Appendix A: Average Output Power Data

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.67	PASS
		1	2	22.81	PASS
		1	5	22.78	PASS
		3	0	22.67	PASS
		3	1	22.69	PASS
		3	3	22.62	PASS
		6	0	21.59	PASS
	MCH	1	0	22.79	PASS
		1	2	22.93	PASS
		1	5	22.84	PASS
		3	0	22.57	PASS
		3	1	22.61	PASS
		3	3	22.48	PASS
		6	0	21.66	PASS
	HCH	1	0	22.52	PASS
		1	2	22.80	PASS
		1	5	22.51	PASS
		3	0	22.14	PASS
		3	1	22.21	PASS
		3	3	22.64	PASS
		6	0	21.54	PASS
16QAM	LCH	1	0	22.17	PASS
		1	2	22.15	PASS
		1	5	22.12	PASS
		3	0	21.73	PASS
		3	1	21.78	PASS
		3	3	21.80	PASS
		6	0	20.69	PASS
	MCH	1	0	22.11	PASS
		1	2	22.13	PASS
		1	5	22.12	PASS

		3	0	21.82	PASS
		3	1	21.86	PASS
		3	3	21.73	PASS
		6	0	20.85	PASS
	HCH	1	0	22.08	PASS
		1	2	22.11	PASS
		1	5	22.07	PASS
		3	0	21.63	PASS
		3	1	21.71	PASS
		3	3	21.74	PASS
		6	0	20.64	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.64	PASS
		1	7	22.76	PASS
		1	14	22.69	PASS
		8	0	21.69	PASS
		8	3	21.63	PASS
		8	7	21.71	PASS
		15	0	21.71	PASS
	MCH	1	0	22.79	PASS
		1	7	22.91	PASS
		1	14	22.67	PASS
		8	0	21.72	PASS
		8	3	21.74	PASS
		8	7	21.75	PASS
		15	0	21.73	PASS
	HCH	1	0	22.50	PASS
		1	7	22.61	PASS
		1	14	22.57	PASS
		8	0	21.61	PASS
		8	3	21.62	PASS
		8	7	21.60	PASS
		15	0	21.61	PASS
16QAM	LCH	1	0	22.02	PASS

		1	7	22.04	PASS
		1	14	22.04	PASS
		8	0	20.69	PASS
		8	3	20.67	PASS
		8	7	20.73	PASS
		15	0	20.67	PASS
	MCH	1	0	22.10	PASS
		1	7	22.13	PASS
		1	14	21.93	PASS
		8	0	20.97	PASS
		8	3	21.12	PASS
		8	7	21.07	PASS
		15	0	20.80	PASS
	HCH	1	0	21.95	PASS
		1	7	21.99	PASS
		1	14	21.86	PASS
		8	0	20.66	PASS
		8	3	20.70	PASS
		8	7	20.64	PASS
		15	0	20.58	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.74	PASS
		1	12	22.63	PASS
		1	24	22.76	PASS
		12	0	21.77	PASS
		12	6	21.75	PASS
		12	13	21.70	PASS
		25	0	21.71	PASS
	MCH	1	0	22.89	PASS
		1	12	22.72	PASS
		1	24	22.72	PASS
		12	0	21.82	PASS
		12	6	21.77	PASS
		12	13	21.70	PASS
		25	0	21.75	PASS

	HCH	1	0	22.71	PASS
		1	12	22.53	PASS
		1	24	22.63	PASS
		12	0	21.67	PASS
		12	6	21.63	PASS
		12	13	21.61	PASS
		25	0	21.61	PASS
16QAM	LCH	1	0	21.99	PASS
		1	12	21.96	PASS
		1	24	22.01	PASS
		12	0	20.81	PASS
		12	6	20.78	PASS
		12	13	20.75	PASS
		25	0	20.72	PASS
	MCH	1	0	21.96	PASS
		1	12	21.91	PASS
		1	24	22.06	PASS
		12	0	21.13	PASS
		12	6	21.09	PASS
		12	13	20.97	PASS
		25	0	20.85	PASS
	HCH	1	0	21.94	PASS
		1	12	21.84	PASS
		1	24	22.02	PASS
		12	0	20.76	PASS
		12	6	20.68	PASS
		12	13	20.68	PASS
		25	0	20.64	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.79	PASS
		1	24	22.63	PASS
		1	49	22.83	PASS
		25	0	21.76	PASS
		25	12	21.76	PASS
		25	25	21.77	PASS

		50	0	21.77	PASS
	MCH	1	0	22.82	PASS
		1	24	22.69	PASS
		1	49	22.88	PASS
		25	0	21.75	PASS
		25	12	21.81	PASS
		25	25	21.77	PASS
		50	0	21.76	PASS
	HCH	1	0	22.64	PASS
		1	24	22.45	PASS
		1	49	22.71	PASS
		25	0	21.63	PASS
		25	12	21.59	PASS
		25	25	21.59	PASS
		50	0	21.66	PASS
16QAM	LCH	1	0	22.09	PASS
		1	24	22.03	PASS
		1	49	22.08	PASS
		25	0	20.75	PASS
		25	12	20.79	PASS
		25	25	20.73	PASS
		50	0	20.71	PASS
	MCH	1	0	22.01	PASS
		1	24	21.98	PASS
		1	49	22.05	PASS
		25	0	20.74	PASS
		25	12	20.83	PASS
		25	25	20.81	PASS
		50	0	20.73	PASS
	HCH	1	0	22.03	PASS
		1	24	21.78	PASS
		1	49	22.02	PASS
		25	0	20.65	PASS
		25	12	20.58	PASS
		25	25	20.58	PASS
		50	0	20.64	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.62	PASS
		1	37	22.75	PASS
		1	74	22.67	PASS
		36	0	21.86	PASS
		36	19	21.94	PASS
		36	39	21.87	PASS
		75	0	21.90	PASS
	MCH	1	0	22.69	PASS
		1	37	22.80	PASS
		1	74	22.58	PASS
		36	0	21.90	PASS
		36	19	22.04	PASS
		36	39	21.89	PASS
		75	0	21.91	PASS
	HCH	1	0	22.70	PASS
		1	37	22.77	PASS
		1	74	22.47	PASS
		36	0	21.90	PASS
		36	19	21.92	PASS
		36	39	21.72	PASS
		75	0	21.88	PASS
16QAM	LCH	1	0	21.65	PASS
		1	37	21.95	PASS
		1	74	21.70	PASS
		36	0	20.55	PASS
		36	19	20.64	PASS
		36	39	20.55	PASS
		75	0	20.63	PASS
	MCH	1	0	21.74	PASS
		1	37	21.96	PASS
		1	74	21.62	PASS
		36	0	20.51	PASS
		36	19	20.69	PASS
		36	39	20.53	PASS
		75	0	20.56	PASS
	HCH	1	0	21.74	PASS
		1	37	21.94	PASS
		1	74	21.55	PASS

		36	0	20.61	PASS
		36	19	20.62	PASS
		36	39	20.41	PASS
		75	0	20.57	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.42	PASS
		1	49	22.75	PASS
		1	99	22.45	PASS
		50	0	21.67	PASS
		50	25	21.75	PASS
		50	50	21.64	PASS
		100	0	21.66	PASS
	MCH	1	0	22.50	PASS
		1	49	22.77	PASS
		1	99	22.47	PASS
		50	0	21.67	PASS
		50	25	21.75	PASS
		50	50	21.69	PASS
		100	0	21.69	PASS
	HCH	1	0	22.67	PASS
		1	49	22.81	PASS
		1	99	22.45	PASS
		50	0	21.80	PASS
		50	25	21.81	PASS
		50	50	21.70	PASS
		100	0	21.72	PASS
16QAM	LCH	1	0	21.62	PASS
		1	49	21.97	PASS
		1	99	21.67	PASS
		50	0	20.54	PASS
		50	25	20.60	PASS
		50	50	20.43	PASS
		100	0	20.56	PASS
	MCH	1	0	21.68	PASS
		1	49	21.93	PASS

		1	99	21.66	PASS
		50	0	20.51	PASS
		50	25	20.61	PASS
		50	50	20.47	PASS
		100	0	20.49	PASS
	HCH	1	0	21.81	PASS
		1	49	22.01	PASS
		1	99	21.67	PASS
		50	0	20.69	PASS
		50	25	20.70	PASS
		50	50	20.51	PASS
		100	0	20.58	PASS

Appendix B: Peak-to-Average Ratio

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio (dB)	Limit (dB)	Verdict
		Size	Offset			
QPSK	MCH	1	0	4.79	<13	PASS
16QAM	MCH	1	0	5.4	<13	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	MCH	1	0	4.58	<13	PASS
16QAM	MCH	1	0	5.37	<13	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	MCH	1	0	4.56	<13	PASS
16QAM	MCH	1	0	5.25	<13	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	MCH	1	0	4.43	<13	PASS
16QAM	MCH	1	0	5.4	<13	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	MCH	1	0	4.42	<13	PASS
16QAM	MCH	1	0	5.27	<13	PASS

