

IQVDA02/03

Analog Video Distribution Amplifier



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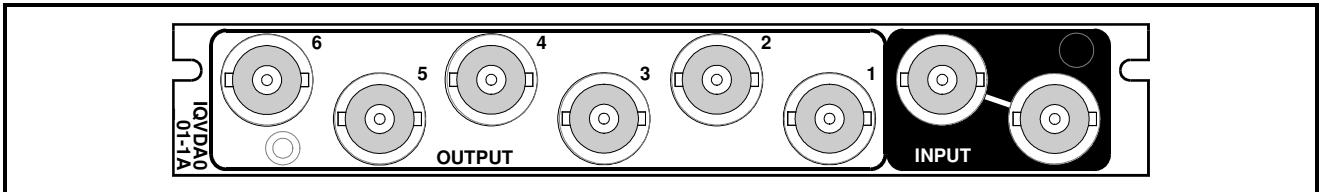
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Module Description

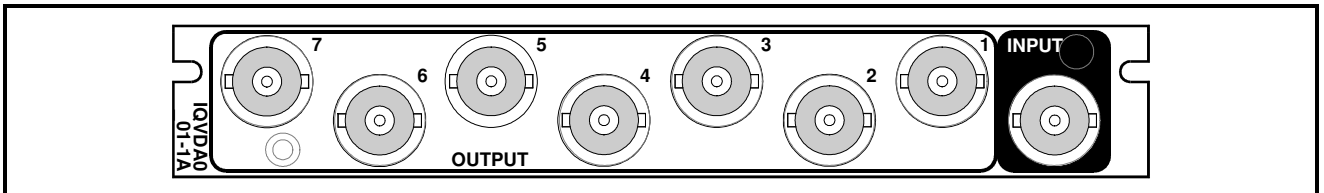
The IQVDA02/03 provide up to 14 equalized analog video outputs.

Rear Panel View

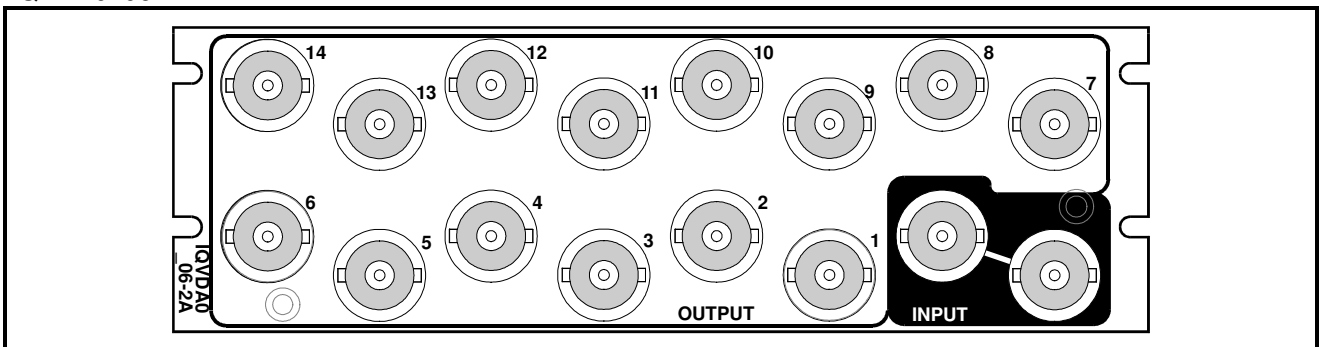
IQVDA0201-1A



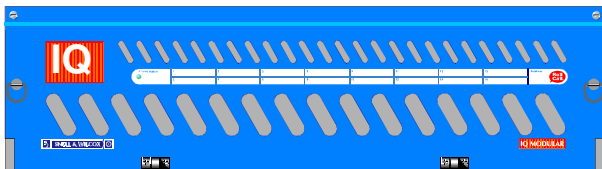
IQVDA0301-1A



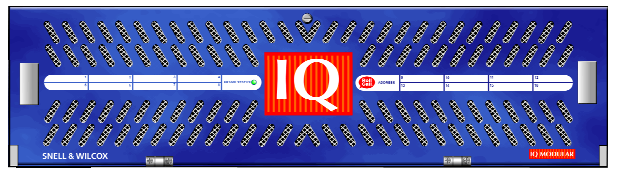
IQVDA0206-2A



Note that these modules may only be fitted into the 'A' Style 3U Enclosure



(Enclosure order codes IQH3A-E-0, IQH3A-E-P, IQH3A-0-0, IQH3A-0-P)



(Enclosure order codes IQH3A-S-0, IQH3A-S-P)

This manual covers the following products:

IQVDA0201-1A Analog Video DA. Loop-through input, 6 outputs.

