



TDM Test Module

option for

AIO Test System

The TDM Test Module (AIO-T) is designed for making advanced digital measurements of the TDM data-stream of a device under test (DUT)—typically A/D and D/A converters, DSP, and other ICs. AIO-T is a configuration option for the AIO Test System and requires the AIO chassis to operate.

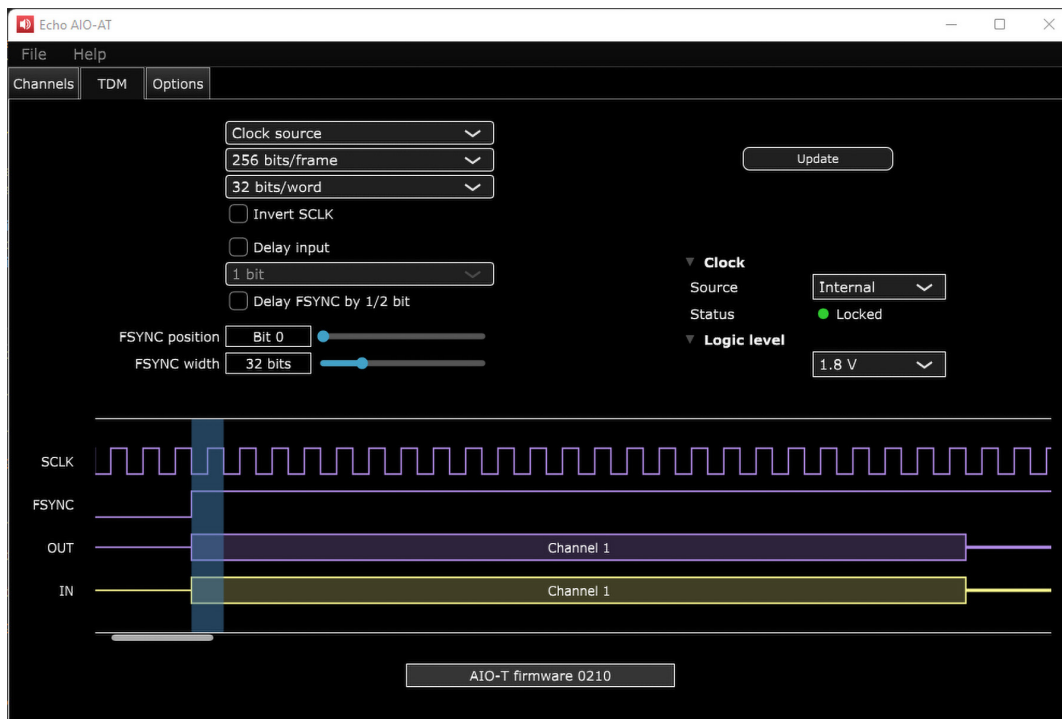


HARDWARE FEATURES:

- 2, 4, 8, or 10 channels
- Internal or external clock
- 64, 128, or 256 bits/frame
- 24 or 32 bit samples

KEY APPLICATIONS:

- A/D converters
- D/A converters
- DSP and other digital ICs
- I2S and DSP data formats



Complete control over TDM settings is available from the AIO control panel (shown above), as well as through the API or command-line application.

The Echo AIO™ is a modular audio test platform ideally suited for high-volume production-line testing and QA/QC verification. The AIO combines the functionality of multiple standalone devices into a single, integrated unit, making test stations both more reliable and less expensive.

TDM MODULE COMMON CONFIGURATIONS:

(Other configurations may be available—check with your dealer.)

Model	Inner Module	Outer Module	Mic/Line Inputs	Line Outputs	Headphone Outputs	Amp Outputs	Impedance	Digital	5VDC & Battery Simulator	GPIO	PTH
AIO-AT	AIO-A	AIO-T	4			2		TDM 10/10			
AIO-HT	AIO-H	AIO-T	2		2		1	TDM 10/10			
AIO-LT	AIO-L	AIO-T	4	2				TDM 10/10			
AIO-ST	AIO-S	AIO-T	2			2	1	TDM 10/10			
AIO-TI		AIO-T						TDM 10/10			

SPECIFICATIONS:

TDM	
Channels	2, 4, 8, or 10
Clock source	Internal or external
Bits per frame	64, 128, or 256
Bits per sample	24 or 32
Frame sync width	1 – 128 bits
Frame sync position	Bit 0 – 255
Sample rate	44.1k, 48k
General	
Power:	90 – 264 VAC, 50/60 Hz, 60 W
Dimensions:	17.5" (44.4 cm) x 8.75" (22.2 cm) x 1.75" (4.4 cm)
Weight:	42.5 lbs (19.3 kg)

AIO Test System

(See system datasheet for more details)



Shown: AIO-AT rear view with one **A** acoustic and one **T** TDM test module.

FEATURES:

- High accuracy
- Cost effective
- Silent—no fan!
- Standard USB 2.0 audio class interface
- Wide test & measurement software compatibility
- Runs on Windows (10 or later) or macOS
- ASIO, WASAPI, & Core Audio protocols



CONTROL PANEL SOFTWARE:

Provides comprehensive level monitoring and control over hardware settings, including transducer power, TEDS data, gain, TDM format, and calibration. Command-line and API access to settings is also available.

TEST & MEASUREMENT SOFTWARE:

Choose from a wide variety of third-party test and measurement software, including APx500 Flex, ARTA, LabVIEW, and MATLAB. The AIO system works just like a standard sound card for Windows, Mac, or Linux.

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MODULE OPTIONS:

(See individual datasheets for details and configurations)

- A** **Acoustic:** Four mic/line inputs with CCP, TEDS; two 10 W class-D amplifier outputs.
- C** **Combo:** GPIO; 5 VDC fixed supply; 5 VDC battery simulator; Pressure, temperature, and humidity sensor.
- H** **Headphone:** Four mic/line inputs with CCP, TEDS; two headphone/earbud outputs with impedance measurement.
- L** **Line Level:** Four mic/line inputs with CCP, TEDS; two balanced line-level outputs.
- S** **Speaker:** Two mic/line inputs with CCP, TEDS; two 10 W class-D amplifier outputs; built-in speaker impedance measurement.
- T** **TDM:** Digital TDM, up to 10 channels, 24 or 32 bit samples.

