

## 4. Occupied Bandwidth

### 4.1. Test Equipment

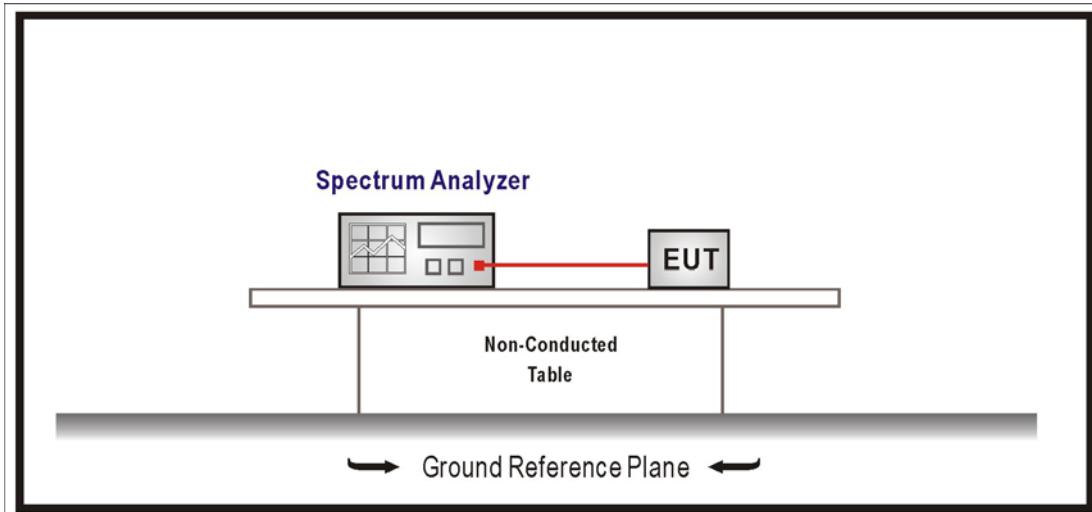
The following test equipments are used during the test:

#### Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	US47140172	2012/07/13

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

### 4.2. Test Setup



### 4.3. Limits

NA

### 4.4. Test Procedure

The occupied bandwidth is measured using Spectrum Analyzer with a resolution bandwidth of 1% EBW, video bandwidth 3% EBW and span of twice the EBW. The EUT was set up for the rated peak power under transmission mode and specific channel frequency. The standards required a measurement bandwidth is the fundamental emission below 26dB bandwidth.

### 4.5. Test Specification

FCC CFR Title 47 Part 90 Subpart Z

### 4.6. Uncertainty

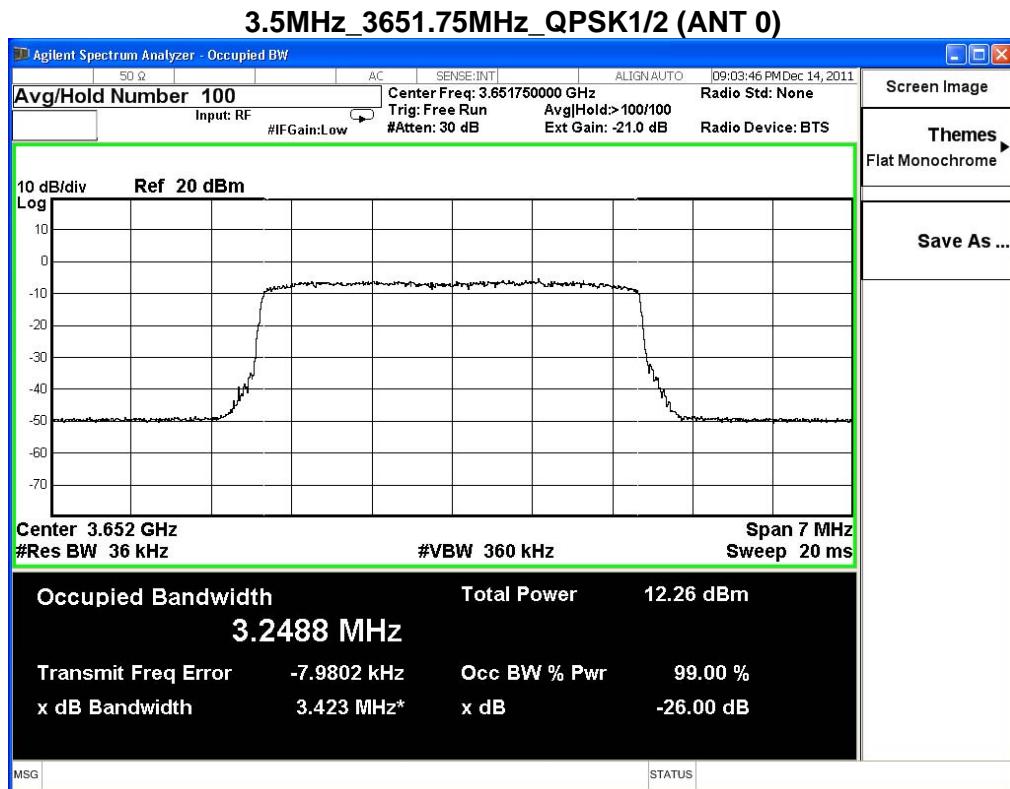
The measurement uncertainty is defined as  $\pm 50$  kHz

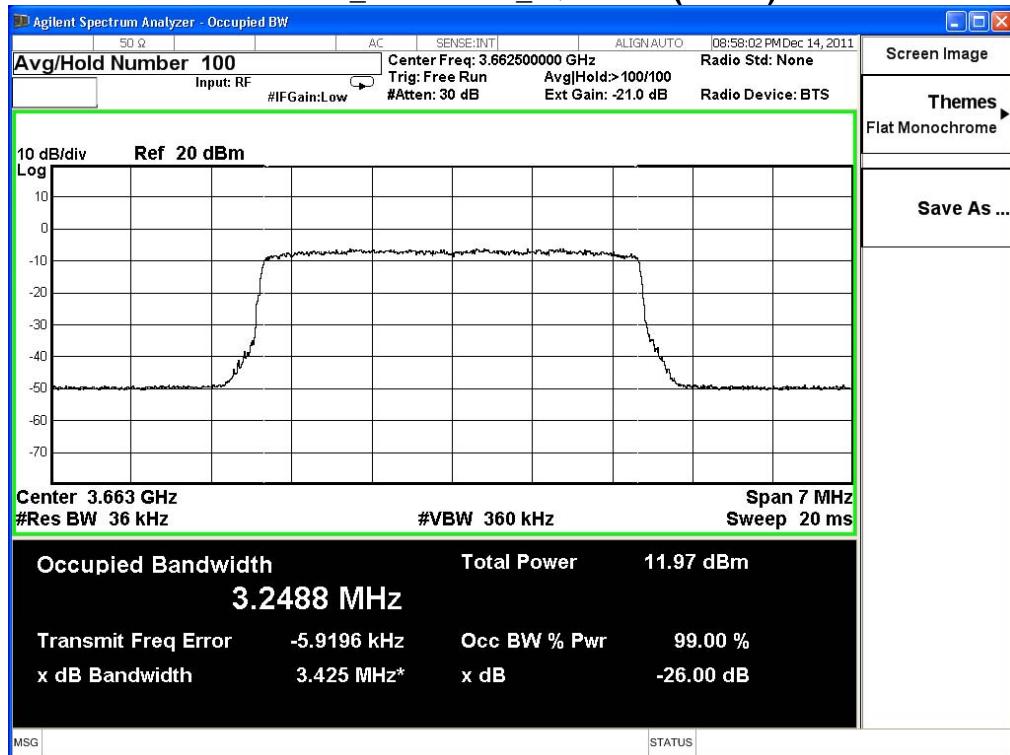
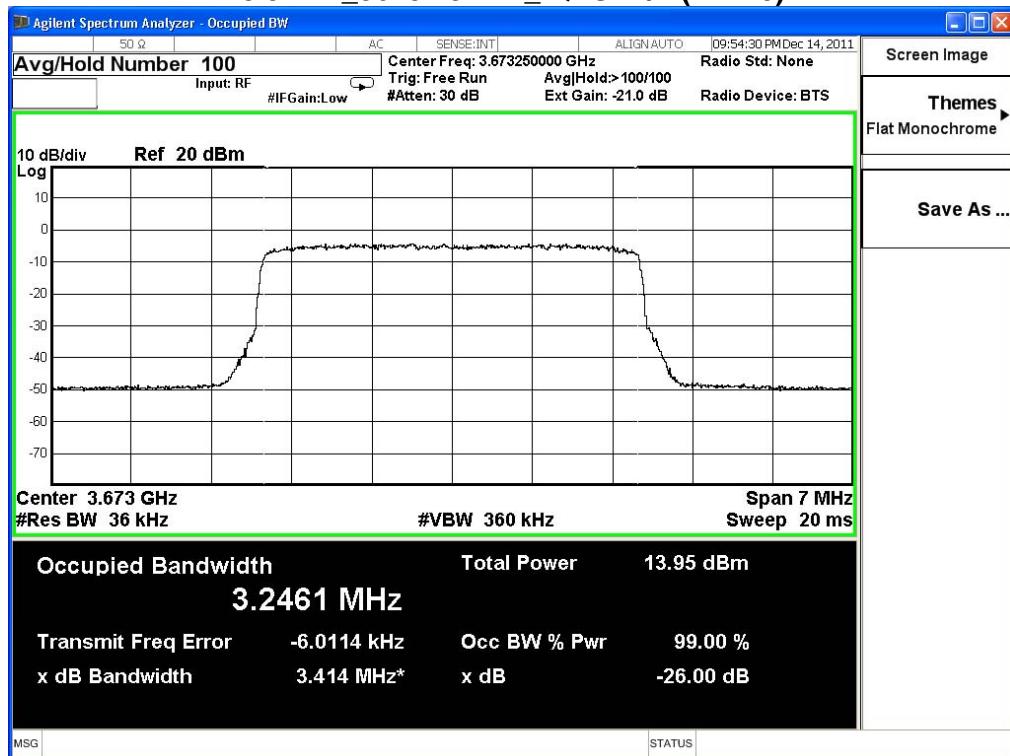
#### 4.7. Test Result

Product	CBS 3.65GHz		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit (3.5MHz BW_QPSK1/2)		
Date of Test	2011/12/14	Test Site	SR7

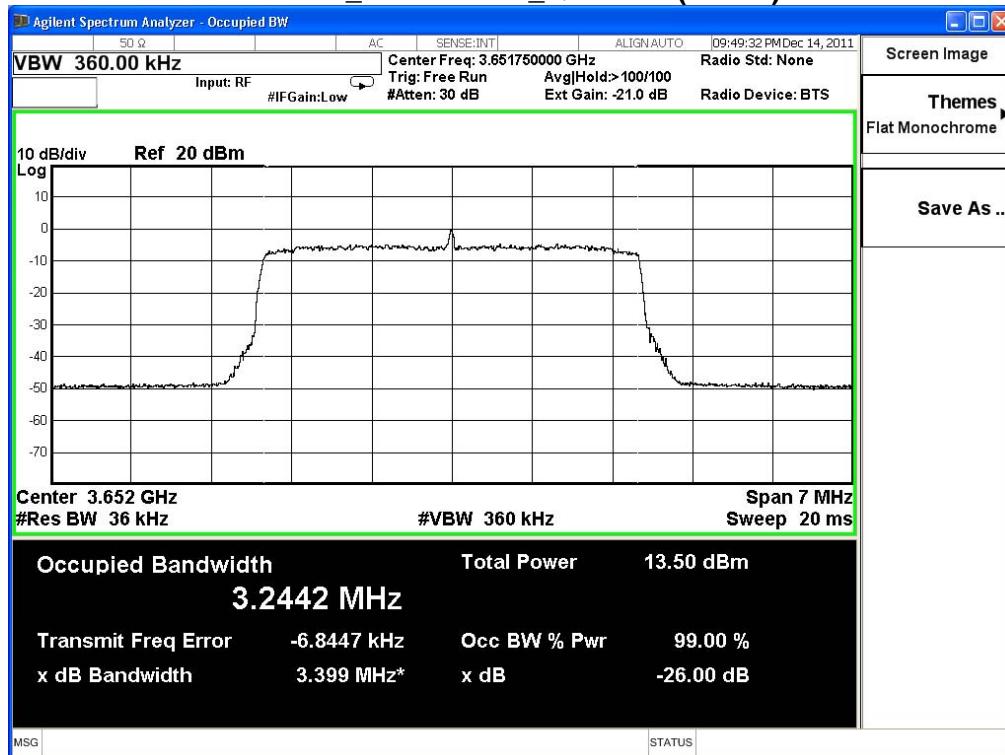
#### 3.5MHz Bandwidth

Frequency (MHz)	Measure Value (MHz)_Ant 0	Measure Value (MHz)_Ant 1	Limit (MHz)
3651.75	3.423	3.399	N/A
3662.50	3.425	3.389	N/A
3673.25	3.414	3.387	N/A

