

# ARCHER



**CATALOGUE**  
2024

# ARCHER

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## IN-HOUSE OPTOELECTRONICS

### ARCHER

ARCHER is known for producing optoelectronic systems such as **thermal imaging sights, binoculars, monoculars, night vision, and other special devices**. The company is constantly developing, improving its products and expanding their range. The principles on which the company is built are the highest quality, undeniable reliability and excellent functionality of Archer devices.

Archer products have been in service with the Ukrainian Armed Forces for over 10 years, playing a crucial role in protecting freedom and independence. These devices are highly favored by snipers and various military branches due to their proven reliability and performance in the most extensive modern warfare. Continuous use in high-stakes combat provides invaluable feedback, enabling Archer to consistently refine and enhance its devices to meet evolving tactical demands.

ARCHER is involved in providing comprehensive solutions, including its optoelectronic systems. These systems are used for various integrations either within the **soldier level as rifle scopes and handheld devices** or within the **vehicular level as optical reconnaissance systems** and driving assistance and security systems. The produced imaging devices are also integrated into **intelligence security systems such as face recognition and person, object and gun detection**.

For the promotion and sale of Archer products in the U.S. market, Archer Systems USA, Inc. has been established.

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It is our policy to improve the design and specifications constantly. Accordingly, the details represented herein cannot be regarded as final and binding.



**ARCHER**

**THERMAL RIFLE SIGHTS**

# ARCHER TSA-7

Archer TSA-7, objective 75mm,  
mounted on a rifle



## ARCHER

### THERMAL IMAGING SIGHTING SYSTEM

with rangefinder, compass, accelerometer, weather station, windage and ballistic calculation

## ARCHER TSA-7



**Designed for engaging targets at distances up to approximately 1.2 miles in conditions of complete darkness and limited visibility.**



**Used on large-caliber sniper rifles, for example .338LM, .50BMG, or similar. "Phantom" and "Fagot" Anti-Tank Guided Missiles (ATGMs), 9K111 Fagot missile system and Automatic anti-aircraft gun S-60.**



**NATO Stock Number**

Thermal imaging sight Archer TSA-7 is the flagship of the company. High-performance capabilities, excellent operating capacities, and comprehensive functionality are distinctive features of the thermal imaging sighting system Archer TSA-7.

The system's key advantage is a ballistic calculator: it can consider atmospheric conditions (received from the built-in weather station or entered manually), wind of any direction and speed of 11 yd/s, derivation, angle of sight and the Coriolis force. Temperature of dust powder is also considered together with susceptibility factor (automatically or manually). Moreover, the complex automatically remembers adjustment conditions for a specific cartridge and enters firing corrections under other conditions. Both standard (G1, G7) and specific drag functions (based on Lapua Radar Data or generated by external ballistic programs) are supported in the system.

The laser rangefinder of 1550 nm range, integrated into thermal sight, accurately measures distance on the distant range.

Optical system characteristics and unique functions make a device an indispensable tool for a wide range of use with any weapon, including large-calibre sniper rifles and machine guns.

The device is equipped with a highly sensitive passive receiver built-in colour high-resolution microdisplay and an eyepiece with diopter adjustment. Several set colour schemes and sensitivity settings allow choosing the necessary display option depending on

the tasks performed. The system has a serial interface for programming and remote control, an option for downloading and editing target reticles, ballistics table for every type of programmed arm. The device is equipped with sensors of ambient light and proximity, angle of sight, level of horizon, and constant monitoring of distance shot. A built-in recording module allows to take photos and shoot video in several modes.

The design comes in a shockproof, waterproof plastic housing with conveniently arranged controls. Power is supplied via quick detach battery cassette, cassette of 4 AA type batteries (lithium or rechargeable batteries) or external power supply.

### FEATURES

- Integrated laser rangefinder.
- Built-in compass, accelerometer and weather station.
- Windage calculation.
- Automatic compensation for changing of adjustment conditions.
- Ballistic table development.
- USB interface for programming and device control.
- 2x, 3x, 4x, 6x digital zoom.
- Sensitivity settings of the detector.
- Different colour schemes for image refinement.
- Built-in video module.
- Manual and automatic calibration of the detector.
- Automatically predicted impact point.

### DELIVERY SET

- Thermal imaging sight Archer TSA-7.
- Rechargeable batteries cassette – 2 pcs.
- AA type batteries cassette – 1 pcs.
- Charger 220V, Vehicle charger 12V.
- USB cable, Cable adapter, Blind, User's manual, Case, and Bag.



THERMAL IMAGING DEVICES

## ARCHER TSA-7

Archer TSA-7, objective 75 mm, mounted on a rifle

# ARCHER

## TECHNICAL CHARACTERISTICS

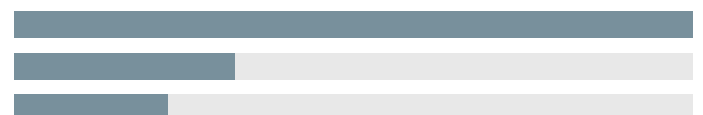
DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 μm
OPTICS	
OBJECTIVE	75 mm /2.95 in
OBJECTIVE F NUMBER	F/1.0
FIELD OF VIEW	5.9° x 4.5°
BALLISTIC COMPUTER	
MAX. MEASURABLE DISTANCE	2735 yd
DRAG FUNCTIONS	G1, G7, multi BC or user-defined
CALCULATION TIME	220 yd/sec
ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F ÷ +131°F
OPERATING TIME, NO LESS THAN	5 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	11.4 x 5.31 x 3.62 in
WEIGHT	3.70 lbs
PROTECTION CLASS	IP67

RANGEFINDER	
MAX. DISTANCE MEASURED BY LRF	3990 yd
LRF WAVELENGTH	1550 nm

### MAN SIZED TARGET (75 mm objective)

Detection	- 3990 yd
Recognition	- 995 yd
Identification	- 490 yd



Under ideal conditions; 12 μm; Johnson's Criteria @ 50% probability

## ARCHER TSA-11LRF

Archer TSA-11LRF, objective  
50mm, mounted on a rifle



## ARCHER

THERMAL IMAGING SIGHTING SYSTEM with rangefinder and ballistic calculator

### ARCHER TSA-11LRF



**Designed for engaging targets at distances up to 1.4 miles in conditions of complete darkness and limit visibility.**



**Used on medium-caliber rifles by marksmen, calibers .308, 7.62 and similar. Can withstand up to .338**

The Archer TSA-11LRF Thermal Imaging Sighting System is an advanced targeting device designed for precision shooting in challenging conditions, particularly where visibility is limited, such as complete darkness, smoke, fog, or dense vegetation. It is optimized for medium-caliber rifles such as .308 and 7.62, but is also robust enough to handle the recoil of higher calibers, including up to .338.

This sight is primarily used for detecting, observing, and targeting heat-contrast objects, making it ideal for marksmen engaging targets at distances of up to 0.6 miles. It excels in both daytime and nighttime operations, thanks to its thermal imaging capabilities, which allow for high accuracy in adverse weather or light conditions. With its powerful detection range of 2405 yards, the system allows shooters to spot targets from a considerable distance. Once detected, targets can be recognized at 600 yards and positively identified at 390 yards, providing excellent clarity across varied shooting scenarios. The objective lens, measuring 1.97 inches in diameter, enhances the sight's ability to gather thermal data, ensuring precise detection and recognition.

Key features include an integrated laser rangefinder that measures the distance to a target with precision, and a ballistic calculator that automatically applies the necessary corrections based on the weapon and ammunition used. This ensures optimal accuracy regardless of the environmental conditions. The sight also has sensitivity settings for its detector, allowing customization based on the situation, and offers multiple color schemes for image enhancement. The digital zoom options (2x, 3x, 4x, and 6x) further assist in identifying and engaging targets at various ranges, while built-in features like a compass, accelerometer, and weather station provide real-time feedback

for windage and adjustment compensation. A built-in video recording module allows users to capture footage of their targeting sessions, stored directly on the device's flash memory.

Additionally, the Archer TSA-11LRF features manual and automatic calibration of its detector, and the automatic impact point prediction helps the shooter make precise shots with confidence.

#### FEATURES

- ⦿ Integrated laser rangefinder.
- ⦿ Built-in compass, accelerometer and weather station.
- ⦿ Windage calculation.
- ⦿ Automatic compensation for changing of adjustment conditions.
- ⦿ Ballistic table development.
- ⦿ USB interface for programming and device control.
- ⦿ 2x, 3x, 4x, 6x digital zoom.
- ⦿ Sensitivity settings of the detector.
- ⦿ Different colour schemes for image refinement.
- ⦿ Built-in video module.
- ⦿ Manual and automatic calibration of the detector.
- ⦿ Automatically predicted impact point.

#### DELIVERY SET

- ⦿ Thermal imaging sight Archer TSA-11LRF.
- ⦿ Rechargeable batteries cassette – 3 pcs.
- ⦿ AA type batteries cassette – 1 pcs.
- ⦿ Charger 220V, Vehicle charger 12-24V.
- ⦿ Lens cover 52mm.
- ⦿ Viewfinder (cat's eye).
- ⦿ Pencil for optics.
- ⦿ Backup power supply.
- ⦿ USB cable, Cable adapter, Blind, User's manual, Case, and Bag.



THERMAL IMAGING DEVICES

## ARCHER TSA-11LRF

Archer TSA-11LRF, objective 50mm, mounted on a rifle

# ARCHER

## TECHNICAL CHARACTERISTICS

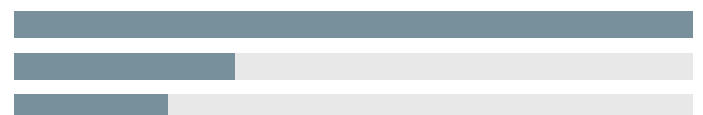
DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 µm
OPTICS	
OBJECTIVE	50 mm / 1,97 in
OBJECTIVE F NUMBER	F/1.0
FIELD OF VIEW	5.9° x 4.5°
BALLISTIC COMPUTER	
MAX. MEASURABLE DISTANCE	2735 yd
DRAG FUNCTIONS	G1, G7, multi BC or user-defined
ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F ÷ +131°F
OPERATING TIME, NO LESS THAN	5 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	8.43 x 4.25 x 3.50 ± 5% in
DIMENSIONS WITH EYEFINDER(L X W X H)	9.92 x 4.25 x 3.50 ± 5% in
WEIGHT / WITH CASSETTE	2.29 / 2.65 lbs
PROTECTION CLASS	IP67

RANGEFINDER	
MAX. DISTANCE MEASURED BY LRF	2405 yd
LRF WAVELENGTH	1550 nm

### MAN SIZED TARGET (50 mm objective)

Detection	- 2405 yd
Recognition	- 600 yd
Identification	- 390 yd



Under ideal conditions; 12 µm; Johnson's Criteria @ 50% probability




## ARCHER TSA-9


Archer TSA-9, objective 75 mm,  
mounted on a rifle



# ARCHER

## THERMAL IMAGING SIGHT ARCHER TSA-9

 **Designed for engaging targets at distances up to approximately 1.2 miles in conditions of complete darkness and limited visibility.**

 **Used on large-caliber sniper rifles, for example .338LM, .50BMG, or similar. "Phantom" and "Fagot" Anti-Tank Guided Missiles (ATGMs), 9K111 Fagot missile system and Automatic anti-aircraft gun S-60. NSV "Utyos" (12.7 mm), KPVT 14.5 mm, DShK (12.7 mm), Browning M2 (12.7 mm), FN BRG-15 (15 mm), MG5 (7.62 mm), XM312 (12.7 mm)**

 **NATO Stock Number**

Archer TSA-9 is the best sight in its series. Extremely long distances and severe conditions won't be an obstacle to keeping accurate shooting anymore. Advanced functionality and new software of the sight will be excellent assistants in performing the most complex tasks.

