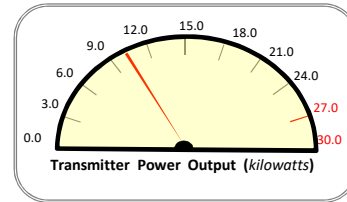


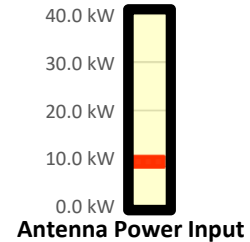
Transmitter Power Output Worksheet

Call letters: WKNE (FM) Auxiliary
City of License: Keene, NH
Channel: CH279B (103.7 MHz)
File No: BXPB-20180117ABQ
Facility ID: 36834
Applicant: Saga Communications of New England, LLC



Effective Radiated Power (ERP): 18.000 kW

Antenna Make: Shively Labs (SHI)
Antenna Model: 6810-4
No of Elements: Four (4)
Antenna COR AGL: 55 meters AGL
Antenna COR AMSL: 460 meters AMSL
Max Input Power: 40.00 kW



Power Gain: 2.14

Antenna Gain: 3.304 dBd

Calculated Antenna Input Power: 8.411 kW

Transmitter Rated Power: 30.000 kW

Transmitter Make/Model: BE-FM30T

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/Flange	Generic (1@0.02 dB each)	n/a	-0.020 dBd
3" Air Feedline	Cablewave HCA300-50J (0.133 dB/100 ft)	275 ft	-0.366 dBd
Typical End Connector/Flange	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Motorized Switch	DIE Model DC-60000 Series (or equivalent)	n/a	-0.100 dBd
Typical End Connector/Flange	Generic (1@0.02 dB each)	n/a	-0.020 dBd
3 1/8 Inch Elbow	Myat Part No. 301-025 (or equivalent)	n/a	-0.020 dBd
3" Hardline Segment	3 1/8" EIA Rigid Line (0.103 dB/100 ft)	2 ft	-0.002 dBd
3 1/8 Inch Elbow	Myat Part No. 301-025 (or equivalent)	n/a	-0.020 dBd
Typical End Connector/Flange	Generic (1@0.02 dB each)	n/a	-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: 2.72 dBd

CALCULATED TRANSMITTER POWER OUTPUT: 9.630 kW
 $(1 / [10^{(2.72/10)}] / \text{ERP})$