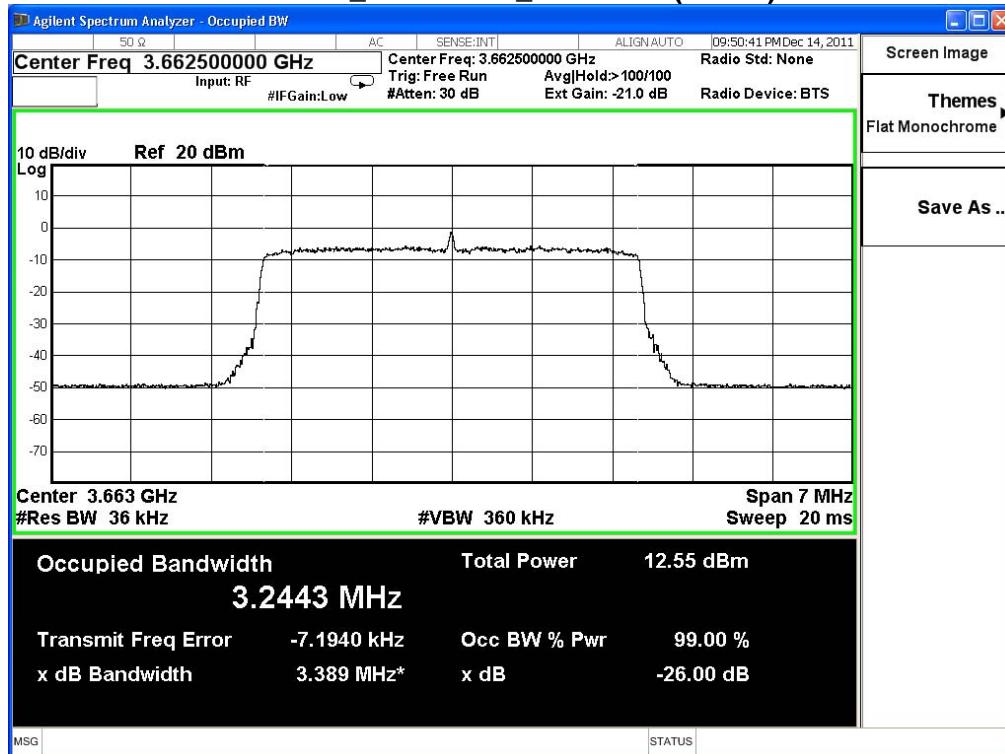


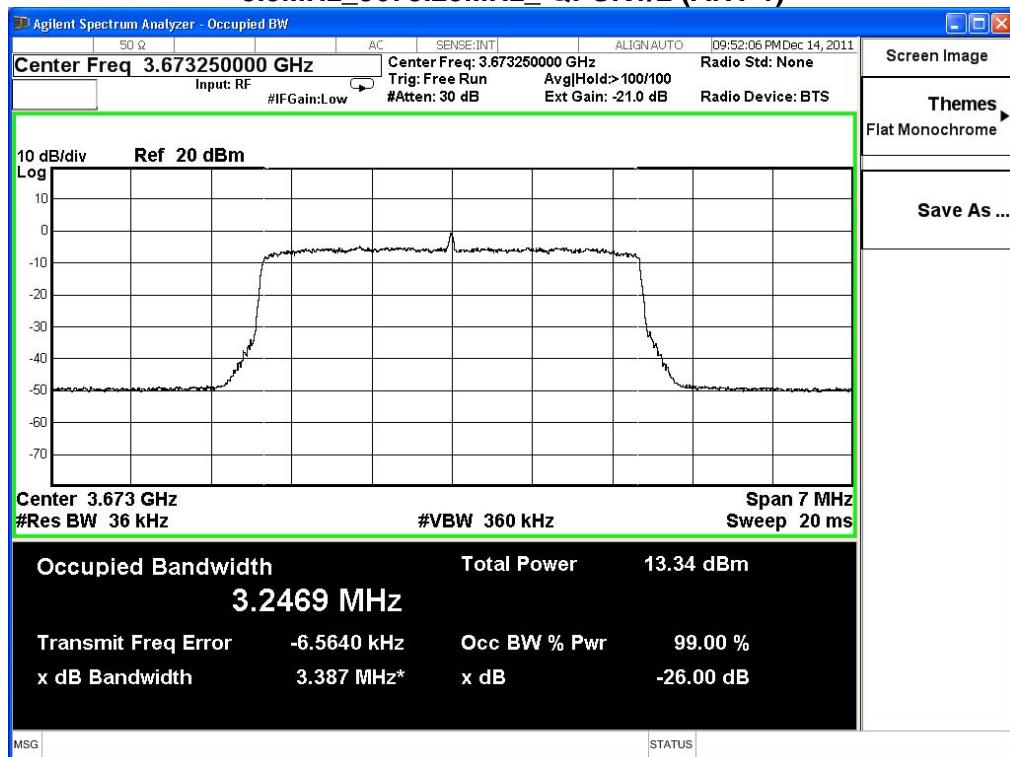
**3.5MHz\_3662.5MHz\_ QPSK1/2 (ANT 0)****3.5MHz\_3673.25MHz\_ QPSK1/2 (ANT 0)**

## 3.5MHz\_3651.75MHz\_QPSK1/2 (ANT 1)



## 3.5MHz\_3662.5MHz\_QPSK1/2 (ANT 1)

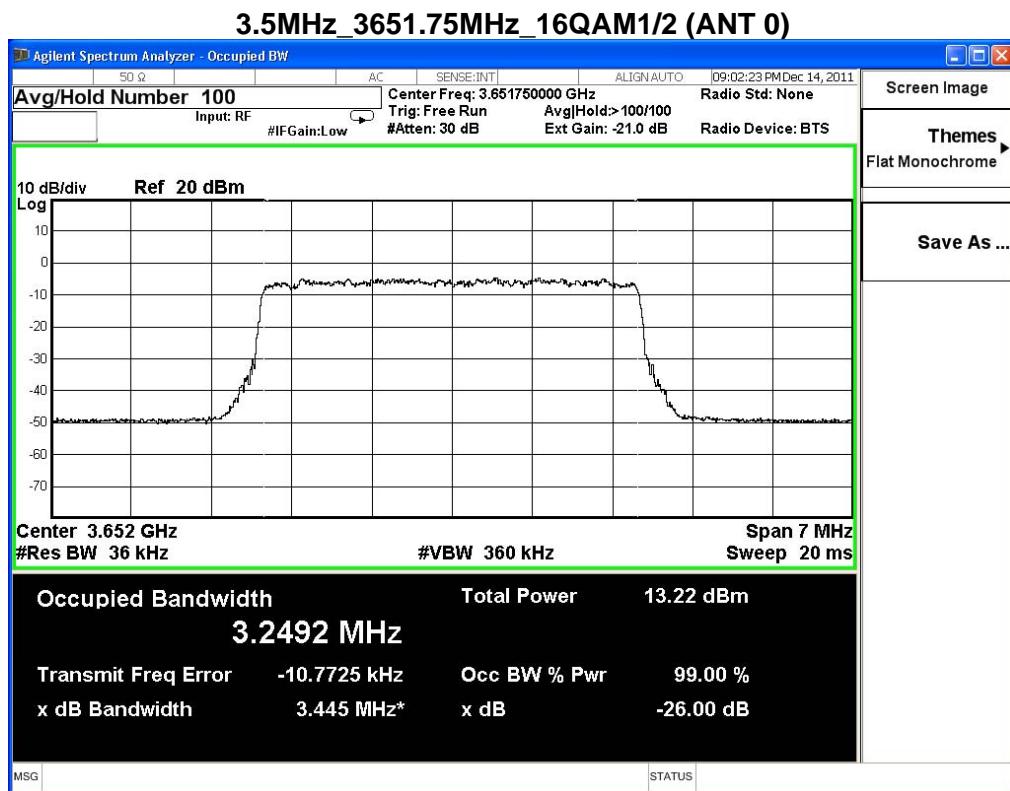


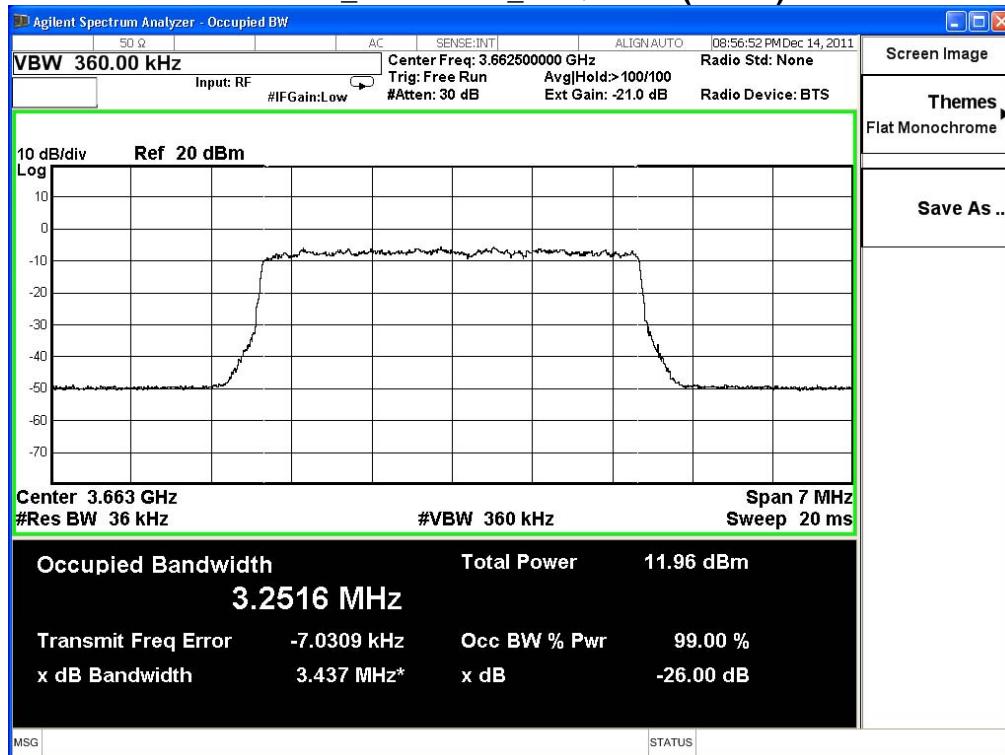
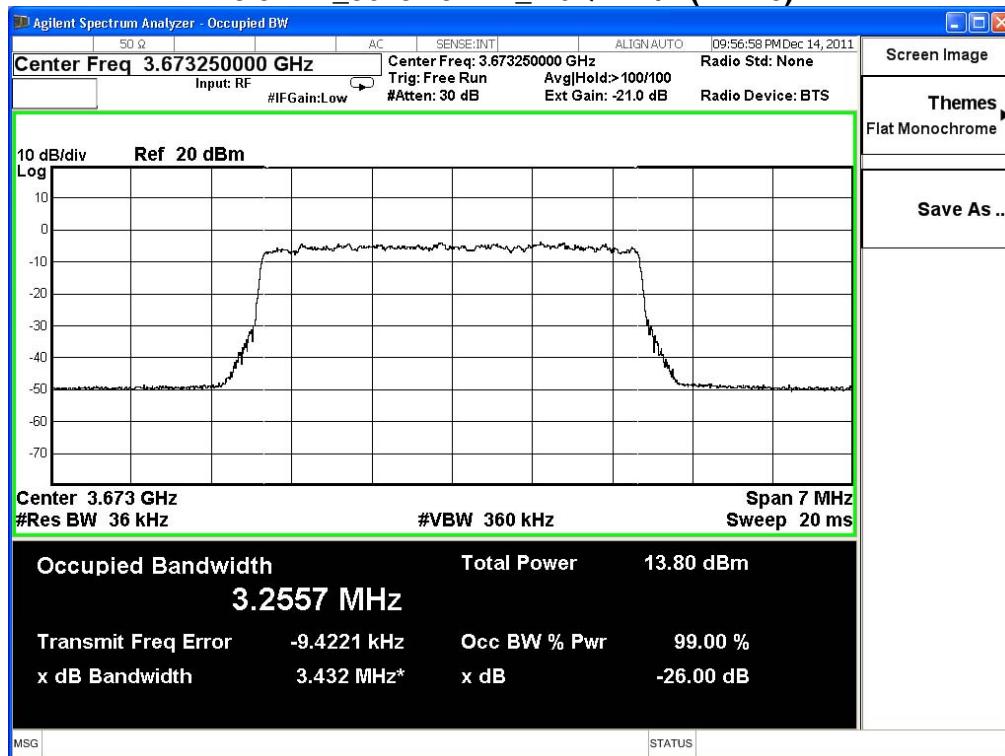
**3.5MHz\_3673.25MHz\_QPSK1/2 (ANT 1)**

