Supported Hardware for MeshCore

MeshCore supports a range of LoRa transceivers, including SX1262/SX1268, SX1276/SX1278, LLCC68, LR1110, and STM32WLx radios. The most important practical distinction is firmware availability: **the official MeshCore web flasher offers prebuilt binaries mainly for SX126x boards**. Boards built around the older SX1276/SX1278 chipset are also supported (the source tree ships a `CustomSX1276Wrapper` and dedicated SX1276 variants such as `lilygo_tbeam_SX1276`), but they typically require building firmware from source rather than flashing a prebuilt image. On older ESP32 boards the real limiting factor is usually MCU/flash size, not the radio chip.

Compatibility Quick Reference

Board	MCU	Radio	Firmware Variants	Flash Method	Status
RAK4631 (WisBlock)	nRF52840	SX1262	Companion, Repeater, Room Server, Sensor	UF2 drag-and-drop / WebSerial	Gold standard
T-Beam v1.2+	ESP32 (WROOM)	SX1262	Companion, Repeater, Room Server	WebSerial (Chrome/Edge)	Supported
T-Beam Supreme	ESP32-S3	SX1262	Companion, Repeater, Room Server	WebSerial (Chrome/Edge)	Supported
Heltec WiFi LoRa 32 V3	ESP32-S3	SX1262	Companion, Repeater	WebSerial (Chrome/Edge)	Supported
T114 (WisBlock-compatible)	nRF52840	SX1262	Companion, Repeater, Room Server, Sensor	UF2 drag-and-drop / WebSerial	Supported
Heltec HT-n62	nRF52840	SX1262	Companion, Repeater	UF2 drag-and-drop	Supported

Per-board firmware-variant lists above follow MeshCore's real firmware types (Companion, Repeater, Room Server, Sensor). Confirm the exact variants published for a given board against the live flasher board list and the firmware release artifacts before planning a deployment.

Supported Boards - Detailed Profiles

RAK4631 (RAKwireless WisBlock Core) - Gold Standard

The RAK4631 module combines a Nordic nRF52840 microcontroller with a Semtech SX1262 radio and is mounted on a RAK WisBlock base board (most commonly the RAK19007 or RAK19003).

- **MCU:** nRF52840 - 64 MHz ARM Cortex-M4F, 1 MB flash, 256 KB RAM, hardware AES, BLE 5.0
- **Radio:** SX1262 - supports LoRa, FSK, up to +22 dBm TX power
- **Flash method:** UF2 drag-and-drop (double-tap reset button, copy .uf2 to the RAK4631 USB drive) or via the MeshCore Web Flasher at flasher.meshcore.io
- **Available firmware types:** Companion, Repeater, Room Server, Sensor

T-Beam v1.2 and later

The TTGO T-Beam v1.2 and subsequent revisions use an ESP32 MCU with an SX1262 radio module.

- **MCU:** ESP32 WROOM
- **Radio:** SX1262
- **Flash method:** WebSerial via Chrome or Edge at flasher.meshcore.io
- **Available firmware types:** Companion, Repeater, Room Server
- **Note:** Older SX1276-based T-Beams (v0.7, v1.0, v1.1) are supported via the upstream `lilygo_tbeam_SX1276` source variant (companion / repeater / room_server build environments), but prebuilt binaries for them may not be on the web flasher, so they typically require building from source.

Limited / Source-Build-Only Hardware

The boards below use the older SX1276/SX1278 chipset. SX1276 itself *is* a supported MeshCore radio (via `CustomSX1276Wrapper`), so these are not "incompatible" at the chipset level. The practical

caveat is that prebuilt binaries are generally not offered on the web flasher, so support may require building from source, and on the oldest boards MCU/flash limits can be a constraint. Verify upstream variant coverage for a specific board before relying on it.

Board	Radio	Notes
T-Beam v0.7 / v1.0 / v1.1	SX1276	Supported via the `lilygo_tbeam_SX1276` source variant; not on the prebuilt web flasher.
Heltec WiFi LoRa 32 V2	SX1276	SX1276 chipset is supported; no prebuilt flasher binary - confirm whether an upstream variant exists / build from source.
TTGO LoRa32 V1 / V2	SX1276	SX1276 chipset is supported; board-variant coverage upstream is limited - verify before use.
Heltec WiFi LoRa 32 V1	SX1276	SX1276 chipset is supported; no prebuilt flasher binary - confirm upstream variant / build from source.

For the authoritative and up-to-date list of supported hardware, refer to the MeshCore firmware repository at github.com/meshcore-dev/MeshCore

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