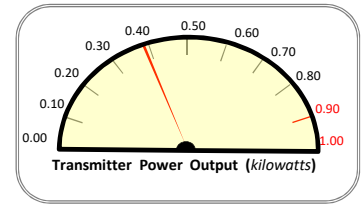


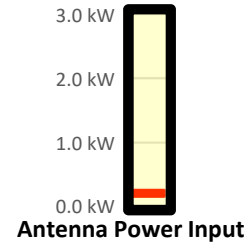
# Transmitter Power Output Worksheet

**Call letters:** W296CZ.C  
**City of License:** Portland, ME  
**Channel:** CH296D (107.1 MHz)  
**File No:** BPFT-20180615AAM  
**Facility ID:** 145635  
**Applicant:** Saga Communications of New England, LLC



**Effective Radiated Power (ERP):** 0.250 kW

**Antenna Make:** Propagation Systems, Inc. (PSI)  
**Antenna Model:** PSIFML-3A-0.75WS  
**No of Elements:** Three (3)  
**Antenna COR AGL:** 128 meters AGL  
**Antenna COR AMSL:** 133 meters AMSL  
**Max Input Power:** 3.00 kW



**Power Gain:** 1.4

**Antenna Gain:** 1.461 dBd

**Calculated Antenna Input Power:** 0.179 kW

**Transmitter Rated Power:** 1.000 kW

**Transmitter Make/Model:** GatesAir FAX-1K

**Power Gain to Antenna gain (dBd) Conversion:**  
 $=\text{Log}[\text{power gain}] * 10$

## Inventory of System / Insertion Losses

Explanation	Component Make/Model	Length	Loss
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
7/8" Foam Feedline	Helix(Andrew) AVA5-50FX (0.368 dB/100 ft)	460 ft	-1.693 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Combiner	Shively Model 2930-2/3	n/a	-1.300 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Jumper to Transmitter(1)	Helix(Andrew) AVA5-50FX (0.354 dB/100 ft)	10 ft	-0.035 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Jumper to Transmitter(2)	FSJ4-50B (Superflex) (1.081 dB/100 ft)	6 ft	-0.065 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd

**TOTAL SYSTEM GAIN/LOSS:** -1.73 dBd  
**CALCULATED TRANSMITTER POWER OUTPUT:** 0.372 kW  
 (1 / [[10^(dB/10)/ERP]])