



CYPRESS

WirelessUSB™ LS 2.4-GHz DSSS Radio SoC

CYWUSB6932
CYWUSB6934

1.0 Functional Description

The CYWUSB6932/CYWUSB6934 Integrated Circuits (ICs) are highly integrated 2.4-GHz Direct Sequence Spread Spectrum (DSSS) Radio System-on-Chip (SoC) ICs. From the Serial Peripheral Interface (SPI) to the antenna, these ICs are single-chip 2.4-GHz DSSS Gaussian Frequency Shift Keying (GFSK) baseband modems that connect directly to a USB controller or a standard microcontroller as shown in Figure 3-1.

The CYWUSB6932 is a transmit-only IC and is available in a cost saving 28-pin SOIC package. The CYWUSB6934 is a transceiver IC and is offered in both a 28-pin SOIC package and a small footprint 48-pin QFN package.

2.0 Features

- 2.4-GHz radio transceiver
- Operates in the unlicensed Industrial, Scientific, and Medical (ISM) band (2.4-GHz–2.483GHz)
- -90dBm receive sensitivity
- Up to 0dBm output power
- Range of up to 10 meters or more
- Data throughput of up to 62.5kbits/sec
- Highly integrated low cost, minimal number of external components required
- Dual DSSS reconfigurable baseband correlators
- SPI microcontroller interface (up to 2-MHz data rate)
- 13 MHz \pm 50-ppm input clock operation
- Low standby current \sim 1 μ A
- Integrated 32 bit Manufacturing ID
- Operating voltage from 2.7V to 3.6V
- Operating temperature from 0° to 70°C
- Offered in a small footprint 48 Quad Flat Pack No Leads (QFN) or cost saving 28-lead exposed paddle SOIC

3.0 Applications

- PC Human Interface Devices (HID)
 - Mice
 - Keyboards
 - Joysticks
- Peripheral Gaming Devices
 - Game Controllers
 - Console Keyboards
- General
 - Presenter Tools
 - Remote Controls
 - Consumer Electronics
 - Barcode Scanners
 - POS Peripherals
 - Toys

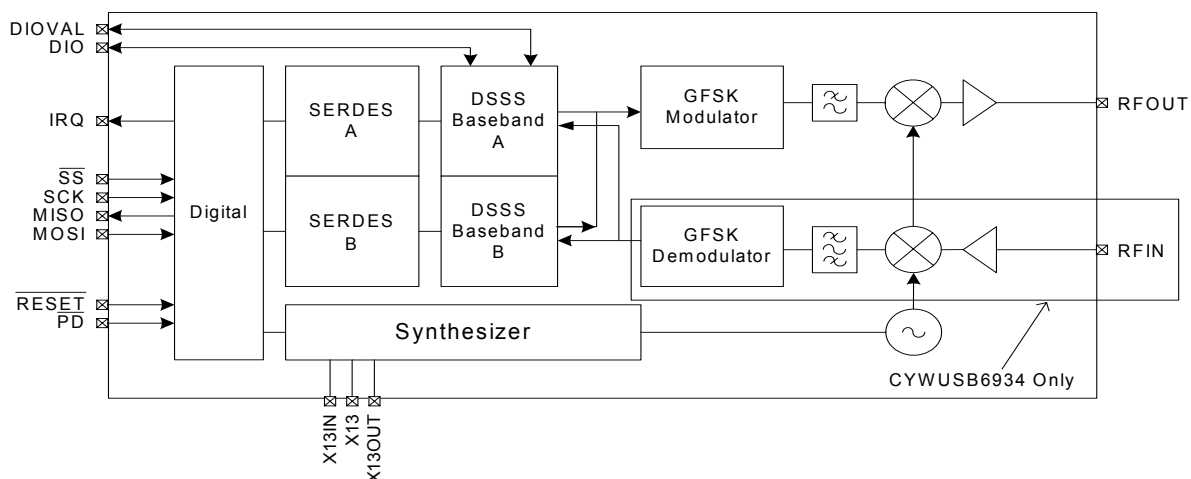


Figure 3-1. CYWUSB6932/CYWUSB6934 Simplified Block Diagram