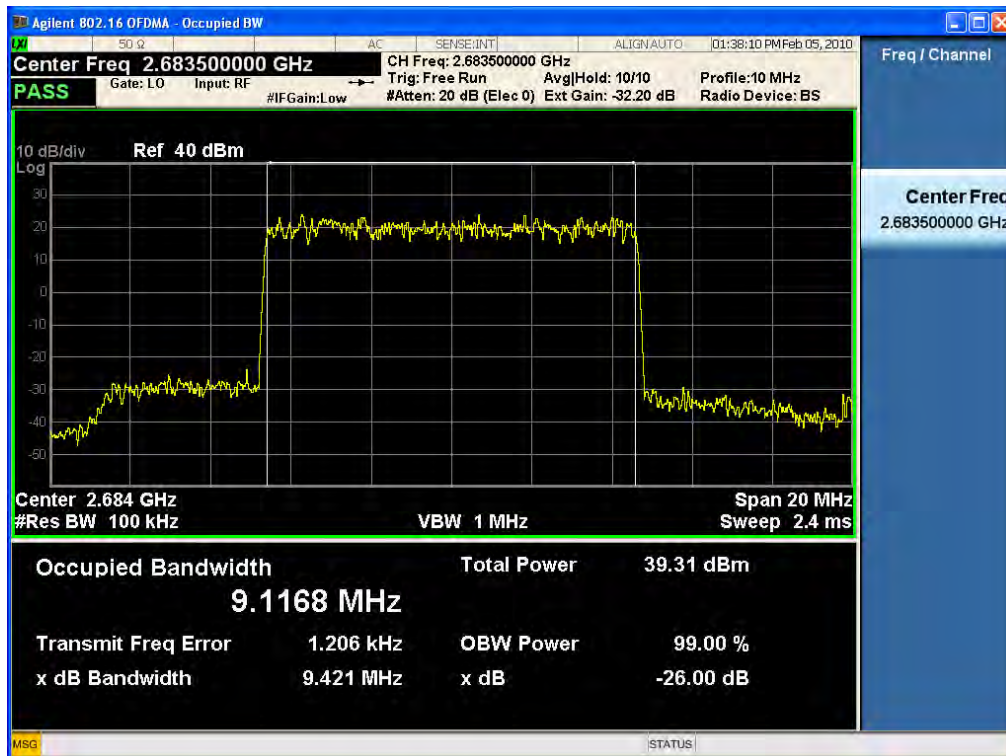
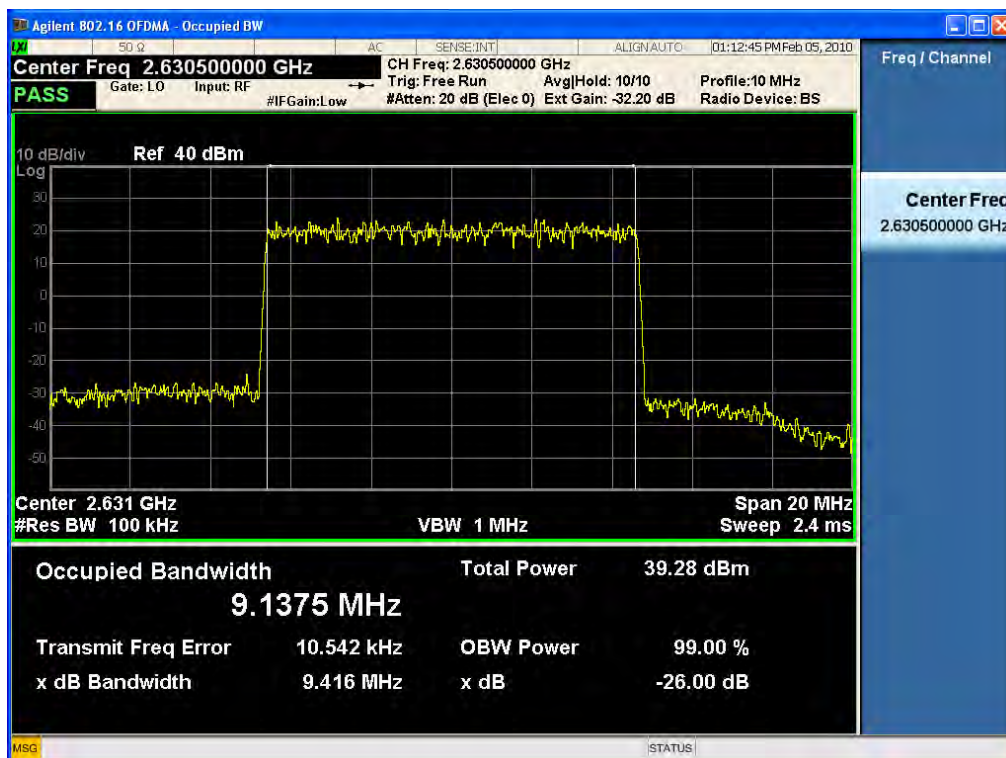


(QPSK High Channel)

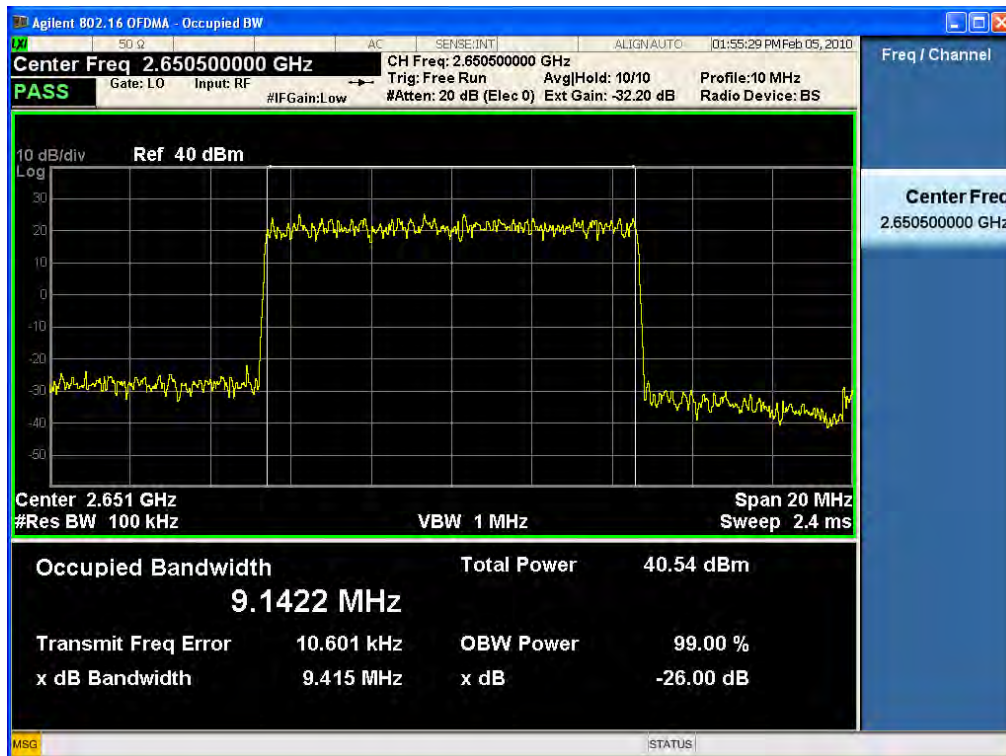


(16QAM Low Channel)

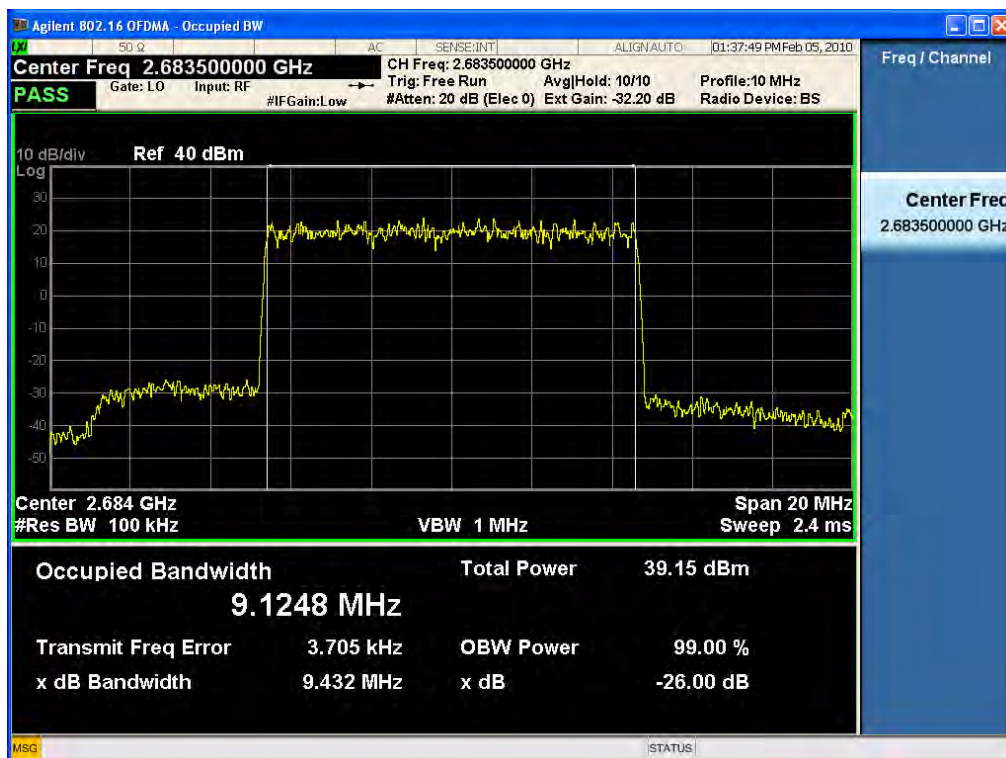


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(16QAM Middle Channel)

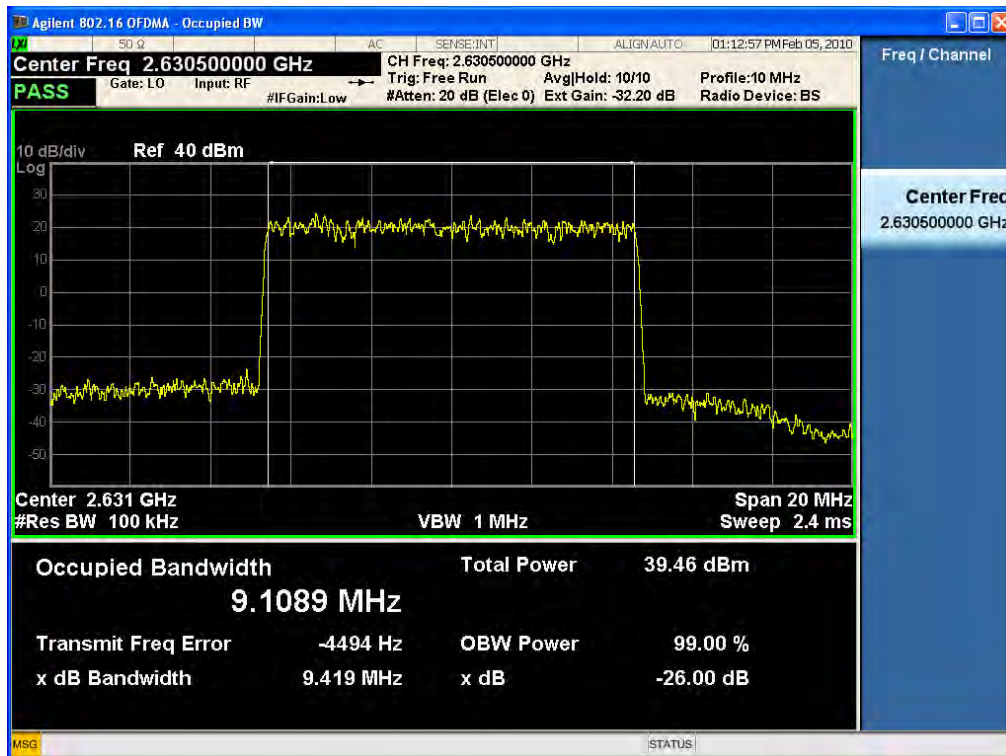


(16QAM High Channel)

