

Appendix J: Test Data for E-UTRA Band 18

Product Name: 3G/4G Smart Phone

Trade Mark: DOOGEE

Test Model: N30

Environmental Conditions

Temperature:	22.9° C
Relative Humidity:	53.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

J.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	21.55	20.57	PASS
		1	12	21.70	20.70	PASS
		1	24	21.58	20.58	PASS
		12	0	20.70	19.72	PASS
		12	6	20.71	19.74	PASS
		12	13	20.71	19.74	PASS
		25	0	20.73	19.80	PASS
	MCH	1	0	22.04	21.17	PASS
		1	12	22.22	21.33	PASS
		1	24	22.01	21.14	PASS
		12	0	21.13	20.10	PASS
		12	6	21.08	20.09	PASS
		12	13	21.39	20.11	PASS
		25	0	21.09	20.05	PASS
	HCH	1	0	21.15	20.18	PASS
		1	12	21.38	20.40	PASS
		1	24	21.23	20.25	PASS
		12	0	20.26	19.33	PASS
		12	6	20.26	19.32	PASS
		12	13	20.29	19.33	PASS
		25	0	20.23	19.36	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)

Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	21.79	20.97	PASS
		1	24	22.07	21.23	PASS
		1	49	21.81	20.96	PASS
		25	0	20.90	19.94	PASS
		25	12	20.92	19.95	PASS
		25	25	20.88	19.88	PASS
		50	0	20.89	19.93	PASS
	MCH	1	0	22.19	21.12	PASS
		1	24	22.56	21.44	PASS
		1	49	22.11	21.08	PASS
		25	0	21.20	20.19	PASS
		25	12	21.20	20.19	PASS
		25	25	21.20	20.22	PASS
		50	0	21.15	20.14	PASS
	HCH	1	0	21.41	20.28	PASS
		1	24	21.62	20.49	PASS
		1	49	21.35	20.23	PASS
		25	0	20.40	19.46	PASS
		25	12	20.39	19.46	PASS
		25	25	20.31	19.39	PASS
		50	0	20.33	19.41	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)

Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	21.69	20.85	PASS
		1	37	21.84	20.99	PASS
		1	74	21.78	20.92	PASS
		37	0	20.99	20.99	PASS
		37	18	20.99	20.99	PASS
		37	38	20.97	20.98	PASS
		75	0	20.98	19.94	PASS
	MCH	1	0	22.06	21.12	PASS
		1	37	22.28	21.33	PASS
		1	74	21.86	20.97	PASS
		37	0	21.24	21.27	PASS
		37	18	21.25	21.27	PASS
		37	38	21.24	21.26	PASS
		75	0	21.26	20.22	PASS
	HCH	1	0	21.53	20.46	PASS
		1	37	21.34	20.22	PASS
		1	74	21.24	20.11	PASS
		37	0	20.45	20.43	PASS
		37	18	20.44	20.44	PASS
		37	38	20.44	20.44	PASS
		75	0	20.45	19.44	PASS

Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)

Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	21.57	20.58	PASS
		1	49	22.09	21.11	PASS
		1	99	21.82	20.79	PASS
		50	0	20.87	19.90	PASS
		50	25	20.87	19.91	PASS
		50	50	20.89	19.92	PASS
		100	0	20.91	19.92	PASS
	MCH	1	0	21.81	20.97	PASS
		1	49	22.50	21.58	PASS
		1	99	21.52	20.71	PASS
		50	0	21.08	20.08	PASS
		50	25	21.07	20.08	PASS
		50	50	21.02	20.09	PASS
		100	0	21.05	20.05	PASS
	HCH	1	0	21.69	20.66	PASS
		1	49	21.60	20.58	PASS
		1	99	20.98	19.96	PASS
		50	0	20.58	19.67	PASS
		50	25	20.57	19.66	PASS
		50	50	20.25	19.33	PASS
		100	0	20.43	19.49	PASS

J.2 Peak-to-Average Ratio

Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	8.18	<13	PASS
	MCH	5.74	<13	PASS
	HCH	7.18	<13	PASS
16QAM	LCH	8.56	<13	PASS
	MCH	8.89	<13	PASS
	HCH	9.11	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	8.89	<13	PASS
	MCH	5.99	<13	PASS
	HCH	7.66	<13	PASS
16QAM	LCH	10.5	<13	PASS
	MCH	9.04	<13	PASS
	HCH	9.02	<13	PASS

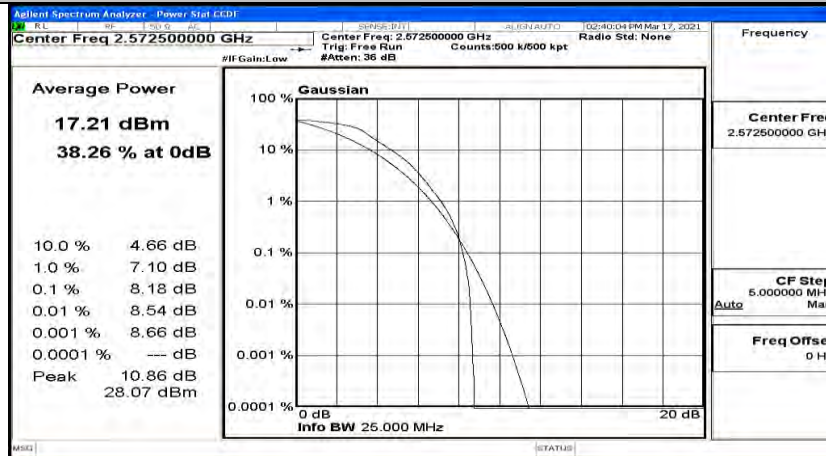
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	7.78	<13	PASS
	MCH	8.47	<13	PASS
	HCH	7.89	<13	PASS
16QAM	LCH	8.88	<13	PASS
	MCH	8.13	<13	PASS
	HCH	11.48	<13	PASS

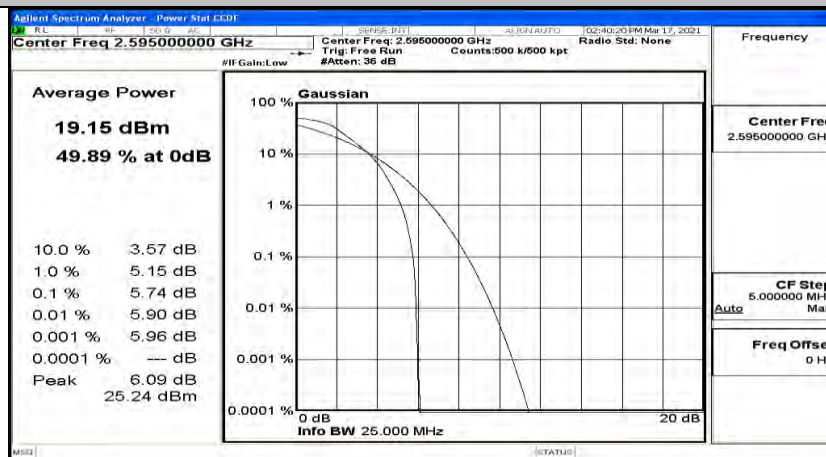
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	8.37	<13	PASS
	MCH	10.19	<13	PASS
	HCH	9.14	<13	PASS
16QAM	LCH	8.94	<13	PASS
	MCH	7	<13	PASS
	HCH	8.56	<13	PASS

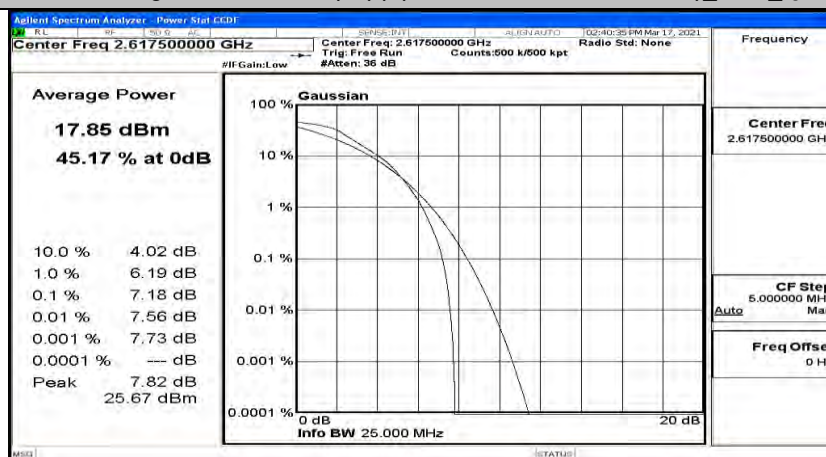
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



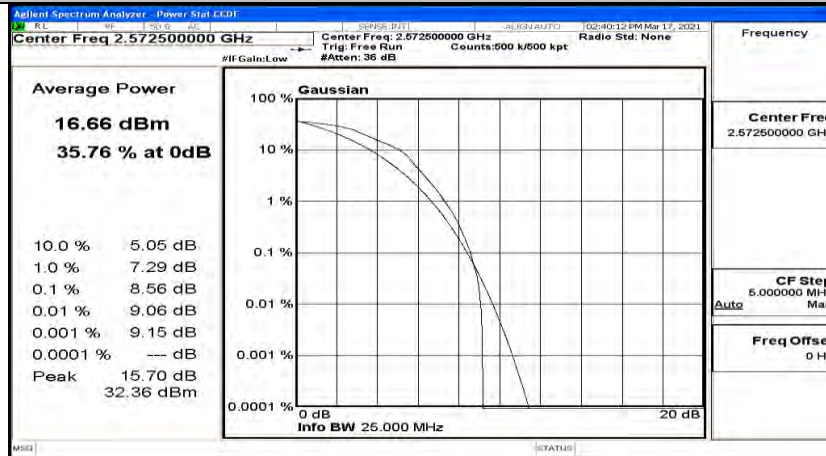
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



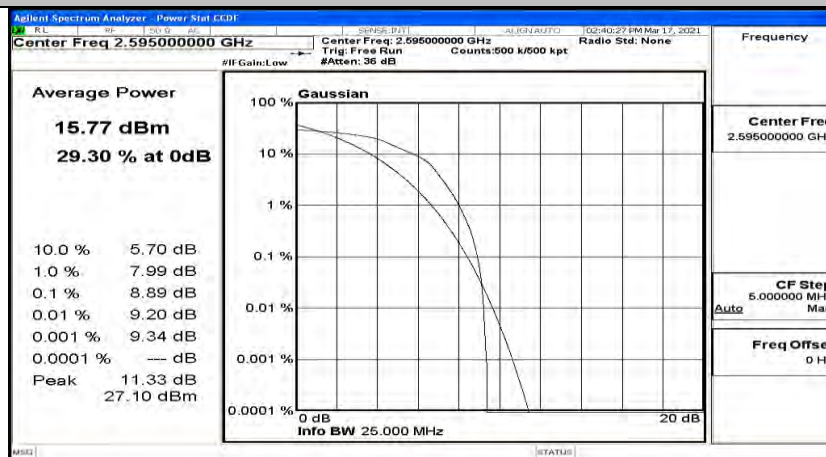
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



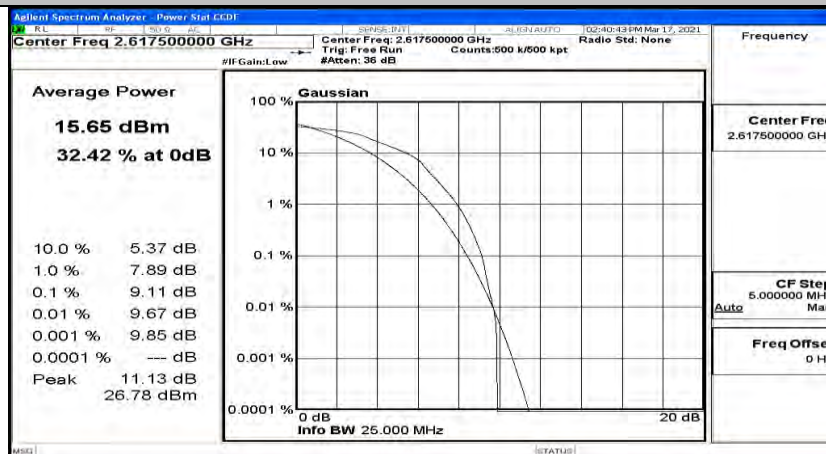
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



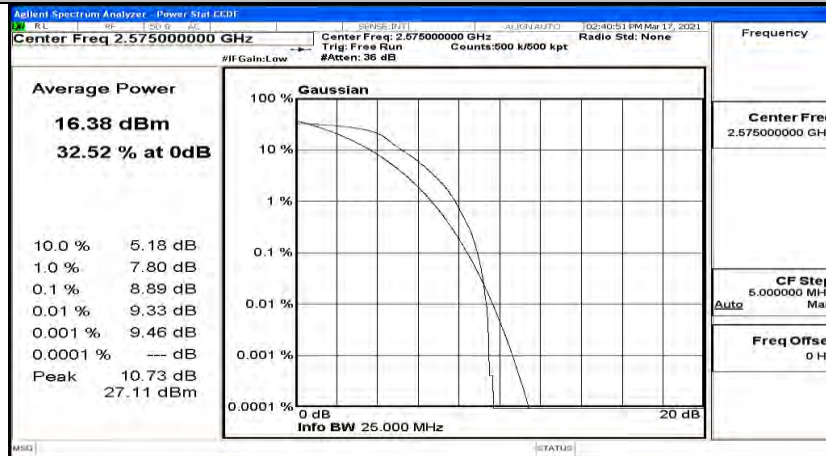
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



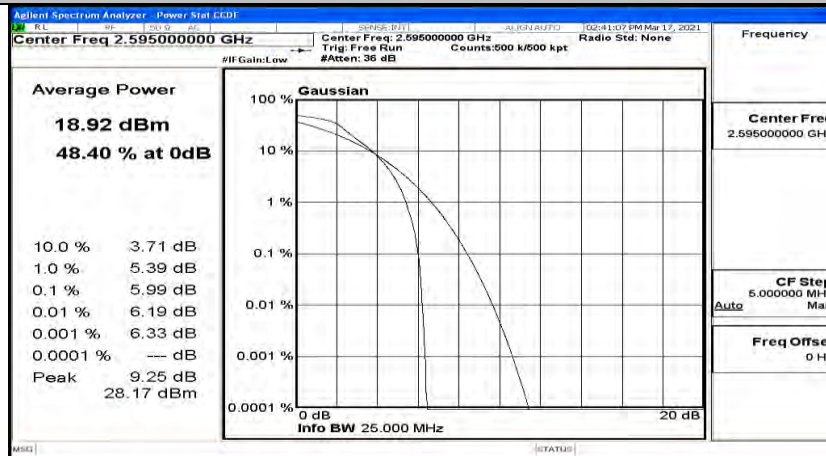
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