Having kept the excellent technical specifications of its predecessors, Archer TSA-9 has received a wide range of significant advantages. Sight electronics is equipped with a set of sensors and communication tools that widen the functionality and operating capabilities and improve the usage of the device.

The sight is equipped with a highly sensitive passive receiver of a far infrared band (LWIR) with resolution and sensitivity within 20-30 mK. Several lens modifications (1.97 in, 2.95 in and 3.94 in) allow for choosing a sight model that best meets the objective. All models have a manual focus for the comfortable and effective usage of the device.












A built-in colour high-resolution microdisplay and an eyepiece with diopter adjustment provide a high-quality image of aiming reticles and a minimal movement step during adjustment fire. Aiming reticles are implemented in automatic reverse functions for saving reticles' contrast and automatic scaling depending on the enlargement range. Reticule coordinates can be adjusted both in clicks and in centimetres. A ballistic calculator allows

compensating changes in atmospheric conditions, the temperature of dust powder and windage. The device is equipped with sensors of ambient light and proximity, and angle of sight. Archer thermal imaging sight TSA-9 has a serial interface for programming and remote control, an option for downloading and editing target reticles, ballistics table for every type of programmed weapon.







A built-in recording module allows to take photos and shoot video in several modes. The data is read via a wired (USB) interface. The device has a sealed multi-purpose connector for power charging, video output and control.

The design comes in a shockproof, waterproof plastic housing with pumped inert gas resistant to corrosive environment. Conveniently arranged controls are protected from accidental use. Two quick detach battery cassettes and a rechargeable battery allow you to change power supply blindly.

### FEATURES

-  Built-in compass and accelerometer.
-  USB interface for programming and device control.
-  2x, 3x, 4x, 6x digital zoom.
-  Sensitivity settings of the detector.
-  Different colour schemes for image refinement.
-  Built-in video module.
-  Manual and automatic calibration of the detector.
-  Semi-automatically predicted impact point.
-  Windage calculation.
-  Automatic compensation for changing adjustment conditions.
-  Ballistic table development.

### DELIVERY SET

-  Thermal imaging sight Archer TSA-9.
-  Rechargeable batteries cassette – 2 pcs.
-  AA type batteries cassette – 1 pcs.
-  Charger 220V, Vehicle charger 12V.
-  USB cable, Cable adapter, Blind, User's manual, Case, and Bag.
-  Optional: Redundant power supply RBP-8.

# ARCHER TSA-9

Archer TSA-9, objective 75 mm, mounted on a rifle

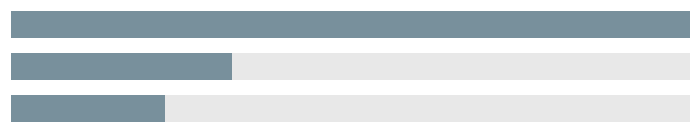
# ARCHER

## TECHNICAL CHARACTERISTICS

DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 µm
OPTICS	
OBJECTIVE	75 mm/ 2.95 in
OBJECTIVE F NUMBER	F/1.0
FIELD OF VIEW	5.9° x 4.5°
ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F ÷ +131°F
OPERATING TIME, NO LESS THAN	5 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	11.42 x 3.90 x 3.62 in
WEIGHT	3.05 lbs
PROTECTION CLASS	IP67

<b>MAN SIZED TARGET</b> (75 mm objective)	Detection	- 3900 yd
	Recognition	- 995 yd
	Identification	- 490 yd



Under ideal conditions; 12 µm; Johnson's Criteria @ 50% probability


## ARCHER TSA-10 ARCHER TSA-11


Archer TSA-11, objective 50 mm,  
mounted on a rifle



# ARCHER

## THERMAL IMAGING SIGHTS ARCHER TSA-10, ARCHER TSA-11

 **Designed for engaging targets at distances up to 1.5 miles in conditions of complete darkness and limit visibility.**

 **Used on medium-caliber rifles by marksmen, calibers .308, 7.62 and similar. Can withstand up to .338**

Archer TSA-11 is the newest sight specially designed for using small tactical arms. The peculiarity of the thermal sight is its small size and objective with a fixed focus that provides a sharp image from 27 yards to infinity. However, the device has maintained all Archer sights' operational advantages, like flexible configuration mode, editable target reticles, and profiles for different types of arms and ammunition.

The device has a mechanical selector switch, which allows not only to switch the device „by touch“ but immediately select one of the preset operating modes. The device can be equipped with a 1.57 in objective with fixed focus or a 1.97 in objective with a manual focusing mechanism.

The sight is equipped with a highly sensitive passive receiver of a far infrared band (LWIR) with a sensitivity of less than 30 mK.

A built-in colour high-resolution microdisplay and an eyepiece with diopter adjustment provide a high-quality image of aiming reticles and a minimal movement step during adjustment fire. Aiming reticles are implemented in automatic reverse functions for saving reticles' contrast and automatic scaling depending on the enlargement range.

Archer TSA-11 is equipped with proximity sensors and a serial interface for programming and remote control. A built-in recording module allows to take photos and shoot video in several modes. The device has a multipurpose jack for charging, video output and programming.

The design comes in as hockproof, waterproof plastic or aluminium housing with pumped inert gas resistant to corrosive environment. Conveniently arranged controls are protected from accidental use. Batteries are charged in a device with the help of a built-in recharger.

There is also a mounting for installing additional equipment and a hand strap for comfortable and secure holding of the device while using it as an observation instrument.

### FEATURES

- Option of downloading target reticles with automatic reverse and scaling.
- Ballistics table.
- Electronic level.
- Profiles for different arms and ammunition.
- Built-in photo- and video module.
- USB interface for programming and device control.
- 1.5x optical magnification.
- 2x, 3x, 4x, 6x digital zoom.
- Different colour schemes for image refinement.
- Operative adjustment of sensitive sensor parameters with the help of preset modes.
- A proximity sensor for switching a display off while removing user's face from the device.
- Manual and automatic calibration of the detector.

### DELIVERY SET

- Thermal imaging sight Archer TSA-10 / TSA-11
- AA-type rechargeable batteries – 4 pcs.
- Charger 220V, Vehicle charger 12V.
- USB cable, Cable adapter, User's manual, Case, and Bag.
- Optional: Redundant power supply RBP-8.



THERMAL IMAGING DEVICES

**ARCHER TSA-10**

**ARCHER TSA-11**

Archer TSA-10, objective 50 mm, mounted on a rifle

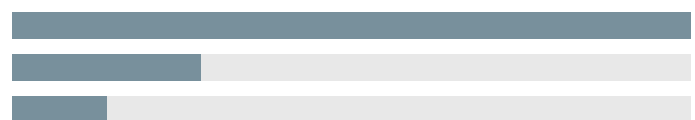
**ARCHER**

## TECHNICAL CHARACTERISTICS

DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 μm
OPTICS	
OBJECTIVE	50 mm / 1.97 in
OBJECTIVE F NUMBER	F/1.0
FIELD OF VIEW	8.8° x 7.0°
BALLISTIC COMPUTER	
MAX. MEASURABLE DISTANCE	1640 yd
DRAG FUNCTIONS	G1, G7, multi BC or User-defined
CALCULATION TIME	220 yd/sec

ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB
OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F ÷ +131°F
OPERATING TIME, NO LESS THAN	4 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	9.65 x 3.78 x 3.07 in
WEIGHT	2.12 lbs
PROTECTION CLASS	IP67
RANGEFINDER	
MAX. DISTANCE MEASURED BY LRF	875 yd
LRF WAVELENGTH	905 nm

<b>MAN SIZED TARGET</b> (50 mm objective)	Detection	- 2660 yd
	Recognition	- 655 yd
	Identification	- 330 yd



Under ideal conditions; 12 μm; Johnson's Criteria @ 50% probability

## ARCHER TCN-11

Archer TCN-11, objective 75 mm,  
mounted on a rifle



# ARCHER

## THERMAL IMAGING CLIP-ON ARCHER TCN-11

- ⚠ **Used only with day optics present.**
- 🎯 **Designed for engaging targets at distances up to 0.62 miles in conditions of complete darkness and limited visibility.**
- 🔫 **Used on medium-caliber rifles by marksmen, calibers .308, 7.62 and similar. Can withstand up to .338.**
- 🌐 **NATO Stock Number**

The compact pre-lens thermal imaging clip-on Archer TCN-11 is intended for use with daylight optical sights. The frequency of a daylight sight is from 3x to 8x.

It is difficult to overestimate the ease of this device's usage paired with daytime optics: while a day sight is always on a rifle, the high-quality thermal imaging clip-on allows solving tasks even in extreme weather conditions while not disrupting the adjustment of the day sight.

The fixed focus of the objective relieves the necessity of image focusing.

The Archer TCN-11 clip-on can be operated remotely. The device is equipped with a quick detached mount on a Picatinny rail. Power is supplied via 4 AA-type batteries (lithium or rechargeable batteries).

### FEATURES

- 🔦 Electronic level and angle of sight sensor.
- 📷 Built-in photo- and video module.
- 🔌 USB interface for programming and device control.
- 🔍 1x optical zoom.
- 🔍 2x, 3x, 4x digital zoom.
- 🎨 Different colour schemes for image refinement.
- ⚙ Operative adjustment of sensitive sensor parameters with the help of preset modes.
- 💡 Ambient light sensor for automatic adjustment of display brightness.
- 🔧 Manual and automatic calibration of the detector.

### DELIVERY SET

- 🔦 Thermal imaging sight Archer TCN-11
- 🔋 AA-type rechargeable batteries – 4 pcs.
- 🔌 Charger 220V, Vehicle charger 12V.
- 🔌 USB cable, Cable adapter, User's manual, Case, and Bag.
- 🔧 Optional: Redundant power supply RBP-8.

