

## *Rugged, Ultra-Low Power Field Processor*



*Slate* is a rugged, ultra-low power, multi-purpose processor designed for wide variety of field deployments in extreme operating conditions.

As a member of Kinematics' new *Rock* product line, *Slate* represents a paradigm shift in ultra low power field computing. *Slate* is designed to allow building embedded applications to meet mission critical needs in field harsh environments. *Slate* offers extensive field processing capabilities, coupled with flexible communication options, and giving you an advanced platform for all your challenging projects.

embedded Linux, *Clean-Slate*, or pre-loaded with Kinematics', *Rock Hound* software, to support seismic monitoring applications.

The *SLATE* design deliberately avoids the use of internal batteries. Based on past experience such as leaking batteries, difficulty in changing batteries and managing the battery lifetime, a novel design is utilized. The unit contains an internal short-term UPS based on super capacitor technology that ensures proper Linux shut down.

*Slate* is available either as a user-programmable system with

### *Features*

- ◆ Typical power consumption between 0.4W (idle) and 0.9W (with two Ethernet ports connected)
- ◆ MontaVista HardHat Linux v2.4.20
- ◆ Robust Journaling File System
- ◆ Optional Development Environment with Apache web server, Python, C++ compiler and JVM
- ◆ Up to 32GBytes Solid State Storage
- ◆ Dynamic Power Management
- ◆ Advanced Power Control with intelligent safe and secure system shutdown and auto start
- ◆ Extensive State-of-Health Monitoring, including input and system voltages, internal temperature, internal humidity, communication link diagnostics
- ◆ System Status LEDs
- ◆ Transient and EMI/RFI protection on all connections
- ◆ Rugged aluminum extrusion with MIL-SPEC type connectors designed for 1m drop and 1m temporary immersion (IP67)
- ◆ Environmentally sound lead-free design; RoHS, WEEG and CE compliant

### *Specifications*

Processor:	400 MHz Intel PXA255 XScale <sup>®</sup>	Environmental:	-20 +60°C Operation (optional -30 +70°C)
Memory:	256 -MBytes SDRAM		0-100% RH (non-condensing)
Storage:	1 x Internal Compact Flash Slot (up to 64 Gb) 1 x SD Card 4 GB 1 x SD Card Field Removable (optional)	Additional Options:	Available advanced power and communication enclosure with optional AC power, Solar Power Controller, and internal battery.
Interfaces:	2 x 10BaseT Ethernet Ports 2 x RS232 Serial Ports 1 x USB 1.1Port (1 OTG/1 Host) (optional)		Optional communications include internal GSM/GPRS Modem or CDMA Modem
Power:	8-18 VDC 0.6W (typical)		Available hardened Ethernet Switch with Power over Ethernet
			IDE Drive with USB 1.1 Interface for off line data removal, "Data Vacuuming".

All specifications subject to change without notice