MCU Development Tools for a Smarter Grid
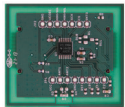
TEXAS INSTRUMENTS

TI offers optimized microcontrollers for smart grid applications, such as utility meters, home and building automation, power line communication and grid infrastructure. TI's MCU development tools and support ensure that the challenge of efficient energy management and distribution, as well as the need for intelligent controllers, will be met to enable robust solutions. Learn more at: **www.ti.com/smartgrid**
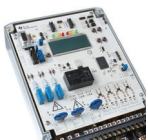
Metrology: Single-phase	Description	Support	Get Started!
Class 0.5, Low End Single-Phase E-Meter System On Chip Evaluation Module (EVM430-FE4272)	*Metrology SoC* Low-end single-phase, class 0.5 electricity meter (32kB Flash, 2 Sigma-Delta sensors inputs + Segment LCD) evaluation board. Comes with application notes, energy library and schematics (Features TI metrology SoC), features ultra-low-power MSP430FE4272 metrology System On Chip.	Read white paper at www.ti.com/wp-FE42x2	www.ti.com/tool/evm430-fe4272
Class 0.5, Low End Single-Phase E-Meter System On Chip (+ Anti-Tamper) Evaluation Module (EVM430-FE427A)	*Metrology SoC* Low-end single-phase, class 0.5 electricity-meter plus anti-tamper (32kB Flash, 3 Sigma-Delta sensor inputs + Segment LCD), evaluation board with application notes, energy library and schematics, features MSP430FE427A ultra-low-power metrology System On Chip.	Read white paper at www.ti.com/wp-FE42x2	www.ti.com/tool/evm430-fe427a
Class 0.1, Single-Phase Smart E-Meter System On Chip (+Anti-Tamper + Communication) Evaluation Module (EVM430-MSP430F6736)	*Metrology SoC* Optimized Smart Meter SoC, class 0.1 electricity meter (128kB Flash, 8kB RAM, 3 Sigma-Delta 24-bits sensor inputs, anti-tamper, 320 Segment LCD + communications ports). Support for CT/Shunt. **AMI capability**: RF interface: ZigBee®, wM-Bus/ <1GHz, Wi-Fi®/PLC via UART **Software features:** 1-phase 0.1% energy library, THD and fundamental, anti-tampering, temperature compensation, DLMS	Watch video at www.ti.com/f6736video	www.ti.com/tool/EVM430-F6736
Metrology: Poly-phase	Description	Support	Get Started!
Class 0.1, Three-Phase E-meter (Anti-Tamper) Evaluation Module (EVM430-F47197)	*Metrology SoC* Three-phase electricity-meter, class 0.1 (with anti-tamper) (120kB Flash, 4kB RAM, 7 Sigma-Delta 24-bits sensor inputs, 120 Segments LCD controller) evaluation board with application notes, software and schematics; features MSP430F47197 ultra-low-power metrology SoC.	Watch video at www.ti.com/vid-F471xx	www.ti.com/tool/evm430-f47197 Buy on TI e-store at www.ti.com/e-F47197
Class 0.1, Three-Phase E-meter (+Anti-Tamper) Evaluation Module (EVM430-F6779)	*Metrology SoC* Three-phase electricity-meter, class 0.1 (with Anti-Tamper) (512kB Flash, 32kB RAM, 7 Sigma-Delta 24-bits sensor inputs, 360 Segments LCD controller) evaluation board with application notes, software and schematics; features MSP430F6779 ultra-low-power metrology SoC. **AMI capability:** RF interface: ZigBee, wM-Bus/ <1GHz, Wi-Fi/PLC via UART **Software features**: 3-phase 0.1% energy library, anti-tampering, THD and fundamental, temperature compensation, DLMS	Read white paper at www.ti.com/wp-F677x Watch video at www.ti.com/F6779	www.ti.com/product/MSP430F6779

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Power Line Communication	Description	Support	Get Started!
TMDSPLCKIT-V3 C2000 Power Line Modem Developer's Kit	The PLC Developer's Kit enables easy development of software-based Power Line Communication (PLC) modems. The kit includes two PLC modems based on the C2000™ F28069 controlCARD and TI's advanced PLC analog front end AFE031. The included PLC SUITE software supports several communication techniques, including OFDM (PRIME/G3 and P1901.2) and is SFSK-capable. The kit includes onboard USB JTAG emulation and Code Composer Studio™ Integrated Development Environment.	www.ti.com/plc	www.ti.com/tool/tmdsplckit-v3

Wireless Connectivity	Description	Support	Get Started!
RFID/NFC Transceiver Evaluation Module Kit (TRF7960AEVM/ TRF7970AEVM)	*Prepayment* Self-contained development platform which can be used to independently evaluate/test the performance of the TRF7960A or TRF7970A RFID/near field communication transceiver IC, custom firmware, customer-designed antennas and/or potential transponders for a customer-defined RFID/NFC application.	www.ti.com/lit/slos743	www.ti.com/tool/trf7970aevm
RF430CL330HTB Target Board for Development with the NFC Dynamic Transponder Interface	*NFC Interface* The RF430CL330HTB target board enables the evaluation of the Dynamic NFC Transponder with SPI/I²C Interface for short-range wireless communication with the NFC-enabled smart phones. The target board features an on-board PCB antenna and can be used with many different TI microcontroller platforms.	www.ti.com/lit/slas916	www.ti.com/tool/rf430cl330htb
MSP-EXP430G2-CC3000BOOST - SimpleLink™ Wi-Fi CC3000 BoosterPack and MSP430 LaunchPad Bundle	*Internet of Things* The SimpleLink Wi-Fi CC3000 BoosterPack (CC3000BOOST) is an add-on board designed to bring Wi-Fi to the MCU LaunchPad, based on TI's SimpleLink Wi-Fi CC3000 module. The CC3000 module enables simplified Wi-Fi connectivity for Internet-of-Things MCU-based applications and comes with a full suite of support tools. Additionally through its unique SmartConfig™ technology, the CC3000 delivers an easy one-click network set up for end users. It is also compatible with the MSP430 LaunchPad Value Line Development Kit as well as the Tiva™ C Series TM4C123G LaunchPad.	www.ti.com/cc3000wiki	https://estore.ti.com/msp-exp430g2-cc3000boost.aspx

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