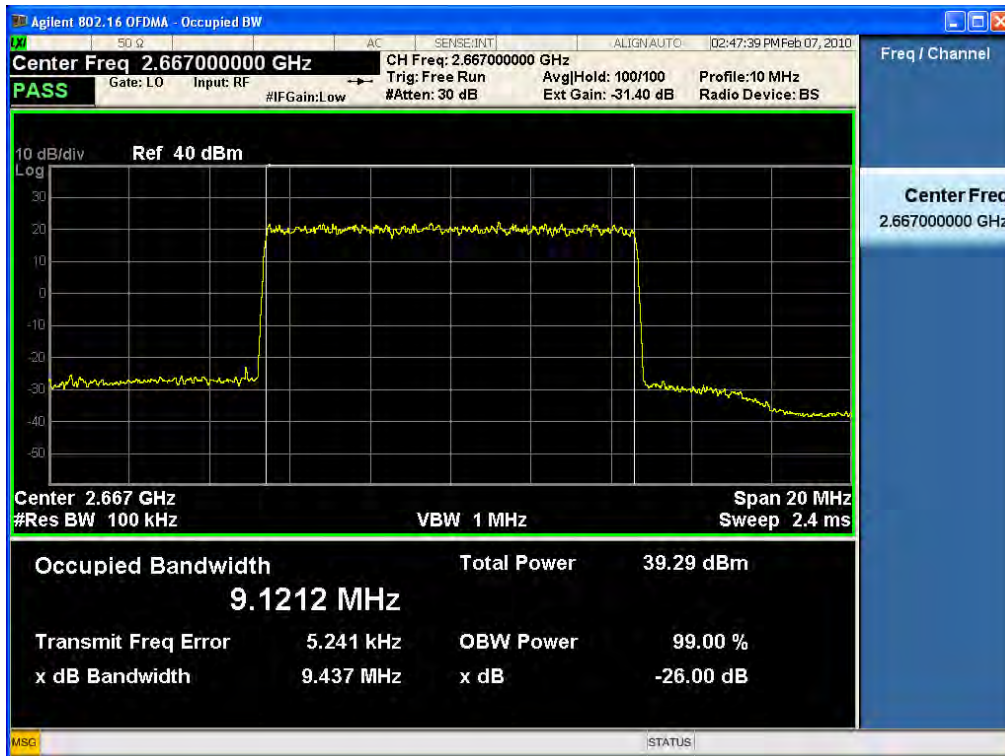
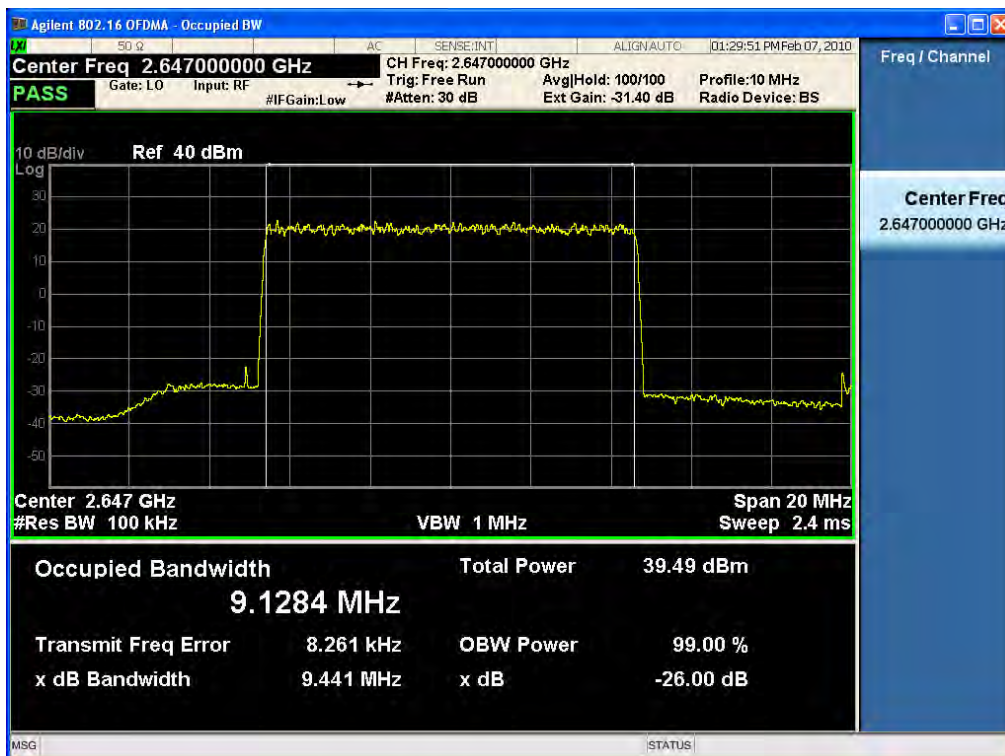


(QPSK High Channel)

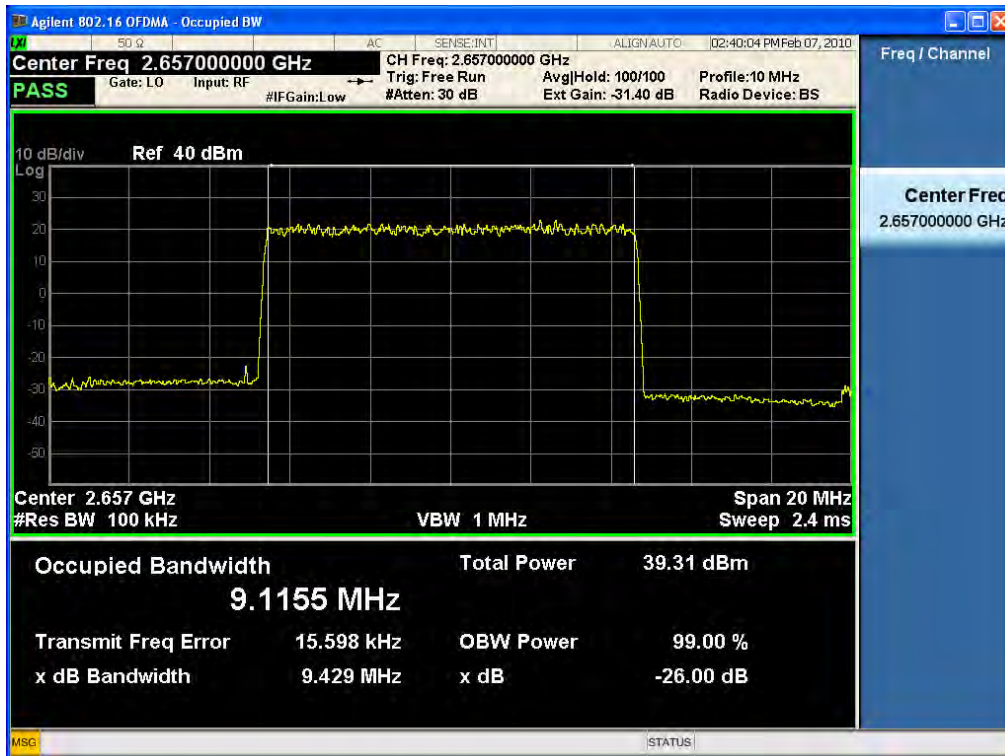


(16QAM Low Channel)

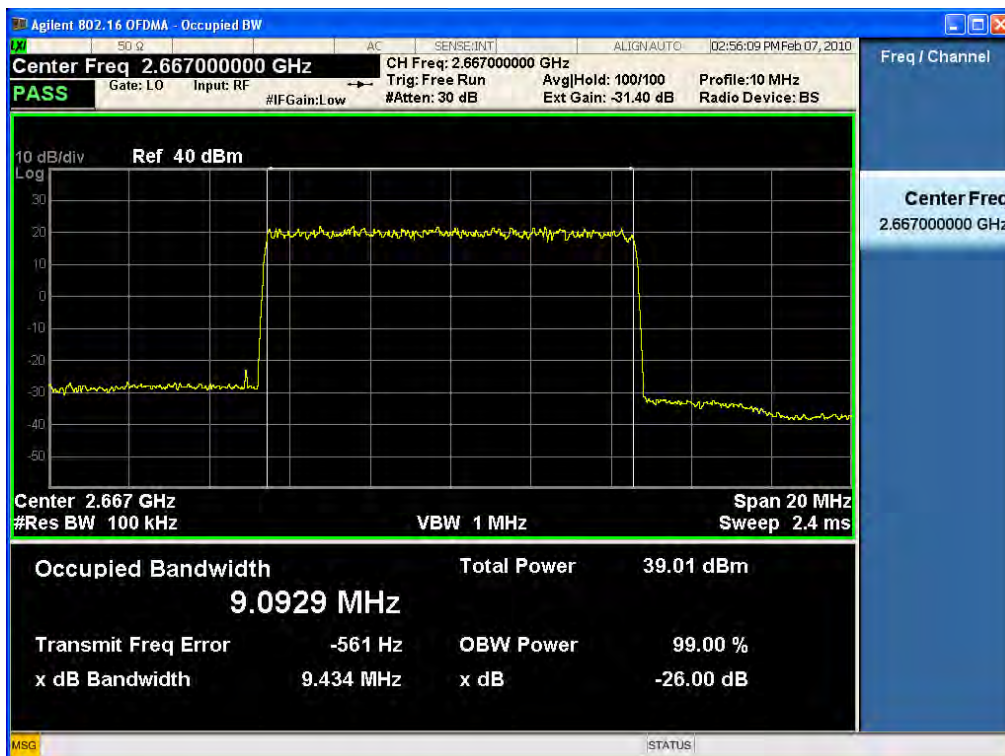


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(16QAM Middle Channel)

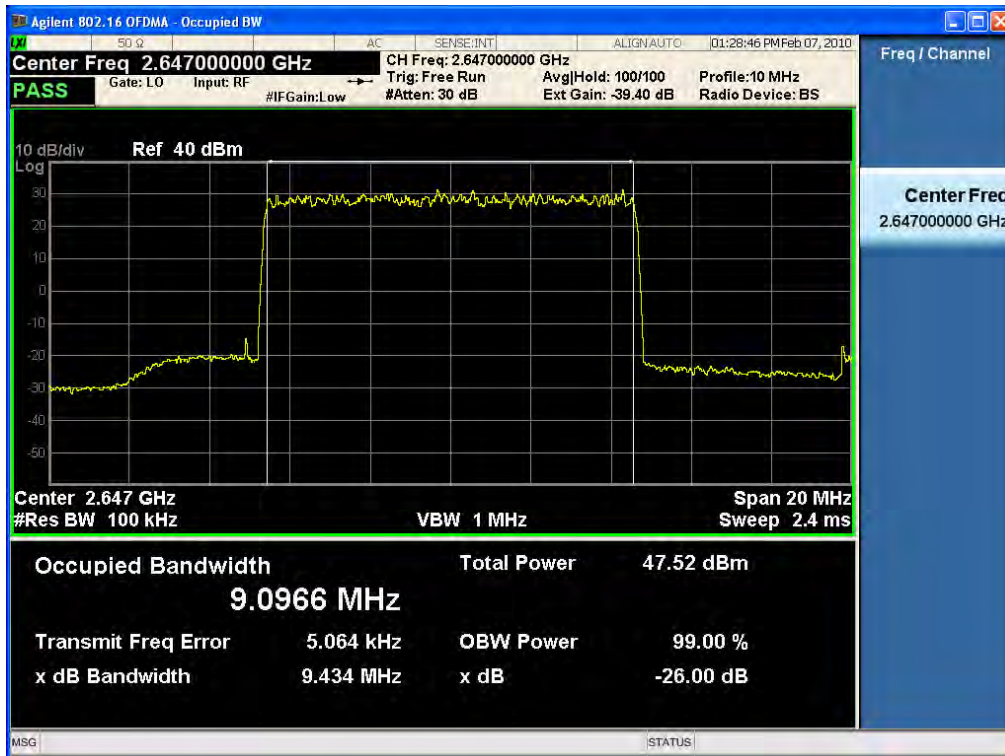


(16QAM High Channel)

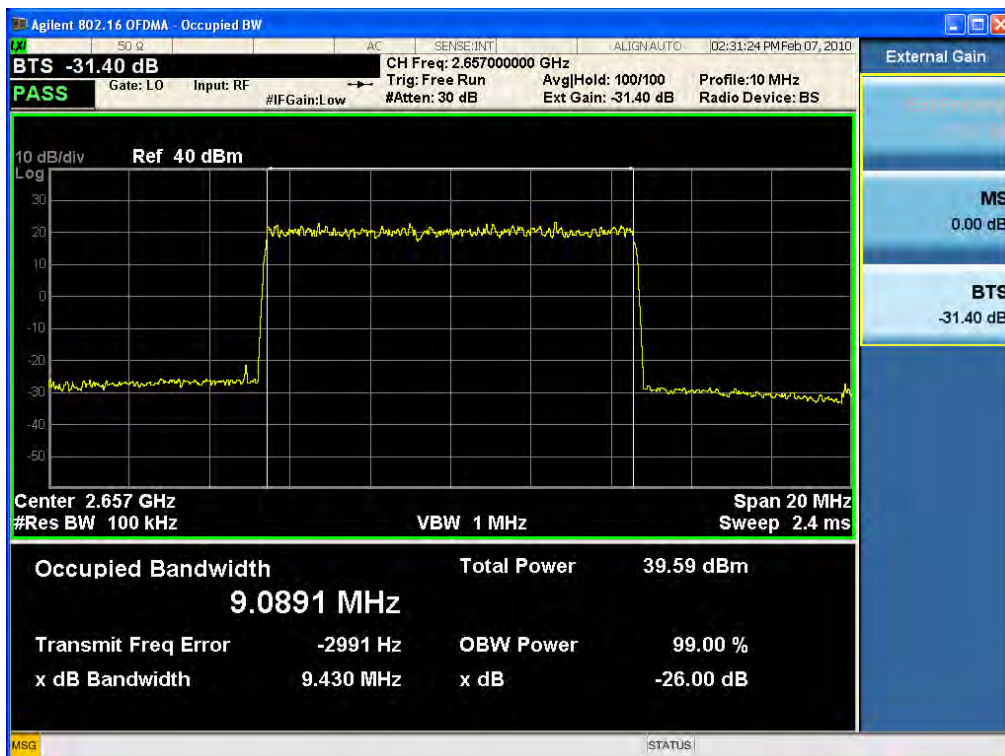


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(64QAM Low Channel)

