

## Appendix I: Test Data for E-UTRA Band 13

**Product Name: 3G/4G Smart Phone**

**Trade Mark: DOOGEE**

**Test Model: S88Plus**

### Environmental Conditions

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

## I.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	22.84	21.88	PASS
		1	12	23.07	21.93	PASS
		1	24	22.84	21.77	PASS
		12	0	22.00	20.81	PASS
		12	6	21.96	20.79	PASS
		12	13	21.94	20.67	PASS
		25	0	21.93	20.96	PASS
	MCH	1	0	22.96	21.94	PASS
		1	12	23.15	22.31	PASS
		1	24	22.84	21.81	PASS
		12	0	22.02	20.77	PASS
		12	6	21.99	20.84	PASS
		12	13	22.06	20.95	PASS
		25	0	21.98	21.02	PASS
	HCH	1	0	23.02	21.81	PASS
		1	12	22.95	21.72	PASS
		1	24	22.84	21.16	PASS
		12	0	22.08	20.95	PASS
		12	6	22.06	20.94	PASS
		12	13	21.85	20.72	PASS
		25	0	21.96	21.06	PASS

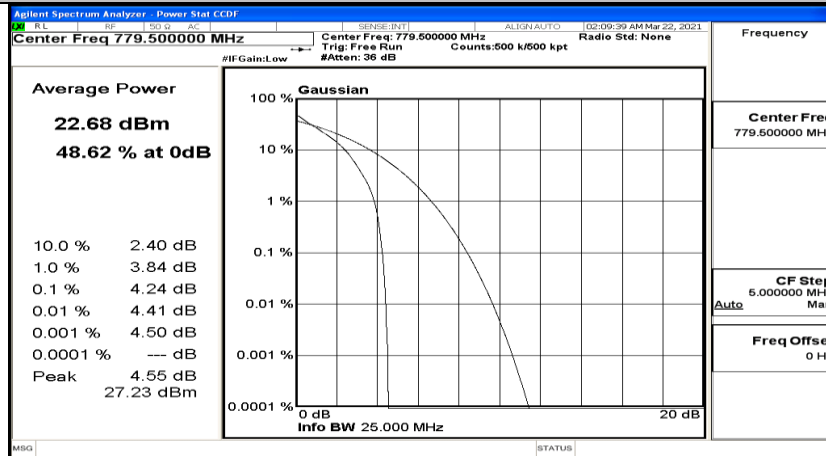
Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.24	21.91	PASS
		1	24	23.47	22.72	PASS
		1	49	22.84	21.71	PASS
		25	0	22.10	21.07	PASS
		25	12	22.16	21.15	PASS
		25	25	22.05	21.01	PASS
		50	0	22.10	21.14	PASS
	MCH	1	0	23.04	22.15	PASS
		1	24	23.46	22.88	PASS
		1	49	22.67	21.49	PASS
		25	0	22.23	21.18	PASS
		25	12	22.32	21.17	PASS
		25	25	22.15	21.11	PASS
		50	0	22.25	21.14	PASS
	HCH	1	0	23.08	22.22	PASS
		1	24	23.52	22.89	PASS
		1	49	23.02	21.61	PASS
		25	0	22.31	21.22	PASS
		25	12	22.30	21.30	PASS
		25	25	22.05	21.06	PASS
		50	0	22.45	21.21	PASS

**I.2 Peak-to-Average Ratio**

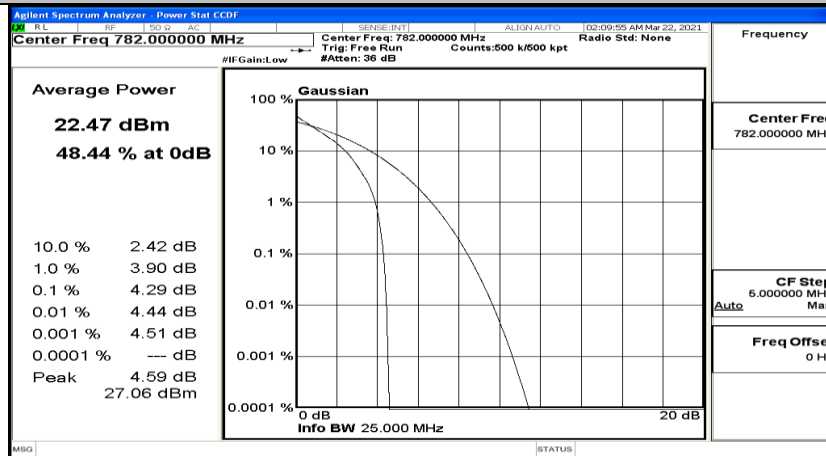
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.24	<13	PASS
	MCH	4.29	<13	PASS
	HCH	4.29	<13	PASS
16QAM	LCH	5.18	<13	PASS
	MCH	5.21	<13	PASS
	HCH	5.17	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.36	<13	PASS
	MCH	4.3	<13	PASS
	HCH	4.34	<13	PASS
16QAM	LCH	5.22	<13	PASS
	MCH	5.21	<13	PASS
	HCH	5.25	<13	PASS

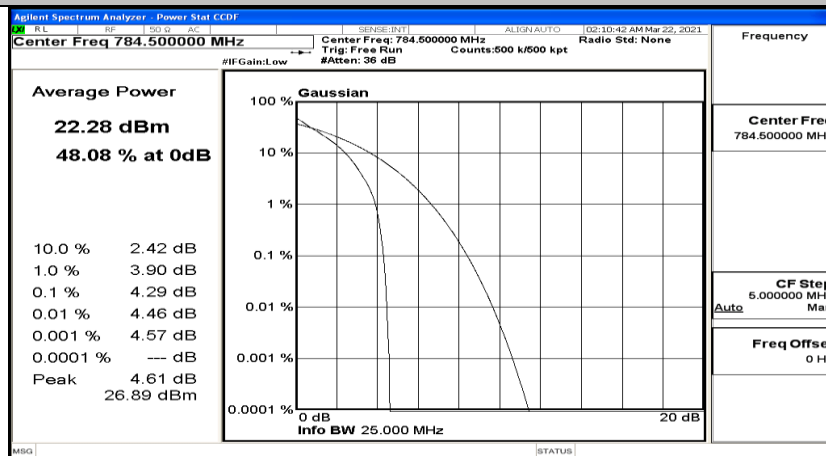
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



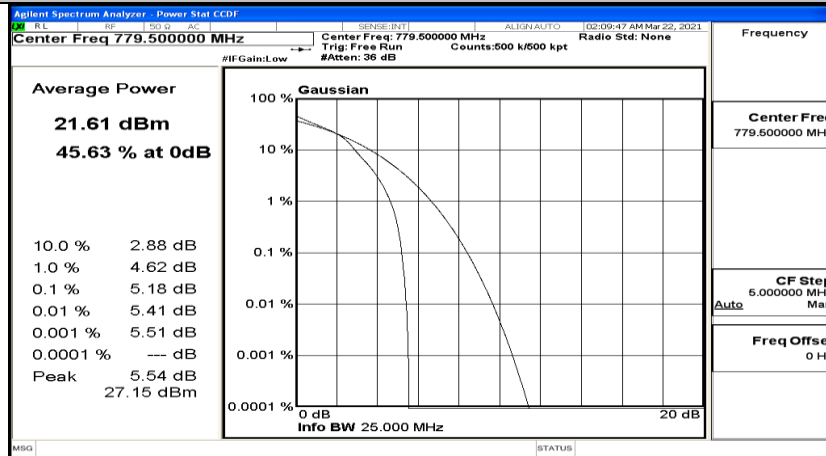
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



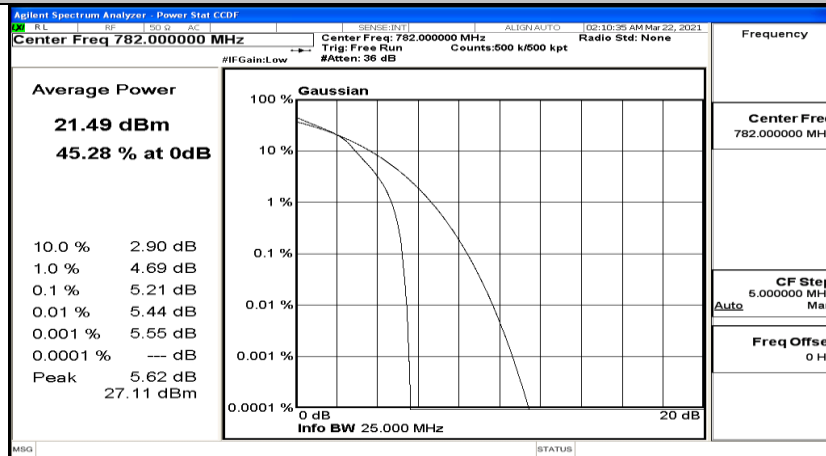
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



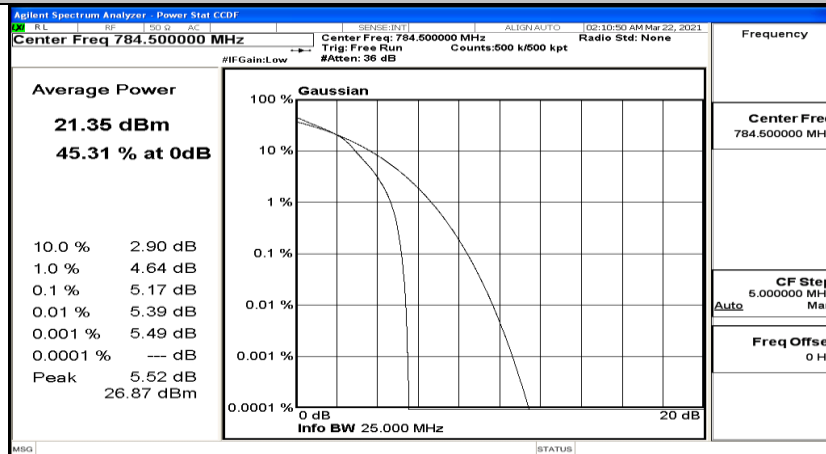
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



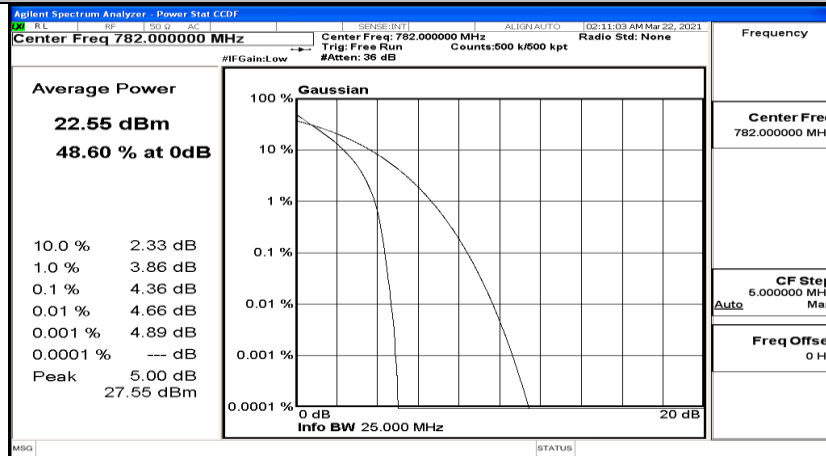
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



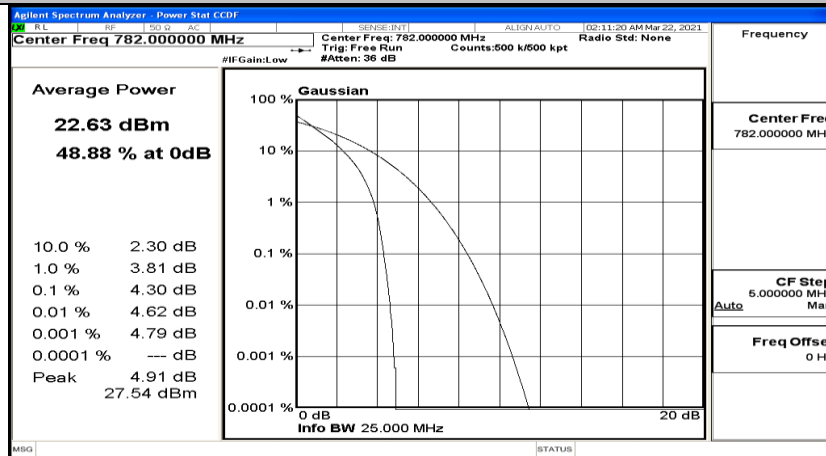
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



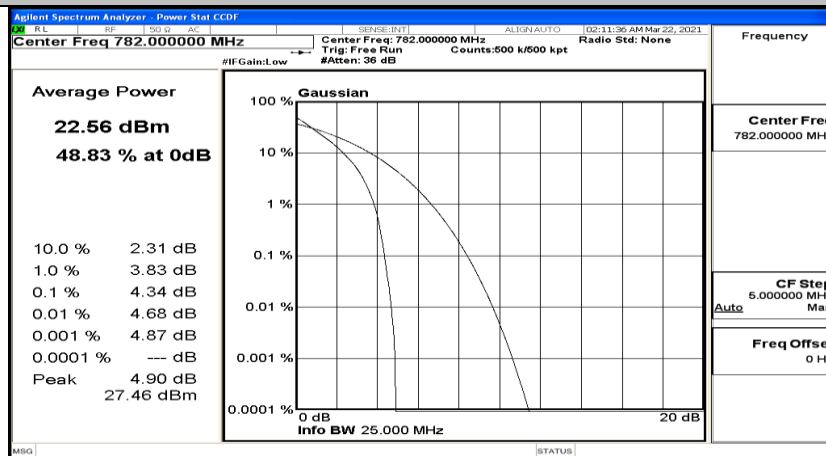
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz) \_LCH\_QPSK



