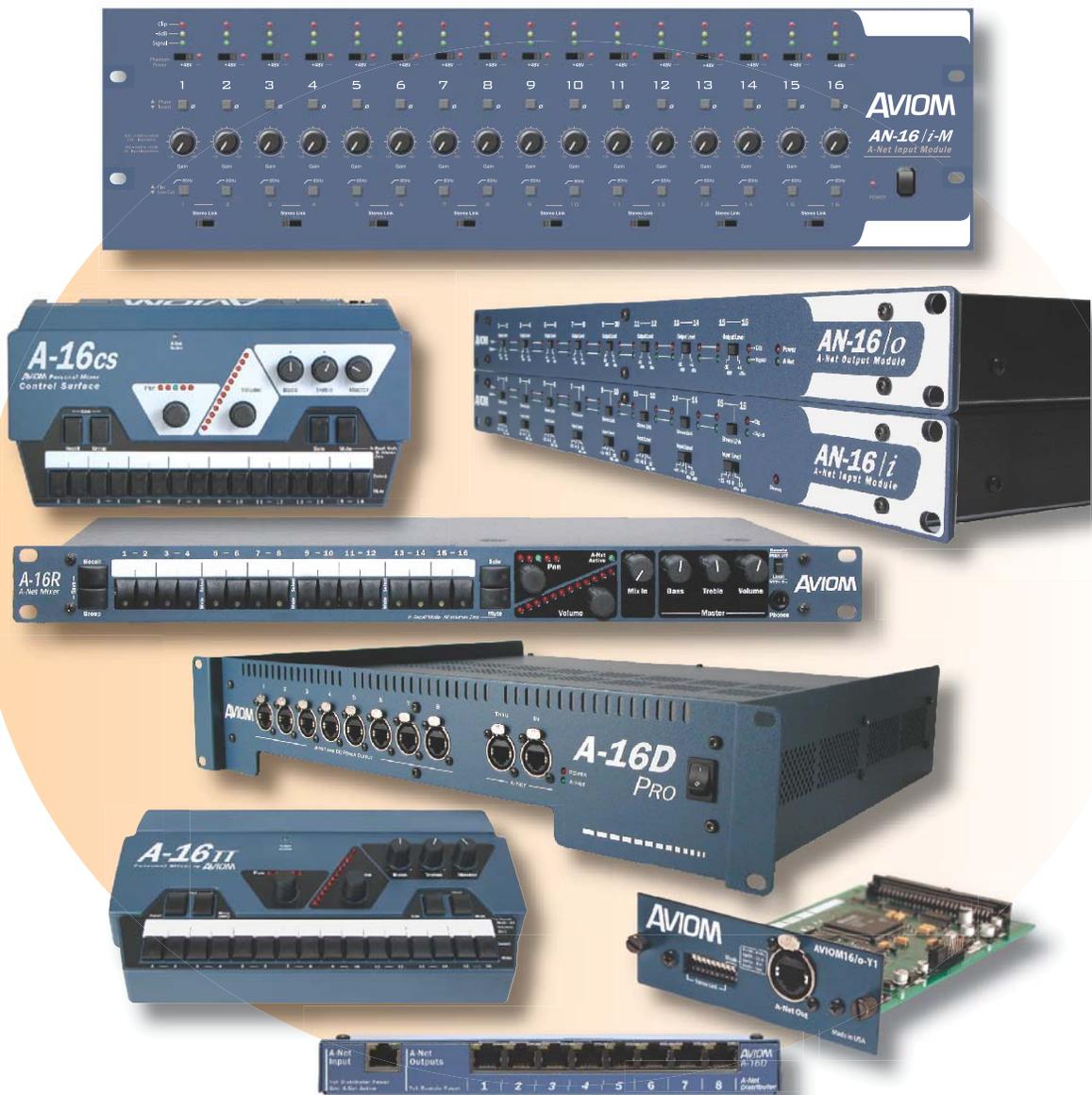


AVIOM[®]

Distributed Audio Networks



Personal Monitoring & Distributed Audio Solutions

www.Aviom.com

Aviom Solutions Worldwide

A-Net™ technology is being used around the world to provide high-quality professional audio solutions for a diverse set of applications including:

- Theater Productions
- Recording Studios
- Live Performance
- Radio & TV Broadcast
- Houses of Worship
- Education



"The A-16 is a very versatile, durable and easy-to-use system. I believe it will be a standard addition to all musicals from this point on."

