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	1.0788	1.278	PASS
	MCH	6	0	1.0779	1.219	PASS
	HCH	6	0	1.0828	1.337	PASS
16QAM	LCH	6	0	1.0821	1.236	PASS
	MCH	6	0	1.0822	1.236	PASS
	HCH	6	0	1.0803	1.258	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	15	0	2.6890	2.885	PASS
	MCH	15	0	2.6813	2.873	PASS
	HCH	15	0	2.6884	3.247	PASS
16QAM	LCH	15	0	2.6841	2.889	PASS
	MCH	15	0	2.6862	2.900	PASS
	HCH	15	0	2.6926	2.899	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	4.4893	4.876	PASS
	MCH	25	0	4.4889	4.839	PASS
	HCH	25	0	4.4897	4.950	PASS
16QAM	LCH	25	0	4.4827	4.851	PASS
	MCH	25	0	4.4803	4.839	PASS
	HCH	25	0	4.4912	4.871	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	8.9568	9.668	PASS
	MCH	50	0	8.9458	9.508	PASS
	HCH	50	0	8.9491	10.10	PASS
16QAM	LCH	50	0	8.9455	9.575	PASS
	MCH	50	0	8.9322	9.500	PASS
	HCH	50	0	8.9555	9.570	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	13.442	14.46	PASS
	MCH	75	0	13.410	14.16	PASS
	HCH	75	0	13.436	17.72	PASS
16QAM	LCH	75	0	13.433	14.19	PASS
	MCH	75	0	13.412	14.01	PASS
	HCH	75	0	13.418	14.16	PASS

Channel Bandwidth: 20 MHz

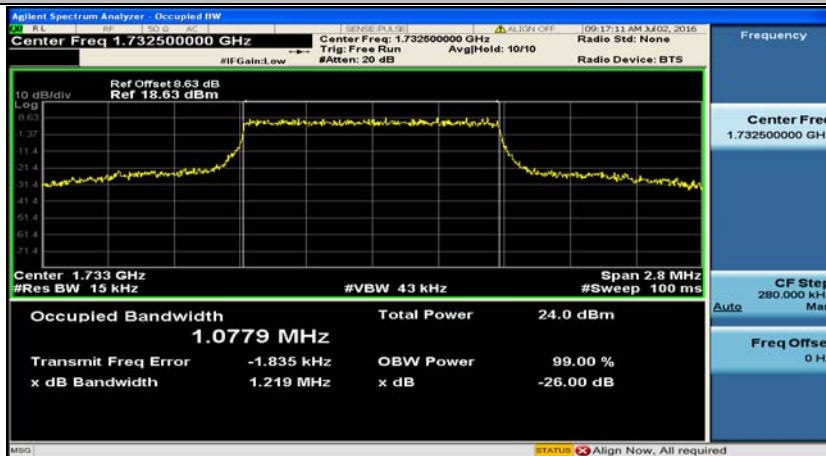| Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	100	0	17.880	18.81	PASS
	MCH	100	0	17.860	18.70	PASS
	HCH	100	0	17.908	19.16	PASS
16QAM	LCH	100	0	17.873	18.63	PASS
	MCH	100	0	17.851	18.59	PASS
	HCH	100	0	17.892	18.73	PASS

