

# IQVDA00/01

## Analog Video Distribution Amplifier with RollCall Control

Provides 14 equalized analog video outputs with full remote control and automatic adjustment of gain and equalization.

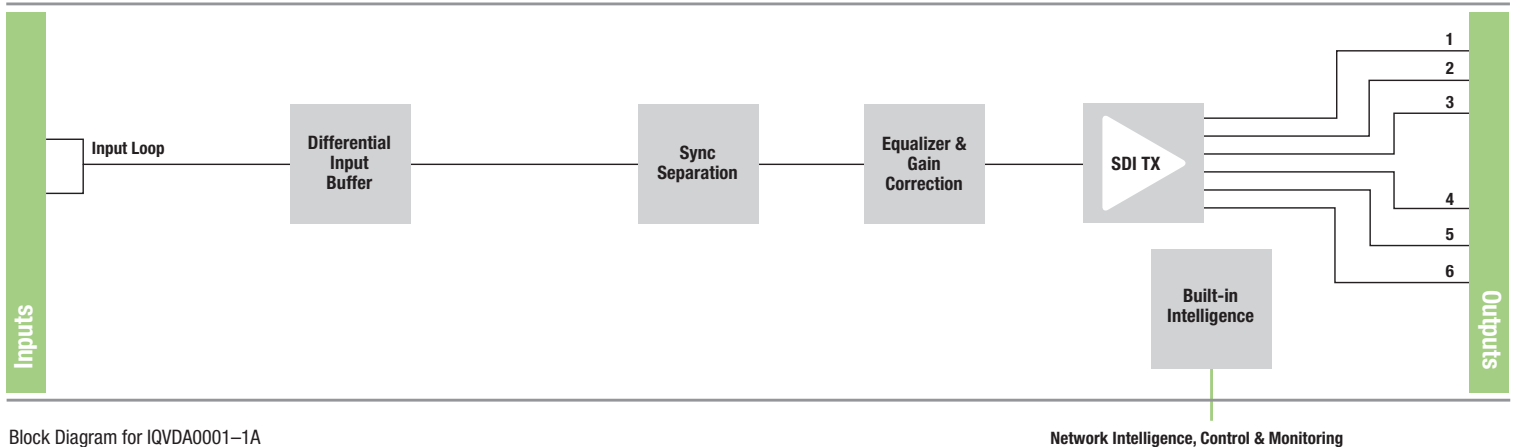
The IQVDA00 from Grass Valley provides up to 14 equalized analog video outputs. Features include: adjustable gain and equalization, full remote control and status reporting.

### Why should you choose this module?

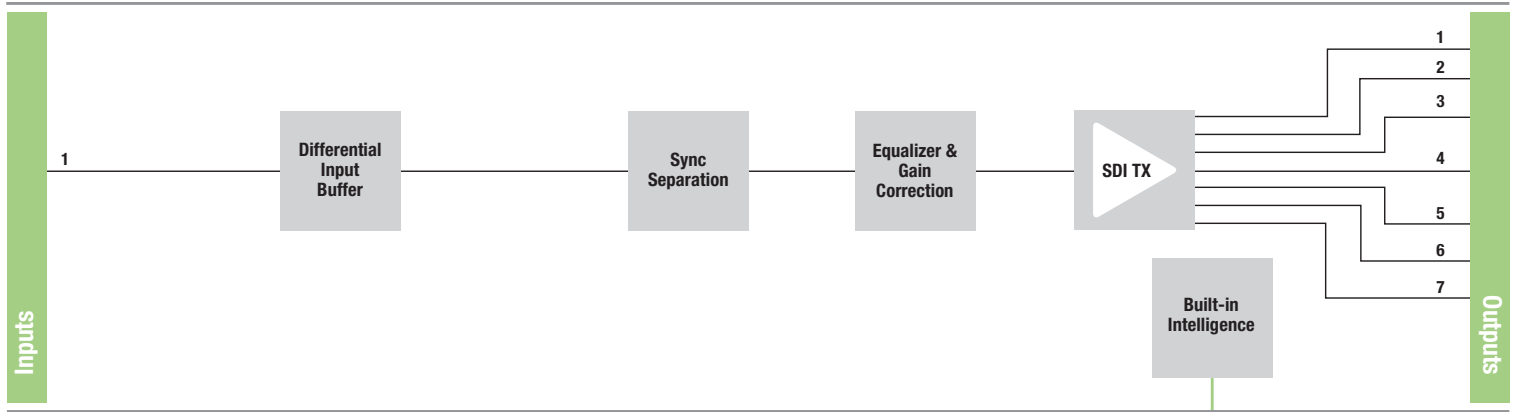
- Ideal distribution amplifier where input cable configuration is likely to change, such as OB trucks
- Remote control of gain and equalization
- Equalization for 3 different cable types, up to 300 meters for Belden 1694A
- Automatic gain and equalization control mode available
- Sync and burst level 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

