

APPLICATION FOR STATION LICENSE
CUMULUS LICENSING LLC
KUSB RADIO STATION
CH 277C1 - 103.3 MHZ - 100.0 KW
HAZELTON, NORTH DAKOTA
September 2006

EXHIBIT A

KUSB Transmission System Calculations

Effective Radiated Power: Horizontal/Vertical	100.0 kilowatts
Antenna:	Dielectric Communications DCRM10CRP 10 bay antenna system/0.75 wavelength
Horizontal gain	4.85 ¹
Transmission Line: (610 feet)	Dielectric FL-105 4 inch air dielectric 87.3% Efficiency
Transmission Line and couplings: (60 feet)	Dielectric Rigid 98.6% Efficiency
Dielectric two station combiner:	Insertion Loss 0.11 db 97.499%
Dielectric 90° elbows:	Insertion Loss 0.015 db 99.655%
Required Transmitter Power Output To Reach Effective Radiated Power:	24.652 kilowatts
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Facilities Authorized:	Channel 277C1 - 103.3 MHz
Effective Radiated Power:	100.0 kilowatts (H/V)
Geographic Coordinates:	North Latitude 46° 35' 24" West Longitude 100° 47' 46"
Antenna Center of Radiation:	Above Ground 199.0 meters Above MSL 873.0 meters HAAT 294.0 meters
Antenna Structure Registration #:	1040570

1) See Exhibit D for vertical elevation pattern for the antenna system.