

(QPSK High Channel)

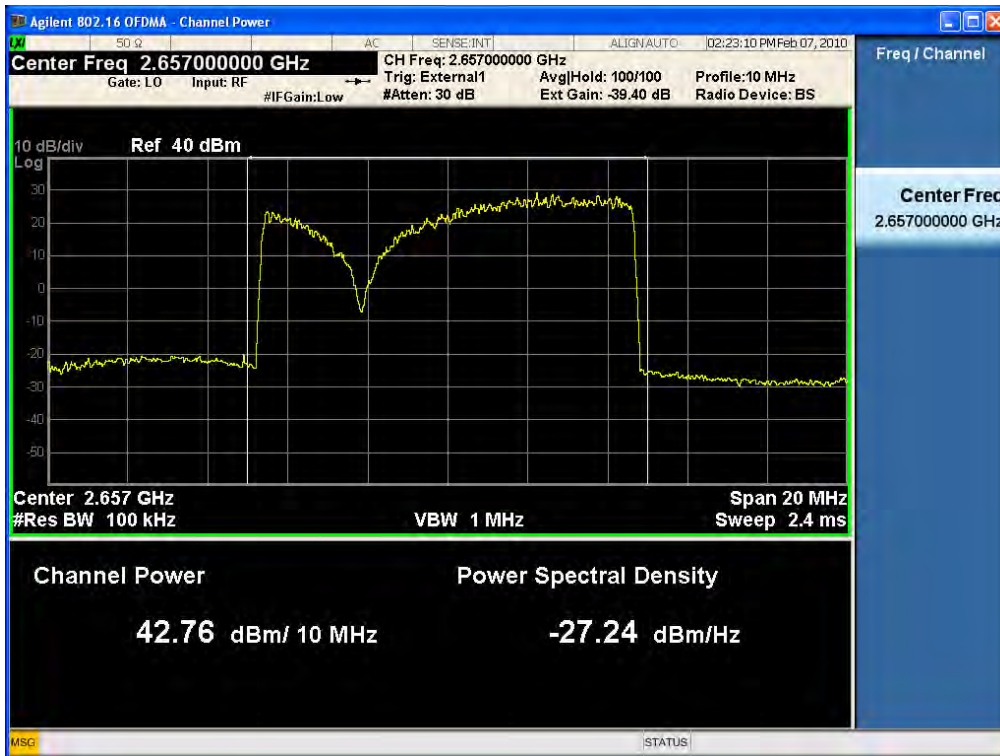


(16QAM Low Channel)



HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(16QAM Middle Channel)



(16QAM High Channel)



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(64QAM Low Channel)



(64QAM Middle Channel)



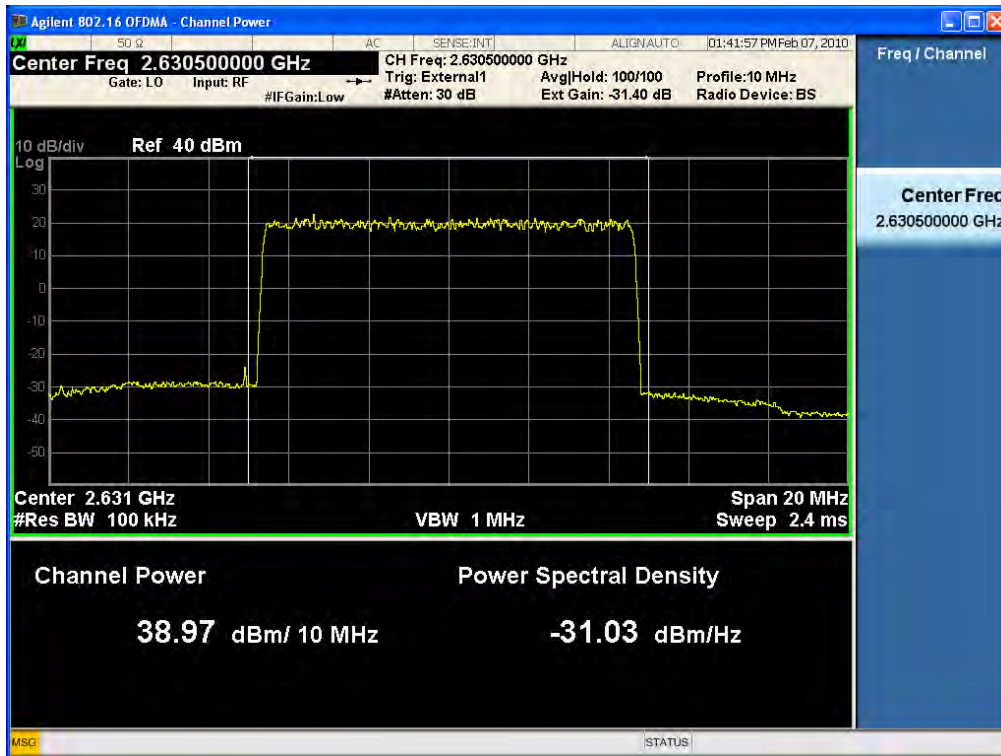
HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(64QAM High Channel)

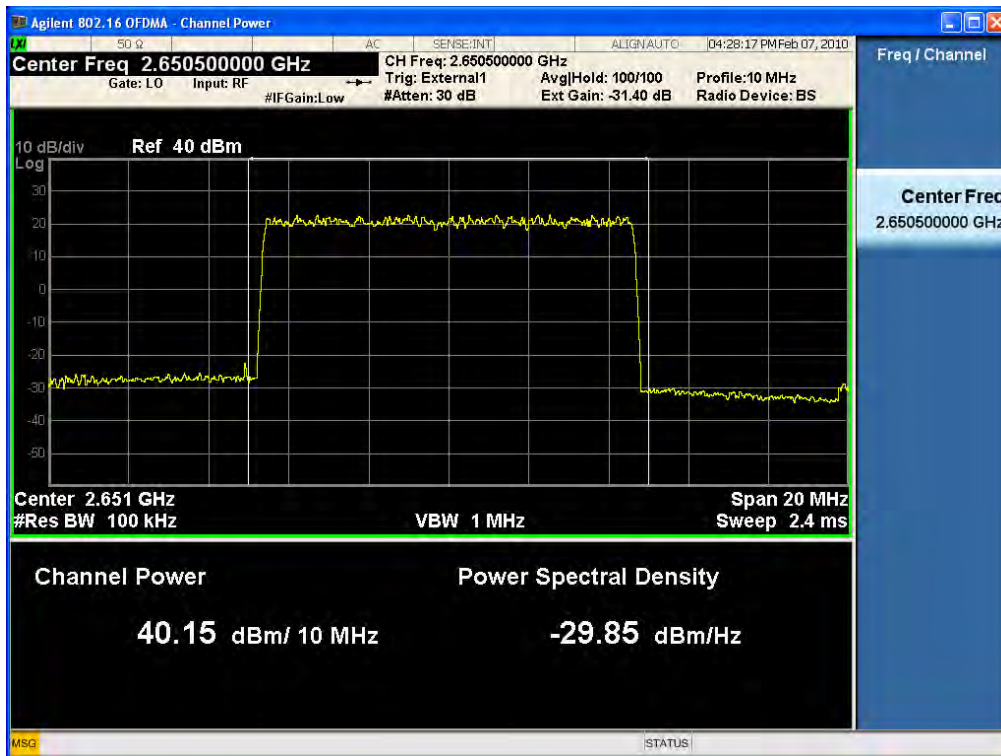


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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5.4.11. Plot Data for Output Gamma 0 (Conducted Output Power)
(QPSK Low Channel)



(QPSK Middle Channel)

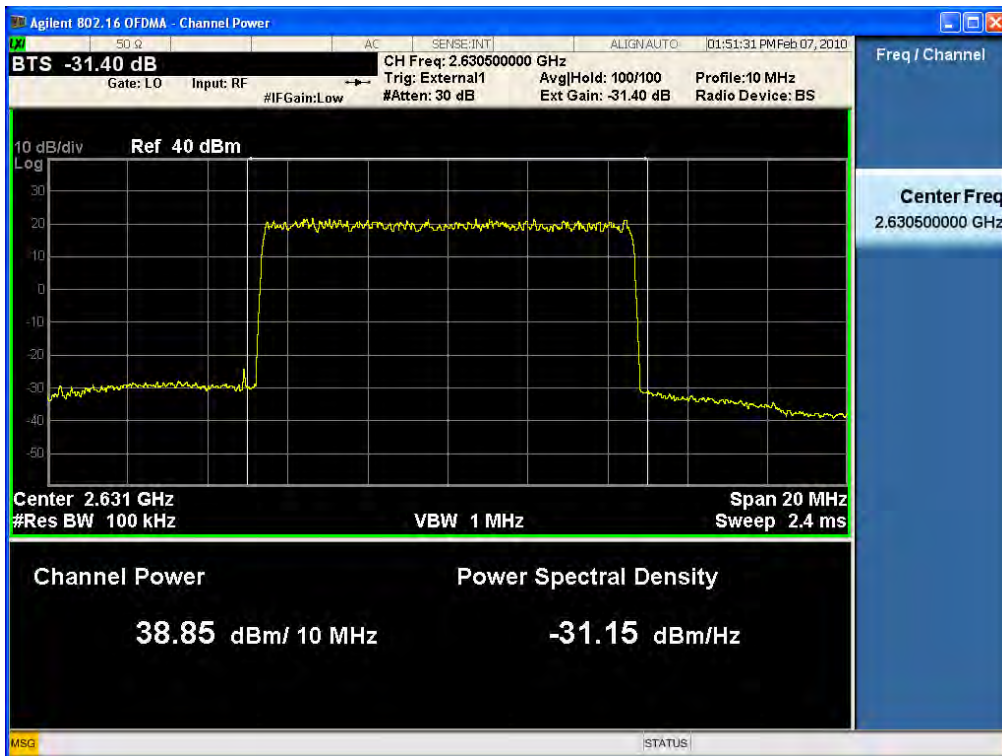


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(QPSK High Channel)

