

Product Overview

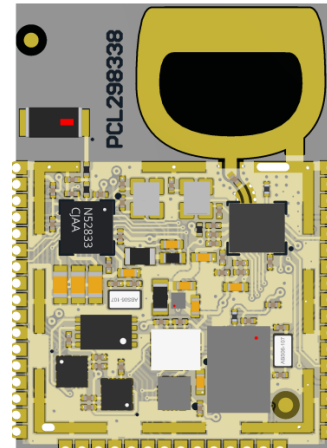
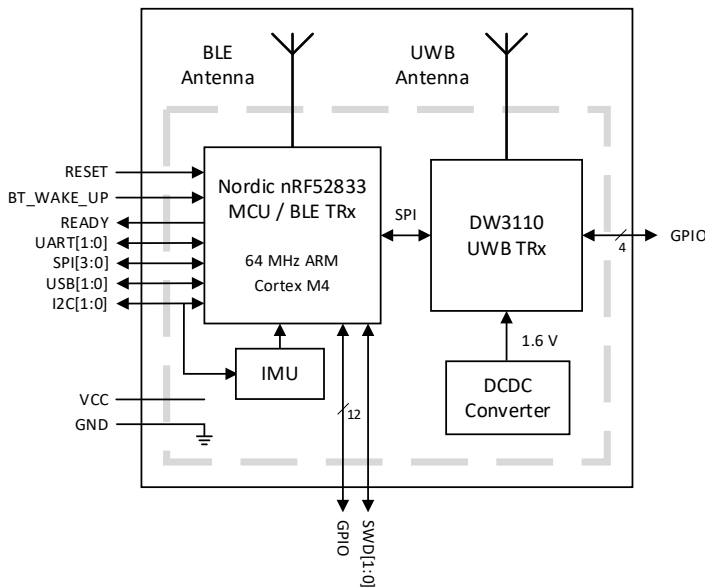
The Qorvo® DWM3001C is a fully integrated UWB transceiver module based on the Qorvo DW3110 IC. Integration of the DW3110 IC, nRF52833 MCU, planar UWB antenna, accelerometer, power management and crystal simplifies the design cycle. The RF design is fully validated, tested and calibrated. Low power consumption allows powering from batteries for long periods, providing cost-effective implementation of UWB solutions.

The DWM3001C can be used in two-way ranging and TDoA applications.

The DWM3001C is designed to be compliant to the FiRa™ PHY and MAC specifications enabling interoperability with other FiRa™ compliant devices.



Functional Block Diagram



Key Features

- IEEE 802.15.4-2015 and IEEE 802.15.4z BPRF compliant
- Fully aligned with FiRa™ PHY, MAC and certification development
- Supports Channels 5 (6.5 GHz) and 9 (8 GHz)
- FCC, SRRC and ETSI certification (planned)
- Nordic nRF52833 SoC with BLE transceiver
- Supply voltage VCC: 2.5 V - 3.6 V
- Bluetooth chip antenna
- Module dimensions: 27 mm x 19.13 mm x 3.2 mm
- 48 pin, 1 mm pitch side castellation
- AES 128/256 Security block
- Fully coherent receiver for maximum range and accuracy
- Power consumption optimized for battery applications
- Data rates of 850 kbps, 6.8 Mbps
- Maximum packet length of 1023 bytes for high data throughput applications
- Integrated MAC support features
- Backward compatible with the DWM1001C module
- Temperature range -40°C to +85°C

Applications

- Precision real time location systems (RTLS) across a variety of markets including agriculture, building control and automation, factory automation, healthcare, safety and security, warehousing & logistics, using two-way ranging or TDoA schemes.
- Location aware wireless sensor networks (WSNs)



DWM3001C

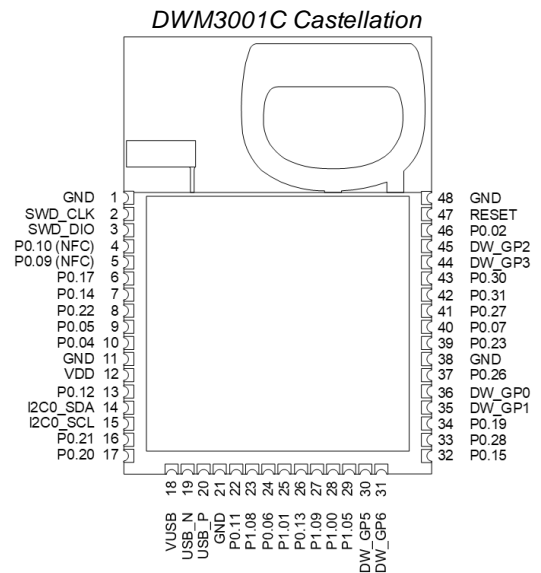
Fully integrated UWB transceiver module

Ordering Information

Part Number	Description
DWM3001CSB	Module 5 pcs bag
DWM3001CSQ	Module 25 pcs bag
DWM3001CTR13	Module 500 pcs on 13" reel

Related Products

Part Number	Description
DWM3001CDK	Design kit



Revision History

Revision	Description
A	Initial document release
A.1	Ordering information update
B	Pin 46 renamed from P1.02 to P0.02, Ordering Information updated for MP
C	Added FiRa™ certified logo

Contact Information

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

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