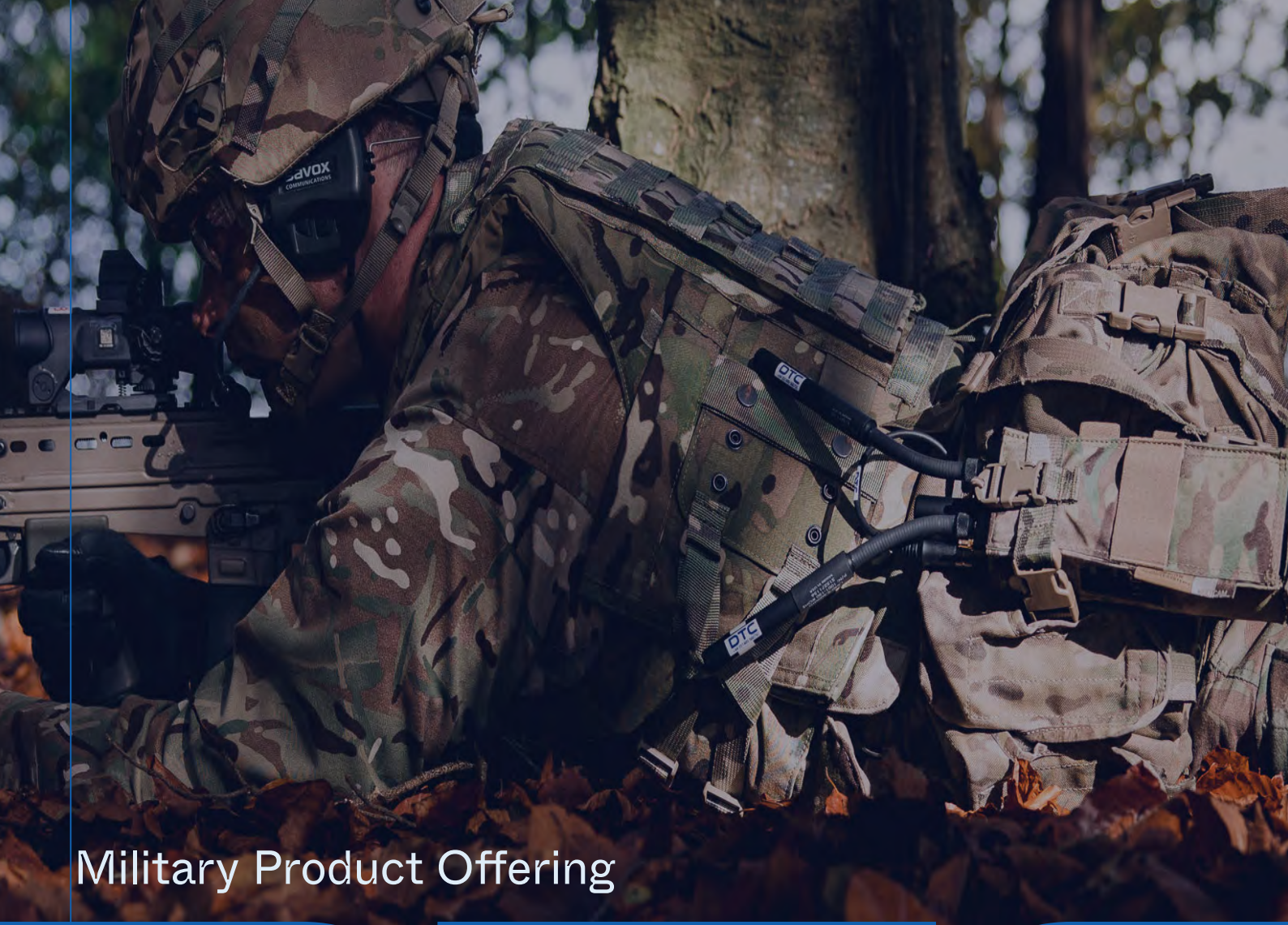


# Military Product Offering

DOMOTACTICAL.COM

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Whiteley, Hampshire
PO15 7AB
United Kingdom

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Phone: +44 1489 566 750

# Tactical Communications Portfolio


# SDR-H2

## Dismounted Soldier MANET, UGV, USV, Assault Team, Boarding Party, Remote Weapon Station

Based on DTC's game changing software defined radio platform (SDR), the SDR-H2 is the enhanced next generation Special Role Radio designed to meet a diverse range of applications. With the same bulletproof soldier radio form factor, the SDR-H2 offers enhanced GPS performance with on-board magnetics for a simplified Ethernet interface and future support for dual push-to-talk (PTT) communications.
The versatile Special Role Radio can be operated as a mobile ad hoc network (MANET) IP Mesh node, a point-to-point (P2P) COFDM transmitter or a P2P receiver streaming video to a tablet PC. It also offers dual on-board HD-capable video encoders and support for a variety of different camera interfaces including HDMI, full duplex VOX-capable audio channel with 16+ talk groups and on-board SD card storage as well as 2W total output power.

## Features

- MeshUltra™, MIMO and Standard IP Mesh capability
- Enhanced GPS performance
- On-board Ethernet magnetics
- Gigabit Ethernet via USB 2.0 adaptor
- 2W total output power
- Dual high profile HD H.264 independent video encoders
- Low latency Mesh radios - under 180ms for video; less than 20ms data only
- Native SD/HD-SDI or composite/HDMI via adaptor; HDMI via side connector
- Microphone inputs and headphone output for recording, transmission or talkback
- USB support for peripherals such as 3G/4G/Wi-Fi dongles
- Low power consumption, typically 7.5W to 10W
- Battery life - up to 12 hours
- Range NLOS - >1.5km single hop; >15km air to ground
- Designed to MIL-STD-810G

## General Specifications

- Temperature range: -20°C to +60°C
- Power input: MBITR AN / PRC148 battery
- Input/Output Connectivity: 24-way Cambion spring probe connector for USB, RS232/485, HD-SDI & power in/out
- 16-way ODU circular connector for Ethernet, power out and audio in/out
- Dimensions (excluding protrusions): 128mm (L), 67mm (W), 38mm (D)
- Weight: 643g



### Software Defined Radio Architecture

Software Defined Radio Architecture delivers multiple waveform options to support diverse deployments. At home operating as a Tactical Mobile Adhoc Network (MANET) IP Mesh node, a point-to-point (P2P) COFDM Transmitter, or a P2P receiver, streaming video to a tablet PC or across a network.

### Integrated GPS

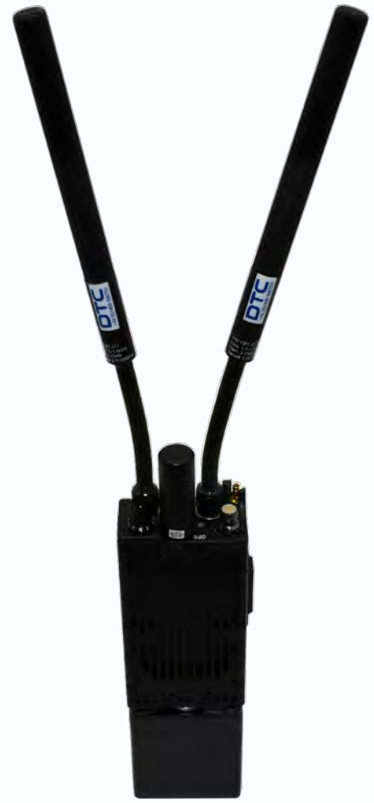
Integrated GPS with CoT support for direct radio integration into ATAK, CIVTAK & WINTAK as well as other situational awareness applications.

