Digicom® AP Series

All-in-one video wall processor

Digicom® AP2000

Digicom® AP5000

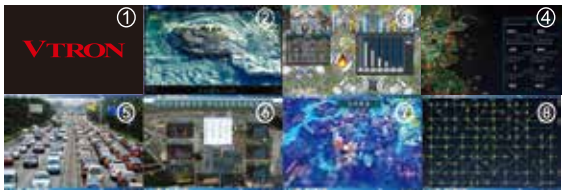
VTRON's Digicom® AP series offers all-in-one video processors for small to medium sized control rooms. Digicom® AP series supports various types of input signals simultaneously. The series is capable to display up to 28 output screens and enables tiled video wall to respond as super high resolution Windows® desktop. With redundant power supplies, fans and the RAID option for hard disks, Digicom® AP series brings higher performance and reliability.

▲ System architecture

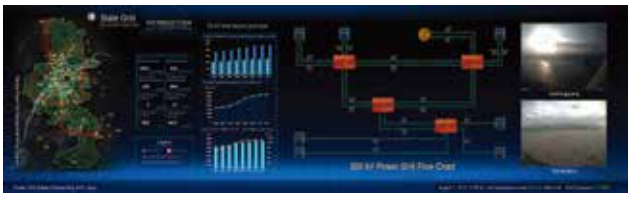
VTRON

Lead a new era of super-high resolution display

VTRON's Digicom® AP series uses professional graphics chips and Windows® 7/8 64-bit version. The series enables tiled video wall displays to respond as super high resolution Windows® desktop. Various combinations of input sources can be resized individually and placed anywhere on the video wall.



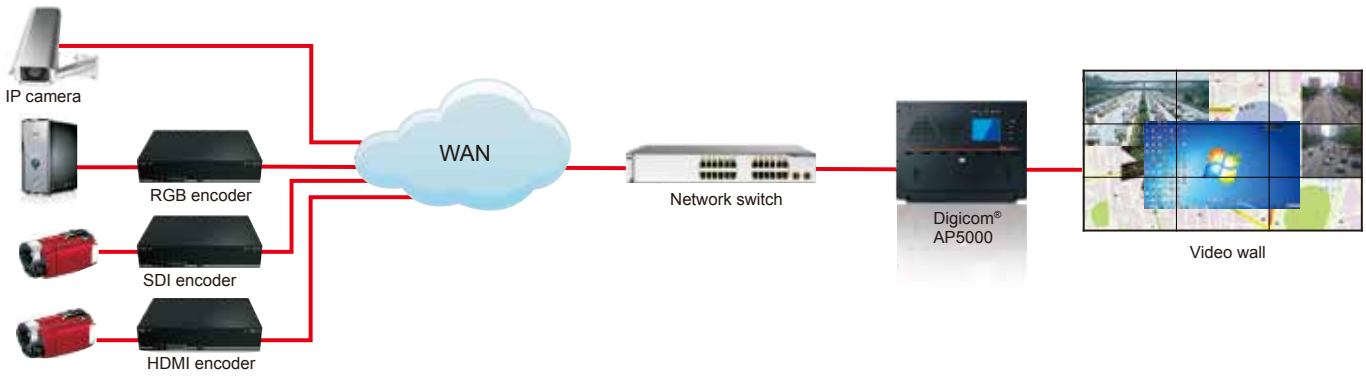
2x4 multi-screen display

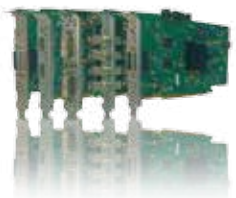


Full screen display

Streaming video over IP

Using VTRON's Digicom® AP series processor, IP-based camera feeds[1] can be displayed on the video wall. The series is compatible with VTRON's range of IP encoding systems to capture remote input sources.





Broad range of input sources

The processor's APLink input boards adopt VTRON's high-speed transmission technology ensuring each signal can be displayed at a full frame rate.