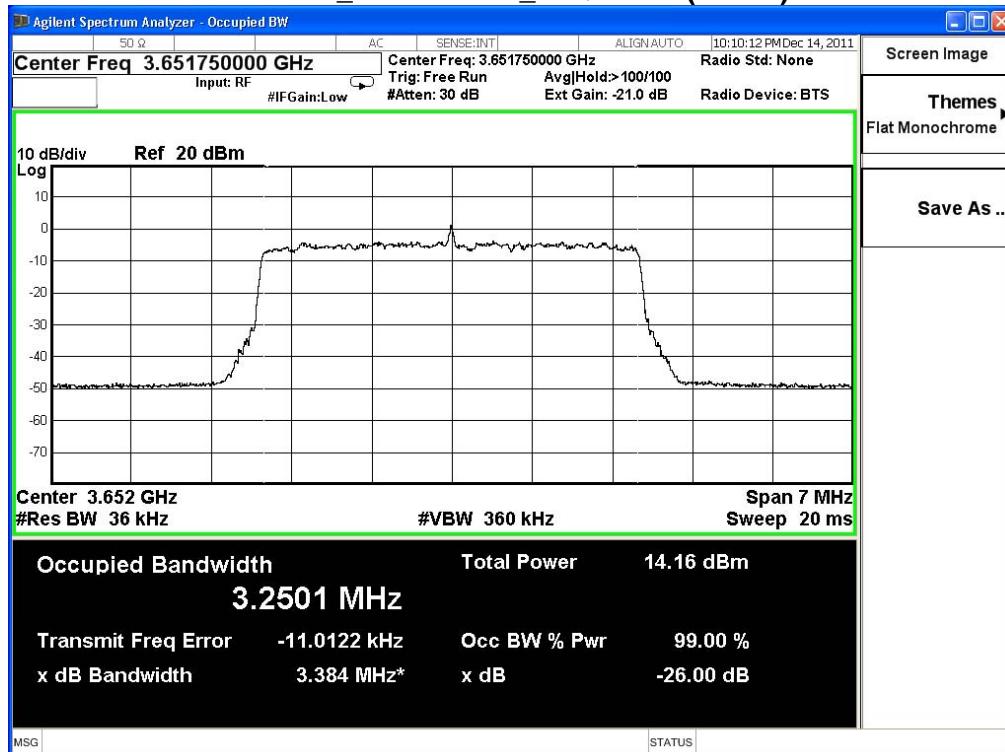
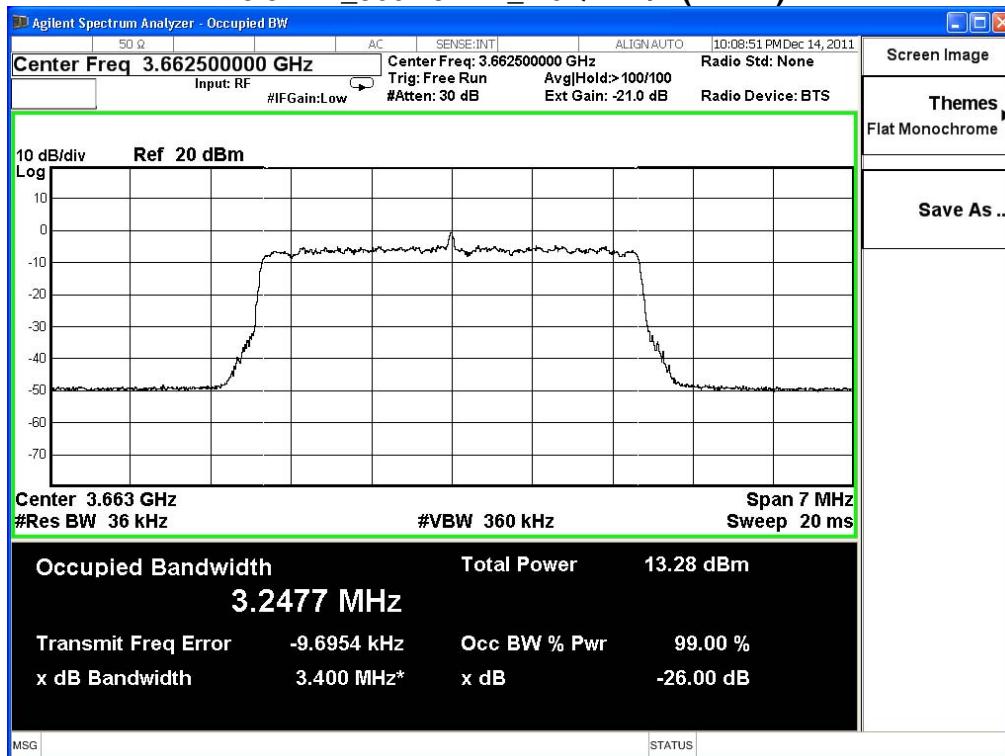
Product	CBS 3.65GHz
Test Item	Occupied Bandwidth
Test Mode	Mode 2: Transmit (3.5MHz BW_16QAM1/2)

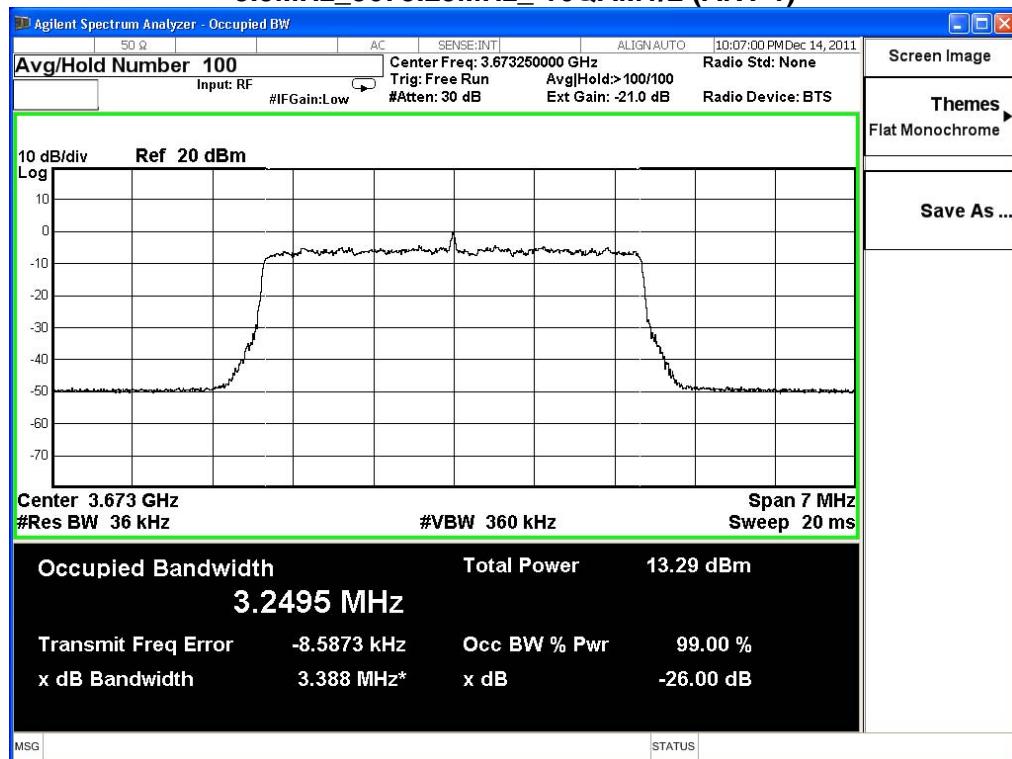
**3.5MHz Bandwidth**

Frequency (MHz)	Measure Value (MHz)_Ant 0	Measure Value (MHz)_Ant 1	Limit (MHz)
3651.75	3.445	3.384	N/A
3662.50	3.437	3.400	N/A
3673.25	3.432	3.388	N/A



**3.5MHz\_3662.5MHz\_ 16QAM1/2 (ANT 0)****3.5MHz\_3673.25MHz\_ 16QAM1/2 (ANT 0)**

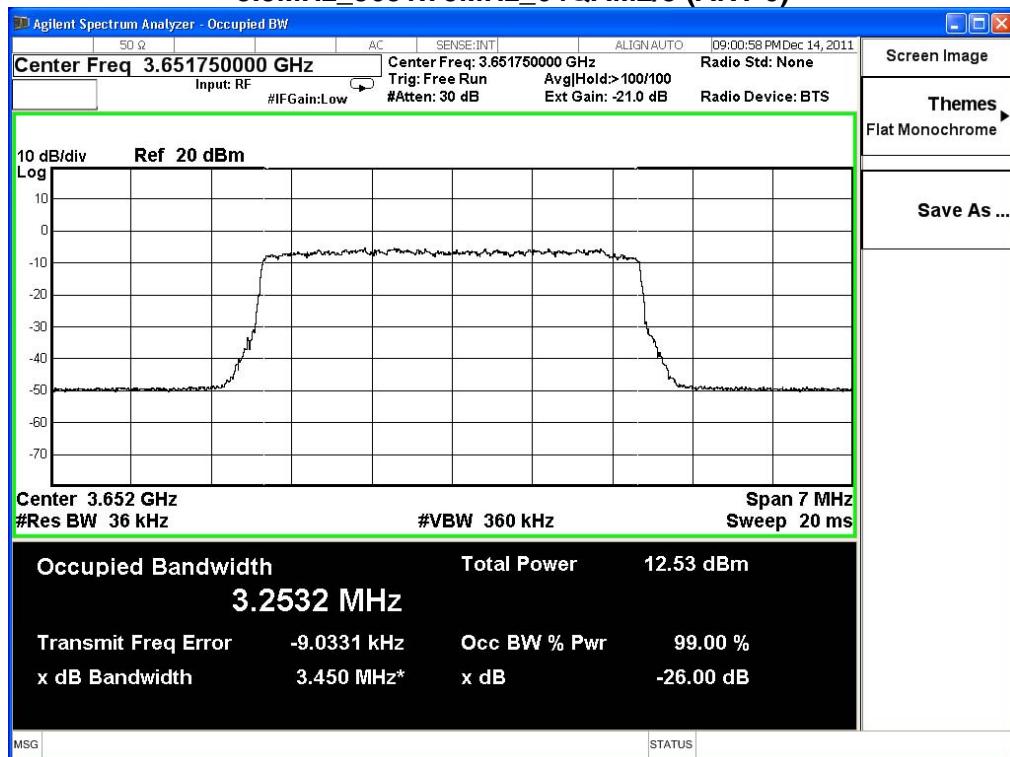
**3.5MHz\_3651.75MHz\_16QAM1/2 (ANT 1)****3.5MHz\_3662.5MHz\_16QAM1/2 (ANT 1)**

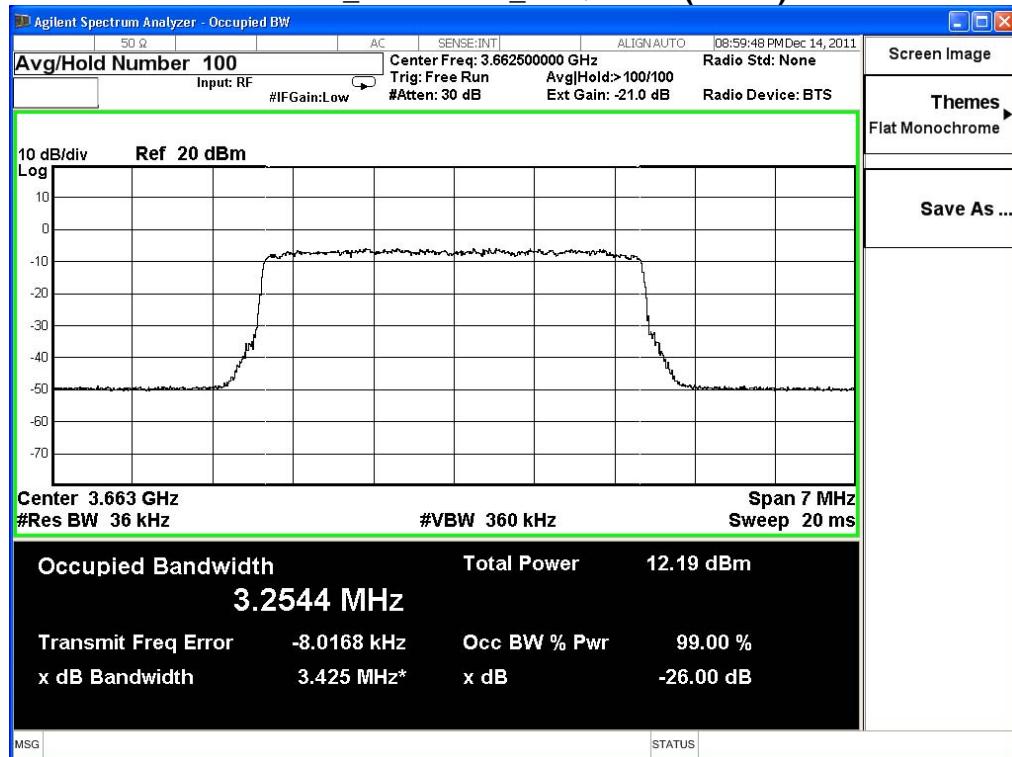
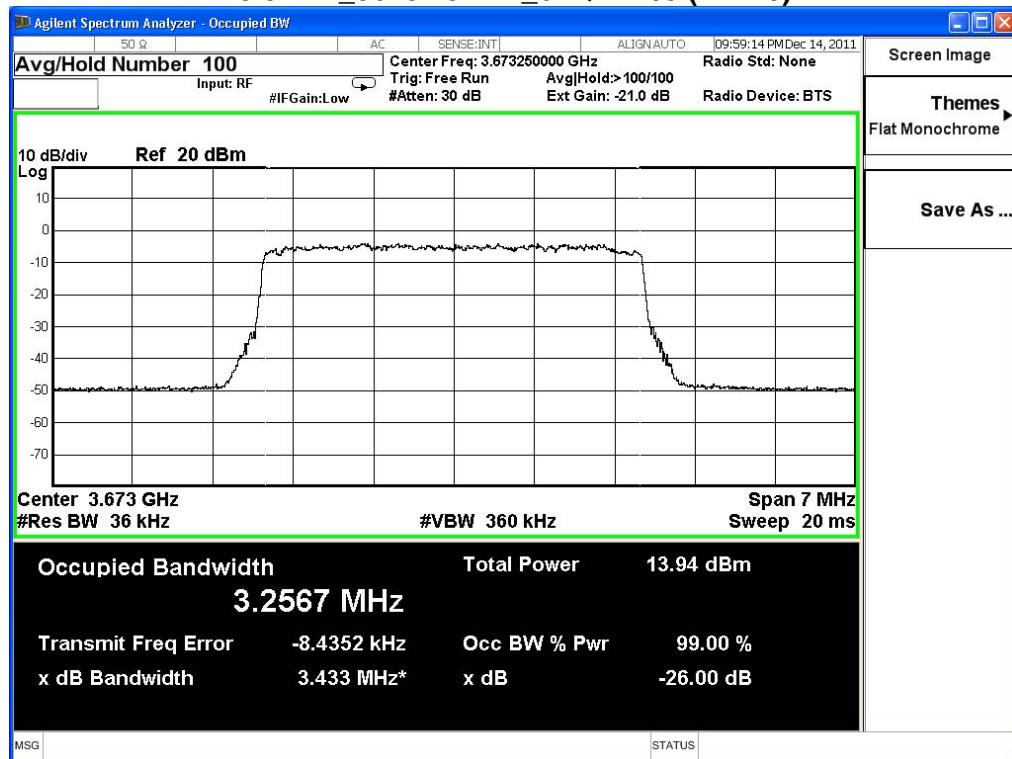
**3.5MHz\_3673.25MHz\_ 16QAM1/2 (ANT 1)**

