



## 20S6G18A

- M2, M5
- 20 Watts CW
- 6GHz-18GHz

### Features

The Model 20S6G18A is a portable, self-contained, air-cooled, broadband, Class A solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. The Model 20S6G18A, when used with a sweep generator, will provide a minimum of 20 watts of RF power instantaneously from 6 to 18 GHz. The 20 watt model can be expanded to 40 watts inside the same cabinet.

The Model 20S6G18A 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.

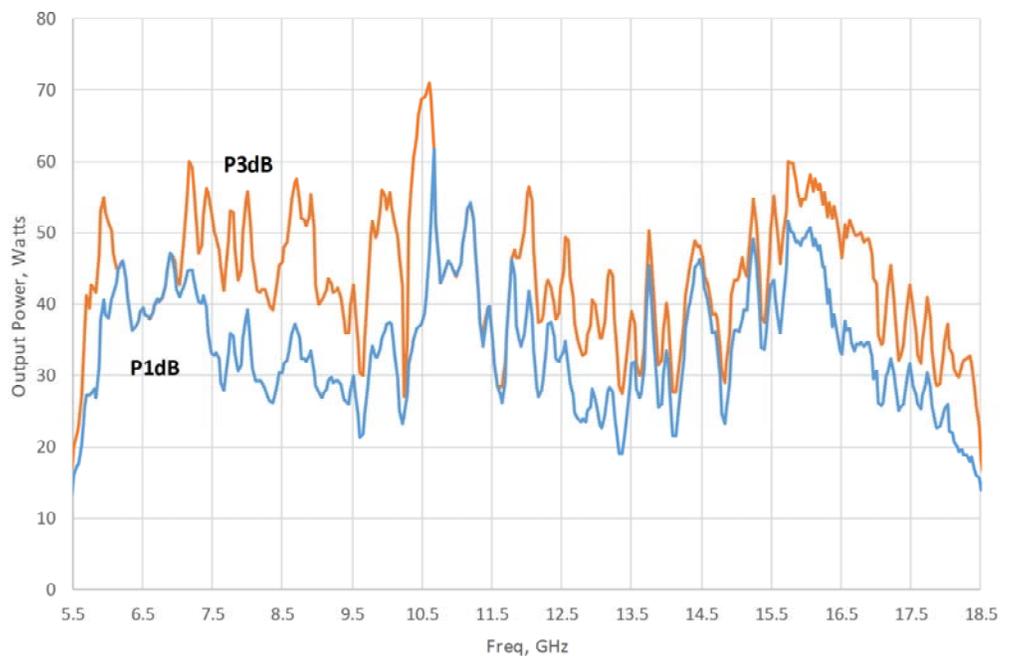
All amplifier control functions and status indications are available remotely in GPIB/IEEE-

488 format, RS-232 hardwire and fiber optic, USB, and Ethernet. The buss 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 20S6G18A 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.

The export classification for this equipment is 3A001. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

20S6G18A Typical Output Power



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## Specifications

**RATED POWER OUTPUT:** 20 watts minimum

**POWER OUTPUT @ 3dB COMPRESSION:**

Nominal: 25 watts  
Minimum: 20 watts

**POWER OUTPUT @ 1dB COMPRESSION:**

Nominal: 22 watts  
Minimum: 15 watts

**POWER GAIN 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

**POWER GAIN (at maximum setting):** 43 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 20 watts

**THIRD ORDER INTERCEPT POINT:** 49 dBm typical

**PRIMARY POWER (selected automatically):** 90-132, 180-264 VAC; 50/60 Hz, single phase; <700 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)

**EXPORT CLASSIFICATION:** 3A001

MODEL CONFIGURATIONS				
MODEL NUMBER	RF INPUT	RF OUTPUT	WEIGHT	SIZE (W x H x D)
20S6G18A	Precision N female, rear	Precision N female, rear	36 kg (79 lbs)	50.3 x 29.5 x 54.6 cm 19.8 x 11.6 x 21.5 in
20S6G18AM2	Precision N female, front	Precision N female, rear	36 kg (79 lbs)	50.3 x 29.5 x 54.6 cm 19.8 x 11.6 x 21.5 in
20S6G18AM5	Same as 20S6G18A with enclosure removed for rack mounting		26 kg (57 lbs)	48.3 x 26.7 x 54.6 cm 19 x 10.5 x 21.5 in