

A-2303

30-512 MHz Amplifier

Technical Datasheet

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Overview

The A-2303 is the latest amplifier in Ultralife's long and successful history of RF amplifier development.

The A-2303 amplifier continues the RF sensing technology we were first to develop over 20 years ago. All necessary radio interfacing is accomplished via a single RF cable. From here the amplifier then automatically performs all necessary detection and classification to provide a faithful reproduction of the radio RF with the desired amplification. The A-2303 is compatible with legacy waveforms as well as many modern proprietary and military waveforms. Optimized for use with low power PRR radios, delivering 20 watts with 1-5 watt of RF drive power.

Remote On/Off control.

Power for the optional active cooling module is provided on the bottom of the amplifier for seamless integration.

Features

- Frequency Range 30-512 MHz
- RF output power: 7-20 Watts
- Efficient design drawing ~2.25 amps average
- Excellent thermal performance!
- Switchable Receive LNA ~12dB gain
 - <3dB Noise Figure
- 10-36 VDC operation for commercial or military vehicle and battery power sources
- Mil-Std harmonic performance MIL-STD-461
- Mil-STD 1275 compliant
- Smallest, lightest RF amplifier available

Technical Specifications

Part No.	A-2303
Size H x W x D (inches)	1.5 x 3.1 x 5.15 (includes connectors)
Size H x W x D (centimeters)	3.8 x 7.87 x 13.08 (includes connectors)
Weight	19oz. (540g)
Frequency Range	30-512MHz
Input/Output Impedance	50ohm
RF Input	.75 to 5 watts (nominal)
RF Output - FM	20 watts
RF Output - AM	20 watts PEP/116-512 MHz
RX Path Insertion Loss / LNA gain	< 2.0dB (~12dB with LNA "ON")
RX Path VSWR	< 2:1
Bypass Path Insertion Loss	< 1.3dB
Power	10-36Vdc operation
Power @ Transmit	~75 watts
Power @ Receive	< 6 watts
RF Connectors	TNC female
Operating Temperature	-40°C to +60°C
Environmental	MIL-STD 810
EMI	MIL-STD 461
Finish	Tan CERAKOTE®

A-2303-KT(1/2) Amplifier Kits:

Get the A-2303 RF Amplifier, plus:

- 90-512MHz Multiband Antenna
- 30-108MHz VHF Antenna
- Mesh Antenna Relocator Kit (includes holder and antenna cable)
- RF Jumper Cable (Radio to Amp) - 30 inches with TNC/TNC connectors
- MOLLE Mount



A-2303-KT1:

Contains a Power Cable for Ultralife's Wearable Batteries (formerly Land Warrior and CWB)

A-2303-KT2:

Contains a Power Cable for Ultralife's XX90 Batteries (Rechargeable and Non-Rechargeable)

A-2303

Virginia Beach, Virginia

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