Test Graphs

Channel Bandwidth: 1.4 MHz

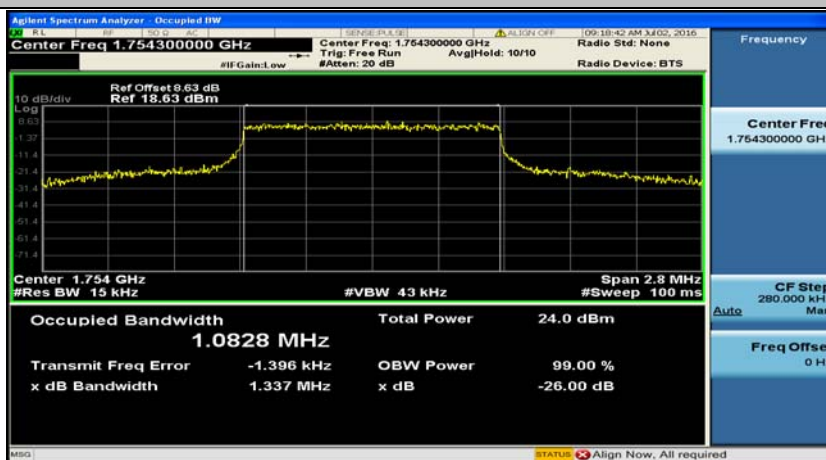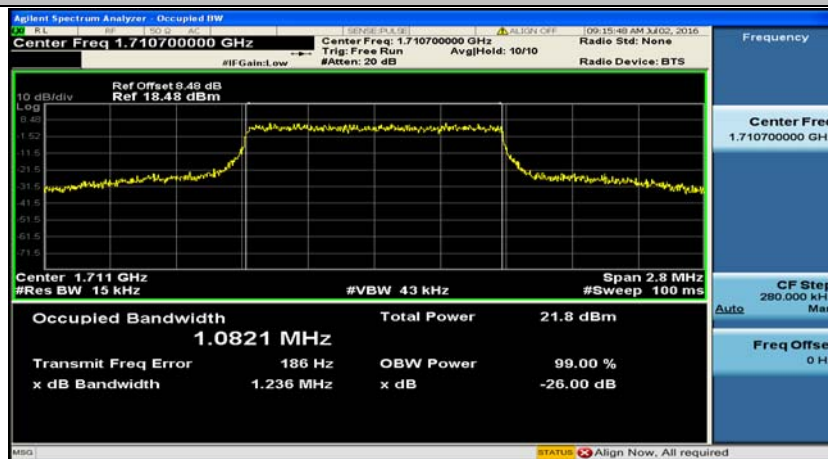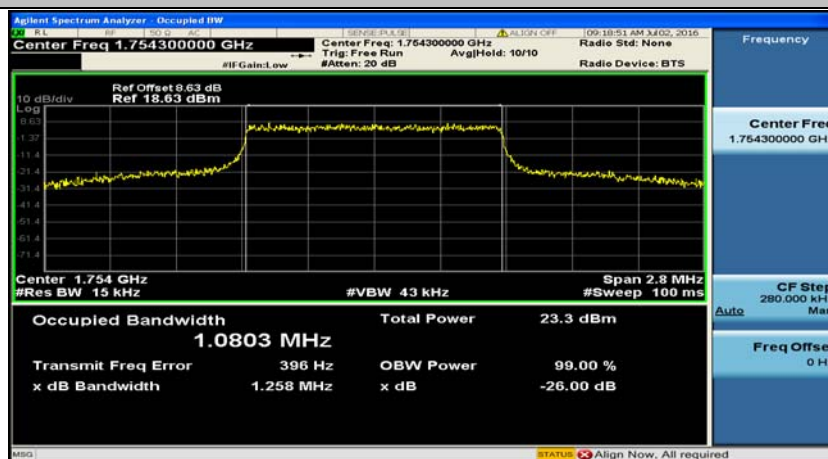| (Channel Bandwidth: 1.4 MHz)_LCH_QPSK_6RB#0 |
|---|
| |
| (Channel Bandwidth: 1.4 MHz)_MCH_QPSK_6RB#0 |
| |
| (Channel Bandwidth: 1.4 MHz)_HCH_QPSK_6RB#0 |
| |
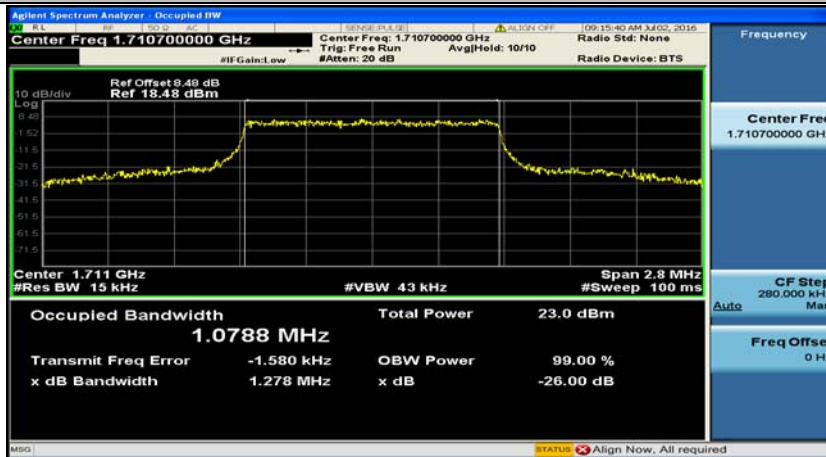
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_6RB#0
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_6RB#0
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_6RB#0
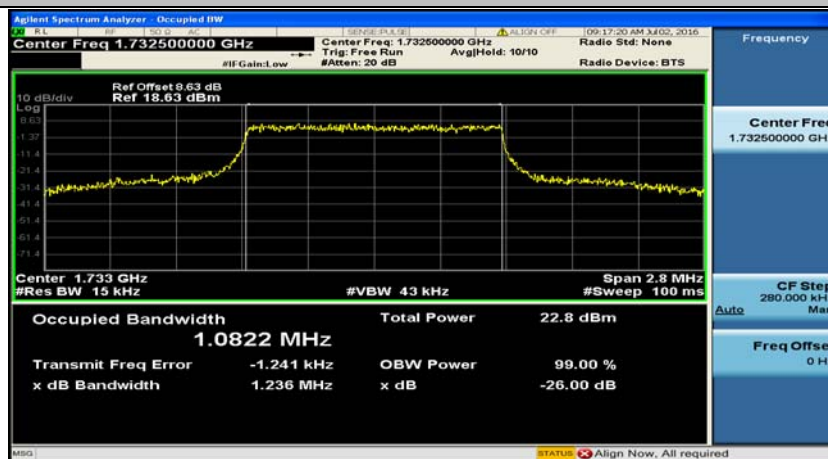
Channel Bandwidth: 3 MHz

