The remote-controllable 6416m Mic Input Module provides 16 balanced mic-level analog inputs to a Pro64™ system. With a switchable pad per channel, the 6416m also accepts balanced line-level inputs. Each channel features continuous gain control, +48V phantom power, low cut filter, phase invert, and a network activation button.

Audio settings for each channel, as well as device presets, can be configured from the front panel or controlled remotely using the optional MCS Mic Control Surface. A single MCS can be used to control all 6416m Mic Input Modules in a network or those assigned to a particular Device Group.

On the rear panel, the 6416m features both XLR jacks and DB25 multipin connectors for inputs and passive splits. A-Net® network connections use heavy-duty locking EtherCon® connectors.

Pro64 A-Net supports three ranges of variable sample rates: 44.1/48kHz±, 96kHz±, and 192kHz±. No matter the sample rate, all 16 input channels on the 6416m are available for use. All audio is streamed at 24-bit resolution with no data compression at any time.

The 6416m also includes I/O for Aviom's Virtual Data Cables™. The VDCs can be used for simultaneously distributing up to 14 channels of non-audio control data to any device on the Pro64 network. The 6416m provides VDC connectors for MIDI In, MIDI Out, RS-232, and GPIO.

Additional features include a headphone monitor output for soloing a selected channel and a level meter peak hold.

The 6416m is compatible with all Pro64 Series products, allowing audio networking systems to be designed, scaled, and expanded as needed.

PRODUCT HIGHLIGHTS

- *16 channels of mic- or line-level inputs (balanced XLRs)*

- *Remote controllable*

- *DB25 passive splits/alt. inputs*

- *Continuously variable gain control*

- *Phase invert, low cut filter, +48V phantom power, and pad per channel*

- *16 customizable presets*

- *Headphone monitor output*

- *Variable sample rates: 48kHz±, 96kHz±, 192kHz±*

- *Virtual Data Cable connectivity for GPIO, MIDI, and RS-232*

TECHNICAL SPECIFICATIONS

Channels	16 inputs	Mic or line level
XLR Inputs	Pin 1: Shield; Pin 2: Hot; Pin 3: Cold	
Passive Splitter/ Alternate Inputs	DB25 multipin; audio pinout	
Input Impedance	9.2k ohms	
Input Gain Range	10–65dB, variable, in 1dB increments	
Pad	-20dB, switchable per channel	
Maximum Input Level	+27dBu	
Low Cut Filter	85Hz rolloff, per channel	
Phantom Power	+48V, individually selectable per channel	
Sample Rates	1x: 39.7–52kHz; 2x: 79.4–104kHz; 4x: 158.8–208kHz	24-bit resolution
Frequency Response	-3dB: 2Hz and 23kHz ±0.5dB: 3Hz–22kHz (at 1x sample rate)	
THD +N	< .002% at -10dBFS	
Signal to Noise	A/D: -111dB (unweighted)	
Max. Ambient Temp.	50°C	

Headphone Monitor	1/4" TRS jack, with level control	
Virtual Data Cables	MIDI In, MIDI Out 5-pin DIN	
	RS-232 DB9 connector; DIP switch configuration	
	GPIO In (x4), Out (x4); terminal block connectors; DIP switch configuration; TTL or isolated	
A-Net	2 EtherCon RJ45 connectors	
A-Net Cable Length	400 feet (120 meters) between devices	
Latency	Analog input to analog output: <800µs	
Power Supply	100–240VAC	50–60Hz, 24W
	Internal switching type; IEC connector	
Dimensions	3U; 19"w x 8"d x 5.25"h (482.6 x 203 x 133 .3 mm)	
Weight	12 pounds (5.44 kilos)	

*All Aviom products are designed and manufactured in the U.S.A.*
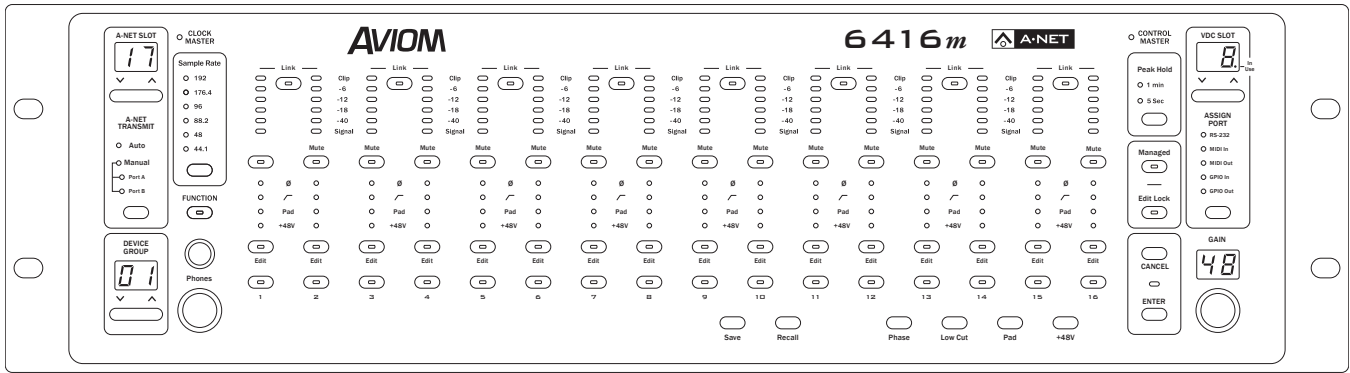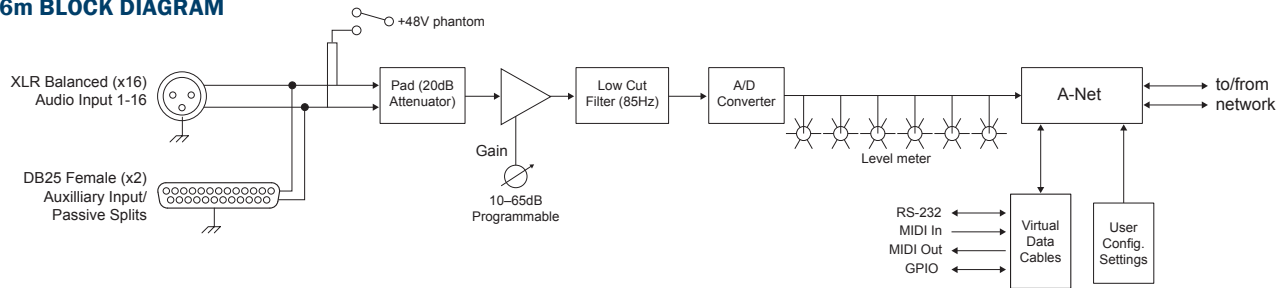
▲ FRONT PANEL FEATURES

