



PRODIGY.MP

MULTIFUNCTION AUDIO PROCESSOR

AS YOU WISH



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DirectOut
TECHNOLOGIES

PRODIGY.MP

Designed to address numerous applications in pro audio, broadcast, installation and studio applications, DirectOut's PRODIGY.MP provides flexible I/O, dual networked audio, DSP (EQ, Delay, Limiter, Matrix/Mixing, Inserts...), Sample Rate Conversion, multiple sync generation/handling/distribution and powerful hard- and software.

Housed in a 2U rack frame, it supports networking selectable from Dante, RAVENNA and SoundGrid, while remote options allow access to hardware settings, DSP, SRC, network and a channel-based routing matrix. Fully modular, the hardware can be configured to specific requirements, giving budget savings as well as the flexibility to address changes in the global media environment through future upgrades.

Modular Approach, Maximum Flexibility

I/O includes four local slots for analog line-level/mic input and AES3 modules. With eight channels per module and interface direction, PRODIGY.MP provides up to 32 local inputs and outputs.

The hardware additionally supports two MADI and two network audio options. MADI slots can be equipped with BNC, SC optical and SFP modules, while network audio boards add Dante, RAVENNA/AES67 or SoundGrid, and increase channel capacity to 416 inputs/420 outputs.

DSP, SRC & Sync Management

With FPGA-based processing, user-definable processing paths and pick-off points, analog and digital inserts, outputs and summing matrices, PRODIGY.MP boasts very low latency DSP for EQ (FIR and IIR filters), Time Adjust / Delays and Limiters. The internal DSP reference can be set to Word Clock or Video input, any network / digital input, or internally generated clock.

Sample Rate Converters on AES inputs and free-running MADI and network I/Os are available allowing simultaneous Media / Format / Sample Rate and Sync conversion, DSP and full routing at up to 192 kHz.

Control Is Key, Multiple Access Locally & Remotely

globcon* remote control, a browser-based GUI, and a back-light front panel IPS touch display ensure ultimate usability. Where globcon software offers integrated control of multiple pieces of equipment in Mac/PC/Linux-based systems, an integrated web server supports remote access via HTML and JavaScript-based user interfaces.

