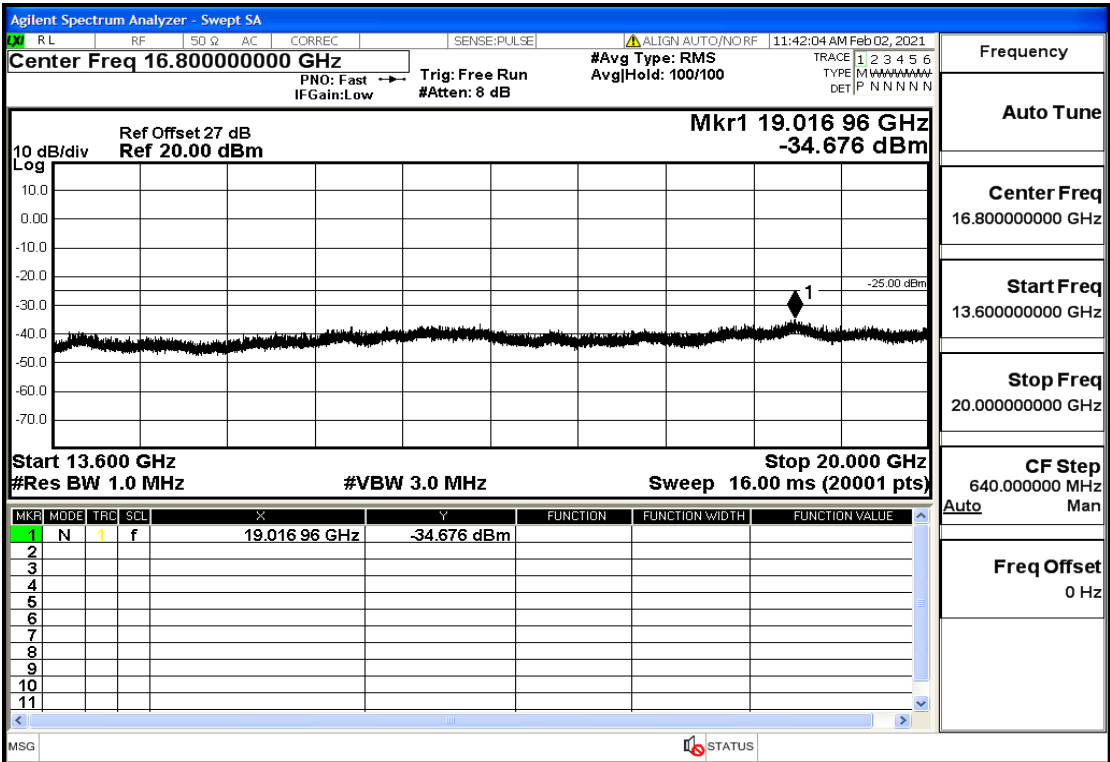
OB7-5-2567.5-QPSK-25#LOW@1GHz-7GHz@Pass



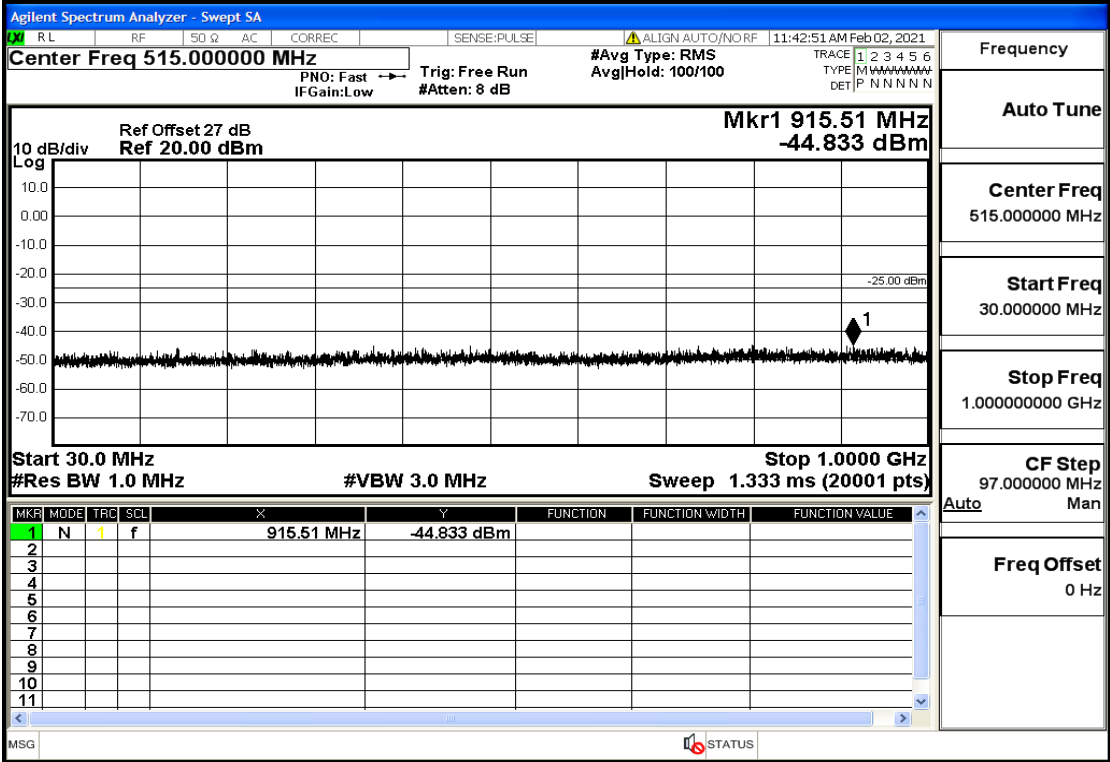
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