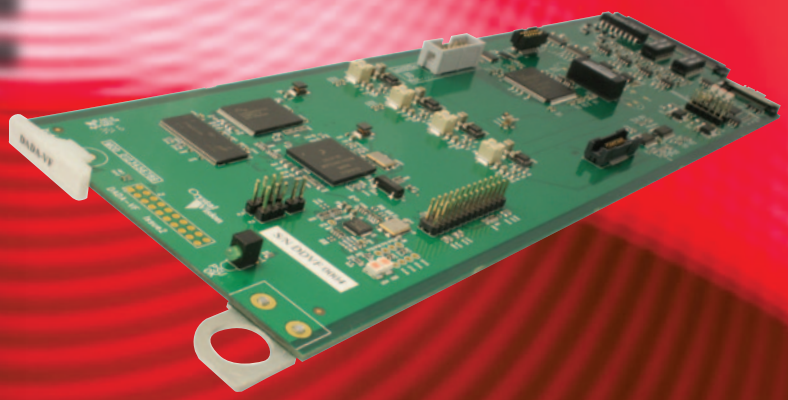
Crystal Vision

Vision SYSTEM

DADA-VF

Digital audio distribution amplifier



One product for all your digital audio distribution requirements. The DADA-VF is a flexible dual channel digital audio distribution amplifier. Providing up to four outputs per channel when configured as a dual channel device (or eight outputs when configured as single channel), it gives you the choice of reclocking or non-reclocking (allowing use with either AES or Word Clock reference), 110 ohm or 75 ohm impedance and 32kHz to 192kHz sample rates.

With remote control and monitoring included as standard, the useful features include audio silence detection which can be used to help indicate system faults.

With up to 20 cards (40 audio channels) fitting in the Vision 3 frame, the DADA-VF saves you rack space and can be housed alongside any other interface or IP cards from the Vision range.

- **Dual channel digital audio distribution amplifier**
- **Configure as either dual channel device (with up to four outputs per channel) or single channel device (with up to eight outputs)**
- **User-selectable signal reclocking makes it ideal for high protection requirements – can correct unstable AES inputs**
- **Supports Word Clock reference distribution (with reclocking switched off)**
- **Flexible support for 110 ohm and 75 ohm input and output impedance and 32kHz to 192kHz sample rates**
- **Detect system faults with audio silence monitoring**
- **Flexible remote control and monitoring using frame integrated control panel, VisionPanel remote control panel, ASCII and JSON protocols, SNMP and the web browser-based VisionWeb Control**
- **Save rack space: 96mm x 325mm card allows up to 20 DADA-VF in 3U**

DISTRIBUTE AES AUDIO ANYWHERE

The DADA-VF is a dual digital audio distribution amplifier, ideal for use in all broadcast areas where AES signals need to be distributed.

The DADA-VF can be set to reclock to provide high protection and correct unstable AES inputs. Alternatively the reclocking can be switched off where the quality of the AES inputs is known or for Word Clock distribution.

This flexible product includes support for 110 ohm and 75 ohm input and output impedance, as well as supporting a range of input sampling frequencies from 32kHz to 192kHz, with automatic detection of sample rate.

CONFIGURE YOUR INPUTS AND OUTPUTS

The DADA-VF can be configured either as a dual channel device with two inputs and up to four outputs of each channel, or alternatively – should a larger number of outputs be required – as a single channel device with one input and up to eight outputs. When used as a dual channel device it can fit up to 40 channels in 3U.