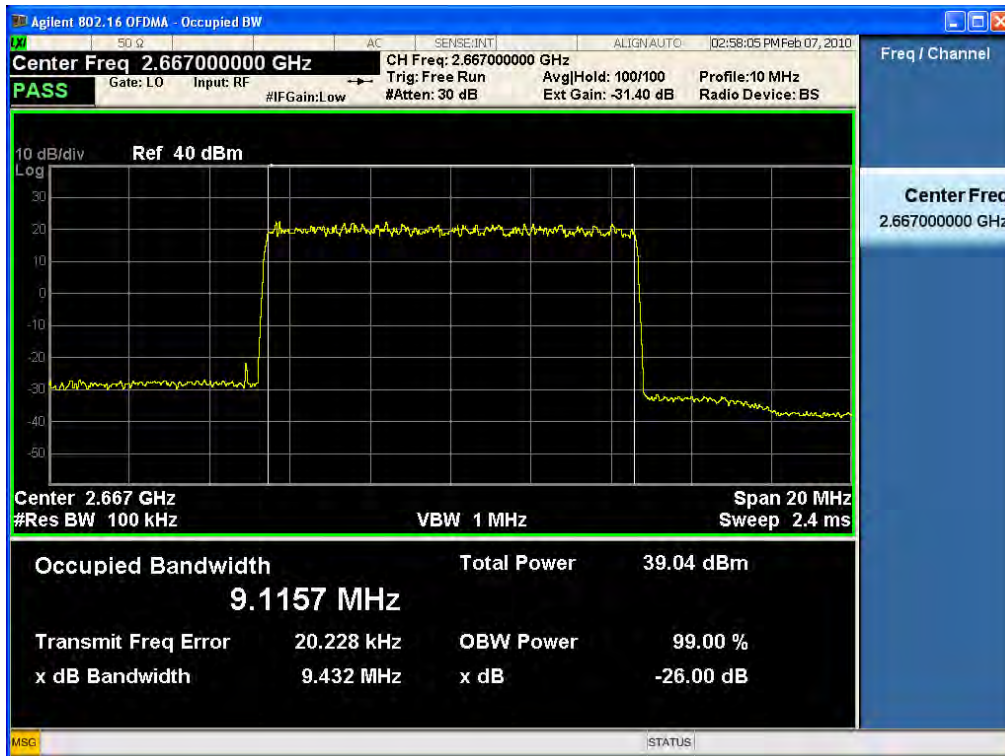


(64QAM Middle Channel)



HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1003FR03	Test Dates: March 9 ,2010	EUT Type: Mobile WiMAX Indoor RAS	FCC ID: A3LSPI-2210012502	Page 63 of 165

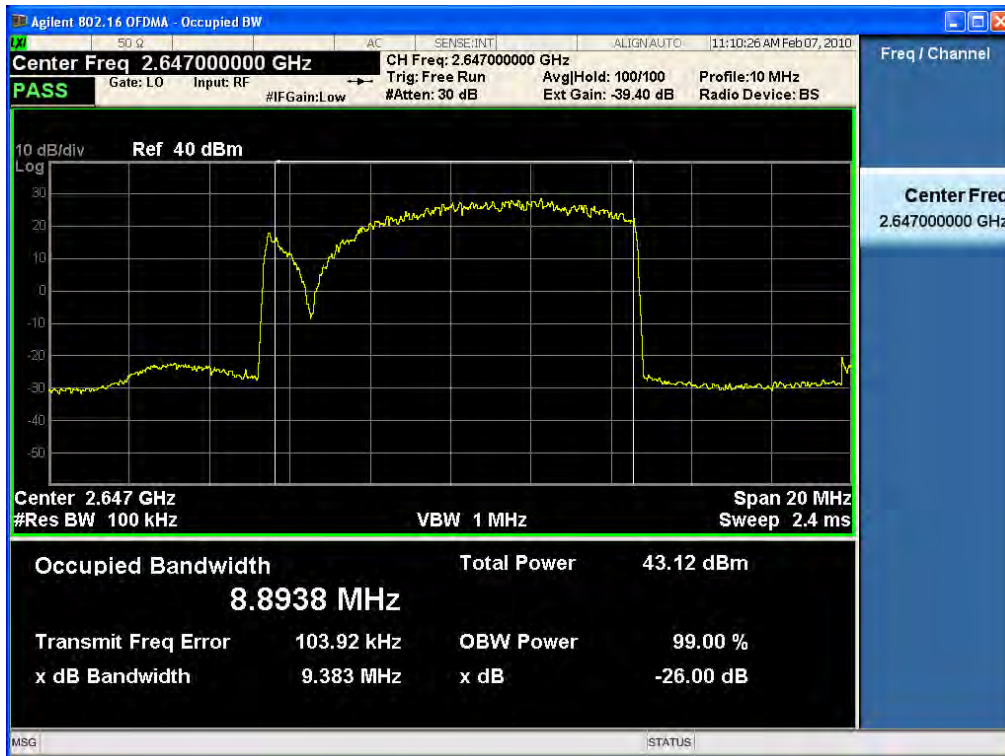
(64QAM High Channel)



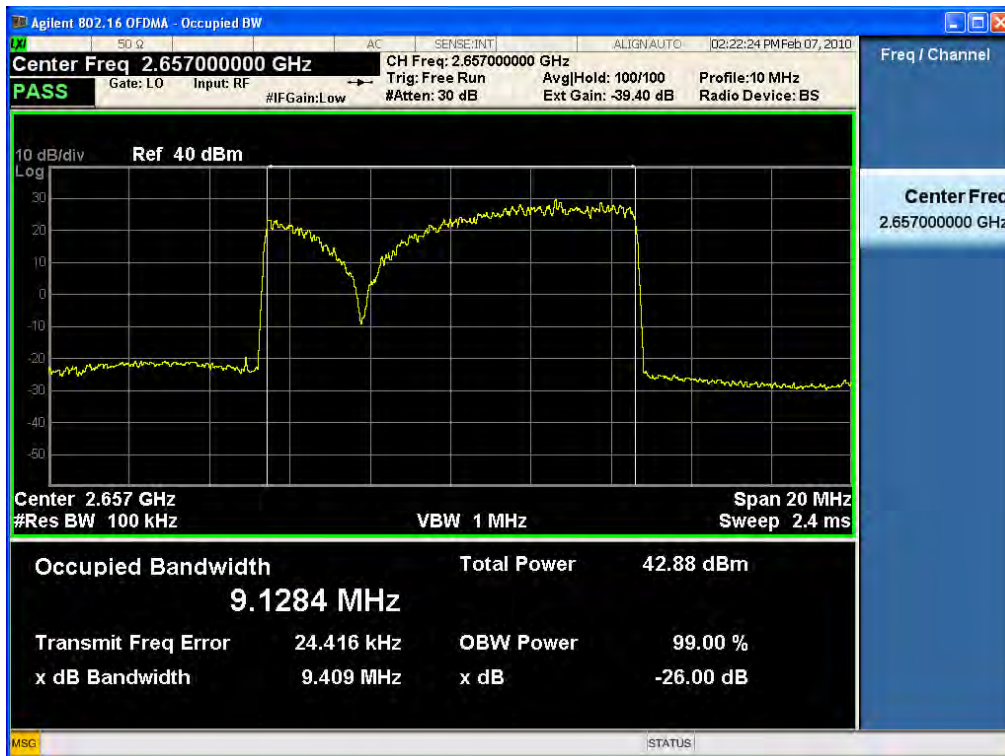
HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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6.4.10. Combined Test Plot at Output Port

(QPSK Low Channel)

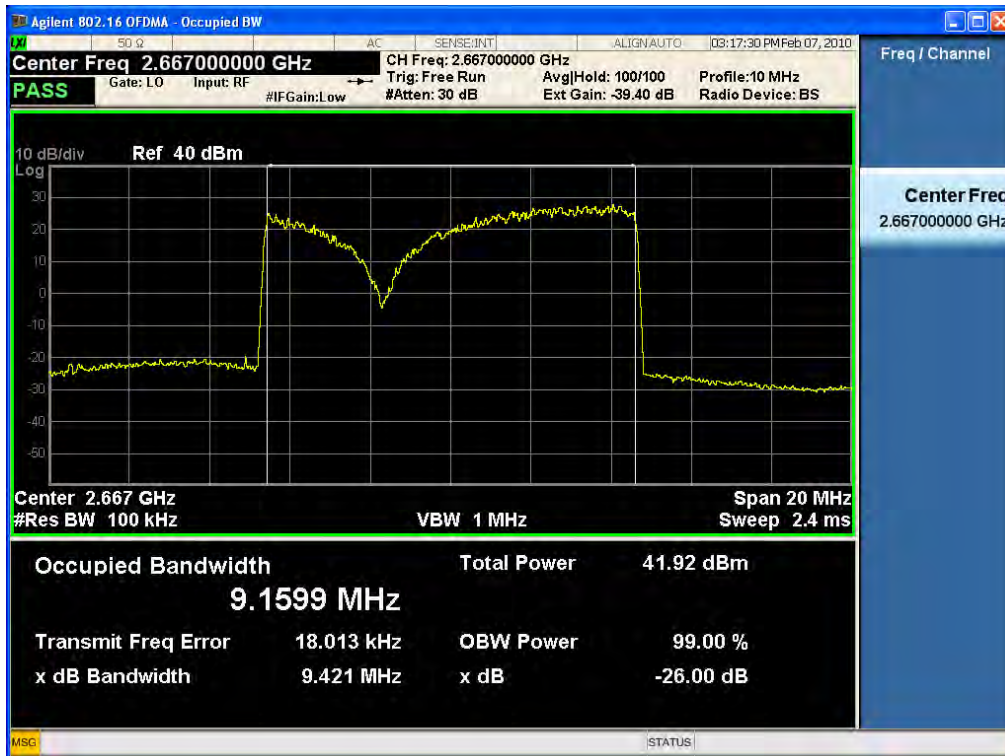


(QPSK Middle Channel)

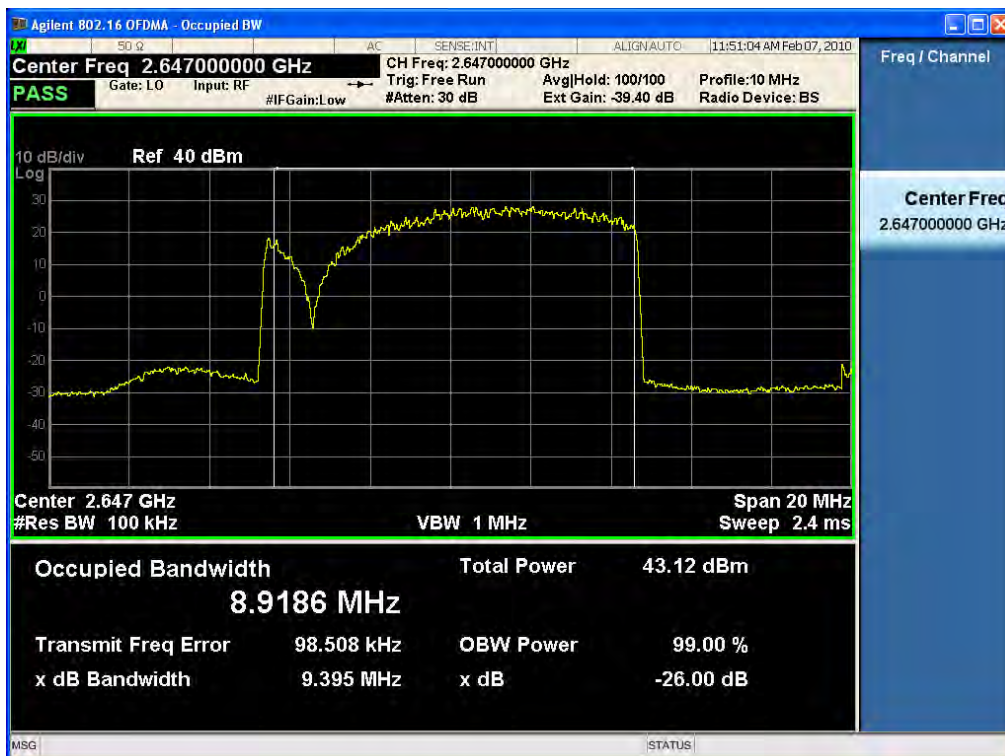


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(QPSK High Channel)

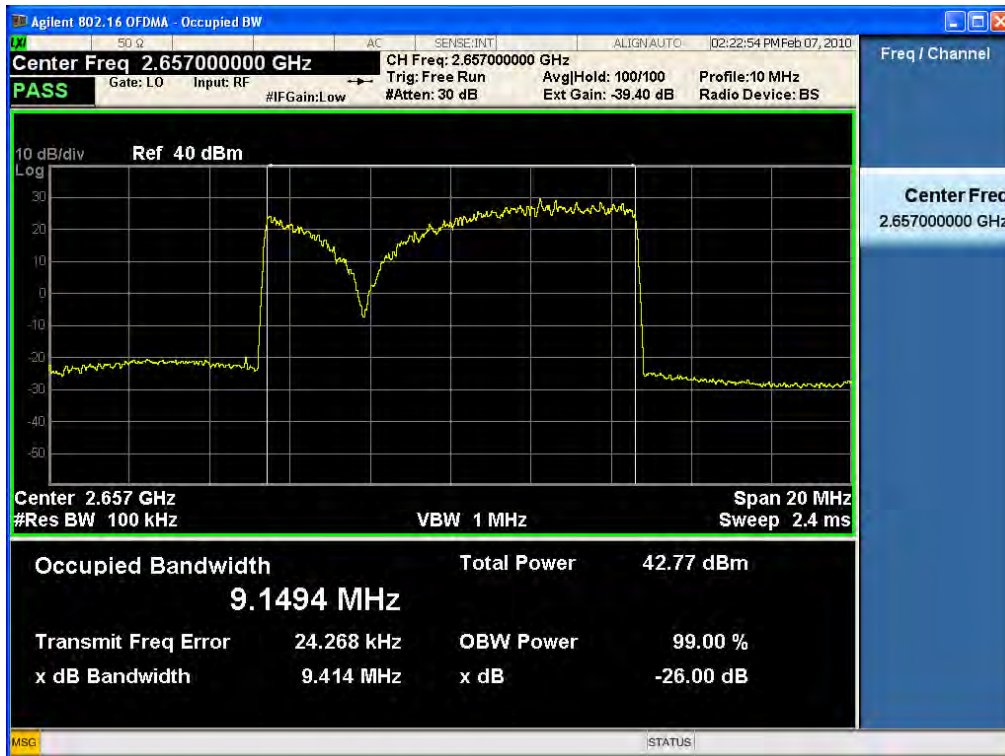


(16QAM Low Channel)