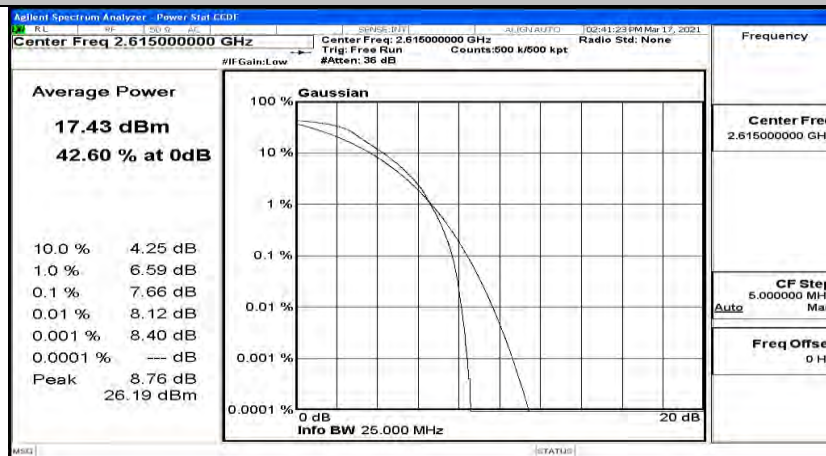
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



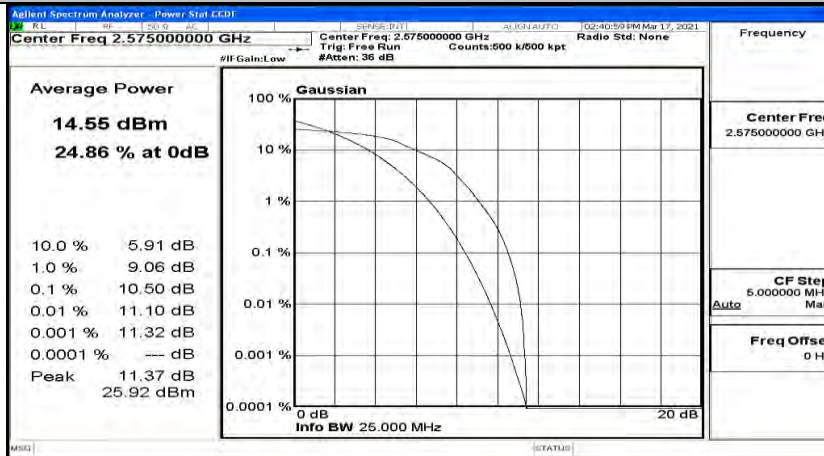
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



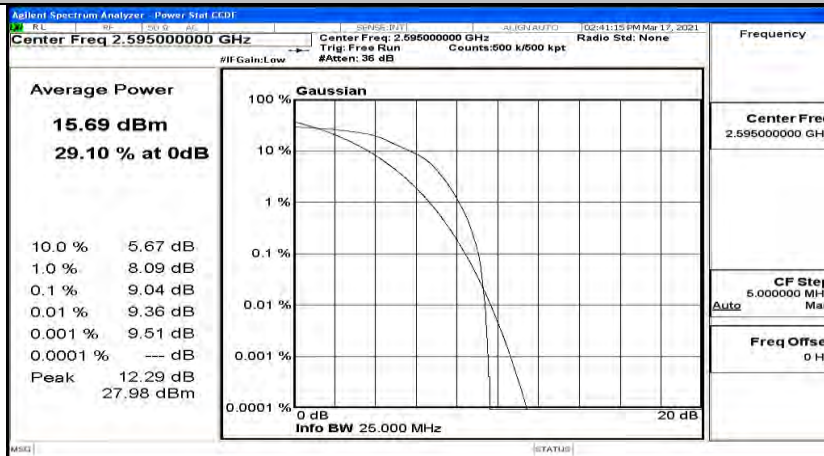
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



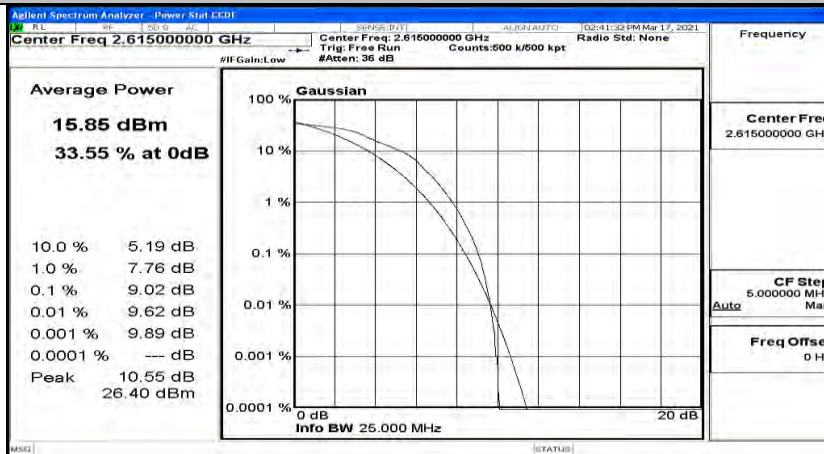
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



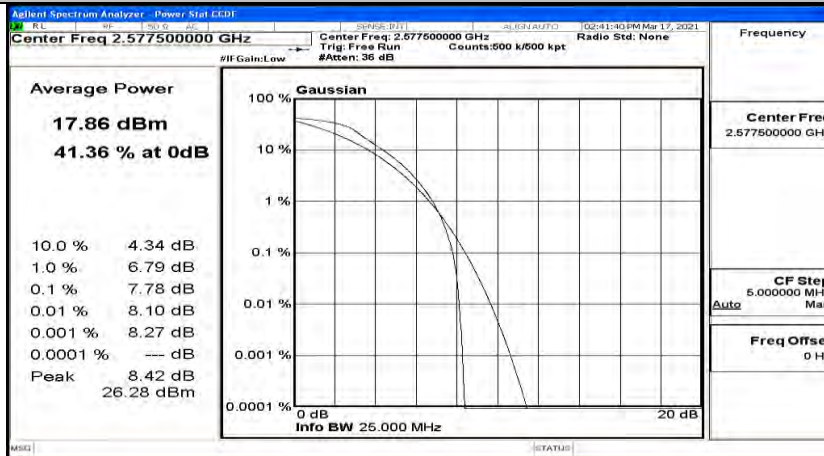
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



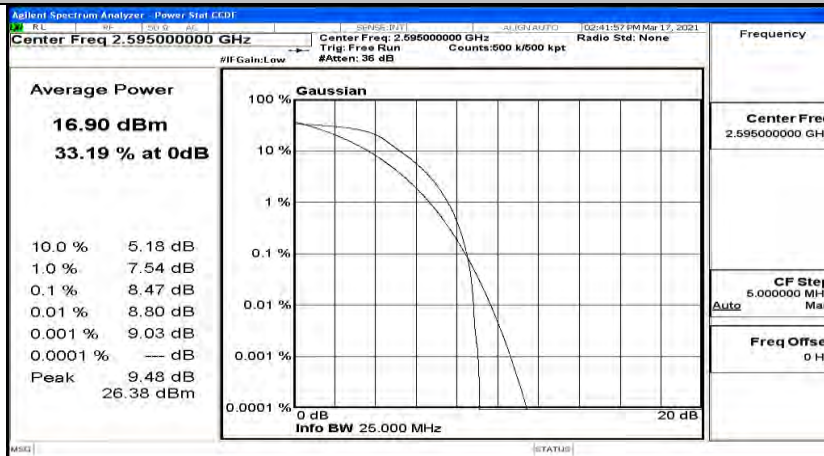
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



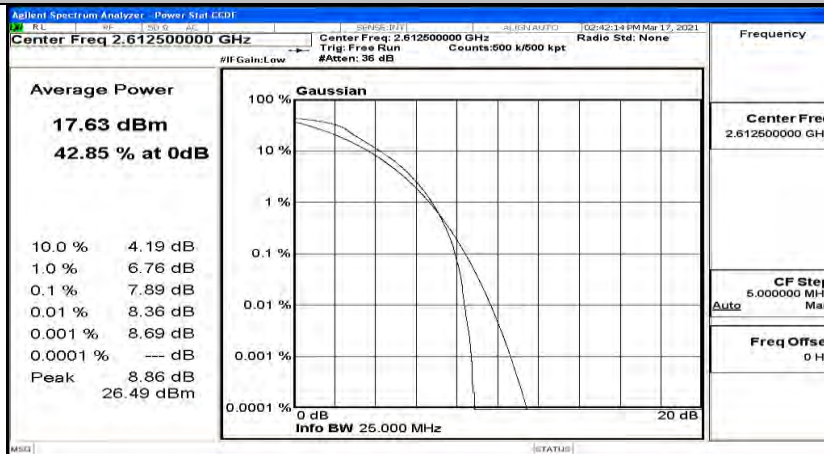
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



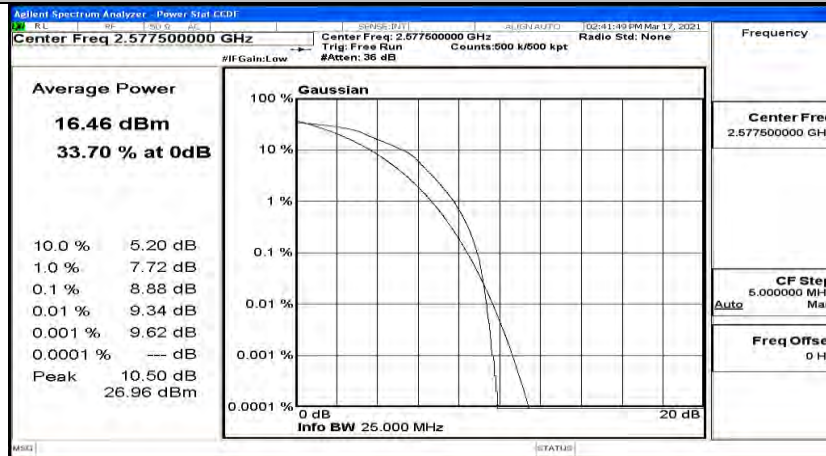
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



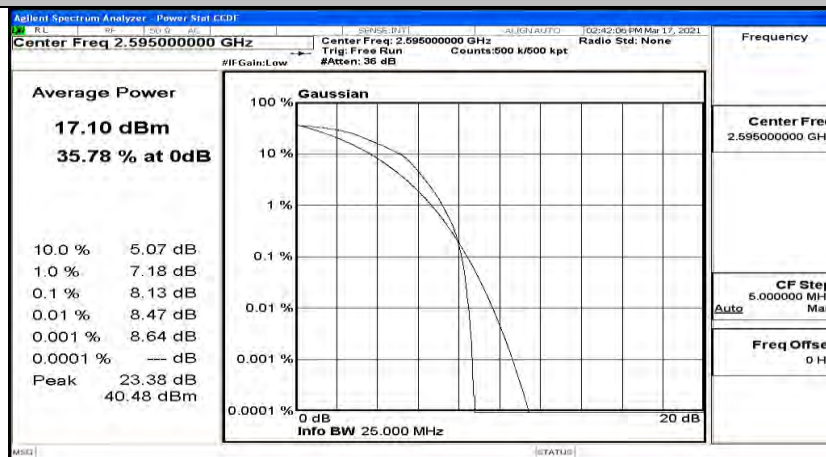
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



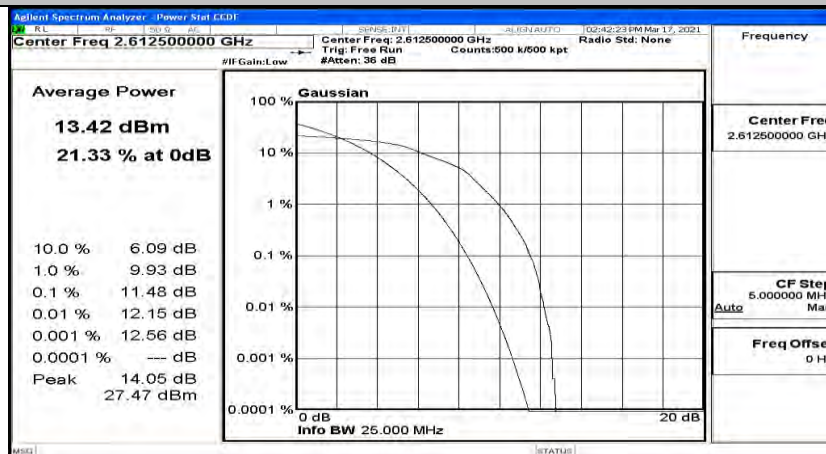
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



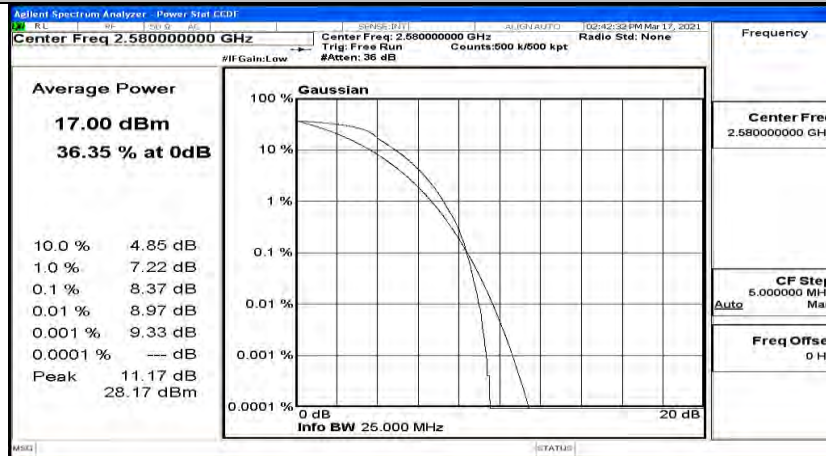
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



