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	1	0	0.33895	0.5825	PASS
		1	3	0.35969	0.6096	PASS
		1	5	0.35077	0.5658	PASS
		3	0	2.1755	2.601	PASS
		3	2	2.1712	2.655	PASS
		3	3	2.1797	2.537	PASS
		6	0	4.4866	4.835	PASS
	MCH	1	0	0.32518	0.5461	PASS
		1	3	0.35363	0.5978	PASS
		1	5	0.33642	0.5410	PASS
		3	0	2.1739	2.525	PASS
		3	2	2.1742	2.664	PASS
		3	3	2.1763	2.534	PASS
		6	0	4.4838	4.839	PASS
	HCH	1	0	0.34813	0.5909	PASS
		1	3	0.35469	0.5986	PASS
		1	5	0.34507	0.5866	PASS
		3	0	2.1751	2.628	PASS
		3	2	2.1753	2.654	PASS
		3	3	2.1728	2.538	PASS
		6	0	4.4817	4.812	PASS
16QAM	LCH	1	0	0.35258	0.5656	PASS
		1	3	0.37731	0.5995	PASS
		1	5	0.37574	0.6223	PASS
		3	0	2.1820	2.456	PASS
		3	2	2.1830	2.602	PASS
		3	3	2.1846	2.553	PASS
		6	0	4.4893	4.804	PASS
	MCH	1	0	0.35365	0.5867	PASS

	Channel	Size	Offset	Occupied Bandwidth	26dB Bandwidth	Verdict
		1	3	0.37028	0.5898	PASS
		1	5	0.36925	0.6053	PASS
		3	0	2.1777	2.490	PASS
		3	2	2.1848	2.609	PASS
		3	3	2.1815	2.512	PASS
		6	0	4.4843	4.793	PASS
	HCH	1	0	0.35587	0.5623	PASS
		1	3	0.38296	0.5995	PASS
		1	5	0.37909	0.5687	PASS
		3	0	2.1839	2.727	PASS
		3	2	2.1869	2.599	PASS
		3	3	2.1848	2.567	PASS
		6	0	4.4860	4.785	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	1	0	0.33895	0.5825	PASS
		1	7	0.35969	0.6096	PASS
		1	14	0.35077	0.5658	PASS
		8	0	2.1755	2.601	PASS
		8	4	2.1712	2.655	PASS
		8	7	2.1797	2.537	PASS
		15	0	4.4866	4.835	PASS
	MCH	1	0	0.32518	0.5461	PASS
		1	7	0.35363	0.5978	PASS
		1	14	0.33642	0.5410	PASS
		8	0	2.1739	2.525	PASS
		8	4	2.1742	2.664	PASS
		8	7	2.1763	2.534	PASS
		15	0	4.4838	4.839	PASS
	HCH	1	0	0.34813	0.5909	PASS
		1	7	0.35469	0.5986	PASS
		1	14	0.34507	0.5866	PASS
		8	0	2.1751	2.628	PASS
		8	4	2.1753	2.654	PASS

16QAM		8	7	2.1728	2.538	PASS
		15	0	4.4817	4.812	PASS
16QAM	LCH	1	0	0.35258	0.5656	PASS
		1	7	0.37731	0.5995	PASS
		1	14	0.37574	0.6223	PASS
		8	0	2.1820	2.456	PASS
		8	4	2.1830	2.602	PASS
		8	7	2.1846	2.553	PASS
		15	0	4.4893	4.804	PASS
	MCH	1	0	0.35365	0.5867	PASS
		1	7	0.37028	0.5898	PASS
		1	14	0.36925	0.6053	PASS
		8	0	2.1777	2.490	PASS
		8	4	2.1848	2.609	PASS
		8	7	2.1815	2.512	PASS
		15	0	4.4843	4.793	PASS
	HCH	1	0	0.35587	0.5623	PASS
		1	7	0.38296	0.5995	PASS
		1	14	0.37909	0.5687	PASS
		8	0	2.1839	2.727	PASS
		8	4	2.1869	2.599	PASS
		8	7	2.1848	2.567	PASS
		15	0	4.4860	4.785	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	1	0	0.33895	0.5825	PASS
		1	12	0.35969	0.6096	PASS
		1	24	0.35077	0.5658	PASS
		12	0	2.1755	2.601	PASS
		12	6	2.1712	2.655	PASS
		12	13	2.1797	2.537	PASS
		25	0	4.4866	4.835	PASS
	MCH	1	0	0.32518	0.5461	PASS
		1	12	0.35363	0.5978	PASS

		1	24	0.33642	0.5410	PASS
		12	0	2.1739	2.525	PASS
		12	6	2.1742	2.664	PASS
		12	13	2.1763	2.534	PASS
		25	0	4.4838	4.839	PASS
	HCH	1	0	0.34813	0.5909	PASS
		1	12	0.35469	0.5986	PASS
		1	24	0.34507	0.5866	PASS
		12	0	2.1751	2.628	PASS
		12	6	2.1753	2.654	PASS
		12	13	2.1728	2.538	PASS
		25	0	4.4817	4.812	PASS
16QAM	LCH	1	0	0.35258	0.5656	PASS
		1	12	0.37731	0.5995	PASS
		1	24	0.37574	0.6223	PASS
		12	0	2.1820	2.456	PASS
		12	6	2.1830	2.602	PASS
		12	13	2.1846	2.553	PASS
		25	0	4.4893	4.804	PASS
	MCH	1	0	0.35365	0.5867	PASS
		1	12	0.37028	0.5898	PASS
		1	24	0.36925	0.6053	PASS
		12	0	2.1777	2.490	PASS
		12	6	2.1848	2.609	PASS
		12	13	2.1815	2.512	PASS
		25	0	4.4843	4.793	PASS
	HCH	1	0	0.35587	0.5623	PASS
		1	12	0.38296	0.5995	PASS
		1	24	0.37909	0.5687	PASS
		12	0	2.1839	2.727	PASS
		12	6	2.1869	2.599	PASS
		12	13	2.1848	2.567	PASS
		25	0	4.4860	4.785	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	1	0	0.42615	0.6555	PASS

		1	25	0.44924	0.7003	PASS
		1	49	0.43077	0.6826	PASS
		25	0	4.5172	5.035	PASS
		25	12	4.5136	5.066	PASS
		25	25	4.5063	4.978	PASS
		50	0	8.9312	9.433	PASS
	MCH	1	0	0.41618	0.7089	PASS
		1	25	0.43565	0.7090	PASS
		1	49	0.42202	0.6774	PASS
		25	0	4.5137	5.006	PASS
		25	12	4.5199	5.095	PASS
		25	25	4.5069	4.968	PASS
		50	0	8.9318	9.475	PASS
	HCH	1	0	0.42665	0.6735	PASS
		1	25	0.47509	0.7400	PASS
		1	49	0.44056	0.6785	PASS
		25	0	4.5163	5.188	PASS
		25	12	4.5259	5.142	PASS
		25	25	4.5041	5.019	PASS
		50	0	8.9176	9.461	PASS
16QAM	LCH	1	0	0.43779	0.6728	PASS
		1	25	0.46067	0.7574	PASS
		1	49	0.44393	0.6532	PASS
		25	0	4.5052	4.922	PASS
		25	12	4.5080	4.998	PASS
		25	25	4.5019	4.936	PASS
		50	0	8.9129	9.421	PASS
	MCH	1	0	0.42319	0.6501	PASS
		1	25	0.44773	0.6800	PASS
		1	49	0.44200	0.6892	PASS
		25	0	4.5111	5.028	PASS
		25	12	4.5084	5.037	PASS
		25	25	4.5031	4.981	PASS
		50	0	8.9388	9.539	PASS
	HCH	1	0	0.43588	0.6662	PASS
		1	25	0.47173	0.7096	PASS
		1	49	0.44923	0.6987	PASS
		25	0	4.5096	4.987	PASS
		25	12	4.5149	5.232	PASS
		25	25	4.4948	4.956	PASS
		50	0	8.9247	9.496	PASS

Channel Bandwidth: 15 MHz

Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	1	0	0.55684	0.7891	PASS
		1	37	0.55235	0.7798	PASS
		1	74	0.51624	0.7580	PASS
		37	0	6.4951	7.006	PASS
		37	18	6.4847	7.071	PASS
		37	38	6.4796	7.055	PASS
		75	0	13.372	14.03	PASS
	MCH	1	0	0.52794	0.7694	PASS
		1	37	0.55981	0.8639	PASS
		1	74	0.52222	0.7844	PASS
		37	0	6.4966	7.053	PASS
		37	18	6.4888	7.099	PASS
		37	38	6.4861	7.153	PASS
		75	0	13.419	14.06	PASS
	HCH	1	0	0.52528	0.7330	PASS
		1	37	0.54870	0.8479	PASS
		1	74	0.53102	0.7965	PASS
		37	0	6.5024	7.087	PASS
		37	18	6.4975	7.160	PASS
		37	38	6.4831	7.111	PASS
		75	0	13.387	14.13	PASS
16QAM	LCH	1	0	0.54214	0.7621	PASS
		1	37	0.54025	0.7894	PASS
		1	74	0.53163	0.7577	PASS
		37	0	6.4874	7.096	PASS
		37	18	6.4874	7.091	PASS
		37	38	6.4837	7.075	PASS
		75	0	13.358	13.94	PASS
	MCH	1	0	0.54660	0.8099	PASS
		1	37	0.52259	0.8282	PASS
		1	74	0.53649	0.7561	PASS
		37	0	6.4790	6.992	PASS
		37	18	6.4855	7.098	PASS

	Size	Offset	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
	37	38	6.5031	7.237	PASS
	75	0	13.400	13.98	PASS
HCH	1	0	0.52489	0.7808	PASS
	1	37	0.55832	0.8309	PASS
	1	74	0.53220	0.8193	PASS
	37	0	6.4899	7.140	PASS
	37	18	6.4985	7.283	PASS
	37	38	6.4949	7.179	PASS
	75	0	13.402	13.99	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	1	0	0.59936	0.8624	PASS
		1	50	0.61220	0.9175	PASS
		1	99	0.58762	0.8523	PASS
		50	0	8.9752	9.679	PASS
		50	25	8.9858	9.646	PASS
		50	50	8.9816	9.592	PASS
		100	0	17.758	18.56	PASS
	MCH	1	0	0.59392	0.9040	PASS
		1	50	0.60632	0.8753	PASS
		1	99	0.61543	0.8807	PASS
		50	0	8.9964	9.617	PASS
		50	25	9.0036	9.728	PASS
		50	50	9.0061	9.663	PASS
		100	0	17.885	18.64	PASS
	HCH	1	0	0.60018	0.8654	PASS
		1	50	0.61376	0.9507	PASS
		1	99	0.60525	0.8665	PASS
		50	0	9.0106	9.770	PASS
		50	25	9.0125	9.747	PASS
		50	50	8.9740	9.595	PASS
		100	0	17.864	18.59	PASS
16QAM	LCH	1	0	0.60615	0.9251	PASS
		1	50	0.58863	0.8320	PASS
		1	99	0.59728	0.8692	PASS

		50	0	8.9788	9.666	PASS
		50	25	8.9851	9.599	PASS
		50	50	8.9848	9.755	PASS
		100	0	17.805	18.51	PASS
	MCH	1	0	0.59718	0.8241	PASS
		1	50	0.59740	0.9153	PASS
		1	99	0.59709	0.8715	PASS
		50	0	9.0002	9.635	PASS
		50	25	9.0087	9.693	PASS
		50	50	9.0079	9.697	PASS
		100	0	17.890	18.59	PASS
	HCH	1	0	0.58189	0.7894	PASS
		1	50	0.60445	0.8535	PASS
		1	99	0.60184	0.9073	PASS
		50	0	9.0092	9.760	PASS
		50	25	9.0035	9.940	PASS
		50	50	8.9892	9.603	PASS
		100	0	17.875	18.60	PASS

