



Ultra Slim Cube

- True Cube Redundancy
- Smallest Foot Print
- Auto Geometry Alignment
- Novel Cooling Mechanism
- Browser/Server Diagnostic & Control

www.deltadisplays.com

Experience The Future Of Control Room Displays With The Latest Innovation From Delta's Dedicated Team Of Engineers.



● Super slim form factor (< 500mm depth)

● WUXGA / Full HD native resolution

● Razor sharp text and images

● Fully IP addressable

● High MTBF

● Multiple input & control options

● HQV processing

● High contrast ratio

● Lightweight design

● 24/7 operation

● Intelligent geometry alignment

● SIMD instruction set



With the spiraling cost of real estate, control room video walls are beginning to be edged out as a display of choice owing to their large form factors as they tend to occupy large amounts of space in the control room. With modern control rooms getting smaller and smarter in size, the need for slim displays is echoed by an increasing number of professionals across a variety of applications, be it utilities, telecommunications, security, traffic or broadcast.

This launch of Ultra Slim Cube Series by Delta helps to realize the dream of many a control room designer who always wished to have a thin form factor display to complement their state-of-the-art control room center design. These cubes have been designed to overcome the many shortcomings of traditional video wall cubes.

Combining these cubes into display walls of large sizes provides a high resolution surface to display, monitor and control images from various applications simultaneously. Multiple windows from sources like computers, workstations, cameras, video players, DTH systems, satellite systems, etc. can be displayed and viewed together in required sizes and desired display positions. With a quick setup large walls can be set up in very little time with very little manpower deployment. These panels normally designed to sit on floor mounts could also be mounted on walls with special custom design mounts. The light weight of these cubes also make them suited to this kind of installation utilizing literally zero real estate. Since this technology is free from burn in, it finds deployment in control centers designed for 24 x 7 use.

Boasting of a high end design utilizing top grade components the system is highly reliable and with long lifetimes for its major components. These cubes have been designed from the start keeping in mind 24 x 7 usage, highest uptime and minimal preventive maintenance. The over pressure design keeps out dust from the system reducing preventive maintenance cycles. All these factors help to make these displays suited to control rooms in traditional applications as well as the new breed of smart, savvy and the more modern control rooms. Some application examples can be listed as below

Traditional Applications	Expanded Applications
» Power & Utilities	» Mini Data Centers
» Telecom	» Collaboration Rooms
» Traffic & Transportation	» Mobile Ops Rooms
» Security & Surveillance	» Supervisor Monitoring & Control Stations
» Broadcast	» Single Operator Stations
» Data Centers	» Video Conferencing Suites
	» Boardrooms



New Generation Displays For Control Room

With decades of in-depth & rich experience in developing micro-display technologies, Delta is proud to introduce the WUXGA and Full HD based Ultra Slim Cube Series. A path breaking innovation, these cubes are Ultra Slim and thus can be used in those spaces starved control rooms as well. At the heart of the system, lies the latest and revolutionary design aspheric lens which helps to overcome geometric distortions.

With the use of this technology, a depth of less than 500 mm has been achieved, which was an impossibility in the past. Combined with front access maintainability, you have a solution which is highly reliable, fault tolerant and does not take away your precious floor space.

Transportation

Power

Broadcast



Telecom

Defence

Traffic

Surveillance

True Cube Redundancy

Redundant Power Supply

Ultra Slim Cubes have in-built automatic hot swappable power supplies which ensure high transfer efficiency and reduces power consumption by more than 10% as compared to the standard cubes. Modular design of power supply aids in quick & easy maintenance. Redundant power system also have two independent power input nets, in case one power net fails another still continues to provide power to the full system.

Display redundancy

Ultra Slim Cube offers display redundancy feature through the illumination unit. If any LED fails due to any reason, the display does not lose the image or any color in that image.

Redundant Inputs

Ultra Slim Cube input box provides 2x redundant DVI inputs ensure that inputs sources are always connected to display wall to offer an intervention-free system



Cutting Edge Optics...

Lens Design Technology

The distinctive aspheric lens provides you the crispest picture, high quality with sharp focus and image stability. A perfectly uniform image is displayed across the entire display with a wide angle perspective. The use of aspheric lens helps to overcome the big challenge of dealing with mono-chromatic and spherical aberrations. These aberrations normally effect the geometry and the focus of the image. However with the use of this newly developed aspheric lens, Delta has successfully overcome these barriers to offer to its customer vivid images with incredible sharpness.

