

M Series

M282X, M322X, M322W and M402X digital projectors

Easy to use and at the right price, M Series projectors using the latest DLP® technology from Texas Instruments provide all the essential features that you need to connect with your audience.



Essential Features for Educational Facilities

- Plug and Play intuitive setup and operation
- Bright images easily viewed in any application
- Versatile, color-coded connections to computer, video sources and external monitor
- Automatic keystone correction technology instantly projects a square image even when the projector is set up at a steep offset angle to the screen
- AutoSense™ intuitively syncs the projector with most computer signals and features one-touch image optimization
- One-touch source changes and complete menu control using the intuitive projector keypad
- Powerful 20-watt speaker provides volume needed for large rooms
- High contrast images (10,000:1) from the latest Texas Instruments DLP engine featuring BrilliantColor™ technology with improved color accuracy
- With XGA and WXGA native resolutions, high brightness up to 4000 lumens and patented NEC technologies, M Series projectors display impressive image quality

Designed with the Environment in Mind

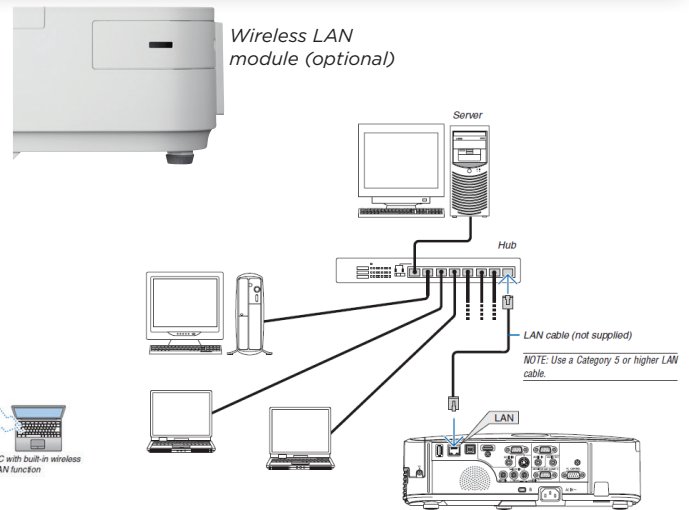
- Extended lamp life with ECO Mode™ technology increases lamp life up to 10,000 hours, while lowering power consumption
- Power management enables projector to automatically turn off when an incoming signal is not detected from any of the inputs
- Auto Power On via the RGB (15-pin) input connector when a signal is detected from a computer
- Carbon savings meter calculates the positive effects of operating the projector in ECO Mode, which is encouraged by an optional message at startup. A green ECO Mode button on the remote control makes the switch easy.
- Quick start (3 to 4 seconds) lets you begin presenting in seconds
- Sleep timer can be set to automatically turn off the projector at set countdown times
- Low power consumption (0.2W in stand-by mode) minimizes energy costs

Advanced Networking Capabilities

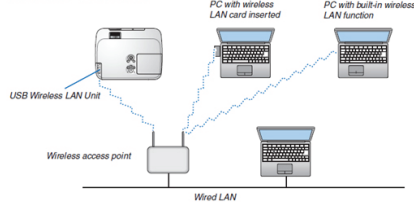
- Integrated RJ45 connection for quick connection to the LAN (10/100 base-T capability)
- Remote diagnostics enable the user to monitor and make adjustments to the projector remotely
- PC CTL 4.0 controls the power switching input selection and other functions while managing lamp usage and a variety of other vital information over the network. Email notification and projector scheduling for better asset management is included with the software.
- PC CTL 5.0 for MAC users
- Control and receive important broadcast messages via Crestron Roomview™
- Wireless Image Utility (WIU) sends images directly from an iPad to the projector (requires wireless LAN module NPO2LM1)
- Simple Access Point Sending photos and documents have never been easier from a computer or iPad.

Image Express Lite

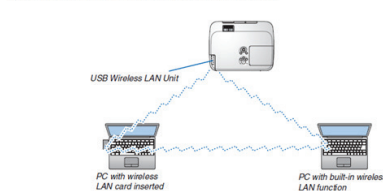
Dedicated projector software provides wired and wireless data and audio transmission via peer-to-peer or over the network.



Example of wireless LAN connection (Network Type → Infrastructure)



Example of wireless LAN connection (Network Type → Ad Hoc)



Advanced ECO Mode

ECO Mode

Lamp control selections with the ability to change power dependent on the ambient lighting conditions. With a built-in ambient light sensor, automatic adjustment of the projectors lamp provides unprecedented brightness control resulting in bright images for most environments.

Automatically dim the image with the new Auto-dim feature to control the brightness of static images and extend lamp life.

Constant brightness control prevents the usual drop in brightness over time while maximizing lamp life.

