The TAHOMA "Classic" Multiviewer Platform

Three series of multiviewers are based on the TAHOMA "Classic" platform:

BROADCAST SERIES:
- 4 - 64 auto detect HD/SD-SDI, PAL/NTSC inputs (3G ready, SMPTE-425, Level A)
- Upgrade from SD to HD, HD to 3G via software license
- Automatic input aspect ratio detection, by frequency, by WSS and AFD
- Decodes closed captioning on Line 21, CEA608/708 on each input
- Decode and display 16 channels of embedded audio per SDI input
- Built-in video/audio alarm detection
  - video presence/format, video black, video frozen, no WSS/AFD
  - audio presence, audio high/low
- Input looping capabilities (LI series)
- Built-in router (LX series)

UNIVERSAL SERIES:
- 4 - 16 HDMI/DVI/VGA/YPbPr/Composite inputs plus 2 - 8 optional SDI inputs
- Decodes and displays 2 channels of embedded audio per HDMI input
- HDCP compatible

HYBRID SERIES:
- 4 - 16 mix of multimedia and broadcast inputs
- HDMI/DVI/VGA/YPbPr/SD/HD-SDI (3G ready, SMPTE-425,Level A)

COMMON FEATURES

- Single frame of processing time
- Fast boot up (< 12 seconds)
- Field upgradable to allow discrete audio (AES / AA)
- Up to 30 presets - internal flash memory
- Built-in CATx extenders for each output
  - Passive short-distance receivers up to 35 feet (10 meters)
  - Optional active receivers up to 115 feet (35 meters)
- Supports DVI, HDMI and VGA (optional) and SDI (optional) outputs
- Output resolution up to 2048x1080 @ 50/60Hz including 1080p and 1920x1080p
- Front panel buttons for quick preset recall
- Front panel LEDs for input signal and power supply status

- Multiple labels per video window - UMD, OMD, IMD and standalone labels
- Visual and optional SNMP alarms & logging
- Supports TSL 3.1 and 5.0 (IP and RS232)
- Supports AXP (Apantac eXchange Protocol)
- Redundant power supplies are optional for 1 RU frame
- Redundant power supplies are standard for frames larger than 1 RU
- Apantac skin technology allows on-screen graphical elements to be designed with any graphics tool
- Analog and digital clocks
- 2 sets of "safe area / safe title" markers per image
- 1 AES, 1 AA and 1 AA on front panel (with volume adjustment) audio monitoring outputs
- 3 year limited warranty

STANDARD ACCESSORIES

- 15 feet of CAT6 FTP cable per output
- DVI/HDMI-SR passive receivers per output
- Rack mounting kit
- SCSI to DB9 cable for GPI per output
- GPI terminal block
- RJ50 to DB9 cable for GPI per module
- RJ45 to DB9 cable for serial (RS232)

OPTIONAL ACCESSORIES

- SDI-Out (1 per module)
- HDMI-1-R, DVI-1-LR long distance receiver
- 8 channels of AES balanced/unbalanced breakout
- 16 channels of AA balanced/unbalanced breakout
- VGA receiver for VGA output
- YPbPr receiver for YPbPr output
- SPP (simple preset panel) for recalling presets
- Redundant power supply for 1 RU frames

