

 **PULSAR**  
IMAGE.QUALITY



**CATALOG  
2018**



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Unique, cutting-edge mobile application that binds together opto-electronics and Android or iOS mobile devices to offer a symbiosis of advanced optic capabilities and the latest digital features. Using standard WiFi, a smartphone or tablet easily connects to Stream Vision compatible Pulsar thermal and digital night vision optics to stream images directly to your personal device, change device settings, view recorded files, update firmware and control the optic remotely.



# STREAM YOUR DISCOVERIES

**STREAM  
VISION**



Available on the  
 **App Store**

ANDROID APP ON  
 **Google play**

New digital technologies invade, enhance and raise standards in every aspect and sphere of our lives. Today, with literally billions of people in every corner of the globe engaged in constant virtual contact with each other, developing cross-platform devices is more important than ever. Like a smartphone, once simply a means of verbal and text communications but now a multi-purpose, multi-

tasking instrument for business and social relations, Pulsar's innovative line of night vision and thermal optics deliver valuable work and entertainment information. Pulsar continues to develop feature-rich devices focused on high-resolution image quality, ergonomics and world-class reliability, we understand that now, more than ever, ease of interface and multi-vector use are equally

important. Stream Vision solves this task by providing a symbiosis of software and hardware platforms designed to connect personal Android and iOS devices, i.e. smartphones, tablets, etc. to Pulsar thermal imaging and digital night vision devices via Wi-Fi.

# Install the App

By installing the Stream Vision App (available in AppStore for iOS and Google Play for Android), thermal imaging and digital night vision operators using Helion, Trail, Accolade, Digsight Ultra or Forward F models benefit from:

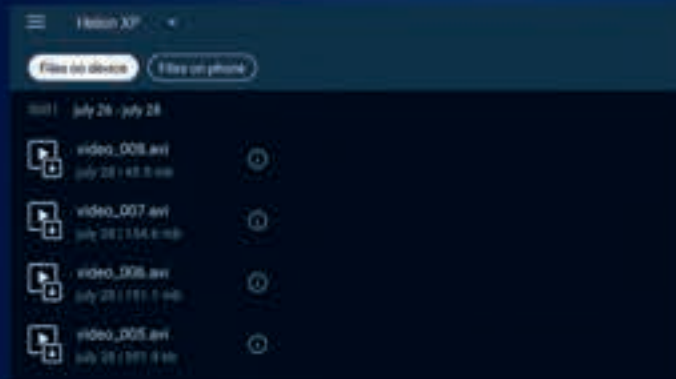


## ⚡ Use your smart phone or tablet as an additional remote control

Stream Vision's proprietary software was developed by Yukon Advanced Optics Worldwide specifically for Stream Vision-compatible Pulsar optoelectronic devices to ensure additional program functionality is easily accessible.



⚡ Comfortable, fatigue-free, streaming field-of-view displayed on wireless devices in real time



⚡ Full content management – view, delete and download photo and video files stored in the device's onboard memory



Transmit images and videos directly to storage or video platforms like YouTube.

# NEW Stream Vision Features



## ⚡ Motion Detection

Motion detection automatically alerts the user to a moving object in the device's field of view. Setting detection accuracy is simple, based on object size and type of notification, sound or vibration. Enhanced accuracy can be obtained by making the device immobile during motion detection.

## ⚡ Ballistic Calculator

The ballistic calculator allows a user to determine precise ballistics for more accurate shooting. Setting up preferred ammunition parameters, weather conditions and other pertinent variables is easy. Once set up, the ballistic calculator determines windage and elevation adjustments required for accuracy, even at long distances. While the ballistic calculator works perfectly with Pulsar riflescopes, calculations also are compatible with other scopes, too.



# Clearest Image Available

**THERMAL**  
TECHNOLOGY

Thermal Imaging Riflescopes

# TRAIL



XQ28

XQ38

XQ50

XP38

XP50

**TRAIL LRF**  
Integrated Laser Rangefinder

Precision shooting begins with knowing the distance to your target. The Trail LRF features an integrated laser rangefinder capable of capturing and displaying target distances accurately, within  $\pm 1$  yd, up to 1000 yds.

**STREAM VISION** 

Available on the  
App Store

ANDROID APP ON  
Google play

# TRAIL

## ⚡ 3 Zeroing Profiles / 15 Distances

Save three individual firearm/ammunition zeroing profiles, including different reticles, at up to five distances, in the Trail's memory. Zoom zeroing support ensures precise zeroing accuracy.

## ⚡ Built-In Video Recorder

Capturing still images and video is seamless with the Trail's built-in video recorder. Image and video content is stored internally and can easily be transferred to PC / laptop via wired connection or Wi-Fi.

## ⚡ Detects up to 2000 Yards Away

Depending on model, Trail thermal imaging riflescopes detect big-game-size heat signatures up to 2000 yds away.



## ⚡ Built-In Accelerometer / Gyroscope

A built-in accelerometer/gyroscope improves accuracy by precisely identifying cant and angles greater than 5° with an arrow indicating the direction and degree of lateral tilting. Increased angles are denoted with additional arrows. Moreover, the riflescope can be set to auto shutdown when resting in a non-shooting position. Unit operation may be disabled when the vertical angle is greater than 70° or horizontal angle is greater than 30°. The accelerometer feature may be temporarily disabled for continued use at excessive angles.

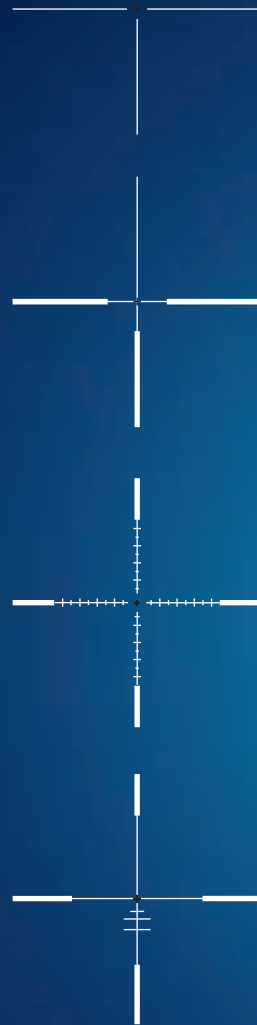




### Mobile-Friendly with Remote Control and Live Internet Streaming



The free Stream Vision App, compatible with both Android and iOS systems, allows users to connect personal smartphones and tablets to Pulsar devices featuring onboard Wi-Fi. When connected, Stream Vision allows users to stream video and images in real time to YouTube, transfer files, update important firmware and control the optic remotely. For more information, refer to the Stream Vision section of our catalog.



### Selectable Reticles

A full complement of digitally displayed reticle solutions ensures quick target acquisition and a richly contrasting sight picture. Choose from an array of reticle patterns, colors and brightness settings.



### B-Pack Power Supply

Trail includes a progressive autonomous B-Pack power supply consisting of a quick-detach, rechargeable IPS5, 5.2A-h battery pack designed to deliver over 8 hrs. of operation on maximum mode. Higher-powered IPS10 battery packs, as well as CR123A and AA battery cases, also are available and provide a perfect off-the-grid power solution.



### Wireless Remote Control

The ergonomic, wireless remote control, with encoder wheel, puts the full range of the Trail's capabilities at your fingertips for comfortable, convenient, hands-off operation.

### Effective Temperature Sensor Stabilization

A heat sink, located on the device's body, effectively prevents heat build-up from the sensor and other components while also significantly reducing temperature and noise sensitivity, especially between calibrations.



**High Recoil Resistance Rating:**  
12 gauge, 9.3x64, .375 H&H  
**Shock Resistance**

The Trail features exceptionally high shock resistance, capable of handling high-powered firearm recoil, up to .375-cal., including smoothbore and airsoft.

**Variable Magnification**

Trail models include variable magnification, up to 8x depending on model, and feature both 2x step-up and smooth, graduated magnification for a truly optimum, customized field of view.

# IPX7

**Fully Waterproof**

IPX7 waterproof-rated protection ensures the Trail performs perfectly in wet weather, even during intense rain, snowfall and submersion in 3 ft. of water for up to 30 min. (IEC 60529).



**Stadiametric Rangefinder**

Based on estimated heights of observed objects, the stadiametric rangefinding reticle makes determining precise distances fast, easy, reliable and repeatable.



# 50Hz -13°F

**High Image Frequency**

At a high refresh rate of 50Hz, the Trail provides comfortable viewing throughout dynamic, rapid motion.

**Wide Range of Operating Temperatures**

With a frost-resistant AMOLED display, the Trail thermal imaging riflescopes are designed to deliver flawless performance at an extreme temperature range of -13°F – 122°F.



**High Resolution**

The Trail XP boasts an uncooled, 640x480px microbolometric matrix, at 17 μm, for highly detailed imaging.

640  
480

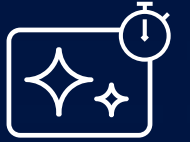
**User-Friendly Interface**

The Trail is designed with ease-of-operation in mind. User feedback has resulted in the most friendly interface to date, complete with an easy-to-read, icon-driven, alpha-numeric status bar at the bottom of the display. Internal menu items and options are also displayed on a contrasting gradient substrate so you can keep an eye on settings without losing sight of your objective.



**Display Off**

During short periods of inactivity and better concealment, Display Off powers down the display without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.



**Picture-in-Picture Mode**

Picture-in-Picture improves accuracy by providing a magnified image of the reticle area at the top of the display. With only 1/10 of the display area reserved for PiP, the field of view remains virtually unobstructed for simultaneous PiP and FOV viewing.

**Updatable Software**

For initial setup and additional updates, the iOS and Android compatible Stream Vision App ensures the most recent Trail software versions are available.

SKU	76512	76501	76516	76503	76518	76507	76517	76509	76519
<b>Model</b>	<b>XQ28</b>	<b>XQ38</b>	<b>LRF XQ38</b>	<b>XQ50</b>	<b>LRF XQ50</b>	<b>XP38</b>	<b>LRF XP38</b>	<b>XP50</b>	<b>LRF XP50</b>
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288@17	384x288@17	384x288@17	384x288@17	384x288@17	640x480@17	640x480@17	640x480@17	640x480@17
Objective lens	F28/1.2	F38/1.2	F38/1.2	F50/1.2	F50/1.2	F38/1.2	F38/1.2	F50/1.2	F50/1.2
Frame rate, Hz	50	50	50	50	50	50	50	50	50
Magnification, x	1.5 - 6	2.1 - 8.4	2.1 - 8.4	2.7 - 10.8	2.7 - 10.8	1.2 - 9.6	1.2 - 9.6	1.6 - 12.8	1.6 - 12.8
Field of view, horizontal & vertical without zoom, deg	13.3x10	9.8x7.4	9.8x7.4	7.5x5.6	7.5x5.6	16.3x12.3	16.3x12.3	12.4x9.3	12.4x9.3
Integrated Laser Rangefinder	no	no	yes	no	yes	no	yes	no	yes
Range of detection, yds	875	1475	1475	2000	2000	1475	1475	2000	2000
Weight (without mount), oz	16.9	18.3	23.6	19.7	25	21.1	23.6	21.8	25



### ⚡ High Resolution

The Trail XP boasts an uncooled, 640x480px microbolometric matrix, at 17 μm, for highly detailed imaging.

