

BL54L15 μ Bluetooth Module

Compact. Connected. Ready To Build.

The BL54L15 μ Bluetooth Module is a compact, cloud-connected module developed by Ezurio and supported by Blecon. It combines Ezurio's next-generation hardware, based on Nordic Semiconductor's nRF54L Series, with support for Blecon's Bluetooth cloud connectivity.

Powered By The Blecon Network

- Secure device identity, bi-directional communication, geolocation and global time
- Designed for integration into web infrastructure
- Flexible network deployment using Blecon-enabled hotspots — no pairing or custom apps

Next-Generation Module Hardware

- Integrates Nordic Semiconductor's nRF54L Series
- Compact 6.3 × 7.9 mm module with global radio certifications
- Industrial-grade performance and extended temperature range

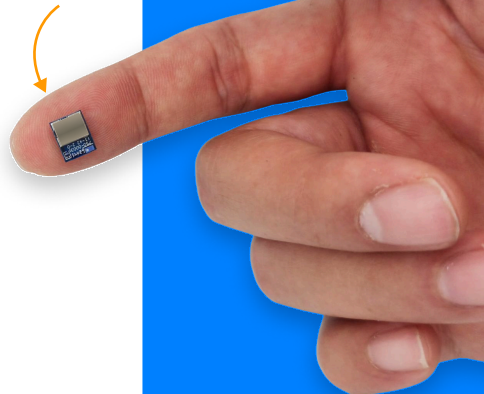
What This Enables

- Bring Bluetooth cloud-connected products to market faster
- Develop secure, scalable connected devices out of the box
- Deploy without custom network infrastructure

**BUILT FOR LOW
POWER CONNECTIVITY,
IN THE SMALLEST
FOOTPRINT**



**CHIP SIZE
COMPARISON**



**BLECON ENABLED
HOTSPOTS**



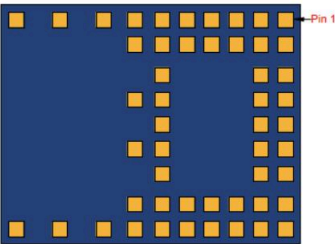
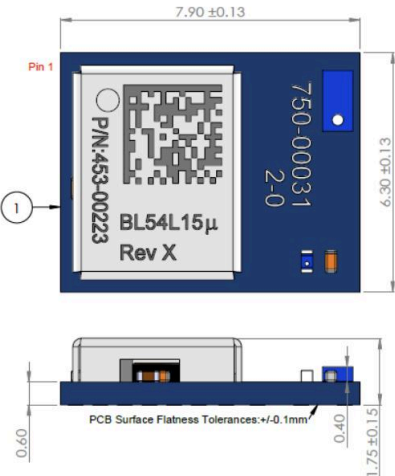
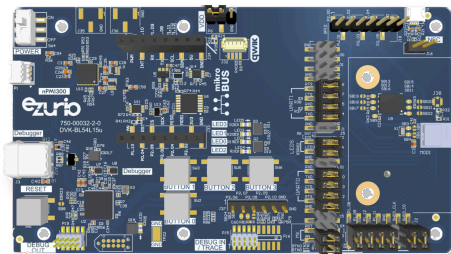
<https://blecon.net/modules/BL54L15-micro>

BL54L15μ Technical Specifications

Hardware Specifications	
Processor	Nordic nRF54L15
Core	128 MHz ARM Cortex M33 + RISC-V
Memory	1.5 MB Flash, 256 KB RAM
Dimensions	6.3 × 7.9 × 1.75 mm
Antenna Options	Integrated chip antenna or RF pad
Operating Voltage	1.7V – 3.6V
Operating Temperature	-40°C to +105°C
Certifications	FCC, ISCED, CE, UKCA, RCM, MIC, KC
Bluetooth	v6.0 (LE, Coded PHY, 2M PHY, Mesh)
Tx Power / Rx Sensitivity	+8 dBm / -98 dBm (1 Mbps), -106 dBm (125 kbps)
Interfaces	32× GPIO, 5× UART/SPI/TWI, 8× 14-bit ADC, 2× I2S, 3× PWM, NFC

Software Specifications	
Blecon Services	Secure Identity
	Global Location
	Global Time
	2-way Communication
	Hotspot Roaming
Hotspot Support	Cloud Network
	Device Monitoring
	iOS
	Android
	Windows
Cloud Integrations	MacOS
	Linux
	AWS S3, SQS, EventBridge
	Memfault
	Edge Impulse
Blecon Security	Webhook (HTTPS/JSON)
	Cryptographic Identity
Bluetooth Scanning Customisation	Data Encryption
	Active and passive scan
	Zephyr RTOS
	nRF Connect
	OTA updates

THE BL54L15μ
DEVELOPMENT BOARD



MECHANICAL DETAILS - CHIP
ANTENNA VARIANT (453-00223)