(Channel Bandwidth: 3 MHz)_LCH_QPSK_15RB#0

(Channel Bandwidth: 3 MHz)_MCH_QPSK_15RB#0

(Channel Bandwidth: 3 MHz)_HCH_QPSK_15RB#0
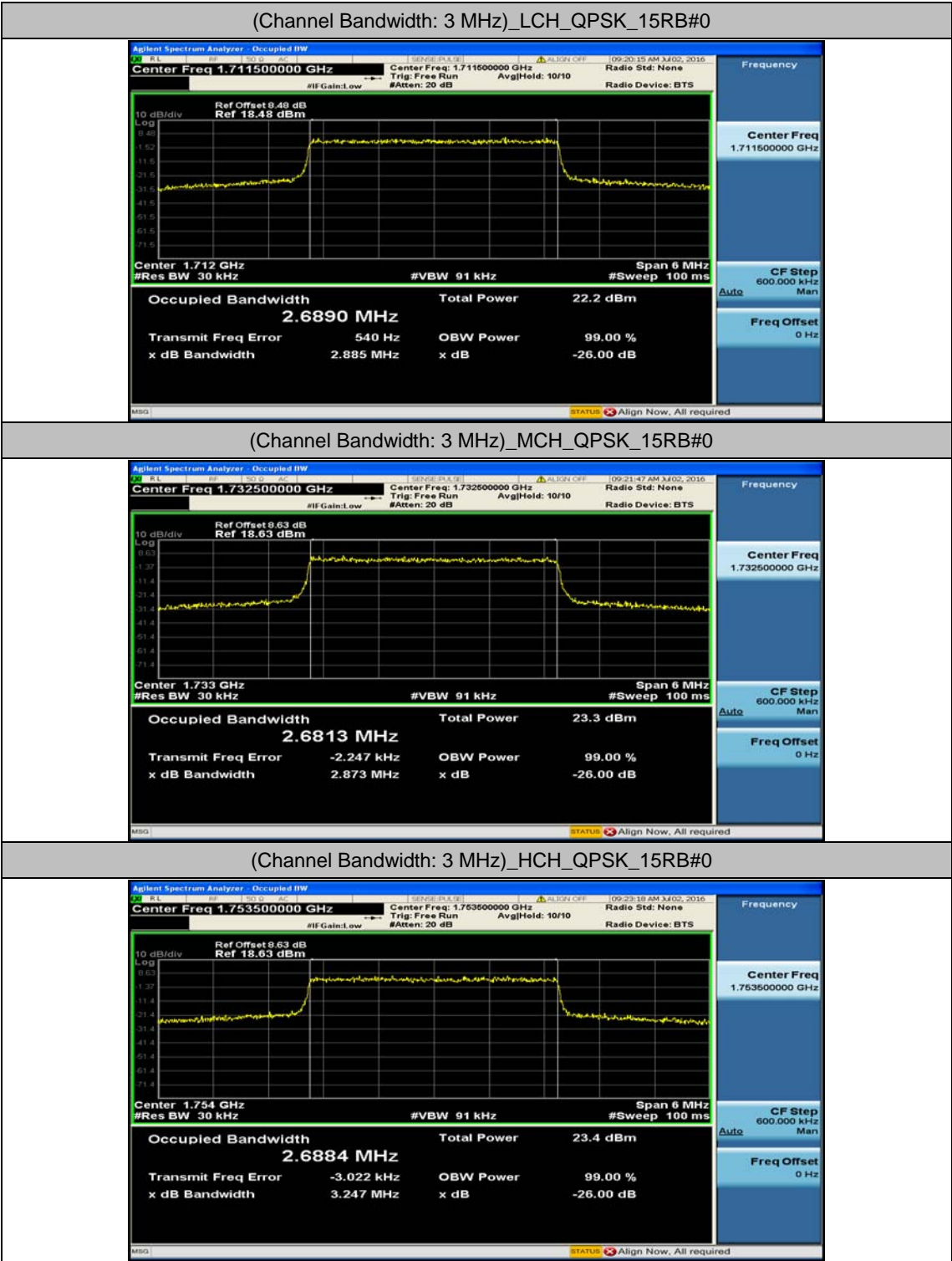
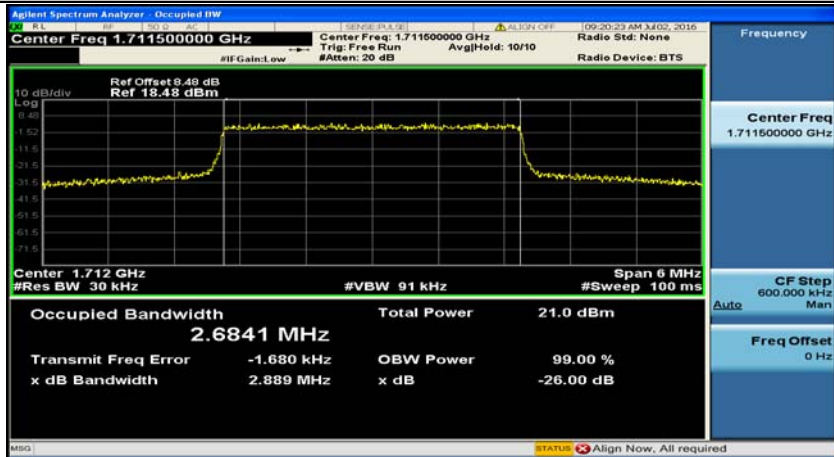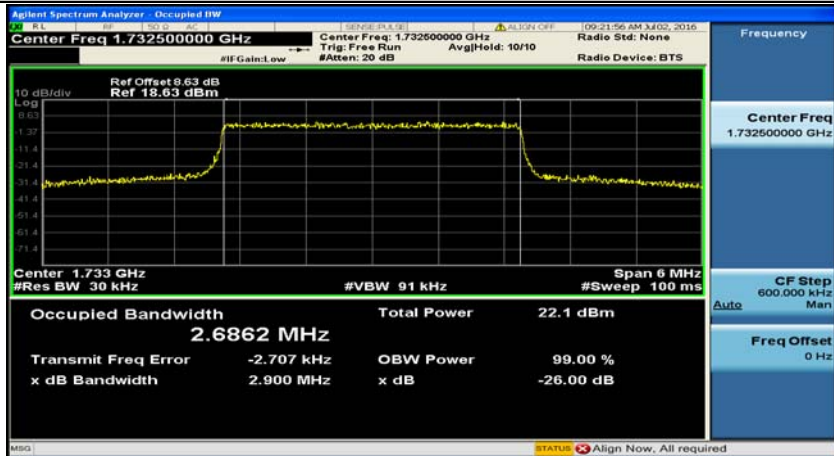| (Channel Bandwidth: 3 MHz)_LCH_16QAM_15RB#0 |
|---|
| |
| (Channel Bandwidth: 3 MHz)_MCH_16QAM_15RB#0 |
| |
| (Channel Bandwidth: 3 MHz)_HCH_16QAM_15RB#0 |
| |

Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0

(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0
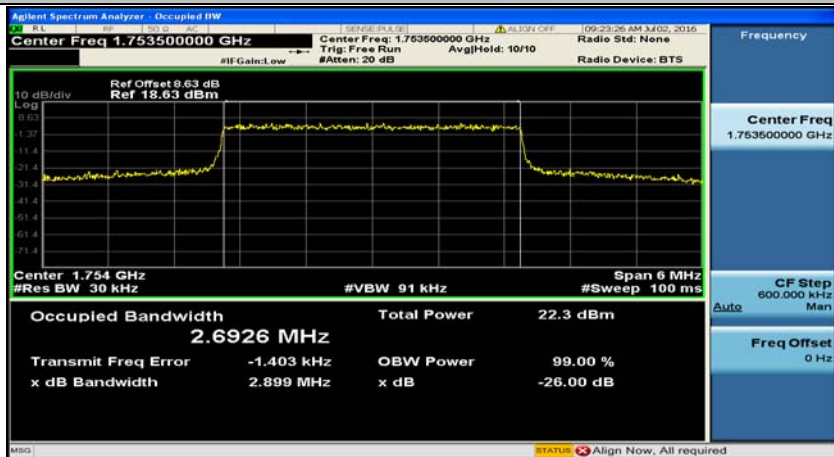
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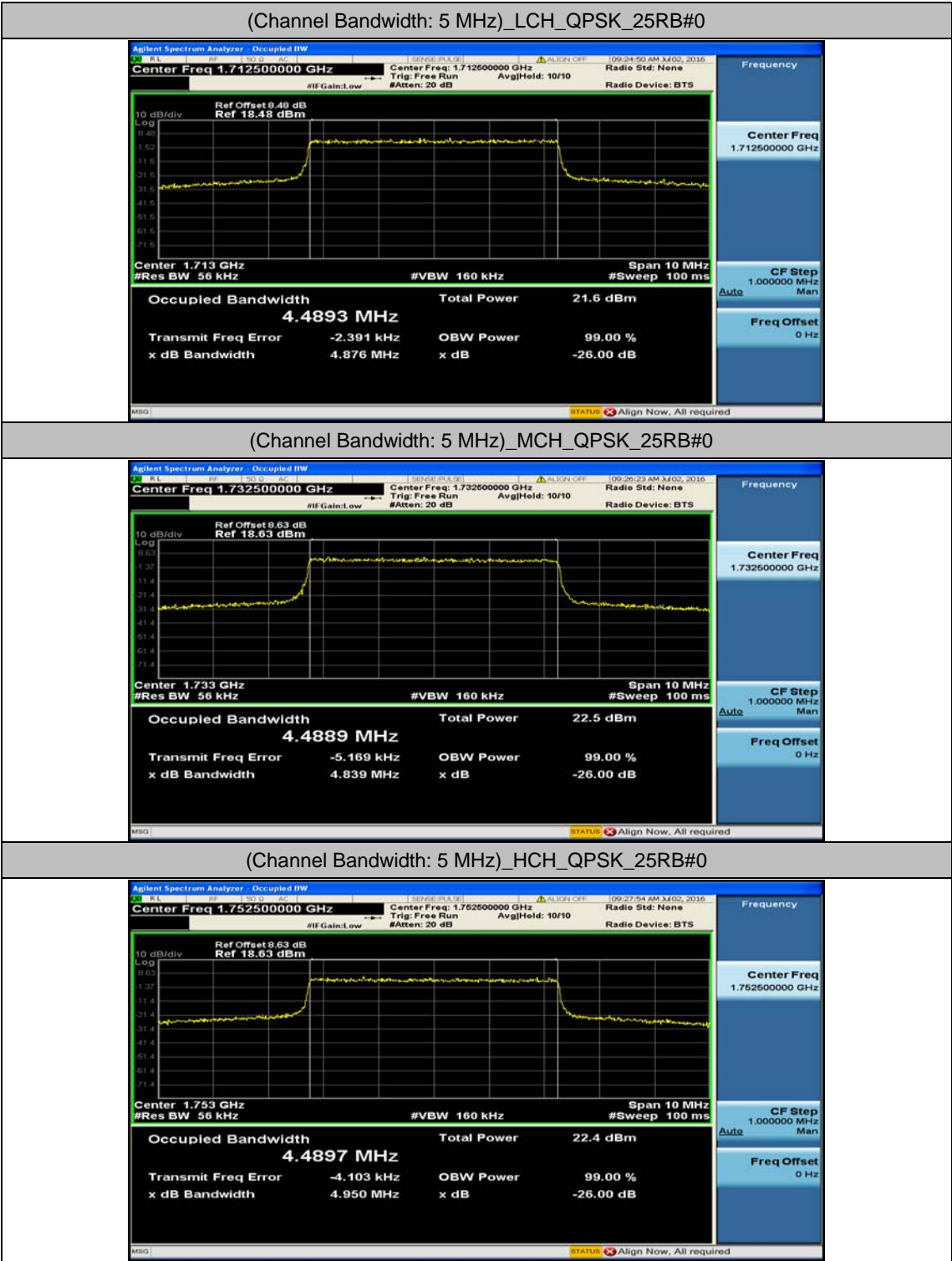
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0
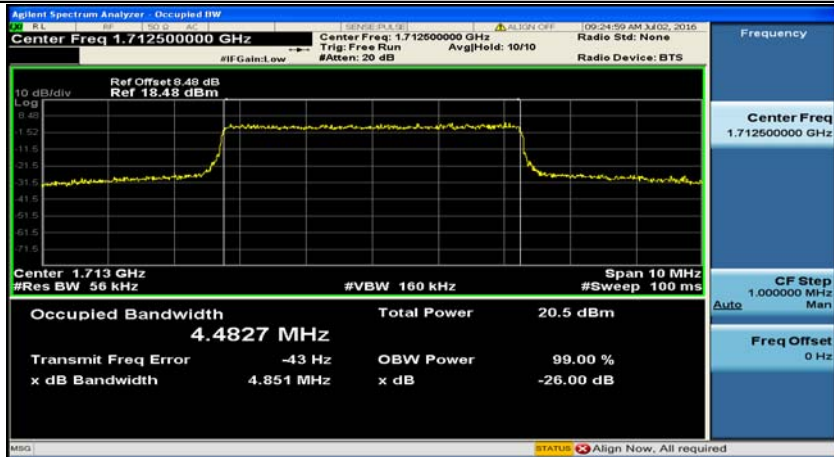
(Channel Bandwidth: 5 MHz)_MCH_16QAM_25RB#0

