**DIGITAL
PICTURE BY**

DLP

CINEMA®

TEXAS INSTRUMENTS

Digital Cinema Projectors

NC3240S

NC3200S

NC2000C

NC1200C

The Future of Cinema Viewing

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Bring your establishment into the future with NEC Digital Cinema Projector

Exceptional image and colour quality meet the latest in digital cinema technology to deliver new revenue-generating opportunities for theaters and cinema events. These advanced solutions are backed by NEC, the trusted leader in DigitalCinema Technology.

Generate Greater Per Seat Revenue

Achieve additional income from showing higher quality more entertaing media and arranging alternative sports, broadcast and education media during off peak operational times.

Play Captivating 3D Content

Take your establishment into NEC Digital Cinema Projectors and stay ahead of your competition with the latest Digital Content, which is becoming more and more an essential element of the latest movies and media.

Enjoy Lower TCO

With easy servicing, more durable components and advanced servicing options you can enjoy better quality imaging while experiencing an overall lower cost of ownership.

Using DLP Cinema® technology from Texas Instruments®, NEC's innovative digital cinema projectors deliver exceptional image quality, brightness, resolution, contrast and colorimetry. NEC's 2K/4K digital cinema projectors are designed with a focus on quality and ease-of-use for movie theatres of all sizes. Together with the new, optional integrated NEC 2K/4K Media Block and NEC Local Storage Server, they provide complete and compelling industry solutions for showing digital movies.

● **FULLY COMPLIANT WITH DCI REQUIREMENTS***

● **INDUSTRY-LEADING MEDIA BLOCK - ONE-STOP SOLUTION**

● **MINIMAL COST OF OWNERSHIP / SIMPLE MAINTENANCE**

* Digital Cinema System Specifications Compliance test applied for
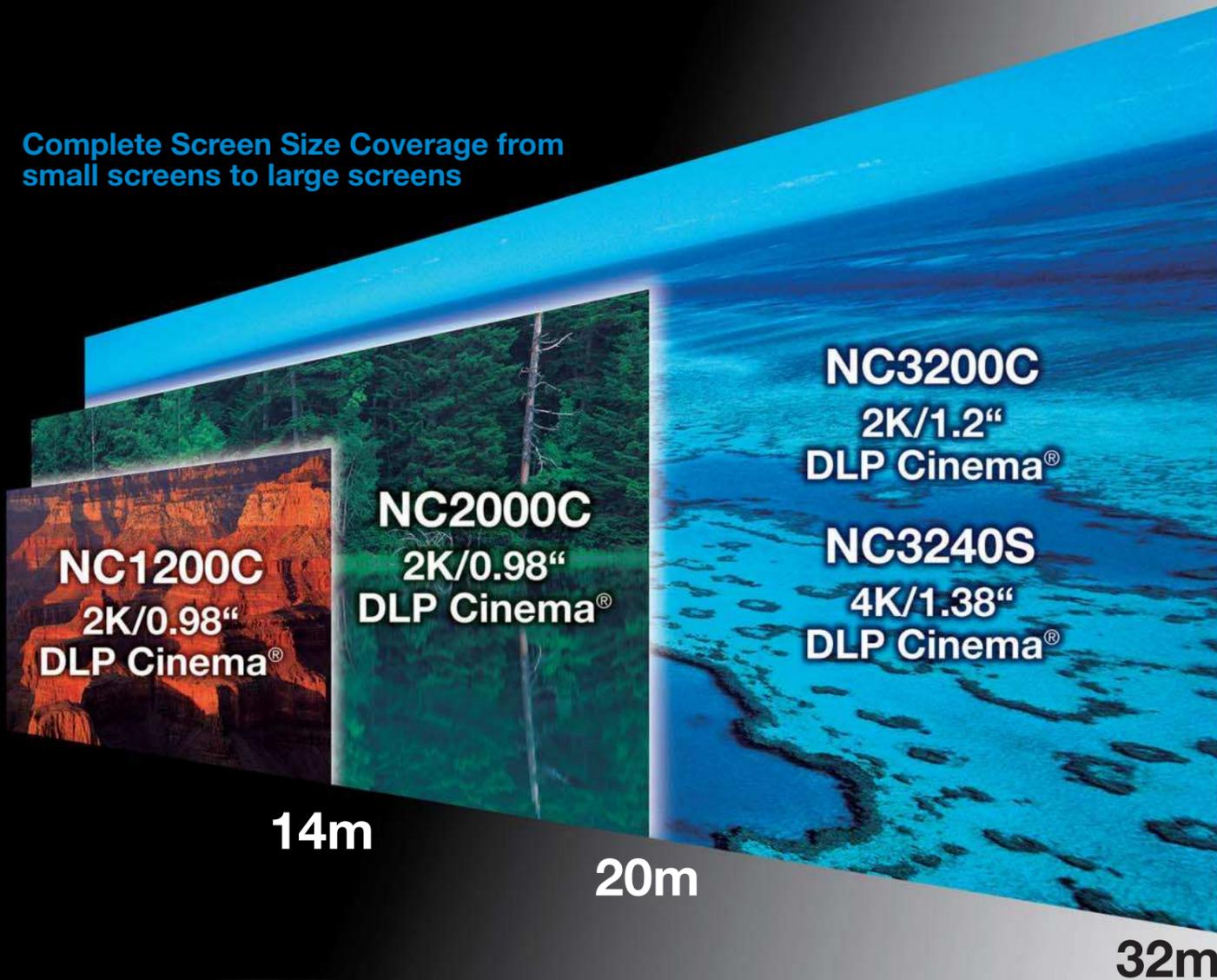
DLP Cinema® Technology

2009 Academy Scientific and Engineering Award for Color Accuracy
Recipients of the 2009 Academy Plaque are D.Scott Dewald, Greg Pettitt, Brad Walker and Bill Werner.

