

Power Core^{RP}



IP AUDIO I/O & DSP NODE
FOR REMOTE PRODUCTION



FLEXIBLE
REMOTE
MAGIC

Power Core^{RP}

OVERVIEW

Power Core^{RP}

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ALL IN ONE

Lawo's Power Core^{RP} is a fully featured remote production solution for mc² audio consoles with integrated modular I/O, DSP and IP streaming capabilities.

The compact 1RU device combines modular audio I/O and high-density DSP functionality in a WAN-capable IP node. The unit's ST2022-7 network redundancy and its Class-C jitter/network latency robustness eliminate the need for dedicated WAN-gateways from 3rd party suppliers. This minimizes set-up complexity of remote productions and further reduces potential single points of failure.

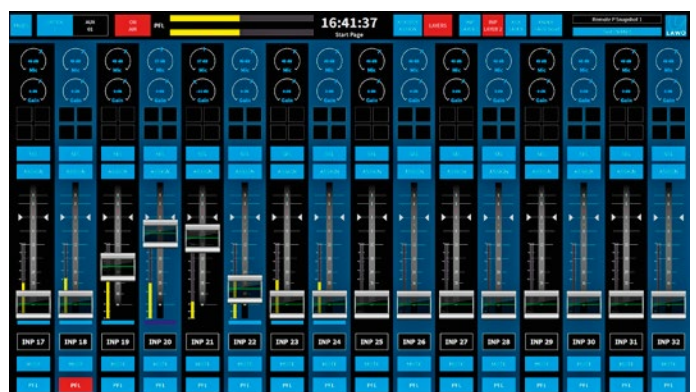
The unit's comprehensive audio connectivity includes two redundant 1GbE SFP ports for Audio-over-IP, one MADI port (with a 2nd port for interface redundancy), plus eight modular I/O slots for a mix of Mic, Line or AES3 cards. Also a studio card with Mic/Line inputs/outputs and two headphone amplifiers is available.

REMOTE CONTROL VIA CONSOLE

Power Core^{RP}'s DSP capabilities include 64 fully featured processing channels to provide low-latency on-site monitor and IFB mixing.

All I/O parameters of the Power Core^{RP} can be remote controlled from an mc² console's channel strips, just like with any other Lawo stagebox. In addition, mc² consoles can control the DSP channels inside Power Core^{RP} and offer control capabilities for up to 64 input channels and 16 stereo Aux busses.

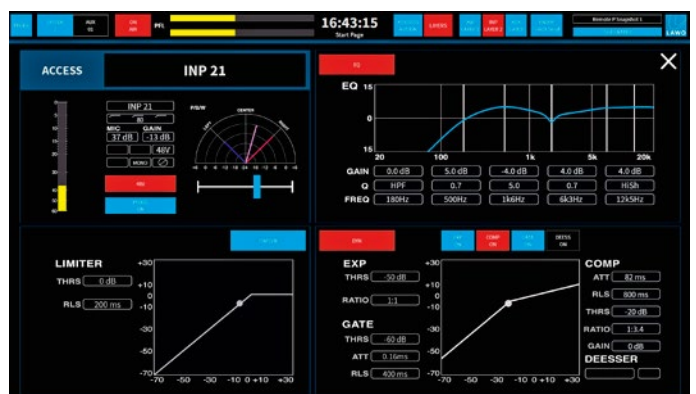
Remote channels can be mapped to the host console's surface just like any other source and offer parameter control for Fader, Mute, EQ+Filters, Dynamics, Delay plus the analog and digital input section. Remote inputs and Auxes of Power Core^{RP} can be linked to local DSP channels of the host console to ensure continuous linking of parameter values.



