



FB2028-TM



RUGGED

The 2-megapixel FB2028-TM Rugged Series bullet IP camera is designed to withstand harsh outdoor and tough working conditions. The IP68-rated housing with extreme temperature protection ($\pm 60^{\circ}\text{C}$) makes the camera invulnerable to harsh rainstorms, freezing cold and scorching heat. The FB2028-TM is outfitted with IR LED illuminators (30m) to achieve excellent day / night functionality, motorized lens, Smart Stream and Region of Interest (ROI) for bandwidth / storage optimization.

- [live view](#)



features



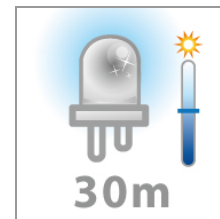
waterproof & dustproof



extreme temp. protection



motorized focus / zoom (MFZ)



adjustable IR LEDs



Smart Stream

key features

- 2-megapixel 1/2.7" CMOS sensor with vari-focal lens ($f=3\sim 9\text{mm}$)
- supports up to 1920 x 1080 at 30fps
- H.264 / MJPEG / MPEG-4 compression (tri-codec)
- supports plug and play feature with AVer DVRs/NVRs
- robust housing with IP68 rating
- protection against extreme temperatures ($\pm 60^{\circ}\text{C}$)
- motorized lens allows for easy focus and zoom adjustment (MFZ) directly via the camera's GUI
- built-in mechanical ICR (IR-cut filter removable) and adjustable Osram IR LEDs (30m) for excellent day and night visibility
- supports Wide Dynamic Range (WDR) and Digital Noise Reduction (DNR) to deliver cleaner, sharper

images in challenging light environments

- supports Smart Stream and Region of Interest (ROI) and Event Booster technology, allowing for smart bandwidth / storage optimization through targeted image capturing
- EN50130-4 certified, ensuring high surge and electro-thermal resistance
- local storage backup (microSDHC/SDXC card, up to 64GB) when an event is triggered or the network is down
- event trigger actions: mail, FTP, save to memory card, relay, Samba
- NXU Lite video management software (free up to 32CH)

specs

model	FB2028-TM
application environment	
indoor / outdoor	indoor / outdoor
weatherproof	IP68
vandal-proof	-
day / night control	auto / manual / schedule
camera image	
sensor	1/2.7" CMOS
min. illumination	color: 0.2 lux @ F1.2 black & white: 0.03 lux @ F1.2 0 lux @ F1.2 (IR LED on)
built-in IR LEDs	yes - adjustable strength (Osram)
IR distance	30m
mechanical ICR	yes
auto iris	yes
lens	
lens type	motorized vari-focal lens
F/no	F1.2
focal length	f=3~9mm
angle of view	121.2° (W) ~ 38.1° (T) (horizontal) 62.1° (W) ~ 21.3° (T) (vertical)
video	
compression	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	full HD (1920 x 1080)
max. frame rate	H.264 / MPEG-4 up to 30fps (1920 x 1080) MJPEG up to 30fps (1280 x 1024)
streaming	H.264 / MPEG-4 / MJPEG
multiple streams	yes
WDR (Wide Dynamic Range)	D-WDR
BLC (Backlight Compensation)	yes
DNR (Digital Noise Reduction)	2D, 2D/3D (dynamic)
Smart Stream	yes
ROI (Region of Interest)	yes

IMD (Intelligent Motion Detection) zone	3
privacy mask	3
image orientation	mirror, flip
audio	
audio encoder	G.711 / G.726 / AAC audio compression
audio streaming	2-way audio
microphone	external microphone input
network	
protocol	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X
Ethernet	Ethernet (10/100 Base-T), RJ45 connector
security	password protection, IP address filtering, HTTPS encrypted data transmission
user	up to 10 users simultaneously
alarm	
trigger event	Event Booster, mail, FTP, save to memory card, relay, Samba
interface	
digital input / output	1 / 1
built-in storage option	microSDHC / microSDXC card (64GB max.)
general	
power supply	DC 12V / PoE
DC	power consumption 5.7W (IR LED off / heater off) 8.5W (IR LED on / heater off) 34.3W (IR LED off / heater on) 36.3W (IR LED on / heater on)
PoE	PoE Class 4 (IEEE802.3at) power consumption: 6.7W (IR LED off / heater off) 10W (IR LED on / heater off) 22.5W (IR LED off / heater on) 23.6W (IR LED on / heater on)
dimensions	111 W x 114.5 H x 265.2 D (mm)
net weight	2180g (w/ bracket)
temperature and humidity	-60°C ~ 60°C, 20% ~ 90% (DC) -40°C ~ 60°C, 20% ~ 90% (PoE)
other value-added features	MFZ, ePTZ, EN50130-4
software	

VMS	NXU Lite (free bundle up to 32CH)
supported languages	English, Arabic, Bulgarian, Czech, Danish, Dutch, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Norwegian, Polish, Potuguese, Romanian, Russian, Simplified Chinese, Slovak, Spanish, Swedish, Thai, Traditional Chinese, Turkish

*specifications are subject to change without prior notice