



# NUCLEUS

AV OVER IP – SIMPLIFIED



A division of Evertz

# AV over IP – Simplified

Introducing EvertzAV's all-new AV over IP distribution and control solution: **NUCLEUS**, an AV routing platform developed exclusively for customers looking for a simplified, all-in-one AV distribution, presentation, collaboration and control solution.

## NUCLEUS delivers:

### **Enterprise class AV distribution**

By utilizing the experience and strength cultivated through the many years of being a global leader in broadcast audio and video infrastructure equipment, Evertz Microsystems has developed an extremely powerful, yet simplified and all around easy-to-use AV distribution platform for enterprises of all sizes.

### **No fuss simple setup, no programming required**

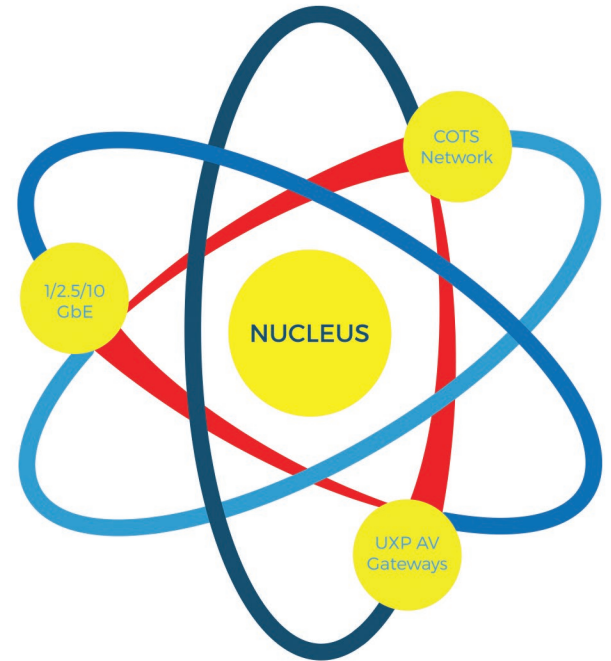
NUCLEUS operates on a simplified configuration framework, allowing administrators the ability to set up a fully functional AV distribution network in minutes – without the hassles associated with most AV distribution platforms available on the market today.

### **Proven, reliable, future-proof hardware**

The NUCLEUS platform is comprised of the NUCLEUS Session Manager and UXP AV Gateways (standalone and modular available). Any combination of modular and standalone UXP AV Gateways can be interconnected using a COTS switch and then configured, controlled and managed using the NUCLEUS Session Manager.

### **Unparalleled versatility and scalability**

The NUCLEUS platform can be integrated into your enterprise using your existing standard 1GbE IT infrastructure/IP network. NUCLEUS also supports 2.5GbE and 10GbE networks, providing the highest resolutions possible with unbeatable image quality at the lowest latencies. All this equates to a great investment now and also in the future as you won't have to worry about replacing your infrastructure and hardware.



# Universal Applications

In this globalized economy, the ability to collaborate on projects and share ideas instantly and consistently on a day-to-day basis without geographic limitations is absolutely critical. The constant on-screen pixelated artifacts, jerky/juttering video and poor audio quality found in many of today's collaboration solutions can be a costly distraction.

EvertzAV's NUCLEUS platform was developed to eliminate the stress and frustration often associated with collaboration technology. With its ultra low latency video capabilities, high bitrate audio support, and USB HID control functionality, NUCLEUS is the ideal platform for your collaboration needs.

In addition to being the ideal enterprise collaboration platform, NUCLEUS is, at its foundation, an extremely flexible and versatile AV distribution solution. This means NUCLEUS can be used in a multitude of spaces and for many different applications, including:



