

TIM-14AA Thermal Imaging Multi-Purpose Monoculars

The **TIM-14** is one of the most versatile thermal imagers available. Designed to meet the needs of the individual user engaged in ground-based operations, the **TIM-14** can be run in several configurations. The maximized versatility of the **TIM-14** makes it one of the most operation-ready thermal imagers on the market.

The **TIM-14** is a very innovative device that GSCI is pleased to offer. Similar units that match its versatility are few and far in between. The ability to helmet-mount the **TIM-14** is an extremely valuable asset because it allows for hands free navigation whether searching wreckage, hunting wild boar, or moving through hostile territory. In addition, the sturdy throw-lever weapon mount is rock solid. The linear design of the housing has the controls placed on top, making them very accessible to both right and left-handed users. Staying on the matter of housing, clients have found it to be extremely sturdy and able to stand up to impacts in the field. The OLED display screen has proven to provide high contrast/resolution images at typical engagement ranges. Overall the **TIM-14** is a very solid unit, and it can easily be said with confidence, that it will meet any operator's mission needs. The **TIM-14** also features the ability to be connected to an external video monitor, recorder or Head Mounted Display : HMD-800

APPLICATIONS: Surveillance, Border security, Aerospace, Military, Maritime, Tactical Entry, Evidence Retrieval, Marine Patrol, Disturbed Surfaces, Search and Rescue, Hidden Compartments, Officer Safety, Fugitive Searches, Reconnaissance

BASIC KIT INCLUDES:

- Thermal Imaging Monocular TIM-14
- Video-Out Cable
- 4 pcs AA Lithium Batteries
- 2 Quick-Swap Battery Packs
- Rubber Eyecup
- Operator's Manual
- 7-Year Manufacturer's Warranty
- Carrying Pouch

KIT UPGRADES:

- SRF
- HMD-800
- Flip-Up Head Gear(HG-714M)
- Flip-Up Helmet Mount (HM-714M)
- J-arm
- Clip-On Eyepiece/Ocular
- Interchangeable 50mm Lens
- 1913 Picatinny Weapon Mount
- Nanuk Hard Case

TIM-14 AA Thermal Imaging Multi-Purpose Monoculars				
Model (@F:1.0)	TIM-14DXAA	TIM-14DXAA-17	TIM-14CGAA	TIM-14CGAA-17
Spectral Response (um)	8-12	8-12	8-12	8-12
F.P.A. Format	384x288, 25um	640x480, 17um	384x288, 25um	640x480, 17um
F.P.A. Material	ASi Uncooled	ASi Uncooled	ASi Uncooled	ASi Uncooled
FOV (degrees)	23x17	23x17	23x17	23x17
Thermal Sensitivity (mK)	50	60	50	60
Refresh Rate (Hz)	60 NTSC /50 PAL	30 NTSC /25 PAL	60 NTSC /50 PAL	30 NTSC /25 PAL
Lens Size (mm)	25	25	25	25
Optical Zoom	1X	1X	1X	1X
Digital Zoom	2X-4X	2X-4X	2X-4X	2X-4X
Diopters Adjustment	+2/-6	+2/-6	+2/-6	+2/-6
Weight (w/o batteries) (g)	360	360	360	360
Dimensions (mm)	135x50x45	135x50x45	135x50x45	135x50x45
NUC	Shutterless, Quiet XT ⁱ ™	Shutterless, Quiet XT ⁱ ™	Shutterless, Quiet XT ⁱ ™	Shutterless, Quiet XT ⁱ ™
Start up time (seconds)	~2-3	~3-4	~2-3	~3-4
Powered By AA Lithium batt.	2pcs.	2pcs.	2pcs.	2pcs.
Continuous Operation Time (@+20°C)	7+ hours	7+ hours	7+ hours	7+ hours
Polarity Control	White Hot/ Black Hot	White Hot/ Black Hot	White Hot/ Black Hot	White Hot/ Black Hot
Gain Control	Manual/Auto	Manual/Auto	Manual/Auto	Manual/Auto
Auto-Off Feature	No	No	Yes	Yes
OLED Micro Display Resolution	800x600	800x600	800x600	800x600
OLED Brightness Control	Manual	Manual	Manual	Manual
Electronic Reticle	No	No	8+8 Patterns	8+8 Patterns
Focusing Range	0.5m to infinity	0.5m to infinity	0.5m to infinity	0.5m to infinity

