5MP PTZ Camera

- 1/2.8" Low Illumination Progressive Scan CMOS Sensor
- Quad Streaming
- Multiple compression techniques H.265/H.264/MJPEG
- Support 3D DNR, HLC, WDR
- Support bi-directional Talk
- IP67 Complaint
- Cyber Security Certified by STQC as per IoTSCS and meet the essential requirement issued by MeitY

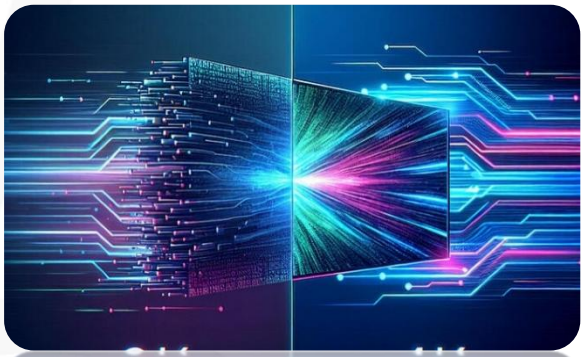


Rev 1.4

Cyber Security

The camera is secured and reliable as per IoTSCS for Essential Requirements (ER) issued by MeitY for CCTV with features such as HTTPS digest authentication, Watermark, RTSPS, AES 256 encryption, SHA256 and RSA2048, OTP, Signed Firmware, Firmware Anti-rollback, TEE (Trusted Execution Environment) and TRNG



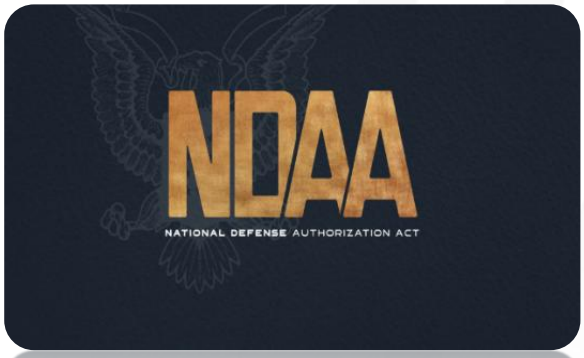


High Resolution Image

The Sparsh camera utilizes advanced imaging sensors to produce high-resolution images, ensuring superior detail and clarity It excels in low-light environments, enabling effective monitoring and accurate identification. The camera incorporates cutting-edge processing algorithms to enhance image quality and reduce noise, while its user-friendly interface facilitates seamless operation.

NDAA Compliant

These cameras are fully NDAA compliant. With adherence to the National Defense Authorization Act's rigorous standards, rest assured that your surveillance solution not only offers unmatched performance but also aligns with the highest levels of regulatory compliance.



Technical Specifications:

