

RF Test Data for LTE (Conducted Measurement)

Product Name: Smartphone

Trade Mark: Vortex

Test Model: V20

Sample ID: TZ210502250-1#

FCC ID: 2A2EB-V20

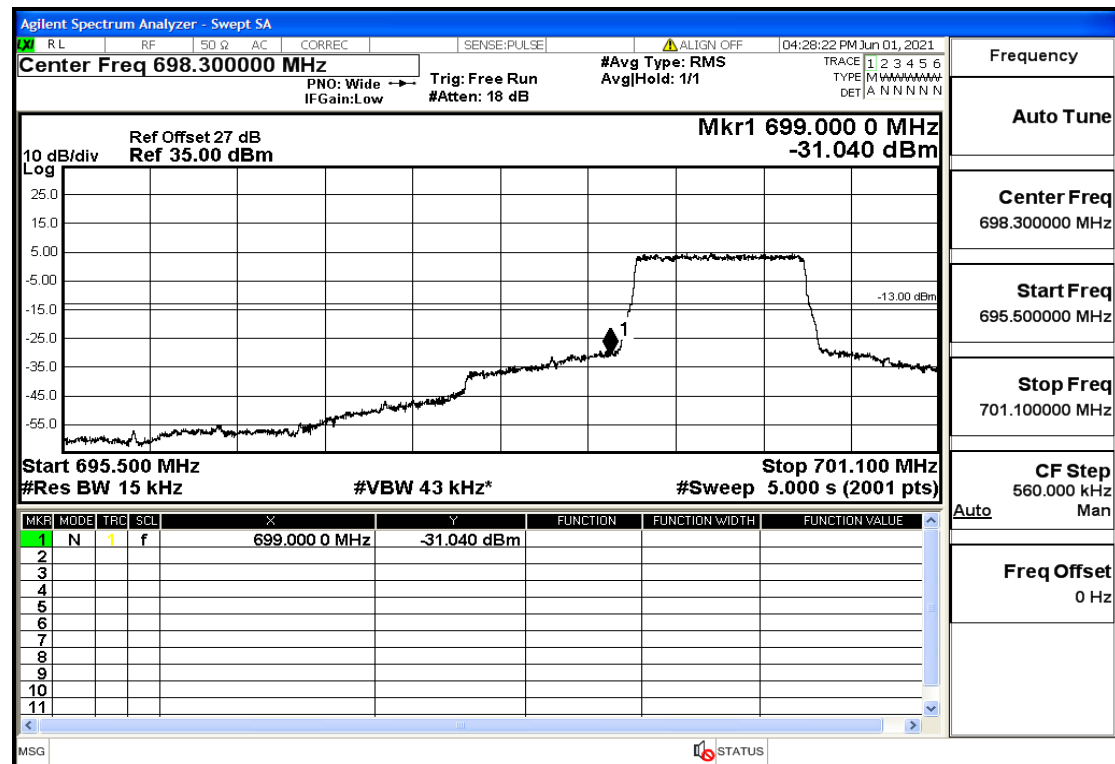
Environmental Conditions

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

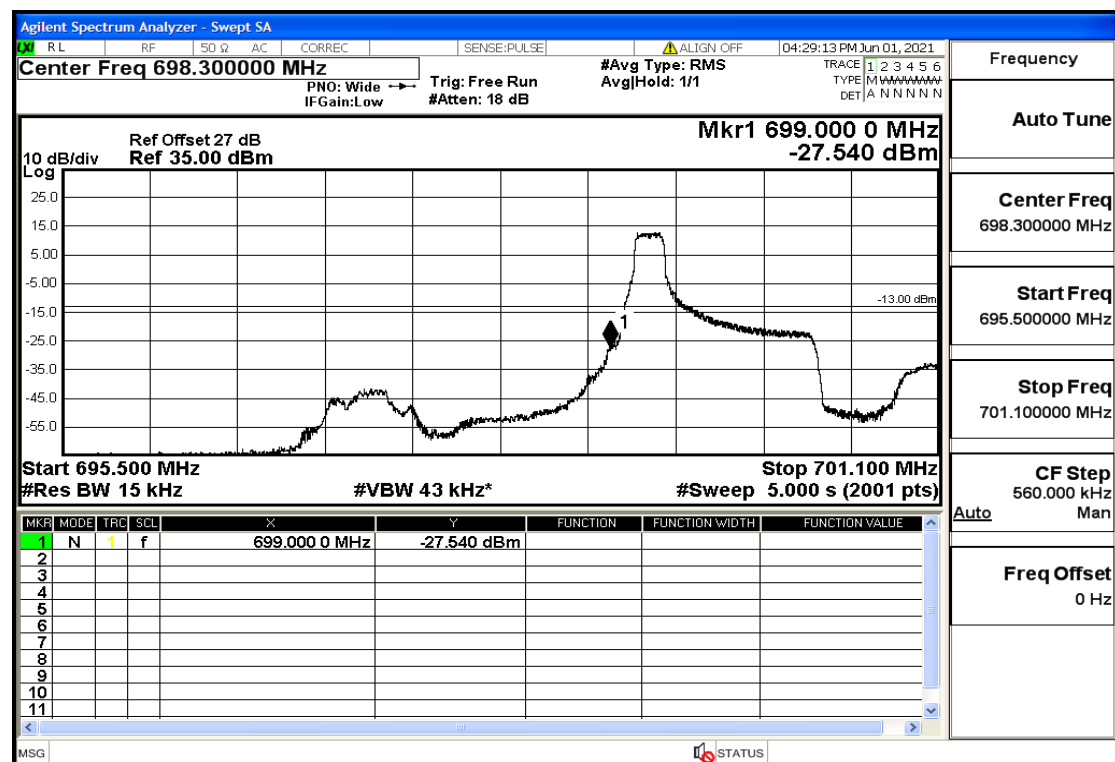
Band Edge and Emission Mask

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Conclusion
Band12	1.4	699.7	QPSK	6	LOW	Pass
Band12	1.4	699.7	QPSK	1	LOW	Pass
Band12	1.4	699.7	16QAM	6	LOW	Pass
Band12	1.4	699.7	16QAM	1	LOW	Pass
Band12	1.4	715.3	QPSK	6	LOW	Pass
Band12	1.4	715.3	QPSK	1	HIGH	Pass
Band12	1.4	715.3	16QAM	6	LOW	Pass
Band12	1.4	715.3	16QAM	1	HIGH	Pass
Band12	3	700.5	QPSK	15	LOW	Pass
Band12	3	700.5	QPSK	1	LOW	Pass
Band12	3	700.5	16QAM	15	LOW	Pass
Band12	3	700.5	16QAM	1	LOW	Pass
Band12	3	714.5	QPSK	15	LOW	Pass
Band12	3	714.5	QPSK	1	HIGH	Pass
Band12	3	714.5	16QAM	15	LOW	Pass
Band12	3	714.5	16QAM	1	HIGH	Pass
Band12	5	701.5	QPSK	25	LOW	Pass
Band12	5	701.5	QPSK	1	LOW	Pass
Band12	5	701.5	16QAM	25	LOW	Pass
Band12	5	701.5	16QAM	1	LOW	Pass
Band12	5	713.5	QPSK	25	LOW	Pass
Band12	5	713.5	QPSK	1	HIGH	Pass
Band12	5	713.5	16QAM	25	LOW	Pass
Band12	5	713.5	16QAM	1	HIGH	Pass
Band12	10	704	QPSK	50	LOW	Pass
Band12	10	704	QPSK	1	LOW	Pass
Band12	10	704	16QAM	50	LOW	Pass
Band12	10	704	16QAM	1	LOW	Pass
Band12	10	711	QPSK	50	LOW	Pass
Band12	10	711	QPSK	1	HIGH	Pass
Band12	10	711	16QAM	50	LOW	Pass
Band12	10	711	16QAM	1	HIGH	Pass

