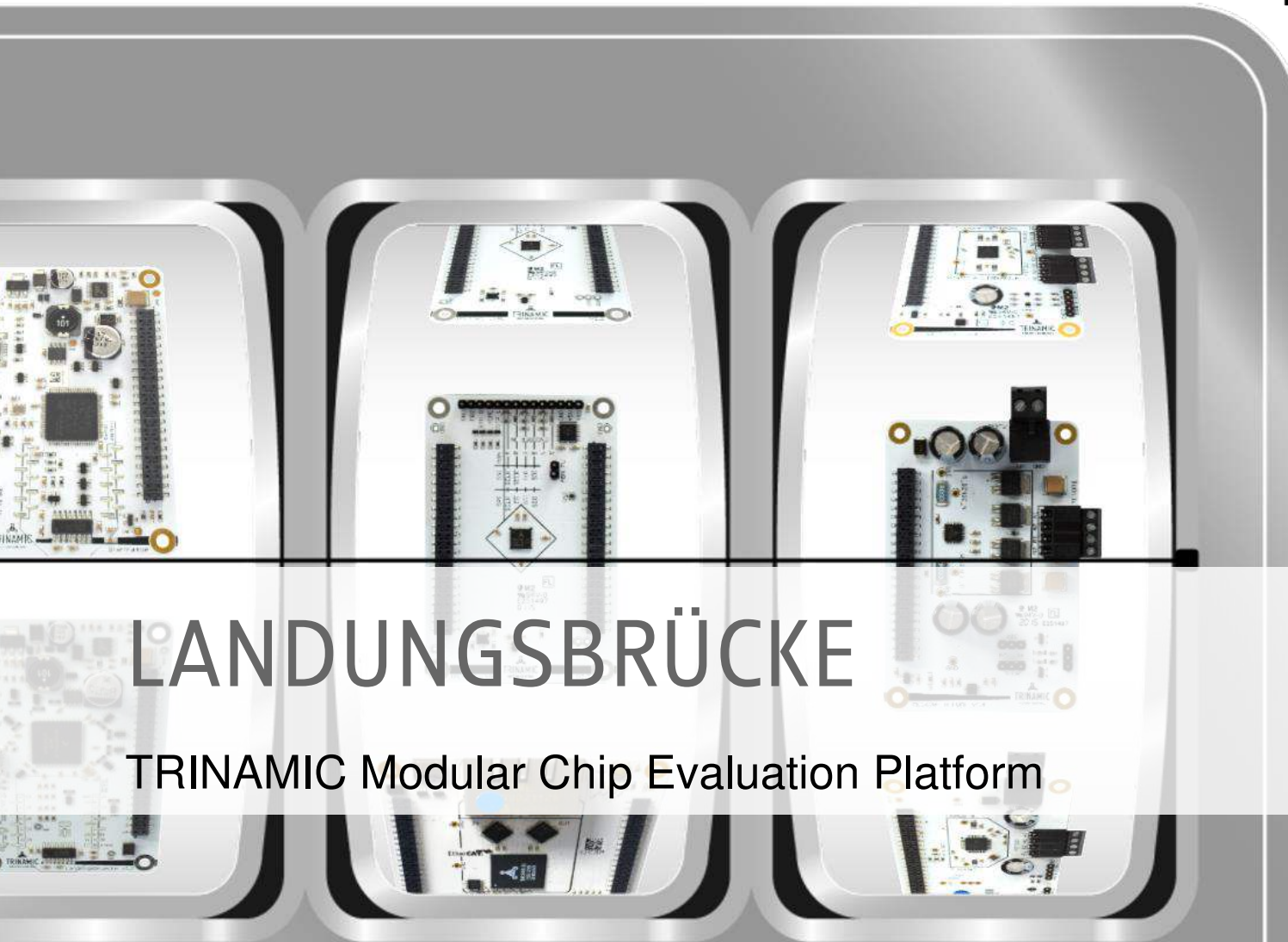




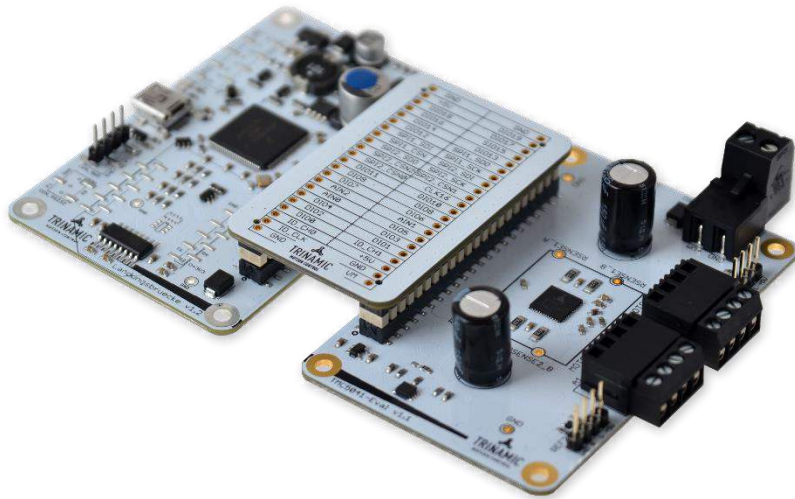
**TRINAMIC**  
MOTION CONTROL



# LANDUNGSBRÜCKE

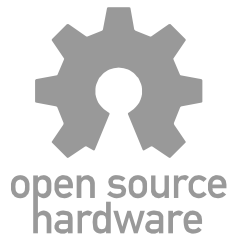
TRINAMIC Modular Chip Evaluation Platform

