


<b>NEW PRODUCT</b>	 A National Instruments Company	<b>Release Year</b> 2021	<b>Released Quarter</b> Q4
<b>Digilent Part Number</b> 6069-410-012 (MCC USB-231) / 6069-410-013 (MCC USB-234)		<b>Category</b> DAQ and Data Logging	

## OVERVIEW

**Product Name:** MCC USB-231 and MCC USB-234 Multifunction USB DAQ Devices

**Product Subtitle:** 16-bit multifunction DAQ devices for general purpose data acquisition applications

**Product Description:** The Measurement Computing USB-231 and USB-234 are USB-based, 16-bit, multifunction DAQ devices. They feature 8 SE/4 DIFF analog inputs, with a fixed analog input range of  $\pm 10$  V, 16-bit resolution, two 16-bit analog outputs, eight digital I/O, and one 32-bit counter. The USB-231 features a 50 kS/s sample rate. The USB-234 features a 100 kS/s sample rate. These devices are USB-powered and require no external power.

Each device provides two 16-bit analog outputs. One or both outputs can be updated at a rate up to 5 kS/s per channel. The output range is fixed at  $\pm 10$  V.

Eight TTL-level digital I/O lines are included with USB-230 Series devices. Each channel is software-selectable for input or output. Digital input voltage ranges from 0 V to 5 V are supported, with thresholds of 0.8 V (low) and 2.3 V (high). When used in output mode, each digital channel allows for 3.3 V operation with a source/sink current limit of  $\pm 4$  mA. All DIO lines are set to high-impedance inputs at system startup and reset. The device does not drive the signal high or low. Each line has a weak pull-down resistor connected to it. All digital I/O updates and samples are software-paced.

USB-230 Series devices include an external digital trigger input that is software selectable for rising edge or falling edge detection.

USB-230 Series devices support one 32-bit edge counter (rising) that accepts inputs up to 5 MHz.

Software support includes DAQami, an optional out-of-the-box application for data logging, visualization, and signal generation. Data can be viewed in real-time or post-acquisition on user-configurable displays. Drivers are included for the most popular applications and programming languages including Visual C++<sup>®</sup>, Visual C#<sup>®</sup>, Visual Basic<sup>®</sup>.NET, DASyLab<sup>®</sup>, LabVIEW<sup>™</sup>, MATLAB<sup>®</sup>, and Python<sup>™</sup>.


**Key Search Terms:** Measurement Computing, DAQ, data acquisition, USB DAQ, multifunction DAQ, TTL level, source current, sink current, digital trigger, C++, C#, Visual Basic.Net, DASyLab, LabVIEW, MATLAB, Python

**Video Link:** N/A

**Datasheet:** <https://www.mccdaq.com/GetPDF.aspx?t=/PDFs/specs/USB-230-Series-data.pdf>

**Demo / Project Links:**

- [MCC Software Overview](#)
- [MCC Software Downloads](#)
- [MCC example programs](#)
- [USB-231 Manual](#)
- [USB-234 Manual](#)

<p><b>Features</b></p> <ul style="list-style-type: none"> <li>• 8 SE/4 DIFF analog inputs</li> <li>• 16-bit resolution</li> <li>• USB-231: 50 kS/s sample rate</li> <li>• USB-234: 100 kS/s sample rate</li> <li>• <math>\pm 10</math> V input range</li> <li>• Two 16-bit analog outputs</li> <li>• Eight digital I/O</li> <li>• One counter input</li> <li>• No external power required. USB cable is included</li> </ul>	<p><b>Product Image</b></p> 
<p><b>3 Target Applications</b></p> <ul style="list-style-type: none"> <li>• NA</li> </ul>	<p><b>Image Links:</b></p> <ul style="list-style-type: none"> <li>• <a href="https://drive.google.com/file/d/1yWAn3YUQIMFn6qGLVWC-EPGOGyhs1RML/view?usp=sharing">https://drive.google.com/file/d/1yWAn3YUQIMFn6qGLVWC-EPGOGyhs1RML/view?usp=sharing</a></li> <li>• <a href="https://drive.google.com/file/d/1XSHwf2CArTR8JT91MCqLfPjfr8iMDGJ/view?usp=sharing">https://drive.google.com/file/d/1XSHwf2CArTR8JT91MCqLfPjfr8iMDGJ/view?usp=sharing</a></li> <li>• <a href="https://drive.google.com/file/d/1fV_2uwtiq6giaH4pF1cSIt-Qr6OQM6or/view?usp=sharing">https://drive.google.com/file/d/1fV_2uwtiq6giaH4pF1cSIt-Qr6OQM6or/view?usp=sharing</a></li> </ul> <p><b>Related Products</b></p> <ul style="list-style-type: none"> <li>• MCC USB-1608GX (PN: 6069-410-010)</li> <li>• MCC USB-1608GX-2AO (PN: 6069-410-011)</li> </ul>