

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: Andrew Corp. HJ11-50
(1,372 feet)² 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.