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IQSDA34

Triple-channel 3G/HD/SD-SDI Reclocking Distribution Amplifier with Remote Control

A space-efficient reclocking distribution amplifier with flexible switching outputs for future-proof system design.
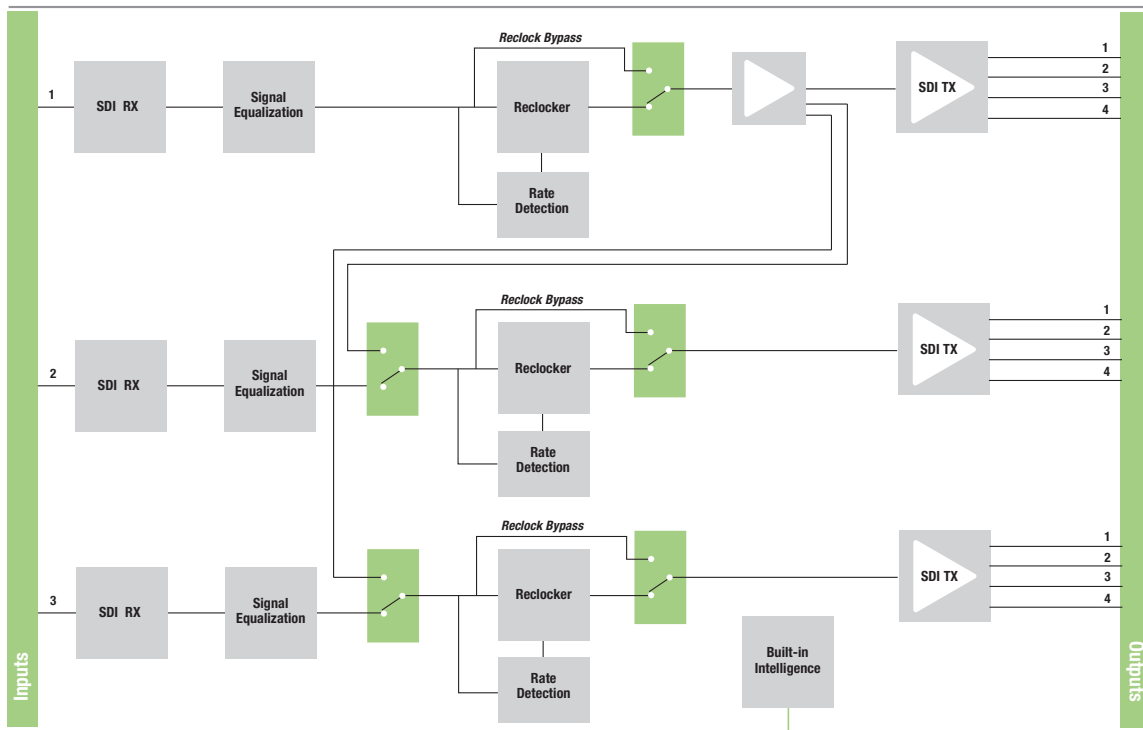
The IQSDA34 from Grass Valley provides three inputs with four outputs per input for distribution of 1080p 3 Gb/s SDI, HD-SDI 1.5 Gb/s or 270 Mb/s SD-SDI signals in a double-width package. Its 70m 3G, 140m HD-SDI input equalization performance and non-reclocking distribution of wide-band signals makes it ideal for all current distribution applications.

Why should you choose this module?

- The IQSDA34 is extremely space-efficient, providing four outputs per input and a density of 24 channels in 3 RU
- Operation at SMPTE ST 424 data rates allows future-proof system design
- Flexible output switching allows the module to adapt should distribution requirements change
- Full GV Orbit compatibility provides an all-inclusive remote configuration, control and monitoring solution
- Comprehensive SNMP support allows easy integration with third-party Network Management Systems

KEY FEATURES

- Triple-channel intelligent 3G-SDI, HD-SDI and SD-SDI reclocking distribution amplifier
- Equalizes up to 70m at 3 Gb/s, 140m at 1.5 Gb/s and 350m at 270 Mb/s when using Belden 1694A cable

- Standards supported:
  – 1080p SDI to SMPTE ST 424
  – HD-SDI to SMPTE ST 292
  – SD-SDI to SMPTE ST 259-C

- Switchable option to connect channels together producing 1 input to 12 outputs, or 2 inputs with 8 and 4 outputs
- GV Orbit control and monitoring compatible

Block Diagram for IQSDA3448-2A3

Network Intelligence, Control & Monitoring

SPECIFICATIONS

Inputs and Outputs

Signal Input

SDI input: 3x

Input cable length:

Up to 70m Belden 1694A @ 3 Gb/s

Up to 140m Belden 1694A @ 1.5 Gb/s

Up to 350m Belden 1694A @ 270 Mb/s

Note: When using mixed HD and SD inputs it is recommended that cable lengths do not exceed the HD specification of 140m.

