

# NEC NP-MC382W Projector Review

Review by Brian Nadel | Mar 20, 2020 | ProjectorCentral.com

## NEC MC382W WXGA 3LCD Projector

### Our Take

Inexpensive, but chock full of innovations, advances and creature comforts, the NEC Display NP-MC382W shows what can result from taking a conventional classroom projector design to its logical conclusion. At \$560, it is a bargain basement projector that punches above its weight class.

### Pros

- + Inexpensive
- + Very bright
- + Long-life lamp
- + Includes vertical and horizontal keystone correction
- + Can wirelessly mirror classroom screens

### Cons

- Wide XGA resolution

- Back feet are not adjustable
- No educational tools or content

Instead of cutting corners to reduce its price to the bare minimum, NEC Display has started up the [NP-MC382W](#) projector with lots of features and abilities. Despite not directly including any educational tools or content, the projector should easily fit into the educational landscape. It may lack a fancy built-in Android computer or a laser illumination engine, but the MC382W adds its share of technological goodies to a basic, high-value projector design, like the ability to display images from a USB flash drive, wirelessly share the screen with students, and software that monitors the school's projectors.



At heart, the \$560 NP-MC382W is thoroughly conventional projector, but with a big twist for schools on a tight budget. Its 3,800 ANSI lumens can not only light up a classroom screen easily but falls between the outputs of the cheaper \$500 [Viewsonic PA503W](#) and the more expensive \$700 [BenQ MW526](#). It exceeds both with more abilities and superior brightness.

## Features

Under its black and white skin, the MC382W is a traditional classroom projector that pushes current technology to the limit. Based on a 0.64-inch LCD imaging target, the projector puts out a Wide-XGA image of 1280 x 800 resolution—low compared with today's ever-more-common high definition performance, but acceptable for most of the classroom applications it's intended for. As a bonus, it can accept modern HD and UHD content up to 3840 x 2160 at 30 Hz.

The MC382W is one of the brightest projectors in its class with an unusually powerful 3,800 lumens spec. NEC rates it with a 16,000:1 contrast ratio. This is more than enough for a lights-on, shades-up lesson on even the brightest day. Behind the scenes, the MC382W has a traditional mercury-vapor lamp rather than high-output diode lasers. But it's a long-life light source rated at 10,000 hours in normal mode, and as much as 15,000 hours in power-saving ECO mode. A \$110 single replacement lamp (which includes a replacement air filter) might last as long as six years of typical school use. If this longevity proves to be the case, it is a reasonable expectation that the projector might need one lamp replacement in its expected 10- to 12-year lifespan.

With the ability to project a 2.5- to 25-foot diagonal image from 2.9- to 36-feet away, the MC382W can cover the gamut from a small classroom to a mid-sized lecture hall or small auditorium. As is the case with others in its class, the projector's lens can't be changed or focused remotely. The manual focus and zoom controls around the lens barrel felt stiff on my sample but this shouldn't be a major problem if it is permanently installed (and it may loosen up a bit with repeated temporary installations).

NEC engineers optimized the 1.2X lens design for the MC382W. The focus was sharp across the screen and it suffered a very low 3.5 percent light loss from fully zoomed-out to zoomed-in. Other members of the projector's family, like the ME372W, offer up to a 1.7X zoom, though at \$700 it has a slightly lower brightness. You can see if the MC382W fits into your classrooms by using our [ProjectorCentral NEC-MC382W Throw Calculator](#).

Like other budget-oriented projectors, the MC382W has vertical keystone correction that can render a rectangular image even if the projector is tilted by as much as 30-degrees. But it adds the luxury of horizontal keystone correction so that it doesn't have to be set up at the center of the screen. Perfect for rooms with challenging geometries or obstructions, it can fix an image that is up to 20-degrees off-center, though it lacks the ability to lens-shift the image horizontally or vertically.

