



**Prioritize
Firefighter Safety**





Megapixel technology is a system developed by ISG for exclusive use in our firefighting thermal imaging cameras. Megapixel technology reduces random noise or "snow" in the image, as well as minimizes "fixed pattern noise." These special noise reduction systems are the foundation of the Megapixel system. These systems ensure crystal clear image quality, but noise reduction is only the beginning. Megapixel's main focus is to enhance headroom, thereby enhancing firefighter safety.

High Resolution Sensor

The Megapixel system drives a high resolution vanadium oxide 37.5um pitch sensor that is available only in the ISG ELITE. The sensor offers non-uniformity correction on-chip as well as delivers raw sensitivity unparalleled by other systems. Think of Megapixel's sensor in the same way you think of sensors in digital camcorders. The more the pixels, the better the image quality. The better the image quality, the more you see. The more you see, the safer you can be.

Lightning Fast Update Rates

Megapixel technology scans the fire scene for heat changes in the environment, analyzes them, and turns them into digital pictures. The number of scene elements you can analyze is a result of the number of scene sensing pixels and the speed at which the system can scan. Megapixel technology scans 4,608,000 scene elements each second. Typical competitive cameras only can scan up to 576,000 scene elements per second. The result is a much clearer image that helps firefighters see all resolvable detail in the scene - to help firefighters make better, safer, decisions.

Thousand Plus Mode

All of the latest thermal imagers use microbolometer sensors. And all microbolometer based cameras have two modes - high sense and low sense. High sense mode is used when the camera is in ambient environments. Low sense mode is used in hot firefighting environments. A typical competitive camera in low sense mode can see up to around 1000°F. That amount of headroom is adequate in almost all conditions. But, to offer added headroom, and added safety, Megapixel technology added a third mode - Thousand Plus Mode - to enable clear imaging in scenes to levels over 2000°F. That feature is extremely important when faced with an extreme condition like flashover - just when firefighters need to find the exit real fast. It's nice to know you have the capability of seeing through those extreme temperatures - just in case. Think of Thousand Plus Mode as equivalent to a 5 speed transmission in your car versus a 4 speed. Very few of us still buy cars with only 4 speeds.

Oversized Lens

Just like any other camera, the physics of optics also apply to thermal imagers. The bigger the lens, the more scene elements the camera can focus on. The Megapixel system uses the biggest and fastest possible lens. The Megapixel lens lets the sensor focus on 77% more data than lenses found in competitive cameras. And, in combination with its uniquely fast update rates, the result is spectacular image clarity.

By now you've probably noticed that we are very technical people at ISG. This is because we only manufacture thermal imagers - nothing else. We are specialists in the design of firefighting cameras. We've been doing this for over fifteen years. In fact, because of our superior technology, ISG cameras have been the exclusive choice of Navy firefighters worldwide, including the US Navy. ISG cameras are used by more Navies than all other camera brands combined. We are proud to help protect our forces, and the forces of countries that help us fight terrorism.



**EXCLUSIVE
SAFETY
FEATURES**

**MORE
HEADROOM**

**SAFER
CONDITIONS**

**Images in Over
2,000°F**

**In Case of
FLASHOVER
See the Exit...
Get Out FAST**

Three Sense Modes
- High Sense
- Low Sense
- Thousand-Plus Mode

**See Clearly in
Extreme Conditions**

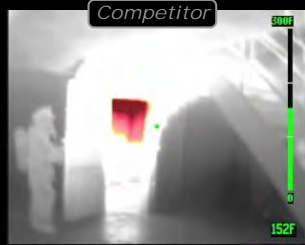
**Uses the Biggest,
Fastest Lens**

**See 77% More
Scene Elements in
ALL Conditions**

**High Resolution
320 x 240
Sensor**

**For Crystal Clear
Details in ALL
Conditions**

IMAGE COMPARISONS



Extreme Equipment 4 Extreme Conditions

OPTIONS & ACCESSORIES

Fast Attack **TRUCK MOUNT**

The Fast Attack Truck Mount System is a rugged and secure powder coated aluminum mount that enables storage in an apparatus or command vehicle. With a quick-release mechanism and automatic charging capability, the system is designed to ensure that the imager will be totally operational when the apparatus arrives at the scene.

