

The Yamaha Rivage System

Version 2.20 specification



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Sr Application Engineer Digital Systems



Perfecting the Art of Live Sound

DIGITAL MIXING SYSTEM

RIVAGE
PM SERIES

The Rivage System

RPi622

- 6 RY slots
 - up to 96 inputs
 - up to 96 outputs
- 2 MY slots
 - up to 32 inputs
 - up to 32 outputs
- 2 HY slots
 - Slot 1: 256ch bidirectional TWINLANe
 - Slot 2: 128ch inputs + 128 outputs
- Redundant PSU



The Rivage System

RPiO222

- 2 RY slots
 - up to 32 inputs
 - up to 32 outputs
- 2 MY slots
 - up to 32 inputs
 - up to 32 outputs
- 2 HY slots
 - Slot 1: 256ch bidirectional TWINLANe
 - Slot 2: 128ch inputs + 128 outputs
- Redundant PSU

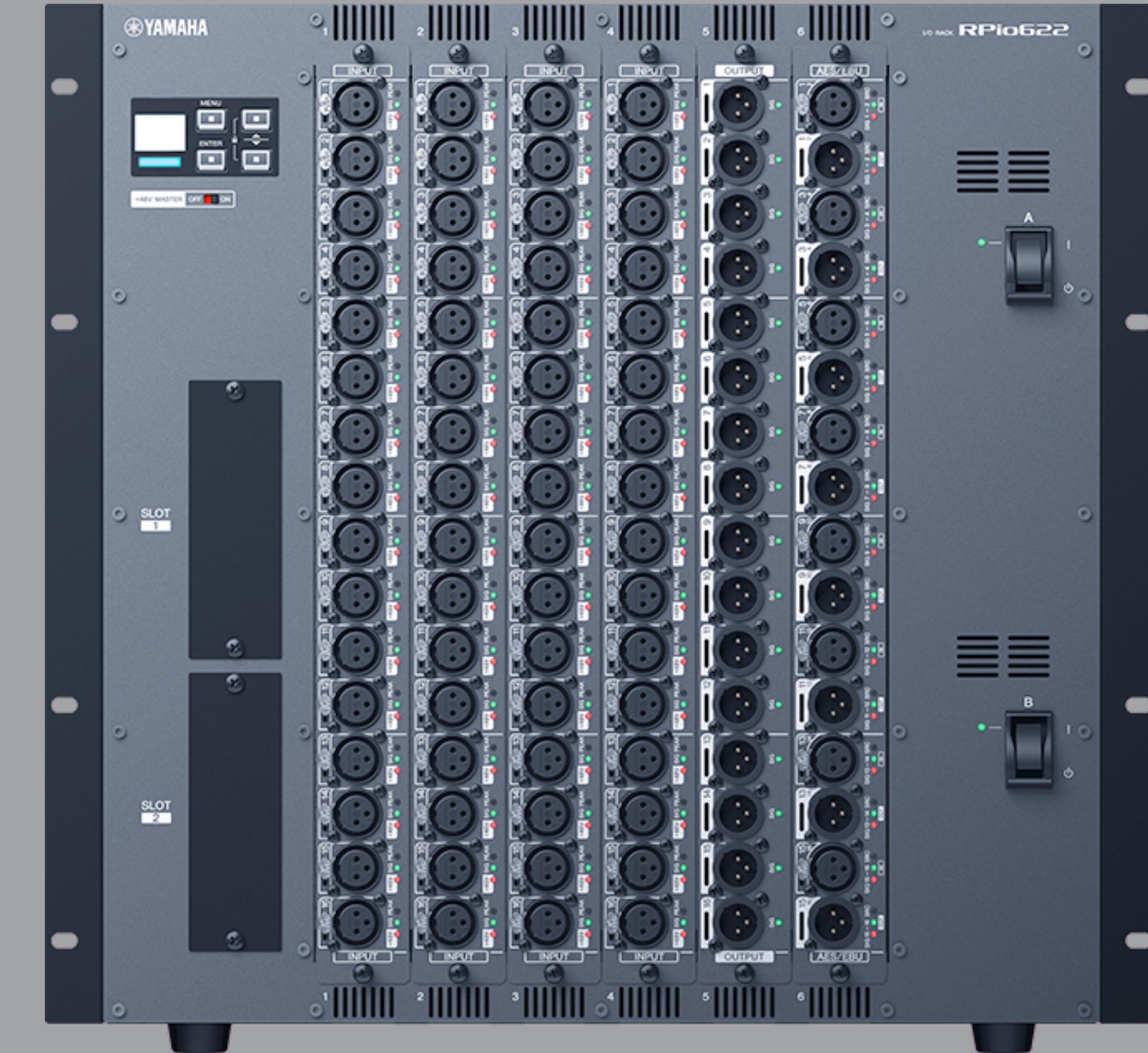


The Rivage System

RY cards

- RY16-ML-SILK
- RY16-DA
- RY16-AE

Any RY card number, combination or order inside the RPi is allowed.

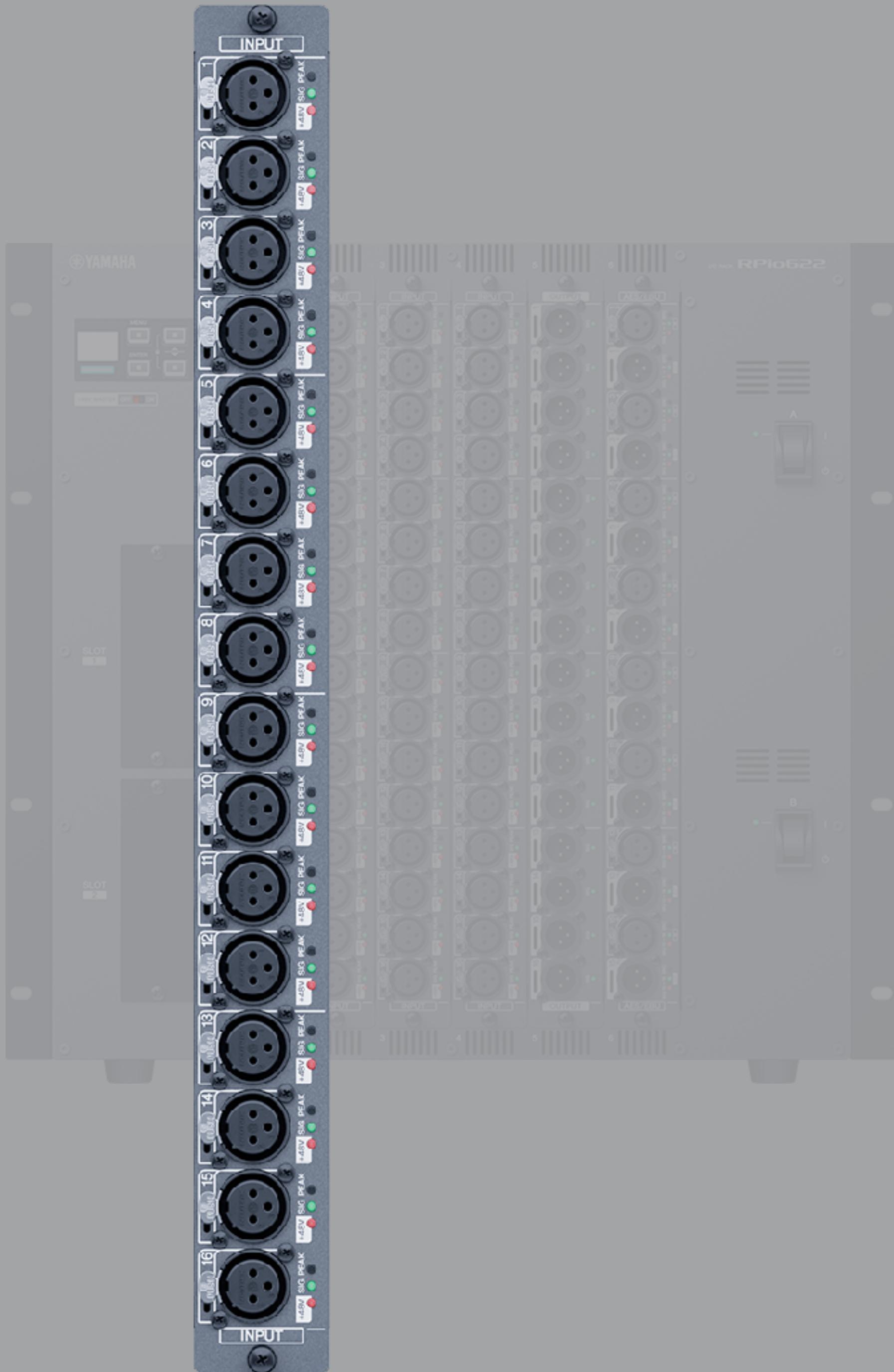


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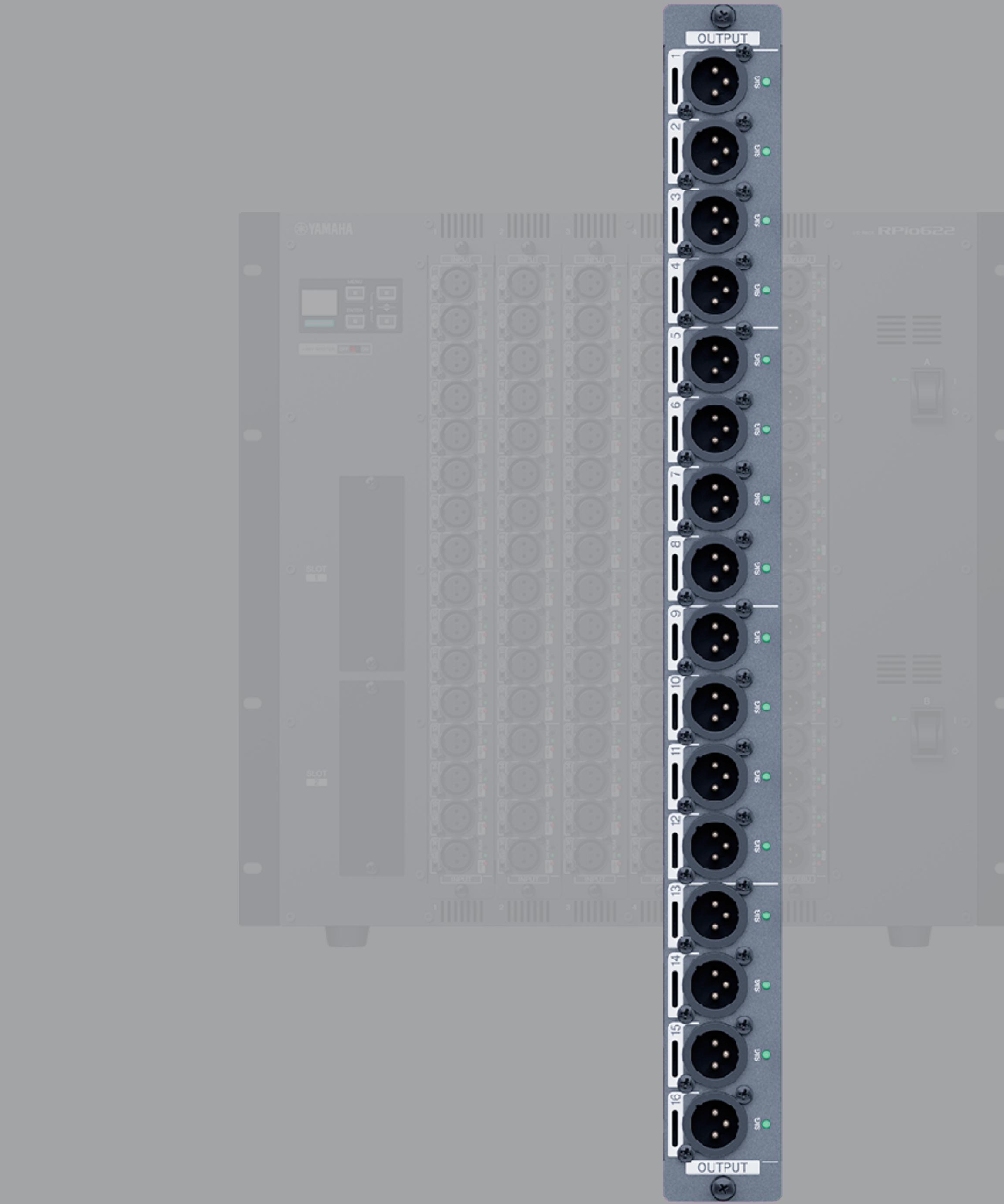


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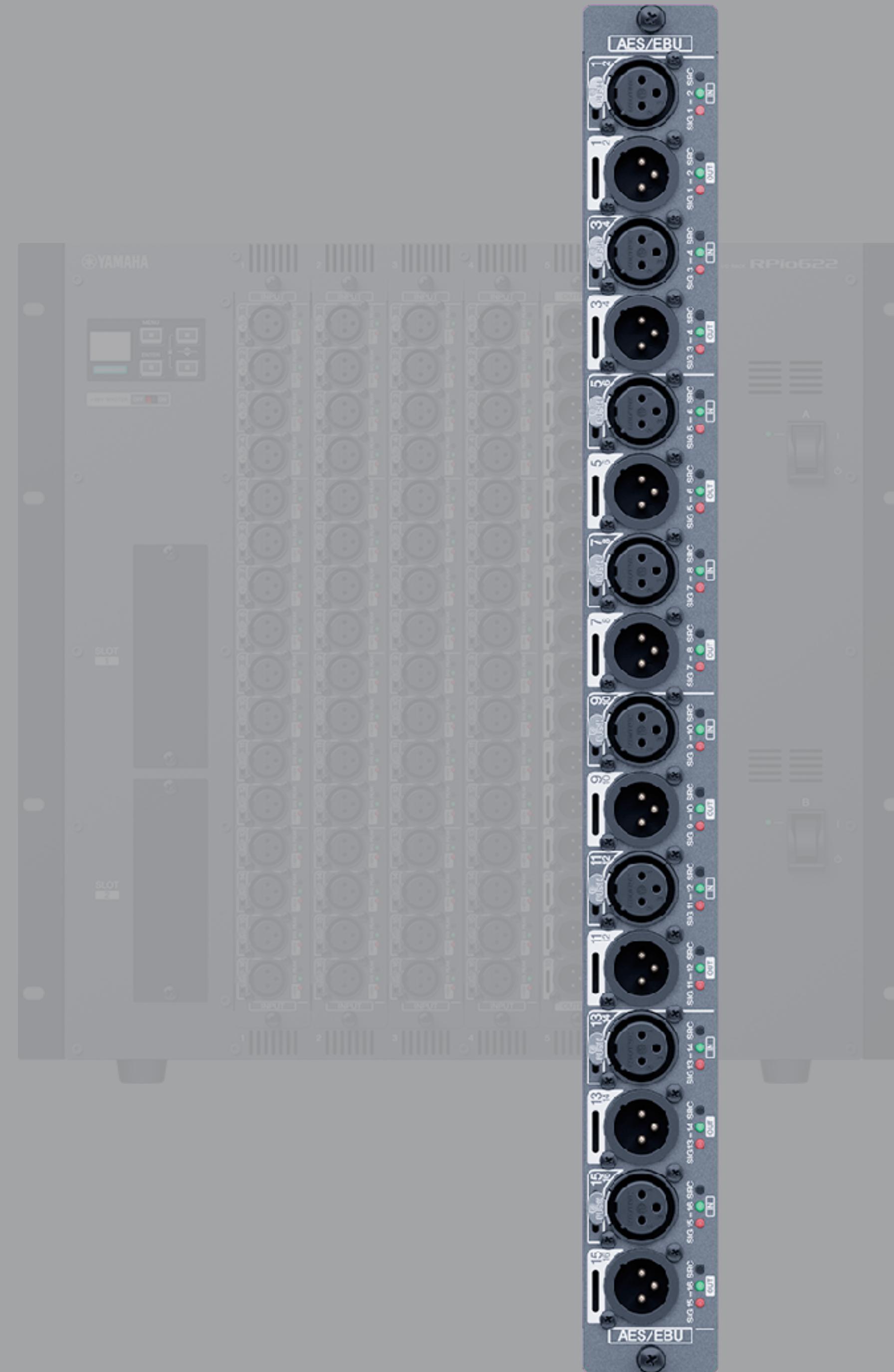


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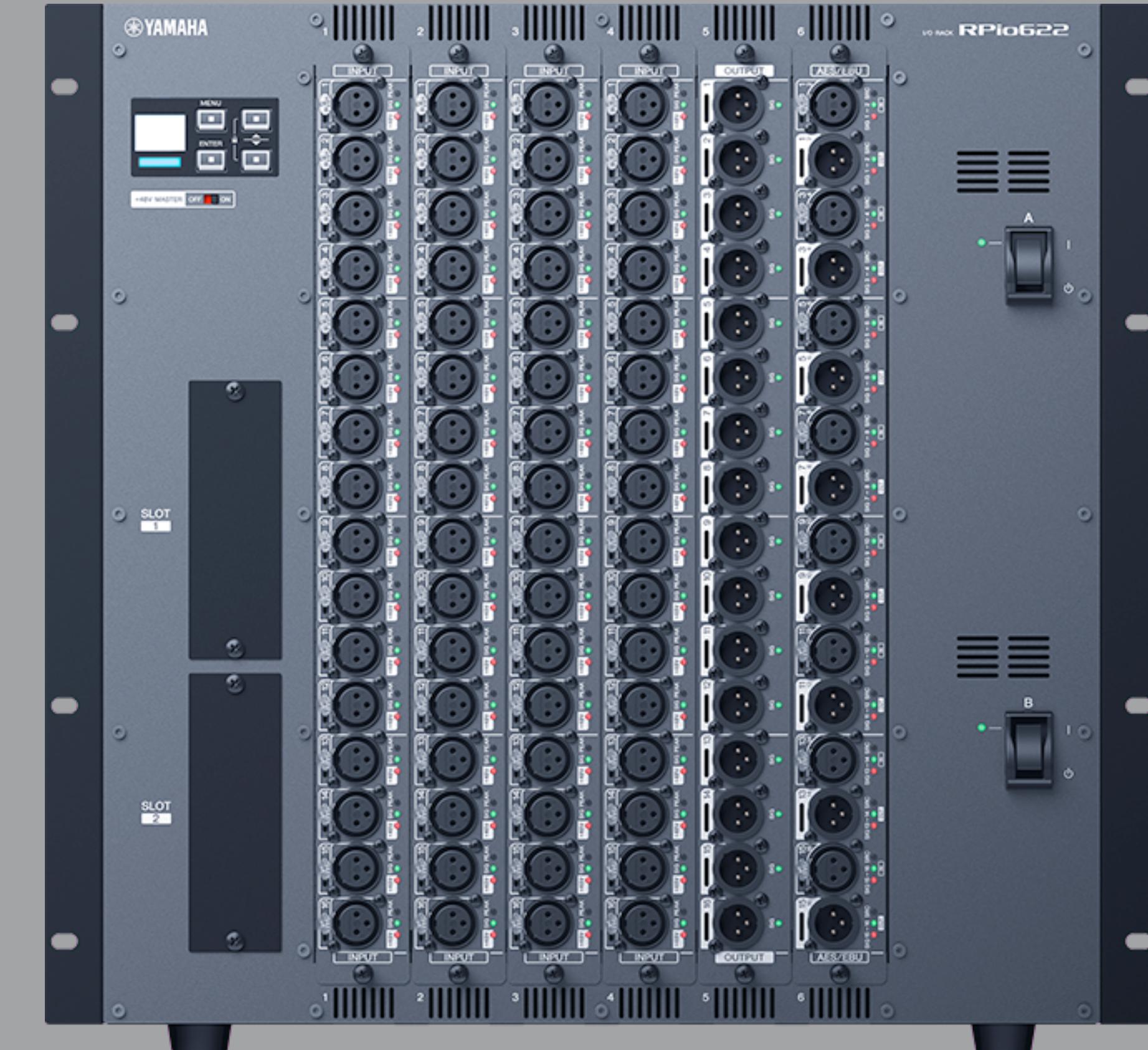


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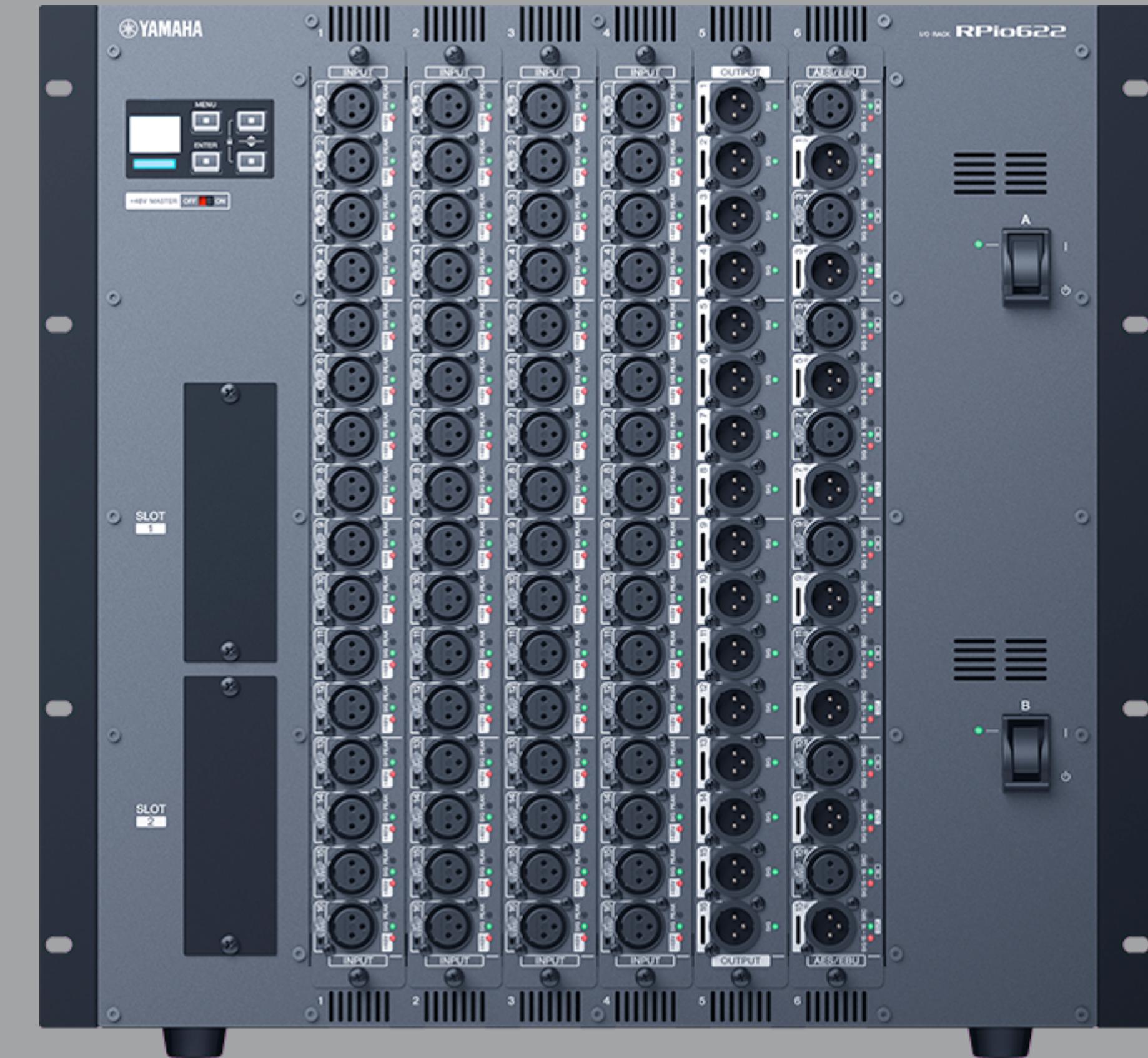
The Rivage System

R-series

- Up to 24 pieces of R-series
- Generation I and II are supported
- Rio only is possible as well



