

Real-Time Mobile Telemetry Data Server & Analyzer

MODEL 3022AP



KEY FEATURES

- 2 - 6 PCM Stream Chapter 4 and IRIG 218-20 TM Processing
- Real-time OS Independent Card Embedded Dynamic Software Decom and EU Processing
- 4th Gen MD1632AP Dual Stream 50 + Mbps PCIe "all-in-one" Telemetry Processor Card
- 4th Gen MD1635AP PCIe real-time SHARC® Multi-Stream EU Processor - to 6 MS/Sec rates
- ARTM TIER 0/I/II Multi-Band RF/IF RDM207 Receiver Card
- Full featured local & network ADAT Display & Analysis Tool
- Modular and extendable TM Data Services, per decom module
- Real-time Raw and Processed Mission Data Recording
- CH 10/11 format Compliant Data Products, and direct UDP Input
- World Class 8 bps - 40 Mbps Bit Synchronizers
- Multi-Stream Dynamic 64 Mbps PCM Simulator / Encoder
- Card embedded Windows Independent low latency CVSD

GENERAL DESCRIPTION

The Model 3022AP Portable Telemetry Data Acquisition and Processing Platform (TDP) is a third-generation, portable, low-latency, multi-stream telemetry processing and analysis system. Built on Intel Core i7 technology, it provides an ideal host for Acroamatics' signature card-embedded, multi-function telemetry processing cardsets, supporting Windows application-independent telemetry processing solutions.

Modular and scalable, the 3022AP supports applications from single-stream instrumentation labs to multi-stream range data centers and telemetry server configurations. Systems can be configured with one to three Model 1632AP real-time telemetry modules and deliver integrated capabilities including low-latency IRIG Class I & II PCM decommutation, card-embedded EU conversion, recording, quick-look analysis, and networked data services with flexible output formatting.

Rugged and lightweight for sustained field use, the 3022AP includes a 17-inch 1920x1080 high-resolution display and operates under Windows 11 64-bit or Linux. Acroamatics Telemetry Suite (ATSS) and industry-leading ADAT Display and Analysis software provide intuitive setup and operation, plus project-based configuration and repeatable workflows using TMATS, Excel, or TDP scripts for acquisition and post-mission processing.



RELATED PRODUCTS

Decom PCM Processing Card	Real-time PCIe PDSP	PCI Card Receiver	ADAT
 Model 1632AP	 Model 1635AP	 Model RDM207	

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Model 3022AP Accessories

Lunchbox TDP w/ Tri-Fold Displays

Acroamatics' Model 3022AP-MSR-L3 maintains the quality and performance of the standard 3022AP architecture, while offering an expanded form factor with dual- or tri-folding displays and an increased card slot count.

- Multi-display (two or three) 24 inch-high NIT LCD fold-out Displays
- Expands Slot Count from 4 to 6
- Durable Field Ready Construction
- Mil hardcase luggage transport case option
- Larger frame weight ~50lbs
- Accommodates 8 Decom Streams, or 6 Streams + 1 Rx Card
- External DP/HDMI display port
- Comes with soft roller case



Lunchbox TDP W/ Integrated Battery Pack

Acroamatics' Model 3022AP-MSRB is identical to the standard 3022AP "Lunchbox" Telemetry Data Processor, except it includes Integrated Quad Lithium Ion Battery Packs.

- Identical to standard 3022AP in performance
- Integrated Quad Li-ion 81 W/Hr battery packs
- Minimum 2 Hrs of battery powered TM System Operation
- Includes Windows 11 (PRO or LTSC)
- Includes external charging dock
- Adds just 4 inches to chassis height and ~ 6 lbs in weight



I/O Breakout Panel

40 connector signal I/O "Breakout Panel" with quick connect fasteners.

- 40 Connector Signal I/O
- Fits to Quick-fasten removable rear panel or universal Acroamatics desktop connector
- Configurable Dual Decom/Bit Sync/Receiver connector layouts
- Includes telemetry cardedge umbilical cables



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PCIe Telemetry Cards

Acroamatics cards can process anything from a single PCM stream to sixteen streams of complex telemetry data simultaneously in a single chassis, and now include the option of a new generation integrated high performance RF receiver/demod PCI module. The following descriptions of the functions supported by the individual cards is summary in nature only.

Refer to specific module data sheets for complete capabilities descriptions. Assistance prior to ordering is recommended to ensure proper configuration.

TECHNICAL SPECIFICATIONS

Physical:	14.05" x 16.46" x 6.96" (H x W x D) / and under 22 Lbs., with cards
Display:	17.3", 16:9 Display, 1920 x 1080 Resolution, 300 cd/m2 Brightness
Backplane:	4 each PCI, PCI-e, or mixed card slot combinations
Processor:	Intel Core™ i7- G12 4 GHz
Networking:	Dual Ethernet 10/100/1000/2500 BT
USB:	10x USB 3.0 (6 rear panel & 4 internal header mounted)
Memory:	64 GB DDR3 SDRAM
Storage:	Dual removable 1TB SSD SATA 3 with accommodations for four total drives, side mount carrier
Power:	100-240 VAC, 47-63 Hz Power, Battery (Optional) to support 2 Hr standalone operations
DVD:	Slim slot-loading DVD burner/Slim Blu-ray player indicators
Signal I/O:	Multi-pin mini-D, with BNC female conversion cables provided (standard 10" length)
O/S:	Windows 11 Pro 64-Bit , with DOD SHB STIG configuration compliance - RHEL 8 & LTSC options
Environmental:	Shock 6G, Non-operating 50G
Vibration:	Operating 0.5G, 5 to 2000 Hz, Non-Operating 1.2G, 5 to 500 Hz Operating 0 to 40 C°
Temperature:	Non-Operating -40 to 86° C

Software Included

Acroamatics Telemetry Software Suite (ATSS) software set-up and ADAT (Acroamatics Display and Analysis Tool) Data Display, Analysis, System Dashboard Operations system software are provided installed in each TDP as the integrated operations hub of your new telemetry acquisition and processing solution. ATSS consists of a closely integrated pre-mission TDP system set-up program (TDPSet), and Acro Display and Analysis Tool (ADAT) user configurable desktop data and operations dashboard programs combine with a variety of real-time and post mission output data tools, which include recorder, networking, ADAT integrated system diagnostic, analysis, and customer data publishing tools & widgets. Supported Operating Systems include Windows 11 Pro 64-bit, Win 10 Enterprise LTSC, and RHEL 8.x, off the shelf.

Customer Configurations and Special Designs

Acroamatics has the hardware and software expertise necessary to meet the most complex processing challenges. Our system and card-level product capabilities allow us to quickly and effectively configure, enhance, and field solutions in response to individual requirements and evolving range and aircraft testing standards. Aircraft data bus, receiver, communications modules, and a wide variety of software application tools are supported by the Model 3022AP with no special modification. Acroamatics is an experienced integrator of large multi-vendor systems, with facilities and expertise to assemble, test, and deliver solutions specifically tailored to your needs, from individual portable to large integrated rack-based solutions.



Recognizing that no standard product fits every mission, Delta Telemetry Systems is ready to deliver tailored solutions for your unique application requirements. Specifications subject to change without notice.

