

SATECOM

COMPANY PROFILE

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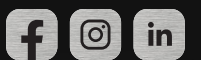
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Managing Director: DK Brown | Operations Director: G Brown | Board Chairman: Brig Gen FH Shafashike | Directors: O A Nangolo, M Erasmus



Base Station Re-bro

OUR COMPANY

Satcom (PTY) Ltd is part of the August 26 Group of Companies in the Namibian Defence Industry. The company was established in 1991 as a 100% Namibian Company and is located in Windhoek, Namibia.

Satcom (PTY) Ltd specializes in cutting-edge technology solutions, emphasizing secure and tactical communication systems.

Our focus spans a broad spectrum, encompassing the design and production of advanced military communication equipment, along with the development of versatile mounting and racking systems and complementary add-on accessories.

Committed to excellence, we continuously enhance performance and operational efficiency, delivering products of the utmost quality and competitiveness.

At Satcom, our state-of-the-art facilities encompass research, development, manufacturing, and testing, ensuring that production orders adhere to the highest standards throughout the entire process—from conceptualization to delivery and implementation.

We cater to a diverse clientele, including large enterprises and governmental organizations worldwide, providing turn-key solutions tailored to their specific needs.

OUR HISTORY

Satcom, a key player in the Namibian Defence Industry, specializes in a comprehensive range of communication solutions, from design and implementation to delivering turnkey solutions for large enterprises and government departments.

Founded in 1991 as a 100% Namibian-owned company, Satcom is headquartered in Windhoek, Namibia. Over the years, we have experienced rapid growth, expanding our offerings to cater to both African and international markets.

Originally focused on commercial satellite reception and the broadcasting of pay TV channels, Satcom has evolved to concentrate 95% of its business on military communication systems. We leverage our extensive experience and the expertise of our highly skilled engineers, specialists, and technicians to develop innovative, high-performance products.

Our commitment to excellence drives us to continually enhance our operations and deliver products of the highest quality and competitiveness. Our state-of-the-art in-house research, development, manufacturing, and testing facilities enable us to handle high-volume production orders while maintaining exceptional standards.

TEAM MANAGEMENT

DAVID BROWN
SATCOM CO-FOUNDER



GLEN BROWN
ACTING MANAGING DIRECTOR



Satcom (Pty) Ltd is a culturally diverse company dedicated to excellence and integrity. Our handpicked R&D team, composed of product designers and software, mechanical, electrical, and system engineers, has been delivering innovative and cutting-edge solutions for 33 years.

We manage the entire development and production process in-house, from concept to final product. Our manufacturing and production processes comply with ISO 9001:2015 standards.

Our quality management system is certified by TUV Rheinland Inspection Services (Pty) Ltd, an internationally accredited certification body. Our team includes experienced and qualified IRCA lead auditors for ISO 9001:2015 and field technicians who provide exceptional support and service to our local and international clients.

Our Sales & Marketing team is known for its professional and friendly customer service, while the Administration & Finance team ensures smooth and efficient operations with meticulous attention to detail. The Costs & Progress team oversees delivery, ensuring that customer requirements are met and all tasks are completed diligently and on schedule.



CHRISTOPH SCHOLZ
CHIEF FINANCIAL OFFICER

FINANCE

OUR TACTICAL APPROACH

Satcom's design philosophy focuses on equipping operators with secure, straightforward communication tools that enable seamless connectivity with their command, units, and other forces from almost anywhere, at any time.

Our versatile radio systems are designed for various applications, allowing operators to communicate over long and short distances, whether on land, sea, or air. This flexibility simplifies training, boosts user comfort and confidence across all forces, reduces capital expenditure, and streamlines repair and asset management.