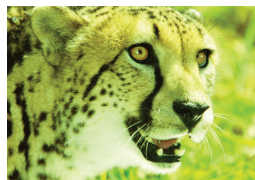
Built-in wall color correction presets

These provide for adaptive color tone correction to display properly on non-white surfaces.

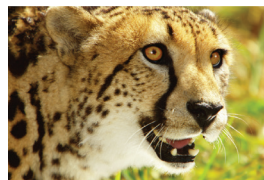
On a green wall...



BEFORE auto wall correction



AFTER auto wall correction

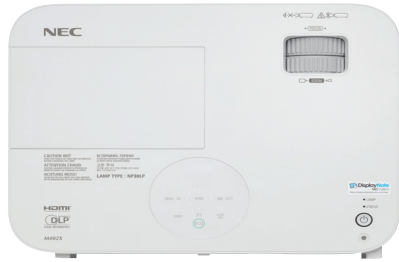


When combined with active shutter glasses (NP02GL), 3D Ready M Series Projectors use DLP Link™ technology, developed by Texas Instruments, to create 3D images from a computer. The M282X/M322X/M322W/M402X are certified as a display device for NVIDIA® 3D Vision™, which allows you to view 3D images using supported graphics boards or software. HDMI 3D images can be viewed using a 3rd party 3D glass from XPAND or Volfoni.



Top cover lamp change

This feature provides for easy lamp changes without removal of the projector from the mount.



Active lens cover

This cover enables presenters to immediately mute the audio and video, then seconds later lower the lamp brightness to 25% for a short period of time.



Get Connected with a Wide Selection of Inputs

- Dual HDMI inputs ensure quick switching between presentations
- Four audio inputs (two mini stereo, R/L and HDMI™) make it easy to add sound to enhance your presentations

Remote control

Easy control from remote allows you to adjust lamp mode, aspect ratio, volume and image all with the touch of a button.



Dual HDMI inputs

Among the M Series' wide selection of inputs is an HDMI w/HDCP for connecting to high-definition sources such as Blu-ray players, cable boxes, satellite receivers and personal computers.



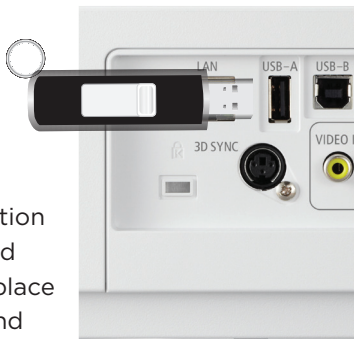
Variable audio-out

This input enables the remote control to be used to adjust volume of self-powered external speakers that are connected to the projector. In stand-by mode the audio-out stays active, allowing the last input used to pass to the self-powered external speakers.



USB Viewer

In instances when you'd prefer to leave your laptop behind for a presentation, M Series projectors can deliver a solution. Using the presentation conversion software included with your projector, simply place your file onto a USB drive and plug it into the projector's USB port. This allows you to display images stored as .jpgs from optional USB memory.



USB input

Your connection options go even further with the M Series. Connect your laptop or PC directly to the projector using the USB port and a standard USB cable.



UNIQUE FEATURES

BrilliantColor advanced video processing from Texas Instruments delivers more vibrant and realistic colors and blacks rich in detail.

DICOM Simulation enables users in medical training environments to display accurate diagnostic images

Advanced AccuBlend™ ensures detailed images when non-native resolution sources are connected to the projector

Filter Free with shielded engine eliminates the hassle and time spent monitoring and / or changing filters.

Built-in closed captioning enables decoding and display of text information from a video

64-step image magnification with location control

Countdown sleep timer can be set to automatically turn off the projector

WARRANTY

Registered owners receive a 2-year parts and labor warranty including InstaCare. The lamp is covered for one year or 500 hours, whichever comes first. InstaCare provides the original owner one year of either limited 3 business day repair/return or next business day exchange.

SHIPS WITH

Carrying case, remote control, batteries, power cord, RGB signal cable, built-in lens cover, user's manual on CD-ROM, quick start guide, product registration card and DisplayNote Presenter License

ORDERING MODEL NUMBERS

NP-M282X
NP-M322X
NP-M322W
NP-M402X



Additional accessories are available, including screens, carts, mount accessories and replacement cables. Visit www.necdisplay.com for details.

