

- ▲ Deep Neural Network Accelerated Engine
- ▲ HDR Engine Gen3
- ▲ Crystal Engine Gen3
- ▲ Up to 5M Resolution and 40x Optical Zoom available
- ▲ Servo Feedback
- ▲ Vandal Proof and Weatherproof¹



¹ 821 Only

DNN Edge Analytics

The latest computer vision technology makes DNN accelerated video processing engine efficient at the edge. This engine provides high accuracy, real-time object tracking and human face detection. Moreover, it allows simultaneous detection on multiple objects.



HDR Engine Gen3

The latest HDR engine delivers excellent, natural high dynamic images. Both details of high light and low light areas are kept, and no blending artifacts are generated.



Crystal Engine Gen3

Under extremely low light environment, Crystal engine gen3 delivers low noise, high quality image without compromising on details. In addition, it also keeps image sharp on motion object.



Features

- Multiple Sony Progressive Scan CMOS Sensor support up to 5M Resolution
- Up to 40x Optical Zoom available
- Multi Exposure HDR
- Electrical Image Stabilizer (EIS) Support
- Multi Codec support (H.265/H.264/MJPEG)
- 3D Motion Compensated Noise Reduction
- ONVIF Profile S/G/T/M support
- Servo Feedback - Zero Drifting
- Weatherproof (IP66)¹
- Deep Neural Network Accelerated Engine
 - Face/LPR Detection and Recognition
 - Object Classification and Recognition
 - People Detection and Tracking
- Smart Event function
 - External Input/Motion Detection
 - Network Failure Detection/Audio Detection
 - Periodical Event/Manual Trigger
- Vandal proof (IK10 Rating)¹

¹ 821 Only

Custom Specification (Default)

Sony 2M		
Image Sensor	Sony 2M 1/2.8" Progressive CMOS	
Effective Pixels	HxV = 1945x1097 (2M)	
Pixel Size	2.9 μm	
Frame Rate (Maximum)	H.265	HDR 2M @30fps + 2M @30fps
	H.264	HDR 2M @30fps + 2M @30fps
	MJPEG	2M @30fps
Lens : Default		
Minimum Illumination	Color	0.1 lux
	B/W	0.002 Lux
Lens	Type	40x Zoom Lens, P-Iris, Auto-Iris, F1.6
	Focal Length	4.3-170 mm
	Horizontal FOV	66.5° (wide), 2.0° (tele)
	Vertical FOV	40.0° (wide), 1.2° (tele)

System Integration	
Event Triggers	External Input, Analytics, Network Failure Detection, Periodical Event, Manual Trigger
Event Actions	External output Activation Video and audio recording to edge storage File Upload : FTP, network share and email Notification : HTTP, FTP, email
Intelligent Video Analytics	
General Analytics	Motion Detection/Audio Detection
DNN Analytics	Face Detection/Tracking/Recognition LPR Detection/Recognition People Detection and Tracking Human/Vehicle Classification Object Classification/Recognition

Common Specification

Camera		
Day and Night	Removable IR-cut filter	
Shutter Time	1~1/10K sec.	
HDR	Gen3 Engine	
EIS	Yes	
Digital Zoom	10x	
Image Settings	Exposure, White Balance, Brightness, Sharpness, Contrast, Saturation, Hue, Day/Night Threshold, Noise Reduction, Backlight Compensation, Text Overlay, Privacy Mask	
Rotation	180° rotation	
Pan/Tilt		
Pan/Tilt Range	Pan : 0~360° endless	Tilt : -10~100°
Manual Speed	Pan : 0.1~90°/s	Tilt : 0.1~55°/s
Preset Speed	Pan : 400°/s	Tilt : 300°/s
Preset	256	
PTZ Mode	8 Sequence, 8 cruise, 4 auto pan	
Video Codec		
Compression	H.265/H.264/MJPEG	
Streaming	Up to 4 individually configurable streams in H.265/H.264/MJPEG Configurable resolution/frame rate/bandwidth LBR/VBR/CBR in H.265/H.264	
Audio Codec		
Compression	G.711/G.726/AAC/LPCM	
Streaming	2 way	
Audio Input	Line in	
Audio Output	Line out	
Network		
Interface	10/100/1000Mbps Ethernet	
Security	User Authentication/HTTPS/IP Filter/IEEE 802.1x	
Supported Protocols	ARP, PPPoE, IPv4/v6, ICMP, IGMP, QoS, TCP, UDP, DHCP, UPnP, SNMP, SMTP, RTP, RTSP, RTSPS, HTTP, HTTPS, FTP, NTP, DDNS, LLDP, RTMP, SRTP	
ONVIF	Profile S/G/T/M conformant	