The MC382W has a good mix of connections, with a pair of HDMI's (version 1.4b), a composite video input, and video-in and -out VGA ports. This gives the teacher a wide range of sources to choose from, including computers, DVD players, or streaming video adapters. There's also a USB Type B plug for connecting a computer so that the teacher can control the pointer from the remote control and a Type A USB port for plugging in a flash drive with media. It's a powered port rated for up to 1 amp of current at 5 volts, enough to power NEC's NP05LM1 Wi-Fi adapter dongle (about \$70 from most e-tailers).

By using the MC382W's gigabit-per-second Ethernet port or the RS-232 serial connection, the projector can be controlled within the classroom or across the campus. It can use Crestron's RoomView software.

The projector has also got audio covered, with 3.5-mm jacks for input and output as well as a pair of RCA inputs for use with the composite video connection. The projector lacks Bluetooth for wirelessly connecting to external speakers (you wouldn't expect it at this price), although its 16-watt mono speaker in the back just might be enough for up to a mid-sized classroom. Based on auditions, it should be fine for lessons that emphasize spoken word programming over music.

The MC382W's control panel is simple and straight-forward with an on/off button, Input selection, Menu, Image Adjustment and Exit. There's a four-way control at the center for navigating the system's logically designed Menu structure. The mid-sized remote control adds lots of useful extras, including individual source keys, Digital zoom and Keystone correction. It has a volume control and the choice of AV Mute and Freeze frame.



If you like, the MC382W can be turned on or off from a switched outlet with a standard light switch or be set to Auto Power On when a signal appears on the input cable. Both of these features can make the transition from teacher to teacher much easier in a busy school.

Unlike some of its peers, like Epson, NEC doesn't provide any educational tools or content with its projectors. There's no selectable graph paper background, curriculum, or laser pointer on the remote control. NEC does provide its NaViSet Administrator 2 software that works with PCs and Macs to keep any eye on a school's worth of projectors. You might need to use static IP addressing, but once connected, the interface shows all the projectors on the network and allows an administrator to power any off.

Using NEC's Star Student program, the projector is not only offered with a school discount but its warranty is extended to five years (from three years). Happily, this includes next day delivery of a replacement projector should it be required. This alone is worth around \$100.

## Setup

While the size and weight of the MC382W straddles the border between mobile and installation projectors, the 7.1-pound device will likely end up being permanently installed in a classroom, lecture hall or auditorium. At 4.1 x 13.6 x 10.3 inches, the MC382W is larger and heavier than either the BenQ MW526 or the Viewsonic PA503W, making it potentially harder to install. It compensates for this by putting out more light to teach by.

The MC382W should work well set up on a tabletop or shelf, or mounted on the ceiling with a generic bracket, but it requires at least four inches of clearance for cooling air. Because it uses a traditional lamp, it can't be used on its side or aimed straight down the way a laser projector can, but it only takes a minute to replace the lamp, even if the projector is mounted upside-down on the ceiling.

Underneath, the MC382W has four threaded screw holes. While there's an adjustable front leg for tabletop use, its rear feet are not adjustable. That's a bit unusual, or at least, potentially inconvenient if the projector is placed on a less than perfectly level surface—have a bunch of playing cards at hand for propping a leg up. It has a grid test pattern that can help aiming and tweaking the image's geometry.

The projector's automatic vertical keystone correction worked like a charm, delivering a rectangular image. If the MC-382W is set to a 15-degree angle, the light level drops by 16 percent, about average for projectors in this class.

In addition to using a traditional video cable or putting images onto a USB flash drive, there's another projecting option. Over the course of a week of daily use, I connected to the MC382W using NEC's MultiPresenter app on my Samsung Galaxy S9+ phone. There are apps for PCs, Macs, [iOS iPhones and iPads](#) as well as [Android phones and tablets](#), and they work just as well using a Wi-Fi or a wired LAN connection.

Once you have the app loaded, all you do is set the source of the projector to LAN and either snap the projected QR code or enter the PIN code on screen. I projected documents, spreadsheets, videos, images and websites, but it can also display/mirror up to 16 classroom systems at once or tap into a phone or tablet's camera to show a live view of the classroom or lab. It worked well, though the wireless link suffered a slight but annoying delay.

