

AR4i8-400

4.0 - 8.0 GHz 400 Watt P1dB Class A Solid State Amplifier



The Model AR4i8-400 solid-state, Class A design, self-contained, air-cooled, broadband power amplifier. It is designed for applications requiring instantaneous bandwidth, high gain, and linearity. The amplifier provides a minimum of 400 watts P1dB across its operating bandwidth of 4.0 - 8.0 GHz. It includes protection from input overdrive beyond 10 dBm, as well as protection from various failure conditions such as over-temperature and power supply faults.

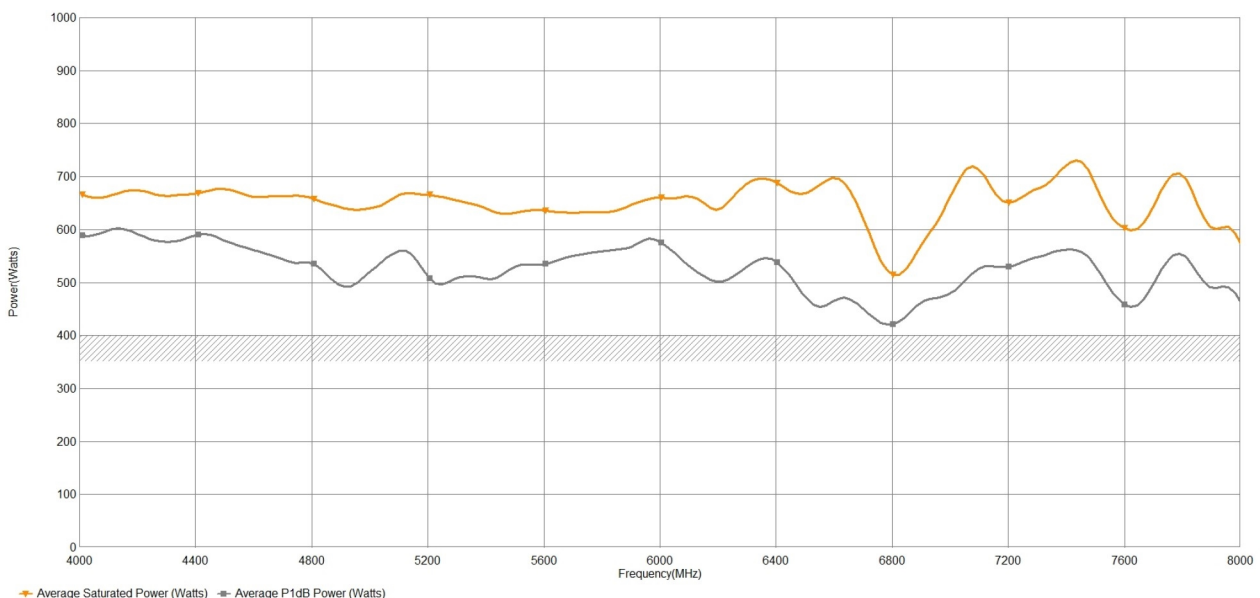
An easy-to-read front panel display shows the operational status and fault conditions. All amplifier control functions and status indications are available remotely using GPIB/IEEE-488, RS-232, USB, or Ethernet. Interface connectors are located on the back panel. The touchscreen on the front panel manages local and remote operation.

Its wide bandwidth also makes it suitable for 5G testing applications. The Class A design allows for continued operation into high VSWR loads, including open and short circuits, making it suitable for EMC Test applications including 7.125 GHz OEM standards.

The export classification for this equipment is 3A001. This equipment is controlled for export in accordance with the U.K. Export Administration Regulations. Diversion contrary to U.K. law is prohibited.

MAIN FEATURES

- **Class A Operation**
- **100% Mismatch Tolerant with no Foldback**
- **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	4.0 - 8.0 GHz
Rated Output Power	500W (min) - 580W (typ) Watts
Input for Rated Output	1 dBm
Power Output @ 1dB Compression	400W (min) - 420W (typ) Watts
Small Signal Gain	54 dB
Gain Control Adjust When Below P1dB	30 dB
Harmonics @ P1dB (typ)	-18 dBc
Spurious	-70 dBc
Input VSWR	2:1 (max) (typ)
Output VSWR	2:1 (typ) (typ)
Output Impedance	50 Ohm
3rd Order Intercept Point	66 dB > P1dB
Noise Figure	12 dB
Modulation Formats	AM, FM, PM, ODFM
Maximum Input Power (no damage)	10 dBm
Output VSWR Tolerance	Infinite any Phase (No Foldback)
Stability	Unconditional

General Specifications

Acoustic Noise (measured @ 1 M)	64 dBA
Supply Frequency	47 to 63 (Hz)
Supply Power (typ)	5.5 KVA
Three Phase 5 Wire WYE	See, "Available Configurations" chart below VAC
Three Phase 4 Wire Delta	See, "Available Configurations" chart below VAC

Mechanical Specifications

RF Input Connector	Type-N Female
RF Output Connector	WR350
Safety Interlock	Via rear panel mounted BNC-female
Dimensions (With Cabinet) (W x H x D)	60 x 111 x 80 cm (24 x 43.7 x 31.4 in) (25U)
Weight (With Cabinet)	220 Kg (485 lbs)
Cooling System	Forced air (self contained fans)
Com. Interface	IEEE-488 / RS-232 / 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 2000 M
Shock and Vibration	Normal Truck Transport

Regulatory Compliance

EMC	EN 61326-1
Safety	EN 61010-1
RoHS	DIRECTIVE 2011-65-EU
Export Classification	3A001

Available Configurations

Product	Configuration	Item #
AR4i8-400-003	Front Panel RF Connectors, 3 Phase, 5 Wire (3P+N+E), 380 to 415 VAC Line to Line	4-342034
AR4i8-400-004	Rear Panel RF Connectors, 3 Phase, 5 Wire (3P+N+E), 380 to 415 VAC Line to Line	4-342035
AR4i8-400-005	Front Panel RF Connectors, 3 Phase, 4 Wire (3P+E), 208 to 240 VAC Line to Line	4-342036
AR4i8-400-006	Rear Panel RF Connectors, 3 Phase, 4 Wire (3P+E), 208 to 240 VAC Line to Line	4-342037