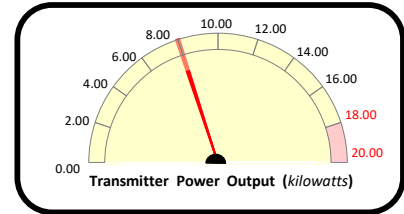


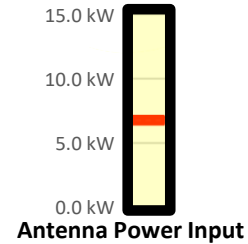
Transmitter Power Output Worksheet

Call letters: WYFH(FM) (License Modification)
City of License: North Charleston, SC
Channel: CH214C2 (90.7 MHz)
File No: BLED-20140723ACT
Facility ID: 5095
Applicant: Bible Broadcasting Network, Inc.



Effective Radiated Power (ERP): 50.000 kW

Antenna Make: Systems With Reliability, LP (SWR)
Antenna Model: FM3/6-CF-DA-90.7
No of Elements: Six (6)
Antenna COR AGL: 139 meters AGL
Antenna COR AMSL: 158 meters AGL
Max Input Power: 15.000 kW
Power Gain: 7.668
Antenna Gain: 8.847 dBd
Calculated Antenna Input Power: 6.521 kW
Transmitter Rated Power: 20.000 kW
Transmitter Make/Model: Harris HT20CD



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	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Main Feedline (1 5/8" Air)	RFS(Cablewave) HCA158-50J (0.193 dB/100 ft)	433 ft	-0.836 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: 7.97 dBd
CALCULATED TRANSMITTER POWER OUTPUT: 7.977 kW
 $(1 / [10^{(dB/10)/ERP}])$