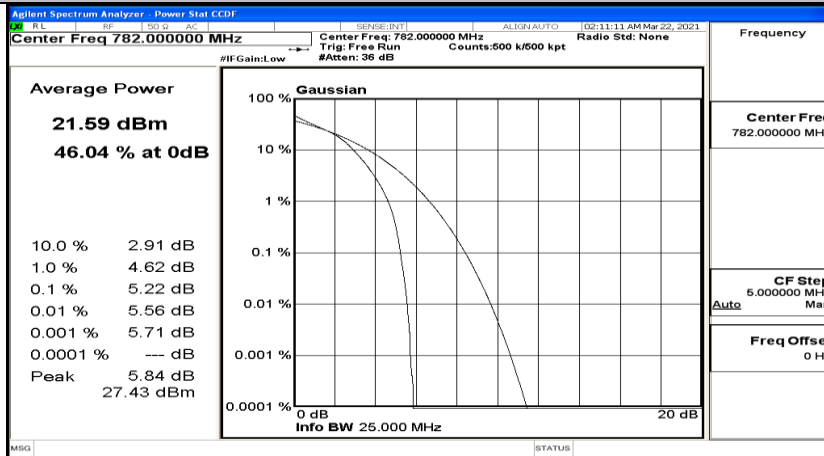
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz) \_MCH\_QPSK



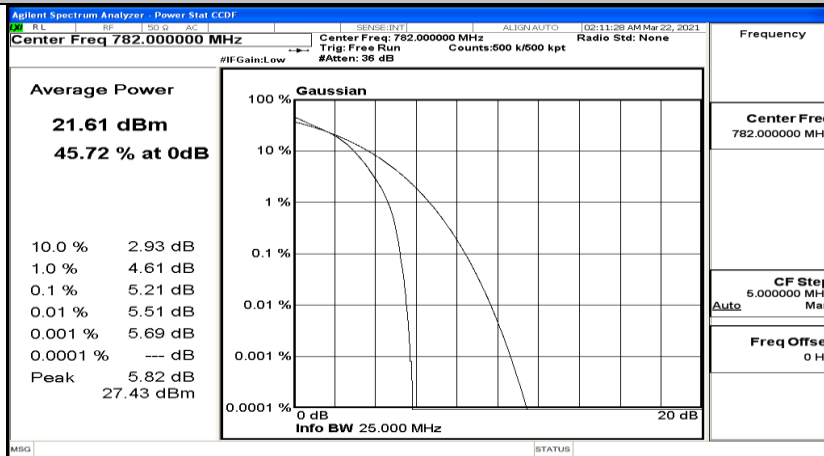
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz) \_HCH\_QPSK



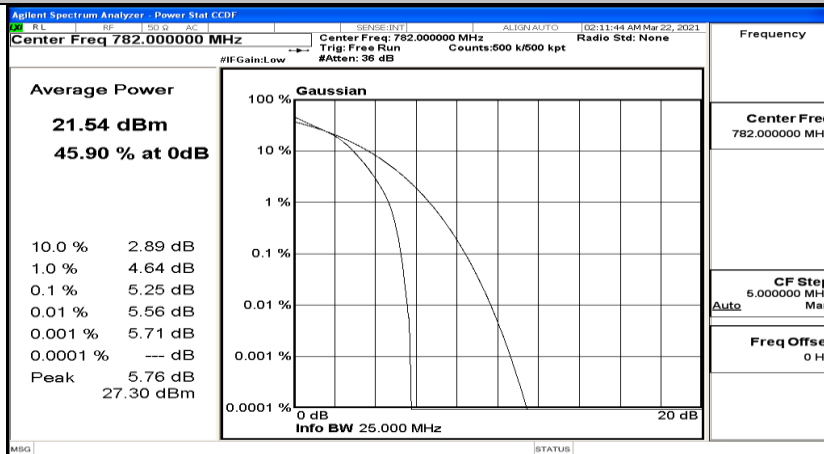
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



## 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

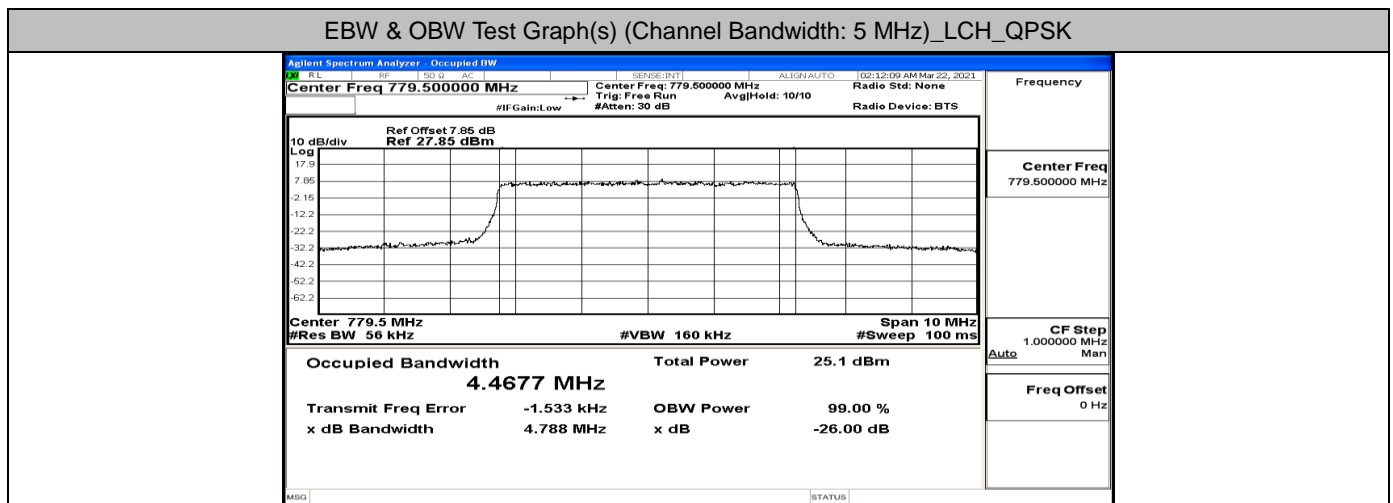




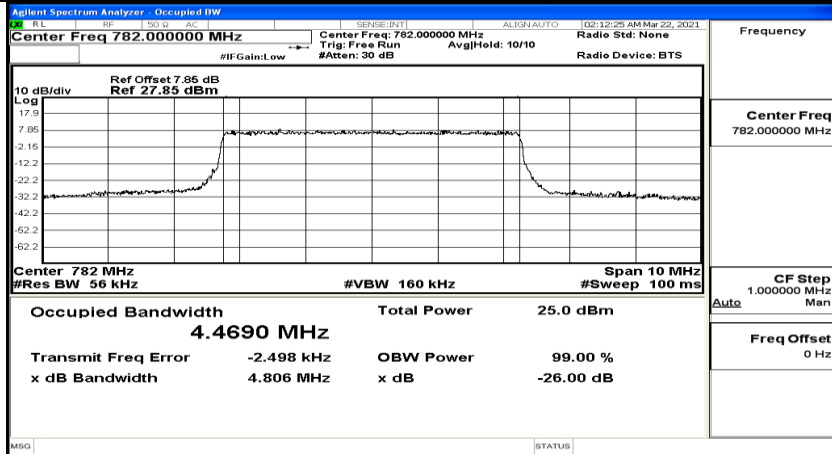
**I.3 26dB Bandwidth and Occupied Bandwidth**

EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4677	4.788	PASS
	MCH	4.4690	4.806	PASS
	HCH	4.4662	4.747	PASS
16QAM	LCH	4.4670	4.829	PASS
	MCH	9.9128	10.00	PASS
	HCH	4.4637	4.849	PASS

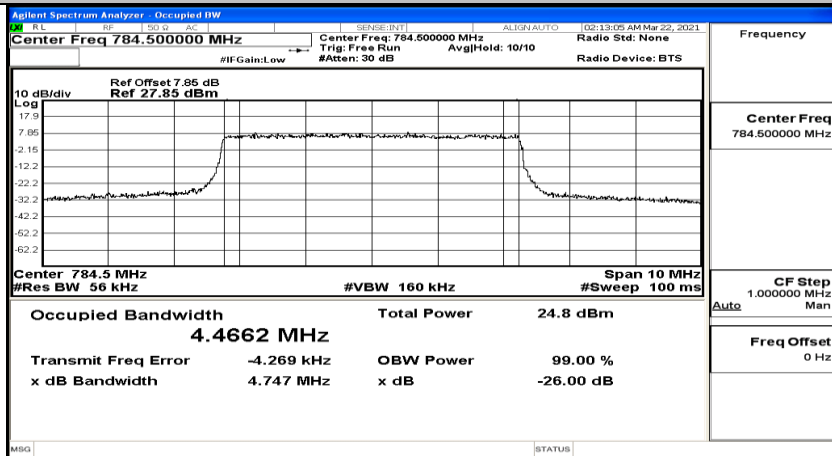
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9774	19.87	PASS
	MCH	8.9095	9.440	PASS
	HCH	8.9231	9.452	PASS
16QAM	LCH	8.9012	9.395	PASS
	MCH	8.9062	9.456	PASS
	HCH	8.9096	9.425	PASS



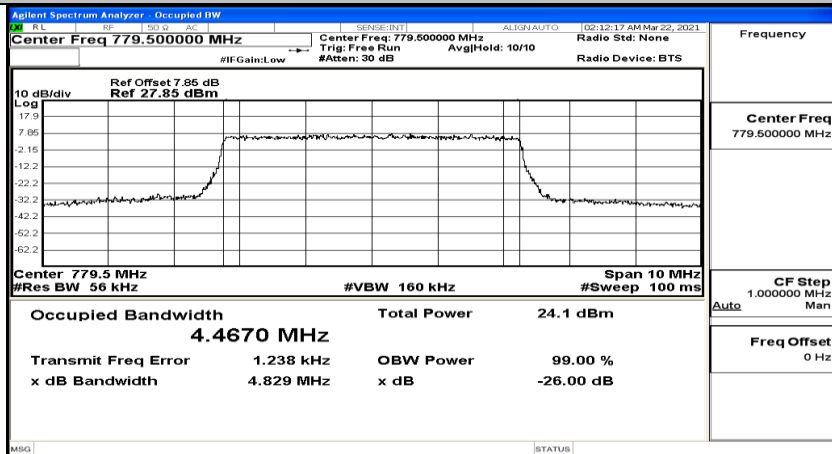
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



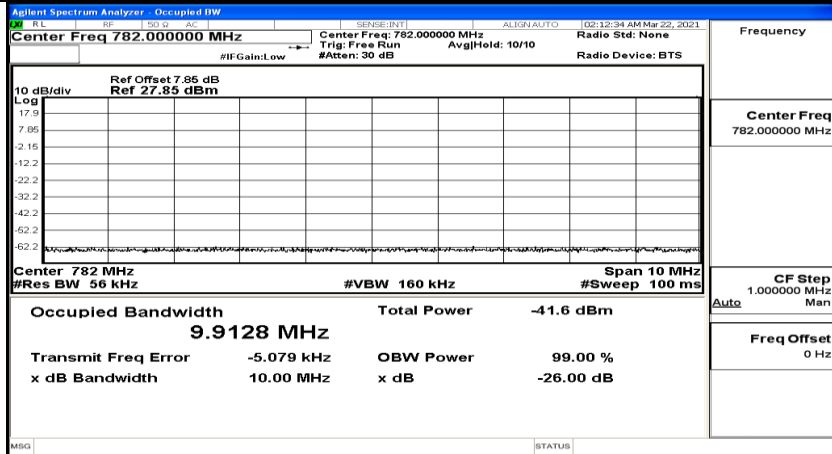
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



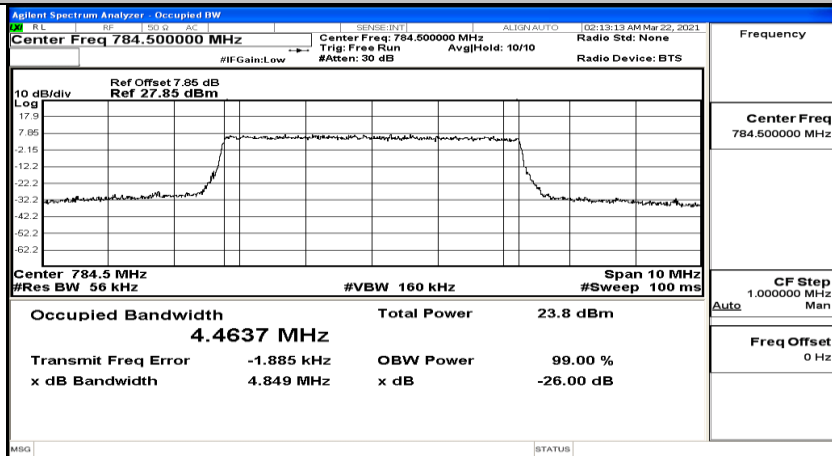
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