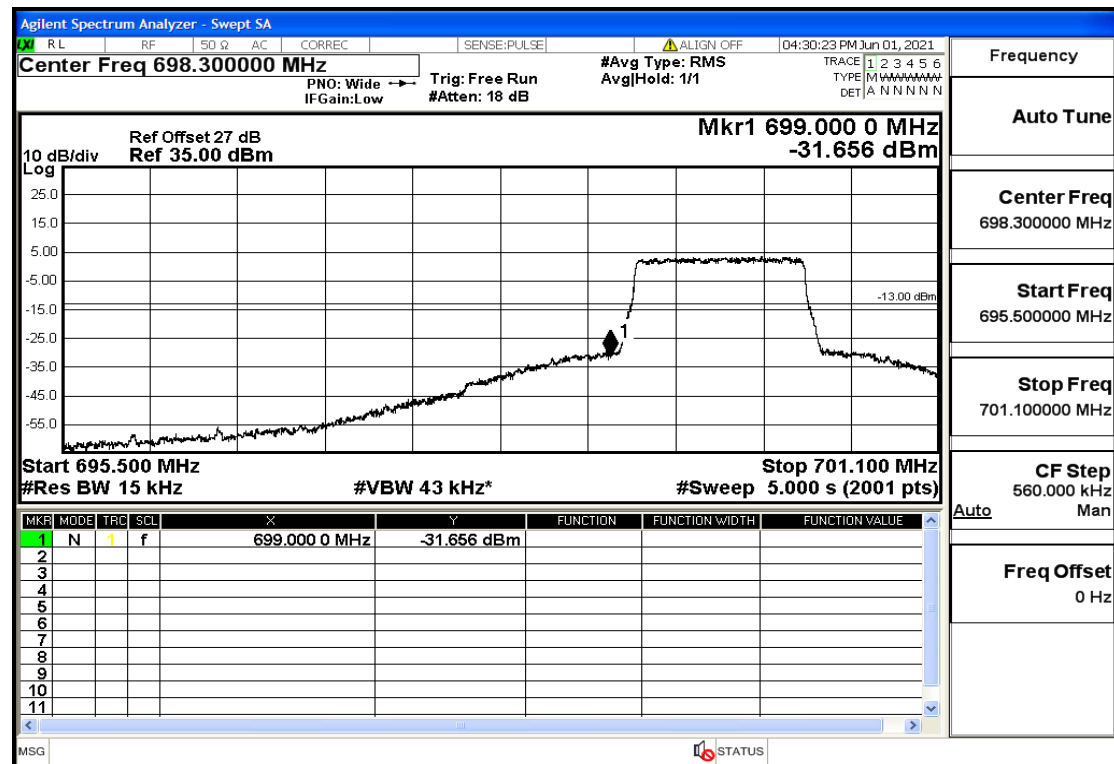
Band12-1.4-699.7-QPSK-6#LOW@Pass



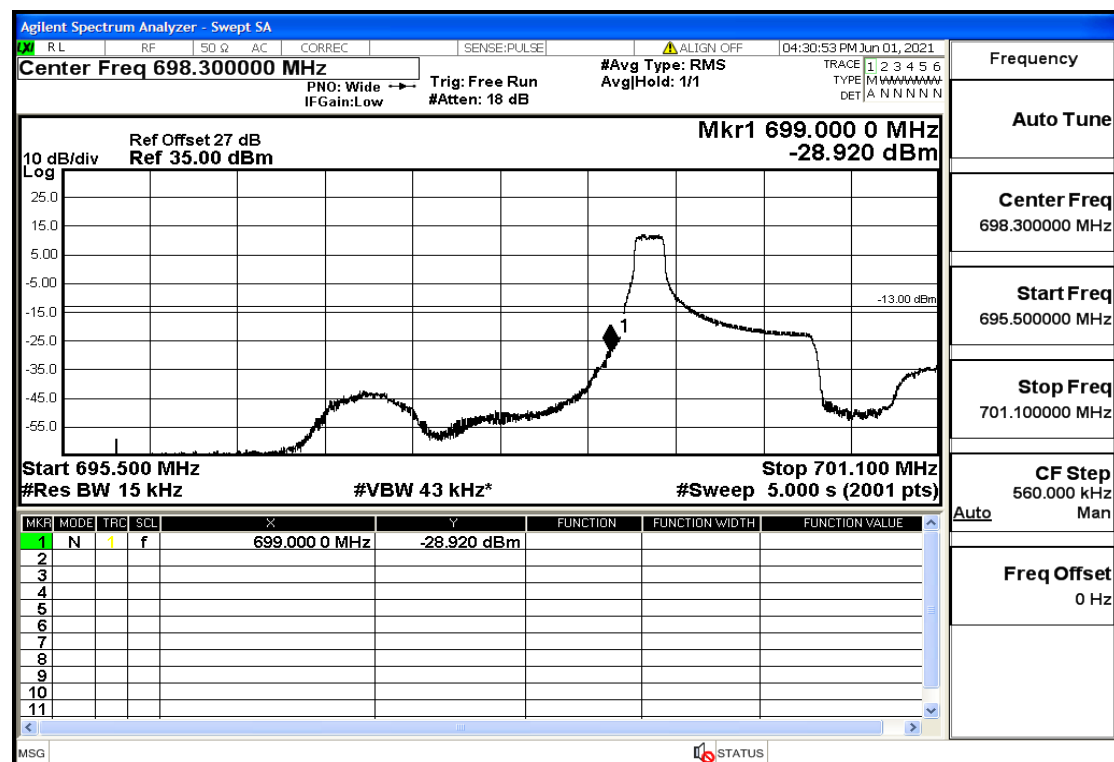
Band12-1.4-699.7-QPSK-1#LOW@Pass



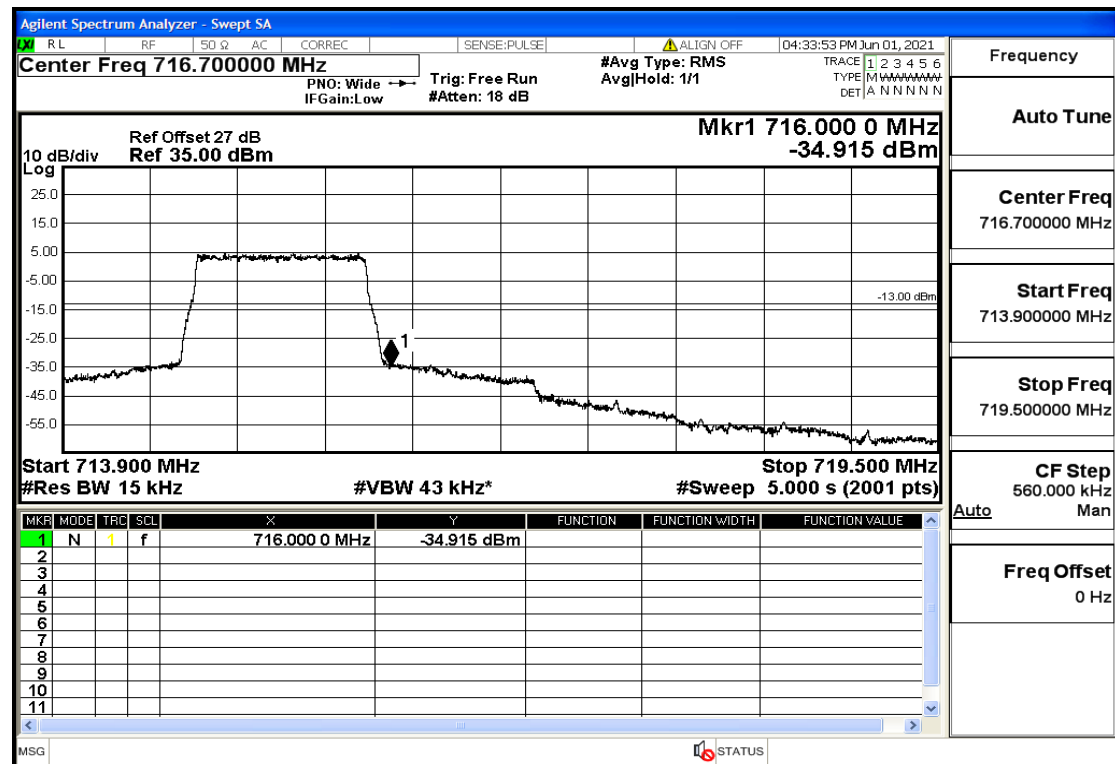
Band12-1.4-699.7-16QAM-6#LOW@Pass



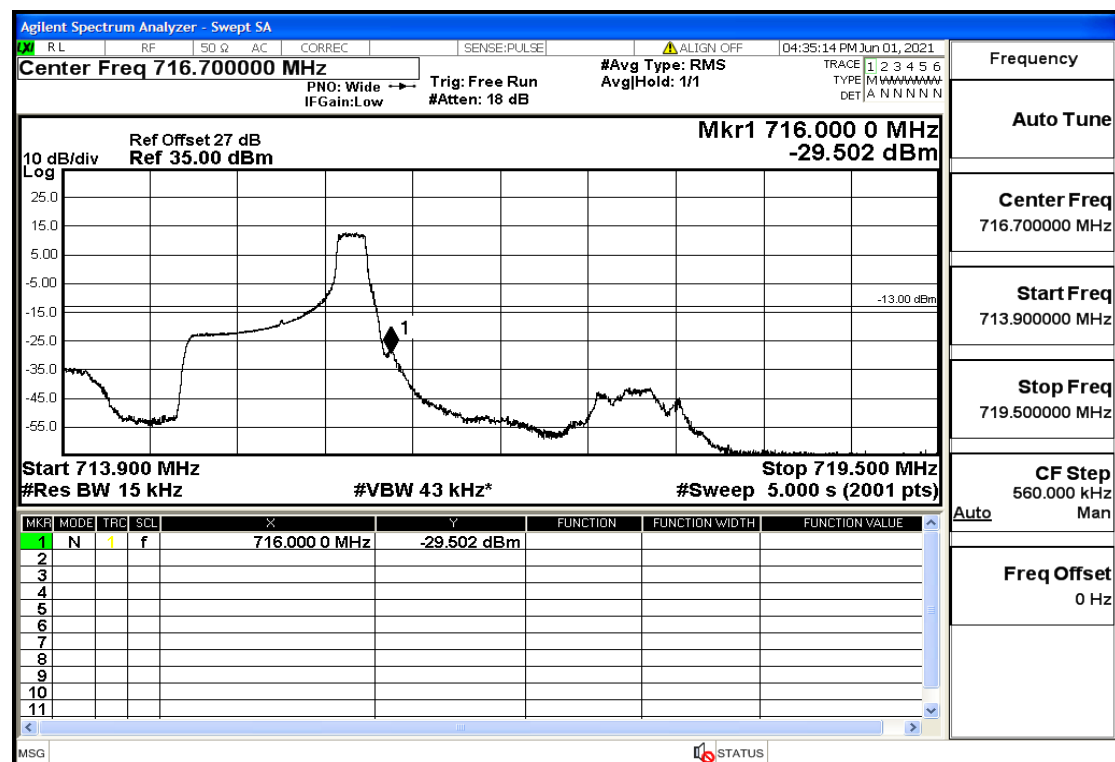
Band12-1.4-699.7-16QAM-1#LOW@Pass



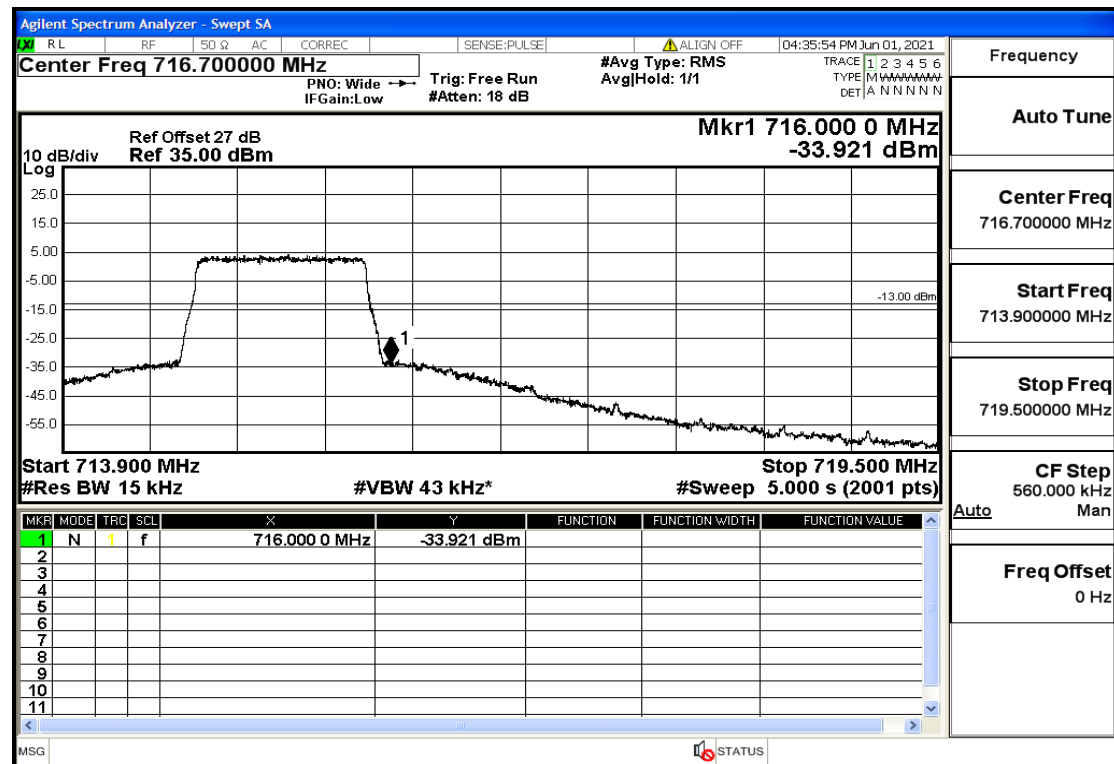
Band12-1.4-715.3-QPSK-6#LOW@Pass



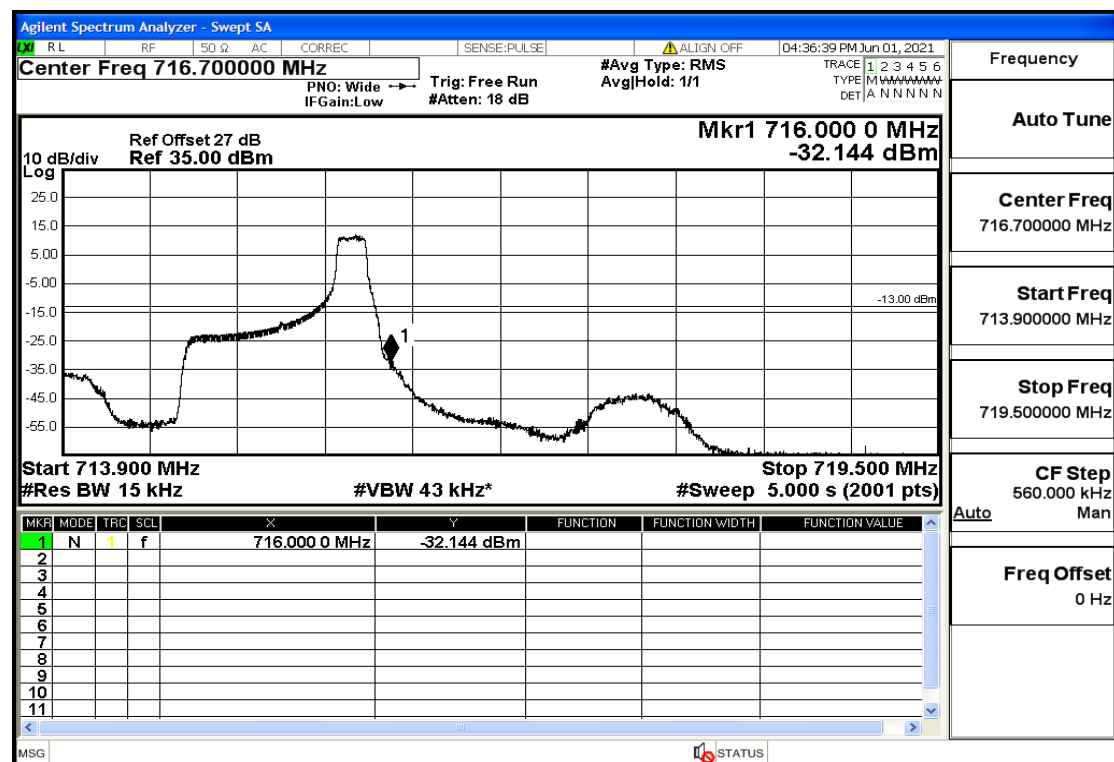
Band12-1.4-715.3-QPSK-1#HIGH@Pass



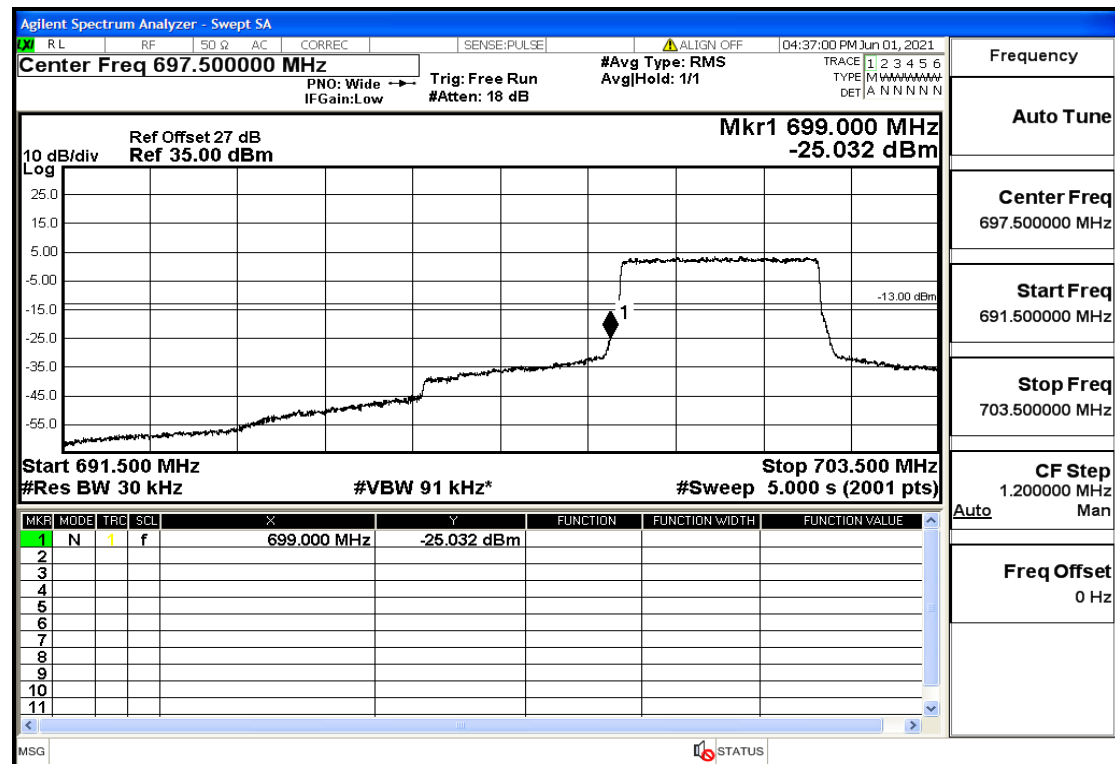
Band12-1.4-715.3-16QAM-6#LOW@Pass



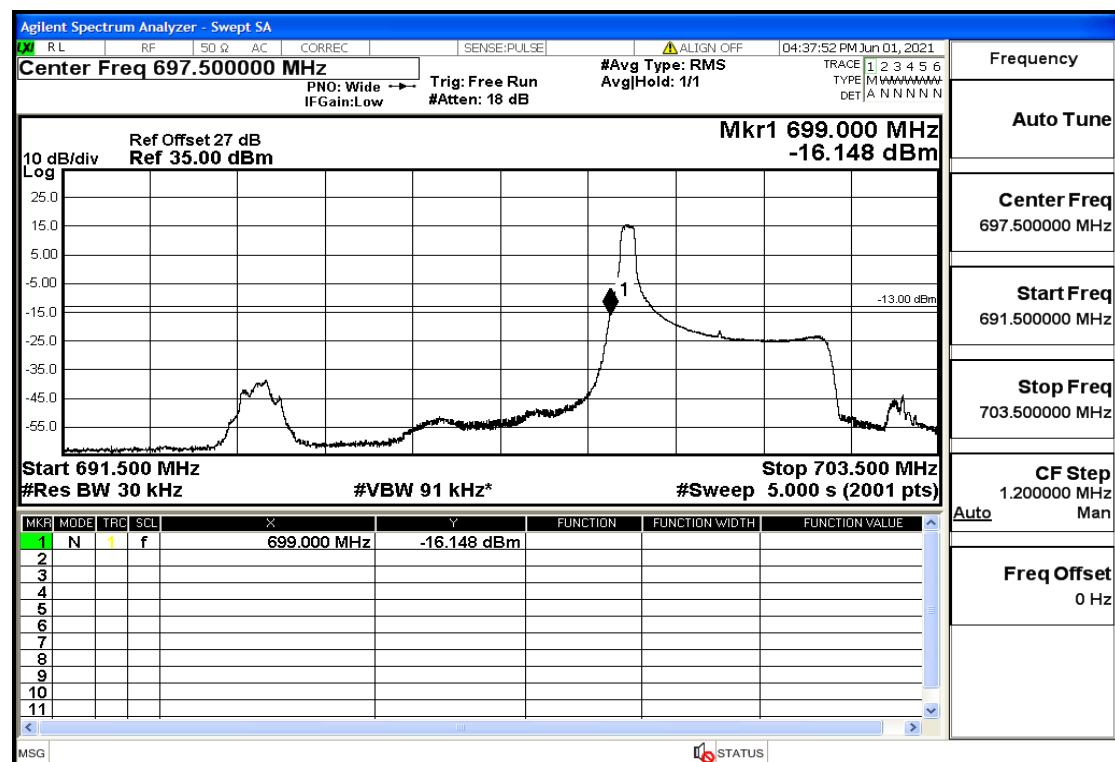
Band12-1.4-715.3-16QAM-1#HIGH@Pass



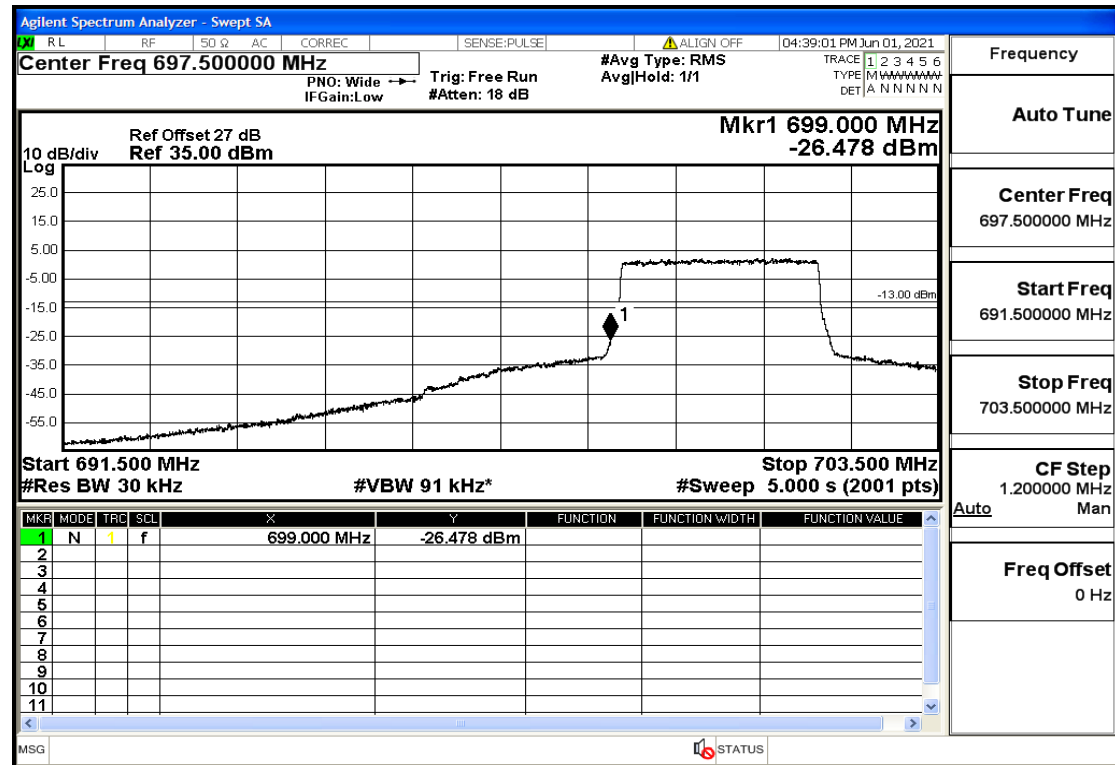
Band12-3-700.5-QPSK-15#LOW@Pass



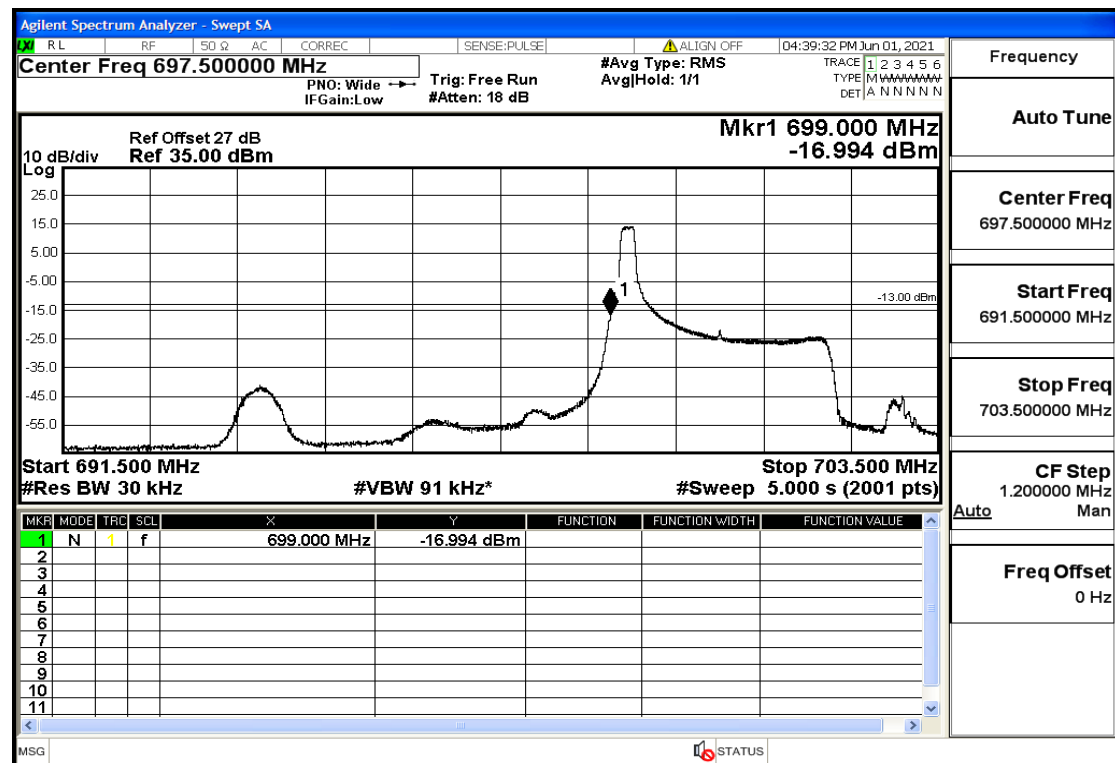
Band12-3-700.5-QPSK-1#LOW@Pass



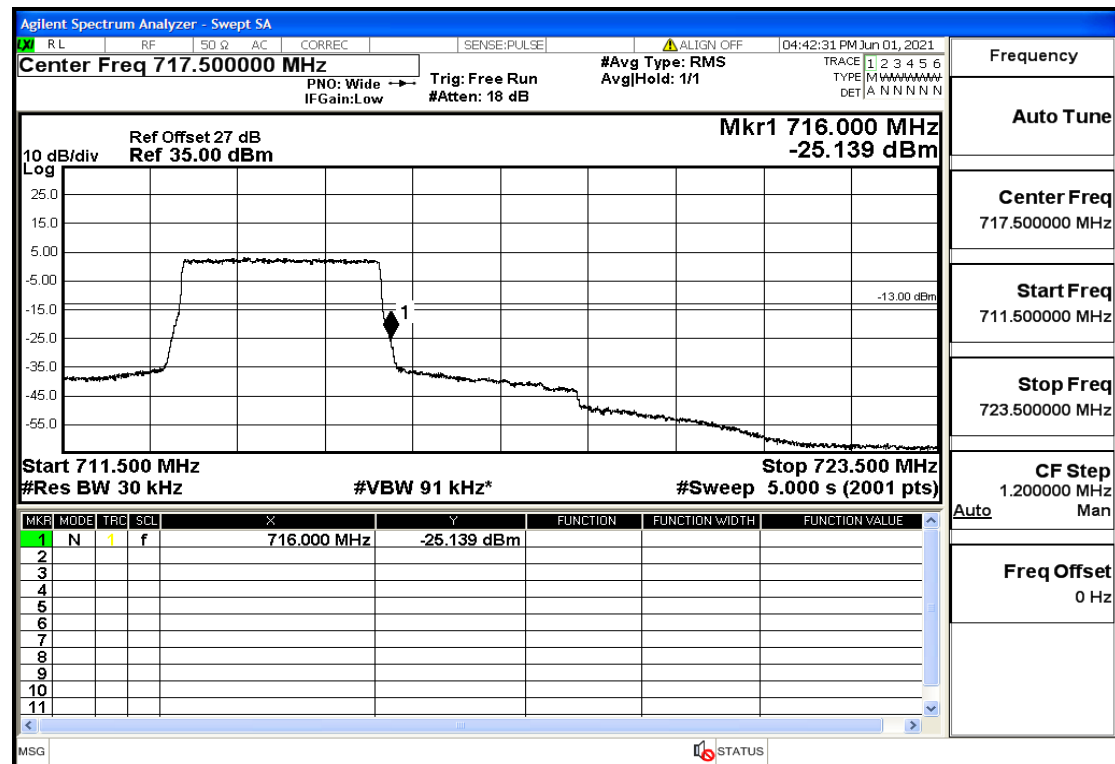
Band12-3-700.5-16QAM-15#LOW@Pass



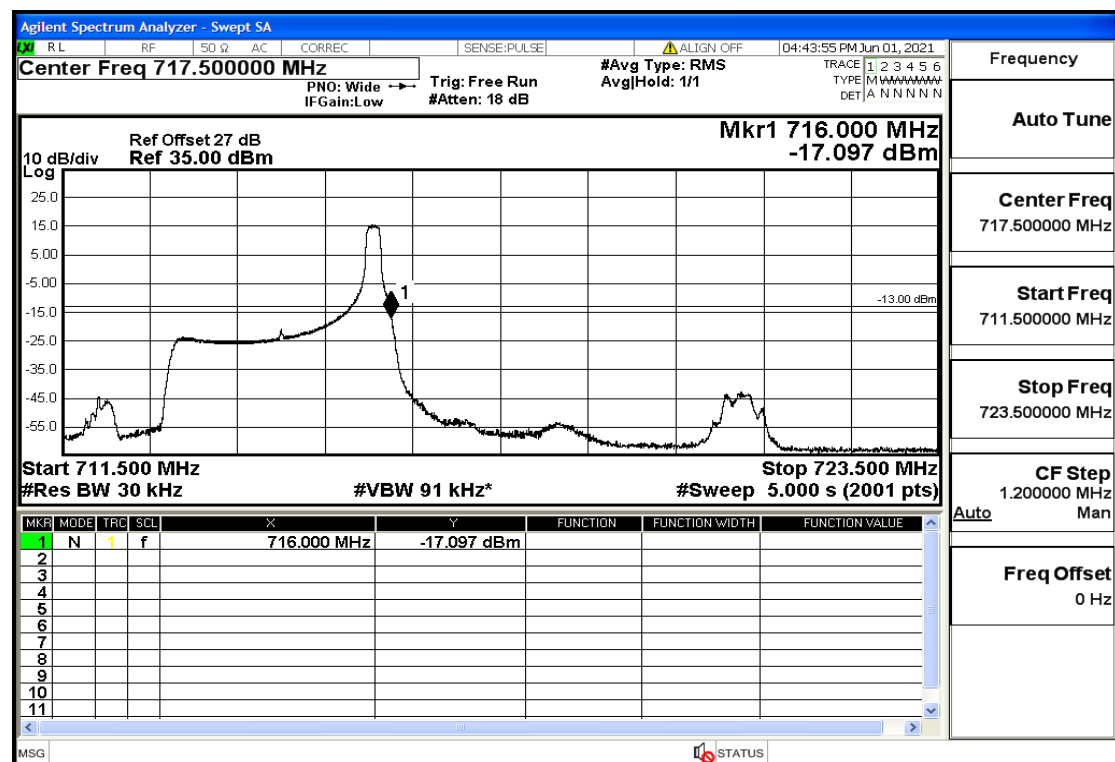
Band12-3-700.5-16QAM-1#LOW@Pass



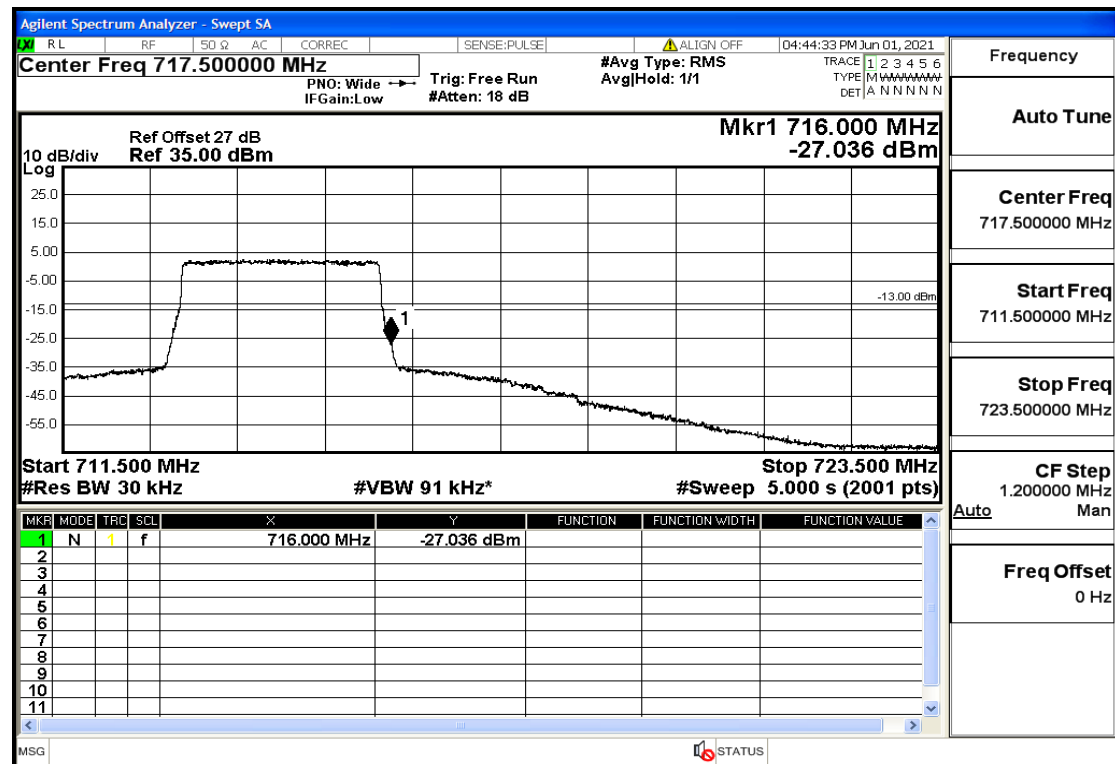
Band12-3-714.5-QPSK-15#LOW@Pass



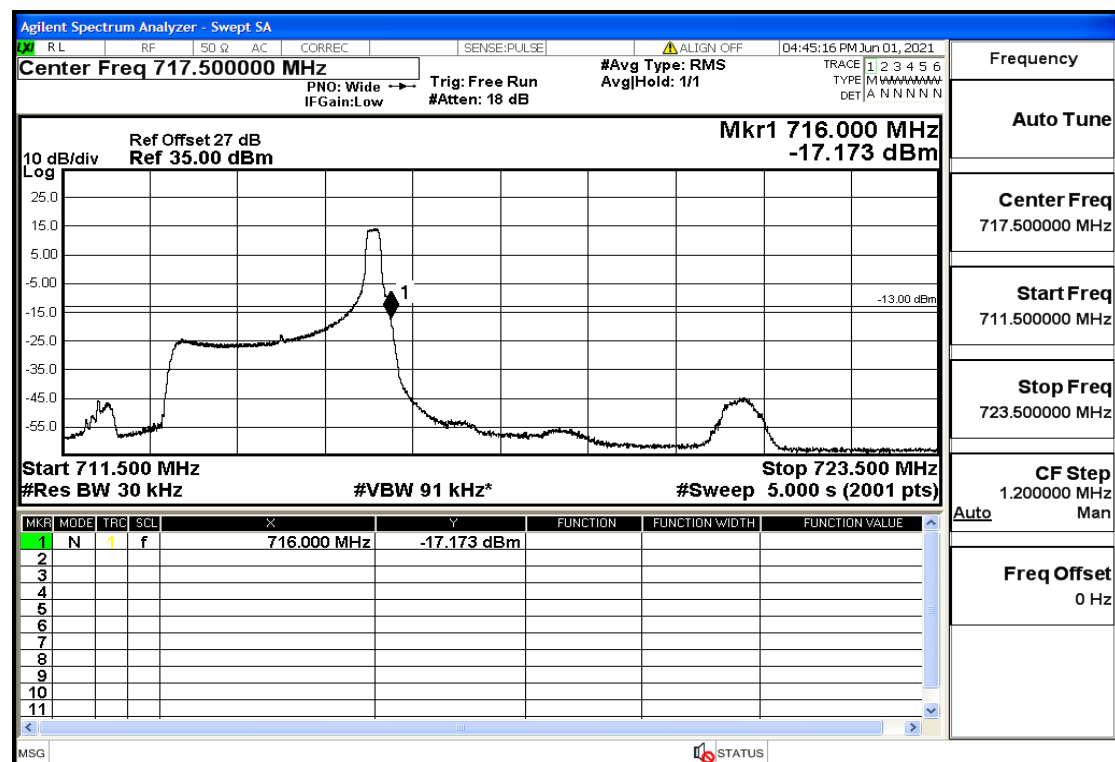
Band12-3-714.5-QPSK-1#HIGH@Pass



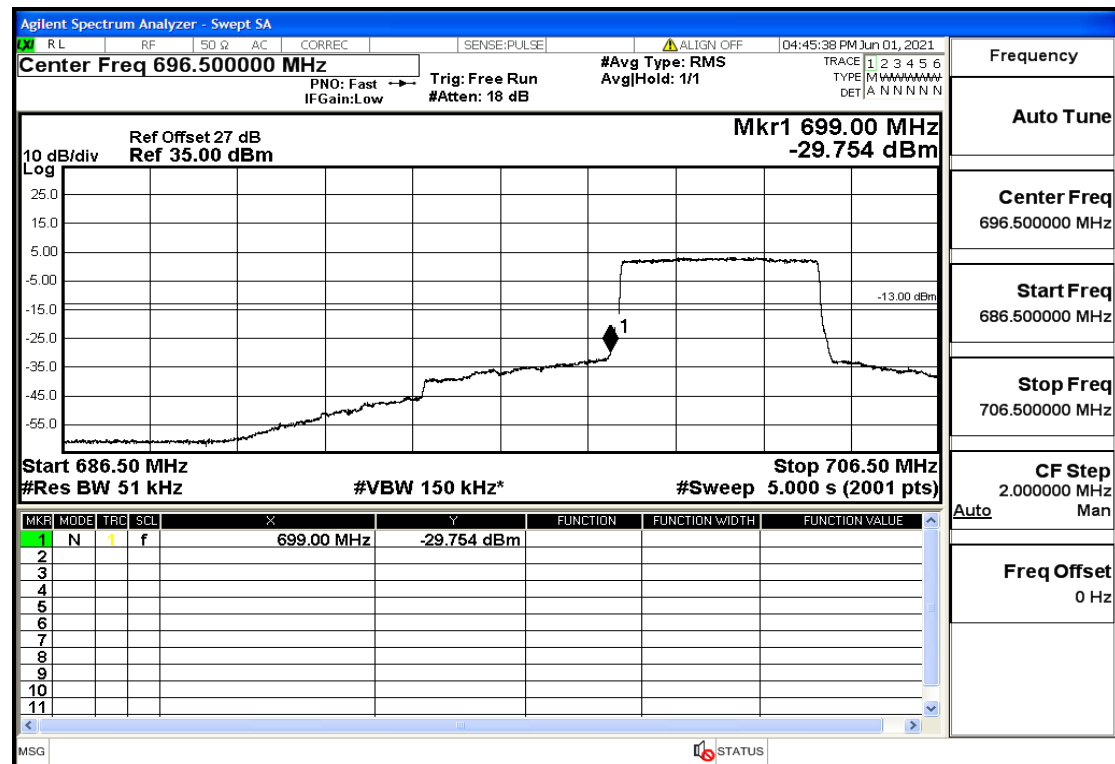
Band12-3-714.5-16QAM-15#LOW@Pass



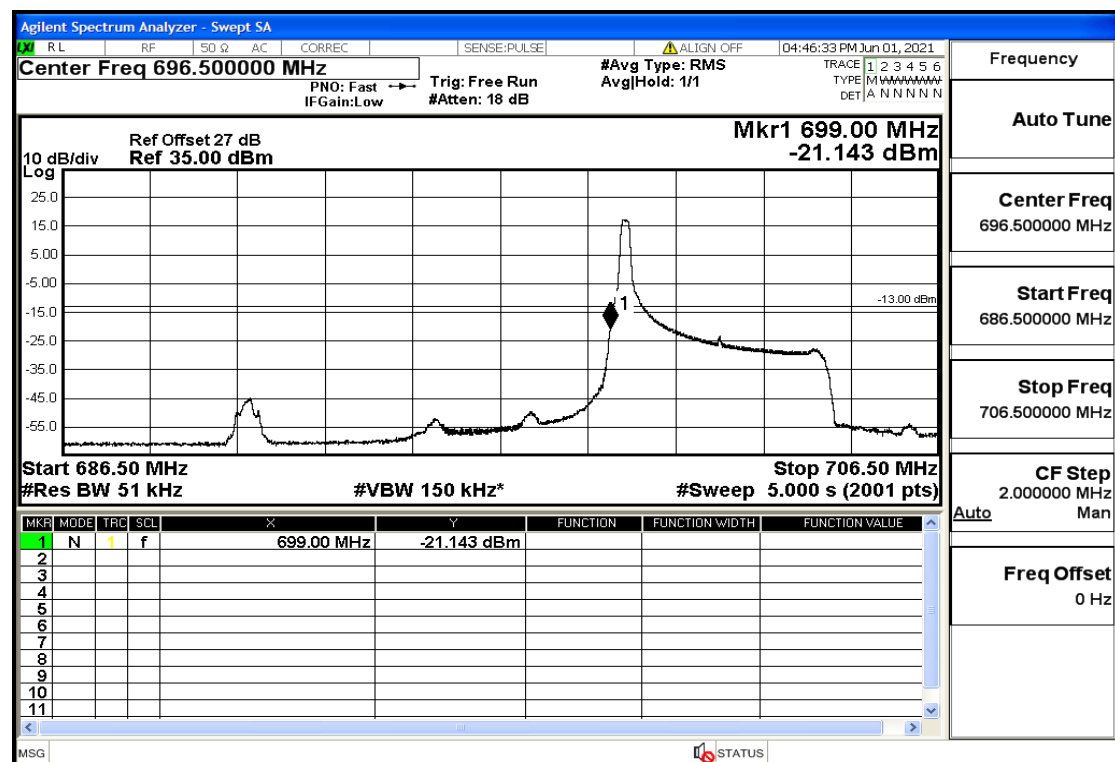
Band12-3-714.5-16QAM-1#HIGH@Pass



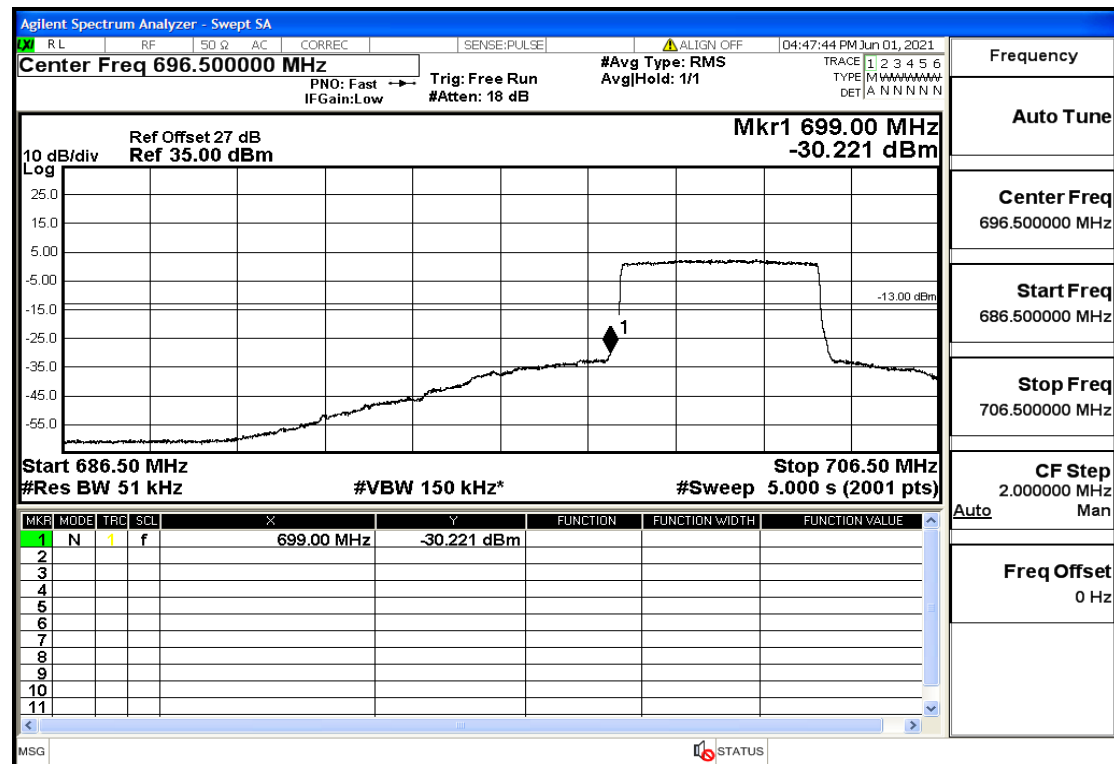
Band12-5-701.5-QPSK-25#LOW@Pass



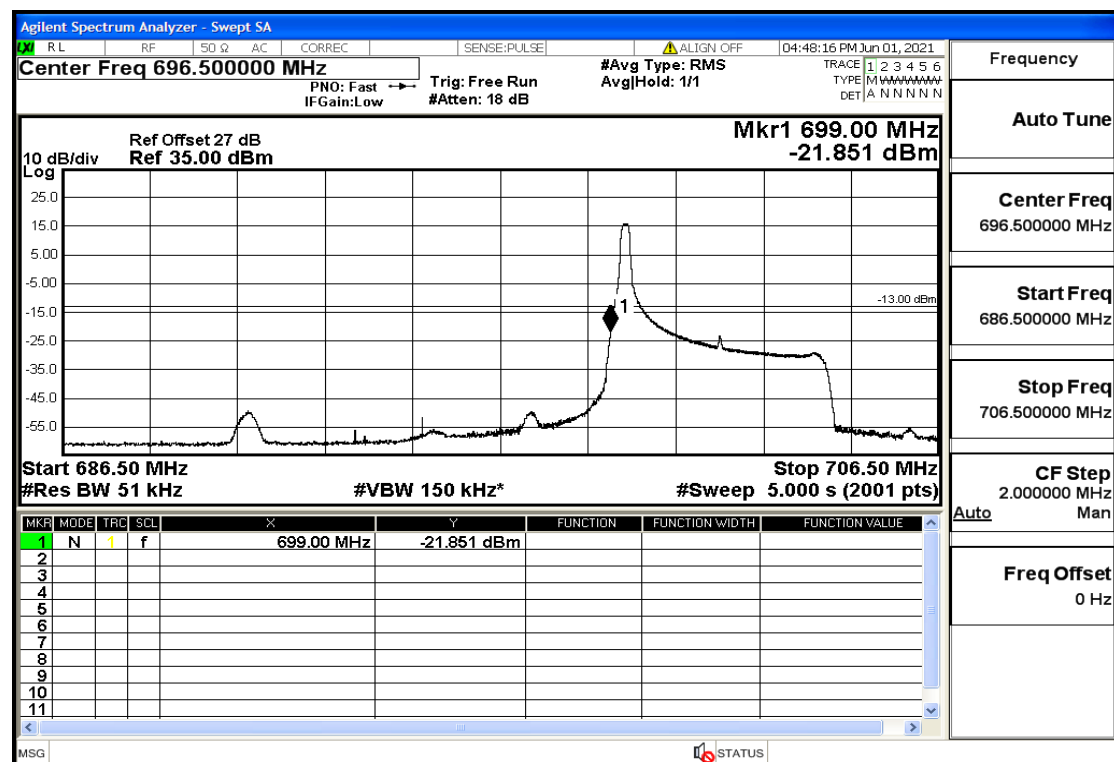
Band12-5-701.5-QPSK-1#LOW@Pass



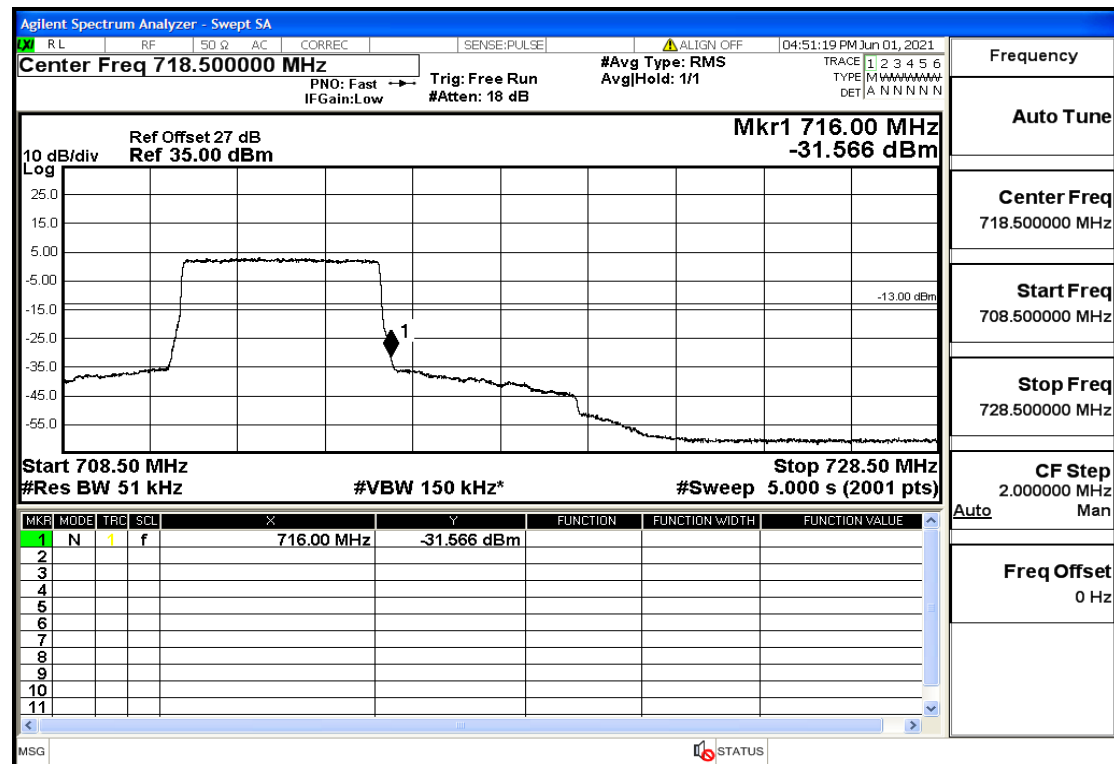
Band12-5-701.5-16QAM-25#LOW@Pass



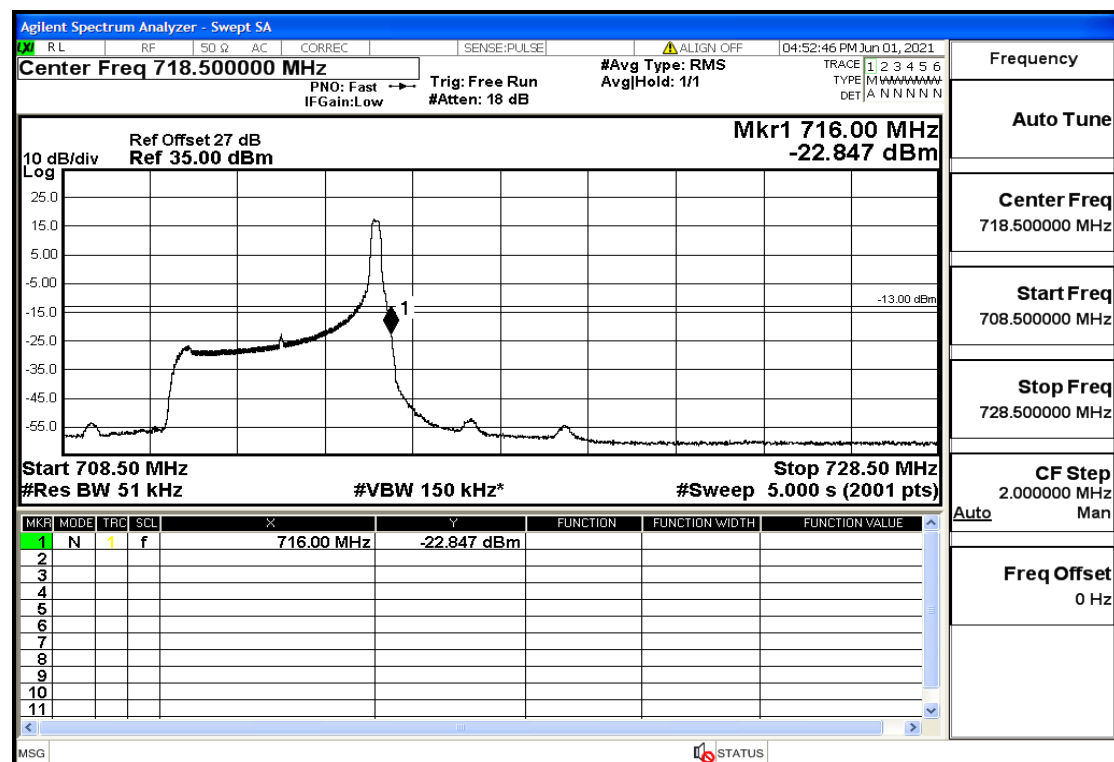
Band12-5-701.5-16QAM-1#LOW@Pass



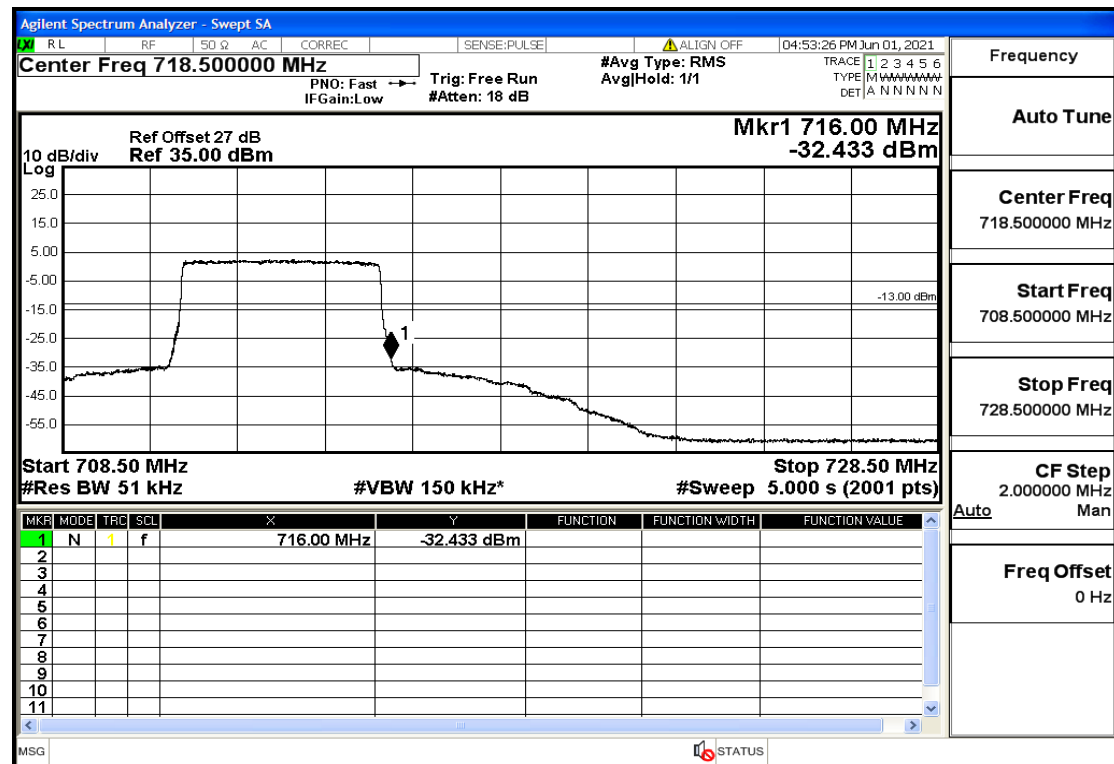
Band12-5-713.5-QPSK-25#LOW@Pass



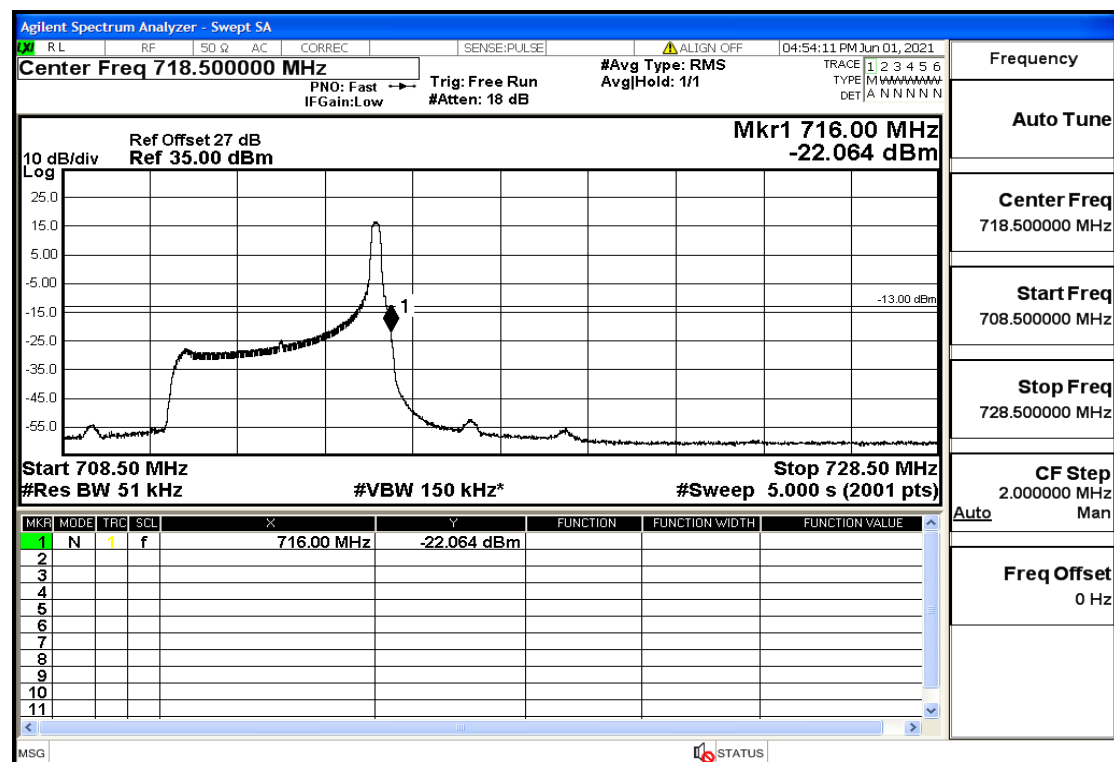
Band12-5-713.5-QPSK-1#HIGH@Pass



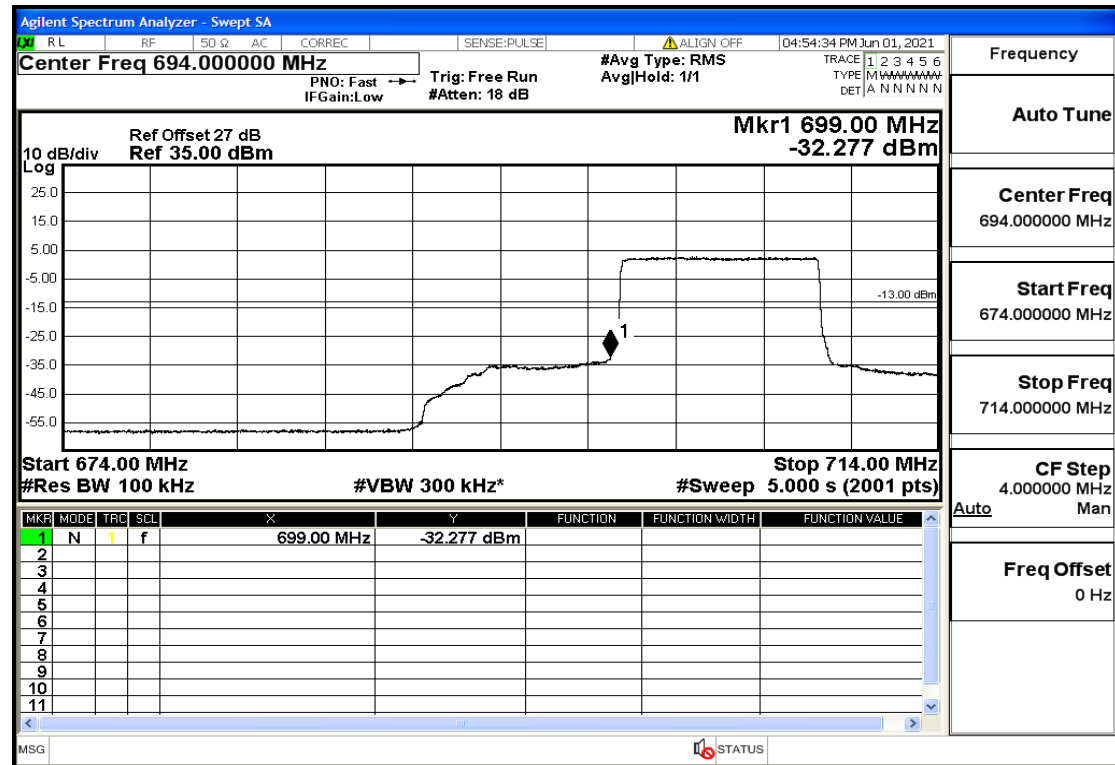
Band12-5-713.5-16QAM-25#LOW@Pass



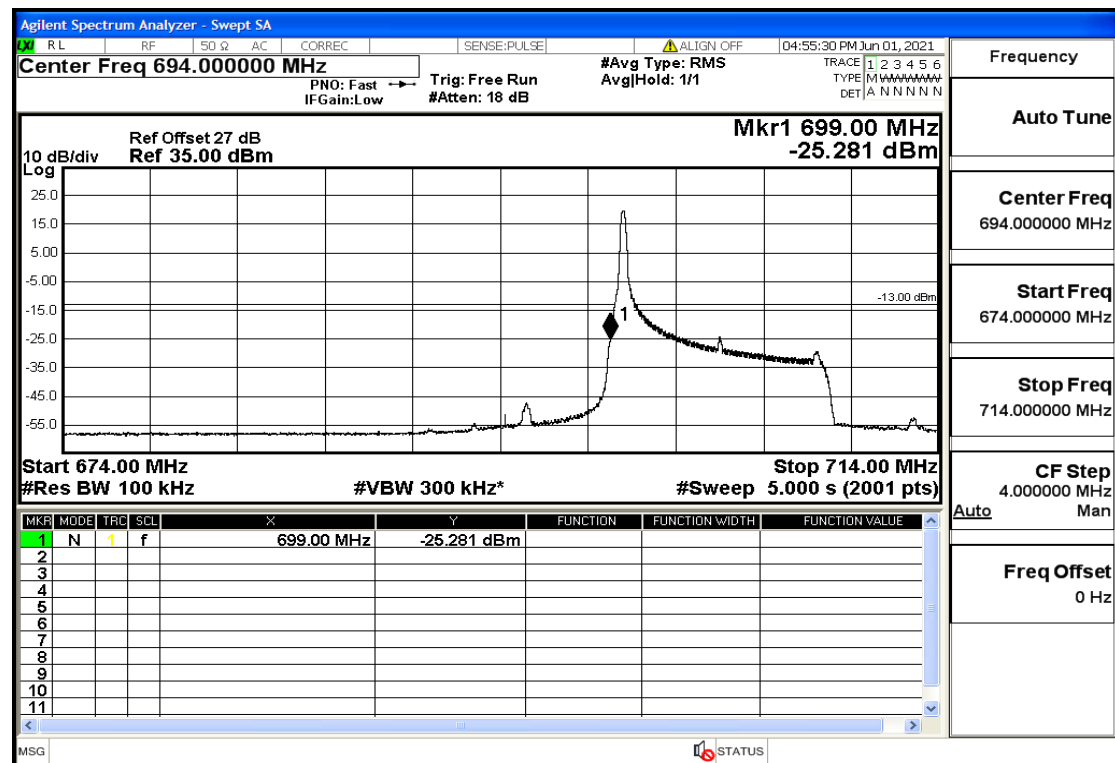
Band12-5-713.5-16QAM-1#HIGH@Pass



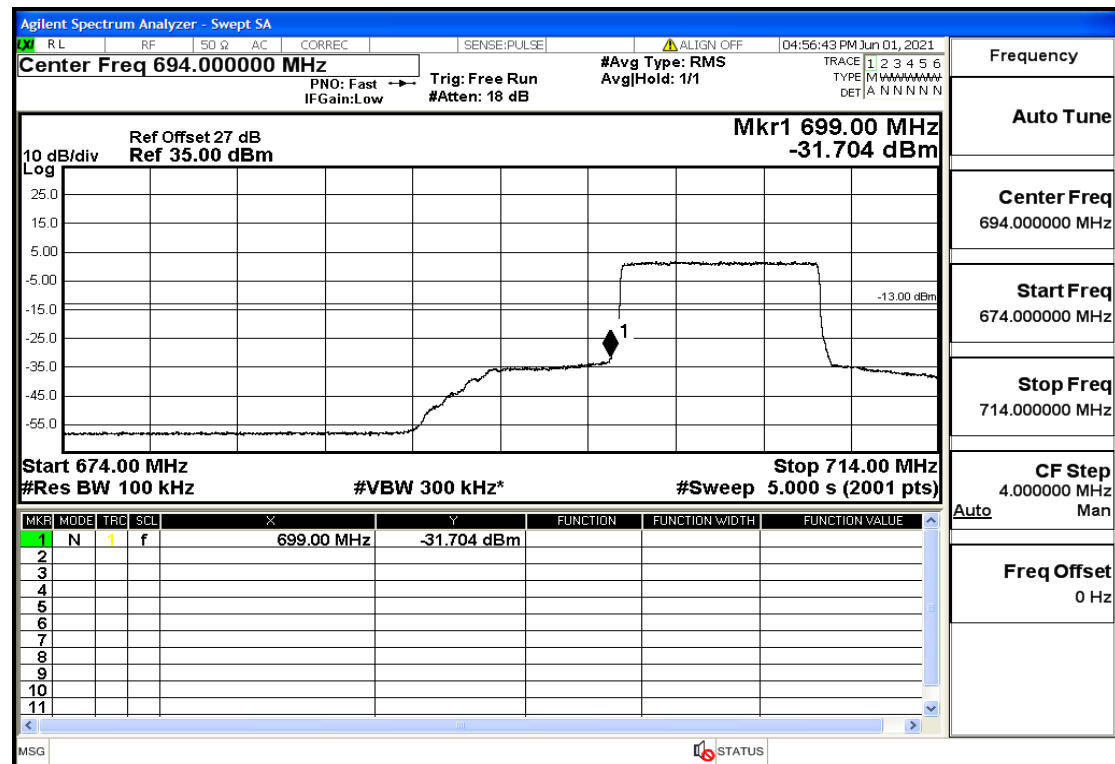
Band12-10-704-QPSK-50#LOW@Pass



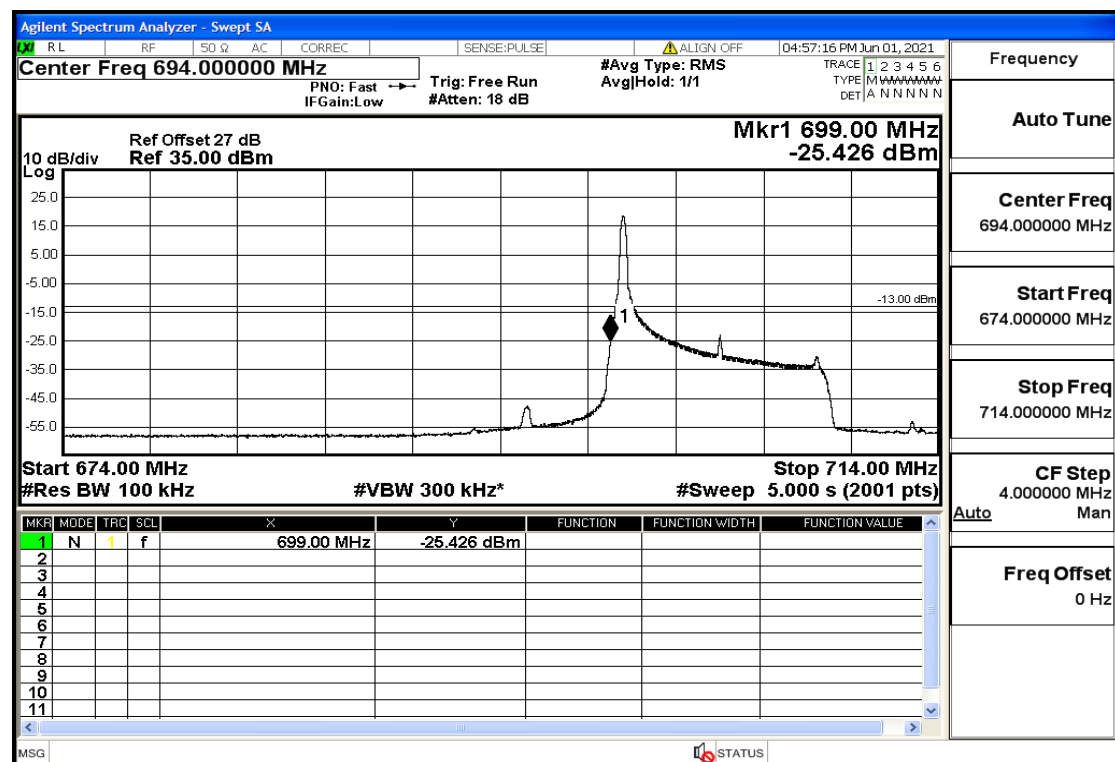
Band12-10-704-QPSK-1#LOW@Pass



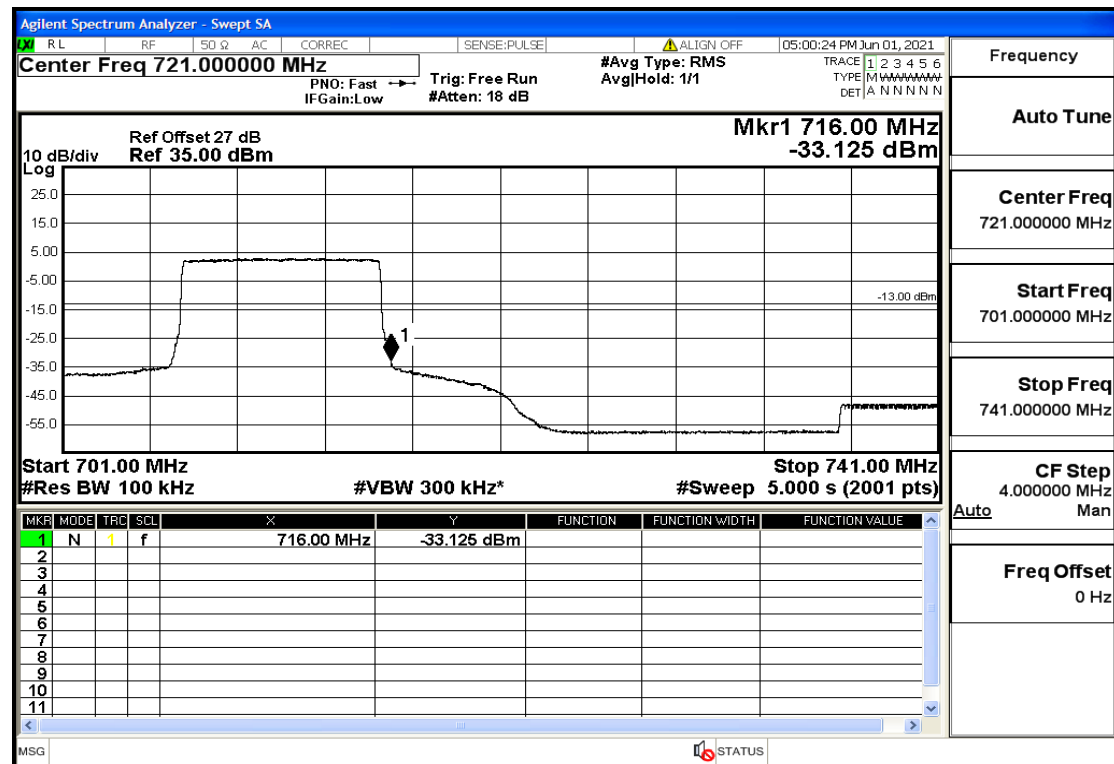
Band12-10-704-16QAM-50#LOW@Pass



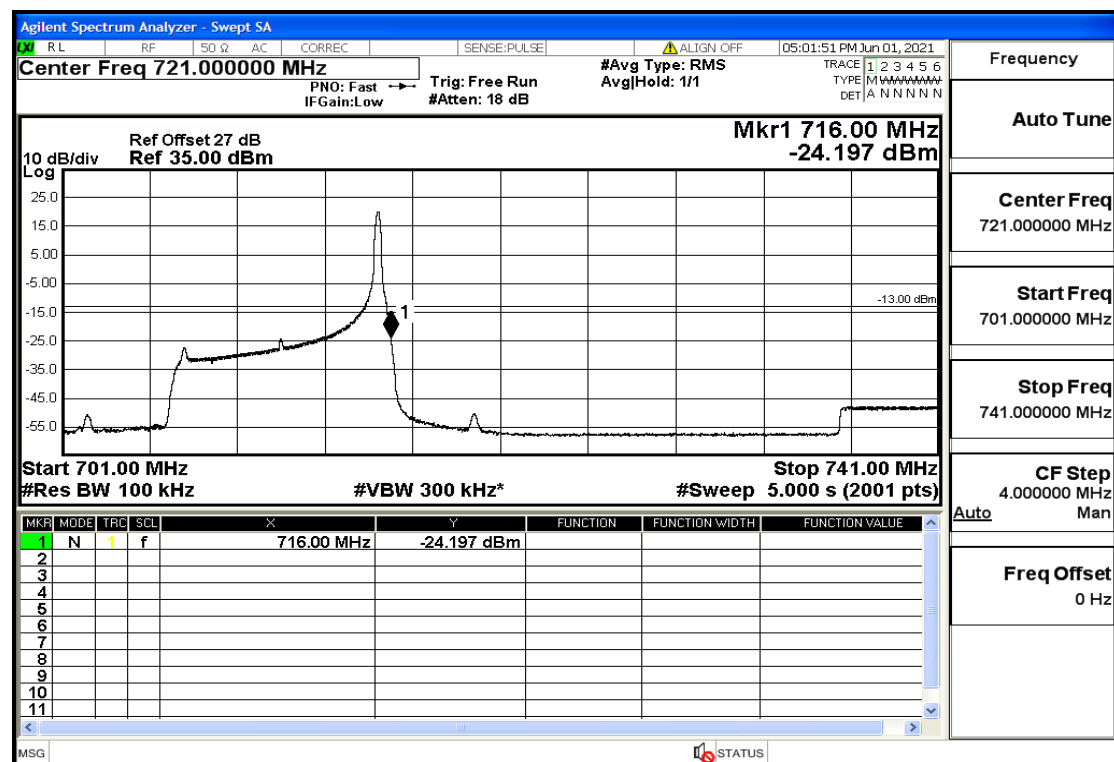
Band12-10-704-16QAM-1#LOW@Pass



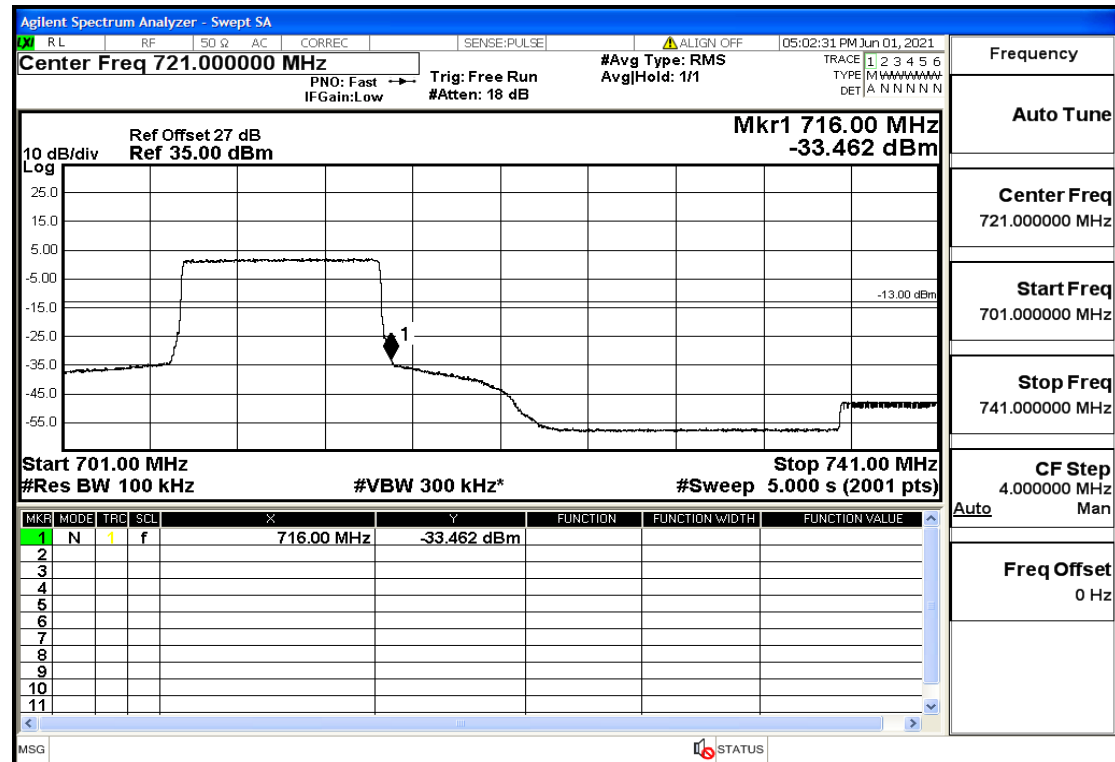
Band12-10-711-QPSK-50#LOW@Pass



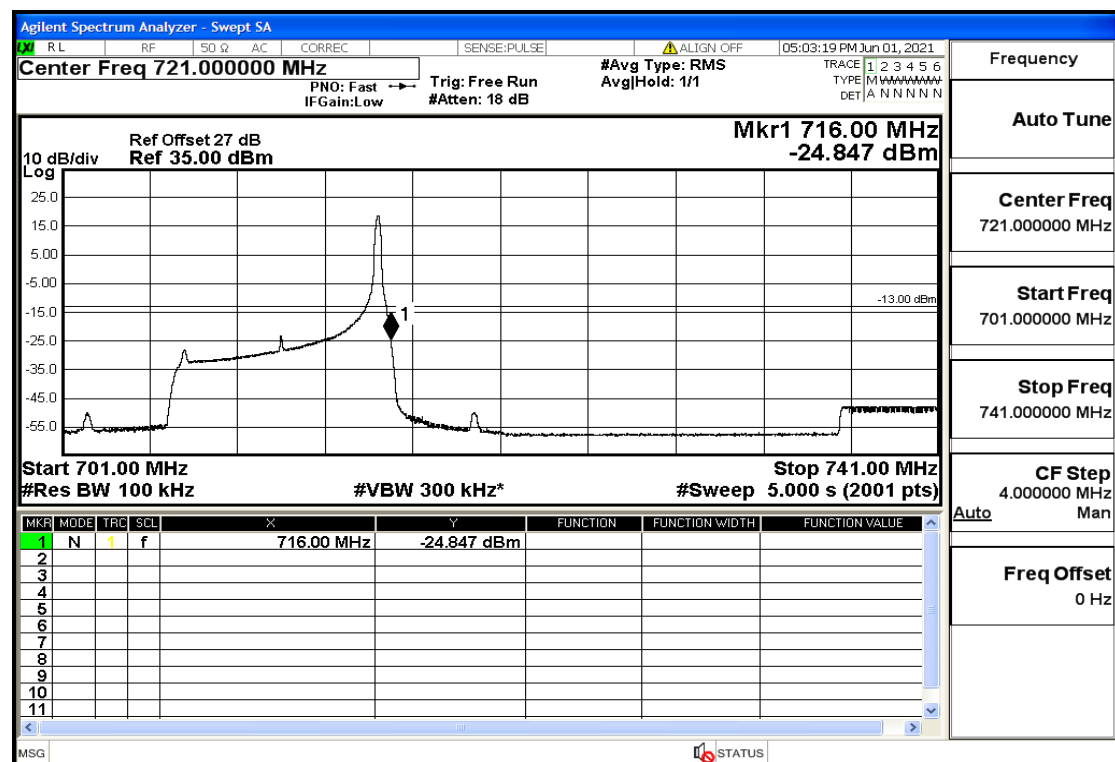
Band12-10-711-QPSK-1#HIGH@Pass



Band12-10-711-16QAM-50#LOW@Pass



Band12-10-711-16QAM-1#HIGH@Pass

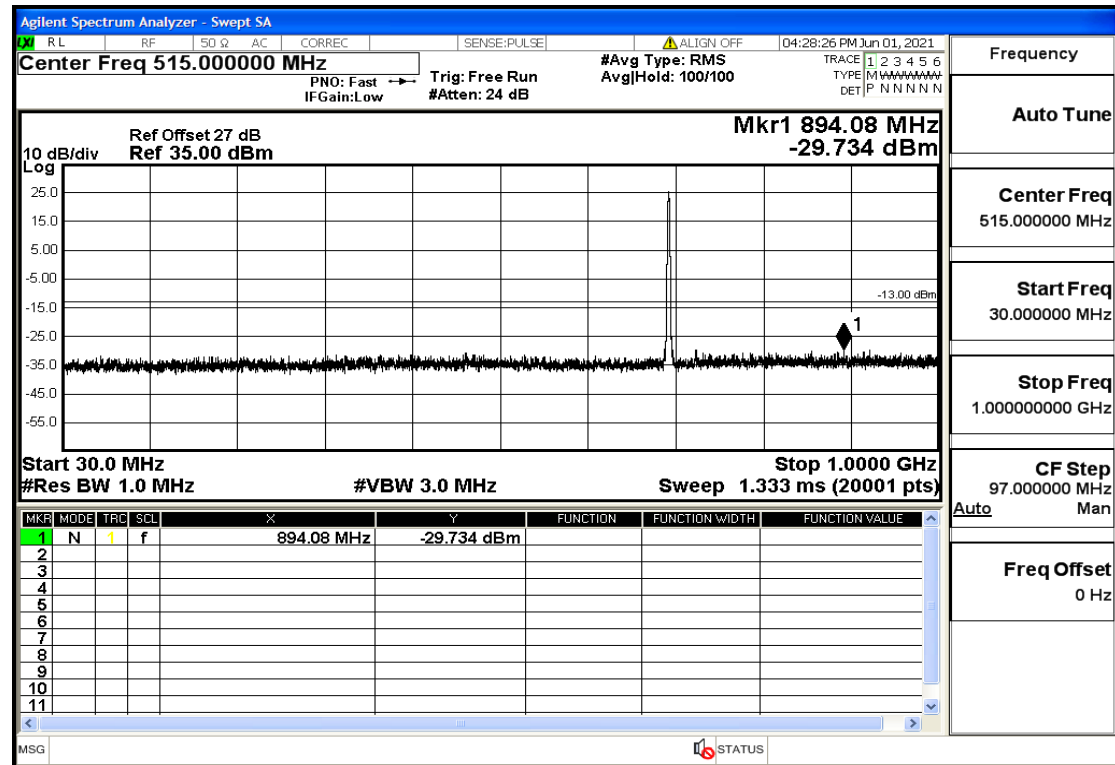


Conducted Spurious Emission

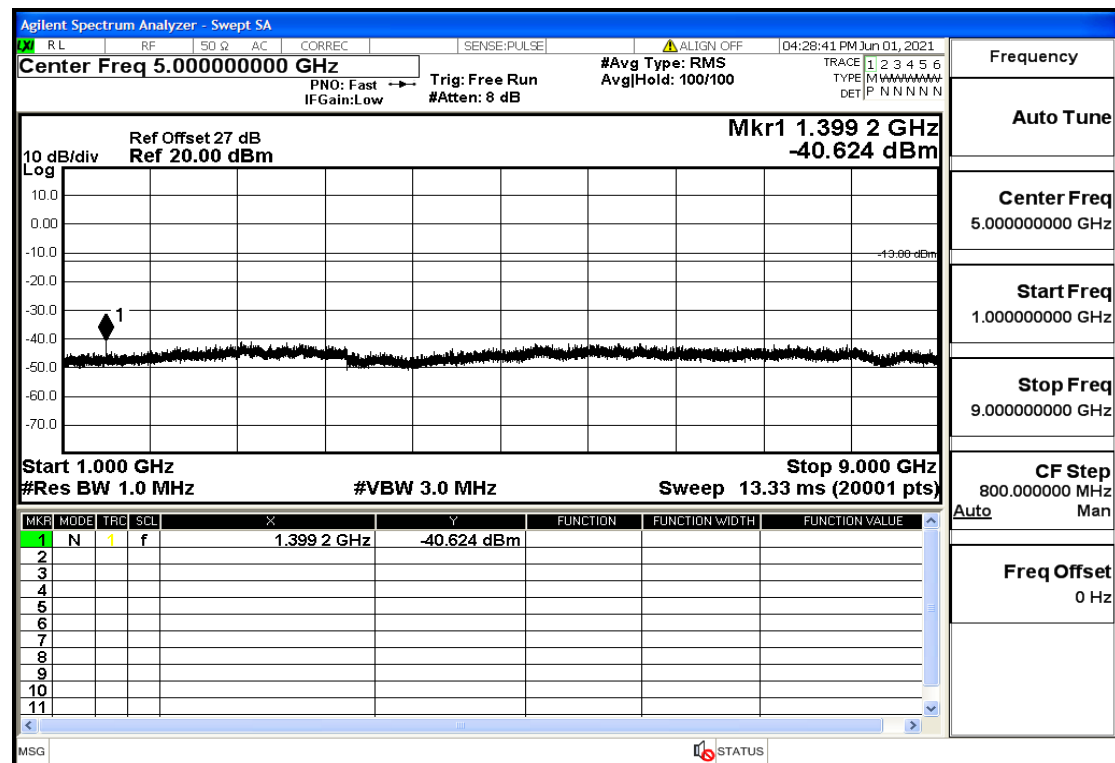
Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Test Condition	Transmitter Spurious Emission(Pass/Fail)
OB12	1.4	699.7	QPSK	6	LOW	30mHz-1GHz	Pass
OB12	1.4	699.7	QPSK	6	LOW	1GHz-9GHz	Pass
OB12	1.4	699.7	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	1.4	699.7	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	1.4	699.7	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	1.4	699.7	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	1.4	707.5	QPSK	6	LOW	30mHz-1GHz	Pass
OB12	1.4	707.5	QPSK	6	LOW	1GHz-9GHz	Pass
OB12	1.4	707.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	1.4	707.5	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	1.4	707.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	1.4	707.5	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	1.4	715.3	QPSK	6	LOW	30mHz-1GHz	Pass
OB12	1.4	715.3	QPSK	6	LOW	1GHz-9GHz	Pass
OB12	1.4	715.3	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	1.4	715.3	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	1.4	715.3	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	1.4	715.3	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	3	700.5	QPSK	15	LOW	30mHz-1GHz	Pass
