Q-SYS Core 8 Flex

KEY FEATURES

- 64 x 64 networked audio channels (Q-LAN / AES67)
- Eight on-board Flex channels and GPIO
- 8 x AEC (acoustic echo cancellation) processors
- up to 32 x 32 Dante audio channels (8 x 8 included)
- Supports up to three (3) Q-SYS NM-T1 tabletop microphones (up to six (6) with the Collaboration Bundle scaling license)
- 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

Certified for Microsoft Teams

works with Google Meet

Q-SYS Core 8 Flex

Analog + Network I/O Processor

Introducing the Q-SYS Core 8 Flex 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, the Core 8 Flex is designed for applications with lower network channel capacity and/or targeted processing requirements.

Core 8 Flex offers onboard analog audio I/O and GPIO plus network AV&C processing, and like all Q-SYS Core processors, the Core 8 Flex 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.

ONBOARD ANALOG I/O PLUS NETWORK I/O

In addition to it's 64 x 64 network aaudio I/O capacity, the Core 8 Flex offers eight on-board Flex channels and eight GPIO on-ramps to integrate analog audio and control devices into the Q-SYS Ecosystem

RIGHTSIZED. UNCOMPROMISED.

Rather than deploying an AV&C processor with unused analog I/O that occupies a full rack space, Core 8 Flex offers a smaller, space-efficient solution with the right amount of analog I/O. 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 8 Flex 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 ECOSYSYEM

The Q-SYS Core 8 Flex joins a growing Ecosystem of AV&C processors built on a flexible software foundation that deliver features and functionality without relying on dedicated, single-purpose hardware. Like all Q-SYS Cores, the Core 8 Flex 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 all 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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PROCESSOR	Intel 64-bit architecture
AUDIO PROCESSING	32-bit floating point
Q-LAN NETWORK AUDIO TRANSPORT	32-bit floating point
AUDIO INPUTS	
Phantom power	+48 VDC, 10 mA per input max
A/D-D/A converters	24 bit
Sample rate	48 kHz
Input Frequency Response	
20 Hz to 20 kHz @ +24dBu	+0.5 dB / -0.5 dB
Input THD+N @ 1kHz	
@ +24 dBu sensitivity & +24 dBu input	< 0.1%
@ +24 dBu sensitivity & +10 dBu input	< 0.0015%
@ +10 dBu sensitivity & +8 dBu input	< 0.001%
@ -10 dBu sensitivity & -10.5 dBu input	< 0.001%
@ -39 dBu sensitivity & -39.5 dBu input	< 0.007%
Input to Input Crosstalk @ 1 kHz	
@ +24 dBu sensitivity	110 dB typical, 90 dB Max
@ +10 dBu sensitivity	105 dB typical, 90 dB Max
@ -10 dBu sensitivity	100 dB typical, 90 dB Max
@ -39 dBu sensitivity	75 dB typical
Input Dynamic Range	
@ +24 dBu sensitivity	> 109.5 dB
@ +10 dBu sensitivity	> 106.4 dB
Input Common Mode Noise Rejection	
@ +24 dBu sensitivity	< 51, 20 Hz - 3 kHz < 43, 20 Hz - 10 kHz < 36, 20 Hz - 20 kHz
@ +10 dBu sensitivity	< 57, 20 Hz - 3 kHz < 47, 20 Hz - 10 kHz < 41, 20 Hz - 20 kHz
@ -10 dBu sensitivity	< 67, 20 Hz - 3 kHz < 58, 20 Hz - 10 kHz < 53, 20 Hz - 20 kHz
@ -39 dBu sensitivity	< 60, 20 Hz - 3 kHz < 54, 20 Hz - 10 kHz < 50, 20 Hz - 20 kHz
Input impedance (balanced)	7.2k Ω nominal
Input sensitivity range (1 dB steps)	-39 dBu minimum to +24 dBu maximum

Q-SYS Core 8 Flex

AUDIO OUTPUTS	
Output Frequency	
20 Hz to 20 kHz @ all settings	+ 0.5 / -0.3 dB
Output THD	0.005% typical, +20 dBu max output level
EIN (no weighting, 20 Hz to 20 kHz)	< -121 dB
Output crosstalk @ 1 kHz	> 100 dB typical, 90 dB max
Output dynamic range	> 108 dB
Output impedance (balanced)	332 Ω
CHANNEL CAPACITY	
Q-LAN channels	64 x 64
Dante channels	8 x 8 (included); up to 32 x 32 with optical license
AEC channels	8
Q-SYS NM-T1 capacity	up to 3 (base capacity); up to 6 with Collaboration Bundle scaling license
WAN / media stream channels	12 x 12
Network peripherals	32 (includes native Q-SYS cameras, I/O, NV, TSCs, paging stations, Extensions and plugins with their "Is Managed" property set to "Yes". It does not include Streaming I/O, Loudspeakers, Scripts or plugins with their "Is Managed" property set to "No".)
Audio recording / playback	4 ch recording / 16 ch playback (expandable to 32 ch with optional license - available Spring 2021)
Media drive capacity	Approximately 16 GB on the default drive (subject to change; upgrade options are available)
CONTROL	
RS 232	2 ports
GPIO	8 x 8
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	48 k or 16 k, mono
Resolution	8-bit, 16-bit, 24-bit, 32-bit, float
Format	little-endian, signed or unsigned
Output	
Sample rate	48 k only, stereo
Resolution	8-bit, 16-bit, 24-bit, 32-bit, float
Format	little-endian, signed or unsigned
PHYSICAL	
Product dimensions (L x W x H)	11.3 x 8.7 x 1.7 in (286.5 x 220 x 43.7 mm)
Product weight	4.0 lb (1.8 kg)
Shipping box dimensions (L x W x H)	15.0 x 13.3 x 3.1 in (381.0 x 336.6 x 79.5 mm)
Shipping weight	6.4 lb (2.9 kg)

Q-SYS Core 8 Flex

ENVIRONMENTAL & SAFETY		
Power consumption	40 W typical	
Operating temperature	0-50°C	
Percent relative humidity, non-condensing	5 to 85%	
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)