(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
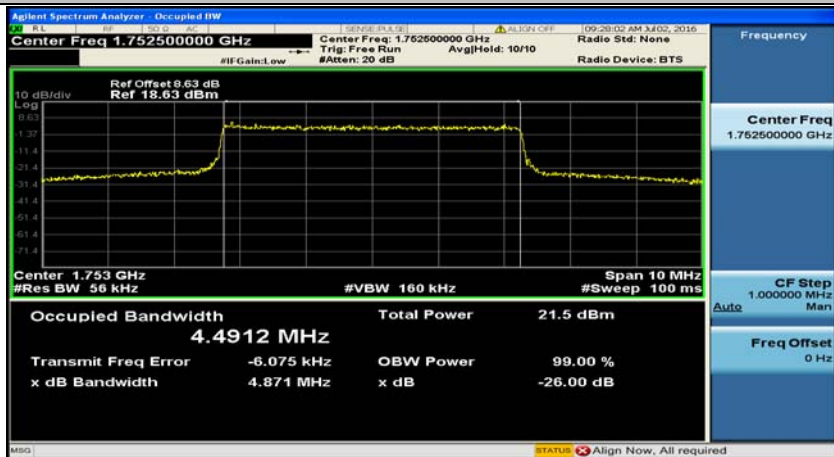
Channel Bandwidth: 10 MHz_HCH_QPSK_50RB#0
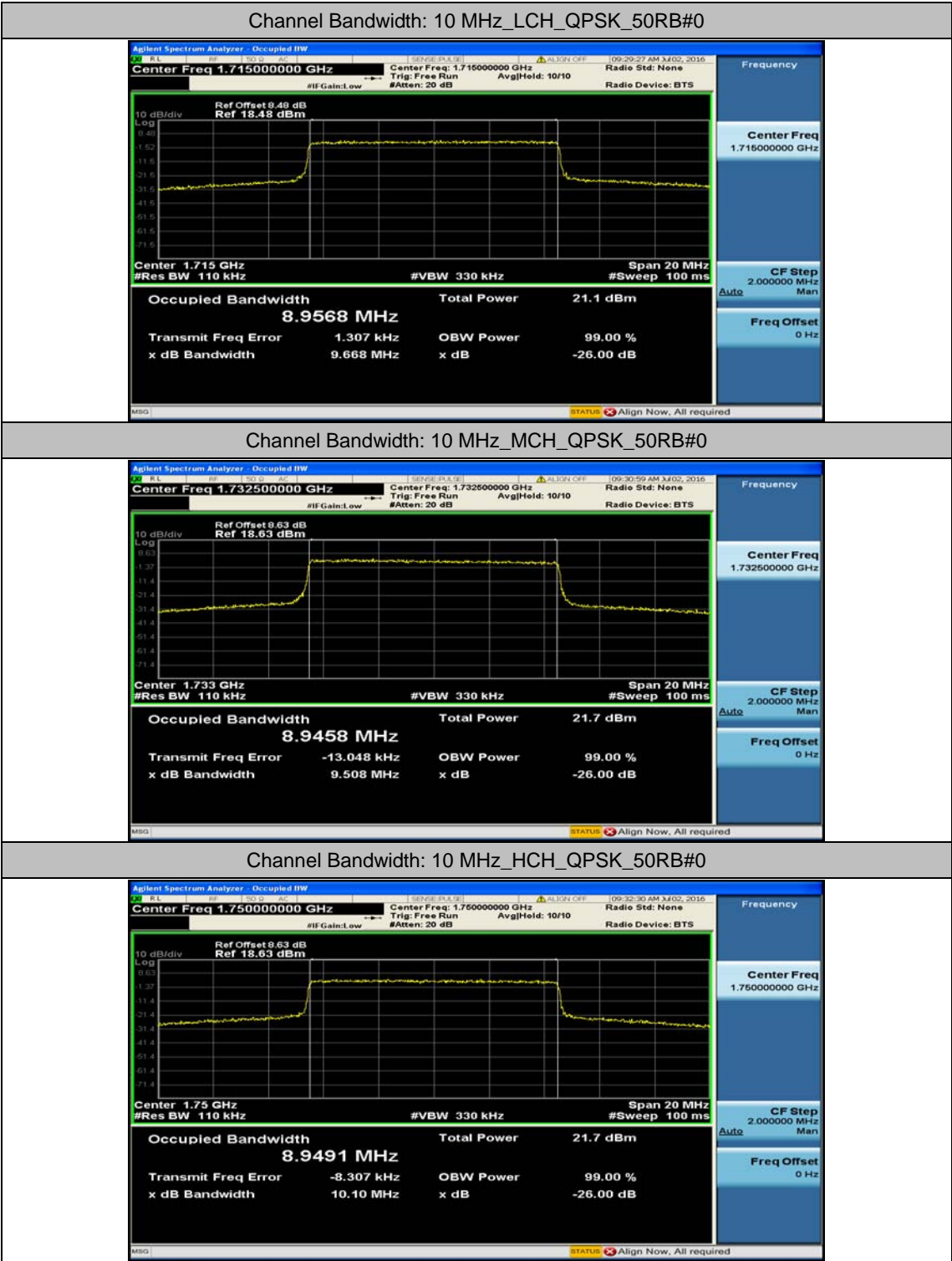
Channel Bandwidth: 10 MHz_LCH_16QAM_50RB#0
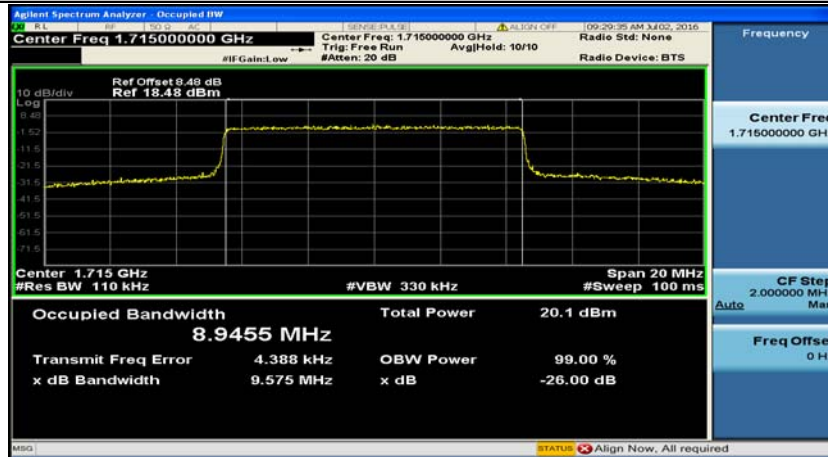
Channel Bandwidth: 10 MHz_MCH_16QAM_50RB#0
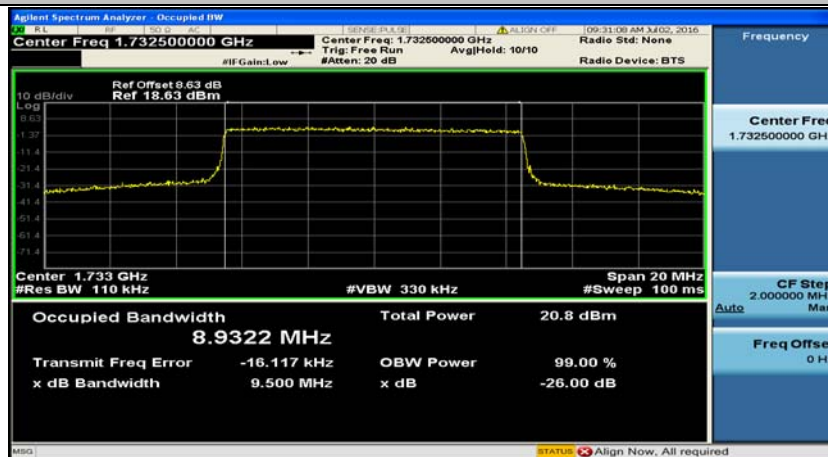
Channel Bandwidth: 10 MHz_HCH_16QAM_50RB#0