Combining this with the Extra Low Dispersion (ED) lens further adds to the picture sharpness as it helps to focus all the colors at the same convergence point thus reducing color dispersion. Ensuring that the control rooms' operators can view perfect, uniform and rich life-like images cube to cube across the entire display.

Novel Cooling Mechanism

Delta's extremely reliable cooling mechanism is based on the Heat Pipe technology. This technology uses liquid vaporization phase change cycle architecture, in which the sealed liquid (pure water) circulates to draw heat away from the LED's with no chance of any leakage. Maintenance free mechanism, as there is no electro-mechanical device for liquid circulation. Innovative cooling system ensures the longer life and better performance.

Integrated Optical Engine Design

Designing the projection engine right is critical to maintaining a good display over time. Delta's integrated engine module design provides excellent heat conduction to ensure brilliant optical performance. Its integrated electronic and optical components provide compact outlook and excellent EMI performance. The integrated design helps reduce the MTTR giving you the least cost of ownership and maintenance in the industry. Boasting of an extremely high MTBF of greater than 75,000 hours these high brightness cube are a major leap in video wall technology.



Driving Technology To New Levels



NEXT GEN LED-Illumination

Delta's Ultra Slim Cube Series comes with environment friendly, LED solid-state light source using the latest generation high brightness and high performance LEDs delivering you enhancements-both in image quality and cost of ownership compared to traditional LEDs. You can achieve the best color gamut resulting in a much richer visual experience. Undoubtedly, Delta's Ultra Slim Cube Series are the brightest display solution available in the market, in it's class. With their extremely long lifetime, these LEDs do not need regular replacement meaning you will have no consumables for many years—even with 24/7 operation.



Pixel-Perfect Alignment

Delta's Ultra Slim Cube Series offer high resolution with the use of WUXGA & Full HD resolution DMD chips. The inbuilt Zoom, Focus and Lens shift help to simplify the geometry adjustment. It further enables you to have electronic adjustments for fine tuning at a pixel level .Providing you with the perfect system that eliminates manual intervention; it is custom-built for express installation, and set-up for your ultimate convenience. With full credit to the Auto Geometric Alignment technology, precise geometric adjustments in different directions can be obtained with pixel-perfect alignment between individual cubes with the least possible human intervention. This helps to attain a near seamless picture and help you save on the installation costs and time

Unique Color Sensor Design

For cube to cube color and brightness matching, Delta has incorporated an auto-color system based on a unique color sensor design. With sensors positioned on the light beam of the optical lens, the color calibration system encompasses the tolerances of all the optics in the system – including the lens and glass components. The system automatically adjusts the color temperature and brightness, ensuring control room operators view a perfectly uniform image across the entire screen at all times.

Monitoring, Diagnostics & Control



Thermometer



Hygrometer



Dust Level



Power Consumption



Delta's Ultra Slim Cube Series are accessible over the IP through browser / server architecture based software tool for monitoring, control and diagnostic purpose. This software provides the operator with direct feedback on the status of the system with multiple levels of alarms. Whether it's the number of hours of a LED or their temperature, the operator will be automatically notified via the predefined alarms.

Monitoring

- ▶ Start/Stop Monitoring cubes
- ▶ LED status monitoring
- ▶ Alarms
 - ▶ Serious
 - ▶ Warning
 - ▶ Information

Diagnostics

- ▶ Message window
- ▶ Log file
- ▶ Error / Alarm feedback
 - ▶ Serious
 - ▶ Warning
 - ▶ Information

Control

- ▶ Switch on/off
- ▶ Virtual Remote Control (VRC)
- ▶ Get/Set cube data
- ▶ Save/Load options
- ▶ Scheduling options
 - ▶ Daily
 - ▶ Periodically
 - ▶ Sequentially