Carl Casella of Sound Associates, New York, NY, System Designer for the shows Little Shop of Horrors and Hairspray

"We have upgraded our rhythm section's headphone/earbud setup to Aviom and have expanded with a second system for our horn section. All the musicians have enjoyed the quality and easy recall the Aviom system offers and we've enjoyed the flexibility and expandability it provides at an affordable price point."



Doug Leake, stage manager and monitor engineer at Prestonwood Baptist Church in Plano, Texas, one of the largest churches in the US.

"We operate a portable recording studio, and so we are especially sensitive to the utility of each and every item we carry with us. Studio Without Walls is better known, however, for the very high quality of the recordings we create, so utility alone does not earn our respect. Special praise is reserved for those devices that sound good and simplify our work."

Chief Engineer John Hurst, Studio Without Walls



"I was impressed with the ease of setup; we had the system up and running in just minutes."

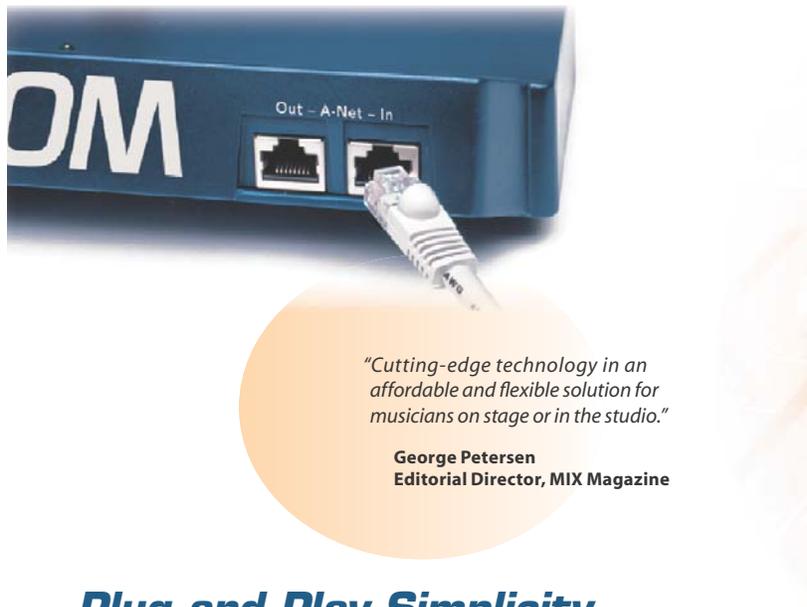
Jay Davidson, 76ers Houseband



A-Net™ Technology

A-Net™ is Aviom's ultra-fast data transmission protocol. It is capable of sending and receiving high-quality digital audio using readily available Category 5 cables. A-Net technology is a proprietary system developed by Aviom for moving audio without data compression, perceptible latency, or loss of audio fidelity. A-Net is based on Ethernet, a Local Area Network (or LAN) protocol, which provides a mature and robust technological foundation on which to build.

In a personal monitor system, the A-Net protocol carries sixteen channels of digital audio from the A-Net input module to each and every Personal Mixer connected to the system. In a distributed audio network consisting of multiple input and output modules, A-Net can move up to 64 channels of audio over a single cable.



Plug and Play Simplicity

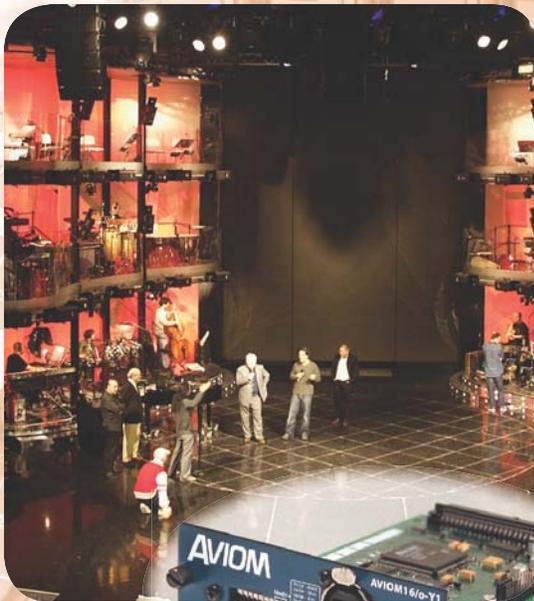
Some of the benefits of using A-Net to transmit digital audio are:

- Sub-millisecond latency (Analog In to Analog Out)
- No data compression; 48k, 24-bit resolution
- Secure data transmission with extremely low error rate
- An unlimited number of A-Net devices can be used in a system
- Ease in spanning long distances between system components
- Modular expansion allows an infinite number of splits
- Easy cabling using readily available components
- No computer required
- No ground loops or hum



Personal Monitor Mixing System™

Aviom's Personal Monitor Mixing System™ solves on-stage monitoring problems by giving each musician complete control over his or her own monitor mix. Using inexpensive Category 5 Ethernet cables, the Aviom system delivers 16 channels of high-quality uncompressed digital audio to a compact and easy-to-use control unit that can drive earbud monitors, headphones, powered monitor speakers, or external amps. Musicians can set and adjust their own mixes, define channel groups, adjust tone control, and save up to 16 mixes for easy recall. The heart of the system is A-Net™, Aviom's proprietary data transmission protocol which gives users plug-and-play simplicity and nearly limitless flexibility in system configuration, all while preserving the ultra-low latency performers require.



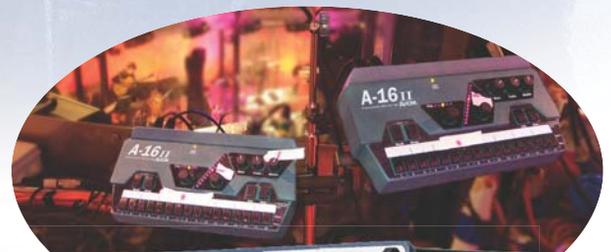
Distributed Audio Solutions

Networking multi-channel audio with a single inexpensive Cat-5 cable is easy with Aviom's Distributed Audio Network line of products. A system can transmit up to 64 channels of high-quality, uncompressed digital audio in a network that can be easily expanded or reconfigured. System configurations can include digital snakes and complex audio splitters. The network relies on Aviom's proprietary A-Net data transmission protocol, which can deliver digital audio over long cable runs – with up to 150 meters between components – with ultra-low latency. A-Net operates bi-directionally; it can simultaneously carry signals traveling in both directions, which means that users have the added flexibility of transmitting a combination of send and return signals on the same cable.

Flexibility Without Compromises

Expanding an audio system is as easy as connecting a Cat-5 cable from one device's A-Net Out to another's A-Net In. Aviom's ultra-fast A-Net technology allows almost unlimited configurations. Personal Mixers can be connected serially in a daisy-chain or in parallel by using A-Net Distributors, with up to 150 meters of cable between each device.

The Distributed Audio Networks products can be expanded as needed without signal degradation or increased latency. A-Net allows an unlimited number of output modules to be connected, creating a virtually unlimited audio splitter.



AN-16/i Input Module

The AN-16/i is a single rack space unit that

serves as the A/D input for the digital audio network. It converts sixteen line-level analog audio channels into uncompressed, full-bandwidth, 24-bit digital data transmitted via Aviom's proprietary A-Net protocol. All inputs are balanced, and are available with either 1/4" TRS jacks or Euroblock connectors. An A-Net Expansion jack allows data from multiple AN-Series units to be combined into a single Cat-5 cable.



A-16II Personal Mixer

The A-16II Personal Mixer gives each performer control over channel volume, grouping, pan, stereo spread, and master volume. Each and every Personal Mixer in the system can create a unique monitor mix for a performer. Users can save and recall up to sixteen custom mixes stored as Presets in their Personal Mixer. The stereo output from the Personal Mixer can be used to drive earbud monitors, headphones, or powered wedge monitors.



AN-16/o Output Module

The AN-16/o is a 1U rack-mount 16-channel

D/A converter. The AN-16/o is available with sixteen 1/4" balanced TRS line-level output jacks or Euroblock connectors on the rear panel. On the front panel, the AN-16/o has a two-position output level switch (+4 and -10dB) along with signal present and clip LEDs. Three digital network connectors on the rear panel for A-Net In, A-Net Out, and A-Net Expansion provide flexible signal routing and system configuration.



Aviom16/o-Y1 Yamaha Output Card

The Y1 Yamaha Output Card is a mini-YGDAI format card that fits into an expansion slot in the rear of Yamaha's digital consoles, including the 01V96, DM1000, 02R96, DM2000, PM5D, and PM1D. It allows the engineer to assign and send sixteen channels of audio in the digital domain to Aviom Personal Mixers directly from the Yamaha console's control surface. Stereo Link DIP switches allow up to eight stereo channel pairs to be configured.