# ARCHER TCN-11

Archer TCN-11, objective 75 mm, mounted on a rifle

# ARCHER

## TECHNICAL CHARACTERISTICS

DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 μm

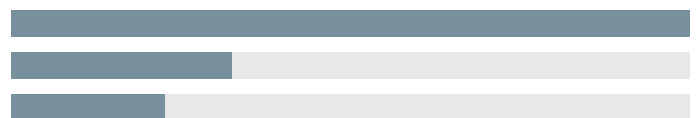
OPTICS	
OBJECTIVE	75 mm / 2.95 in
OBJECTIVE F NUMBER	F/1.0
FIELD OF VIEW	5.9° x 4.5°

ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F ÷ +131°F
OPERATING TIME, NO LESS THAN	5 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	11.02 x 3.9 x 3.62 in
WEIGHT	2.98 lbs
PROTECTION CLASS	IP67

### MAN SIZED TARGET (75 mm objective)

- Detection - 3990 yd
- Recognition - 995 yd
- Identification - 490 yd



Under ideal conditions; 12 μm; Johnson's Criteria @ 50% probability


## ARCHER TSA-11/25

Archer TSA-11/25, resolution 640x512, mounted on a rifle



# ARCHER

## TACTICAL THERMAL IMAGING SIGHT ARCHER TSA-11/25

 **Used for tactical offensive and defensive operations. It is used on small-caliber machine guns, semi-automatic rifles in .223, .308 calibers. Can withstand .338 caliber.**

The Archer TSA-11/25 Tactical Thermal Imaging Sight is a specialized device designed for use in both offensive and defensive tactical operations. It is suitable for small-caliber machine guns and semi-automatic rifles, particularly in the .223 and .308 calibers, while also being durable enough to withstand the recoil of larger calibers like .338. This makes it a versatile tool for various types of combat scenarios, ensuring reliability across different weapon platforms.

The Archer TSA-11/25 is engineered to help users search for, detect, and observe heat-contrast targets and objects, making it ideal for use in low-visibility conditions such as smoke, fog, or when targets are camouflaged by vegetation or matching environmental colors. Designed for both daytime and nighttime operations, it excels in challenging meteorological conditions and provides precision shooting during short- to medium-range engagements, making it highly effective for tactical missions.

In terms of detection capabilities, this sight offers a maximum detection range of 1205 yards, allowing the user to locate targets at considerable distances. It enables recognition of targets at 385 yards and can identify them with clarity at up to 200 yards, offering reliable performance for tactical shooting scenarios. The device features an objective lens of 0.98 inches, optimized for capturing thermal signatures efficiently.

The sight is equipped with an array of advanced features that enhance its functionality in the field. These include an electronic level and angle of sight sensor, ensuring accurate alignment and shooting angles, as well as a built-in photo and video module for recording operations directly onto the device.

Additional features include adjustable color schemes for image refinement, an ambient light sensor for automatic brightness adjustment, and the ability to manually or automatically calibrate the thermal detector. The device's sensitivity can also be fine-tuned using preset modes to match the specific needs of different tactical environments.

In summary, the Archer TSA-11/25 Tactical Thermal Imaging Sight is a robust and highly adaptable tool designed to support tactical shooters in both offensive and defensive operations. Its superior thermal imaging capabilities and advanced features make it a valuable asset for small arms and weapon systems in demanding conditions.

### FEATURES

- ⦿ Electronic level and angle of sight sensor.
- ⦿ Built-in photo- and video module.
- ⦿ USB interface for programming and device control.
- ⦿ 1x optical zoom.
- ⦿ 2x, 3x, 4x digital zoom.
- ⦿ Different colour schemes for image refinement.
- ⦿ Operative adjustment of sensitive sensor parameters with the help of preset modes.
- ⦿ Ambient light sensor for automatic adjustment of display brightness.
- ⦿ Manual and automatic calibration of the detector.

### DELIVERY SET

- ⦿ Thermal imaging sight Archer TSA-11/25
- ⦿ 18560 LiOn type rechargeable batteries 2 pcs.
- ⦿ Charger 220V, Vehicle charger 12V.
- ⦿ USB cable, Cable adapter, User's manual, Case, and Bag.
- ⦿ Optional: Redundant power supply RBP-8.

# ARCHER TSA-11/25

Archer TSA-11/25, resolution 640x512, mounted on a rifle



## ARCHER

### TECHNICAL CHARACTERISTICS

DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 μm

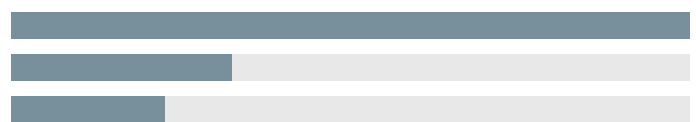
OPTICS	
OBJECTIVE	25 mm / 0.98 in
FIELD OF VIEW ANGLE (HOR)	17.5° ± 10%
FIELD OF VIEW ANGLE (VERT)	14° ± 10%

ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F ÷ +131°F
OPERATING TIME, NO LESS THAN	4 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	6.18 x 3.15 x 2.60 ± 5% in
DIMENSIONS WITH EYEPIECE(L X W X H)	6.54 x 3.15 x 3.15 ± 5% in
WEIGHT	1.59± 5%lbs
PROTECTION CLASS	IP67

### MAN SIZED TARGET (25 mm objective)

- Detection - 1205 yd
- Recognition - 385 yd
- Identification - 200 yd



Under ideal conditions; 12 μm; Johnson's Criteria @ 50% probability





**ARCHER**  
**THERMAL SURVEILLANCE**  
**DEVICES**

## ARCHER TGX-3/75

Archer TGX-3/75, objective 75 mm, handheld



# ARCHER

## THERMAL IMAGING BINOCULAR ARCHER TGX-3/75

Thermal imaging binocular Archer TGX-3/75 is a modern compact optical device. The high-performance capabilities of the optical system, an extended set of functions and the ergonomic design of Archer TGX-3/75 make it an indispensable device for a wide range of applications.

Digital thermal device Archer TGX-3/75 is designed for monitoring and observing areas in limited visibility conditions: poor lighting, smoke, fog, and objects hidden by vegetation or merged with underlying terrain. The device is equipped with a highly sensitive passive receiver of a far infrared band (LWIR) with resolution and sensitivity within 20-30 mK. The binocular has two built-in colour high-resolution microdisplays and eyepieces with diopter adjustment and the ability to adjust the distance between the eyes.

Several set colour schemes allow choosing the necessary display option depending on the tasks performed.

An optical circuitry of Archer TGX-3/75 provides 3x optical magnification (using a detector with 640 x 512 resolution).

The device's display indicates operation modes, device status, and battery discharge. There are also modes of brightness and contrast control.

The device is equipped with proximity sensors that much reduce the risk of disclosure. Archer TGX-3/75 design comes in a shockproof, waterproof plastic housing with conveniently arranged controls. Power is supplied via 6 AA-type batteries (lithium or rechargeable batteries).

### FEATURES

- USB interface for programming and device control.
- 2x, 3x, 4x, 6x digital zoom.
- Sensitivity settings of the detector.
- Different colour schemes for image refinement.
- Manual and automatic calibration of the detector.

### DELIVERY SET

- Thermal imaging binocular Archer TGX-3/75
- AA-type rechargeable batteries – 6 pcs.
- Charger 220V, Vehicle charger 12V.
- USB cable, Neck strap, User's manual, Case, and Bag.
- Optional: Redundant power supply RBP-8.



THERMAL IMAGING DEVICES

# ARCHER TGX-3/75

Archer TGX-3/75, objective 75 mm, handheld

## ARCHER

### TECHNICAL CHARACTERISTICS

DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 μm

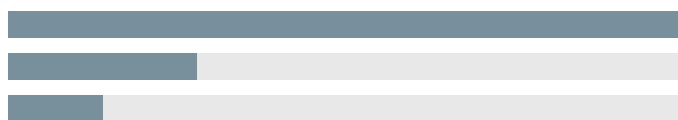
OPTICS	
OBJECTIVE	75 mm / 2.95 in
OBJECTIVE F NUMBER	F/1.0
FIELD OF VIEW	5.9° x 4.5°

ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F ÷ +131°F
OPERATING TIME, NO LESS THAN	5 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	8.66 x 5.2 x 3.39 in
WEIGHT	2.87 lbs
PROTECTION CLASS	IP67

### MAN SIZED TARGET (75 mm objective)

- Detection – 3990 yd
- Recognition – 995 yd
- Identification – 490 yd



Under ideal conditions; 12 μm; Johnson's Criteria @ 50% probability

## ARCHER TGX-8/75

Archer TGX-8/75, objective 75 mm,  
stationary



## ARCHER

### THERMAL IMAGING BINOCULAR with laser rangefinder ARCHER TGX-8/75

#### NATO Stock Number

Thermal imaging binocular Archer TGX-8/75 is an ultramodern compact optical device designed for monitoring and observing areas in limited visibility conditions: poor lighting, smoke, fog, and objects hidden by vegetation or merged with underlying terrain. A distinctive feature of this binocular is an integrated compact laser rangefinder of 1550 nm that accurately measures distance on the distant range.

The high-performance capabilities of the optical system, an extended set of functions and the ergonomic design of Archer TGX-8/75 make it an indispensable device for a wide range of applications.

The device is equipped with a highly sensitive passive receiver of a far infrared band (LWIR) with resolution and sensitivity within 20-30 mK. The binocular has two built-in colour high-resolution microdisplays and eyepieces with diopter adjustment and the ability to adjust the distance between the eyes.

Several set colour schemes allow choosing the necessary display option depending on the tasks performed.

An optical circuitry of Archer TGX-8/75 provides 3x optical magnification (using a detector with 640 x 512 resolution).









The device's display indicates operation modes, device status, and battery discharge. There are also modes of brightness and contrast control.

The device is equipped with proximity sensors that much reduce the risk of disclosure.






Archer TGX-8/75 design comes in a shockproof, waterproof plastic housing with conveniently arranged controls. Power is supplied via 6 AA-type batteries (lithium or rechargeable batteries).

Due to the high-tech electronics unit, excellent functional capacities of the device are realized by minimal dimensions and power consumption.

#### FEATURES

-  USB interface for programming and device control.
-  2x, 3x, 4x, 6x digital zoom.
-  Sensitivity settings of the detector.
-  Different colour schemes for image refinement.
-  Integrated laser rangefinder.
-  Built-in compass and accelerometer.
-  Built-in video module.
-  Manual and automatic calibration of the detector.

#### DELIVERY SET

-  Thermal imaging binocular Archer TGX-8/75
-  AA-type rechargeable batteries – 6 pcs.
-  Charger 220V, Vehicle charger 12V.
-  USB cable, Neck strap, User's manual, Case, and Bag.
-  Optional: Redundant power supply RBP-8.



