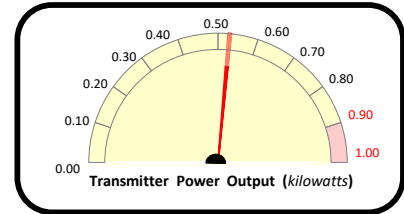


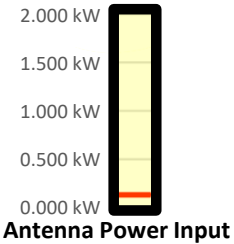
# Transmitter Power Output Worksheet

**Call letters:** W261CV.C  
**City of License:** Harrisonburg, VA  
**Channel:** CH261D (100.1 MHz)  
**File No:** BPFT-20190826AAJ  
**Facility ID:** 139550  
**Applicant:** Tidewater Communications, LLC



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

**Antenna Make:** Nicom USA, Inc. (NIC)  
**Antenna Model:** BKG1/P-4L (Slant45) (0.75WL)  
**No of Elements:** Four (4)  
**Antenna COR AGL:** 116 meters AGL  
**Antenna COR AMSL:** 561 meters AMSL  
**Max Input Power:** 2.000 kW



**Power Gain:** 6 dBd - 3 dBd = (3 dBd) due to (H&V) Configuration

**Antenna Gain:** 3.000 dBd

**Calculated Antenna Input Power:** 0.125 kW

**Transmitter Rated Power:** 1.000 kW

**Transmitter Make/Model:** Gates Air 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 (4@0.02 dB each)	n/a	-0.080 dBd
Interbay Antenna Leads	RG-213(foam) (16 ft x 4 leads) (2.000 dB/100 ft)	64 ft	-1.280 dBd
Typical End Connector(s)	Generic (4@0.02 dB each)	n/a	-0.080 dBd
Interbay Power Divide	Nicom Series BAC4L	n/a	-0.300 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
7/8" Foam Feedline (Tower)	Helix AVA5-50FX (0.368 dB/100 ft)	382 ft	-1.406 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
AM Isocoil	Kintronics Model #ISO-170-FM	n/a	-0.900 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
7/8" Foam Feedline (Tower)	Helix AVA5-50FX (0.368 dB/100 ft)	350 ft	-1.288 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Combiner	Kintronic Model FMC4X2K2C3C	n/a	-0.750 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Jumper to Transmitter	FSJ4-50B Superflex (1.081 dB/100 ft)	5 ft	-0.054 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd

**TOTAL SYSTEM GAIN/LOSS:** -3.26 dBd

**CALCULATED TRANSMITTER POWER OUTPUT:** 0.529 kW  
 $(1 / [10^{(3.26/10)}] \text{ ERP})$