The Rivage System



The Rivage System

HY cards

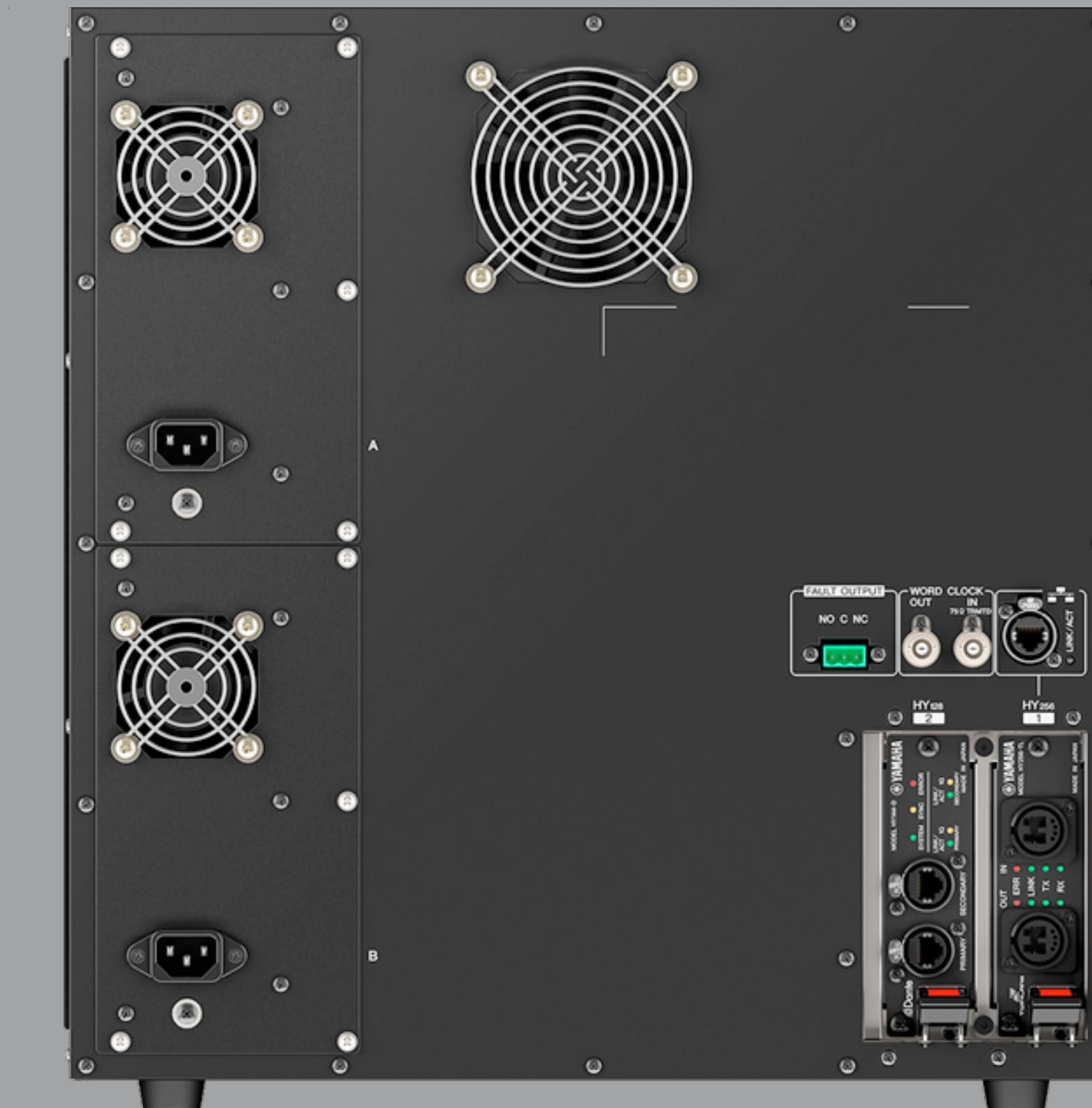
- HY256-TL, TWINLANe on MMF

- 256 inputs + 256 outputs



- HY256-TL-SMF, TWINLANe on SMF

- 256 inputs + 256 outputs



The Rivage System

HY cards

- HY144-D, Dante

- 144 inputs + 144 outputs



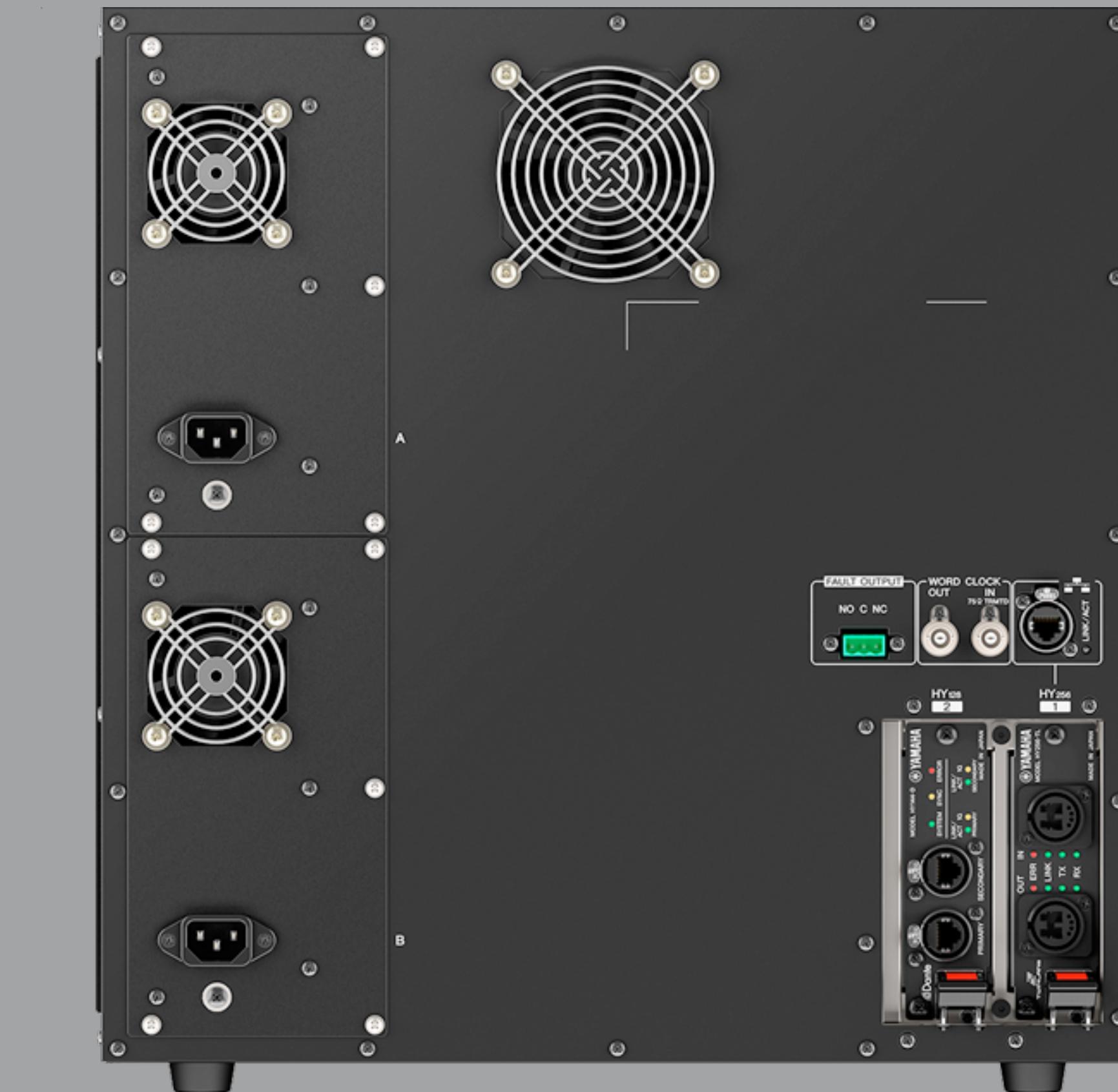
- HY144-D-SRC

- up to 144 inputs + 144 outputs



- HY128MD

- 128 inputs + 128 outputs



The Rivage System

DSP-R10

- 4 HY slots 256ch bidirectional (each)
 - Slot 1: TWINLANe Master ring
 - Slot 2: TWINLANe Sub ring
 - Slot 3: Dante i/o
 - Slot 4: Dante Recording / VSC
- 2 MY slots up to 16ch bidirectional (each)
- MIDI, MTC, GPI, WC, Network, RS
- Redundant PSU



The Rivage System

CS-R10

- 12/12/12/2 faders
- 8 analogue in (ML, incl RND Silk)
- 8 analogue out
- 4st AES/EBU in (SRC)
- 4st AES/EBU out (SRC)
- 2 MY slots (up to 32ch bidirectional)
- MIDI, GPI, WC, Network, DVI, USB
- Redundant PSU



The Rivage System

CS-R10-S

- 12/12/2 faders
- 8 analogue in (ML, incl RND Silk)
- 8 analogue out
- 4st AES/EBU in (SRC)
- 4st AES/EBU out (SRC)
- 2 MY slots (up to 32ch bidirectional)
- MIDI, GPI, WC, Network, DVI, USB
- Redundant PSU



The Rivage System

PM7

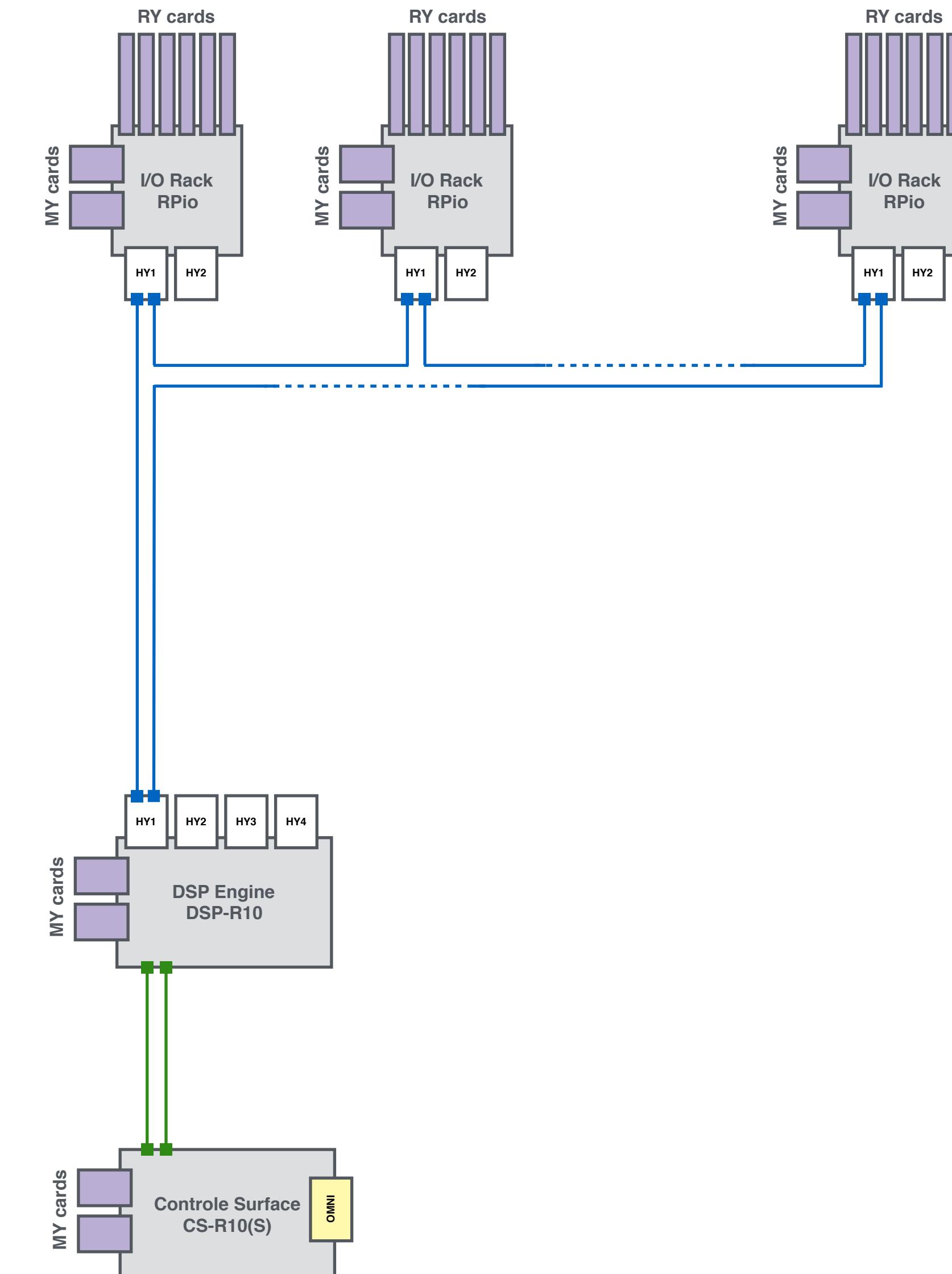
- 12/12/12/2 faders
- Built-in DSP
- 3 HY slots 256ch bidirectional (each)
 - Slot 1: TWINLANe Master ring
 - Slot 2: Dante i/o
 - Slot 3: Dante Recording / VSC
- 8 analogue in (ML, incl RND Silk)
- 8 analogue out
- 4st AES/EBU in (SRC)
- 4st AES/EBU out (SRC)
- 2 MY slots (up to 32ch bidirectional)
- MIDI, GPI, WC, Network, DVI, USB
- Redundant PSU



The Rivage System

Infrastructure

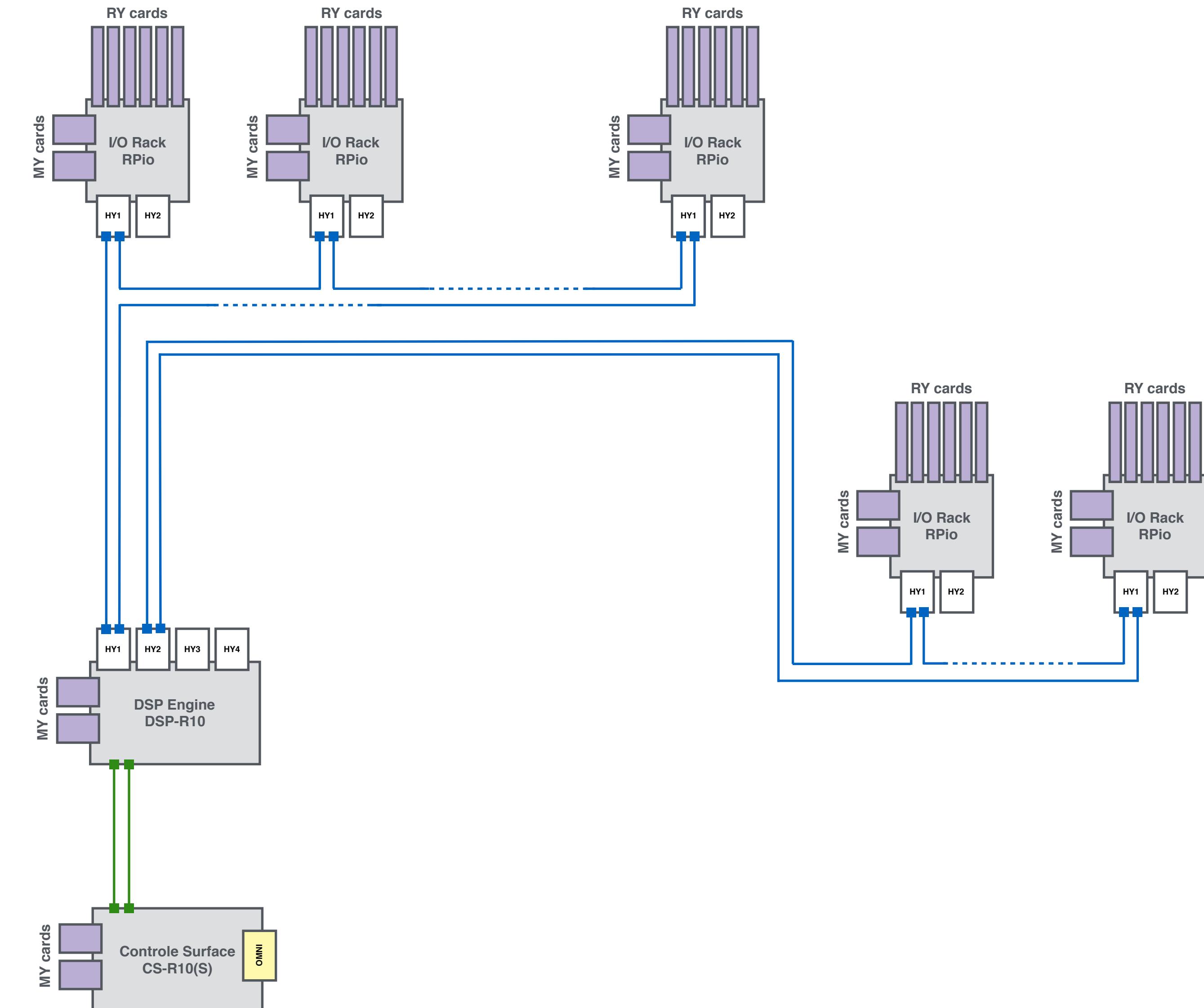
- Up to 8 RPio's per ring



The Rivage System

Infrastructure

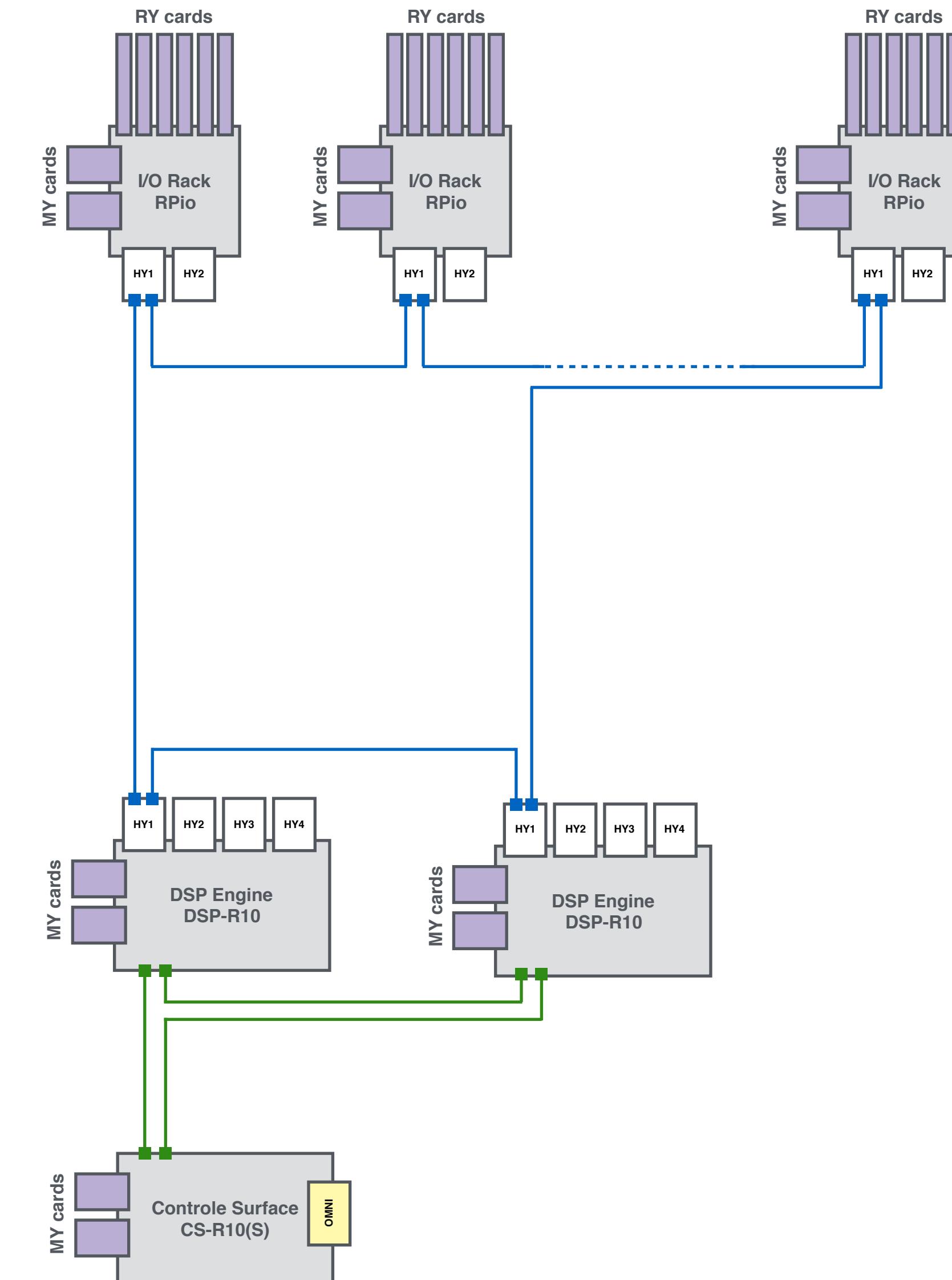
- Up to 8 RPi's per ring
- Main and Sub ring



The Rivage System

Infrastructure

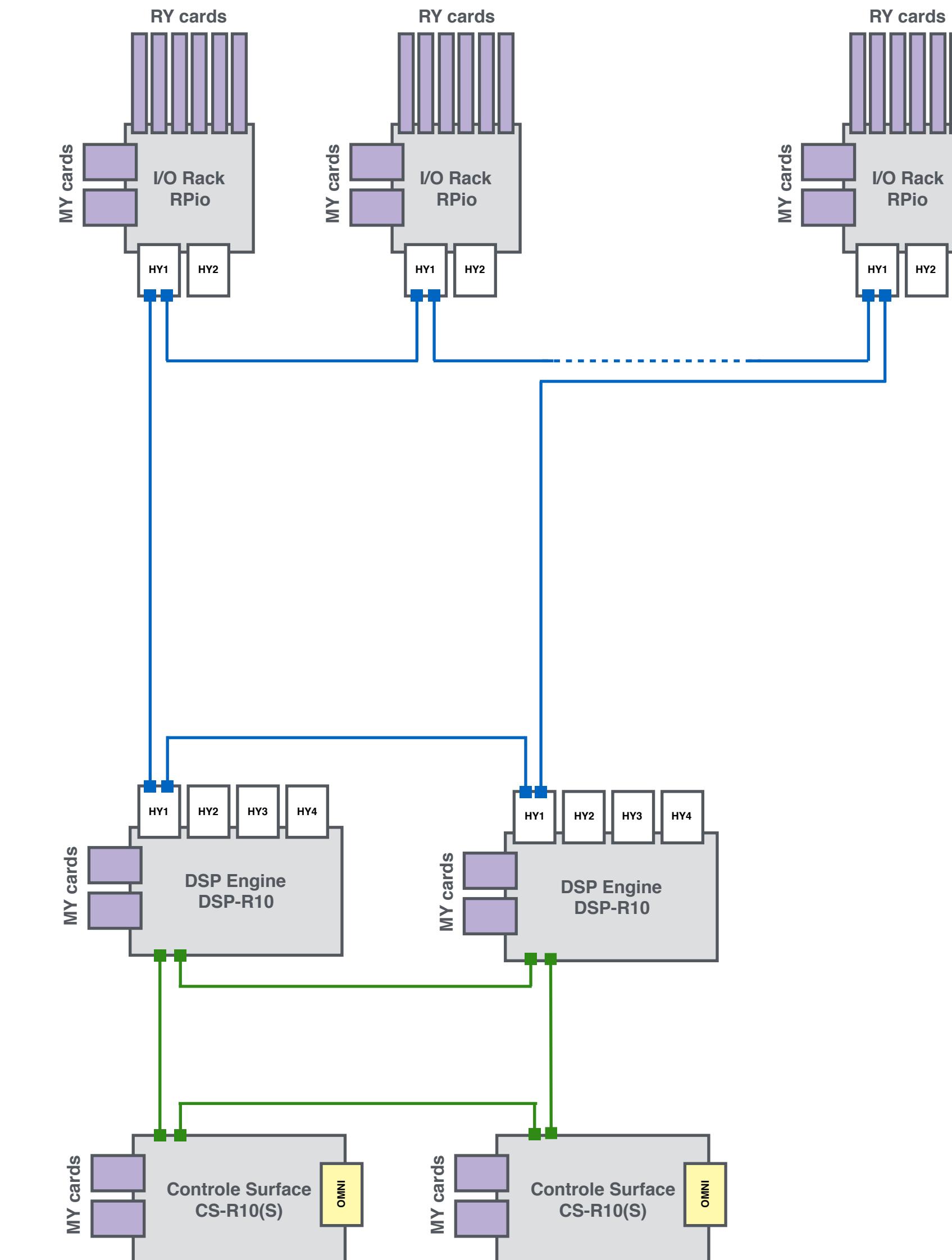
- Up to 8 RPi's per ring
- Main and Sub ring
- DSP mirroring possible