640  
480

### ⚡ User-Friendly Interface

The Trail is designed with ease-of-operation in mind. User feedback has resulted in the most friendly interface to date, complete with an easy-to-read, icon-driven, alpha-numeric status bar at the bottom of the display. Internal menu items and options are also displayed on a contrasting gradient substrate so you can keep an eye on settings without losing sight of your objective.



### ⚡ Display Off

During short periods of inactivity and better concealment, Display Off powers down the display without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.



### ⚡ Picture-in-Picture Mode

Picture-in-Picture improves accuracy by providing a magnified image of the reticle area at the top of the display. With only 1/10 of the display area reserved for PIP, the field of view remains virtually unobstructed for simultaneous PIP and FOV viewing.

### ⚡ Updatable Software

For initial setup and additional updates, the iOS and Android compatible Stream Vision App ensures the most recent Trail software versions are available.

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<b>Model</b>	<b>XQ28</b>	<b>XQ38</b>	<b>LRF XQ38</b>	<b>XQ50</b>	<b>LRF XQ50</b>	<b>XP38</b>	<b>LRF XP38</b>	<b>XP50</b>	<b>LRF XX50</b>
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288@17	384x288@17	384x288@17	384x288@17	384x288@17	640x480@17	640x480@17	640x480@17	640x480@17
Objective lens	F28/1.2	F38/1.2	F38/1.2	F50/1.2	F50/1.2	F38/1.2	F38/1.2	F50/1.2	F50/1.2
Frame rate, Hz	50	50	50	50	50	50	50	50	50
Magnification, x	1.5 - 6	2.1 - 8.4	2.1 - 8.4	2.7 -10.8	2.7 -10.8	1.2 - 9.6	1.2 - 9.6	1.6 - 12.8	1.6 - 12.8
Field of view, horizontal & vertical without zoom, deg	13.3x10	9.8x7.4	9.8x7.4	7.5x5.6	7.5x5.6	16.3x12.3	16.3x12.3	12.4x9.3	12.4x9.3
Integrated Laser Rangefinder	no	no	yes	no	yes	no	yes	no	yes
Range of detection, yds	875	1475	1475	2000	2000	1475	1475	2000	2000
Weight (without mount), oz	16.9	18.3	21.9	19.7	23.3	21.1	24.7	21.8	25.4

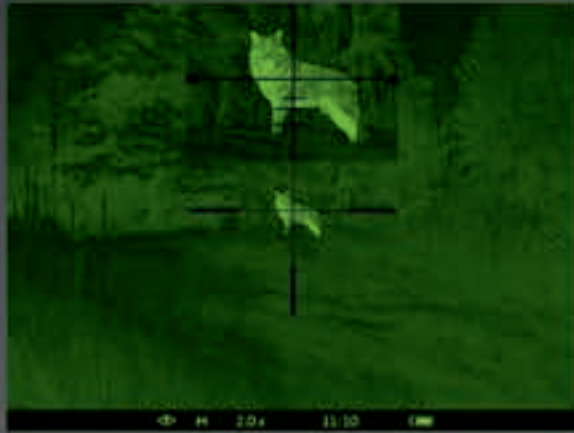


**THERMAL**  
TECHNOLOGY

Thermal Imaging Riflescope

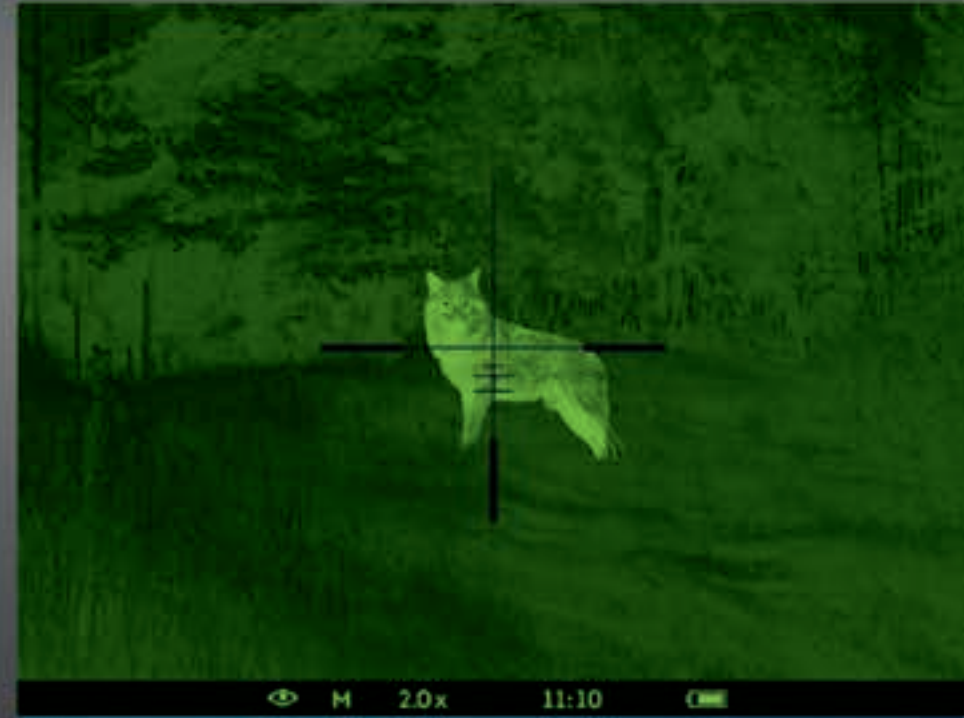
**CORE**

**RXQ30V**



**⚡ Picture-in-Picture Function**

Picture-in-Picture improves accuracy by providing a 2x magnified image of the reticle area at the top of the display. With only 1/10 of the display area reserved for PiP, the field of view remains virtually unobstructed for simultaneous PiP and FOV viewing.



**Green Sapphire AMOLED Display**

The Core's green Sapphire AMOLED screen enhances image quality, improves viewing comfort and reduces eye fatigue.

**⚡ One-Shot Zeroing with "Freeze" Function**

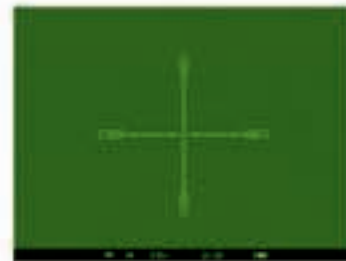
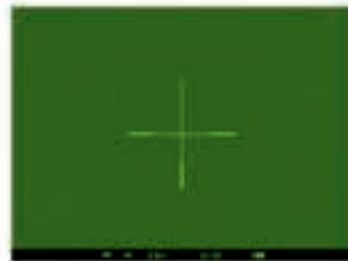
While one-shot zeroing is a standard on all Pulsar digital riflescopes, the Apex adds an additional "Freeze" feature. After the initial zeroing shot, a freeze-frame of the display can be used to align the reticle with the point of impact without requiring the firearm to remain still.

**⚡ 3 Types of Zeroing Parameters Memorization**

Save three individual firearm/ammunition zeroing profiles, including different reticles, at up to three distances, in the Core's memory.

**⚡ Selectable Reticles**

A full complement of digitally displayed reticle solutions ensures quick target acquisition and a richly contrasting sight picture. Choose from an array of reticle patterns and applications stored in the Core RXQ's internal memory.



**⚡ High Shock Resistance**

The Core features exceptionally high shock resistance, capable of handling high-powered firearm recoil, up to .375-cal., including smoothbore and airsoft.



### External Power Supply

The Core RXQ30V includes a universal power adapter. Operation time can be significantly prolonged by using high-capacity external power supply units, which can be attached via a weather-resistant micro-USB port and DC 2.1 x 5.5 mm.

### Display Off

During short periods of inactivity and better concealment, Display Off powers down the display without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.

### Operating Modes

The Core features three operating modes: City (enhanced contrast), Forest (low contrast) and Identification (improved rendering of heat signature details). Each mode optimizes imaging based on viewing conditions.

### Wide Range of Operating Temperatures

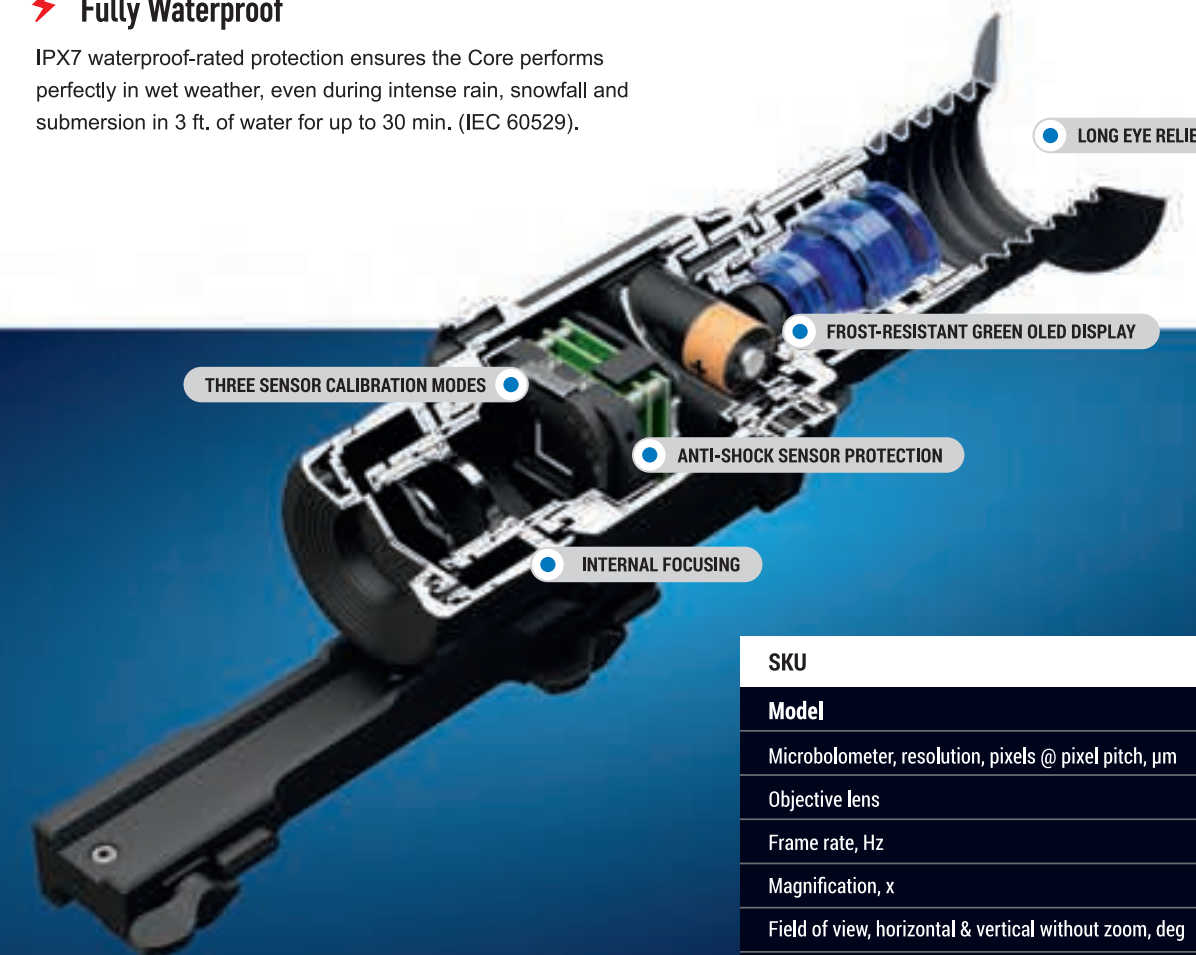
With a frost-resistant AMOLED display, the Core Thermal Imaging Scope is designed to deliver flawless performance at an extreme temperature range of -13° - 122°F.

