

MSA Evolution[®] 5000 Series Thermal Imaging Cameras



MSA
The Safety Company

- The highest image definition over the widest temperature range of any Fire Service TIC
- Design driven durability

- Today's most advanced technology in the most comfortable, proven, easy-to-use Fire Service TIC design
- Many features, many accessories

It's All About SAFETY!

Thermal imaging has become one of the most effective tools for firefighters. The Evolution® 5000 Series Thermal Imaging Cameras allow firefighters to see more when smoke and fire have robbed them of sight.

MSA leads the industry in consistently adding new user-friendly features and increasing performance of our TICs while maintaining low lifetime costs.

The combination of dynamic range and core sensitivity results in high performance that outlasts competitive models.

T O P T E N

REASONS TO CHOOSE AN EVOLUTION 5000 TIC

1. Durability

All Evolution 5000 Series TICs are unmatched in durability. Our rigorous testing includes a 6-Foot Drop Test 3 times onto concrete. The TIC must then pass our IP 67 Rating test for Dust and Water Ingress by being submerged in 3 ft of water for 30 minutes. Additionally, the camera is subjected to a flame-and-heat test which simulates NFPA 1981 and is shielded from Radio Frequency Interference from common fire ground sources like radios.



2. Performance

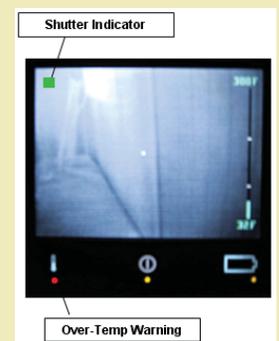


Its advanced micro-bolometer camera engine makes the Evolution 5000 Series of cameras the most versatile TIC for all firefighting conditions. Besides offering an outstanding stable image in very high heat, Evolution 5000 TICs do an excellent job in lower temperatures. The "heat seeker" colorization and dual-mode temperature scale also provide excellent response in all temperature applications. This flexibility makes any one of the Evolution 5000 Series of cameras the most sensible TIC choice for all of your calls.



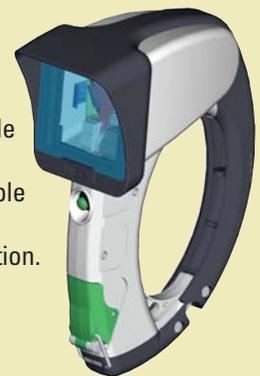
3. Advanced Safety Features

All Evolution 5000 series TICs have advanced safety features starting with (1) the TIC's exclusive dual means of temperature measurement: bar graph and digital, and (2) over-temperature warning to protect the electronics from excessive heat, (3) the shutter indicator tells the user when an automatic recalibration is taking place, (4) the TIC provides a continuous battery status icon with easy to read color power graduations.



4. Ergonomics

As a tool designed for easy, hands-free integration, the Evolution 5000 Series TICs can easily be oriented to the ready position. It has a dual handle design for easy handoff and a 3.5" display for easy use among multiple viewers and a simple on/off button for easy operation.



5. Selection / Choice / Flexibility

MSA offers four models of TIC in the Evolution 5000 series. All of the cameras feature the same basic user functions and interchangeable accessories. This allows a department to select the Evolution 5000 Series model of camera for a specific application (i.e., structural firefighting, search and rescue) without having to retrain the firefighter on each model.



6. Complete Line of Accessories



All cameras are supported by a comprehensive line of accessories, including charging systems, Video transmission and recording systems and a number of carrying accessories.

7. Fast Startup and One-Button Operation Wide Field of View

The Evolution 5000 Series Cameras are simple to use, with one-button operation on/off. Startup is instantaneous (<2 seconds).



8. Battery Design and Performance

Inside the handle, the battery is protected from temperature extremes and harsh conditions. The small, lightweight battery provides over 2 hours of continuous run time.



9. Simplified Ordering, Outstanding Delivery

Two part numbers per model provide you with the TIC and the accessories you'll need to put your Evolution camera into service. MSA offers same-day shipment on all models of Evolution 5000 Series TICs.



10. Outstanding Service and Support

When you choose MSA, you are choosing award winning customer service. Our repair center provides a 48-hour turnaround on most repairs and has a TIC loaner program available when needed. MSA also provides nationwide coverage with our

Best-in-Class network of distributors and a dedicated First Responder sales team to meet your needs. With MSA's extended warranty program, your Evolution 5000 Series TIC can be covered for up to 3 years.

EVOLUTION 5800 TIC

Superior Imagery



MSA's Evolution 5800 TIC, the newest addition to MSA's 5000 Series of Thermal Imaging Cameras, offers state-of-the-art imagery with a high-resolution-format, microbolometer-based infrared sensor.