### Encryption

AES256 Encryption accredited to FIPS140-2 for the highest level of information security.

### Radio Programming and Management

Powered by DTC's unique mission-critical COFDM IP Mesh waveforms, delivers high bandwidth Full Motion Video (FMV) from a helmet and body-worn cameras, low latency full-duplex voice throughout the team and supports the sharing of critical mission data on the ground where it is needed.




## Accessories

- USB support stick
- 16-way Ethernet cable
- 7.0Ah battery
- One, two and four way battery charger
- Omni-antennas
- Bullet HD-SDI camera
- HDMI / composite to SDI converter

SDI Comp_HDMI to SDI converter

HD-SDI bullet camera

Omni gooseneck antenna

# SDR-M

## OEM Software Defined Radio Module, Small Form Factor UAV / UGV / USV, Body-worn, General Systems Integration

DTC's BluCore OEM is a ruggedized, miniature Software Defined Radio transceiver, designed specifically for size and weight critical UxV applications and is particularly suitable for small drone platforms. Based around DTC's game-changing SDR architecture and offering a full 2x100mW of output power, BluCore OEM provides access to a wide range of IP Mesh and unidirectional COFDM waveforms, including DTC's latest MeshUltra™.

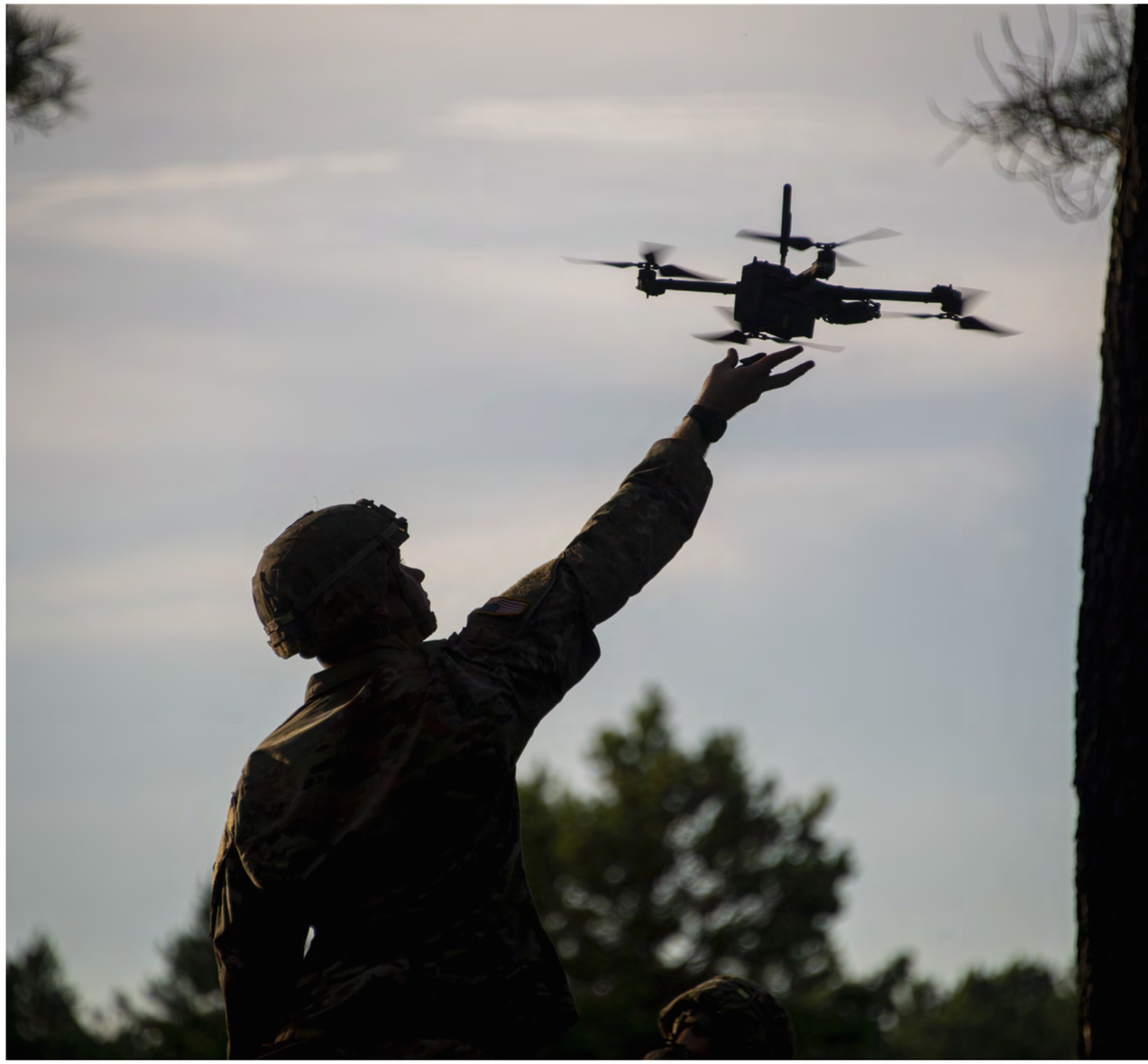
With two USB interfaces capable of supporting USB cameras and headsets as well as Wi-Fi, cellular and Ethernet dongles, BluCore can also be connected to a range of host devices using RNDIS "Ethernet over USB" connectivity.

### Features

- 2x100mW COFDM transceivers
- Growing USB support for peripherals such as 3G / 4G / Wi-Fi dongles
- 128GB built-in storage
- RNDIS support for Ethernet over USB
- Compact packaging with ultra-miniature connectors
- Very low power consumption: typically 3W
- Exceptionally small size: 54mm x 50mm x 11mm
- Weighs only 60g

### General Specifications

- Temperature range: -20°C to +50°C with additional cooling
- RF Power: 100mW (+20dBm) per output, 200mW total
- Power input: Molex 4-way 1.25mm
- DC input: 6V to 18V reverse polarity protected Typical power consumption: 3W (excluding camera)
- I/O: 2x JST USB host / client / RNDIS
- Dimensions: 54mm (L), 50mm (W), 11mm (D)
- Weight: 60g



# SDR-R 2W

## Small Form Factor UAV / UGV / USV, General Systems Integration

The SDR-R is a ruggedised software defined radio transceiver with 2x1W RF output power. Leveraging DTC's industry-leading MeshUltra™ waveform and also capable of operating as a unidirectional COFDM Transmitter or Receiver, the SDR-R provides a passively cooled IP68 rated enclosure ideal for integration into long range UxV and outdoor concealment applications.

The SDR-R also includes a rich set of interface options including native Ethernet, USB and serial as well as an audio headset interface.

