

Transmitter TPO and ERP

WHII-LP
Warminster, Pa.
106.5 MHz; FM Channel 293

References:

Facility ID 196893
BNPL-20131114BLN (Original CP)
BMPL-20150123AGH (Most recent Mod-CP)

Antenna and Transmission System Parameters

Transmission System Component	Manufacturer	Description	Gain (dB)	Efficiency Factor
Antenna, Single Bay.	NiCom	Model BKG-77 Circular polarized	-3.28	0.470
Transmission Line	Andrew	#LDF4-50A; 380 ft; (115.8 m); -0.683 dB/100 ft @ 106.5 MHz	-2.60	0.550
N-Male Connectors; 2 each	Generic	Type N-Male at each end of line	-0.10	0.977
Transmission System Summary			-5.98	0.253

Transmitter Power Output (TPO) Calculation.

ERP = 16 Watts.

Efficiency Factor = $(0.470) * (0.550) * (0.977) = 0.253$

TPO = $16 / (0.253)$ ERP divided by Transmission System Efficiency Factor.

TPO = 63.2 Watts

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