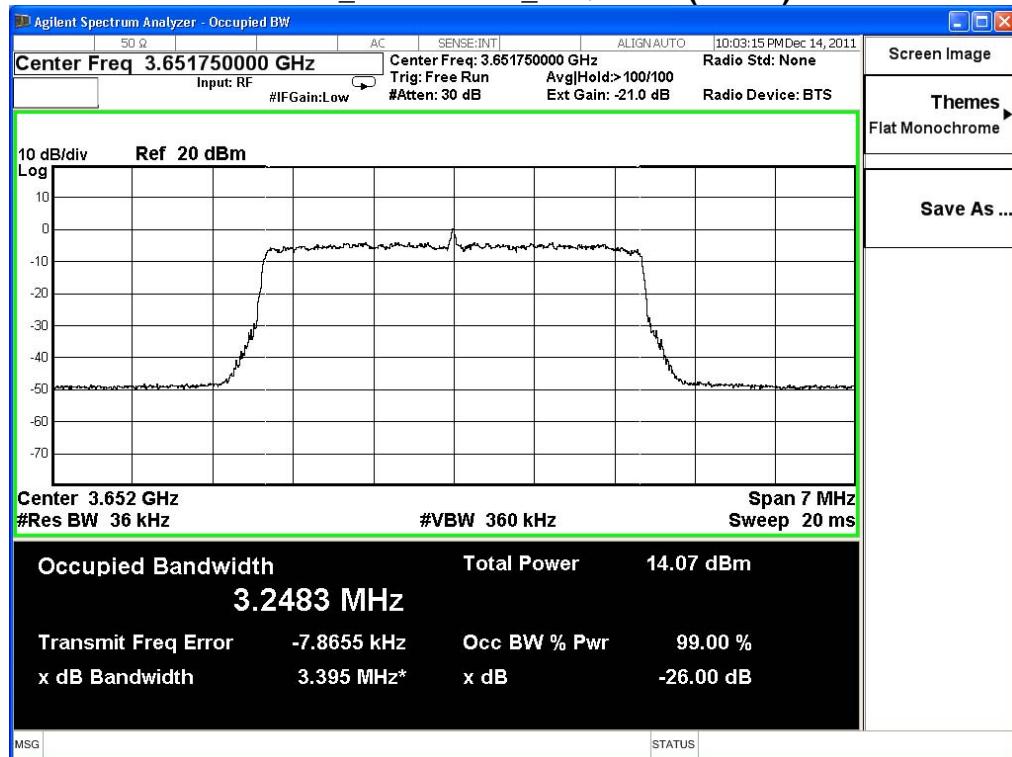
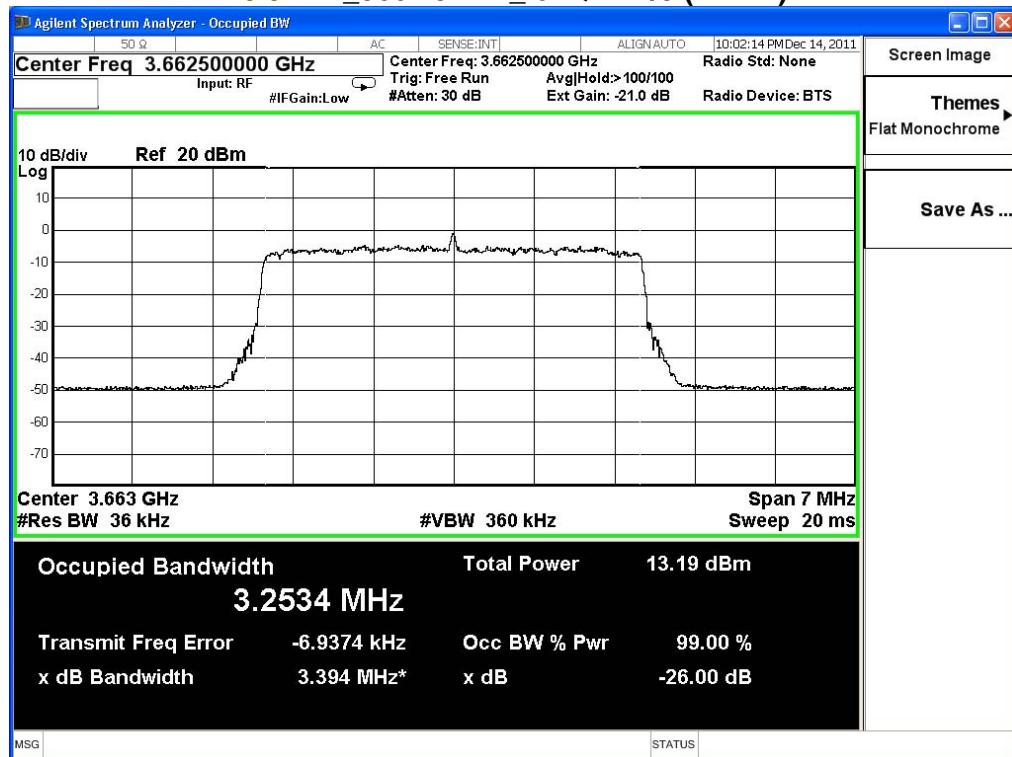
Product	CBS 3.65GHz
Test Item	Occupied Bandwidth
Test Mode	Mode 3: Transmit (3.5MHz BW_64QAM2/3)

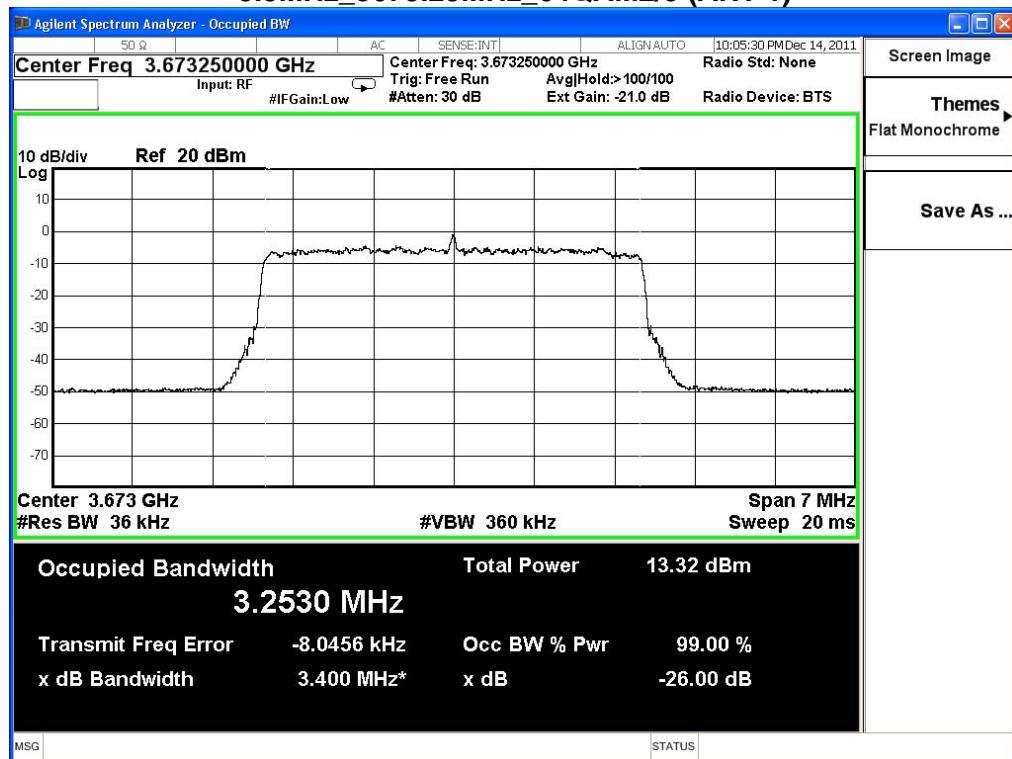
**3.5MHz Bandwidth**

Frequency (MHz)	Measure Value (MHz)_Ant 0	Measure Value (MHz)_Ant 1	Limit (MHz)
3651.75	3.450	3.395	N/A
3662.50	3.425	3.394	N/A
3673.25	3.433	3.400	N/A

**3.5MHz\_3651.75MHz\_64QAM2/3 (ANT 0)**

**3.5MHz\_3662.5MHz\_ 64QAM2/3 (ANT 0)****3.5MHz\_3673.25MHz\_ 64QAM2/3 (ANT 0)**

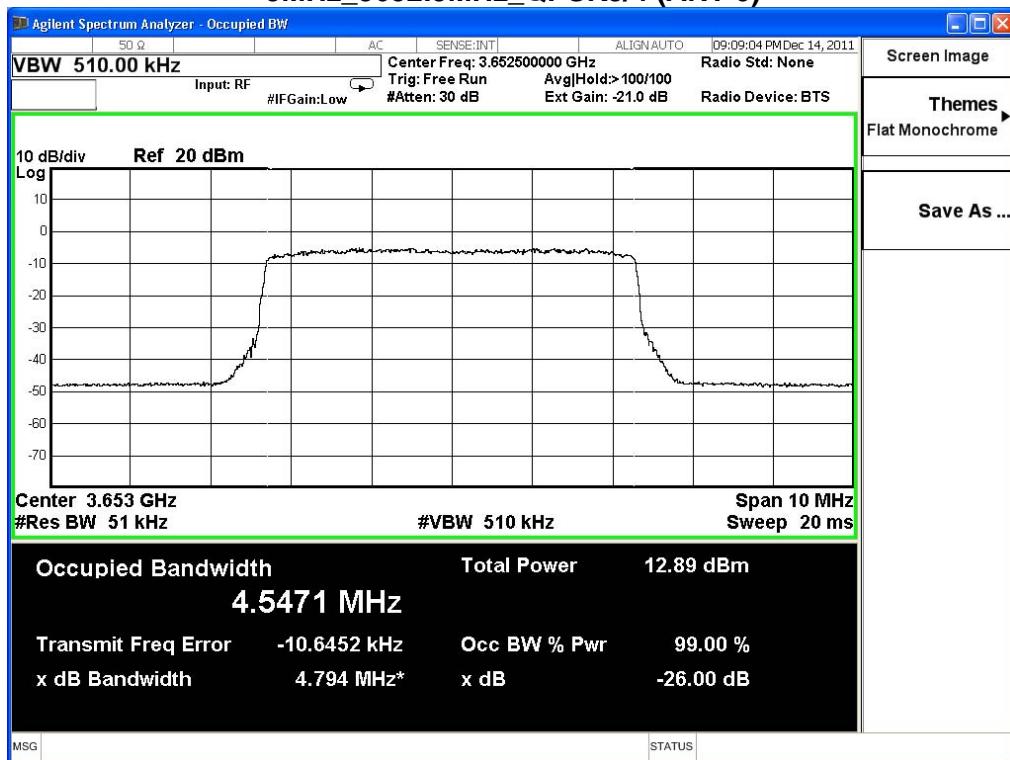
**3.5MHz\_3651.75MHz\_64QAM2/3 (ANT 1)****3.5MHz\_3662.5MHz\_64QAM2/3 (ANT 1)**

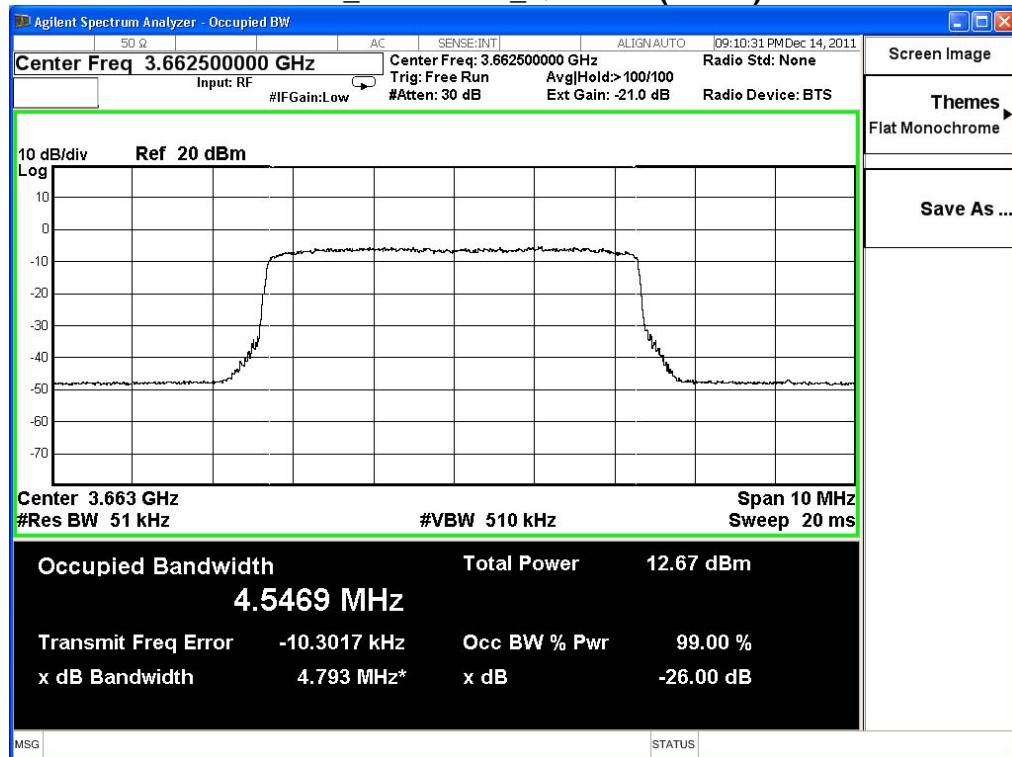
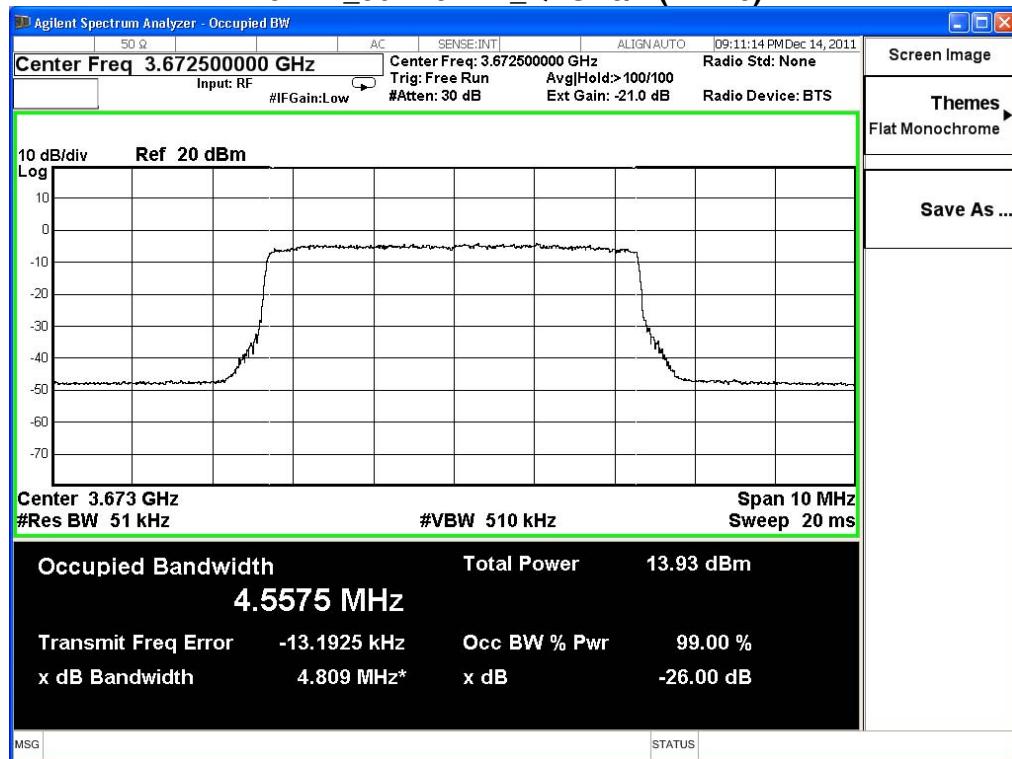
**3.5MHz\_3673.25MHz\_64QAM2/3 (ANT 1)**