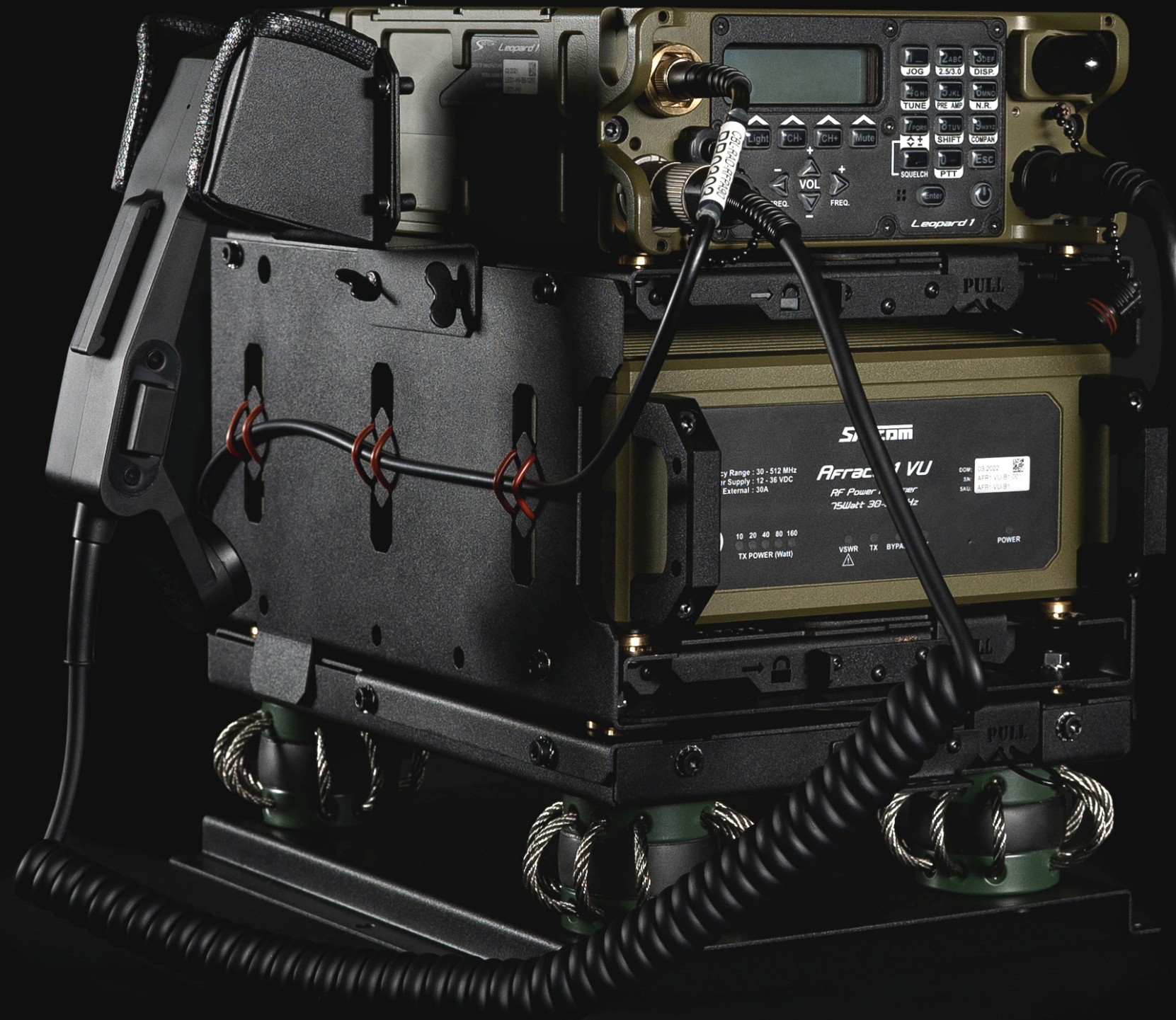
All our products are designed and tested to meet MIL-STD-810 specifications. We can facilitate interoperability with existing legacy systems by tailoring gateways, which ensure continued COMSEC and TRANSEC while allowing gradual modernization of systems.

