Connecting CUI Devices AMT233B-V encoder to Servosila SC-25 Brushless Motor Controller
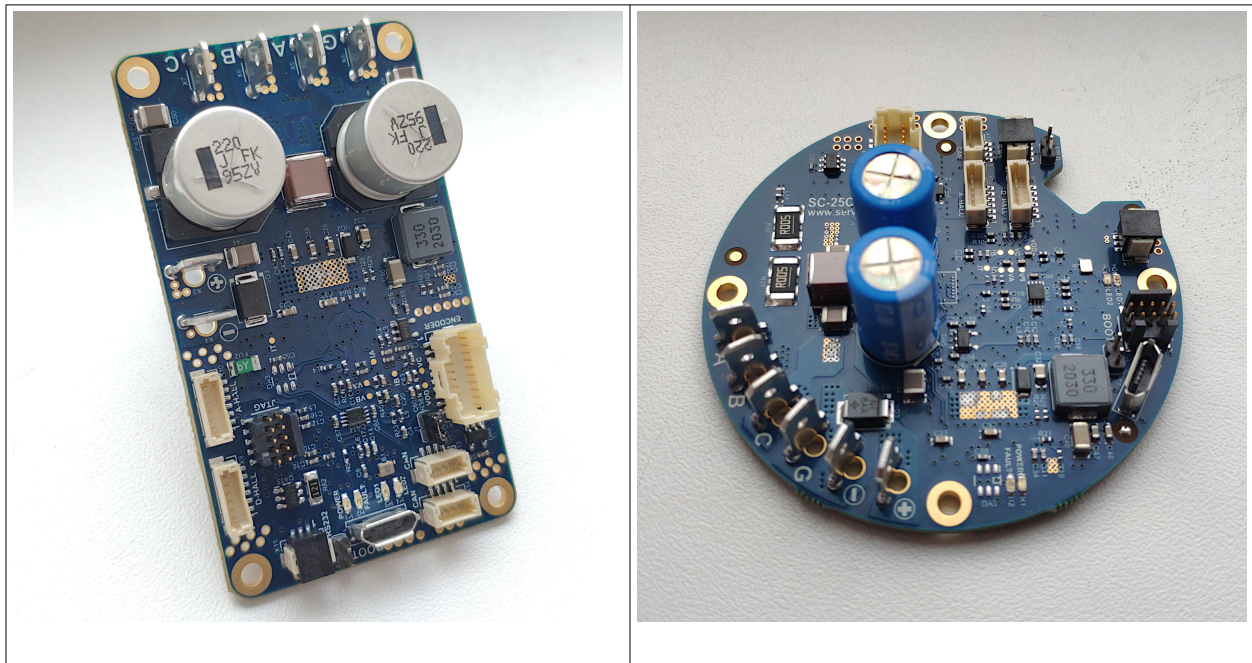
Technical Note

Revision A

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Introduction

This technical note is written in regards to CUI Devices AMT233B-V absolute encoder, a 14bit absolute encoder.

SPI vs. SSI

The encoder provides a "single-ended SSI" interface which actually more resembles SPI than SSI (no RS422 compatibility).

The encoder **should be connected to the SPI interface** of the Servosila SC-25 motor controllers rather than to the SSI/BISS-C interface.

When making a cable, refer to the datasheets of both devices to match SPI pins of the corresponding connectors.

SPI configuration settings

The following configuration settings of the SPI interface of Servosila SC-25 controllers have been found to work with the CUI Devices AMT233B-V encoders (**14 bits resolution**).

For **12bit devices**:

- Change "counts per revolution": 16384 → 4096

- Change "total number of bits in packets": 16 → 14

- Change "POSITION field: length": 14 → 12

Servo drives designed around SERVOSILA SC-25C brushless motor controllers

YouTube: http://www.youtube.com/user/servosila

www.servosila.com/en/motion-control