Test Graphs

Channel Bandwidth: 1.4 MHz

(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0

(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#3

(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#5

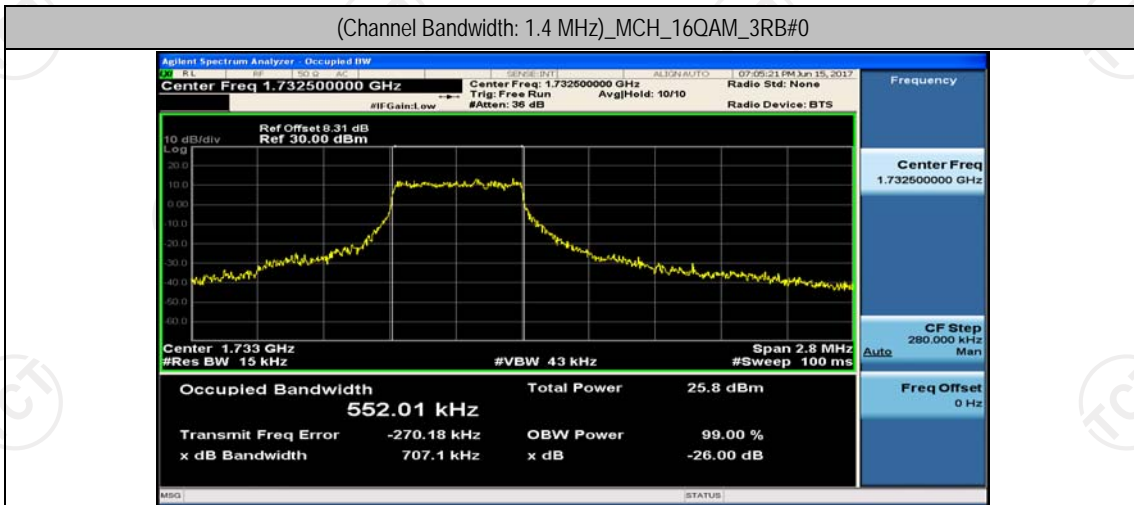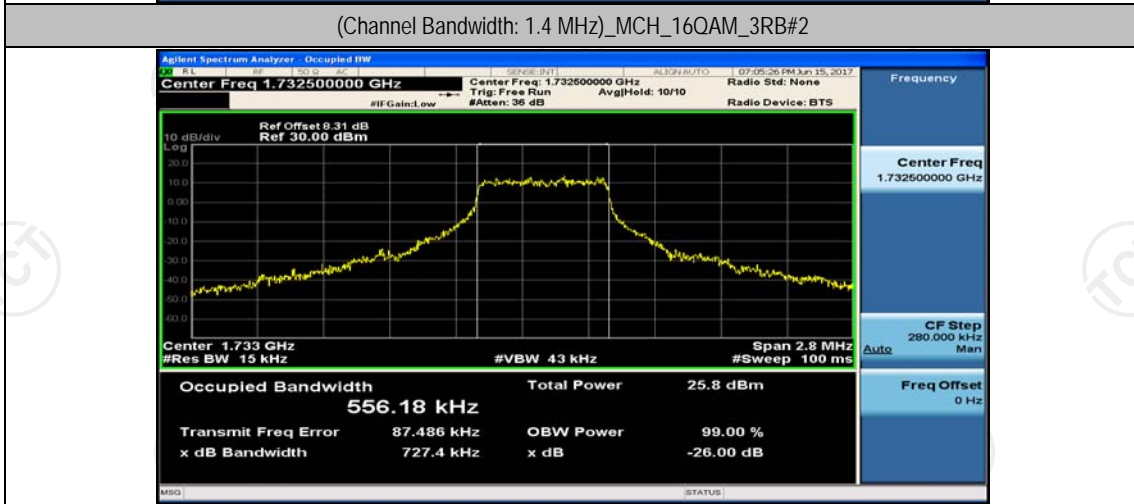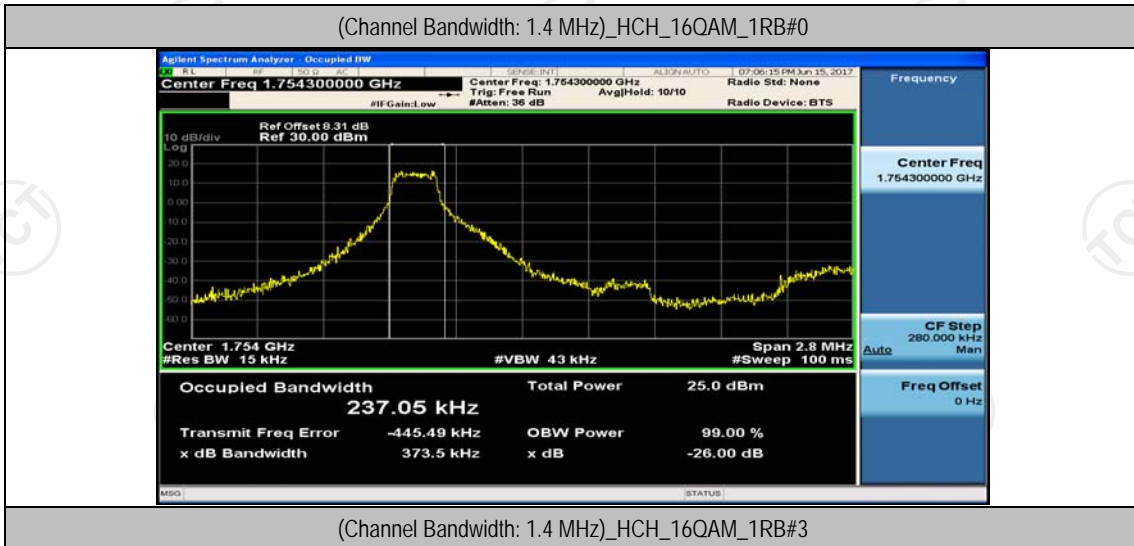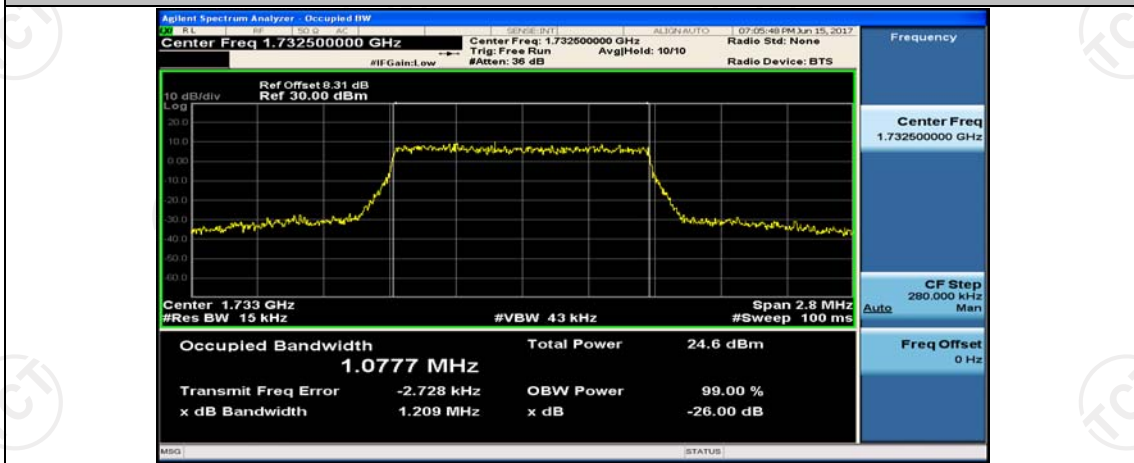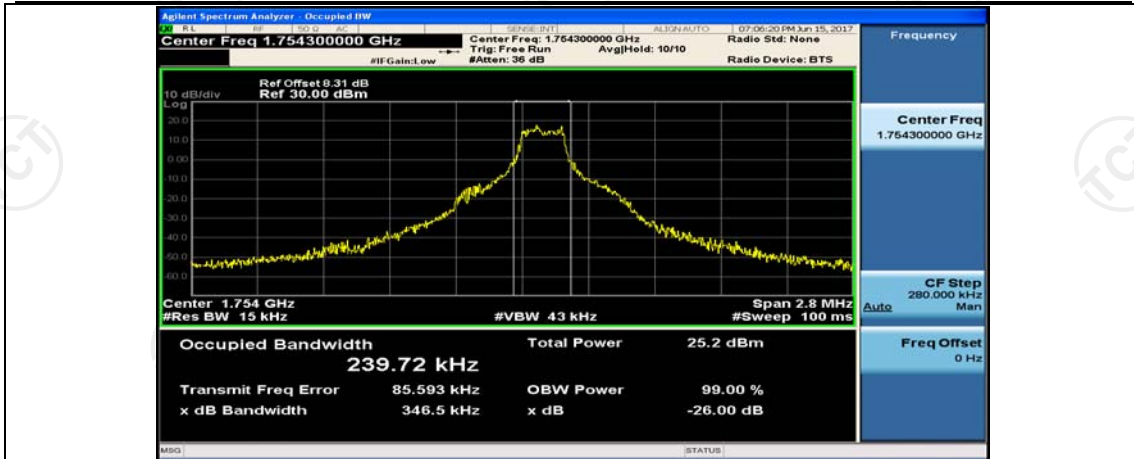| (Channel Bandwidth: 1.4 MHz)_LCH_QPSK_3RB#0 |
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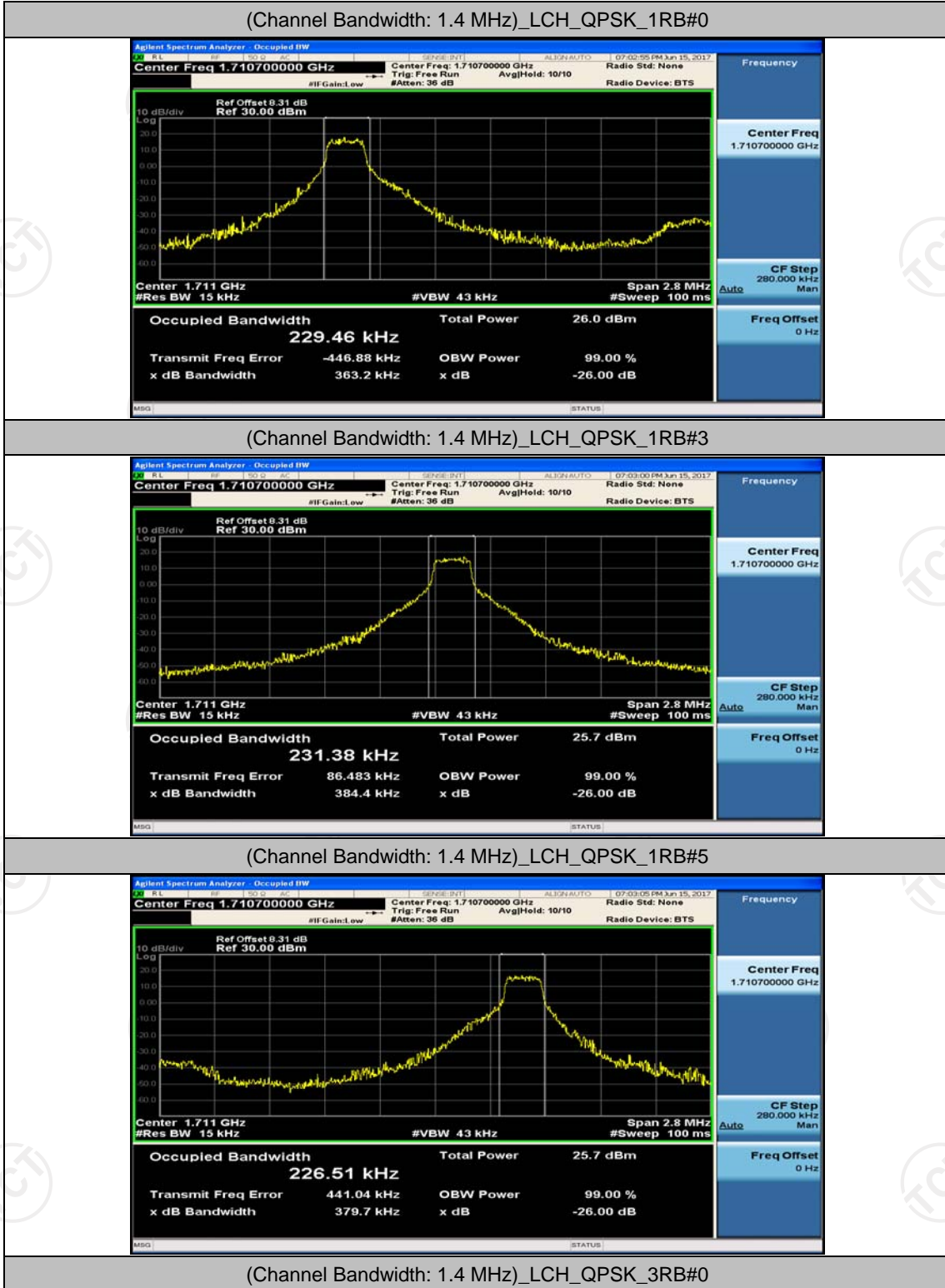
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_3RB#2