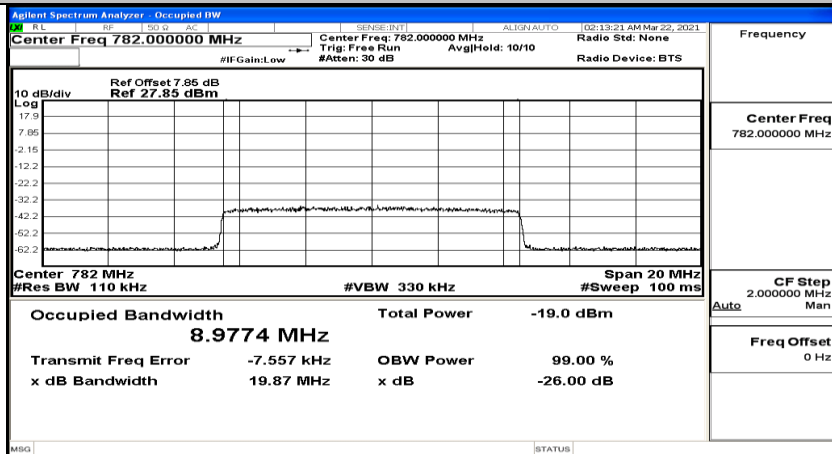
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



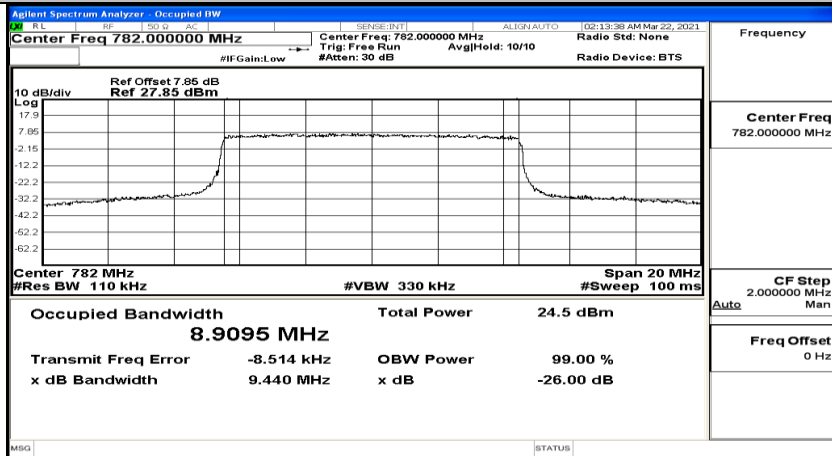
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



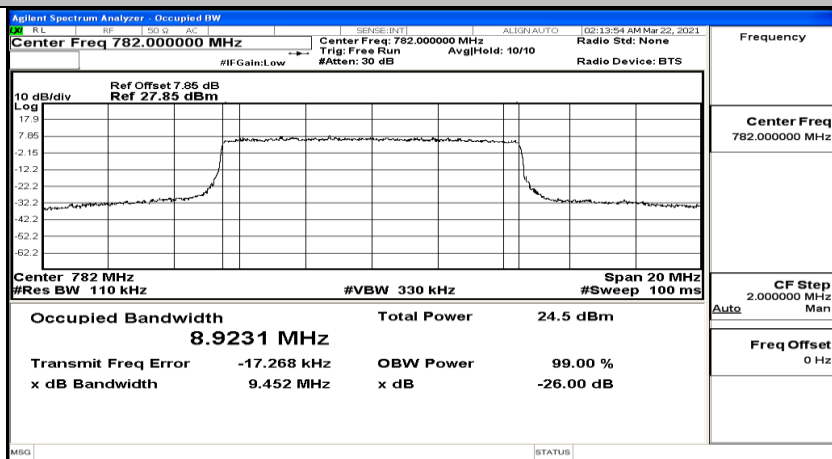
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



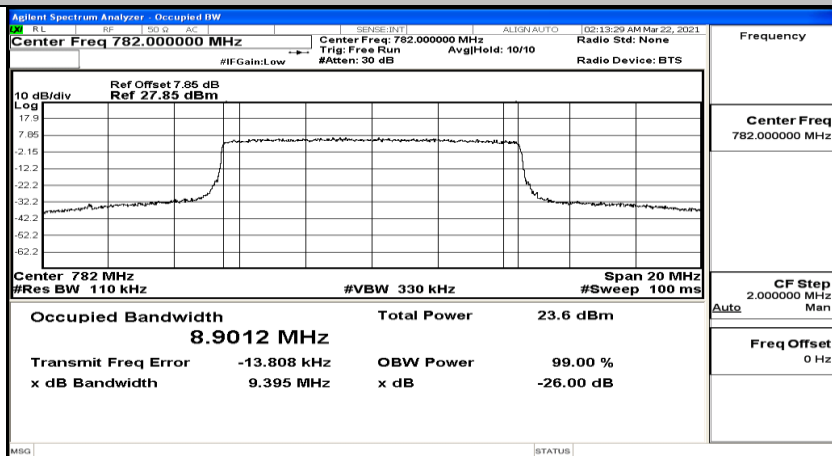
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK



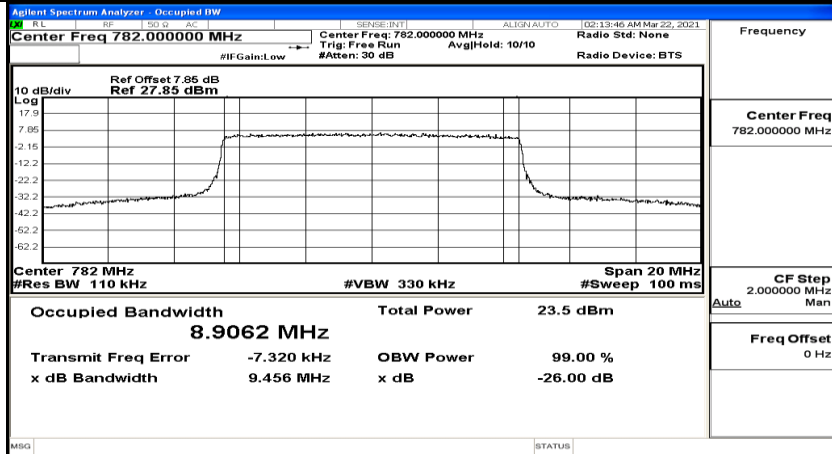
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



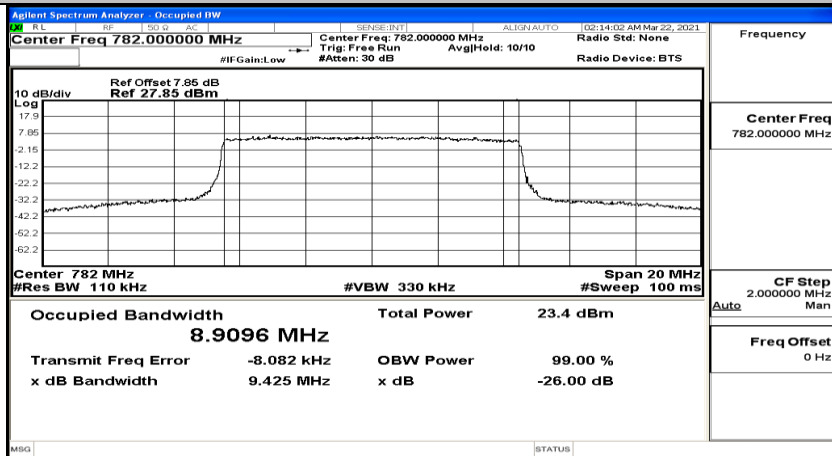
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_16QAM

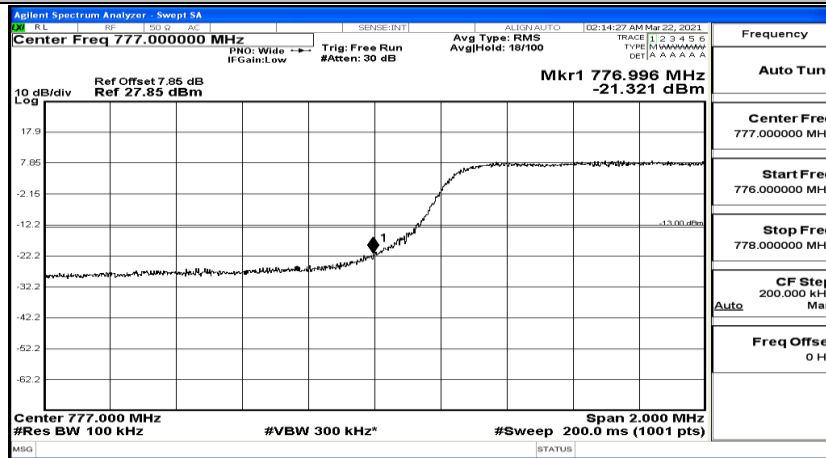


## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM

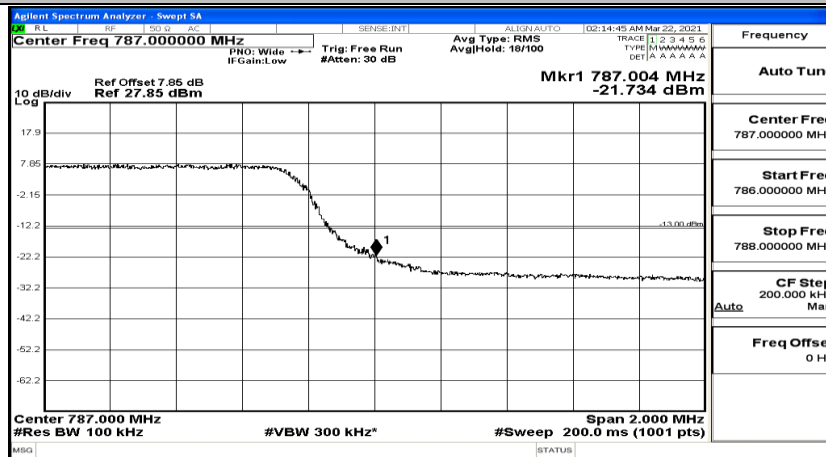


## I.4 Band Edge

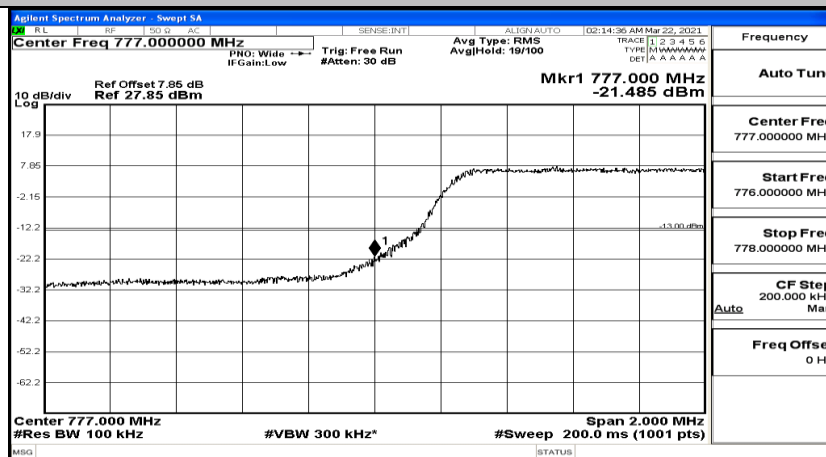
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



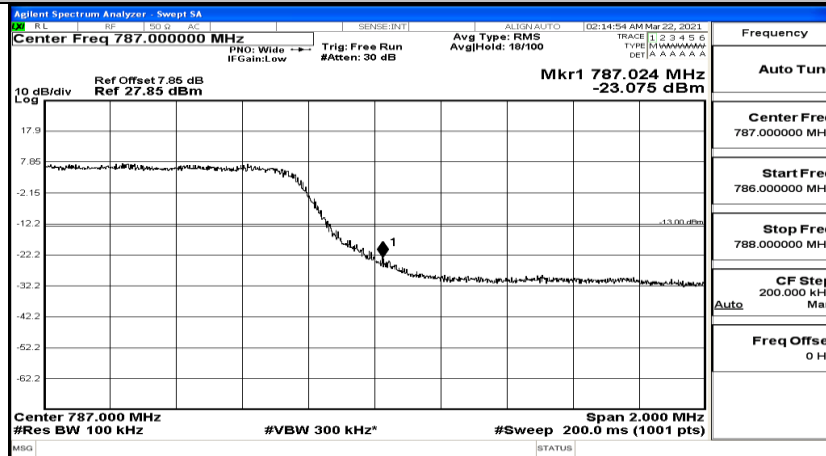
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



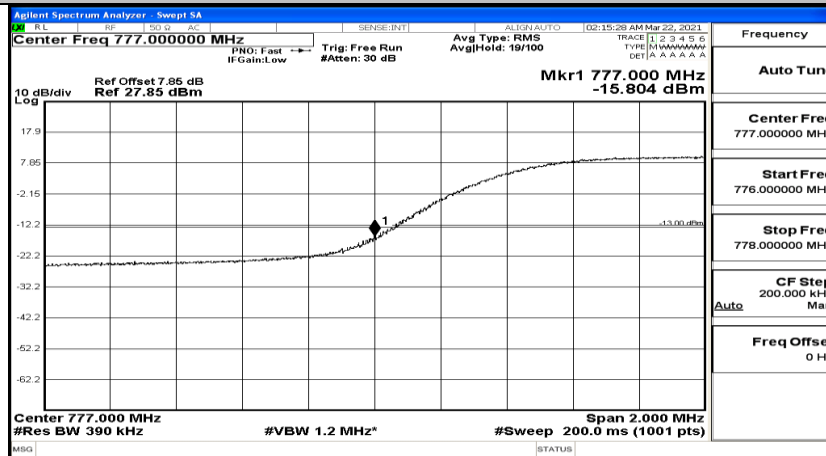
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