THERMAL IMAGING DEVICES

# ARCHER TGX-8/75

Archer TGX-8/75, objective 75 mm, stationary

## ARCHER

### TECHNICAL CHARACTERISTICS

DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 μm

OPTICS	
OBJECTIVE	75 mm / 2.95 in
OBJECTIVE F NUMBER	F/1.0
FIELD OF VIEW	5.9° x 4.5°

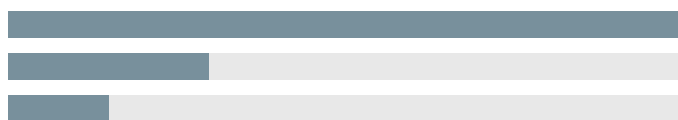
  

RANGEFINDER	
MAX. DISTANCE MEASURED BY LRF	3830 yd
LRF WAVELENGTH	1550 nm

ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F ÷ +131°F
OPERATING TIME, NO LESS THAN	5 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	8.66 x 5.2 x 3.39 in
WEIGHT	3.55 lbs
PROTECTION CLASS	IP67

<b>MAN SIZED TARGET</b> (75 mm objective)	Detection	- 3990 yd
	Recognition	- 995 yd
	Identification	- 490 yd



Under ideal conditions; 12 μm; Johnson's Criteria @ 50% probability

## ARCHER MSB-8

Archer MSB-8, objective 75 mm,  
stationary



# ARCHER

MULTISENSOR BINOCULAR  
with laser range finder, ballistic calculator, GPS and with a data transmission  
function

## ARCHER MSB-8

Multisensor binocular Archer MSB-8 is a specialized three-channel system designed for surveillance, observation of areas, and target acquisition in limited visibility conditions day and night.

The device is designed for military and security operations for infantry, special forces, intelligence gathering, infrastructure, and border surveillance.

It includes a digital day channel and an uncooled thermal imager that provides crisp images simultaneously in the visible and long-wave IR spectrum. It makes the binocular indispensable for various applications and gives greater situational awareness for nighttime scenarios.

The Archer MSB-8 is also equipped with a compact laser rangefinder of 1550 nm range, ballistic calculator, GPS and magnetic compass, enabling accurate target geolocation.

A binocular has two built-in colour high-resolution microdisplays and eyepieces with diopter adjustment and the ability to adjust the distance between the eyes. Several set colour schemes allow choosing the necessary display option depending on the tasks performed.

The multisensor binocular Archer MSB-8 can be used as a standalone hand-held unit or as a system mounted on a tripod or a pan-and-tilt platform, for example, for surveillance in a given sector.

### FEATURES

- USB interface for programming and device control.
- 2x, 3x, 4x digital zoom.
- Integrated laser rangefinder.
- Ballistic computer
- Built-in compass and accelerometer.
- Sensitivity settings of the detector.
- Different colour schemes for image refinement.
- Built-in video module.
- Manual and automatic calibration of the detector.

### DELIVERY SET

- Multisensor binocular Archer MSB-8
- Rechargeable batteries cassette
- Charger 220V, Vehicle charger 12V.
- USB cable, Neck strap, User's manual, Case, and Bag.
- Optional: Redundant power supply RBP-8.



THERMAL IMAGING DEVICES

# ARCHER MSB-8

Archer MSB-8, objective 75 mm, stationary

# ARCHER

## TECHNICAL CHARACTERISTICS

THERMAL CHANNEL	
DETECTOR	Uncooled VOx
RESOLUTION	640 x 512
PIXEL SIZE	12 µm
OBJECTIVE	75 mm / 2.95 in
F NUMBER	F/1.0
FIELD OF VIEW	5.9° x 4.5°

ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC / HDMI
INTERFACE	USB, RS422, BLE
VIDEO RECORDING	MJPEG 30Hz , 64 GB

RANGEFINDER	
MAX. DISTANCE	Up to 2730 yd
WAVELENGTH	1550 nm, Eye safe, Class I
ACCURACY	Less than 2 yd

### MAN SIZED TARGET (75 mm objective)

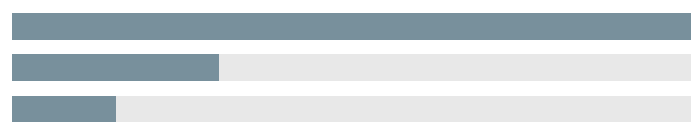
- Detection - 3990 yd
- Recognition - 995 yd
- Identification - 490 yd

DAY CHANNEL	
DETECTOR	High sensitivity 1/2.8"
RESOLUTION	1980 x 1080 px
FOCAL LENGTH	5.6 – 122 mm / 0.24 - 4.80 in
HORIZONTAL FOV	47.6° to 2.99°(full zoom)
FOCUS & ZOOM	Motorized

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F + +131°F
OPERATING TIME, NO LESS THAN	4.5 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	10.28 x 8.07 x 4.09 in
WEIGHT	6.26 lbs
PROTECTION CLASS	IP67

GPS & DMC	
GPS	Multi-band GNSS receiver. high precision
DMC	High precision digital magnetic compass

GPS and built-in compass data provide real-time integration with maps



Under ideal conditions; 12 µm; Johnson's Criteria @ 50% probability


## ARCHER TMA-55M

Archer TMA-55M, handheld



# ARCHER

## THERMAL IMAGING MONOCULAR ARCHER TMA-55M

 **Used for surveying the area at distances up to 1.24 miles in conditions of complete darkness and limited visibility.**

 **NATO Stock Number**

Digital tactical thermal imaging device Archer TMA-55M –new monocular of TMA series. The device is equipped with a high-aperture lens with a manual focus and proximity sensor that much reduce the risk of disclosure.

The device is equipped with a highly sensitive passive receiver of a far infrared band (LWIR). ARCHER TMA-55M has a built-in colour high-resolution microdisplay and an eyepiece with diopter adjustment.

Several set colour schemes allow choosing the necessary display option depending on the tasks performed.

An Archer TMA-55M optical circuitry provides 2x optical magnification (using a detector with 640 x 512 resolution).

The device's display indicates operation modes, device status, and battery discharge. There are also modes of automatic and manual brightness and contrast control.

Archer TMA-55M design comes in a shockproof, waterproof plastic housing with conveniently arranged controls. Power is supplied via 4 AA-type batteries (lithium or rechargeable batteries).

Due to the high-tech electronics unit, excellent functional capacities of the device are realized by minimal dimensions and power consumption.

### FEATURES

- USB interface for programming and device control.
- 2x, 3x, 4x, 6x digital zoom.
- Sensitivity settings of the detector.
- Different colour schemes for image refinement.
- Manual and automatic calibration of the detector.
- Analog video output with the possibility of switching off.

### DELIVERY SET

- Thermal imaging monocular ARCHER TMA-55M.
- Video/charge adapter.
- AA-type rechargeable batteries – 4 pcs.
- Hand strap, User's manual, Case, and Bag.





THERMAL IMAGING DEVICES

## ARCHER TMA-55M

Archer TMA-55M, objective 55 mm / 2.17 in, handheld

# ARCHER

## TECHNICAL CHARACTERISTICS

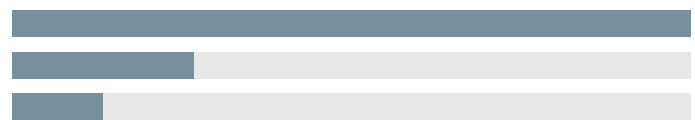
DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 μm

OPTICS	
OBJECTIVE	55 mm / 2.17 in
OBJECTIVE F NUMBER	F/1.0
FIELD OF VIEW	8.0° x 6.2°

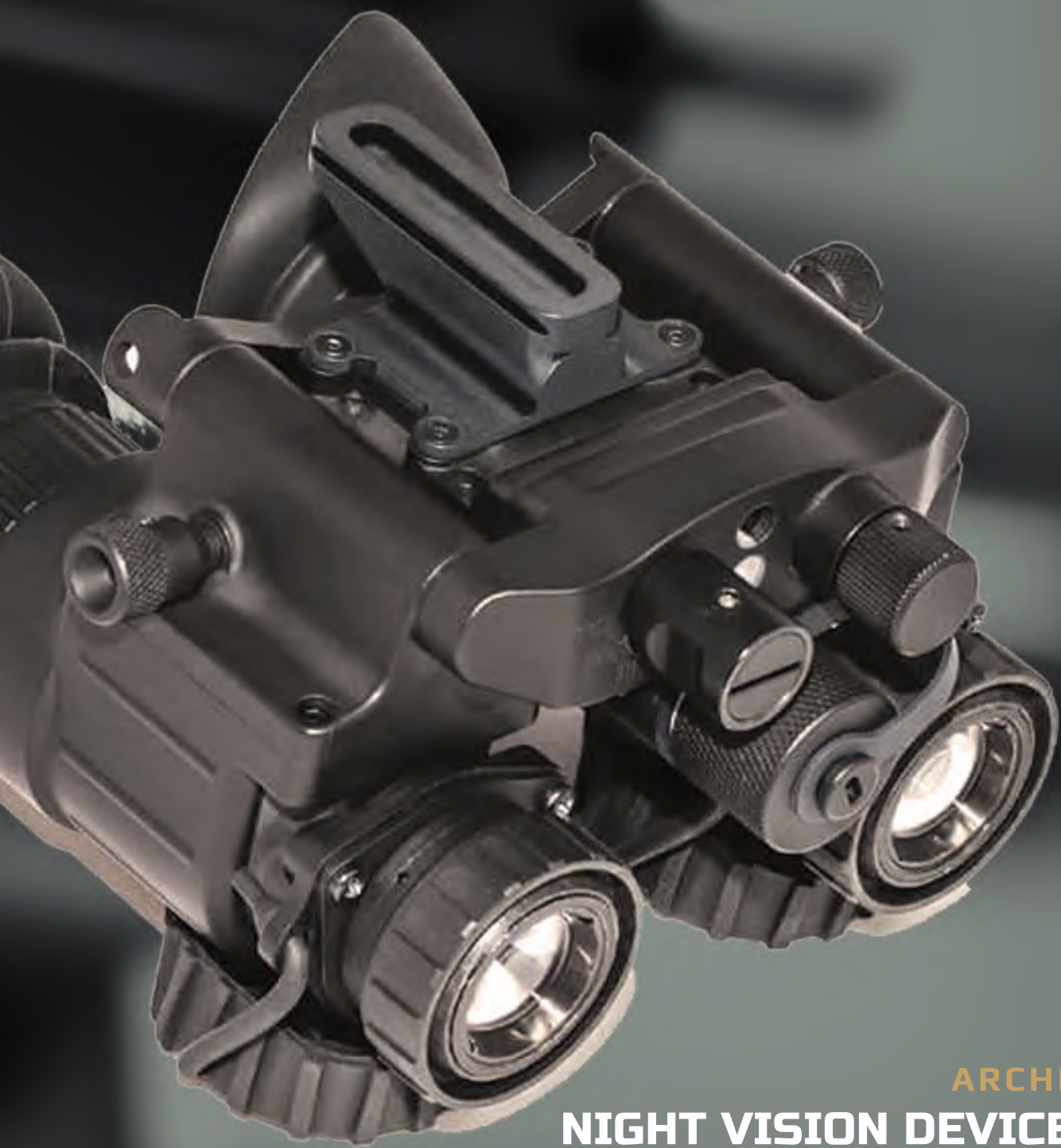
ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F ÷ +131°F
OPERATING TIME, NO LESS THAN	5 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS THAN	8 h
DIMENSIONS (L X W X H)	7.56 x 3.9 x 2.8 in
WEIGHT	1.60 lbs
PROTECTION CLASS	IP67

<b>MAN SIZED TARGET</b> (55 mm objective)	Detection	- 2660 yd
	Recognition	- 660 yd
	Identification	- 330 yd



Under ideal conditions; 12 μm; Johnson's Criteria @ 50% probability



**ARCHER**  
**NIGHT VISION DEVICES**

## NIGHT VISION DEVICES

# ARCHER NVMA-14

# ARCHER NVGA-15




Archer NVMA-14, objective 27 mm, mounted on a helmet



# ARCHER

## NIGHT VISION SERIES

# MONOCULAR ARCHER NVMA-14 BINOCULAR ARCHER NVGA-15

-  **Designed to be carried in a pocket, worn on a headband, or mounted on a helmet.**
-  **Used for anti-terrorist operations in conditions of low light and limited visibility.**
-  **NATO Stock Number**

NIGHT VISION SERIES is presented by compact multiuse mini-monocular Archer NVMA-14 and dual-channel night vision goggle system Archer NVGA-15. Both devices are equipped with high-performance Gen 3 image tubes.