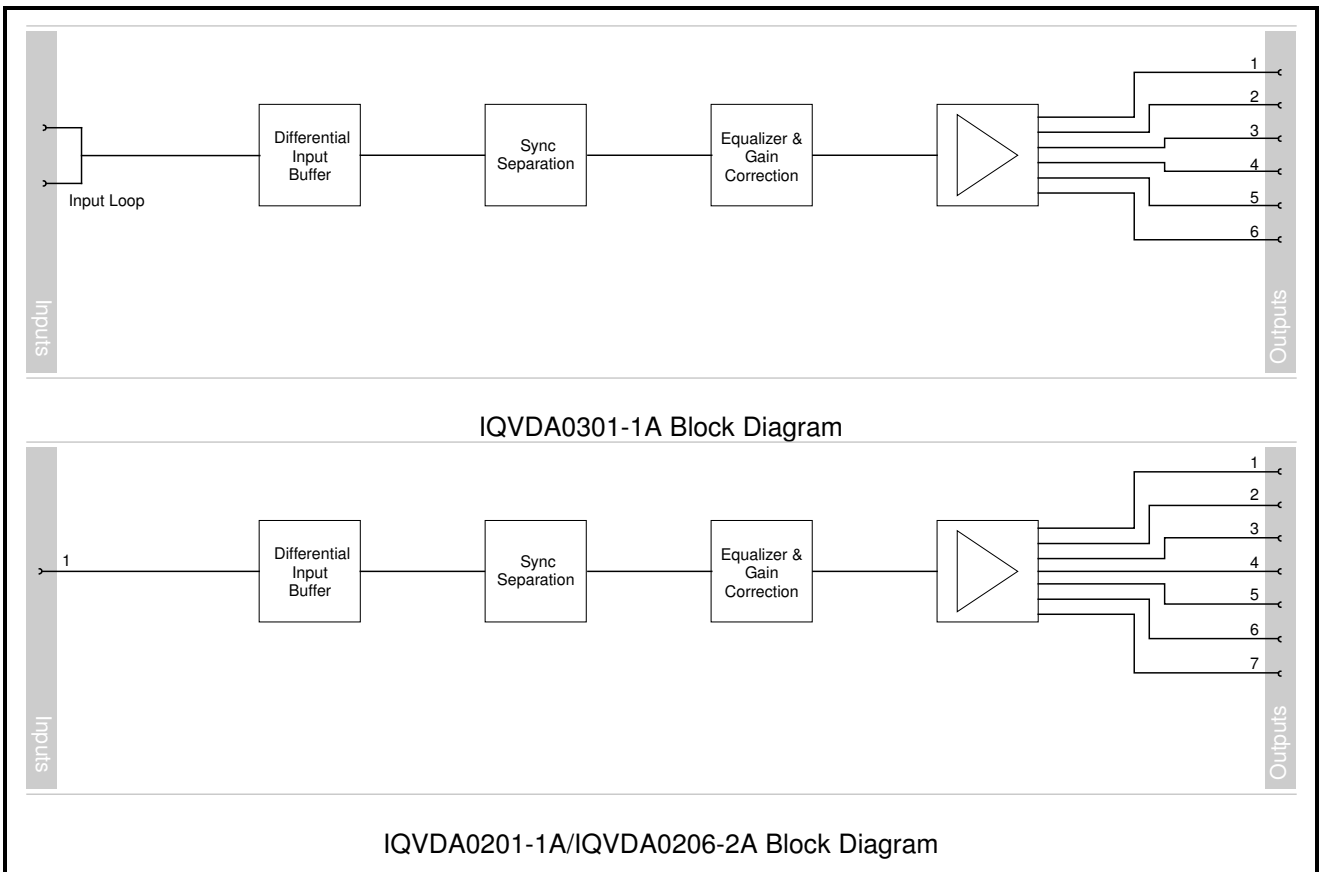
IQVDA0301-1A Analog Video DA. Terminating input, 7 outputs.

