

AIM Electronics NAX network cable

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In the peculiar terminology of high-end audio compared to the computing world, the AIM Electronics top-tier NAX is technically not an Ethernet cable; it's a network cable. The difference lies in directionality; an Ethernet cable is fully bidirectional by design, whereas network cables like the NAX are asymmetric, as shown by the chevron marks on the sleeves at both ends. The level of asymmetry doesn't matter; calling it an Ethernet cable invites comments from 'that guy.' Also, while we're discussing names, the 'X' in 'NAX' represents the Roman numeral 10, similar to Apple's OSX. And, like Apple's OSX, no one will ever call it 'NA-ten.'

Checking the credentials

A brief review of AIM's credentials is necessary. The Japanese company is not an audiophile cable brand that has expanded into network audio. In its day job, AIM develops enterprise-grade digital cable solutions for major clients. With cables like NAX, AIM uses the experience gained from deploying digital infrastructure for organisations such as Osaka's Kansai Airport and Nippon Telegraph and Telephone for home systems.

AIM's NA9 (tested in Issue 239) is the company's former flagship cable and is highly regarded for its materials, construction, and sound quality. NAX is designed to surpass

the NA9 flagship. NA9 and other Ethernet and Network cables in the range remain available; NAX provides an additional level of 'ne plus ultra' performance. AIM Electronics' NAX network cable features a dedicated conductor made of high-purity oxygen-free copper with a pure silver coating, aimed at achieving the best possible signal transfer. NAX also employs a comprehensive, multi-layered shielding system called Hoplon, which includes a copper shield for the audio frequency band, a high-density copper braided shield for the low-frequency range, and an aluminium shield for high-frequency noise.





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» Additionally, the cable features Pulshut® MU technology (produced by Asahi Kasei) to actively reduce both internal and external noise. Its performance is further improved by Air 2, a foamed insulator that minimises dielectric constant and dissipation factor, bringing the insulation closer to the ideal performance of air itself. Like the NA9, it is terminated with high-quality Telegartner connectors.

If you are keeping track of AIM's cable designs, the addition of silver-coated conductors and the Air 2 insulator are the main differences between NA9 and NAX. However, in the process, the NAX becomes a physically larger cable. It's a 'belt-and-braces' approach to making very high-quality network cables. And those used to 'standard issue' CAT6a, or CAT7 Ethernet cables (the ones most used in the home today) will find this cable extremely beefy and relatively inflexible.

Unlike most 'domestically chummy' network solutions, you need to plan your route with AIM Electronics NAX; too sharp a bend coupled with a lightweight device, and you'll risk the device floating above the equipment table. NAX can take the strain, but whether the devices connected to it can do the same depends on the product. Regardless, don't assume NAX is as flexible as your existing cable system (even solutions in AIM's own portfolio).

Because of its level of performance (and its directionality), NAX is best used between server and streamer. However, let's not overstate the directionality of the cable. It's bi-directional in design, but where most cables have the drain or ground wire attached to the connectors at

both ends of the cable, here the drain wire is only connected at the 'receiver' end; it is not grounded at the 'transmitter' end. This asymmetry is good audio practice because it removes one potential means of noise ingress.

Will they, won't they?

When discussing the audio performance of any cable – particularly a network cable – it's important to first understand what it does not do before considering what it does. A network cable is not a filter; it does not alter the tonal character of a performance. If it appears to warm the sound, it is doing something wrong. In audio terms, a network cable's role is primarily about reducing noise, and the AIM NAX excels at this.

The simple 'lowering the noise floor' response to this helps explain why it is significant. However, it is not just about making the silent parts of music quieter, nor is it solely about increasing the dynamic range between the softest and loudest sections. While those aspects do matter and NAX does improve the sound in this way, you can notice this as more space around the instruments and slightly quieter moments when playing a small jazz quartet, such as 'Autumn Leaves' from Cannonball *Adderley's Somethin' Else* [Blue Note].

However, more significantly, what NAX offers is an increase in coherence and musical organisation. It's as if the complexity of a piece of music is more readily understandable, and that holds almost irrespective of the music being played. If you want to tease out the inner workings of a complex piece of electronica

or classical works. If you want an easy way to process this, listen to Nils Frahm's '#2' [*All Melody*, Erased Tapes... but pick any Nils Frahm track to get the same result]. The music is not faster, or brighter, or moodier... but it makes more sense. You can follow melodic lines within the polyphony with greater ease and precision. And yet, this is not simply some cerebral, analytical approach; you can do the same thing to 'Sweet Child o' Mine' by Guns N' Roses [*Appetite for Destruction*, Geffen], and get more from the music on a very visceral level. You get a greater appreciation for Slash's guitar licks and can hear Axl Rose destroying his vocal cords with insight and precision.

Under the skin

AIM's NAX gets under the skin of music in a way that opens up networked music. Its physical inflexibility aside, it does everything you will ever need from a network audio cable and does it a lot better than its forbears. In my review of the NA9, I called it 'blameless' (in a positive sense). NAX snaps that musical honesty and integrity into even sharper focus. NA9 has become a permanent top-line resident in my network, but it's taken a step back, because NAX is a new pinnacle. +

Technical specifications

NAX available in 0.5m, 1m, 1.5m, 2m, 3m lengths (2m tested)

Price: from £2,000

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