Monocular Archer NVMA-14 has proven itself in combat due to its rugged, ergonomic design. It is equipped with Manual Gain Control (MGC) that allows a user to adjust the brightness of the image tube to achieve the highest quality under varying light conditions. The competitive advantage of the NVMA series is the possibility to use the devices in conjunction with an IR reticle projector as a sight for short-range use. The devices can be either hand-held or head-mounted and helmet-mounted. The dismounted goggle can also be used as an excellent long-range viewer (with an optional optical magnifier).

A dual-channel night vision goggle system Archer NVGA-15 utilizes two image intensifier tubes. This dual tube design provides increased depth perception and outstanding clarity. The system is equipped with automatic brightness control, bright light shut-off circuitry, and a spot/flood built-in IR illuminator. LED indicators displayed on the screen of the eyepiece are assigned to alert the user of a low battery or indicate that the IR is turned on.





For hands-free use, it can be worn on the included flip-up head

mount or optional universal helmet mount, which has a built-in mechanism that automatically turns the unit off when it is flipped up.








## FEATURES

-  Built-in Class 1 IR laser pointer.
-  True stereoscopic vision (NVGA-15).
-  Lightweight & compact rugged system.
-  Head or helmet mountable for hands-free operation.
-  Weapon mountable (NVGA-14)
-  Automatic brightness control.
-  Bright light cut-off.
-  Ergonomic, simple, easy-to-operate controls.
-  Built-in infrared illuminator and pivotal flood/flood lens.
-  Weather resistant.
-  Utilizes a single CR123A lithium battery.
-  Adaptable for use with cameras.

## DELIVERY SET (NVGA-15)

-  Night vision goggles Archer NVGA 15.
-  One lithium battery CR123A.
-  Detachable X-Long range infrared illuminator.
-  Lens tissue, Neck lanyard, Tactical bag, User's manual.

## DELIVERY SET (NVMA-14)

-  Night vision monocular Archer NVMA-14.
-  One lithium battery CR123A.
-  Battery adapter CR123A 3V / AA 1.5V.
-  Headset (magnet), Helmet adapter (magnet), Sacrificial window,
-  Demist shield, Helmet mount for Wilcox (magnet).
-  Bridge with flip-up "eye".
-  Lens tissue, Tactical bag, User's manual.



NIGHT VISION DEVICES

**ARCHER NVMA-14**

**ARCHER NVGA-15**

Archer NVMA-14, objective 27 mm

**ARCHER**

## TECHNICAL CHARACTERISTICS

MODEL	NVMA-14	NVGA-15
GENERATION	III	III
RESOLUTION	60-64 lp/mm	60-64 lp/mm
MAGNIFICATION	1x standard (3x, 5x, 8x optional)	1x standard (3x optional)

OPTICS	NVMA-14	NVGA-15
OBJECTIVE LENS	27 mm / 1.06 in	19 mm / 0.75 in
OBJECTIVE F NUMBER	F/1.2	F/1.26
FIELD OF VIEW (FOV)	40°	51°
EXIT PUPIL DIAMETER	14 mm / 0.55 in	14 mm / 0.55 in

OPERATING PARAMETERS	NVMA-14	NVGA-15
POWER SUPPLY	CR123 Lithium 3V (1), or AA Alkaline 1.5V (1), or any AA or CR123 type rechargeable batteries with voltage from 1.2V to 3.2V (1)	
BATTERY LIFE	Up to 60 hours	Up to 40 hours
OPERATING TEMPERATURE	-40°F ÷ +122°F	-40°F ÷ +122°F
STORAGE TEMPERATURE	-58°F ÷ +158°F	-58°F ÷ +158°F
DIMENSIONS	6.5 x 4.72 x 2.4 in	6.38 x 4.02 x 2.72 in
WEIGHT	1.10 lbs	1.44 lbs
PROTECTION	IP67	IP67

FUNCTIONAL FEATURES (ALL)			
Manual Gain Control	Bright Light Cut-off	Infrared Illuminator	Low Battery Indicator
Automatic Brightness Control	Automatic Shut-off System	IR Indicator	

## NIGHT VISION DEVICES

# ARCHER NVSA-2.5

# ARCHER NVSA-3.5

Archer NVSA-2.5, objective 60 mm,  
mounted on a helmet



# ARCHER

## NIGHT VISION SERIES

# ARCHER NVSA-2.5

# ARCHER NVSA-3.5



**Designed for use on medium-caliber weapons, such as .223, .308, and similar.**



**Used for shooting in conditions of low light and limited visibility.**

Archer NVSA-2.5, NVSA-3.5 sights represent the apex of night vision technology, specially designed for the usage on small tactical arms. Having maintained all operational advantages of Archer night vision devices, NVSA-2.5, 3.5 encompass a host of other features, including wireless remote control, an automatic brightness control system, illuminated centered, red cross reticle for optimal contrast, the ability to mount to standard rail etc.

Fast IR sensitive optics coupled with quality image tubes of III Generation provide high resolution clear images for outstanding target acquisition and aiming capabilities. Archer night vision sights have multicoated all-glass lenses and an internally adjustable fine reticle that makes precise shot placement incredibly easy. The optical circuitry of NVSA provides 2.5x, 3.5x magnification.

The design of riflescopes comes in a dustproof waterproof housing with conveniently arranged controls. Complete with tactical rails for lasers or IR illuminators, Archer NVSA-2.5, NVSA-3.5 sights are probably the most dependable, highest-performing weapon sights for shooting in dark environments that provide excellent observation and aiming for the most demanding shooters.

## FEATURES

- Wide array of IIT configurations.
- 2.5, 3.5 magnification.
- Shock protected, all-glass IR transmission multicoated optics.
- Bright light cut-off.
- Illuminated reticle with brightness adjustment.
- Wireless remote control included.
- Wireless remote control included.
- Waterproof design.
- Quick release mount.
- Quick release mount.

## DELIVERY SET

- Night vision sight Archer NVSA-2.5 / NVSA-3.5
- CR123A lithium battery.
- Wrench for AA/CR adapter.
- Objective cap.
- AA/CR adapter.
- AWReC (advanced wireless remote control).
- Optics pencil.
- Optics pencil.
- Operation manual.
- Bag.
- Case.



NIGHT VISION DEVICES

**ARCHER NVSA-2.5**

**ARCHER NVSA-3.5**

Archer NVSA-2.5, objective 60mm, mounted on a helmet

**ARCHER**

## TECHNICAL CHARACTERISTICS

MODEL	NVSA-2.5	NVSA-3.5
GENERATION	III	III
RESOLUTION	60-64 lp/mm	60-64 lp/mm
MAGNIFICATION	2.5x	2.5x

OPTICS	NVSA-2.5	NVSA-3.5
OBJECTIVE LENS	60 mm / 2.36 in	80 mm / 3.15 in
OBJECTIVE F NUMBER	F/1.35	F/1.67
FIELD OF VIEW (FOV)	16°	12°
FOCUS RANGE	77 yd	110 yd ± ∞
EXIT PUPIL DIAMETER	7 mm / 0.26 in	7 mm / 0.26 in
EYE RELIEF	45 mm / 1.77 in	45 mm / 1.77 in
DIOPTRER ADJUSTMENT	-4 ± +4 dpt	-4 ± +4 dpt

OPERATING PARAMETERS	NVSA-2.5	NVSA-3.5
POWER SUPPLY	CR123 Lithium 3V (1), or AA Alkaline 1.5V (1), or any AA or CR123 type rechargeable batteries with voltage from 1.2V to 3.2V (1)	
BATTERY LIFE	Up to 20 hours	Up to 20 hours
OPERATING TEMPERATURE	-26°F ± +122°F	-26°F ± +122°F
STORAGE TEMPERATURE	-40°F ± +140°F	-40°F ± +140°F
DIMENSIONS	6.69 x 3.82 x 3.35 in	7.24 x 3.82 x 3.35 in
WEIGHT	1.60 lbs	1.81 lbs
PROTECTION	IP67	IP67

FUNCTIONAL FEATURES (ALL)			
Manual Gain Control	Bright Light Cut-off	Infrared Illuminator	Low Battery Indicator
Automatic Brightness Control	Automatic Shut-off System	Remote Control	Titillium Web Light

## ARCHER NCN-Series

Archer NCN-Series, clipped-on a rifle



# ARCHER

## NIGHT VISION CLIP-ON ARCHER NCN-Series

- ⚠ **Used only with day optics present.**
- 🎯 **Designed for engaging targets in conditions of low light and limited visibility.**
- 🔫 **Used on medium-caliber rifles by marksmen, calibers .308, 7.62 and similar. Can withstand up to .338.**
- 🌐 **NATO Stock Number**

Archer NCN-LR is one of the most advanced night vision clip-on for long-range night shooting (up to 1100 yd) and stands out from the competition regarding clarity, versatility, reliability, function and value. It has innovate features like variable gain control, bright light shut-off and wireless remote control.

This night vision clip-on is designed to make long-range night shooting as easy and accurate as daytime shooting in the same terrain.

It can be used with an advanced modular rangefinder with a wavelength of 905 nm to determine the exact distance between the observer and the target up to 2200 yards. Measurements are displayed on the rangefinder's indicators and in the FOV of any connected night vision device.

### FEATURES

- 🔗 Simple and quick conversion of any day scope into a night vision device.
- 🔗 Mounts in front of riflescope with no re-zeroing required.
- 🔗 Precise laser rangefinder capability.
- 🔗 Equipped with wireless remote control.
- 🔗 Variable gain control.
- 🔗 Low battery indicator.
- 🔗 Quick-release mount.
- 🔗 Bright light cut-off system.
- 🔗 Used with advanced modular rangefinder.

