

# 4.3" WQVGA Touch Screen LCD Kit



**DK-43WQT-RX63N**  
For the Renesas RX63N

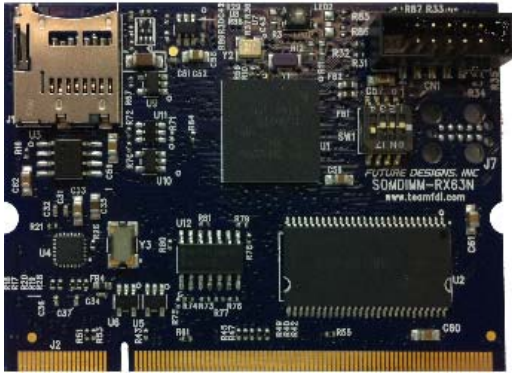


## Highlights

- **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<sup>2</sup>S Audio Codec
  - 802.11 Wi-Fi compatible
- **LDCARRIER**
  - 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<sup>®</sup> 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

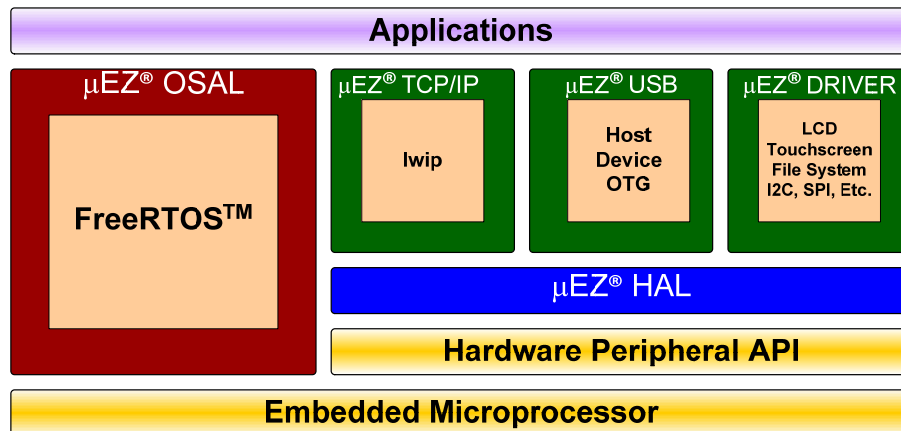
The SOMDIMM-RX63N includes a 96MHz Renesas RX63N microcontroller running the open source  $\mu$ EZ<sup>®</sup> + FreeRTOS software platform. The RX63N has 2MB of internal Flash memory, 128KB of internal SRAM, a 10/100 Ethernet Media Access Controller (MAC), a USB full speed device/host/OTG controller, 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

$\mu$ EZ<sup>®</sup> (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.  $\mu$ EZ<sup>®</sup> 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  $\mu$ EZ<sup>®</sup> components comprise three primary categories to simplify embedded application development:

- Operating System Abstraction Layer ( $\mu$ EZ<sup>®</sup> OSAL)
- Sub-system drivers (ex:  $\mu$ EZ<sup>®</sup> TCP/IP,  $\mu$ EZ<sup>®</sup> USB,  $\mu$ EZ<sup>®</sup> Driver)
- Hardware Abstraction Layer ( $\mu$ EZ<sup>®</sup> HAL)



## Ordering Information

Part Number: DK-43WQT-RX63N

Warranty: 30-day money back guarantee  
Phone 256-883-1240 Fax 256-883-1241  
sales@teamfdi.com [www.teamfdi.com](http://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](http://www.teamfdi.com/DK-43WQT-RX63N)



**FDI** *Future Designs, Inc.*  
Your Development Partner