### Fully Waterproof

IPX7 waterproof-rated protection ensures the Core performs perfectly in wet weather, even during intense rain, snowfall and submersion in 3 ft. of water for up to 30 min. (IEC 60529).

### Wireless Remote Control

An ergonomic, wireless remote control puts basic Core controls at your fingertips for comfortable, convenient, hands-off operation.



SKU	76483
Model	RXQ30V
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288@17
Objective lens	F30/1.6
Frame rate, Hz	50
Magnification, x	1.6 ... 6.4
Field of view, horizontal & vertical without zoom, deg	12.4x9.3
Range of detection, yds	985
Dimensions, in	9.4x2.6x2.4
Weight (without mount), oz	11.3



### ⚡ Wide Range of Operating Temperatures

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Objective lens	F30/1.6
Frame rate, Hz	50
Magnification, x	1.6 ... 6.4
Field of view, horizontal & vertical without zoom, deg	12.4x9.3
Range of detection, yds	985
Dimensions, in	9.2x2.6x2.4
Weight (without mount), oz	11.3





## Thermal Imaging Binoculars

# ACCOLADE

**XQ38F / XP50**

**LRF XQ38F / LRF XP50**

### **Integrated Laser rangefinder**

Some models include laser rangefinding (LRF) technology. Integrated, precision LRF provides precise distancing in two modes: Single Time Measurement and Scanning. Scanning mode allows the shooter to adjust quickly to changing distances for better shot placement.



## Clearest Image Available



Available on the  App Store  ANDROID APP ON Google play



### **Mobile-Friendly with Remote Control and Live Internet Streaming**

The free Stream Vision App, compatible with both Android and iOS systems, allows users to connect personal smartphones and tablets to Pulsar devices featuring onboard Wi-Fi. When connected, Stream Vision allows users to stream video and images in real time to YouTube, transfer files, update important firmware and control the optic remotely. For more information, refer to the Stream Vision section of our catalog.





**⚡ Comfortable for long observation**

The dual eyepiece configuration reduces eye fatigue during longer viewing and enhances the natural look of objects. The human brain is pre-conditioned to receive visual information from two channels simultaneously. The brain then combines the information into a single image. When one eye is used to observe, the brain only receives information a single input. The increased effort from the brain to override the standard algorithm of visual perception can quickly lead to the observer feeling fatigued and uncomfortable.

**⚡ Long detection range**

Detecting objects at long distances is an important feature for optics users in outdoor environments. Optic quality and the best thermal imaging sensor available make a unique combination designed to deliver the longest detection range possible.

**⚡ High resolution thermal imaging sensor**

The high 640x480 pixel resolution ensures all objects within the field of view have the highest level of detail. High sensor resolution makes the smallest objects, i.e. branches, leaves, body extremities of an animal, appear exceptionally crisp and clear against the background.

**⚡ 8 Custom Color Modes**



The 8-color palette enhances viewing in varying conditions. While the classic “White Hot” mode is exceptionally versatile, “Hot Black” is often favored for detecting wildlife at night. Red monochrome helps to reduce or prevent bright backlight from exiting the eyepiece. Sepia often improves long-range observation while “Red Hot”, “Rainbow” and “Ultramarine” enhance temperature differences of various object attributes. Violet helps to identify objects faster.

1800 yds

2000 yds

2200 yds

**IPX7**

**⚡ Fully Waterproof**

Rain, snow, fog, high waves or waterways, the IPX7 waterproof rating ensures the device won't fail in even the toughest wet weather conditions. The IPX7 rating means the device has been manufactured and rigorously tested to withstand extreme natural weather conditions, even submersion to a depth of 1 meter for up to 30 minutes.



**50Hz**

**⚡ High Image Frequency**

At a high refresh rate of 50Hz, the Helion provides comfortable viewing throughout dynamic, rapid motion.

**⚡ Smooth and incremental digital zoom**

Incremental zoom is a perfect solution to quick, on-the-fly zooming. When time is not a limiting factor but slight details are, the device's smooth zoom is the better option.

-13°F



**⚡ Variable interpupillary distance**

The ability to adjust the distance between eyepieces allows the user to best position the optic for individual needs. Interpupillary distance differs from person to person. Adjusting for individual fit dramatically improves viewing comfort and quality, and eliminates the potential for double-imaging.

**Frost resistant AMOLED display**

The device is designed for flawless operation in extreme weather and temperature conditions. Whether the environment is freezing cold or blistering hot, the image retains its contrast and vivid colors without loss of frame rate. The high-contrast, color AMOLED display uses top technology to ensure stable, high-quality imaging in virtually any weather conditions.



**⚡ Quick-change long-life rechargeable battery packs**

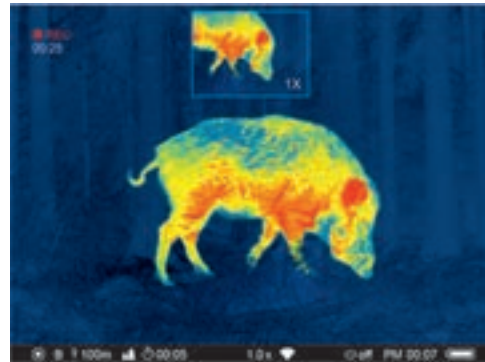
The device's innovative battery-release mechanism ensures fast, flawless battery changes. Rechargeable IPS5 battery packs provide up to 8 hours of continuous operation in Wi-Fi mode.



**⚡ Stadiametric Rangefinder**

The stadiametric rangefinder helps to estimate range to an object based on its size. The device's advanced, proprietary, rangefinding interface provides important ranging information within seconds.

**⚡ "Picture-in-Picture" mode**



Picture-in-Picture provides a second, magnified reticle-area image to help the observer see magnified target details without loss of the field of view.



**⚡ Wi-Fi video transmission**

Broadcasting a video signal directly to a smartphone or tablet makes remote observation significantly easier. When two people are in the field, both can see the image – one on the device's display, the other on their smartphone or tablet screen. When a situation requires covert operation, the observer does not have to hold the unit by hand. Depending on the situation, viewing from a tablet or smartphone may be safer or more convenient.

**⚡ Live internet video sharing**

Connecting the device with a smartphone or tablet allows a user to access the internet and live-stream video directly to YouTube.



**⚡ Calibration modes (Non-uniformity correction)**

A thermal imaging sensor requires calibration or non-uniformity correction (NUC) from time to time. Calibrating reduces or eliminates remaining redundant signals and improves overall image quality. Accolade offers 3 modes of calibration: AUTOMATIC, SEMI-AUTOMATIC and MANUAL. In AUTOMATIC mode, the shutter closes and calibration is performed automatically within defined time intervals and without user participation. In SEMI\_AUTOMATIC mode the shutter closes and calibration is done only when the user presses the calibration button. In MANUAL mode, also called "SILENT", the shutter remains open but the user has to close the objective cap and press the calibration button.

**⚡ Built-in Wi-Fi module**

Observation devices are no longer just optics. Today's devices are increasingly designed to meet multi-tasking requirements dictated by a wider array of scenarios. Turning the unit into a hot spot, complete with ability to connect directly to a smartphone or tablet, increases and enhances features, including the ability to control the device remotely.

**⚡ Observation modes**



Image optimization should be performed depending on the environmental location and conditions. Mountains, cities and forests have different ambient temperatures. In order to achieve the highest possible image quality, certain settings have been optimized and gathered into profiles. As a result, optimized imaging in various conditions is easier. Identification preset is another optimal-imaging option that makes identifying easier, even at longer distances.

**⚡ Built-in video recorder**

The Built-in video recorder is a great asset when it comes to filming or taking photos of once-in-a-lifetime experiences. One press of the REC button captures footage that can be shared easily with colleagues, friends and family.

SKU	77411	77415	77414	77418
<b>Model</b>	<b>XQ38</b>	<b>LRF XQ38</b>	<b>XP50</b>	<b>LRF XP50</b>
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288@17		640x480@17	
Objective lens	F38/1.2		F50/1.2	
Frame rate, Hz	50		50	
Magnification, x	3.1 – 12.4		2.5 – 20	
Integrated laser rangefinder	no	yes	no	yes
Field of view, horizontal & vertical without zoom, deg	9.8x7.4		12.4x9.3	
Range of detection, yds	1350		1800	
Weight, oz	21.2	21.2	21.2	21.2



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Microbolometer, resolution, pixels @ pixel pitch, μm	384x288@17		640x480@17	
Objective lens	F38/1.2		F50/1.2	
Frame rate, Hz	50		50	
Magnification, x	3.1 – 12.4		2.5 – 20	
Integrated laser rangefinder	no	yes	no	yes
Field of view, horizontal & vertical without zoom, deg	9.8x7.4		12.4x9.3	
Range of detection, m	1350		1800	
Weight, kg	0.45	0	0.5	0



Clearest Image  
Available



Thermal Imaging Scopes

# HELION

XQ28F / XQ38F / XQ50F / XP28 / XP38 / XP50

**THERMAL**  
TECHNOLOGY



**Mobile-Friendly with  
Remote Control and  
Live Internet Streaming**

The free Stream Vision App, compatible with both Android and iOS systems, allows users to connect personal smartphones and tablets to Pulsar devices featuring onboard Wi-Fi. When connected, Stream Vision allows users to stream video and images in real time to YouTube, transfer files, update important firmware and control the optic remotely. For more information, refer to the Stream Vision section of our catalog.



**⚡ Detects up to 2000 Yards Away**

Depending on model, the Helion is capable of detecting an average human-size target, dressed in outerwear, against a forest backdrop, at a range up to 2,000 yds.

**⚡ Stadiametric Rangefinder**

Based on estimated heights of observed objects, the stadiametric rangefinding reticle makes determining precise distances fast, easy, reliable and repeatable.



**⚡ Variable Magnification**

Helion models include variable magnification, up to 8x depending on model, and feature both 2x step-up and smooth, graduated magnification for a truly optimum, customized field of view.

**⚡ Wireless Remote Control**

The ergonomic, wireless remote control (optional), with encoder wheel, puts the full range of Helion capabilities at your fingertips for comfortable, convenient, hands-off operation.



**IPX7**

**⚡ Fully Waterproof**

IPX7 waterproof-rated protection ensures Helion Thermal Imaging Scopes perform perfectly in wet weather, even during intense rain, snowfall and submersion in 3 ft of water for up to 30 minutes (IEC 60529).

