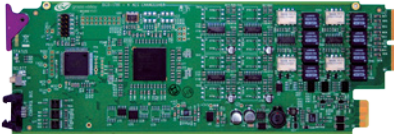
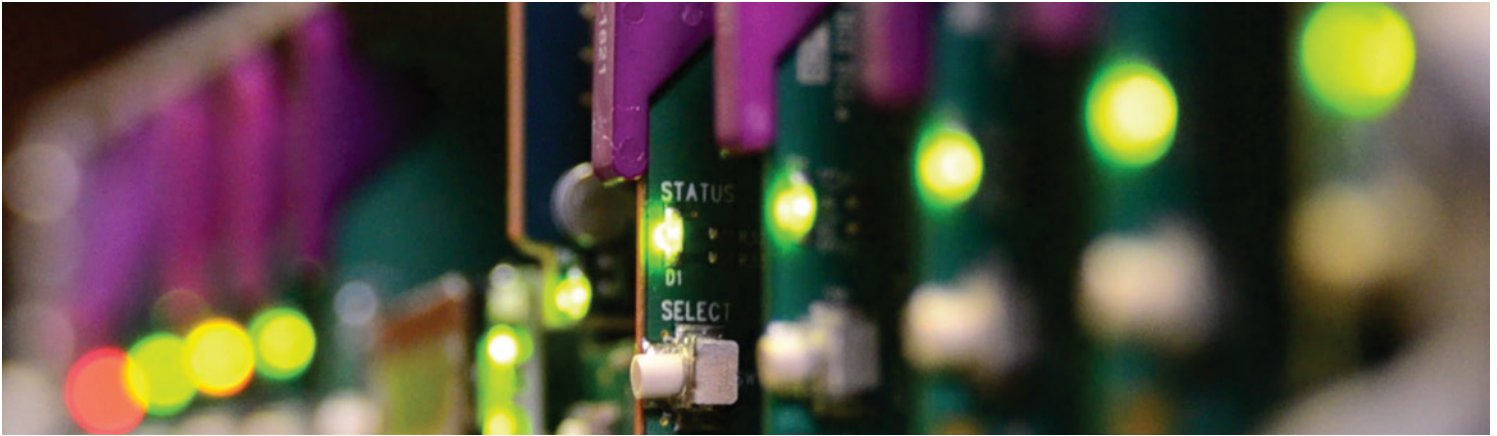


# DCO-1781

## 4 AES Audio Change-over with Silent Switch Option



Space-saving, modular platform for advanced signal processing.

The DCO-1781 from Grass Valley, a Belden Brand, is a 4 AES change-over. The switch is performed electronically by an internal router. In the event of a power failure, the signal is protected by the relays fitted on the rear module, maintaining the integrity of the selected signal at the output. The DCO card allows switching as a regular router, or alternatively the module can perform an audio silent switch between sources using the silent switch software option.

Input selection can be performed manually or automatically. In automatic mode, the card will perform input selection based on internal signal analysis with alarm parameters, and the status of the inputs. In manual mode, channel selection can be undertaken from the Densité Controller, the iControl software or simply by using a GPI. A GPI can be connected to an automation system or another device to control input selection. The GPI outputs give status of the selected source, and this can be used to trigger tallies.

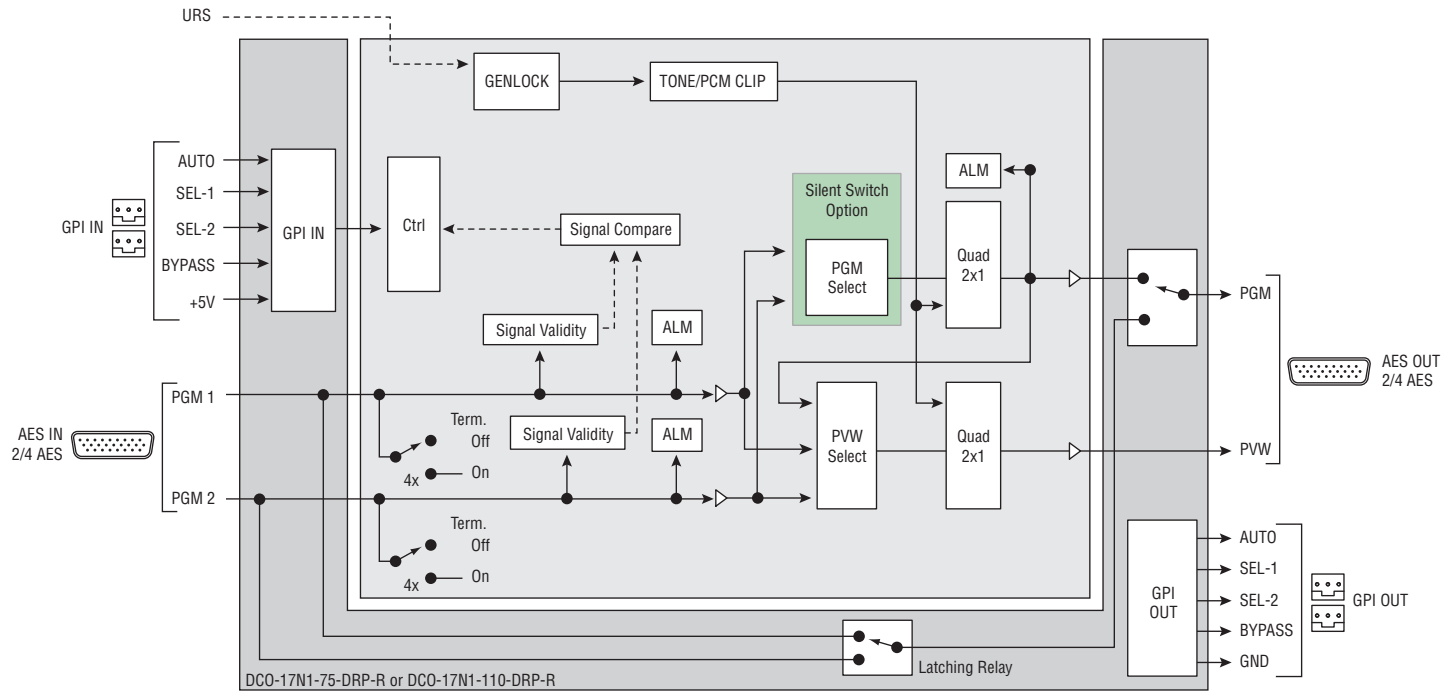
The card provides audio level metering so that an operator can remotely and effectively monitor the signal path using Grass Valley's iControl facility monitoring and control system.



