

### 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.



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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.



### **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

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