

***Keene, NH - WKNE(FM) (License Modification)***  
***Copy of Transmitter Power Output (TPO) Calculation***  
***(supplied by licensee)***

**Analog Transmitter Output Power Calculation**

Facility ID 36834

WKNE-FM  
103.7 MHz  
ERP 12.000

Keene NH  
Channel 279  
kW

**Antenna** Shively Model 6814-2/3R Bays: 2 Spacing: 0.948  
**Antenna Power Gain** 1.005 0.022 dB  
**Antenna Input Power** 11.940 kW For 12.000 kW ERP

**Transmission Line Losses**

Manufacturer Andrew HJ50 Series  
Type 3 1/8 inch Air Dielectric  
Loss per 100 feet -0.145 dB At: 103.7 MHz

Transmission Line Length 358 ft  
Transmission Line Loss -0.518 dB  
Efficiency 88.8%

**Additional System Losses**

Filter 0 dB  
Isolator 0 dB  
Misc -0.09 dB

**Total Losses** -0.608 dB  
System Efficiency 86.9%

**Transmitter Output** 13.733 kW For 12.000 kW ERP