- Continually variable gain adjustment
- Six-segment level meter per channel, with peak hold
- Low-cut filter, phase invert, mute, phantom power
- Headphone jack with volume control

▼ REAR PANEL FEATURES

- XLR balanced mic inputs
- DB25 passive splits/alt. inputs
- Dual A-Net ports
- VDC I/O for MIDI, RS-232, and GPIO
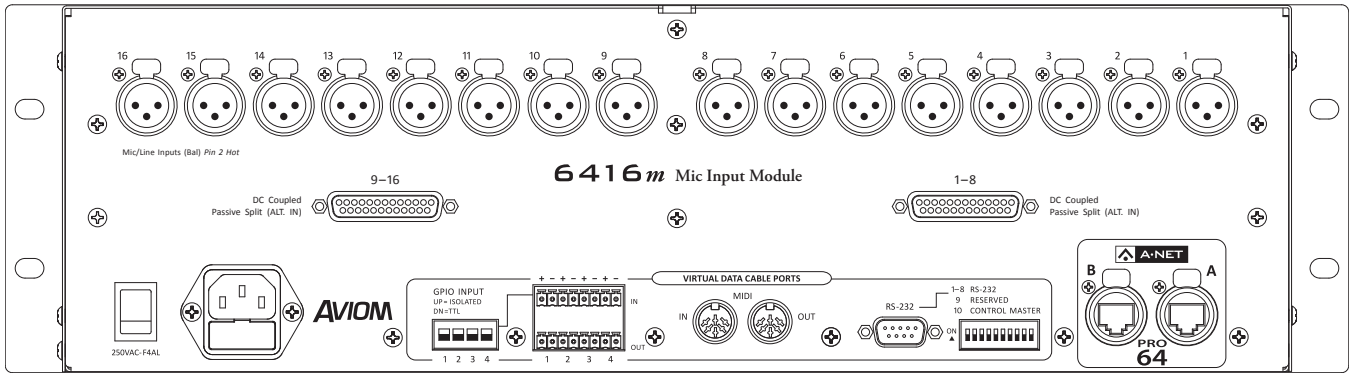
6416m BLOCK DIAGRAM

ARCHITECTURAL SPECIFICATION

The Aviom 6416m Mic Input Module shall provide sixteen channels of balanced mic- or line-level audio A/D conversion transmitted digitally onto a Pro64™ A-Net® network. It shall employ 24-bit A/D converters with sample rates from 39.7kHz to 52kHz, 79.4kHz to 104kHz, and 158.8kHz to 208 kHz. No audio data compression shall be used at any time.

It shall have a frequency response from 3Hz to 22kHz, +0/-0.5dB or better, with total harmonic distortion no more than 0.002% at 1kHz with a -10dBFS input signal. Maximum input level without clipping shall be +18dBu. Input gain shall be variable from 10dB to +65dB, in 1dB increments via a rotary digital encoder. Input impedance shall be 9.2k ohms.

Per-channel features shall include a network activation button with LED indicator, six-LED peak-reading level meter, low-cut filter, phase invert, pad, mute, and +48V phantom power.

It shall employ XLR jacks for the sixteen mic-level inputs. Two DB25 jacks, wired per analog audio standards, shall be provided for passive splits or alternate input connections. It shall employ Aviom's Virtual Data Cable™ technology with GPIO (terminal blocks x4) with isolated or TTL operation selectable via rear-panel DIP switch, MIDI In and Out jacks, and RS-232 (DB9 connector) configured via rear-panel DIP switch. It shall feature a stereo ¼-inch headphone jack with volume control.

The unit shall be powered by an internal universal power supply (110 to 240VAC) with an AC power receptacle with fuse. It shall be UL and CE listed. The unit shall have EtherCon® RJ45 connectors for the A-Net digital signal connections.

Its dimensions shall be 19 inches wide, 8 inches deep, and 3U (5.25") high. Its net weight shall be 12 pounds, and its front panel shall be finished in blue. The unit shall be Aviom Incorporated model 6416m.