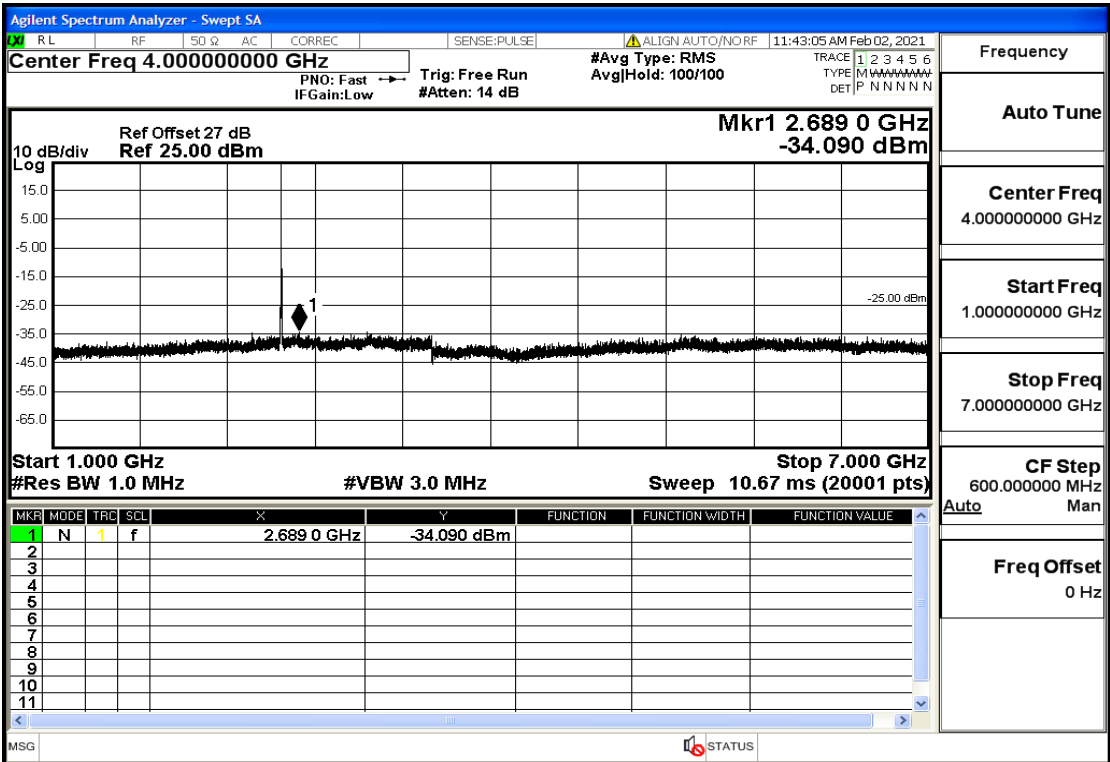
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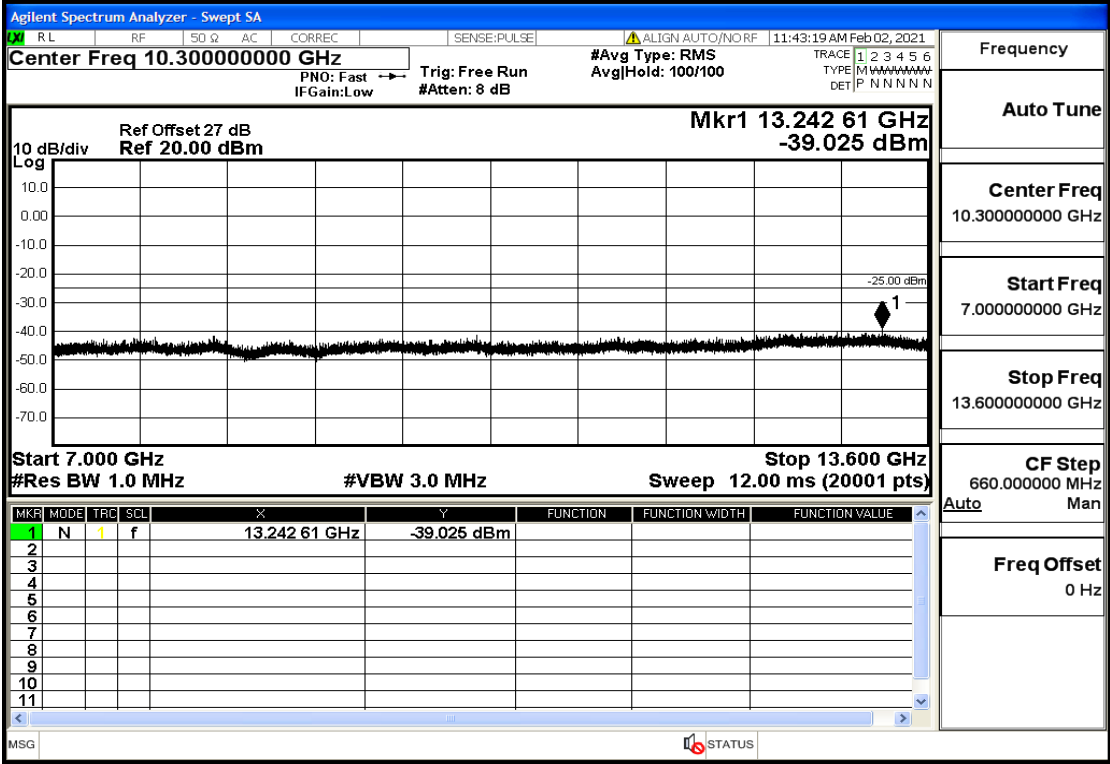
OB7-5-2567.5-QPSK-1#LOW@30mHz-1GHz@Pass



