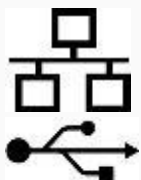
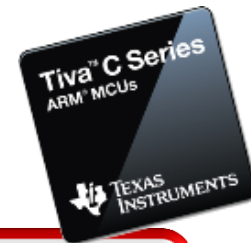


TI introduces gateway to the cloud: Tiva™ C Series TM4C129x MCUs

October 29, 2013



Create sophisticated, highly connected products with TI's Tiva™ TM4C129x MCUs



Connect to the cloud, developing a new class of products using first ARM® Cortex™-M4 MCU with integrated Ethernet MAC+PHY, and **communicate** to endpoints with numerous, simultaneous on-chip connectivity options.

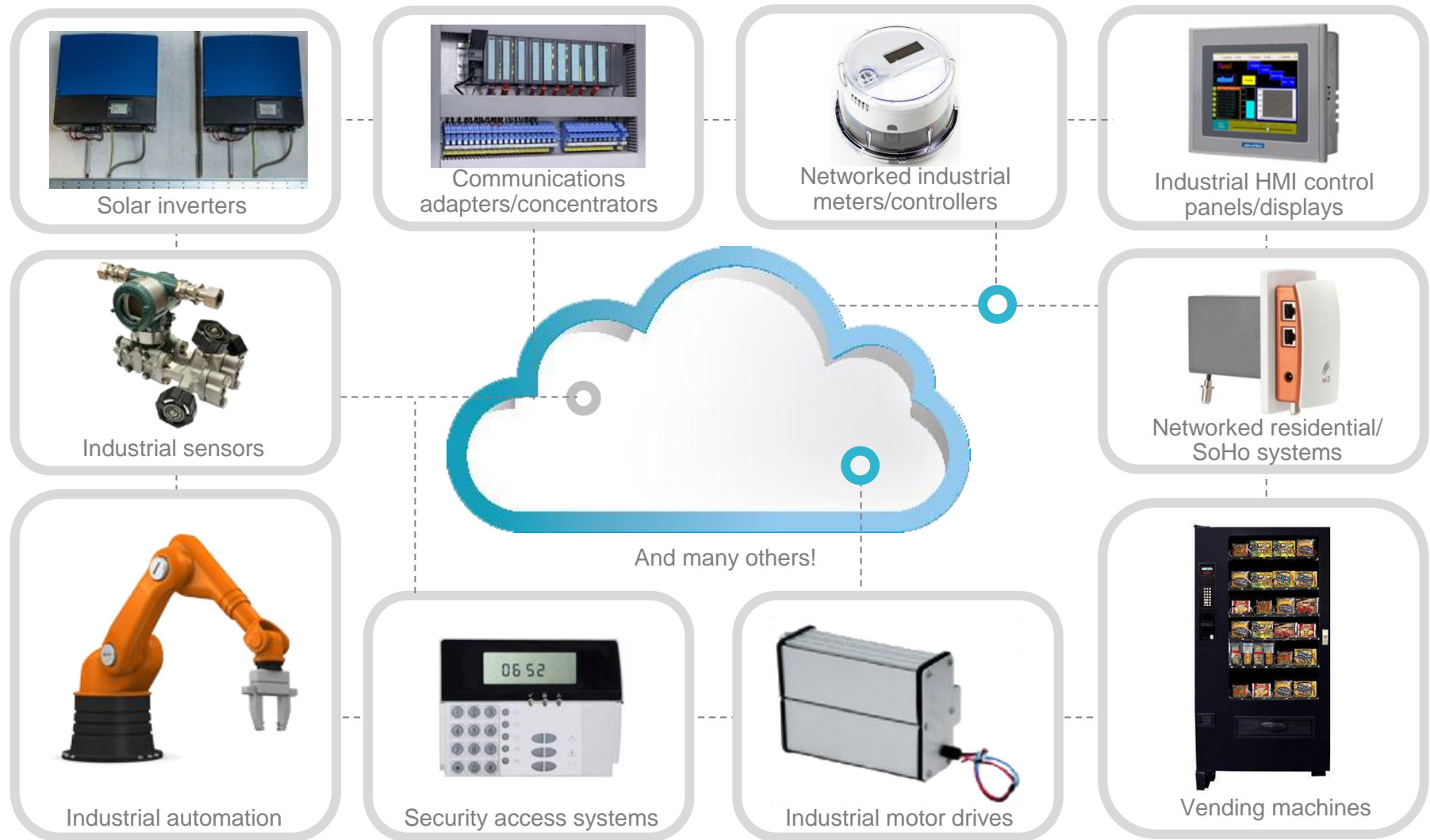


Control multiple events with high-performance, on-chip analog, while enhancing product features with data protection, robust memory and LCD in industrial and HMI applications.



