

### Features

# 60/40S1G18B

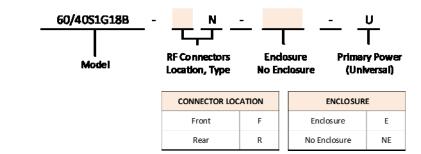
- 60/40 Watts CW
- 0.7GHz-18GHz

The Model 60/40S1G18B is a portable, selfcontained, air-cooled, dual-band, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required.

This model is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The digital display on the front panel indicates control status and reports of internal amplifier status. All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format, RS-232 hardwire and fiber optic, USB, and Ethernet. This model is designed to have low spurious signals, exhibit very good 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 are 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.

## **Model Configurations**



## Specifications, General

**INPUT FOR RATED OUTPUT:** 1.0 milliwatt maximum, 0 dBm

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. See Application Note #27.

**MODULATION CAPABILITY:** Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal.

SPURIOUS: Minus 73 dBc typical

### CONNECTORS:

See Model Configurations; RF In/Out are on the same panel

### **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 (internal self-contained liquid)

#### SIZE (W x H x D)

**w/cabinet:** 50.3 x 34 x 62.2 cm; 19.8 x 13.4 x 24.5 in **w/o cabinet:** 48.3 x 31.2 x 62.2 cm; 19.0 x 12.3 x 24.5 in

WEIGHT:

**w/cabinet:** 52.2 kg; 115 lbs **w/o cabinet:** 40.1 kg; 90 lbs

EXPORT CLASSIFICATION: 3A001



AR RF/Microwave Instrumentation



### Specifications

## 60/40S1G18B

## Model 60/40S1G18B, 0.7-6.0GHz Band Selected

- 60/40 Watts CW
- 0.7GHz-18GHz

RATED POWER OUTPUT: 60 watts minimum

**POWER OUTPUT @ 3dB COMPRESSSION:** Nominal 60 watts; Minimum 55 watts

**POWER OUTPUT @ 1dB COMPRESSION:** Nominal 57 watts; Minimum 50 watts

POWER GAIN FLATNESS (0 dBm IN): ±1.5 dB typical; ±2.0 dB maximum

FREQUENCY RESPONSE: 0.7–6.0 GHz instantaneously

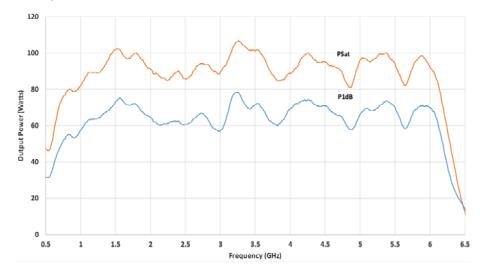
GAIN (at maximum setting): 48 dB minimum

THIRD ORDER INTERCEPT: 54 dBm typical

NOISE FIGURE: 10 dB typical

HARMONIC DISTORTION: Minus 20 dBc max at 60 watts (0.7-6.0 GHz)

**PRIMARY POWER (Selected Automatically):** 90-264 VAC, 50/60 Hz, single phase, 300 watts maximum



### 60/40S1G18B TYPICAL POWER OUTPUT WITH 0.7-6.0GHz BAND SELECTED

Specifications

## 60/40S1G18B

- Model 60/40S1G18B, 6.0-18GHz Band Selected
- 60/40 Watts CW
- 0.7GHz-18GHz

RATED POWER OUTPUT: 40 watts minimum

**POWER OUTPUT @ 3dB COMPRESSSION:** Nominal 46 watts; Minimum 35 watts

**POWER OUTPUT @ 1dB COMPRESSION:** Nominal 30 watts; Minimum 22 watts

POWER GAIN FLATNESS (0 dBm IN): ±2.0 dB typical; ±3.0 dB maximum

FREQUENCY RESPONSE: 6.0–18 GHz instantaneously

GAIN (at maximum setting): 46 dB minimum

THIRD ORDER INTERCEPT: 52 dBm typical

HARMONIC DISTORTION: Minus 20 dBc max @ 40W (6.0-18 GHz)

**PRIMARY POWER (Selected Automatically):** 90-264 VAC, 50/60 Hz, single phase, < 1000 watts maximum

# 120 100 PSat 80 Output Power (W) 60 40 P1dB 20 0 8 18 5.5 10.5 13 15.5 Frequency (GHz)

### 60/40S1G18B TYPICAL POWER OUTPUT WITH 6.0-18.0GHz BAND SELECTED