DRI RANGES

[IMAGES \(Download\)](#)

[LOGO \(Download\)](#)

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[Electronic Reticle Patterns](#)

TIM-14DX AA Thermal Imaging Multi-Purpose Monoculars	
Model (@F:1.0)	TIM-14DXAA
Spectral Response (um)	8-12
F.P.A. Format	384x288, 25um
F.P.A. Material	ASi Uncooled
FOV (degrees)	23x17
Thermal Sensitivity (mK)	50
Refresh Rate (Hz)	60 NTSC /50 PAL
Lens Size (mm)	25
Optical Zoom	1X
Digital Zoom	2X-4X
Diopters Adjustment	+2/-6
Weight (w/o batteries) (g)	360
Dimensions (mm)	135x50x45
NUC	Shutterless, Quiet XTi™
Start up time (seconds)	~2-3
Powered By AA Lithium batt.	2pcs.
Continuous Operation Time (@+20°C)	7+ hours
Polarity Control	White Hot/ Black Hot
Gain Control	Manual/Auto
Auto-Off Feature	No
OLED Micro Display Resolution	800x600
OLED Brightness Control	Manual
Electronic Reticle	No
Focusing Range	0.5m to infinity

TIM-14DX AA-17 Thermal Imaging Multi-Purpose Monoculars	
Model (@F:1.0)	TIM-14DXAA-17
Spectral Response (um)	8-12
F.P.A. Format	640x480, 17um
F.P.A. Material	ASi Uncooled
FOV (degrees)	23x17
Thermal Sensitivity (mK)	60
Refresh Rate (Hz)	30 NTSC /25 PAL
Lens Size (mm)	25
Optical Zoom	1X
Digital Zoom	2X-4X
Diopters Adjustment	+2/-6
Weight (w/o batteries) (g)	360
Dimensions (mm)	135x50x45
NUC	Shutterless, Quiet XTi™
Start up time (seconds)	~3-4
Powered By AA Lithium batt.	2pcs.
Continuous Operation Time (@+20°C)	7+ hours
Polarity Control	White Hot/ Black Hot
Gain Control	Manual/Auto
Auto-Off Feature	No
OLED Micro Display Resolution	800x600
OLED Brightness Control	Manual
Electronic Reticle	No
Focusing Range	0.5m to infinity

TIM-14CG AA Thermal Imaging Multi-Purpose Monoculars	
Model (@F:1.0)	TIM-14CGAA
Spectral Response (um)	8-12
F.P.A. Format	384x288, 25um
F.P.A. Material	ASi Uncooled
FOV (degrees)	23x17
Thermal Sensitivity (mK)	50
Refresh Rate (Hz)	60 NTSC /50 PAL
Lens Size (mm)	25
Optical Zoom	1X
Digital Zoom	2X-4X
Diopters Adjustment	+2/-6
Weight (w/o batteries) (g)	360
Dimensions (mm)	135x50x45
NUC	Shutterless, Quiet XT ⁱ ™
Start up time (seconds)	~2-3
Powered By AA Lithium batt.	2pcs.
Continuous Operation Time (@+20°C)	7+ hours
Polarity Control	White Hot/ Black Hot
Gain Control	Manual/Auto
Auto-Off Feature	Yes
OLED Micro Display Resolution	800x600
OLED Brightness Control	Manual
Electronic Reticle	8+8 Patterns
Focusing Range	0.5m to infinity

