



Next Generation Intelligent LCDs



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Press Kit

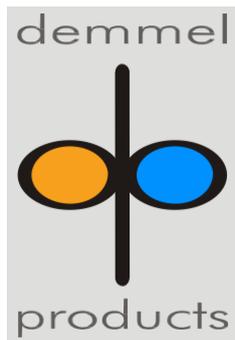
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- New intelligent displays with Linux

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- iLCD product brochure
- USB-stick with press info



PRESS RELEASE

Intelligent Displays now including Yocto Linux

Vienna, June 2022 - demmel products is launching a completely new product series with a high-performance iLCD Linux 7" model. At the embedded world 2022, the company will also show its well proven and enhanced iLCD JPro line, which enables "display computing" without an operating system. The new F-Series offers significantly more performance and features.

The product family of demmel products, specializing in intelligent LCDs, is growing: a super-fast 1.8 GHz quad-core processor (i.MX8M Plus from NXP) with integrated video and graphics processor for 3D rendering, a high-res, optically bonded display, modifiable Yocto Linux OS: these are the main features of the new iLCD Linux. This enables the development of intuitive and high-performance user interfaces - similar to smartphones. Furthermore, the iLCD Linux impresses with its slim form, while it is equipped with a full-fledged and modifiable operating system. This helps with the design when space is limited. External communication can be handled via USB, Ethernet, I2C, SPI and I/Os.

The 7.0" model as the series' pioneer

The 7.0" model - equipped with a high resolution 1024x600 pixel display - marks the start of the new Linux series. It will be followed by a 10.1" model in the near future, while further sizes are under evaluation. All devices of the iLCD Linux series will come with high-resolution IPS displays with up to 1000 cd/m². The PCAP touch panels are optically bonded, which ensures that images, graphics & videos remain crisp and colors vibrant. At the same time, the touch controller with the optically bonded touch panel allows the usage of up to 4mm cover glass.

The super-fast 1.8 GHz quad-core processor (i.MX8M Plus from NXP) with integrated video and graphics processor for 3D rendering is the centerpiece of the new iLCD Linux series. Despite its ultra-miniature form, it enables high-performance graphics and image processing. The freely modifiable Yocto-Linux operating system expands the range of applications enormously and enables high-performance, unique and sophisticated applications to be created by the user.

With a thickness of only 15.5 mm, the iLCD Linux impresses with its slim form.

While cooling is often a critical factor for high-performance processors, the Linux model is passively cooled, thanks to its low power consumption.

By default, our iLCD Linux series is equipped with 2GB Ram, 16GB flash memory and an operating temperature range of 0° to 70° C. As flexibility is a key selling point especially for this series, these parameters can be extended to up to 4GB RAM, 64GB flash memory and -20° to 70° C for volume orders.

demmel products offers classic, well-known industry standards for the iLCD Linux series. The Austrian company guarantees long-term availability for both the SoM (System on a Module) and the display.

„iLCD JPro“: Higher Performance

Customers want a future-proof product alongside an high-end display solution. The result is the enhanced iLCD F-Series, which is fully compatible with the previous product line. The F-series uses a new 528 MHz processor generation that offers significantly higher performance. IPS displays (PCAP touch screen as standard) are used, which impress with a large reading angle (160 degree viewing) and do not or hardly change colors, brightness and contrast at tilted viewing angles. Another impressive feature for the industrial sector is the extremely high brightness and resolution. The 7-inch version, for example, offers a resolution of 1024 x 600. The support of on-board high speed USB, I2C, SPI and Ethernet interfaces as well as various IOs using Java ensure accelerated development and make time-consuming low-level programming obsolete.

The compact design of the iLCDs is another special feature. Despite the built-in technology, the thickness is only slightly greater than the display one's.

Display-Computing without an Operating System

Thanks to the technology developed by demmel products, "display computing" with the object-oriented high-level language Java is possible without an operating system. This allows iLCD JPro models to control all functions of a device without the use of an external controller. The displays are immediately ready for operation when switched on ("instant-on"), the overhead caused by an operating system is completely eliminated which enables a higher performance.

The iLCDs can also be used without Java. In such a case even an external low-cost controller will be sufficient to run your device.

Time and Cost Savings

"Our iLCDs offer numerous competitive advantages such as shorter time-to-market, lower development costs and a minimization of components in the device," emphasizes company owner Herbert Demmel.