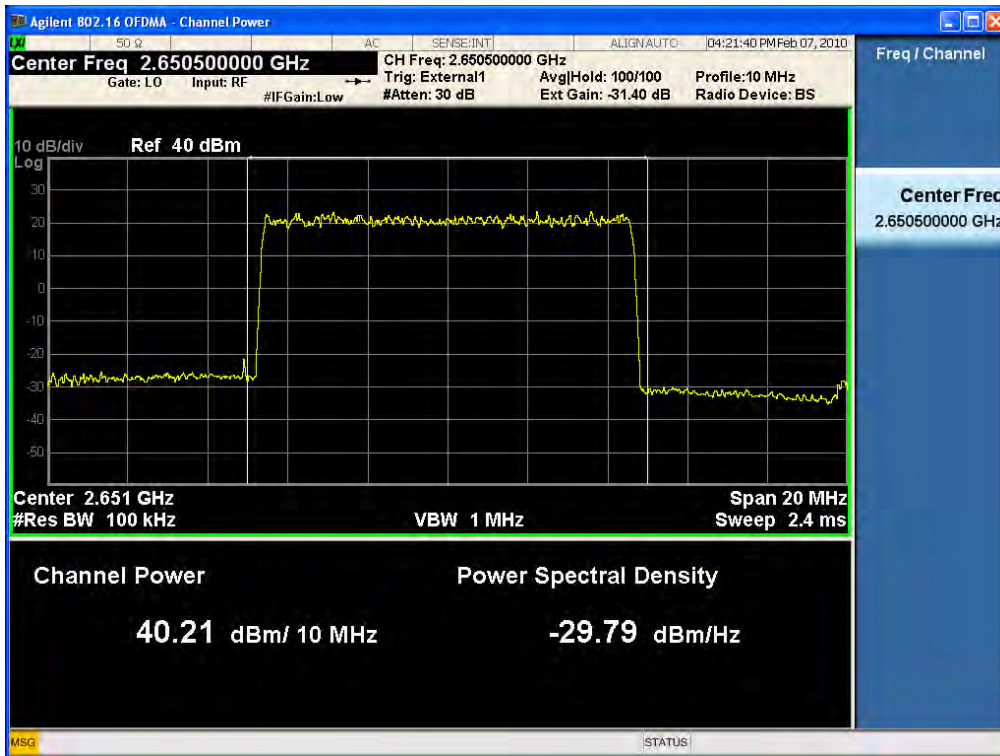


(16QAM Low Channel)

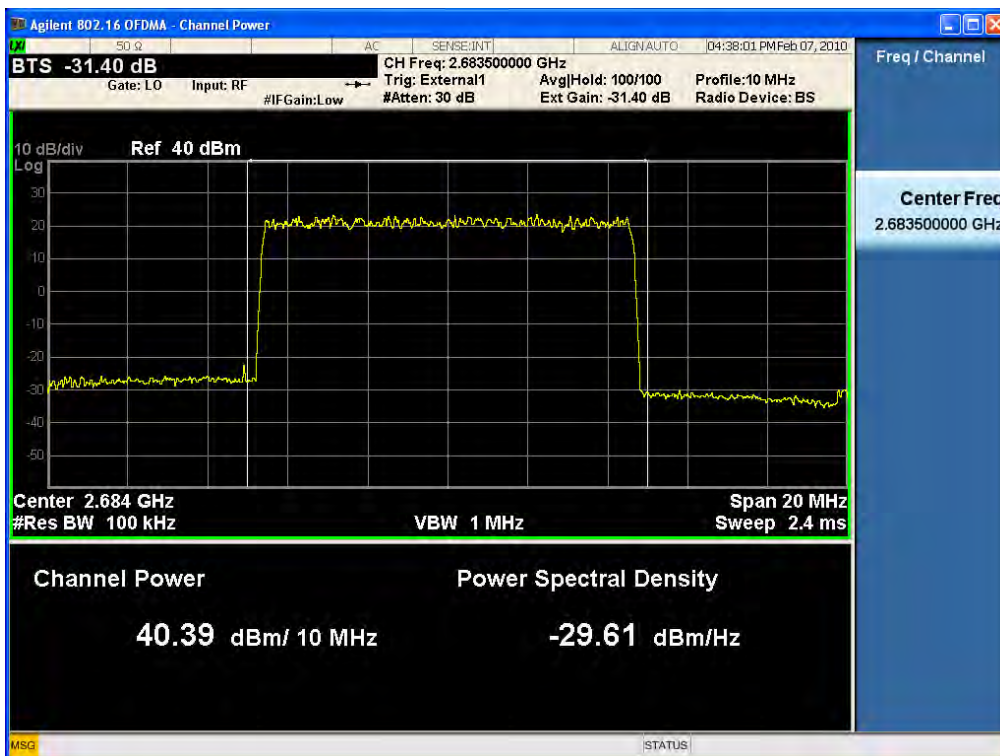


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(16QAM Middle Channel)

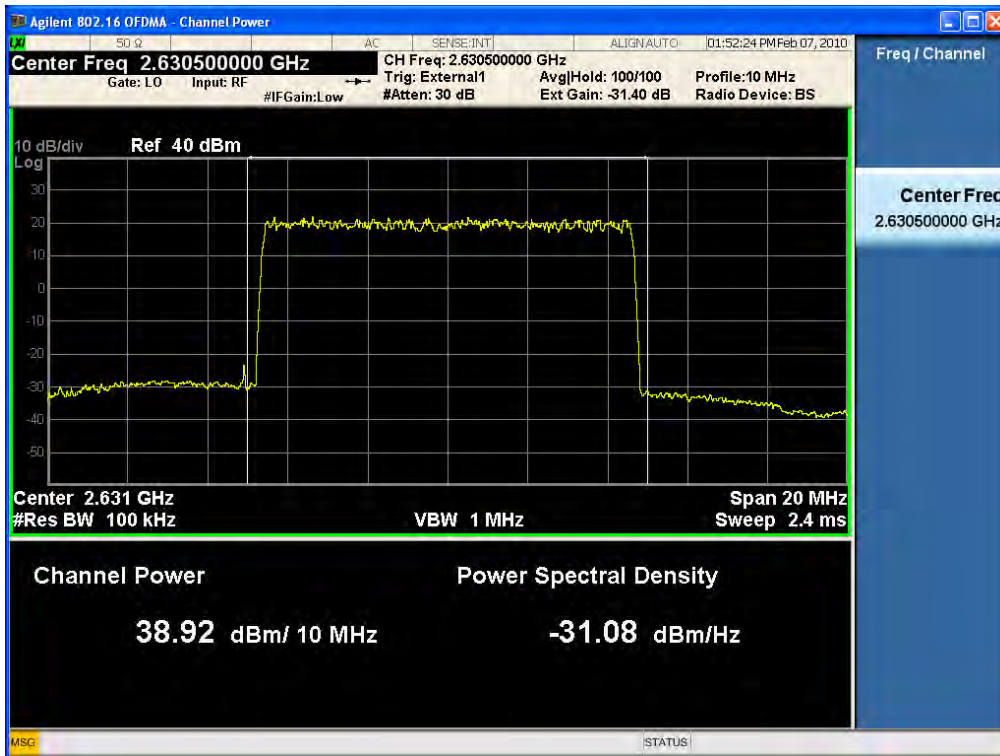


(16QAM High Channel)

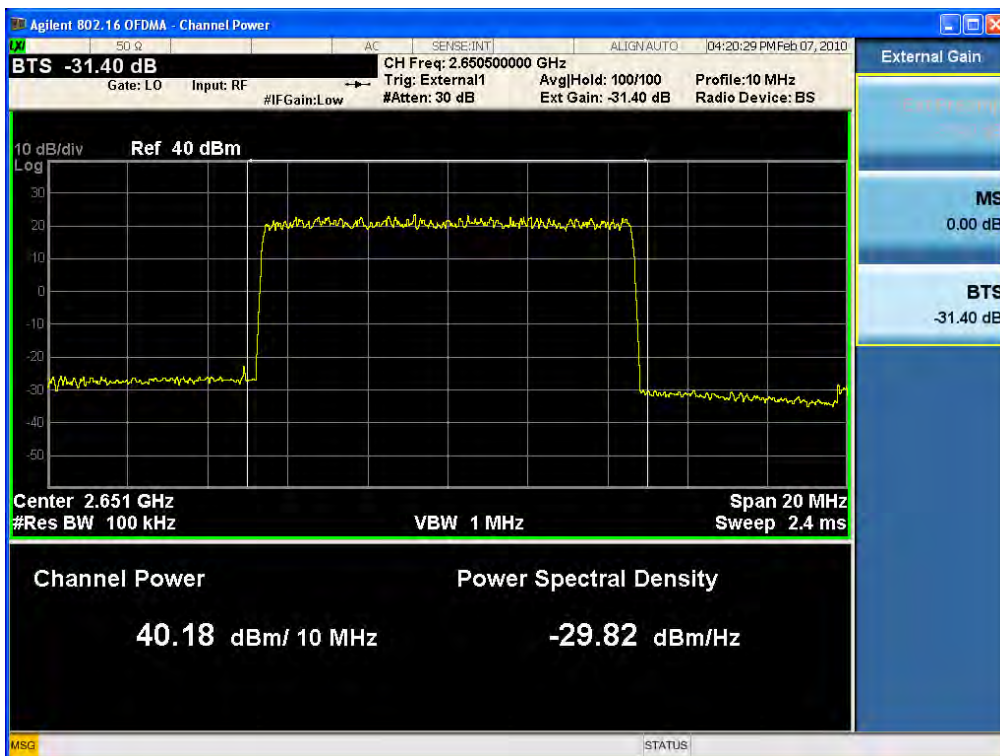


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(64QAM Low Channel)

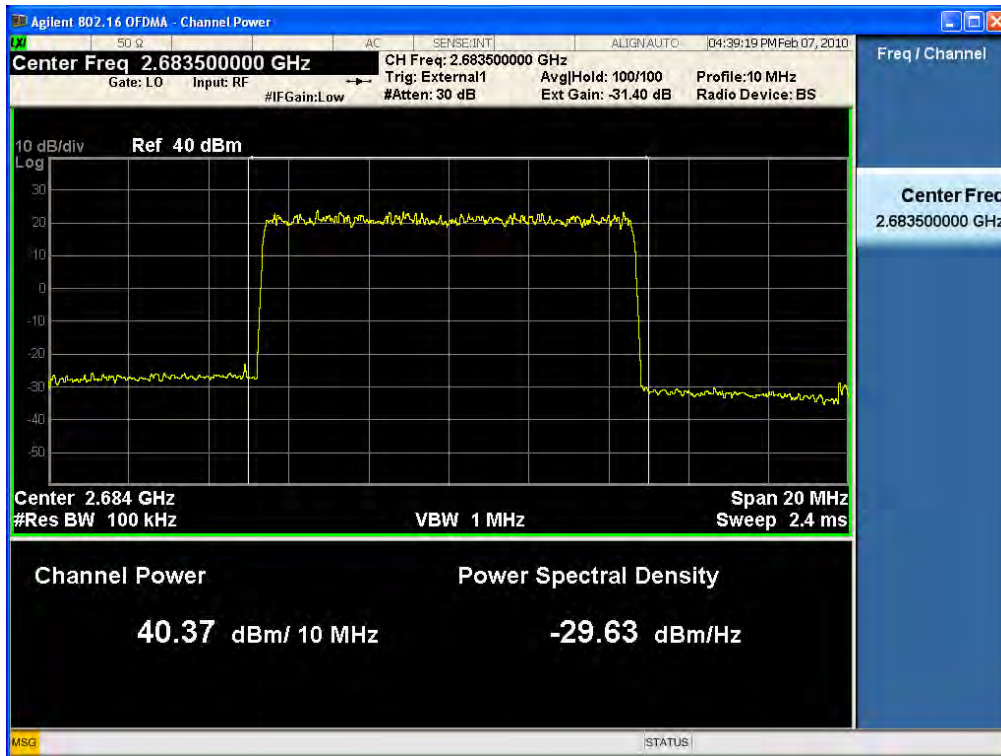


(64QAM Middle Channel)



