

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# RF Transceiver Student Learning Kit Featuring the MC13192 family

#### Easily add RF capability to course or projects

## Can be used in simple MAC (SMAC) or ZigBee® configurations

#### **Common Course Applications**

- Wireless sensing and control
- Introduction to communication protocols
- Wireless home automation

#### Use for courses/projects which:

- Require low-power, medium data rate wireless communication
- Illustrate a variety of network deployment configurations
- Are targeted for intermediate to advanced level students

#### This application module can be:

- Connected to an application module\*
  - Plug the RF transceiver directly into the application module
- Connected to the Freescale project board (PBMCUSLK) for:
  - Increased I/O features
  - A more hands-on approach
- Acceptance of multiple microcontrollers
- Integrated USB-BDM interface
- Larger bread-board area

To order, search by part number on www.freescale.com.

Part Number	Description
AP13192USLK	802.15.4 RF Transciever









Features

MC13192; QFN 32

- On-board antenna
- 250 Kbps RF data rate
- Voltage indicator
- 3V on-board voltage regulator
- Low operating power of 60 ma with transmit enabled
- Three power saving modes
- Full spread spectrum encode and decode
- 16 RF channels with 5 MHz of separation
- Transmit and receive data buffers for low MCU overhead
- Packet or stream data transfer modes
- Four timers to reduce host controller overhead
- Optional programmable clock output
- SPI slave mode serial communication—
  8 Mbps maximum
- Two SPI selectable signal inputs

- J1 I/O connector: 2 x 12 R/A 0.1" grid
  - Compatible pin connection with application modules and the MCUSLK development board
- SPI signals
  - o SIN
  - ∘ SOUT
  - SCLK
- o SELECT 1 or 2
- Status signals
  - Valid CRC
  - Idle
  - o IRQ
- Control signals
  - ∘ RESET In
  - o ANT CTRL, Tx or Rx mode
  - RXTXEN, optional transfer control
  - o ATTN IN, wake up control

#### **Specifications**

- Module Size: 2" x 2.1"
- Power Input: 3.3V to 5.5V operation

