

Transmitter Power Output Worksheet

Call letters: W286DB.C
 City of License: East Longmeadow, MA
 Channel: CH286D (105.1 MHz)
 File No: BPFT-20161011AFH
 Facility ID: 156452
 Applicant: Saga Communications of New England, LLC

Effective Radiated Power (ERP): 0.250 kW

Antenna Make: Kathrein Scala (SCA)
 Antenna Model: CA2-FM-3DA(CUSTOM SKEWED ARRAY)
 No of Elements: Three Elements in the Same Plane
 Antenna COR AGL: 50 meters AGL
 Antenna COR AMSL: 114 meters AMSL
 Max Input Power: 0.25 kW

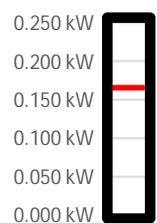
Power Gain: 1.5205

Antenna Gain: 1.820 dBd

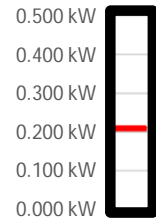
Calculated Antenna Input Power: 0.164 kW

Transmitter Rated Power: 0.500 kW

Transmitter Make/Model: GatesAir Fax500



Antenna
Power Input



Transmitter
Power Output

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

Inventory of System / Insertion Losses

Explanation	Component Make/Model	Length	Loss
7/8" End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
7/8" Foam Feedline (Tower)	Cablewave LCF78-50JAA7 (0.358 dB/100 ft)	170 ft	-0.609 dBd
7/8" End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Isocoupler	Kintronics FMC-1.5	n/a	-0.200 dBd
7/8" End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
7/8" Foam Feedline (Tower)	Cablewave LCF78-50JAA7 (0.358 dB/100 ft)	30 ft	-0.107 dBd
7/8" End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: 0.82 dBd
 CALCULATED TRANSMITTER POWER OUTPUT: 0.207 kW
 (1 / [[10^{0.82} dB/10]/ERP])