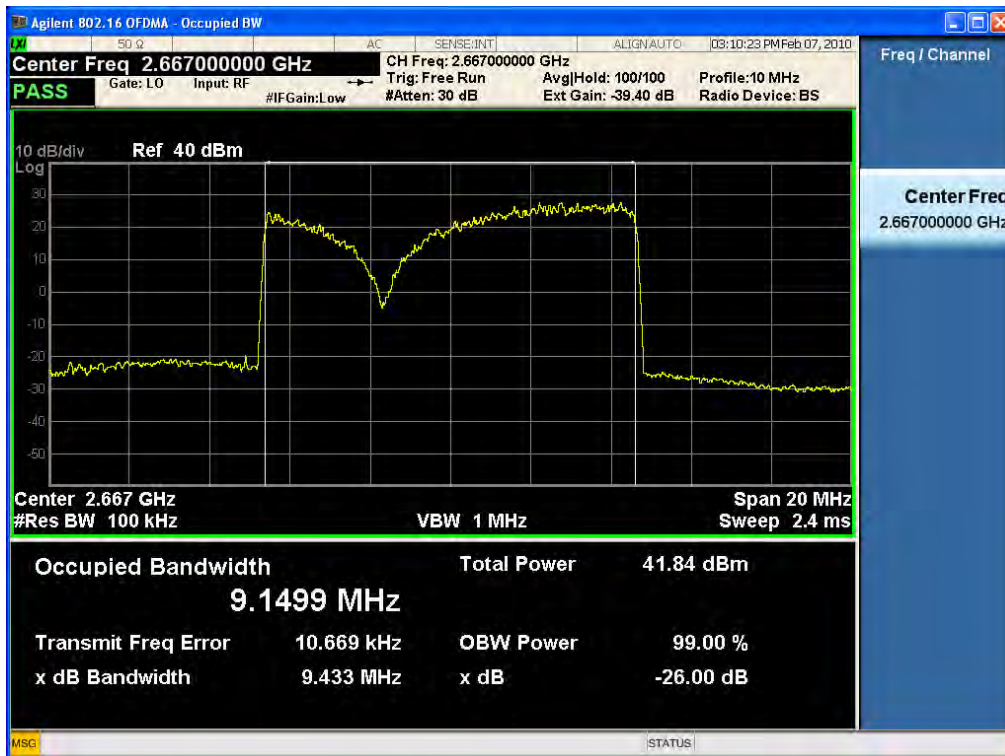


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(16QAM Middle Channel)

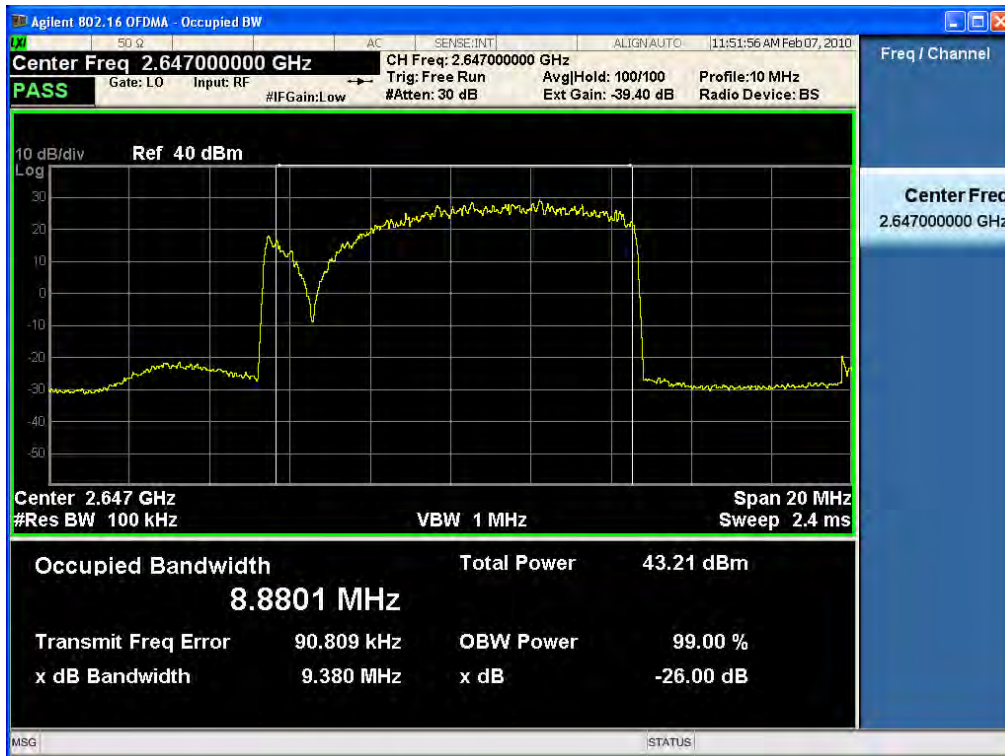


(16QAM High Channel)

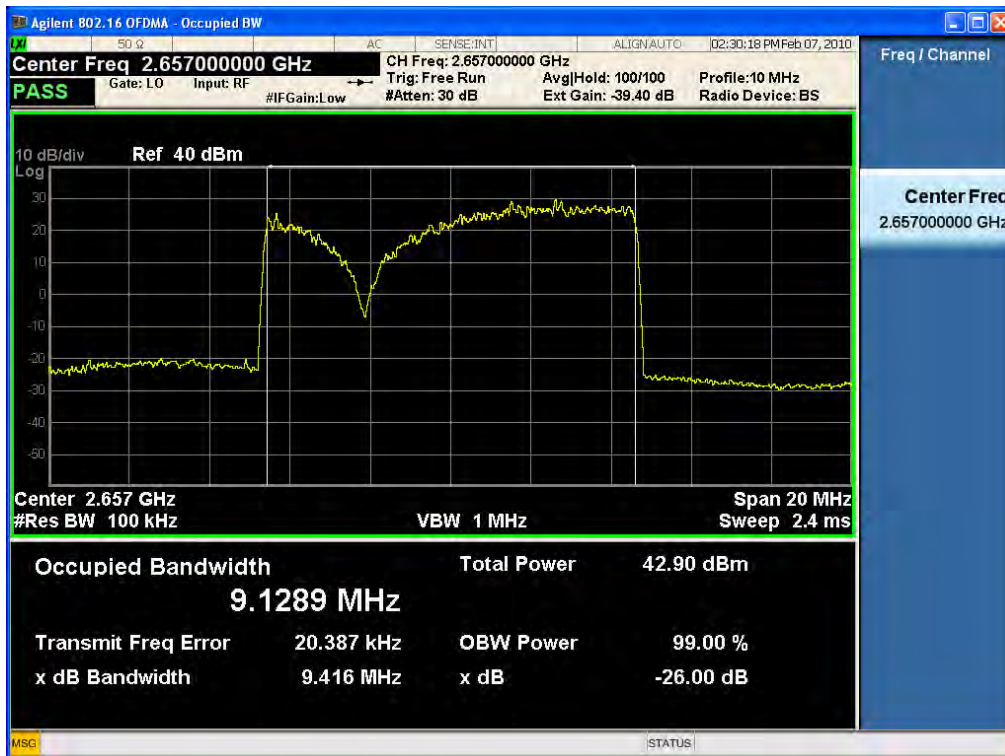


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1003FR03	Test Dates: March 9 ,2010	EUT Type: Mobile WiMAX Indoor RAS	FCC ID: A3LSPI-2210012502	Page 67 of 165

(64QAM Low Channel)

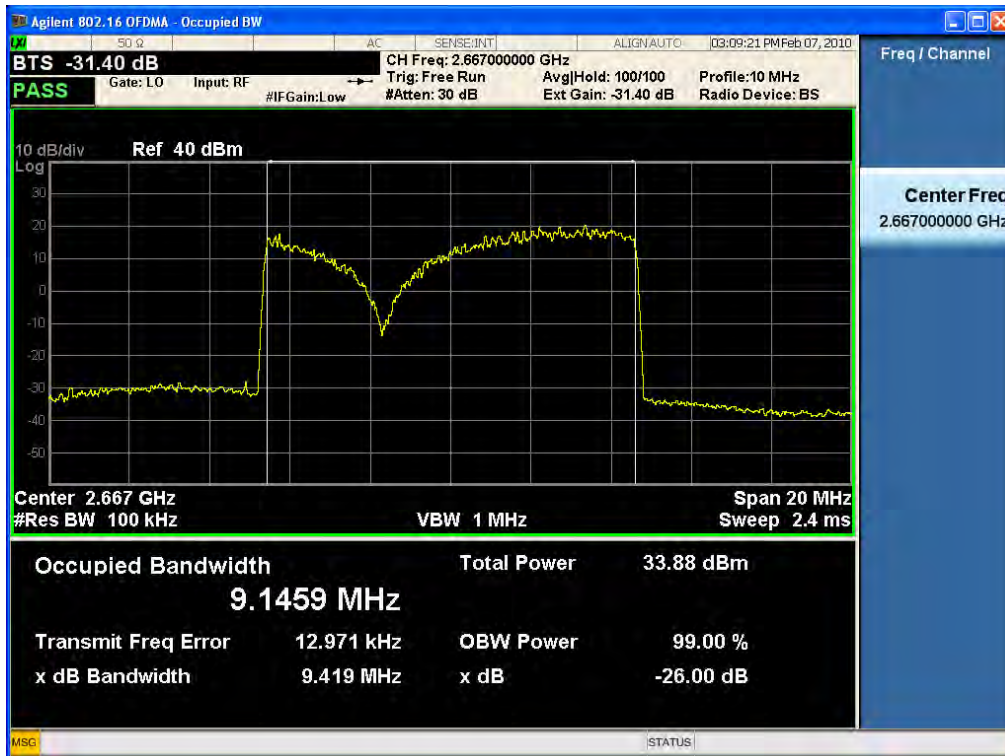


(64QAM Middle Channel)



HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1003FR03	Test Dates: March 9 ,2010	EUT Type: Mobile WiMAX Indoor RAS	FCC ID: A3LSPI-2210012502	Page 68 of 165

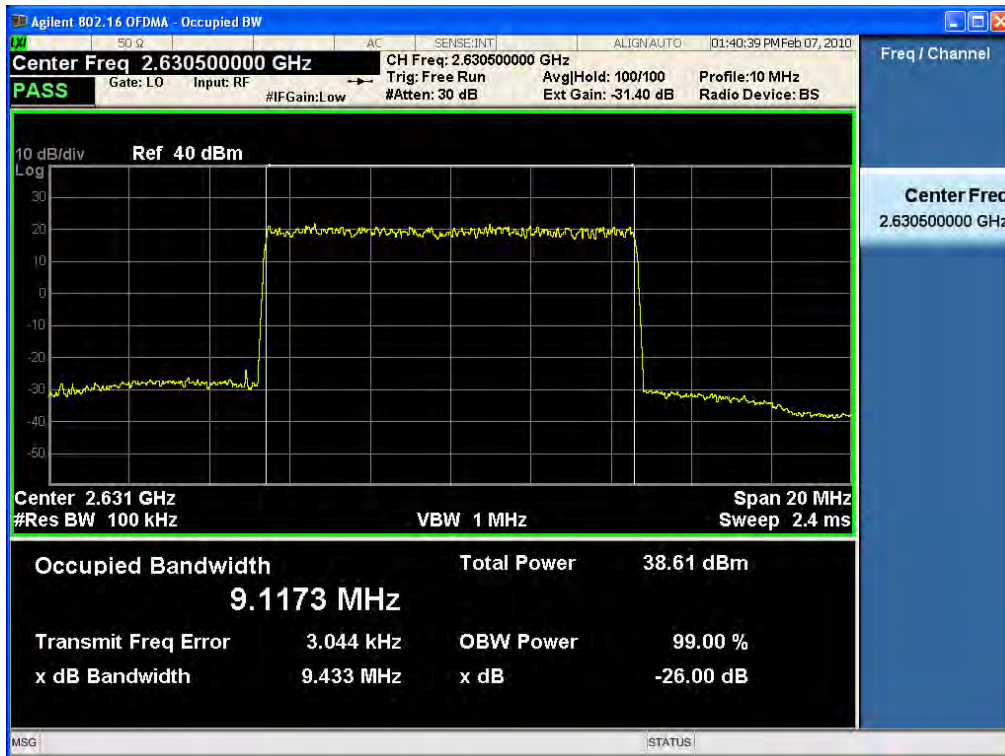
(64QAM High Channel)



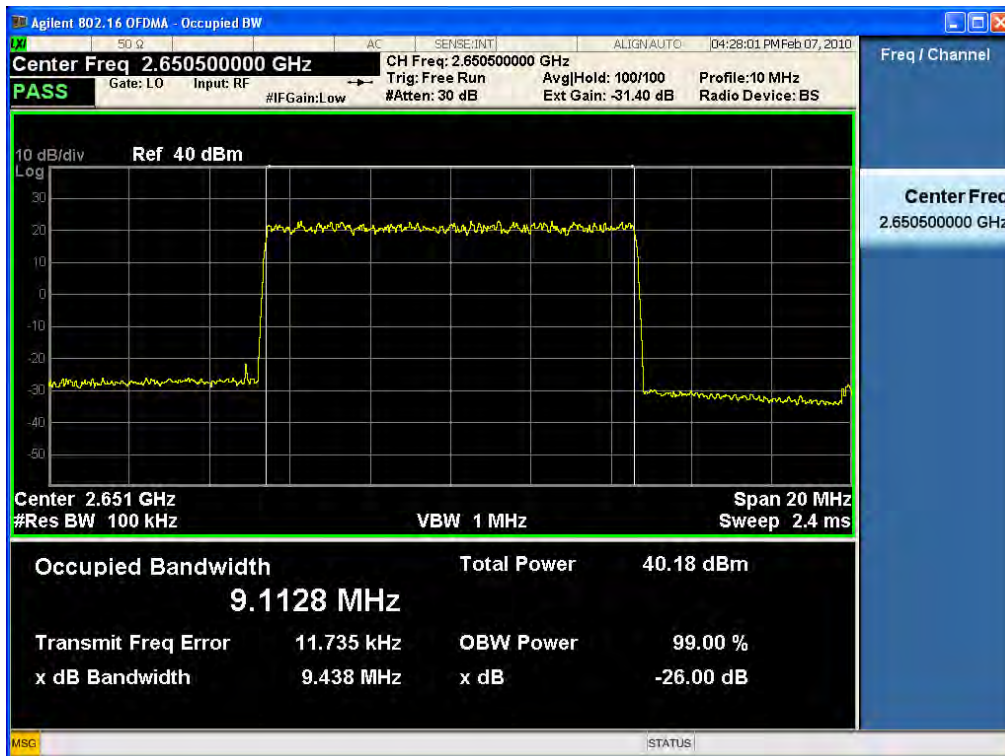
HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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6.4.11. Test Plot at Output Port Gamma 0