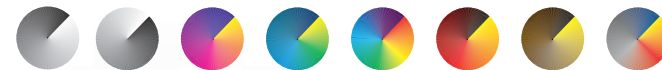


**⚡ Wide Range of Operating Temperatures**

With a frost-resistant AMOLED display, the Helion Thermal Imaging Scope is designed to deliver flawless performance at an extreme temperature range of -13°F – 122°F.

**-13°F**

**⚡ 8 Custom Color Modes**



In addition to user-favorite “white hot” and “black hot” imaging, Helion scopes offer a robust array of color palettes for true colorized temperature mapping. Transitioning from color to default “white hot” during operation is also fast and easy.

Thermal Imaging Scopes

# HELION

## ⚡ Effective Temperature Sensor Stabilization

A heat sink, located on the device's body, effectively prevents heat build-up from the sensor and other components while also significantly reducing temperature and noise sensitivity, especially between calibrations.

## 50Hz

## ⚡ High Image Frequency

At a high refresh rate of 50Hz, the Helion provides comfortable viewing throughout dynamic, rapid motion.



## ⚡ Built-In Video Recorder

Capturing still images and video is seamless with the Helion's built-in video recorder. Image and video content is stored internally and can easily be transferred to PC/laptop via wired connection or wirelessly to your smartphone or tablet with the iOS and Android compatible Stream Vision App.



### ⚡ B-Pack Power Supply

Helion includes a progressive autonomous B-Pack power supply consisting of a quick-detach, rechargeable IPS5, 5.2A-h battery pack designed to deliver over 8 hrs. of operation on maximum mode. Higher-powered IPS10 battery packs, as well as CR123A and AA battery cases, also are available and provide a perfect off-the-grid power solution.

### ⚡ Display Off

During short periods of inactivity and better concealment, Display Off powers down the display without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.



### ⚡ Updatable Software

For initial setup and additional updates, the iOS and Android compatible Stream Vision App ensures the most recent Helion software versions are available.

### ⚡ User-Friendly Interface

The Helion is designed with ease-of-operation in mind. User feedback has resulted in the most friendly interface to date, complete with an easy-to-read, icon-driven, alpha-numeric status bar at the bottom of the display. Internal menu items and options are also displayed on a contrasting gradient substrate so you can keep an eye on settings without losing sight of your objective.



640  
480 X

### ⚡ High Resolution

The Helion XP boasts an uncooled, 640x480px micro-bolometric matrix, at 17 μm, for highly detailed imaging.

640px

480px



SKU	77392	77394	77395	77403	77404	77405
Model	XQ28F	XQ38F	XQ50F	XP28	XP38	XP50
Objective lens	F28/1.2	F38/1.2	F50/1.2	F28/1.2	F38/1.2	F50/1.2
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288@17	384x288@17	384x288@17	640x480@17	640x480@17	640x480@17
Frame rate, Hz	50	50	50	50	50	50
Magnification, x	2.3 – 9.2	3.1 – 12.4	4.1 – 16.4	1.4 – 11.2	1.9 – 15.2	2.5 – 20
Field of view, horizontal & vertical without zoom, deg	13.3x10	9.8x7.4	7.5x5.6	22x16.6	16.3x12.3	12.4x9.3
Range of detection, yds	1100	1475	2000	1100	1475	2000
Dimensions, inch	8.6x2.2x2.3	8.9x2.2x2.3	9.2x2.2x2.3	8.6x2.2x2.3	8.9x2.2x2.3	9.2x2.2x2.3
Weight, oz	14.1	15.9	17.6	14.1	15.9	17.6

	Magnification	Distance	Field of View
XQ23V	1.8x ■ 7.2x	■ 800m	■ 16.5°
XQ30V	2.5x ■ 10x	■ 900m	■ 12.4°



**THERMAL**  
TECHNOLOGY

Thermal Imaging Scopes  
**QUANTUM**  
XQ23V / XQ30V

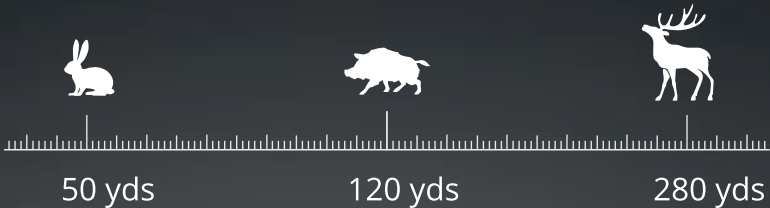


50Hz

9Hz

**High Image Frequency**

At a high refresh rate of 50 Hz, the Quantum provides comfortable viewing throughout dynamic, rapid motion.



**Stadiametric rangefinder**

Bases on estimated heights of observed objects, the stadiametric rangefinding reticle makes determining precise distances fast, easy, reliable and repeatable.



985 yds

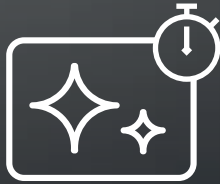
**Long Viewing Range**

Depending on model, the Quantum is capable of detecting an average human-size target, dressed in outerwear, against a forest backdrop, at a range up to 875 - 985 yds.



**Self-Contained Power Supply**

The Quantum is powered by four AA batteries housed in a convenient case and inserted into an easy-to-access battery compartment.



**Display Off**

During short periods of inactivity and better concealment, Display Off powers down the Quantum's screen without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.



**Color Palettes**

The Quantum offers 7 color palettes for true colorized temperature mapping, including user favorites "white hot" and "black hot" modes.

-13°F  
122°F

**Wide Range of Operating Temperatures**

With a frost-resistant AMOLED display, the Quantum Thermal Imaging Scope is designed to deliver flawless performance at an extreme temperature range of -13°F - 122°F.



### ⚡ Power Saving Modes

When a Quantum is inclined vertically in either direction at more than 70° for 1, 3 or 5 minutes (depending on user preferences) the scope will automatically turn off. When video recording is not used, video output may also be disabled to extend battery life. Both options are available in the Quantum's menu.

### ⚡ User Interface

Information about the status of the Quantum, depicted in the form of blue icons and numbers, is located on the data panel in the lower portion of the screen and does not interfere with field-of-view. When toggling between various functions, i.e. digital zoom, color inversion, brightness/contrast settings, etc., the respective, more pronounced icon appears in the upper right corner of the display.



### ⚡ Video Output

The Quantum is equipped with an analog video output to enable connectivity with an external display or recording device.

### ⚡ Calibration

The Quantum offers three calibration modes: Silent Manual ("M"), Automatic ("A") and Semi-Automatic ("H"). "A" mode implies calibration without user participation (process initiation, actuation of the shutter takes place automatically). In "H" mode, the user determines if calibration is required based on image quality. If calibration is needed, the operator uses the "Cal" button. In "M" mode, manual calibration is accomplished by pressing the "Cal" button when the lens cap is closed. "M" mode is recommended for hunting due to silent operation.



● [www.pulsarmv.com](http://www.pulsarmv.com)

### ⚡ Operating Modes

The Quantum features three operating modes: City (enhanced contrast), Forest (low contrast) and Identification (improved rendering of heat signature details). Each mode optimizes imaging based on viewing conditions.



### External Power Supply

Operation time can be significantly prolonged by using high-capacity external power supply units, i.e. Pulsar EPS31/EPS5. When used at low temperatures, the power supply can be kept in a warm place, i.e. under clothing, to prevent rapid discharge.

SKU	77337	77332
<b>Model</b>	<b>XQ23V</b>	<b>XQ30V</b>
Objective lens	F23/1.4	F30/1.6
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288 @ 17	384x288 @ 17
Frame rate, Hz	50	50
Magnification, x	1.8 – 7.2	2.5 – 10
Field of view, horizontal & vertical without zoom, deg	16.5x12.4	12.4x9.3
Range of detection, yds	875	985
Dimensions, in	7x9.4x2.3	7x9.4x2.3
Weight (without batteries), oz	12.3	12.3

### ⚡ Operating Modes

The Quantum features three operating modes: City (enhanced contrast), Forest (low contrast) and Identification (improved rendering of heat signature details). Each mode optimizes imaging based on viewing conditions.



### External Power Supply

Operation time can be significantly prolonged by using high-capacity external power supply units, i.e. Pulsar EPS3/EPS5. When used at low temperatures, the power supply can be kept in a warm place, i.e. under clothing, to prevent rapid discharge.

SKU	77337	77332
<b>Model</b>	<b>XQ23V</b>	<b>XQ30V</b>
Objective lens	F23/1.4	F30/1.6
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288 @ 17	384x288 @ 17
Frame rate, Hz	50	50
Magnification, x	1.8 – 7.2	2.5 – 10
Field of view, horizontal & vertical without zoom, deg	16.5x12.4	12.4x9.3
Range of detection, yds	875	985
Dimensions, in	7x3.4x2.3	7.4x3.4x2.3
Weight (without batteries), oz	11.3	11.8



● [www.pulsarnv.com](http://www.pulsarnv.com)



**THERMAL**  
TECHNOLOGY

Thermal Imaging Scopes &  
Front Attachments

**CORE**  
FXQ38 / FXQ50

## ⚡ Nighttime Shooting Advantages

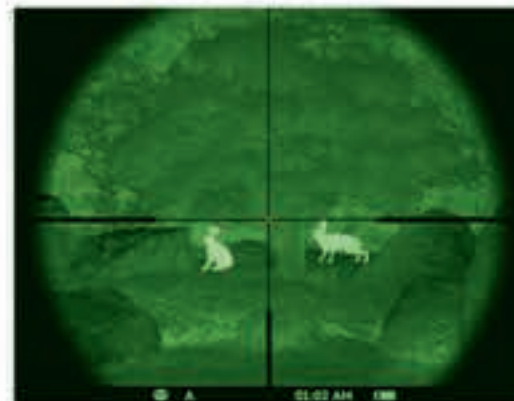
Using the Core Front Attachment includes several benefits over night hunting with traditional optics or even thermal or night vision devices. Attaching the Core to a traditional scope delivers the same creature comforts of shooting with day optics you are accustomed to, including your existing reticle and eye relief. The Core Front Attachment even allows you to continue utilizing your riflescope's variable magnification.

## ⚡ Point-of-Impact Stability

The Core's precision build quality, cutting-edge design and advanced software deliver reliable, repeatable point-of-impact stability without requiring any windage or elevation adjustments from the day optic.

## ⚡ Quick Transformation

Core FXQ38 and FXQ50 devices include a detachable eyepiece for lightning-quick transitions from thermal riflescope attachment to monocular. Mount and dismount the Core without losing zero!