TIM-14CG AA-17 Thermal Imaging Multi-Purpose Monoculars	
Model (@F:1.0)	TIM-14CGAA-17
Spectral Response (um)	8-12
F.P.A. Format	640x480, 17um
F.P.A. Material	ASi Uncooled
FOV (degrees)	23x17
Thermal Sensitivity (mK)	60
Refresh Rate (Hz)	30 NTSC /25 PAL
Lens Size (mm)	25
Optical Zoom	1X
Digital Zoom	2X-4X
Diopters Adjustment	+2/-6
Weight (w/o batteries) (g)	360
Dimensions (mm)	135x50x45
NUC	Shutterless, Quiet XT ⁱ ™
Start up time (seconds)	~3-4
Powered By AA Lithium batt.	2pcs.
Continuous Operation Time (@+20°C)	7+ hours
Polarity Control	White Hot/ Black Hot
Gain Control	Manual/Auto
Auto-Off Feature	Yes
OLED Micro Display Resolution	800x600
OLED Brightness Control	Manual
Electronic Reticle	8+8 Patterns
Focusing Range	0.5m to infinity

THERMAL IMAGING SYSTEMS: DETECTION, RECOGNITION, IDENTIFICATION RANGES

Information contained in the charts below has been collected from open independent sources such as the “Johnson Criteria”, technical specifications of FPA and Optical Lenses manufacturers. Please note that the actual range may vary depending on the device, set-up, environmental conditions (wind, humidity, air pressure, the difference in temperature between surrounding air and target), user experience and display method. All listed results are in meters.

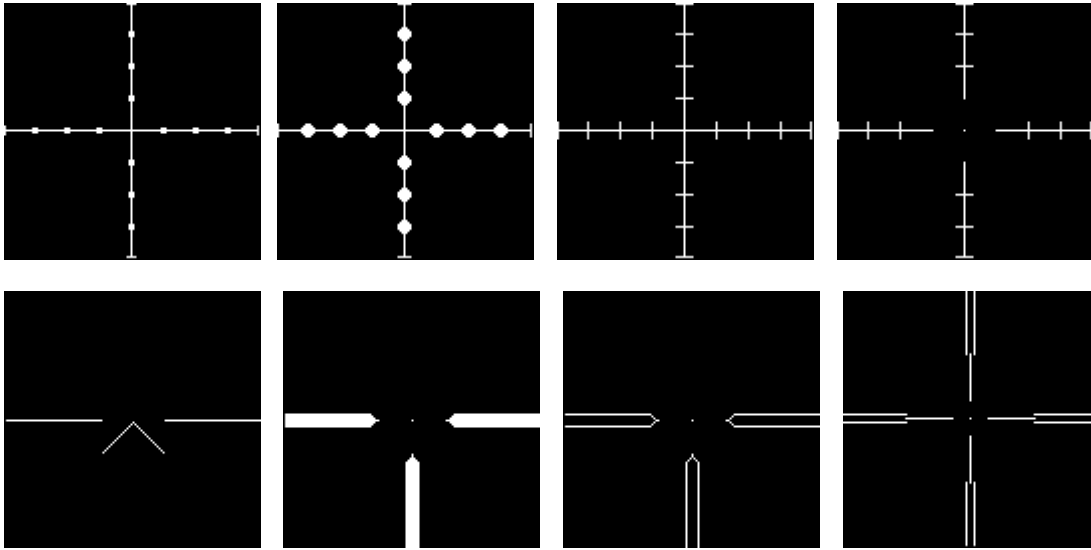
LEGEND:

	<i>GSCI doesn't use such low format of FPA sensors</i>
	<i>GSCI uses such FPA sensors with high refresh rate, ITAR free</i>
	<i>GSCI uses only high performance, low F-number Germanium lenses</i>

HUMAN (Size 1.7m x 0.4m)									
FPA Format: 320x240									
	25mm F1.3	25mm F1.1	50mm F1.2	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.1	n/a
Detection	290	590	755	890	920	1000	2050	2150	
Recognition	80	148	400	450	650	750	775	810	
Identification	30	75	250	260	286	370	380	400	
FPA Format: 384x288 (25 micron)									
	25mm F1.3	25mm F1.0	50mm F1.4	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.0	150mm F1.0
Detection	420	635	900	1000	1500	1900	2170	2440	3750
Recognition	150	313	425	500	725	950	775	1000	2560
Identification	50	209	250	375	415	630	430	680	1380
FPA Format: 640x480 (17 micron)									
	25mm F1.2	25mm F1.0	50mm F1.3	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.0	150mm F1.0
Detection	650	917	1500	1800	2200	2760	2500	3200	7200
Recognition	165	509	600	830	850	1380	1000	1450	3000
Identification	85	306	360	570	430	920	700	980	2100

