



**MILITARY  
COMMUNICATION  
SYSTEMS**

# *Afracal 1K*

## 1000W HF POWER LINEAR AMPLIFIER



*“Connect any of Sat-Com HF radio options to the Power Amplifier to extend the Communication range”*

### FEATURES SUMMARY:

- HF POWER AMPLIFIER 1000W PEP
- LINEAR HF in 19" 3U height Rack.
- Desk Top placement with rubber feet.
- Liquid Cooled
- Rugged, Compact, Reliable
- Radio user interface RS232 control.
- Automatic output filter selection.
- Forward power indication meter and number.
- VSWR bar graph
- 3-year warranty
- MIL-STD-810 G

**“PERFECTED  
MILITARY  
COMMUNICATION  
SYSTEMS”**

### ALL FORCES NETWORK COMMUNICATIONS

#### FULL COMSE + TRANSEC + LINKING

### AIR FORCE



### ARMY



### NAVY



## COMPACT SOLUTION FOR ANY MISSION

The AFRACAL 1000 is a linear 1000W HF Power Amplifier facilitating uncompromised communication for tactical missions in band 1.6-30 MHz..

The required Amplifier RF input is 15W to 20W to deliver 1000W PEP to the antenna.

The amplifiers and low pass filters switching are controlled from the Radio and Amplifier logic to ensure best performance.

## DETAILED FEATURES

### 19" Rack Mount design

At only 15 kg, 3U rack height, this Amplifier is one of most advanced and flexible HF amplifiers available to fit into confined spaces.

### Rugged MIL-STD-810G

The enclosed epoxy powder-coated ensures long-lasting appearance.

### Set up and user controls

No set up or controls are required as it is all done automatically from the radio RS232. control.

### User friendly display

The user-friendly display features the selected Frequency, Output Power achieved in simulated analog meter as well as a numeric number. The VSWR is indicated on a bar graph.

### Data performance

The amplifiers are extremely linear at the continuous rated power to ensure higher data rates to cover extended range.

### Extended life time

Life time is extended by operating the amplifiers at more than -3dB below rated power of the output electronic devices.

### Supply window

The Afracal 1K Amplifier can operate on 230Vas +/- 15% and supplies the connected radios with a stable 12Vdc.

### ATU control

The amplifier facilitates the conversion from the radio RS232 control signals to RS485 robust control for external high power antenna tuners.

## TYPICAL INSTALLATION – BASE STATION



## SPECIFICATIONS

EXCITER	Leopard1 H Badger1 H (Army) Hawk1 H (Army)
RF Output Power	1000W
Frequency Range	1.6-30 MHz
Operation Cycle	Continuous Rated
Gain Amp	16dB ±1dB
Harmonic Suppression	> 80dB
Spurious Suppression	> 80dB
Blocking	> 80dB
Max Load Mismatch	VSWR 1: 5
Protection	Temperature, VSWR.
Power Source	230Vac ±15%
Power Connector	IEC C14
RF connector	BNC - Female
RF Input	50 Ohm unbalanced
Output connectors	N-Type Female
Output Imp.	50 Ohm unbalanced
Control System	RS232
Data Connectors	62-56-14-19S
Dimensions	450 x 140 x 570mm (w x h x d)

## ENVIRONMENTAL

Shock, Vibration & Immersion	MIL-STD-810G
EMI / RFI	MIL-STD-461E
Operating Temperature	-30 to +65°C



MILITARY  
COMMUNICATION  
SYSTEMS

Sat-Com (PTY) Ltd  
2 Jakaranda Street  
Suiderhof  
Windhoek  
Namibia

Tel: +264-61-374700  
Fax: +264-61-251615  
Email: sales@sat.com.na

[www.sat.com.na](http://www.sat.com.na)



NOTE: Specifications may change through further development, please consult our sale department.