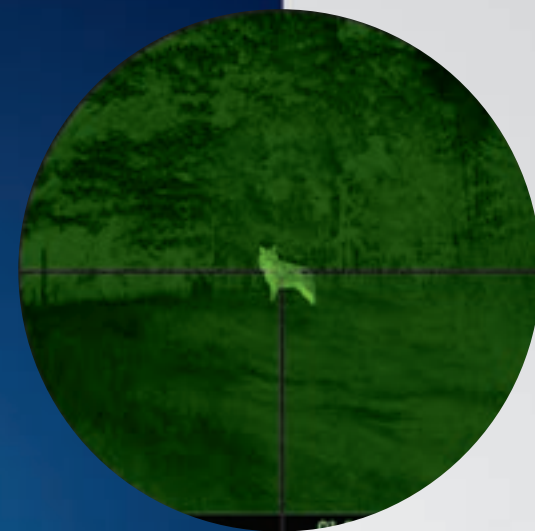


## ⚡ Core: An Alternative to Thermal Riflescopes

With minimal effect to the overall balance of your rifle, the compact, lightweight Core attaches to the front of your riflescope to add thermal imaging capability. The advantage of a Core Front Attachment is the ability to quickly, repeatedly mount and dismount the Core without losing zero or adjusting your shooting position.

## ⚡ Green AMOLED Display

The Core's green AMOLED screen enhances image quality, improves viewing comfort and reduces eye fatigue.



### External Power Supply

The Core FXQ includes a universal power adapter. Operation time can be significantly prolonged by using high-capacity external power supply units, which can be attached via a weather-resistant micro-USB port and DC 2.1 x 5.5 mm.

### Calibration

The Core offers three calibration modes: Silent Manual ("M"), Automatic ("A") and Semi-Automatic ("H"). "A" mode implies calibration without user participation (process initiation, actuation of the shutter takes place automatically). In "H" mode, the user determines if calibration is required based on image quality. If calibration is needed, the operator uses the "Cal" button. In "M" mode, manual calibration is accomplished by pressing the "Cal" button when the lens cap is closed. "M" mode is recommended for hunting due to silent operation.

### Operating Modes

The Core features three operating modes: City (enhanced contrast), Forest (low contrast) and Identification (improved rendering of heat signature details). Each mode optimizes imaging based on viewing conditions.

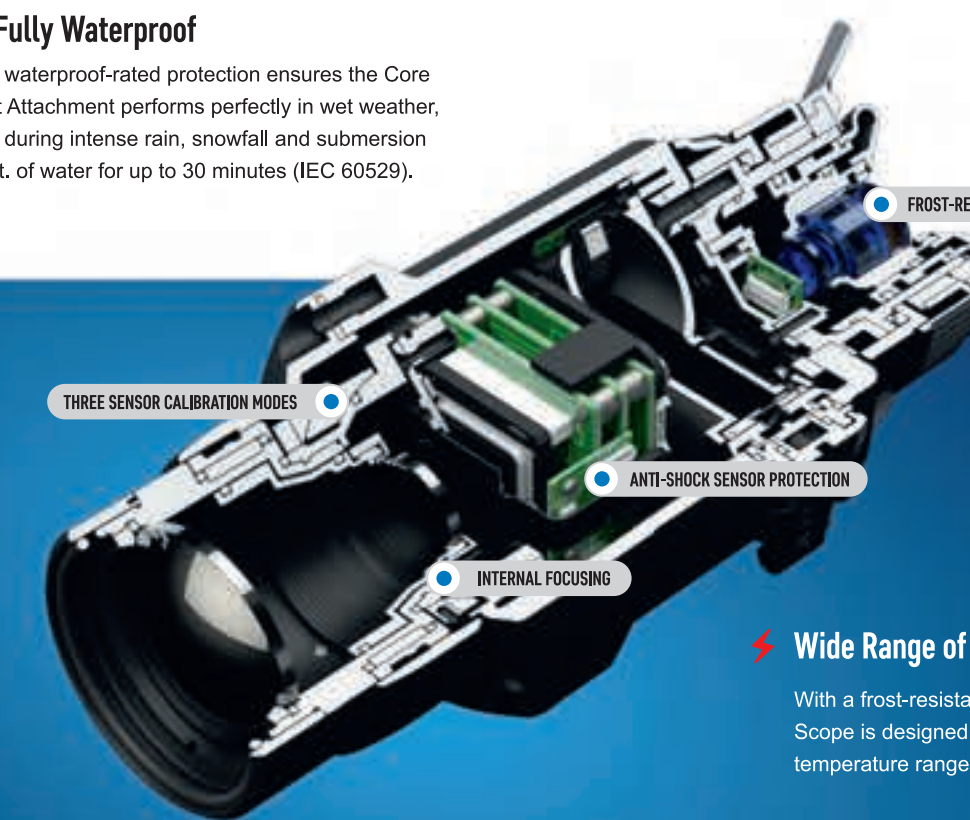


**THERMAL  
TECHNOLOGY**

www.pulsarnv.com

### Fully Waterproof

IPX7 waterproof-rated protection ensures the Core Front Attachment performs perfectly in wet weather, even during intense rain, snowfall and submersion in 3 ft. of water for up to 30 minutes (IEC 60529).



### Wireless Remote Control

An ergonomic, wireless remote control puts basic Core controls at your fingertips for comfortable, convenient, hands-off operation.

### Wide Range of Operating Temperatures

With a frost-resistant AMOLED display, the Core Thermal Imaging Scope is designed to deliver flawless performance at an extreme temperature range of -13°F - 122°F.

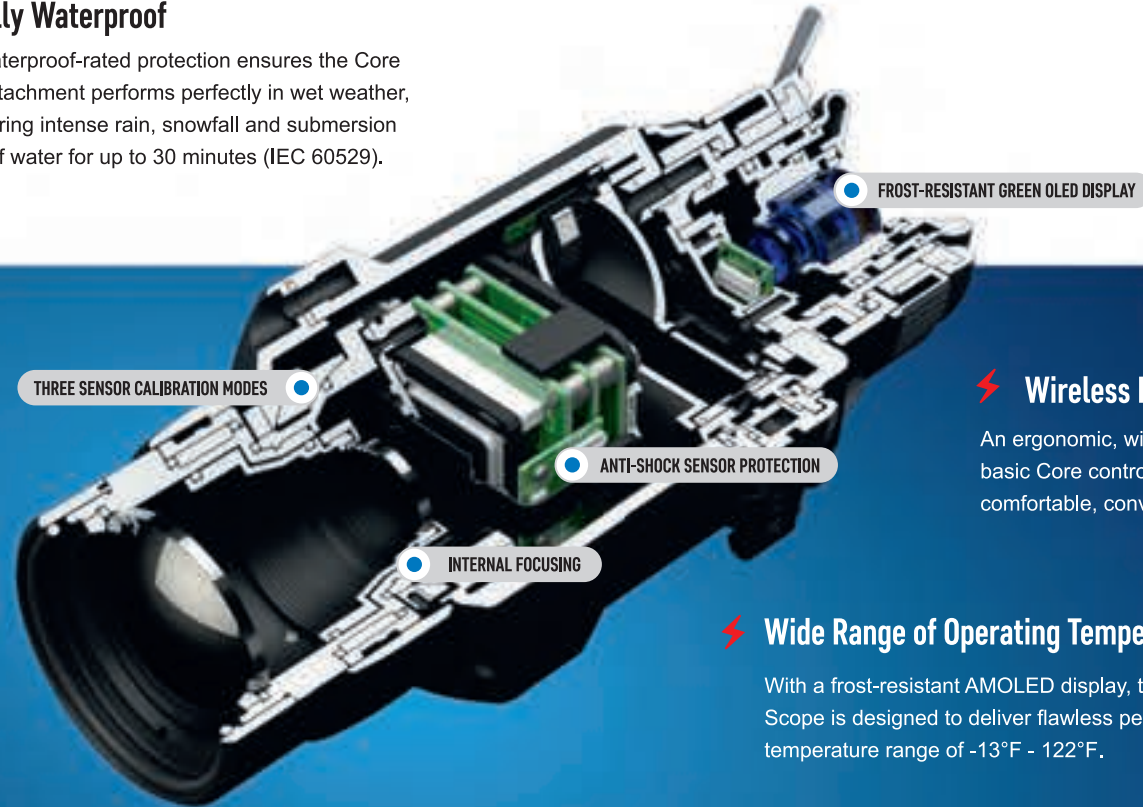
### Compatible with Various Day Optics

The Core is designed to turn most traditional rifle scopes, with objective lens diameters of 40 mm – 56 mm, into thermal imaging devices without effecting point-of-impact. Attach and detach the Core in seconds, without losing zero, using the Core's quick-release bayonet mount.

SKU	76453	76459
Model	FXQ38	FXQ50
Objective lens	F38/1.2	F50/1.2
Microbolometer resolution, pixels @ pixel pitch, μ	384x288 @ 17	384x288 @ 17
Frame rate, Hz	50	50
Magnification in monocular mode / attachment mode, x	3.1 – 6.2 / -	4.1 – 8.2 / -
Range of detection, yds	1475	1950
Recommended magnification of the day scope / sight, x	1 ... 3	2 ... 5
Power supply, V / Battery type	6 / 2xCR123A	6 / 2xCR123A
Dimensions, in	7x2.6x2.4	7.5x2.6x2.4
Weight, without batteries, kg	16.2	16.9

### ⚡ Fully Waterproof

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### ⚡ Compatible with Various Day Optics

The Core is designed to turn most traditional rifle scopes, with objective lens diameters of 40 mm – 56 mm, into thermal imaging devices without effecting point-of-impact. Attach and detach the Core in seconds, without losing zero, using the Core's quick-release bayonet mount.

SKU	76453	76459
<b>Model</b>	<b>FXQ38</b>	<b>FXQ50</b>
Objective lens	F38/1.2	F50/1.2
Microbolometer resolution, pixels @ pixel pitch, μ	384x288 @ 17	384x288 @ 17
Frame rate, Hz	50	50
Magnification in monocular mode / attachment mode, x	3.1 – 6.2 / -	4.1 – 8.2 / -
Range of detection, yds	1475	1950
Recommended magnification of the day scope / sight, x	1 ... 3	2 ... 5
Power supply, V / Battery type	6 / 2xCR123A	6 / 2xCR123A
Dimensions, mm	7.3x2.6x2.4	7.5x2.6x2.4
Weight, without batteries, kg	11.2	14.1

**THERMAL**  
TECHNOLOGY

● [www.pulsar nv.com](http://www.pulsar nv.com)

	Magnification	Distance	IR wavelength
<b>N230</b>	3.5 — 10.5	400m	850nm
<b>N250</b>	5 — 15	500m	850nm
<b>N355</b>	3.5 — 14	600m	940nm



**DIGITAL**  
NIGHT VISION

Digital Riflescopes  
**DIGISIGHT ULTRA**  
N230 / N250 / N355



## ⚡ Enhanced Nighttime Sensitivity

The Digisight Ultra utilizes proprietary software, cutting-edge electronic components and signal-processing algorithms to deliver one of the industry's highest values of sensitivity in infrared spectrum (nighttime sensitivity). The result is a device offering flawless passive-mode performance in deep twilight, even night, without switching on IR illumination.



## ⚡ Color Imaging

While the Digisight Ultra N200th were designed for nighttime use, they also shine during daylight operation with high-resolution color imaging and adjust automatically during dusk-to-dark evening transitions. Digisight Ultra N200th will effectively replace day riflescope when night hunting starts in early twilight. Digisight Ultra N355 features preset color modes for rendering of image captured by sensor. They include monochrome (shades of grey or green) or multicolor modes.

