



50W1000C

- 50 Watts CW
- 50MHz-1000MHz



Features

The Model 50W1000C is a solid-state, self-contained, air-cooled, broadband amplifier designed for applications where instantaneous bandwidth, high gain and linearity 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 Model 50W1000C, when used with a sweep generator, will provide a minimum of 50 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The

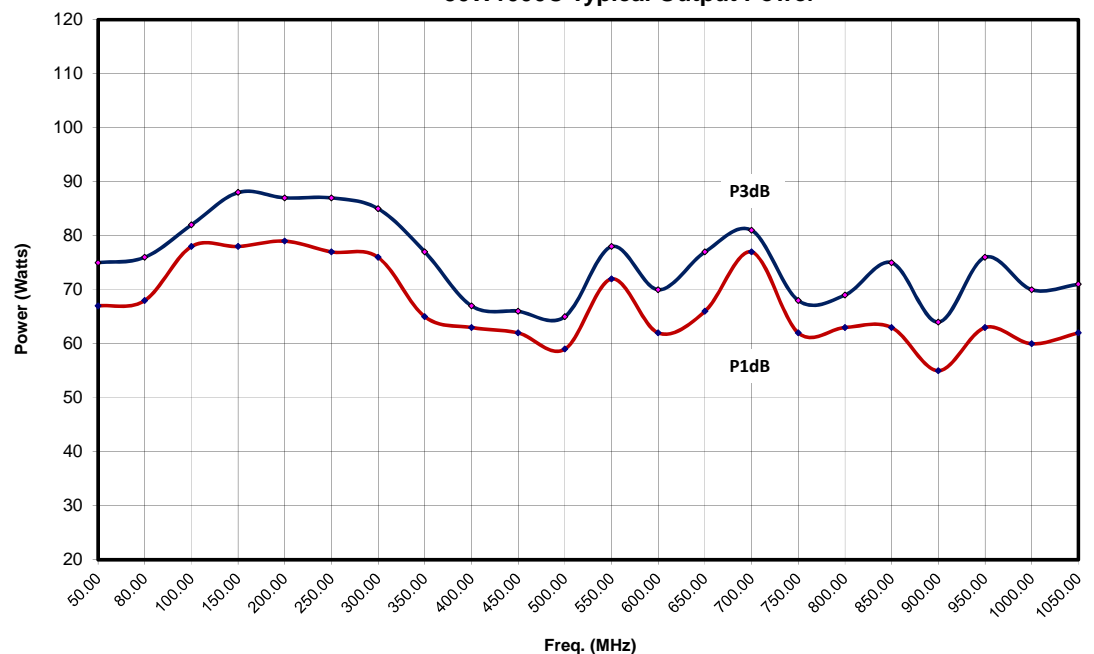
50W1000C is protected from RF input overdrive by an RF input leveling circuit which controls the RF input level to the RF amplifier first stage when the RF input level is increased above 0dBm. The RF amplifier stages are protected from over-temperature by re-

moving the DC voltage to them if an over-temperature condition occurs due to cooling blockage or fan failure. There is a digital display on the front panel to indicate the operate status and fault conditions if an over-temperature or power supply fault has occurred. The unit can be returned to operate when the condition has been cleared.

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 bus interface connector is located on the back panel and positive control of local or remote operation is assured by a Local/Remote switch on the front panel of the amplifier.

The export classification for this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

50W1000C Typical Output Power



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Specifications

RATED OUTPUT POWER: 50 watts minimum

INPUT FOR RATED OUTPUT: 1.0 mW Max

POWER OUTPUT @ 3dB COMPRESSION:
Nominal: 70 watts, Minimum: 55 watts

POWER OUTPUT @ 1dB COMPRESSION:
Nominal: 60 watts, Minimum: 45 watts

FLATNESS: ± 1.0 dB typical, ± 1.5 dB maximum

FREQUENCY RESPONSE: 50-1000 MHz instantaneously

GAIN (at maximum setting): 48 dB minimum

GAIN ADJUSTMENT (Continuous Range): 20 dB minimum

INPUT IMPEDANCE: 50 ohms, VSWR 1.5:1 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 input signal.

THIRD ORDER INTERCEPT: 55 dBm typical

NOISE FIGURE: 8 dB maximum, 6 dB typical

HARMONIC DISTORTION: Minus 20 dBc maximum at 50 watts, -30 dBc typical at 50 watts

SPURIOUS: Minus 73 dBc typical

PRIMARY POWER (selected automatically):
90-264 VAC, 50/60Hz, 250 watts

CONNECTORS:

RF Input: N female, front

RF Output: N female, front

REMOTE INTERFACES:

IEEE-488: 24-pin female

RS-232: 9-pin subminiature D (female)

Fiber optic: ST Conn Tx and Rx RS-232

USB 2.0: Type B

Ethernet: RJ-45

COOLING: Forced air (self contained fans)

WEIGHT:

With Cabinet 17.3 kg (38 lbs)

Without Cabinet 8.6 kg (19 lbs)

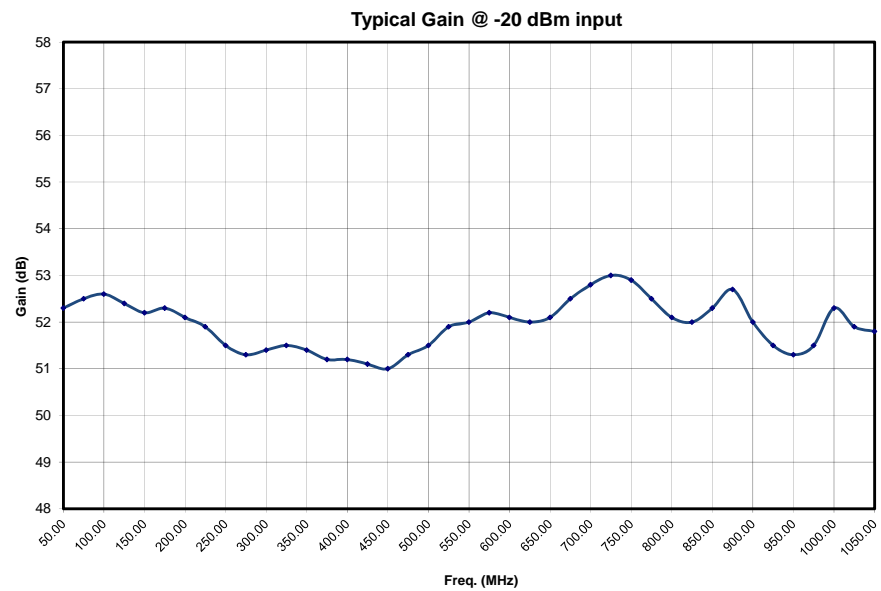
SIZE (W x H x D):

With cabinet: 50.3 x 15.5 x 55.1 cm (19.8 x 6.1 x 21.7 in)

Without Cabinet: 48.3 x 13.2 x 55.1 cm (19 x 5.2 x 21.7 in)

EXPORT CLASSIFICATION: EAR99

Graphs



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