



Date: June 24, 2015

Regarding: Technical Information on TiS Series of Thermal Imagers

Product Overview

The TiS series of thermal imagers are handheld imaging products that can detect infrared radiation (IR). The primary use is for preventive maintenance and diagnosing problems in industrial environments. These products are not intended for sale to consumers. The series has eight versions labeled TiS10, TiS20, TiS40, TiS45, TiS50, TiS55, TiS60, TiS65.

The TiS series has two mechanical versions: The TiS10, TiS20, TiS40, TiS50, and TiS60 use a fixed focus IR lens. The TiS45, TiS55, and TiS65 use a manual focus lens, which includes an external focus ring. The external differences between the two mechanical types are shown in figures 1 through figure 6.

Other than the difference in focus mechanisms, the electronics, mechanical components, layout, bill of materials, assembly procedures, and test processes are the exactly the same for all versions. The versions are configured through software flags in the flash memory at the end of the production line to match the customer's order.

The performance differences between the versions are the following:

IR Resolution:

The resolution is the number of active pixels that comprise the IR image. The IR resolution increases through the series from 80x60 in the TiS10 to 260x195 in the TiS65. The resolution is set through software limits during the manufacturing process.

Thermal Sensitivity:

The thermal sensitivity is the minimal temperature difference that the thermal camera can detect. The thermal sensitivity increases through the series from 0.15 °C in the TiS10 to 0.08 °C in the TiS65. The thermal sensitivity is set through software limits during the manufacturing process.

Temperature Measurement range:

Temperature measurement range increases through the series from -20°C to +250°C in the TiS10 to -20°C to +550°C TiS65. The temperature range is set through software limits during the manufacturing process.