

Renesas RX Family

FPB-RX14T Fast Prototyping Board

1. Introduction

The FPB-RX14T Fast Prototyping Board provides an entry point for evaluation, prototyping and development with the RX14T MCU. Moreover, since this board incorporates an emulator circuit, you can use it for designing your own applications without further investments in tools. This product includes through-holes for pin headers that allow access to MCU signal pins, allowing easy prototyping with a breadboard.

Getting started is Easy!

1. Power up the FPB-RX14T through the Debug USB port (J8 DEBUG1: USB Type-C®) using a USB cable connected to a 5V power source like a PC USB port.
2. The green power LED3 will light up.
3. The pre-programmed 'quickstart example project' will begin to execute blinking the green user LEDs LED1 and LED2.

2. Package Contents

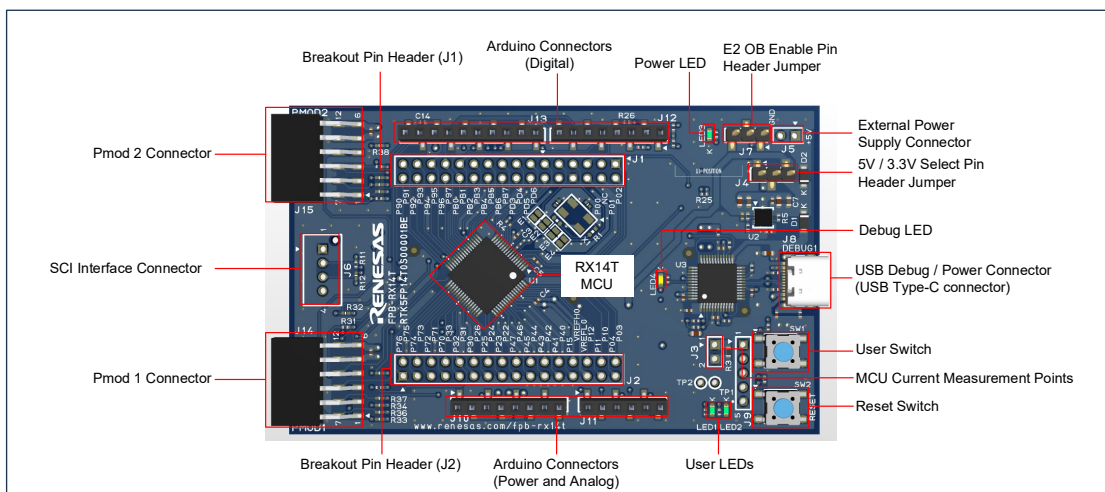
- FPB-RX14T
- Printed Quick Start Guide

3. Board Specifications

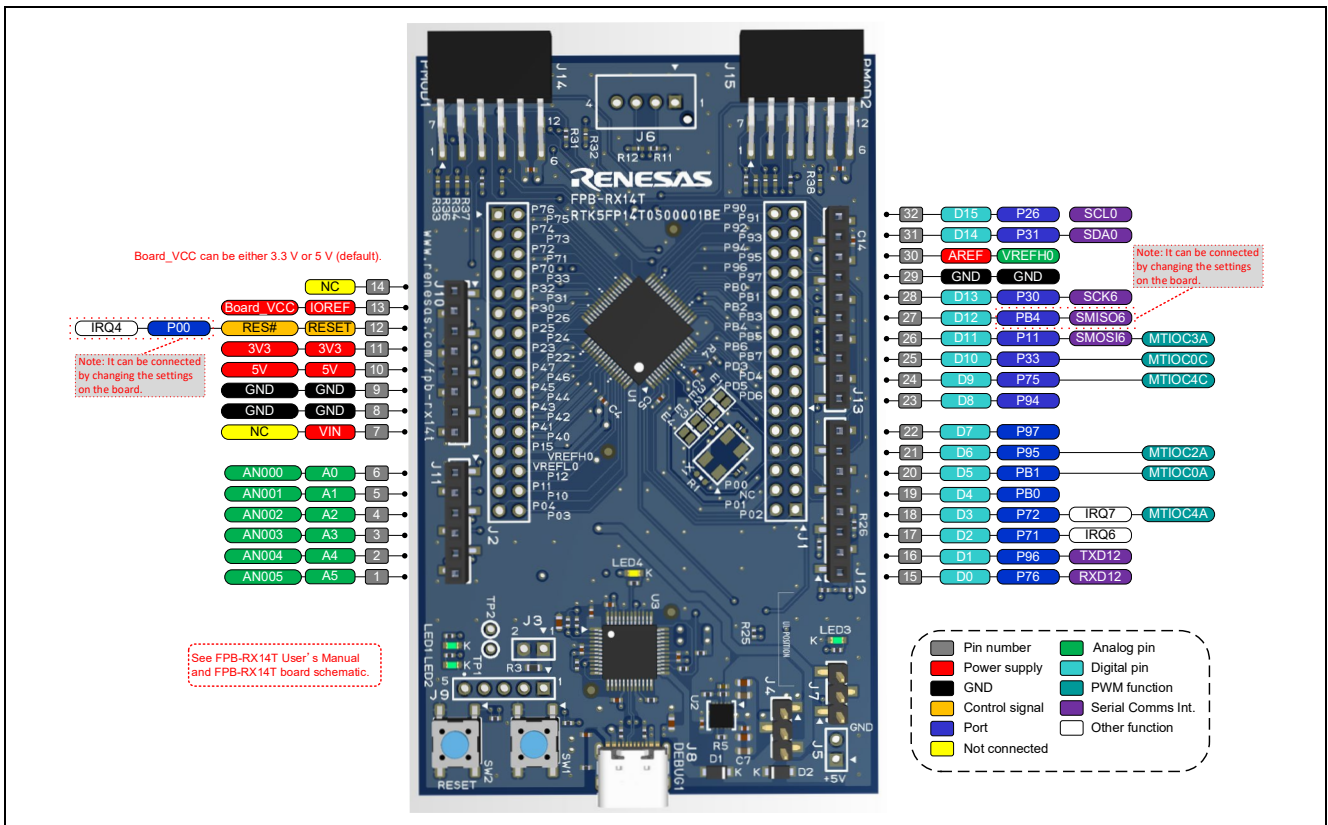
| Item | Specification |
|---------------------------------------|----------------------------------------------------------------------------------------------------|
| Evaluation MCU | Part No: R5F514T5AMFM (package: 64pin LQFP) |
| | On-chip memory: 128 KB ROM, 12 KB RAM |
| Board size | Size: 59 mm x 95 mm |
| MCU Power-supply voltage | VCC: 3.3 V or 5 V. MCU operation voltage range 2.7 V to 5.5 V. |
| Power-supply circuit | USB connector: VBUS (5 V input). VBUS is converted to 3.3 V by linear regulator. |
| | 2-pin external power-supply header* ¹ |
| On-board debugger / programmer | E2 emulator On Board (referred as E2 OB, FINE Interface) |
| Push switch | Reset switch x 1, User switch x 1 |
| LED | Power LED (green) x 1, User LED (green) x 2, Debug LED (yellow) x 1 |
| USB connector | Connector: USB Type-C |
| Pmod™ connector | Connector: Angle type, 12 pins x 2 |
| Arduino® connector | Connector: 6 pins x 1, 8 pins x 2, 10 pins x 1 The interface is compatible with Arduino UNO R3. |
| Breakout pin header* ¹ | Header: 32 pins x 2 |
| SCI interface connector* ¹ | Connector: Straight type, 4 pins x 1 |

