

The IQVDA00 provides up to 14 equalized analog video outputs. Features include; adjustable gain and equalization, and full remote control and status reporting.

IQVDA00/01

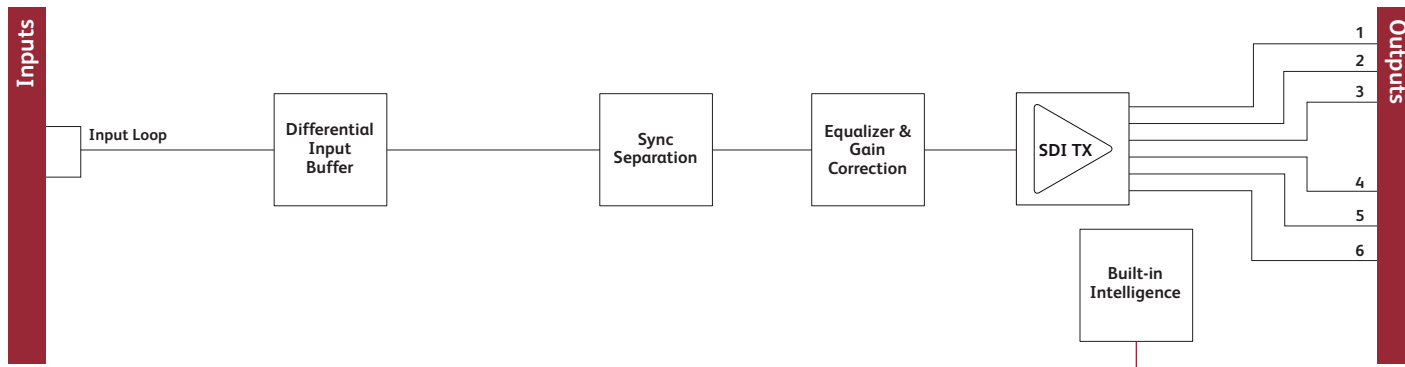
Analog Video Distribution Amplifier with RollCall Control

Does this module suit your application?

- Up to 14 high quality outputs
- Balanced loop-through input
- Terminating input option on single width rear panel allows extra output
- 35 MHz bandwidth
- Adjustable gain and equalization
- Equalization for RG59U/Belden 8263 or PSF1/2/Belden 8281 (link selectable)
- Full RollCall remote control and signal identification
- Sync and burst level warnings
- Automatic gain control (AGC) with respect to sync height
- Automatic equalization (ACC) with respect to burst height

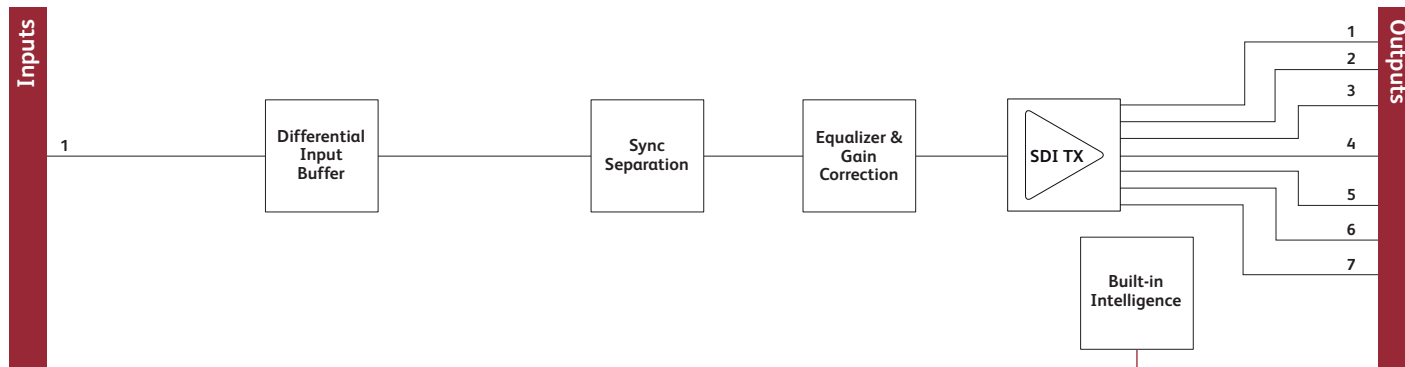
Why should you choose this module?