Our new Image Detail Enhancement (IDE) software enhances the camera's imagery so that it matches the total dynamic range of the original image, and makes image detail visible to you, even in scenes with extreme-temperature dynamics. This enhanced imagery is combined with five user-selectable palettes, to give firefighters a customized image that maximizes the scene information you need for your plan of attack, even in low-temperature-contrast environments.

The heart of the Evolution 5800 TIC is the vanadium oxide microbolometer that incorporates a 320 x 240 focal plane array sensor, generating over 76,000 pixels of image detail with a 36° field of view. 2X Digital zoom magnifies the image detail that you want to see.

Two additional features in all camera models, Standard Quick Temp and Heat Seeker Plus, complete the most advanced thermal imaging package available on the market today.

The Evolution 5800 TIC incorporates all of the established user-friendly form factors in MSA's 5000 Series TICs. These features include single-button activation, patented dual-handle design for ease of handoff, a lightweight lithium ion battery with over two hours of run time, a protective battery compartment, and a comprehensive offering of interchangeable accessories.

As with all MSA TICs, the Evolution 5800 comes standard with a two-year camera core warranty and a one-year warranty on all of the other camera components.

FEATURES	BENEFITS
User Selectable Palettes	Maximizes scene information, providing greater image detail
Image Detail Enhancement	Enhances camera imagery in low contrast temperature environments
Instant On	Camera starts in 2 seconds or less
High Sense Imagery	Best High Sense imagery 2 to 4 times longer than competitive cameras
320 x 240 Focal Plane Array	Increased number of pixels for improved picture quality
2X Digital Zoom	Magnifies image, providing more detail
Heat Seeker Plus	Only MSA offers color pixelization in High and Low Sense modes

5800 User Selectable Palette Imagery



White Hot Imagery



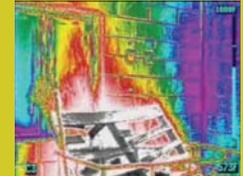
Black Hot Imagery



Fire and Ice Imagery



Fusion Imagery



Rainbow Imagery

Specifications

Detector	Uncooled Microbolometer Vanadium Oxide (VOx)
Array Format	320 x 240
Pixel Size	38 µm
Spectral Response	7.5 to 13.5 µm
Video Output	NTSC
Frame Rate	30 Hz
NEdT	≤65mK (in High Sensitivity) ≤240mK (in Low Sensitivity)
Time to Image	< 2 sec.
Scene Temp Range	560°C (1040°F)
Weight	48.2 oz (with battery)
Dimensions	10.8" x 8.1" x 4.4" (HxWxD)
Video Output	RS-170
Operating Time	> 2 hours
Includes	Five user selectable palettes (White hot, Black hot, Fusion, Fire & Ice and Rainbow) 2X Digital Zoom

Ordering Information

Description	Part Number	
	Fahrenheit	Celsius
Evolution 5800 complete with User selectable palettes, 2X Digital Zoom, Heat Seeker, Quick Temp and User's instruction manual	10097333	10097334

See product specification sheet for more detailed product information.



EVOLUTION 5200HD² TIC

Multipurpose



The Evolution 5200HD² TIC is a multipurpose firefighting tool, designed for search-and-rescue as well as structural firefighting. MSA's first high-resolution TIC provides superior images in Low and High Sense modes from the VOx microbolometer that incorporates a 320 x 240 focal plane array sensor, generating over 76,000 pixels of image detail in both Low and High Sense modes.

An optional 2X digital zoom for image enlargement further enhances the user's ability to see image detail. The Evolution 5200HD² with its 36° field of view makes objects appear larger and closer so that images are easier to see.

The Evolution 5200HD² incorporates all of the established user-friendly form factors in MSA's 5000 Series TICs. These features include single-button activation, patented dual-handle design for ease of handoff, a lightweight lithium ion battery with over two hours of run time, a protective battery compartment, and a comprehensive offering of interchangeable accessories.

As with all MSA TICs, the Evolution 5200HD² comes standard with a two-year camera core warranty and a one-year warranty on all of the other camera components.

FEATURES	BENEFITS
Heat Seeker Plus	Only MSA offers color pixelization in Low and High Sense modes
Instant On	Camera starts in 2 seconds or less
320 x 240 Focal Plane Array	Increased number of pixels for improved picture quality
2X Digital Zoom (optional)	Magnifies image, providing more detail
Quick Temp	Numerical temperature readout of the scene
High Sense Imagery	Best in class imagery, 2 to 4 times longer than competitive cameras



High Sense image detail



Low Sense imagery on the display of an E5200HD² TIC



Same picture with 2X Digital Zoom activated showing Low-Sense imagery on the display of an E5200HD² TIC

