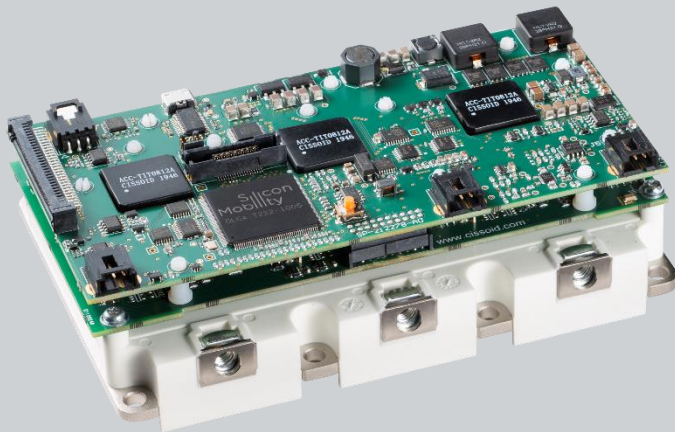


Silicon Carbide Inverter Control Module



Designed around Silicon Mobility's OLEA® T222 Field Programmable Control Unit (FPCU), the Inverter Control Module (ICM) forms the heart of CISSOID's modular inverter platform.

The module is built based on the CXT-PLA3S series of Intelligent Power Modules and HADES2 gate driver chipset, adding the new control board to the stack.

Supporting the OLEA® APP - T222 INVERTER software, the module enables fast development of electric motor drive trains.

KEY FEATURES

- Ultra-fast OLEA® T222 FPCU control board
- 3-phase 1200V SiC power module
- Integrated gate driver board
- Up to 550A current range
- Supports OLEA® INVERTER software

ORDERING INFORMATION

Reference	Description
CXT-ICM3SA12340AAA	1200V / 340A control module, pin fin
CXT-ICM3SA12450AAA	1200V / 450A control module, pin fin
CXT-ICM3SA12550AAA	1200V / 550A control module, pin fin
CXT-ICM3SB12340AAA	1200V / 340A control module, flat baseplate

INTELLIGENT POWER MODULE

- MAX DRAIN-TO-SOURCE VOLTAGE: 1200V
- MAX DC CURRENT: 340A-550A @ T_c=25°C
- LOW ON-RESISTANCE: DOWN TO 2.53MOHM
- LOW SWITCHING ENERGIES
- MAX OPERATING JUNCTION TEMPERATURE: 175°C (T_J)
- HIGH TEMPERATURE GATE DRIVER BOARD (125°C) WITH PROTECTIONS (DESAT DETECTION, SSD, AMC)
- LIGHTWEIGHT ALSIC PIN-FIN OR FLAT BASEPLATE

INVERTER CONTROL BOARD

- ARM® CORTEX-R5F IN LOCKSTEP
- ADVANCED MOTOR EVENT CONTROL (AMEC®): REAL-TIME ACTUATORS/SENSORS CONTROL AND PROCESSING
- CAN & LIN COMMUNICATION PORTS
- PROGRAMMING AND CONFIGURATION CONNECTOR (LAUTERBACH TRACE INTERFACE)

INVERTER SOFTWARE

- HIGH CONTROL LOOP AND SWITCHING FREQUENCIES (>25 kHz TO 100 kHz) WITH OPTIMIZED DEAD TIME COMPENSATION
- ADVANCED MODULATIONS (SVPWM, DPWM)
- IMPROVE TOTAL HARMONICS DISTORTION (THD)
- REDUCE HVDC LINK VOLTAGE RIPPLE

FUNCTIONAL SAFETY

- OLEA® T222 PROCESSOR & SOFTWARE: ISO26262 ASIL-D AND AUTOSAR 4.3 CERTIFIED
- INTELLIGENT CONTROL MODULE: COMPATIBLE WITH ISO26262 VEHICLE SAFETY CERTIFICATION (NOT YET STANDALONE COMPLIANT)

