QG-1U2 Datasheet

Lecture capture integrated host, 4 in / 3 out, 2 SDI and 2 HDMI

Overview

The QG-1U2 is a 1U lecture capture integrated host that carries high quality AV over a Gigabit IP network at low bit rate and very low latency. Two 3G-SDI and two HDMI inputs take cameras and the courseware PC; two HDMI and one VGA output feed the main screen, a second screen and the local monitor. Composition, audio processing, encoding, recording and device control run in the chassis: four in, three out, four microphone inputs, two encoders and four decoders, 1 TB on board.

Key Features and Benefits

SDI and HDMI in one chassis

Two 3G-SDI inputs take the lecturer and student cameras over coax with no converter; two HDMI inputs take the courseware PC and the interactive terminal, one of them at 4K30.

Four in, three out, all on board

No card slots inside. Ports are fixed at build time, so transport and long service introduce no slot contact faults.

One composed 4K output

A single composition engine drives 2, 4 and 6-way layouts and picture-in-picture, up to 3840x2160, with a VGA output for the local monitor.

Two encoders, four decoders

Two channels encode in H.265 or H.264 at full frame rate while four IP camera streams decode straight to screen with no transcoding.

1 TB local storage

1 TB on board, field replaceable to 8 TB. MP4 packaging, segmented multi-task recording, index rebuilt after power loss.

Recording on a timetable

Manual, scheduled, record-on-boot, motion and control triggers. Files archive over FTP when a session ends.

Specifications

Enclosure and structure	
·	1U chassis, 483 x 44 x 450 mm, approx. 7 kg, fixed in a 19-inch rack
·	All ports on board. No card slots, no backplane contacts
·	Front panel with a 1.5-inch LCD and six function keys for address, layout and input preview
·	Full load under 150 W, single supply with over-voltage, over-current and surge protection
·	72-hour powered burn-in before dispatch, log shipped with the unit
Paths and capacity	
·	Two 3G-SDI inputs, up to 1920x1080P60 and all standard formats below
·	Two HDMI inputs, one of them at 3840x2160P30
·	Two HDMI outputs (one at 4K) and one VGA output
·	Four inputs and three outputs, plus four IP streams decoded
·	Format and resolution detected automatically; switching is clean with no black frame
·	4:4:4 chroma sampling and 10-bit colour depth through the video path

Audio processing	
·	Four microphone inputs, two 3.5 mm and two terminal block, 48 V phantom per channel
·	One stereo line input; one 3.5 mm and one terminal block stereo output
·	Echo cancellation, feedback suppression and noise suppression as three separate stages
·	Ten-band parametric EQ, four mix buses, channel delay 0 to 500 ms
·	Microphone activation switches the picture, trigger within 200 ms
·	Audio follows the picture; AV offset within 40 ms
Picture processing	
·	One composition engine, output up to 3840x2160
·	Layouts with 2, 4 and 6-way split and picture-in-picture, plus free-form regions
·	Captions, station logo and time stamp as three independent layers
·	Mosaic privacy masking, draggable and scalable, written into the recording
·	At least 32 layout presets, recalled by one action or a control command
Encoding and recording	
·	H.265 and H.264 encoding, two channels at full frame rate
·	Resolution 720x576 to 3840x2160, frame rate 1 to 60 fps, bit rate 512 kbps to 16 Mbps
·	Four IP streams decoded, RTSP and ONVIF cameras connect directly
·	1 TB on board, field replaceable to 8 TB
·	MP4 packaging, H.264 or H.265, multi-task segmented recording
·	Recording starts manually, on schedule, on boot, on motion or from a control command
·	Index rebuilt after power loss; damaged files repaired without losing the whole session
·	FTP upload, search and download, and playback from a local output
Transport and management	
·	H.323, SIP, RTSP, RTMP, RTP, HTTP and ONVIF supported
·	H.323 and SIP run on the internal stack, registering to an upstream MCU with no gateway
·	Built-in four-party 1080P30 conference with address book and multi-party calling
·	Streaming to live platforms, four destinations, viewer QR code generated on the unit
·	Browser, client software and local GUI share one account and permission model
·	One RS-232, one RS-485/422, two USB ports, one Gigabit LAN port
·	At least 32 scenes stored and recalled in one action

In the Box

Host unit: 1, aged and self-tested before packing

Power cord: 1 standard cord; adapter models ship with one external adapter

Rack hardware: One pair of ears; portable models ship with the handle fitted

Quick start: 1, wiring and first power-on steps

Certificate: 1, printed with the serial number

Storage drive: 1, already fitted, capacity in the specifications

Installation Environment

Operating temperature: 0 C to 40 C

Operating humidity: 10% to 90%, non-condensing

Storage temperature: -20 C to 60 C

Altitude: up to 3000 m

Clearance: 100 mm at intake and exhaust, unobstructed in the rack

Grounding: Rack ground resistance 4 ohm or less, conductor 1.5 mm2 or larger

Ordering Information

Model	Description
QG-1U2	Lecture capture integrated host, 4 x in, 3 x out, 2 SDI and 2 HDMI inputs

Company Information

Haimingwei Technology Holdings (Shenzhen) Co., Ltd.

Website: www.adhoopu.com

Email: jimmy@adhoopu.com

Location: Shenzhen, Guangdong, China