# LANDUNGSBRÜCKE

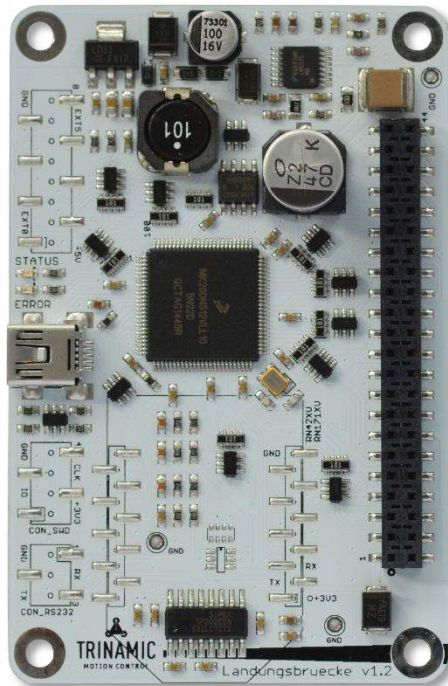


## Modular IC Evaluation

- Flexible
- Easy to Use
- Open Source Hardware
- Proven Reference Designs



# LANDUNGSBRÜCKE

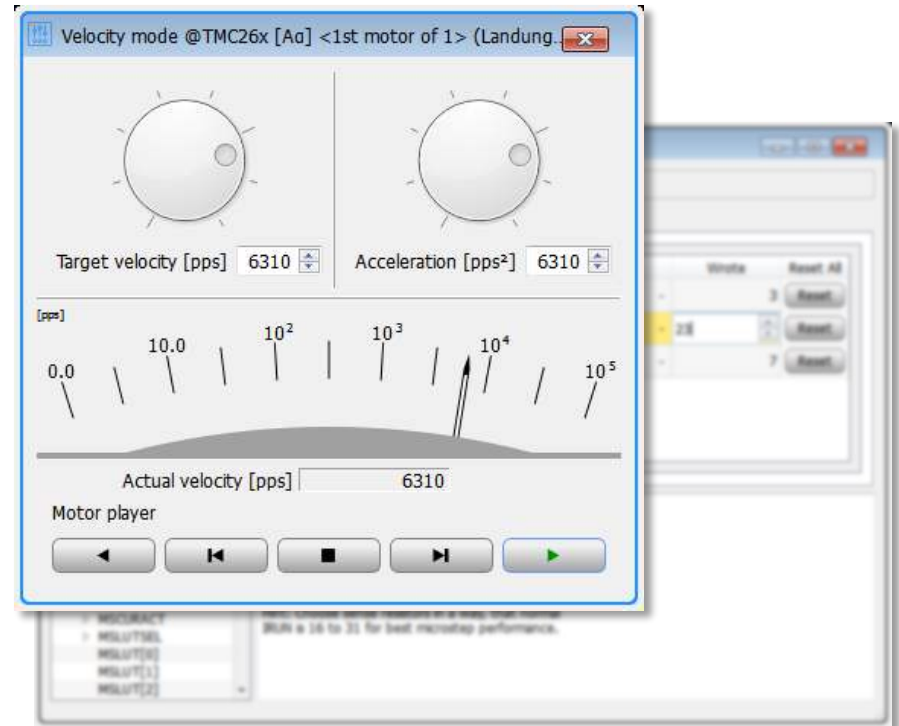
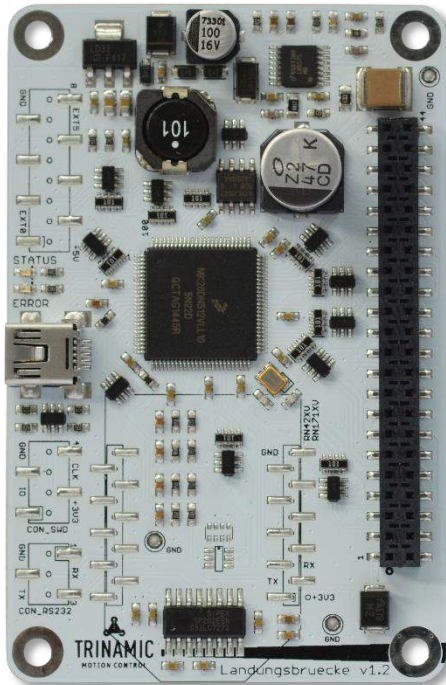


