Sub-1 GHz RF Value Line

Low-cost device family based on low-power CC1101 RF technology

TI's Sub-1GHz RF value line family offers developers low-cost connectivity solutions for sub-1 GHz RF applications such as remote controls, toys, home and building automation, and security systems. The CC110L transceiver, CC113L receiver and CC115L transmitter devices are all based on TI's Sub-1 GHz CC1101 RF technology, and are pin-, register- and code-compatible, as well as backwards compatible with existing sub-1 GHz systems. In high volume, the RF value line offers a two-chip, one-way RF link for less than USD $1.00.

The Sub-1 GHz RF value line includes new low-cost reference designs, with a compact PCB antenna for 433, 868, 915 MHz, featuring a reduced component count and complete designs ready for FCC and ETSI certification. The small-size, compact PCB helix antenna represents only a quarter of the size of previous PCB antennas, and is useful for applications requiring high antenna efficiency in a compact area.

Development Kits

The **CC11xLDK-868-915** and **CC11xLEMK-433** development kits provide complete hardware performance testing and software development platforms for the Sub-1 GHz RF Value Line product family.

www.ti.com/rfvalueline

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Key Features

- $1.00 price tag on transmitter + receiver bundle
- Low-cost reference design with compact PCB antenna
- Fast startup-time with 0.24ms from power down to RX or TX
- 0.2 µA sleep current
- Supports multiple modulation formats with 2-FSK, 4-FSK, GFSK and OOK.
- Programmable data rate from 0.6 to 600kbps
- Supports multiple frequency bands: 300-348, 387–464 and 779– 928 MHz
- All value line devices are pin-, register- and code-compatible
- Seamless integration with CC1190 range extender:
    - Up to +27 dBm output power and 120 dBm sensitivity
    - Up to +20 dBm output power without frequency hopping (FHSS) under FCC regulations

Key Benefits

- Complete one-way RF link for USD $1.00 in high volume
- 50% cost reduction on external components
- Complete design ready for FCC and ETSI certification
- Low power, long battery life time
- Enables battery-operated meters to last for 10+ years
- Flexible and backwards compatible with existing sub-1 GHz systems
- Easy to switch between one-way and two-way solutions
- Long range communications, up to several kilometers
- Solid RF link

Sub-1 GHz wireless connectivity plug-in board for MSP430 LaunchPad

Based on the CC110L sub-1 GHz RF value line transceiver, the 430BOOST-CC110L RF BoosterPack is a low-cost wireless connectivity plug-in board for the MSP430 LaunchPad development kit - an easy-to-use, affordable, and scalable introduction to the world of microcontrollers and the MSP430 family. Snap the 430BOOST-CC110L RF BoosterPack onto your LaunchPad and you are all set for adding wireless capabilities to MSP430-based designs.

The RF BoosterPack includes an ETSI-compliant and FCC certified module integrating TI's CC110L sub-1 GHz RF value line transceiver, passive components and compact PCB antenna. For more information, visit **www.ti.com/rfboosterpack**

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