Q-SYS Core Processor Comparison Chart

Q-SYS Core processors are driven by the Q-SYS OS, a software-based foundation for audio, video, and control with the flexibility to manage a wide range of installation types. This chart doesn't provide a definitive list of applications for each Core, but is intended to help you select the best AV&C processor based on the I/O requirements and scale of your unique installation.

Q-SYS vCORE
Virtualized processor for Q-SYS

Ideal for: less complex spaces whose audio/UC&C requirements are fulfilled by simple, standalone hardware or applications that don't require Q-SYS audio or video.

Small meeting room	Classroom	Hospitality
●	●	●

NV-32-H (Core Capable)
Ideal for: in-room processing and video collaboration in small or medium-sized meeting rooms and classrooms

Small meeting room	Classroom
◐	◐

Core Nano
Ideal for: small spaces with only network-based endpoints; centralized processing for multiple small rooms

Small meeting room	Executive boardroom	Small hospitality	Classroom	Active learning space
●●●●	●	●	●●●	●

Core 8 Flex
Ideal for: small spaces needing onboard I/O and in-room processing

Executive boardroom	Small hospitality	Classroom	Active learning space
◐	◐	◐	◐

Core 110f
Ideal for: medium to large spaces needing onboard I/O; in-room processing or centralized processing

Executive boardroom	All-hands/training	Hospitality	Restaurant	Lecture hall	Classroom
◐◐◐	◐	◐	◐	◐	◐◐◐◐

Core 610
Ideal for: centralized processing for multiple rooms or large venues with only network-based endpoints, campus-wide distribution for BGM or paging

All-hands/training	Performance venue	College	Lecture hall	Railways
●●●●●	●	●	●●●●●	●

Core 5200
Ideal for: large, mission-critical systems; centralized processing with network-based endpoints

corporate campus	cruise ship	stadium	convention center	airport	theme park
~50 ●	●	●	●	●	●

● # of spaces with network only peripherals   ◐ # of spaces with network & analog peripherals   ● Control Only

Q-SYS Core Processor Comparison Chart
Base Features

		vCore + Q-SYS Control license	NV-32-H (Core Capable)	Core Nano	Core 8 Flex	Core 110f	Core 610	Core 5200
Audio	Total network I/O	–	40 x 32	64 x 64	64 x 64	128 x 128[1]	256 x 256	512 x 512
	Onboard I/O	–	HDMI (8-ch per port) 3.5 mm (2 x 2)	–	8x flex	8x in, 8x out, 8x flex	–	–
	Software-based Dante capacity	–	none included (up to 32 x 32)	8 x 8 included (up to 32 x 32)	8 x 8 included (up to 32 x 32)	8 x 8 included (up to 32 x 32)	8 x 8 Included (up to 256 x 256)	8 x 8 included (up to 512 x 512)
	Media / WAN network channels	–	12 x 12	12 x 12	12 x 12	24 x 24	64 x 64	256 x 256
	Q-SYS NM-T1 microphone capacity (wide-band mode)	–	3	3	3	4	14	28
	USB audio channel count	–	3 x 3	8 x 8	8 x 8	16 x 16	–	–
	Audio recording/playback	–	4 ch recording/ 16 ch playback	4 ch recording/ 16 ch playback (expandable to 32 ch)	4 ch recording/ 16 ch playback (expandable to 32 ch)	4 ch recording/ 16 ch playback (expandable to 32 ch)	4 ch recording/ 16 ch playback (expandable to 128 ch)	4 ch recording/ 16 ch playback (expandable to 128 ch)
Connected Collaboration	AEC processors	–	8	8	8	16	64	160
	VoIP instances	–	1	2	2	4	64	64
	Native video distribution control (via NV Series peripheral)	–	√	√	√	√	√	√
	Local HDMI switching	–	√	–	–	–	–	–
	Onboard AV bridging (USB)	–	√	√	√	√	–	–
Control	Full-featured scripting engine license	Included	Optional	Optional	Optional	Optional	Optional	Included
	UCI deployment license	Included	Optional	Optional	Optional	Optional	Optional	Included
	GPIO[2]	–	2 in x 3 out	–	8 x 8	–	–	–
	RS232[2]	–	1	2	2	1	1	1
Other	Q-SYS peripheral limit[3]	16	32	32	32	32x NV-32-H[3] 32x NL, NM and/or QIO Series[3]	–	–
	Size	–	1/2 rack, 1RU	1/2 rack, 1RU	1/2 rack, 1RU	1RU	1RU	2RU

www.qsys.com/cores

1. 80 x 64 when using USB video bridging functionality
2. For additional GPIO or RS232 I/O consider the QIO Series.
3. Refer to Q-SYS Designer Help file for more details on peripheral limits

Q-SYS™ SCALING LICENSES

Expand select feature sets at the software level with Q-SYS Scaling licenses. Whether choosing features before installation or as business needs change, Q-SYS feature licenses let you easily add functionality without the need for additional hardware.

	Core Nano & Core 8 Flex base configuration	+ Commercial Bundle scaling license	+ Collaboration Bundle scaling license	Core 610	+ Core 610 scaling license
Total network I/O	64 x 64	128 x 128	128 x 128	256 x 256	384 x 384
DSP processing power	1x	2x	2x	16x	24x
AEC processors	8	8	16	64	96
VoIP instances	2	2	4	64	64
Q-SYS NM-T1 microphone capacity (wide-band mode)	3	3	6	14	21
Media / WAN network channels	12 x 12	24 x 24	12 x 12	64 x 64	96 x 96
Q-SYS peripheral limit	32	48	32	–	–