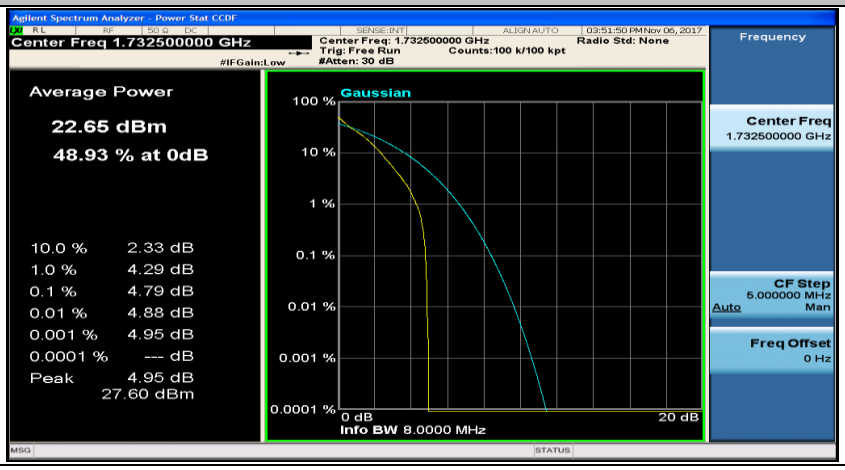
Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	MCH	1	0	4.38	<13	PASS
16QAM	MCH	1	0	5.22	<13	PASS

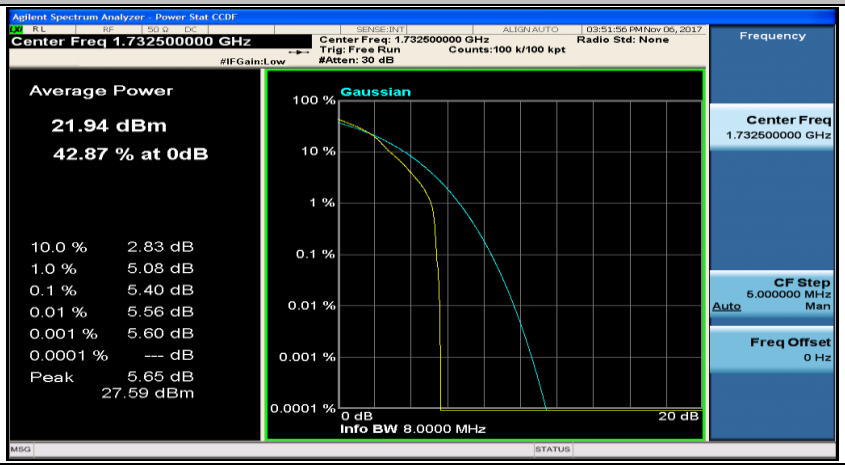
Test Graphs

Channel Bandwidth: 1.4 MHz

(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0

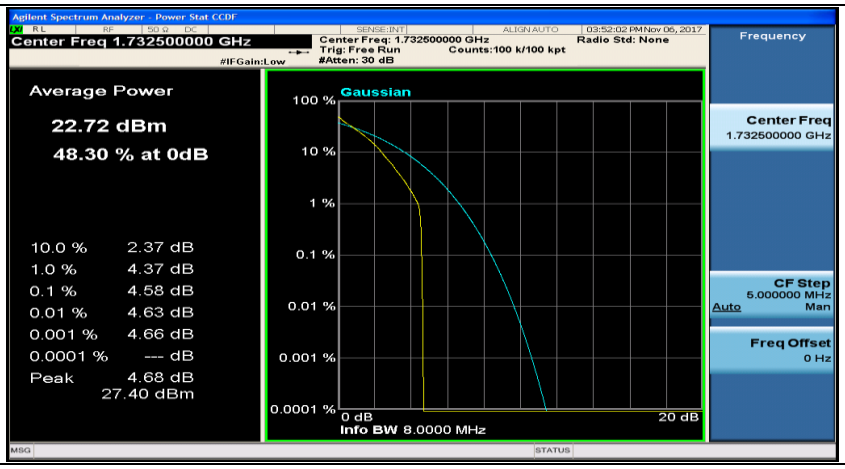


(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#0

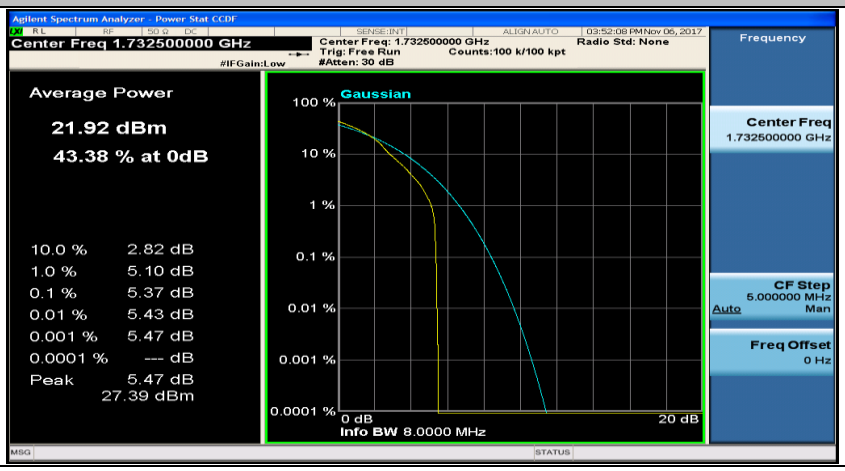


Channel Bandwidth: 3 MHz

(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0

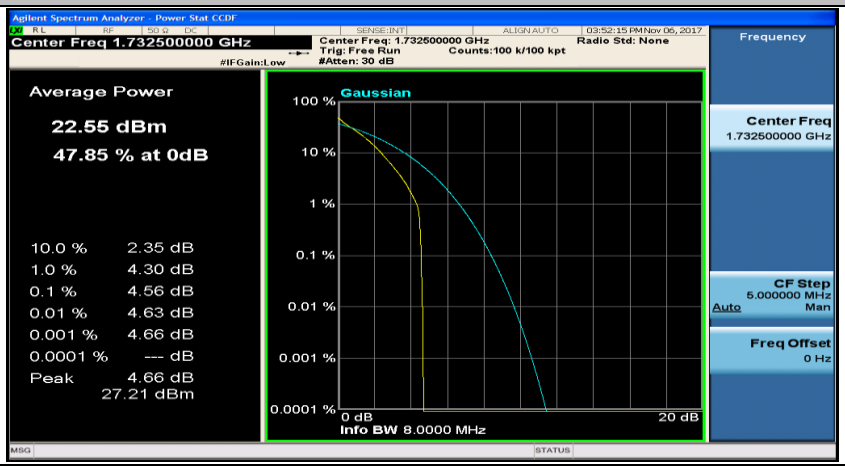


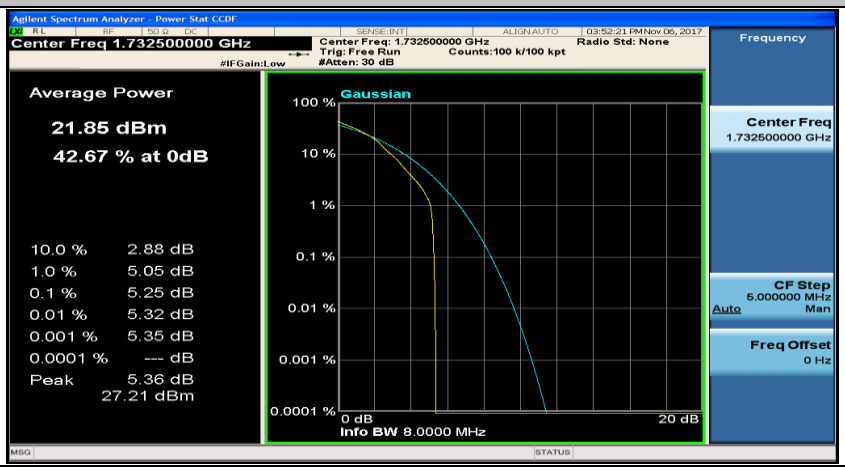
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



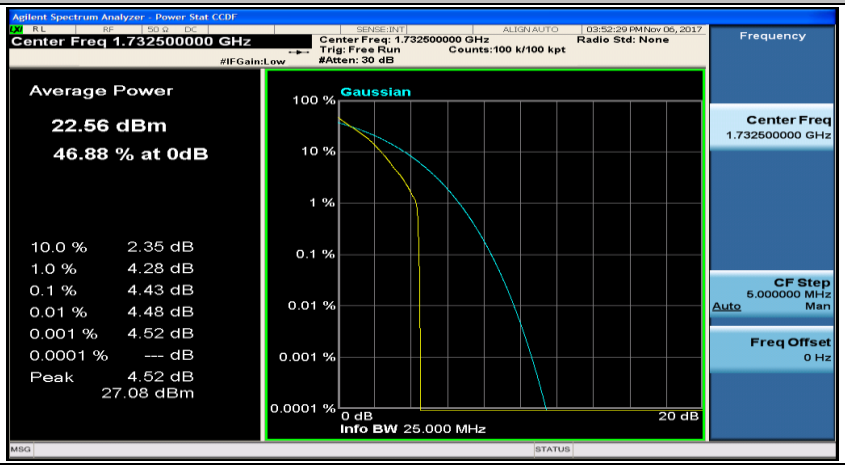
Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

