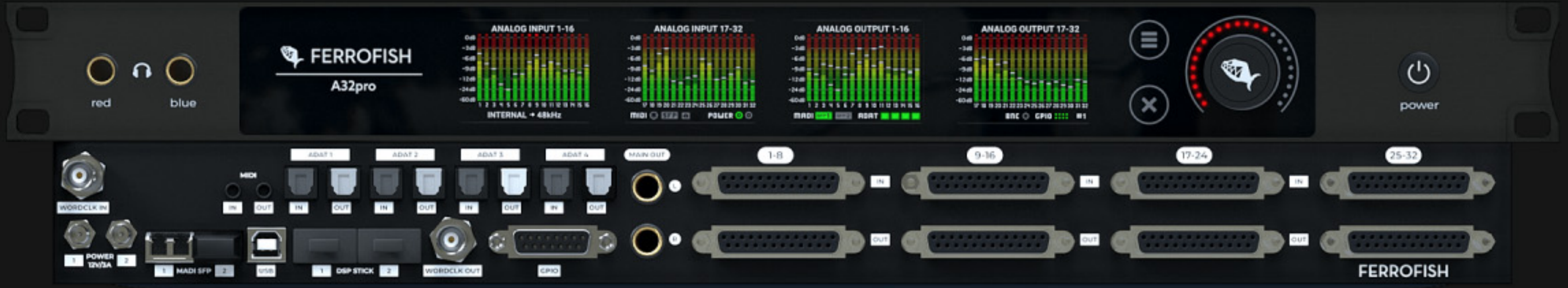# A32Pro INPUTS & OUTPUTS

32
ANALOG I/O

32
ADAT I/O

128
MADI I/O

2
PHONES OUT

4 x 4 D-Sub25

8 analog channels on each D-Sub25
TASCAM pin-format, max 192kHz
Gain/Levels: -8dBu...+20 dBu (1dB steps).

MADI I/O: Dual SFP Slots

The two SFP slots allow a variety of configurations:
From a single module configuration to redundant
dual SFP Modes (Single-/Multimode or Coaxial) –
everything is possible.

USB Type-B

For firmware updates, plugin installation and remote control
from a host computer. The A32pro appears as a MIDI
device.

4 x 4 ADAT TOSLINK

Each ADAT port transfers eight channels at a sample rate of
48kHz (= 32 In + 32 Out). A SMUX/2 mode up to 96k is also
possible.

MIDI I/O

Dual 1/8" (3.5mm) TRS I/O
(MIDI 2.0 layout)
for remote Control and
MIDI-over-MADI

2x PHONES STEREO TRS (FRONT)

Monitoring of every stereo/mono or even M/S (Mid/Side)
I/O channel by an dedicated DAC path.

Word Clock I/O

BNC with 75 Ohm
internal termination.
On/Off via display.

Redundant Power Supply

A 12V / 3A B

Ground-loop free, coaxial DC connector
with secure, stable and relaible screw-lock.
One PSU is included. The affordable
replacement power supplies are available
from any Ferrofish distributor.

FERROFISH AD/DA CONVERTERS IN COMPARISON

Use this comparison table when you need to make a decision that involves considering multiple audio Inputs and Outputs, Standard types (MADI, ADAT etc.) or connection types of our AD/DA converters.

	Pulse16	Pulse16 MX	Pulse16 DX	A32pro	A32pro Dante
Sample Rate	96 kHz	192 kHz	192 kHz	192 kHz	192 kHz
Connection	6,3 mm balanced jack	6,3 mm balanced jack	6,3 mm balanced jack	D-Sub 25	D-Sub 25
Analog In	16	16	16	32	32
Analog Out	16	16	16	32+2	32+2
Input Gain	-10dBV to +20dBu*	-10dBV to +20dBu*	-10dBV to +20dBu*	-10dBV to +20dBu	-10dBV to +20dBu
Output Level	-10dBV to +20dBu*	-10dBV to +20dBu*	-10dBV to +20dBu*	-10dBV to +20dBu	-10dBV to +20dBu
Analog I/O Level Staging	digital	digital	digital	Hybrid	Hybrid
Headphones Out	1	1	1	2	2
ADAT I/O	32x32	32x32	32x32	32x32	32x32
MADI (LWL)	optional Update	✔ (SFP)	✔ (SFP)	✔	✔
MADI (BNC)		optional	optional	optional	optional
Dante I/O			✔		✔
Wordclock I/O	✔	✔	✔	✔	✔
Aktive Jitter Elimination	✔	✔	✔	✔	✔
MIDI I/O	✔	✔	✔	✔	✔
MIDI-over-MADI	optional Update	✔		✔	✔
Routing Matrix	✔	✔	✔	✔	✔
Preset Management	✔	✔	✔	✔	✔
Redundant Power Supply				✔	✔
TFT-Displays	2	2	2	4	4

