Digital Cinema Projector Series

NC2402ML/NC2002ML/NC1802ML Laser Projectors

DCI-compliant laser light source projector

The NC2402ML/NC2002ML/NC1802ML features a built-in laser light source and is the ideal digital cinema projection solution for theaters with mid-sized screens or projection booths that are looking for high-quality cinema projection. This projector's reliability, maintenance-free operation and approximately 50,000* hours of lifetime result in an overall lower total cost of ownership. The 2K DCI-compliant cinema quality means an outstanding image that is bright enough to display 14 ft-L on screens up to 72.0 ft./22m** in DCI color.

Epoch-making newly designed laser light module

- The NC2402ML/NC2002ML/NC1802ML offers exhibitors an affordable and flexible new cinema projection solution thanks to its interchangeable laser light sources in the projector head for the ultimate in versatility and future-proofing
  - Higher reliability
  - Lower running cost due to savings of:
    (a) No lamp replacement
    (b) No maintenance labor
    (c) No need of Stocking Lamps
- Redundancy and virtually maintenance free
  Quick laser replacement with easy slide-in for emergency -15 minutes!
  Exhibitors can minimize downtime if the laser light source needs to be changed
- Modular Light Source
  Starting with one (24,000 lumens) of three swappable laser light modules (24,000, 20,000 and 18,000 lumens), exhibitors can protect their investment by being able to display different content for different sized auditoriums with the same projector.
- Flexible installation
  The interchangeable laser light module can be purchased separately or leased for even more flexibility
- Highly flexible - as no exhaust system is required, the NC2402ML/NC2002ML/NC1802ML is suitable for floor and ceiling installation and versatile content playback
- Optimize cost of ownership
  Take advantage of new financing structures: lease laser light engine and only pay for the light exhibitors use

Outstanding Performance

- Steady and reliable operation without any risk of black screen -No downtime while exhibition of contents with Laser Light Source, with which brightness may slightly decrease
- Longevity and lower maintenance provide for greater customer satisfaction with the introduction of the laser light source NC2402ML/NC2002ML/NC1802ML projector.
- Enjoy lower TCO - up to 50,000* hours of lifetime keeps costs to a minimum. You can enjoy better quality imaging while experiencing an overall lower cost of ownership. Brightness decreases in a linear fashion resulting in consistent image quality and greater satisfaction for your customers.
- RB laser (NC2402ML/NC2002ML) system features red and blue lasers paired with phosphor to produce a rich color spectrum with unsurpassed brightness for the ultimate cinema experience.

Super Dust Protection

- NEC's unique cooling system includes separate independent cooling sections for dust protection in both the optical engine and light source offering the best overall performance while providing theatre owners piece of mind

*The life time may vary depending upon environmental conditions and does not constitute the warranty period.
** Assuming 1.8:1 gain screen

UNIQUE FEATURES

MINIMAL MAINTENANCE Operation for approximately 50,000* (under normal usage conditions) hours with long life of the light source.

SIMPLE OPERATION One touch operation, ergonomic keyboard layout and memory functions.

MANY LENS OPTIONS for easy installation.

HIGH FRAME RATE (HFR) CAPABILITY for outstanding picture quality.

ACCESSORIES

Optional Lenses
NC-60LS12Z, NC-60LS14Z, NC-60LS16Z,
NC-60LS19Z, NC-60LS24Z, NC-60LS39Z

ORDERING MODEL NUMBERS

NP-NC2402ML : Laser light module built-in projector
NP-NC2002ML : Laser light module built-in projector
NP-NC1802ML : Laser light module built-in projector
NP-02HD : Projector head without laser light module
NP-24LU01 : 24,000 lm laser light module
NP-20LU01 : 20,000 lm laser light module
NP-18LU01 : 18,000 lm laser light module

