# **TACTICAL THERMAL**

THERMAL / NIGHT VISION SYSTEMS

# TACTICAL SERIES

**Night Vision / Thermal** 





# **RETICLE SYSTEM** HAND-HELD









TTWS / TTM-14 / TTV / PVS-14 / PVS-7

# $\mathsf{TTV}$

**Tactical Thermal Viewer** The TTV Tactical Thermal Viewer is a Made in the USA system that is tactical, affordable and high performance all in a compact ruggedized package. Using a 640x480 or 320x240 thermal sensor and a OLED micro display combined with high precision glass and germanium optics the TTV can detect targets at long range. The central part of the systems design is that it has Inter-Changable Lenses so that the user can change magnification on demand.





Hand-Held Viewer







**Tactical Design** 



# TACTICAL SERIES

**THERMAL / NIGHT VISION** 

TTWS / TTM-14 / TTV / PVS-14 / PVS-7

# **TTWS Light**

**2x Thermal Weapon Sight** 



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# **TTWS Medium**

**3x Thermal Weapon Sight** 



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# **TTWS Heavy**

**6x Thermal Weapon Sight** 



TTM-14

**Thermal Monocular** 

# TTV

# **Thermal Viewer**





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# AN/PVS-14

**Night Vision Monocular** 



**Night Vision Goggle** 





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**Thermal / Night Vision** 

# **TTWS**

THERMAL WEAPON SIGHT

TTWS / TTM-14 / TTV / PVS-14 / PVS-7

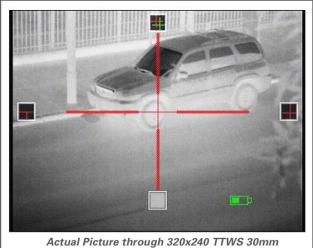


Tactical Thermal proudly introduces the New TTWS Tactical Thermal Weapon Sight system designed to meet the needs of the individual user to aid in ground based night operations. The system is setting the pace for future thermal devices that are weapon mountable as well as hand held.

The TTWS is a multi-purpose system using the latest in miniature thermal sensor technolgy combined with the new OLED Display to provide a superior stable image in the smallest package available. The system also includes an array of features that help the user to enhance the sight to meet all of their requirments. The TTWS is one of the most capable thermal sighting systems on the market and comes with a very affordable price point.

The Standard TTWS gives the user basic sighting features such as adjustable and selectable digital retical as well as multiple colors.

	Sensor Type Uncooled	I VOx Thermal Weapon Sight
	Resolution	320 x 240 / 640 x 480
	Frame Rate	30hz (60hz optional)
	Thermal Sensitivity	<50mk
2	Spectral Responce	7 - 14 um
SPECIFICATION	Weapon Mount Sta	ndard Picatinny Rail Grabber
S A	Sighting System	Digital Retical
S .	Adjustments	Windage and Elevation
SPE	Reticals	4 colors, 4 patterns
U,	CONTRACTOR OF THE CONTRACTOR O	Organic Light Emitting Diode)
-	Display Resolution	768 x 576 / 800 x 600
-	Battery Type 3	each Type 123 3 volt Lithium
-	System Run Time	Over 8 hours
	Start-Up	4 seconds





# **TTWS Light**

# **Thermal Weapon Sight**

The TTWS Light is designed for small caliber weapons like the M4 and M16. The sight has a 30mm Lens with a 15 degree field of view that will give 2x magnification and 4x with the electronic zoom.



# **TTWS**

THERMAL WEAPON SIGHT

TTWS / TTM-14 / TTV / PVS-14 / PVS-7

	Focal Length			30mm
40	Lens Speed			F / 1.2
RES	Optical Magnif	ication		2x
FEATU	E-Zoom			4x, 8x
	Range		3,000m	Detection
	Weight			785 grams
	Dimensions	L - 6.75"	H - 2.90"	W - 2.75"

# **TTWS MEDIUM**

# **Thermal Weapon Sight**

The TTWS Medium is designed for larger caliber weapons such as 7.62mm and 308. The sight has a 50mm Lens with a 10 degree field of view that will provide 3x magnification and 6x with electronic zoom.