VisTool's Mixer page showing multiple channels



Matrix patching page for allocation of inputs and outputs



Channel DSP page for sculpting the sound

REMOTE CONTROL VIA GUI

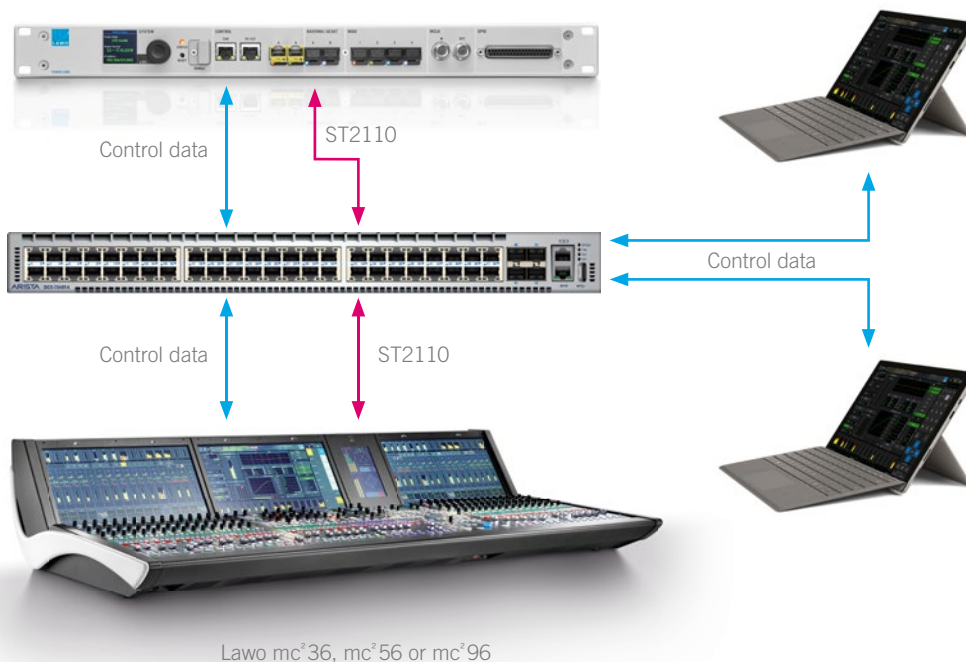
In addition to the control integration from an mc² console, Power Core^{RP} features a touch-screen optimized control GUI based on the Lawo VisTool Screen Design Solution. This provides on-site as well as remote access to all parameters of Power Core^{RP}, which is convenient for setting up prior to connecting the host console.

Power Core^{RP}'s unique remote-control possibilities include continuous and dynamic fader control as well as FaderStart-type commands, which are essential for latency-critical WAN connections and to avoid speech truncation on air.

The feature set includes sophisticated test mode and lineup patterns as well as controllable DIM levels to the talents' ear-pieces for talkback from the director. Furthermore, the graphical interface allows to monitor the control connection to the host console, the on-air status and the Sync. Monitoring of Listen and PFL is available as well as a local talkback system. While on air, any kind of on-site operation can be locked remotely from the host console.

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SYSTEM OVERVIEW



KEY FEATURES

All-in-one 19" (1RU) IP remote production solution with modular I/O and on-board WAN-capability

Low-latency on-site audio processing for monitoring & IFB mixing

Up to 64 inputs, 64 processing channels & 16 stereo AUX busses

Full remote control of all relevant channel parameters (Gain, Fader, Mute, EQ, Dynamics, Aux Sends...)

Touch-screen optimized control GUI for additional on-site and remote operation

Sophisticated control and monitoring features that meet highest requirements

Open standards-based: ST2110 / AES67 / RAVENNA IP-audio networking

ST2022-7 Class C network redundancy with Seamless Protection Switching

AVAILABLE I/O CARDS



8x MIC / LINE IN
Maximum four per
Power Core



STUDIO I/O
2 Mic / Line in, 2 Line
outputs, 2 HP outputs



8x ANALOG LINE IN
Eight mono / four stereo
inputs per card



4x AES3 I/O
Four digital inputs and
outputs (SRC on inputs)



8x ANALOG LINE OUT
Eight mono / four stereo
outputs per card



SPECIFICATIONS

INTERFACES

- 2x 1GbE Streaming ports via SFP (RJ45 or fiber options);
2x 1GbE Management ports via SFP; 1x RS422 (RJ45)
- 1x USB dongle port
- 1x MADI via SFP (2nd port for interface redundancy)
- WCLK IN/OUT
- 8x GPI, 8x GPO

PROCESSING

- 64 MONO INPUT CHANNELS: Digital Input section (Digital Gain, Phase); Delay; EQ+Filters (4-Bands); Dynamics (Compressor, Expander, Gate, Limiter)
- 16 STEREO AUX BUSSES: Delay; EQ+Filters (4-Bands); Dynamics (Compressor, Expander, Gate, Limiter)
- Independent PFL/Listen Bus for local/remote usage
- Integrated Talkback System

SYNCHRONIZATION

- PTP/IEEE-1588, WCLK

MANAGEMENT

- Out-of-band control

MECHANICS

- DIMENSIONS (H x W x D): 44mm (1 RU) x 483mm (19") x 365mm (14.4")
- WEIGHT: 4.5kg (9.9lb)
- POWER: 1x IEC 100-240V AC; 12 V DC connection with redundancy switchover

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