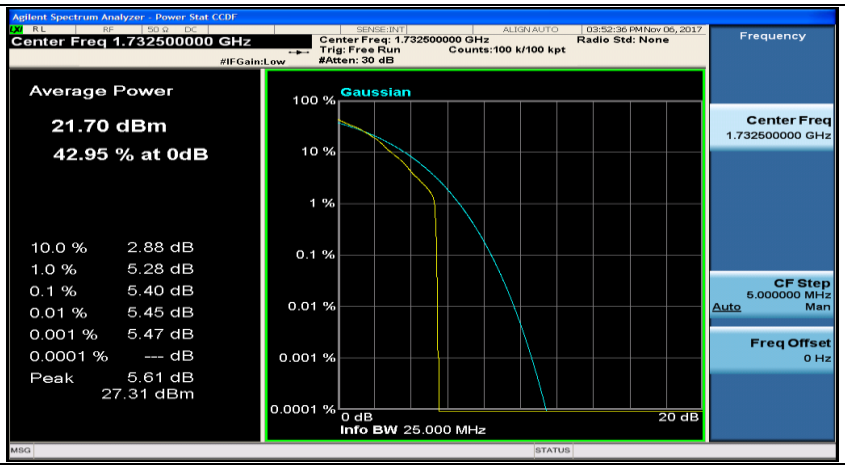


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0


Channel Bandwidth: 10 MHz

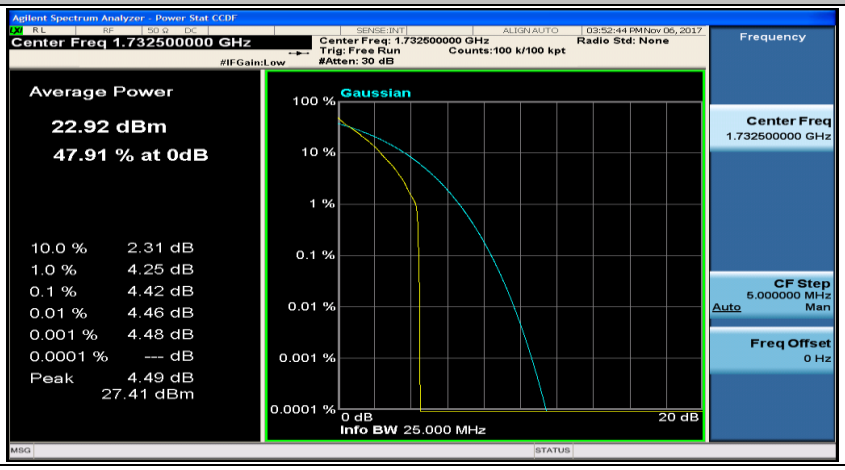
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

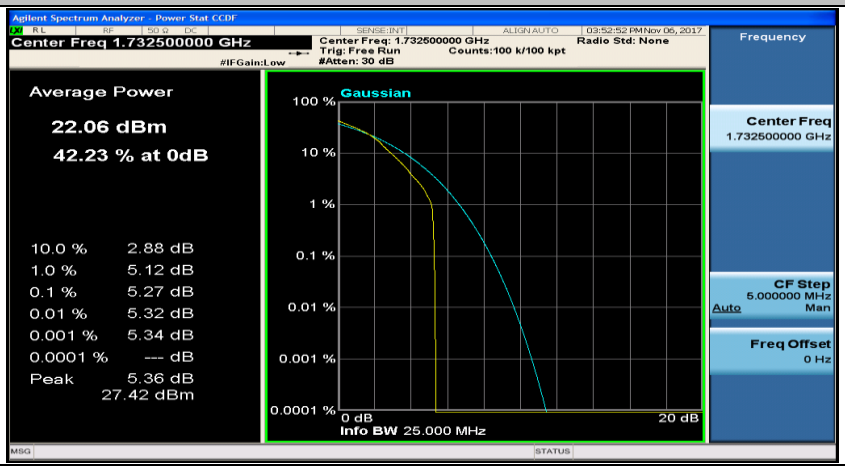


Channel Bandwidth: 15 MHz

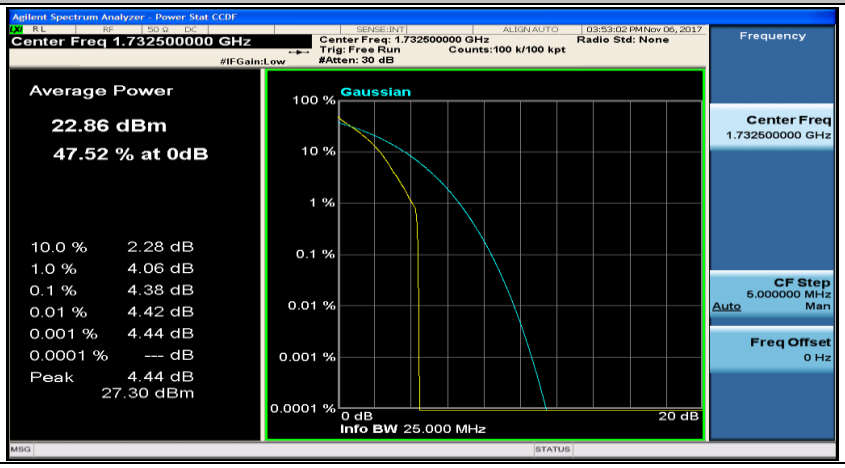
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

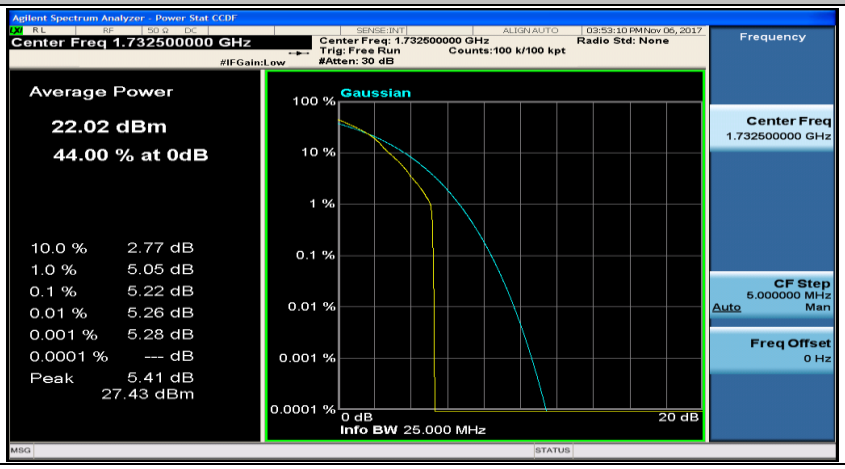


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0



Channel Bandwidth: 20 MHz

(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0


Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	6	0	1.0761	1.193	PASS
	MCH	6	0	1.0768	1.199	PASS
	HCH	6	0	1.0747	1.193	PASS
16QAM	LCH	6	0	1.0767	1.199	PASS
	MCH	6	0	1.0770	1.198	PASS
	HCH	6	0	1.0771	1.206	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	15	0	2.6866	2.911	PASS
	MCH	15	0	2.6863	2.897	PASS
	HCH	15	0	2.6853	2.902	PASS
16QAM	LCH	15	0	2.6835	2.886	PASS
	MCH	15	0	2.6839	2.890	PASS
	HCH	15	0	2.6834	2.893	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	25	0	4.4731	4.786	PASS

	MCH	25	0	4.4684	4.785	PASS
	HCH	25	0	4.4743	4.801	PASS
16QAM	LCH	25	0	4.4840	4.791	PASS
	MCH	25	0	4.4894	4.788	PASS
	HCH	25	0	4.4818	4.862	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	50	0	8.9350	9.467	PASS
	MCH	50	0	8.9260	9.456	PASS
	HCH	50	0	8.9395	9.480	PASS
16QAM	LCH	50	0	8.9459	9.456	PASS
	MCH	50	0	8.9379	9.483	PASS
	HCH	50	0	8.9437	9.438	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	75	0	13.427	14.09	PASS
	MCH	75	0	13.408	14.05	PASS
	HCH	75	0	13.436	14.07	PASS
16QAM	LCH	75	0	13.408	14.06	PASS
	MCH	75	0	13.393	14.06	PASS
	HCH	75	0	13.418	14.05	PASS