The design of the Fast Attack enables the imager's battery charger to be attached. This feature provides the ability to charge and maintain the imager's spare battery as well.

Extended **BATTERIES**

ISG gives you the choice of a longer operating time for your camera with only three more ounces of weight. The Extended SuperCell allows the K1000 ELITE to operate for up to 5 hours.

Tac-Grip **HANDLE**

Removable multi-use grip that lets you use your hands for other tasks without letting go of the camera.

Universal-T **TRANSMITTER**

If you already have a transmitter set-up based on another brand of TIC, you need not change anything. Universal-T transmits to your existing command vehicle receiver equipment.

- Works with Other Brands of TICs
- Super High Power
- Long Range
- 2 Channels
- Internally Mounted Antenna
- High Gain Receiver
- Works with Standard TVVCR
- Available as a Low Cost Upgrade
- FCC Part 90 Compliant

Break-Away **STRAP**

The K1000 ELITE's lanyard system offers a firefighter-induced breakaway capability to prevent firefighters from being trapped if the camera gets caught on an object.

Retractable **LANYARD**

In the hectic and dangerous conditions of firefighting, your tools may fall from your grasp. With the ISG retractable lanyard, your safest tool is always at reach.



CAMERA

□ SPECIFICATIONS

Electronics

<i>Sensor Type</i>	<i>Vanadium Oxide Microbolometer</i>
<i>Resolution</i>	<i>320 X 240</i>
<i>Spectral Response</i>	<i>8-14 microns</i>
<i>NEDT</i>	<i>50 mK nominal</i>
<i>Dynamic Range</i>	<i>Over 2000°F in Thousand Plus Mode</i>
<i>Mode Switch Time</i>	<i>0.08 seconds</i>
<i>Noise Reduction</i>	<i>Megapixel System</i>
<i>Update Rate</i>	<i>4,608,000 scene elements per second</i>
<i>External Video</i>	<i>NTSC</i>
<i>Optics Material</i>	<i>Germanium</i>
<i>Field of View</i>	<i>59°</i>
<i>Optics F Stop</i>	<i>F:/0.8</i>
<i>Nominal Start-up</i>	<i>Under 5 seconds</i>

Temperature Measurement

<i>Measurement</i>	<i>FPA Center Pixel Area</i>
<i>Measurement Range</i>	<i>Up to 2100°F</i>
<i>Resolution</i>	<i>+/- 1°F</i>
<i>Repeatability</i>	<i>+/- 1°F</i>
<i>Emissivity</i>	<i>.95 Preset</i>

Colorization

<i>Availability</i>	<i>Standard on all K1000 ELITE cameras</i>
<i>Type</i>	<i>Yellow, red, temperature dependent see-through color.</i>

Physical

<i>Weight</i>	<i>Under 3 pounds</i>
<i>Housing</i>	<i>Radel-R High Heat Thermoplastic</i>
<i>Rubber Parts</i>	<i>Neoprene</i>
<i>Display Cover</i>	<i>Polycarbonate</i>
<i>Waterproofing</i>	<i>IP67 - immersion up to 3 feet</i>
<i>Drop Test</i>	<i>6 Feet</i>

Battery

<i>Operating Time</i>	<i>3 Hours</i>
<i>Low Battery Warning</i>	<i>Displayed on-screen</i>
<i>Recharge Time</i>	<i>2.5 Hours</i>

Warranty

<i>Base Warranty</i>	<i>One Year</i>
<i>Extended Warranty</i>	<i>Up to 2 additional years</i>