### DELIVERY SET

- 🔗 Night vision clip-ons Archer NCN-Series.
- 🔗 One lithium battery CR123A.
- 🔗 Battery adapter CR123A 3V / AA 1.5V.
- 🔗 Detachable X-Long range infrared illuminator.
- 🔗 AWReC (advanced wireless remote control).
- 🔗 Detachable X-Long range infrared illuminator.
- 🔗 Picatinny adapter for AWReC.
- 🔗 Light-suppressor.
- 🔗 Lens tissue, Special wrench, Tactical bag, User's manual.

# ARCHER NCN-Series

Archer NCN-Series, clipped-on a rifle



## ARCHER

### TECHNICAL CHARACTERISTICS

MODEL	NCN
GENERATION	III
RESOLUTION	60-64 lp/mm
MAGNIFICATION	1x (recommended to use with up to 12x day time optics)

OPTICS	NCN
OBJECTIVE LENS	108 mm / 4.25 in
OBJECTIVE F NUMBER	F/1.54
FIELD OF VIEW (FOV)	9°
EXIT PUPIL DIAMETER	40 mm / 1.57 in

OPERATING PARAMETERS	NCN
POWER SUPPLY	CR123 Lithium 3V (1) or AA Alkaline 1.5V (1) or any AA or CR123 type rechargeable batteries with voltage from 1.2V to 3.2V (1)
BATTERY LIFE	Up to 60 hours
OPERATING TEMPERATURE	-40°F ÷ +122°F
STORAGE TEMPERATURE	-58°F ÷ +158°F
DIMENSIONS	9.25 x 3.82 x 3.15 in
WEIGHT	2.0 lbs
PROTECTION	IP67

FUNCTIONAL FEATURES		
Wireless Remote Control	Bright Light Cut-off	Detachable Long Range IR Illuminator
Manual Gain Control	Automatic Shut-off System	Low Battery Indicator





**ARCHER**  
**SPECIALIZED**  
**THERMAL SIGHTS**

## ARCHER TC-712

Archer TC-712, objective 100 mm



# ARCHER

## THERMAL IMAGING SIGHT ARCHER TC-712



**Designed for installation on the "Stugna-P" anti-tank missile system.**



**Enhances the system's capabilities for operation in conditions of complete darkness and limited visibility.**

The Archer TC-712 Thermal Imaging Sight is a highly specialized optoelectronic device designed to enhance the operational capabilities of the Stugna-P (also known as Skif) anti-tank missile system. By integrating thermal imaging technology, the Archer TC-712 allows the system to function effectively in complete darkness and low-visibility conditions such as smoke, fog, or dense vegetation, offering significant tactical advantages for anti-tank operations.

The Archer TC-712 is equipped with an uncooled thermal detector, making it ideal for observing, searching, detecting, and engaging targets. This thermal sight is specifically tailored to provide precise targeting and firing for anti-tank missile systems, grenade launchers, and large-caliber machine guns, ensuring reliable performance in both daytime and nighttime operations.

One of the key strengths of this thermal imaging sight is its impressive range. With a detection range of 6500 yards, the Archer TC-712 allows operators to locate potential targets at extreme distances. It enables recognition of targets at 1900 yards and offers clear identification at up to 980 yards, providing essential information for effective decision-making in the field. The objective lens, measuring 3.94 inches in diameter, ensures optimal thermal data capture, enhancing target clarity in various environmental conditions.

To further bolster its capabilities, the Archer TC-712 is equipped with an integrated laser rangefinder (LRF), which can accurately measure distances up to 2750 yards. This

ensures precise range estimation, contributing to the accuracy of long-range anti-tank missile launches and heavy weapons fire.

In summary, the Archer TC-712 Thermal Imaging Sight significantly upgrades the functionality of the Stugna-P anti-tank missile system, allowing it to operate effectively in poor visibility conditions while delivering long-range detection, recognition, and identification capabilities. Its robust design and advanced thermal imaging technology make it a critical tool for operators engaging in anti-tank warfare and other heavy weapons deployments.



SPECIAL DEVICES

# ARCHER TC-712

Archer TC-712, objective 100 mm

# ARCHER

## TECHNICAL CHARACTERISTICS

DETECTOR	
TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 μm

OPTICS	
OBJECTIVE	100 mm / 3.94 in
OBJECTIVE F NUMBER	F/1.0
FIELD OF VIEW	4.4° x 3.5°

BALLISTIC COMPUTER	
MAX. MEASURABLE DISTANCE	2750 yd
DRAG FUNCTIONS	G1, G7, multi BC or user defined
CALCULATION TIME	220 yd/sec

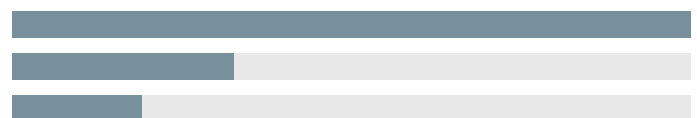
ELECTRONICS	
FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL or NTSC, programmed
INTERFACE	USB

OPERATING PARAMETERS	
TEMPERATURE RANGE	-22°F + +131°F
OPERATING TIME, NO LESS	5 h
OPERATING TIME FROM REDUNDANT POWER SUPPLY, NO LESS	8 h
DIMENSIONS (L X W X H)	9.57/12.24 x 4.41 x 4.68 in
WEIGHT	4.1 lbs
PROTECTION CLASS	IP67

RANGEFINDER	
MAX.DISTANCE MEASURED BY LRF	2750 yd
LRF WAVELENGTH	1700 nm

### VEHICLE SIZED TARGET (100 mm objective)

- Detection – 6 500 yd
- Recognition – 1 900 yd
- Identification – 980 yd



Under ideal conditions; 12 μm; Johnson's Criteria @ 50% probability

# ARCHER AT-300

Archer AT-300, objective 15-300 mm



## ARCHER

### THERMAL IMAGING CAMERA ARCHER AT-300



**Designed for installation on the "Stugna-P" anti-tank missile system.**



**Features a cooled type of infrared sensor.**



**Enhances the system's capabilities for operation in conditions of complete darkness and limited visibility.**



**NATO Stock Number**

Thermal imaging cooled camera Archer AT-300 is the latest advanced specialized camera designed to detect, recognize and identify objects at long distances and in limited visibility: lack of light, smoke or fog.

The sight differs from uncooled systems by far more operating radius while providing much better sensitivity and contrast in dynamic scenes. The cooled sensor can detect the slightest changes in temperature up to 32.18°F even at a distance of up to 330 yards. Quick autofocus saves the thermal image's precision in the magnification process. Due to new and more effective image processing algorithms, Archer AT-300 with a sensitive cooled detector generates clear images on the battlefield and provides long-range target detection.

Archer AT-300 camera version is developed for use in conjunction with the anti-tank missile system Stugna-P.

#### FUNCTIONALITY

- ⦿ USB interface for programming and device control.
- ⦿ 2x, 4x digital zoom.
- ⦿ Sensitivity settings of the detector.
- ⦿ Different colour schemes for image refinement.
- ⦿ Manual calibration of the detector.
- ⦿ Option to connect an external power supply.
- ⦿ Analog video output with the possibility of switching off.



SPECIAL DEVICES

# ARCHER AT-300

Archer AT-300, objective 15-300 mm

# ARCHER

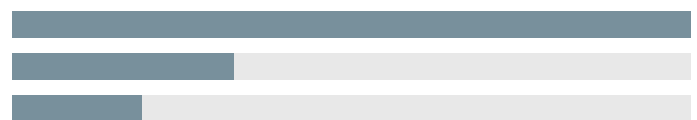
## TECHNICAL CHARACTERISTICS

PARAMETERS	
DETECTOR TYPE	Cooled
RESOLUTION	640 x 512
SPECTRAL RANGE	3-5 mkm
OBJECTIVE	Varifocal, 0.59 - 11.81 in
F NUMBER	F/4
NARROW FOV	1.8° x 1.4°
WIDE FOV	35° x 28°
DIGITAL ZOOM	2
CONTINUOUS ZOOM	Yes
LENS-FOCUSING MECHANISM	Motorized, adjustable
FOCUSING TIME	≤1 sec. (at top speed)
MAGNIFICATION MECHANISM	Motorized, adjustable
MAGNIFICATION TIME (NARROW-WIDE FOV)	≤8 sec. at -26°F; ≤5 sec. at T≥68°F (at top speed)

PARAMETERS	
HOLDING OF OPTICAL AXIS WHILE MAGNIFICATION	In 0.15 mm radius in full magnification range
EXIT TO OPERATING MODE (COOLING)	< 7 min.
CONNECTION INTERFACE	RS422 / RS232
VIDEO OUTPUT	CCIR / Ethernet
CONSUMED POWER	14 W (max)
DIMENSIONS (L X W X H)	12.8 x 5.28 x 5.09 in
WEIGHT	9.5 lbs
PROTECTION CLASS	IP67

### VEHICLE SIZED TARGET (15-300 mm objective)

- Detection - 18000 yd
- Recognition - 7000 yd
- Identification - 4200 yd



Under ideal conditions; 12 μm; Johnson's Criteria @ 50% probability



**ARCHER**  
**THERMAL DEVICES FOR**  
**ARMORED VEHICLES AND**  
**TANKS**

# CAYMAN


CAYMAN, installed on a vehicle



## ARCHER

### DRIVING ASSISTANCE AND SECURITY SYSTEM

## CAYMAN

 **Designed for installation on armored vehicles, APCs (Armored Personnel Carriers), IFVs (Infantry Fighting Vehicles), and tanks.**

 **Enhances driving capabilities in conditions of complete darkness and limited visibility.**

 **NATO Stock Number**

The driving assistance system CAYMAN has been developed to actively support the vehicle (including armored vehicles, combat tanks, SP artillery mounts etc.) in critical driving situations. The system's main purpose is continuous monitoring of the vehicle surroundings to detect potentially dangerous situations early and help drivers of tactical wheeled vehicles avoid accidents. Moreover, the system supports safe driving when headlights are off in total darkness. The system is built with more rugged components to navigate unstructured environments.

CAYMAN consists of 4 hybrid cameras mounted on the vehicle's body (in front, at the rear and on each side), providing a complete overview of the surroundings and keeping the vehicle from straying from its pathway or hitting the obstacles in its blind spot. Each camera has a daily channel with a high-quality CMOS detector and a thermal imaging channel equipped with a high-sensitivity passive long-range infrared receiver (LWIR) that allows the driver to monitor the situation in all weather conditions.

The camera image is reflected on the high-definition color display, which is installed in the vehicle's cab. The system is powered by an onboard vehicle network with a voltage of 12-24V.

