

B/S Approved: *hbs*

Date: August 8, 2012

Spec. New

**CITY OF DULUTH
MINIMUM SPECIFICATIONS FOR
THERMAL IMAGING CAMERAS**

Bids to meet or exceed specifications listed below. Any deviations or substitutions must be approved by the City of Duluth and the Duluth Fire Department.

Scope and Purpose:

This specification covers thermal imaging cameras that will be used by firefighters for, but not limited to, structural firefighting, various rescue situations, and hazardous material responses.

Quantity:

The number of cameras for purchase under the following specification is to be sixteen (16).

Warranty:

The manufacturer shall warrant the Thermal Imager and all charging systems supplied with the Thermal Imager free of defects in material and workmanship, under normal use and service, for a period of five (5) years effective upon delivery.

Physical Configuration:

The imager shall be a hand held design with a minimum of a 3.5" LCD display screen. It shall have a built in pistol grip style handle or separate attachable pistol grip style handle included with each imager. The imager shall have a secure attachment point for lanyard/strap with a self-retracting gear keeper for the imager included. This self-retracting gear keeper must hold the unit to the firefighters chest with the full weight of the imager (with battery) hanging unsupported from the gear keeper. The imager shall ship with a padded, re-usable case.

Power Supply:

Each imager shall include two (2) rechargeable batteries of either nickel metal hydride (NiMH) or lithium ion construction providing a minimum of two (2) hours of continuous operation with all standard functions and features. The battery must be able to be field replaceable.

Technology:

The imager shall have minimum resolution of 320 x 240 pixels. The sensor shall be amorphous silicon and a minimum IR spectral of 7-14 microns and a 2" (minimum thickness) Germanium lens. Picture frequency shall be a minimum of 30Hz. The imager field of view shall be a minimum of dimension of 45° (H) x 35° (V). The imager shall include the ability to record a minimum of two (2) hours of video and a minimum of 100 hundred (100) still images. The media should be able to be downloaded to a Mac or PC computer.

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Image Colorization:

The imager shall use a minimum of yellow/orange/red colorization in standard mode. The imagers will startup in basic mode. The imager will include additional modes to assist with (but not limited to) overhaul, locating hot spots, rescue, hazmat, outdoor use.

Switches:

The imager shall have a single button for on/off operation. Additional user selectable modes may be accessed by additional buttons.

Visual Indicators:

The imager shall have an on screen battery indicator bar that incorporates a minimum of three (3) bars for battery status. A temperature indicator shall be visible on the display screen.

Battery Charging System:

Each imager shall include a truck charger and all necessary mounting hardware and power chords for direct charging in a vehicle or fire apparatus. The truck charger must be able to charge the imager and spare battery at the same time. It must also charge the imager through contacts on the imager. No cables or wires connecting the imager are acceptable. The imager and spare battery must be secure within the truck charger.

Training:

A minimum of four (4) hours up to eight (8) hours of training will be included.

Exceptions to Specifications:

Any and all exceptions to the above specifications must be clearly stated for each heading.