Evaluate using Tiva DK-TM4C129x Connected Development Kit with Ethernet MAC+PHY and two BoosterPack ports with fully integrated software (TivaWare™ software, 50+ application examples) and TI's strong development ecosystem.

Enable a new class of highly connected products that bridge to the cloud



Add rich HMI interfaces and data protection with LCD and crypto

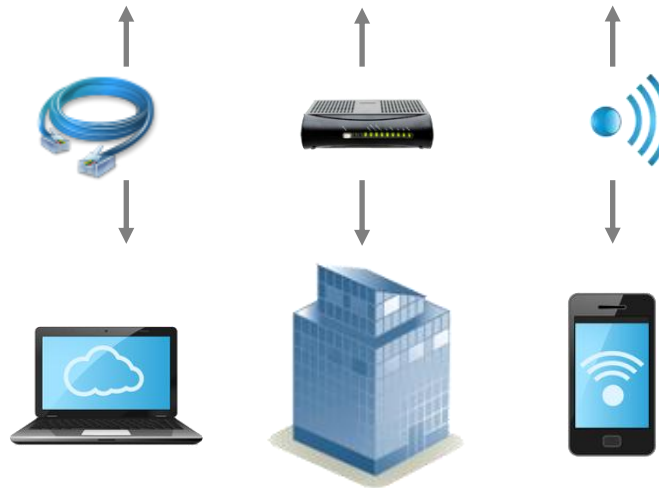


Old HMI system

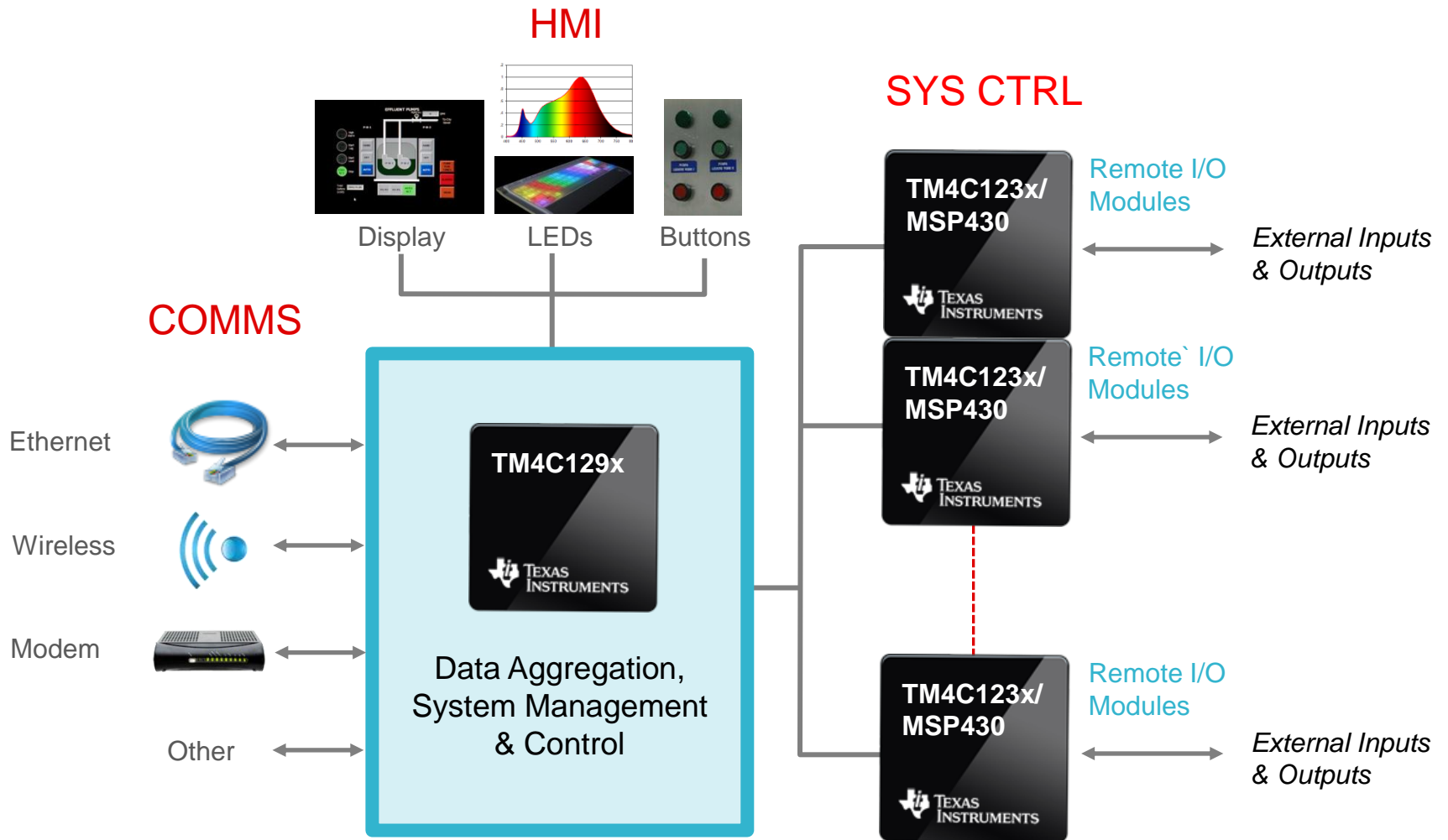


New rich HMI interface with more connectivity and control

- Integrated 10/100 Ethernet MAC+PHY, LCD controller, I/Os and numerous communication peripherals
- Higher on-chip resources and speeds to handle increased level of operation
