The Model 40S6G18A 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 40S6G18A, when used with a sweep generator, will provide a minimum of 40 watts of RF power instantaneously from 6 to 18 GHz.

The Model 40S6G18A 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 40S6G18A 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.
SPECIFICATIONS, 40S6G18A

RATED POWER OUTPUT ............................................... 40 watts minimum

POWER OUTPUT @ 3dB COMPRESSION
  Nominal ............................................................... 46 watts
  Minimum ............................................................. 37 watts

POWER OUTPUT @ 1dB COMPRESSION
  Nominal ............................................................... 40 watts
  Minimum ............................................................. 34 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) ............................................ 48 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 40 watts

THIRD ORDER INTERCEPT POINT .................................. 52 dBm typical

PRIMARY POWER (selected automatically) ....................... 90-132, 180-264 VAC
  50/60 Hz, single phase
  <1000 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) ......................................................... 41 kg (90 lb)
  (with enclosure removed for rack mounting) ............ 30 kg (68 lb)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>RF INPUT CONNECTOR</th>
<th>RF OUTPUT CONNECTOR</th>
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</thead>
<tbody>
<tr>
<td>40S6G18A</td>
<td>Precision N female, rear</td>
<td>Precision N female, rear</td>
</tr>
<tr>
<td>40S6G18AM2</td>
<td>Precision N female, front</td>
<td>Precision N female, rear</td>
</tr>
<tr>
<td>40S6G18AM3</td>
<td>Precision N female, front</td>
<td>Waveguide*, rear</td>
</tr>
<tr>
<td>40S6G18AM4</td>
<td>Same as 40S6G18A but with enclosure removed for rack mounting.</td>
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</tbody>
</table>

*Limited to 8–18GHz.