Improve Your Establishment Experience, Cost of Ownership and Increase Site Revenue

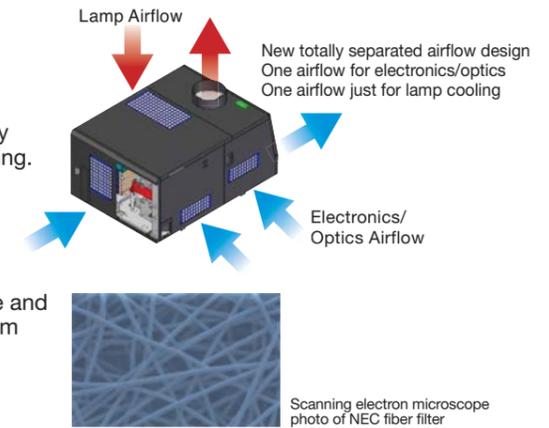**Complete Screen Size Coverage from small screens to large screens**

NC3200C
2K/1.2"
DLP Cinema®

NC3240S
4K/1.38"
DLP Cinema®

NC2000C
2K/0.98"
DLP Cinema®

NC1200C
2K/0.98"
DLP Cinema®

14m

20m

32m

DIGITAL PICTURE BY
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FULLY COMPLIANT WITH DCI REQUIREMENTS*

BAR-SETTING RELIABILITY

⬤New completely independent airflow systems help secure best in class reliability with one airflow section for electronics/optics and another strictly for lamp cooling. This new system prevents any cross contamination between sections.

⬤In addition, advanced dust/oil prevention is achieved with higher inside air pressure and specially designed high tech electrostatic fiber filters that can be exchanged from outside the projector without and special tools.

Lamp Airflow

New totally separated airflow design
One airflow for electronics/optics
One airflow just for lamp cooling

Electronics/
Optics Airflow

Scanning electron microscope photo of NEC fiber filter

MINIMAL COST OF OWNERSHIP / SIMPLE MAINTENANCE

⬤Quick and easy components/parts replacement with modular electronics
 •Clear electronic layout and wiring.
 •Easy prism replacement can be completed in only a few minutes.
 •Truly modular electronics; custom DMD shielding gaskets and patented reflector design help reduce maintenance costs.

⬤Industry-leading system service and support
 •Quick and easy troubleshooting by self-diagnosis with built-in system test and error log analisys.
 •Built-in web server allows you to access and control projectors from any authorized web browser.
 •Remotely update firmware via network from long distances.

BEST-SUITED PROJECTOR FOR 3D APPLICATIONS

⬤The NC3200S and NC3240S are the brightest digital cinema projector available, boasting 31,000 lumens.

⬤3D presentation using a single projector - Support for all major suppliers of 3D accessories, including:
 •Special 3D control connector.
 •Optional automatic turret to mount polarizers in front of lens when displaying 3D content.

UNRIVALED EASE OF USE

⬤One-Touch Operation and Memory Functions - Direct-select buttons for eight stored projector configurations; simplify display of different aspect ratios through pre-set lens shift position, zoom and focus, and lamp power settings.

⬤Auto Lamp Brightness Control - Maintains constant brightness of the lamp by adjusting the lamp power as the lamp ages. These projectors optimize lamp performance and ensure the brightest and most uniform image possible for the life of the lamp.

⬤Trouble-Free Lamp Replacement - Maintenance personnel can replace lamps simply from the back of the projector even in a cramped space.

⬤Intuitive keypad layout provides for easy operator control.

INDUSTRY-LEADING MEDIA BLOCK - ONE-STOP SOLUTION

⬤NEC optional 2K/4K Media Block* - Internal design for content management, screen management and higher security, providing greater peace of mind.

⬤Designed to work with third-party company legacy media blocks and servers.

* NC1200C, NC2000C and NC3200S have passed the Digital Cinema System Specifications Compliance test and are listed on the DCI url http://www.dcimovies.com/compliance/ NC3240S is now under testing with NEC Media Block and planned to be passed early in summer 2011

NC3240S

- 1.38 " DLP Chip®
- 4K Resolution (4096x2160)
- 31000 lumen

■External Diagram (NC3240S)

The NC3240S has an optional movable stand for improved installation and accessibility.

