



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## FLIR E-Series

The E40, E50 and E60, now with MSX®  
Advanced thermal imaging camera performance

Troubleshoot more efficiently, create detailed reports easier, and share images and findings faster with FLIR's E-Series thermal imagers. Featuring a fresh array of imaging, communication, and productivity tools to help you get more done in a day.

**FLIR Tools Mobile communication** – Connect an E-Series camera to smartphones and tablets with our Wi-Fi app. Stream live video so others can watch along. Import radiometric JPEGs, adjust levels, add measurement tools, then send images off in simple reports via email to expedite repair decisions.

**Superior thermal imaging** – Up to 76,800 pixels (320 × 240) for better long-range accuracy and the highest level of point & shoot camera IR resolution.

**MSX Thermal Image Enhancement** – See numbers, labels and other key visual details not normally apparent in a regular thermal image with an all-in-one thermal picture that instantly orients you to right where heat issues are.

**Onboard digital camera** – 3.1MP resolution provides clear visible light reference pictures; includes built-in LED lamp that doubles as a flashlight plus a laser pointer to mark locations.

**Large Touchscreen with auto-orientation** – The E-Series touchscreen provides an intuitive interface that takes full advantage of the entire 3.5" display for easy access to diagnostics tools, and measurement and other data overlays stay upright no matter how you hold the camera.

**Picture-in-Picture** – Overlay thermal images onto digital scenes for extra location documentation.

**Multiple measurements** – Add up to 3 box areas and 3 moveable spots using the touchscreen to gather more detailed temperature information.

**MeterLink®** – Measure more than temperature. Send diagnostics data by Bluetooth from compatible clamp and moisture meters directly to E-Series cameras to embed extra information into thermal images as you capture them that further supports findings.

**Interchangeable lenses and manual focus**– Optional wide-angle and telephoto optics let you capture more of a scene in one shot or get in closer to measure smaller, distant targets. Full focus control help you dial in the sharpest clarity and accuracy.

**Higher temperature range & sensitivity** – Measure hotter-running equipment with higher 650°C (1,202°F) detection, and see subtler temperature patterns and detail with E-Series' greater sensitivity.



FLIR Tools Mobile Wi-Fi connectivity



Large 3.5" touchscreen



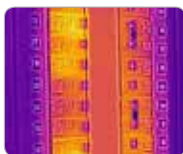
Auto-orientation keeps diagnostics overlays upright



Visible light pictures align with thermal images: 3.1MP digital camera, LED lamp, and laser pointer



Large buttons for easy glove-hand operation

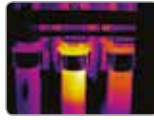


MSX image enhancement



Bluetooth® METERLiNK® communication

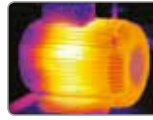
## Applications



Electrical: hot fuses



Motor: internal winding problem



Motor: bearing problem



## Imaging specifications

FEATURES	FLIR E40	FLIR E50	FLIR E60
Temperature range	-20 to 650°C (-4 to 1202°F)	-20 to 650°C (-4 to 1202°F)	-20 to 650°C (-4 to 1202°F)
Thermal sensitivity (N.E.T.D)	<0.07°C at 30°C	<0.05°C at 30°C	<0.05°C at 30°C
Detector Type - Focal plane array; (FPA) uncooled microbolometer	160 x 120 pixels	240 x 180 pixels	320 x 240 pixels
MSX® Thermal Image Enhancement	Yes	Yes	Yes
Picture-in-Picture (P-i-P)	Fixed P-i-P	Scalable P-i-P	Scalable P-i-P
MPEG 4 video recording	Yes	Yes	Yes
Video camera w/lamp & laser	3.1MP/LED lamp/laser pointer	3.1MP/LED lamp/laser pointer	3.1MP/LED lamp/laser pointer
Digital zoom	2X continuous	4X continuous	4X continuous
Image annotation	Voice [60s]/text comments	Voice [60s]/text comments	Voice [60s]/text comments
Moveable spot	3 spotmeters	3 spotmeters	3 spotmeters
Area box	3 area boxes (full image with min/max/avg)	3 area boxes (full image with min/max/avg)	3 area boxes (full image with min/max/avg)
Delta T	Yes	Yes	Yes
Data communication interface	USB-mini, USB-A, composite video, Bluetooth, Wi-Fi	USB-mini, USB-A, composite video, Bluetooth, Wi-Fi	USB-mini, USB-A, composite video, Bluetooth, Wi-Fi
<b>COMMON FEATURES</b>			
Frame rate	60Hz		
Field of view / focus	25° x 19° / manual (Minimum focus distance 0.4m)		
Spectral range	7.5 to 13µm		
Display	Built-in 3.5" color LCD		
Image modes	Thermal, visual, MSX, and image gallery		
Image storage	>1000 radiometric JPEG images (SD card memory)		
Laser classification/Type	Class 2/Semiconductor AlGaInP Diode laser: 1mW/635nm (red)		
Set-up controls	Mode selector, color palettes, configure image info, units, language, date and time formats, and image gallery		
Measurement modes	Auto hot/cold spot, Isotherm (above/below/interval)		
Measurement correction	Reflected ambient temperature & emissivity correction		
Battery type/operating time	Li-Ion/ >4 hours, display shows battery status		
Charging system	In camera AC adapter/2 bay charging system		
Shock/vibration/drop / encapsulation; safety	25G, IEC 60068-2-29/ 2G, IEC 60068-2-6/ Drop-proof 2m (6.6ft) IP54; EN/UL/CSA/PSE 60950-1		
Dimensions/Weight	246x97x184mm/825g, including battery		

