

IQAES00

Single/Dual-stream AES/EBU Distribution Amplifier

Flexible configuration allows the IQAES00 to receive one or two inputs over long distances and provides up to ten reclocked outputs for a single input or up to five outputs per input for two inputs.

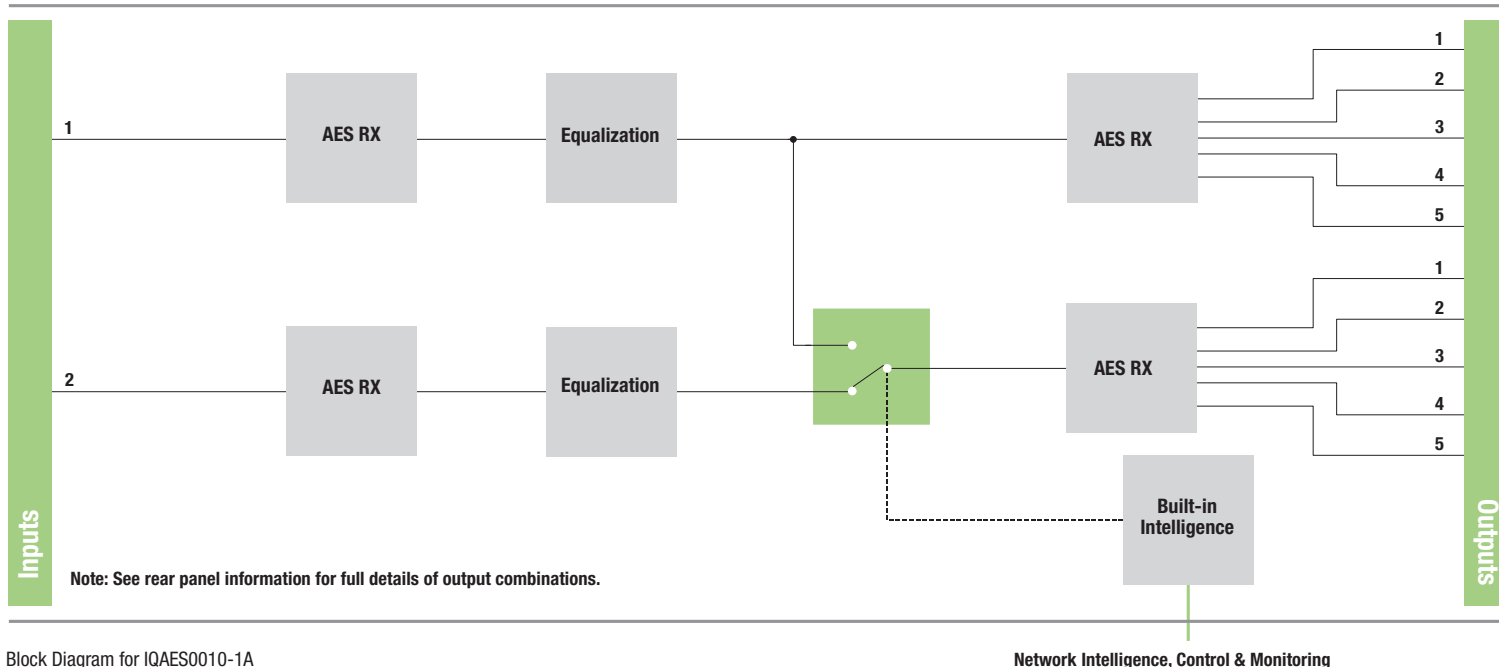
The IQAES00 digital audio distribution amplifier from Grass Valley can receive digital audio from up to 500m of RG59B cable for unbalanced inputs, or up to 150m of AES approved cable for balanced inputs. The unit can be configured to provide up to ten reclocked outputs for a single input or up to five outputs per input for two inputs. Digital audio sample rates of 32, 44.1, 48 and 96 kHz can be automatically detected, however any input sample rates between 32 and 96 kHz may be applied.

Why should you choose this module?

- High-quality distribution amplifiers for AES/EBU digital audio
- Operates with all normal professional sampling rates, 32, 44.1, 48 and 96 kHz
- Simultaneous balanced and unbalanced output configuration enables use as an AES format conversion module
- Status monitoring and input lock reporting through GV Orbit remote control provides error checking

KEY FEATURES

- Can receive digital audio from up to 150m of AES cable (balanced inputs) or 500m of RG59B or equivalent cable (unbalanced inputs)
- Automatic detection of 32, 44.1, 48 and 96 kHz sample rates
- Configurable for one input to ten reclocked outputs, or two inputs to five reclocked outputs per input (dependent on rear panel type)
- Balanced and unbalanced I/O available simultaneously
- Channel status monitoring
- GV Orbit reporting of input lock, non-PCM audio and PCM audio, sampling frequency (32, 44.1, 48, 96 kHz and unknown), consumer mode, channel mode, channel status CRC error and byte 1



