

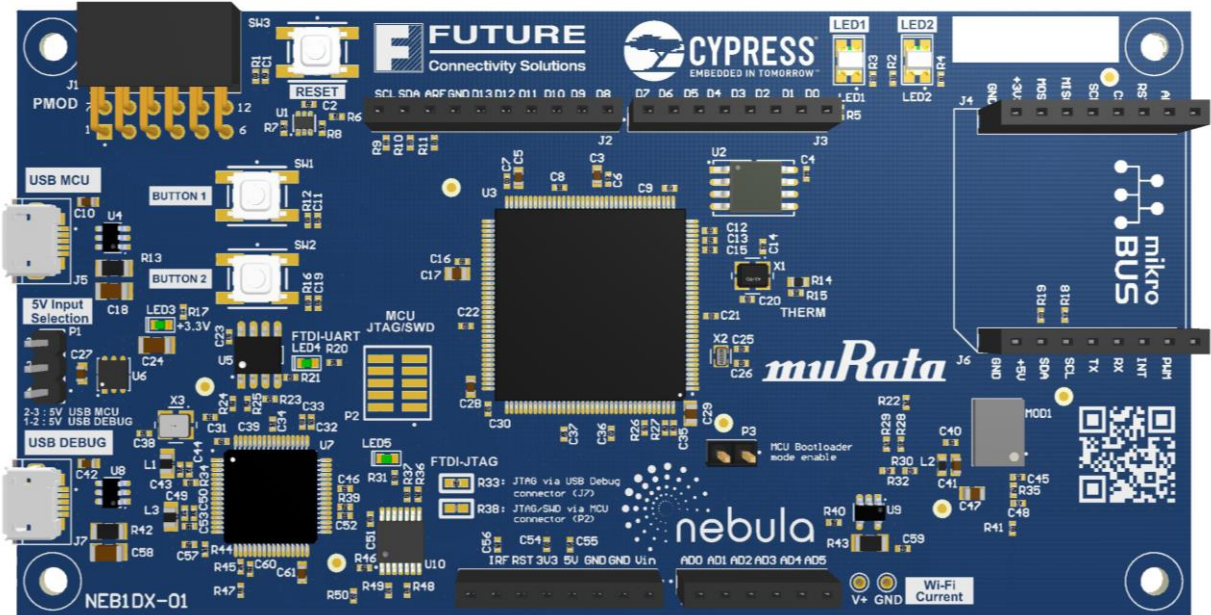
SENSE • CONNECT • CONTROL



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.

- 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



The screenshot shows the Cypress Developer Community website. At the top is the Cypress logo with the tagline "EMBEDDED IN TOMORROW". Below it is a navigation bar with links: HOME, CONTENT, PEOPLE, PLACES, GET STARTED. The main content area is titled "Future Connectivity Solutions" and includes a sub-header "Home > All Places > IoT Partner Solutions". Below this is a section for "COMMUNITIES" featuring the "WICED Studio Wi-Fi/Combo" community, which is described as a "Cypress Developer Community for WICED and Linux-based Wi-Fi, WICED Smart Bluetooth" and "Cypress Developer Community for WICED Bluetooth". To the right of the communities section is a large banner for "FUTURE Connectivity Solutions" with the tagline "SENSE-CONNECT-CONTROL". Below the banner, a paragraph states: "Future Connectivity Solutions is a leading provider of cutting edge IoT solutions and support hardware and software solutions across multiple technologies with a complete ecosystem. Sensor and Wireless design needs. The 'Internet of Things' continues to fuel demand as it supplies a complete suite of services from Sensor Solutions to Wireless Hardware to Software." The Future Electronics logo is visible in the bottom right corner of the screenshot.



Wireless Internet Connectivity for Embedded Devices

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



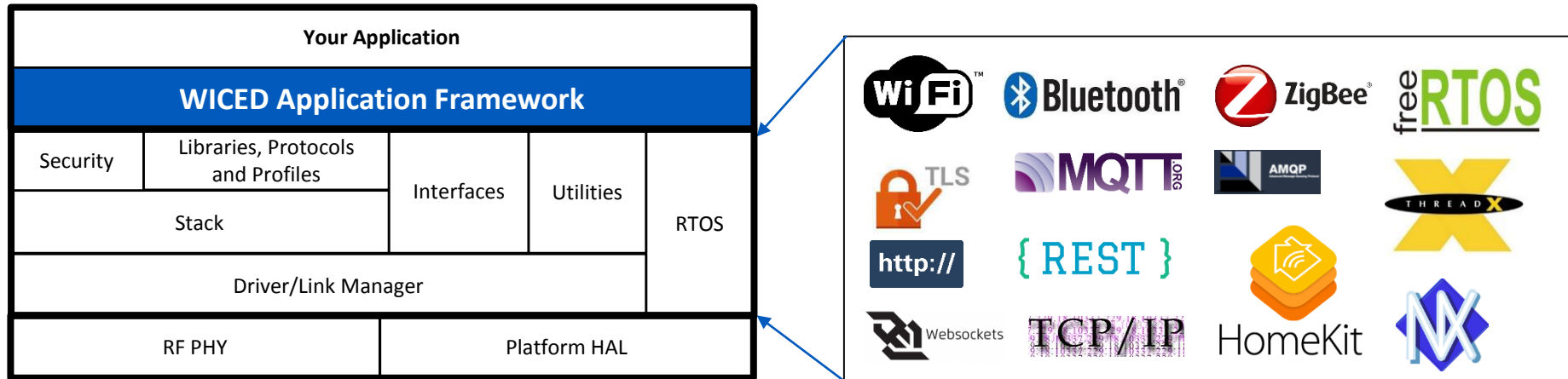
**SOFTWARE
DEVELOPMENT KIT**

Wireless Internet Connectivity for Embedded Devices



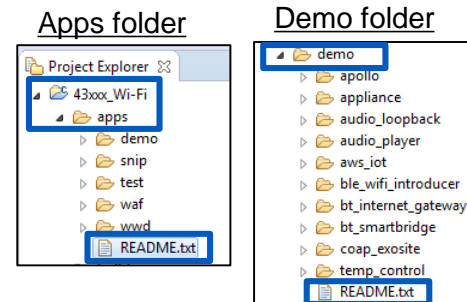
WICED Studio Is Built To Reduce Development

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>



THANK YOU!