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
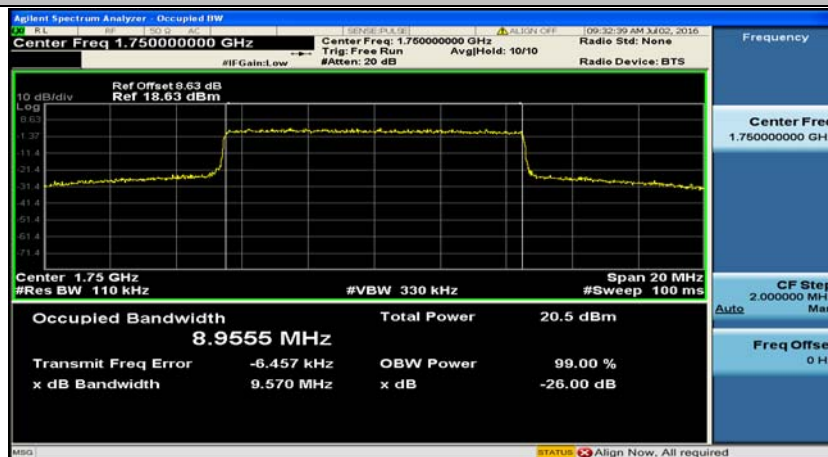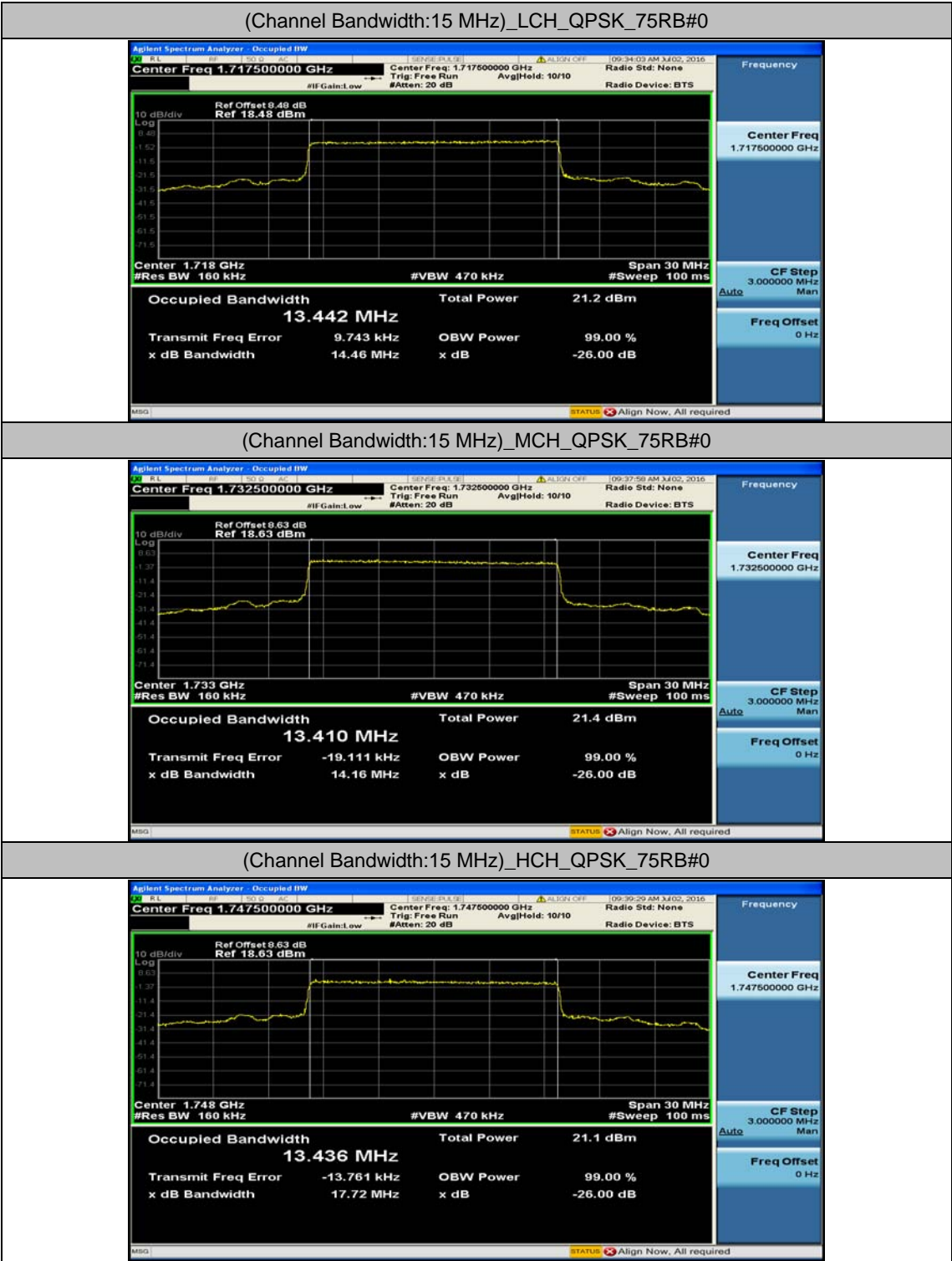
(Channel Bandwidth:15 MHz)_LCH_16QAM_75RB#0
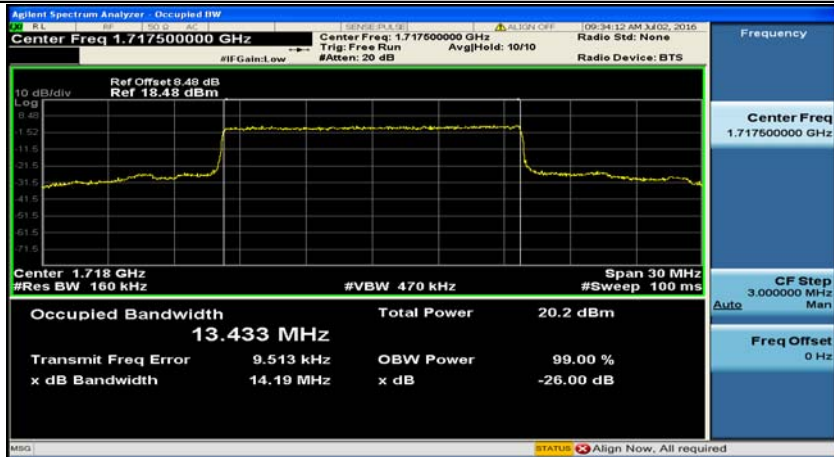
