

WiLink™ 8 Wi-Fi® + Bluetooth®/BLE modules

Certified high-performance combo modules
from TI for fast and easy time-to-market



Key features and benefits

- High-performance Wi-Fi
 - 802.11 a/b/g/n 2.4- and 5-GHz Radio/Baseband/MAC
 - 20- and 40-MHz channels
 - 2x2 MIMO
 - Up to 100 Mbps (UDP) of throughput
 - MRC for 1.4x extended range
 - Station and access point
 - Wi-Fi direct, multi-channel multi-role
 - Personal and enterprise security
 - Linux®, Android™ and RTOS drivers
- Dual-mode Bluetooth
 - Bluetooth and BLE (BT 4.0 compliant)
 - On-chip SBC encode and decode
 - Royalty-free certified TI Bluetooth Stack
- Wi-Fi/Bluetooth single antenna co-existence
- Built-in power management
- Direct connection to battery (integrated DC2DC)
- Advanced low-power modes
- Host interfaces
 - SDIO for Wi-Fi and UART for BT
- Temperature ranges:
 - 20°C to +70°C
 - -40°C to +85°C
- Small form factor:
13.4 × 13.3 × 2 mm

Overview

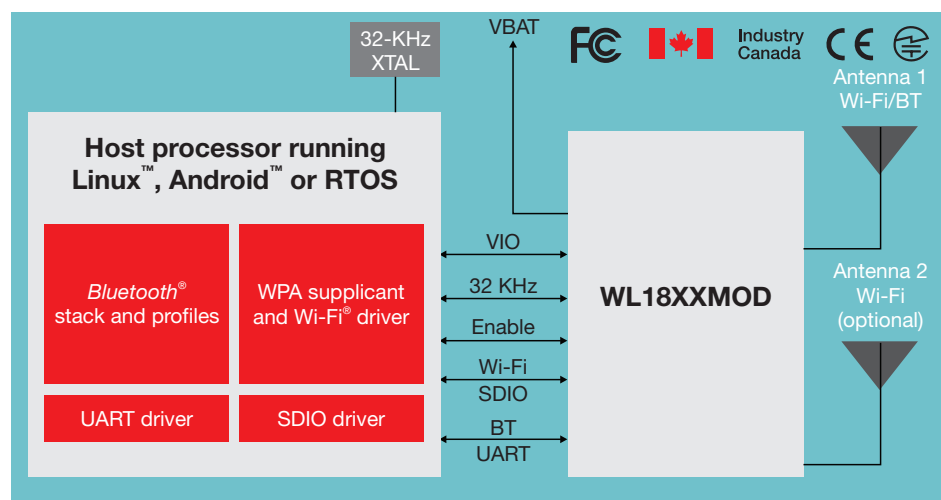
The TI WiLink™ 8 module family enables manufacturers to easily add fully integrated 2.4- and 5-GHz versions of Wi-Fi® and dual-mode Bluetooth® 4.0 solutions to embedded applications. The new highly integrated module family offers high throughput and extended industrial temperature range with robust Wi-Fi and Bluetooth coexistence. WiLink 8 modules are perfect for power-optimized designs for home and building automation, smart energy, gateways, wireless audio, enterprise, wearables and many more industrial and Internet of Things (IoT) applications. The WiLink 8 modules and software are

compatible and pre-integrated with many processors including TI's Sitara™ family of processors. As a module, less hardware and RF design is needed, making development easier and faster. Wi-Fi and Bluetooth software stacks and sample applications are provided, and the modules are FCC/IC/ETSI/Telec certified. WiLink 8 solutions also provide sample applications, API guide, user documentation and a world-class support community.

The modules are pin-to-pin compatible enabling new use cases and better user experiences including:

- Extended temperature range of -40°C to 85°C for industrial applications

WiLink 8 block diagram



- 5-GHz module for high-performance solutions in a less noisy frequency band
- Wi-Fi, Bluetooth and **ZigBee®** coexistence for **Smart energy and home gateways**
- 1.4x the range and up to 100 Mbps throughput with WiLink 8 MRC
- (maximal ratio combining) and MIMO (multiple-input and multiple-output) technology
- Low-power applications with low idle connect current consumption
- **Audio streaming** with both Wi-Fi and dual-mode Bluetooth/Bluetooth low energy

Applications

- Internet of Things
- Industrial and home automation
- Home electronics
- Home appliances and white goods
- Gateways
- Wireless audio
- Video camera and security
- Wearables

WiLink 8 Wi-Fi+ Bluetooth/BLE modules

TI modules

Product Number	Wi-Fi			Bluetooth v4.0 Bluetooth low energy	Industrial temperature
	2.4 GHz	5 GHz	MIMO		
WL1801MOD	•				
WL1805MOD	•		•		
WL1807MOD	•	•	•		•
WL1831MOD	•			•	
WL1835MOD	•		•	•	
WL1837MOD	•	•	•	•	•

Development tools

Product Number	Description	Availability
WL1835MODCOM8 	The 2.4-GHz WL1835-based evaluation board is compatible with the Sitara AM335x and AM437x EVMs as well as several other TI EVMs and reference designs	TI store and authorized distributors
WL1837MODCOM8 	The 5-GHz WL1837-based evaluation board is compatible with Sitara AM335x and AM437xEVMs as well as several other TI EVMs and reference designs	TI store and authorized distributors
WL1837MOD Cape 	The WiLink 8 WL1837MOD audio cape used with BeagleBone Black is a best-in-class audio solution, featuring ultra-precise audio synchronization, multi-room capabilities, support for online music services, UPnP and more. The design is also Apple AirPlay® certifiable and supports Google Cast™ audio.	StreamUnlimited
WL18XXCOM82SDMMC 	The WiLink 8 SDMMC adapter board is an easy to use connector between WiLink 8 COM8 evaluation modules and a SDMMC card slot on a host processor evaluation module. The adapter card enables the WiLink 8 modules to operate over SDIO and provides UART connection for Bluetooth over a FPC connector or wire cables.	TI store and authorized distributors

Other tools

- TI provides a fully integrated and validated WiLink 8 add-on software for Sitara AM335x Linux ezSDK – www.ti.com/wilink8
- TI's unique SmartConfig™ technology is a one-step Wi-Fi setup process that allows multiple in-home devices to connect to Wi-Fi networks quickly and efficiently – www.ti.com/tool/smartconfig

WiLink resources

- Learn more: www.ti.com/wilink8
- E2E Forum: www.ti.com/wiconforum
- WiLink 8 Wiki: www.ti.com/wilink8wiki

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