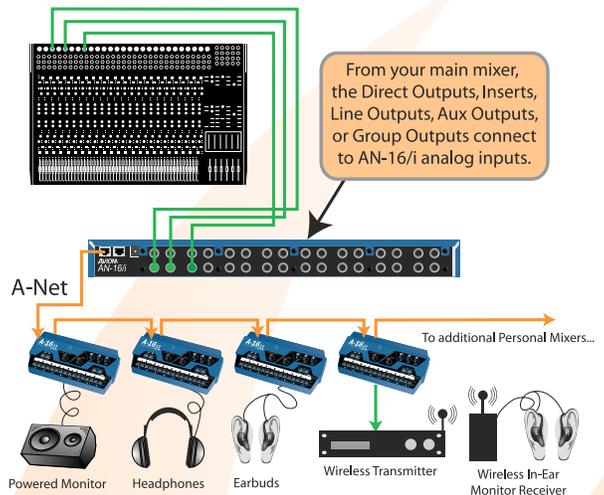
AN-16/i-M Mic Input Module

The AN-16/i-M is a 3U-high rack-mounted mic and line-level input device that allows mic level signals to be used with other AN-Series

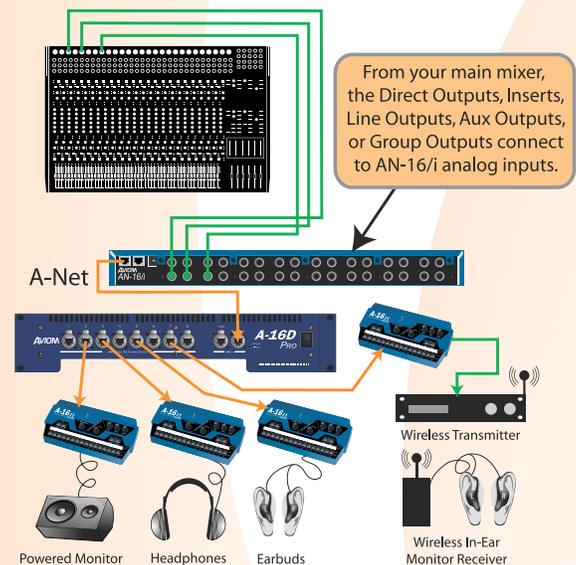
products as well as with the Personal Monitor Mixing System. The AN-16/i-M contains sixteen high-quality mic preamps with 24-bit A-to-D converters. Individual phantom power, phase invert, high-pass filter, and gain control are provided per channel. Each channel has a combo jack that can accept XLR mic or 1/4" line-level (balanced or unbalanced) inputs. Sixteen passive Mic Thru connectors create a built-in microphone splitter. Each channel also has a set of balanced insert points. The AN-16/i-M uses an internal power supply with a standard IEC electrical connector.