The Rivage System

Infrastructure

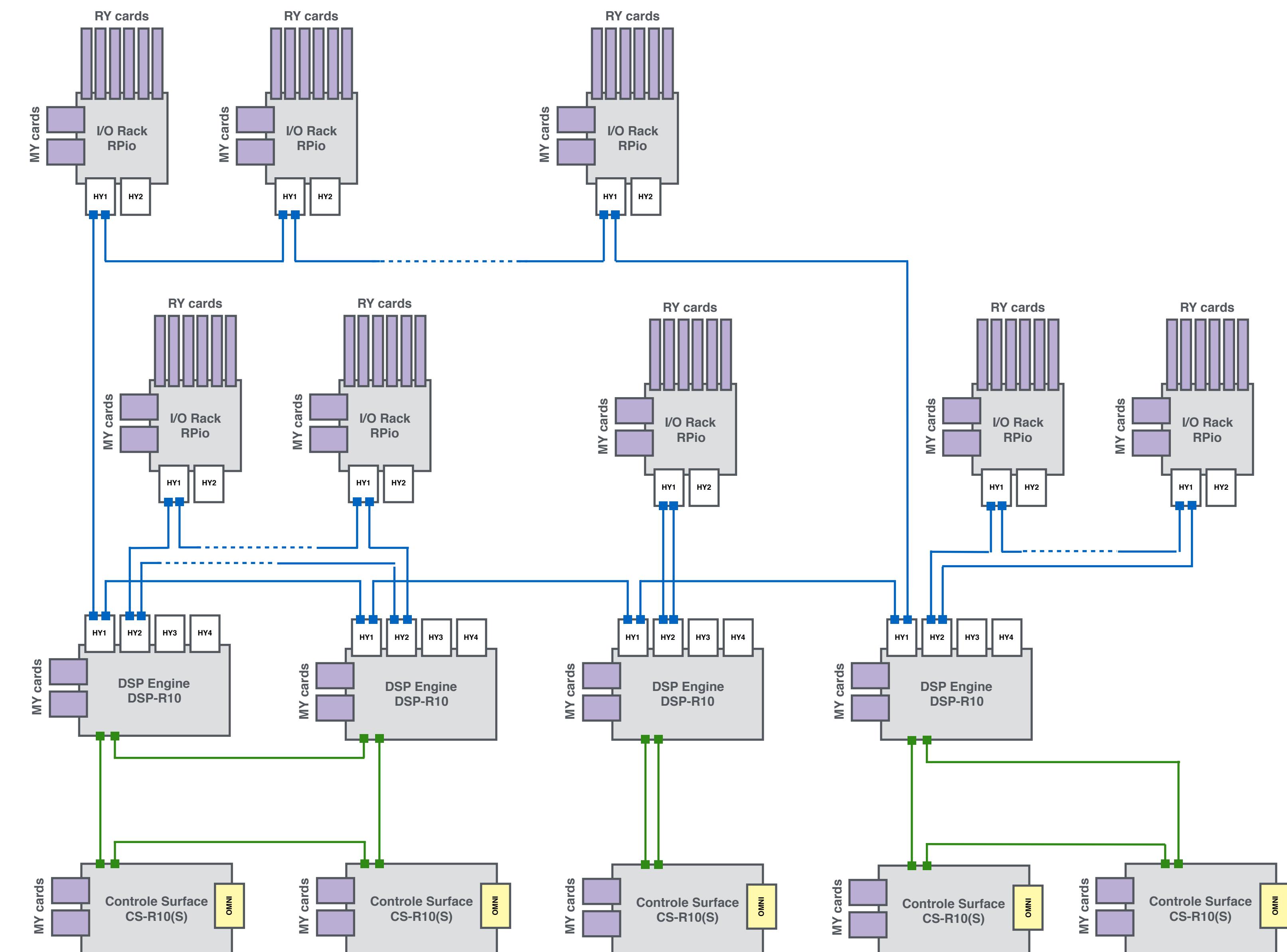
- Up to 8 RPi's per ring
- Main and Sub ring
- DSP mirroring possible
- Up to 2 surfaces per DSP



The Rivage System

Infrastructure

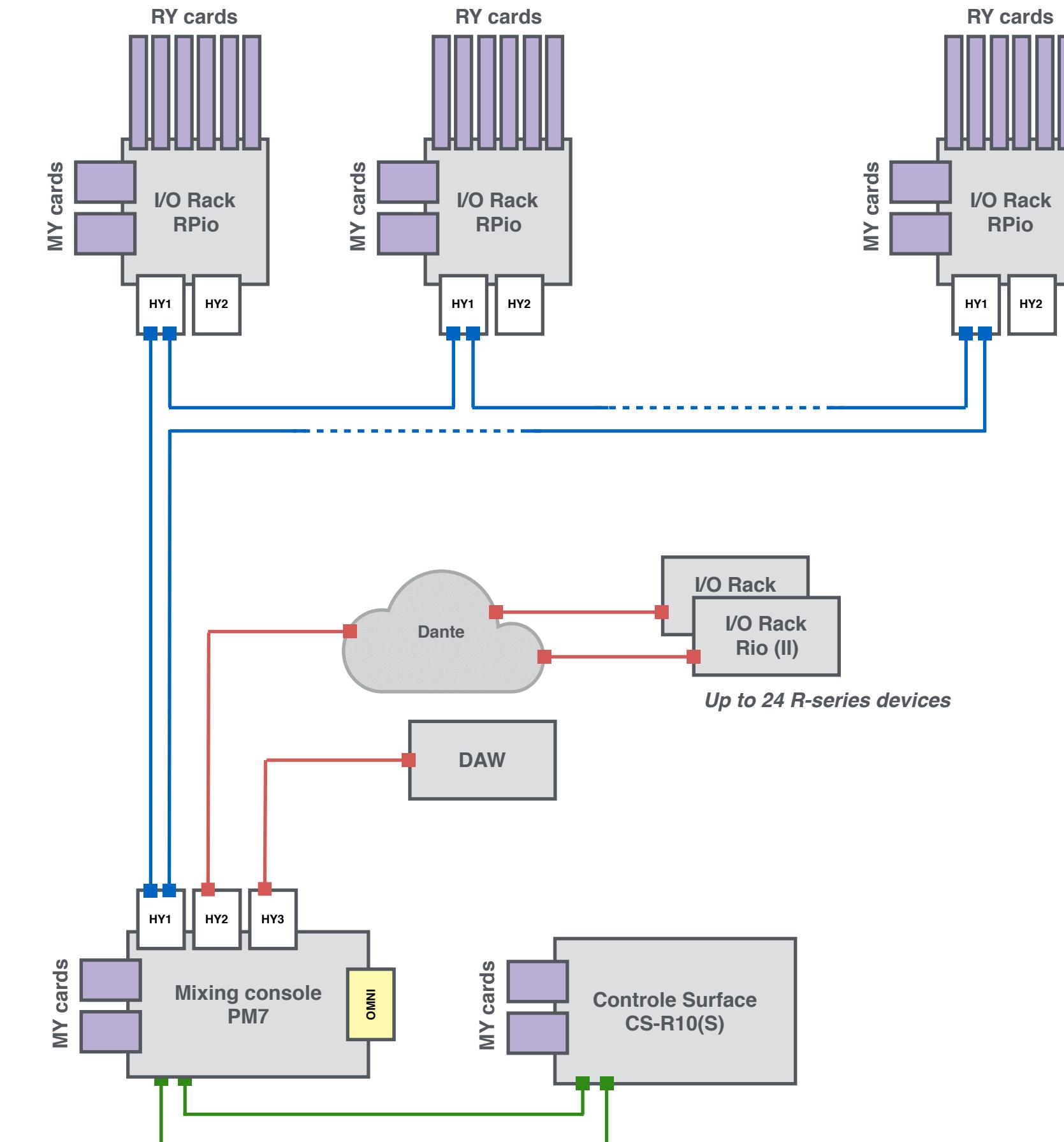
- Up to 8 RPio's per ring
- Main and Sub ring
- DSP mirroring possible
- Up to 2 surfaces per DSP
- Max 4 DSP-R10 (in mirror 8)



The Rivage System

Infrastructure

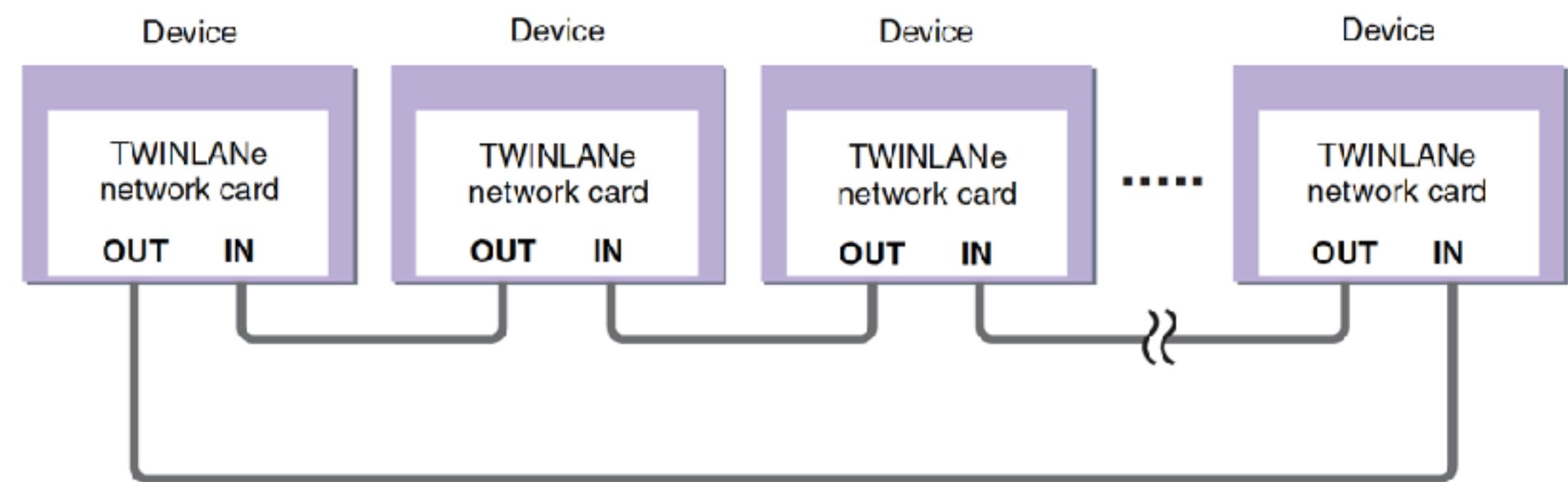
- Up to 8 RPiо's per ring
- Main and Sub ring
- DSP mirroring possible
- Up to 2 surfaces per DSP
- Max 4 DSP-R10 (in mirror 8)
- Up to 24 R-series units
- Mix and match.....



The Rivage PM10 System

TWINLANe

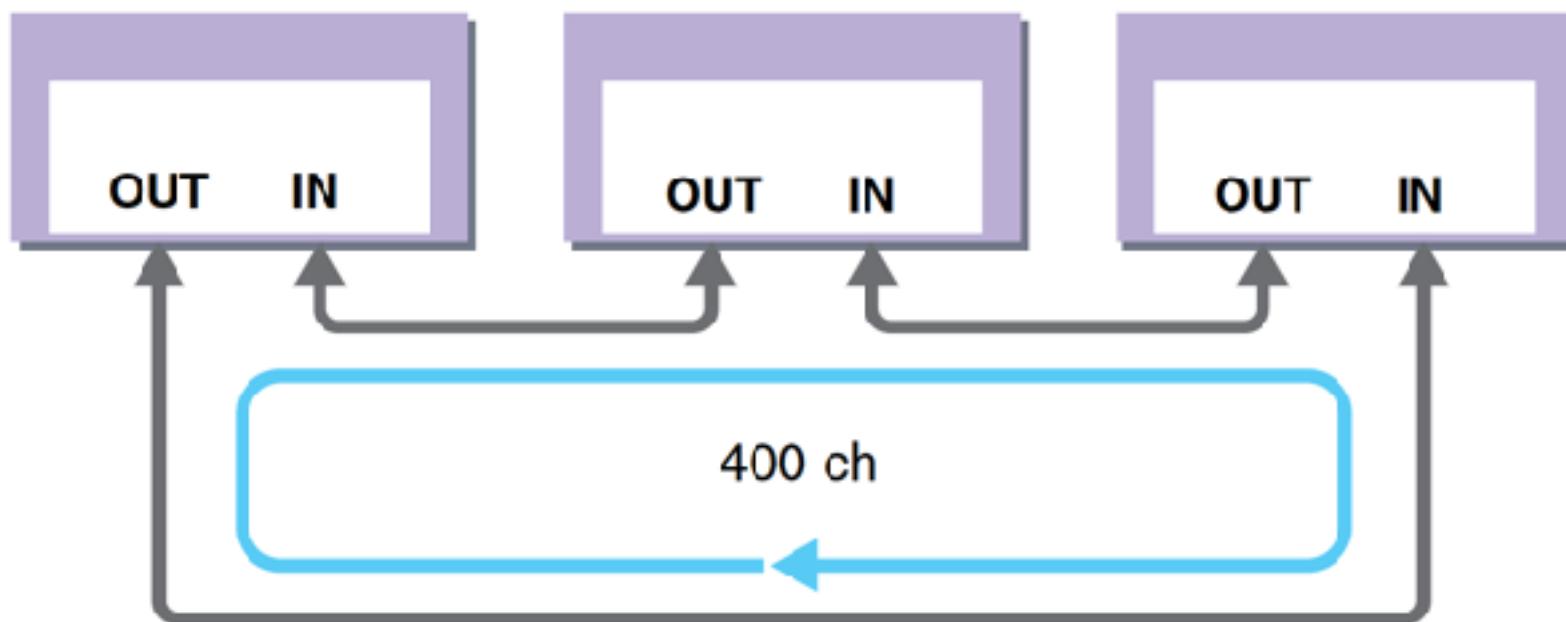
- 96kHz, 32 bit. Or lower if desired
- 400 audio channels
- High speed control data
- Fully redundant, glitchfree
- MM Neutrik OpticalCON (300m)
- SM Neutrik OpticalCON (2km)
- 12 samples latency \triangleq 125 μ s (96k)
- Latency is constant



The Rivage PM10 System

TWINLANe

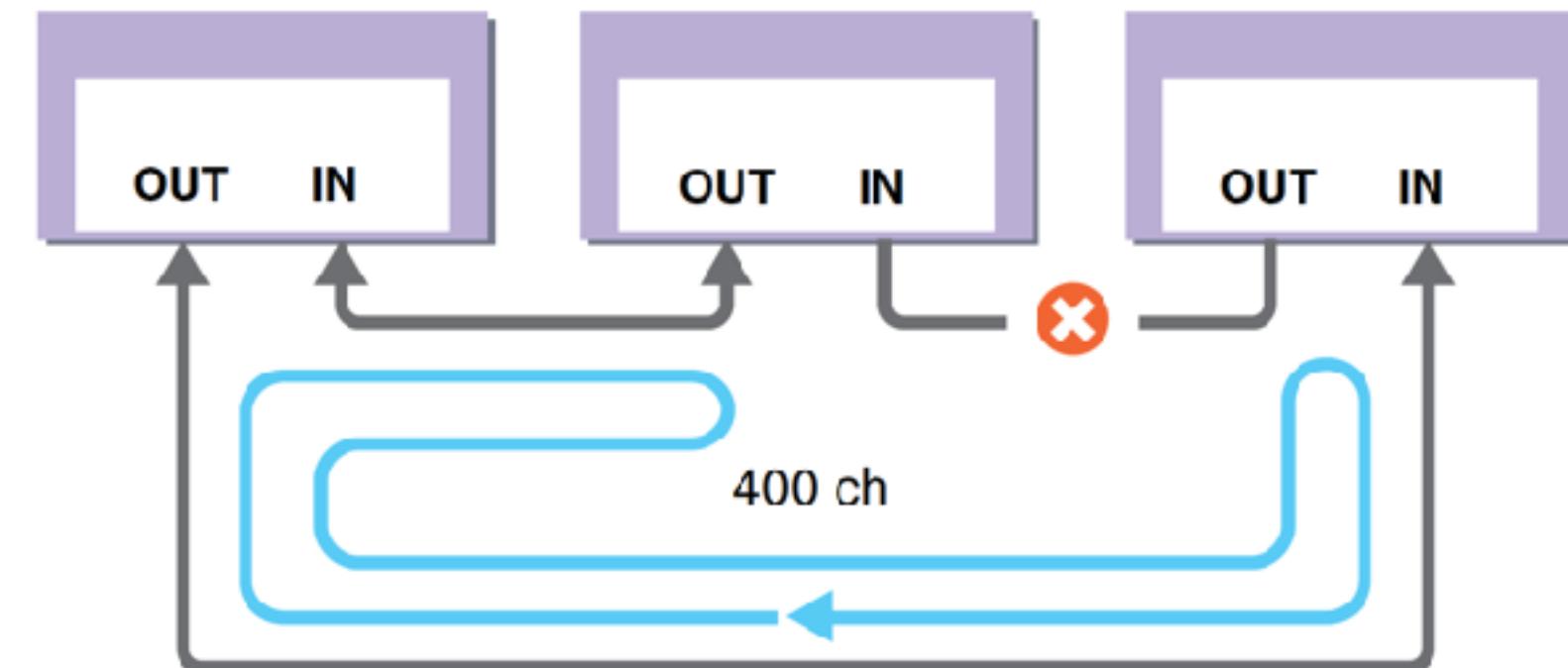
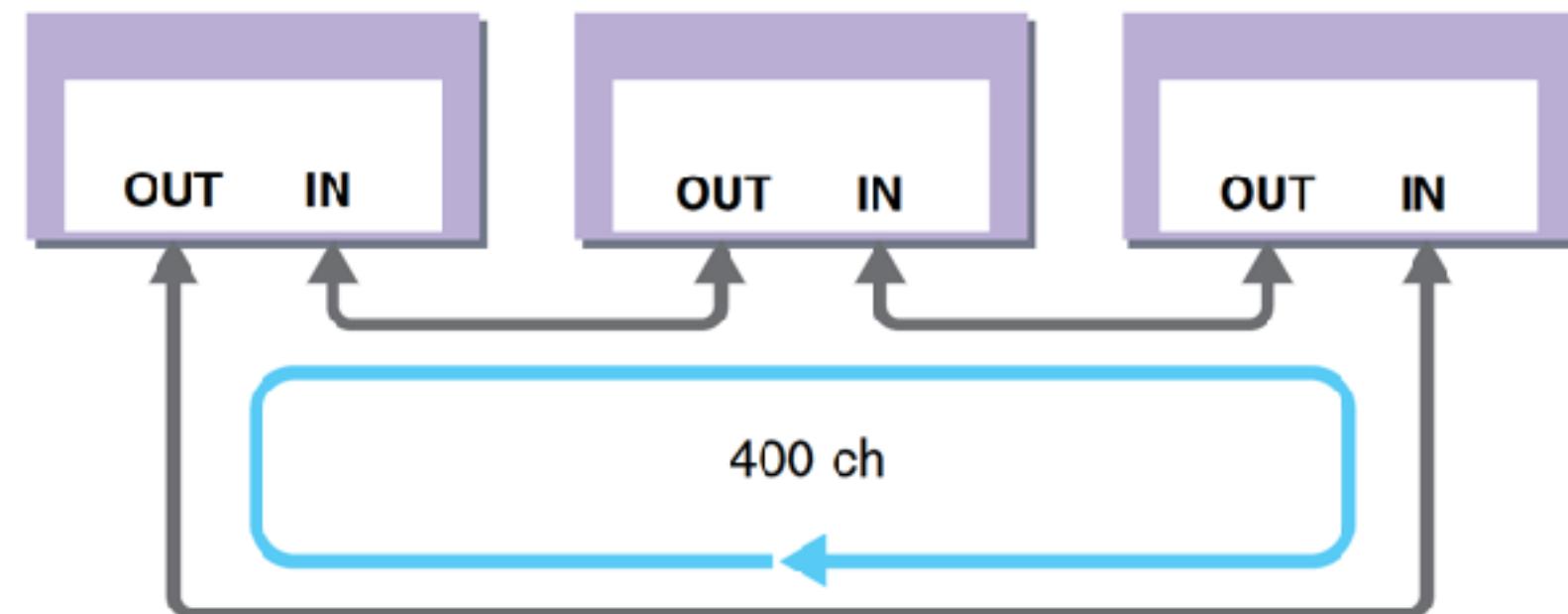
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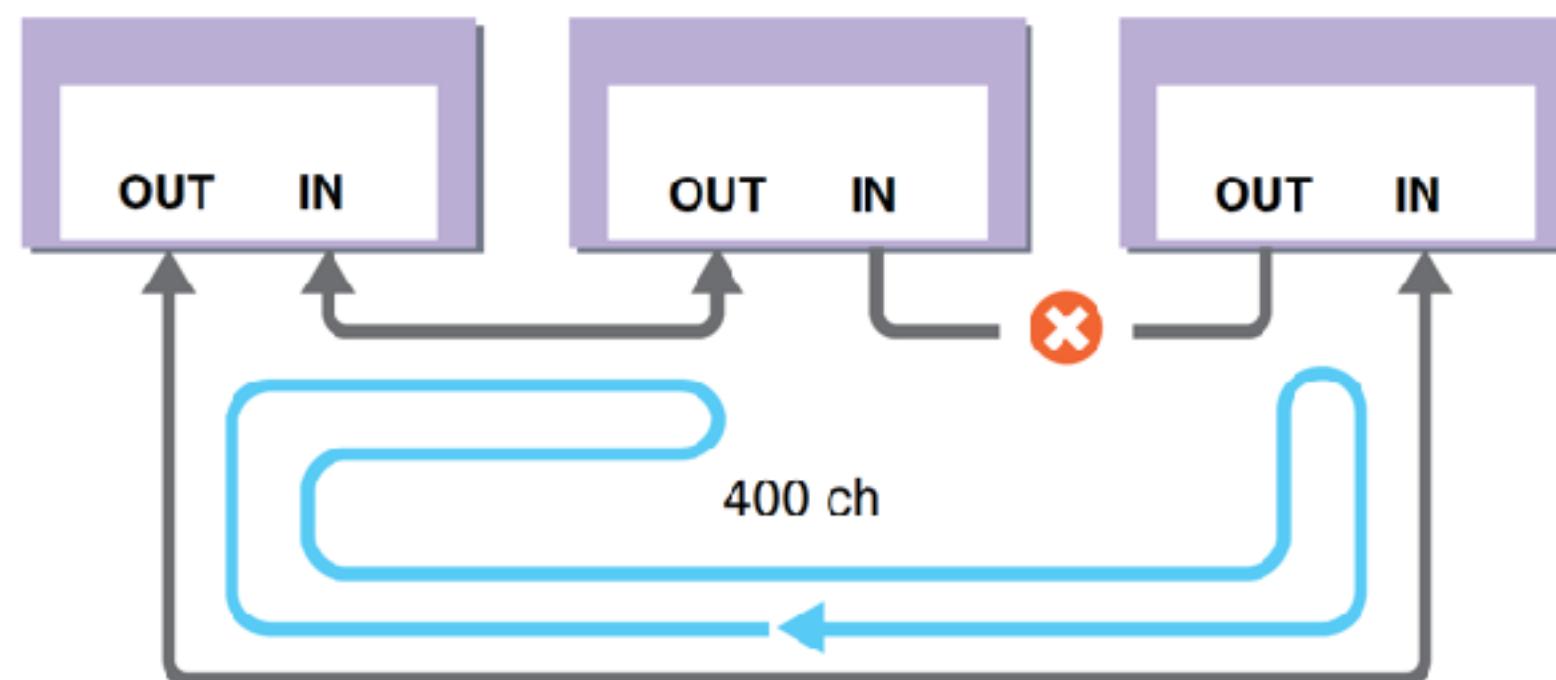
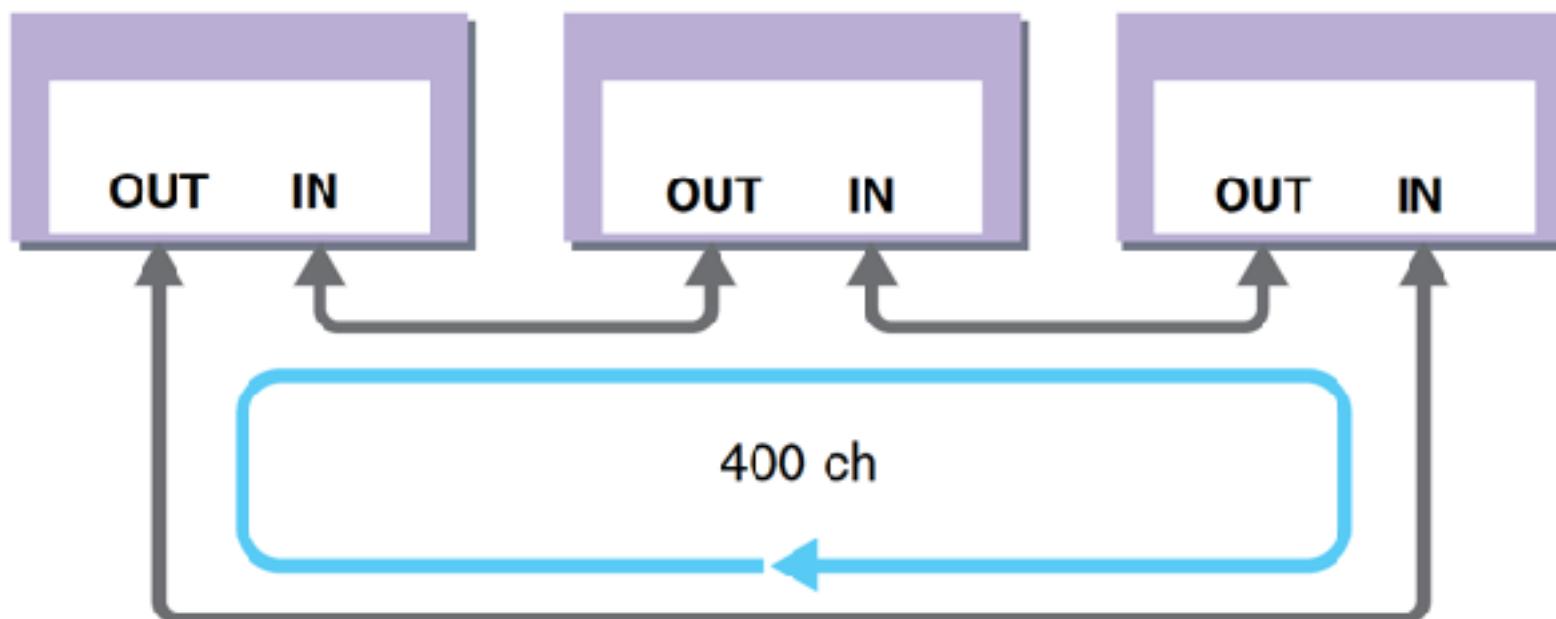
The Rivage PM10 System

