

# TPO Calculation Summary

## Main Antenna Operation

**Call letters:** W268CB  
**City of License:** Melbourne, FL  
**Frequency:** CH268D - 101.5 MHz  
**File No:** BPFT-20160915ABL  
**Facility ID:** 145230  
**Applicant:** National Christian Network, Inc.

**Operating Effective Radiated Power (ERP):** 0.010 kW

**Antenna Make:** Nicom

**Antenna Model:** BKG-77/2DA (0.9 wavelength)

**No of Elements:** One (1)

**Antenna COR AGL:** 140 meters AGL

**Antenna COR AMSL:** 147 meters AMSL

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain:}$  -0.10 dB

**Calculated Antenna Input Power:** 0.010 kW

### System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
Main Antenna Feedline (Tower)	Andrew LDF4-50A (1/2 Inch Foam) (0.666 dB/100 ft)	460 ft	-3.064 dB
Main Antenna Feedline (Ground)	Andrew LDF4-50A (1/2 Inch Foam) (0.666 dB/100 ft)	25 ft	-0.167 dB
Antenna Side Jumper	RG-8 (1/2 Inch Foam) (2.00 dB/100 ft)	3 ft	-0.060 dB
Band-Pass/Band-Reject Filter	Jampro Model RCCS-102-0.8H Starpoint		-1.200 dB
EIA Flanged Connector	Generic (3@0.02 dB each)		-0.060 dB
EIA 7/8 inch Flanged Elbow	Generic (2@0.02 dB each)		-0.040 dB
Type N Elbow	Generic (2@0.02 dB each)		-0.040 dB
7/8 inch to Type N Reducer	Generic (1@0.02 dB each)		-0.020 dB

**TOTAL SYSTEM GAIN/LOSS:** -4.750 dB

$1 / [10^{[-4.750]/10}] = \text{CALCULATED TRANSMITTER POWER OUTPUT:}$  0.030 kW