



Band48	10MHz	256QAM	55290	E-TM3.1A	NV	10	39	0.011
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	20	6	0.001
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	30	48	0.014
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	40	-58	-0.016
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	50	15	0.004
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	55	-22	-0.006
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-40	-23	-0.006
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-30	-56	-0.016
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-20	2	0.001
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-10	59	0.017
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	0	9	0.003
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	10	-11	-0.003
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	20	-32	-0.009
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	30	-37	-0.010
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	40	-9	-0.003
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	50	80	0.023
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	55	-62	-0.017
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-40	70	0.020
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-30	-37	-0.010
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-20	-20	-0.006
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-10	76	0.021
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	0	-51	-0.014
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	10	-34	-0.010
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	20	33	0.009
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	30	30	0.008
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	40	24	0.007
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	50	-25	-0.007
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	55	60	0.017
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-40	16	0.005
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-30	-18	-0.005
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-20	-22	-0.006
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-10	46	0.013
Band48	10MHz	QPSK	55290	E-TM1.1	NV	0	13	0.004
Band48	10MHz	QPSK	55290	E-TM1.1	NV	10	78	0.022
Band48	10MHz	QPSK	55290	E-TM1.1	NV	20	-53	-0.015
Band48	10MHz	QPSK	55290	E-TM1.1	NV	30	42	0.012
Band48	10MHz	QPSK	55290	E-TM1.1	NV	40	-16	-0.005
Band48	10MHz	QPSK	55290	E-TM1.1	NV	50	24	0.007
Band48	10MHz	QPSK	55290	E-TM1.1	NV	55	-7	-0.002



Band48	10MHz	QPSK	55990	E-TM1.1	NV	-40	53	0.015
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-30	7	0.002
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-20	76	0.021
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-10	-38	-0.011
Band48	10MHz	QPSK	55990	E-TM1.1	NV	0	32	0.009
Band48	10MHz	QPSK	55990	E-TM1.1	NV	10	-21	-0.006
Band48	10MHz	QPSK	55990	E-TM1.1	NV	20	42	0.012
Band48	10MHz	QPSK	55990	E-TM1.1	NV	30	-56	-0.016
Band48	10MHz	QPSK	55990	E-TM1.1	NV	40	69	0.019
Band48	10MHz	QPSK	55990	E-TM1.1	NV	50	-50	-0.014
Band48	10MHz	QPSK	55990	E-TM1.1	NV	55	23	0.006
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-40	-13	-0.004
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-30	13	0.004
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-20	-12	-0.003
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-10	16	0.005
Band48	10MHz	QPSK	56690	E-TM1.1	NV	0	-52	-0.015
Band48	10MHz	QPSK	56690	E-TM1.1	NV	10	-17	-0.005
Band48	10MHz	QPSK	56690	E-TM1.1	NV	20	35	0.010
Band48	10MHz	QPSK	56690	E-TM1.1	NV	30	76	0.021
Band48	10MHz	QPSK	56690	E-TM1.1	NV	40	-45	-0.013
Band48	10MHz	QPSK	56690	E-TM1.1	NV	50	-31	-0.009
Band48	10MHz	QPSK	56690	E-TM1.1	NV	55	-57	-0.016
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-40	78	0.022
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-30	-40	-0.011
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-20	-61	-0.017
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-10	50	0.014
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	0	-63	-0.018
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	10	-31	-0.009
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	20	-1	0.000
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	30	-3	-0.001
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	40	22	0.006
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	50	58	0.016
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	55	24	0.007
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-40	50	0.014
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-30	71	0.020
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-20	29	0.008
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-10	25	0.007
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	0	-69	-0.019
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	10	44	0.012



Band48	20MHz	256QAM	55990	E-TM3.1A	NV	20	-59	-0.017
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	30	16	0.005
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	40	-24	-0.007
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	50	-44	-0.012
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	55	69	0.019
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-40	-29	-0.008
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-30	70	0.020
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-20	38	0.011
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-10	61	0.017
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	0	-46	-0.013
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	10	-8	-0.002
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	20	47	0.013
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	30	21	0.006
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	40	66	0.019
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	50	8	0.002
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	55	66	0.019
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-40	52	0.015
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-30	62	0.017
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-20	3	0.001
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-10	24	0.007
Band48	20MHz	QPSK	55340	E-TM1.1	NV	0	-13	-0.004
Band48	20MHz	QPSK	55340	E-TM1.1	NV	10	17	0.005
Band48	20MHz	QPSK	55340	E-TM1.1	NV	20	-33	-0.009
Band48	20MHz	QPSK	55340	E-TM1.1	NV	30	40	0.011
Band48	20MHz	QPSK	55340	E-TM1.1	NV	40	-21	-0.006
Band48	20MHz	QPSK	55340	E-TM1.1	NV	50	-59	-0.017
Band48	20MHz	QPSK	55340	E-TM1.1	NV	55	-21	-0.006
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-40	51	0.014
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-30	-26	-0.007
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-20	3	0.001
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-10	-37	-0.010
Band48	20MHz	QPSK	55990	E-TM1.1	NV	0	64	0.018
Band48	20MHz	QPSK	55990	E-TM1.1	NV	10	-21	-0.006
Band48	20MHz	QPSK	55990	E-TM1.1	NV	20	-21	-0.006
Band48	20MHz	QPSK	55990	E-TM1.1	NV	30	-16	-0.005
Band48	20MHz	QPSK	55990	E-TM1.1	NV	40	26	0.007
Band48	20MHz	QPSK	55990	E-TM1.1	NV	50	37	0.010
Band48	20MHz	QPSK	55990	E-TM1.1	NV	55	58	0.016
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-40	-51	-0.014

Band48	20MHz	QPSK	56640	E-TM1.1	NV	-30	13	0.004
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-20	-62	-0.017
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-10	12	0.003
Band48	20MHz	QPSK	56640	E-TM1.1	NV	0	-10	-0.003
Band48	20MHz	QPSK	56640	E-TM1.1	NV	10	70	0.020
Band48	20MHz	QPSK	56640	E-TM1.1	NV	20	-1	0.001
Band48	20MHz	QPSK	56640	E-TM1.1	NV	30	-3	-0.001
Band48	20MHz	QPSK	56640	E-TM1.1	NV	40	46	0.013
Band48	20MHz	QPSK	56640	E-TM1.1	NV	50	69	0.019
Band48	20MHz	QPSK	56640	E-TM1.1	NV	55	20	0.006

### 3)Test For ANT3 Test Result

#### Test Result

Band	Bandwidth	Modulation	Channel	Mode	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)
Band48	10MHz	256QAM	55290	E-TM3.1A	LV	NT	-44	-0.012
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	NT	76	0.021
Band48	10MHz	256QAM	55290	E-TM3.1A	HV	NT	-6	-0.002
Band48	10MHz	256QAM	55990	E-TM3.1A	LV	NT	64	0.018
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	NT	18	0.005
Band48	10MHz	256QAM	55990	E-TM3.1A	HV	NT	-35	-0.010
Band48	10MHz	256QAM	56690	E-TM3.1A	LV	NT	-47	-0.013
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	NT	-57	-0.016
Band48	10MHz	256QAM	56690	E-TM3.1A	HV	NT	-9	-0.003
Band48	10MHz	QPSK	55290	E-TM1.1	LV	NT	77	0.022
Band48	10MHz	QPSK	55290	E-TM1.1	NV	NT	-38	-0.011
Band48	10MHz	QPSK	55290	E-TM1.1	HV	NT	-64	-0.018
Band48	10MHz	QPSK	55990	E-TM1.1	LV	NT	26	0.007
Band48	10MHz	QPSK	55990	E-TM1.1	NV	NT	-55	-0.015
Band48	10MHz	QPSK	55990	E-TM1.1	HV	NT	-53	-0.015
Band48	10MHz	QPSK	56690	E-TM1.1	LV	NT	20	0.006
Band48	10MHz	QPSK	56690	E-TM1.1	NV	NT	-63	-0.018
Band48	10MHz	QPSK	56690	E-TM1.1	HV	NT	-27	-0.008
Band48	20MHz	256QAM	55340	E-TM3.1A	LV	NT	-57	-0.016
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	NT	59	0.017
Band48	20MHz	256QAM	55340	E-TM3.1A	HV	NT	8	0.002
Band48	20MHz	256QAM	55990	E-TM3.1A	LV	NT	32	0.009
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	NT	-20	-0.006



Band48	20MHz	256QAM	55990	E-TM3.1A	HV	NT	49	0.014
Band48	20MHz	256QAM	56640	E-TM3.1A	LV	NT	26	0.007
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	NT	1	0.001
Band48	20MHz	256QAM	56640	E-TM3.1A	HV	NT	29	0.008
Band48	20MHz	QPSK	55340	E-TM1.1	LV	NT	56	0.016
Band48	20MHz	QPSK	55340	E-TM1.1	NV	NT	-24	-0.007
Band48	20MHz	QPSK	55340	E-TM1.1	HV	NT	-68	-0.019
Band48	20MHz	QPSK	55990	E-TM1.1	LV	NT	22	0.006
Band48	20MHz	QPSK	55990	E-TM1.1	NV	NT	70	0.020
Band48	20MHz	QPSK	55990	E-TM1.1	HV	NT	55	0.015
Band48	20MHz	QPSK	56640	E-TM1.1	LV	NT	16	0.005
Band48	20MHz	QPSK	56640	E-TM1.1	NV	NT	60	0.017
Band48	20MHz	QPSK	56640	E-TM1.1	HV	NT	68	0.019

Band	Bandwidth	Modulation	Channel	Mode	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	-40	61	0.017
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	-30	-17	-0.005
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	-20	74	0.021
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	-10	-41	-0.012
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	0	-67	-0.019
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	10	-22	-0.006
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	20	-26	-0.007
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	30	5	0.001
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	40	41	0.012
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	50	44	0.012
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	55	53	0.015
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-40	-50	-0.014
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-30	4	0.001
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-20	62	0.017
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-10	-28	-0.008
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	0	54	0.015
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	10	-62	-0.017
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	20	25	0.007
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	30	22	0.006
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	40	-15	-0.004
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	50	10	0.003
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	55	40	0.011
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-40	-14	-0.004



Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-30	74	0.021
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-20	36	0.010
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-10	2	0.001
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	0	6	0.002
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	10	-34	-0.010
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	20	3	0.001
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	30	21	0.006
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	40	65	0.018
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	50	-40	-0.011
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	55	33	0.009
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-40	-15	-0.004
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-30	-68	-0.019
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-20	9	0.003
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-10	24	0.007
Band48	10MHz	QPSK	55290	E-TM1.1	NV	0	-40	-0.011
Band48	10MHz	QPSK	55290	E-TM1.1	NV	10	-43	-0.012
Band48	10MHz	QPSK	55290	E-TM1.1	NV	20	-68	-0.019
Band48	10MHz	QPSK	55290	E-TM1.1	NV	30	63	0.018
Band48	10MHz	QPSK	55290	E-TM1.1	NV	40	-4	-0.001
Band48	10MHz	QPSK	55290	E-TM1.1	NV	50	26	0.007
Band48	10MHz	QPSK	55290	E-TM1.1	NV	55	-16	-0.005
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-40	-52	-0.015
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-30	3	0.001
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-20	-62	-0.017
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-10	63	0.018
Band48	10MHz	QPSK	55990	E-TM1.1	NV	0	26	0.007
Band48	10MHz	QPSK	55990	E-TM1.1	NV	10	17	0.005
Band48	10MHz	QPSK	55990	E-TM1.1	NV	20	55	0.015
Band48	10MHz	QPSK	55990	E-TM1.1	NV	30	5	0.001
Band48	10MHz	QPSK	55990	E-TM1.1	NV	40	35	0.010
Band48	10MHz	QPSK	55990	E-TM1.1	NV	50	-40	-0.011
Band48	10MHz	QPSK	55990	E-TM1.1	NV	55	-17	-0.005
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-40	-15	-0.004
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-30	-8	-0.002
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-20	-64	-0.018
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-10	27	0.008
Band48	10MHz	QPSK	56690	E-TM1.1	NV	0	12	0.003
Band48	10MHz	QPSK	56690	E-TM1.1	NV	10	78	0.022
Band48	10MHz	QPSK	56690	E-TM1.1	NV	20	-43	-0.012





Band48	10MHz	QPSK	56690	E-TM1.1	NV	30	-10	-0.003
Band48	10MHz	QPSK	56690	E-TM1.1	NV	40	-46	-0.013
Band48	10MHz	QPSK	56690	E-TM1.1	NV	50	-17	-0.005
Band48	10MHz	QPSK	56690	E-TM1.1	NV	55	-23	-0.006
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-40	-7	-0.002
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-30	18	0.005
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-20	12	0.003
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-10	31	0.009
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	0	71	0.020
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	10	-62	-0.017
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	20	-65	-0.018
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	30	67	0.019
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	40	-34	-0.010
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	50	-24	-0.007
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	55	29	0.008
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-40	-20	-0.006
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-30	65	0.018
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-20	-27	-0.008
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-10	14	0.004
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	0	-13	-0.004
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	10	68	0.019
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	20	6	0.002
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	30	-31	-0.009
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	40	-3	-0.001
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	50	37	0.010
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	55	34	0.010
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-40	-44	-0.012
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-30	-10	-0.003
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-20	-4	-0.001
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-10	-22	-0.006
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	0	-28	-0.008
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	10	65	0.018
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	20	38	0.011
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	30	-41	-0.012
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	40	60	0.017
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	50	-44	-0.012
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	55	-7	-0.002
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-40	-67	-0.019
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-30	14	0.004

Band48	20MHz	QPSK	55340	E-TM1.1	NV	-20	65	0.018
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-10	34	0.010
Band48	20MHz	QPSK	55340	E-TM1.1	NV	0	-17	-0.005
Band48	20MHz	QPSK	55340	E-TM1.1	NV	10	39	0.011
Band48	20MHz	QPSK	55340	E-TM1.1	NV	20	-68	-0.019
Band48	20MHz	QPSK	55340	E-TM1.1	NV	30	3	0.001
Band48	20MHz	QPSK	55340	E-TM1.1	NV	40	65	0.018
Band48	20MHz	QPSK	55340	E-TM1.1	NV	50	47	0.013
Band48	20MHz	QPSK	55340	E-TM1.1	NV	55	7	0.002
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-40	1	0.000
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-30	42	0.012
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-20	-5	-0.001
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-10	-4	-0.001
Band48	20MHz	QPSK	55990	E-TM1.1	NV	0	66	0.019
Band48	20MHz	QPSK	55990	E-TM1.1	NV	10	55	0.015
Band48	20MHz	QPSK	55990	E-TM1.1	NV	20	-53	-0.015
Band48	20MHz	QPSK	55990	E-TM1.1	NV	30	6	0.002
Band48	20MHz	QPSK	55990	E-TM1.1	NV	40	12	0.003
Band48	20MHz	QPSK	55990	E-TM1.1	NV	50	-39	-0.011
Band48	20MHz	QPSK	55990	E-TM1.1	NV	55	13	0.004
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-40	28	0.008
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-30	-22	-0.006
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-20	31	0.009
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-10	-22	-0.006
Band48	20MHz	QPSK	56640	E-TM1.1	NV	0	33	0.009
Band48	20MHz	QPSK	56640	E-TM1.1	NV	10	-62	-0.017
Band48	20MHz	QPSK	56640	E-TM1.1	NV	20	20	0.006
Band48	20MHz	QPSK	56640	E-TM1.1	NV	30	32	0.009
Band48	20MHz	QPSK	56640	E-TM1.1	NV	40	7	0.002
Band48	20MHz	QPSK	56640	E-TM1.1	NV	50	-41	-0.012
Band48	20MHz	QPSK	56640	E-TM1.1	NV	55	31	0.009

#### 4)Test For ANT4 Test Result

##### Test Result

Band	Bandwidth	Modulation	Channel	Mode	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)
Band48	10MHz	256QAM	55290	E-TM3.1A	LV	NT	-50	-0.014
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	NT	50	0.014
Band48	10MHz	256QAM	55290	E-TM3.1A	HV	NT	78	0.022





