



# Meeting Your Top Testing Priorities

Flexible for use in the lab and out in the field

### 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

### Technical 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](#).*

Power Requirements      9.6 to 32 Vdc (voltage input)

Real-Time Clock Accuracy	±3 min. per year
Operating Temperature Range	▶ <i>Non-condensing environment</i> ▶ -55° to +85°C (extended) ▶ -40° to +70°C (standard)

Case Material	Stainless steel 304 and aluminum 6061	Modbus RTU / ASCII / TCP, DNP3, custom user definable over serial, UDP, NTCIP, NMEA 0183, I2C, SPI
Communications Ports	<ul style="list-style-type: none"> <li>› EPI</li> <li>› Ethernet</li> <li>› USB Micro B</li> <li>› USB host</li> <li>› CS I/O</li> <li>› 0 to 5 V serial</li> <li>› SDI-12</li> <li>› RS-485</li> <li>› RS-422</li> <li>› CPI/RS-232</li> </ul>	<ul style="list-style-type: none"> <li>› 3 years standard (against defects in materials and workmanship)</li> <li>› Optional: An additional 2 years (against defects in materials and workmanship), bringing the total to 5 years</li> </ul>
Data Storage Ports	<ul style="list-style-type: none"> <li>› microSD</li> <li>› USB host</li> </ul>	Battery-backed SRAM for CPU Usage & Final Storage 4 MB
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.	Data Storage 4 MB SRAM + 128 MB NOR flash (Storage expansion of up to 16 GB with removable microSD flash memory card.)
Internet Protocols	Ethernet, PPP, RNDIS, ICMP/Ping, Auto-IP (APIPA), IPv4, IPv6, UDP, TCP, TLS (v1.2), DNS, DHCP, SLAAC, Telnet, HTTP(S), FTP(S), POP3/TLS, NTP, SMTP/TLS, SNMPv3, CS I/O IP	Active Current Drain, Average <ul style="list-style-type: none"> <li>› 495 mA input (12 V input)</li> <li>› 255 mA input (24 V input)</li> <li>› ~6 W</li> </ul>
Communication Protocols	CPI, EPI PakBus, PakBus Encryption, SDM, SDI-12,	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)

For comprehensive details, visit: [www.campbellsci.eu/granite9](http://www.campbellsci.eu/granite9) 