Hornet PRRI



Hornet 1

Base Station



OUR PRODUCTS

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



Leopard 1

WIDEBAND MILITARY SDR RADIO

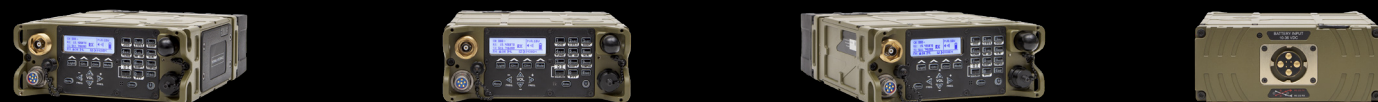
H- 1.6MHz to 30 MHz **HV-** 1.6MHz to 170 MHz **VU-** 30MHz to 512MHz

HU- 1.6MHz to 512 MHz **GTAV-** 112MHz to 160 MHz **GTAU-** 225MHz to 400MHz

The **Leopard 1** is a compact, rugged, and lightweight wideband military radio which offers uncompromised communication for tactical missions in the HF, VHF, and UHF bands. Built-in tuner, modem, and GPS receiver are integrated into the radio allowing flexible operation. Advanced features such as Automatic Link Establishment (ALE), Frequency Hopping and One-Time-Pad (OTP) encryption enables secure and reliable communication. The **Leopard 1** radio is configurable for portable, mobile, base, and repeater applications. In the portable configuration, it provides 2, 5, 30 Watt in HF, up to 18W in VHF-L, and 10W in VHF-H and UHF. When linked to either another **Leopard 1** or a **Cheetah 3** radio, it serves as the HF side of a rebroadcast system or as the VHF/UHF side of a repeater, providing extensive coverage over a large area of up to 70+ km in VHF/UHF.

WHEN CONNECTED TO SATCOM POWER AMPLIFIERS:

- **Afractal 2** Dual Multiband PA; HF is amplified to 125W, 30-88 MHz at 100W, 30-512MHz at 50W.
- **Afractal 1** VU Dual-band PA; VHF/UHF is amplified to 100W, HF in bypass mode.
- **Afractal 1** H, HF band PA, only HF is amplified to 125W, VHF, and UHF in bypass mode.



Badger LAND Shark SEA Hawk AIR

WIDEBAND MILITARY SDR RADIO

H- 1.6MHz to 30 MHz **HV-** 1.6MHz to 170 MHz **VU-** 30MHz to 512MHz

HU- 1.6MHz to 512 MHz **GTAV-** 112MHz to 160 MHz **GTAU-** 225MHz to 400MHz

This range of radios are designed for panel and rack mount applications with standard power capabilities.

The performance, features and capabilities are exactly the same as the **Leopard 1** SDR. The only difference is the larger control head, display and keypad for convenient operations in base stations and mobile applications.



