

aselsan

Modern Soldier Systems

The background is a dark, deep blue. A bright, horizontal light streak of a lighter blue color cuts across the middle of the frame. From the right side, several diagonal lines of varying shades of blue radiate outwards, creating a sense of motion or energy. The overall effect is futuristic and high-tech.

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Night Vision Systems

Aselsan A100 Model Night Vision Monocular offers a high resolution image intensified night vision in a compact, lightweight, and yet rugged design. It features a single-tube and single-eyepiece configuration.

The new concept of a single-eye format night vision monocular is based on independent use of each eye. One eye is equipped with a night vision device while the other eye remains free and uncovered.

A 100 monocular goggle has a major advantage when compared to standard dual eye goggle for instant adaptation of the user to ambient light viewing after the goggle is removed from the eye. Because of the uncovered

eye, the user never experiences the temporary night blindness problem.

Another advantage of the A100 monocular is the wider perceived field of view (FOV). The user has a 40° FOV on his equipped eye.

A100 can be operated with a single AA battery or a rechargeable battery. Easy access to the battery compartment makes the battery replacement a snap. Its ergonomically-located, and easy-to-operate on/off and IR switch, delivers an ease of operation to the user. Textured focus and diopter adjustment rings provide a hassle-free operation.

A100



Technical Specifications

- Magnification : 1x
- Field of View : 40°
- F/# : 1.23
- Eye Relief : 25 mm
- Min. Focus Range : 25 cm
- Diopter : -6/+2
- Weight (w/o accessories) : 320 g
- Battery : 1x AA 1.5Vdc

Environmental Conditions

- Operating Temperature : -51°C to +51°C
- Storage Temperature : -51°C to +65°C
- Water Resistant : 1 m for 30 min.
- Environmental Spec : MIL-STD-810 G



A230 Night Vision Binocular offers high resolution, image intensified night vision in a lightweight, compact, single-tube configuration. It is an excellent medium-range night vision device.

Designed to military standards, the A230 Night Vision Binocular represents a new standards, for single-tube night vision binoculars. For short range use, A230 can be easily converted to a highly effective 1X goggle by a simple objective lens change.

A230



Technical Specifications

- Field of View : 12.3°
- F/# : 1.35
- Magnification : 3x
- Min. Focus Range : 5 m
- Interpupillary Distance : 55-70 mm
- Weight (w/o accessories) : 780 g

Environmental

- Operating Temperature : -51°C to +51°C
- Storage Temperature : -51°C to +65°C
- Water Resistant : 1 m for 30 min.
- Environmental Spec : MIL-STD-810 G



A200 Family	A210	A240	A240L	A260	A260L	A280L
Magnification	1x	4x	4x	6x	6x	8x
F/#	1.23	1.55	1.70	2.05	2.40	2.80
Field of View	40°	10°	10°	6.3°	6.3°	4.8°
Min. Focus Range	0.25 m	20 m	30 m	50 m	50 m	75 m
Weight	580 g	1100 g	900 g	1320 g	940 g	1200 g

ASELSAN Aviator's Night Vision Goggles are an advanced Night Vision System that is designed specially for pilots by ASELSAN.

ASELSAN A500 is designed to provide situational awareness for pilots at moonlight and starlight.

ASELSAN A500 Aviator's Night Vision Goggles provide high resolution image even at low starlight by using 2nd or 3rd generation image

intensifier tubes. With A500, aviators obtain image with less halo effect, high resolution and contrast value.

ASELSAN A500 Aviator's Night Vision Goggles are the least affected goggles from sudden light flare. Image detail and brightness loss would not happen when sudden light flare occurs at viewed area.