SPECIFICATIONS			
Video Inputs	3G/HD/SD-SDI, Composite	**Discrete AES Audio**	Up to 4 channels / video input (2 pairs, balanced / unbalanced)
Connectors	BNC IEC 61169-8 Annex A	**Discrete Analog Audio**	Up to 4 channels / video input (2 pairs, balanced / unbalanced)
Total Windows	4 - 64	**Outputs**	DVI, HDMI, VGA (optional), SDI (optional)
Serial Digital	SMPTE 424M, 292M, 259M	**Output Resolution**	800 x 480 - 2048 x 1080 (1080p)
Equalization	120 m at 2.97 Gbps / 140m at 1.48 Gbps / 400m at 270 Mbps with Belden 1694A	**Built-in Extender**	Up to 35 feet with passive receiver / Up to 115 feet with active receiver
Return Loss	> 15db up to 1.485 Gbps / > 10db up to 3G	**On Screen Display**	Borders, labels (4 per window), fonts, tally LEDs, clock faces, logos, audio meters, alarm tags. Skin Technology for customizing UMD, OMD, IMD, dynamic UMD
Embedded Audio	SMPTE-272M-A	**General Purpose IO**	Up to 144 inputs with DB9 connectors
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**Serial Port**	RS232 with RS422 or RS485 option / Connector: RJ45, Baud Rate up to 115200 / Protocol, TSL, TSI, AXP
Signal Level	1V nominal	**IP**	100 Base-Tx, TSL, AXP / Connector: RJ45
DC Offset	0V, + - 0.1V	**Electrical**	25W, 100W, 200W, or 400W / 90 - 250V 50/60 Hz
Impedance	75	**EMI/RFI**	Complies with FCC Part 15 Class A, CE, EU EMC, C-tick
Return Loss	40db up to 5MHz	**Power Redundancy**	Optional power supplies for all 1 RU units / Standard with all other models
Alarms	No audio, audio high/low, no video, video black, video frozen, WSS, AFD	**Size**	1/2 width of 1RU - 21.5cm (8.5") W x 37cm (14.6") D / 1 RU - 44.5cm (17.5") W x 50cm (19.7") D / 2 RU - 44.5cm (17.5") W x 60cm (23.6") D / 4 RU - 44.5cm (17.5") W x 60cm (23.6") D
Control	Front panel buttons for quick preset recalls, GPIs, Apantac ASCII Protocol (AXP), Director (Config & control app)		

TAHOMA Classic Platform Consists of Several Electronic Elements

URM - Universal Receiver Module
- URME - for SDI and Composite inputs
- URMI - for LI Series with looping inputs
- URMU - for Universal Inputs (HDMI/DVI/VGA/ YPbPr/Composite)

VPM - Video Processing Module
- Processes and scales 4 video inputs
- On-screen elements (borders, labels, meters, clocks, etc.) over the background or the output of an upstream VPM
- De-embeds SDI audio
- 8 GPI inputs for tallies/counters, control
- Processes optional AA/AES audio inputs

CPM - Control Module
- Manages serial and IP interfaces
- 8 GPI/O for control and trigger
- LTC input
- AA/AES monitoring outputs

FPM - Front Panel Module
- Handles the front panel buttons (preset recall)
- LED status for power supply and video status
- Front AA monitoring output with volume adjustment

PSM - Power Supply Module
- Load sharing redundant power supplies
- External redundant power supply for 1 RU models