Band48	10MHz	256QAM	55990	E-TM3.1A	LV	NT	52	0.015
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	NT	-6	-0.002
Band48	10MHz	256QAM	55990	E-TM3.1A	HV	NT	65	0.018
Band48	10MHz	256QAM	56690	E-TM3.1A	LV	NT	25	0.007
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	NT	-43	-0.012
Band48	10MHz	256QAM	56690	E-TM3.1A	HV	NT	45	0.013
Band48	10MHz	QPSK	55290	E-TM1.1	LV	NT	40	0.011
Band48	10MHz	QPSK	55290	E-TM1.1	NV	NT	25	0.007
Band48	10MHz	QPSK	55290	E-TM1.1	HV	NT	-57	-0.016
Band48	10MHz	QPSK	55990	E-TM1.1	LV	NT	-25	-0.007
Band48	10MHz	QPSK	55990	E-TM1.1	NV	NT	36	0.010
Band48	10MHz	QPSK	55990	E-TM1.1	HV	NT	77	0.022
Band48	10MHz	QPSK	56690	E-TM1.1	LV	NT	-21	-0.006
Band48	10MHz	QPSK	56690	E-TM1.1	NV	NT	32	0.009
Band48	10MHz	QPSK	56690	E-TM1.1	HV	NT	26	0.007
Band48	20MHz	256QAM	55340	E-TM3.1A	LV	NT	68	0.019
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	NT	-36	-0.010
Band48	20MHz	256QAM	55340	E-TM3.1A	HV	NT	-4	-0.001
Band48	20MHz	256QAM	55990	E-TM3.1A	LV	NT	62	0.017
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	NT	-15	-0.004
Band48	20MHz	256QAM	55990	E-TM3.1A	HV	NT	-27	-0.008
Band48	20MHz	256QAM	56640	E-TM3.1A	LV	NT	14	0.004
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	NT	-62	-0.017
Band48	20MHz	256QAM	56640	E-TM3.1A	HV	NT	-2	-0.001
Band48	20MHz	QPSK	55340	E-TM1.1	LV	NT	-42	-0.012
Band48	20MHz	QPSK	55340	E-TM1.1	NV	NT	5	0.001
Band48	20MHz	QPSK	55340	E-TM1.1	HV	NT	-21	-0.006
Band48	20MHz	QPSK	55990	E-TM1.1	LV	NT	-51	-0.014
Band48	20MHz	QPSK	55990	E-TM1.1	NV	NT	34	0.010
Band48	20MHz	QPSK	55990	E-TM1.1	HV	NT	-10	-0.003
Band48	20MHz	QPSK	56640	E-TM1.1	LV	NT	1	0.001
Band48	20MHz	QPSK	56640	E-TM1.1	NV	NT	36	0.010
Band48	20MHz	QPSK	56640	E-TM1.1	HV	NT	36	0.010

Band	Bandwidth	Modulation	Channel	Mode	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	-40	-41	-0.012
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	-30	-56	-0.016
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	-20	48	0.014



Band48	10MHz	256QAM	55290	E-TM3.1A	NV	-10	-20	-0.006
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	0	-19	-0.005
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	10	78	0.022
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	20	63	0.018
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	30	-24	-0.007
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	40	-70	-0.020
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	50	46	0.013
Band48	10MHz	256QAM	55290	E-TM3.1A	NV	55	5	0.001
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-40	37	0.010
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-30	-51	-0.014
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-20	78	0.022
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	-10	-32	-0.009
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	0	-57	-0.016
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	10	8	0.002
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	20	33	0.009
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	30	47	0.013
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	40	-12	-0.003
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	50	-31	-0.009
Band48	10MHz	256QAM	55990	E-TM3.1A	NV	55	64	0.018
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-40	-6	-0.002
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-30	51	0.014
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-20	37	0.010
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	-10	-2	-0.001
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	0	27	0.008
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	10	38	0.011
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	20	15	0.004
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	30	-16	-0.005
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	40	53	0.015
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	50	9	0.003
Band48	10MHz	256QAM	56690	E-TM3.1A	NV	55	-31	-0.009
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-40	-56	-0.016
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-30	7	0.002
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-20	54	0.015
Band48	10MHz	QPSK	55290	E-TM1.1	NV	-10	9	0.003
Band48	10MHz	QPSK	55290	E-TM1.1	NV	0	-58	-0.016
Band48	10MHz	QPSK	55290	E-TM1.1	NV	10	9	0.003
Band48	10MHz	QPSK	55290	E-TM1.1	NV	20	80	0.023
Band48	10MHz	QPSK	55290	E-TM1.1	NV	30	-43	-0.012
Band48	10MHz	QPSK	55290	E-TM1.1	NV	40	50	0.014



Band48	10MHz	QPSK	55290	E-TM1.1	NV	50	-46	-0.013
Band48	10MHz	QPSK	55290	E-TM1.1	NV	55	-27	-0.008
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-40	-24	-0.007
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-30	66	0.019
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-20	34	0.010
Band48	10MHz	QPSK	55990	E-TM1.1	NV	-10	12	0.003
Band48	10MHz	QPSK	55990	E-TM1.1	NV	0	-59	-0.017
Band48	10MHz	QPSK	55990	E-TM1.1	NV	10	-27	-0.008
Band48	10MHz	QPSK	55990	E-TM1.1	NV	20	-35	-0.010
Band48	10MHz	QPSK	55990	E-TM1.1	NV	30	-70	-0.020
Band48	10MHz	QPSK	55990	E-TM1.1	NV	40	-62	-0.017
Band48	10MHz	QPSK	55990	E-TM1.1	NV	50	-23	-0.006
Band48	10MHz	QPSK	55990	E-TM1.1	NV	55	-15	-0.004
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-40	16	0.005
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-30	61	0.017
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-20	-22	-0.006
Band48	10MHz	QPSK	56690	E-TM1.1	NV	-10	-23	-0.006
Band48	10MHz	QPSK	56690	E-TM1.1	NV	0	72	0.020
Band48	10MHz	QPSK	56690	E-TM1.1	NV	10	-58	-0.016
Band48	10MHz	QPSK	56690	E-TM1.1	NV	20	29	0.008
Band48	10MHz	QPSK	56690	E-TM1.1	NV	30	80	0.023
Band48	10MHz	QPSK	56690	E-TM1.1	NV	40	-39	-0.011
Band48	10MHz	QPSK	56690	E-TM1.1	NV	50	34	0.010
Band48	10MHz	QPSK	56690	E-TM1.1	NV	55	-11	-0.003
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-40	54	0.015
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-30	-13	-0.004
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-20	47	0.013
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	-10	70	0.020
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	0	-36	-0.010
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	10	35	0.010
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	20	51	0.014
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	30	-45	-0.013
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	40	-5	-0.001
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	50	-5	-0.001
Band48	20MHz	256QAM	55340	E-TM3.1A	NV	55	67	0.019
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-40	2	0.001
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-30	-5	-0.001
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-20	48	0.014
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	-10	-39	-0.011



Band48	20MHz	256QAM	55990	E-TM3.1A	NV	0	70	0.020
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	10	41	0.012
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	20	-16	-0.005
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	30	66	0.019
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	40	-9	-0.003
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	50	-23	-0.006
Band48	20MHz	256QAM	55990	E-TM3.1A	NV	55	63	0.018
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-40	-11	-0.003
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-30	-13	-0.004
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-20	-13	-0.004
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	-10	9	0.003
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	0	12	0.003
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	10	-16	-0.005
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	20	-46	-0.013
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	30	62	0.017
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	40	-2	-0.001
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	50	-67	-0.019
Band48	20MHz	256QAM	56640	E-TM3.1A	NV	55	-60	-0.017
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-40	-26	-0.007
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-30	-8	-0.002
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-20	-58	-0.016
Band48	20MHz	QPSK	55340	E-TM1.1	NV	-10	20	0.006
Band48	20MHz	QPSK	55340	E-TM1.1	NV	0	20	0.006
Band48	20MHz	QPSK	55340	E-TM1.1	NV	10	18	0.005
Band48	20MHz	QPSK	55340	E-TM1.1	NV	20	7	0.002
Band48	20MHz	QPSK	55340	E-TM1.1	NV	30	-46	-0.013
Band48	20MHz	QPSK	55340	E-TM1.1	NV	40	-33	-0.009
Band48	20MHz	QPSK	55340	E-TM1.1	NV	50	57	0.016
Band48	20MHz	QPSK	55340	E-TM1.1	NV	55	5	0.001
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-40	78	0.022
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-30	-11	-0.003
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-20	-1	-0.001
Band48	20MHz	QPSK	55990	E-TM1.1	NV	-10	43	0.012
Band48	20MHz	QPSK	55990	E-TM1.1	NV	0	45	0.013
Band48	20MHz	QPSK	55990	E-TM1.1	NV	10	-51	-0.014
Band48	20MHz	QPSK	55990	E-TM1.1	NV	20	60	0.017
Band48	20MHz	QPSK	55990	E-TM1.1	NV	30	-61	-0.017
Band48	20MHz	QPSK	55990	E-TM1.1	NV	40	59	0.017
Band48	20MHz	QPSK	55990	E-TM1.1	NV	50	-70	-0.020

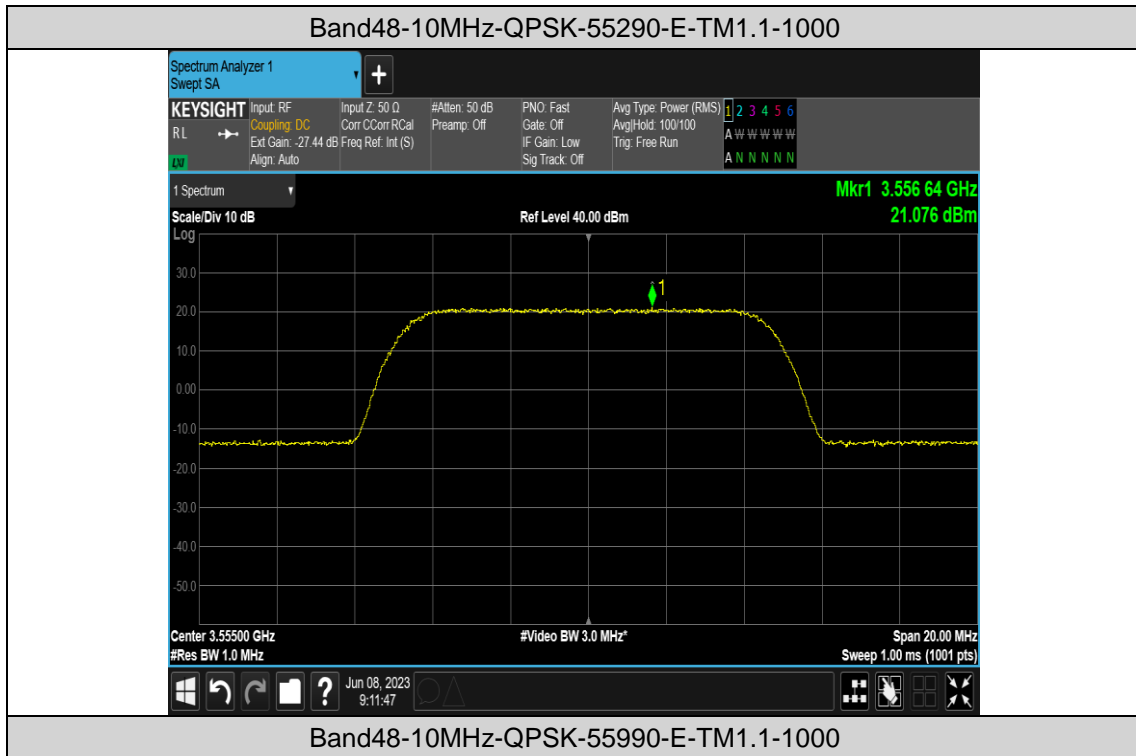


Band48	20MHz	QPSK	55990	E-TM1.1	NV	55	-6	-0.002
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-40	23	0.006
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-30	28	0.008
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-20	41	0.012
Band48	20MHz	QPSK	56640	E-TM1.1	NV	-10	14	0.004
Band48	20MHz	QPSK	56640	E-TM1.1	NV	0	-8	-0.002
Band48	20MHz	QPSK	56640	E-TM1.1	NV	10	49	0.014
Band48	20MHz	QPSK	56640	E-TM1.1	NV	20	-70	-0.020
Band48	20MHz	QPSK	56640	E-TM1.1	NV	30	-34	-0.010
Band48	20MHz	QPSK	56640	E-TM1.1	NV	40	7	0.002
Band48	20MHz	QPSK	56640	E-TM1.1	NV	50	29	0.008
Band48	20MHz	QPSK	56640	E-TM1.1	NV	55	-39	-0.011

