

Answers to FCC’s Questions Dated June 16, 2006
FCC File # 0165-EX-ST-2006
July 13, 2006

As requested by the FCC, this document provides additional measurement data related to the transmit out-of-channel emission (“OOCE”) and out-of-band emission (“OOBE”) transmissions of the WiNetworks base station (“BTS”).

Figure 1 provides the spectrum density measurements of the BTS at the output of the power amplifier (“PA”). We have also attempted to collect measurements at the output of the cavity filter, but the signal level was so low at 1550.00 MHz and 1558.50 MHz (at noise level), that the results became inaccurate. As such, we are providing the spectrum power density measurements along with the cavity filter performance characteristics (Figure 2). Tables 1 and 2 provide OOCE and OOBE analyses based on data obtained from the power spectrum density measurements and filter performance characteristics. As indicated, the BTS OOCE and OOBE levels are well below the FCC’s maximum allowable levels. 47 C.F.R. §§ 25.253(b), 25.253(c)(9).

Figure 1: Carrier Spectrum Characteristic (PA Output Power = 38 dBm)

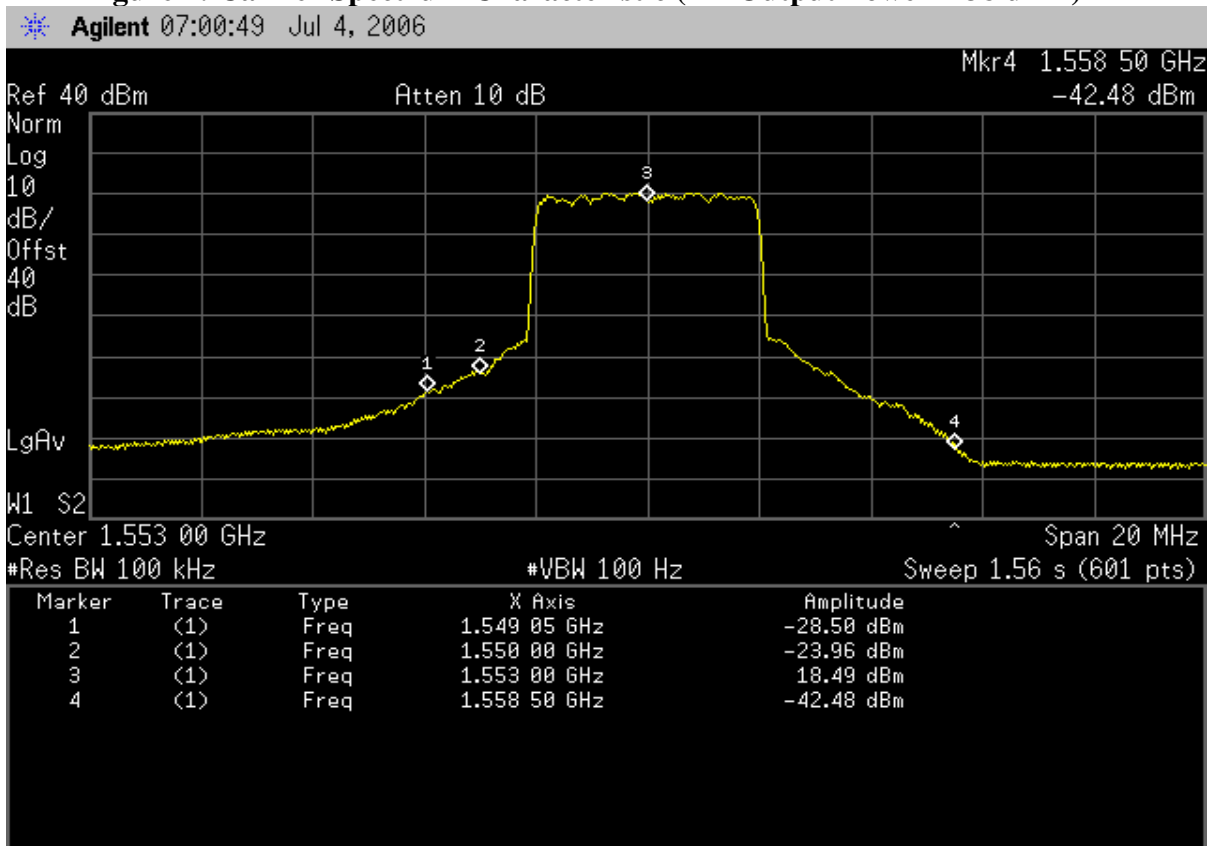
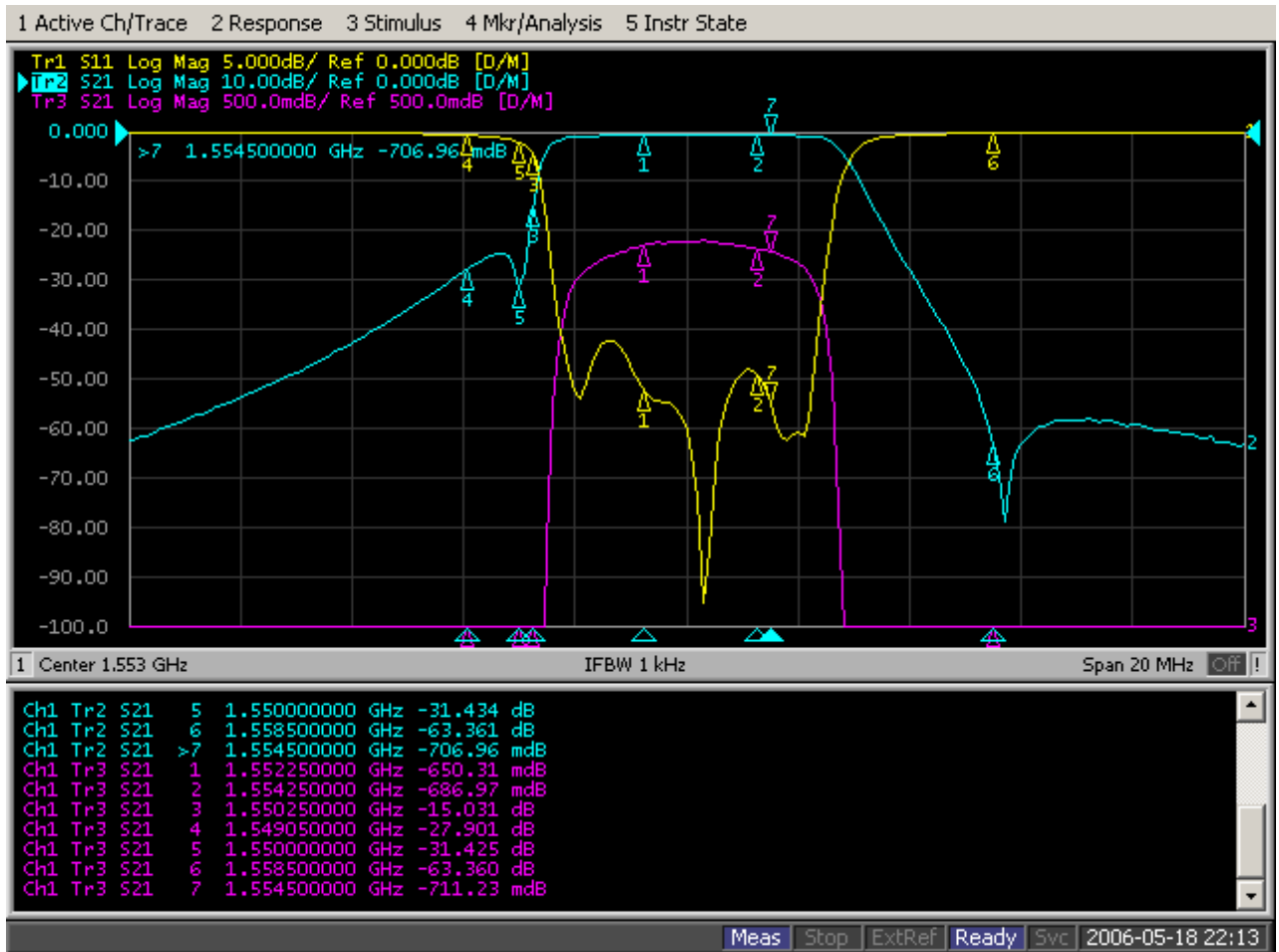


