

# **CATALOG** 2023



Find the most current version of this catalog at **www.3eeos.com** CTG1000-EN | Rev: C | 2023

#### We are 3E

We are driven by a passion for distinguished products.

3E is a high-tech company specializing in the design, development, know-how, and manufacture of optronic equipment and systems that deliver the most accurate, reliable and creative solutions to military, law enforcement, and civil applications.

In military and civil applications, we deliver first-class solutions to answer their mission needs with highly versatile, field-proven, and robust products.

3E, with a dynamic team, pushes the boundaries of optronic and aiming systems to put state-of-the-art design and production one step further. We continuously invest in human and financial resources in R&D as the development of our team is one of our priorities. By investing in training and providing up-to-date knowledge to our team, we are setting new benchmarks in imaging and aiming solutions.

We turn inspiration into innovation to deliver end-to-end mission solutions to fulfill your ever-evolving requirements. By means of integrated expertise, 3E offers the best available electro-optic solutions.

Considering all the processes, we either eliminate or minimize harmful environmental impacts with a zero waste policy to protect our Earth. We value diversity, ethics, and sustainability in every aspect of life. We build our innovative spirit on the inclusive vision that gathers diverse ideas, perspectives, and lifestyles.

### INNOVATIVE, UNIQUE, RELIABLE

We offer unique, innovative, and reliable high-tech **electro-optical** products and systems that have **proven** themselves **in the field** and in the international market to meet the needs of our users in the field of operation.

# FROM TURKEY TO THE WORLD



## INNOVATIVE DESIGN FLAWLESS PRODUC-TION RELIABLE SOLU-TIONS

3E is a high-tech company specializing in the design, development, and manufacture of advanced mechanical, electromechanical and electro-optical systems and products, offering creative solutions to military and civilian applications at the international level under its strong and dynamic roof.

As 3E, our goal is to set new benchmarks in imaging and targeting systems by creating innovative and reliable solutions for our customers' critical needs even in the most challenging conditions, while bringing their combat capabilities to the highest level and offering products and services that support sustainable competition in the international market.

With our capabilities, we produce up-to-date and state-of-the-art solutions for current needs. With our innovative structure that follows the latest trends and our R&D investments, we focus on constantly improving our capabilities and deliver innovative electro-optical solutions for our customers' future imaging and targeting needs today.



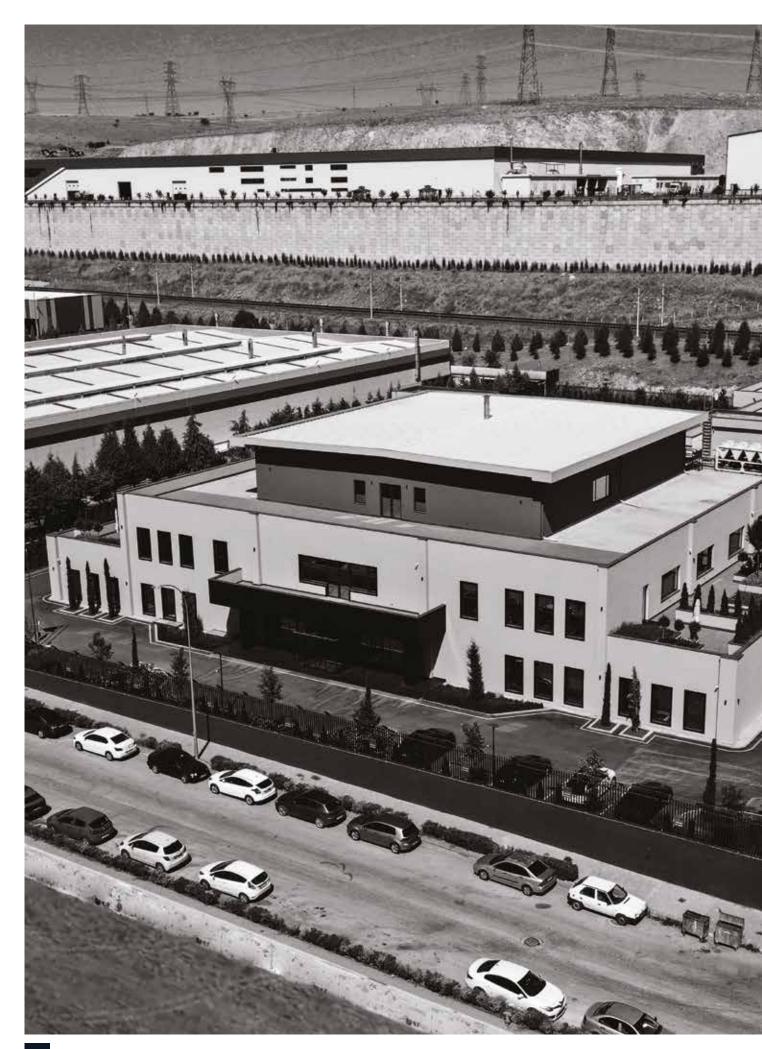


At 3E, it is our priority to increase the reliability of our operations and processes to always provide high quality and flawless products, meet the needs and demands of our customers and maximize their satisfaction. We are taking firm steps towards achieving these goals by maintaining our sensitivity to the environment and human health. By considering all our processes, we eliminate or minimize harmful environmental impacts with a zero-waste policy to protect our Earth. We value diversity, ethics, and sustainability in all aspects of life as we build our innovative spirit on an inclusive vision that brings together different ideas, perspectives, and lifestyles.

As 3E, we see continuous improvement of all our processes such as design, production, sales, and after-sales services, under the philosophy of an integrated management system, as an integral part of our corporate culture.

We present the future to our users today with our product and service portfolio, which we have shaped by following the latest technological developments with our experienced and expert managers and our team of young and dynamic talents. With our operations designed in the light of our sustainable competitive business strategy, we always aim for the best and continue to create value for all our stakeholders. We meet the needs of our customers in the best way possible and build a sustainable future for our company, with our philosophy focused on operational excellence and constantly improving our competitiveness and efficiency.

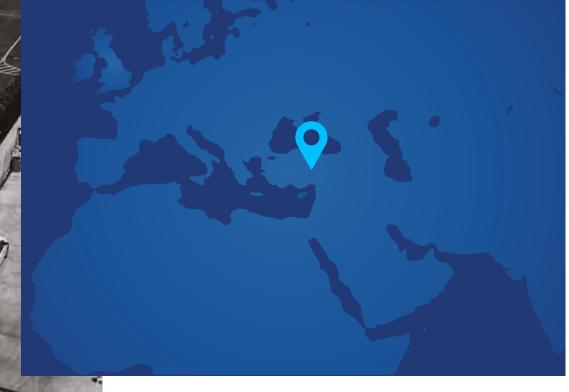
As an integral part of our corporate culture, we continue our work with high motivation and belief, with the awareness of continuous improvement and targeting the best.





# WE ARE STRONGER WITH OUR NEW CAMPUS AND EXPERT STAFF

In January 2021, our new campus with production, testing, and working areas donated with high standards and technologies, became operational. Under the roof of our new campus, we are moving towards our goals with stronger steps with our growing staff and R&D center.





Since 2005, 3E has produced world-class mechanical, electromechanical, and electro-optical products and systems that stand out for their excellence in design, manufacturing processes integrated with the latest technical innovations, and outstanding ergonomics. Designing the products that should give the best results even in the most challenging conditions and presenting them to the user without any problems requires detailed processes and high engineering capabilities. Having all this, 3E guarantees reliability and durability thanks to its uncompromising product quality and its passion for excellence.

As 3E, we always present the most ideal products to fulfill the needs of our users' expectations completely. We do not compromise on design, ergonomics, quality, and durability while providing ease of use. Differences between users and operational purposes where products are used create expectations based on different experiences. This enables 3E engineers to develop electro-optical products in different variations to meet all these individual needs and expectations. Among the features that make our products indispensable for our users are the ergonomics of use, design, intuitive and easy-to-use interface structure, and the ability to display with sharp details and vivid colors.

## **CHOICE OF THE ELITES.**

All products and systems in our product range are extensively tested in our test laboratories to ensure their durability and suitability for operational use. For this purpose; within the scope of defined and proven test procedures, 3E carries out special test procedures under the most demanding conditions, pushing products to the absolute limits. With these stringent testing procedures and control processes, we assure trouble-free performance and ensure that our users are committed to our products with great confidence. In this way, our products are the first choice of the most distinguished users in the most difficult conditions.

We consider it our duty to continue our work to protect and further strengthen this element of trust that we have tried to establish and gained since our establishment.





In our new campus with a closed area of 14750 m<sup>2</sup>, 7000 m<sup>2</sup> of which is a production line, we have production processes, quality control processes, and detailed test steps to continue our production activities without interruption.

All these operational processes are supported by our experience of more than 15 years and our infrastructure that includes production and test equipment with the latest technologies.



As 3E, we develop and manufacture innovative electro-optical systems for our users. We strive to offer the best for our users, working on a variety of modular and components, especially for use in the visible and infrared wavelengths. As a competent and experienced provider of electro-optical products and systems, we directly assist our customers in developing solutions that meet their critical needs.

In our production areas, there are production lines specific to different product groups, cleanroom complex, test equipment, and production machinery and equipment as well as general test and assembly areas with temperature and humidity control.

We produce high-quality and flawless products to provide the most accurate solutions to the comprehensive and military standard level needs and technical requirements of our critical customers.

By investing in advanced technology production systems and techniques, we do not compromise on operational excellence as we ensure that our products are always consistent and of high quality.

# CLASS 10.000 INFRASTRUCTURE CLEANROOM COMPLEX

# **OUR R&D PHILOSOPHY**

We follow the latest technology and trends, and design unique products in the light of user experiences.

As 3E Electro-Optical Systems, we design high-tech mechanical, electro-mechanical, and electro-optical products and systems in the light of the latest trends and needs. During our design process, which starts with the creation of 3D objects, we produce countless models and prototypes for each product, making our design perfect in every aspect.

There is a comprehensive and detailed research and development process behind each of our products. We create more than one team for each product, produce processes and scenarios, and make experiments. We test each prototype and only continue with our designs that have successfully passed all qualification processes. Even after the production starts, the design and development process continues and the design is iterated throughout the production in line with the feedbacks. Product prototypes are created, tested, and reviewed. The design team continues to iterate through these steps; until we are sure that it meets all aspects of our users' expectations regarding the product.

In the light of our engineering experience, capabilities, and feedback from the field, we design products with the most up-to-date and cutting-edge technologies with our R&D and design teams. We prioritize and maximize safe production and use at every step of our design process. We design and develop our products with the flexibility to adapt to future trends as quickly as possible.





Innovative design can be both a breakthrough or a redesign of a product or service. A breakthrough product adds unprecedented value and functionality to the market and the user, while a redesign improves an existing product. Innovative design always evolves with innovative technology.

While benefiting from the power and reliability of existing technologies, the 3E research and development team continues to work by being aware of and mastering new developments and technologies. We aim to take our products, whose performance and reliability have been proven in the field, one step further with new additions, and to offer new technologies that will lead the sector to the service of our users. A good design aims to optimize performance while executing its intended functions. User-oriented design, while providing certain criteria that users may need, emphasizes the usefulness of the product and minimizes any potential problems that may prevent it.

In addition to our team being well-equipped with technology and trends in the product development process, one of our strongest aspects is that we are in constant communication with our users after sales. The feedback we receive from our users and the field is an important step in our product design process. Thanks to this feedback, our products always meet the expectations of our users in all aspects and maximize their experience.

# USER-ORIENTED, UNIQUE, FUNCTIONAL AND INNOVATIVE DESIGN



### **CONTINUOUS IMPROVEMENT**

We are committed to the participation of all our employees in Integrated Management Systems. We organize continuous training to improve the awareness of our employees, and we direct our efforts so that this awareness becomes the corporate culture. We continuously improve the performance and effectiveness of all the systems we implement. Our periodically reviewed policies constitute 3E's commitment to Quality, Environment, Occupational Health and Safety, and Information Security.



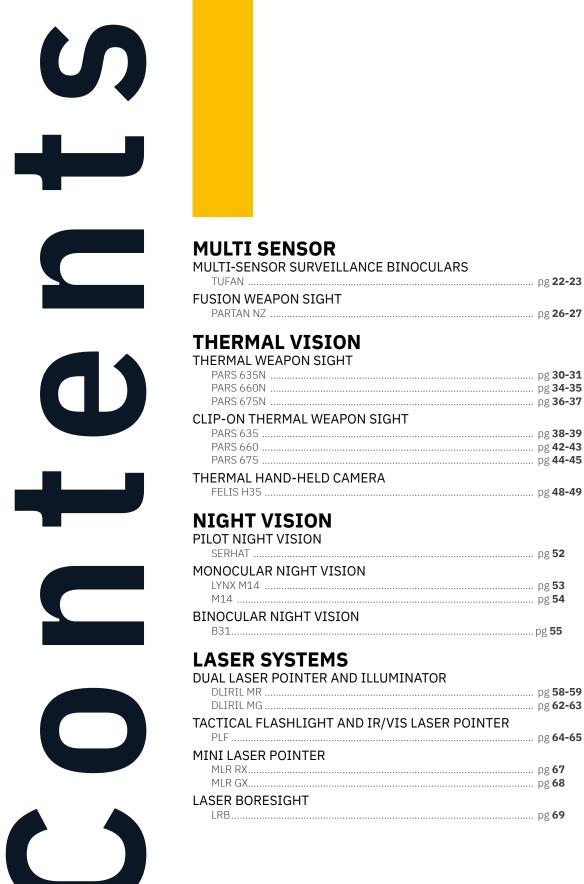
### INTEGRATED MANAGEMENT SYSTEM

As 3E, we continuously improve our policies in the light of the latest trends and developments and share them with all of our employees. Within the scope of the Integrated Management System Policy, we internalize the customer-oriented working principle in all of our processes and act to ensure the highest customer satisfaction while fulfilling customer demands. While doing this, we prioritize the protection of the environment and the health and safety of our employees. Acting together with all of our key stakeholders, we do our jobs meticulously in the light of our high standards and the legal requirements. We aim to prevent or minimize the negative environmental impacts that may occur due to our activities and services.

We carry out research and development studies on electro-optical systems with the principle of customer-oriented work, and as a result, we carry out our production activities with high quality and standards. We fulfill customer demands in R&D, production, sales, and after-sales services of the latest technology and highstrength electro-optical systems and their spare parts. We provide customer satisfaction that includes the most advanced and unique customer experiences. While carrying out our activities, we act in the light of the valuable position of the 3E brand.

We determine all the effects and dangers of our activities in the fields of Quality, Environment, Occupational Health, and Safety, and Information Security, prevent them at the source before occurring or perform corrective and remedial actions to reduce them to acceptable levels. We take all necessary precautions and actions to continuously improve. We aim to continuously improve our business processes and our quality, environment, occupational health and safety, and information security performance by yearly evaluations. We follow and examine the legal regulations and conditions regarding Quality, Environment, Occupational Health, and Safety, and Information Security. We keep track of customer demands and our company's policy objectives and comply with current rules.





MULTI-SENSOR SURVEILLANCE BINOCULARS		
TUFAN	pg <b>22-23</b>	
FUSION WEAPON SIGHT		

### PARTAN NZ ..... pg 26-27

### **THERMAL VISION**

THERMAL WEAPON SIGHT	
PARS 635N	pg <b>30-31</b>
PARS 660N	
PARS 675N	
CLIP-ON THERMAL WEAPON SIGHT	
PARS 635	pg <b>38-39</b>
PARS 660	pg <b>42-43</b>
PARS 675	pg <b>44-45</b>
THERMAL HAND-HELD CAMERA	

#### **NIGHT VISION** PILOT NIGHT VISION

SERHAT	pg <b>52</b>
MONOCULAR NIGHT VISION	
LYNX M14	
M14	pg <b>54</b>
BINOCULAR NIGHT VISION	
В31	pg <b>55</b>

### LASER SYSTEMS

DUAL LASER POINTER AND ILLUMINATOR	
DLIRIL MR	pg <b>58-59</b>
DLIRIL MG	pg <b>62-63</b>
TACTICAL FLASHLIGHT AND IR/VIS LASER POINTER	
PLF	pg <b>64-65</b>
MINI LASER POINTER	
MLR RX	pg <b>67</b>
MLR GX	pg <b>68</b>
LASER BORESIGHT	
LRB	pg <b>69</b>

### LASER RANGE FINDER

MONOCULAR LASER RANGE FINDER	
MLRF-M	pg <b>72-73</b>
BINOCULAR LASER RANGE FINDER	
BLRF	pg <b>74-75</b>
DAY VISION	
COMBAT OPTICAL SIGHT	
AVCI 1X-4X	pg <b>80-81</b>
AVCI 1.5X-6X	pg <b>84-85</b>
SNIPER RIFLE SCOPE	
KESKIN 3-12 X 50	
KESKIN 5-25 X 56	pg <b>88-89</b>
MACHINE GUN REFLEX SIGHT	
MTN 90	pg <b>90-91</b>
REFLEX SIGHT	
CRS AVCI M1X	
	hg <b>33</b>
MAGNIFIER M3X	nd <b>0/</b>
M3A	
TACTICAL SPOTTING SCOPE	P8
IZCI 15-45 X 60	ng <b>98-99</b>
IZCI 20-60 X 80	

### SUPPORT PRODUCTS

#### SOFTWARE HARDWARE

OCU	pg <b>106-107</b>
HMD	pg <b>108-109</b>

## MULTI SENSOR

MULTI-SENSOR SURVEILLANCE BINOCULARS		
TUFAN	pg 22-2	23
FUSION WEAPON SIGHT		
PARTAN NZ	pg 24-2	25
	10	



## **TUFAN** MULTI-SENSOR SURVEILLANCE BINOCULARS

TUFAN sets a new standard for surveillance applications in every sense. It has been designed with advanced technology and deep customer insights.

Featured with the intelligent fusion-imaging algorithm<sup>(1)</sup> TUFAN multi-sensor surveillance binoculars combine most critical properties essential for surveillance, target acquisition and distance determination in one unit, providing impressive solutions to mission needs with its ergonomic, compact structure and smart features.

In addition to the high-sensitive thermal imager with a 640x512 cooled detector, TUFAN has unique performance with its low light capable high definition color TV camera, 1550 nm eye-safe laser range finder, infrared laser pointer, integrated geo-location sensitive GPS and digital magnetic compass.

It is designed to carry the user's experience one-step further and give them superiority with its unrivaled dual OLED display quality, long-lasting battery life with hot-swap feature and easy to use UI design that keeps up with the new generation. It provides superior awareness in ever-changing duty and environmental conditions by processing thermal and a color TV camera with advanced algorithms.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, TUFAN is durable and reliable with its aluminium construction for maximum structural rigidity.