* +24dBu BTO Option available

MADI I/O (AES10)

Dual SFP Slots for MADI: Multimode or Singlemode SFP module as default configuration, optional second SFP module optional

- 64 channels @32kHz, 44.1kHz, 48kHz
- 32 channels @64kHz, 88.2kHz, 96kHz
- 32 channels @128kHz, 176.4kHz, 192kHz*

* both MADI ports are used to achieve full 32+32 channel transmission

Support of MIDI over MADI.
Latency: 3 samples
Redundancy: Automatic switching between optical <-> coax MADI when signal lost.

Analog Inputs (AD)

Latest generation of Analog / Digital Converters from ESS Tech.

4 x DSub25 (Tascam format)

- Digital gain: +20dBu … -8 dBu, 1dB steps

OpAmps
OPA1604 / OPA1664

Level indicator
TFT screen, 28 levels

Analog Outputs (DA)

Latest generation of Digital / Analog Converters from ESS Tech.

4 x DSub25 (Tascam format)

- Digital gain: +20dBu … -8dBu, 1dB steps

OpAmps
OPA1604 / OPA1664

Level indicator
TFT screen, 28 levels

Headphones Out

- 2 x ¼" (6.3mm) stereo TRS jack with HQ amp section and dedicated DAC path.
- Provides an independent stereo channel.
- Selectable mono/stereo or M/S decoded source of all inputs and outputs.
- Digitally controlled volume level.

ADAT I/O

4+4 optical interfaces (8 channels each with 48 kHz)

- 32 channels @32kHz, 44.1kHz, 48kHz
- 16 channels @64kHz, 88.2kHz, 96kHz
- n/a @128kHz, 176.4kHz, 192kHz

Latency: 3 samples

GPIO Port

- 4x General Purpose Inputs for switching Presets #1-4.
- 4x General Purpose Outputs for monitoring Lock/Power/MADI/Temp alerts.

MIDI I/O

- 2 x 1/8" (3.5mm) TRS connector for remote control
- Conversion MIDI <> MIDI-over-MADI possible
- MIDI 2.0 pinout

Wordclock I/O

- BNC: 1 x input, 1 x output
- 75 Ohm Termination switchable for input

Power Supply

12V, 3A

- 2 x input jacks with screw lock for redundant power.
- Voltage supervision, warning message on screen when PSU input fails
- Internal resettable polyfuse
- 1 x Power Supply included, second PSU optional

USB Port

1 x USB 2.0 for Remote/Updates

Additional Features

- 192 kHz operation (S/MUX up to 192kHz).
- GPIO Port for remote preset switching and alert monitoring
- DSP Plugin-ready
- A/D and D/A converters with switchable filters
- Dual Headphone output for easy monitoring
- MIDI over MADI Preset Management
- Extensive routing/mixing possibilities.
- Redundancy (MADI I/O, Dante I/O, Power Supplies).

Internal Clock

- Temperature compensated oscillator, with high accuracy.
- Initial accuracy: +/-1.5ppm
- Over temperature range: +/-2.5ppm
- Aging: +/-1ppm

PLL

- Digitally controlled PLL / Jitter reduction system
- Output jitter: 50ps … 100ps typ.

LCD Displays

- 4 x TFT Multitouch Screen User Interface
- Two-layer illuminated touch-sensitive high resolution encoder
- Highly intuitive control of the unit

Audio Core Processor

- SHARC ADSP-2148x series DSP
- Routing and processing of of all 384 audio channels.
- Source to headphone output.
- Calculation of of upcoming audio processing algorithms.

Dimensions

- 1RU, fanless design
- Depth: 31cm (12.6") (including connectors)

Weight

4.1kg (9 lbs)

Ambient temperature

41°F up to 113°F (+5°C up to +45°C)