MTX - Internal Matrix
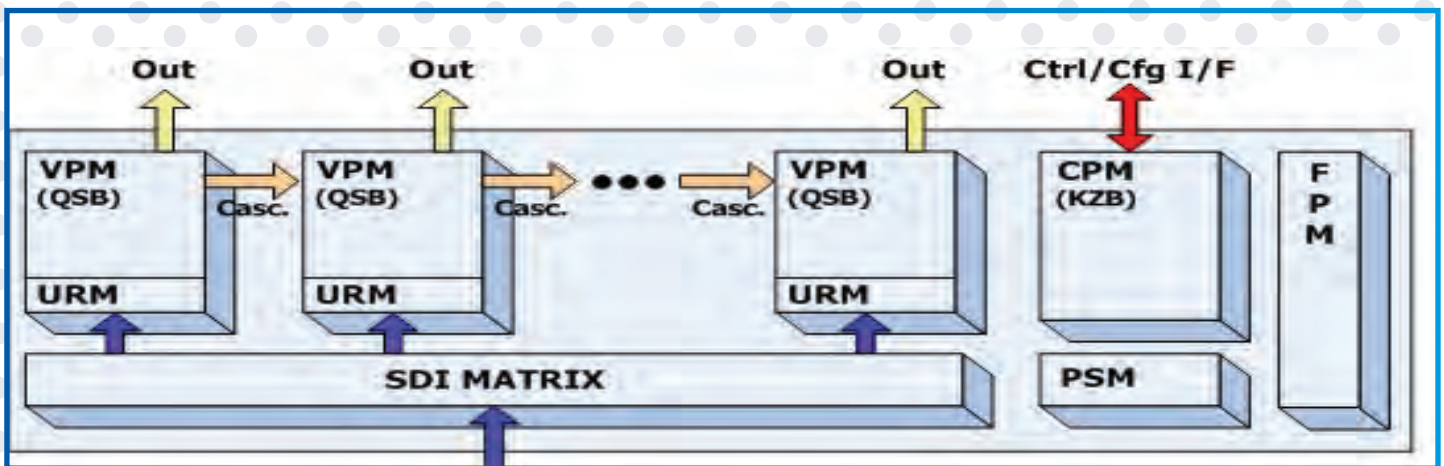- LX models only
- 16 x 16 or 32 x 32 internal matrix
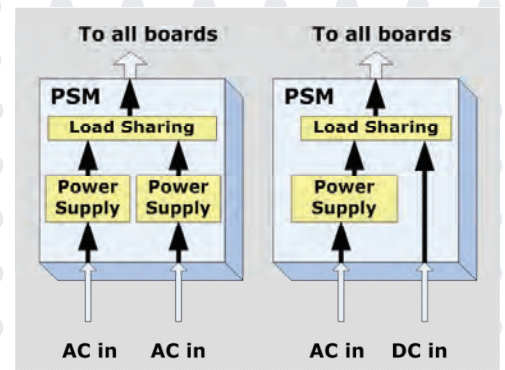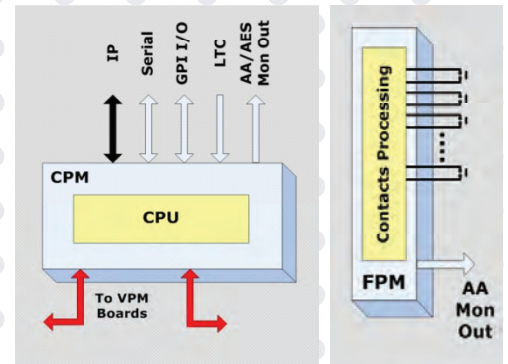