P MX 5214 B / D

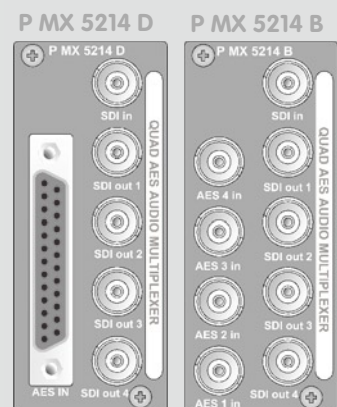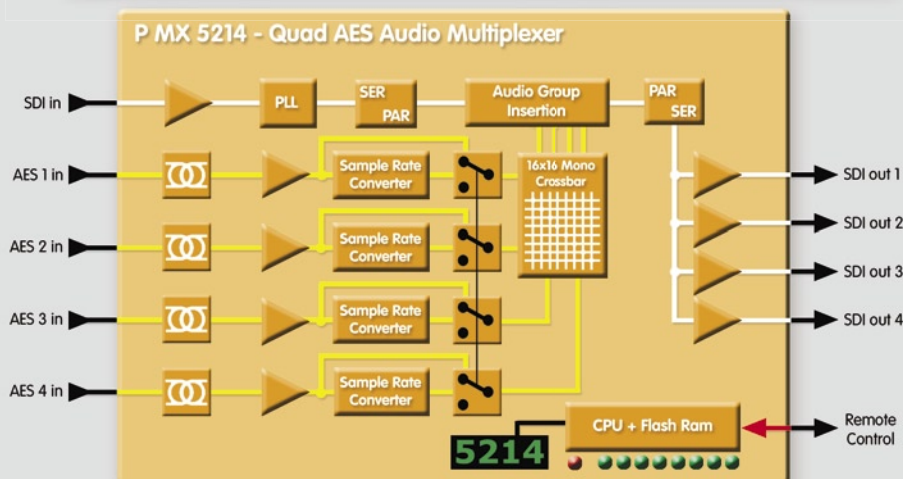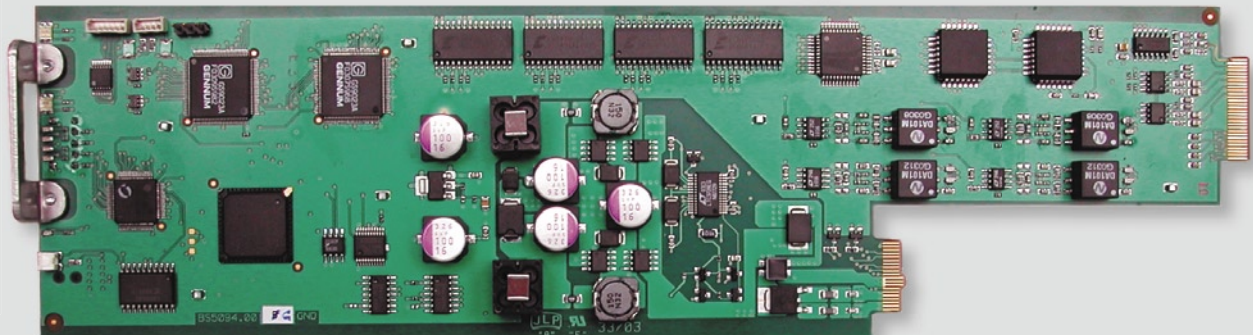## Quad AES Audio Embedder

Description

The P DX 5214 is a high quality digital AES audio embedder which will embed 4 AES streams (2 groups) into the incoming SDI video signal. Two of four audio groups can be selected for embedding. (Remaining groups pass unchanged) Featuring dual standard operation, 16:9 and 4:3 compatibility with 20 or 24 bit audio support and a 16 x 16 mono crossbar for channel shuffle makes this a versatile solution for any audio embedding application. Dual backplane options support both 75 Ohm single ended AES and 110 Ohm balanced AES connectivity.

Four SDI outputs are provided with embedded audio which could be used for cascading into additional embedders for audio insertion into other groups.

Microprocessor control and on board flash ram enable configurations and settings to be stored within the module (through power cycles and module removal). Local control capability is provided via the integrated dip switch and multifunction switch. Remote control, status monitoring and error reporting is possible when using the LYNX control system.