Properties

Common	DLP	Video	RGB	CCA	PIP1	PIP2	6-AXIS
DLP	Video	RGB	CCA	PIP1	PIP2	6-AXIS	

<input type="checkbox"/> OE 1 172.16.0.1	<input checked="" type="checkbox"/> Contrast 128	<input type="checkbox"/> Projector Num 128	<input checked="" type="checkbox"/> Contrast 128
<input type="checkbox"/> OE 2 172.16.0.2	<input type="checkbox"/> Brightness 128	<input checked="" type="checkbox"/> Test Pattern 128	<input type="checkbox"/> Brightness 128
<input type="checkbox"/> OE 3 172.16.0.3	<input type="checkbox"/> Image Orientation 0	<input type="checkbox"/> Freeze 0	<input type="checkbox"/> Image Orientation 0
<input type="checkbox"/> OE 4 172.16.0.4	<input type="checkbox"/> AI Tiling Num 0	<input type="checkbox"/> Main Input Select 0	<input type="checkbox"/> AI Tiling Num 0
	<input type="checkbox"/> Language English	<input type="checkbox"/> White Peakin Yes	<input type="checkbox"/> Language English
	<input type="checkbox"/> DVI EQ Setting Yes		<input type="checkbox"/> DVI EQ Setting Yes

Scheduler

Daily Run daily mode will execute the schedule every day at a fixed time.

Schedule Name: 0 Hour(s) 0 Minute(s)

Schedule List

Mode	Schedule Name	Frequency	Time	Pause	Start
Periodically	ScheduleName2	every 3 Second(s)	00:00:02	<input type="button" value="Pause"/>	<input type="button" value="Start"/>
Sequentially	ScheduleName	every 7 Second(s)	----	<input type="button" value="Start"/>	<input type="button" value="Start"/>
Daily	ScheduleName	daily at 00:00	----	<input type="button" value="Start"/>	<input type="button" value="Start"/>

Periodically S

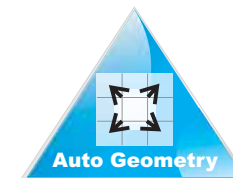
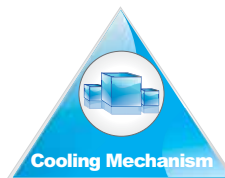
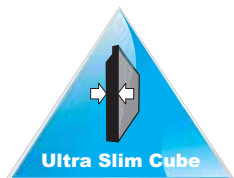
- OE 1 172
- OE 2 172
- OE 3 172
- OE 4 172

- Language :
- Function Typ
- Lamp Time
- Color Temp
- Image Orier

Product Specifications

Ultra Slim DLP Cube

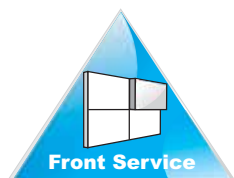
	Model	DVS-5080R/F9	DVS-7080R/F9	DVS-5299R/F9	DVS-7299R/F9
Display Capabilities	Native Resolution	Full HD, 1920 x 1080	Full HD, 1920 x 1080	WUXGA, 1920 x 1200	WUXGA, 1920 x 1200
	Description	LED Light Source Full HD Cube	LED Light Source Full HD Cube	LED Light Source WUXGA Cube	LED Light Source WUXGA Cube
	Display Technology	DLP Single Chip	DLP Single Chip	DLP Single Chip	DLP Single Chip
	Brightness	Typ. 1,100 Lumens	Typ. 1,100 Lumens	Typ. 1,100 Lumens	Typ. 1,100 Lumens
	Dynamic Contrast	1,500,000 : 1	1,500,000 : 1	1,500,000 : 1	1,500,000 : 1
	White Point	3200K, 6500K and 9300K	3200K, 6500K and 9300K	3200K, 6500K and 9300K	3200K, 6500K and 9300K
	Uniformity	up to 96%	up to 96%	up to 96%	up to 96%
Screen	Screen type	FXS	FXS	FXS	FXS
	Screen Gap	Rear Access : Adjustable up to 0.2 mm Front Access : Adjustable up to 1.0 mm	Rear Access : Adjustable up to 0.2 mm Front Access : Adjustable up to 1.0 mm	Rear Access : Adjustable up to 0.2 mm Front Access : Adjustable up to 1.0 mm	Rear Access : Adjustable up to 0.2 mm Front Access : Adjustable up to 1.0 mm
	Color Stability	Self calibrating with color sensor	Self calibrating with color sensor	Self calibrating with color sensor	Self calibrating with color sensor
	Half Gain Angle (H/V)	34° / 33°	34° / 33°	34° / 33°	34° / 33°
Light Source	Lamp Type	Lamp Type	Lamp Type	Lamp Type	Lamp Type
	Estimated Lamp Life	Eco Mode : 80,000 hours Typ. Mode : 60,000 hours	Eco Mode : 80,000 hours Typ. Mode : 60,000 hours	Eco Mode : 80,000 hours Typ. Mode : 60,000 hours	Eco Mode : 80,000 hours Typ. Mode : 60,000 hours
Interface	Standard inputs	1x Digital DVI-D 1x Digital HDMI 1x Analog D-sub 15pin 1x Analog 5BNC (RGBHV or YPbPr)	1x Digital DVI-D 1x Digital HDMI 1x Analog D-sub 15pin 1x Analog 5BNC (RGBHV or YPbPr)	2x Digital DVI-D 1x Analog D-sub 15pin 1x Analog 5BNC (RGBHV or YPbPr)	2x Digital DVI-D 1x Analog D-sub 15pin 1x Analog 5BNC (RGBHV or YPbPr)
	Standard Outputs	1x Digital DVI-D	1x Digital DVI-D	1x Digital DVI-D	1x Digital DVI-D