A500



Technical Specifications

• Field of View	40°
• Magnification	1X
• Eye Relief	25 mm
• Min. Focus Range	25 cm
• Diopter	-6/+2
• Interpupillary Adjustment	51-72 mm
• Vertical Adjustment	16 mm
• Fore/Aft Adjustment	16 mm
• Tilt Adjustment	8°
• Weight (with batteries)	590 g
• Mount Assembly Weight	200 g
• Battery	2x 1.5 V AA (Battery Pack) 3.6 V ½ AA (Helmet Mount)

Environmental Conditions

• Operating Temperature	-35°C to +49°C
• Storage Temperature	-51°C to +68°C
• Operation Altitude	4572 m
• Storage Altitude	15000 m
• Environmental Spec	MIL-STD-810 F



Night Vision Weapon Sights

ASELSAN High Performance 4X/6X Individual Night Vision Weapon Sight is designed for increasing the aiming capability of modern infantry via image intensified night vision technology. This unique, new, high performance, individual night vision weapon sight is compact, light weight and user friendly.

ASELSAN A340 High Performance 4X/6X Individual Night Vision Weapon Sight includes splash-proof lens

covers which incorporate a large neutral density filter for realistic daylight training and accurate daylight weapon zeroing. Only one "AA" size battery is required to power this night vision weapon sight which has an adjustable intensity red reticle.

A341 A361



Technical Specifications

	A341	A361
• Magnification	4x	6x
• Field of View	10°	6.3°
• F/#	1.5	2
• Eye Relief	25 cm	25 cm
• Focus Range	20 m	30 m
• Diopter	-6/+2	-6/+2
• Reticle	Duplex / Mil-Dot / Custom	
• Reticle Adjustment	1/4 mrad / 1.5 cm@100m	1/6 mrad / 1 cm@100m
• Weight	1.2 kg	1.35 kg
• Mechanical Interface	MIL-STD-1913 (Picatinny)	

Environmental Conditions

• Operating Temperature	: -51°C to +51°C
• Storage Temperature	: -51°C to +65°C
• Water Resistant	: 1 m for 30 min.
• Environmental Spec	: MIL-STD-810 G



ASELSAN Day Optic Sights are two fields of viewed, reticle reflected and low-weighted rifle sights that is designed for dual usage with Infantry Guns and Sniper Guns. This modern design combines reflex collimator and telescopic sight in one single body. In this manner, it is possible to shoot the target at the first try and reduce bullet spending.

These two-sided, reticle reflected and low-weighted weapon sights may be used both as a reflex collimator via its red-dot reticle & 1X (or 1.5X) magnification combination and telescopic sight via its ballistic or mil-dot reticle & 4X (or 6X) magnification combination.

The red-dot & 1X combination provides soldiers higher success at faster first shoots in inhabited place battles while the ballistic reticle & 4X magnification combination increases shoot success in longer ranges. In order to use these functions, soldiers only need to switch the magnification handle which is placed between the sight and mounting adapter and able to be adjusted easily. This alteration is provided by the optic lens unit action into optical axis.

Moreover, newly designed mounting adapters provide soldiers faster bore-sighting and easier attachment to the gun.

A940 A960



Technical Specifications

• Magnification	A940 1x - 4x	A960 1.5x-6x
• Field of View	6.5° - 26°	4° - 16°
• Eye Relief	70 mm	70 mm
• Reticle	Kırmızı nokta & Mil-dot	Kırmızı nokta & Mil-dot
• Reticle Adjustment	1.5 cm @100 m	1 cm @100 m
• Weight (w/ mounting adapter)	630 g	750 g
• Battery	CR 1/3 3V	CR 1/3 3V
• Mechanical Interface	MIL-STD-1913 (Picatinny)	MIL-STD-1913 (Picatinny)

Thermal Weapon Sight

Aselsan Mini-Thermal Weapon Sight is a light, ergonomic, new generation thermal weapon sight with its excellent image quality and high range performance. It operates at 8-12 μm wave length, with a high resolution and durable to military environmental conditions, new technology detector. Its new uncooled detector is durable to high vibration and gun shock.

Additional to good weather conditions, Mini-TWS provides superior day/night observation capability when the energy transfer of the atmosphere decreases during fog, haze or combat field conditions smoke, sand and dust.

Aselsan Thermal Weapon Sight operates with Li-Ion/ Rechargeable Li-Ion batteries which are available commercially. It provides easy control via three button menu control for adjustment. Also focus and diopter adjustment can be done easily.

