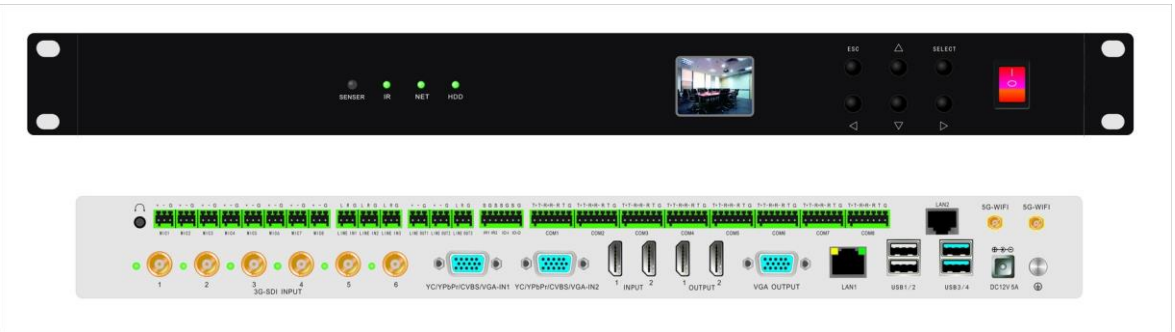
QG-IX1 Datasheet

Integrated AV Host (1U)



Overview

QG-IX1 is a 1U integrated presentation system combining encoding, decoding, signal switching, storage and device control on a single main board. It provides ten inputs, three outputs, eight microphone inputs and eight serial ports, with 2 TB of internal storage and ten encoding channels. The front panel carries a 1.5 in LCD and six function keys for local address configuration and layout control. An embedded real-time kernel runs the unit, with management and media networks physically separate.

Key Features and Benefits

10 x in, 3 x out mixed access

Digital and analog channels mixed, format and resolution detected automatically. One of three outputs supports 4K, plus one dedicated monitoring output.

Single-board integration

Encoding, decoding, switching and storage control are integrated on one board, all five stages in one machine.

Acoustic processing

Echo cancellation modeled on room acoustics, re-convergence within 2 seconds after rearrangement. Dynamic notch feedback suppression without lowering microphone gain.

Dual-stream recording

10 encoders with independent high and low streams each, about 400 hours of 1080P storage. 2TB built in, up to 8TB per disk, files recoverable after power loss.

Separated networks

Management and media network ports are physically separate with no routing between them.

Industrial reliability

Continuous full load at 40C ambient, processor junction temperature within 85C. 72-hour powered burn-in before dispatch.

Specifications

Enclosure and construction	
·	1U chassis, 450 mm depth, for 600 mm cabinets

·	Single main board carrying encoding, decoding, switching and storage control
·	150 W switching supply with independent linear regulation for the AV path
·	Audio output noise floor ≤ -85 dBu
·	Front-to-rear airflow, fan speed stepped by main processor temperature
·	Junction temperature ≤ 85 °C at 40 °C ambient, continuous full load
·	Front panel 1.5 in LCD with six function keys
·	Local IP setup, layout selection and input preview
·	Embedded real-time kernel, no desktop environment or package manager, third-party software not supported
Signal paths and capacity	
·	Ten inputs, digital and analog mixed, with automatic format and resolution detection
·	Three outputs, one 4K-capable
·	One independent monitoring output
·	Eight microphone inputs with independent phantom power and stored gain
·	A short on one microphone channel does not affect the others
·	Three line inputs, four line outputs including one 3.5 mm monitor
·	Eight serial ports, RS-232/485/422 configured per port
·	Two relay outputs, two IR outputs
·	Four USB ports for external optical drive and storage
·	2 TB internal storage, single drive replaceable to 8 TB
·	Approximately 400 hours of recording at 1080p dual-stream
·	Management and media ports physically separate, no routing between them
·	Operating 0 to 45 °C, storage -20 to 60 °C
Audio processing	
·	Acoustic echo cancellation modelled on room acoustics, continuously converging
·	Re-convergence within 2 s after a change of room layout
·	Dynamic notch feedback suppression at the howl frequency
·	Suppression without reducing overall microphone gain
·	Steady noise suppression in the noise band only, no attenuation in the speech band
·	Feedback and noise stages independent and separately disableable
·	Microphone opening triggers the picture cut at signal level, latency ≤ 200 ms
·	Voice alteration applied to recordings and live streams
Imaging and layout	
·	Two independent layout engines
·	Separate output resolutions for the room display and remote endpoints
·	More than twenty layout templates including 2, 4, 6, 8 and 9-way split, picture-in-picture and picture-outside-picture
·	Custom region composition, layout output up to 4K
·	Subtitle, logo and time watermark as three independent layers
·	Separate position and on/off control per layer
·	Mosaic privacy masking with draggable, resizable boxes
·	Mask written into the recording as captured
·	Ten or more transitions including wipe, dissolve, push and cut through black
·	No black frame and no flicker at the switch
Encoding and streaming	
·	Ten encoding channels, high and low bitrate per channel
·	High and low streams encoded independently
·	Four decoding channels
·	H.265 and H.264 video, AAC and G.711 audio
·	Recordings in the standard MP4 container
·	Resolution, frame rate and bitrate set per channel without interaction
·	Supports RTSP, RTMP, RTP, ONVIF, H.323 and SIP
·	IP camera streams decoded straight to display, no intermediate transcode
·	Push to third-party live platforms
·	Generated viewing QR code, no client software at the receiving end
Control, conferencing and recording	
·	Web, client software and on-device touch panel
·	One account and permission model across all three
·	Scene recall bundling layout, audio, controlled devices and recording jobs
·	Control pages edited in a browser with visual configuration of buttons, images and sliders
·	Four-party conferencing with point-to-point SIP and H.323 calling
·	Address book, group call and call management included

·	Concurrent recording jobs with automatic time-based segmentation
·	Recordings searchable, downloadable and deletable, with scheduled FTP archiving
·	Local playback from the on-board output
·	Remote status, log and firmware operations
Reliability and factory test	
·	Encoding, decoding, storage, transcoding and control completed in one unit
·	72 hour powered burn-in at high temperature before shipping
·	Automatic logging during burn-in and re-test of any anomaly
·	Recording index committed to disk as written
·	Files repairable after power loss, no recording lost as a whole block

Ordering Information

Model	Description
QG-IX1	Integrated AV host, 10 x in, 3 x out

Company Information

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