IQVDA0206-2A Analog Video DA Loop-through input, 14 outputs

Product Comparison

Product	Input	Outputs	Width & Style
IQVDA0201-1A	Loop through	6	Single A
IQVDA0301-1A	Terminating	7	Single A
IQVDA0206-2A	Loop through	14	Double A

Block Diagram



Features

- Up to 14 high quality outputs
- Balanced Loop-through input
- Terminating input option allows extra output
- 35 MHz bandwidth
- Equalizer, better than ±0.1 dB to 15 MHz with 100 m RG59 cable

Technical Profile

Signal Inputs

Video1 Balanced loop-through
(terminating input option)

Signal Outputs

VideoUp to 14 Unbalanced Outputs

Control Ranges

Gain.....+6 dB to -4 dB typical
Equalization.....Equalizes up to 100 m of RG59 to
15 MHz ± 0.1 dB

Indicators

PowerOK
Sync DetectOK (Green)

Specifications

Frequency Response, 0-100 m RG59U (or equivalent)
15 MHz ± 0.1 dB
typ. -0.33 dB at 20 MHz
typ. -3 dB at 36 MHz

Differential GainBetter than 0.1%
Differential PhaseBetter than 0.1 °
Signal/Noise RatioBetter than 75 dB rms.
(unified weighting filter)

50 Hz tilt K50 Hz.....Better than 0.5%
Output D.C. ± 45 mV max. ± 10 mV typical
Insertion Delay17 ns
Max. Input Level+ 6 dB
CMRRBetter than 55 dB at 50 Hz
Better than 45 dB at 250 Hz
Input Return LossBetter than 50 dB at LF
Better than 40 dB at 5 MHz
Better than 36 dB at 10 MHz
Headroom.....+6 dB
Output Impedance75 ohms $\pm 1\%$
Output IsolationBetter than 38 dB to 5 MHz
Better than 36 dB to 10 MHz
Output Return LossBetter than 36 dB to 5 MHz
Better than 33 dB at 10 MHz
Gain.....Unity $\pm 1\%$ as supplied

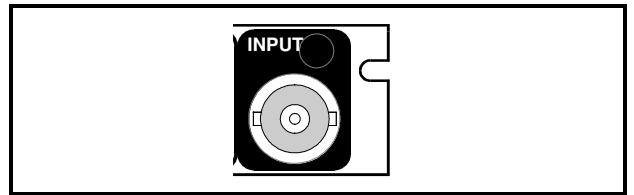
Power Consumption

Module Power Consumption
3 W

INPUT CONNECTIONS

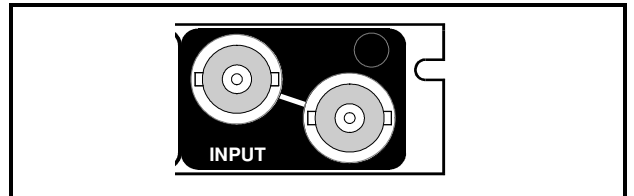
IQVDA0301-1A

This is the video input to the unit via a BNC connector that is terminated in 75 ohms.



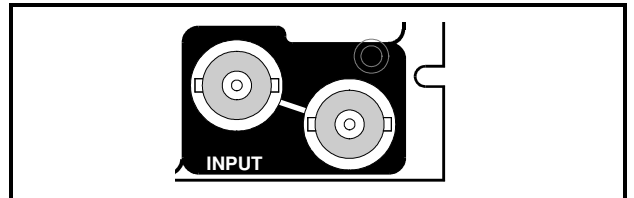
IQVDA0201-1A

This is the video input to the unit via loop-through BNC connectors for 75 ohms. If only one connector is used the other connector should be fitted with a 75 Ohm terminator.



IQVDA0206-2A

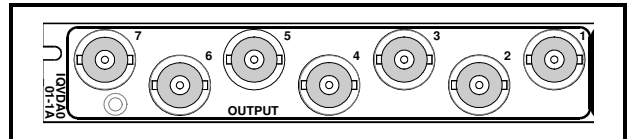
This is the video input to the unit via loop-through BNC connectors for 75 ohms. If only one connector is used the other connector should be fitted with a 75 Ohm terminator.