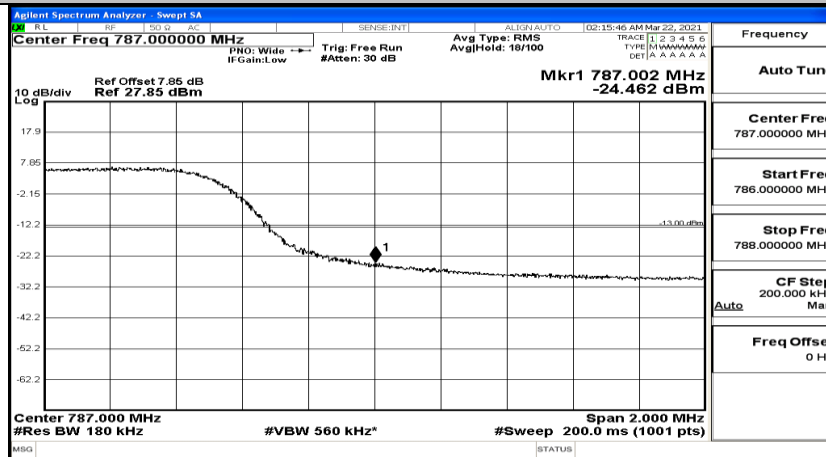
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



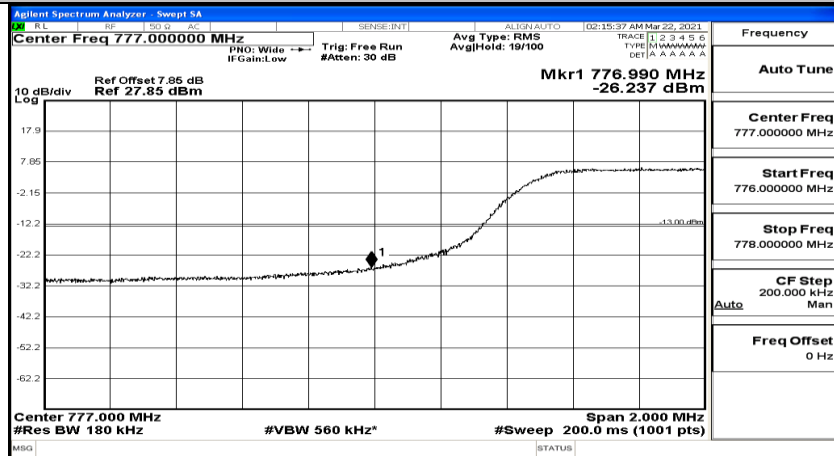
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



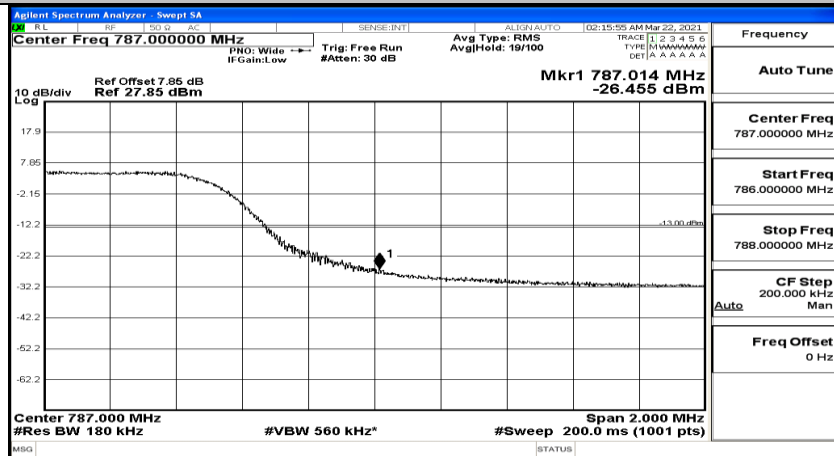
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



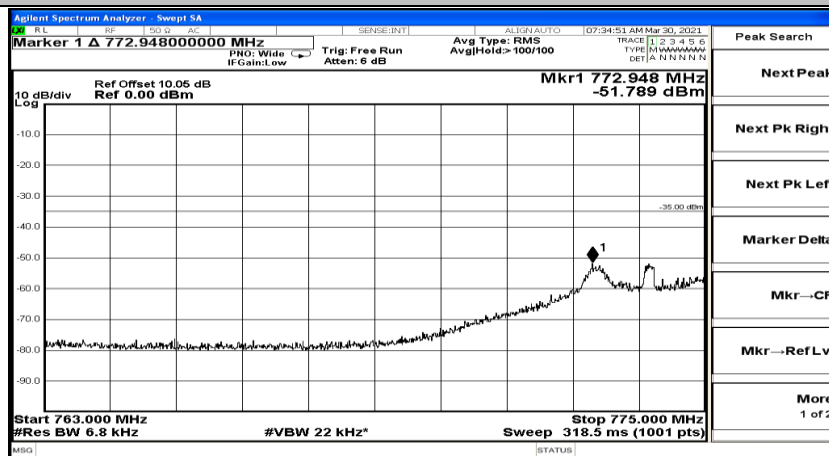
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM

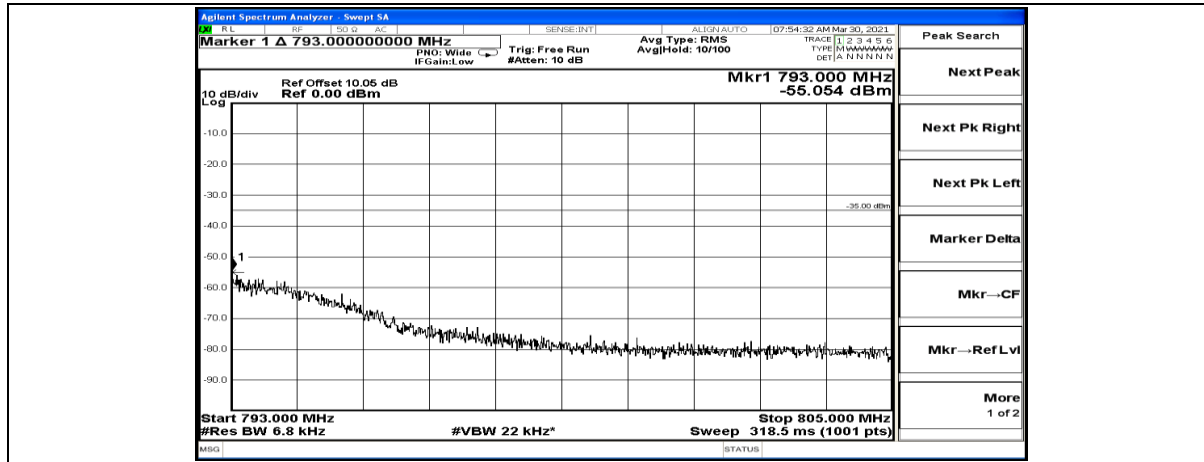


## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK

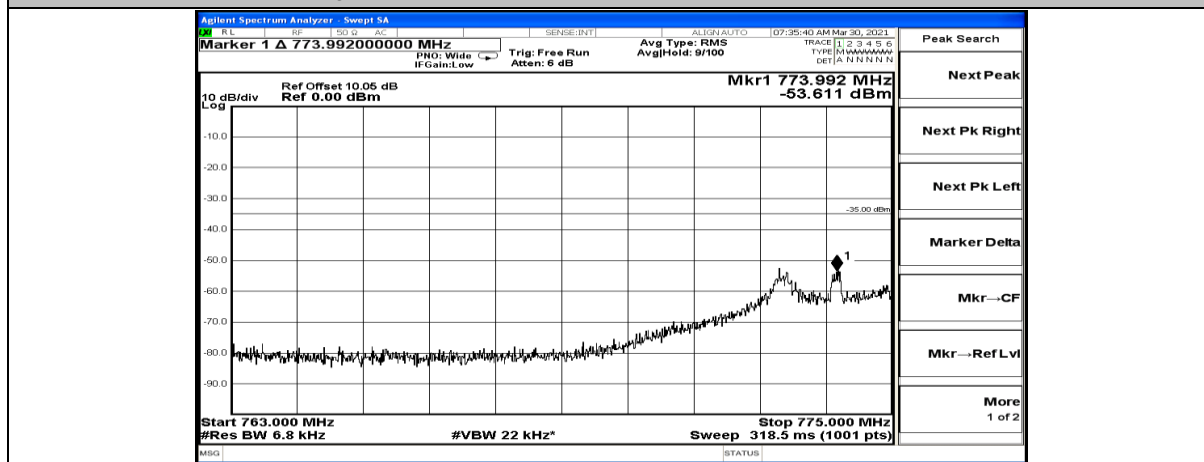


## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK

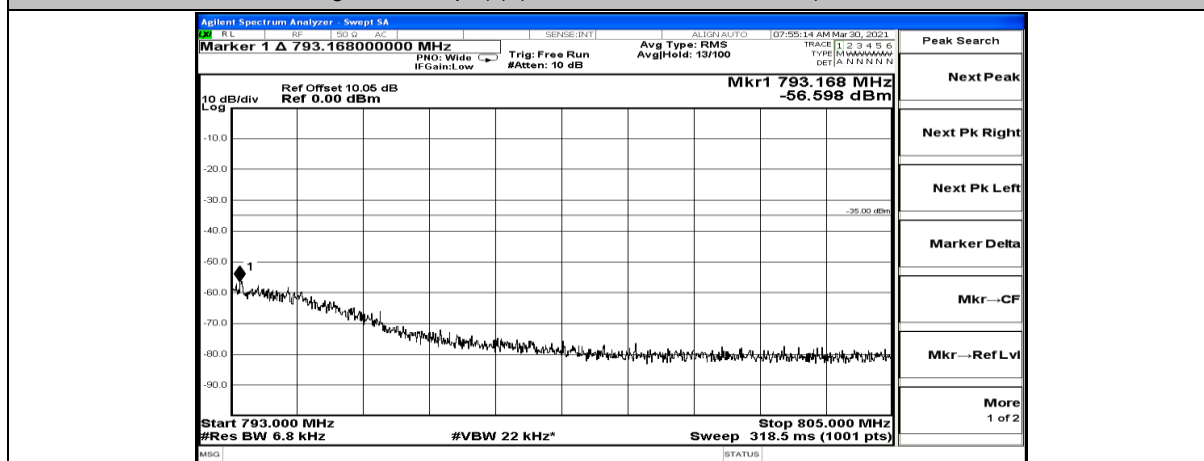




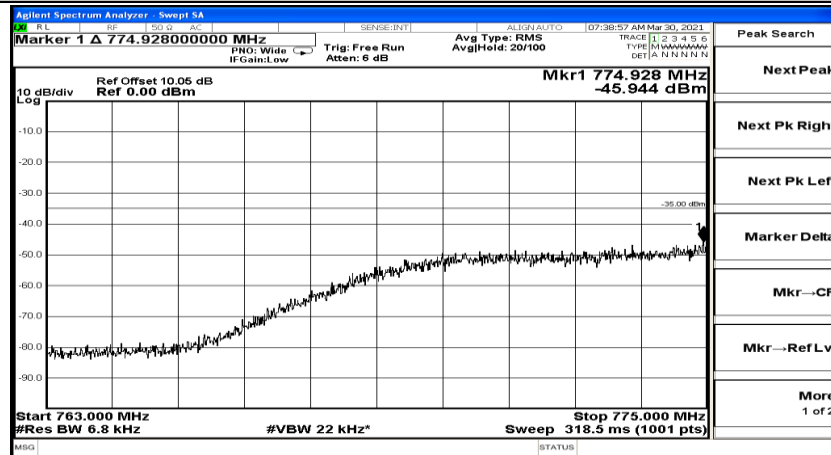
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



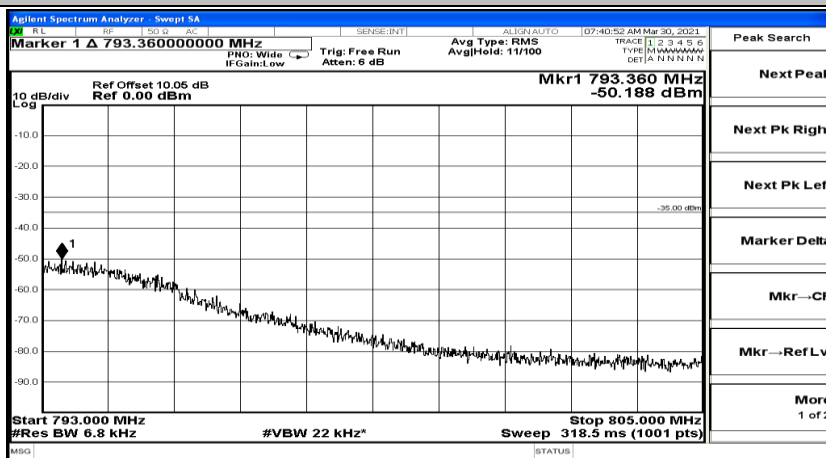
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



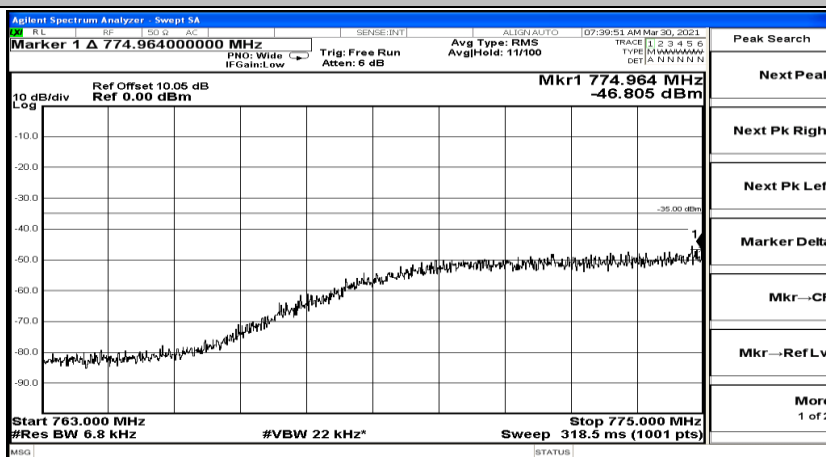
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_L\_QPSK