- APLink video input board supports NTSC/ PAL formats.
- APLink RGB input board supports single/ dual-link DVI or VGA inputs with refresh rate at 60fps.
- APLink HDMI input board supports 4K inputs and HDCP.
- APLink SDI input board supports HD-SDI, SD-SDI, 3G-SDI.
- APLink YPbPr input board supports HD (720p), 1080i, 1080p inputs.

Stable and reliable performance

With 1+1 hot redundant power supply and redundant cooling fan, Digicom® AP series guarantees 24/7 continuous operation. The series can be equipped with optional hard disk RAID 0/1 for faster processing or data hot backup.

Intelligent system management

VTRON's Digicom® AP series processor is designed with intelligent monitoring system. Featuring intelligent sensors and a front panel display, Digicom® AP series constantly monitors and displays case, CPU temperatures, fan speed, CPU and memory usage information in real-time.

VTRON's software

VTRON Video Wall Management System (VWAS/VCMS/VEMS) provides:

Window operation management
- Open/close/resize/move the signal windows
- Window properties

System information management
- Log management
- Operating information
- Warning information[2]

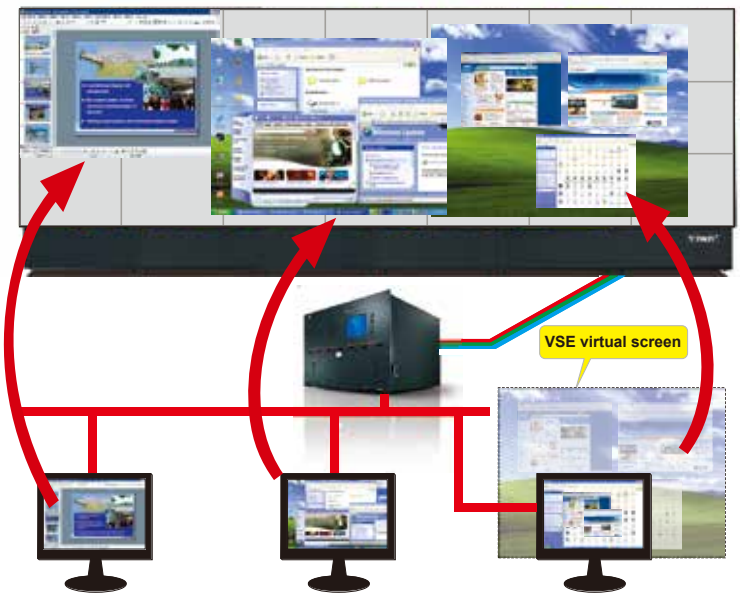
Hardware device management
- VTRON video wall and processor management
- Matrix switch management
- Multi-function device management
- Digital signal server management
- Signal source management

Layout management
- Create/save/delete display layout
- Launch display layout
- Scheduling of layouts

Allowed third party device controls
- Launch display layout
- On/off VTRON video wall

VLinkExpress, a high performance screen captured software:
- It allows multiple Windows® based desktops on client PCs to be captured via LAN and displayed on the display wall.
- The proprietary screen captured algorithm provides high speed and high performance capturing of desktop images. Its performance is several times higher than other 3rd party screen captured software.
- The screen captured by VLinkExpress can be resized, moved or opened/closed on the VWAS/VCMS/VEMS.
- The content of captured screen can be accessed by using mouse and keyboard.

VSE (Virtual Screen Explorer) is based on proprietary software solution for projecting the Windows® based client PC's super high resolution application. Customer's applications are also captured and processed by VLinkExpress on same workstation and via network projecting the image to the display wall:
- It provides a virtual platform for running customer's super high resolution application, mapping pixel-to-pixel of the application and projecting super high resolution image to large video wall via VLinkExpress.
- Many times higher performance than any conventional graphic card output.
- High performance processing algorithm and less loading to the CPU of video wall processor.