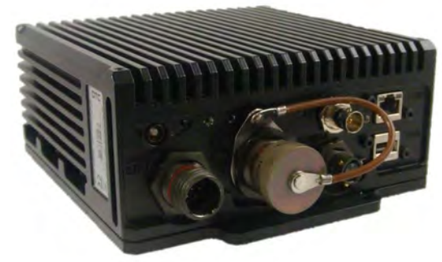
### Features

- 2x1W transceivers for use as IP Mesh radio, COFDM transmitter or receiver
- USB support for peripherals such as 3G/4G/Wi-Fi dongles
- Ethernet and RS-232 data connectivity
- 128GB in-built SD card storage
- IP68 ruggedized enclosure
- Very low power consumption, typically 7W IP Mesh

### General Specifications

- Temperature range: -20°C to +55°C
- Power: 1W (+30dBm) max per output, 2W total
- Power input: 7-way Fischer
- DC input: 8V to 17.5V reverse polarity protected
- Power consumption: 7W typ. IP Mesh, 14W typ. COFDM TX single output, 24W typ. COFDM TX dual output, 6W typ. COFDM RX
- Dimensions: H 157mm (incl. connectors), W 75mm, D 21mm
- Weight: 430g approx.





# NETNode RM 4W

## Mounted MANET, UGV, USV, Convoy, Assault Team, Boarding Party, Remote Weapon Station

The NETNode RM is the 5th and latest generation of DTC›s NETNode IP mesh radio family offering built-in dual HD video encoders and MIMO capability for our highest ever data capacities.

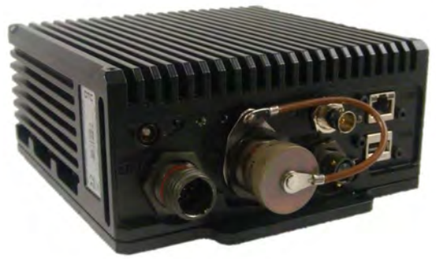
The NETNode RM is a Robust Mobile variant which offers an alternative form factor to its sister, but being smaller allows a wider variety of applications. The 5RM is ideal for extended outdoor deployment and feature rich with new additions including built in GPS receiver and both composite and SDI video inputs comparable to the previous Phase 3 and 4 Robust products. Interoperable with DTC's Phase 3, 4 and 5 Mesh allowing simple upgrade in the field, while adding flexibility and ease of use as nodes can be integrated into existing infrastructure, reducing cost and making it easy to expand any network.

### Features

- Self-forming, self-healing mesh architecture
- Ideal for use for wide area coverage & multi-hop, mobile applications such as robotics
- Low latency IP communication
- HD video encoder - data capacity of greater than 32Mbps of IP data possible
- Built-in HD video encoder offering bit rates of greater than 32Mbps
- Built in GPS receiver
- Software configurable RF bandwidth between 1.25MHz and 20MHz
- Interlink mode bridging mesh networks across different IP bearers (e.g. LTE) for enhanced capability, large scale systems and mixed frequency operation
- 64Gb of on-board storage with store & forward functionality
- Built in encryption (DES as standard, AES128/256 available subject to export control)
- Mission Commander compatible

### General Specifications

- Frequency range: UHF, L, LS, S and C band from 320MHz to 5.00GHz
- Power Output: +33dBm per channel in 0.25dB step (4W total)
- Bandwidth: 1.25 - 20MHz (IP Mesh only)
- Data Throughput Capacity: Up to 87Mbps MIMO, 17Mbps standard Mesh
- H.264 video compression
- Encoder delay 1s to 10ms (mode dependent)
- Dimensions - H 160mm, W 160mm, D 70mm
- Weight - <2.0kg



# NETNode RM 10W

## MANET Backhaul, UGV, USV

The NETNode RM is the 5th and latest generation of DTC›s NETNode IP mesh radio family offering built-in dual HD video encoders and MIMO capability for our highest ever data capacities.

The NETNode RM 10W variant provides up to 10W of total RF power output over two transmit ports. The RM is ideal for extended outdoor deployment and feature rich with built in GPS receiver and both composite and SDI video inputs.

Interoperable with DTC's Phase 3 and 4 Mesh allowing simple upgrade in the field, the NETNode RM adds flexibility and ease of use as nodes can be integrated into existing infrastructure, reducing cost and making it easy to expand any network.

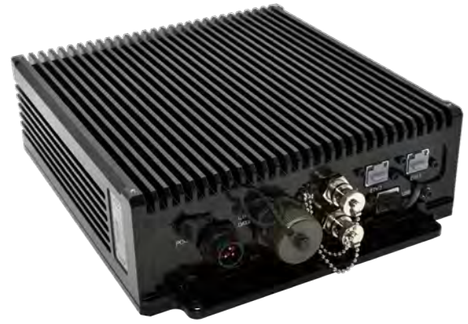
### Features

- 2 x 5W RF transmitters (up to 10W total)
- Self-forming, self-healing mesh architecture
- Ideal for use for wide area coverage & multi-hop, mobile applications such as robotics
- Low latency IP communication
- HD video encoder - data capacity of greater than 32Mbps of IP data possible
- Built in composite video encoder as with RM 4W
- Built in GPS receiver
- Software configurable RF bandwidth between 1.25MHz and 20MHz
- Interlink mode for enhanced capability and large scale systems
- 64Gb of on-board storage with store & forward functionality as with RM 4W
- Built in encryption (DES as standard, AES128/256 available subject to export control)
- Mission Commander compatible

### General Specifications

- Frequency range: L, LS, S and C band from 1.2GHz to 5.00GHz
- Power Output: +37dBm per channel in 0.25dB step (10W total)
- Bandwidth: 1.25 - 20MHz (IP Mesh only as with RM 4W)
- Mesh Capacity: Up to 87Mbps MIMO, 17Mbps standard Mesh
- H.264 video compression
- Encoder delay 1s to 10ms (mode dependent)
- Dimensions - H 160mm, W 160mm, D 70mm
- Weight - <2.5kg





# NETNode RM 30W

## MANET Backhaul, Maritime, Boarding Party, Long Range UAV Ground-station

The NETNode RM is the 5th and latest generation of DTC's NETNode IP mesh radio family offering built-in dual HD video encoders and MIMO capability for our highest ever data capacities.

The NETNode RM 30W is DTC's highest power Mesh product and provides up to 30W total RF power output over two transmit ports for extreme long range applications. The RM 30W is ideal for extended outdoor deployment and includes on board video encoding with twin HD-SDI video inputs.