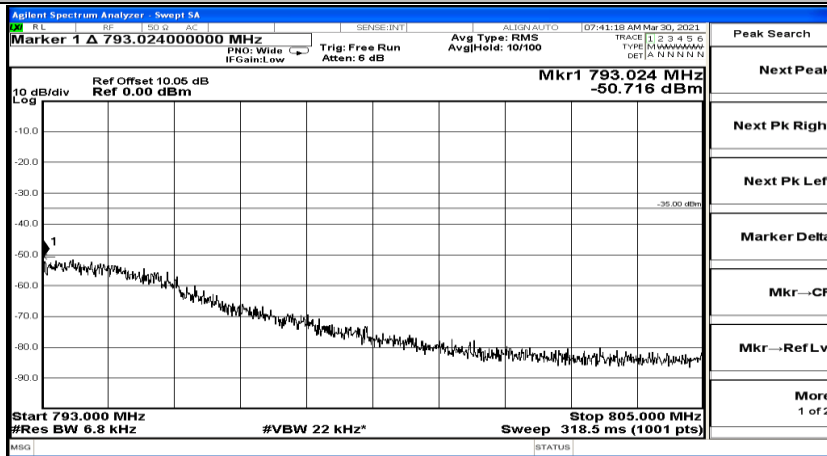
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_H\_QPSK



## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_L\_16QAM



## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_H\_16QAM

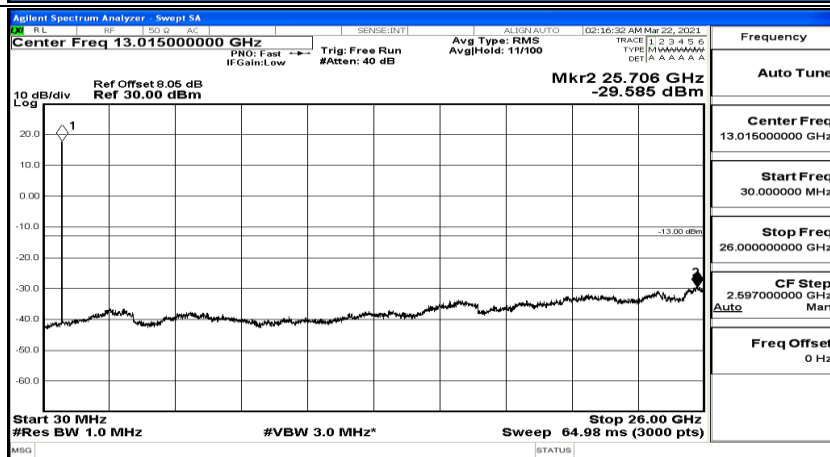
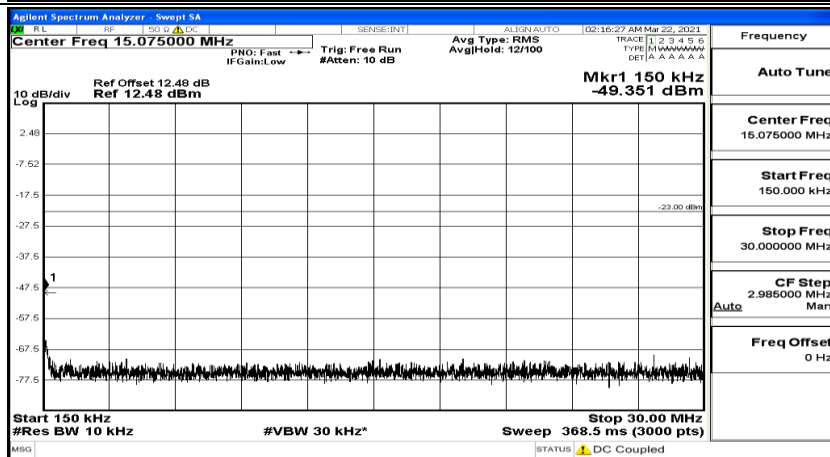
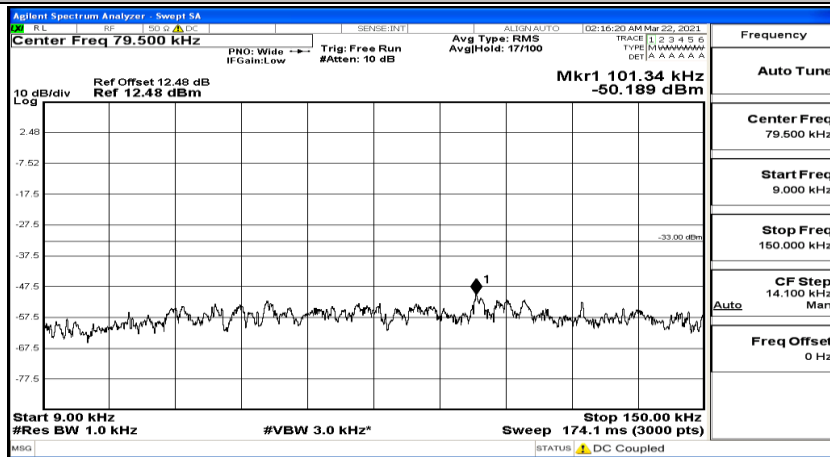


## I.5 Conducted Spurious Emission

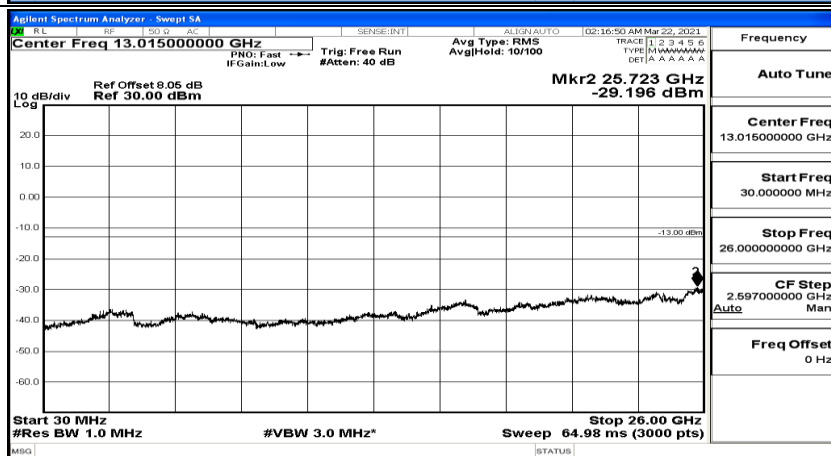
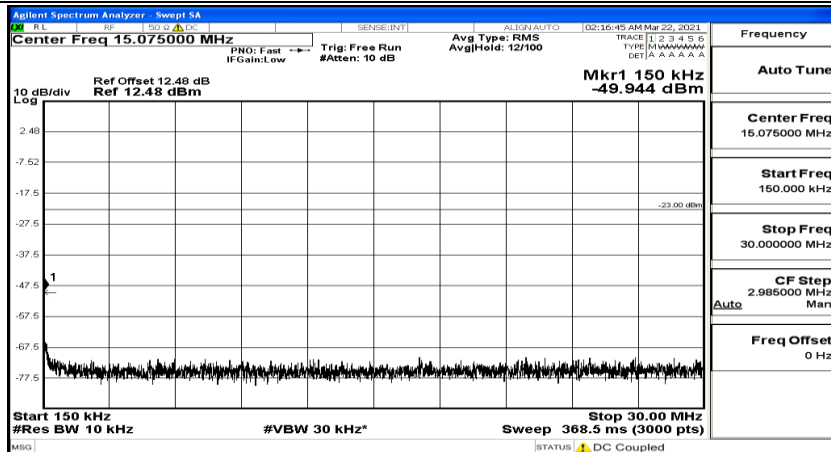
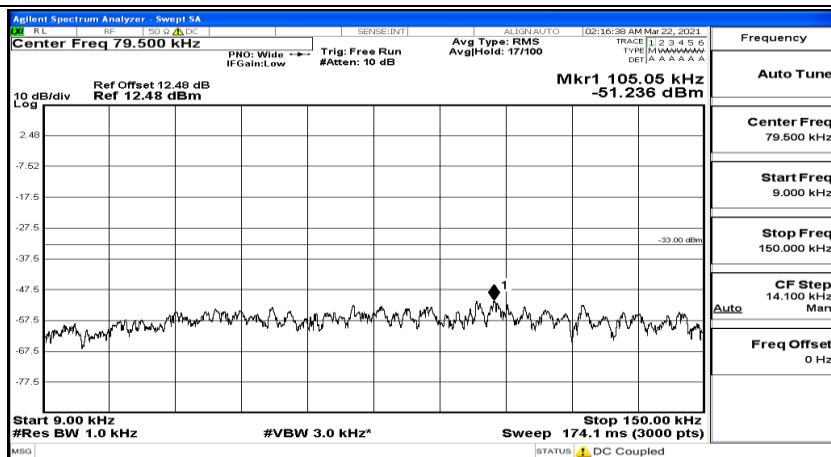
## Test Graphs

Channel Bandwidth: 5 MHz

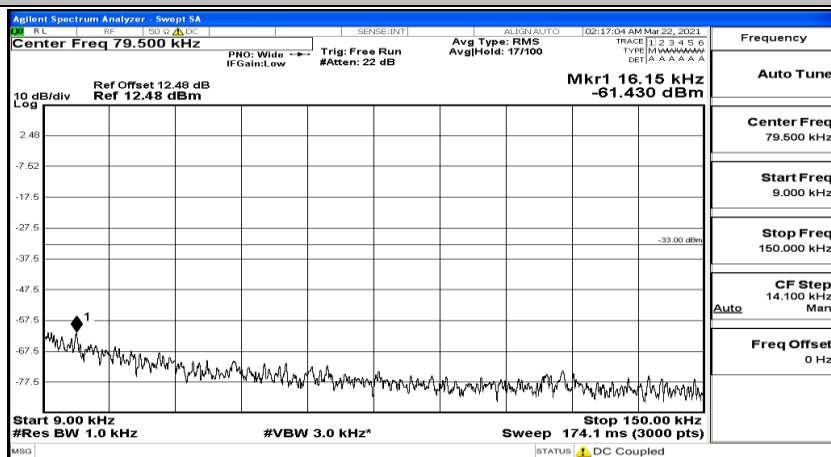
(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_1RB#0