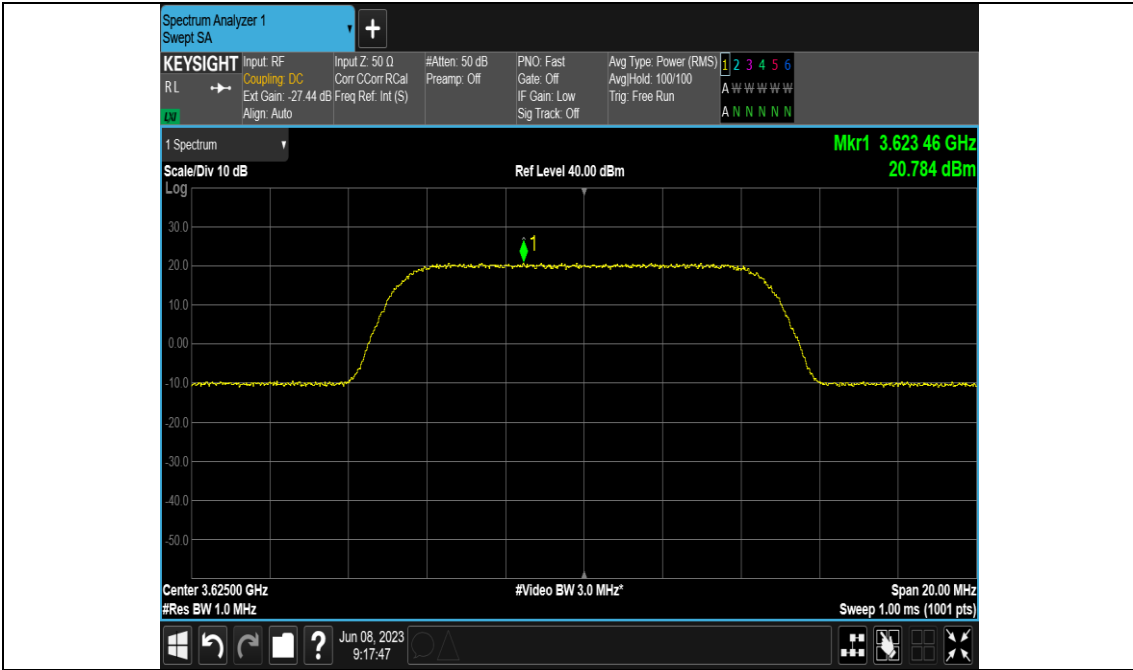
## Appendix G: PSD

### 1) Test For ANT1 Test Result

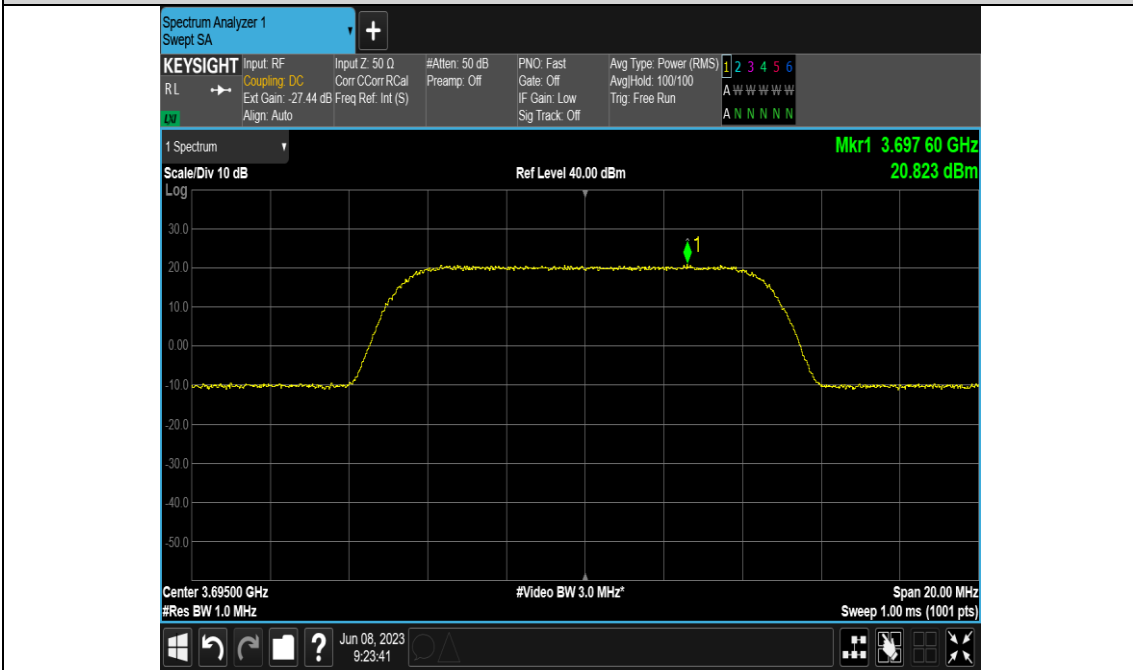
#### Test Graphs



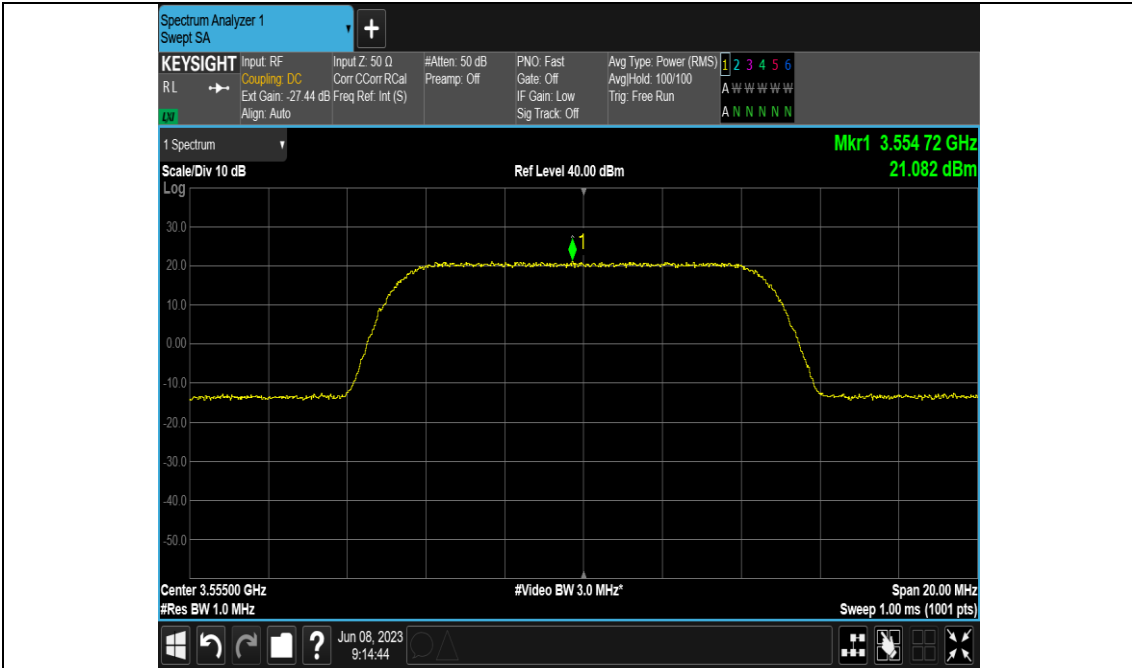




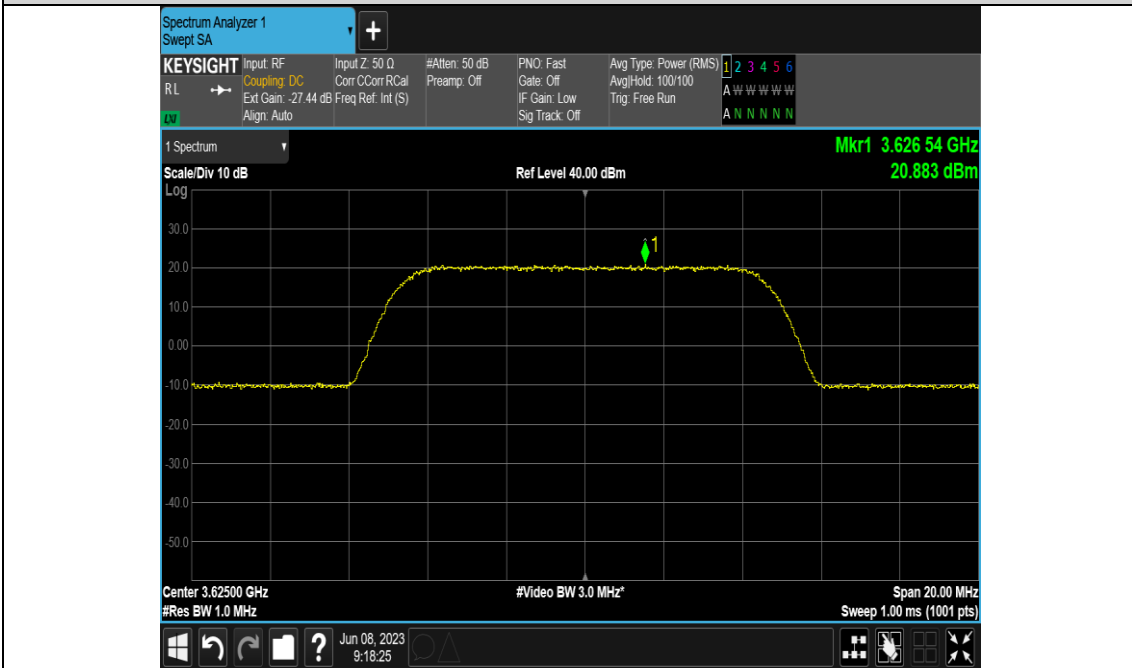
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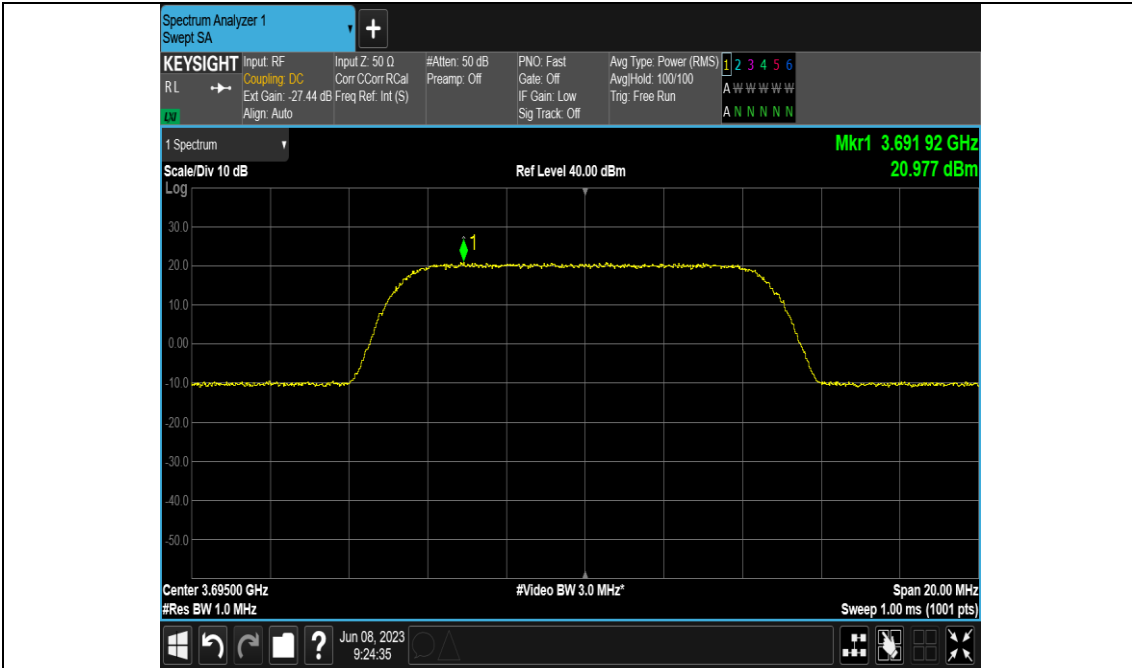
Band48-10MHz-256QAM-55290-E-TM3.1A-1000



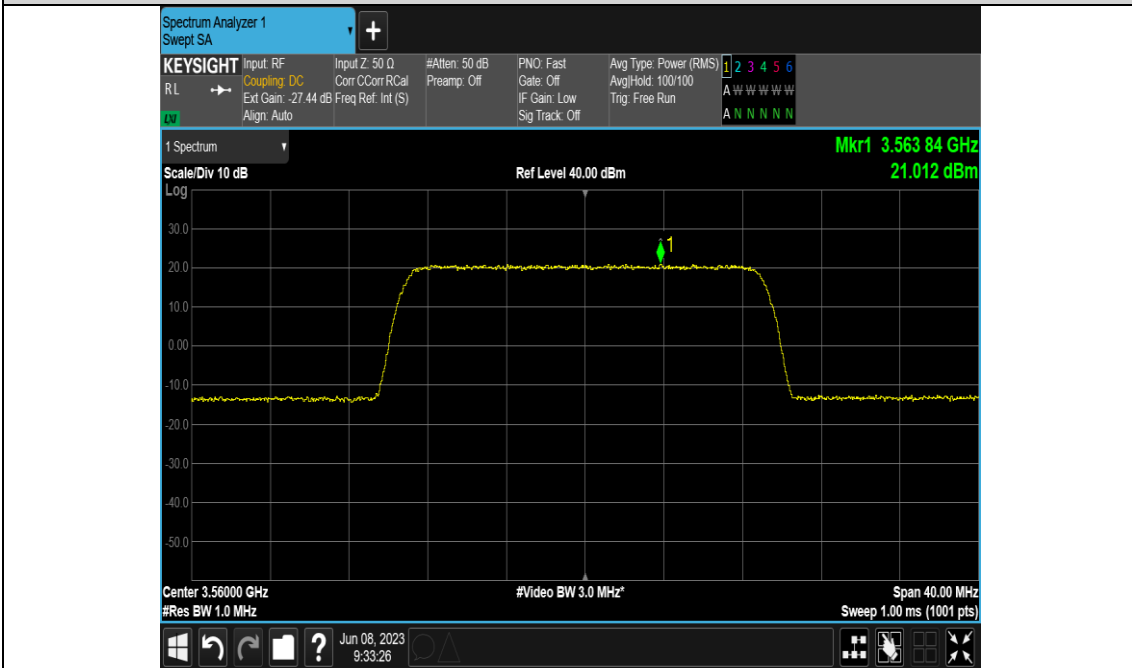
Band48-10MHz-256QAM-55990-E-TM3.1A-1000



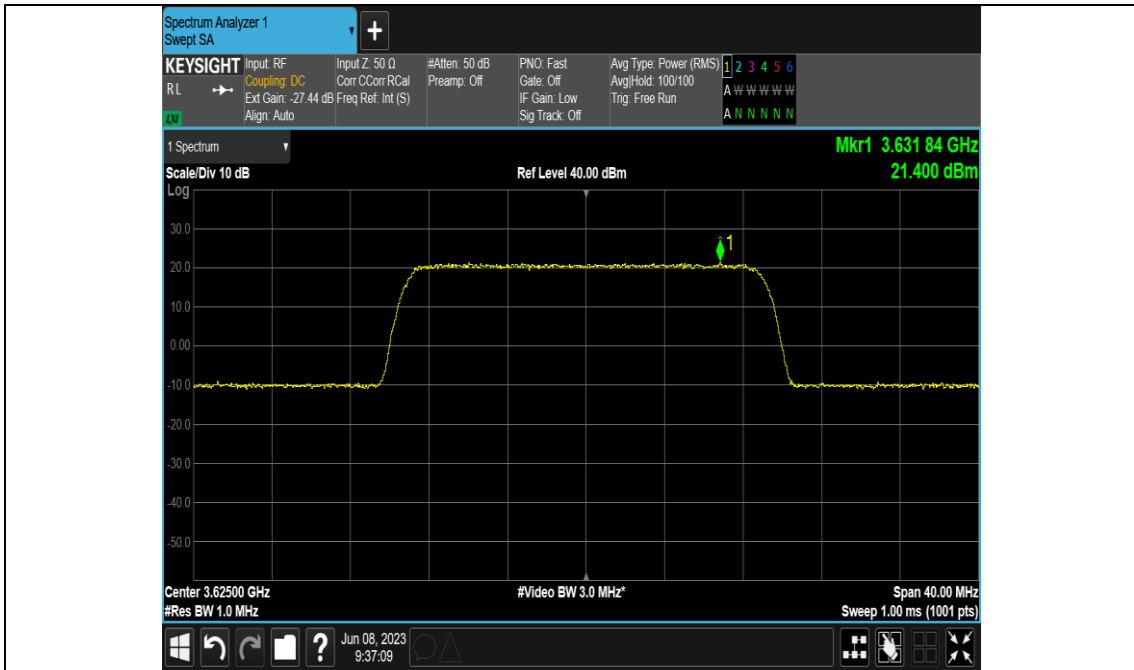
Band48-10MHz-256QAM-56690-E-TM3.1A-1000



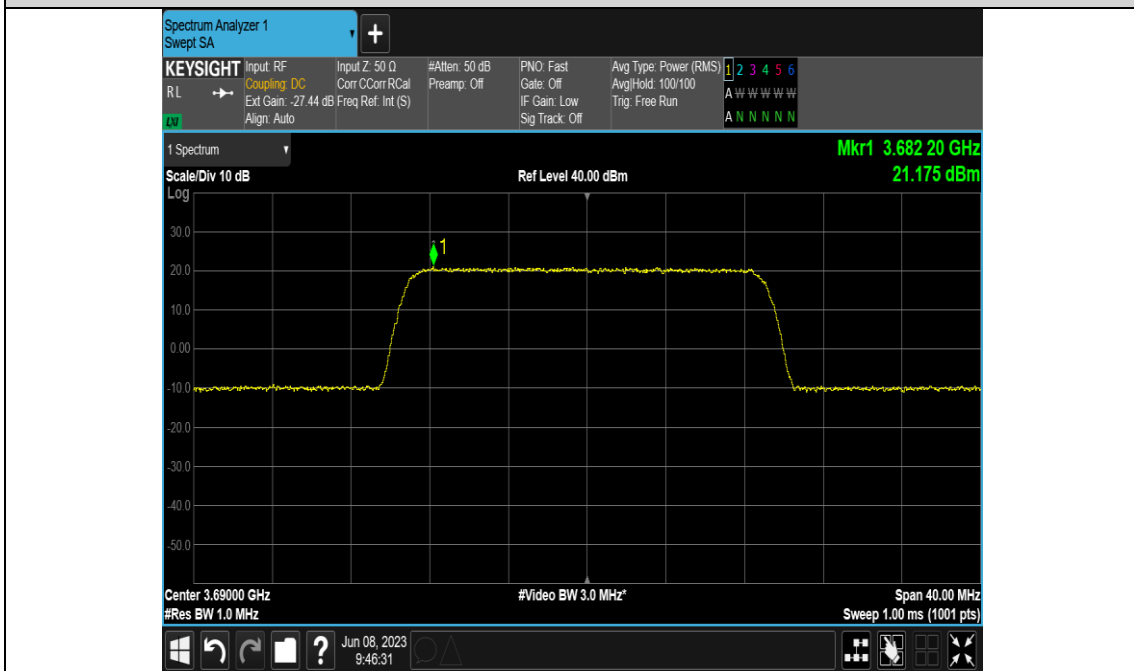
Band48-20MHz-QPSK-55340-E-TM1.1-1000



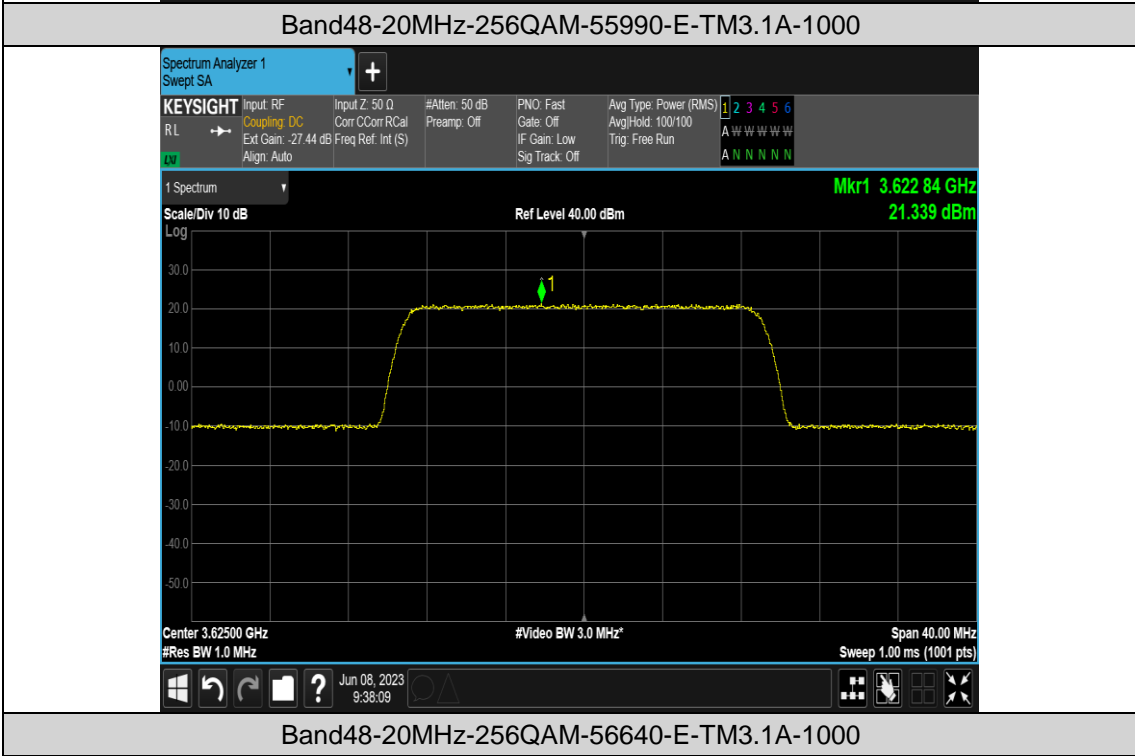
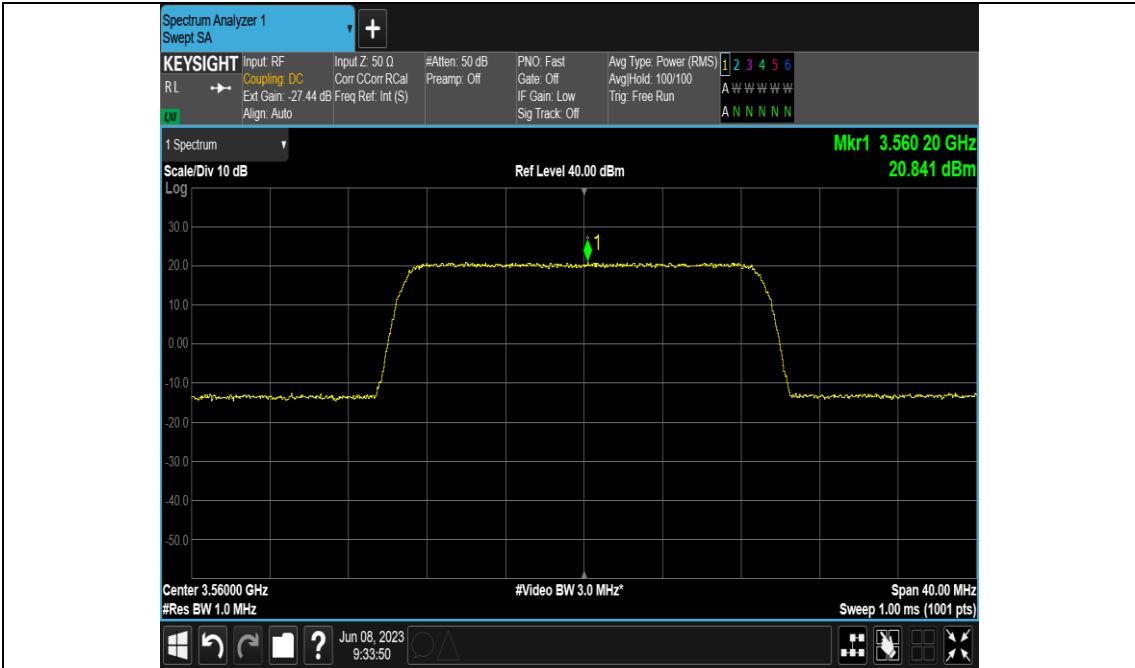
Band48-20MHz-QPSK-55990-E-TM1.1-1000