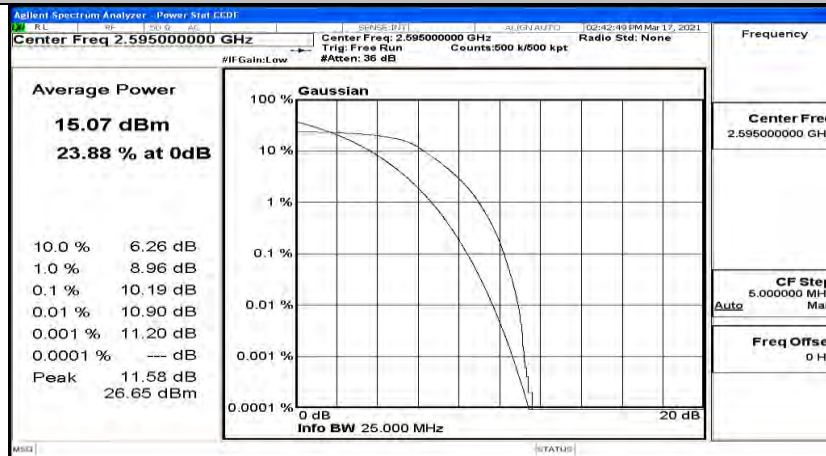
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



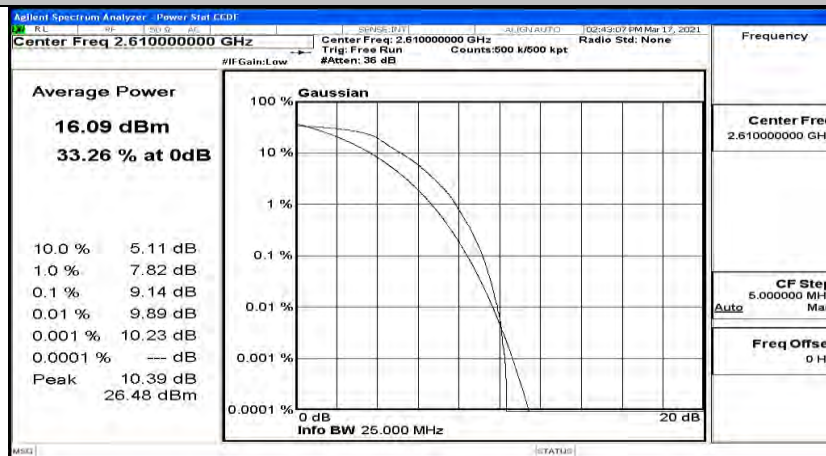
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



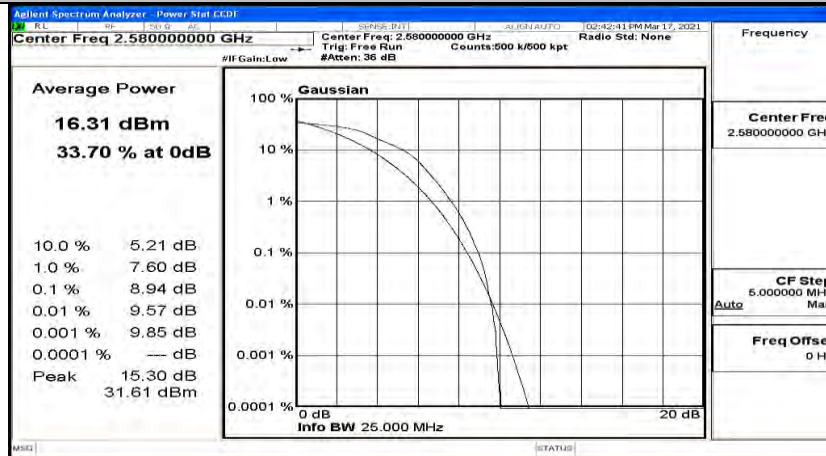
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



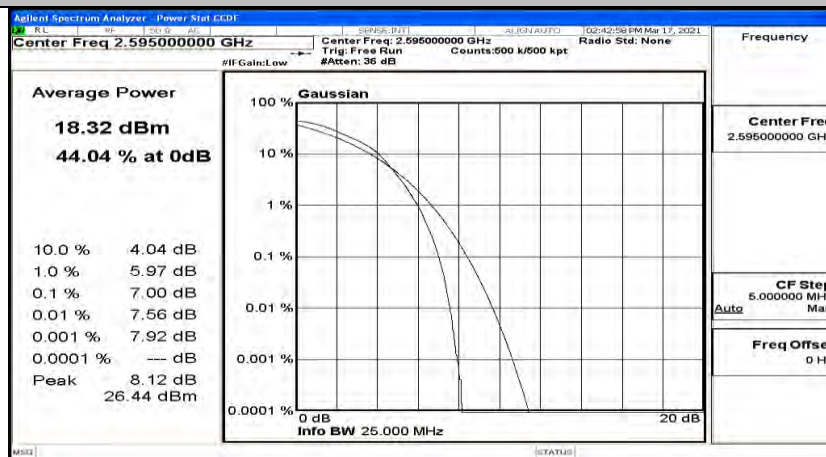
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



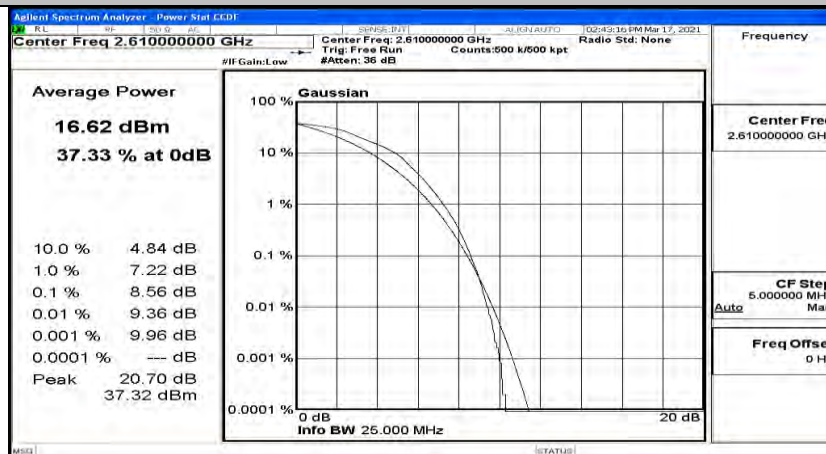
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_16QAM



Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM



J.3 26dB Bandwidth and Occupied Bandwidth

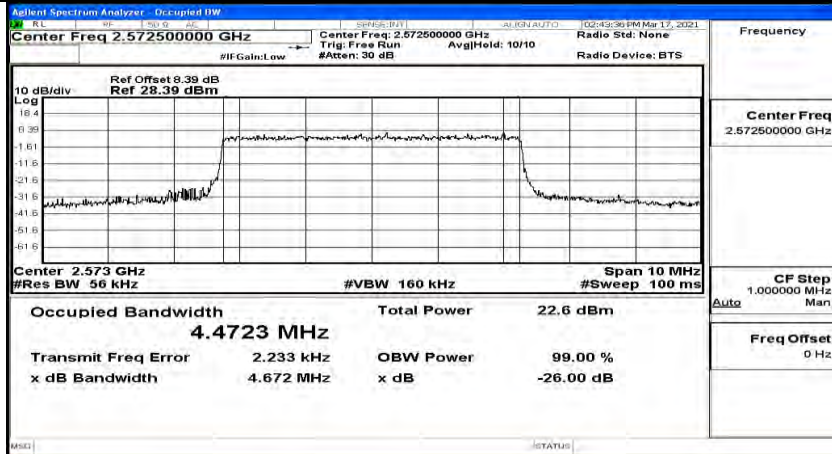
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4723	4.672	PASS
	MCH	4.4812	4.689	PASS
	HCH	4.4713	4.742	PASS
16QAM	LCH	4.4620	4.764	PASS
	MCH	4.4799	4.724	PASS
	HCH	4.4761	4.721	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9381	9.325	PASS
	MCH	8.9510	9.346	PASS
	HCH	8.9348	9.350	PASS
16QAM	LCH	8.9371	9.321	PASS
	MCH	8.9451	9.338	PASS
	HCH	8.9233	9.330	PASS

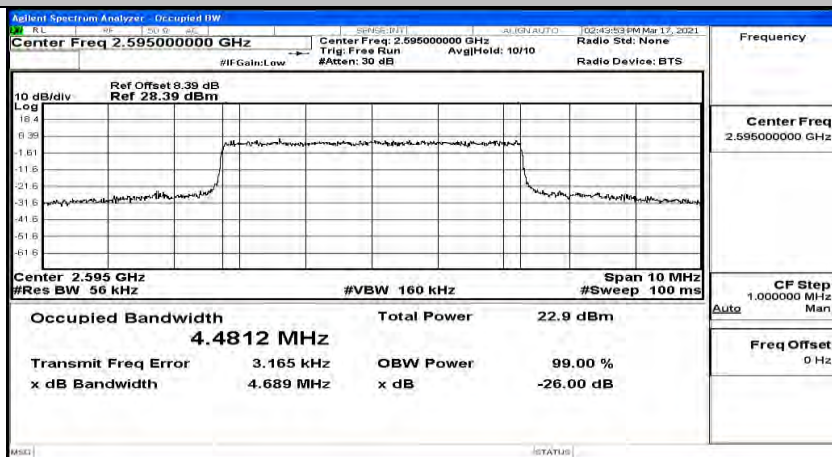
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	13.430	13.97	PASS
	MCH	13.425	14.00	PASS
	HCH	13.403	13.92	PASS
16QAM	LCH	13.401	13.97	PASS
	MCH	13.397	13.98	PASS
	HCH	13.397	14.07	PASS

EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	17.852	18.55	PASS
	MCH	17.851	18.54	PASS
	HCH	17.848	18.53	PASS
16QAM	LCH	17.864	18.57	PASS
	MCH	17.867	18.55	PASS
	HCH	17.861	18.52	PASS

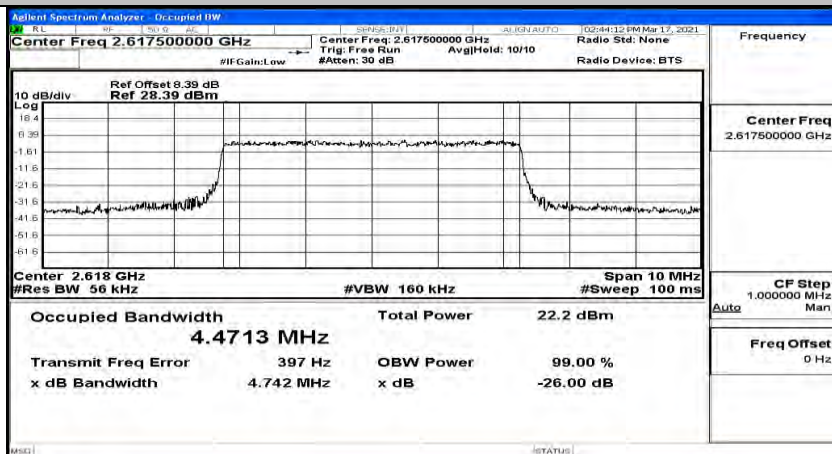
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



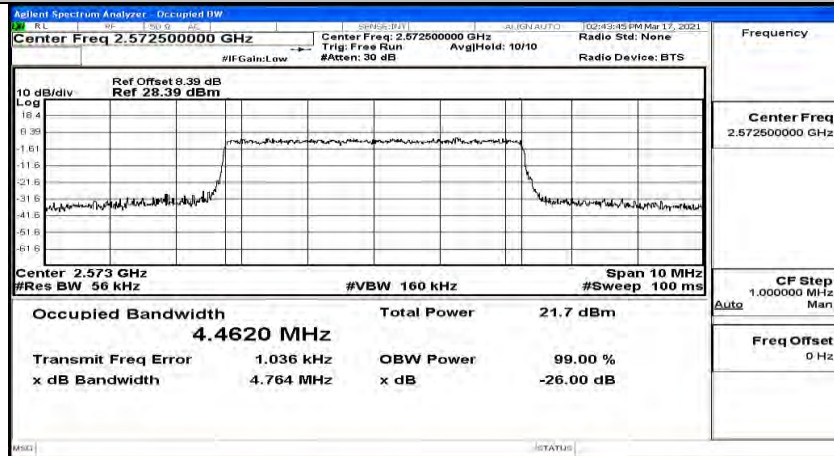
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



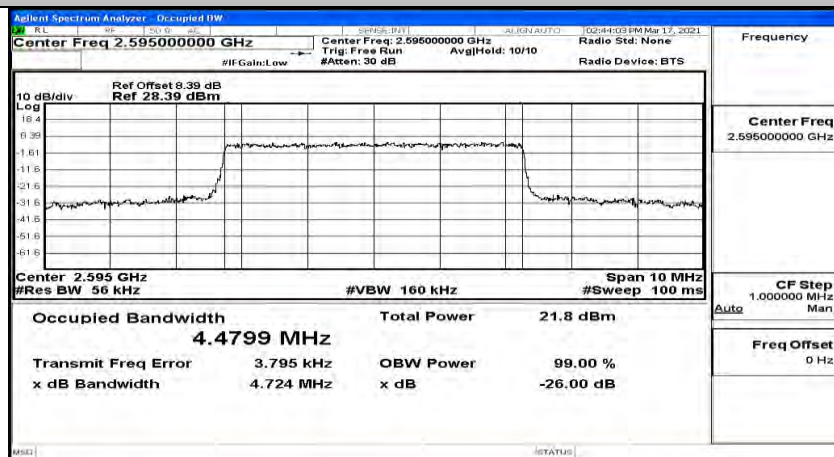
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



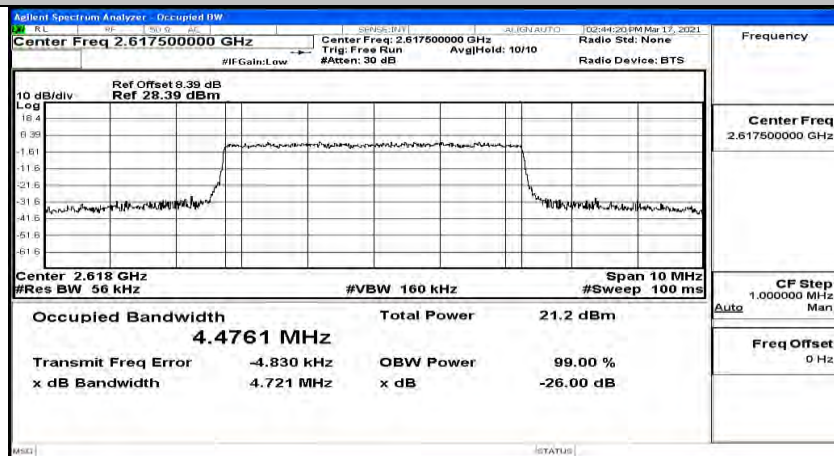
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



