

# IQSDA35

## Dual Channel 3G/HD/SD-SDI Reclocking Distribution Amplifier with selectable outputs

The IQSDA35 provides dual channel distribution for HD-SDI 3 Gbit/s, 1.5 Gbit/s or 270 Mbit/s SD-SDI signals with flexible routing of inputs to outputs. Input signal loss detection enables switching from a main to back-up feed automatically, providing emergency changeover functionality. Flexible output selection enables the IQSDA35 to be used either as a single channel DA with 12 outputs, or in dual channel mode with 6 outputs per input. An HD/SD-SDI version is available for HD/SD only applications, with an option to upgrade firmware for 3Gbps operation when required.

### Features

- Single or dual channel 3Gbps SDI, HD-SDI and SD-SDI re-clocking distribution amplifier
- Flexible selection of inputs allows single or dual channel operation
- Input signal monitoring allows auto-changeover functionality to provide emergency switching
- Equalizes up to 70m at 3 Gbit/s, 140m at 1.5 Gbit/s and 350m at 270 Mbit/s when using Belden 1694A cable
- Standards supported:
  - 3G-HD to SMPTE424M
  - HD-SDI to SMPTE292M
  - SD-SDI to SMPTE259M-C
- Emergency input bypass option enables the SDI input signal to be passed through to SDI output 1 in the event of frame power failure or module removal
- RollCall monitoring allows all signal paths to be managed

### Why should you choose this module?

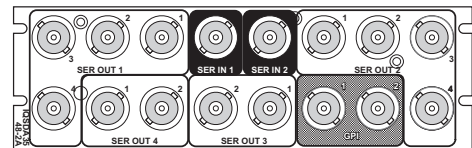
- Outputs can be grouped for selection from either input allowing flexibility for expansion or changes in distribution requirements
- Input loss detection enables automatic switching between inputs to provide emergency back-up changeover functionality
- Can be used for current HD/SD systems that will later upgrade to 1080p50/60 workflows
- Emergency input to output bypass option allows added protection for critical signal paths or 24/7 operations

### Order codes



#### **IQSDA3547-1A3, IQSDA3547-1B3**

Dual Channel 3G/HD/SD-SDI Distribution Amplifier with selectable outputs. 2 inputs, 6 outputs selectable per input.



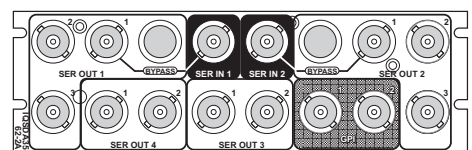
#### **IQSDA3548-2A3, IQSDA3548-2B3**

Dual Channel 3G/HD/SD-SDI Distribution Amplifier with selectable outputs. 2 inputs, 12 outputs selectable per input.



#### **IQSDA3571-1A3, IQSDA3571-1B3**

Dual Channel 3G/HD/SD-SDI Distribution Amplifier with selectable outputs and relay bypass. 2 inputs, 4 outputs selectable per input.