- Ideal distribution amplifier where input cable configuration is likely to change, such as OB trucks
- Remote control of gain and equalization
- Equalization for 3 different cable types, up to 300 meters for Belden 1694A
- Automatic gain and equalization control mode available
- Sync and burst level warnings provided for low level signals
- 35 MHz bandwidth allows it to be used with HDTV component signals
- Differential input for excellent common mode rejection



Block Diagram for IQVDA0001-1A

Network Intelligence, Control & Monitoring



Block Diagram for IQVDA0101-1A

Network Intelligence, Control & Monitoring

Order codes for IQH3A enclosures

IQVDA0001-1A

Analog Video DA with RollCall.
Loop-through input, 6 outputs.

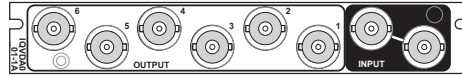
IQVDA0101-1A

Analog Video DA with RollCall.
Terminating input, 7 outputs.

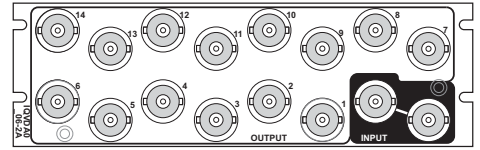
IQVDA0006-2A

Analog Video DA with RollCall.
Loop-through input, 14 outputs.

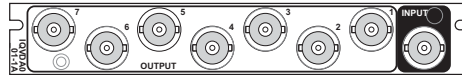
For more details on enclosure types please refer to datasheet IQH3A.



IQVDA0001-1A



IQVDA0006-2A



IQVDA0101-1A

Technical Specification

Inputs and Outputs

Signal Input

Video 1 Balanced loop-through (terminating input option for single width rear panel)

Signal Outputs

Video Up to 14 Unbalanced Outputs

Controls

Controls via RollCall

Gain ±4 dB in steps of 0.05 dB

Typical Equalizer Performance

Belden 1694A

0-300 m +0.1 dB to 10 MHz
0-300 m +0.2 dB to 30 MHz

Belden 8281 (PSF1/2)

0-300 m +0.1 dB to 10 MHz
0-300 m +0.1 dB; -0.4 dB to 30 MHz

Belden 1855A

0-200 m +0.1 dB to 10 MHz
200-300 m +0.1 dB; -1.5 dB to 10 MHz

RG59B/U

0-100 m +0.1 dB to 15 MHz
100-300 m +0.1 dB; -1.5 dB to 15 MHz

NK 0.6/2.8

0-150 m +0.1 dB to 15 MHz
0-150 m +0.1 dB; -0.5 dB to 30 MHz
AGC [On/Off] - All recognized SD Sources

ACC

[On/Off] - Composite Sources Only

Signal identification

Line standard - PAL, NTSC, 625 MONO, 525 MONO, 1080p24, 1080i50, 1080i60, 720p50, 720p60, 720p25, 720p30, UNKNOWN

Selectable clamp

Off, On (Back Porch) and Sync tip

Signal level

Sync and Burst amplitude ±10%

Logging

Signal Level Warning, Line Standard, Burst level warning

Indicators

Power OK
CPU OK
Status OK (Green), Warning (Yellow), Error (Red)

Specifications

Frequency Response (Without equalization)

10 kHz - 10 MHz ±0.1 dB
10 MHz - 30 MHz ±0.2 dB
35 MHz <-1 dB

Differential gain Unity Gain - Better than 0.2%
Differential phase Unity Gain - Better than 0.2°
Signal/noise ratio 10 kHz - 7 MHz - Better than -66 dB (Unweighted)

Linearity Better than 0.1%
50 Hz tilt K50Hz Better than 0.1%

Output D.C. <90 mV
Output return loss Better than 40 dB to 5.5 MHz, 35 dB to 30 MHz

Maximum output level 2.4 V pk to pk @ 30 MHz into 75 ohms

Insertion delay 20 ns

Y C gain/ delay inequality <1%, < 1 ns

K2T, KPB Better than 0.1%

Max. input level +6 dB

CMRR Better than 60 dB at 50 Hz, 40 dB 50 Hz to 8 MHz

Input return loss (powered) Better than 40 dB to 5.5 MHz, 35 dB to 30 MHz

Input return loss (un powered) Better than 33 dB to 30 MHz

Input impedance >22 k ohms

Headroom +6 dB

Output impedance 75 ohms ±1%

Gain Unity ±1% as supplied

Clamp rejection 8 dB typical at 50 Hz

Power Consumption

Module power consumption 3W

Technical Specification cont...

Mechanical

Complies with Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive (2002/95/EC).

EMC Performance Information

Environment Commercial and light industrial
E2

Peak mains inrush current following a 5 second

mains interruption No mains input

Performance information Immunity to conducted common-mode RF interference (EN 55103 2 immunity phenomenon I6): Interference is just visible on critical picture material when a video input or output is subjected to modulated RF at a level of 3 V

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