

# ICIP-P2012S

2MP 12x Starlight PTZ Network Camera



- 1/2.8" 2 Megapixel STARVIST™ CMOS
- Powerful 12x optical zoom
- Support Triple-streams encoding
- Max. 25/30fps@1080P
- Auto-tracking and IVS
- Support PoE+
- IP66, IK10

## System Overview

Welcome to a new era of PTZ cameras. IC Realtime's latest lineup of ICIP-P2012X series cameras are ushering in 2 much requested features - POE+ (802.3at), and 'Faster than Realtime' recording (60FPS @ 720P)! Say goodbye to pulling a separate power cable, and say hello to ultra-high speed recording rates! The ICIP-P2012S is a 2 Megapixel camera with 12x optical zoom. This camera adopts the conventional pendant style of PTZ cameras. The PTZ itself can auto recognize standard protocols over RS-485 such as ICR-SD and Pelco-P/D, without troublesome dipswitches or configuration. It supports both H.264 video and MPEG4 audio transmission, simultaneously. This camera can function independent of an NVR. By utilizing H.264 video and MPEG4 audio compression, the highest stream quality is achieved while also maintaining excellent stream compression and bandwidth. The ICIP-P2012S enclosure itself has a strong impact rating, which can guarantee proper operation even under a heavy strike. The ICIP-P2012S supports two-way and bidirectional talk. It can be used in either analog or IP environments.

## Functions

### Starlight Technology

For challenging low-light applications, Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

### Wide Dynamic Range (WDR)

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

### Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

### PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

### Environmental

With a temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP66 rating makes it suitable for demanding outdoor applications.

### Protection

The camera allows for ±10% input voltage tolerance, suitable for the unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning.

### Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

## Technical Specification

### Camera

Image Sensor	1/2.8" STARVISTM CMOS
Effective Pixels	1920(H) x 1080(V), 2 Megapixels
RAM/ROM	1024M/128M
Scanning System	Progressive
Electronic Shutter Speed	1/1s~1/30,000s
Minimum Illumination	Color: 0.005Lux@F1.6; B/W: 0.0005Lux@F1.6
S/N Ratio	More than 55dB
IR Distance	N/A
IR On/Off Control	N/A
IR LEDs	N/A
Wiper	N/A

### Lens

Focal Length	5.3mm~64mm								
Max. Aperture	F1.6 ~ F4.4								
Angle of View	H: 58.2° ~ 4.8°								
Optical Zoom	12x								
Focus Control	Auto/Manual								
Close Focus Distance	100mm~ 1000mm								
DORI Distance	<table border="1"> <tr> <td>Detect</td> <td>Observe</td> <td>Recognize</td> <td>Identify</td> </tr> <tr> <td>2897ft</td> <td>1158ft</td> <td>581ft</td> <td>289ft</td> </tr> </table>	Detect	Observe	Recognize	Identify	2897ft	1158ft	581ft	289ft
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### PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -2° ~ 90°, auto flip 180°
Manual Control Speed	Pan: 0.1° ~ 300° /s; Tilt: 0.1° ~ 120° /s
Preset Speed	Pan: 300° /s; Tilt: 200° /s
Presets	300
PTZ Mode	5 Pattern, 8 Tour, Auto Pan, Auto Scan
Speed Setup	Human-oriented focal Length/Speed adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset/Scan/Tour/Pattern if there is no command in the specified period
Protocol	ICR-SD

### Intelligence

Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly
Auto Tracking	N/A
IVS	Tripwire, Intrusion, Abandoned/Missing
Advanced Intelligent Functions	Face Detection

### Video

Compression	H.265+/H.265/H.264+/H.264
Streaming Capability	3 Streams
Resolution	1080P(1920×1080)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240)
Frame Rate	Main stream: 1080P/720P(1 ~ 25/30fps) Sub stream1: D1/CIF(1 ~ 25/30fps) Sub stream2: 720P/D1/CIF(1 ~ 25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.265/H.264: 448K ~ 8192Kbps

Day/Night	Auto(ICR) / Color / B/W
Backlight Compensation	BLC / HLC / WDR(120dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest	Support
Electronic Image Stabilization (EIS)	N/A
Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

### Audio

Compression	G.711a/G.711Mu/G.726/AAC
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### Network

Ethernet	RJ-45 (10XBase-T/100Base-TX)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x
Interoperability	ONVIF Profile S&G, API
Streaming Method	Unicast / Multicast
Max. User Access	20 users
Edge Storage	NAS (Network Attached Storage), Local PC for instant recording, Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

### Certifications

Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4- 2014 UL: UL60950-1+CAN/CSA C22.2.No.60950-1
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### Interface

Video Interface	N/A
Audio Interface	1/1
RS485	N/A
Alarm I/O	2/1

### Electrical

Power Supply	AC 24V/1.5A(±10%), PoE+(802.3at)
Power Consumption	12W, 22W (Heater on)

### Environmental

Operating Conditions	-40°C ~ 60°C (-40°F ~ +140°F) / Less than 95% RH
Storage Conditions	-40°C ~ 60°C (-40°F ~ +140°F) / Less than 95% RH
Ingress Protection	IP66
Vandal Resistance	IK10

### Construction

Casing	Metal
Dimensions	186(mm)×234(mm)
Net Weight	2.3kg(5.07lb)
Gross Weight	4.3kg(9.48lb)

Accessories

Dimensions (mm/in)

