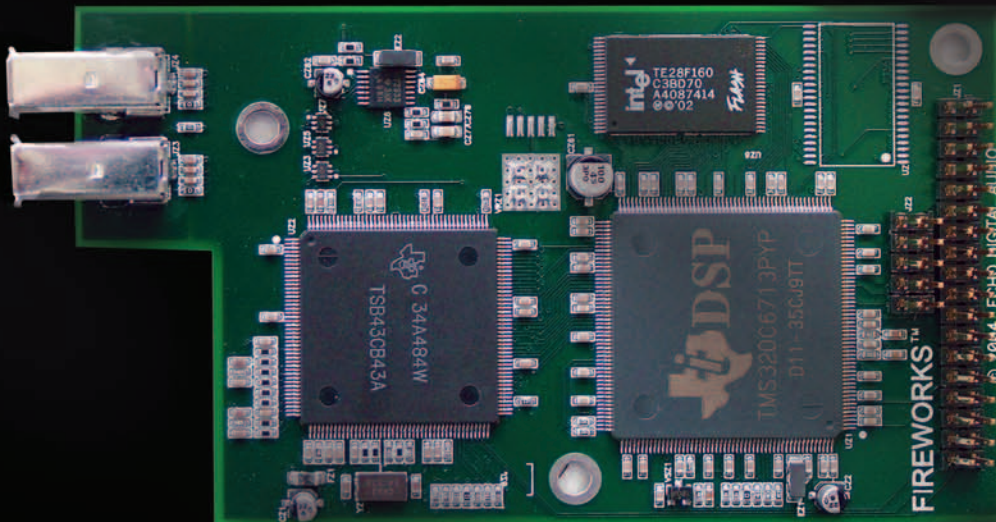


ECHO

DIGITAL AUDIO

# FIREWORKS™

FireWire Audio Interface Module



## FIREWIRE FEATURES:

- Two 1394a 400 megabit ports
- Texas Instruments icELynx with integrated phy, link, and ARM7 processor
- Multiple channels at up to 192 kHz: 12in / 12out @ 192 kHz , 24in / 24out @ 96 kHz , 48in / 48out @ 48 kHz
- Two isochronous channels
- Supports any audio data format: AM824, floating point, big and little endian
- 61883-6 and AV/C compliant

## DAUGHTERCARD I/O:

- 15 serial pins, either I2S or I8S format (maximum of 120 audio channels)
- 9 GPIO pins
- MIDI I/O
- SPI port (uses 5 of the GPIO pins)

## CLOCKING:

- Supports up to 192 kHz sampling
- Built in low-jitter internal clock
- Supports FireWire SYT clock recovery
- Supports sync to external clock

## POWER:

- Supports external and FireWire bus power

## SOFTWARE FEATURES:

- Mac OS X native driver support - CoreAudio and CoreMIDI
- Includes low-latency Windows WDM/ASIO/GSIF drivers

## SIGNAL PROCESSING:

- 1.6 gigaflop 32-bit floating point DSP (Texas Instruments 320C6713)
- Supports Texas Instruments XDAIS plugin standard
- Digital mixer included

## MEMORY:

- 2 megabyte flash RAM
- 256 kbyte internal DSP memory
- 256 kbyte internal ARM memory

# ECHOFIRE



## ECHOFIRE12HD

- 12 +4dBu Inputs (XLR) • 12 +4dBu Outputs (XLR) • 24BIT 192kHz Sampling • Word Clock Sync



## ECHOFIRE2

- 2 Universal Inputs with mic preamps, meters, and trim. • 6 +4dBu Analog Outputs (TRS)
- MIDI input/output • ADAT and S/PDIF input/output Headphone Output



## ECHOFIRE8

- 4 Universal Inputs with mic preamps, meters, trim, and channel inserts.
- 6 +4dBu Inputs (TRS) • 8 +4dBu Analog Outputs (TRS)
- MIDI input/output • ADAT and S/PDIF input/output
- Word Clock Sync • Headphone Output

# LAYLA3G



- LAYLA3G
- 2 Universal Inputs with mic preamps, meters, trim, and channel inserts.
  - 6 +4dBu Inputs (TRS) • 8 +4dBu Analog Outputs (TRS)
  - MIDI input/output • ADAT and S/PDIF input/output
  - Word Clock Sync • Headphone Output

# GINA3G



- GINA3G
- 2 Universal Inputs with mic preamps, meters, and trim.
  - 6 +4dBu Analog Outputs (TRS) • MIDI input/output • ADAT and S/PDIF input/output Headphone Output

# MIA MIDI



Two balanced analog inputs provide 106dB of dynamic range. Each input can be monitored to any output and is software-switchable for use with +4dBu or -10dBv input levels. Two balanced analog outputs provide 106dB of dynamic range. Each output is software-switchable for use with +4dBu or -10dBv input levels. Coaxial S/PDIF connectors are provided for connecting to DATs, CD players, etc

# INDIGO



DUAL STEREO OUTPUT - 4 CHANNELS



STEREO 24/96 PLAYBACK



STEREO INPUT • STEREO OUTPUT

## INDIGO:

- Dual Output Jacks • For Use With Headphones Or Powered Speakers • Great For Monitoring Software Syths
- Requires One Cardbus Type II Slot • Windows ME/2000/XP and Mac OS X 10.2 Or Better

