

# Aviom A-16

**'More of me and less of everything else... and can I just have the reverb in the one ear please?' If this sounds familiar and has you reaching for the 'throttle vocalist' parameter, then the Aviom A-16 might just be the answer to your prayers. Get them to do it themselves, says JON THORNTON.**



**BILLED AS A PERSONAL MONITOR** Mixing System, the concept of artist controlled headphone mixes is not a new one, but has traditionally been associated with miles of multicore and patching headaches. Where the Aviom differs is in its use of multiplexed audio transmission via standard CAT5 cables, which allows easy transmission of up to 16 individual sound sources to each headphone station.

The system is based around three types of component. The heart of the system is the A16T transmitter unit. This 1u rackmount accepts 16 balanced inputs on 1/4-inch TRS jack sockets. Each input also has an associated 'thru' socket that gives a buffered parallel output of the input signal. This arrangement enables input sources to be derived from the type of unbalanced insert point built around a single stereo jack found on some budget consoles. Each input channel can accommodate a variety of operating levels, with a switch for each channel located on the front panel allowing the selection of four ranges between -10dBV and +22dBu. This flexibility means that the A-16 is equally at home when integrated into a studio system or hung directly off a project studio DAW.

Signal present and clip LEDs are the only level indication provided, but these are perfectly sufficient. Also mounted on the front panel is an RJ45 connector, which carries the multiplexed audio data that Aviom refers to as 'A-NET'.

Using a standard CAT5 lead (not an Ethernet

crossover cable though), this feeds into the next part of the system, the A-16 Personal Monitor. This is a compact, lightweight unit in a plastic housing — and at a distance vaguely reminiscent of a Stylophone (*Stylophone? You're showing your age. Ed*) The back panel has a headphone/line output on 1/4-inch jack, together with two RJ45 sockets labelled A-NET In and A-NET Out.

As you might expect, the transmitter unit feeds the A-NET input, but, if required, additional Personal Monitor stations can be connected in a daisy chain fashion with no upper limit on the total number of stations. The cable connection between each component can also be up to 100m in length, which opens up all sorts of other applications, such as a distributed audio 'ring main' in larger facilities. A word of warning here though — while the A-16 uses Ethernet as its core protocol, it isn't compatible with other Ethernet devices (switches/routers) or IP traffic. So forget any thoughts of integrating it with an existing CAT5 network.

The main controls of the Personal Monitor are clear and reasonably intuitive. 16 pushbuttons allow you to select any of the 16 audio sources that are routed to the transmitter. Once selected (indicated by an LED within the button), the level and pan for that signal can be adjusted using two rotary encoders. LED bargraphs indicate the level and pan position for each source that is selected. Muting and solo functions are also provided for each channel, and these are sensibly and clearly indicated by additional LEDs mounted

within each channel select button. Master volume level for all selected channels, and an overall bass and treble control are also available.

So far, so simple but the A-16 has a couple of other useful tricks up its sleeve. The first goes back to the front panel of the transmitter, which has eight switches to allow odd and even channels to be linked as stereo pairs. When any of these switches are activated, all of the Personal Monitor units in the system are instantly updated, and selecting one channel of a pair effectively then selects both. The level adjustment then affects both channels simultaneously, and the pan adjustment becomes a stereo width control, which is very clearly indicated by the LED bargraph.

Each monitor unit can also store 16 snapshots of level and pan information, which makes it remarkably easy to jump between songs if they have different foldback requirements. Groups of channels can also be set up on each monitor unit, and these groups can be defined after individual pans and levels have been set. This allows the easy overall adjustment in level of a group of sounds — backing vocals, for example — without altering the balance between them.

All very straightforward then. However, some readers will no doubt have been thinking the same thoughts as I did when I read the phrase 'multiplexed digital audio'. What about latency? Annoying at the best of times, and surely disastrous for a headphone system. I'm pleased to report that it is negligible — a very slight phasing when comparing source to headphone output, but nothing that's going to cause any problems. The headphone outputs are also fairly beefy, and had no trouble driving high impedance Beyer DT100s. At absolute maximum level, they started to sound a little strained, and probably wouldn't be loud enough to satisfy some drummers, but the output is rated to drive headphones down to 30ohms impedance if more level is required.

My major gripe with the whole system is the proliferation of wall-wart external power adapters that accompany it. There's one for the transmitter, one for each of the monitor units, and one for the optional A-16D A-NET distributor. This is simply a sort of hub that allows the system to be configured in a star network topology rather than a serial daisy-chain. Added together, it makes for a lot of little power supplies, which makes installations less tidy than the promise of CAT5 cabling suggested. I would also have liked to see the RJ45 output on the transmitter unit replicated on the back panel to help with permanent installs.

Despite this, the Aviom A-16 is a well thought out, intuitive, and almost infinitely scalable system. Let's face it — 16 individual channels to control should satisfy even the most demanding of vocalists, and the system is so easy to grasp that even a drummer can use it. ■

**PROS** Ease of use; scalability; simple to configure; CAT5 simplicity; increases life expectancy of vocalists.

**CONS** External PSU proliferation; can't coexist with existing IP networks; increases life expectancy of drummers.

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