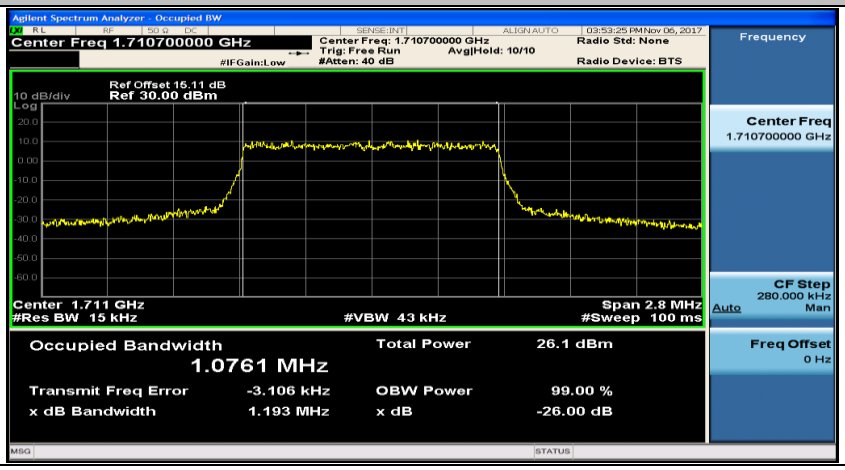
Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	100	0	17.861	18.70	PASS
	MCH	100	0	17.819	18.62	PASS
	HCH	100	0	17.856	18.66	PASS
16QAM	LCH	100	0	17.872	18.71	PASS
	MCH	100	0	17.822	18.67	PASS
	HCH	100	0	17.855	18.59	PASS

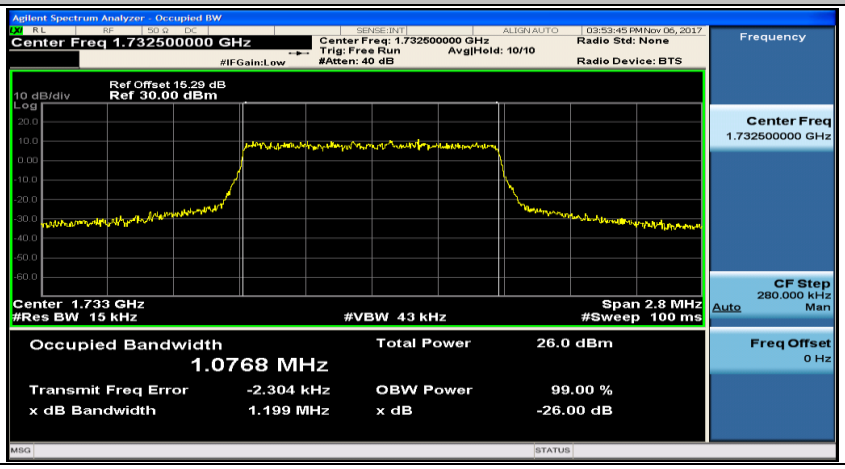
Test Graphs

Channel Bandwidth: 1.4 MHz

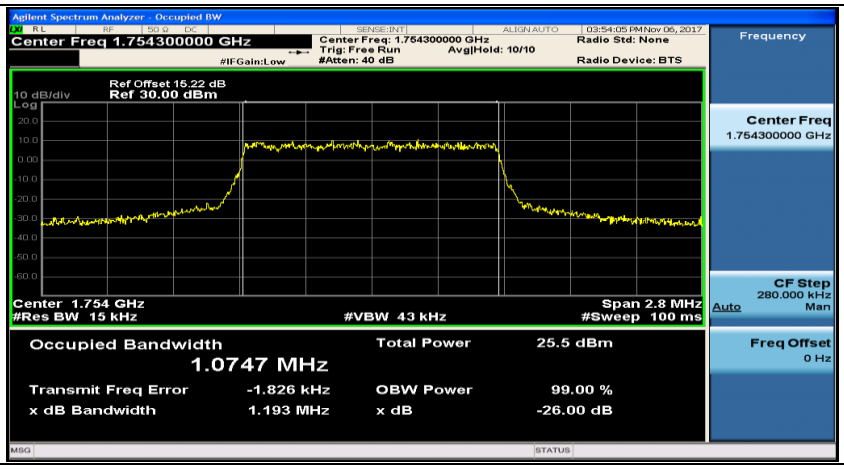
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_6RB#0

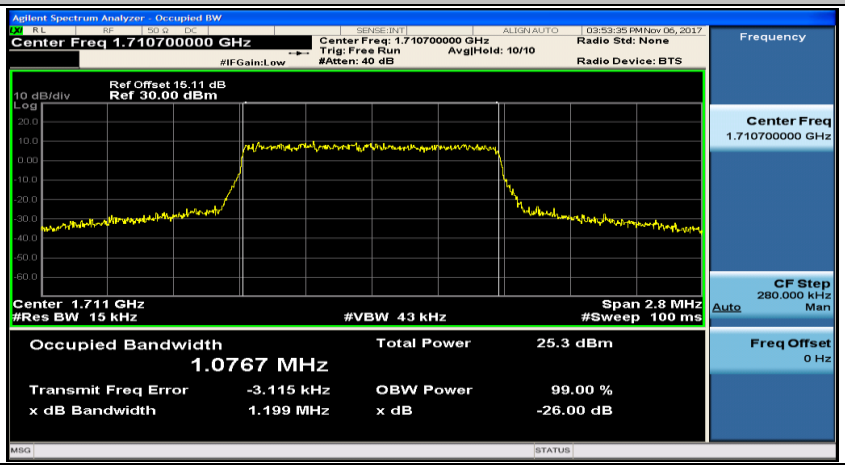


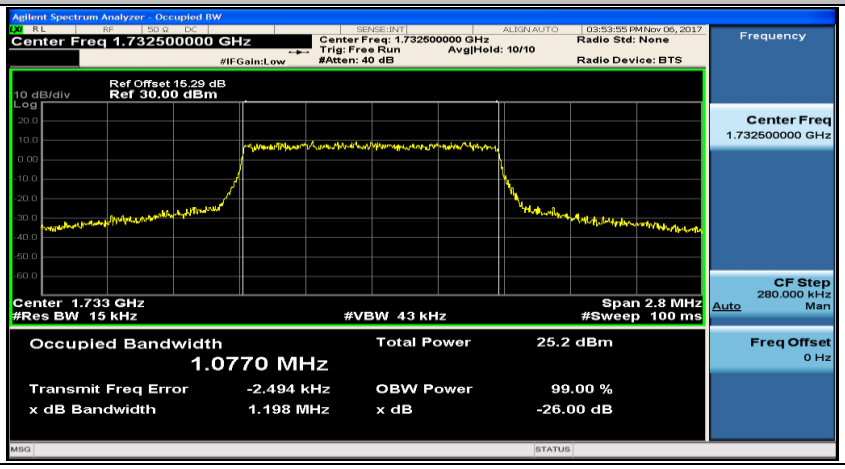
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_6RB#0

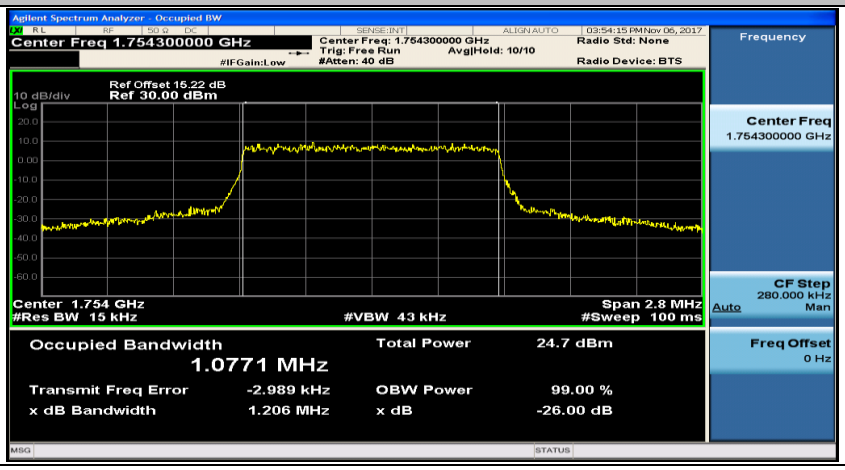


(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_6RB#0


Agilent Spectrum Analyzer - Occupied BW
Center Freq 1.754300000 GHz
Center Freq: 1.754300000 GHz
Trig: Free Run
Avg|Hold: 10/10
#IFGain:Low
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
03:54:05 PM Nov 06, 2017
Frequency
Ref Offset 15.22 dB
10 dB/div
Ref 30.00 dBm
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center Freq
1.754300000 GHz
Center 1.754 GHz
#Res BW 15 kHz
#VBW 43 kHz
Span 2.8 MHz
#Sweep 100 ms
CF Step
280.000 kHz
Auto
Man
Occupied Bandwidth
1.0747 MHz
Total Power
25.5 dBm
Transmit Freq Error
-1.826 kHz
OBW Power
99.00 %
x dB Bandwidth
1.193 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
STATUS

