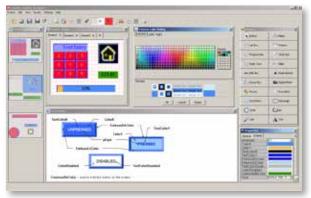
## **PIC32 Graphics Solutions**

## Microchip Offers a Wide Range of PIC32 Graphics Solutions

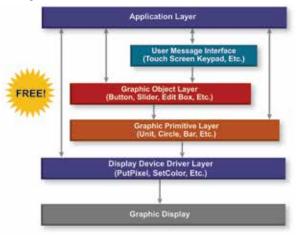
## **Microchip's Graphics Display Designer (GDD X)**



Microchip's free graphics display design tool, GDD X puts the development of your GUI in a visual "What You See Is What You Get" (WYSIWYG) environment. Select buttons, draw lines, insert meters, set colors, drag and drop objects, and GDD generates the C-code for your project! GDD works stand alone or as a plug-in to Microchip MPLAB® X, Integrated Development Environment.

For more information go to: www.microchip.com/gdd.

## **Graphics Libraries**



Microchip offers a complete free graphics library for standalone use or with Microchip's Graphics Display Designer X.

- Pre-made graphics objects
- Multiple fonts and languages
- User interface for mTouch<sup>TM</sup> sensing solutions
- Image and font resource converter
- Anti-aliased fonts
- JPEG decode

Download for free at: www.microchip.com/MLA.

# Low Cost Controllerless Graphics (LCCG) PICtail™ Plus





Low Cost Controllerless Graphics PICtail Plus Daughter Board (AC164144)

All of Microchip's PIC32

microcontrollers include a Parallel Master Port (PMP). For graphics apps the PMP is used to connect external PSRAM and an LCD. This eliminates the need in many designs for an external graphics controller. PIC32 MX6 and MX7 Series devices with up to 128 KB of on chip RAM can support a QVGA 8 bpp frame buffer of 77 KB, with room for program execution. Using external PSRAM, displays up to WQVGA with 16 bpp color can be supported. The LCCG development board interfaces to any PIC32 Starter Kit, or Explorer 16 development board and any of Microchip's LCD Boards. It includes 256 KB of PSRAM that can be jumpered in or out of the circuit.

#### **Suggested Development Tool Kits**

LCCG PICtail Plus PIC32 USB Starter Kit WQVGA LCD AC164144 DM320003-2 AC164127-6

# GUI Development Board with Projected Capacitive Touch



PIC32 GUI Development Board with Projected Capacitive Touch (DM320015)

The GUI development board with Projected Capacitive Touch is based on the PIC32MX795F512H with 105 DMIPS performance, 512 KB Flash and 128 KB RAM. The PIC32 is coupled to low cost PSRAM for high speed graphics frame buffering and a 4.5" WQVGA touch display. The board provides USB host and device connectivity

and supports additional I/O connections via through-hole pads for custom board attachment. On board PCAP touch is supported by Microchip's MTCH6301 projected capacitive touch controller. This solution is a standalone development platform that can be programmed/debugged via the on board 5-pin In-Circuit Serial Programmer interface designed for Microchip's PICkit $^{\text{TM}}$  3 In-Circuit Debugger.

#### **Suggested Development Tool Kits**

The GUI Dev. Board with PCAP Touch PICkit 3 In-Circuit Debugger

DM320015 PG164130



### **LCD Display Boards**



Graphics Display 3.2"  $320 \times 320$  Board (AC164127-4)



Graphics Display Truly 5.7"  $640 \times 480$  (VGA) PICtail™ Plus Board (AC164127-8)



Graphics Display 4.3"  $480 \times 272$  Board (AC164127-6)



Graphics Display Truly 7" 800 × 480 (WVGA) PICtail™ Plus Board (AC164127-9)

LCD display boards are pre-wired for interface to Microchip's PIC32 LCCG board, Epson or Solomon controller based boards, and PIC24 based graphics development boards. They are a convenient way to add graphics to your design and leverage your Microchip development tools investment.

#### **Ordering Information**

3.2" QVGA (240 × 320) TFT LCD	AC164127-4
4.3" WQVGA (480 × 272) TFT LCD	AC164127-6
5.7" VGA (640 × 480) TFT LCD	AC164127-8
7.0" WVGA (800 × 480) TFT LCD	AC164127-9

## **Multimedia Expansion Board (MEB)**



Multimedia Expansion Board (DM320005)

The Multimedia Expansion Board (MEB) is powered by any PIC32 Starter Kit and is packed with features for development of your GUI. The board includes a 3.2" QVGA color touch-screen, an onboard FCC certified Wi-Fi® module, 24-bit stereo audio, a three axis accelerometer, temperature sensor,

joystick and MicroSD memory card slot. Simply connect any DM320001, DM320003-2, DM320004 Starter Kit to the MEB and you're ready to develop, program and debug code.

#### **Suggested Development Tool Kits**

Multimedia Expansion Board PIC32 USB Starter Kit

DM320005 DM320003-2



## www.microchip.com/graphics

Visit our web site for additional product information and to locate your local sales office.

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