NEURON



The World's biggest IP audio channel shuffler



With new IP based audio formats, like ST2110-30 and ST2110-31, the amount of audio channels within a broadcast facility can easily grow into the thousands. Managing which channels belong in which audio streams, and shuffling the various channels from one stream to the other is becoming quite a challenge. With the Neuron Audio Matrix option you can shuffle, mix and delay thousands of audio channels in a 8192x4096 audio matrix.

Cascading two cards creates one huge audio matrix

The Neuron audio matrix runs on the same hardware as the general processing modules of Neuron. A Neuron frame can hold 2 modules. In between the modules there is a 100Gb/s bus via which all 4096 audio channels can flow from one card to the other in both directions. This means that in just 1 RU you can fit a 8192 x 8192 audio matrix.

The Neuron audio shuffler will handle 256 streams on two 10G SFP+ connectors (and 2 more for redundancy). Each stream can contain up to 64 channels per stream until 4096 channels is reached. The first release of this module will handle 4x 16 audio streams in and out on 4x 10G SFP+ connectors. Each stream can contain up to 64 channels.

NAM8192 - Neuron Audio Matrix De-packetizer De-packetizer 10G SFP+ A 10G SEP+ A (input part) (output part) 64 Streams 64 Streams 10G SFP+ B 10G SFP+ B (input part) Up to 4096 Up to 4096 (output part) 8192 X 4096 channels 64 Stream channels De-mux **CHANNEL** Mux 10G SFP+ C 10G SFP+ C Delay (input part) CROSS-POINT (output part) ST2110-30 ST2110-30 10G SFP+ D 10G SFP+ D ST2110-31 ST2110-31 (output part) (input part) AES67 AES67 ST2059 ST2059 Ref. input 1 PTP PLL GigE Ethernet Domain System on chip ARM Domain Control Clock 1 Ref. loop/output GigE Ethernet DA Ref enc Ref. loop/output 2 DA Ref enc μC Clock circuit GigE Ethernet 4096 4096 channels channels Expansion connections

KEY FEATURES:

- Audio Router with 8192x4096 channels
- 4096 channels from local IP inputs and 4096 channels from an adjacent NAM8192 board
- AES67, ST2110-30 and ST2110-31 compatible
- Delay adjustments per stream
- Routing via the SW-P-08 protocol