(Channel Bandwidth:15 MHz)_MCH_16QAM_75RB#0
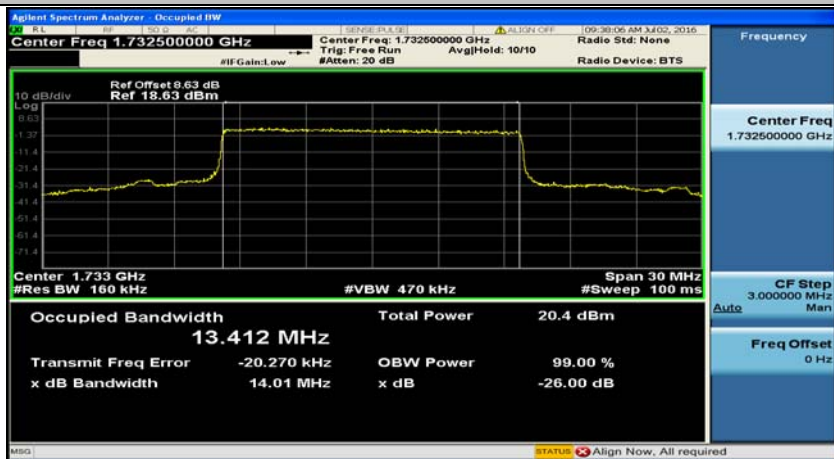
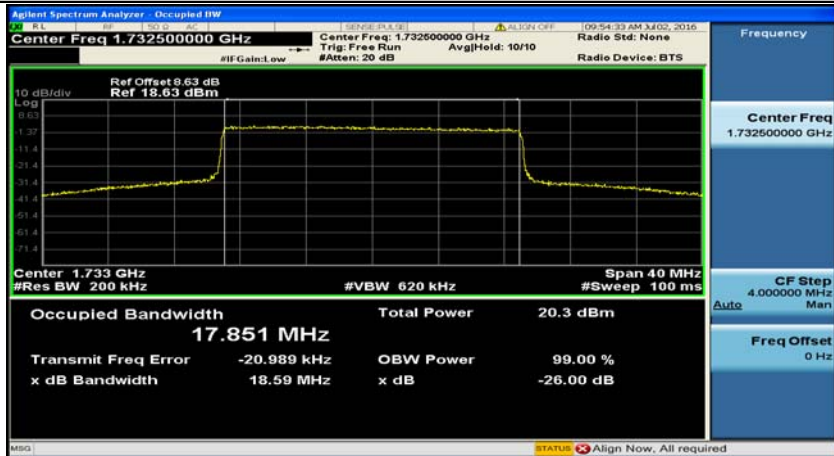| (Channel Bandwidth:15 MHz)_HCH_16QAM_75RB#0 |
|---|