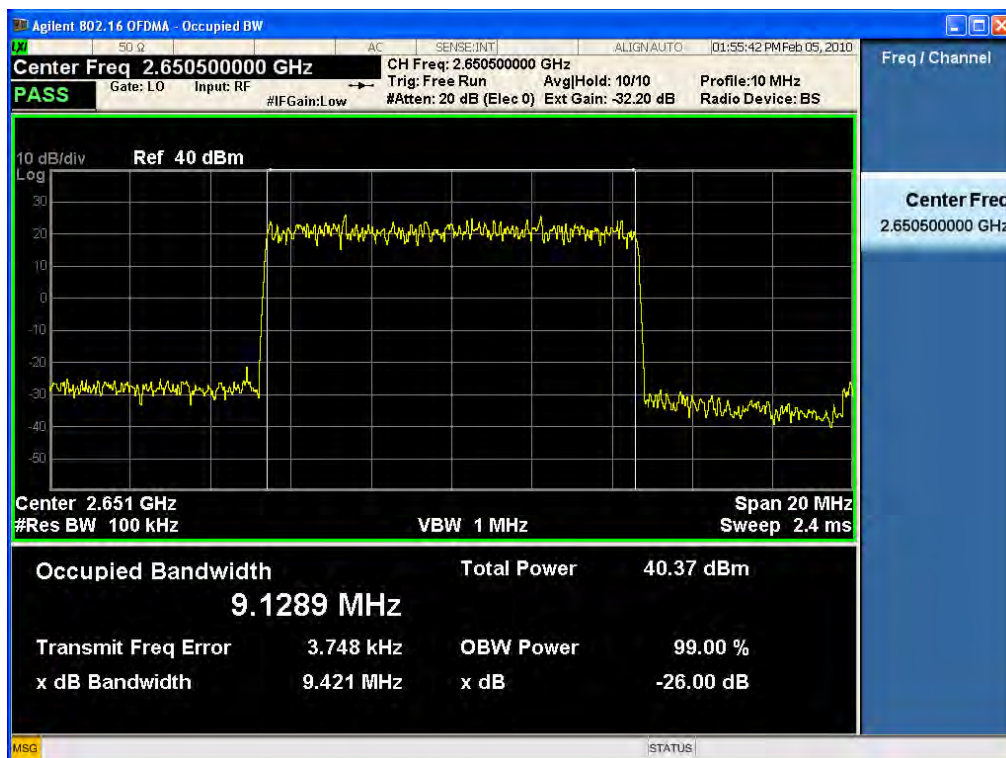


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(64QAM Low Channel)

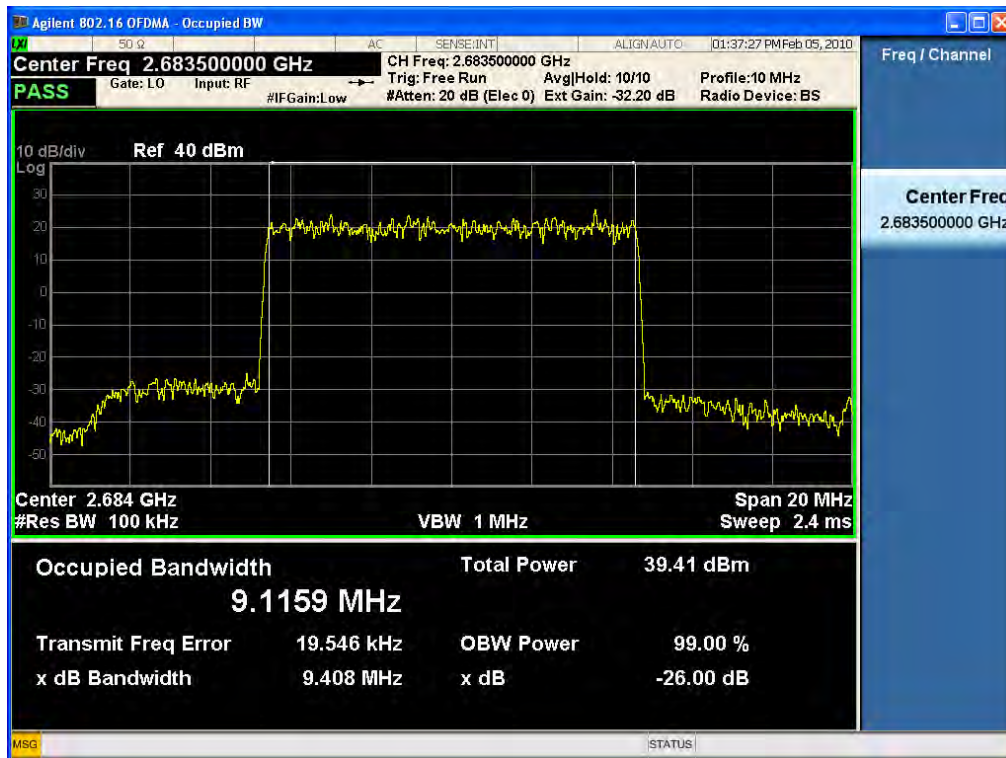


(64QAM Middle Channel)



HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1002FR21	Test Dates: February 18, 2010	EUT Type: Mobile WiMAX Outdoor RAS	FCC ID: A3LSPI-2210022502	Page 63 of 166

(64QAM High Channel)



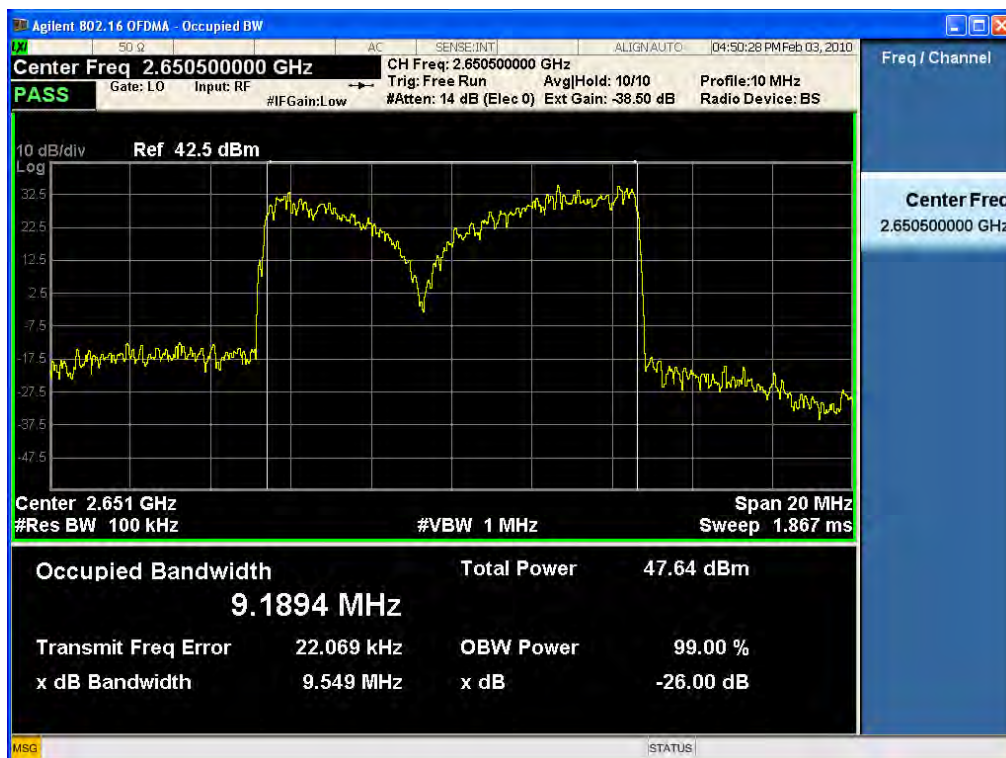
HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1002FR21	Test Dates: February 18, 2010	EUT Type: Mobile WiMAX Outdoor RAS	FCC ID: A3LSPI-2210022502	Page 64 of 166

6.4.10. Combined Test Plot at Output Port

(QPSK Low Channel)

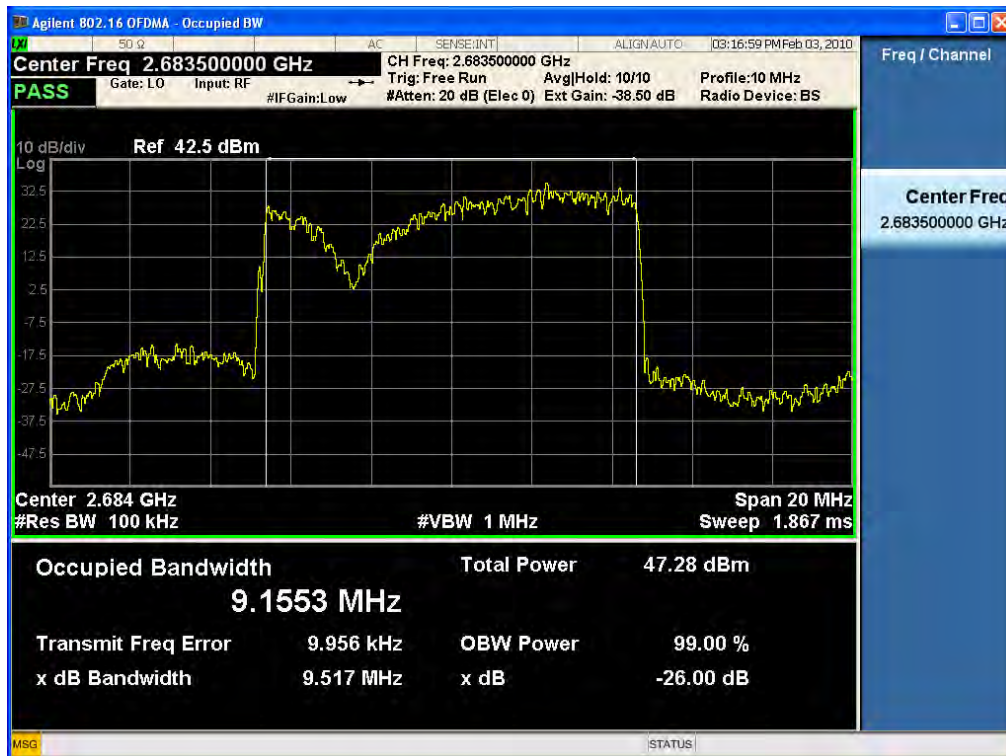


(QPSK Middle Channel)