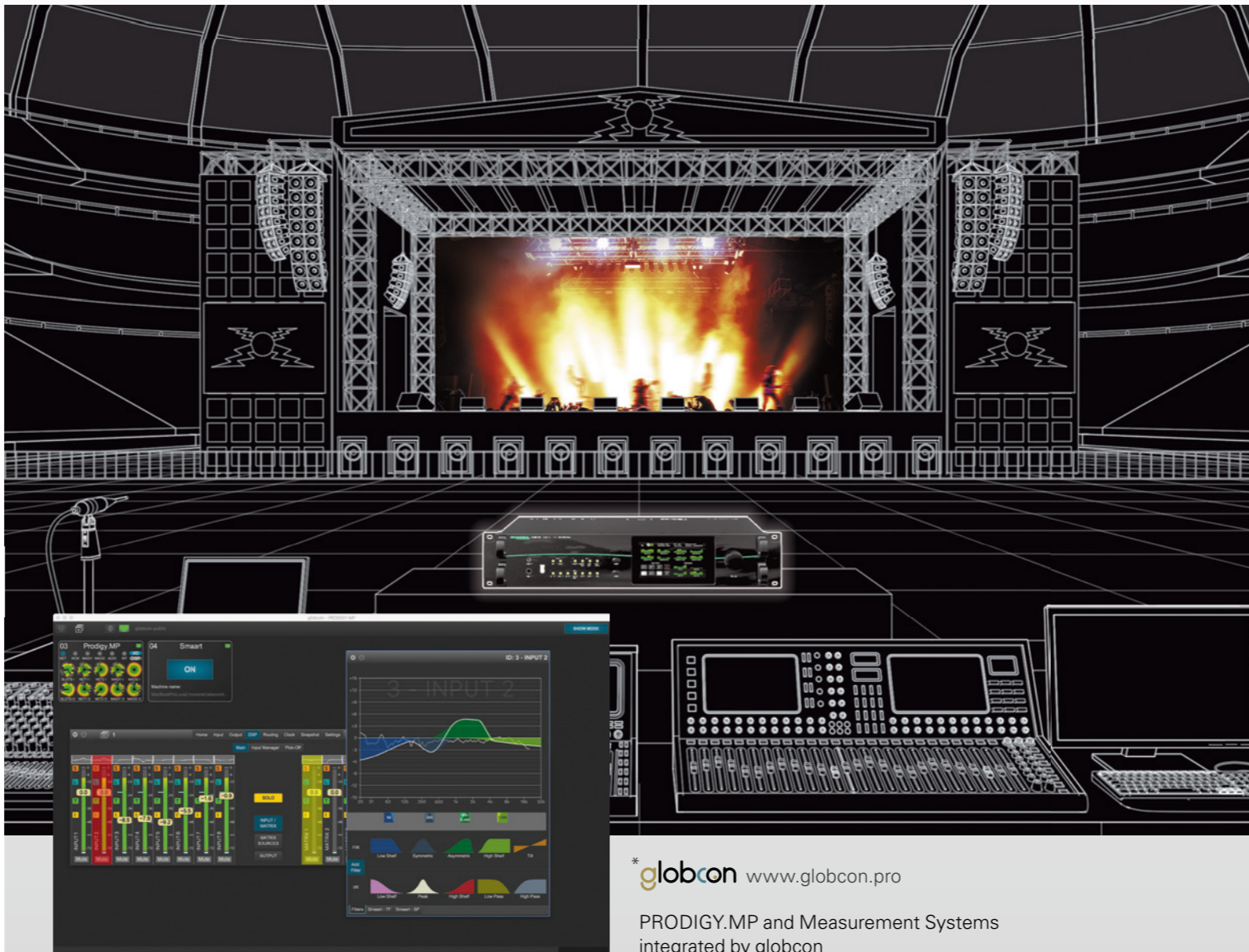
The browser-based GUI allows immediate remote access without the need to install software. The management network port is independent of the audio network, and can employ a built-in switch for in-band management of the device.

Third-party remote control protocols can extend system integration further. Automated surveillance and red light control is possible through GPIOs, while standard MIDI input and outputs give communication and active/passive control via MIDI. USB ports on the front and rear panels for connection and control of legacy devices.

Networked Audio & Seamless Interoperability

PRODIGY.MP's network audio modules accommodate audio formats including DirectOut's AES67-compliant RAVENNA stack that supports SMPTE ST2110-30/31 and ST2022-7 for redundant streaming. With the 64-channel Dante option, the hardware can be a front-end for audio consoles, or a standalone converter, DSP, SRC and routing system.

Waves Audio's SoundGrid offers extremely low latency, and 128 channels of audio processing for live sound, studio and broadcast. Waves servers can be connected via SoundGrid for plug-in inserts. Virtual soundcards for macOS and Windows can directly interface with any DAW for multitrack recording and virtual soundchecking.



*globcon www.globcon.pro

PRODIGY.MP and Measurement Systems integrated by globcon

Connect as You Wish!

PRODIGY.MP's rear panel provides ultimate flexibility



Configuration example

Safe Operation, Monitoring

Two front panel headphone outputs provide monitoring of any I/O at the device. Two phase-redundant power supplies with separate IEC inlets and AC power switches support hardware redundancy. An internal switch on the network module also ensures redundancy for the network domain. While the Dante module supports Dante redundancy, the RAVENNA module offers stream redundancy in accordance with ST2022-7. EARS (Enhanced Automatic Redundancy Switching) is available for several combinations of inputs.