**Auditoriums/  
Lecture Halls**



**Video  
Conferencing**



**Learning  
Labs**



**Security  
Centers**



**Digital  
Signage**

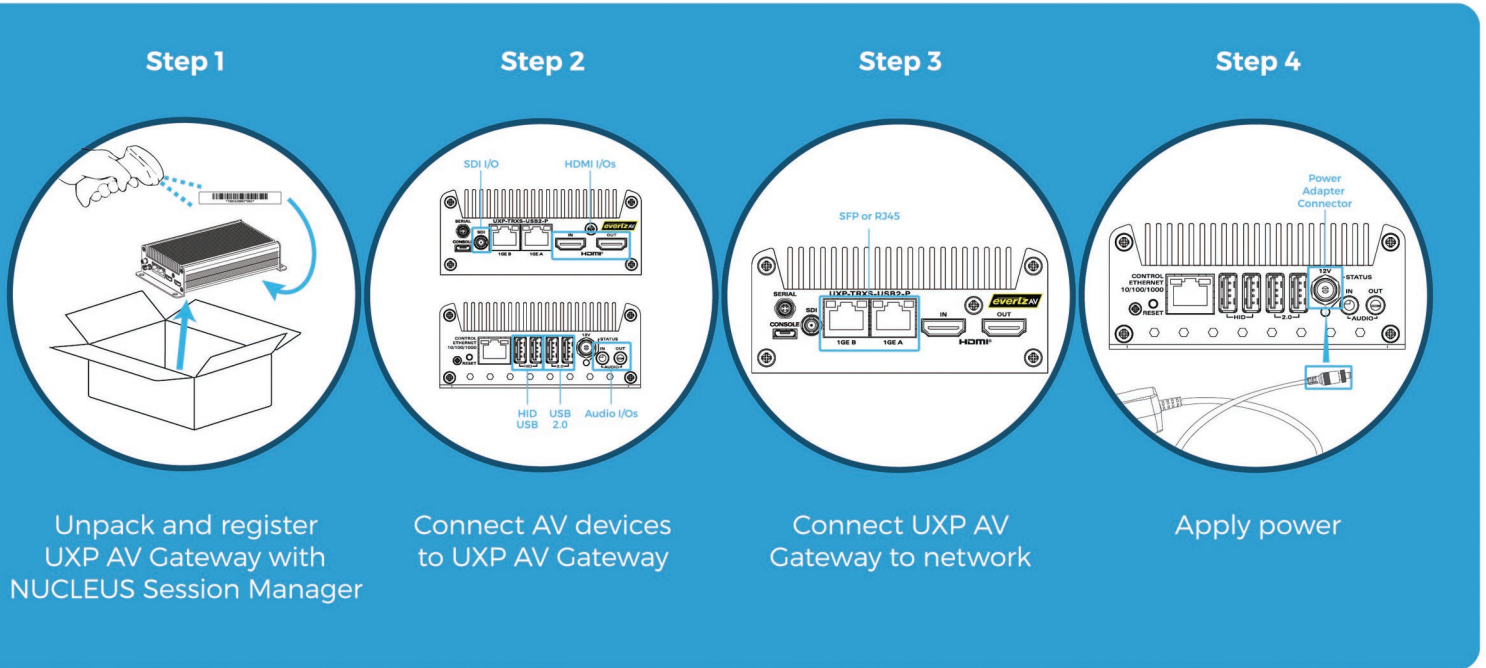


**Gaming  
and more...**

Contact your local EvertzAV sales representative today to see how NUCLEUS can be integrated into your professional AV project.

# The Ultimate Out-of-Box Experience

Adding devices to the network can be accomplished in no time at all. The process has been streamlined so that a device can be taken out of the box and be fully functional in less than five minutes. Whether big or small, deployments of all sizes are handled the same way, using the same consistent process. NUCLEUS' simplified configuration framework ensures that all the complicated legwork is already done for you.



## Coupled with the Ultimate User Experience

The NUCLEUS Session Manager UI has been optimized so that Administrators don't have to fumble through multiple levels of pages and options to configure a simple setting. Even with its integrated services, logging and diagnostics tools and extensive feature set, the NUCLEUS Session Manager UI is straightforward and easy to use.

