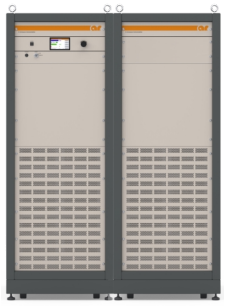
4000W1000B

80 MHz - 1000 MHz, Class A Solid State Amplifier



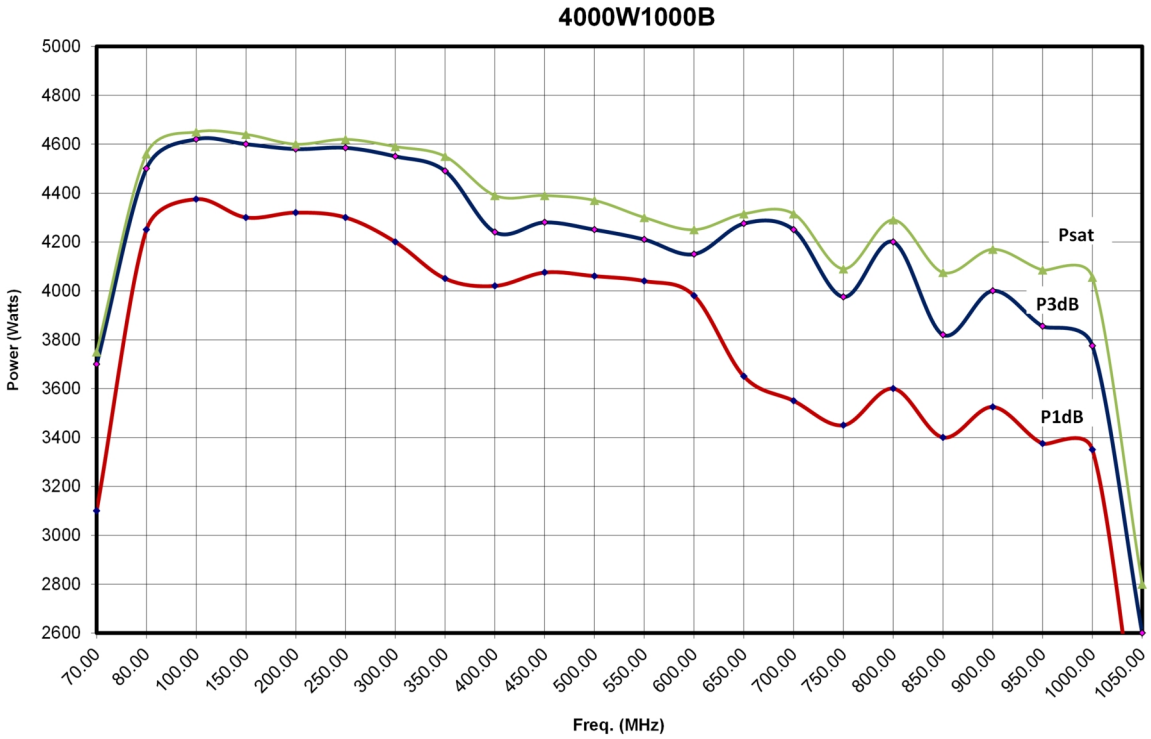
The Model 4000W1000B is a self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. When used with an RF sweep generator, nominally provides over 4000 watts of RF power and a minimum 2500 watts of P1dB power.

The amplifier is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a color LCD touch screen and a single rotary knob to offer status reporting and control capability. The display provides operational presentation of Forward Power and Reflected Power plus amplifier status. All amplifier control functions, and status indications are available remotely in GPIB/IEEE- 488 format and RS-232 hardware 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 keylock 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.

MAIN FEATURES

- **Class A Operation**
- **Touch Screen Display**
- **100% Mismatch Tolerant**
- **Scalable Modular Construction**
- **Ethernet, USB, GPIB, RS-232 Remote Interface**
- **3 Year Warranty**
- **Applications: Radiated immunity (ISO, IEC, MIL), Telecom Component Test and Aerospace & Defence**



Technical Specifications

Frequency Range	80 - 1000 MHz
Rated Output Power	3700W (min)
Power Output @ 1dB Compression	80-500MHz - 3000W (min) - 3500KW (typ)
Power Output @ 1dB Compression	500-1000MHz - 2500W (min)
Input for Rated Output	0dBm (1mW)
Small Signal Gain	66 dB
Gain Variation (max) ±	+/- 1.5dB (typ) | +/- 2.0dB (max) dB
Gain Control Adjust When Below P1dB	20 dB
Harmonics @ P1dB (min)	-20 dBc
Spurious (typ)	-73 dBc
Input VSWR	1.3:1 (typ) - 1.5:1 (max)
Output VSWR	2:1 (typ)
Output Impedance	50 Ohm
3rd Order Intercept Point	75 dB
Noise Figure (typ)	8 dBm
Modulation Formats	AM, FM, PM, ODFM
Maximum Input Power (no damage)	13 dBm
Output VSWR Tolerance	6:1 (Foldback)
Stability	Unconditional

General Specifications

Acoustic Noise (measured @ 1 m)	64 dBA
Supply Frequency	47 to 63 (Hz)
Three Phase 5 Wire WYE Low Line	200 to 240 VAC
Three Phase 5 Wire WYE	380 to 415 VAC
Three Phase 4 Wire Delta	200 to 240 VAC
Supply Power (max)	18 KVA

Mechanical Specifications

RF Input Connector	Type-N Female (Rear Panel)
RF Output Connector	Type-1-5/8 Female (Rear Panel)
RF Sample Port Connectors	Type-N Female, (coupling factor 70 dB typical)
Safety Interlock	15-Pin Subminiature D Female
Dimentions (With Cabinet) (W x H x D)	(40U) 111.8 x 177.8 x 97.6 cm (44 x 70 x 38.4 in)
Weight (With Cabinet)	432 kg (950 lb)
Cooling System	Forced air (self contained fans)
Com. Interface	IEEE-488 / RS-232 / RS-232 (fiber optic) / USB 2.0 / Ethernet

Environmental Specifications

Ambient Running Temperature	+5°C to +40°C
Storage Temperature	-20°C to +50°C
Maximum Altitude	up to 2000m
Shock and Vibration	Normal Truck Transport

Regulatory Compliance (CE)

EMC	EN 61326-1
Safety	UL 61010-1
RoHS	DIRECTIVE 2011-65-EU
Export Classification	No Licence Required