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

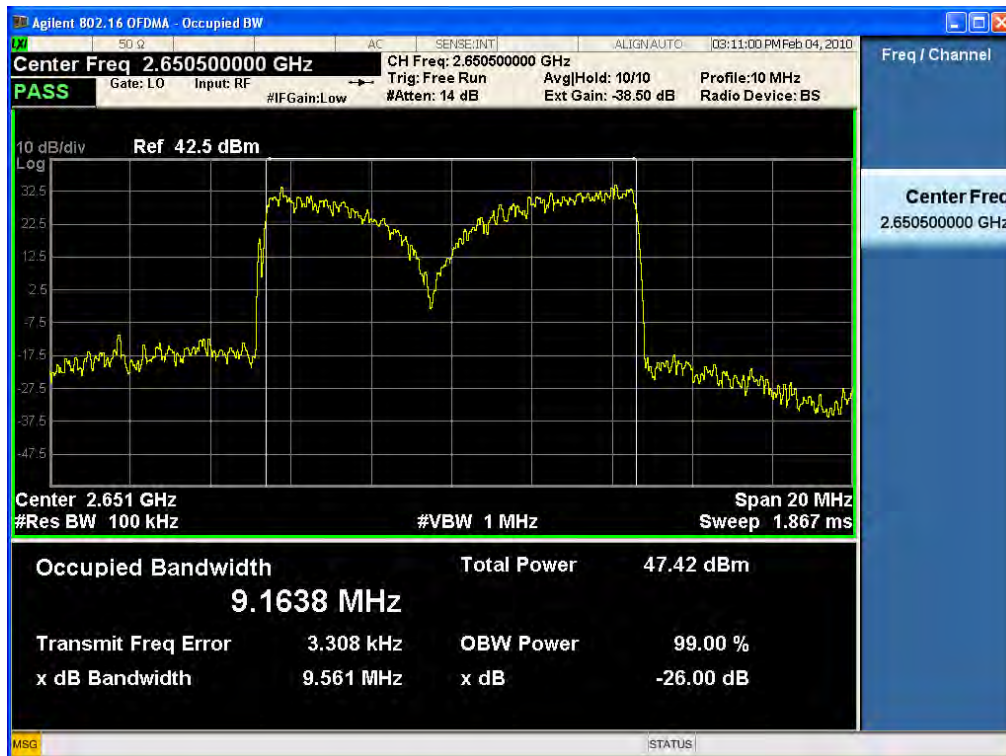


(16QAM Low Channel)

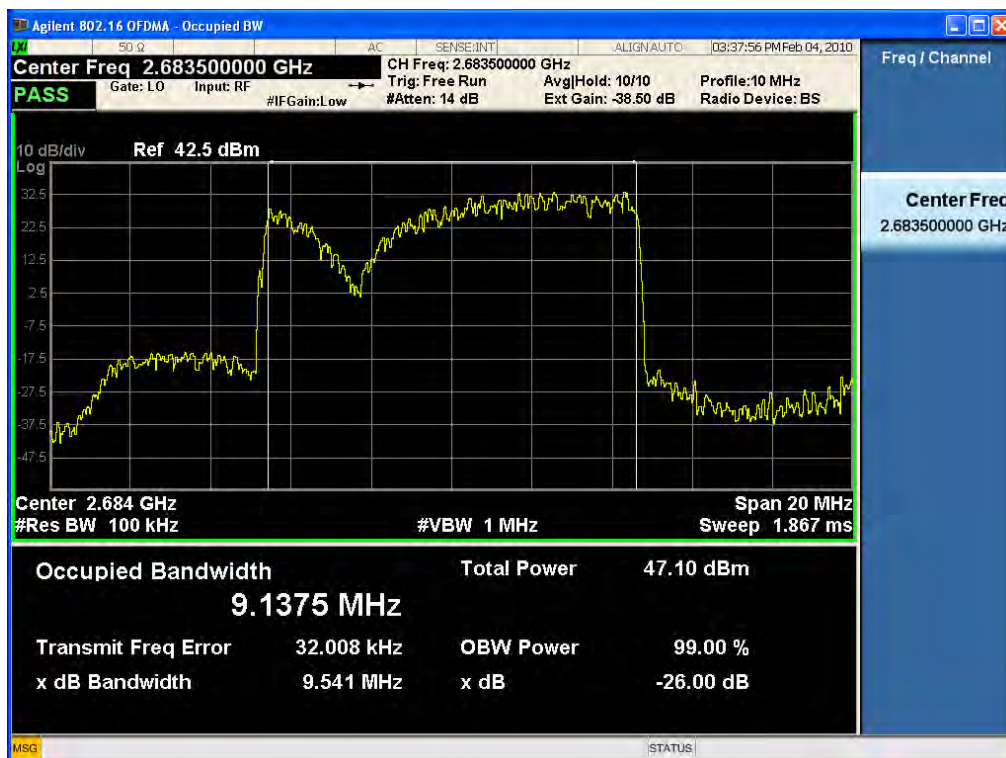


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1002FR21	Test Dates: February 18, 2010	EUT Type: Mobile WiMAX Outdoor RAS	FCC ID: A3LSPI-2210022502	Page 66 of 166

(16QAM Middle Channel)

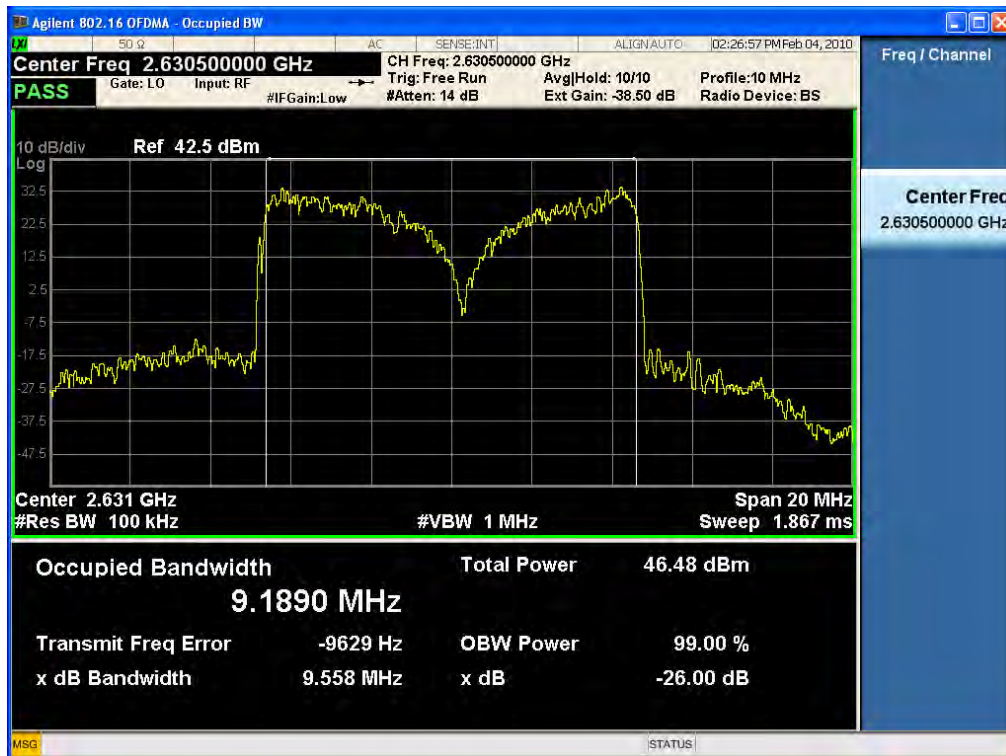


(16QAM High Channel)

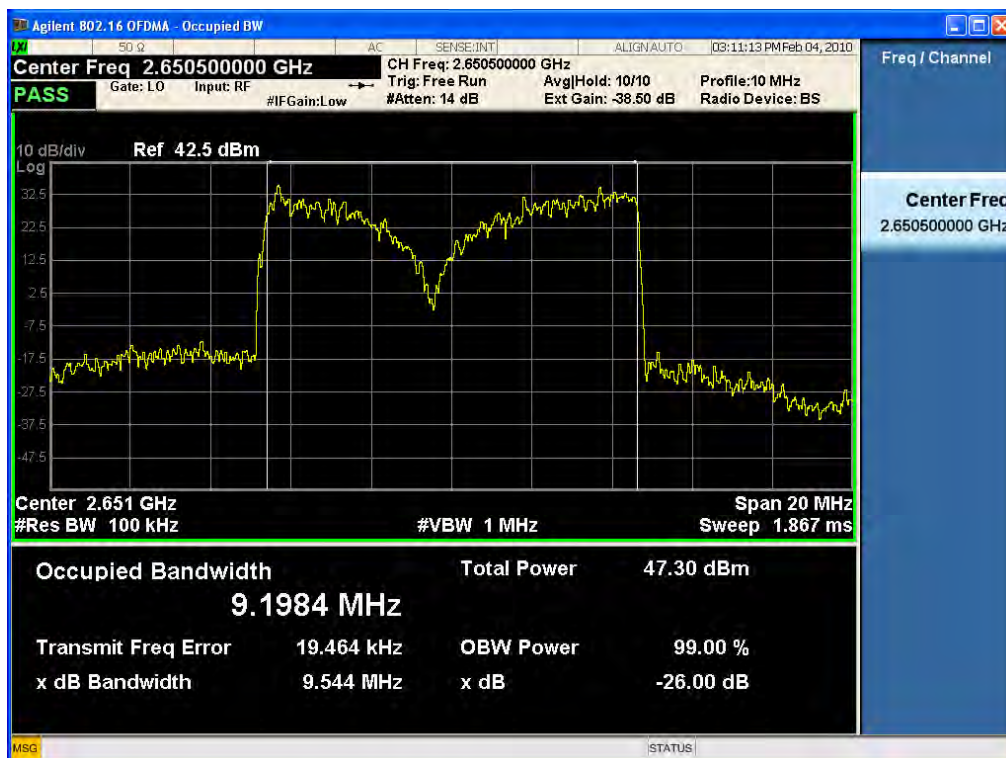


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1002FR21	Test Dates: February 18, 2010	EUT Type: Mobile WiMAX Outdoor RAS	FCC ID: A3LSPI-2210022502	Page 67 of 166

(64QAM Low Channel)

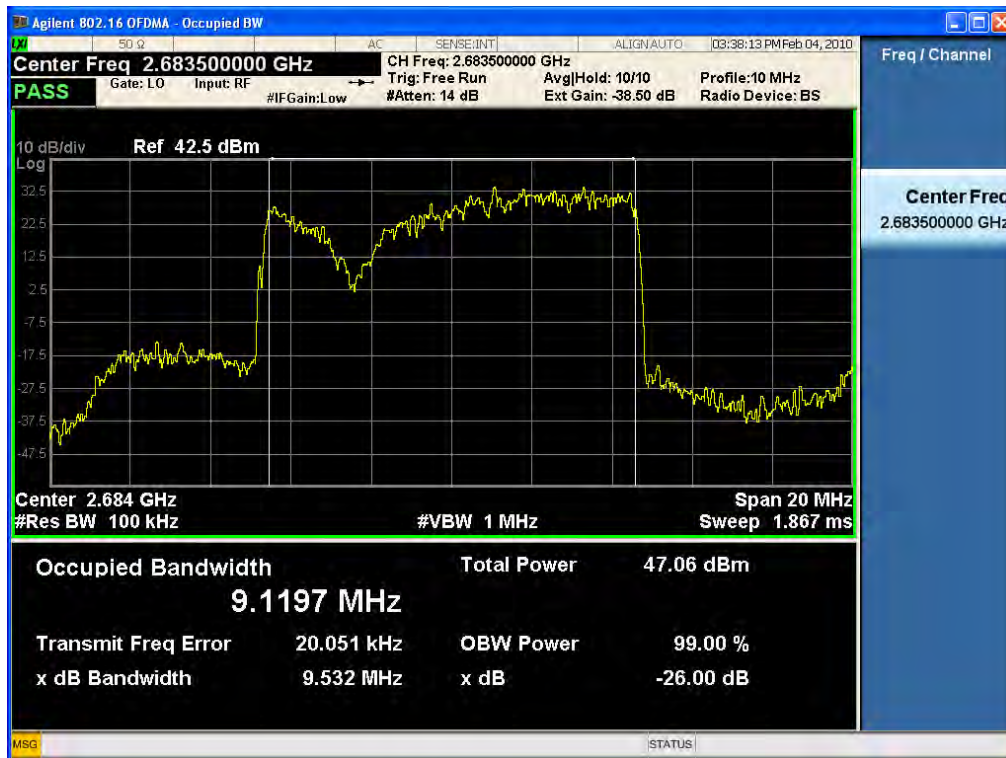


(64QAM Middle Channel)