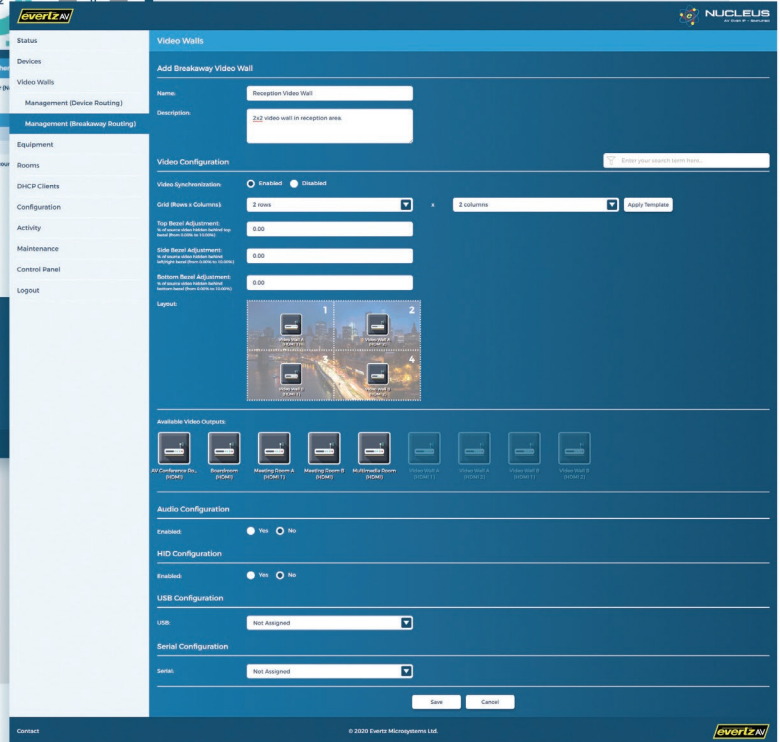


Likewise, a click or two is all it takes to perform the majority of important actions on the UXP AV Gateways. You can transport audio, video, and data separately or together from one device to another with just one click. Picture-in-picture windows can be resized on the fly. You can create and configure small or large video walls in minutes flat. NUCLEUS provides a user experience unlike any other AV distribution solution on the market today.

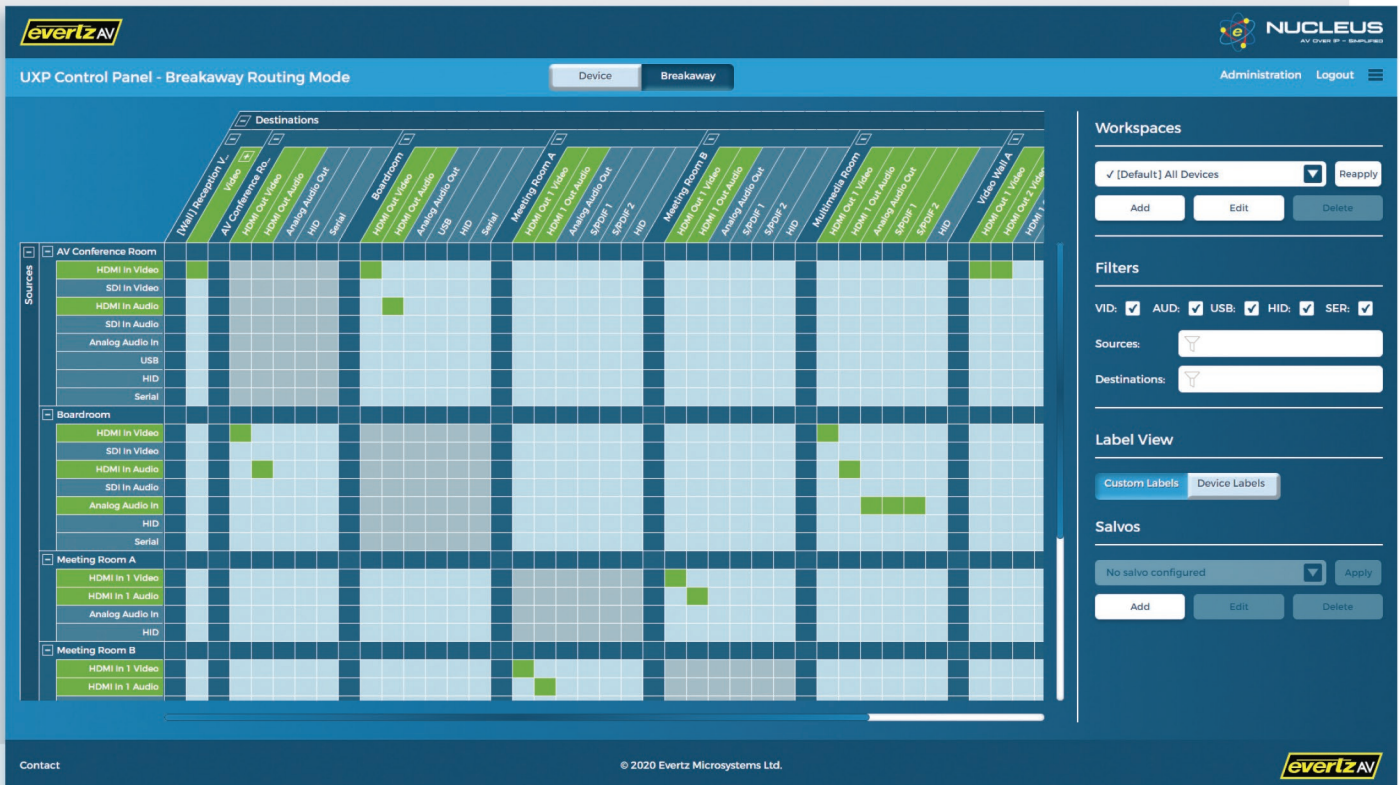


NUCLEUS provides a user experience unlike any other AV distribution solution on the market today

Create and configure small or large video walls in minutes flat



Transport audio, video, and data separately or together from one device to another with just one click



# NUCLEUS Session Manager

At the core of the NUCLEUS platform is the NUCLEUS Session Manager. The NUCLEUS Session Manager is a full-featured Linux-based centralized management server used for the configuration, control and orchestration of the UXP AV Gateways.