*¹This part is not mounted

4. Board Layout

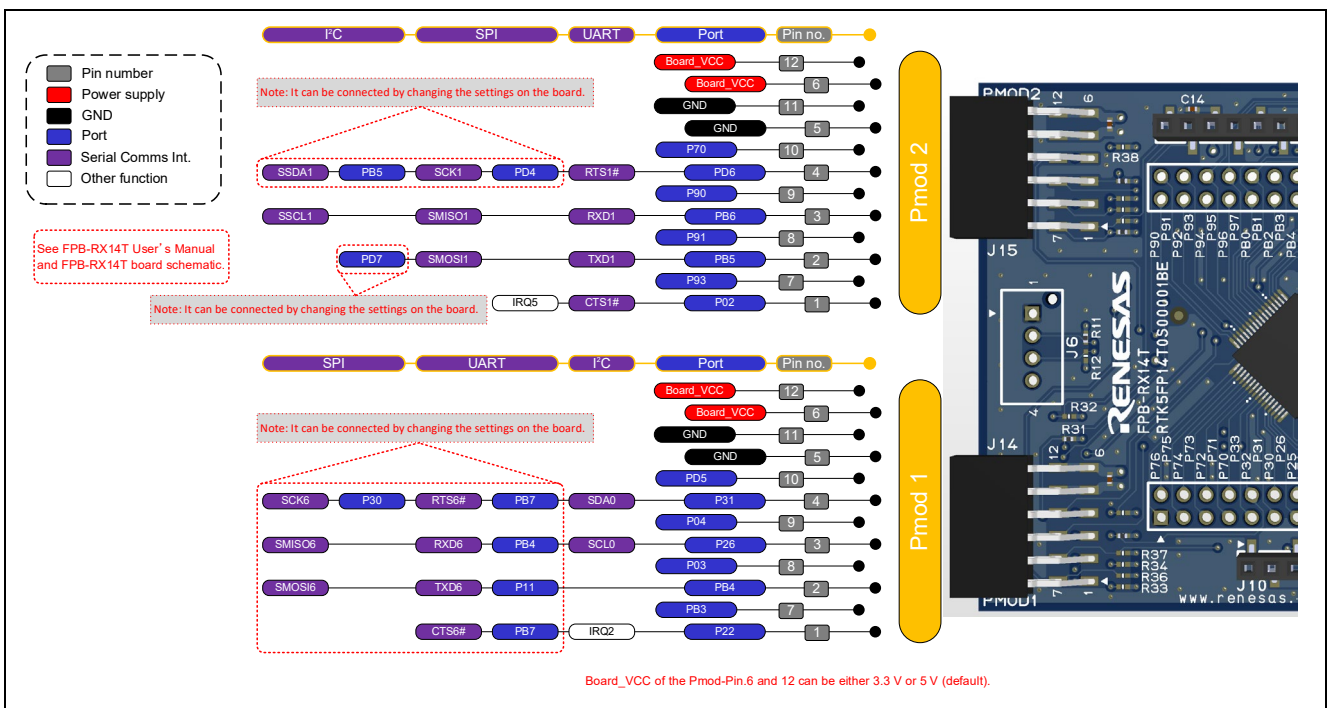


5. Arduino Interface



6. Pmod Interface

The FPB-RX14T has Pmod 1 and Pmod 2 connectors for Type-2A (SPI), Type-3A (UART) and Type-6A (I²C) interface.



7. WEB and Support

- For detailed information on the FPB-RX14T, please refer to the FPB-RX14T User's Manual available at renesas.com/fpb-rx14t.
- For application development, the integrated development environment e² studio, the compiler package CC-RX and Renesas Flash Programmer must be installed on the host PC. These are available for download at renesas.com/fpb-rx14t.

