



# ***iFalconHM***

**Helmet Mounted Thermal Imaging System**

## ***RESCUER OF THE FUTURE*** **SUPERIORITY IN FIREFIGHTING**



**SCBA USE WITH THERMAL VIEW**

**REAL-TIME COMMUNICATION**

**HANDS FREE OPERATIONS**

**REMOTE MONITORING**

**NO EYE-STRAIN**

**CHEMICAL & NUCLEAR SENSING**

*Patented in EU, US and China*



**ENERGY LASER**  
Focusing Innovations



# iFalconHM-Lite

is an Integrated Electronic Safety Equipment (ESE) that enhances intervention time, room navigation, and air consumption.

**256x192 pixels - 8.0-14.0um  
Thermal Sensor microbolometer**

**Display TFT 5.0" RGB  
800x480 pixels  
High Definition Details View**

**LED illuminator**

**5 buttons for  
an easy usability  
of all functions**

**Swappable Rechargeable  
Battery**



TECHNICAL SPECIFICATIONS:	iFalconHM-Lite
Material:	Flame Retardant Radel® Carbon Fiber with flame retardant resins
Sealing:	IP68
Dimensions:	450x180x285mm (LxWxH)
Weight:	1,35kg
Thermal Detector resolution:	256x192 pixels, uncooled microbolometer
Sensitivity:	High Sensitivity 50mK (typical)
Spectral Response:	8.0-14.0 microns
Lens and Protective Window Material:	Germanium
Field of View:	56° H; 42°V;
Frame Rate:	25Hz or 30Hz
Visible Camera Detector:	Unavailable
Display Size and Resolution:	TFT 5.0" RGB, 800x480pixels
Laser Pointer and LED Lighting:	Included
Battery:	Li-Ion Intrinsically Safe
Mission Life:	>2h
Zoom Capacity:	2x
Selectable Color Palette	
LED Light Illuminator	

TECHNICAL SPECIFICATIONS:	iFalconHM-Lite
Long Range Wireless Communication:	Unavailable
Video and Audio Storage:	48 hours minimum format MPEG4 – H264
Environment:	-20°C to 85°C (-4°F to 185°F) > 60 minutes 150°C (302°F): 15 min 260°C (500°F): 5 min
Warranty:	2 Years
Approvals:	CE Marking IP68
Compliant with standard EN443	

# iFalconHM-Lite PRO

is an Integrated Electronic Safety Equipment (ESE) that enhances intervention time, room navigation, and air consumption.

**384x288 pixels - 8.0-14.0um  
Thermal Sensor microbolometer**

**Display TFT 5.0" RGB  
800x480 pixels  
High Definition Details View**

**LED illuminator**

**5 buttons for  
an easy usability  
of all functions**

**Swappable Rechargeable  
Battery**



TECHNICAL SPECIFICATIONS:	iFalconHM-Lite PRO
Material:	Flame Retardant Radel® Carbon Fiber with flame retardant resins
Sealing:	IP68
Dimensions:	450x180x285mm (LxWxH)
Weight:	1,35kg
Thermal Detector resolution:	384x288 pixels, uncooled microbolometer
Sensitivity:	High Sensitivity 50mK (typical)
Spectral Response:	8.0-14.0 microns
Lens and Protective Window Material:	Germanium
Field of View:	39° H; 30°V;
Frame Rate:	25Hz or 30Hz
Visible Camera Detector:	Unavailable
Display Size and Resolution:	TFT 5.0" RGB, 800x480pixels
Laser Pointer and LED Lighting:	Included
Battery:	Li-Ion Intrinsically Safe
Mission Life:	>2h
Zoom Capacity:	4x
Selectable Color Palette	
LED Light Illuminator	

TECHNICAL SPECIFICATIONS:	iFalconHM-Lite PRO
Short Range wireless Data (no video):	Frequency 2.400-2.4835 GHz, with Radio Operation 802.11b/g/n Sensitivity -89dBm Output power 20dBm
Video and Audio storage:	48 hours minimum format MPEG4 – H264
Environment:	-20°C to 85°C (-4°F to 185°F) > 60 minutes 150°C (302°F): 15 min 260°C (500°F): 5 min
Warranty:	2 Years
Approvals:	CE Marking IP68
Compliant with standard EN443	
Includes iFalconAPP-Lite	
Temperature accuracy: +/-10°C	



# iFalconHM-Full

the first thermal imaging system with real-time, high-power wireless video and data transmission.