As always, demmel products provides the iLCD Manager XE including Java development environment free of charge for project planning. This allows all JPro models to be set up, configured, programmed and tested. A built-in screen simulator and debugger for Java programs facilitate the testing of screen layouts and programs even without hardware. Automatic functions ensure a quick start and ensure that even developers without special programming knowledge are successful. Additional hardware or software is not necessary.

demmel products solutions are used successfully in a variety of applications and industries. These include mechanical engineering, medical technology, measurement technology, electrical engineering, the automotive sector and many more.

Hard Facts

iLCD-Linux: DPL-HC70-iMX (1024x600)

- 1,8-GHz-quad-core-processor i.MX8M Plus by NXP
- 16GB flash memory for user data
- 1GB RAM
- Integrated video- and graphics processor for 3D-rendering
- Wi-Fi 6 and Bluetooth 5.0 Modul
- HiRes LCD with optically bonded PCAP touch panel
- Single 5 Volt power supply
- USB Type-C port
- RS232-port with 3.3 Volt
- I²C-Port and SPI-Port
- Further I/O Ports for numerous applications
- Battery powered real time clock
- Micro-SD card holder on-board
- Measurements: 160.0x99.96x15.5mm

F-Series:

- DPM5050 iLCD-controller with 528 MHz
 - 30 MByte flash memory for user data
 - 32 MByte RAM for mult. Screens
 - High resolution, high brightness IPS Displays
 - Optically bonded capacitive (PCAP) touch screens
 - Single 5 Volt (optional 3.3 Volt) power supply
 - USB-port
 - RS232-port with 3.3 Volt
 - I²C-port and SPI-port
 - Control up to 16 digital outputs
 - Control up to 16 digital inputs
 - 4 analog inputs with 12-bit resolution
 - Control 2 relays or buzzers, PWM output
 - Attach keyboard with up to 128 keys
 - Battery powered real time clock
 - Micro-SD card holder on-board and connector for external SD-card
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Highlights/Quotes/Images

Intelligent displays from demmel products (iLCDs) contain all the components needed to drive a display mounted on the panel itself and are now available with a Linux OS as well.

"Our iLCDs offer numerous competitive advantages such as shorter time-to-market, lower development costs and a minimization of components in the device,"

Quote by founder Herbert Demmel

Images

Image1: flexible_display_computing_en.jpg

Subtitle: demmel products presents new powerful iLCD models, for the first time also with Yocto-Linux

Image2: linux_robot_display.jpg

Subtitle: New development iLCD-Linux: The freely modifiable Yocto-Linux operating system expands the range of applications many times over.

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Company profile - demmel products gmbh

demmel products stands for excellently designed and innovative solutions in the hardware and software sector. Since 1988, the Austrian innovator has been developing, producing and selling state-of-the-art technology that makes the life of technology users easier, safer and more convenient. Individual support for application questions is a matter of course for us as part of the service spectrum. This way, our customers achieve the best possible time-to-market and bring the optimal solution to the market at competitive and sustainable conditions. demmel products develops and produces in Europe, has many years of experience in the embedded systems sector and delivers the highest industrial quality.

iLCDs - Intelligent Displays for smart Products

For the first time in the company's history, demmel products was able to take the lead in worldwide technology right from the start in 2004 with the presentation of its "Next Generation Intelligent LCDs" (iLCDs). Intelligent displays from demmel products are the first choice for user interfaces with high-quality screen designs. "With their functions and interfaces, our iLCDs help limit the development effort. iLCDs reduce time-to-market and complexity. Developers can focus on the application-specific design instead of having to devote themselves to the electronic integration of the displays," says company founder Herbert Demmel: The extensive functionalities are available across the entire iLCD product line.

With their functions and interfaces, our iLCDs help significantly limit the development effort and make it predictable. The use of iLCDs reduces costs, time-to-market and complexity. Developers can thus focus on the application-specific design instead of having to devote themselves to the electronic integration of the displays. iLCDs have long-term availability, are mechanically and functionally robust, and are versatile thanks to their simple integration. The extensive functionality is available across the entire iLCD product line and also enables use in regions with non-Latin scripts. These features make demmel products' intelligent displays the user interface of choice worldwide.

Customer Base and Areas of Application

Our customers come from areas such as mechanical engineering, medical technology, electrical engineering or the automotive sector. You can find our iLCDs in factories, laboratories, intensive care units, access systems, buses, charging stations, assembly ships, on oil rigs and many more....

Owner and Employees

The owner and founder of the company is Dipl.-Ing. Herbert Demmel, who has more than 35 years of practical experience in hardware and software development. The technical staff consists of specialists in the disciplines of electronics and computer science. System analysis, programming, electronic design and realization as well as quality assurance are some of the fields in which our technical staff is versed.

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We always welcome enquiries related to development and distribution partnerships. For further information please contact:

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