EXHIBIT A

We have prepared a quote for you

MDIS

City of Ann Arbor: Fire Station 1 Video Wall Project - VIEWZ Solution

Quote # BDP002558 Version 1

Prepared for:

City of Ann Arbor

MDIS

Thursday, August 15, 2024

City of Ann Arbor
Markus Davis
,
mdavis@a2gov.org

Dear Markus,

This is a solution that would have MDIS install a new 2x6 Video Wall inside the designated Clerk Room at the City of Ann Arbor Fire Station.

MDIS will use VIEWZ 55" Video Wall Displays with a 1.2mm bezel to create a near seamless video wall that measures approximately 4.5 feet high and 24 feet long.

MDIS will install a new VIEWZ Server, and configure the system to allow for a multiple sources to be pushed onto the new Video Wall.

MDIS will also install a new Beamforming Microphone, in-ceiling speakers, and (2) new PTZ cameras to allow for video conferencing within this space.

This solution also includes (2) lavalier wireless microphones for presenters in this space.

MDIS will install a total of (8) new HDMI Wall Plate inputs to allow for multiple laptops to be connected to the Video Wall at one time.

A new Touch Panel will be installed to allow for full control of the room.

This Video Wall Solution will allow for users to view the Body Cams, Drone Cams, Dash Cams, Thermal Cams, Helicopter Cams, News Feeds, and more.

Datasheets have been included for product reference, please let me know if you have any questions.

Bret Powell

Bret D. Powell
Account Manager
Metro Detroit Integrated Systems

VIEWZ EQUIPMENT

Part Number	Product Description	Unit Price	Quantity	Amount	Is Taxable
VZ-55UNBS	ViewZ 55" HD 1080p LED ULTRA-SLIM 1.2mm black metal bezel, 500cd/m2, DP In/DVI In/VGA In/HDMI In -Out DaisyChain/RS-232(1in/1out), Wireless Remote, 110VAC, Built for 24/7 operation	$1,995.00	12	$23,940.00	True
VZ-XMS	ViewZ Video Wall Monitor Mount, spring loaded and X,Y, and Z axis fine tune adjustment system for easy and accurate installation. SPACER kit included	$240.00	12	$2,880.00	True
VZ-1TRX-4K	ViewZ HDMI Extension Unit, ipcolor Technology, (1) Receiver, (1) Transmitter, Up to 4K60, Up to 230feet, Cat 6/Cat 6A/Cat 7, 10G Ethernet, Zero Latency, DC5V Power Supply	$144.00	12	$1,728.00	True
VZ-PRO-ST12x22	ViewZ 12 input/22 output 1080p Module-based Video Wall Processor, Pluggable Architectures, designed to operate 24/7/365 in mission-critical installations, 4 Layers per Screen, Provided Remote Control Software (Windows Base), Redundant Power Supply, 7.5RU	$22,200.00	1	$22,200.00	True

Subtotal: **$50,748.00**

MAIN EQUIPMENT

Part Number	Product Description	Unit Price	Quantity	Amount	Is Taxable
	IN ROOM EQUIPMENT				
QB-TSC70G3	Q-SYS HD Touch Screen Controller, Black	$1,537.89	1	$1,537.89	True
QB-NC12X80	QSC ePTZ Conference Camera, 80° Horizontal View	$3,730.99	2	$7,461.98	True
ME-ATND1061D	Audio Technica ATND1061DAN Beamforming Ceiling Array Microphone with Onboard DSP	$2,883.79	1	$2,883.79	True
SB-SLXD1485J	Shure Wireless System with SLXD1 Bodypack Transmitter and WL185 Lavalier Microphone	$757.89	2	$1,515.78	True
QB-ADC6TZBWH	QSC 6.5" Two-Way Ceiling Speaker	$217.09	4	$868.36	True
RH-CHEHDWP85	Comprehensive Pro AV/IT Integrator Series HDMI and USB-C Wall Plate Extender Kit	$204.09	8	$1,632.72	True
	MAIN RACK EQUIPMENT				
SR-AV-CAB-32U-25IN	Strong Signature Series Premium Enclosure - 25 Depth 32U	$1,515.79	1	$1,515.79	True

MAIN EQUIPMENT

Part Number	Product Description	Unit Price	Quantity	Amount	Is Taxable
QB-CORE8FLEX	QSC CORE 8 FLEX Q-SYS Network Analog I/OProcessor, 8x AEC Processors, 64 x 64 Networked Audio Channels QLAN / AES67	$2,363.39	1	$2,363.39	True
QB-SPA260	QSC SPA2-60 SPA Series EnergyStar Power Amplifier, 1U, 200W	$556.39	1	$556.39	True
W9-GSM4210PD	Netgear GSM4210PD M4250-9G1F-PoE+ AV Line 8x1G PoE+ 110W 1x1G and 1xSFP Managed Desktop Switch	$768.29	1	$768.29	True
B0BJ6W9T3Z	Intel NUC 12 Pro Mini PC Kit NUC12WSHi7 (12-Core i7 -1260P 32GB RAM 1TB SSD Iris XE Graphics) Windows 11 Pro Latest Desktop Computer Mini PC,2 x Thunderbolt 4, Intel nuc Wi-Fi 6E AX211 Wireless	$878.90	2	$1,757.80	True
WT-WB800IP12	WattBox 800 Series IP Power Conditioner, 12-Individually Controlled and Metered Outlets	$633.97	1	$633.97	True
	CABLING/LICENSES/OTHER				
PO-SMM5	XLR Audio Cable	$9.18	3	$27.54	True
WG-21215501	Genesis 16/2 Stranded Riser Cable, 500', White	$111.24	1	$111.24	True
WG-63601106	Genesis CAT6 Riser Cable, 23/4 Solid BC, Unshielded, UTP, CMR, FT4, 1000' (304.8m), RE ELEXPull Box, Blue	$175.18	1	$175.18	True
WG-51921001	Genesis 51921001 CAT6 Plus Riser Cable, 23/4 Solid BC, Shielded, CMR, FT4, Sunlight Resistant, 1000' (304.8m), Reel, White	$315.16	1	$315.16	True
TS-100010C	Platinum Tools 100010C EZ-RJ45 CAT6 Connectors	$41.59	1	$41.59	True
B4-HD2-1.5	Binary B4 Series 4K Ultra HD High Speed HDMI Cable with Ethernet - 1.5m (5 ft)	$9.61	46	$442.06	True
B-540-EXT-230-IR	Binary 540 Series 4K Ultra HD HDBaseT Extender with IR	$328.21	23	$7,548.83	True
MISCELLANEOUS	MISCELLANEOUS	$0.00	1	$0.00	False

Subtotal: **$32,157.75**

BACK UP STOCK DISPLAYS (OPTIONAL)

Part Number	Product Description	Unit Price	Quantity	Amount	Is Taxable
VZ-55UNBS	ViewZ 55" HD 1080p LED ULTRA-SLIM 1.2mm black metal bezel, 500cd/m2, DP In/DVI In/VGA In/HDMI In-Out DaisyChain/RS-232(1in/1out), Wireless Remote, 110VAC, Built for 24/7 operation	$1,995.00	2	$3,990.00	True

Subtotal: **$3,990.00**

INSTALLATION

Category	Installation Description	Amount	Is Taxable
Pre-wiring	MDIS will install saddle rings and beam clamps to create new cabling pathways from the IT Closet (206), over to the main viewing room in the Clerk Room (213). MDIS will run new cabling to connect the main equipment being stored in the IT Room, over to the new Video Displays in the Clerk Room. MDIS will ensure all cabling pathways are clean and professional. MDIS will keep cabling above the drop ceiling and behind the walls whenever possible, using conduit to protect and conceal cabling in areas that cannot be ran behind walls or above the drop ceiling. MDIS will abide by all run length restrictions, and use proper termination techniques at each cabling endpoint. MDIS will test to ensure all cables are producing a strong and reliable signal. ***MDIS is assuming that all electrical needs will be handled by the preferred electrician for the City of Ann Arbor, at NO cost to MDIS***	$6,750.00	False

