

W7020 Radio Module

Features

- Complete RF solution, compliant with *Bluetooth** specification version 1.0B
- Highly integrated module including RF transceiver IC, antenna filter, and transmit/receive baluns
- 0 dBm, typical, output power at 50 Ω
- 2.7 V operation enabling long battery life
- 3.2 kHz low-power, idle-mode clock
- Digital receive signal strength indicator (RSSI)
- Small-outline module ceramic land grid array (MCLGA) package (9.7 mm x 14.0 mm x 1.6 mm)
- Evaluation kit available, including W7020 evaluation board, USB transceiver interface board, and PC control software

Description

The W7020 radio module is a short-range microwave-frequency radio transceiver for *Bluetooth* links. It operates in the globally available 2.4 GHz to 2.5 GHz ISM band. The radio is based on a bipolar complementary metal-oxide semiconductor (BiCMOS) RF integrated circuit. The antenna filter and the RX and TX baluns are all integrated into the radio subsystem (see Figure 1).

As illustrated in Figure 2, the radio module requires only an external antenna connected through a 50 Ω characteristic impedance line and a 13 MHz crystal or reference clock signal to enable *Bluetooth* radio communication links. It interfaces to a baseband controller through the serial interface bus and separate strobe signals to create a complete *Bluetooth* hardware solution.

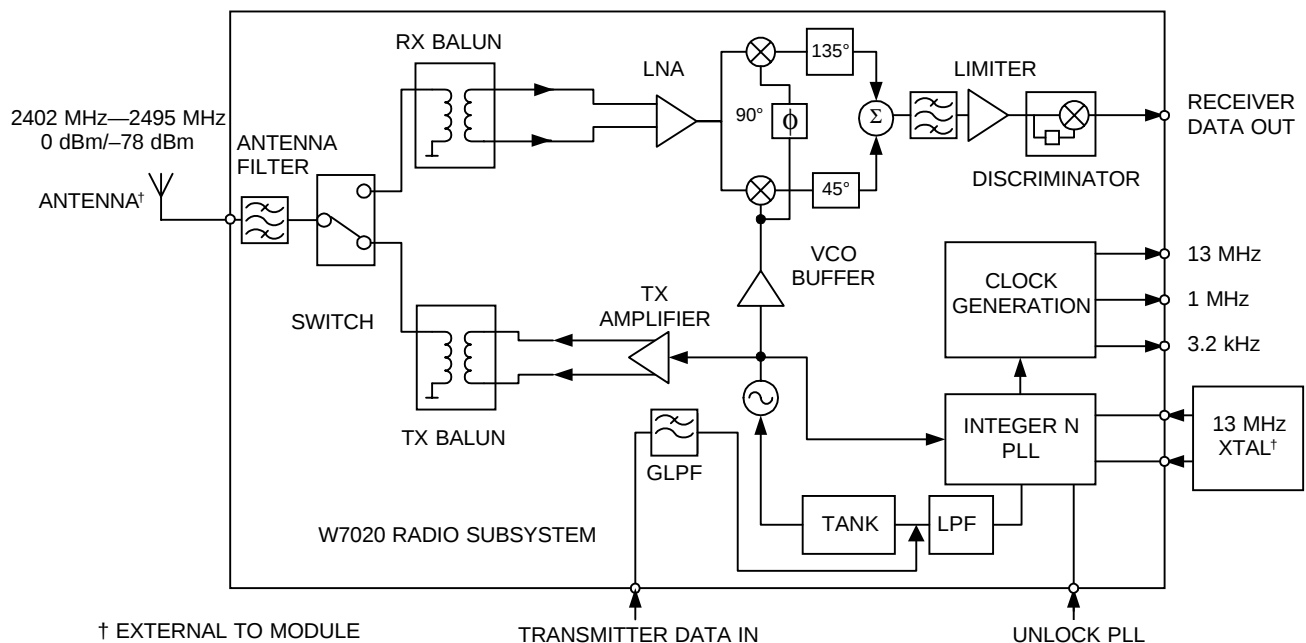


Figure 1. Circuit Block Diagram

**Bluetooth* is a trademark of Telefonaktiebolaget LM Ericsson.

Description (continued)