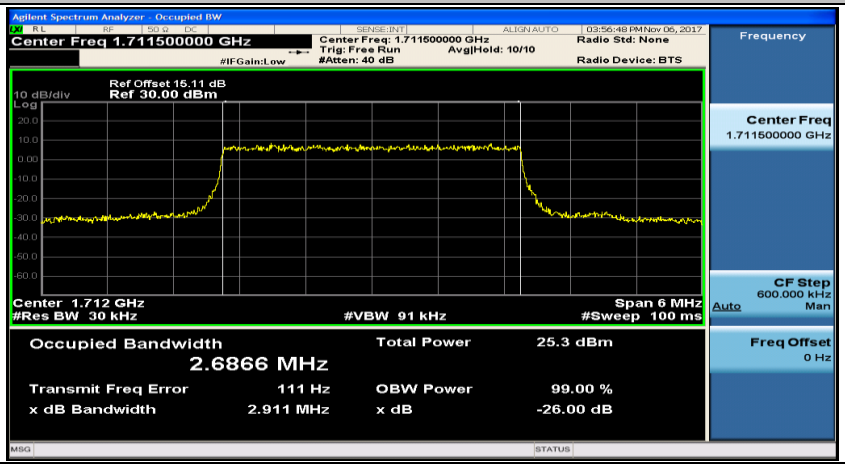
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_6RB#0


(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_6RB#0


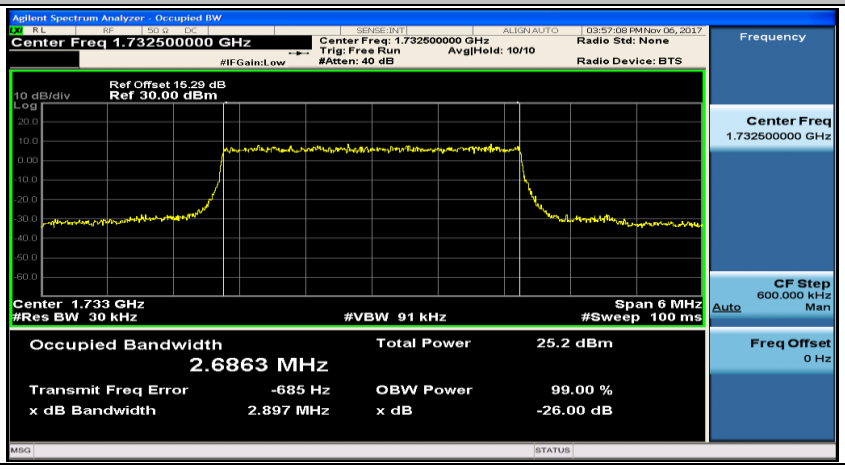
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_6RB#0


Channel Bandwidth: 3 MHz

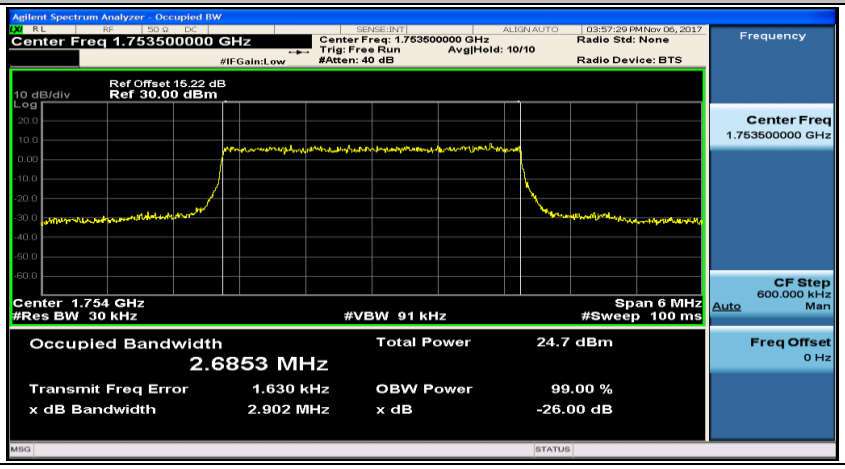
(Channel Bandwidth: 3 MHz)_LCH_QPSK_15RB#0

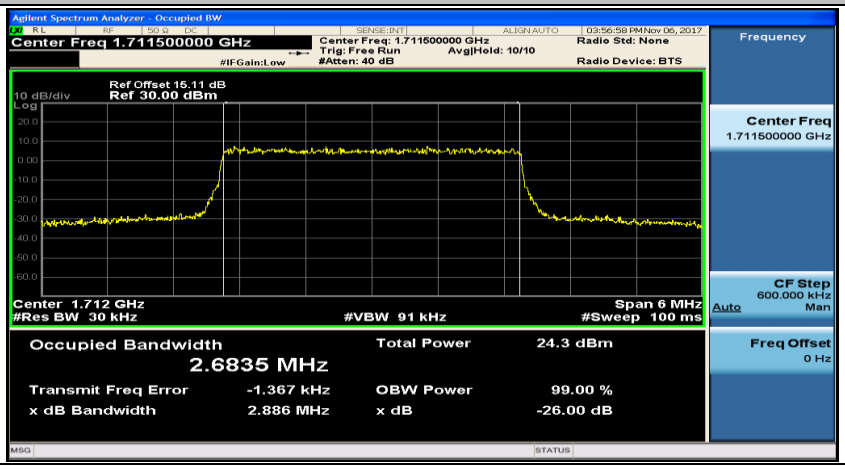


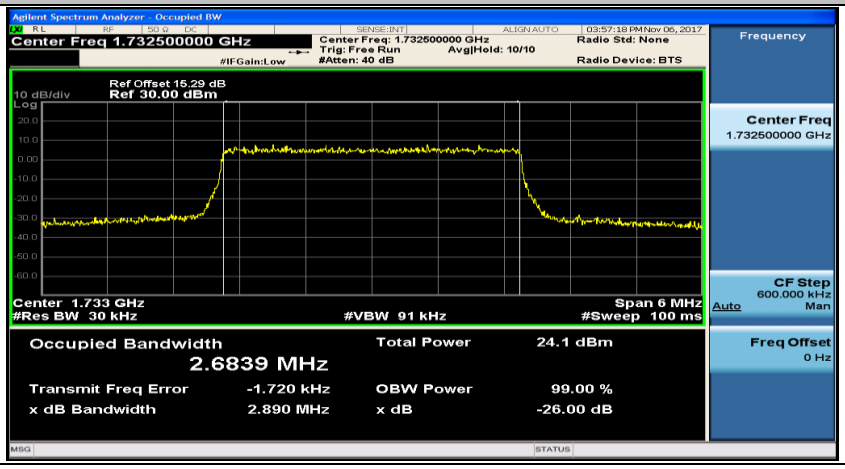
(Channel Bandwidth: 3 MHz)_MCH_QPSK_15RB#0

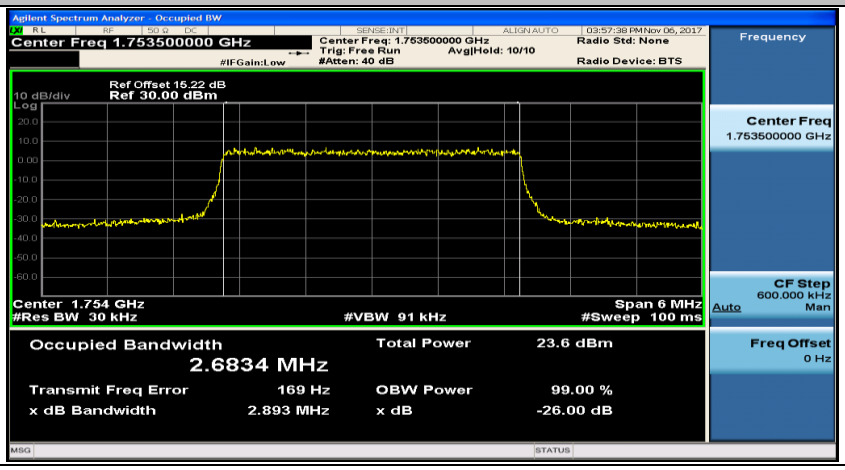


(Channel Bandwidth: 3 MHz)_HCH_QPSK_15RB#0



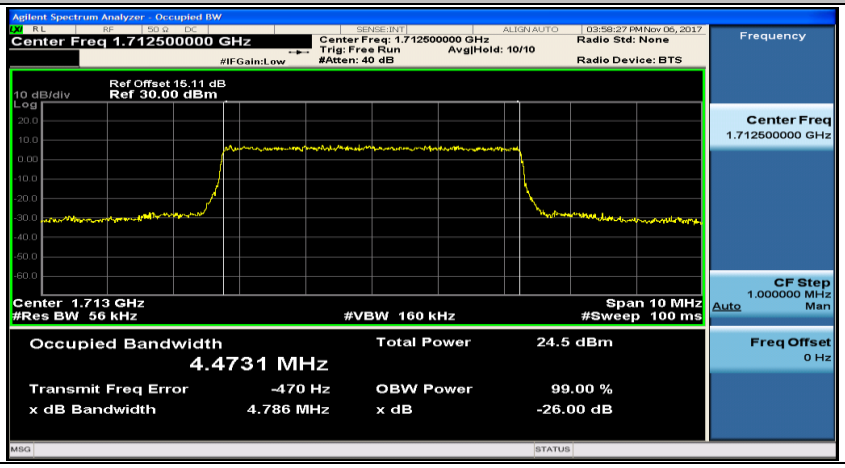
(Channel Bandwidth: 3 MHz)_LCH_16QAM_15RB#0


