

**MODIFICATION OF BMLH-20100114ABU**  
**QANTUM OF BRUNSWICK LICENSE COMPANY, LLC**  
**WOGA (FM) RADIO STATION**  
**CH 277C0 - 103.3 MHZ - 100.0 kW**  
**WAYCROSS, GEORGIA**  
**June 2014**

**EXHIBIT A**

**WOGA 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: (752 feet)	ERI MACX650 6 inch air dielectric 0.372 dB insertion loss
Transmission Line: (259 feet)	Andrew Corporation MACX650 6 inch air dielectric 0.122 dB insertion loss
Transmitter combiner:	ERI - Tee combiner Insertion loss : 0.252 db
Total Attenuation:	0.746 db 84.217% efficiency
Required Transmitter Power Output To Reach Effective Radiated Power:	26.46 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