Figure 2: Cavity Filter Characteristics



OOCE Analysis

Table 1 provides calculation of OOCE into adjacent MSS band.

Table 1: OOCE Analysis

Analysis of OOCE from BTS into Adjacent Band			
Parameter	Trial	Units	Remarks
Transmit Frequency	1553.0	MHz	
Number of BTS	1		
Measurement at 1550.00 MHz	-23.95	dBm	
Transmission loss	-2.4	dB	
Resolution BW	100	kHz	
BTS Tx PSD (at antenna input)	-46.4	dBW/MHz	
Activation Loss	-1.25	dB	TDD 3:1
Additional Filter	-31.0	dB	@ 1550.00MHz
Effective BTS OOCE power density	-78.6	dBW/MHz	
OOCE Limit for L-band BTS (47 C.F.R. § 25.253(b))	-57.9	dBW/MHz	
Margin	20.7	dB	

OOBE Analysis

Table 2 provides calculation of OOBE into GPS band.

Table 2: OOBE Analysis

Analysis of OOBE from BTS into GPS			
Parameter	Trial	Units	Remarks
Transmit Frequency	1553.0	MHz	
Number of BTS	1		
Measurement at 1558.50 MHz	-42.48	dBm	
Transmission loss	-2.4	dB	
BTS Tx Antenna Gain	16	dBi	
Effective BTS OOBE EIRP	-28.88	dBm	
Resolution BW	100	kHz	
BTS Tx PSD	-48.9	dBW/MHz	
Activation Loss	0.00	dB	
Additional Filter	-63.0	dB	
Effective BTS OOBE EIRP density	-111.9	dBW/MHz	
OOBE Limit for L-band BTS (47 C.F.R. § 25.253(c)(9), (g)(3))	-70.0	dBW/MHz	
Margin	41.9	dB	