CAYMAN, installed on  
a vehicle**ARCHER****TECHNICAL CHARACTERISTICS****DETECTOR**

TECHNOLOGY	Uncooled VOx Microbolometer
RESOLUTION	640 x 512
PIXEL SIZE	12 $\mu$ m

**ELECTRONICS**

FRAME RATE	30/50HZ
VIDEO OUTPUT	PAL, NTSC

**OPTICS**

OBJECTIVE	7.5 mm / 0.3 in	14.25 mm / 0.56 in	35 mm / 1.38 in
OBJECTIVE F NUMBER	F/1.4	F/1.2	F/1.2
FIELD OF VIEW (HORIZONTAL)	45.1°	22°	8.8°
FIELD OF VIEW (VERTICAL)	34.2°	16.7°	6.6°
DETECTION	330 yd $\pm$ 15%	660 yd $\pm$ 15%	1260 yd $\pm$ 15%
RECOGNITION	82 yd $\pm$ 15%	165 yd $\pm$ 15%	275 yd $\pm$ 15%
IDENTIFICATION	44 yd $\pm$ 15%	82 yd $\pm$ 15%	200 yd $\pm$ 15%

**OPERATING PARAMETERS**

TEMPERATURE RANGE	-22°F + +150°F
DISPLAY DIMENSIONS (10") (L X W X H)	11.02 x 7.87 x 1.57 in
CAMERA DIMENSIONS (L X W X H)	7.72 x 3.74 x 6.69 in
DISPLAY WEIGHT	3.65 lbs
CAMERA WEIGHT	6.6 lbs
PROTECTION LEVEL	IP67

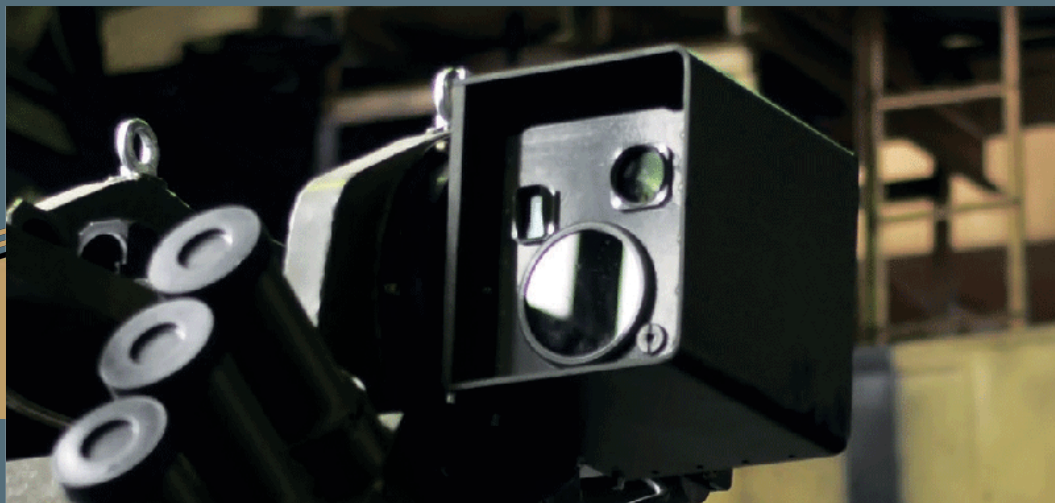
**TELEVISION MODULE**

OBJECTIVE	2.8 mm/0.11 in (Wide FoV 109° 82°) + 12 mm/0.47 in (Narrow FoV 22° 18°)
MINIMUM ILLUMINATION	0.01 LUX (COLOR); 0.001 LUX (B&W)
STANDARD OF OUTCOMING SIGNAL CVBS	(720 x 576) PAL, NTSC



# KAZHAN 3K10, 3K15

KAZHAN 3K10, installed on a turret



## ARCHER

### OPTOELECTRONIC MODULES KAZHAN SERIES 3K10, 3K15

 Used for installation on combat modules on APCs (Armored Personnel Carriers), IFVs (Infantry Fighting Vehicles), and other armored vehicles and tracked vehicles. Integrates with built-in fire control systems.






 NATO Stock Number

Devices of KAZHAN series are multispectral optoelectronic devices intended for use as a part of surveillance, reconnaissance and fire control systems. The series is designed to record target environment, determine the range in natural and dimmed lighting, and detect objects and terrain thermal

radiation. Depending on the model type, KAZHAN devices are used in stationary lookout stations; as a part of autonomous combat modules; on armored vehicles; as a part of shipboard surveillance and fire control systems.

KAZHAN series has several detection channels (1-3) in different spectral bands (visible and LWIR) and a rangefinder channel.

Digital processing unit as a part of OEM KAZHAN provides:

-  Primary and secondary digital image processing.
-  Automatic target detection.
-  Target tracking.
-  Raw data recording.
-  Data transfer to a central observation post in digital and analog form.

### TECHNICAL CHARACTERISTICS

THERMAL IMAGING CHANNEL	T5 (3K10)	T1 (3K15)	T3 (3K15)
TYPE OF CAMERA	uncooled	uncooled	uncooled
DETECTOR	640 x 512, 17μ 8-14μ	640 x 512, 17μ 8-14μ	640 x 512, 17μ 8-14μ
FOCAL LENGTH	100 mm / 3.94 in	150 mm / 5.91 in	25 ÷ 225 mm / 0.98 ÷ 8.89 in
OBJECTIVE F NUMBER	F/1.0	F/1.0	F/1.5
ANGULAR FIELD OF VIEW (H X V)	6.2° x 5.0°	4.2° x 3.3°	÷ 2.7° x 2.2°
RECOGNITION / IDENTIFICATION (HUMAN)	3000/765 yd	4600 / 1650 yd	7100 / 2200 yd
RECOGNITION / IDENTIFICATION (VEHICLE)	8750/2515 yd	11000 / 4000 yd	17500 / 5500 yd

DAYTIME CHANNEL	C3 / C4 (3K10)	C1 (3K15)
TYPE OF CAMERA	CMOS	CMOS
DETECTOR	1/3" CMOS 1280 x 1024 60fps	1/4" CMOS 1280 x 1024 60fps
LENS FOCAL LENGTH	3.5 ÷ 150.5 mm / 0.14 ÷ 5.93 in	3.5 ÷ 150.5 mm / 0.14 ÷ 5.93 in
ANGULAR FIELD OF VIEW (WIDE)	H : 45.92° x V : 38.2°	H : 45.92° x V : 38.2°
ANGULAR FIELD OF VIEW (NARROW)	H : 2.7° x V : 1.8°	H : 2.7° x V : 1.8°
SENSITIVITY	Chromatic image: 0.5 Lux/F1.4, monochromatic image: 0.05 Lux/F1.4	Chromatic image: 0.5 Lux/F1.4, monochromatic image: 0.05 Lux/F1.4



SPECIAL DEVICES

# KAZHAN 3K10, 3K15

KAZHAN 3K10, installed on a vehicle

## ARCHER

RANGE FINDER CHANNEL	R2 (3K10)	R5 (3K15)
MEASURING RANGE	33-6500 yd	55-16500 yd (on target with 85% coefficient of reflection)
MEASURING RANGE (OBJECT 2.3 X 2.3 M, VISIBILITY 12 KM, REFLECTION COEFFICIENT 30%, ACQUISITION PROBABILITY 90%)	3800 yd	55-7700 yd (on NATO standard target with 30 %coefficient of reflection)
WAVELENGTH	1550 nm, safe for vision, invisible for night vision	1550 nm, safe for vision, invisible for night vision
BEAM DIVERGENCE ANGLE	0.8 x 0.8 mrad	0.3 mrad
MEASURING FREQUENCY	0.5 Hz	10 Hz

DIGITAL SIGNAL PROCESSING MODULE	E2 (3K10)	E1 (3K15)
FORMATION OF THE AUXILIARY VIDEO INFORMATION	Aiming marks: textual and graphical	Aiming marks: textual and graphical
MOVEMENT DETECTOR	Automatic detection of moving objects	Automatic detection of moving objects
AUTOMATIC TARGET TRACKING	Acquisition and tracking of an indicated target	Acquisition and tracking of an indicated target
CONTRAST / SIZE / TARGET SPEED	> 0.4 / 10x10 pixel / <150 pixel/sec	> 0.4 / 10x10 pixel / <150 pixel/sec
DIGITAL IMAGE PROCESSING	Combination of 2 channels by different algorithms	Combination of 2 channels by different algorithms

ELECTRONICS	
PROTECTION CLASS	IP67, ice protection
TEMPERATURE RANGE	-22°F ÷ +131°F
DIMENSIONS	10.31 x 8.35 x 9.92 in, 11.30 x 10 x 12.99 in
WEIGHT	≤26.5 / 40 / 45 lbs

INTERFACES	
CONTROL	RS422, RS232 (optional Ethernet, CAN)
VIDEO DATA (ANALOG)	VGA, CVBS (PAL, NTSC)
VIDEO DATE (DIGITAL)	HDMI (optional SDI , SDI-HD, Ethernet)

# TPN-1-AM

For the modernization of the main combat tanks



## ARCHER

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### UPGRADED GUNNER'S SIGHT

## TPN-1-AM



**Designed to replace the night vision sight in T-64 and T-72 tanks.**



**Features a cooled type of infrared sensor. Increases night firing capabilities from 0.5 miles to 3.1 miles.**



**NATO Stock Number**

The set of the tank gunner's sight TPN-1-AM is designed for the modernization of the main combat tanks T-55, T-64, and T-72.

Saving the dimensions of its predecessor, the upgraded sight has received a number of significant advantages, exceeding a lot of the capabilities of the old Soviet sight. Thus, due to the integration of the cooled detector, the range of target detection was increased to 14800 yards, against 875 yards in the old sight, and recognition – up to 5360 yd, against 440 yd.

Improved functional parameters of the upgraded sight extend the operational capabilities of the operator on the battlefield. The upgraded tank sight TPN-1-AM is available in 2 modifications: with the uncooled detector (AM1) and cooled detector (AM2).

# TPN-1-AM

For the modernization of the main combat tanks

## ARCHER

### TECHNICAL CHARACTERISTICS

THERMAL IMAGING CHANNEL	AM1	AM2
CAMERA TYPE	Uncooled	Cooled
DETECTOR	640 x 512, 17 $\mu$ 8–14 $\mu$	640 x 480, 15 $\mu$ 3–5 $\mu$
SENSITIVITY	< 30 mK	< 20 mK
ANGULAR FIELD OF VIEW (WIDE) (H X V)	42.2°	28°
ANGULAR FIELD OF VIEW (NARROW) (H X V)	6.2°	28°
DETECTION / RECOGNITION (VEHICLE)	6700 yd / 1760 yd	14800 yd / 5300 yd
RANGEFINDER	AM1	AM2
DISTANCE MEASURED BY LRF (NATO TARGET)	3300 yd	-
LRF WAVELENGTH	1550 nm	-
BALLISTIC COMPUTER	AM1	AM2
MAX. MEASURABLE DISTANCE 2500 M CALCULATION TIME	3300 yd	-
DRUG FUNCTIONS	G1, G7, multi BC or user defined	-
CALCULATION TIME	220 yd/sec	-
OPERATING PARAMETERS	AM1	AM2
FOCUSING	mechanical	motorized
LATCHING DATA	photo/video recording	photo/video recording
TEMPERATURE RANGE	-22°F ÷ +131°F	-22°F ÷ +131°F
PROTECTION LEVEL	IP67	IP67



**ARCHER**  
**LONG-RANGE THERMAL**  
**SURVEILLANCE DEVICES**


## CORDON-3


CORDON-3, installed on a vehicle



## ARCHER

COMPLEX OF OPTOELECTRONIC RECONNAISSANCE  
CORDON-3

 **Used for installation on borders, strongholds, and in bunkers. Integrates with systems for detecting ground and aerial targets.**






 **Features an automatic operating mode.**

CORDON-3 is a multispectral modular-type optoelectronic device intended for use as a part of surveillance and reconnaissance systems. The system CORDON-3 can be used stationary and as a self-contained device installed on a tripod, mast, or vehicle.