## The NUCLEUS Session Manager delivers...

- Three models to choose from (NUC-AV-10/-100/-ENT) based on deployment size
- Linux-based controller
- Enterprise-level security
- Robust network and DHCP configuration options
- Straightforward process for adding new, modifying existing and deleting unused Gateways
- Integrated services, logging and diagnostics
- Manual and automatic backup functionality
- BYOD (Bring Your Own Device) web-based UI

	NUC-AV-10	NUC-AV-100	NUC-AV-ENT
LAN	1x 1Gb/s RJ-45 port	2x 1Gb/s RJ-45 ports	2x 1Gb/s RJ-45 ports 2x 10Gb/s RJ-45 ports
USB	4x USB 3.0	1x USB 3.0 1x USB 2.0	2x USB 3.0
Outputs	1x VGA 1x HDMI	1x VGA 1x HDMI 1x DisplayPort	1x VGA
Key Features	<ul style="list-style-type: none"> <li>Support for up to 10 gateways</li> <li>Device and room control management</li> <li>Routing profile management</li> <li>Firmware/group management</li> <li>Session control</li> <li>Enterprise-level security</li> <li>DHCP server and client</li> <li>Syslog and diagnostics support</li> <li>Backup/restore</li> <li>Automatic periodic restarts</li> <li>BYOD web-based UI</li> </ul>	<ul style="list-style-type: none"> <li>Support for up to 100 gateways</li> <li>Device and room control management</li> <li>Routing profile management</li> <li>Firmware/group management</li> <li>Session control</li> <li>Enterprise-level security</li> <li>DHCP server and client</li> <li>Syslog and diagnostics support</li> <li>Backup/restore</li> <li>Automatic periodic restarts</li> <li>BYOD web-based UI</li> </ul>	<ul style="list-style-type: none"> <li>Support for 100+ gateways</li> <li>Device and room control management</li> <li>Routing profile management</li> <li>Firmware/group management</li> <li>Session control</li> <li>Enterprise-level security</li> <li>DHCP server and client</li> <li>Syslog and diagnostics support</li> <li>Backup/restore</li> <li>Automatic periodic restarts</li> <li>BYOD web-based UI</li> </ul>
Input Voltage	100-240V / 50-60Hz auto-ranging 12-19VDC	100-240V auto-ranging	100-240V auto-ranging
Power Consumption	65W	250W	250W
Rack Units	N/A (standalone)	1RU	1RU
Dimensions (H x W x D)	4.37 in x 4.53 in x 2.01 in (111mm x 115mm x 51mm)	1.75 in x 17 in x 10 in (44.5mm x 431.8mm x 254mm)	1.75 in x 17 in x 10 in (44.5mm x 431.8mm x 254mm)

# UXP AV Gateways

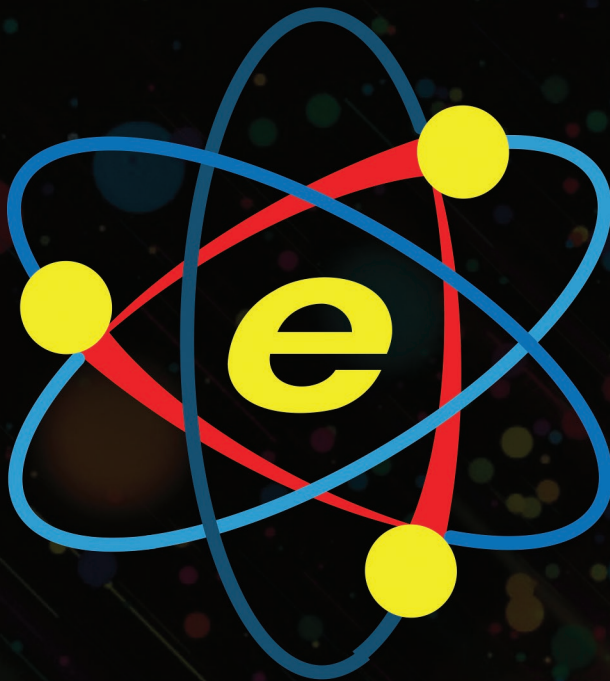
Revolving around the NUCLEUS Session Manager are the UXP AV Gateways, which encapsulate and transport video, audio, USB and control data. The UXP AV Gateways can be integrated into your enterprise's rooms and spaces using your IP network. As you grow, NUCLEUS grows with you, without any limitations. To connect additional rooms, simply add additional UXP AV Gateways.



