

FDI

7.0" Resistive Touch Screen LCD GUI

The Future Designs, Inc. μ EZ[®] GUI is a standalone microcontroller-based solution designed for easy integration into a variety of end customer applications. Each unit includes a touch screen display with supporting hardware and FDI's open source μ EZ / FreeRTOS software. To kick off your project, we offer development kits with JTAG debugger, power supply, cables, microSD card and full documentation. Once your design is complete, we offer cost-effective production modules for prototypes or high-volume production.

FDI also offers engineering design and production support services. We are committed to saving our customers time, money and hassle. So, no matter how much (or little) support you need along the way, we can make your project concept a reality.

Development Kit Part Number: μ EZGUI-1788-70WVT

Production Module Part Number: μ EZGUI-1788-70WVT-BA

Available for immediate order at www.TeamFDI.com or from any of our franchised distributors.



0.55"



Module Features

- 7.0" TFT WVGA 800 x 480 LCD Panel with Resistive Touch Screen
- NXP LPC1788 120MHz CPU with 512 KB Internal Flash
- 16 MB of SDRAM (optional to 32 MB)
- 8 MB of NOR FLASH (optional to 16 MB)
- microSD Memory Card Socket with support up to 256 GB microSD Memory Card
- USB Device Mini-AB PC communications
- USB Device Mini-B connector for 5.0 VDC power
- NV Data Storage via 4KB Internal EEPROM
- Low power, Real-Time Clock with Supercap Backup
- Speaker, 3-axis Accelerometer, Temperature Sensor
- Mini-JTAG Debug Connector
- Optional 802.11n Wi-Fi module
- External Expansion via two I/O Connectors (70 pins)
 - UART, I2C, SPI, USB Host/Device, RMII Ethernet



Sales@TeamFDI.com
(256) 883-1240



TeamFDI.com



[YouTube.com/
FDIProducts](http://YouTube.com/FDIProducts)

Technical Specifications

Production Module

- Part number: **uEZGUI-1788-70WVT-BA**
- Contrast Ratio: 500:1 typical
- Brightness: 280 cd/m² typical
- Horizontal Viewing Angle: 70° L / 70° R
- Vertical Viewing Angle: 60° U / 70° D
- Power consumption typ/max: 600/1100mA @ 5.0VDC
- Overall Size: 6.70" (W) x 5.20" (H) x 0.55" (T)
- Operating Temperature Range: -20°C to +70°C
- Viewable area: 6.07" (W) x 3.38" (H)
- Weight: 276g
- Touch Resolution: 800x480

Development Kit

- Part number: **uEZGUI-1788-70WVT**
- **Includes**
 - uEZGUI-1788-70WVT-BA Production Module
 - AC power supply
 - Mini JTAG debugger with cables
 - USB device cables for power and PC communications
 - 4GB or larger microSD Card
 - Documentation and Example Software



uEZ Software

µEZ® (pronounced Muse) is an open source rapid development platform that allows companies to focus on innovation and their value-added applications while minimizing development time and maximizing software reuse. 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), and Hardware Abstraction Layer (µEZ® HAL)

FreeRTOS with Tasks, Semaphores, Mutex, Queues

SafeRTOS option for safety critical real-time applications

LVGL Graphics
free and open-
source graphics
library

FAT FS for USB/SD card with long-file name support

USB Host/Device
including mass
storage, HID Libraries

Wi-Fi library with integration into TCP/IP Stack

SEGGER JTAG
development and
production SW
integration

emWin Graphics
library free with NXP
ARM MCUs

Memory SDRAM,
NOR Flash, SPIFI
Flash support

Audio PWM, DAC, and I2S support

TFT LCD support for
QVGA, VGA, WQVGA,
WVGA Displays

10/100 Ethernet support with lwIP TCP/IP Stack

Modbus TCP/IP and RTU support

Serial Comms I2C,
SPI, UART, RS232,
RS485, CAN & GPIO

Bootloader for field updates over SD/ USB/Serial (affordable μ EZ+)



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