



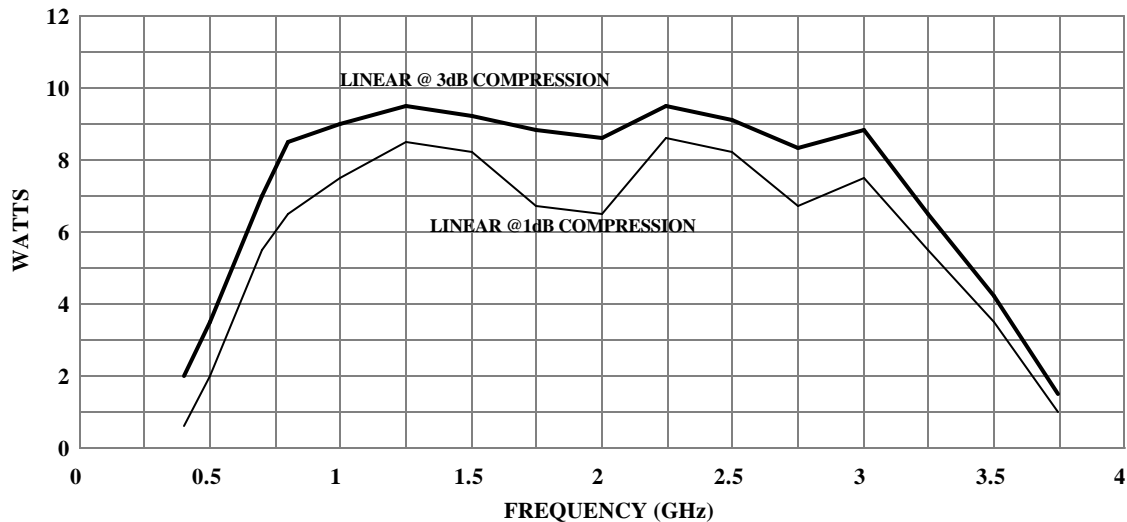
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MODEL 5S1G4M1
5 WATTS CW
800 MHz – 3.0 GHz

The Model 5S1G4M1 is designed for 19 inch equipment rack mounting. The unit is a solid state, self-contained, air-cooled, broadband amplifier designed for applications where instantaneous bandwidth and high gain are required. Quadrature coupled circuitry is utilized in the high power stages to lower distortion and improve stability. The 5S1G4M1, when used with a sweep generator, will provide a minimum of 5 watts of RF power. Included is a front panel gain control that permits the operator to conveniently set the desired output level. The 5S1G4M1 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.

The 5S1G4M1 is optimized for Power Output and 3rd Order Interval Performance to 3 GHz.

5S1G4M1 TYPICAL POWER OUTPUT



SPECIFICATIONS

Model 5S1G4M1

RATED POWER OUTPUT	<i>6.5 watts minimum</i>
INPUT FOR RATED OUTPUT	<i>1.0 milliwatt maximum</i>
POWER OUTPUT @ 3 dB COMPRESSION	
<i>Nominal</i>	<i>8 watts</i>
<i>Minimum</i>	<i>6.5 watts</i>
POWER OUTPUT @ 1 dB COMPRESSION	
<i>Nominal</i>	<i>7 watts</i>
<i>Minimum</i>	<i>5 watts</i>
FLATNESS	<i>±1.0 dB typical</i> <i>±1.5 dB maximum</i>
FREQUENCY RESPONSE	<i>800 MHz – 3.0 GHz instantaneously</i>
INPUT FOR RATED OUTPUT	<i>1.0 milliwatt maximum</i>
GAIN (at maximum setting)	<i>40 dB minimum</i>
GAIN ADJUSTMENT (Continuous Range)	<i>10 dB minimum</i>
INPUT IMPEDANCE	<i>50 ohms, VSWR 2.0:1 maximum</i>
OUTPUT IMPEDANCE	<i>50 ohms, nominal</i>
MISMATCH TOLERANCE*	<i>100% of rated power without foldback. Will operate without damage or oscillation with any magnitude and phase of source and load impedance.</i>
MODULATION CAPABILITY	<i>Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal</i>
HARMONIC DISTORTION	<i>Minus 20 dBc maximum at 5 watts</i>
THIRD ORDER INTERCEPT POINT	<i>49 dBm typical</i>
PRIMARY POWER (Selected Automatically)	<i>90-132, 180-264 VAC</i> <i>50/60 Hz, single phase</i> <i>150 watts maximum</i>
RF CONNECTORS	<i>Type N female on front panel</i>
COOLING	<i>Forced air (self contained fans)</i>
WEIGHT	<i>12.2 kg (27.0 lb)</i>
SIZE (W x H x D) (without cabinet)	<i>48.3 x 13.3 x 28.7 cm</i> <i>19.0 x 5.25 x 11.3 in</i>

* See Application Note #27