INSTALLATION

Category	Installation Description	Amount	Is Taxable
Installation	MDIS will install a new Viewz Video Wall using 55" Displays with 1.2mm bezels. MDIS will install a total of (12) displays in a 2x6 format to create a video wall that is approximately 24 feet long and 4.5 feet tall. MDIS will use the new Viewz Wall Mounts to secure each display into position. MDIS will install the new Beamforming Microphone, In-Ceiling Speakers, and (2) PTZ cameras to establish Video Conferencing capabilities in the room. MDIS will install (1) camera to face a presenter, and (1) camera to face the "audience". MDIS will also install a pair of wireless lavalier microphones to allow for presenters to amplify their voice within the room if needed. MDIS will install a new Touch Panel Controller on the wall in this room to allow for full control of the system. MDIS will be able to program and configure this Touch Panel to be the primary source of control for this system. MDIS will install a series of HDMI Wall Plates in the room to allow for multiple laptops to be connected into the video wall at one time. MDIS will then install a new Floor Standing Rack inside the IT room to house and protect all the new main equipment being installed inside. This includes the new QSYS Core DSP, the new QSYS Amplifier, a new Netgear A/V Switch, (2) In-room PC's to act as permanent sources for this video wall, and a new WattBox Surge Protection device. MDIS will install these devices in a clean and organized manner, and ensure all devices are correctly connected together. MDIS will install the Viewz Video Wall System Equipment, including (12) Transmitter/Receiver HDMI Extension Unit Kits, and a new Module-based Video Wall Processor. This will be the main engine that drives the new Threat Management Video Wall. ***MDIS will install customer provided cable boxes in the new equipment rack, and connect the cable boxes to the system. City of Ann Arbor will be responsible for providing these cable boxes***	$8,775.00	False

INSTALLATION

Category	Installation Description	Amount	Is Taxable
Configuration	MDIS will configure and optimize settings for the new system to ensure best possible performance. MDIS will program and configure the new Wall Mounted Touch Panel to allow for full control of the room. This includes turning the system on/off, adjusting volume, picking sources, starting video conference, etc. MDIS will add all licenses to the system, and ensure each license is functioning as intended on the system. MDIS will connect the system to the client's network to allow for streams to be pushed onto the new display. MDIS will configure the Video Wall to ensure image looks balanced and clear across all the new displays. MDIS will provide training on the new system, and ensure all users have a good understanding of how to use this system. ***MDIS provides a 1-Year Installation Warranty upon the completion of this project***	$3,375.00	False

Subtotal: **$18,900.00**

MDIS INSTALLATION WARRANTY

Category	Installation Description	Amount	Is Taxable
MDIS_ESP_12MO	**MDIS Extended Service Plan** This MDIS Extended Service Plan specifically addresses issues directly tied to this Sales Order, ensuring that all necessary MDIS Service Labor charges are covered. Please note that it does not include the cost of replacement equipment, typically protected by separate factory warranties. However, it provides full coverage for all MDIS Labor required for processes such as RMA facilitations/exchanges of equipment, troubleshooting, and the installation of replacement hardware or equipment. ***Please inquire with your sales representative regarding the potential to extend this MDIS ESP up to 60 Months, allowing you to extend your MDIS Service Labor coverage on this Sales Order for an even longer period.***	$0.00	False

MDIS

City of Ann Arbor: Fire Station 1 Video Wall Project - VIEWZ Solution

Prepared by:	Prepared for:	Quote Information:
Metro Detroit Integrated Systems	**City of Ann Arbor**	**Quote #: BDP002558**
Bret D. Powell	,	Version: 1
(248) 397-5968	Markus Davis	Delivery Date: 08/15/2024
Fax (248) 289-8500	(734) 945-4659	Expiration Date: 09/30/2024
bpowell@mdisnow.com	mdavis@a2gov.org	

Quote Summary

Description	Amount
VIEWZ EQUIPMENT	$50,748.00
MAIN EQUIPMENT	$32,157.75
BACK UP STOCK DISPLAYS (OPTIONAL)	$3,990.00
INSTALLATION	$18,900.00
Total:	**$105,795.75**

Interest at 1.25% per month will be charged on overdue balances
25% restock fee
No returns on special order items
Additional add-ons will be billed as parts & labor @ $150.00/hr

Metro Detroit Integrated Systems

Signature: _Bret Powell_

Name: Bret Powell

Title: Account Manager

Date: 08/15/2024

City of Ann Arbor

Signature: _____

Name: Markus Davis

Date: _____

MDIS

Appendix

Terms & Conditions

Terms & Conditions

- Interest at 1.25% per month will be charged on overdue balances.
- 25% restock fee may apply.
- No returns on special order items.
- Additional add-ons will be billed as parts and labor @ $150 hour.
- Quote sub components are interdependent and not severable without approval by MDIS.

Note to Recipient

- Please mail all payments to **4921 Leafdale Blvd. Royal Oak, MI 48073-1020**
- 50% Deposit Required before parts can be released.
- Final Payment Due: **Net 15**
- 3.5% Processing Fee will be added if paying by credit card.
- Thank you for choosing MDIS!

VZ-55UNBS

55" ULTRA NARROW BEZEL LED VIDEO WALL MONITOR

1.2 MM

VZ-55UNBS ADVANTAGES

- 55" 1080p CCTV LED Monitor
- Ultra Narrow **1.2 mm** Metal Bezel
- Supports Max 4K (3840x2160)/60 Video Signal & Serial Control Software
- Supports HDMI (2.0) In/Out, DVI-D In, DP In, VGA In
- Supports HDCP 1.4 / 2.2
- Daisy Chain System - HDMI up to 15 x 15
- Auto Source & Power Recovery
- Mullion Compensation Applied
- Advanced Heat Management
- Digital / Analog Inputs
- 3D Comb-Filter & High Contrast
- Built to run 24/7/365
- 3-Year Warranty

4K ULTRAHD | **500 cd/m² High Brightness** | **8ms CONTRAST RATIO** | **H-178°/ V-178°** | **DAISY CHAIN** | **ULTRA NARROW** | **MULLION COMPENSATION** | **1200:1 Contrast Ratio** | **BUILT-IN Speaker** | **FC CERTIFIED** | **LED BACKLIGHT** | **MEDIA PLAYER** | **VESA MOUNTING COMPLIANT** | **24/7**

MODEL #	VZ-55UNBS
DISPLAY	
Screen Size	55"
Max. Resolution	1920 x 1080 @60Hz
Pixel Pitch	0.630 mm x 0.630 mm
Brightness	500cd/m²(Typical)
Contrast Ratio	1200:1
Aspect Ratio	16 : 9
Viewing Angle (H/V)	178° / 178°
Display Color	1.06 B (10 Bit)
Response Time	< 8ms
Active Display area (H x V)	1209.6 mm × 680.4 mm
Color Gamut	72 %
INTERFACE	
VGA In (15Pin D-Sub)	1
DP In	1
DVI-D In	1
HDMI 1 In	1
HDMI 2 In / Out (Daisy Chain)	1 / 2
USB In (Upgrade)	1
RS-232 (RJ-45) In	1 (Serial Control / IR Receiver)
RS-232 (RJ-45) Out	2 (Serial Control)
Audio Out	1
SPECIAL FEATURES	
Bezel Width TOP and LEFT Side	0.090" / 2.3 mm
BOTTOM and RIGHT Side	0.047" / 1.2 mm
ACTIVE AREA to ACTIVE AREA	0.137" / 3.5 mm
Advanced Anti-Image Residual Correlation	Support
3D Comb-Filter	Support
Language	English, Spanish, French and Portuguese
SUPPORT RESOLUTION	
HDMI 1 (2.0) In	3840 x 2160 @ 60Hz
HDMI 2 (2.0) In / Out	3840 x 2160 @ 60Hz
DP In	3840 x 2160 @ 30Hz
DVI-D In	3840 x 2160 @ 30Hz
VGA In	1920 x 1080 @ 60Hz