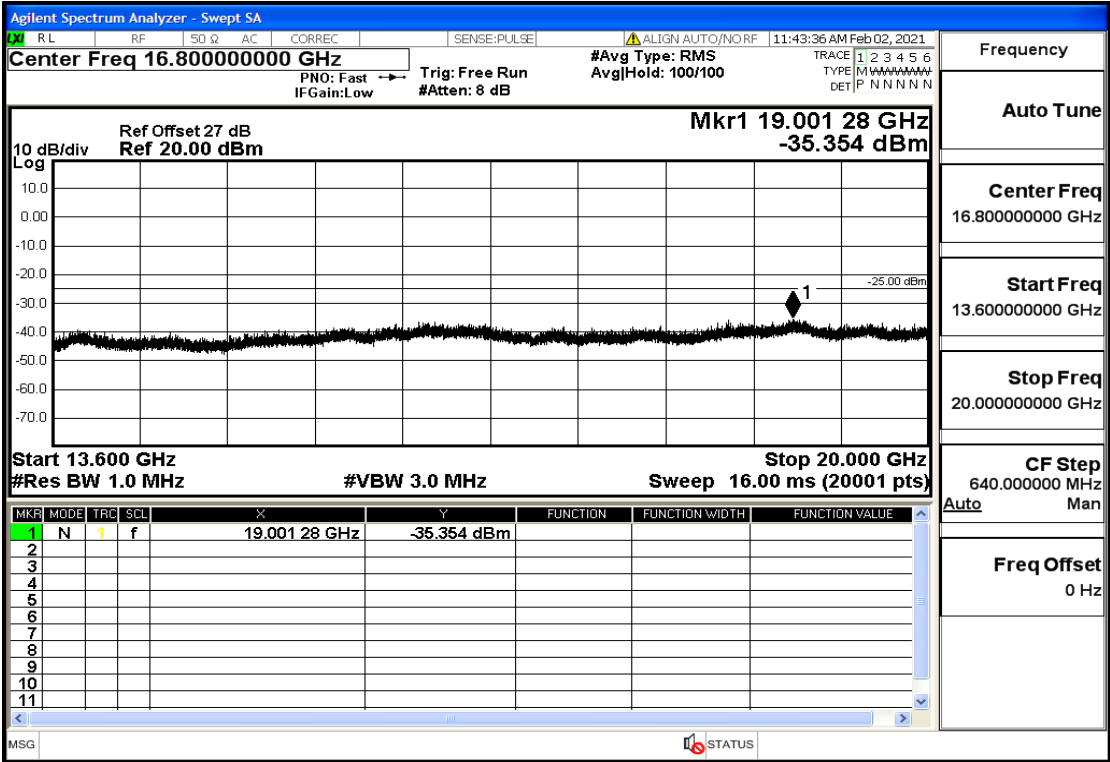
OB7-5-2567.5-QPSK-1#LOW@1GHz-7GHz@Pass



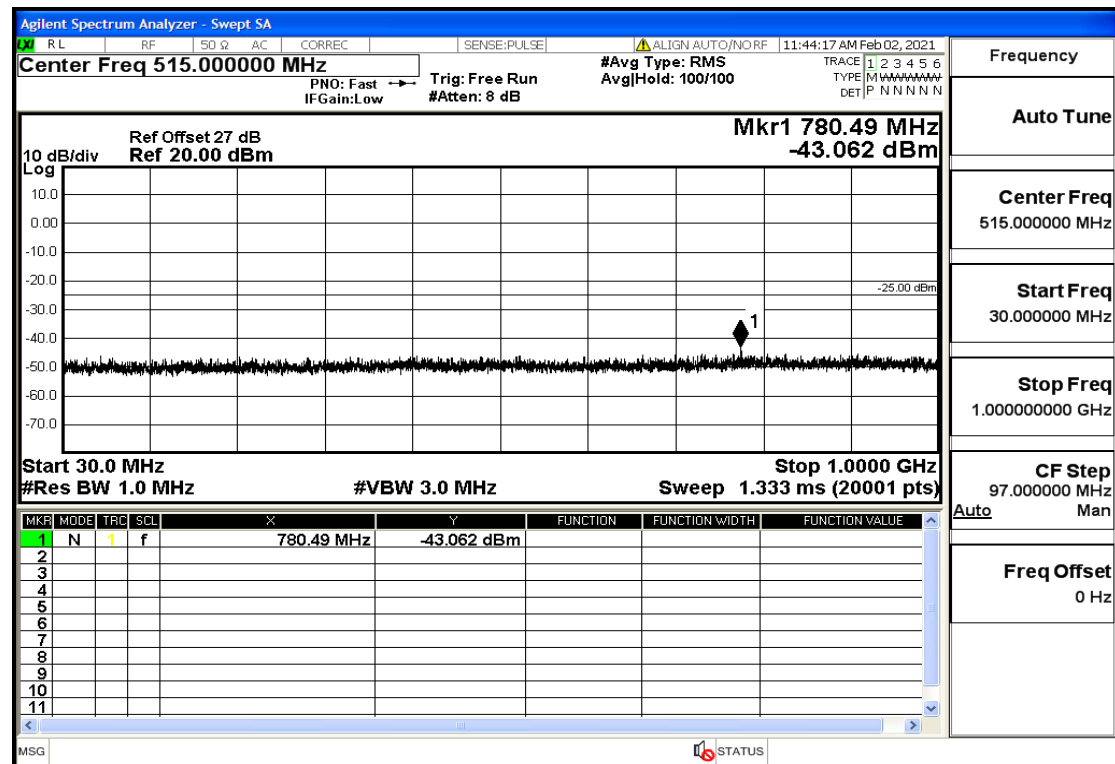
OB7-5-2567.5-QPSK-1#LOW@7GHz-13.6GHz@Pass



