Stellaris® LM4F211 controlCARD

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The Stellaris LM4F211 controlCARD is a DIMM form-factor evaluation board that can be used standalone or with a range of baseboards to accelerate evaluation and development.

Texas Instruments offers a range of controlCARD baseboards for motor and power-control applications. In most cases, these are available as complete kits that include a controlCARD and a baseboard. The Stellaris MDL-LM4F211CNCD is part of a controlCARD lineup that includes cards for C2000™, Hercules™ and MSP430™ devices. Check the Baseboard Compatibility Matrix to see which configurations are supported.

The Stellaris LM4F211H5QR microcontroller is an ARM® Cortex™-M4F device with 256 KB Flash and operation at up to 80 MHz.
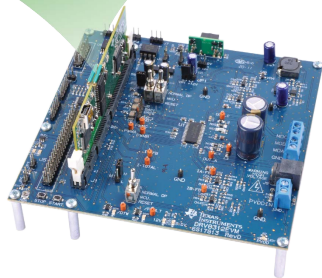
▲ *The MDL-LM4F211CNCD board plugs into the Stellaris DK-LM4F-DRV8312 3-Phase Brushless DC Motor Control Kit*

MDL-LM4F211CNCD kit contents

- MDL-LM4F211CNCD controlCARD module
  - On-board Stellaris In-Circuit Debug Interface
- Cables/Accessories
  - USB-mini-B to USB-A plug cable (for debug and serial communication)
  - ½-inch jumper wires (for bridging power)
- Development Kit CD containing:
  - For the controlCARD module in standalone use:
    - Complete documentation
    - StellarisWare® Peripheral Driver Library and example source code
  - For the controlCARD module when used with a supported baseboard:
    - Source code and binaries
    - Documentation specific to each supported baseboard
    - GUI Windows application
- Tools CD(s)
  - Code Composer Studio™ Integrated Development Environment (IDE)
  - Other tool chains

Features

- LM4F211H5QR Stellaris microcontroller
  - 32-bit ARM Cortex-M4 floating-point core
  - 80-MHz maximum speed
  - 256 KB Flash, 32 KB RAM
- DIMM form factor
- GPIO signals available on DIMM edge connector
- User LED
- Debug
  - Stellaris In-Circuit Debug Interface (ICDI)
  - Isolated to 300-V working-voltage using TI's digital isolators

NOTE: The MDL-LM4F211CNCD board might be populated with an LM4F231H5QR microcontroller. This device contains a super-set of the features of the LM4F211H5QR microcontroller. There is no difference in functionality. For more information, please visit:
www.ti.com/tool/mdl-lm4f211cncd

Baseboard Compatibility Matrix

Baseboard	Description	Electrical compatibility?	Solution software projects?	Portable module and driver software?	Complete kit available?
DRV8312	50V, 3.5A three-phase inverter	Yes	Yes	Yes	DK-LM4F-DRV8312
DRV8301	60V, 60A three-phase inverter	Yes	No	Yes	No
TMDSHVMTRPFCKIT	350V, 10A three-phase inverter	Yes	No	Yes	No

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