OB12	3	700.5	QPSK	15	LOW	1GHz-9GHz	Pass
OB12	3	700.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	3	700.5	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	3	700.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	3	700.5	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	3	707.5	QPSK	15	LOW	30mHz-1GHz	Pass
OB12	3	707.5	QPSK	15	LOW	1GHz-9GHz	Pass
OB12	3	707.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	3	707.5	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	3	707.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	3	707.5	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	3	714.5	QPSK	15	LOW	30mHz-1GHz	Pass
OB12	3	714.5	QPSK	15	LOW	1GHz-9GHz	Pass
OB12	3	714.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	3	714.5	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	3	714.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	3	714.5	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	5	701.5	QPSK	25	LOW	30mHz-1GHz	Pass
OB12	5	701.5	QPSK	25	LOW	1GHz-9GHz	Pass
OB12	5	701.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	5	701.5	QPSK	1	LOW	1GHz-9GHz	Pass

OB12	5	701.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	5	701.5	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	5	707.5	QPSK	25	LOW	30mHz-1GHz	Pass
OB12	5	707.5	QPSK	25	LOW	1GHz-9GHz	Pass
OB12	5	707.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	5	707.5	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	5	707.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	5	707.5	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	5	713.5	QPSK	25	LOW	30mHz-1GHz	Pass
OB12	5	713.5	QPSK	25	LOW	1GHz-9GHz	Pass
OB12	5	713.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	5	713.5	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	5	713.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	5	713.5	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	10	704	QPSK	50	LOW	30mHz-1GHz	Pass
OB12	10	704	QPSK	50	LOW	1GHz-9GHz	Pass
OB12	10	704	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	10	704	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	10	704	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	10	704	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	10	707.5	QPSK	50	LOW	30mHz-1GHz	Pass
OB12	10	707.5	QPSK	50	LOW	1GHz-9GHz	Pass
OB12	10	707.5	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	10	707.5	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	10	707.5	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	10	707.5	QPSK	1	HIGH	1GHz-9GHz	Pass
OB12	10	711	QPSK	50	LOW	30mHz-1GHz	Pass
OB12	10	711	QPSK	50	LOW	1GHz-9GHz	Pass
OB12	10	711	QPSK	1	LOW	30mHz-1GHz	Pass
OB12	10	711	QPSK	1	LOW	1GHz-9GHz	Pass
OB12	10	711	QPSK	1	HIGH	30mHz-1GHz	Pass
OB12	10	711	QPSK	1	HIGH	1GHz-9GHz	Pass

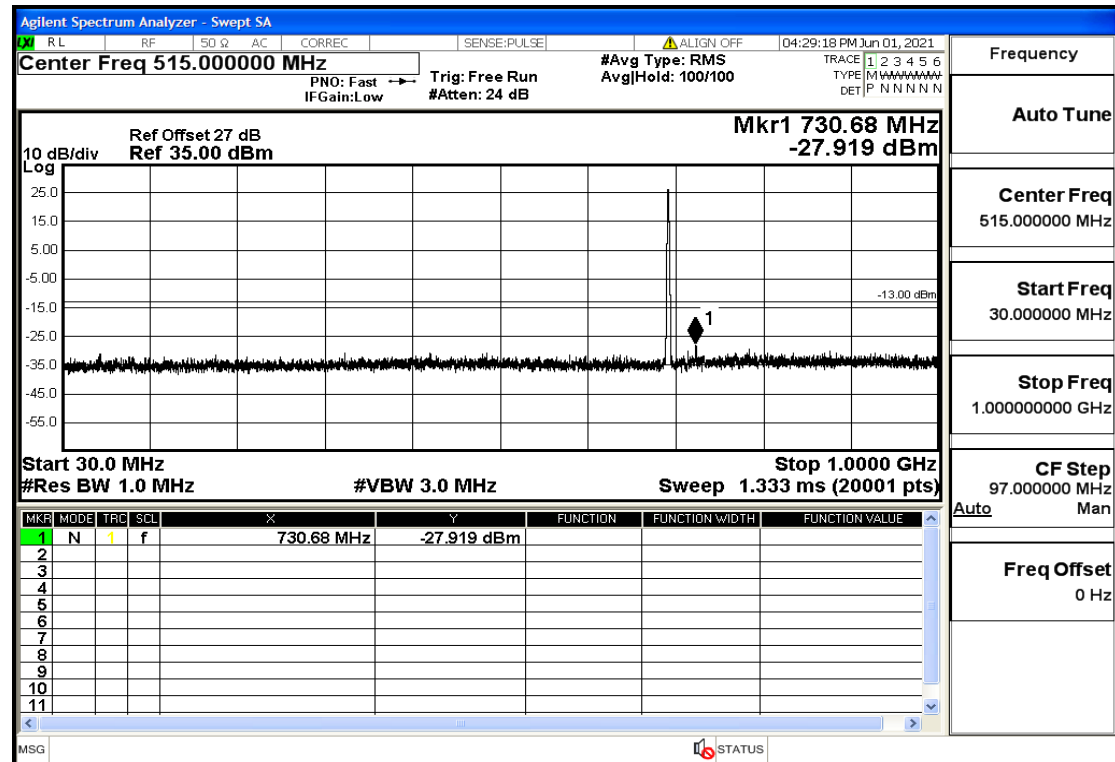
OB12-1.4-699.7-QPSK-6#LOW@30mHz-1GHz@Pass



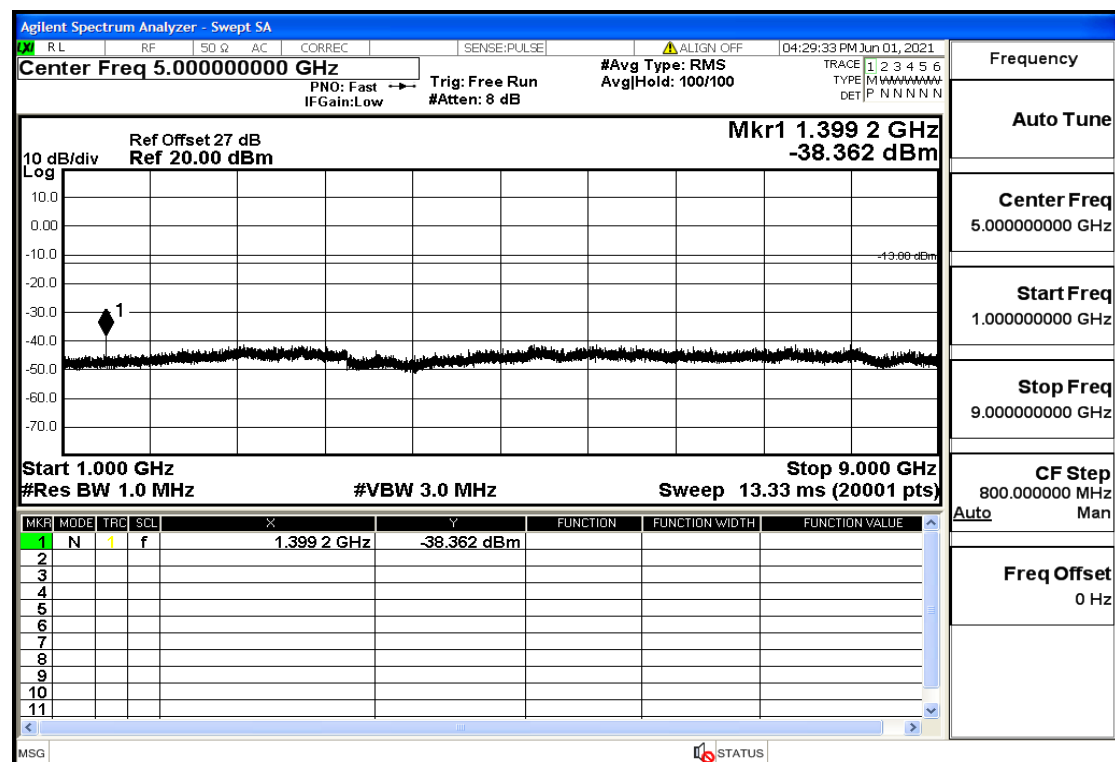
OB12-1.4-699.7-QPSK-6#LOW@1GHz-9GHz@Pass



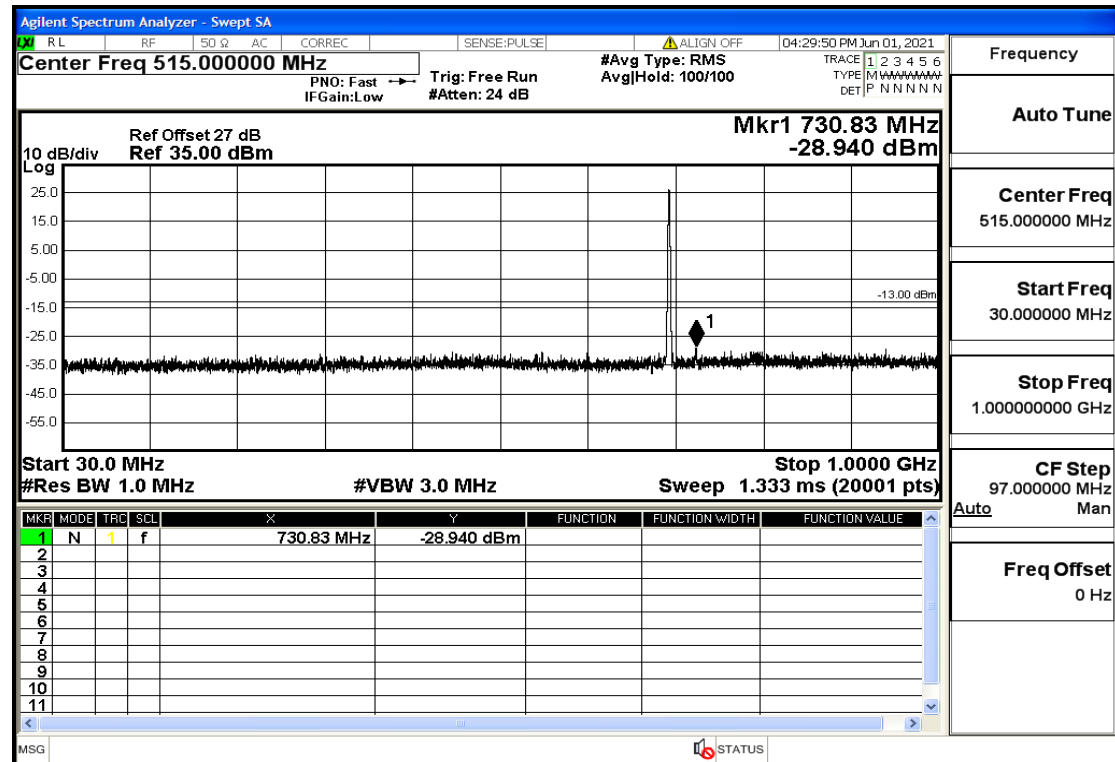
OB12-1.4-699.7-QPSK-1#LOW@30mHz-1GHz@Pass



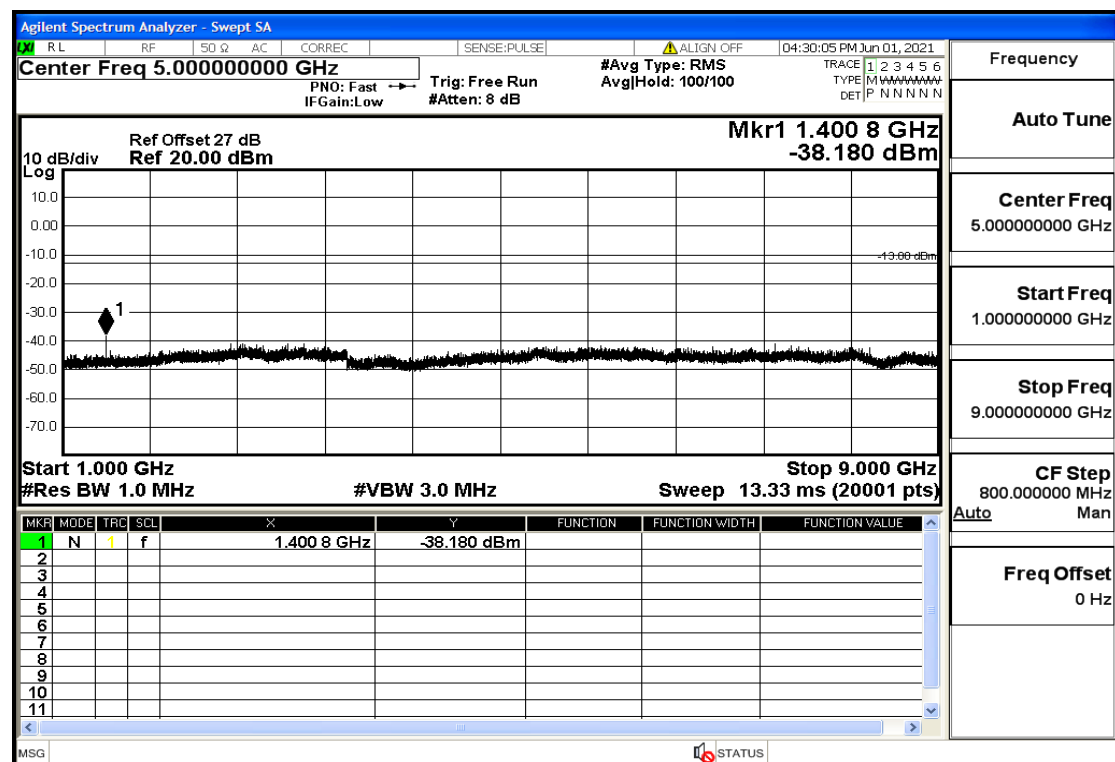
OB12-1.4-699.7-QPSK-1#LOW@1GHz-9GHz@Pass



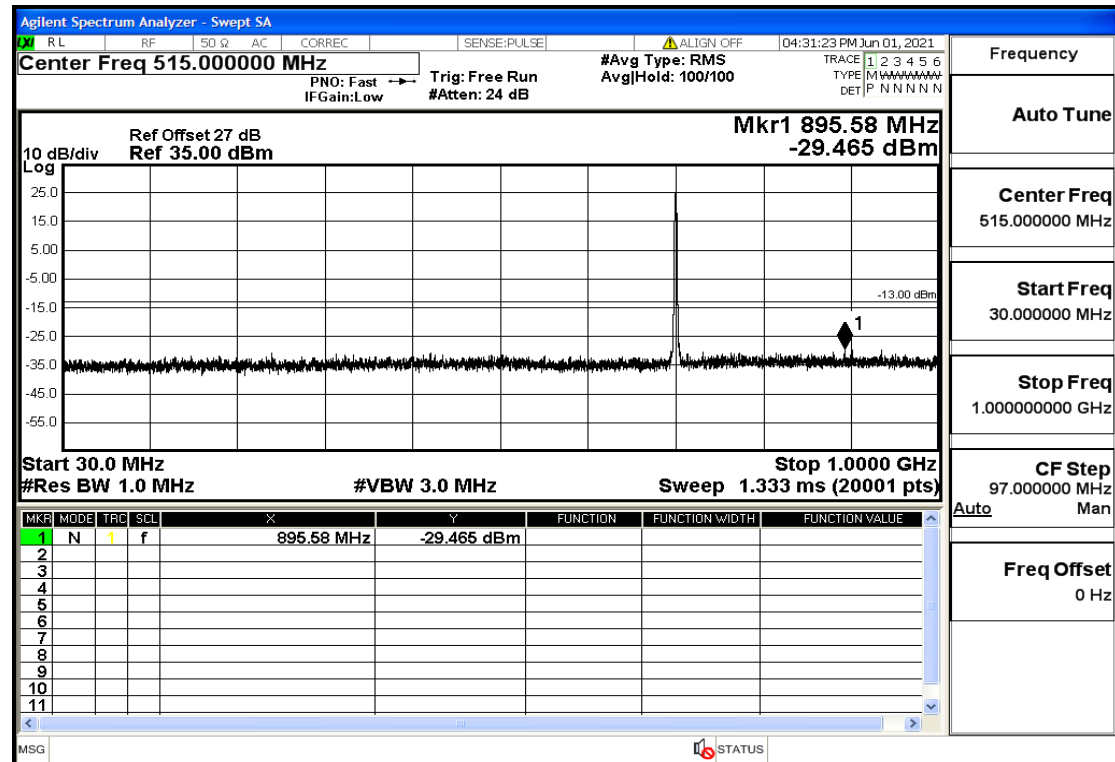
OB12-1.4-699.7-QPSK-1#HIGH@30mHz-1GHz@Pass



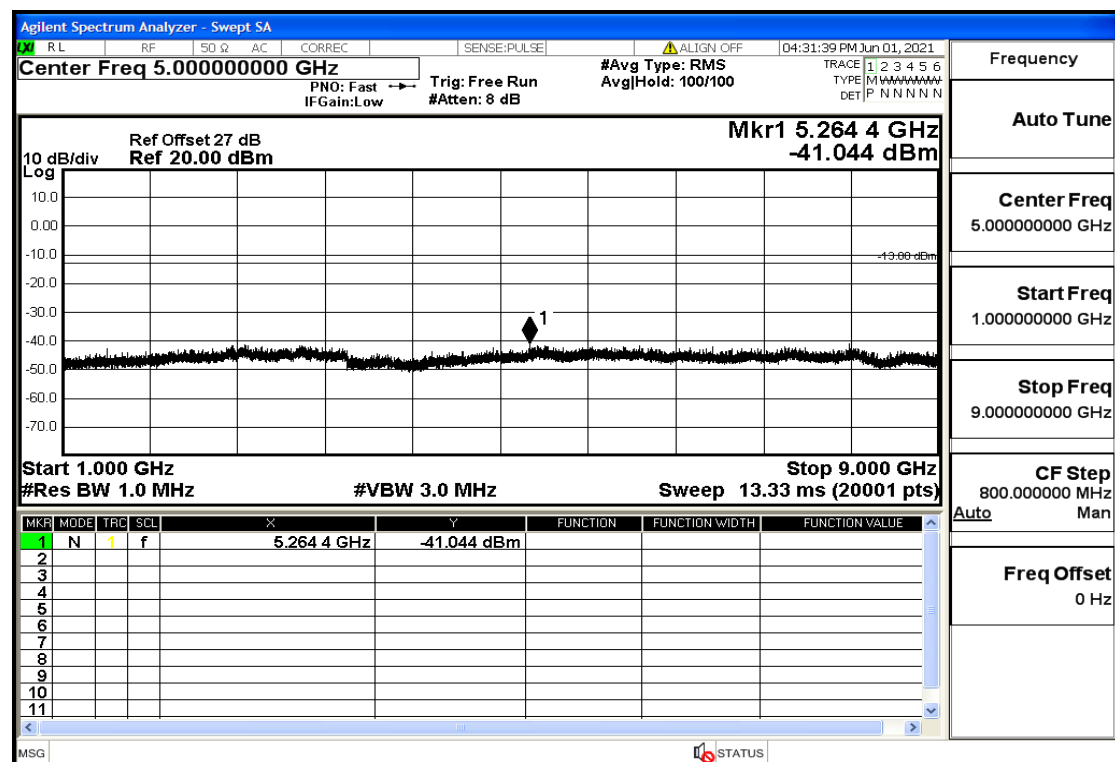
OB12-1.4-699.7-QPSK-1#HIGH@1GHz-9GHz@Pass



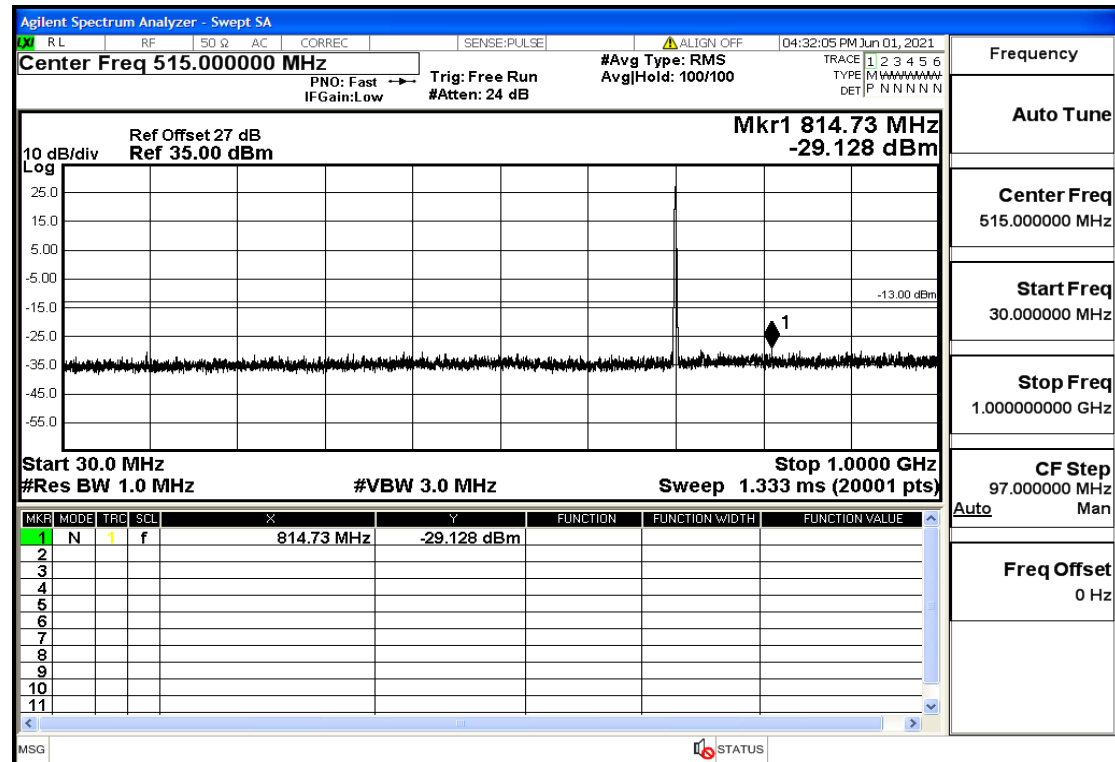
OB12-1.4-707.5-QPSK-6#LOW@30mHz-1GHz@Pass



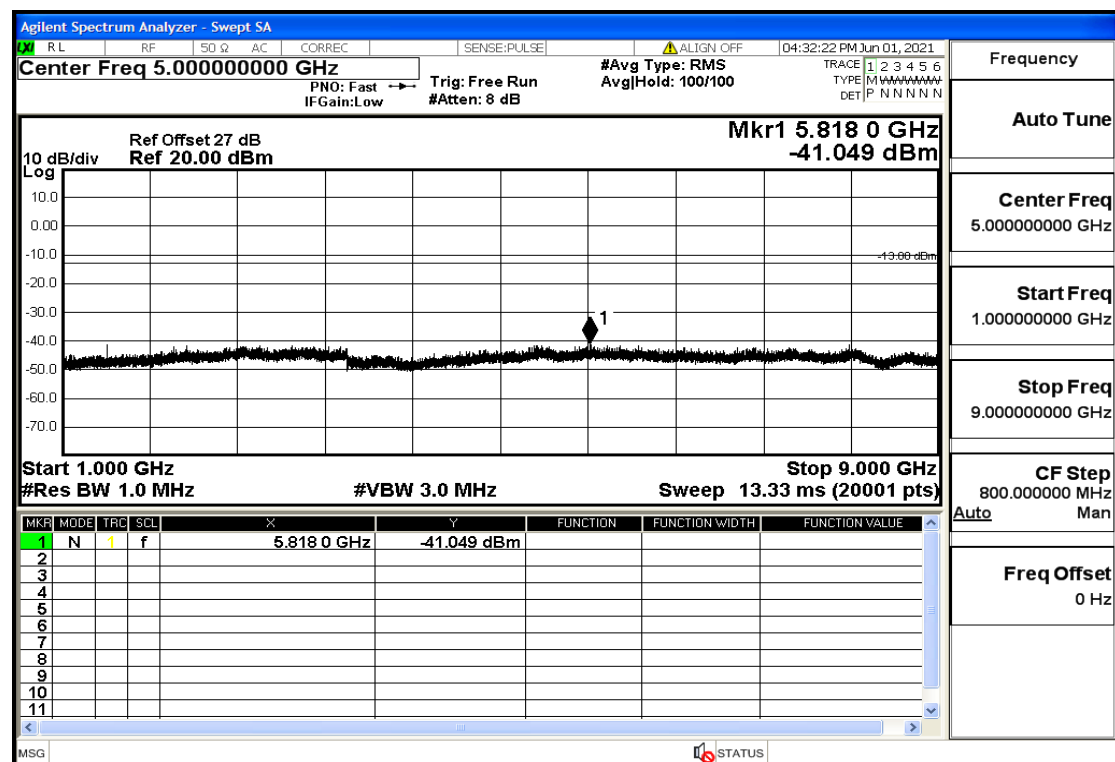
OB12-1.4-707.5-QPSK-6#LOW@1GHz-9GHz@Pass