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(64QAM High Channel)



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5.4.12. Combined Plot Data for Output (Conducted Output Power)
(QPSK Low Channel)



(QPSK Middle Channel)



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(QPSK High Channel)



(16QAM Low Channel)

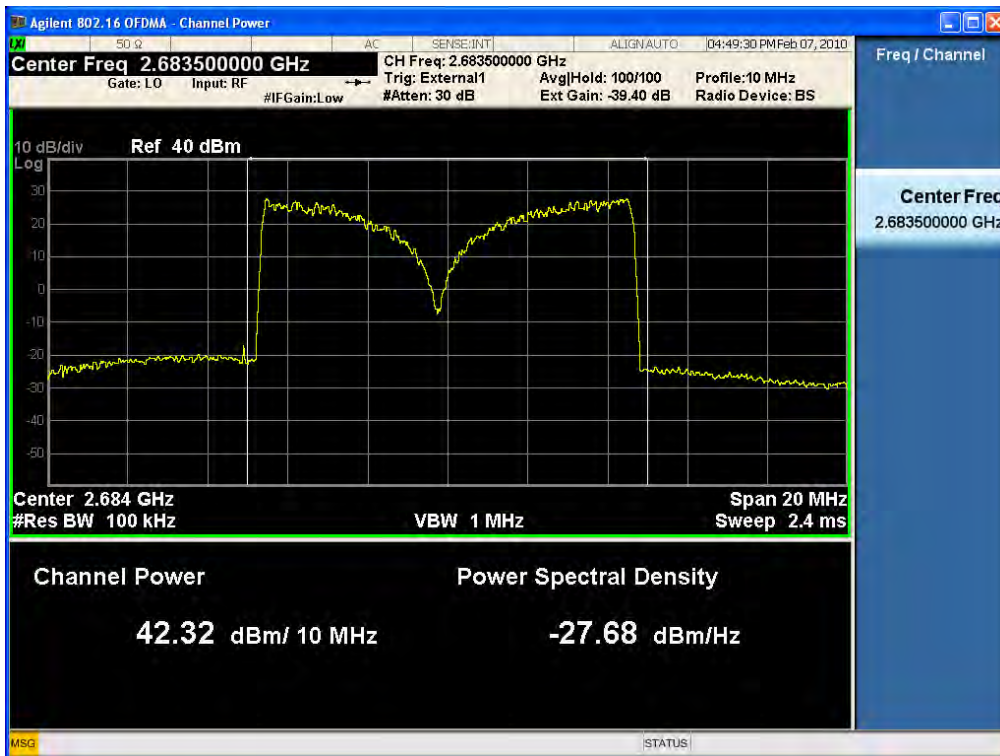


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(16QAM Middle Channel)

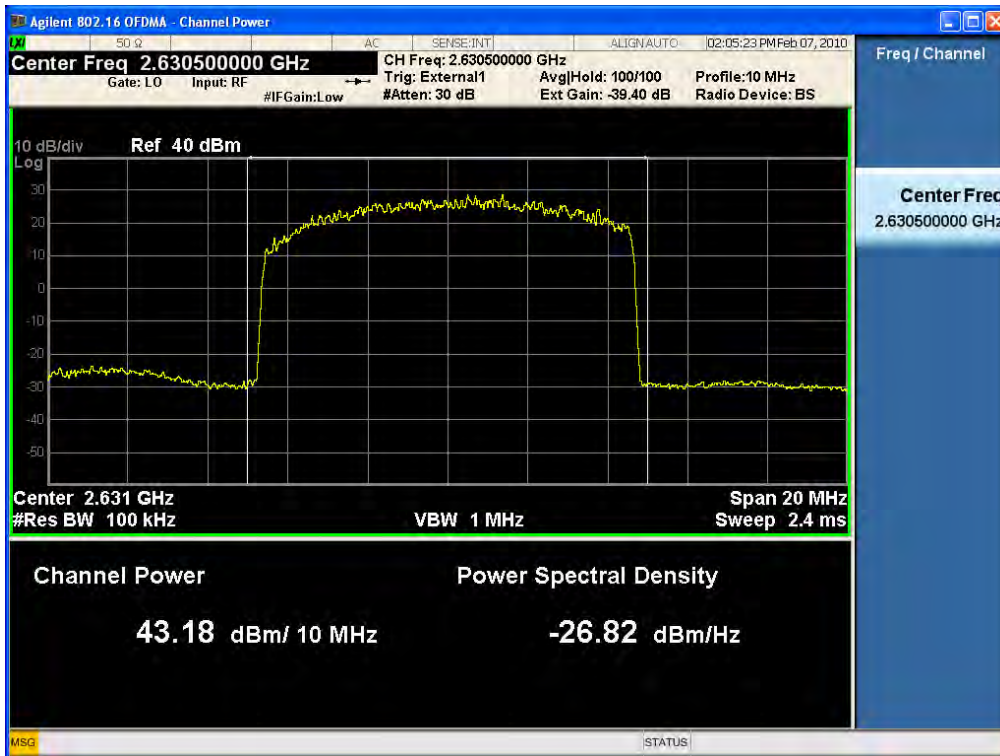


(16QAM High Channel)

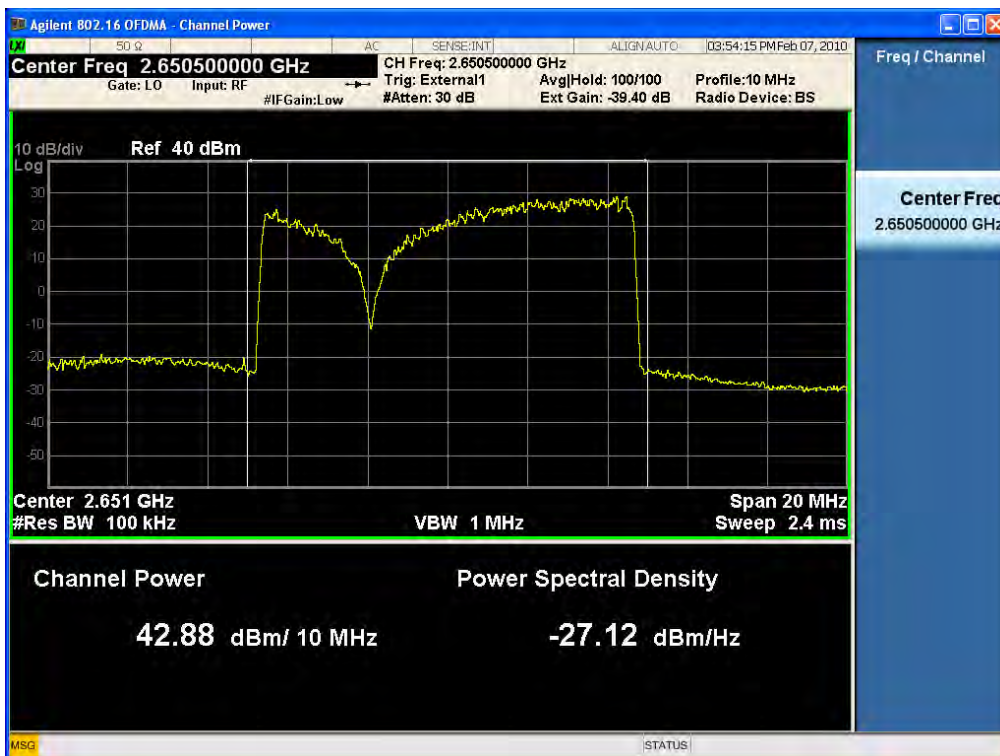


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(64QAM Low Channel)

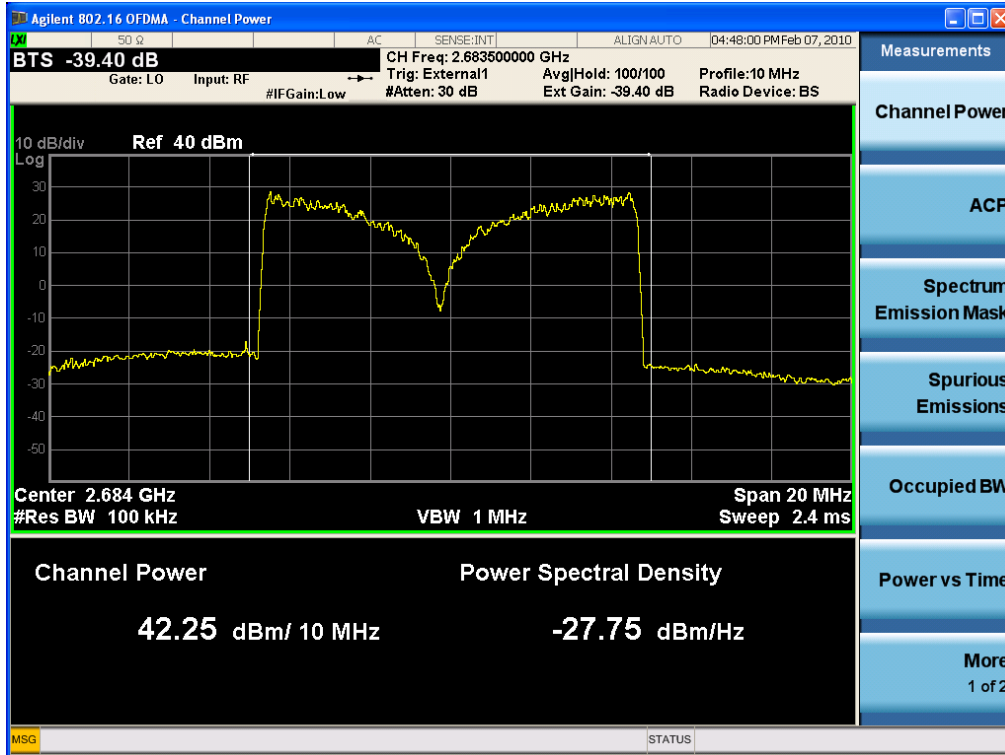


(64QAM Middle Channel)



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(64QAM High Channel)



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6. OCCUPIED BANDWIDTH

6.1. Applicable Standard

Requirements: CFR 47, Section 27.53(m)(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (*i.e.* 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