	Focal Length			50mm
	Lens Speed			F / 1.2
2 2 2	Optical Magnif	ication		3x
	E-Zoom			6x, 12x
1	Range		5,000m	Detection
	Weight			926 grams
	Dimensions	L - 7.80"	H - 3.00"	W - 2.75"

100mm

F / 1.6

6x

# **TTWS Heavy**

# **Thermal Weapon Sight**

The TTWS Heavy is designed for light to medium machine guns and sniper rifles. The sight has a 100mm Lens with a 5 degree field of view that will give 6x magnification



THERMAL MONOCULAR

TTWS / TTM-14 / TTV / PVS-14 / PVS-7



# **Tactical Thermal** Monocular

The TTM-14 has become the smallest thermal imaging monocular system today. It features extremely small size and low weight because of its advanced construction and characteristics using the latest technologies in high grade polymers to make a Mil. Spec. system that is identical in size, weight and shape to a AN/PVS-14.

## **SPECIFICATIONS**

Sensor Type Uncooled VOx (Vanadium Oxide)

## Resolution

320 x 240 / 640 x 480

# Frame Rate

60hz / 30hz

## **Thermal Sensitivity**

<50mk

## **Spectral Responce**

- 14 um

### Display Type

**OLED (Organic Light Emitting Diode)** 

## **Display Resolution**

## Modes

E-Zoom, Polarity, 8 Color Modes

### Magnification

1x - 320x240	(17mm Lens)
2x - 320x240	(35mm Lens)
.5x - 640x480	(17mm Lens)
1x - 640x480	(35mm Lens)

## Reticle System

Option

# Start Up Time

>4 Seconds

# Video Output

Analog RS-170

Battery Type 1 each CR123 3 volt (option 2 battery)

# **Battery Life**

2+ Hours (4+ with Optional)

## Weight

350 grams

Dimensions 3.40" L x 2.20" H x 1.95" W

# Diopter

## Eye Relief 27 mm





TTM-14-S-320-17MM 320 x 240 / 17mm - 19° FOV / 10° FOV 2x E-Zoom
TTM-14-S-640-17MM 640 x 480 / 17mm - 36° FOV / 18° FOV 2x E-Zoom
TTM-14-S-320-35MM 320 x 240 / 35mm - 9° FOV / 5° FOV 2x E-Zoom
TTM-14-S-640-35MM 640 x 480 / 35mm - 18° FOV / 9° FOV 2x E-Zoom



# **Head Mountable**

# **Hands Free Operation**

TTM-14-JA100 Adapter - J-Arm Head Mount Adapter
TTM-14-HS100 Head Strap - Standard Military Head Gear

Designed to use the same accesories as the AN/PVS-14 night vision monocular system the TTM-14 has many options available for head mounting.

The easiest is the easy to use J-Arm bracket and a standard head strap.



# **TTM-14**

THERMAL MONOCULAR

TTWS / TTM-14 / TTV / PVS-14 / PVS-7

# **VPT Integration**

## Variable Pivot Technology

The TTM-14 uses a Patent Pending technology called VPT (variable pivot technology) that allows the user to rotate the screen to match the angle of the TTM-14. VPT comes in to use whenever the monocular is helmet or weapon mounted.



# **TTM-14 Thermal Monocular Kit**

## The TTM-14 Basic Kit includes:

TTM-14 Thermal Monocular J Arm Head Mount Adapter Head Strap Eyecup Ring Eyecup 1 each Battery Objective Lens Cap Hard Storage Case Lens Tissue Demist Shield Operator Manual Quick Reference Guide



# **TTV**

THERMAL VIEWER

TTWS / TTM-14 / TTV / PVS-14 / PVS-7



# TTV Tactical Thermal Viewer

The TTV is one of the most affordable thermal systems on the market today that includes a full  $320 \times 240$  resolution sensor and full frame rate output. One of the most unique features is the ability to inter-change the objective lens so that you can have multiple magnifications making the TTV truly versatile. Combine that with a large range of standard features such as color modes, polarity, video out and e-zoom.

