24/7 Professional LCD Monitor
Ready for Versatile Signage Applications
The reliable, standalone PN-M501/M401 is powered by a built-in SoC (System on a Chip) controller to deliver out-of-the-box digital signage solutions even without external devices such as PCs. The PN-M501/M401 is durable enough to display the content with continuous 24/7 operation as well as offering the flexibility in settings to support a wide range of signage requirements. This model offers versatile signage solution including built-in media player, HTML5 browser, and original content distribution software. SHARP e-Signage S software provides total support: content creation, scheduling, distribution, and management, with easy handling. The PN-M501/M401 offers solutions for a wide range of digital signage applications and usage styles.

### Out-of-the-Box Digital Signage Solution

#### Built-in SoC (System on a Chip)

The PN-M501/M401 has a powerful integrated SoC controller driven by the Arm® Cortex®-A17 quad core processor (max. 1.8 GHz) with 2 GB memory and 8 GB storage. It integrates Android™ OS (4.4) and comes pre-installed with several types of signage support software. This means the PN-M501/M401 is ready to display signage right out of the box, even without a PC. In addition, the PN-M501/M401 has passed Compatibility Test Suite (CTS) provided by Google, which certifies its compatibility with various third-party Android apps, for further expansion of usability.

#### Supports H.265/HEVC

The built-in SoC controller supports not only H.264/AVC but also H.265/HEVC, a next-generation high-efficiency video codec.

#### SHARP Open Architecture Platform

The PN-M501/M401 features the SHARP Open Architecture Platform, which allows third-party software developers to create custom signage applications that open up rich possibilities for digital signage in retail, office, and other settings.

#### Flexible Settings

The PN-M501/M401 features excellent image quality and is designed for flexibility in a variety of settings. Offering brightness of 450 cd/m² and the durability of 24/7 operation, this model grabs the attention of viewers with the content delivered around the clock. It comes with an Intel® Mini OPS-compatible expansion slot that gives you the added choice of expandability: an HDBaseT™ receiver board that supports various types of media and control signals, or a wireless board for easy wireless connection with multiple devices.

#### Excellent Image Quality

Thanks to its 1,920 (H) x 1,080 (V)-pixel resolution, the PN-M501/M401 expresses all the detail and visual impact of your selected full-HD content. A brightness of 450 cd/m² supports this LCD monitor in its digital signage duties.

#### Flexible Settings

Whether in a landscape or portrait orientation, the PN-M501/M401 can be installed face-up, face-down, or tilted forward or backward at an angle of up to 90 degrees. Designed for easy hanging installation, it can be suspended from four corners of the rear housing with wires. Such flexibility gives you more freedom to meet today’s demanding signage needs.

#### Reliable 24/7 Operation

Built solid and durable, the PN-M501/M401 is ideal for use in 24-hour stores and other demanding professional applications that require around-the-clock operation, seven days a week*. It is highly recommended to reboot the OS once a day to maintain stable operation.

* When POWER SAVE MODE is set to OFF, the integrated SoC controller stays on even in standby mode.
A variety of signage support functions come standard with the PN-M501/M401. For an instant signage solution, the built-in media player allows you to easily use existing materials to make attractive signage. The integrated SoC also features an HTML5 browser that enables easy web-based signage operation. Furthermore, SHARP e-Signage S software opens up more advanced possibilities when it comes to creating, scheduling, delivering the signage programs, and monitoring status. It optionally supports networked operation and more advanced signage solutions. You have a streamlined solution designed to satisfy a range of signage needs.

### Simple Standalone Signage

#### Autoplay with Media Player

Displaying still images or videos as signage content couldn’t be easier. The built-in media player automatically starts playing the content that is stored either on USB memory device, SD card, or internal storage when the monitor is powered on. It also has a simple schedule function that allows you to pre-register seven patterns for when to start/stop the content playback. In a slideshow, you can add visual effects between the still images. You can make playlists that combine still images and videos. The PN-M501/M401 lets you enjoy the benefits of simple digital signage without any extra software, special skills, or even a PC.

#### Web-based Signage

Thanks to the HTML5 browser pre-installed on the SoC, web content can be easily shown on the PN-M501/M401 as signage content. All you need to do is enter the URL in the HTML5 browser.

Note: Requires Ethernet or optional wireless adapter. For more stable connection, Ethernet is recommended.

### Easy Content Distribution

#### SHARP Content Distributor

This software makes it easy to update the content to be displayed on multiple LCD monitors. Through simple and intuitive PC operation, you can schedule what content gets distributed, when it gets delivered, and which monitors show it. Take advantage of a convenient signage solution that lets you distribute content in a timely manner to multiple monitors.

### Total Signage Support Software

#### SHARP e-Signage S

This versatile signage software provides total support for satisfying individual user needs in the creation, scheduling, distribution, and management of a wide range of signage programs for Sharp LCD monitors installed in offices, commercial establishments, public spaces, and many other locations. The PN-M501/M401 comes bundled with the standalone edition of SHARP e-Signage S software, accompanied with its player pre-installed on the integrated Android OS. SHARP e-Signage S software (standalone edition) lets you create/edit signage programs easily via simple drag-and-drop operation. You can intuitively lay out diverse content, such as still images, videos, HTML, and horizontal message bars, in a free layout frame to make attractive and suitable signage programs with minimal effort. You can also create display schedules and timetables and monitor the operational status of a designated PN-M501/M401. For more advanced signage functionality including program distribution via network, SHARP e-Signage Software offers you further choices.

