## **NEXT GENERATION INTELLIGENT LCDs**



www.ilcd.info

### **PRESENTING ILCD LINUX**

Take your device to the next level of sophistication with iLCD Linux to develop even more powerful applications.

This new series has all the hallmarks of the F-Series, including the high-quality, optically bonded displays, slim form factor, I/Os and multi-touch support, but equipped with a fully customizable Yocto Linux operating system.

Get an edge over your competition with faster 3D rendering, higher resolution and seamless integration into your hardware.



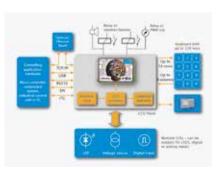
#### **ALL IN ONE**

demmel's iLCD Linux is a versatile solution for high-tech devices. Enjoy all the possibilites of a fully fledged operating system that interfaces directly with your device.

- 1.8 GHz quad-core i.MX8M Plus processor
- Dedicated hardware accelerators for graphics and video
- Ethernet, WiFi 6, Bluetooth 5.0, I<sup>2</sup>C, SPI, RS232, GPIOs, PWM Signals, ...

You can use our custom Linux image with preset hardware configuration, which includes a desktop, browser and demo projects or make your own build. We offer all the support you need to get started. Use any app development suite to write your application.

#### **SAVE MONEY**



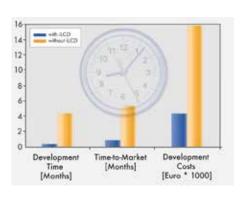
The comprehensive iLCD's hardware equipment helps to reduce the bill of materials of your device. There is no need to use an expensive controller in your application, even the 10.2" iLCD panel with 1280x800 pixel can be controlled by a low-cost microcontroller via USB, RS232, I<sup>2</sup>C, SPI or Ethernet. Alternatively, any iLCD JPro can be programmed and controlled with Java to run your device.

Up to 128 MByte on-board flash memory for storing fonts, graphics, and macros supports even the most complex applications.

A MicroSD card holder enables you to extend your memory to any desired capacity. All iLCD panels require 5 Volts only, connect to a keyboard matrix with up to 128 keys, digital and analog I/Os, relays and a sound transducer.

USING ILCDS REDUCES APPLICATION DEVELOPMENT COSTS.

#### **SAVE TIME**



Developing your own LCD hardware requires studying stacks of controller specification documents and tedious pixel-level programming. iLCDs free you from the drudgery with an easy to learn high-level command protocol.

ilCD's built-in support for rendering and aligning text with Windows fonts, displaying static and animated graphics, drawing borders and lines and controlling the touch screen will dramatically reduce development time.

ILCDS HELPS YOU REDUCE I/O AND SCREEN DEVELOPMENT EFFORT FROM SEVERAL MONTHS TO A MATTER OF DAYS.

#### **SAVE MANPOWER**



With the easy-to-use Windows-based Integrated Development Environment (IDE) iLCD Manager XE, designing applications for touch screen iLCD panels in practically no time has never been easier.

Thanks to new features such as Parameter Completion and Syntax Checking/ Highlighting, no programming skills are required to design state of the art graphical interfaces.

Well-structured sample and demo projects promote a hands-on access to the powerful command set and can be customized and adopted for user applications. iLCD Manager XE can be used royalty free and is available on www.ilcd.info

**USING ILCDS SAVES MANPOWER** 

### **NEXT GENERATION INTELLIGENT LCDs**





## INTELLIGENT PRODUCTS FOR SMART SOLUTIONS



# demmel products presents THE NEW F-SERIES



## iLCD LINUX

THE ILCD FAMILY JUST GOT EVEN BIGGER, FASTER AND MORE DIVERSE FOR MORE VERSATILE APPLICATIONS



Save Money.

Save Time.

Save Manpower.