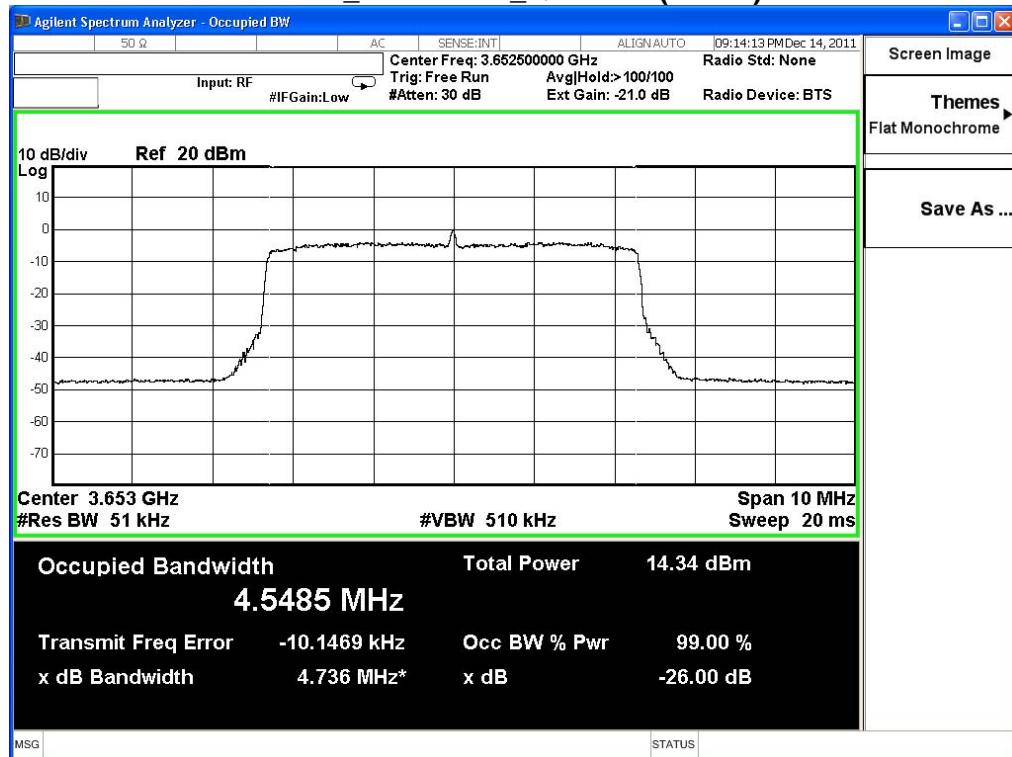
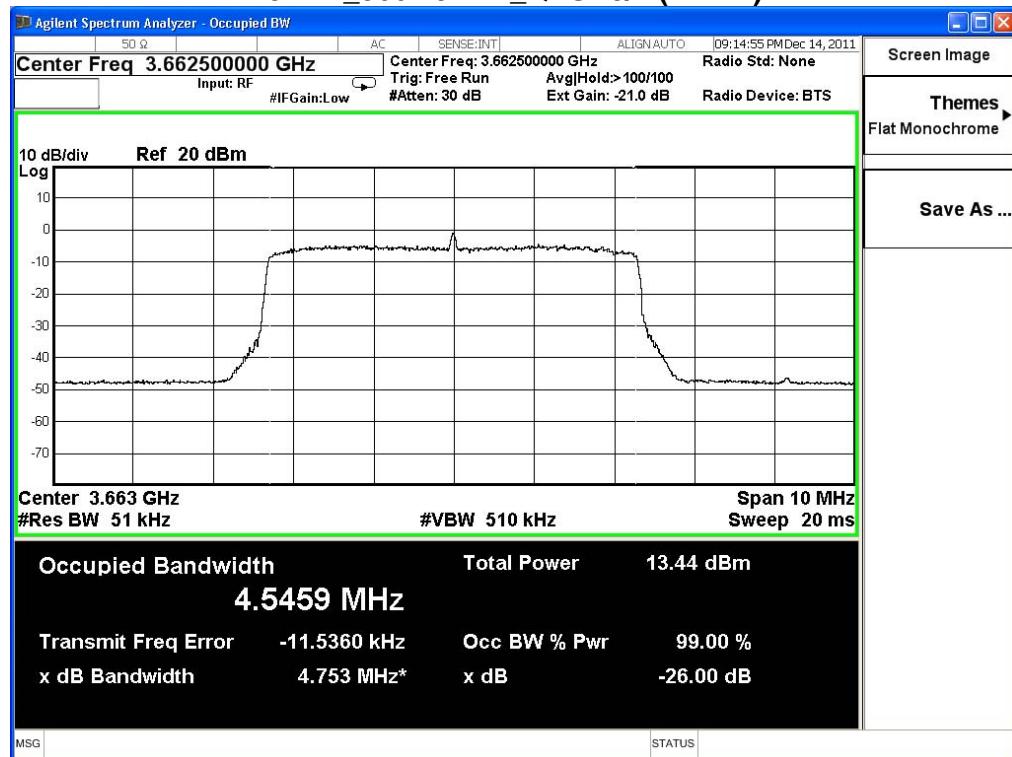
Product	CBS 3.65GHz
Test Item	Occupied Bandwidth
Test Mode	Mode 4: Transmit (5MHz BW_QPSK3/4)

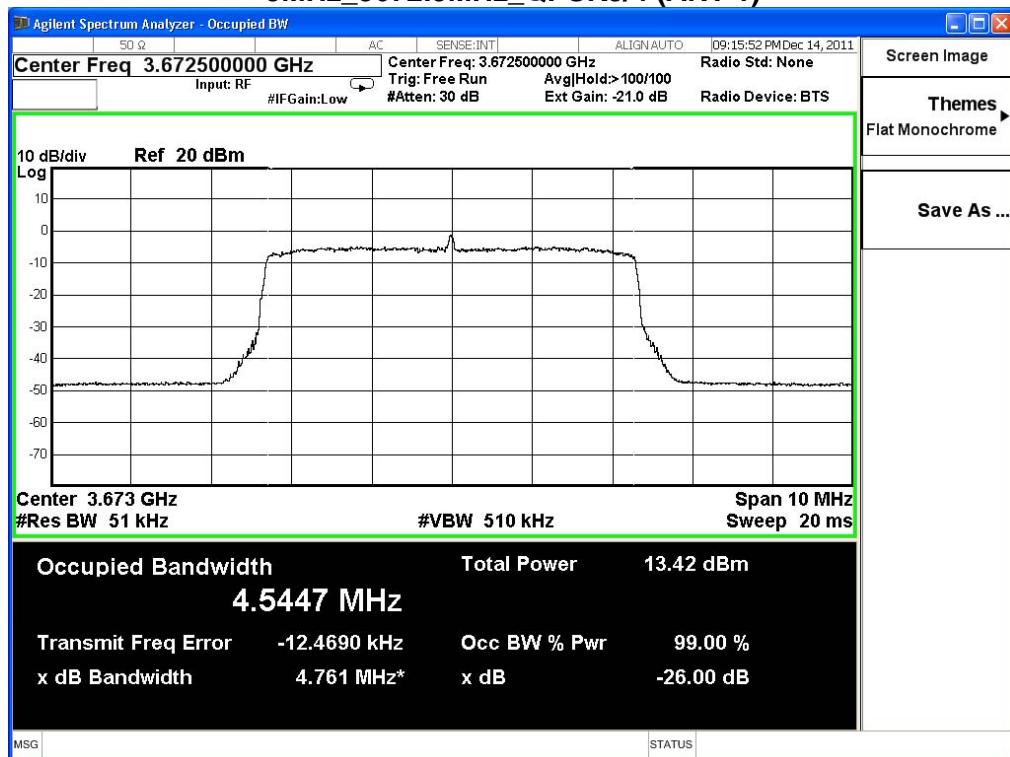
**5MHz Bandwidth**

Frequency (MHz)	Measure Value (MHz)_Ant 0	Measure Value (MHz)_Ant 1	Limit (MHz)
3652.5	4.794	4.736	N/A
3662.5	4.793	4.753	N/A
3672.5	4.809	4.761	N/A

**5MHz\_3652.5MHz\_QPSK3/4 (ANT 0)**

**5MHz\_3662.5MHz\_QPSK3/4 (ANT 0)****5MHz\_3672.5MHz\_QPSK3/4 (ANT 0)**

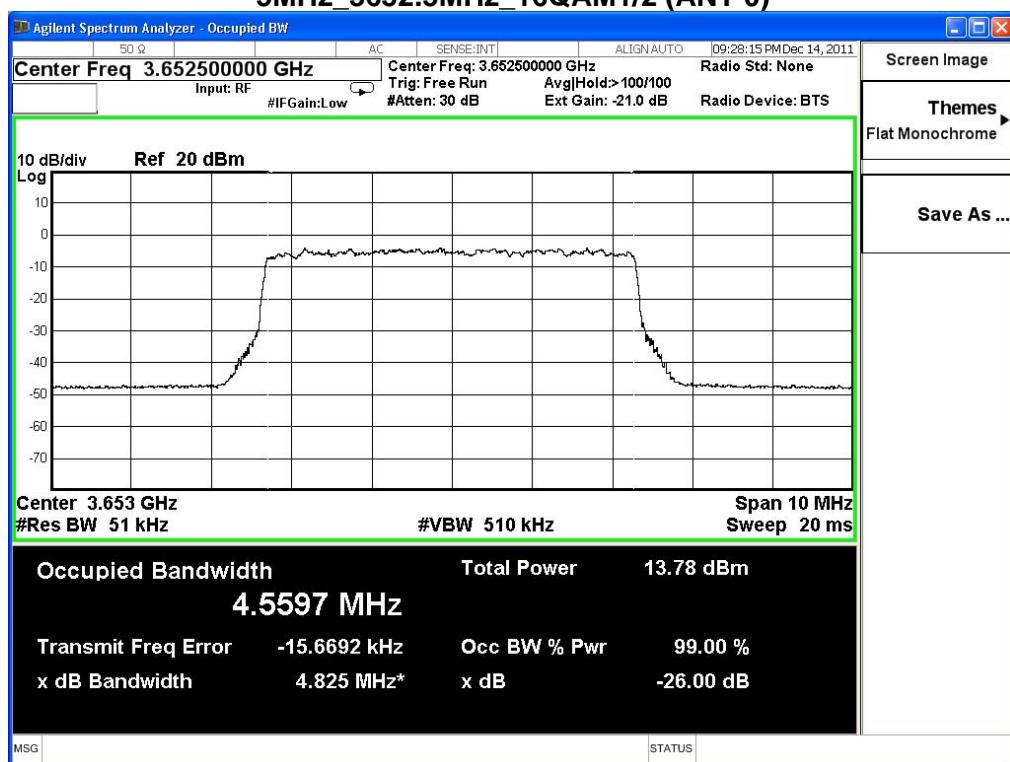
**5MHz\_3652.5MHz\_QPSK3/4 (ANT 1)****5MHz\_3662.5MHz\_QPSK3/4 (ANT 1)**

