USB-2-SD

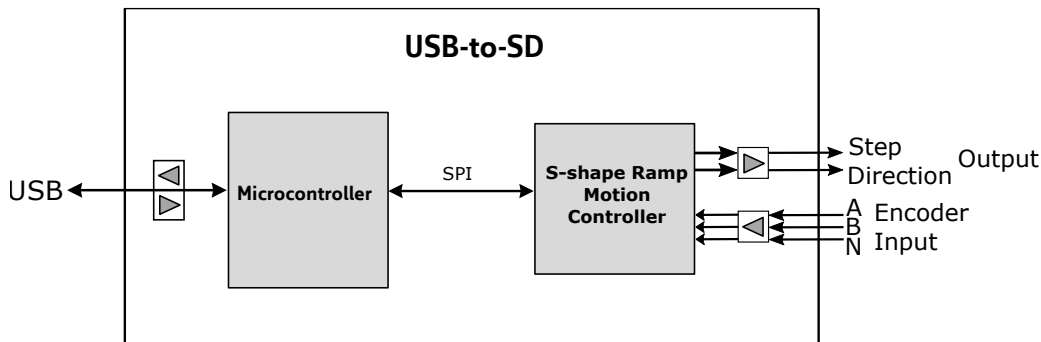Document Revision V1.00 • 2019-June-25

USB-2-SD

Description

USB-2-SD is a simple but powerful step & direction signal generator. It simply connects to your PC, laptop, or USB extension cable using a direct USB type A compatible PCB footprint. It is USB-powered. USB-2-SD can be controlled via Trinamic's TMCL protocol and commands and is fully supported by the TMCL-IDE graphical user interface.

USB-2-SD features Trinamic's TMC4330A-LA fully integrated S-shape motion ramp controller with flexible ramp style support: linear, SixPoint™, s-shape. In addition, an incremental encoder (5V signal level) can be connected to USB-2-SD to read back a motor or joint position.

Additional resources: USB-2-SD Firmware Manual

Block Diagram

Top Side Pins (upper photo)

Pin	Signal	Description
1	A	Quadrature A channel (5V)
2	B	Quadrature B channel (5V)
3	N	Index channel (5V)
4	+5V	Encoder Supply
5	GND	Ground

Bottom Side Pins (lower photo)

Pin	Signal	Description
1	GND	Ground
2	+3V3	IO Reference Voltage
3	STEP	Step signal out (3V3 TTL)
4	DIR	Direction signal out (3V3 TTL)

Order Codes

Order Code	Description	Size (LxWxH)
USB-2-SD	USB Step & Direction generator and lab tool, USB A-type PCB connector, full TMCL-IDE & TMCL support	ca. 42mm x 12mm x 5mm

TRINAMIC
MOTION CONTROL