Badger+ LAND Hawk+ AIR Shark+ SEA

WIDEBAND MILITARY SDR RADIO

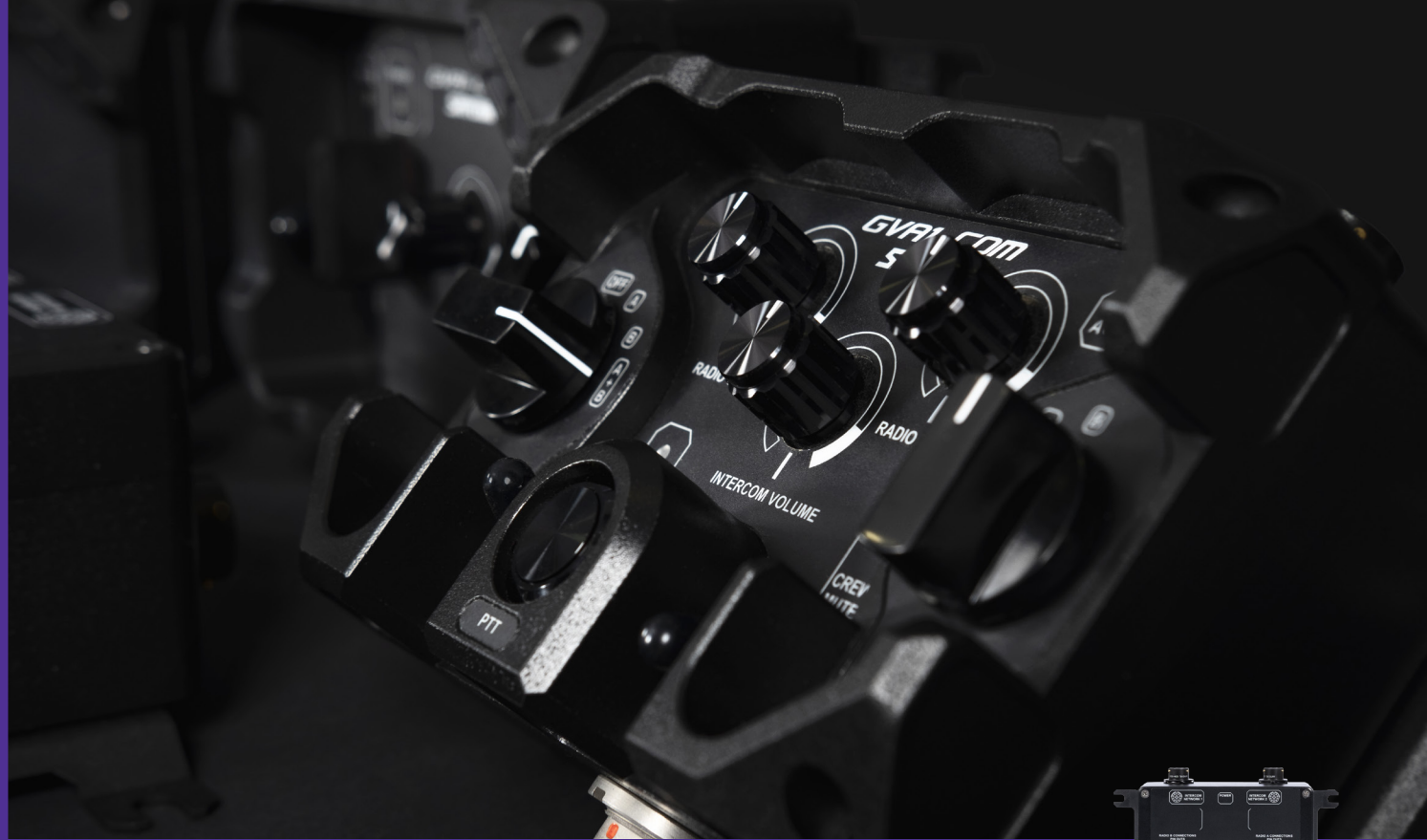
H- 1.6MHz to 30 MHz **HV-** 1.6MHz to 170 MHz **VU-** 30MHz to 512MHz

HU- 1.6MHz to 512 MHz **GTAV-** 112MHz to 160 MHz **GTAU-** 225MHz to 400MHz

The 19" Base Station Radios are designed for rack mount applications with high RF output power requirements.

The performance, features and capabilities are exactly the same as the **Leopard 1** SDR. The main additional feature is an integrated high-power RF amplifier. Other differences are the larger control head, display and keypad for convenient operations in base stations and mobile applications.





Tactical Intercom

SCALABLE ANALOG INTERCOM

The Grapevine VIS (Vehicle Intercom System) is a very flexible and uncomplicated intercom system for all types of Vehicles, Boats, and Command Centers.

It is designed to be easy to install, uncomplicated to operate yet flexible delivering high-quality Audio.

Individual Volume control and auto Mic mute/VOX capability require very little input for the user once set up.

Up to TWO Tactical Radios can be connected to the Radio Control Unit (RCU) which can accommodate up to two Commander Units (COM)

The Commander User Unit (COM) can Monitor Radio-A and Radio-B, select on which, A or B, to talk (PTT), and can select to monitor and talk on the intercom.



Cheetah 3

TACTICAL MILITARY SDR RADIO

V- 30MHz to 170MHz VU- 30MHz to 512MHz

The **Cheetah 3** is a rugged and compact tactical lightweight MAN PACK RADIO which offers outstanding performance for portable missions. The radio offers continuous communication from 30 Mhz up to 512 Mhz in all modes. Voice communication is available through a standard headset or an integrated microphone and speaker. To cater for increased mobility the modem and GPS receiver are incorporated inside the radio.

The **Cheetah 3** is part of the Satcom Communication product portfolio and offers advanced features such as Automatic Link Establishment, Frequency Hopping and One-Time-Pad encryption to provide the user with a secure and reliable communication channel.

