### imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



#### Contact us

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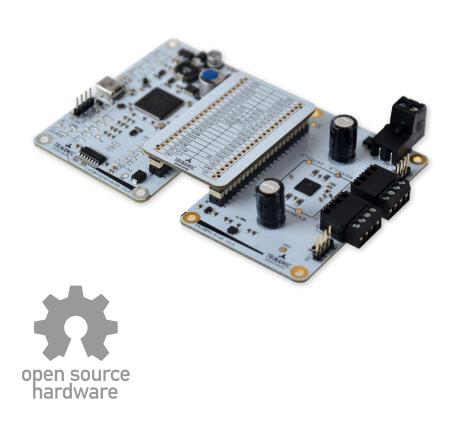
TRINAMIC Modular Chip Evaluation Platform







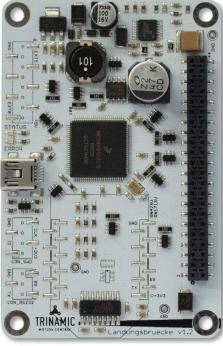




#### Modular IC Evaluation

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

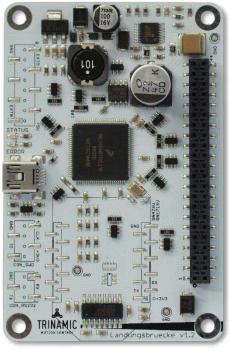






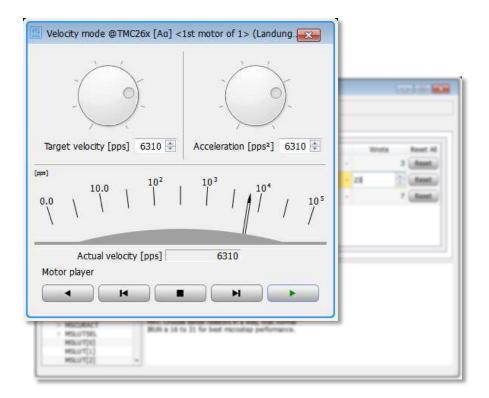
- MCU Board with Freescale Kinetis M4
- Connects to TMCL IDE easy Evaluation Tools
- open source Firmware and reference Code



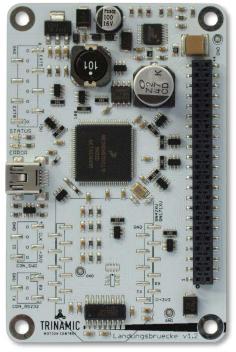




#### Easy Start Tools







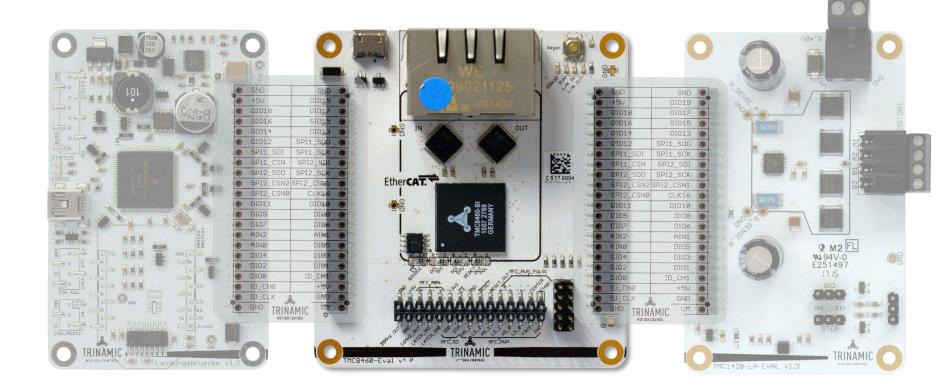


#### Deep Dive into Registers

Desister bernere OTMCS12			1		S				
Il Registers			of 1> (Landungs		: COM49-Id	1		0.0	•
All Registers A1 AMAX		Registers	IHOLD_IRUN						
CHOPCONF		Address	Title	Width	Access	Read	Wrote	F	Reset All
COOLCONF D1		0x00	IHOLD	5	w		-	3	Reset
DCCTRL DCCTRL		0x08	IRUN	5	W		- 23	-	Reset
DMAX DRV_STATUS ENCMODE ENCM CTRL	-	0x010	IHOLDDELAY	4	w		-	7	Reset
ENC_CONST ENC_LATCH									
ENC_STATUS	201								
<ul> <li>GCONF</li> <li>GSTAT</li> </ul>		L							
IFCNT									
A IHOLD IRUN	Т	RUN							
IHOLD	-	NON							
IHOLDDELAY									
IRUN	IR	JN							
LOST_STEPS	Mo	tor run curr	ent (0=1/323	1=32/32)					
MSCNT					2000000000				
MSCURACT		Hint: Choose sense resistors in a way, that normal							
MSLUTSEL	IR	IRUN is 16 to 31 for best microstep performance.							
MSLUT[0]									
MSLUT[1]									

