

# Instant GUI 4.3" Touch Screen LCD Kit



**uEZGUI-1788-43WQS**  
for the **NXP LPC1788**



**SHARP**  
MICROELECTRONICS  
OF THE AMERICAS

**0.545"**  
**thick**



## Highlights

### Features

- Sharp 4.3" TFT WQVGA Touch Screen LCD 480 x 272
- NXP LPC1788 CPU with 512KB internal Flash
- USB Device Mini-B for power and PC communications
- 8MB of SDRAM
- 8MB of NOR FLASH (opt to 16MB)
- 2GB microSD Memory Card
- NV Data Storage via 2kB Internal EEPROM
- Internal Real-Time Clock with Supercap Backup
- Speaker, 3-axis Accelerometer, Temperature Sensor
- Mini-JTAG Debug Connector
- Actual Size 4.6" x 2.84" x 0.54"
- External Expansion via two I/O Connectors for
  - Serial Ports, UART, I2C, SPI, USB Host/Device
  - RMII interface for Ethernet 10/100



### Software

- uEZ® / FreeRTOS Rapid Development Platform
- MicroSD card maps as USB Flash Drive to the PC
- Rowley CrossWorks Compiler and Tool Suite
- Segger J-Link Lite JTAG for programming and debug



Rowley Associates



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

# Features



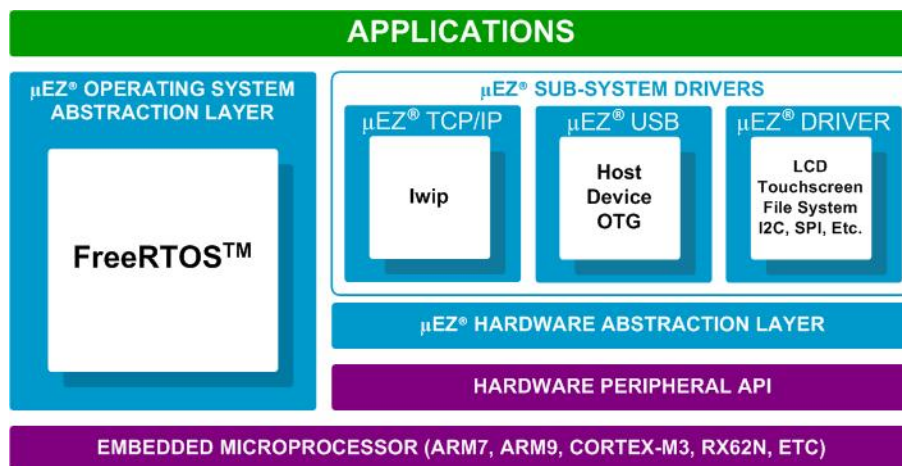
The NXP LPC1788 Cortex M-3 based microcontroller runs the open source  $\mu$ EZ<sup>®</sup> + FreeRTOS software platform. The LPC1788 has 512KB of internal Flash memory, 96KB of internal SRAM, a 10/100 Ethernet Media Access Controller (MAC), a USB full speed device/host/OTG controller, four UARTs, two CAN channels and a collection of serial communications interfaces. The  $\mu$ EZ GUI board also includes 8MB of external SDRAM and 8MB of external NOR Flash.

## 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)



The  **$\mu$ EZGUI-1788-43WQS** is designed to be used as an “off-the-shelf” Graphical User Interface (GUI) or Human Machine Interface (HMI) in a variety of end customer applications. The miniature, self-contained design is well suited to embed directly into your product or FDI offers prepackaged versions for stand-alone use (for example, the  **$\mu$ EZGUI-1788-43WQS-BA** FDI also offers low cost customization services for customer specific hardware, software or packaging applications at volumes of 500 units or more.

## Ordering Information

Part Number:  **$\mu$ EZGUI-1788-43WQS**  
Order Online at: [www.digikey.com](http://www.digikey.com)

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

### Kit Contents:

- $\mu$ EZ<sup>®</sup> GUI 4.3” Board with LPC1788
- Sharp 4.3” WQVGA Touch Screen LCD
- USB Device cable for Power and PC communications
- Mini JTAG Debugger with cables

Download Users Manual, documents, schematics, and software examples at: [www.teamfdi.com/ \$\mu\$ EZGUI](http://www.teamfdi.com/<math>\mu</math>EZGUI)