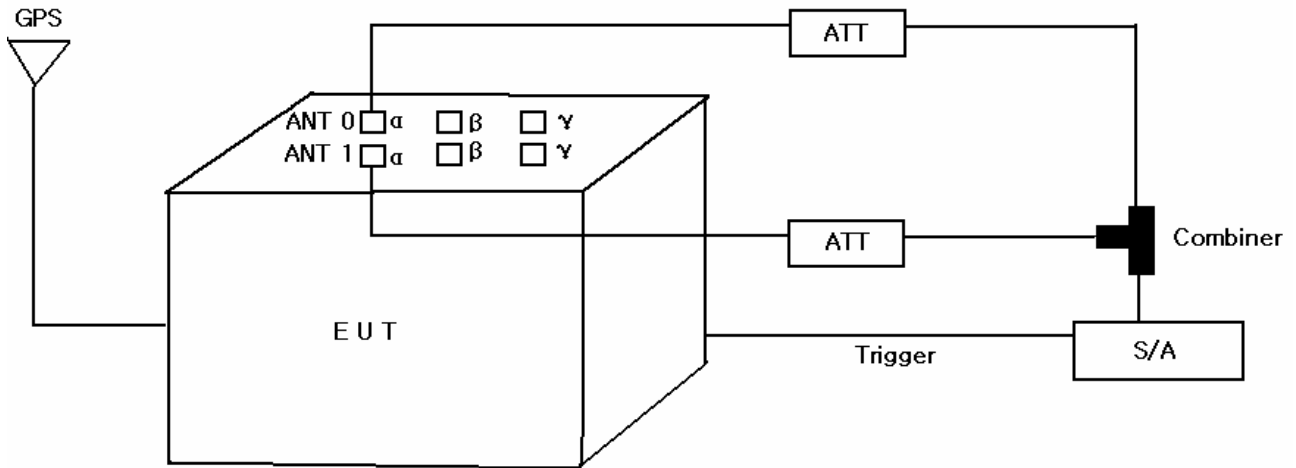
6.2. Test Equipment List and Details

Manufacturer	Model / Equipment	Serial No.	Calibration Due
Agilent	87302C / Power Divider	3239A01051	03/16/2010
Agilent	6674A / DC Power Supply	3501A00901	05/14/2010
WEINSCHHEL	67-30-33 / Attenuator	BU5347	01/06/2011
WEINSCHHEL	67-30-33 / Attenuator	BR0530	01/14/2011
WEINSCHHEL	AF117A-69-43 / STEP ATTENUATOR	20623	01/14/2011
WEINSCHHEL	AF117A-69-43 / STEP ATTENUATOR	21207	01/06/2011
Agilent	N9020A / MXA Signal Analyzer	US46220219	03/03/2011

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6.3. Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.



[Conducted Test Setup]

The EUT was connected to a spectrum analyser enabled with an occupied bandwidth function via its antenna port. Measurements were performed to determine the occupied bandwidth in accordance with FCC Part 2.1049. The occupied bandwidth was measured from the fundamental emission at the bottom, middle and top channels. The occupied bandwidth was measured using the built in occupied bandwidth function of the spectrum analyser. It was set to measure the bandwidth where 99% of the signal power was contained. The analyser automatically configures the measurement bandwidths to make an accurate measurement based on the channel bandwidth and channel spacing of the EUT.

6.3.1. Environmental Conditions:

Temperature:	24 °C
Relative Humidity:	37 %

6.4. Test Result

: PASS

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6.4.1. Test Data at Output Port Alpha 0

Modulation	Channel	Frequency	Measured Bandwidth
			99 %
QPSK	Low	2508.5	9.09
	Middle	2551.5	9.11
	High	2590.0	9.11
16QAM	Low	2508.5	9.10
	Middle	2551.5	9.10
	High	2590.0	9.11
64QAM	Low	2508.5	9.06
	Middle	2551.5	9.11
	High	2590.0	9.11

6.4.2. Combined Test Data at Output Port

Modulation	Channel	Frequency	Measured Bandwidth
			99 %
QPSK	Low	2508.5	8.94
	Middle	2551.5	8.90
	High	2590.0	9.03
16QAM	Low	2508.5	8.93
	Middle	2551.5	8.90
	High	2590.0	9.05
64QAM	Low	2508.5	8.89
	Middle	2551.5	8.92
	High	2590.0	9.04

6.4.3. Test Data at Output Port Beta 0

Modulation	Channel	Frequency	Measured Bandwidth
			99 %
QPSK	Low	2630.5	9.11
	Middle	2650.5	9.11
	High	2683.5	9.12
16QAM	Low	2630.5	9.13
	Middle	2650.5	9.12
	High	2683.5	9.09
64QAM	Low	2630.5	9.10
	Middle	2650.5	9.09
	High	2683.5	9.12

6.4.4. Combined Test Data at Output Port

Modulation	Channel	Frequency	Measured Bandwidth
			99 %
QPSK	Low	2630.5	8.89
	Middle	2650.5	9.13
	High	2683.5	9.16
16QAM	Low	2630.5	8.92
	Middle	2650.5	9.15
	High	2683.5	9.15
64QAM	Low	2630.5	8.88
	Middle	2650.5	9.13
	High	2683.5	9.15

6.4.5. Test Data at Output Port Gamma 0

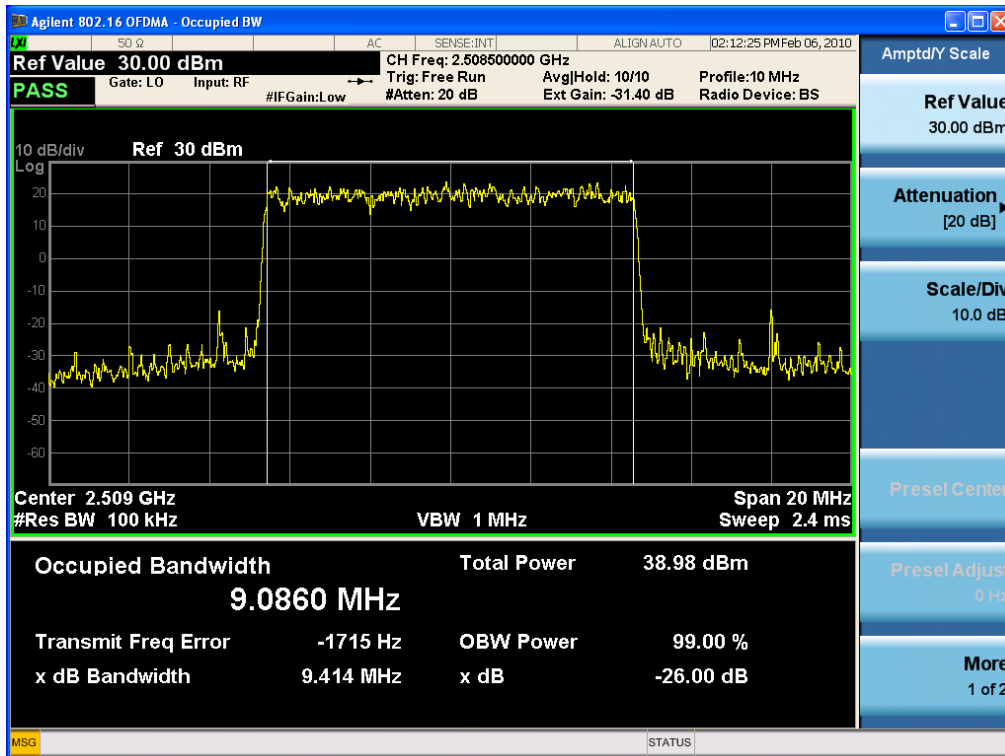
Modulation	Channel	Frequency	Measured Bandwidth
			99 %
QPSK	Low	2647	9.12
	Middle	2657	9.11
	High	2667	9.11
16QAM	Low	2647	9.10
	Middle	2657	9.11
	High	2667	9.10
64QAM	Low	2647	9.10
	Middle	2657	9.11
	High	2667	9.10

6.4.6. Combined Test Data at Output Port

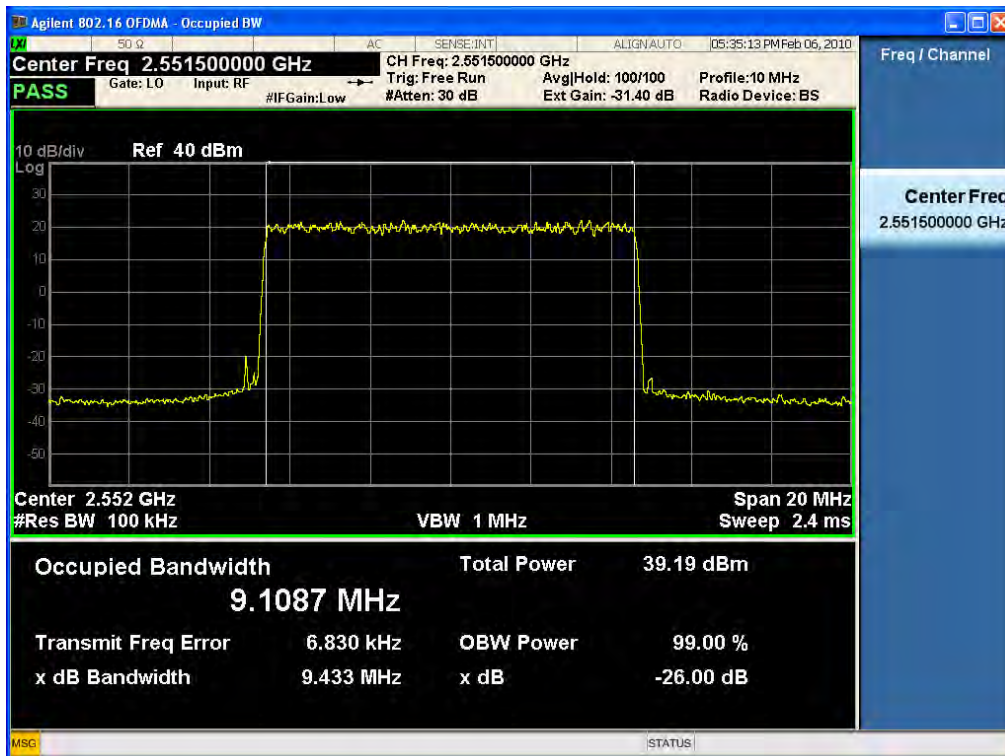
Modulation	Channel	Frequency	Measured Bandwidth
			99 %
QPSK	Low	2647	8.49
	Middle	2657	9.16
	High	2667	9.20
16QAM	Low	2647	8.48
	Middle	2657	9.15
	High	2667	9.18
64QAM	Low	2647	8.50
	Middle	2657	9.17
	High	2667	9.18

6.4.7. Test Plot at Output Port Alpha 0

(QPSK Low Channel)