Specifications

Detector	Uncooled Microbolometer Vanadium Oxide (VOx)
Array Format	320 x 240
Pixel Size	38 µm
Spectral Response	7.5 to 13.5 µm
Video Output	NTSC
Frame Rate	30 Hz
NEdT	≤65mK (in High Sensitivity) ≤240mK (in Low Sensitivity)
Time to Image	< 2 sec.
Scene Temp Range	560°C (1040°F)
Weight	48.2 oz (with battery)
Dimensions	10.8" x 8.1" x 4.4" (HxWxD)
Video Output	RS-170
Operating Time	> 2 hours
Optional	2X Digital Zoom

Ordering Information

Description	Part Number	
	Fahrenheit	Celsius
Evolution 5200HD ² complete with Heat Seeker, Quick Temp & User's instruction manual, less 2X Zoom	10097247	10097248
Evolution 5200HD ² complete with 2X Zoom, Heat Seeker, Quick Temp and User's instruction manual	10097249	10097250

See product specification sheet for more detailed product information.



EVOLUTION 5200 TIC

Structural Applications



The Evolution 5200 TIC represents MSA's traditional model of thermal imaging camera, the classic choice of hundreds of fire departments in the US and globally for years. Now proven over time, the Evolution 5200 model was designed for use during structural firefighting. The large 55° field of view provides firefighters with the information needed to make fast and safe decisions about their plan of attack.

As MSA's first TIC to use the Photon VOx (vanadium oxide) microbolometer Infrared sensor, the Evolution 5200 incorporates a 160 x 120 focal plane array, which generates over 19,000 pixels of image detail in both Low and High Sense modes. The Evolution

5200 incorporates all of the established user-friendly form factors in MSA's 5000 Series TICs. These features include single-button activation, patented dual-handle design for ease of handoff, a lightweight lithium ion battery with over two hours of run time, a protective battery compartment, and a comprehensive offering of interchangeable accessories.

As with all MSA TICs, the Evolution 5200 comes standard with a two-year camera core warranty and a one-year warranty on all of the other camera components.

FEATURES	BENEFITS
Instant on	Camera starts in 2 seconds or less
160 x 120 Focal Plane Array	High resolution imagery with the power of 19,000 pixels
Heat Seeker Plus	Identifies the hottest objects in both Low and High Sense
Quick Temp	Numerical temperature readout of the scene
High Sense Imagery	Best-in-class imagery, 2 to 4 times longer than competitive cameras



Evolution 5200 in the High Sense mode



Evolution 5200 in the Low Sense mode

Specifications

Detector	Uncooled Microbolometer Vanadium Oxide (VOx)
Array Format	160 x 120
Pixel Size	38 µm
Spectral Response	7.5 to 13.5 µm
Video Output	NTSC
Frame Rate	30 Hz
NEdT	≤65mK (in High Sensitivity) ≤240mK (in Low Sensitivity)
Time to Image	< 2 sec.
Scene Temp Range	560°C (1040°F)
Weight	48.2 oz (with battery)
Dimensions	10.8" x 8.1" x 4.4" (HxWxD)
Video Output	RS-170
Operating Time	> 2 hours

Ordering Information

Description	Part Number	
	Fahrenheit	Celsius
Evolution 5200 complete with Heat Seeker, Quick Temp and User's instruction manual	10097245	10097246

See product specification sheet for more detailed product information.



EVOLUTION 5600 TIC

Value-Driven



The Evolution 5600 TIC delivers reliable thermal imaging performance in a value-driven design for firefighters everywhere. This versatile TIC provides detailed images from the vanadium oxide microbolometer sensor, and features a 120 x 120 focal plane array with over 15,000 pixels and a 45° field of view.

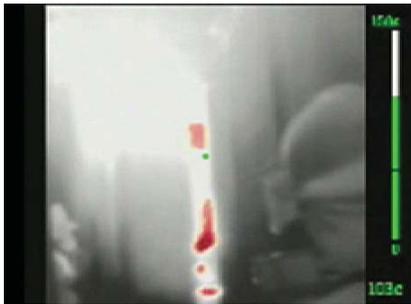
MSA's highly functional Heat Seeker and Quick Temp functions are standard and deliver unmatched performance and superior image quality at all temperatures, employing an easy-to-use, time-tested design.

The Evolution 5600 TIC incorporates all of the established user-friendly form factors in MSA's 5000 Series TICs. These features

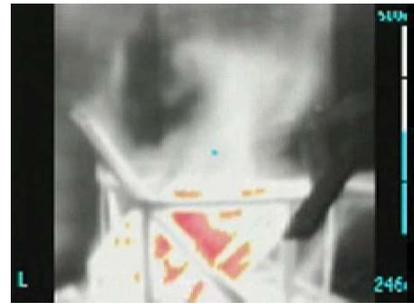
include single-button activation, patented dual-handle design for ease of handoff, a lightweight lithium ion battery with over two hours of run time, a protective battery compartment, and a comprehensive offering of interchangeable accessories.

