RAIPEC
AUDIO POWER

The 4-Channel DMX VCA Unit

The DMX VCA provides remote control of analogue audio via the non-proprietary DMX protocol. Four audio paths may be controlled individually or assigned to one of four DMX addresses. A summed mix output across all four channels is also provided.

Using the industry standard DMX512 control protocol allows any DMX compatible controller to raise/lower (mute) sound levels in Theatres, Visitor Attractions or anywhere that requires high quality remote audio level control.

Easily stacked for more channels, up to 32 devices may share the same control line giving a total of 128 channels of audio level control per network

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Features

DMX Address selection Switches: [Front Panel]
DMX 1 - 256: These switches set in binary the Base Address between 1 and 509 with each device using 4 sequential DMX channels. To avoid conflicts, any other subsequent DMX controllable device or VCA box must increment it's Base Address by 4. The Base Address is set using DIP switches 1 through 9.

DC Control Switch: [Front Panel]
Lin/Log: Provides linear or log taper. In the majority of cases the log taper should be used. This equates to the normal fader found on mixing consoles giving the same 'sense' of volume control.

Analogue Control Level Indicator: [Front Panel]
Green LED: From min to max, this indicator increases in brightness to show the level of control for that channel.

Analogue control selection Switch: [Front Panel]
Base 0 - 3: Analogue signal input control. Four independent VCA's may be controlled using Base, Base+1, Base+2 and Base+3 in ascending order. However if two stereo channels need to be controlled, then Base and Base+1 could be used. Alternatively, if four channels are to be controlled together, then Base could be used on it's own.

Input/Output: [Rear Panel]
3-pin Sockets: Professional line level active balanced circuitry for low noise, low distortion.

4-Channel Mix: [Rear Panel]
3-pin Socket: Professional line level summed mix output for all four level controlled inputs.

DMX Termination: [Rear Panel]
Push button: To correctly terminate the DMX line with 120R should the device be at the end of the cable.

DMX error indicato: [Front Panel]
Red LED: The indicator remains lit when valid DMX signal is being received, otherwise this indicator flashes.

Voltage Controlled Amplifiers: [Internal]
The VCA's are high performance current-in/current-out devices taking advantage of a fully complimentary dielectric isolation process which offers closely matched NPN/PNP pairs. This delivers performance unobtainable through any conventional process, integrated or discrete. The VCA's are noiseless in operation.

Specifications

Audio:

Frequency response	10Hz to 50kHz +/-1dB
Distortion (typical)	0.008%
Output Noise	0dB gain, -98dBu (20Hz-20kHz)

Inputs/Outputs

Balanced Input	+20dBu max
Input Impedance	48kOhms
CMRR	50Hz > 85dB
	20kHz >80dB
Connector	3-Pin 3.81mm CamdenBoss
Balanced Output	Transformer-like floating output
	Stable clipping into single-ended loads
	Common-mode offset, RFI and surge protected
Output Impedance	50 Ohms
Connector	3-Pin 3.81mm CamdenBoss

VCA:

Dynamic range	>120dB
Distortion @ 1kHz	Vin +10dBu, 0dB gain 0.006%
	Vin 0dBu, 0dB gain 0.004%
	Vin +10dBu, -15dB gain 0.025%
Gain tracking	better than +/-1dB, 0 to -40dB

Control:

Protocol	In accordance with DMX512, EIA-485 differential signalling. 250kbaud, 1 start bit, 8 data bits, 2 stop bits, no parity.
Control Pins	Pin 1 Signal Gound
	Pin 2 Data-ve
	Pin 3 Data +ve by default [Internal 2,3 swap]
Connector	3-Pin 3.81mm CamdenBoss

Power:

Power Input	100Vac -240Vac @ 200mA max
Power consumption	20W
Power Connector	C5 Male

Environmental:

Operating temperature	0DegC to 40DegC (32Deg F to 104Deg F)
Relative Humidity	10% - 80% relative humidity, non-condensing

Dimensions

Dimension (WxHxD)	Aluminium enclosure 170mm x 56mm x 168mm

Weight

Weight (net)	0.9Kg

Warranty One year limited, parts and labour

Designed and manufactured in the UK

NOTE: 0dBu = 0.775Vrms

Specification subject to change without prior notice.

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