TUFAN will revolutionize its class and redefine the standards

Mechanical Data	
Housing Material	Aluminium w/Plastic Parts
Color	Black or FDE
Weight <sup>(2)</sup>	3.3 kg (116.4 oz)
Dimensions (WxLxH)	276x350x130 mm (10.86x13.77x5.11 in)
Tripod Interface	Quick Release Interface

Thermal Imaging Unit	
Sensor Resolution	640x512 pixels
Sensor Pitch	15 µm
Spectral Range	MWIR; 3 μm - 5 μm
E-Zoom	up to 8X
NFOV (Horizontal)	2.1°
WFOV (Horizontal)	27°



#### **KEY FEATURES**

#### POWERFUL MULTI-SENSOR CAPABILITY

High-sensitive thermal imager with a 640x512 cooled detector, TUFAN has unique performance with its low light capable high definition color TV camera, 1550 nm eye-safe laser range finder, infrared laser pointer, integrated geo-location sensitive GPS and digital magnetic compass

#### OUTSTANDING IMAGE CLARITY

A high-resolution 640x512 cooled mid-wave IR sensor and premium zoom germanium optics paired with a high-definition dual OLED display provide outstanding image clarity and perfect detail recognition

#### DUAL OLED DISPLAY

Wide vision experience with dual OLED display design

#### HOT-SWAP LONG LASTING BATTERY

Long-lasting use with replaceable battery design without the need to power off the device

POWERFUL TACTICAL CAPABILITIES
 Built-in digital magnetic compass, GPS, laser rar

Built-in digital magnetic compass, GPS, laser range finder and laser pointer provide accurate range-to-target, precise geo-location and crystal clear imagery

#### FLEXIBLE AND EASY-TO-USE USER INTERFACE

Easy to use user interface design that keeps up with the new generation

- POWERFUL THAN EVER WITH ITS ADVANCED ACCESSORIES More powerful with its smart operator control unit, electronic pan-tilt and smart batteries
- ROBUST AND RELIABLE BODY DESIGN

Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



Ocular Optical Unit	
Display Type	Color OLED
Dual Screen	Yes
Resolution	1280x1024 SXGA

Day Camera Unit	
Optical Zoom	12X
E-Zoom	up to 32X
NFOV (Horizontal)	2.1°
WFOV (Horizontal)	60.0°

Laser Range Finder	
Wavelength	1.54 μm
Laser Class	Class 1 (Eye Safe)
Range	< 12 km
Range (NATO Target)	< 6 km
Sensitivity	< 2 m

Digital Magnetic Compass	
Sensitivity	1° rms
Azimuth Range	360°

Global Navigation Satellite System	
Position Sensitivity	< 5 m
Direction Sensitivity	< 1.0°

Laser Pointer	
Wavelength	850 nm
Laser Class	Class 3B

#### **Electronical Data**

Battery <sup>(3)</sup>	2 x Smart Lithium Rechargeable Battery
Hot Swap	Yes
Battery Life <sup>(4)</sup>	8+ hours

#### **Environmental Data**

<b>Operating Temperature Range</b>	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40 $^\circ\text{C}$ to +71 $^\circ\text{C}$ (-40 $^\circ\text{F}$ to +160 $^\circ\text{F}$ )
Immersion	IP67

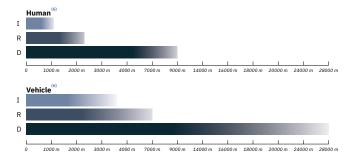
Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Intelligent fusion-imaging algorithm is offered as an optional package.
 The weight given is calculated without accessories and batteries.
 Tufan can also work with 1 x Smart Lithum Rechargeable Battery.
 Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.
 Related data are calculated based on "Johnson Criteria".

Contact 3E for product codes and SKUs.

x Smart Lithium Rechargeable Itery
mart Battery Charger

Optional Accessories (5)	
Operator Control Unit	□ Intelligent Fusion Software Package
□ Motorized Pan-Tilt (w/Tripod)	□ WiFi Connection Software Package
□ Mechanical Pan-Tilt (w/Tripod)	24" LCD Monitor





OCU and Mechanical Pan-Tilt system are optionally available.





### **PARTAN NZ** FUSION WEAPON SIGHT

3E leveraged advanced technology and deep customer insights to create the most advanced fusion weapon sight, PARTAN NZ.

PARTAN NZ delivers crispy and intelligent image performance. It is designed for functionality and superior performance by taking into account the demands of most elite users. It offers unrivaled optical performance via industry leading 12-micron LWIR technology with a resolution of 640x480 and DI2 low light sensor with superior image quality.

The advanced image processing leads to excellent fusion images by combining the two sensors into one and provides better detection and recognition whenever users need the most.

PARTAN NZ has a rugged and lightweight construction to survive extreme conditions with peak performance so that the elite operators can count on it. Tested for MIL-STD-810 and with a waterproof design, PARTAN NZ is durable and reliable under harsh environmental conditions with its all-aluminium construction for maximum structural rigidity.

It is a simple revolutionary step in the advanced detection systems.

Thermal Imaging Unit	
Sensor Technology	Uncooled Microbolometer
Sensor Resolution	640 x 480 pixels
Sensor Sensitivity	f/1.0 to < 40 mK
Sensor Pitch	12 µm
Spectral Range	LWIR; 7.5 µm to 13.5 µm

DI <sup>2</sup> Imaging Unit	
Sensor Technology	DI <sup>2</sup> LLcmos
Sensor Resolution	1920 x 1200 pixel
Sensor Sensitivity	100000 mV/Lux.s
Sensor Pitch	12 µm
Spectral Range	400-1100 nm
Min. Illumination	1x10 <sup>-4</sup> lux



#### **KEY FEATURES**

#### INTELLIGENT FUSION MODE

Its advanced image processing architecture combines the image taken from two different sensors in a single layer, providing users with a perfect fusion image

#### OUTSTANDING IMAGE CLARITY

A high-resolution 640x480 12-micron LWIR sensor and premium germanium optics paired with a high-definition display provide outstanding image clarity and perfect detail recognition

SUPERB DETECTION AND RECOGNITION CAPABILITY 

Its fusion technology and image processing architecture provides the user with excellent detection and recognition capabilities

VIDEO AND STILL-PHOTO RECORDING

The internal memory offers storage space for videos and photos. In addition, you can download recorded files seamlessly when connected to the PC  $\,$ 

#### HDMI VIDEO OUTPUT

The HDMI interface allows to send high-resolution digital video

LONG LASTING BATTERY LIFE 

Uninterrupted usage experience with 10+ battery life with a single battery set

COMPACT, LIGHT AND RUGGED

The highly portable and exceptionally modern design provides the operator with ease of use and simple control for all device menu adjustments



Optical Data	
Field of View (DFOV)	18.7°
DRI <sup>(1)</sup>	Human Detection - 1250 m / 1367 yd Vehicle Detection - 3800 m / 4156 yd
Diopter	+2,-6 dpt

General Data	
Frame Rate	60 Hz
Display Type	Color OLED
Eye Relief	30 mm
E- Zoom	2x, 4x
Start-up Time	<10 sec.

Features (All Modes)	
Video Recording	Yes
Image Capturing	Yes
Reticle	Multiple Reticle Patterns
Reticle Color	Multiple Reticle Colors, Auto BG
Reticle FP	FFP, SFP
Reticle Zeroing	Manual
User Profiles	Up to 5 Profiles
Brightness Adjustment	Yes
Contrast Adjustment	Yes
Sharpness Adjustment	Yes
Video Output	Yes (HDMI)

#### Features (Thermal Mode)

Polarity	White-Hot, Black-Hot, Multiple Pseudo Colors
Outline Mode	Yes
Calibration	Auto, Semi-Auto, Manual

#### Features (DI<sup>2</sup> Mode)

Color Modes

Features (Fusion Mode)	
Color Modes	Black/White, City, Forest, Snow, Desert, Red Hot
Fusion Scale	1-10

Black/White, Red, Green

Physical Data	
Weight <sup>(2)</sup>	820 g (29 oz)
Dimensions (WxLxH)	90x195x110 mm (3.54x7.67x4.33 in)
Housing Material	Aluminium w/Plastic Parts
Color	Black or FDE
Weapon Mount Type	Low Profile Quick Release Mount
Weapon Mount Compatibility	MIL-STD 1913, STANAG 4694

Electronical Data	
Battery	3 x 18650 Rechargeable Li-ion Battery
Battery Life <sup>(3)</sup>	10+ hours

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories 49	
User and Operating Manual	■ 3 x 18650 Rechargeable Lithium Ion Battery
Low Profile Quick Release Mount	Lens Cleaning Cloth
Battery Charger	■ 2x Objective Protection Cover
Eyecup	HDMI Video Cable
■ Soft Carrying Bag	USB Cable

#### Optional Accessories (4)

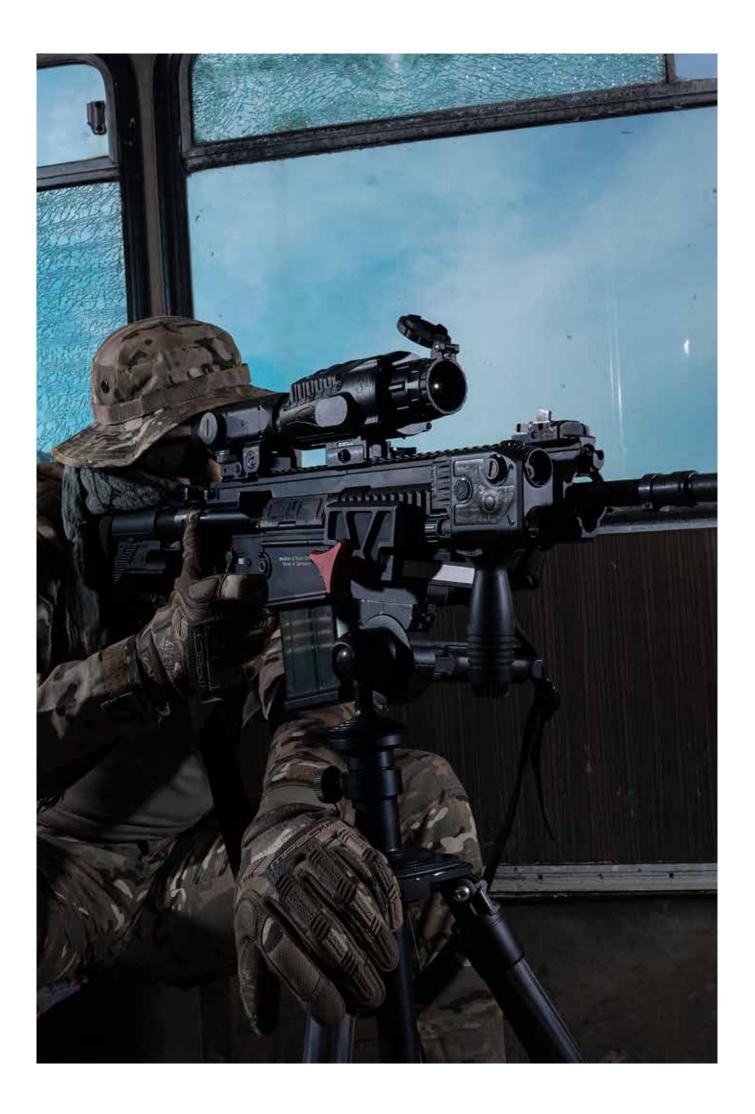
Hard Case □ Fine Adjustment Grip

Related data are calculated based on "Johnson Criteria".
 The weight given is calculated without accessories and batteries.
 Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

#### Contact 3E for product codes and SKUs.

### THERMAL VISION

THERMAL WEAPON SIGHT	
PARS 635N	pg <b>30-31</b>
PARS 660N	pg <b>34-35</b>
PARS 675N	pg <b>36-37</b>
CLIP-ON THERMAL WEAPON SIGHT	
PARS 635	pg <b>38-39</b>
PARS 660	pg <b>42-43</b>
PARS 675	pg <b>44-45</b>
THERMAL HAND-HELD CAMERA	
FELIS H35	pg <b>48-49</b>
	. 3



### PARS 635N THERMAL WEAPON SIGHT

PARS 635N is the top-of-the-range thermal weapon sight to deliver world-leading performance on image processing. It offers unrivaled optical performance via 17-micron LWIR technology and a 640x480 thermal sensor. In addition, the advanced image processing leads to excellent image clarity and provides better detection and recognition, allowing conquering the night with its exceptional visual quality.

It has a rugged and lightweight construction to survive extreme conditions with peak performance so that the elite operators can count on it. Tested for MIL-STD-810 and with a waterproof design, The PARS 635N is durable and reliable under harsh environmental conditions with its all-aluminium construction for maximum structural rigidity.

PARS 635N delivers the most efficient and feasible user experience with its userfriendly interface. It includes many advanced features such as wireless video transfer to various platforms, wireless remote control, picture in picture (PiP) mode, internal video and image recording.

PARS 635N can be quickly mounted on any MIL-STD-1913 rail interface.

General Data	
Frame Rate <sup>(1)</sup>	60 Hz
Display Type	Color OLED
Eye Relief	30 mm
E- Zoom	2x, 3x, 4x, 8x (PiP Mode)
Start-up Time	<5 sec.
Calibration	Auto, Semi-Auto, Manual

Optical Data	
Objective Lens (MF) <sup>(2)</sup>	35 mm
Field of View (HxV)	17.7°×13.3°
Min. Focus Distance	3m
DRI <sup>(3)</sup>	Human Detection - 1020 m / 1115 yd Vehicle Detection - 3160 m / 3455 yd
Diopter	+2,-6 dpt



#### **KEY FEATURES**

#### OUTSTANDING IMAGE CLARITY

A high-resolution 640x480 long-wave IR sensor and premium germanium optics paired with a high-definition display provide outstanding image clarity and perfect detail recognition

VIDEO AND STILL-PHOTO RECORDING

Store your hours of video and thousands of photos in the internal memory

COMPACT, LIGHT AND RUGGED

The highly portable and exceptionally modern design provides the operator with ease of use and simple control for all device menu adjustments

COMBAT-PROVEN DURABILITY Robustly designed and field-tested so the most elite operators can count

on it (20,000+ PARS delivered/fielded by various military forces)

- WI-FI INTERFACE WITH MULTIPLE PLATFORMS The built-in Wi-Fi module connects with Android, IOS or Windows platforms.
  - Seamlessly control the features of the PARS through these platforms

CREATE YOUR OWN RETICLE Along with a wide variety of built-in reticles, you can create your own reticle just as you imagine it. For more information, visit "www.reticlecreator.com"

THE SIMPLEST RETICLE ZEROING EVER

With the auto reticle zeroing feature, just give PARS 635N a few data about your shooting; PARS 635N will automatically zero your reticle in seconds regardless of your distance. Don't bother with calculations



Sensor Data	
Sensor Technology	Uncooled Microbolometer
Sensor Resolution	640 x 480 pixels
Sensor Sensitivity	< 40 mK @f/1.0
Sensor Pitch	17 µm
Spectral Range	LWIR; 7.5 µm to 13.5 µm

#### **Advanced Features**

Integrated WI-FI <sup>(4)</sup>	Yes (Wireless Video Streaming w/AppStore, Google Play, Windows)
Integrated Bluetooth	Yes
Motion Detection	Yes <sup>(5)</sup>
Video Recording	Yes (Format: MP4   Capacity: 180+ minutes)
Image Capturing	Yes (Format: JPEG   Capacity: 10000+ photos)
Eye Comfort Mode	Yes
2-Axis Angle Indicator	Yes
Stadiametric Range Finder	Yes
Continuous E-Zoom	+0.05x (1.00, 1.05, 1.10)
Reticle	Multiple Reticle Patterns <sup>(6)</sup>
Reticle Color	Multiple Reticle Colors, Auto POL, Auto BG
<b>Reticle Brightness Adjustment</b>	Yes
Reticle FP	FFP, SFP
Reticle Stadia	Yes
Reticle Zeroing	Manual, Auto
User Profiles	Up to 10 Profiles
Brightness Adjustment	Yes
Contrast Adjustment	Yes
Sharpness Adjustment	Yes
Active Histogram Equalization	Yes
Polarity	White-Hot, Black-Hot, Multiple Pseudo Colors
Outline Mode	Yes
Zoom Assist (PiP Mode)	Yes
Video Output	Yes (Digital; USB & Analog)

 (1) Some devices may offer 25 Hz. Contact us for detailed information.

 (2) MF: Manual Focus

 (3) Related data are calculated based on "Johnson Criteria".

 (4) Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of **Google LLC**. Windows and the Windows logo are trademarks of **Microsoft Corporation** in the United States and/or other countries.

 (5) May not be available on all devices. Please contact us for detailed information.

 (6) User customized reticles can be loaded. For detailed information, visit **www.reticlecreator.com** 

 (7) With mounting adapter and 2 x 18650 batteries.

 (8) Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.

 (9) Accessories may vary. Please contact us for detailed information.

#### Contact 3E for product codes and SKUs.

Physical Data	
Weight	616 g (21.7 oz) (w/o accs.) 807 g (28.4 oz) (w/ accs.) <sup>(7)</sup>
Dimensions (WxLxH)	90x207x93 mm (3.54x8.14x3.66 in)
Housing Material	Aluminium w/ Plastic Parts
Color	Black or FDE
Weapon Mount Type	Quick Release Mount
Weapon Mount Compatibility	MIL-STD 1913, STANAG 4694

Electronical Data	
Battery	2 x 18650 Rechargeable Li-ion
Battery Life <sup>(8)</sup>	4+ hours

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories <sup>(9)</sup>	
User and Operating Manual	■ 2 x 18650 Rechargeable Lithium Ion Battery
Quick Release Weapon Mount	Lens Cleaning Cloth
Battery Charger	Objective Protection Cover
Eyecup	■ 0.8m USB & BNC Cable
■ Soft Carrying Bag	

Optional Accessories <sup>(9)</sup>	
□ Hard Case	□ Wireless Remote Control (BRC)
□ Helmet Mounted Display (HMD)	External Battery Pack





### **PARS 660N** THERMAL WEAPON SIGHT

The PARS 660N is the top-of-the-range thermal weapon sight to deliver world-leading performance on image processing. It offers unrivaled optical performance via 17-micron LWIR technology and a 640x480 thermal sensor. In addition, the advanced image processing leads to excellent image clarity and provides better detection and recognition, allowing conquering the night with its exceptional visual quality.

It has a rugged and lightweight construction to survive extreme conditions with peak performance so that the elite operators can count on it. Tested for MIL-STD-810 and with a waterproof design, The PARS 660N is durable and reliable under harsh environmental conditions with its all-aluminium construction for maximum structural rigidity.

PARS 660N delivers the most efficient and feasible user experience with its userfriendly interface. It includes many advanced features such as wireless video transfer to various platforms, wireless remote control, picture in picture (PiP) mode, internal video and image recording.

PARS 660N can be guickly mounted on any MIL-STD-1913 rail interface.