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- 400 audio channels
- High speed control data
- Fully redundant, glitchfree
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- 12 samples latency $\approx 125\mu\text{s}$ (96k)
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Console Network

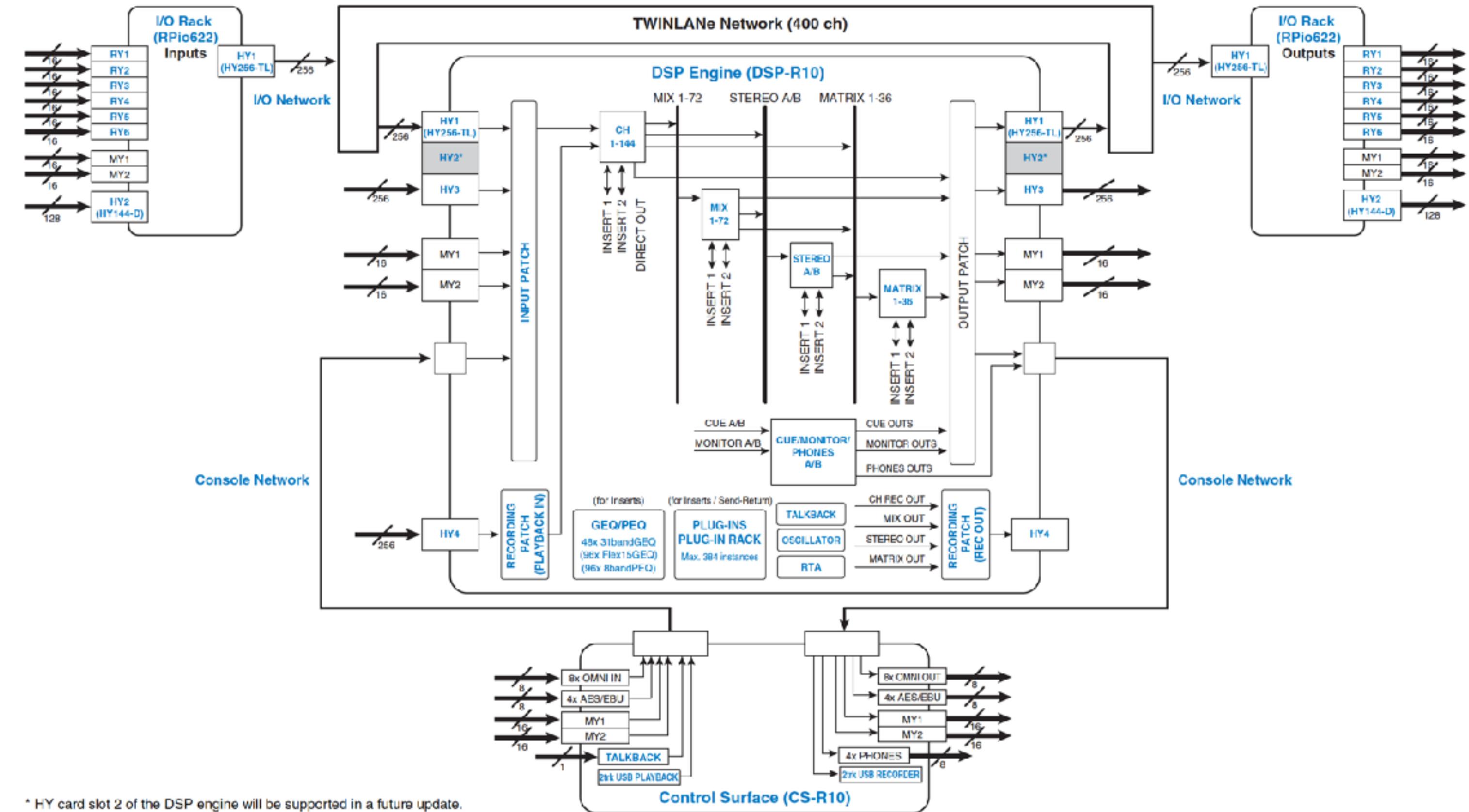
- High speed control data
- 96kHz, 32 bit. Or lower if desired
- 109 audio channels
- Fully redundant, glitchfree
- Neutrik EtherCON (100m)



The Rivage System

Processing power (per DSP)

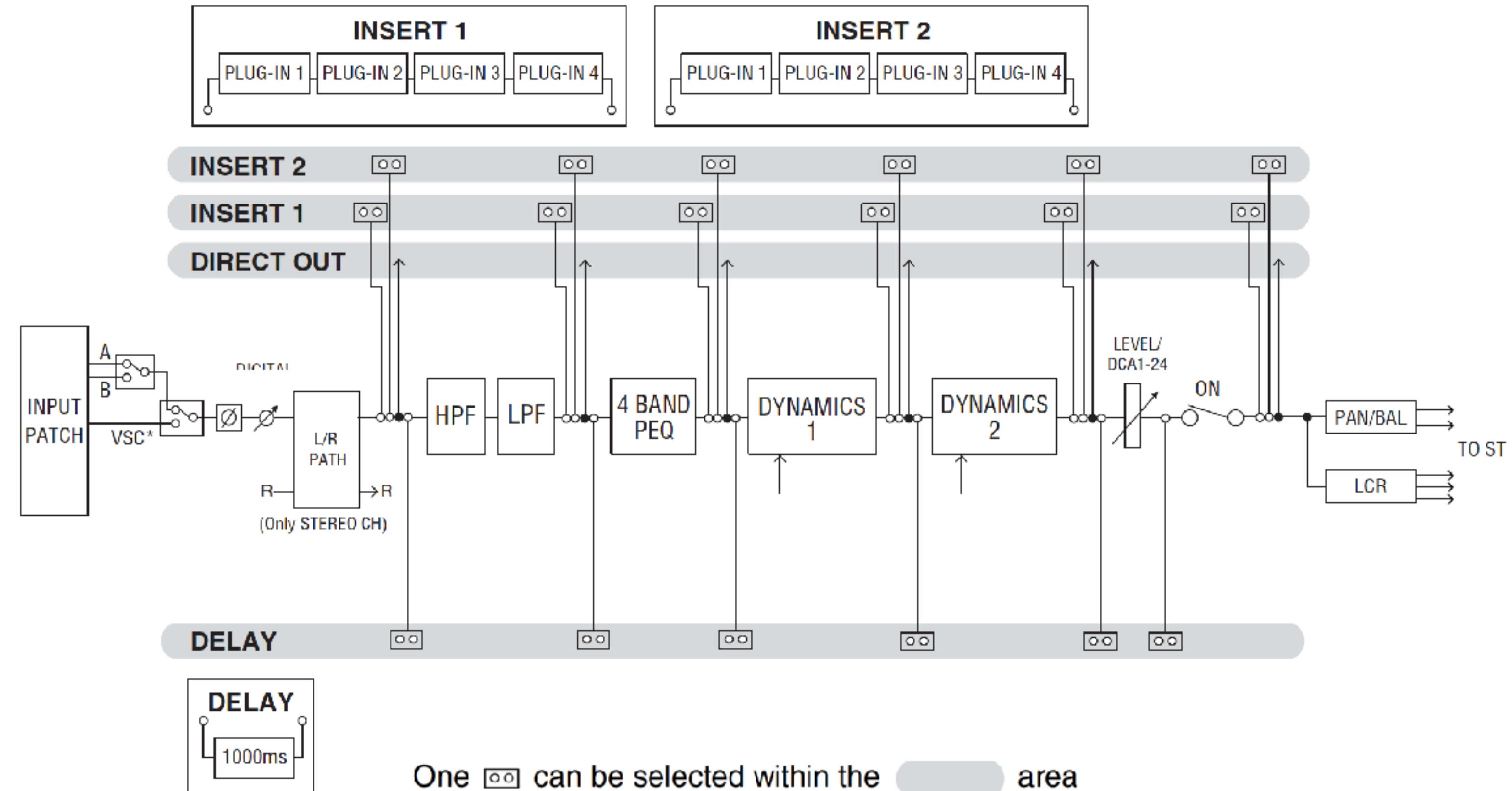
- 144 mixing channels (120 on PM7)
- 108 output buses (84 on PM7)
 - 72 mix buses (60 on PM7)
 - 36 matrix buses (24 on PM7)
- 2 stereo buses
- 24 DCA groups
- 2 Individual cue buses
- Latency compensation
- 384 Plugin instances



The Rivage System

Processing power

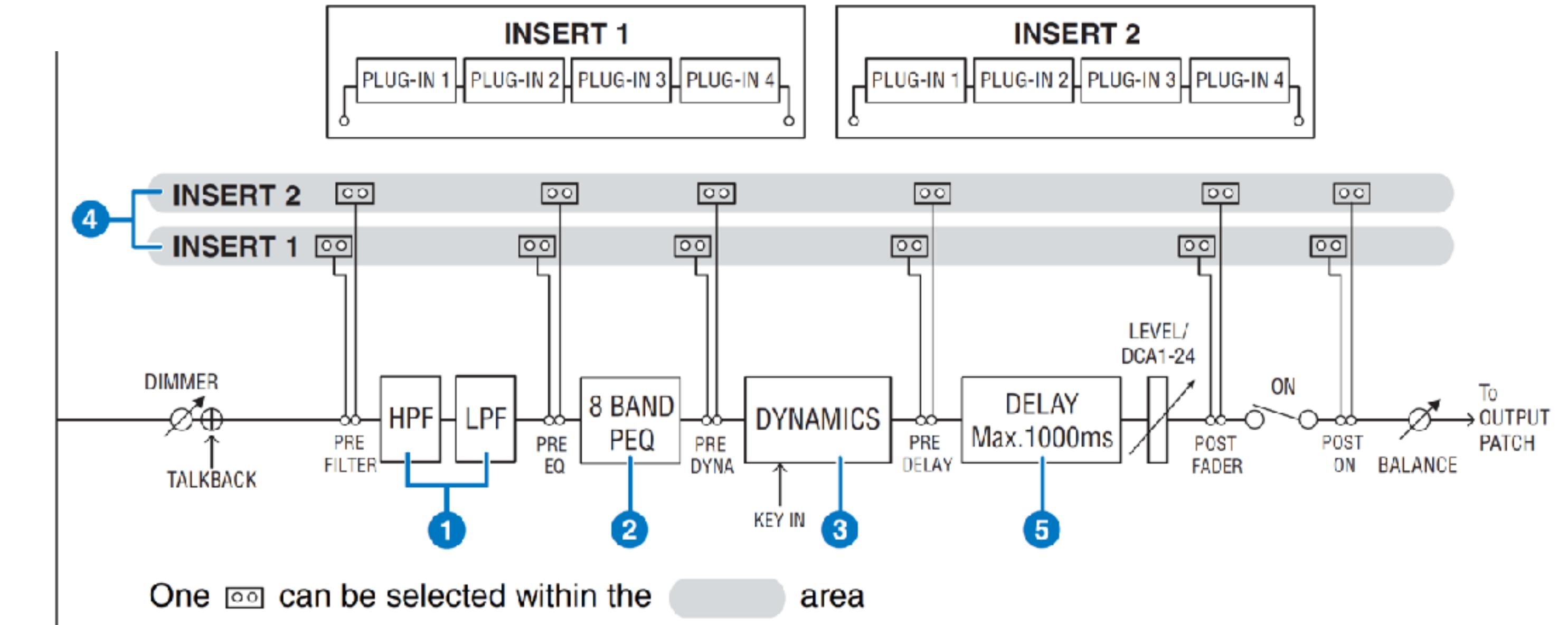
- Full input channel processing
 - Switchable AB input, GC
 - Virtual Soundcheck mode
- Direct out
- Delay
- 4 different channel EQ's
- HPF and LPF
- 2 different channel Dyn's
- 2 different compressor types
- 2 insertloops (each 4 plugins)
- 2 ST buses



The Rivage System

Processing power

- Full output bus processing
 - Delay
 - 4 different channel EQ's
 - HPF and LPF
 - 1 channel Dyn's
 - 2 different compressor types
 - 2 insert loops (each 4 plugins)

