4.3" WQVGA Touch Screen LCD Kit
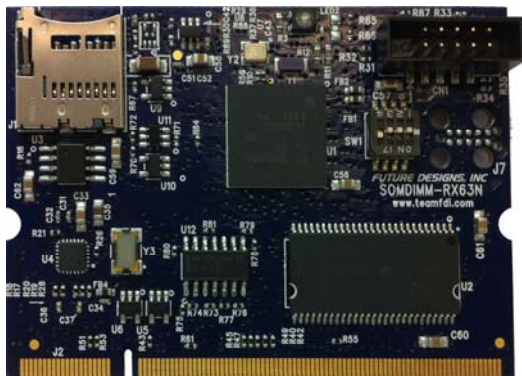
DK-43WQT-RX63N
For the Renesas RX63N

Highlights

- **SOMDIMM – CPU Module based on SODIMM form factor (Dual Inline Memory Module)**
    - **RX63N 96MHz, 165 DMIPS microcontroller**
    - **2MB of Internal FLASH, 128KB of Internal SRAM, 16MB of External SDRAM**
    - **10/100 Ethernet PHY**
    - **Mini-JTAG Debug Connector**

- **CARRIER – Generic Carrier Board for CPU and LCD Modules**
    - **200-pin SOMDIMM Socket, supporting various processor modules**
    - **10/100 Ethernet Port, USB Host and Device ports**
    - **One CAN port (Male DB9), One RS-232 port (Male DB9), External I2C interface**
    - **3-axis Digital Accelerometer & Temperature Sensor**
    - **Real-time Clock with SuperCap backup**
    - **TFT interface for Graphics LCD displays up to 1024x768 resolution, 18-bit color**
    - **Flexible Power Supply input can be wall supply or 5V USB**
    - **2-Channel I^{2}S Audio Codec**
    - **Redpine and Roving Networks Wi-Fi compatible**

- **LCDCARRIER**
    - **4.3" WQVGA Display (480 x 272) with Touch Screen Interface**
    - **Optional Display sizes of 4.3" and 4.7" WQVGA resolutions**

- **Software Included**
    - **FreeRTOS Operating System**
    - **uEZ® Rapid Development Platform**
    - **Drivers and APIs with documentation**

- **Supplied with easy-to-use application documents for all hardware and software**
- **Platform is based on a modular design for maximum flexibility**
- **Additional CPU DIMM and LCD Carrier boards under development**

The DK-43WQT-RX63N is optimized to save development time in typical embedded control applications. The modular format uses a base Carrier Board, a core CPU SOMDIMM and an LCD Carrier Board. The base Carrier Board includes expansion connectors for added flexibility and a range of configurations. FDI offers low cost customization services for customer specific hardware, software or packaging applications at volumes of 500 units or more.

Features

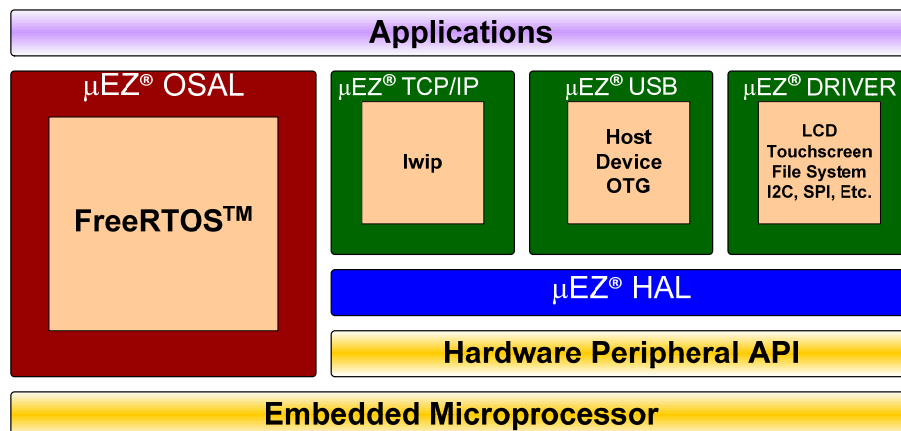**Actual PCB dimensions are 2.66" x 1.89"**

SOMDIMM-RX63N Description

The SOMDIMM-RX63N includes a 96MHz Renesas RX63N microcontroller running the open source uEZ® + FreeRTOS software platform. The RX63N has 2MB of internal Flash memory, 128KB of internal SRAM, a 10/100 Ethernet Media Access Controller (MAC), a USB full speed device/host/OTG controller, up to eight UARTs, two CAN channels and a collection of serial communications interfaces. The SOMDIMM-RX63N also includes 16MB of external SDRAM.

Software Included

 µEZ® (pronounced Muse) is an open source rapid development platform that supplies application developers with an extensive library of open source software, drivers, and processor support - all under a common framework. µEZ® allows companies to focus on innovation and their value-added applications while minimizing development time and maximizing software reuse.

The diagram below shows a typical embedded application stack. The µEZ® components comprise three primary categories to simplify embedded application development:

- Operating System Abstraction Layer (µEZ® OSAL)
- Sub-system drivers (ex: µEZ® TCP/IP, µEZ® USB, µEZ® Driver)
- Hardware Abstraction Layer (µEZ® HAL)

Applications

µEZ® OSAL	µEZ® TCP/IP	µEZ® USB	µEZ® DRIVER
FreeRTOS™	lwip	Host Device OTG	LCD Touchscreen File System I2C, SPI, Etc.

µEZ® HAL

Hardware Peripheral API

Embedded Microprocessor

Ordering Information

Part Number: DK-43WQT-RX63N
Renesas Part Number: TBD

Suggested Resale Price: $450.00(USD)
Order Online at: www.teamfdi.com

Warranty: 30-day money back guarantee
Phone 256-883-1240   Fax 256-883-1241
sales@teamfdi.com   www.teamfdi.com

 Kit Contents:

- SOMDIMM-RX63N Board
- CARRIER Board
- LCDCARRIER Board 4.3" WQVGA LCD Touch Screen
- 5VDC, 2.3A North American Power Supply
- USB and Ethernet Cables
- Segger JTAG Debugger with cables

Download Users Manual, documents, schematics, and software examples at:

www.teamfdi.com/DK-43WQT-RX63N

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