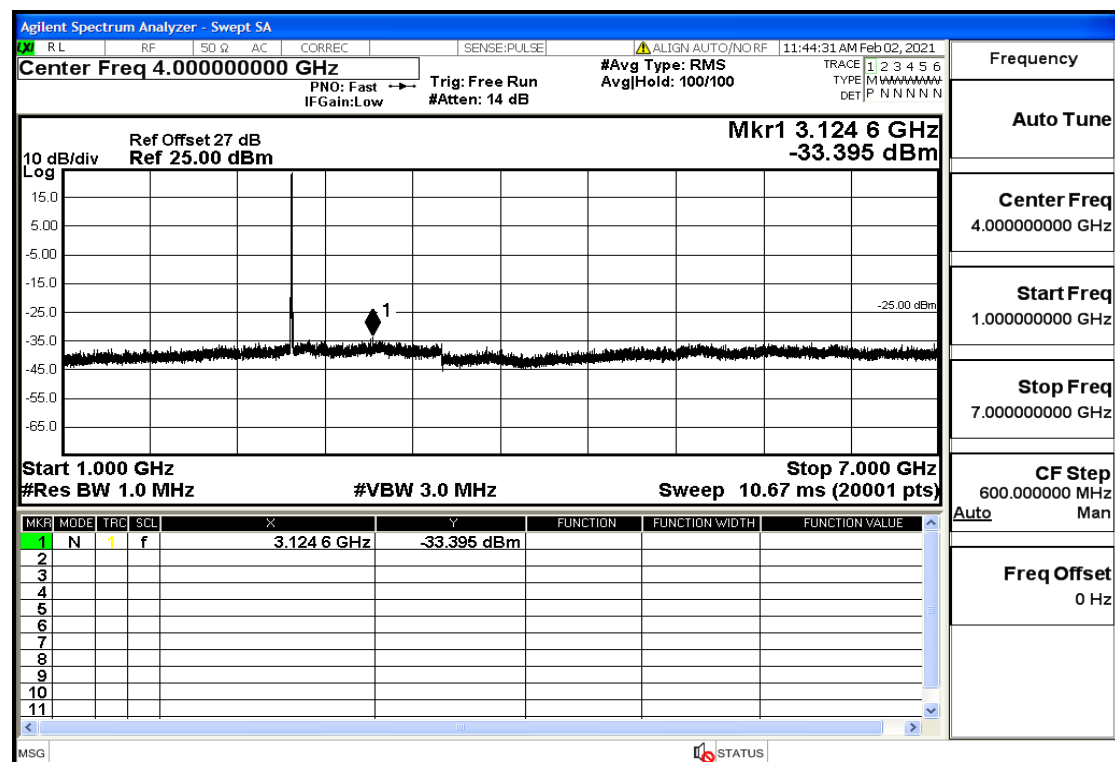
OB7-5-2567.5-QPSK-1#LOW@13.6GHz-20GHz@Pass



OB7-5-2567.5-QPSK-1#HIGH@30mHz-1GHz@Pass



OB7-5-2567.5-QPSK-1#HIGH@1GHz-7GHz@Pass



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC CORREC SENSE:PULSE ALIGN AUTO/NORF 11:44:45 AM Feb 02, 2021

Center Freq 10.300000000 GHz

PNO: Fast IFGain:Low Trig: Free Run #Atten: 8 dB #Avg Type: RMS Avg/Hold: 100/100

TRACE 1 2 3 4 5 6 TYPE M N N N N N N N DET P N N N N N N

Ref Offset 27 dB Ref 20.00 dBm Mkr1 13.118 86 GHz -39.914 dBm

10 dB/div Log

Start 7.000 GHz Stop 13.600 GHz

#Res BW 1.0 MHz #VBW 3.0 MHz Sweep 12.00 ms (20001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	13.118 86 GHz	-39.914 dBm			
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency Auto Tune Center Freq 10.300000000 GHz Start Freq 7.000000000 GHz Stop Freq 13.600000000 GHz CF Step 660.000000 MHz Man Auto Freq Offset 0 Hz

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC CORREC SENSE/PULSE ALIGN AUTO/NORF 11:45:00 AM Feb 02, 2021

Center Freq 16.80000000 GHz PNO: Fast IFGain: Low Trig: Free Run #Atten: 8 dB #Avg Type: RMS Avg/Hold: 100/100

TRACE 1 2 3 4 5 6 TYPE M W I L L L L L L DET P N N N N N N

Ref Offset 27 dB Ref 20.00 dBm Mkr1 19.00 32 GHz -34.407 dBm

10 dB/div Log
-70.0
-60.0
-50.0
-40.0
-30.0
-20.0
-10.0
0.00
10.00

Start 13.600 GHz Stop 20.000 GHz
#Res BW 1.0 MHz #VBW 3.0 MHz Sweep 16.00 ms (20001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f	f	19.000 32 GHz	-34.407 dBm			
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

