

DIGITAL AUDIO to SDC VIDEO INSERTER MULTIPLEXER/EMBEDDER

Inputs: 4 x AES3 or 4 x AES-3ID Digital Audio Channels

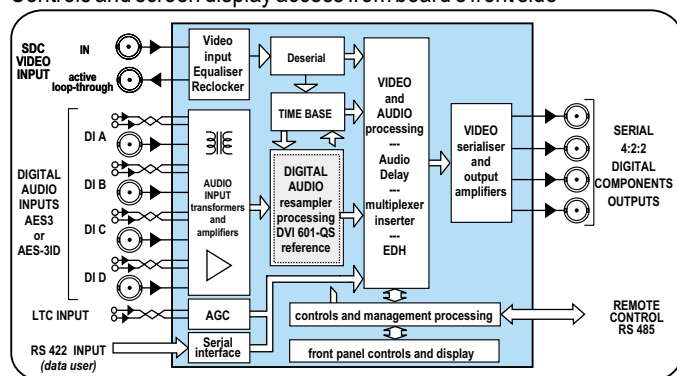
The **DVI 601-Q(S)** is a high-quality Audio/Video Inserter. The **DVI 601-Q(S)** inserts 4 digital audio signals (AES) into serial digital component video signal (270 Mbit/s or 360 Mbit/s). The **DVI 601-Q(S)** allows to insert one Longitudinal Time Code and one serial data user signals.

The **DVI 601-Q** AES inputs must be 48 kHz, synchronous and locked to the video signal input.

With "S" option (**DVI 601-QS**), the AES audio inputs (28 to 54 kHz) can be resampled and locked to the video.

The **DVI 601-Q(S)** can be cascaded to embed up to 8 AES channels.

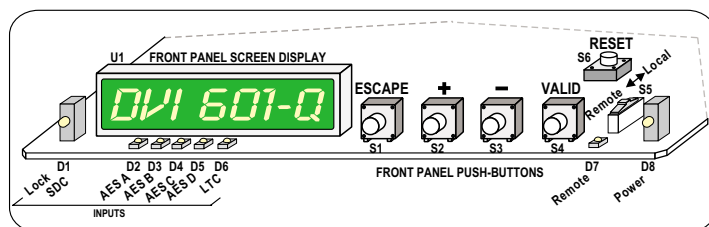
The **DVI 601-Q(S)** is designed on an "Europe" 3U electronic board. Controls and screen display access from board's front side



Functional block diagram

Features

- 1 SDC video input with reclocked active loop-through
- 4 AES3 or 4 AES-3ID digital audio inputs
- DVI 601-Q: AES inputs, 48kHz synchronous and locked to the video input
- DVI 601-QS: AES inputs, 48kHz locked to the video or 28 to 54 kHz resampled mode
- 1 differential Longitudinal Time Code (LTC) input
- 1 RS 422 serial data input
- 4 SDC video with Embedded AES/EBU outputs
- 525/625-line video formats
- 270 Mbit/s or 360 Mbit/s operation
- EDH monitoring and insertion
- 20-bit/24-bit embedded AES
- Programmable audio delay
- Controls, adjustments and screen display on front side of the board
- RS 485 remote control



Front edge of the board

User Controls

FRONT PANEL PUSH-BUTTONS and STATUS LEDs

- | | | | |
|---|--|--|---|
| S1 : ESCAPE returns to previous menu or submenu | S2 : PLUS increases value of selected parameter or moves forward in parameters listing | S3 : MINUS decreases value of selected parameter or moves backward in parameters listing | S4 : VALID enables one of the parameters and stores the new value |
| S5 : Remote / local selection | S6 : Micro controller RESET | U1 : Screen display | D1 : Lock SDC input |
| D2 : AES A input | D3 : AES B input | D4 : AES C input | D5 : AES D input |
| D6 : LTC input | D7 : Remote | D8 : Power | |

FRONT PANEL DISPLAY: MAIN MENU PARAMETERS

AUDIO CONTROLS:

inter & intra group selection for each audio channel - duplicating - muting - tone - delay adjustment - re-sampling (DVI 601QS)

AUDIO STATUS:

groups and channels occupied after insertion process
AES channels presence & main informations

OTHER CONTROLS:

LTC enable
user data enable
remote control LAN address set up

OTHER STATUS:

SDC video input presence & main informations
EDH process reporting
LTC input presence
remote control activity