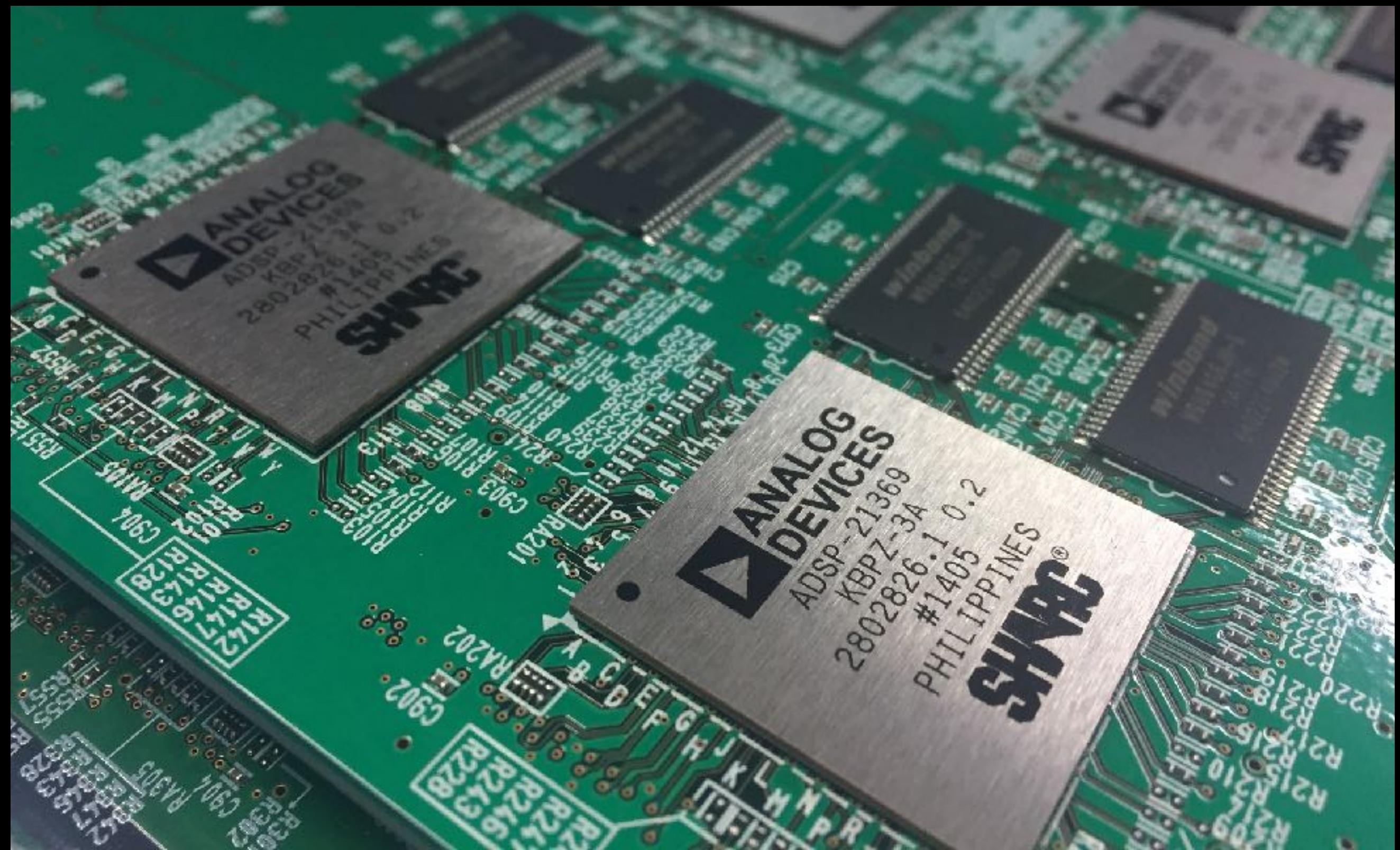


The Rivage System

Plugin system

- 384 instances (24 DSP's)
 - Plugins take 1 up to 16 instances

384 instances

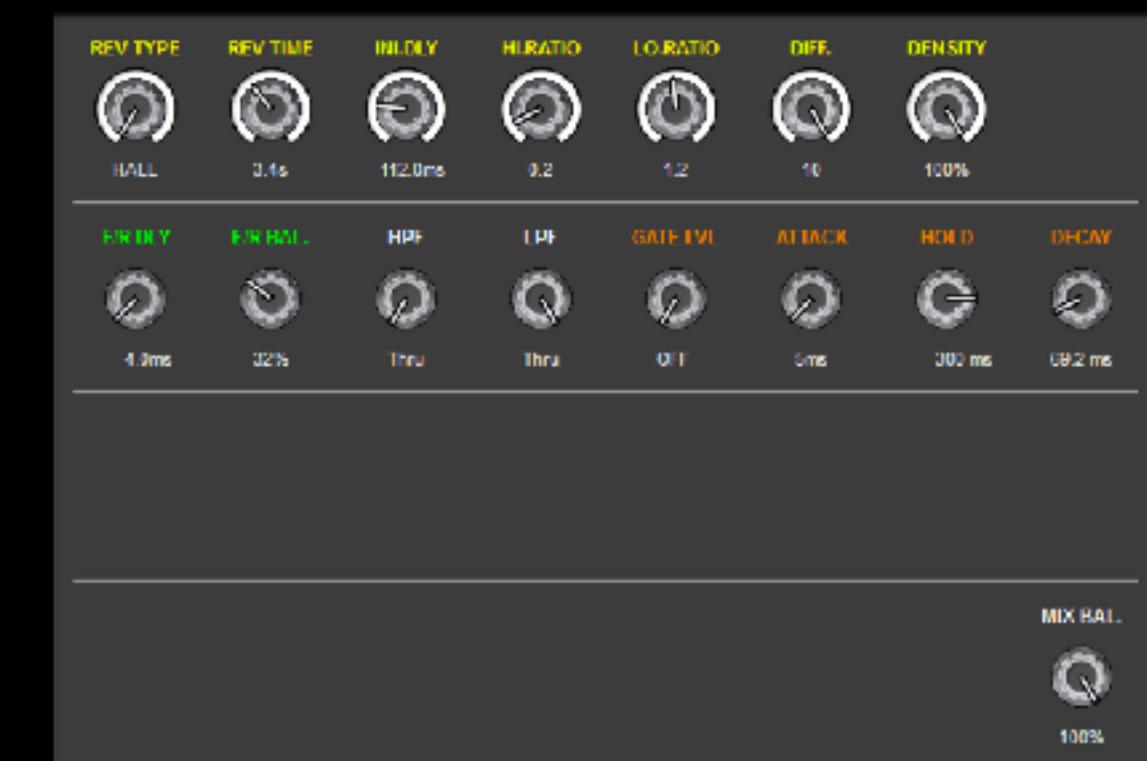
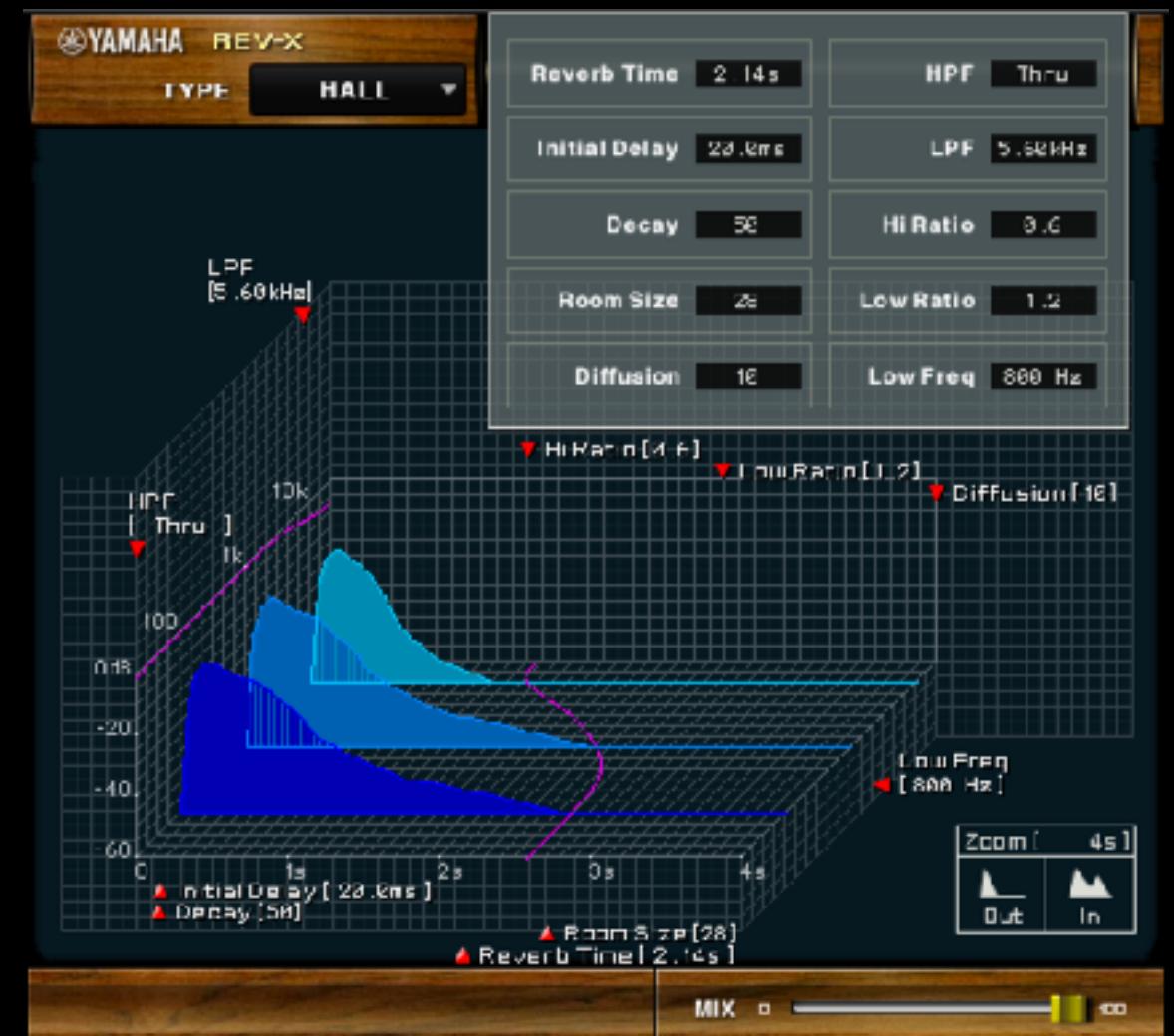
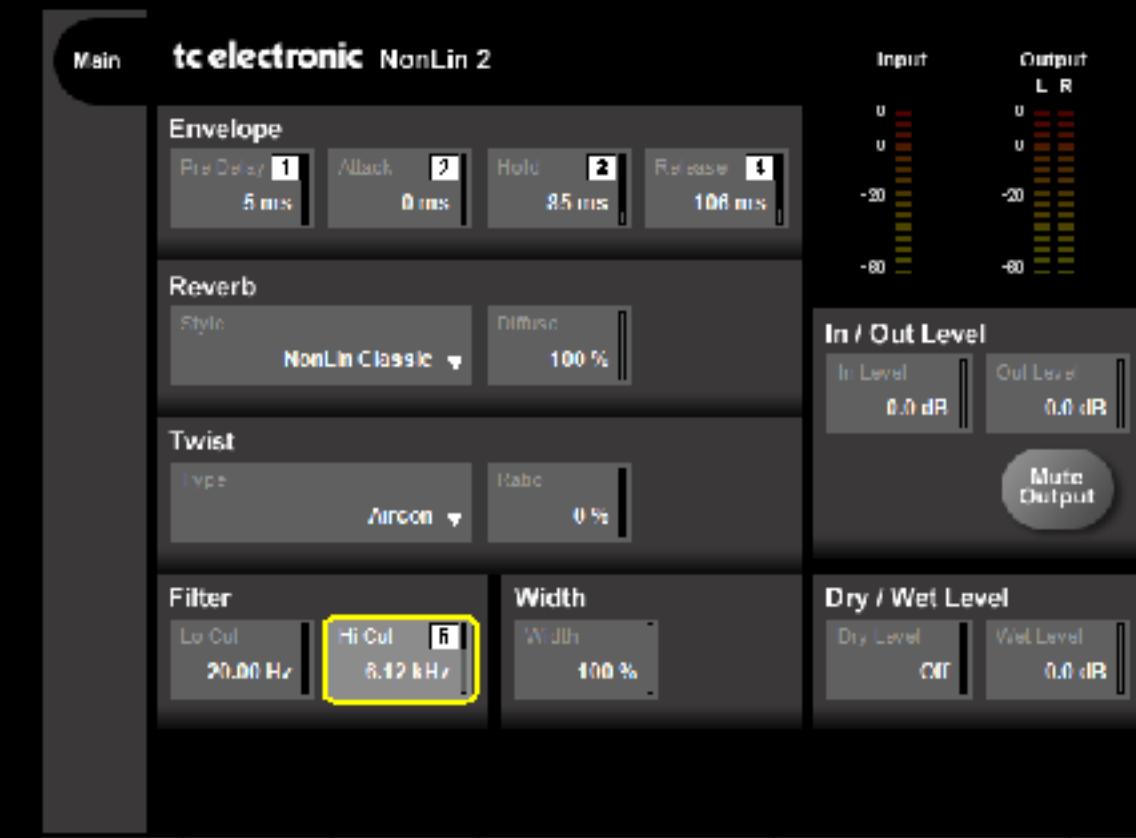
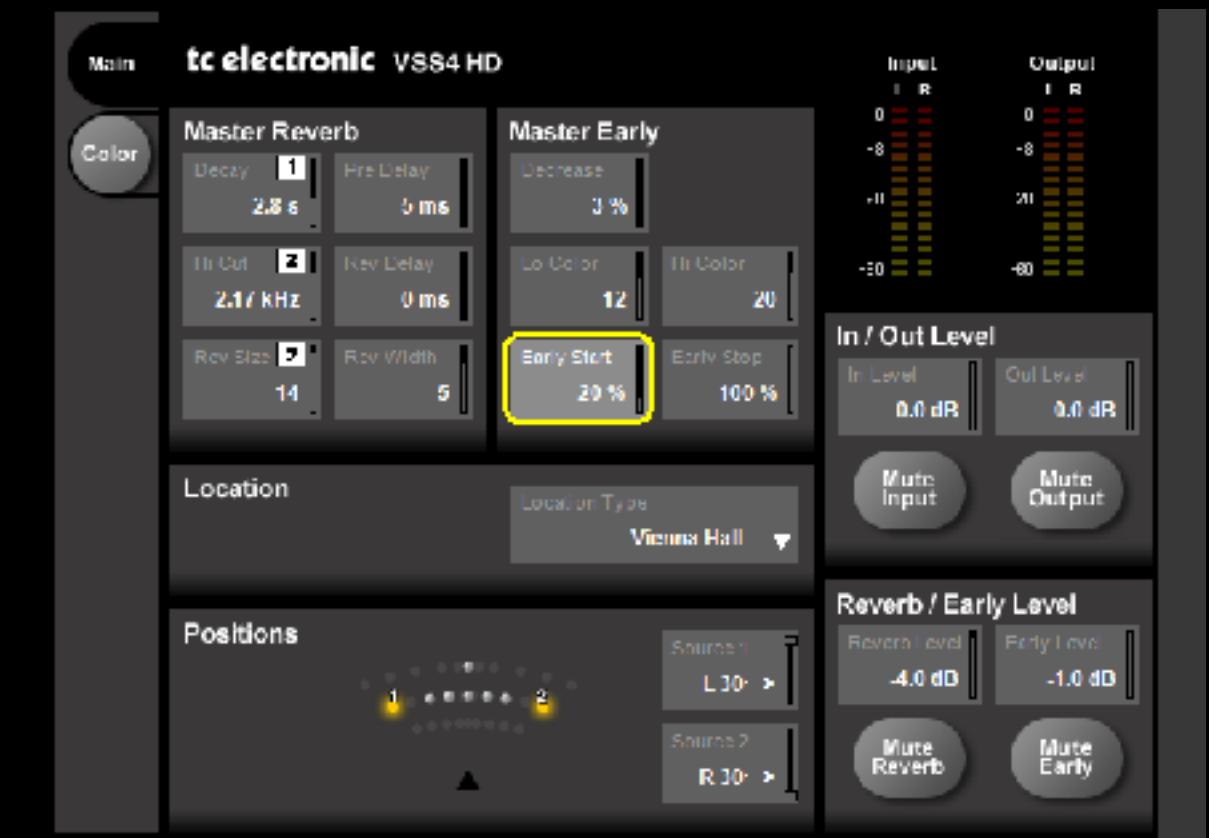


The Rivage System

Plugin system

- 384 instances
- Plugins take 1 up to 16 instances
- >50 different types of plugins
 - Rupert Neve Designs Equalizer
 - Rupert Neve Designs Dynamics
 - Rupert Neve Designs PSE
 - tc electronic VSS4HD, Nonlin2 (PM10 only)
 - EventideH3000
 - MBC4
 - RevX
 - Various multi effect
- Dan Dugan automixer
- 96ch of GEQ and 8b PEQ
- Outboard

Reverbs



The Rivage System

Plugin system

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Equalizer

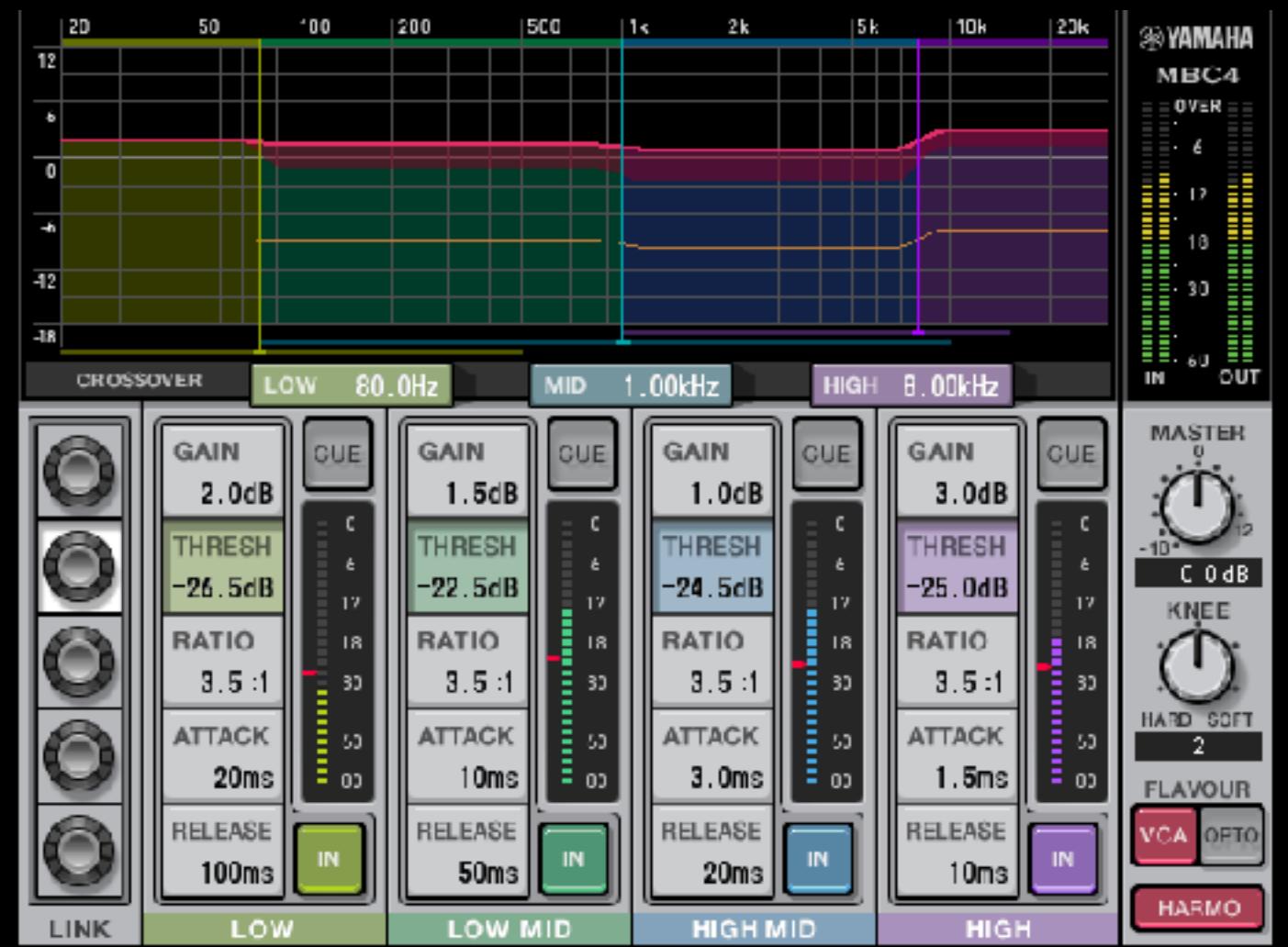
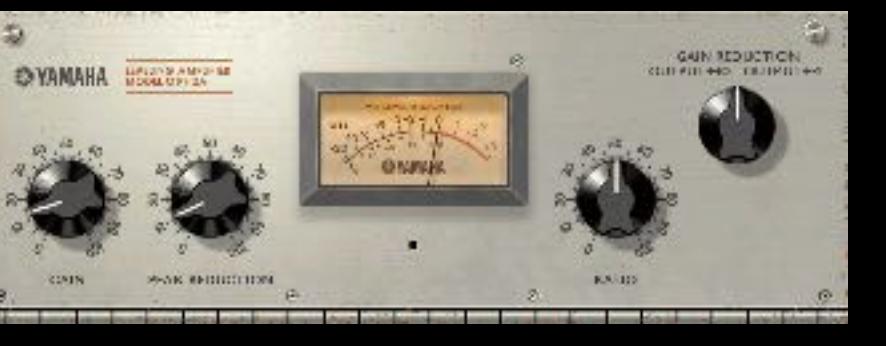


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Dynamics



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Specials

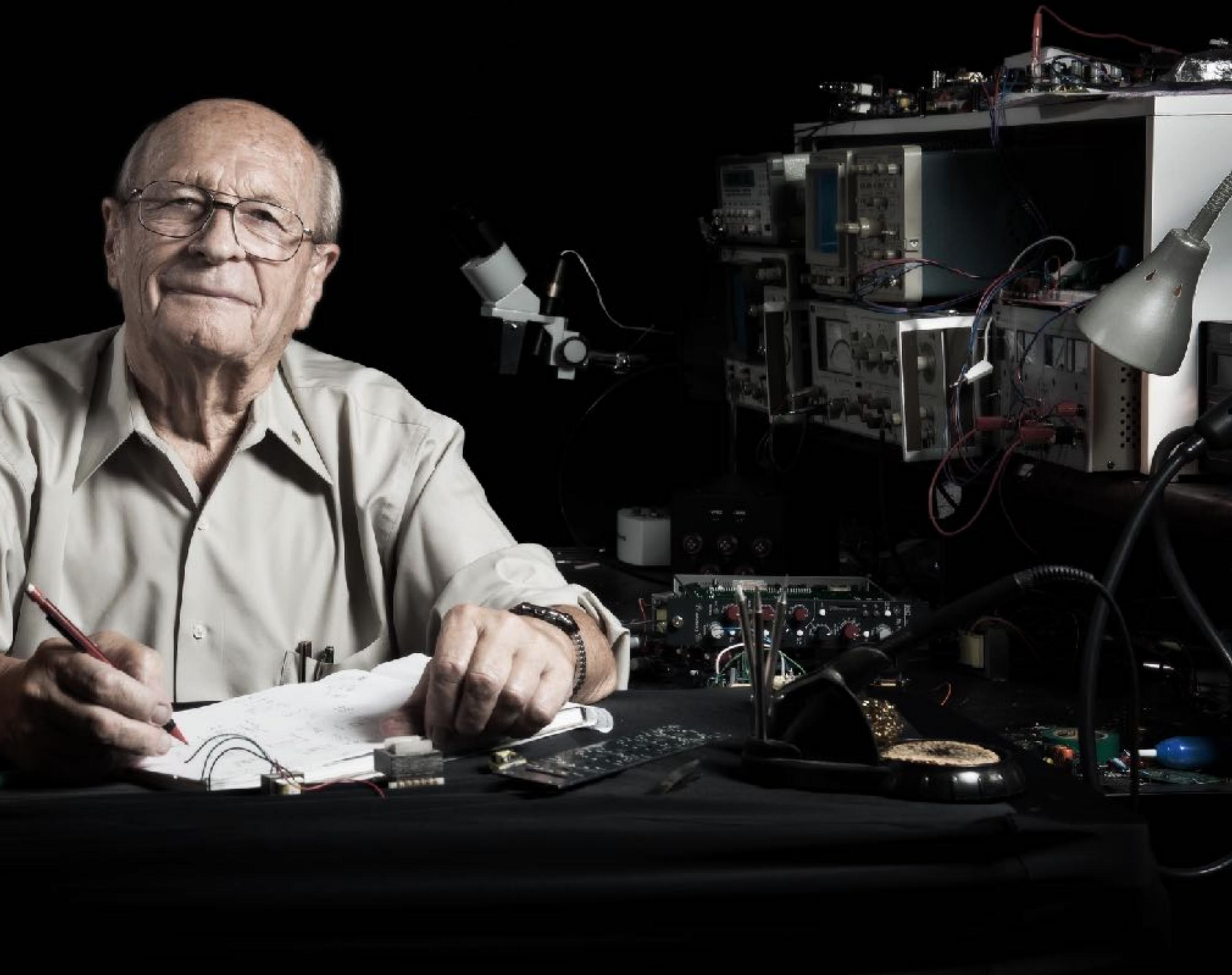


The Rivage System

RPIO's hybrid pre-amp system

- Renewed Yamaha Natural Sound pre-amp
- 24 bits conversion, up to 96kHz
- 32 bit transport to have full resolution with GC

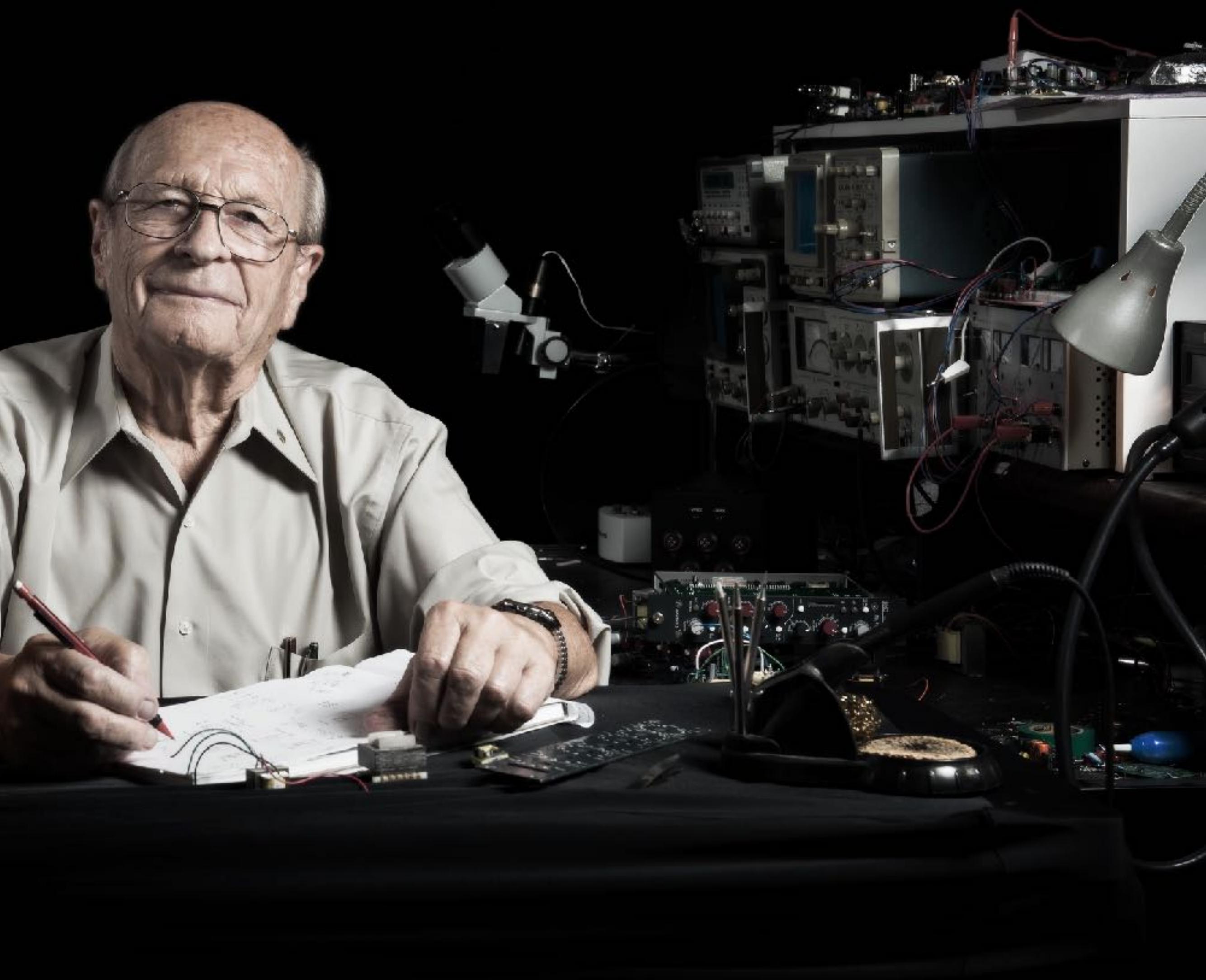
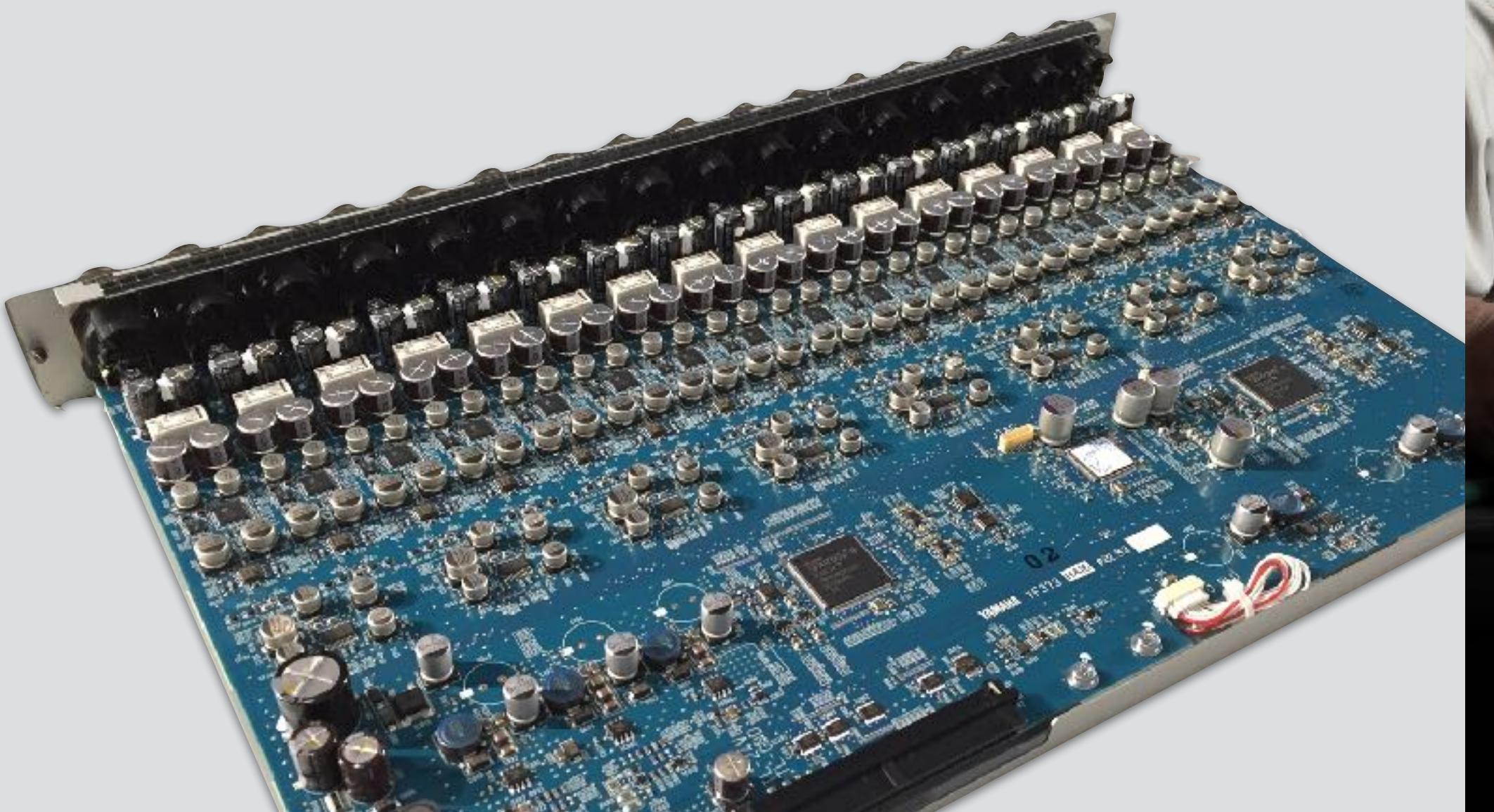
- Rupert Neve Designs Silk
- Red/blue control
- Texture control
- Approved by Rupert Neve Designs