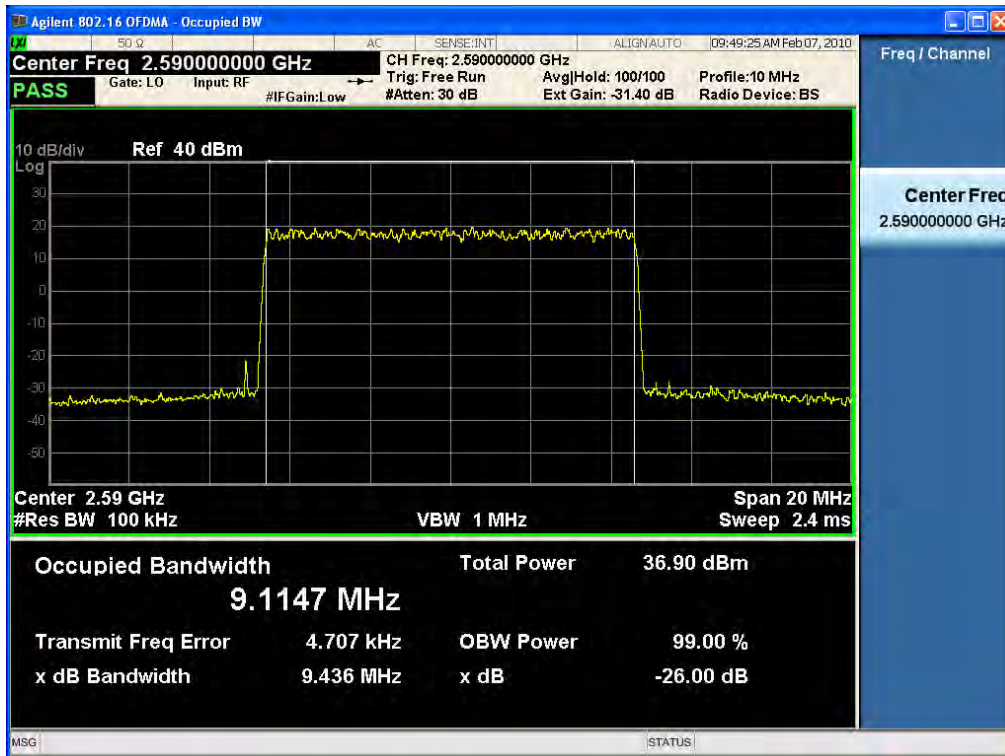


(QPSK Middle Channel)

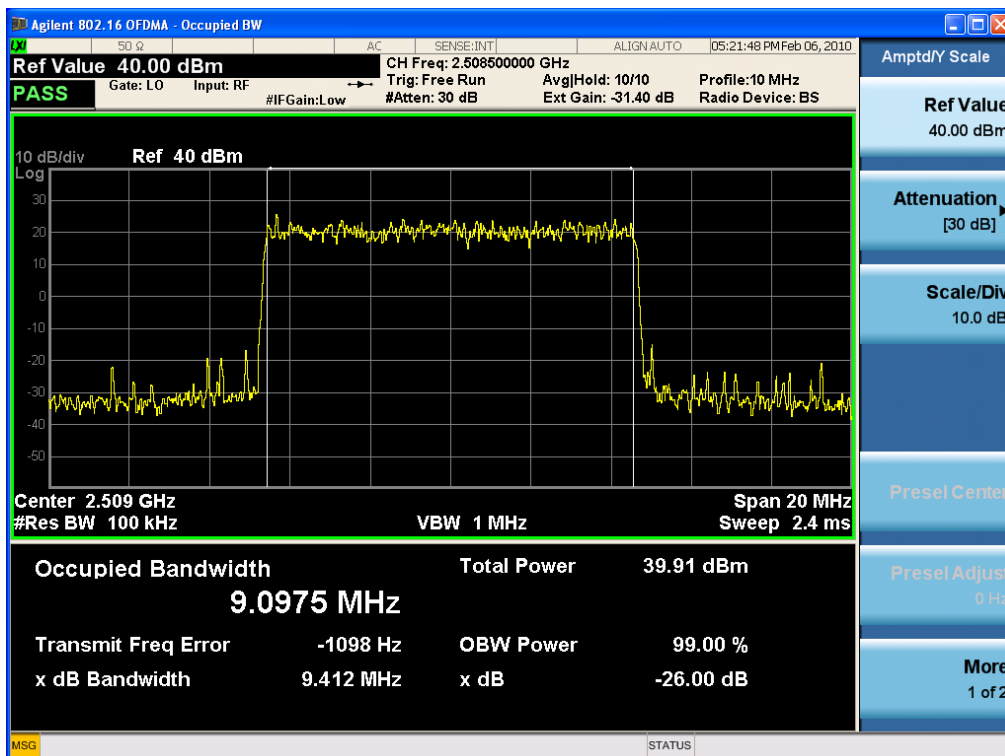


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(QPSK High Channel)

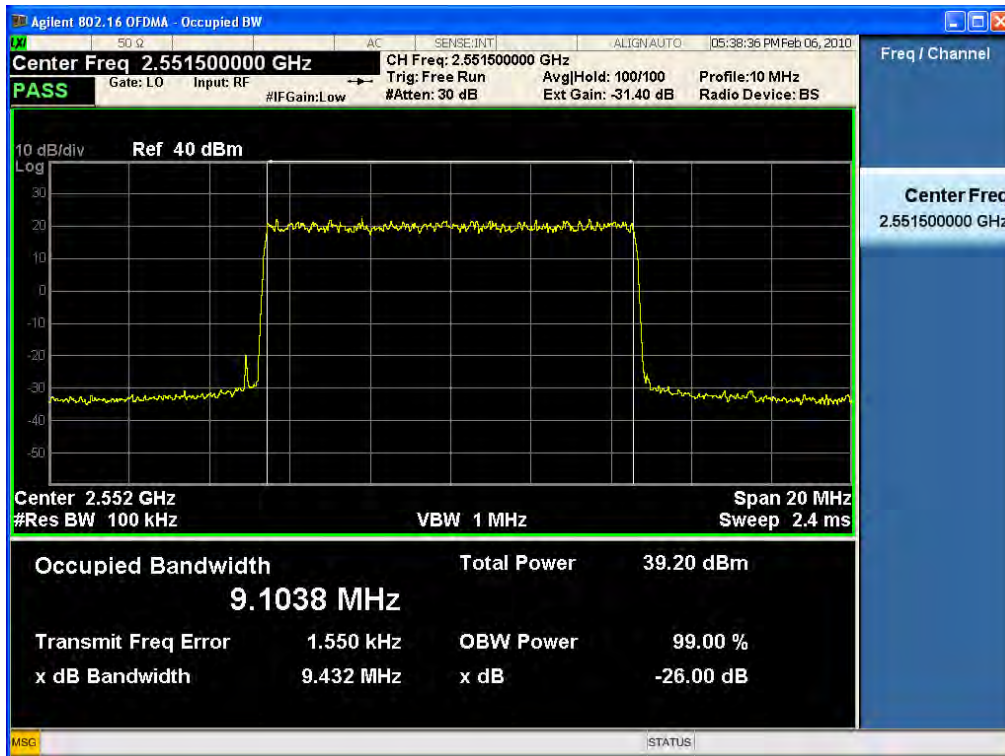


(16QAM Low Channel)

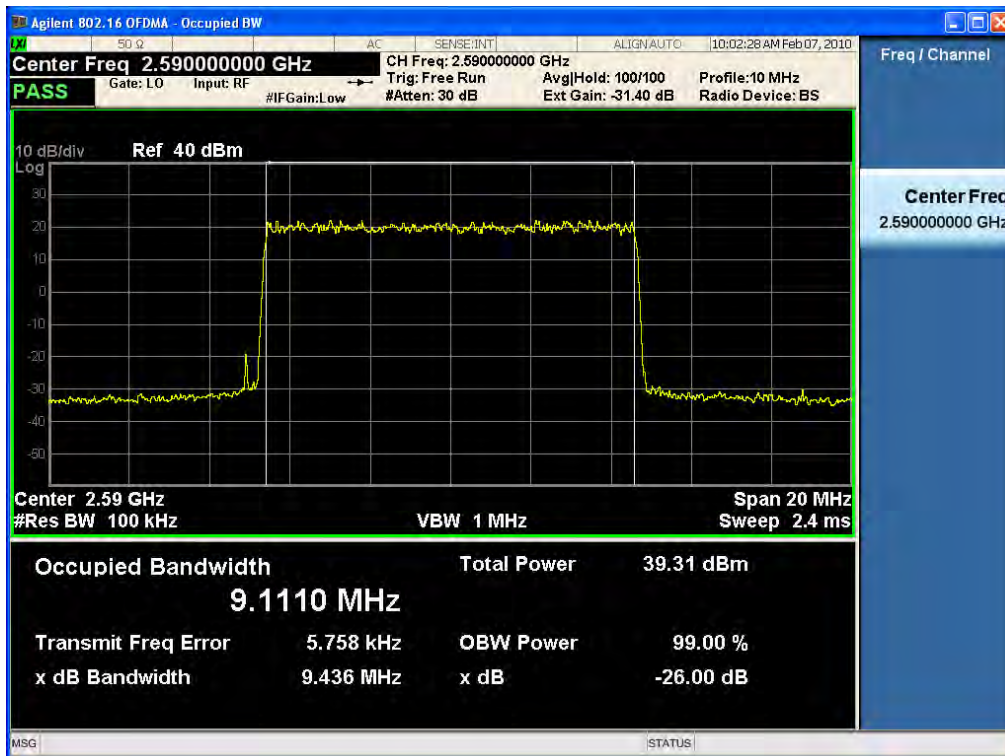


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(16QAM Middle Channel)

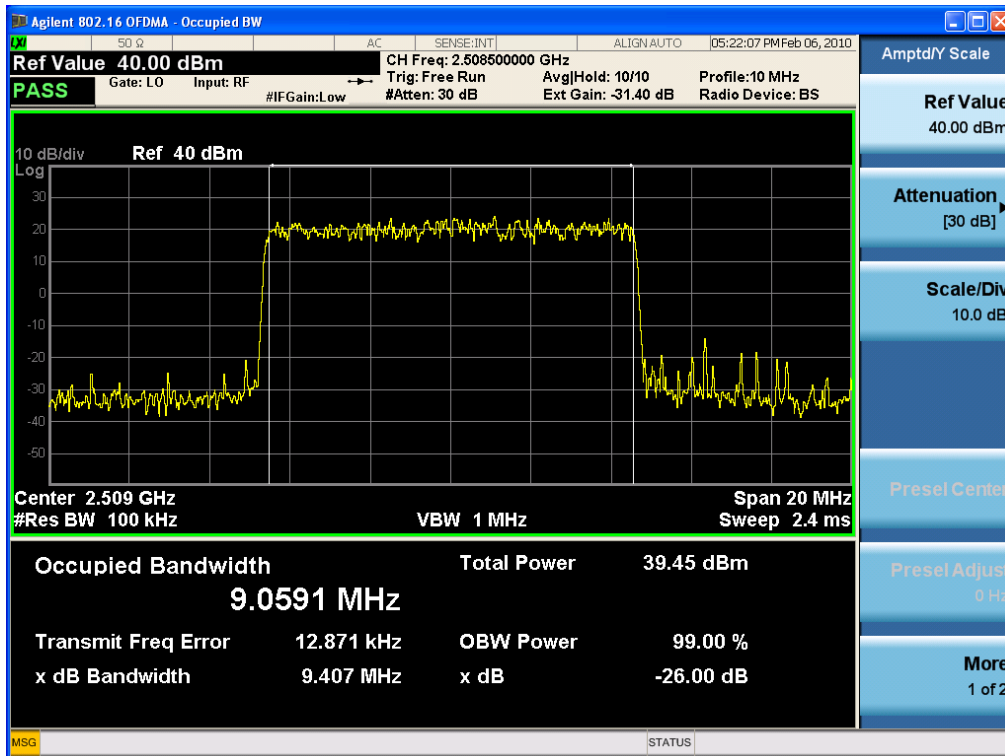


(16QAM High Channel)

