



**Model 150S4G11,  
M1, M2  
150 Watts CW  
4.0 GHz–10.6 GHz**

The Model 150S4G11 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 150S4G11, when used with a sweep generator, will provide a minimum of 150 watts of RF power instantaneously from 4 to 10.6 GHz.

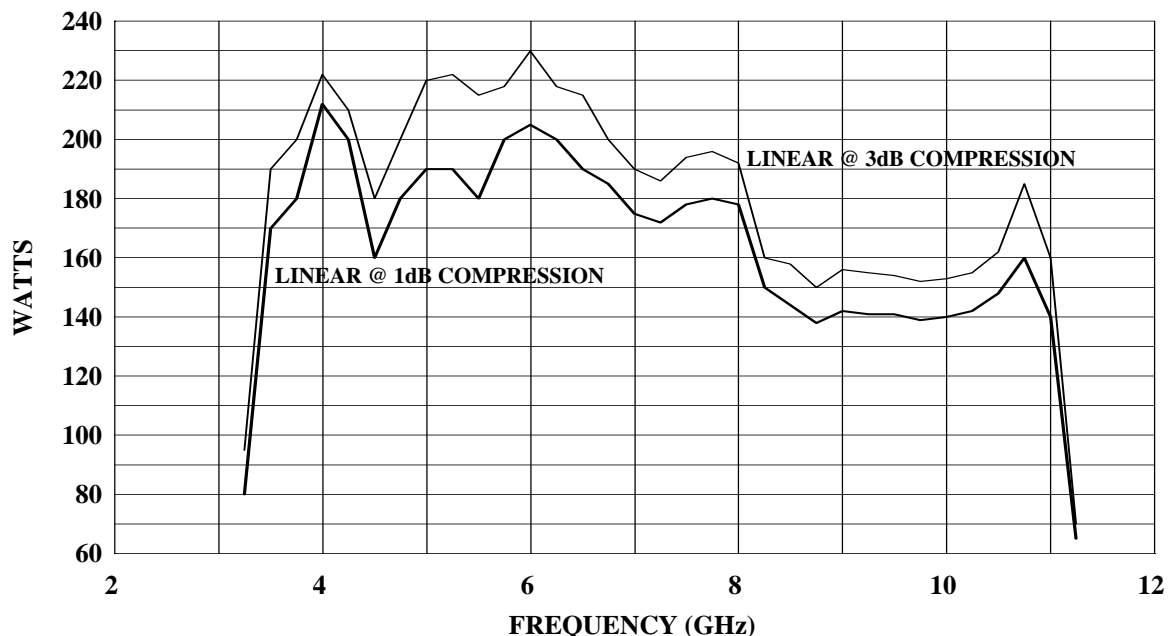
The Model 150S4G11 is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a graphic Liquid Crystal Display, menu assigned softkeys, a single rotary knob, and a dedicated power on/off switch to offer extensive control and status reporting 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, internal/external automatic level control (ALC) with front panel control of the ALC threshold, pulse input capability and RF output level protection. Also included is an internal RF detector which provides an output for use in self-testing or operational modes.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format, RS-232 hardware 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 150S4G11 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, as well as 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 150S4G11 is part of AR's *Expandable Power* concept, which gives the amplifier much more versatility. The 150S4G11 consists of eight 20S4G11A sub-amplifiers housed in a single equipment rack with a controller. The 150S4G11 can function as one amplifier or be separated and operate as eight separate 20S4G11A amplifiers which can be used independently.

**150S4G11 TYPICAL POWER OUTPUT**



## SPECIFICATIONS, MODEL 150S4G11

RATED POWER OUTPUT .....	150 watts minimum
<b>POWER OUTPUT @ 3dB COMPRESSION</b>	
Nominal .....	155 watts
Minimum .....	145 watts
<b>POWER OUTPUT @ 1dB COMPRESSION</b>	
Nominal .....	145 watts
Minimum .....	135 watts
FLATNESS.....	±2.5 dB typical ±3.5 dB maximum
FREQUENCY RESPONSE .....	4.0–10.6 GHz instantaneously
INPUT FOR RATE OUTPUT .....	1.0 milliwatt maximum, 0 dBm
GAIN (at maximum setting) .....	51.8 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. *See Application Note #27.
MODULATION CAPABILITY.....	Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal
HARMONIC DISTORTION .....	Minus 20 dBc maximum at 150 watts
THIRD ORDER INTERCEPT POINT .....	59 dBm typical
RF POWER DISPLAY .....	Digital, forward, and reflected
PRIMARY POWER (selected automatically).....	90-132, 180-264 VAC 50/60 Hz, single phase <4500 watts maximum
<b>CONNECTORS</b>	
RF Input .....	See Model Configurations
RF Output .....	Type N female on rear panel
External Leveling Inputs .....	Type BNC female on front panel
Pulse Modulation Input.....	Type BNC female on front panel
Detected RF Output .....	Type BNC female on front panel
<b>REMOTE INTERFACES</b>	
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)
WEIGHT (approximate) .....	345 kg (760 lbs)
SIZE (W x H x D).....	112.3 x 152.4 x 67.3cm (44.2 x 60 x 26.5 in)

### MODEL CONFIGURATIONS

Model	RF Input	RF Output	Fwd/Rev Sample Ports (-40 dB)
150S4G11	Type N female, front	Type N, rear	N/A
150S4G11M1	Type N female, rear	Type N, rear	N/A
150S4G11M2	Type N, rear	Type N, front	Type N female, front
The 150S4G11M2 has an internal coupler. The forward and reflected output sample ports are Type N connectors located on the front panel. Output power is reduced due to additional directional coupler loss.			
Rated Power.....140 watts			
Power Output @ 3 dB compression.....135 watts			
Power Output @ 1 dB compression.....130 watts			