



70 Series Thermal Imager Specifications

Model Number	a70 Chief Inspector	z70 Chief Inspector
Frame Rate	9Hz	30Hz*
Image Performance		
Detector Type	Uncooled Microbolometer Focal Plane Array (FPA)	
Detector Resolution	384 x 288	
Number of Pixels	110,592	
Field of View (FOV)	25° x 19°	
Spatial Resolution (IFOV)	1.37 mrad**	
Thermal Sensitivity	≤ 0.06 @ 30°C	
Focus Range	0.1 m to ∞ and beyond	
Focus Type	Manual	
IR Digital Zoom	X 2 or X 4	
Spectral Range	8 - 14µm	
Visible Light Camera	1.3 Megapixel CMOS Sensor	
Wide Angle Lens Option	NA	
Telephoto Lens Option	NA	
Image Display		
Thermal/Visible Light Image	Toggle between Thermal and Visible Light	
LCD Display	High Resolution 3.5" Color LCD Screen, 640 x 480	
Image Control	11 Display Color Palettes: Ironbow; Negative Grayscale; Positive Grayscale; Amber; Hot Metal; Cool Metal; Rainbow Green-Red; Rainbow Blue-Red; Rainbow Black-White; High Contrast Blue-Yellow; and High Contrast Violet-White	
	Image Adjustment: Auto Ranging / Manual Level and Span / Adjustable Display Brightness Control	
Measurement Analysis		
Measurement Range	-4° to 356°F (-20° to 180°C) or 212° to 1112°F (100° to 600°C) Low/High Temperature User Switchable:	
Measurement Accuracy	Greater of ±2% of reading or ±2°C. Instrument is not calibrated below -10°C.	
Measurement Correction	Auto Correction of Microbolometer with Adjustable Time Interval or Push Button Manual	
Measurement Mode	Spots, Areas, Lines, Isotherms, Delta T, Alarms (Multiple Audible and Visible)	
Number of Measurement Spots	1 Hot, 1 Cold Seeking, plus 2 Adjustable	
Number of Measurement Areas	Up to 3 Movable and Sizeable Areas (Max, Min and Avg Temperatures)	
Number of Measurement Lines	Up to 2 Moveable Lines, 1 Vertical, 1 Horizontal; Image Temperature Profile Lines	
T Reflect	Manual Adjustment	
T Correct	Manual Adjustment	
Emissivity Correction	Adjustable from 0.01 to 1.00 with Built-in Emissivity Table	
Alarm	High and Low Temperature Audible and Visible Alarm; Isotherm Visible Alarm	
Temperature Scale	User Selectable: °C, °F, and K	
User Settings	Date/Time, Temperature Unit, Brightness/Contrast, LCD Brightness and 11 Languages: English; Spanish; French; German; Italian; Portuguese; Korean; Japanese; Russian; Simplified Chinese; and Traditional Chinese	

*Export Licensing Fee on 30Hz models may be required for your country, subject to US Government approval. No Export License required on 9Hz models.

** 384 x 288 is not directly convertible to 640 x 480 imager display. Image is displayed as a 320 x 240 image. Full 384 x 288 resolution image, (1.09 mrad), downloads to computer.

Specifications subject to change without notice.



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Image Storage		
Removable Storage	2GB SD / Time Stamped	
Storage Mode	Manual Single Image Save or Programmable Auto Save to SD Card	
File Format (Thermal)	JPEG plus Temperature in 14 bit data	
File Format / Size (Visible Light)	JPEG / 100K (Typical Value)	
Voice Annotation	Maximum 45 seconds per image	
Text Annotation	NA	
Laser		
Laser Pointer	Class 2, < 1mW / 635nm, Red	
Record		
Report Analysis Software	Yes	
Video Output	User Selectable PAL and NTSC	
Freeze Frame/Save Image	Freeze Frame and Save Image, Thermal and/or Visible to SD Card	
Environment		
Ambient Operating Temperature	5° to 122°F (-15° to 50°C)	
Storage Temperature	-4° to 140°F (-20° to 60°C)	
Humidity	≤ 90% non-condensing	
IP Rating	IP54	
Power		
Power / Operating Time	1 Rechargeable Lithium Ion Battery, 2 Batteries provided, approximately 2 hours continuous operation per battery	
Power Save Mode	Selectable Time Interval Auto Sleep to save battery, Auto Shut Off	
Charging System	External AC Battery Charger included; In Camera Charging with optional AC/DC Battery Charger, 12V DC Car Charger	
General Info		
Housing	Impact Resistant Molded Plastic with Wrist Strap. Tripod Mounting with 1/4"-20 Thread	
Dimensions	Width: 4.5 in. (115mm) x Length: 5.9 in. (150mm) x Height: 9 in. (230mm)	
Weight (w/o battery)	1.65 lbs (0.75 Kg)	
Software Compatibility	Microsoft Windows 2000, Windows XP, Windows Vista, and Windows 7	
Included Accessories	Spy-Care, Carrying Case; Wrist Strap; Lens Cap; 2 Rechargeable Lithium Ion Batteries; External AC Battery Charger; Video Out Cable; Heat Spy Report & Analysis Software; SD Card and Reader; User Manual.	
Optional Accessories	NIST Traceable Certificate of Conformance; Extended Warranty; Auxiliary Charging Kit with: 12V DC Car Charger, AC/DC Power Supply/Charger and International Plugs	
Safety Certificates		
Shock Test	25G, IEC68-2-29	
Vibration Test	2G, IEC68-2-6	
Immunity Tests	Yes	
Emission Limits	Yes	

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