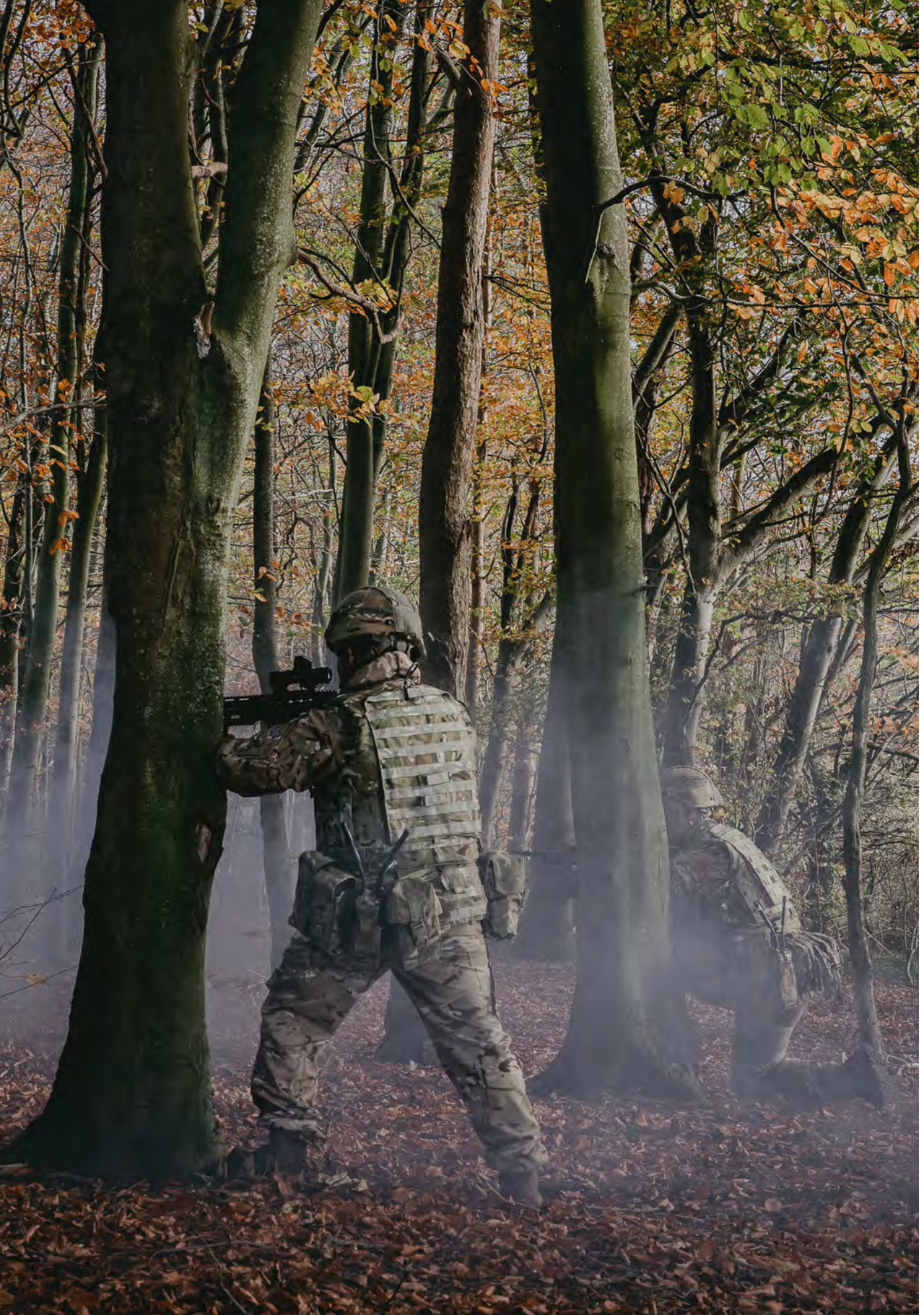
Interoperable with DTC's Phase 3 and 4 Mesh allowing simple upgrade in the field, the NETNode-5RH adds flexibility and ease of use as nodes can be integrated into existing infrastructure, reducing cost and making it easy to expand any network.

### Features

- 2 x 15W RF transmitters (up to 30W total power)
- Self-forming, self-healing Mesh architecture
- Ideal for use for wide area coverage and multi-hop, mobile applications such as robotics
- Low latency IP communication
- HD video encoder - data capacity of greater than 87Mbps of IP data possible
- Software configurable RF bandwidth between 1.25MHz and 20MHz
- Interlink mode for enhanced capability and large scale systems
- 64Gb of on-board storage with store & forward functionality as with RM 4W
- Built in encryption (DES as standard, AES128/256 available subject to export control)
- Mission Commander compatible

### General Specifications

- Power Output: 15W per channel max (30W total) - Power adjustable in 0.25dB steps
- Bandwidth: 1.25 - 20.0MHz (IP Mesh only) Mesh Capacity: Up to 87Mbps MIMO, 17Mbps standard Mesh
- H.264 video compression
- Encoder delay 1s to 10ms (mode dependent)
- Dimensions - H 254mm, W 210mm, D 71mm
- Weight – 5kg approx



# MeshUltra™

Powering DTC

Innovators in
Wireless IP Mesh
Technology

## Revolutionising Mesh Technology

MeshUltra™ is our most advanced Mesh waveform yet and it is supported by the industry's widest range of Mesh hardware platforms – from tiny modules, perfect for small drones, to the longest range ruggedized nodes, ideal for maritime or industrial applications. With frequency options spanning 340MHz to 6GHz and tri-band capable products, plus options for OEM integration, DTC can offer hardware solutions for every application.

MeshUltra™ incorporates multiple enhancements such as higher throughput, support for more nodes, multiple talk groups, quasi beamforming and cognitive radio capabilities.

Quasi-beamforming offers a significant increase in robustness and fault tolerance, while the new SQT 64QAM modulation mode and reduced metadata overhead allows even more data throughput. Cognitive radio features such as auto-adaptive modulation based on SNR for each individual mesh link, automatic mode switching and the RF-reactive Interference Avoidance Scheme allow MeshUltra™ to maintain maximum capacity links in the most challenging conditions.

Time and again, DTC Mesh excels not just on the datasheet or in the lab but in the most demanding real-world applications.

Now, DTC MeshUltra™ offers our most capable and flexible Mesh yet.

# Battlefield Connectivity

**MANET (Mobile Adhoc NETwork) Dynamic Self-healing, Self-forming MESH Radios for NLOS, Urban and Subterranean Missions**

MESH (RTV&A) SENSORS HF (6110/6120) VHF (6150) MULTIBAND (6170) UHF (6160)

