



**Model 240S1G4,  
M1 through M4  
240 Watts CW  
0.8-4.2GHz**

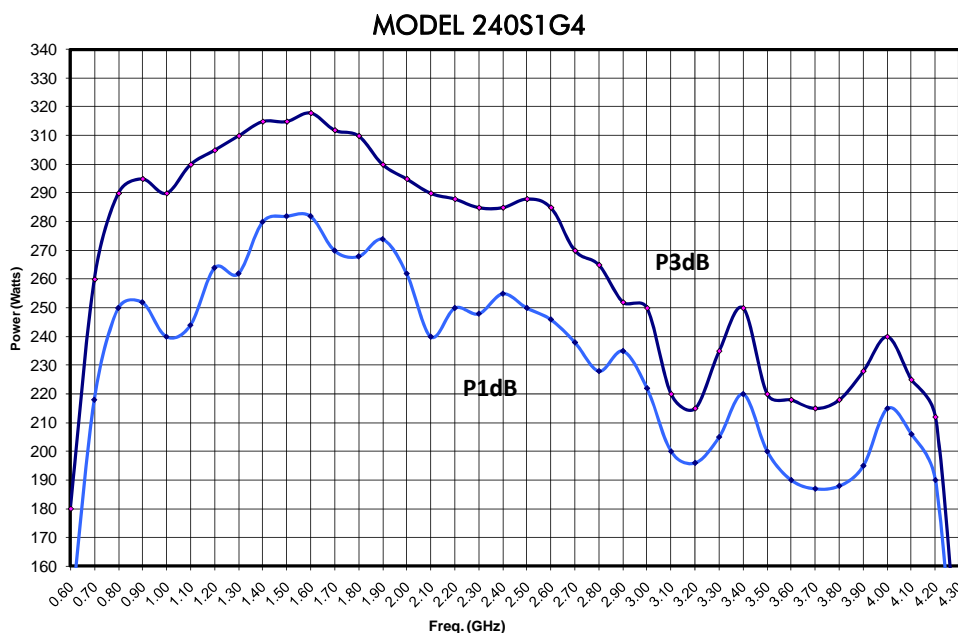
The Model 240S1G4 is a portable, self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. Push-pull circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 240S1G4, when used with a sweep generator, will provide a minimum of 240 watts of RF power.

The Model 240S1G4 is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a graphic liquid crystal display, menu assigned softkeys, a single rotary knob, and four dedicated switches (POWER, STANDBY, OPERATE and FAULT/RESET) to offer extensive control and status reporting capability. The display provides operational presentation of Forward Power and Reflected Power plus control status and reports of internal amplifier status. Special features include a gain control and RF output level protection.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format, RS-232 hardwire and fiber optic, USB, and Ethernet. The bus interface connector is located on the back panel and positive control of local or remote operation is assured by a Local/Remote switch on the front panel of the amplifier.

The low level of spurious signals and linearity of the Model 240S1G4 make it ideal for use as a driver amplifier in testing wireless and communication components and subsystems. It can be used as a test instrument covering multiple frequency bands and is suitable for a variety of communication technologies such as CDMA, W-CDMA, TDMA, GSM etc. It is also suitable for EMC Test applications where undistorted modulation envelopes are desired.

The 240S1G4 is housed in a single equipment rack and is designed to provide complete standalone performance for RF testing. It is also configured to be used as a sub-amplifier in a 450-watt, 600-watt, or 800-watt higher power amplifier. It can be added to in an incremental fashion to become a part of these higher power units, yet still be used as a standalone 240 watt amplifier.



## SPECIFICATIONS, MODEL 240S1G4

RATED OUTPUT POWER .....	240 watts minimum
INPUT FOR RATED OUTPUT.....	1.0 milliwatt maximum
<b>POWER OUTPUT @ 3dB COMPRESSION</b>	
Nominal.....	250 watts
Minimum.....	200 watts
<b>POWER OUTPUT @ 1dB COMPRESSION</b>	
Nominal.....	230 watts
Minimum.....	180 watts
FLATNESS.....	±2.5 dB maximum ±1.0 dB with internal leveling
FREQUENCY RESPONSE.....	0.8-4.2GHz instantaneously
GAIN (at maximum setting) .....	54 dB minimum
GAIN ADJUSTMENT .....	15 dB minimum
INPUT IMPEDANCE .....	50 ohms, VSWR 2.0:1 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 200 watts
THIRD ORDER INTERCEPT POINT.....	65 dBm typical
RF POWER DISPLAY .....	Digital, forward and reflected
PRIMARY POWER .....	120-240VAC 50/60 Hz, single phase 1800 watts
<b>CONNECTORS</b>	
RF Connectors .....	See Model Configurations
Safety interlock .....	15 pin female subminiature D on rear panel
Remote computer interface.....	IEEE-488 (GPIB)& RS-232 connector on rear panel
Remote Computer Interface (Fiber Optic) .....	ST Conn Tx and Rx RS-232
Operate Interface.....	RJ-11 on rear panel
USB 2.0.....	Type B
Ethernet.....	RJ-45
IEEE-488 (GPIB) INTERFACE & RS-232.....	Allows control and monitoring of all front panel controls except keylock position control
COOLING .....	Forced air (self contained fans)

MODEL #	RF INPUT	MODEL CONFIGURATIONS RF OUTPUT	WEIGHT	SIZE (W x H x D)
240S1G4	Type N female on front panel	Type 7/16 female on front panel	86.2 kg (190 lbs)	50.3 x 55.9 x 61 cm 19.8 x 22 x 24 in
240S1G4M1	Type N female on rear panel	Type 7/16 female on rear panel	86.2 kg (190 lbs)	50.3 x 55.9 x 61 cm 19.8 x 22 x 24 in
240S1G4M2	See individual specification sheet			
240S1G4M3	Same as standard with enclosure removed for rack mounting.		68 kg (130 lbs)	48.3 x 53.3 x 61 cm 19 x 21 x 24 in
240S1G4M4	Same as M1 with enclosure removed for rack mounting.		68 kg (130 lbs)	48.3 x 53.3 x 61 cm 19 x 21 x 24 in