

# Manual Supplement

Manual Title:	Ti9, Ti10, Ti25, TiRx, TiR and TiR1 Users		
Part Number:	2803044	Supplement Issue:	<b>5</b>
Print Date:	August 2007	Issue Date:	9/15
Revision/Date:	2, 8/10	Page Count:	2

---

---

This supplement contains information necessary to ensure the accuracy of the above manual.

Change #1

On page 14, following **Making Accurate Temperature Measurements** add:

*Note*

*All thermal imagers require appropriate warm-up time in order to obtain the most accurate temperature measurement and best image quality. This time can often vary by model and by environmental conditions. Although most imagers are fully warmed-up within 3-5 minutes, it is always a best practice to wait at least 10 minutes if the most accurate temperature measurement is critical to your application. Whenever changing or adding optional lenses, additional stabilization time may be required depending on the situation.*

Change #2, 55087, 525

On page 19, under **Detailed Specifications** replace the **Temperature Measurements** and **Imaging Performance** sections with the following:

**Temperature Measurements**

Temperature Range (not calibrated below -10 °C)

TiRx ..... -20 °C to +100 °C

TiR and TiR1 Serial Number <10070100 .. -20 °C to +100 °C

TiR and TiR1 Serial Number ≥10070100.. -20 °C to +150 °C

Ti9 and Ti10 ..... -20 °C to +250 °C

Ti25 ..... -20 °C to +350 °C

Accuracy

Ti9 and TiRx ..... ±5 °C or 5 % (whichever is greater)

Ti25, Ti10, TiR1, and TiR..... ±2 °C or 2 % (whichever is greater)

Measurement Modes ..... Smooth Auto-Scaling and Manual  
Scaling

On-screen Emissivity Correction ..... (Ti25 and TiR1 Only)

**Imaging Performance**

Field of View ..... 23 ° x 17 °

Spatial Resolution (IFOV) ..... 2.5 mRad

Minimum Focus Distance


Thermal Lens ..... 15 cm (approx. 6 in)

Visible (Visual) Light Lens ..... 46 cm (approx. 18 in)

Focus .....	Manual
Image Frequency .....	9 Hz refresh rate
Detector Type.....	160 X 120 Focal Plane Array, uncooled microbolometer
Infrared Lens Type.....	20 mm EFL, F/0.8 lens
Thermal Sensitivity (NETD)	
Ti9 .....	≤0.2 °C at 30 °C (200 mK)
Ti10 .....	≤0.13 °C at 30 °C (130 mK)
Ti25 .....	≤0.09 °C at 30 °C (90 mK)
TiRx.....	≤0.1 °C at 30 °C (100 mK)
TiR.....	≤0.09 °C at 30 °C (90 mK)
TiR1.....	≤0.07 °C at 30 °C (70 mK)
Infrared Spectral Band .....	7.5 μm to 14 μm
Visual Camera.....	640 x 480 resolution

Change #3, 63719

On page 3, add the following to the **Symbols** table:

	Conforms to relevant South Korean EMC Standards.
-----------------------------------------------------------------------------------	--------------------------------------------------

On page 18, under **Electromagnetic Compatibility** add:

**Electromagnetic Compatibility (EMC)**

International .....IEC 61326-1: Basic Electromagnetic Environment

CISPR 11: Group 1, Class A

*Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.*

*Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.*

*Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.*

Korea (KCC).....Class A Equipment (Industrial Broadcasting & Communication Equipment)

*Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.*

USA (FCC).....47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.