Specifications for NC3240S

Projection system	3 chip DMD reflection method
DLP® Chip specifications (size and resolution)	1.38 inches, 4096 × 2160 pixels
Brightness*¹	31000lm with NC-32PS01(7kW LPSU) & USHIO DXL-70SN 7kW lamp* 22500lm with NC-32PS02(4kW LPSU) & USHIO DXL-41SN 4kW lamp* *****
Supported screen sizes (maximum)	Width 32m/105ft with NC-32PS01(7kW LPSU) ** Width 22m / 72ft with NC-32PS02(4kW LPSU) **
Contrast ratio	2000:1 (full on/off) ***
Primary lens (option)	L2K-12ZM 1.13 to 1.31 :1 zoom
	NC-50LS12Z **** 1.13 to 1.66:1 zoom
	NC-50LS14Z 1.30 to 1.85:1 zoom
	NC-50LS16Z 1.45 to 2.17:1 zoom
	NC-50LS18Z 1.63 to 2.71:1 zoom
	NC-50LS21Z 1.95 to 3.26:1 zoom
	L2K-30ZM 2.71 to 3.89:1 zoom
Lens adjustment function	Motorized focus, zoom, horizontal/vertical shift, light shutter (dowser) / Lens memory stores lens setting (shift/zoom/focus) /Range of shift is dependent on lens
Lamp bulbs	NEC certified digital Xenon lamp bulbs
	w/ NC-32PS01(7kW LPSU): 4.5kW/6kW/7kW lamp bulb w/ NC-32PS02(4kW LPSU): 4kW
	Compatible standard film projector lamp bulbs listed by NEC
Cooling system	· Liquid cooling inside, air cooling with dust-preventing electrostatic filter
	· Total thermal dissipation: 35850BTU with NC-32PS01(7kW LPSU) 19800BTU with NC-32PS02(4kW LPSU)
	· Projector exhaust: Top mounted
	· Demand of exhaust duct: 565CFM (16m³/min) w/ NC-32PS01(7kW LPSU): 565CFM (16m³/min) w/ NC-32PS02(4kW LPSU): 460CFM (13m³/min)
External Controls	LAN port [RJ-45] × 1 / USB port [Type A] × 1 / Serial port (RS-232C) [D-sub(9-pin) × 1 / General Purpose I/O [D-sub (37-pin)] × 1 /
	General purpose I/O for 3D (D-sub [15-pin] × 1)
Input Terminals	HD-SDI port [BNC] × 4 / DVI port [DVI-digital] × 2 (option)******
Noise level	66dB with NC-32PS01(7kW LPSU) 60dB with NC-32PS02(4kW LPSU)
Power supply voltage	NC3240S(Projector head): 100 to 240V AC, 50/60Hz, single phase
	w/ NC-32PS01(7kW LPSU): 200 to 230V / 380 to 415V AC, 50/60Hz, 3 phases w/ NC-32PS02(4kW LPSU): 200 to 240V AC / 50/60Hz, single phase
Rated Input Current	NC3240S(Projector head): 8A-4.2A
	w/ NC-32PS01(7kW LPSU): 28A@200 to 230V / 16A@380 to 415V w/ NC-32PS02(4kW LPSU): 25A
Power Consumption	NC-32PS01(7kW LPSU): 9700W / NC3240S(Projector head): 800W / Total: 10,500W
	NC-32PS02(4kW LPSU): 5000W / NC3240S(Projector head): 800W / Total: 5800W
Operating environment	Operational temperatures: 50°F - 95°F / 10°C - 35°C Humidity: 10% - 85% (non-condensing)
	Storage temperatures: 14°F - 122°F / -10°C - 50°C Humidity: 10% - 85% (non-condensing)
Regulations	USA: UL60950 FCC Class A / Canada: CSA60950 ICES-003 Class A /
	Europe: EN60950 EN55022 1988. Class A/EN55024-1998/EN61000-3-11/EN61000-3-12 (Marking: TUV-GS, CE) /
	Oceania: EN60950 AS/NZS3548 Class A 1995/+A 1/2:1997 / Japan: J60950 VCCI Class A (Marking PSE, S-TUV) /
	Asia: EN60950 CISPR Pub22 / Korea: K00022 Class A/K00024/K61000-3-11 (Marking IMC)
External dimensions(W × D × H)	NC3240S(Projector head): 27.6 x 44.3 x 19.8 in. / 700 x 1124 x 503mm Excluding lens, lens hood, exhaust stack and handle. Including feet.
	NC-32PS01(7kW LPSU): 23.4 x 15.7 x 17.8 in. / 594 x 398 x 452mm NC-32PS02(4kW LPSU): 23.4 x 15.7 x 15.5 in. / 594 x 398 x 394mm
Weight	NC3240S(Projector head): 213.8 lbs. / 97 kg Excluding lens and lamp bulb.
	NC-32PS01(7kW LPSU): 114.7 lbs. / 52 kg NC-32PS02(4kW LPSU): 90.4 lbs. / 41 kg

LPSU stands for Lamp Power Supply Unit   * Color-corrected / center lumens   ** Subject to installation conditions. Maximum screen size is under the conditions of 14-ft-L @ screen gain 1.8   *** When iris mounted
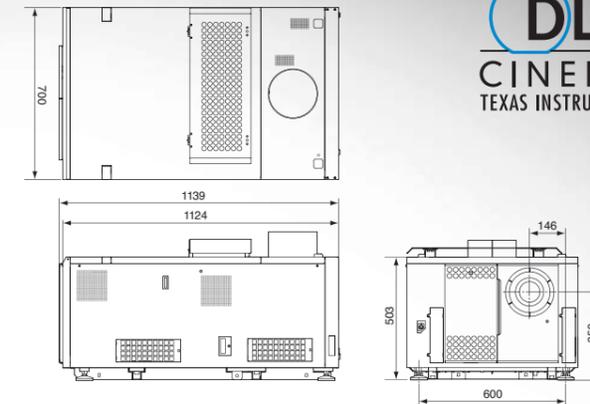**** Available in summer 2011   ***** Available in June 2011   ****** See page 10 for optional signal input boards

NC3200S

- 1.2 " DLP Chip®
- 2K Resolution (2048x1080)
- 31000 lumen
- Upgradable to 4K

■External Diagram (NC3200S)

The NC3200S has an optional movable stand for improved installation and accessibility.