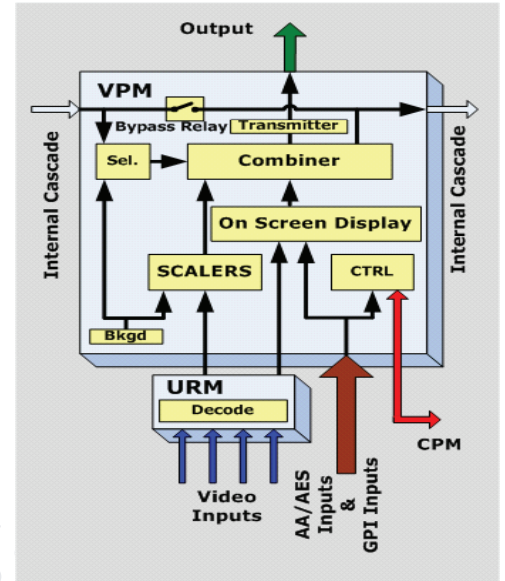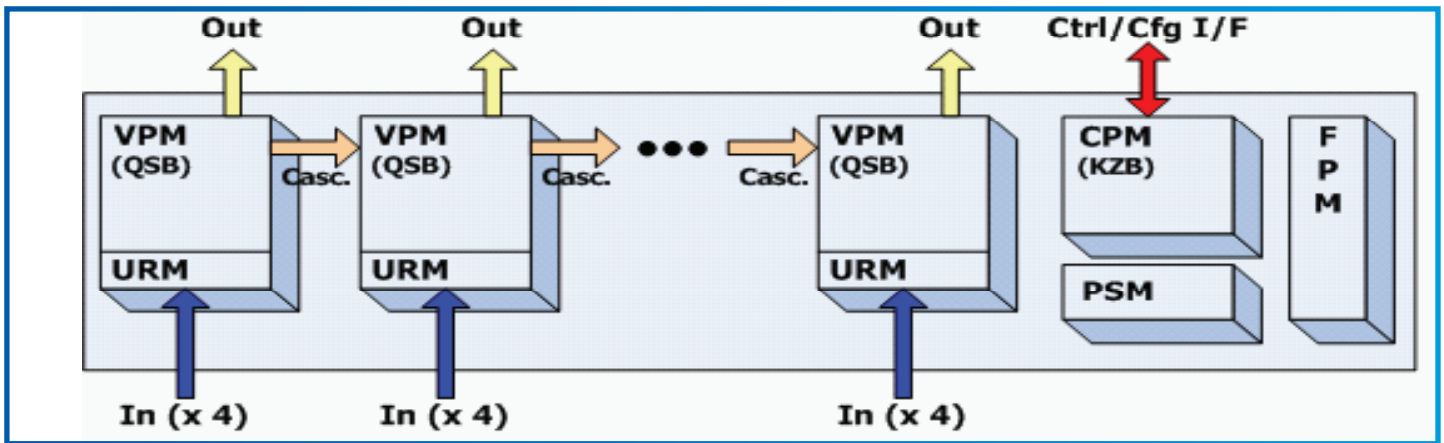
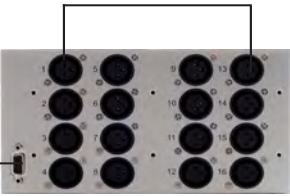**TAHOMA LE BLOCK DIAGRAM**
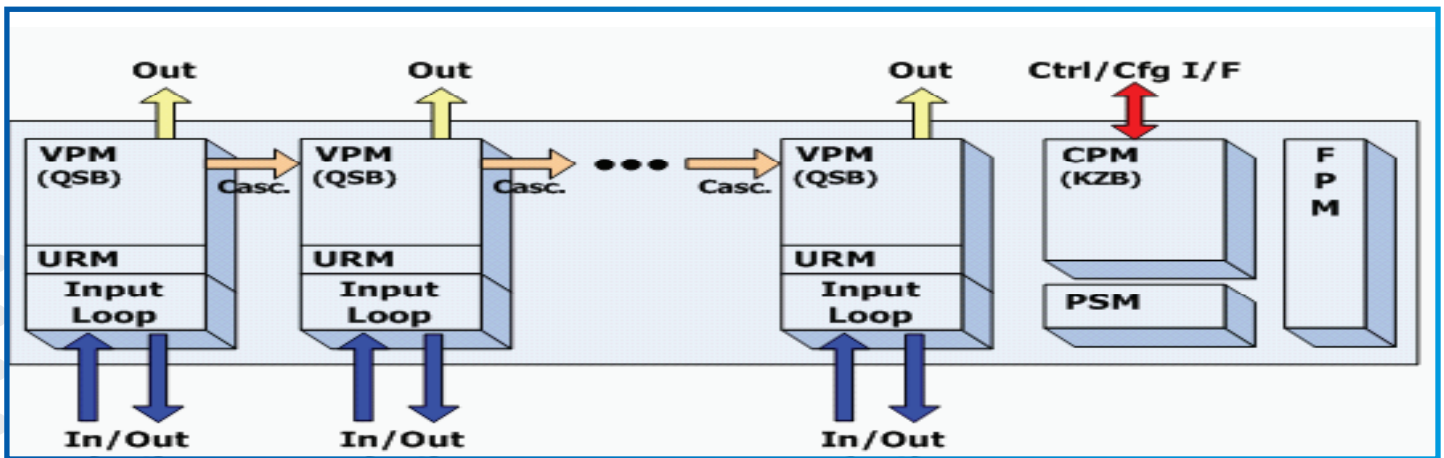
TAHOMA LI BLOCK DIAGRAM