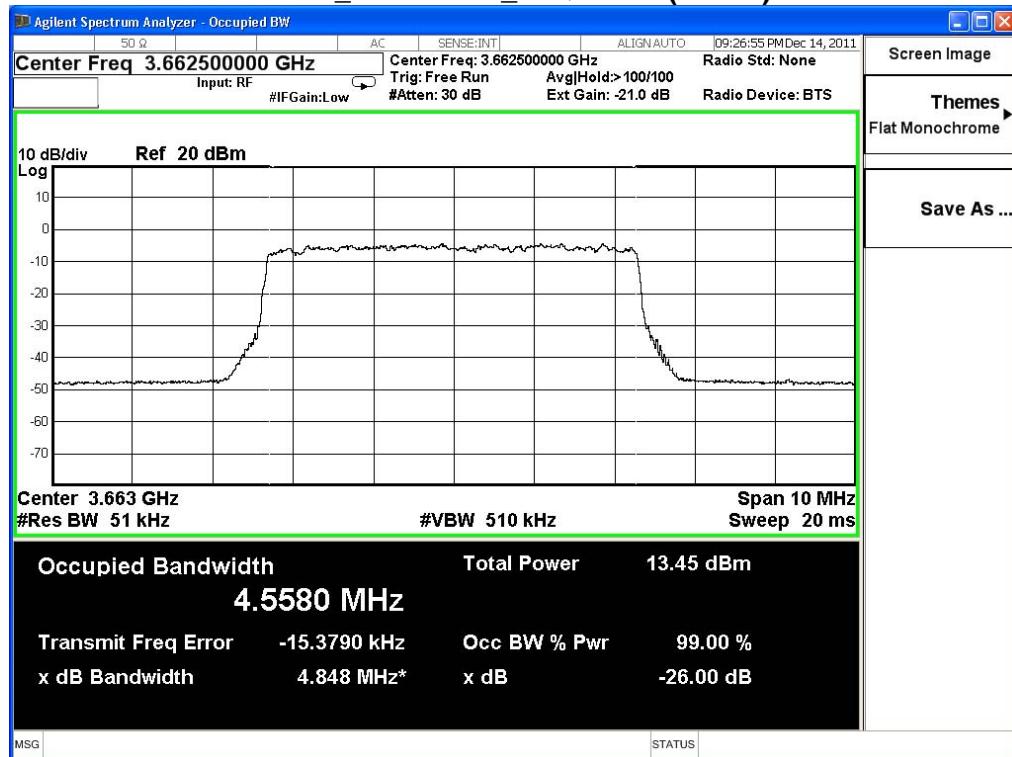
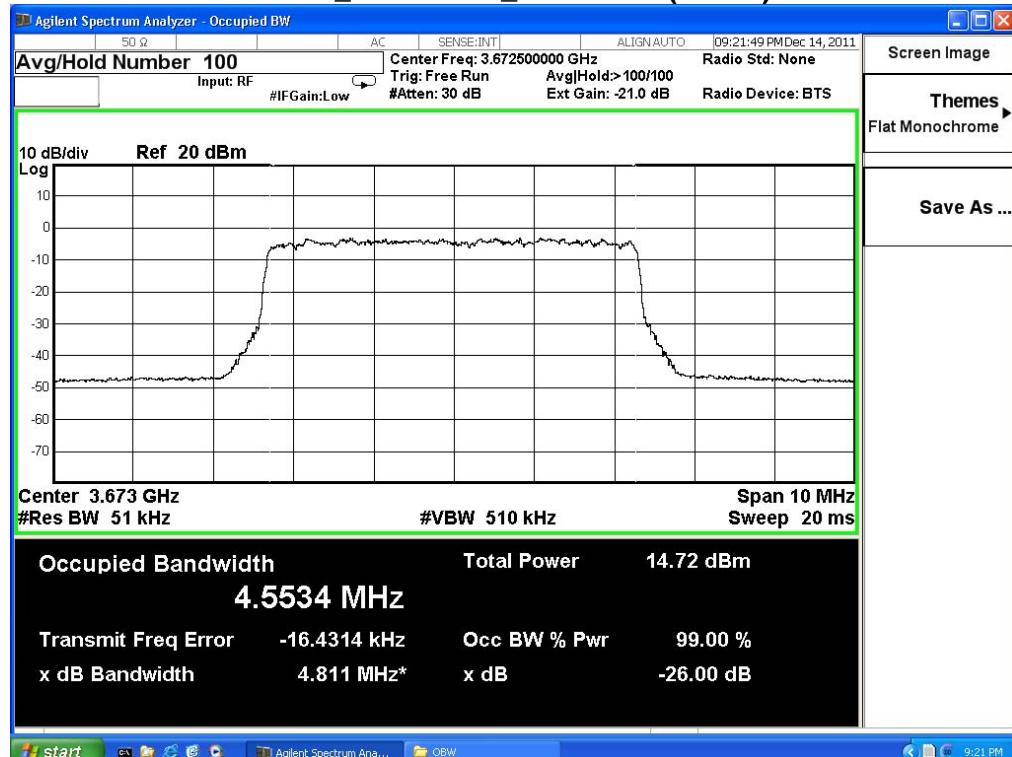
**5MHz\_3672.5MHz\_QPSK3/4 (ANT 1)**

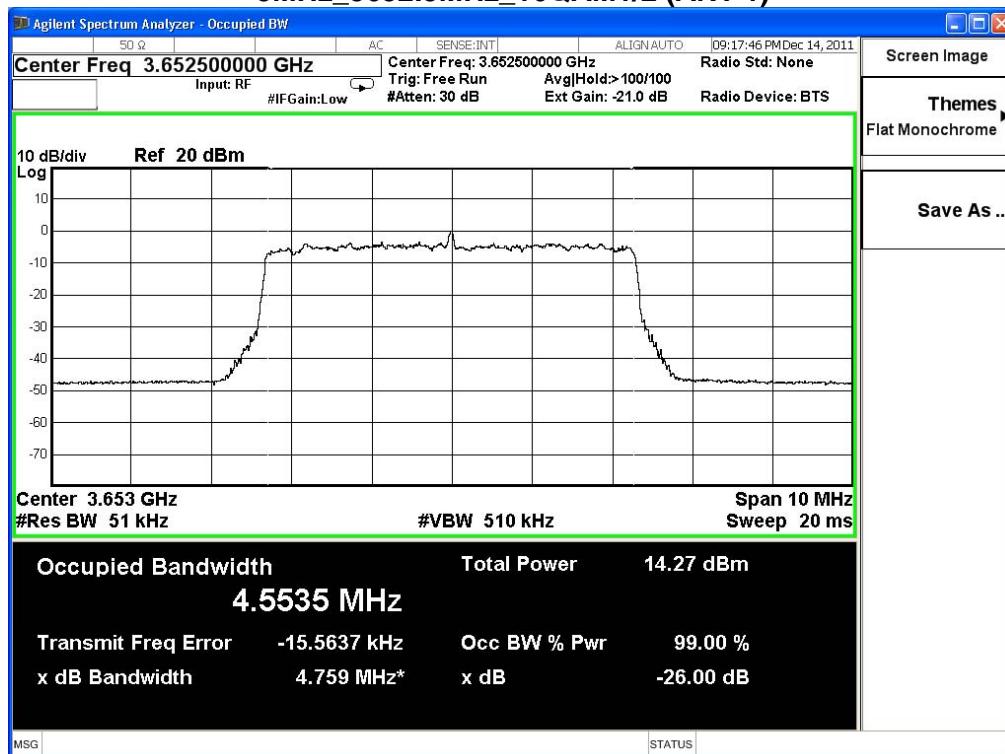
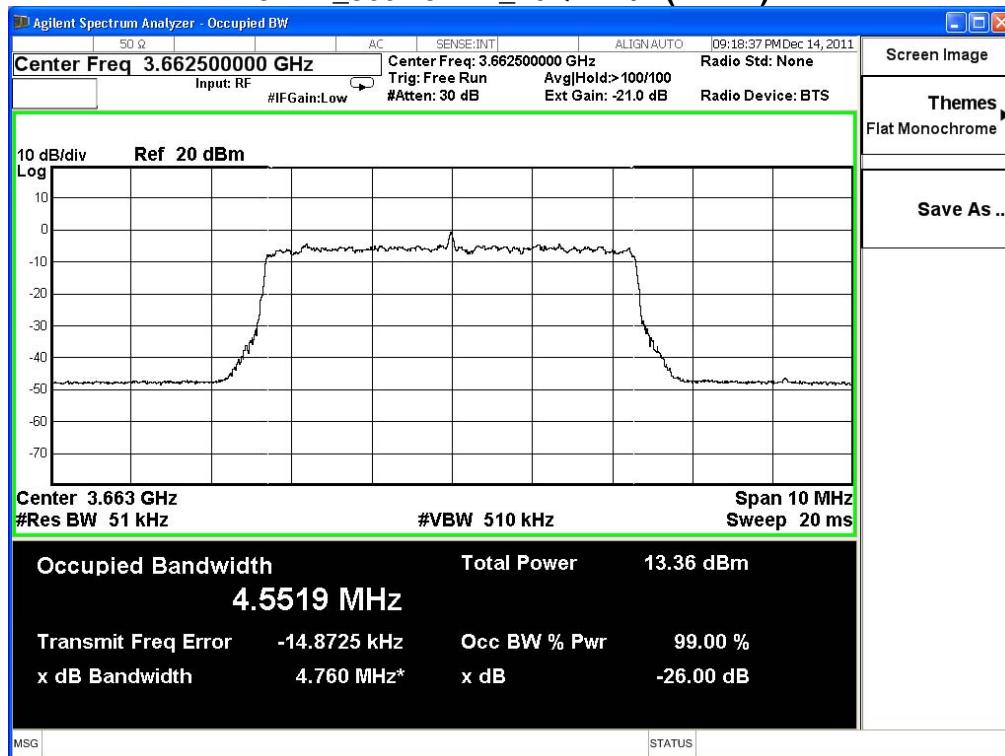
Product	CBS 3.65GHz
Test Item	Occupied Bandwidth
Test Mode	Mode 5: Transmit (5MHz BW_16QAM1/2)

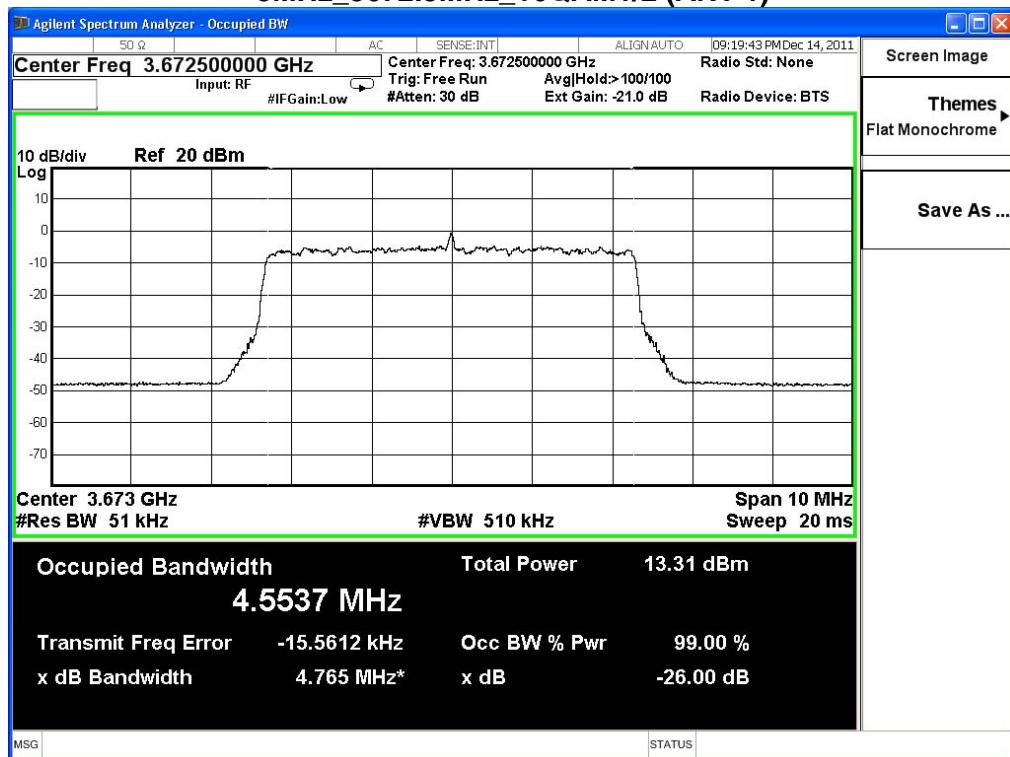
**5MHz Bandwidth**

Frequency (MHz)	Measure Value (MHz)_Ant 0	Measure Value (MHz)_Ant 1	Limit (MHz)
3652.5	4.825	4.759	N/A
3662.5	4.848	4.760	N/A
3672.5	4.811	4.765	N/A

**5MHz\_3652.5MHz\_16QAM1/2 (ANT 0)**

**5MHz\_3662.5MHz\_16QAM1/2 (ANT 0)****5MHz\_3672.5MHz\_16QAM1/2 (ANT 0)**

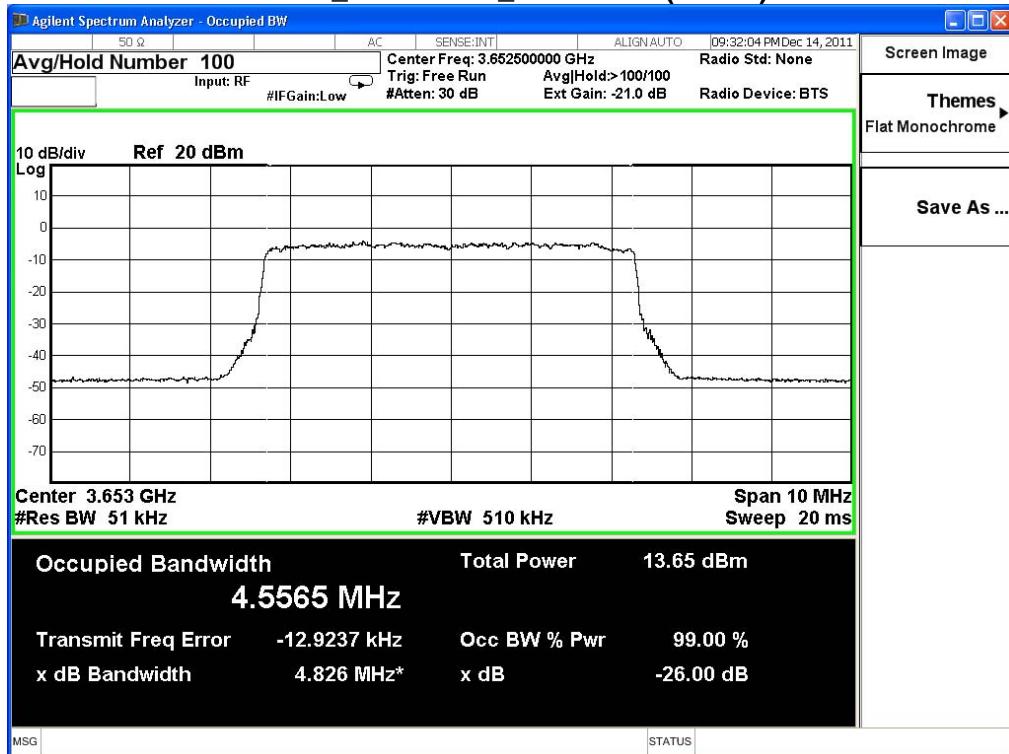
**5MHz\_3652.5MHz\_16QAM1/2 (ANT 1)****5MHz\_3662.5MHz\_16QAM1/2 (ANT 1)**