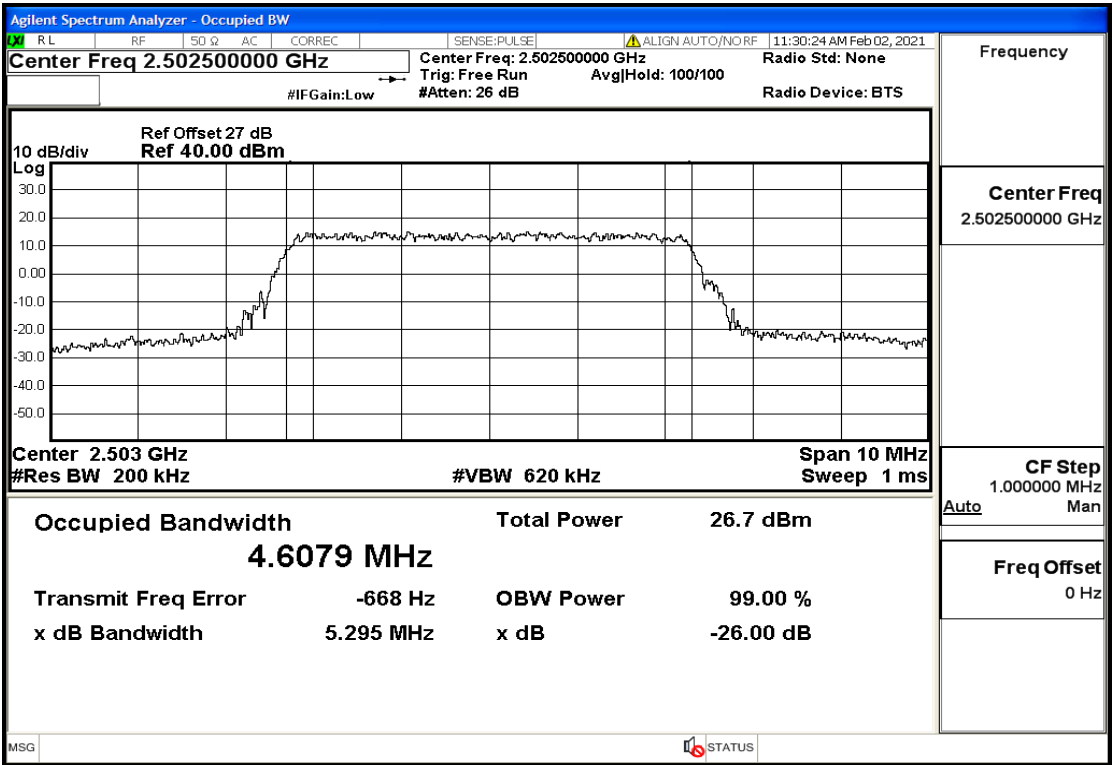
MSG STATUS

Frequency
Auto Tune
Center Freq 16.80000000 GHz
Start Freq 13.60000000 GHz
Stop Freq 20.00000000 GHz
CF Step 640.000000 MHz Man
Freq Offset 0 Hz

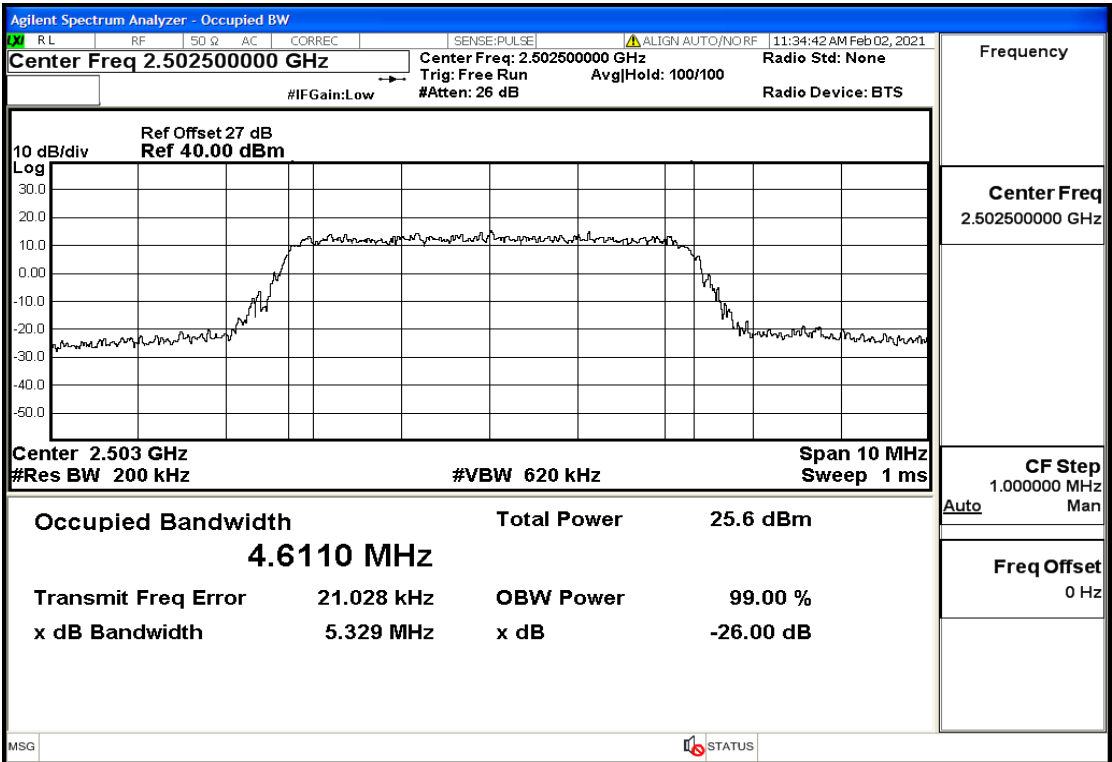
Emission bandwidth and OBW

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Occupied Bandwidth(KHz)	Emission Bandwidth(KHz)	Limit
Band7	5	2502.5	QPSK	25	LOW	4607.9	5295	No limit
Band7	5	2502.5	16QAM	25	LOW	4611	5329	No limit
Band7	5	2535	QPSK	25	LOW	4632.6	5346	No limit
Band7	5	2535	16QAM	25	LOW	4603.4	5390	No limit
Band7	5	2567.5	QPSK	25	LOW	4586	5349	No limit
Band7	5	2567.5	16QAM	25	LOW	4595.1	5349	No limit

