rf/microwave instrumentation

Model 150A400
M1 through M5
150 Watts CW
100kHz–400MHz

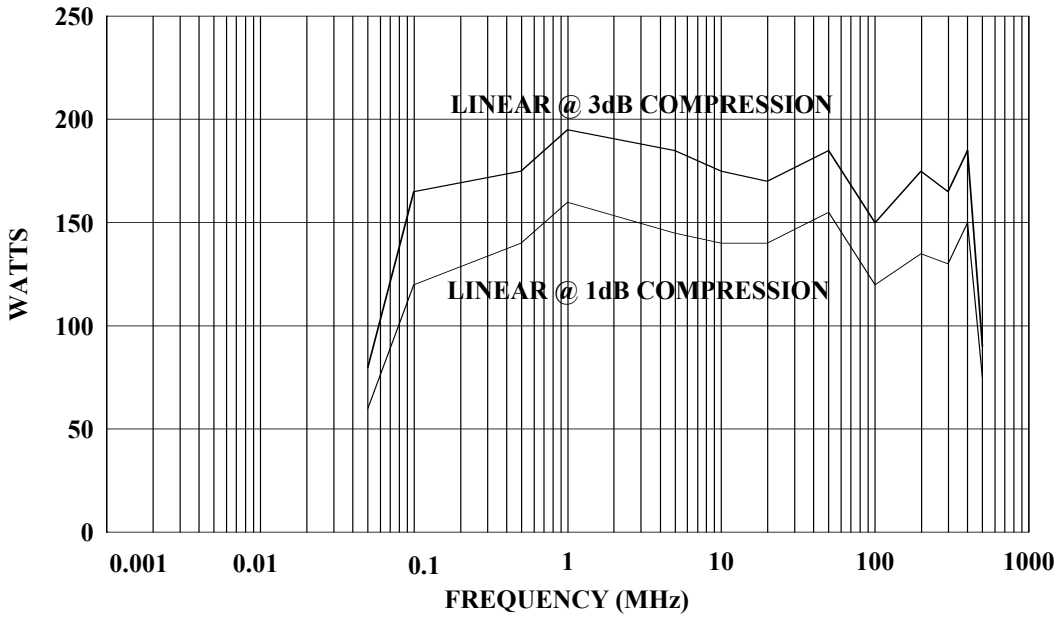
The Model 150A400 amplifier is a self-contained, broadband unit designed for laboratory applications where instantaneous bandwidth, high gain and moderate power output are required. Utilization of push-pull MOSFET circuitry lowers distortion, improves stability and allows operation into any load impedance without damage. The Model 150A400, when used with an RF sweep generator, will provide a minimum of 150 watts of swept power.

There is a digital display on the front panel to indicate the operate status and fault conditions when an over temperature, power supply, or amplifier fault has occurred. The unit can be returned to operate when the condition has been cleared. The 150A400 includes digital control for both local and remote control of the amplifier. This 8-bit RISC microprocessor controlled board provides both IEEE-488 (GPIB) and asynchronous, full duplex RS-232 control of all amplifier functions.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format. The bus interface connector is located on the back panel and positive control of local or remote operation is assured by a keylock on the front panel of the amplifier.

Housed in a stylish, contemporary enclosure, the Model 150A400 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.

150A400 TYPICAL POWER OUTPUT



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SPECIFICATIONS, MODEL 150A400

RATED POWER OUTPUT ..... 150 watts minimum

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

POWER OUTPUT @ 3dB COMPRESSION
- Nominal ..... 155 watts
- Minimum ..... 130 watts

POWER OUTPUT @ 1dB COMPRESSION
- Nominal ..... 125 watts
- Minimum ..... 100 watts

FLATNESS ..... ± 1.5 dB maximum

FREQUENCY RESPONSE ..... 100 kHz - 400 MHz instantaneously

GAIN ..... 52 dB minimum

GAIN ADJUSTMENT RANGE ..... 20 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.
* See Application Note #27

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

HARMONIC DISTORTION ..... Minus 20 dBc maximum at 100 watts

THIRD ORDER INTERCEPT POINT ..... 58 dBm typical

PRIMARY POWER ..... 90-135/180-270 VAC auto ranging 47-63Hz, single-phase. 1000 watts maximum

REMOTE INTERFACES IEEE-488, RS-232

CONNECTORS
- RF ..... See Model Configurations

Remote Control
- IEEE-488 ..... 24 pin female
- RS-232 ..... 9 pin subminiature D female

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

REMOTE INTERLOCK ..... 15 pin subminiature D

MODEL CONFIGURATIONS

MODEL	RF INPUT	RF OUTPUT	WEIGHT	SIZE (W x H x D)
150A400	Type N female on Front Panel	Type N female on Front panel	36 Kg (80 lb)	50.3 x 25.2 x 46.0 cm 19.8 x 9.9 x 18.1 in
150A400M1	Type N female on Rear Panel	Type N female on Rear panel	36 Kg (80 lb)	50.3 x 25.2 x 46.0 cm 19.8 x 9.9 x 18.1 in
150A400M2	Same as 150A400 with enclosure removed for rack mounting		25 Kg (60 lb)	48.3 x 22.25 x 43.2 cm 19 x 8.75 x 17 in
150A400M3	Same as 150A400M1 with enclosure removed for rack mounting		25 Kg (60 lb)	48.3 x 22.25 x 43.2 cm 19 x 8.75 x 17 in
150A400M4	Type N female on Front Panel	Type N female on Rear panel	25 Kg (60 lb)	48.3 x 22.25 x 43.2 cm 19 x 8.75 x 17 in
	Enclosure removed for rack mounting			
150A400M5	See separate specification sheet			