Product Highlights

- Converts 16 line-level analog audio channels to an A-Net digital stream

- 16 balanced line-level inputs

- 16 balanced line-level Thru jacks

- 48kHz, 24-bit A/D converters

- Four-position gain sensitivity switch per channel pair

- Stereo Link per channel pair for use with the Pro16 Monitor Mixing System

The AN-16/i Input Module provides sixteen channels of analog-to-digital conversion as the head end for the Pro16® Monitor Mixing System and modular digital snake. The module converts sixteen line-level analog audio channels into uncompressed 24-bit, 48kHz digital audio data. Digital audio data is output on standard Cat-5e cables via Aviom's A-Net® Pro16 digital audio protocol.

The AN-16/i front panel has eight four-position gain switches, stereo channel link switches for every channel pair, and per-channel signal present and clip LEDs. Digital network connections include one A-Net Out jack and one A-Net Expansion jack for use in 32-channel systems.

The rear panel of the AN-16/i features

16 analog audio inputs with balanced ¼" TRS jacks. An audio Thru jack for each input allows the AN-16/i to be inserted seamlessly into an existing audio signal path. The AN-16/i can be used with any line-level analog audio input, from a CD player to console direct outs, inserts, or aux sends.

Aviom's modular Pro16 digital snake and audio distribution system supports a range of flexible configurations: 16x0, 32x0, 48x0, 64x0, 16x16, 32x16, 32x32, and 48x16. All configurations support an unlimited number of digital splits, with no loss in audio quality.

The optional AN-16SBR System Bridge simplifies wiring for configurations using more than 32 channels by combining up to four 16-channel streams onto a single cable.

AN-16/i INPUT MODULE SPECIFICATIONS

Audio Inputs	16, balanced line-level
TRS Inputs (line level)	Tip: Audio +; Ring: Audio -; Sleeve: Ground
TRS Thru	Impedance matched output
A/D Conversion	48kHz, 24-bit
Gain Settings	+22dBu, +4dBu, 0dBu, -10dBV
	4-position gain switch, per channel pair
Metering	LEDs; green: Signal Present, red: Clip; per channel
Stereo Operation	Stereo Link, per channel pair; Two-position switch (Normal, Link)
Maximum Input Level	+22dBu
Input Impedance	17.8k ohms
Freq. Response	4Hz-22kHz +0.2dB/-3dB
THD +N	< 0.003%
Crosstalk	-90dB
Signal to Noise (unweighted)	90dB typical, A/D to D/A
	Measured from AN-16/i to AN-16/o Output Module

Bit Error Rate (BER)	10^{-12}
Digital Outputs	A-Net: 1; A-Net Expansion: 1; RJ45 connector
A-Net Pro16	A-Net Expansion combines two A-Net streams (32 channels of audio) onto one Cat-5e cable
	uses unshielded Cat-5e UTP (or better) cable
Latency	<0.880 msec (measured from analog input to analog output)
Power Supply Input Voltage Output Voltage Plug Size	External, DC, universal switching type 100-240 volts, 50/60Hz, 30VA 18-24 VDC, 0.5 amp 2 mm
Dimensions	19" (482.6 mm) wide x 5.75" (146 mm) deep; 1U high
Weight	6.8 lbs. (3.08 kg)
Options	AN-16SBR System Bridge; used to combine up to four A-Net streams for transmission over one Cat-5e cable

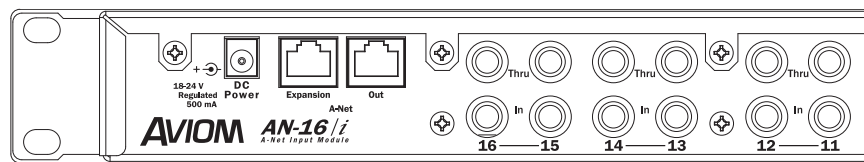*All Aviom products are designed and manufactured in the USA.*

FRONT PANEL FEATURES

- LED Meters: Signal and Clip
- Stereo Link switch
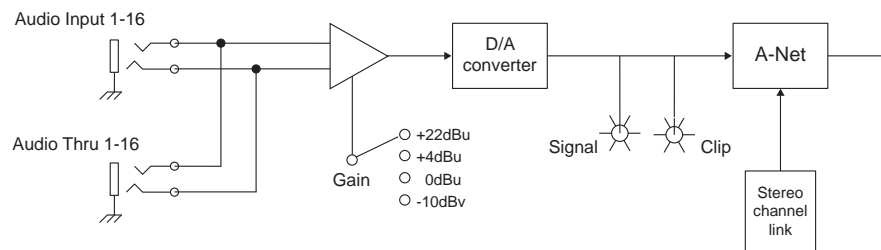- Gain Sensitivity:
  +22dBu, +4dBu, 0dBu, -10dBV
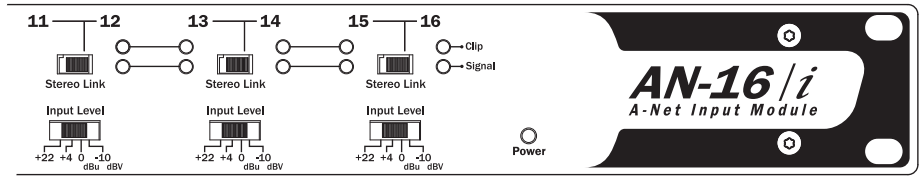
REAR PANEL FEATURES

- Line-level input jacks, balanced TRS
- Line-level thru jacks
- A-Net Expansion
- A-Net Out
- DC power

AN-16/i BLOCK DIAGRAM

The Aviom AN-16/i shall provide sixteen channels of line-level audio A/D conversion. Channels shall be transmitted digitally onto an A-Net network. It shall provide full-bandwidth, high-quality audio by employing the Aviom A-Net Pro16 audio transmission protocol. It shall employ 24-bit A/D converters with a 48kHz sampling rate.

It shall have a frequency response from 4Hz to 22kHz, +0/-0.3dB or better, with total harmonic distortion no more than 0.003% at 1kHz with a +4dBu input signal. Maximum input level without clipping shall be +22dBu. Input sensitivity shall be selectable from a front-panel 4-position switch, with gain range settings of +22dBu, +4dBu, 0dBu, and -10dBV. Input impedance shall be 17.8k ohms.

Front panel features shall include LED indicators for Signal and Clip of each channel. Each pair of channels shall have a Stereo Link switch. A front-panel power LED shall be provided.

Rear panel features shall include a detachable DC power cord. The unit shall be powered from an external universal power supply (input voltage 100 to 240 VAC; output voltage 18-24 VDC, 0.5 amps). It shall be UL and CE listed.

The rear panel shall have RJ45 connectors for A-Net digital signal output and for the A-Net Expansion connection.

The AN-16/i model shall employ TRS input jacks for the sixteen line-level inputs. Sixteen TRS jacks shall be provided for audio Thru connections.

Its dimensions shall be 19 inches wide, 9 inches deep, and 1U (1.75 inches) high. Its net weight shall be 6.8 pounds, and its steel chassis shall be finished in blue. The unit shall be Aviom, Inc. model AN-16/i.