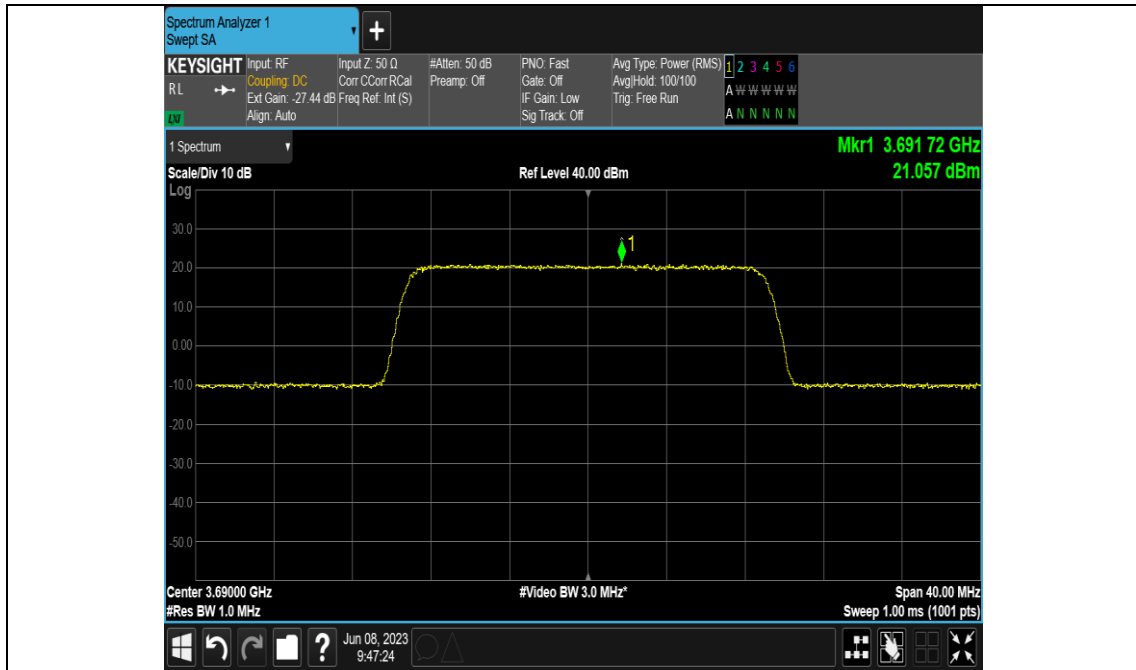


Band48-20MHz-QPSK-56640-E-TM1.1-1000



Band48-20MHz-256QAM-55340-E-TM3.1A-1000

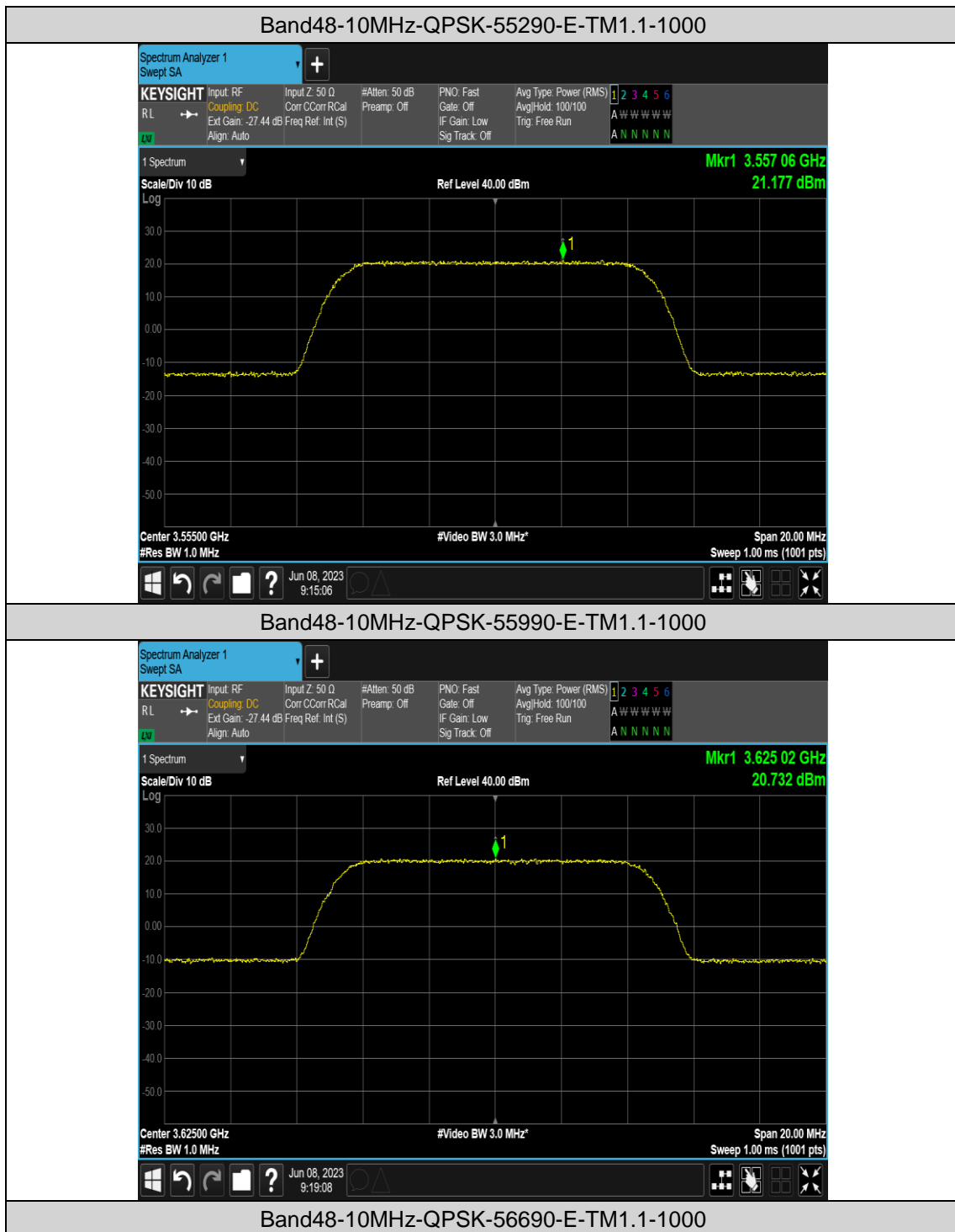


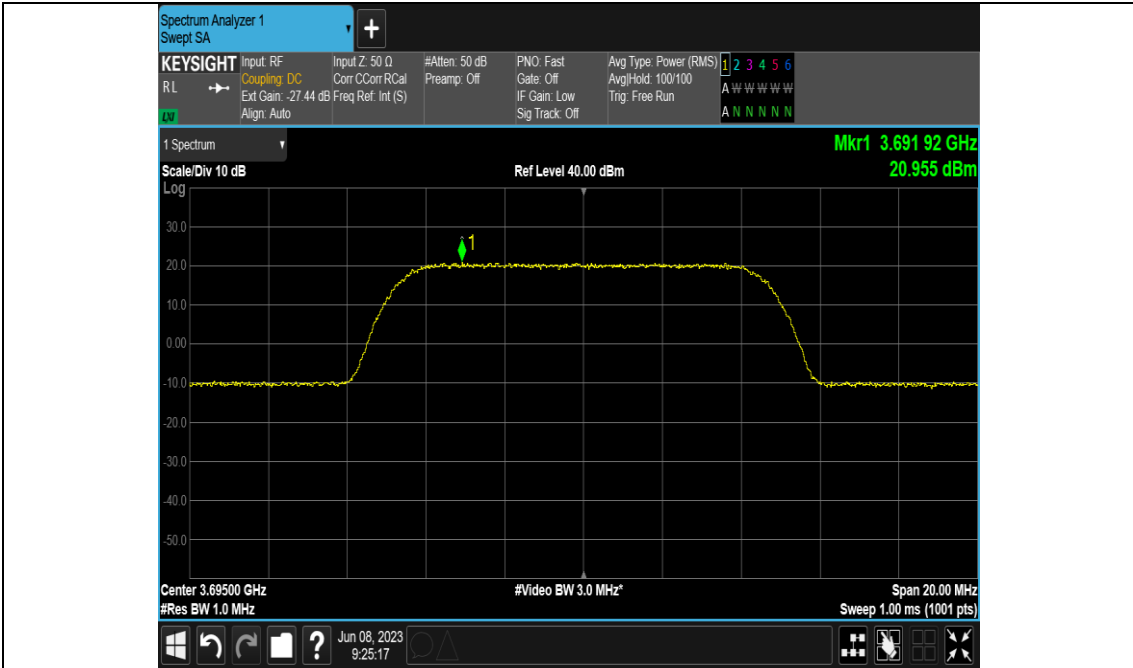




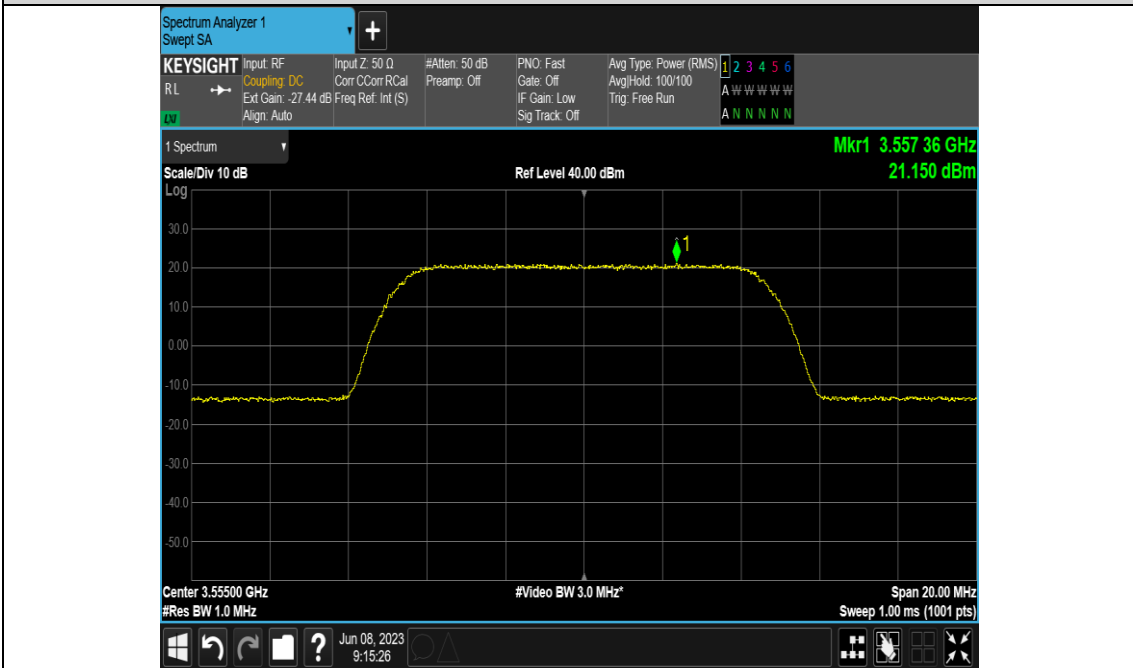
## 2) Test For ANT2 Test Result

### Test Graphs

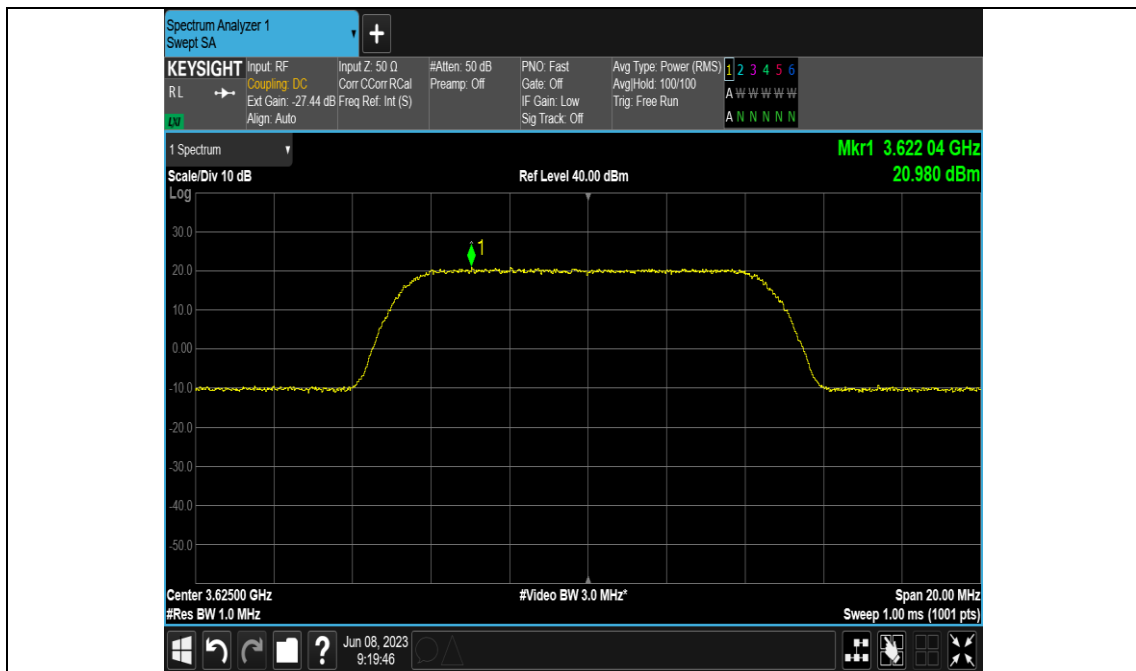




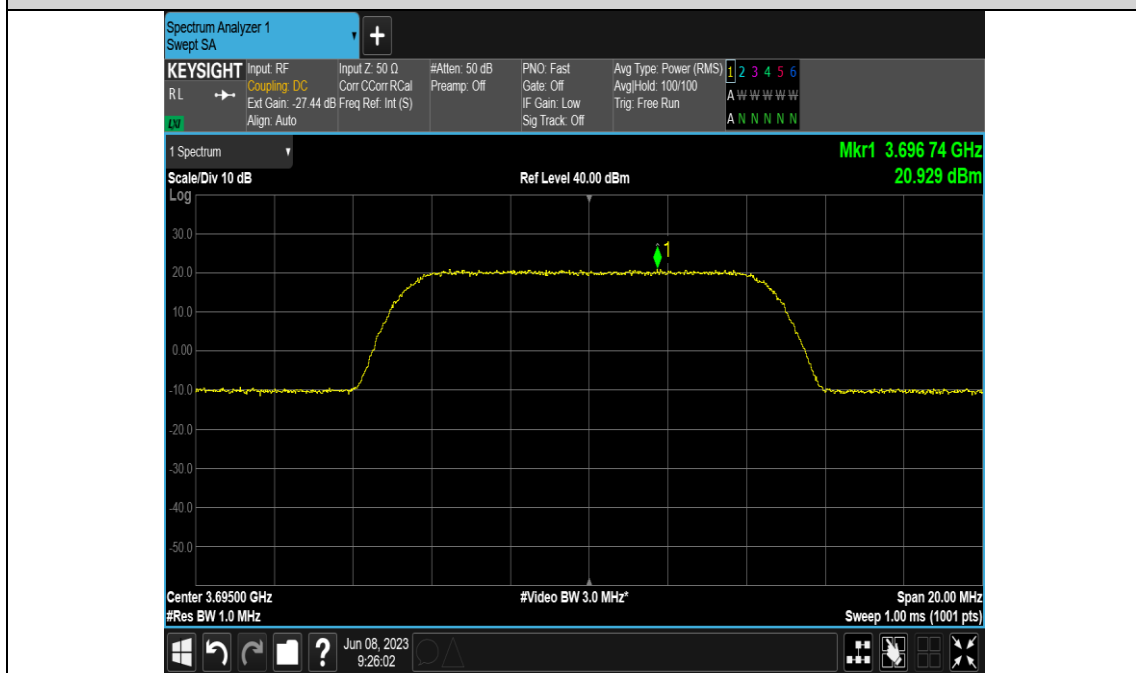
Band48-10MHz-256QAM-55290-E-TM3.1A-1000



