

**MODIFY BMLH-19971215KA**  
**QANTUM OF BRUNSWICK LICENSE COMPANY, LLC**  
**WWSN RADIO STATION**  
**CH 277C0 - 103.3 MHZ - 100.0 KW**  
**WAYCROSS, GEORGIA**  
**January 2010**

**EXHIBIT A**

**WWSN Transmission System Calculations**

Effective Radiated Power: Horizontal/Vertical	100.0 kilowatts
Antenna:	BE/Electronics Research, Inc. BESP-8AC6 8 bay full wavelength spaced
Horizontal gain	4.4872
Transmission Line: (800 feet)	Andrew Corporation HJ9-50 5 inch air dielectric 86.3% Efficiency
Transmission Line: (227 feet)	Andrew Corporation MACX650 6 inch air dielectric 97.6% Efficiency
Transmitter combiner:	ERI - Tee combiner Insertion loss : 0.252 db 94.363% Efficiency
Required Transmitter Power Output To Reach Effective Radiated Power:	28.04 kilowatts

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Facilities Authorized:	Channel 277C0 - 103.3 MHZ
Effective Radiated Power:	100.0 kilowatts (H/V)
Geographic Coordinates:	North Latitude 31° 09' 22" West Longitude 81° 58' 19"
Antenna Center of Radiation:	Above Ground 302.0 meters Above MSL 319.0 meters HAAT 303.0 meters
Antenna Structure Registration #:	1020334