SATCOM AND SERVICES

BATTALION MAIN

BRIGADE HQ

BATTALION TOC

UAV

COMPANY TOC

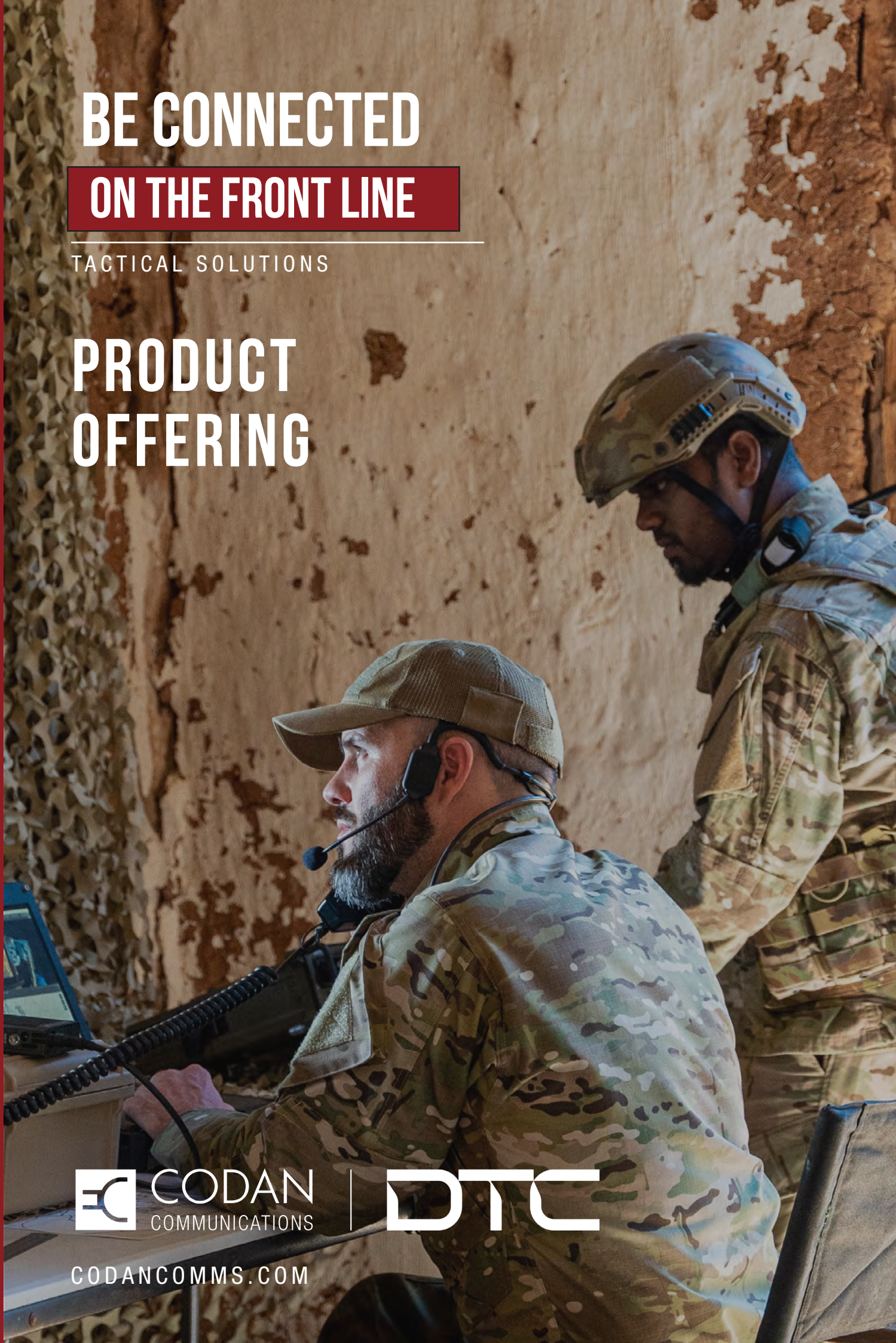
PLATOON

# BE CONNECTED

## ON THE FRONT LINE

TACTICAL SOLUTIONS

# PRODUCT OFFERING



CODAN COMMUNICATIONS | DTC

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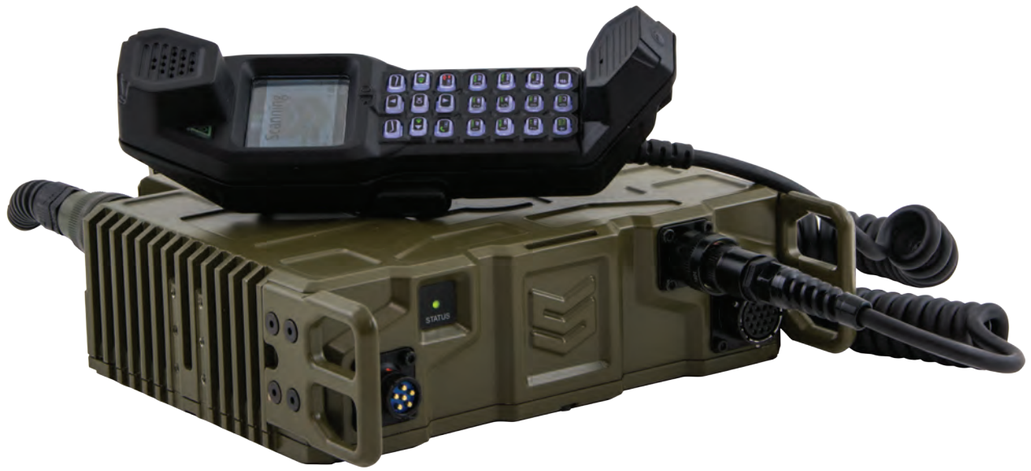
# TACTICAL COMMUNICATIONS PORTFOLIO



# SENTRY-H 6120-BM

## HF BASE, MOBILE

Codan's Sentry-H 6120-BM delivers a rugged Software Defined Radio (SDR) solution for military organisations that demand uncompromised, secure long range voice and data communications. With 150W RF power, it has been specifically designed to deliver the smallest and lightest form factor for no-fuss integration into base and mobile platforms. In close consultation with military customers, the 6120-BM has been optimised for ease-of-use and features an ergonomic smart handset with a colour, high-resolution multi-language interface and a variety of other capabilities.

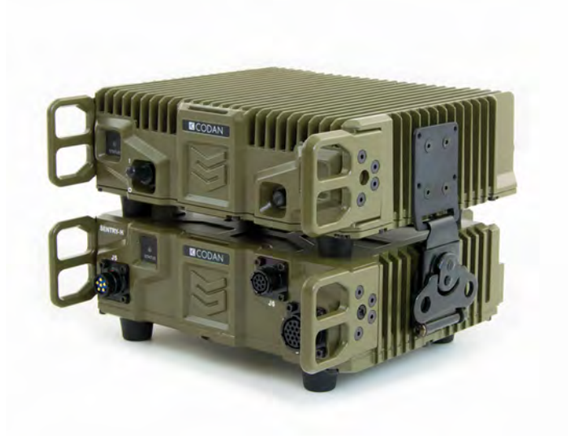
### FEATURES

- SDR Future-proof software defined design
- Fully backwards compatible with existing Codan radios
- Rugged smart handset with colour display and integrated GPS and loudspeaker mode
- Multi-language, intuitive user interface
- Optimised for mobile and base deployment
- 1.6–30 MHz
- 150 W PEP RF output
- Digital Voice, MELPe, TWELP
- STANAG 4538 (3G ALE)/MIL-STD-188-110A/B data waveforms (up to 19k2 bps)
- AES-256 digital COMSEC/CES 128 (full backwards compatible)
- Frequency Hopping
- MIL-STD-188-141B ALE (JITC certified)
- DSP noise reduction
- Fully Waterproof (IP67)
- MIL-STD-810G compliant for shock and vibration and environmentals
- IP/USB Connectivity
- Interoperable with Codan Patrol 2110M Manpack
- H-250 Connector support to Audio and external encryption devices, COTS/MOTS
- GPS force tracking solutions available
- Worldwide Codan service and support
- Over The Air Zeroise (OTAZ) capability