Product Specifications

Ultra Slim DLP Cube

	Model	DVS-5080R/F9	DVS-7080R/F9	DVS-5299R/F9	DVS-7299R/F9
Interface	Option inputs	1x Digital DVI-D 1x Digital HDMI 1x Digital Display Port 1x Digital 3G-SDI 1x Analog S-Video 1x Analog 5BNC (RGBHV or YPbPr)	1x Digital DVI-D 1x Digital HDMI 1x Digital Display Port 1x Digital 3G-SDI 1x Analog S-Video 1x Analog 5BNC (RGBHV or YPbPr)	1x Digital DVI-D 1x Digital HDMI 1x Digital 3G-SDI 1x Analog CVBS BNC 1x Analog 5BNC (RGBHV or YPbPr)	1x Digital DVI-D 1x Digital HDMI 1x Digital 3G-SDI 1x Analog CVBS BNC 1x Analog 5BNC (RGBHV or YPbPr)
	Option Outputs	1x Digital 3G-SDI	1x Digital 3G-SDI	1x Digital 3G-SDI	1x Digital 3G-SDI
Signal	Control	1x RS-232 Dsub9 1x RS 422 RJ45 1x IR Receiver	1x RS-232 Dsub9 1x RS 422 RJ45 1x IR Receiver	1x RS-232 Dsub9 1x RS 422 RJ45 1x IR Receiver	1x RS-232 Dsub9 1x RS 422 Rj45 1x IR Receiver
Power	AC input voltage	AC 90 - 240V@50/60Hz	AC 90 - 240V@50/60Hz	AC 90 - 240V@50/60Hz	AC 90 - 240V@50/60Hz
	Consumption (Eco, Typ, Max)	Eco : <260W Typ. : < 320W Max : < 360 W	Eco : <260W Typ. : < 320W Max : < 360 W	Eco : <260W Typ. : < 320W Max : < 360 W	Eco : <260W Typ. : < 320W Max : < 360 W
	Option Backup Power	Dual power supply unit	Dual power supply unit	Dual power supply unit	Dual power supply unit
Operation	Operating Temperature	10°C - 40°C (50°F - 104°F)	10°C - 40°C (50°F - 104°F)	10°C - 40°C (50°F - 104°F)	10°C - 40°C (50°F - 104°F)
	Non-operating Temperature	-20 °C - 60 °C (-4°F - 140°F)	-20 °C - 60 °C (-4°F - 140°F)	-20 °C - 60 °C (-4°F - 140°F)	-20 °C - 60 °C (-4°F - 140°F)
	Humidity	10% - 90%, non-condensing	10% - 90%, non-condensing	10% - 90%, non-condensing	10% - 90%, non-condensing
Mechanical	Dimensions (WXHxD)	1107 X 623 X 500 mm 43.5 X 24.5 X 19.6 "	1552 X 873 X 700 mm 61.1 X 34.3 X 27.5 "	1107 X 692 X 500 mm 43.5 X 27.2 X 20.4 "	1552 X 970 X 680 mm 61.1 X 38.2 X 28.3 "



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