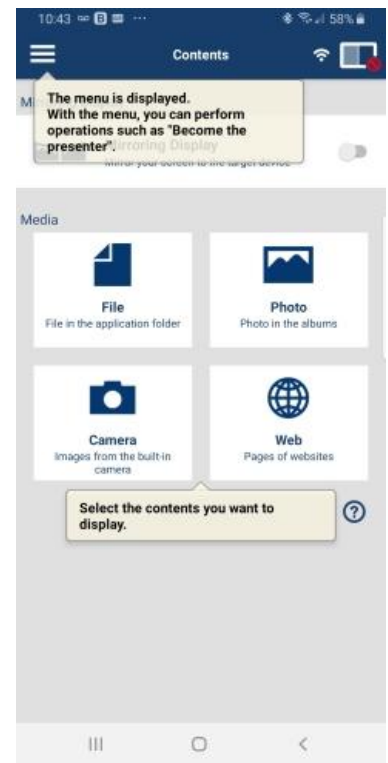
## Performance

The NEC NP-MC382W includes six Picture modes that cover the basic needs of most classrooms today: HIGH-BRIGHT, Presentation, Movie, Video, Graphic, sRGB and Dicom Sim. There are several controls that can help tweak the image, including the usual Contrast, Brightness and Sharpness. Dig a little deeper and you can adjust the color temperature and saturation, but the MC382W lacks some of the basics that some other budget projectors offer, like the ability to adjust the picture's individual red, blue and green components.

In HIGH-BRIGHT mode, our projector sample put out 3,750 ANSI lumens. That's about one percent below its specified 3,800 lumens, though well within the ANSI spec, and it remains one of the brightest classroom projectors on the market. On the downside, the HIGH BRIGHT images have a ghoulish greenish yellow cast to them, as is found with the brightest picture mode on many projectors. Still, it should be acceptable for projecting documents where brightness counts for everything.

The Presentation mode drops the projector's output to 2,822 lumens and generally warms up the images quite a bit. It might be best used for a PowerPoint-based lesson that uses some realistic pictures, while Graphic mode, at 2,048 lumens, might be better for material dominated by bar graphs or text. The MC382W's Movie and Video modes appear nearly identical with the ability to deliver 2,113 and 2,056 lumens with warmer image presentation. Of the modes, sRGB presents the best color balance, but at 2,096 lumens it is far off the projector's full capabilities; it may work well enough in a darkened room where color accuracy takes precedence. Medical and nursing programs will like the ability to use the MC382W's Dicom Sim setting, though at 2,008 measured lumens, it was the mode with the least bright output.

There is also a setting to customize the projected image to work with a painted wall. In addition to the expected choices of a white-, black- or gray-board, the projector can accommodate anything from light yellow, light green, light blue, light rose to sky blue or pink.



It didn't matter which picture mode was used, the MC382W's power consumption was constant at 275 watts and 0.1-watt at idle. Factoring in the projector's lamp and air filter, which are sold together for \$110, at full power, the projector will have estimated annual operating expenses of \$88 if it's used for 8 hours every school day and the school pays the national average of 12 cents per kilowatt hour of electricity. That's quite frugal compared to the recently reviewed [BenQ EH600](#)'s \$132 a year.

The only way to reduce the projector's thirst for electricity is to use either the Normal ECO or ECO mode. Both reduce power consumption to 220 watts and brightness to 2,200 ANSI lumens in the HIGH-BRIGHT mode. NEC claims that using either mode can extend the lamp's rated life by 50 percent to 15,000 hours, not far off the 20,000-hour longevity that most solid-state projectors offer.

While the projector's case never got more than warm, the MC382W's temperature topped out at 141 degrees Fahrenheit at the center of its exhaust fan. This is higher than we're used to seeing but is likely a necessary by-product of extraordinarily bright output for this size cabinet. Lowering the output in ECO mode, the exhaust temperature declined to a more sedate 108 degrees Fahrenheit.

