

## PRELIMINARY DATA SHEET

# APOGEE TRAK2



## REFERENCE STANDARD MICROPHONE PREAMPLIFIER/CONVERSION SYSTEM

- Superb two-channel microphone preamplifier with  $\pm 90$ dB gain, phantom power, front-panel universal input socket, high-impedance direct instrument input, analog out ...and an incredible sound.
- Two channels of Apogee's true 24-bit, 96 kHz A/D conversion with 117 dB dynamic range.
- AES/EBU and S/PDIF out plus two AMBus card slots to interface with Pro Tools, ADAT, TDIF, SDIF-II, etc.
- Apogee Soft Limit<sup>®</sup> helps you record at a higher level without overs; Soft Saturate<sup>™</sup> gives you the sound of analog tape compression!
- Apogee low-jitter master clock.
- Apogee's enhanced UV22HR<sup>™</sup> translates 24-bit signals to 20 or 16 bits while maintaining high-resolution detail.
- Video sync capability.
- Clear LCD display shows configuration and signal flow.
- Cursor controls/delta-wheel for fast settings changes.
- Settings can be saved to presets and recalled.
- Programmable Quick Keys for instant access to frequently-used functions.
- Easy-to-read 2-channel LED bar metering
- User-definable over detection (1-4 digital full scale)

### Everything You Need... And More.

With the Trak2, you can have everything you need for a high-quality digital session – in one compact single-unit rack space. A superb mic pre; incredible A/D; any interface you need; and behind it, Apogee's legendary name and reputation for the very highest audio quality available in the industry today.

### A superb mic preamp...

At the front of the Trak2 is a discrete microphone preamplifier which stacks up favorably against the best-known mic pres available. Accessible via rear panel XLRs or the front-panel universal XLR/ $\frac{1}{4}$ " connectors, the sound of this preamp will have you wanting to use it on every session, analog or digital. The preamp also accepts hi-Z instrument inputs at the front panel, for maximum versatility. Just plug an input into the front panel and it's selected automatically.

An insert point is included to provide an analog output or to allow the insertion of analog processors into the Trak2 signal path.

### ...An incredible A/D

From the analog stage, the signal passes to

the very latest in A/D conversion technology from Apogee's award-winning engineering design team.

The 2-channel, 24-bit A/D operates at 44.1, 48, 88.2 and 96 kHz with a dynamic range in excess of 117 dB and an overall level of quality exceeding that of systems costing several times the price.

The A/D also includes Apogee's renowned *Soft Limit* process, which maximizes recording level without overs; and the return of Apogee's unique *Soft Saturate* system, which simulates analog tape compression. Either feature can be switched in and out on one or both channels.

### Maximum Interface Versatility

Two Apogee Multimedia Bus (AMBus) slots are provided in addition to the built-in AES-S/PDIF output, enabling the Trak2 to connect to a wide variety of industry standard interfaces including Digidesign's Pro Tools, ADAT, TDIF, SDIF-II, SSL HiWay, and others, with new cards being added all the time. Many cards support Apogee Bit-Splitting, which enables you to use standard 44.1/48, 16-bit recorders to store 20-, 24-bit, and even 96 kHz signals.

The Trak2 features the latest version of the

Apogee Ultra-Low Jitter Clock, used to lock the unit to incoming digital or video signals and virtually remove jitter. Also included is the latest incarnation of Apogee's industry-standard UV22 system for digital word-length reduction, UV22 HR (High Resolution), which takes a high-resolution digital signal and reduces the word-length to 16 or 20 bits for CD or DVD-V mastering and Internet applications while maintaining 24-bit detail.

### Add a D/A

The Trak2 includes a special slot for an optional 2-channel or 8-channel D/A card with specifications matching those of the A/D section, turning the Trak2 into a complete digital audio conversion system with two A/D channels and up to 8 D/A.

### Hear the Apogee Difference

You've never encountered anything like the Trak2 from Apogee Digital. With the sweetest-sounding mic preamp you've ever heard, superb 24-bit, 96kHz A/D and optional D/A conversion, interfacing with almost any digital system including a direct connection to Pro Tools... the possibilities are endless.