(QPSK Low Channel)

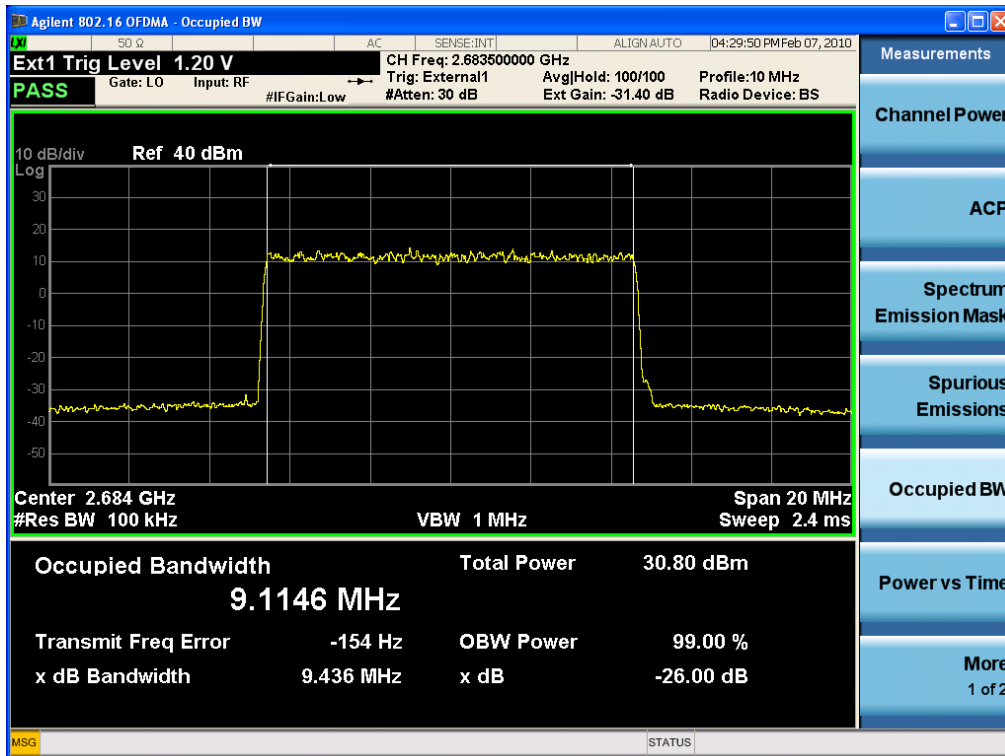


(QPSK Middle Channel)

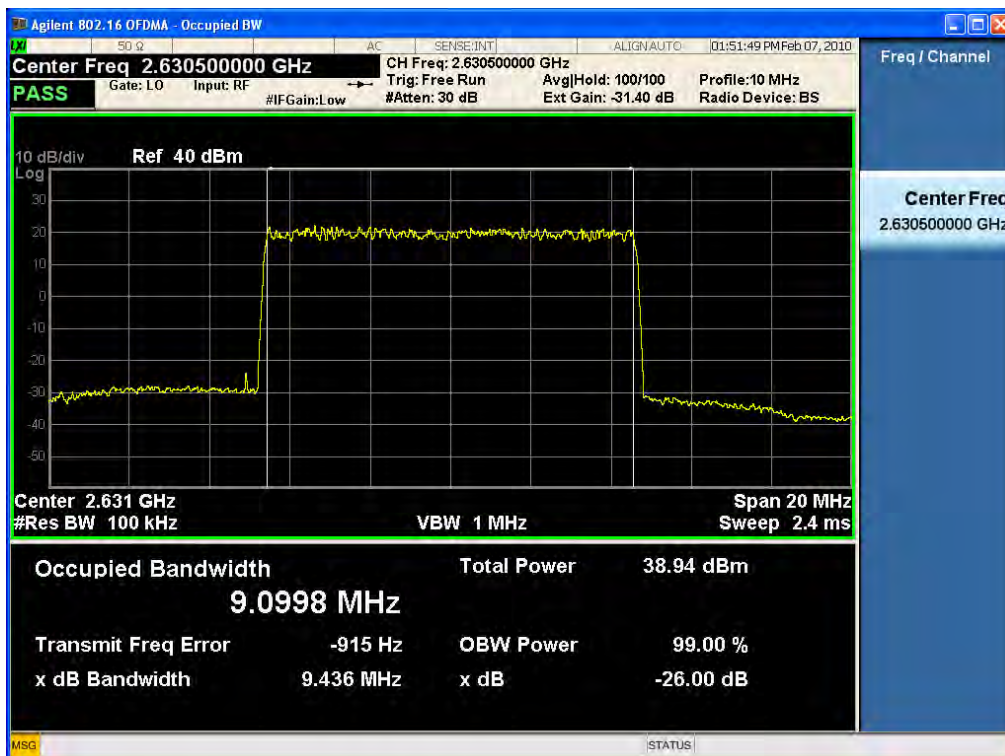


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(QPSK High Channel)

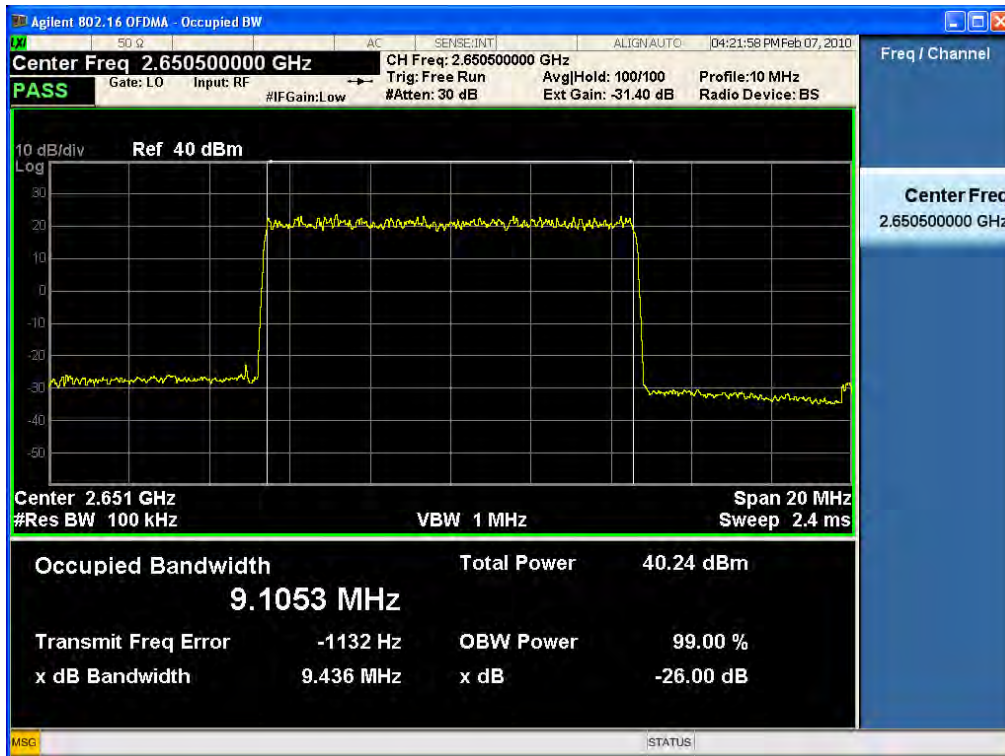


(16QAM Low Channel)

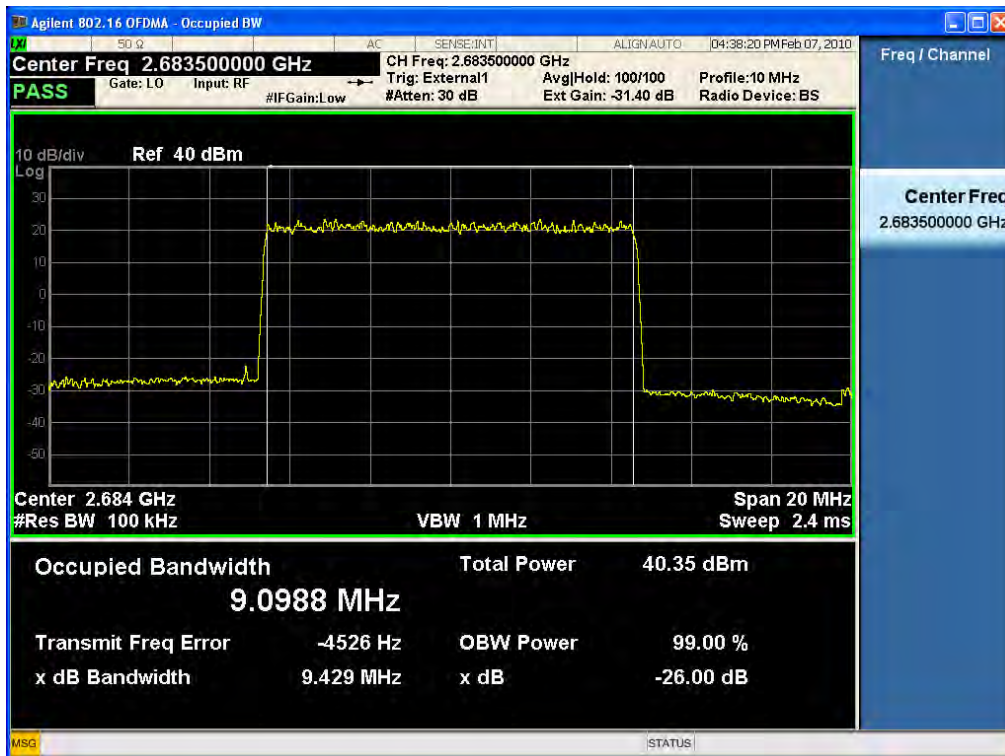


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(16QAM Middle Channel)

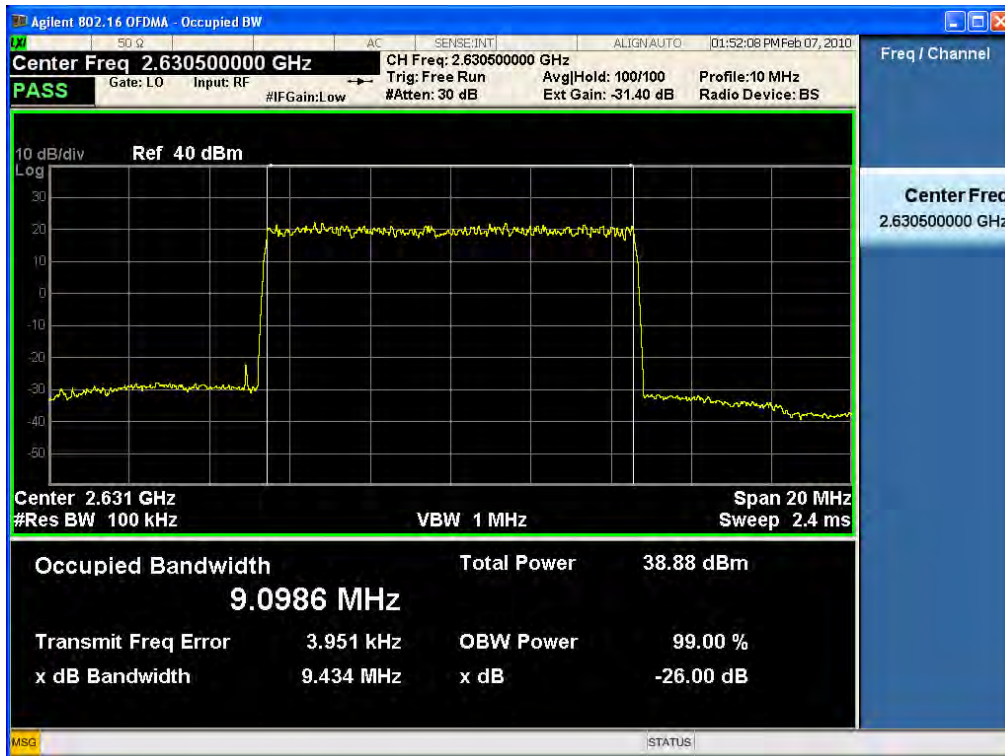


(16QAM High Channel)

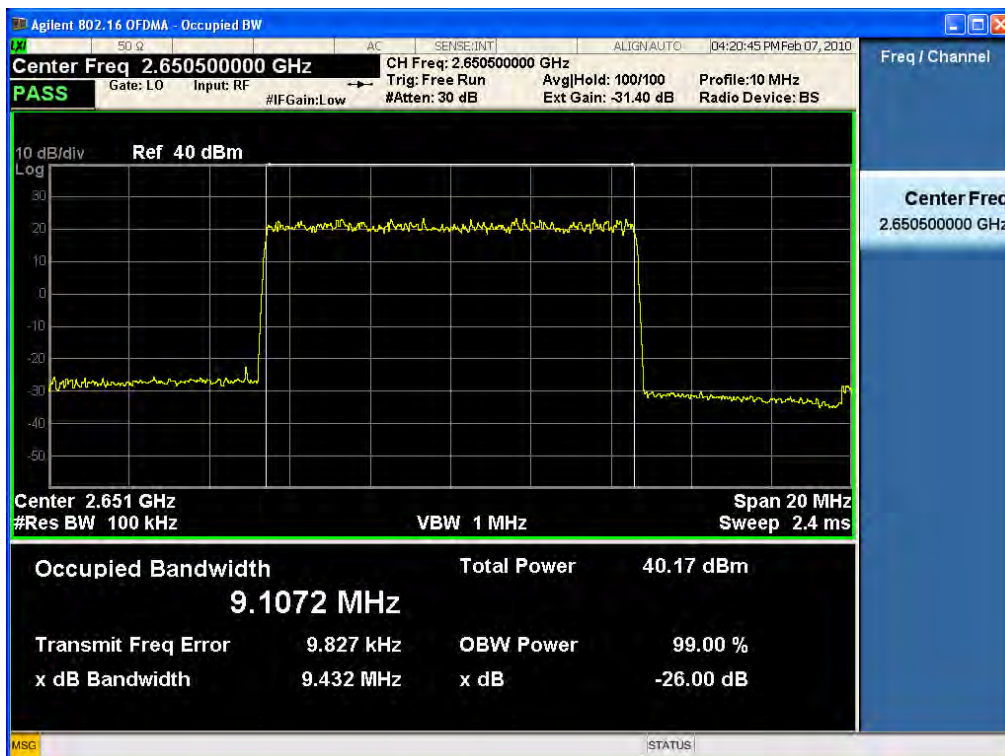


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(64QAM Low Channel)

