DCU 040 UWB Module

Fully interoperable with IEEE® 802.15.4 HRP UWB standard.

DCU040 module is based on NXP Trimension™ SR040 UWB IC, with power management, clock control, filters and peripheral components. With 1 embedded PCB Antenna it will make it straight to use in customer final designs.

DCU040 module is a 1D Device, support 2-WAY RANGING (ToF), with Pre-programmed FW, and security with IEEE802.15.4x STS extension.

It is a (SMD) Surface Mount Device designed to be easily mounted over custom Printed Circuit Boards (PCB) to deploy.

FEATURES:

✓   Easier design integration. – no RF design required;

✓   Low power consumption to support coin cell battery;

✓   High-precision positioning applications with a non-Line-of-Sight precision of ±10cm;

✓   Secure;

APPLICATIONS:

The perfect Tag for Industrial, RTLS, Smart Home & Consumer applications.

TECHNICAL SPECIFICATION

UWB MODULE	DCU040
ANTENNA TYPE	PCB Embedded , RF: 1 TX/1 RX
ANTENNA NUMBER	1
RANGING MODE	1D ranging
SIZE	15.7 x 16.75 x 2mm
COMMUNICATION INTERFACE	SPI
MAIN CHIP	NXP SR040
CHANNEL	UWB Ch 5 & 9
FREQUENCY RANGE	6.24GHz~8.24GHz
SUPPLY VOLTAGE	1.8V ~ 3,6V
MAX OUTPUT POWER (EIRP)	14.7 dBm
OPERATING TEMPERATURE RANGE	–30 / +85 ℃