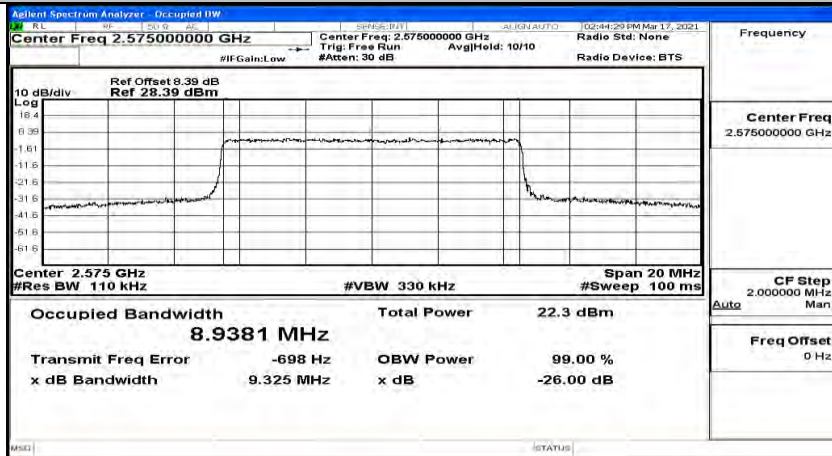
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



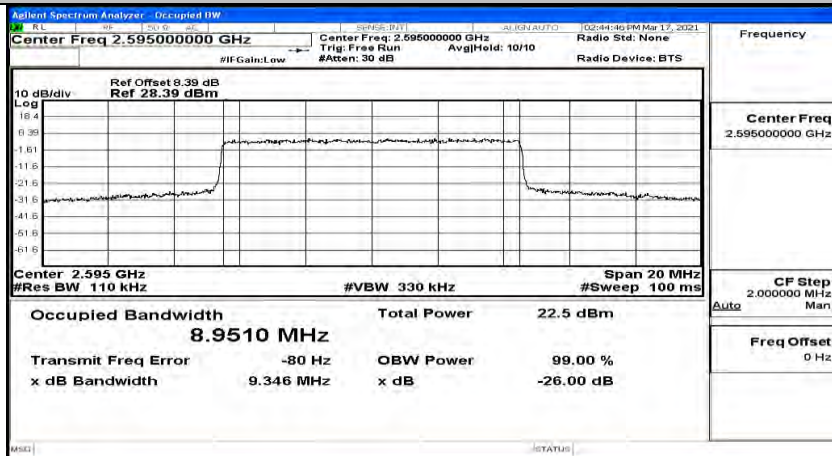
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



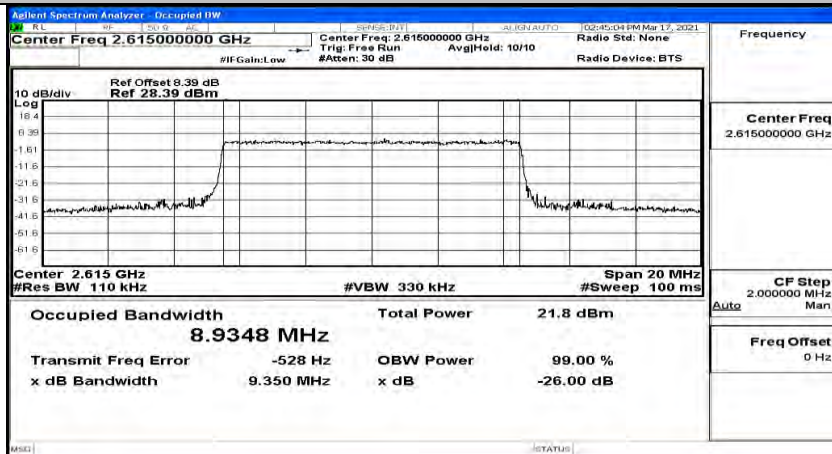
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



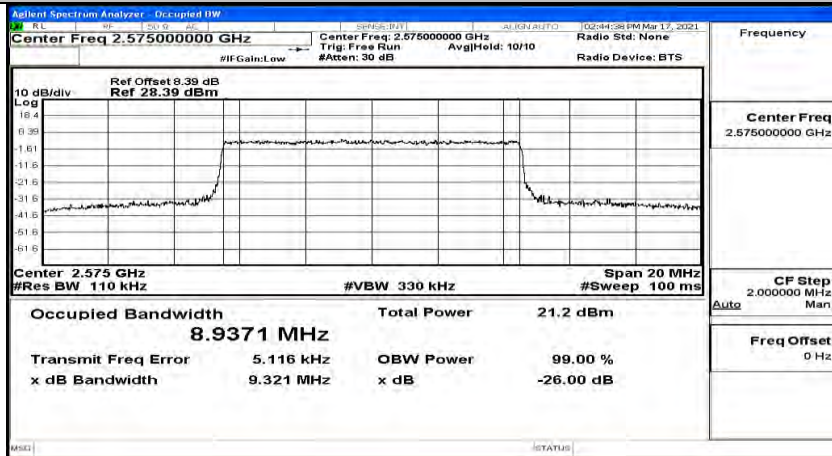
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



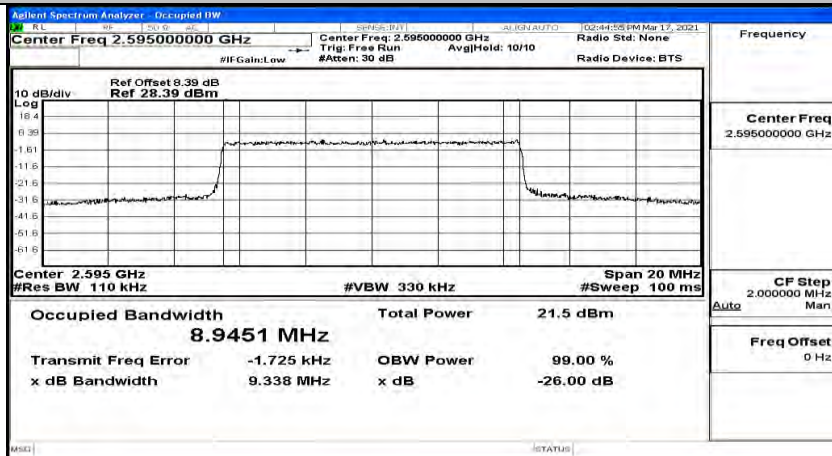
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



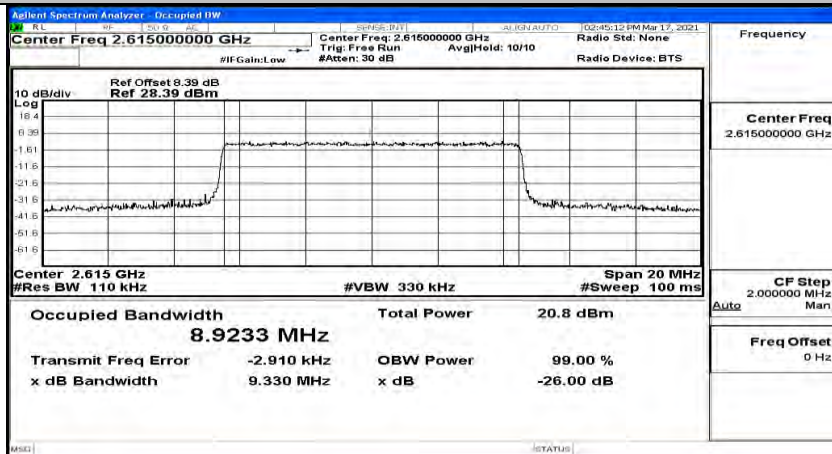
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



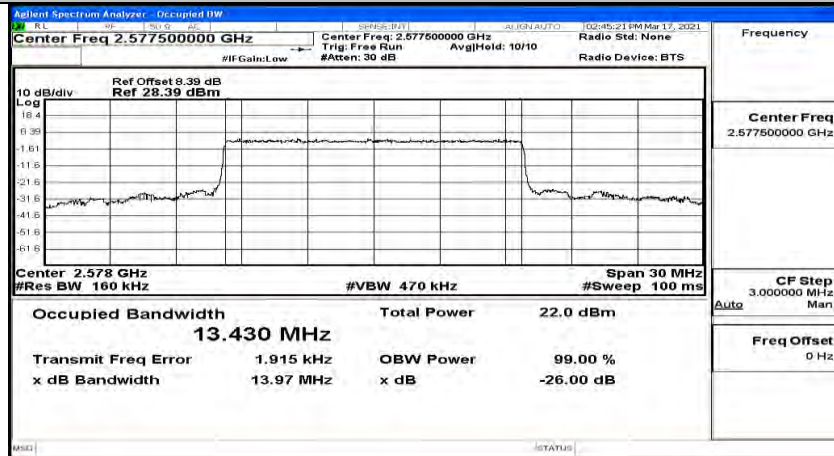
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



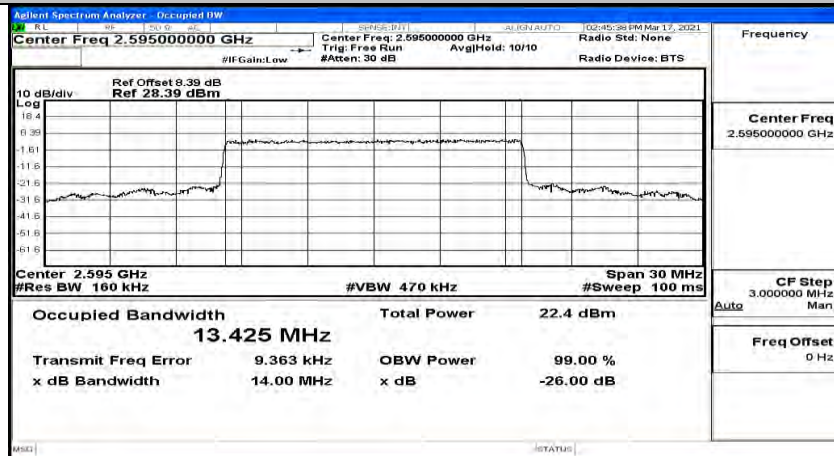
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



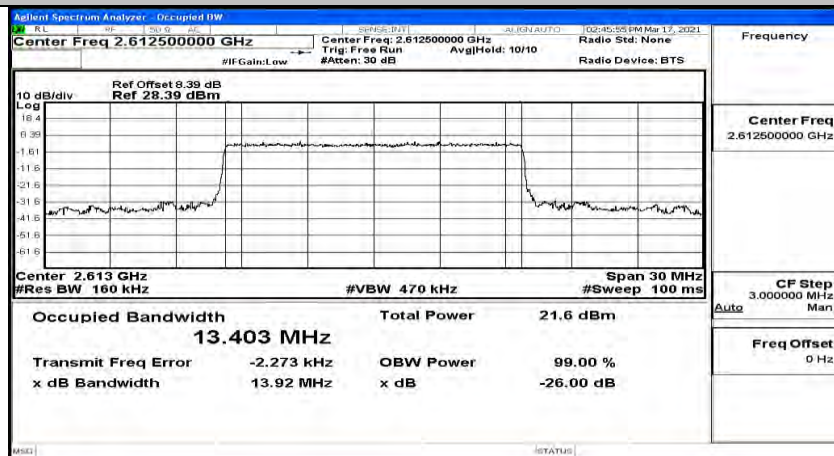
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



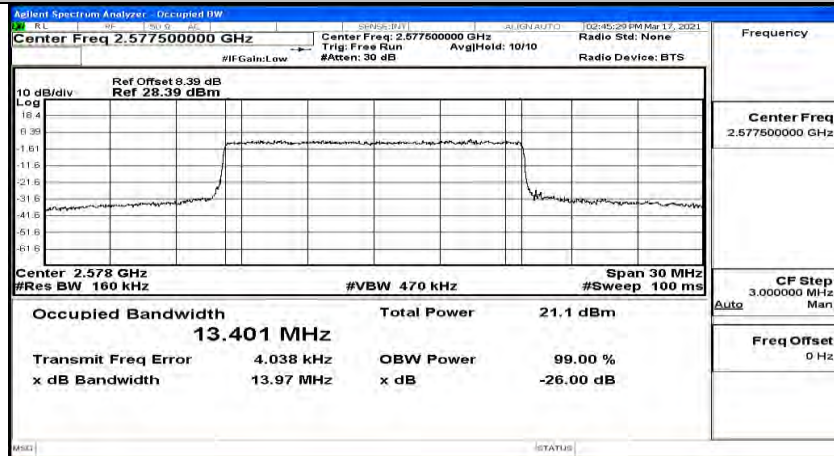
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



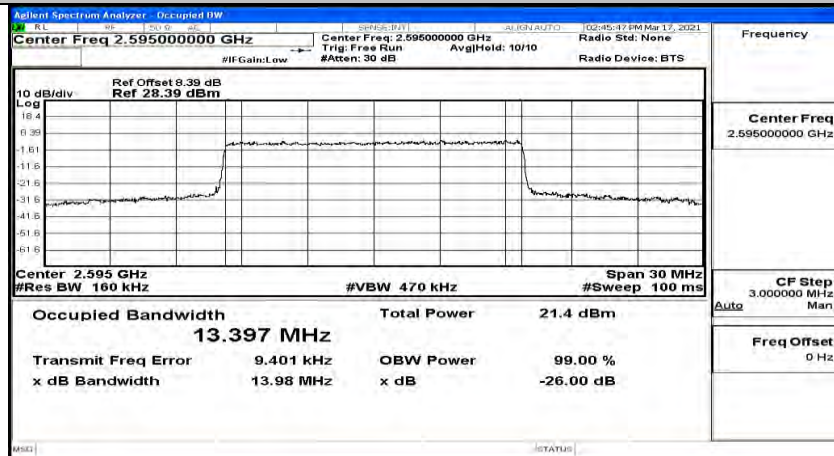
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