The Rivage System

RPIO's hybrid pre-amp system

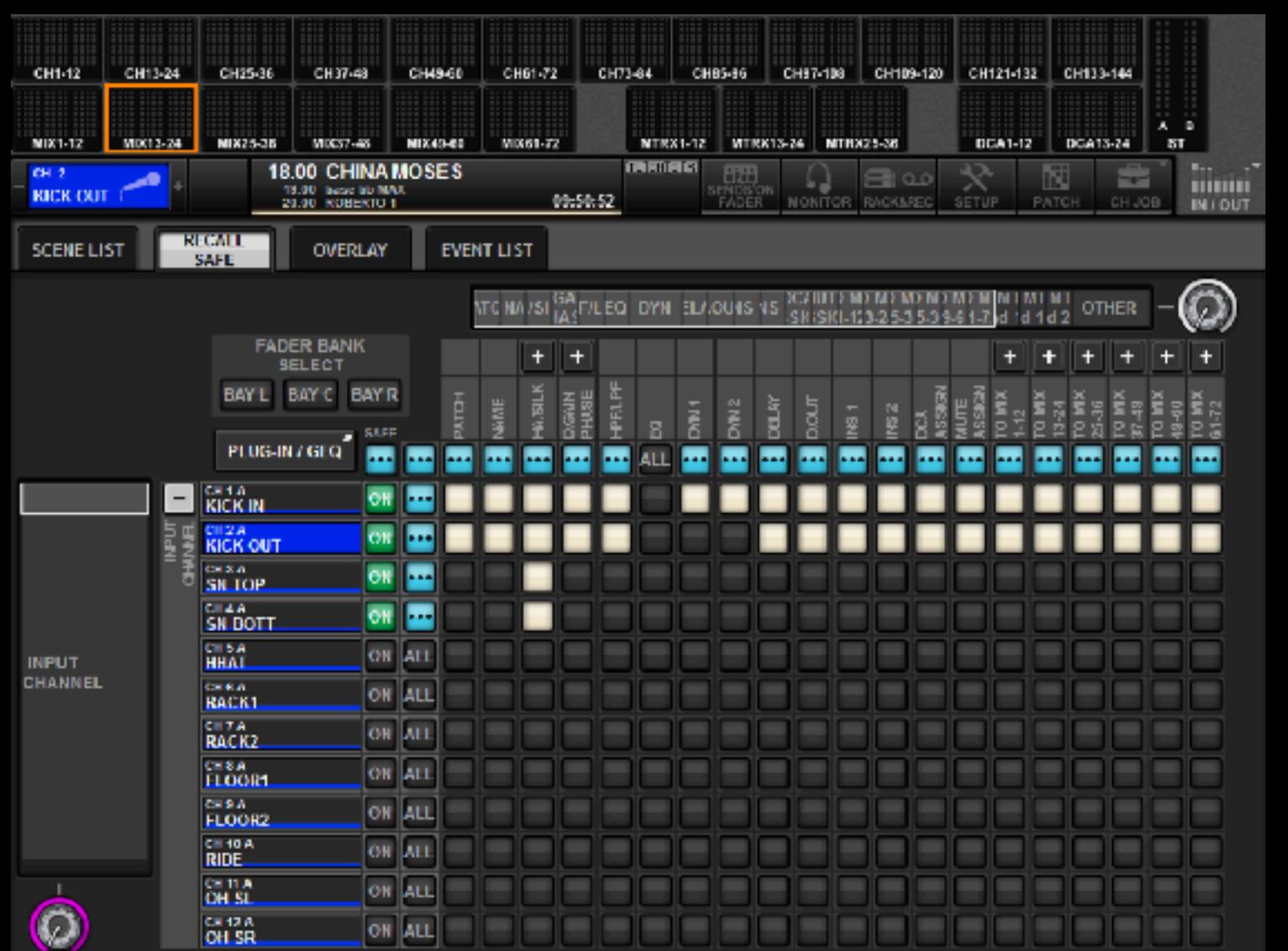
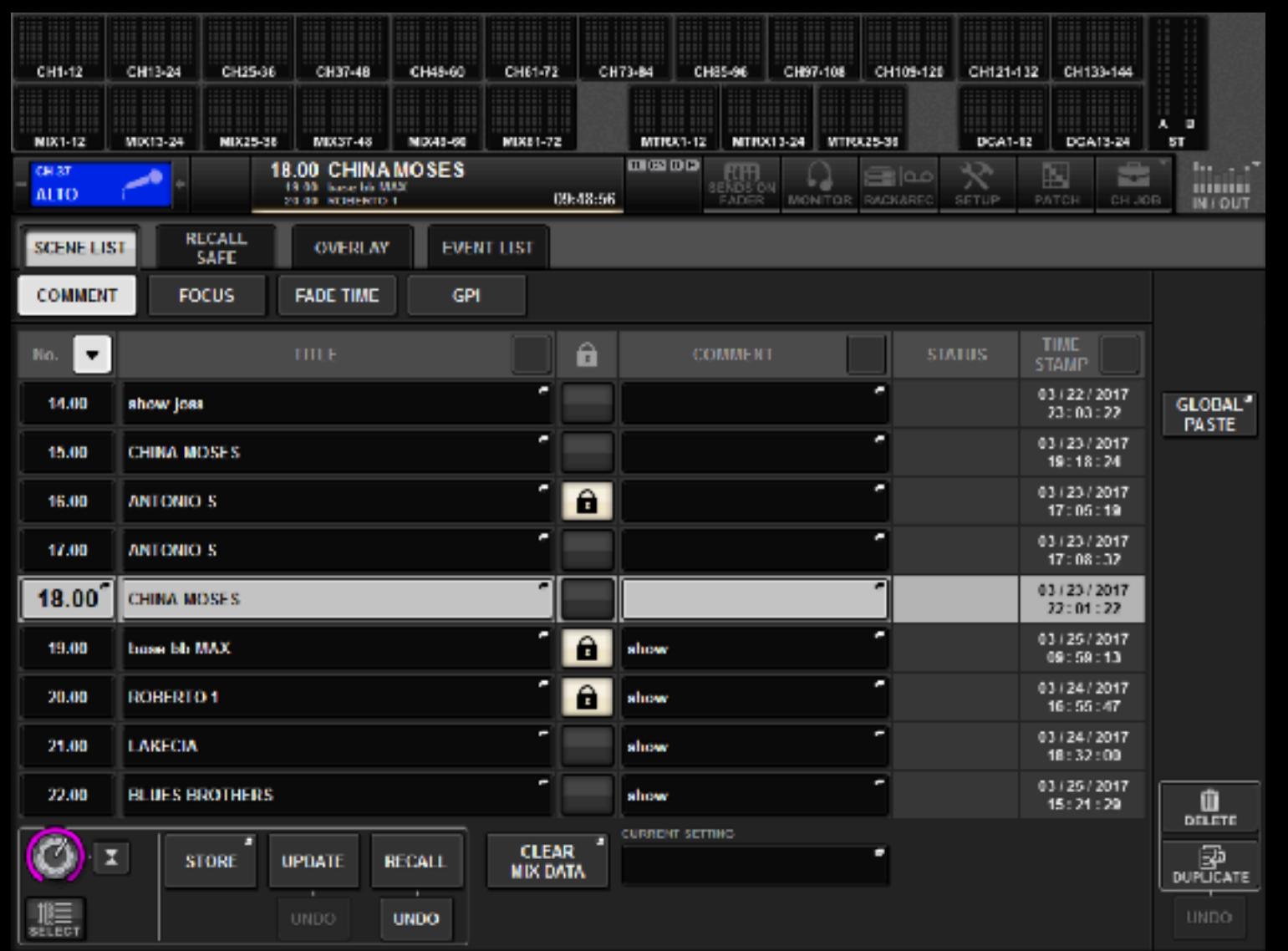
- Renewed Yamaha Natural Sound pre-amp
- 24 bits conversion, up to 96kHz
- 32 bit transport to have full resolution with GC
- Rupert Neve Designs Silk
- Red/blue control
- Texture control
- Approved by Rupert Neve Designs



The Rivage System

Scene Management

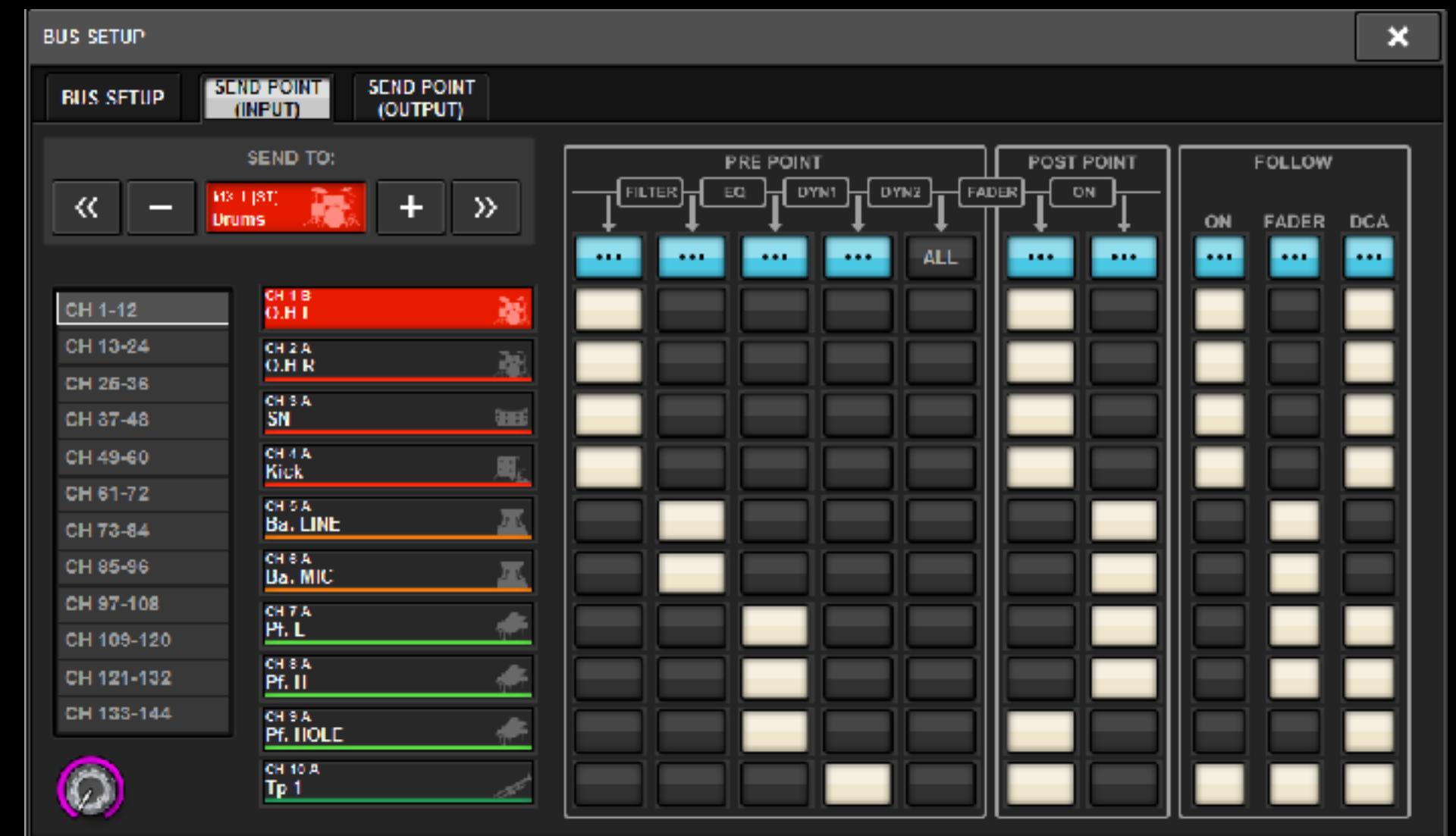
- Partial Load/Save
- 1000 scene internally
- Event list
- Isolate
- Recall Safe
- Focus Recall
- Overlay Filter
- Global copy/paste
- Preview
- Fade Time
- Playback link
- File convertor



The Rivage System

Some special features

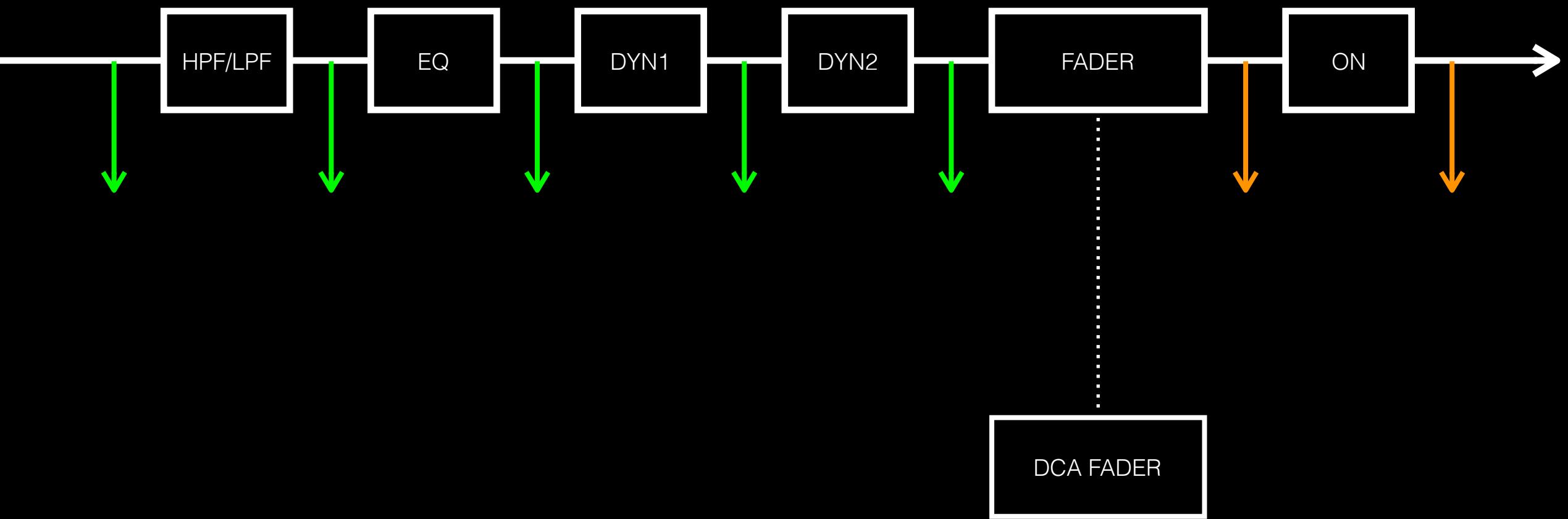
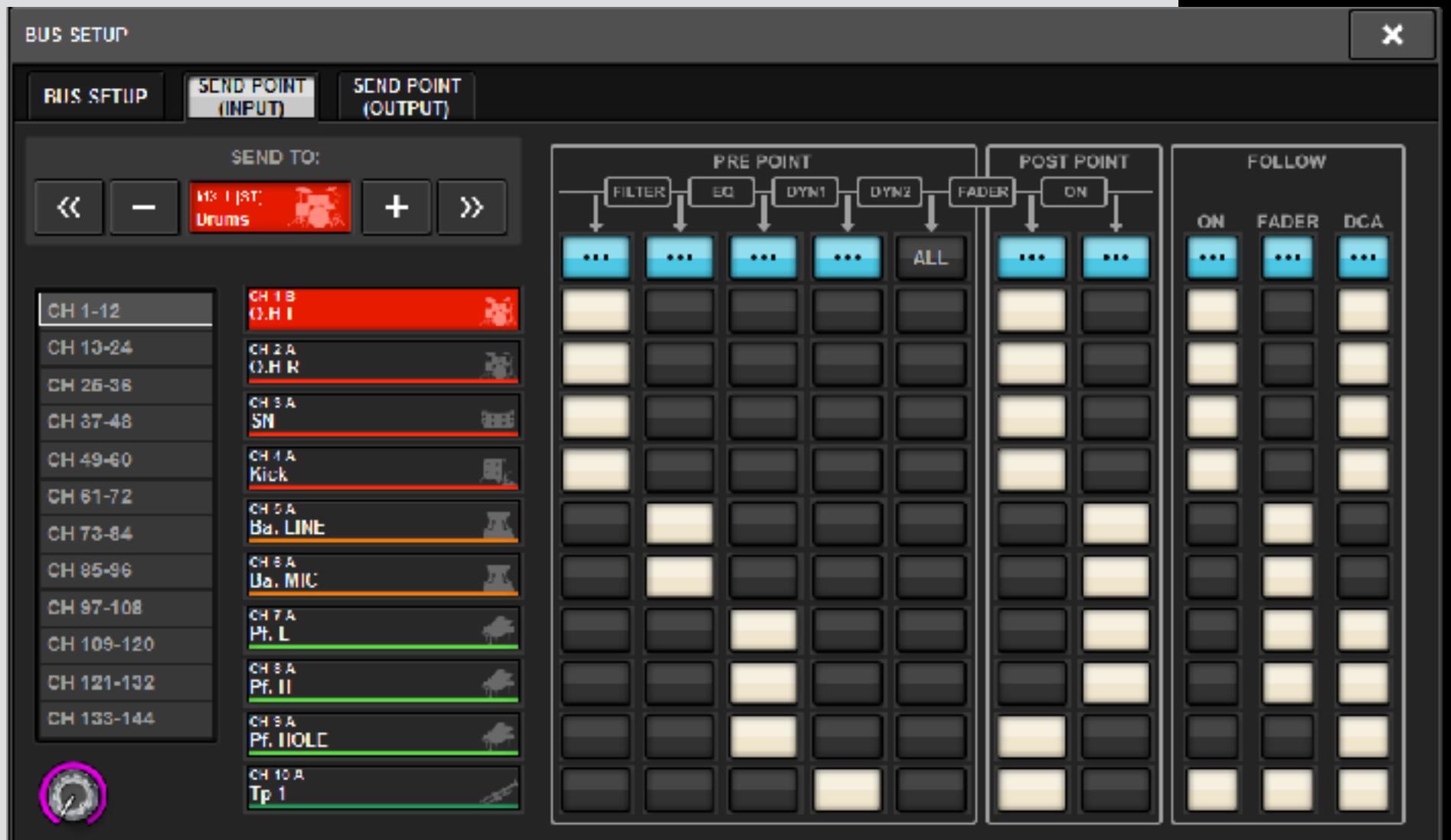
- Follow function



The Rivage System

Some special features

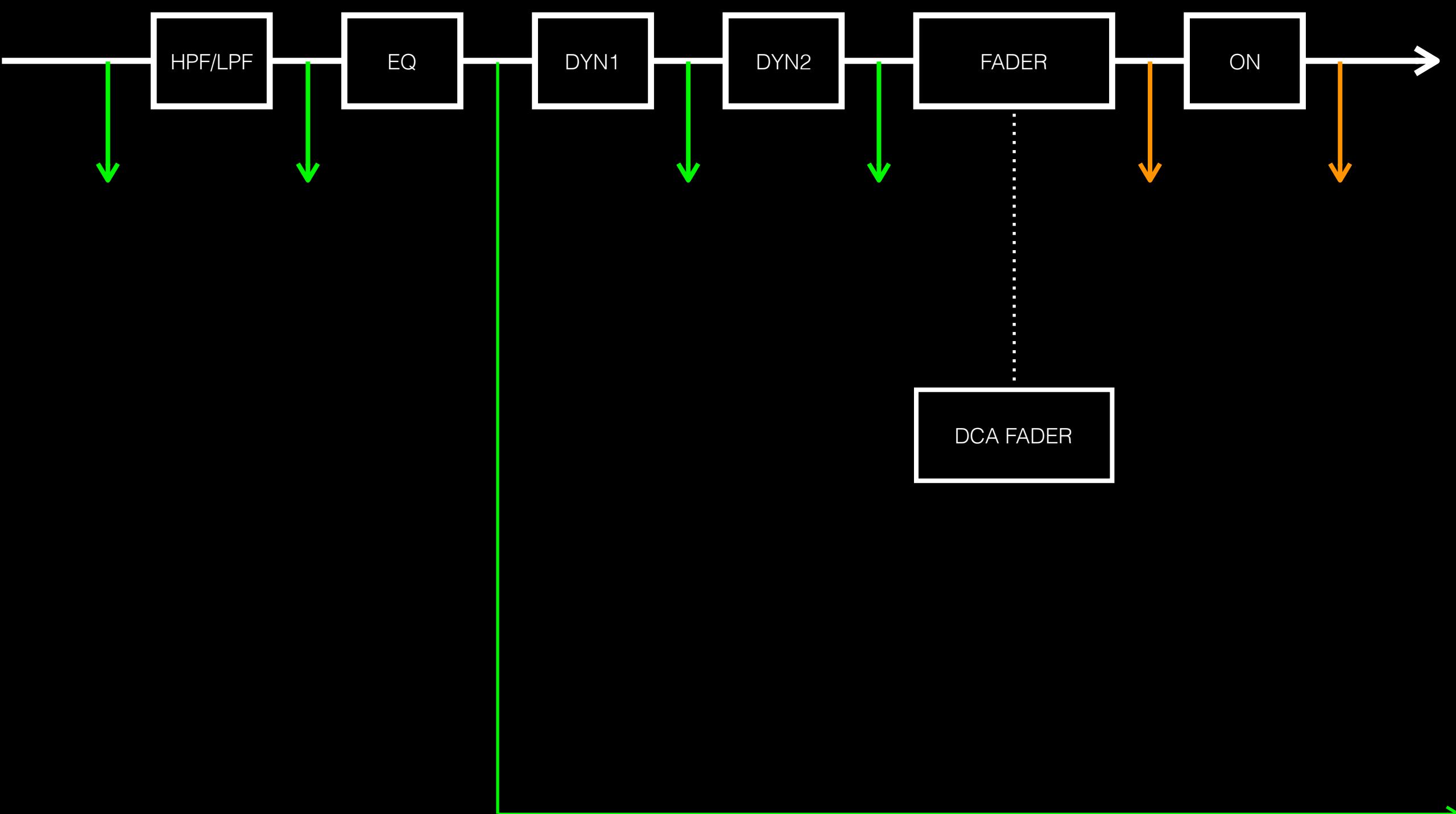
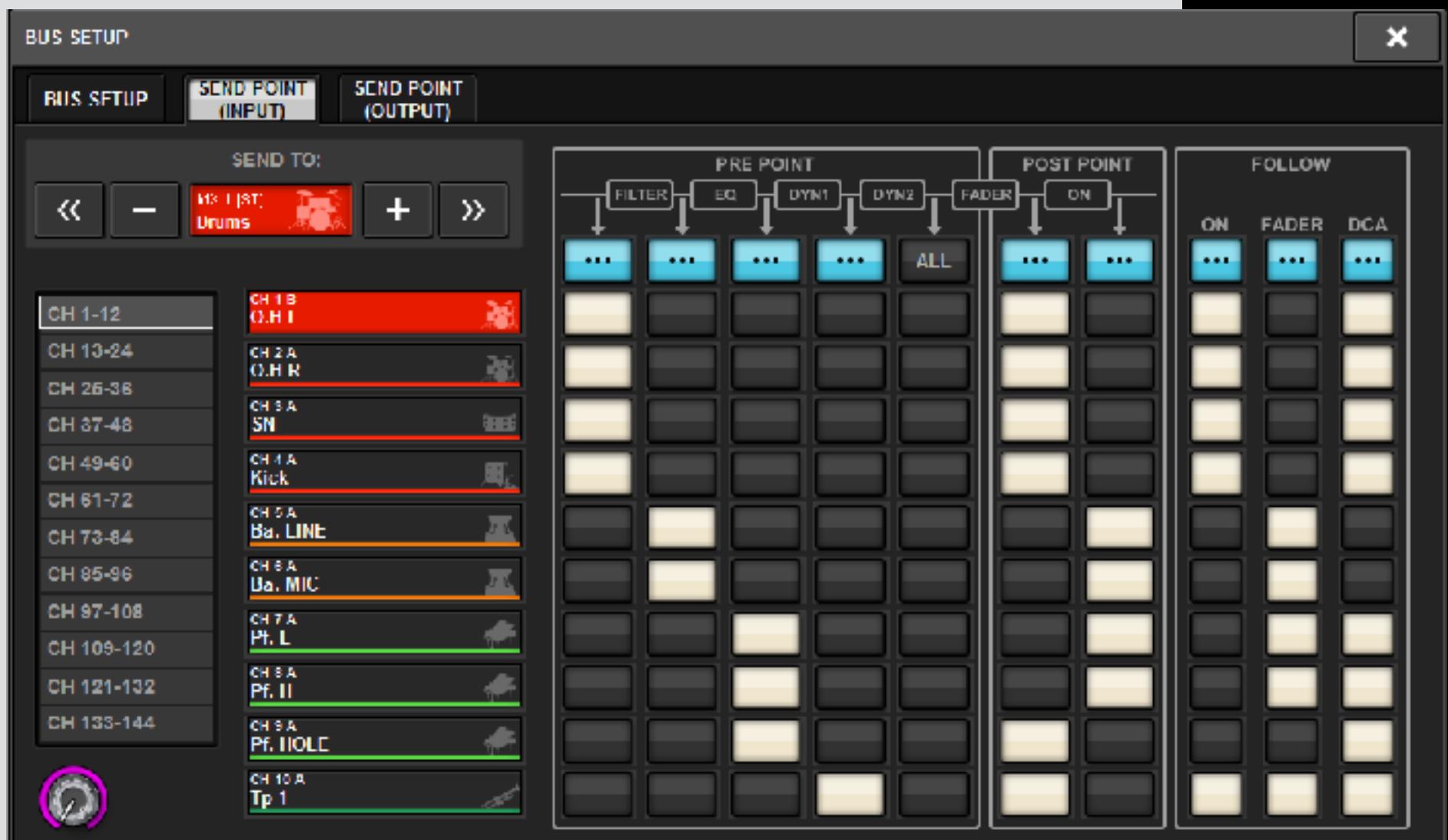
- Follow function (mix and DO)



