

# Transmitter Power Output Worksheet

Call letters: WCYO(FM).C  
 City of License: Irvine, KY  
 Channel: CH264C3 (100.7 MHz)  
 File No: BPH-20160523ABQ  
 Facility ID: 34247  
 Applicant: Kentucky River Broadcasting Co., Inc.

Effective Radiated Power (ERP): 11.000 kW

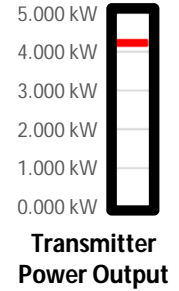
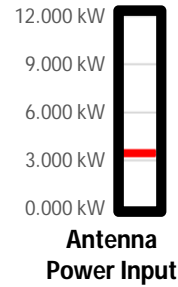
Antenna Make: Electronics Research Inc. (ERI)  
 Antenna Model: LP-6E (fully spaced)  
 No of Elements: Six (6)  
 Antenna COR AGL: 145 meters AGL  
 Antenna COR AMSL: 435 meters AMSL  
 Max Input Power: 12.00 kW

Power Gain: 3.3028

Antenna Gain: 5.189 dBd

Calculated Antenna Input Power: 3.331 kW

Transmitter Rated Power: 5.000 kW



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

## Inventory of System / Insertion Losses

Explanation	Component Make/Model		Length	Loss
1 5/8" End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd
1 5/8" Foam Feedline	Heliax LDF7-50A	(0.210 dB/100 ft)	450 ft	-0.945 dBd
1 5/8" End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: 4.20 dBd  
 CALCULATED TRANSMITTER POWER OUTPUT: 4.178 kW  
 (1 / [[10<sup>4.20</sup> dB/10]/ERP])