General		
Casing	Metal and Plastic	
Power	721: PoE+ IEEE802.3at, class 4, max 17.71 watt AC24V, max 17.10 watt, max 32.67 VA	
	821: PoE+ IEEE802.3at, class 4, max 25.5 watt AC24V, max 29.04 watt, max 53.24 VA	
Connectors	RJ45	
	AC24V, Terminal Block	
	Alarm in x4, Alarm out x2, Terminal Block	
	Audio in, Terminal Block	
	Audio out, Terminal Block	
Storage	Support for microSD/microSDHC/microSDXC card	
	Support for recording to NAS	
Operating Conditions	721 Y2 821 Y2	-25°C~50°C, without heater -40°C~50°C, with heater 10%~90%, No Condensation
Storage Conditions	-20°C~70°C	
Approvals	EMC Safety Environment	CE/FCC RoHS IP66 ¹ , IK10 ¹
Dimensions	721 Y2 821 Y2	Ø 212x264 mm Ø 210x279 mm with Sunshield
Weight	721 Y2 821 Y2	2.7 kg 3.1 kg

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Custom Specification

Default

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Pixel Size	2.9 μm		
Frame Rate (Maximum)	H.265	HDR 2M @30fps	+ 2M @30fps
	H.264	HDR 2M @30fps	+ 2M @30fps
	MJPEG	2M @30fps	
Lens :			
Minimum Illumination	Color	0.1 lux	
	B/W	0.002 lux	
Lens	Type	40x Zoom Lens, P-Iris, Auto-Iris, F1.6	
	Focal Length	4.3-170 mm	
	Horizontal FOV	66.5° (wide), 2.0° (tele)	
	Vertical FOV	40.0° (wide), 1.2° (tele)	

Sony 2M			
Image Sensor	Sony 2M 1/2.8" Progressive CMOS		
Effective Pixels	HxV = 1936x1100 (2M)		
Pixel Size	2.9 μm		
Frame Rate (Maximum)	H.265	HDR 2M @30fps	+ 2M @30fps
	H.264	HDR 2M @30fps	+ 2M @30fps
	MJPEG	2M @30fps	
Lens :			
Minimum Illumination	Color	TBD	
	B/W	TBD	
Lens	Type	40x Zoom Lens, P-Iris, Auto-Iris, F1.6	
	Focal Length	4.3-170 mm	
	Horizontal FOV	66.5° (wide), 2.0° (tele)	
	Vertical FOV	39.6° (wide), 1.2° (tele)	

OmniVision 5M			
Image Sensor	OmniVision 5M 1/2.7" Progressive CMOS		
Effective Pixels	HxV = 2720x1976 (5M)		
Pixel Size	2.0 μm		
Frame Rate (Maximum)	H.265	HDR 5M @30fps	+ 720p @30fps
	H.264	HDR 5M @30fps	+ 720p @30fps
	MJPEG	2M @30fps	
Lens :			
Minimum Illumination	Color	0.197 lux	
	B/W	0 lux	
Lens	Type	40x Zoom Lens, P-Iris, Auto-Iris, F1.6	
	Focal Length	4.3-170 mm	
	Horizontal FOV	64.5° (wide), 1.8° (tele)	
	Vertical FOV	48.6° (wide), 1.4° (tele)	