

APPLICATION FOR STATION LICENSE
CUMULUS LICENSING LLC
WSM-FM RADIO STATION
CH 238C - 95.5 MHZ - 100.0 KW
NASHVILLE, TENNESSEE
October 2011

EXHIBIT A

WSM-FM Transmission System Calculations

Effective Radiated Power:	100.0 kilowatts (Horizontal/Vertical)
Antenna:	Dielectric Antenna DCRM8 - 75FE 8 bay 0.75 wavelength spaced
Horizontal gain	3.5 (power gain) ¹
Transmission Line: (1,372 feet) ²	Andrew Corp. HJ11-50 4 inch air dielectric 70.6% efficiency
Required Transmitter Power Output To Reach Effective Radiated Power:	40.469 kilowatts

Facilities Authorized:	Channel 238C - 95.5 MHz
Effective Radiated Power:	100.0 kilowatts (H/V)
Geographic Coordinates:	North Latitude 36° 08' 27" West Longitude 86° 51' 56"
Antenna Center of Radiation:	Above Ground 344.0 meters Above MSL 549.0 meters Above HAAT 375.0 meters
Antenna Structure Registration #:	1050735

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- 1) The vertical elevation pattern of the WSM-FM antenna, with antenna gain, is attached as Exhibit B.
 - 2) Includes both the vertical and horizontal cable runs.