(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_3RB#3
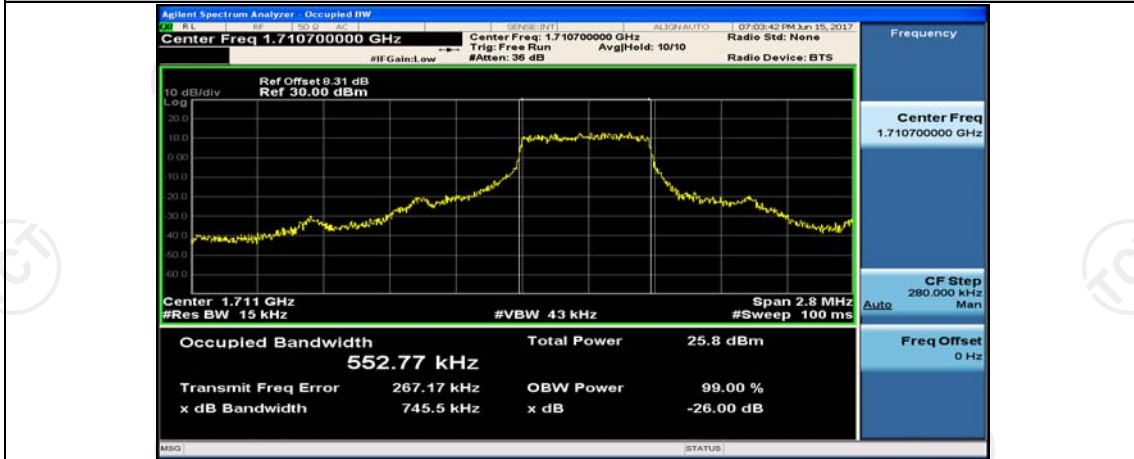
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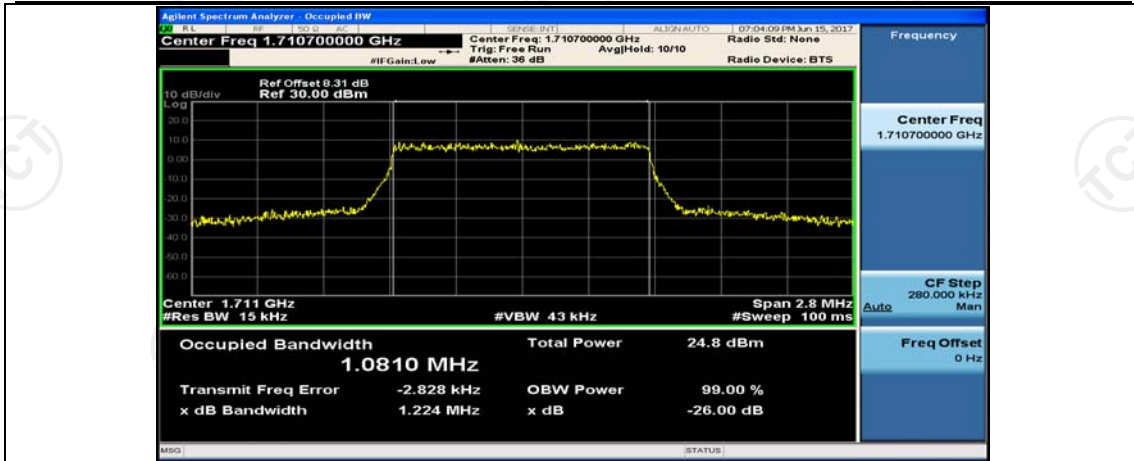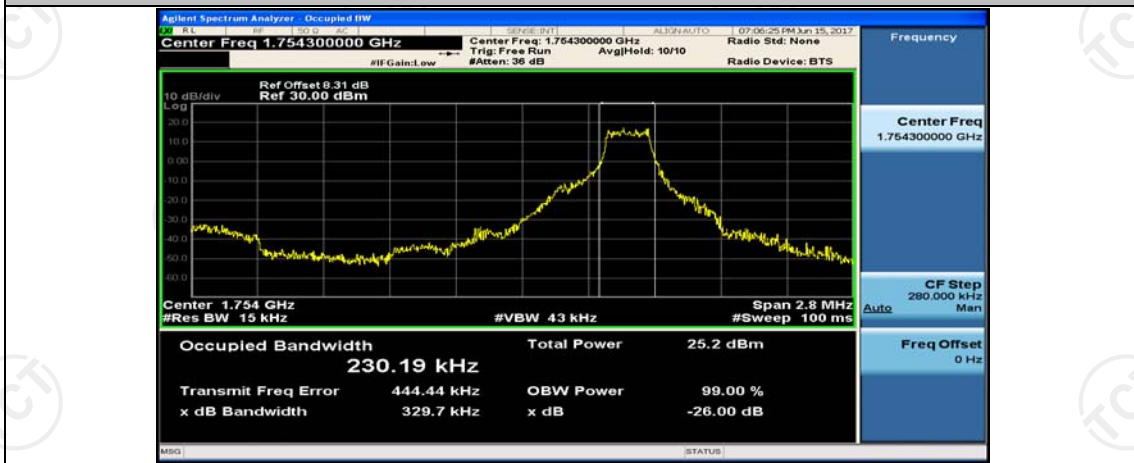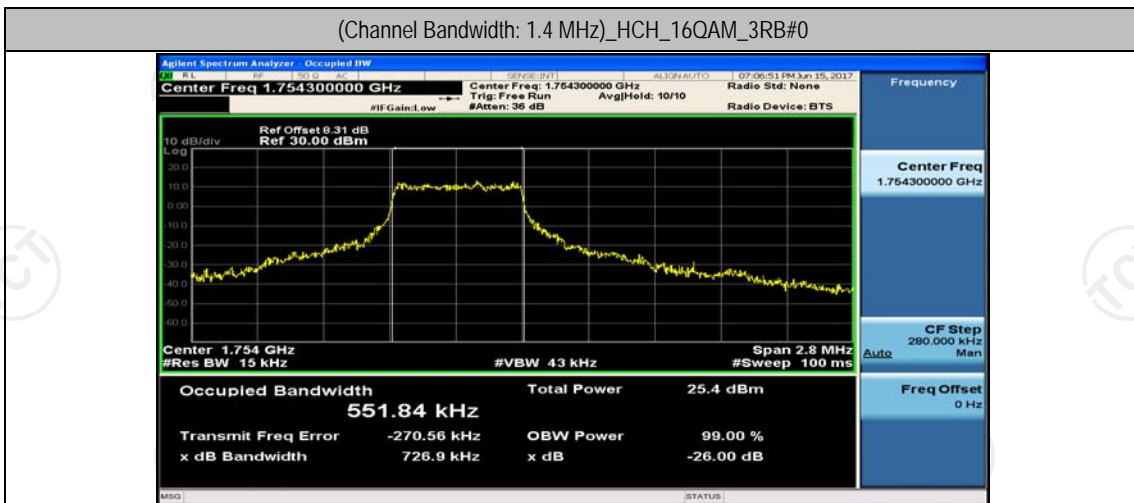
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0
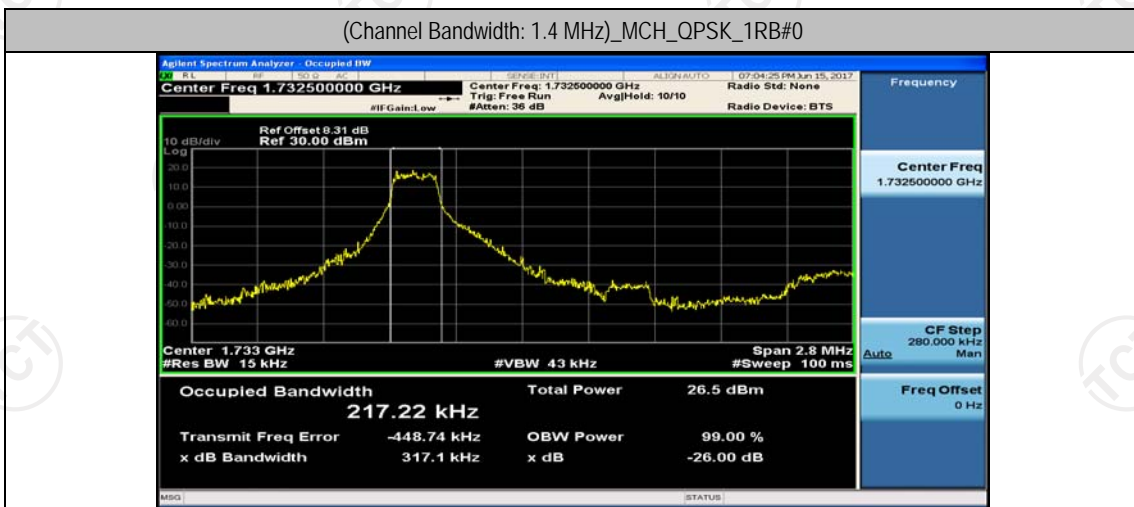
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#3
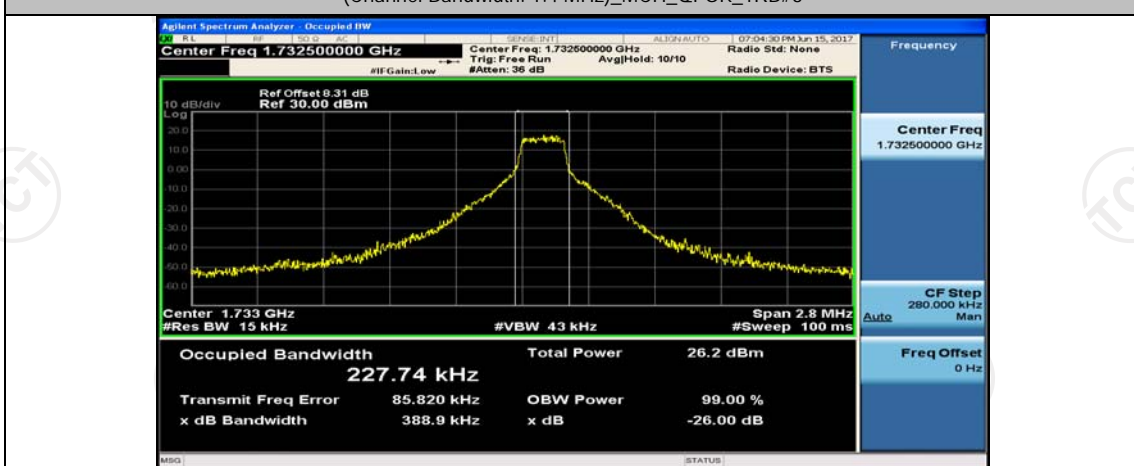
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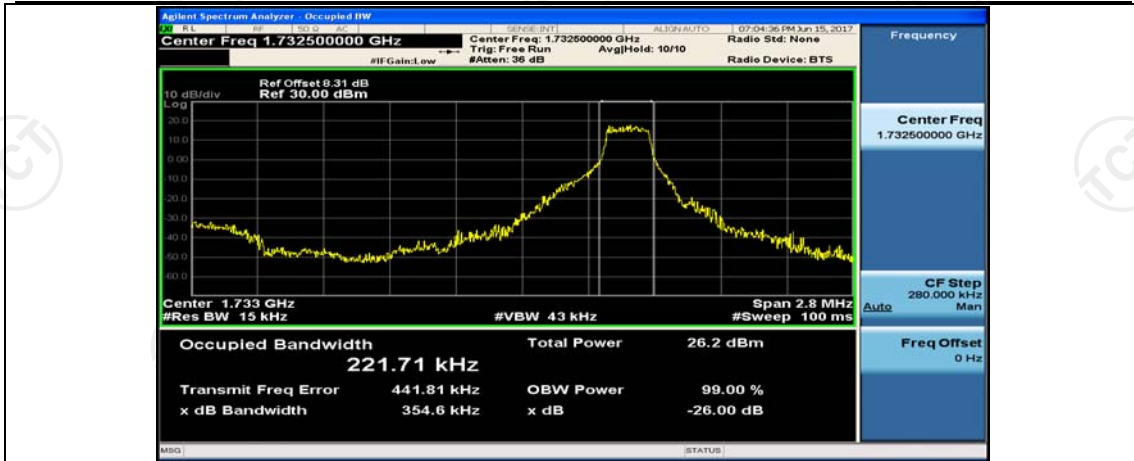
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_3RB#0
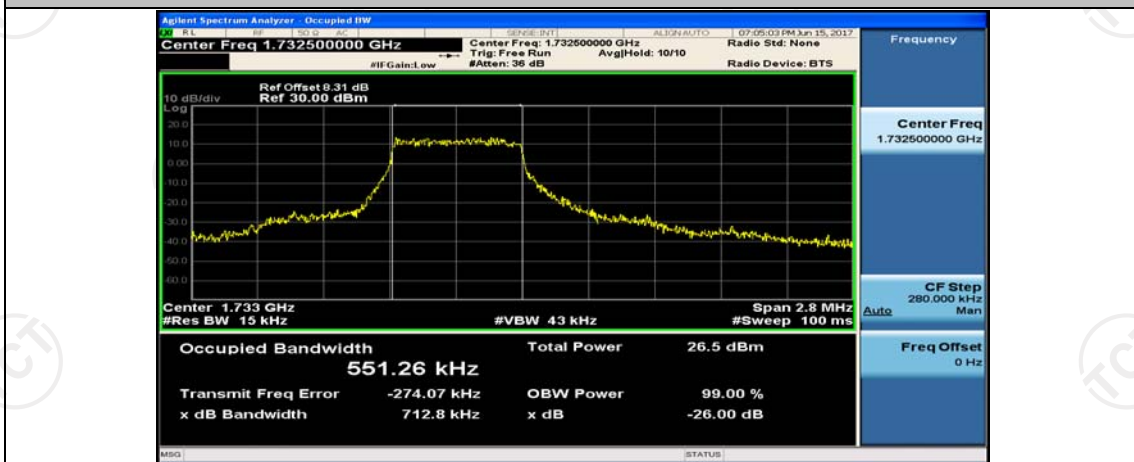
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_3RB#2
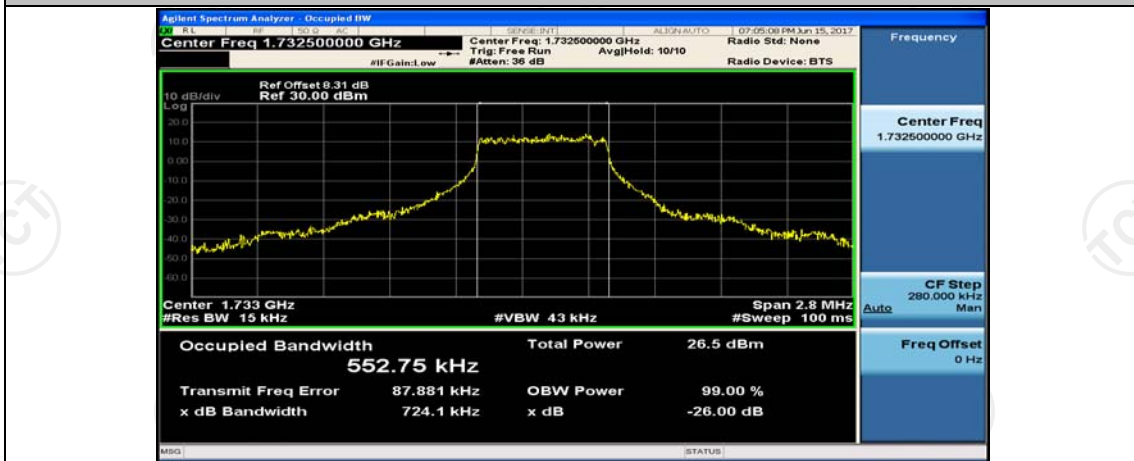
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_3RB#3
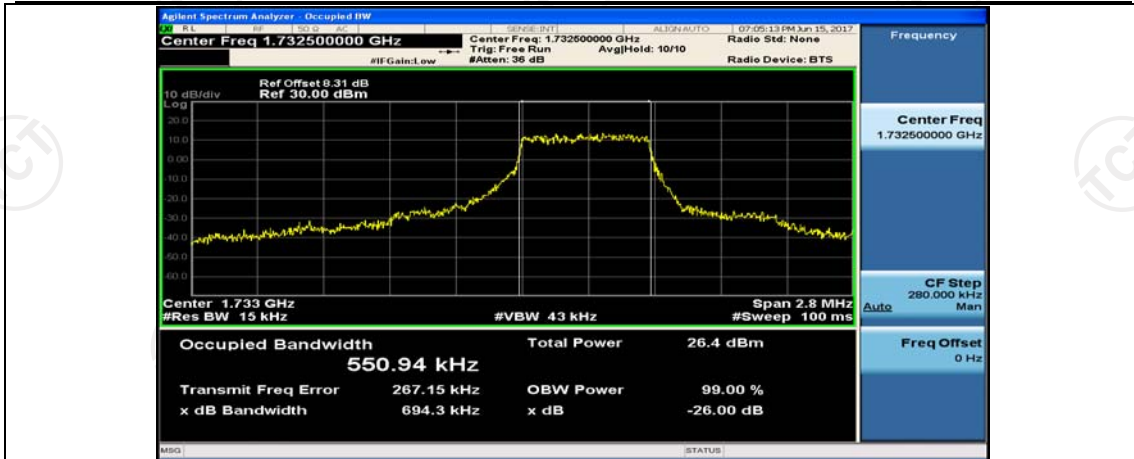
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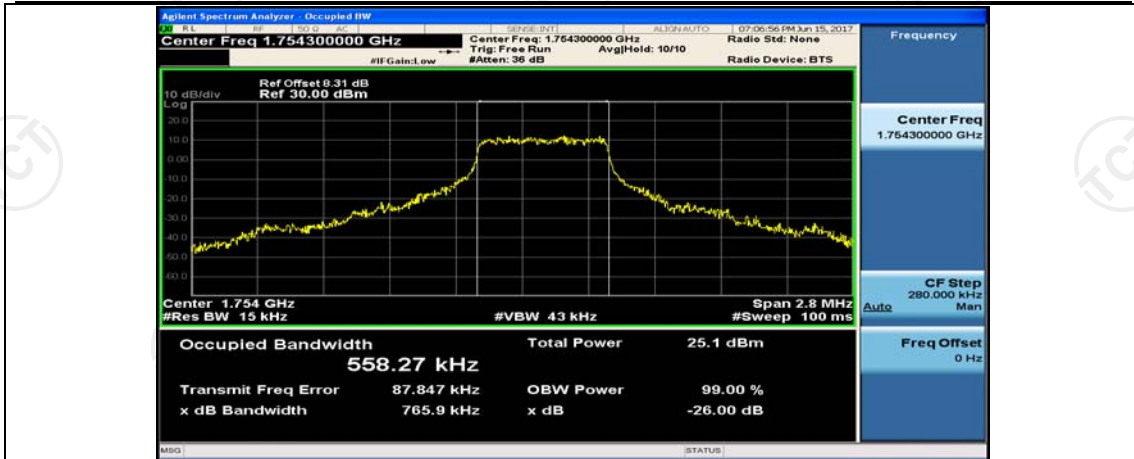| (Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0 |