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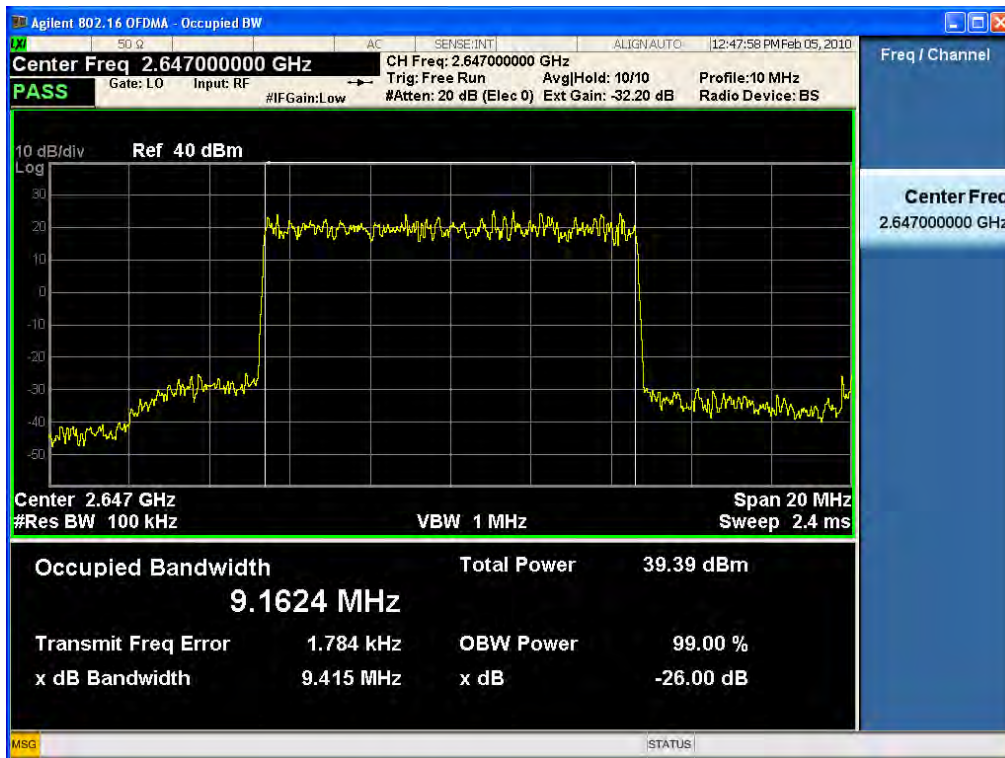
(64QAM High Channel)



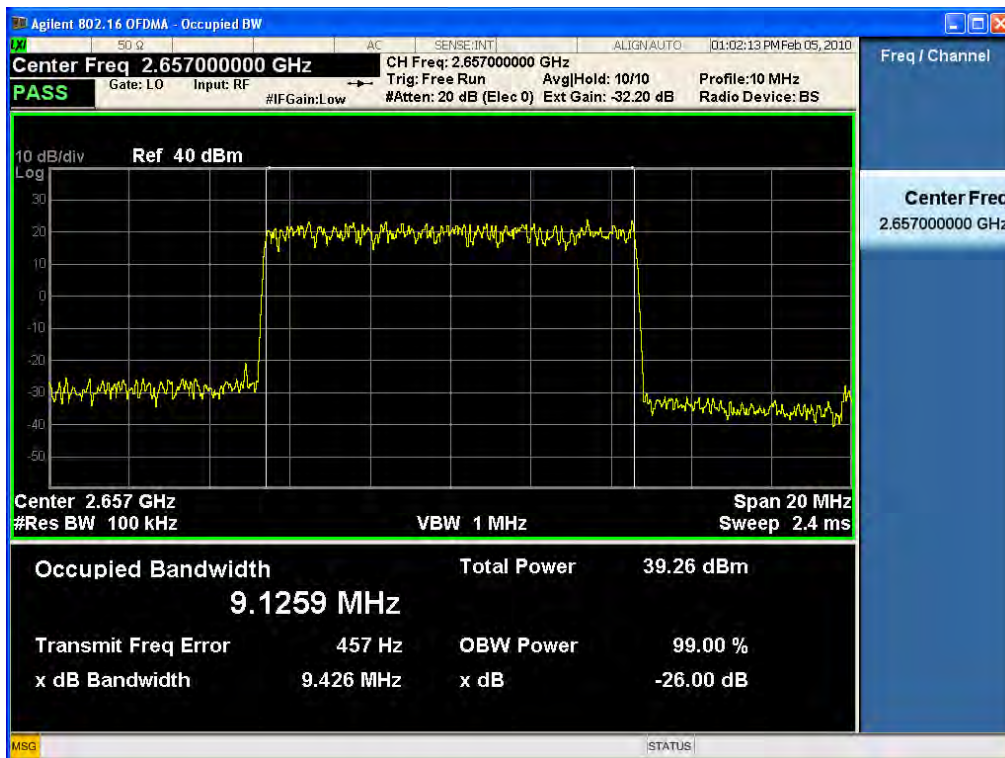
HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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6.4.11. Test Plot at Output Port Gamma 0

(QPSK Low Channel)

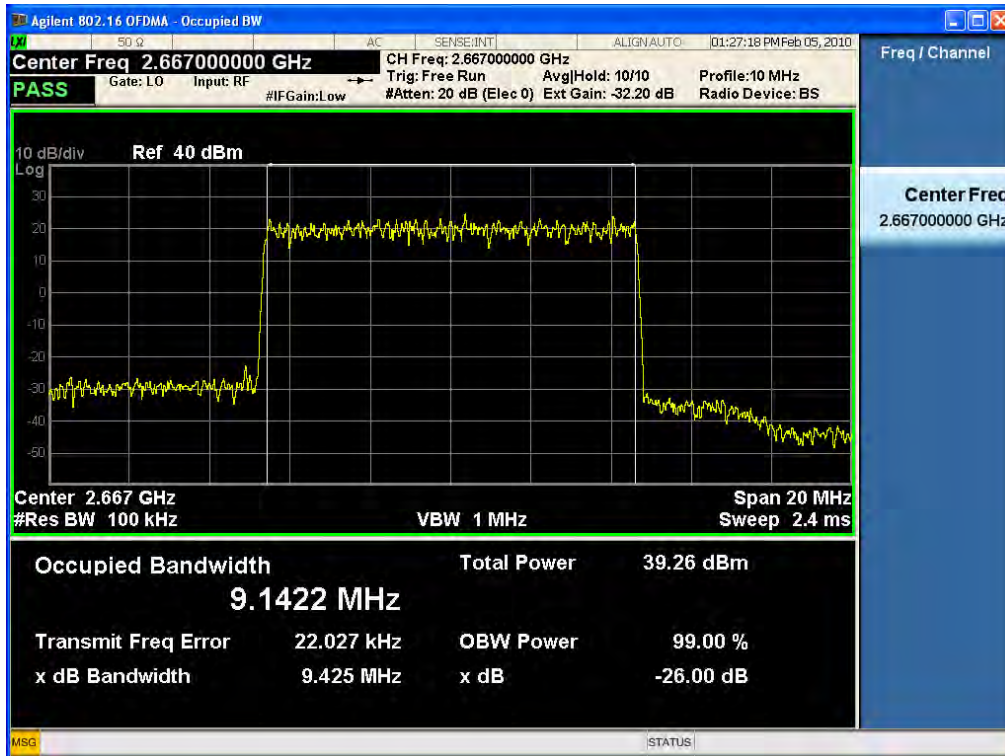


(QPSK Middle Channel)

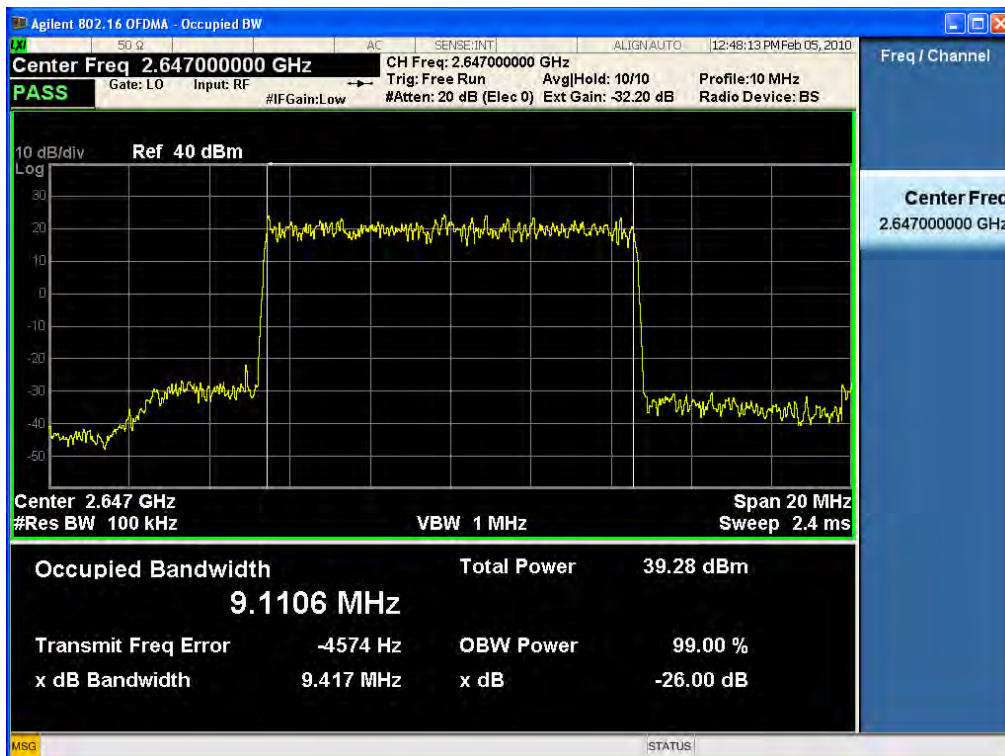


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(QPSK High Channel)