Channel Bandwidth: 20 MHz

(Channel Bandwidth:20 MHz)_LCH_QPSK_100RB#0

(Channel Bandwidth:20 MHz)_MCH_QPSK_100RB#0
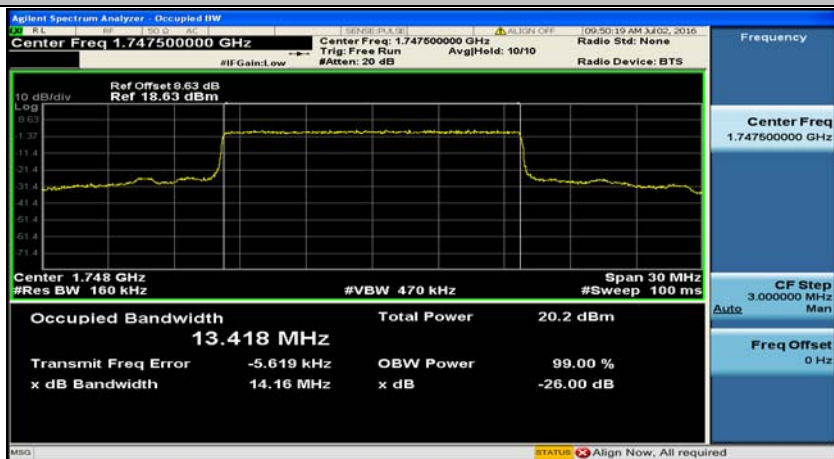
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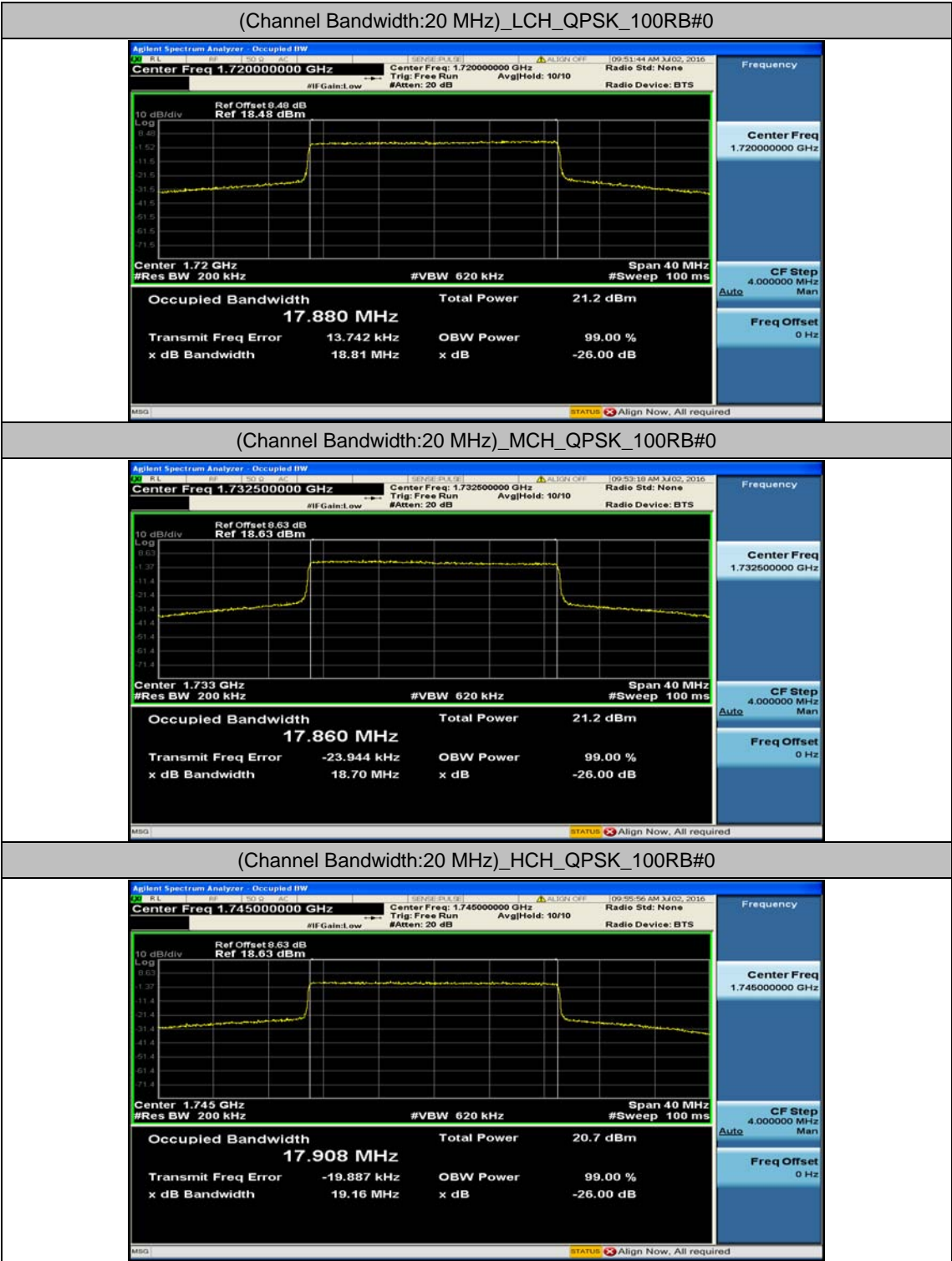
(Channel Bandwidth:20 MHz)_LCH_16QAM_100RB#0

Agilent Spectrum Analyzer - Occupied BW
LXI R L RF 50 Ω AC SENSE:PULSE ALIGN OFF 09:51:53 AM Jul02, 2016
Center Freq 1.720000000 GHz | Center Freq: 1.720000000 GHz | Radio Std: None
Trig: Free Run | Avg|Hold: 10/10
#IF-Gain:Low | #Atten: 20 dB | Radio Device: BTS

Ref Offset 8.48 dB
Ref 18.48 dBm
10 dB/div
Log

Center 1.72 GHz | Span 40 MHz
#Res BW 200 kHz | #VBW 620 kHz | #Sweep 100 ms

Occupied Bandwidth	Total Power	20.1 dBm
17.873 MHz		
Transmit Freq Error	10.124 kHz	OBW Power	99.00 %
x dB Bandwidth	18.63 MHz	x dB	-26.00 dB

Frequency
Center Freq 1.720000000 GHz
CF Step 4.000000 MHz Auto Man
Freq Offset 0 Hz
MSG | STATUS ✖ Align Now, All required

(Channel Bandwidth:20 MHz)_MCH_16QAM_100RB#0

Agilent Spectrum Analyzer - Occupied BW
LXI R L RF 50 Ω AC SENSE:PULSE ALIGN OFF 09:54:33 AM Jul02, 2016
Center Freq 1.732500000 GHz | Center Freq: 1.732500000 GHz | Radio Std: None
Trig: Free Run | Avg|Hold: 10/10
#IF-Gain:Low | #Atten: 20 dB | Radio Device: BTS

Ref Offset 8.63 dB
Ref 18.63 dBm
10 dB/div
Log

Center 1.733 GHz | Span 40 MHz
#Res BW 200 kHz | #VBW 620 kHz | #Sweep 100 ms

Occupied Bandwidth	Total Power	20.3 dBm
17.851 MHz		
Transmit Freq Error	-20.989 kHz	OBW Power	99.00 %
x dB Bandwidth	18.59 MHz	x dB	-26.00 dB

Frequency
Center Freq 1.732500000 GHz
CF Step 4.000000 MHz Auto Man
Freq Offset 0 Hz
MSG | STATUS ✖ Align Now, All required

(Channel Bandwidth:20 MHz)_HCH_16QAM_100RB#0

Agilent Spectrum Analyzer - Occupied BW
LXI R L RF 50 Ω AC SENSE:PULSE ALIGN OFF 09:56:05 AM Jul02, 2016
Center Freq 1.745000000 GHz | Center Freq: 1.745000000 GHz | Radio Std: None
Trig: Free Run | Avg|Hold: 10/10
#IF-Gain:Low | #Atten: 20 dB | Radio Device: BTS

Ref Offset 8.63 dB
Ref 18.63 dBm
10 dB/div
Log

Center 1.745 GHz | Span 40 MHz
#Res BW 200 kHz | #VBW 620 kHz | #Sweep 100 ms

Occupied Bandwidth	Total Power	19.7 dBm
17.892 MHz		
Transmit Freq Error	-19.215 kHz	OBW Power	99.00 %
x dB Bandwidth	18.73 MHz	x dB	-26.00 dB

Frequency
Center Freq 1.745000000 GHz
CF Step 4.000000 MHz Auto Man
Freq Offset 0 Hz
MSG | STATUS ✖ Align Now, All required