Overview

The GRANITE™9 and GRANITE™10 are the most computationally powerful data-acquisition devices from Campbell Scientific. As an all-digital measurement and control DAQ, the GRANITE 9 is designed as the core of the data-acquisition network, integrating with all GRANITE measurement modules, including the VOLT 108, VOLT 116, TEMP 120, VWIRE 305, and CH400.

Benefits and Features

- Traditional network connections via Ethernet port
- EPI port switch for high-speed connection to all GRANITE™ measurement modules
- Onboard storage of streaming data with 2 GB of DDR3 SDRAM and a 64 GB solid-state hard drive (SSD)
- Built-in GPS for network synchronization

Detailed Description

The GRANITE 9 enables you to perform the following:

- Standard measurement functions
- Advanced math and processing functions
- Control functions

A complete GRANITE system installation may include the following components:

- GRANITE Chassis
- GRANITE 9
- CH400
- Power source (mains or solar)
- Software

Specifications

-NOTE- Additional specifications are listed in the GRANITE 9 Specifications.
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<tr>
<th><strong>Power Requirements</strong></th>
<th>9.6 to 32 Vdc (voltage input)</th>
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<tr>
<td><strong>Real-Time Clock Accuracy</strong></td>
<td>±3 min. per year</td>
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| **Operating Temperature Range** | Non-condensing environment  
- -55° to +85°C (extended)  
- -40° to +70°C (standard)  |
| **Case Material** | Stainless steel 304 and aluminum 6061 |
| **Communications Ports** | EPI  
- Ethernet  
- USB Micro B  
- USB host  
- CS I/O  
- 0 to 5 V serial  
- SDI-12  
- RS-485  
- RS-422  
- CPI/RS-232  |
| **Data Storage Ports** | microSD  
- USB host |
| **Digital I/O** | 8 terminals (C1 to C8) configurable for digital input and output. Terminals are configurable in pairs for 5 V or 3.3 V logic for some functions. |
| **Internet Protocols** | Ethernet, PPP, RNDIS, ICMP/Ping, Auto-IP (APIPA), IPv4, IPv6, UDP, TCP, TLS (v1.2), DNS, DHCP, SLAAC, Telnet, HTTP(S), SFTP, FTP(S), POP3/ |
| **Communication Protocols** | CPI, EPI PakBus, PakBus Encryption, SDM, SDI-12, Modbus RTU / ASCII / TCP, DNP3, custom user definable over serial, UDP, NTCIP, NMEA 0183, I2C, SPI |
| **Warranty** | 3 years standard (against defects in materials and workmanship)  
Optional: An additional 2 years (against defects in materials and workmanship), bringing the total to 5 years |
| **Battery-backed SRAM for CPU Usage & Final Storage** | 4 MB |
| **Data Storage** | 4 MB SRAM + 128 MB NOR flash  
(Storage expansion of up to 16 GB with removable microSD flash memory card.) |
| **Active Current Drain, Average** | 495 mA input (12 V input)  
255 mA input (24 V input)  
~6 W |
| **Static Vibrating-Wire Measurements** | Not supported |
| **Dimensions** | 21.4 x 12.0 x 5.0 cm (8.4 x 4.7 x 2.0 in.)  
Additional clearance required for cables and leads. |
| **Weight** | 1.0 kg (2.2 lb) |