

## 30/20S1G18B

- 30/20 Watts CW
- 0.7GHz-18GHz

#### **Features**

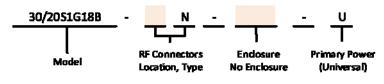
The Model 30/20\$1G18B is a portable, self-contained, air-cooled, dual-band, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required.

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



CONNECTOR LOCATION	
Front	F
Rear	R

ENCLOSURE	
Enclosure	Е
No Enclosure	NE

# 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  $\times$  H  $\times$  D):

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

24.5 in WEIGHT:

**w/cabinet:** 42 kg; 93 lbs **w/o cabinet:** 31 kg; 68 lbs

**EXPORT CLASSIFICATION: 3A001** 





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#### **Specifications**

### 30/20S1G18B

- 30/20 Watts CW
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# Model 30/20S1G18B, 0.7-6.0GHz Band Selected

RATED POWER OUTPUT: 30 watts minimum

POWER OUTPUT @ 3dB COMPRESSSION:

Nominal 35 watts; Minimum 26 watts

POWER OUTPUT @ 1dB COMPRESSION:

Nominal 30 watts; Minimum 22 watts

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

FREQUENCY RESPONSE: 0.7-6.0 GHz instanta-

neously

GAIN (at maximum setting): 44 dB minimum THIRD ORDER INTERCEPT: 50 dBm typical

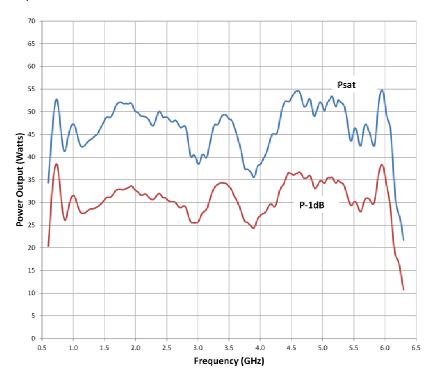
NOISE FIGURE: 10 dB typical

HARMONIC DISTORTION: Minus 20 dbc max at

30 watts (0.7-6.0 GHz)

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

#### 30/20S1G18B TYPICAL POWER OUTPUT WITH 0.7-6.0GHz BAND SELECTED



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### 30/20S1G18B

- 30/20 Watts CW
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# Model 30/20S1G18B, 6.0-18GHz Band Selected

RATED POWER OUTPUT: 20 watts minimum

POWER OUTPUT @ 3dB COMPRESSSION:

Nominal 25 watts; Minimum 18 watts

POWER OUTPUT @ 1dB COMPRESSION:

Nominal 22 watts; Minimum 15 watts

POWER GAIN FLATNESS (0 dBm IN):

±2.0 dB typical; ±3.0 dB maximum

FREQUENCY RESPONSE: 6.0–18 GHz instanta-

neously

GAIN (at maximum setting): 44 dB minimum THIRD ORDER INTERCEPT: 49 dBm typical HARMONIC DISTORTION: Minus 20 dBc max

@ 20W (6.0-18 GHz)

**PRIMARY POWER (Selected Automatically):** 90-264 VAC, 50/60 Hz, single phase, 600 watts maximum

#### 30/20S1G18B TYPICAL POWER OUTPUT WITH 6.0-18.0GHz BAND SELECTED

