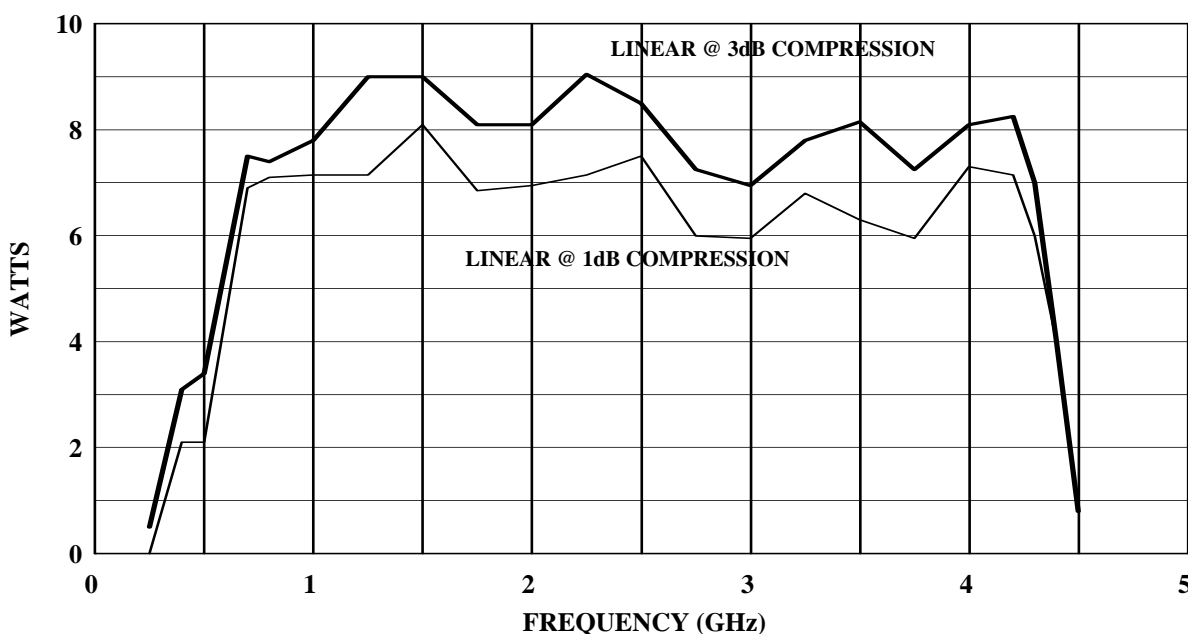




**Model 5S1G4,  
M1 through M4  
5 Watts CW  
0.8–4.2GHz**

The Model 5S1G4 is a solid state, self-contained, air-cooled, broadband amplifier designed for applications where instantaneous bandwidth and high gain 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 5S1G4, when used with a sweep generator, will provide a minimum of 5 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The 5S1G4 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 fault lamp on the rear panel to indicate an over temperature or power supply fault condition. The unit can be returned to operate when the condition has been cleared.

**5S1G4 TYPICAL POWER OUTPUT**



## SPECIFICATIONS, MODEL 5S1G4

RATED POWER OUTPUT .....	6.5 watts minimum
INPUT FOR RATED OUTPUT .....	1.0 milliwatt maximum
<b>POWER OUTPUT @ 3 dB COMPRESSION</b>	
Nominal .....	8 watts
Minimum .....	6.5 watts
<b>POWER OUTPUT @ 1 dB COMPRESSION</b>	
Nominal .....	7 watts
Minimum .....	5 watts
FLATNESS .....	±1.5 dB typical ±2.0 dB maximum
FREQUENCY RESPONSE .....	0.8 -4.2 GHz instantaneously
INPUT FOR RATED OUTPUT .....	1.0 milliwatt maximum
GAIN (at maximum setting) .....	37 dB minimum
GAIN ADJUSTMENT (Continuous Range) .....	10 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.
MODULATION CAPABILITY .....	Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal
HARMONIC DISTORTION .....	Minus 20 dBc maximum at 5 watts
THIRD ORDER INTERCEPT POINT .....	49 dBm typical
PRIMARY POWER (Selected Automatically) .....	90-132, 180-264 VAC 50/60 Hz, single phase 150 watts maximum
COOLING .....	Forced air (self contained fans)

\* See Application Note #27

## MODEL CONFIGURATIONS

Model Number	RF Input	RF Output	Weight	Size (W x H x D)
5S1G4	Type N female Front Panel	Type N female Front Panel	17.2 Kg (38.0 lb)	50.3 x 15.5 x 30 cm 19.8 x 6.1 x 11.8 in
5S1G4M1	See Individual Specification Sheet			
5S1G4M2	Same as 5S1G4 with enclosure removed for rack mounting		12.2 Kg (27.0 lb)	48.3 x 13.3 x 28.7 cm 19.0 x 5.25 x 11.3 cm
5S1G4M3	Same as 5S1G4M4 with enclosure removed for rack mounting		12.2 Kg (27.0 lb)	48.3 x 13.3 x 28.7 cm 19.0 x 5.25 x 11.3 in
5S1G4M4	Type N female Rear Panel	Type N female Rear Panel	17.2 Kg (38.0 lb)	50.3 x 15.5 x 30 cm 19.8 x 6.1 x 11.8 in
5S1G4M5	Obsolete			