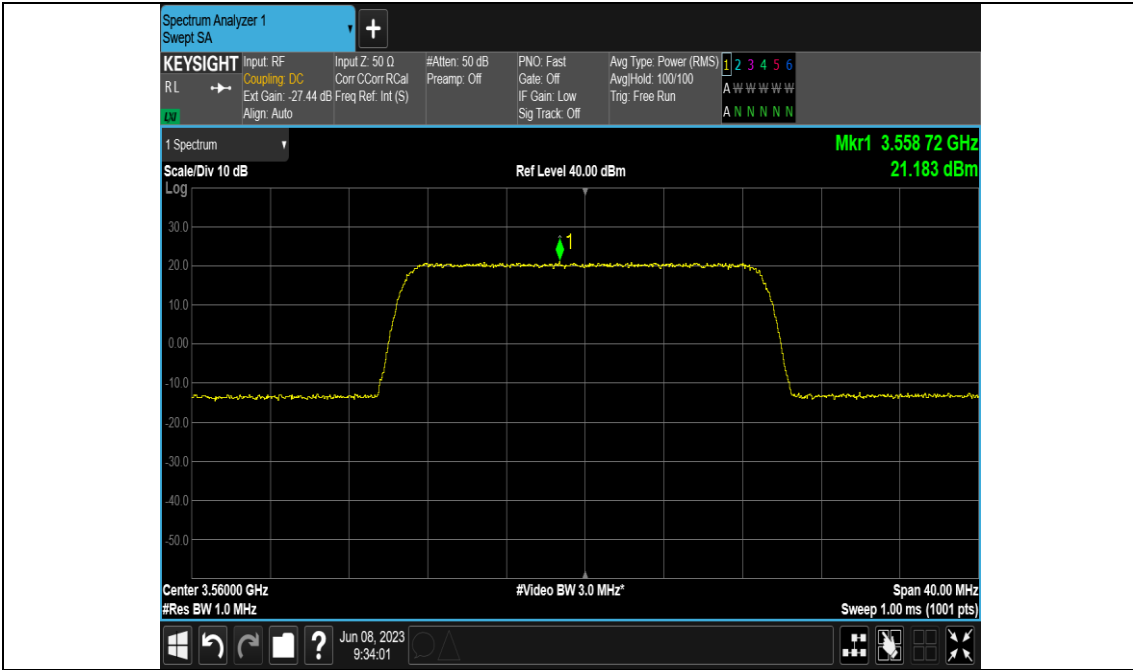
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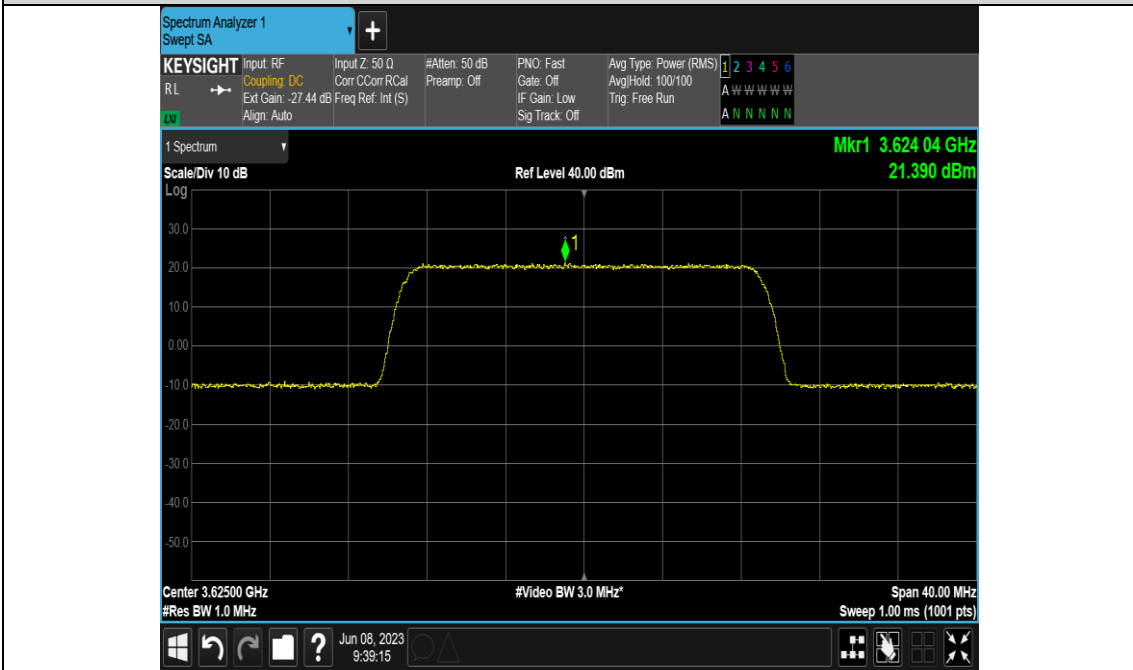
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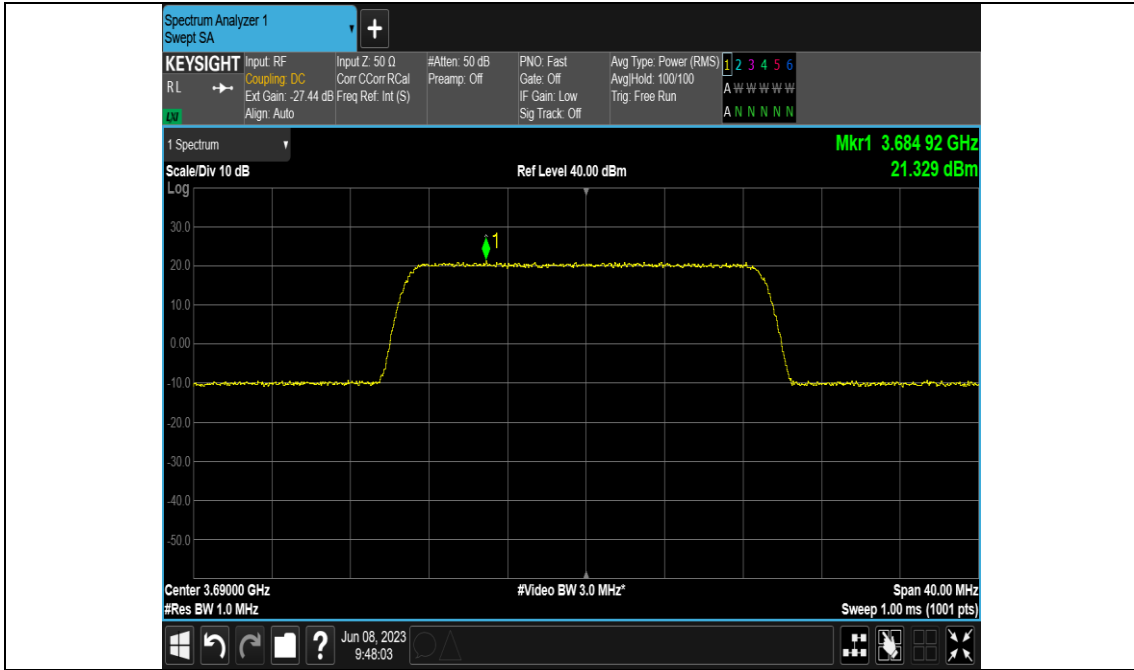
Band48-20MHz-QPSK-55340-E-TM1.1-1000



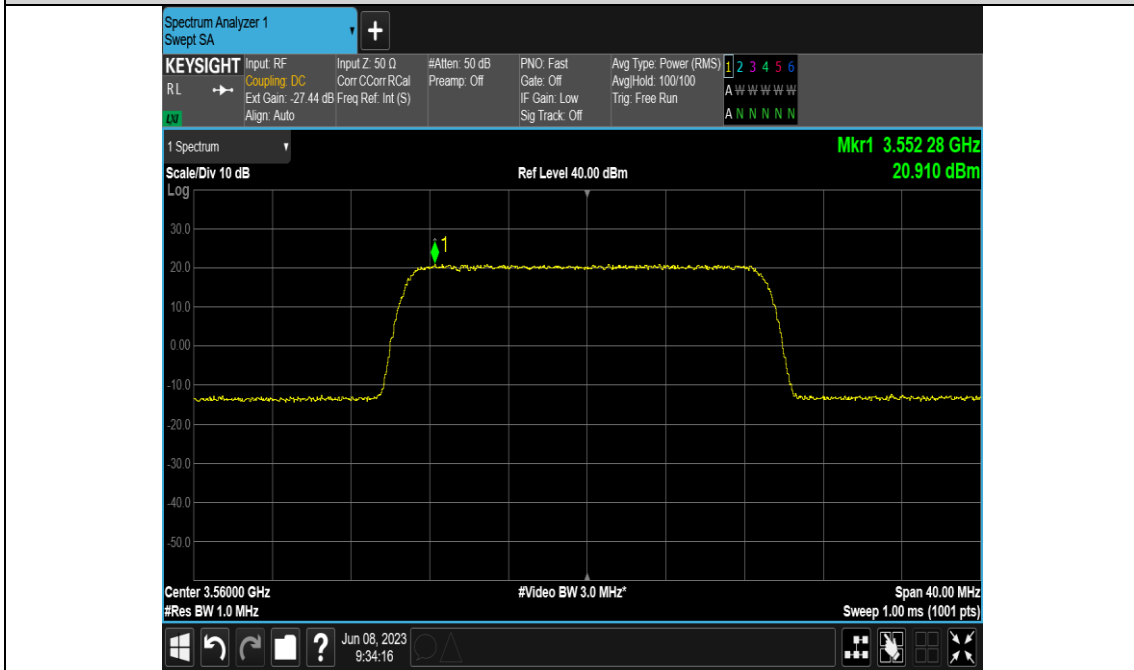
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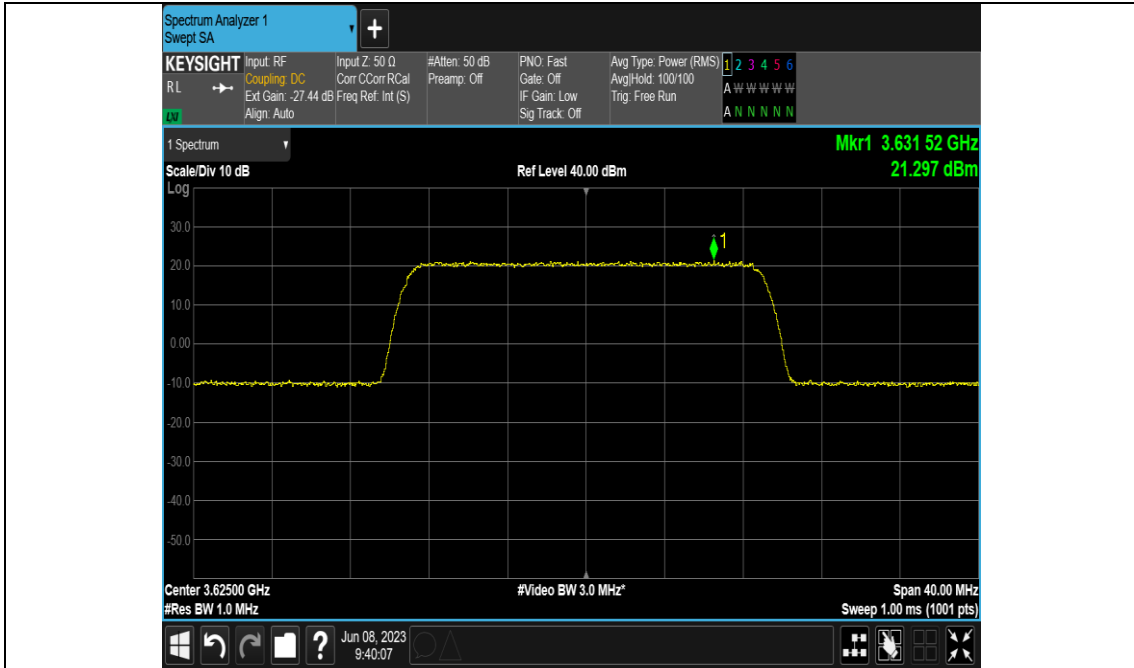
Band48-20MHz-QPSK-56640-E-TM1.1-1000