Modules



TECHNICAL DATA

INTERFACE MODULES

AN8.IO	8 ch line input / output, 2 x DSUB-25, balanced
AN8.O	8 ch line output, 1 x DSUB-25, balanced
AN8.I	8 ch line input, 1 x DSUB-25, balanced
MIC8.HD.I	8 ch mic high density input, 1 x DSUB-25, balanced
MIC8.LINE.IO	8 ch mic/line input / line output
AES4.IO	4 port AES3 input / output, 1 x DSUB-25 (8 audio channels)
AES4.SRC.IO	4 port AES3 input with SRC / output, 1 x DSUB-25 (8 audio channels)
BNC.IO	64 ch MADI, 1 x coaxial BNC input, 1 x coaxial BNC output, 75 Ω
SC.IO	64 ch MADI, 1 x SC-Socket duplex multi-mode (single mode on request)
SFP.IO	64 ch MADI, 1 x SFP cage (matching SFP modules available from DirectOut)
RAV.IO	Network Audio RAVENNA / AES67, 128 ch *
DANTE.IO	Network Audio DANTE®, 64 ch *
SG.IO	Network Audio Waves SoundGrid, 128 ch *
*	2 x RJ45, 1x SFP

DIGITAL

Sample rates	44.1, 48, 88.2, 96, 176.4, 192 kHz (+/- 12,5%)
MADI formats	48k / 96k Frame, 56 / 64 channel, S/MUX

ANALOG

Analog I/O level (line)	+15 / +18 / +24 dBu changeable via jumper on module
MIC8.HD.I	Input sensitivity: -56 dBu to +24 dBu EIN: -128 dBu SNR: -115 dBFS (20 Hz - 20 kHz) / -118 dB(A) @ 0dB Gain THD @ -1 dBFS: -113 dB Frequency response: -0.15 dB (10 Hz) / -0.15 dB (20 kHz) 30 dB PAD (switchable), +48 V phantom power (switchable)
MIC8.LINE.IO	Input sensitivity: -55 dBu to +24 dBu EIN: -123 dBu SNR: -115 dBFS (20 Hz - 20 kHz) / -118 dB(A) @ 0dB Gain THD @ -1 dBFS: -113 dB Frequency response: -0.5 dB (10 Hz to FS/2), +48 V phantom power (switchable)
A/D	SNR: <-117,6 dB RMS (20 Hz - 20 kHz) / -119,9 dB(A) THD @ -1 dBFS: <-119 dB Frequency response: <-0,15 dB (10 Hz) / -0,15 dB (20 kHz)
D/A	SNR: -116,8 dB RMS (20 Hz - 20 kHz) / -119,5 dB(A) THD @ -1 dBFS: -109 dB Frequency response: -0,5 dB (10 Hz) / -0,15 dB (20 kHz)

ADDITIONAL INTERFACES

Headphone Output #1	1 x 6.3 mm TRS jack, mono / stereo Output level: max. +18 dBu SNR: -115 dB RMS (20 Hz - 20 kHz) / -118 dB(A) THD+N @ 0 dBFS: -105 dB @ 600 Ω
Headphone Output #2	1 x 3.5 mm TRS jack, mono / stereo Output level: max. +12 dBu SNR: -115 dB RMS (20 Hz - 20 kHz) / -118 dB(A) THD+N @ 0 dBFS: -105 dB @ 600 Ω
Word Clock I/O	2 x coaxial BNC (75 Ω termination switchable), AES11 (DARS also supported), WCK 2 switchable to Video Sync
MIDI	2 x DIN socket
GPIO	2 x GPI (MOSFET switch), 2 x GPO (MOSFET switch)
USB	2 x USB 2.0 for legacy control of ANDIAMO devices and project save and recall

SIGNAL DSP

DSP	Gain/Mute, EQ, Dynamics, Delay, Summing Matrix
SRC	Synchronous / asynchronous sample rate conversion

COMMUNICATION

Remote Software	globcon software control, integrated web server with UI (HTML, JavaScript)
External Management / Remote Protocols	SNMP, SWP-08, other control protocols planned ...
Remote Network	2 x RJ45 Gigabit Ethernet, 1 x SFP

GLOBAL

Power Supply	2 x 84 V to 264 V AC / 47 Hz to 63 Hz / safety class 1, phase redundant
Power Consumption	25 to 80 W, module dependent
Display	5.0" Backlight LED LCD, IPS Transmissive Resolution: 480 x 854 px
Local Control	1 x Encoder knob with push functionality, 2 x Push-Buttons
Dimensions	Width 19" (483 mm), Height 2 RU (89 mm), Depth 10" (254 mm)
Weight	About 10 kg

