2500A225D

10 KHz - 225 MHz, Class A Solid State Amplifier

MAIN FEATURES

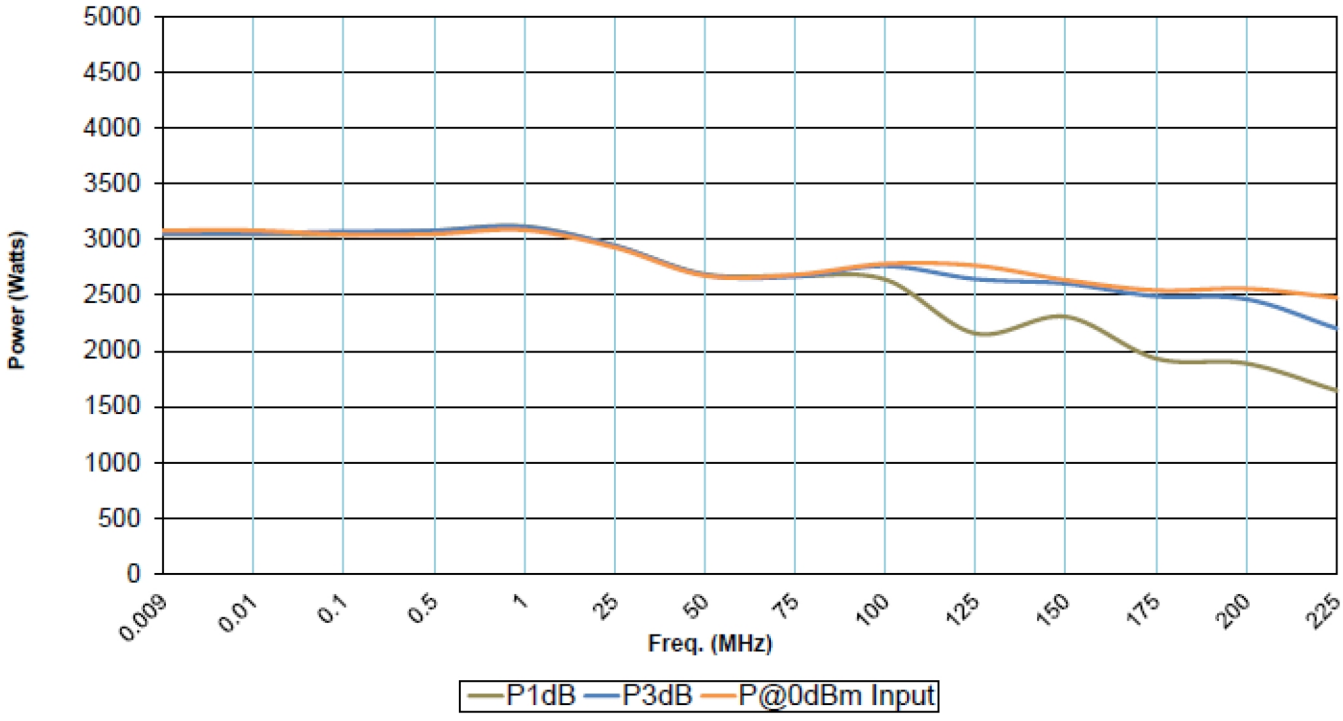
- **Class A Operation**
- **Touch Screen Display**
- **100% Mismatch Tolerant**
- **Scalable Modular Construction**
- **Ethernet, USB, GPIB, Fiber-optic & RS-232 Remote Interface**
- **3 Year Warranty**
- **Applications: Radiated immunity (ISO, IEC, MIL)**

The updated 2500A225D is a solid-state, Class A design, self-contained, air-cooled, broadband power amplifier. It is designed for applications requiring high gain, linearity, and instantaneous bandwidth, providing a minimum of 2.5 kW of RF power. The amplifier is equipped with protection from input overdrive beyond 0 dBm, as well as protection from various failure conditions including over-temperature and power supply faults.

Operational status and fault conditions are indicated on the front panel display. The amplifier control functions and status indications are accessible remotely using GPIB/IEEE-488, RS-232, fibre-optic serial, USB, or Ethernet. The interface connectors are located on the back panel, and local and remote operation can be managed using a switch on the front panel.

Standard RF sample ports allow for forward and reverse power monitoring. This high-power Class A amplifier is ideal for EMC test applications due to its low level of spurious signals and linearity. It can continue operation into high VSWR loads.

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.