VEHICLE (Size 2.3m x 2.3m)									
FPA Format: 320x240									
	25mm F1.3	25mm F1.1	50mm F1.2	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.1	n/a
Detection	500	1350	2100	2300	2750	2900	4200	4900	
Recognition	250	430	875	950	1230	1600	2050	2300	
Identification		215	525	575	850	925	900	1100	
FPA Format: 384x288 (25 micron)									
	25mm F1.3	25mm F1.0	50mm F1.4	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.0	150mm F1.0
Detection	750	1568	2300	2500	3200	4760	4500	5800	12500
Recognition	400	784	920	1200	1500	2380	2200	3250	7800
Identification		523	715	920	1100	1580	1200	2000	4200
FPA Format: 640x480 (17 micron)									
	25mm F1.2	25mm F1.0	50mm F1.3	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.0	150mm F1.0
Detection	1300	2292	3300	4350	4800	7000	6000	8000	14500
Recognition	780	1273	1310	2200	2600	3500	2700	4575	9300
Identification	150	764	800	1450	1300	2300	1490	2475	5450

ELECTRONIC RETICLE PATTERNS



LOGO



THERMAL IMAGING SYSTEMS RESISTANCE TO RECOIL OF VARIOUS CALIBERS

Information contained in the chart below is collected from open independent sources, listing calibers in increasing order and corresponding muzzle and recoil energy. Unless described otherwise GSCI systems are designated for use with **light- or medium recoil guns only**. Some optical and electronic components are not designed to withstand heavy recoil. These components, made by third party suppliers, have limited GSCI control. When mounting the device to the firearm, it is strongly advised to use the services of a professional gunsmith. Also, very important to consider using any available **Recoil Mitigation Solutions (RMS)** which may help to reduce possible negative effects while using the devices as weapon mounted and/or under extreme mechanical stress. Here is suggested list of some **RMS**:

CALIBER	MUZZLE ENERGY	RECOIL ENERGY	RECOIL RESISTANT DEVICES
9mm Parabellum	(475 joules)	4.4-7.3 fps	TWS, NV
.45 ACP	(540 joules)	0.9 fps	TWS, NV
.22 Centerfire Hornet	(1009 joules)	1.3 fps	TWS, NV
.223/5.56mm Remington NATO	(1822 joules)	3.2 fps	TWS, NV
7.62x39mm	(2019 joules)	5.95 fps	TWS, NV
.243 Winchester	(2820 joules)	8.8 fps	TWS, NV
.25-06 Remington	(3140 joules)	12.5 fps	TWS, NV
.257 Weatherby	(3950 joules)	15.1 fps	TWS, NV
.270 Winchester	(3669 joules)	17 fps	TWS, NV
.280 Remington	(3398 joules)	17.2 fps	TWS, NV
7mm Remington	(4367 joules)	19.2 fps	TWS, NV
.30 M1 Carbine	(1308 joules)	3.5 fps	TWS, NV
.30-30 Winchester	(2560 joules)	11 fps	TWS, NV
7.62mm AK 47	(2045 joules)	13.1 fps	TWS, NV
.303 Lee Enfield	(3469 joules)	14.41 fps	TWS, NV
.308 Winchester, NATO	(3744 joules)	15.8 fps	TWS, NV
.300 WSM	5190 joules	23.8 fps	TWS, NV
.300 Winchester	5385 joules	25.9 fps	TWS, NV
.300 Weatherby	5658 joules	24.6 fps	TWS, NV
.325 WSM	5075 joules	33.1 fps	TWS, NV
.338 Federal	4374 joules	21.9 fps	TWS, NV
.340 Weatherby	4867 joules	29.6 fps	TWS, NV
.338 Winchester	5307 joules	43.1 fps	TWS, NV
.375 H&H	6319 joules	46.16 fps	TWS, NV
.416 Rigby	7618 joules	58.1 fps	TWS, NV
0.5	17821 joules	70 fps	TWS, NV

suppressors, recoil compensators, silencers, recoil absorbing mounts etc., where it is applicable and legally obtainable. The **“Desirable”, “Highly Recommended”**

and “Essential” columns, listing optical systems that may withstand the recoil shock having been properly mounted and having been used with all available **Recoil Mitigation Solutions (RMS)**. Improper mounting may result in damages not covered by the warranty and/or bodily injuries.