### GENERAL SPECIFICATIONS

- Frequency Range: TX: 1.6–30 MHz; RX: 250 kHz–30 MHz
- Power Output: 150 W PEP
- Modes: J3E USB/LSB, AM (A3E Rx, H3E tx), CW/LMCW/UMCW (J1A, A1A)
- Receiver Sensitivity: -125dBm (0.12uV)
- Channels: 1000
- Programmable Contacts: 500
- Programmable Networks: 20
- Scan Rate: Up to 8 Channels per second
- RF Input / Output Impedance: 50 Ω (N-Type)
- Input Voltage: 10 V to 35 V DC
- Supply Current: Rx: 650 mA; Tx: average speech 5 A (analogue)
- Channel Filters: 500 Hz, 2.4 kHz, 2.75 kHz, 3 kHz (software defined)
- Frequency Stability: ±0.3 ppm
- Operating temperature range: -30 to +60°C
- Environmental: MIL-STD-810-G for shock, vibration, humidity, blowing dust, leakage, immersion, fungus, altitude
- Protection: Over-voltage/under-voltage/over-temperature/reverse polarity
- GPS: RFU: external antenna, Handset: embedded receiver/antenna (GPS, GLONASS and Beidou)
- Size: RFU 220 mm x 66.5 mm x 190 mm, Handset: 67 mm x 210 mm x 72.5 mm
- Weight: RFU: 2.82 kg; Handset: 280 g (no cable)
- Language Support: Multiple language user interface and documentation

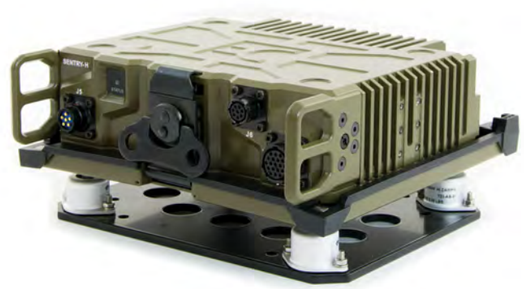




### BASE

The 6120-BM can be easily adapted to a base station use with simple desktop or rack mount options as well as a universal mounting system for custom mount solutions. The 6120-BM will operate from a wide range of DC input voltages making it suitable for battery/solar powered sites. For AC mains applications the 6120-BM transceiver can be combined with the fully ruggedised/waterproof 3320 Sentry power supply to provide reliable, continuous duty operation, with standby battery backup if needed.

The 6120-BM has standard power output of 150W, however, for enhanced communications ranges or high volume data operation this may be increased to 500 or 1000W using the Codan 3061/2 external rack mount power amplifier.



### MOBILE

The small size and fully integrated design of the 6120-BM provides an excellent solution for mobile platforms, particularly where available space is at a premium. The 2230 Smart Handset provides full configuration and control of the radio and enables remote location of the RF Unit for installation flexibility. This convenience is further enhanced by the Handset's embedded loudspeaker and GPS capabilities, alleviating the need for these as separate accessories in many cases.

The wide 10V to 35V DC input voltage handling means that the 6120-BM can be directly connected to the battery supply of a wide range of vehicle types without the need for expensive and bulky voltage convertors.

### ACCESSORIES

A range of military specification accessories are offered to support the deployment of the 6120-BM into both temporary and permanent fixed station deployment.

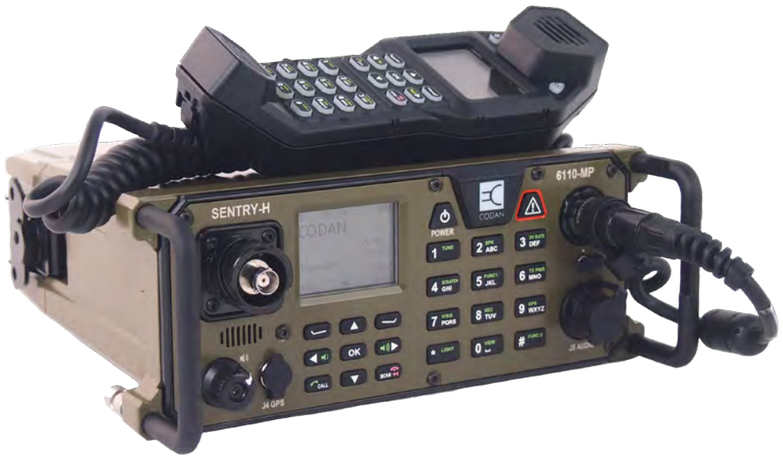
- Tactical base antenna and mast solutions
- Vehicle / base antenna tuners
- Vehicle shock mounts
- General mounting accessories
- H-250 audio accessories
- H-250 remote speaker
- 3320 rugged power supply
- Morse key
- Crosspatch HF/VHF/UHF
- Telephone interconnect
- 500 W / 1kW booster amplifiers
- External GPS antennas

3046 Tuner

HF NATO antenna base whip

H-250 Remote Speaker

9300 Vehicular Antenna




# SENTRY-H 6110-MP

## HF MAN PORTABLE

Codan's Sentry-H 6110-MP delivers a rugged man portable Software Defined Radio (SDR) solution for military organisations that demand uncompromised, secure voice and data communications, while on the move. The 6110-MP forms an integral part of the Sentry-H product family that meets the demands of the modern battlefield whilst offering full backwards compatibility with legacy products. The 6110-MP is one of the smallest, lightest form factor manpack HF radios available, delivering a powerful 30W RF power and up to 79 hours of battery life in less than 4.7 kg of weight without compromise on any capabilities.

### FEATURES

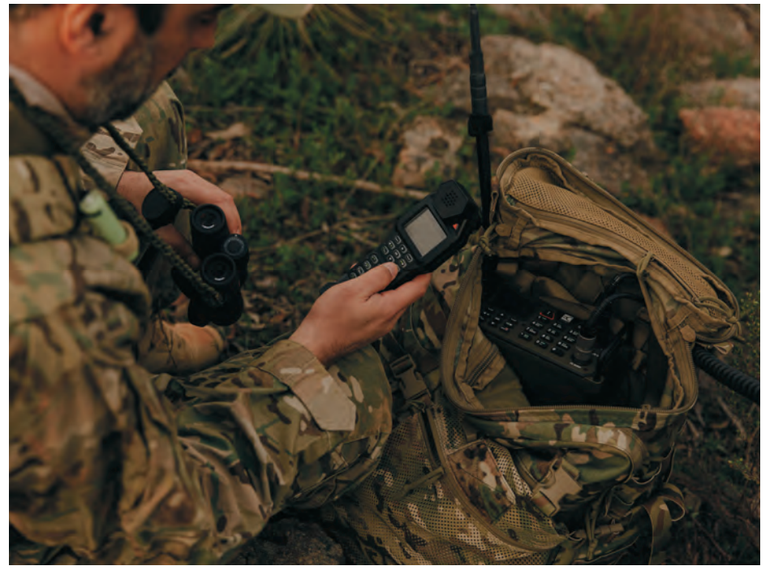
- Software Defined Radio
- 30 W power output
- Man portable usage up to 79 hour battery life
- Rugged and waterproof
- MIL-STD-810G design
- Lightweight and compact
- Rugged smart handset with colour display and integrated GPS
- Dual handset control
- Intuitive icon based colour display
- Multi-language user interface
- Tactically aware: dedicated sound and light controls
- Embedded GPS
- Built in front panel speaker
- IP connectivity over Ethernet/Wi-Fi and USB
- Exceptional RF performance
- Digital voice message call
- Standards based: MIL-STD-188-110A/B (STANG 4539) Data (up to 19k2 bps), FED-STD-1045, MIL-STD-188-141B ALE, 3G ALE (STANAG 4538)
- AES-256/CES-128 COMSEC
- ECCM
- Designed for MOTS BB-2590 style battery
- Worldwide Codan service and support
- Over The Air Zeroise (OTAZ) capability