OUTPUTS

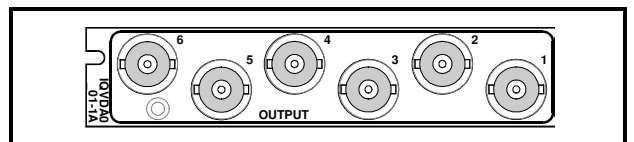
IQVDA0301-1A

These are the seven outputs of the unit via BNC connectors for 75 Ohms.



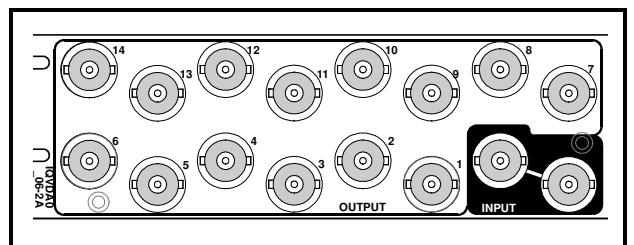
IQVDA0201-1A

These are the six outputs of the unit via BNC connectors for 75 Ohms.



IQVDA0206-2A

These are the 14 outputs of the unit via BNC connectors for 75 Ohms.



CARD EDGE INDICATORS



D1 OK (Green)

This LED will illuminate if the input is present.

Equalization Control RV1

This 10 turn preset control adjusts the amount of cable equalization (or controlled HF lift) that the unit provides. When set at minimum (fully anti-clockwise) no lift is provided but as the control is rotated clockwise the amount of lift or equalization is increased and will equalize up to 100 m of RG59 to 15 MHz ± 0.1 dB in the fully clockwise position. The equalization characteristic has been carefully tailored to allow a standard cable to be corrected with only one control. The unit is supplied adjusted to the 'no lift' position.

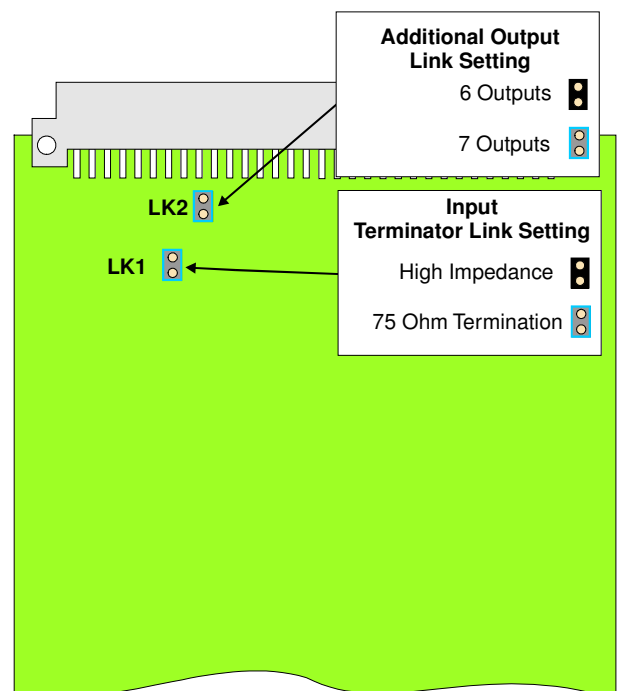
Gain Control RV1

This control adjusts the overall gain of the amplifier. The range of control is +6 dB to -4 dB (typical) and is set by rotating the 10 turn preset located on the side of the unit. i.e. a 1 V p-p output signal may be obtained from an input signal level of between approximately 0.5 V p-p and 1.7 V p-p. Clockwise rotation increases the gain and anti-clockwise rotation reduces the gain. The setting accuracy is better than 1% and is supplied set to unity gain.

Input Termination Link LK1

When fitted the input will be terminated in 75 Ohms.

When not fitted the input will be a high impedance loop-through connection.



Manual Revision Record

Date	Version No.	Issue No.	Change	Comments
280706	1	1		First issue released
090806	1	2	Tech spec & blocks diagrams corrected	New issue released