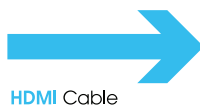| DIMENSIONS & WEIGHT		
Outline Dimension (W x H x D)		47.77" x 26.93" x 4.7"
		(1213.4 mm x 684.2 mm x 119.4 mm)
Net Weight / Gross Weight		65.91 lb (29.9 kg) / 88.18 lb (40.0 kg)
MOUNT		
Universal		600 x (100 x 4) mm, M8 x 10 Screws
GENERAL		
Transmitter - IR Remote Control		YES
Power Electrical Ratings		AC100 ~ 240V (50/60Hz), 2.0 A
Consumption		180 W (Max) / 0.5 W (Standby)
Regulations		FCC, RoHS
Warranty Parts/ Labor		3 Year / 3 Year
Operating Temperature		32 - 122°F / 0 - 50°C
Storage Temperature		32 - 140°F / 0 - 60°C
Operating Humidity (Non-Condensing)		20% ~ 80% RH
Compatible Mounts Wall		VZ-XMS, VZ-WM71
Ceiling		VZ-CMKiT-04
Free Standing Mount		VZ-FSM2x2, VZ-FSM3x2
Accessories		AC110V Power Cable x 1, HDMI Cable x 1, Manual x1, CAT5 Cable (RS232) x 1, Remote Controller x 1, IR Receiver x 1, Converter (RJ45 to RS232) x 1

Contact ViewZ

- Address : 177 W. Orangethorpe Ave., Placentia, CA 92870
- Phone : (714) 996-1177, Fax : (714) 996-1138
- Sales : sales@viewzusa.com

DAISY CHAIN   Up to 15 x 15
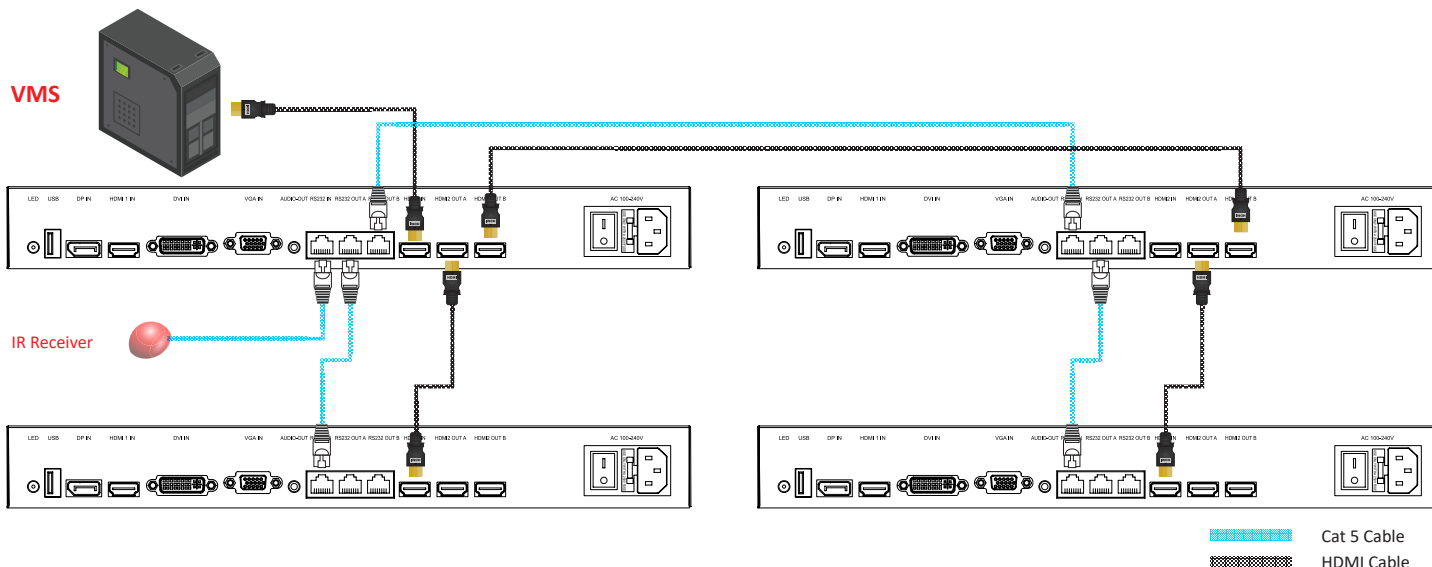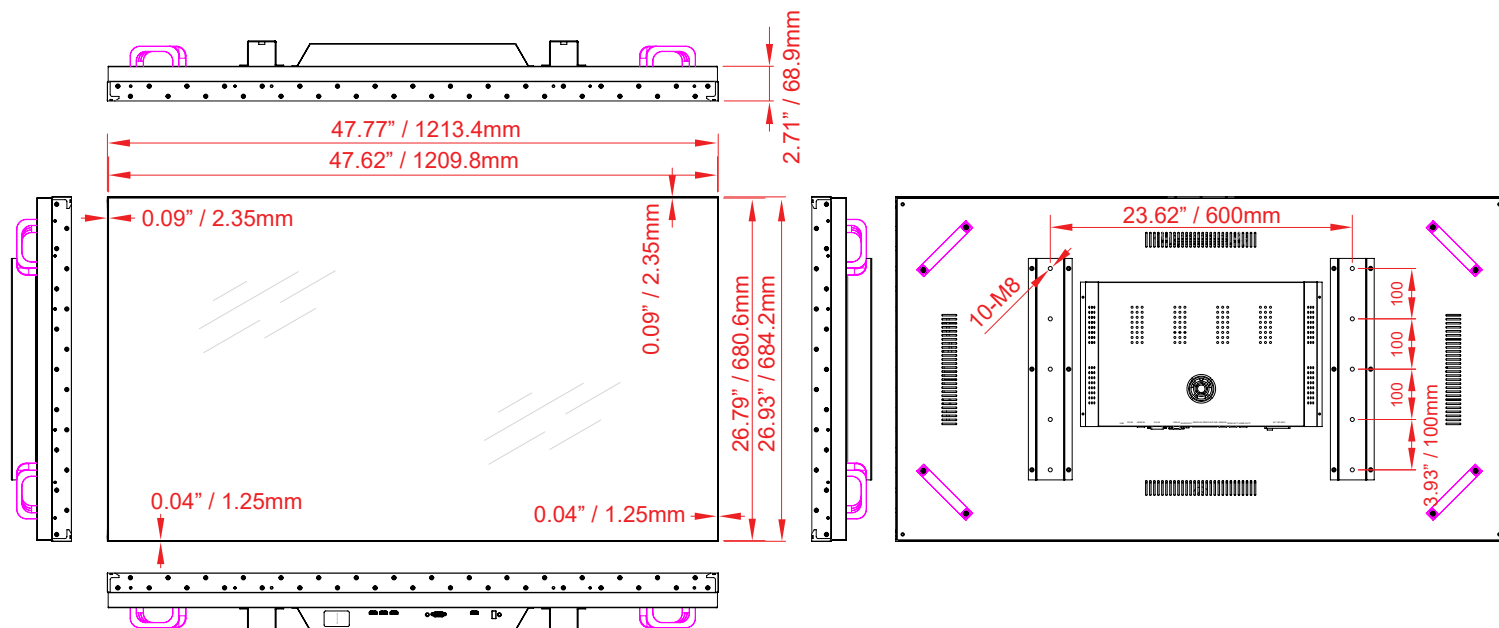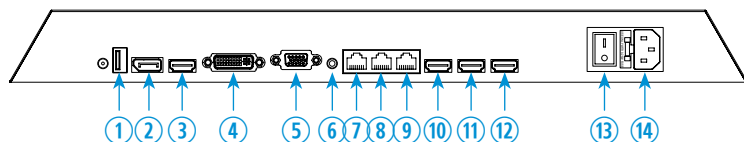
4K Source Input

