MXU-88

User Manual

8X8 4K HDMI / USB 2.0 Matrix Switch

Transparent USB 2.0 Switching. Access to any USB Device for Any Station.

Access and control up to 8 computers with 4K HDMI and Transparent USB 2.0 from up to 8 connected stations
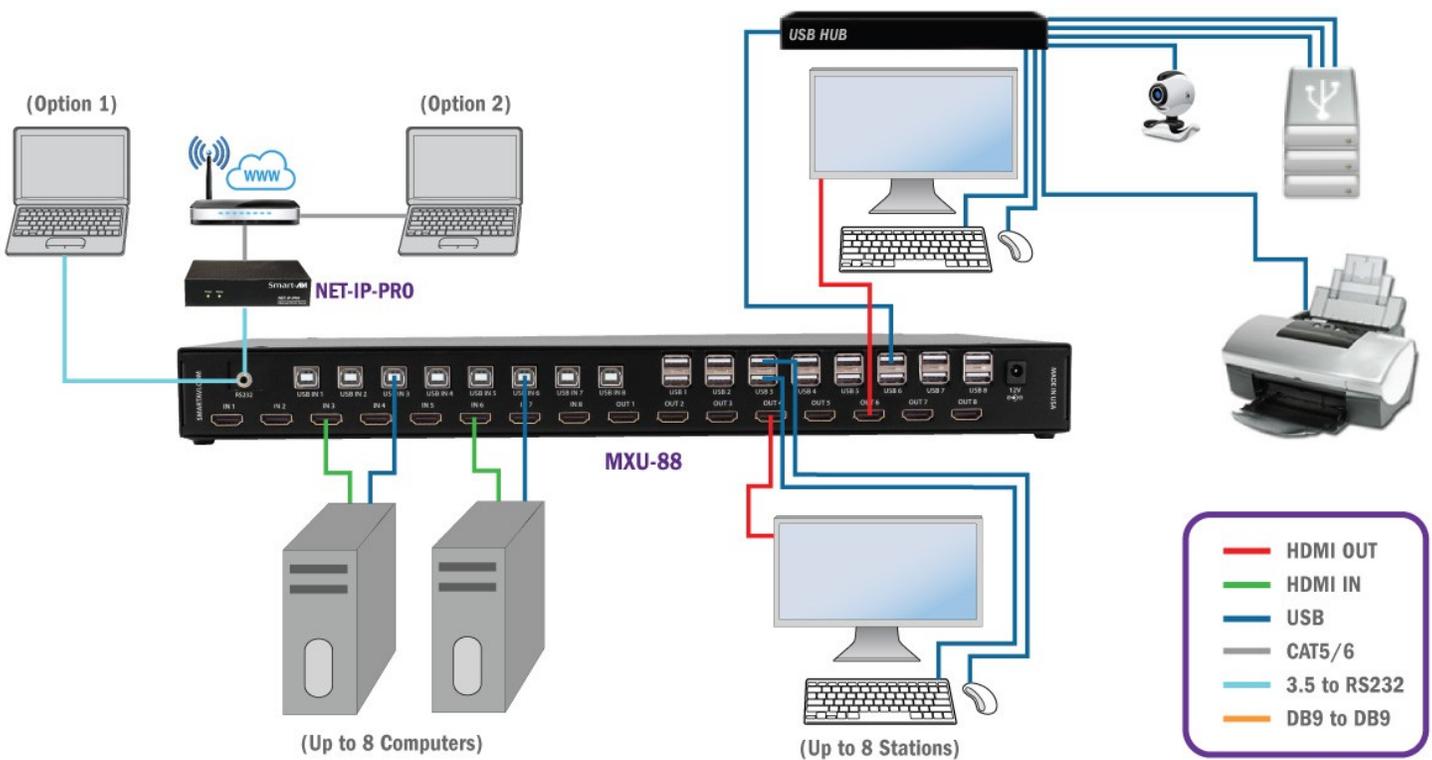
SMART AUDIO VIDEO INNOVATION

TABLE OF CONTENTS

WHAT'S IN THE BOX?

PART NO.	QTY	DESCRIPTION
MXU88-S	1	8X8 4K HDMI USB 2.0 Matrix Switch
PS12VDC5A	1	Power Adapter
	1	Quick Start Guide

Brackets for mounting this device in a standard 19" rack can be ordered from SmartAVI.