## Ordering information

64501-0101 ..... FLIR E40 IR Camera w/MSX 160 x 120 Resolution/60Hz  
 64501-0101-KIT ... FLIR E40 w/MSX 160 x120 Resolution/60Hz with FLIR Tools +  
 64501-0201 ..... FLIR E50 IR Camera w/MSX 240 x 180 Resolution/60Hz  
 64501-0201-KIT... FLIR E50 w/MSX 240 x 180 Resolution/60Hz with FLIR Tools +  
 64501-0302 ..... FLIR E60 IR Camera w/MSX 320 x 240 Resolution/60Hz  
 64501-0302-KIT .. FLIR E60 w/MSX 320 x 240 Resolution/60Hz with FLIR Tools +



\* After product registration on www.flir.com

## ACCESSORIES

1196961 .....IR lens, f = 30 mm, 15° incl. case  
 1196960 .....IR lens, f = 10 mm, 45° incl. case  
 T910814 .....Power supply, incl. multi plugs  
 T911230ACC .....Memory card SDHC 4 GB  
 1910423 .....USB cable Std A <-> Mini-B  
 T198509 .....Cigarette lighter adapter kit, 12 VDC, 1.2 m/3.9 ft.  
 1910582ACC .....Video cable  
 T197771ACC .....Bluetooth Headset  
 T198583 .....FLIR Tools+ (license only)  
 T911093 .....Tool belt  
 T198125 .....Battery charger, incl. power supply with multi plugs Exx  
 T198113 .....IR lens, 76 mm (6") with case and mounting support for Exx  
 T198341 .....Transport case Exx  
 T198487 .....Li-Ion Battery pack 3.7V 17Wh  
 T198484 .....Pouch for FLIR Exx series  
 T198486 .....Tripod Adapter  
 T198485 .....Sun shield



**FLIR Commercial Systems**  
 Luxemburgstraat 2  
 2321 Meer  
 Belgium  
 Tel. : +32 (0) 3665 5100  
 Fax : +32 (0) 3303 5624  
 E-mail : flir@flir.com

**FLIR Systems AB**  
 Antennvägen 6  
 187 66 Täby  
 Sweden  
 Tel. : +46 (0)8 753 25 00  
 E-mail : flir@flir.com

**FLIR Systems UK**  
 2 Kings Hill Avenue - Kings Hill  
 West Malling - Kent  
 ME19 4AQ  
 United Kingdom  
 Tel. : +44 (0)1732 220 011  
 E-mail : flir@flir.com

**FLIR Systems GmbH**  
 Berner Strasse 81  
 D-60437 Frankfurt am Main  
 Germany  
 Tel. : +49 (0)69 95 00 900  
 E-mail : flir@flir.com

**FLIR Systems France**  
 20, bd de Beaubourg  
 77183 Croissy-Beaubourg  
 France  
 Tel. : +33 (0)1 60 37 55 02  
 E-mail : flir@flir.com

**FLIR Systems Italy**  
 Via Luciano Manara, 2  
 I-20812 Limbiate (MB)  
 Italy  
 Tel. : +39 (0)2 99 45 10 01  
 E-mail : flir@flir.com

**FLIR Commercial Systems**  
 Avenida de Bruselas, 15- 3º  
 28108 Alcobendas (Madrid)  
 Spain  
 Tel. : +34 91 573 48 27  
 E-mail : flir@flir.com

**FLIR Systems, Middle East FZE**  
 Dubai Airport Free Zone  
 P.O. Box 54262  
 Office B-22, Street WB-21  
 Dubai - United Arab Emirates  
 Tel. : +971 4 299 6898  
 E-mail : flir@flir.com

**FLIR Systems Russia**  
 6 bld.1, 1st Kozjevnickesky lane  
 115114 Moscow  
 Russia  
 Tel. : + 7 495 669 70 72  
 E-mail : flir@flir.com