CORDON-3 is easily integrated with other means of technical

reconnaissance. Its optical module consists of a thermal imaging camera, a day camera and a laser rangefinder. Cameras are installed on a pan-and-tilt gyrostabilized platform that provides guidance in azimuth and angle of elevation in manual and semi-automatic or automatic patrolling mode. The platform is installed permanently or on a telescopic mast.

The electronic module of CORDON-3 provides the following:

-  Primary and secondary digital image processing.
-  Movement detection, automatic target detection.
-  Target coordinates calculation.
-  Raw data recording.
-  Data transfer to a central observation post in a digital form.

## TECHNICAL CHARACTERISTICS

DAYTIME CHANNEL	C1	C2	C3
TYPE OF CAMERA	CMOS	CMOS	CMOS
DETECTOR	1280 x 960, 3.75 μ	1280 x 960, 3.75 μ	1920 x 1080, 2.9 μ
FOCAL LENGTH	5.6 – 112 mm / 0.24 - 4.41 in	8.8 + 150 mm / 0.35 + 5.91 in	10 + 350 mm / 0.39 + 13.78 in
ANGULAR FIELD OF VIEW (WIDE) (H X V)	47.6° x 35.7°	30.1° x 22.7°	26.7° x 20.1°
ANGULAR FIELD OF VIEW (NARROW) (H X V)	2.55° x 1.92°	1.9° x 1.4°	0.79° x 0.59°
SENSITIVITY	0.005 Lx	0.005 Lx	0.001 Lx
WEIGHT	11.9 lbs	17.9 lbs	19.40 lbs

RANGE FINDER CHANNEL	R1	R2	R3	R4
MAXIMUM DISTANCE	5300 yd	10560 yd	21100 yd	21100 yd
BEAM DIVERGENCE ANGLE	1 mrad	0.8 mrad	0.5 mrad	0.35 mrad
MEASURING FREQUENCY	0.5 – 5 Hz	0.5 – 5 Hz	1 – 10 Hz	1 – 10 Hz
DIMENSIONS (L X W X H)	4.72 x 1.22 x 1.77 in	4.88 x 3.62 x 2.24 in	8.07 x 8.27 x 5.71 in	3.50 x 2.09 x 1.46 in
WEIGHT	0.33 lb	1 lb	5.51 lbs	6.6 lbs



SPECIAL DEVICES

# CORDON-3

CORDON-3, installed on a mask

## ARCHER

THERMAL IMAGING CHANNEL	T1	T2	T4
TYPE OF CAMERA	Uncooled	Cooled	Cooled
DETECTOR	640 x 512, 17μ 8-14μ	640 x 512, 15μ 3-5μ	640 x 512, 15μ 3-5μ
FOCAL LENGTH	150 mm / 5.91 in	15 ± 300 mm / 0.59 ± 11.81 in	30 ± 600 mm / 1.18 ± 23.62 in
OBJECTIVE F NUMBER	F/1	F/4	F/4
ANGULAR FIELD OF VIEW (WIDE) (H X V)	–	35.1° x 28.1°	18.2° x 14.6°
ANGULAR FIELD OF VIEW (NARROW) (H X V)	4.2° x 3.3°	1.8° x 1.5°	0.92° x 0.74°
DETECTION/ RECOGNITION (HUMAN)	5000 yd / 1600 yd	10400 yd / 3500 yd	17600 yd / 6500 yd
DETECTION/ RECOGNITION (VEHICLE)	11000 yd / 3900 yd	10400 yd / 7000 yd	24000 yd / 14300 yd
DIMENSIONS (L X W X H)	15.59 x 7.2 x 8.74 in	12.68 x 5.28 x 5.08 in	20.67 x 9.84 x 9.45 in
WEIGHT	17.6 lbs	9.5 lbs	34.4 lbs

PAN-AND-TILT PLATFORM	P1	P2
MAXIMUM LOAD	45 lbs	65 lbs
TURNING ANGLE	±180° (n x 360°, optional)	±180° (n x 360°, optional)
INCLINATION ANGLE	-40° ± +40°	-35° ± +35°
TURN ANGULAR RATE	0.03°/c ± 70°/c	0.03°/c ± 70°/c
INCLINATION ANGULAR RATE	0.03°/c ± 30°/c	0.03°/c ± 30°/c
BRIDGING DISTANCE OF TURN	0.03°	0.03°
BRIDGING DISTANCE OF INCLINATION	0.03°	0.03°
WEIGHT	20 lbs	40 lbs

DIGITAL SIGNAL PROCESSING MODULE			
FORMATION OF THE AUXILIARY VIDEO INFORMATION	Aiming marks: textual and graphical. Full-color, transparency.	DIMENSIONS (L X W X H)	8.9 x 7.09 x 6.89 in
MOVEMENT DETECTOR	Automatic detection of moving objects	WEIGHT	7.1 lbs
TARGET AUTOTRACKING	Acquisition and tracking of indicated target	PROTECTION CLASS	IP67, ice protection
CONTRAST / SIZE / TARGET SPEED	> 0.4 / 10x10 px / < 150 px/sec	TEMPERATURE RANGE	-22°F ± +131°F
DIGITAL IMAGE PROCESSING	Combination of 2 channels by different algorithms		


# SYCH M15, M30


SYCH 3K10, installed on a vehicle



## ARCHER

### MODULE OF OPTOELECTRONIC SURVEILLANCE SYCH M15, M30

 **Used for installation on armored vehicles, strongholds, and in bunkers. Integrates with systems for detecting ground and aerial targets.**

 **Features an automatic operating mode.**

Optoelectronic surveillance module SYCH M15, M30 is designed for round-the-clock area monitoring, searching of static and moving targets, and determinations of distances to objects in difficult conditions of terrain and urban buildings. The module operates in two modes: automatic or manual search, detection of static targets and auto-tracking of moving targets, including thermal, using television and thermal modules, distance measurement and determination of their coordinates with the display of location on the area electronic map.







SYCH M15, M30 module is equipped with an optoelectronic unit that passively perceives electromagnetic radiation of surrounding objects in the ambient air surface environment in the visible optical (380–750nm), middle infrared (thermal imaging) ranges of electromagnetic waves (7–14  $\mu\text{m}$ ) and distance measurement channel with a built-in laser range finder (LRF), with a wavelength of 1550 nm.

SYCH M15, M30 is fixed on the pan-and-tilt platform mounted on the vehicle (or on a tripod in the case of portable use).











The module is controlled remotely from the tablet by an operator who is in a protected place. The tablet displays video from television and thermal modules, an area electronic map with an indication of the detected target's location (coordinates, distances), as well as the module's operation modes and parameters. All received data on the distance and coordinates of the detected targets are automatically saved and can be transmitted in real-time to the command post and fire systems.

Module's fields of application are the detection of land, water and air type vehicles (including disguised), protection of special areas and territories, protection of critical infrastructure, security of command and support points, and remote monitoring of various threats.

The scope of applications of SYCH M15, M30 encompasses:

-  The detection of snipers and camouflaged optical surveillance devices.
-  Security of special zones and territories.
-  Protection of objects of critical infrastructure.
-  Organization of anti-terrorist activity.
-  Providing the security of command posts and strong points.
-  Remote monitoring of terrorist (sniper) threats.

#### DELIVERY SET

-  Optoelectronic surveillance module SYCH M15, M30.
-  Pan-and-tilt platform.
-  Cables set.
-  Transportation box.
-  Rechargeable power supply – 2 pcs.
-  Tablet with installed software.
-  Mounting kit and tool.
-  Lifting device (mechanism).
-  Charging device.
-  Tripod.

#### GENERAL PARAMETERS

POWER VOLTAGE	12 $\pm$ 32 V
TEMPERATURE OPERATIONAL RANGE	-26°F $\pm$ +131°F
PROTECTION LEVEL	IP67
OVERALL DIMENSIONS (L X W X H)	$\leq$ 12.99 x 11.81 x 9.06 in
WEIGHT	$\leq$ 44 lbs





SPECIAL DEVICES

# SYCH M15, M30

SYCH 3K10, installed on a vehicle

## ARCHER

### TECHNICAL CHARACTERISTICS

THERMAL IMAGING CHANNEL	M15	M30
CAMERA TYPE	Uncooled	Uncooled
DETECTOR	640 x 512, 8–14 μm	640 x 512, 3–5 μm
FOCAL LENGTH	150 mm / 5.91 in	15–300 mm / 0.59 - 11.81 in
ANGULAR FIELD OF VIEW (H X V)	4.2° x 3.3°	1.8° x 35.1°
DETECTION / RECOGNITION (HUMAN)	4600 / 1700 yd ± 15%	8800 / 2800 yd ± 15%
DETECTION / RECOGNITION (VEHICLE)	10900 / 3900 yd ± 15%	15300 / 5500 yd ± 15%

PAN-AND-TILT PLATFORM	
ROTATION ANGLE (CONTINUOUS)	N x 360°
INCLINATION ANGLE	-75° + 40°
ANGULAR ROTATION SPEED	0.06°/sec + 60°/sec
ANGULAR INCLINATION SPEED	0.06°/sec + 30°/sec
POSITIONING ACCURACY	≤ 0.3 °
PROTECTION LEVEL	IP66
WEIGHT	≤ 33 lbs

TELEVISION CHANNEL	
CAMERA TYPE	CMOS
SENSOR	1/3" 1920 x 1080
ANGULAR FIELD OF VIEW (N X W)	2° x 45° ± 10%
SENSITIVITY	0.0001 lx
DETECTION / RECOGNITION (HUMAN) (WITH ILLUMINATION 100 + 105 LX)	8800 / 3400 yd ± 15%
DETECTION / RECOGNITION DISTANCE (CAR)	15300 / 5500 yd ± 15%

RANGEFINDER CHANNEL	M15	M30
MEASUREMENT RANGE	32–8750 yd ± 2	27–35000 yd ± 1.5
MEASURING RANGE (FREQUENCY 1 HZ) ACCORDING TO THE NATO STANDARD WITH A REFLECTIVITY OF 30% AND A VISIBILITY OF ≥10 KM	5500 yd ± 2	8500 yd ± 1.5
WAVELENGTH OF THE LASER RANGE FINDER	1.55 μm	
BEAM DIVERGENCE ANGLE	1 x 1 mrad	0.6 x 0.6 mrad
RANGE FINDER MEASUREMENTS FREQUENCY	1–5 Hz	1, 4, 10, 20 Hz



# *ARCHER*

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