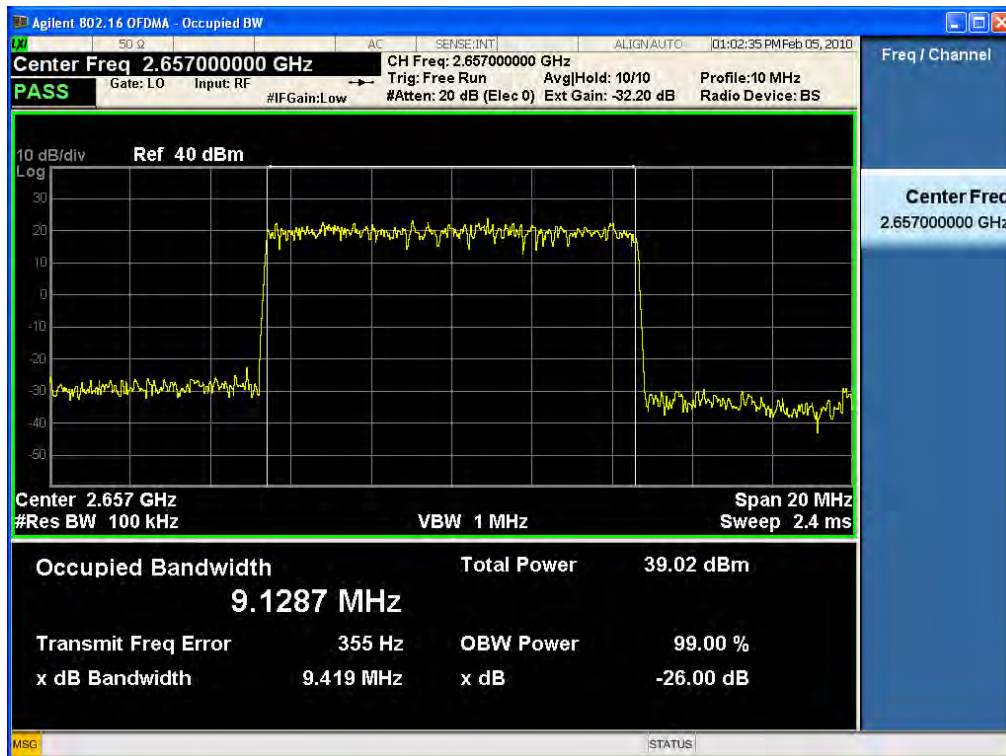


(16QAM Low Channel)

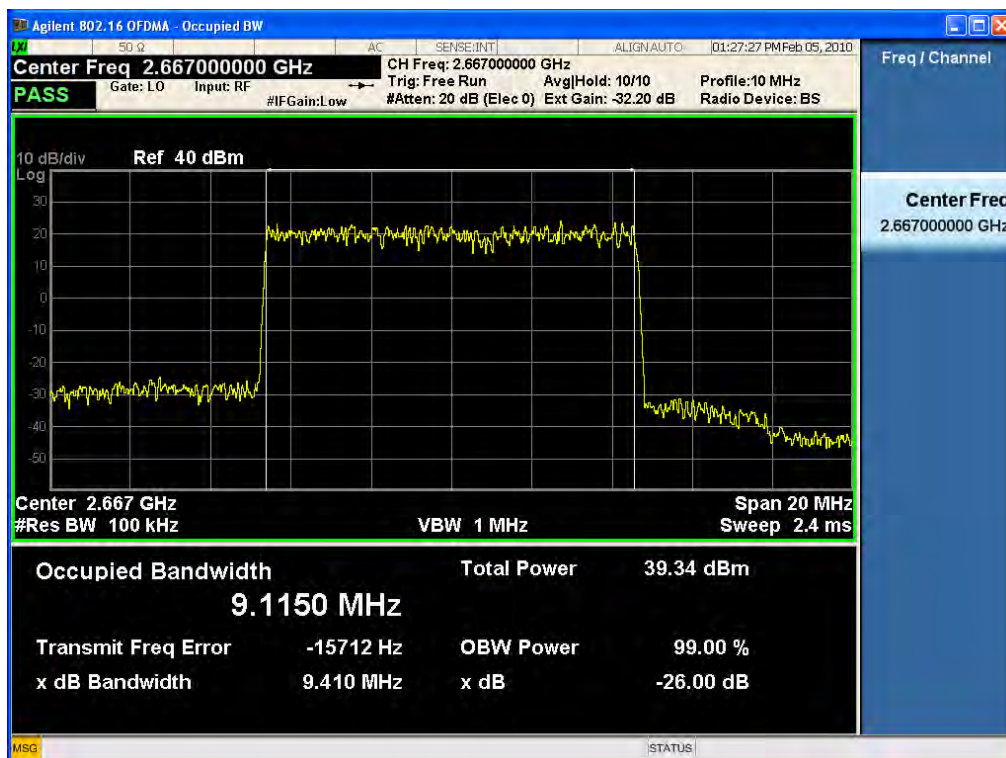


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(16QAM Middle Channel)

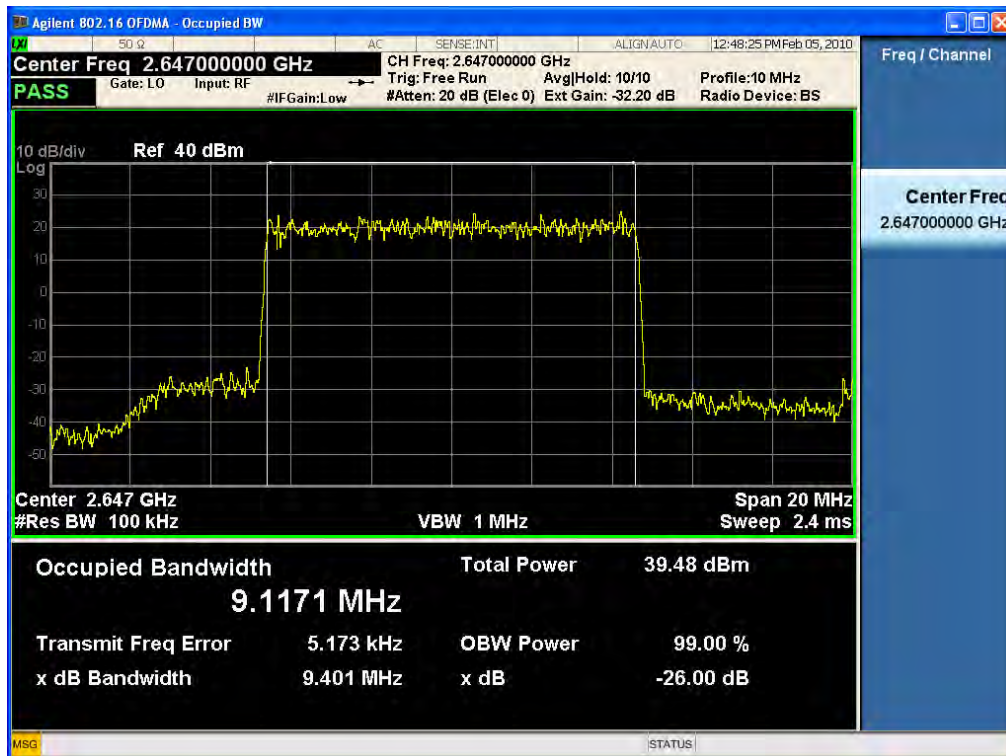


(16QAM High Channel)

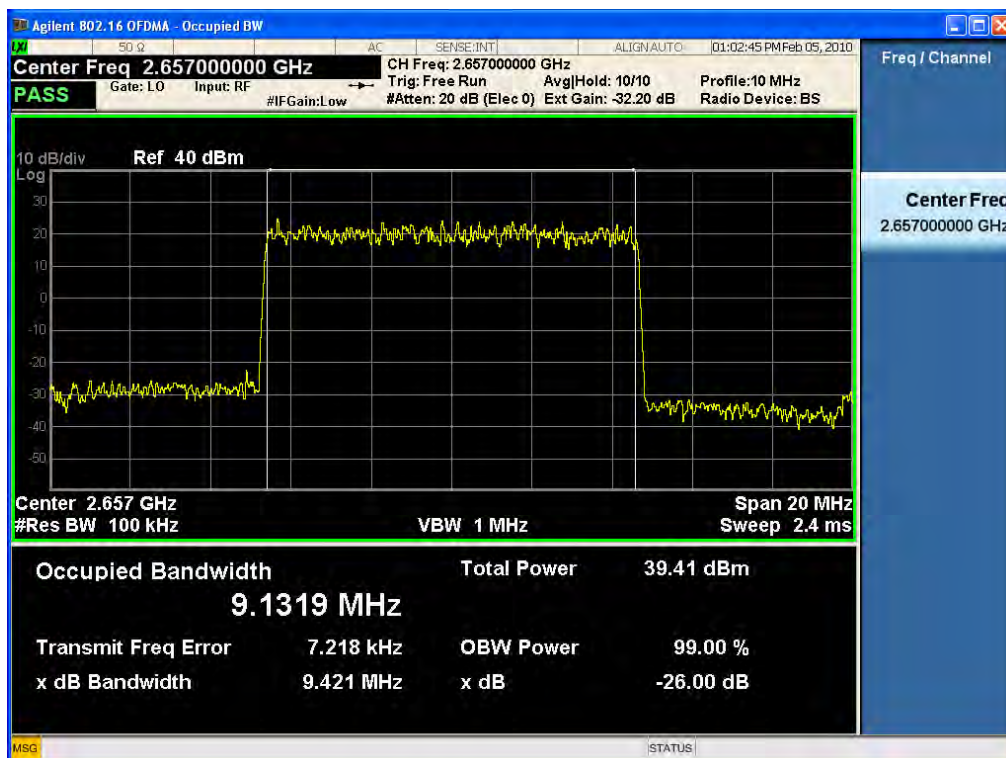


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(64QAM Low Channel)

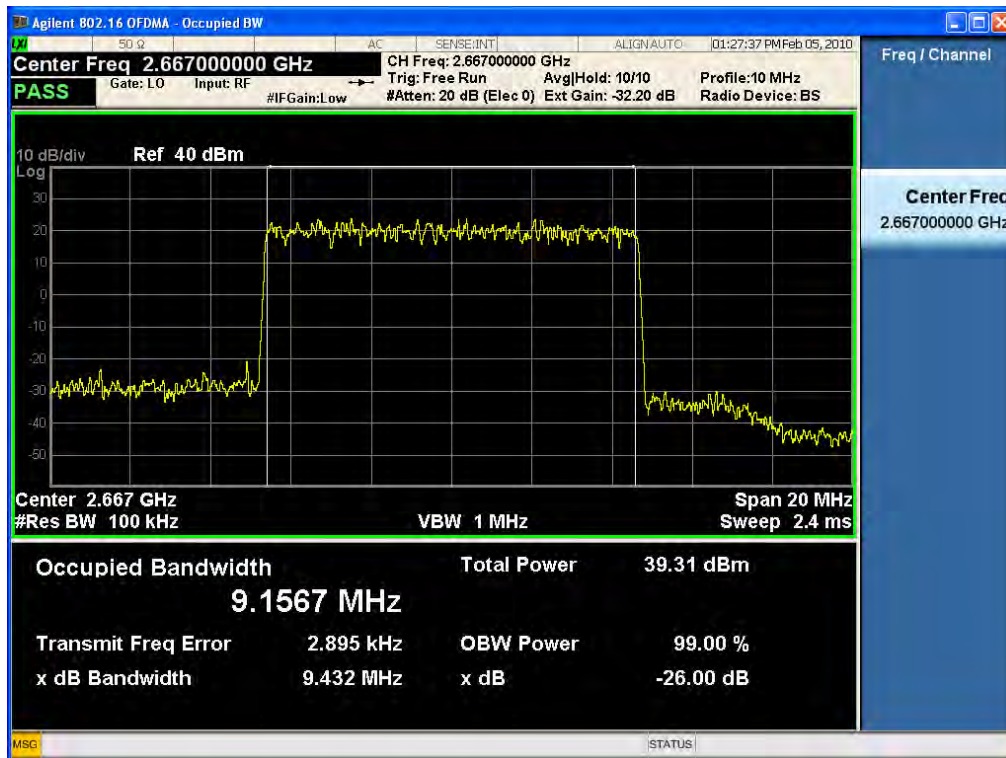


(64QAM Middle Channel)



