ClipIR XD | ARTIM

Fused Thermal and Night Vision with Augmented Reality (AR)

ClipIR XD-E

ARTIM

ClipIR XD-B

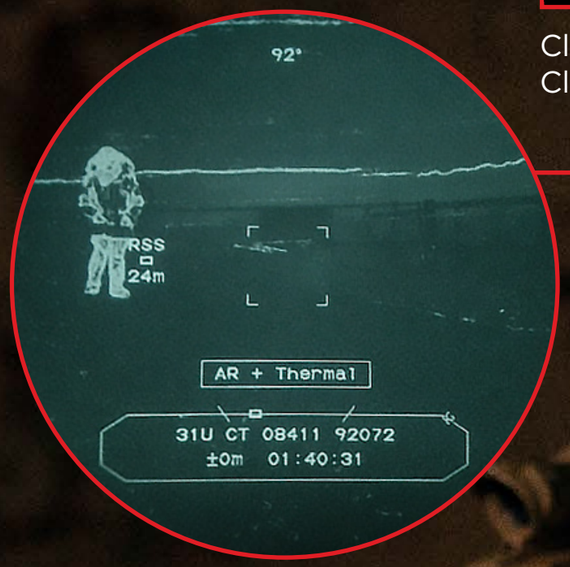
ARTIM-MINI

Clip-on thermal fusion with AR head-up display for night vision devices delivering unrivalled night-time situational awareness

Thermoteknix®

ARTIM / ARTIM-MINI intelligent battery pack mounts on the back of the helmet, connecting to ClipIR XD to deliver AR and data from ATAK and other Battle Management Systems

ClipIR XD Thermal Clip-on System



Fused thermal imaging with AR data overlay displaying navigation, Blue Force Tracking, target markers and other Position Location Information (PLI)

ATAK on Android End User Device (EUD) with Thermoteknix ARTIM plug-in

ARTIM integrates with ATAK and a range of Battle Management Systems (BMS) to offer real-time data sharing and instant situational awareness for team collaboration

ClipIR XD

ClipIR XD-B with internal AA battery or external power

ClipIR XD-E with external power only

- 40° Field of View
- 640 x 480 LWIR
- Man detection of 580m
- Shutterless XTi technology, silent with no NUC required
- Digital Magnetic Compass
- Instant turn on <1 second time-to-image
- Composite Video Input
- External Power
- Compatible with ARTIM intelligent battery pack for AR functionality
- Compatible with most NVGs

Fused Thermal & Night Vision

ClipIR XD series includes ClipIR XD-B and ClipIR XD-E.

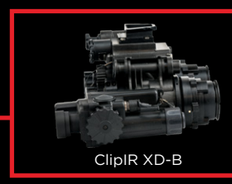
ClipIR XD fused thermal and night vision is the new standard for night time operations. Enhancing operational capability in low light, no light and urban environments provides significant tactical advantage and enhanced situational awareness.

Built on a 640 x 480 LWIR Thermoteknix thermal imaging core, ClipIR XD provides a 40° Field of View (FOV) to deliver exceptional thermal image quality with ultra-low latency.

ClipIR XD utilises Thermoteknix patented Shutterless XTi technology for silent operation without any moving parts.

XTi technology provides the ClipIR XDs with a 60Hz frame rate at ultra-low latency which avoids user fatigue or motion effects. This technology also ensures that the thermal camera is never required to perform a Non-Uniformity Correction (NUC) prior to, or during use regardless of ambient temperature or operating time; a unique feature due to Shutterless XTi technology.

ClipIR XD fitted to an NVG



ClipIR XD-B

ClipIR XD enhances night vision

Optional viewer for ClipIR XD

View with NVG only

View with NVG and ClipIR XD

Quick start up and easy-to-use functionality

Start-up time to image is less than 1 second ensuring rapid deployment. All ClipIR XD functions are controlled using its unique, multifunction scroll wheel. Capable of operation when mounted on either side of the night vision goggle, and operated in all environments wearing gloves, the ClipIR XD is intuitive with minimum training burden.