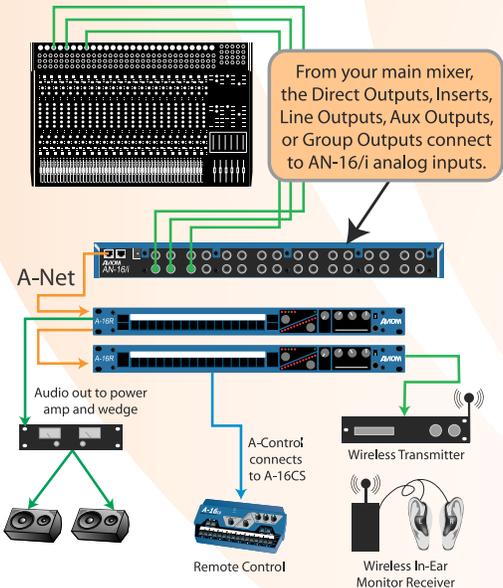
Series Connection of A-Net Devices



Parallel Connection of A-Net Devices

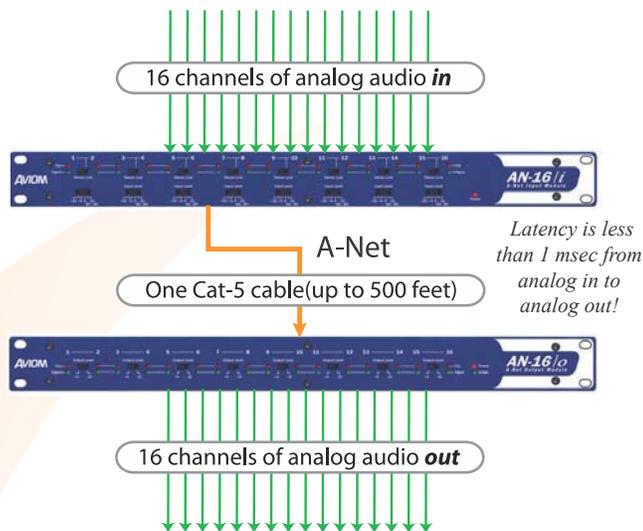


Using the A-16R with Wedges or Wireless In-Ear Monitors

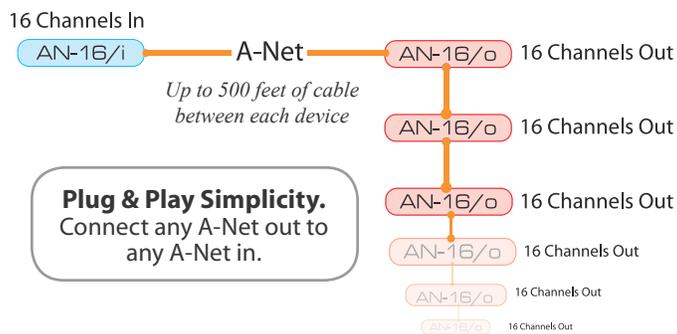


Configurations

Expandable Digital Snake - The AN-Series

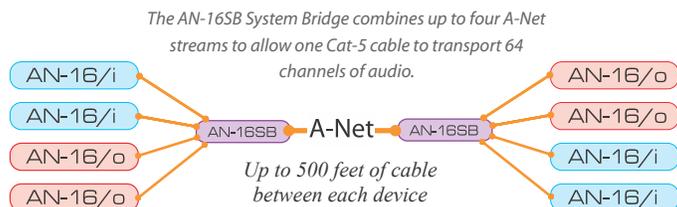


Flexible Output Expandability - Infinite Splits



A-Net makes expanding a system easy. Any number of output modules can be connected, creating the world's first infinite splitter.

64 Audio Channels - Flexible Configurations



The AN-Series offers a superior answer when it comes to system configuration. The architecture is completely modular; any of the components can be moved, re-connected, and recombined as needed.

- 64 x 0 (64-channel send with no return channels)
- 48 x 16 (48-channel send with 16 return channels)
- 32 x 32 (32-channel send with 32 return channels)
- 16 x 48 (16-channel send with 48 return channels)
- 0 x 64 (No channel send with 64 return channels)

Products



A-16D Pro A-Net Distributor

The A-16D Pro is designed to distribute the 16-channel A-Net signal from either an A-Net input module or another A-Net Distributor.

Each A-16D Pro accepts one A-Net input signal and provides eight simultaneous A-Net outputs using Category 5 Cables. The A-16D Pro A-Net Distributor enables parallel connection of A-Net devices, simplifying stage and studio setups. Eight isolated internal power supplies provide DC power for up to eight Personal Mixers, allowing them to be used without a local power connection. The A-16D Pro uses an internal power supply with a standard IEC electrical connector.

A-16R Personal Mixer

The A-16R Personal Mixer is designed to meet the demanding requirements of touring and studio pros alike. It is an excellent solution for monitor systems using wireless in-ear monitors, as well as those with power amp and wedge speakers. The A-16R retains all the features of the A-16II Personal Mixer, and adds balanced outputs (XLR and 1/4" jacks), stereo balanced insert points, and a stereo auxiliary mix input with a front-panel level control. User-created mix Presets can be stored and recalled by using MIDI program changes. The A-16R mix parameters can also be controlled via MIDI, providing sophisticated control for demanding stage and studio applications. The A-16R accepts the optional A-16CS.



A-16CS Control Surface

The A-16CS is an optional remote controller for the rack-mounted A-16R Personal Mixer. The A-16CS plugs into an accessory port on the rear panel of the A-16R. Control information from the A-16CS is used to save and recall Presets and to adjust the Channel settings for level and pan, Group, Solo, and Mute in the rack-mounted A-16R. It uses the same familiar button layout as the A-16II Personal Mixer. The A-16CS accepts a standard dual footswitch, which can be used to step through the sixteen saved Preset mixes.



