AR4i8-050

4.0 - 8.0 GHz 50 Watt P1dB Class A Solid State Amplifier

The Model AR4i8-050 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 50 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.

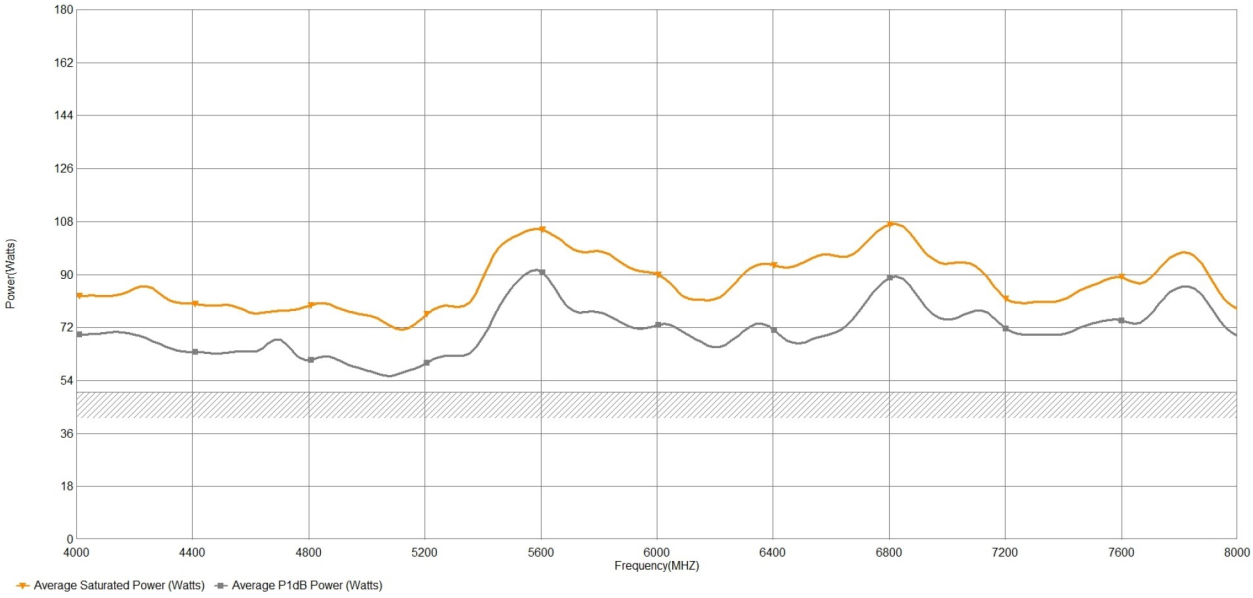
An easy-to-read front panel display shows the operational status and fault conditions. All amplifier control functions and status indications are available remotely using GPIB/IEEE-488, RS-232, USB, or Ethernet. Interface connectors are located on the back panel. The touchscreen on the front panel manages 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 NLR (No Licence Required). 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% Missmatch 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	60W (min) - 80W (typ) Watts
Input for Rated Output	1 dBm
Power Output @ 1dB Compression	50W (min) - 60W (typ) Watts
Small Signal Gain	47 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	58 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)	60 dBA
Supply Frequency	47 to 63 (Hz)
Supply Power (typ)	0.65 KVA
Supply Voltage Single Phase	90 to 264 VAC

Mechanical Specifications

RF Input Connector	Type-N Female
RF Output Connector	Type-N Female
Safety Interlock	Via rear panel mounted BNC-female
Dimentions (No Cabinet) (W x H x D)	48.3 x 17.8 x 61.5 cm (19.0 x 7.0 x 24.2 in) (4U)
Weight (No Cabinet)	20 Kg (44 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
Saftey	EN 61010-1
RoHS	DIRECTIVE 2011-65-EU
Export Classification	3A001

Available Configurations

Product	Configuration	Item #
AR4i8-050-001	Front Panel RF Connectors	4-342028
AR4i8-050-002	Rear Panel RF Connectors	4-342029