Visionpro® EF Series

Slim LED-lit DLP™ Video Wall Cube

VTRON's Visionpro® EF series is an affordable slim profile DLP™ rear-projection cube for small to medium sized control rooms that demand a tight operation space. The series works perfectly in control rooms which require high reliability and availability for continuous 24/7 operation. With its small depth, front access maintenance and seamless screen gap, Visionpro® EF video wall cube is a perfect alternative to LCD panel.

Benefits of redundant LEDs

The Visionpro® EF series provides brightness up to 900 ANSI lumens. The series is designed for an entirely maintenance-free operation over years without replacing consumables.

- **L**ong LED lifetime of 80,000 hours[1]
- **E**nvironmentally friendly. No mercury, sodium or other harmful substances.
- **D**urable with low operating costs. VTRON's LED driver adopts intelligent current protection technology which detects the failure of certain LED and maintains the same level of current passing through other LEDs automatically.

Automatic Colour and Brightness Management (AutoCBM)

With Automatic Colour and Brightness Management (AutoCBM), any change of colour and brightness of the Visionpro® EF series slim cube can be detected by the built-in colour sensors automatically in real-time. Hence, the red, green and blue lights can be adjusted individually with its control balance system ensuring colour and brightness uniformity over the entire video wall over long period of time.

VTRON's ISV video processing technology

Thanks to VTRON's Image Sharpness and Vivid (ISV) video processing technology on optional boards optimising the signal performance of composite video, S-video and component video, the Visionpro® EF series slim cube offers texture-rich and realistic video images with exquisite sharpness and vivid colour.

Built-in processor on optional boards

VTRON's Visionpro® EF series slim cube offers 4 types of optional boards. Each optional board is provided with built-in processor to support flexible and direct inputs. The series allows built-in signal synchronisation and unlimited loop-through of signals from cube to cube without any additional signal distribution devices. Images can be displayed simultaneously and picture-in-picture (PIP).

Easy maintenance

With its 7-SEG LED indicator on the main control board, system status can be indicated clearly for easy maintenance. With the hot swappable components that include fans, optional redundant power supplies and optional boards, Visionpro® EF series guarantees low down time. The slim cube automatically recovers images after replacing the optional boards without further settings.

Advanced screen technology

VTRON provides CSI screen supplied by DNP® Denmark. Featuring its wider viewing angle, the screen provides extraordinary image quality with higher uniformity of colour temperature and brightness across entire display wall. Also, the screen is designed for great durability with its advanced multilayer structure.

The guaranteed reliability

The system reliability will be improved with an additional 4K or SDI optional board. When the signal source connected to the main input board is lost, an alternative signal source will immediately take over to recover the display ensuring minimum interruption. Moreover, the optional hot redundant power supplies ensure no single point of failure even if the main power supply fails.

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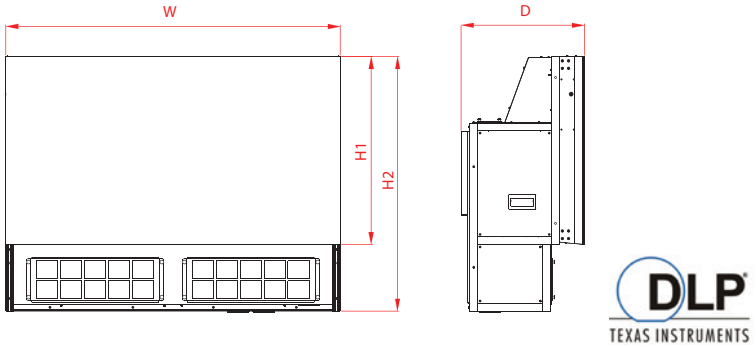
Technical Specifications