Mini - Thermal Weapon Sight



Technical Specifications Mini-TWS

- Frequency Band 8-12 μm
- Detector Uncooled
- Detector Resolution 640x480
- Detector Pixel Size 17 μm x 17 μm
- Field of View 10.3° x 7.7°
- Magnification 2.5x
- Focusing Mechanism Athermalized
- Electronic Zoom x2, x4
- Video Output CCIR
- Operation Time ≥ 5 hours
- Diopter Adjustment -6/+2
- Battery Li-Ion
- Weight (w/o accessories) 650 g
- Mechanical Interface MIL-STD-1913 (Picatinny)

Other Members of Mini-TWS Family

	Mini TWS10	Mini TWS15	Mini TWS25M	Mini TWS40	Mini TWS50M
Field of View	24.6°x18.5°	17.7°x13.3°	10.3°x7.7°	6.2°x4.7°	5.1°x3.8°
Magnification	1x	1.5x	2.5x	4x	5x
Focus Mechanism	Athermalized	Athermalized	Manuel	Athermalized	Manuel
Weight (w/o accessories)	550 g	610 g	690 g	890 g	1030 g

PYTHON Thermal Weapon Sight, an innovative design, provides high performance thermal image. Optimized field of view enables user to perform threat detection extensively beyond the weapon's effective range.

The design's modularity enables the unit to be mounted on any type of weapon, or it can be used as a hand-held system for instant surveillance. Its light weight and low profile provides advantage to the gunner.

BOA Thermal Weapon Sight, providing situational awareness, enables the user to detect threats in the battlefield. With excellent image quality and high optical magnification, its primary superiority is clear vision at long ranges.

The design is compatible with all the sniper weapons and heavy machine guns. BOA has reticles developed for long range weapons and provides target detection in extensive ranges with its excellent performance.

PYTHON and BOA operate in total darkness and does not shut down or bloom in case of a direct light hit. They provide extended hours of operation, user friendly interface, rugged and ergonomic structure.



PYTHON BOA

Technical Specifications PYTHON

- Frequency Band Long Wave Infrared
- Detector Uncooled Microbolometer
- Detector Size 384 x 288 pixels
- Magnification 3X
- Görüş Açısı 9.0° x 6.75°
- Min. Focus Range 20 m
- Electronic Zoom x2 and x4
- Weight (w/o accessories) 1.7 kg
- Input Voltage 5-15 VDC
- Video Output CCIR-50 Hz
- Remote Control RS-232
- Mechanical Interface MIL-STD-1913 (Picatinny)

BOA

- Frequency Band Long Wave Infrared
- Detector Uncooled Microbolometer
- Detector Size 384 x 288 pixels
- Magnification 6X
- Görüş Açısı 4.5° x 3.37°
- Min. Focus Range 50 m
- Electronic Zoom x2 and x4
- Weight 2.1 kg
- Input Voltage 5-15 VDC
- Video Output CCIR-50 Hz
- Remote Control RS-232
- Mechanical Interface MIL-STD-1913 (Picatinny)

Hand Held Thermal Cameras

GUARD, is a light weight ergonomic product that provides high resolution and great accuracy thermal imaging. State of the art hardware is designed and used in the system aimed to maximize ease of use, minimize weight and energy consumption thus providing the longest operation time possible.

Easily grabbed with one hand, GUARD can be carried easily with the provided neck band. Field of view is optimized with regards to range performance. With its

wide field of view, the system operates flawlessly in day, night conditions even during adverse weather and combat solutions, providing excellent threat detection and possible hiding spots.

The system does not require any setup after being turned on. It is designed according to military standards. The battery can easily be changed and the shattered eye piece provides protection from unwanted light sources.

