

BZ5T5000U
Application for FCC Certification
Modulator Input 5000Watt UHF Translator

Power Measurements

The translator's visual power meter circuit uses a detected sample from a directional coupler on the output. A peak detector provides the DC level to drive the translator's output level meter.

The aural level is metered by using a ceramic filter at baseband to filter the 4.5MHz component, then rectify to a DC level to drive the metering circuit.

The translator was modulated with a sync and blanking signal only and the power output adjusted to 2980 W average, corresponding to a peak envelope sync power of 5000 W. The translator is capable of compliance with the specification for the range 500 W to 5000 W and is capable of delivering rated power output at 10% above or below rated AC input voltage.

The aural carrier output power was measured unmodulated into the dummy load and is not less than 10% or more than 20% of the rated output power of the visual carrier. The tests were performed with aural power adjusted to 500 W and verified using a spectrum analyzer to compare the relative level with that of the visual carrier.

The power output of the transmitter is adjustable to at least 10 dB below rated power output.

	Measured Power (Thru-Line Meter)	TX Current Meter
Visual Carrier Only	2980W	120/115 Amps
Visual + Aural Carrier	4430W	130/125 Amps

The DC voltage across all output devices is 28 Volts