Front View

Rear View

INTRODUCTION

The MXU-88 is an 8x8 4K HDMI and USB 2.0 matrix switch. It allows up to eight users to control & share any eight remote computers from USB 2.0 equipped stations with up to 4K resolution HDMI displays (DVI-D with adapters). Perfect for supervising workstations with multiple users, the MXU-88 excels at expediting workflow by offering control of remote systems via USB devices, such as keyboards and mice, as well as connectivity for peripherals like external hard-drives, printers, and scanners. The MXU-88 also has the advantage of 4K-ready HDMI display support.

Controlling the MXU-88 is easy thanks to SmartAVI's simple-yet-robust design. Our two-button front panel control interface lets users switch between connected systems and devices at the press of a button. Furthermore, MXU-88 features a web-based control interface that offers comprehensive command of video settings and USB devices over an Ethernet connection. The MXU-88 is 4K-ready, capable of resolutions up to 3840x2160 @ 30Hz on HDMI monitors. The switch's ultra-high detail video capabilities makes it an essential component in various real-world applications including control room supervision, post-production, group-based digital design work, large-scale server management, and more!

The MXU-88 is an ideal solution for medical, industrial, studio and defense applications, where it is not practical or safe to have multiple workstations in close proximity to each other. An operator can switch to any connected computer from any connected station with ease.

FEATURES

- (8) HDMI inputs with resolutions up to 4K (3840x2160 @ 30Hz)
- (8) HDMI outputs with resolutions up to 4K (3840x2160 @ 30Hz)
- (8) USB 2.0 Type B inputs—(8) Dual USB 2.0 Type A outputs
- Supports digital audio over HDMI
- Supports DVI-D with adapters
- Supports USB keyboard-mouse control (NO EMULATION)
- Supports USB peripheral devices (external hard-drives, scanners, printers, etc...)
- Simple two-button front panel control with LCD display for control and status
- Full web-based control console over Ethernet
- Learns and stores EDID information
- HDMI 1.4 & HDCP Compliant
- Control Sun, Mac or PC computers from one workstation
- Plug-and-play ready for immediate use

APPLICATIONS

- Audio/Visual Presentations
- Schools & Universities
- Retail Store Displays
- Conference Centers
- Server Collocation

- Business Lobbies
- Shopping Centers
- Control Rooms
- Digital Signage
- Dealer Rooms

- Wall Displays
- Restaurants
- Education
- Hospitals
- Security

TECHNICAL SPECIFICATIONS

VIDEO	
Supported Resolutions	4Kx2K (3840x2160@30Hz), 1080p, 1080i, 720p, 480p, Supports all DVI-D Resolutions
Video Bandwidth	300 MHz
HDMI Version	HDMI 1.4
Input Interface	(8) HDMI Type A 19-pin Female TMDS (DVI-D with adapter)
Output Interface	(8) HDMI Type A 19-pin Female TMDS (DVI-D with adapter)
Max Cable length	Up to 20 ft.
Audio	Stereo Embedded in HDMI signal
USB	
Signal Type	USB 2.0, 1.1 and 1.0
Input	(8) USB Type B Female (No Emulation)
Output	(16) USB Type A Female
CONTROL	
Front Panel	Buttons
Ethernet (TCP/IP)	(1) RJ-45
OTHER	
Power Adapter	PS12VDC5A
Dimensions	17.06" W x 2" H x 10.4" D
Weight	8.8 lbs.
Working Temp.	32 to 122°F (0 to 50 °C)
Working Humidity	Up to 85% RH (no condensation)
Storage Temp.	-4 to 149 °F (-20 to 65 °C)
Storage Humidity	Up to 90% RH (no condensation)

HARDWARE INSTALLATION

1. Position the MXU-88 conveniently and keep it unplugged.
2. Connect up to 8 computer's HDMI (DVI-D with adapter) outputs to the MXU-88 HDMI inputs
3. Connect up to 8 computer's USB outputs to the MXU-88 USB type B inputs
4. Connect HDMI (DVI-D with adapter) monitors to the MXU-88 HDMI outputs.
5. Connect up to 8 keyboards and mice to the MXU-88 type A USB outputs. USB hubs may be used to connect additional USB devices.
6. Optionally connect the MXU-88 to your network for additional control.
7. Power on the connected displays.
8. Power on the connected computers.
9. Power on the MXU-88.

