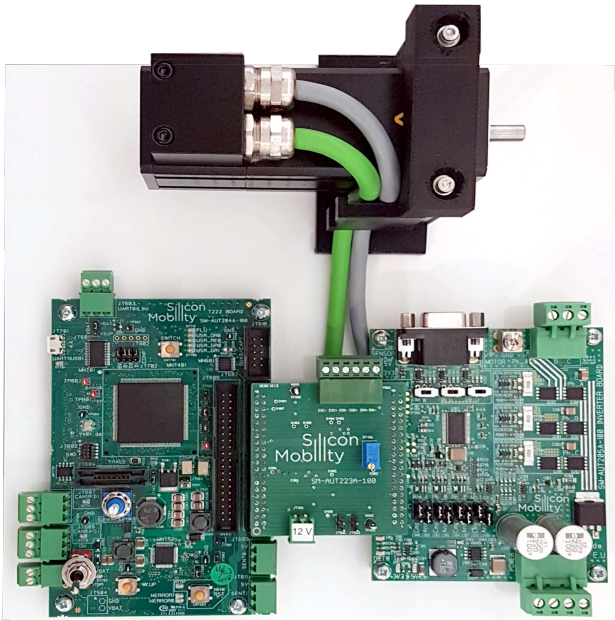


OLEA[®] COMPOSER - T222 Inverter Starter Kit



All-in-one hardware platform for a rapid start up of 3-phases PMSM motor control application using the best of OLEA[®] technologies.

The starter kit includes:

- OLEA[®] COMPOSER - T222 Board
- OLEA[®] COMPOSER - Inverter Board
- 3-phases PMSM Motor
- Chip and Board Support Package Software
- Cables and Power Supply

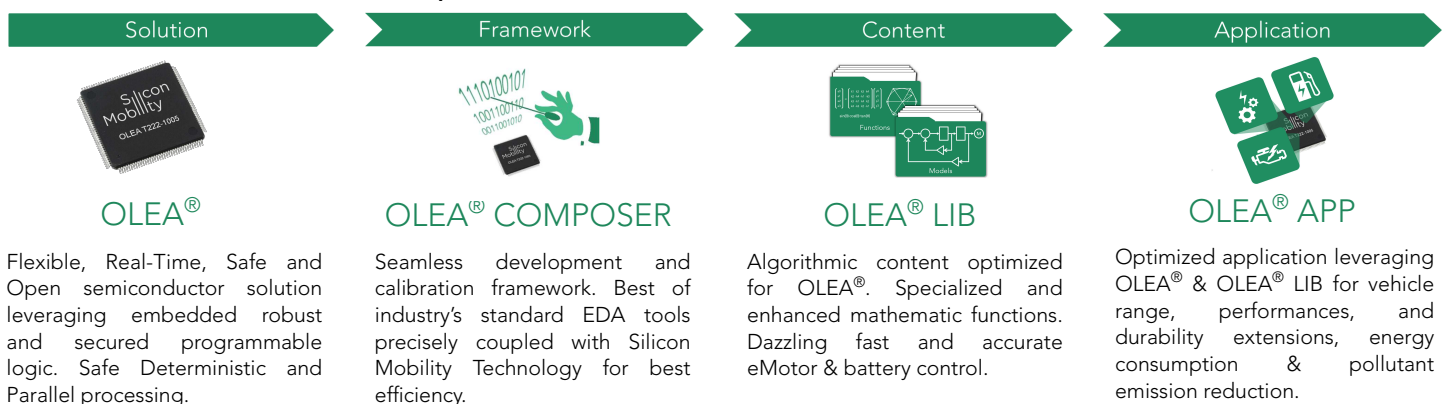
All the hardware in one package

OLEA[®] COMPOSER - T222 Inverter Starter Kit is a jump start to evaluate OLEA[®] technologies and start application development for electric motor control. With the combination of the OLEA[®] T222 FPCU evaluation board, a power inverter board and a 3-phases PMSM motor with embedded resolver sensor, users have all the necessary hardware platform for rapid software development.

