

Educational Media Foundation
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K247AZ

Transmitter Power Output Calculation

The purpose of this license modification application is to specify a change in the transmitter power output calculation due to the replacement of the transmission feed line.

Transmitter Power Output

AUTHORIZED ERP: 140 WATTS

RFS CPF500 SINGLE BAY ANTENNA GAIN: .446

143.3 FEET RFS CABLEWAVE 1/2-INCH FOAM COAX (LCF12-50) EFFICIENCY: 0.808

SHIVELY 2914-3 BANDPASS FILTER EFFICIENCY: .776

POLYPHASORS EFFICIENCY: .98

TRANSMITTER POWER OUTPUT: 510.8507 WATTS

CONFIRMATION: $510.8507 \times .446 \times .808 \times .776 \times .98 = 139.999$ WATTS

NOTE: TRANSMITTER POWER OUTPUT FIGURE SHOWN AS .511KW DUE TO ROUNDING AND RESOLUTION OF THE FORM.