### GENERAL SPECIFICATIONS

- Frequency Range: TX: 1.6–30 MHz; RX: 250 kHz–30 MHz
- Power Output: 30 W RF± 1dB (two-tone or voice), user-programmable in 1W steps (low/medium/high)
- Modes: Single Sideband USB, LSB (J3E), AM (H3E), CW (J2A), AFSK (J2B), FSK (F1B), ISB (B7D or B2B), Software Defined
- Receiver Sensitivity: SSB: -125 dBm (0.12 uV) for 10dB SINAD
- Channels: Up to 1000 entries
- Programmable Contacts: Up to 500 entries
- Programmable Networks: Up to 20 networks (simultaneous scanning)
- Frequency Stability: ±0.3 ppm
- Operating temperature range: Operational at –30 to +60°C; 95% RH maximum, non-condensing
- Environmental: MIL-STD-810G (Immersion (1 hr at 1 m), Shock, Drop, Vibration, Humidity, High temp, Low temp, Blowing Dust, Salt Fog, Fungus, Contamination, Altitude)
- GPS: Embedded receiver/antenna (GPS, GLONASS and Beidou) and external antenna support
- Size: 284mm (without handles, 324 with handles) x 246 mm x 96 mm (L x W x H) including battery compartment
- Weight: Less than 5 kg including BB-2590 battery
- Language Support: English, Spanish, Russian, Chinese, French, Arabic, Dari, Pashto and Portuguese



- Compact and lightweight
- Intelligent performance
- High power
- Secure communications
- Exceptional digital and analogue voice clarity
- Intuitive operation



### PORTABLE

The 6110-MP is comfortable to carry, packed with easy-to-use features and ideal for all types of terrain and weather conditions, complying with the toughest environmental standards including MIL-STD-810F.

### ACCESSORIES

The Sentry-H 6110-MP radio is fully customisable to your specific mission requirements with software enabled capabilities and a wide range of peripherals and accessories.

- Batteries
- Battery chargers
- Grounding kit
- Tactical antennas
- Backpacks

Batteries

Battery charger

Battery charger

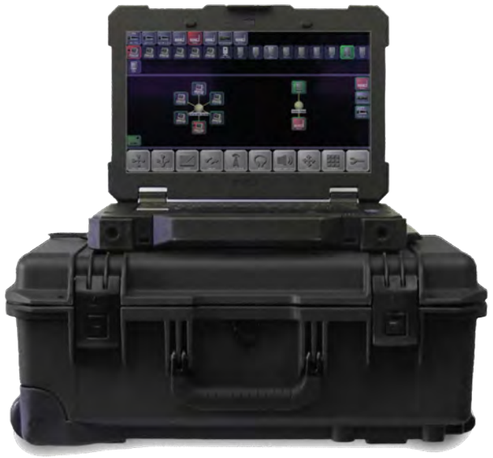
Multi-bay charger

Tape and collapsible whip

Grounding kit

Tactical broadband antenna

Backpack



# RIOS

## RADIO INTER-OPERABILITY SYSTEM - ANY TO ANY VOICE DEVICE

Codan's RIOS (Radio Interoperability System) is a suite of devices intended to allow radio to radio to IP voice communications, secure from end to end. Encrypted and clear radios from any band (e.g. HF, VHF, UHF, satellite) can be bridged together and broken out onto IP links (e.g. LTE internet, fibre, microwave, Ethernet) to allow 'software' users on Windows computers, iOS/Android smartphone apps or VoIP phones to talk directly to radio assets on the ground.

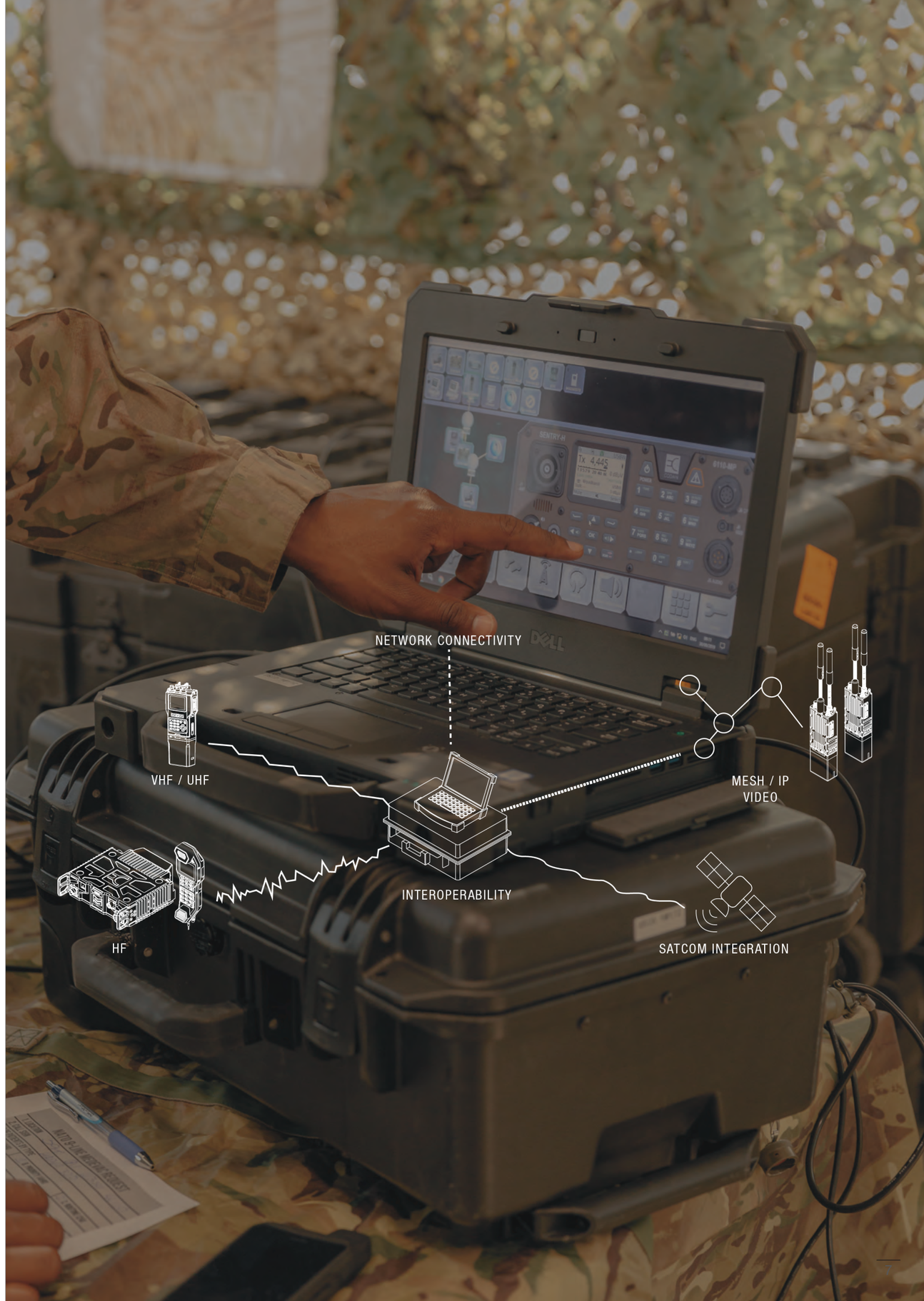
RIOS is hardware compatible with any device with a microphone and speaker, meaning GSM or POTS telephone networks can also be easily linked into these same RoIP talkgroups. RIOS operates transparently to any encryption standards - communications channels remain 'red' between radio devices, are decrypted by the connected radio going into the RIOS, and then re-encrypted again by a different outgoing radio connected to the RIOS.

