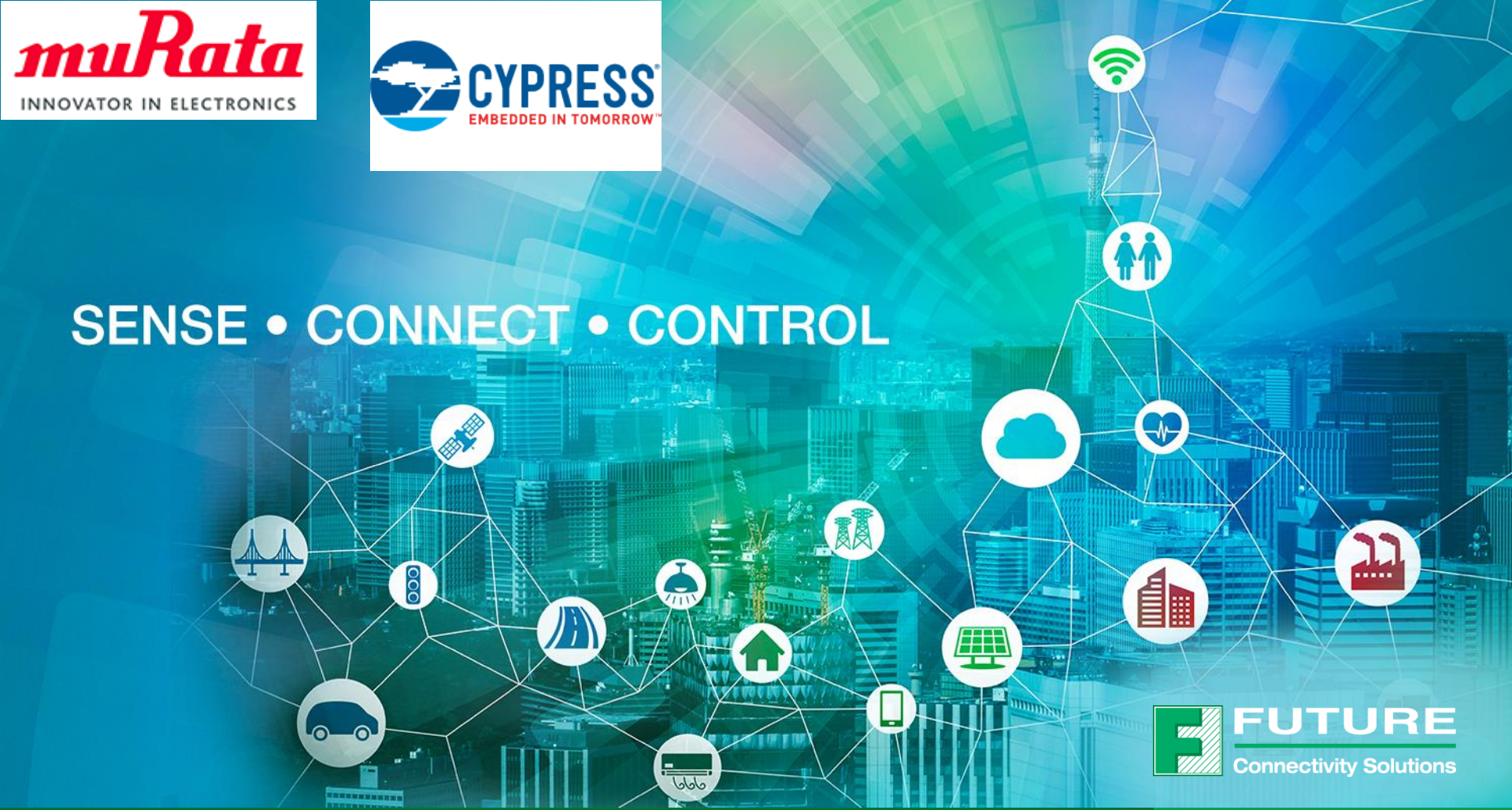
muRata
INNOVATOR IN ELECTRONICS
CYPRESS
EMBEDDED IN TOMORROW™
SENSE • CONNECT • CONTROL
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Nebula IoT Reference Design Board

- The Nebula board is an IoT cloud ready board which allows developers to quickly prototype and deploy their IoT ecosystem
- Developed in-house by the System Design Center, Cypress, Murata and Future Connectivity Solutions
- Wireless connectivity is supported by the Murata Type 1DX modules which houses the Cypress-based CYW4343W Wi-Fi and Bluetooth (v.4.1 +EDR) chipset radio.
- The board contains STMicro's STM32F429 MCU which is an ARM Cortex-M4, with 32 bit RISC core, 2MB Flash and up to 256kB SRAM, up to 180 MHz. This means of the ST WICED boards this is the fastest!
- Application development is supported through Cypress' WICED (Wireless Internet Connectivity for Embedded Devices) platform. WICED is the only SDK that combines wireless, MCUs & Memory in one environment that runs on Windows, OS X & Linux through Eclipse-based IDE
- The board is equipped with 4 different interfaces to access the STM32F429 peripherals to enable developers to create any IoT application:
  1. Arduino™ Shield
  2. mikroBUS ™ Socket
  3. Pmod™ Type 2A
  4. USB Device
- The board is designed for users to explore the vast opportunities in IoT applications such as asset tracking, energy management, fitness, lighting controls, HVAC, portable controls, security and building automation.