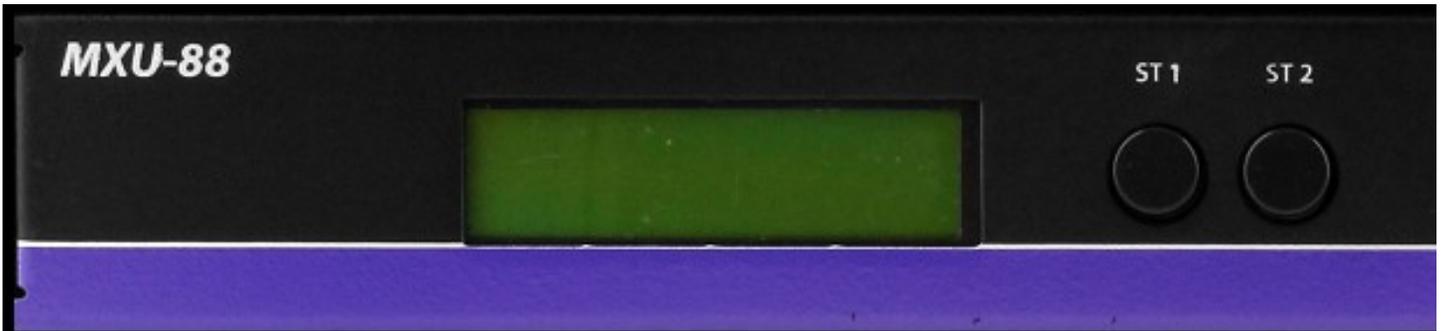KVM extenders can be used to extend placement of Displays and USB devices.
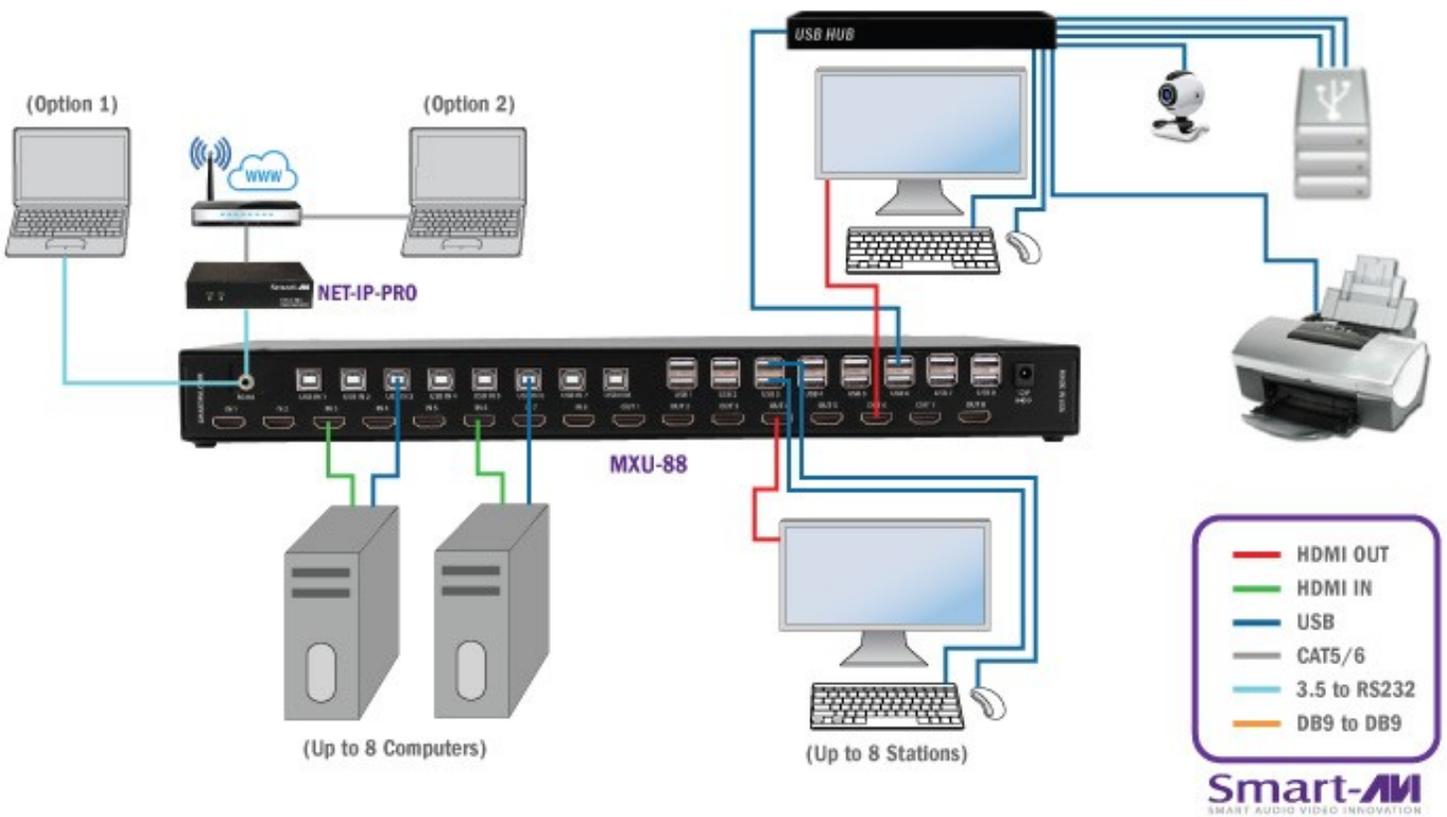
Figure 5-1