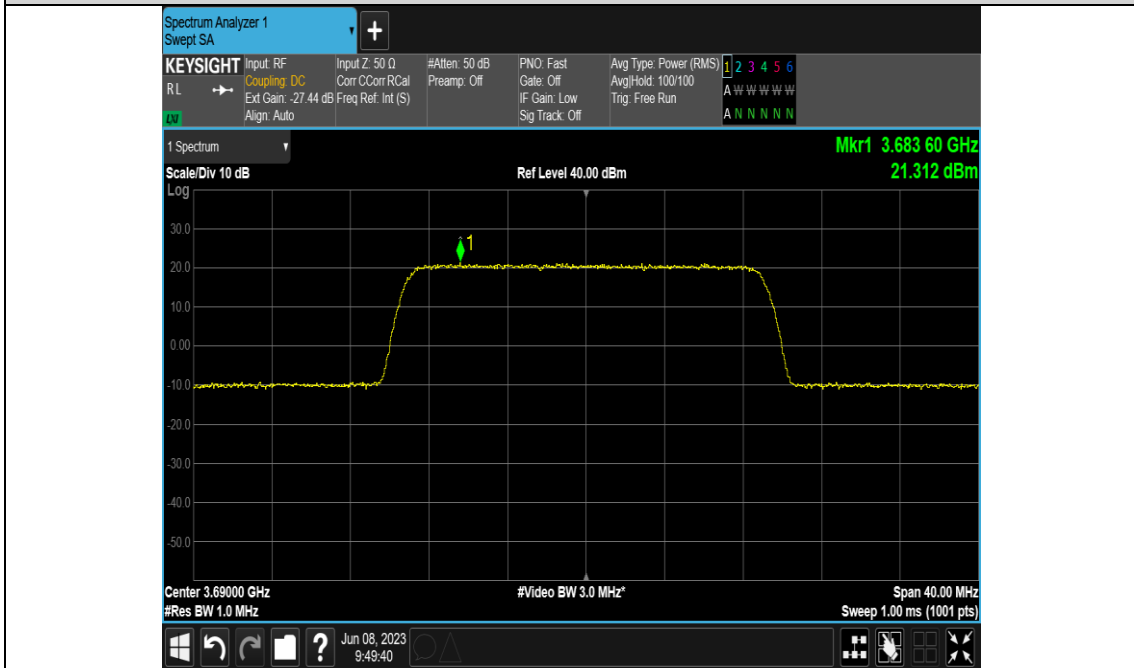
Band48-20MHz-256QAM-55340-E-TM3.1A-1000



Band48-20MHz-256QAM-55990-E-TM3.1A-1000



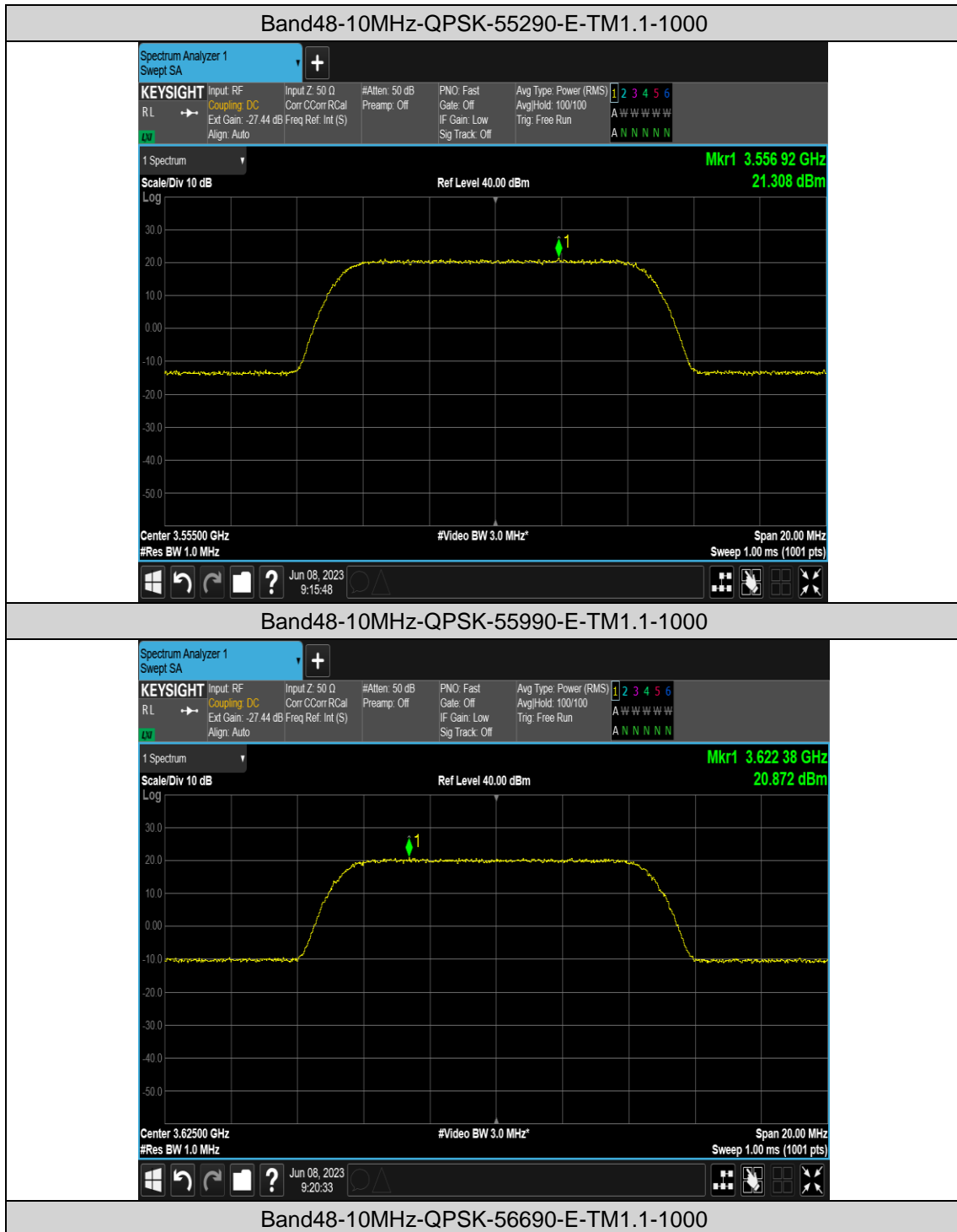
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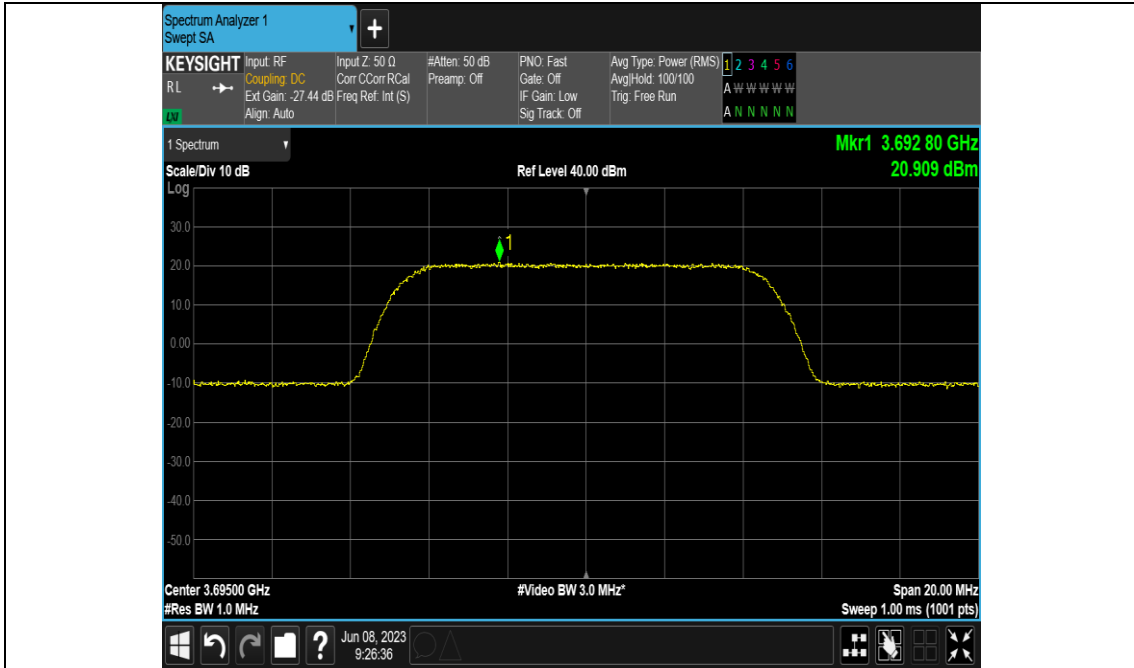




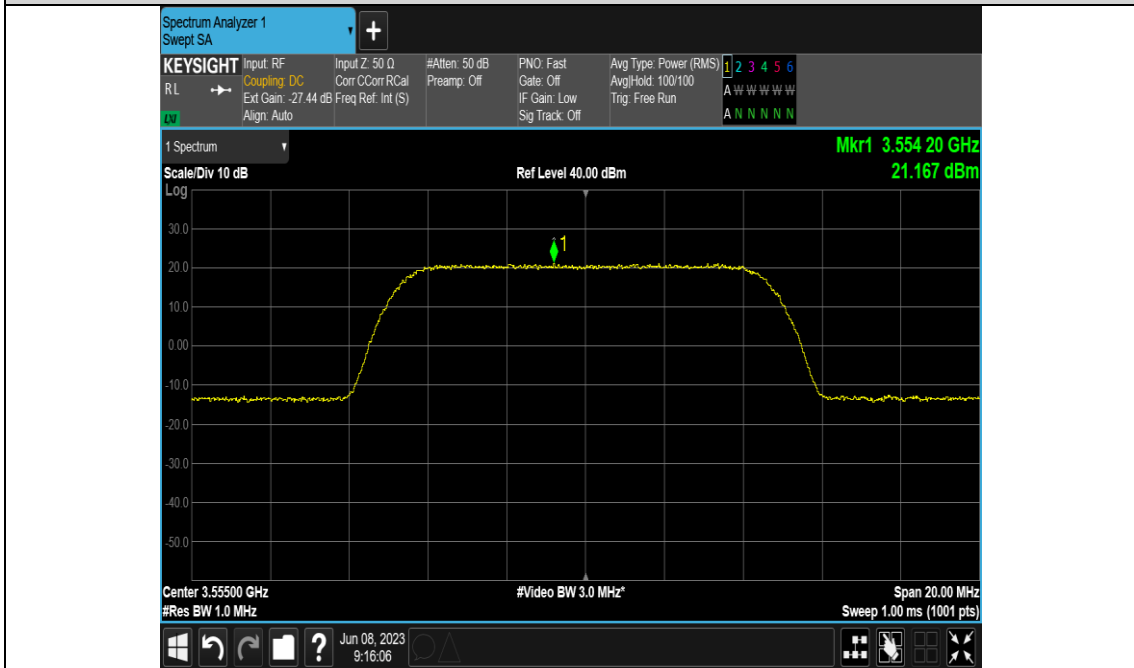
### 3)Test For ANT3 Test Result

#### Test Graphs

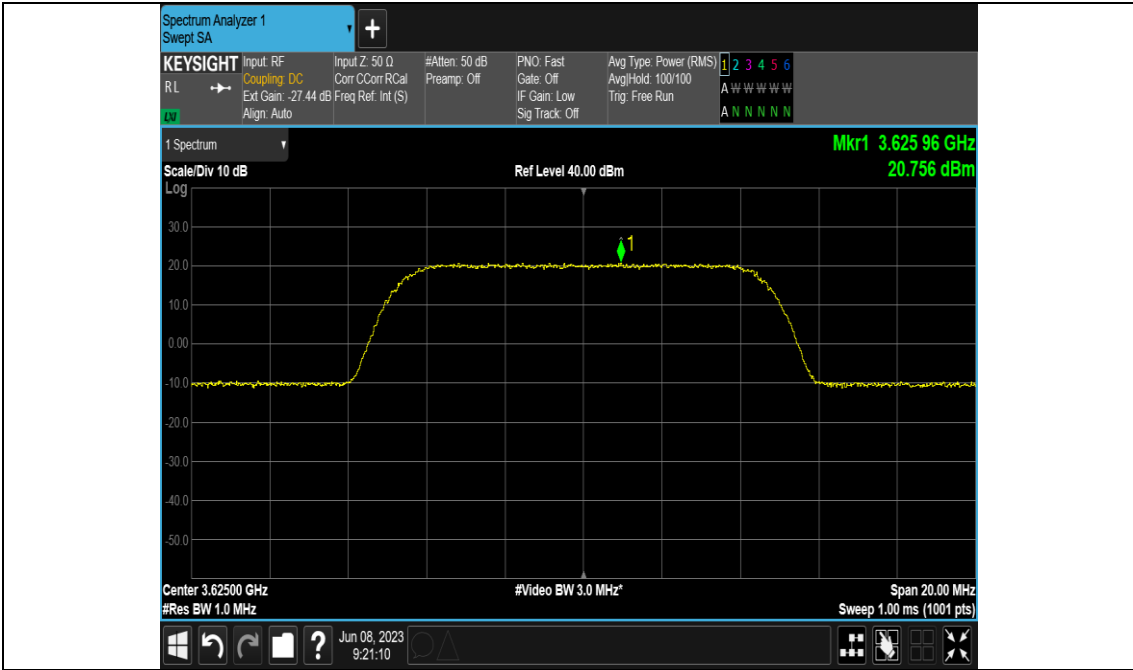




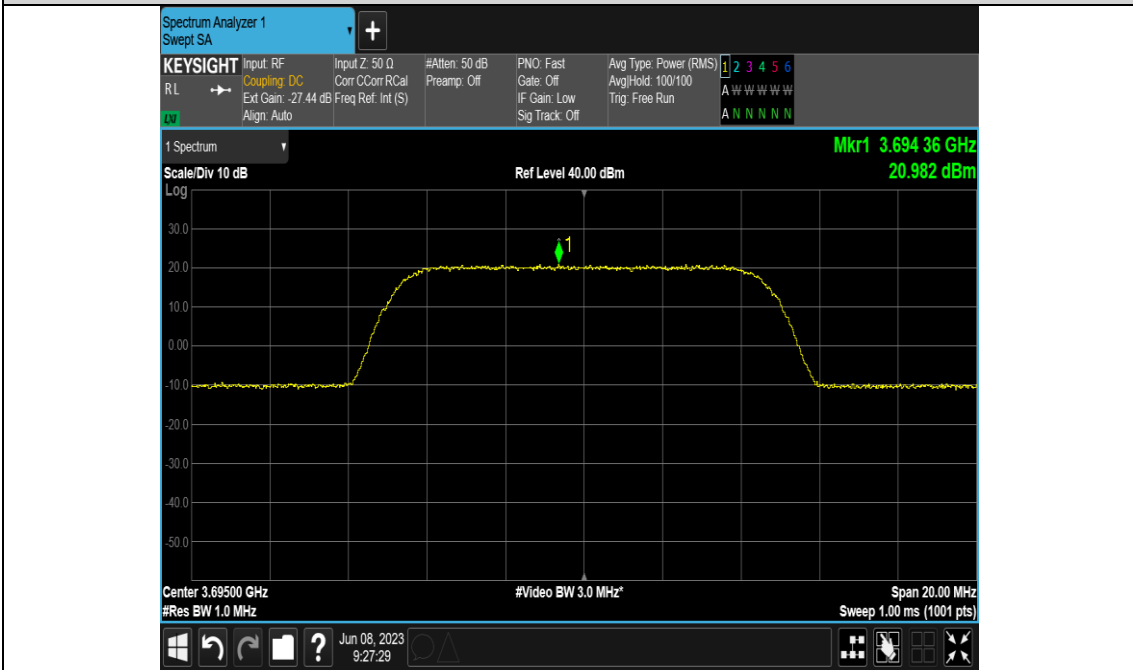
Band48-10MHz-256QAM-55290-E-TM3.1A-1000



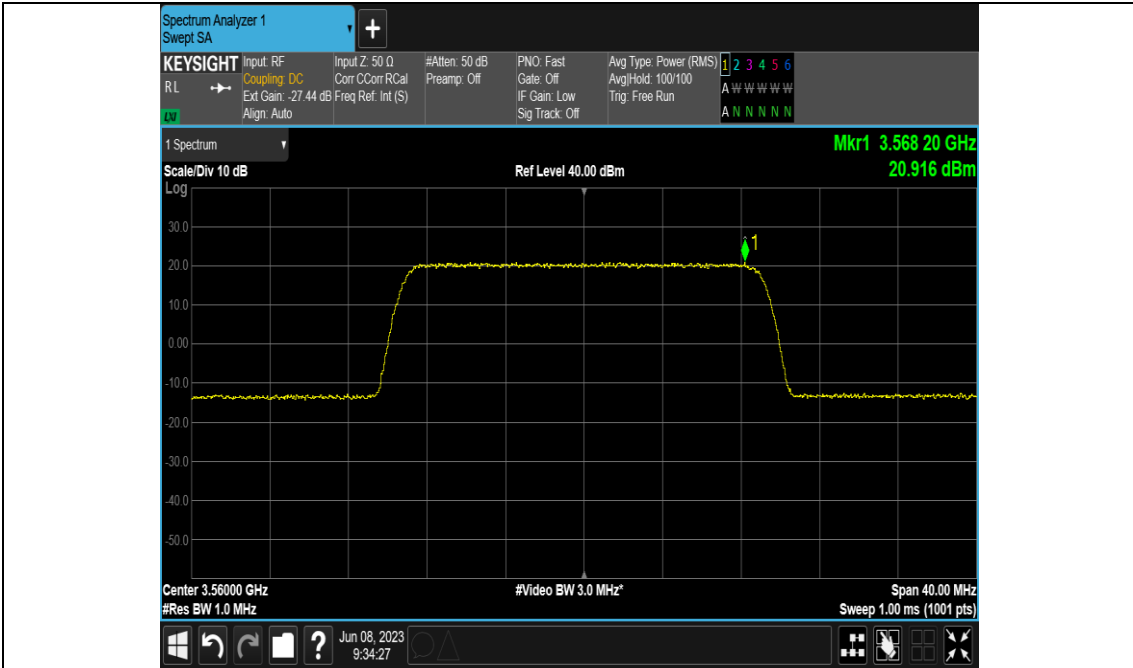
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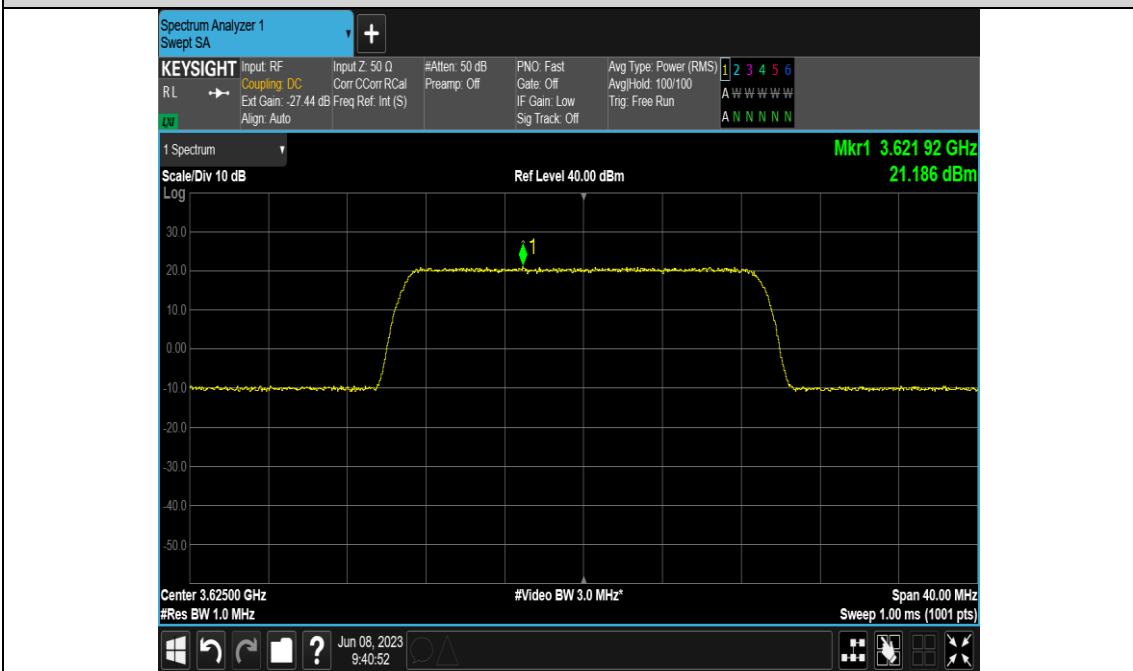
Band48-10MHz-256QAM-56690-E-TM3.1A-1000