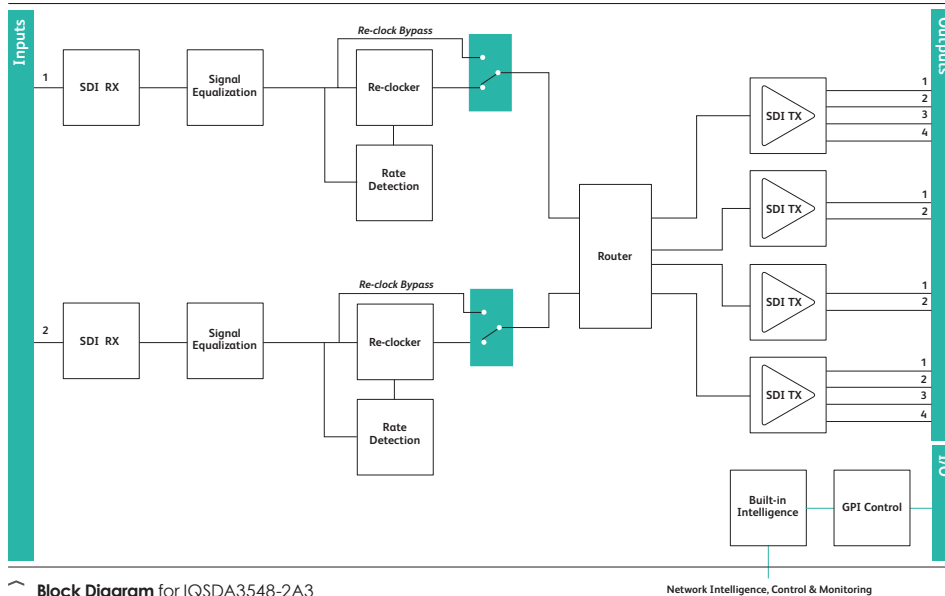
#### **IQSDA3562-2A3, IQSDA3562-2B3**

Dual Channel 3G/HD/SD-SDI Distribution Amplifier with selectable outputs and relay bypass. 2 inputs, 10 outputs selectable per input.

For more details on enclosure types please refer to Frames and Hardware section.

# IQSDA35

## Dual Channel 3G/HD/SD-SDI Reclocking Distribution Amplifier with selectable outputs



Block Diagram for IQSDA3548-2A3

Network Intelligence, Control & Monitoring

## Technical Specification

### Inputs and Outputs

#### Signal Input

SDI input	2 x
Input cable length	Up to 70m Belden 1694A @ 3 Gbit/s Up to 140m Belden 1694A @ 1.5 Gbit/s Up to 350m Belden 1694A @ 270 Mbit/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	x 12 Group selectable per input
ASI Compatible Outputs	IQSDA3547-1A/B - Serial Out 1/1, Serial out 2/1, 2/2 IQSDA3548-2A/B - Serial out 1/1, 1/4, Serial out 2/1, 2/2, Serial out 3/1, Serial out 4/2 IQSDA3557-1A/B - Serial out 2/1 IQSDA3562-2A/B - Serial out 1/4, Serial out 2/2, Serial out 3/1, Serial out 4/2

#### Control Interface

GPI	Up to 2 x GPI (I/O configurable)
Electrical	TTL compatible, active low driven
Connector / format	BNC/75 ohm panel jack on standard SAM connector panel

#### 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)

##### RollCall Functions

Input 1 (2) rate select	3G, HD, SD, other
Reclock bypass	On/Off
Output 1 select	Input 1, 2
Output 2 select	Input 1, 2
Output 3 select	Input 1, 2
Output 4 select	Input 1, 2
Input status	Present, Loss, Unknown, Data Rate

#### Logging

RollTrack controls	Input 1 (2) Type Input 1 (2) Data Rate Input 1 (2) Present Input 1 (2) Error Input 1 (2) Loss On/Off, Index, Source, Address, Command, Status, Sending
RollTrack outputs	Unused Input 1 (2) Present Input 1 (2) Rate Unknown Input 1 (2) Error Input 1 (2) Loss Input 1 (2) 3G Input 1 (2) HD Input 1 (2) SD

#### Other Controls

GPI input	Activates on contact closure: - select config 1 or 2
GPI output	Produces an output for: Config 1 selected, Config 2 selected, Input 1 error, Input 2 error
User memories	Name, save and recall 16 user memories

#### Specifications

Electrical	3Gbit/s SDI, SMPTE 424M 1.5Gbit/s HD-SDI, SMPTE 292M 270 Mbit/s SDI, SMPTE 259M-C / DVB-ASI
Connector / format	BNC/ 75ohm panel jack on standard SAM connector panel
Return loss	>-15dB (270Mbit/s, 1.5Gbit/s)
Output jitter	>-10dB (3Gbit/s) SD-SDI 0.2 UI (10Hz) / 0.2 UI (1KHz) 3G/HD-SDI 1.0 UI (10Hz) / 0.2 UI (100KHz)

#### Power Consumption

Module power consumption	4 W max (A Frames) 4 PR (B Frames)
with relay rear	5W (PR) max