(Channel Bandwidth: 3 MHz)_MCH_16QAM_15RB#0


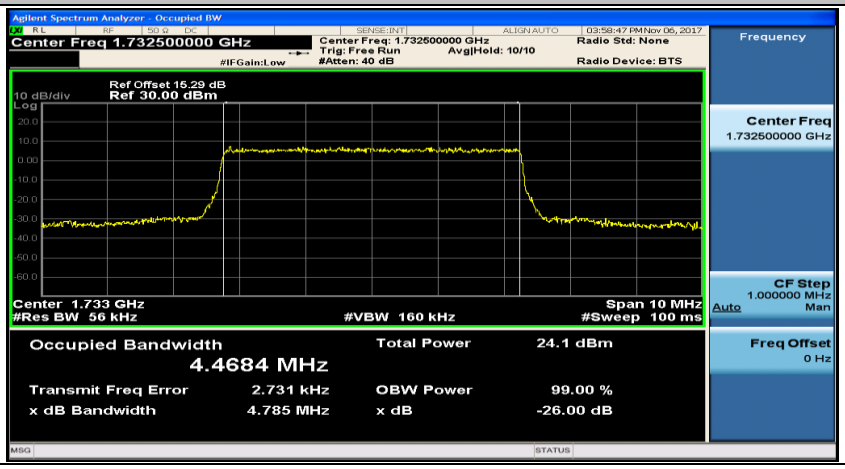
(Channel Bandwidth: 3 MHz)_HCH_16QAM_15RB#0


Channel Bandwidth: 5 MHz

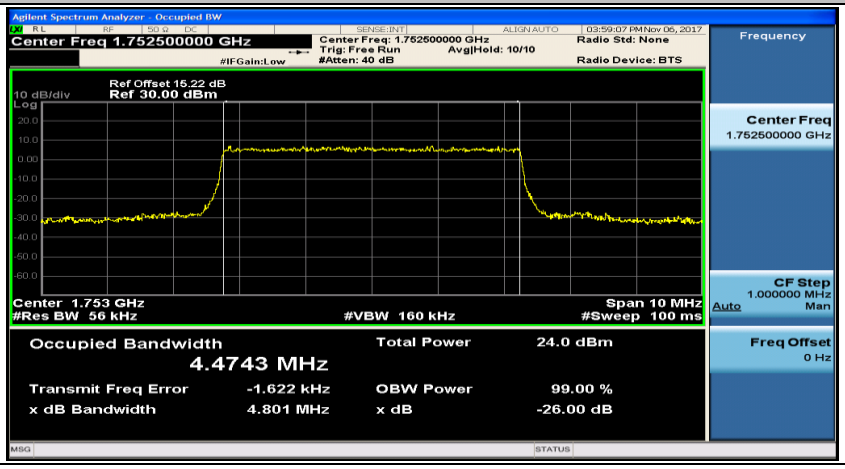
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0

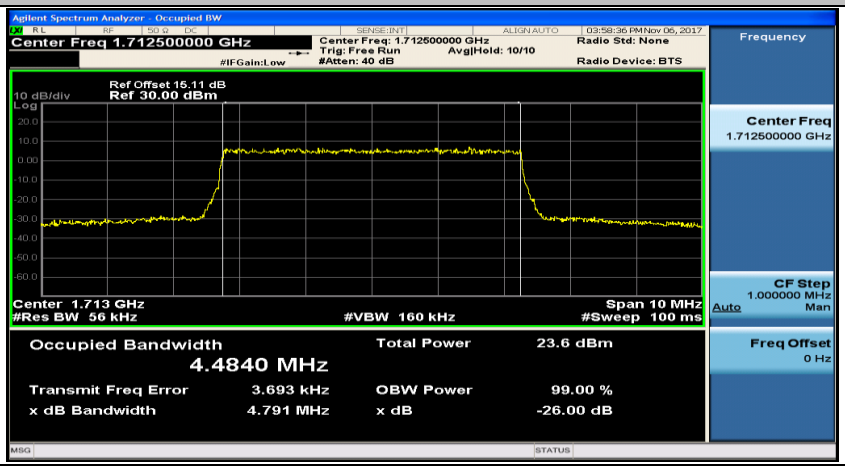


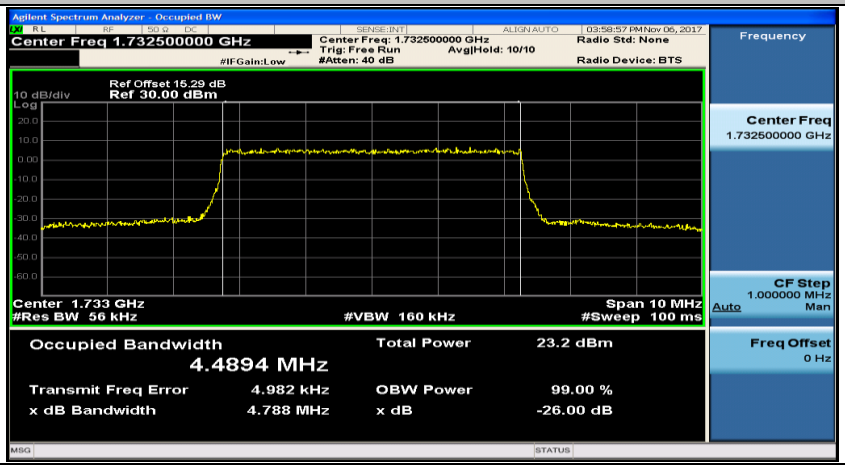
(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0

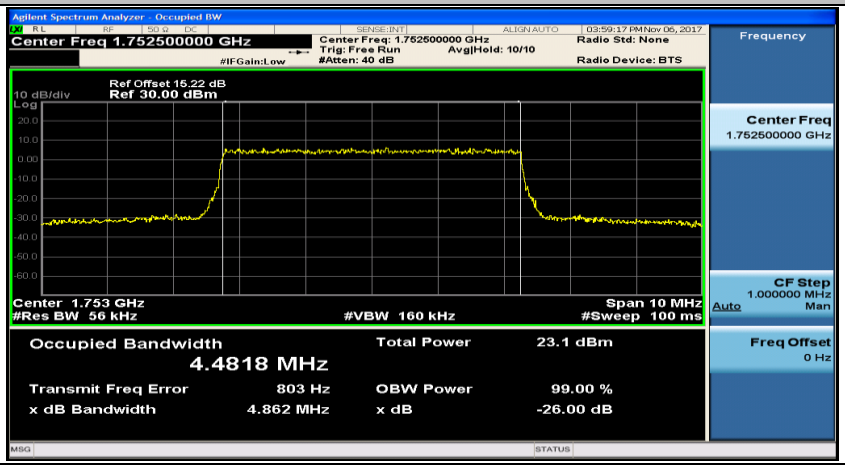


(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



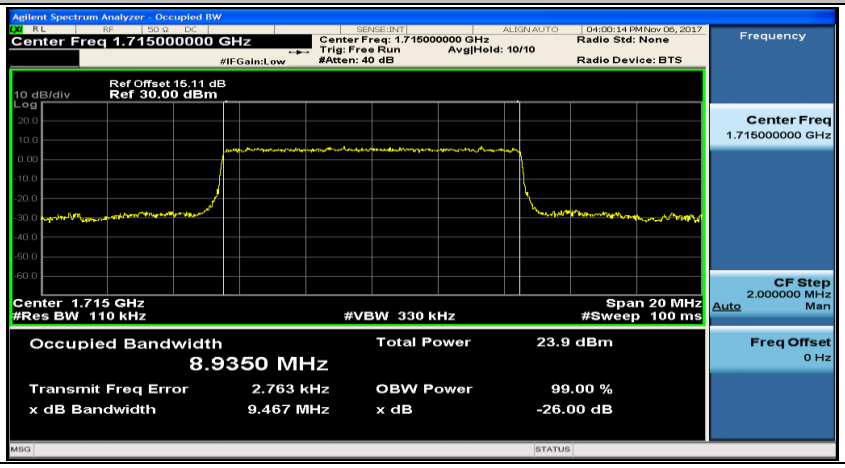
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0