## The UXP AV Gateways deliver...

- Auto-discovery and simplified provisioning features
- Support for 1GbE, 2.5GbE and 10GbE networks
- Resolution support for up to 4K/60
- Video scaling, clean switching and many additional advanced AV features
- Minimal end-to-end latency through system
- Robust API allowing for third-party control
- Graphically rich, icon-based BYOD web-based UI
- Preconfigured workflow profiles
- Full audio breakaway support

	UXP-TRXS-USB2	UXP-TRS4K	UXP-TRS4K-2/-2U	UXP-TRM4K	UXP-TRM4K-2/-2U
<b>Form Factor</b>	Standalone	Standalone	Standalone	Modular	Modular
<b>Video Inputs</b>	1x HDMI 1.4, 1x SDI (software defined)	1x HDMI 2.0a	2x HDMI 2.0a (software-defined and dependant on network bandwidth); 1x HDMI 2.0a Auxillary to HDMI Input 2	1x HDMI 2.0a	2x HDMI 2.0a (software-defined and dependant on network bandwidth); 1x HDMI 2.0a Auxillary to HDMI Input 2
<b>Video Outputs</b>	1x HDMI 1.4, 1x SDI (software defined)	1x HDMI 2.0a	2x HDMI 2.0a (software-defined and dependant on network bandwidth)	1x HDMI 2.0a	2x HDMI 2.0a (software-defined and dependant on network bandwidth)
<b>Supported Resolutions</b>	Up to 3840x2160p @ 30 Hz (dependant on network bandwidth)	Up to 4096x2160p @ 60 Hz (dependant on network bandwidth)	Up to 4096x2160p @ 60 Hz (dependant on network bandwidth)	Up to 4096x2160p @ 60 Hz (dependant on network bandwidth)	Up to 4096x2160p @ 60 Hz (dependant on network bandwidth)
<b>Audio Inputs</b>	1x stereo analog	1x stereo analog	1x stereo analog	1x stereo analog	1x stereo analog
<b>Audio Outputs</b>	1x stereo analog	1x stereo analog, 2x S/PDIF	1x stereo analog, 2x S/PDIF	1x stereo analog	1x stereo analog
<b>USB</b>	2x HID device ports, 1x HID host port, 2x USB 2.0 ports (can be software defined as host or client)	2x HID device ports, 1x HID host port	2x HID device ports, 1x HID host port, 5x USB 2.0 ports (-2U only)	1x HID host port	1x HID host port <i>Above port also supports USB 2.0 (-2U only)</i>
<b>Ethernet Control</b>	1x Gb/s RJ-45 port	1x Gb/s RJ-45 port	1x Gb/s RJ-45 port	1x Gb/s RJ-45 port	1x Gb/s RJ-45 port
<b>Transport Ports</b>	2x SFP+ (-USB2), 2x fixed 1000/2.5GBASE-T RJ-45 (-USB2-P)	2x SFP+	2x SFP+	2x SFP+	2x SFP+
<b>Control System</b>	NUCLEUS Session Manager	NUCLEUS Session Manager	NUCLEUS Session Manager	NUCLEUS Session Manager	NUCLEUS Session Manager
<b>Web-based Config</b>	Yes	Yes	Yes	Yes	Yes
<b>Power Supply</b>	100-240V / 47-63Hz AC input; 12VDC / 5A output	100-240V / 47-63Hz AC input; 12VDC / 5A output	100-240V / 47-63Hz AC input; 12VDC / 5A output	N/A	N/A
<b>Power Consumption</b>	25W (USB unmounted)	30W	30W	25W	25W



[av.evertz.com](http://av.evertz.com)    @EvertzAV

North America AV Sales: +1-877-995-3700 | [AVSales@evertz.com](mailto:AVSales@evertz.com)

Europe/UK AV Sales: +44 (0)118-921-6800 | [AVSales@evertz.com](mailto:AVSales@evertz.com)