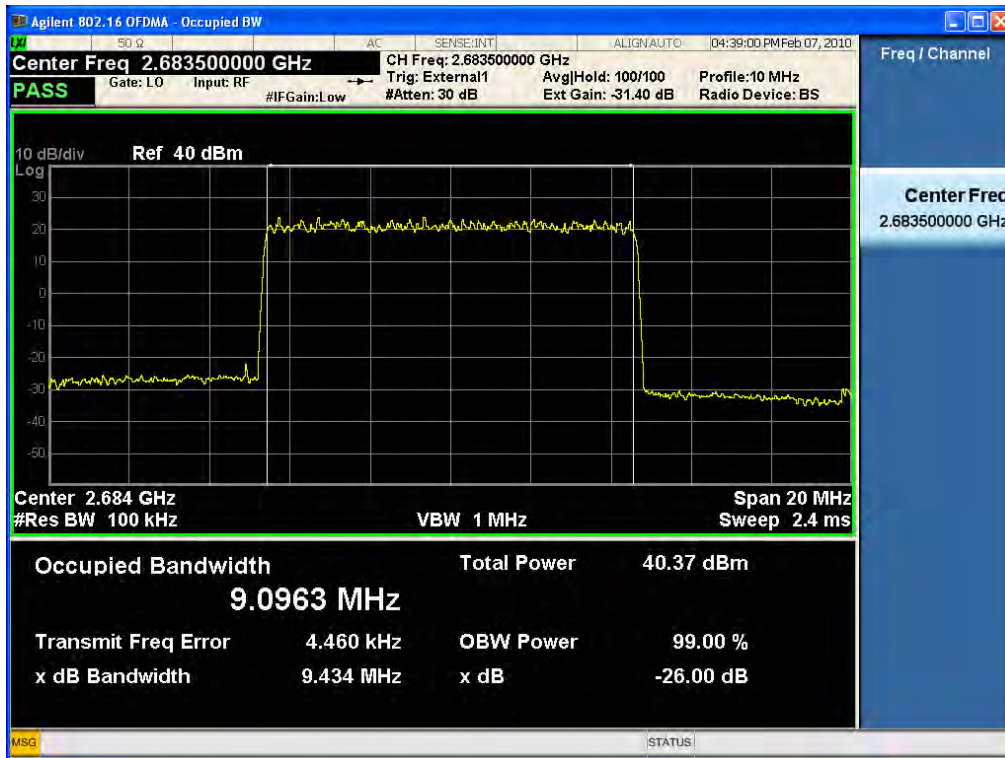


(64QAM Middle Channel)



HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1003FR03	Test Dates: March 9 ,2010	EUT Type: Mobile WiMAX Indoor RAS	FCC ID: A3LSPI-2210012502	Page 73 of 165

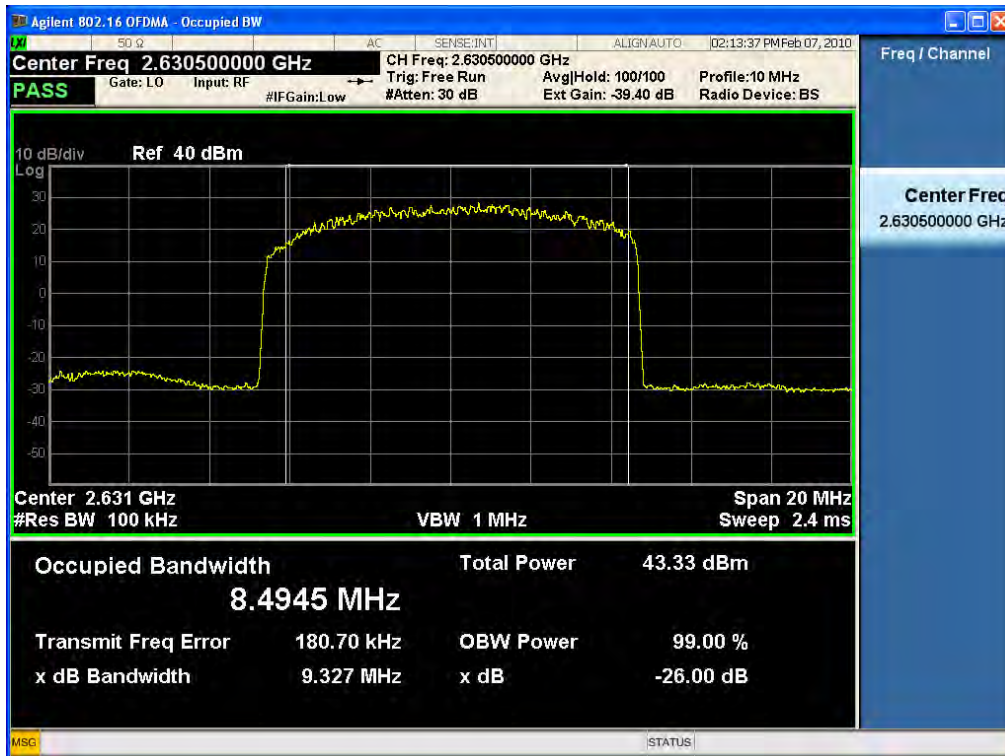
(64QAM High Channel)



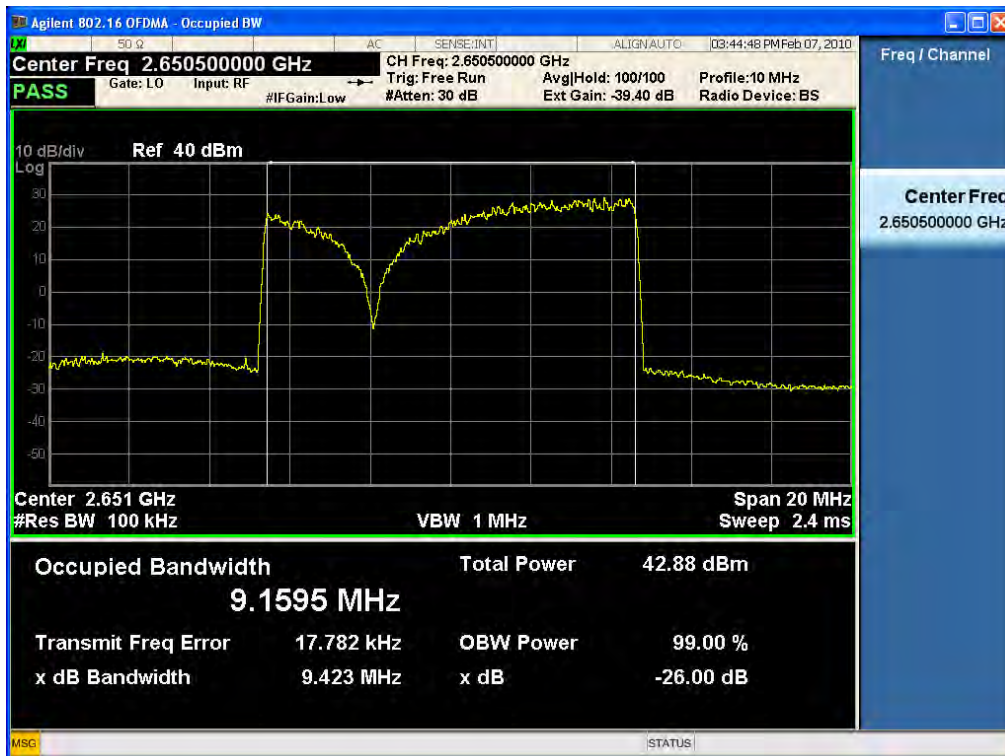
HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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6.4.12. Combined Test Plot at Output Port

(QPSK Low Channel)

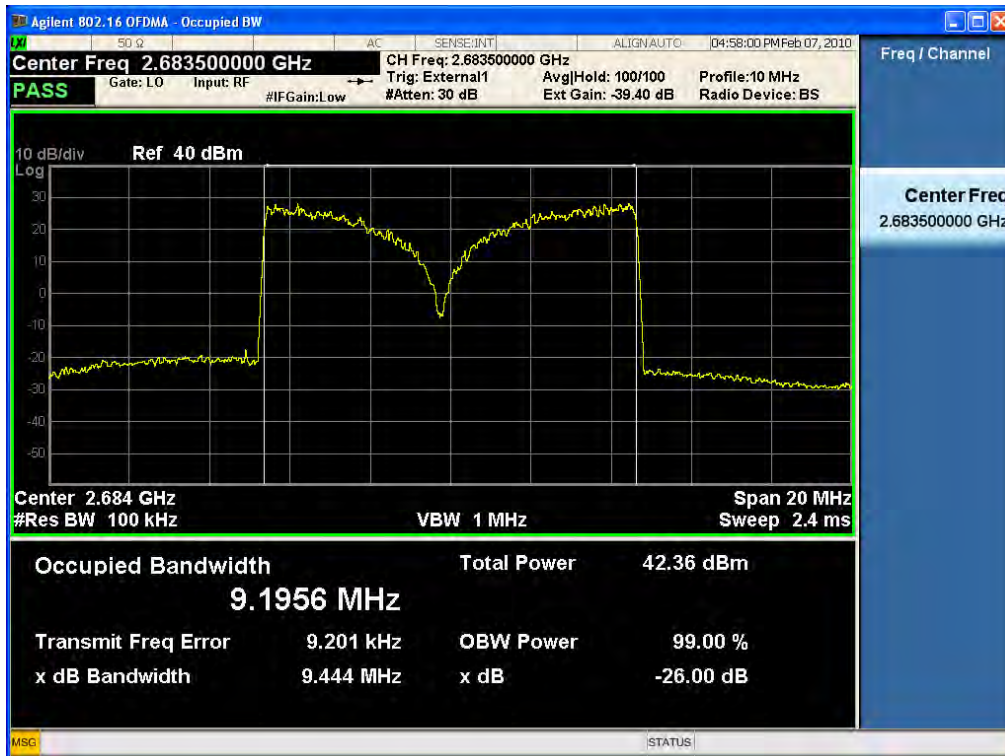


(QPSK Middle Channel)

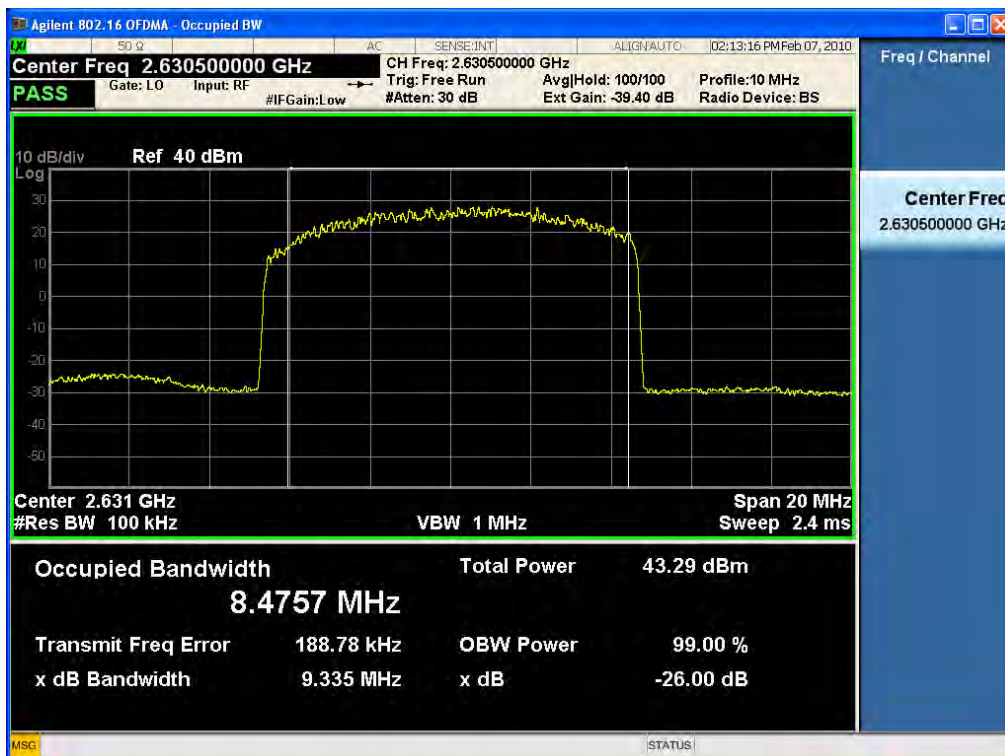


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(QPSK High Channel)

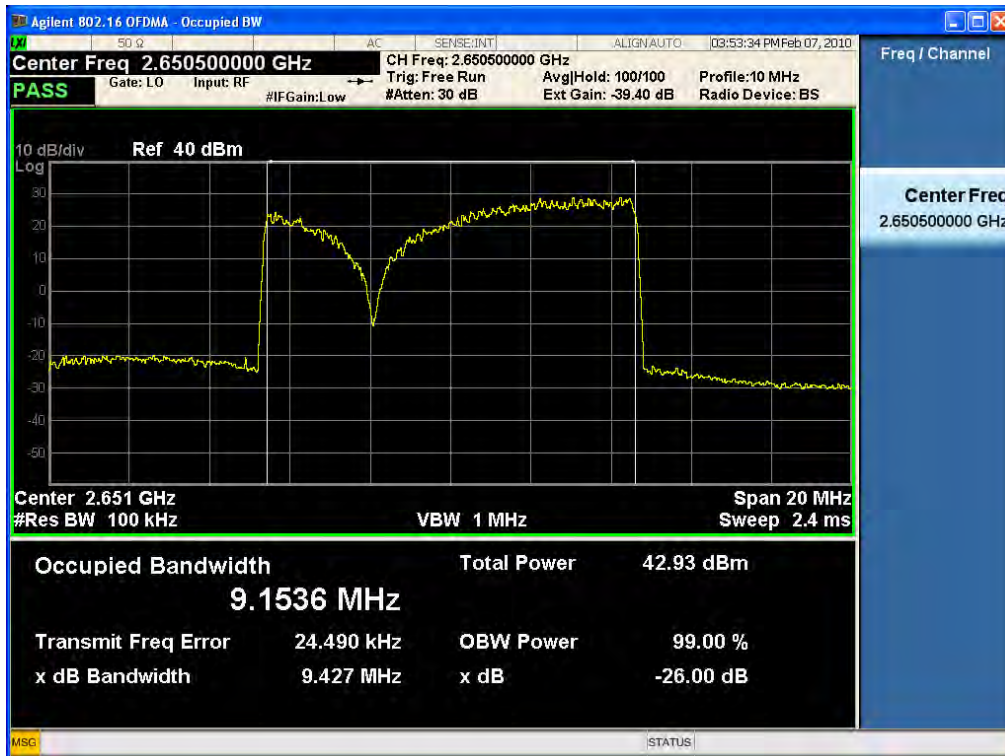


(16QAM Low Channel)

