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Q-SYS™ Core Nano
network I/O processor

Features

- 64 x 64 networked audio channels (Q-LAN / AES67) - no onboard analog audio channel support

- 8 x AEC (acoustic echo cancellation) processors

- up to 32 x 32 Dante audio channels (8 x 8 included)

- USB AV bridging (8 x 8 audio + Q-SYS camera support)

- External USB audio device host

- Supports up to 2 VoIP softphone instances

- Full featured Q-SYS Control engine

- Dual gigabit ethernet ports with assignable application resources offering any combination of VoIP, Q-LAN Control, Q-LAN audio or network redundancy

- internal power supply

- 1U half-width, includes mounting hardware

Introducing the Q-SYS Core Nano audio, video and control (AV&C) processor, which extends the applications of the Q-SYS Ecosystem into a wider range of smaller-scale installations across corporate, higher education, healthcare and beyond. Built on the same foundational technology as the rest of the Q-SYS processor portfolio, including the best-in-class Q-SYS Core 110f, Core Nano is designed for applications with lower network channel capacity and/or targeted processing requirements.

Core Nano offers purely network AV&C processing, and like all Q-SYS Core processors, the Core Nano delivers features and functionality at the software level, including acoustic echo cancellation (AEC), wide-area paging, video routing, and a full featured control engine without the need for dedicated control processors.

Network I/O

Offering 64 x 64 network audio I/O capacity, the Core Nano was designed to support centralized processing for multiple rooms and/or installations that rely solely on networked, IP-based endpoints (like native Q-SYS devices or Attero Tech by QSC peripherals).

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Rather than deploying an AV&C processor with unused analog I/O that occupies a full rack space, Core Nano offers a smaller, space-efficient solution. However, it does not compromise on functionality; instead it delivers a fully-integrated and customized Q-SYS experience, from paging and background music distribution to control, automation and beyond (the same feature set as the larger Cores in the processor portfolio.)

Optimized for the meeting space

While it can be used across multiple installation types, Core Nano provides the AV infrastructure to enable full room web conference integration, particularly for larger, more challenging spaces. It features USB integration with all major web conferencing applications, eight channels of acoustic echo cancellation (AEC), two VoIP softphones, Software-based Dante to enable modern microphones, and a full-featured control engine for third-party device integration.

Reduce complexity and improve scalability with the Q-SYS Ecosystem

The Q-SYS Core Nano joins a growing Ecosystem of AV&C processors built on a flexible software foundation that delivers features and functionality without relying on dedicated, single-purpose hardware. Like all Q-SYS Cores, the Core Nano lets integrators take full advantage of the same Q-SYS software suite to design and configure systems, and end users can benefit from a more holistic user experience as a result of native Q-SYS peripherals and the system's ability to scale your system without having to rip-and-replace your configuration file.

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Q-SYS Core Nano Preliminary Specifications

Channel Capacity

Q-LAN channels	64 x 64
Dante channels	8 x 8 (included); up to 32 x 32 with optional license
AEC channels	8
WAN / media stream channels	12 x 12
Network peripherals	up to 32
Audio recording / playback	4 ch recording / 16 ch playback (expandable to 32 ch with optional license)

Control

RS-232	2 ports

USB Inputs & Outputs

USB B or C (audio)	
Bit depth	16 bit
Channel count	8 x 8
Sample Rate	48 kHz
USB audio device hosting	Support for standard USB headset, speakerphone on USB type A connection (one device at a time)
Input	
Sample rate	48k or 16k, mono
Resolution	8-bit, 16-bit, 24-bit, 32-bit, float
Format	little-endian, signed or unsigned
Output	
Sample rate	48k only, stereo
Resolution	8-bit, 16-bit, 24-bit, 32-bit, float
Format	little-endian, signed or unsigned

Physical

Device dimensions (H x W x D)	1.72 x 8.66 x 11.28 in (43.6 x 220 x 286.6 mm)
Shipping Dimensions (H x W x D)	3.1 x 13.3 x 15 in (79 x 337 x 381 mm)

Environmental & Safety

Power consumption	40 W typical		
BTU/heat load	110 BTU/hour		
Compliance	FCC Part 68 / TIA-968-B (USA) ES203 021, CE, RoHS (Europe), PTC200 (New Zealand) NOM-151-SCTI (Mexico)	JATE (Japan) UL and C-UL listed (USA & Canada) AC (Eurasian Customs Union) PSTN01 (Taiwan)	Industry Canada CS-03 (Canada) AS/ACIF S002 and RCM (Australia) ANATEL Resolution 473 (Brazil)

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Q-SYS Core Nano Spec Sheet 9/2/2020

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