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



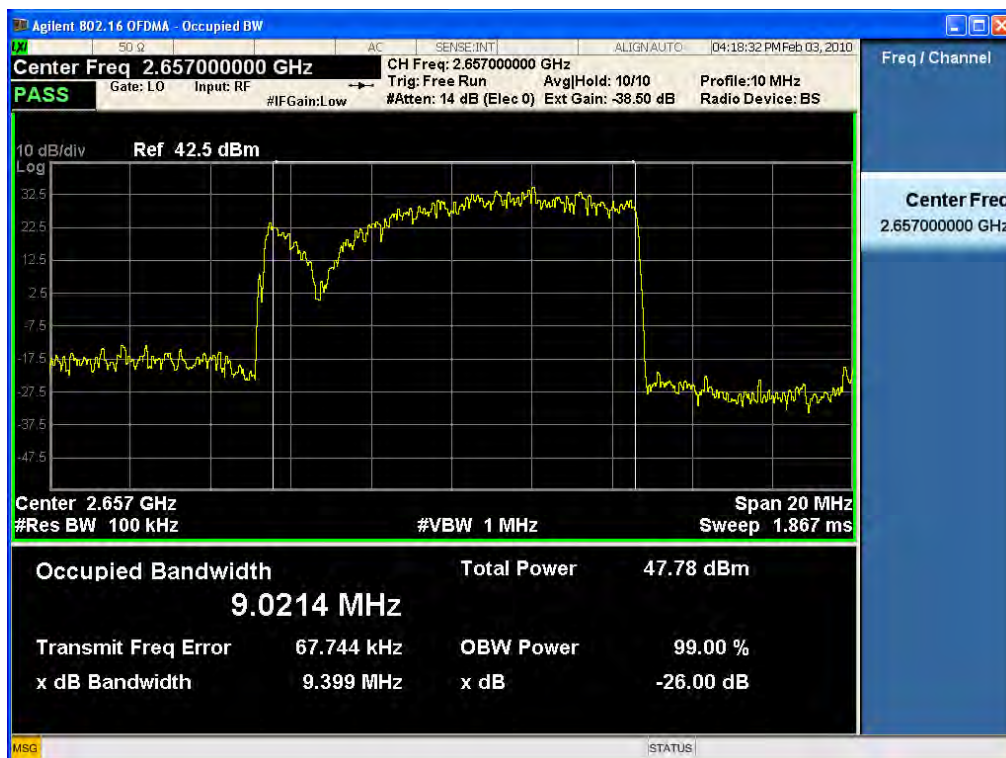
HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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6.4.12. Combined Test Plot at Output Port

(QPSK Low Channel)



(QPSK Middle Channel)

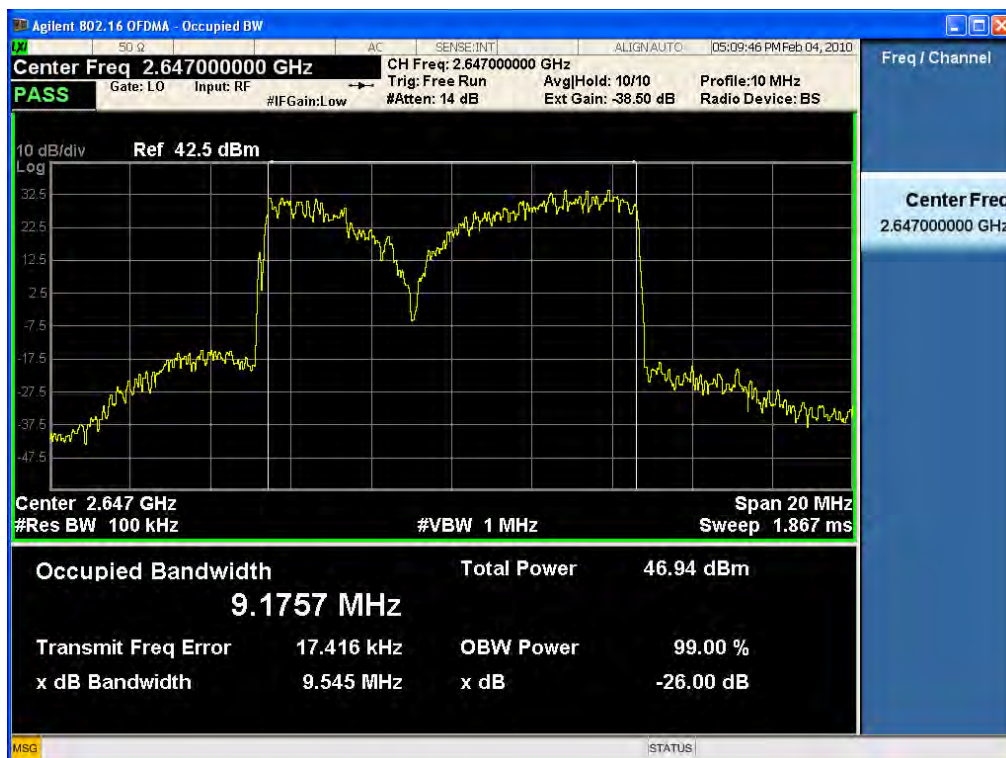


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1002FR21	Test Dates: February 18, 2010	EUT Type: Mobile WiMAX Outdoor RAS	FCC ID: A3LSPI-2210022502	Page 75 of 166

(QPSK High Channel)

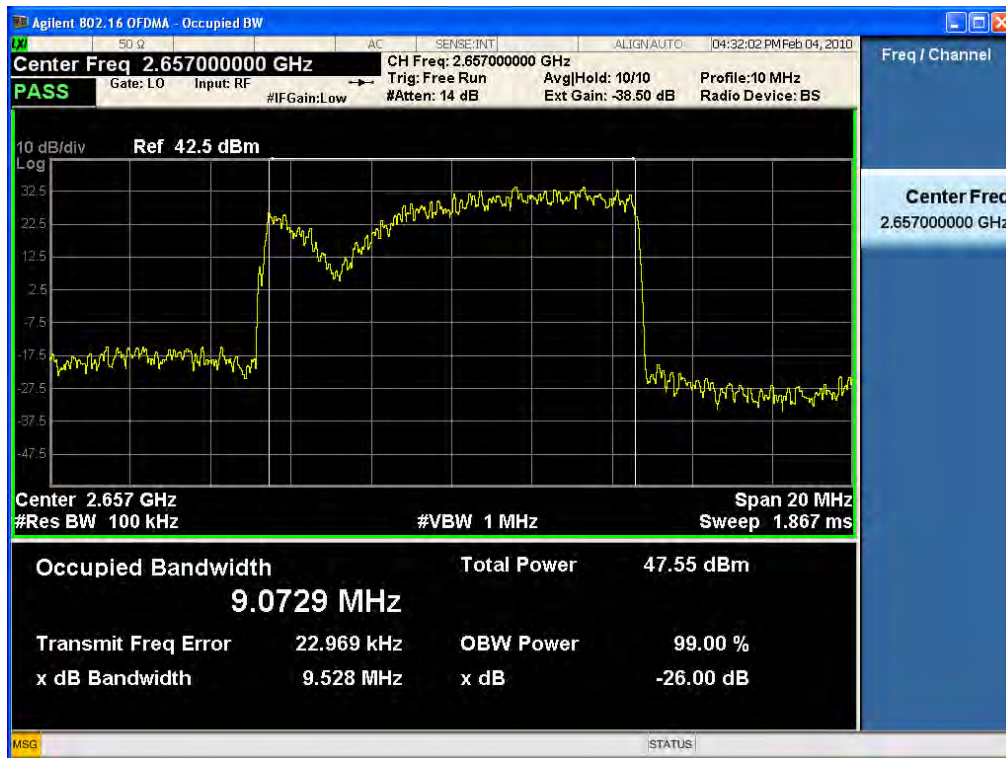


(16QAM Low Channel)

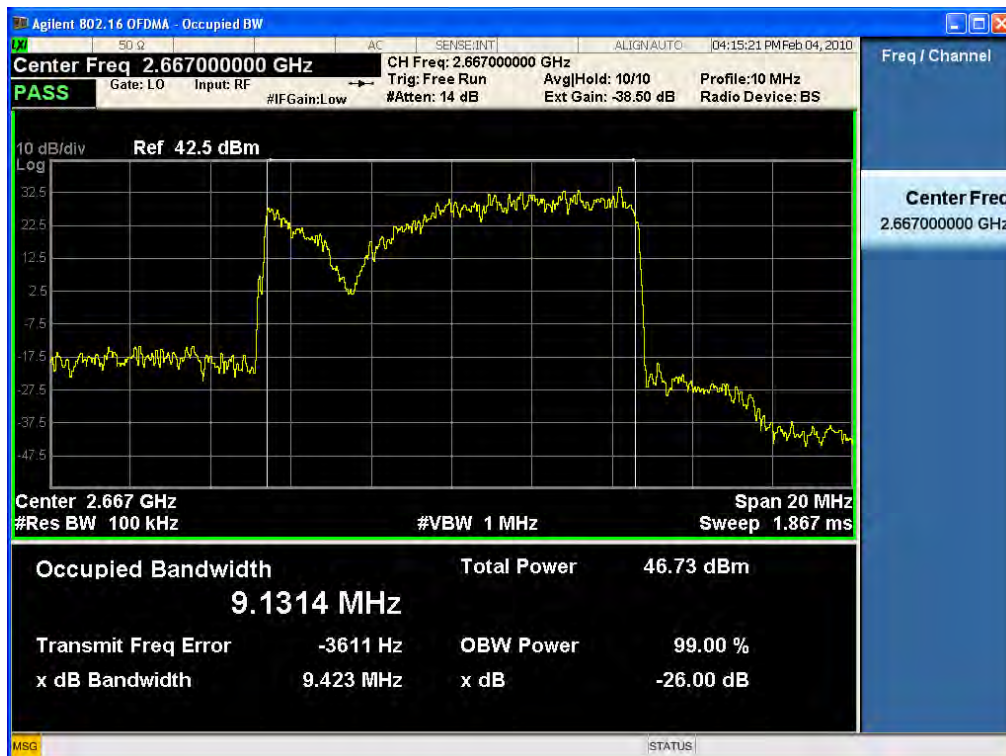


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1002FR21	Test Dates: February 18, 2010	EUT Type: Mobile WiMAX Outdoor RAS	FCC ID: A3LSPI-2210022502	Page 76 of 166

(16QAM Middle Channel)

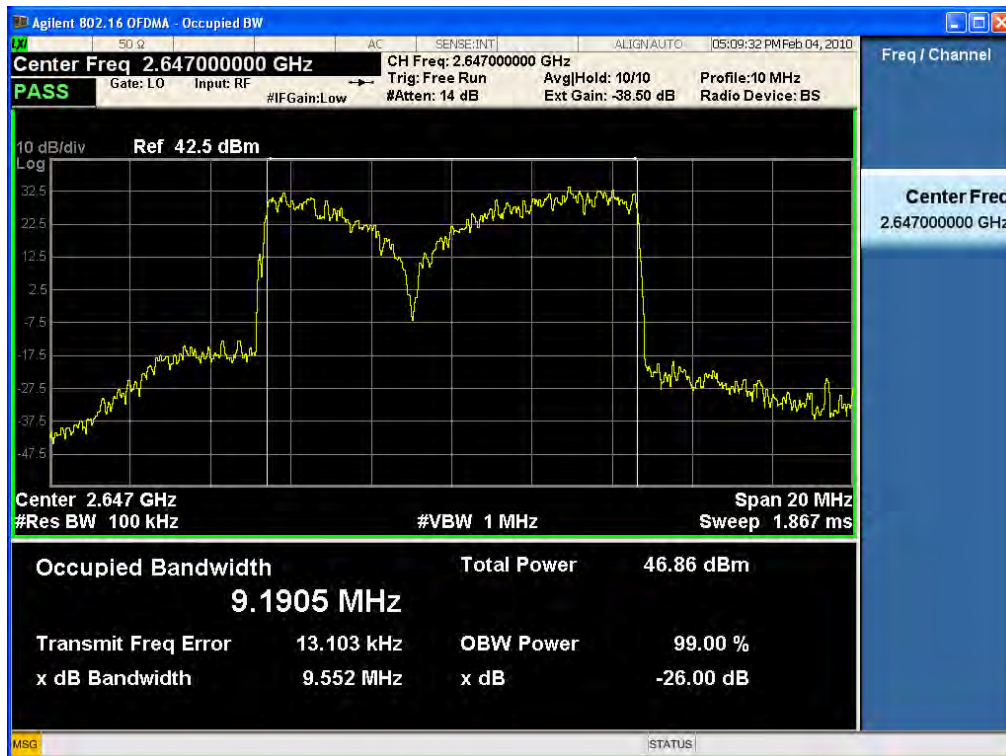


(16QAM High Channel)

