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Flashlink

AV-3G-XMUX

3G-SDI digital audio de-/embedder

AV-3G-XMUX is a multi-rate audio embedder and de-embedder supporting 3G-SDI level A and B. The feature rich card includes configurable AES I/O functionality, making this multi-purpose card suitable for most audio embedding / de-embedding applications.

The AV-3G-XMUX's small footprint, low power and Nevion panel control support are ideal for outside broadcast applications.

The extensive manual control thru DIP switches enables the module to be efficiently used as a stand-alone unit enclosed in the small Flashlink N-box enclosure.
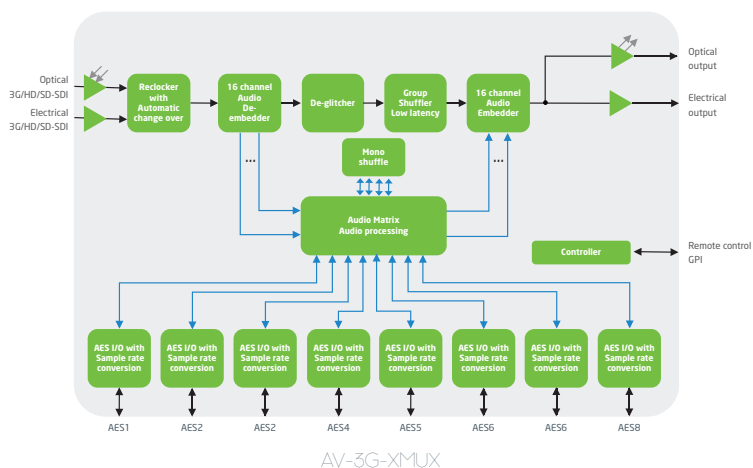
The built-in de-glitcher makes the AV-3G-XMUX the preferred choice for audio embedding applications since any switching is presented seemlessly at the AV-3G-XMUX output.

Applications

- Studio infrastructure
- Studio interconnect
- OB production
- Audio embedding/de-embedding

Key features

- Configurable AES I/O for audio embedding and de-embedding
- De-embed and embed simultaneously all audio from HD and SD video
- De-embed all eight groups and embed four groups of audio with 3G video
- Sample rate converters when needed on AES inputs
- De-embed and embed and transport asynchronous serial data (RS422/RS485)
- De-glitch correctly synchronized switched video
- Audio processing including test tone generator, gain, left-right swap/ sum phase-inversion and stereo cross point matrixSwap stereo channels
- Optical receiver and transmitter for CWDM and DWDM
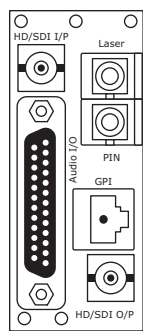- Internal video generators for SD, HD and 3G formats
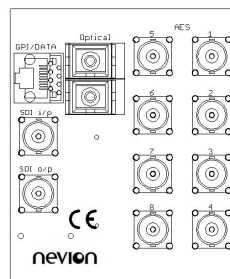
R1521

AV-3G-XMUX

Product description

The AV-3G-XMUX is a highly integrated audio embedding module in the Flashlink range, offering simultaneous embedding and de-embedding of eight AES3 stereo digital audio channels from a digital 3G/HD/SD-SDI serial video signal.

There are 8 AES ports and each may be used as either an input or an output. The sample rate converters may be inserted by the module when needed, or the user can disable them. Data signals such as Dolby E will always be embedded transparently without using the sample rate converters. All embedding and de-embedding is with synchronous 48 kHz audio. The unit may be ordered with optical transmitter and receiver options. The laser options range from the standard -5dBm 1310nm to the DWDM units. The receivers may be either PIN or APD for extra high optical budget.
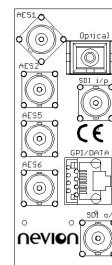
The module has signal generators for audio and video for test and line-up applications. The internal video generator may be used as a fall-back source that is used if the both the electrical and the optical input signals fail. This allows uninterrupted transmission of embedded audio.

AV-3G-XMUX-C1   AV-3G-XMUX-C2   AV-3G-XMUX-C3

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General

Power	4.3W/5V
User interface	Status LED, Status GPI, configuration DIP, switches Web interface and SNMP through Multicon controller
Operating temp.	0 – 40C

Supported standards

SMPTE-259M, SMPTE-292-2008,
SMPTE-424M, SMPTE 425M, SMPTE-297,
SMPTE 272M-AC, AES3-2003, SMPTE-RP165,
SMPTE 346-2000

Optical input

No of inputs	1
Signal type	3G-SDI, HD-SDI, SD-SDI
Sensitivity	3G/HD/SD < -17/-20/-25dBm
Detector overload	> -3dBm
Detector overload	> +1dBm
Optical range	1200nm – 1620nm
Connector	SC/UPC

Optical output

No of outputs	1
Optical power	+5dBm, DWDM 0dBm, CWDM -5dBm, 13T
Connector	SC/UPC
Optical system	40-channel DWDM according to ITU-T G694.1, 100MHz spacing 18-channel CWDM according to ITU-T G694.2
Spectral width	+/-0.16nm, DWDM +/-6nm, CWDM +/-20nm, 13T"

Electrical SDI input

No of inputs	1
Signal type	3G-SDI, HD-SDI, SD-SDI
Cable equalization	Automatic 70m @ 3G-SDI w/ Belden 1694A 100m @ HD-SDI w/ Belden 1694A 300m @ SD-SDI w/ Belden 8281
Connector	BNC, 75 Ohm

Electrical SDI output

No of outputs	1
Signal type	3G-SDI, HD-SDI, SD-SDI
Signal polarity	Non-inverting
Level	800mV +/-10%
Connector	BNC, 75 Ohm

Digital audio output

No of I/Os	8
Signal type	AES-3
Connector	DB-25F, 110 Ohm: option C1 backplane BNC, 75 Ohm: options C2, C3 backplanes

Ordering options

50130 AV-3G-XMUX-Cx	3G aud. em/de-emb
50131 AV-3G-XMUX-Cx-R	3G aud. em/de-emb w/opt. receiver
50133 AV-3G-XMUX-Cx-13T, -5dBm	3G aud. em/de-emb w/opt. 1310nm transmitter
50134 AV-3G-XMUX-Cx-C1xxx	3G aud. em/de-emb w/opt. CWDM transmitter
50135 AV-3G-XMUX-R-C1xxx transmitter	3G aud. em/de-emb w/opt. receiver and CWDM
50140 AV-3G-XMUX-Cx-D15xx.xx, +5dBm	3G audio em/de-emb w/optical DWDM transmitter

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