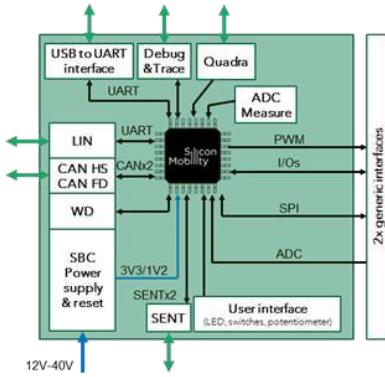
OLEA[®] COMPOSER - T222 Inverter Starter Kit is part of the OLEA[®] COMPOSER development framework which orchestrates a wide set of leading development tools all along the V-Model development lifecycle and accelerate development on OLEA[®]. From Model-in-the-Loop (MiL), Software-in-the-Loop (SiL) down to Hardware-in-the-Loop (HiL), developers drastically reduce development, validation and calibration time. The performance are drastically improved by playing with the Hardware/Software split provided in the framework.

The Starter Kit is best used with OLEA[®] LIB: a library of software optimized for OLEA[®] including all the necessary mathematical and algorithm building blocks for inverter control based on Field Oriented Control.

Enable the full stack product evaluation



OLEA® COMPOSER - T222 Board Features



Application interfaces

- 1 x OLEA® T222 FPCU
- 2 x 40-way Generic Inverter Interfaces
- 1 x CAN high speed interface up to 1 Mbit/s
- 1 x CAN Flexible data rate I/F up to 5 Mbit/s
- 1 x LIN interface
- 2 x SENT interfaces
- 1 x Quadra interface
- 1 x SWD debug interface
- 1 x Trace interface
- 1 x Power SBC

Supply

- 1 x Power system basis chip for power supply generation,
- Single 12-40 Volt DC power supply input with on board on/off switch

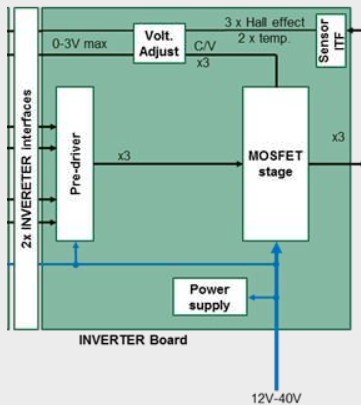
User interfaces

- 2 x Potentiometers for the OLEA T222 internal comparator voltage reference settings,
- 1 x General purpose potentiometer
- 1 x USB interface
- 1 x General purpose switch
- 4 x General purpose I/Os with jumper configuration
- 5 x General purpose LEDs
- 1 x Reset switch
- 1 x Wake-up switch
- 1 x Power supply LED indicator
- 1 x Hardware reset LED indicator

Format

- 80 mm x 125 mm

OLEA® COMPOSER - Inverter Board Features



Application interfaces

- Inverter interface with the T222 Board:
 - Pre-driver interface
 - Position interface
 - Hall-effect based sensor current I/F
 - Hall-effect based sensor digital I/F
 - Quadrature digital I/F
- Diagnostic interfaces
 - Phase currents
 - MOSFET currents
 - 2 x Temperatures analog I/F
- 1 x 40 ways ribbon connector cable
- 1 x 3-way connector for motor windings I/F

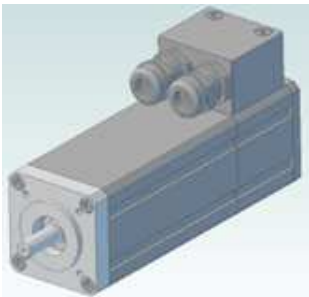
Supply

- 24-40 Volt 1 x 4-way connector for Inverter board power supply

Format

- 85 mm x 108 mm

3-phases PMSM Motor Features



24V Motor with embedded resolver winding sensor

Voltage constant : 1,9 V / 1000/min
 Resistance 2 ph. : 0,22 Ω
 Inductance 2 ph. : 0,09 mH
 El. time constant : 0,41 ms
 Mech. time constant : 1,7 ms
 Thermal time constant : 22 min.
 Inertia : 0,04 kgcm²
 Motor poles : 6
 Mass without brake : 0,53 kg
 Mass with brake : 0,66 kg
 Brake torque : 0,4 Nm

Stall torque : 0,3 Nm
 Stall current : 9,5 A
 Nominal torque : 0,27 Nm
 Nominal speed : 6000/min
 Nominal power : 169 W
 Nominal current : 8,9 A
 Maximum torque : 1,2 Nm
 Maximum current : 41 A
 Max. speed mech. : 12000/min
 Torque constant : 0,03 Nm/A