		NC2402ML	NC2002ML	NC1802ML
OPTICAL				
Projection Method		3-chip DMD reflection method (DLP Light Engine)		
Light Source		RB Laser Light Source		B Laser Light Source
DMD Specifications		0.98" DMD chip, DC mini 2K		
Resolution	Native	2048 x 1080		
Contrast Ratio		2,000:1		
Brightness (Lumens)		24,000	20,000	18,000
Light Source Life (up to)		50,000 hours		
Supported Screen Size (width)***		Up to 72 ft. / 22m	Up to 65.6 ft. / 20m	Up to 62.3 ft. / 19m
Throw Ratio	NC-60LS12Z	1.20 to 1.80:1 zoom		
	NC-60LS14Z	1.40 to 2.05:1 zoom		
	NC-60LS16Z	1.59 to 2.53:1 zoom		
	NC-60LS19Z	1.90 to 3.25:1 zoom		
	NC-60LS24Z	2.40 to 3.90:1 zoom		
	NC-60LS39Z	3.90 to 6.52:1 zoom		
Projection Distance		2.9 - 35.9 ft. / 0.9 - 10.9 m		
Tilt Angle		+/- 15° (Up / Down)		
Zoom		Motorized		
Focus		Motorized		
F-number, f-number	NC-60LS12Z	F=2.5, f= 26.7 - 40.5mm		
	NC-60LS14Z	F=2.5, f= 31.2 - 45.6mm		
	NC-60LS16Z	F=2.5, f= 35.4 - 56.4mm		
	NC-60LS19Z	F=2.5, f= 41.6 - 71.1mm		
	NC-60LS24Z	F=2.5, f= 52.4 - 85.3mm		
	NC-60LS39Z	F=2.5, f= 84.9 - 142.0mm		
Lens Shift**		+/-23% Vertical, +/-7% Horizontal		
Cooling Method		Liquid cooling inside, air cooling with dust-preventing electrostatic filter		
CONNECTIVITY with Required IMS				
External Control	Projector	1 × GPIO (3D) (D-sub 15 pin female); 1 × GPIO (D-sub 37 pin female); 1 X USB Type-A, 1 × RJ45 100Base-T, 1 X D-SUB 9-pin female-RS232C compliant		
ELECTRICAL				
Power Requirements		100 – 240V AC, 50/60Hz Single Phase for Projector head 220 - 240V AC, 50/60Hz Single Phase for Light source		
Input Current		18.1A		
Power Consumption		3,600W	2997W	3122W
Heat Load (max. power)		12,284 BTU	10,158 BTU	10,653 BTU
MECHANICAL				
Product Dimensions (WxDxH)****		27.4 x 52.6 x 20.1 in. (697 x 1337 x 510mm)		
Net Weight		330.8 lbs. / 150 kg *Excluding lens*		310.9 lbs. / 141 kg *Excluding lens*
Shipping Dimensions (WxDxH)		36.5 x 62.6 x 35.0 in. (926 x 1590 x 888 mm)		
Gross Weight		600 lbs. (272 kg)		580 lbs. (263 kg)
Fan Noise		50dB		
ENVIRONMENTAL				
Operating	Temperature	50-96°F / 10-35°C		
	Humidity	10 to 85% Humidity (Non-Condensing)		
	Altitude	0 to 3000 m (9,800 ft)		
Storage	Temperature	14-122°F / -10 50°C		
	Humidity	10% - 85% (non-condensing)		
	Altitude	0-12,000m / 0-39,370ft (above sea level)		
Regulations				
USA		UL60950-1, FCC Part15 ClassA (Marking: UL)		
Canada		CAN/CSA C22.2, ICES-003 ClassA (Marking CAN ICES-3(A)/NMB-3(A))		
Latin America		EN60950-1, EN55022 Class A, EN55032 CLASS A, EN55024, EN61000-3-2/-3-3/-3-11/-3-12 (Marking CE)		
Laser Safety*****	USA	IEC60825-1 Ed.3:2014 Class 1, IEC62471:2006 Risk Group 3		
	Others	IEC60825-1 Ed3:2014 Class1, IEC62471-5 Ed1:2015 Risk Group3		
Limited Warranty (Parts & Labor)		Registered owners receive a 2-year parts and labor warranty		
Model Number		NC2402ML	NC2002ML	NC1802ML

* The lifetime may vary depending upon environmental conditions and does not constitute the warranty period.
** Lens Shift slightly varies depending on each lens.
*** Screen width may vary depending upon environmental conditions.
**** Without protrusions.
***** This product complies with performance standards for laser products under 21 CFR Part 1040 except with respect to those characteristics authorized by Variance Number 2015-V-3435 effective on April 7, 2016.