Specifications for NC3200S

Projection system	3 chip DMD reflection method
DLP® Chip specifications (size and resolution)	1.2 inches, 2048 × 1080 pixels
Brightness*¹	31000lm with NC-32PS01(7kW LPSU) & USHIO DXL-70SN 7kW lamp* 22500lm with NC-32PS02(4kW LPSU) & USHIO DXL-41SN 4kW lamp* ****
Supported screen sizes (maximum)	Width 32m/105ft with NC-32PS01(7kW LPSU) ** Width 22m / 72ft with NC-32PS02(4kW LPSU) **
Contrast ratio	2200:1 (full on/off)
Primary lens (option)	L2K-12ZM 1.25 to 1.45:1 zoom
	NC-50LS12Z *** 1.25 to 1.83:1 zoom
	NC-50LS14Z 1.44 to 2.05:1 zoom
	NC-50LS16Z 1.6 to 2.4:1 zoom
	NC-50LS18Z 1.8 to 3.0:1 zoom
	NC-50LS21Z 2.15 to 3.6:1 zoom
	L2K-30ZM 3.0 to 4.3:1 zoom
Lens adjustment function	Motorized focus, zoom, horizontal/vertical shift, light shutter (dowser) / Lens memory stores lens setting (shift/zoom/focus) /Range of shift is dependent on lens
Lamp bulbs	NEC certified digital Xenon lamp bulbs
	w/ NC-32PS01(7kW LPSU): 4.5kW/6kW/7kW lamp bulb w/ NC-32PS02(4kW LPSU): 4kW
	Compatible standard film projector lamp bulbs listed by NEC
Cooling system	· Liquid cooling inside, air cooling with dust-preventing electrostatic filter
	· Total thermal dissipation: 35500BTU with NC-32PS01(7kW LPSU) 19500BTU with NC-32PS02(4kW LPSU)
	· Projector exhaust: Top mounted
	· Demand of exhaust duct: 565CFM (16m³/min) w/ NC-32PS01(7kW LPSU): 565CFM (16m³/min) w/ NC-32PS02(4kW LPSU): 460CFM (13m³/min)
External Controls	LAN port [RJ-45] × 1 / USB port [Type A] × 1 / Serial port (RS-232C) [D-sub(9-pin) × 1 / General Purpose I/O [D-sub (37-pin)] × 1 /
	General purpose I/O for 3D (D-sub [15-pin] × 1)
Input Terminals	HD-SDI port [BNC] × 4 / DVI port [DVI-digital] × 2 *****
Noise level	66dB with NC-32PS01(7kW LPSU) 60dB with NC-32PS02(4kW LPSU)
Power supply voltage	NC3200S(Projector head): 100 to 240V AC, 50/60Hz, single phase
	w/ NC-32PS01(7kW LPSU): 200 to 230V / 380 to 415V AC, 50/60Hz, 3 phases w/ NC-32PS02(4kW LPSU): 200 to 240V AC / 50/60Hz, single phase
Rated Input Current	NC3200S(Projector head): 7A-3.5A
	w/ NC-32PS01(7kW LPSU): 28A@200 to 230V / 16A@380 to 415V w/ NC-32PS02(4kW LPSU): 25A
Power Consumption	NC-32PS01(7kW LPSU): 9700W / NC3200S(Projector head): 700W / Total: 10,400W
	NC-32PS02(4kW LPSU): 5000W / NC3200S(Projector head): 700W / Total: 5700W
Operating environment	Operational temperatures: 50°F - 95°F / 10°C - 35°C Humidity: 10% - 85% (non-condensing)
	Storage temperatures: 14°F - 122°F / -10°C - 50°C Humidity: 10% - 85% (non-condensing)
Regulations	USA: UL60950 FCC Class A / Canada: CSA60950 ICES-003 Class A /
	Europe: EN60950 EN55022 1988. Class A/EN55024-1998/EN61000-3-11/EN61000-3-12 (Marking: TUV-GS, CE) /
	Oceania: EN60950 AS/NZS3548 Class A 1995/+A 1/2:1997 / Japan: J60950 VCCI Class A (Marking PSE, S-TUV) /
	Asia: EN60950 CISPR Pub22 / Korea: K00022 Class A/K00024/K61000-3-11 (Marking IMC)
External dimensions(W × D × H)	NC3200S(Projector head): 27.6 x 44.3 x 19.8 in. / 700 x 1124 x 503mm Excluding lens, lens hood, exhaust stack and handle. Including feet.
	NC-32PS01(7kW LPSU): 23.4 x 15.7 x 17.8 in. / 594 x 398 x 452mm NC-32PS02(4kW LPSU): 23.4 x 15.7 x 15.5 in. / 594 x 398 x 394mm
Weight	NC3200S(Projector head): 213.8 lbs. / 97 kg Excluding lens and lamp bulb.
	NC-32PS01(7kW LPSU): 114.7 lbs. / 52 kg NC-32PS02(4kW LPSU): 90.4 lbs. / 41 kg

LPSU stands for Lamp Power Supply Unit   * Color-corrected / center lumens   ** Subject to installation conditions. Maximum screen size is under the conditions of 14-ft-L @ screen gain 1.8   *** Available in summer 2011
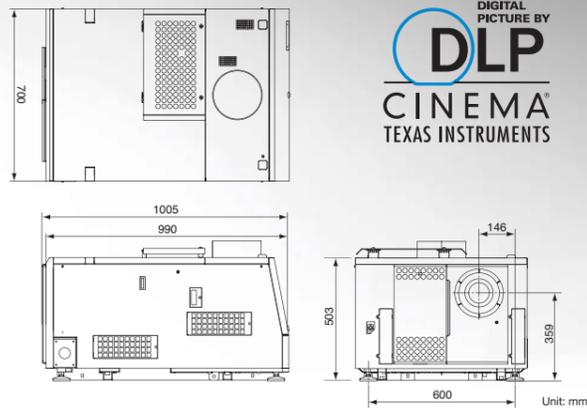**** Available in June 2011   ***** See page 10 for the model without input terminals

