



USB Data Acquisition (DAQ) Module Product Specification & User Guide

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Document Change History

REV	STATUS	DESCRIPTION	DATE
Prelim	Obsolete	Specification preliminary release.	2-12-2018
A	Obsolete	Official Revision A release.	9-18-2018
B	Released	Revision B release. Table 2 updated, Table 3 deleted and Figure 4 added.	12-12-2019

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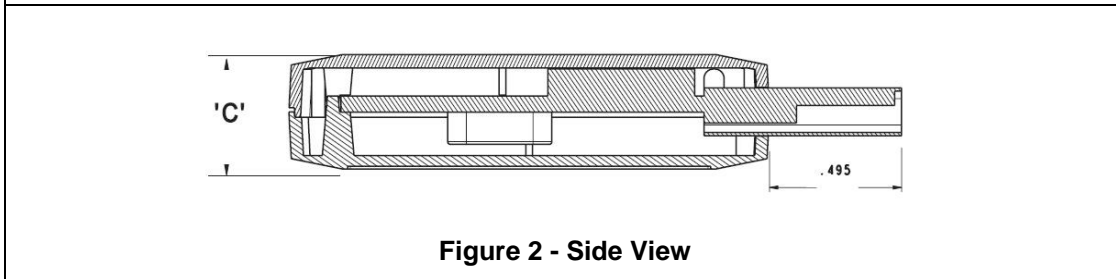
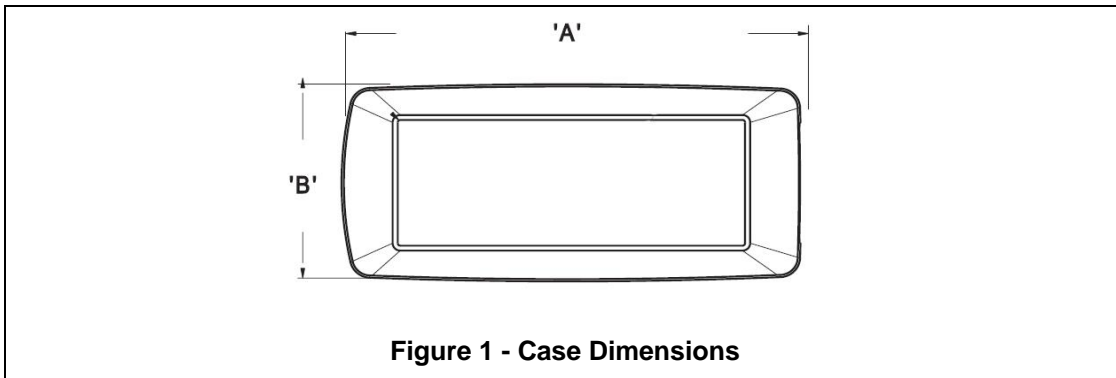
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1.0 OVERVIEW

The USB Bridge includes a USB 2.0 full-speed function controller, USB transceiver and serial data bus interface in a compact 2.3 x 0.8 x 0.48 in. package. No other external USB components are required. Table 1 shows the dimensions for Figures 1 and 2.

Table 1 - Dimensions

Dimension	'A'	'B'	'C'
Enclosure Dimensions (inches)	1.80	0.8	0.48



2.0 SETUP

2.1 Dimensions

The RS422 to USB data acquisition module operates using virtual com port drivers that are compatible with typical com port communication. These devices show up as com ports in the windows device manager. The RS422 to USB data acquisition module’s inputs and outputs include differential TX (transmit), RX (receive) data signals, voltage, and ground. The data format uses 8 data bits, 1 stop bit, and no parity.

Driver downloads can be found at:

<https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers>

3.0 HARDWARE

3.1 Connections

The USB0x ships with an eight-inch cable terminated with a circular connector manufactured by Hirose. The connector part number is HR30-6J-6P(71).

3.2 Pin Function Description

Table 2 – Hirose pin functions

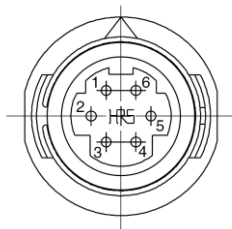


Figure 3 - HR30-6JA-6P(71)

Pin No.	Module	Signal Description
1	TX-Y	RS422 Non-inverting Driver Output
2	Vdd	Power
3	RX-A	RS422 Non-inverting Receiver Input
4	RX-B	RS422 Inverting Receiver Input
5	GND	Ground
6	TX-Z	RS422 Inverting Driver Output

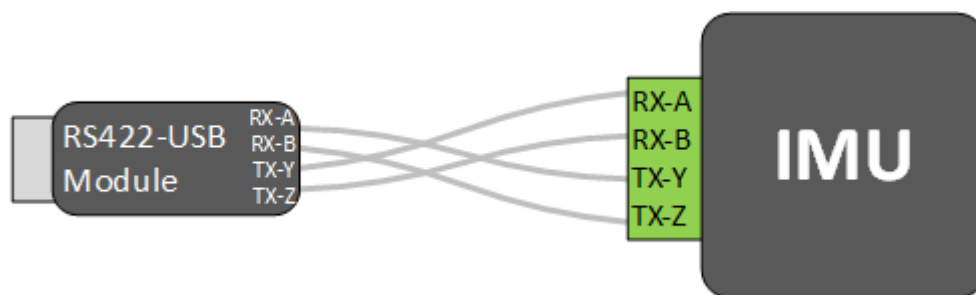


Figure 4 - Typical RS-422 Wiring Diagram

4.0 PART NUMBERING

4.1 Options and Ordering Information

The standard part numbers for the RS422 to USB Data Acquisition Module are listed in Table 4. The table further indicates the applicable IMU typically used with each type of acquisition module.

Table 4 –RS422-USB DAQ Module Options

Model Number	Part Number	Description	Max Voltage
RS422-USB Internal Male	MP00009-004	RS422-USB Data Acquisition Module, Internal Power	N/A
RS422-USB External Male	MP00009-002	RS422-USB Data Acquisition Module, External Power	8.5V



Figure 5 - RS422-USB Internal Male, PN: MP00009-004



Figure 6 - RS422-USB External Male, PN: MP00009-002