Version 2 of the 6416o Output Module provides 16 balanced mic- or line-level XLR analog outputs from a Pro64® A-Net® network. Each channel includes a four-position output level switch (mic-level and +4, +18, or +24dBu line-level), as well as three-segment level metering. Alternate analog audio outputs are provided via DB25 multipin connectors on the rear panel. The 6416o v.2 is ideally suited for applications requiring hotter analog outputs such as connecting directly to power amplifiers.

Each 6416o v.2 can be configured to operate within a specified channel/slot range within the Pro64 network, making complex installations easy to configure and manage.

The Pro64 A-Net network supports three ranges of variable sample rates: 44.1/48kHz±, 96kHz±, and 192kHz±. No matter the sample rate, all 16 output channels on the 6416o v.2 are available for use. All audio is streamed at 24-bit resolution with no data compression at any time.

In addition to its audio capabilities, the 6416o v.2 also includes I/O for the innovative 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 6416o v.2 provides VDC connectors for MIDI In, MIDI Out, RS-232, and GPIO.

The 6416o v.2 can be used anywhere analog outputs are required: on stage or at front of house in a digital snake, in the studio, or in even the most complex audio networks. Adding a digital split to a system is as simple as connecting an additional 6416o v.2 or other compatible Pro64 output device.

PRODUCT HIGHLIGHTS

- *16 channels of mic- or line-level analog outputs*

- *Mic, +4, +18, or +24dBu output level; selectable per channel*

- *Balanced XLR outputs*

- *DB25 alternate outputs*

- *Three-segment level metering per channel*

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

- *24-bit D/A converters*

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

TECHNICAL SPECIFICATIONS

Channels	16 outputs	Mic- or line-level
XLR Outputs	Pin 1: Shield; Pin 2: Hot; Pin 3: Cold Impedance balanced for Mic, +4dBu, and +18dBu, Signal on hot only; Full differential for +24dBu	
Alt. Audio Outputs	DB25 multipin; analog audio pinout	
Output Impedance	200 ohms for Mic and +4dBu; 450 ohms for +18dBu and +24dBu	
Output Levels	+4dBu, +18dBu, +24dBu, or Mic	4-position switch per channel
Max. Output Level	+24dBu	
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: 10Hz–22kHz (at 1x sample rate)	
THD +N	< .002% at -10dBFS	
Signal to Noise	D/A: -111dB (unweighted)	
Crosstalk	<100dB at 1kHz	

Maximum Ambient Temperature	50°C	
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	2U; 19"w x 8"d x 3.5"h (482.6 x 203 x 88 mm)	
Weight	9 pounds (4.1 kg)	

*All Aviom products are designed and manufactured in the USA.*
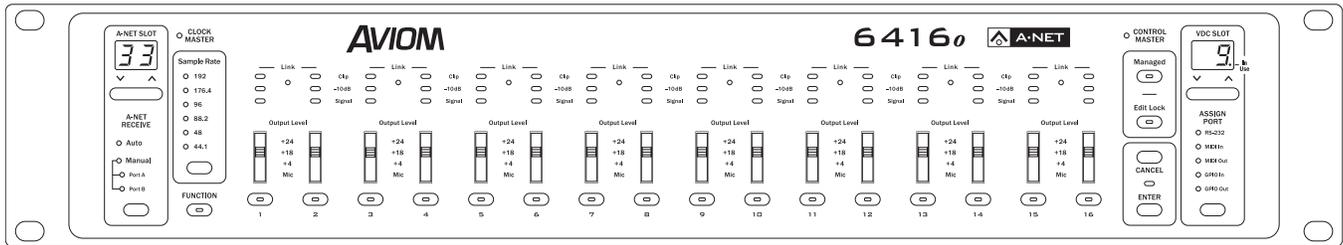
▲ FRONT PANEL FEATURES

- Selectable output level: mic- or line-level (+4dBu, +18dBu, or +24dBu)
- Three-segment level meter per channel
- Channel activation buttons with LEDs
- A-Net Slot and mode select
- Sample rate select
- VDC port assign

