



Model 10S4G18
M1 through M4
10 Watts CW
4GHz–18GHz

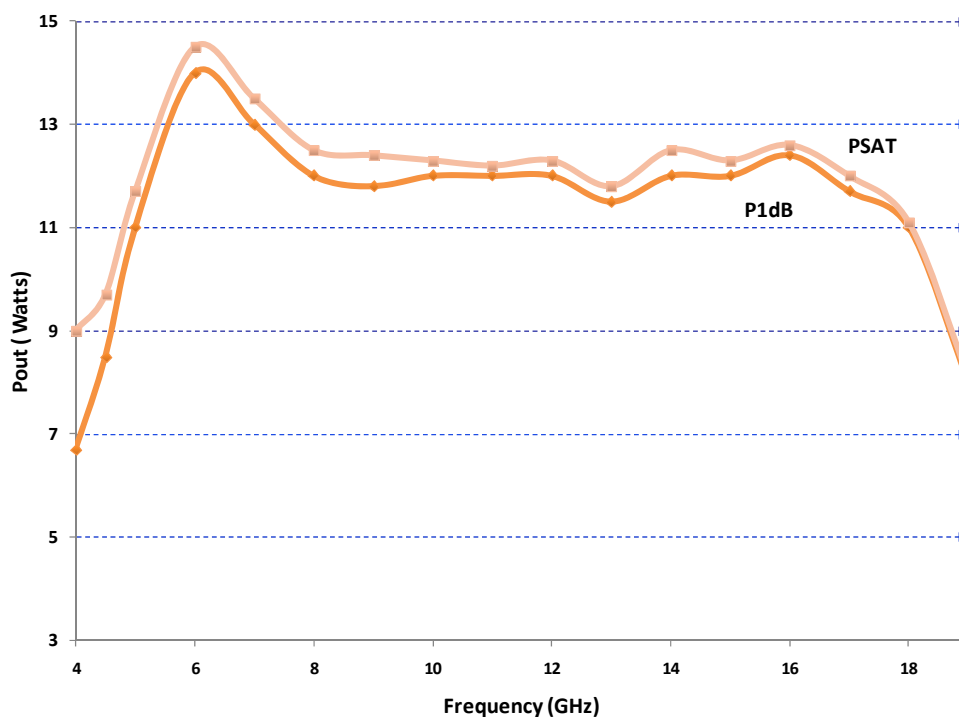
The Model 10S4G18 is a portable, self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. The Model 10S4G18, when used with a sweep generator, will provide a minimum of 10 watts of RF power instantaneously from 5 to 18 GHz and 7 watts from 4 to 5 GHz. The 10 watt model can be expanded in an incremental fashion to 20 or 40 watts inside the same cabinet.

The Model 10S4G18 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 a dedicated power on/off switch to offer extensive control and status reporting capability. The display provides gain setting and reports of internal amplifier status. Special features include a gain control and input overdrive protection.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format, RS-232 hardware 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 keylock on the front panel of the amplifier.

The Model 10S4G18 is designed to have low spurious signals, linearity and is extremely load tolerant which enables it to be used in many RF applications such as: RF susceptibility testing, antenna/component testing, and communication technology testing. 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, UWB, WiMAX etc.

10S4G18 TYPICAL OUTPUT POWER



SPECIFICATIONS, 10S4G18

RATED POWER OUTPUT	10 watts minimum (5-18 GHz) 7 watts minimum (4-5 GHz)
POWER OUTPUT @ 1dB COMPRESSION	
Nominal	12 watts
Minimum	9 watts (5-18 GHz); 6 watts (4-5 GHz)
FLATNESS.....	±3.0 dB typical ±4.0 dB maximum
FREQUENCY RESPONSE	4–18 GHz instantaneously
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum, 0 dBm
GAIN (at maximum setting)	40 dB minimum
GAIN ADJUSTMENT (Continuous Range)	10 dB minimum
INPUT IMPEDANCE.....	50 ohms, VSWR 2.5:1 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 max at 10 watts (5-18 GHz) and 7 watts (4-5 GHz)
THIRD ORDER INTERCEPT POINT	47 dBm typical
PRIMARY POWER (selected automatically).....	90–132, 180–264 VAC 50/60 Hz, single phase <550 watts maximum
CONNECTORS	
RF INPUT & OUTPUT.....	See Model Configurations
REMOTE INTERFACES	
IEEE-488.....	24 pin female
RS-232	9 pin Subminiature D (female)
RS-232 (Fiber-optic)	Type ST
USB 2.0	Type B
Ethernet	RJ-45
SAFETY INTERLOCK	15 Pin Subminiature D
COOLING.....	Forced air (self contained fans)

MODEL	RF INPUT CONNECTOR	MODEL CONFIGURATIONS RF OUTPUT CONNECTOR	WEIGHT	SIZE (W x H x D)
10S4G18	Precision N female, rear	Precision N female, rear	32 kg (70 lb)	50.3 x 24.9 x 54.6 cm; 19.8 x 9.8 x 21.5 in
10S4G18M1	Precision N female, front	Precision N female, front	32 kg (70 lb)	50.3 x 24.9 x 54.6 cm; 19.8 x 9.8 x 21.5 in
10S4G18M2	Precision N female, front	Precision N female, rear	32 kg (70 lb)	50.3 x 24.9 x 54.6 cm; 19.8 x 9.8 x 21.5 in
10S4G18M3	Precision N female, front	Waveguide*, rear	32 kg (70 lb)	50.3 x 24.9 x 54.6 cm; 19.8 x 9.8 x 21.5 in
10S4G18M4	Same as 10S4G18 with enclosure removed for rack mounting.		22 kg (48 lb)	48.3 x 22.2 x 54.6 cm; 19 x 8.75 x 21.5 in

*Limited to 8–18 GHz.