Smarter teaching with dvLED displays

Cost-efficient innovation for future-ready universities

While nothing can replace high quality teaching in higher education, the way content is delivered can significantly impact student engagement and comprehension. AV technologies such as projectors and displays play a vital role in enhancing the learning experience by optimising how teaching material is presented. To attract high calibre students in a competitive environment, and to deliver the best possible student outcomes, educational institutions must stay at the forefront of technological advancement. This is where direct view LED (dvLED) displays come into play, offering many benefits that support both teaching excellence and student success.

Sharp/NEC's modular dvLED displays enable scalable and seamless extra-large format presentation of content without distracting bezels. High brightness and strong contrast ensure teaching material is clearly visible even in bright, light filled spaces supporting learning in any environment.

Modern equipment enhances a university's reputation and makes them more appealing to prospective students, but budget limitations are a common challenge. Sharp/NEC dvLED walls, however, present a cost-effective solution with a remarkable lifespan of more than 100,000 hours, that's over 10 years.

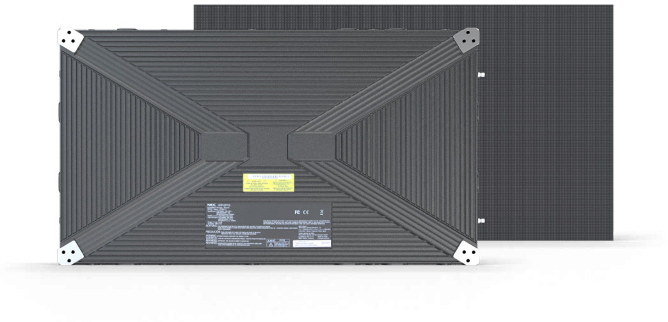
The slim and lightweight design facilitates easy installation making dvLED a practical upgrade from legacy projectors and screens. The robust aluminum cabinet ensures structural stability whilst also being heat and fire resistant. Front-access modules make maintenance easy and spare parts are available for more than ten years to support the impressively long service life of Sharp/NEC's dvLED solutions.

E Series – Large Image Presentation, Small Budget Preservation

Experience the brilliance of fine-pitch LED in value-focused environments, without compromising performance. True to the standards of a trusted manufacturer, this cost-effective solution delivers uncompromising reliability, longevity, and safety.

Benefits:

- **Ultra-slim design** – at less than 3 cm in width and flush rear profile, the ultra slim LED modules can be integrated very close to the wall with minimal gap necessary due to low heat emission.
- **Light in weight** – the lightweight aluminum cabinet is easy to handle during installation with minimum labor cost
- **Low-profile integration** – the ultra slim cabinet design supports precision alignment to create a large digital canvas which integrates unobtrusively into any environment.
- **Front serviceable modules** – with front access to the LED modules, maintenance is hassle-free.
- **Unhindered readability** – no reflections from windows or other light sources means no disruption to the visibility of signage or meeting room content.



E series is available as an all-in-one bundle in four standard sizes or with configurable modules in four different pixel-pitch options. Its slim, elegant design combined with a robust and secure metal chassis makes it the ideal choice for lecture halls, large classrooms,and various signage applications across campus.

E Series Bundles – Indoor FinePitch LED Bundles

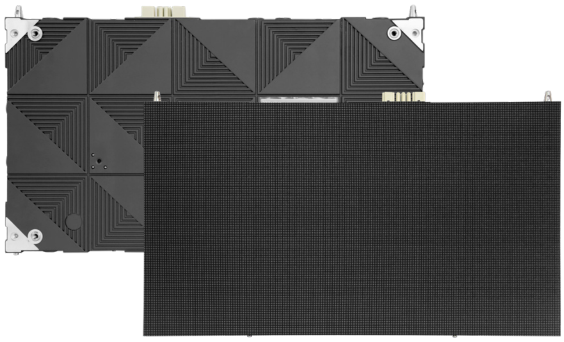
	LD-E121-108	LD-E151-135	LD-E181-162	LD-E121-217	LD-E251-217
Order Code	81000829	81000831	81000832	81000830	81000833
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	3840 x 2160	1920 x 1080
LED Type	SMD (1010)	SMD (1212)	SMD (1415)	SMD (1010)	SMD (2121)
Module Configuration	4 x 4	5 x 5	6 x 6	8 x 8	8 x 8
Pixel Pitch [mm]	1.25	1.56	1.87	1.25	2.5
Brightness (max.) [cd/m²]	600	600	800	600	1000
Lifetime	100000 hours		100000 hours		
Contrast Ratio (typ.)	5000:1	4000:1	5000:1	5000:1	7000:1
Viewing Angle [°] hor / ver	170/160	140 / 140	140 / 140	170/160	140 / 140
Colour Processing	16 bit	16 bit	14 bit	16 bit	18 bit
LED Driving Method	1/45 dynamic scan	1/54 dynamic scan	1/60 dynamic scan	1/45 dynamic scan	1/27 dynamic scan
Refresh Rate [Hz]	3840	3840	3840	3840	3840
Colour Temperature [K]	3000-9500	3000-9500	3000-9500	3000-9500	3000-9500
Power Typical [W]	944	1000	1944	3776	2560
Dimensions (W x H x D) [mm]	2412 x 1456 x 47	3012 x 1793.5 x 47	3612 x 2131 x 47	2812 x 2806 x 50	2812 x 2806 x 50
Weight [kg]	89.2	134.5	189.2	342.8	342.8
Connectivity via Controller	3G SDI, DVI-D, HDMI, LAN			Displayport, HDMI, LAN and RS232	
Serviceability	Front	Front	Front	Front	Front
IP Level (Front/Rear)	IP20	IP20	IP20	IP20	IP20
Certifications	CE, ETL, FCC Class A, RoHS				
Shipping Content	LED Controller, LED Modules, Overframe Kit, Power Bar, Wall Mount, Spare Parts Kit, Pixel Card Removal Tool				
Warranty	2 years (options to extend)				

FE Series - High Energy Efficiency

The LED FE3 Series features highly energy efficient flip-chip SMD technology, making a significant impact in lowering energy usage. Not only does the new flip-chip SMD design improve energy efficiency, but it also improves heat dissipation and durability to further lengthen the lifecycle for an overall more sustainable solution.