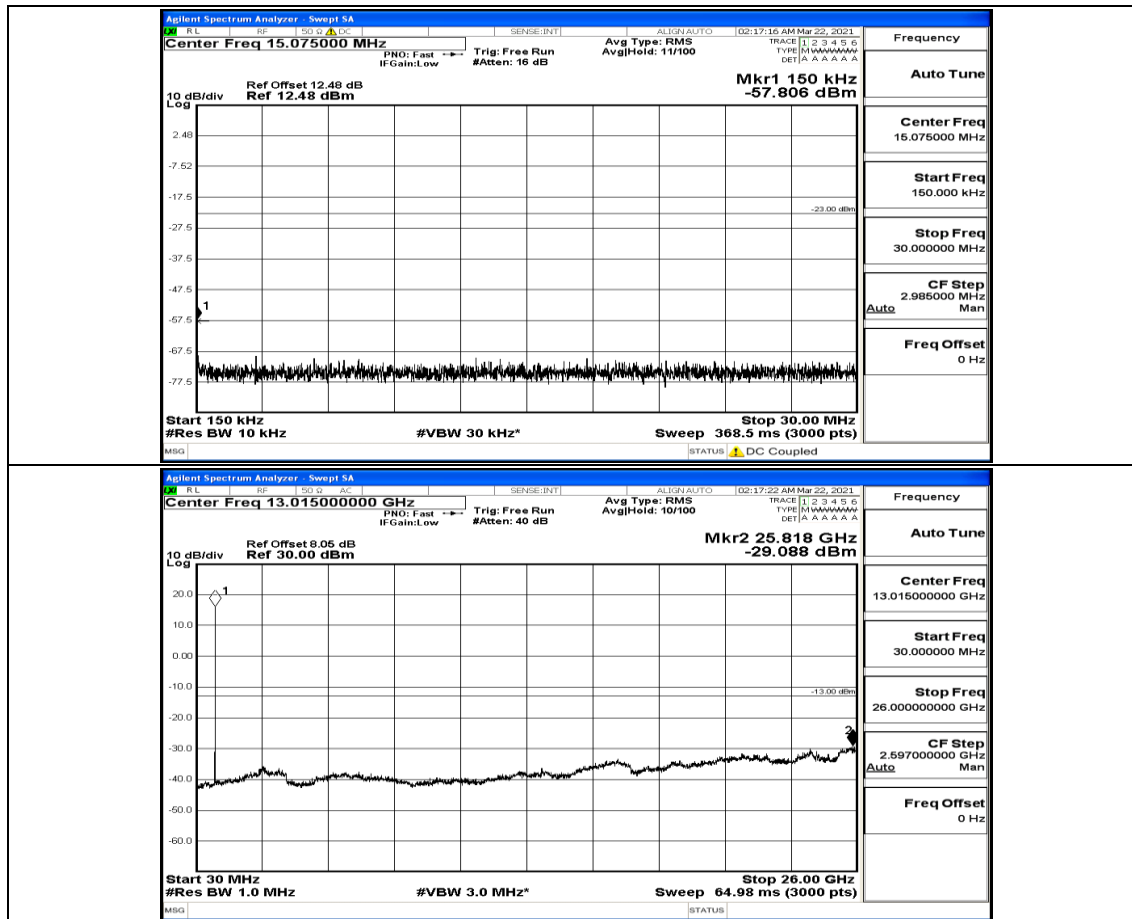


(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_1RB#12

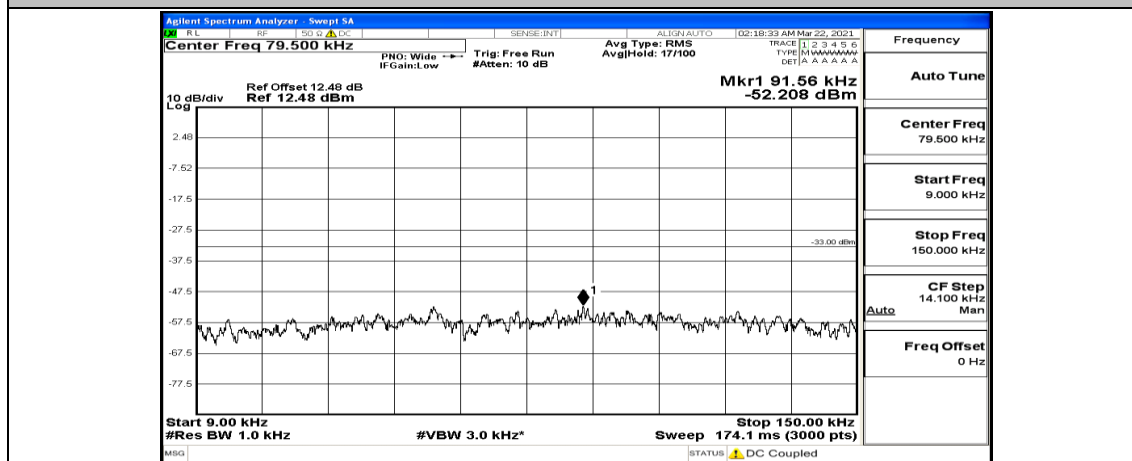


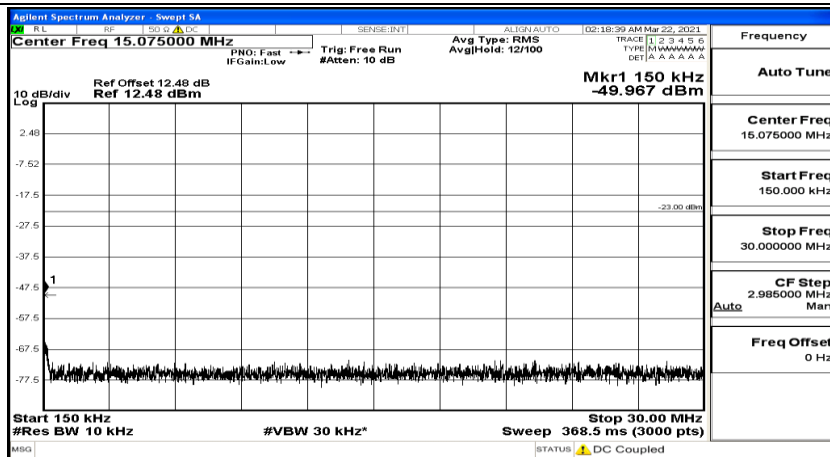
(Channel Bandwidth: 5 MHz) LCH QPSK 1RB#24



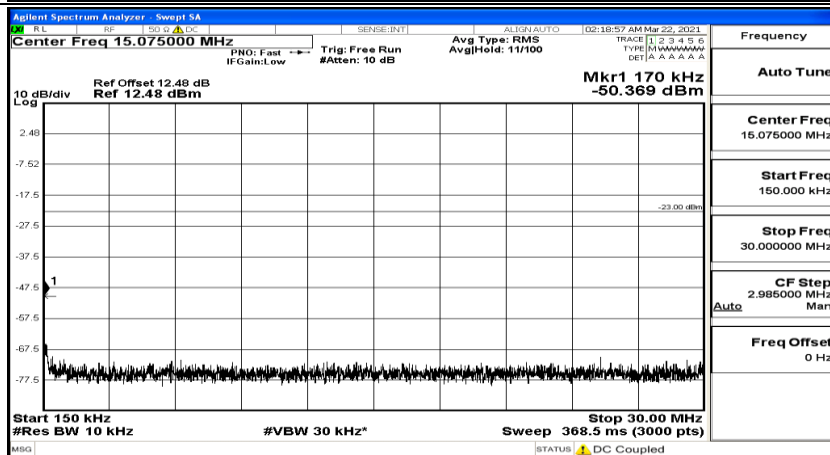
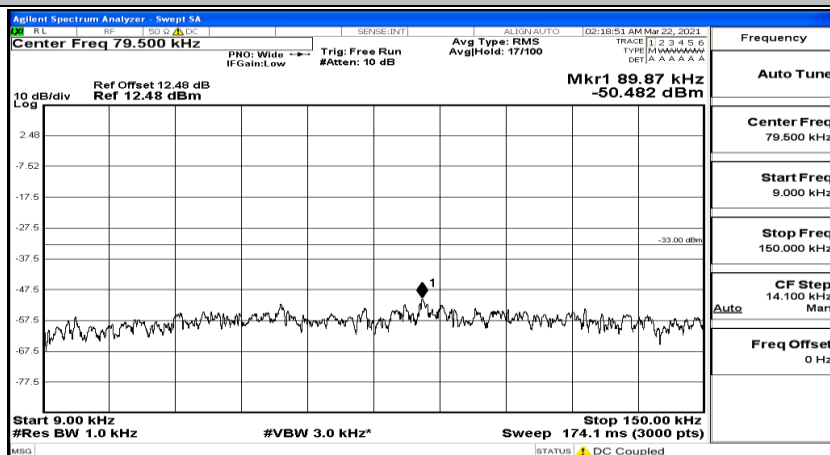


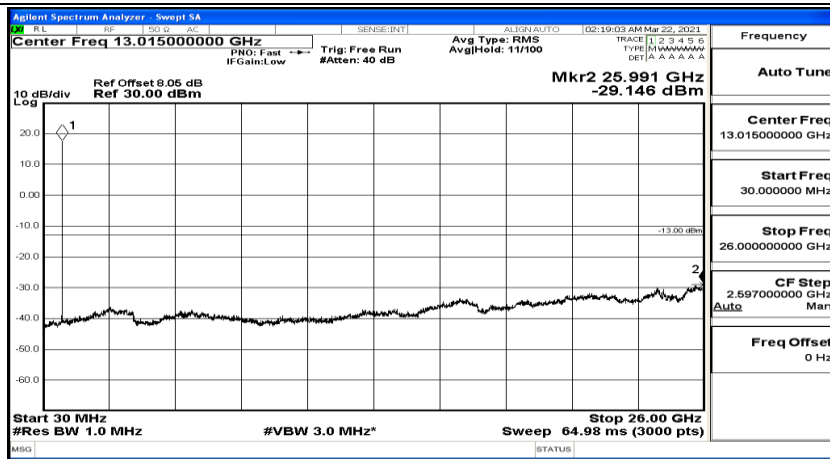
## (Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#0



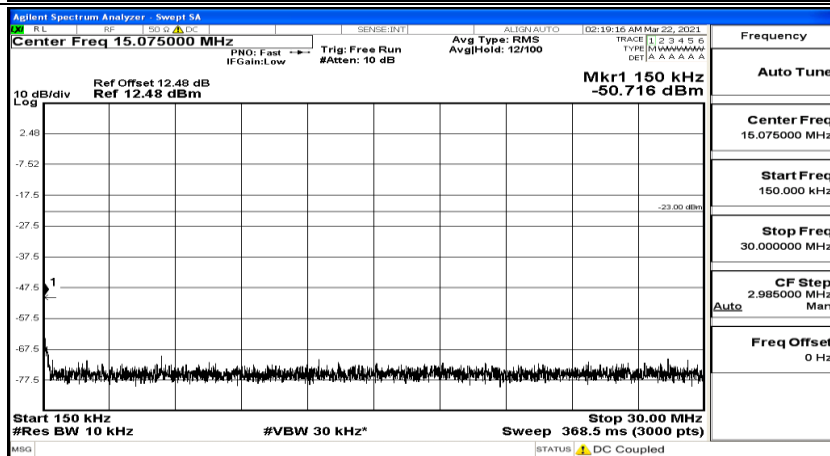
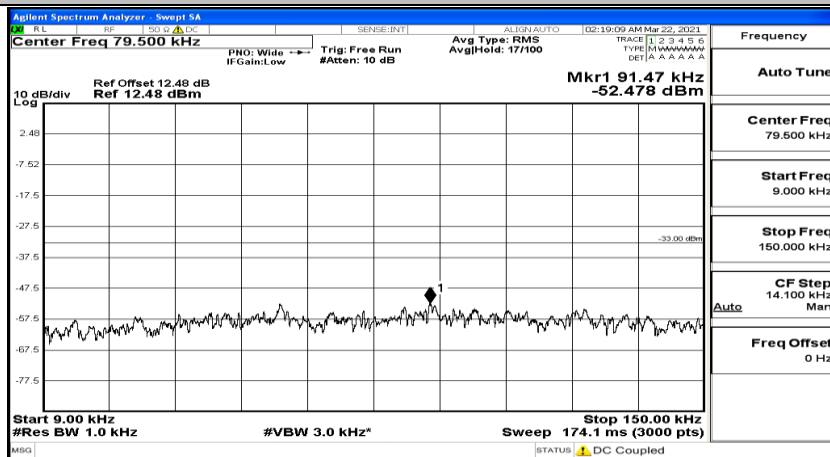


(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#12



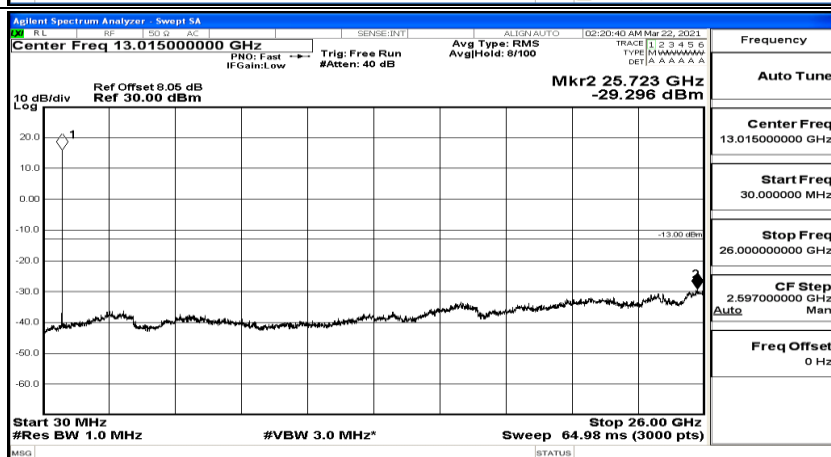
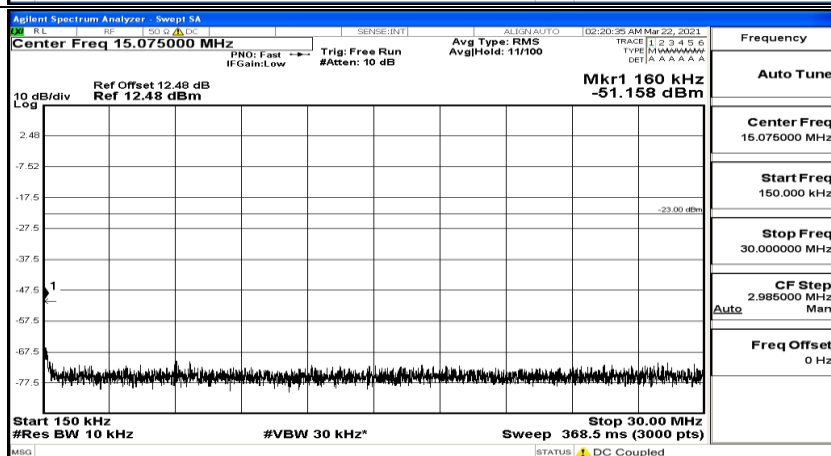
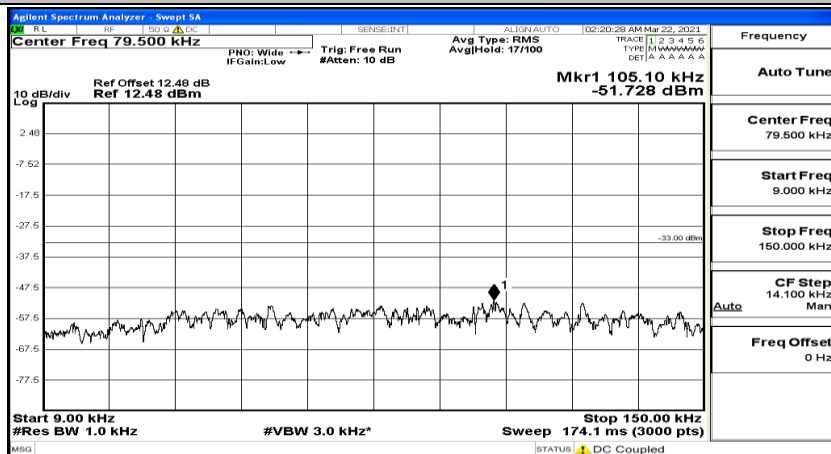


