Features

- Full HD 1080p resolution @60fps
- Multistream H.264/H.264 or H.264/MJPEG
- 30x Optical zoom / 12x digital zoom
- Optical output / analogue output options
- Day/Night with IR-cut filter / WDR / BLC
- 400° /s preset targeting
- 360° Continuous rotation
- 256 Presets / 8 programmable cruises
- 2 Alarm inputs / 2 outputs
- Two-way audio
- 16 Privacy masks, mosaic masking supported
- NTCIP protocol support

HSD820v2H3-E
High-definition outdoor PTZ with multistream H.264; 30x zoom

Description

The Siqura® HSD820v2H3-E is an outdoor high-speed PTZ dome camera with exceptional imaging controls providing HD pictures (1080p) for highly detailed surveillance footage.

High-speed dome
The HSD820v2H3-E high-speed PTZ dome camera has a 30x autofocus zoom lens with 12x digital zoom. Precision 400° per second pan and tilt drive technology offer almost instant preset positioning. Support for many presets, cruises, and sequences provides for highly flexible manual or automatic operation.

Multistream high definition
HSD820v2H3-E series cameras have quad-stream capability for simultaneous streaming of H.264/H.264 or H.264/MJPEG. Multiple combinations of resolution and frame rate can be configured to satisfy different live viewing and recording scenarios. At 60 fps, full-HD 1080p streaming with a VGA second stream is possible.

Day/night, BLC, WDR and image stabiliser
The HSD820v2H3-E provides automatic day/night functionality, for use in low light situations. Backlight compensation (BLC) enhances image visibility in difficult lighting situations. This ensures quality pictures at all times. Wide dynamic range solves the problem of overlit images by taking the better of two pictures with different exposure settings (shutter WDR).
The HSD820v2H3-E is equipped with an electronic image stabiliser to provide stable pictures even at the highest zoom ratio.

Open standards
Multiple options are available to easily integrate the HSD820v2H3-E to a video management system. In support of open standards, the camera is compliant with the ONVIF Profile S specification.

Audio, I/O contacts, and analogue output
By combining streaming video with duplex audio and I/O contacts over IP, the HSD820v2H3-E provides all the interfaces necessary for any IP CCTV application. The HSD820v2H3-E is a hybrid solution and can provide local video for a public view monitor or local DVR.
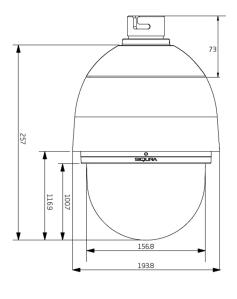
Privacy masks
Privacy masks cover sections of the image. This feature is often requested for such situations as city centre surveillance and point of sale keypads. The <productname> not only supports solid color masks but additionally three levels of mosaic masking. A mosaic mask applies a blocking pattern over te video content and is, compared to solid color masks, more friendly to the human eye.
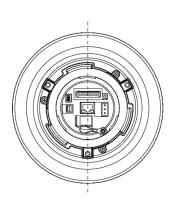
Fiber option
In addition to the RJ-45 interface, an SFP interface comes standard with the HSD820v2H3-E for direct connection of fiber to the camera. The XSNet™ range of SFP modules, with options for both single mode and multimode is available. The SFP interface is built into the device itself so a wide range of mounting options is available.

Technical Specifications
HSD820v2H3-E

Camera	
Image sensor	1/2.8" Progressive scan CMOS
Effective pixels	1920 (H) x 1080 (V)
Shutter speed	1/1~1/10000 s
Minimum scene illumination	0.35 lux colour, 0.09 lux (b/w), 1/30 s shutter, 30 IRE, F1.4
Lens	30x Optical zoom, F1.4 (wide), F4.7 (tele)
Lens focal length	4.4 to 132 mm
Horizontal field of view	60.5° (wide) / 2.3° (tele)

Pan / Tilt	
Pan travel	360° Continuous
Tilt travel	-10°~190°
Preset speed	5°~400°/s
Manual speed	0.5°~90°/s
Presets	256 Presets
Preset accuracy	0.225°
Cruise	8
Sequence	8
Autopan	4
Speed by zoom	On/Off
Resume after power loss	Yes
Home function	Preset, sequence, autopan, cruise
Autoflip	Off / mechanical flip / image flip
Auto calibration	Pan and tilt position by schedule
PTZ position OSD	Off / on / compass only

Technical Specifications
HSD820v2H3-E

Functions	
Privacy masks	16
Text and picture overlay	Date, time, date & time, 3x subtitle (54 characters each), text string (12 characters), preset title, image, image transparency
Video motion detection	On / off / by schedule
Video motion detection alarm	Alarm output, record video clip, send alarm message, upload image
Network failure detection	On / off / by schedule
Network failure detection alarm	Alarm output, record video clip, send alarm message, upload image
Audio detection	On/Off
Audio detection alarm	Alarm output, record video clip, send alarm message, upload image
Periodical event	On/Off
Periodical event action	Upload image
Recording	On / off / by schedule
Recording destination	SD card/ Network share