The TTV is a multi-purpose system using the latest in miniature thermal sensor technolgy combined with the new OLED Display to provide a superior stable image in a compact package. The system also includes a basic image capture and review mode. The TTV is one of the most capable thermal viewers on the market at such an affordable price.



ncooled VOx Thermal Weapon Sight	Sensor Type \	
320 × 240 / 640 × 480	Resolution	SPECIFICATION
9hz, 30hz, 60hz	Frame Rate	
<50mk	Thermal Sensitivi	
7 - 14 um	Spectral Responde	
1x, 2x, 4x or 6x	Magnification	
2x and 4x (8x on 640x480)	E-Zoom	
Standard 1/4-20 Thread	TriPod	
10 Options	Color Modes	SPE
OLED (Organic Light Emitting Diode)	Display Type	U,
800 x 600	Display Resolution	
1 each Type 123 3 volt Lithium	Battery Type	
2 hours	System Run Time	
4 seconds	Start-Up	



THERMAL VIEWER

TTWS / TTM-14 / TTV / PVS-14 / PVS-7

# 1x - 14mm Lens Options TTV Tactical Thermal Viewer

TTV-32-14MM 320 x 240 / 14mm - 25 $^{\circ}$  FOV / 12.5 $^{\circ}$  FOV 2x E-Zoom TTV-64-14MM 640 x 480 / 14mm - 45 $^{\circ}$  FOV / 22.5 $^{\circ}$  FOV 2x E-Zoom

The TTV with the 14mm gives the user a 1x magification system. This is our ultra compact lens that is ideal for target locating with a WFOV.



# 4x - 5 TTV Ta TTV-54-50MM

# 4x - 50mm Lens Options TTV Tactical Thermal Viewer

TTV-32-50MM 320 x 240 / 50mm - **7**° FOV / 3.5° FOV 2x E-Zoom TTV-64-50MM 640 x 480 / 50mm - **14**° FOV / 7° FOV 2x E-Zoom

The TTV with the 50mm gives the user a 4x magification system. The 50mm lends itself to the surveillance and forward observer applications.



TTWS / TTM-14 / TTV / PVS-14 / PVS-7



# PVS-14

# AN/PVS-14

# Night Vision Monocular

Standard Issue Night Vision

ATNs PVS-14/6015 are rugged, lightweight and versatile night vision monoculars, designed for the most demanding of nighttime applications. The PVS-14/6015 can be handheld, head/helmet-mounted for hands-free usage or adapted to cameras/camcorders. Originally designed for the U.S. military, these units are of the highest quality in optics, design and functionality. They are available with various image intensifier tube configurations to meet a wide array of specification requirements. The ATN PVS-14/6015 is an outstanding choice for professional night vision applications. The PVS-14 model has a Variable Gain Control to manually adjust the IIT brightness.

FEATURES	Generation	Generation II or III
	Performance	High Grade
	Resolution	64 to 72 lp/mm
	Sensitivity	Up to 30,000X Gain
	Objective Lens	1x f/1.2
	Field of View	40 degree
	Eyepeice	26mm Eye Relief
	Battery	1 each AA
FEA	Battery Life	Up to 50 hours continuous
Н	Operating Temperature	-51c to +49c
	Interface	Head, Helmet and Weapon
	Weight	12.5 ounces
	Dimensions	4.5" x 2.25" x 2"
	Enviromental	Mil. Spec.





**NIGHT VISION GOGGLE** 

TTWS / TTM-14 / TTV / PVS-14 / PVS-7



Standard Issue Night Vision



The ATN PVS-7 is a full robust, dependable, high performance night vision goggle. This model is identical to AN/PVS-7 model adopted as a standard issue to US Army ground troops and designed to assist viewing and provide reliable service in the most unfavorable conditions. The ATN PVS-7 also incorporates an infrared illuminator with a momentary and continuous on switching function. The ATN PVS-7 comes complete with a lightweight, fully adjustable military head mount that allows for comfortable long term use. Full U.S. Mil Spec body with goggle assembly, soft carrying case, demist shield, sacrificial filter for objective lenses and shoulder strap, head mount assembly, lens tissue, neck cord and front lens cap.