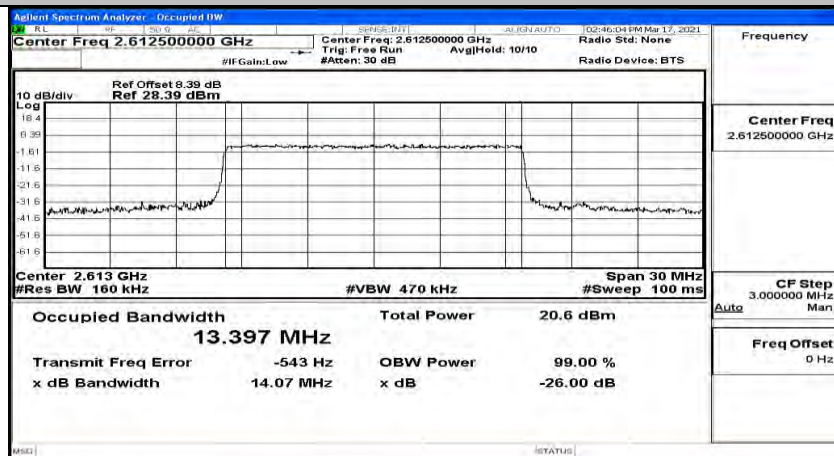
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



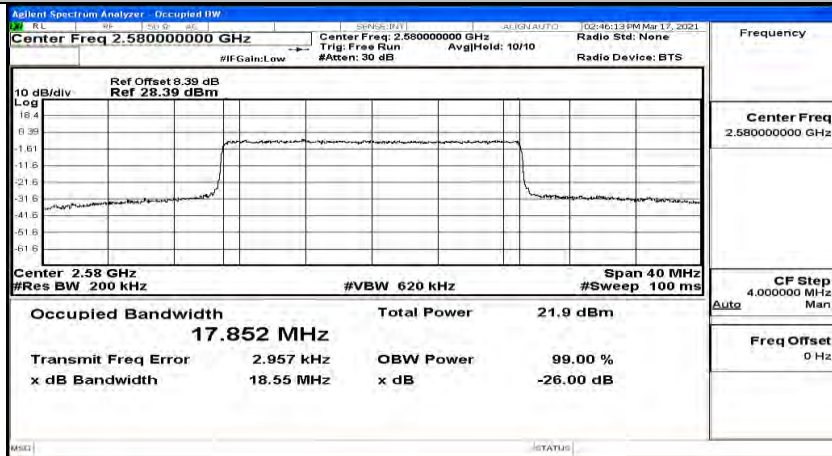
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



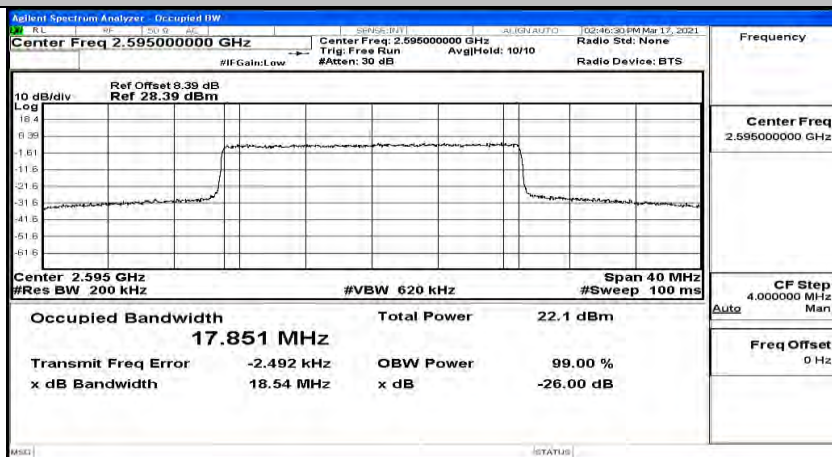
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



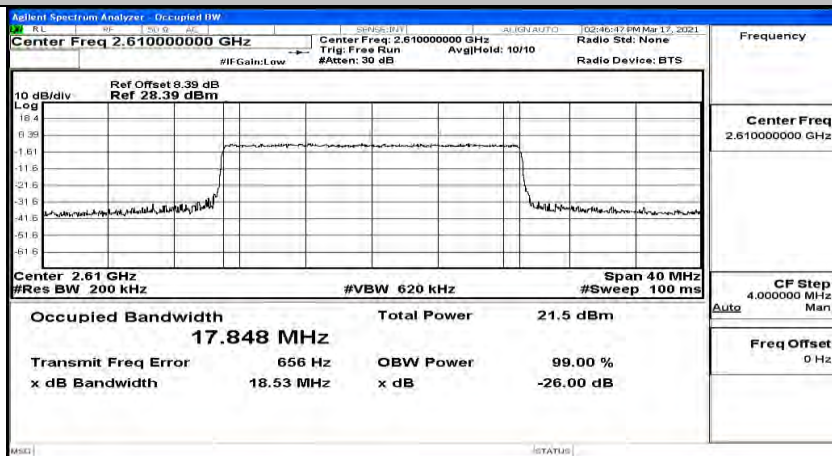
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



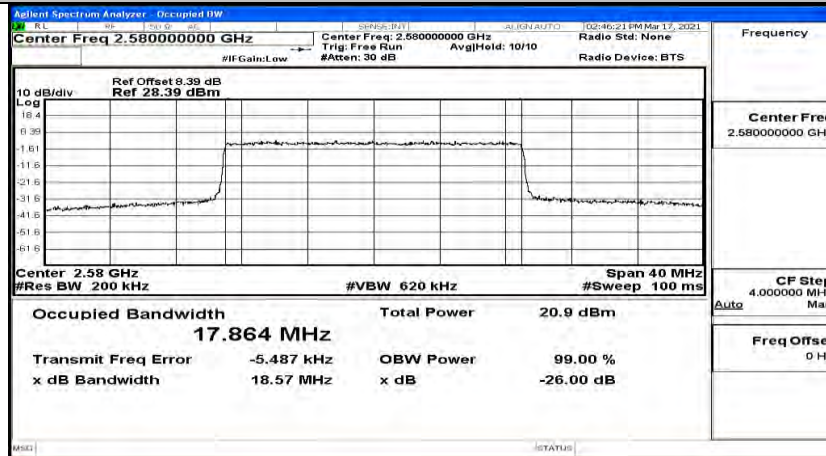
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



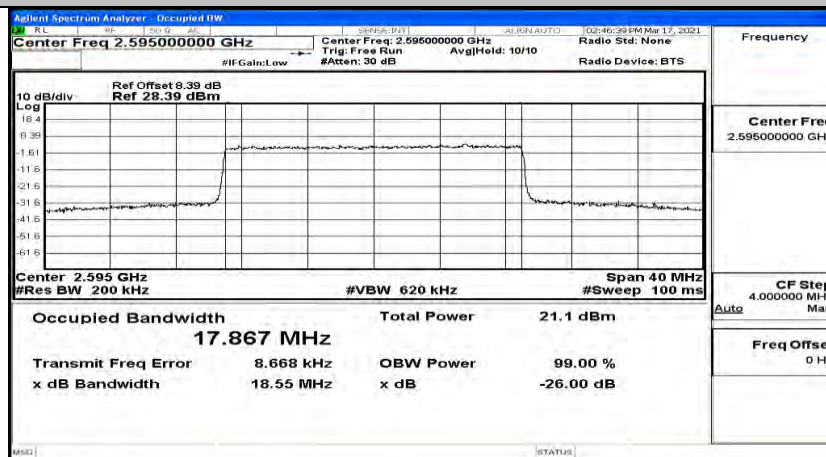
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



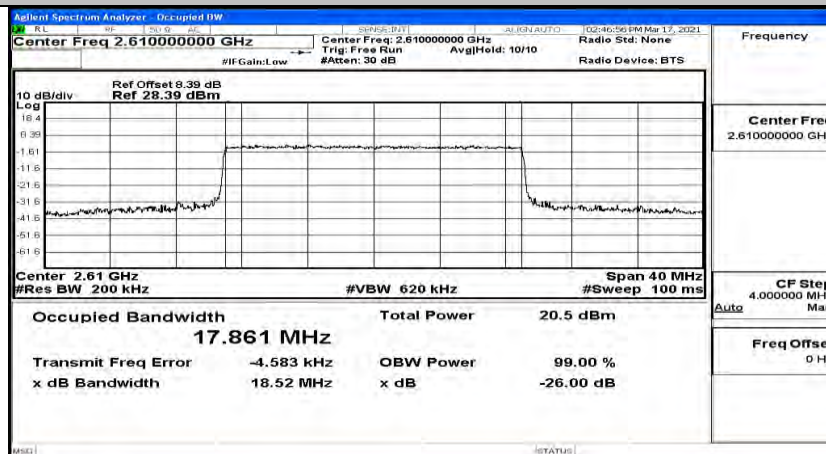
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_16QAM



EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

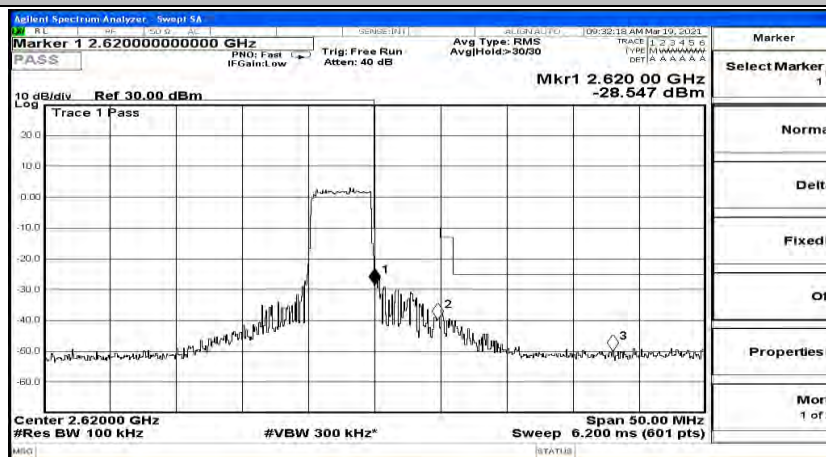


J.4 Band Edge

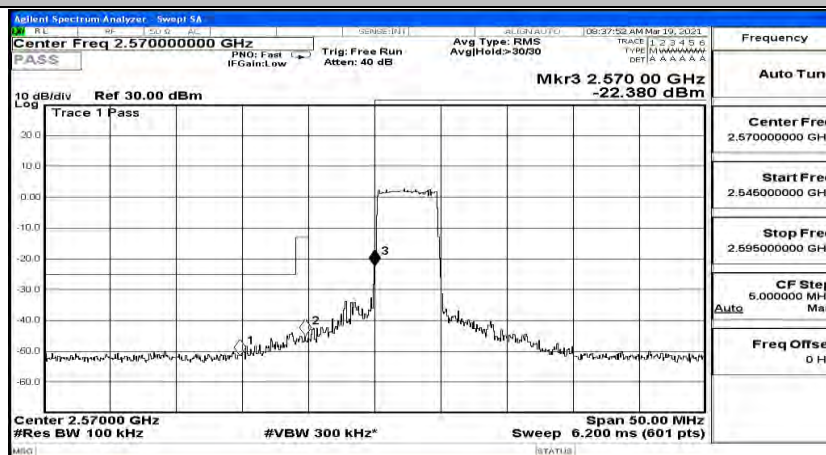
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



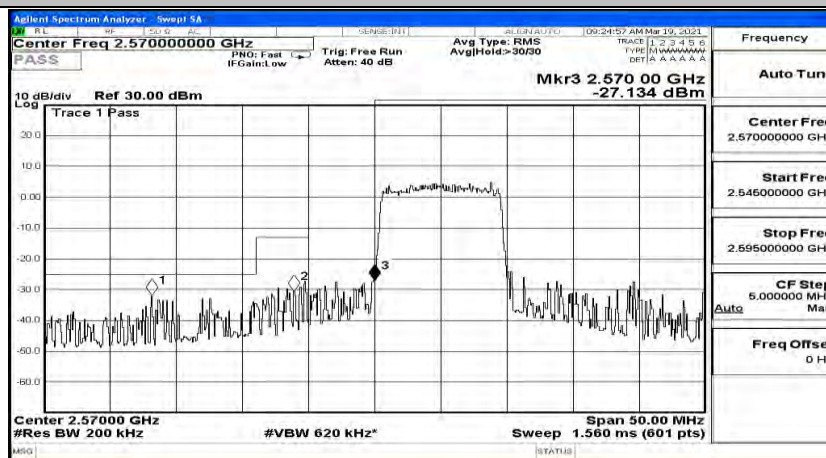
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



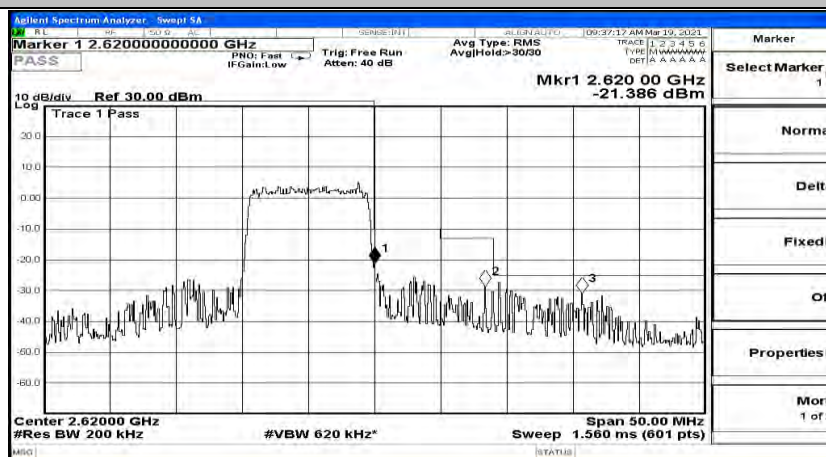
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



