PRODIGY.MC

MODULAR AUDIO CONVERTER

AS YOU WISH

DirectOut
TECHNOLOGIES

PRODIGY.MC

DirectOut's PRODIGY.MC modular audio converter supports multiple formats, offering flexible I/O, networked audio, and extremely powerful hard- and software – in only 2RU of space. PRODIGY.MC has been designed to address numerous applications in pro audio, broadcast, installation and studio applications, using a single hardware frame. PRODIGY.MC supports the latest audio network technologies, including Dante®, RAVENNA and SoundGrid. Its various remote options allow access to hardware settings, including a channel-based routing matrix. Since its design is fully modular, the hardware can be configured according to the real requirements of any application – results in budget saving as well as guaranteeing the flexibility to address changes in the global media environment through future upgrades.

Modular Approach, Maximum Flexibility

PRODIGY.MC provides a variety of I/O capabilities. The concept is based on its eight converter slots for analog line-level, microphone input and AES3 option modules. Equipped with eight channels per module and interface direction, PRODIGY. MC provides up to 64 inputs and outputs.

In addition, PRODIGY.MC's hardware supports MADI and a network audio option. The two MADI slots can be equipped with BNC, SC optical and SFP modules.

A network audio option board adds Dante, RAVENNA (AES67) or SoundGrid connectivity to this very powerful device, and increases its maximum channel capacity to 320 inputs and 324 outputs.

Control Is Key, Multiple Access Locally and Remotely

The combination of unified remote control via globcon*, a browser-based GUI and a 5-inch, user-friendly backlight IPS touch display on the front panel ensures ultimate usability.

As globcon software addresses the breadth of pro audio applications, PRODIDGY.MC offers consistent and coherent control of multiple pieces of equipment. It is available for Mac-, PC- and Linux-based systems.

In addition, PRODIGY.MC can be accessed via its integrated web server with remote access via HTML and JavaScript-based user interface. The browser-based GUI allows remote access independent from the operating system. While the management network port is completely independent from the audio network connection, it can be patched into a built-in switch for in-band management of the device.

Third-party remote control protocols and plugins can be added for extended system integration. Automated surveillance and red light control is also possible through GPIOs.

Networked Audio and Seamless Interoperability

PRODIGY.MC's network audio module is designed to accommodate different network audio formats in order to increase flexibility and meet changing requirements in various applications. DirectOut's own RAVENNA stack is AES67 compliant, and supports SMPTE ST2110-30/31 and ST2022-7 for redundant streaming. Capable of processing up to 128 channels, it has proven itself to be a powerful, flexible and high-performance AoIP hardware solution in numerous sophisticated broadcast and studio environments.

With the 64 channel Dante option, the PRODIGY.MC hardware offers access to the most popular AoIP format on the market, and is able to act as front-end for Dante-enabled audio consoles, or as a standalone converter and routing system.

Waves Audio's SoundGrid offers extremely low latency and 128 channel audio processing for live sound, studio and broadcast applications. Virtual soundcards for macOS® and Windows®, provided by Waves Audio, can directly interface with any DAW.

Connect as You Wish!
PRODIGY.MC's rear panel provides ultimate flexibility

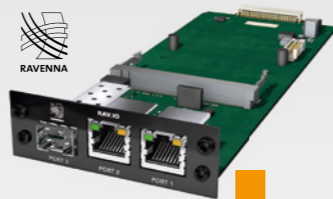**MODULES**

SG.IO
Waves SoundGrid

SC.IO
MADI SC-socket

AES4.IO
4 port AES3 input / output

AES4.SRC.IO
4 port AES3 input with SRC / output

RAV.IO
RAVENNA / AES67

SFP.IO
MADI SFP cage

AN8.IO
8 ch line input / output

AN8.O
8 ch line output

DANTE.IO
Dante Brooklyn

BNC.IO
MADI coaxial BNC, 75 Ω

MIC8.HD.I
8 ch mic high density input

MIC8.LINE.IO
8 ch mic input / line output

Safe Operation, Monitoring

Two headphone outputs on the front panel of PRODIGY.MC provide monitoring of any I/O directly at the device. The hardware provides maximum redundancy for a comprehensive professional operation, and is supported by two phase-redundant power supplies with separate IEC inlets and AC power switches on the rear panel. In addition, each single analog, AES3 and MADI module can be assigned to be redundant to a second. An internal switch on the network module also ensures redundancy for the network domain. While the Dante module supports Dante redundancy mode, the RAVENNA module offers stream redundancy in accordance with ST2022-7.

LIVE

BROADCAST

INSTALLATION

RECORDING

A SINGLE DEVICE FOR ALL APPLICATIONS

TECHNICAL DATA

INTERFACE MODULES

USER ACCESSIBLE / EXCHANGEABLE

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 densitiy 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	1 x coaxial BNC (75 Ω termination switchable), AES11 (DARS also supported)
GPIO	2 x GPI (MOSFET switch), 2 x GPO (MOSFET switch)
USB	USB 2.0 for legacy control of ANDIAMO devices

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	1 x RJ45 Gigabit Ethernet

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

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