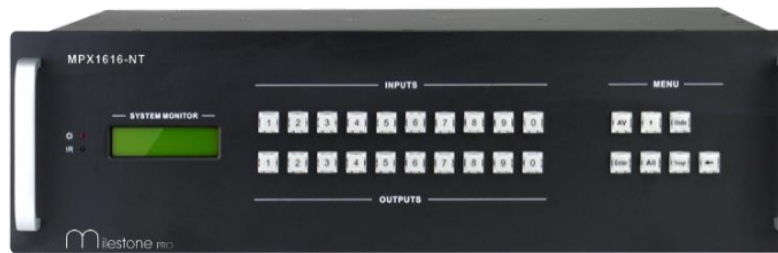


MPX1616-NT

Modular Matrix Switcher 16x16

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PRODUCT OVERVIEW

MPX1616-NT is a high-performance modular video and audio matrix switcher supporting up to 16 input signal sources and 16 output displays. It uses configurable, changeable I/O cards so the system can be tailored to different signal types and project requirements.

- Modular chassis with configurable I/O slots, from 4x4 up to 16x16.
- Supports HDMI, HDBaseT and VGA signal cards.
- True cross-point switching: any input to any output regardless of signal format.
- HDMI 1.4a support with 3D and HDCP compliance.
- Integrated HDBaseT technology with long-distance transmission.
- Front-panel, IR remote and RS232 control; optional TCP/IP control.
- LCD display for real-time operating status.
- Power-off memory and independent or linked audio/video switching.

APPLICATIONS

Suitable for multimedia conference rooms, control rooms, broadcasting rooms, shopping centers, large-screen display systems, television education and command & control centers.

Manual: MPX1616-NT_2016V1.0

MAIN UNIT & CONTROL SPECIFICATIONS

Parameter	Specification
Control	RS232, 9-pin female D connector
RS232 Pin Configuration	2 = TX, 3 = RX, 5 = GND
Front Panel Control	Back-lit buttons + LCD display
IR Control	IR remote control
Network Control	Optional TCP/IP control
Installation	Rack mountable, 3U
Power Supply	100–240VAC, 50/60Hz
Power Consumption	84W max.
Operating Temperature	–10°C to +40°C
Humidity	10%–90%
Dimensions (W×H×D)	483 × 133 × 320 mm (3U high)
Weight	3.5 kg

CHANGEABLE I/O CARDS

Card	Configuration	Key capability
4I-VA	4 VGA inputs + 4 stereo audio inputs	VGA (RGBHV), YPbPr, S-video, C-video, CVBS
4I-UH	4 HDMI inputs + 4 analog audio inputs	HDMI 1.4a, DVI compatible; up to 4K×2K
4O-UH	4 HDMI outputs + 4 stereo audio outputs	HDMI 1.4 / DVI; up to 4K×2K
4I-BT	4 HDBaseT inputs + 4 stereo audio inputs	HDBT 1.0; 480p–4K×2K; requires HDBT transmitters
4O-BT	4 HDBaseT outputs + 4 stereo audio outputs	HDBT; 1080p≤70m, 4K×2K≤40m; requires HDBT receivers

The chassis has four input-card slots and four output-card slots. Cards can be changed according to the required application. The manual notes that the I/O cards themselves do not support hot-plug, while the ports on the cards support hot-plug.

VIDEO / AUDIO CARD PERFORMANCE

Card / Function	Specification
4I-VA Video	4 VGA; 0.5–2.0 Vp-p; 75Ω; 0dB gain; bandwidth: YPbPr 170MHz, C-video 150MHz, VGA 170MHz; switching speed 200ns max.; crosstalk <–50dB @5MHz.
4I-VA Audio	4 stereo inputs; 3-pin pluggable terminal block; input impedance >10kΩ; CMRR >90dB @20Hz–20kHz.
4I-UH / 4O-UH	HDMI 1.4 / DVI 1.0; up to 4K×2K; HDCP 1.4; manual EDID management; embedded HDMI audio PCM, Dolby Digital, DTS, DTS-HD; analog audio PCM.
4O-UH	4 HDMI outputs; 4 stereo outputs; gain 0dB; transmission distance 1080p≤70m and 4K×2K≤40m; SNR >70dB @100MHz–100M; return loss <–30dB @5kHz.
4I-BT / 4O-BT	4 HDBT channels; RJ45 with dual-color indicators; 10.2Gbps bandwidth; up to 4K×2K; 1080p≤70m / 4K×2K≤40m; bidirectional RS232 on single cable; auxiliary stereo audio.

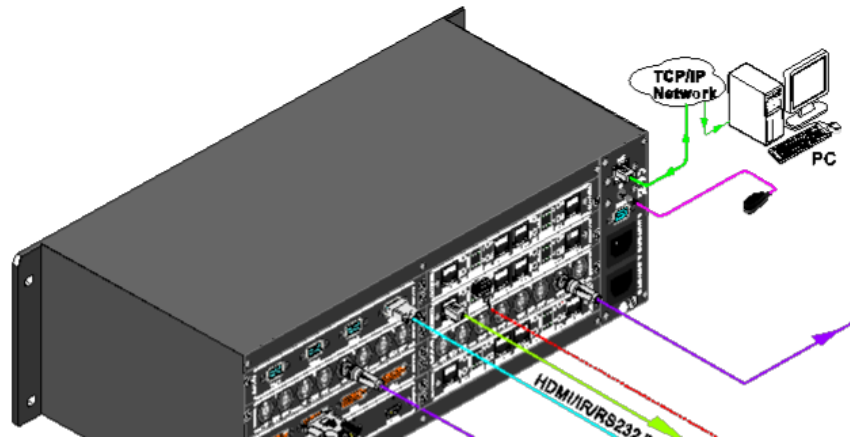
CONTROL & OPERATION

- Front panel: select input and output channels using the back-lit numeric buttons; switching is confirmed with ENTER.
- THROUGH function provides direct 1→1, 2→2 ... 16→16 routing.
- UNDO returns to the previous routing status; Backspace cancels the last operation.
- IR remote duplicates the front-panel control functions.
- RS232 provides external control through a 9-pin female D connector.
- Optional TCP/IP control is available for integration with third-party control systems.

SYSTEM CONNECTION & APPLICATION

- 2) All of the power switches, plugs, sockets and power cords should be handled safely.
- 3) All devices should be connected before power on.

3.2. Connection Diagram



The system diagram on manual page 7 illustrates the MPX1616-NT at the center of an AV system, with multiple source devices (including PC, laptop and Apple Mac) routed to displays such as projectors, TVs and PCs. Control can be provided through IR, RS232, TCP/IP and other listed control interfaces.

APPLICATION HIGHLIGHTS

- Multi-room and multi-display AV distribution
- Conference and multimedia meeting rooms
- Broadcasting and control rooms
- Large-screen display systems
- Education and command & control environments

PACKAGE CONTENTS

Item	Quantity
MPX1616-NT	1
Power Cord	1
IR Remote (battery not included)	1
Plastic Cushions	4
RS232 Cable	1
User Manual	1

Source: MPX1616-NT User Manual, Version MPX1616-NT_2016V1.0. Specifications and features have been structured from the supplied manual; refer to the latest manufacturer documentation for any subsequent revisions.