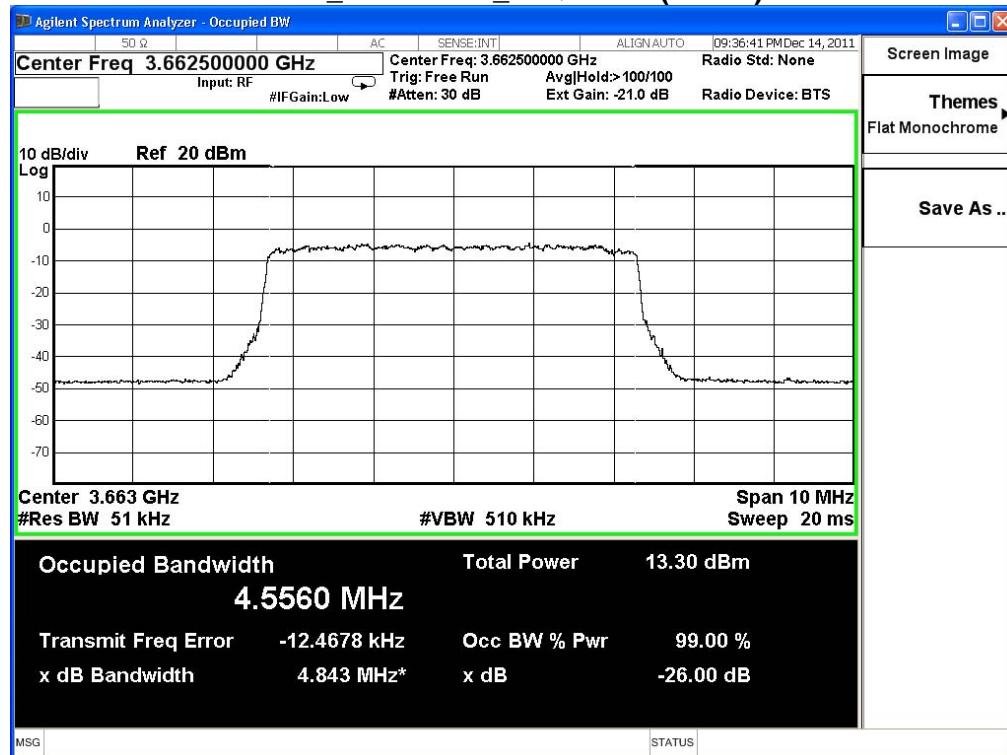
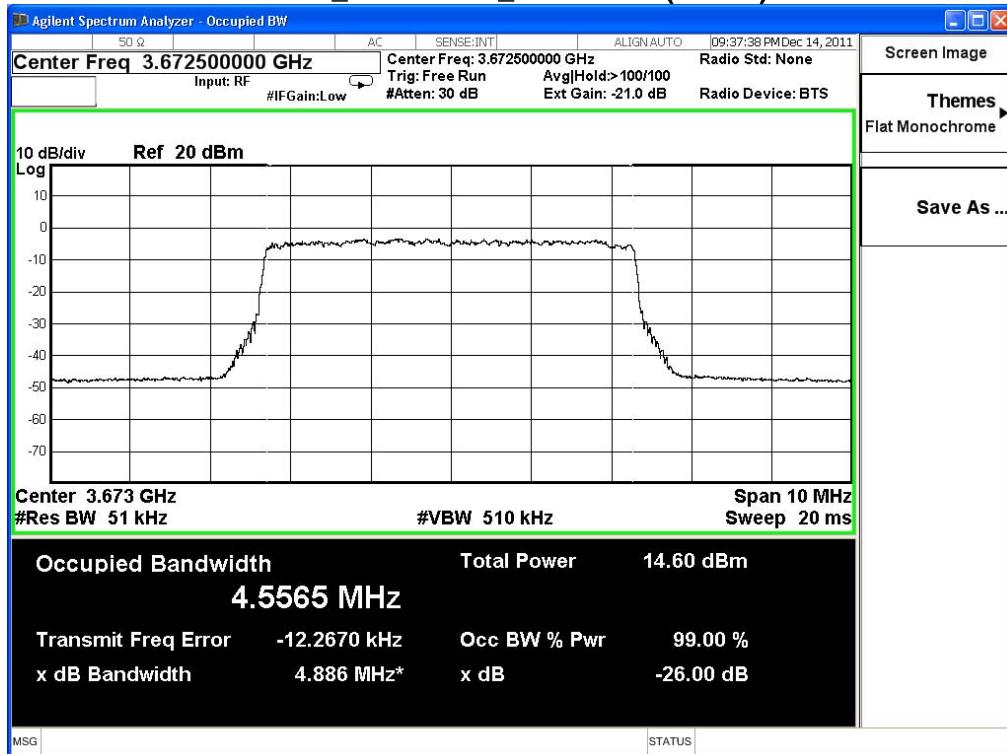
**5MHz\_3672.5MHz\_16QAM1/2 (ANT 1)**

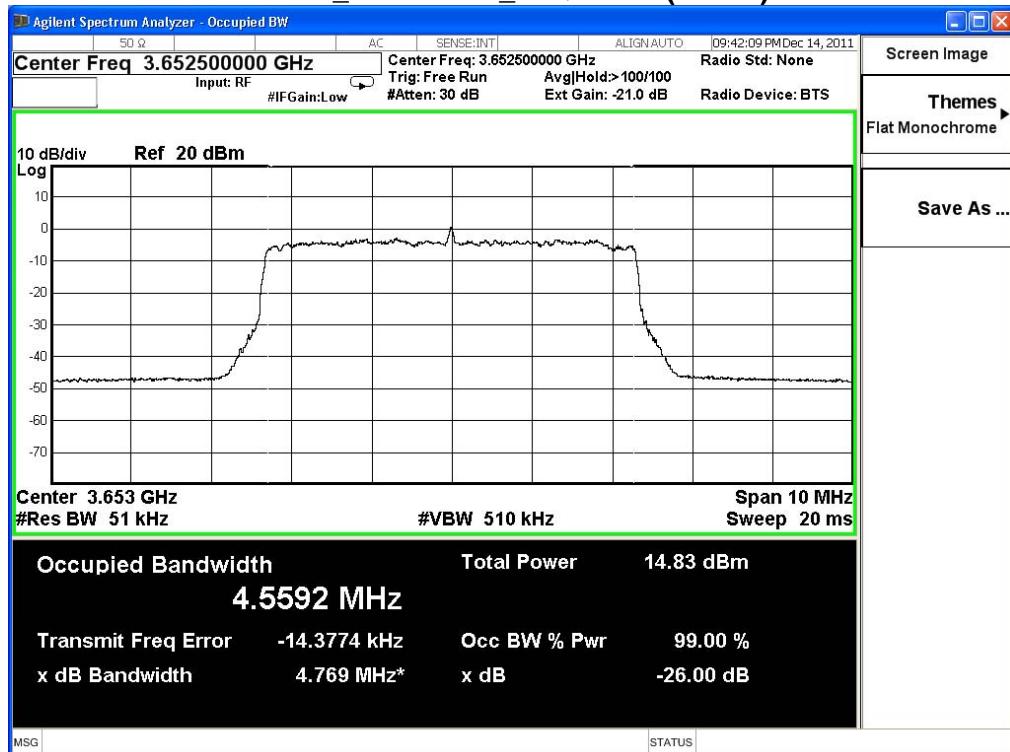
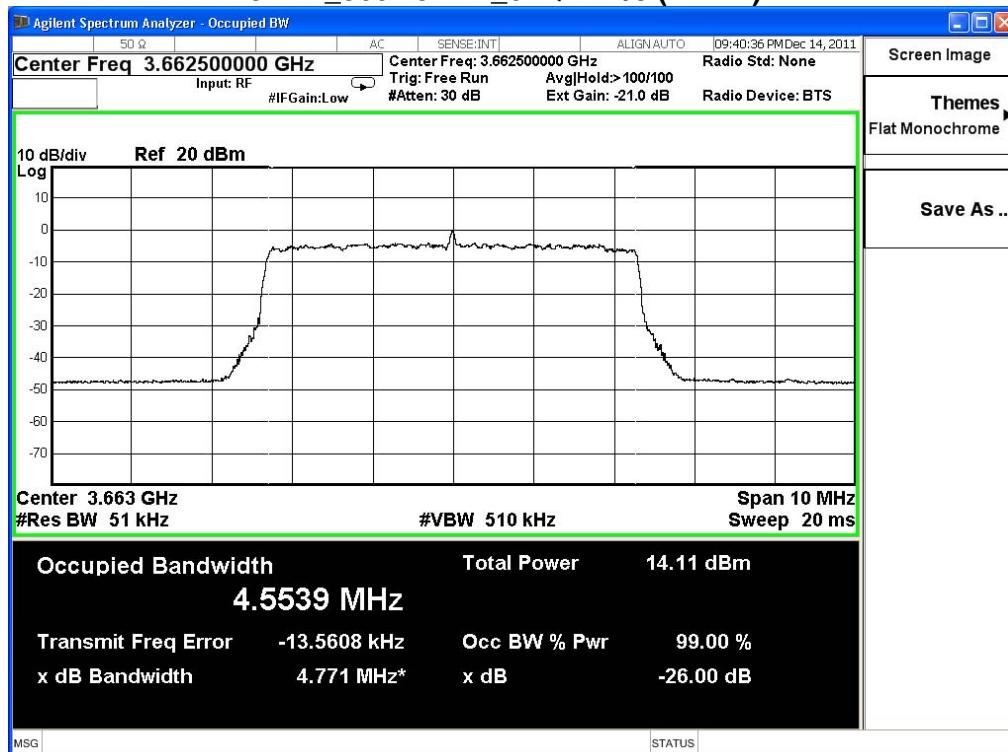
Product	CBS 3.65GHz
Test Item	Occupied Bandwidth
Test Mode	Mode 6: Transmit (5MHz BW_64QAM2/3)

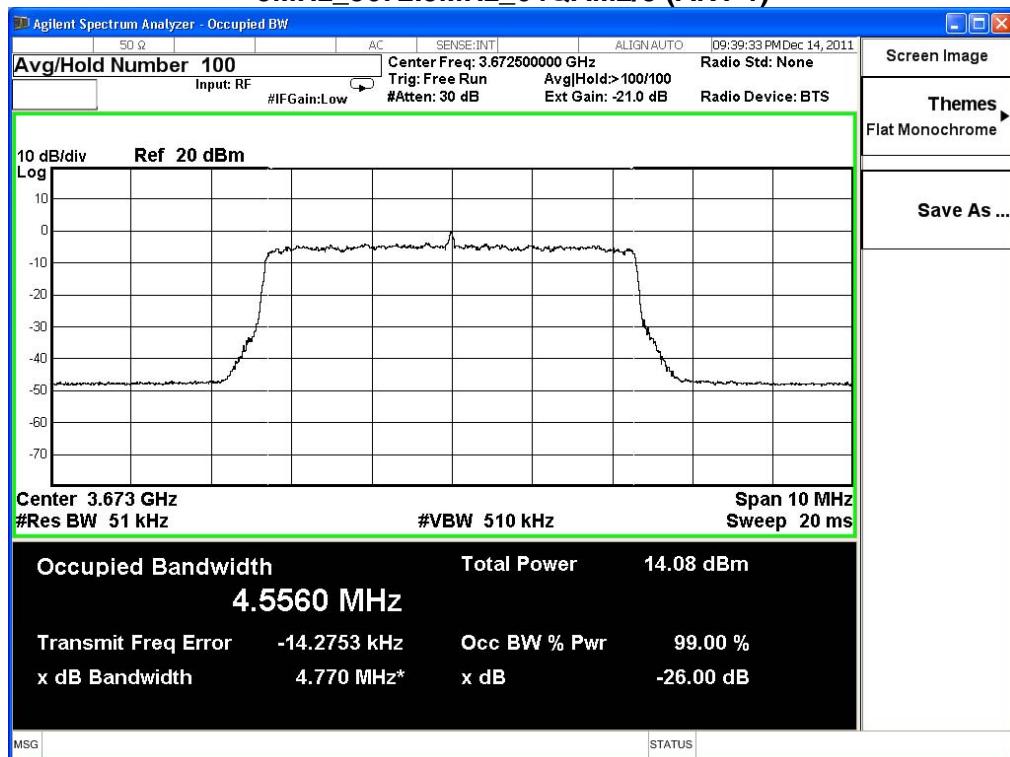
**5MHz Bandwidth**

Frequency (MHz)	Measure Value (MHz)_Ant 0	Measure Value (MHz)_Ant 1	Limit (MHz)
3652.5	4.826	4.769	N/A
3662.5	4.843	4.771	N/A
3672.5	4.886	4.770	N/A