#### SAVE MANPOWER.

#### THE NEW F-SERIES

At a scale of 1:2



## DPP-FHx102

1280x800 px 10.2" cap. touch

#### DPP-FHx70

1024x600 px 7.0" cap. touch

#### DPP-Fx57

640x480 px 5.7" res. touch

#### DPP-FHx50

800x480 px 5.0" cap. touch

#### DPP-FHx43

800x480 px 4.3" cap. touch

**FEATURES** 

More than 250 high level commands

Display static and animated graphics

Control the touch screen

Use any anti-aliased Windows font for your screens

#### DPP-FHx35

640x480px 3.5" cap. touch

#### **WHAT IS NEW**

The F-Series is demmel products' new line of intelligent displays, which are fully compatible with previous releases in terms of functionality and physical parameters. With this new series we've vastly improved performance by introducing a more powerful System on a Module (SoM) to the design, which we call DPM5050.

As fast as the new processor is, speed isn't everything. We've therefore introduced up-to-date, optically bonded, high-brightness and higher resolution displays. These deliver crisper images, are more durable and sunlight-readable.

The 10.2" and 3.5" displays are currently under development and will be released later this year. The 2.8" and 3.0" models are currently not part of the F-Series but will continue to be available going forward.

**SPECIFICATION** 

- 528 MHz DPM5050 iLCD controller
- Supports landscape and portrait mode
- USB, TTL RS232, I<sup>2</sup>C, SPI and Ethernet ports
- 30 MByte flash memory for fonts and graphics
- 32 MByte RAM for multiple screens and viewports I/Os for relays, speaker, matrix keyboard and LEDs
- On-board speaker AMP
- Battery backed real-time clock on board
- MicroSD card holder for graphics and other usage
- Optically bonded capacitive (PCAP) touch screen
- Optionally without touch screen

#### **CLASSIC iLCDs**

At a scale of 1:1

#### **DPP-CTS2432**

240x320 px 2.8" res. touch

### DPP-CTS2440

240x400 px 3.0" res. touch

#### **SPECIFICATION**

- 32-bit DPC3050 iLCD controller
- Supports landscape and portrait mode
- USB, TTL RS232, I<sup>2</sup>C, SPI and Ethernet ports
- 2 MByte flash memory for fonts and graphics
- I/Os for relays, speaker, matrix keyboard and LEDs
- Battery backed real-time clock on board

#### **iLCD** Accessories

for faster results

#### **STARTER KIT**

- Temperature & humidity sensor
- Proximity & brightness sensor
- Accelerometer RGB-LED
- USB-C connector

#### **Interface Boards**

- Ethernet
- USB ■ RS-232
- Universal 24 pin
- and more

#### **Custom Solutions**

At demmel products we're happy to provide customized solutions such as individual cover glasses or frames.

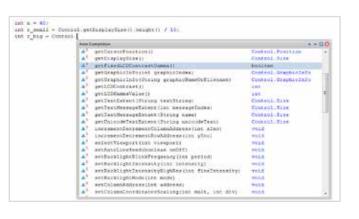




#### **DISPLAY COMPUTING WITH JAVA**

In addition to the convenient high-level commands, iLCDs can be programmed with Java, the widespread programming language familiar to most software developers. The iLCD Manager XE accommodates a complete Java development environment for editing, compiling and debugging state-of-the-art HMI applications. Java's object oriented approach is particularly suitable for user interface applications.

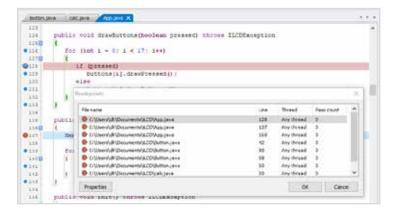
#### **CODE AUTO COMPLETION**



#### Auto complete all objects and methods implemented by demmel products

Use keyboard shortcuts for activation and selection

#### **BREAKPOINT LIST**



- Define arbitrary breakpoints in your Java code
- Step through the breakpoints when debugging remotely
- See the passcount for each breakpoint

#### **PARAMETER WATCHLIST**



- Add expressions to your watchlist to monitor their value
- Debugger evaluates and updates items listed when program execution pauses