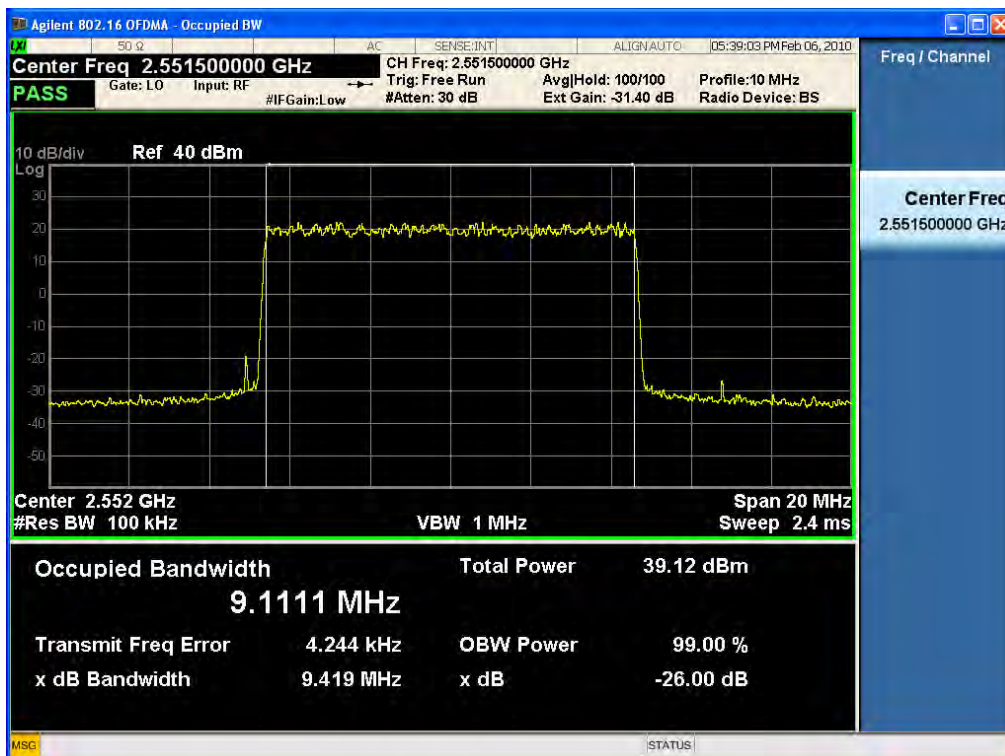


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(64QAM Low Channel)

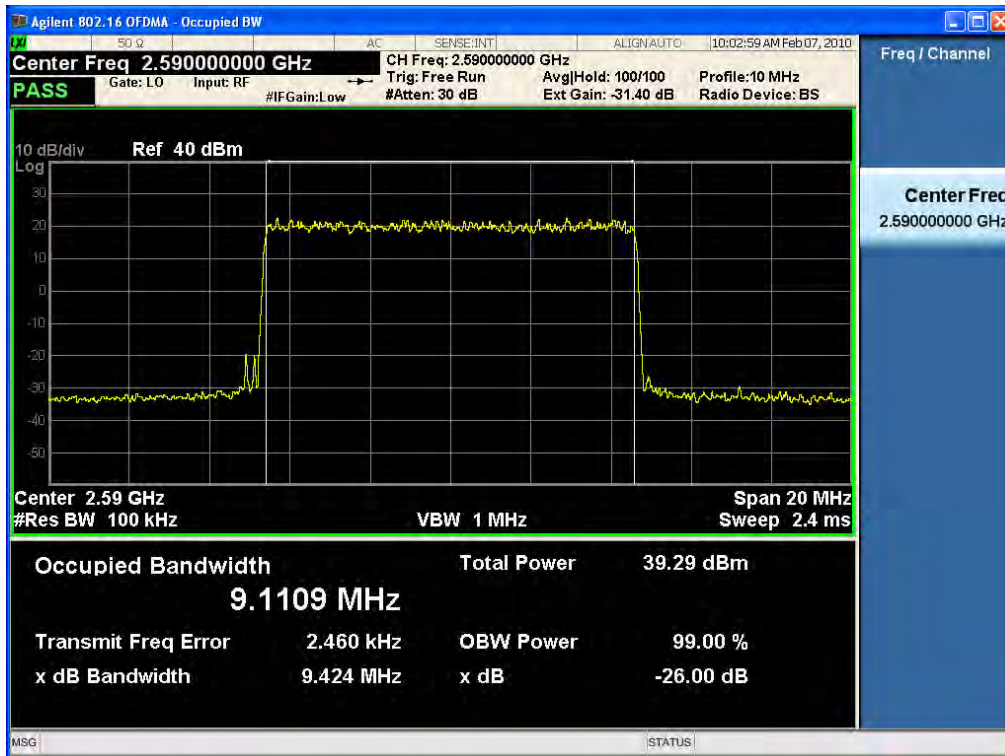


(64QAM Middle Channel)



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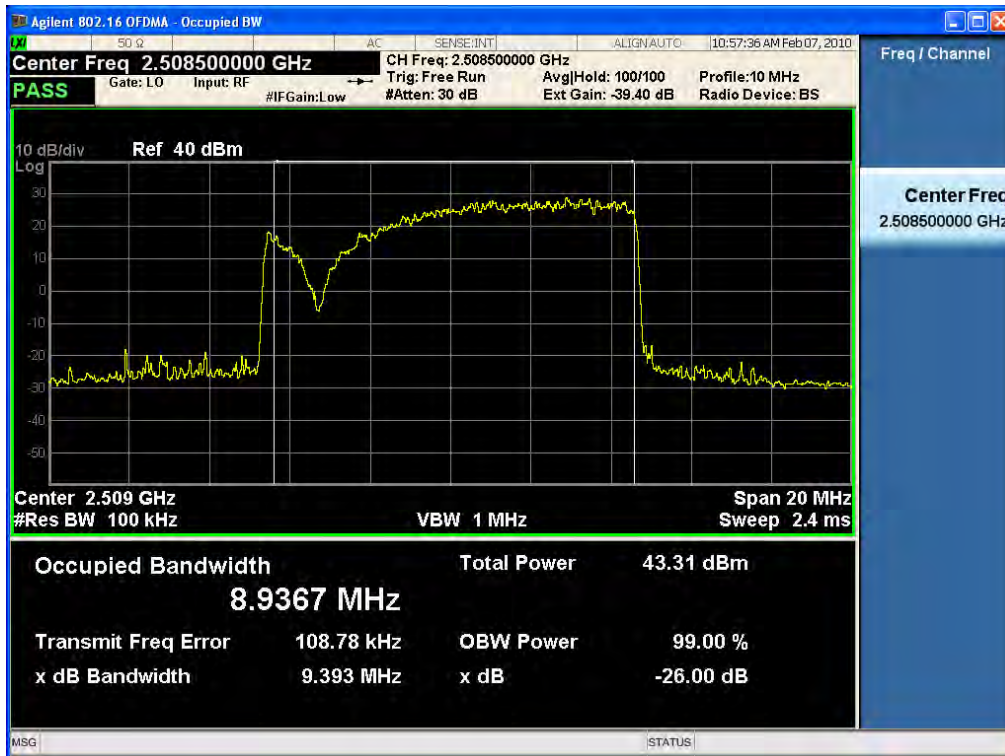
(64QAM High Channel)



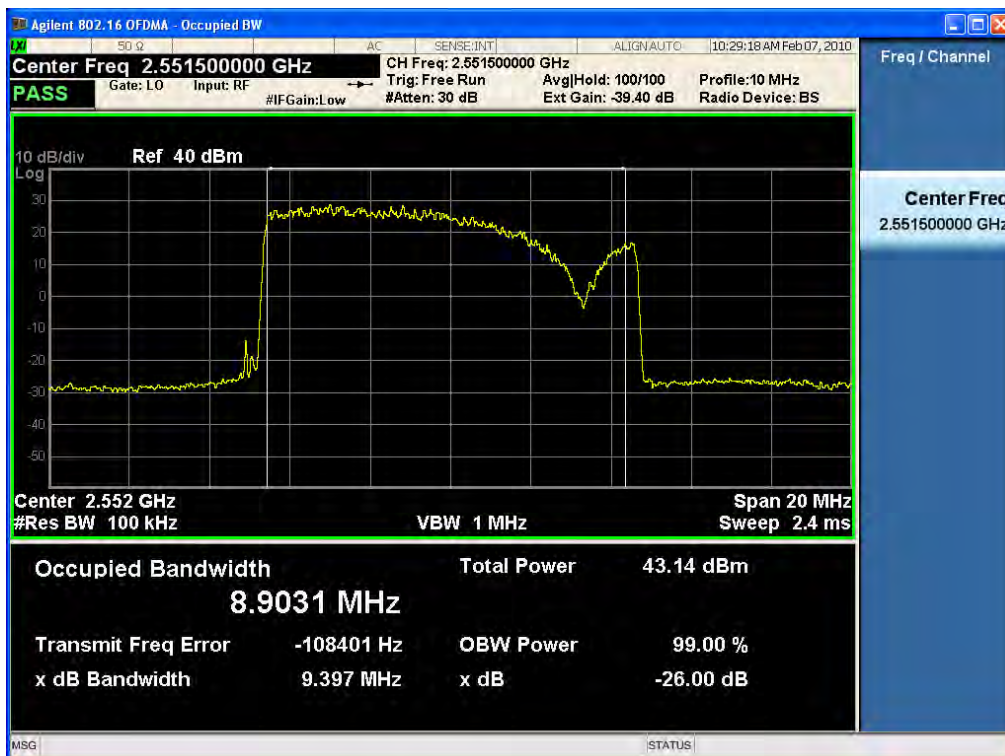
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6.4.8. Combined Test Plot at Output Port

(QPSK Low Channel)