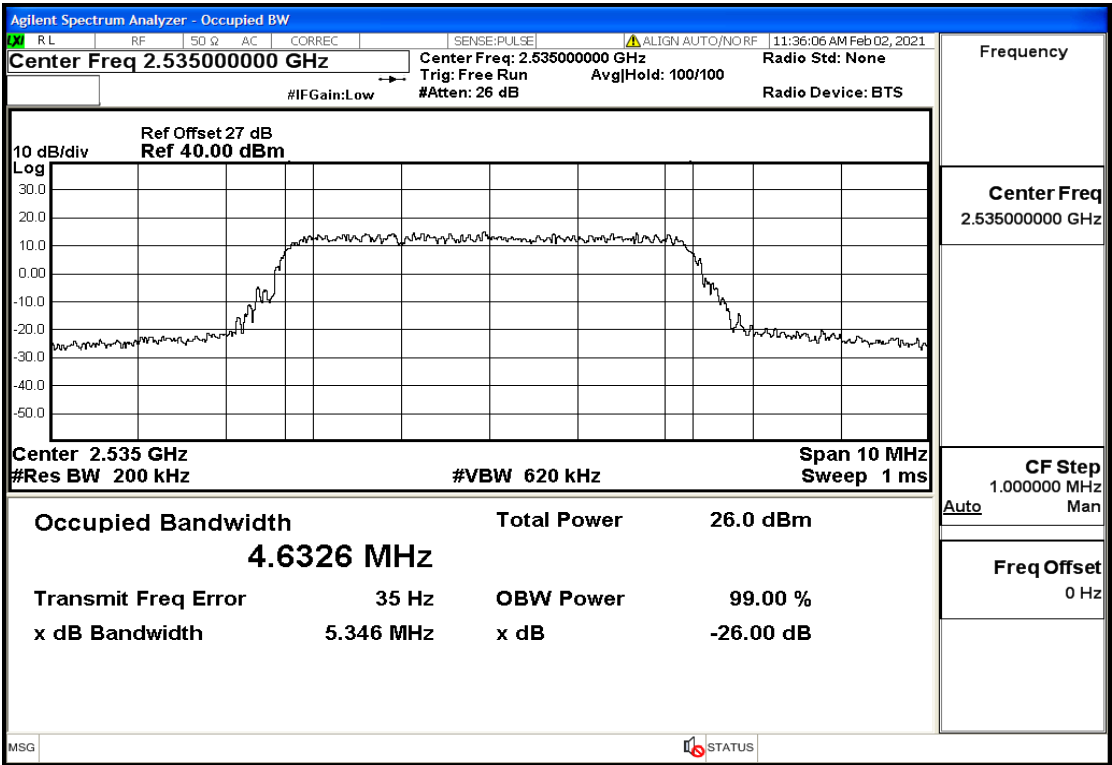
Band7-5-2502.5-QPSK-25#LOW@26dB and 99PCT Bandwidth



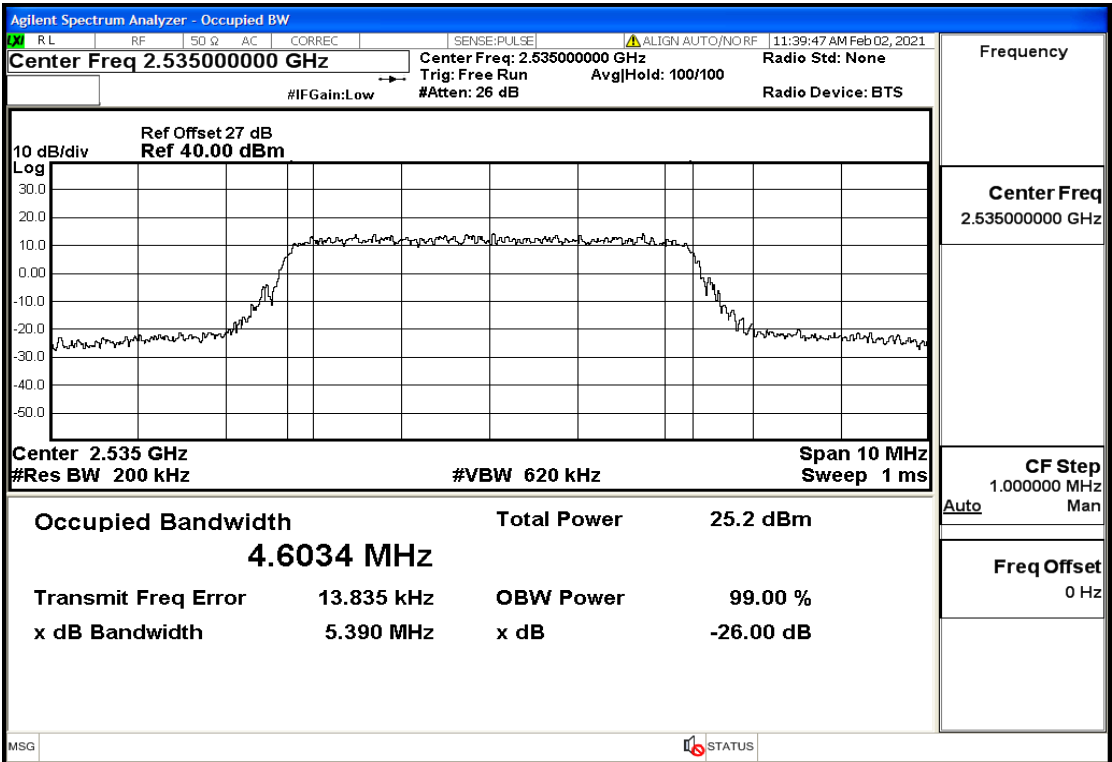
Band7-5-2502.5-16QAM-25#LOW@26dB and 99PCT Bandwidth



