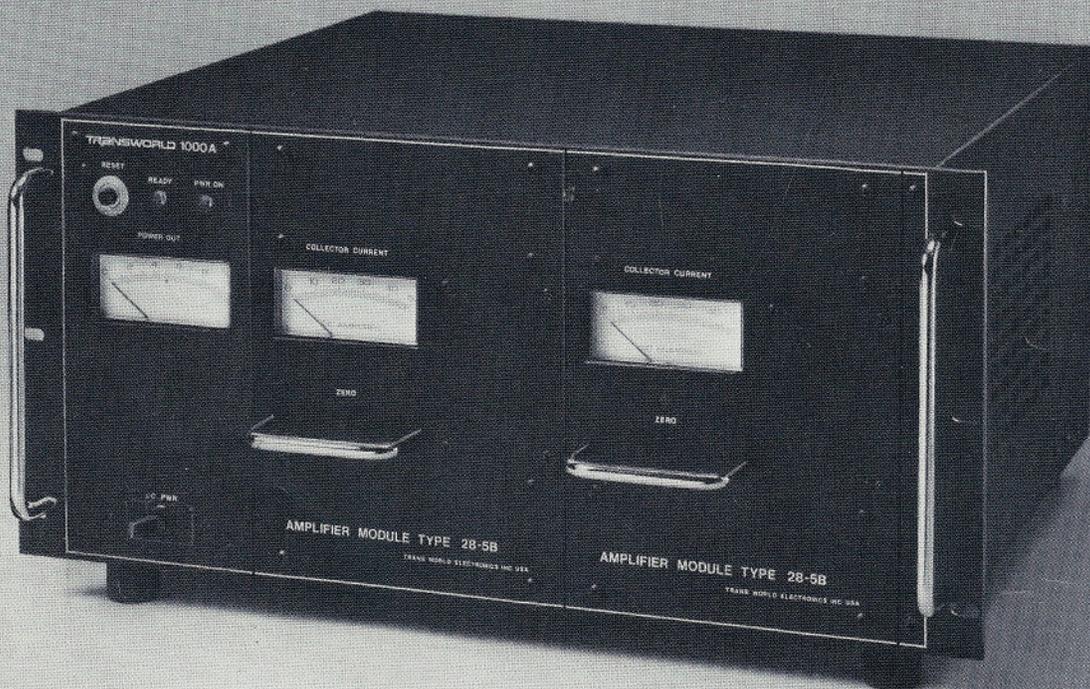


# TRANSWORLD TW1000A

1 KW  
HF LINEAR AMPLIFIER



- 1000 Watts Output PEP & Average
- Broadband 1.6-30MHz
- Continuous Commercial Service
- 28V DC Operation
- Optional AC Power Supplies
- Plug In Power Modules
- Seven Pole Filters
- SITOR ARQ Capability

The TW1000A Linear Amplifier is used with transmitters or transceivers in the 100W class. The drive requirements are approximately 70-80W and the power output is 1000W peak or average. The amplifier uses on-demand cooling fans and is rated for key down continuous operation in all modes of service. The high performance elliptic function filters are switch selected from the front panel or may be remote controlled from the exciter. No tuning adjustments are required and a special circuit detects severe mismatches and turns the amplifier off. The two plug in 500W modules are replaceable from the front panel. Two panel meters monitor the collector currents to each module and immediately detect unbalance or faults. A separate meter measures power output.

### POWER SOURCES

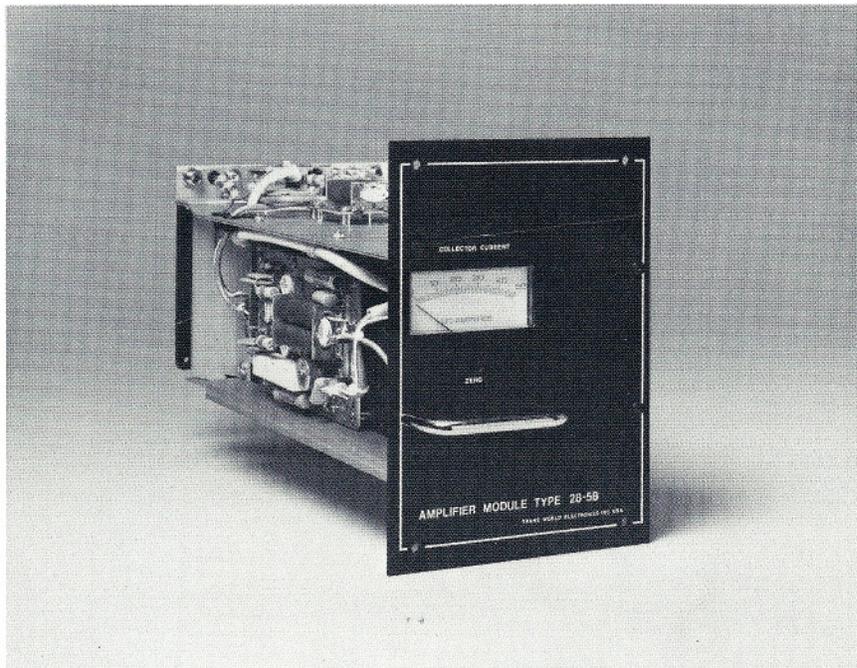
The TW1000A amplifier operates direct from any 28V negative ground high current power source. Two separate 110/230V, 50/60Hz rack mounted power supplies are available. The PS500 is rated at 50A output and will operate the TW1000A at 1000W PEP in SSB service or 500-600W FSK. The PS1000 is rated at 100A and will operate the amplifier at a continuous 1000W (average) power output in FSK or similar modes with 25A reserve capability for the exciter or other equipment.

### TECHNICAL DESCRIPTION

Each of the two TW1000A plug-in modules uses two separate push pull broadband amplifiers and a combiner. The amplifiers are mounted on each side of the module on massive heat-sinks. A fan is mounted on the rear of the module and is activated by separate thermostats on each heat-sink. The combined output of the two modules pass through the high performance harmonic filters and a VSWR bridge which supplies the ALC voltage to control the exciter drive level.

### SITOR ARQ OPERATION

The TW1000A is supplied as standard with high speed antenna relay and control circuitry for SITOR ARQ service.



## TECHNICAL SPECIFICATIONS

POWER OUTPUT: 1000W PEP SSB, 1000W AVG FSK, CW

DUTY CYCLE: Continuous transmit

FREQUENCY RANGE: 2-30MHz Broadband, (1.6-2MHz at reduced harmonic specifications)

INTERMODULATION DISTORTION: -30dB typical (dependent on exciter)

HARMONICS AND SPURIOUS: -60dB

HARMONIC FILTERS: 2-3MHz, 3-5MHz, 5-8MHz, 8-13MHz, 13-20MHz, 20-30MHz

DRIVE LEVEL: Approximately 70-80W

OUTPUT IMPEDANCE: 50Ω <2:1 VSWR

ALC OUTPUT: Compatible with TWC Transceivers and Exciters. Open collector transistor with conduction level proportional to output. Selectable for peak or average output.

POWER REQUIREMENTS: SSB 28V, 40A AVG

FSK 28V, 60-80A AVG

CIRCUIT BREAKER: 100A Magnetic

WEIGHT: 52 lbs. (23.6 kg)

SIZE: 8.8" x 19" x 15.4" (22.2 x 48.3 x 38.9 cm)

RACK MOUNT: 19"W x 8.75"H (48.3 x 22.2 cm)

Specifications are subject to change without notice.