HDMI CABLE

HDMI Cable

A
DAISY CHAIN

1080p input will be shown as **1080p** via whole monitors

4K input will be shown as **4K** via whole monitors

HDMI IN — HDMI OUT — HDMI IN
HDMI OUT — HDMI IN
HDMI OUT — HDMI IN

VMS

IR Receiver

Cat 5 Cable
HDMI Cable

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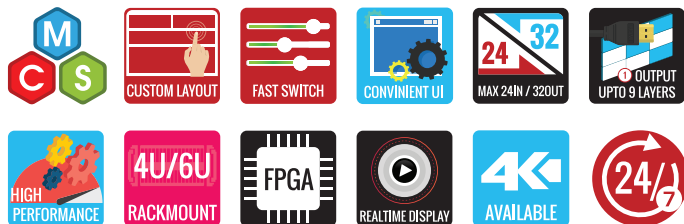
DIMENSIONS

INTERFACE

1. USB - For upgrading SW
2. DP IN
3. HDMI 1 IN
4. DVI-D IN
5. VGA IN
6. AUDIO OUT
7. RS232 (RJ-45) IN - Serial Control / IR Receiver
8. RS232 (RJ-45) OUT - A - Serial Control
9. RS232 (RJ-45) OUT - B - Serial Control
10. HDMI 2 IN (Daisy Chain)
11. HDMI 2 OUT - A (Daisy Chain)
12. HDMI 2 OUT - B (Daisy Chain)
13. POWER ON / OFF Switch
14. AC 100-240V IN

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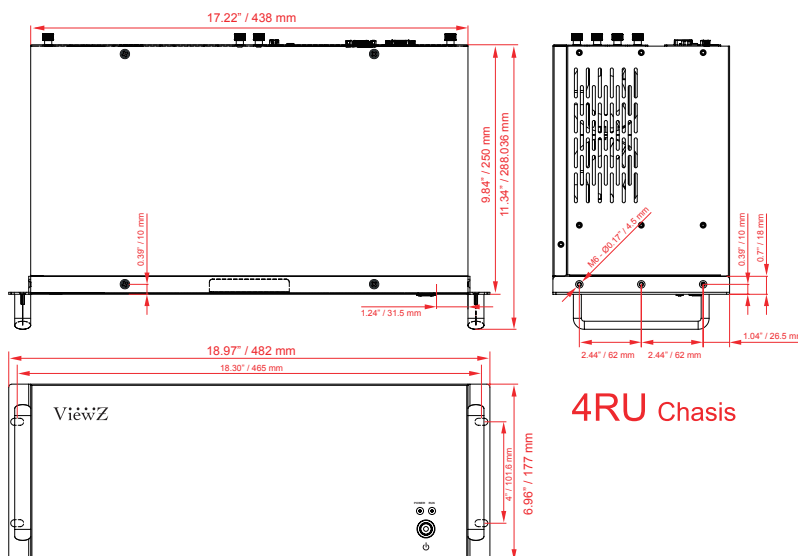
VZ-PRO-ST
Video Wall Controller

VZ-PRO-ST ADVANTAGES

- Maximum Input and Outputs of 24x32 for 1080p
- Hot-Pluggable Structure and High Integration of Chassis – 4U
- Pure Hardware Structure, no Operating System and High Stability
- Advanced Remote Control Software via TCP/IP
- Serial Control RS-232C Available
- Text and Log
- 3 year Warranty

VZ-PRO-ST Series is a FPGA-design professional high-performance image processing video wall controller. It can display multiple images on multiple screens in real time without loss of frames for full function multi-window splicing. This advanced control device provides an ideal image processing solution for security operations centers, traffic control centers and other similar applications.

This wall controller adopts the large-scale high performance FPGA array and high–speed digital switching technology architecture and combined with full digital hardware design concept, provides a CPU-free operation and offers powerful processing capabilities such as broadband video signal acquisition and real-time high resolution digital image processing. VZ-PRO-ST uses digital multibus paralleling and digital multibus data switching processing mechanism that can fundamentally ensure all the input signal sources are processed with real-time processing and data consistency without delay, discretization and frame loss.