### KEY FEATURES

- 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



Block Diagram for IQVDA0001-1A



Block Diagram for IQVDA0101-1A

Network Intelligence, Control & Monitoring

**SPECIFICATIONS**

**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:

0-300m +0.1 dB to 10 MHz

0-300m +0.2 dB to 30 MHz

Belden 8281 (PSF1/2):

0-300m +0.1 dB to 10 MHz

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

Belden 1855A:

0-200m +0.1 dB to 10 MHz

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

RG59B/U:

0-100m +0.1 dB to 15 MHz

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

NK 0.6/2.8:

0-150m +0.1 dB to 15 MHz

0-150m +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)

**General 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%

Line tilt : 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 Vp-p @ 30 MHz into 75Ω

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 (unpowered): Better than 33 dB to 30 MHz

Input impedance: >22 kΩ

Headroom: +6 dB

Output impedance: 75Ω ±1%

Gain: Unity ±1% as supplied

Clamp rejection: 8 dB typical at 50 Hz

**Power Consumption**

Module power consumption:

3W Max (A Frames)

2 PR (B Frames)

**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

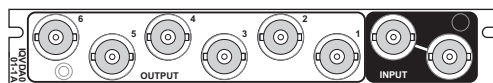
Peak mains inrush current following a 5 second mains interruption: No mains input

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 3V

**ORDERING**

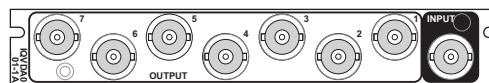
**IQVDA0001-1A**

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



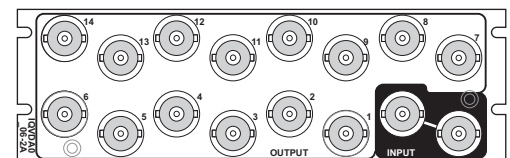
**IQVDA0101-1A**

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 the IQ Modular Enclosures datasheet.

DS-PUB-2-0894A-EN



WWW.GRASSVALLEY.COM

Join the Conversation at **GrassValleyLive** on Facebook, Twitter, YouTube and **Grass Valley - A Belden Brand** on LinkedIn.



www.grassvalley.com/blog

This product may be protected by one or more patents. For further information, please visit: [www.grassvalley.com/patents](http://www.grassvalley.com/patents).

Belden®, Belden Sending All The Right Signals®, the Belden logo, Grass Valley®, GV® and the Grass Valley logo are trademarks or registered trademarks of Belden Inc. or its affiliated companies in the United States and other jurisdictions. Grass Valley products listed above are trademarks or registered trademarks of Belden Inc., GVBB Holdings S.A.R.L. or Grass Valley Canada. Belden Inc., GVBB Holdings S.A.R.L., Grass Valley Canada and other parties may also have trademark rights in other terms used herein.

Copyright © 2020 Grass Valley Canada. All rights reserved. Specifications subject to change without notice.