FD5006M

6MP IP Fixed dome camera with 4x motor zoom, IR, 1/2.5''

DESCRIPTION

*** Planned release October 1, 2025 ***

The FD5006M is a 6 megapixel IP fixed dome camera providing clear images in any situation. A wide angle 2.8 .. 12 mm (4x zoom) motorized autofocus lens allows for easy setup and ensures sharp and clear images. The camera has a wide range of intelligent video analytics features to detect numerous events. Intelligent video encoding ensures good image quality and low storage costs. It offers many image enhancement techniques, such as BLC and HLC, Image stabilization, Defog and 3DNR; for further enhancement of the image, dedicated AI is assisting in the removal of the classical low-light artefacts such as noise and motion blur. FD5006M is capable of streaming out by HTTPS protocol.

FEATURES

1/2.5 Progressive scan CMOS

Max. 3296x1856 (6MP) resolution

2.8 .. 12 mm (4x motor zoom)

6MP 30fps, 1080p 60fps

120 dB WDR (Dual exposure HDR)

Triple stream H.264, H.264+, H.265, H.265+, and MJPEG

Day/Night with IR-cut filter / WDR / BLC

AI enforced embedded video analytics

ONVIF Profile S, T, G, M

Description

Multi-stream multi-codec
The camera has triple stream capability for simultaneous streaming of H.264, H.264+, H.205, H.265+, and MJPEG. Multiple combinations of resolution, frame rate, and encoding can be configured to fit all possible live viewing and recording scenarios. The 6 megapixel resolution is available at 25/30 fps still offering multiple exposure WDR (or HDR, in short) with the possibility to add a second stream.

Open standards
Multiple options are available to easily integrate the FD5006M to a video management system. The TKH Security signature SPI protocol is included as the easiest way to drive the camera in customized environments. In support of open standards, the camera is compliant with the ONVIF Profile S, T, G, and M. Any VMS today supports this camera via the ONVIF driver.

Image enhancement
The FD5006M utilizes advanced image processing technology. Crisp and detailed 6MP images with an extremely high dynamic range in real time due to multiple exposure HDR within one frame. Back-light and High-light compensation enhances image-visibility in difficult lighting situations. In addition the camera provides for 3D motion compensated noise reduction for the best images.
Truly remarkable about the camera is its AI enforced low-light sensitivity. Using this next-gen technology, the disadvantageous effects of low light environments such are noise and motion blur are effectively reduced by this camera, without the help of supplemental lighting.

Power source choices
The FD5006M can be powered by 12 Vdc, or over the network with PoE.

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Camera

Image sensor	1/2.5'' CMOS
Max. Resolution	3296x1856 (6MP)
Max. Frame rate	60 (1080p)
Minimum scene illumination	0.008 lx (Color); 0 lx (B/W, IR lighting)); F1.6
Shutter Speed	1/4 .. 1/100000 s
Lens	Motorized 2.8 .. 12 mm (4x zoom), F1.6, DC-iris
Field of View	108 .. 36 ° horizontal, 57 .. 20 ° vertical
Focus Control	Auto, Manual
Slow Shutter	Supported
Day/Night	Automatic IR-cut Filter
IR illumination	50 m; 850 nm

Video

Stream 1 resolutions	3296x1856, 3200x1800, 2880x1624, 26881520, 1920x1080
Stream 2 resolutions	1280x720, 640x480, 480x240, D1, CIF
Stream 3 resolutions	640x480, 480x240, D1, CIF
Video Compression	H.264, H.264+, H.265, H.265+, MJPEG
H.264 profiles	Base profile, Main profile, High profile
H.265 profiles	Main profile
Video Bitrate	64 .. 10000 Kbps
Bitrate Control	CBR, VBR
Number of video output streams	Up to 10
Region of interest	Supported, 8x
Video output	Supported, 1x

Image

Image control	Brightness, Contrast, Saturation, Sharpness, Whitebalance, AGC
Day/Night control	Auto, Day, Night, Timer
Wide dynamic range	120 dB (Dual exposure HDR)
SNR	50 dB
Image enhancement	BLC, HLC, Defog, 3DNR, 2DNR, ColorNR
Rotation	0, 180
Mirror	Mirror, Flip
Privacy masks	4 (Solid)
Text and picture overlay	6x Text, Date/time, Camera name, Picture
Digital Zoom	16x

Mechanical adjustment

Pan range	0 .. 355°
Tilt range	0 .. 90°

Specs

Mechanical adjustment

Analytics

Smart analytics	Line crossing, Intrusion detection, Zone enter,
	Zone exit, Scene changed, Left luggage, Object removed,
	Object counting, Loitering, Face detection, People counting,
	Illegal parking, Simultaneous AI, Video Metadata
Event detections	Motion detection, Tampering, Network disconnected,
	IP address conflict, Storage full, Storage error, Image quality,
	Bad focus, Audio detection, Periodical
Event actions	, Record video clip, Send message, Upload image

Audio

Audio input	1x Line IN (mono, 3.5mm connector)
Audio output	1x Line OUT (mono, 3.5mm connector)
Compression	G.711alaw, G.711ulaw

Alarm

Input	1x Alarm IN
Output	1x Digital OUT

Network

Interface	10Base-T (IEEE 802.3i) / 100Base-TX (FE, IEEE 802.3u),
	Self-adaptive RJ45, Flow control (IEEE 802.3x)
Protocols	TCP, UDP, ICMP, HTTP, FTP, RTP, DHCP, DNS, DDNS, RTSP,
	RTCP, PPPoE, NTP, UPnP, SMTP, SNMP v1/v2/v3, IGMP v1/v2/v3, 802.1x,
	QoS, IPv4, IPv6, SSL, TLS v1.0/v1.1/v1.2/v1.3, ONVIF Profile S/G/T/M,
	SPI
Interoperability	ONVIF Profile S/G/T/M, SPI
Security	Password, Complex password, HTTPS encryption,
	802.1x port authentication, EAP, Watermark, IP address filter,
	Basic authentication, Digest authentication, HTTP authentication,
	ONVIF WSSE authentication, ONVIF digest authentication,
	RTSP over HTTPS, RTSP over TLS, Logout after idle timeout,
	Security audit log, TLSv1.2 (HTTPS, 802.1x), TLSv1.3 (HTTPS, 802.1x)
Web browser	Microsoft Edge, Google Chrome, Mozilla Firefox
Local Storage	uSD, uSDHC, uSDXC, max. 256 GB

Environmental

Protection Level	IP66, IK10
Operating temperature	-30 .. 60 °C (-22 .. 140 °F)
Relative humidity (Operating)	Max. 95% (non-condensing)
Storage temperature	-30 .. 65 °C (-22 .. 149 °F)
Relative humidity (Storage)	Max. 95% (non-condensing)

Specs

Environmental

Power supply	12VDC, PoE 802.3af

Mechanical

Material	Metal and plastic
Product dimensions	141 x 141 x 100
Product weight	
Package dimensions	180 x 180 x 175
Package weight	1.2 kg (2.6 lbs)
Color	Signal white, black

Ordering Information

FD5006M	6MP IP Fixed dome camera with 4x motor zoom, IR, 1/2.5'' CMOS

TKH Security PM50
Pole mount, for BL50xxM, FD50xxM, FE5012

TKH Security JBFD50
Junction box, for FD50xxM

TKH Security WMFD50
Wall mount, for FD50xxM

TKH Security CMFD50
Ceiling mount, for FD50xxM

TKH Security WM50
Corner mount, for FD50xxM, FE5012