This product has been discontinued.
Pease reference: **Q-SYS Core 5200 processor.**

Core 3100
Specification Sheet

Enterprise System Platform

Core 3100

Features

- Centralized processing architecture simplifies signal routing
- Cores are available in various sizes based on channel capacity
- Intel® Xeon® Platform provides unparalleled DSP capacity for the largest and most demanding installations
- Cores offer TCP/IP, GPIO, and RS-232 control for interfacing with external devices
- Intuitive and easy to use design GUI
- Operates using standard Gigabit Ethernet hardware for audio transport and control
- System seamlessly integrates with QSC amplifiers and loudspeakers
- Multiple levels of system redundancy are supported ranging from network-only to complete hardware redundancy including amplifiers

Q-SYS™ is a complete integrated system that encompasses everything from the audio input to the output of the loudspeakers; it provides all the routing, processing, control and monitoring, while maintaining the audio quality and reliability QSC has come to be known for.

The Core is the brain of the system, it receives and sends audio to/from the I/O Frame and Page Station that are local to the audio inputs and outputs. The Core performs all audio processing and handles all control functions. It manages QSC control devices such as the TSC Series as well as other control interfaces, recalls snapshots, provides logic functions and executes scripted commands.

The Core 3100 represents the second generation of Q-SYS Enterprise Cores, and truly leverages the faster development cycle of the Intel platform, with more than double the processing power of the model it supersedes at virtually no extra cost. The new Core 3100 provides up to 512 x 512 low latency, network audio network channels and 144x AEC processing channels, using a pair of the latest generation XEON 8-core processors coupled to server-grade cooling towers. Additional features include super-sized, low-speed fans for maximum front-to-rear airflow with minimal fan noise, and a premium field-serviceable power-supply.

Standard gigabit Ethernet switches serve as the interconnect points for Q-LAN networking. To ensure reliable, low-latency audio delivery, these switches must meet Q-LAN performance and feature requirements. User interface and control components of the system may also be connected to these switches.

Q-SYS provides extensive levels of system control which can be as simple or sophisticated as the application requires. Advanced control functions are easily created by simply connecting Control Functions in the Q-SYS Designer environment. Controls include an extensive selection of Functions and Scripts that may be used to define automated or user-initiated actions. These actions may be set to control internal Q-SYS parameters as well as external devices via GPIO, RS-232, or TCP/IP. Snapshots of any or all controls can be created and recalled, or when a specific user interface is needed, custom control panels are easily created and published by the Core to any network device.

One of the primary development goals was to create a platform that had ample processing resources to meet the needs of even the most complex system designs. The processing tools are extensive and simple to apply using a design interface created specifically to be intuitive and easy to use. Q-SYS also offers a useful suite of trouble shooting and measurement tools for system set-up and maintenance.

The strength of the centralized architecture used by Q-SYS is that it facilitates the implementation of total or partial system redundancy. A system can be created with Core, Network, I/O Frame and even amplifier redundancy. In a redundant Q-SYS system, a problem with any of the primary devices will result in the back-up device taking over. If, for example the Core experiences a failure, the backup core automatically takes over ensuring continued flawless operation.

Q-SYS is a powerful and reliable unified system that features rock-solid performance backed by the unrivaled service and support QSC has built its reputation on.

Core 3100 Details

System Hardware	Core 3100
Description	System processor and control engine
Front Panel Controls	LCD page forward momentary switch Unit ID button momentary switch Clear settings momentary switch
Front Panel Indicators	Power On: Blue LED Device Status: Tri-color LED 400 x 240 pixels, True Color LCD graphics display
Rear Panel Connectors	RS-232: DE-9 (male 9-pin D shell connector) Video Out: HD-15 (female 15-pin D shell connector) Aux ports AUX A set: USB host x2, RJ45 10/100/1000 MBps Aux ports AUX B set: USB host x2, RJ45 10/100/1000 MBps GPIO A: DA-15 (female 15-pin D shell connector) GPIO B: DA-15 (female 15-pin D shell connector) Q-SYS Network LAN A: RJ45 1000 MBps only Q-SYS Network LAN B: RJ45 1000 MBps only
Capacity	
Local Audio Channels	64x64
Network Audio Streams	256x256 Single channel streams
Network Audio Channels In	512
Network Audio Channels Out	512
Acoustic Echo Canceling Channels (Gen-1 Q-SYS AEC)	144
Local I/O Card Capacity	1 Slot
Line Voltage Requirements	100 VAC – 240 VAC, 50 – 60 Hz
Current Draw	Max 8.5 @ 100VAC Typical 4.4 @ 100VAC
Thermal	1400 BTU/h (typical)
Dimensions (HWD)	7" x 19" x 17.875" (177.8mm x 482.6mm x 454mm) 41 lbs. / 4 RU
Accessories Included	6 ft UL/CSA/IEC line cord • User manual • Optional audio I/O ship kit

As part of QSC's ongoing commitment to product development, specifications are subject to change without notice.

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