(Channel Bandwidth: 5 MHz)_MCH_16QAM_25RB#0


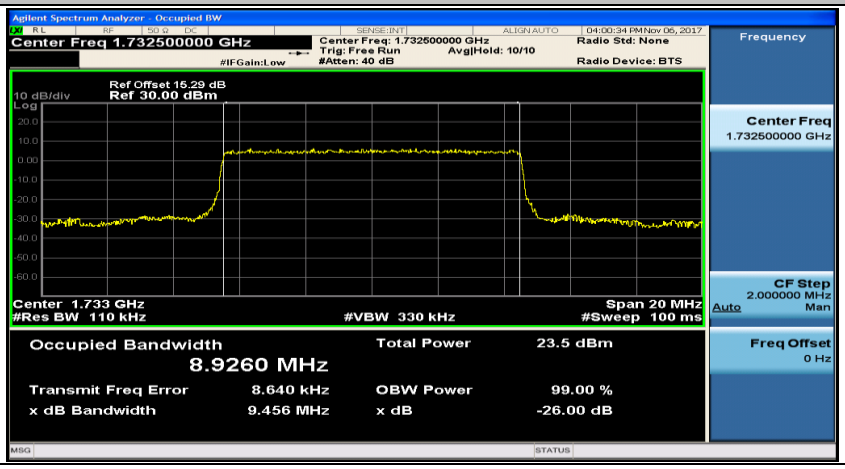
(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0


Channel Bandwidth: 10 MHz

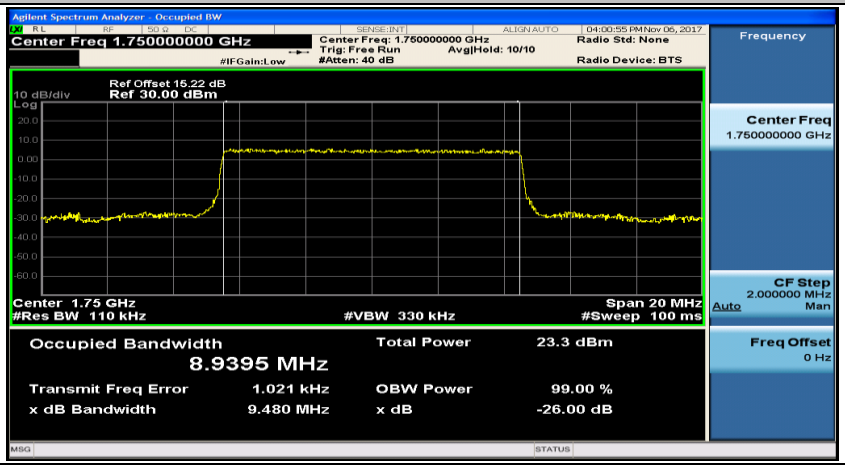
(Channel Bandwidth: 10 MHz)_LCH_QPSK_50RB#0



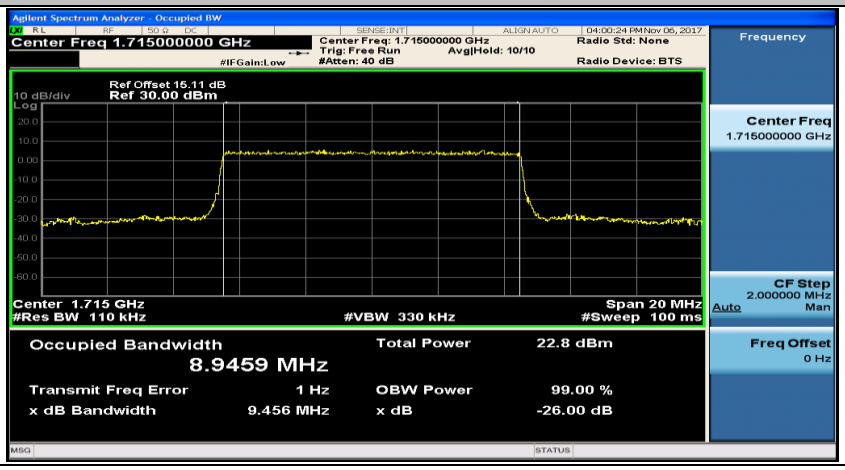
(Channel Bandwidth: 10 MHz)_MCH_QPSK_50RB#0



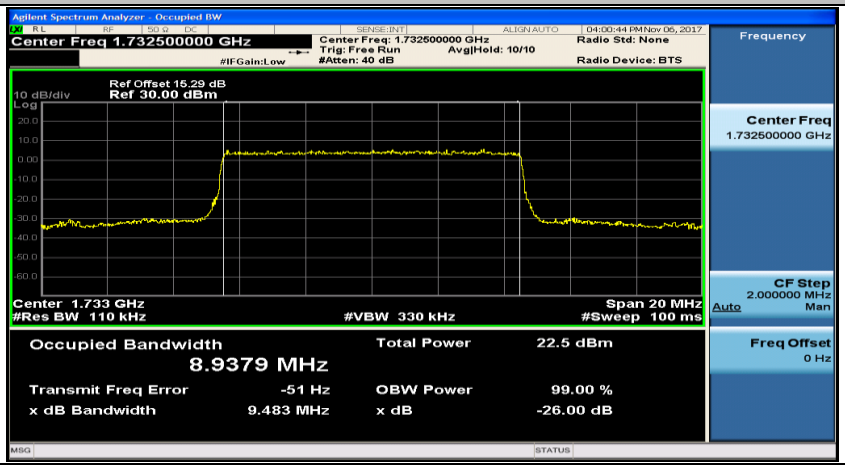
(Channel Bandwidth: 10 MHz)_HCH_QPSK_50RB#0



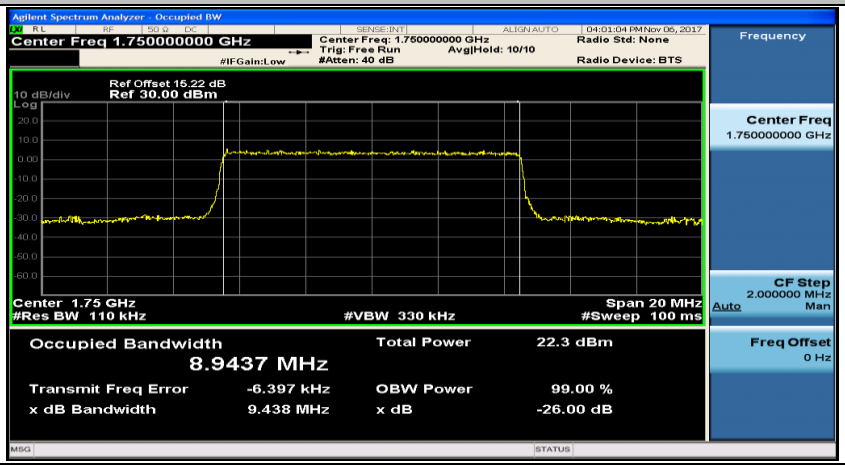
(Channel Bandwidth: 10 MHz)_LCH_16QAM_50RB#0