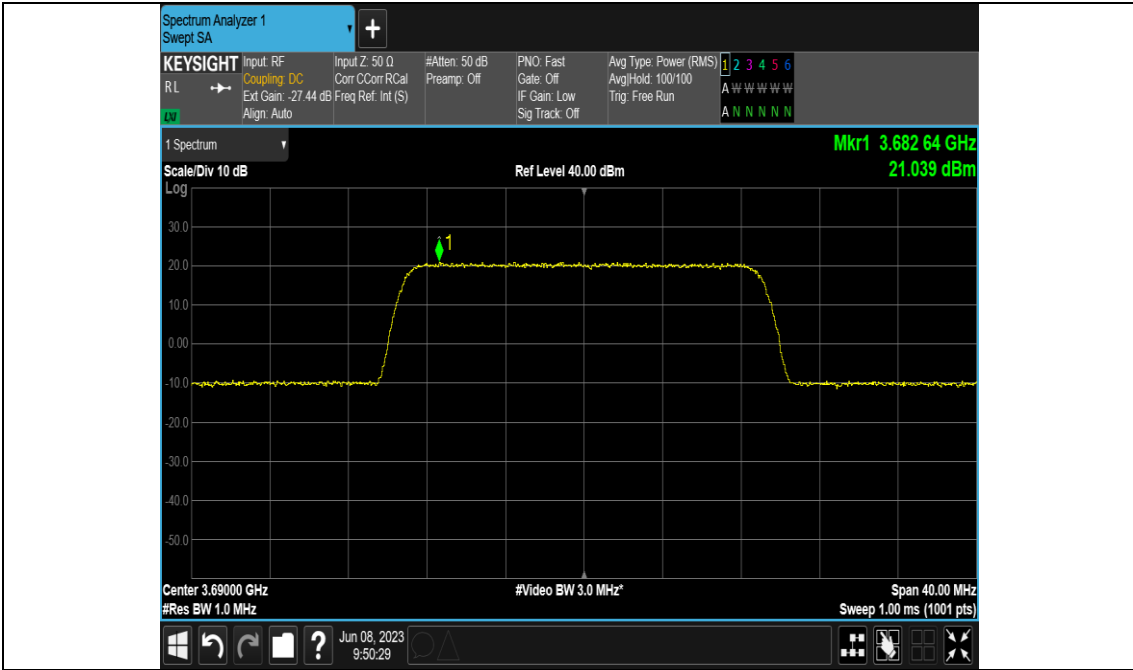
Band48-20MHz-QPSK-55340-E-TM1.1-1000



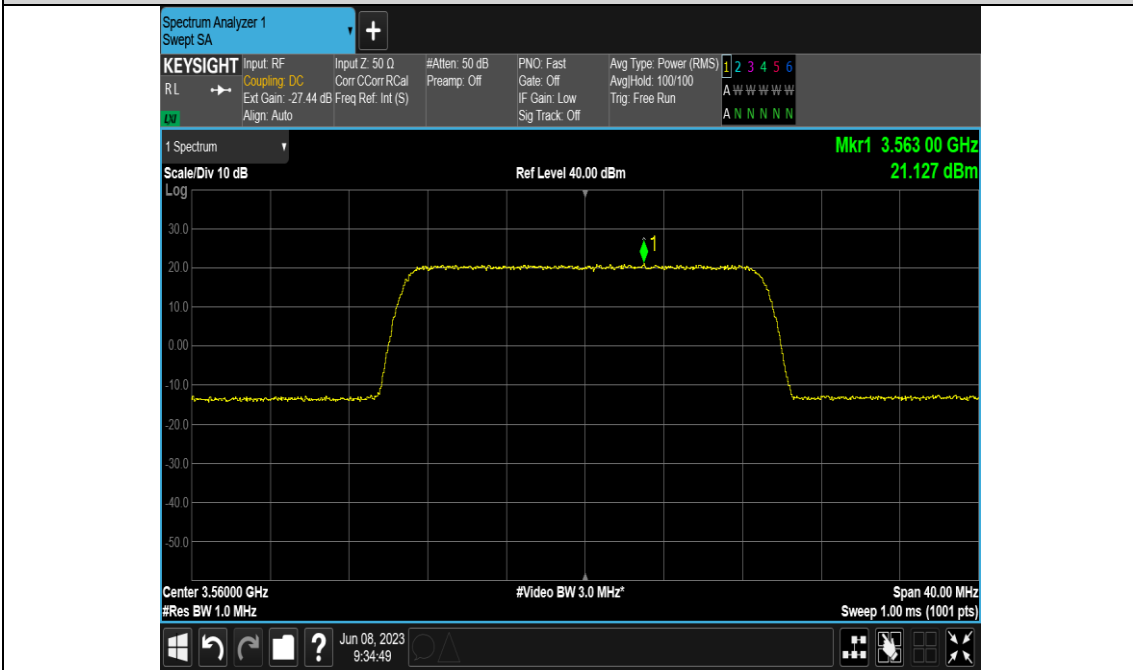
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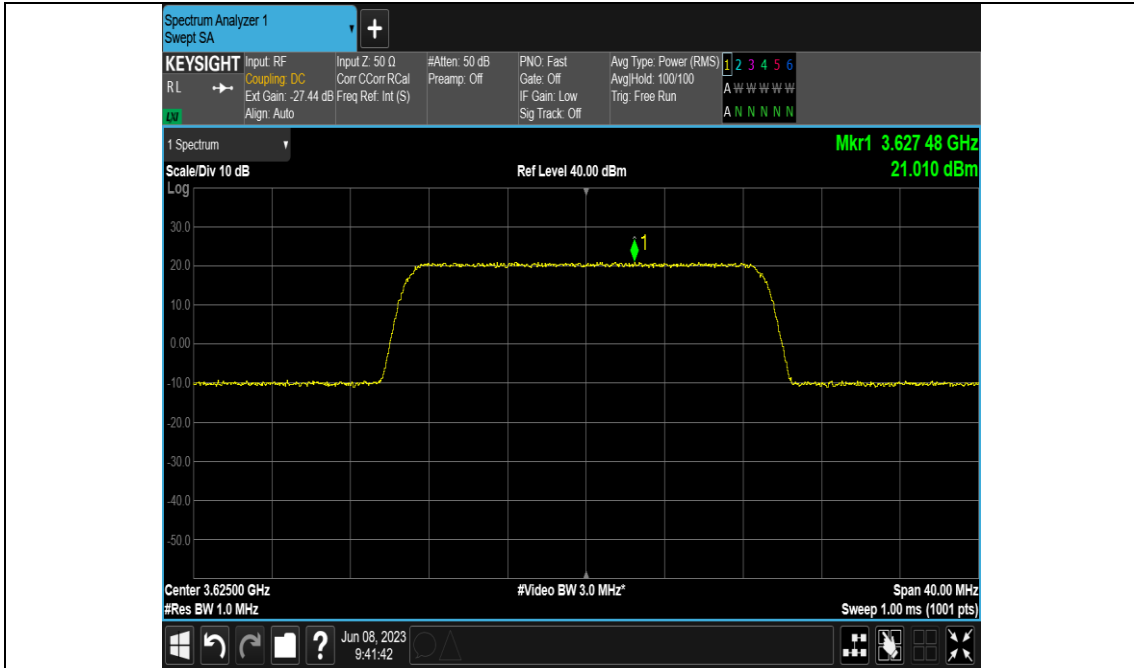
Band48-20MHz-QPSK-56640-E-TM1.1-1000



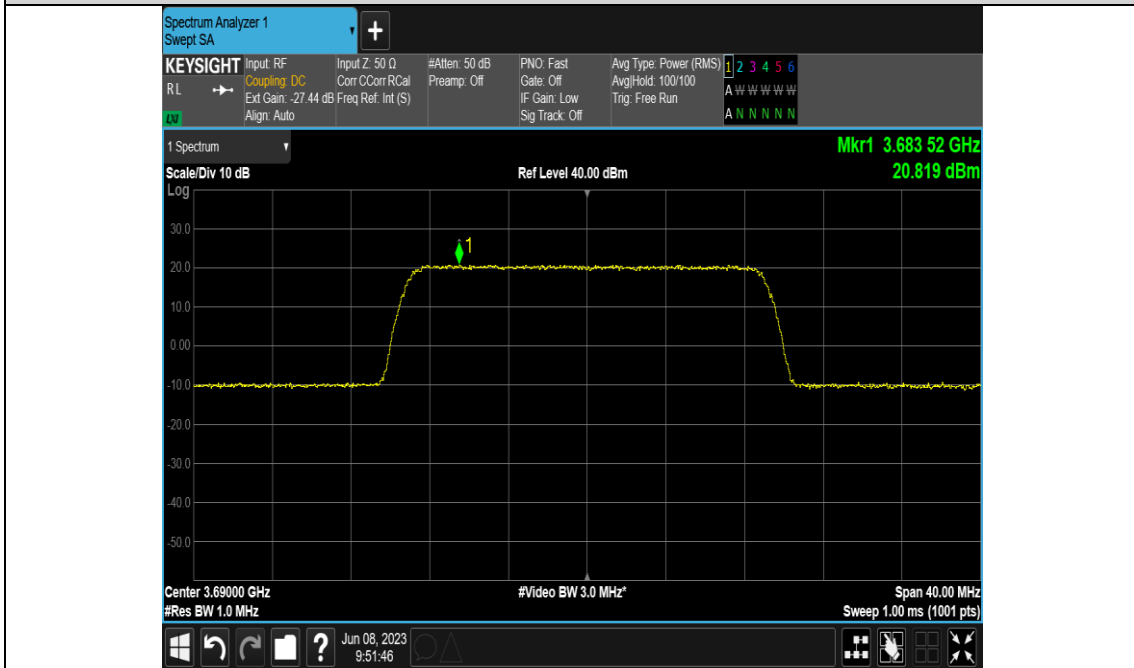
Band48-20MHz-256QAM-55340-E-TM3.1A-1000



Band48-20MHz-256QAM-55990-E-TM3.1A-1000

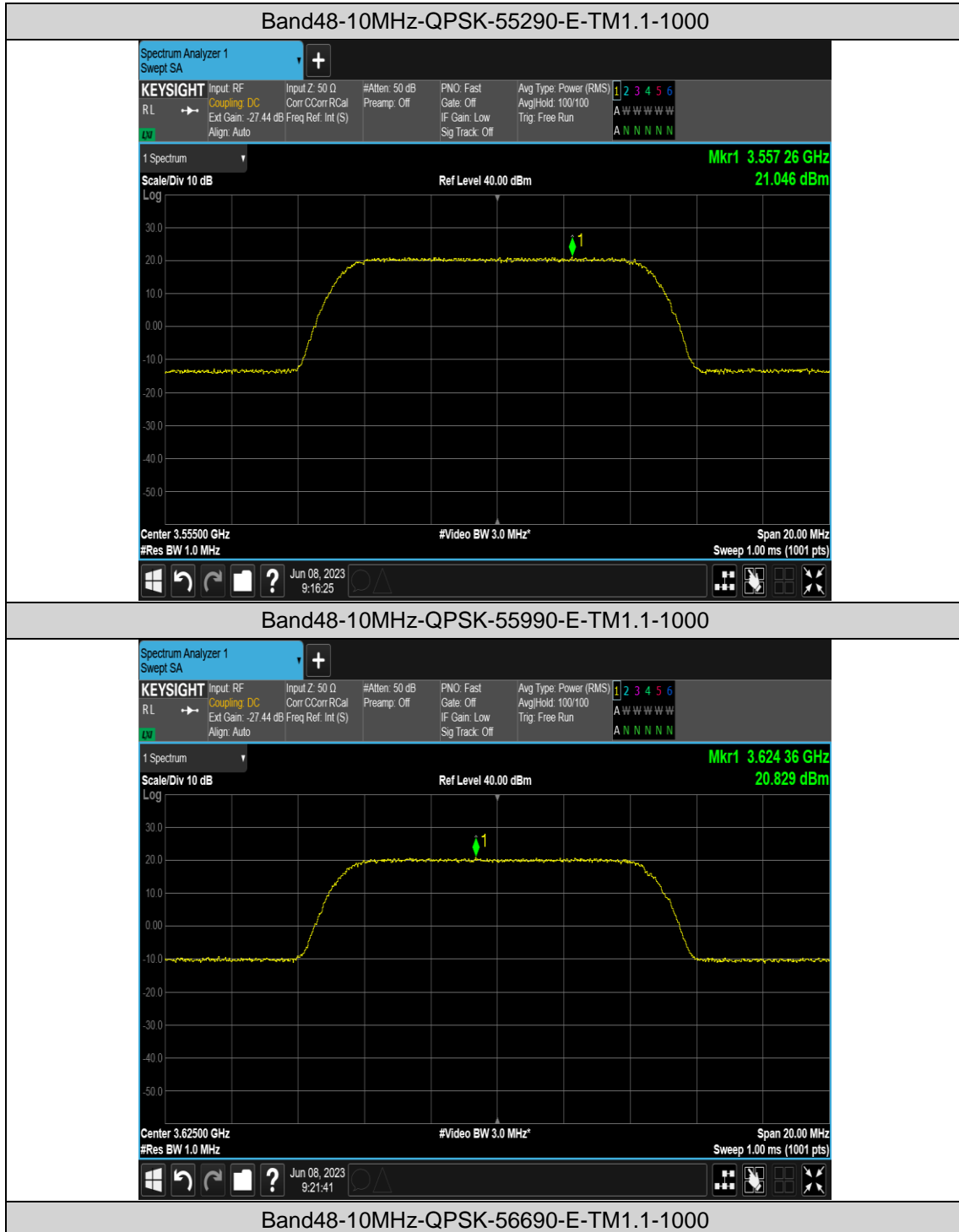


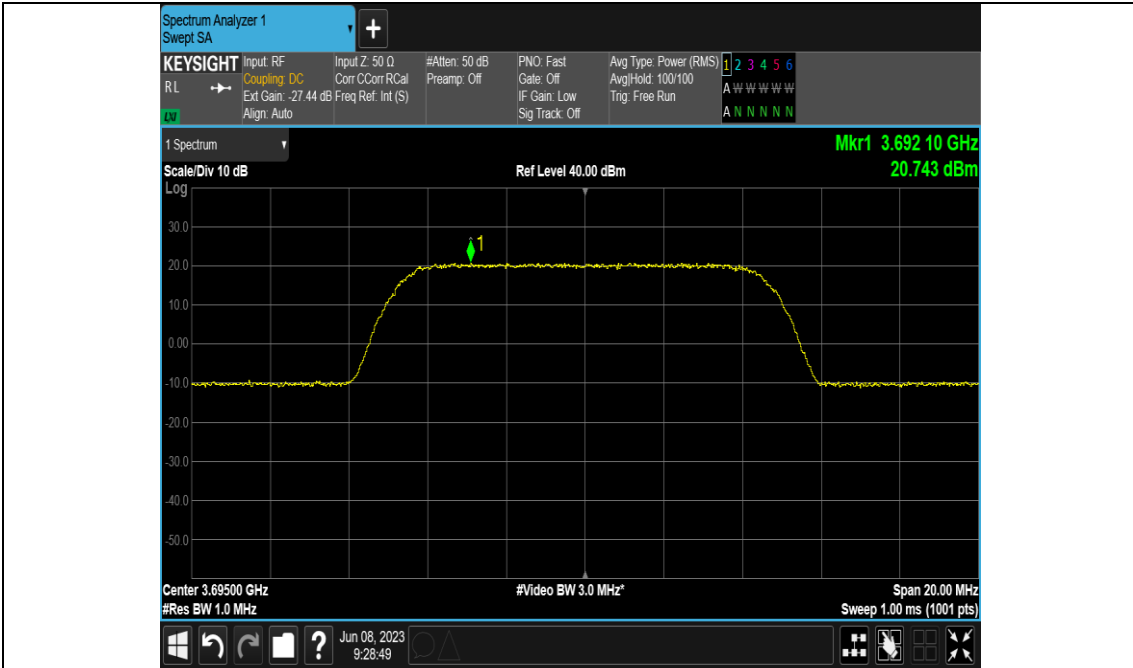
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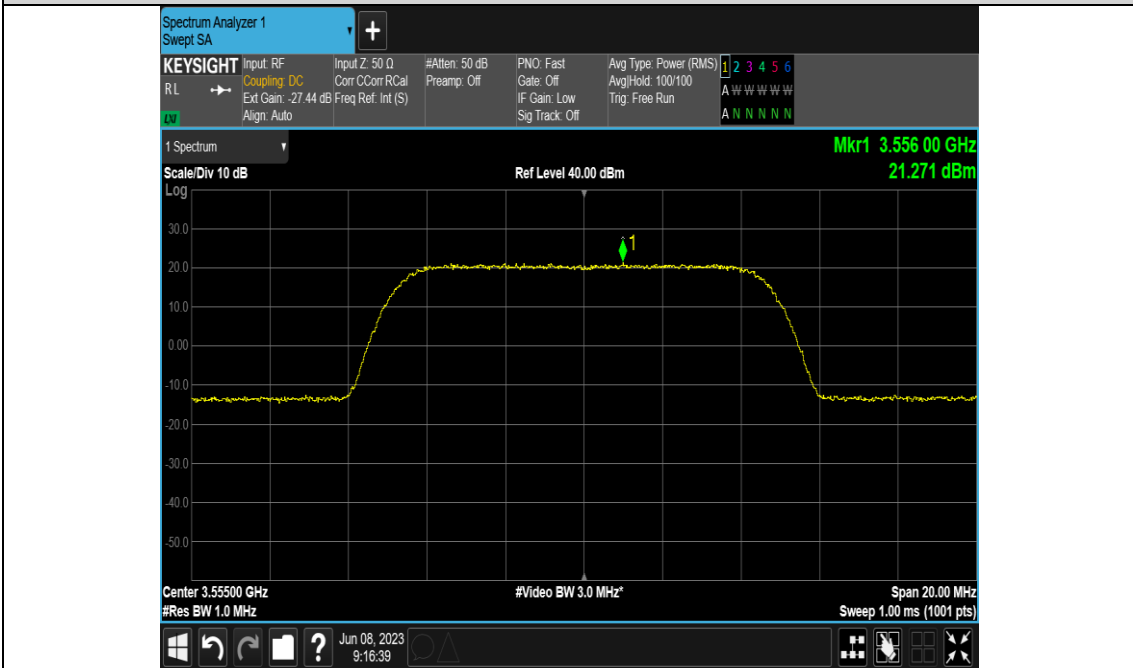
## 4)Test For ANT4 Test Result