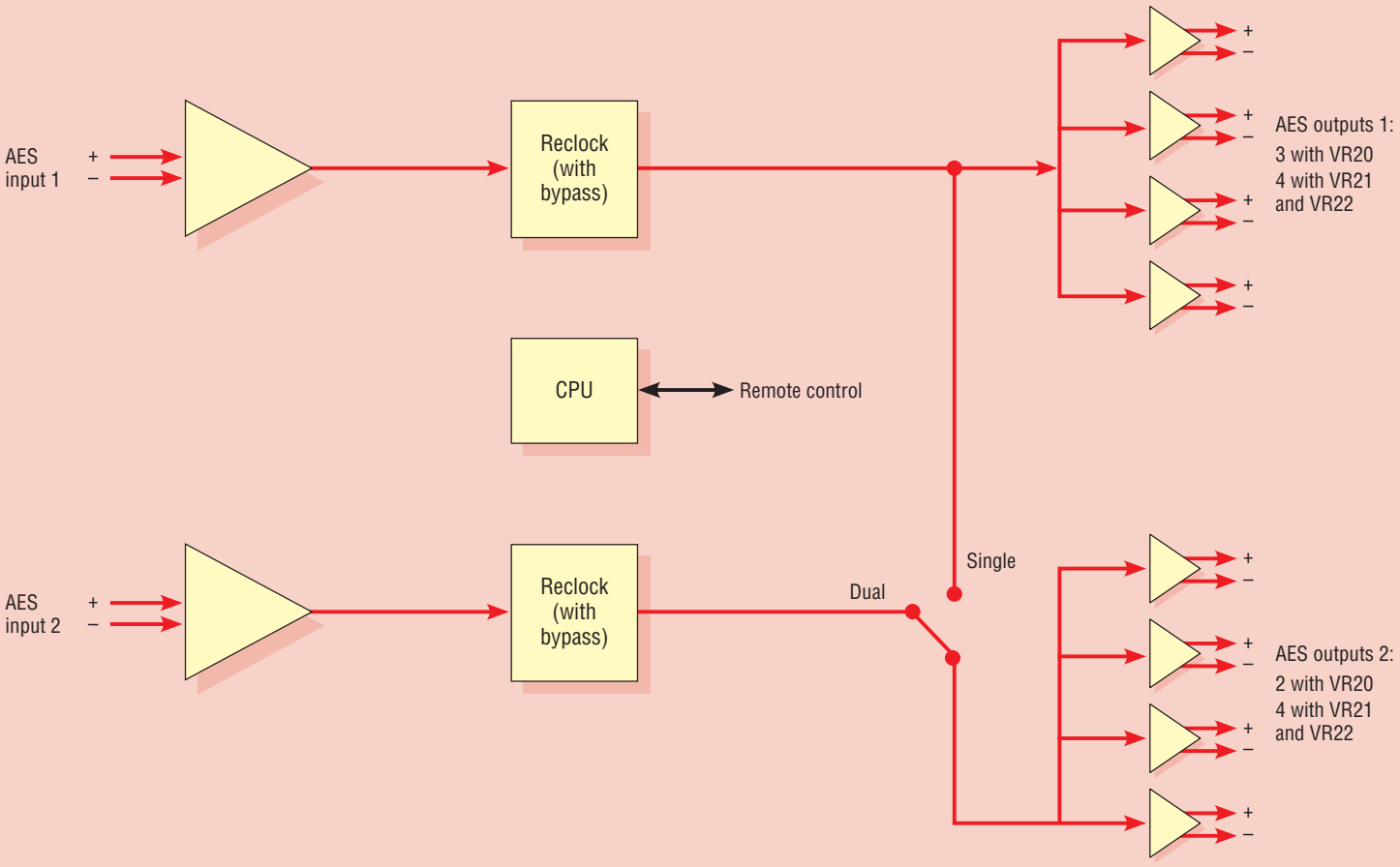
If you're using 110 ohm AES you'll get four outputs of each channel with the single slot VR21 frame rear module. If you're using 75 ohm AES, you can select either the single slot VR20 rear module to get three outputs of channel 1 and two outputs of channel 2, or the double slot VR22 for the maximum outputs (four outputs of each channel).

DETECT SYSTEM FAULTS

Audio silence detection can help alert you to system faults.

A delay and threshold before an alarm is asserted can be set to prevent false alarming during quiet audio periods. An audio level check is performed for AES 1 and AES 2, and if the audio signal level falls below the selected level for a period of time from two to 120 seconds, then it is considered 'silent' and an alarm is triggered. The audio silence level setting can be selected from -48dBFS, -54dBFS, -60dBFS, -66dBFS, -72dBFS, -78dBFS, -84dBFS and -90dBFS.

THE INPUTS AND OUTPUTS



FLEXIBLE CONTROL

All control is done remotely. The DADA-VF is Crystal Vision's first digital audio DA to include remote control and monitoring, with the options including an integrated control panel on the Vision frame, the VisionPanel remote control panel, our ASCII and JSON protocols, SNMP and the VisionWeb web browser control.

The DADA-VF features remote selection of dual or single channel, reclocking or non-reclocking, 110 ohm or 75 ohm input and output and the silence indication delay and threshold. There is remote monitoring of input presence, audio silence and sample rate for each channel.

