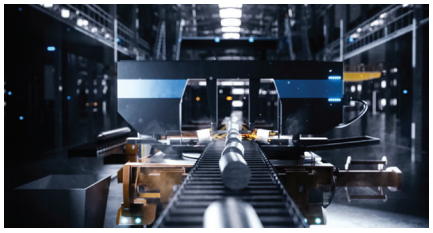
FLIR A50/A70

Compact Thermal Image Streaming Camera

FLIR A50 and A70 Thermal Image Streaming cameras are the right choice for users who want camera control capabilities and image streaming over Ethernet, as well as flexibility to perform analytics and raw data collection on thermal characteristics using preferred software applications. Thermal image and data output can easily be integrated into custom solutions with the GigE Vision and GenICam support. With options for Wi-Fi, an integrated visual camera, compressed radiometric image streaming, and ONVIF S compatibility, these small and lightweight fixed-focus automation cameras will optimize process control and quality assurance to improve yield, product quality, through-put time, and lower costs.



IMPROVE PRODUCTION AND QUALITY

Quickly access thermal characteristics during production or QA processes to optimize production settings and product quality

- Accurately measure temperatures with up to 640 × 480 (307,200 pixels) thermal resolution and ±2°C accuracy
- Reveal thermal detail with low-noise imagery and data
- Extract temperatures from each pixel without need for calculation using temperature linear mode and monochrome 16-bit image streaming
- Identify targets easier using optional simultaneous thermal and visible image streaming from a single camera with MSX®

TROUBLE-FREE INTEGRATION

Simplify integration efforts with non-proprietary industry standard connectivity, data and image streaming, and camera control

- GigE Vision and GenICam compliant for camera control and thermal/visual image video streaming into third-party machine vision applications
- Full support for compressed radiometric streaming using FLIR Atlas SDK (Advanced Configuration only)
- SNMP trap and advanced firewall protection allows multiple network devices to securely operate together
- Simple configuration via standard web browser

RUGGED, COMPACT, EASY INSTALLATION

Meet the demands of industrial environments and installations

- Built with an IP66 rating to withstand harsh environmental conditions
- Ensure operation in dynamic settings thanks to heavy-duty M8/12 connectors
- Easily install the compact, lightweight camera in any location, with multiple mounting options

For more information visit:
www.flir.com/A50-A70-image-streaming

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FLIR A50/A70

Image & Optical Data	Standard Configuration	Advanced Configuration
IR resolution	464 × 348 (A50), 640 × 480 (A70)	
Visual Resolution	1280 × 960 pixels (optional)	
Thermal Resolution	35 mK	
Focus	Fixed, adjustable with included focus tool	
Spatial Resolution (IFOV)	A50: 29°: 1.2 mrad/pixel, 51°: 2.1 mrad/pixel, 95°: 4.0 mrad/pixel A70: 29°: 0.84 mrad/pixel, 51°: 1.5 mrad/pixel, 95°: 2.9 mrad/pixel	
FOV Options	29°, 51°, 95°	
Detector Pitch	A50: 17 µm, A70: 12 µm	
Spectral Range	7.5–14.0 µm	
Frame Rate	30 Hz	
Measurement		
Object temperature range	A50: -20°C to 175°C (-4°F to 347°F) 175°C to 1000°C (347°F to 1832°F) A70: -20°C to 175°C (-4°F to 347°F) -20°C to 250°C (-4°F to 482°F) 175°C to 1000°C (347°F to 1832°F)	
Accuracy	±2°C (±3.6°F) or ±2% of reading, for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above 0°C (32°F)	
Video Streaming, RTSP Protocol	Standard Configuration	Advanced Configuration
Unicast	Yes	
Multicast	Yes	
Radiometric RTSP	No	Compressed JPEG-LS (FLIR Radiometric)
Multiple Image Streams	Yes, visual camera option needed (P/N T300295)	
Video Stream 0		
Streaming Resolution	640 × 480 pixels	
Source	Visual / IR / MSX® / FSX® (visual camera is optional)	
Contrast Enhancement	FSX® / Histogram equalization (IR only)	
Overlay	With/Without	
Encoding	H.264, MPEG4, or MJPEG	
Video Stream 1		
Streaming Resolution	1280 × 960 pixels	
Source	Visual (visual camera is optional)	
Overlay	No	
Encoding	H.264, MPEG4, or MJPEG	

Video streaming, GVSP (GigE Vision Streaming Protocol)		
Unicast	Yes	
Multicast	Yes	
Dual Video Streams	No (either IR, Visual, MSX, FSX or Radiometric 16 bit)	
Visual Resolution	640 × 480	
Pixel Formats	YUV411, MONO8, MONO16	
Radiometric Resolution	A50: 464 × 348, A70: 640 × 480	
Temperature Linear 16-bit	Yes	
Compressed JPEG-LS	No	Yes
Ethernet		
Ethernet Communication	GigE Vision, GenICam (SFNC 2.4)	
Connector Types	M12 8-pin X-coded, female; RP-SMA, female	
Ethernet Interface	Wired, Wi-Fi (optional)	
Ethernet Power	Power over Ethernet, PoE IEEE 802.3af class 3	
Ethernet Protocols	IEEE 1588, SNMP, TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP, sftp (server), FTP (client), SMTP, DHCP, MDNS (Bonjour), uPnP	
Ethernet Standard	IEEE 802.3	
Ethernet Type	1000 Mbps	
Digital Input/Output		
Connector Type	M12 Male 12-pin A-coded (shared with external power)	
Digital Input	2× opto-isolated, Vin (low) = 0 to 1.5 V, Vin (high) = 3 to 25 V	
Digital Output	3× opto-isolated, 0 to 48 V DC, max. 350 mA (derated to 200 mA at 60°C). Solid-state opto relay, 1× dedicated as fault output (NC)	
Power		
Power Consumption	7.5 W at 24 V DC typical, 7.8 W at 48 V DC typical, 8.1 W at 48 V PoE typical	
External Power Operation	24/48 V DC 8 W max	
External Voltage	Allowed range 18 V to 56 V DC	
Power Connection	M12 12-pin A-coded, male (shared with Digital I/O)	
Wi-Fi		
Connector Type	Female RP-SMA	

For a complete list of specifications, go to flir.com/A50-A70-image-streaming

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20-0469-INS12/2024 REV3