NC2000C

- ● 0.98" DLP Chip®
- ● 2K Resolution (2048x1080)
- ● 17000 lumen

NC1200C

- ● 0.98" DLP Chip®
- ● 2K Resolution (2048x1080)
- ● 9000 lumen

■ **External Diagram**
（NC2000C/NC1200C）

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CINEMA®
TEXAS INSTRUMENTS

Unit: mm

Specifications for NC2000C and NC1200C

	NC2000C	NC1200C
Projection system	3 chip DMD reflection method	
DLP® Chip specifications (size and resolution)	0.98 inches, 2048 x 1080	
Brightness*¹	17,000 lm with USHIO DXL-40SN lamp	9,000 lm with USHIO DXL-20SN3 lamp
Supported screen size% (maximum)	Width 20m / 65 ft*	Width 14m / 46ft*
Contrast ratio	2200:1 (full on/off)	
Primary lens (option)	NC-60LS12Z 1.2 to 1.8:1 zoom	
	NC-60LS14Z 1.4 to 2.05:1 zoom	
	NC-60LS16Z 1.59 to 2.53:1 zoom	
	NC-60LS19Z 1.9 to 3.25:1 zoom	
	NC-60LS24Z 2.4 to 3.9:1 zoom	
	NC-60LS39Z 3.9 to 6.52:1 zoom	
Lens adjustment function	Motorized focus, zoom, horizontal/vertical shift, light shutter (dowser) / Lens memory stores lens setting (shift/zoom/focus) / Range of shift is dependent on lens	
Lamp bulbs	NEC certified digital Xenon lamp bulbs	NEC certified digital Xenon lamp bulbs
	4kW lamp bulb. Compatible standard film projector lamp bulbs listed by NEC	2kW lamp bulb . Compatible standard film projector lamp bulbs listed by NEC
Cooling system	· Liquid cooling inside, air cooling with dust-preventing electrostatic filter · Total thermal dissipation: 20500BTU (Input 4KW power to 4.0KW lamp bulb) · Projector exhaust: Top mounted · Demand of exhaust duct: 460CFM (13m³/min)	· Liquid cooling inside, air cooling with dust-preventing electrostatic filter · Total thermal dissipation: 13000BTU · Projector exhaust: Top mounted · Demand of exhaust dust: 350CFM (10m³/min)
External Controls	LAN port [RJ-45] x 1 / USB port [Type A] x 1 / Serial port (RS-232C) [D-sub(9-pin) x 1 / General Purpose I/O [D-sub (37-pin)] x 1 / General purpose I/O for 3D (D-sub [15-pin] x 1)	
Input Terminals	HD-SDI port [BNC] x 4 / DVI port [DVI-digital] x 2 **	
Noise level	Less than 62 dB	
Power supply	For C1 connections *** 200 to 240V AC 50/60Hz single phase, 30A (Projector power supply + Lamp power supply)	200 to 240V AC 50/60Hz single phase, 16.5A (Projector power supply + Lamp power supply)
	For C2 connections **** 100 to 240V AC 50/60Hz single phase, 5-2.5 A(Projector power supply) 200 to 240V AC 50/60Hz single phase, 27A (Lamp Power Supply)	100 to 240V AC 50/60Hz single phase, 5-2.5 A(Projector power supply) 200 to 240V AC 50/60Hz single phase, 14A (Lamp Power Supply)
Power Consumption	6000W	3800W
Operating environment	Operational temperatures: 50°F - 95°F / 10°C - 35°C Humidity: 10% - 85% (non-condensing) Storage temperatures: 14°F - 122°F / -10°C - 50°C Humidity: 10% - 85% (non-condensing)	
Regulations	USA: UL60950 FCC Class A / Canada: CSA60950 ICES-003 Class A / Europe: EN60950 EN55022 1988. Class A/EN55024-1998/EN61000-3-11/EN61000-3-12 (Marking: TUV-GS, CE) / Oceania: EN60950 AS/NZS3548 Class A 1995/+A 1/2:1997 / Japan: J60950 VCCI Class A (Marking PSE, S-TUV) / Asia: EN60950 CISPR Pub22 / Korea: K00022 Class A/K00024/K61000-3-11 (Marking IMC)	
External dimensions(W x D x H)	27.6 x 39 x 19.8inch /700 x 990 x 503mm Excluding lens, lens hood and lamp bulb. Including feet	
Weight	218lbs. / 99kg (excluding lens and lamp bulb)	203lbs. / 92kg (excluding lens and lamp bulb)

* Subject to installation conditions. Maximum screen size is under the conditions of 14-ft-L @ screen gain 1.8   ** See page 10 for the model without input terminals
*** When the AC power to the projector power supply and the lamp power supply are provided by a single cable   **** When the AC power to the projector power supply and the lamp power supply are provided by separate cables

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IMB & Server

NEC's Industry-Leading Integrated 2K/4K Media Block and Storage Server as ONE STOP Solution

- ● **Internal design for content management, screen management and higher security, providing greater peace of mind**
- ● **Server connection via GBit Ethernet, the easiest and most flexible connection**
- ● **Both 2K and 4K content playback**
- ● **Total cost down with open solution**
  - ● Provides control of Media Block from the projector
  - ● Simpler management of cinema content/system
  - ● Possible to integrate cinema ad into NEC Media Block/Server solution
- ● **Easy Maintenance to minimize the downtime**
  - ● Single maintenance window for NEC projectors, NEC Media Block and NEC Storage Server
  - ● Easy and timely troubleshooting by self-diagnosis within the projector
- ● **High Reliability**
  Media Block built in the projector
  - ● Higher (stricter) security
  - ● No interference between Projector and existing screen server

Series2 Projector

Media Block "NC-80MB01"

Intergrated Media Block NC-80MB01

2K DCI format, Upgradable into 4K DCI format
Gigabit Ethernet Interface
Security: DCI 1.2, FIPS 140-2, Watermark
SMS: via LSS or via network pc
Video:2K & 4K DCI formats/2048x1080 2D&3D/4096x2160 2D
Audio:AES-3, Balanced Digital 16 Channels (original pin assignment)

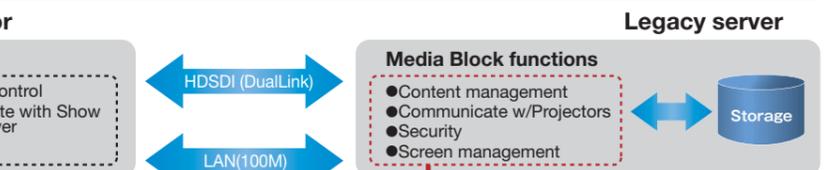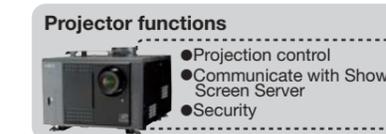| Item		Content		Remarks
Performance	Video	2K & 4K DCI Format		
		2048x1080 2D & 3D		
		4096x2160 2D		
	Audio	16channels, 24bits, 48k/96kHz Linear PCM		
	Security	DCI 1.2, FIPS140-2, Watermark		
	SMS	From Network PC and LSS(NC-80SS01)		
Status Indication	LED	5 modes	PLAY MODE, FIPS, LINK, MARRIAGE,	
Terminals	Gigabit Ethernet	RJ-45	DCP data	Front Panel
		PCI-Express	Control, SMS	via projector Ethernet connector
	Digital Audio Out	D-sub 25	AES-3, Balanced Digital 16 channels	Original Pin assignments
Environmental	Ambient Temp.	Operational	5 - 35[°C]	
		Storage	-10 - 50[°C]	
	Humidity	Operational	10 - 90[%], without moisture dew and Oil mist	
		Storage	10 - 90[%], without moisture dew and Oil mist	
Reliability	MTBF		more than 10,000 [H]	
Safety regulations	Country	Safety	EMC	
	USA	UL60950	FCC Class A	
	Canada	CSA60950	ICES-003 Class A	
	Europe	EN60950	EN55022 1998 Class A, EN55024-1998, EN61000-3-11, EN61000-3-12	
	Oceania	EN60950	AS/NZS3548 Class A 1995. + A1/2:1997	
	Japan	J60950	VCCI Class A	
	Asia	EN60950	CISPR Pub22	
	S. Korea		K00022 Class A, K00024, K61000-3-11	