General Data	
Frame Rate <sup>(1)</sup>	60 Hz
Display Type	Color OLED
Eye Relief	30 mm
E- Zoom	2x, 3x, 4x, 8x (PiP Mode)
Start-up Time	<5 sec.
Calibration	Auto, Semi-Auto, Manual

Optical Data	
Objective Lens (MF) <sup>(2)</sup>	60 mm
Field of View (HxV)	10.2° × 7.7°
Min. Focus Distance	3 m
DRI <sup>(3)</sup>	Human Detection - 1760 m / 1924 yd Vehicle Detection - 5400 m / 5905 yd
Diopter	+2,-6 dpt



#### **KEY FEATURES**

#### **OUTSTANDING IMAGE CLARITY**

A high-resolution 640x480 long-wave IR sensor and premium germanium optics paired with a high-definition display provide outstanding image clarity and perfect detail recognition

VIDEO AND STILL-PHOTO RECORDING

Store your hours of video and thousands of photos in the internal memory

COMPACT, LIGHT AND RUGGED

The highly portable and exceptionally modern design provides the operator with ease of use and simple control for all device menu adjustments

- COMBAT-PROVEN DURABILITY Robustly designed and field-tested so the most elite operators can count
- on it (20,000+ PARS delivered/fielded by various military forces) WI-FI INTERFACE WITH MULTIPLE PLATFORMS

The built-in Wi-Fi module connects with Android, IOS or Windows platforms. Seamlessly control the features of the PARS through these platforms

CREATE YOUR OWN RETICLE 

Along with a wide variety of built-in reticles, you can create your own reticle just as you imagine it. For more information, visit "www.reticlecreator.com" THE SIMPLEST RETICLE ZEROING EVER

With the auto reticle zeroing feature, just give PARS 660N a few data about your shooting; PARS 660N will automatically zero your reticle in seconds regardless of your distance. Don't bother with calculations



Sensor Data	
Sensor Technology	Uncooled Microbolometer
Sensor Resolution	640 x 480 pixels
Sensor Sensitivity	< 40 mK @f/1.0
Sensor Pitch	17 µm
Spectral Range	LWIR; 7.5 µm to 13.5 µm

#### **Advanced Features**

Integrated WI-FI <sup>(4)</sup>	Yes (Wireless Video Streaming
Integrated WI-FI	w/AppStore, Google Play, Windows)
Integrated Bluetooth	Yes
Motion Detection	Yes <sup>(5)</sup>
Video Recording	Yes (Format: MP4   Capacity: 180+ minutes)
Image Capturing	Yes (Format: JPEG   Capacity: 10000+ photos)
Eye Comfort Mode	Yes
2-Axis Angle Indicator	Yes
Stadiametric Range Finder	Yes
Continuous E-Zoom	+0.05x (1.00, 1.05, 1.10)
Reticle	Multiple Reticle Patterns <sup>(6)</sup>
Reticle Color	Multiple Reticle Colors, Auto POL, Auto BG
<b>Reticle Brightness Adjustment</b>	Yes
Reticle FP	FFP, SFP
Reticle Stadia	Yes
Reticle Zeroing	Manual, Auto
User Profiles	Up to 10 Profiles
Brightness Adjustment	Yes
Contrast Adjustment	Yes
Sharpness Adjustment	Yes
Active Histogram Equalization	Yes
Polarity	White-Hot, Black-Hot, Multiple Pseudo Colors
Outline Mode	Yes
Zoom Assist (PiP Mode)	Yes
Video Output	Yes (Digital; USB & Analog)

Physical Data	
Weight	755 g (26.6 oz) (w/o accs.) 946 g (33.3 oz) (w/ accs.) <sup>(7)</sup>
Dimensions (WxLxH)	90x229x93 mm (3.54x9.01x3.66 in)
Housing Material	Aluminium w/ Plastic Parts
Color	Black or FDE
Weapon Mount Type	Quick Release Mount
Weapon Mount Compatibility	MIL-STD 1913, STANAG 4694

Electronical Data	
Battery	2 x 18650 Rechargeable Li-ion
Battery Life <sup>(8)</sup>	4+ hours

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal) 8.59 mm (0.338 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories (9)	
User and Operating Manual	■ 2 x 18650 Rechargeable Lithium Ion Battery
Quick Release Weapon Mount	Lens Cleaning Cloth
Battery Charger	Objective Protection Cover
Eyecup	■ 0.8m USB & BNC Cable
■ Soft Carrying Bag	

Optional Accessories ®		
Hard Caco	Wireless	

□ Hard Case	□ Wireless Remote Control (BRC)
□ Helmet Mounted Display (HMD)	External Battery Pack

Some devices may offer 25 Hz. Contact us for detailed information.
 MF: Manual Focus
 Related data are calculated based on "Johnson Criteria".
 Apple Inc., registered in the U.S. and other countries. Apple Inc., registered in the U.S. and other countries. Google Play logo are trademarks of Google LLC. Windows and the Windows logo are trademarks of Google Play logo are trademarks of Google LLC.
 Windows and the Vindows logo are trademarks of Hierosoft Corporation in the United States and/or other countries.
 May not be available on all devices. Please contact us for detailed information.
 User customized reticles can be loaded. For detailed information, visit www.reticlecreator.com
 With mounting adapter and 2 x 18650 batteries.
 Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

Contact 3E for product codes and SKUs.

### PARS 675N THERMAL WEAPON SIGHT

The PARS 675N is the top-of-the-range thermal weapon sight to deliver worldleading performance on image processing. It offers unrivaled optical performance via 17-micron LWIR technology and a 640x480 thermal sensor. In addition, the advanced image processing leads to excellent image clarity and provides better detection and recognition, allowing conquering the night with its exceptional visual quality.

It has a rugged and lightweight construction to survive extreme conditions with peak performance so that the elite operators can count on it. Tested for MIL-STD-810 and with a waterproof design, The PARS 675N is durable and reliable under harsh environmental conditions with its all-aluminium construction for maximum structural rigidity.

PARS 675N delivers the most efficient and feasible user experience with its userfriendly interface. It includes many advanced features such as wireless video transfer to various platforms, wireless remote control, picture in picture (PiP) mode, internal video and image recording.

PARS 675N can be quickly mounted on any MIL-STD-1913 rail interface.

General Data	
Frame Rate <sup>(1)</sup>	60 Hz
Display Type	Color OLED
Eye Relief	30 mm
E- Zoom	2x, 3x, 4x, 8x (PiP Mode)
Start-up Time	<5 sec.
Calibration	Auto, Semi-Auto, Manual

Optical Data	
Objective Lens (MF) <sup>(2)</sup>	75 mm
Field of View (HxV)	8.3° x 6.6°
Min. Focus Distance	9 m
DRI <sup>(3)</sup>	Human Detection - 2200 m / 2405 yd Vehicle Detection - 6750 m / 7381 yd
Diopter	+2,-6 dpt



#### **KEY FEATURES**

#### OUTSTANDING IMAGE CLARITY

A high-resolution 640x480 long-wave IR sensor and premium germanium optics paired with a high-definition display provide outstanding image clarity and perfect detail recognition

VIDEO AND STILL-PHOTO RECORDING

Store your hours of video and thousands of photos in the internal memory

COMPACT, LIGHT AND RUGGED

The highly portable and exceptionally modern design provides the operator with ease of use and simple control for all device menu adjustments

COMBAT-PROVEN DURABILITY Robustly designed and field-tested so the most elite operators can count

on it (20,000+ PARS delivered/fielded by various military forces)

- WI-FI INTERFACE WITH MULTIPLE PLATFORMS The built-in Wi-Fi module connects with Android, IOS or Windows platforms.
  - Seamlessly control the features of the PARS through these platforms

**CREATE YOUR OWN RETICLE** Along with a wide variety of built-in reticles, you can create your own reticle just as you imagine it. For more information, visit "www.reticlecreator.com"

THE SIMPLEST RETICLE ZEROING EVER

With the auto reticle zeroing feature, just give PARS 675N a few data about your shooting; PARS 675N will automatically zero your reticle in seconds regardless of your distance. Don't bother with calculations



Sensor Data	
Sensor Technology	Uncooled Microbolometer
Sensor Resolution	640 x 480 pixels
Sensor Sensitivity	< 40 mK @f/1.0
Sensor Pitch	17 µm
Spectral Range	LWIR; 7.5 µm to 13.5 µm

# **Advanced Features**

Auvaliceu reatures	
Integrated WI-FI <sup>(4)</sup>	Yes (Wireless Video Streaming w/AppStore, Google Play, Windows)
Integrated Bluetooth	Yes
Motion Detection	Yes <sup>(5)</sup>
Video Recording	Yes (Format: MP4   Capacity: 180+ minutes)
Image Capturing	Yes (Format: JPEG   Capacity: 10000+ photos)
Eye Comfort Mode	Yes
2-Axis Angle Indicator	Yes
Stadiametric Range Finder	Yes
Continuous E-Zoom	+0.05x (1.00, 1.05, 1.10)
Reticle	Multiple Reticle Patterns <sup>(6)</sup>
Reticle Color	Multiple Reticle Colors, Auto POL, Auto BG
<b>Reticle Brightness Adjustment</b>	Yes
Reticle FP	FFP, SFP
Reticle Stadia	Yes
Reticle Zeroing	Manual, Auto
User Profiles	Up to 10 Profiles
Brightness Adjustment	Yes
Contrast Adjustment	Yes
Sharpness Adjustment	Yes
Active Histogram Equalization	Yes
Polarity	White-Hot, Black-Hot, Multiple Pseudo Colors
Outline Mode	Yes
Zoom Assist (PiP Mode)	Yes
Video Output	Yes (Digital; USB & Analog)

Some devices may offer 25 Hz. Contact us for detailed information.
 MF: Manual Focus
 Related data are calculated based on "Johnson Criteria".
 Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc., registered in the U.S. and other countries. Google Play and the Google Play logo are trademarks of Google LLC. Windows and the Windows logo are trademarks of Microsoft Corporation in the United States and/or other countries.

Windows and the Windows logo are trademarks or **Microson Corporation** in the onned states and/or basic countries.
(5) May not be available on all devices. Please contact us for detailed information.
(6) User customized reticles can be loaded. For detailed information, visit **www.reticlecreator.com**(7) With mounting adapter and 2 x 18650 batteries.
(8) Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
(9) Accessories may vary. Please contact us for detailed information.

Contact 3E for product codes and SKUs.

#### **Physical Data** 842 g (29.7 oz) (w/o accs.) Weight 1033 g (36.4 oz) (w/ accs.) <sup>(7)</sup> Dimensions (WxLxH) 90x238x96 mm (3.54x9.40x3.77 in) Aluminium w/ Plastic Parts **Housing Material** Black or FDE Color Quick Release Mount Weapon Mount Type MIL-STD 1913, STANAG 4694 Weapon Mount Compatibility

Electronical Data	
Battery	2 x 18650 Rechargeable Li-ion
Battery Life <sup>(8)</sup>	4+ hours

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal) 8.59mm (0.338 cal) 12.7 mm* NATO (0.50 cal)
Other MIL-STD-810G tests are applicable. Please contact us for detailed information.	

\* 12.7 mm (0.50 cal) NATO only for 675NH variation.

Standard Accessories <sup>(9)</sup>	
User and Operating Manual	■ 2 x 18650 Rechargeable Lithium Ion Battery
Quick Release Weapon Mount	Lens Cleaning Cloth
Battery Charger	Objective Protection Cover
Eyecup	■ 0.8m USB & BNC Cable
Soft Carrying Bag	

Optional Accessories <sup>(9)</sup>	
□ Hard Case	□ Wireless Remote Control (BRC)
□Helmet Mounted Display (HMD)	External Battery Pack

# **PARS 635**

# CLIP-ON THERMAL WEAPON SIGHT

PARS 635 is the top-of-the-range dual use clip-on thermal weapon sight to deliver world-leading performance on image processing. It offers unrivaled optical performance via 17-micron LWIR technology and a 640x480 thermal sensor. In addition, the advanced image processing leads to excellent image clarity and provides better detection and recognition, allowing conquering the night with its exceptional visual quality.

It has a rugged and lightweight construction to survive extreme conditions with peak performance so that the elite operators can count on it. Tested for MIL-STD-810 and with a waterproof design, PARS 635 is durable and reliable under harsh environmental conditions with its all-aluminium construction for maximum structural rigidity.

PARS 635 delivers the most efficient and feasible user experience with its userfriendly interface. It includes many advanced features such as wireless video transfer to various platforms, wireless remote control, picture in picture (PiP) mode, internal video and image recording.

It offers a high-performance shooting experience via superior boresight retention through its state-of-the-art optical design and revolutionary software architecture developed by the engineering team, which can adapt automatically according to the platform.

PARS 635 can be quickly mounted on any MIL-STD-1913 rail interface.

General Data	
Frame Rate <sup>(1)</sup>	60 Hz
Display Type	Color OLED
Eye Relief	00
E- Zoom <sup>(2)</sup>	2x, 3x, 4x, 8x (PiP Mode)
Start-up Time	<5 sec.
Calibration	Auto, Semi-Auto, Manual

## **Optical Data**

Objective Lens (MF) <sup>(3)</sup>	35 mm
Optical Magnification	1x
FOV (HxV)	17.7°×13.3°
Min. Focus Distance	3 m
DRI <sup>(4)</sup>	Human Detection - 1020 m / 1115 yd Vehicle Detection - 3160 m / 3455 yd



# **KEY FEATURES**

## OUTSTANDING IMAGE CLARITY

A high-resolution 640x480 long-wave IR sensor and premium germanium optics paired with a high-definition display provide outstanding image clarity and perfect detail recognition

#### EXCELLENT BORESIGHT RETENTION

It offers a high-performance shooting experience via superior boresight retention through its state of the art optical design and revolutionary software architecture developed by the engineering team, which can adapt automatically according to the platform

#### VIDEO AND STILL-PHOTO RECORDING

Store your hours of video and thousands of photos in the internal memory

COMPACT, LIGHT AND RUGGED
 The highly portable and exceptionally modern design provides the operator

The highly portable and exceptionally modern design provides the operator with ease of use and simple control for all device menu adjustments

- COMBAT-PROVEN DURABILITY Robustly designed and field-tested so the most elite operators can count on it (20,000+ PARS delivered/fielded by various military forces)
- WI-FI INTERFACE WITH MULTIPLE PLATFORMS The built-in Wi-Fi module connects with Android, IOS or Windows platforms. Seamlessly control the features of the PARS through these platforms

#### CREATE YOUR OWN RETICLE

Along with a wide variety of built-in reticles, you can create your own reticle just as you imagine it. For more information, visit "www.reticlecreator.com"



Sensor Data	
Sensor Technology	Uncooled Microbolometer
Sensor Resolution	640x480 pixels
Sensor Sensitivity	< 40 mK @f/1.0
Sensor Pitch	17 µm
Spectral Range	LWIR; 7.5 μm to 13.5 μm

## **Advanced Features**

Integrated WI-FI <sup>(5)</sup>	Yes (Wireless Video Streaming w/AppStore, Google Play, Windows)
Integrated Bluetooth	Yes
Motion Detection	Yes <sup>(6)</sup>
Video Recording	Yes (Format: MP4   Capacity: 180+ minutes)
Image Capturing	Yes (Format: JPEG   Capacity: 10000+ photos)
Eye Comfort Mode	Yes
2-Axis Angle Indicator	Yes
Stadiametric Range Finder	Yes
Continuous E-Zoom	+0.05x (1.00, 1.05, 1.10)
Reticle	Multiple Reticle Patterns <sup>(7)</sup>
Reticle Color	Multiple Reticle Colors, Auto POL, Auto BG
Reticle Brightness Adjustment	Yes
Reticle FP	FFP, SFP
Reticle Stadia	Yes
Reticle Zeroing	Manual, Auto
User Profiles	Up to 10 Profiles
Brightness Adjustment	Yes
Contrast Adjustment	Yes
Sharpness Adjustment	Yes
Active Histogram Equalization	Yes
Polarity	White-Hot, Black-Hot, Multiple Pseudo Colors
Outline Mode	Yes
Zoom Assist (PiP Mode)	Yes
Video Output	Yes (Digital; USB & Analog)

Some devices may offer 25 Hz. Contact us for detailed information.
 E-Zoom cannot be used in clip-on mode.
 MF: Manual Focus
 Related data are calculated based on "Johnson Criteria".
 Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc., registered in the U.S. and other countries. Copper law and the Google Play logo are trademarks of Google LLC.
 May not be available on all devices. Please contact us for detailed information.
 User customized relices can be loaded. For detailed information.
 With mounting adapter and 2 x 18650 batteries.
 Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

Contact 3E for product codes and SKUs.

Physical Data	
Weight	608 g (21.4 oz) (w/o accs.) 799 g (28.1 oz) (w/ accs.) <sup>(8)</sup>
Dimensions (WxLxH)	90x189x93 mm (3.54x7.44x3.66 in)
Optical Axis Distance (A)	40.90 mm (1.61 in)
Housing Material	Aluminium w/ Plastic Parts
Color	Black or FDE
Weapon Mount Type	Quick Release Mount
Weapon Mount Compatibility	MIL-STD 1913, STANAG 4694

Electronical Data	
Battery	2 x 18650 Rechargeable Li-ion
Battery Life <sup>(9)</sup>	4+ hours 7+ hours (Power Save Mode)

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories (10)	
User and Operating Manual	■ 2 x 18650 Rechargeable Lithium Ion Battery
Quick Release Weapon Mount	Lens Cleaning Cloth
Battery Charger	Objective Protection Cover
■ Interface Bellows	■ 0.8m USB & BNC Cable
Soft Carrying Bag	

Optional Accessories (10)	
□ Hard Case	□ Helmet Mounted Display (HMD)
Diopter Filter (-0.75 dpt)	□ Wireless Remote Control (BRC)
□ Eyecup	External Battery Pack







# **PARS 660** CLIP-ON THERMAL WEAPON SIGHT

PARS 660 is the top-of-the-range dual use clip-on thermal weapon sight to deliver world-leading performance on image processing. It offers unrivaled optical performance via 17-micron LWIR technology and a 640x480 thermal sensor. In addition, the advanced image processing leads to excellent image clarity and provides better detection and recognition, allowing conquering the night with its exceptional visual quality.

It has a rugged and lightweight construction to survive extreme conditions with peak performance so that the elite operators can count on it. Tested for MIL-STD-810 and with a waterproof design, PARS 660 is durable and reliable under harsh environmental conditions with its all-aluminium construction for maximum structural rigidity.

PARS 660 delivers the most efficient and feasible user experience with its userfriendly interface. It includes many advanced features such as wireless video transfer to various platforms, wireless remote control, picture in picture (PiP) mode, internal video and image recording.

It offers a high-performance shooting experience via superior boresight retention through its state-of-the-art optical design and revolutionary software architecture developed by the engineering team, which can adapt automatically according to the platform.

PARS 660 can be quickly mounted on any MIL-STD-1913 rail interface.