| (Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#3 |
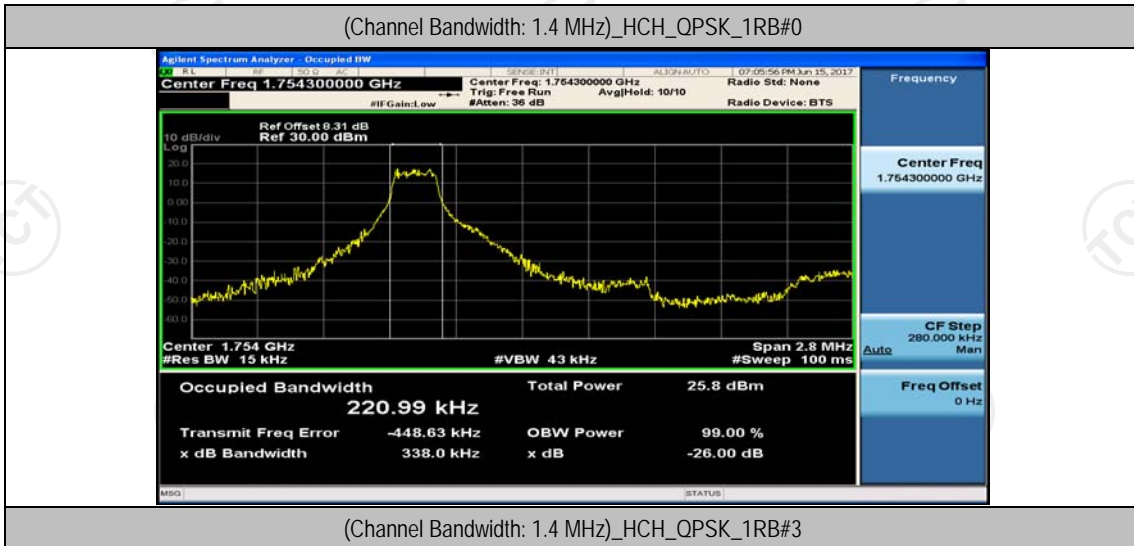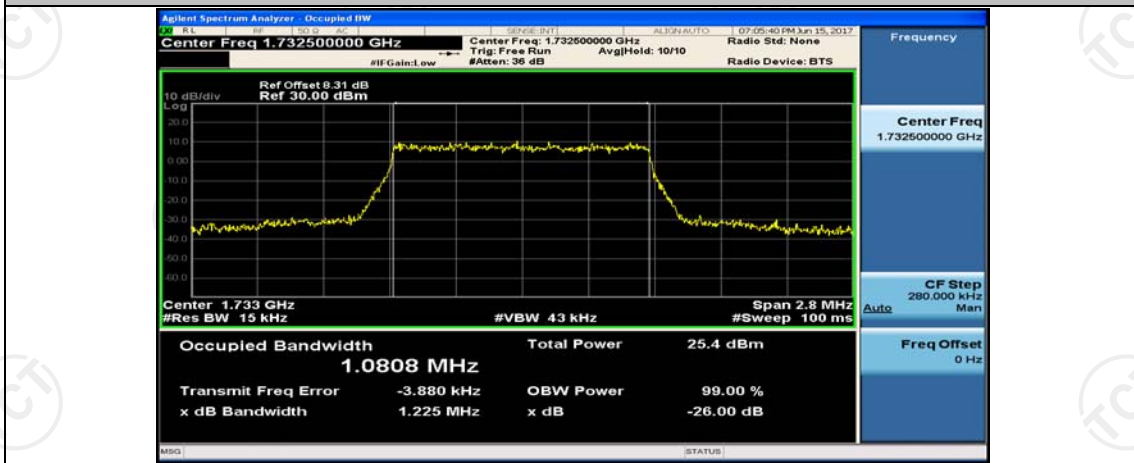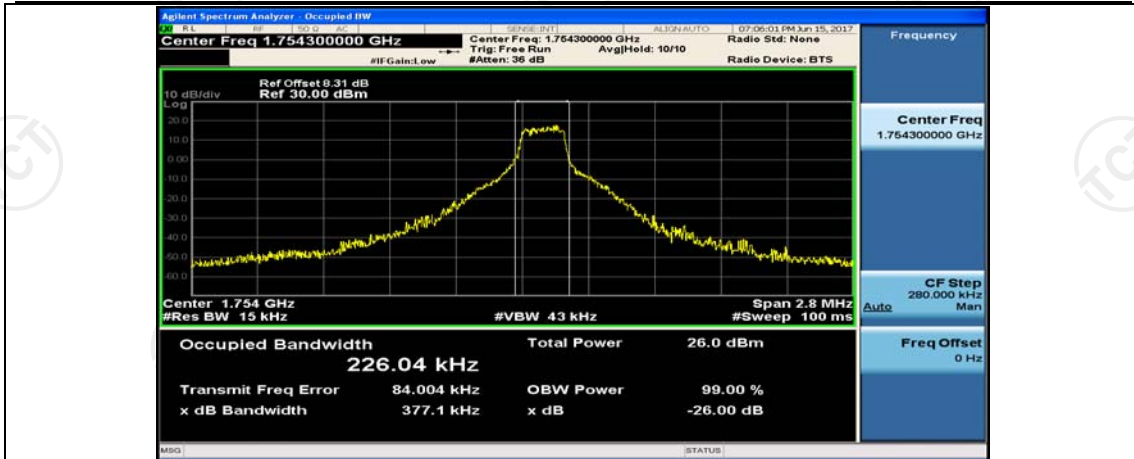
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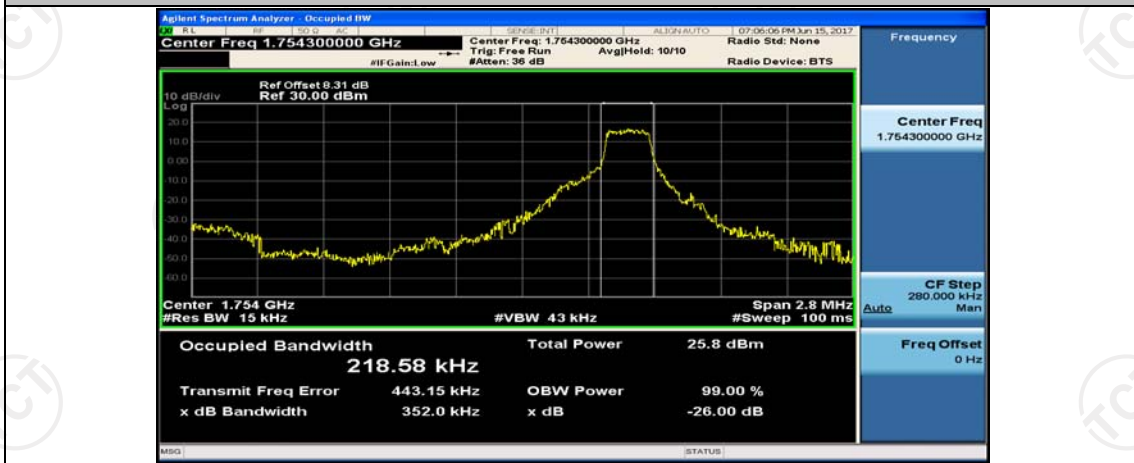
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_3RB#0
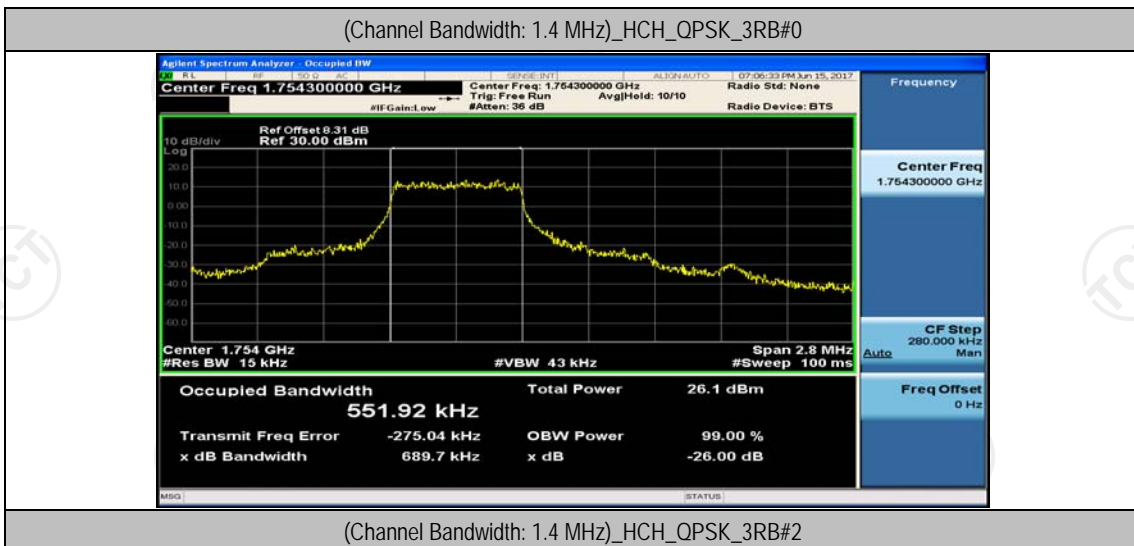
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_3RB#2
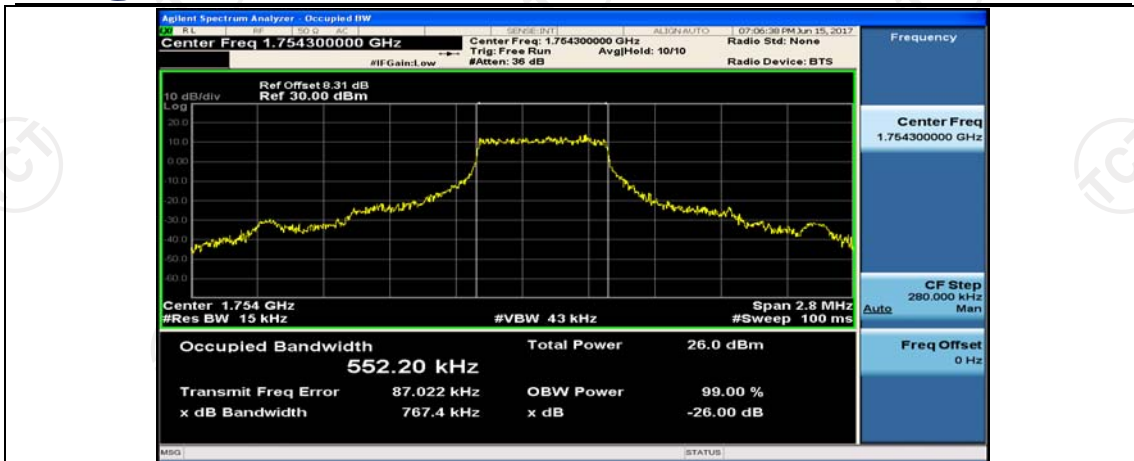
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_3RB#3
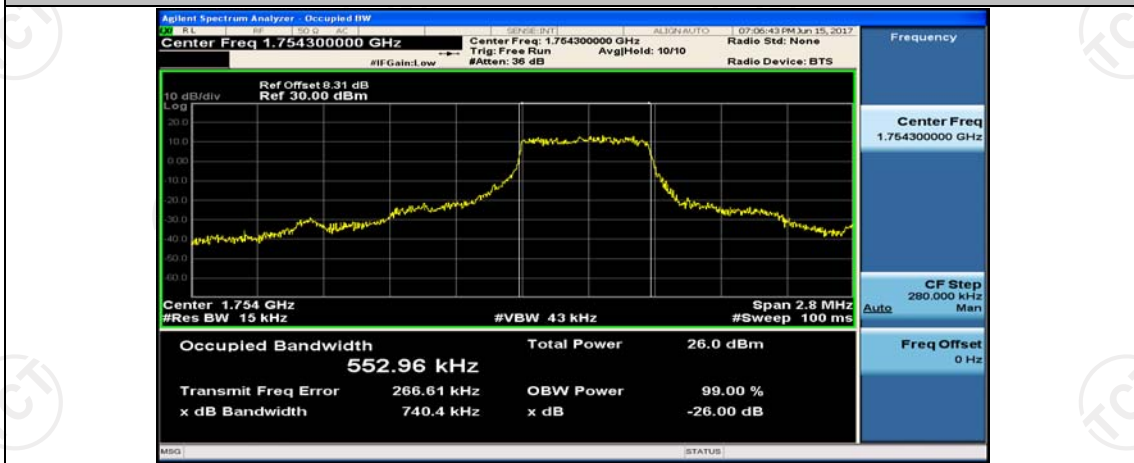
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_6RB#0
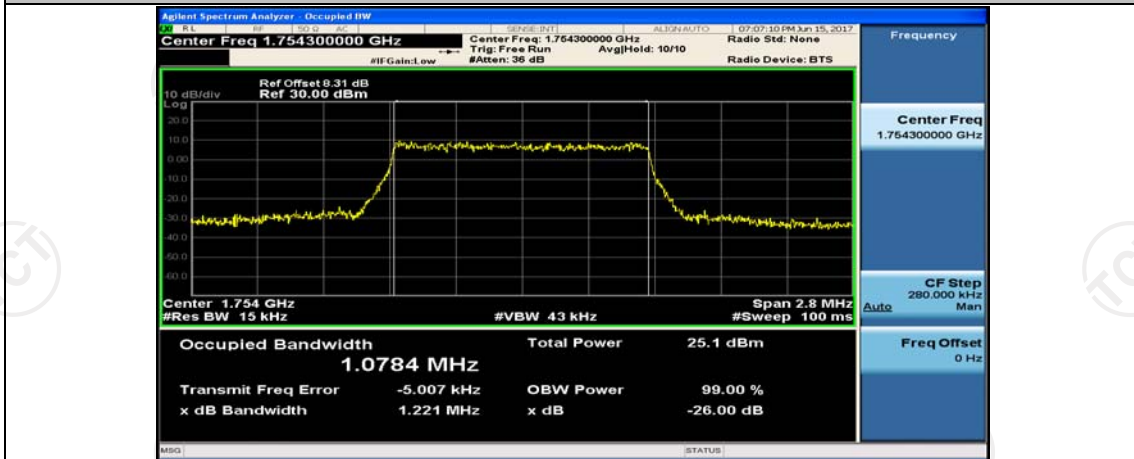
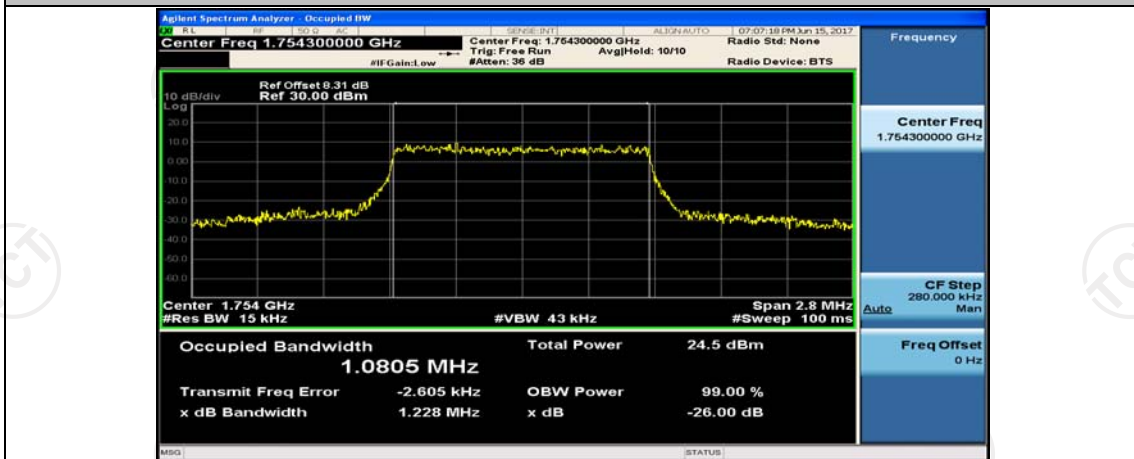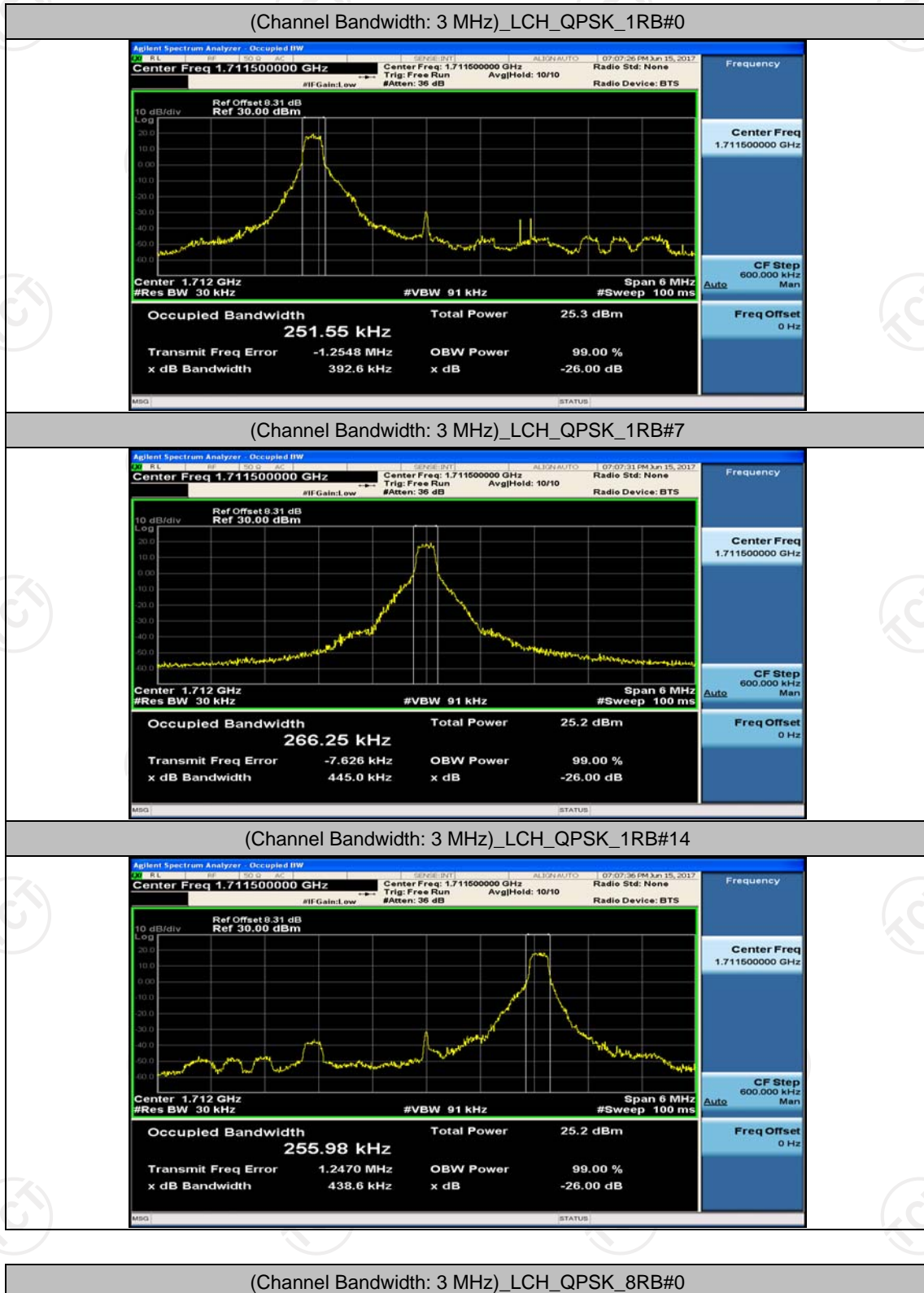| (Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0 |
|:---:|
| |
| (Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#3 |
| |
| (Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#5 |