Figure 5-2

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FRONT PANEL CONTROL

Use the ST2 button to navigate to the desired menu item. Pressing ST1 and ST2 at the same time will execute the selection.

USB:

Change which computer is connected to which keyboard / mouse.

Press ST2 to move from IN port to IN port.
Press ST1 when the cursor is on the IN port you want to change the OUT port # connected to it.
Press ST1 & ST2 simultaneously to connect the ports.
Press ST2 to move to another IN port or press ST1 & ST2 simultaneously to exit back to the main menu.

Video:

Change which computer is connected to which monitor.

Press ST2 to move from IN port to IN port.
Press ST1 when the cursor is on the IN port you want to change the OUT port # connected to it.
Press ST1 & ST2 simultaneously to connect the ports.
Press ST2 to move to another IN port or press ST1 & ST2 simultaneously to exit back to the main menu.

EDID:

Press ST2 to move from menu item to item. Press ST1 and ST2 simultaneously to enter the EDID sub menu.

Learn: Will load and store the EDID from the display connected to port 1.
Info: Will display the name of the EDID currently in use.
Exit: Will exit back to the main menu.

IP:

Press ST1 & ST2 simultaneously to display the IP address in use by the MXU-88.

CONTROL VIA ETHERNET

On the front panel of the MXU-88 press the ST2 button until the cursor is by the IP selection. Press ST1 & ST2 simultaneously to display the IP address in use by the MXU-88. Enter the IP address into a web browser of your choice. You should see the MXU-88 login page. **The username is admin and the password is admin.** Then the main webpage will display as shown in Figure 7-1. The left column of numbers represents the output port. The top row of numbers represent the input ports. Using your mouse click on the box at the intersection of the input with the output to execute the desired connection. The video and usb connections can be changed independently.

There is also a button you can click on to learn the EDID of the monitor connected to output port 1 and a button that will display the EDID in use.

Figure 7-1

CONTROL VIA ETHERNET (Continued)

From the main webpage you can select IP Config and a webpage will display with fields allowing to set the network settings for the MXU-88.

Figure 8-1

LIMITED WARRANTY STATEMENT

A.   Extent of limited warranty

Smart-AVI Technologies, Inc. warrants to the end-user customers that the Smart-AVI product specified above will be free from defects in materials and workmanship for the duration of 1 year, which duration begins on the date of purchase by the customer. Customer is responsible for maintaining proof of date of purchase.

Smart-AVI limited warranty covers only those defects which arise as a result of normal use of the product, and do not apply to any:

       a. Improper or inadequate maintenance or modifications
       b. Operations outside product specifications
       c. Mechanical abuse and exposure to severe conditions

If Smart-AVI receives, during applicable warranty period, a notice of defect, Smart-AVI will at its discretion replace or repair defective product. If Smart-AVI is unable to replace or repair defective product covered by the Smart-AVI warranty within reasonable period of time, Smart-AVI shall refund the cost of the product.

Smart-AVI shall have no obligation to repair, replace or refund unit until customer returns defective product to Smart-AVI.

Any replacement product could be new or like new, provided that it has functionality at least equal to that of the product being replaced.

Smart-AVI limited warranty is valid in any country where the covered product is distributed by Smart-AVI.

B.   Limitations of warranty

To the extant allowed by local law, neither Smart-AVI nor its third party suppliers make any other warranty or condition of any kind whether expressed or implied with respect to the Smart-AVI product, and specifically disclaim implied warranties or conditions of merchantability, satisfactory quality, and fitness for a particular purpose.

C.   Limitations of liability

To the extent allowed by local law the remedies provided in this warranty statement are the customers sole and exclusive remedies.

To the extant allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event will Smart-AVI or its third party suppliers be liable for direct, indirect, special, incidental, or con-sequential damages whether based on contract, tort or any other legal theory and whether advised of the possibility of such damages.

D.   Local law

To the extent that this warranty statement is inconsistent with local law, this warranty statement shall be considered modified to be consistent with such law.

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