	Generation	Generation II or III
	Performance	High Grade
	Resolution	64 to 72 lp/mm
	Sensitivity	Up to 30,000X Gain
	Objective Lens	1x f/1.2
FEATURES	Field of View	40 degrees
	Battery	2 each AA
	Battery Life	Up to 30 hours continuous
Ë	Diopter	+2 / -6
	Interpupillary	55mm to 71mm
	Interfaces	Head and Helmet
	Weight	24 oz.
	Length	6.4" 3.0" x 6.0"
	Enviromental	Mil. Spec.
- 3		







# **OEM PRODUCTS**

# We Can Help

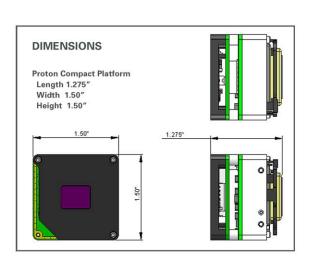
T3 gives you the Platforms in both Digitally Enhanced Image Intensification and thermal imaging. Our signature platfrom the Proton is already in mass production and ready for deliveries into your next product. Its unique design features and outputs give you the flexibility to develop a custom personalized system to surround it. All you need to deliver are the housings form factor and battery type determinations. Simple, clean, it is both an effective and quick time to market solution.

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We use the latest 3D CAD software to design systems.

If the design and manufacturing process is too much to take on we can offer a complete turn-key solution from private label to custom product design. Our staff of qualified electrical and mechanical engineers and our state of the art manufacturing facility are at your service.

	Platform Type	Image Tubes	Thermal
	Sensor	GEN II / GEN III	VOx Vanadium
	Resolution	45-72 lp/mm	320 x 240 / 640 x 480
	Sensitivity	Up to 30,000X Gain	<50mk
w	Display	Phosphor	OLED
SPECIFICATIONS	Display Resolution	n/a	800 x 600
F	Frame Rate	instant	60 , 30hz , 9hz
Ш	Graphical Interface	n/a	On-Screen Symbology
EC	Start-Up	Instant	4 Seconds
S	Input Voltage	2 - 3 v.d.c.	2 - 6 v.d.c.
	Power Consumption	120mw	1050mw
3	Weight	2 ounces	5 ounces
	Dimensions	MX-10130 / MX-10160	1.5" x 1.5" x 1.275"
	Enviromental	Mil. Spec.	-20c to +40c





# **UPGRADES**

# The Ultimate in Service

If budgets are tight and spending is lean then one alternative is to upgrade and modernize your current existing fleet of night vision and thermal systems. We have the expertise to offer either a trade-in program or a retrofit / modernization program to update your night optics.



# Sample Upgrade Program

## Thermal Viewer Modernization

We took the OTS Thermal Viewer which used a low quality LCD display and a 160 x 120 Amorphous Silicon sensor and updated the system to use the latest VOx 320 x 240 or 640 x 480. We also implemented the latest digital OLED display and at the same time cut \$1,000 of component cost while making the system more reliable and easy to build.



# **ATN CORP USA**

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# **ATN CORP USA**

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## Made in USA

## **Uncompromised Quality**

ATN is proud to announce the launch of its new Tactical Thermal Line of high quality American made night vision and thermal systems developed with a focus to meet todays and future needs of the continually advancing technologies in the electro optical markets. Innovation is at the forefront of this line. We have set out to develop new and unique products that are setting the standard for night vison and going to revolutionize the industry. We have dedicated skilled technicans and engineers in our California facility working non-stop to develope and manufacture the best night vison systems available today.



Thermal Sight production line at our Northern California Facility



Forklift operator loading pallets of ready to ship night vision systems

# **Ready to Ship**

## Unparalelled Delivery

You can make the best gear and you can have the best price but if you do not deliver then it does not matter. Here at ATN Corp we are committed to building the best products available and stocking the most inventory of any night vision company. We pride ourselves in having a large selection of ready to ship night vision and thermal systems on our shelves every day. This means when you need the gear we will have it ready to deliver for your critical mission requirements.

Please contact our experienced staff for assistance: (800) 910-2862 Toll free / (650) 989-5100 Phone



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