| |
| (Channel Bandwidth: 1.4 MHz)_LCH_16QAM_3RB#0 |
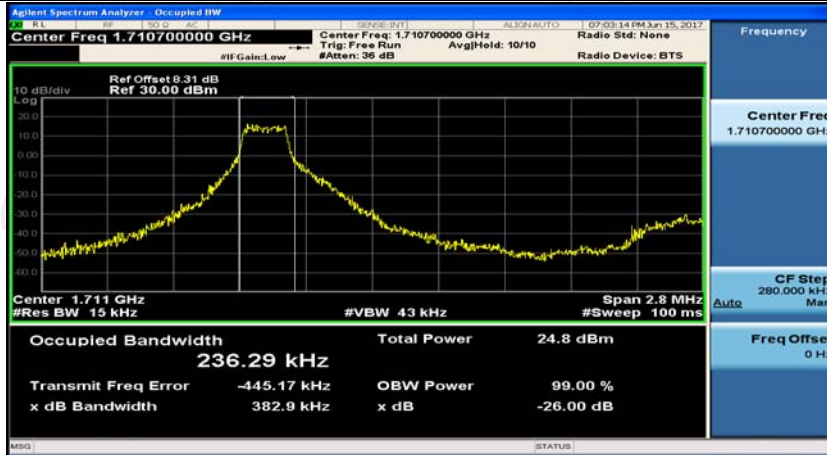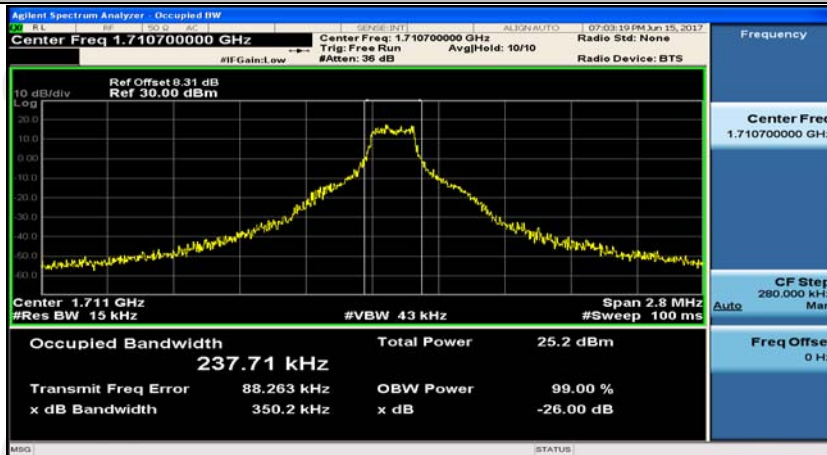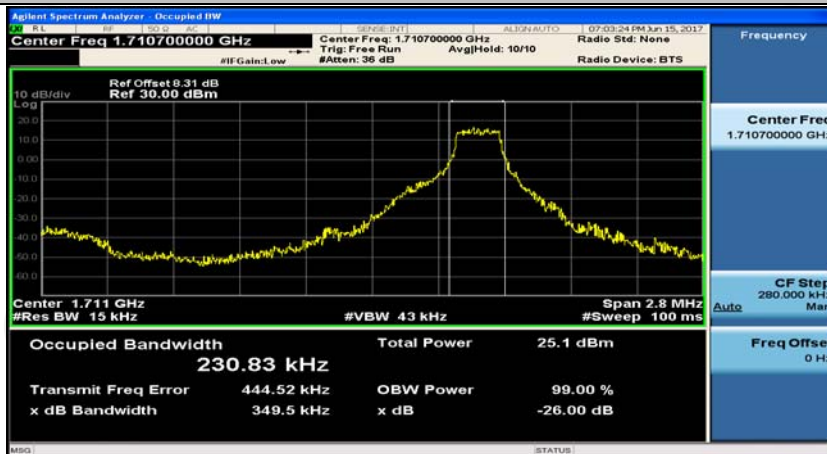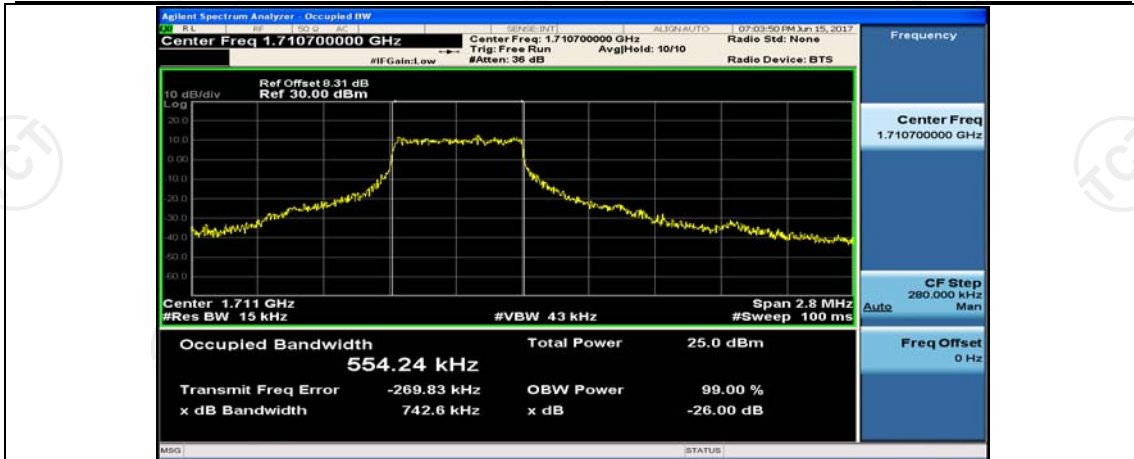
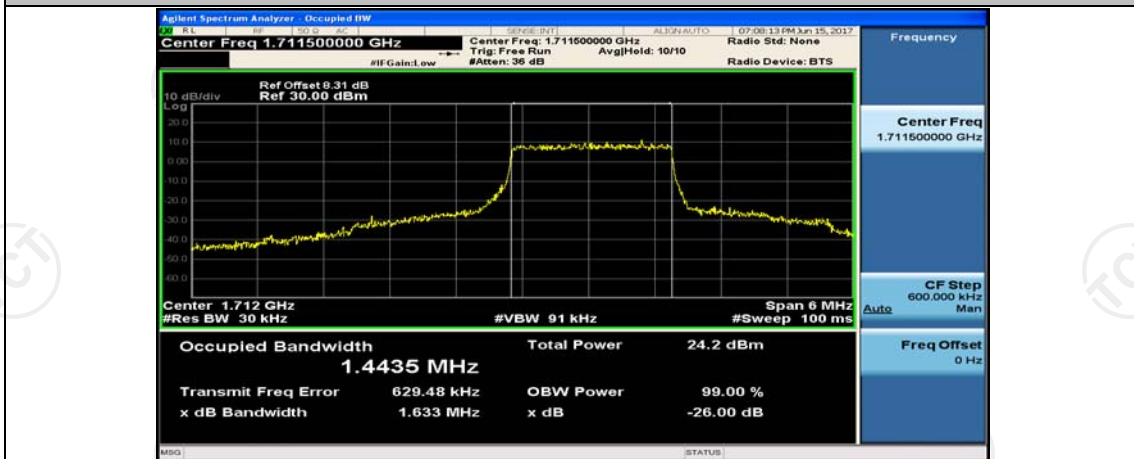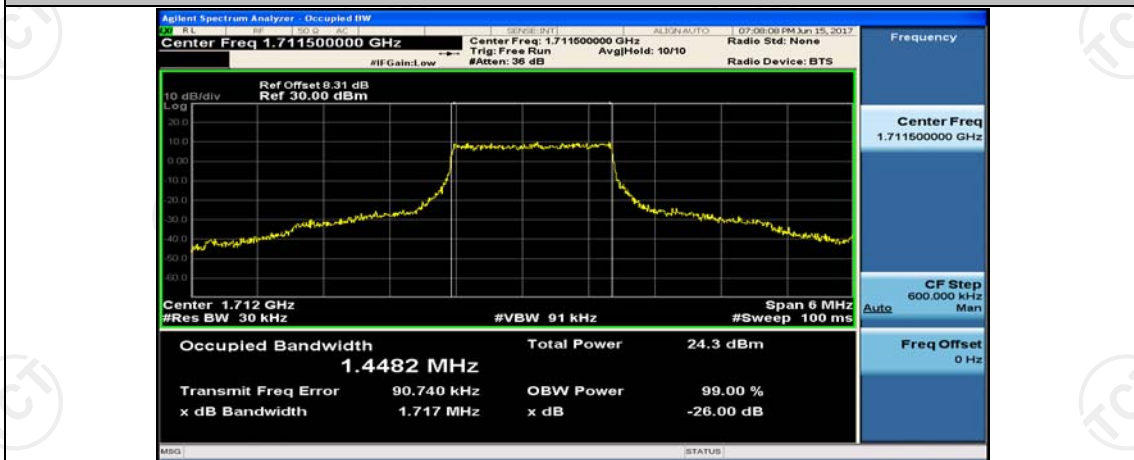(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_3RB#2
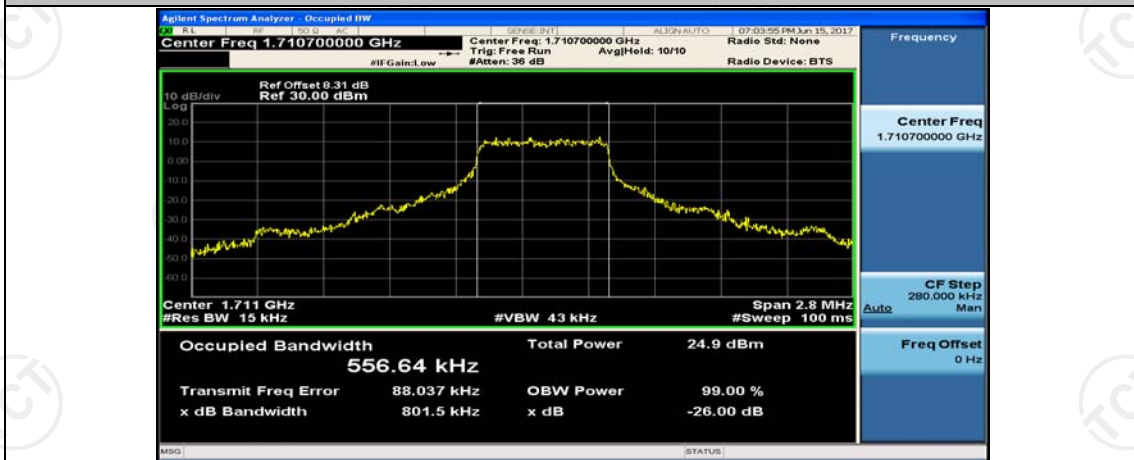
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_3RB#3
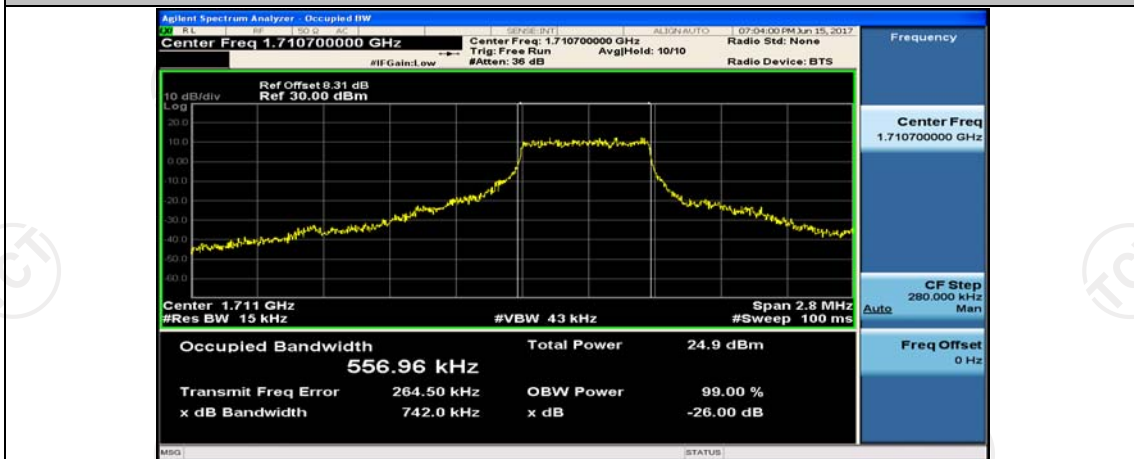
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_6RB#0
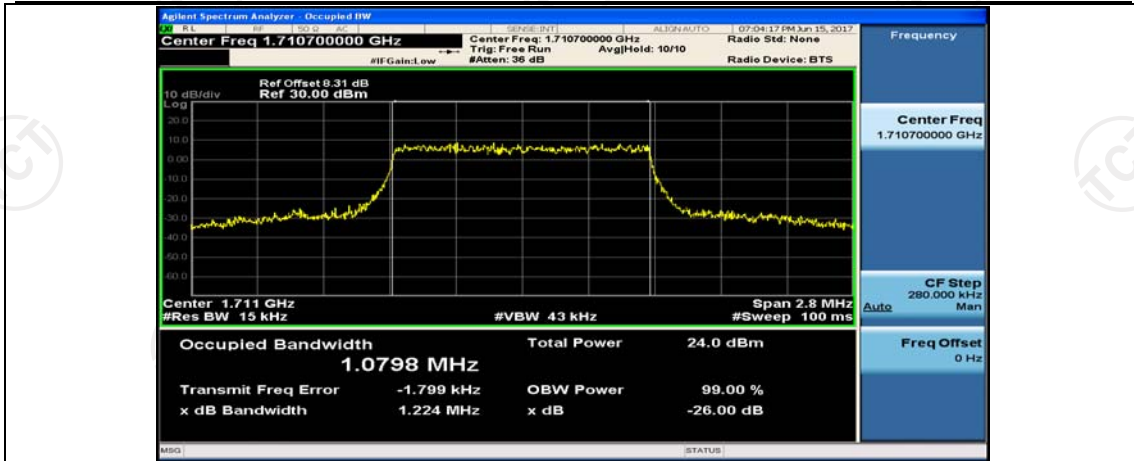
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#0
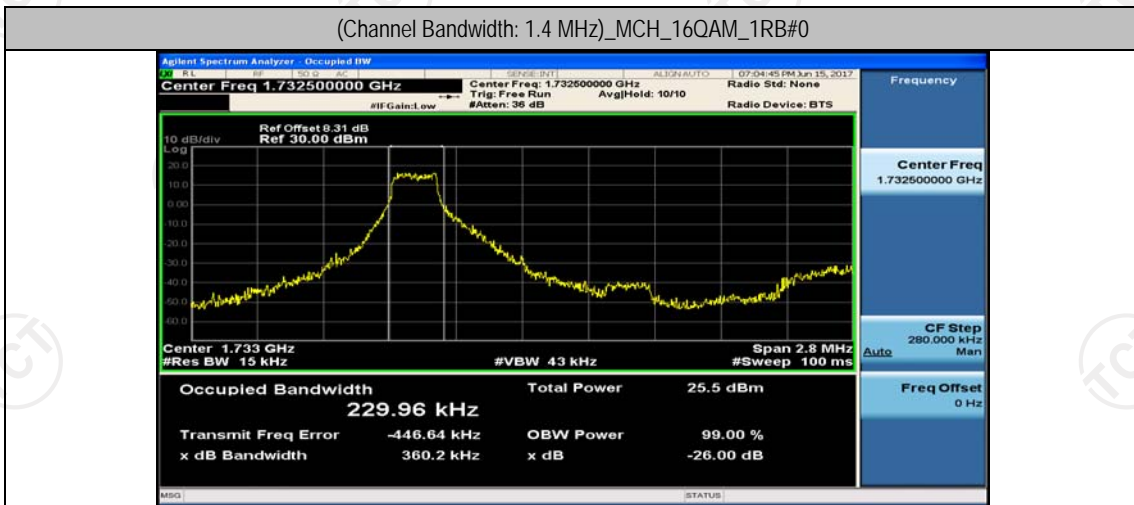
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#3
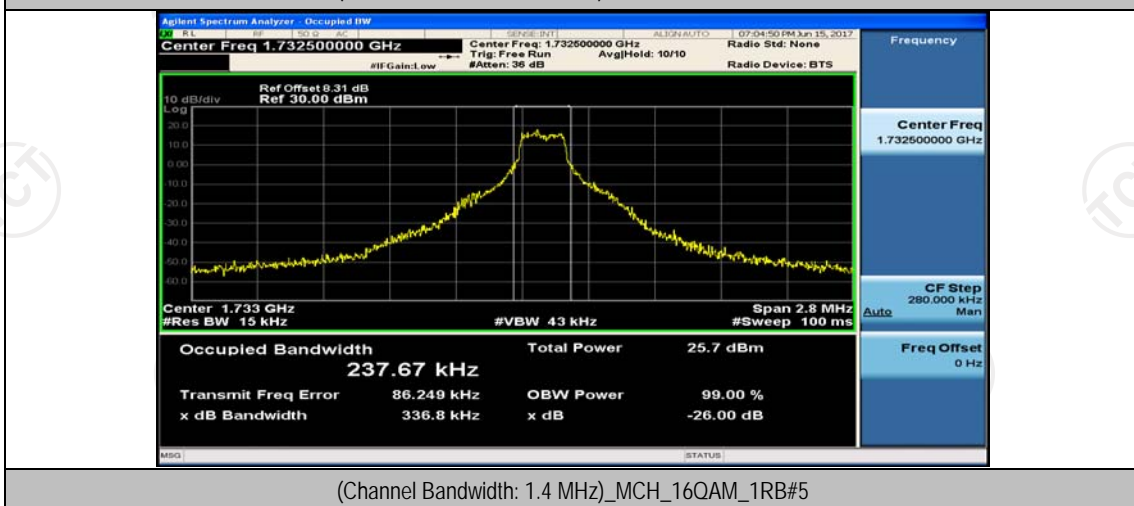
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#5
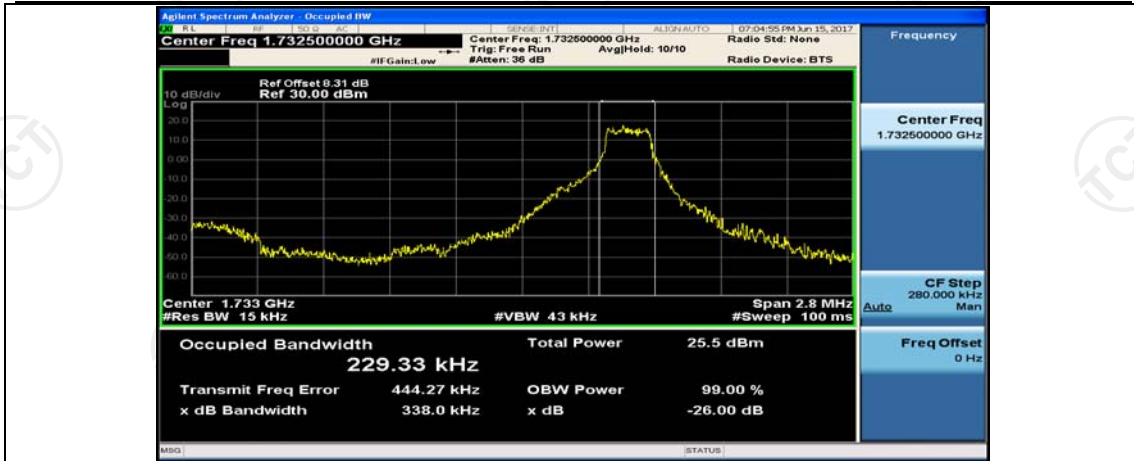
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_3RB#0	