Operating parameters				
Display technology	DLP™ (0.65" DMD, 12° LVDS Darkchip)			
Native resolution	1920 x 1080			
Lifetime of LED [1]	80,000 hours			
Contrast of projector (typical)	Up to 2000:1			
Light source	Redundant LEDs			
Brightness (typical)	Up to 900 ANSI lumens			
Brightness uniformity (typical)	95%			
Gap [2]	0.6mm - 1.2mm			
Screen	CSI			
Dust proof	IP5X			
Certifications	CCC, CE, CB, RoHS			
Signal interface [3]				
Main control board	Input (for processor)	Analog RGB	640 x 480 - 1920 x 1080	HF: 31K-75KHz VF: 59-61Hz
		Digital RGB	640 x 480 - 1920 x 1080	Pixel clock: 25M-165MHz
2-channel optional board	Input			
	Video	YCrCb/ YPrPb	3BNC x 1	1080p, 1080i, 720p, 576p, 576i, 480p, 480i
		S-Video	S-Video x 1	NTSC, PAL, SECAM
		CVBS	BNC x 1	NTSC, PAL, SECAM
		HDMI	HDMI x 1	1080p, 1080i, 720p, 576p, 576i, 480p, 480i
	RGB	DVI	DVI-D x 1	HF: 31K-100KHz VF: 23-121Hz
		RGBHV	5BNC x 1	Pixel clock: 25M-165MHz
	Loop output			
	Digital RGB		DVI-D x 1	
4-channel optional board	Input			
	Video	YCrCb / YPrPb	3BNC x 1	1080p, 1080i, 720p, 576p, 576i, 480p, 480i
		S-Video	S-Video x 1	NTSC, PAL, SECAM
		CVBS	BNC x 1	NTSC, PAL, SECAM
		HDMI	HDMI x 1	1080p, 1080i, 720p, 576p, 576i, 480p, 480i
	RGB	DVI	DVI-D x 1	HF: 31K-100KHz VF: 23-121Hz
		RGBHV	5BNC x 1	Pixel clock: 25M-165MHz
	Loop output			
	DisplayPort		DisplayPort x 2	
4-channel 4K optional board	Input			
	Video	SDI (main)	BNC x 1	SD-SDI, HD-SDI, 3G-SDI
		SDI (redundant)	BNC x 1	
		HDMI	HDMI x 1	Up to 4096 x 2160
		DisplayPort	DisplayPort x 1	Up to 4096 x 2160
	RGB	DVI-D (main)	DVI-D x 1	Up to 4096 x 2160
		DVI-D (redundant)	DVI-D x 1	
	Loop output			
	DisplayPort		DisplayPort x 2	
SDI optional board	Input			
	Video	SDI (main)	BNC x 1	SD-SDI, HD-SDI, 3G-SDI
		SDI (redundant)	BNC x 1	
		HDMI	HDMI x 1	1080p, 1080i, 720p, 576p, 576i, 480p, 480i
	Sync	Genlock Input	BNC x 1	CVBS, HD Tri-level, Analog Black Burst and V Sync
		Genlock Output	BNC x 1	V Sync
	Loop output			
	Digital RGB		DVI-D x 2	
Control and connection port				
RJ45	10/100Mbps			
Remote controller	Optional			
RS232				
Power supply				
Redundant power supply	1+1 hot redundant (optional)			
AC voltage	100 - 240V			
Frequency	50/60Hz			
Power consumption (typical)	230W (bright mode), 180W (normal mode), 140W (eco mode)			
Working conditions				
Temperature	0 - 35˚C, recommended temp.: 23˚C ± 5˚C			
Relative humidity	30 - 80%, non-condensing			

Physical Parameters

Model		EF-PH609	EF-PH709
Screen size (diagonal)		60"	70"
Dimensions (mm)	W	1330	1552
	H1	748	872
	H2	1013	1150
	D	490	560



Remarks: The above specifications are subjected to change without prior notice.
1. The performance of LED lifetime varies in different actual working conditions.
2. The screen gap varies in different actual working conditions.
3. Optional board can support HDCP.

Corporate offices
Hong Kong Tel: +852-2264-3688
China Tel: +86-20-8390-3435

Worldwide offices
Malaysia Tel: +60-3-7880-0338
Korea Tel: +82-10-6356-5643

Technical support centre
Hong Kong Hotline: +852-2613-9708
Email: technical@vtron.com

WWW.VTRON.COM
INFO@VTRON.COM