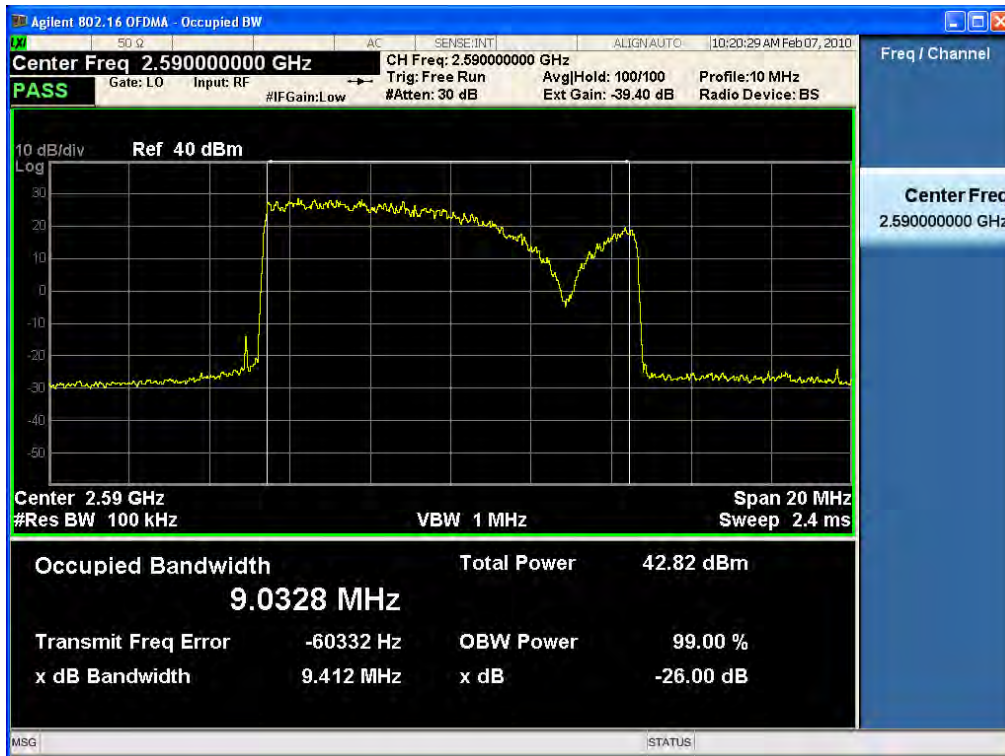


(QPSK Middle Channel)

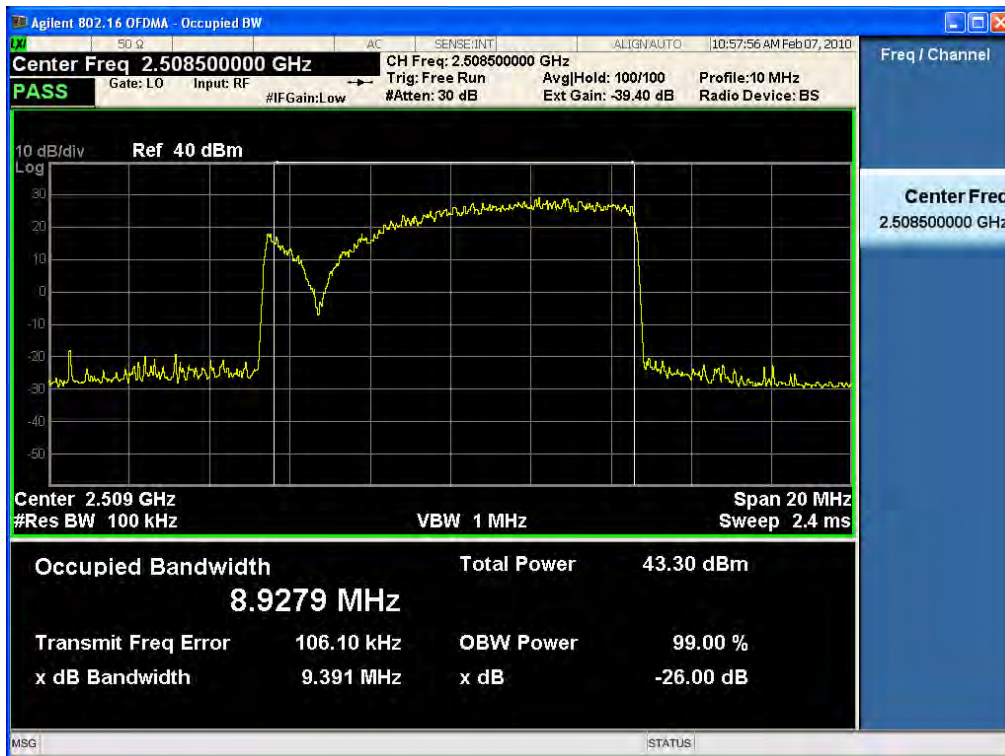


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(QPSK High Channel)

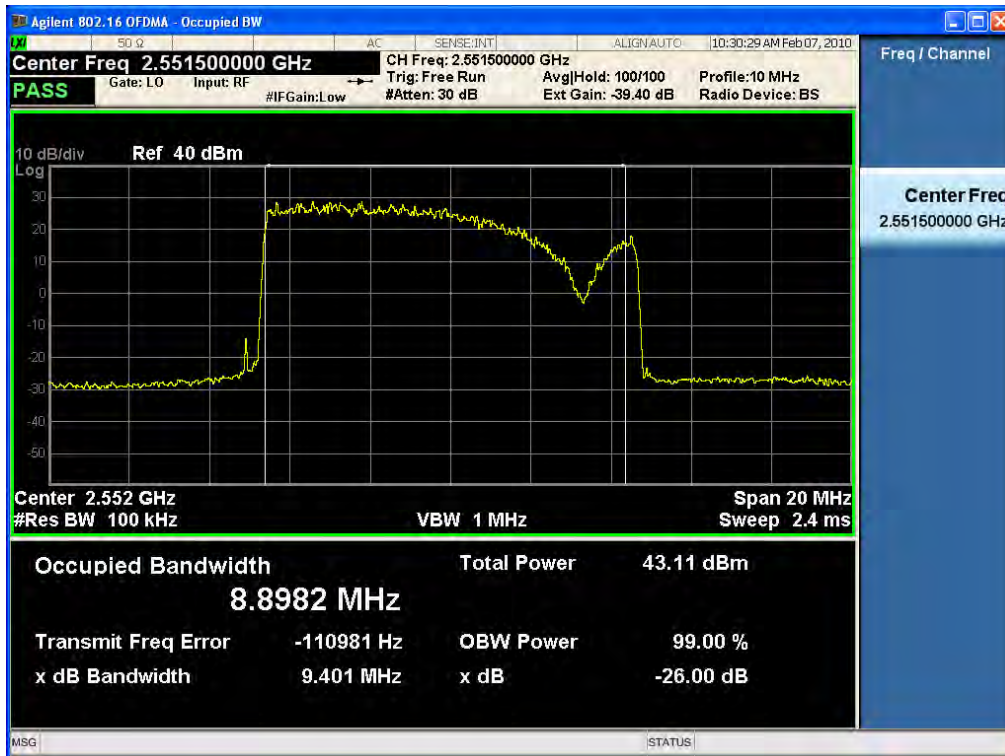


(16QAM Low Channel)

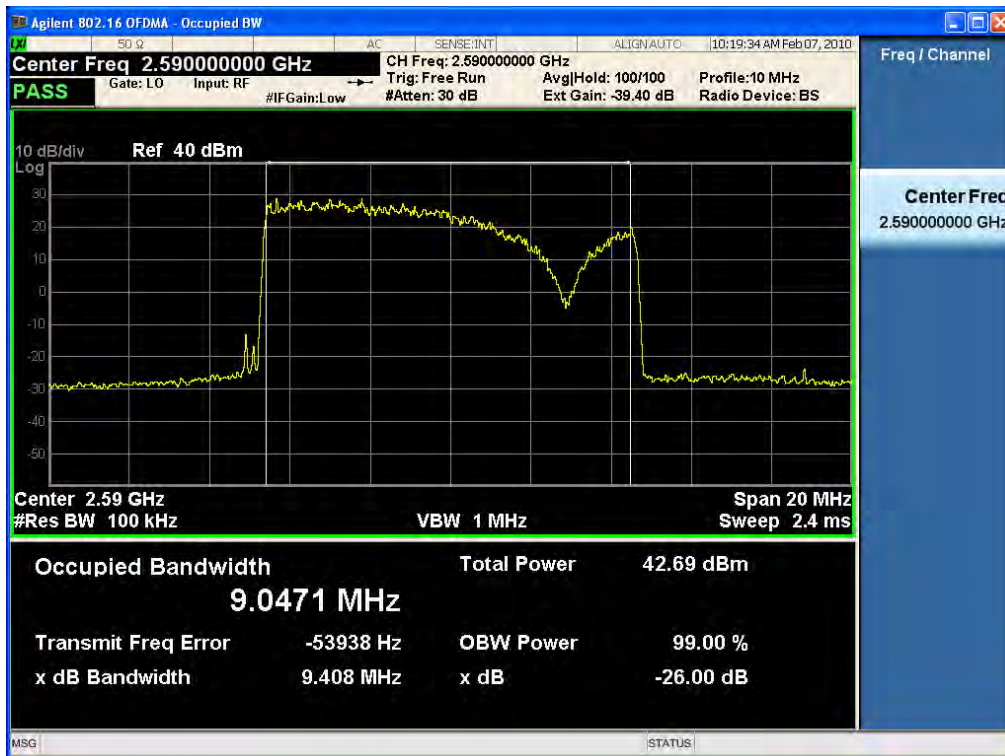


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(16QAM Middle Channel)

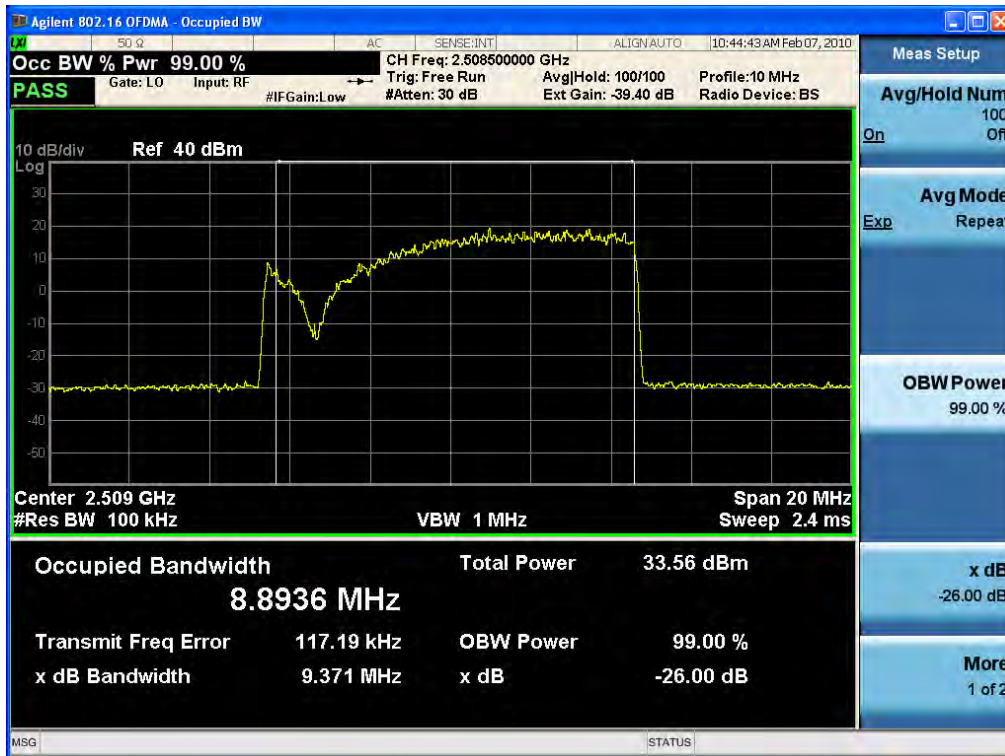


(16QAM High Channel)