The Rivage System

Some special features

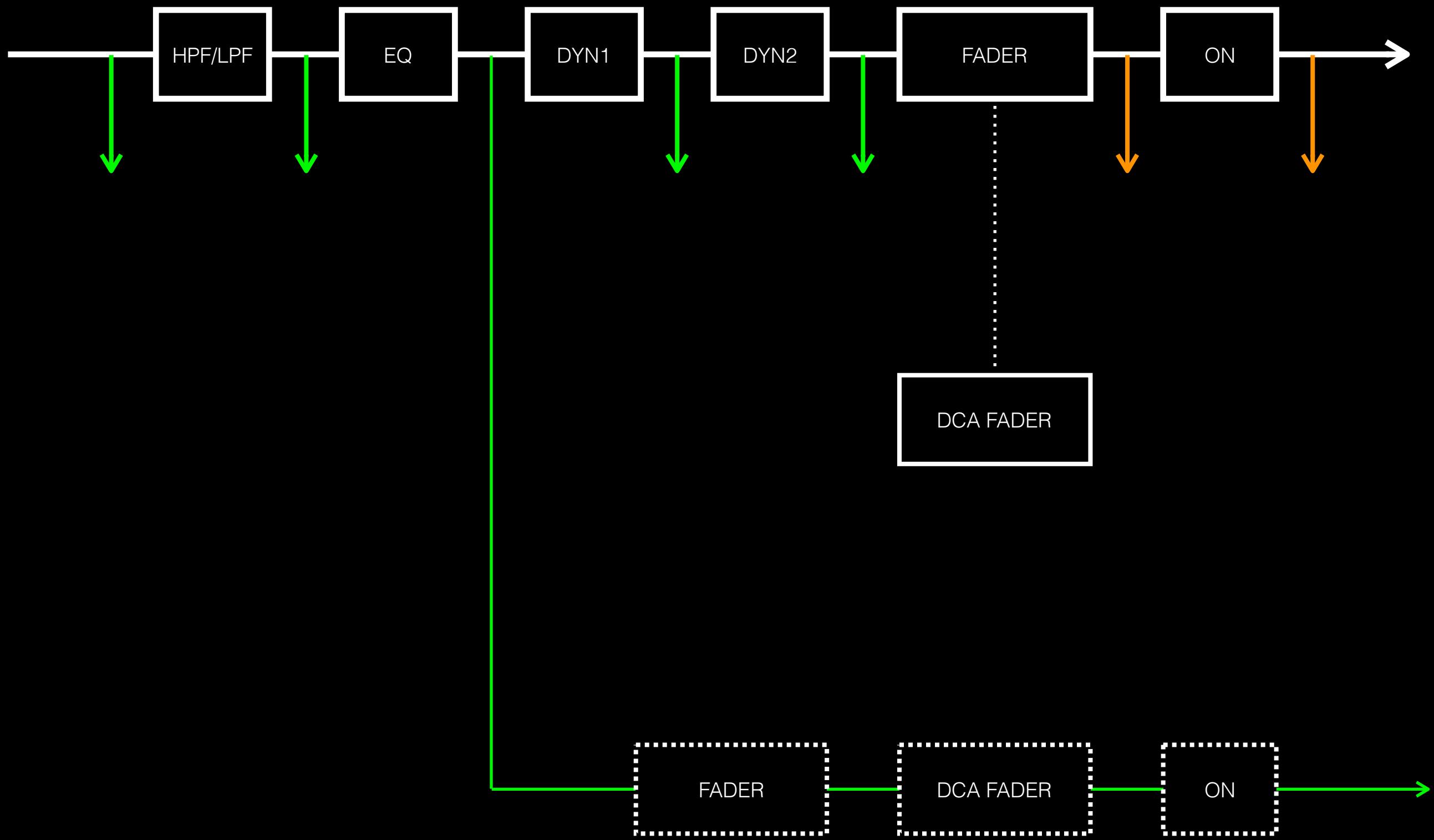
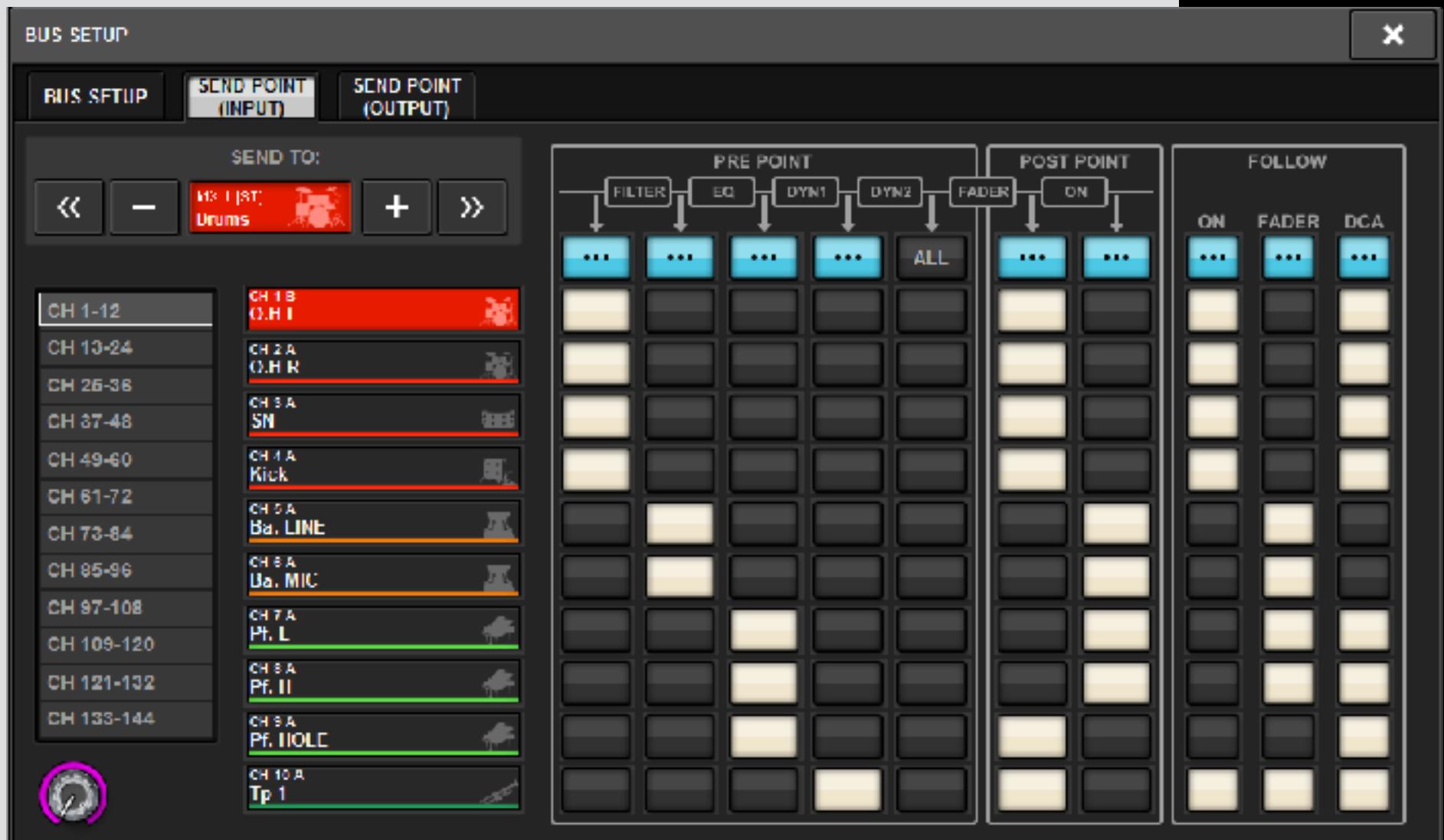
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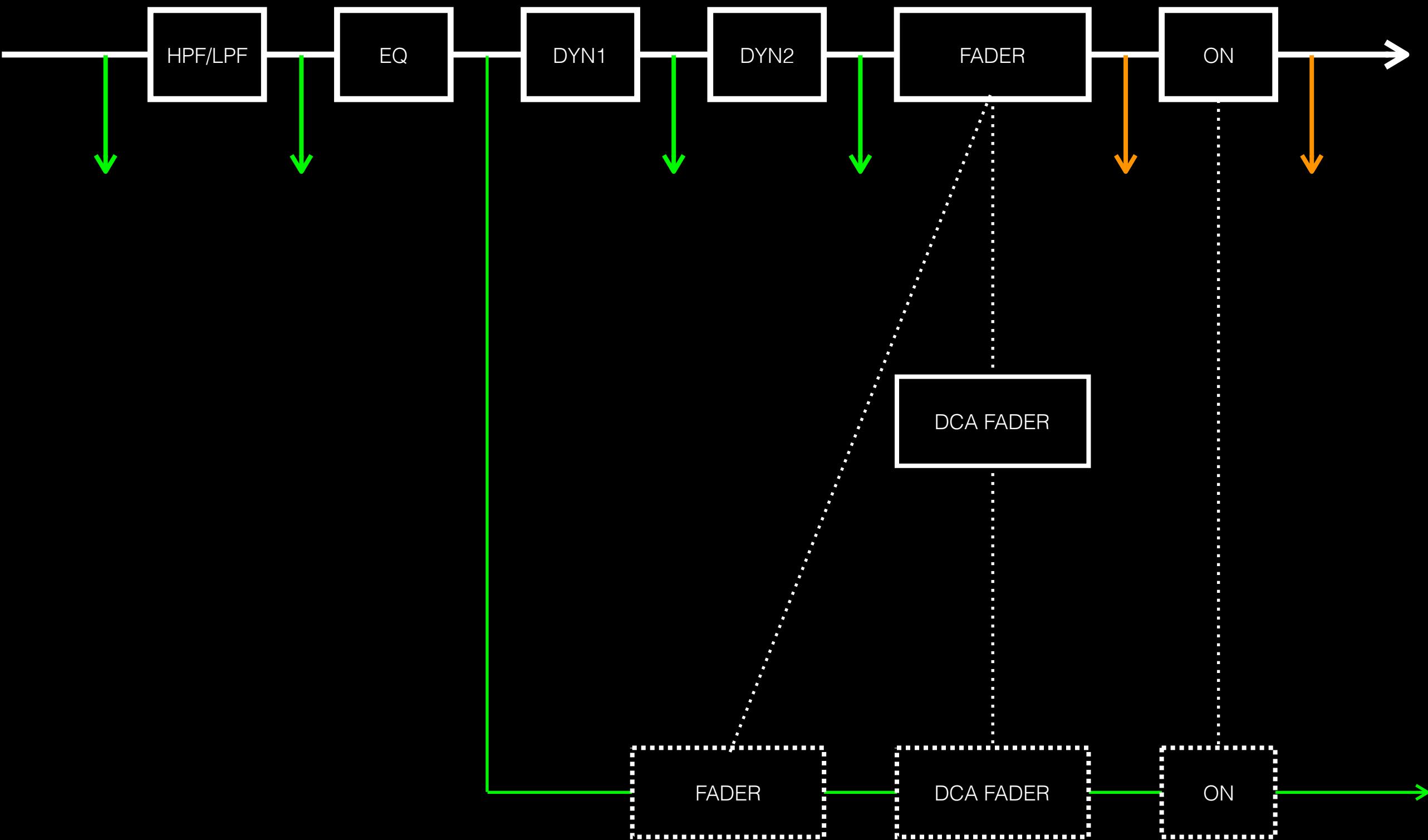
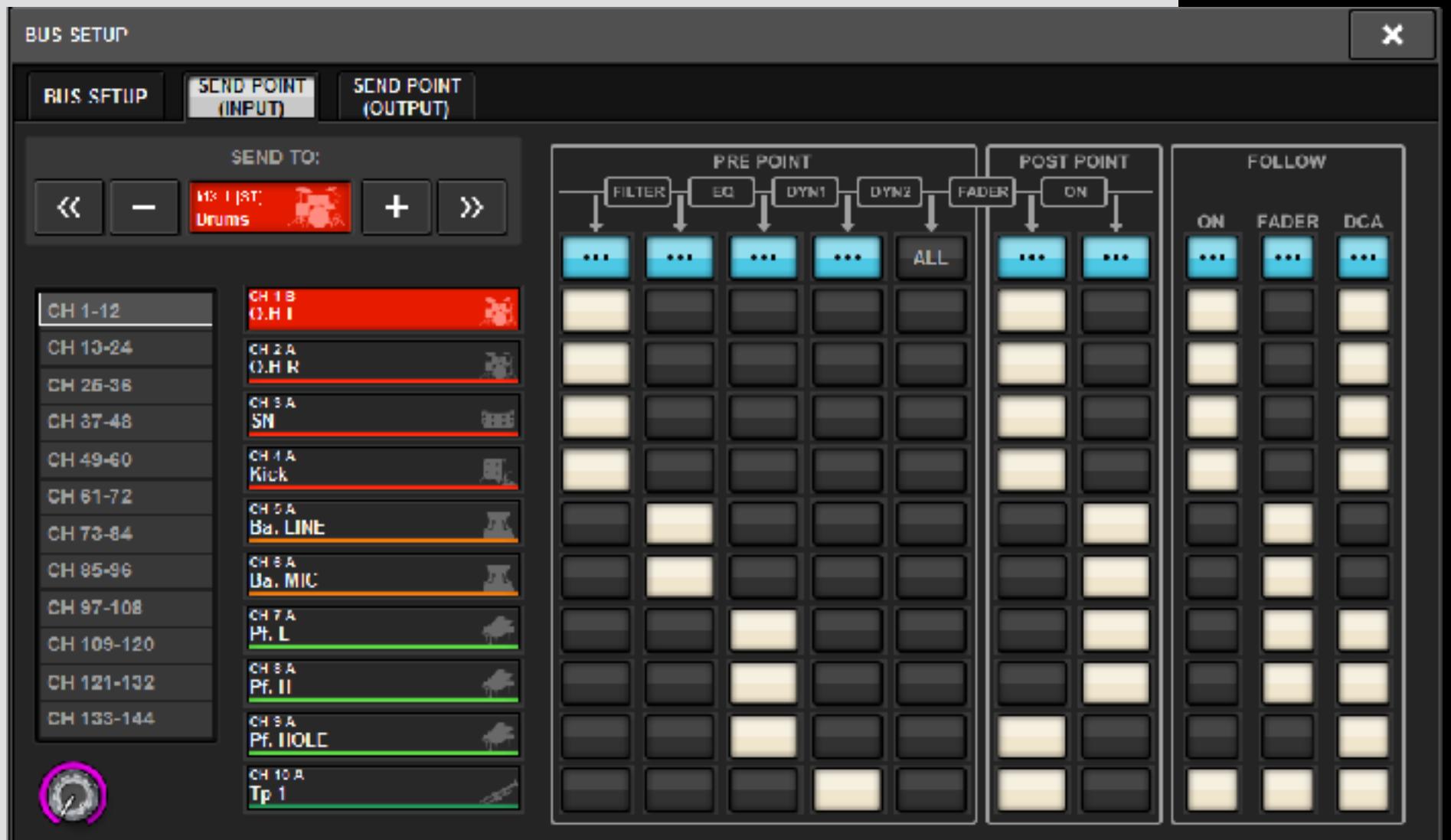
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The Rivage System

Some special features

- Follow function (mix and DO)



The Rivage System

Some special features

- Follow function
- Temporary linking

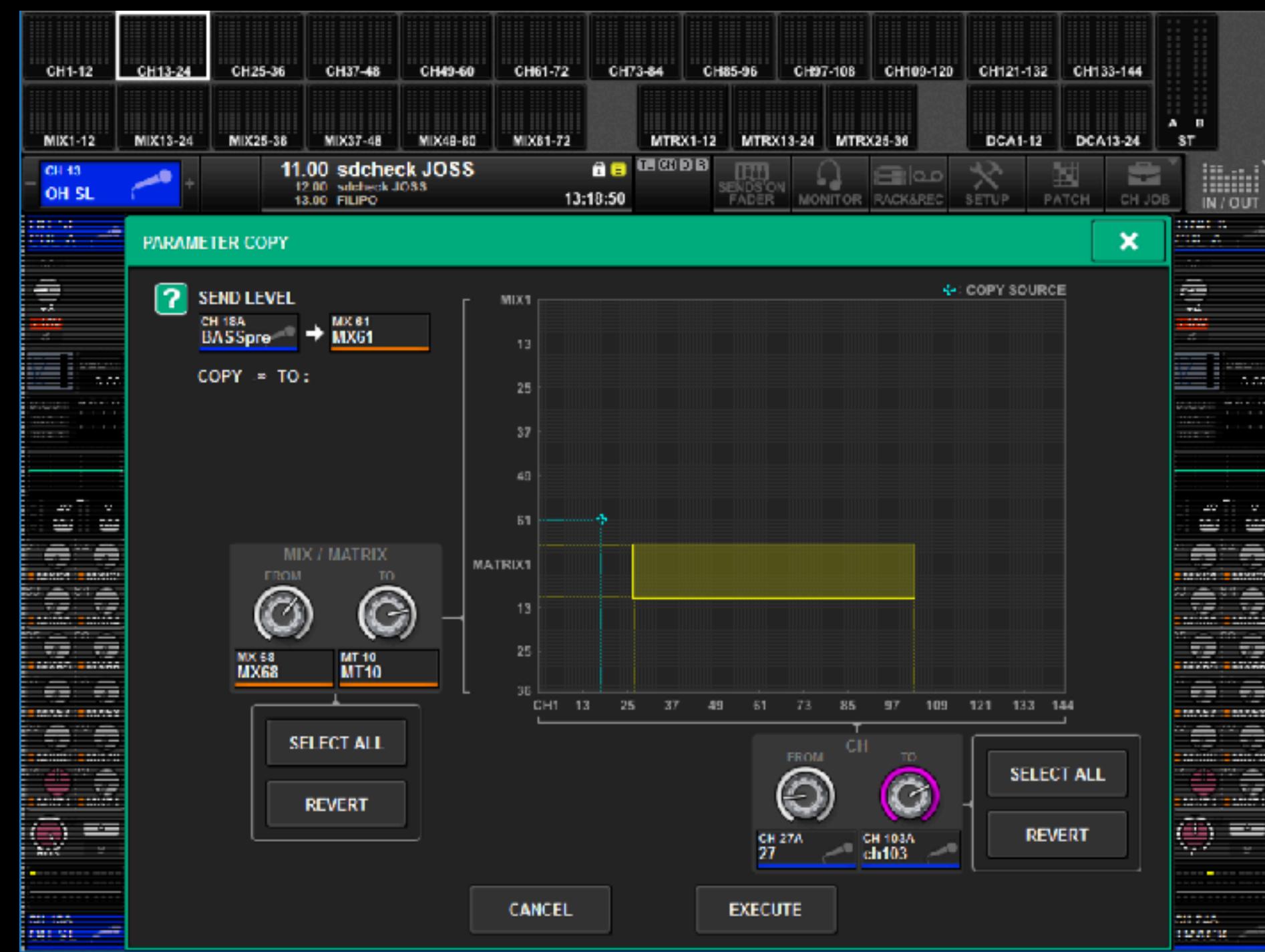


- Preamps, Silk
- Levels, routing
- EQ selection and settings
- Dynamics selection and settings
- Delay
- Send level, send point and follow point
- DCA/Mute group assign

The Rivage System

Some special features

- Follow function
- Temporary linking
- Parameter Set



- Equaliser selection
- Send level, pan, on/off, pre/post point
- Dynamics selection
- Follow point

The Rivage System

Some special features

- Follow function
- Temporary linking
- Parameter Set
- Virtual Soundcheck



The Rivage System

Some special features

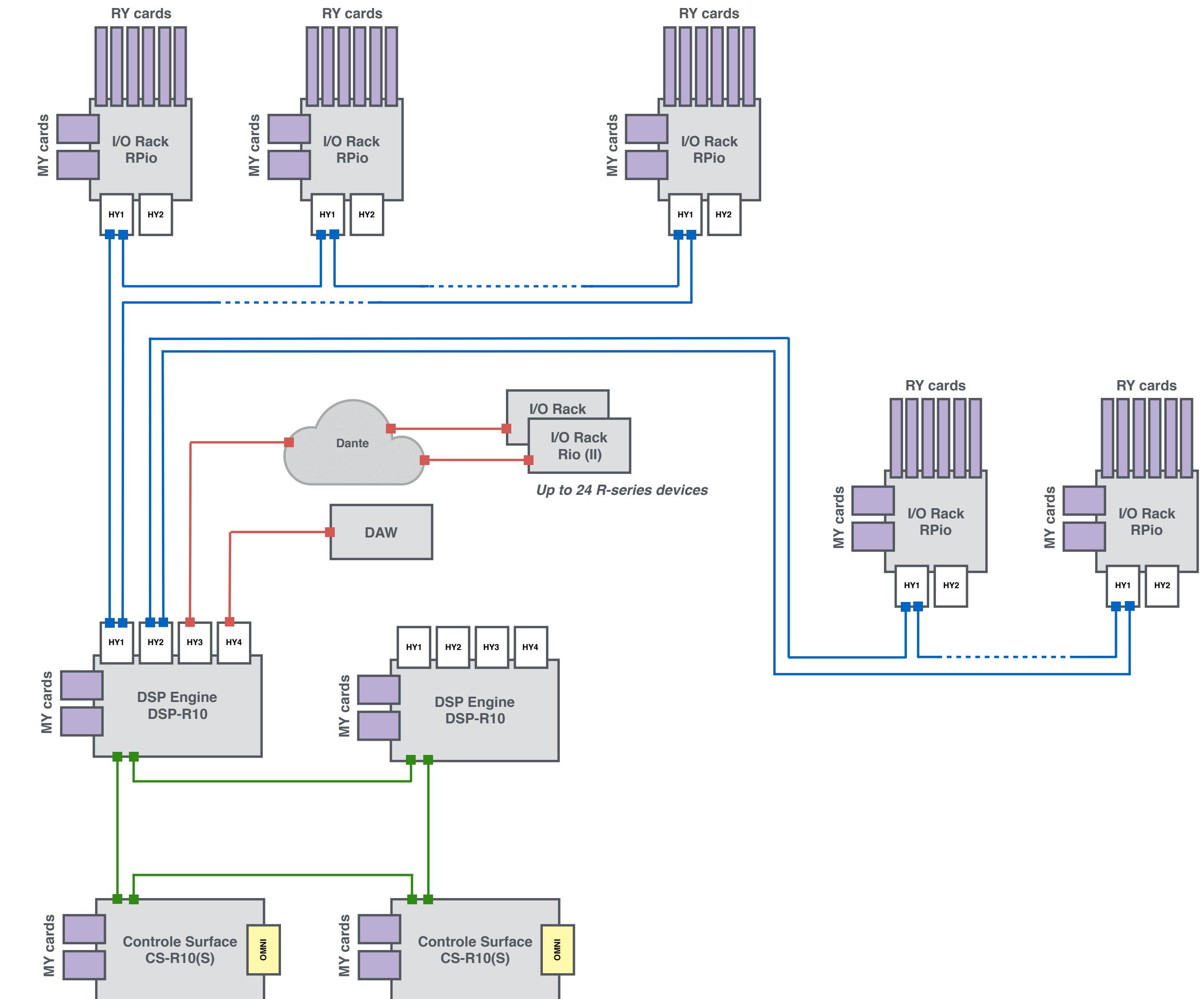
- Follow function
- Temporary linking
- Parameter Set
- Virtual Soundcheck
- Channel linking