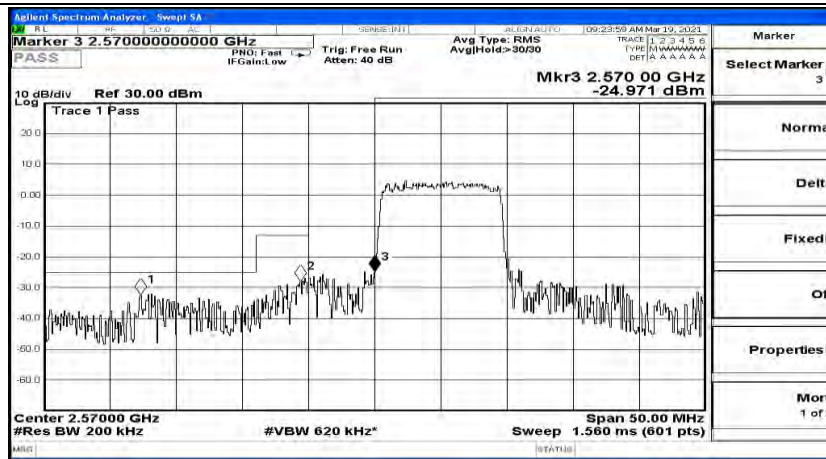
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



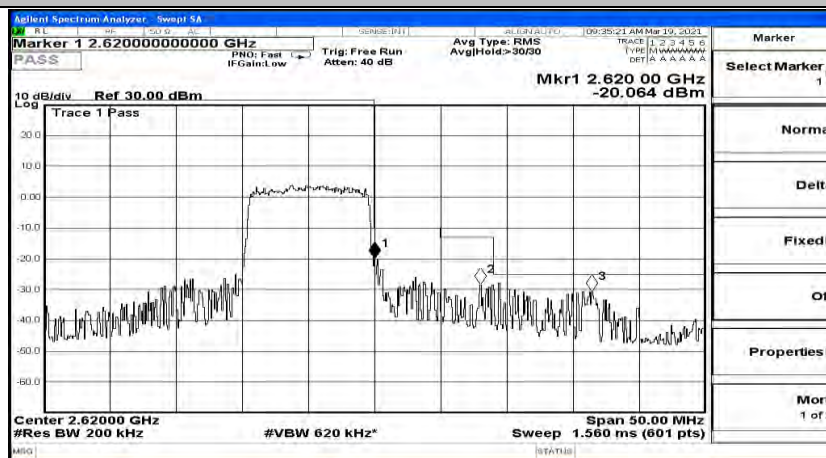
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



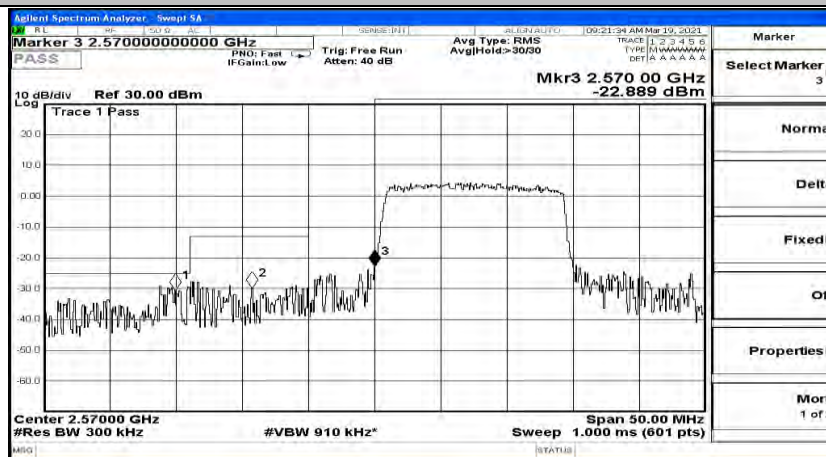
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



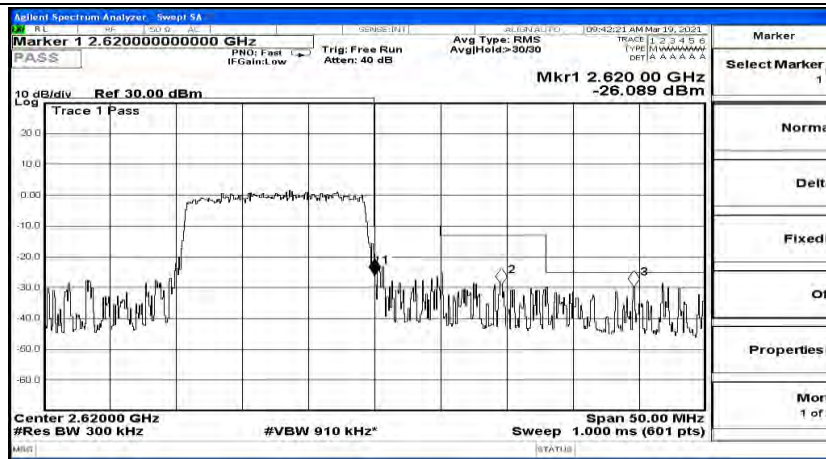
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



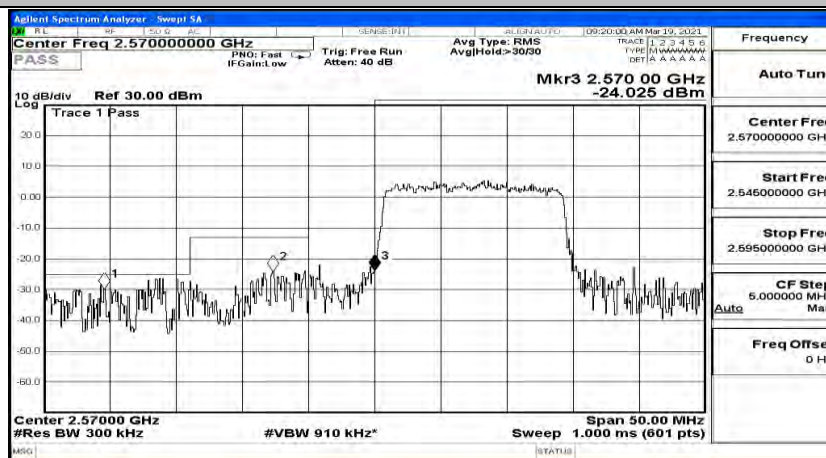
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



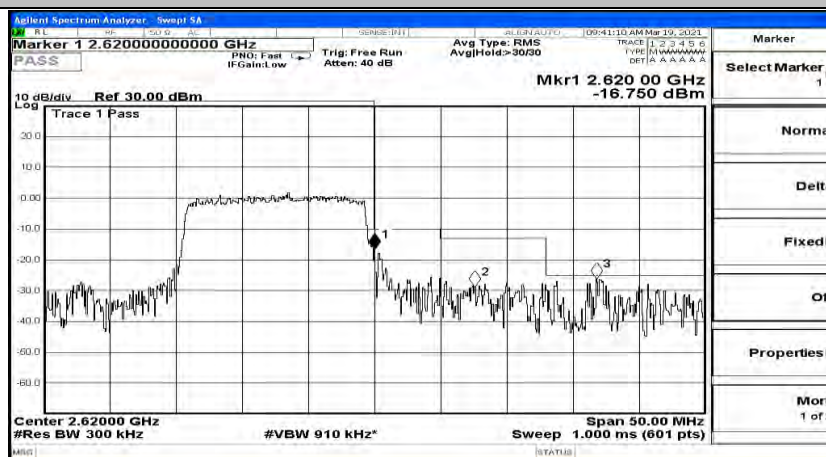
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



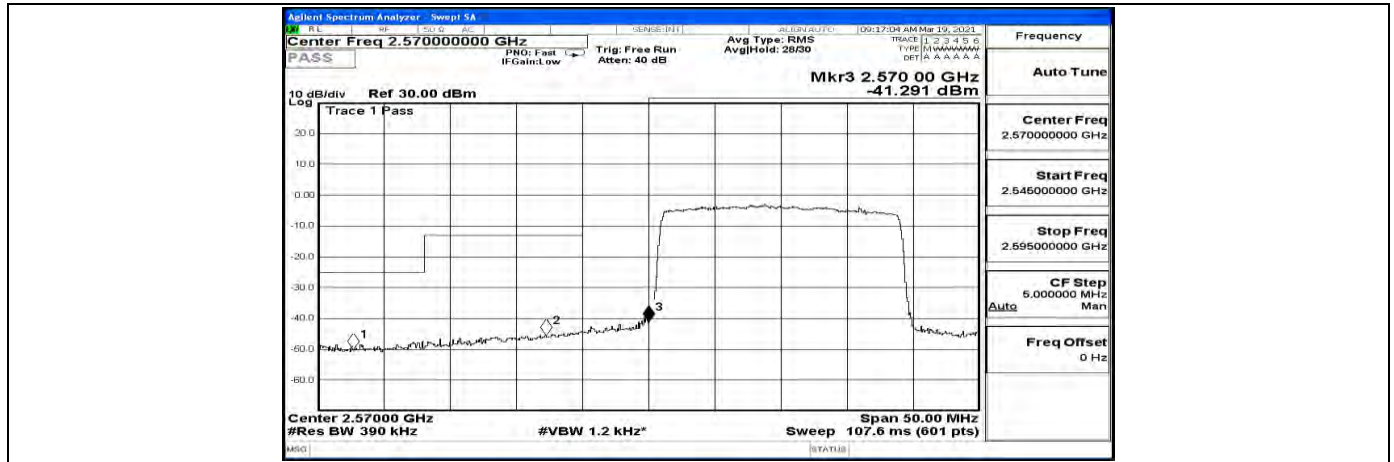
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



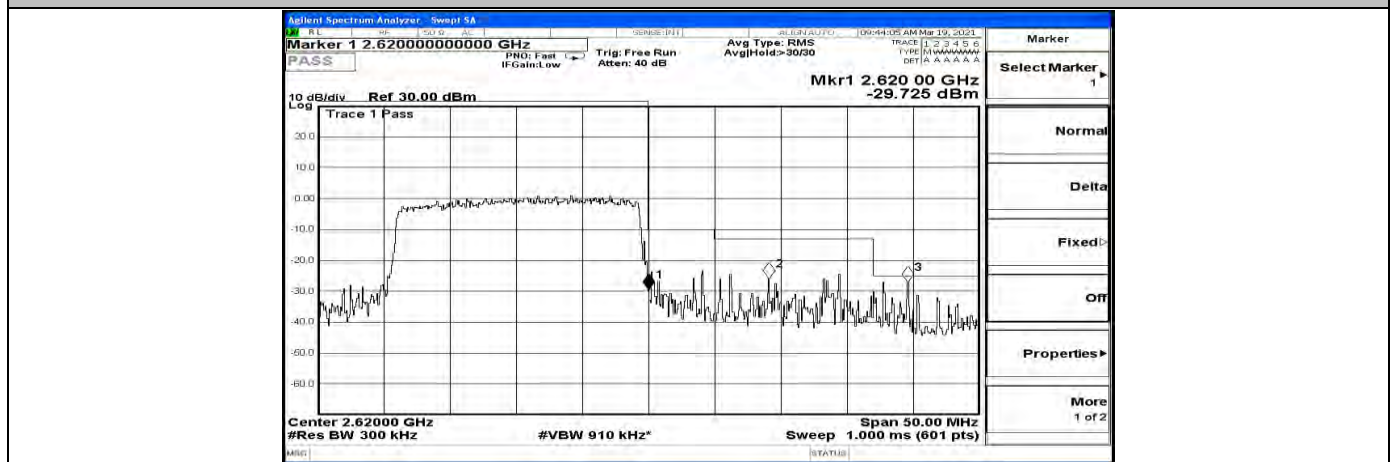
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



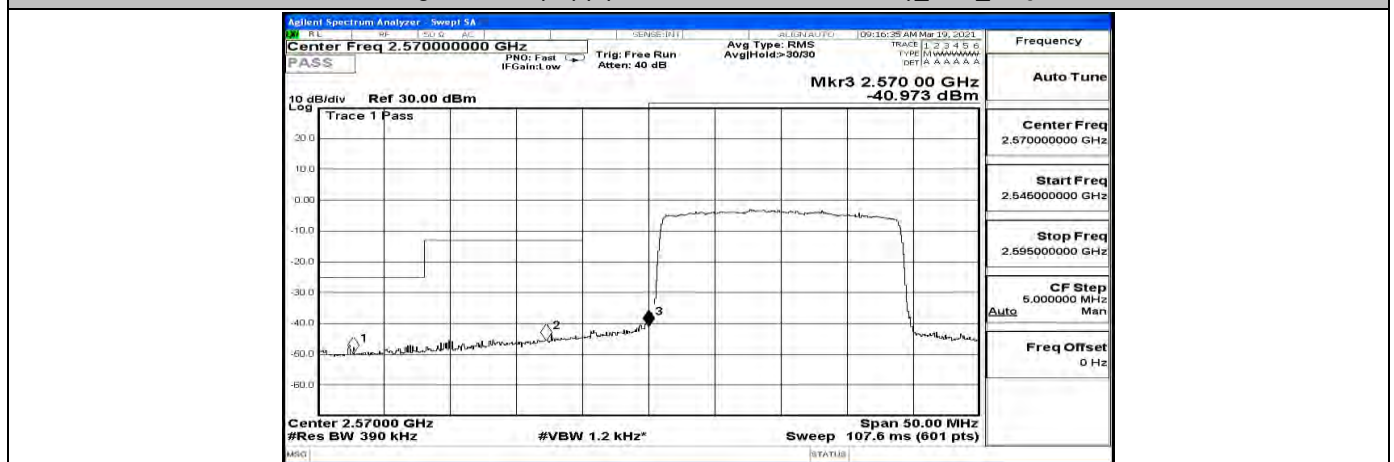
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



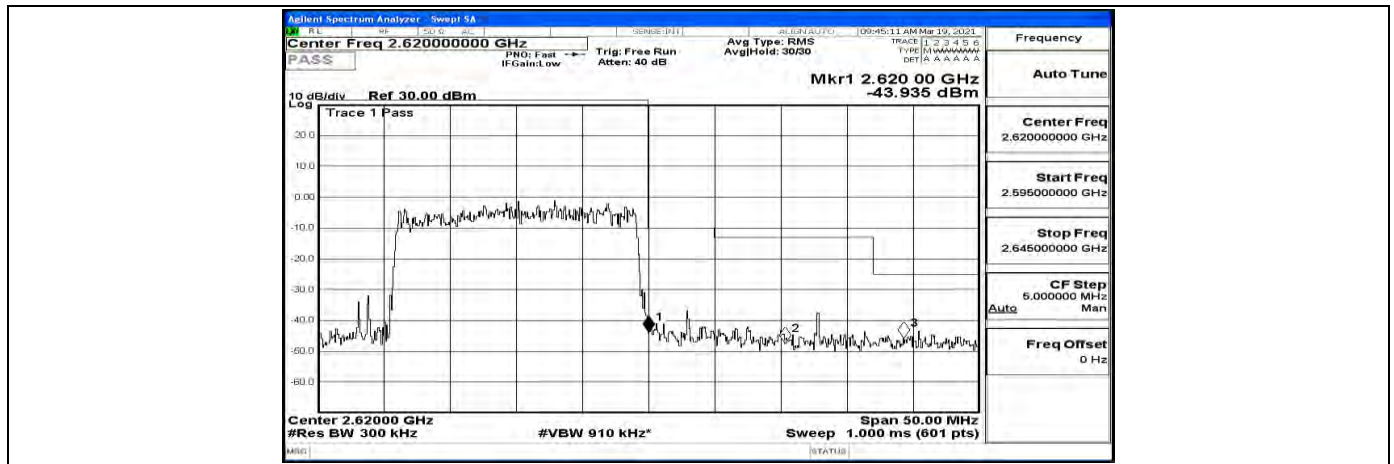
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM