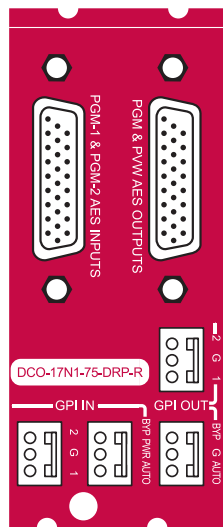
# DCO-1781 4 AES Audio Change-over with Silent Switch Option

## KEY FEATURES

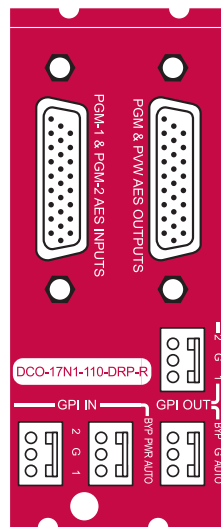
- Up to 4 AES on each input
- Electronic switching with relay backup (on rear module)
- Automatic mode using internal signal analysis with alarm parameters
- Manual change-over by local frame controller, iControl, iControl Solo or GPI
- GPI outputs give status of selected source for tallies
- Alarm reporting to iControl facility monitoring and control system
- GPI I/O (IN1, IN2, AUTO, BYPASS)
- Optional silent switch function
- Frame reference input
- Audio level meter streaming
- Emergency audio tone



DCO-1781 Functional Block Diagram



DCO-1781-75-DRP-R



DCO-1781-110-DRP-R

# DCO-1781 4 AES Audio Change-over with Silent Switch Option

## SPECIFICATIONS

### Audio Inputs (4 AES Per Input)

**Sampling freq.:** 48 kHz  $\pm$ 100 ppm

**Quantization:** 16 to 24 BITS

All A inputs must be synchronized with each other.

All B inputs must be synchronized with each other.

#### AES3

Level: 0.2 to 7 Vp-p

Impedance:

Transformer balanced

110 $\Omega$  (bypass off)

>5 k $\Omega$  (bypass on)

#### AES3-id

Level: 0.2 to 2 Vp-p

Impedance:

75 $\Omega$  (bypass off)

>5 k $\Omega$  (bypass on)

**Return loss:** >15 dB up to 12 MHz

### Audio Output (4 AES)

**Sampling freq.:** 48 kHz  $\pm$ 100 ppm

AES3

Level: 4 Vp-p

Impedance: 110 $\Omega$  balanced

AES3-id

Level: 1 Vp-p

Impedance: 75 $\Omega$

**Return loss:** >15 dB up to 12 MHz

### Reference Input

**Signal:** URS for Densité

### Processing Performance

**Quantization:** 24 bits

**Sampling:** 48 kHz, synchronous

**Number of channels:** 8

**Latency:**

3 audio samples

40 ns (direct mode)

### Alarm Parameters

AES audio alarm

AES carrier

No Lock

Parity

CRCC

Validity

Not 48 kHz

Audio type

PCM

Dolby-E

Dolby Digital AC 3

Non PCM

Overload

Level

Max

Min

Silence

Overload

Dynamic

Low dynamics

AES imbalance

AES phase

AES stereo width

Metadata

Program config

Dialnorm

### Miscellaneous

**Tone generator:** 1 kHz sine wave interrupted on left channels (250 ms / 3s) EBU R49

**Emergency audio clip:** storage provided for one or two files, with a total duration from 11.3s (for stereo signal sampled at 48 kHz) to 45s (for mono signal sampled at 24 kHz)

### Electrical

**Power:** 10W



## ORDERING

### Densité 2 frame

DCO-1781

DCO-17N1-75-DRP-R

DCO-17N1-110-DRP-R

### Options

DCO-17NN-OPT-SS

BOC-DA26-8BNC-1

### Related products

### Remote control

### Densité 3 frame

DCO-1781-3RU

DCO-17N1-75-DRP-R-3RU

DCO-17N1-110-DRP-R-3RU

### Description

Silent switch option for DCO-1741 or DCO-1781

75 ohm digital audio breakout cable

FRS-1103, ENC-1103, DEC-1003, DEC-1023, XVP-1801 (all), ADC-1101, XVP-3901

iControl, iControl Solo, RCP-200

### Description

4 AES audio change-over with optional silent switch

Double rear connector panel, unbalanced audio w/relay

Double rear connector panel, balanced audio w/relay



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