### Test Graphs



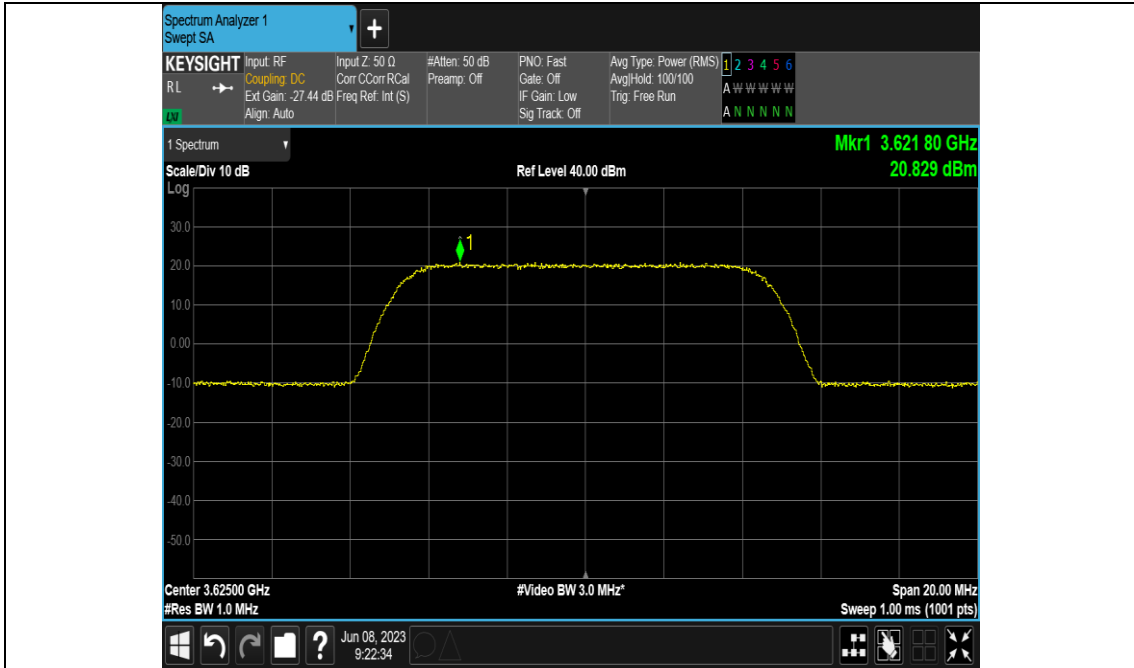


Band48-10MHz-256QAM-55290-E-TM3.1A-1000

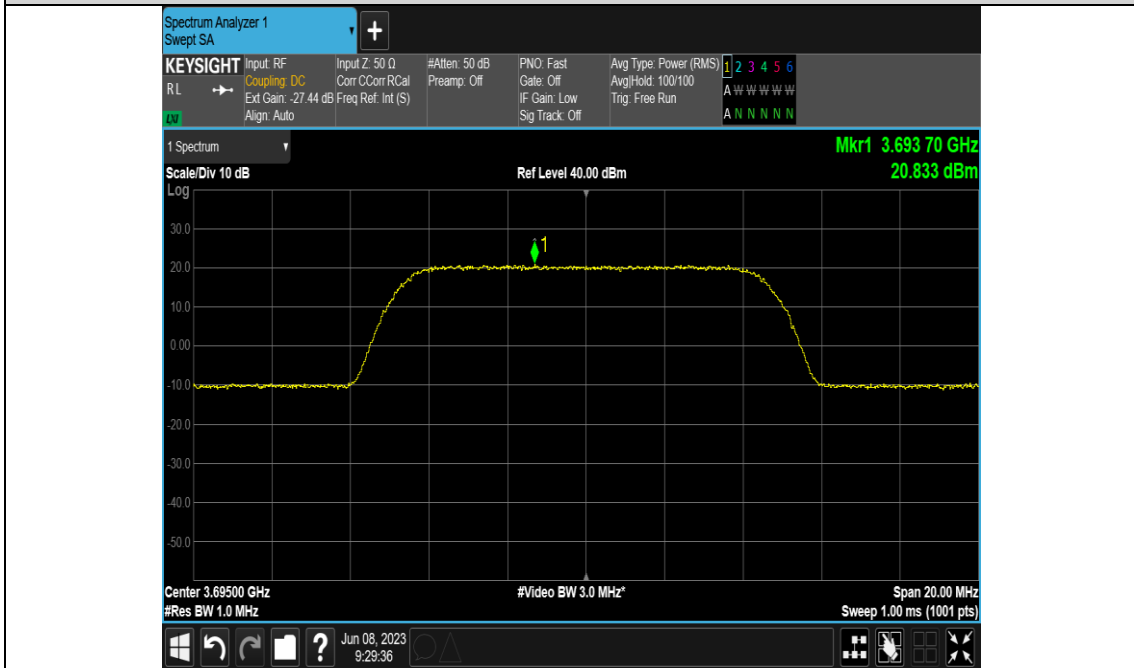


Band48-10MHz-256QAM-55990-E-TM3.1A-1000

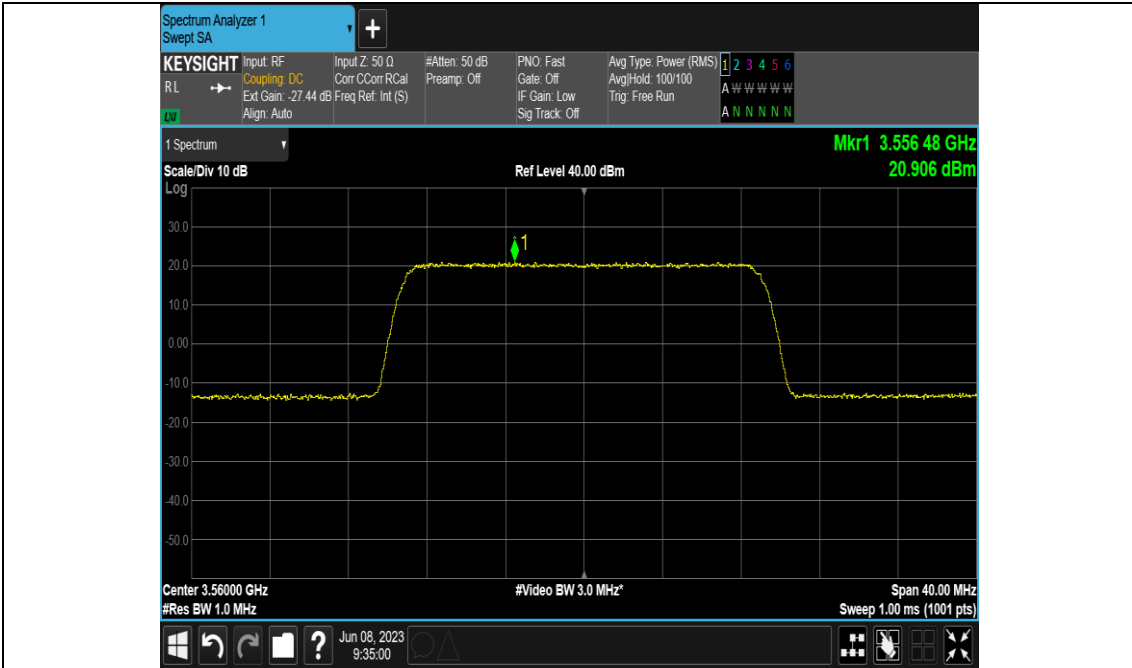




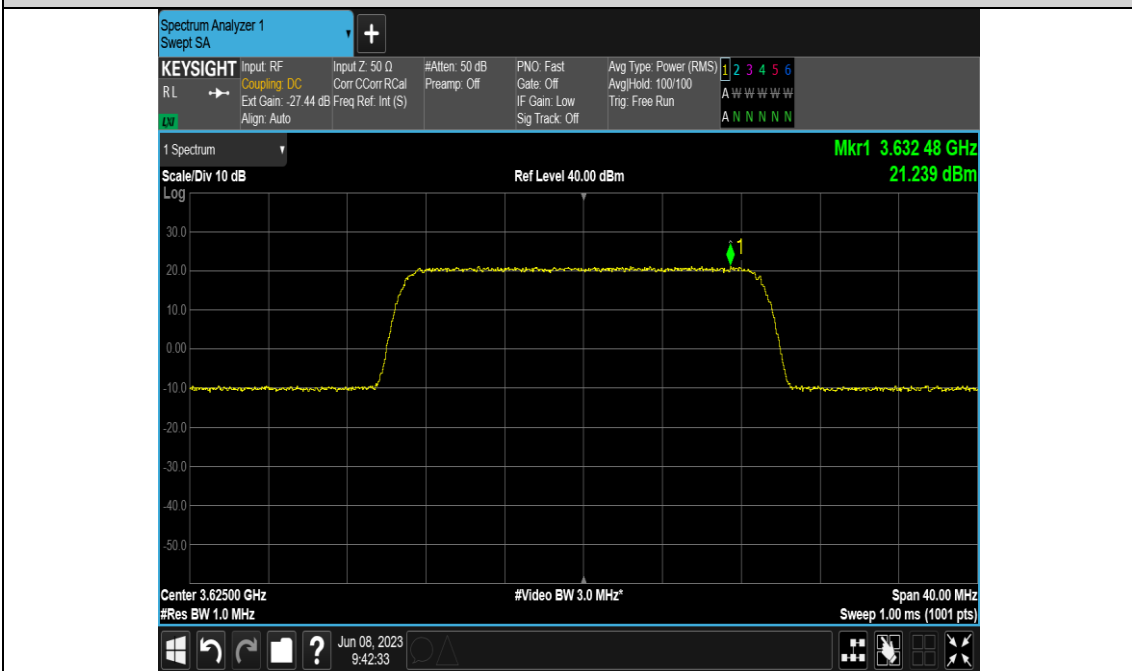
Band48-10MHz-256QAM-56690-E-TM3.1A-1000



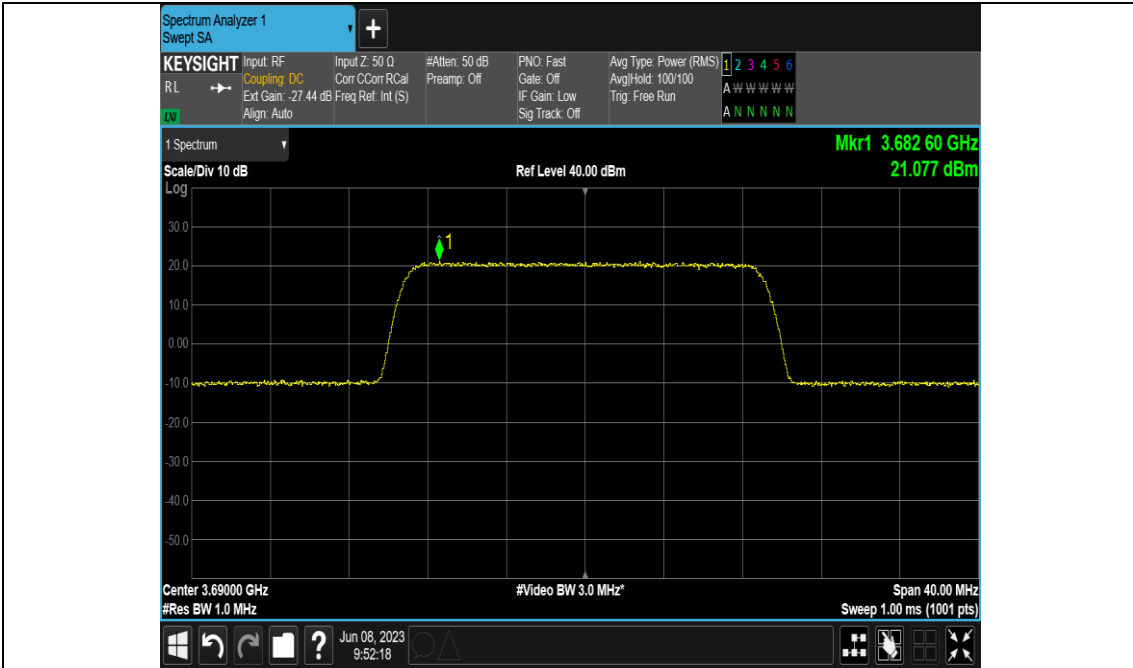
Band48-20MHz-QPSK-55340-E-TM1.1-1000



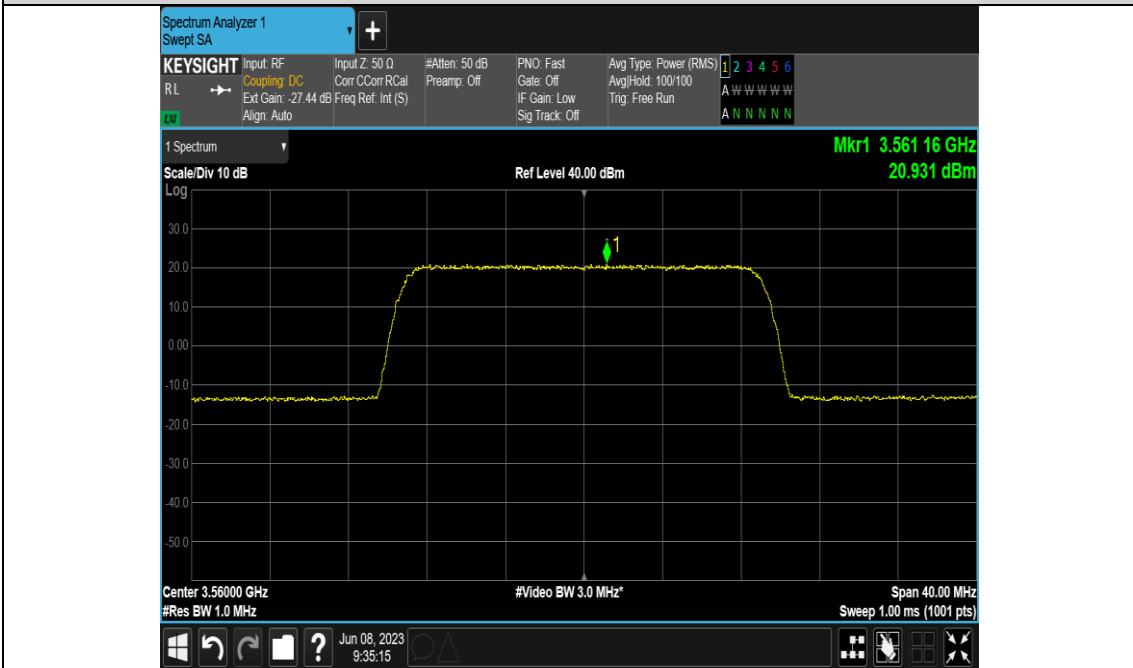
Band48-20MHz-QPSK-55990-E-TM1.1-1000



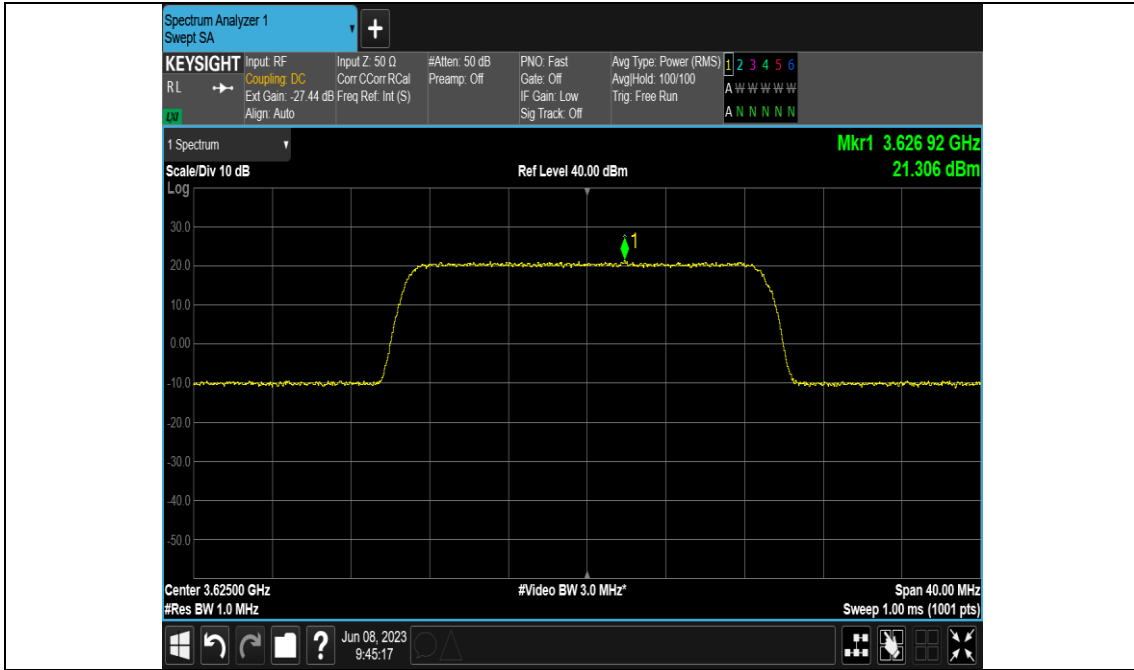
Band48-20MHz-QPSK-56640-E-TM1.1-1000



Band48-20MHz-256QAM-55340-E-TM3.1A-1000



Band48-20MHz-256QAM-55990-E-TM3.1A-1000



Band48-20MHz-256QAM-56640-E-TM3.1A-1000