**640x512 pixels - 7.5-13.5um**

**Thermal Sensor microbolometer**

**Display TFT 5.0" RGB**

**800x480 pixels**

**High Definition Details View**

**Visible Camera (CMOS sensor)**

**Laser pointer**

**LED illuminator**

**5 buttons for easy access  
to all functions**

**Swappable Rechargeable  
Battery**

**Wireless - 2.4GHz 2x2 MIMO**

**Mesh Operation Long Range**

**Global Navigation**

**Satellite System GNSS**

**Compatible headsets:**

**CeoTronics, Savox,**

**Holmco, Imtradex**

**Integrated Motionless and Lying  
body detection**

TECHNICAL SPECIFICATIONS	iFalconHM-Full
<b>Material:</b>	Flame retardant Radel® Carbon Fiber with flame retardant resins
<b>Sealing:</b>	IP68
<b>Dimensions:</b>	450x180x285mm (LxWxH)
<b>Weight:</b>	1,65kg
<b>Thermal Detector Resolution:</b>	RADIOMETRIC, 640x512 pixels, uncooled microbolometer
<b>Sensitivity:</b>	High Sensitivity 20mK (typical)
<b>Spectral Response:</b>	7.5-13.5 microns
<b>Lens and Protective Window Material:</b>	Germanium
<b>Field of View:</b>	48° H; 38°V;
<b>Frame Rate:</b>	50Hz or 60Hz
<b>Visible Detector:</b>	CMOS sensor 640x480, 0,025lux, 30Hz
<b>Display Size and resolution:</b>	TFT 5.0" RGB, 800x480pixels
<b>Laser Pointer and LED Lighting:</b>	Included
<b>Battery:</b>	Li-Ion Intrinsically safe
<b>Mission Life:</b>	>2h (only thermal); >40min (all on)
<b>Zoom Capacity:</b>	2x/4x/8x
<b>Selectable color palette</b>	10 palettes
<b>LED Light Illuminator</b>	
<b>Compass</b>	
<b>Motionless body detection</b>	
<b>Lying-pose human detection</b>	

TECHNICAL SPECIFICATIONS:	iFalconHM-Full
<b>Long Range wireless Video and Data:</b>	Selectable between: Frequency 2.400-2.4835 GHz, with Radio Operation 802.11b/g/n Sensitivity -92dBm Output power 30dBm Or Frequency 2.402-2.478 GHz, with Modulation BPSK or QPSK MIMO 2x2 Sensitivity -102dBm Output power 30dBm Data Encryption 128-bit AES
<b>Video and Audio Storage:</b>	48 hours minimum Format MPEG 4 - H264
<b>Environment:</b>	-20°C to 85°C (-4°F to 185°F) > 60 minutes 150°C (302°F): 15 min 260°C (500°F): 5 min
<b>Warranty:</b>	2 years
<b>Approvals:</b>	CE Marking IP68
<b>Compliant with standard EN443</b>	
<b>Temperature accuracy: +/-10°C</b>	
<b>Multiple Wireless frequencies for communication redundancy</b>	
<b>Included iFalconAPP-FULL</b>	
<b>Possibility to visualize Video in Real time from other selectable iFalconHM</b>	



# iFalconHM-MIL

the first thermal imaging system with real-time, high-power wireless video and data transmission.