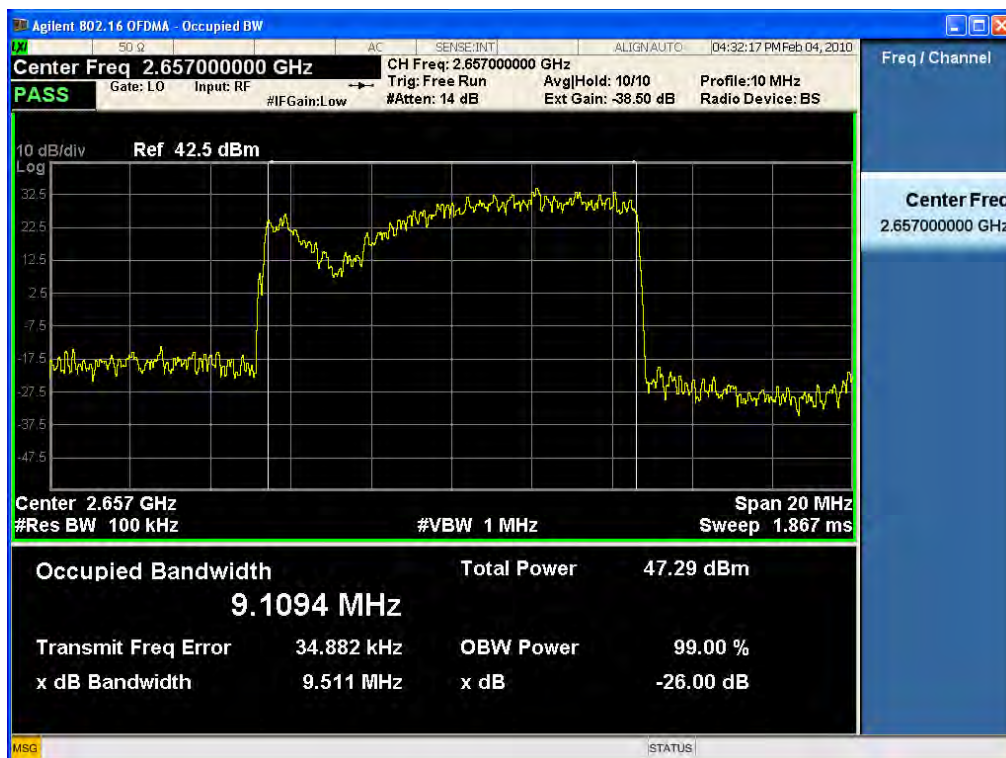


HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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(64QAM Low Channel)



(64QAM Middle Channel)



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(64QAM High Channel)



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7. BAND EDGES

7.1. Applicable Standard

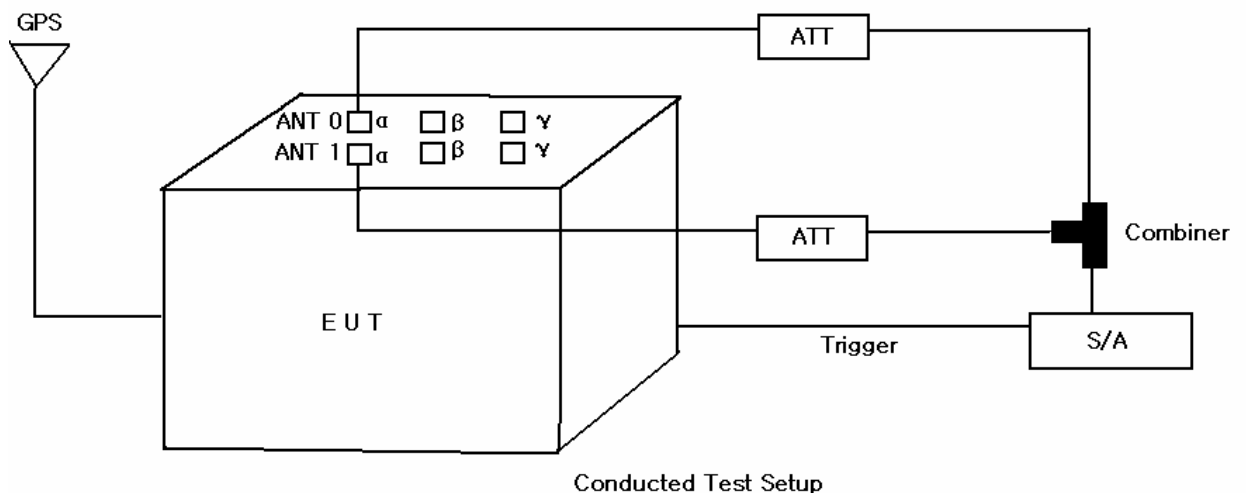
According to §27.53(l)(2), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (p) by a factor of at least $43 + 10 \log (p)$ dB.

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	02/19/2010

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:	56 %

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	-37.656	-13.0
	High	2590.0	-33.123	
16QAM	Low	2508.5	-37.835	
	High	2590.0	-33.003	
64QAM	Low	2508.5	-37.449	
	High	2590.0	-32.962	

7.4.2. Combined Test data at Output

Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2508.5	-32.694	-13.0
	High	2590.0	-29.078	
16QAM	Low	2508.5	-32.983	
	High	2590.0	-28.770	
64QAM	Low	2508.5	-32.993	
	High	2590.0	-28.699	

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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	-21.630	-13.0
	High	2683.5	-21.880	
16QAM	Low	2630.5	-21.588	
	High	2683.5	-23.405	
64QAM	Low	2630.5	-20.697	
	High	2683.5	-22.666	

7.4.4. Combined Test data at Output

Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2630.5	-17.498	-13.0
	High	2683.5	-21.910	
16QAM	Low	2630.5	-16.986	
	High	2683.5	-21.221	
64QAM	Low	2630.5	-17.289	
	High	2683.5	-21.428	

7.4.5. Test data at Output Gamma 0

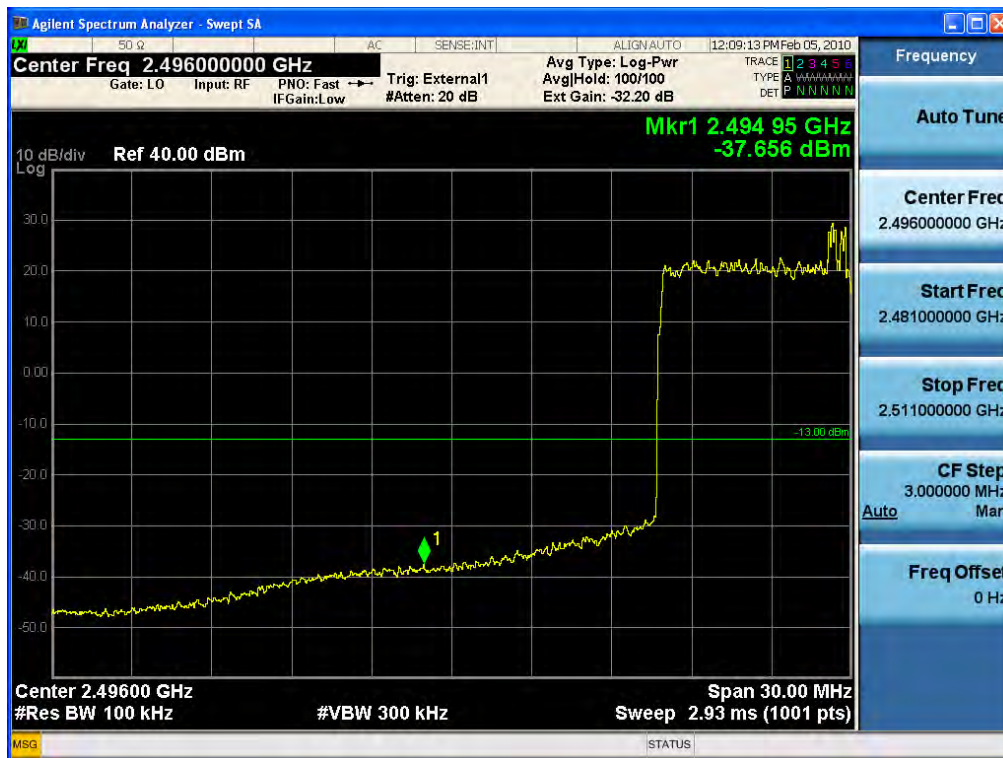
Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2647	-20.292	-13.0
	High	2667	-23.846	
16QAM	Low	2647	-21.343	
	High	2667	-22.039	
64QAM	Low	2647	-21.689	
	High	2667	-21.558	

7.4.6. Combined Test data at Output

Modulation	Channel	Measured Frequency (MHz)	Max. Measured Value (dBm)	Limit (dBm)
QPSK	Low	2647	-15.448	-13.0
	High	2667	-19.556	
16QAM	Low	2647	-15.511	
	High	2667	-21.823	
64QAM	Low	2647	-16.587	
	High	2667	-22.585	

7.4.7. Plot Data at Output Alpha 0

(QPSK Low Channel)

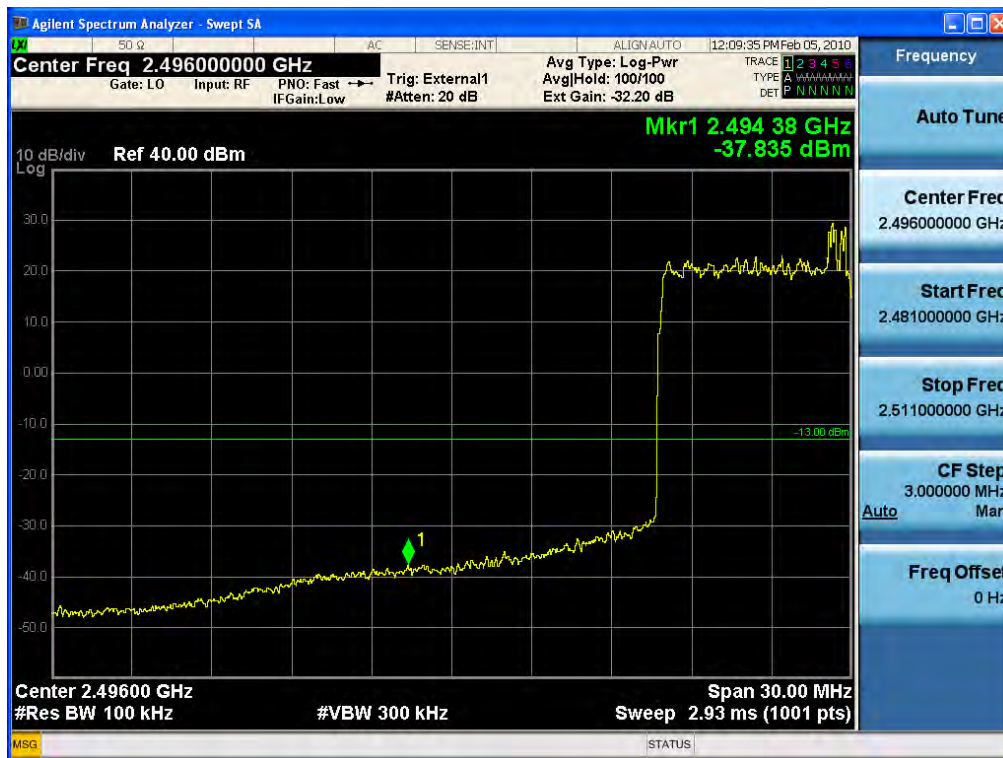


(QPSK High Channel)



