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:

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

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Requirements</td>
<td>9.6 to 32 Vdc (voltage input)</td>
</tr>
<tr>
<td>Real-Time Clock Accuracy</td>
<td>±3 min. per year</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-55° to +85°C (extended)</td>
</tr>
<tr>
<td></td>
<td>Non-condensing environment</td>
</tr>
<tr>
<td></td>
<td>-40° to +70°C (standard)</td>
</tr>
</tbody>
</table>

Additional specifications are listed in the GRANITE 10 Specifications.

Ideal for Automotive Testing Applications

Featuring CAN bus and CAN FD output

For comprehensive details, visit: www.campbellsci.com/granite10
<table>
<thead>
<tr>
<th>Case Material</th>
<th>Stainless steel 304 and aluminum 6061</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse Counters</td>
<td>8 (C1 to C8)</td>
</tr>
<tr>
<td>Communications Ports</td>
<td>USB Micro B</td>
</tr>
<tr>
<td></td>
<td>SDI-12</td>
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<tr>
<td></td>
<td>RS-485</td>
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<tr>
<td></td>
<td>RS-422</td>
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<tr>
<td></td>
<td>CPI/RS-232</td>
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<tr>
<td></td>
<td>EPI</td>
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<td></td>
<td>CAN FD</td>
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<tr>
<td></td>
<td>CAN</td>
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<tr>
<td></td>
<td>Ethernet</td>
</tr>
<tr>
<td></td>
<td>USB host</td>
</tr>
<tr>
<td></td>
<td>CS I/O</td>
</tr>
<tr>
<td></td>
<td>0 to 5 V serial</td>
</tr>
<tr>
<td>Data Storage Ports</td>
<td>USB host</td>
</tr>
<tr>
<td></td>
<td>microSD</td>
</tr>
<tr>
<td>Digital I/O</td>
<td>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.</td>
</tr>
<tr>
<td>Internet Protocols</td>
<td>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</td>
</tr>
<tr>
<td>Communication Protocols</td>
<td>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</td>
</tr>
<tr>
<td>Warranty</td>
<td>Optional: An additional 2 years (against defects in materials and workmanship), bringing the total to 5 years</td>
</tr>
<tr>
<td></td>
<td>3 years standard (against defects in materials and workmanship)</td>
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<tr>
<td>Battery-backed SRAM</td>
<td>4 MB</td>
</tr>
<tr>
<td>for CPU Usage &amp; Final Storage</td>
<td></td>
</tr>
<tr>
<td>Data Storage</td>
<td>4 MB SRAM + 128 MB NOR flash (Storage expansion of up to 16 GB with removable microSD flash memory card.)</td>
</tr>
<tr>
<td>Active Current Drain, Average</td>
<td>495 mA input (12 V input)</td>
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<tr>
<td></td>
<td>255 mA input (24 V input)</td>
</tr>
<tr>
<td></td>
<td>~6 W</td>
</tr>
<tr>
<td>Static Vibrating-Wire Measurements</td>
<td>Not supported</td>
</tr>
<tr>
<td>Dimensions</td>
<td>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.</td>
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<tr>
<td>Weight</td>
<td>1.2 kg (2.7 lb)</td>
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