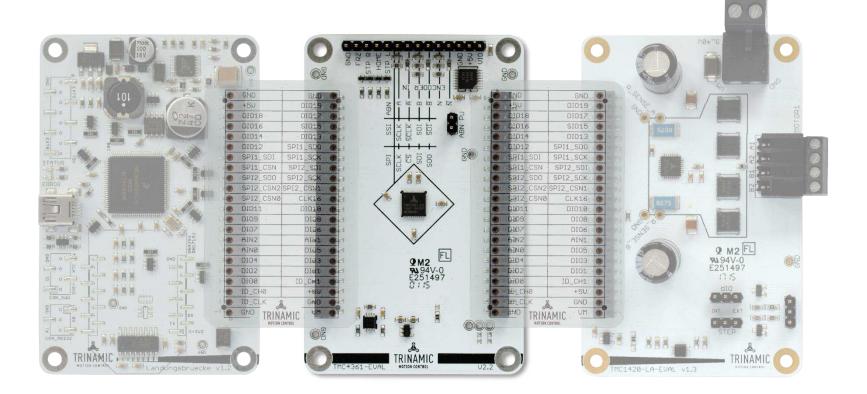
#### **BUS INTERFACES**





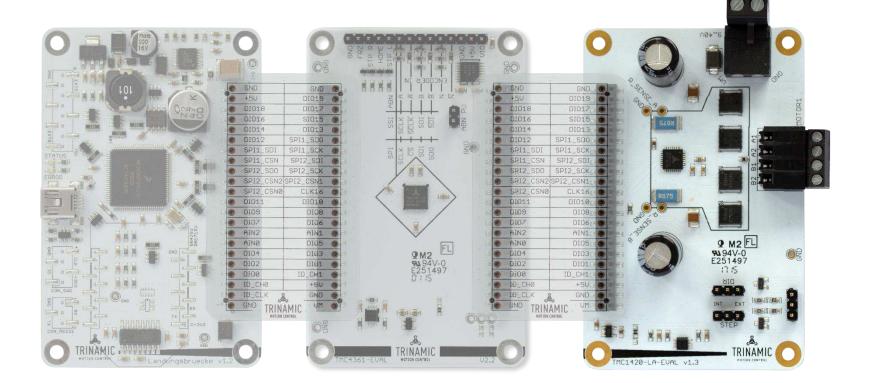


#### MOTION CONTROLLER



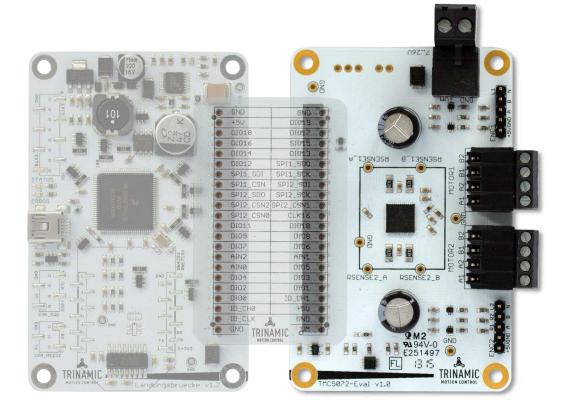
#### STEPPER MOTOR DRIVERS





#### STEPPER MOTOR cDRIVERS

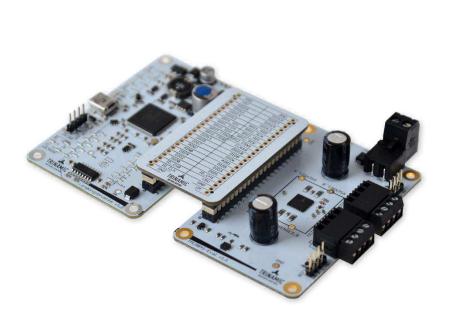






#### EVAL-KITS





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

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



#### **STEPPER DRIVER**



TMC2100-FVAL







TMC1620-FVAL

	TMC2100-EVAL	TMC2130-EVAL	TMC2660-EVAL	TMC1420-EVAL	TMC1620-EVAL
Supply Voltage	746V	746V	929V	940V	960V
Current (RMS)	1.1A	1.1A	3A	4A	4.5A
SPI	-	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
S/D	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
stealthChop™	✓	$\checkmark$	-	-	-
spreadCycle™	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
coolStep™	-	✓	✓	✓	$\checkmark$
stallGuard2™	-	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
dcStep™ enabled	-	✓	-	-	-
Kit Available	$\checkmark$	$\checkmark$	-	$\checkmark$	$\checkmark$



#### STEPPER cDRIVER







TMC5130-EVAL

	TMC5041-EVAL	TMC5062-EVAL	TMC5072-EVAL	TMC5130-EVAL
Supply Voltage	726V	718V	726V	746V
Current (RMS)	1.1A	1.1A	1.1A	1.4A
SPI	$\checkmark$	✓	✓	$\checkmark$
S/D	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
stealthChop™	$\checkmark$	-	✓	$\checkmark$
spreadCycle™	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
coolStep™	$\checkmark$	✓	✓	$\checkmark$
stallGuard2™	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
dcStep™ enabled	✓	✓	✓	✓
Kit Available	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

### MOTION CONTROLLER





#### TMC4361-EVAL

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

#### **BUS INTERFACES**





#### TMC8460

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