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(16QAM Low Channel)

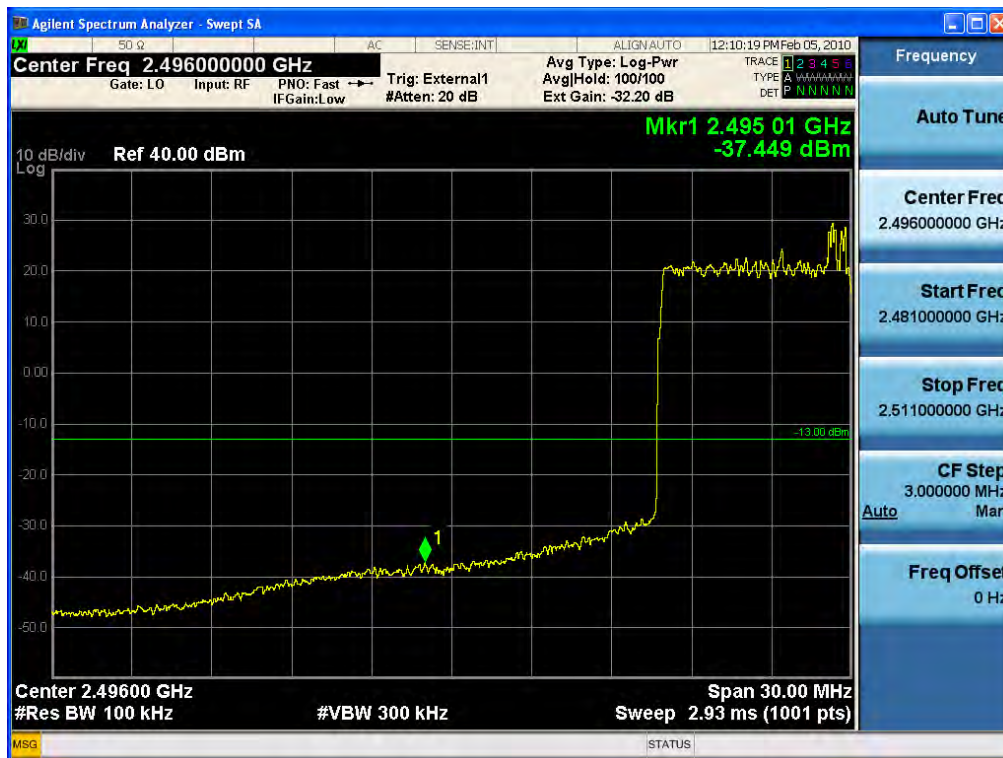


(16QAM High Channel)



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(64QAM Low Channel)



(64QAM High Channel)



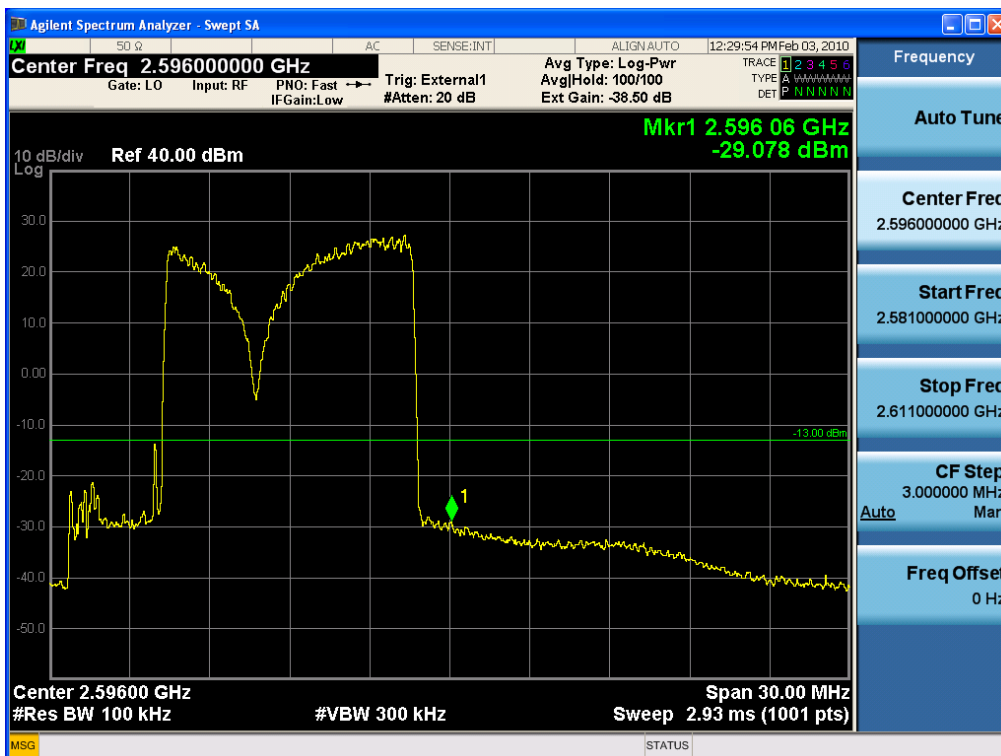
HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
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7.4.8. Combined Plot Data at Output

(QPSK Low Channel)



(QPSK High Channel)



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(16QAM Low Channel)



(16QAM High Channel)



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(64QAM Low Channel)



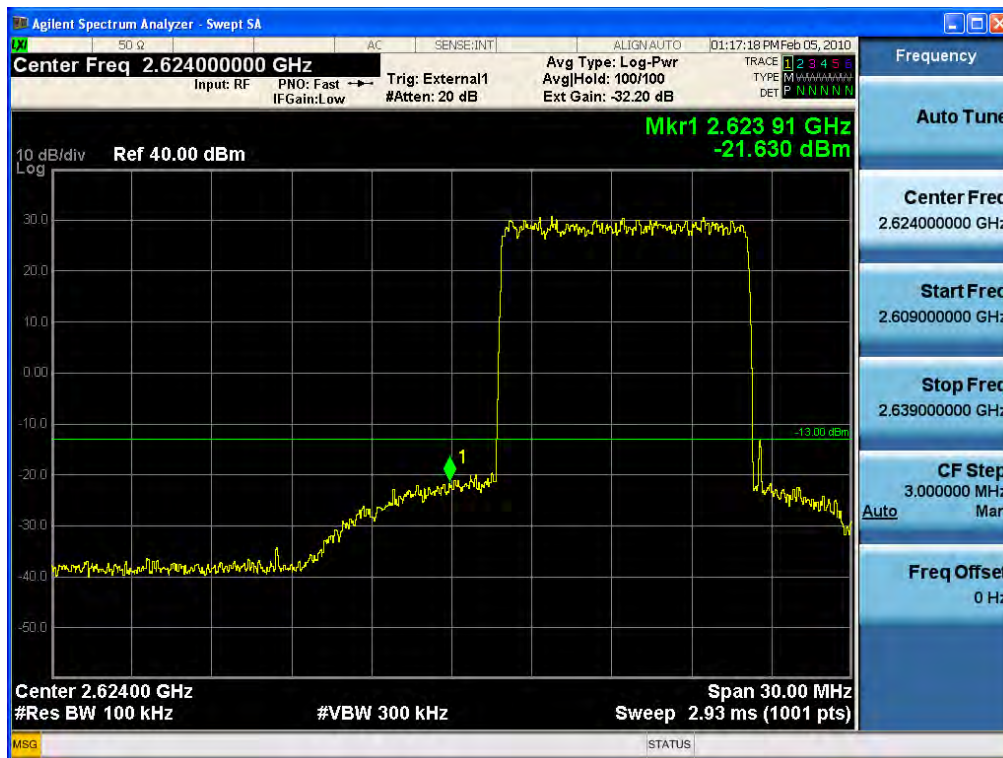
(64QAM High Channel)



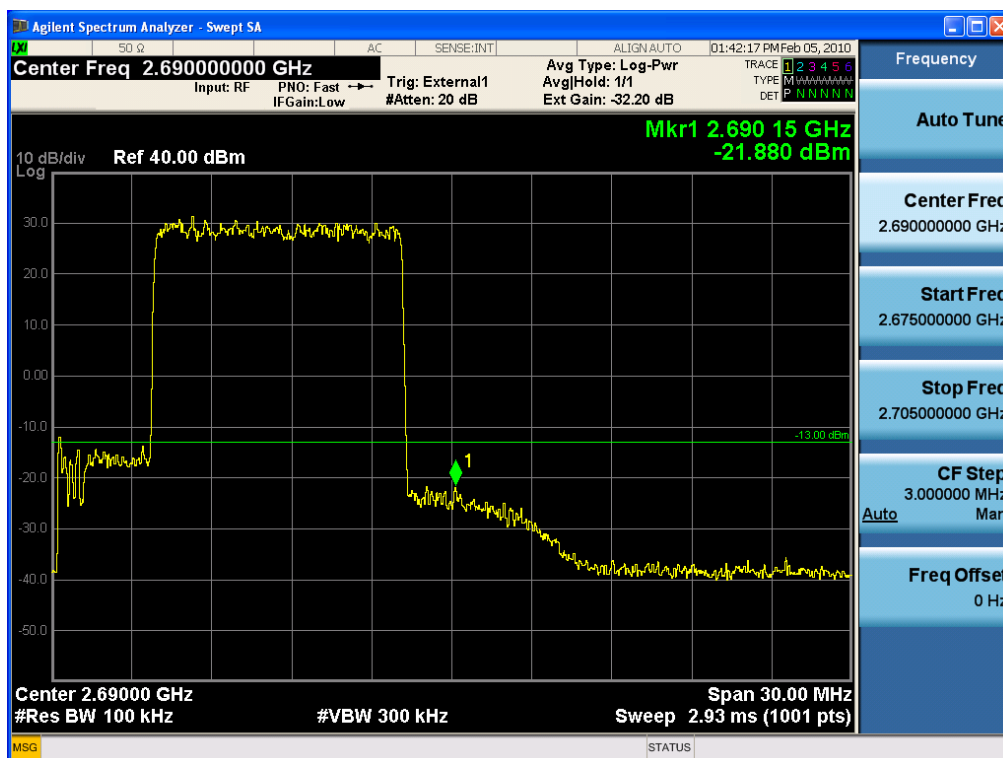
HCT PT.27 TEST REPORT	FCC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCTR1002FR21	Test Dates: February 18, 2010	EUT Type: Mobile WiMAX Outdoor RAS	FCC ID: A3LSPI-2210022502	Page 89 of 166

7.4.9. Plot Data at Output Beta 0

(QPSK Low Channel)



(QPSK High Channel)



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