

# Bringing Infineon's Low Power, Connected and Secured PSoC™ 6 Microcontrollers to Zephyr®

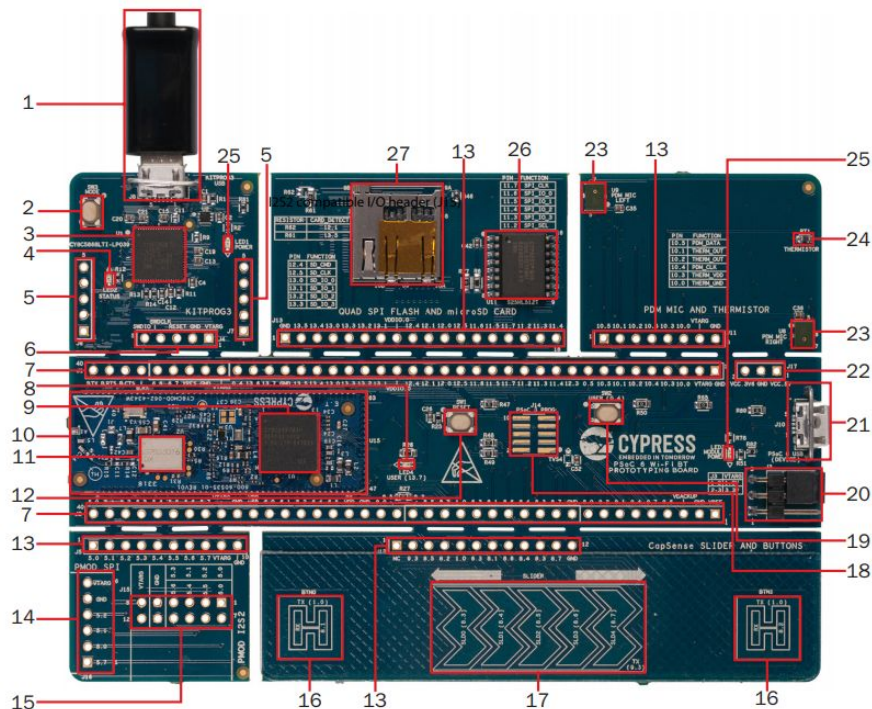
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Principal Software Product Marketing Manager





Shaping the Zephyr® Project for the High Performance  
Microcontrollers

# Bringing the PSoC™ 6 Wi-Fi BT Prototyping Kit to Zephyr®



1. KitProg3 USB connector (J8)
2. KitProg3 programming mode selection button (SW3)
3. KitProg3 (PSoC 5LP) programmer and debugger (CY8C5868LTI-LP039, U1)
4. KitProg3 status LED (LED2)
5. KitProg3 I/O headers (J6, J7)
6. KitProg3 5-pin programming header (J4)
7. PSoC 6 MCU I/O headers (J1, J2)
8. PSoC 6 MCU user LED (LED4)
9. PSoC 6 MCU (CY8C624ABZI-D44)
10. Cypress PSoC 6 Wi-Fi BT Module (CY8CMOD-062-4343W, U15)
11. CYW4343W based Murata Type 1DX Module (LBEE5KL1DX)
12. Reset button (SW1)
13. On-board peripheral headers (J5, J11, J12 and J13)
14. Digilent® Pmod™ SPI compatible I/O header (J16)
15. Digilent® Pmod™ I2S2 compatible I/O header (J15)
16. CapSense buttons
17. CapSense slider
18. PSoC 6 MCU program and debug header (J14)
19. PSoC 6 MCU user button (SW2)
20. Power selection jumper (J3)
21. PSoC 6 USB device Connector (J10)
22. External power supply connector (J17)
23. PDM microphones (U8, U9)
24. Thermistor (RT1)
25. Power LEDs (LED1, LED3)
26. Cypress 512-Mbit serial NOR flash memory (S25HL512T, U11)
27. microSD Card holder (J9)

# PSoC™ 6: Purpose-built for the IoT

Emerging IoT devices require connectivity with increased processing and security without a power or cost penalty



## Application Processors

Expensive, High-Power Consumption

## Microcontrollers

Limited Processing Capacity

The PSoC™ 6 portfolio bridges the gap between application processors and standard microcontrollers

- › High performance 150-MHz and 100-MHz dual-core Arm® Cortex®-M4 and Arm Cortex-M0+ architecture
- › Ultra-low-power 40-nm technology and design that consumes as little as 22-μA/MHz in active power mode
- › Integrated, hardware-based Secure Execution Environment with secure data storage



# PSoC™ 64 Microcontrollers

## NON-SECURE PROCESSING ENVIRONMENT (NSPE)

The Cortex®-M4 core enables you to develop your application and utilize IoT platform software libraries to establish a secure cloud connection.

Arm® Cortex®-M4

Arm® Cortex®-M0+

Root-of-Trust

## SECURE PROCESSING ENVIRONMENT (SPE)

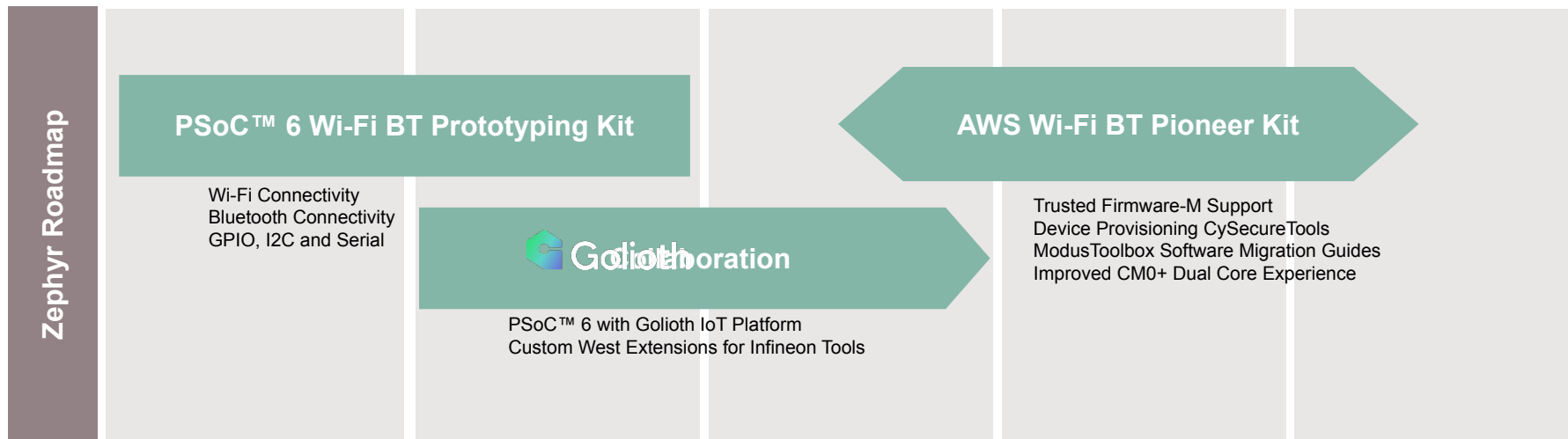
The Cortex®-M0+ core is used to establish an isolated processing environment for trusted applications.

## HARDWARE-BASED ROOT-OF-TRUST (RoT) AND TRUSTED SERVICES

Further isolated from the SPE is a hardware-based root-of-trust with trusted services. The root-of-trust is an immutable, unclonable identity. It securely stores keys and performs security services such as secure boot, attestation, and firmware over-the-air (FOTA) updates.



# Where We Are Going Next...





Part of your life. Part of tomorrow.