

Features

- Multicodec video encoder, supporting H.264, MPEG-2, MPEG-4, and MJPEG
- Image quality monitor and tamper detector
- Field-hardened
- Open Streaming Architecture
- Quad-stream support
- Duplex serial data and stereo audio
- Video motion detection
- NEMA TS 2 compliant
- NTCIP protocol support



C-60 E-MC

H.264 multi-codec video encoder

Description

The Siqura® C-60 E-MC multi-codec video server combines H.264, MPEG-2, MPEG-4, and MJPEG video encoding. It's an open, cost-effective solution designed to operate under extreme conditions. The C-60 E-MC features crystal clear, highly detailed, and low bandwidth video and is interoperable with most existing systems.

Image quality monitor and tampering alarm

The C-60 E-MC 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.

Enhanced video quality

Modern flat LCD monitors show artefacts with standard PAL or NTSC video. Standard deinterlacing loses half of the vertical resolution. Siqura's sophisticated deinterlacing scheme optimises vertical resolution resulting in superior video images without artefacts.

Open Streaming Architecture (OSA)

The C-60 E-MC is designed with OSA offering standardised streaming video and remote control based on international standards and tested with different vendors. A comprehensive HTTP API gives access to all controls and makes integration easy. In addition, the C-60 E-MC supports the unique Siqura® MX™ protocol.

Quad-streaming per channel

The C-60 E-MC encoder is capable of streaming H.264, MPEG-2, MPEG-4, and MJPEG simultaneously. Each stream is optimised for its purpose, e.g. high-quality H.264 or MPEG-2 live viewing, low bandwidth H.264 or MPEG-4 storage, and low resolution 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 C-60 E-MC 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 Siqura® MX™ Configuration Tool Kit or the HTTP API. The Siqura® C-60 E-MC is field-upgradeable.

Fiber option

The C-60 E-MC is available with an optional pluggable SFP slot for either multimode or single-mode fiber optic connections.

Technical Specifications

C-60 E-MC

Video

Number of channels	1x PAL/NTSC (Auto/PAL/NTSC)
Input level	1 Vpp (± 3 dB)
Compression algorithm(s)	H.264 BP (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) TCP/IP (RTP over RTSP)
Number of output streams	Up to 20
Input impedance	75 Ω /Hi-Z selectable
Video motion detection	Yes (user-defined masking)
Encoding latency	<130ms
Image resolutions	D1, 2/3D1, 1/2D1, 2CIF, CIF, QCIF, VGA
GOP structure	I, IP (selectable/user profiles)
Frame rate	1 to 30 fps
Quad streaming*	D1 at 30fps H.264 + 2/3D1 at 30fps MPEG-2** + 2/3D1 at 30fps MPEG-4 + CIF at 1fps 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	HTTP, FTP pull, FTP push
Connector type	75 Ω BNC (gold-plated centre pin)

*Indicated combinations are based on 100% DSP capacity.

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)
Interface(s)	1x RS-232, 1x RS-422/485 (2- or 4-wire)
Types of streaming	TCP/UDP/MX configurable
Data rate	300 b/s to 230.4 kb/s
Connector type	RJ-45

Technical Specifications

C-60 E-MC

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

Transmission interface

Number of interfaces	1
Interface(s)	10/100Base-TX Fast Ethernet, autonegotiation, half-duplex/full-duplex, 10/100 Mb
SFP option	Empty SFP slot for 100 Mbps SFP device
Protocols	H.264 BP, 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, NTCIP
Connector type	RJ-45

Management

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

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 or PSR-12DC)

Environmental

Operating temperature	-40 °C to +74 °C (-40 °F to +165 °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
NEMA Standard	NEMA TS 2 compliant

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

Technical Specifications

C-60 E-MC

Ordering information

Models	Description
C-60 E-MC	H.264/MPEG-2/-4/MJPEG video encoder with audio, data, and CCs
C-60 E-MC-SFP	H.264/MPEG-2/-4/MJPEG video encoder with audio, data, and CCs; empty 100 MB SFP slot
C-60 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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