General Data	
Frame Rate <sup>(1)</sup>	60 Hz
Display Type	Color OLED
Eye Relief	00
E- Zoom <sup>(2)</sup>	2x, 3x, 4x, 8x (PiP Mode)
Start-up Time	<5 sec.
Calibration	Auto, Semi-Auto, Manual

## **Optical Data**

Objective Lens (MF) <sup>(3)</sup>	60 mm
Optical Magnification	lx
Field of View (HxV)	10.2° × 7.7°
Min. Focus Distance	3 m
DRI <sup>(4)</sup>	Human Detection - 1760 m / 1924 yd Vehicle Detection - 5400 m / 5905 yd



# **KEY FEATURES**

#### OUTSTANDING IMAGE CLARITY

A high-resolution 640x480 long-wave IR sensor and premium germanium optics paired with a high-definition display provide outstanding image clarity and perfect detail recognition

#### EXCELLENT BORESIGHT RETENTION

It offers a high-performance shooting experience via superior boresight retention through its state of the art optical design and revolutionary software architecture developed by the engineering team, which can adapt automatically according to the platform

VIDEO AND STILL-PHOTO RECORDING

Store your hours of video and thousands of photos in the internal memory

- COMPACT, LIGHT AND RUGGED The highly portable and exceptionally modern design provides the operator with ease of use and simple control for all device menu adjustments
- COMBAT-PROVEN DURABILITY Robustly designed and field-tested so the most elite operators can count on it (20,000+ PARS delivered/fielded by various military forces)
- WI-FI INTERFACE WITH MULTIPLE PLATFORMS The built-in Wi-Fi module connects with Android, IOS or Windows platforms. Seamlessly control the features of the PARS through these platforms

#### CREATE YOUR OWN RETICLE

Along with a wide variety of built-in reticles, you can create your own reticle just as you imagine it. For more information, visit "www.reticlecreator.com"



Sensor Data	
Sensor Technology	Uncooled Microbolometer
Sensor Resolution	640 x 480 pixels
Sensor Sensitivity	< 40 mK @f/1.0
Sensor Pitch	17 µm
Spectral Range	LWIR; 7.5 µm to 13.5 µm

# **Advanced Features**

Advanced i catales	
Integrated WI-FI <sup>(5)</sup>	Yes (Wireless Video Streaming w/AppStore, Google Play, Windows)
Integrated Bluetooth	Yes
Motion Detection	Yes <sup>(6)</sup>
Video Recording	Yes (Format: MP4   Capacity: 180+ minutes)
Image Capturing	Yes (Format: JPEG   Capacity: 10000+ photos)
Eye Comfort Mode	Yes
2-Axis Angle Indicator	Yes
Stadiametric Range Finder	Yes
Continuous E-Zoom	+0.05x (1.00, 1.05, 1.10)
Reticle	Multiple Reticle Patterns (7)
Reticle Color	Multiple Reticle Colors, Auto POL, Auto BG
<b>Reticle Brightness Adjustment</b>	Yes
Reticle FP	FFP, SFP
Reticle Stadia	Yes
Reticle Zeroing	Manual, Auto
User Profiles	Up to 10 Profiles
Brightness Adjustment	Yes
Contrast Adjustment	Yes
Sharpness Adjustment	Yes
Active Histogram Equalization	Yes
Polarity	White-Hot, Black-Hot, Multiple Pseudo Colors
Outline Mode	Yes
Zoom Assist (PiP Mode)	Yes
Video Output	Yes (Digital; USB & Analog)

Some devices may offer 25 Hz. Contact us for detailed information.
 E-Zoom cannot be used in clip-on mode.
 MF: Manual Focus
 Related data are calculated based on "Johnson Criteria".
 Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc., registered in the U.S. and other countries. Google Play and the Google Play logo are trademarks of Google LUC. Windows and the Windows logo are trademarks of Microsoft Corporation in the United States and/or other countries.
 May not be available on all devices. Please contact us for detailed information.
 User customized reticles can be loaded. For detailed information, visit www.reticlecreator.com
 With mounting dapter and 2 x 18650 batteries.
 Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

Contact 3E for product codes and SKUs.

Physical Data	
Weight	737 g (25.9 oz) (w/o accs.) 928 g (32,73 oz) (w/ accs.) <sup>(8)</sup>
Dimensions (WxLxH)	90x221x93 mm (3.54x8.70x3.66 in)
Optical Axis Distance (A)	40.90 mm (1.61 in)
Housing Material	Aluminium w/ Plastic Parts
Color	Black or FDE
Weapon Mount Type	Quick Release Mount
Weapon Mount Compatibility	MIL-STD 1913, STANAG 4694

Electronical Data	
Battery	2 x 18650 Rechargeable Li-ion
Battery Life <sup>(9)</sup>	4+ hours 7+ hours (Power Save Mode)

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal) 8.59 mm (0.338 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories (10)	
User and Operating Manual	■ 2 x 18650 Rechargeable Lithium Ion Battery
Quick Release Weapon Mount	Lens Cleaning Cloth
Battery Charger	Objective Protection Cover
■ Interface Bellows	■ 0.8m USB & BNC Cable
■ Soft Carrying Bag	

Optional Accessories (10)	
□ Hard Case	□ Helmet Mounted Display (HMD)
Diopter Filter (-0.75 dpt)	□ Wireless Remote Control (BRC)
□ Eyecup	External Battery Pack



# PARS 675

# CLIP-ON THERMAL WEAPON SIGHT

PARS 675 is the top-of-the-range dual use clip-on thermal weapon sight to deliver world-leading performance on image processing. It offers unrivaled optical performance via 17-micron LWIR technology and a 640x480 thermal sensor. In addition, the advanced image processing leads to excellent image clarity and provides better detection and recognition, allowing conquering the night with its exceptional visual quality.

It has a rugged and lightweight construction to survive extreme conditions with peak performance so that the elite operators can count on it. Tested for MIL-STD-810 and with a waterproof design, PARS 675 is durable and reliable under harsh environmental conditions with its all-aluminium construction for maximum structural rigidity.

PARS 675 delivers the most efficient and feasible user experience with its userfriendly interface. It includes many advanced features such as wireless video transfer to various platforms, wireless remote control, picture in picture (PiP) mode, internal video and image recording.

It offers a high-performance shooting experience via superior boresight retention through its state-of-the-art optical design and revolutionary software architecture developed by the engineering team, which can adapt automatically according to the platform.

PARS 675 can be quickly mounted on any MIL-STD-1913 rail interface.

General Data	
Frame Rate <sup>(1)</sup>	60 Hz
Display Type	Color OLED
Eye Relief	00
E- Zoom <sup>(2)</sup>	2x, 3x, 4x, 8x (PiP Mode)
Start-up Time	<5 sec.
Calibration	Auto, Semi-Auto, Manual

### **Optical Data**

Objective Lens (MF) <sup>(3)</sup>	75 mm
Optical Magnification	1X
Field of View (HxV)	8.3° x 6.6°
Min. Focus Distance	9 m
DRI <sup>(4)</sup>	Human Detection - 2200 m / 2405 yd Vehicle Detection - 6750 m / 7381 yd



# **KEY FEATURES**

## OUTSTANDING IMAGE CLARITY

A high-resolution 640x480 long-wave IR sensor and premium germanium optics paired with a high-definition display provide outstanding image clarity and perfect detail recognition

#### EXCELLENT BORESIGHT RETENTION

It offers a high-performance shooting experience via superior boresight retention through its state of the art optical design and revolutionary software architecture developed by the engineering team, which can adapt automatically according to the platform

VIDEO AND STILL-PHOTO RECORDING

Store your hours of video and thousands of photos in the internal memory

- COMPACT, LIGHT AND RUGGED The highly portable and exceptionally modern design provides the operator with ease of use and simple control for all device menu adjustments
- COMBAT-PROVEN DURABILITY Robustly designed and field-tested so the most elite operators can count on it (20,000+ PARS delivered/fielded by various military forces)
- WI-FI INTERFACE WITH MULTIPLE PLATFORMS The built-in Wi-Fi module connects with Android, IOS or Windows platforms. Seamlessly control the features of the PARS through these platforms

#### CREATE YOUR OWN RETICLE

Along with a wide variety of built-in reticles, you can create your own reticle just as you imagine it. For more information, visit "www.reticlecreator.com"



Sensor Data	
Sensor Technology	Uncooled Microbolometer
Sensor Resolution	640 x 480 pixels
Sensor Sensitivity	< 40 mK @f/1.0
Sensor Pitch	17 µm
Spectral Range	LWIR; 7.5 µm to 13.5 µm

# **Advanced Features**

Auvanceu i eatures	
Integrated WI-FI <sup>(5)</sup>	Yes (Wireless Video Streaming w/AppStore, Google Play, Windows)
Integrated Bluetooth	Yes
Motion Detection	Yes <sup>(6)</sup>
Video Recording	Yes (Format: MP4   Capacity: 180+ minutes)
Image Capturing	Yes (Format: JPEG   Capacity: 10000+ photos)
Eye Comfort Mode	Yes
2-Axis Angle Indicator	Yes
Stadiametric Range Finder	Yes
Continuous E-Zoom	+0.05x (1.00, 1.05, 1.10)
Reticle	Multiple Reticle Patterns <sup>(7)</sup>
Reticle Color	Multiple Reticle Colors, Auto POL, Auto BG
<b>Reticle Brightness Adjustment</b>	Yes
Reticle FP	FFP, SFP
Reticle Stadia	Yes
Reticle Zeroing	Manual, Auto
User Profiles	Up to 10 Profiles
Brightness Adjustment	Yes
Contrast Adjustment	Yes
Sharpness Adjustment	Yes
Active Histogram Equalization	Yes
Polarity	White-Hot, Black-Hot, Multiple Pseudo Colors
Outline Mode	Yes
Zoom Assist (PiP Mode)	Yes
Video Output	Yes (Digital; USB & Analog)

Some devices may offer 25 Hz. Contact us for detailed information.
 E-Zoom cannot be used in clip-on mode.
 Hr: Manual Focus
 Related data are calculated based on "Johnson Criteria".
 **Sple Inc.**, registered in the U.S. and other countries. App Store is a service mark of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of **Gogle LLC**.
 Windows and the Windows logo are trademarks of **Microsoft Corporation** in the United States and/or other countries.

Windows and the Windows logo are trademarks of Microsoft Corporation in the United States and/or other countries.
(6) May not be available on all devices. Please contact us for detailed information.
(7) User customized reticles can be loaded. For detailed information, visit www.reticlecreator.com
(8) With mounting adapter and 2 x 18650 batteries.
(9) Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
(10)Accessories may vary. Please contact us for detailed information.

Contact 3E for product codes and SKUs.

Physical Data	
Weight	839 g (29.5 oz) (w/o accs.) 1030 g (36.3 oz) (w/ accs.) <sup>(8)</sup>
Dimensions (WxLxH)	90x239x96 mm (3.54x9.40x3.77 in)
Optical Axis Distance (A)	40.90 mm (1.61 in)
Housing Material	Aluminium w/ Plastic Parts
Color	Black or FDE
Weapon Mount Type	Quick Release Mount
Weapon Mount Compatibility	MIL-STD 1913, STANAG 4694

Electronical Data	
Battery	2 x 18650 Rechargeable Li-ion
Battery Life <sup>(9)</sup>	4+ hours 7+ hours (Power Save Mode)

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal) 8.59mm (0.338 cal) 12.7 mm* NATO (0.50 cal)
Other MIL-STD-810G tests are applicable. Please contact us for detailed information.	

\* 12.7 mm (0.50 cal) NATO only for 675H variation.

Standard Accessories (10)	
User and Operating Manual	■ 2 x 18650 Rechargeable Lithium Ion Battery
Quick Release Weapon Mount	Lens Cleaning Cloth
Battery Charger	Objective Protection Cover
■ Interface Bellows	■ 0.8m USB & BNC Cable
■ Soft Carrying Bag	

Optional Accessories (10)	
□ Hard Case	□ Helmet Mounted Display (HMD)
Diopter Filter (-0.75 dpt)	□ Wireless Remote Control (BRC)
□ Eyecup	External Battery Pack







# FELIS H35

# THERMAL HAND-HELD CAMERA

FELIS H35 Thermal Handheld Camera delivers crisp, clear images with high definition in a durable and reliable body. It offers exceptional and superior performance in day/night surveillance with outstanding usability and handling.

FELIS H35 is developed with innovative image processing algorithms to optimize the image clarity to the maximum level and provide high-quality rendering within the target and the background. It is equipped with an advanced 12  $\mu m$  high sensitivity sensor and F1.0 fast premium germanium lens to get the detail in the image down to the smallest detail.

The optimized software and advanced electrical design minimize battery consumption to the lowest levels and offer 7+ hours of uninterrupted use with a single battery.

3E engineering team designed FELIS H35 for harsh environmental conditions with its all aluminium construction for maximum structural rigidity in a monocular infrastructure.

Experience a completely different thermal experience with FELIS H35 and exceed your expectations.

## **General Data**

Frame Rate	60 Hz
Display Type	Color OLED
Eye Relief	30 mm
E-Zoom	2x, 4x
Start-up Time	<5 sec.
Calibration	Auto, Semi-Auto, Manual

Optical Data	

Objective Lens (MF) <sup>(1)</sup>	35 mm - F 1.0
FOV (HxV)	12.5° × 9.4°
Minimum Focus Distance	3 m
<b>DRI</b> <sup>(2)</sup>	Human Detection - 1400 m / 1531 yd Vehicle Detection - 4400 m / 4811 yd
Dioptri	+2,-6 dpt



# **KEY FEATURES**

## OUTSTANDING IMAGE CLARITY

A high-resolution 640x480 long-wave IR sensor and fast premium germanium optics paired with a high-definition display provide outstanding image clarity and ensure perfect detail recognition

 ADVANCED 12 μm HIGH SENSITIVITY SENSOR
 FELIS H35 carries the industry-leading new 12 μm high sensitivity sensor and F1.0 fast germanium lenses to provide excellent image clarity

■ UP TO 7+ HOURS OF CONTINUOUS OPERATION Uninterrupted usage experience with 7+ battery life with a single battery

- VIDEO AND STILL-PHOTO RECORDING The internal memory offers storage space for videos and photos. In addition, you can download recorded files seamlessly when connected to the PC
- COMPACT, LIGHT AND RUGGED

The highly portable and exceptionally modern design provides the operator with ease of use and simple control for all device menu adjustments



#### Sensor Data Uncooled Microbolometer Sensor Technology 640 x 480 pixels **Sensor Resolution** Sensor Sensitivity < 40 mK @f/1.0 Sensor Pitch 12 µm Spectral Range LWIR; 7.5 $\mu m$ to 13.5 $\mu m$

# **Advanced Features**

Video Recording	Yes
Image Capturing	Yes
Zoom Assist (PiP Mode)	Yes
Brightness Adjustment	Yes
Contrast Adjustment	Yes
Sharpness Adjustment	Yes
Polarity	White-Hot, Black-Hot, Multiple Colors
Outline Mode	Yes
Video Output	Yes

# **Electronical Data**

Battery Battery Life

Physical Data	
Weight	540 g (19.04 oz) (w/o accs.)
Dimensions (WxLxH)	69x152x75 mm (2.71x5.98x2.95 in)
Housing Material	Aluminium and Plastic Parts
Color	Black or FDE

7+ hours

1 x 18650 Rechargeable Li-ion

#### **Environmental Data** -32°C to +49°C (-26°F to +120°F) **Operating Temperature Range** -40°C to +71°C (-40°F to +160°F) Storage Temperature Range Immersion IP67

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories (4)	
User and Operating Manual	■ 18650 Rechargeable Lithium Ion Battery
Lens Cleaning Cloth	Eyecup
Battery Charger	Objective Protection Cover
■ 0.8m USB & BNC Cable	Soft Carrying Bag

# Optional Accessories (4)

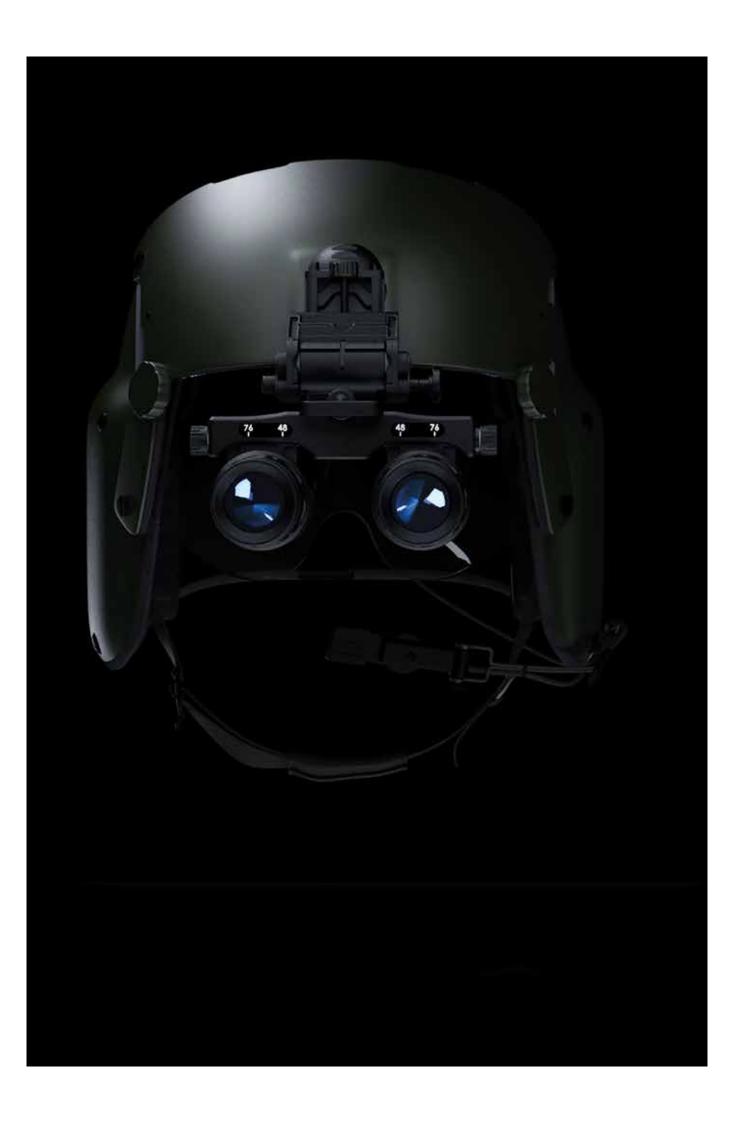
External Battery Pack

Hard Case

MF: Manual Focus
 Related data are calculated based on "Johnson Criteria".
 Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

# **NIGHT VISION**

PILOT NIGHT VISION	
SERHAT	pg <b>52</b>
MONOCULAR NIGHT VISION	
LYNX M14	pg <b>53</b>
M14	pg <b>54</b>
BINOCULAR NIGHT VISION	
B31	pg <b>55</b>



# **SERHAT** AVIATION NIGHT VISION GOGGLES

SERHAT (Aviation Night Vision Imaging System) binocular night vision goggles deliver outstanding performance and depth perception even in the most challenging low-light conditions with its premium fast objective lens design. Thus, it provides sufficient vision for a pilot to complete night time missions down to starlight and extreme low light conditions. It is an elite dual tube night vision goggle which offers the user total depth perception.

It has an ergonomic low-profile and compact design that offers superior situational awareness with an easy-to-use interface controls including inter-pupillary and vertical/fore aft/tilt adjustments.

 ${\sf SERHAT}$  significantly expands the operational mission capability of helicopter crews.

General Da
------------

F/0.95 or F/1.2
1X
40°
25 - ∞
-6, +2
25 mm
48-76 mm
Modifiable (A,B,C class and 645 nm)
<600 g (21.16 oz)
Min. 1800 FOM White Phosphor, GEN III
min. 68 lp/mm
min. 25
External Battery Pack

## **Environmental Data**

Operating Temperature Range Storage Temperature Range

-32°C to +49°C (-26°F to +120°F) -40°C to +71°C (-40°F to +160°F)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Contact 3E for product codes and SKUs.



