

**Model 100S1G6AB**  
**M1 through M4**  
**100 Watts CW**  
**1.0GHz–6GHz**



The Model 100S1G6AB is a solid-state, Class AB design, self-contained, air-cooled, broadband amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. Housed in a stylish contemporary cabinet, the unit is designed for benchtop use, but can be removed from the cabinet for immediate equipment rack mounting.

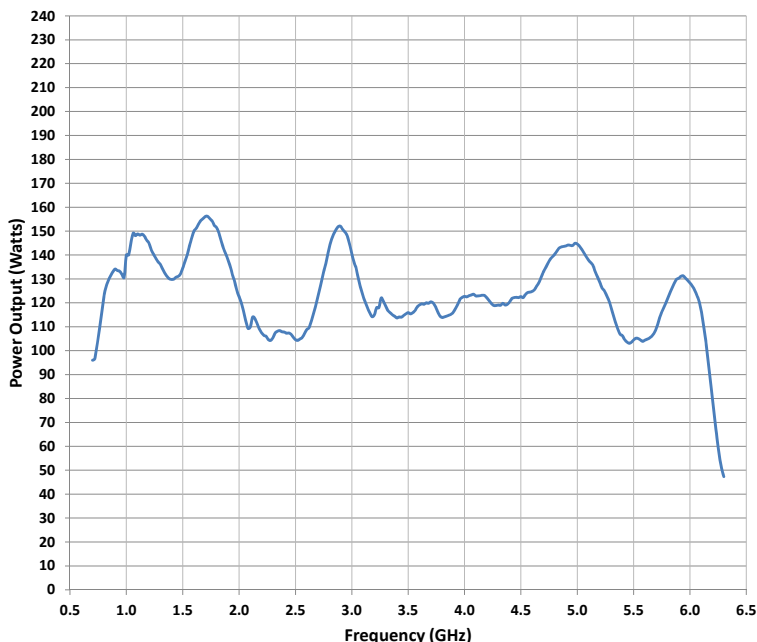
The 100S1G6AB, when used with a sweep generator, will provide a minimum of 100 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The

100S1G6AB is protected from RF input overdrive by an RF input leveling circuit which controls the RF input level to the RF amplifier first stage when the RF input level is increased above 0 dBm. The RF amplifier stages are protected from over-temperature by removing the DC voltage to them if an over-temperature condition occurs due to cooling blockage or fan failure. There is a digital display on the front panel to indicate the operate status and fault conditions if an over-temperature or power supply fault has occurred. The unit can be returned to operate when the condition has been cleared. 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 bus interface connector is located on the back panel and positive control of local or remote operation is assured by a Local/Remote switch on the front panel of the amplifier.

The low level of spurious signals and linearity of the Model 100S1G6AB make it ideal for use as a driver amplifier in testing wireless and communication components and subsystems. 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 etc. It is also suitable for EMC Test applications where undistorted modulation envelopes are desired.

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.

**100S1G6AB Power Output**



**SPECIFICATIONS, MODEL 100S1G6AB**

RATED POWER OUTPUT .....	100 watts minimum (1.0–6 GHz)
INPUT FOR RATED OUTPUT .....	1.0 milliwatt maximum
<b>POWER OUTPUT @ 3dB COMPRESSION</b>	
Nominal .....	100 watts
Minimum .....	80 watts
<b>POWER OUTPUT @ 1dB COMPRESSION</b>	
Nominal .....	50 watts
Minimum .....	30 watts
SMALL SIGNAL GAIN FLATNESS.....	±1.5 dB typical ±2.5 dB maximum
FREQUENCY RESPONSE .....	1.0–6 GHz instantaneously
GAIN (at maximum setting) .....	50 dB minimum
<b>GAIN ADJUSTMENT</b>	
(Continuous Range; 4096 steps remote).....	10 dB minimum
INPUT IMPEDANCE.....	50 ohms, VSWR 2.0:1 maximum
OUTPUT IMPEDANCE .....	50 ohms, nominal
MISMATCH TOLERANCE (@ Rated P <sub>OUT</sub> ) .....	3:1 at all load phase.
MODULATION CAPABILITY.....	Will faithfully reproduce AM, FM, or pulse Modulation appearing on the input signal
THIRD ORDER INTERCEPT .....	56 dBm typical
NOISE FIGURE .....	10 dB typical
HARMONIC DISTORTION.....	Minus 20 dBc typical at 80 watts
SPURIOUS.....	Minus 73 dBc Typ.
PHASE LINEARITY.....	±1.0 deg/100 MHz, Typ
PRIMARY POWER (Selected Automatically) .....	90-132, 180-264 VAC; 50/60 Hz, single phase 525 watts maximum
<b>CONNECTORS</b>	
RF.....	Type N female
<b>REMOTE INTERFACES</b>	
IEEE-488.....	24 pin
RS-232 .....	9 pin Subminiature D
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	RF INPUT	MODEL CONFIGURATIONS		WEIGHT	SIZE (W x H x D)
		RF OUTPUT			
100S1G6AB	Type N female, front	Type N female, front		28.4 kg (62.5 lbs)	50.3 x 20.3 x 54.6 cm 19.8 x 8.0 x 21.5 in
100S1G6ABM1	Type N female, rear	Type N female, rear		28.4 kg (62.5 lbs)	50.3 x 20.3 x 54.6 cm 19.8 x 8.0 x 21.5 in
100S1G6ABM2	Same as 100S1G6AB; enclosure removed for rack mounting			20.2 kg (44.5 lbs)	48.3 x 17.8 x 54.6 cm 19.0 x 7.0 x 21.5 in
100S1G6ABM3	Same as 100S1G6ABM1; enclosure removed for rack mounting			20.2 kg (44.5 lbs)	48.3 x 17.8 x 54.6 cm 19.0 x 7.0 x 21.5 in
100S1G6ABM4	Type N female, front	Type N female, rear		28.4 kg (62.5 lbs)	50.3 x 20.3 x 54.6 cm 19.8 x 8.0 x 21.5 in