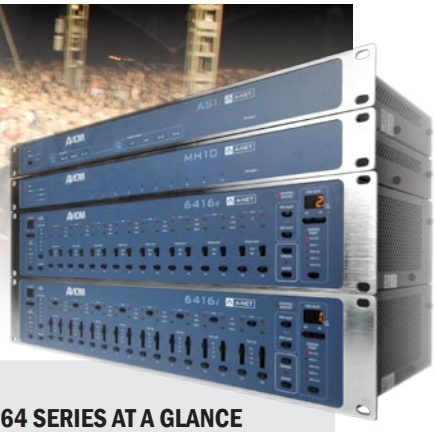
Audio Networking with Aviom's Pro64® Series

Networking Designed for Audio



SETTING UP A PRO64 AUDIO NETWORK

STEP 1: Select I/O for each location.
The Pro64 Series includes modules for analog in, analog out, AES3 I/O, and Yamaha® digital I/O. See below.

STEP 2: Connect the devices in any order.
Use any combination of serial and parallel connections without restricting signal flow. Use the MH10f for fiber.

STEP 3: Set any one device as the Control Master.
The Control Master manages network resources and signal flow so you don't have to.

STEP 4: Assign A-Net® Slot ranges for each I/O device.
Like a bank, the A-Net Slot range specifies a range of the network for each device to use.

STEP 5: Activate channels to begin passing audio.
On each input/output device, turn on individual inputs and outputs with the front panel button.

PRO64 SERIES AT A GLANCE

- Sub-millisecond latency, from analog in to analog out
- Any combination of serial and bidirectional parallel connections
- No perceptible accumulation of jitter or wander, even across 100+ serial connections
- Cat-5e or fiber connectivity
- 50°C ambient temperature, without cooling fans
- Plug-and-play setup and reconfiguration with no directional limitations or IP addressing
- World-class audio performance and clock stability, without SRCs

PRO64 SERIES PRODUCTS

6416m Mic Input Module

16-channel remote control mic/line in

6416i Input Module

16-channel line in

6416o Output Module

16-channel mic/line out (2 levels)

6416o v.2 Output Module

16-channel mic/line out (4 levels)

6416dio Digital I/O Module

16 AES3 ins, 16 AES3 outs (DB25 or BNC)

6416Y2 A-Net® Interface Card

16x16 A-Net card for Yamaha®

MCS Mic Control Surface

Remote control for Pro64 mic preamps

MH10 Merger Hub

Bidirectional hub (10 RJ45s)

MH10f Merger Hub

Bidirectional hub (8 RJ45s, 2 SFP slots)

ASI A-Net Systems Interface

Pro64-Pro16 bridge, 4 Pro16® A-Net Outs

RCI Remote Control Interface

Interface for MCS, network monitor

AVIOM®

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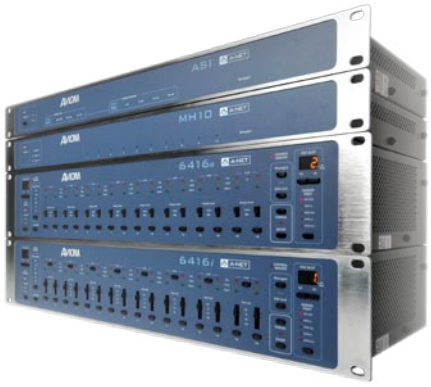

Aviom's Pro64® Series is the first audio networking solution designed from the ground up for the unique needs of high fidelity digital audio connectivity. Designed from an audio mindset, the Pro64 Series delivers specific benefits to audio professionals who need to move multi-channel audio simply, reliably, and with consistently outstanding audio performance.

NETWORKING FOR AUDIO PROS

The technology behind the Pro64 Series product line—Aviom's Pro64 A-Net® protocol—lets you work as you're used to working, without having to master a complex set of rules and without the worry from IT-style networking issues, such as IP addressing, routing, bundling, and so on.

Design and Connect Without Arbitrary Rules

The Pro64 network's Control Master—any one I/O module in the system, set with a single DIP switch—handles network resource allocation and ensures that every channel is available throughout the network, regardless of the system's layout or the physical location of inputs and outputs.

In Auto Mode, devices in a Pro64 network can be connected in any combination of serial and parallel topologies, without restricting signal flow or the availability of audio channels. Splits can be added to any open network port, and your system can be expanded or reconfigured without concern over directional limitations and without the expense and inconvenience of running all your wires back to a central location.

Set Up Quickly and Intuitively

All Pro64 devices can be set up right from their front panels, without navigating complex menus. For applications that benefit from centralized control, the Pro64 Network Manager™ PC application allows you to monitor and manage an entire network from a single point.

OUTSTANDING AUDIO FROM A NETWORK

With a Pro64 system, your digital network will no longer be the weak link in your signal chain. Every Pro64 device—as well as the core technology connecting the devices into a network—is designed to meet exacting standards for audio performance. The flagship of the Pro64 Series line—the remote-controllable 6416m Mic Input Module—is known throughout the industry as an outstanding mic pre and an exceptional value. With a clear, transparent sound, the 6416m, like the whole Pro64 network, leaves your audio uncolored and pristine.

Robust, Stable Digital Clocking

While networks are inherently prone to the accumulation of clock jitter and its associated artifacts in the audio signal, Pro64 A-Net prevents both jitter and wander from accumulating as the audio signals travel through the system. Patented clock management algorithms protect the integrity of the clock signal, even as the network is extended across many devices. Stable clocking—regardless of your system's size and layout—ensures that the quality of the audio is unaffected by the network and lets you work without worrying about the clock signal.

Seamless Syncing

The Pro64 network can also lock to and distribute any master clock, providing a seamless interface to other digital devices. The network supports a wide sample rate capture range (-10% to +7% of the nominal rate), without requiring sample rate converters. Even if the external clock moves, the Pro64 network moves as well and remains locked, ensuring that your audio samples are unaffected by the network.

PROVEN RELIABILITY

Because A-Net uses only the physical layer of Ethernet, there is no inherent instability from the core technology and no risk of someone plugging in a laptop and taking down your audio network. Aviom has fielded hundreds of thousands of A-Net nodes in a range of applications, from the performance stage and recording studio to the corporate boardroom and classroom to events broadcast live to millions of people.

The Pro64 Series delivers the sound quality of a short, high-quality analog cable, combined with the simplicity of audio-centered design and the flexibility of a digital network. With a Pro64 network, you can enjoy the benefits of digital—without learning an entirely new skillset and without compromising on audio quality. ■

To learn more about Aviom's Pro64 Series, visit www.Aviom.com for detailed product information, sample systems, case studies, application notes, and more.