- MCU Board with Freescale Kinetis M4
- Connects to TMCL IDE easy Evaluation Tools
- open source Firmware and reference Code

# LANDUNGSBRÜCKE

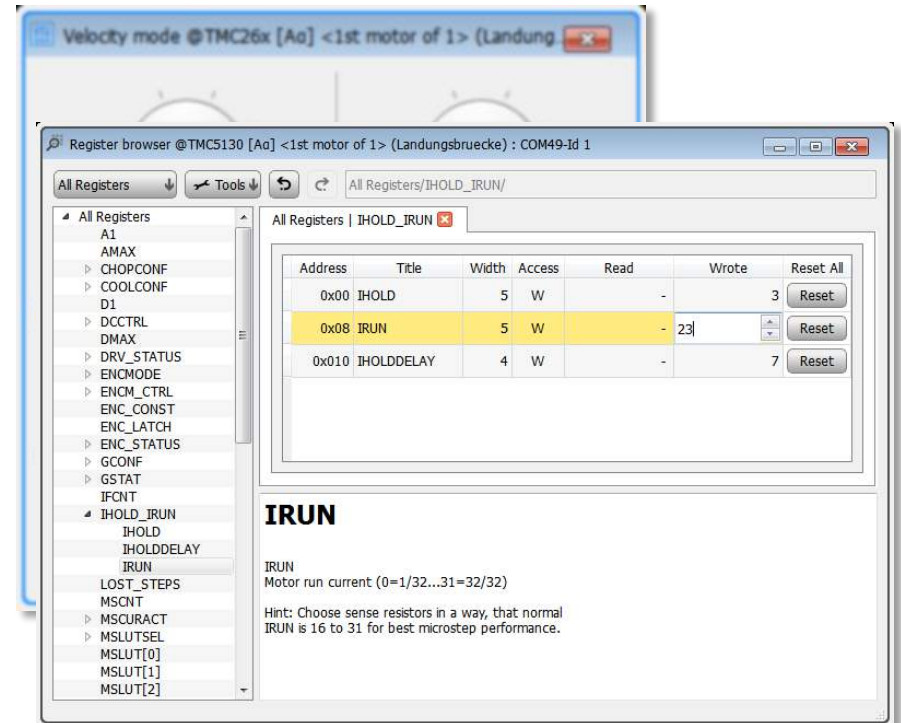
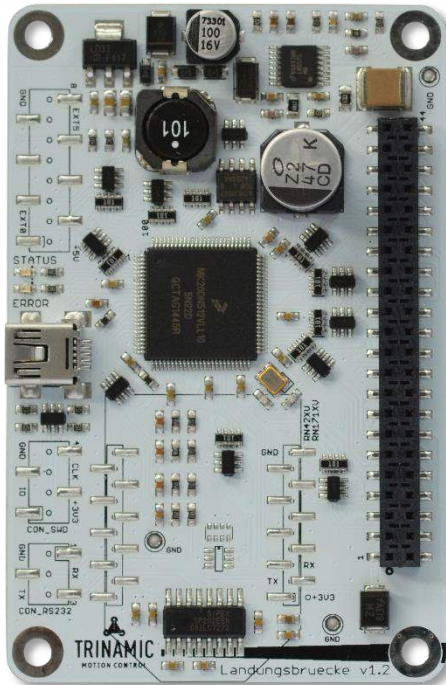