**640x512 pixels - 7.5-13.5um**

**Thermal Sensor microbolometer**

**Display TFT 5.0" RGB**

**800x480 pixels**

**High Definition Details View**

**Visible Camera (CMOS sensor)**

**Laser pointer**

**LED illuminator**

**5 buttons for easy access  
to all functions**

**Swappable Rechargeable  
Battery**

**Wireless - 2.4GHz 2x2 MIMO**

**Mesh Operation Long Range**

**Global Navigation**

**Satellite System GNSS**

**Compatible headsets:**

**CeoTronics, Savox,**

**Holmco, Imtradex**

**Integrated Montionless and Lying  
body detection**

TECHNICAL SPECIFICATIONS	iFalconHM-MIL
<b>Material:</b>	Flame retardant Radel® Carbon Fiber with flame retardant resins
<b>Sealing:</b>	IP68
<b>Dimensions:</b>	450x180x285mm (LxWxH)
<b>Weight:</b>	1,65kg
<b>Thermal Detector Resolution:</b>	RADIOMETRIC, 640x512 pixels, uncooled microbolometer
<b>Sensitivity:</b>	High Sensitivity 20mK (typical)
<b>Spectral Response:</b>	7.5-13.5 microns
<b>Lens and Protective Window Material:</b>	Germanium
<b>Field of View:</b>	50° H; 37°V;
<b>Frame Rate:</b>	50Hz or 60Hz
<b>Visible Detector:</b>	CMOS sensor 640x480, 0,025lux, 30Hz
<b>Display Size and resolution:</b>	TFT 5.0" RGB, 800x480pixels
<b>Laser Pointer and LED Lighting:</b>	Included
<b>Battery:</b>	Li-Ion Intrinsically safe
<b>Mission Life:</b>	>2h (only thermal); >40min (all on)
<b>Zoom Capacity:</b>	2x/4x/8x
<b>Selectable color palette</b>	12 palettes
LED Light Illuminator	
Compass	
Motionless body detection	
Lying-pose human detection	

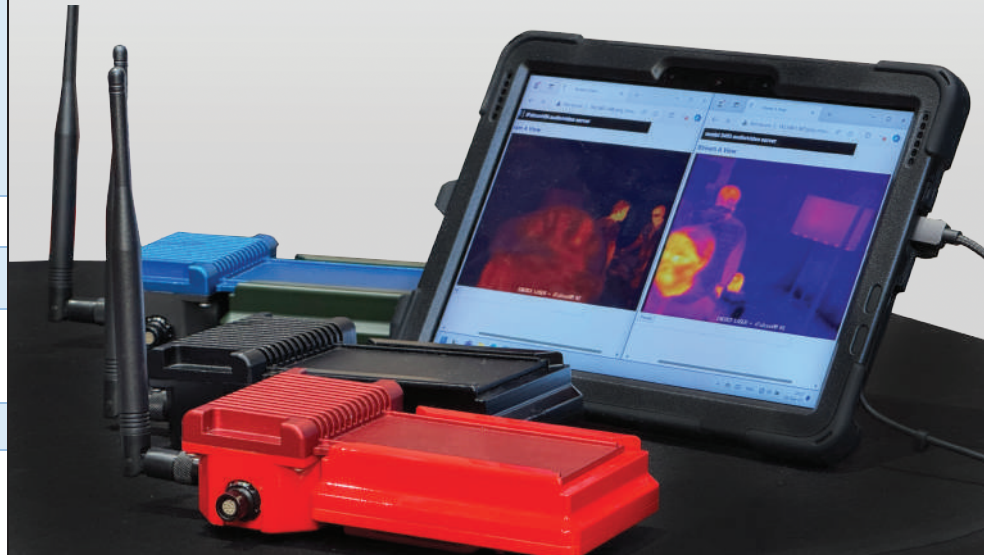
TECHNICAL SPECIFICATIONS:	iFalconHM-MIL
<b>Long Range wireless Video and Data:</b>	Selectable between: Frequency 2.400-2.4835 GHz, with Radio Operation 802.11b/g/n Sensitivity -92dBm Output power 30dBm Or Frequency 2.402-2.478 GHz, with Modulation BPSK or QPSK MIMO 2x2 Sensitivity -102dBm Output power 30dBm Data Encryption 128-bit AES
<b>Video and Audio Storage:</b>	48 hours minimum Format MPEG 4 - H264
<b>Environment:</b>	-20°C to 85°C (-4°F to 185°F) > 60 minutes 150°C (302°F): 15 min 260°C (500°F): 5 min
<b>Warranty:</b>	2 years
<b>Approvals:</b>	MIL-STD-810H (High Temperature, Salt Fog) IP68
Compliant with standard EN443	
Temperature accuracy: +/-10°C	
Multiple Wireless frequencies for communication redundancy	
Included iFalconAPP-FULL	
Possibility to visualize Video in Real time from other selectable iFalconHM	