Specifications for M282X/M322X/M322W/M402X

OPTICAL

Display Technology

Light Output (lumens)

Resolution
Native

Maximum
Contrast Ratio (up to)
Lamp Type

Lamp Life (up to)

Screen Size (diagonal)
Throw Ratio
Projection Distance

Projection Angle

Lens*

Zoom
Focus
F-#, f-#
Keystone Correction

M282X/M322X/M402X: 0.55" DLP by Texas Instruments w/ BrilliantColor
M322W: 0.65" DLP by Texas Instruments w/ BrilliantColor
M282X: 2800
M322X/M322W: 3200
M402X: 4000

M282X/M322X/M402X: XGA 1024 x 768
M322W: WXGA 1280 x 800
WUXGA 1920 x 1200

Up to 10,000:1
M282X: 200 AC
M322X/M322W: 225W AC
M402X: 270W AC

M282X: 4500 hours / 10,000 hours eco
M322X/M322W/M402X: 3500 hours / 8000 hours eco

30 - 300 in., 0.76 - 7.6m
M282X/M322X/M402X: 1.5 - 2.5:1 M322W: 1.2 - 2.0:1
M282X/M322X/M402X: 3.0 - 52.4 ft. / 0.9 - 15.97m
M322W: 2.5 - 44.4 ft. / 0.76 - 13.53m
10.5° - 17.6°

1.7

Manual

F=2.4 - 3.1, f=17.09 - 29.05mm

Horizontal & Vertical (Automatic/Manual) adjustment

SIGNAL COMPATIBILITY/ CONNECTIVITY

Scan Rate

Horizontal
Vertical

Supported Video Standards
SD/HD Video Signal Compatibility

PC Signal Compatibility
Macintosh Compatibility
Input/Output Terminals

RGB1 (analog)
RGB2 (digital)
RGB3 (digital)
RGB4 (digital)

Video 1
Video 2
Audio 1
Audio 2
Audio 3
Audio Out
Monitor Out

Audio
External Control
Sync Compatibility

15 - 100 kHz

50 - 120 Hz

NTSC, NTSC4.43, PAL, PAL-60, PAL-M, PAL-N, SECAM
1080i, 1080p, 720p, 576p, 576i, 480p, 480i, Y/Cb/Cr component (with optional adapter - ADP-CV1E)

VGA, SVGA, XGA, SXGA, SXGA+, UXGA, WUXGA

Yes

VGA 15-pin D-sub

HDMI w/ HDCP

HDMI w/ HDCP

USB A Type

RCA

S-Video

L/R RCA (shared by video sources)

1/8 in. stereo

Microphone in

mini stereo (variable audio out)

Yes

20W speaker

RS-232, IR, LAN, DDC/CI, USB, Wireless LAN (optional)

Separate Sync / Composite Sync / Sync on G

ELECTRICAL

Power Requirements

Input Current

Power Consumption (ECO Off/ECO Mode/
Standby/Standby-Power Saving)

100 - 240V AC, 50/60Hz

M282X: 3.0A / 1.5A

M322X/M322W: 3.3A / 1.8A

M402X: 3.9A / 1.9A

M282X: 257W / 187W / 2.5W / 0.2W

M322X/M322W: 282W / 202W / 2.5W / 0.2W

M402X: 335W / 246W / 2.5W / 0.2W

MECHANICAL

Installation Orientation

Dimensions (WxDxH)

Net Weight

Fan Noise

Regulations

Floor/Front, Floor/Rear, Ceiling/Front, Ceiling/Rear

13.4 x 10.1 x 3.5 in. / 340 x 280 x 90mm

M282X/M322X/M322W: 7.7 lbs. / 3.49 kg

M402X: 8.0 lbs. / 3.6 kg

M282X: 38 dB / 29 dB eco

M322X/M322W: 38 dB / 30 dB eco

M402X: 39 dB / 33 dB eco

UL60950-1, CSA60950-1, FCC Part 15 Class B, ICES-03 Class B

ENVIRONMENTAL

Operating Temperature

Humidity

Storage

41° - 104°F / 5° - 40°C

20-80% non-condensing

-14° - 122°F / -10° - 50°C

ACCESSORIES

NP01MR

NP02LM1

SPKR30

ADP-CV1E

MP300CM

NP01UCM

NP02GL

AECO06009

AEC012018

AEC0203

AEC0305

SCP200

NP27LP

NP28LP

NP30LP

RMT-PJ36

NECEW1-MP

NECEW2-MP

ADVEXON1-MP

ADVEXON2-MP

NECECO

PWRCRD-PJPX

RGBCBL-PJPX

IR receiver enables PJ remote to control PC and MAC functions

802.11b/g/n wireless LAN adapter

Amplified 30-watt speaker

Component video to VGA adapter

Ceiling mount

Universal ceiling mount for projectors weighing less than 40 pounds

Active shutter 3D glasses (PC only)

6 to 9 inch adjustable extension column for use with projector mount

12 to 18 inch adjustable extension column for use with projector mount

2 to 3 foot adjustable extension column for use with projector mount

3 to 5 foot adjustable extension column for use with projector mount

Adjustable suspended ceiling plate for use with ceiling mount

Replaceable lamp for M282X

Replacement lamp for M322X and M322W

Replacement lamp for M402X

Replacement remote control

Extends term of parts and labor warranty to 3 years

Extends term of parts and labor warranty to 4 years

Extends term of InstaCare service program to 2 years

Extends term of InstaCare service program to 3 years

Projector recycling program, disposal certificate

Power cable

RGB cable

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