GUARD



Technical Specifications

Thermal Imager

- Sensor : 384 x 288 LWIR (8-12 μ m)
Uncooled Microbolometer
- Optical magnification : x1.3
- Field of View : 20° x 15°
- E-zoom : x2, x4

Physical

- Weight : < 1.5 kg (with Battery)
- Battery Life : > 6 hours
- Dimensions : 200 mm x 160 mm x 90 mm

EXPLORER is designed to meet tactical needs of a modern army by allowing long range threat detection, identification, determining of coordinates and coordination of support fire via communication units. Due to its light weight and hand held nature, it is easy to carry it whenever necessary.

EXPLORER provides the state-of-the-art electro-optical capabilities which include a high resolution uncooled thermal imager; laser range finder (LRF), digital magnetic compass (DMC), global positioning system (GPS) and laser target spotter (LTS). Employing a strong processor and

stable mission software enables EXPLORER to do its duty without user interaction.

EXPLORER allows easy target detection and recognition. The data from LRF, GPS and DMC provides accurate target position quickly. LTS can be employed to provide target indication for night vision capable surrounding units. Also the GPS and DMC allow fast and accurate navigation on ground and sea.



EXPLORER



Technical Specifications

Thermal Imager

- Sensor : 640 x 480 LWIR (8-12 μm)
: Uncooled Microbolometer
- Optical Magnification : x2.5
- Field of View : 10.3° x 7.7°
- E-zoom : x2, x4

Laser Range Finder

- Class 1, Eye safe : 1.54 μm
- Range : Up to 5 km
- Accuracy : $\pm 5\text{m}$ rms

Digital Magnetic Compass

- Accuracy : 1° rms

GPS

- Accuracy : 15 m.

Laser Pointer

Physical

- Weight : < 1.8 kg (with Battery)
- Battery Life : > 5 hours
- Dimensions : 175 mm x 185 mm x 95 mm

EYE-MOBILE, hand-held thermal camera uses the advanced technologies and offers one compact and ergonomic design. It comprises a high resolution thermal imaging sensor. It is a state-of-the art product fulfilling the requirements for target acquisition in extensive ranges. User has the advantage of using a high performance thermal imaging camera for day and night observation.

EYE-MOBILE is an ideal camera for mechanized infantry units, infantry units, Special Forces, forward observers,

reconnaissance patrols, peace-keeping forces and any other users engaged in day and night operations in field and urban environments.

All functions are operated through the user-friendly menus and controls.

EYE MOBILE



Technical Specifications

Thermal Imager

- Sensor : 640 x 512 MWIR (3-5 μ m)
- Cool-down Time : < 7 min.
- Field of View WFOV : 16.8° x 13.5°
MFOV : 6° x 4.8°
NFOV : 2° x 1.6°
Continuous from NFOV to WFOV
- E-zoom : x2

Physical

- Weight : \leq 2.7 kg (with Battery)
- Battery Life : \geq 4.5 hours
- Dimensions : 205 mm x 250 mm x 100 mm



Specifications are subject to change without any notice.

Modern Soldier Systems

SHARPEYE is an integrated electro-optic sensor system which incorporates basically:

- Thermal imaging sensor
- Laser range finder
- Color day camera
- Digital magnetic compass (DMC)
- Digital inclinometer
- GPS receiver
- Laser pointer

SHARPEYE, hand-held integrated electro-optical sensor system uses the advanced technologies and offers different sensors into one compact and ergonomic design. It comprises a high resolution thermal imaging sensor,

color day camera, eye-safe laser range finder, GPS receiver and digital magnetic compass. It is a state-of-the art product fulfilling the requirements for target acquisition in extensive ranges. User has the advantage of using a high performance thermal imaging sensor for day and night observation and target positioning capability. Operator locates his own position by GPS receiver. Any threat may be located with high accuracy by simply pushing laser range button. System displays target coordinates. SHARPEYE performs all calculations by its embedded software without user intervention.



