



**Model 5S6G18A,
M1 through M4
5 Watts CW
6GHz–18GHz**

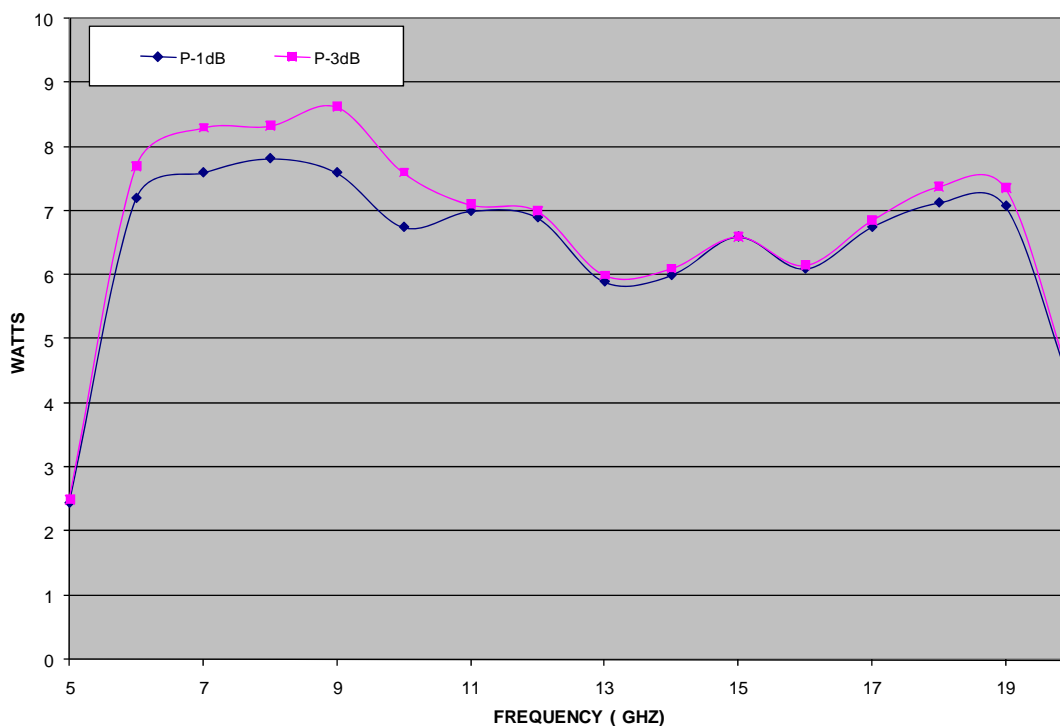
The Model 5S6G18A is a portable, self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. The Model 5S6G18A, when used with a sweep generator, will provide a minimum of 5 watts of RF power instantaneously from 6 to 18 GHz. The unit is designed for benchtop use, but can be removed from the cabinet for immediate equipment rack mounting. The 5 watt model can be expanded in an incremental fashion to 10, 20 or 40 watts inside the same cabinet.

The Model 5S6G18A 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 5S6G18A 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.

5S6G18A TYPICAL POWER OUTPUT



SPECIFICATIONS, 5S6G18A

RATED POWER OUTPUT	5 watts minimum
POWER OUTPUT @ 3dB COMPRESSION	
Nominal	7 watts
Minimum	5 watts
POWER OUTPUT @ 1dB COMPRESSION	
Nominal	6 watts
Minimum	5 watts
FLATNESS.....	±2.0 dB typical ±3.0 dB maximum
FREQUENCY RESPONSE	6–18 GHz instantaneously
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum, 0 dBm
GAIN (at maximum setting)	37 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 maximum at 5 watts
THIRD ORDER INTERCEPT POINT	43 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)
SIZE.....	50.3 X 24.9 X 54.6cm (19.8 x 9.8 x 21.5 in)
WEIGHT	
with enclosure removed for rack mounting	19 kg (42 lb)
with enclosure	29 kg (64 lb)

MODEL	MODEL CONFIGURATIONS	
	RF INPUT CONNECTOR	RF OUTPUT CONNECTOR
5S6G18A	Precision N female, rear	Precision N female, rear
5S6G18AM1	Precision N female, front	Precision N female, front
5S6G18AM2	Precision N female, front	Precision N female, rear
5S6G18AM3	Precision N female, front	Waveguide*, rear
5S6G18AM4	5S6G18A with enclosure removed for rack mounting.	

*Limited to 8–18GHz.