Specifications	SS-EN412P-(I)
Camera	
Image sensor	1/2.8", 5MP Low Illumination Progressive Scan CMOS Sensor
Effective Pixels	2616(H)x1964(V)
Aspect Ratio	16:9
Min. Illumination	Color: 0.001Lux @ (F1.2, AGC ON), 0.014 Lux @ (F1.4, AGC ON), 0 Lux with IR
S/N Ratio	≥58dB (AGC OFF)
IR Distance	250m
Shutter Speed	Auto, Slow Shutter, (1/1 sec ~ 1/100,000 sec Adjustable)
Slow Shutter	On/ Off
WDR	Up to 120 dB, TWDR (Off/ Low/ Middle/ High)
IR LED Control	Auto, Manual, OFF
3D DNR	Low, MID-Low, MID, MID- HIGH, High
Profiles	Day and Night
Day/Night Mode	ICR switch, Auto, Color, B&W, External Trigger
Defog	Off, Low, Middle, High
Output format	PAL/NTSC adjustable
Optical zoom	36X Optical Motorized Zoom Lens (Optional: 42X)
Digital zoom	16X
Focal length	4.5~162mm (Optional: 7~300mm)
Max. Aperture	F1.2(W)~F4.4(T)
IRIS Control	Auto, DC Control
Angle of View	H63°~H3°/D69°~D3°/V38°~V1°
Zoom speed	1-10 level
Focus mode	Auto/manual
RTC (Real-Time Clock)	Support
Video	
Compression	H.265/H.264/MJPEG
H.265 Encoding	Main Profile
H.264 Encoding	Main Profile / High Profile
Streaming Capability	Quad Streams
Resolution	5MP/4MP/2MP/720P/VGA
Streams	**Mainstream:** 5MP(2592X1944)@20fps / 4MP(2560x1440)@25/30fps / 1080P(1920x1080)@60fps **Sub Stream:** 720P(1280x720)@25/30fps **Third Stream:** VGA(640x480)@15fps **Fourth Stream:** VGA(640x480)@15fps
Frame Rate	1~ 60fps
Video bit Rate	Constant bit rate, variable bit rate (16kbps-8Mbps)
I - Frame	2 -255
Color Mode	Normal, Bright, Nature
Exposure Mode	Off, High Light correction, Backlight Correction, Range (1-10)
Backlight Mode	Off/ BLC/ HLC (1-10 levels)
White Balance	Auto, Manual, Warm light, Natural light, Incandescent lamp, fluorescent lamp, Locked WB
Gain Control	Low, MID-Low, MID, MID- HIGH, High

Sharpness	0-255
Anti - Flicker	Off/ON
AE Algorithms	Shutter Priority, Gain Priority
Mirror	Off, Horizontal Mirror, Vertical Mirror,180-degree Rotation
Gamma Mode	Curve 1.6, Curve 1.8, Curve 2.0, Curve 2.2
Privacy Masking	Support 8 area privacy mask
ROI	Support 4 Zone
Display Overlay (OSD)	Title, time and date overlay, multi-line OSD, OSD Color Selection
Image Setting	Brightness, Contrast, Sharpness, Saturation, Chroma, Hue
Audio	
Compression	G.711U and G.711A (Support mic in/line in)
Audio Bit Rate	8 – 64 Kbps
PTZ Function	
Pan/Tilt range	Pan: 0° ~ 360° endless; Tilt: 185° (-5° ~ 180°)
Manual Control Speed	Pan: 0.1° ~350° /s; Tilt: 0.1° ~350° /s
Preset speed	400°/s
Preset accuracy	±0.1°
Preset	300
Cruise	8 groups
Pattern	4 groups
Auto Tracking	Support
Continuous scan	Support
Proportion zoom	Auto
Home Return	Support
PTZ watch	Off/ Preset/ Cruise/ Pattern
Auto flip	Mechanical Flip
Power off memory	Support
3D positioning	Support
Magnification/Coordinate display	Support
IR irradiation angle	Automatically grouping adjusted, depending on the zoom ratio
IR Wavelength	850nm
Smart IR	IR irradiation brightness and angle can be adjusted depending on the zoom ratio
Network	
Network Port	10/100 Base-T Ethernet (Auto, Half Duplex, Full Duplex)
Protocol	TCP/IP, IPv4, IPv6, UPnP, SSL, TLS, HTTP, HTTPS, HTTP Push, HTTPS Push, HTTP-Base 64, HTTPS-Base 64, HTTP-Digest, FTP/SFTP, DDNS, DHCP, DNS, RTP, RTSP, RTMP, RTSPS, RTCP, ICMP, NTP, SMTP, IGMP, SNMP (V1, V2, V3), UDP, Multicast
System Compatibility	ONVIF Profile S, G, M & T
Max. User Access	20 Users (8 Simultaneous)
Discovery Interface	ONVIF, Sparsh Utility to Detect camera automatically and configure network settings
Web Server	Built In web server with interactive Graphical User Interface
Web Browser	Google Chrome, Mozilla Firefox, Microsoft Edge
General Function	User Authentication, Watermark, IP address filtering