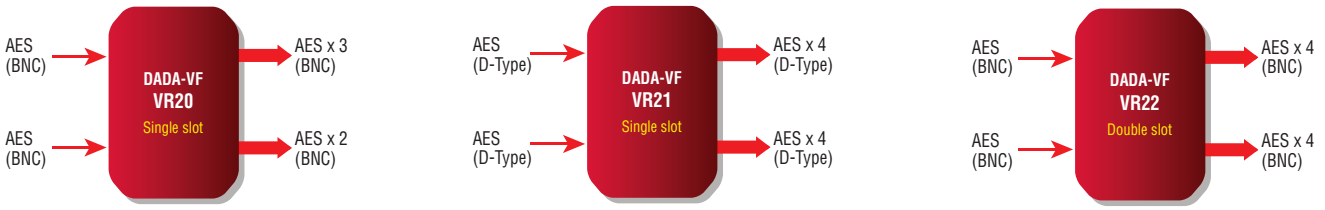
The interactive VisionWeb GUI for the DADA-VF is available at www.crystalvision.tv and allows you to explore the full functionality of the product.

SAVE RACK SPACE

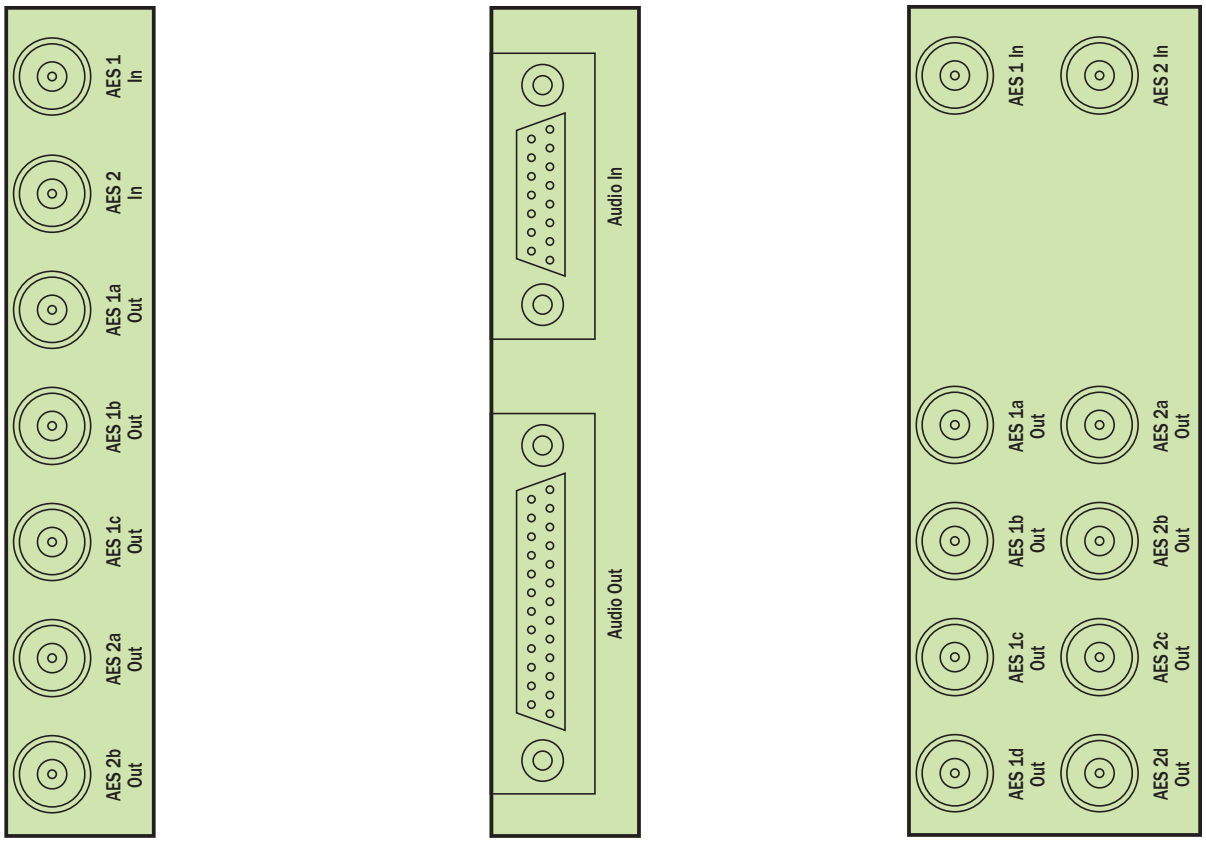
Housed in the Vision frames, the DADA-VF is a space-saving 96mm x 325mm card that sits in one frame slot – allowing up to 20 distribution amplifiers in 3U, depending on the rear module fitted.