Technical Specifications

	Digicom® AP2000	Digicom® AP5000
Operating system[1]	Windows® 7 64-bit professional / Windows® 8 64-bit professional	Windows® 8 64-bit professional
VTRON's software	Mandatory[2]: VWAS/VCMS/VEMS; Optional: VLinkExpress + VSE, VIS	
CPU	Intel Multi Cores	
Memory	4GB	8GB
Hard disk	2x 1TB, RAID 0/1 (optional)	
External input port	(PS/2) interface for keyboard and mouse, 4 USB interface	
Network interface	Dual gigabit RJ45 port, 100/1000Mbps adaptive Ethernet port	
Power supply type	Hot swappable, 1+1 redundant power supply	Hot swappable, 1+1 redundant power supply
Power rating	AC 100 - 240 V	
	Frequency: 50/60Hz @ ≤300W	Frequency: 50/60Hz @ ≤600W
	Max. 2A	Max. 8A
Cooling fan	Hot swappable, redundant cooling fans	
IP streaming video input[3]	Display up to 12 inputs (1080p)	
	Support standard format: H.264, MPEG4, MPEG2, MJPEG	
RGB input board (optional)	2-channel RGB input board	
	Number of inputs: up to 10 inputs	Number of inputs: up to 32 inputs
	DRGB: up to 2560 x 1600 @ 60Hz	
	ARGB: up to 1920 x 1200 @ 60Hz	
	Colour depth: 16bpp, 32bpp; refresh rate: 60 fps	
	Signal input connector: DVI-I	
	4-channel RGB input board	
	Number of inputs: up to 20 inputs	Number of inputs: up to 32 inputs
	DRGB: up to 1920 x 1200 @ 60Hz	
	ARGB: up to 1920 x 1200 @ 60Hz	
	Colour depth: 16bpp, 32bpp; refresh rate: 60 fps	
	Signal input connector: DVI-D or VGA	
Video input board (optional)	Number of inputs: up to 40 inputs	Number of inputs: up to 64 inputs
	Input format: NTSC, PAL	
	Signal input connector: BNC	
HDMI input board (optional)	Number of inputs: up to 20 inputs	Number of inputs: up to 32 inputs
	Up to 3840 x 2160 @ 30Hz (1st channel)	
	Up to 1920 x 1080 @ 60Hz (2nd, 3rd and 4th channel)	
	One board supports max. 4 channels of 1920 x 1080 @ 60Hz or max. 1 channel of 3840 x 2160 @ 30Hz	
	Audio[4]: PCM 44.1kHz, 48kHz, dual channels, 16bit	
	Support HDCP standard protection protocol	
	Colour depth: 16bpp, 32bpp	
	Signal input connector: HDMI	
YPbPr input board (optional)	Number of inputs: up to 10 inputs	Number of inputs: up to 32 inputs
	1080p @ 50/60Hz, 1080i @ 50/60Hz, 720p @ 50/60Hz	
	Signal input connector: YPbPr	
SDI input board (optional)	Number of inputs: up to 20 inputs	Number of inputs: up to 32 inputs
	Support 3G/HD/SD-SDI	
	Signal input connector: BNC	
Number of outputs (optional)	Up to 12 outputs, output connector: DVI-D	Up to 28 outputs, output connector: DVI-D
Output resolution	Up to 1920 x 1080 @ 60Hz	
	Colour depth: 16bpp, 32bpp	
Audio output board (optional)	Output connector: 3.5mm	
Live view and preview	Support wall live view[5] and signal preview	
Dimension (W x H x D)	19" standard chassis, 4U high	19" standard chassis, 8U high
	482.6mm x 177mm x 589.2mm (excluding the handle)	482.6mm x 354.8mm x 572mm (excluding the front handle)
Weight	≤20Kg	≤40Kg
Operating environment	Temperature: 0˚C - 40˚C	
	Relative humidity: 20% - 80% (non-condensing)	
Storage environment (pack)	Temperature: -40˚C - 70˚C	
	Relative humidity: 0% - 95% (non-condensing)	
Noise	<45dB	
Qualifications	CCC, CE, CB, RoHS	

Remarks: Specifications are subject to change without prior notice.

1 Varies on different wall configurations.
2 Depends on the type of display unit and actual application.
3 Please contact VTRON for the list of compatible IP devices.
4 Need to add the optional audio output board for audio output.
5 Wall live view needs prior verification when AP series processor is used with LED video wall.

VTRON

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