A-16D A-Net Distributor

The A-16D is designed to distribute the 16-channel A-Net signal from either an A-Net input module or another A-Net Distributor. Each A-16D accepts one A-Net input signal and provides eight simultaneous A-Net outputs. The half-rack-space-wide A-16D allows parallel connection of A-Net devices, simplifying stage and studio setups. The A-16D also allows users to connect the Personal Mixer's external power supply directly into the A-16D, supplying DC power and the A-Net Signal to a Personal Mixer over the same Cat-5 cable.

AN-16SB System Bridge

The AN-16SB is a pair of units designed to be used with the AN-Series input and output modules to create a multi-channel digital audio distribution network. One AN-16SB allows four 16-channel A-Net streams to be combined and then transmitted over a single Category 5 cable, and another AN-16SB is used to separate the combined 64-channel A-Net stream into four individual data streams.



Product Features

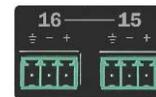
A-16ii Personal Mixer Features

- High-gain Line/Headphone audio output
- True stereo mixing with adjustable pan
- Dedicated Recall, Group, Solo, and Mute buttons
- Sixteen user Preset memory locations
- Pan/Spread control with LED readout
- Sixteen channel select buttons with dual LEDs
- Channel volume control with LED level readout
- Master Volume, Treble and Bass controls
- Global Trim 6db level adjustment function
- Tabletop or mic stand mountable (using optional MT-1 bracket)



AN-16i/ Input Module Features

- Sixteen balanced line-level audio inputs
- Sixteen balanced audio thru jacks
- 1/4 inch TRS jacks or Euroblock connectors (-EB version)
- Stereo Link switch per channel pair
- 4-position gain switch
- A-Net Out and Expansion jacks



A-16D Pro A-Net Distributor Features

- Easily distribute A-Net from a central location
- One A-Net input, eight A-Net outputs
- One A-Net Thru
- Heavy-duty EtherCon connectors
- Supplies DC power for A-Net mixers via the Cat-5 cable
- Eight isolated internal power supplies
- Standard IEC power connector
- Multiple A-Net Distributors can be used in a system

A-16D Features:

- Easily distribute A-Net from a central location or from other A-Net Distributors
- One A-Net input, eight A-Net outputs
- Can insert DC power for A-Net devices into the Cat-5 cable
- 1/2 rack space wide – mounts easily on standard rack shelf
- DC power indicator LEDs on each output
- Multiple A-Net Distributors can be used in a system

A-16R Personal Mixer Features:

All the features of the A-16ii Personal Mixer *plus*

- Stereo Mix In with volume control
- Balanced outputs / Balanced insert points (stereo)
- Stereo/mono switch for rear panel balanced outputs
- MIDI In, Out, and Thru for preset storage and mix control
- Optional A-16CS remote control surface

A-16CS Features:

- Control the A-16R from up to 200 feet away
- Recall, Group, Solo, and Mute buttons
- Save and recall 16 Presets in the A-16R
- Pan/Spread control with LED readout
- Channel volume control with LED readout
- Master Volume, Treble and Bass controls
- Footswitch jack for Preset up/down control
- Mic stand mountable (optional MT-1 bracket)

Aviom16/o-Y1 Yamaha Output Card Features

- Connects to Yamaha digital consoles using Mini-YGDAl format (01V96, DM1000, PM1D, etc.)
- Supports sample rates from 44.1kHz to 48kHz, +/-10%
- Assign audio outputs to A-Net directly from the Yamaha control surface
- One 16-channel A-Net output; Neutrik RJ45 connector
- Channel Link DIP switches for stereo operation

AN-16/i-M Mic Input Module Features

- 16 high quality mic preamplifiers, with 24-bit A-to-D convertors
- XLR mic or 1/4" TRS balanced inputs on combo jacks
- 48-volt phantom power on each channel, with LED indicator
- Three-segment level LED indicators
- Phase switch per channel
- Rumble filter switch (85Hz roll off) on each channel
- Stereo Channel Link switch per pair of channels
- Built-in mic splitter
- Balanced insert send and return jacks (1/4" TRS)
- Dual A-Net outputs allow A-Net to be sent to two destinations
- A-Net Expansion jack for use with other AN-Series products
- Internal power supply; IEC power connector

AN-16o/ Output Module Features

- Sixteen balanced line-level audio outputs
- 1/4 inch TRS jacks or Euroblock connectors (-EB version)
- -10/+4 output level switch
- A-Net In, Out, and Expansion jacks

System Latency is an unbelievably low 880 microseconds from any analog input to any analog output!



