



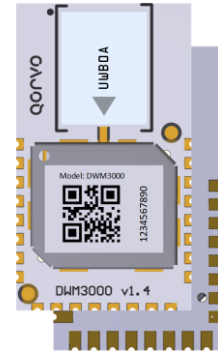
DWM3000

Fully integrated UWB transceiver module

Product Overview

The Qorvo® DWM3000 is a fully integrated Ultra-Wideband (UWB) transceiver module based on the Qorvo® DW3110 IC. It integrates antenna, all RF circuitry, power management and clock circuitry in one module simplifying integration. It can be used in 2-way ranging or TDoA location systems to locate assets to a precision of 10 cm and supports data rates of up to 6.8 Mbps.

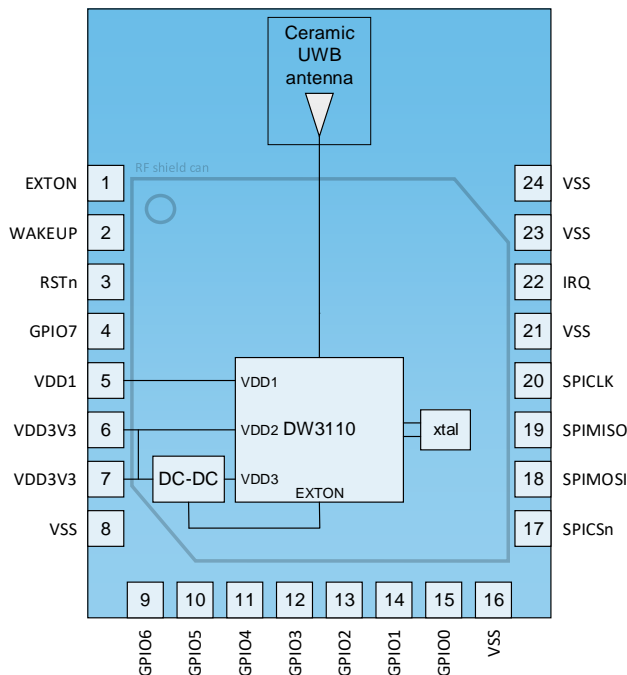
The DWM3000 is designed to be compliant to the FiRa™ PHY and MAC specifications enabling interoperability with other FiRa™ compliant devices.



24 Pin 23x13 mm side castellated package



Functional Block Diagram



Top View

Key Features

- IEEE 802.15.4-2015 and IEEE 802.15.4z BPRF compliant
- Fully aligned with FiRa™ PHY, MAC and certification development
- Supports UWB Channels 5 (6.5 GHz) and 9 (8 GHz)
- Programmable transmitter output power
- Fully coherent receiver for maximum range and accuracy
- Designed to comply with FCC & ETSI UWB spectral masks
- Supply voltage VDD3V3: 2.5 V – 3.6 V
VDD1: 1.62 V – 3.6 V
- Low power consumption
- Data rates of 850 kbps, 6.8 Mbps
- Maximum packet length of 1023 bytes for high data throughput applications
- Integrated MAC support features
- SPI interface to host processor
- Pin and pitch compatible with the DWM1000

Applications

- Precision real time location systems (RTLS) using two-way ranging or TDoA schemes in a variety of markets
- Location aware wireless sensor networks (WSNs)

Ordering Information

Part Number	Description
DWM3000SB	5 pcs bag
DWM3000SQ	25 pcs bag
DWM3000SR	100 pcs on a 7" reel
DWM3000TR13	500 pcs on a 13" reel
DWM3000EVB	Evaluation board



Revision History

Revision	Description
A	Initial product release

Contact Information

For the latest specifications, additional product information, worldwide sales and distribution locations:

Web: www.qorvo.com

Tel: 1-844-890-8163

Email: customer.support@qorvo.com

Important Notice

The information contained in this document and any associated documents ("Product Brief Information") is believed to be reliable; however, Qorvo makes no warranties regarding the Product Brief Information and assumes no responsibility or liability whatsoever for the use of said information. All Product Brief Information is subject to change without notice. Customers should obtain and verify the latest relevant Product Brief Information before placing orders for Qorvo® products. Product Brief Information or the use thereof does not grant, explicitly, implicitly or otherwise any rights or licenses to any third party with respect to patents or any other intellectual property whether with regard to such Product Brief Information itself or anything described by such information.

THIS INFORMATION DOES NOT CONSTITUTE A WARRANTY WITH RESPECT TO THE PRODUCTS DESCRIBED HEREIN, AND QORVO HEREBY DISCLAIMS ANY AND ALL WARRANTIES WITH RESPECT TO SUCH PRODUCTS WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Without limiting the generality of the foregoing, Qorvo® products are not warranted or authorized for use as critical components in medical, life-saving, or life-sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death. Applications described in the Product Brief Information are for illustrative purposes only. Customers are responsible for validating that a particular product described in the Product Brief Information is suitable for use in a particular application.

© 2021 Qorvo US, Inc. All rights reserved. This document is subject to copyright laws in various jurisdictions worldwide and may not be reproduced or distributed, in whole or in part, without the express written consent of Qorvo US, Inc. | QORVO® is a registered trademark of Qorvo US, Inc.

FiRa, FiRa Consortium, the FiRa logo, the FiRa Certified logo, and FiRa tagline are trademarks or registered trademarks of FiRa Consortium or its licensor(s)/ supplier(s) in the US and other countries and may not be used without permission. All other trademarks, service marks, and product or service names are trademarks or registered trademarks of their respective owners.