The following definitions apply to the table

“Joules” refers to the a derived unit of energy, work, or amount of heat in the International System of Units. It is equal to the energy expended (or work done) in applying a force of one Newton through a distance of one meter, or in passing an electric current of one ampere through a resistance of one ohm for one second.

“fps” (the food-pound force) refers to a unit of work or energy in the engineering and gravitational systems. It is the energy transferred on applying a force of one pound-force through a displacement of one foot. The corresponding SI (*Le Système international d'unités*) unit is the joule.

STADIAMETRIC RANGE FINDER

We at GSCI are proud and excited to introduce (again) yet another unique and quite effective feature: **Stadiametric Rangefinder (SRF)**. SRF feature brings our Thermal Imaging Systems to a whole new, unparalleled level, placing them far above the competition.

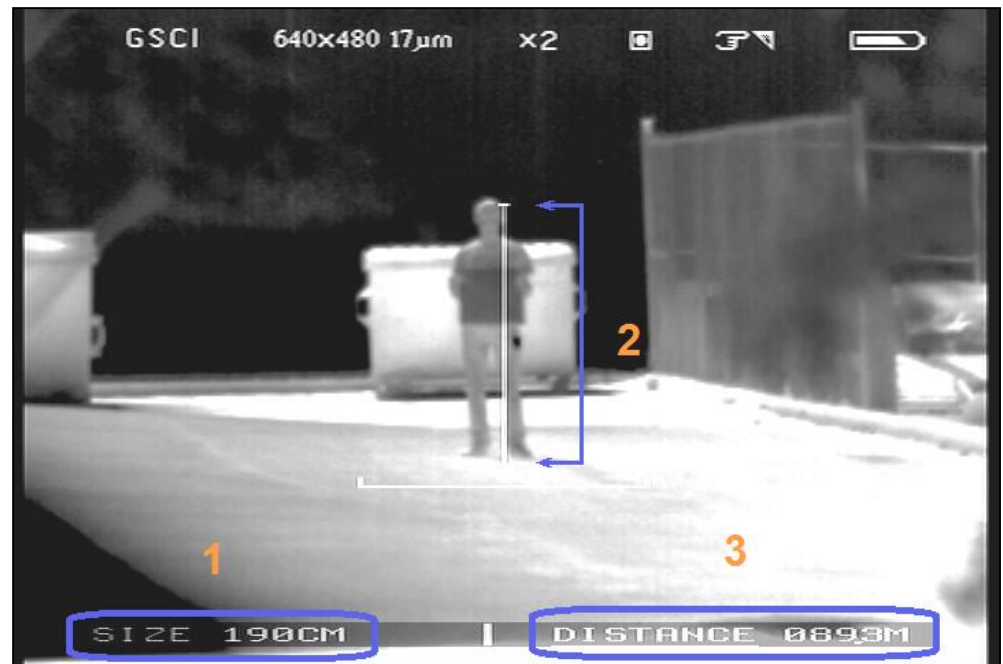
There is just a few Thermal Imaging Systems on the market which have a built-in Laser Rangefinder (LRF). This is definitely a very good combination, however, such set up is rather expensive and cannot be used in thermal weapon scopes due to the fact that LRF cannot withstand recoil. Furthermore, Laser Rangefinder determines the distance to an object by emitting laser radiation and then receiving the reflected beam. Regardless of output power laser beams can be detected from a distance. This may create serious safety and security issue in the situation when LRF operator has to stay covert during an operation. In contrast, the **SRF** built-in to GSCI's systems is completely passive and uses only device's computing power to determine distances. This eliminates the possibility of being detected regardless of time of the day and weather conditions.