- Industrial and extended temp range, features and reliability
- Extended cycle non-volatile memories, automotive-proven process
- Large memory footprints



Connected system example: Networked industrial meters / controllers



TM4C129x Overview

ARM® Cortex™-M4F Processor Core

- Up to 120 MHz, 150 DMIPS
- Single Precision Floating Point

On-chip Memory

- 1 MB Flash; 256 KB SRAM; 6KB EEPROM
- ROM with DriverLib, BootLoader

Communication Interfaces

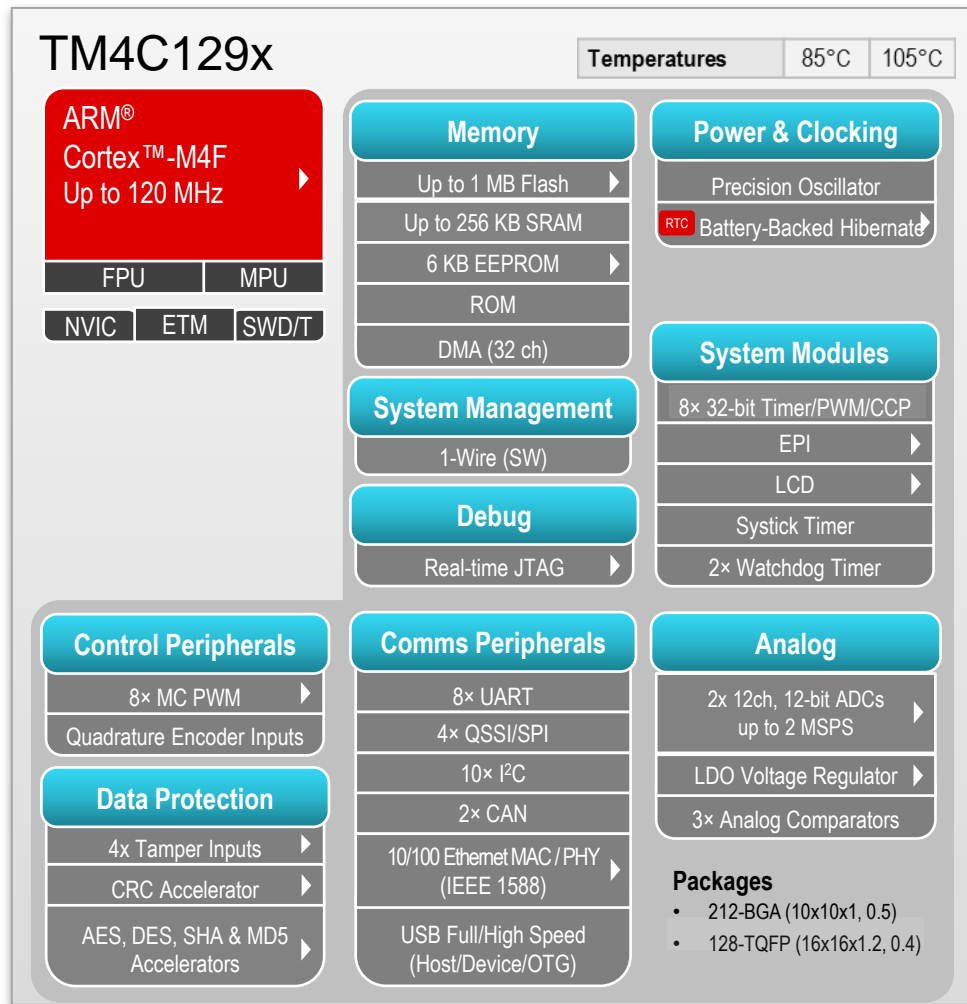
- 10/100 Ethernet MAC / PHY
- USB FS PHY, OTG / Host / Dev
- USB HS w/ext PHY via ULPI
- 8 UARTs, 10 I²Cs, 4 Quad SPI, 2 CAN
- DS-compliant 1-Wire Master I/F
- External Peripheral Interface