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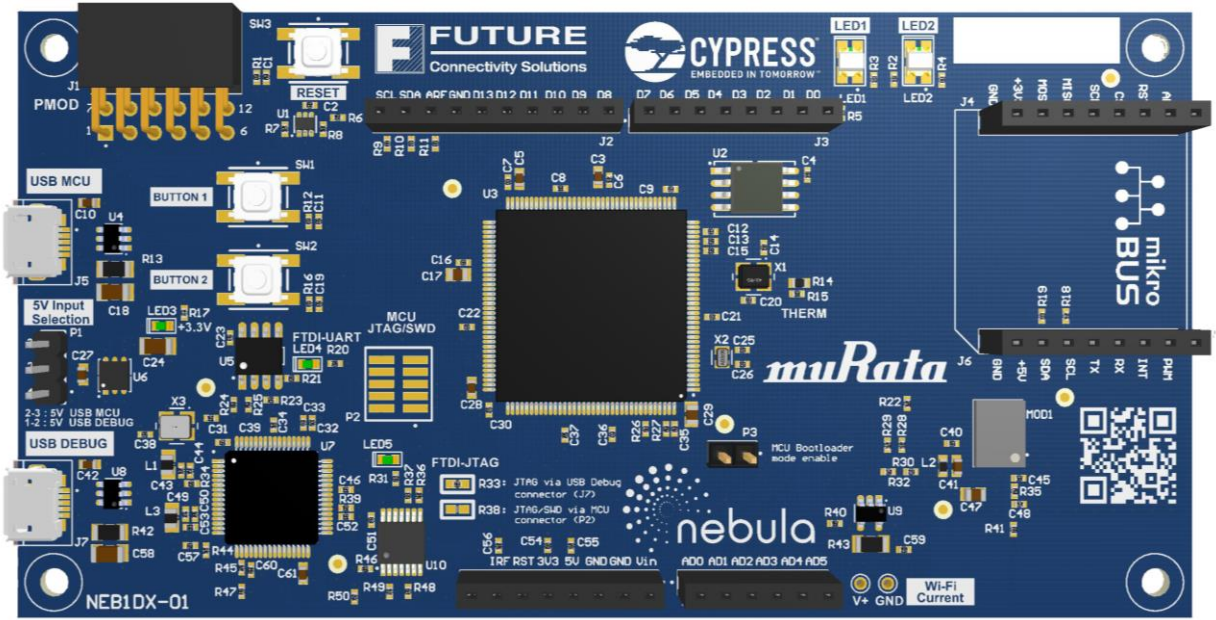
Nebula IoT Reference Design Board

The possibilities are endless!

- Use the different interfaces to add on development boards from our growing list of Future IoT ready boards
- Applications:
  - Sensors
    - Proximity (Ready)
    - Ambient light (Ready)
    - Motion (Ready)
    - Temperature (ready)
    - Humidity(Ready)
    - Pressure (Ready)
    - Gesture Recognition (Planned)
    - UVA/UVB (Planned)
  - Motor Control (Planned)



Nebula IoT Reference Design Board

- **WICED 5.2** supports Nebula.
- Documentation and tools for download hosted on the Cypress Community Portal
- https://community.cypress.com/community/partners/future-connectivity-solutions
- Available for purchase NOW on FutureElectronics.com
- http://www.futureelectronics.com/en/Technologies/Product.aspx?ProductID=NEB1DX01FCS1089735&IM=0?homepage_sub_tile_1
- 99$ resale

Part number: NEB1DX-01

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Wireless Internet Connectivity for Embedded Devices

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WICED Studio: The SDK for IoT

To develop an IoT application, you need an SDK that:

- Integrates multiple wireless technologies
- Includes support for necessary protocols
- Offers connectivity to leading cloud services
- Provides the flexibility to work with popular MCUs

WICED Studio is the only SDK that provides all of the above and enables ease-of-use

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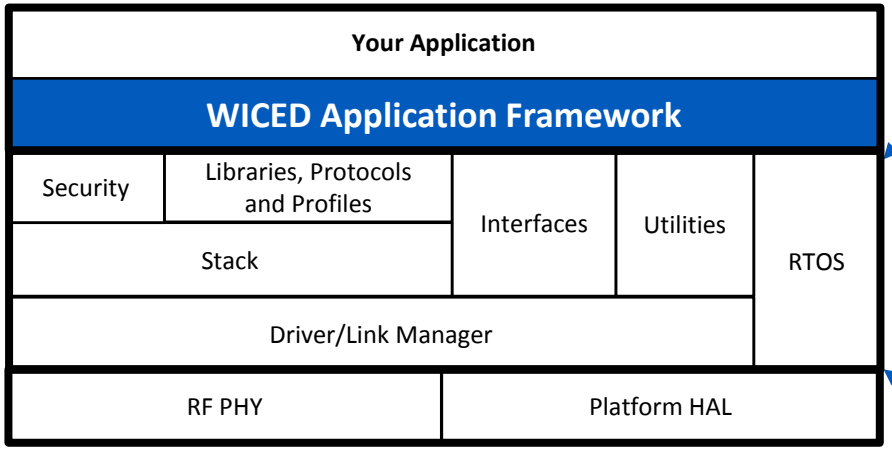
WICED Studio Is Built To Reduce Development

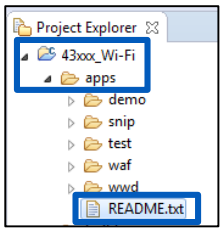
The WICED APIs and example applications make complex project development easy!



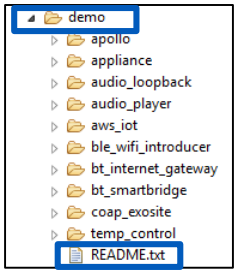
Additional Resources

- The *doc* folder inside the WICED SDK
- The *README.txt* files to learn about the contents of the respective folder inside the SDK
- The Cypress Developer Community: https://community.cypress.com

Apps folder



Demo folder



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THANK YOU!