

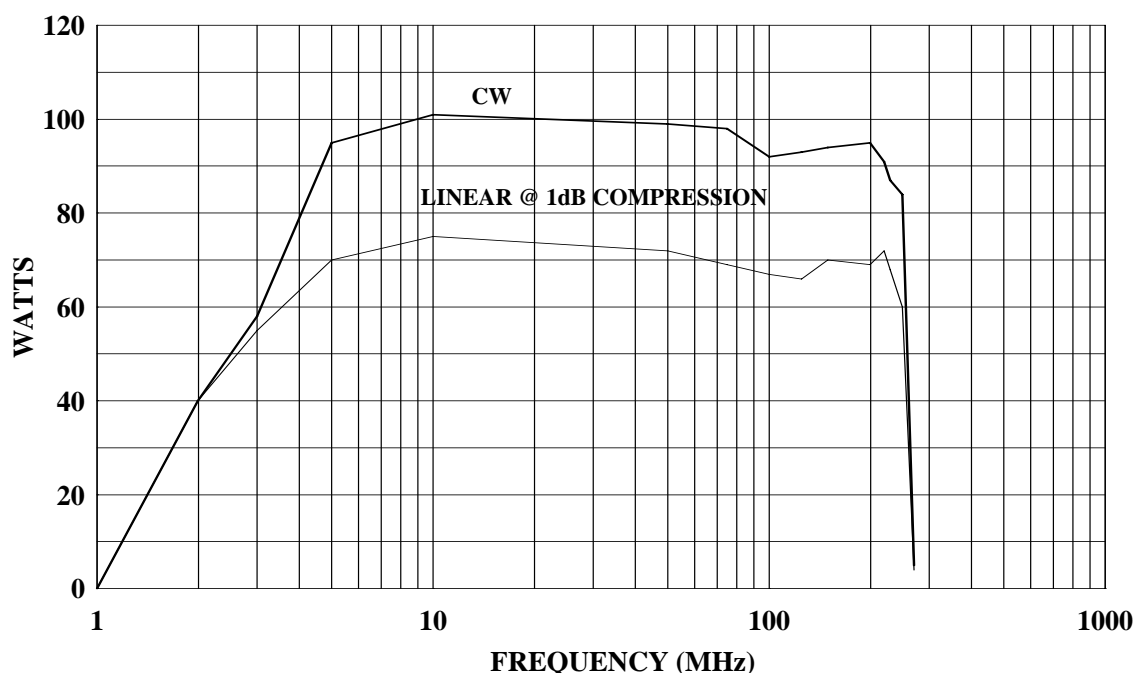
**Model 75AP250**  
**75 Watts CW**  
**5MHz–250MHz**

The Model 75AP250 is a self-contained, air cooled, broadband, solid state amplifier designed for applications where pulsed, high power, RF outputs are required. For NMR applications, the amplifier incorporates high speed blanking and gating circuitry, which generally reduces output noise and increases R.F. on/off attenuation. This feature is especially suited for NMR applications as well as more general applications. Push-pull MOSFET circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 75AP250, when used with an RF sweep generator, will provide a minimum of 75 watts of swept power.

Also included is a front panel gain control which permits the operator to conveniently set the desired power output level. High efficiency, universal input, switching power supplies provide reliable DC to all internal sub-assemblies.

Housed in a stylish, contemporary enclosure, the Model 75AP250 provides readily available RF power for typical applications such as NMR, RF susceptibility testing, antenna and component testing, watt meter calibration, ultrasonics and as a driver for higher power amplifiers.

**75AP250 TYPICAL POWER OUTPUT**



## SPECIFICATIONS

### POWER OUTPUT, CW

|                                |                  |
|--------------------------------|------------------|
| Nominal .....                  | 94 watts         |
| Minimum .....                  | 75 watts         |
| Linear @ 1dB compression ..... | 50 watts minimum |

FLATNESS.....±1.0 dB maximum

FREQUENCY RESPONSE.....5–250MHz instantaneously

INPUT FOR RATED OUTPUT.....1.0 milliwatt maximum

GAIN (at maximum setting).....49 dB minimum

GAIN ADJUSTMENT (continuous range).....18 dB minimum

INPUT IMPEDANCE.....50 ohms, VSWR 1.5:1 maximum

OUTPUT IMPEDANCE.....50 ohms, nominal

MISMATCH TOLERANCE\* .....100% of rated power without foldback. Will operate without damage or oscillation with any magnitude and phase of source and load impedance.

MODULATION CAPABILITY.....Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal

HARMONIC DISTORTION.....Minus 20 dBc maximum at 50 watts

THIRD ORDER INTERCEPT POINT.....57 dBm typical

### PULSE MODE CHARACTERISTICS

|                             |                          |
|-----------------------------|--------------------------|
| Signal (into 50 ohms) ..... | +2.5 to 6.0 VDC          |
| Rise Time .....             | 1.0 microseconds maximum |
| Fall Time.....              | 1.0 microseconds maximum |
| RF Rise/Fall Time.....      | 10 nanoseconds maximum   |

PRIMARY POWER.....90–135/180–270 VRMS Autoranging  
47–63 Hz  
440 watts maximum

RF CONNECTORS.....Type N female  
Pulse input connector.....Type BNC female

COOLING.....Forced air (self contained fans)

WEIGHT.....13.6 kg (30 lb)

SIZE (WxHxD).....50.3 x 15.5 x 30.0 cm (19.8 x 6.1 x 11.8 in)

\* See Application Note #27