



- **Audio Only**
  - **AES67**
  - **Media Stream**
  - **QLAN**
  - **Software Dante**
  - **WAN**
- **Audio and Video**
  - **System Link**

- Allows audio streaming between Q-SYS and 3rd party products without requiring additional hardware or licensing
- 1 ms packet time
- (up to) 10 channels per stream @ L24, 48kHz
- Supports SAP protocol for discovery and connection management
- Uses IGMPv2, PTPv2, and same QoS mapping as Q-LAN

- Compressed or PCM uncompressed audio streams for traversing networks
- Mono, stereo, or multichannel (4 to 8)
- Can strip audio from multiplexed AV streams
- Transmit:
  - RTP
    - MP3 data rates from 8 to 320 kbits/sec
    - PCM at 16 bit stereo, 44.1kHz
  - SVSi
    - Destination IP address of the device
    - Destination stream number
  - Multicast TTL

## • Receive Sources:

- Unicast or Multicast Streams over raw UDP or RTP, including:
  - MPEG Transport Streams
  - Q-SYS Media Stream Transmitter
  - Barix Instreamer
- SDP (Session Description Protocol)
- Cisco StadiumVision
- SHOUTcast
- SVSi 7.1
- WyreStorm – audio stream ingest from NetworkHD 100 and 200 Series transmitters
- Atlon – audio stream ingest from OmniStream 111 and 112 transmitters

## • Receive Codecs

- MP3 (MPEG-2 Audio Layer III)
- AC-3 (ATSC A/52)
- G.711
- LPCM
- FLAC (Free Lossless Audio Codec)
- Vorbis

- **MP3-compressed, 48kHz sample rate streams over a WAN**
- **Can transmit to a receiver on another core or VLC or Barix**
- **Mono, Stereo or multichannel (3 to 16)**
- **Channel type/count must match between transmitter and receiver**
- **Can define multiple streams per component**

# Media Stream & WAN Channel Maximums



Core Model	Max Number of Receiver Channels	Max Receivers	Max Number of Muxed A/V Receiver Channels	Max Number of Muxed A/V Receivers
NV-32-H (Core Capable)	12	6	12	6
Core Nano	12 (24*)	6 (12*)	12 (24*)	6 (12*)
Core 8 Flex	12 (24*)	6 (12*)	12 (24*)	6 (12*)
Core 110f	24	12	24	12
Core 510i	64	32	96	16
Core 610	64 (96*)	32 (48*)	96	16
Core 5200	256	128	192	32
Core 6000	128 (256*)	64 (128*)	192	32
<b>Discontinued</b>				
Core 1100	128	64	96	16
Core 3100	256	128	192	32

\* Denotes expanded capabilities via licensing

- Cores must be on the same LAN and PTPv2 domain
- Streams are unicast; one transmitter can stream to one receiver only
- Static or dynamic stream names
- Channel counts must match between transmitter and receiver
- Supports redundancy (For all Cores except 5200 and 6000, each Q-LAN Transmitter with this property enabled consumes two streams instead of one)

- Licensed feature (8x8 included with new Cores)
- Fixed sample rate of 48 kHz
- Require clocking and QoS considerations
- External configuration via Dante Controller can be enabled or disabled
- Can be unicast or multicast

- Every component consumes at least 1 flow
- Each component appears in Dante Controller as a Channel Group

## Software Dante Resources: Core Maximums

	Maximum Channels	Maximum Flows	Included Channels	Licensable Tiers
Core 110f	32x32	16x16	8x8 (after March 30, 2020)	8x8, 16x16, 32x32
Core Nano, Core 8 Flex	32x32	16x16	8x8	16x16, 32x32
NV-32-H (Core Capable) in Core Mode	32x32	16x16	N/A	8x8, 16x16, 32x32
Core 510i	128x128	64x64	8x8 (after January 01, 2021)	8x8, 16x16, 32x32, 64x64, 128x128
Core 610	128x128	64x64	8x8	8x8, 16x16, 32x32, 64x64, 128x128
Core 5200	512x512	192x192	8x8 (after January 01, 2021)	8x8, 16x16, 32x32, 64x64, 128x128, 256x256, 512x512
Core 6000 CXR	256x256, upgradeable to 512x512 <sup>1</sup>	192x192	8x8	8x8, 16x16, 32x32, 64x64, 128x128, 256x256, 512x512 <sup>1</sup>

1. For the Core 6000 CXR, the 512x512 license requires the Q-SYS Core 6000 CXR Scaling License. See [Licensing](#).

- Used to move AV streams and multicast audio from one Q-SYS system to another
- Network must be configured for multicast traffic
- Both systems must be able to discover each other on the network
- PTP domains for each system must match
- Stream name can be static or dynamic
- Max of 8 channels of audio and 32 AV streams

	<b>Unicast/ Multicast</b>	<b>LAN/ WAN</b>	<b>Start/ Stop</b>	<b>Clocked</b>	<b>Run Time Changes</b>	<b>3rd Party Devices</b>
<b>AES67</b>	Either	LAN	Yes	Yes	Yes*	Yes
<b>Media Stream</b>	Multicast	WAN	Yes	No	Yes	Yes
<b>WAN</b>	Multicast	WAN	No	No	No	Yes
<b>QLAN</b>	Unicast	LAN	No	Yes	Yes	No
<b>Software Dante</b>	Either	LAN	No	Yes	Yes	Yes
<b>System Link</b>	Multicast	LAN	No	Yes	No	No

- **Server → Client(s)**
- **Controls and count must match**
- **Up to 10 groups of controls per component**
- **Up to 256 controls per group**
- **Triggers only go from Client → Server**
- **Meters, LEDs, and text displays are only Server → Client(s)**
- **All other controls are bidirectional**
- **On connection Server value will populate to the Client(s)**
- **Can traverse LANs**
- **Supports redundant networks**