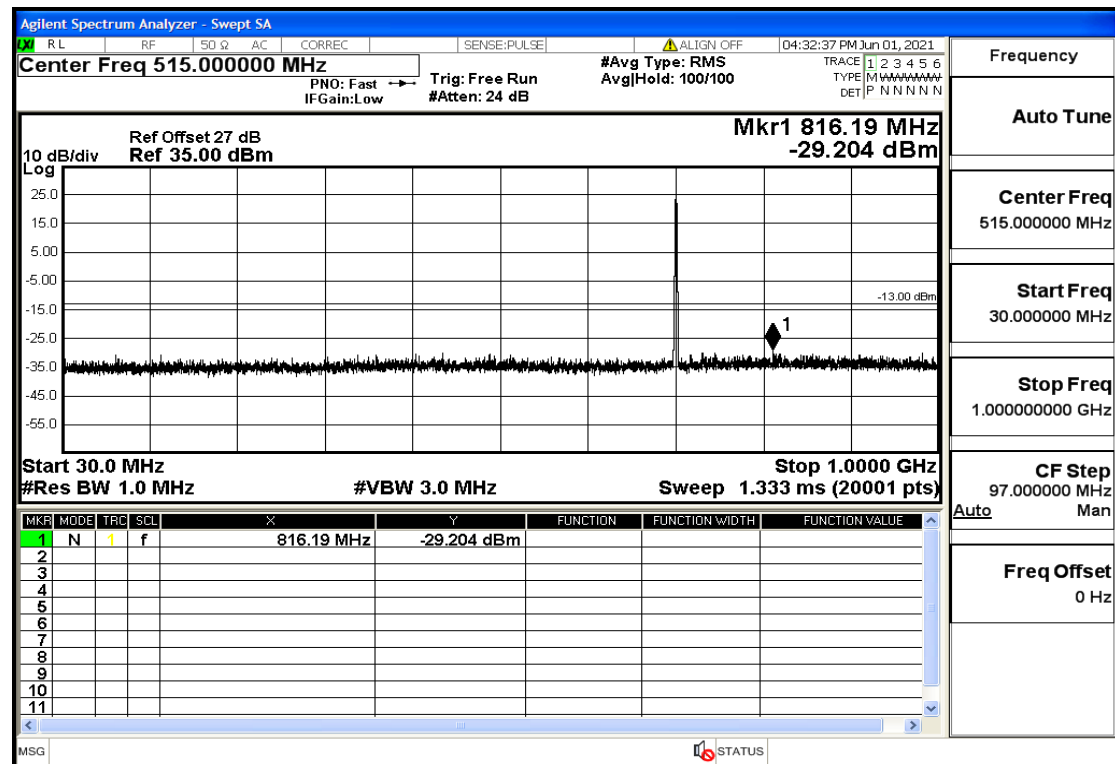
OB12-1.4-707.5-QPSK-1#LOW@30mHz-1GHz@Pass



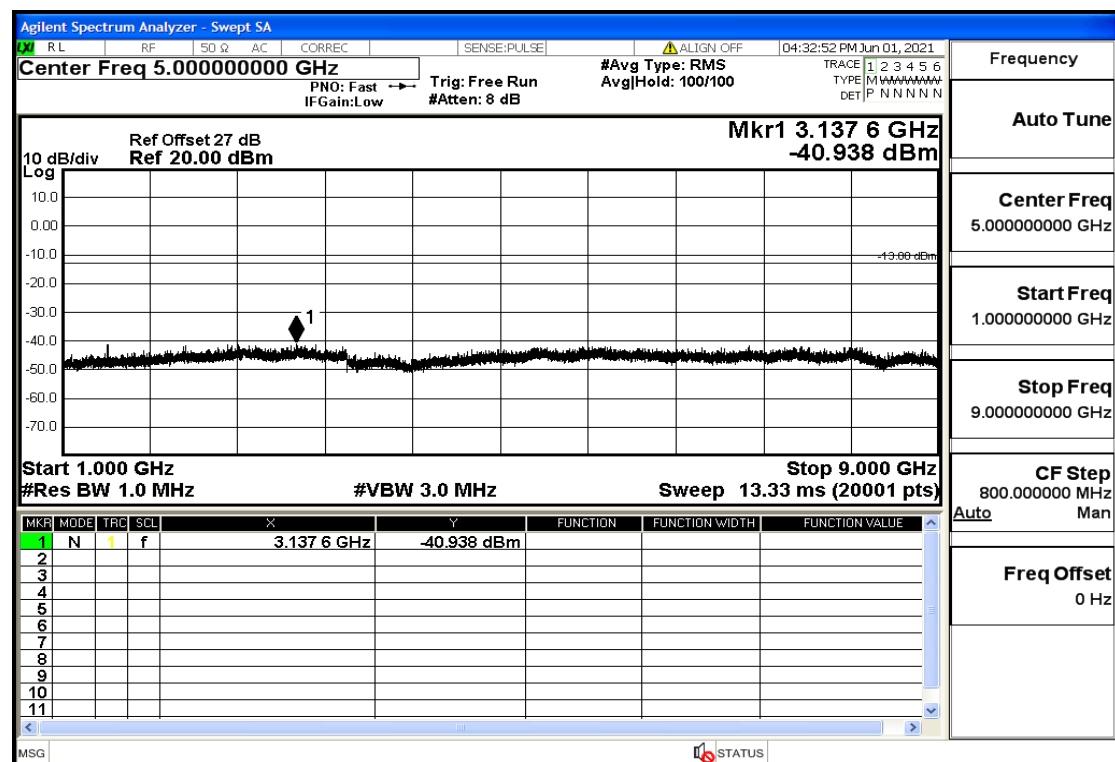
OB12-1.4-707.5-QPSK-1#LOW@1GHz-9GHz@Pass



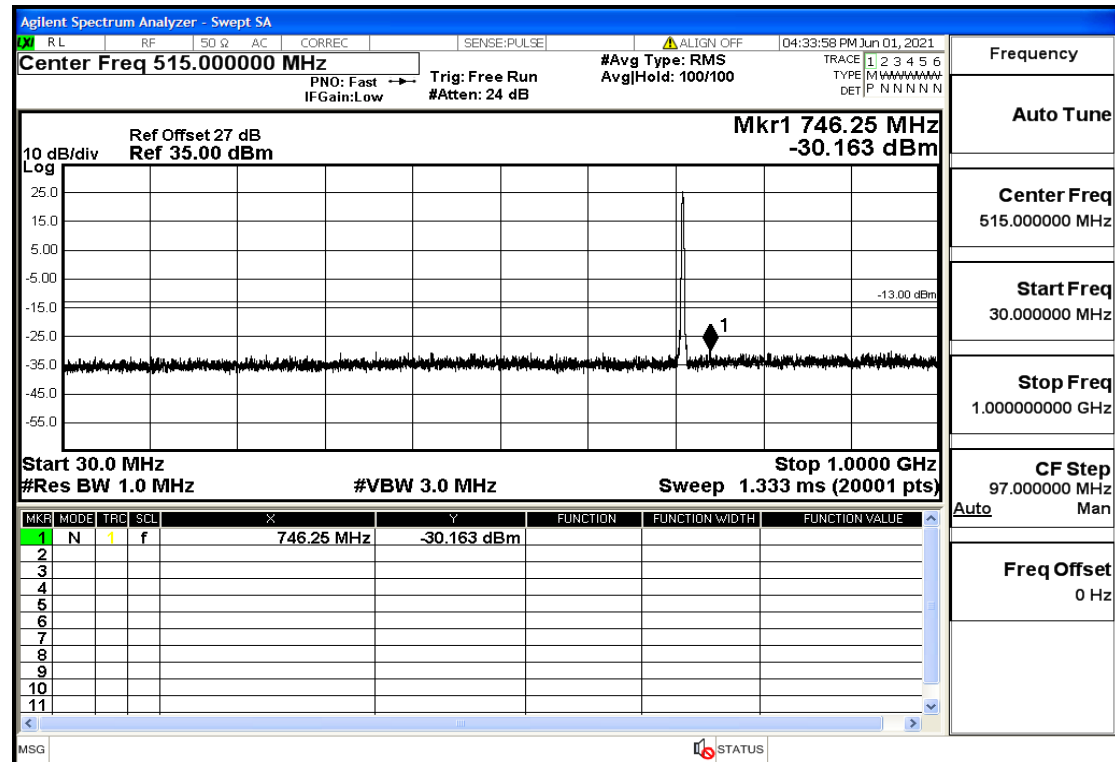
OB12-1.4-707.5-QPSK-1#HIGH@30mHz-1GHz@Pass



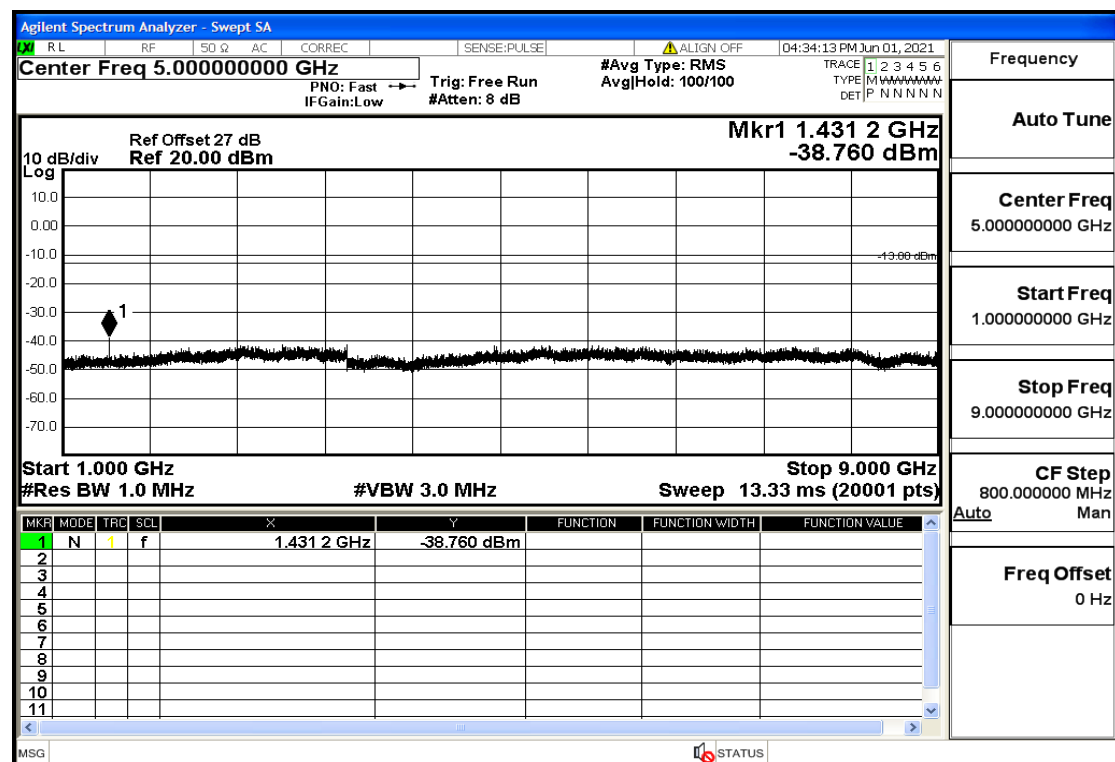
OB12-1.4-707.5-QPSK-1#HIGH@1GHz-9GHz@Pass



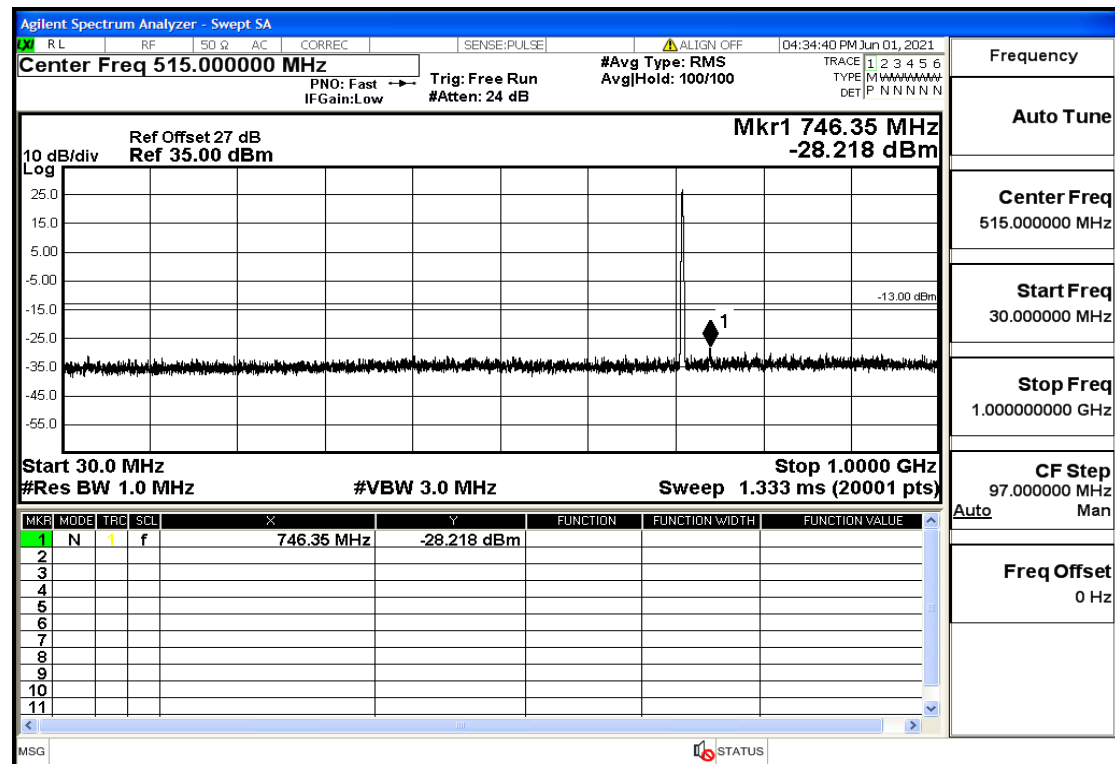
OB12-1.4-715.3-QPSK-6#LOW@30mHz-1GHz@Pass



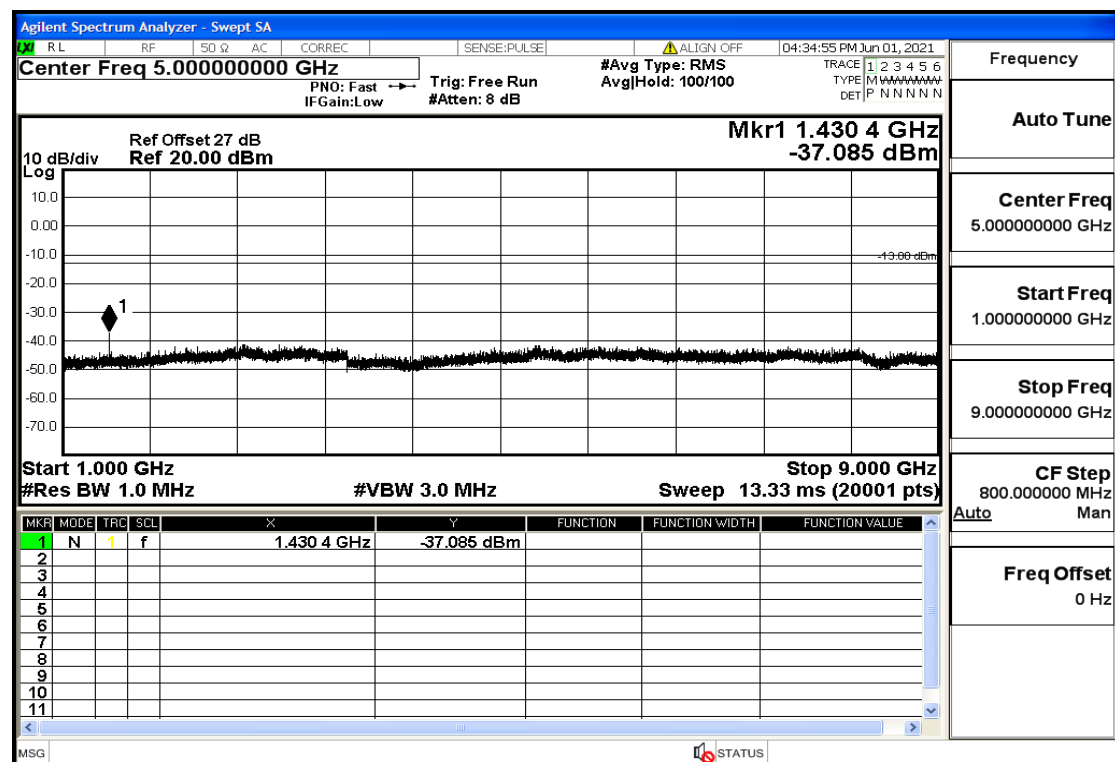
OB12-1.4-715.3-QPSK-6#LOW@1GHz-9GHz@Pass



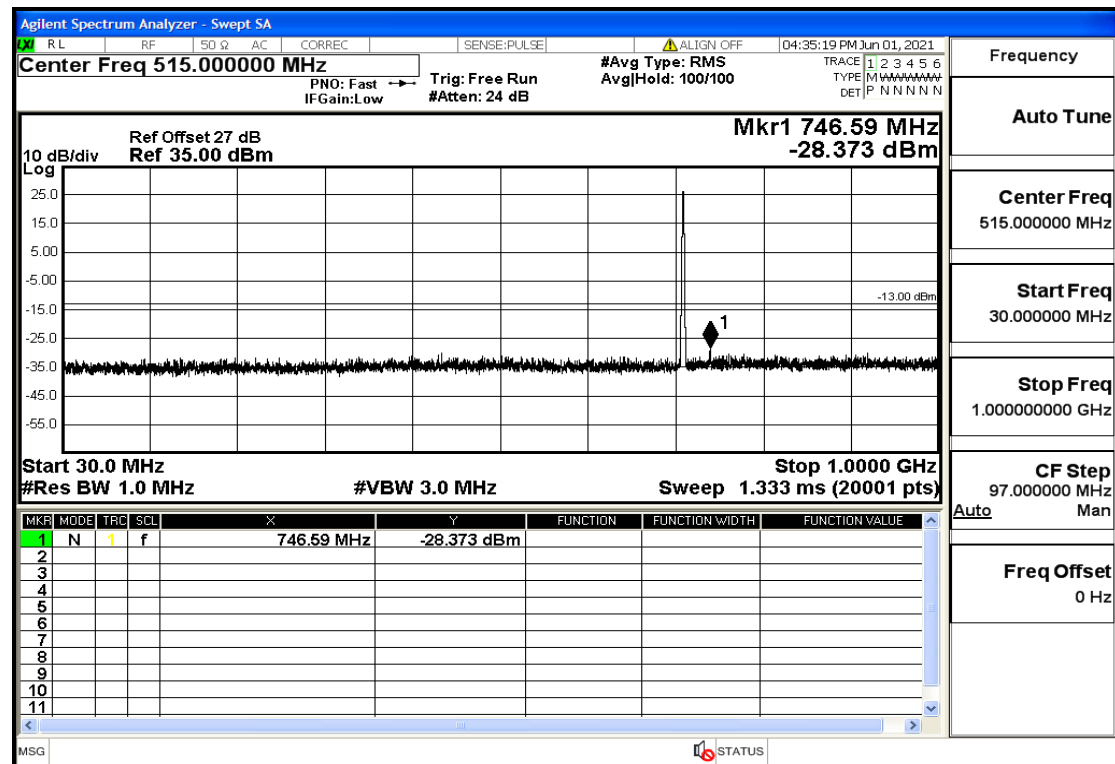
OB12-1.4-715.3-QPSK-1#LOW@30mHz-1GHz@Pass



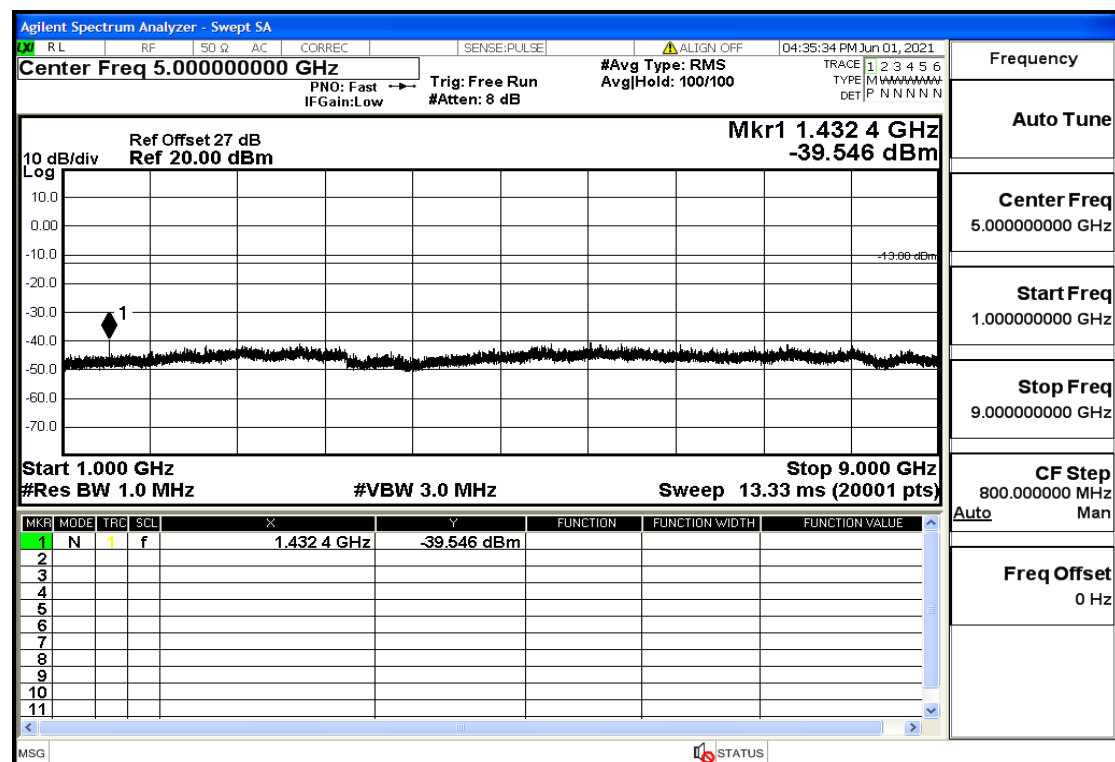
OB12-1.4-715.3-QPSK-1#LOW@1GHz-9GHz@Pass



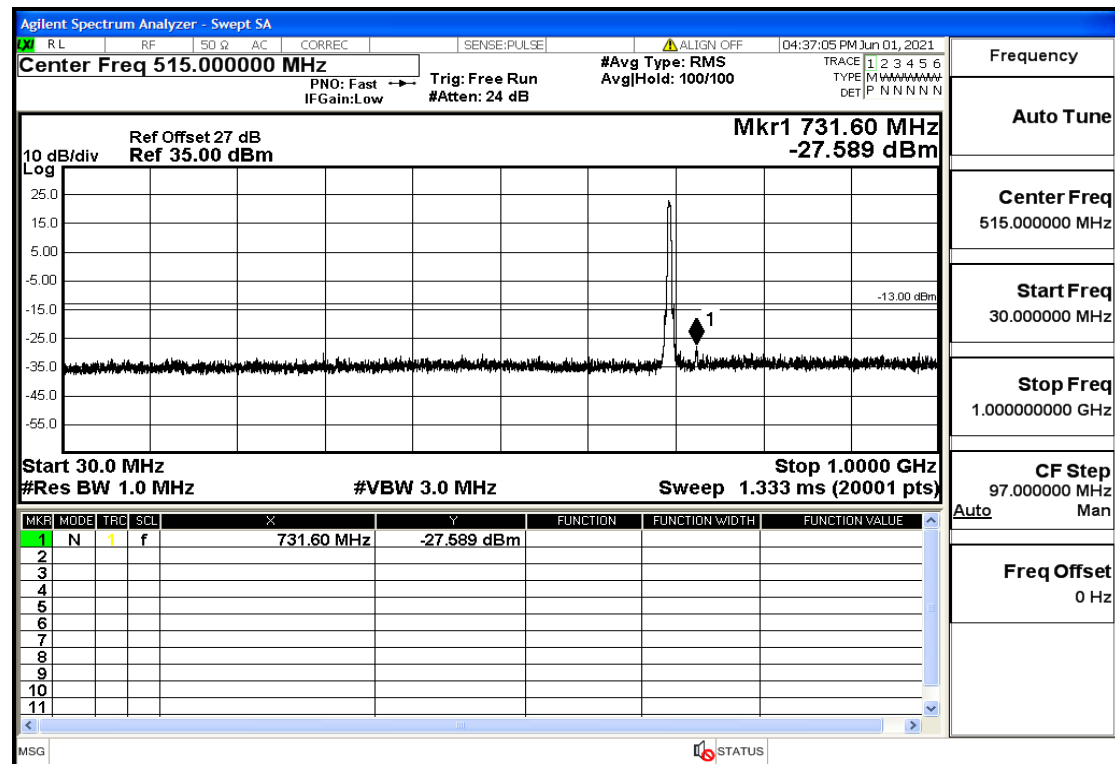
OB12-1.4-715.3-QPSK-1#HIGH@30mHz-1GHz@Pass



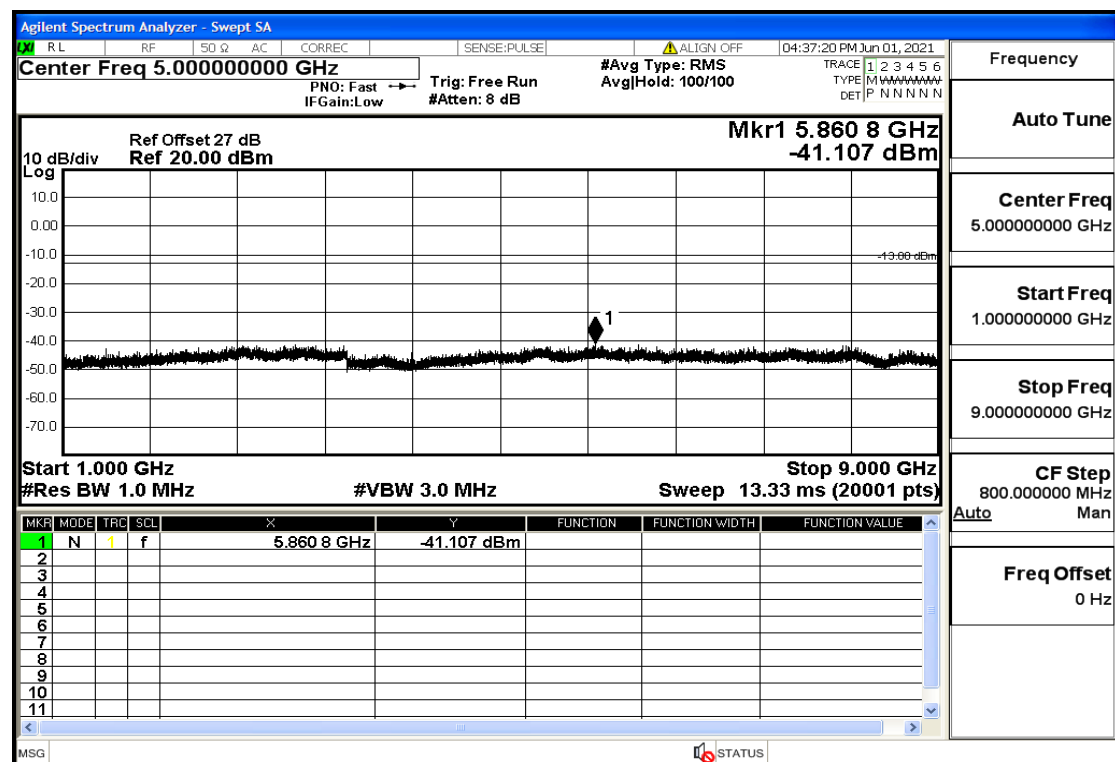
OB12-1.4-715.3-QPSK-1#HIGH@1GHz-9GHz@Pass



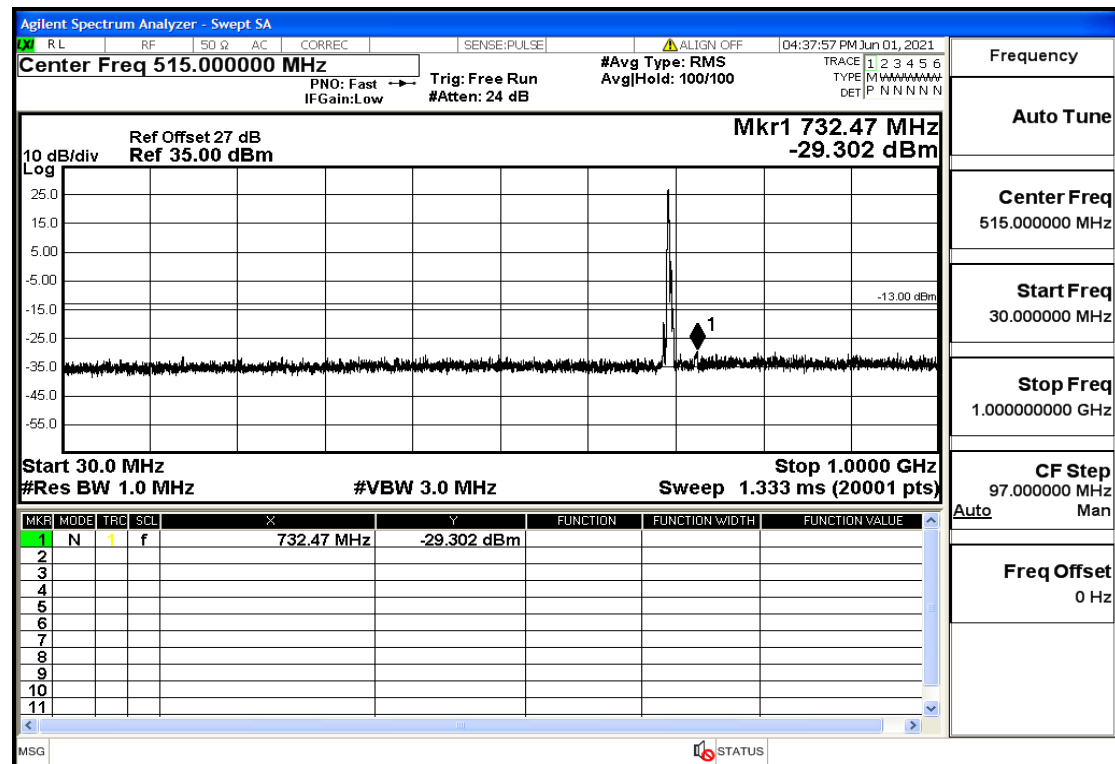
OB12-3-700.5-QPSK-15#LOW@30mHz-1GHz@Pass



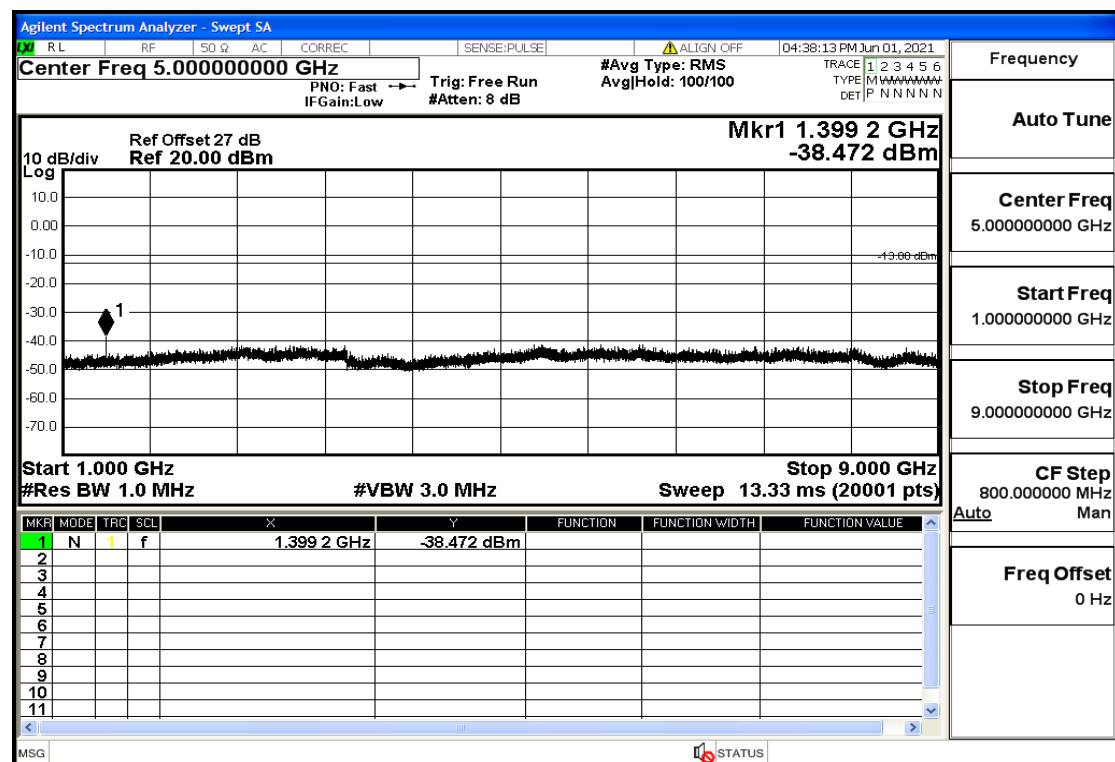
OB12-3-700.5-QPSK-15#LOW@1GHz-9GHz@Pass



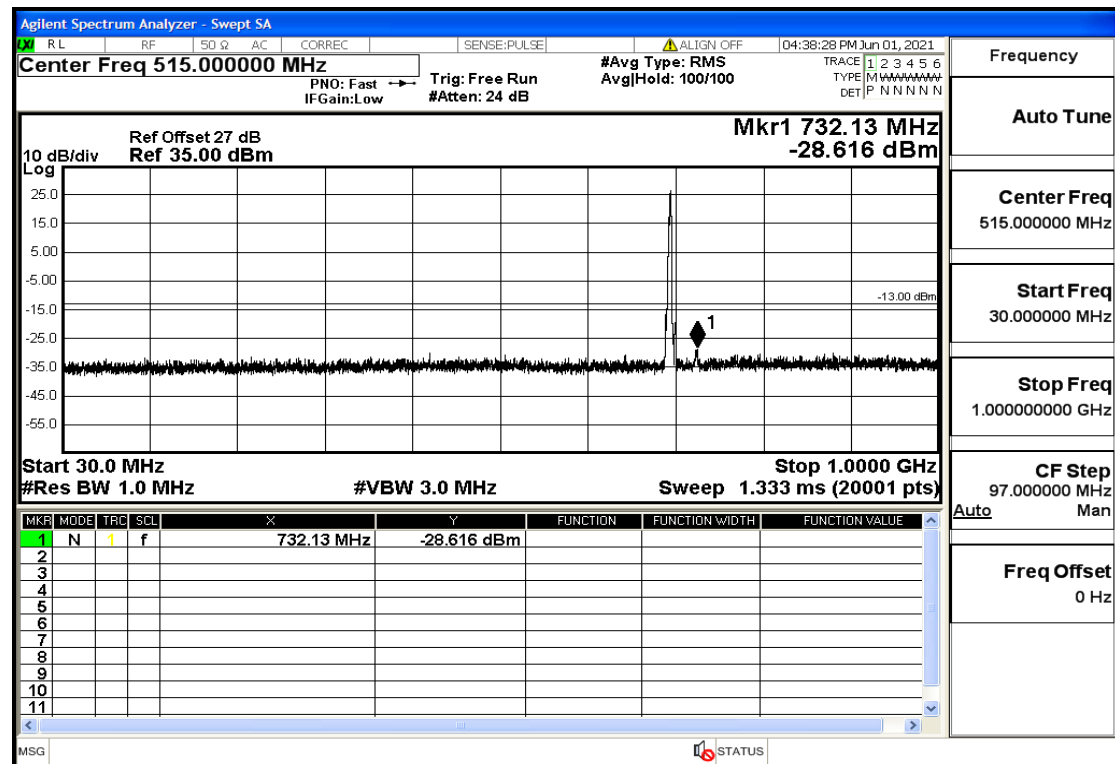
OB12-3-700.5-QPSK-1#LOW@30mHz-1GHz@Pass



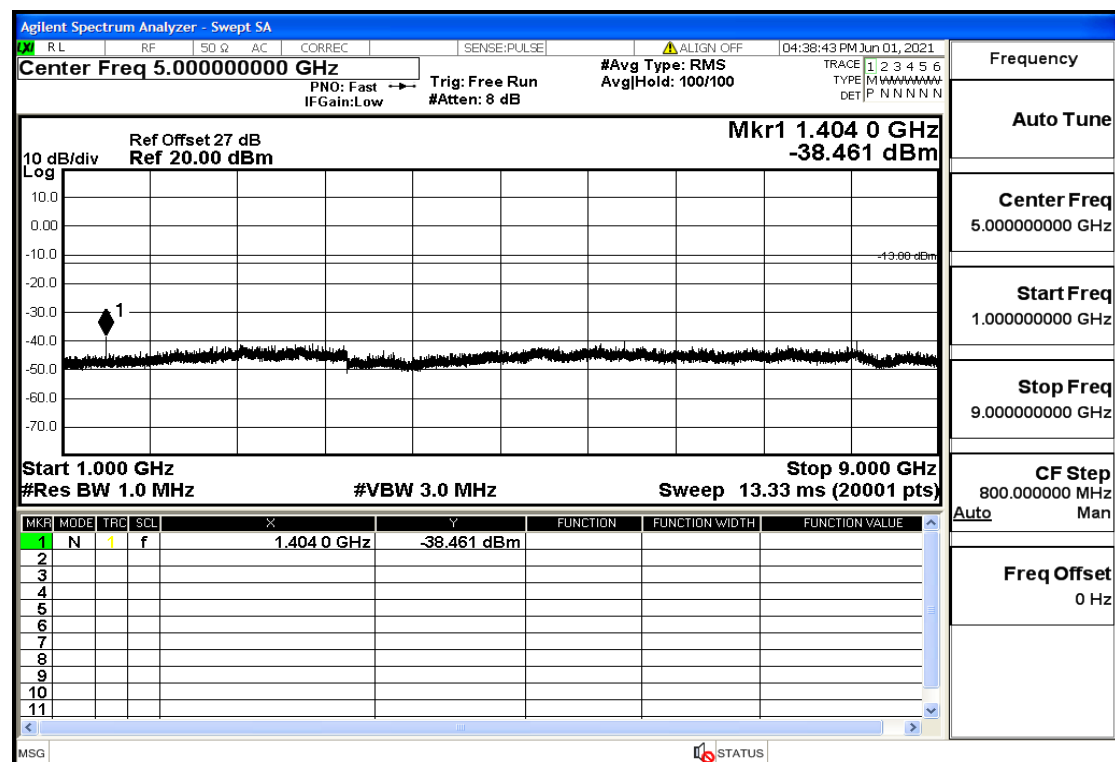
OB12-3-700.5-QPSK-1#LOW@1GHz-9GHz@Pass



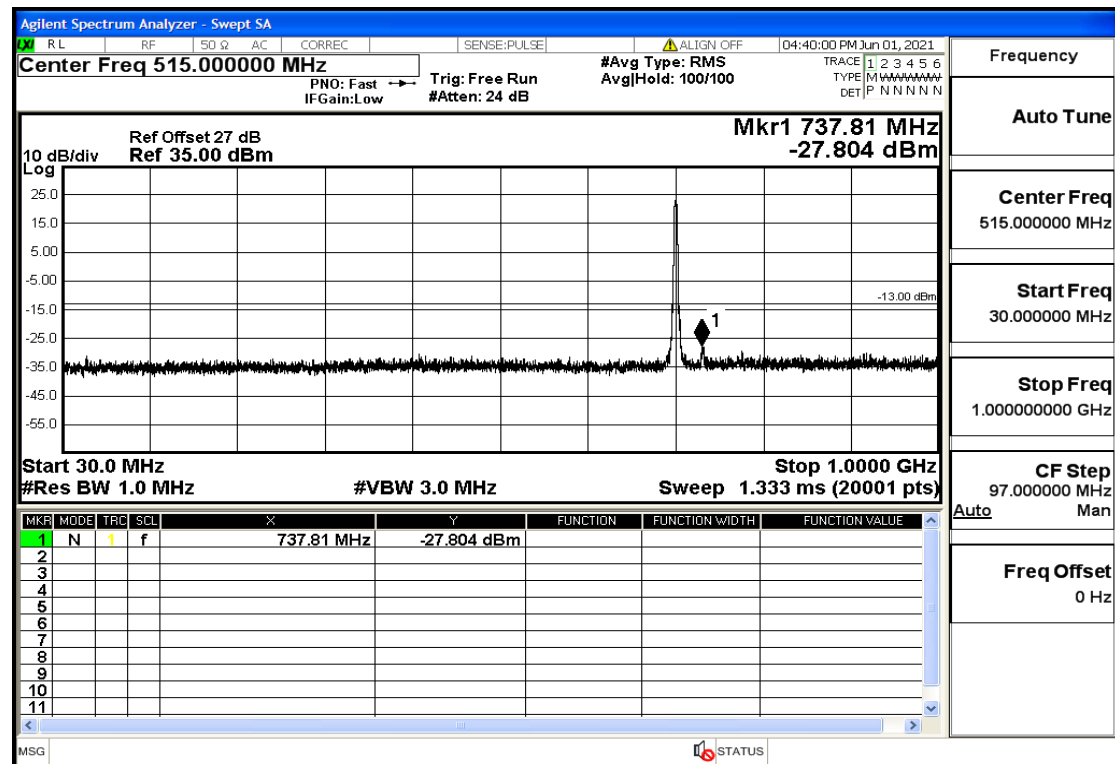
OB12-3-700.5-QPSK-1#HIGH@30mHz-1GHz@Pass