The **SRF** can be used in GSCI made monoculars or weapon scopes, providing similar precise results* without limitations in recoil power** and for the fraction of the cost.

Here is how it works. The **SRF** has two modes: Object **Size** and **Distance**. Current mode is indicated by underlining the corresponding writing at the bottom of the display - **SIZE** or **DISTANCE** respectively.

1. Switch over to **SIZE** mode by pressing the **MENU** button. Using buttons **UP** and **DOWN**, set the estimate object size - height or length, depending on which is going to be used. Object size can be set from 20 cm to 259 cm in steps of 10 cm.
2. Switch over to **DISTANCE** mode by pressing the **MENU** button. Using buttons **UP** and **DOWN**, adjust the length of the measuring brackets so it matches either horizontal or vertical (whichever chosen in the precious step) object size.
3. Read the distance to the object at the bottom right hand side of the display "DISTANCE xxx.x M"

VIDEO - <https://www.youtube.com/watch?v=3VyfFIIltHQ>



HMD-800

HMD-800 is an addition and a useful tool, in situations when the Operator has to be covert/undetected. The mini display is a self contained 3V battery operated device, can be used in conjunction with a vast variety of Thermal Imaging Observation, Weapon Mountable Devices, or any optical electronic observation device that have analog Video-Output. **HMD-800** can be used as a hand held device, pocket size mini monocular or it can be attached to various Head Gears / Helmet Mounts (**HUB-14** needed).

GSCI may supply the unit with either fully adjustable, padded **Head Gear or Helmet Mount** which allow the unit to be flipped-up or quickly detached from the mask. A specially designed adapter **HUB-14** allows positioning the unit to either left or right eye, constantly keeping **horizontal** position of the display.

UNIQUE FEATURES

- High performance Monochrome OLED Display
- Mil. Spec Manual Gain Control (Display Brightness Override)
- Fully Sealed, Waterproof IP67
- Video-In: Standard RCA, Cable Included
- Self Contained Highly Efficient Power Supply, UBX equipped.

TECHNICAL

Resolution	800x600
Display Type	OLED
Video In	Analog RS170 (PAL or NTSC)
Manual Gain	Adjustable
Eye Relief	25mm
Battery Type	CR123, 1 pcs.
Battery Life	10 hrs. continuous
Dimensions (mm)	85x65x50
Weight (g)	185



HG-714M Head Gear

This **Head Gear Assembly** from GSCI provides hands-free use with night vision and thermal imaging devices. Its fully-adjustable head-harness is secure, reliable, and manufactured to exacting tolerances. This head mount is compatible with many night vision devices, including GSCI's PVS-7, and PVS-14, PBS-14 with J-arm adapter. It will provide hours of comfortable hands-free viewing, and it comes complete with a flip-up mechanism.

***FEATURES**

- Fully Adjustable
- Secure fit for most heads
- Designed for use with night vision and thermal imaging devices
- Compatible with PVS-7 on its own and with PVS-14, PBS-14 with J-arm adapter



HM-714M Helmet Mount

The **GSCI PASGT / MICH Helmet Mount Assembly** comes complete with the appropriate mount and straps to attach your night-vision device to a PASGT / MICH helmet. This mount is specific to GSCI's night vision and thermal imaging monoculars and goggles. It allows direct attachment of the goggle or monocular to the helmet. The assembly offers a full range of adjustment and positioning capabilities, as well as a flip-up/down option. Available with straps or to be directly clipped-in to the helmet.



J-ARM "FLIP-UP-OFF" ADAPTER INTERFACE BETWEEN TIM-14/PBS-14/PVS-14C AND HG-714M/HM-714M

J-Arm adapter is used to adapt the **TIM-14** Thermal Imaging Monocular or **PBS-14/PVS-14C** Night Vision Monocular to a head gear (HG-714M) or helmet mount(HM-714M). The **J-Arm** screws into the threaded hole in the **TIM-14/PBS-14/PVS-14C** body housing and lines up two contacts which complete an electrical circuit. This gives the **J-Arm** the ability to shut down power to the thermal imaging or night vision device when the user flips the mount into upright position. This function saves the user battery power allowing longer operating times.



