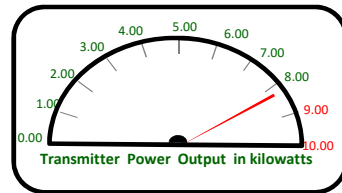
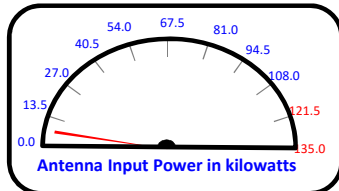


TPO Calculation Summary

Main Antenna Operation

Call letters: WOXL-FM.C
City of License: Biltmore Forest, NC
Frequency: CH243C2 (96.5 MHz)
File No: BPH-20131220HHF
Facility ID: 37242
Applicant: Saga Communications of North Carolina, LLC



Operating Effective Radiated Power (ERP): 9.500 kW

Antenna Make: Shively Labs (SHI)

Antenna Model: 6014-3/3-SS-DA

No of Elements: Three (3)

Antenna COR AGL: 54 meters AGL

Antenna COR AMSL: 1064 meters AMSL

Max Input Power: 135.0 kW

Power Gain: 1.463

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain:}$ 1.652 dBd

Calculated Antenna Input Power: 6.494 kW

Transmitter Make/Model: Gates Air Flexiva Model FAX-10K

Transmitter Rated Power: 10.000 kW

System Loss Info:

Description	Component Make/Model	Length	Loss
2 1/4 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dBd
Main Feedline (Tower)	Andrew HJ12-50 (2 1/4" Air) (0.166 dB/100 ft)	190 ft	-0.315 dBd
2 1/4 Inch to 3 1/8 Inch Coupler	Generic (1@0.02 dB each)		-0.020 dBd
Main Feedline (Ground 1)	Myat 301-001 (3 1/8" Hardline) (0.091 dB/100 ft)	6 ft	-0.005 dBd
3 1/8 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dBd
RF Switch 1 (Combiner Output)	Dielectric 60000 RF Series		-0.100 dBd
3 1/8 Inch Elbow Connector(s)	Generic (2@0.02 dB each)		-0.040 dBd
Main Feedline (Ground 2)	Myat 301-001 (3 1/8" Hardline) (0.091 dB/100 ft)	6 ft	-0.005 dBd
3 1/8 Inch Elbow Connector(s)	Generic (2@0.02 dB each)		-0.040 dBd
Branched Combiner	Shively Model 2530-2A-16-06		-0.300 dBd
3 1/8 Inch Elbow Connector(s)	Generic (2@0.02 dB each)		-0.040 dBd
3 1/8 Inch to 1 5/8 Inch Coupler	Generic (1@0.02 dB each)		-0.020 dBd
Main Feedline (Ground 3)	Myat 201-001 (1 5/8" Hardline) (0.187 dB/100 ft)	8 ft	-0.015 dBd
1 5/8 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dBd
RF Switch 2 (Transmitter Output)	Dielectric 60000 RF Series		-0.100 dBd
1 5/8 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dBd
Main Feedline (Ground 4)	Myat 201-001 (1 5/8" Hardline) (0.187 dB/100 ft)	17 ft	-0.032 dBd
1 5/8 Inch to 2 1/8 Inch Coupler	Generic (1@0.02 dB each)		-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: 0.52 dBd

$1 / [10^{(0.52/10)} / \text{ERP}] = \text{CALCULATED TRANSMITTER POWER OUTPUT:}$ 8.429 kW