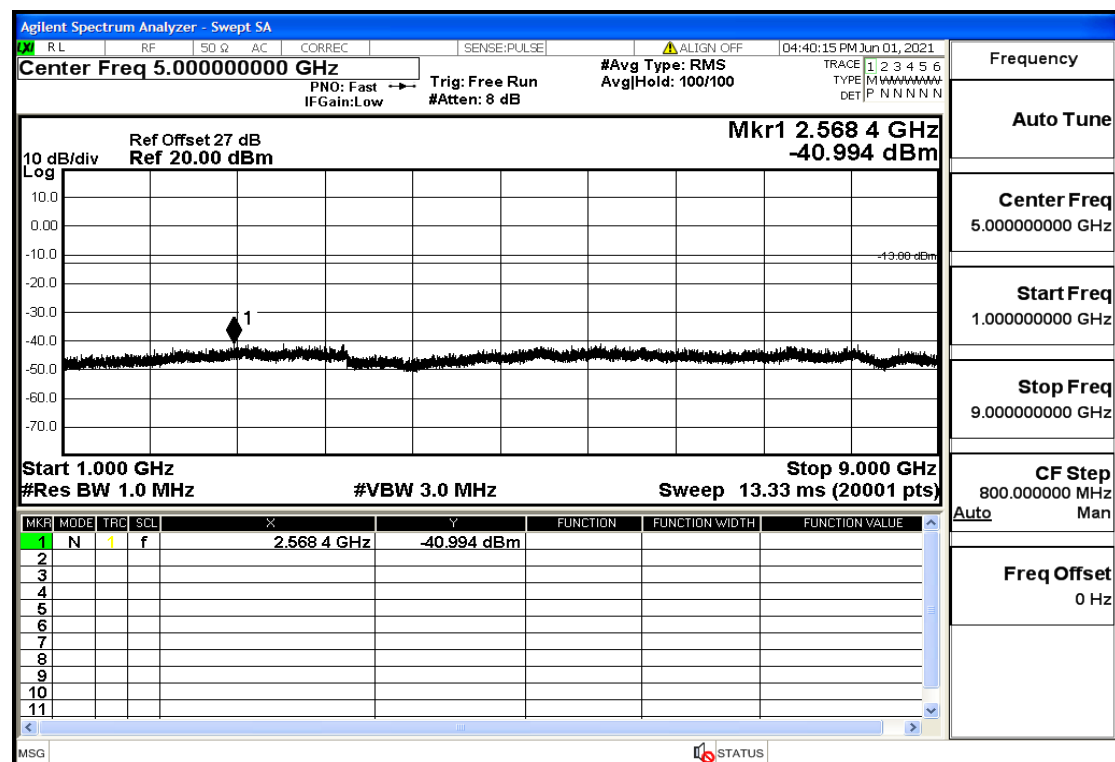
OB12-3-700.5-QPSK-1#HIGH@1GHz-9GHz@Pass



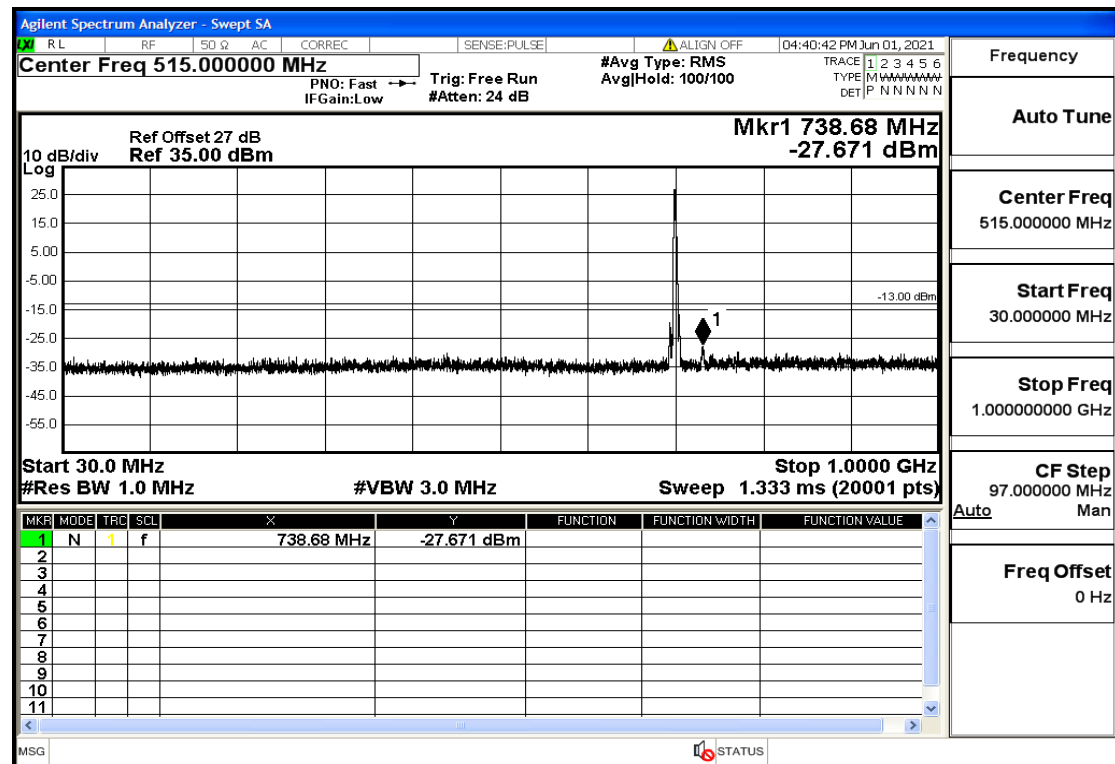
OB12-3-707.5-QPSK-15#LOW@30mHz-1GHz@Pass



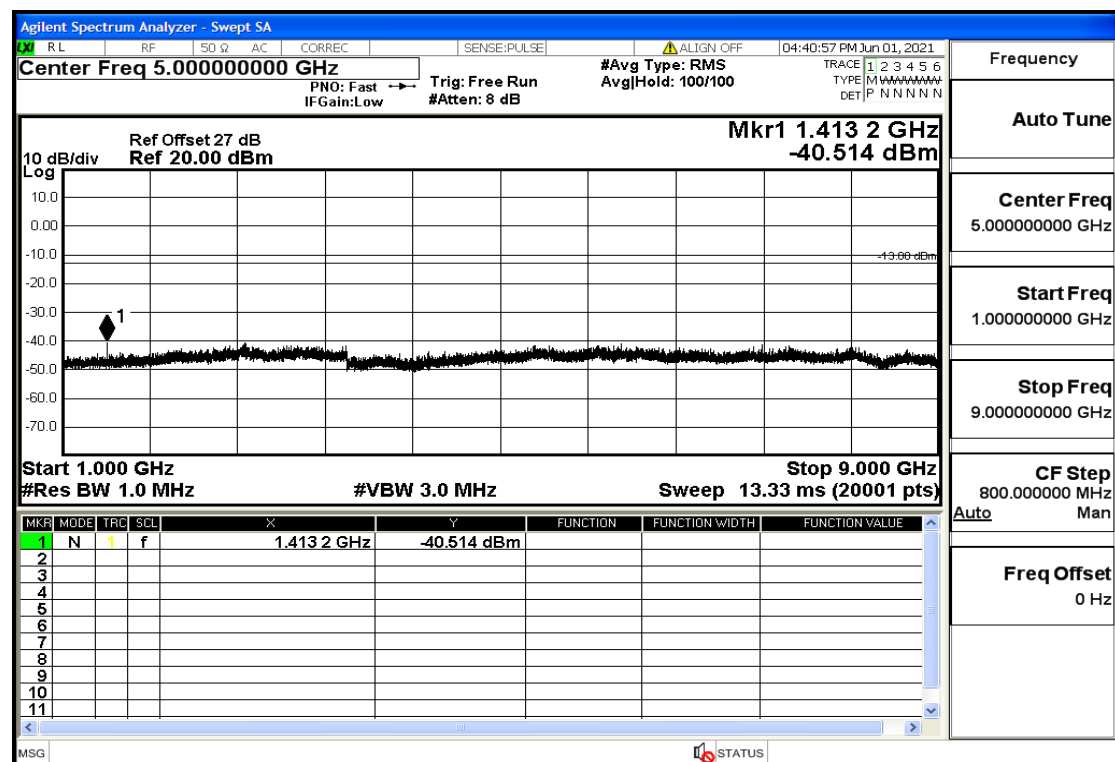
OB12-3-707.5-QPSK-15#LOW@1GHz-9GHz@Pass



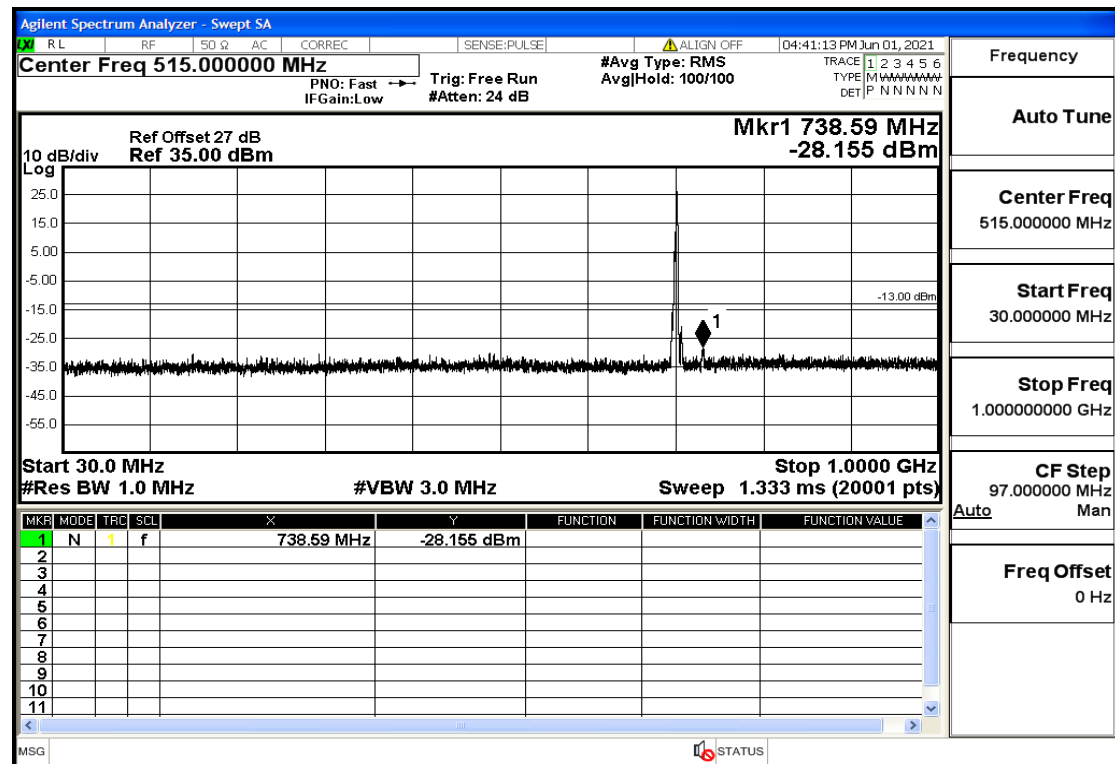
OB12-3-707.5-QPSK-1#LOW@30mHz-1GHz@Pass



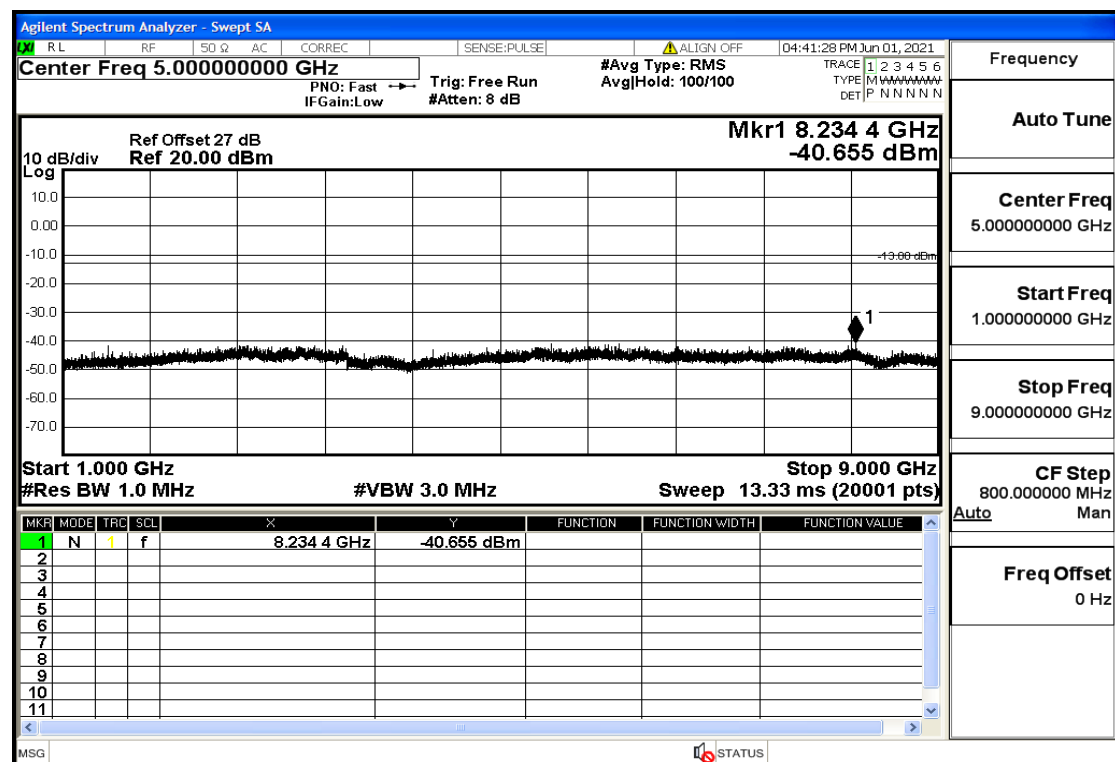
OB12-3-707.5-QPSK-1#LOW@1GHz-9GHz@Pass



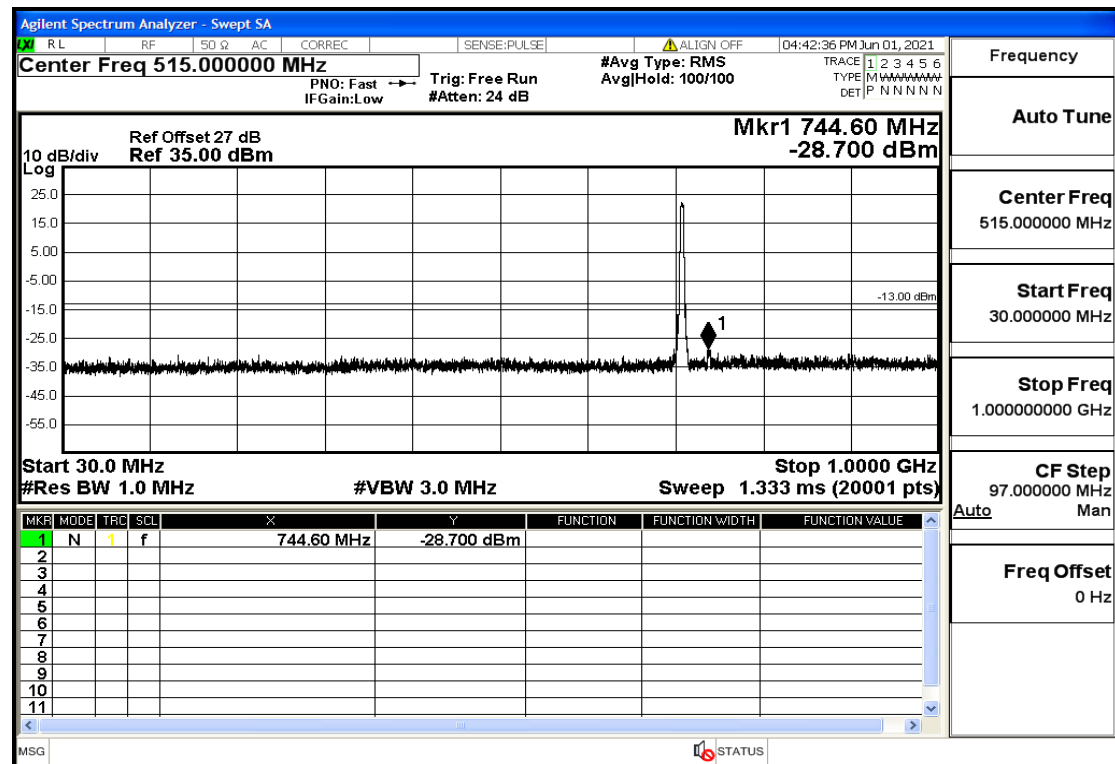
OB12-3-707.5-QPSK-1#HIGH@30mHz-1GHz@Pass



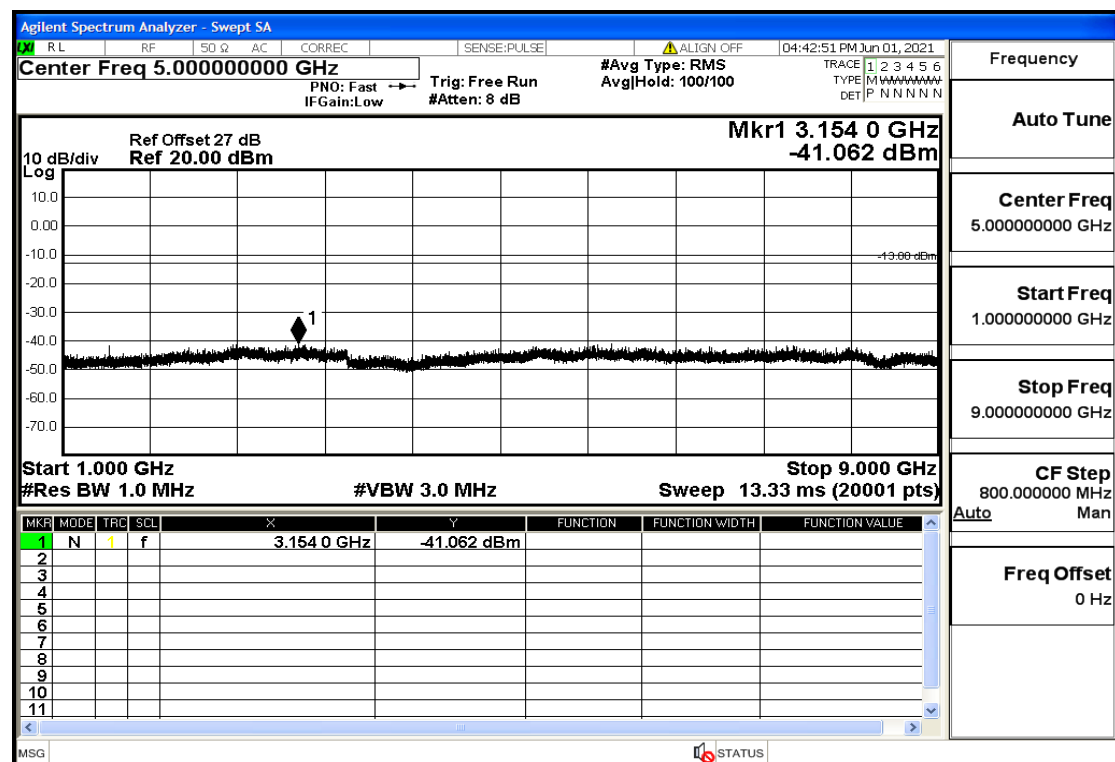
OB12-3-707.5-QPSK-1#HIGH@1GHz-9GHz@Pass



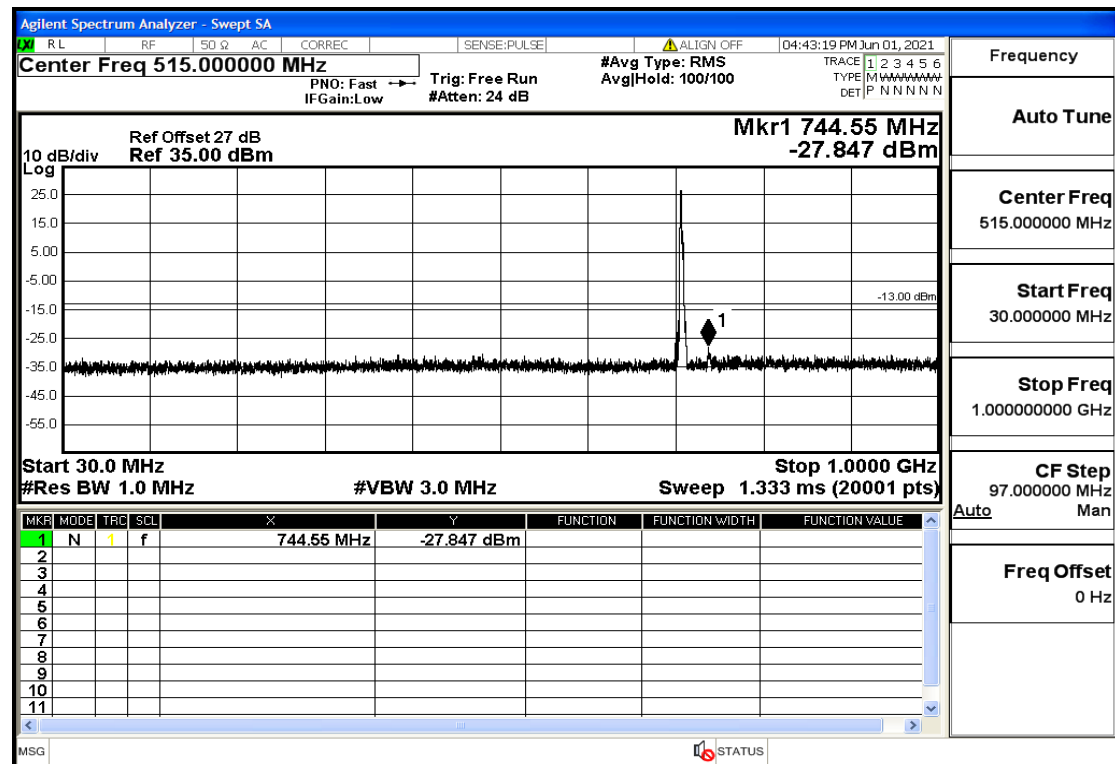
OB12-3-714.5-QPSK-15#LOW@30mHz-1GHz@Pass



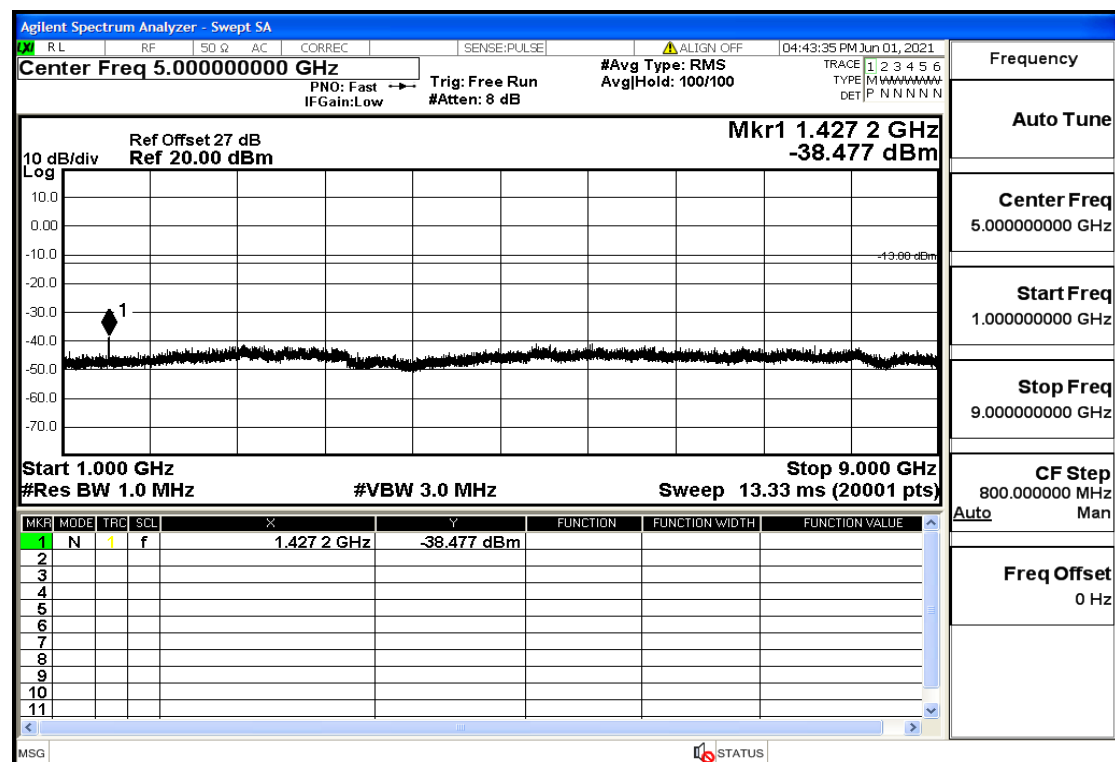
OB12-3-714.5-QPSK-15#LOW@1GHz-9GHz@Pass



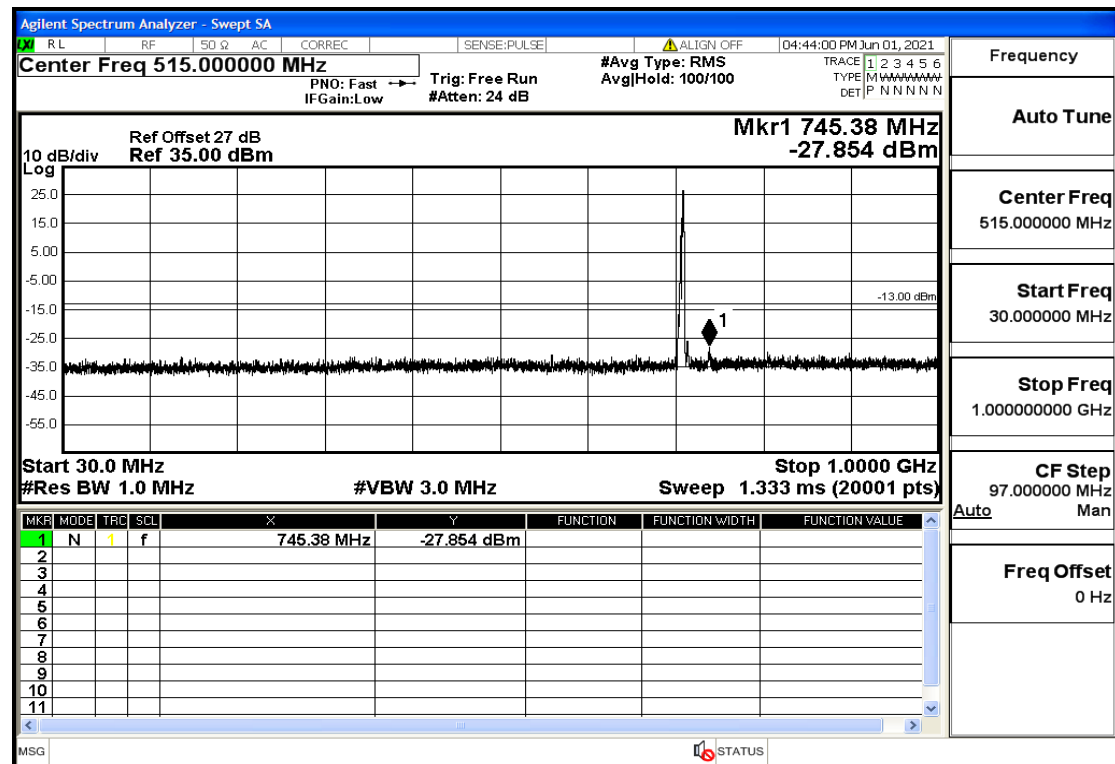
OB12-3-714.5-QPSK-1#LOW@30mHz-1GHz@Pass



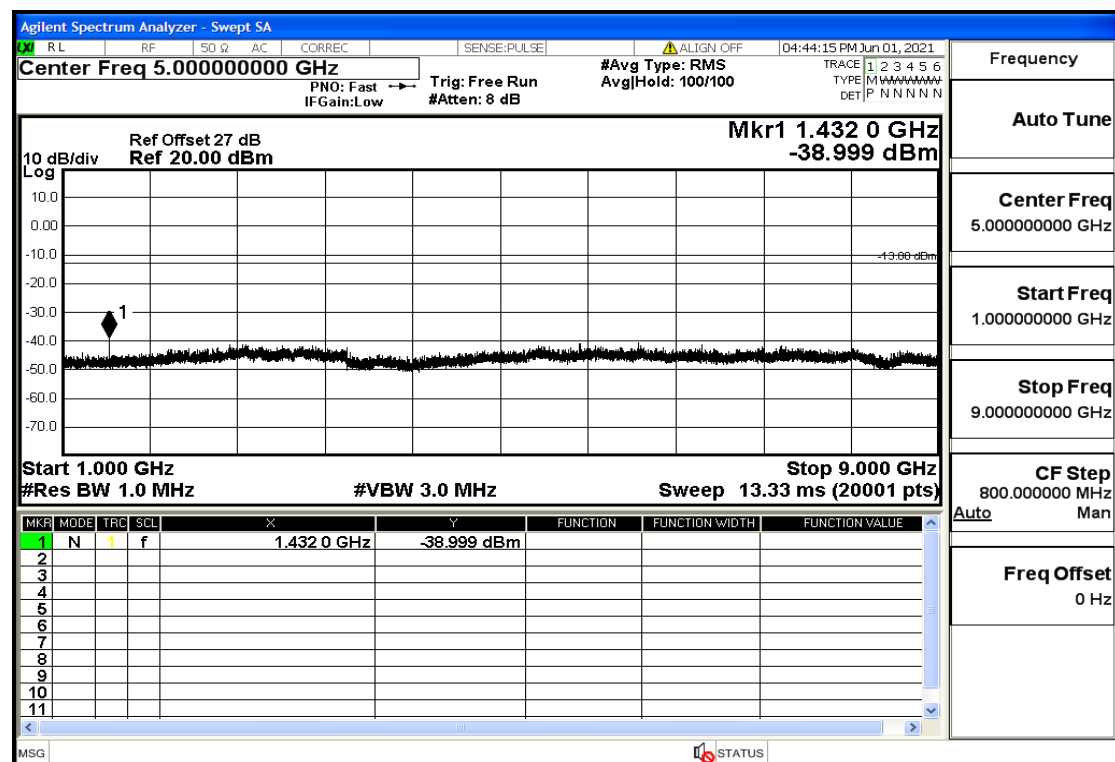
OB12-3-714.5-QPSK-1#LOW@1GHz-9GHz@Pass



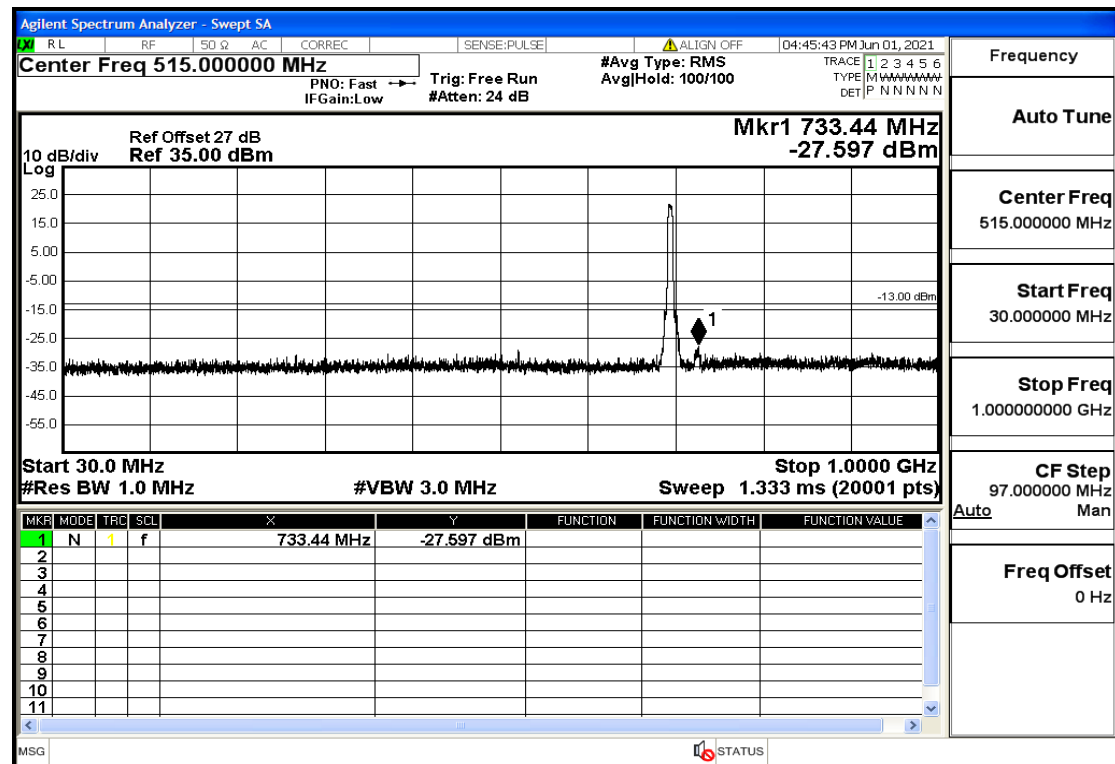
OB12-3-714.5-QPSK-1#HIGH@30mHz-1GHz@Pass



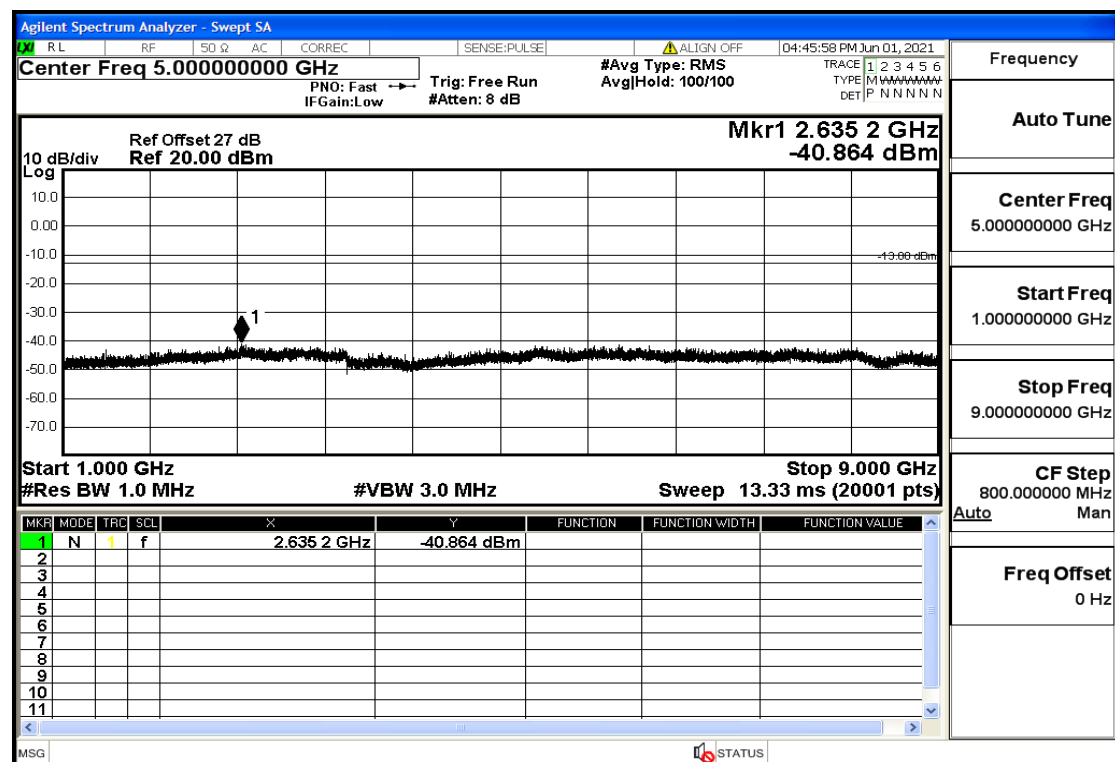
OB12-3-714.5-QPSK-1#HIGH@1GHz-9GHz@Pass



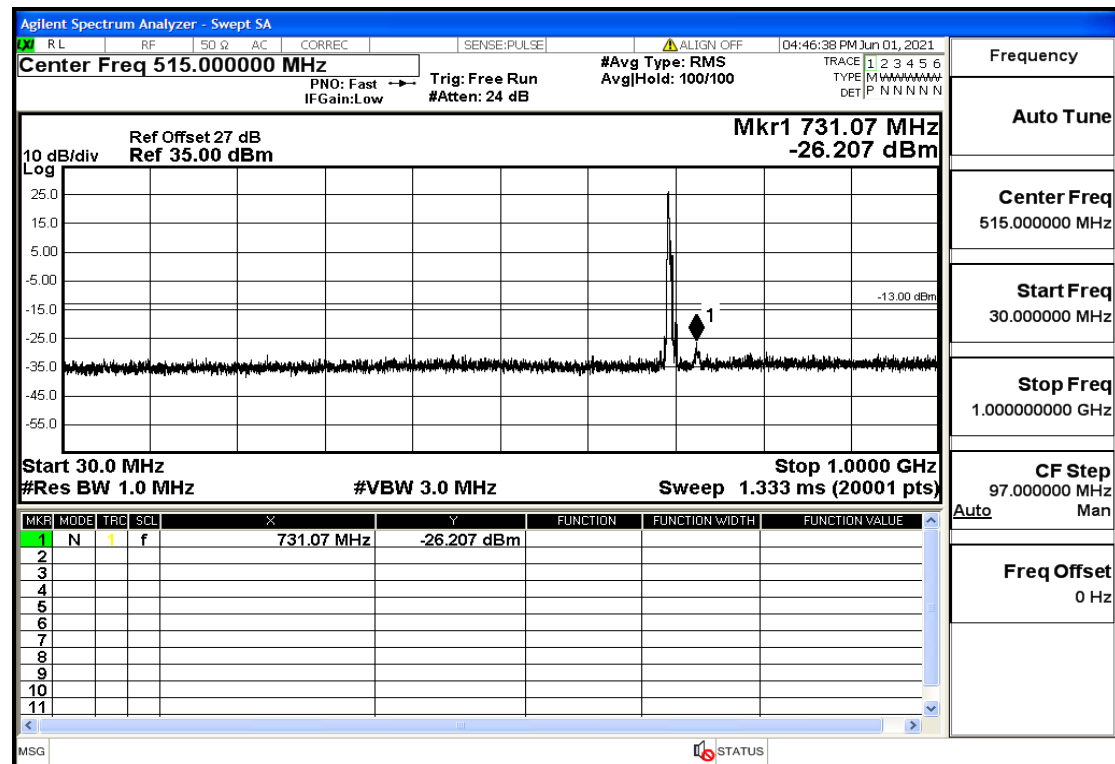
OB12-5-701.5-QPSK-25#LOW@30mHz-1GHz@Pass



