### **Features**

- Four-channel H.264 video encoder
- ONVIF Profile S
- Edge recording
- Picture enhancement
- Image quality monitor
- Advanced tamper detection
- 960H Support
- Audio, Digital I/O
- NEMA TS 2 compliant
- NTCIP protocol support





# S-64 E v2

# Four-channel H.264 video encoder

## **Description**

The Siqura S-64 E v2 is a versatile and cost-effective four-channel  $\rm H.264$  video encoder featuring multistreaming, low-latency, and crystal-clear highly detailed video.

### ONVIF and Open Streaming Architecture (OSA)

The S-64 E v2 supports both the international ONVIF standard and OSA for remote control, configuration, video switching, and streaming. The encoder has been approved for ONVIF Profile S for streaming, PTZ, and I/O. An alternative control interface is the OSA, a comprehensive HTTP- and RTSP-based API for remote control of the encoder that makes full integration easy.

### Edge recording

The S-64 E v2 offers edge recording for each video input. A recording is activated when the connection with the network recorder is lost. The missing images are available as AVI, which can easily be downloaded from the device. The recordings are stored on a single  $\mu SDHC$  card with a maximum capacity of 32 GB.

#### Picture enhancement

The S-64 E v2 connects to every analogue camera, even if it is not of the best quality. With a range of tools it enhances the video to a crisp, clear image. Camera noise can be eliminated by Siqura's 3D adaptive noise reduction and interlacing artefacts are removed by motion adaptive deinterlacing (M.A.D.). Brightness, contrast, hue, and sharpness of the image can be adjusted for the best result.

## Image quality monitor and tamper detector

When the image from the camera becomes too poor, even for the encoder to enhance, an Image Quality alert is raised. The image is continuously monitored on contrast, exposure, focus, and noise by Siqura's unique Image Quality Monitor. In addition, the built-in tamper detector monitors changes in the position or field of view of the camera. The instant a camera's position is changed a Tamper Detect alert is raised.

#### 960H Support

The S-64 E v2 supports 960H enhanced definition SD cameras. 960H Analogue cameras produce a stunning, 650 TVL resolution in PAL/NTSC or a standard definition image in an aspect ratio of 16x9 (widescreen). Ordinary encoders cannot handle 960H and will reduce horizontal resolution to standard PAL/NTSC. With this feature, S-64 E v2 encoders are able to use 960H technology for any standard PAL or NTSC camera. This means that the S-64 E v2 uses 33% more samples to encode a normal TV line, thus producing the sharpest image possible.

### Audio, I/O contacts, and serial data

By combining audio, digital I/O contacts, and data with streaming video, the S-64 E v2 provides all the interfaces necessary for any IP CCTV application. The S-64 E v2 supports 1x audio output, 4x audio inputs, 1x PTZ/serial RS-485 data, and 8x digital I/O.



# Technical Specifications S-64 E v2

Video	
Number of channels	4x PAL/NTSC autodetect
Input level	1 Vpp (±3 dB)
Compression algorithm(s)	H.264 (ISO/IEC 14496-10), MJPEG
Encoding latency	<125 ms
Resolution	960H, D1, 2/3D1, 1/2D1, 2CIF, CIF, VGA
GOP structure	I, IP
Frame rate	1 to 30 fps
Dual streaming	2x Full frame rate at D1 resolution
Quad streaming	Independent stream with all four inputs in a Quad
Quad stream resolution	SXGA (1440 x 1152), 960H, D1, 2/3D1, 1/2D1, 2CIF, CIF, VGA
Output data rate	56 kb/s up to 6 Mb/s per encoder (2 per input)
On-screen display	3x Text lines (fully configurable), 1x graphical image (BMP, GIF or JPEG)
Input impedance	75 $\Omega$ or Hi-Z
Connector type	BNC (with gold-plated centre pin)
Video enhancement per input	
Deinterlacing	Motion Adaptive Deinterlacing (M.A.D.)
Noise filter	3D Adaptive noise reduction
Image enhancement	Adjust contrast, brightness, saturation, hue, and sharpness; Automatic (mist) correction
Video analytics per input	
Video motion detection	Based on movement detection in free-drawn ROI
Image quality monitor	Monitors focus, exposure, contrast, and noise
Advanced tamper detection	Blocked or moved field of view; multiple reference images per video input
Audio	
Audio in	4 channels in (line level) or 2 channels line level and 2 channels mic level (with bias)
Audio out	1 channel out (line level)
Interface	G.711 (U-law or A-law selectable)
Data	
Number of channels	2 full-duplex
Interfaces	1x RS-422/485 (2- or 4-wire), 1x RS-232