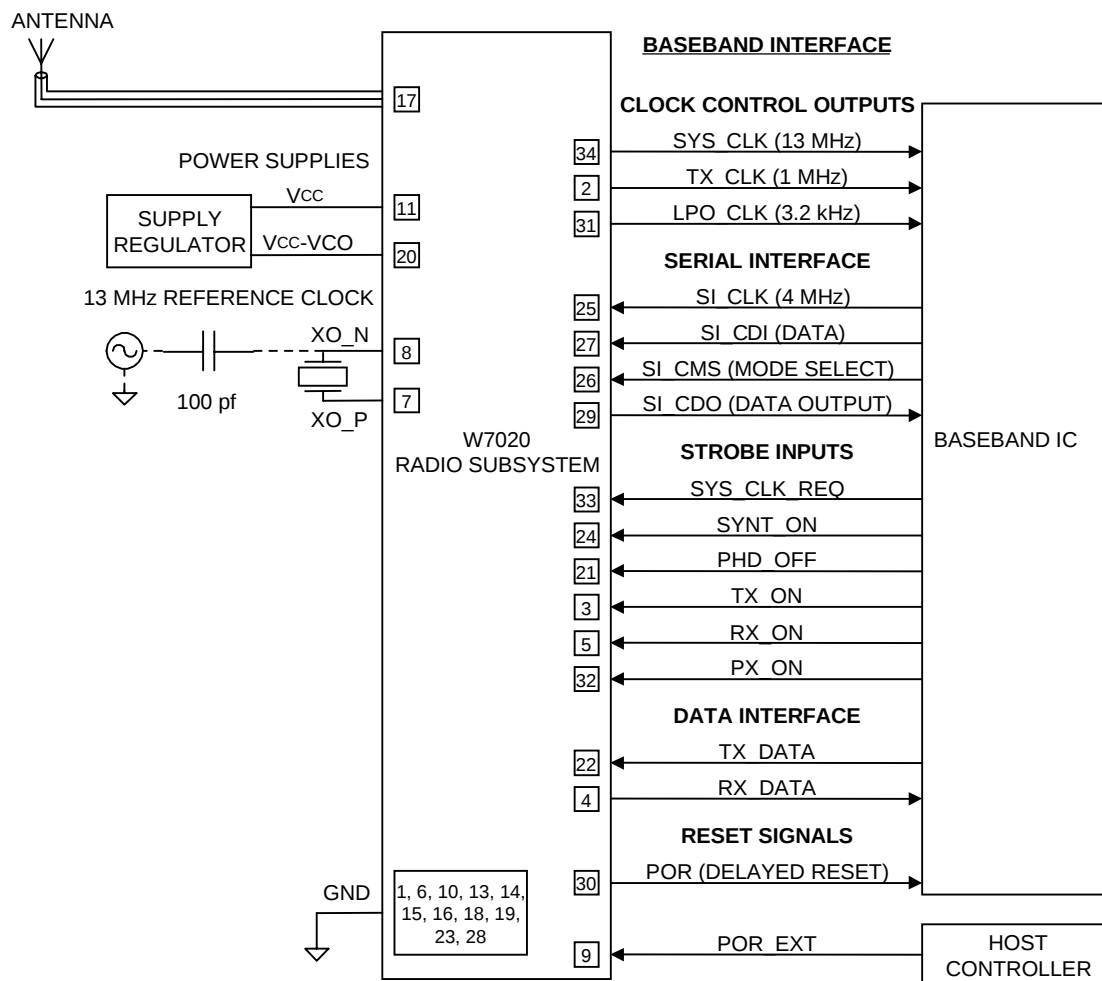


Figure 2. System Connections

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Printed in U.S.A.

March 2001

PB01-079WBLU (replaces PB01-026WBLU)

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