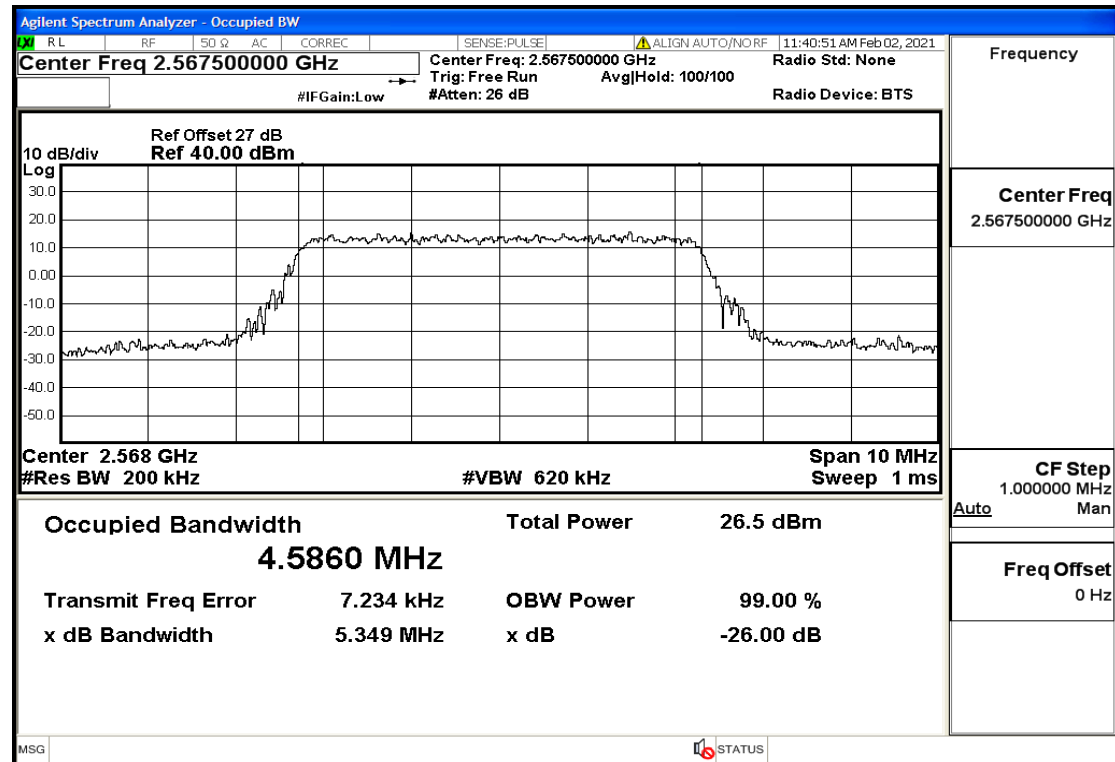
Band7-5-2535-QPSK-25#LOW@26dB and 99PCT Bandwidth



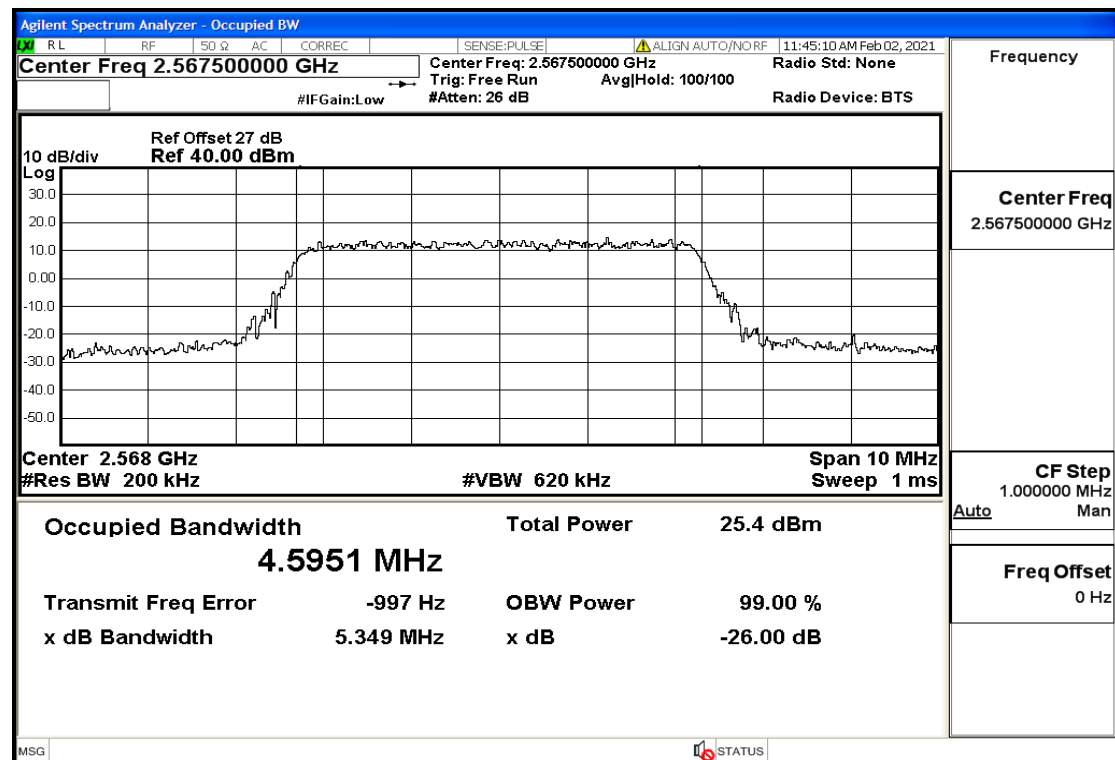
Band7-5-2535-16QAM-25#LOW@26dB and 99PCT Bandwidth