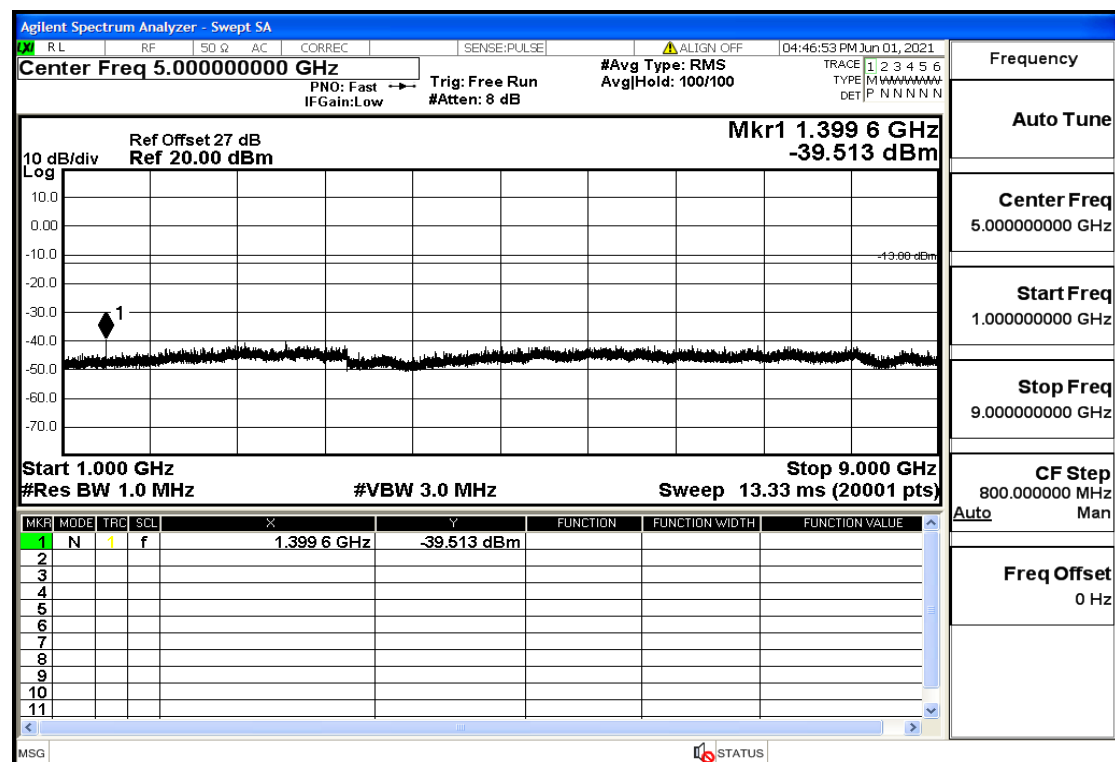
OB12-5-701.5-QPSK-25#LOW@1GHz-9GHz@Pass



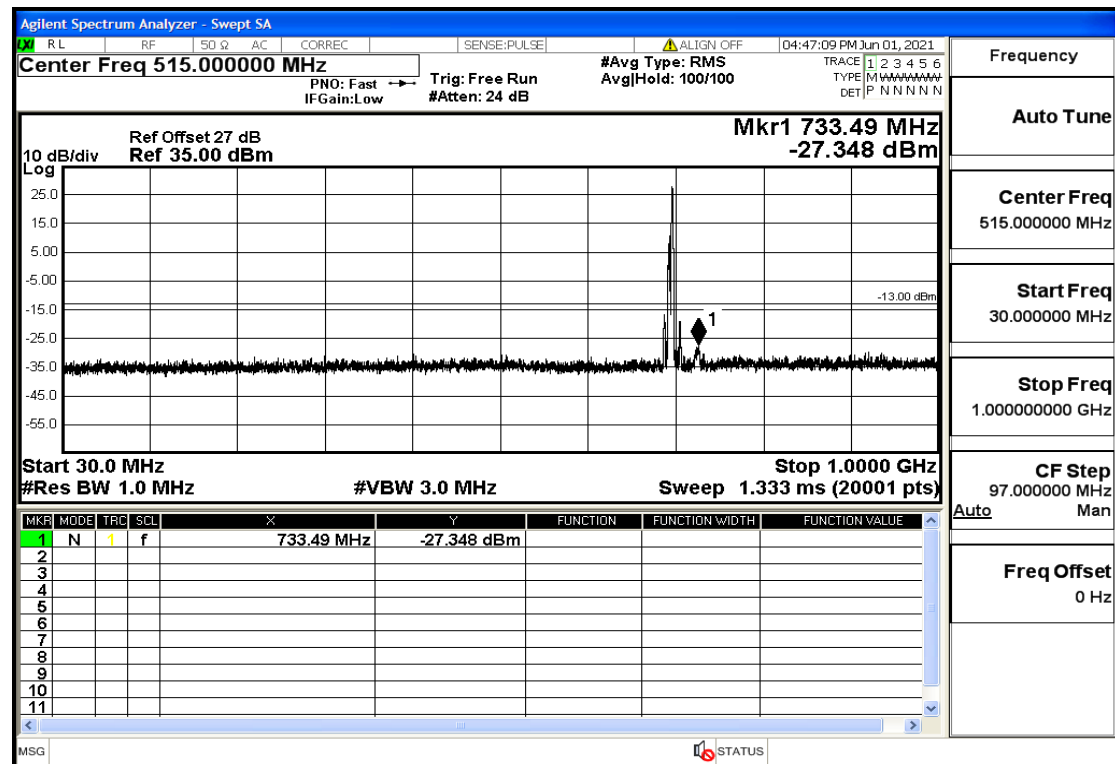
OB12-5-701.5-QPSK-1#LOW@30mHz-1GHz@Pass



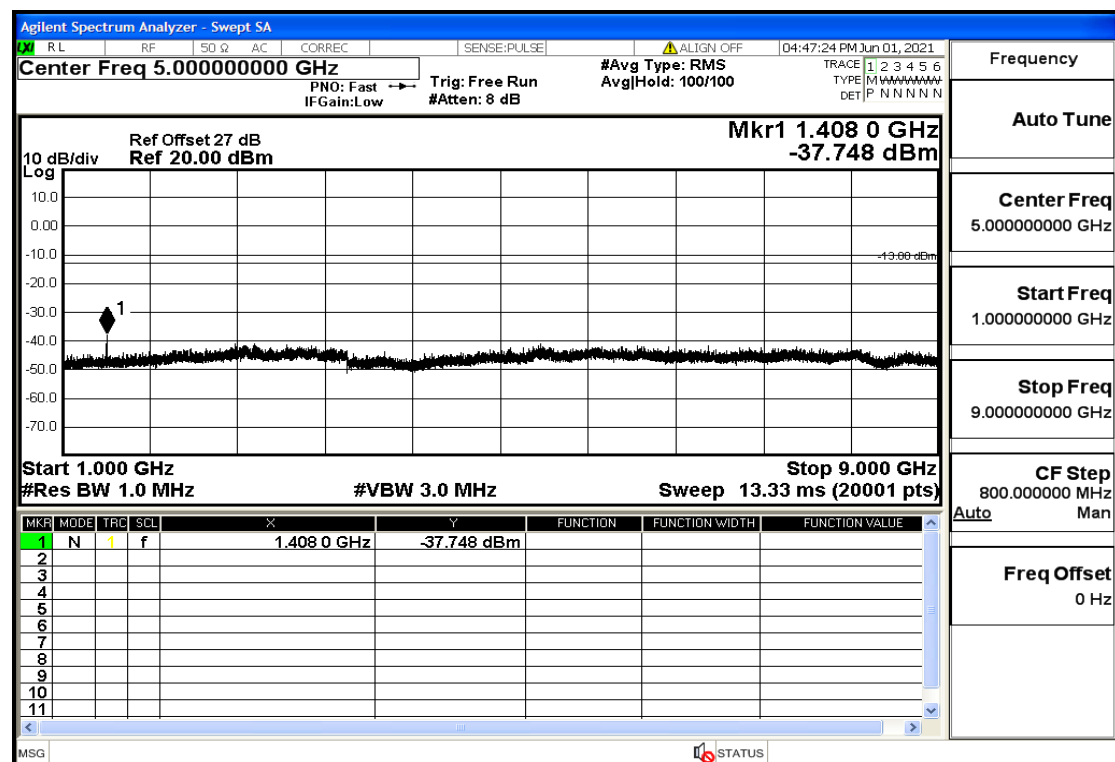
OB12-5-701.5-QPSK-1#LOW@1GHz-9GHz@Pass



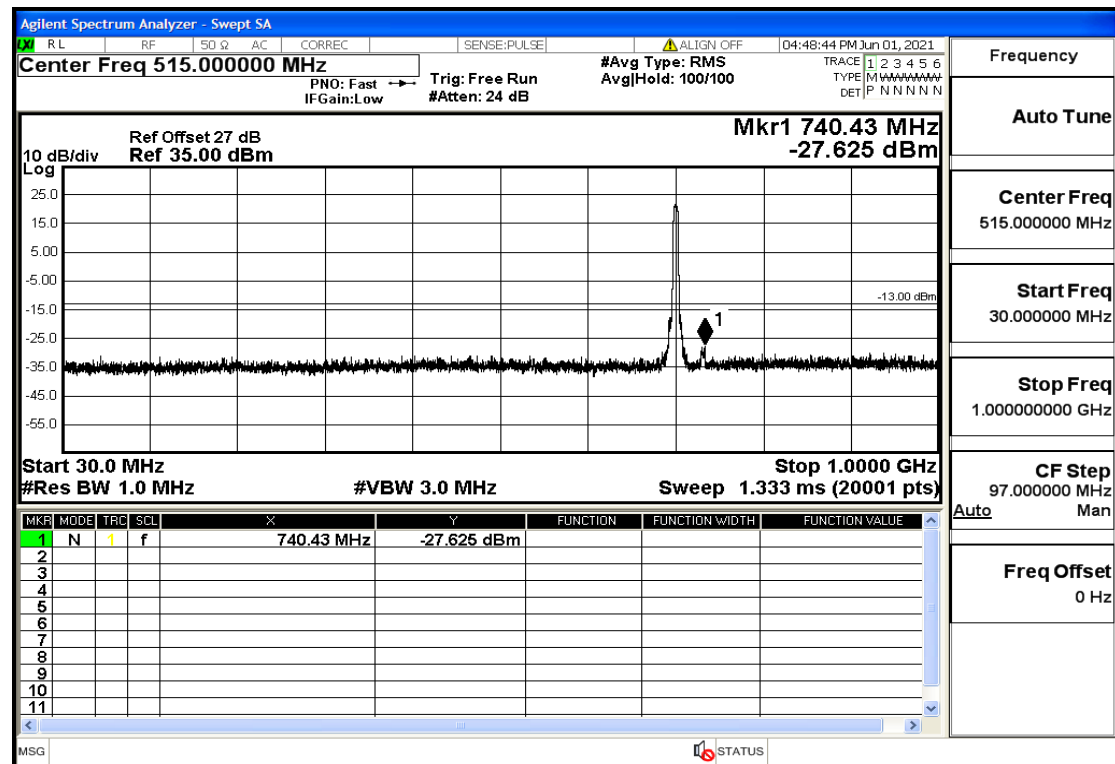
OB12-5-701.5-QPSK-1#HIGH@30mHz-1GHz@Pass



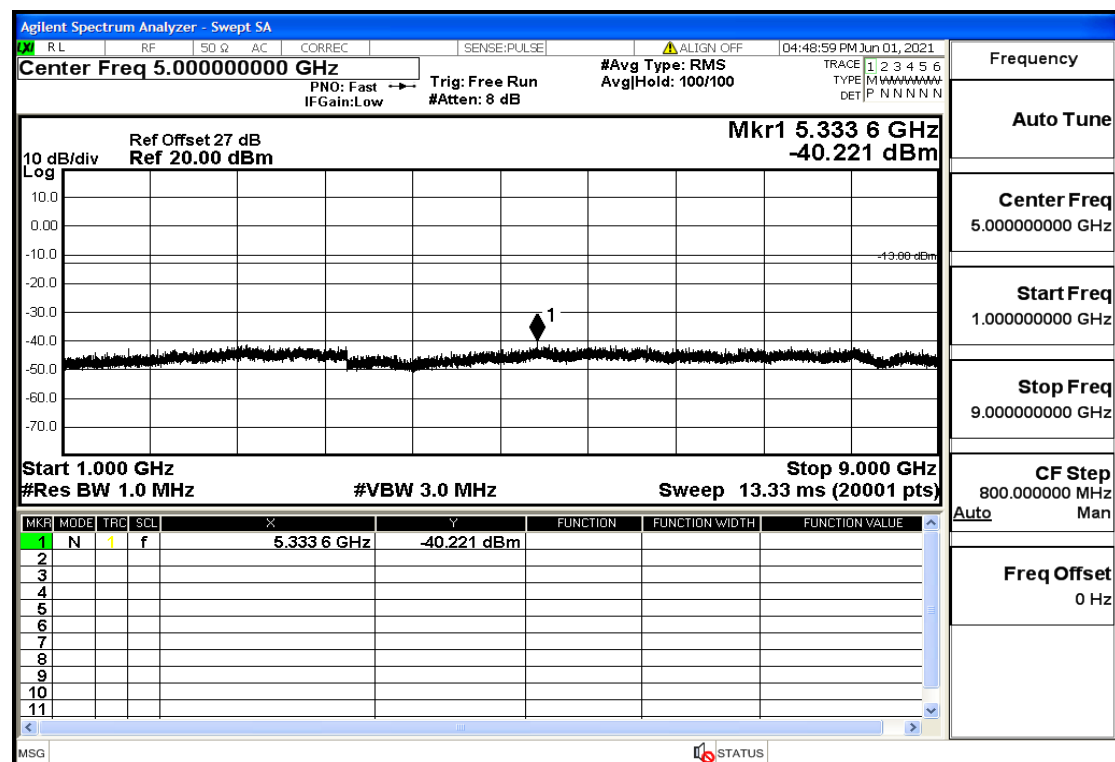
OB12-5-701.5-QPSK-1#HIGH@1GHz-9GHz@Pass



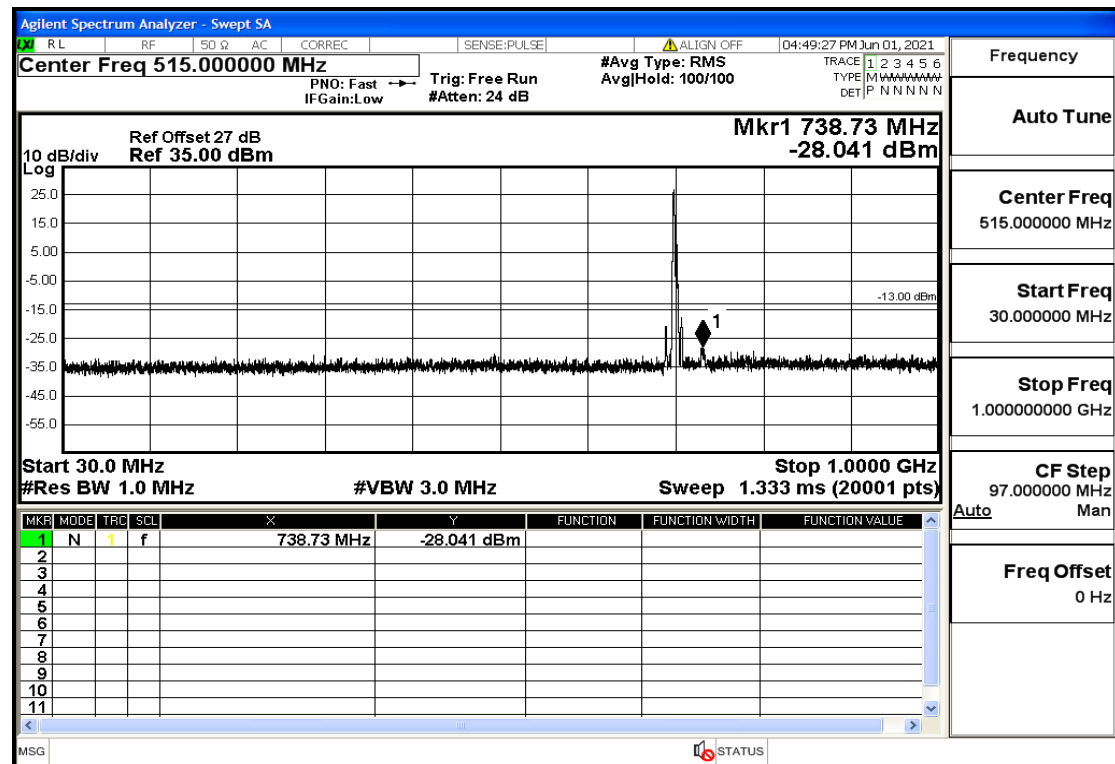
OB12-5-707.5-QPSK-25#LOW@30mHz-1GHz@Pass



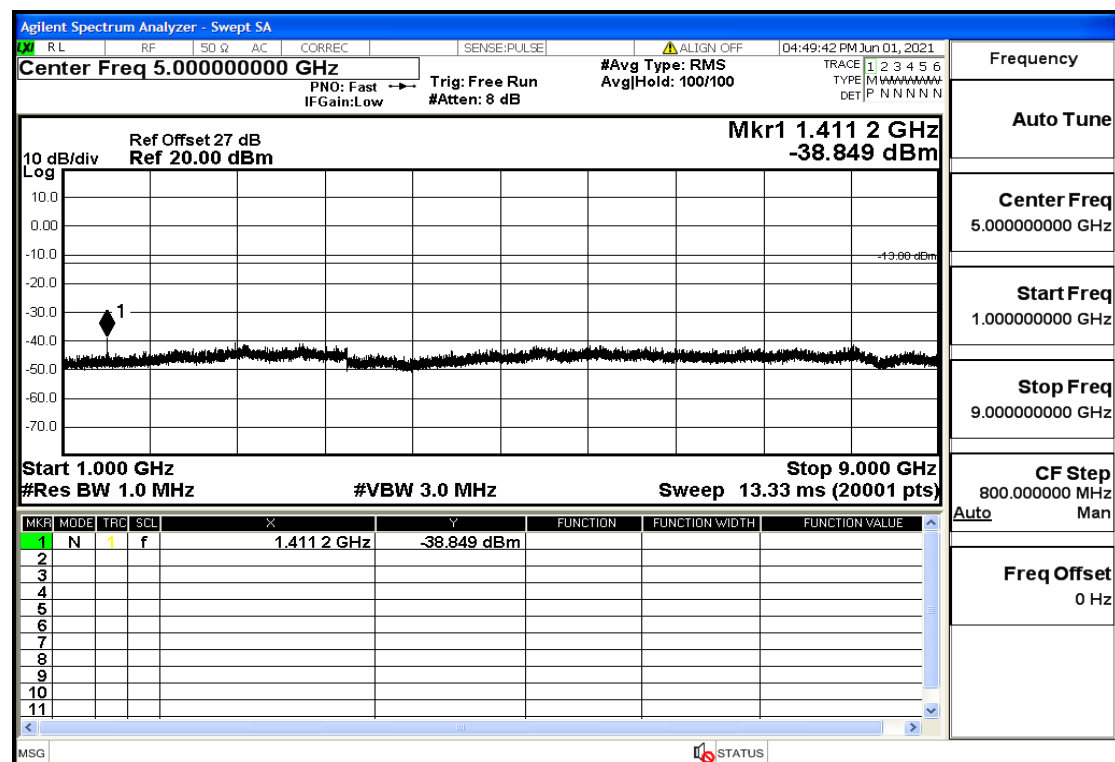
OB12-5-707.5-QPSK-25#LOW@1GHz-9GHz@Pass



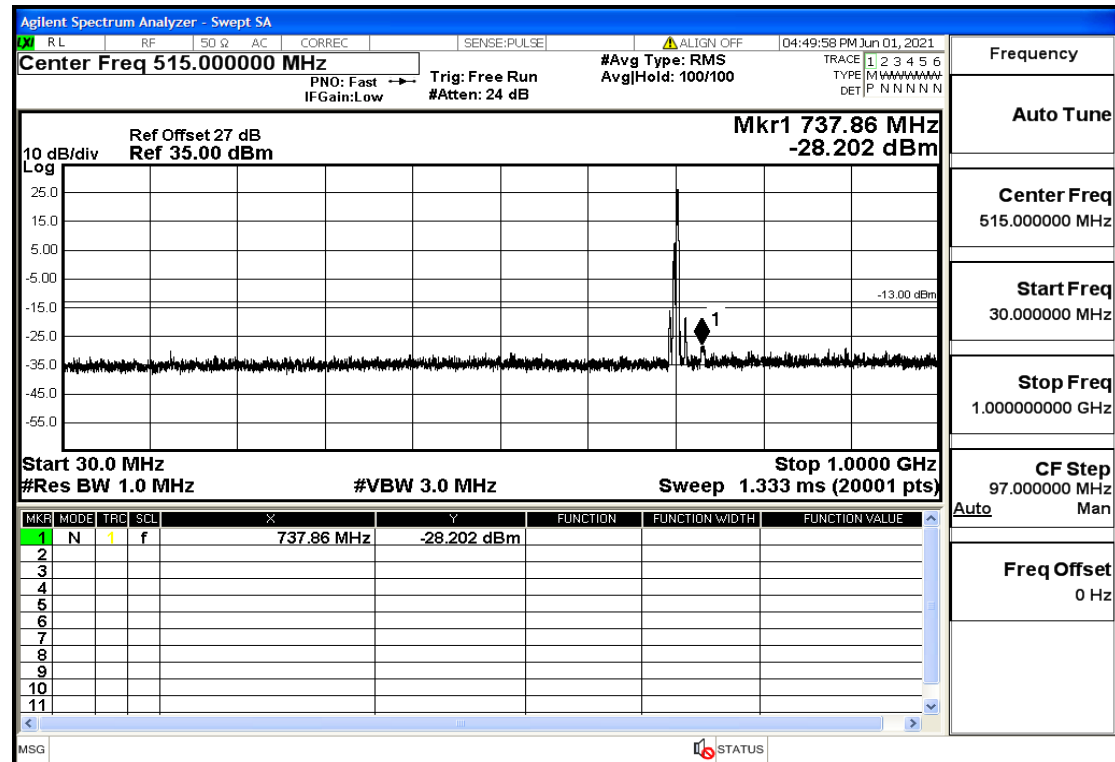
OB12-5-707.5-QPSK-1#LOW@30mHz-1GHz@Pass



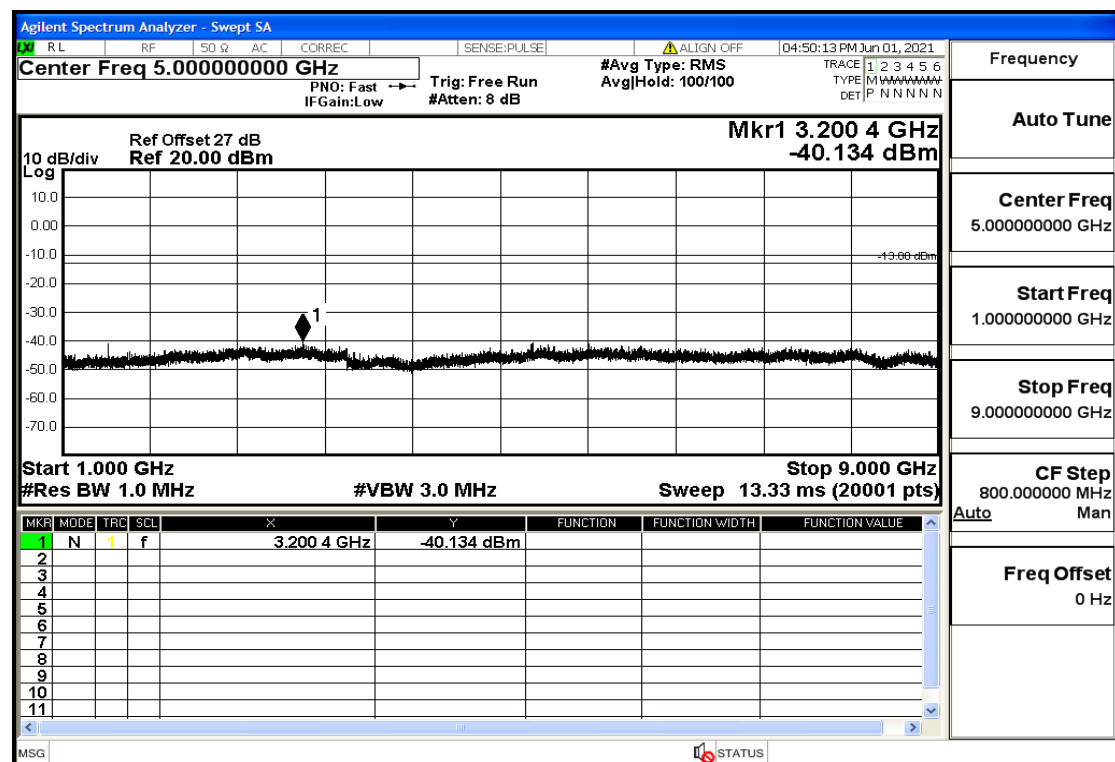
OB12-5-707.5-QPSK-1#LOW@1GHz-9GHz@Pass



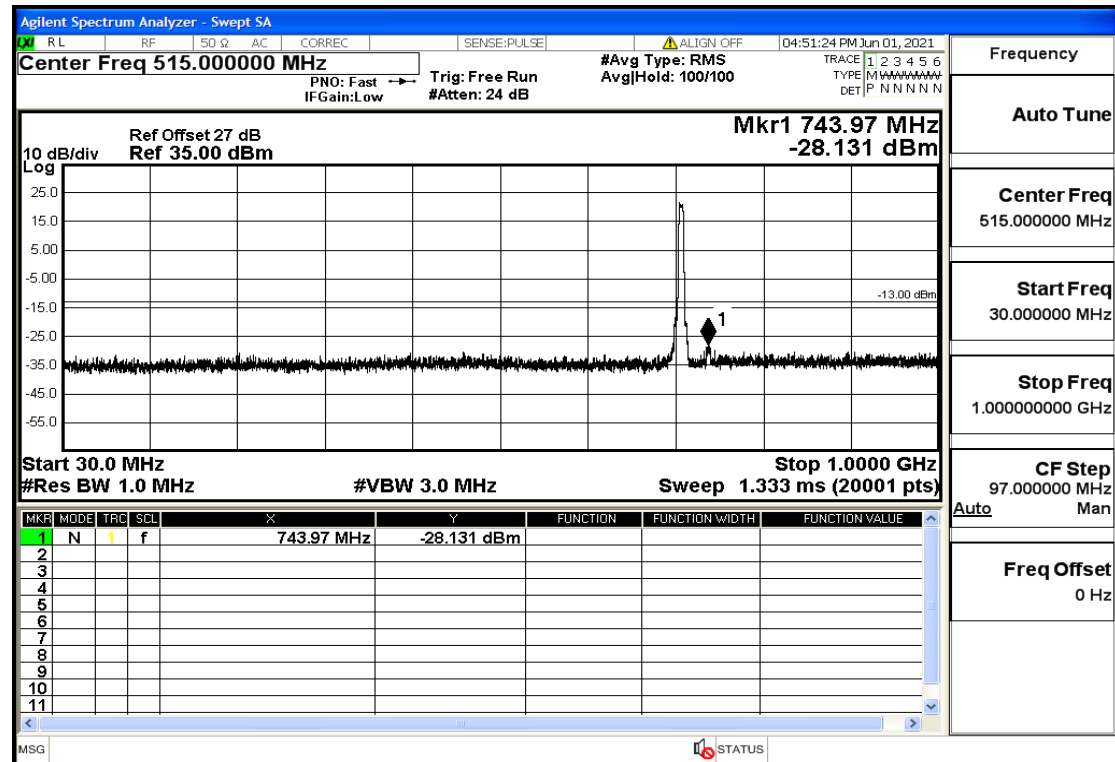
OB12-5-707.5-QPSK-1#HIGH@30mHz-1GHz@Pass



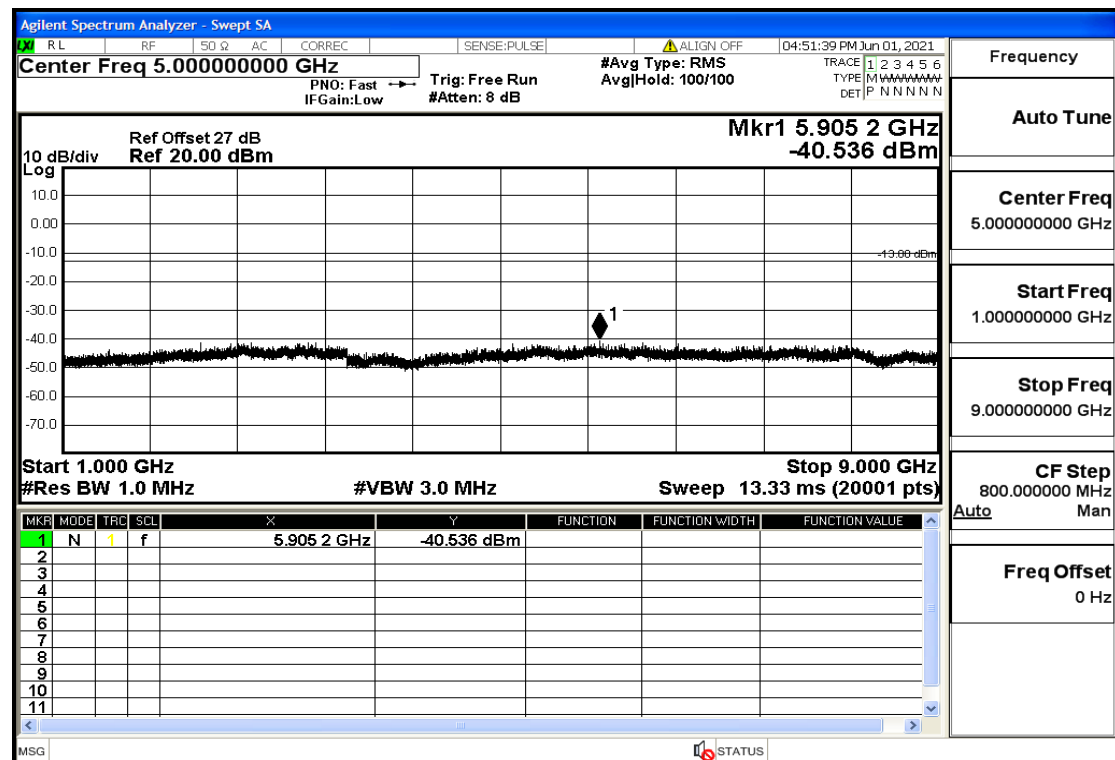
OB12-5-707.5-QPSK-1#HIGH@1GHz-9GHz@Pass



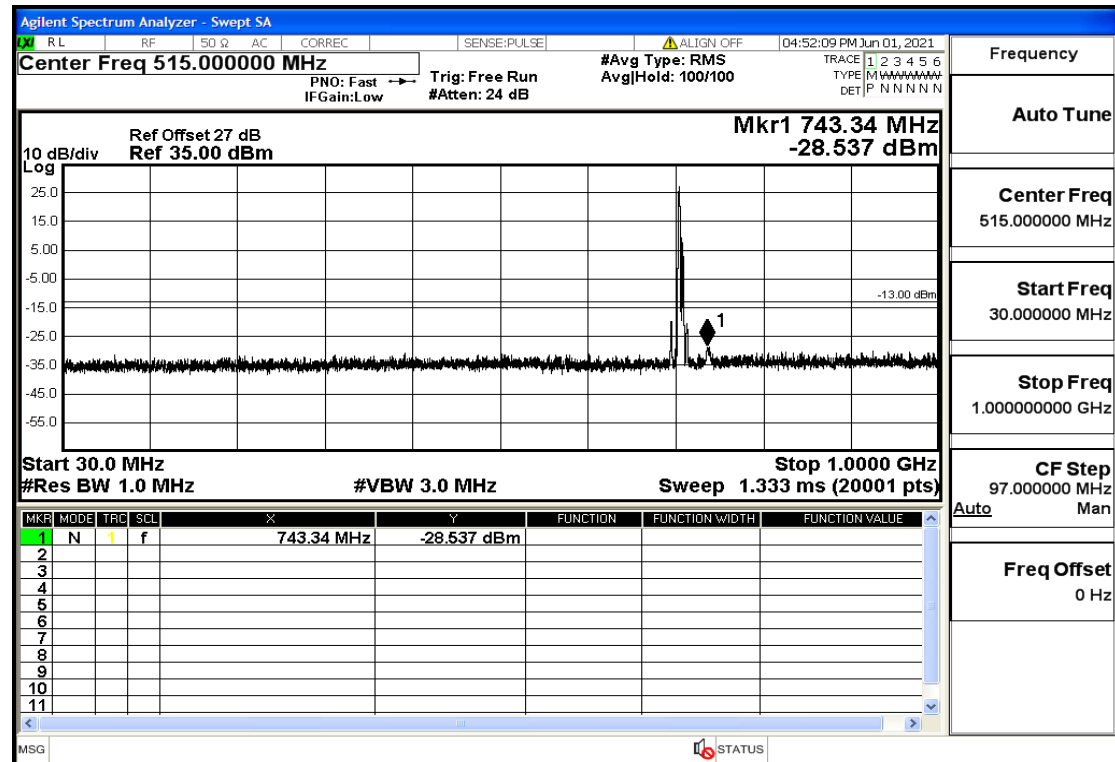
OB12-5-713.5-QPSK-25#LOW@30mHz-1GHz@Pass



