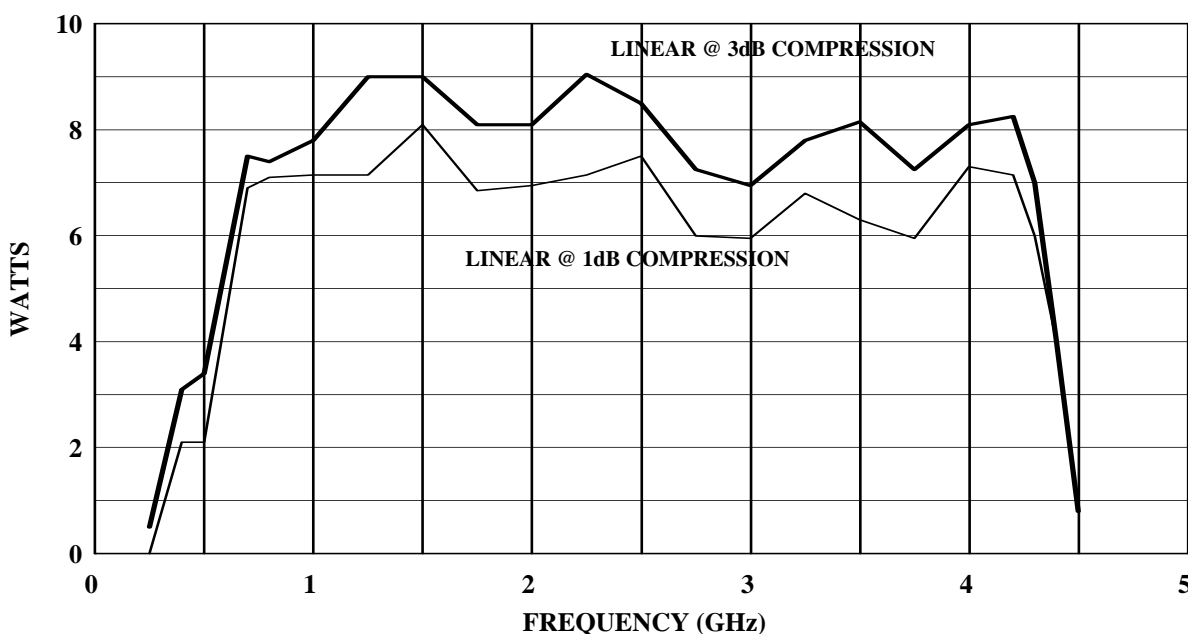




**Model 5S1G4,
M1 through M4
5 Watts CW
0.8–4.2GHz**

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 |
| POWER OUTPUT @ 3 dB COMPRESSION | |
| Nominal | 8 watts |
| Minimum | 6.5 watts |
| POWER OUTPUT @ 1 dB COMPRESSION | |
| 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 | | | |