MT-1 Mic Stand Mount

A-16ii Personal Mixers and A-16CS Control Surfaces can be easily mounted to any standard mic stand.

All Aviom products are designed and manufactured in the USA.

Visit our web site at
www.Aviom.com
for Data Sheets, Application Notes and
New Product Announcements



Outside

FOLD

FOLD

FOLD

4.25"

8.5"

8.5"

4.25"

Products

A-162 Pro & Red Distributor
The A-162 Pro is designed to distribute the 16 channels of A-Net input available in a Red Distributor. Each A-162 Pro receives one A-Net input signal and provides eight individual A-Net outputs using Category 3 cables. The A-162 Pro has a Red Distributor available for connection to other devices, providing a single connection to eight Personal Mixers, allowing them to be used without a Red power connection. The A-162 Pro has an optional power supply with a standard IEC electrical connection.

A-162 Personal Mixer
The A-162 Personal Mixer is designed to meet the demanding requirements of touring and studio applications. It is a standard solution for receiver systems using wireless, live monitoring, as well as those with power amp and stage monitors. The A-162 sets off the features of the A-162 Personal Mixer, and with balanced outputs (AES and 1/4" TRS), stereo balanced input points, and a stereo monitor mix input with a front panel level control. Live control may be used to be stored and recalled by using MIDI program changes. The A-162 has 16 channels of A-Net output. Each channel may be used to be controlled via MIDI, providing a single connection to all 16 channels of A-Net output. The A-162 is available in a rack-mountable format.

A-162 Control Surface
The A-162 is a rack-mountable control surface for the A-162 Personal Mixer. The A-162 Control Surface is designed to be used with the A-162 Personal Mixer. The A-162 Control Surface is designed to be used with the A-162 Personal Mixer. The A-162 Control Surface is designed to be used with the A-162 Personal Mixer. The A-162 Control Surface is designed to be used with the A-162 Personal Mixer.

A-162 A-Net Distributor
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A-162 System Bridge
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Personal Monitoring & Distributed Audio Solutions

www.Aviom.com

Product Features

A-162 Personal Mixer Features

- High-gain (20dB) microphone audio input
- Power processing with auto-protect
- Distorted Red, Green, Solo, and Mono buttons
- Speaker output with auto-protect
- Parametric control with LED feedback
- Stereo balanced outputs with LED feedback
- Channel volume control with LED feedback
- Master Volume, Solo, and Bus controls
- Global Trim (AES) level adjustment function
- Takeover to mix re-routable using optional M7 1-trackler

A-162 Input Module Features

- System balanced line level audio inputs
- System balanced audio line jacks
- 1/4 inch TRS jacks on front panel connector I/O
- 1/4 inch TRS jacks on front panel connector I/O
- A parametric gain control
- A-Net Out and Expansion jacks
- A-Net Out and Expansion jacks

A-162 Output Module Features

- System balanced line level audio outputs
- System balanced audio line jacks
- 1/4 inch TRS jacks on front panel connector I/O
- 1/4 inch TRS jacks on front panel connector I/O
- A parametric gain control
- A-Net Out and Expansion jacks
- A-Net Out and Expansion jacks

A-162 System Bridge Features

- System balanced line level audio inputs
- System balanced audio line jacks
- 1/4 inch TRS jacks on front panel connector I/O
- 1/4 inch TRS jacks on front panel connector I/O
- A parametric gain control
- A-Net Out and Expansion jacks
- A-Net Out and Expansion jacks

AVIOM Solutions Worldwide

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- Theater Production
- Recording Studios
- Live Performance
- Audio & TV Broadcast
- Process of Worship
- Education

"The A-Net is a very reliable, durable and easy to use system. I believe it will be a standard addition to all AVIOM products from the point on."

John Decker, Stage Manager, The Obama-Lee Stage of Science and Industry

"We have expanded our digital audio budget and started using A-Net for our live monitoring system. I believe it will be a standard addition to all AVIOM products from the point on."

