

KEGA 101.5 (FM) SLC Booster power output calculations

This exhibit was prepared to demonstrate the TPO (transmitter power output) utilized to achieve the authorized effective radiated power of .56 KW

Table of gains & losses

The antenna system is a directional Jampro panel antenna model JCPD 1/1(2) with a antenna gain of 4.2 dB being feed by 100 ft of Andrew 7/8 Helix model HJ5-50 air dielectric with losses of .369 dB per 100 ft. It is connected to a Jampro filter/combiner model RCCC.8 with losses of .8 dB that will accommodate the addition of other future stations to be combined into one common antenna. The system feeder uses Andrew LDF4.50A at 20 feet in length to feed system with a loss of .136 dB.

To make the necessary ERP the transmitter output will be:

Tx output 288 watts – total losses of 1.31 dB + antenna gain of 4.2 = 560.26 rounded down to 560 watts ERP.