



## GRANITE 10

Measurement and Control Data-Acquisition System



## Ideal for Automotive Testing Applications

Featuring CAN bus and CAN FD output

### Overview

Similar to the GRANITE™9, the GRANITE™10 is the most computationally powerful data-acquisition device from Campbell Scientific. As an all-digital measurement and control DAQ, the GRANITE 10 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. Unlike the GRANITE 9, however, the GRANITE 10 also includes four general-purpose CAN channels. With its CAN channels, a larger 128 GB SSD, and extended temperature ranges, the GRANITE 10 is your ultimate tool for automotive testing.

### 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 128 GB solid-state hard drive (SSD)
- › Built-in GPS for network synchronization
- › General-purpose CAN channels

### Detailed Description

The GRANITE 10 enables you to perform the following:

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

### Specifications

-NOTE-

Additional specifications are listed in the [GRANITE 10 Specifications](#).

Power Requirements	9.6 to 32 Vdc (voltage input)
--------------------	-------------------------------

Real-Time Clock Accuracy	±3 min. per year
--------------------------	------------------

Operating Temperature Range	› -55° to +85°C (extended)
	› Non-condensing environment
	› -40° to +70°C (standard)



Case Material	Stainless steel 304 and aluminum 6061
Pulse Counters	8 (C1 to C8)
Communications Ports	<ul style="list-style-type: none"> <li>› USB Micro B</li> <li>› SDI-12</li> <li>› RS-485</li> <li>› RS-422</li> <li>› CPI/RS-232</li> <li>› EPI</li> <li>› CAN FD</li> <li>› CAN</li> <li>› Ethernet</li> <li>› USB host</li> <li>› CS I/O</li> <li>› 0 to 5 V serial</li> </ul>
Data Storage Ports	<ul style="list-style-type: none"> <li>› USB host</li> <li>› microSD</li> </ul>
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	CAN FD, CAN, 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	<ul style="list-style-type: none"> <li>› Optional: An additional 2 years (against defects in materials and workmanship), bringing the total to 5 years</li> <li>› 3 years standard (against defects in materials and workmanship)</li> </ul>
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	<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>
Static Vibrating-Wire Measurements	Not supported
Dimensions	21.4 x 12.0 x 7.5 cm (8.4 x 4.7 x 3.0 in.) Additional clearance required for cables and leads.
Weight	1.2 kg (2.7 lb)

For comprehensive details, visit: [www.campbellsci.com/granite10](http://www.campbellsci.com/granite10) 