## Easy Start Tools



# LANDUNGSBRÜCKE

## Deep Dive into Registers



Register browser @TMC5130 [Aa] <1st motor of 1> (Landungsbruecke) : COM49-Id 1

All Registers | IHOLD\_IRUN/

Address	Title	Width	Access	Read	Wrote	Reset All
0x00	IHOLD	5	W	-	3	Reset
0x08	IRUN	5	W	-	23	Reset
0x010	IHOLDDELAY	4	W	-	7	Reset

**IRUN**

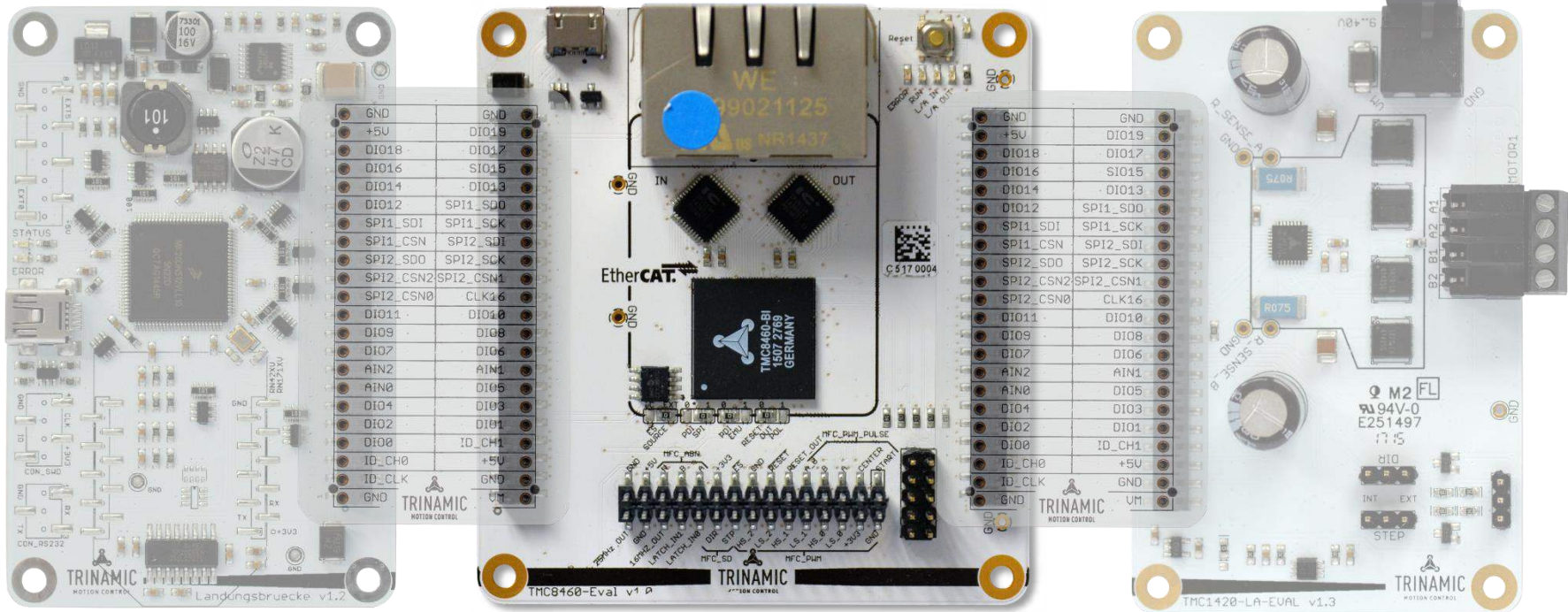
IRUN  
Motor run current (0=1/32...31=32/32)