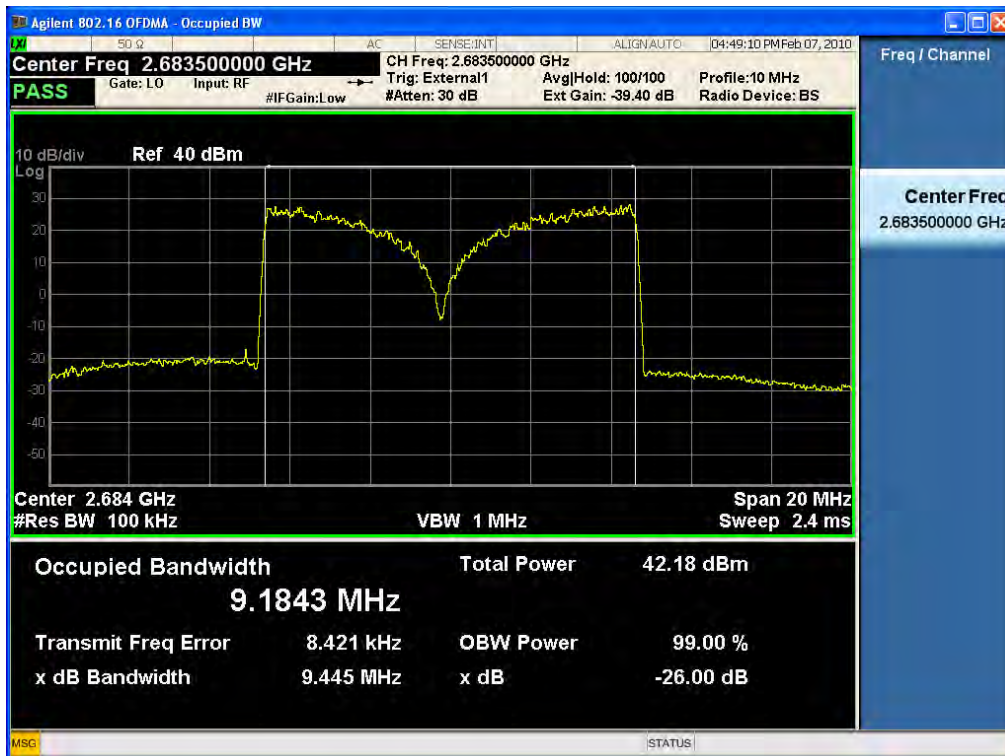


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(16QAM Middle Channel)

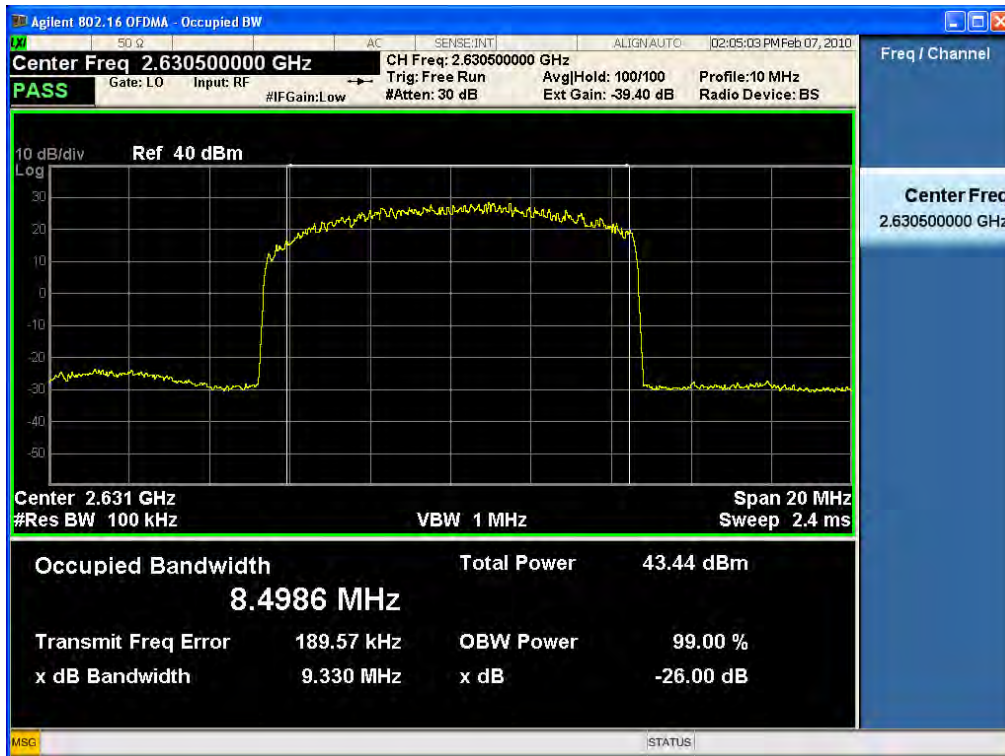


(16QAM High Channel)

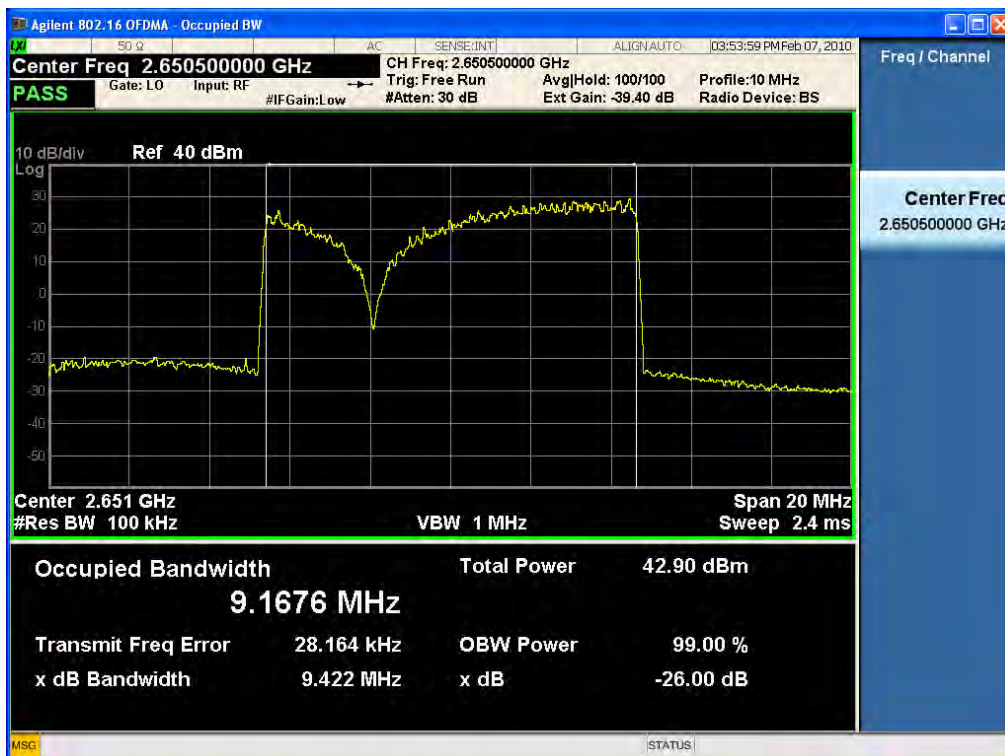


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(64QAM Low Channel)

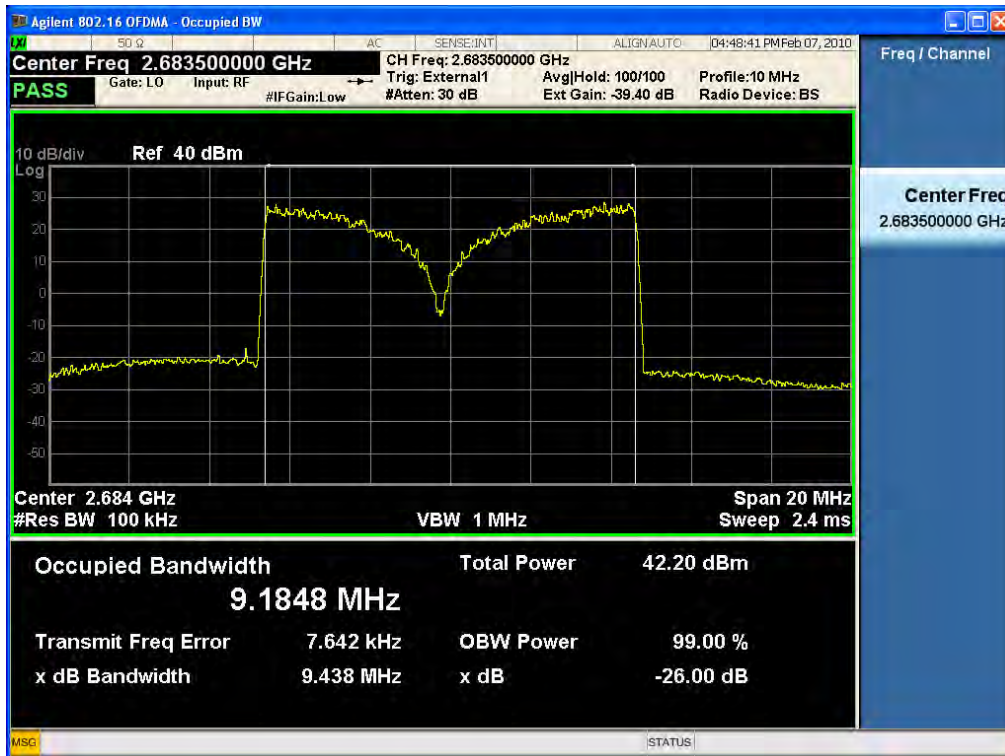


(64QAM Middle Channel)



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



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7. BAND EDGES

7.1. Applicable Standard

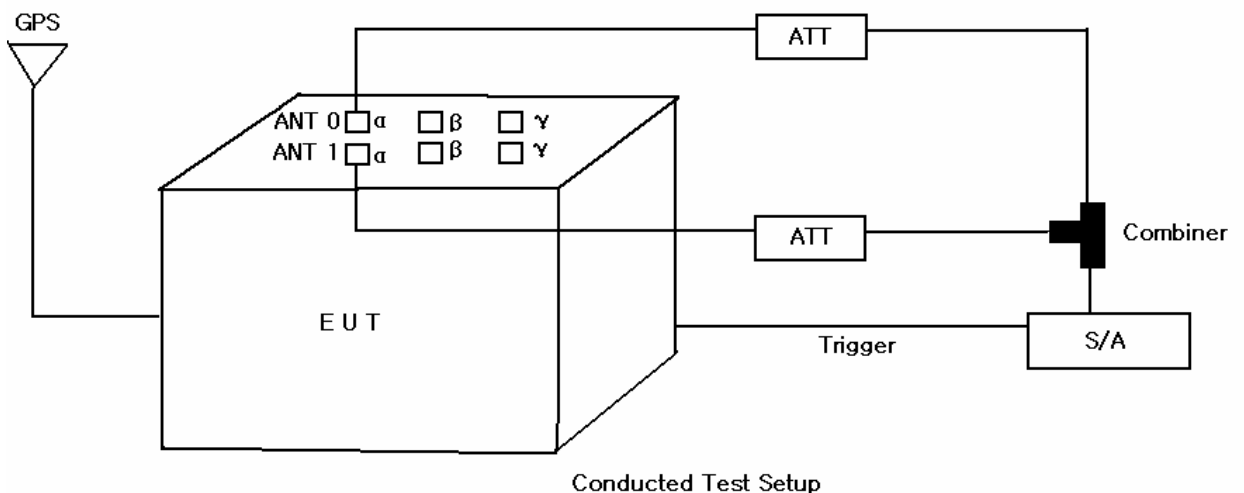
According to §27.53(1)(2), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (p) by a factor of at least $43 + 10 \log(p)$ dB.

7.2. 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
WEINSCHEL	67-30-33 / Attenuator	BU5347	01/06/2011
WEINSCHEL	67-30-33 / Attenuator	BR0530	01/14/2011
WEINSCHEL	AF117A-69-43 / STEP ATTENUATOR	20623	01/14/2011
WEINSCHEL	AF117A-69-43 / STEP ATTENUATOR	21207	01/06/2011
Agilent	N9020A / MXA Signal Analyzer	US46220219	03/03/2011

7.3. Test Procedure

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



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The center of the spectrum analyzer was set to block edge frequency.

The EUT provides the MIMO function which is able to transmit on the same channel with same data simultaneously therefore a combiner is used to sum the individual transmitter output power.

The test data is shown as a combined output in the report.

