

Introduction to Sub-GHz

Sub-GHz (sub-gigahertz) frequency refers to radio frequencies that are below 1 gigahertz (GHz) on the electromagnetic spectrum.

Many remote controls devices like garage door openers, car key fobs, and other short-range communication devices operate in the Sub-GHz frequency range.

Sub-GHz frequencies can provide better penetration through obstacles like walls and have longer communication ranges compared to higher frequency bands.



Introduction to Sub-GHz

Flipper Zero has an integrated multi-band antenna, and a **CC1101** chip, making it a powerful transceiver **with a range of up to 50 meters**.

The **CC1101** supports a wide range of frequencies in the Sub-GHz range, typically from 300 MHz to 928 MHz.



Things Under Sub-GHz

Wireless Sensor Networks (WSN): Many wireless sensor networks, particularly those designed for long-range communication in industrial settings or environmental monitoring, may use frequencies in the Sub-GHz range.

Internet of Things (IoT) Devices: Some IoT devices, especially those requiring longer communication ranges, may operate in the sub-GHz frequency range. This includes smart home devices, agricultural sensors, and industrial IoT applications.



Things Under Sub-GHz

Amateur Radio: Certain amateur radio bands fall within the Sub-GHz range. Amateur radio operators use these frequencies for communication and experimentation.

Remote Controls: Some remote control systems, such as those used for garage doors, car key fobs, and other short-range communication devices, might operate in the Sub-GHz range.

Wireless Microphones: Certain wireless microphone systems operate in the sub-GHz range.



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Things Under Sub-GHz

Industrial Automation: Wireless communication in industrial automation, such as for process control and monitoring, may use frequencies in this range.

Smart Meters: Utility companies may use the Sub-GHz range for smart meters that monitor and communicate information about electricity, gas, or water usage.



Other Sub-GHz Courses



<https://www.udemy.com/course/software-defined-radio/?referralCode=7594C14FDB82D6A86D95>



<https://www.udemy.com/course/advance-sdr-for-ethical-hackers-security-researchers/?referralCode=7E5643477F4D3C0802CD>



<https://www.udemy.com/course/software-defined-radio-3/?referralCode=8364EB2052521105E29E>



Other Sub-GHz Courses



<https://www.udemy.com/course/software-defined-radio-4/?referralCode=583719F80B9261EA94A1>



<https://www.udemy.com/course/software-defined-radio-5/?referralCode=3AC6E44231BC8EB12A00>