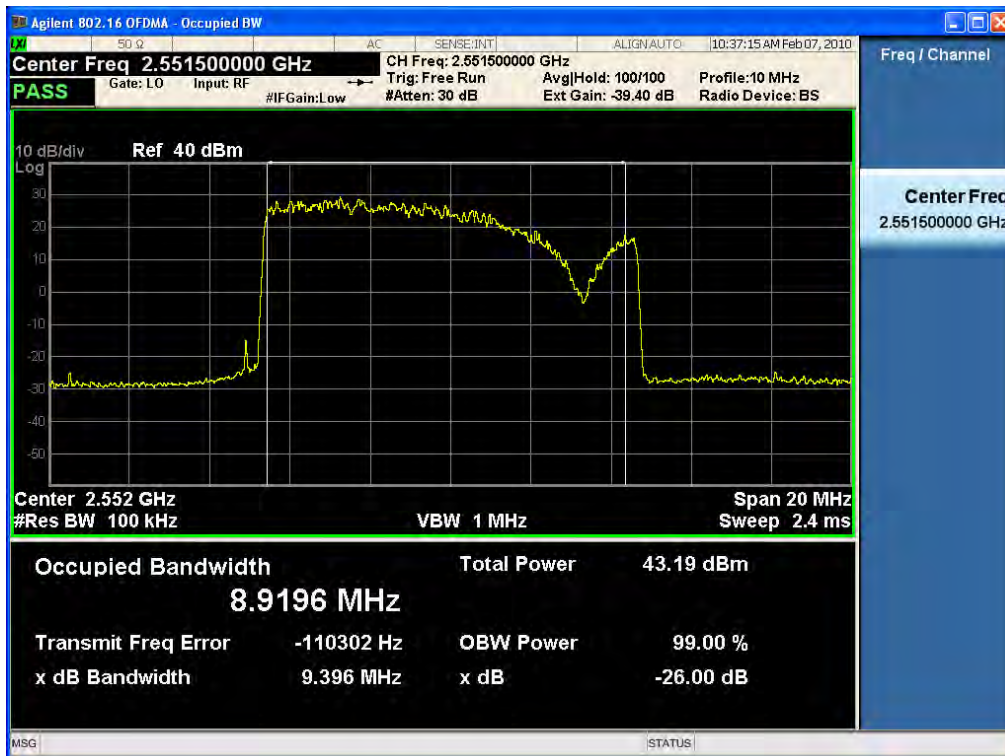


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(64QAM Low Channel)

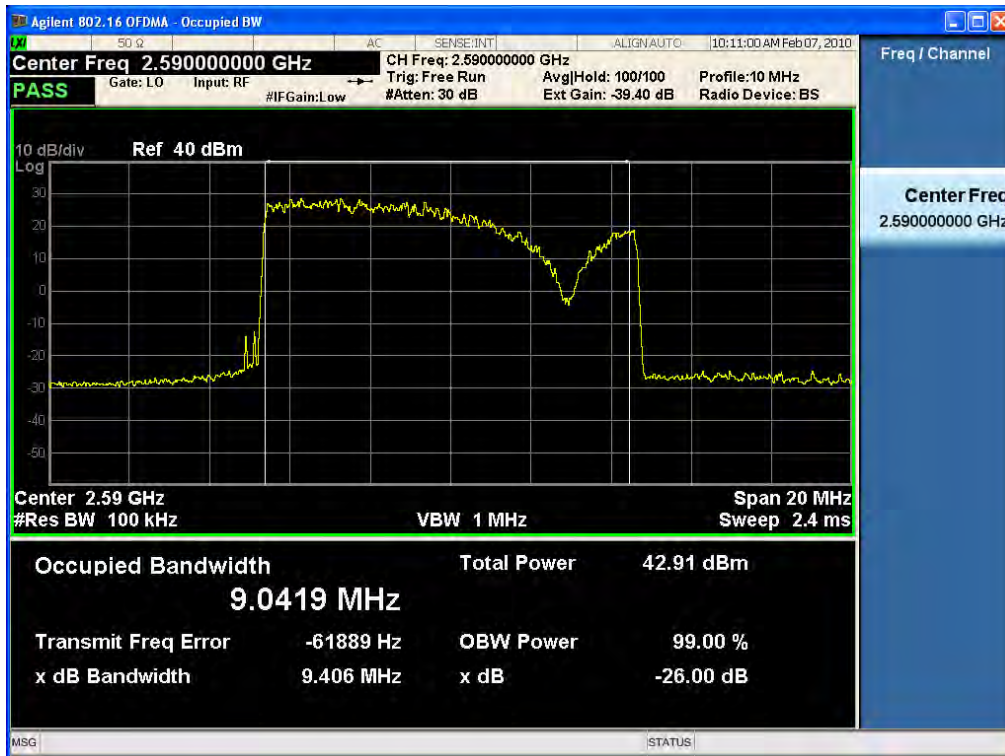


(64QAM Middle Channel)



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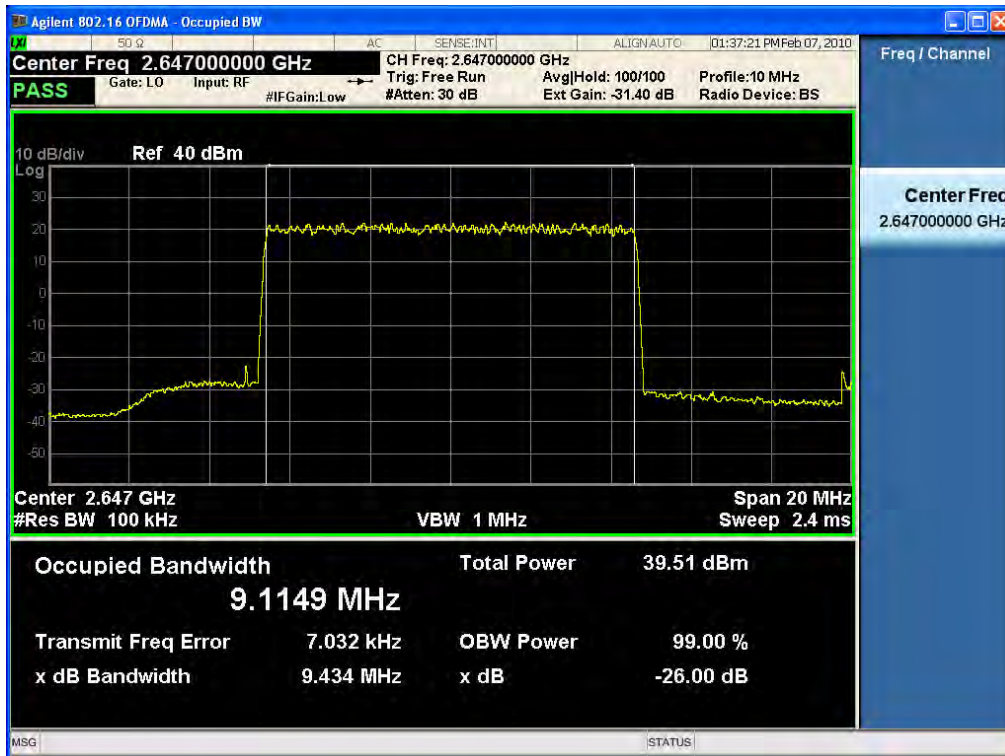
(64QAM High Channel)



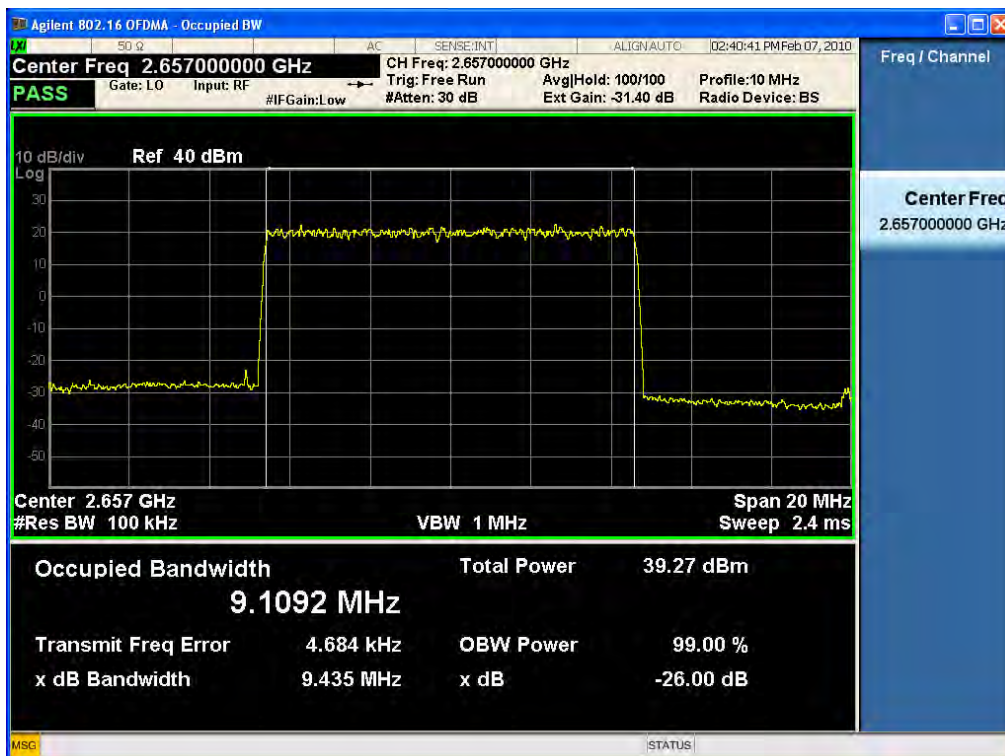
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6.4.9. Test Plot at Output Port Beta 0

(QPSK Low Channel)



(QPSK Middle Channel)



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