rf/microwave instrumentation

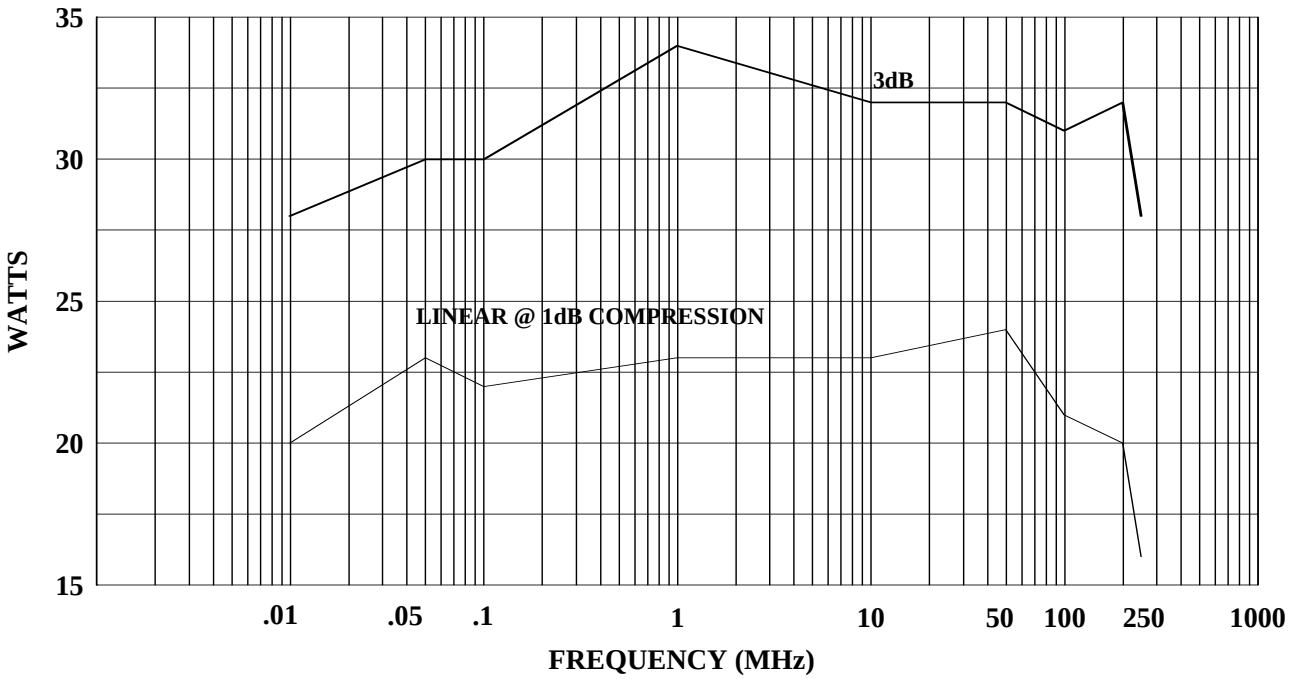
**Model 25A250A,**
**M1 through M7**
**25 Watts CW**
**10kHz–250MHz**

The Model 25A250A amplifier is a self-contained, broadband unit designed for laboratory applications where instantaneous bandwidth, high gain and moderate power output are required. Utilization of push-pull MOSFET circuitry lowers distortion, improves stability and allows operation into any load impedance without damage. The Model 25A250A, when used with an RF sweep generator, will provide a minimum of 25 watts of swept power.

The Model 25A250A includes a front panel control which permits the operator to conveniently set the amplifier's desired output level. Housed in a stylish contemporary enclosure, the Model 25A250A provides readily available RF power for typical applications such as RF susceptibility testing, antenna and component testing, watt meter calibration, and use as a driver for higher power amplifiers.

The 25A250A utilizes a switching power supply with universal and autoranging input which will automatically accept from 90 to 135 VAC or from 180 to 270 VAC at 47 to 63 Hz.

**25A250A TYPICAL POWER OUTPUT**



## SPECIFICATIONS, MODEL 25A250A

| | |
|---|---|
| POWER OUTPUT | 25 watts minimum |
| INPUT FOR RATED OUTPUT | 1.0 milliwatt maximum |
| Power output @ 3dB compression | |
| Nominal | 32 watts |
| Minimum | 25 watts |
| Power output @ 1 dB compression | |
| Nominal | 20 watts |
| Minimum | 15 watts |
| FLATNESS | ± 1.0 dB maximum |
| FREQUENCY RESPONSE | 10 kHz - 250 MHz instantaneously |
| GAIN (at maximum setting) | 44 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.<br>* See Application Note #27 |
| MODULATION CAPABILITY | Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal |
| NOISE FIGURE (above 1.0 MHz) | 16 dB typical |
| HARMONIC DISTORTION | Minus 20 dBc maximum at 15 watts |
| THIRD ORDER INTERCEPT POINT | 54 dBm typical |
| PRIMARY POWER | 90-135/180-270 VAC<br>47 to 63 Hz, single phase 200 watts maximum |
| RF CONNECTORS | Type N female |
| COOLING | Forced air (self-contained fans) |
| WEIGHT | 15.9 kg (35.0 lb) |
| SIZE (WxHxD) | 50.3 x 15.5 x 30.0 cm (19.8 x 6.1 x 11.80 in) |

## MODEL CONFIGURATIONS

| Model | RF Connectors | Size | Features |
|---|---|---|---|
| 25A250A | Type N (f), front | 50.3 x 15.5 x 30.0 cm<br>19.8 x 6.1 x 11.80 in | |
| 25A250AM1 | Type N (f),rear | 50.3 x 15.5 x 30.0 cm<br>19.8 x 6.1 x 11.80 in | |
| 25A250AM2 | Type N (f), rear | 48.3 x 13.2 x 28.7 cm<br>19.0 x 5.2 x 11.3 in | No instrument case |
| 25A250AM3 | Type N (f), front | 50.3 x 15.5 x 30.0 cm<br>19.8 x 6.1 x 11.80 in | See separate specification sheet |
| 25A250AM4 | Type N (f), rear | 48.3 x 13.2 x 28.7 cm<br>19.0 x 5.2 x 11.3 in | OEM, no instrument case, no gain control |
| 25A250AM5 | Type N (f), front | 50.3 x 15.5 x 30.0 cm<br>19.8 x 6.1 x 11.80 in | See separate specification sheet |
| 25A250AM6 | Type N (f),front | 48.3 x 13.2 x 28.7 cm<br>19.0 x 5.2 x 11.3 in | See separate specification sheet |
| 25A250AM7 | Type N (f),front | 48.3 x 13.2 x 28.7 cm<br>19.0 x 5.2 x 11.3 in | No instrument case |