Image control	
Wide dynamic range	On/Off
WDR value	>120 dB (in WDR dual shutter mode)
Backlight compensation	On/Off
White balance	Auto/indoor/outdoor/ATW/One Push/manual
Exposure control	Auto (includes gain control, max level configurable) - P-iris - Iris priority Manual
Sharpness	15 Levels
Exposure compensation	15 Levels
Flip (at 90° tilt position)	Off / mechanical flip / image flip
Image rotation	Normal / flip / mirror / rotate +90° / rotate 180° / rotate -90°
Digital zoom	12x
Day/Night (IR-cut filter)	Auto/night/day
Inverse image	On/Off
2D Noise reduction	On/Off
3D Noise reduction	On/Off
Image stabiliser	On/Off
TV systems	shutter WDR 30 fps / shutter WDR 25 fps / 60 fps / 50 fps

Technical Specifications
HSD820v2H3-E

Video

Compression algorithm(s)	H.264 (baseline / main / high profile); MJPEG
Number of compression instances	Quad stream (triple stream in WDR 2 shutter mode). Any combination of H.264 streams with possibly one MJPEG stream.
Output streams	Any output stream can be freely configured to one of the resolution/frame rate formats.
Supported resolutions	2048x1536; 1920x1080 (1080p); 1280x1024; 1280x720 (720p); 1024x768; 800x600; 720x576 (D1); 640x480; 352x288 (CIF)
Compression capabilities	(indication, other combinations possible)

Resolution format	format 1	format 2	format 3	format 4
H.264 instances in 50/60fps (one can be MJPEG) (at lower frame rate higher resolution may be possible)	1920x1080 1920x1080 1920x1080	- 640x480 640x480 (25/30fps)	- - 352x288 (25/30fps)	- - -
H.264 instances in 25/30fps or in 25/30fps WDR 2 shutter mode (one can be MJPEG) (at lower frame rate higher resolution may be possible)	1920x1080 1920x1080 1920x1080	1920x1080 1280x1024 1280x1024	- 1280x720 1280x720	- - 352x288

MJPEG	One of the above resolution formats in each instances can be MJPEG in stead of H.264
Compression bit rate control	Constant bit rate (CBR), variable bit rate (VBR)
Output bit rate (per H.264 stream)	Up to 20480 kbit/s
Total H.264 output	26624 kbit/s
Number of video output streams	Up to 20 (RTSP)
Total output data rate (max)	50000 kbit/s
Video frame rate	1 to 60 fps / 1 to 50 fps
Analogue video output	PAL/NTSC
Connector type	BNC (1.0 Vpp in 75 Ω)

Audio

Two-way audio	Line in / line out
Compression	G.711 (μ-law, a-law) / G.726 / AAC / PCM
Bit rate	G.711: 64 Kbps G.726: 16 Kbps, 24 Kbps, 32 Kbps, 40 Kbps AAC: 128 Kbps PCM: 128 Kbps, 256 Kbps, 384 Kbps, 768 Kbps
Sample rate	G.711: 8 KHz / G.726: 8 KHz / AAC: 48 KHz / PCM: 8, 16, 24, 48 KHz
Input level, Output level	Adjustable gain
Connector type	Multifunction terminal block (input/output/ground)

Contact closures

Inputs	4x 0 - 5 V Input (internal 10 kΩ pull-up); Normal open/close
Outputs	2x Relay, (30 Vdc @ 2 A or 125 Vac @ 0.5 A)
Triggered actions	Enable alarm output, send message/notification, upload image, PTZ (Preset/ Sequence/Autopan/Cruise), record clip
Connector type	Multifunction terminal block (4x input / ground / 2 outputs

Storage

Storage options	Micro SDXC card, 64 GB

Technical Specifications
HSD820v2H3-E

Network

Interface(s)	10/100/1000 Mb Ethernet (RJ-45) 100/1000 Mb Ethernet (SFP)
Protocols	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, IGMP, PNAC (IEEE 802.1x), QoS
Connector type	RJ-45 and SFP slot combo port

Management

Supported browsers	Internet Explorer, Chrome, Firefox, Safari
Security	HTTPS, IP Filter, PNAC (IEEE 802.1x)
Protocols	UPnP, SNMP, ONVIF Profile S, NTCIP
Password levels	User and Administrator
User accounts	20

Powering

Power consumption	55 W PoE / 57 W
Power	19.2 - 28.8 Vac / 28 - 48 Vdc / 802.3bt (75 W) Power-over-Ethernet

Environmental

Operating temperature	-40 °C to +50 °C (-40 °F to +122 °F)
Ingress protection	IP66

Mechanical

Dimensions	Ø192 × 292 mm (Ø7.6 × 11.5 in)
Weight	2.3 kg (5.1 lbs)
Housing	Aluminium
Colour	RAL 9003 (signal white)
Sunshield	ABS / Polycarbonate blend
Bubble	Optically clear polycarbonate
Impact rating	IK10

Ordering Information

Models	Description
HSD820v2H3-E	High-speed PTZ dome camera, Multiple H.264, 1080p, 30x Opt.Zoom, Outdoor, SFP, DC09
WM01A	Mini wall mount for HSD series
WM07A	Long wall mount for HSD series
WM05	Corner plate, compatible with WM01A and WM07A
PM01	Pole thin direct mounting, compatible with WM01A and WM07A
PTM01	1-1/2" pipe thread adapter
ECO-plug	Ethernet over coax converter in SFP format
XSNet MM SFP/......	Multimode SFP, available in 1- or 2-fiber, different distance and speed ratings
XSNet SM SFP/......	Single-mode SFP, available in 1- or 2-fiber, different distance and speed ratings
	For a detailed overview of available SFP types consult appropriate product data

FC CE RoHS COMPLIANT

TKH GROUP SECURITY SOLUTIONS