300 b/s to 115.2 kb/s

Pelco P, Pelco D, Bosch, Vicon, Samsung, Panasonic, etc. (Bidirectional PTZ is not supported)

Spring clamp plug (24-pin to RJ-45 cable included as accessory)

Serial interface

PTZ protocols

Data rate

Connector type

# Technical Specifications S-64 E v2

Digital I/O	
Number of I/O channels	8x Digital I/O
Output mode	Open collector, 24 V, 2 A max DC
Input mode	Internal pull-up 3.3 V, 2.2 k $\Omega$ threshold 1.2 V
Connector type	Spring clamp plug (24-pin to RJ-45 cable included as accessory)
Management	
LED status indicator	Power on and operational; identify
Network management and control	HTTP API (SPI), ONVIF Profile S
Security	HTTPS, three-level user access, Basic & Digest authentication
Transmission interface	
Number of interfaces	1x RJ-45
Interface	10/100/1000Base-TX, autonegotiation
Protocols	IPv4, IPv6 ready, H.264 HP, H.264 MP, (M)JPEG, RTP, RTSP, RTCP, TLS(SSL), DHCP, DNS, IGMPv3, NTP, HTTP(s), SAP, UPnP, DiffServ, FTP, SNMP v2c, SSM, NTCIP
Powering	
Input voltage	9-15 Vdc
Power consumption	6 W
Environmental	
Operating temperature	
S-64 E v2	-10 °C to +60 °C (+14 °F to +140 °F)
S-64 E v2-XT /SA	-40 °C to +75 °C (-40 °F to +167 °F)
Relative humidity	<95% No condensation
MTBF (Mean Time Between Failures)	>200,000 hours
Safety and EMC	IEC/EN 60950-1, IEC/EN 61000-6-3, IEC/EN 61000-6-2, EN 55022, FCC part 15
NEMA Standard	NEMA TS 2 compliant
Mechanical	

128 x 34 x 190 mm (5.04 x 1.34 x 7.5 in)

450 g (15.80 oz)

Rack-mount or stand-alone

Dimensions (h x w x d)

Weight

Housing

# **Technical Specifications**

# S-64 E v2

Models	Description
S-64 E v2	Four-channel H.264/MJPEG video encoder with audio, data, digital I/O
S-64 E v2-XT /SA	Stand-alone version of rack-mount model, extended temperature
MC 11 AC-230	Power supply cabinet, 19"/3RU
MC 11 AC-115	Power supply cabinet, 19"/3RU
MC 11 AC-230 /EB-2	Power supply cabinet with SNM™ management interface, 19"/3RU
MC 11 AC-115 /EB-2	Power supply cabinet with SNM™ management interface, 19"/3RU
MC 10 AC-230 /EB-2	Dual power supply cabinet with SNM™ management, 19″/3RU
MC 10 AC-115 /EB-2	Dual power supply cabinet with SNM™ management, 19"/3RU
MC 11 DC-24V	Redundant DC power supply cabinet, 19"/3RU
PSA-UN12DC with ferrules (S-64 E v2 /SA)	Power adapter, 110 - 230 Vac, 60/50 Hz to 12 Vdc, 1.5 A, ferrules, with US/EU/UK adapters
PSR-12DC (S-64 E v2 /SA)	Power supply unit, rail-mount, 85 - 264 Vac, 12 Vdc at 1.5 A