RAM

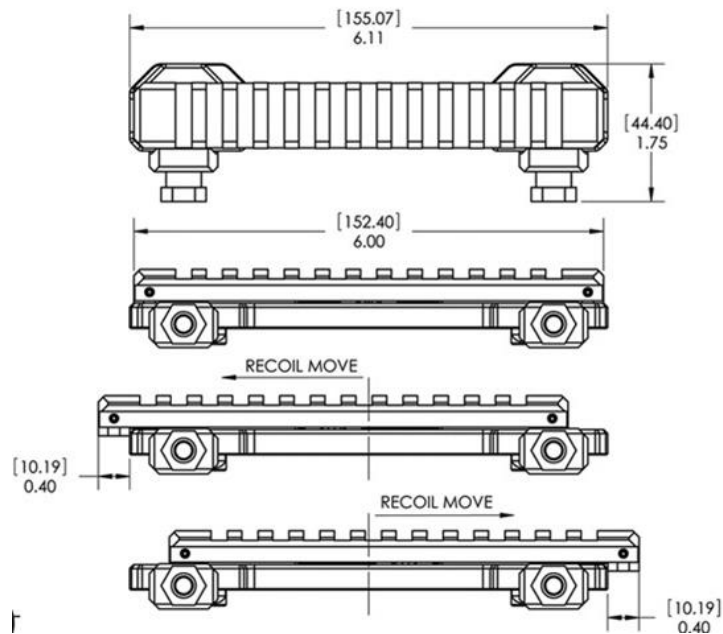
The Recoil Absorbing Mount RAM or so-called "Recoil Rail" is designed to provide electro-optic & illumination devices with protection from the firing shock of hard recoiling weapons, such as the M2 50 caliber machine gun and large caliber sniper weapons.

Under firing conditions, electro-optics can be damaged in a number of ways. Recoil forces can cause the body of a day scope to flex, resulting in shifting of optical lenses and reticles. In Thermal Imaging, Night Vision, lasers and white light devices, the precision circuitry of electro-optical components can be damaged by the shock of firing forces.

The Recoil Rail uses patented buffer system to absorb approximately 30% of the peak recoil forces that would otherwise be transferred to the mounted electro-optic or illumination device.

When the weapon is fired, the top rail slides on the rail body; this allows the buffer mechanism to reduce firing shock transfer to the electro-optic. The buffer mechanism returns the electro-optic to its original position after firing.

The Recoil Rail is designed to provide coverage to a range of optic weights; there are stiffer buffers for heavy electro-optics and buffers with less resistance for lighter devices.



*SPECIFICATIONS

- Material: 6061-T6 Aluminum
- Weight: 6.6 ounces / 187 Grams
- Dimensions: 155 x 44mm
- Interfaces: Any 1913 Mil. Std. Rail
- Colors: Anodized Black

EXPORT: The product described herein is Made in Canada, and does not contain USA origin parts and/or components and is not ITAR regulated



NANUK HARD CASE

- For **TIM-14 DXAA and TIM-14 CGAA**
 - Case exterior dimensions and weight:**
 - L363mm x W282mm x H120mm
 - 1.4Kg
 - Dimensions and weight with packaging:**
 - L371mm x W297mm x H122mm
 - 1.6kg
- **MATERIAL:** Lightweight NK-7 Resin
- **MAX BUOYANCY:** 7.7Kg
- **TEMPERATURE:** -29C to +60C
- **CERTIFICATIONS:**
 - ATA300
 - ASTM D4189
 - MIL-STD-810F
 - IP67
- **FEATURES:**
 - Impact Resistant
 - Waterproof
 - Crushproof
 - Dustproof
 - Power Claw Latching System
 - Soft Grip Foldable Handle
 - Padlockable
 - 100% Stainless Steel Hardware
 - High Performance Gasket
 - Automatic Pressure Release Valve
 - Molded-in Bezel System
 - Integrated Lid Stay