## ⚡ Variable Magnification

Digisight Ultra models include variable magnification, up to 8x depending on model, and feature both 2x step-up and smooth, graduated magnification for a truly optimum, customized field of view.

## ⚡ Built-In Video Recorder

Capturing still images and video is seamless with the Digisight Ultra's built-in video recorder. Image and video content is stored internally and can easily be transferred to PC/laptop via wired connection or wirelessly to your smartphone or tablet with the iOS and Android compatible Stream Vision App.

## ⚡ High Resolution HD Sensor

The Digisight Ultra N230/N250 employs a high-resolution 1280x1024px CMOS sensor for stunning detail, even at significant distances.

## ⚡ Selectable Reticles

A full complement of digitally displayed reticle solutions ensures quick target acquisition and a richly contrasting sight picture. Choose from an array of reticle patterns, colors and brightness settings.

## ⚡ High Shock Resistance

The Digisight Ultra features exceptionally high shock resistance, capable of handling high-powered firearm recoil, up to .375-cal., including smoothbore and airsoft.



## Remote Control and Live Internet Streaming



Using the free, high-tech, iOS and Android compatible Stream Vision app, the Digisight Ultra connects via Wi-Fi to allow transfer of images and video to smartphones and other wireless devices in real time, stream footage to YouTube and other online video platforms (depending on model), and even use your personal device as a wireless remote control!

\* For more information please refer to Stream Vision section of our catalogue.



## ⚡ Stadiametric Rangefinder

Based on estimated heights of observed objects, the stadiametric rangefinding reticle makes determining precise distances fast, easy, reliable and repeatable.



## ⚡ Long-Range Infrared Illuminators

The Digisight Ultra N230/250 extends nighttime shooting distance with a high-intensity, detachable, 850nm IR illuminator, complete with 3 power modes and robust adjustability for precise spot-to-flood throw positioning. Digisight Ultra N355 comes equipped with a undetectable 940 nm IR illuminator operating in the “invisible” range.

# IPX7

## ⚡ Fully Waterproof

IPX7 waterproof-rated protection ensures the Digisight Ultra performs perfectly in wet weather, even during intense rain, snowfall and submersion in 3 ft. of water for up to 30 minutes (IEC 60529).

## ⚡ Picture-in-Picture Mode

Picture-in-Picture improves accuracy by providing a magnified image of the reticle area at the top of the display. With only 1/10 of the display area reserved for PiP, the field of view remains virtually unobstructed for simultaneous PiP and FOV viewing.

## ⚡ 3 Types of Zeroing Parameters Memorization

Save three individual firearm/ammunition zeroing profiles, including different reticles, in the Digisight Ultra’s memory. For each profile, Digisight Ultra models also store five different zeroing distances for each profile.

## ⚡ Built-In Accelerometer / Gyroscope

A built-in accelerometer/gyroscope improves accuracy by precisely identifying cant and angles greater than 5° with an arrow indicating the direction and degree of lateral tilting. Increased angles are denoted with additional arrows. Moreover, the riflescope can be set to auto shutdown when resting in a non-shooting position. Unit operation may be disabled when the vertical angle is greater than 70° or horizontal angle is greater than 30°. The accelerometer feature may be temporarily disabled for continued use at excessive angles.

## ⚡ B-Pack Power Supply

Digisight Ultra includes a progressive autonomous B-Pack power supply consisting of a quick-detach, rechargeable IPS5, 5.2A-h battery pack designed to deliver over 6 hrs. of operation on maximum mode. Higher-powered IPS10 battery packs, as well as CR123A and AA battery cases, also are available and provide a perfect off-the-grid power solution.

IPX7

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IPX7 waterproof-rated protection ensures the Digisight Ultra performs perfectly in wet weather, even during intense rain, snowfall and submersion in 3 ft. of water for up to 30 minutes (IEC 60529).

**Stadiametric Rangefinder**

Based on estimated heights of observed objects, the stadiametric rangefinding reticle makes determining precise distances fast, easy, reliable and repeatable.



**Long-Range Infrared Illuminators**

The Digisight Ultra N230/250 extends nighttime shooting distance with a high-intensity, detachable, 850nm IR illuminator, complete with 3 power modes and robust adjustability for precise spot-to-flood throw positioning. Digisight Ultra N355 comes equipped with a undetectable 940 nm IR illuminator operating in the “invisible” range.

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**B-Pack Power Supply**

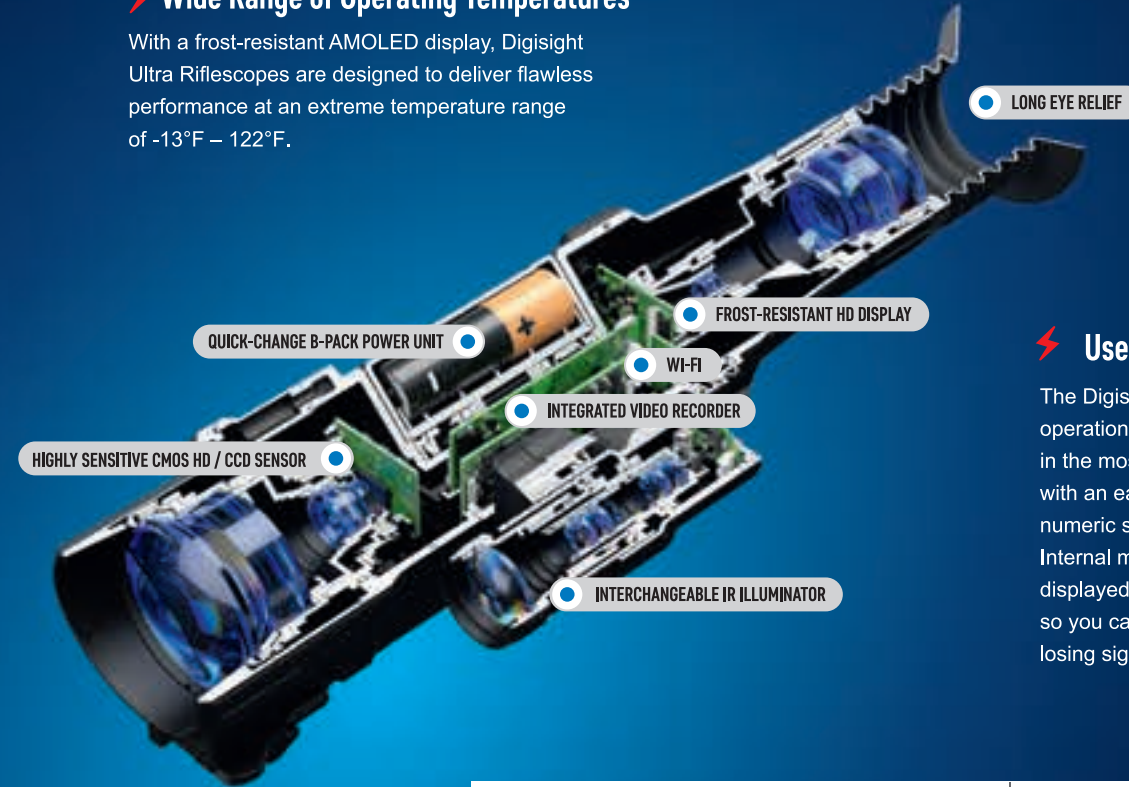
Digisight Ultra includes a progressive autonomous B-Pack power supply consisting of a quick-detach, rechargeable IPS5, 5.2A-h battery pack designed to deliver over 6 hrs. of operation on maximum mode. Higher-powered IPS10 battery packs, as well as CR123A and AA battery cases, also are available and provide a perfect off-the-grid power solution.



www.pulsarnv.com

**Wide Range of Operating Temperatures**

With a frost-resistant AMOLED display, Digisight Ultra Riflescopes are designed to deliver flawless performance at an extreme temperature range of -13°F – 122°F.



**Smart Remote Control**

The ergonomic, wireless remote control, with encoder wheel, puts the full range of Digisight Ultra capabilities at your fingertips for comfortable, convenient, hands-off operation.

**User-Friendly Interface**

The Digisight Ultra is designed with ease-of-operation in mind. User feedback has resulted in the most friendly interface to date, complete with an easy-to-read, icon-driven, alpha-numeric status bar at the bottom of the display. Internal menu items and options are also displayed on a contrasting gradient substrate so you can keep an eye on settings without losing sight of your objective.

**Display Off**

During short periods of inactivity and better concealment, Display Off powers down the Digisight Ultra’s screen without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.

SKU	76361	76362	76370
Model	N230	N250	N355
Sensor type / resolution, px	CMOS HD 1280x1024		CCD 752x582
Display type / resolution, px	AMOLED HD 1024x768		AMOLED 640x480
Spectral sensitivity at 780 / 915 nm wavelength, mW	4·10 <sup>-5</sup> / 5·10 <sup>-5</sup>	4·10 <sup>-5</sup> / 5·10 <sup>-5</sup>	1.5·10 <sup>-5</sup> / 3·10 <sup>-5</sup>
Objective lens	F36/1.2	F50/1.2	F50/1.2
Daytime / Night image coloring	True-color / Black & white		Color palettes
Range of detection, yds	450	550	650
IR Illuminator, type / wavelength, nm	LED / 850	LED / 850	LED / 940 (invisible)
Dimensions (without mount), in	14x2.6x2.9	14.5x2.6x2.9	12.4x2.6x3.9



**DIGITAL**  
NIGHT VISION

Digital NV Scopes & Front Attachments  
**FORWARD F**  
F135 / F155

## Nighttime Shooting Advantages

Using the Forward F Attachment includes several benefits over night hunting with traditional optics or even night vision devices. Attaching the Forward F to a traditional scope delivers the same creature comforts of shooting with day optics you are accustomed to, including your existing reticle and eye relief. The Forward F even allows you to continue utilizing your riflescope's variable magnification.

### ⚡ Simple Mounting

To install the Forward F onto the front optical bell of a day telescopic sight or spotting scope, specially designed mounting assemblies (bought separately) are used. The assemblies are the adapters with various diameters with a set of reducing rings (the rings can be used as necessary depending on the diameter of the optical bell). The adapter is permanently attached to the optical bell of a telescopic sight. This allows the Forward F attachment to be quickly installed in front of the lens for nighttime shooting. When the attachment is not used, the adapter accommodates a protective cap that covers the lens of an optical sight in the daytime.