(Channel Bandwidth: 10 MHz)_MCH_16QAM_50RB#0

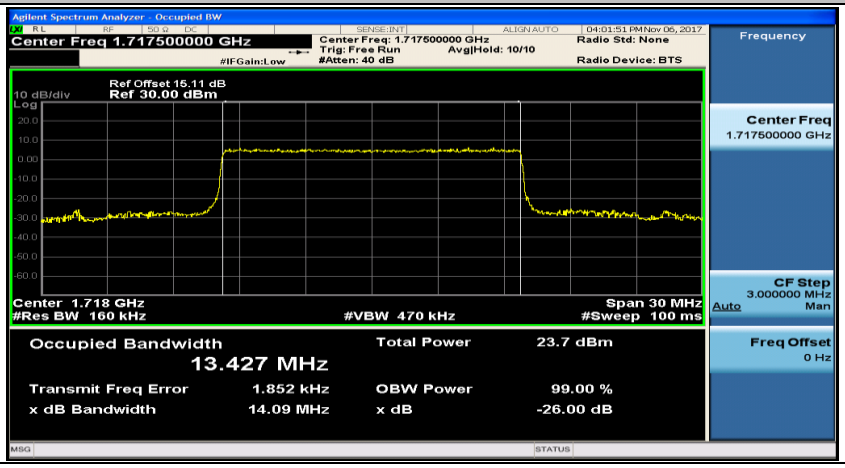


(Channel Bandwidth: 10 MHz)_HCH_16QAM_50RB#0

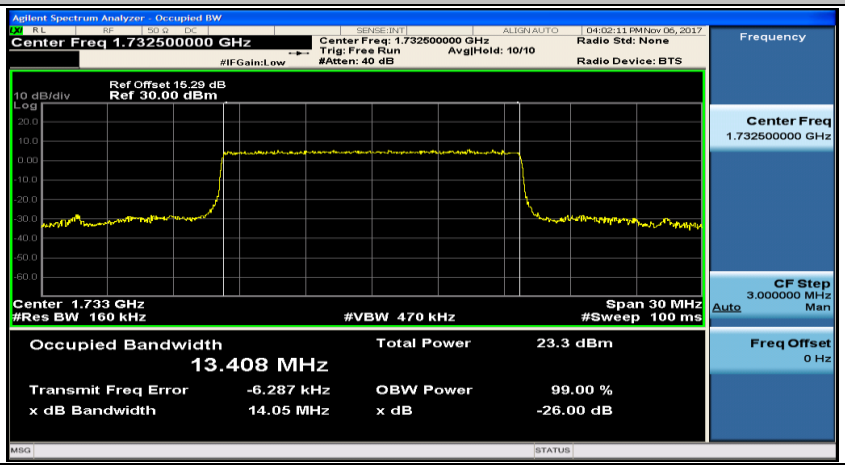


Channel Bandwidth: 15 MHz

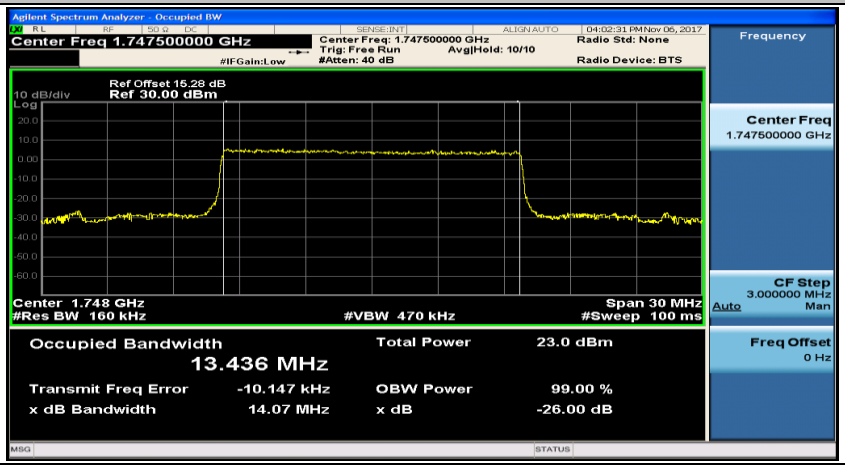
(Channel Bandwidth: 15 MHz)_LCH_QPSK_75RB#0



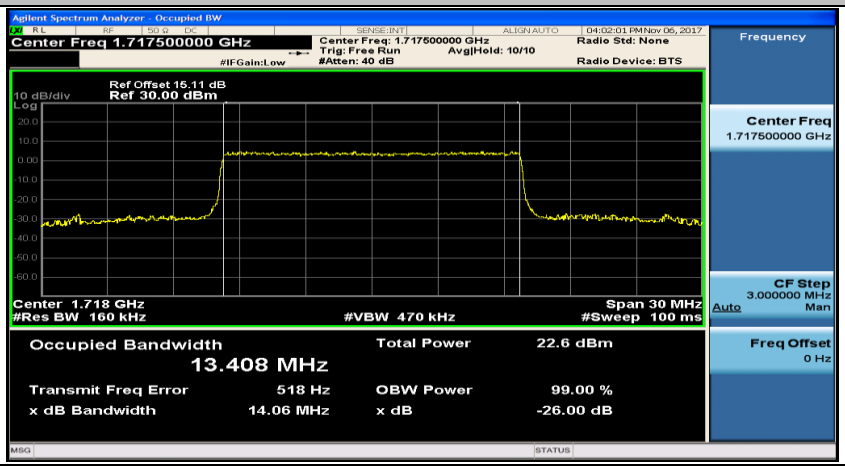
(Channel Bandwidth: 15 MHz)_MCH_QPSK_75RB#0



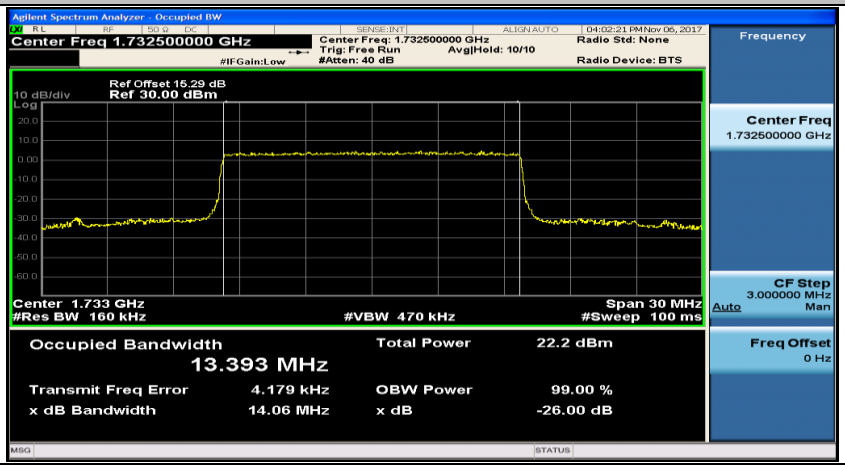
(Channel Bandwidth: 15 MHz)_HCH_QPSK_75RB#0



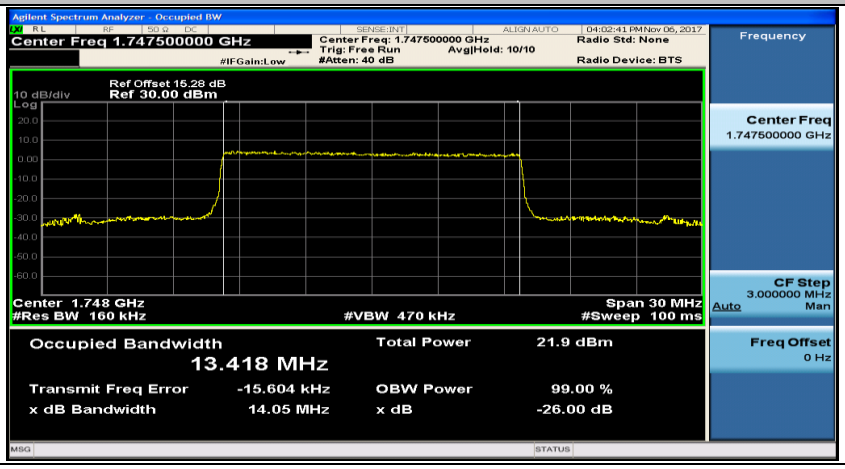
(Channel Bandwidth: 15 MHz)_LCH_16QAM_75RB#0



(Channel Bandwidth: 15 MHz)_MCH_16QAM_75RB#0

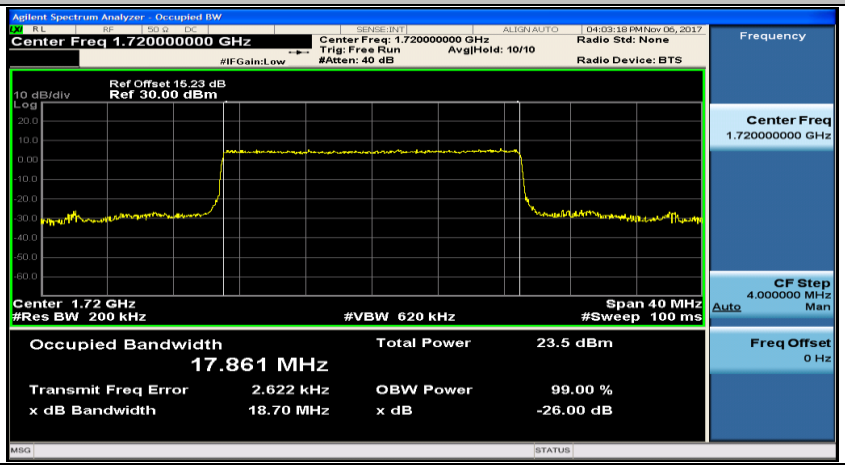


(Channel Bandwidth: 15 MHz)_HCH_16QAM_75RB#0

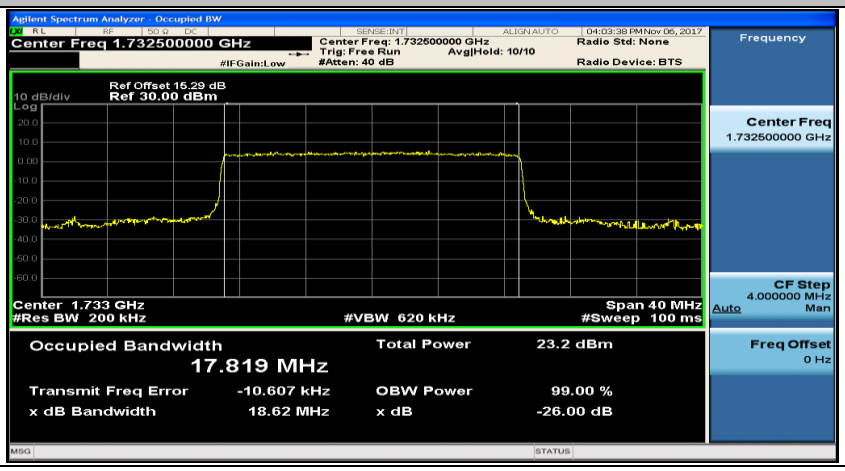


Channel Bandwidth: 20 MHz

(Channel Bandwidth: 20 MHz)_LCH_QPSK_100RB#0



(Channel Bandwidth: 20 MHz)_MCH_QPSK_100RB#0



(Channel Bandwidth: 20 MHz)_HCH_QPSK_100RB#0