The radio is suitable for portable, mobile, base station, and repeater applications.

In the portable configuration, it provides 2, 5, 10 Watt.

When cross-connected to either another **Cheetah 3** or a **Leopard 1** radio it becomes the VHF/UHF side of the repeater and can deliver up to 10 Watt, achieving a large coverage area of up to 50+ kms.

A higher Transmit Power version, **Cheetah3+** is capable of reaching 20W for extended range requirements.

When connected to the **Afractal 1** VU or **Afractal 2** Power Amplifier, the output is boosted up to 100W for mobile or mobile station applications for up to 75km and beyond in mobile and base station configurations.

Ranges of 220kms have been achieved in Ground To Air communications.

STANDARD PRODUCT COLOUR OPTIONS

BLACK CAMOFLAGE

AMS STD 595C
#37030

SIGNAL WHITE

RAL
9003

DESERT TAN

FED STD 595C
#33446

OLIVE DRAB

FED STD 595C
#34088





Cheetah 3+ HV

TACTICAL MILITARY SDR RADIO

HV- 30MHz to 170MHz (1.6MHz - 30MHz Capable)

The **Cheetah 3+ HV** is the ideal tactical radio for special operation forces.

The wideband radio covers 1.6 to 170MHz and has the highest Transmit power at 20W in its class, while weighing only 2.3kg.

It's Li-Ion battery provides 30hrs mission time.



Hornet 1

MIMO/MANET SDR RADIO

The **Hornet 1** SDR meets modern battlefield requirements in flexibility, COMSEC, TRANSEC and Broadband Capabilities.

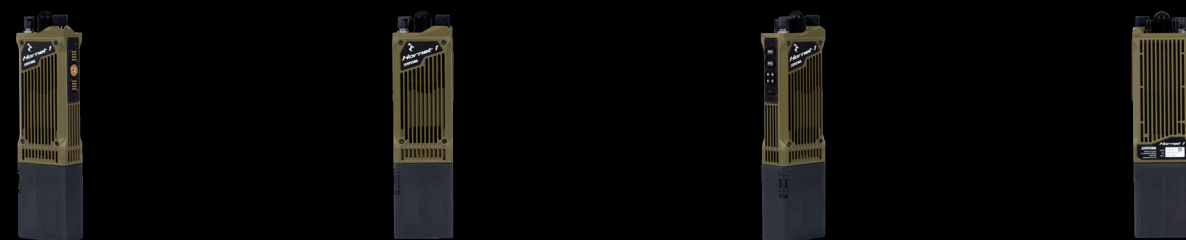
It is based on state of the art MIMO (Multiple Input, Multiple Output) IP Mesh technology providing simultaneous encrypted Voice and Data/Video capability. The Mesh capability enables self-forming and self-healing network establishment of up to 64 nodes per network in any configuration.

Depending on the SNR level and required data throughput, data bandwidth is automatically varied from 0.5 to 87 Mbps. This is achieved by increasing the frequency bandwidth from 1.25 up to 20MHz and switching modulation techniques that function at up to 64QAM.

10 Pre-programmed mission profiles can be configured for rapid operator selection while providing two independent full duplex audio (voice) channels. The Dual 1W RF output power transceivers achieves single link distances of up to 1.5km for non-line-of-sight (NLOS), while LOS distances beyond 15km are achievable between elevated sites or air to ground links.

The **Hornet 1** accessory battery capacity is designed to keep radios operational for up to 5 hours. The radio itself has a built in battery which ensures continuation of existing links while a depleted battery is replaced with a charged one.

High data through put allows video streaming to a central command point, enabling the mission commander unprecedented live battlefield awareness and control.



Hornet PRR1

MIMO/MANET SDR RADIO

The **Hornet PRR1** SDR meets modern battlefield requirements in flexibility, COMSEC, TRANSEC, MANET and Broadband Capabilities.

The state-of-the-art MIMO (Multiple Input, Multiple Output) IP Mesh technology provides simultaneous encrypted Voice, Data and Video capability. The Mesh capability enables self-forming and self-healing network establishment of up to 64 nodes per network in any configuration.