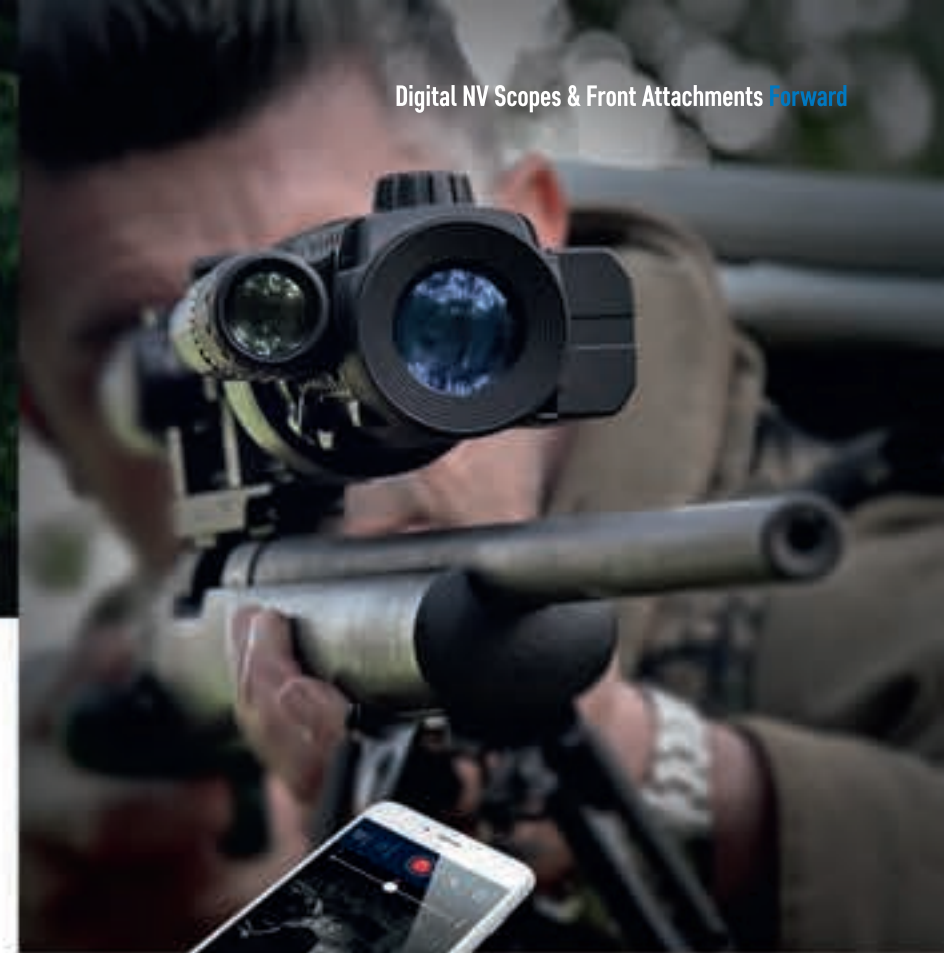


### ⚡ Invisible IR Illuminator

The Forward F comes equipped with a high-intensity, detachable, 940nm IR illuminator, complete with 3 power modes and robust adjustability for precise spot-to-flood throw positioning.

### ⚡ Point-of-Impact Stability

Forward F allows shooters to focus on quick target acquisition and shot placement in low-light environments without stressful, complex adjustments by utilizing a sequential layout of optical and electronic components designed to provide precise sight-alignment and ultra-easy adjustability.



### Remote Control and Live Internet Streaming

**STREAM VISION** 

Available on the  App Store  ANDROID APP ON Google play

Using the free, high-tech, iOS and Android compatible Stream Vision app, the Forward F connects via Wi-Fi to allow transfer of images and video to smartphones and other wireless devices in real time, stream footage to YouTube and other online video platforms (depending on model), and even use your personal device as a wireless remote control!

\* For more information please refer to Stream Vision section of our catalogue.



## ⚡ High Shock Resistance

The Forward F features exceptionally high shock resistance, capable of handling high-powered firearm recoil, up to .375-cal., including smoothbore and airsoft.



## ⚡ Built-In Video Recorder

Capturing still images and video is seamless with the Forward F's built-in video recorder. Image and video content is stored internally and can easily be transferred to PC/laptop via wired connection or Wi-Fi.

## ⚡ B-Pack Power Supply

Forward F includes a progressive autonomous B-Pack power supply consisting of a quick-detach, rechargeable IPS5, 5.2A-h battery pack designed to deliver over 6 hrs. of operation on maximum mode. Higher-powered IPS10 battery packs, as well as CR123A and AA battery cases, also are available and provide a perfect off-the-grid power solution.

## ⚡ External Power Supply

Forward F makes charging from external sources, such as power banks, fast and easy with a micro USB jack. The convenience of power-bank charging even enhances the ability to power up the Forward F during extremely cold weather while also protecting the source from rapid discharge.

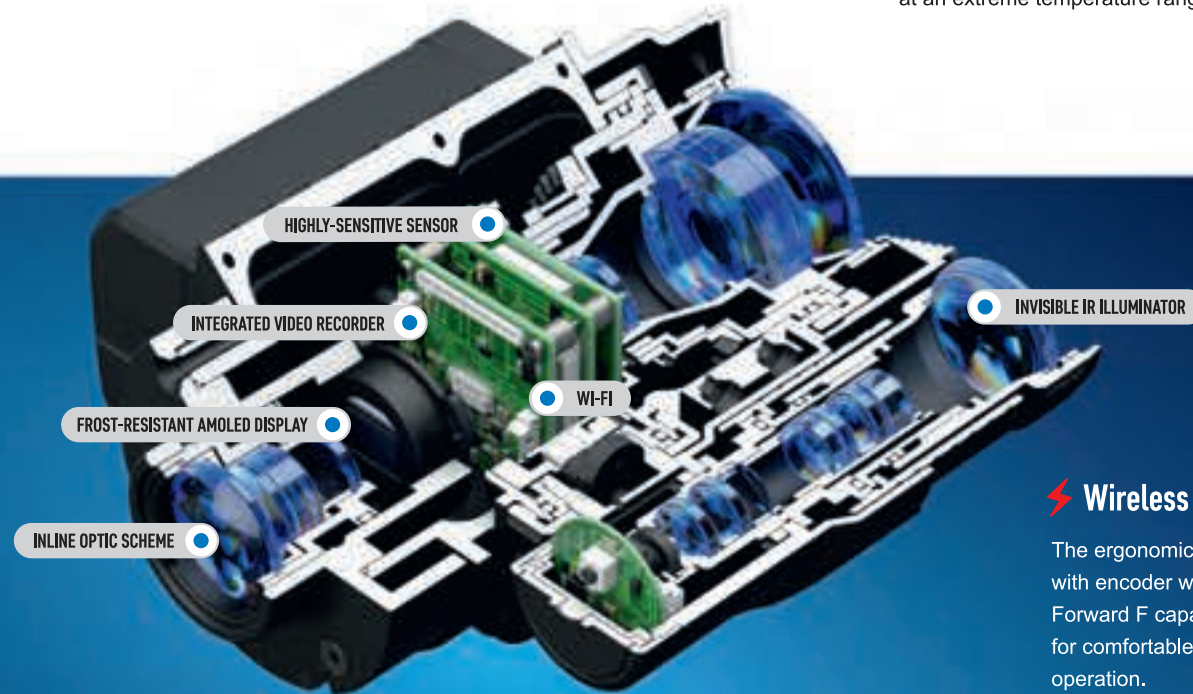


**⚡ Display Off**

During short periods of inactivity and better concealment, Display Off powers down the Forward F's screen without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.

**⚡ Wide Range of Operating Temperatures**

With a frost-resistant AMOLED display, Forward F/FN devices are designed to deliver flawless performance at an extreme temperature range of -13°F – 122°F.



**⚡ Wireless Remote Control**

The ergonomic, wireless remote control, with encoder wheel, puts the full range of Forward F capabilities at your fingertips for comfortable, convenient, hands-off operation.

**IPX7**

**⚡ Fully Waterproof**

IPX7 waterproof-rated protection ensures the Forward F performs perfectly in wet weather, even during intense rain, snowfall and submersion in 3 ft. of water for up to 30 minutes (IEC 60529).

SKU	78132	78102
<b>Model</b>	<b>F135</b>	<b>F155</b>
Sensor type / resolution, px	CMOS 640x480	CMOS 640x480
Objective lens	F36/1.2	F50/1.0
Range of detection, yds	400	500
Spectral sensitivity at a wavelength of 780 / 915 nm, mW	2·10 <sup>-5</sup> / 10·10 <sup>-5</sup>	2·10 <sup>-5</sup> / 10·10 <sup>-5</sup>
Field of View, deg	6.7	4.8
Recommended magnification of the day sight / scope, x	2 – 6	4 – 8
IR Illuminator, type / wavelength, nm	LED / 940 (invisible)	LED / 940 (invisible)
Weight (with IPS5 battery pack), kg	15.2	19

**DIGITAL  
NIGHT VISION**

● [www.pulsarnv.com](http://www.pulsarnv.com)



**ANALOG**  
NIGHT VISION

**EDGE & Night Vision Goggles**  
**CHALLENGER**

GS 1x20



## CF-Super Technology

At the core of Pulsar GS line is a unique R-Contact optics and CF-Super image intensifier tube combination specially designed to provide the highest edge-to-edge resolution performance ever seen in cost-conscious consumer night vision products. CF-Super Technology includes a number of advantages:

### Lack of distortion

Stable, distortion-free imaging at center as well as the peripheral area.

### Effective field of view

High resolution and geometric image precision provided by devices utilizing CF-Super technology provide effective observation at any position within the field of view. By comparison, decent image quality with Gen. 1 devices is generally only found at the center of the field of view.



### High resolution

The CF-Super tube features, on average, 20% higher resolution than available with Gen.1 devices.

### Constant image quality across the entire field of view

CF-Super's resolution is notable for its consistency (resolution difference between the center/periphery does not exceed 20%, in comparison to center/periphery resolution five times greater with Gen. 1 devices).

### Built-In Wide-angled IR Illuminator

Challenger & Edge night vision goggles are equipped with an energy-conserving, wide-angled IR illuminator. The IR's versatility is also useful for map reading and close-quarter illumination in extreme lowlight conditions.



IR off



IR on

- Edge GS 1x20 Night Vision Goggles feature IR illuminator with smooth power adjustment



### ⚡ Edge GS Tube Protection

The Edge GS features an image intensifier tube protection system. Once a luminance threshold is exceeded, current feed to the tube is automatically reduced for ceased, resulting in optimum tube performance.

### ⚡ Body

The rugged metal and carbon-filled composite body protects fragile internal components against moisture, dust and impacts, even in extreme environments.

### ⚡ Eyepiece

Challenger and Edge devices include 5-lens eyepieces designed to increase image sharpness and contrast, and minimize distortion throughout the field of view.

### ⚡ Challenger GS Controls

Challenger GS controls were designed with simplicity in mind. A single switch sequentially turns on the unit and IR illuminator.

### ⚡ Edge GS Controls

The Edge night vision binoculars are easy in operation. The device and IR illuminator are switched by pressing buttons (ON and IR respectively) located on the top of the body. Additionally, the Edge night vision goggles are equipped with a gradual IR illuminator power adjustment function. The wheel-shaped power controller is located next to the IR illuminator activation button.