Try the Trak2 at your authorized dealer today... and hear The Apogee Difference.



The Trak2's innovative interface marks a new departure for Apogee. Instead of many multi-function buttons, a single Delta-wheel and cursor controls allow you to navigate an interactive menu system that provides status and configuration information quickly and intuitively.

# APOGEE TRAK2 — FEATURE OUTLINE

Apogee's Trak2 is a reference-standard microphone preamplifier/conversion system incorporating balanced sends, balanced returns, auxiliary universal 1/4 in/XLR front panel inputs, 24-bit/96kHz analog to digital conversion, two AMBus digital I/O slots, a built-in AES-S/PDIF digital output, word clock I/O, comprehensive peak/average/phase metering, graphics/text LCD display, easily navigated front panel controls, a communications port enabling remote operation via MIDI and/or RS-232 plus firmware upgrades via the Internet, optional video synchronization, optional two channel 24-bit/96kHz D/A, optional eight channel 24-bit/96kHz D/A, optional DSP expansion board.

## Microphone Preamplifier

- Ultra-wide gain/attenuation range: -90 to +90 dB
- Fully-balanced audio path
- Fluid Gain Control (FGC) – sophisticated relay/MDAC Attenuation/Gain Control
- Gain Ride Mode (GRM) – MDAC only Attenuation/Gain Control
- User definable gain step size (.5dB, 1dB, 2dB, 3dB, 4dB)
- UltraTrak – Linked ratio gain adjustment.
- Accepts microphone, high impedance or line-level inputs.
- Per channel selectable 20 dB pad, polarity inversion and 40/90Hz HPF.
- Front panel "universal" 1/4in/XLR inputs with High Impedance Auto-Detect.
- +48V Phantom Power with Auto-Sense/Disable.

## Sends

- Drive balanced or unbalanced lines.
- +28dBu of gain adjustment.
- Send in/out selectable on a per channel basis.
- 'Send Out' directly connects Mic-Pre Out to A/D Input

## Returns (Line – A/D Input)

- Accepts balanced/unbalanced signals.
- Input stage servo-balances any unbalanced signal.
- +4dBu/-10dBv input levels.
- Common-mode and single-ended DC removal.
- Digital gain control.
- A/D Auto Calibrate.

## LCD Display

- High Resolution 240X66 dot, mixed graphics/text mode display.
- High-visibility white backlight.
- Active Status Display – graphical representation of Trak2 signal flow.
- Comprehensive menu system and easy-access interface with delta-wheel.

## Metering

- Multi-mode Average/Fast Peak/2 sec or Infinite Hold
- Phase (Phase Gain plus Absolute Phase Angle)
- Overs – User definable 1-4 consecutive digital full scale and LCD tabulation.

## Digital I/O

- Built-in combination AES-S/PDIF output supports single-wire operation at high sample rates
- 44.1, 48, 88.2 and 96 kHz sampling rates
- Two AMBus slots for multiple interface options
- Full 8-channel AMBus architecture allows for multitrack digital format conversion

## Synchronization

- Crystal: 44.1kHz – 96kHz
- Word Clock I/O: 44.1kHz – 96kHz
- AMBus cards
- Optional card slaves unit to NTSC, PAL, and B&W video sync.

## Additional features include

- 10 to 8 Digital Routing
- UV22HR – Internet-compatible 20/16-bit output from high resolution sources without loss of quality; Low/High settings for multi-pass and mastering operation.
- Adjustable Soft Limit with digital adjustment control for maximum digital level without overs.
- Soft Saturate with digital adjustment control simulates analog tape compression
- MIDI In/Out/Thru and serial port
- User-assignable 'Quick Keys'
- System Auto Calibration (when optional DAC is installed)
- Digital oscillator.
- System Pin 2/3 Hot.
- Digital In DC Removal.
- 96kHz Headphone D/A with high output 40W power amplifier.
- User saveable/recallable presets.

## Optional DAC Boards

- 2- or 8-channel D/A card plugs into expansion slot and allow for: Digital attenuation/gain control of individual channels. D/A Auto Calibration. Overdub Mode (Confidence Monitoring).



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