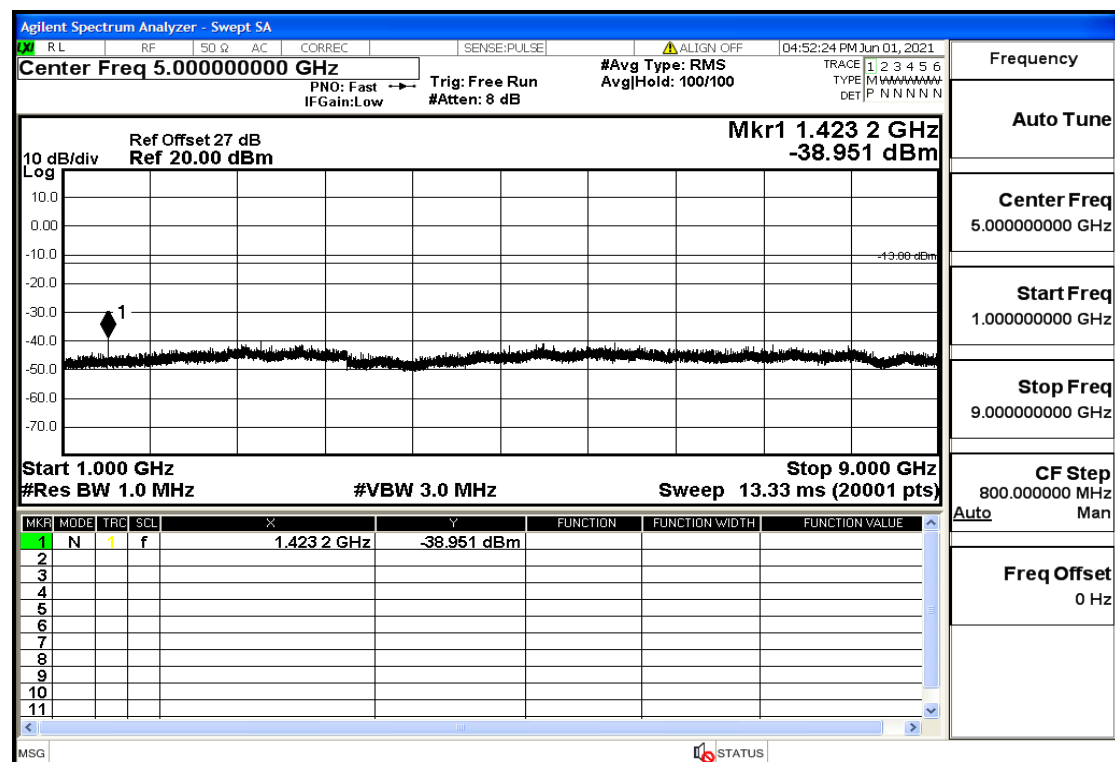
OB12-5-713.5-QPSK-25#LOW@1GHz-9GHz@Pass



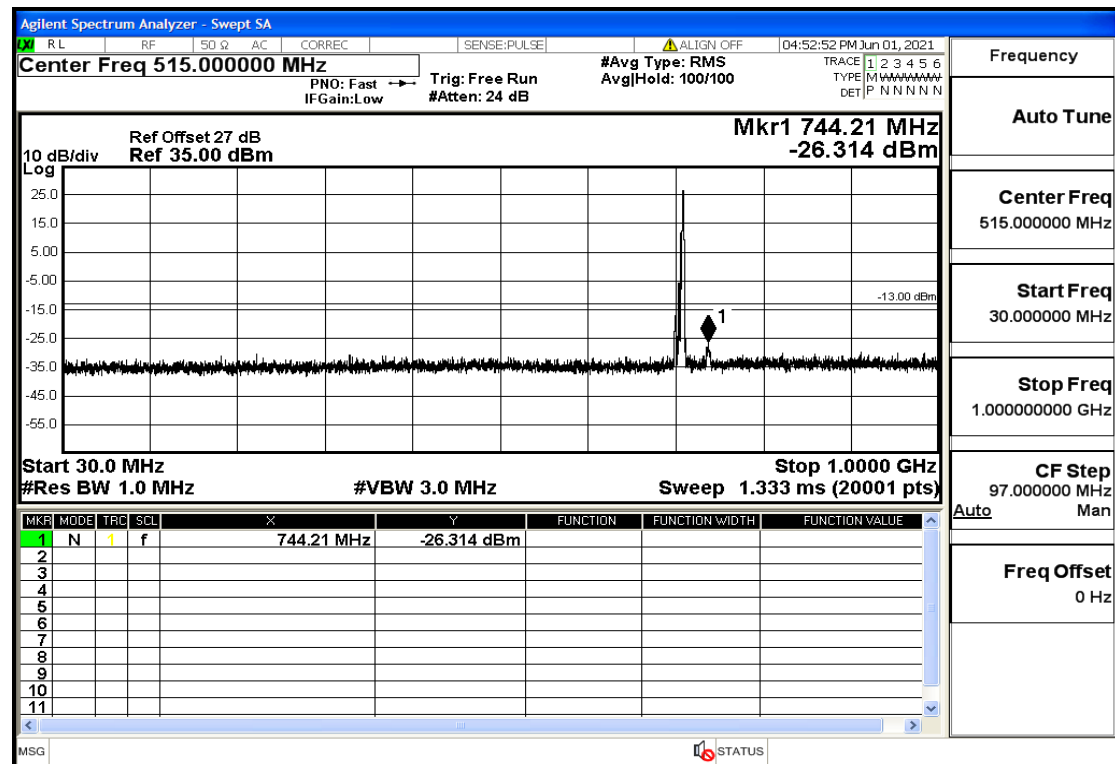
OB12-5-713.5-QPSK-1#LOW@30mHz-1GHz@Pass



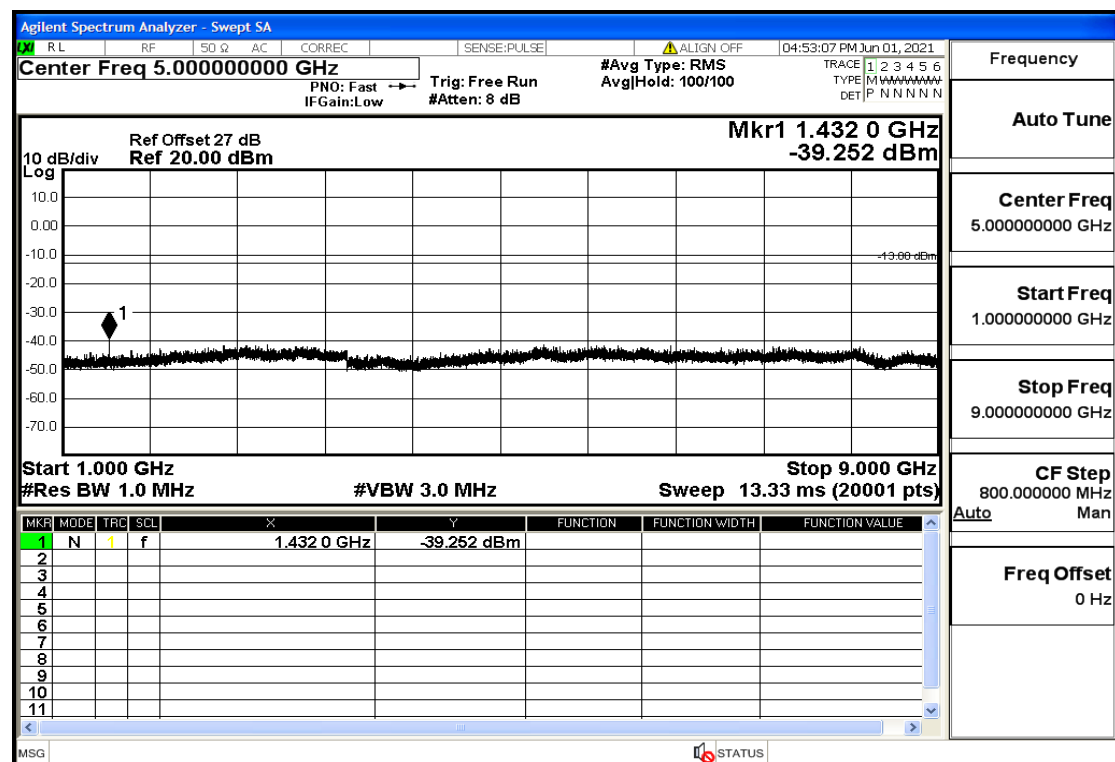
OB12-5-713.5-QPSK-1#LOW@1GHz-9GHz@Pass



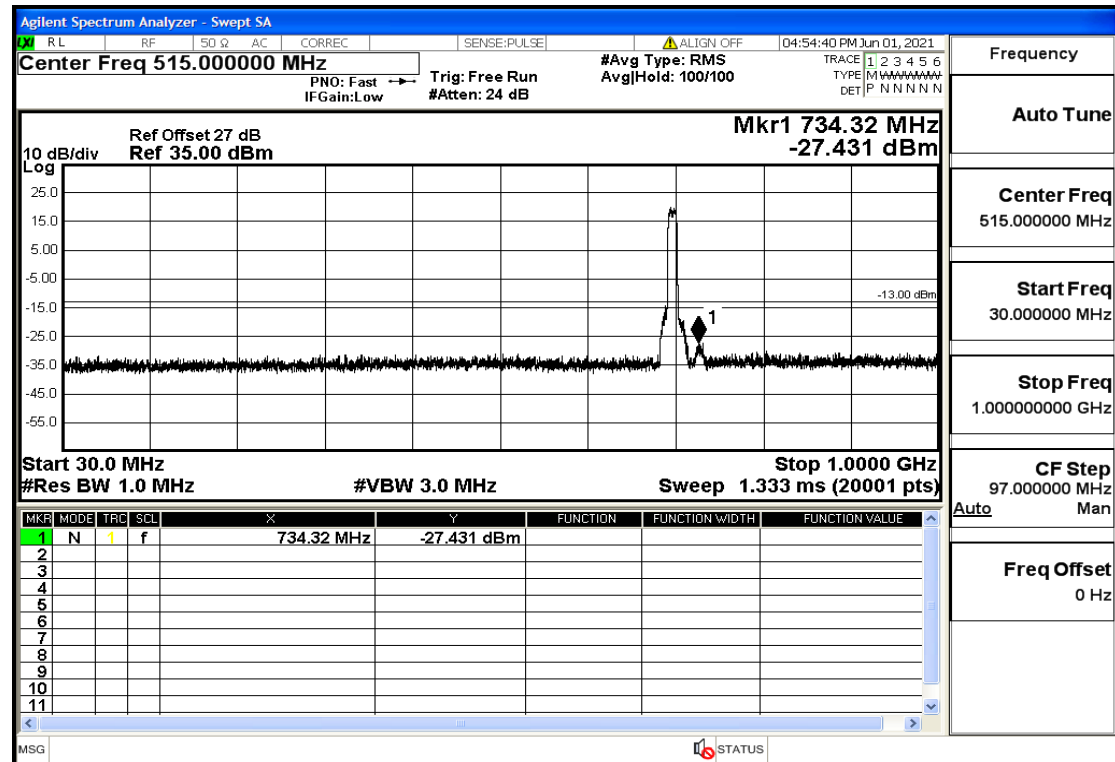
OB12-5-713.5-QPSK-1#HIGH@30mHz-1GHz@Pass



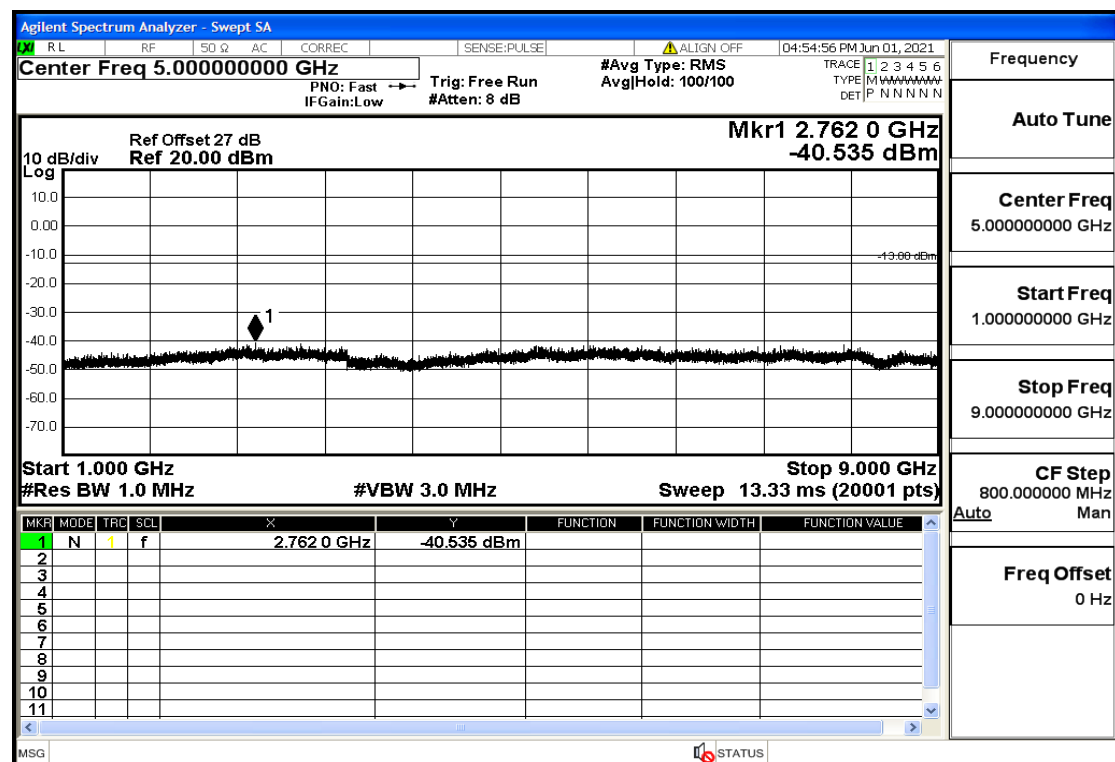
OB12-5-713.5-QPSK-1#HIGH@1GHz-9GHz@Pass



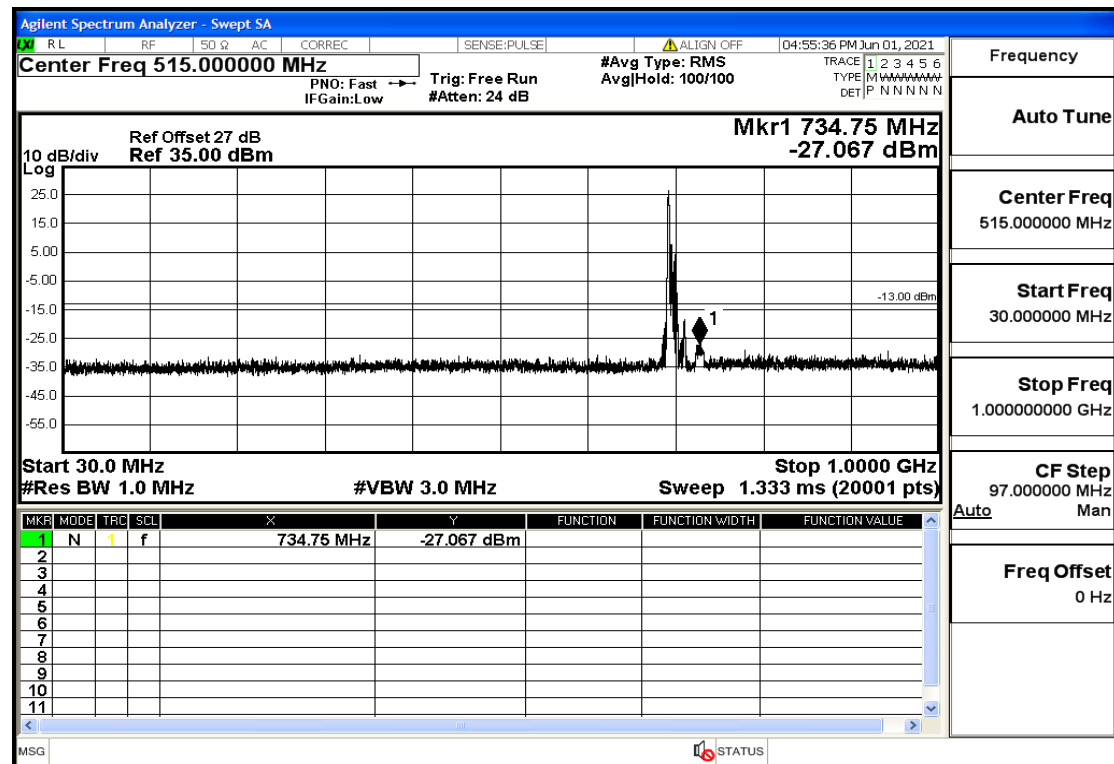
OB12-10-704-QPSK-50#LOW@30mHz-1GHz@Pass



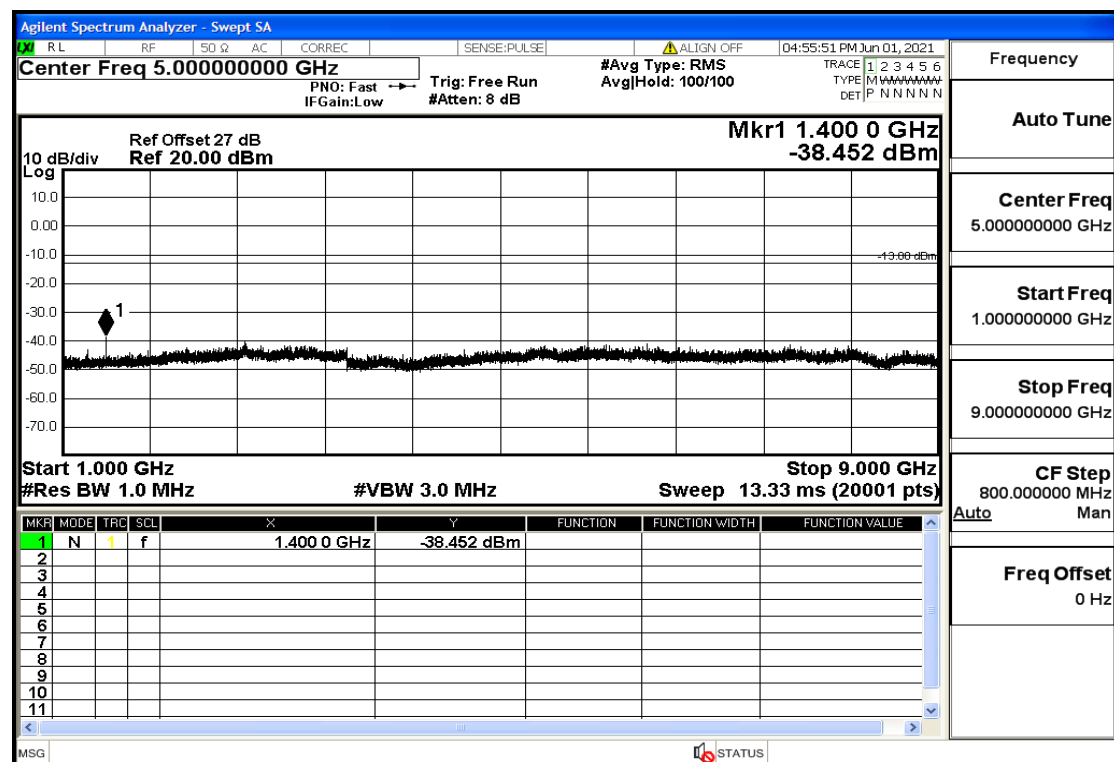
OB12-10-704-QPSK-50#LOW@1GHz-9GHz@Pass



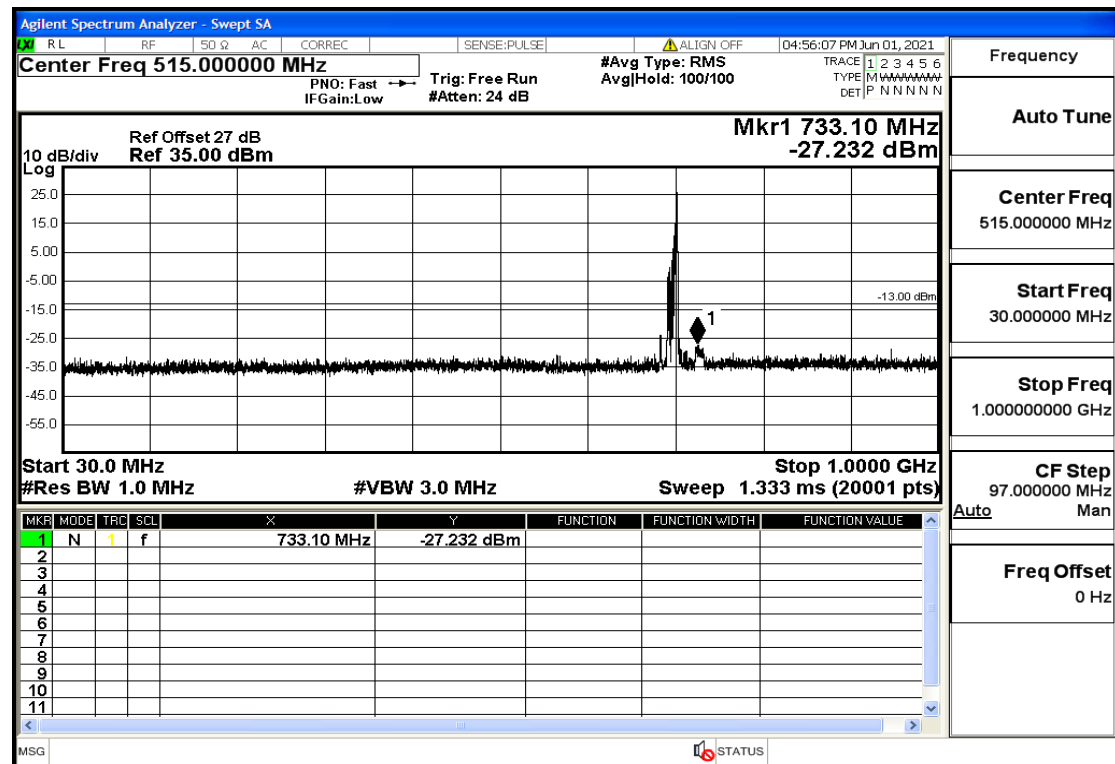
OB12-10-704-QPSK-1#LOW@30mHz-1GHz@Pass



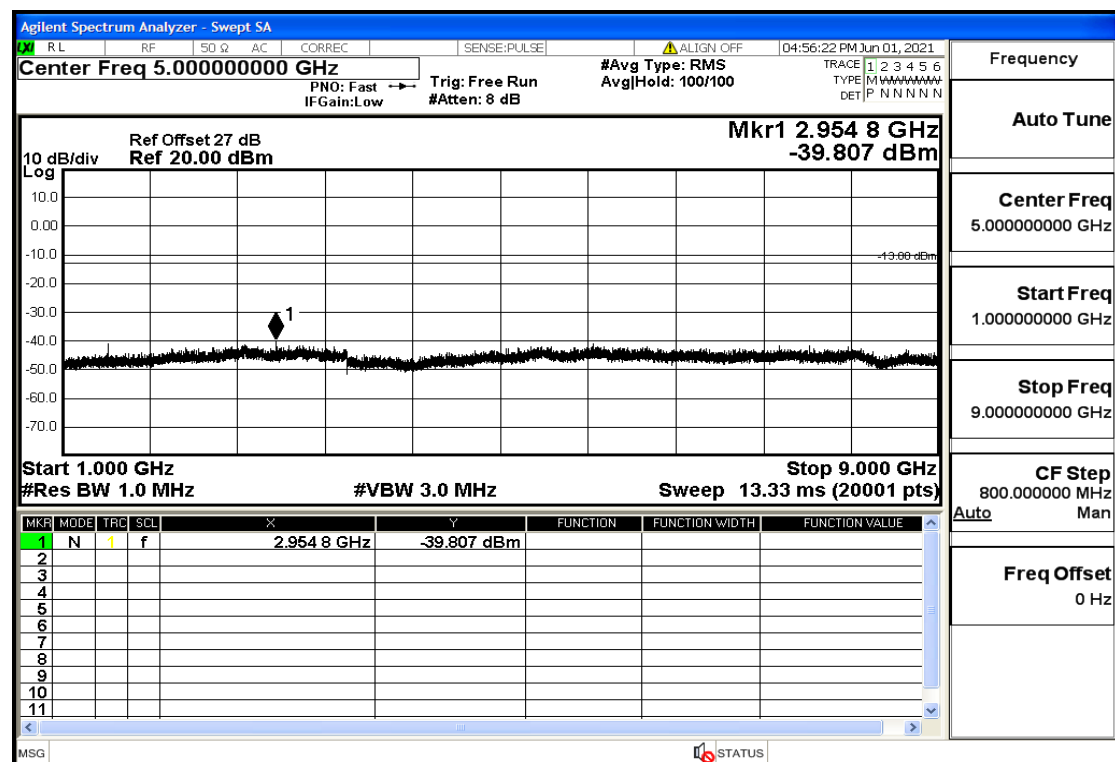
OB12-10-704-QPSK-1#LOW@1GHz-9GHz@Pass



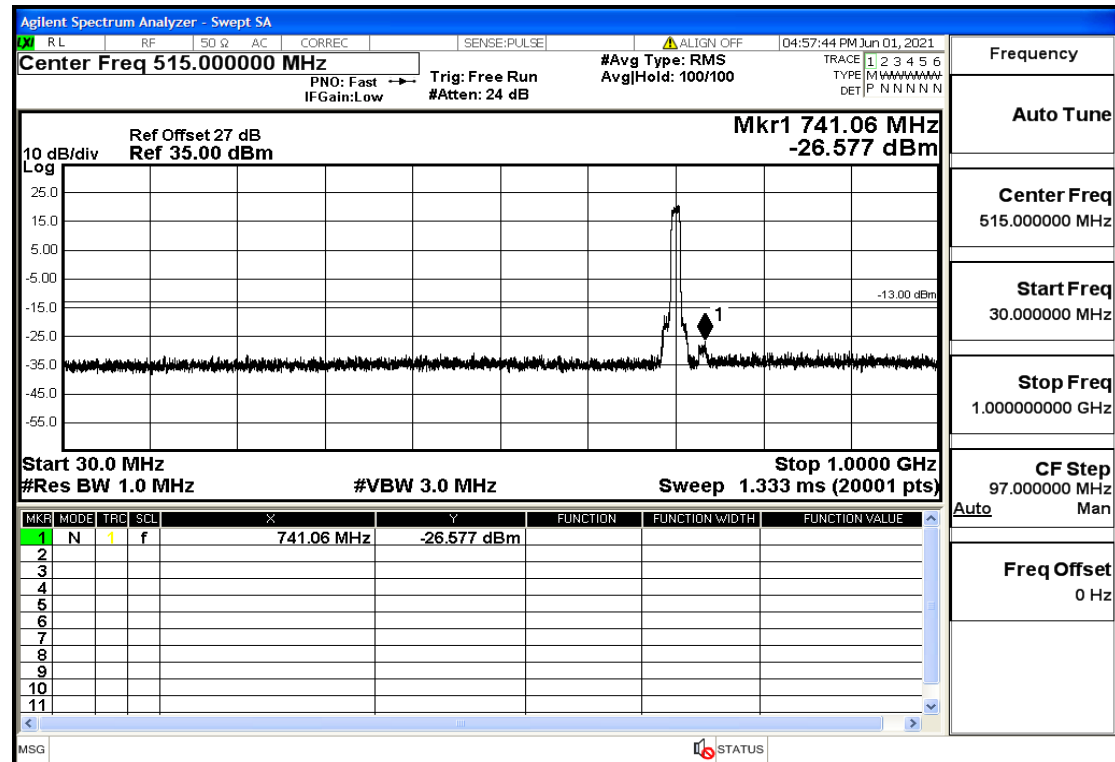
OB12-10-704-QPSK-1#HIGH@30mHz-1GHz@Pass



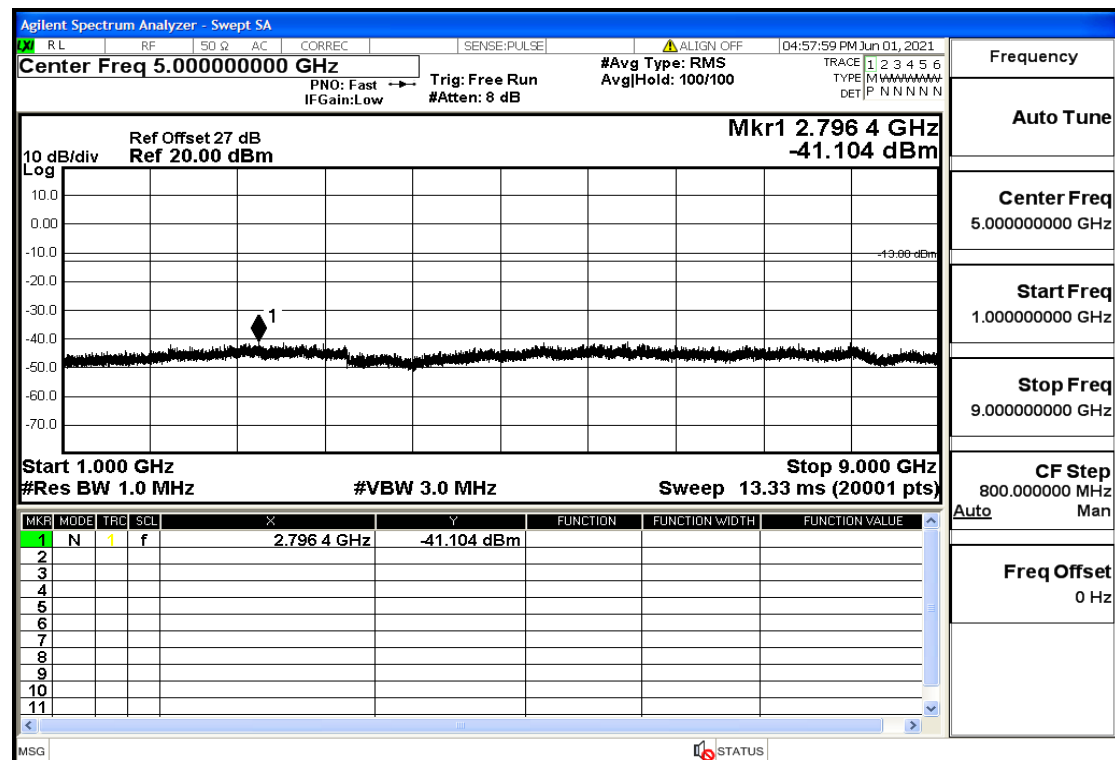
OB12-10-704-QPSK-1#HIGH@1GHz-9GHz@Pass



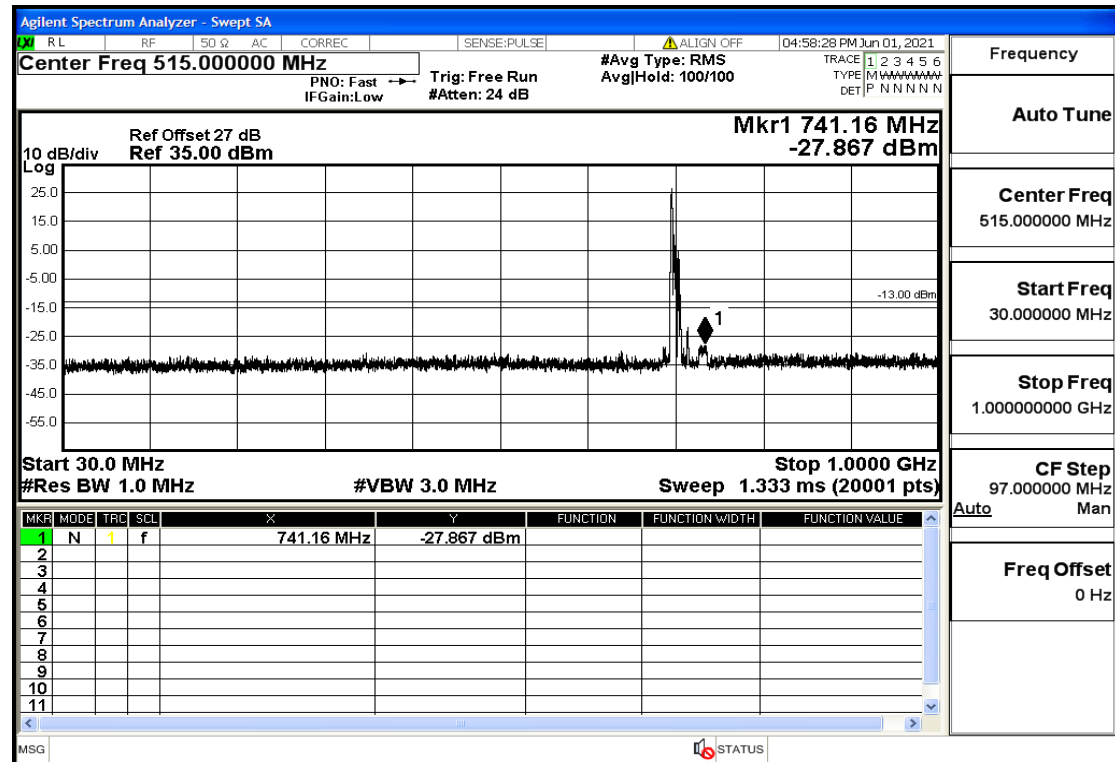
OB12-10-707.5-QPSK-50#LOW@30mHz-1GHz@Pass



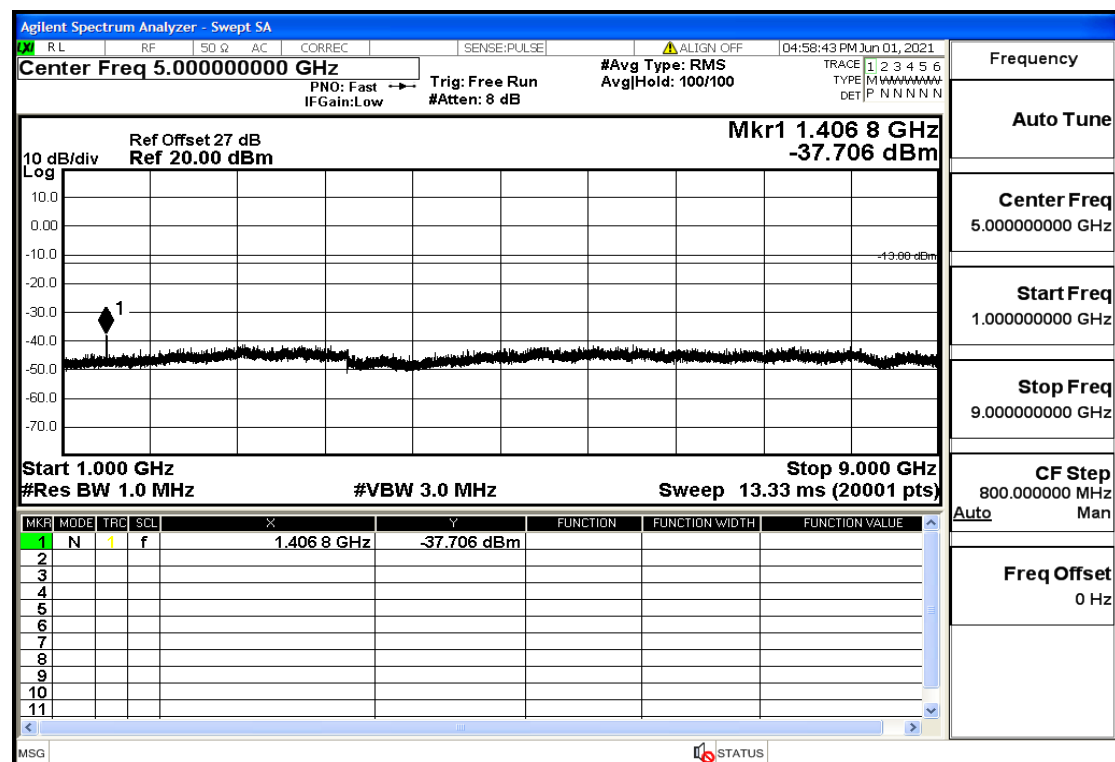
OB12-10-707.5-QPSK-50#LOW@1GHz-9GHz@Pass



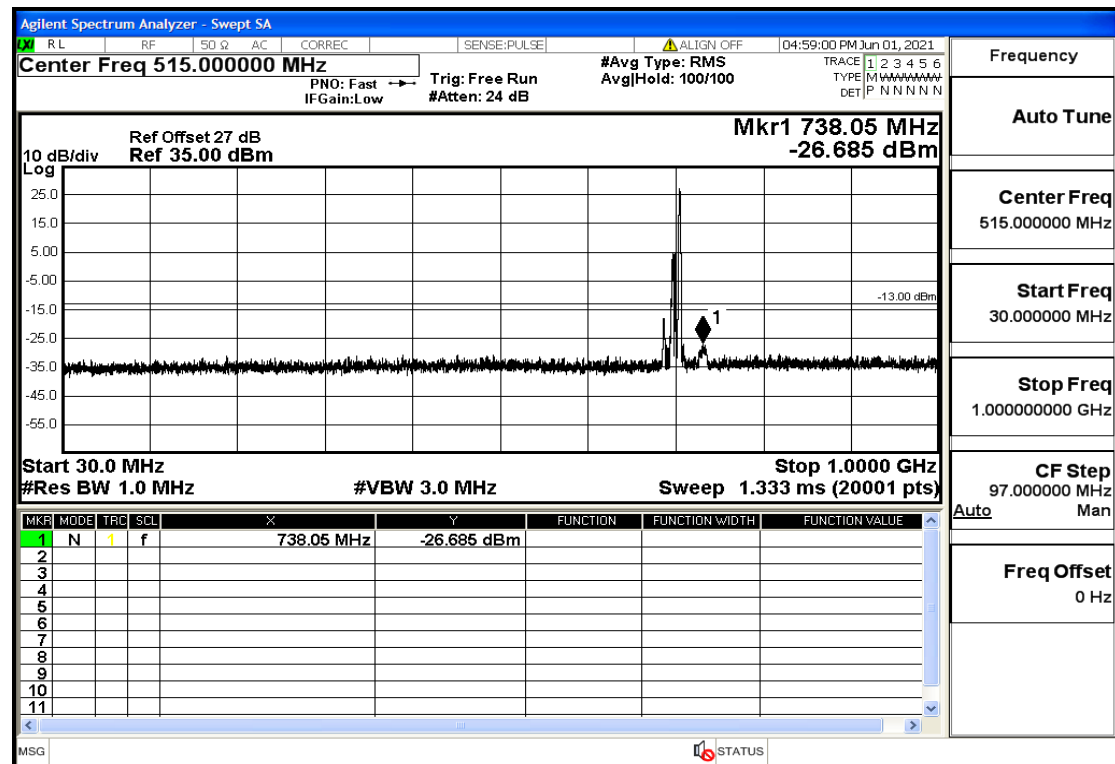
OB12-10-707.5-QPSK-1#LOW@30mHz-1GHz@Pass



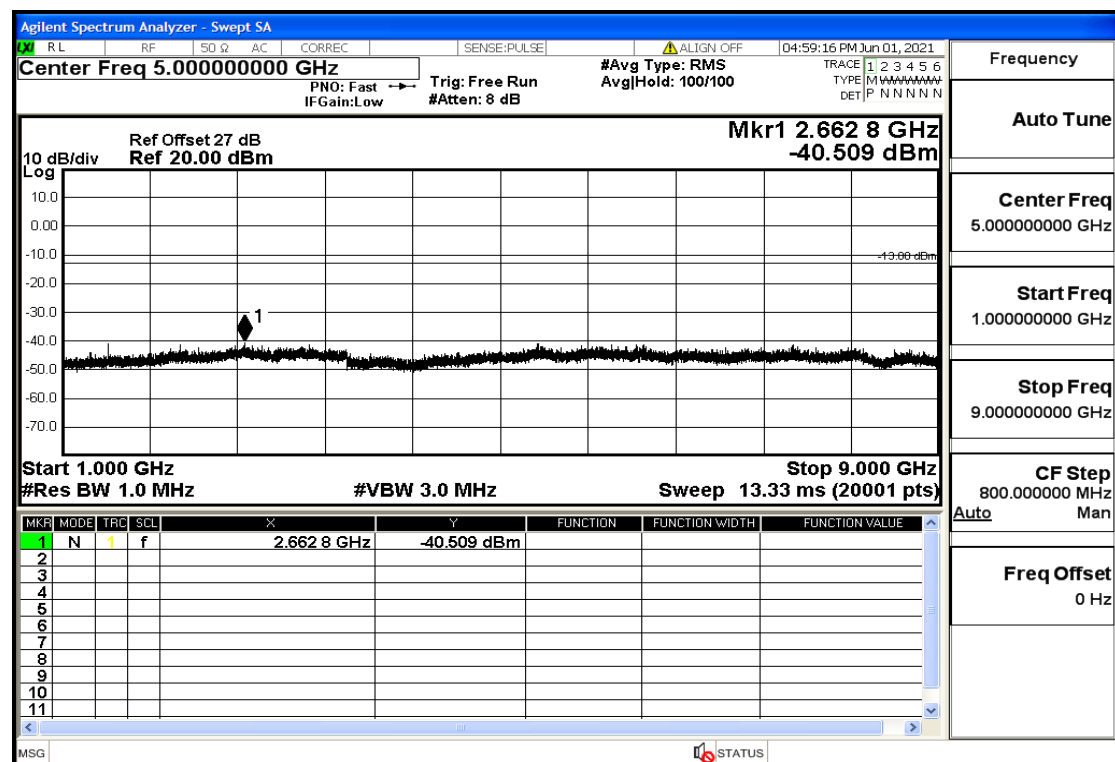
OB12-10-707.5-QPSK-1#LOW@1GHz-9GHz@Pass



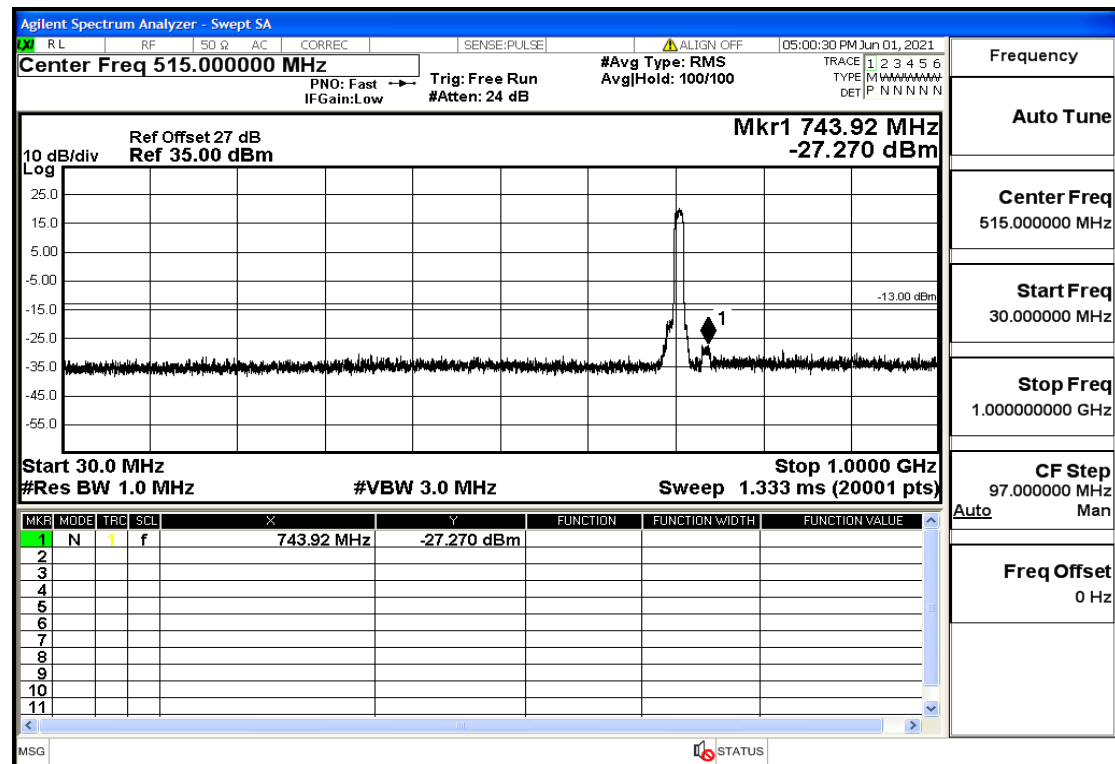
OB12-10-707.5-QPSK-1#HIGH@30mHz-1GHz@Pass



