

# THERMAL SECURITY MATRIX

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FLIR Security offers the most technically-advanced thermal perimeter protection for critical infrastructure. We feature a full range of cameras that provide unparalleled intrusion detection, day and night, at such critical locations as airports, power grids and utilities.

Thermal cameras see far along fence lines by detecting the heat of intruders at great distances in all lighting conditions. When utilizing onboard or external analytics, FLIR cameras also intelligently classify human and vehicles, resulting in fewer false alarms.

Because our cameras are open platform, they easily integrate into FLIR Latitude VMS, as well as major third party video management systems, access control systems, and sensor technologies.

FLIR is the world leader in developing thermal technology for the security industry. Our cameras are available in a wide range of configurations—including bullet, dome, and PTZ options—with multiple lens options. They are renowned for their reliability, performance and solid ownership experience.





	FC-Series R	FB-Series O	FB-Series ID	FC-Series O	FC-Series ID	F-Series ID
	Fixed IP Thermal Camera with Radiometrics	Fixed IP Thermal Camera	Fixed IP Thermal Camera with built-in analytics	Fixed IP Thermal Camera	Fixed IP Thermal Camera with built-in analytics	Fixed IP Thermal Camera with built-in analytics
<b>Resolution</b>	VGA (640x480),	QVGA (320x240)	QVGA (320x240)	VGA (640x480), QVGA (320x240)	VGA (640x480), QVGA (320x240)	VGA (640x480)
<b>Thermal Sensor</b>	Uncooled Sun-safe VOx Microbolometer	Uncooled Sun-safe VOx Microbolometer	Uncooled Sun-safe VOx Microbolometer	Uncooled Sun-safe VOx Microbolometer	Uncooled Sun-safe VOx Microbolometer	Uncooled Sun-safe VOx Microbolometer
<b>Thermal FOV</b>	VGA 2 models 32° & 45° (13 & 19mm)	5 models - 9°, 12°, 24°, 49° & 93° (3.7, 6.8, 12.8, 18 & 24mm)	5 models - 9°, 12°, 24°, 49° & 93° (3.7, 6.8, 12.8, 18 & 24mm)	4° to 69° QVGA, 9 models (9 to 75mm) 8° to 90° VGA, 8 models (7.5 to 75mm)	4° to 69° QVGA, 9 models (9 to 75mm) 8° to 90° VGA, 8 models (7.5 to 75mm)	VGA 5 models 8° to 44° (13 to 75mm)
<b>Wide Dynamic Range Thermal</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Video Outputs</b>	IP & Analog	IP & Analog	IP & Analog	IP & Analog	IP & Analog	IP & Analog
<b>Video</b>	Dual stream H.264, MPEG-4 & MJPEG	Dual stream H.264 & MJPEG	Dual stream H.264 & MJPEG	Dual stream H.264, MPEG-4 & MJPEG	Dual stream H.264, MPEG-4 & MJPEG	Dual stream H.264 & MJPEG
<b>ONVIF Conformance</b>	Profile S	Profile S	Profile S	Profile S	Profile S	Profile S
<b>Ingress Rating /Min. Oper. Temp.</b>	-50°C to 70°C (-58°F to 158°F) continuous operation -40°C to 70°C (-40°F to 158°F) cold start	-40°C to 50°C (-40°F to 122°F) cold start	-40°C to 50°C (-40°F to 122°F) cold start	-50°C to 70°C (-58°F to 158°F) continuous operation -40°C to 70°C (-40°F to 158°F) cold start	-50°C to 70°C (-58°F to 158°F) continuous operation -40°C to 70°C (-40°F to 158°F) cold start	-50°C to 70°C (-58°F to 158°F) continuous operation -40°C to 70°C (-40°F to 158°F) cold start
<b>Anti-Ice/De-Ice</b>	Yes	No	No	Yes	Yes	Yes
<b>Power Inputs</b>	PoE, PoE+, 18-32 VAC, 18-44 VDC	12 VDC, 24VAC, PoE	12 VDC, 24VAC, PoE	PoE, PoE+, 14-32 VAC, 11-44 VDC	PoE, PoE+, 14-32 VAC, 11-44 VDC	24 VAC, 24 VDC
<b>High Performance Surge Protection</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Warranty Period</b>	3 Years on Cameras, 10 Years on Thermal Sensor					



