



Model 900S1G4
900 Watts CW
0.8GHz–4.2GHz

The Model 900S1G4 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 900S1G4, when used with a sweep generator, will provide a minimum of 900 watts of RF power instantaneously from 0.8 to 4.2 GHz.

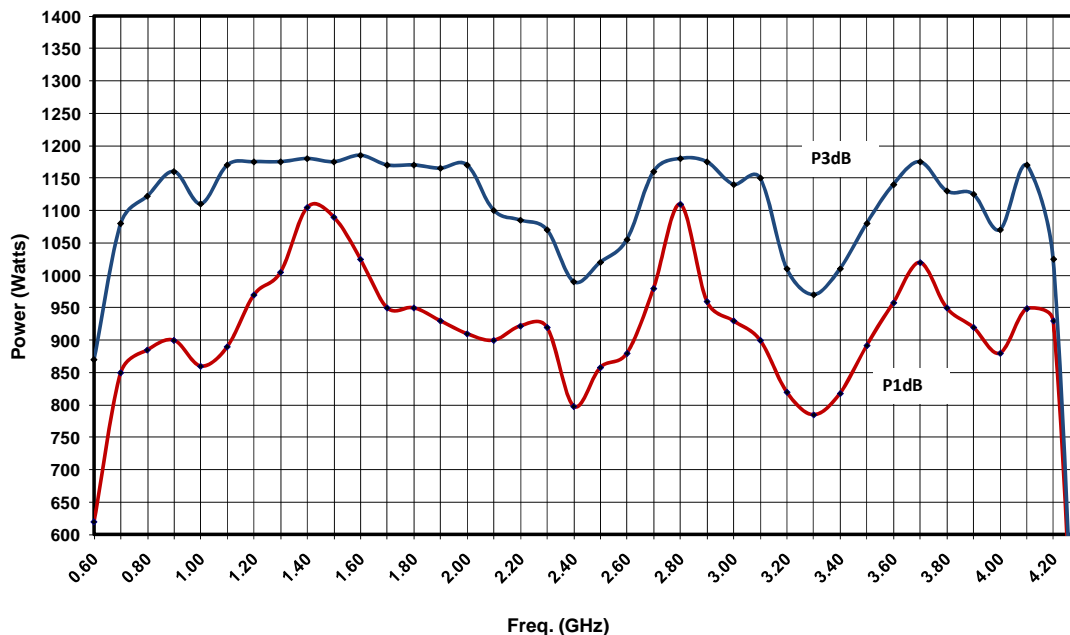
The Model 900S1G4 is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a graphic Liquid Crystal Display, menu assigned softkeys, a single rotary knob, and a dedicated power on/off switch to offer extensive control and status reporting capability. The display provides operational presentation of Forward Power and Reflected Power plus control status and reports of internal amplifier status. Special features include a gain control and RF output level 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 900S1G4 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 900S1G4 is part of AR's Expandable Power concept, which gives the amplifier much more versatility. The 900S1G4 consists of three 350S1G4 sub-amplifiers housed in a single equipment rack with a controller. The 900S1G4 can function as one amplifier or be separated and operate as three separate 350S1G4 amplifiers which can be used independently. The 900S1G4 can be upgraded in the future to an 1200S1G4 by simply adding one more 350S1G4 sub-amplifier, upgrading the controller and performing minor tuning.

900S1G4 Typical Power Output



SPECIFICATIONS, MODEL 900S1G4

RATED OUTPUT POWER	0.8–4.2 GHz: 900 watts minimum
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum
POWER OUTPUT @ 3 dB COMPRESSION	
Nominal	1000 watts
Minimum	875 watts
POWER OUTPUT @ 1dB COMPRESSION	
Nominal	850 watts
Minimum	725 watts
FLATNESS.....	±2.5 dB maximum
FREQUENCY RESPONSE	0.8 – 4.2 GHz instantaneously
GAIN (at maximum setting)	59.6 dB minimum
GAIN ADJUSTMENT.....	20 dB minimum
INPUT IMPEDANCE.....	50 ohms, VSWR 2.0:1 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 <i>Application Note #27</i>
MODULATION CAPABILITY	Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal
HARMONIC DISTORTION	Minus 20 dBc maximum at 900 watts
THIRD ORDER INTERCEPT POINT	68 dBm typical
RF POWER DISPLAY	Digital, forward and reflected
PRIMARY POWER	100-240 VAC 50/60 Hz, single phase 6300 watts
CONNECTORS	
RF input	Type N female on front panel
RF output	Type 7/8 EIA on rear panel
Remote Interfaces	
IEEE-488.....	24 pin
RS-232	9-pin sub-D
RS-232 (fiber-optic)	Type ST
USB 2.0	Type B
Ethernet	RJ-45
Safety Interlock.....	15 pin female subminiature D on rear panel
COOLING.....	Forced air (self contained fans) enters front and bottom
WEIGHT (approximate)	340.2 kg (750 lbs)
SIZE (W x H x D) (2 cabinets)	56.1 x 173 x 82.3 cm (22.1 x 68.0 x 32.4 in)