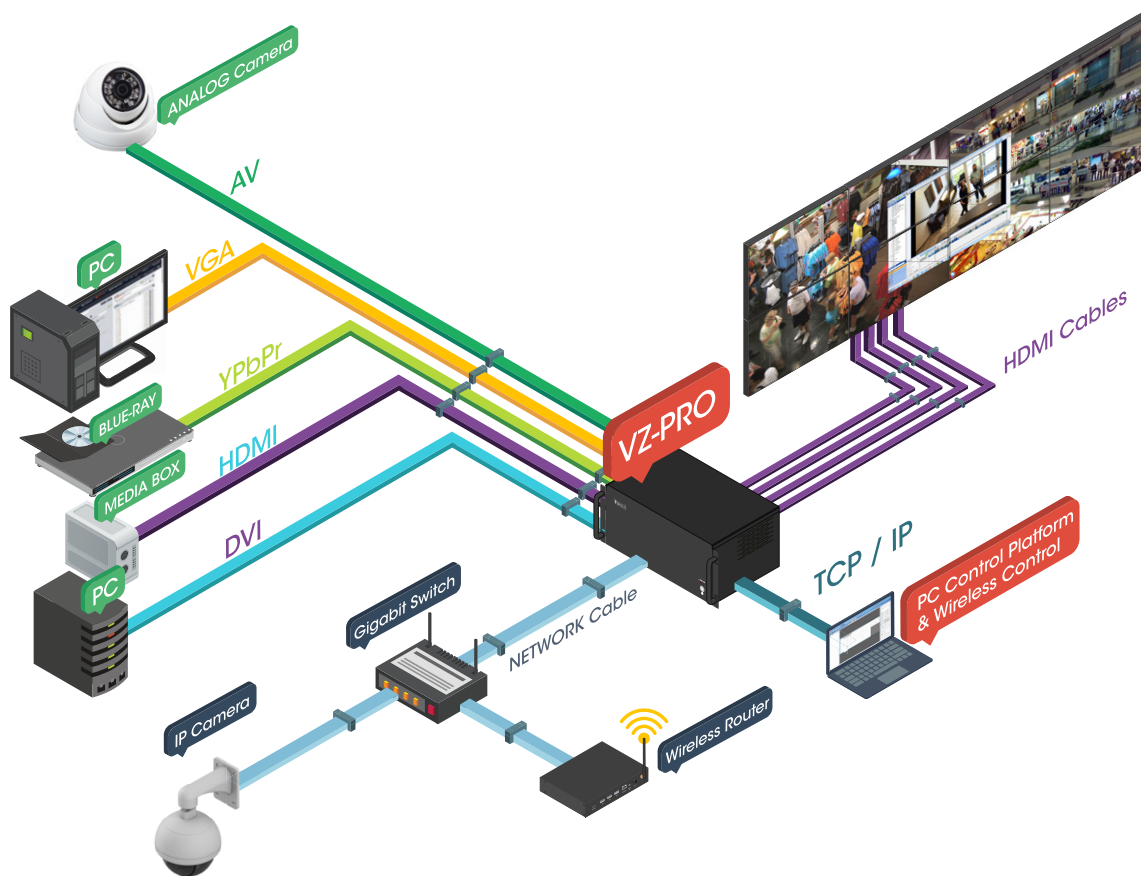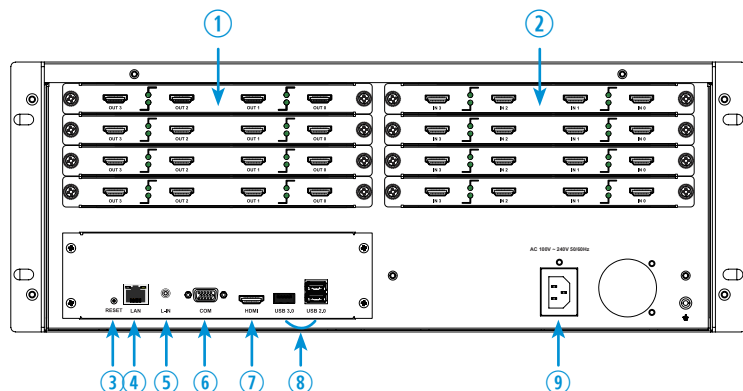| MODEL # VZ-PRO-ST	4RU
SPECIFICATIONS	
Frame Number	1
Total Card Support	8
Max Input Card	4
Max Output Card	4
RESOLUTION	
Max Resolution	1920 x 1080 @60Hz
Max Bit Rate	6.75 Gbps per system
Support Layers	Up to 9 layers per output card
INTERFACE	
HDMI 4K Input Card (VZ-H4K-IN1)	HDMI 1.4 1 Input	Up to 3840x2160p/30
HDMI HD Input Card (VZ-H2K-IN4)	HDMI 1.3 - 4 Inputs	Up to 1920x1080p/60
HDMI HD Output Card (VZ-H2K-OUT4)	HDMI 1.3 - 4 Outputs	Up to 1920x1080p/30
HDMI HD Input Card (VZ-H2K-OUT2)	HDMI 1.3 - 2 Outputs	Up to 1920x1080p/60
DVI HD Input Card (VZ-D2K-IN4)	DVI - 4 Inputs	Up to 1920x1080p/60
DVI HD Output Card (VZ-D2K-OUT4)	DVI - 2 Outputs	Up to 1920x1080p/30
IP Input Card (VZ-IP-IN)	RJ x45, H.264, 1080p
Ethernet (RJ-45) In	1 (Remote Control)
RS 232 In	1 (Serial Control)
USB 3.0 / USB 2.0 - Firmware Update	1 / 2
WEIGHT & DIMENSIONS	
Dimensions (W x D x H)/ unit: inch	18.97 x 11.34 x 6.96
Dimensions (W x D x H)/ unit: mm	482 x 288 x 177
Net Weight	26.4 lbs / 12 Kg
REMOTE CONTROL	
Serial Control (RS232C) / TCP/IP (RJ45)	Support
Remote Control Software for TCP/IP	Support (Compatible with Windows XP/7/8/10)
GENERAL	
Power Input	100 - 240V AC
Power Consumption (Full load)	130 Watts
Operating Temperature	32 ~ 122°F / -30 ~ 50°C
Operating Humidity	5% - 95% Non-Condensing
Cooling Fan	Provided

DIMENSION

4RU Chasis

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- Specification subject to change without notice.

CONNECTION DIAGRAM

INTERFACE

1. HDMI OUT
2. HDMI IN
3. RESET
4. RJ 45 IN
5. Line IN (FUTURE USAGE)
6. RS232 (RJ-45) IN
7. HDMI (FUTURE USAGE)
8. USB 3.0 / USB 2.0 IN x 2
   - Firmware Update
9. AC 110V IN

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Q-SYS

TSC-50-G3
TSC-70-G3
TSC-101-G3

KEY FEATURES

- High performance network touch screen controllers for Q-SYS

- Enhanced onboard processor with increased resolution and significantly improved screen transitions on all models

- Customizable RGB LED status indicators (7-inch and 10 in models only)

- Integrated proximity sensor wakes the screen on approach while an ambient light sensor adjusts screen brightness

- Build inuitive and scalable UCIs in the same software program as your DSP and control programming for a streamlined design and deployment process

- Supports CSS-based styling letting users build more dynamic UCI themes and apply global styles across multiple UCIs

- UCI Controller (in Beta) is an alternative method of building UCIs from a template of control types to simplify deployment and scalability of multiple UCIs

- Supports Power over Ethernet to allow for power and data on a single cable for simple, single-cable installation

- All models support landscape/portrait orientation when wall-mounted

- Optional table top mount accessory available (5-inch model supports landscape/portrait mounting)

- Universal mounting options: Included accessories for mounting to US standard and European wall and junction boxes

- Available in three sizes (5-inch, 7-inch, 10.1-inch)

Q-SYS TSC-G3 Series

Network touch screen controllers for Q-SYS

The Q-SYS TSC Series Gen 3 are high-performance network touch screen controllers native to Q-SYS. Available in three sizes (5-inch, 7-inch, 10-inch), these PoE-capable (power over Ethernet) devices support a wide range of applications needing a fully-customizable user control interface (UCI).

Like all Q-SYS products, the TSC Series Gen 3 integrate seamlessly into a system design and take full advantage of drag-and-drop integration and robust control engine within Q-SYS to provide users with intuitive AV controls for any space.

The Next Generation of Q-SYS Touch Screens – The TSC Series Gen 3 network touch screen controllers offer a complete redesign, built for higher performance and modern aesthetics. This series offers increased resolutions with significantly improved screen transitions on all models. Furthermore, the enhanced onboard video processor makes these screens future-ready for upcoming Q-SYS video features.

The 7-inch and 10-inch models also feature RGB LED status indicators on the side of the touchscreen that can be fully customizable to signify anything from call/mute status, room-in-use, and beyond.

Lastly, each model supports vertical and horizontal orientation, and allows for wall-mounting in a single-gang wall box (TSC-50-G3), dual-gang wall box (TSC-70-G3 & TSC-101-G3), or table-top mounting with optional accessory (not included).

Fully Customizable User Control Interface – Q-SYS offers a unique drag-and-drop UCI creation utility within Q-SYS Designer Software for building intuitive and scalable interfaces without the need for any programming. Each TSC Series Gen 3 network touchscreen can display anything from a few simple controls on single page GUIs to comprehensive GUI's with reactive controls that change based on system status. It's also simple to import corporate logos and other graphical elements to enable UCIs tailored to each customer's unique requirements.

Additionally, Q-SYS supports CSS-based styling, which allows integrators to build more dynamic UCI themes and apply global styles across multiple UCIs (or system designs). Q-SYS also offers the new UCI Controller feature (in Beta) that make it much simpler to copy, reuse, and modify UCIs to allow for easier deployment and scalability of multiple UCIs.