Features

- User selectable audio groups (1-4) for embedding
- Dual standard operation (525/625) with auto detection
- Supports 16:9 and 4:3 formatted video
- 270Mbit or 360Mbit operation with auto detection
- Supports 8 and 10 bit digital video
- 20 or 24 bit audio
- AES Sample rate converter (with selectable bypass)
- 16 x 16 mono crossbar for audio channel shuffle.
- Synchronous or asynchronous audio (32Khz to 48KHz)
- Four SDI outputs with embedded audio
- Two backplane options supporting single ended AES or balanced AES audio connectivity

- Video to green if input video lost
- No audio insertion if audio lost
- Transformer coupled (isolated) audio inputs
- Remote control, status monitoring and error reporting possible when used with LYNX control system
- Full SNMP support when used with master controller option
- Hot Swappable

P MX 5214 - Quad AES Audio Multiplexer

Backplane Options

P MX 5214 B / D

Quad AES Audio Embedder

Specifications

Video Input

Signal Type	Serial digital video SMPTE 259M C-D with embedded audio SMPTE 272M-C
No. of inputs	1
Input Impedance	75 Ohms
Connector	BNC
Return loss	> 15dB (270Mbit)
Cable equalization	> 250M using Belden 8281 (270Mbit)

Video Outputs

No. Of Outputs	4
Signal Type	Serial digital video SMPTE 259M C-D
Connector	BNC
Impedance	75 Ohm
Return loss	> 15dB (270Mbit)

AES Audio Inputs

Signal	P MX 5214 B = AES3id unbalanced (single ended) P MX 5214 D = AES3 balanced
No. of Inputs	4 x AES (i.e 8 audio signals 2 per AES stream)
Connectors	P MX 5214 B = BNC, 75 Ohm P MX 5214 D = Female 25 pin sub D, 110 Ohm balanced
Output level	P MX 5214 B = 1 v peak to peak nominal P MX 5214 D = 4v peak to peak nominal
Added Jitter	< 2ns
Coupling	Transformer (isolated) inputs

Performance

Jitter	< 0.2ui
Sampling	Sample rate converter = 48KHz. For asynchronous audio inputs rates between 32KHz and 48KHz are supported.
Audio bit depth	20 or 24 bit audio embedding (selectable)
Audio group selection	Select two of 4 audio groups to embedded audio (4x AES). AES status indication (LED) provided for all four groups.
Group deletion	Only selected group replaced / embedded with others passing unchanged** OR all remaining groups can be deleted.
Channel Shuffle	16x16 mono crossbar for audio channel shuffle
Control	Local configuration and audio group selection via dip switches and multifunction switch. Full remote control / status monitoring possible when using a LYNX controller option.
Status Monitoring	Module edge LED indicators for a variety or parameters

Electrical Specifications

Operating Voltage	12 VDC
Power Consumption	< 5W
Safety	IEC 60950/ EN 60950/ VDE 0805

Mechanical

Size	283mm x 78mm
Weight	CardModule 120g, connector plate 50g

Ambient

Temperature	5°C to 40°C Maintaining specifications
Humidity	90% Max non condensing

Specifications subject to change

** **Note**. In 20 bit mode all 4 audio groups are supported. In 24 bit mode only groups 1, 2, and 3 are supported. Any audio already present in group 4 will be deleted when in 24 bit mode.

Settings and Control

Local Settings

20 / 24 bit	Select either 20 / 24 bit AES audio
Group delete	Delete all remaining groups / pass groups unchanged
Sample rate conversion	On / Bypass
Group select	Select audio group for embedding 1/2/3/4

Additional Settings Available from Control System

Alarm configuration	AES1/AES2/AES3/AES4 errors selected to influence master alarm LED and subsequent error event handling

On Board Indicators / LEDs

AES 1 Status. AES present / Not valid AES signal	
AES 2 Status. AES present / Not valid AES signal	
AES 3 Status. AES present / Not valid AES signal	
AES 4 Status. AES present / Not valid AES signal	
Group status. One Led for each group (4). Indicates the following conditions : * No audio present and none embedded * Audio already present * Audio group deleted and not replaced * Audio group is being overwritten * Audio group is being inserted	
General Alarm Indicator - 3 color	

Ordering Information

Model #	Part Number	Description	Includes
P MX 5214 B	6155009200	Quad AES Audio Embedder	CardModule, Rear termination Panel, + Mounting Screws, and Reference Manual
P MX 5214 D	6155009300	Quad AES Audio Embedder	CardModule, Rear termination Panel, + Mounting Screws, and Reference Manual