



V1635/AA/AD/DA/DD

Dual Channel Tracking Delay with Gain Control

FEATURES

- Analogue levels to +28dBu (/AA)
- 32, 44.1, 48kHz sampling (/AD & /DD)
- Automatic 32, 44.1, 48kHz lock (/DA)
- Selectable 24/20-bit conversion (/AD & /DA)
- Variable to 1.25s, tracking to 40ms
- Test tone
- Gain control
- AES & video references (/AD & /DD)
- Re-sampling to reference (/DD)

AUDIO DELAY FOR UP TO 2 AES/STEREO ANALOGUE CHANNELS



The V1635 module provides audio delay for up to 2 AES/stereo analogue channels. The input and output configuration can be selected by choosing the appropriate option. Analogue in & out, analogue in and digital out, digital in and analogue out, digital in & out are all possible dependent upon the option chosen. A hybrid version with a mix of analogue and digital input & output (V1635/S) is also available.

The output delay is the sum of a variable and tracking delay. The total delay is applied to both stereo channels. Its primary function is to maintain correct audio timing w.r.t. video for a wide range of system applications. A variable delay from 0 – 1.25s can be set from the front panel or remotely from Viewfind and/or a V1605 control panel. Resolution is in 1ms steps up to 1.25s. A Delay Pulse input (TTL) provides an additional tracked delay of up to 40ms. This input is compatible with an output from a V1640 or V1641 SDI Frame Synchronizer.

On those options with AES outputs, an analogue video reference input allows the AES outputs to be made 'clock synchronous' with the video frame rate. Alternatively the AES outputs can be synchronized to an external AES reference. This has the additional benefit of aligning the AES block sequence. All channel status bits and validity flags are passed unaltered. User data bits are set to zero. All standard sampling rates are supported. AES inputs can be at different sampling rates from each other and from the reference.

Independent left and right channel gain controls are provided for both stereo pairs.

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Technical Specification

Analogue Audio Inputs (2 stereo) (/AA & /AD)

Resolution	24-bit (DSP quantises down to 20-bit - link selectable)
S/THD+N	< -85dB
Dynamic range	100dB
Max. input	14dBu to +28dBu in 1dB steps -> 0dBFS
Input impedance	20k
Input format	Balanced

Analogue Audio Outputs (2 stereo) (/AA & /DA)

Resolution	24-bit (DSP requantises down to 20-bit - link selectable)
S/THD+N	< -85dB
Dynamic range	100dB
Max input	0dBFS -> 14dBu to +28dBu in 1dB steps
Output impedance	50
Output format	Balanced

Tracking Pulse Input

Level	TTL (active high)
Range	0 - 40ms
Connector	BNC
Impedance	High Z (> 10k)

AES Audio Inputs (2 + reference*) (/DA & /DD)

Sampling	32, 44.1 or 48kHz
Format	AES-3
Impedance options	75 ohm unbalanced BNC AES-3id(1995)
Or	110 ohm balanced screw terminal AES-3 (1992)
	(selected option must be same as output(s))
Cable source length	Up to 250m

* Link selectable 110/75 ohm or Hi-Z termination for loop through.

Adjustment Range

Variable delay	0 - 1.25 seconds
Tracking delay	0 - 40ms
Gain	-16dB to +15dB in 1dB steps

AES Audio Outputs (2) (/AD & /DD)

Sampling	32, 44.1 or 48kHz
Format	AES-3
Impedance options	75 ohm unbalanced BNC AES-3id(1995)
Or	110 ohm balanced screw-terminal AES3-1992
	(selected option must be same as input(s))
Cable drive length	Up to 250m

Video Reference Input (/AD & /DD)

Level	1V p-p analog video
Format	625/50Hz, 525/60Hz Black & Burst
Connector	BNC
Impedance	75 ohm

Ordering Information

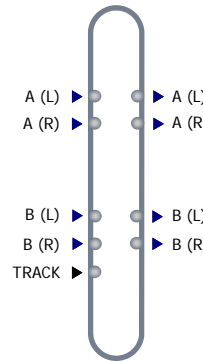
Please specify type required when placing order:

V1635/AA	Dual Stereo Analog Tracking Delay	V16AR3H	3RU balanced	V16AR1H	1RU balanced
V1635/AD	Dual Stereo Analogue to AES Tracking Delay	V16AR3M	3RU unbalanced	V16AR1M	1RU unbalanced
		V16AR3P	3RU balanced	V16AR1P	1RU balanced
V1635/DA	Dual AES to Stereo Analog Tracking Delay	V16AR3L	3RU unbalanced	V16AR1L	1RU unbalanced
		V16AR3H	3RU balanced	V16AR1H	1RU balanced
V1635/DD	Dual AES Tracking Delay	V16AR3N	3RU unbalanced	V16AR1N	1RU unbalanced
		V16AR3P	3RU balanced	V16AR1P	1RU balanced

All Pro-Bel's quoted prices for interface modules include the supply of one suitable rear module. Note: Special versions of rear module are available on request.

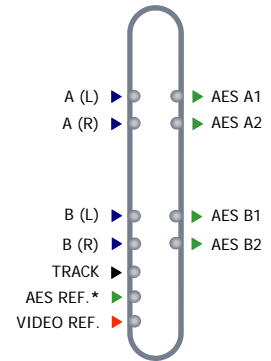
V1635/AA

Analogue Tracking Delay



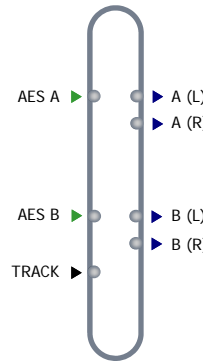
V1635/AD

Analogue to AES Tracking Delay



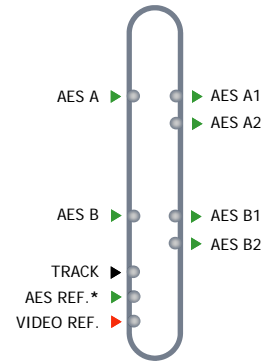
V1635/DA

AES to Analogue Tracking Delay



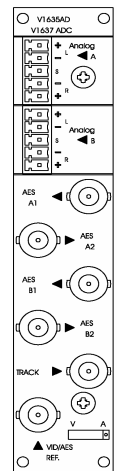
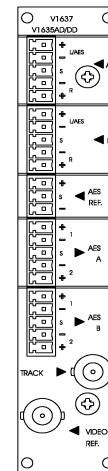
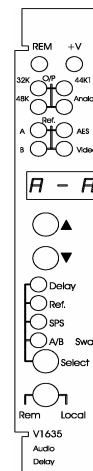
V1635/DD

AES Tracking Delay



Controls

Delay	Up to 1.25s
Reference Select	Free, AES, Video
Sample Rate	Select
A/B Swap	Off, A, B, Both
Input Gain	-16dB to +15dB
(per channel)	



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