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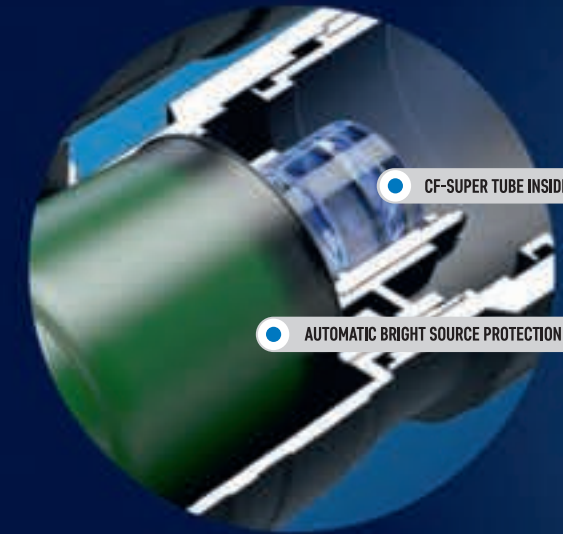
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### ⚡ Weaver Rail

A Weaver rail attached to Edge GS and Challenger devices, provides the perfect solution for adding accessories like IR flashlights.



### ⚡ Head Mount

The Pulsar Compact Head Mount, included with Challenger GS 1x20 Head Mount Kit and Edge GS 1x20 Night Vision Goggles, offers hands-free night vision viewing. The Compact Head Mount positions the Edge or Challenger perfectly in front your eyes and provides amazing stability, even during rapid movement, i.e. walking, running and other abrupt movements, while an ergonomic design keeps the suspension-point close for reduced load on the neck and overall fatigue. Combined with a night vision device, the Compact Head Mount is ideal for high-tech military-inspired games, night hiking, surveillance, trekking to and from hunting positions, etc.

### ⚡ Eyecup

The soft rubber eyecup increases viewer comfort while trapping light emission from the device for improved concealment.

SKU	74095	75095
<b>Model</b>	<b>Challenger GS 1x20</b>	<b>Edge GS 1x20</b>
Type	Monocular	Binoculars
Image tube type / generation	CF-Super / 1+	CF-Super / 1+
Magnification, x	1	1
Objective lens, mm	20	20
Field of view, deg	36	36
IR Illuminator	LED 805 nm	LED 805 nm
Detection range, yds	100	100
Dimensions, in	6.4x3.1x2.2	6.4x4.4x2.4
Weight, oz	17.6 incl. head mount	30 incl. head mount



# ACCESSORIES

## Thermal imaging lenses

Interchangeable objective lenses for Helion XP series.



**79053 F28 Thermal imaging lens**  
F28/1.2.  
Provides magnification 1.4 - 11.2x and detection distance up to 1100 yds. Quick bayonet mounting. Waterproof.



**79054 F38 Thermal imaging lens**  
F38/1.2.  
Provides magnification 1.9 - 15.2x and detection distance up to 1475 yds. Quick bayonet mounting. Waterproof.



**79055 F50 Thermal imaging lens**  
F50/1.2.  
Provides magnification 2.5 - 20x and detection distance up to 1950 yds. Quick bayonet mounting. Waterproof.

## External infrared illuminators

Allows raising efficiency of night vision devices in low light conditions. Smooth power adjustment. Beam focusing. Adjustable IR Spot Position. Weaver mounted.



**79071 Pulsar-805**  
LED 805 nm, 30 - 200 mW.  
Effective use with NV devices of all types.

**79076 Pulsar - 940**  
LED 940 nm (invisible), 30 ... 200 mW. For the use with digital NV devices.

## Attachable infrared illuminators

Interchangeable infrared illuminators for Forward F NV attachments and Digisight Ultra riflescopes. 3-Step power adjustment. Beam focusing. Adjustable IR spot position. Powered by the NV device.



**79137 Pulsar Ultra-850**  
LED 850 nm.  
Long range.

**79139 Pulsar Ultra-940**  
LED 940 nm.  
Invisible range.

## Pulsar Riflescopes Rifle Mounts

The mounting holes in the base of Pulsar riflescopes enable the mount to be installed in one of multiple positions. This choice helps the user to ensure the most suitable position on a rifle scope.



**79045 Weaver Rifle Mount**  
Designated for installation of riflescope on Weaver or Picatinny rails. Total length 6.8". Length of mounting part 4.4". Distance between the centers of locking screws 3.4"



**79046 MAK Adapter**  
Allows to equip the riflescopes with a monoblock mounts MAK (MAK Milmont, MAR Flex and others) for further installation on the weapon.



**79047 Prism 14/200 Rifle Mount**  
Universal base for placing mounts of different manufacturers including EAW (Apel), Blaser, MAK and others.



**79048 Los/Dovetail Rifle Mount**  
Allows installation of riflescopes on carbines «Los 7-1», «Los 4», «Bars 4-1» and other weapons manufactured in Russia and Europe, that have upper mount «dovetail».



**79127 Weaver QD112 Rifle Mount**  
Quick-release mount for installation of riflescope on Weaver or Picatinny rails. Total length 8". Distance between the centers of locking screws 4.7".



**79128 Weaver QD212 Rifle Mount**  
Quick-release mount for installation of riflescope on Weaver or Picatinny rails. Total length 9.5". Distance between the centers of locking screws 4.7".



**79129 CZ550 Rifle Mount**  
Quick-release mount. Allows installation of riflescopes on carbine CZ-550.



**34000 Pulsar LQD Rail Mount**  
The improved Pulsar Locking QD Mount is a true return to zero QD mount, ideal for shooters using Pulsar optics on AR-15 and MSR platform rifles. The mount is half the length of the standard mount and features a locking switch to prevent the latch from accidentally opening. The Locking QD Mount is compatible with Pulsar Trail, Apex, Digisight and Core series riflescopes and includes 3 mounting screws.

## B-Pack power system

Is a set of interchangeable standard power supplies for Trail / Helion / Digisight Ultra / Forward F.



### 79114 Battery Pack IPS 5

Capacity 5.2 A•h  
Operating time 8 ... 10 h  
Smart charging



### 79115 Battery Pack IPS 10

Capacity 10.4 A•h  
Operating time 16 ... 20 h  
Smart charging



### 79119 BPS 3xAA Battery Holder

Capacity 1.5 ... 2 A•h  
Operating time 2 ... 3 h



### 79164 IPS Battery Charger

Intended for charging the  
IPS5 / IPS10 battery packs.

## Pulsar DNV power supplies

dimensions allow to place them in the battery compartments of Quantum thermal imaging scopes.



### 79167 Pulsar DNV Battery Double Pack

Rechargeable (supplied with a  
charger). 2 time increase of operating  
time.



### 79116 Pulsar DNV Battery holder

Spare battery container for Quantum.

## External power supplies

are feature greater capacity as compared to regular batteries which increases operation time of digital NV units and thermal imaging scopes several times.



### 79110 Pulsar PB8I power bank

Capacity 8 A•h, Weaver mount,  
waterproof (IPX7), output voltage 5V,  
battery level indicator. Compatible  
with Trail / Helion / Digisight Ultra /  
Forward F / Digiforce 860RT.



### 79112 Battery Pack EPS5

The EPS5 (5Ah) is outfitted with a one  
meter cable which allows it to be  
placed underwear in freezing  
conditions and to prolong operating  
time (EPS3I unit is supplied with a  
extension cable).



### 79113 Battery Pack EPS3I

The EPS3I (2.4Ah) has a rigid plastic  
case and can be installed on any  
devices outfitted with a Weaver rail or  
¼ inch tripod mount. Features an  
integrated LED battery level indicator.

## Forward F / Core FXQ Accessories

### Cover ring adapters

Cover ring adapters are special mounting units, that enable installation of Forward F / Core FXQ attachments in front of the objectives of day optic devices (riflescopes, spotting scopes and binoculars). Adapters are supplied with a set of insert rings (the choice of the insert ring is defined by the outer diameter of the objectives housing of optic device). After installation the adapter stays constantly on the objective of optic device which allows installing the thermal of digital attachment in front of the objective swiftly. During the day when the attachment is not used, adapter serves as the mount for the protective cover (included in the package), which protects the optics of day riflescope.



### 79124 DN 42 mm Cover Ring Adapter

2-point quick bayonet mounting.  
Compatible with Core FXQ models.



### 79125 DN 50 mm Cover Ring Adapter

int quick bayonet mounting.  
Compatible with Core FXQ models.



### 79126 DN 56 mm Cover Ring Adapter

2-point quick bayonet mounting.  
Compatible with Core FXQ models.



### 79127 FN 42 mm Cover Ring Adapter

4-point quick bayonet mounting.  
Compatible with Forward F models.

# ACCESSORIES



**79128 FN 50 mm Cover Ring Adapter**  
4-point quick bayonet mounting.  
Compatible with Forward F models.



**79129 FN 56 mm Cover Ring Adapter**  
4-point quick bayonet mounting.  
Compatible with Forward F models.



**79092 Challenger GS 1x20 2x Lens Converter**  
Afocal lens converter increasing the magnification of the Challenger CS 1x20 2 times



**79032 NV Compact Head Mount**  
The NV Compact Head Mount allows hands-free operation of the night vision device and ensures its stable positioning even while in fast motion (pacing, running, abrupt movements). All adjustments of the head mount, such as 90 degrees raise of the unit, set the NV device's position in the "forward-backward" directions relative to the eyes are made by one hand.



**79154 Pulsar C-Clamp Mount**  
Tripod for mounting of optical devices on various constructive elements (handrails, crossbars, beams). Tripod has a swivel head with ¼ inch screw with a quick-release plate.



**79155 Pulsar Tree mount**  
Tripod for mounting of optical devices weighing under 1 kg on vertical elements (trunks of trees, poles, columns) under 50 cm in diameter. Tripod has a swivel head with ¼ inch screw with a quick-release plate.



**79156 Pulsar window frame mount**  
Tripod for mounting of optical devices on outside elements of standard PVC windows or any other suitable windows. Tripod has a swivel head with ¼ inch screw with a quick-release plate.



**79153 Yukon Nonslip Phone stand**  
The Pulsar Nonslip Phone Stand is designed to put a smartphone in a vertical position. Non-slip material allows you to securely install it on a horizontal surface (such as a table), or surface with a slight slope (such as car dashboard).

## Other accessories



**79041 NV Challenger GS 1x20 DOS adapter**  
Combined with the Challenger GS 1x20 monocular adapter allows use of soft air guns with a day optical riflescope for night shooting. The reticle of the riflescope is perfect for aiming. The adapter comes equipped with reducing rings to affix the night vision device onto day riflescope and provide the benefit of various eyepiece diameters. To increase brightness of the image and range of shooting, additional Pulsar IR Flashlight can also be affixed on the adapter.



**79081 Pulsar Neck Strap**  
The Pulsar neck strap is designed to be fixed to the devices which are equipped with ¼ inch tripod socket. It can be used with thermal imagers Quantum, night vision devices Challenger etc. The length of the neck strap can be adjusted what makes it comfortable to carry both on the shoulder and the neck. The Pulsar neck strap ensures secure grip of the unit and prevents the device from slipping out from hands.



**79141 Pulsar RCC wireless remote control**  
Ergonomic controls  
Effective coverage up to 4 meters.  
Compatible with Trail / Helion / Digisight Ultra / Vivid / Forward F.



**North America**  
[www.pulsarnv.com](http://www.pulsarnv.com)

**International**  
[www.pulsar-nv.com](http://www.pulsar-nv.com)