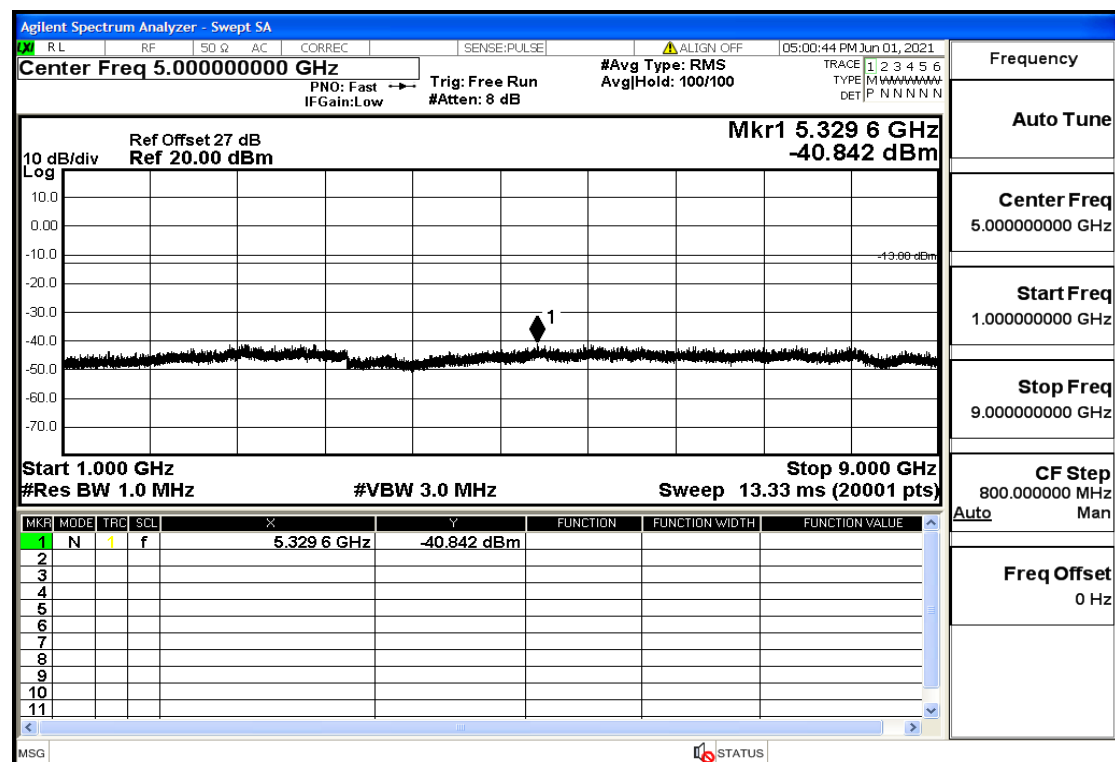
OB12-10-707.5-QPSK-1#HIGH@1GHz-9GHz@Pass



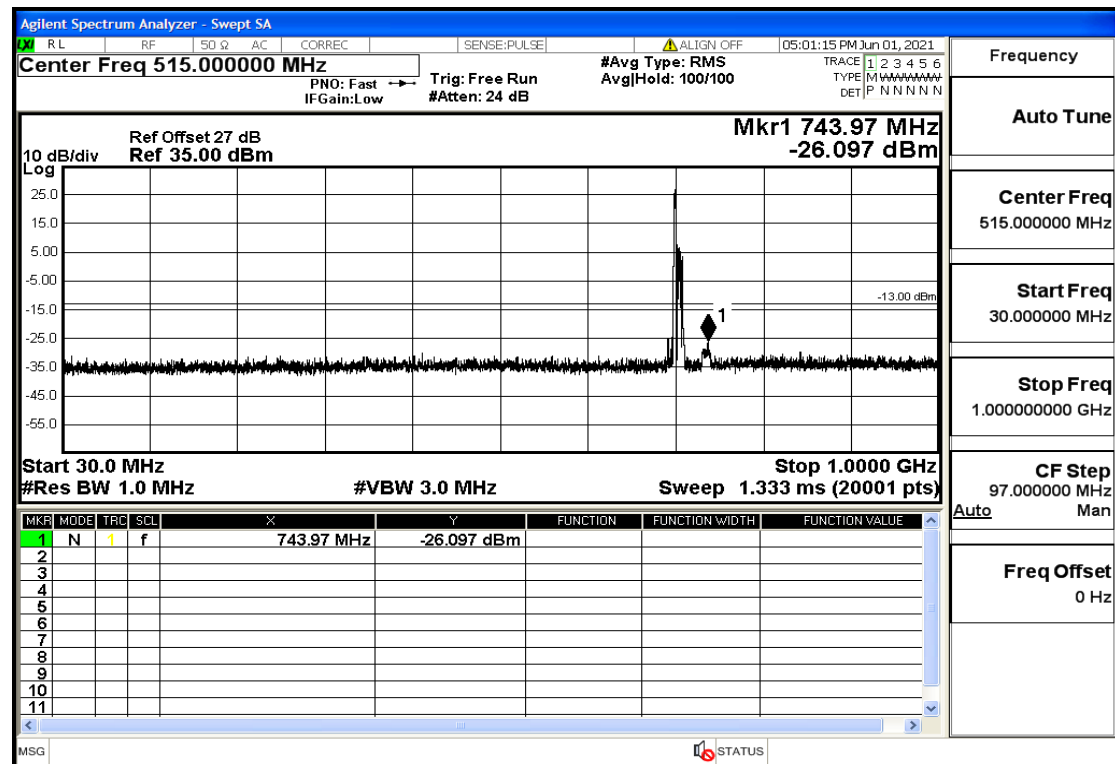
OB12-10-711-QPSK-50#LOW@30mHz-1GHz@Pass



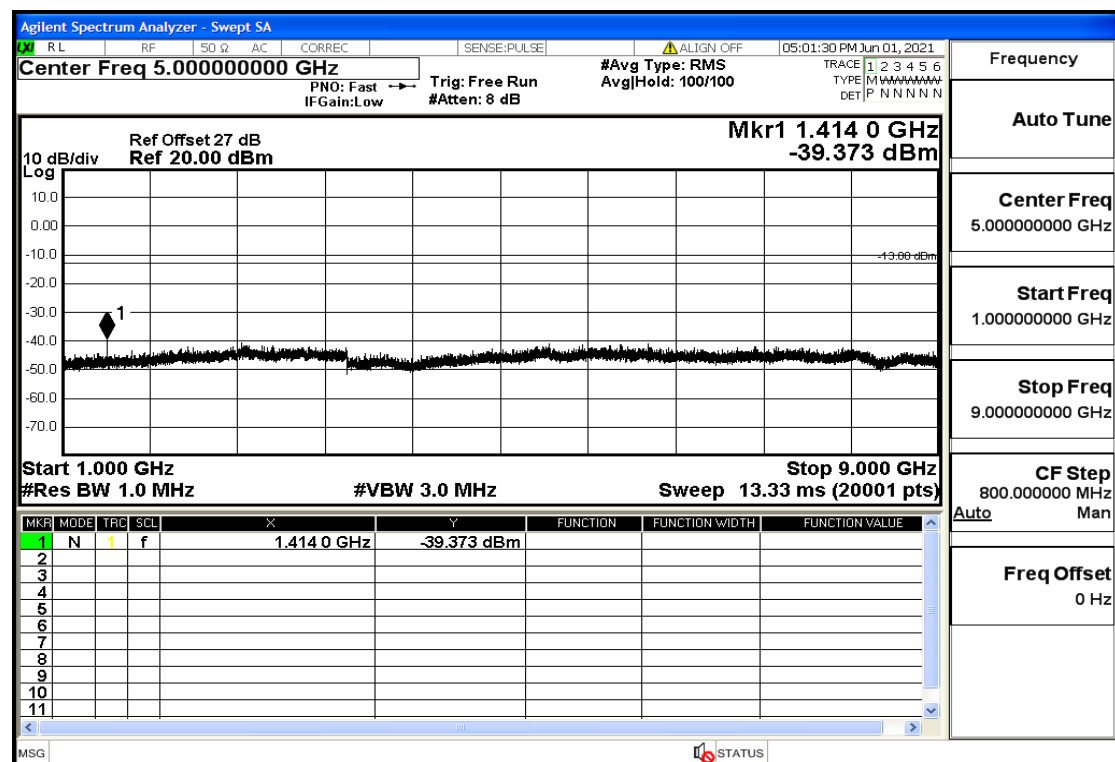
OB12-10-711-QPSK-50#LOW@1GHz-9GHz@Pass



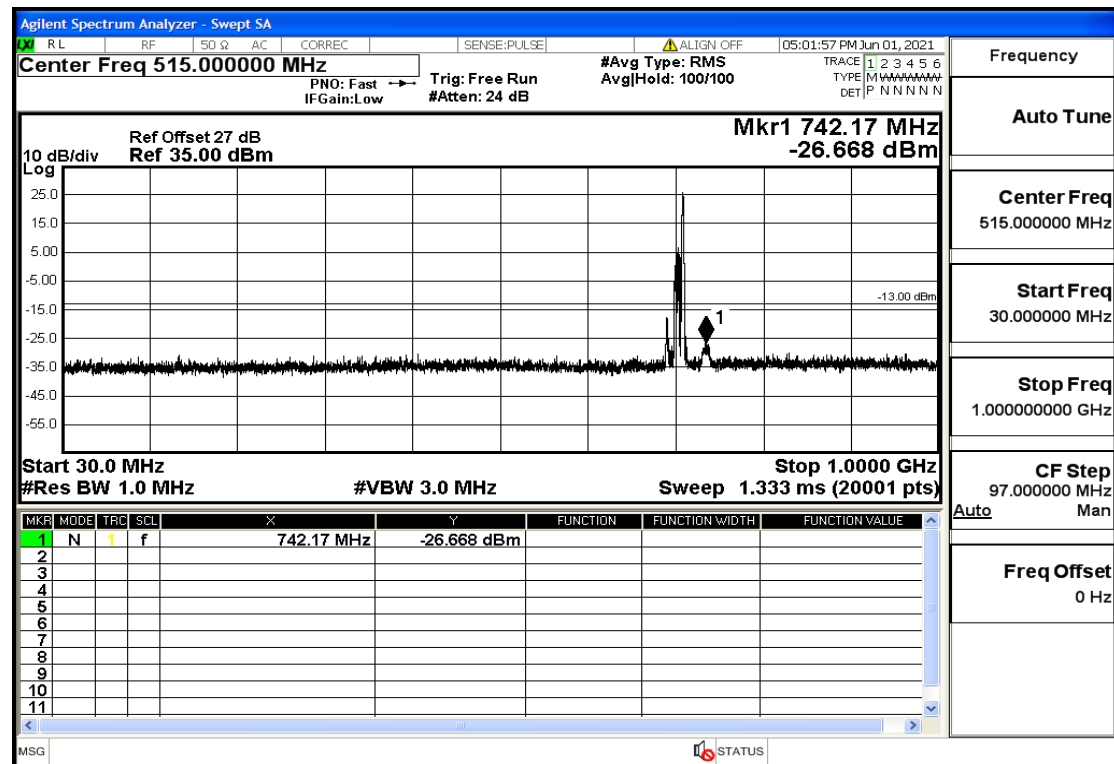
OB12-10-711-QPSK-1#LOW@30MHz-1GHz@Pass



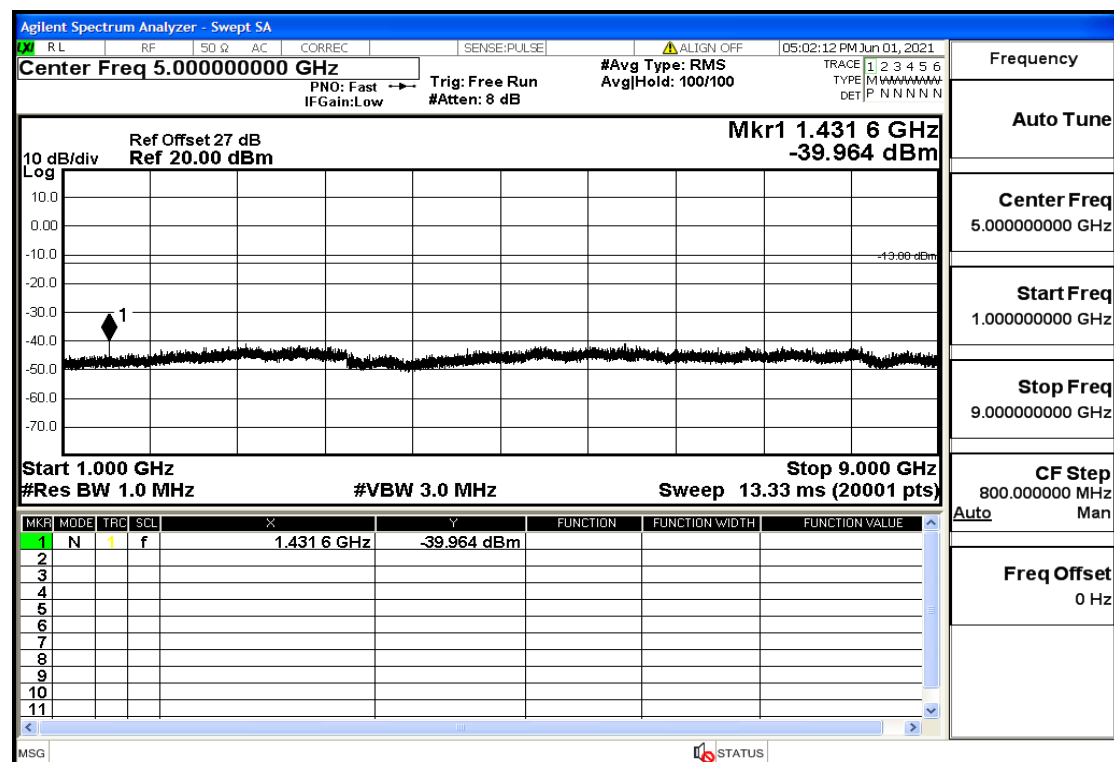
OB12-10-711-QPSK-1#LOW@1GHz-9GHz@Pass



OB12-10-711-QPSK-1#HIGH@30mHz-1GHz@Pass



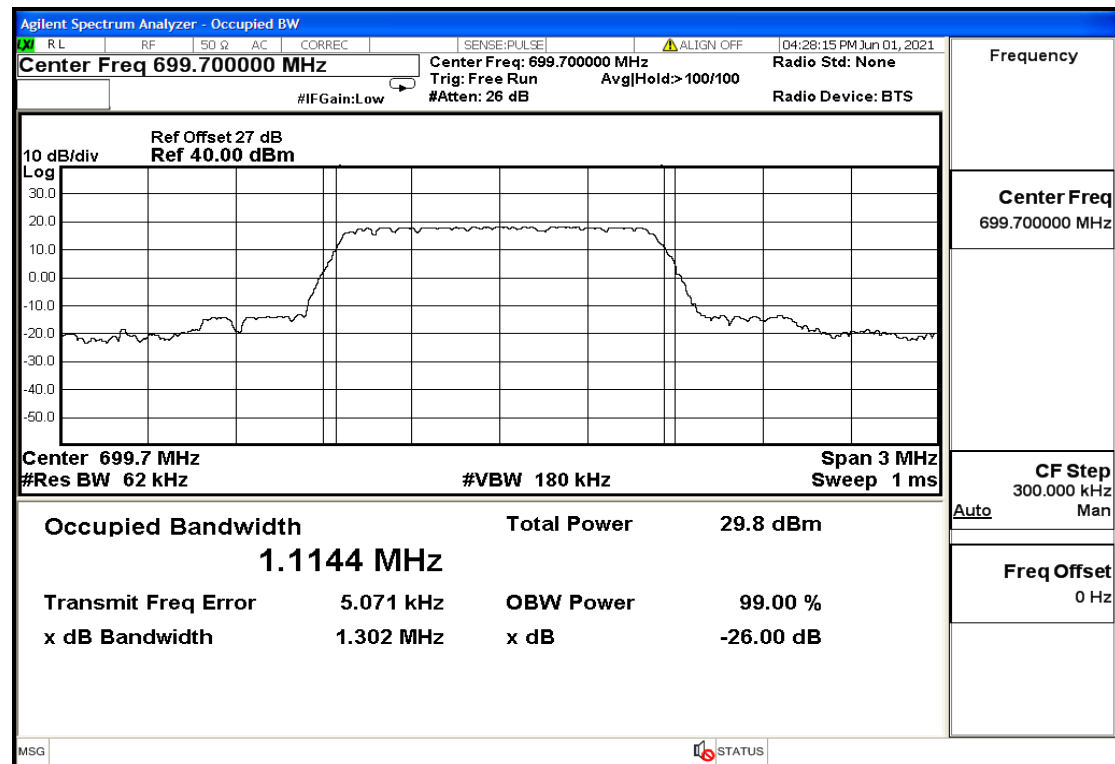
OB12-10-711-QPSK-1#HIGH@1GHz-9GHz@Pass



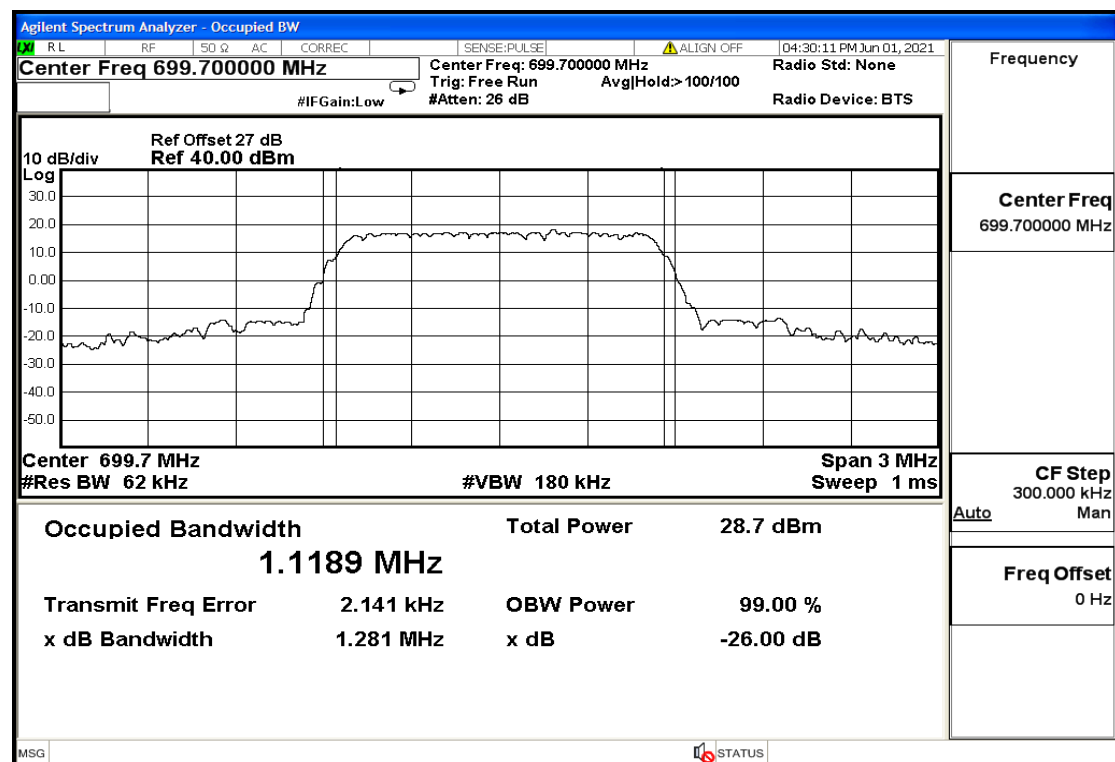
Emission bandwidth and OBW

Band	Bandwidth(MHz)	UL Frequency(MHz)	Modulation	RB Size	RB Offset	Occupied Bandwidth(KHz)	Emission Bandwidth(KHz)	Limit
Band12	1.4	699.7	QPSK	6	LOW	1114.4	1302	No limit
Band12	1.4	699.7	16QAM	6	LOW	1118.9	1281	No limit
Band12	1.4	707.5	QPSK	6	LOW	1126.2	1281	No limit
Band12	1.4	707.5	16QAM	6	LOW	1115.7	1290	No limit
Band12	1.4	715.3	QPSK	6	LOW	1125.6	1300	No limit
Band12	1.4	715.3	16QAM	6	LOW	1124.6	1295	No limit
Band12	3	700.5	QPSK	15	LOW	2766.5	3112	No limit
Band12	3	700.5	16QAM	15	LOW	2760.5	3115	No limit
Band12	3	707.5	QPSK	15	LOW	2750.8	3083	No limit
Band12	3	707.5	16QAM	15	LOW	2763.7	3117	No limit
Band12	3	714.5	QPSK	15	LOW	2772.2	3134	No limit
Band12	3	714.5	16QAM	15	LOW	2761.8	3139	No limit
Band12	5	701.5	QPSK	25	LOW	4573.1	5089	No limit
Band12	5	701.5	16QAM	25	LOW	4568.6	5112	No limit
Band12	5	707.5	QPSK	25	LOW	4569.2	5111	No limit
Band12	5	707.5	16QAM	25	LOW	4565.5	5126	No limit
Band12	5	713.5	QPSK	25	LOW	4576.7	5090	No limit
Band12	5	713.5	16QAM	25	LOW	4577.8	5111	No limit
Band12	10	704	QPSK	50	LOW	9116.0	10090	No limit
Band12	10	704	16QAM	50	LOW	9123.2	10140	No limit
Band12	10	707.5	QPSK	50	LOW	9120.0	10090	No limit
Band12	10	707.5	16QAM	50	LOW	9082.7	10080	No limit
Band12	10	711	QPSK	50	LOW	9089.1	9997	No limit
Band12	10	711	16QAM	50	LOW	9095.7	10130	No limit

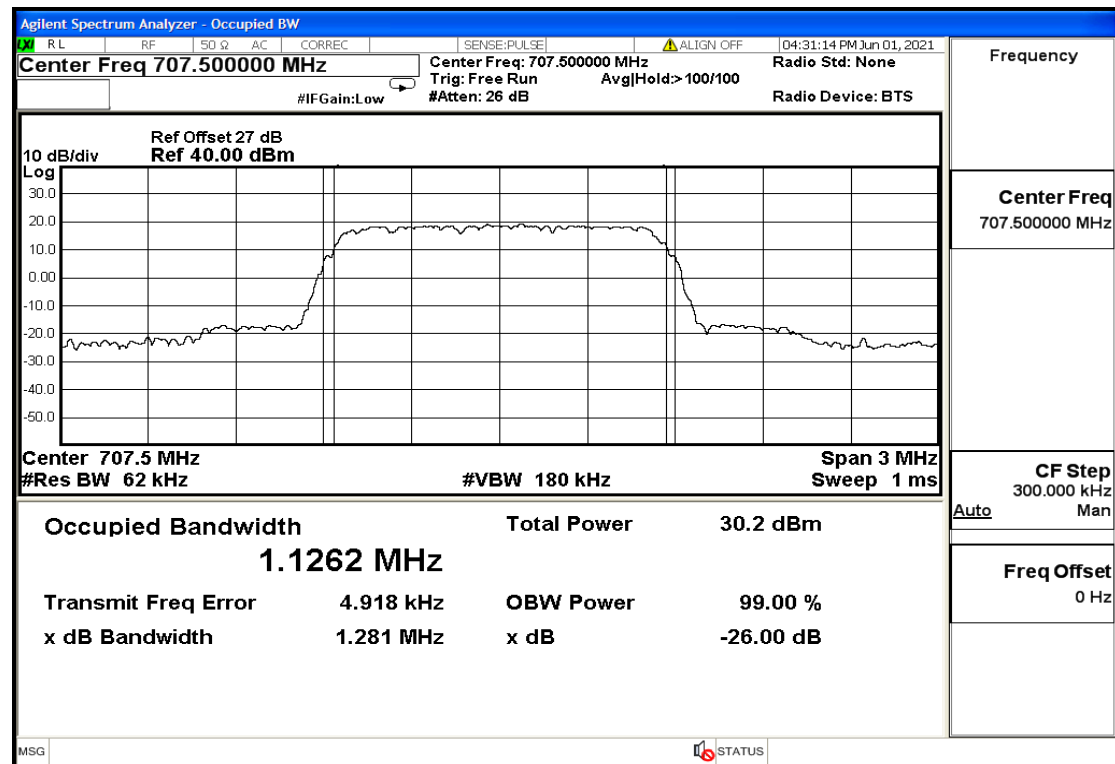
Band12-1.4-699.7-QPSK-6#LOW@26dB and 99PCT Bandwidth



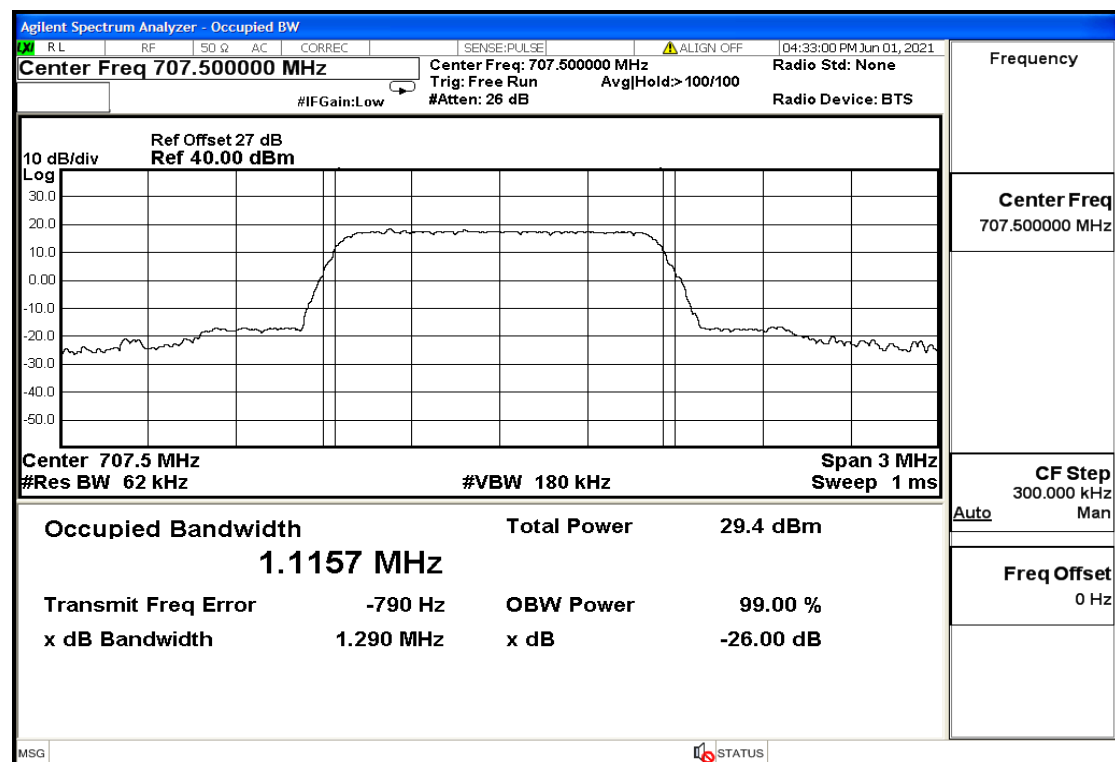
Band12-1.4-699.7-16QAM-6#LOW@26dB and 99PCT Bandwidth



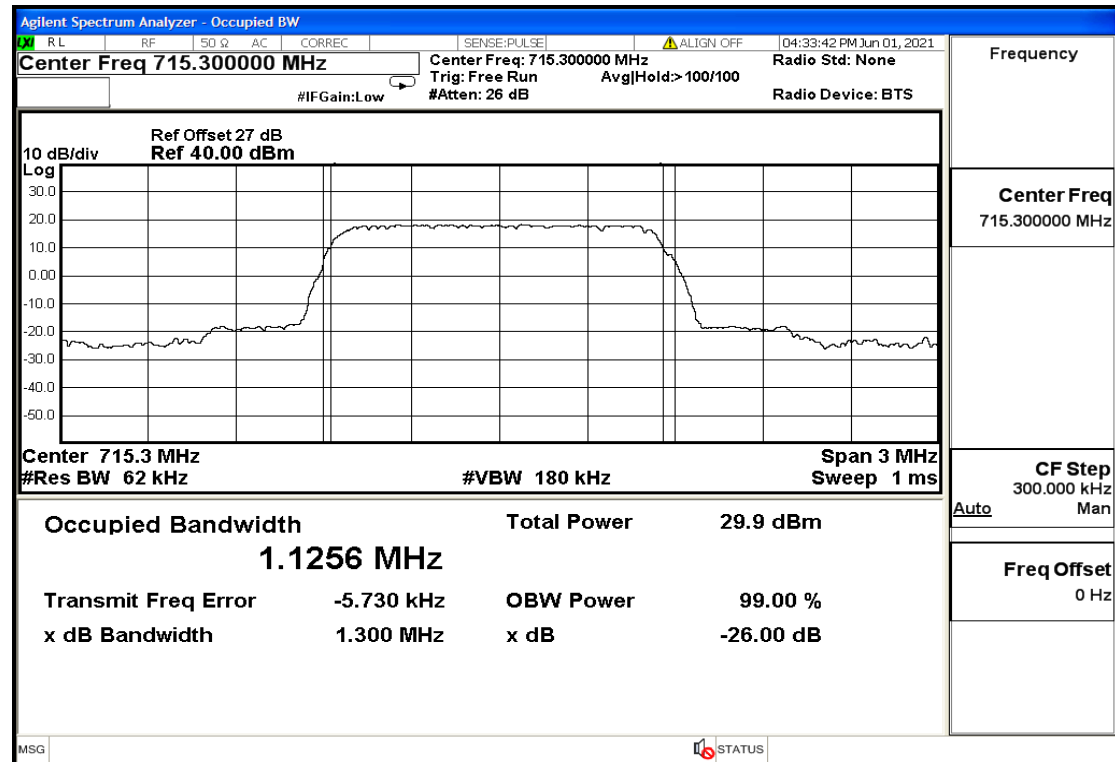
Band12-1.4-707.5-QPSK-6#LOW@26dB and 99PCT Bandwidth



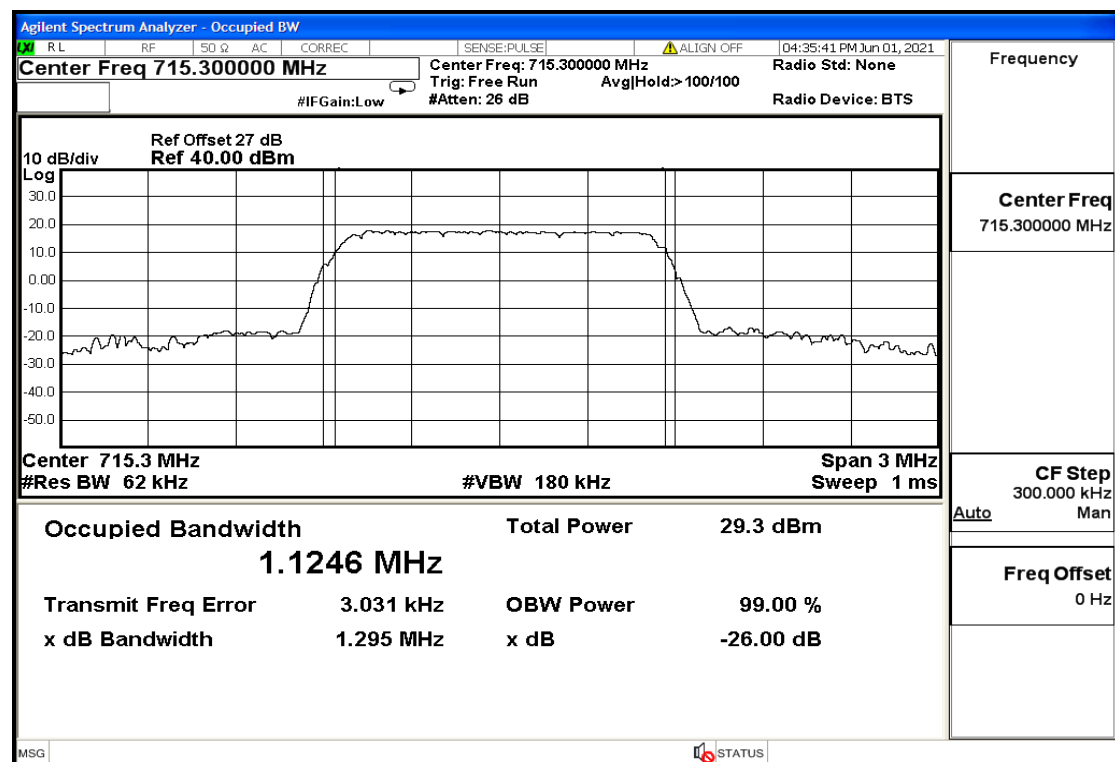
Band12-1.4-707.5-16QAM-6#LOW@26dB and 99PCT Bandwidth



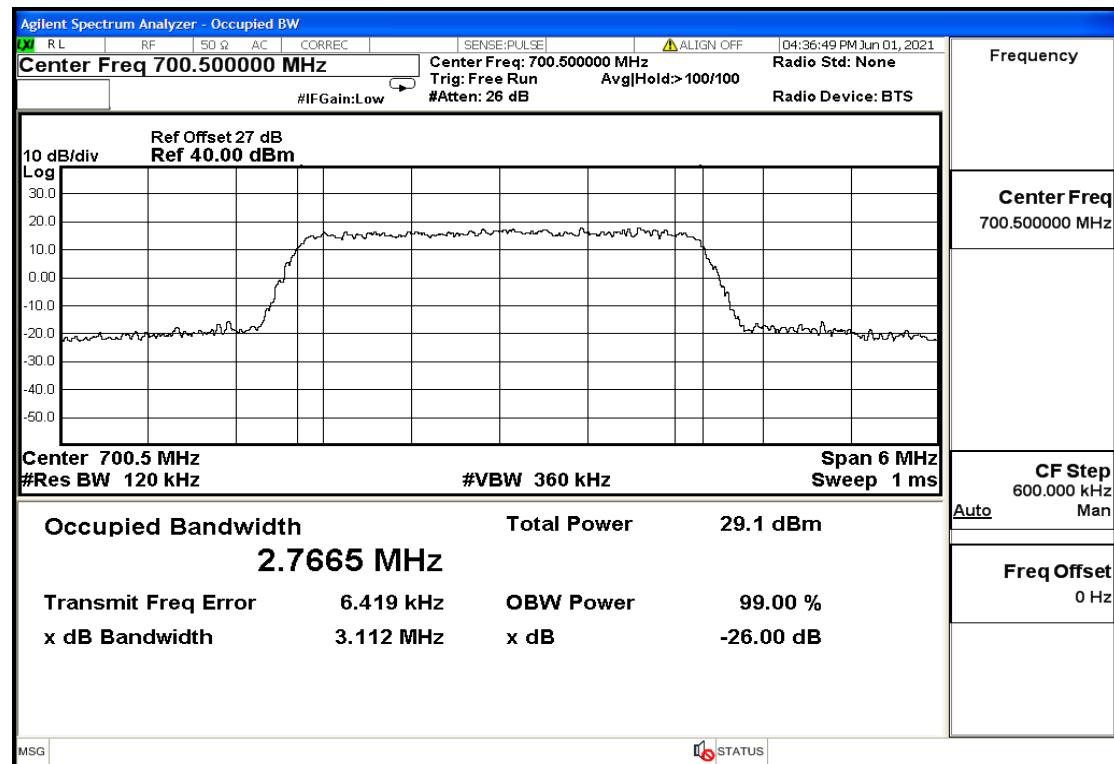
Band12-1.4-715.3-QPSK-6#LOW@26dB and 99PCT Bandwidth



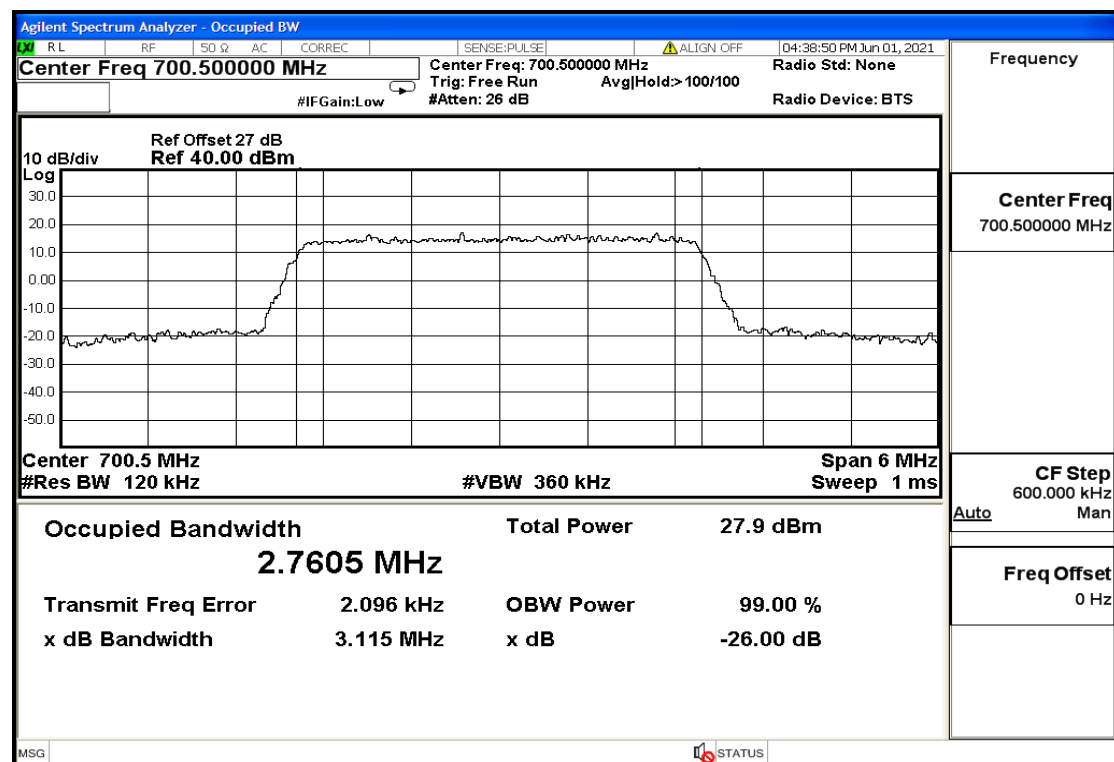
Band12-1.4-715.3-16QAM-6#LOW@26dB and 99PCT Bandwidth



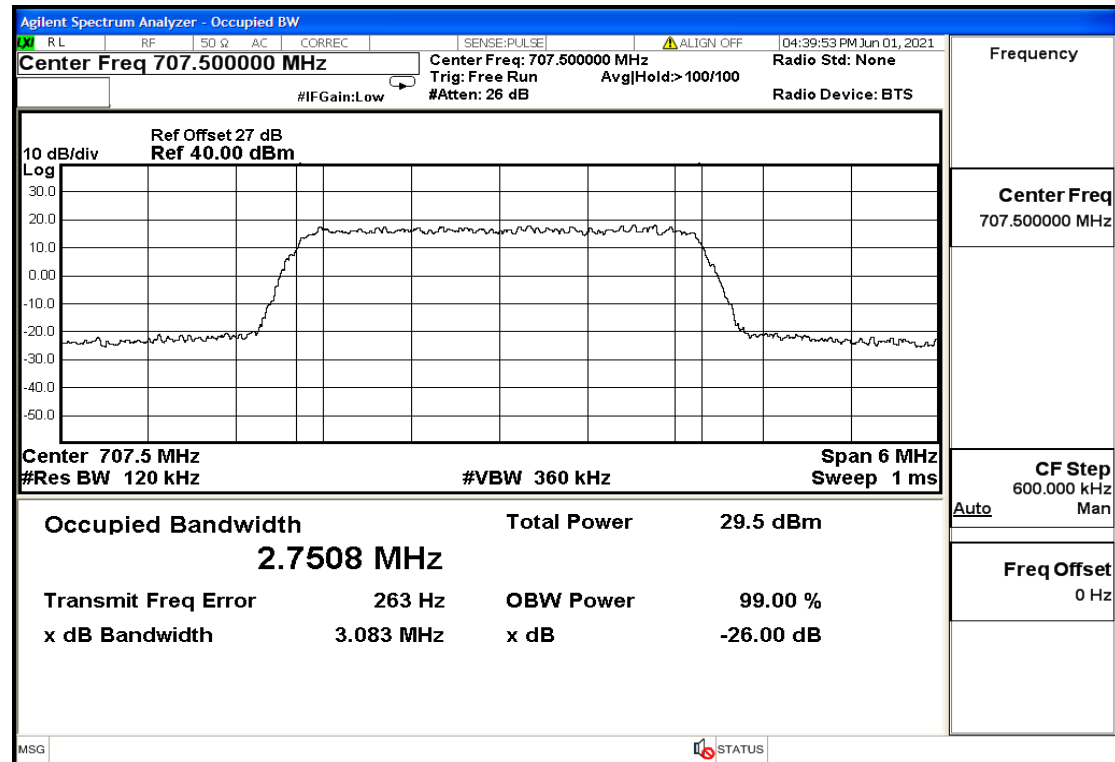
Band12-3-700.5-QPSK-15#LOW@26dB and 99PCT Bandwidth



Band12-3-700.5-16QAM-15#LOW@26dB and 99PCT Bandwidth



Band12-3-707.5-QPSK-15#LOW@26dB and 99PCT Bandwidth



Band12-3-707.5-16QAM-15#LOW@26dB and 99PCT Bandwidth