Local Strage Server NC-80SS01

Capacity 1.5 TB net
Hot swappable redundant power supplies
Interfaces: ESata,USB, RJ-45, RS232; GigaBit Ethernet

Item	Content			Remarks
CPU	Intel Core2Duo		1	
Memory	DDR2 ECC	DIMM 1GB	1	
Storage	HDD	SATA750GB	3	For Data, RAID5 (Software), Hot-Swappable
Terminal	Gigabit Ethernet	RJ-45	1	For DCP data
		RJ-45	1	For Control and SMS
		RJ-45	1	For Automation
	USB2.0	Type-A	8	
	RS-232C	D-sub9	2	For UPS
Power Supply	Hot-Swappable Redundant Power		2	AC100-240V ±10%, 50 /60Hz, 200VA
External dimensions	W x D x H			19.0×21.6×3.4in / 483×550×86.7mm (2U rack mount)
Weight				43.8lbs/19.8kg
Environmental	Ambient Temp.	Operational		5 - 35[°C]
		Storage		-10 - 50[°C]
	Humidity	Operational		10 - 85[%], without moisture dew and Oil mist
		Storage		10 - 85[%], without moisture dew and Oil mist
Reliability	MTBF			more than 10,000[H]
Operating System	Linux			Cent OS
Maintenance Parts	Air Filter	Life 1 year		Cleaning : Every month, Exchange : Every year
	HDD	Life 30,000 [H] (TBD)		
Safety regulations	Country	Safety		EMC
	USA	UL60950-1(2nd)		FCC part 15 Class A
	Canada	CSA60950-1(2nd)		ICES-003 Class A
	Europe	EN60950-1(2nd)		EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3
	Oceania			AS/NZS Cispr.22 Class A
	Japan	J60950		VCCI Class A, JIS C 61000-3-2
	Asia	IEC60950-1(2nd)		
	China	GB4943		GB9254, GB17625.1

System with legacy server

Digital Cinema Projector

Legacy server

Projector functions
- ● Projection control
- ● Communicate with Show Screen Server
- ● Security

Media Block functions
- ● Content management
- ● Communicate w/Projectors
- ● Security
- ● Screen management

HDSDI (DualLink)

LAN(100M)

Storage

System with IMB

NEC IMB+NEC Digital Cinema Projector

NEC Local Storage Server

Media Block functions + Projector functions
- ● Contents management
- ● Security
- ● Screen management

LAN(Gigabit)

Storage
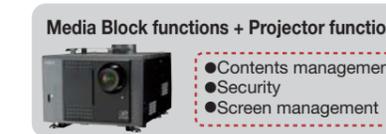
Higher security with no interference problems!

Interface & Option

MM3000B
Alternative Content Processor

Ease of use, Easy Access
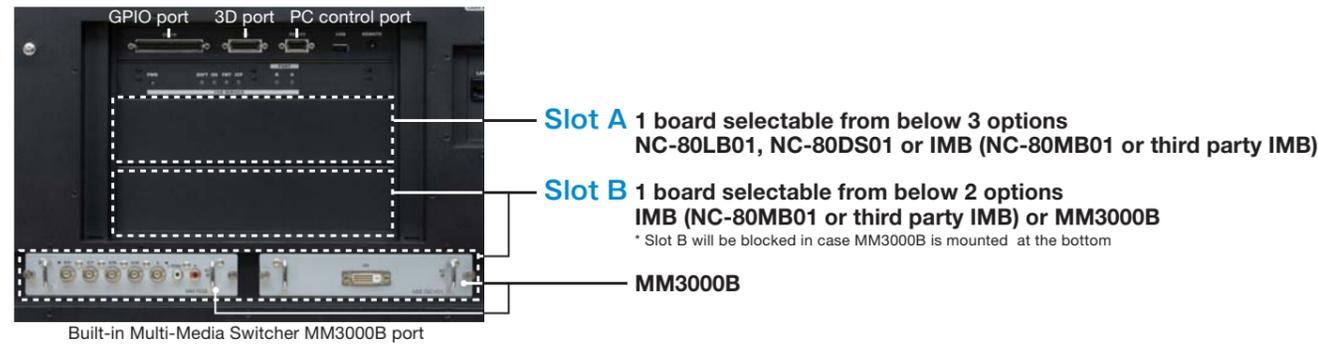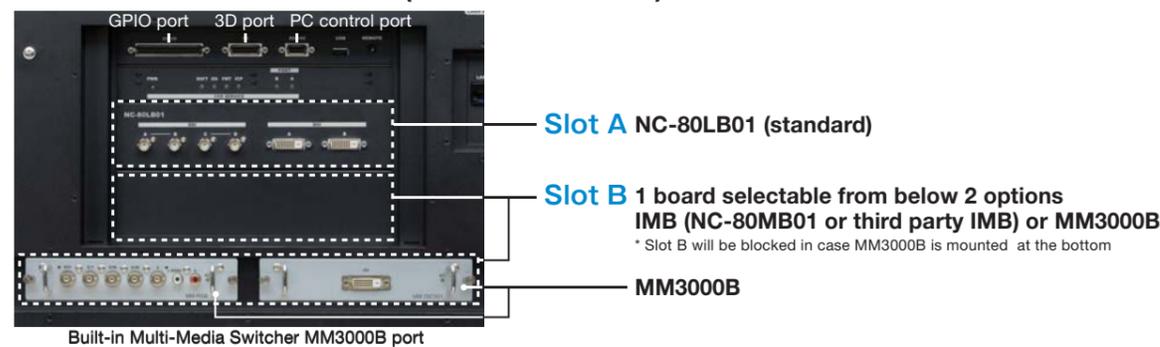

Equipped with expansion slots to support a multitude of diverse input formats.