(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#24

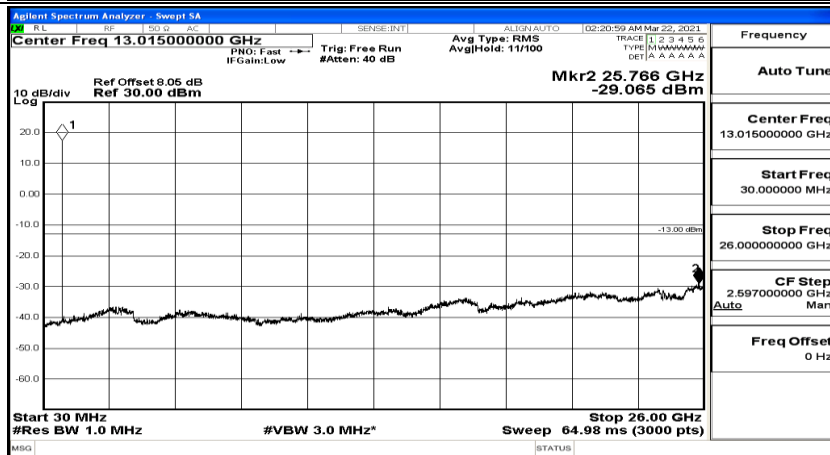
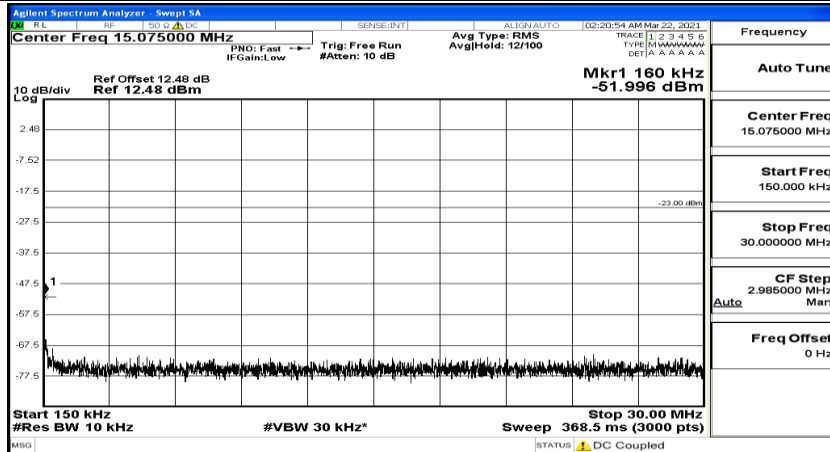
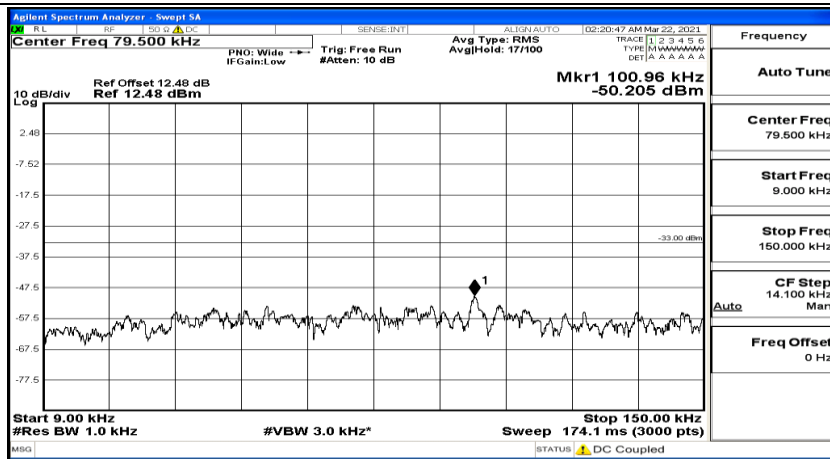




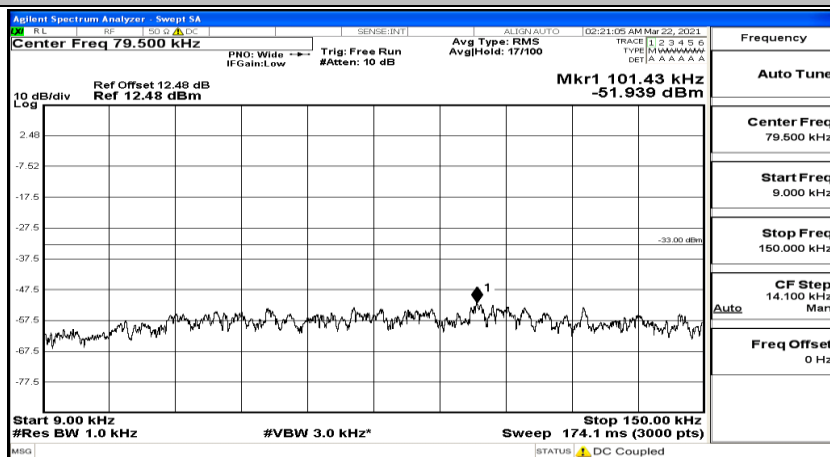
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#0

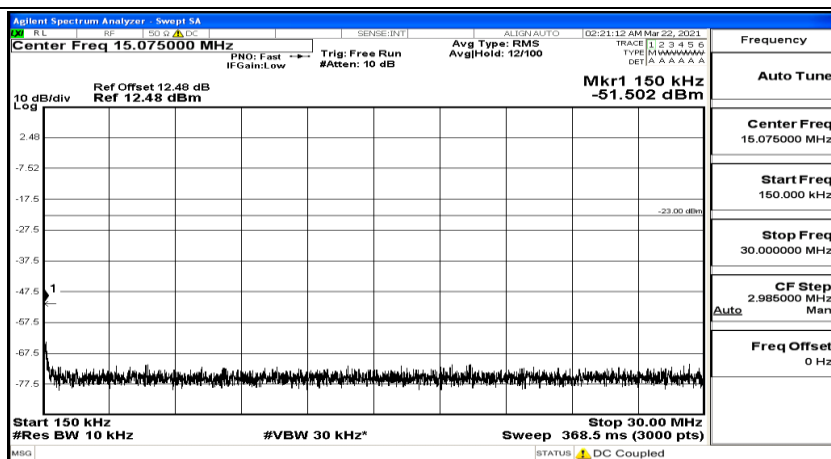


(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#12

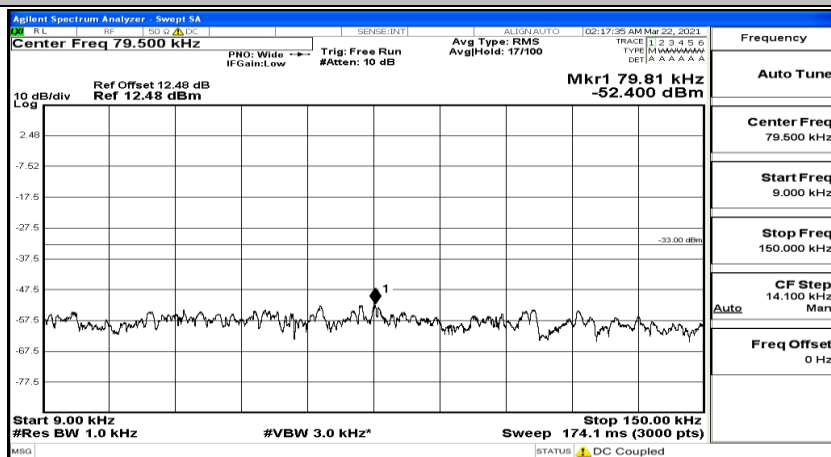


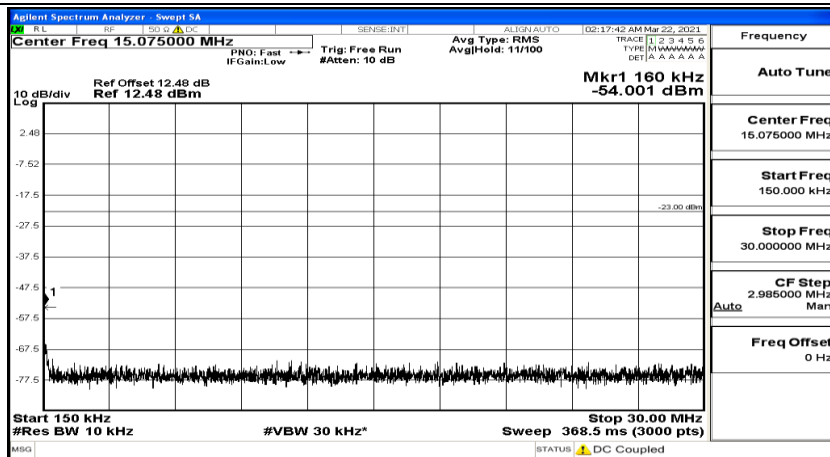
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#24



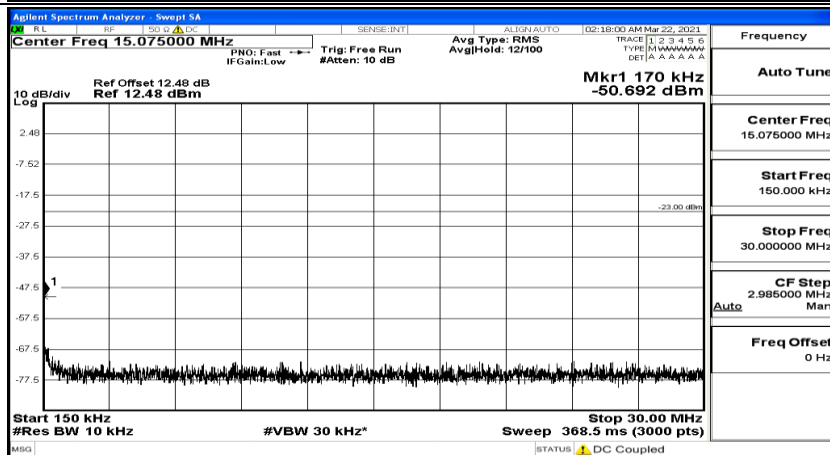
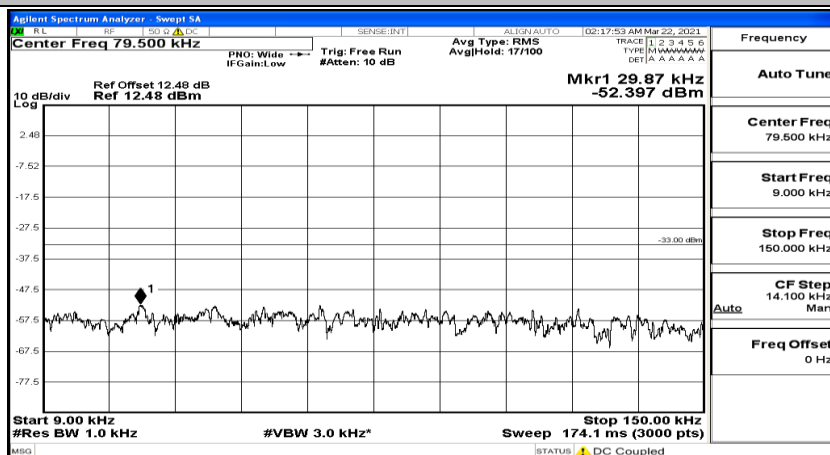


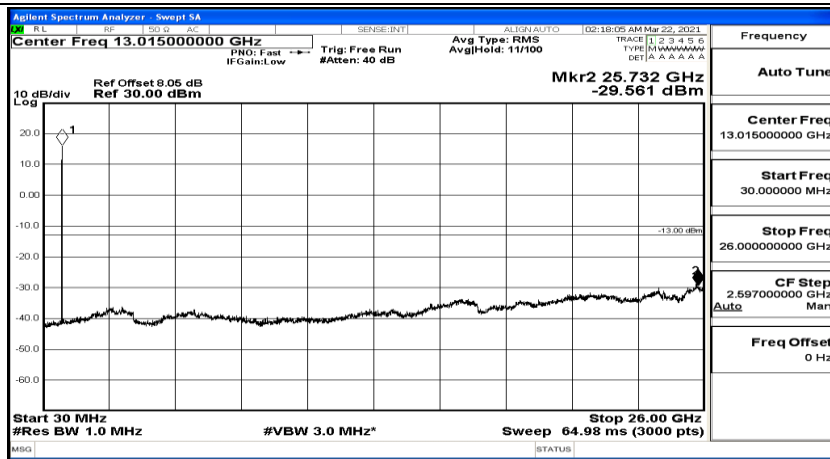
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#0