# **KEY FEATURES**

PREMIUM FAST F/0.95 OBJECTIVE LENS For increased sensitivity even in the most challenging low-light conditions

- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE
   The performance-optimized optical design provides sharp and clear images edge-to-edge
- COMPLIANT WITH COCKPIT LIGHTING Available with Class A, B and C filters
- MULTIPLE HELMET-MOUNT OPTIONS
   Adaptable to different helmets in line with the demands of the user
- SMOOTHER FOCUS ADJUSTMENT Clearer images with a more precise focus adjustment
- ROBUST AND RELIABLE BODY DESIGN
   Robust and reliable design to maintain functionality, usability, ergonomics and performance



# **LYNX M14**

# **DI2 MONOCULAR NIGHT VISION**

LYNX offers extremely superior performance in low light conditions with its advanced image processing algorithms. This performance is derived from the state-of-the-art 2.3 megapixel DI2 image sensor, whose architecture was developed by 3E and has much larger pixels than its competitors.

At the heart of LYNX, DI2 converts digital signals into a picture viewable on a full HD OLED display. This provides an edge-to-edge super-sharp image, down to the smallest detail.

The future is digital.

## General Data

General Data	
Frame Rate <sup>(1)</sup>	60 Hz
Display Type	Color OLED
E- Zoom	2x
Start-up Time	<2 sec.
Weight (w/o accs.)	195 g (6.87 oz)
Dimensions (WxLxH)	62x118x86 mm (2.44x4.64x3.38 in)

# **Optical Data**

Objective Lens (MF) <sup>(2)</sup>	22.7 mm - F 1.3
Field of View (HxV)	45° x 33°
Min. Focus Distance	25 cm
Diopter	Fixed

## Sensor Data

Sensor Technology	DI <sup>2</sup> LLcmos
Sensor Resolution	1920 x 1200 pixels
Sensor Sensitivity	100000 mV/Lux.s
Sensor Pitch	12 µm
Spectral Range	400-1100 nm
Min. Illumination	1x10 <sup>-4</sup> lux

## **Advanced Features**

Reticle	Multiple Reticle Patterns
Reticle Color	Black, White, Yellow, Green, Red
Reticle Zeroing	Manual
Brightness Adjustment	Yes
Contrast Adjustment	Yes
Sharpness Adjustment	Yes

# **Electronical Data**

Battery	1 x 18650 Rechargeable Li-ion
Battery Life <sup>(3)</sup>	12+ hours



# **KEY FEATURES**

#### **OPPORTUNITY TO USE IN DAYLIGHT**

There is no damage in daylight as in conventional image intensifiers

#### LIFETIME

The DI2 can withstand tens of thousands of hours of continuous use without any degradation in performance

- INTERNAL USER INTERFACE Possibility to overlay images such as icons, indicators and other valuable information
- INTERNAL RETICLE OPTION Provides weapon-mounted use with built-in reticle options
- **IMAGE ZOOM DIGITAL ZOOM OPPORTUNITY** Ability to zoom without the need for an external lens
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE The performance-optimized optical design provides sharp and clear images edge-to-edge

Environmental Data	
Operating Temperature Range	-20°C to +49°C (-4°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories (4)	
User and Operating Manual	18650 Rechargeable Lithium Ion Battery
Lens Cleaning Cloth	Eyecup
Battery Charger	Objective Protection Cover
Soft Carrying Bag	

# **Optional Accessories** (4)

Hard Case

(1) User selectable between 15Hz, 30Hz and 60Hz.

Missi Satectado between 15 it., 30 it and bonz.
 Missi Manual Focus
 Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

# M14 MONOCULAR NIGHT VISION

Physical Data	
Weight	295 g (10.41 oz)
Dimensions (WxLxH)	72x105x64 mm (2.83x4.13x2.52 in)

Optical Data	
Magnification	1X
Objective	27 mm
Field of View	40°
Focus Distance	25 cm - ∞
F#	F/1.2
Diopter Adjustment	-6, +2 dpt

#### Image Intensifier Data

M14 can be offered with different image intensifier tubes. Please contact us for your detailed request.

Electronical Data	
IR Illumination	Yes
IR Indicator	Yes (in FOV)
Low Battery Indicator	Yes (in FOV)
Flip Up Turn Off Function (1)	Yes
Battery	1 x AA
Battery Life	40 hours

Environmental Data
--------------------

Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.



Standard Accessories <sup>(2)</sup>	
Lens Cleaning Cloth	∎1×AA
Objective Protection Cover	Eyecup
User and Operating Manual	Soft Carrying Bag

Optional Accessories (2)	
□ Sacrificial Filter	□ Hard Case
□ Protection Filter	□ Face Mask
□ Helmet Mount	□ Weapon Mount
Daylight Filter	Low Temperature Mount
Light Reducing Filter	
<ol> <li>Applicable if used with compatible below the mount</li> </ol>	t

Applicapte if used with compatible neimet mount.
 Accessories may vary. Please contact us for detailed information.

# **B31 BINOCULAR NIGHT VISION**

Physical Data	
Weight <sup>(1)</sup>	500 g (17.63 oz) - 580 g (20.46 oz)
Dimensions (WxLxH)	127x127x77 mm (5x5x3.03 in)
Monocular Opening Angle	140°

# **Optical Data**

Magnification	1X
Objective	27 mm
Field of View	40°
Focus Distance	25 cm - ∞
F#	F/1.2
Diopter Adjustment	-6, +2 dpt

## Image Intensifier Data

B31 can be offered with different image intensifier tubes. Please contact us for your detailed request.

## **Electronical Data**

alcoli ollioat Bata	
IR Illumination	Yes
Sleep Mode	Yes
IR Indicator	Yes (in FOV)
Low Battery Indicator	Yes (in FOV)
Flip Up Turn Off Function (2)	Yes
Battery	1 x AA
Battery Life	15+ hours / 50+ hours (External Battery Unit)

# Environmental Data

<b>Operating Temperature Range</b>	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.



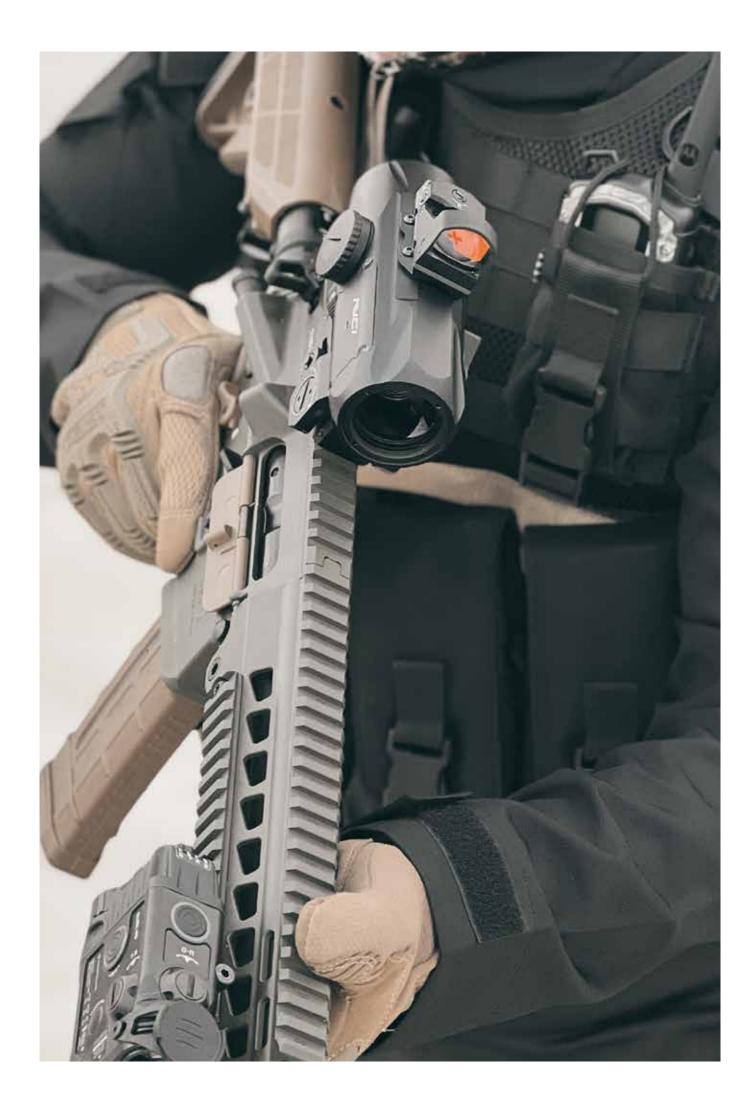
Standard Accessories (3)	
Lens Cleaning Cloth	■1×AA
■ 2x Objective Protection Cover	■ 2x Eyecup
User and Operating Manual	Soft Carrying Bag

Daylight Filter
Light Reducing Filter
□ Hard Case

Weight may change between 500 and 580 grams depending on the variotions of the lenses.
 Applicaple if used with compatible helmet mount.
 Accessories may vary. Please contact us for detailed information.

# LASER SYSTEMS

DUAL LASER POINTER AND ILLUMINATOR	
DLIRIL MR	. pg <b>58-59</b>
DLIRIL MG	. pg <b>62-63</b>
TACTICAL FLASHLIGHT AND IR/VIS LASER PO	INTER
PLF	. pg <b>64-65</b>
MINI LASER POINTER	
MLR RX	. pg <b>67</b>
MLR GX	. pg <b>68</b>
LASER BORESIGHT	
LRB	. pg <b>69</b>



# **DLIRIL MR** DUAL LASER POINTER & ILLUMINATOR

DLIRIL MR combines four unique functionalities in a single body: visible red laser, infrared (IR) laser, infrared (IR) illuminator, and visible tactical flashlight. Tactical flashlight has a very powerful illumination capability with its 500 Lumens power. DLIRIL MR comes with high or low power modes.

DLIRIL MR has a wide range of applications in different conditions. It can be used as an accurate target pointer to assist auxiliary weapons in wide-range operations. It offers additional IR pointer and illuminator support for night vision systems during the night conditions. It can also be used as a visible laser pointer and a tactical flashlight for tactical shoots in CQB. The integrated weapon mount is compatible with MIL-STD 1913 and STANAG 4694.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the DLIRIL MR is durable and reliable with its aluminium construction for maximum structural rigidity.

General Data	
Housing Material	Aluminium w/ Plastic Parts
Color	Black or FDE
Weight	270 g (9.52 oz) (w/o battery) 303 g (11.64 oz) (w/ battery)
Dimensions (WxLxH)	42x104x72 mm (1.65x4.09x2.83 in)
Weapon Mount Compatibility	MIL-STD 1913, STANAG 4694
Windage & Elevation Adjustment	Yes
On/Off Switch	Rotary Switch/Integrated Buttons
Battery	1 x 18500 Lithium-Ion Battery

# Battery Life Chart (a)Visible Laser Pointer50+ hoursIR Laser Pointer60+ (Low), 15+ (High) hoursIR Laser Illuminator50+ (Low), 12+ (High) hoursVisible Illuminator1+ (High), 2.5+ (Mid), 10+ (Low) hours



# **KEY FEATURES**

- 4 TECHNOLOGIES IN A SINGLE BODY Includes visible red laser, infrared (IR) laser, infrared (IR) illuminator, and visible tactical flashlight
- CO-ALIGNED VISIBLE AND INFRARED LASERS
   Lasers are co-aligned for the most precise use
- USER ENABLED STROBE FUNCTION Offers strobe feature to disorient the enemy
- COMPACT AND FUNCTIONAL DESIGN
   Compact body with a functional design in line with the demands of the most elite users
- ROBUST AND RELIABLE BODY DESIGN
   Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



Visible Laser Pointer	
Output Power	< 5 mW
Beam Divergence	0.5 mRad
Wavelength	635 nm
Class	Class 3A
Output power will be ≤ 1 mW if training mode is activated.	

## IR Laser Pointer

Max. Output Power High	40 mW
Output Power Low	≤ 5 mW
Beam Divergence (2)	0.5 mRad
Wavelength	850 nm
Class	Class 3B

Output power will be < 1 mW in both high and low modes if training mode is activated.

Max. Output Power High	50 mW
Output Power Low	≤ 10 mW
Beam Divergence (3)	100 mRad
Wavelength	850 nm
Class	Class 3B

Output power will be < 5 mW in both high and low modes if training mode is activated.

# Visible Illuminator

Peak Illuminance High <sup>(4)</sup>	500 Lumens
Peak Illuminance Mid <sup>(4)</sup>	225 Lumens
Peak Illuminance Low (4)	60 Lumens
Туре	LED

Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
 Tolerance value is +/- 0.2 mrad.
 Tolerance value is +/- 15 mrad.
 Tolerance value is +/- 10%.
 Accessories may vary. Please contact us for detailed information.

Contact 3E for product codes and SKUs.

#### **Environmental Data** -32°C to +49°C (-26°F to +120°F) **Operating Temperature Range** -40 $^\circ\text{C}$ to +71 $^\circ\text{C}$ (-40 $^\circ\text{F}$ to +160 $^\circ\text{F})$ Storage Temperature Range Immersion Submersible to 10 m

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Advanced Features	
Remote Cable Pressure Pad	Yes
Traning Mode	Yes
OFF Mode Vibration Warning	Yes
Adjustable Visible Illuminator	Yes (Low, Mid, High)

Standard Accessories (5)	
■ Soft Carrying Bag	■ 3.7V 18500 Lithium-Ion Battery
Remote Cable Pressure Pad	Battery Charging Kit
■ User and Operating Manual	

Optional Accessories (5)	
Hard Case	Optical Pattern Generators
□ Iron Sight	





# **DLIRIL MG** DUAL LASER POINTER & ILLUMINATOR

DLIRIL MG combines four unique functionalities in a single body: visible green laser, infrared (IR) laser, infrared (IR) illuminator, and visible tactical flashlight. Tactical flashlight has a very powerful illumination capability with its 500 Lumens power. DLIRIL MG comes with high or low power modes.

DLIRIL MG has a wide range of applications in different conditions. It can be used as an accurate target pointer to assist auxiliary weapons in wide-range operations. It offers additional IR pointer and illuminator support for night vision systems during the night conditions. It can also be used as a visible laser pointer and a tactical flashlight for tactical shoots in CQB. The integrated weapon mount is compatible with MIL-STD 1913 and STANAG 4694.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the DLIRIL MG is durable and reliable with its aluminium construction for maximum structural rigidity.

General Data	
Housing Material	Aluminium w/ Plastic Parts
Color	Black or FDE
Weight	270 g (9.52 oz) (w/o battery) 303 g (11.64 oz) (w/ battery)
Dimensions (WxLxH)	42x104x72 mm (1.65x4.09x2.83 in)
Weapon Mount Compatibility	MIL-STD 1913, STANAG 4694
Windage & Elevation Adjustment	Yes
On/Off Switch	Rotary Switch/Integrated Buttons
Battery	1 x 18500 Lithium-Ion Battery

# Battery Life Chart (a)Visible Laser Pointer15+ hoursIR Laser Pointer60+ (Low), 15+ (High) hoursIR Laser Illuminator50+ (Low), 12+ (High) hoursVisible Illuminator1+ (High), 2.5+ (Mid), 10+ (Low) hours



# **KEY FEATURES**

- 4 TECHNOLOGIES IN A SINGLE BODY Includes visible green laser, infrared (IR) laser, infrared (IR) illuminator, and visible tactical flashlight
- CO-ALIGNED VISIBLE AND INFRARED LASERS Lasers are co-aligned for the most precise use
- USER ENABLED STROBE FUNCTION
   Offers strobe feature to disorient the enemy
- COMPACT AND FUNCTIONAL DESIGN
   Compact body with a functional design in line with the demands of the most elite users
- ROBUST AND RELIABLE BODY DESIGN
   Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



Visible Laser Pointer	
Output Power	< 5 mW
Beam Divergence	0.5 mRad
Wavelength	532 nm
Class	Class 3A
Output power will be ≤ 1 mW if training mode is activated.	

## IR Laser Pointer

Max. Output Power High	40 mW
Output Power Low	≤ 5 mW
Beam Divergence (2)	0.5 mRad
Wavelength	850 nm
Class	Class 3B

Output power will be < 1 mW in both high and low modes if training mode is activated.

Max. Output Power High	50 mW
Output Power Low	≤ 10 mW
Beam Divergence (3)	100 mRad
Wavelength	850 nm
Class	Class 3B

Output power will be < 5 mW in both high and low modes if training mode is activated.

# Visible Illuminator

Peak Illuminance High <sup>(4)</sup>	500 Lumens
Peak Illuminance Mid (4)	225 Lumens
Peak Illuminance Low (4)	60 Lumens
Туре	LED

Battery life is calculated based on the original equipment battery. Battery life may vary depending on environmental and atmospheric conditions.
 Tolerance value is +/- 0.2 mrad.
 Tolerance value is +/- 15 mrad.
 Tolerance value is +/- 10%.
 Accessories may vary. Please contact us for detailed information.

Contact 3E for product codes and SKUs.

#### **Environmental Data** -32°C to +49°C (-26°F to +120°F) **Operating Temperature Range** -40 $^\circ\text{C}$ to +71 $^\circ\text{C}$ (-40 $^\circ\text{F}$ to +160 $^\circ\text{F})$ Storage Temperature Range Immersion Submersible to 10 m

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Advanced Features	
Remote Cable Pressure Pad	Yes
Traning Mode	Yes
OFF Mode Vibration Warning	Yes
Adjustable Visible Illuminator	Yes (Low, Mid, High)

Standard Accessories (5)	
■ Soft Carrying Bag	■ 3.7V 18500 Lithium-Ion Battery
Remote Cable Pressure Pad	Battery Charging Kit
■ User and Operating Manual	

Optional Accessories (5)	
Hard Case	Optical Pattern Generators
□ Iron Sight	

# **PLF** TACTICAL FLASHLIGHT and IR/VIS LASER POINTER

The PLF was designed as a low profile with a functional design in line with the demands of the most elite users.

It features a white LED technology with 500 Lumens, visible red laser and infrared laser. It is one of the most compact devices in its class, combining these three technologies.

It can securely attach to a wide range of handguns. According to the user's operational requirements, infrared laser on the invisible side and flashlight / red laser on the visible side can be easily operated independently or simultaneously. It utilizes windage and elevation adjustments to ensure precise and accurate zeroing.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the PLF is durable and reliable with its aluminium construction for maximum structural rigidity.

