N1000 Windowing Processor, 4x1 + Stacking
NMX-WP-N1512 (FGN1512)

Overview
The NMX-WP-N1512 Windowing Processor functions with the N1000-Series family of Video over IP Encoders and Decoders and is capable of handling multiple real-time HD streams with no video input or output connectors – all video connections are done via Ethernet. This is a fundamental shift in the way ProAV technologies have traditionally addressed windowing, but one that increases capability and flexibility while reducing installation and support costs.

The N-Series Windowing Processor is a 1RU rack-mount appliance that connects to an SVSI video over an IP network and accepts up to four video streams as input. Each input can be cropped, scaled, and positioned according to stored presets (such as quad, window-in-window, 3+1, etc) or in any user-defined configuration. The combined output video stream is then routed to one or more displays at HD 1080p or CG 1900×1200 resolution. It functions as a 4×1 windowing processor and can be stacked to give 7×1, 10×1, 13×1, 16×1, or higher capability.

Common Applications
- Common applications include operations centers, sports bars, and conference rooms (show content side-by-side on a display).

Features
- **Retrofit Capable** – Easily retrofits to an existing SVSI N1000 video network. Can reside anywhere there is network connectivity to the N1000 sources and destinations.
- **4x1 Windowing + Stacking** – Accepts up to four independent N1000 video streams in addition to user-defined static backgrounds. Units can be stacked to provide 7×1, 10×1, 13×1, 16×1, or higher windowing.
- **Layout Presets** – Multiple window layouts can be stored as presets and quickly recalled using a control system. The videos animate between the different layout configurations.
- **Audio Matrix** – Built-in audio matrix switch allows selection of any audio stream for Windowing Processor output.

### Specifications

**VIDEO**

| Signal Types       | • Input: Up to four N1000 MPC-compatible network video sources over Ethernet  
|                    | • Output: N1000 MPC-compatible network video over Ethernet |
| Input Resolutions  | Input Stream  
|                    | • Pixel clock between 27 MHz - 165 MHz  
|                    | • Minimum resolution of 640x480p  
|                    | • Maximum horizontal resolution of 1920 or a vertical resolution of 1200  
| Note               | Input resolutions supported at 60Hz refresh rates are also supported at 59.94Hz  
| Output Resolutions | Supports most common HD up to 1920x1200. See website for all supported resolutions  
| Color Space        | 4:2:2 |

**AUDIO**

| Signal Types       | • Input: Embedded in the stream from the N1000 encoder  
|                    | • Video Output: Selectable from one of the input streams |
| Formats            | 8ch PCM |

**LATENCY**

| 1080p              | 50 ms at 60 fps  
| Note               | This is the latency from the input to the output of the windowing processor |

**WINDOWING**

| Maximum Number of Windowed Videos | 4  
| Built-in Presets                | Quad, P-in-P, 3-Stack, Full-1  
| Maximum of Custom Presets       | 1000 |

**PORTS**

| Power               | One 120 Volt AC power input  
| PO-P2 Output        | 8-wire RJ45 female. 10/100/1000 Mbps  
|                    | 10/100/1000Base-T auto-sensing gigabit Ethernet switch ports.  
| U0-U3 Input         | 8-wire RJ45 female.  
|                    | 1000 Mbps 1000Base-T gigabit Ethernet switch ports. |

**CONTROLS AND INDICATORS – FRONT PANEL**

| RESET button        | Recessed pushbutton. Press to initiate a ‘warm restart’ causing the processor to reset, but not lose power. A reset does NOT affect the current settings unless you press and hold one minute (which will restore the unit to factory default settings).  
| POWER LED           | On solid (green) when operating power is supplied |
### STATUS LED

- **On flashing (green) when there is software activity.**

### Diagnostic LEDs

- LEDs 0-3 on top row: Flashing (green) represents activity on corresponding window.
- LEDs 0-3 on bottom row: Solid (green) represents presence of video input stream on corresponding window.
- LEDs 4 on top and bottom rows: Used for advanced diagnostics.
- LED 5 on top row: Flashing green represents output video status/activity.
- LED 5 on bottom row: Flashing green represents software status/activity.

### POWER SUPPLY

- **Power Supply, Internal**
  - 1.0 Amp @ 120 Volts AC; 100-240 Volts AC power supply;

### ENVIRONMENTAL

- **Temperature**
  - 32° to 104°F (0° to 40°C)
- **Humidity**
  - 10% to 90% RH (non-condensing)
- **Heat Dissipation**
  - Up to 160 BTU/Hr

### GENERAL

- **Mounting**
  - Mounting ears included in shipment.
- **Dimensions (HWD)**
  - 1.75” x 17.25” x 12” (4.5 cm x 43.8 cm x 30.5 cm)
- **Weight**
  - 7.15 lbs (3.24 kg)
- **Regulatory Compliance**
  - FCC, CE, and NTRL

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**NMX-WP-N1512 Front View**

![AMX NMX-WP-N1512 Front View](image)

1. **LED Indicator Lights**

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About AMX by HARMAN
Founded in 1982 and acquired by HARMAN in 2014, AMX® is dedicated to providing AV solutions for an IT World. AMX solves the complexity of managing technology with reliable, consistent and scalable systems comprising control, video switching and distribution, digital signage and technology management. AMX systems are deployed worldwide in conference rooms, classrooms, network operation/command centers, homes, hotels, entertainment venues and broadcast facilities, among others. AMX is part of the HARMAN Professional Group, the only total audio, video, lighting, and control vendor in the professional AV market. HARMAN designs, manufactures and markets premier audio, video, infotainment and integrated control solutions for the automotive, consumer and professional markets. Revised 6.6.16. ©2015 Harman. All rights reserved. Specifications subject to change.

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