## INDIGO DJ:

- Stereo Output Jack For Headphones Or Powered Speakers • Second Independent Line Level Output Jack
- 8 Virtual Outputs – Run Multiple Applications At Once • Preview One Mix While Playing Back Another
  - Full Support For Pro Audio And Dj Software (WDM Kernel Streaming, ASIO, GSIF, and CoreAudio)
- Includes 6 Foot Cable For Rca And 1/4" Connections • Requires One Cardbus Type II Slot
  - Windows ME/2000/XP and Mac OS X 10.2 Or Better

## INDIGO IO:

- 24 Bit Professional Audio Record And Playback For Windows And Mac Os X • Stereo Line Level Input Jack
  - Stereo Output Jack For Headphones Or Powered Speakers • Great For Software Syths
- 8 Virtual Outputs - Run Multiple Applications At Once • Requires One Cardbus Type II Slot
  - Full Support For Pro Audio Software (WDM Kernel Streaming, ASIO, GSIF, and CoreAudio)
- Includes 6 Foot Cable For Rca And 1/4" Connections • Windows ME/2000/XP and Mac OS X 10.2 Or Better

# PRODUCT COMPARISON CHART

SPECIFICATION	INDIGO	INDIGO>io	INDIGO>dj	MIAMIDI
DIGITAL CONNECTORS	N/A	N/A	N/A	S/PDIF
ANALOG OUTPUTS	1 stereo 1/8"	1 stereo 1/8"	2 stereo 1/8"	2 1/4" (TRS)
DIGITAL OUTPUTS	N/A	N/A	N/A	2
ANALOG INPUTS	N/A	1 stereo	N/A	2
DIGITAL INPUTS	no	no	no	2
NOMINAL OUTPUT LEVELS	no	no	no	yes
NOMINAL INPUT LEVELS	no	no	no	yes
DEFAULT NOMINAL LEVEL	-10	-10	-10	+4
ANALOG INPUT GAIN	no	no	no	no
INPUT CLOCKS	no	no	no	S/PDIF
OUTPUT CLOCKS	no	no	no	no
MIDI	no	no	no	yes
SAMPLE RATES	32kHz-96kHz	32kHz-96kHz	32kHz-96kHz	32kHz-96kHz
DYNAMIC RANGE	111 dB	109 dB	110 dB	106 dB
FULL DUPLEX	N/A	yes	N/A	yes
GSIF COMPATIBLE	yes	yes	yes	yes
OTHER	8 virtual outputs	8 virtual outputs	8 virtual outputs	8 virtual outputs
INTERFACE	CardBus	CardBus	CardBus	PCI

SPECIFICATION	GINA3G	LAYLA3G	ECHOFIRE2	ECHOFIRE8	ECHOFIRE12HD
DIGITAL CONNECTORS	Coax & Optical S/PDIF, ADAT	Coax & Optical S/PDIF, ADAT	N/A	Coax & Optical S/PDIF	N/A
ANALOG OUTPUTS	6 1/4" (TRS)	8 1/4" (TRS)	6 1/4" (TRS)	8 1/4" (TRS)	12 XLR
DIGITAL OUTPUTS	2 or 8	2 or 8	N/A	2	N/A
ANALOG INPUTS	2 universal*	2 universal*, 6 1/4" (TRS)	2 universal*	4 universal*, 4 1/4" (TRS)	12 XLR
DIGITAL INPUTS	2 or 8	2 or 8	N/A	2	N/A
NOMINAL OUTPUT LEVELS	yes	yes	yes	yes	+4
NOMINAL INPUT LEVELS	no	yes	no	yes	+4
DEFAULT NOMINAL LEVEL	+4	+4	+4	+4	+4
ANALOG INPUT GAIN	2 universal*	2 universal*	2 universal*	4 universal	no
INPUT CLOCKS	S/PDIF, ADAT, & MTC	Word, S/PDIF, ADAT, & MTC	MTC	Word, S/PDIF, & MTC	Word & MTC
OUTPUT CLOCKS	S/PDIF, ADAT, & MTC	Word, S/PDIF, ADAT, & MTC	MTC	Word, S/PDIF, & MTC	Word & MTC
MIDI	yes	yes	yes	yes	yes
SAMPLE RATES	8kHz-96kHz	8kHz-96kHz	8kHz-96kHz	8kHz-96kHz	8kHz-192kHz
DYNAMIC RANGE	110 dB	114 dB	TBA	TBA	TBA
FULL DUPLEX	yes	yes	yes	yes	yes
GSIF COMPATIBLE	yes	yes	yes	yes	yes
OTHER	headphone output	headphone output	headphone output	headphone output	N/A
INTERFACE	PCI	PCI	FireWire	FireWire	FireWire

\*Universal inputs support mic, guitar, & line level signals over XLR or 1/4" (balanced TRS or unbalanced TS) cables. Meters, trim knobs, & phantom power switch are provided.

All cards have output levels for analog outputs and monitors that can route from any input to any output. All cards support internal input clock.

Specifications subject to change without notice.



DIGITAL AUDIO

**ECHO DIGITAL AUDIO CORPORATION**

6309 Carpinteria Ave. Carpinteria, CA 93013 Phone: 805.684.4593 [www.echoaudio.com](http://www.echoaudio.com)