▼ REAR PANEL FEATURES

- XLR balanced outputs
- DB25 alternate outputs
- Dual A-Net ports
- VDC I/O for MIDI, RS-232, and GPIO
- VDC port configuration switches
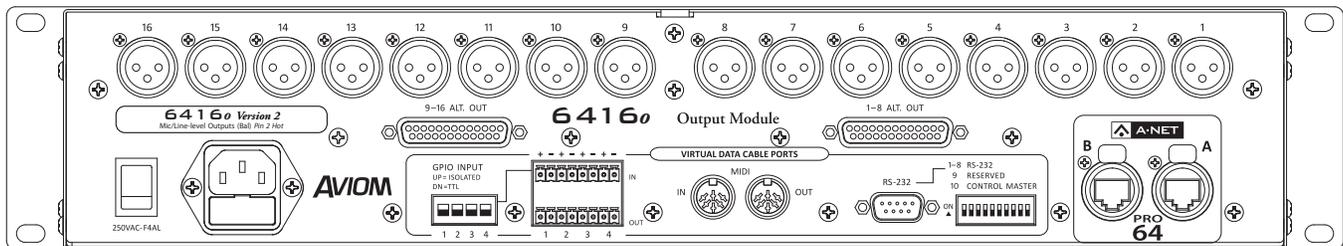
6416o v.2 BLOCK DIAGRAM
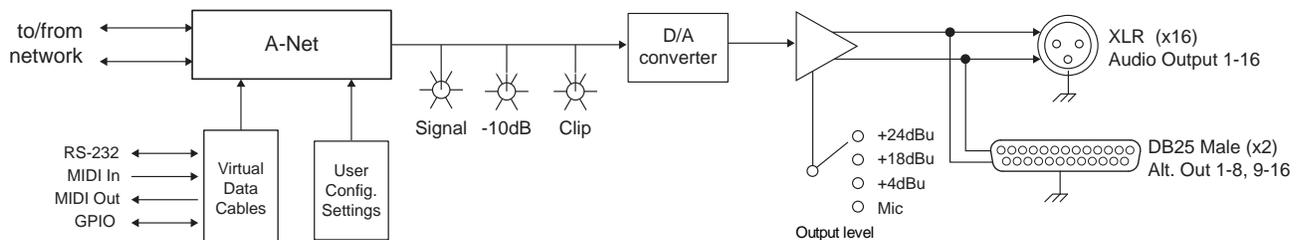
ARCHITECTURAL SPECIFICATION

The Aviom 6416o v.2 Output Module shall provide sixteen channels of balanced mic- or line-level analog audio outputs from data received digitally via a Pro64® A-Net® network. It shall provide full-bandwidth, high-quality audio by employing the Aviom A-Net audio transmission protocol. It shall employ 24-bit D/A converters and operate in three sample rate ranges, from 39.7kHz to 52kHz, 79.4kHz to 104kHz, and 158.8kHz to 208 kHz. No audio data compression shall be employed at any time.

It shall have a frequency response from 10Hz to 22kHz, ±0.5dB or better, with total harmonic distortion no more than 0.002% at 1kHz with a -10dBFS output signal at the Line output setting. Output level shall be variable with a four-position switch with settings of +4dBu, +18dBu, and +24dBu (line-level) and Mic. Output impedance shall be 200 ohms for the +4dBu and mic settings, and 450 ohms for the +18dBu and +24dBu settings.

Per-channel features shall include a channel on/off button with LED indicator, four-position output level switch, and three-LED peak-reading level meters. Each pair of channels shall have a stereo link LED indicator. Network interface controls shall include A-Net receive mode, Sample Rate selection, VDC I/O interface, and Cancel and Enter buttons.

The unit shall employ XLR jacks for the sixteen line-level outputs. Two DB25 jacks, wired per analog audio standards, shall be provided for alternate output connections. The 6416o v.2 shall employ Aviom's Virtual Data Cable™ technology with GPIO (terminal blocks x4) with isolated or TTL operation selectable via DIP switch, MIDI In and Out jacks, and RS-232 (DB9 connector) configured via DIP switch.

The unit shall be powered by an internal universal power supply (110 to 240VAC) with an AC power receptacle with fuse, and be supplied with a detachable AC cable. 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" wide, 8" deep, and 2U (3.5") high. Its net weight shall be 9 pounds. The unit shall be Aviom Incorporated model 6416o v.2.