Multiple thermal fusion modes are available for optimum mission profiles including: White Hot, Black Hot, Outline, Contour and Pulse modes.

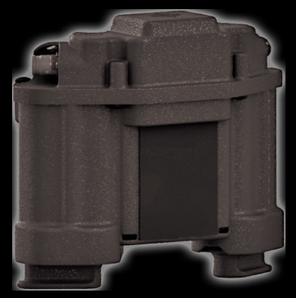
ClipIR XD-B can be powered internally using one single AA battery to provide over 3 hours of use. External power can be provided by a helmet mounted battery pack to enable over 24 hours of continuous use. ClipIR XD-E can be powered using a helmet mounted battery pack.

ClipIR XD is compatible with Thermoteknix Augmented Reality Tactical Interface Module (ARTIM) acting as an intelligent battery pack mounted on the rear of the helmet. ARTIM integrates with existing digital soldier systems and secure communication networks to display real-time data sharing and instant situational awareness through the ClipIR XD for collaboration across teams and agencies.

ARTIM

Key features and benefits

- Augmented Reality Tactical Interface Module (ARTIM) is an intelligent battery pack for ClipIR XD thermal clip-on systems
- ARTIM features a Thermoteknix proprietary Augmented Reality (AR) processor and embedded smart computer with GPS providing ultra low latency 60Hz update rate with zero lag
- ARTIM mounts to the rear of the helmet and tracks the user location and direction of sight, delivering a real-time AR overlay to the user
- Real-time routes, waypoints or team members displayed (blue force tracking)
- Integrates with ATAK and other Battle Management Systems (BMS)
- Flexible configuration options; with or without a network connection
- Internal data storage enables operation with or without connection to End User Device (EUD)
- Displays live BMS video feed from connected sensors, such as UAV or target location device either as Picture-in-Picture or full screen formats
- Sends thermal video from ClipIR XD to BMS which can be shared with other operators across network