(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_3RB#2	

(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_3RB#3

(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_6RB#0

(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#0
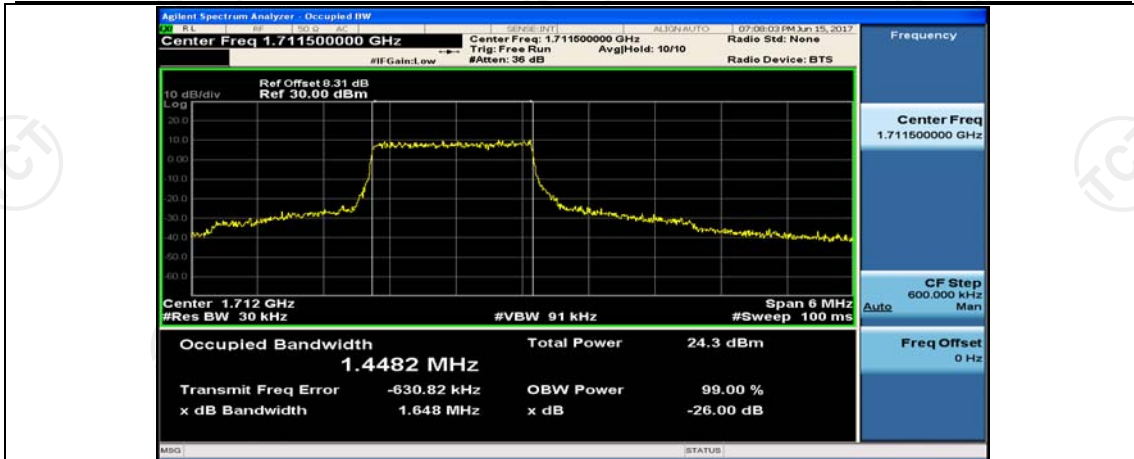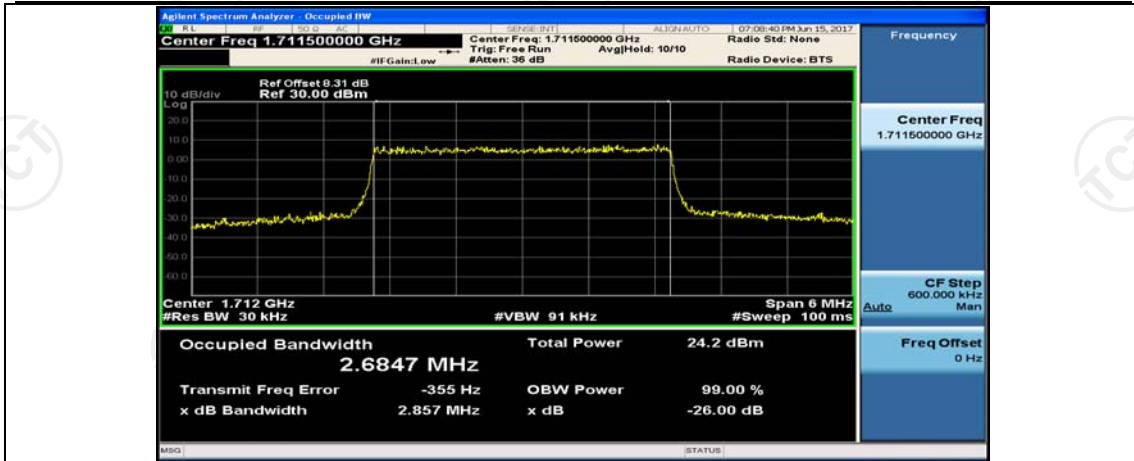

