

**APPLICATION FOR STATION LICENSE**  
**CUMULUS LICENSING LLC**  
**K253CF FM TRANSLATOR STATION**  
**CH 253D - 98.5 MHZ - 0.25 KW**  
**COTTAGE GROVE, OREGON**  
**June 2017**

**EXHIBIT A**

**K253CF Transmission System Calculations**

Effective Radiated Power:	0.25 Kilowatt (Horizontal/Vertical)
Antenna:	Shively 6812B-4-CF Four bay half wavelength antenna
Power Gain	1.32
Transmission Line: (155 feet / 47.2 meters)	LDF4-50 1/2 inch air dielectric 78.3% Efficiency
Required Transmitter Power Output To Reach Effective Radiated Power:	0.242 Kilowatt (242 Watts)

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Facilities Authorized:	Channel 253D - 98.5 MHz
Effective Radiated Power:	0.25 Kilowatt (H/V)
Geographic Coordinates:	North Latitude 43° 46' 41" West Longitude 123° 02' 33"
Antenna Center of Radiation:	Above Ground 39.0 meters Above MSL 478.0 meters
Antenna Structure Registration #:	1272316