Physical Data	
Housing Material	Aluminium w/Plastic Parts
Color	Black
Weight <sup>(1)</sup>	75 g (2.64 oz)
Windage/Elevation Adjustment	Yes
Dimensions (WxLxH)	36x57x37 mm (1.42x2.24x1.46 in)
Weapon Mount Compatibility	MIL-STD 1913; STANAG 4694

Tactical Flashlight Data	
Peak Lumen Performance	500 lumens
LED Source	High Performance White LED

Visible Laser Pointer Data	
Output Power	<5 mW
Beam Divergence	<0.8 mRad
Wavelength	650 nm
Class	3R



# **KEY FEATURES**

LOW-PROFILE AND FUNCTIONAL DESIGN
 Designed as a low profile with a functional design in line with the demands
 of the most elite users

- 3 TECHNOLOGIES IN A SINGLE BODY Features a white LED technology with 500 Lumens, visible red laser and infrared laser
- USER ENABLED STROBE FUNCTION Offers strobe feature to disorient the enemy
- HOMOGENEOUS LIGHT DISTRIBUTION
   Offers homogeneous light distribution for best focusing
- ROBUST AND RELIABLE BODY DESIGN
   Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



Output Power	<0.7 mW
Beam Divergence	<0.8 mRad
Wavelength	850 nm
Class	Class I

Advanced Features	
Modes	Visible Laser, Flashlight, Visible Laser/ Flashlight, IR Laser
Flash Mode (Strobe)	Yes

# **Electronical Data**

Battery

CR123A





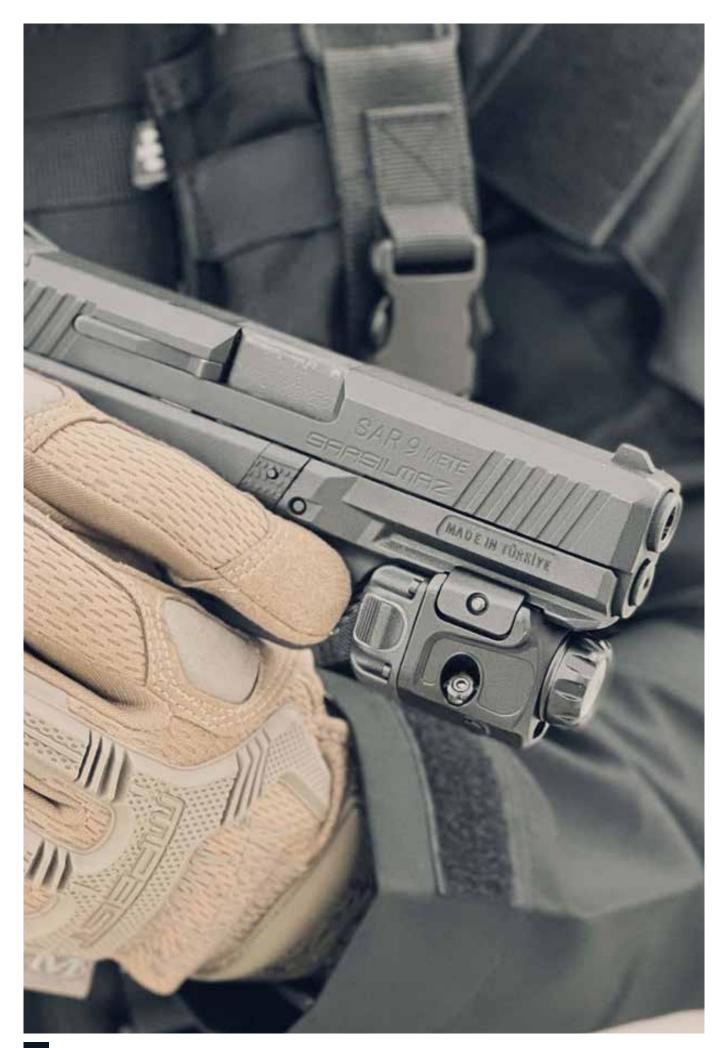
Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

# Standard Accessories (2)

	■1×CR123A	User and Operating Manual
	Allen Key	
(1) The weight given is calculated without accessories and batteries		

The weight given is calculated without accessories and batteries.
 Accessories may vary. Please contact us for detailed information.



# MLR RX MINI LASER POINTER

The MLR RX is man-portable, easy to use and extremely effective hand-held visible red laser pointer.

It is a device that should be carried by all users and has multi-functional features. It can be used for to enhance situational awareness, target designation or tactical team communications.

The MLR RX has different output power options for the unique mission needs.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the MLR RX is durable and reliable with its aluminium construction for maximum structural rigidity.

Improve your operational capability by carrying this simple but effective device with you.

Mechanical Data	
Housing Material	Aircraft Grade Aluminium
Color	Black
Weight (w/o battery)	120 g (4.2 oz)
Diameter	24 mm (0.94 in)
Length	120 mm (4.72 in)

Electronical Data	
Battery	1 x CR123 (3V)
Battery Life (1)	6+ hours
Activation Button	Push-Pull Button

## Laser Data

	MLR R5	MLR R10
Output Power	< 5 mW	< 10 mW
Beam Divergence	<1.2 mRad	<1.2 mRad
Wavelength	635 nm	635 nm
Class	Class 3A	Class 3B

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Other MIL CTD 910C tests are applicable. Disase	contact us for detailed information

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories (2)	
■ Neck Strap	CR123 (3V) Battery
User and Operating Manual	

Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

Contact 3E for product codes and SKUs.



# **KEY FEATURES**

- PRECISE LASER BEAM Eliminates tactical team confusion
- TACTICAL TEAM COMMUNICATIONS
   Visual and non-verbal communication
- MAN-PORTABLE & COMPACT DESIGN Man-portable, compact and lightweight
- ROBUST AND RELIABLE BODY DESIGN Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



# **MLR GX** MINI LASER POINTER

The MLR GX is man-portable, easy to use and extremely effective hand-held visible green laser pointer.

It is a device that should be carried by all users and has multi-functional features. It can be used for to enhance situational awareness, target designation or tactical team communications.

The MLR GX has different output power options for the unique mission needs.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the MLR GX is durable and reliable with its aluminium construction for maximum structural rigidity.

Improve your operational capability by carrying this simple but effective device with you.

Mechanical Data	
Housing Material	Aircraft Grade Aluminium
Color	Black
Weight (w/o battery)	120 g (4.2 oz)
Diameter	24 mm (0.94 in)
Length	120 mm (4.72 in)

Electronical Data	
Battery	1 x CR123 (3V)
Battery Life (1)	6+ hours
Activation Button	Push-Pull Button

## Laser Data

	MLR G5	MLR G10
Output Power	< 5 mW	< 10 mW
Beam Divergence	<1.2 mRad	<1.2 mRad
Wavelength	532 nm	532 nm
Class	Class 3A	Class 3B

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Other MIL-STD-910C tests are applicable. Please contact us for detailed information	

er MIL-STD-810G tests are applicable. Please contact us for detailed informa

Standard Accessories (2)	
■ Neck Strap	CR123 (3V) Battery
User and Operating Manual	

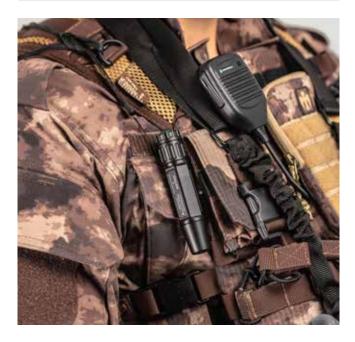
Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

Contact 3E for product codes and SKUs.



# **KEY FEATURES**

- PRECISE LASER BEAM Eliminates tactical team confusion
- TACTICAL TEAM COMMUNICATIONS Visual and non-verbal communication
- MAN-PORTABLE & COMPACT DESIGN Man-portable, compact and lightweight
- **ROBUST AND RELIABLE BODY DESIGN** Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



# **LRB** LASER BORESIGHT

The LRB provides a precise and accurate alignment in the field without firing a single round of ammo to prevent the use of extra ammunition.

The LRB includes arbors for these calibers: 5.56mm, 7.62mm, 8.59mm and 12.7mm.

It utilizes windage and elevation adjustments to ensure precise and accurate zeroing,  $% \label{eq:constraint}$ 

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the LRB is durable and reliable with its all-aluminium construction for maximum structural rigidity.

# Physical Data

Housing Material	Aircraft Grade Aluminium
Color	Black
Weight (w/o battery)	85 g (3 oz)
Dimensions (WxLxH)	24x89x41 mm (0.94x3.50x1.61 in)

# Laser Data

Wavelength	635 nm
Output Power (Low)	<1 mW (Class II) (NV Mode)
Output Power (High)	<5 mW (Class 3A)
Vertical & Horizontal Zeroing	Yes
Battery	1xAA (1.5 V)
Battery Life (Low Mode)	25 hours
Battery Life (High Mode)	10 hours

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40 °C to +71 °C (-40 °F to +160 °F)
Immersion	IP67
Available Arbors	5.56 mm NATO (0.223 cal), 7.62 mm NATO (0.308 cal), 8.59 mm (0.338 cal) 12.7 mm NATO (0.50 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.



# **KEY FEATURES**

PREVENT THE USE OF EXTRA AMMUNITION Precise and accurate alignment in the field without firing a single round of ammo

- LIGHTWEIGHT AND COMPACT DESIGN Lightweight and compact design for ease of use
- ROBUST AND RELIABLE BODY DESIGN
   Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions

Soft Carrying Case
2 x AA Battery
Fixing Screw
Zeroing Adjustment Key
User and Operating Manual
■ 10 m Distance Rope

# Optional Accessories (1)

□ Hard Case

(1) Accessories may vary. Please contact us for detailed information.

# LASER RANGE FINDER

10NOCULAR LASER RANGE FINDER	
MLRF-M pg <b>7</b> 2	<b>2-7</b> 3
INOCULAR LASER RANGE FINDER	
BLRF	4-75



# MLRF-M MONOCULAR LASER RANGEFINDER

MLRF-M is designed to improve your vision and provide the power of a monocular in a laser rangefinder.

It is a rugged and modern laser rangefinder monocular integrated with premium glass optics and advanced bluetooth connectivity. It combines range finding phenomena with the in-built Applied Ballistics Ultralite® and externally connected Kestrel® that results in the most accurate ballistic calculations necessary for ultimate shooting experience in order for users to get the maximum benefit out of their device

It ranges up to 2500+ m on reflective targets with a CLASS I eye-safe laser and optimized beam divergence for maximum reliability on small targets.

It allows one-handed usage with its ergonomic design. It comes with a glass etched reticle that guarantees the continued use even if the battery runs out. Reinforced and rubberized protection on its housing provides solid protection from harshest environmental conditions.

It is portable and ideal for the elite users to carry it out with its extremely compact and lightweight design.

MLRF-M can be used in the harshest conditions with zero concern.

#### Mechanical Data

Housing Material	High Grade Polymer w/NBR+PVC Armour
Color	FDE
Weight	270 g (9.52 oz)
Dimensions (WxLxH)	105x128x50 mm (4.13x5.04x1.97 in)
Tripod Interface	1/4"

## **Optical Data**

Observation	Monocular
Optical Magnification	7x
Objective Diameter	25 mm
Eye Relief	16 mm
Exit Pupil	3.6 mm
Focus	Fixed
FoV @1000 m	6° (105 m)
Diopter	± 3 dpt
Reticle	Electronic Aiming Mark w/ Glass Etched mRad Reticle

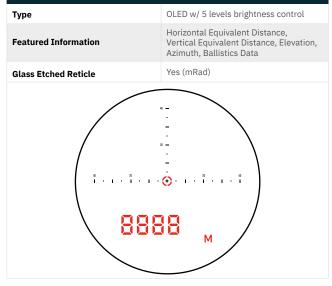


# **KEY FEATURES**

- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE
   Exceptional image quality with high light transmittance across the entire spectral range
- LIGHTWEIGHT AND COMPACT DESIGN
   Lightweight and compact design for ease of use
- ACCURATE AND RELIABLE
   High precision laser technology for the most accurate and reliable results
- EYE-SAFE OPERATION Equipped with a CLASS I eye-safe laser per IEC 60825-1
- GLASS ETCHED RETICLE
   "Always on" with a glass etched reticle
- ONBOARD APPLIED BALLISTICS ULTRALITE®
   Onboard Applied Ballistics Ultralite® for ballistics solutions
- CONNECTABILITY TO KESTREL® ELITE 5700 Ballistic solutions with external connection to Kestrel® Elite 5700



## **Display Data**



## **Communication Interface**

Wireless (1)

#### Laser Rangefinder Data

Laser Wavelength	905 nm
Class	CLASS I (Eye Safe)
Range (2)	10 m - 2500 m
Scanning Mode	Yes
Measurement Accuracy	± 2 m (up to 1000 m), ± 3 m (up to 1000-2000 m), ± 5 m (>2000 m)
Beam Divergence (typical)	3 mRad
Repetition Rate	2 Hz
Time per Measurement	<0.25 sec.

Bluetooth® 4.1

Digital Magnetic Compass	
Units	360°
Resolution	1°
Azimuth Accuracy	± 5°
Inclination Accuracy	±1°

Electronical Data	
Battery	1 x CR123 (3V)
Battery Life <sup>(3)</sup>	2500+ measurements

#### **Environmental Data** -32°C to +49°C (-26°F to +120°F) **Operating Temperature Range** -40°C to +71°C (-40°F to +160°F) Storage Temperature Range Immersion IP67

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories (4)	
Soft Carrying Bag	User and Operating Manual
1 x CR123 [3V]	Neck Strap
Lanyard	Suede Pouch
Lens Cleaning Cloth	Lens Cleaning Brush
Lens Protection Cover	

## **Optional Accessories** <sup>(4)</sup>

Hard Case

□ Tripod Connection Interface

Bluetooth provides connection with Kestrel\* 5700 Elite w/ Applied Ballistics\* and AB SORD application for accurate firing solutions.
 Base performance is 2000 m based on the target: 2.3 m x 2.3 m, visibility: 30 km albedo: 0.6, detection probability > 8600
 Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.





# **BLRF** BINOCULAR LASER RANGEFINDER

BLRF is designed to improve your vision and provide the power of a binocular in a laser rangefinder. It delivers bright and clear images at any distance with its high light transmittance across the entire spectral range.

BLRF is a rugged and modern laser rangefinder binocular integrated with premium glass optics and advanced bluetooth connectivity. It combines range finding phenomena with the in-built Applied Ballistics Ultralite® and externally connected Kestrel® that results in the most accurate ballistic calculations necessary for ultimate shooting experience in order for users to get the maximum benefit out of their device.

It ranges up to 3000+ m on reflective targets with a CLASS I eye-safe laser and optimized beam divergence for maximum reliability on small targets.

Reinforced and rubberized protection on its housing provides solid protection from harshest environmental conditions.

It is portable and ideal for the elite users to carry it out with its compact and modern design.

#### Mechanical Data

Housing Material	Aluminium w/NBR+PVC Armour
Color	FDE
Weight	1085 g (38.27 oz)
Dimensions (WxLxH)	137x170x68 mm (5.39x6.69x2.68 in)

-		- · ·
0	ptical	Data

•	
Observation	Binocular
<b>Optical Magnification</b>	10X
<b>Objective Diameter</b>	50 mm
Eye Relief	17 mm
Exit Pupil	4.8 mm
Focus	Adjustable
FoV @1000 m	6.2° (108 m)
Diopter	± 3 dpt



# **KEY FEATURES**

- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE
   Exceptional image quality with high light transmittance across the entire spectral range
- ACCURATE AND RELIABLE
   High precision laser technology for the most accurate and reliable results

   EYE-SAFE OPERATION

Equipped with a CLASS I eye-safe laser per IEC 60825-1

- ONBOARD APPLIED BALLISTICS ULTRALITE®
   Onboard Applied Ballistics Ultralite® for ballistics solutions
- CONNECTABILITY TO KESTREL® ELITE 5700
   Ballistic solutions with external connection to Kestrel® Elite 5700



## **Display Data**

Туре

**Featured Information** 

OLED w/ 5 levels brightness control Horizontal Equivalent Distance, Vertical Equivalent Distance, Elevation, Azimuth, Ballistics Data

Communication Interface	
Wireless <sup>(1)</sup>	Bluetooth® 4.1

## Laser Rangefinder Data

Laser Wavelength	905 nm
Class	CLASS I (Eye Safe)
Range <sup>(2)</sup>	10 m - 3000 m
Scanning Mode	Yes
Measurement Accuracy	± 2 m (up to 1000 m), ± 3 m (up to 1000-2000 m), ± 5 m (>2000 m)
Beam Divergence (typical)	1.5 mRad
Repetition Rate	2 Hz
Time per Measurement	<0.25 sec

# **Electronical Data**

Battery Battery Life (3) 1 x CR2 (3V) 2500+ measurements

Environmental Data	
<b>Operating Temperature Range</b>	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

#### Standard Accessories (4) ■ Soft Carrying Bag User and Operating Manual ■1×CR2[3V] Neck Strap Lens Cleaning Cloth Lens Cleaning Brush Eyecups (x2) Objective Protection Covers (x2)

# Optional Accessories (4)

Hard Case Tripod Connection Interface

Bluetooth provides connection with Kestrel\* 5700 Elite w/ Applied Ballistics\* and AB SORD application for accurate firing solutions.
 Base performance is 2000 m based on the target: 2.3 m x 2.3 m, visibility: 30 km albedo: 0.6, detection probability > %90
 Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.



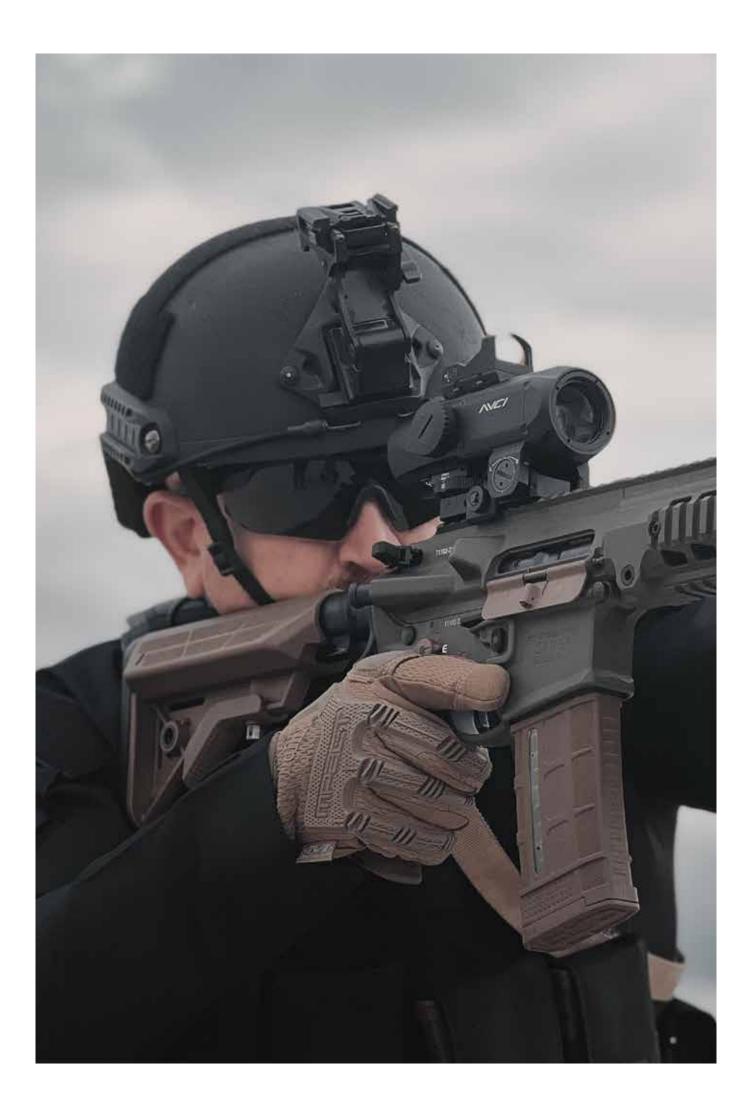






# DAY VISION

COMBAT OPTICAL SIGHT	
AVCI 1X-4X	. pg <b>80-81</b>
AVCI 1.5X-6X	. pg <b>84-85</b>
SNIPER RIFLE SCOPE	
KESKIN 3-12 X 50	. pg <b>86-87</b>
KESKIN 5-25 X 56	. pg <b>88-89</b>
MACHINE GUN REFLEX SIGHT	
MTN 90	. pg <b>90-91</b>
REFLEX SIGHT	
CRS	. pg <b>92</b>
AVCI M1X	. pg <b>93</b>
MAGNIFIER	
M3X	. pg <b>94</b>
M5X	
TACTICAL SPOTTING SCOPE	
IZCI 15-45 X 60	. pg <b>98-99</b>
IZCI 20-60 X 80	. pg <b>102-103</b>



# **AVCI 1X-4X** COMBAT OPTICAL SIGHT

AVCI 1X-4X offers two unique sighting experiences with its dual-role optical design. The mechanism structure on the body that allows the transition between magnifications has been designed entirely to provide the user with fast transitions and ease of use. The users can navigate both CQB and mid/long range situations with precision and speed. With its wide field of view in 1X mode, it offers a crystal clear image in residential combat and offers accuracy in medium and long-range shooting in 4X mode. It provides increased hit with its ultra bright illuminated reticle, even in dark environments.

