

TPO Calculation WPKA-LP (ERP of 67 watts)

TRANSMISSION EFFICIENCY

ANTENNA GAIN: .441

LOSS PER CONNECTOR: .49dB x 6 = 2.94dB

CABLE LOSS: 1.2dB

POLYPHASER LOSS: .2dB

TOTAL dB LOSS: 4.34dB

THE FOLLOWING CALCULATION WAS USED IN DETERMINING TOTAL TPO

$(4.34\text{dB}/10 = .434)$

$(\text{INVERSE LOG OF } .434 = 2.716)$

$\text{ERP} = 67 \text{ WATTS} / (\text{ANTENNA GAIN } (.441) = 151.93 \text{ WATTS} * 2.716) = 412.64188$
WATTS

TPO ROUNDED OFF TO 413 WATTS