**5MHz\_3652.5MHz\_64QAM2/3 (ANT 0)**

**5MHz\_3662.5MHz\_64QAM2/3 (ANT 0)****5MHz\_3672.5MHz\_64QAM2/3 (ANT 0)**

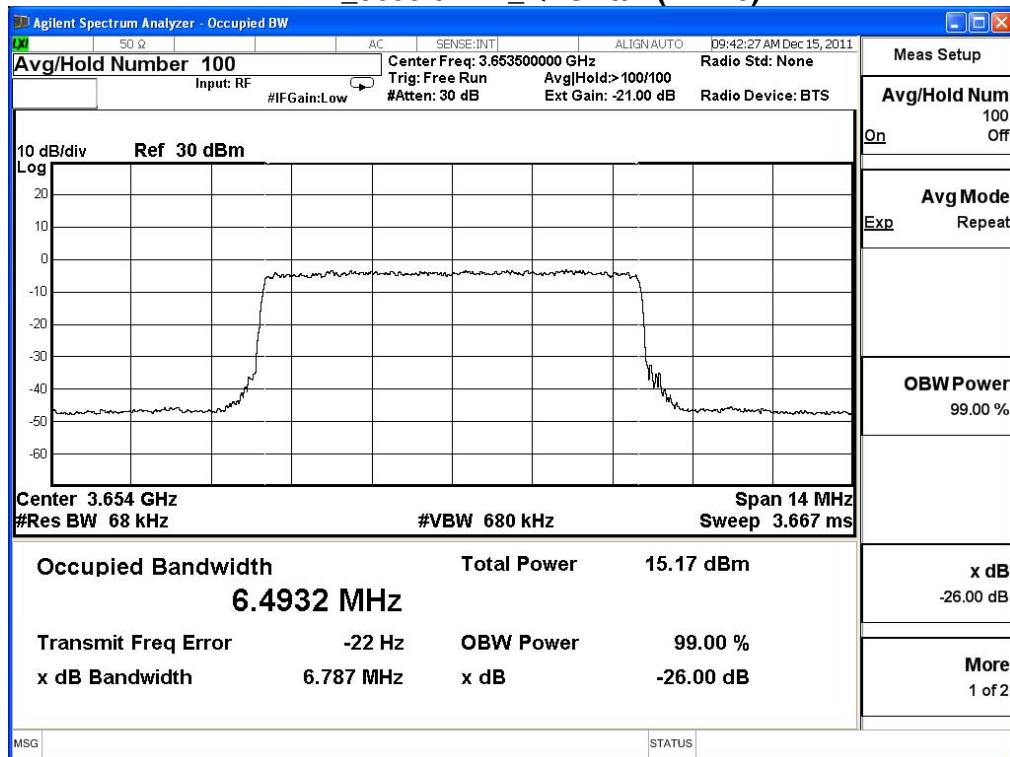
**5MHz\_3652.5MHz\_64QAM2/3 (ANT 1)****5MHz\_3662.5MHz\_64QAM2/3 (ANT 1)**

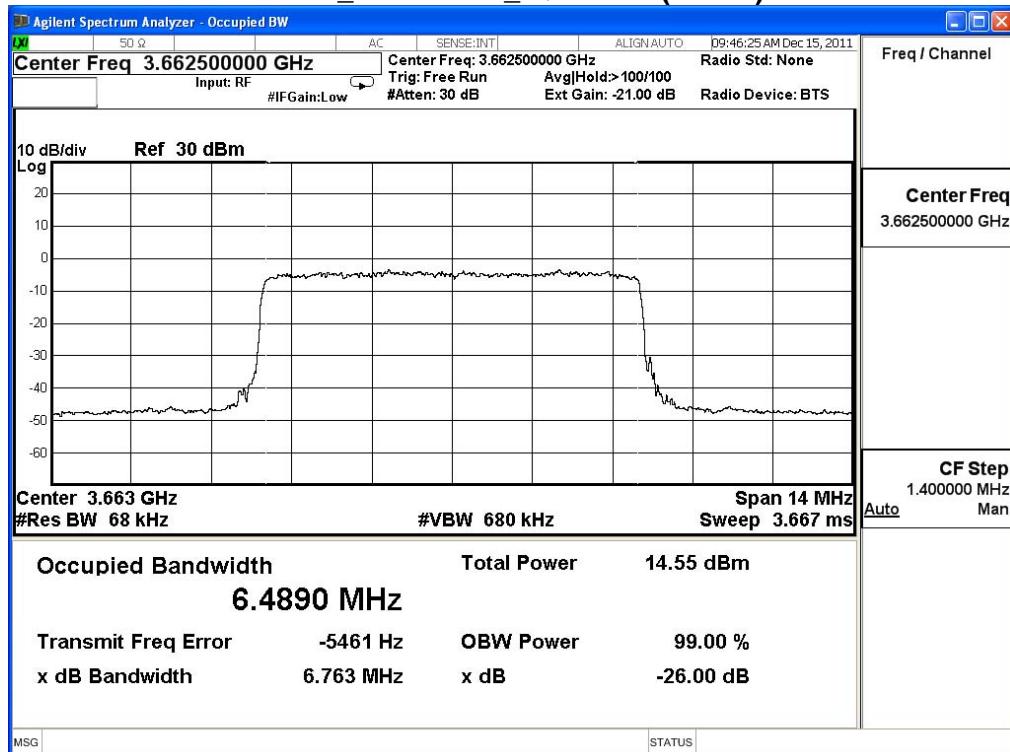
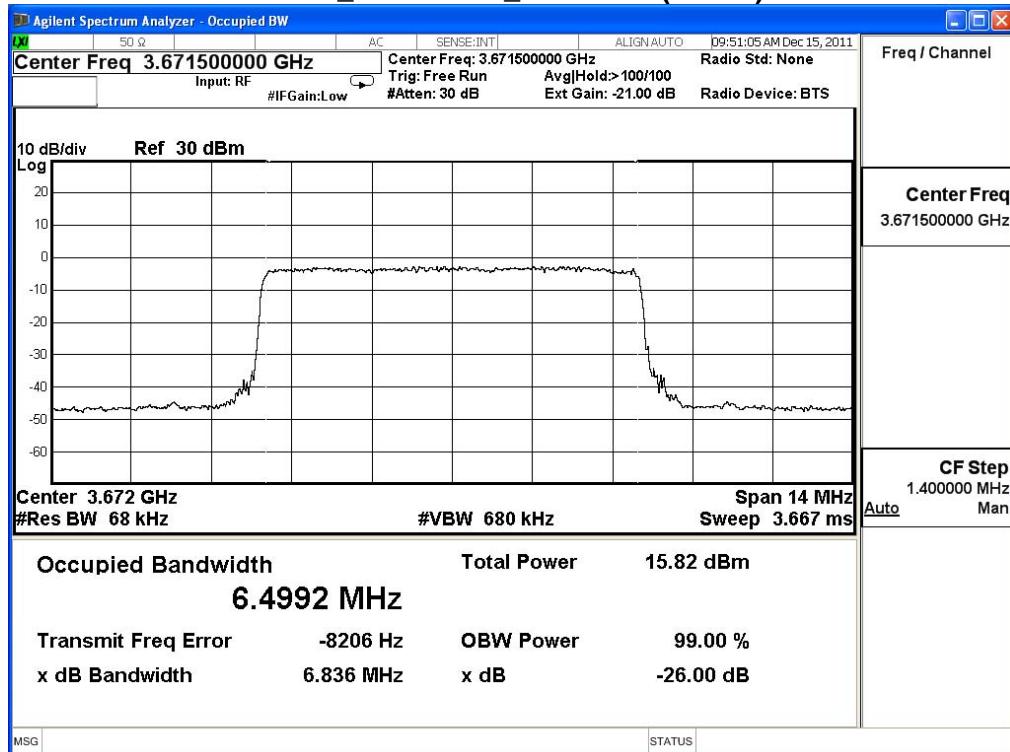
**5MHz\_3672.5MHz\_64QAM2/3 (ANT 1)**

Product	CBS 3.65GHz
Test Item	Occupied Bandwidth
Test Mode	Mode 7: Transmit (7MHz BW_QPSK3/4)

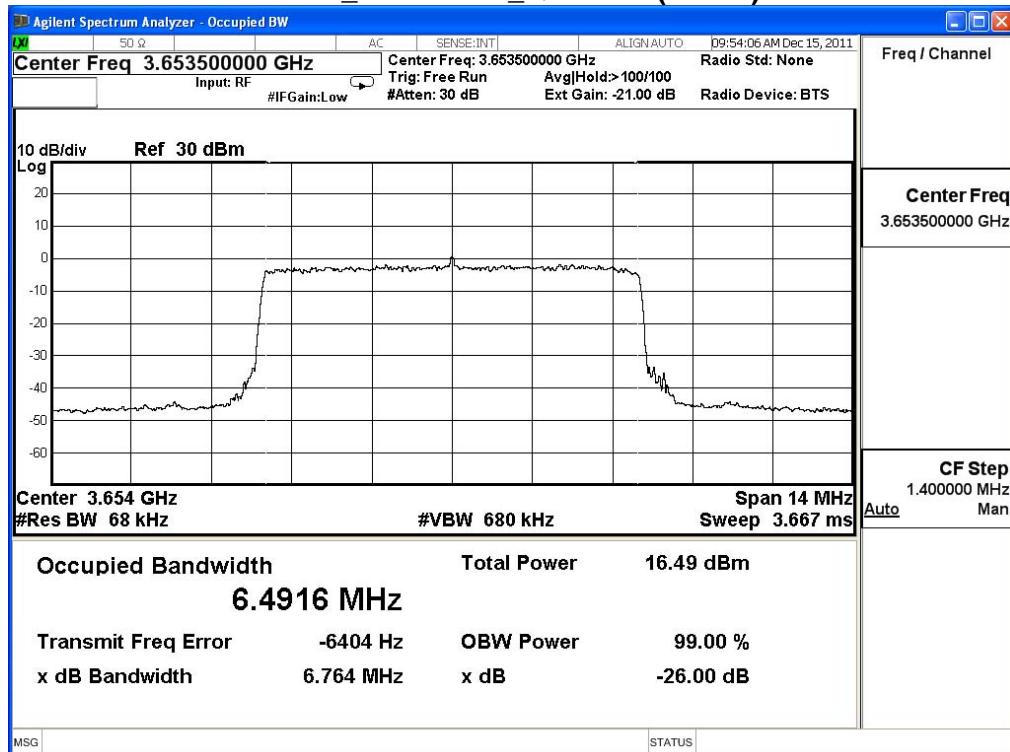
**7MHz Bandwidth**

Frequency (MHz)	Measure Value (MHz)_Ant 0	Measure Value (MHz)_Ant 1	Limit (MHz)
3653.5	6.787	6.764	N/A
3662.5	6.763	6.739	N/A
3671.5	6.836	6.749	N/A

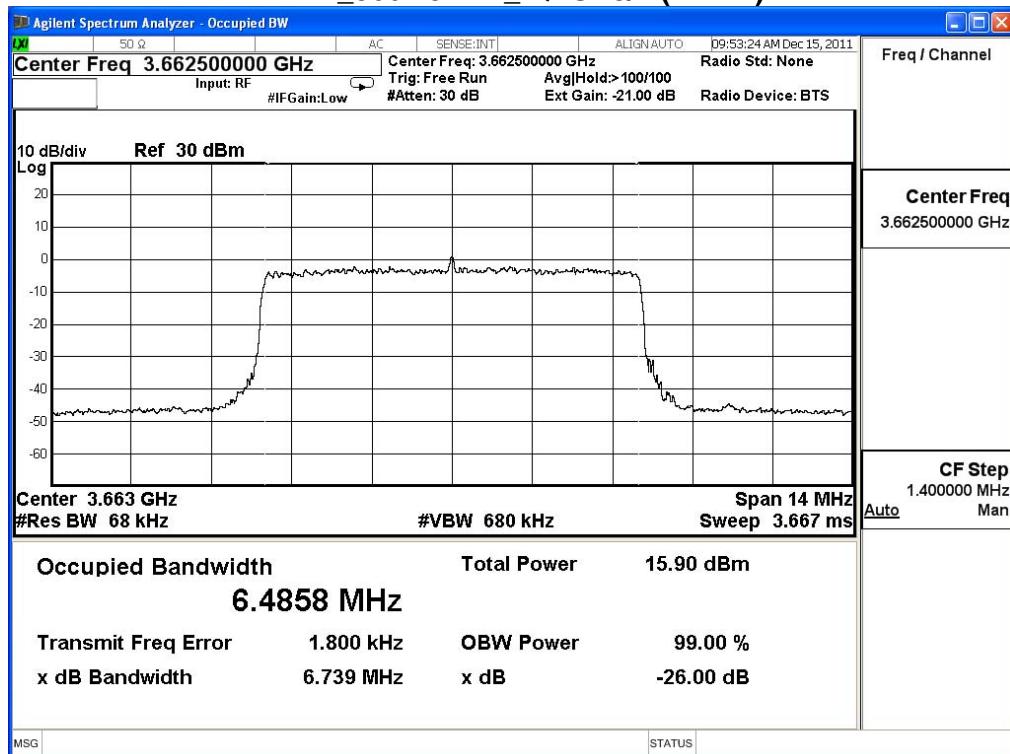
**7MHz\_3653.5MHz\_QPSK3/4 (ANT 0)**

**7MHz\_3662.5MHz\_QPSK3/4 (ANT 0)****7MHz\_3671.5MHz\_QPSK3/4 (ANT 0)**

## 7MHz\_3653.5MHz\_QPSK3/4 (ANT 1)



## 7MHz\_3662.5MHz\_QPSK3/4 (ANT 1)



## 7MHz\_3671.5MHz\_QPSK3/4 (ANT 1)