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25.5"

Inside

FOLD

FOLD

FOLD

4.25"

8.5"

8.5"

4.25"

A-Net Technology

A-Net is a digital audio network that is capable of sending and receiving high quality digital audio using readily available Category 3 cables. A-Net technology is a proprietary system developed by Aviom for touring and studio applications. It is based on Ethernet, a Local Area Network (LAN) protocol, which provides a robust and reliable technology for distribution of audio to all.

In a personal monitoring system, the A-Net personal monitor channels of digital audio from the A-Net input module to each and every Personal Mixer connected to the system. In a distributed audio network consisting of multiple input and output modules, A-Net can receive up to 64 channels of audio over a single cable.

Plug and Play Simplicity

Some of the benefits of using A-Net to transmit digital audio are:

- Sub-millisecond latency (closer to Analog Audio)
- Data compression (AES, 24 bit resolution)
- Secure data transmission with extremely low error rate
- An unlimited number of A-Net devices can be used in a system
- Easy to spanning long distances between systems components
- Multiple expansion allows an infinite expansion of inputs
- Easy scaling using readily available components
- No complex required
- No ground loops or hum



Personal Monitor Mixing System

The A-Net Personal Monitor Mixing System allows on-stage mixing problems by giving each musician complete control over his or her monitor mix. The Aviom system delivers 16 channels of high quality, compressed digital audio to a compact and easy-to-use control unit. Can drive earbuds, headphones, personal monitor systems, or external mixers. Musicians can adjust their own mix, define channel groups, adjust volume control, and save up to 16 mixes for easy recall. The heart of the system is Aviom's proprietary data transmission protocol which gives you plug and play simplicity and nearly 100% reliability in system configuration, all while preserving the low latency performance required for live performance.

Distributed Audio Solutions

Expanding multi-channel audio with a single transmission cable is a real challenge. Aviom's Distributed Audio Network (A-Net) is a solution to this problem. A-Net is a digital audio network that is capable of sending and receiving high quality digital audio using readily available Category 3 cables. A-Net technology is a proprietary system developed by Aviom for touring and studio applications. It is based on Ethernet, a Local Area Network (LAN) protocol, which provides a robust and reliable technology for distribution of audio to all.

Flexibility Without Compromises

Expanding an audio system is as easy as connecting a Cat 3 cable. A-Net is a digital audio network that is capable of sending and receiving high quality digital audio using readily available Category 3 cables. A-Net technology is a proprietary system developed by Aviom for touring and studio applications. It is based on Ethernet, a Local Area Network (LAN) protocol, which provides a robust and reliable technology for distribution of audio to all.

Products

A-162 Input Module
The A-162 is a single rack space unit that receives one A-Net input signal and provides eight individual A-Net outputs using Category 3 cables. The A-162 has a Red Distributor available for connection to other devices, providing a single connection to eight Personal Mixers, allowing them to be used without a Red power connection. The A-162 Pro has an optional power supply with a standard IEC electrical connection.

A-162 Personal Mixer
The A-162 Personal Mixer is designed to meet the demanding requirements of touring and studio applications. It is a standard solution for receiver systems using wireless, live monitoring, as well as those with power amp and stage monitors. The A-162 sets off the features of the A-162 Personal Mixer, and with balanced outputs (AES and 1/4" TRS), stereo balanced input points, and a stereo monitor mix input with a front panel level control. Live control may be used to be stored and recalled by using MIDI program changes. The A-162 has 16 channels of A-Net output. Each channel may be used to be controlled via MIDI, providing a single connection to all 16 channels of A-Net output. The A-162 is available in a rack-mountable format.

A-162 Output Module
The A-162 is a single rack space unit that receives one A-Net input signal and provides eight individual A-Net outputs using Category 3 cables. The A-162 has a Red Distributor available for connection to other devices, providing a single connection to eight Personal Mixers, allowing them to be used without a Red power connection. The A-162 Pro has an optional power supply with a standard IEC electrical connection.

A-162 System Bridge
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Distributed Audio Configurations

Simple Connection of A-Net Control

The A-Net Control Surface is designed to be used with the A-162 Personal Mixer. The A-Net Control Surface is designed to be used with the A-162 Personal Mixer. The A-Net Control Surface is designed to be used with the A-162 Personal Mixer. The A-Net Control Surface is designed to be used with the A-162 Personal Mixer.

Flexible Output Capability - Infinite Scale

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Plug and Play Simplicity

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48 Audio Channels - Flexible Configurations

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25.5"