(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#3

(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5

(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_3RB#0

(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_3RB#2

(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_3RB#3

(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_6RB#0

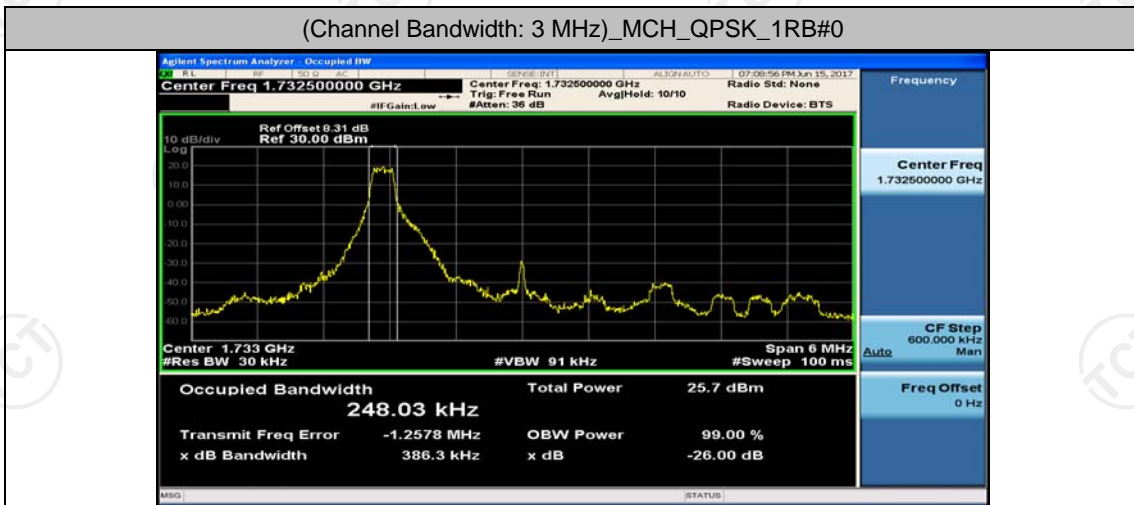## Channel Bandwidth: 3 MHz

(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0

(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#7

(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#14

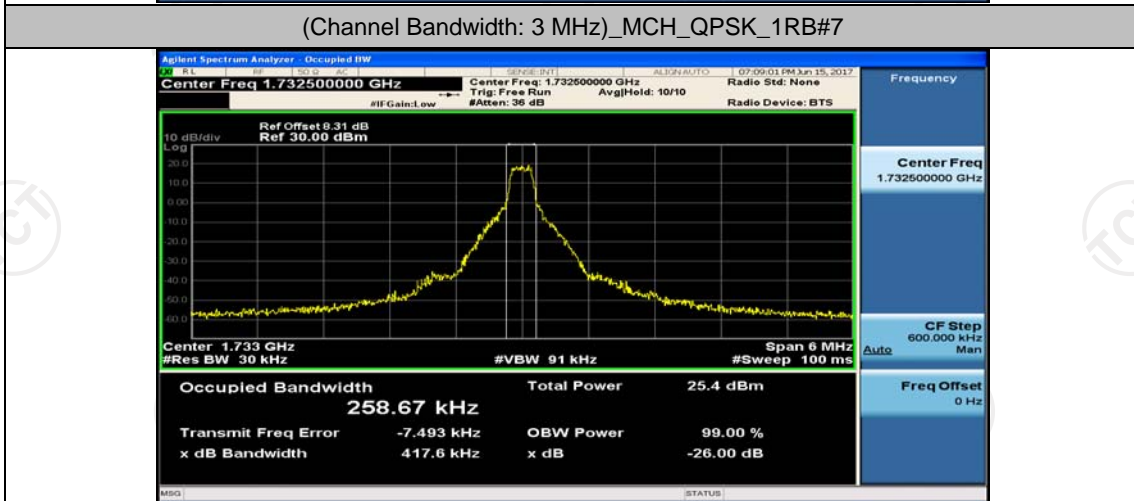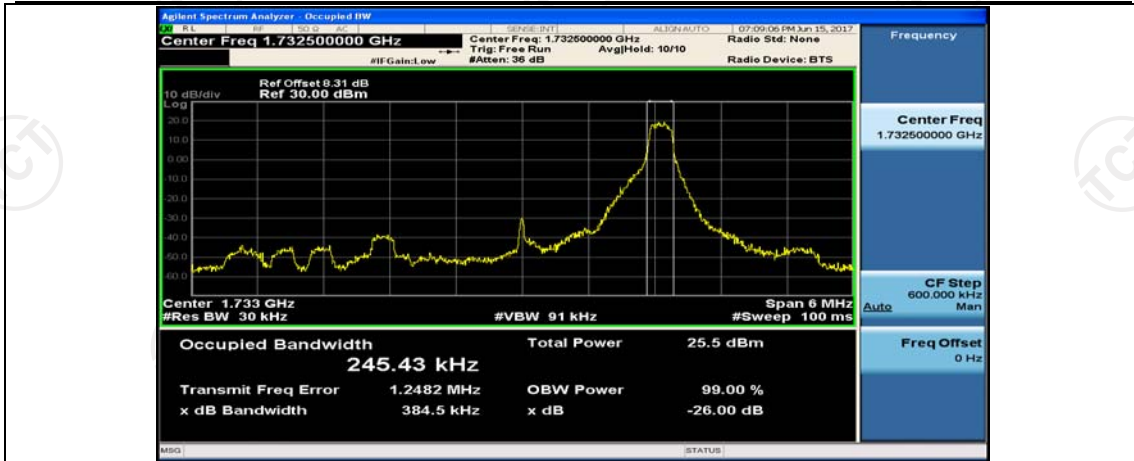| (Channel Bandwidth: 3 MHz)_LCH_QPSK_8RB#0 |
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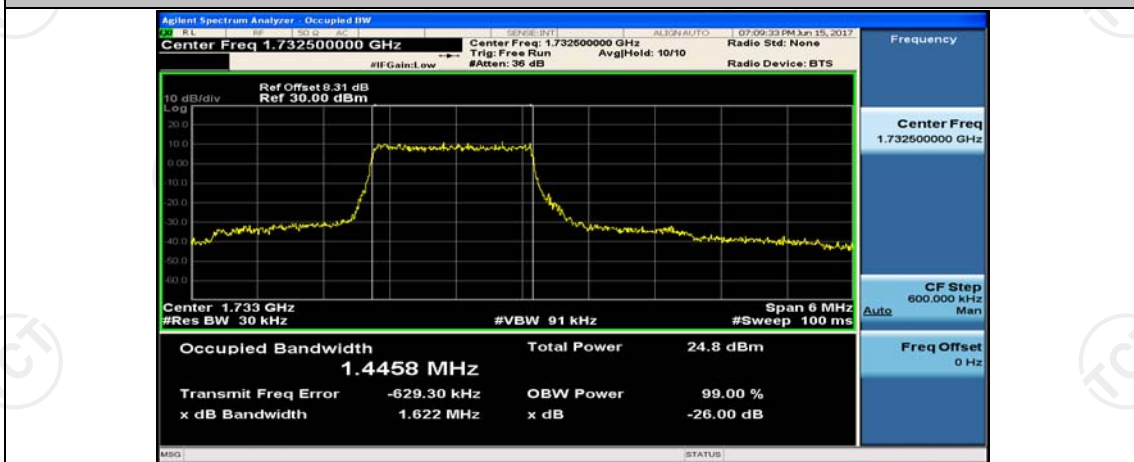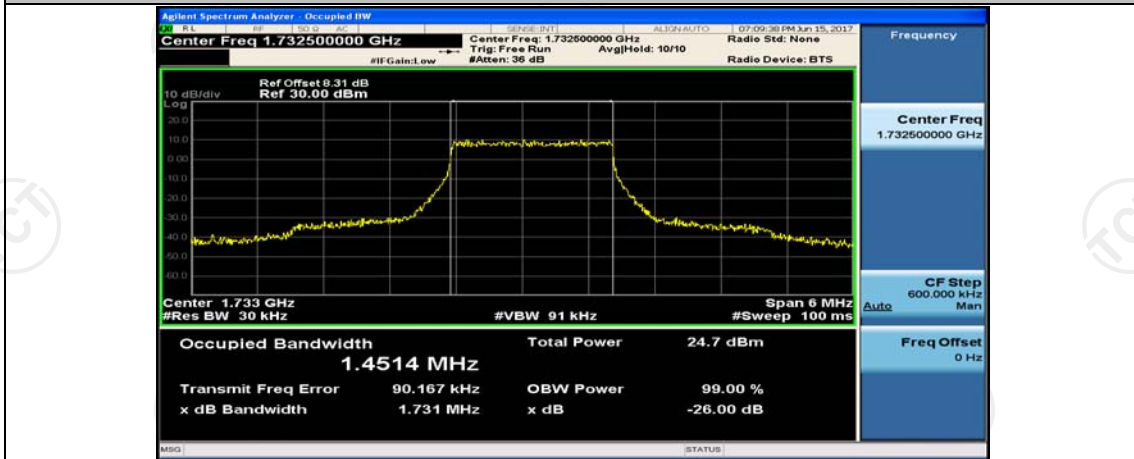(Channel Bandwidth: 3 MHz)_LCH_QPSK_8RB#4

(Channel Bandwidth: 3 MHz)_LCH_QPSK_8RB#7

(Channel Bandwidth: 3 MHz)_LCH_QPSK_15RB#0

(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0

(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#7

(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#14

(Channel Bandwidth: 3 MHz)_MCH_QPSK_8RB#0

(Channel Bandwidth: 3 MHz)_MCH_QPSK_8RB#4

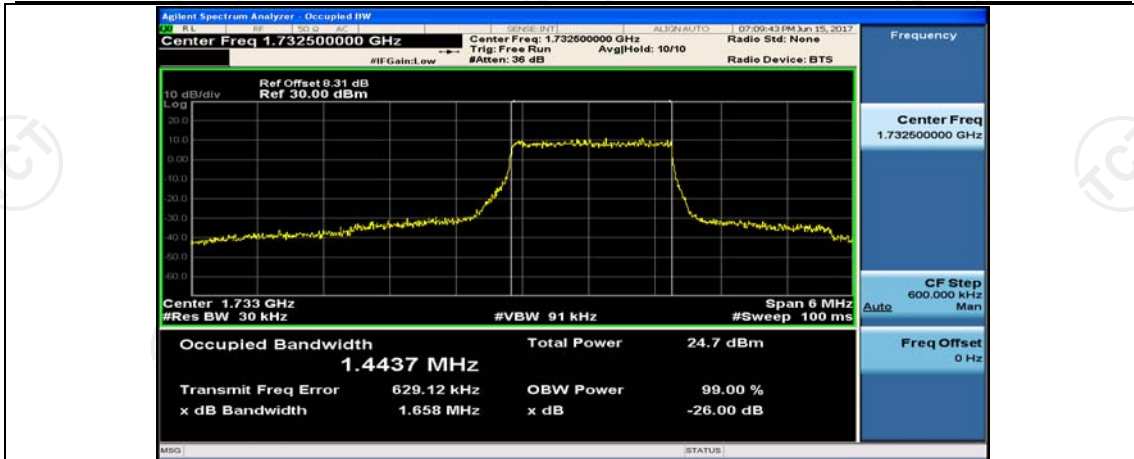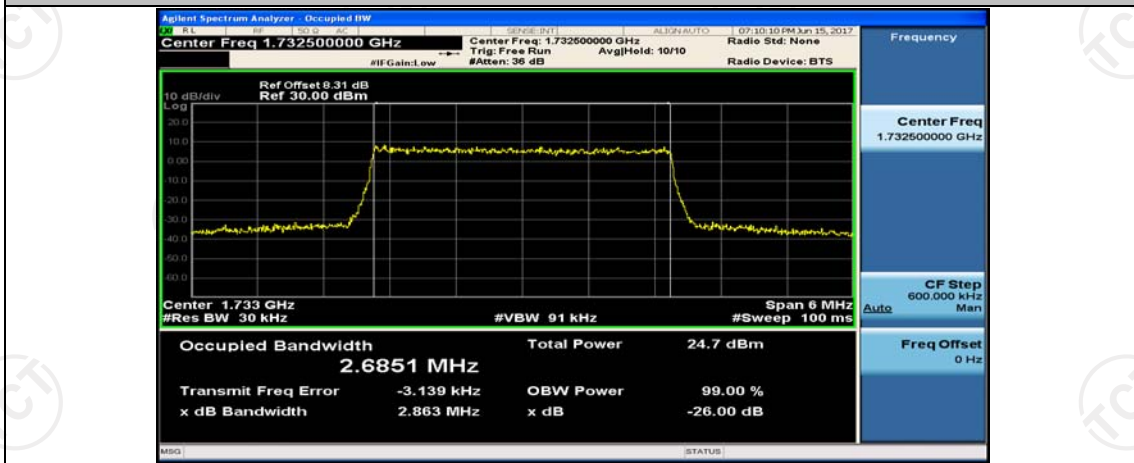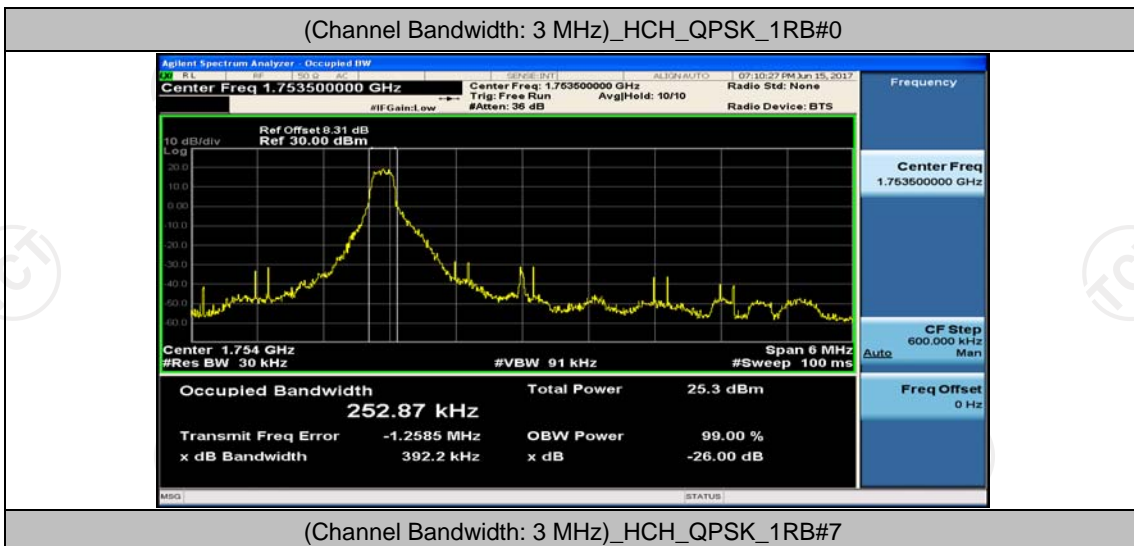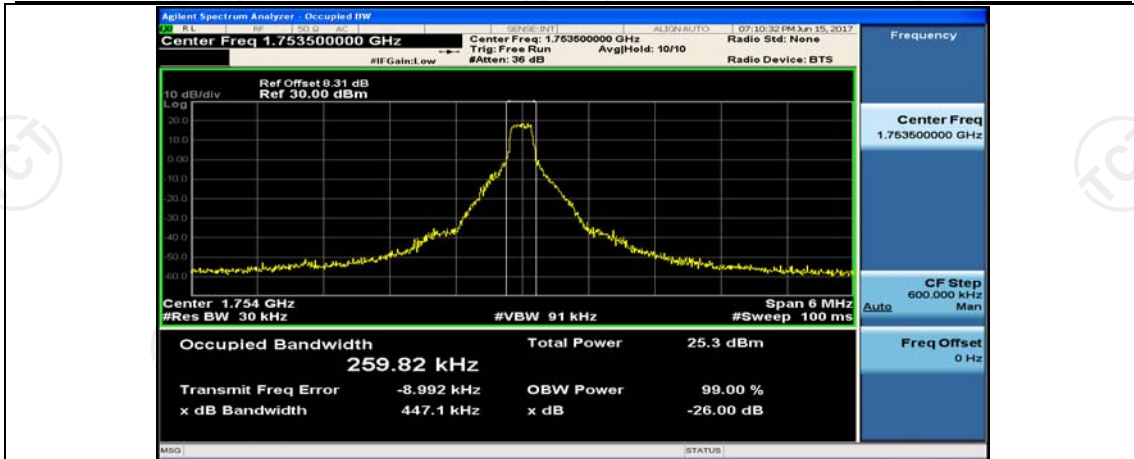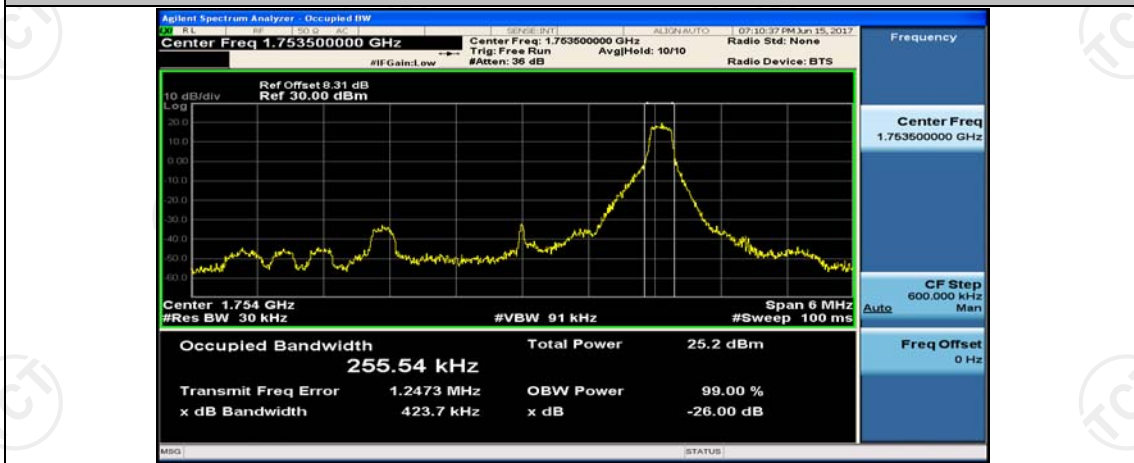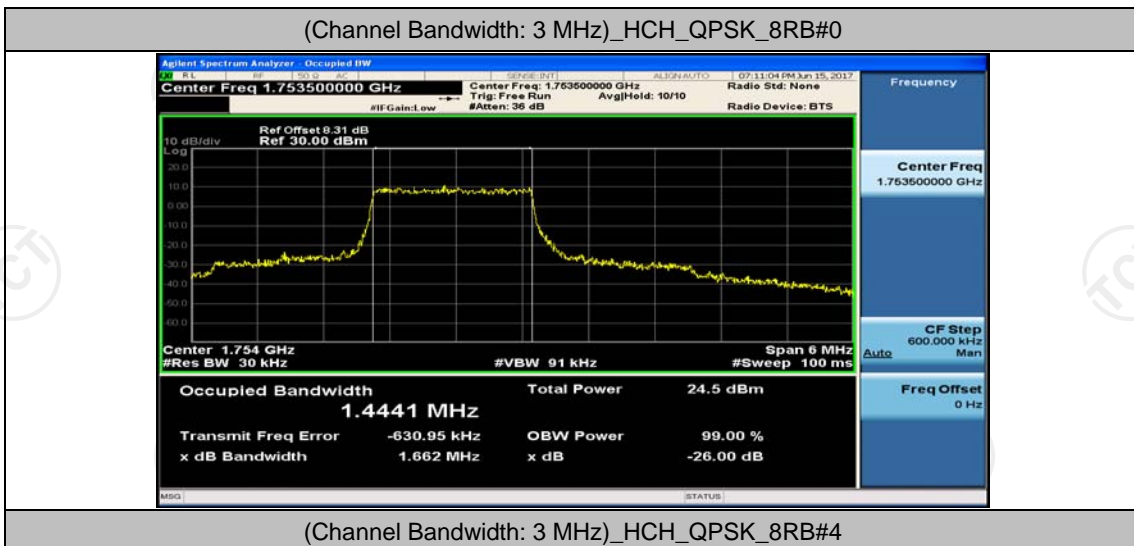| (Channel Bandwidth: 3 MHz)_MCH_QPSK_8RB#7 |
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(Channel Bandwidth: 3 MHz)_MCH_QPSK_15RB#0