All parameters are saved in NON-VOLATILE RAM

Technical Specifications

DIGITAL VIDEO INPUTS

SERIAL IN

SIGNAL: 4:2:2 SMPTE 259M-C
270 Mbit/s or 360 Mbit/s

CABLE LENGTH: 250 m
IMPEDANCE: 75 Ω
RETURN LOSS: >15 dB up to 270 MHz

SERIAL ACTIVE LOOP-THROUGH OUTPUT

SIGNAL: 4:2:2 SMPTE 259M-C
270 Mbit/s or 360 Mbit/s

IMPEDANCE: 75 Ω
RETURN LOSS: >15 dB up to 270 MHz

DIGITAL AUDIO INPUTS

SIGNALS: 4 AES3 110 Ω balanced or 4 AES-3ID 75 Ω unbalanced

SAMPLE RATE FREQUENCY: DVI 601-Q 48 kHz locked to the video input
DVI 601-QS 48 kHz locked to the video input or 28 to 54 kHz asynchronous in resampled mode

LTC INPUT

SIGNAL: Balanced analogue signal

TERMINATION: 600 Ω or 24 kΩ (jumper selectable)

LEVEL RANGE: 100 mVp-p up to 10 Vp-p

DIGITAL VIDEO OUTPUTS

SIGNAL: 4:2:2 SMPTE 259M-C
270 Mbit/s or 360 Mbit/s

NUMBER: 4

IMPEDANCE: 75 Ω

RETURN LOSS: >15 dB up to 270 MHz

JITTER: < 0.2 UI p-p

AES/EBU EMBEDDED: 20 or 24-bit selectable

PROCESSING PERFORMANCE

VIDEO

QUANTIZATION : 10-bit

AUDIO

QUANTIZATION : 24-bit
SAMPLING : 48 kHz
DELAY : Up to 340 ms

POWER : < 10 W

DVI 601-Q DVI 601-QS

DIGITAL AUDIO to SDC VIDEO INSERTER MULTIPLEXER/EMBEDDER

Inputs: 4 x AES3 or 4 x AES-3ID Digital Audio Channels

Overall Performances

Audio
Connectors: Sub-D type (AES3) or BNC (AES-3ID)
inputs: 4 with transformer isolated
Impedances: 110 Ω balanced (AES3) or 75 Ω unbalanced (AES-3ID)
Quantization: 20-bit or 24-bit
Sample rate frequency input: DVI 601-Q 48 kHz locked to the video
DVI 601-QS 48 kHz locked to the video or 28 to 54 kHz asynchronous in resampled mode

Audio
Audio delay: Up to 340 ms
test signal: 1 kHz sine wave
Video
Connectors: BNC
Inputs: Serial 4:2:2 with active loop-through
Outputs: 4 Serial 4:2:2 with 2 AES/EBU embedded
Input output impedances: 75 Ω
Standard: 270 Mbit/s or 360 Mbits
Processing delay: < 2 μs

Mounting Frames

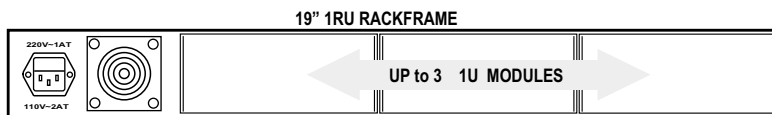
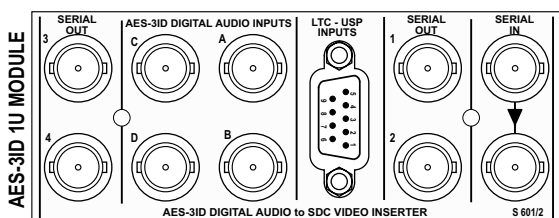
19" 1RU RACKFRAME

The 19" 1RU rackframe is divided into three identical parts meant to receive the electronic plug-in boards. Each part can hold two 3U Europe plug-in boards with modular rear panel and interconnection. The power supply is incorporated into the mechanical structure. Ventilation of the rack is performed by forced convection. Access is given to electronic plug-in boards by rocking down the front panel.

