

GSUB-0001

[Ultra-Small, Low Power UWB SiP Module]

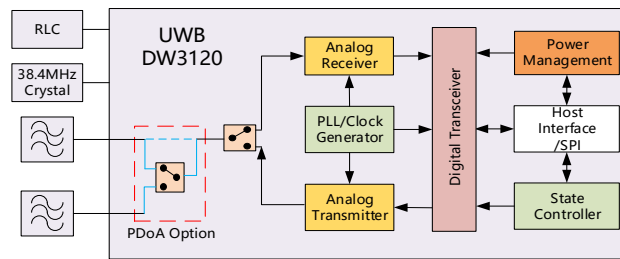
Fully Integrated UWB SiP Solution for Smart Factories, Wearables, Smart Retail and IoT

Goermicro GSUB-0001 module is based on System-in-Package (SiP) technology which consists of a Qorvo DW3120 UWB transceiver, a crystal oscillator, two filters. All these components are integrated in a tiny package via 46-pins **6.2x5.8x1.2 mm³** LGA with sputter technology to achieve EMI shielding. GSUB-0001 can be used to scheme location application for IoT devices.



Features

- UWB Transceiver: Qorvo DW3120
 - Supports channel 5&9(6489.6MHz&7987.2MHz)
 - Supports 2 Antennas
 - Integrated 2 BPFs
- Supports 2-way ranging, TDoA and PDoA location schemes
- High locating precision to 10cm
- Data rates up to 27Mbps
- Up to 40MHz SPI interface to host MCU
- Package Size : 46-pins 6.2 × 5.8 × 1.2 mm³
- Supply Voltage Range : VDD1/VDD3: 1.5V ~ 3.6V, VDD2: 2.4V~3.6V



Block Diagram

Applications

- Smart factory
- Smart retail
- Smart home
- Smart transport
- Smart phone
- Tag

Descriptions

Items	Min	Typ	Max	Unit
Frequency Range	6240		8240	MHz
Center Frequency CH5		6489.6		MHz
Center Frequency CH9		7987.2		MHz
Channel Bandwidths		499.2		MHz
Output Power Spectral Density (programmable)			-41	dBm/MHz
Output Channel Power		-18		dBm
Minimum Input Level Sensitivity				
Data Rate 850 kbps (PER≤1%)		-96		dBm/500MHz
Data Rate 6.8 Mbps (PER≤1%)		-91		dBm/500MHz