REAR MODULE CONNECTIONS

For 75 ohm AES:	For 110 ohm AES:	For 75 ohm AES with maximum outputs:



NB. Can be configured so all outputs come from a single input



VR20 VR21 VR22

SPECIFICATION

MECHANICAL

Standard Vision card 96mm x 303mm (96mm x 325mm including finger pull)

Weight: 150g

Power consumption: 4 Watts

AUDIO INPUTS

Two AES inputs (16, 20 or 24 bit)

110 ohm (balanced) D-Type or 75 ohm (unbalanced) BNC

32kHz to 192kHz input with optional reclocking

Supports Word Clock distribution (no reclocking)

Standards supported for balanced and unbalanced audio: AES3-2009 parts 1 to 4

AUDIO OUTPUTS

Outputs 1-4 always from input 1

Outputs 5-8 selectable to come from either input 1 or input 2

Up to four AES outputs per channel when configured as dual channel device, depending on impedance and frame rear module used: three outputs of channel 1 and two outputs of channel 2 with single slot VR20 (75 ohm), four outputs of each channel with single slot VR21 (110 ohm) and four outputs of each channel with VR22 (75 ohm)

Up to eight AES outputs when configured as single channel device, depending on impedance and frame rear module used: five outputs with single slot VR20 (75 ohm), eight outputs with single slot VR21 (110 ohm) and eight outputs with double slot VR22 (75 ohm)

DELAY THROUGH BOARD

Less than 100us with reclocking enabled. Delay through board is reduced when not reclocking

AUDIO SILENCE

An audio level check is performed for AES 1 and AES 2. The audio silence level setting can be selected from -48dBFS, -54dBFS, -60dBFS, -66dBFS, -72dBFS, -78dBFS, -84dBFS and -90dBFS. If the audio signal level falls below the selected level for a period of time from 2 to 120 seconds, then an alarm is triggered. AES 1 and AES 2 share the same silence time and threshold settings. The audio on the channels must be continuously silent for the full period – a single non-silent sample restarts the delay period

LED INDICATION OF:

Power okay

REMOTE CONTROL

Control from integrated control panel on Vision frames and remote panel

VisionWeb Control is available via the web server on the frame and allows control and monitoring using a standard web browser on a computer, tablet or phone

SNMP monitoring and control available as standard

Control using ASCII and JSON protocols

Remote control of dual channel/single channel mode selection, reclocking/non-reclocking, silence indication time delay and threshold, 110 ohm balanced/75 ohm unbalanced input termination and 110 ohm balanced/75 ohm unbalanced output termination

Remote monitoring of input presence, audio silence and sample rate (32, 44.1, 48, 96 and 192 kHz) for AES 1, and input presence, audio silence and sample rate (32, 44.1, 48, 96 and 192 kHz) for AES 2

ORDERING INFORMATION

DADA-VF	Dual channel digital audio distribution amplifier with up to four outputs per channel
Vision 3	3U frame with active front panel featuring smart CPU and integrated control panel for up to 20 Crystal Vision cards from the Vision range
VR20	Single slot frame rear module. Allows 20 DADA-VF in 3U. Uses BNCs. Gives access to two 75 ohm AES inputs with three 75 ohm AES outputs of the first channel and two of the second
VR21	Single slot frame rear module. Allows 20 DADA-VF in 3U. Uses D-Types. Gives access to two 110 ohm AES inputs with four 110 ohm AES outputs of each channel
VR22	Double slot frame rear module. Allows ten DADA-VF in 3U. Uses BNCs. Gives access to two 75 ohm AES inputs with four 75 ohm AES outputs of each channel
VisionPanel	3U Ethernet remote control panel with touch screen
VisionWeb Control	VisionWeb web browser control included within frame software
SNMP	SNMP monitoring and control included in frame

Crystal Vision

Crystal Vision Ltd. Lion Technology Park, Station Road East, Whittlesford, Cambridge CB22 4WL, England.
Tel: +44 (0)1223 497049 Fax: +44 (0)1223 497059 E-mail: sales@crystalvision.tv @crystalvisionuk www.crystalvision.tv