(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0

(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#7

Agilent Spectrum Analyzer - Occupied BW
Center Freq 1.753500000 GHz | Center Freq: 1.753500000 GHz | ALIGN AUTO | 07:10:32 PM Jun 15, 2017
Trig: Free Run | Avg|Hold: 10/10 | Radio Std: None
#IF Gain:Low | #Atten: 36 dB | Radio Device: BTS

Ref Offset 8.31 dB
Ref 30.00 dBm
10 dB/div
Log

Center 1.754 GHz | Span 6 MHz
#Res BW 30 kHz | #VBW 91 kHz | #Sweep 100 ms

Occupied Bandwidth	Total Power	25.3 dBm
259.82 kHz		
Transmit Freq Error	-8.992 kHz	OBW Power	99.00 %
x dB Bandwidth	447.1 kHz	x dB	-26.00 dB

(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#14

Agilent Spectrum Analyzer - Occupied BW
Center Freq 1.753500000 GHz | Center Freq: 1.753500000 GHz | ALIGN AUTO | 07:10:37 PM Jun 15, 2017
Trig: Free Run | Avg|Hold: 10/10 | Radio Std: None
#IF Gain:Low | #Atten: 36 dB | Radio Device: BTS

Ref Offset 8.31 dB
Ref 30.00 dBm
10 dB/div
Log

Center 1.754 GHz | Span 6 MHz
#Res BW 30 kHz | #VBW 91 kHz | #Sweep 100 ms

Occupied Bandwidth	Total Power	25.2 dBm
255.54 kHz		
Transmit Freq Error	1.2473 MHz	OBW Power	99.00 %
x dB Bandwidth	423.7 kHz	x dB	-26.00 dB

(Channel Bandwidth: 3 MHz)_HCH_QPSK_8RB#0

Agilent Spectrum Analyzer - Occupied BW
Center Freq 1.753500000 GHz | Center Freq: 1.753500000 GHz | ALIGN AUTO | 07:11:04 PM Jun 15, 2017
Trig: Free Run | Avg|Hold: 10/10 | Radio Std: None
#IF Gain:Low | #Atten: 36 dB | Radio Device: BTS

Ref Offset 8.31 dB
Ref 30.00 dBm
10 dB/div
Log

Center 1.754 GHz | Span 6 MHz
#Res BW 30 kHz | #VBW 91 kHz | #Sweep 100 ms

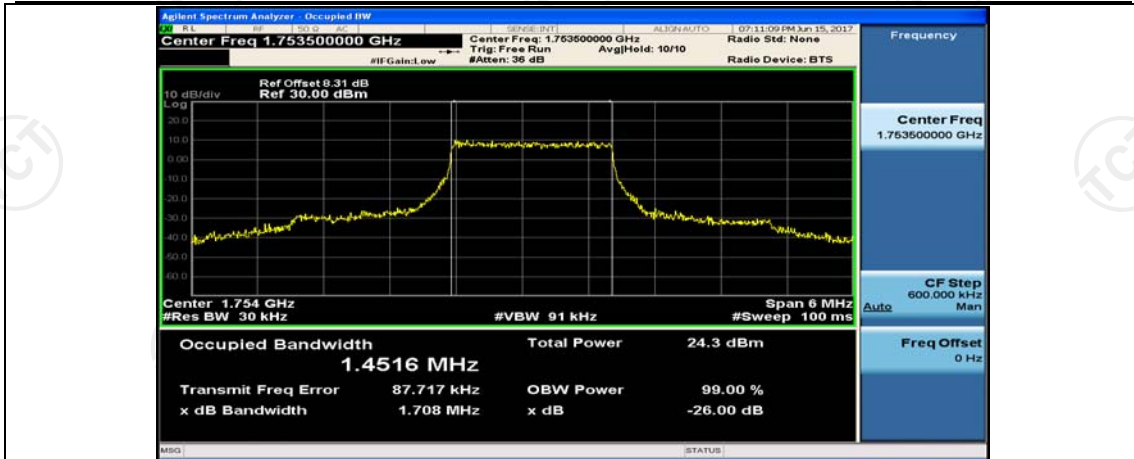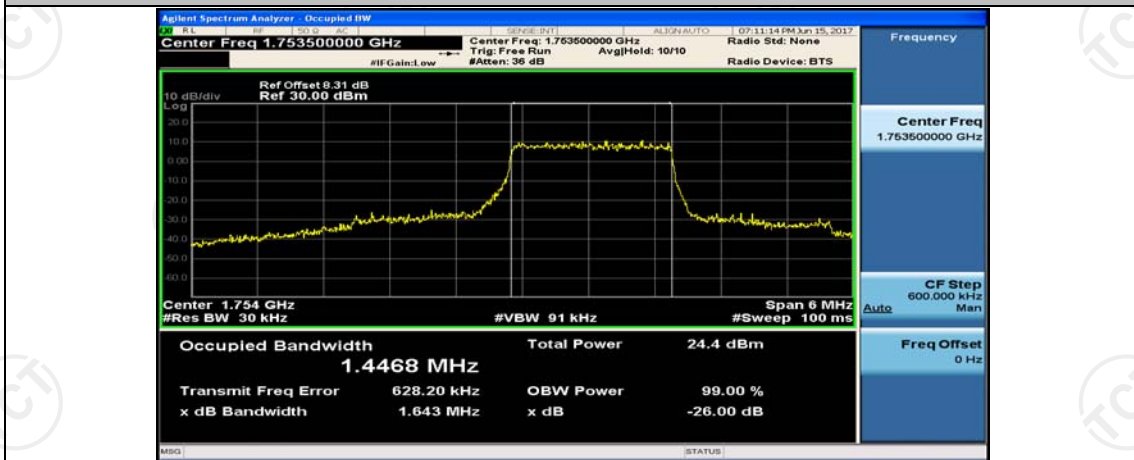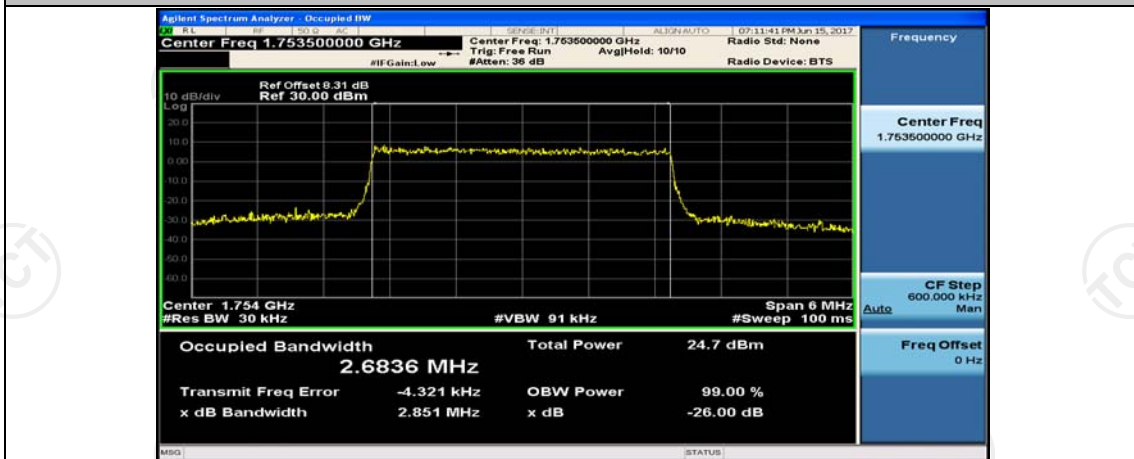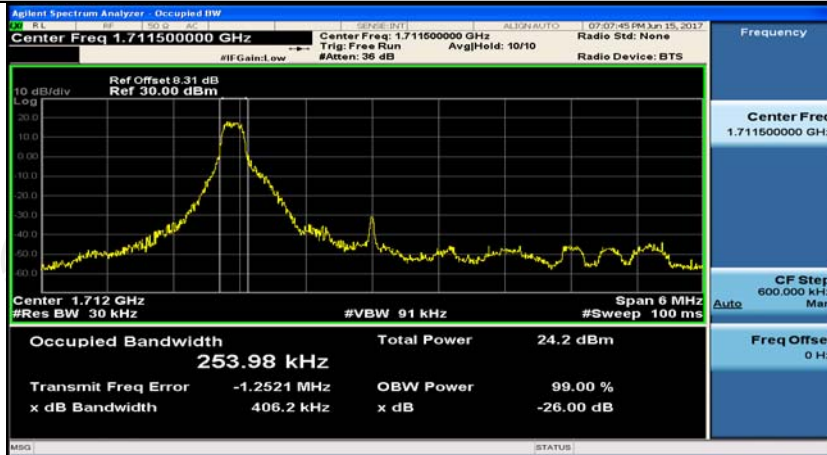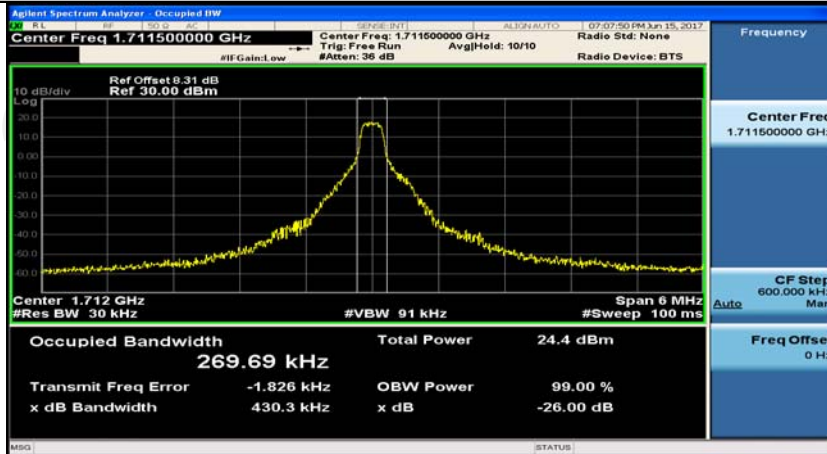| Occupied Bandwidth | Total Power | 24.5 dBm |
1.4441 MHz		
Transmit Freq Error	-630.95 kHz	OBW Power	99.00 %
x dB Bandwidth	1.662 MHz	x dB	-26.00 dB

(Channel Bandwidth: 3 MHz)_HCH_QPSK_8RB#4

(Channel Bandwidth: 3 MHz)_HCH_QPSK_8RB#7

(Channel Bandwidth: 3 MHz)_HCH_QPSK_15RB#0

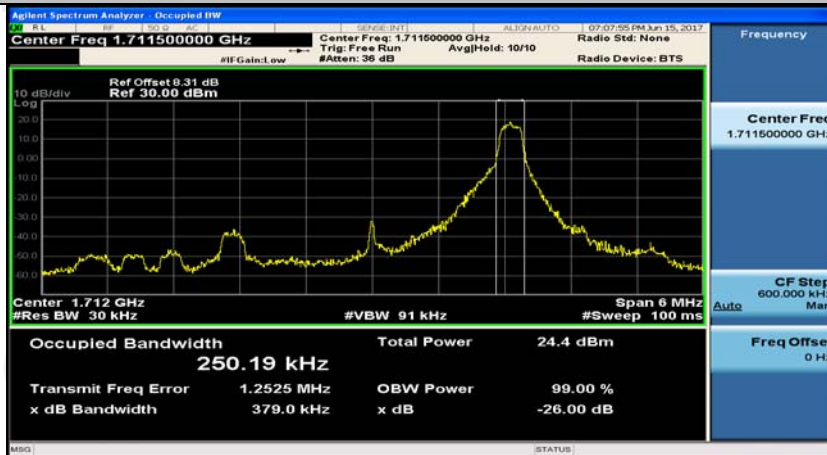| (Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#0 |
|---|

(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#7

(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#14

(Channel Bandwidth: 3 MHz)_LCH_16QAM_8RB#0