Designed for Q-SYS – TSC Series Gen 3 network touch screen controllers are high-performance devices native to Q-SYS, a cloud-manageable audio, video, and control platform, built to deliver scalable, flexible AV solutions well into the future. At its foundation, the **Q-SYS OS** serves as the software foundation that manages your TSC Series devices along with a multitude of other native **Q-SYS Products**. Additionally, the modern IT architecture and development tools of the Q-SYS Platform enable an entire Ecosystem of third-party devices developed by approved **Q-SYS Partners**, as well as a worldwide community of Q-SYS developers using the available tools found in **Q-SYS Open.**

Q-SYS NC-110
Q-SYS NC-12x80
Q-SYS NC-20x60

KEY FEATURES

- NC-110: fixed-lens, electronic pan, tilt, zoom (ePTZ) with 110° horizontal field of view

- NC-12x80: 12x optical zoom, 80° horizontal field of view

- NC-20x60: 20x optical zoom, 60° horizontal field of view

- Professional quality video conferencing for the Q-SYS AV-to-USB bridging solution

- Distribute video via the Q-LAN network anywhere it is needed

- Add as many network-based NC Series cameras to a design as needed to enable multi-camera functionality when integrating web conferencing platforms

- Distribute video via the Q-LAN network anywhere it is needed

- Simultaneously stream IP feeds and HDMI or SDI (PTZ models only)

- User-configurable resolution and quality for IP streams (up to 1080p), providing greater flexibility for a wide variety of use cases

- Comprehensive management via Q-SYS Designer Software and Q-SYS Reflect Enterprise Manager

- Complete camera imaging controls, including white balance, focus and exposure

- Image Rotation control inverts the video when the camera is mounted upside down. For PTZ cameras, the optional ceiling mount accessory is the PTZ-CMB1

- Power over Ethernet

- Local 12 V connection for PTZ models (power supply not included)

- PTZ models include PTZ-WMB1 wall mount bracket for simple installation; ePTZ model has built-in mounting hardware

- Includes lens cover for privacy (NC-110 only)

Q-SYS NC Series Cameras

Network cameras for collaboration

The Q-SYS NC Series conference cameras deliver high-quality video feeds natively to the Q-SYS Platform. With three models to choose from, these network cameras offer a simple and scalable video solution for any size meeting space.

Driven by the Q-SYS OS, the NC Series integrate seamlessly into any Q-SYS system, allowing for easy camera feed routing anywhere on the network without the need for complicated programming or video matrix hardware. These camera video feeds are delivered to any modern video conferencing applications such as Microsoft Teams, Zoom, Google Meet, and Cisco Webex via any Q-SYS AV bridging peripheral

BENEFITS

Rightsized camera options: Choose the right camera for your room. The Q-SYS NC-110 EPTZ camera drives the Q-SYS AV bridging solution into smaller, wider or more value-engineered room types and applications, while the Q-SYS NC-12x80 and Q-SYS NC-20x60 deliver professional PTZ functionality and presets, enabling larger and/or reconfigurable room layouts.

Network transport, USB delivery: NC Series solves the cable length limitations of traditional cameras solutions by enlisting a single network cable for video, power and control data transport into Q-SYS, and then employs USB technology to deliver the video to its intended PC/compute device. This greatly simplifies system design and deployment by eliminating the need for costly, unreliable USB cabling. Furthermore, NC Series goes beyond the traditional 1-to-1 limitation found in most USB cameras by allowing for a "many-to-any" scenario that allows users to integrate as many NC Series cameras as needed in their Q-SYS system design

and take advantage of network-based realtime camera switching

Multiple camera support for UC platforms: Q-SYS uses the power of the network (rather than dedicated switching hardware) to allow you to add as many NC Series cameras to your system as you desire and do live switching between the cameras, all while delivering a singular UVC/UAC stream to your application of choice

Universal Compatibility: The feeds from NC Series cameras, along with Q-SYS room audio, can be delivered to the conferencing application of your choice. With this functionality, Q-SYS can scale the meeting experience for Zoom, Microsoft Teams, Google Meet, Cisco Webex and more into rooms of any size or configuration to ensure a great experience parity for both in-room and remote meeting participants.

Designed for Q-SYS: NC Series collaboration cameras are native to Q-SYS, a cloud-manageable audio, video and control **platform**, built to deliver scalable, flexible AV solutions into the future. At its foundation, the **Q-SYS OS** serves as the software foundation that manages your NC Series cameras along with a multitude of other native **Q-SYS Products** in the platform. Additionally, its modern IT architecture and development tools of the **Q-SYS Platform** enables an entire **Ecosystem** of third-party devices developed by approved Q-SYS Partners, as well as a worldwide community of Q-SYS developers.

ATND1061 Beamforming Ceiling Array Microphone

Network Microphones

Features

- The ATND1061 beamforming microphone array is an ideal solution for conference rooms, boardrooms, and meeting spaces large and small
- Powerful onboard DSP: automix, acoustic echo cancelation, noise reduction, automatic gain control, and 4-band EQ
- User-friendly Digital Microphone Manager software easily configures single or multiple ATND1061 microphone settings
- Six individual output channels with up to 32 user-defined microphone pickup zones provide the flexibility to cover a wide variety of room sizes and meeting types
- Output Channel 1 can be configured with up to 16 user-defined Coverage Zones to ensure coverage of nonpriority or unplanned participants
- Output Channels 2–6 can be configured with up to 16 user-defined Priority Zones to ensure priority pickup of participants in known locations
- Proprietary voice activity detection (VAD) technology enables the microphone to discern between a voice and unwanted noises such as paper shuffling
- Exclusion zones can be set in the software to avoid known sources of unwanted noise (such as air-handling systems)
- Two network ports with Single Cable and Split modes to send Dante audio and microphone control data together or separately over category cable (ATND1061DAN)
- Mounts flush or on the surface of a drop ceiling or hard ceiling, or in open architecture spaces using VESA mount
- UL 2043 compliant for installation in plenum spaces
- Includes tile bridge, safety wiring, and mounting hardware and accessories
- Low-reflective white finish matches ceiling tiles in most environments
- Powered by network PoE

Description

The ATND1061 Beamforming Ceiling Array Microphone is an ideal solution for conference rooms, boardrooms, and meeting spaces large and small. The microphone may be used singly or in multiples (for larger meeting spaces) to capture every person speaking in a room with clear, natural audio that reduces distracting environmental sounds. A state-of-the-art professional product in a familiar form factor (roughly the size of a wireless access point), the ATND1061 is easy to install, set up, and operate.

Room configuration, zone setup, and other settings are handled through the user-friendly Digital Microphone Manager software application. The ATND1061 has six individual output channels, which, collectively, can be configured with up to 32 user-defined microphone pickup zones, providing the flexibility to cover a wide variety of room sizes and meeting types.

Audio-Technica's proprietary voice activity detection (VAD) technology enables the microphone to discern between a voice and unwanted noises such as paper shuffling. For integrations without external digital signal processing (DSP), the ATND1061 features powerful onboard DSP, including automix, acoustic echo cancellation (AEC), noise reduction, automatic gain control (AGC), and 4-band EQ.

Exclusion zones can be set to avoid known sources of unwanted noise (such as air-handling systems), helping to maximize the effectiveness of the built-in noise-reduction and automatic-mixing functions.

Coverage Zones

Output Channel 1 can be configured with 16 user-defined Coverage Zones, within which a meeting participant may be seated or move about while speaking. The beam will track and keep the microphone focused on the speaker's voice, minimizing any room noise. Only one of the 16 Coverage Zones can be open at a time with the microphone automatically selecting the zone with the strongest signal identified as speech. Coverage Zones can be helpful in picking up either nonpriority or unplanned participants.

Priority Zones

Output Channels 2–6 can be configured with 16 user-defined Priority Zones. Priority Zones ensure that participants in these zones, whether seated or moving about, receive priority over those in Coverage Zones. (However, Priority Zones can also be defined within an existing Coverage Zone.) A maximum of five Priority Zones can be open at a time, with each open zone selecting the strongest signal identified as speech. Priority Zones can be helpful in providing priority for a room's known participant locations.

Across all the output channels, the microphone's 90-degree orthogonal beams are capable of focusing on a particular point in space, preventing the pickup of unwanted noise.

The ATND1061 can be flush- or surface-mounted in a drop ceiling or hard ceiling, or mounted in open architecture spaces via a standard VESA mount. The ATND1061 is UL 2043 compliant for installation in plenum spaces. All mounts, safety wiring, mounting hardware, and accessories are included.