● Easy access to all important electronic boards from one side
● Just one side panel to remove

NC1200C-A/NC2000C-A/NC3200S-A/NC3240S-A (NC-80LB01 not built in)

GPIO port　3D port　PC control port

Slot A 1 board selectable from below 3 options
NC-80LB01, NC-80DS01 or IMB (NC-80MB01 or third party IMB)

Slot B 1 board selectable from below 2 options
IMB (NC-80MB01 or third party IMB) or MM3000B
* Slot B will be blocked in case MM3000B is mounted at the bottom

MM3000B

Built-in Multi-Media Switcher MM3000B port

NC1200C/NC2000C/NC3200S (NC-80LB01 built in)

GPIO port　3D port　PC control port

Slot A NC-80LB01 (standard)

Slot B 1 board selectable from below 2 options
IMB (NC-80MB01 or third party IMB) or MM3000B
* Slot B will be blocked in case MM3000B is mounted at the bottom

MM3000B

Built-in Multi-Media Switcher MM3000B port

Product configuration table(projector/signal input board/switcher)

2 slots system for 4 different boards		NC-80MB01	NC-80LB01	NC-80DS01	MM3000B
		NEC IMB (Or 3rd party vendors' IMB)	Signal Input board -Enigma(for legacy server) -Input terminals Dual HDSDI x 2	Signal Input board w/o Enigma -Input terminals Dual HDSDI x 2 DVI(DHCP) x 2	Scaler/Switcher -Input terminals RGB analogue x 1 (standard) DVI(HDCP) x 1 (standard) Video x 1, HDSDI x 1 (option)
NC1200C/NC2000C/NC3200S (NC-80LB01 built in)		option	standard	—	option
	Use with 2K legacy server	—	◎	—	○
	Use with IMB	◎	◎	—	—
NC1200C-A/NC2000C-A/NC3200S-A/NC3240S-A (NC-80LB01 not built in)		option	option	option	option
	Use with 2K legacy server	—	◎	—	○
	Use with IMB	◎	—		selectable among 2 options

◎:Required　○:Option for showing alternative content　Availability of NC1200C-A/NC2000C-A/NC3200S-A is negotiable

■Optional (NC3240S/NC3200S)

●Built-in Multi-Media Switcher MM3000B

●Dedicated stand　▶ See page 11 for more details.
●Filter set for lamp (NC-80AF01)*¹ 6 x square filters.
　3 x filters are rquired for one replacement.
●Filter set for circuit (NC-80AF02)*¹ 4 x rectangular filters.
　4 x filters are required for one replacement.

*¹ Please replace the air filters every 6 months.
* Optional products and accessories are subject to change without prior notice.
　Contact your local dealer for more details.
* Please use NEC certified digital xenon lamps listed on the below URL
　http://www.nec-display.com/ap/en_projector/dlpcinema/lamp/certified-lp.html

■Optional (NC2000C/NC1200C)

●Built-in Multi-Media Switcher MM3000B

●Dedicated stand　▶ See page 11 for more details.
●Filter set for lamp (NC-80AF01)*¹ 6 x square filters.
　2 x filters are ruired for one replacement.
●Filter set for circuit (NC-80AF02)*¹ 4 x rectangular filters.
　4 x filters are required for one replacement.

*¹ Please replace the air filters every 6 months.
* Optional products and accessories are subject to change without prior notice.
　Contact your local dealer for more details.
* Please use NEC certified digital xenon lamps listed on the below URL
　http://www.nec-display.com/ap/en_projector/dlpcinema/lamp/certified-lp.html

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■Primary lens (NC3240S)

Model of lens	Projection magnification
L2K-12ZM	1.13 ←→ 1.31
NC-50LS12Z	1.13 ←→ 1.66 (Available in summer 2011)
NC-50LS14Z	1.30 ←→ 1.85
NC-50LS16Z	1.44 ←→ 2.16
NC-50LS18Z	1.63 ←→ 2.71
NC-50LS21Z	1.95 ←→ 3.26
L2K-30ZM	2.71 ←→ 3.89

■Primary lens (NC3200S)

Model of lens	Projection magnification
L2K-12ZM	1.25 ←→ 1.45
NC-50LS12Z	1.25 ←→ 1.83 (Available in summer 2011)
NC-50LS14Z	1.44 ←→ 2.05
NC-50LS16Z	1.60 ←→ 2.40
NC-50LS18Z	1.80 ←→ 3.00
NC-50LS21Z	2.15 ←→ 3.6
L2K-30ZM	3.00 ←→ 4.30

■Primary lens (NC2000C/NC1200C)

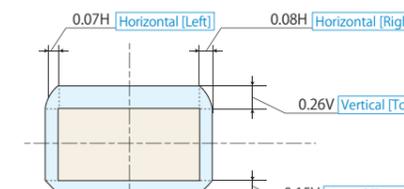| Model of lens	Projection magnification
NC-60LS12Z	1.2 ←→ 1.8
NC-60LS14Z	1.4 ←→ 2.05
NC-60LS16Z	1.59 ←→ 2.53
NC-60LS19Z	1.9 ←→ 3.25
NC-60LS24Z	2.4 ←→ 3.9
NC-60LS39Z	3.9 ←→ 6.52

■Wide Converter Lens (x 1.26)
NC-80LS13F Use of the Wide Converter Lens requires the NC-AT02(installation stand)
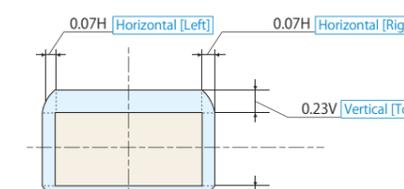
■Lens shift range (NC3240S)

