

Features

- Multi-codec video encoder, H.264, MPEG-2, MPEG-4, and MJPEG
- Open Streaming Architecture
- Quad streaming support
- Duplex stereo audio and serial data
- Field-hardened
- Video Motion Detection



Description

The unique Siqura® C-60 E-MC multi-codec video server combines state-of-the-art H.264 video encoding with MPEG-2, MPEG-4, and MJPEG. It's an open, cost-effective solution for IP video monitoring applications, made to operate under extreme outdoor conditions. Utilizing the full power of H.264, MPEG-2, MPEG-4, and MJPEG, the C-60 E-MC features crystal clear, highly detailed and low-bandwidth video. The versatile multicodec is interoperable with most existing systems.

Open Streaming Architecture (OSA)

The C-60 E-MC is designed to comply with the worldwide adopted standards for streaming video. Its OSA offers standardized streaming video and remote control. All streaming protocols are based on approved standards and tested with different vendors. A comprehensive HTTP API gives access to all controls and makes integration with third-party VMS easy. The API is available at Optelecom-NKF.com. In addition, the C-60 E-MC supports Siqura's unique MX™ protocol.

Fiber Option

The C-60 E-MC is available with an optional pluggable SFP slot for connections via fiber optic cable (-SFP). A range of multimode or single-mode XNet™ SFP devices fit the empty SFP slot.

Quad Streaming per Channel

The versatile C-60 E-MC encoder is capable of streaming H.264, MPEG-2, MPEG-4, and MJPEG simultaneously. Each stream is optimized 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 (e.g., PDAs). The H.264 implementation is based on dedicated hardware resulting in unparalleled video quality.

Audio, Data, and I/O Contacts

By 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.) The balanced audio inputs/outputs are suitable for all industrial audio systems. Internal Video Motion Detection 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 Siqura's MX™ Configuration Tool Kit or the HTTP API. The Siqura C-60 E-MC is field-upgradeable.

Ordering Information

Model	Description
C-60 E-MC	H.264/MPEG-2/-4/MJPEG video encoder w/audio, data, & CCs
C-60 E-MC-SFP	H.264/MPEG-2/-4/MJPEG video encoder w/audio, data, & CCs, 100MB SFP slot
C-60 E-MC-LS	H.264/MPEG-2/-4/MJPEG video encoder w/audio, data, & CCs
C-60 E-MC-LS-SFP	H.264/MPEG-2/-4/MJPEG video encoder w/audio, data, & CCs, 100MB SFP slot
C-60 E...../SA	Stand-alone version of rack-mount models

C-60 E-MC

Technical specifications

H.264 multi-codec video encoder

Video		Transmission Interface	
Video Channels	1x NTSC/PAL (Auto/Pal/NTSC)	Number of interfaces	1
Input level	1 Vpp (± 3 dB)	Interface	10/100Base-TX Fast Ethernet, Auto Negotiation, half-duplex/full-duplex, 10/100 Mb
Compression algorithm	H.264 BP (ISO/IEC 14496-10) MPEG-2 (ISO/IEC 13818-2), MJPEG, MPEG-4 (ISO/IEC 14496-2, ISMA comp.)	SFP option	Empty SFP slot for 100 Mbps SFP device
Type of streaming	UDP/IP (multi- and/or unicast)	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
Number of output streams	Up to 20	Connector type	RJ45
Input impedance	75 Ω /Hi-Z selectable	Management	
Video Motion Detection	Yes (user-defined masking)	Led status indicators	
Encoding latency	<130 ms typ.	DC	Led status indicators Power-on indicator (green)
Resolution	D1, 2/3D1, 1/2D1, 2CIF, CIF, QCIF, VGA	NV	No video on input (red)
GOP structure	I, IP (selectable/user profiles)	SYNC	All links are operational (green); failure in RX stream(s) (yellow); failure in TX stream(s) (red)
Frame rate	1 to 30 fps	Ethernet port	Green LED: on=100 Mb, off=10 Mb; Amber LED: on=link okay, flashes with activity
Quad Streaming:**	D1 @ 30fps H264 + 2/3D1 @ 30fps MPEG-2** + 2/3D1 @ 30fps MPEG-4 + CIF @ 1fps MJPEG	Network management & Control	SNMP v2, MX™, HTTP API, HTML (password protected)
Output data rate	56 kb/s to 20 Mb/s (CBR or VBR selectable/user profiles)	Powering	
Video Settings	User profiles, contrast, brightness, color saturation, hue, sharpness	Power consumption	<5W
Video Overlay	3x Text lines (configurable: position, color, border/outline color, font size), 1x image in BMP, GIF, or JPEG format (configurable: position, scaling)	Rack-mount units	MC10 and MC11 power supply cabinets 11 to 19 VDC
Live View encoder	HTTP, FTP pull	Stand-alone units (/SA)	(PSA-12 DC/25 or PSR-12 DC)
Connector type	BNC 75 Ω (gold-plated center pin)	Environmental	
Audio		Operating temperature	-40°C to +74°C (-40°F to +165°F)
Number of channels	2 (stereo, full-duplex)	Relative humidity	<95% no condensation.
Number of streams	3 (multi- and/or unicast)	MTBF	>200,000h
Maximum bandwidth	20 Hz to 20 kHz	Safety & EMC	IEC/EN 60950-1, IEC/EN 60825, IEC/EN 61000, EN 50130-4, EN 50081-1, EN 55022, FCC part 15
Sampling resolution	8/16-bits linear PCM or G.711	Mechanical	
Input level	Adjustable, mic or line	Dimensions (h x w x d)	128 x 34 x 190 mm (5.04 x 1.34 x 7.5 in.)
Output level	Adjustable, 3 Vrms max.	Weight (approx.)	450g (15.80 oz.)
Input impedance	>20 k Ω or 600 Ω bal.	Housing	Rack-mount or stand-alone (/SA)
Output impedance	<100 Ω bal.		
Connector type	RJ45		
Data			
Number of channels	2 (full-duplex)		
Number of streams	2x 3 (multi- and/or unicast)		
Interfaces	1x RS232 1x RS422/485 (2- or 4-wire)		
Stream	TCP/UDP/MX configurable		
Data rate	300 b/s to 230.4 kb/s		
Connector type	RJ45		
Contact Closure			
Number of channels	2x in, 2x out		
Number of streams	2x 3 (multi- and/or unicast)		
Output	Fail-safe, potential-free		
Connector type	RJ45		

*Indicated combinations are based on 100% DSP capacity

**I-Frame Only, GOP = 1



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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