

BZ5MX30V
Application for FCC Certification
Modulator Input
30 Watt VHF Translator

POWER MEASUREMENTS

Power requirements for the 30 Watt VHF Translator were determined as follows:

1. The translator's visual power meter measures the peak visual power by reading the average levels of a detected sample of the output. The meter is calibrated by multiplying the above visual power reading by 168%. The visual metering circuitry has a negligible response to the aural power due to the large (>10MHz) detector bandwidth. When the detector bandwidth is this large, the detector does not peak detect the intercarrier beat product.
2. The aural power is measured by reading the peak level of the detected 4.5MHz intercarrier product. The level of this product has a direct correspondence to the aural power and is independent of the visual power as long as the peak visual power exceeds the aural power.

MEASURED VISUAL PWR NOTE 1	MEASURED AURAL PWR NOTE 2	SUPPLY CURRENT TO O/P DEVICES VISUAL ONLY NOTE 3	SUPPLY CURRENT TO O/P DEVICES VISUAL & AURAL NOTE 3
18 Watts	3 Watts	3.0 Amps	3.0 Amps

Note 1: Measured on the Bird Model 43 Wattmeter with the visual carrier modulated by the standard synchronizing signal at 75% of peak amplitude and the aural carrier disabled.

Note 2: Measured on the Bird Model 43 Wattmeter with the visual carrier disabled.

Note 3: The voltage across the output devices on all models in +24 volts. The output devices are operated Class 'A'.