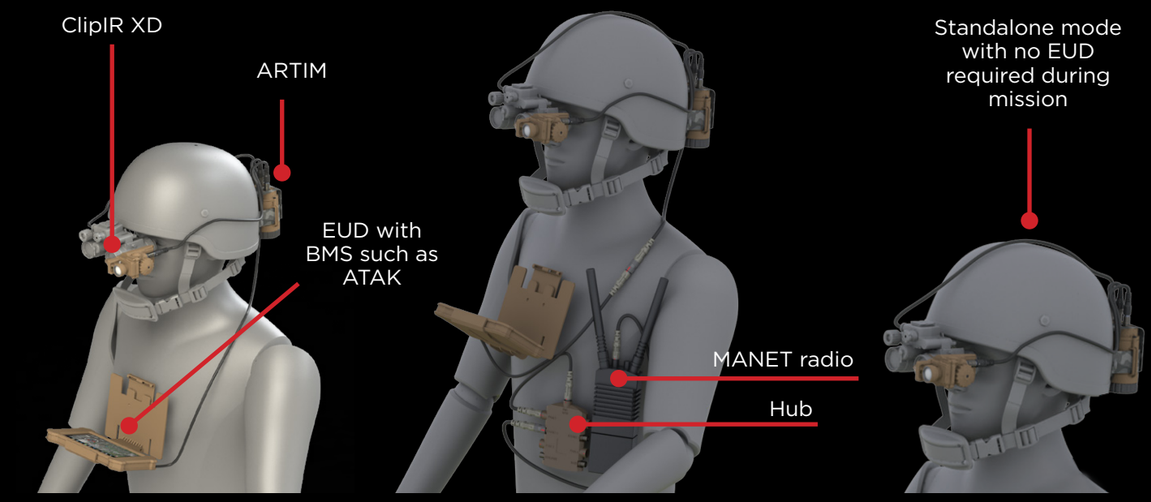
ARTIM-MINI

4x AA batteries providing up to 12 hours of battery life

ARTIM

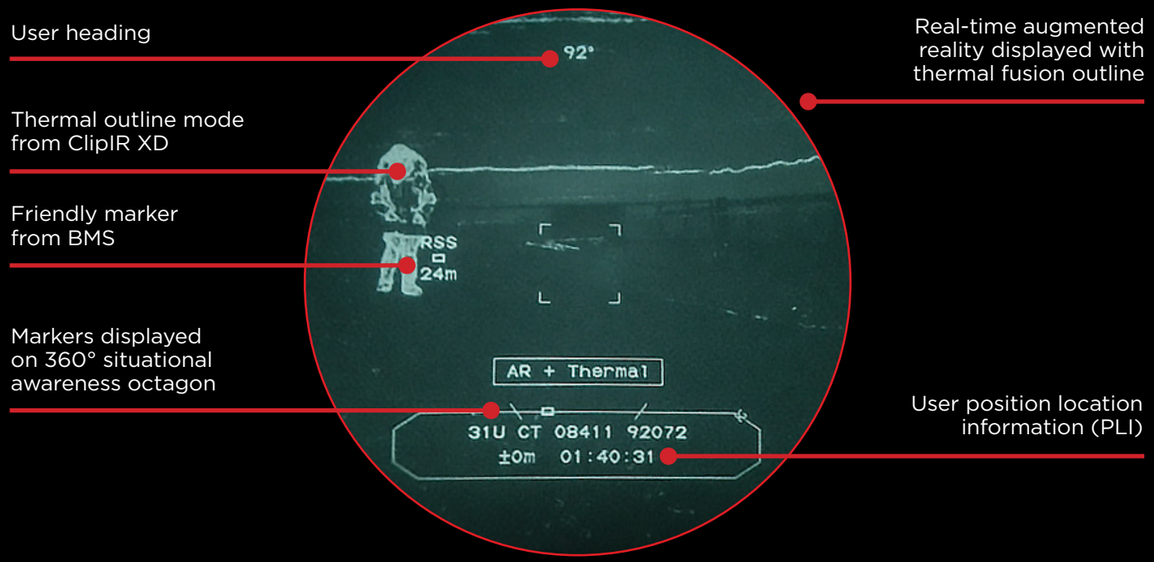
8x AA batteries providing up to 24 hours of battery life

Flexible configurations with or without a network



ARTIM

AR with thermal display



Adjustable filters to reduce cognitive overload

- AR filters enable the user to:
  - Select routes/markers
  - Limit distances of markers displayed
  - Limit level of AR displayed
  - Filter by teams
- User-selectable display modes include thermal only, AR only, or thermal and AR being displayed at the same time

Configurable either on EUD or using scroll wheel on ClipIR XD

Thermoteknix intuitive ATAK plug-in

ClipIR XD

Technical Data

Model	ClipIR XD-E	ClipIR XD-B
Power supply	External power	1 xAA battery or external power
Size (L x H x D)	95 x 42 x 75mm	108 x 42 x 81mm
Weight	<110g	<150g (inc. battery)
Operating time	N/A	>3 Hours (1x AA battery)
Detector	640 x 480 LWIR	
Frame rate	60Hz	
FOV	40°	
Video input	Yes	
Start-up time-to-image	<1 second	
Compass	Internal	
Man detection	580m	
Environmental	MIL-STD-810G	
Operating temperature	-32°C to +55°C	

ARTIM

Technical Data

Model	ARTIM	ARTIM-MINI
Battery	8x AA in two 4-way battery carousels	4x AA
Size (L x H x W)	134 x 102 x 47mm	112 x 100 x 30mm
Weight	<320g, ex. cable and batteries	<200g, ex. cable and batteries (additional 100g counterweight optional)
Operating time (thermal only)	>24 hours	>12 hours
Operating time (thermal and AR)	>11 hours	>5.5 hours
Power input	5V	
NVG power output	3V (factory configurable)	
Video input/output	Yes, through ATAK / BMS	
Compass	Internal	
GPS	Internal (BeiDou, Galileo, GLONASS, GPS / QZSS) or external (user selectable)	
AR update rate	60Hz	
Interface	USB 2.0	
Supported software	ATAK / various Battle Management Systems (BMS)	
Environmental	MIL-STD-810G	
Operating temperature	-32°C to +55°C	

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