Note: The standalone edition of SHARP e-Signage S software is available via the downloader on the bundled CD-ROM.

<table>
<thead>
<tr>
<th>Product name</th>
<th>No. of target monitors</th>
<th>No. of operation PCs</th>
<th>Distribution via network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standalone edition</td>
<td>Bundled</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Network edition</td>
<td>PN-SS22</td>
<td>Max. 100</td>
<td>1</td>
</tr>
<tr>
<td>Pro edition</td>
<td>PN-SS25</td>
<td>Max. 1,000</td>
<td>1</td>
</tr>
<tr>
<td>Web server edition</td>
<td>PN-SW25</td>
<td>Max. 1,000</td>
<td>1 to 50</td>
</tr>
</tbody>
</table>

Player | Pre-installed |
### Specifications

<table>
<thead>
<tr>
<th>Model Name</th>
<th>PN-M501</th>
<th>PN-M401</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Installation</strong></td>
<td>Landscape / Portrait / Face-up / Face-down</td>
<td>40-inch-class (39 3/4-inch [100.33 cm] diagonal) TFT LCD</td>
</tr>
<tr>
<td><strong>LCD Panel</strong></td>
<td>50-inch-class (49 3/4-inch [125.73 cm] diagonal) TFT LCD</td>
<td>40-inch-class (39 3/4-inch [100.33 cm] diagonal) TFT LCD</td>
</tr>
<tr>
<td><strong>Max. Resolution</strong></td>
<td>1,920 x 1,080 pixels</td>
<td>1,920 x 1,080 pixels</td>
</tr>
<tr>
<td><strong>Max. Display Colours (approx.)</strong></td>
<td>36.77 million colours</td>
<td>36.77 million colours</td>
</tr>
<tr>
<td><strong>Pixel Pitch</strong> (H x V)</td>
<td>0.5708 x 0.5706 mm</td>
<td>0.45735 x 0.4494 mm</td>
</tr>
<tr>
<td><strong>Max. Brightness</strong>&lt;sup&gt;1&lt;/sup&gt;</td>
<td>450 cd/m&lt;sup&gt;2&lt;/sup&gt;</td>
<td>450 cd/m&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Contrast Ratio</strong></td>
<td>5,000 : 1</td>
<td>5,000 : 1</td>
</tr>
<tr>
<td><strong>Viewing Angle</strong> (H/V)</td>
<td>178°/178° (CR ≥ 10)</td>
<td>178°/178° (CR ≥ 10)</td>
</tr>
<tr>
<td><strong>Active Screen Area (W x H)</strong></td>
<td>1,095.8 x 616.4 mm (43 1/8&quot; x 24 1/4&quot;)</td>
<td>878.1 x 485.4 mm (34 9/16&quot; x 19 1/8&quot;)</td>
</tr>
<tr>
<td><strong>Response Time</strong></td>
<td>9.5 ms (grey to grey, avg.)</td>
<td>9.5 ms (grey to grey, avg.)</td>
</tr>
<tr>
<td><strong>Backlight</strong></td>
<td>LED, edge lit</td>
<td>LED, edge lit</td>
</tr>
</tbody>
</table>

**Computer Input**

- **Video**
  - Analogue RGB (0.7 Vp-p) [TSI], HDMI
- **Synchronisation**
  - Horizontal/vertical separation (TTL: positive/negative)
- **Plug & Play**
  - VESA DDC2B
- **Power Management**
  - VESA DPM5

**Input terminals**

- **DisplayPort x 1**, Mini D-sub 15-pin x 1, HDMI x 2, RS-232C x 1, 3.5 mm-diameter mini stereo jack x 1
- **DisplayPort x 1**, RS-232C x 1, 3.5 mm-diameter mini stereo jack x 1

**Android OS**

- **OS**
  - Android 4.4
- **CPU**
  - Quad Core (Arm Cortex-A17 processor)
- **Memory**
  - 2 GB
- **Storage**
  - 8 GB

**Expansion Slot**

- 12 V, 2.5 A (power supplied when expanding the functions with an optional part)

**Power Supply**

- **Power Consumption**
  - 120 W
  - 92 W
- **Power Supply**
  - 100 V – 240 V AC, 50/60 Hz
- **Environmental Conditions**
  - **Operating Temperature**
    - 0°C to 40°C
  - **Operating Humidity**
    - 20% to 80% RH (no condensation)

**Dimensions**

<table>
<thead>
<tr>
<th>PN-M501</th>
<th>PN-M401</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Height</strong></td>
<td>68 (2 11/16&quot;)</td>
</tr>
<tr>
<td><strong>Width</strong></td>
<td>367 (14 3/16&quot;)</td>
</tr>
<tr>
<td><strong>Depth</strong></td>
<td>100 (3 15/16&quot;)</td>
</tr>
</tbody>
</table>

**Input/Output Terminals**

- **(standard)**
  - **DisplayPort**
  - **SD card slot**
  - **LAN port**

**Options**

- **PN-ZB03H : HDBaseT Receiver Board**
- **PN-ZW01 : Wireless Adapter**
- **PN-ZB03W : Wireless Board**

**Input/output terminals**

- **LAN port**
- **USB**
- **HDBaseT**
- **LAN port**

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