Q-SYS™ Core Nano
network I/O processor
for Cinema applications

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 throughout the Cinema complex, including 5.1/7.1 and immersive audio rooms, arcade gaming areas, background/foreground music for food service areas, event rooms, and much more. Built on the same foundational technology as the rest of the Q-SYS processor portfolio, including the best-in-class Q-SYS Core 110c, 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, loudspeaker processing, signal routing, 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. Used with the DCIO digital cinema I/O interface, the Core Nano brings all of the power and flexibility of the Q-SYS Ecosystem to even the smallest rooms within a multiplex at price point that's comparable to a conventional cinema processor.

Choose either a single Core Nano for each room in a multiplex, or choose to run several 5.1/7.1 rooms from one single Core Nano.

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.

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		
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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