

NEC NC1843ML
4K Cinema Laser Projector

Datasheet



Greater flexibility with modular cinema projection solutions

Joining Sharp/NEC's modular cinema projection solutions, the NC1843ML provides high flexibility and future-proof adaption. The modular concept allows for simple upgrade from 2K to 4K by changing only the projector head, or an increase in brightness by choosing from three different light modules (18K, 20K, 24K Lumen). In addition to the 2K projector head, the NC1843ML employs a 4K head and an 18K Lm laser module.

The NC1843ML is based on Laser Phosphor technology, generating exceptional image quality with very natural looking colours yet at a low operational cost. Laser Phosphor technology is almost entirely speckle-free allowing high gain screens to be used achieving higher brightness levels especially for 3D.

The Sharp/NEC modular solution is opening opportunities for leasing structures which greatly appeal to theatre operators to better manage their budgets. The innovative NC1843ML brings compelling benefits in lowering operating costs and increasing efficiencies whilst delivering exceptional viewing experiences in medium-sized venues.

Benefits

Modular Light Source - achieve the light output which is perfectly adjusted to your requirements with exchangeable light modules 24,500lm, 20,000lm and 18,000lm for different brightness demands.

Optimise your cost ownership - take advantage of new financing structures; lease your light engine and only pay for the light you use.

Virtually zero maintenance - no lamp and no filter replacement costs, no maintenance personnel costs and no lamp stock due to the innovative Laser Light engine.

Enjoy a Lower TCO - highest reliability, maintenance-free operation, low power consumption and up to 50000 hours life; the Laser light source results in a significantly lower total cost of ownership.

Sealed optical engine - minimising dust ingress, consistent performance is assured and no special maintenance is required.

Product Information

Product Name	NEC NC1843ML
Product Group	4K Cinema Laser Projector
Components	Projector Head NP-42HD, Laser Light Source NP-18LU03
Order Code	NP-NC1843ML

Optical

Projection Method	3-chip 0.98" DC4K DMD
Screen Size [m]	up to 19 in DCI colour (1.8 Gain screen)
Brightness	Up to 18000 Lumen
Contrast Ratio	2000:1
Light Source	Laser Light Source, expected life: up to 50000 h ¹
Lens	Zoom / Focus / Shift: Motorized Other: Range of shift is dependent on lens Primary Lenses: NC-60LS12Z:1.2-1.81:1; NC-60LS14Z:1.4-2.05:1; NC-60LS16Z:1.59-2.53:1; NC-60LS19Z:1.9-3.25:1; NC-60LS24Z:2.4-3.9:1; NC-60LS39Z:3.9-6.52:1
DMD Specifications	4096 x 2160
Cooling Method	Circulating air cooling system Liquid: Cooling inside, no chiller required

Connectivity Projector

External Controls	1 x D-Sub 9 pin (RS-232); 1 x GPIO (3D) (D-sub 15 pin female); 1 x GPIO (D-sub 37 pin female); 1 x RJ45 100Base-T; 1 x USB port (TypeA)
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Environmental Conditions

Operating Temperature [°C]	10 to 35
Operating Humidity [%]	10 to 85 - non-condensing
Storage Temperature [°C]	-10 to 50
Storage Humidity [%]	10 to 85 - non-condensing

Electrical

Power Supply	Built-in power supply Projector Power Supply Unit: 200 to 240V AC, 50/60Hz, single phase
Rated Input Current	Projector power: 19.1A @ 200V-240V
Power Consumption [W]	3146 max. Projector Power: 352 Laser Module Power: 2794 typ.
Heat Dissipation (BTU)	10735 max.

Mechanical

External Dimensions (W x H x D) [mm]	697 x 509.5 x 1,095
Weight [kg]	144 (without lens) Projector Head: 153
Fan Noise [dB (A)]	< 50

Additional Features

Special Characteristics	Built-in IMS (IMS3000, optional); Compact model; Dust sealed optical engine; Laser Light System; Latest digital technology; Low TCO; Metal filter; Reduced costs
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Green Features

Ecological Materials	Laser technology reduces power usage and reduces replacement materials required
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Interfaces: Dolby IMS3000 (optional)

External Controls	2 x RJ45 (4 GPI and 6 GPO); 3 x RJ45 Gigabit Ethernet
Input Terminals	1 x USB Type 2.0; 2 x 3GSDI bidirectional (input and output); 2 x USB Type 3.0; eSATA; HDMI
Output Terminals	2 x RJ45 (16-channel AES3-EBU Digital Audio)
Additional Features	HFR 3D Support (48 Hz/eye, 60 Hz/eye); Integrated SMS; Integrated Storage: 2 TB (DCP, RAID5); NAS support

Regulations

Oceania	IEC60950-1:2005+A1:2009+A2:2013, IEC62368-1:2nd Edition, AS/NZS CISPR32:2015, (Marking: RCM)
Laser/Lamp standard	IEC60825-1 Ed.3:2014 Class 1, IEC62471-5 :2015 Risk Group 3, Laser Notice No. 57

Warranty

Warranty	2 years, parts warranty
Light Source	2 years or 7500h (whatever comes first)

¹ 50% of initial brightness at the end of specified laser life time at 25 degree ambient temperature, under normal usage condition, not covered by standard warranty

* This product has been equipped with a laser module and is classified as Class1 of IEC60825-1 Ed3 2014 and is classified as RG3 of IEC62471-5 Ed1 2015.

DO NOT LOOK DIRECTLY INTO THE BEAM.

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