Hint: Choose sense resistors in a way, that normal IRUN is 16 to 31 for best microstep performance.

# BUS INTERFACES



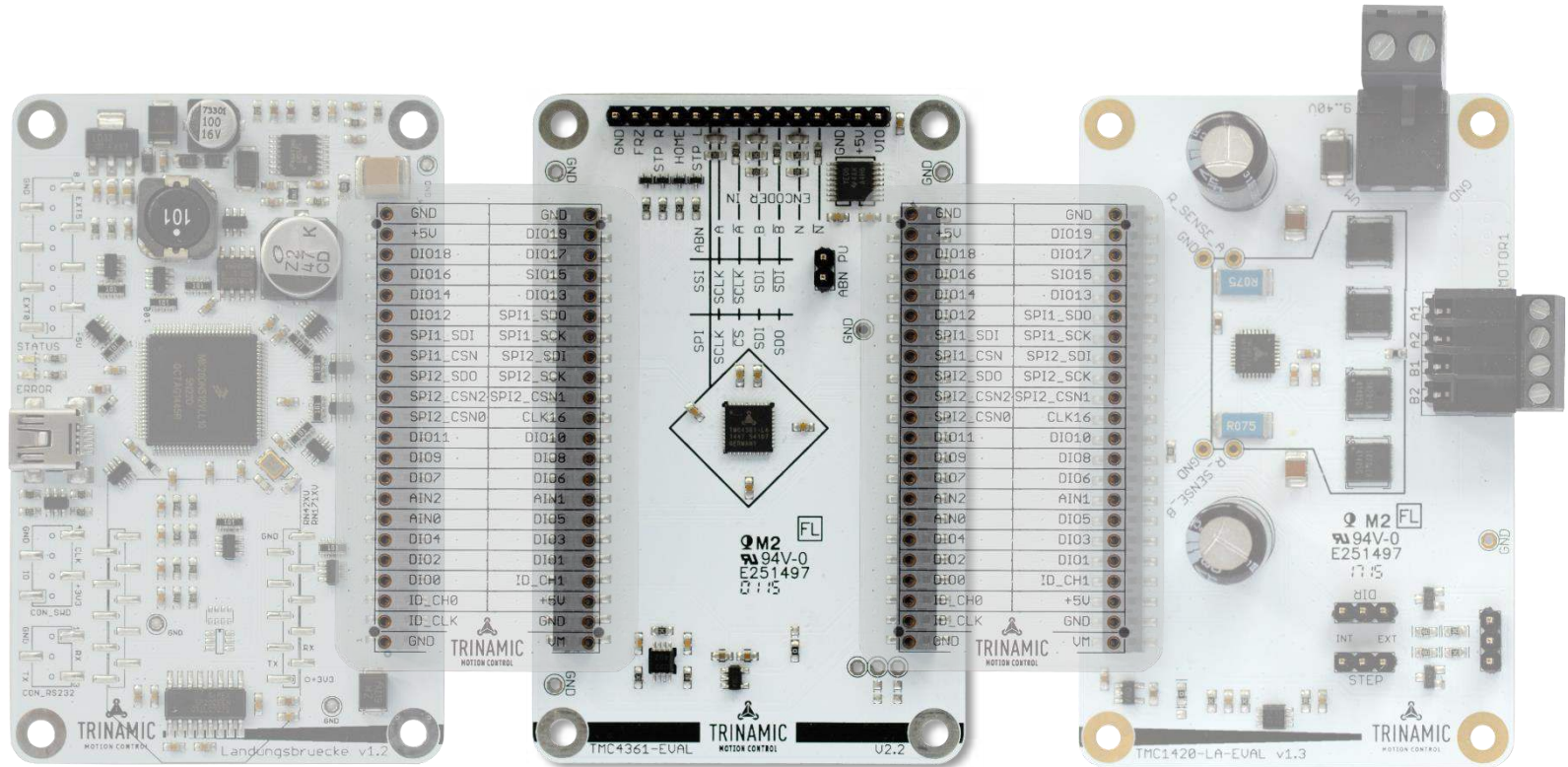
**TRINAMIC**  
MOTION CONTROL



# MOTION CONTROLLER



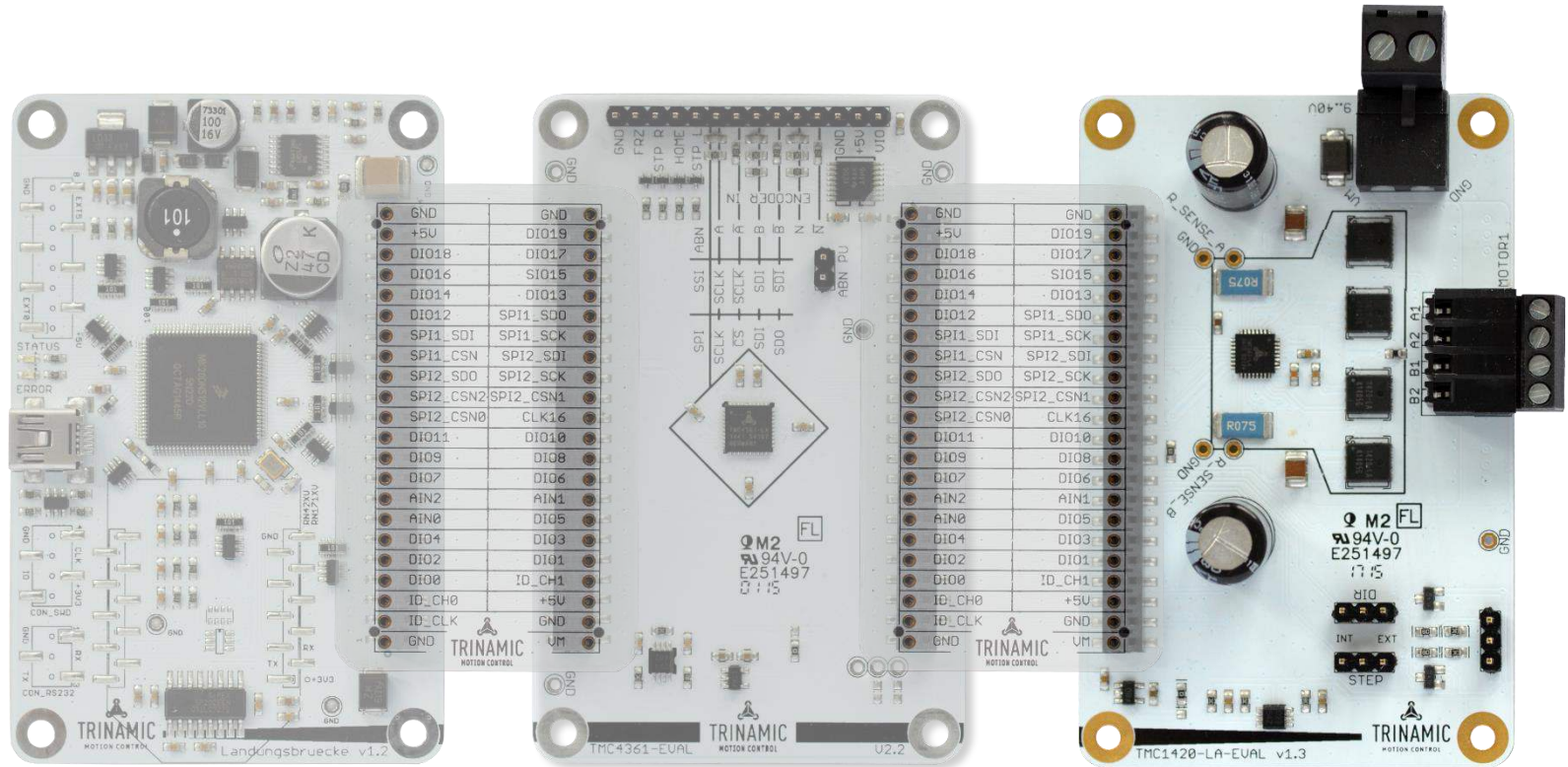
**TRINAMIC**  
MOTION CONTROL



# STEPPER MOTOR DRIVERS

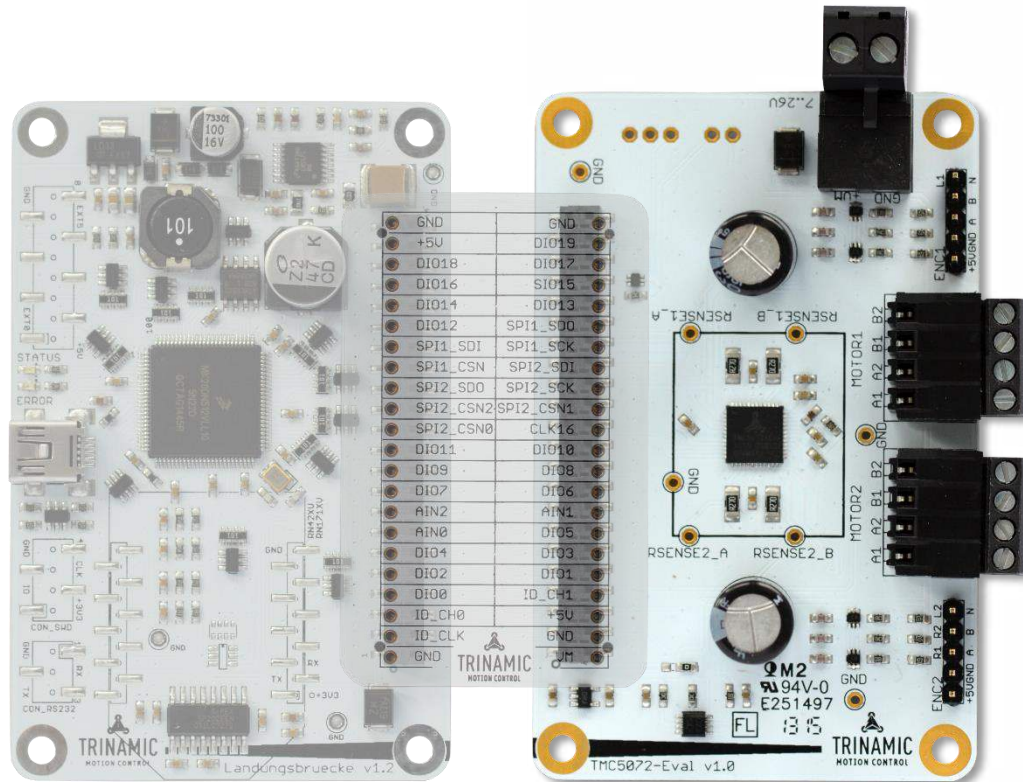


**TRINAMIC**  
MOTION CONTROL





# STEPPER MOTOR cDRIVERS





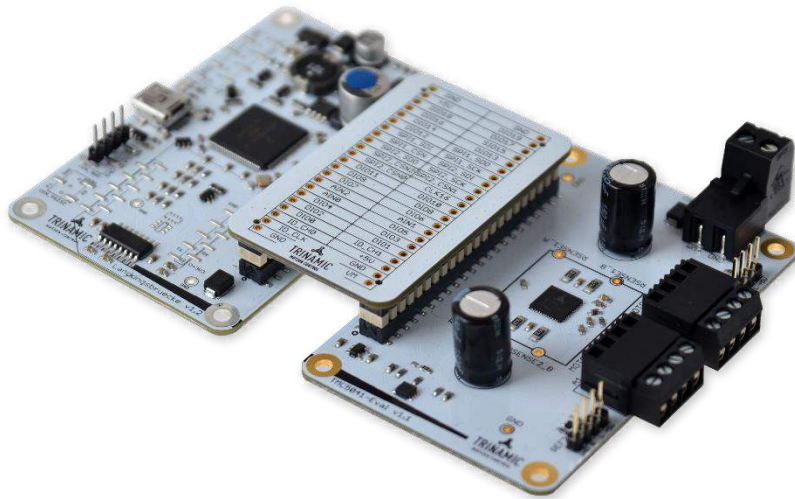
**TRINAMIC**  
MOTION CONTROL



**NOW AVAILABLE!**

Kits and Single Boards