AVCI 1X-4X is light and durable with its high-strength aluminium body material. It provides reliable solutions in the harshest environmental conditions without sacrificing performance and becomes a great choice for a variety of combat scenarios.

#### Mechanical Data

Housing Material	Aluminium
Color	Black or FDE
Weight	650 g (22.93 oz)
Dimensions (WxLxH)	67x140x77 mm (2.64x5.51x3.03 in)
Axis Height	44.5 mm (1.75 in)
Weapon Mount Compatibility	MIL-STD 1913; STANAG 4694

#### **Optical Data**

Objective Diameter	32 mm
Magnification	1X-4X
Field of View (@1X-@4X)	24° - 6°
Exit Pupil	8 mm
Eye Relief	72 mm
Focal Plane	Second Focal Plane (SFP)
Parallax	Fixed



- DUAL ROLE OPTICAL SIGHT Two unique sighting experiences in one body by its dual-role optics
  - BDR RETICLE DESIGN Glass-etched BDR reticle for an optimal shooting experience
- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE
   Exceptional image quality with high light transmittance across the entire spectral range
- WIDE FIELD OF VIEW
   Fast aiming with a wider vision
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE The performance-optimized optical design provides sharp and clear images edge-to-edge
- ULTRA-BRIGHT RETICLE ILLUMINATION
   Comfortable and precise focusing with ultra-bright reticle illumination
- ROBUST AND RELIABLE BODY DESIGN Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



Windage / Elevation Turret	
Adjustment Click Value	1 cm @100 m
Adjustment Range	400+ clicks

Electronical Data	
Reticle Illumination	Yes
Illumination Level	Yes - 10 levels
Battery	1 x CR2032 (3V)
Battery Life	500+ hours <sup>(1) (2)</sup>
Auto Illumination Shutdown	After 3 hours

# **Environmental Data**

Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal)
Other MIL CTD 010C tests are sealischie. Disses	and a second

Other MIL-STD-810G tests are applicable. Please contact us for detailed information

# **Available Reticles**

DS4-MCR5

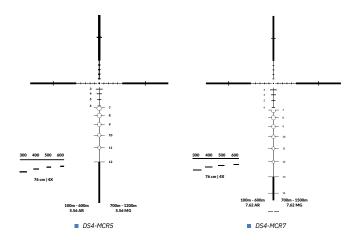
DS4-MCR7

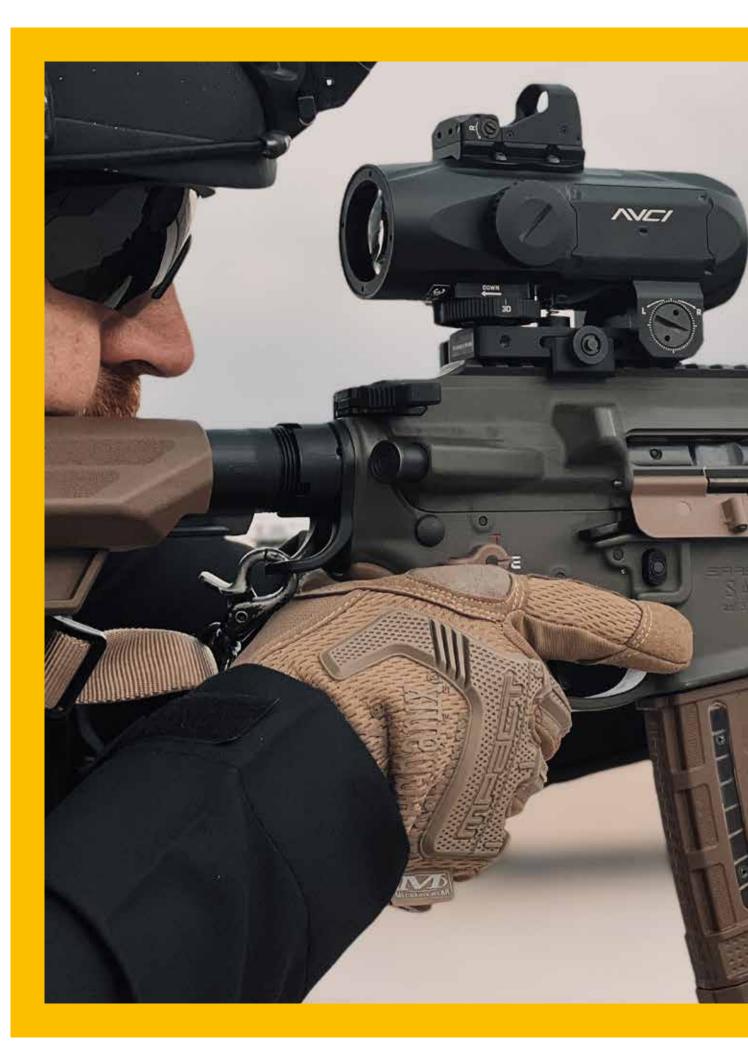


Optional Accessories (3)	
□ Hard Case	□ Honeycomb
🗆 Picatinny Rail Kit	□ Mini Reflex Sight Kit
□ Protection Cover	

Battery life may vary depending on environmental and atmospheric conditions.
 5<sup>th</sup> level of illumination is taken as a reference.
 Accessories may vary. Please contact us for detailed information.









# **AVCI 1.5X-6X** COMBAT OPTICAL SIGHT

AVCI 1.5X-6X offers two unique sighting experiences with its dual-role optical design. The mechanism structure on the body that allows the transition between magnifications has been designed entirely to provide the user with fast transitions and ease of use. The users can navigate both CQB and mid/long range situations with precision and speed. With its wide field of view in 1.5X mode, it offers a crystal clear image in residential combat and offers accuracy in medium and long-range shooting in 6X mode. It provides increased hit with its ultra bright illuminated reticle, even in dark environments.

AVCI 1.5X-6X is light and durable with its high-strength aluminium body material. It provides reliable solutions in the harshest environmental conditions without sacrificing performance and becomes a great choice for a variety of combat scenarios.

#### Mechanical Data

Housing Material	Aluminium
Color	Black or FDE
Weight	725 g (25.57 oz)
Dimensions (WxLxH)	67x170x79 mm (2.64x6.69x3.11 in)
Axis Height	44.5 mm (1.75 in)
Weapon Mount Compatibility	MIL-STD 1913; STANAG 4694

#### **Optical Data**

• Piloni Bala	
Objective Diameter	46 mm
Magnification	1.5X-6X
Field of View (@1.5X-@6X)	16° - 4°
Exit Pupil	7.6 mm
Eye Relief	72 mm
Focal Plane	Second Focal Plane (SFP)
Parallax	Fixed



- DUAL ROLE OPTICAL SIGHT
   Two unique sighting experiences in one body by its dual-role optics
  - BDR RETICLE DESIGN Glass-etched BDR reticle for an optimal shooting experience
- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE
   Exceptional image quality with high light transmittance across the entire spectral range
- WIDE FIELD OF VIEW
   Fast aiming with a wider vision
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE
- The performance-optimized optical design provides sharp and clear images edge-to-edge
- ULTRA-BRIGHT RETICLE ILLUMINATION
   Comfortable and precise focusing with ultra-bright reticle illumination
- ROBUST AND RELIABLE BODY DESIGN Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



Windage / Elevation Turret	
Adjustment Click Value	1 cm @100 m
Adjustment Range	400+ clicks

Electronical Data	
Reticle Illumination	Yes
Illumination Level	Yes - 10 levels
Battery	1 x CR2032 (3V)
Battery Life	500+ hours <sup>(1) (2)</sup>
Auto Illumination Shutdown	After 3 hours

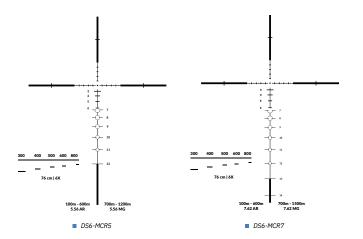
# **Environmental Data**

<b>Operating Temperature Range</b>	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40 °C to +71 °C (-40 °F to +160 °F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal)
Other MIL-STD-810G tests are applicable. Please contact us for detailed information.	

# **Available Reticles**

DS6-MCR5

DS6-MCR7



Standard Accessories ®	
User and Operating Manual	Lens Cleaning Cloth
Allen Key	

Optional Accessories <sup>(3)</sup>	
□ Hard Case	□ Honeycomb
□ Picatinny Rail Kit	□ Mini Reflex Sight Kit
□ Protection Cover	

Battery life may vary depending on environmental and atmospheric conditions.
 5<sup>th</sup> level of illumination is taken as a reference.
 Accessories may vary. Please contact us for detailed information.



# **KESKIN 3-12 X 50**

# SNIPER RIFLE SCOPE

KESKIN 3-12 X 50 provides unmatched edge-to-edge clarity and precise shooting experience that extends your range beyond 1000+ m.

The 50 mm lens and low dispersion glass with anti reflective coated lenses provides efficient light transmission and color accuracy. It is built with aircraftgrade aluminium and single-piece construction with anodized finish for extreme durability so the elite users can count on it. Its ruggedized design prevents damage from heavy recoil and rough handling.

It is equipped with all the features required for precise long-range shooting. The precision-machined turrets with zero stop feature provide users with precise and accurate control to make the necessary adjustments.

Side-mounted parallax adjustment allows users to control the reticle in focus and creates the most accurate shooting environment.

With its 11-level reticle illumination, it can be used easily even in low-light conditions. The reticle patterns are designed with the feedback of the most elite operational units.

Tested for MIL-STD-810, and with waterproof design, the KESKIN 3-12 X 50 is durable and reliable under harsh environmental conditions with its all aluminium construction for maximum structural rigidity.

Mechanical Data	
Housing Material	Aluminium
Color	Black or FDE
Weight	890 g (32 oz)
Length	335 mm (13.2 in)
Body Tube Diameter	34 mm (1.33 in)

#### **Optical Data**

Magnification	3-12X
Objective Diameter	50 mm
FoV @100m	11 m - 3.5 m
Exit Pupil	14 mm - 4 mm
Eye Relief	85 mm (3.35 in)
Light Transmission	Min. 90%
Diopter Adjustment Range	-3 to +2 dpt
Parallax Setting	50 m - ∞
Focal Plane	First Focal Plane (FFP)



- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE
   Exceptional image quality with high light transmittance across the entire spectral range
- HIGH MAGNIFICATION CAPACITY Allows precise aiming at a longer distance
- PRECIESE AIMING AT LONGER DISTANCE
   High shooting accuracy with sensitive adjustment mechanisms
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE The performance-optimized optical design provides sharp and clear images edge-to-edge
- ULTRA-BRIGHT RETICLE ILLUMINATION Comfortable and precise focusing with ultra-bright reticle illumination
- ROBUST AND RELIABLE BODY DESIGN Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



Elevation Turret	
<b>Elevation Click Value</b>	1 click 1 cm @100m
Elevation Range	250+ clicks
Zero-Stop	Yes
Double Turn Pin	Yes

# Windage Turret

Windage Click Value Windage Range

# **Reticle Details**

Measuring System	MIL
Focal Plane	First Focal Plane (FFP)
×	
20 1	
<u> </u>	
	±

1 click 1 cm @100m

± 60 clicks

Electronical Data	
Illumination Control	Rotary Control w/ Intermediate Stops
Illumination Range	1-11 Level Brightness Adjustment
Battery <sup>(1)</sup>	CR2032 (3V)
Battery Life <sup>(2)</sup>	1000+ hours
Auto Illumination Shutdown	After 5 hours

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	7.62 mm NATO (0.308 cal) 8.59 mm (0.338 cal) 12.7 mm NATO (0.50 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories (3)	
User and Operating Manual	Objective Protection Cover
Lens Cleaning Cloth	Eyepiece Protection Cover
CR2032	

Optional Accessories <sup>(3)</sup>	
□ Hard Case	□ Honeycomb
□ Soft Carrying Bag	Protection Cover
□ Fine Adjustment Grip	

□ Mount Adapter 5 MOA	□ Mount Adapter 15 MOA
□ Mount Adapter 25 MOA	□ Mount Adapter 35 MOA
□ Mount Adapter 45 MOA	External Water Level

Optionally, BR2032 can be used.
 Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

# **KESKIN 5-25 X 56**

# SNIPER RIFLE SCOPE

KESKIN 5-25 X 56 provides unmatched edge-to-edge clarity and precise shooting experience that extends your range beyond 1500+ m.

The 56 mm lens and low dispersion glass with anti reflective coated lenses provides efficient light transmission and color accuracy. It is built with aircraftgrade aluminium and single-piece construction with anodized finish for extreme durability so the elite users can count on it. Its ruggedized design prevents damage from heavy recoil and rough handling.

It is equipped with all the features required for precise long-range shooting. The precision-machined turrets with zero stop feature provide users with precise and accurate control to make the necessary adjustments.

Side-mounted parallax adjustment allows users to control the reticle in focus and creates the most accurate shooting environment.

With its 11-level reticle illumination, it can be used easily even in low-light conditions. The reticle patterns are designed with the feedback of the most elite operational units.

Tested for MIL-STD-810, and with waterproof design, the KESKIN 5-25 X 56 is durable and reliable under harsh environmental conditions with its all aluminium construction for maximum structural rigidity.

Mechanical Data	
Housing Material	Aluminium
Color	Black or FDE
Weight	1080 g (38.09 oz)
Overall Length	398 mm (15.6 in)

**Body Tube Diameter** 

Optical Data	
Magnification	5-25X
Objective Diameter	56 mm
FoV @100m	7.37 m - 1.5 m
Exit Pupil	9 mm - 2.2 mm
Eye Relief	95 mm
Light Transmission	Min. %92
Diopter Adjustment Range	-3 to +2 dpt
Parallax Setting	50 m - ∞
Focal Plane	First Focal Plane (FFP)

34 mm



- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE
   Exceptional image quality with high light transmittance across the entire spectral range
- HIGH MAGNIFICATION CAPACITY Allows precise aiming at a longer distance
- PRECIESE AIMING AT LONGER DISTANCE
   High shooting accuracy with sensitive adjustment mechanisms
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE The performance-optimized optical design provides sharp and clear images edge-to-edge
- ULTRA-BRIGHT RETICLE ILLUMINATION
   Comfortable and precise focusing with ultra-bright reticle illumination
- ROBUST AND RELIABLE BODY DESIGN Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



<b>Elevation Turret</b>	
<b>Elevation Click Value</b>	1 click 1 cm @100m
Elevation Range	320+ clicks
Zero-Stop	Yes

Yes

1 click 1 cm @100m

± 60 clicks

# Windage Turret

Double Turn Pin

Windage Click Value Windage Range

# **Reticle Details**

Measuring System	MIL
Focal Plane	First Focal Plane (FFP)
5	Ĩ
20 15 10 5	5 10 15 20 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
	- Former
5	
10 -	
15	
20	
25 -	
-	-
	l
	•

Electronical Data	
Illumination Control	Rotary Control w/ Intermediate Stops
Illumination Range	1-11 Level Brightness Adjustment
Battery <sup>(1)</sup>	1 x CR2032 (3V)
Battery Life <sup>(2)</sup>	1000+ hours
Auto Illumination Shutdown	After 5 hours

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	7.62 mm NATO (0.308 cal) 8.59 mm (0.338 cal) 12.7 mm NATO (0.50 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories (3)	
User and Operating Manual	CR2032
Eyepiece Protection Cover	Lens Cleaning Cloth
Objective Protection Cover	

Honeycomb
Protection Cover

□ Mount Adapter 5 MOA	□ Mount Adapter 15 MOA
□ Mount Adapter 25 MOA	□ Mount Adapter 35 MOA
□ Mount Adapter 45 MOA	External Water Level

Optionally, BR2032 can be used.
 Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.

# MTN 90 MACHINE GUN REFLEX SIGHT

The MTN 90 offers a wide field of view and reliable accuracy to provide machine gun users with an increased ability to acquire, engage and accurately hit targets. It allows users to act more flexibly while keeping their both eyes open.

It has a rugged construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the MTN 90 is durable and reliable with its all-aluminium construction for maximum structural rigidity.

Increase your accuracy and speed while engaging with the targets.

# Physical Data

Housing Material	Aluminium
Color	Black
Weight	2380 g (83.9 oz)
Dimensions (WxLxH)	117x252x128 mm (4.60x9.92x5.03 in)
Axis Height	82 mm (3.23 in)
Weapon Mount Compatibility	MIL-STD 1913, STANAG 4694

#### **Optical Data**

System	Reflex (Collimator System)
Objective Lens	90x60 mm (3.54x2.36 in)
Magnification	1X
Reticle Options	
Option 1	Option 2
Eye Relief	Unlimited

Vertical and Horizontal Zeroing Adjustment	
Vertical Click Value	1 MOA
Horizontal Click Value	1 MOA



Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



Electronical Data	
Illumination Control	Rotary Control w/ Intermediate Stops
Illumination Range	3 NV / 8 Day Settings (Total 11 Levels)
Battery	CR2032 (3V)
Battery Life <sup>(1)</sup>	1000+ hours

Environmental Data	
<b>Operating Temperature Range</b>	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal) 8.59 mm NATO (0.338 cal) 12.7mm NATO (0.50 cal) 40 mm Automatic Grenade Launcher (AGL)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Standard Accessories <sup>(2)</sup>	
User and Operating Manual	Lens Cleaning Cloth
■ 5.0 Allen Key	Hard Case
■ 2x Side Picatinny Rails	Top Picatinny Rail

## Optional Accessories (2)

□ MK19 40mm Grenade Launcher Mechanical Sight (3)

□ M5X Magnifier 5X

□ M3X Magnifier 3X

□ Magnifier Mount Interface

Battery life may vary depending on environmental and atmospheric conditions.
 Accessories may vary. Please contact us for detailed information.
 Please contact for different ammunition ballistic options.



# **CRS** GEN I CLOSED REFLEX SIGHT

The CRS offers a wide field of view and reliable accuracy to conquer every CQB situation. It allows fast target engagement under harsh environmental conditions. The wide glass both provides fast aiming with a wider vision and gives faster maneuverability.

The CRS is also compatible with night vision systems with dedicated night vision compatible brightness settings.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the CRS is durable and reliable with its all-aluminium construction for maximum structural rigidity.

Increase your accuracy and speed while engaging with the targets.

