TW500D/TW1000D

HF Commercial Amplifiers

HF COMMERCIAL SUPPORT

DATRON

500W & 1000W HF AMPLIFIER

The TW500D and TW1000D are 500W and 1000W HF linear RF Amplifiers designed for use with exciters operating in the 1.6 to 30 MHz frequency band to form high-power HF systems. The amplifiers interface seamlessly with Datron's TW7000 HF transceiver and also can be used with any transmitter having an appropriate power output and compatible control interface.

The amplifiers' combination of functionality, reliability and affordability makes them one of the best-valued high power RF amplifiers on the market today. Their linearity and continuous duty rating makes them ideal for all HF voice and high-speed data applications.

They are completely self-contained units, integrating RF amplifiers, harmonic filters, protective circuitry, and power supplies in a single chassis. The amplifiers are entirely solid-state, broadband, and housed in a gray anodized-aluminum rack-mount package suitable for standard 19" racks.

The amplifiers are fully protected against antenna load mismatch and will tolerate open and short circuit conditions at the antenna port without suffering damage. The amplifiers' protective circuitry makes them essentially "bulletproof," as they contain protection against excessive temperature, over-voltage and over-current.

The amplifiers employ harmonic filters to provide high attenuation of transmitter harmonics and automatic level control (ALC) to maintain a stable RF output over the entire operating frequency range and over fluctuating temperatures. Front panel indicators, including forward and reverse RF power meters, are available to display amplifier status at all times.

They are suitable for use with Datron's RAT1000C antenna tuner and narrowband antennas, or 50 ohm broadband antennas.

- 1.6 to 30 MHz
- Continuous Duty Operation, Voice/Data
- Internal AC/DC Power Supply
- Full Antenna VSWR Protection
- FWD/REF RF Power Metering
- Over Temperature/Current Protection
- Over-Drive/Imbalance Protection
- Front Panel Status indicators
- 19" Rack-Mount Package

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DATRON
Performance You Require. Value You Expect.®

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Certification # 08.347.1
ISO 9001:2008
Registered Quality System
Datron World Communications, Inc.

TW500D

GENERAL

• RF POWER OUTPUT	500W, PEP or Average
• FREQUENCY RANGE	1.6 to 30 MHz
• HARMONICS	-50 dBc (2 to 30 MHz)
• NON-HARMONIC PRODUCTS	-70 dBc (2 to 30 MHz)
• INTERMODULATION DISTORTION	-30 dB
• DUTY CYCLE	Continuous service
• RF DRIVE LEVEL	50W, maximum
• INPUT/OUTPUT IMPEDANCE	50 Ohms
• VSWR	≤ 2:1 with power rollback and bypass protection
• POWER REQUIREMENTS	110Vac, less than 20A; or 220Vac, less than 10A

MECHANICAL

• SIZE	8.8" x 19" x 15.3" (22.3cm x 48.3 cm x 38.9 cm); (H x W x D)
• RACK HEIGHT	5U
• WEIGHT	52 lbs. (23.6 kg)
• COOLING	Forced air
• COLOR	Gray

ENVIRONMENTAL

• TEMPERATURE	-20°C to +50°C operational, -40°C to +70°C storage
• HUMIDITY	95% @ +50°C

CONTROLS AND INDICATORS

• CONTROLS	Amplifier ON/OFF
• METERING	Forward RF power, Reflected RF power
• CONNECTORS	RF input, RF output, Control, Fault, Tuner
• INDICATORS (LED'S)	AC present, DC present, PTT, high VSWR, high DC current, high temperature, fault (bypass mode)

TW1000D

GENERAL

• RF POWER OUTPUT	1000W, PEP or Average
• FREQUENCY RANGE	1.6 to 30 MHz
• HARMONICS	-50 dBc (2 to 30 MHz)
• NON-HARMONIC PRODUCTS	-70 dBc (2 to 30 MHz)
• INTERMODULATION DISTORTION	-30 dB
• DUTY CYCLE	Continuous service
• RF DRIVE LEVEL	30-50W, nominal
• INPUT/OUTPUT IMPEDANCE	50 Ohms
• VSWR	≤ 2:1 with power rollback and bypass protection
• POWER REQUIREMENTS	220Vac, 20A, maximum

MECHANICAL

• SIZE	12.25" x 19" x 15.3" (31.1 cm x 48.3 cm x 38.9 cm); (H x W x D)
• RACK HEIGHT	7U
• WEIGHT	69.4 lbs. (31.5 kg)
• COOLING	Forced air
• COLOR	Gray

ENVIRONMENTAL

• TEMPERATURE	-20°C to +50°C operational, -40°C to +70°C storage
• HUMIDITY	95% @ +50°C

CONTROLS AND INDICATORS

• CONTROLS	Amplifier ON/OFF
• METERING	Forward RF power, Reflected RF power
• CONNECTORS	RF input, RF output, Control, Fault, Tuner
• INDICATORS (LED'S)	AC present, DC present, PTT, high VSWR, high DC current, high temperature, fault (bypass mode)

* Subject to export regulations Specifications subject to change without notice - rev 1009

Made in the USA

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