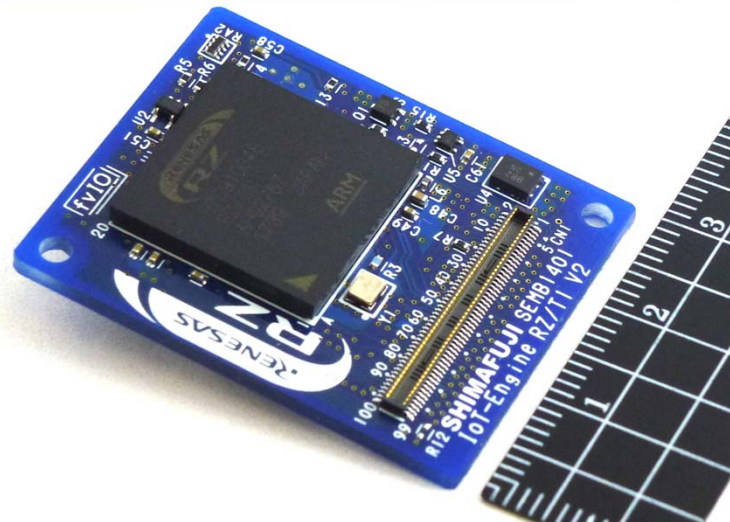# IoT-Engine RZ/T1（SEMB1401）

SHIMAFUJI

This SEMB1402 is an IoT-Engine standard CPU module equipped with a Renesas Electronics microcomputer (RZ/T1). The I2C communication of an arbitrary sequence can be executed simultaneously with maximum communication performance on 8 channels without CPU load using fvIO technology. (Communication is possible without gaps at 400 Kbps)
The acquired data can be sent to the server via USB or WiFi / Wi-SUN.
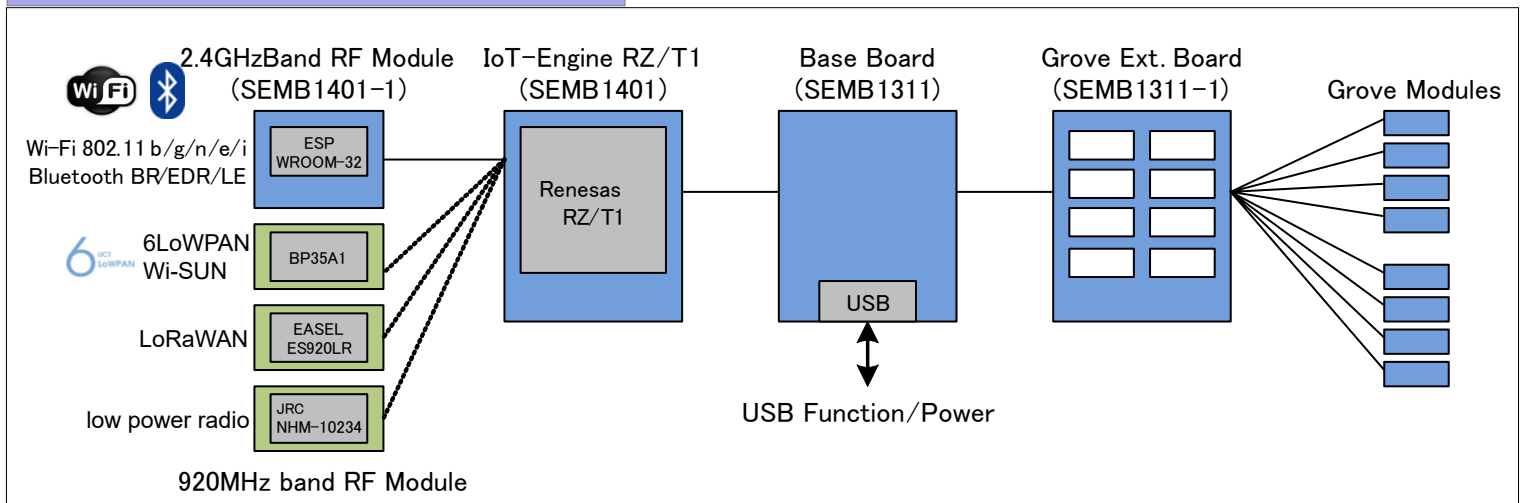

◆ SEMB1401 Specification

CPU	RZ/T1 　Cortex-R4F　　　　　　　600MHz 　Build in Memory　　1024+512KB
Memory	SPI Flash Memory　　　　　　8MB
Ext. Connector	IoT-Engine Connector　　　　x1 IoT-Engine RFExt. Connector　x1
Power	DC3.3V　　　（IoT-Engine Connector）
Board Size	30mm x 37mm

◆ Option Board Specification

WiFi	ESP-WROOM-32 　WiFi : 802.11 b/g/n/e/i 　Bluetooth v4.2 BR/EDR, BLE
Ext. I/F	Grove Ext. Connector（I2C）　　x8 USB2.0 Target（MicroB）　　　x1 JTAG　　　　　　　　　　　x1
Power	DC 5V　　　　　（USB MicroB）
Size	30mm x 50mm x 28mm (Excluding protrusions)

◆ Option Board Confg. Connection

Wi-Fi 802.11 b/g/n/e/i
Bluetooth BR/EDR/LE

2.4GHzBand RF Module（SEMB1401-1）
ESP WROOM-32

6LoWPAN Wi-SUN — BP35A1

LoRaWAN — EASEL ES920LR

low power radio — JRC NHM-10234

920MHz band RF Module

IoT-Engine RZ/T1（SEMB1401）
Renesas RZ/T1

Base Board（SEMB1311）
USB
USB Function/Power

Grove Ext. Board（SEMB1311-1）

Grove Modules

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