7.3.1. Environmental Conditions

Temperature:	25 °C
Relative Humidity:	39 %

7.4. Test Result

: PASS

7.4.1. Test data at Output Alpha 0

Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2508.5	-38.094	-13.0
	High	2590.0	-35.348	
16QAM	Low	2508.5	-37.789	
	High	2590.0	-37.184	
64QAM	Low	2508.5	-39.183	
	High	2590.0	-37.405	

7.4.2. Combined Test data at Output

Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2508.5	-38.544	-13.0
	High	2590.0	-29.531	
16QAM	Low	2508.5	-38.294	
	High	2590.0	-29.925	
64QAM	Low	2508.5	-38.523	
	High	2590.0	-31.028	

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7.4.3. Test data at Output Beta 0

Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2630.5	-34.693	-13.0
	High	2683.5	-27.565	
16QAM	Low	2630.5	-34.905	
	High	2683.5	-25.478	
64QAM	Low	2630.5	-33.961	
	High	2683.5	-24.677	

7.4.4. Combined Test data at Output

Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2630.5	-19.163	-13.0
	High	2683.5	-21.882	
16QAM	Low	2630.5	-19.247	
	High	2683.5	-22.600	
64QAM	Low	2630.5	-29.729	
	High	2683.5	-20.164	

7.4.5. Test data at Output Gamma 0

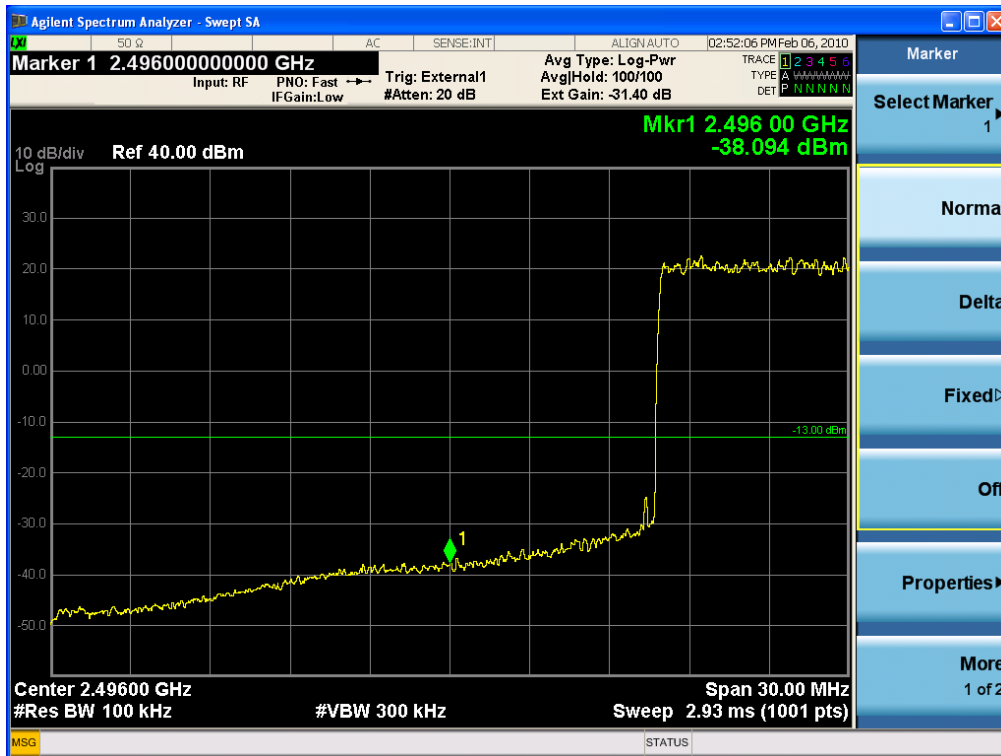
Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2647	-23.212	-13.0
	High	2667	-24.100	
16QAM	Low	2647	-24.406	
	High	2667	-20.505	
64QAM	Low	2647	-21.019	
	High	2667	-23.014	

7.4.6. Combined Test data at Output

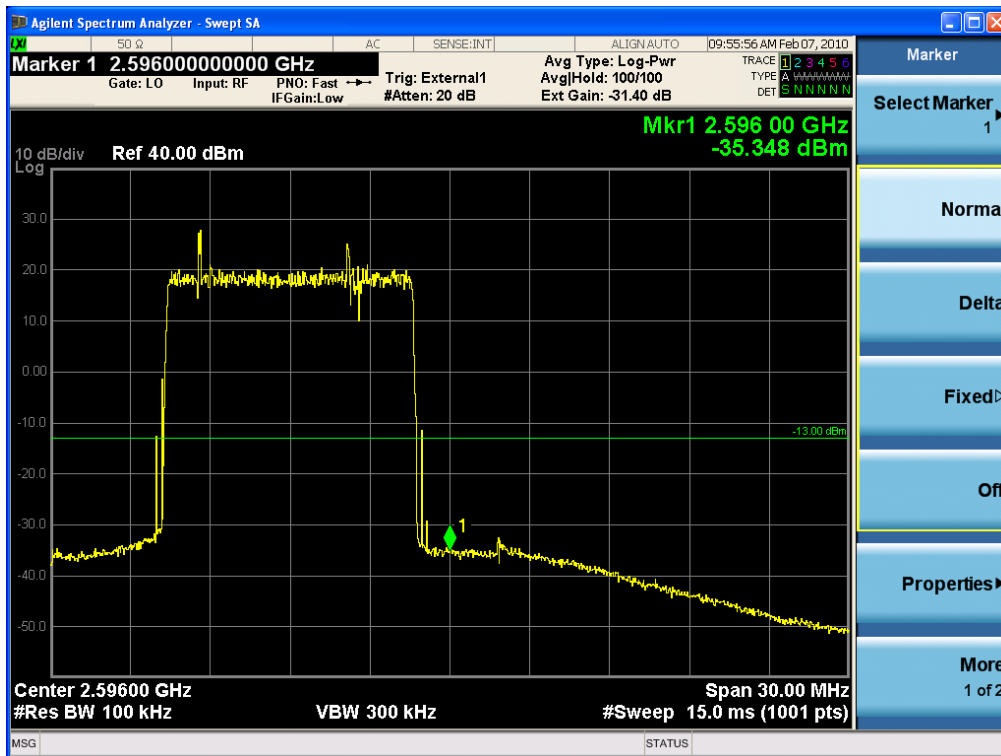
Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2647	-28.175	-13.0
	High	2667	-19.337	
16QAM	Low	2647	-28.407	
	High	2667	-18.136	
64QAM	Low	2647	-29.537	
	High	2667	-20.163	

7.4.7. Plot Data at Output Alpha 0

(QPSK Low Channel)



(QPSK High Channel)

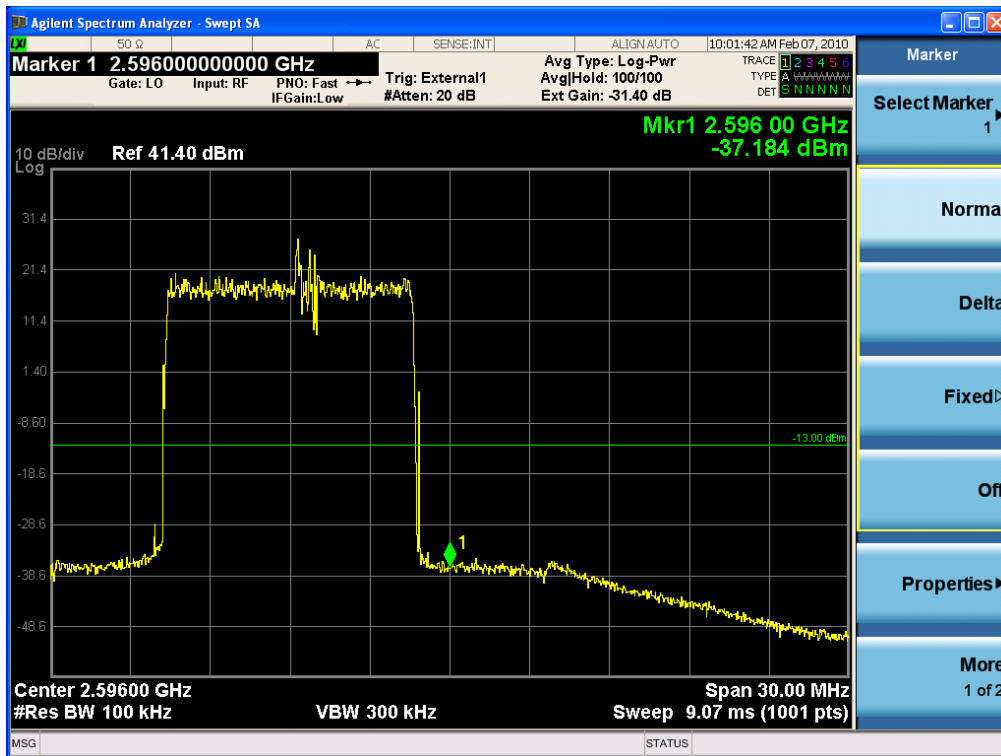


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(16QAM Low Channel)



(16QAM High Channel)

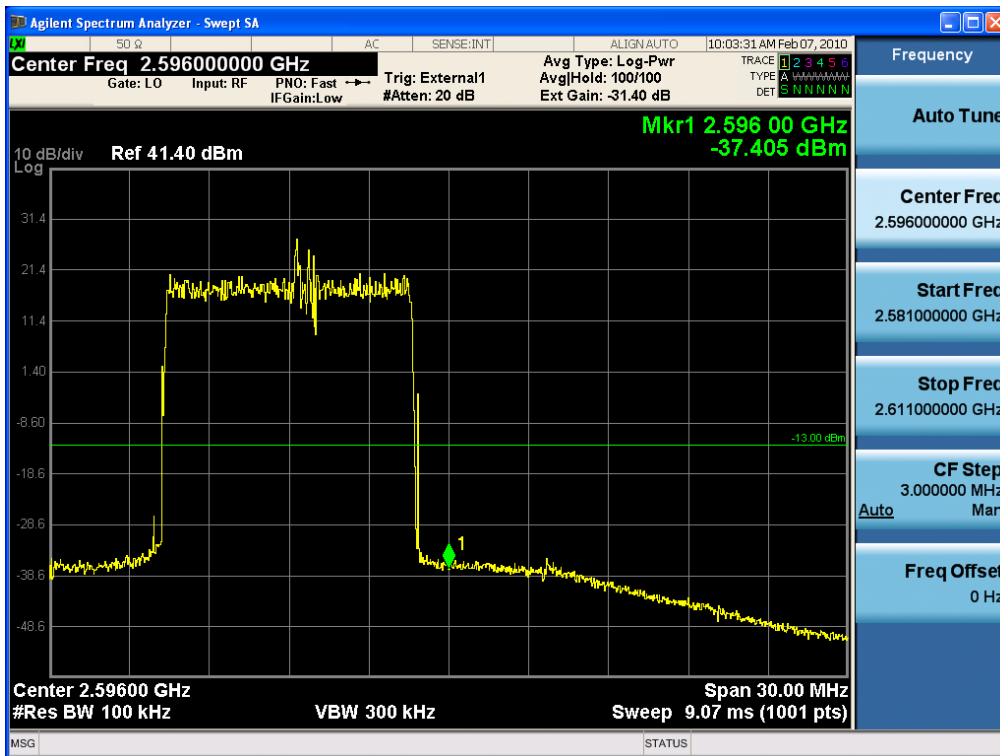


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(64QAM Low Channel)



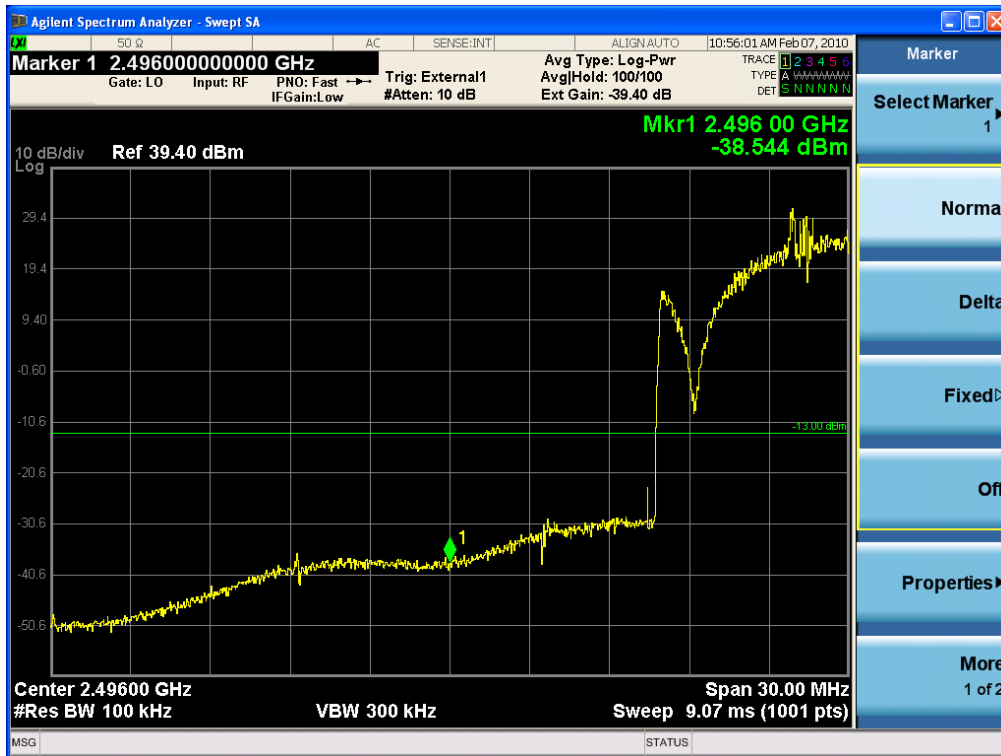
(64QAM High Channel)



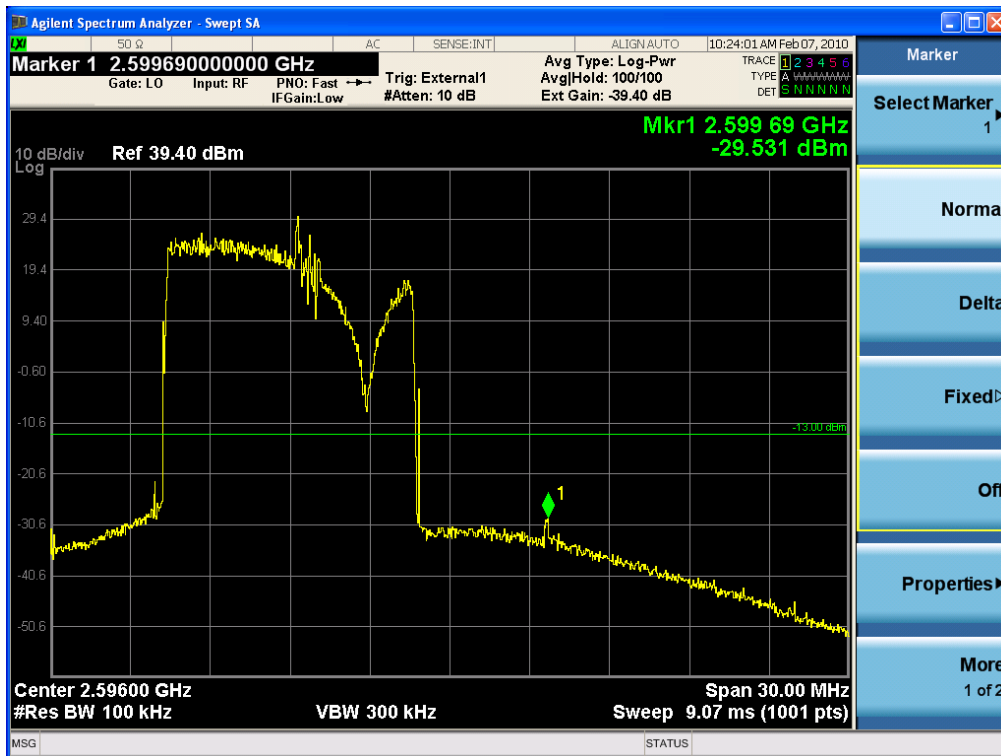
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7.4.8. Combined Plot Data at Output