As with all MSA TICs, the Evolution 5600 comes standard with a two-year camera core warranty and a one-year warranty on all of the other camera components.

FEATURES	BENEFITS
Heat Seeker Plus	Only MSA offers color pixelization in Low and High Sense modes
Quick Temp	Numerical temperature readout of the scene
Instant on	Camera starts in 2 seconds or less
120 x 120 Focal Plane Array	High performance VOx infrared sensor
High Sense Imagery	Best High-Sense imagery; 2 to 4 times longer than competitive cameras



High Sense image detail with Heat Seeker enhancing the heat source with red isotherm



Low Sense image detail with Heat Seeker enhancing the heat source with a red isotherm

Specifications

Detector	Uncooled Microbolometer Vanadium Oxide (VOx)
Array Format	120 x 120
Pixel Size	38 µm
Spectral Response	7.5 to 13.5 µm
Video Output	NTSC
Frame Rate	30 Hz
NEdT	≤85mK (in High Sensitivity) ≤350mK (in Low Sensitivity)
Time to Image	< 2 sec.
Scene Temp Range	560°C (1040°F)
Weight	48.2 oz (with battery)
Dimensions	10.8" x 8.1" x 4.4" (HxWxD)
Video Output	RS-170
Operating Time	> 2 hours

Ordering Information

Description	Part Number	
	Fahrenheit	Celsius
Evolution 5600 complete with Heat Seeker, Quick Temp and User's instruction manual	10097331	10097332

See product specification sheet for more detailed product information.



THERMAL IMAGING KITS:

Fire Station TIC Kit

This kit contains all of the components and accessories that a fire department needs to put their MSA Evolution Thermal Imaging Camera into service. The Fire Station Kit consists of two (2) rechargeable Lithium-Ion Batteries, Single-Unit AC Charger, Retractable Lanyard, Carabiner, Instruction CD and a hard plastic carrying case.



PN 10096887

Vehicle TIC Kit

This kit contains all of the components and accessories that a fire department needs to install their MSA Evolution Thermal Imaging Camera into service on a fire truck. The Vehicle Kit consists of two (2) rechargeable Lithium-Ion Batteries, Universal Truck Charger, Retractable Lanyard, Carabiner, and Instruction CD.



PN10096886

VIDEO TRANSMISSION AND RECORDING SYSTEMS

Mini Receiver Kit

The Mini Receiver Kit enables users to customize your own video monitoring and recording setup. The kit includes a two channel receiver, multiple power cords, and additional adapters packaged in a soft-sided case, with additional room for accessories and the transmitter. Receiver kits come standard with a magnetic mounted, omni-directional antenna.



PN 10050376

Evolution Video Transmitter

Self-contained, modular design allows for maximum flexibility to deploy the transmitter easily when needed. Requires no modification to the TIC. An independent power supply does not draw power from the TIC battery, thus allowing for maximum run time of both TIC and transmission system.



PN 10047573

Deluxe Receiver Kit

The Deluxe Receiver Kit provides users with a complete solution for viewing transmitted images using a single receiver console. The kit features a 12" display that is integrated into the lid of the protective. Pelican case. It comes complete with an omni-directional antenna and wall-type and cigarette-lighter powered supply cords, which can use either 110-220 volt AC, 12 volt, or DC current.



PN 10050375

Evolution Video Capture Kit

Small, easy-to-use, stand-alone video device records screen action of any Evolution 5000-Series TIC for up to 2 hours. Connects in seconds and provides downloadable video clips of fireground for recordkeeping and training.



PN 10071750

ACCESSORIES

Single-Unit Charger

Desktop charger that charges the Evolution Lithium-Ion batteries. Requires 110 or 22 volt AC power supply.



PN 10041100

Non-Charging Universal Truck Bracket

A bracket used to secure the Evolution TIC in a vehicle. System does not have any charging capabilities.



PN 10067707

Universal Truck Charger

Charges any Evolution 5000 Series TIC WITH or WITHOUT the Wireless Transmitter or the Video Capture unit attached. The "smart" Universal Charger trickle charges the battery inside the TIC first, then switches over to the spare battery charging module.



PN 10067565

Reflective Label ID Kit

These HIGHLY REFLECTIVE Write-On Labels will make TIC accountability easier, and provide additional reflectivity on the top and sides of your Evolution 5000 Series. Each Label Kit contains five sets of four labels in bright red, orange, yellow, green and blue. Labels are easily written on with a permanent marker.



PN 10062184

Sun shroud

PN 10039603

Disposable display covers

PN 10038970

Lithium ion battery

PN 10038412

Tripod adapter

PN 10040229

Carabiner

PN 10040005

Plastic carrying case

PN 10040223

Retractable Lanyard

PN 10040226

Shoulder Strap

PN 10039515

Wrist Strap

PN 10039516

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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