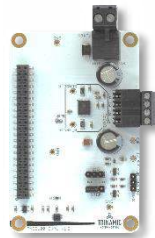
# EVAL-KITS



Kits come with everything necessary to start evaluation from the box:

- MCU Board
- Eselsbrücke Interposer Board
- Motor Driver Board
- USB Cable

# STEPPER DRIVER



**TMC2100-EVAL**



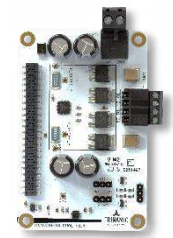
**TMC2130-EVAL**



**TMC2660-EVAL**



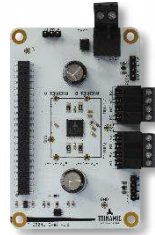
**TMC1420-EVAL**



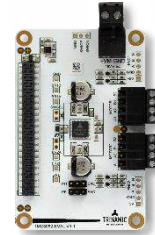
**TMC1620-EVAL**

Supply Voltage	7...46V	7...46V	9...29V	9...40V	9...60V
Current (RMS)	1.1A	1.1A	3A	4A	4.5A
SPI	-	✓	✓	✓	✓
S/D	✓	✓	✓	✓	✓
stealthChop™	✓	✓	-	-	-
spreadCycle™	✓	✓	✓	✓	✓
coolStep™	-	✓	✓	✓	✓
stallGuard2™	-	✓	✓	✓	✓
dcStep™ enabled	-	✓	-	-	-
Kit Available	✓	✓	-	✓	✓

# STEPPER cDRIVER



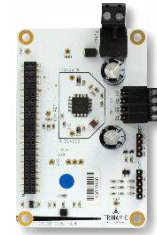
TMC5041-EVAL



TMC5062-EVAL



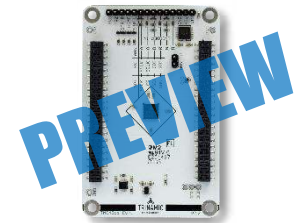
TMC5072-EVAL



TMC5130-EVAL

Supply Voltage	7...26V	7...18V	7...26V	7...46V
Current (RMS)	1.1A	1.1A	1.1A	1.4A
SPI	✓	✓	✓	✓
S/D	✓	✓	✓	✓
stealthChop™	✓	-	✓	✓
spreadCycle™	✓	✓	✓	✓
coolStep™	✓	✓	✓	✓
stallGuard2™	✓	✓	✓	✓
dcStep™ enabled	✓	✓	✓	✓
Kit Available	✓	✓	✓	✓

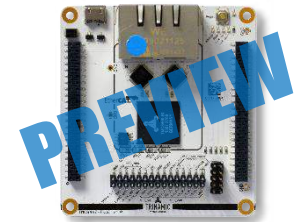
# MOTION CONTROLLER



**TMC4361-EVAL**

Number of Axes	1
SPI	✓
S/D	✓
Encoder Interface	a/b/n quadrature
Closed Loop Position Control	✓
Closed Loop Current Control	✓
sixPoint™ Ramps	✓
Advanced S-Shape Ramps	✓
Supported Drivers	TMC26x, TMC21x0, TMC24x
Kit Available	-

# BUS INTERFACES



**TMC8460**

Bus Interface	EtherCAT
SPI	✓
S/D	✓
PWM	3 Channels
Encoder Interface	a/b/n quadrature
Standalone Mode	(USB Supply)
Kit Available	✓