An IR remote is also included to allow users to quickly mute the microphone when a muting function is not available in the room configuration. The IR remote can also be used to recall presets or toggle the Power Save Mode on and off.

The Dante-enabled ATND1061DAN has two network ports, which can be configured to fit any installation requirement. In "Single Cable Mode," Dante audio and microphone control data are sent together over a single standard category cable. In "Split Mode," Dante audio and microphone control data are sent separately over two category cables.

The ATND1061 is powered by network PoE.

Architect's and Engineer's Specifications

The beamforming array microphone, designed for use in conference rooms, boardrooms, and other meeting spaces, shall mount flush or on the surface of a drop ceiling or hard ceiling, or in open architecture spaces using a standard VESA mount. The microphone shall come with surface- and flush-mount adapters, a flush-mount cover, mounting screws and nuts, tile-bridge assembly, installation template, a seismic cable, Euroblock connectors, snap bushings, and a hole cover that can be used when only a single conduit is connected.

The microphone shall have six individual output channels, which, collectively, can be configured with up to 32 user-defined microphone pickup zones. Output Channel 1 shall be configurable with up to 16 user-defined Coverage Zones to ensure coverage of nonpriority or unplanned participants. Output Channels 2–6 shall be configurable with up to 16 user-defined Priority Zones to ensure priority pickup of participants in known locations. The microphone's 90-degree orthogonal beams shall function across all output channels, enabling it to focus on particular points in space and prevent the pickup of unwanted noise. Voice activity detection (VAD) technology shall enable the microphone to discern between a voice and unwanted noises such as paper shuffling.

The microphone shall have an onboard DSP with functions that include automix, acoustic echo cancelation, noise reduction, automatic gain control, and 4-band EQ. The face of the microphone shall be outfitted with a reset button and an IR window to receive mute and other control signals from an included IR remote.

The microphone shall have a frequency response of 60 Hz to 18,000 Hz and be capable of handling sound input levels up to 102 dB.

audio-technica

SLX-D

DIGITAL WIRELESS SYSTEMS

Your performance should never be in question. Whether presenting, educating, praising or entertaining, your relationship with your audience is singular. With SLX-D Digital Wireless you can stand confidently on a strong foundation and build the wireless installation to match ongoing demands, from day-long conference to nighttime performances.

ALWAYS COME THROUGH CLEAR
In front of an audience, clarity is simply essential. SLX-D provides crystal-clear digital audio quality with >118 dB dynamic range.

DROPOUTS ARE OUT
From the leader in digital wireless technology, SLX-D maintains stable signals with high efficiency for rock-solid, reliable performance.

KEEP THE SHOW GOING
Ready to perform for all-day conferences and nighttime performances— up to 8 hours of use from either 2 AA batteries (included) or optional Shure SB903 Li-ion rechargeable batteries and charging accessories.

APPLICATIONS

Event, Presentation and Speech

House of Worship

Performance and Clubs

PRODUCT HIGHLIGHTS

Extended 20 Hz to 20 kHz frequency range (microphone dependent)

118 dB dynamic range

Digital predictive switching diversity

44 MHz tuning bandwidth (region dependent)

32 available channels per frequency band (region dependent)

Up to 10 compatible systems per 6MHz TV band; 12 systems per 8 MHz band

Easy pairing of transmitters and receivers over IR scan and sync

Compatible with Shure Wireless Workbench® control software

Remote control via ShurePlus™ Channels mobile app

Up to 8 hours from 2 AA batteries or optional Shure SB903 rechargeable battery

SHURE

AcousticDesign™ Series AD-C6T-ZB

KEY FEATURES

- Zero bezel design for the needs of modern applications

- Consistent tonal characteristics across the entire AcousticDesign Series for surface, ceiling, and pendant applications

- DMT (Directivity Matched Transition™) waveguide ensures smooth, uniform frequency response over the coverage area

- Snap-fit magnetic grille

- 3x double stepped, long travel dog-ear blind mount system

- Intrinsic Correction™ voicings available via the Q-SYS Platform including CX-Q amplifiers

- Blemish-free removable logo

- Removable conduit cover plate, also available as accessory for pre-install wiring

- UL1480 and UL2043 certified

- Available in white (RAL 9003), with black grille accessory sold separately.

- Complete EASE, CF2, CAD, & BIM information available online

AcousticDesign™ Series AD-C6T-ZB

6.5" small format, zero bezel ceiling mount loudspeaker

The Q-SYS AcousticDesign™ AD-C6T-ZB is a 6.5" two-way, zero bezel ceiling loudspeaker ideally suited for a wide variety of foreground and background sound reinforcement applications which utilize 70/100V or 16Ω bypass configurations.

The AcousticDesign™ Series offers integrators a premium quality installed sound solution where performance, consistent coverage, and aesthetics are paramount. Specifically designed to maintain a consistent tonal characteristic across the entire family in ceiling, surface, and pendant applications, the AcousticDesign Series allows integrators seamless transitions within blended installations.

The AD-C6T-ZB features a high quality 6.5" weather treated paper cone woofer with a 1" voice coil and a .75" aluminum dome tweeter which is positioned on a DMT waveguide.

DMT (Directivity Matched Transition™) is Q-SYS's design philosophy where the high frequency waveguide is matched to the natural conical behavior of the woofer at the crossover point. The result is a coherent transition between transducers with improved off-axis power response for consistent 150° conical DMT coverage.

The accurate frequency response of the AD-C6T-ZB is maintained even in 70/100V applications by use of a low-loss, low-saturation 30-watt transformer with selectable taps, including 16Ω bypass, using a rotary selector located under the snap-fit magnetically attached powder coat steel grille.

To retain lasting good looks, the rugged ABS baffle is further protected by using UV inhibitors that prevent discoloration and by a powder coated steel back can. The magnetic grille features a stick-on logo that can be removed blemish-free for installations where branding is not permitted.

Installers will appreciate the 3x double stepped, long travel dog-ear blind mounting system, which captures from 0" - 2.25" of ceiling thickness. The conduit cover plate can be easily removed by losening the single captive Phillips screw allowing access to the locking 4-pole Euro-block connector which can accept up to four 18AWG pairs, eliminating the hassles of star topology wiring designs.

Intrinsic Correction™ voicings that optimize performance and speed the install process are easily deployed via the Q-SYS Platform including CX-Q Series amplifiers.

The AD-C6T-ZB is available in white (RAL 9003) with black grilles sold separately, and has the ability to be painted to match any decor.

For your system integration needs, complete EASE, CF2, CAD, and BIM files are available for download at Q-SYS.com.

Certified for
Microsoft Teams

Q-SYS Core 8 Flex

KEY FEATURES

- 64 x 64 networked audio channels (Q-LAN / AES67)

- Eight on-board Flex channels and GPIO

- 8 x AEC (acoustic echo cancellation) processors

- up to 32 x 32 Dante audio channels (8 x 8 included)

- Supports up to three (3) Q-SYS NM-T1 tabletop microphones (up to six (6) with the Collaboration Bundle scaling license)

- USB AV bridging (8 x 8 audio + Q-SYS camera support)

- External USB audio device host

- Supports up to 2 VoIP softphone instances

- Full featured Q-SYS Control engine

- Dual gigabit ethernet ports with assignable application resources offering any combination of VoIP, Q-LAN Control, Q-LAN audio or network redundancy

- Internal power supply

- 1U half-width, includes mounting hardware

Q-SYS Core 8 Flex

Analog + Network I/O Processor

Introducing the Q-SYS Core 8 Flex audio, video and control (AV&C) processor, which extends the applications of the Q-SYS Ecosystem into a wider range of smaller-scale installations across corporate, higher education, healthcare and beyond. Built on the same foundational technology as the rest of the Q-SYS processor portfolio, including the best-in-class Q-SYS Core 110f, the Core 8 Flex is designed for applications with lower network channel capacity and/or targeted processing requirements.