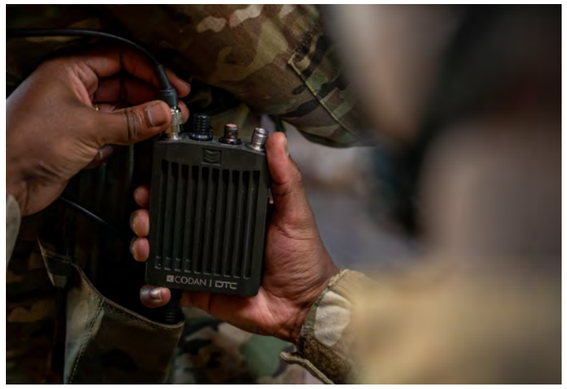
### FEATURES

- Interoperability for all types of communications including radio, smartphone and computers
- Deploy immediately to the most challenging environments with a standalone FAA-compliant case
- Connect to all signaling platforms including HF, VHF, UHF, cellular and satellite phones
- Network to anywhere in the world including Ethernet, satellite or wireless IP highly-efficient network integration
- Common radio configurations pre-set
- RIOS lite smartphone app with control and video function

### GENERAL SPECIFICATIONS

- 2 - 32 hardware ports and unlimited software connections
- Ruggedised USB port
- External PTT input
- DC Input: 9 to 36 V DC
- Weight: 9.5 kg (31 lbs) with Battery
- Dimensions: 22.6 cm H, 55.1 cm W, x 35.8 cm D (8.9" H x 21.7" W x 14.1" D)
- Housed in a Pelican iM 2500 case with lid organiser
- Includes:
  - RIOS Gateway Controller software application
  - Lind power adaptor for ruggedised laptop
  - AC mains to DC power supply and line cord
  - Ruggedised laptop





# SENTRY MESH 6161

## MANET MESH SQUAD RADIO

Codan | DTC's Sentry Mesh 6161 is the ultimate Personal / Squad radio for demanding military applications that require performance, range and versatility in a lightweight and compact, wearable unit that minimises the burden on soldiers. The 6161 is a personal radio for dismounted soldiers built on the latest Codan | DTC MANET IP radio technology using the MeshUltra™ tactical waveform.

### FEATURES

- Self-forming, self-healing MANET Mesh network
- Simultaneous voice, data and HD video
- Multiple talk groups
- Spatial Diversity (MIMO 2x2)
- AES-256 Encryption (FIPS 140-2)
- Anti-jamming / intercept waveform (LPI/LPD)
- Upgradable Software-Defined Radio (SDR)
- MIL-STD-461G and MIL-STD-810H certified
- Extensive accessory support
- Internal GPS receiver and antenna
- Cursor on Target PLI (TAK compatible)

### GENERAL SPECIFICATIONS

- Frequency Range: 1.2-1.7GHz (L band variant) (additional bands under development)
- Bandwidth: 1.25-10MHz
- Power Output: 2W total (maximum), user programmable
- Data rates: Up to 44.9Mbps
- Nodes: Up to 144 nodes on a single frequency
- Talkgroups: Up to 32 on a single frequency
- Voice: Digital (CODEC2 vocoder), Half and full duplex
- Audio accessory: 2-channel headset & dual PTT support
- Size: 114x75x29mm excluding connector protrusions
- Weight: 445g
- Temperature range: Operational: -30°C to +55°C; Storage: -50°C to +80°C
- Standards: MIL-STD-810H high temperature, low temperature, shock, vibration, altitude, dust, humidity, salt fog, fungus, contamination by fluids, MIL-STD-461G EMI/EMC
- Controls & Indicators: Multifunction rotary control (Preset, On/ Off, Zeroise), volume up/down, Status LED
- Connectivity: Ethernet and USB (7-pin Nett Warrior)



### BLUE FORCE TRACKING

The embedded GPS provides over-the-air updates of soldier position using an industry standard Cursor of Target (CoT) , with expansion port for an additional higher gain wearable GPS antenna for the most challenging conditions.

### LOW SPACE, WEIGHT AND POWER

At around the size of a large cigarette packet and weighing 445 grams, with power consumption that allows it to last up to 18 hours on a wearable battery, the Sentry Mesh 6161 has the best space, weight and power performance in its class when balanced against radios with similar capability.

### COMMUNICATING ON THE MODERN BATTLEFIELD

Communicating on the modern battlefield with a peer adversary means that you are at risk of compromise through detection, identification that can lead ultimately to the compromise of your position. The Sentry Mesh 6161 offers excellent LPI/LPD performance for an IP Mesh radio, FIPS 140-2 certified AES-256 encryption and hard EMCON for when you absolutely need to be sure you are not transmitting. The cognitive Interference Avoidance System (IAS) where every radio is a sensor allows jamming or significant interference to be autonomously detected and avoided, ensuring resilient communication.

### SOLDIER PROOF AND FUTURE PROOF

The Sentry Mesh 6161 will operate in the most extreme environments with MIL-STD-810H compliance for high temperature, low temperature, shock, vibration, altitude, dust, humidity, salt fog, fungus, contamination by fluids, IP68 ingress protection and MIL-STD-461G EMI/EMC. Equally the 6161 has been engineered to allow for plug and play compatibility with in-service MOTS/COTS peripherals. The MeshUltra™-X waveform forms a self-forming, self-healing mobile adhoc network (MANET) of up to 144 nodes that is incredibly resilient and flexible, operating in complex urban and non- line-of-sight environments where other radios struggle.

Support for a fleet of 6161 radios has never been easier with over-the-air ability in the field to configure and reconfigure all radios in a mesh.

### ACCESSORIES

A range of military specification accessories are offered for use with the Sentry Mesh 6161 to meet your specific mission requirements and combat ensemble configuration.

- Headsets
- Push-to-Talk (PTT) Controls
- Pouch
- RF and GPS Antennas (conventional and wearable)
- Battery (conventional and wearable)
- Power and Data Management System
- Wearable Camera

**Light, medium and heavy configuration**