

A-7500 75-Watt Multimode/Multiband Amplifier



Overview

Today's high duty-cycle waveforms and extreme environmental deployment areas demand a level of thermal performance that few amplifiers can meet. The A-7500 is a high-performance amplifier that uses advanced thermal techniques and materials to deliver outstanding thermal performance and ultra-fast processing of modern waveforms.

The A-7500 maintains a wide range of compatibility with today's complex waveforms including **SRW, ANW2™, EPLRS, ASCM, SINGARS, HAVEQUICK, DAMA, IW,** and other TDMA waveforms.

Ultralife's significant focus on tactical satellite operations has resulted in the A-7500's great adjacent channel power performance and filtering coupled with a 10dB gain low noise figure. The A-7500 is an ideal solution for SATCOM-on-the-Move (SOTM) applications.

Applications

The A-7500 is ideally suited for a wide variety of applications and operational platforms. Land mobile, maritime, rotary and fixed-wing aircraft, and special communication packages can all benefit from its compact size and outstanding thermal performance.

Features

- ▶ **Radio independence through RF sensing**
- ▶ **Ultra-fast switching & processing of modern waveforms**
- ▶ **Supports SRW, ANW2™, EPLRS, ASCM, and other TDMA waveforms**
- ▶ **Exceptional thermal performance**
- ▶ **RS-232 control**
- ▶ **Contiguous 30-512 MHz operation**
- ▶ **Multiple RF power levels**

ANW2™ is a registered trademark of Harris Corporation

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Technical Specifications:

Size (L x W x H - inches)	8 x 5 x 4.5
Weight	8 lbs
DC Input	18-36 VDC
Current Draw	280 watts (typical), 420 watts max.
MIL-STD 1275	Compliant
Communications	RS-232 for power settings, mode, system reset and fault status
Operating Temperature	-30° to +60° C
Duty Cycle @ Temperature	Convection Cooled: +25° C, 100%, 2 hours Fan Cooled: +60° C, 100%, 1 hour
RF Port Definition	290-320 MHz - SATCOM 30-512 MHz - LOS 30-512 MHz - Radio
TX Power	75 watts - SATCOM port 10-50 watts - LOS port (FM, WB, and AM)
TX Power Detection Threshold	2 watts
Input Drive Level	3-8 watts
VSWR Tolerance	Up to 4:1
Waveform Compatibility	SRW, ANW2®, EPLRS, ASCM, SINCGARS, HAVEQUICK, DAMA, IW
LNA Gain	10 dB +/- 1 dB
LNA NF	3.2 dB max.
RX Insertion Loss (bypass)	1.2 dB max.
RX Insertion Loss (active)	1.7 dB max.
RX to TX Switching Speed	60 uS max. to 90% output power
810 Environmental	Vibration: Wheeled & Tracked Altitude - Storage: 37,000 feet Altitude - Operational: 15,000 feet Humidity: 100% relative Blowing Rain: With connectors mated or covered Reliability: 15,000 hours, +55C, ground mobile
Indicators	Over Temp High VSWR RF Input Overload System Mode: - SAT - SAT & LNA - FM/WB - AM System State: - TX - RX - Bypass

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