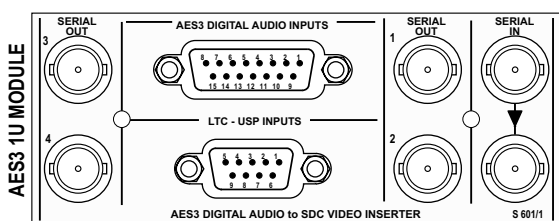
DIMENSIONS : 1RU x 380 mm deep
WEIGHT : < 5kg

TEMPERATURE RANGE : 0-40°C
ELECTRONIC PLUG-IN BOARDS : up to 6

POWER INPUT RANGE : 97-240 V/50-60 Hz
POWER : 80 W max

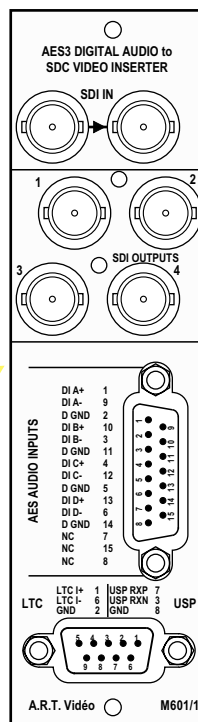


1U MODULE REAR PANEL

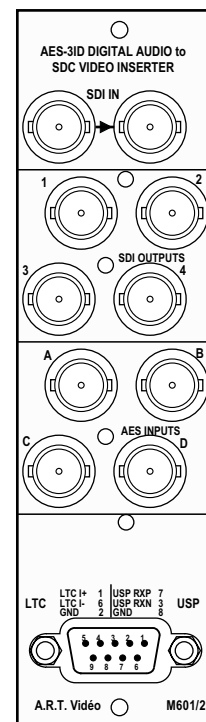


AES3 DIGITAL AUDIO INPUTS		LTC - USP INPUTS	
DI A+	1	LTC I+	1
DI A-	9	LTC I-	6
D GND	2	GND	2
DI B+	10	USP RXP	7
DI B-	3	USP RXN	8
D GND	11	GND	8
DI C+	4	NC	4
DI C-	12	NC	9
D GND	5	NC	5
DI D+	13		
DI D-	6		
D GND	14		
NC	7		
NC	15		
NC	8		

AES3 INPUTS



AES-3ID INPUTS



19" 3RU RACKFRAME

The 19" 3RU rackframe holds up to 10 modules with single power supply unit and 9 modules with redundant power supply unit. Access is given to electronic modules by rocking down the front panel. Ventilation of the rack is performed by forced convection.

Each module includes : electronic plug-in board, rear interconnection board, and rear mechanical support with the connectors.

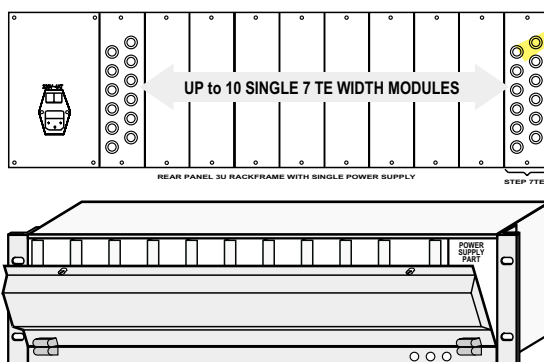
DIMENSION : 3RU x 410 mm deep
WEIGHT : < 15 Kg

TEMPERATURE RANGE : 0 - 40°C

ELECTRONIC MODULES : 10 with single power supply
9 with redundant power supply

POWER INPUT : 88 - 135 V or 185 - 264 V
50 / 60 Hz (Switchable)

POWER : 150 W max



3U MODULE REAR PANELS

Ordering informations

Electronic plug-in boards
B-DVI601-Q: 4 x AES to SDC video inserter multiplexer / embedder
B-DVI601-QS: 4 x AES to SDC video resampler inserter multiplexer / embedder

3U modules for 19" 3RU rackframe (Electronic plug-in board and MOD 3U rear panel)
M-DVI601-Q1: 4 x AES3 to SDC video inserter multiplexer / embedder
M-DVI601-Q2: 4 x AES-3ID to SDC video inserter multiplexer / embedder
M-DVI601-QS1: 4 x AES3 to SDC video resampler inserter multiplexer / embedder
M-DVI601-QS2: 4 x AES-3ID to SDC video resampler inserter multiplexer / embedder

19" 1RU rackframe

RACK1U : 19" 1RU rackframe with power supply
INT-1U: interconnection unit for electronic board (AES3: S601/1 - AES-3ID: S601/2)

19" 3RU rackframe

RACK3U-1 : 19" 3RU rackframe with single power supply
RACK3U-2 : 19" 3RU rackframe with redundant power supply
MOD 3U : rear panel for 19" 3U rackframe (AES3: M601/1 - AES-3ID: M601/2)
BPM-1 : blank rear panel unit

Specifications and designs are subject to change without notice