	PT-Series HD	PT-602CZ HD	A310PT	D-Series
<b>Resolution</b>	Thermal VGA (640x480) Visible - Full HD 1080p	Thermal VGA (640x480) Visible - Full HD 1080p	Thermal QVGA (320x240) Visible - D1	Thermal VGA (640x480) & QVGA (320x240) Visible - D1
<b>Thermal Sensor</b>	Uncooled Sun-safe VOx Microbolometer	Cooled Sun-safe FPA Detector Technology	Uncooled Sun-safe VOx Microbolometer	Uncooled Sun-safe VOx Microbolometer
<b>Thermal FOV</b>	Continuous optical zoom model 6° to 24° (26 & 105mm) 5 fix lens models 8° to 44° (13 to 75mm)	Continuous optical zoom model 2° to 28° (19 to 275mm)	25° Standard (7°/15°/45°/90° options available)	QVGA 4 models 13° to 48° (9-35mm) VGA 3 models 18° to 45° (13-35mm)
<b>Wide Dynamic Range Thermal</b>	Yes	Yes	No	Yes
<b>Pan Angle/Speed Tilt Angle/Speed</b>	Continuous 360°, 0.1° to 60°/sec +90° to -90°, 0.1 to 30°/sec	Continuous 360°; 0.1° to 60°/sec +90° to -90°; 0.1° to 30°/sec	Continuous 360°, 0.1° to 60°/sec +90° to -90° 0.1 to 30°/sec	Continuous 360°, 0.5° to 60°/sec +22° to -90°, 0.5 to 60°/sec
<b>Video Outputs</b>	IP & Analog	IP & Analog	IP & Analog	IP & Analog
<b>IP Video</b>	Dual stream H.264 & MJPEG for each sensor	Dual stream H.264 & MJPEG for each sensor	Dual stream H.264, MPEG-4 & MJPEG	Dual stream H.264, MPEG-4 & MJPEG
<b>Visible Camera</b>	CMOS, 30X optical zoom with auto-focus and 12X digital zoom FOV 63.7° to 2.3°	CMOS, 30X optical zoom with auto-focus and 12X digital zoom FOV 63.7° to 2.3°	HAD CCD, 36X optical zoom, 12X digital FOV 57.8° to 1.7°	HAD CCD, 36X optical zoom, 12X digital FOV 57.8° to 1.7°
<b>ONVIF Conformance</b>	Profile S	Profile S	Profile S	Profile S
<b>Ingress Rating /Min. Oper. Temp.</b>	-40°C to 70°C (-40°F to 158°F) cold start	-32°C to 55°C (-25°F to 131°F) cold start	-25°C to 50°C (-13°F to 122°F)	-25°C to 70°C (-13°F to 158°F) continuous operation
<b>Anti-Ice/De-Ice</b>	Yes	Yes	Yes	Yes
<b>Power Inputs</b>	24 VAC, 24 VDC	24 VAC, 24 VDC	24V AC, 24 VDC	24 VAC, 24 VDC
<b>High Performance Surge Protection</b>	Yes	Yes	Yes	Yes
<b>Warranty Period</b>	2 Years on Cameras, 10 Years on Thermal Sensor			

FLIR QUASAR™

FLIR ioi™



CP-6302-31-1	
	IP HD IR PTZ
<b>Resolution</b>	1080p 1920x1080 @ 30/25 fps
<b>Image Sensor</b>	1/2.8" CMOS
<b>WDR support</b>	sWDR
<b>Focal Length/FOV (H)</b>	30X Continuous Zoom Lens 4.3 to 129mm 2.6°- 68.7° HFOV
<b>Built-in IR</b>	Yes - Up to 200m (656 ft.)
<b>ONVIF Conformance</b>	Profile S/G
<b>Edge Storage Support</b>	microSDXC up to 128GB (Class 10)
<b>Audio Support</b>	Yes/Full Duplex
<b>Ingress Rating / Operating Temperature</b>	IK10 Upper / IK8 Lower IP66 Overall -45° to 50° C (-49° to 122° F)
<b>Power Inputs</b>	PoE++ 802.3bt 60W, 12VDC, 24VAC
<b>Warranty Period</b>	2 Years

	TRK-101	TRK-101 P PTZ
	Video Encoder with built-in analytics with both IP and analog input	Video Encoder with built-in analytics with both IP and analog input. Supports PTZ with detection on presets, PTZ tracking and hand-off from fixed camera.
<b>Supported via IP</b>	FLIR - F-Series, FC-Series S, FC-Series R, FC-Series ID, TCX mini-bullet.3rd Party - Axis, Sony, Bosch, Hikvision	Quasar 30X PTZ, PT-Series, A310pt, PT-Series HD, PT-602CZ HD
<b>IP Input</b>	H.264 main profile, via RTSP	H.264 main profile, via RTSP
<b>Channels</b>	1	1
<b>IP Video Streaming</b>	H.264, MPEG-4 SP, MJPEG	H.264, MPEG-4 SP, MJPEG
<b>Physical Connector</b>	1x BNC 75Ω	1x BNC 75Ω
<b>Frame Rate</b>	MPEG-4 25/30 fps for all resolutions H.264 D1 half frame-rate, VGA 18 fps	MPEG-4 25/30 fps for all resolutions H.264 D1 half frame-rate, VGA 18 fps
<b>Bit Rate</b>	CBR (128Kbps-4Mbps), VBR	CBR (128Kbps-4Mbps), VBR
<b>Network Video Streaming</b>	RTP/RTSP	RTP/RTSP
<b>Alarms/Commands</b>	TCP/IP, HTTP	TCP/IP, HTTP
<b>Operating Temperature</b>	0° to 60°C (32° to 140°F)	0° to 60°C (32° to 140°F)
<b>Alarms</b>	In - 1, Out - 1	In - 1, Out - 1
<b>Warranty Period</b>	2 Years	

Further information on thermal imaging cameras and their application can be obtained from:

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