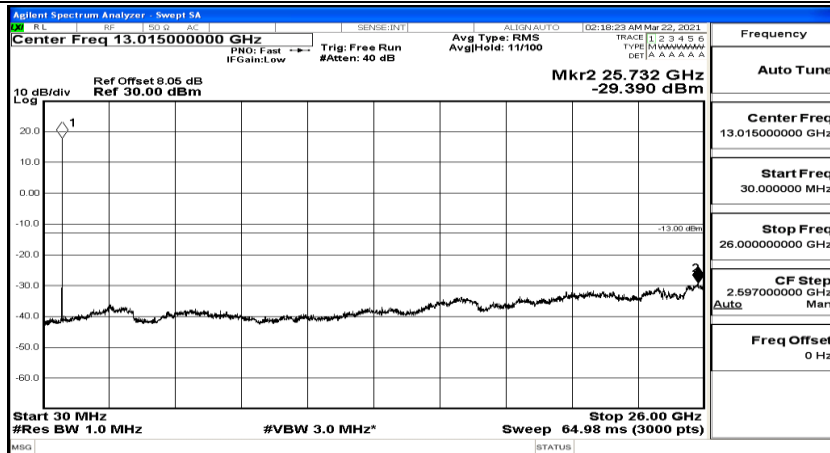
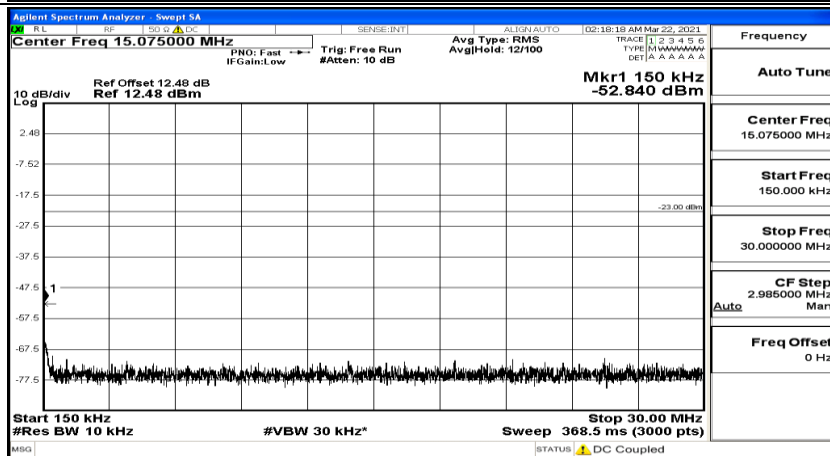
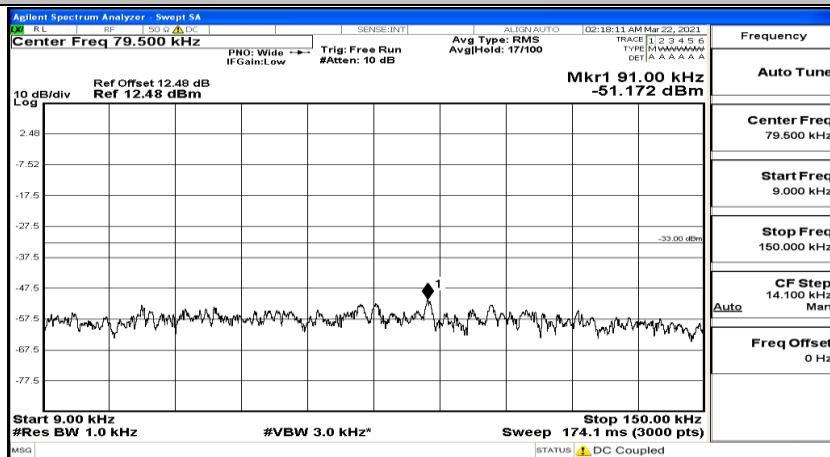


(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#12

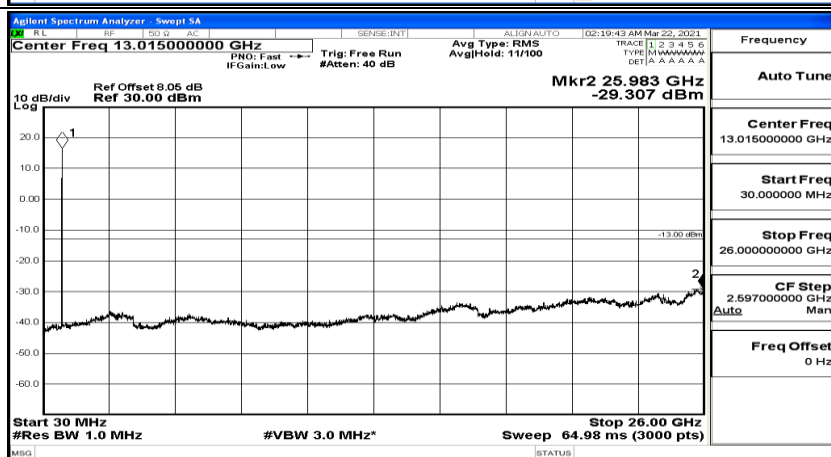
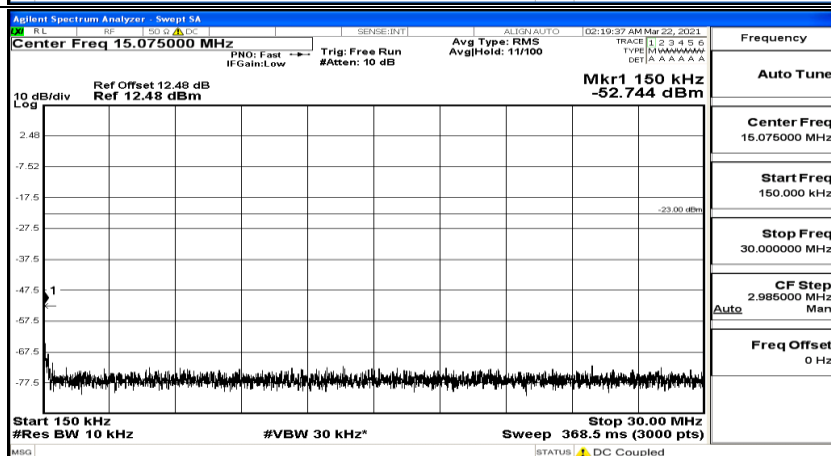
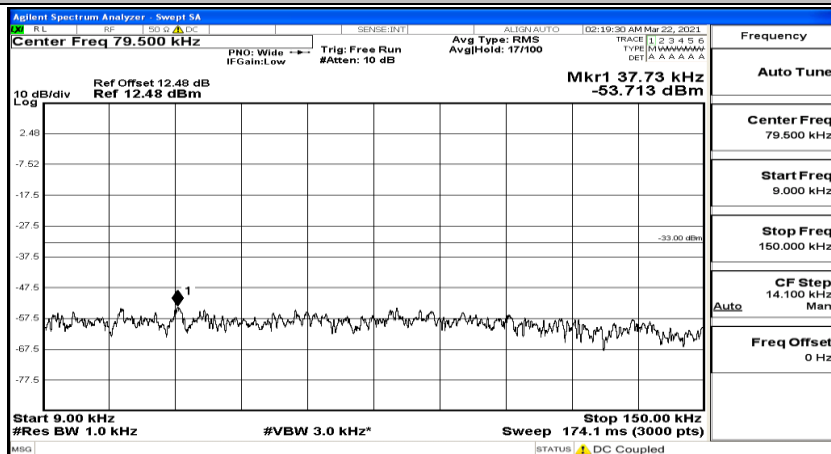




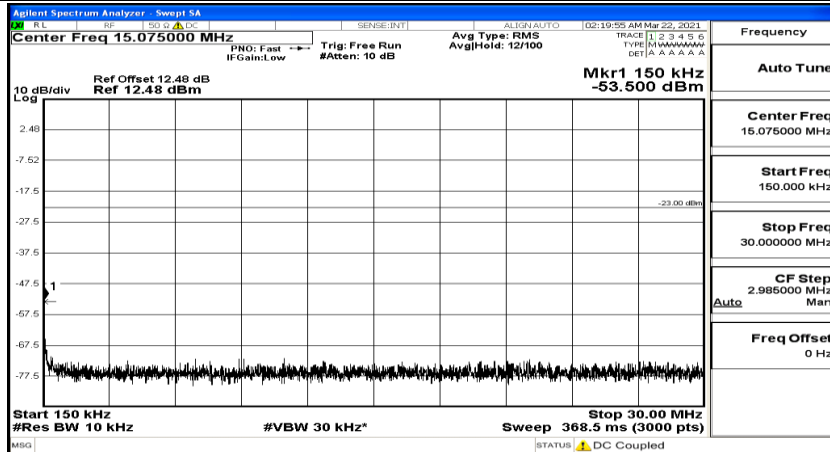
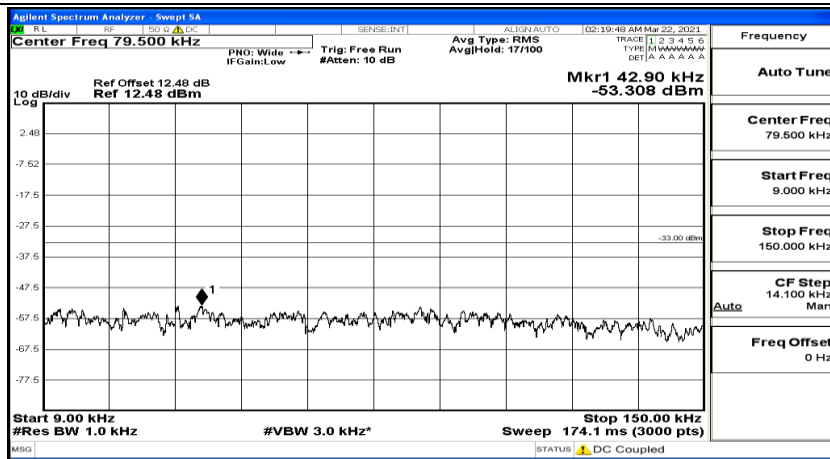
(Channel Bandwidth: 5 MHz) LCH\_16QAM\_1RB#24



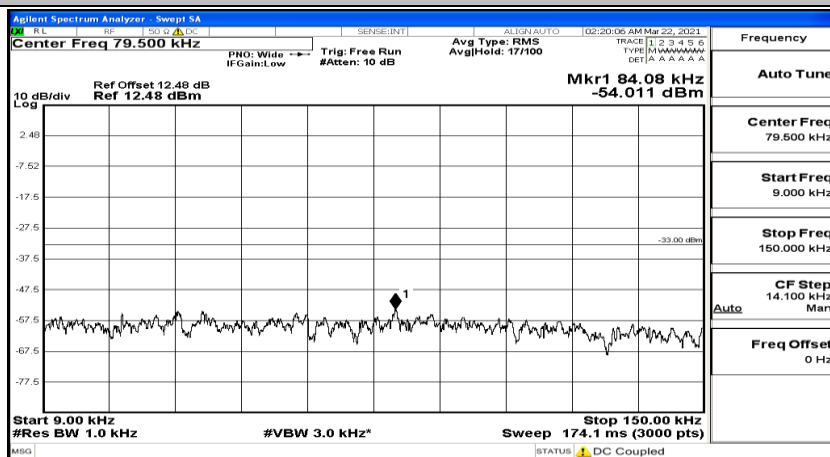
(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_1RB#0

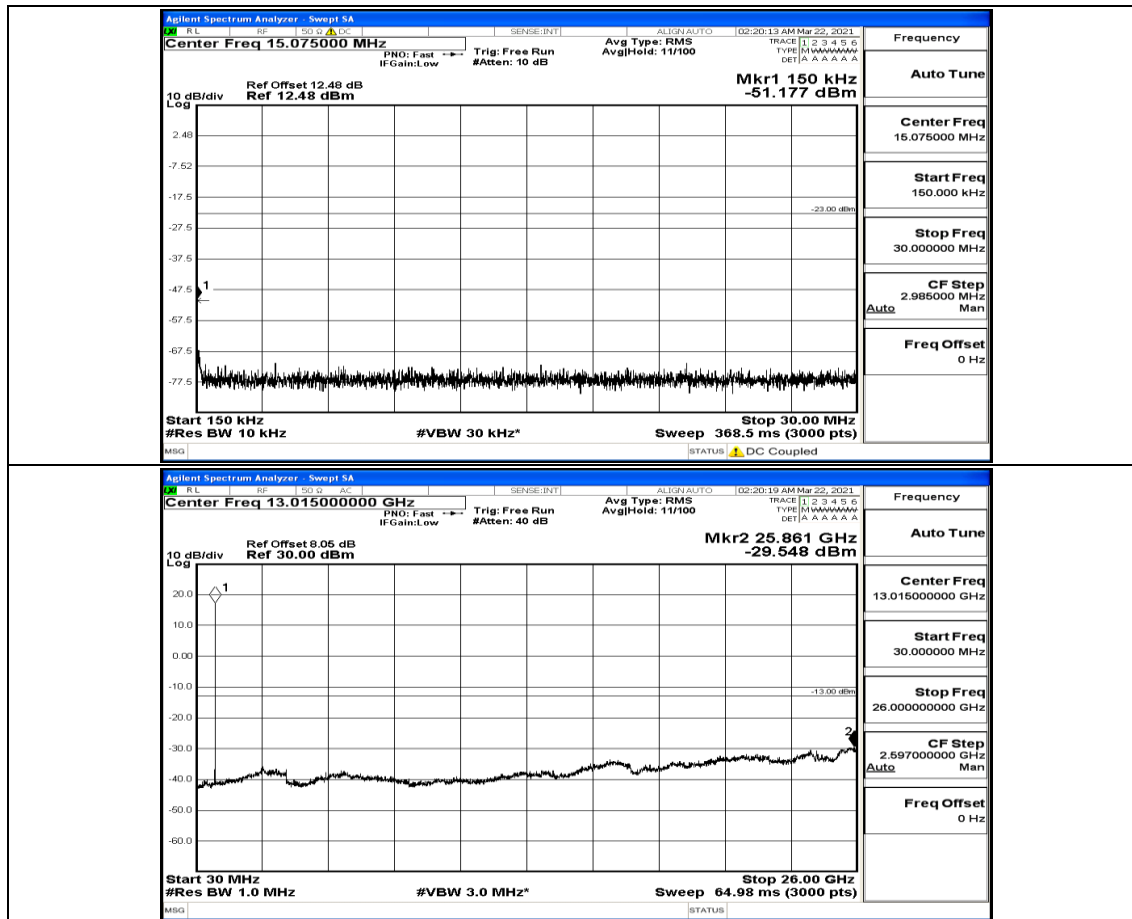


(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_1RB#12



(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_1RB#24





(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#0

