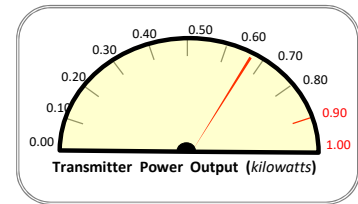


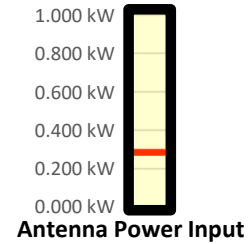
Transmitter Power Output Worksheet

Call letters: K245DA.L (License Modification)
City of License: Yankton, SD
Channel: CH245D (96.9 MHz)
File No: BLFT-20180831AAI
Facility ID: 202251
Applicant: Saga Communications of South Dakota, LLC



Effective Radiated Power (ERP): 0.250 kW

Antenna Make: Nicom USA, Inc. (NIC)
Antenna Model: BKG77/2 (NDA)
No of Elements: Two (2)
Antenna COR AGL: 279 meters AGL
Antenna COR AMSL: 636 meters AMSL
Max Input Power: 1.00 kW



Power Gain: 0.9

Antenna Gain: -0.458 dBd

Calculated Antenna Input Power: 0.278 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(s) | Generic (2@0.02 dB each) | n/a | -0.040 dBd |
| Interbay Antenna Leads | RG-213(foam) (10 ft x 2 leads) (1.900 dB/100 ft) | 20 ft | -0.380 dBd |
| Typical End Connector(s) | Generic (2@0.02 dB each) | n/a | -0.040 dBd |
| Interbay Power Divide | Nicom Series BAC2N | n/a | -0.300 dBd |
| Typical End Connector | Generic (1@0.02 dB each) | n/a | -0.020 dBd |
| 1 5/8" Foam Feedline | Andrew AVA7-50 (0.197 dB/100 ft) | 912 ft | -1.797 dBd |
| Typical End Connector | Generic (1@0.02 dB each) | n/a | -0.020 dBd |
| AM Isocoil | Kintonics ISO-100-FM | n/a | -0.400 dBd |
| Typical End Connector | Generic (1@0.02 dB each) | n/a | -0.020 dBd |
| 7/8" Foam Feedline | Andrew AVA5-50FX (0.354 dB/100 ft) | 20 ft | -0.071 dBd |
| Typical End Connector | Generic (1@0.02 dB each) | n/a | -0.020 dBd |
| Jumper to Combiner | SCF12-50JFN (Superflex) (0.978 dB/100 ft) | 6 ft | -0.059 dBd |
| Typical End Connector | Generic (1@0.02 dB each) | n/a | -0.020 dBd |
| Combiner | Nicom TFST1000 Starpoint Triplexer | n/a | -0.590 dBd |
| Typical End Connector | Generic (1@0.02 dB each) | n/a | -0.020 dBd |
| Jumper to Transmitter | SCF12-50JFN (Superflex) (0.978 dB/100 ft) | 6 ft | -0.059 dBd |
| Typical End Connector | Generic (1@0.02 dB each) | n/a | -0.020 dBd |
| | | | |

TOTAL SYSTEM GAIN/LOSS: -4.33 dBd

CALCULATED TRANSMITTER POWER OUTPUT: 0.678 kW

$(1 / [10^{(4.33/10)}])$