Core 8 Flex offers onboard analog audio I/O and GPIO plus network AV&C processing, and like all Q-SYS Core processors, the Core 8 Flex delivers features and functionality at the software level, including acoustic echo cancellation (AEC), wide-area paging, video routing, and a full featured control engine without the need for dedicated control processors.

ONBOARD ANALOG I/O PLUS NETWORK I/O

In addition to it's 64 x 64 network aaudio I/O capacity, the Core 8 Flex offers eight on-board Flex channels and eight GPIO on-ramps to integrate analog audio and control devices into the Q-SYS Ecosystem

RIGHTSIZED. UNCOMPROMISED.

Rather than deploying an AV&C processor with unused analog I/O that occupies a full rack space, Core 8 Flex offers a smaller, space-efficient solution with the right amount of analog I/O. However, it does not compromise on functionality; instead it delivers a fully-integrated and customized Q-SYS experience, from paging and background music distribution to control, automation and beyond (the same feature set as the larger Cores in the processor portfolio).

OPTIMIZED FOR THE MEETING SPACE

While it can be used across multiple installation types, Core 8 Flex provides the AV infrastructure to enable full room web conference integration, particularly for larger, more challenging spaces. It features USB integration with all major web conferencing applications, eight channels of acoustic echo cancellation (AEC), two VoIP softphones, Software-based Dante to enable modern microphones, and a full-featured control engine for third-party device integration.

REDUCE COMPLEXITY AND IMPROVE SCALABILITY WITH THE Q-SYS ECOSYSYEM

The Q-SYS Core 8 Flex joins a growing Ecosystem of AV&C processors built on a flexible software foundation that deliver features and functionality without relying on dedicated, single-purpose hardware. Like all Q-SYS Cores, the Core 8 Flex lets integrators take full advantage of the same Q-SYS software suite to design and configure systems, and end users can benefit from a more holistic user experience as a result of all native Q-SYS peripherals, and the system's ability to scale your system without having to rip-and-replace your configuration file.

Certified for
Microsoft Teams

works with
Google Meet

QSC

SPA Series

SPA2-60 | SPA4-60
SPA2-200 | SPA4-100

Low-Z / High-Z Professional Amplifiers

Features

- **Up to 200 watts per channel into 4 and 8 ohms -** the outputs of the SPA2 and SPA4 -60 models are designed to provide up to 60 watts per channel while the SPA4-100 will provide up to 100 watts and the SPA2-200 will provide up to 200 watts per channel into Low-Z loads

- **ENERGY STAR qualified amplifier -** The ENERGY STAR qualified SPA Series employ an efficient class-D design to conserve energy and reduce operational cost

- **Bridgeable outputs for higher power -** Bridging the outputs of the SPA -60 amplifiers provide up to 250 watts, while the SPA2-200 and the SPA4-100 will deliver up to 175 watts into 70V or 100V when bridged

- **Auto-Ramp provides quiet startup and power-down -** The ENERGY STAR auto-ramp circuitry ensures quiet and fast power up from standby and seamless power-down following 25 minutes of inactivity, dramatically reducing power consumption

- **Rack-mountable 1U, half rack width enclosure -** The SPA Series can be mounted in 1 RU, 1/2 rack space, and their clever joining brackets enable easy under-table and wall-mounting

The SPA Series amplifiers from QSC are four, half-rack RU, convection cooled power amplifiers delivering two or four channels of up to 200 watts per channel into 4 Ω and 8 Ω. These amps can also be bridged to supply up to 400 watts into 4 Ω and 8 Ω, and up to 350 watts into 70 V or 100 V loads making them extremely flexible for Low-Z or High-Z applications. Utilizing an advanced Class-D amplifier design and Universal Power Supply, the SPA Series are efficient, allowing them to be convection cooled and are ENERGY STAR qualified with quiet auto-ramp standby functionality. The SPA Series are housed in an unobtrusive black painted 1/2 RU chassis with unique mounting hardware enabling rack, table and wall mounting capabilities.

Efficient Amplifier with Auto-Ramp

The SPA Series amplifiers utilize a highly efficient class-D design that conserves energy to reduce operational costs and requires no active cooling. They are ENERGY STAR qualified with auto-ramp circuitry that seamlessly transitions to/from Standby with no audible pops.

Amplifier Protection

All amplifiers in the SPA Series feature rms and thermal limiting, as well as protection against over current, short circuit, and under/over voltage.

Protection, Control and Mounting

The SPA Series provide rms and thermal limiting as well as over-current and short-circuit protection so you can employ them with confidence. They also come with multiple mounting options. Every SPA Series comes with a complete mounting kit allowing it to be rack mounted by itself or with a second unit in a 1RU space. Included connecting brackets provide additional strength when rack mounting two amps together, but also make for simple under-table or wall mounting (like behind a TV). The SPA Series can also be mounted in plenum spaces when used with the Plenum Kit accessory.

Certified for
Microsoft Teams

Switching Engineered for AV over IP

Introducing the NETGEAR AV Line of M4250 Switches, developed and engineered for audio/video professionals with dedicated service and support. M4250 has been built from the ground up for the growing AV over IP market, combining years of networking expertise in AV with M4300 and M4500 series with best practices from leading experts in the professional AV market. AV codecs

generally use 1Gbps or 10Gbps per stream and the AV Line of M4250 targets the widespread 1Gbps codecs.

PoE+, Ultra90 PoE++ and rear-facing ports ensure a clean integration in AV racks. M4250 switches come pre-configured for standard audio and video signals. When requirements are more specific, an AV user interface offers customization with port-based profiles. For audio Dante,

Q-SYS and AES67 profiles are available, as well as an AVB profile requiring an AVB license sold separately. For video the M4250 offers profiles for NVX, AMX, Q-SYS, NDI, Dante etc. as well as audio/video/control mixed profiles. When multiple switches are used, NETGEAR IGMP Plus™ brings automation for you to just connect them together, or with M4300 and M4500 switches.

Highlights

Extended AV features

- Dedicated AV web-based GUI interface for more specific AV installations

- Color-based AV profiles can be applied to the different ports

- Dante, Q-SYS, AES67 and AVB audio profiles

- AVB requires a license (sold separately)

- NVX, SVSI, Q-SYS, NDI and Dante video profiles

- Audio / video / control mixed profiles

- Automatic switch interconnect with NETGEAR Auto-Trunk, Auto-LAG and IGMP Plus

- Common Layer 2 and Layer 3 switching engine across all M4250 models

- Built-in IT web GUI, console, telnet and SSH consistent with other NETGEAR M4300 and M4500 series

- Feature set includes static, RIP and PIM routing, DHCP Server and PTPv2

Audio Video Bridging (AVB) services

- AVB is one of the many features designed into the M4250 product line

- AVB is an industry standard for transporting content over a network

- AVB is used most often when very low latency is required such as in live performances when lip sync is critical

- All of the AV Line M4250 switches can be optionally licensed for AVB support

Other IT use cases

- Standard or recessed mounting with all ports in the back, or all ports in the front

- Fully featured L2/L3/L4 platform for midsize Enterprise campus networks, IoT and IPTV

Industry standard management

- Industry standard command line interface (CLI), main NETGEAR IT web interface (GUI), SNMP, sFlow and RSPAN

- Single-pane-of-glass NMS300 management platform with centralized firmware updates and mass-configuration support

Industry leading warranty

- NETGEAR M4250 series is covered under NETGEAR ProSAFE Limited Lifetime Hardware Warranty*

- 90 days of Technical Support via phone and email, Lifetime Technical Support through online chat and Lifetime Next Business Day hardware replacement