



Granite 9

Measurement and Control Data-Acquisition System



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)
- **B**uilt-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.

Power Requirements 9.6 to 32 Vdc (voltage input) Real-Time Clock Accuracy ±3 min. per year

Operating Temperature

Non-condensing environment

Range

> -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	USB hostmicroSD
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/ TLS, NTP, SMTP/TLS, SNMPv3, CS I/ O IP
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	 Optional: An additional 2 years (against defects in materials and workmanship), bringing the total to 5 years 3 years standard (against defects in materials and workmanship)
Battery-backed SRAM for CPU Usage & Final Storage	4 MB
Data Storage	 64 GB SSD 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)

