



SOMAT[®]

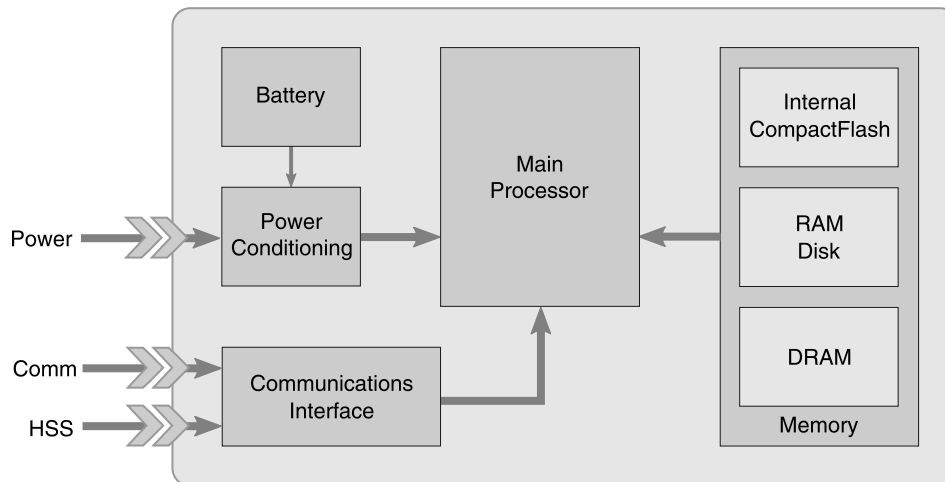
ELCPU-PLUS

eDAQlite Main Processing Layer

Special Features

- Internal backup battery to protect against unplanned power losses or low voltage events
- Ethernet communications with a configurable IP address
- Internal CompactFlash memory (up to 128 GB)
- High speed serial (HSS) connection compatible with the Somat eDISPLAY for real-time information

Block Diagram



Detailed Description

The Somat ELCPU-PLUS eDAQ*lite* Base Processor is the foundation for the eDAQ*lite* system, specifically designed for rugged, mobile applications. The input power for the system operates from 10 to 55 volts DC. Connect the power supply through the 15-pin D-sub connector on the front panel. Internal backup batteries protect the eDAQ*lite* from unplanned power losses or low voltage events. The ELCPU-PLUS also includes replaceable ten-amp, 42-volt rated automotive mini-blade fuses.

The eDAQ*lite* communicates through standard 10/100 BASE-T Ethernet communications protocols and hosts its own web server with a configurable IP address. This combination allows the eDAQ*lite* to effortlessly communicate wirelessly through WWAN modems, 802.11 devices or point-to-point wireless bridges. The eDAQ*lite* also provides the capability for RS232 serial communication. Ethernet, serial and system networking communication all connect to the eDAQ*lite* through the 26-pin high density D-sub connector on the front panel. A high speed serial (HSS) communications port, through a Somat M8 bulkhead connector, in combination with a rugged Somat eDisplay LCD display provides real-time channel and test information.

To manage test data, the eDAQ*lite* has the capacity to perform a broad range of on-board data processing. This includes custom computed channels, triggers, gates, boolean expressions and Somat DataModes™. In addition to the standard data acquisition Time History collection, Somat DataModes provides data storage in multiple, easy to manage and analyze formats including Burst History, Time-at-Level, Event Slice, Peak/Valley and Rainflow histograms.

Ordering Options

Order No.	Description
1-ELCPU-PLUS-2	eDAQ <i>lite</i> Plus Processor - Extended Voltage Input Input Power: 10 ... 55 V DC Includes: (1) 1-SAC-EPWR15-2 Power Cable and (1) 1-SAC-ESR9/XO-2 Communications Cable

Memory (Order Separately)

Order No.	Description
1-CF32GB-INT-2	32 GB CompactFlash memory for eDAQ <i>lite</i> systems
1-CF64GB-INT-2	64 GB CompactFlash memory for eDAQ <i>lite</i> systems
1-CF128GB-INT-2	128 GB CompactFlash memory for eDAQ <i>lite</i> systems

Accessories (Order Separately)

Order No.	Description
1-E-DISPLAY-2	Rugged LCD display for eDAQ <i>lite</i> systems
1-E-AC/15-2	AC power supply for eDAQ <i>lite</i> Systems

Cables (Order Separately)

Order No.	Description
1-SAC-EPWR15-2	Power Cable with a 15-pin D-Sub and tinned pigtail wires for main and remote power connections.
1-SAC-ESR9/XO-2	Communications Cable with a crossover RJ-45 connector for direct Ethernet connection to the support PC, a 26-pin D-Sub connector and a 9-pin D-Sub serial connector.
1-E-ETHERNET X/O-2	Communications Cable with a crossover RJ-45 connector for direct connection to the support PC and a 26-pin D-Sub connector.
1-SAC-ESYNCADAPT-2	Networking Adapter Cable with a 26-pin D-Sub connector, a RJ-45 hub connector and (2) female LEMO connectors for sync connections.
1-ESYNCADAPT-SC-2	Networking Cable with a 26-pin D-Sub connector, a RJ-45 hub connector, (2) female LEMO connectors for sync connections and a 9-pin D-Sub serial connector.
1-SAC-ESYNCCABLE-2	Networking Sync Cable with (2) male LEMO connectors for sync connections.
1-SAC-ESYNCTERM-2	Networking Termination Connector with a male LEMO connector for terminating a networking sync connection.

Specifications

Parameter	Units	Value
Layer dimensions	-	-
width	cm	17.5
length	cm	14.3
height (ELCPU-PLUS)	cm	8.3
Layer weight	kg	2.29
Temperature range	°C	-20 ... 65
Relative humidity range, non-condensing	%	0 ... 90
Power supply input range	V _{DC}	10 ... 55
Power consumption ¹	W	3.45
Data acquisition sample rates	-	-
minimum	Hz	0.1
maximum (100 kHz MSR)	kHz	100
maximum (98.3 kHz MSR)	kHz	98.304

¹ Power consumption measurements include the efficiency of the power supply.

Standards

Category	Standard	Description
Shock	MIL-STD-810F	Method 516.5, Section 2.2.2 Functional Shock - ground vehicle
Vibration	MIL-STD-202G	Method 204D, Test condition C (10 g swept sine tested from 5 Hz to 2000 Hz)

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