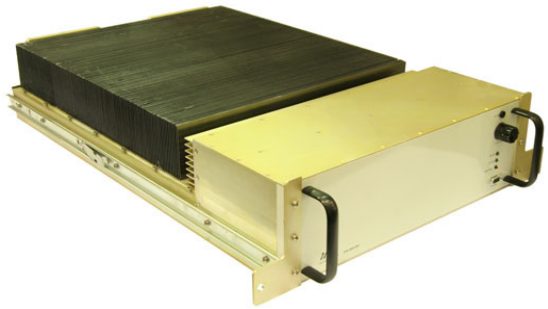
Unique Broadband Systems Ltd.

High Power Amplifier Module

Model: DHPA 1500

Product Features

- *High linearity PA for broadcast of DAB waveforms*
- *Multiple COFDM channel support*
- *Fully protected against input overdrive, temperature and output load VSWR conditions*
- *Integrated AC/DC power supply*
- *Remote control and self monitoring via RS485 interface*
- *HPA Monitor GUI software available for local PC control via RS232 interface (CD included)*
- *Minimum operational life expectancy of 10 years*



Frequency Band

L-Band: 1450 MHz - 1500 MHz

Product Description

The DHPA 1500 is designed to operate as a final amplification stage for a terrestrial L-Band transmitter or repeater system. It amplifies an input L-Band signal from a modulator or exciter to a digital average output power level of 280 Watts, while maintaining acceptable output emission levels.

The DHPA 1500 architecture is based on a solid state design operating in Class A/AB linear mode over a frequency range of 1450 MHz to 1500 MHz. The amplifier is fully protected against input overdrive, overheating and output load VSWR conditions. The protection circuits are all self correction, allowing the amplifier to be restored to its normal operating state upon removal of the fault condition.

The DHPA 1500 incorporates an internal automatic self leveling loop to maintain constant gain over the life of the equipment. The automatic gain control circuit will compensate for gain variations caused by changes in temperature and device aging. Depending on the application, the amplifier could be configured to operate in ALC mode, maintaining a constant output power level.

The DHPA 1500 is a field replaceable system component that includes an integrated AC/DC power supply and is designed for indoor installation. The modular design facilitates aggregating multiple units into high power or even redundant configurations.

High performance carbon finned heat sinks ensure reliable cooling. Fans must be installed above the heat sinks and are required to provide an air flow of 1000 CFM to help dissipate the heat.

Head Office - 400 Spinnaker Way - Vaughan - Ontario - Canada - L4K 5Y9 - Tel: **905 669 8533** - North America Toll Free: **1 877 669 8533** - **www.uniquesys.com** - Email: **sales@uniquesys.com**

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Product Specifications (specifications are subject to change without notice)

Parameters

Output Frequency Range	1450 MHz - 1500 MHz
Digital Average Output Power	280 Watts
Power Gain	55 dB typical
Gain Variation Over Temperature	±1 dB max.
Gain Variation Over the Signal BW	0.5 dB max.
In-band Emissions	≤ -24 dBc
Spectral Regrowth	≤ -28 dBc (at rated output power)
RF Input VSWR	1.50 : 1
Signal Bandwidth	1.54 MHz

Interfaces

RF Input Connector	N-type (female), 50 ohm
RF Output Connector	7/16 DIN-type (female), 50 ohm
RF Monitor Connector	N-Type (female), 50 ohm
Control Interface	RS232, DB9 (female) - HPA GUI local control RS485, DB9 (female) - remote control

Power Supply

Voltage	198 - 242 VAC
Frequency	50/60 Hz
Power Consumption	1800 Watts (at rated output power)

Mechanical

Size	3 U of 19" wide cabinet
Dimensions (W x H x D)	430mm x 133mm x 781mm (16.93" x 5.25" x 30.75")
Weight	40 kg (88 lbs.)

Environmental

Operating Temperature	-25C to +55°C (-13°F to +131°F)
Storage Temperature	-40°C to +70°C (-40°F to +158°F)
Relative Humidity	max. 95%, non condensing
Cooling	1000 CFM of forced air must be provided. 2x EBM-Papst Tubeaxial W2E200 Series fans are recommended.

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