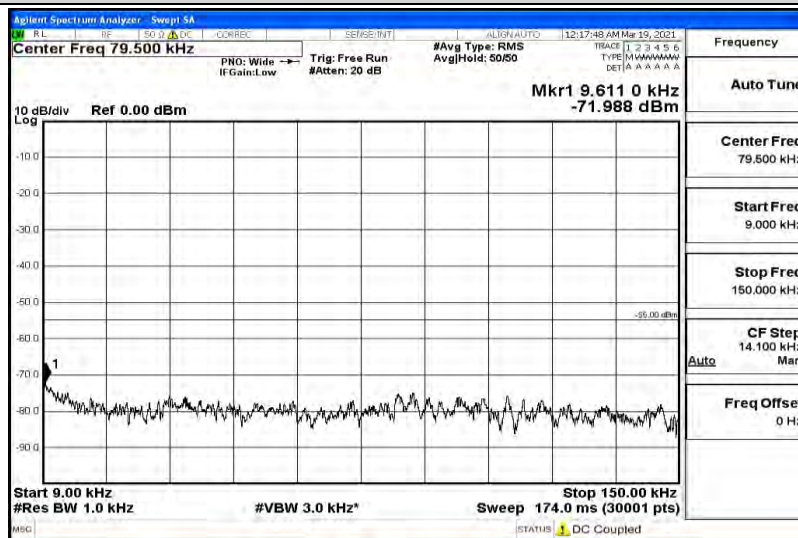


Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

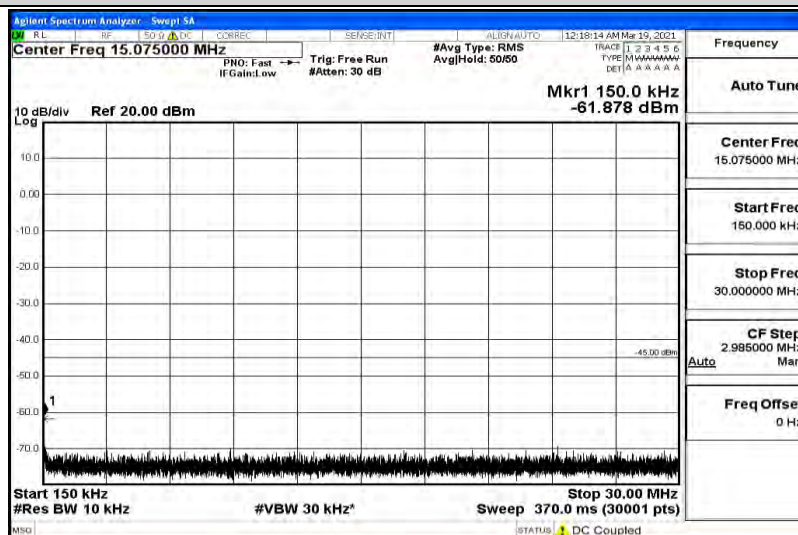


J.5 Conducted Spurious Emission

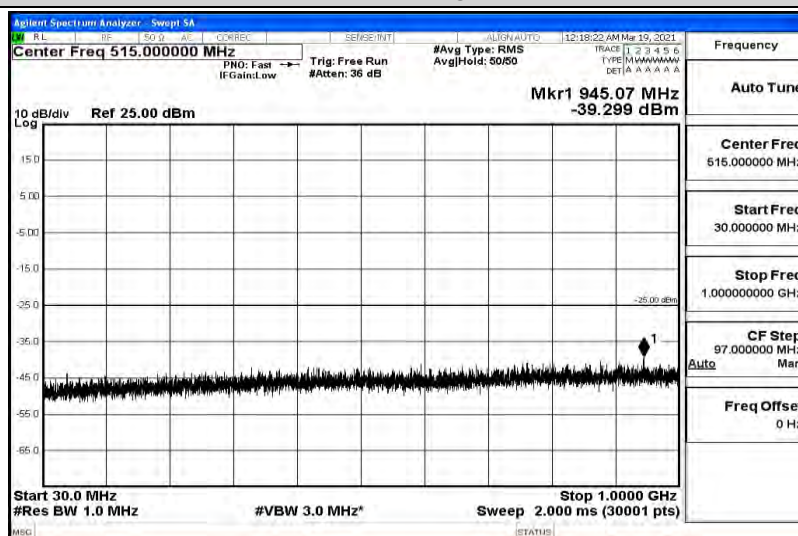
5MHz-QPSK--1RB#0-Range1:0.009~0.15MHz



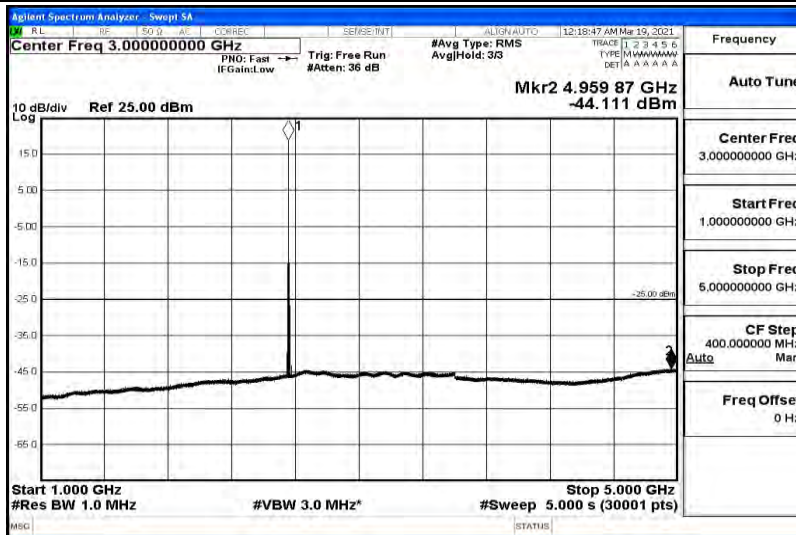
5MHz-QPSK-L-1RB#0-Range2:0.15~30MHz



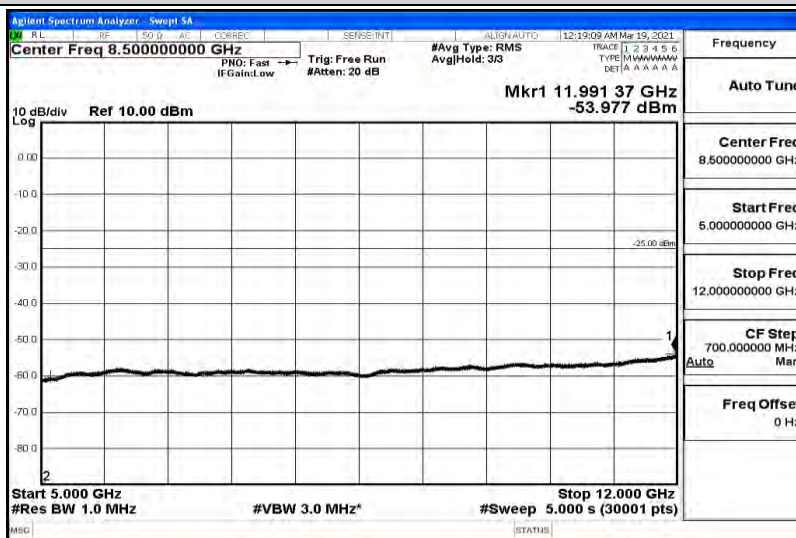
5MHz-QPSK-L-1RB#0-Range3:30~1000MHz



5MHz-QPSK-L-1RB#0-Range4:1000~5000MHz



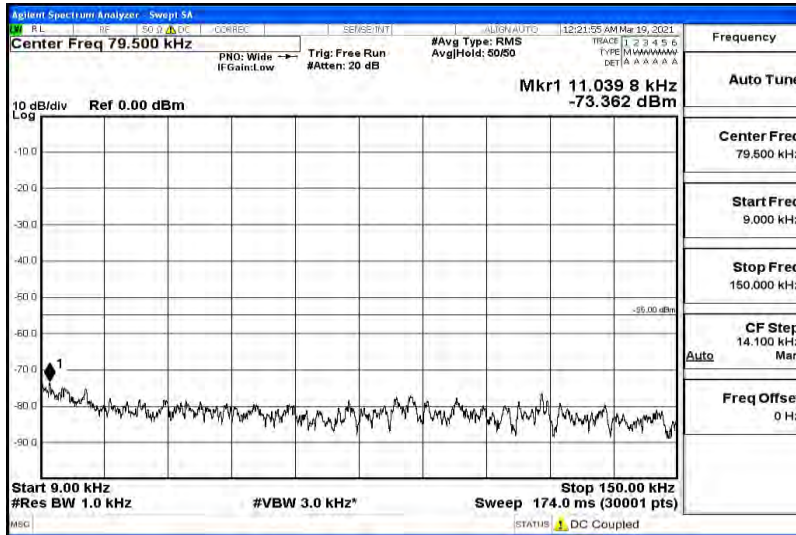
5MHz-QPSK-L-1RB#0-Range5:5000~12000MHz



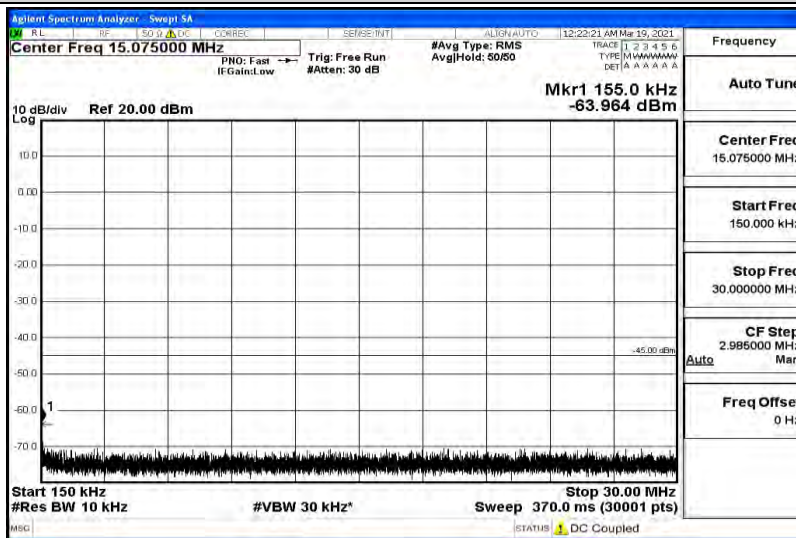
5MHz-QPSK-L-1RB#0-Range6:12000~26500MHz



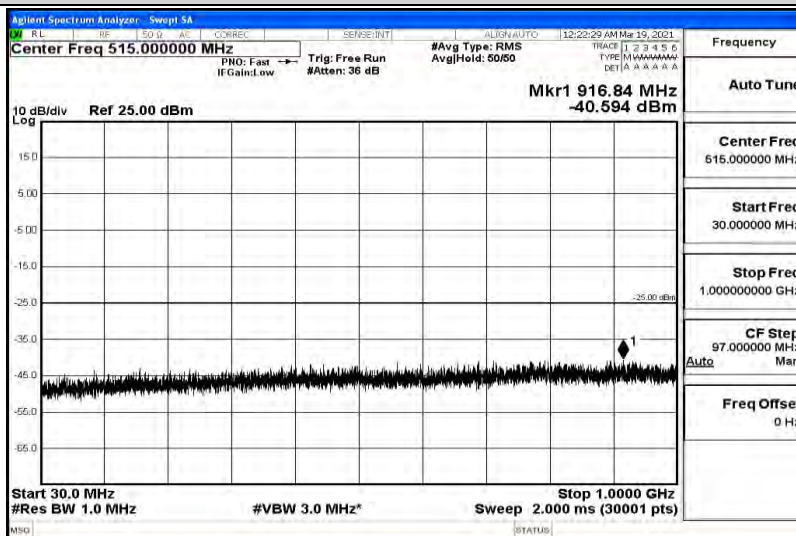
5MHz-QPSK-M-1RB#0-Range1:0.009~0.15MHz



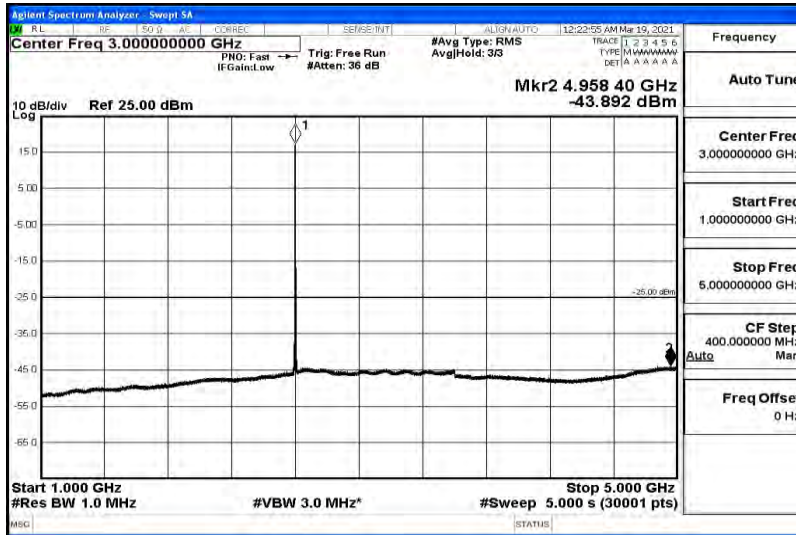
5MHz-QPSK-M-1RB#0-Range2:0.15~30MHz



5MHz-QPSK-M-1RB#0-Range3:30~1000MHz



5MHz-QPSK-M-1RB#0-Range4:1000~5000MHz



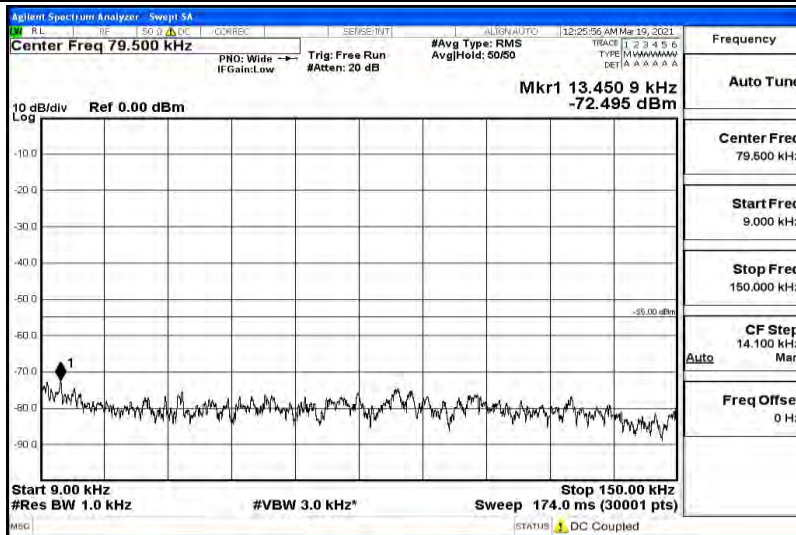
5MHz-QPSK-M-1RB#0-Range5:5000~12000MHz



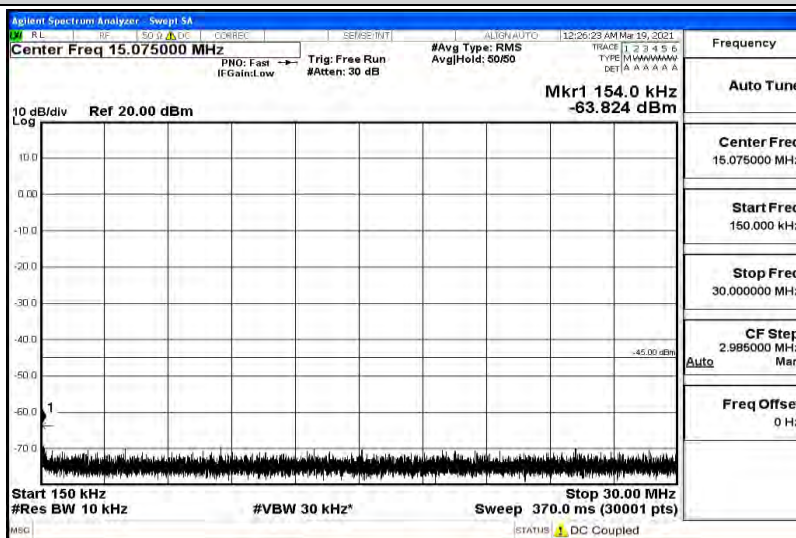