(QPSK Low Channel)

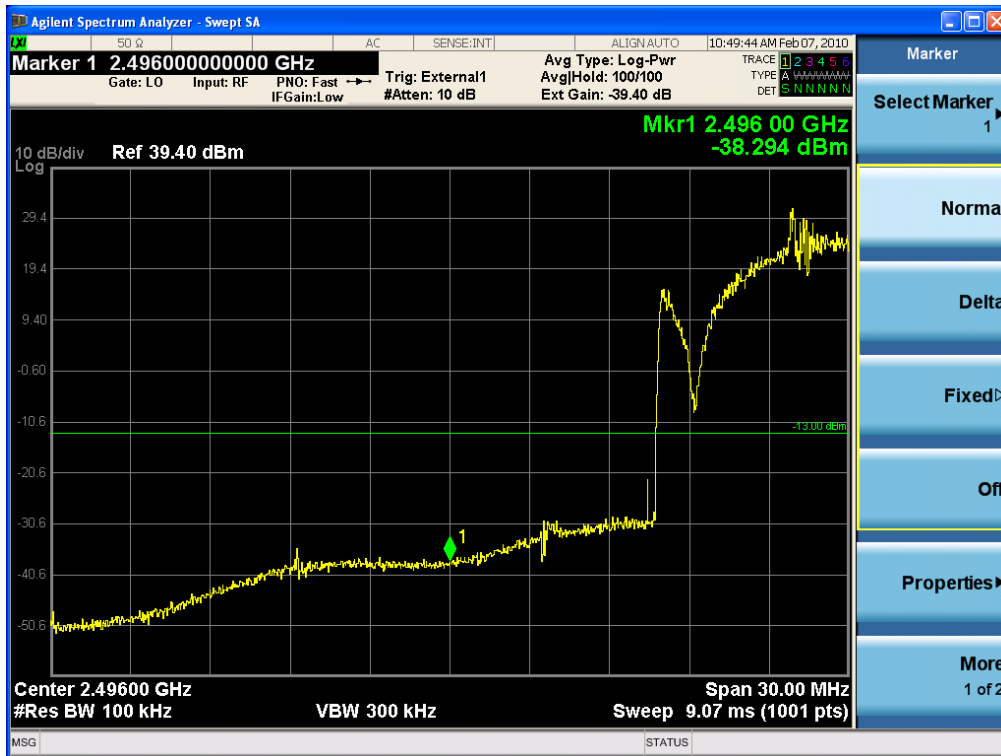


(QPSK High Channel)

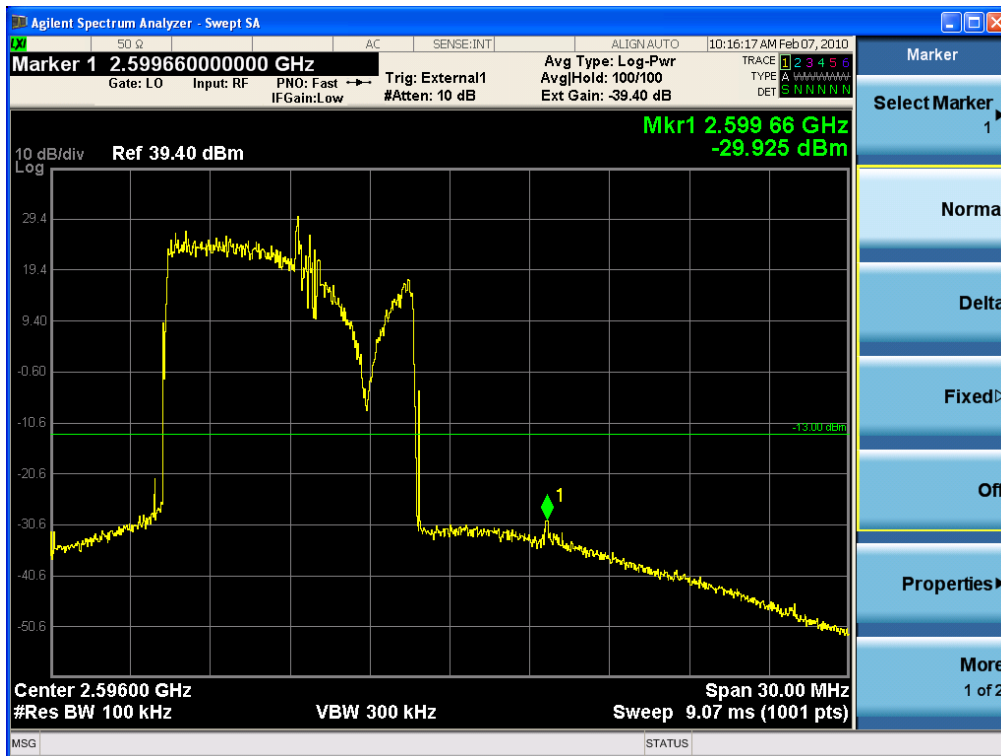


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(16QAM Low Channel)

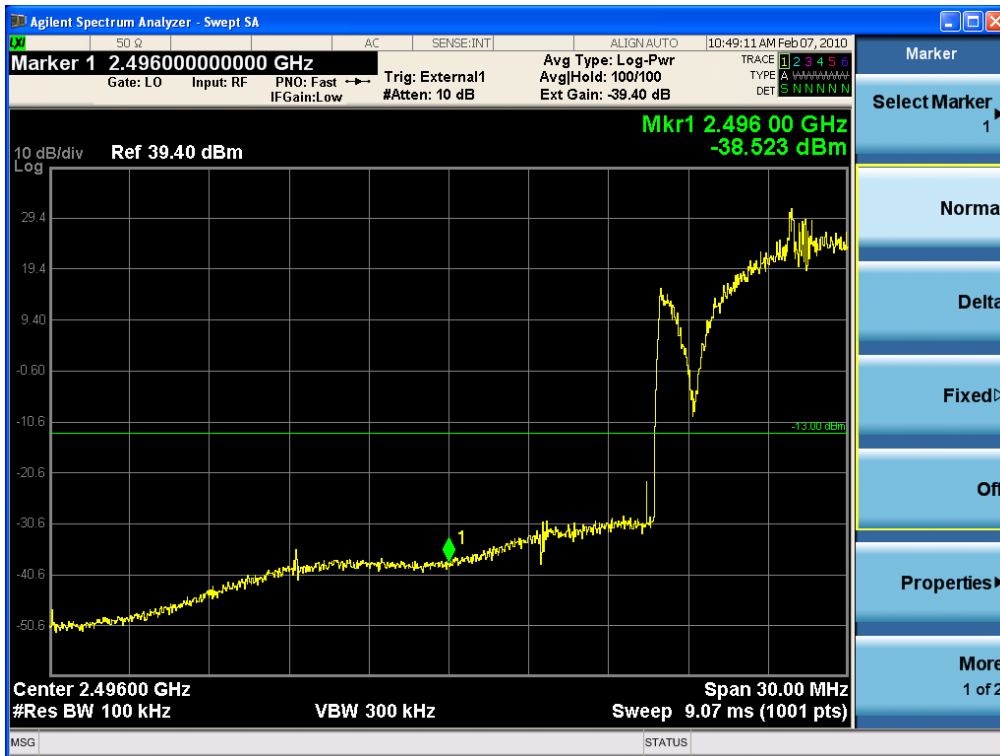


(16QAM High Channel)

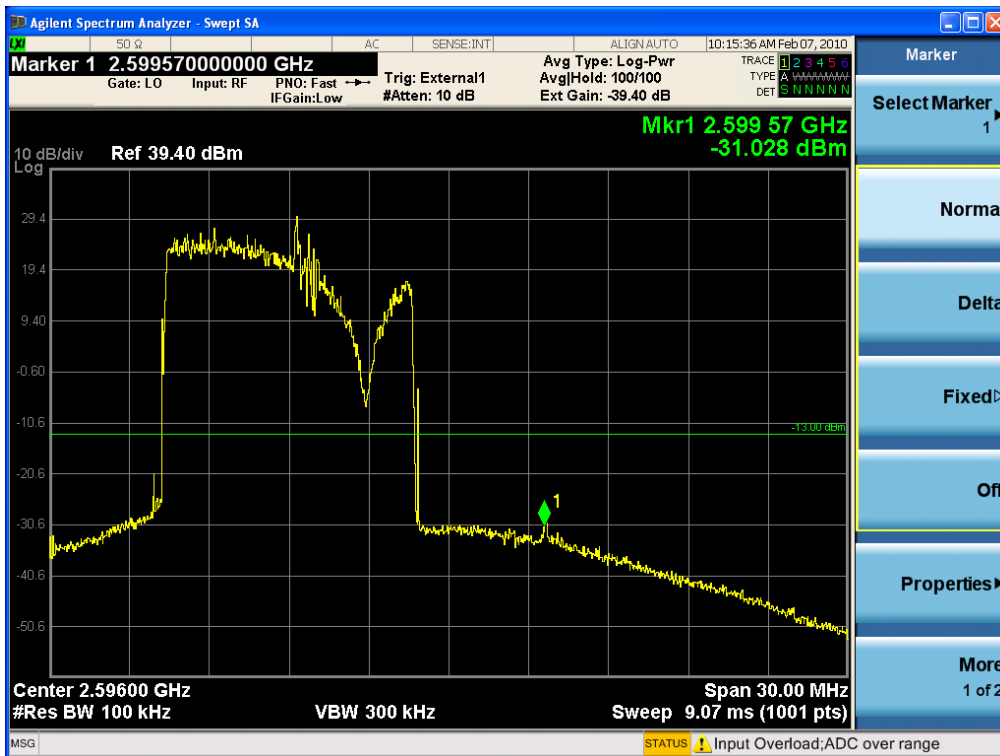


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(64QAM Low Channel)



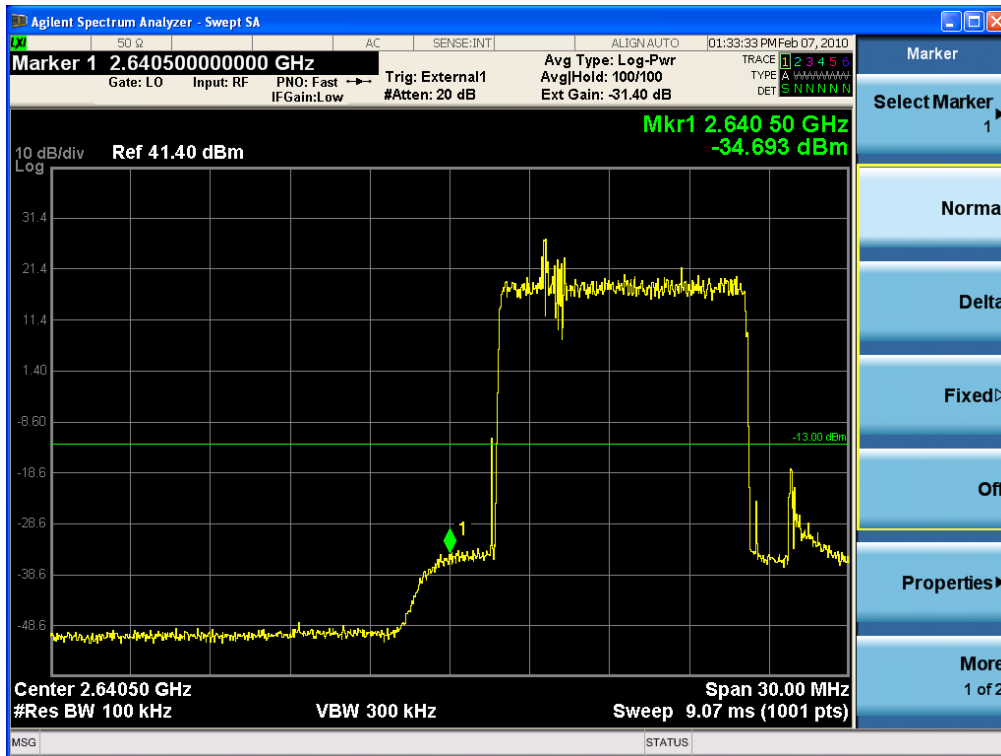
(64QAM High Channel)



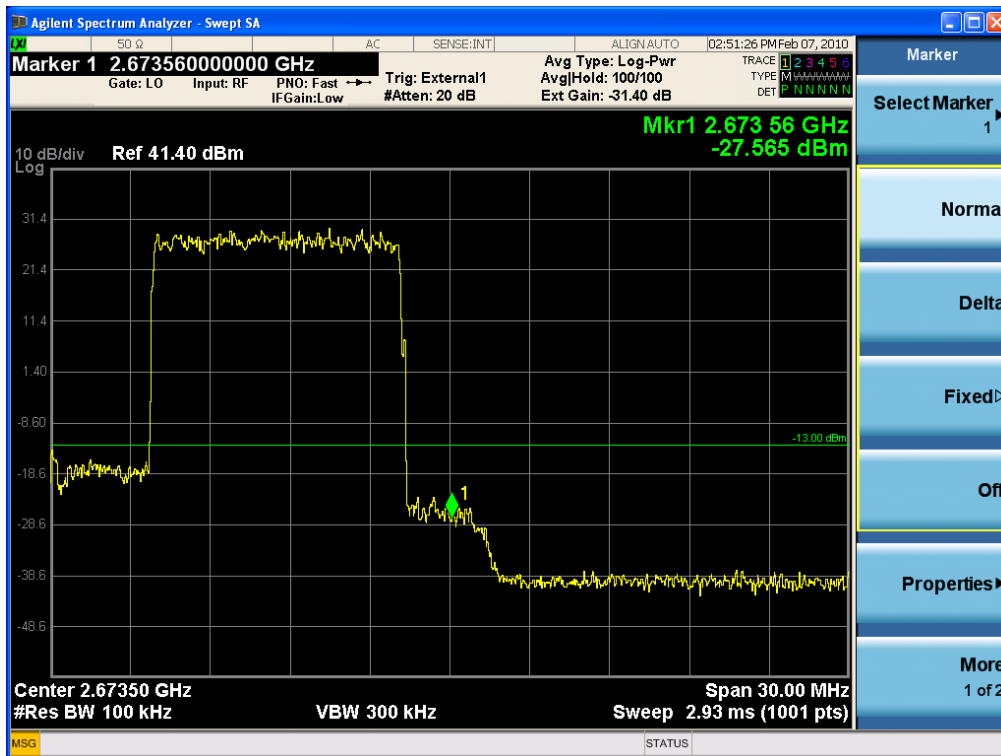
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7.4.9. Plot Data at Output Beta 0

(QPSK Low Channel)



(QPSK High Channel)



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