iXbase Stamp

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The iXbase Stamp, a universal, cost-efficient wireless module for Wi-Fi 6 and BLE 5. Powered by a high-performance ARM Cortex M33 core, it can operate in both MCU and NWP mode.

It serves as a certification-ready wireless building block for new product designs and scalable OEM platforms.

By integrating Wi-Fi 6 and BLE 5.4 into a modular architecture, it helps reduce development complexity and supports more efficient overall product certification.

Built on a globally established semiconductor platform, the iXbase Stamp supports long-term product strategies within a stable and transparent supply environment.

Connectivity:

- Wi-Fi 6 / IEEE 802.11b/g/n/ax compliant up to MCS7/64-QAM
- Bluetooth low energy 5.4 certified stack
- On-board PCB antenna or u.FL antenna connector

Technical Specification:

- Power supply: 3.0 ~ 3.6 V
- WLAN-frequency: 2.4/5 GHz
- Low Power Radio: 2.4 GHz
- Temp. range: -40°C to +85°C

Peripherals:

- 3x UART
- CAN2.0 MAC
- 2x SPI and 2x I2C
- I2S
- SDIO
- I²S/PCM
- PDM
- 8x general Purpose Timers / PWM
- 12 bit ADC
- 29 GPIOs (1.8V / 3.3V)
- Temperature sensor and battery monitor
- RTC and Watchdog

Designed for:

matter Bluetooth® Wi Fi®

Key Fact

- Dimensions - 27.5x18mm²
- TI CC3551ET Wireless SoC with ARM Cortex M33, up to 160 MHz
- Dual-band Wi-Fi 6 (2.4 GHz & 5 GHz) and Bluetooth Low Energy 5.4.GB DDR4 SDRAM
- Comprehensive protection via ARM TrustZone, HSM (Hardware Security Module) for crypto acceleration, and Secure Boot
- FreeRTOS platform
- 1.1 MB SRAM (up to 700 kB available for applications) and 8 MB QSPI-PSRAM.
- 8 MB Flash (up to 64 MB possible) with on-the-fly decryption
- Flexibility: Can operate without an external host processor (MCU mode)

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