

Features

- Cost-effective dual H.264 video encoder
- 2x D1 at 30fps H.264 + MPEG4/MJPEG/MPEG-2
- Field-hardened
- Open Streaming Architecture
- ONVIF Profile S
- Image quality monitor and tamper detector
- Duplex serial data and stereo audio
- Video motion detection
- NTCIP protocol support



C620 E

H.264 Multicodec Video Encoder

Description

The unique Siquira® C620 E video server combines H.264 video encoding with MPEG-2, MPEG-4 or MJPEG. It offers an open, cost-effective solution for IP video CCTV applications. The C620 E features dual-streaming H.264 with dual-streaming MPEG-2, MPEG-4 or MJPEG, low bandwidth, low latency, and interoperability with most other systems.

Open Streaming Architecture (OSA) and ONVIF

The C620 E, designed with OSA, offers standardised streaming video and remote control based on a comprehensive HTTP API giving access to all controls and making integration easy. Additionally, the C620 E fully supports ONVIF. It has been tested to support ONVIF Profile S.

Fiber and EoC options

The C620 E is available with an optional pluggable SFP slot for either multimode or single-mode connections, or in combination with the Siquira® ECO-plug for Ethernet over Coax.

Image quality monitor and tampering alarm

The C620 E is fitted with video analytics to check the health of connected cameras. This image quality monitor analyses contrast, exposure, sharpness and noise. Camera tampering analytics detect any changes in the camera's position or field of view. The instant a camera is subject to failure or tampering, an alert can be raised.

Quad multi-codec

The versatile C620 E encoder is capable of streaming 2x H.264 full frame rate. It is also capable of streaming 2x MPEG-2, MPEG-4 or MJPEG simultaneously. Each stream is optimised for its purpose, e.g., high-quality H.264 or MPEG-2 for live viewing, low-bandwidth MPEG-4 for storage, or easy to decode MJPEG for web applications or remote devices. The H.264 implementation is based on dedicated hardware resulting in unparalleled video quality.

Audio, data, and I/O contacts

Combining streaming video with duplex audio, serial data, and I/O contacts over IP, the C620 E provides all the interfaces necessary for any CCTV application (CD-quality stereo audio, lip-sync audio, PTZ control, alarm contacts, access control, etc.). Internal video motion detection (VMD) can be used for automated security solutions or event-triggered storage.

Web interface

Configuration, management, and live viewing are simplified by the access-controlled web interface. Full in-band control is available through the Siquira® MX™ Configuration Tool Kit or the HTTP API. The Siquira® C620 E is field-upgradeable.

Technical Specifications

C620 E

Video

Number of channels per unit	1x PAL/NTSC (Auto/PAL/NTSC)
Input level	1 Vpp (± 3 dB)
Compression algorithm(s)	H.264BP/ MP (ISO/IEC 14496-10) MPEG-2 (ISO/IEC 13818-2), MJPEG, MPEG-4 (ISO/IEC 14496-2, ISMA comp.)
Types of streaming	UDP/IP (multicast and/or unicast) or TCP/IP (RTP, RTP-RTSP, RTP-RTSP-HTTP)
Number of output streams	Up to 20
Input impedance	75 Ω /Hi-Z selectable
Video motion detection	Yes (user-defined masking)
Privacy masks	10 (user-defined)
Encoding latency	<130ms typ.
Resolution	D1, ½D1, 4CIF, 2CIF, CIF, VGA
GOP structure	I, IP selectable
Frame rate	1 to 30 fps
Quad streaming	2x H.264 (each D1 at 30fps) 2x MPEG-4/MPEG-2/MJPEG
Output data rate	56kb/s to 20Mb/s (CBR or VBR selectable/user profiles)
Video settings	User profiles, contrast, brightness, colour saturation, hue, sharpness
On-screen display	3x text lines (configurable: position, colour, border/outline colour, font size) 1x image in BMP, GIF, or JPEG format (configurable: position, scaling)
Live view encoder (M)JPEG	HTTP, FTP pull, FTP push
Connector type	1 Vpp/ 75 Ω BNC (gold-plated centre pin)

Audio

Number of channels	2 (stereo, full-duplex)
Number of streams	3 (multicast and/or unicast)
Maximum bandwidth	20 Hz to 20 kHz
Sampling resolution	8/16-bits linear PCM or G.711
Input level	Adjustable, mic or line
Output level	Adjustable, 3 Vrms maximum
Input impedance	>20k Ω or 600 Ω balanced
Output impedance	<100 Ω balanced
Connector type	RJ-45

Data

Number of channels	2 full-duplex
Number of streams	2 x 3 (multicast and/or unicast)
Number of interfaces	1x RS-232 1x RS-422/485 (2- or 4-wire)
Stream	TCP/UDP/MX configurable
Data rate	300 b/s to 230.4 kb/s
Connector type	RJ-45

Contact closures

Number of channels	2x in, 2x out
Number of streams	2 x 3 (multicast and/or unicast)
Output	Fail-safe, potential-free
Connector type	RJ-45

Technical Specifications

C620 E

Transmission interface

Number of interfaces	1
Interface(s)	10/100Base-TX Fast Ethernet, autonegotiation, half-duplex/full-duplex, 10/100Mb
SFP option	Empty SFP slot for 100 Mbps SFP device or ECO-plug
Protocols	H.264 BP/MP, MPEG-4 ES, MPEG-2 TS, MPEG-2 ES, (M)JPEG, RTP, RTCP, RTSP, TCP, UDP, IP, DHCP, IGMPv2, (S)NTP, MX/ IP, HTTP, SNMP v2, FTP, TelNet, DiffServ, SAP, UPnP, ONVIF, NTCIP
Connector type	RJ-45

Management

LED status indicators	
DC	Power-on indicator (green)
NV	No video on input or output (red)
SYNC	All links are operational (green); failure in RX stream(s) (yellow); failure in TX stream(s) (red)
Ethernet port	Green LED: on = 100Mb, off = 10Mb; amber LED: on = link okay, flashes with activity
Network management and control	SNMP v2, MX™, HTTP API, HTML (password protected), ONVIF

Powering

Power consumption	<5W
Rack-mount units	MC 10 and MC 11 power supply cabinets
Stand-alone units (/SA)	11 to 19 Vdc (PSA-UN12DC with ferrules or PSR-12DC)

Environmental

Operating temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Relative humidity	<95% with no condensation
MTBF (Mean Time Between Failures)	>200,000 hours
Safety and EMC	IEC/EN 60950-1, IEC/EN 60825, IEC/EN 61000, EN 50130-4, EN 50081-1, EN 55022, FCC part 15

Mechanical

Dimensions (h x w x d)	128 x 34 x 190 mm (5.04 x 1.34 x 7.5 in)
Weight	450 g (15.80 oz)
Housing	Rack-mount or stand-alone

Ordering information

Models	Description
C620 E	H.264/MPEG-4/MPEG-2/MJPEG video encoder with audio, data, and CCs
C620 E-SFP	H.264/MPEG-4/MPEG-2/MJPEG video encoder with audio, data, and CCs; empty 100 MB SFP slot
C620 E.../SA	Stand-alone version of rack-mount models



The quality management system utilized in the development, production, sales, and support of this product is ISO 9001:2008 certified by LRQA.

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