The MC382W's fan was not loud enough to obstruct teaching, particularly if the projector is hung from the ceiling. While NEC specs the projector at 37 dB, we recorded 41.1 dBA in casual measurements taken 36-inches from the exhaust fan in a room with an ambient background noise level of 35.4dBA. In ECO mode, it was a quieter 40.5 dBA.

Not a fast starter, it took the projector 47.7 seconds to display an image and another two minutes to get to full brightness. It did shut itself off quickly, though, with it taking just 3.2 seconds for its fan to turn itself off. The projector can be set to automatically turn itself off after being idle for 30 minutes, 1, 2, 4, 8, 12 or 16 hours.

## Conclusion







If your school is looking for a classroom projector that pushes proven technology to the max, go with NEC's NP-MC382W. It combines extraordinarily bright images with a long-lasting lamp and luxuries like the ability to wirelessly mirror the classroom screens, correct for horizontal keystone distortion, and manage a fleet of projectors. At \$560, it may not be the cheapest Wide-XGA projector, but its operating expenses are among the lowest in the business and its long-life lamp might give solid-state projectors a run for the money. It lacks any dedicated educational tools or software, but it does feature some useful sharing apps, and the MC382W is one of the brightest projectors in its price class and can best light up a lesson with bright graphics.

## Measurements

**Brightness.** With the MC382W set HIGH-BRIGHT mode, it delivered a very bright image with a maximum output of 3,750 lumens of light, just shy of its 3,800 ANSI-lumen rating. As with many projectors in their brightest mode, though, the image had a ghostly yellowish-green cast to it. In Presentation mode, the output dropped to 2,822 lumens, while the warmer and more realistic Video mode delivered 2,056 lumens. The Movie and Graphic modes yielded a warmer image and 2,113 and 2,048 lumens, while the sRGB setting produced the best color balance and 2,096 lumens. Finally, the Dicom Sim setting put 2,008 lumens on-screen.

Using the projector's Normal ECO mode reduced the output by 35 percent to 2,200 lumens and lowered its power use from 275- to 220-watts. Oddly, using the plain ECO mode reduced power and brightness to the same levels. At full blast, the MC382W projector used a peak of 275 watts regardless of picture mode and it used 0.1-watt at idle. Its ECO

power setting reduced this by about 20 percent, although its brightness dropped by about 35 percent across the board.

## NEC NP-MC382W ANSI Lumens

MODE	NORMAL	ECO
HIGH-BRIGHT	3,750	2,440
Presentation	2,822	1,835
Video	2,056	1,351
Movie	2,113	1,380
Graphic	2,048	1,330
sRGB	2,096	1,359
Dicom Sim	2,008	1,305

**Zoom Lens Light Loss (from widest to maximum zoom):** Thanks to an efficient lens design, the MC382W suffered only a negligible 3.5% light loss going from its fully zoomed-out to fully zoomed-in positions.

**Fan Noise.** The MC382W has a moderately quiet fan that shouldn't disturb a classroom. It has a spec of 37dB, although we measured it as 41.1 dBA at 36-inches from the exhaust fan. The room we used had an ambient background noise level of 35.4 dBA.

## Connections



- HDMI Version 1.4b (x2)
- Composite Video (RCA jacks)
- Computer RGB in (15-pin D-Sub)
- Audio in (3.5 mm)
- Computer RGB out (15-pin D-Sub)
- Audio out (3.5mm)
- RS-232C Serial Port
- Audio out (right and left RCA jacks)
- USB Type A (5V, 1 amp max); used for Wi-Fi adapter
- Wired Ethernet (RJ-45)
- USB Type B

For more detailed specifications and connections, check out our [NEC MC382W](#) projector page.

To buy this projector, use [Where to Buy](#) online, or get a price quote by email direct from Projector Central authorized dealers using our [E-Z Quote](#) tool.