The Rivage System

Some special features

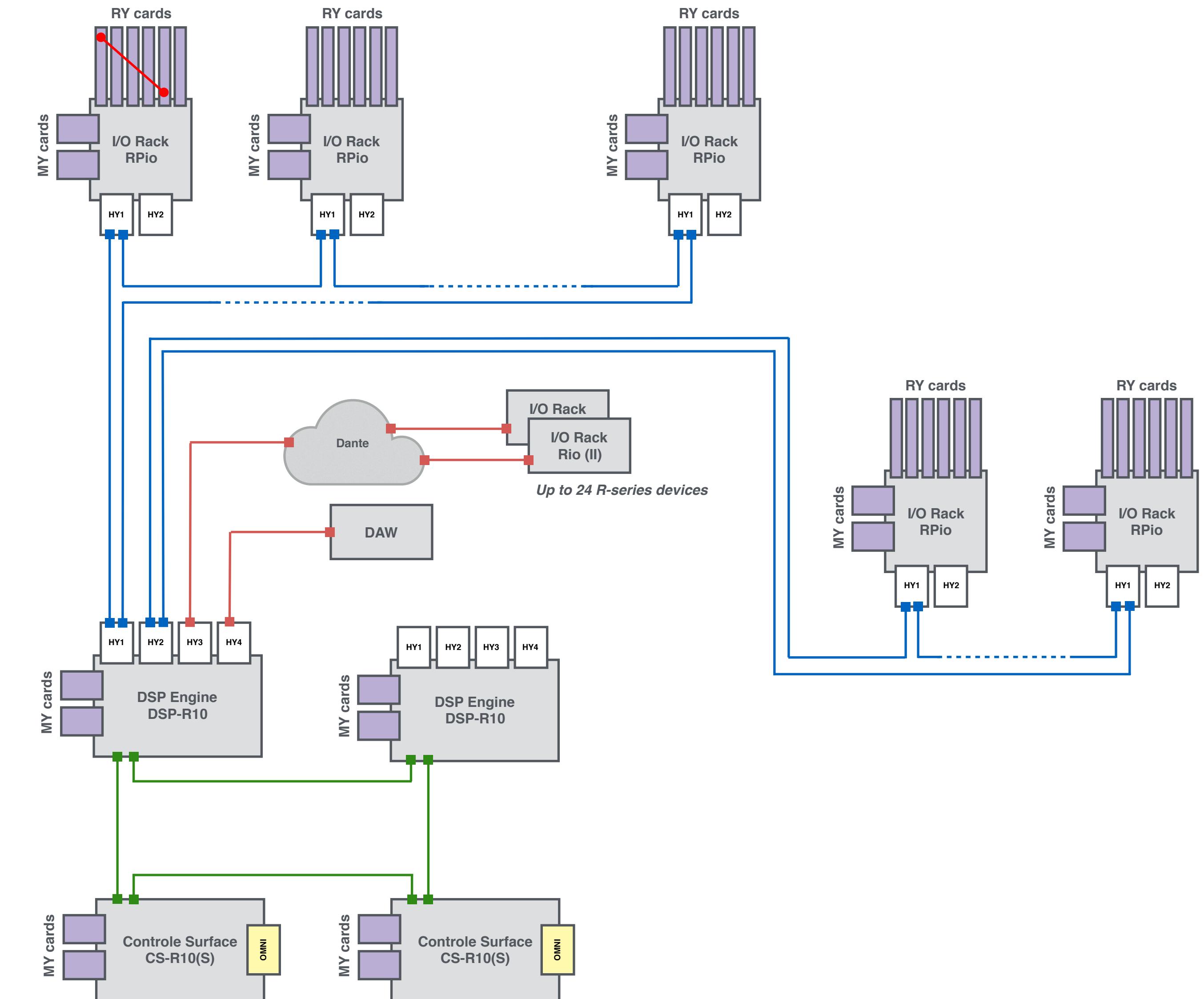
- Follow function
- Temporary linking
- Parameter Set
- Virtual Soundcheck
- Channel linking
- Port to Port routing



The Rivage System

Some special features

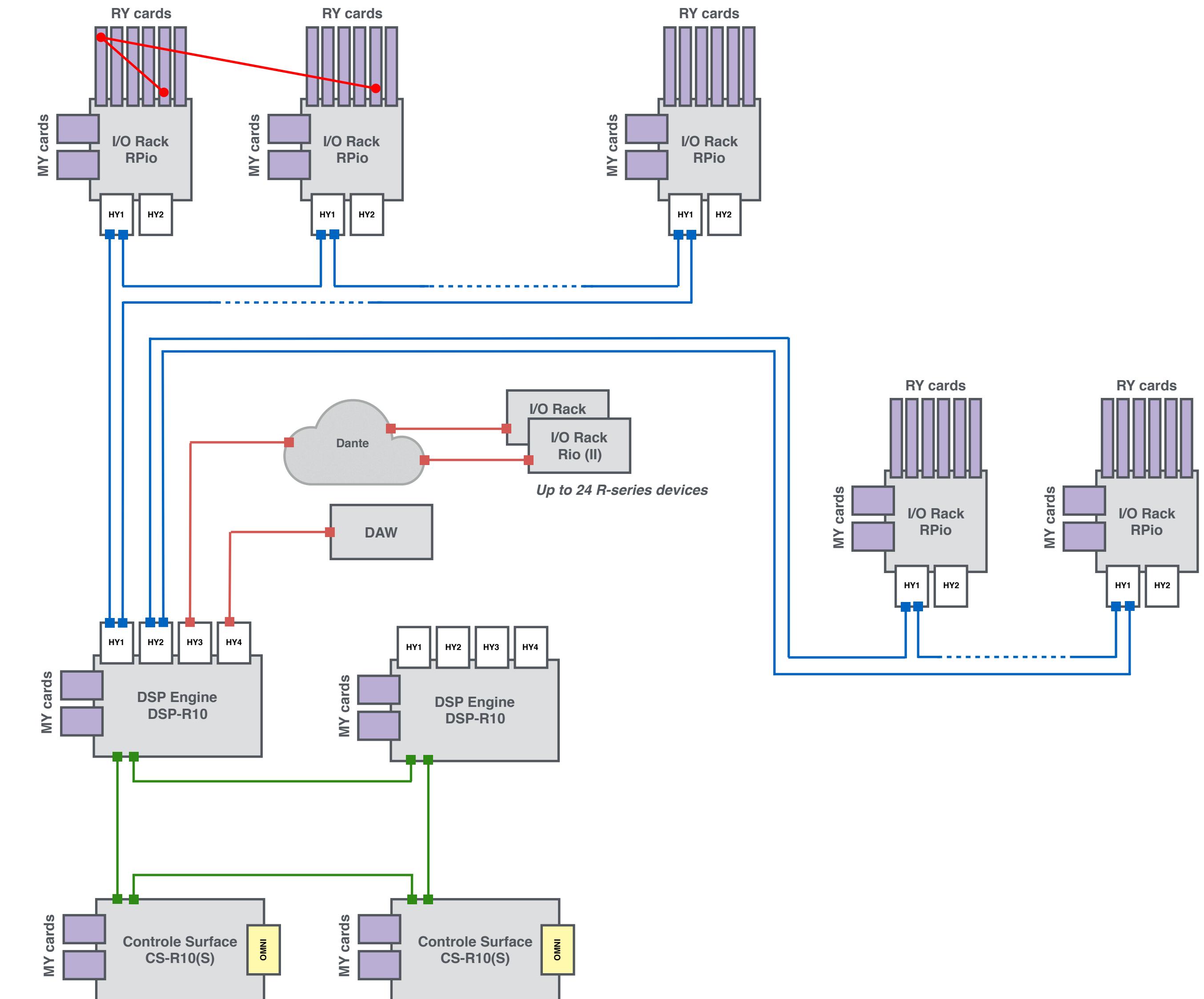
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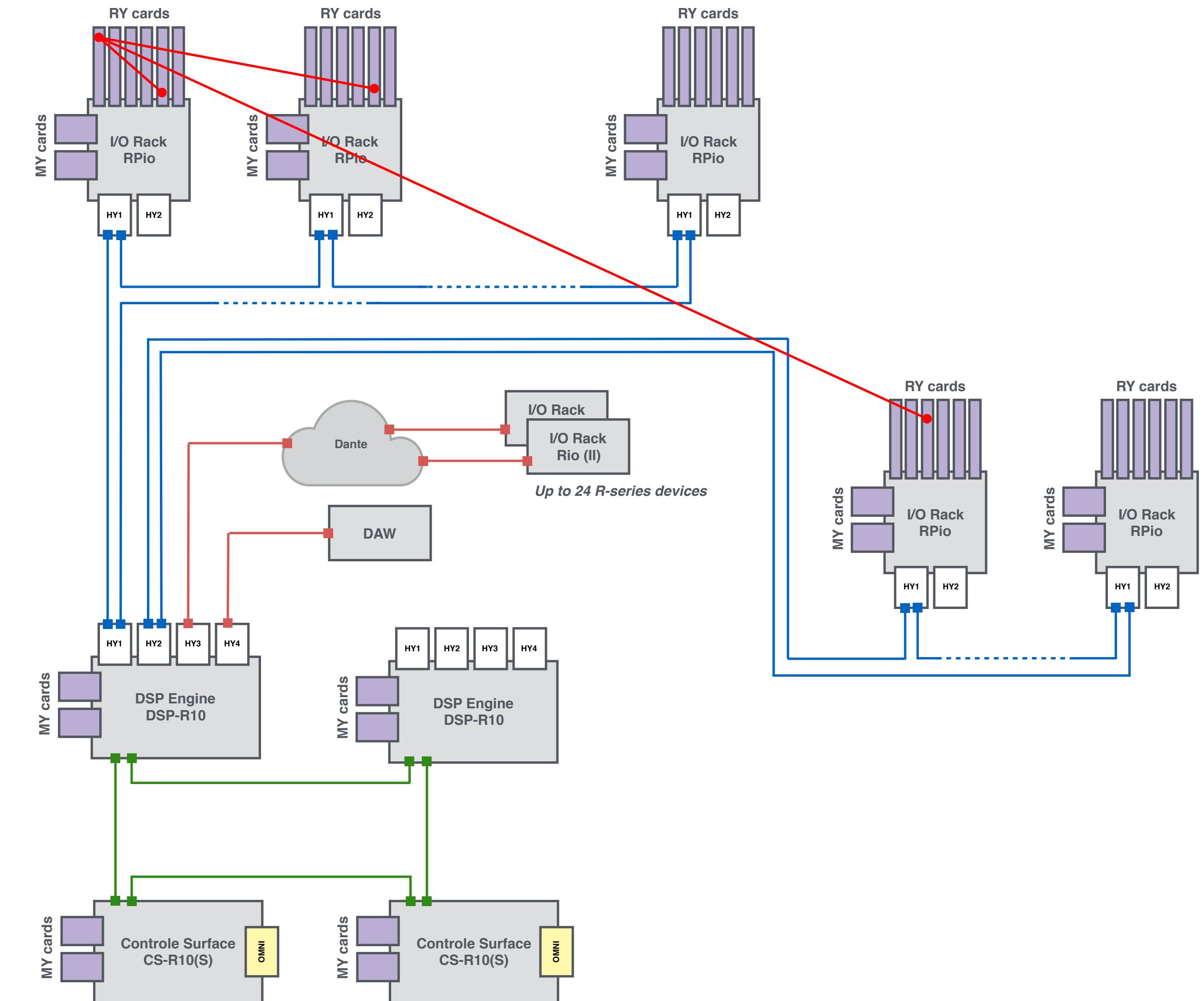
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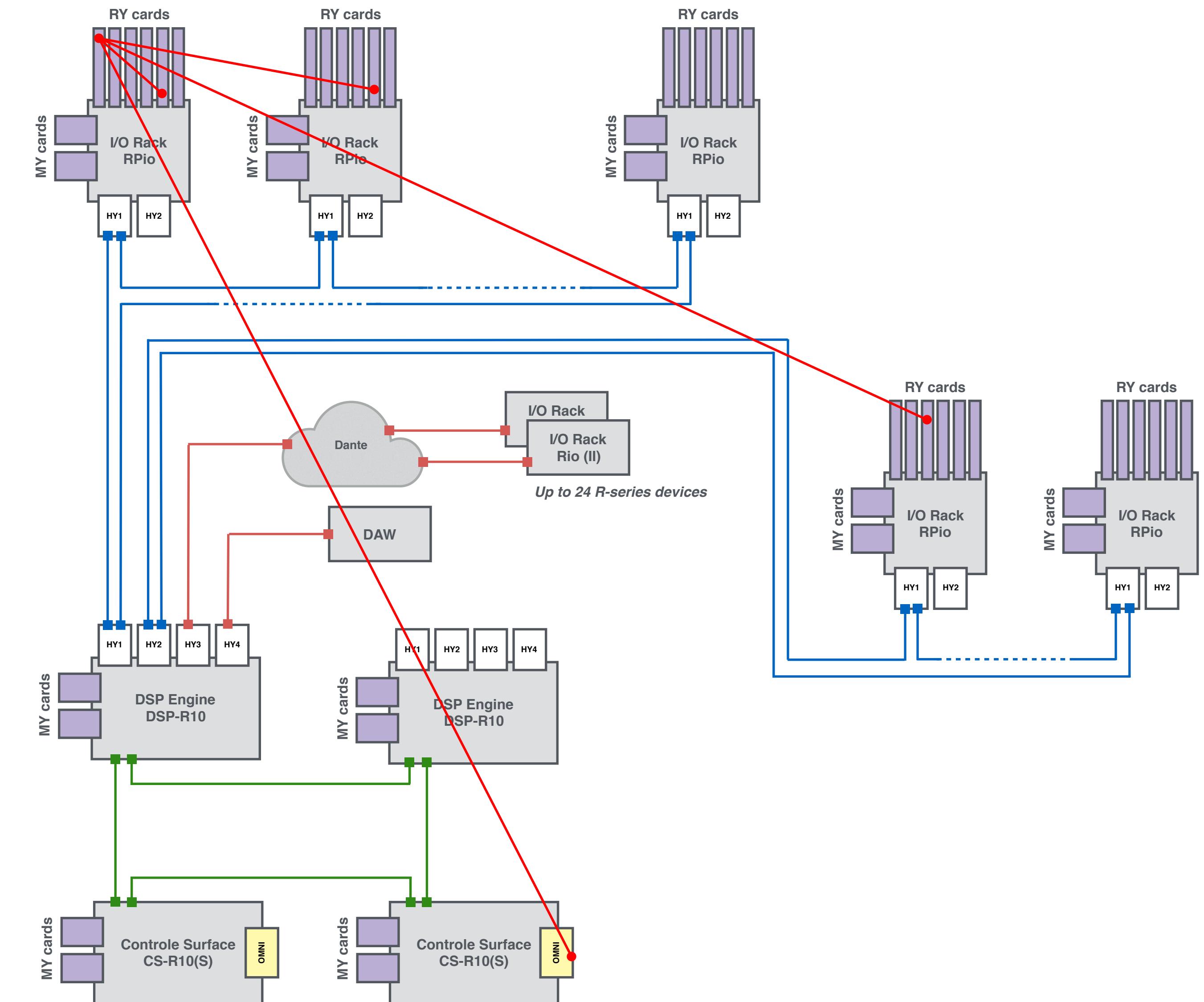
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The Rivage System

Some special features

- Follow function
- Temporary linking
- Parameter Set
- Virtual Soundcheck
- Channel linking
- Port to Port routing
- Broadcast features
 - 2 Surround busses
 - Surround monitoring
 - Programmable downmixing
 - N-1 mixing



The Rivage System

Some special features

- Follow function
- Temporary linking
- Parameter Set
- Virtual Soundcheck
- Channel linking
- Port to Port routing
- Broadcast features
 - 2 Surround busses
 - Surround monitoring
 - Programmable downmixing
 - N-1 mixing



The Rivage System

Some special features

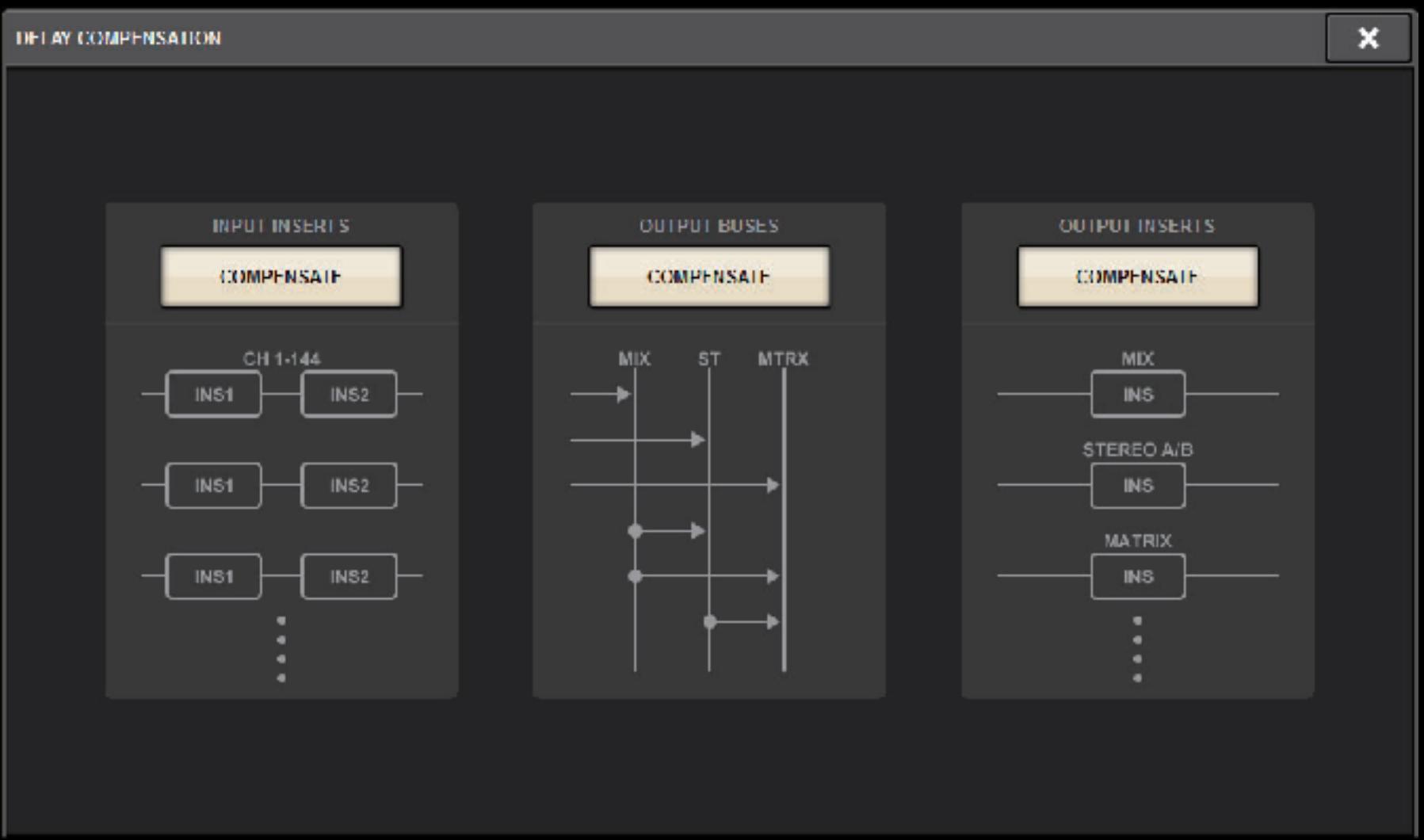
- Follow function
- Temporary linking
- Parameter Set
- Virtual Soundcheck
- Channel linking
- Port to Port routing
- Broadcast features
- Remote control
 - Editor for Windows and Mac
 - Stagemix for iOS



The Rivage System

Some special features

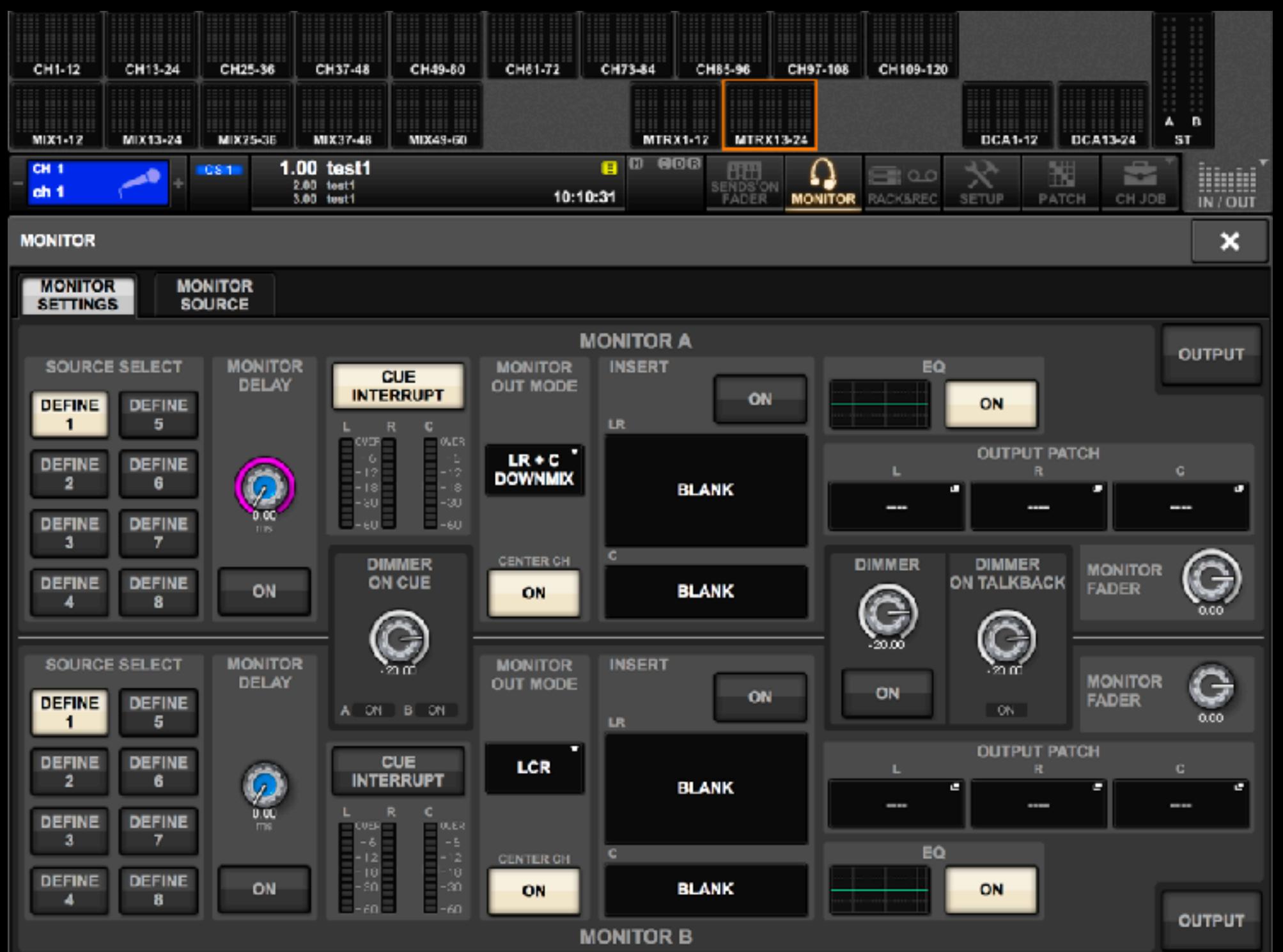
- Follow function
- Temporary linking
- Parameter Set
- Virtual Soundcheck
- Channel linking
- Port to Port routing
- Broadcast features
- Remote control
- Delay Compensation
 - 3 independent systems
 - Input inserts
 - Output inserts
 - Routing



The Rivage System

Some special features

- Follow function
- Temporary linking
- Parameter Set
- Virtual Soundcheck
- Channel linking
- Port to Port routing
- Broadcast features
- Remote control
- Delay Compensation
- Comprehensive monitoring section
 - 8 talkgroups
 - 8 monitoring groups
 - 8 times 278 x 8 matrix



The Yamaha Rivage System

Version 2.20 specification



Ing. Ruben van der Goor
Sr Application Engineer Digital Systems



The Yamaha Rivage System

Version 2.20 specification



Ing. Ruben van der Goor
Sr Application Engineer Digital Systems

