



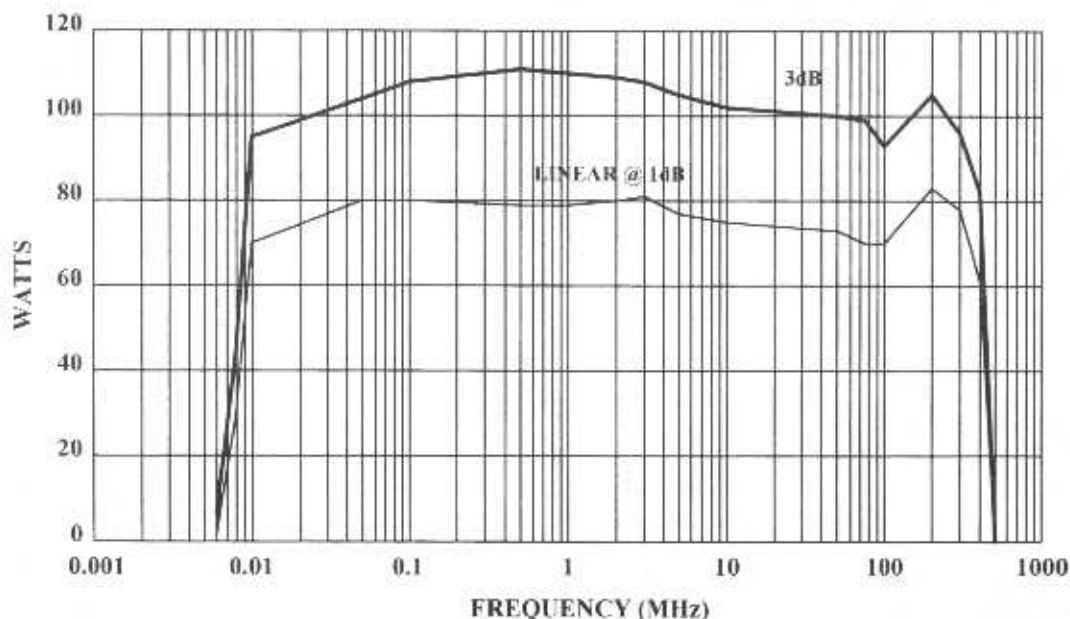
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MODEL 75A400
M1, M2, M3, M4
75 WATTS CW
10 kHz - 400 MHz

The Model 75A400 amplifier is a portable, self-contained, air-cooled, broadband, solid state amplifier 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. When used with an RF sweep generator, the 75A400 will provide a minimum of 75 watts of swept RF output power.

The Model 75A400 includes a front panel RF Gain Control, which permits the operator to conveniently set the amplifier's desired output level. Housed in a stylish contemporary enclosure, the unit provides instantaneous power for typical applications such as RF susceptibility testing, antenna and component testing, Watt-meter calibration and as a driver for higher power amplifiers. The 75A400 is powered by a high efficiency switching supply, with autoranging AC input circuitry which will automatically accept voltages from 90 to 135 VAC, or from 180 to 270 VAC, in the 47 to 63 Hz frequency range. The RF Amplifier stages are protected from over temperature by removing the DC voltage to them if an over temperature condition occurs due to a cooling blockage or fan failure. The digital display on the front panel indicates the operation status and any pending fault conditions when an over temperature or power supply fault has occurred. The unit can be returned to normal operation when the condition has been cleared; as with the other functions, this can be readily accomplished through a front panel switch. The unit also includes digital control for both local and remote control of the amplifier. The 8-bit RISC microprocessor controller board provides IEEE-488 (GPIB) and asynchronous full duplex RS-232 communication control of all amplifier functions.

75A400 TYPICAL POWER OUTPUT



SPECIFICATIONS

Model 75A400

RATED POWER OUTPUT.....	75 watts minimum
INPUT FOR RATED OUTPUT.....	1.0 milliwatt maximum
POWER OUTPUT @ 3dB COMPRESSION	
Nominal.....	100 watts
Minimum.....	75 watts
POWER OUTPUT @ 1dB COMPRESSION	
Nominal.....	75 watts
Minimum.....	50 watts
FLATNESS.....	± 1.5 dB maximum
FREQUENCY RESPONSE.....	10 kHz - 400 MHz instantaneously
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, VSWR 2.0:1 maximum
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
NOISE FIGURE (above 1.0 MHz).....	6 dB typical
HARMONIC DISTORTION.....	Minus 20 dBc maximum at 50 watts
THIRD ORDER INTERCEPT POINT.....	57 dBm typical
PRIMARY POWER.....	90-135/180-270 VAC 47 to 63 Hz, single phase 400 watts maximum
CONNECTORS	
RF (Type).....	Type N female
(Location).....	See Model Configurations table below
REMOTE CONTROL	
IEEE-488.....	24 pin female
RS-232.....	9 pin subminiature D (female)
REMOTE INTERLOCK.....	15 pin subminiature D
COOLING.....	Forced air (self contained fans)

MODEL CONFIGURATIONS

MODEL NUMBER	RF CONNECTOR LOCATION	GAIN CONTROL	INSTRUMENT CASE	WEIGHT	SIZE (W x H x D)
75A400	Front Panel	Yes	Yes	23.4 kg (51.5lb)	50.3 x 15.5 x 37.6 cm 19.8 x 6.1 x 14.8 in
75A400M1	Rear Panel	Yes	No	18.9 kg (41.5lb)	48.3 x 12.7 x 37.6 cm 19.0 x 5.0 x 14.8 in
75A400M2	Rear Panel	Yes	Yes	23.4 kg (51.5lb)	50.3 x 15.5 x 37.6 cm 19.8 x 6.1 x 14.8 in
75A400M3	Front Panel	Yes	No	18.9 kg (41.5lb)	48.3 x 12.7 x 37.6 cm 19.0 x 5.0 x 14.8 in
75A400M4	BASE MODEL WITH PHASE LINEARITY TESTED FOR $\leq 45^\circ$				