SHARPEYE

Technical Specifications

Thermal Imager

- Sensor : 640 x 512 MWIR (3-5 μm)
- Cool-down Time : < 7 min.
- Field of View : WFOV : 16.8° x 13.5°
: MFOV : 6° x 4,8°
: NFOV : 2° x 1,6°
: Continuous from NFOV to WFOV
- E-zoom : x2

Laser Range Finder

- Class 1, Eye safe : 1.54 μm
- Range : Up to 20 km
- Accuracy : 5m rms

Color TV

- Sensor : 1/4" Color CCD
- Field of View : WFOV : 16.8° x 12.6°
: MFOV : 6° x 4,5°
: NFOV : 2° x 1,5°
: Continuous from NFOV to WFOV
- E-zoom : X12

Digital Magnetic Compass

- Accuracy : 1° rms

GPS

- Accuracy : 15 rms

Physical

- Weight : \leq 3,9 kg (with Battery)
- Battery Life : \geq 4,5 hours
- Dimensions : 275 mm x 270 mm x 125 mm



Modern Soldier Systems Accessories List

Standard Accessories	<p>A100 Facemask Eyeguard Cleaning Kit Carrying Case Transporting Case 1.5V AA Alkaline Battery</p>	<p>A230 Neck Cord Eyeguard (X2) Cleaning Kit Carrying Case Transporting Case 1.5V AA Alkaline Battery (X1)</p>	<p>A500 Standard Mount Adapter Cleaning Kit Carrying Case Transporting Case 1.5V AA Alkaline Battery (X4) Helmet Mount Battery Housing</p>	<p>A341/A361 Torque Adapter Eyeguard Cleaning Kit Carrying Case Transporting Case 1.5V AA Alkaline Battery</p>
Optional Accessories	<p>Low Temperature Adapter 3X Objective Assembly 3X Optical Magnifier (Extender??) Weapon Mount Assembly RPG-32 Mounting Adapter Fixed Helmet Mount Removable Helmet Mount Waterproof Carrying Bag Binocular Usage Adapter Rechargeable 1.2 V NiMH Battery 1.8V Lithium Battery "Battery Charger/Decharger (with vehicle adapter) " Demist Shiled Filter</p>	<p>Low Temperature Adapter 1X Objective Assembly 4X - 4X (Light) 6X - 6X (Light) 8X (Light) Facemask Helmet Mount Monopod Tripod Rechargeable 1.2 V NiMH Battery 1.8V Lithium Battery "Battery Charger/Decharger (with vehicle adapter) " Demist Shiled Filter</p>	<p>Offset Mount Adapter</p>	<p>Mounting Adapters Rechargeable 1.2 V NiMH Battery "Battery Charger/Decharger (with vehicle adapter) "</p>

A940/A960

Torque Adapter
Cleaning Kit
Carrying Case
Transporting Case

Mounting Adapters

Modern Soldier Systems Accessories List

Standard Accessories	MINI TWS Torque Adapter Cleaning Kit Carrying Case Transporting Case Li-Ion Battery Eyeguard	PYTHON/BOA Torque Adapter Cleaning Kit Carrying Case Transporting Case Li-Ion Battery Battery Charger Eyeguard	GUARD Neck Cord Eyeguard Cleaning Kit Carrying Case Transporting Case Li-Ion Battery Battery Charger	EXPLORER Neck Cord Eyeguard Cleaning Kit Carrying Case Transporting Case Li-Ion Battery Battery Charger
Optional Accessories	Reflex Collimator Laser Pointer PIRATE Head-Up Display Mounting Adapters	Solar Charger PIRATE Head-Up Display Mounting Adapters	Solar Charger Tripod Video Cable	Tripod Video Cable PIRATE Head-Up Display

<p>EYE-MOBILE Neck Cord Eyeguard (X2) Cleaning Kit Carrying Case Transporting Case Li-Ion Battery Battery Charger</p>	<p>SHARPEYE Eyeguard (X2) Cleaning Kit Carrying Case Transporting Case Li-Ion Battery Battery Charger Tripod</p>
<p>Tripod AC/ DC Adapter Vehicle Adapter Video Cable</p>	<p>AC/ DC Adapter Vehicle Adapter Video Cable PIRATE Head-Up Display Operator Control Unit Pan&Tilt</p>



ASELSAN A.Ş. is a Turkish Armed Forces Foundation company.

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