Security Features	Authorized username and password, HTTPS with password, HTTPS digest authentication, Watermark, RTSPS, AES 256 encryption, SHA256 and RSA2048, OTP, Signed Firmware, Firmware Anti-rollback, TEE (Trusted Execution Environment), TRNG, User Authentication, and encrypted firmware, Hardware Secure Boot
ANR	Support
NAS	Support
Streaming	Unicast & Multicast
Smart Event	
Motion Detection	Set Detection Area, Period, Can Set Multi-Level Sensitivity
Tamper Detection	Alerts when the camera is blocked, defocused, or tampered intentionally or unintentionally
Network Loss Detection	Support
IVA(Optional)	
Smart Motion Detection	Supports intelligent motion detection based on human target classification, effectively filtering out false alarms triggered by vehicles, animals, rain, shadows, or light changes.
People Counting	Supports uni- or bidirectional counting of humans, vehicles, or both, with options to add, subtract, or ignore counts for a single directional line
Line Crossing Detection	4 Lines, Crossing a pre-defined virtual line
Loitering Detection	Detect in case of loitering in monitored areas
Intrusion Detection	Enter in a pre-defined virtual region
Retrograde Detection	Detects when a person/vehicle is moving in the opposite direction of the predefined path
Absent Detection	Detect the absence of a person from a predefined area for a certain period
Event Triggers	External Input, Analytics, Network Failure Detection, Periodical Event, Manual Trigger
Event Actions	Enable Alarm Out, External Input, Analytics, Send Email, Start Recording, Play Customized Audio Warning, PTZ Linkage, Snapshot, Manual Trigger, Periodical event
Face Detection	Support
Interface	
Audio	1 IN/1 Out (Full Duplex)
Alarm	2Ch Alarm IN, 1Ch Alarm Out
SD Card	Yes, Up to 2TB
General	
Ingress Protection	IP67 Compliant
Vandalism Protection	IK10 Compliant
Material Housing	Casing: Aluminum+ Plastic
Front lens cover	Glass
Surge Protection	TVS 6000V Lightning Protection, Surge Protection & Voltage Transient Protection
Operating Temperature/ Humidity	-50°C ~ 70°C (-40°F ~ +158°F) / 10–95% RH (condensing)
Storage Temperature/ Humidity	-50°C~70°C (-40°F ~ +158°F)/ 10–95% RH (condensing)
Power supply	DC24V/1.5A (±10%)
POE	PoE+ (802.3at)
Power consumption (max.)	30W
Fan & Heater	Support

Dimension & Weight	327mm(H) x 216mm(D), 4.5kg
Product Certification	Safety: CE, FCC, IS 13252 (Part 1):2010, BIS Registered Cyber Security Certified by STQC as per IoTSCS and meet the essential requirement issued by MeitY Reliability Certification: MTBF >1,00,000 hours at 40°C

Ordering Information:

S. No.	Ordering Model	Resolution	Lens	Video Analytics
1.	SS-EN412P-(I)	5MP 2592(H)X1944(V)	4.5~162mm	NA
2.	SS-EN412P-(I) with IVA	5MP 2592(H)X1944(V)	4.5~162mm	Support
3.	SS-EN412P-(I)	5MP 2592(H)X1944(V)	7~300mm	NA
4.	SS-EN412P-(I) with IVA	5MP 2592(H)X1944(V)	7~300mm	Support

DORI Information:

Lens (mm)	Detection	Observation	Recognition	Identification
4.5~162mm	86m-2933m	33.5m-1182.5m	15.5m-586.5m	6m-293m
7~300mm	133m-5867m	53m-2365.5m	25.5m-1173m	12m-586.5m

***Note:** The latest product information / specification can be found at sparshsecuritech.com

*Product specifications & appearance are subject to change without prior notice or obligation.