# iFalconNET-WIFI-2.4

**iFalconNET repeaters establish a reliable communication network, transmitting video and data remotely to any device**

TECHNICAL SPECIFICATIONS	iFalconNET-WIFI-2.4
Communication:	Wireless Specifications: Transceiver Long Range (up to 500m in free space) Frequency: 2.400-2.4835 GHz, with Radio Operation 802.11b/g/n Sensitivity -92dBm Output power 30dBm Data Encryptions 128-bit AES
Environmental:	Weight: 1.0kg (including battery) Sealing: IP68
Operating temperature:	-20°C to 85°C > 60 minutes 150°C: 15 minutes 260°C: 5 minutes
Housing and Construction:	Flame retardant Radel® and Anodized aluminum Color: Grey or other requested at the order
Approvals:	CE Marking IP68
Included:	- 1 REPEATER - 1 External Li-Ion Battery for iFalconNET - 1 EL-BT-CRG-WP: Wall Plug Battery Charger - 1 Ethernet cable



**Repeaters positioned on the spot**  
Build mobile network infrastructure on-site

**Video and data transmission**  
Ensure clear communication  
during field operations

**Network monitoring**  
Avoid audio noise and provide  
on-screen instructions

## Areas of application

Mines and Tunnels

High return facilities

Search and Rescue

Hose handling



ifalcon.eu



YouTube



Instagram



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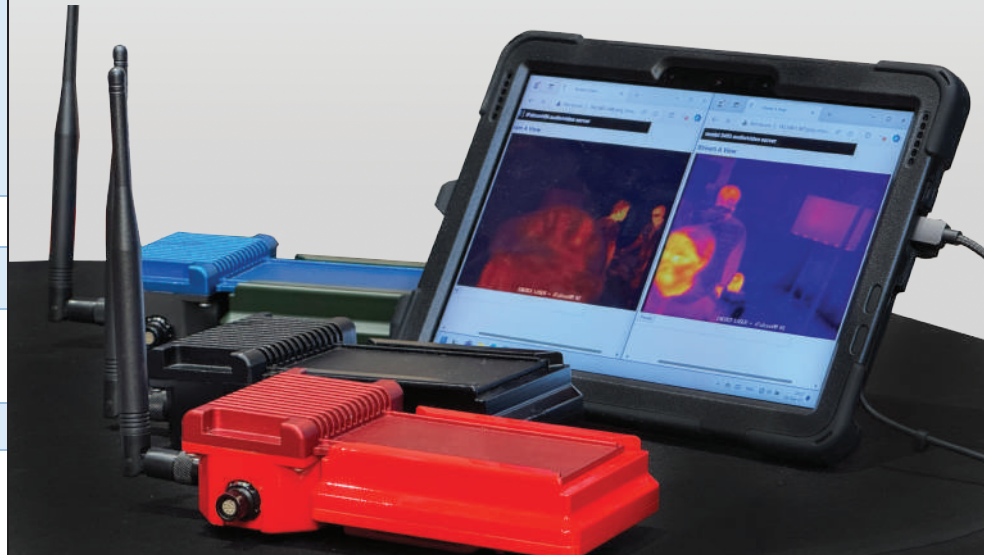




# iFalconNET-MIMO-2.4

**iFalconNET repeaters establish a reliable communication network, transmitting video and data remotely to any device**

TECHNICAL SPECIFICATIONS	iFalconNET-MIMO-2.4
Communication:	Wireless Specifications: Transceiver Long Range (up to 1000m in free space) Frequency: 2.402 - 2.478 GHz, with Modulation BPSK or QPSK MIMO 2x2 Sensitivity -102dBm Output power 30dBm Data Encryptions 128-bit AES
Environmental:	Weight: 1.0kg (including battery) Sealing: IP68
Operating temperature:	-20°C to 85°C > 60 minutes 150°C: 15 minutes 260°C: 5 minutes
Housing and Construction:	Flame retardant Radel® and Anodized aluminum Color: Grey or other requested at the order
Approvals:	CE Marking IP68
Included:	- 1 REPEATER - 1 External Li-Ion Battery for iFalconNET - 1 EL-BT-CRG-WP: Wall Plug Battery Charger - 1 Ethernet cable



**Repeaters positioned on the spot**  
Build mobile network infrastructure on-site

**Video and data transmission**  
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## Areas of application

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