System Integration

- 32-channel DMA Controller
- Internal Precision 16MHz Oscillator
- Two watchdog timers with separate clock domains
- ARM Cortex Systick Timer
- Eight 32-bit general purpose timers
- Lower-power batt-backed hibernate module with RTC
- Flexible pin-muxing capability
- LCD controller

Motion Control

- Advanced timers with 8 PWM outputs
- QEI



Data Protection

- AES, DES, HASH & CRC hardware acceleration
- Four tamper inputs

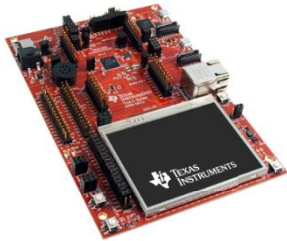
Analog

- 24 Channels of 2x 12-bit ADC up to 2 MSPS
- On-chip voltage regulator

TI tools, software and support simplify and speed development on TI Tiva™ C Series MCUs

Tools

Tiva™ C Series Development Kit (DK-TM4C129X) available NOW for \$199



- Based on TM4C129XNCZADI
- Ethernet RJ45 jack
- Two ports for BoosterPack connectivity
- User H/D/O microAB USB connector
- QVGA display with resistive touchscreen
- QSSI connected 512 MB Flash memory and microSD slot
- 3x user buttons, tri-color user LED, speaker
- HW reset button and system LED indicators
- Tiva in-circuit debug interface and 20-pin JTAG debug header
- TivaWare DriverLib



Coming 1Q 2014!

Software

- TivaWare for no-OS software development
- 50+ software examples
- Code Composer Studio™ v. 5
- TI-RTOS for consistent development across platforms
- Libraries for specific applications



Documentation

- Datasheets
- White papers
- Application notes



Support and Training

- On demand video training
- In-person workshops
- 24/7 support via E2E online community and forums
- Largest global sales force in more than 30 countries



Design Network



Choose the TI processor with ARM® for you

Cortex™-A



OMAP™ applications
processors
Cortex-A8, A9, A15

Sitara™ ARM® processors
ARM9, Cortex-A8

TI Multicore processors
Cortex-A8, A15

Cortex™-R



Hercules™ Safety
ARM MCUs
Cortex-R4

Cortex™-M

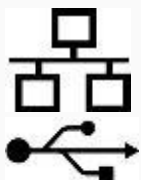
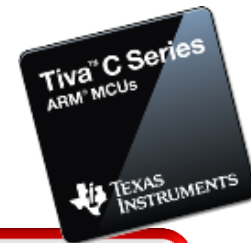


Tiva C Series MCUs
Cortex-M4

TI dual-core
C2000™+M3 MCUs

Hercules Safety MCUs
Cortex-M3

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THANK YOU