

Transmitter Power Output Worksheet

Call letters: W296CZ.C
City of License: Portland, ME
Channel: CH296D (107.1 MHz)
File No: BPFT-20170410ACM
Facility ID: 145635
Applicant: Saga Communications of New England, LLC

Effective Radiated Power (ERP): 0.250 kW

Antenna Make: PSI (Propagation Systems, Inc.)
Antenna Model: FMT-4A
No of Elements: Four (4)
Antenna COR AGL: 89 meters AGL
Antenna COR AMSL: 111 meters AMSL
Max Input Power: 2.00 kW

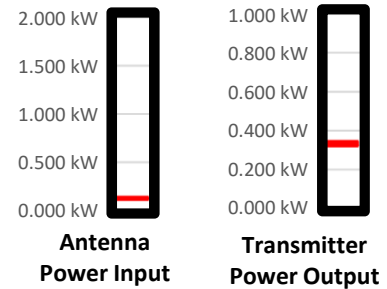
Power Gain: 2.1

Antenna Gain: 3.222 dBd

Calculated Antenna Input Power: 0.119 kW

Transmitter Rated Power: 1.000 kW

Transmitter Make/Model: GatesAir FAX1K



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 Inch End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd
7/8 Inch Foam Feedline (Tower)	CellFlex LCF78-50JA	(0.358 dB/100 ft)	290 ft	-1.038 dBd
7/8 Inch End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd
AM Isocoupler	Kintronic FMC 1.5 Isolation Transformer		n/a	-0.300 dBd
7/8 Inch End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd
7/8 Inch Foam Feedline (Ground)	CellFlex LCF78-50JA	(0.358 dB/100 ft)	360 ft	-1.289 dBd
7/8 Inch End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd
Directional Coupler (RF Monitor)	Shively Model 078F-2P		n/a	-0.050 dBd
7/8 Inch End Plate Adapter	Generic (1@0.02 dB each)		n/a	-0.020 dBd
Quad-plexer Jumper Cable (out)	Superflex FSJ4-50B	(1.084 dB/100 ft)	6 ft	-0.065 dBd
Type N End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd
Quad-plexer/Combiner	Shively Model 2930-3/4-06 Branched Combiner		n/a	-1.400 dBd
Type N End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd
Quad-plexer Jumper Cable (in)	Superflex FSJ4-50B	(1.084 dB/100 ft)	6 ft	-0.065 dBd
Type N End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: -1.145 dBd
CALCULATED TRANSMITTER POWER OUTPUT: 0.325 kW
 (1 / [[10^(dB/10)/ERP]])