Data Rates are automatically varied from 0.5 to 87 Mbps depending on the available SNR. The best throughput during a mission is achieved by automatically adapting the frequency bandwidth between 1.25Mhz and 20Mhz and the modulation between 4QAM(QPSK) to 64QAM with the option to switch over to another available link with a better link throughput capacity.

A Pre-programmed mission plan can be configured with one Talk (TX) channel which includes full duplex audio (voice) talk channels, video streaming, encryption and the monitoring of up to 16 pre-set audio channels.

Changes between mission plans can be performed via log in with Mission Plan Application.

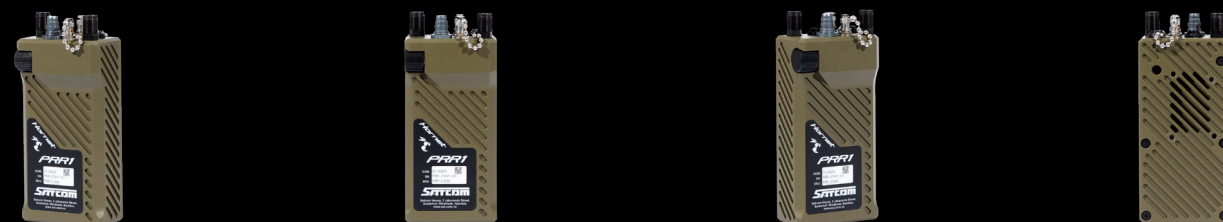
Point-To-Point (P-T-P) Link distances between two **Hornet PRR1** radios in NON-Line-of-Sight (N-LOS) up to 500m is achieved in forests and build-up areas.

LOS distances beyond 5km are achievable between elevated sites or via air to ground links.

Longer link distances between two PRR1 units up to and beyond 10km end to can be achieved with more MANET radios in the area providing multi-link options.

Battlefield awareness capability includes 2 independent video streams to a central command center while GPS position, battery status and mesh utilization is displayed on the Command-and-Control map.

The mission time on the internal battery is up to 4 hours, but can be extended with another 19 hours when connected to the auxiliary battery.



Afracal 1

MILITARY AMPLIFIER

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

The **Afracal 1** Power Amplifiers are designed for tactical missions, offering uncompromised communication and seamless performance through low-pass-filter switching controlled by both radio and amplifier logic. With a compact design, they fit into tight spaces in military vehicles and comply with MIL-STD-810 standards. The amplifiers automatically set up with the connected radio, maintain high data rates due to exceptional linearity, and operate from 12-36VDC, providing a stable 12VDC to the radio. They also support external high-power antenna tuners via robust RS485 control signals. Installation is made easy with purpose-built base station and vehicular mount racks, ensuring quick extraction, cooling, and vibration damping.





