

# SATCOM

MILITARY AMPLIFIER

VHF 75W

UHF 50W

HF 125W



# Afracal 1

H - 1.6MHz to 30MHz

VU - 30MHz to 512MHz

VERSATILE MILITARY COMMUNICATIONS

# Afracal 1

VU - 30MHz to 512 MHz H - 1.6 MHz to 30 MHz



## MAIN FEATURES

### LINEAR POWER AMPLIFIERS

- AFRACAL 1 - H 1.6 - 30 MHz (125W)
- AFRACAL 1 - VU 30 - 512 MHz (75W)
- Rugged, Compact and Reliable
- Radio user interface RS232 / RS485 control
- Automatic output filter select
- Forward power indication
- Reflected Power indication
- 1 m water immersion
- 3 year warranty
- MIL-STD-810 G

## FEATURES

The **AFRACAL 1** Power Amplifiers provide uncompromised communication for tactical missions.

Low-pass-filter switching is controlled by both the Radio and Amplifier logic to ensure seamless performance.

### COMPACT DESIGN

Designed to fit into tight spaces within military vehicles, the Afracal 1 amplifier range is one of the most compact available.

### MIL-STD-810G

Powder-coated T6-Aluminium casing ensures compliance to MIL-STD- 810G specifications.

### SET-UP

Set-up is automatically performed by the connected radio.

### DATA

High data rates can be maintained due to the exceptional linearity.

### POWER SUPPLY

The **AFRACAL 1** amplifiers can operate from 12 - 36VDC. The connected radio is supplied with a stable 12VDC simplifying power supply configurations and reducing cabling.

### ATU

The **AFRACAL 1 - H** RF Amplifier facilitates a connection to external high power antenna tuners converting radio RS232 to robust RS485 control signals for extended installation distances between the amplifier and the tuner.

### INSTALLATION

Purpose built base station and vehicular mount racks are available to facilitate quick extraction, cooling and vibration damping.

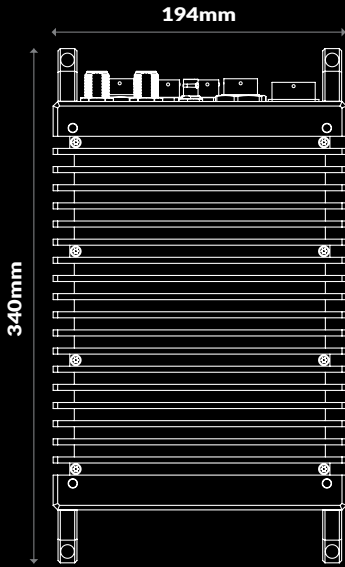
Contact our sale team for options or custom solutions.

## ENVIRONMENTAL

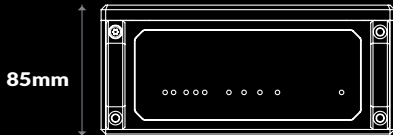
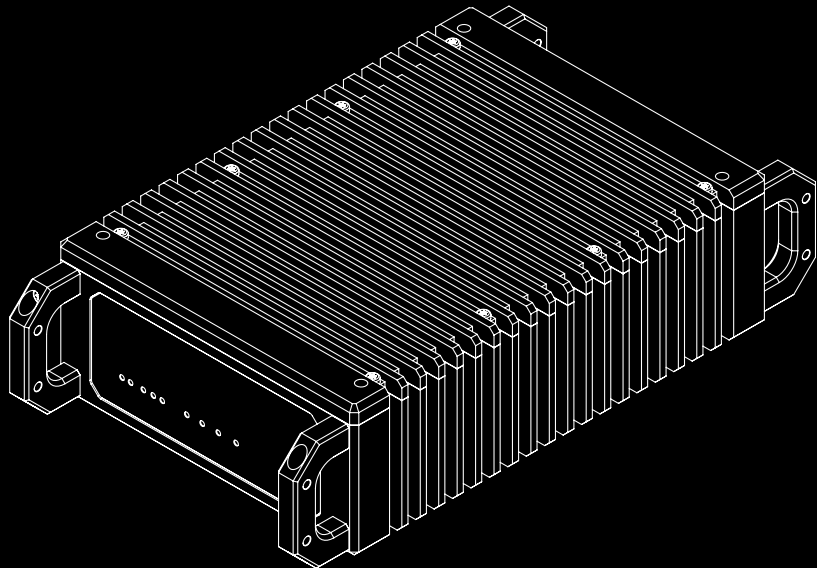
Shock, Vibration & Immersion  
EMI/RFI  
Operating Temperature  
Storage Temperature

MIL-STD-810G  
MIL-STD-461E  
-30 to +65°C  
-40 to +85°C

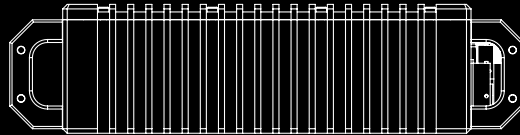
## AFRACAL 1 POWER AMPLIFIER DIMENSIONS



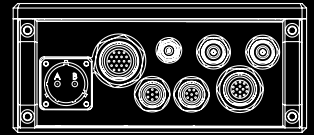
TOP VIEW



FRONT VIEW



SIDE VIEW



REAR VIEW

## SPECIFICATIONS

RF Output Power	125W (1.6-30MHz) PEP 75W (30 - 512) CW	Protection	Temperature, VSWR.
Operation Cycle	Continuous with optional cooling fan.	Intercom Interface	Via radio handset connector
Gain Amp	13dB ±1dB	External Audio	10W into 4Ω Optional Speaker (Aux Connector)
Harmonic Suppression	>55dB (typical)	Aux Connector	62IN-5024-12-14S
Max Load Mismatch	VSWR 1: 5	Data Connectors	62IN-5005-10-8S
Power Source	12Vdc nom. (12-36 VDC)	Tuner Interface	RS232 / RS 485
Power Connector	62IN-12E-18-02P	Cooling Fan Connector	62IN-5005-10-6S
RF Input connector	BNC - Female	Tuner Connector	62IN-5005-10-7S
RF Input/Output	50 Ohm unbalanced	Dimensions	194x85mm x340 (w x h x d)
RF Output connectors	N-Type Female	Weight	8 kg (typical)
		Power Consumption	18A at 24V (typical)

Product specifications are correct at time of print. Please verify specifications with our sales department.





**SATCOM**

SECURE AND TACTICAL COMMUNICATIONS

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