Benefits:

- **Significantly lowering your energy usage** – the highly efficient flip-chip SMD technology consumes up to 60% less power compared to standard SMD technology at the same brightness output.
- **Excellent contrast ratio of up to 8000:1 and deep black level** – ensures content is presented in vivid clarity for the best possible viewing experience.
- **Minimised interference** – modules are compliant to EMC Class B, causing no electromagnetic interference.
- **Slim design** – with a flush rear profile, LED modules can be integrated very close to the wall with minimal gap necessary due to very low heat emission.
- **Established mechanical cabinet design** – supports wall mounted or freestanding installation with speed and ease, achieving precision module alignment for a single large surface perception.



Featuring a deep black level, high contrast ratio of up to 8000:1 and excellent off-angle colour reproduction, the fine-pitch FE3 Series generates a superior indoor viewing experience.

FE Series Bundles – Indoor FinePitch LED Bundles

	LD-FE123-110	LD-FE123-220	LD-FE153-137	LD-FE193-165
Order Code	81000818	81000821	81000819	81000820
Screen Size [inch/cm]	110 / 279	220 / 559	137 / 348	165 / 419
Resolution	1920 x 1080	3840 x 2160	1920 x 1080	1920 x 1080
Module Configuration	4 x 4	8 x 8	5 x 5	6 x 6
LED type	SMD (1010)	SMD (1010)	SMD (1010)	SMD (1010)
Pixel Pitch [mm]	1.266	1.266	1.583	1.9
Brightness (max.) [cd/m²]	700	700	700	700
Lifetime	100000 hours	100000 hours	100000 hours	100000 hours
Contrast Ratio (typ.)	8000:1	8000:1	8000:1	8000:1
Viewing Angle [°] hor / ver	170 / 160	170 / 160	170 / 160	160 / 160
Colour Processing	16 bit	16 bit	16 bit	16 bit
LED Driving Method	1/45 dynamic scan	1/45 dynamic scan	1/48 dynamic scan	1/45 dynamic scan
Refresh Rate [Hz]	3840	3840	3840	3840
Colour Temperature [K]	3000 - 9500 adjustable / 6500 default			
Power Typical [W]	390	1495	598	850
Dimensions (W x H x D) [mm]	2472 x 1489.5 x 82	4904 x 2875.5 x 82	3080 x 1831.5 x 82	3688 x 2173.5 x 82
Weight [kg]	251	987	372	494
Connectivity via Controller	HDMI, DVI-D, 3G-SDI, LAN	Displayport, HDMI, LAN and RS232	HDMI, DVI-D, 3G SDI, LAN	HDMI, DVI-D, 3G SDI, LAN
Serviceability	Front	Front	Front	Front
IP Level (Front/Rear)	IP20	IP20	IP20	IP20
Certifications	CE, ETL/UL, FCC Class A, RoHS			
Shipping Content	LED Controller, LED Modules, Overframe kit, Pixel Card removal Tool, Power Bar**, Spare Parts Kit, Wall Mount			
Warranty	3 years (options to extend)			

Efficient Power Management

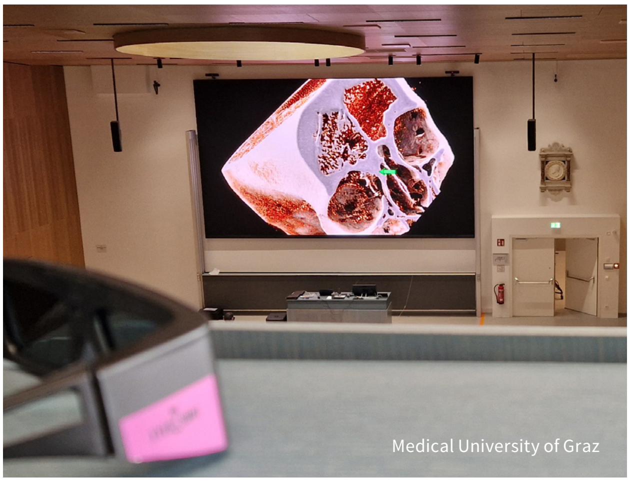
Sharp/NEC's Remote Power Switch, the LED-RPS-CL-R, is designed to switch LED screens and to eliminate standby power loss. The integrated inrush current limiter can handle up to thirty LED modules connected to one supply line. In combination with the LED FE3 Series, users benefit from much improved operational efficiency. Two control interfaces are available, the control input which can be connected to a potential-free contact (switch or actuator), and the serial interface (RS485) with extended features.

Additional LED-RPS-CL-R units can be cascaded if one power feed is not sufficient to supply the entire LED screen. The next LED-RPS-CL-R unit will switch on after a predefined delay.

The housing can be snapped onto symmetrical DIN rails according to EN60715. The LED-RPS-CL-R is made in Germany using the highest quality components.

LED-RPS-CL-R

Find out more about our projects in the education sector


Medical University of Graz

Are you planning to integrate dvLED walls at your university? Installing a dvLED wall comes with unique requirements, from structural support and space availability to accessibility for maintenance and the possible need for a protective surface.

What's the situation at your institution?

Contact us! Our dvLED specialists will be happy to advise you on the best solution for your specific needs.

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