Signal Outputs

SDI outputs: 4x per input

ASI compatible outputs:

IQSDA3448-2A/B – Serial out 1/2, 1/3, Serial out 2/3, 2/4, Serial out 3/2, 3/4

IQSDA3400-2A/B – Serial out 1/1, 1/2, Serial out 2/2, 2/3, Serial out 3/3

Controls

Indicators

Power: OK (Green)

CPU: OK (Green flashing)

Input 1: OK (Green), Bypass (Orange), Loss (Red)

Input 2: OK (Green), Bypass (Orange), Loss (Red)

Input 3: OK (Green), Bypass (Orange), Loss (Red)

Remote Control Functions

Input 1 (2) select: Auto, 3G, HD, SD, DVB-ASI, Bypass (reclocking off)

Input status: Present, Loss/Unknown, Data Rate

Logging:

Input 1 (2, 3) Type

Input 1 (2, 3) Data Rate

Input 1 (2, 3) Present

Input 1 (2, 3) Error

Input 1 (2, 3) Loss

RollTrack controls: On/Off, Index, Source, Address, Command, Status, Sending

RollTrack outputs:

Unused

Input 1 (2, 3) Present

Input 1 (2, 3) Rate Unknown

Input 1 (2, 3) Loss

Input 1 (2, 3) 3G

Input 1 (2, 3) HD

Input 1 (2, 3) SD

Other Controls

User memories: Name, save and recall 16 user memories

General Specifications

Electrical:

3 Gb/s SDI, SMPTE ST 424

1.5 Gb/s HD-SDI, SMPTE ST 292

270 Mb/s SDI, SMPTE ST 259-C/DVB-ASI

Connector/format: BNC/75Ω panel jack on standard GV connector panel

Return loss:

> -15 dB (270 Mb/s, 1.5 Gb/s)

> -10 dB (3 Gb/s)

Output jitter:

SD-SDI 0.2 UI (10 Hz) / 0.2 UI (1 kHz)

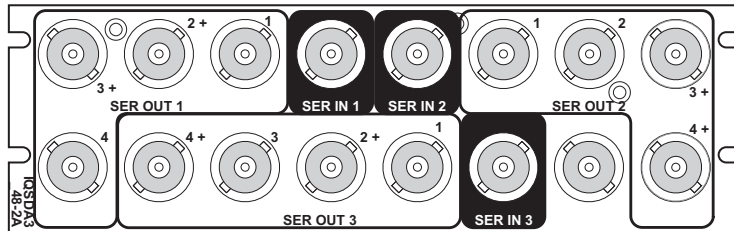3G/HD-SDI 1.0 UI (10 Hz) / 0.2 UI (100 kHz)

Power Consumption

Module power consumption:

IQSDA3448-2A3 5W Max. (A frames)

IQSDA3448-2B3 5 PR Max. (B Frames)

IQSDA3400-2A3 6W Max. (A frames)
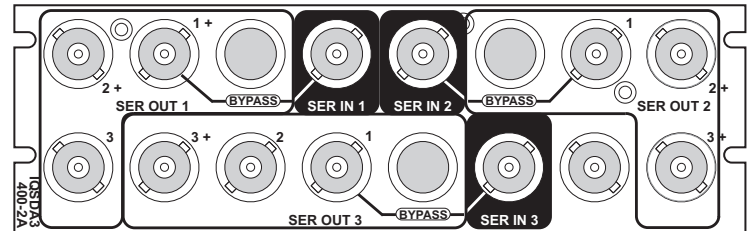
IQSDA3400-2B3 5 PR Max. (B Frames)

ORDERING

IQSDA3448-2A3, IQSDA3448-2B3

Triple-channel 3G/HD/SD-SDI reclocking distribution amplifier. 3 inputs, 4 outputs per input.

IQSDA3400-2A3, IQSDA3400-2B3

Triple-channel 3G/HD/SD-SDI reclocking distribution amplifier with relay input bypass. 3 inputs, 3 outputs per input.

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

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