Band7-5-2567.5-QPSK-25#LOW@26dB and 99PCT Bandwidth



Band7-5-2567.5-16QAM-25#LOW@26dB and 99PCT Bandwidth



Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0064	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0066	
-20	Normal Voltage	0.0068	
-30	Normal Voltage	0.0075	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0073	

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
Band7	5	2502.5	QPSK	25	LOW	19.99	25.89	5.9	13	-1.0	18.99	33	Pass
Band7	5	2502.5	QPSK	12	LOW	19.45	25.17	5.72	13	-1.0	18.45	33	Pass
Band7	5	2502.5	QPSK	12	MID	19.43	25.24	5.81	13	-1.0	18.43	33	Pass
Band7	5	2502.5	QPSK	12	HIGH	19.46	25.18	5.72	13	-1.0	18.46	33	Pass
Band7	5	2502.5	QPSK	1	LOW	20.06	25.48	5.42	13	-1.0	19.06	33	Pass
Band7	5	2502.5	QPSK	1	MID	20.23	25.7	5.47	13	-1.0	19.23	33	Pass
Band7	5	2502.5	QPSK	1	HIGH	19.88	25.49	5.61	13	-1.0	18.88	33	Pass
Band7	5	2502.5	16QAM	25	LOW	18.18	25.59	7.41	13	-1.0	17.18	33	Pass
Band7	5	2502.5	16QAM	12	LOW	18.11	24.81	6.7	13	-1.0	17.11	33	Pass
Band7	5	2502.5	16QAM	12	MID	18.11	24.8	6.69	13	-1.0	17.11	33	Pass
Band7	5	2502.5	16QAM	12	HIGH	18.18	24.91	6.73	13	-1.0	17.18	33	Pass
Band7	5	2502.5	16QAM	1	LOW	19.02	25.35	6.33	13	-1.0	18.02	33	Pass
Band7	5	2502.5	16QAM	1	MID	19.34	25.6	6.26	13	-1.0	18.34	33	Pass
Band7	5	2502.5	16QAM	1	HIGH	18.99	25.41	6.42	13	-1.0	17.99	33	Pass
Band7	5	2535	QPSK	25	LOW	18.91	25.34	6.43	13	-1.0	17.91	33	Pass
Band7	5	2535	QPSK	12	LOW	19.1	25.12	6.02	13	-1.0	18.1	33	Pass
Band7	5	2535	QPSK	12	MID	19.11	25.05	5.94	13	-1.0	18.11	33	Pass
Band7	5	2535	QPSK	12	HIGH	18.99	24.96	5.97	13	-1.0	17.99	33	Pass
Band7	5	2535	QPSK	1	LOW	19.96	25.99	6.03	13	-1.0	18.96	33	Pass
Band7	5	2535	QPSK	1	MID	20.01	25.95	5.94	13	-1.0	19.01	33	Pass
Band7	5	2535	QPSK	1	HIGH	19.63	25.81	6.18	13	-1.0	18.63	33	Pass
Band7	5	2535	16QAM	25	LOW	18.01	25.55	7.54	13	-1.0	17.01	33	Pass
Band7	5	2535	16QAM	12	LOW	18.22	25.51	7.29	13	-1.0	17.22	33	Pass
Band7	5	2535	16QAM	12	MID	18.24	25.6	7.36	13	-1.0	17.24	33	Pass
Band7	5	2535	16QAM	12	HIGH	18.11	25.34	7.23	13	-1.0	17.11	33	Pass
Band7	5	2535	16QAM	1	LOW	19.21	24.87	5.66	13	-1.0	18.21	33	Pass
Band7	5	2535	16QAM	1	MID	19.34	25.04	5.7	13	-1.0	18.34	33	Pass
Band7	5	2535	16QAM	1	HIGH	18.95	24.72	5.77	13	-1.0	17.95	33	Pass
Band7	5	2567.5	QPSK	25	LOW	19.36	25.53	6.17	13	-1.0	18.36	33	Pass
Band7	5	2567.5	QPSK	12	LOW	19.27	25.54	6.27	13	-1.0	18.27	33	Pass
Band7	5	2567.5	QPSK	12	MID	19.27	25.26	5.99	13	-1.0	18.27	33	Pass
Band7	5	2567.5	QPSK	12	HIGH	19.06	25.27	6.21	13	-1.0	18.06	33	Pass
Band7	5	2567.5	QPSK	1	LOW	20.2	25.25	5.05	13	-1.0	19.2	33	Pass
Band7	5	2567.5	QPSK	1	MID	20.21	25.22	5.01	13	-1.0	19.21	33	Pass
Band7	5	2567.5	QPSK	1	HIGH	19.58	24.72	5.14	13	-1.0	18.58	33	Pass
Band7	5	2567.5	16QAM	25	LOW	18.17	26.14	7.97	13	-1.0	17.17	33	Pass
Band7	5	2567.5	16QAM	12	LOW	18.53	25.01	6.48	13	-1.0	17.53	33	Pass
Band7	5	2567.5	16QAM	12	MID	18.55	24.94	6.39	13	-1.0	17.55	33	Pass
Band7	5	2567.5	16QAM	12	HIGH	18.35	24.84	6.49	13	-1.0	17.35	33	Pass
Band7	5	2567.5	16QAM	1	LOW	19.72	25.3	5.58	13	-1.0	18.72	33	Pass

Band7	5	2567.5	16QAM	1	MID	19.78	25.19	5.41	13	-1.0	18.78	33	Pass
Band7	5	2567.5	16QAM	1	HIGH	19.17	24.78	5.61	13	-1.0	18.17	33	Pass