0.02H Horizontal [Left]　0.02H Horizontal [Right]
0.06V Vertical [Top]
0.06V Vertical [Bottom]

■Lens shift range (NC3200S)

0.07H Horizontal [Left]　0.08H Horizontal [Right]
0.26V Vertical [Top]
0.15V Vertical [Bottom]
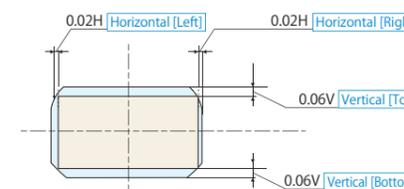
■Lens shift range (NC2000C/NC1200C)

0.07H Horizontal [Left]　0.07H Horizontal [Right]
0.23V Vertical [Top]
0.23V Vertical [Bottom]

The lens shift range differs according to the model of the lens.

Ideal as a built-in enhancement of NEC digital cinema projectors, the MM3000B converts video signals from various external sources—such as PCs, analog/digital tape decks and satellite receivers—to allow DLP Cinema® projectors to screen everything from live concerts and sporting events to computer presentations.

The built-in MM3000B is available for all models of the NEC Digital Cinema Projector Series—the NC3240S, NC3200S, NC2000C and NC1200C.

HIGH-QUALITY VIDEO
● Integrated Realta® video processor with Hollywood Quality Video (HQV®) technology
● 3-D motion adaptive de-interlacing with multi-directional diagonal filter for standard-definition (SD) and high-definition (HD)
● Multi-cadence detection including automatic detection of 3:2 / 2:2 pull-down signals and many other film formats
● Per-pixel motion adaptive noise reduction for SD
● Per-pixel detail enhancement brings out more visible details
● Full 10-bit image processing for SD, HD and video sources
● High contrast images with NEC's unique contrast enhancement technology for SD
● Integrated Device Technology HQV®
It is a high-performance video processing/scaling system designed for computer signals as well as standard or high-definition video. The technology produces superior video processing using pixel-based, motion-adaptive de-interlacing to remove undesirable motion artifacts typical of interlaced signals. This processing creates life-like images in applications such as video conferencing.

EASY TO OPERATE
● One-touch selection of input signals from NEC Digital Cinema Projector Series models
● Quick and flexible connection of input signals from two input modules

STANDARD INPUT BOARDS
● HDCP-compliant DVI input board (MM-70DV01)　● Analog/RGB input board (MM-RGB-E)

OPTIONAL INPUT BOARDS
● Single HD-SDI input board (MM-SDI-E)　● Video input board (MM-Video-E)

Specifications

Input signal		Color Bit Depth	10 bits for all processes for each color (excluding optional RGB and DVI input board)
		I/P conversion	Multi-directional filtering method (SDTV, HDTV)
			3:2, 2:2 pull down signal, animation format compatible type
		Noise reduction	Per-pixel motion adaptive method (SDTV)
		Enhancer	Multi-directional filtering method
			Contrast enhancement (function expansion)
		Image latency	Interlace: 8 to 9 fields
			Progressive: 4 frames
Input slot			2 slots (MM-RGB-E and MM-70DV01 as standard)
Input signal	MM-RGB-E (standard)	RGBHV	R, G, B: 75Ω 0.7Vp-p
			Y:75Ω 1.0Vp-p (with Sync)
			Cb, Cr: 75Ω±0.35Vp-p
			H/V: 1KΩ/TTL 75Ω/0.7-2.0Vp-p Selection system - positive or negative polarity
			C S: 1KΩ/TTL 75Ω/0.7-2.0Vp-p Selection system - positive or negative polarity
			Sync on Green: 75Ω 1.0Vp-p75Ω 1.0Vp-p
		Frequency	Maximum sampling frequency: 165 MHz
			Horizontal scanning frequency: 31 to 105 kHz
			Vertical scanning frequency: 24 to 96 Hz
	MM-70DV01 (standard)	DVI-D	Maximum pixel clock frequency: 165 MHz, HDCP supported
	MM-SDI-E (optional)	Signal format	SDTV:SMPTE 259M Level-C
			HDTV:SMPTE 292M
	MM-VIDEO-E (optional)	Composite video	BNC x 1, 75 Ω, 1.0 Vp-p
		S-video	BNC x 2, 75 Ω, Y: 1.0 Vp-p C: 0.28 to 0.3 Vp-p
		Component video	BNC x 3, 75 Ω, Y: 1.0 Vp-p Cb, Cr: ±0.35 Vp-p
		Horizontal resolution	NTSC, PAL 500TV: SECAM 300TV
Input Output Ports	MM-RGB-E (standard)	Analogue RGB	Image input	BNC x 5 (component input port and sharing)
		Audio	Audio input	RCA (L/MONO, R) x1 (disabled on this unit)
	MM-70DV01 (standard)	DVI-D	Image input	DVI-D×1
	MM-SDI-E (optional)	SDI	Image input	BNC x 2 HD-SDI/HD-SDI signal
		MONITOR OUT	Image output	BNC x 1 for monitoring
	MM-VIDEO-E (optional)	Video	Image input	BNC x 1 (composite signal)
				BNC x 2 (s-video signal)
				BNC x 3 (SDTV component signal)
Image output		Resolution	2048×1080p
		Output system	10 bits of RGB LVDS method (connect to projector)
LAN port			RJ-45 x 1 (connect to projector)
External dimensions (W x D x H)			17.7 x 13.4 x 3.9in./450 x 340 x 100mm (excluding protruding sections)
Weight			9.7lbs/4.4kg
Operating environment		Operating temperature and humidity	Temperature: 5°C to 35°C Humidity: 10 to 85% (non condensing)
		Storage temperature and humidity	Temperature: -10°C to 50°C Humidity: 10 to 85% (non condensing)
Supplied items			Ferrite clamp core x 4 (2 for RGB cable, 2 for DVI cable)
			Band x 4, User's manual