[Compatible with M3X and M5X magnifiers]

#### Mechanical Data

Housing Material	Aluminium
Color	Black or FDE
Weight	280 g (9.87 oz)
Dimensions (WxLxH)	52x95x60 mm (2.04x3.74x2.36 in)
Center Height	33.5 mm
Weapon Mount Compatibility	MIL-STD 1913; STANAG 4694

## **Optical Data**

opiloai bala	
Magnification	1X
<b>Objective Lens Diameter</b>	28x36 mm
Dot Color	Bright Red
Dot Size	2 MOA
Circle Size	65 MOA
Eye Relief	Unlimited
Parallax	No (Parallax Free)

Windage / Elevation Turret	
Adjustment Type	MOA
Adjustment Click Value	0.5 MOA
Adjustment Range	100 MOA

# Electronical Data

Reticle Illumination	2 NV / 10 Day Settings
Battery	1 x CR2 (3V)
Battery Life <sup>(1)</sup>	5000+ hours
Auto Shutoff	After 3 hours



# **KEY FEATURES**

- UNLIMITED EYE RELIEF
   Non-critical eye relief for rapid target acquisition
- NIGHT VISION COMPATIBILITY
   Dedicated night vision compatible brightness settings
- FAST ACQUISITION TO THE TARGETS
   Increase your accuracy and speed while engaging with the targets
- HIGH-QUALITY OPTICAL COMPONENTS High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE
   Exceptional image quality with high light transmittance across the entire spectral range
- WIDE FIELD OF VIEW
   Fast aiming with a wider vision
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE
   The performance-optimized optical design provides sharp and clear images edge-to-edge
- ULTRA-BRIGHT RETICLE ILLUMINATION
   Comfortable and precise focusing with ultra-bright reticle illumination
- ROBUST AND RELIABLE BODY DESIGN Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions

Environmental Data	
<b>Operating Temperature Range</b>	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal)
Other MIL-STD-810G tests are applicable. Please	contact us for detailed information.

(1) Battery life may vary depending on environmental and atmospheric conditions.

# **AVCI M1X** MINI REFLEX SIGHT

Mechanical Data	
Housing Material	Aluminium
Color	Matte Black
Weight	36.2 g (1.27 oz)
Dimensions (WxLxH)	30.5x17x25 mm (1.20x0.66x0.98 in)
Center Height	15 mm (0.98 in)

# **Optical Data**

-	
Magnification	1X Reflex (No Magnification)
Lens Coating	Anti-reflection (AR)
Dot Color	Bright Red
Dot Size Options	2 MOA or 3 MOA
Eye Relief	Unlimited
Parallax	No (Parallax Free)

Windage / Elevation Turret	
Adjustment Type	MOA
Adjustment Click Value	1 MOA
Adjustment Range	100 MOA

Electronical Data	
Illumination Range	1-10 Level Brightness Adjustment
Battery	CR1632 (3V)
Battery Life <sup>(1) (2)</sup>	10000+ hours
Auto Illumination Shutdown	After 3 hours

# Environmental Data

Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal)
Other MIL-STD-810G tests are applicable. Please contact us for detailed information.	

Battery life may vary depending on environmental and atmospheric conditions.
 5th level of illumination is taken as a reference.

Contact 3E for product codes and SKUs.



- UNLIMITED EYE RELIEF Non-critical eye relief for rapid target acquisition
- FAST ACQUISITION TO THE TARGETS Increase your accuracy and speed while engaging with the targets
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE The performance-optimized optical design provides sharp and clear images edge-to-edge
- ULTRA-BRIGHT RETICLE ILLUMINATION Comfortable and precise focusing with ultra-bright reticle illumination
- **ROBUST AND RELIABLE BODY DESIGN** Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



# M3X MAGNIFIER 3X

Everything can change in an instant and it may be necessary to quickly switch from CQB to mid-range when situations change. In these situations, the M3X allows you to quickly switch between two distances without compromising the accuracy.

The M3X is compact and lightweight. The flip-up mount provides fast transitioning from 1X to 3X. The M3X offers a larger field-of-view and an adjustable diopter for improved and precise focusing.

The M3X is compatible to use together with the CRS.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the M3X is durable and reliable with its all-aluminium construction for maximum structural rigidity.

Mechanical Data	
Housing Material	Aluminium
Color	Black or FDE
Weight	295 g (10.40 oz)
Dimensions (WxLxH)	42x76x44 mm (1.65x2.99x1.73 in)
Weapon Mount Compatibility	MIL-STD 1913; STANAG 4694

#### **Optical Data**

Optical Data	
Magnification	3X
<b>Objective Lens Diameter</b>	20 mm
FoV	7.3°
Exit Pupil	5.5 mm
Eye Relief	66.5 mm (2.6 in)
Diopter	± 2 dpt

## Windage / Elevation Turret

Adjustment Type	MOA
Adjustment Range	100+ clicks

## **Environmental Data**

Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Contact 3E for product codes and SKUs.



# **KEY FEATURES**

# 1X to 3X MAGNIFICATION The flip-up mount provides

The flip-up mount provides instant transition from 1X to 3X with compromising the accuracy

#### FLIP-UP MOUNT

Quick flip up/down mount for switching from CQB to mid-range

- EXTREMELY CLEAR AND WIDE FIELD OF VIEW Fast aiming with a wider vision
- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE Exceptional image quality with high light transmittance across the entire spectral range
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE
   The performance-optimized optical design provides sharp and clear images edge-to-edge
- ROBUST AND RELIABLE BODY DESIGN
   Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions

# M5X MAGNIFIER 5X

Everything can change in an instant and it may be necessary to quickly switch from CQB to mid-range/long-range when situations change. In these situations, the M5X allows you to quickly switch between two distances without compromising the accuracy.

The M5X is compact and lightweight. The flip-up mount provides fast transitioning from 1X to 5X. The M5X offers a larger field-of-view and an adjustable diopter for improved and precise focusing.

The M5X is compatible to use together with the CRS.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, the M5X is durable and reliable with its all-aluminium construction for maximum structural rigidity.

Mechanical Data	
Housing Material	Aluminium
Color	Black or FDE
Weight	335 g (11.81 oz)
Dimensions (WxLxH)	42x95x44 mm (1.65x3.74x1.73 in)
Weapon Mount Compatibility	MIL-STD 1913; STANAG 4694

Optical Data	
Magnification	5X
<b>Objective Lens Diameter</b>	25 mm
FoV	4.4°
Exit Pupil	4.3 mm
Eye Relief	67 mm (2.6 in)
Diopter	± 2 dpt

## Windage / Elevation Turret

Adjustment Type	MOA
Adjustment Range	100+ clicks

#### **Environmental Data**

<b>Operating Temperature Range</b>	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
Recoil Compatibility	5.56 mm NATO (0.223 cal) 7.62 mm NATO (0.308 cal)

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

Contact 3E for product codes and SKUs.



# **KEY FEATURES**

#### 1X to 5X MAGNIFICATION The flip-up mount provides

The flip-up mount provides instant transition from 1X to 5X with compromising the accuracy

#### FLIP-UP MOUNT Quick flip up/down mount for switching from CQB to mid-range

EXTREMELY CLEAR AND WIDE FIELD OF VIEW

- Fast aiming with a wider vision
- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions

# HIGH LIGHT TRANSMITTANCE Exceptional image quality with high light transmittance across the entire spectral range

- SHARP AND CLEAR IMAGES EDGE-TO-EDGE
   The performance-optimized optical design provides sharp and clear images edge-to-edge
- ROBUST AND RELIABLE BODY DESIGN Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions





# IZCI 15-45 X 60

# TACTICAL SPOTTING SCOPE

IZCI 15-45 X 60 tactical spotting scope with the MIL reticle provides an effective magnification range in a compact and rugged enclosure. It is designed for detailed target identification in any conditions with high resolution premium lenses.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, IZCI 15-45 X 60 is durable and reliable with its all-metal construction for maximum structural rigidity. Reinforced and rubberized protection on its housing provides solid protection from harshest environmental conditions.

It offers unrivalled light transmission to operate even in the most challenging lighting conditions not to let the user down.

With its large field of view and fine focus adjustments, IZCI 15-45 X 60 is the ideal choice for observing long distances with exceptional visual quality.

Elite operators are already counting on it, join them.

Mechanical Data	
Housing Material	Aluminium Body w/ Rubber Armour
Color	FDE
Weight	1180 g (41.6 oz)
Dimensions (WxLxH)	85x290x140 mm (3.35x11.42x5.51 ir
Tripod Interface	1/4"
Filter Interface	M60x0.75

Optical Data	
Magnification	15-45X
Objective Diameter	60 mm
Diopter	+2 to -3
FoV (m/1000m)	59 - 20 m
Exit Pupil	4.2 - 1.3 mm
Eye Relief	27 mm
Min. Focus Distance	12 m - ∞



## **KEY FEATURES**

OUTSTANDING IMAGE CLARITY
 Bright and high contrast image at all magnification levels

- COMPACT DESIGN
   Compact design for concealed observation
- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE
   Exceptional image quality with high light transmittance across the entire spectral range
- WIDE FIELD OF VIEW
   Fast identification of targets with a wider vision
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE The performance-optimized optical design provides sharp and clear images edge-to-edge
- ROBUST AND RELIABLE BODY DESIGN Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



# Environmental Data

Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67
	and the second sec

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

# **Reticle Details**

Refiele Betails	
Measurement System	MIL
Focal Plane	First Focal Plane (FFP)

Standard Accessories (1)	
User and Operating Manual	Protection Cover
Lens Cleaning Cloth	Objective Protection Cover
Eyepiece Protection Cover	Top Picatinny Rail
■ Side Picatinny Rail x 2	

Optional Accessories (1)	
□ Hard Case	□ Tactical Tripod TPOD T1
□ Night Vision Mount Adapter	□ Tactical Tripod TPOD T3
□ Honeycomb	

 $(\ensuremath{\texttt{1}})$  Accessories may vary. Please contact us for detailed information.







# **IZCI 20-60 X 80** TACTICAL SPOTTING SCOPE

IZCI 20-60 X 80 tactical spotting scope with the MIL reticle provides an effective magnification range in a compact and rugged enclosure. It is designed for detailed target identification in any conditions with high resolution premium lenses.

It has a rugged and lightweight construction to survive extreme conditions with peak performance. Tested for MIL-STD-810 and with a waterproof design, IZCI 20-60 X 80 is durable and reliable with its all-metal construction for maximum structural rigidity. Reinforced and rubberized protection on its housing provides solid protection from harshest environmental conditions.

It offers unrivalled light transmission to operate even in the most challenging lighting conditions not to let the user down.

With its large field of view and fine focus adjustments, IZCI 20-60  $\times$  80 is the ideal choice for observing long distances with exceptional visual quality.

Elite operators are already counting on it, join them.

Mechanical Data	
Housing Material	Aluminium Body / Rubber Armour
Color	FDE
Weight	1720 g (60.7 oz)
Dimensions (WxLxH)	100x405x140 mm (3.94x15.94x5.51 in)
Tripod Interface	1/4"
Filter Interface	M83x0.75

Optical Data	
Magnification	20-60X
Objective Diameter	80 mm
Diopter	+2 to -3
FoV (m/1000m)	44 - 15 m
Exit Pupil	4.1 - 1.3 mm
Eye Relief	27 mm
Min. Focus Distance	12 m - ∞



- OUTSTANDING IMAGE CLARITY
   Bright and high contrast image at all magnification levels
- COMPACT DESIGN Compact design for concealed observation
- HIGH-QUALITY OPTICAL COMPONENTS
   High-quality optics for exceptional performance in low-light conditions
- HIGH LIGHT TRANSMITTANCE
   Exceptional image quality with high light transmittance across the entire spectral range
- WIDE FIELD OF VIEW
   Fast identification of targets with a wider vision
- SHARP AND CLEAR IMAGES EDGE-TO-EDGE
- The performance-optimized optical design provides sharp and clear images edge-to-edge
- ROBUST AND RELIABLE BODY DESIGN Robust and reliable design to maintain functionality, usability, ergonomics and performance in harsh conditions



# Environmental Data

Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)
Immersion	IP67

Other MIL-STD-810G tests are applicable. Please contact us for detailed information.

# **Reticle Details**

neticie Betails	
Measurement System	MIL
Focal Plane	First Focal Plane (FFP)
- - - - - - - - - - - - - - - - - - -	

Standard Accessories (1)	
User and Operating Manual	Protection Cover
Lens Cleaning Cloth	Objective Protection Cover
Eyepiece Protection Cover	Top Picatinny Rail
■ Side Picatinny Rail x 2	

Optional Accessories (1)	
□ Hard Case	□ Tactical Tripod TPOD T1
□ Night Vision Mount Adapter	□ Tactical Tripod TPOD T3
□ Honeycomb	

 $(\ensuremath{\texttt{1}})$  Accessories may vary. Please contact us for detailed information.



# SUPPORT PRODUCTS

# SOFTWARE HARDWARE

# 



# **OCU** OPERATOR CONTROL UNIT

# SUPPORT PRODUCT

Only works with compatible 3E device. Contact us for more information.

The OCU is designed to maximize the TUFAN user experience with the 7.0-inch built-in touchscreen that displays clear, bright images, even under challenging conditions. Easy-to-use controls and seamless connection to TUFAN provides the most convenient use than ever before.

It can work with both internal battery and external power and has been designed in line with the ergonomic demands of experienced users for maximum uninterrupted use.

Take your user experience forward and get the most out of your device.

## Physical Data

•	
Dimensions (WxLxH)	300x205x75 mm (11.81x8.07x2.95 in)
Weight	1615 g (56.97 oz) <sup>(1)</sup>
Housing Material	Plastic Parts w/Aluminium
Color	Black
Compatible Host Devices	TUFAN

## General Data

Rated Power	9W
Memory	64 GB
RAM	2 GB
Ethernet Support	Yes (100Mbps)
Video Output Port 1	HDMI Port
Video Output Port 2	Analog Video Output

## Display Data

Display	Onboard 7" LCD
Secondary Display Support	7" LCD
Resolution	1280x768



- SEAMLESS CONNECTION TO YOUR 3E DEVICE Get the most out of your 3E device by seamless connection
- EASIER USE WITH 7" LCD SCREEN
  Provides ease of use thanks to the built-in 7" LCD screen
- WIRELESS CONNECTION WITH WIFI
   Provides wireless connection with wifi
- RUNS WITH BOTH INTERNAL OR EXTERNAL POWER Runs on both internal battery or external power



Electronical Data	
Internal Battery	Rechargable Lithium 4 x 18650 (3500mAh) Battery
Internal Battery Life	5+ hours
External Adaptor Input	13V/2A (min) 19V/2A (max)
External Battery Input	14.8V (nominal) 16.8V (max)

Bluetooth ®	
Protocol	Bluetooth 4.2
<b>Operation Frequency Range</b>	2.4 GHz

WI-FI (3)	
Protocol	Support of IEEE Std 802.11a/b/g/n 20 and 40 MHz SISO 20 MHz 2x2 MIMO
<b>Operation Frequency Range</b>	2.4 GHz, 5 GHz

Environmental Data	
Operating Temperature Range	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)

The weight given is calculated without accessories and batteries.
 It is available as an optional accessory.
 It is available as an optional features.



# HMD

# HELMET MOUNTED DISPLAY UNIT

# SUPPORT PRODUCT

Only works with compatible 3E device. Contact us for more information.

The HMD is lightweight, adjustable and comfortable. It brings the live video from your 3E device in front of your eyes seamlessly. It allows aiming and firing around obstacles and corners, without putting the user in the line of fire.

It is designed to deepen your imaging experience.

# Physical Data

i nyoroat Bata	
Housing Material	High Grade Polymer (Polyamid)
Color	Black or FDE
Weight <sup>(1)</sup>	160 g (5.64 oz)
Dimensions (WxLxH)	52x80x70 mm (2.05x3.15x2.76 in)
Helmet Connection Interface (2)	Yes
Compatible Host Devices	Pars 635, Pars 635N, Pars 660, Pars 660H, Pars 660N, Pars 660NH, Pars 675, Pars 675H, Pars 675N, Pars 675NH

#### **Optical Data**

Observation	Monocular
Ocular FoV	30°
Exit Pupil	10 mm

## Display Data

Туре

Electronical Data	
Connection Type	Wired or Wireless <sup>(3)</sup>
Battery	2 x 18500 Rechargeable Li-ion Battery
Battery Life (4) (5) (6)	4+ hours

High Resolution Color OLED



# **KEY FEATURES**

ALLOWS AIMING AND FIRING AROUND OBSTACLES
 Allows aiming and firing around obstacles and corners, without put user in the line of fire

- ALLOWS FLEXIBILITY TO HOLD THE WEAPON AND AIM It provides flexibility in aiming by making weapon control easier
- WORKS WITH ALL PARS MODELS It can work with all PARS models



## **Environmental Data**

<b>Operating Temperature Range</b>	-32°C to +49°C (-26°F to +120°F)
Storage Temperature Range	-40°C to +71°C (-40°F to +160°F)

Standard Accessories ®	
User and Operating Manual	■ 1.2 m Host Device Connection Cable Set <sup>(7)</sup>
External Battery Pack	■ 0.5 m Power Cable Kit
Eyecup	Helmet Connection Interface (2)

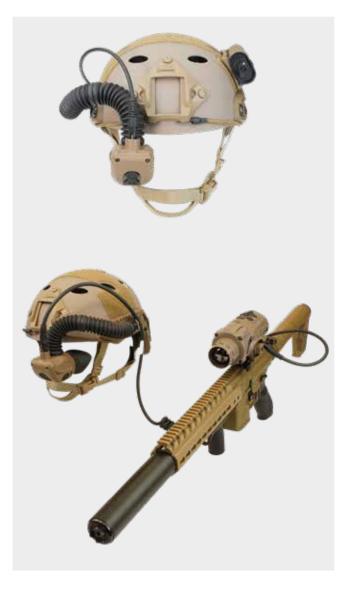
## **Optional Accessories** ®

🗆 Hard	Case
--------	------

□ Soft Carrying Bag

(1) The weight given is for the HMD including the belows. In wireless mode with fully loaded external battery pack and power cable kit, the total weight will be 350 g. Helmet connection interface is not included in this weight calculation.
 (2) Please contact us to learn more about suitable helmet types.
 (3) Wireless connection type is optional. Contact us for more information.
 (4) Battery life is calculated according to the wireless connection mode with the external battery pack. Battery life is connected to the host device in wireless mode, it will reduce the battery life of the host device by ~45%.
 (6) If the HMD is connected to the host device in wireless mode, it will reduce the battery life of the host device by ~40%.
 (7) The length of the host device connection cable set is 2.6 m when the cable coil is fully unfolded.
 (8) Accessories may vary. Please contact us for detailed information.

Battery Charger



# NOT

# **FOLLOW US ON**



/3eeos.com





3E Elektro Optik Sistemler San. ve Tic. Ltd. Şti.

www.3eeos.com



ព្រែ /3eeos

All product names, trademarks and registered trademarks are property of their respective owners.

CTG1000-EN | Rev: C | 2023

3E is a high-tech company specializing in the design, development, know-how and manufacture of optronic equipment and systems, providing the most accurate, reliable and creative solutions to military, law enforcement and civilian applications. All 3E materials are for informational purposes only and do not constitute any binding obligation or agreement by 3E. All claims regarding performance and performance characteristics are assumed to be normal, responsible use within the warranty period

This document may not be reproduced, in whole or in part, without the prior written consent of 3E.