



Q-SYS™ Core 8 Flex

I/O processor

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)
- 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 8 Flex 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, 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 its 64 x 64 network audio 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. The Core 8 Flex 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. With 64 x 64 networked audio channels and eight onboard "flex" channels (configurable as either input or output) for analog connectivity, you can even use Core 8 Flex for small to medium sized immersive audio applications.

Choose either a single Core 8 Flex for each room in a multiplex, or choose to run several 5.1/7.1 rooms from one single Core 8 Flex.

Reduce complexity and improve scalability with the Q-SYS Ecosystem

The Q-SYS Core 8 Flex 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 8 Flex let 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.



Q-SYS Core 8 Flex Preliminary Specifications

Audio Inputs

Phantom power	+48 VDC, 10 mA per input max
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A/D - D/A converters	24 bit
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Sample rate	48 kHz
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Input frequency response

20 Hz to 20 kHz @ +24dBu	+0.05 dB / -0.5 dB
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Input THD+N @ 1kHz

@ +24 dBu sensitivity & +24 dBu input	< 0.1%
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@ +24 dBu sensitivity & +10 dBu input	< 0.0015%
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@ +10 dBu sensitivity & +8 dBu input	< 0.001%
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@ -10 dBu sensitivity & -10.5 dBu input	< 0.001%
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@ -39 dBu sensitivity & -39.5 dBu input	< 0.007%
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Input to input crosstalk @ 1 kHz

@ +24 dBu sensitivity	110 dB typical, 90 dB Max
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@ +10 dBu sensitivity	105 dB typical, 90 dB Max
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@ -10 dBu sensitivity	100 dB typical, 90 dB Max
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@ -39 dBu sensitivity	75 dB typical
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Input dynamic range

@ +24 dBu sensitivity	> 109.5 dB
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@ +10 dBu sensitivity	> 106.4 dB
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@ -10 dBu sensitivity	> 104.6 dB
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Input common mode noise rejection

@ +24 dBu sensitivity	< 51, 20 Hz - 3 kHz
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	< 43, 20 Hz - 10 kHz
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	< 36, 20 Hz - 20 kHz
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@ +10 dBu sensitivity	< 57, 20 Hz - 3 kHz
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	< 47, 20 Hz - 10 kHz
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	< 41, 20 Hz - 20 kHz
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@ -10 dBu sensitivity	< 67, 20 Hz - 3 kHz
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	< 58, 20 Hz - 10 kHz
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	< 53, 20 Hz - 20 kHz
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@ -39 dBu sensitivity	< 60, 20 Hz - 3 kHz
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	< 54, 20 Hz - 10 kHz
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	< 50, 20 Hz - 20 kHz
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Input impedance (balanced)	7.2k Ω nominal
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Input sensitivity range (1 dB steps)	-39 dBu minimum to +24 dBu maximum
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Q-SYS Core 8 Flex Preliminary Specifications

Audio Outputs

Output frequency response

20 Hz to 20 kHz @ all settings	+ 0.2 / - .5 dB
Output THD	0.005% typical, +24 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 optional license
AEC channels	8
WAN / media stream channels	12 x 12
Network peripherals	up to 32
Multi-track player	16 (included); up to 32 with optional license

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



Q-SYS Core 8 Flex Preliminary Specifications

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)

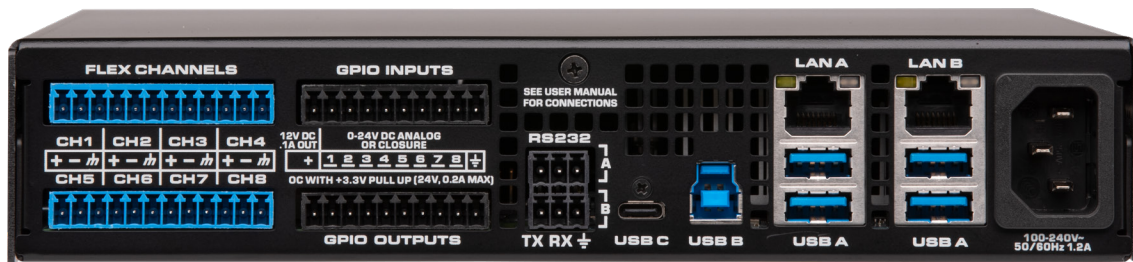
Shipping Dimensions (H x W x D) 3.1 x 13.3 x 15 in (79 x 337 x 381 mm)

Environmental & Safety

Power consumption 40 W typical

BTU/heat load 110 BTU/hour

Compliance	FCC Part 68 / TIA-968-B (USA)	UL and C-UL listed (USA & Canada)
	ES203 021, CE, RoHS (Europe), PTC200 (New Zealand) NOM-151-SCTI (Mexico) JATE (Japan)	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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