

PRODUCT BRIEF: **DWM3000**

Overview of DWM3000 module

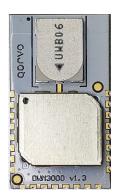
- An IEEE 802.15.4-2015 and IEEE 802.15.4z BPRF mode compliant UWB transceiver module based on Qorvo DW3110 IC
- Worldwide UWB support with UWB Channels 5 (6.5GHz) and CH9 (8GHz)
- Allows the location of objects to a precision of 10 cm
- Pin, size and UWB channel 5 compatibles with the DWM1000 module

Key benefits

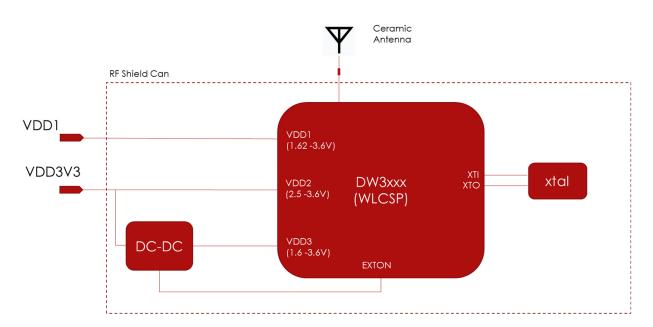
- Integration of DW3110 IC, ceramic UWB antenna, power management and crystal simplifies design integration
- Full RF design validated and tested
- Low power consumption allows powering from batteries for long periods
- Cost-effective implementation of UWB solutions

Features

- Supply voltage: VDD3V3: 2.5V 3.6V and VDD1: 1.62V 3.6V
- Footprint 23mm x 13mm x 2.9mm
- 24 pin, 1.4mm pitch side castellation
- Hardware & software applications support material available from Qorvo



DWM3000 Module



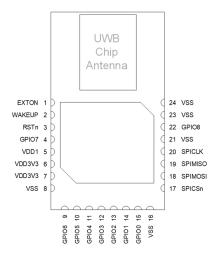
DWM3000 Block Diagram

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Target applications

The Qorvo DWM3000 module is optimized for applications in real time location systems and wireless sensor networks across a variety of markets including agriculture, building control and automation, factory automation, healthcare, safety and security, warehousing & logistics and a range of others.

- UWB RF bands 6.4896 and 7.9872GHz
- Fully programmable
- Data rate: 850kbit/s and 6.8Mbit/s
- Pulse Repetition Frequency 16 and 64MHz
- AES 128/256
- IEEE 802.15.4z Secure Time Stamp
- Sync length from 32 to 2048μs
- Secure Time Stamp length from 32 to 2048μs
- Data packet sizes up to 1023 bytes
- Integrated FEC and CRC insertion and checking
- Integrated IEEE 802.15.4 MAC features
- SPI interface to host up to 38MHz
- Supply voltage 2.5V to 3.6V
- Power consumption optimized for battery applications
- Temperature range -30°C to +85°C



DWM3000 castellation

Availability, pricing and ordering information

Engineering samples*: October 2020.

Mass production: December 2020.

Recommended 10k pricing: \$7.45.

^{*}Note, on the engineering sample parts GIPO5 and GPIO6 are reversed. Mass production variants do not have this issue.