TAHOMA LX BLOCK DIAGRAM

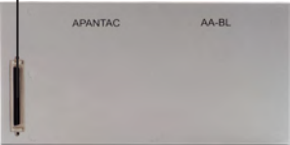## The TAHOMA Classic Platform Audio Input Options

AA-BL - Analog Balanced

16 Balanced XLR

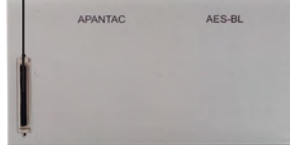FRONT

GPI Pass through

High Density Connection to VPM

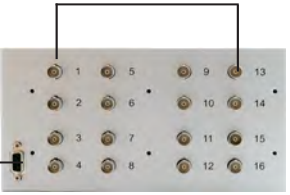REAR

AES-BL - AES Balanced

8 Balanced XLR

FRONT

GPI Pass through

High Density Connection to VPM
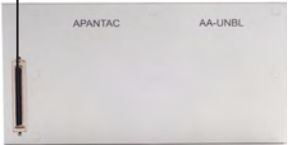
REAR

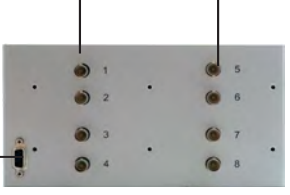AA-UNBL - Analog Unbalanced

16 Unbalanced BNC

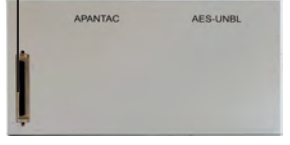

FRONT

GPI Pass through

High Density Connection to VPM

REAR

AES-UNBL - AES Unbalanced

8 Unbalanced BNC

FRONT
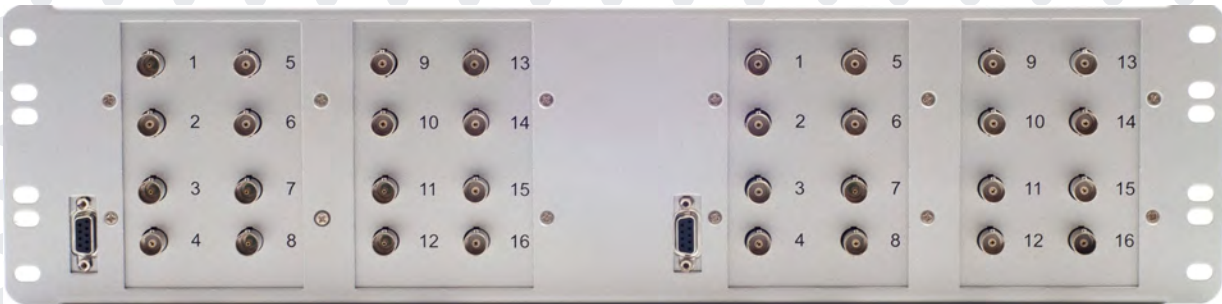
GPI Pass through

High Density Connection to VPM

REAR

High Density Connection Cable

Y Cable for Sharing Audio Module

2 x AES-BL Rack Mounted

2 x AA-BL Rack Mounted

2 x AES-UNBL Rack Mounted

2 x AA-UNBL Rack Mounted

16 Balanced AA

GPI Pass through

FRONT

High Density Connection to VPM

REAR

2 AA-BL-S Rack Mounted

Balanced AA Option with Phoenix Connectors

8 Balanced AES

GPI Pass through

FRONT

High Density Connection to VPM

REAR

2 AES-BL-S Rack Mounted

Balanced AES Option with Phoenix Connectors

16 unbalanced AA

GPI Pass through

FRONT

High Density Connection to VPM

REAR

2 AA-UNBL-S Rack Mounted

8 Unbalanced AES

GPI Pass through

FRONT

High Density Connection to VPM

REAR

2 AES-UNBL-S Rack Mounted

Unbalanced AES Option with Phoenix Connectors

notes