Block Diagram for IQAES0010-1A

SPECIFICATIONS

Inputs and Outputs

Signal Inputs

Digital audio input 1/2x AES/EBU
 Standards (balanced): AES3–1992
 Standards (unbalanced): AES3–1992, SPDIF, SMPTE ST 276

Signal Outputs

Digital audio: AES/EBU, up to 10
 Note: See rear panel details for output options
 Standards (balanced): AES3–1992
 Standards (unbalanced): AES3–1992, SPDIF, SMPTE ST 276

Card Edge and Rempte Controls

Indicators

Power up or CPU fault: Good = Off/Fault = Red
 CPU running but input 1 not detected (both inputs or input 1 when in single-channel mode): Input detected = Off/Not Detected = Yellow
 CPU running but input 2 not detected (both inputs or input 1 when in single-channel mode): Input detected = Off/Not detected = Yellow
 Normal operation with input detected (either input or input 1 when in single-channel mode): Input not detected = Off/Input detected = Green

Remote Control Functions

Input mode: Single/Dual
 PCM/non-PCM: PCM/non-PCM decision masks
 Restart unit

Reporting (*also Logged)

Input 1 lock detect: No input present*
 Input 2 lock detect: No input present*
 Input 1 channel status monitor: Displays channel status information (Byte 1 bits 0-3)*
 Input 2 channel status monitor: Displays channel status information (Byte 1 bits 0-3)*
 Input 1 channel status warning: CRC error (broken framing) – Pro mode only
 Input 2 channel status warning: CRC error (broken framing) – Pro mode only
 Channel mode: [unknown; 2-channel; 1-channel; primary/secondary; stereo] – Pro mode only
 Input 1 sample rate: Unknown, 32, 44.1, 48, 96 kHz detection*
 Input 2 sample rate: Unknown, 32, 44.1, 48, 96 kHz detection*
 Input 1 type: PCM*, Non-PCM*
 Input 2 type: PCM,* Non-PCM*
 RollTrack controls: On/Off, Index, Source, Address, Command, Status, Sending
 RollTrack outputs (0-15):
 Unused
 Input 1 missing
 Input 1 OK
 Input 1 CS Mode
 Input 1 PCM
 Input 1 non-PCM
 Input 1 SR Unknown
 Input 1 32k, 44.1k, 48k, 96k
 Input 2 missing
 Input 2 OK
 Input 2 CS Mode
 Input 2 PCM
 Input 2 non-PCM
 Input 2 SR Unknown
 Input 2 32k, 44.1k, 48k, 96k

General Specifications

Input impedance: Balanced 110Ω
 Unbalanced: 75Ω
 Sampling frequency range: 32 – 96 kHz
 Cable length:
 Balanced: >150 m of AES3 cable
 Unbalanced: up to 500m of RG59 or equivalent
 Output impedance:
 Balanced: 110Ω
 Unbalanced: 75Ω
 Output signal level:
 Balanced: 3 Vp-p min
 Unbalanced: 1V ±0.1 Vp-p

Performance

Group delay @ 48 kHz: TBD
 Jitter rejection: 0.006 UI
 Reclocking: Yes

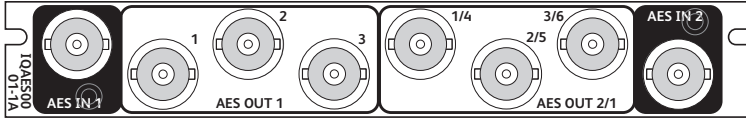
Power Consumption

Module power consumption:
 3W Max (A Frames)
 2.5 PR (B frames)

ORDERING

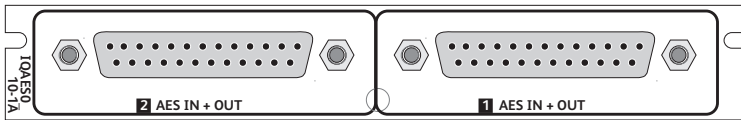
IQAES0001-1A

Single/dual-stream AES distribution amplifier. Unbalanced AES. Configurable for 1 input to 6 outputs or 2 inputs to 3 outputs per input.

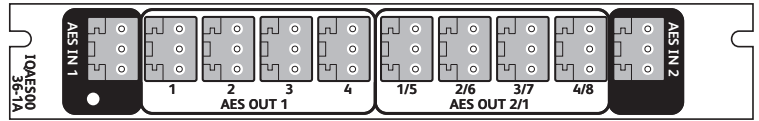


IQAES0010-1A

Single/dual-stream AES distribution amplifier. Balanced D-type AES audio connections. Configurable for 1 input to 10 outputs or 2 inputs to 5 outputs per input.



IQAES0036-1A



Single/dual-stream AES distribution amplifier. Balanced screw-terminal AES audio connections. Configurable for 1 input to 8 outputs or 2 inputs to 4 outputs per input.

For more details on enclosure types please refer to the IQ Modular Enclosures datasheet.



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