5MHz-QPSK-M-1RB#0-Range6:12000~26500MHz



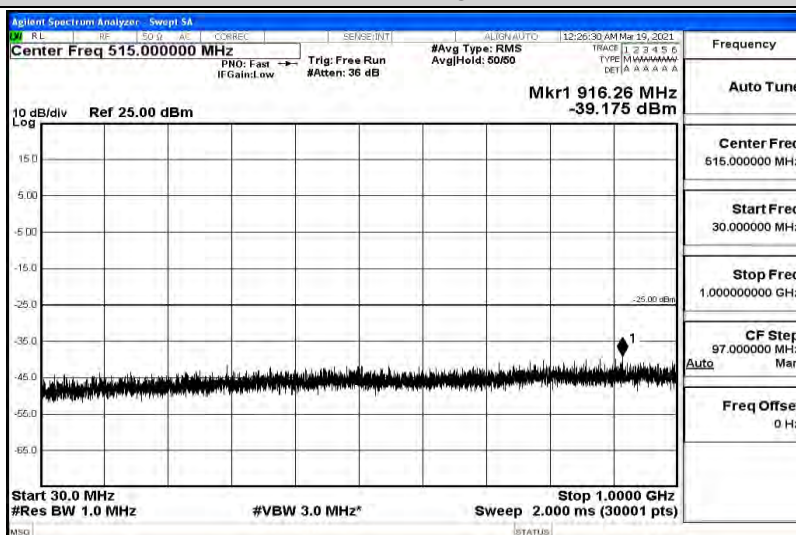
5MHz-QPSK-H-1RB#0-Range1:0.009~0.15MHz



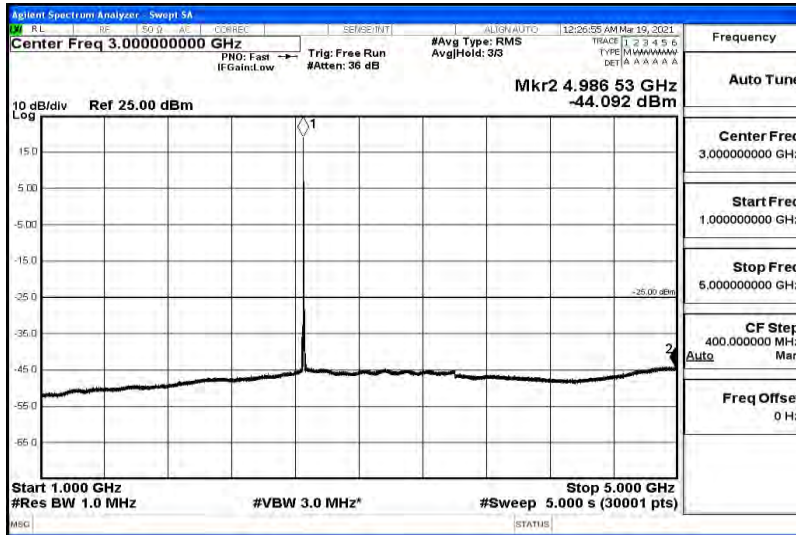
5MHz-QPSK-H-1RB#0-Range2:0.15~30MHz



5MHz-QPSK-H-1RB#0-Range3:30~1000MHz



5MHz-QPSK-H-1RB#0-Range4:1000~5000MHz



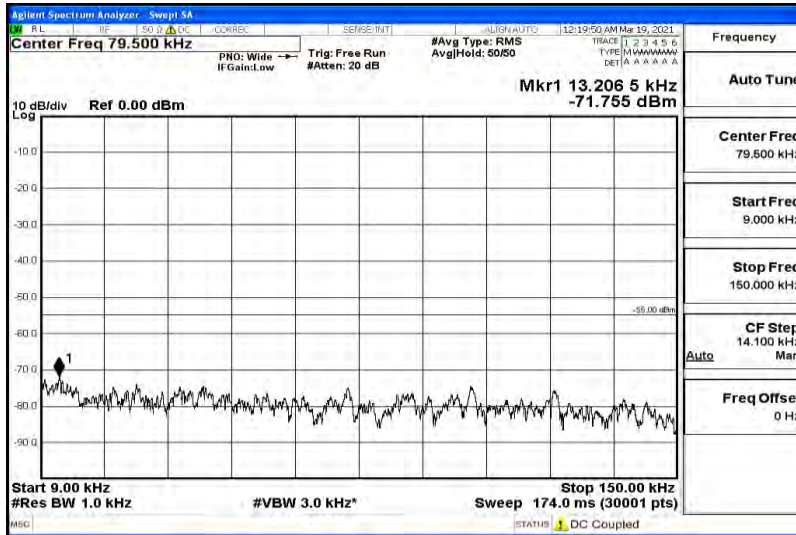
5MHz-QPSK-H-1RB#0-Range5:5000~12000MHz



5MHz-QPSK-H-1RB#0-Range6:12000~26500MHz



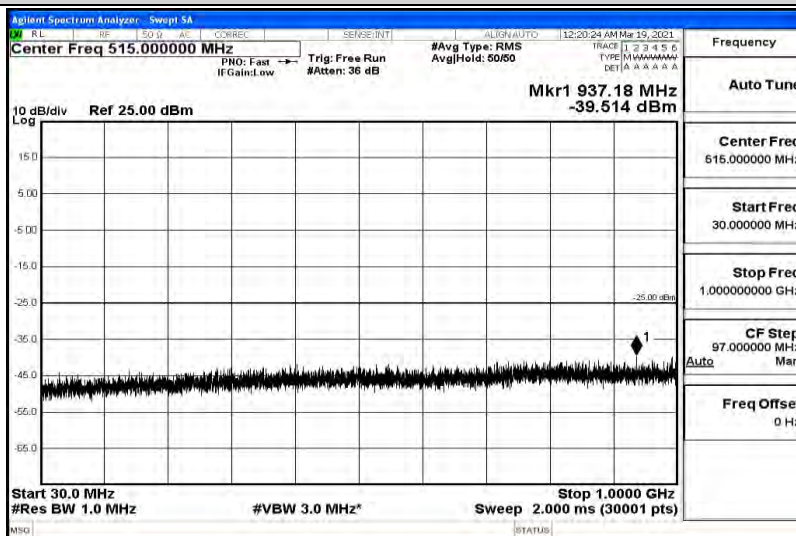
5MHz-16QAM-L-1RB#0-Range1:0.009~0.15MHz



5MHz-16QAM-L-1RB#0-Range2:0.15~30MHz



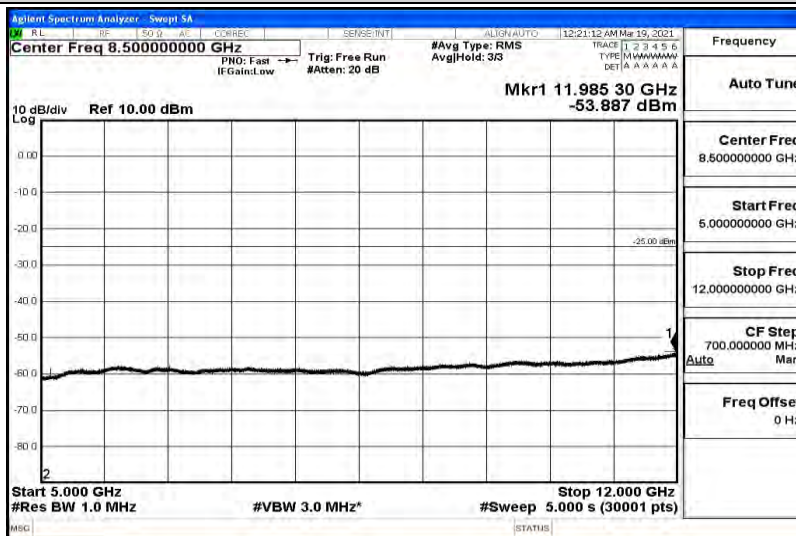
5MHz-16QAM-L-1RB#0-Range3:30~1000MHz



5MHz-16QAM-L-1RB#0-Range4:1000~5000MHz



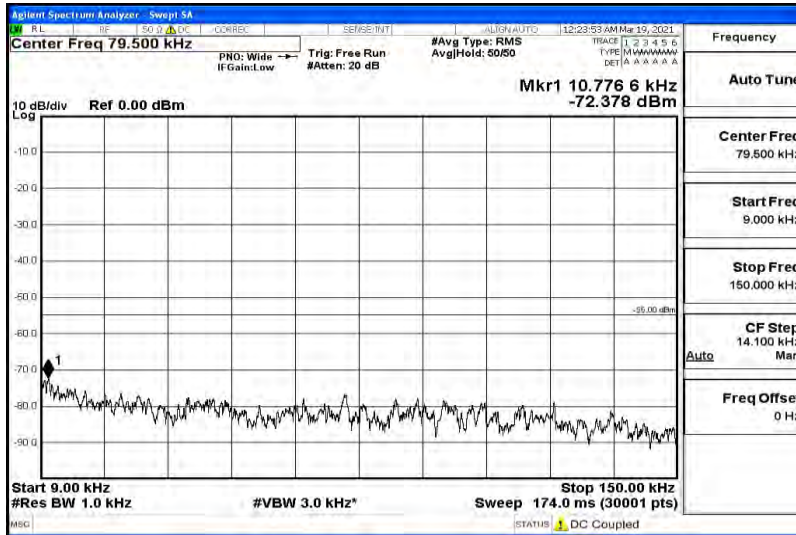
5MHz-16QAM-L-1RB#0-Range5:5000~12000MHz



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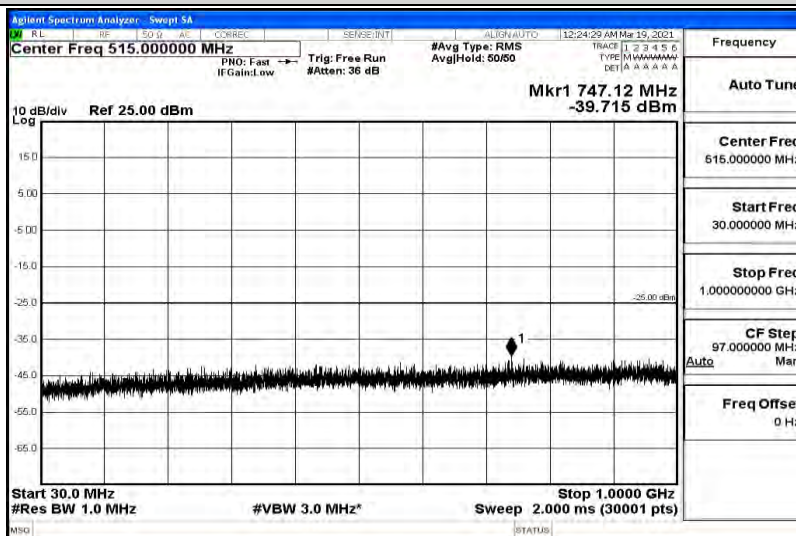
5MHz-16QAM-M-1RB#0-Range1:0.009~0.15MHz



5MHz-16QAM-M-1RB#0-Range2:0.15~30MHz



5MHz-16QAM-M-1RB#0-Range3:30~1000MHz



5MHz-16QAM-M-1RB#0-Range4:1000~5000MHz