

CCTV IP / Thermal

# SF-IPTB012DA-7D4-256

## Thermographic Bi-Spectrum Camera

### Bi-Spectrum Thermographic Cameras

High-resolution thermal imaging cameras are used to detect temperature anomalies before a fire starts, find hot spots, invisible defects in machinery or electrical systems that could indicate a potential problem. The artificial intelligence they incorporate also allows them to detect humans and/or vehicles, filtering out possible false alarms caused by vegetation, animals, etc. Its visible spectrum lens will allow us to obtain a high quality image with more information for alarm verification in the surveillance centre.

- 256x192 Thermal VOx & Sensor 4Mpx Optical
- 6.9mm Thermal / 6.4mm Optical Lens
- Accuracy  $\pm 8^{\circ}\text{C}$
- Powerfull behavior analysis and Temp. Measure
- IP67 protection / Audio / Alarm
- Power supply PoE 802.3af



# Technical Specification

<b>Image Sensor</b>	Vanadium Oxide Uncooled Focal Plane Arrays
<b>Resolution</b>	256 × 192
<b>Pixel Pitch</b>	12 μm
<b>Spectral Range</b>	8 μm to 14 μm
<b>NETD</b>	< 40 mK (25°C, F1.0)
<b>Focal Length</b>	6.9mm
<b>IFOV</b>	1.74 mrad
<b>Field of View</b>	24.9°(H) x18.7°(V)
<b>Min. Focusing Distance</b>	1.3 m
<b>Aperture</b>	F1.0
<b>Digital Zoom</b>	×2, ×4
<b>Image Sensor</b>	1/2.7" Progressive Scan CMOS
<b>Resolution</b>	2688 × 1520
<b>Min. Illumination</b>	Color: 0.0176 Lux @ (F2.25, AGC ON), B/W: 0.0035 Lux @ (F2.25, AGC ON)
<b>Shutter Speed</b>	1 s to 1/100,000 s
<b>Focal Length</b>	6.4 mm
<b>Field of View</b>	53.0°(H) x28.0°(V)
<b>Aperture (Range)</b>	F1.6
<b>WDR</b>	120 dB
<b>Target Coloration</b>	Yes. Supported in white hot and black hot mode.
<b>IR Distance</b>	Up to 30 m
<b>IR Intensity and Angle</b>	Automatically adjusted
<b>White Light Range</b>	Up to 30 m
<b>Visual Alarm</b>	Yes. White light alarm with adjustable flashing frequencies
<b>Audio alarm</b>	Yes, for two types of audible alarm (VCA and Temperature Exception) 2 preset voice alerts (one for each) 6 importable user-defined voice alerts (6 options shared in the two types)
<b>VCA</b>	4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), up to 8 VCA rules in total.
<b>Temperature Measurement</b>	3 temperature measurement rule types, 21 rules in total (10 points, 10 areas, and 1 line)
<b>Temperature Range</b>	-20°C to 150°C (-4°F to 302°F)
<b>Temperature Accuracy</b>	± 8°C (± 14.4°F)
<b>Main Stream</b>	Thermal: 25 fps (1280 × 720, 704 × 576, 640 × 512, 320 × 240) Optical: 50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)
<b>Sub-stream</b>	Thermal: 25 fps (704 × 576, 640 × 512, 320 × 240) Optical: 50 Hz: 25 fps (704 × 576, 352 × 288) 60 Hz: 30 fps (704 × 480, 352 × 240)
<b>Video Compression</b>	Main Stream: H.265/H.264 Sub-Stream: H.265/H.264/MJPEG
<b>Audio Compression</b>	G.722.1/G.711 ulaw/G.711 alaw/MP2L2/G.726/PCM
<b>Protocols</b>	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, Bonjour, SFTP, SRTP
<b>Network Storage</b>	MicroSD/SDHC/SDXC card (up to 256 G) local storage, NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR)
<b>API</b>	ISAPI, Safire SDK, and third-party management platform, Open Network Video Interface (Profile S, Profile G)
<b>Simultaneous Live View</b>	Up to 20 channels
<b>User/Host level</b>	Up to 32 users, 3 levels: Administrator, Operator, User
<b>Security</b>	User authentication (ID and Password), MAC address binding, HTTPS encryption, IEEE 802.1x(EAP-MD5, EAP-TLS), access control, IP address filtering

<b>Client</b>	Safire Control Center, Safire Connect
<b>Web Browser</b>	Live view (plug-in allowed) : Internet Explorer 11 Live view (plug-in free) : Chrome 57.0 +, Firefox 52.0 + Local service : Chrome 57.0 +, Firefox 52.0 +
<b>Alarm Input</b>	2, alarm input (0-5 VDC)
<b>Alarm Output</b>	2, alarm output (alarm response actions configurable)
<b>Alarm Action</b>	SD recording/Relay output/Smart capture/FTP upload/Email linkage
<b>Audio Input</b>	1, 3.5 mm Mic in/Line in interface Line input: 2 to 2.4 V [p-p], output impedance: 1 K $\Omega$ $\pm$ 10%
<b>Audio Output</b>	Linear level, impedance: 600 $\Omega$
<b>Communication Interface</b>	1, RJ45 10 M/100 M Self-adaptive Ethernet interface. 1, RS-485 interface (half duplex)
<b>Analog Output</b>	1.0V [p-p]/75 $\Omega$ , PAL/NTSC/BNC
<b>Web Client Language</b>	32 languages English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil)
<b>Power Supply</b>	12 VDC $\pm$ 25%, $\square$ 5.5 mm coaxial power plug PoE (802.3af, class 3)
<b>Power Consumption</b>	12 VDC $\pm$ 25%: 0.5 A, Max. 6 W PoE (802.3af, class 3); 42.5 V to 57 V, 0.14 A to 0.22 A, Max. 6.5 W
<b>Working Temperature/Humidity</b>	Temperature: -40°C to 65°C (-40°F to 149°F) Humidity: 95% or less
<b>Protection Level</b>	IP67 Standard TVS 6000V lightning protection, surge protection, voltage transient protection
<b>Dimensions</b>	321.3 mm $\times$ 106.1 mm $\times$ 107.0 mm (12.65" $\times$ 4.18" $\times$ 4.21")
	1550 g (3.41 lb)