Afractal 2

WIDEBAND DUAL MILITARY AMPLIFIER

HU- 1.6MHz to 512MHz **HV-** 1.6MHz to 170MHz

COMPACT SOLUTION FOR EVERY MISSION

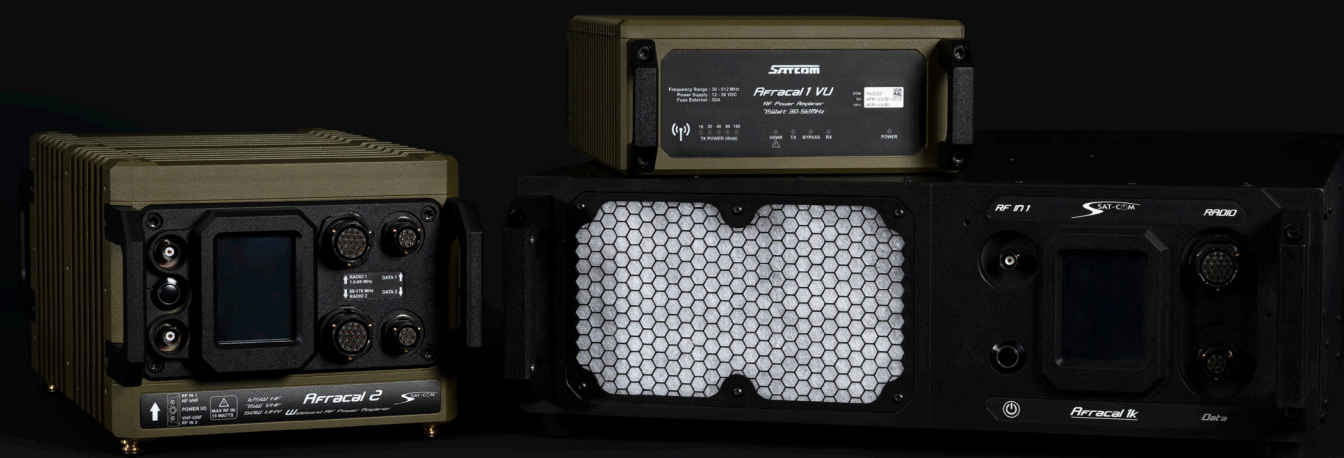
The **Afractal 2** is a DUAL Power Amplifier facilitating un-compromised communication for tactical missions through HF, VHF and UHF. Amplifier 1 covers 1.6-30 MHz at 125W and 30-88 MHz at a typical 100W. Amplifier 2 covers 30-512MHz at 50W. Each Amplifier has its own RF input which is automatically routed to the applicable PA while the outputs are switched automatically through to the correct band antenna by the antenna switch based on a priority selection with two radios connected.

With a single wideband radio connected to Radio1 ports, Amplifier 1 will provide 125W for the HF and 100W for VHF Low Band. An automatic selection of Amplifier 2 from 88MHz upwards enables 100W from 88.1MHz to 170MHz and then 100W/75W up to 512MHz to provide seamless triple-band 1.6 – 512 MHz amplification.

Each of the 2 Amplifiers has its own RF input which is automatically routed to the applicable PA while the outputs are switched automatically through to the correct band antenna by the automatic antenna switch for HF, VHFL, VHFH+UHF based on a priority selection with two radios connected

The amplifier and low pass filters switching are controlled from the Radios and Amplifier logic to ensure seamless performance.

The **Afractal 2** can also be provided in a single amplifier configuration with only HF/VHFL (1.6-88MHz) or VHF/UHF (30-512MHz)



Afractal 1k

MILITARY AMPLIFIER

HF- 1.6MHz to 30MHz **1000W**

The **Afractal 1k** is the most compact 1 kW HF amplifier available, fitting into just 3U in a 19" rack. It offers automatic setup via the connected radio and maintains high data rates with exceptional linearity. It operates on 110-220VAC or 48V DC, providing a stable 12VDC to the radio, simplifying power configurations and reducing cabling. Liquid cooling ensures continuous operation in demanding environments, ideal for compact base and naval systems. The amplifier supports external high-power antenna tuners with RS485 control signals and can be mounted in a 19" rack or used as a tabletop version. Key features include 1.6-30MHz range, 1000W PEP, linear HF, silent operation, forward and reflected power indication, and compliance with MIL-STD-810.



OUR SERVICES

Satcom offers production services for precision parts in medium to large volume runs.



SHEET METAL

PRESS BREAK: Dener (40Tons)

LASER CUTTING:

- (YAG Laser) HE Laser - 750W
- CO2 Laser - 150W



PICK & PLACE

MY200 Series P&P - MY200LX



MILLING

DMG DMC 1150V
DMG DMC 1035V

SCOPE

We are a top-quality manufacturing facility specializing in machining, sheet metal parts, and PCB assembly with SMT capability. We focus exclusively on larger manufacturing quantities and projects that demand our exceptional attention to detail and quality.