Technical Specifications

Frequency Range	0.01 - 225 MHz
Rated Output Power	0.01-100MHz - 2500W (min) - 2800W (typ)
Rated Output Power	100-225MHz - 2000W (min) - 2300W (typ)
Power Output @ 3dB Compression	0.01-100MHz - 2500W (min) - 2800W (typ)
Power Output @ 3dB Compression	100-200MHz - 2000W (min) - 2300W (typ)
Power Output @ 3dB Compression	200-225MHz - 1800W (min) - 2000W (typ)
Power Output @ 1dB Compression	0.01-100MHz - 2000W (min) - 2400W (typ)
Power Output @ 1dB Compression	100-200MHz - 1500W (min) - 1900W (typ)
Power Output @ 1dB Compression	200-225MHz - 1300W (min) - 1500W (typ)
Input for Rated Output	0dBm (1mW)
Small Signal Gain	64 dB
Small Signal Gain Flatness (-20 dBm Input)	+/- 1.5dB (min) +/- 2.5dB (typ)
Gain Control Adjust When Below P1dB	20 dB
Harmonics @ P1dB H2 & H3	@1750W -30dBc (typ) / -20dBc (max)
Spurious (typ)	-70 dBc
Input VSWR	1.5:1 (max)
Output VSWR	2:1 (typ)
Output Impedance	50 Ohm
3rd Order Intercept Point	70 dB
Noise Figure (typ)	7 dBm
Modulation Formats	AM, FM, PM, ODFM
Maximum Input Power (no damage)	13 dBm
Output VSWR Tolerance	50% with Foldback > 6:1

General Specifications

Acoustic Noise (measured @ 1 m)	78 dBA
Supply Frequency	47 to 63 (Hz)
Three Phase 5 Wire WYE Low Line	See Configuration Table VAC
Three Phase 5 Wire WYE	See Configuration Table VAC
Supply Power (max)	10 KVA

Mechanical Specifications

RF Input Connector	Type-N Female
RF Output Connector	Type-7/16 Female
RF Sample Port Connectors	Type-N Female, (coupling factor 64 dB typical)
Safety Interlock	15-Pin Subminiature D Female
Dimentions (With Cabinet) (W x H x D)	26U Rack 57.4 x 136 x 67.1 cm (22.6 x 53.5 x 26.5 in)
Weight (With Cabinet)	204 kg (450 lbs)
Cooling System	Forced air (self contained fans)
Com. Interface	IEEE-488 / RS-232 / RS-232 (fibre optic) / USB 2.0 / Ethernet

Environmental Specifications

Ambient Running Temperature	5°C to +40°C
Storage Temperature	-20°C to +50°C
Maximum Altitude	2000 m
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

Available Configurations

Product	Configuration	Item #
2500A225D (HV)	Rear Panel N-Type RF Input, N-Type RF Sample Ports & 7/16 RF Output Connectors, HV Three Phase 380 - 415 VAC	10056987
2500A225D (LV)	Rear Panel N-Type RF Input, N-Type RF Sample Ports & 7/16 RF Output Connectors, LV Three Phase 200 - 240 VAC	10056984
2500A225DM1 (HV)	Front Panel N-Type RF Input, Rear Panel N-Type RF Sample Ports & 7/16 RF Output Connectors, HV Three Phase 380 - 415 VAC	10057151
2500A225DM1 (LV)	Front Panel N-Type RF Input, Rear Panel N-Type RF Sample Ports & 7/16 RF Output Connectors, LV Three Phase 200 - 240 VAC	10056990
2500A225DM2 (HV)	Rear Panel N-Type RF Input, 7/16 RF Output Connectors, Front Panel N-Type RF Sample Ports, HV Three Phase 380 - 415 VAC	10057153
2500A225DM2 (LV)	Rear Panel N-Type RF Input, 7/16 RF Output Connectors, Front Panel N-Type RF Sample Ports, LV Three Phase 200 - 240 VAC	10057152
2500A225DM5 (HV)	Front Panel N-Type RF Input, N-Type RF Sample Ports, Rear Panel 7/16 RF Output Connectors, HV Three Phase 380 - 415 VAC	10056996
2500A225DM5 (LV)	Front Panel N-Type RF Input, N-Type RF Sample Ports, Rear Panel 7/16 RF Output Connectors, LV Three Phase 200 - 240 VAC	10056993
2500A225DM7 (HV)	Front Panel N-Type RF Input, N-Type RF Sample Ports & 7/16 RF Output Connectors, HV Three Phase 380 - 415 VAC	10057047
2500A225DM7 (LV)	Front Panel N-Type RF Input, N-Type RF Sample Ports & 7/16 RF Output Connectors, LV Three Phase 200 - 240 VAC	10057033