MACHINING CAPABILITIES

LATHE CAPABILITY

Min stock lathe diameter: 10mm
Min screw machine diameter: 3mm
Max spindlebore diameter: 50mm
Max diameter between centres: 200mm
Max length between centres: 350m

MILL CAPABILITY

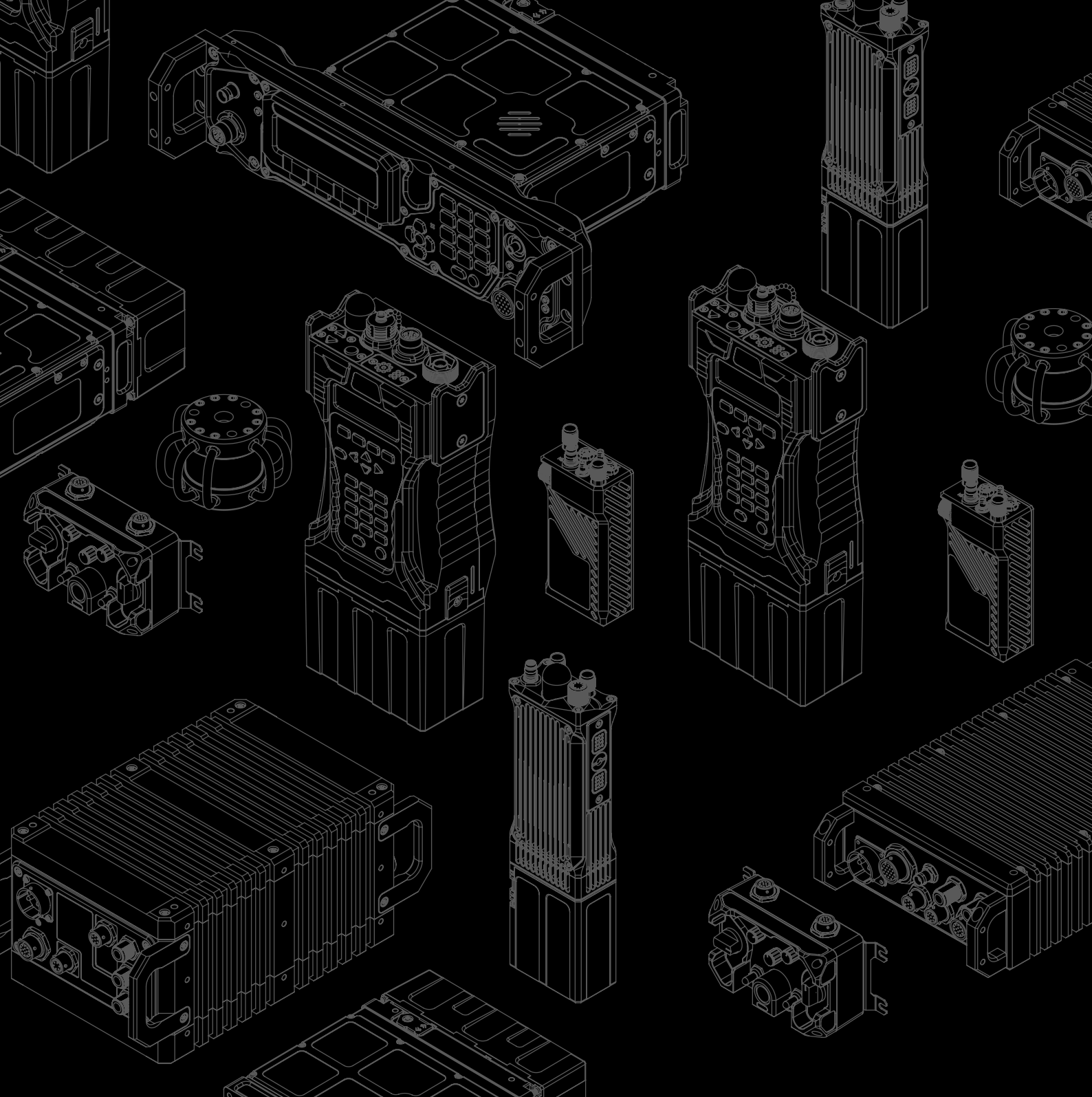
Min dimensions: 5mm x 5mm x 5mm
Max dimensions: 1000mm x 600mm x 500mm
Max dimensions: 4axis : 350 dia. x 42kg

MAXIMUM TOLERANCES

Cnc mill: +/- .01
Cnc lathe: +/- .01

OTHER CAPABILITIES

- Powder Coating
- Surface Treatment (Aluminium)
- Product Design (Design for manufacturing)



SECURE AND TACTICAL **COMMUNICATIONS**
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