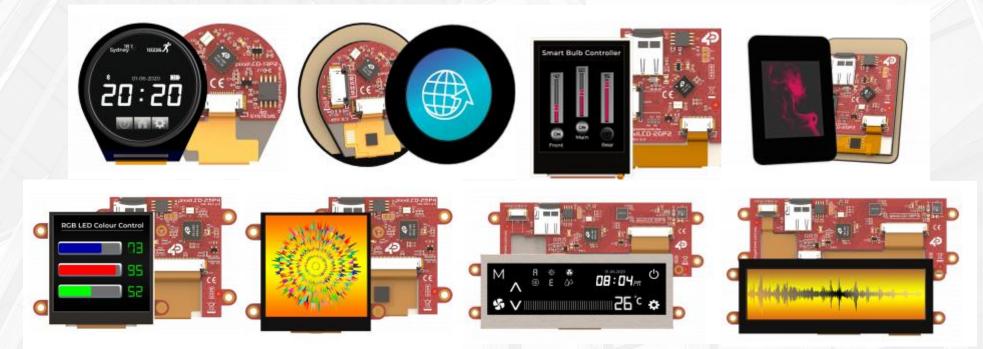


# **4D Systems** pixxiLCD Series Smart Display Modules

July 2020



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## pixxiLCD Series Overview



- The pixxiLCD series is a new collection of embedded graphics displays designed and manufactured by 4D Systems.
- The series is developed with fast time-to-market and low total cost of ownership in mind and offers a series of compact Intelligent Display modules that with an array of functionality and options for any designer, integrator or user wishing to add a full color HMI into an application.
- The display modules are powered by the configurable PIXXI-28 or PIXXI-44 graphics processors from 4D LABS allowing various functionalities such as touch detection, microSD or serial flash memory storage, GPIO, and ADC, along with multiple millisecond resolution timers, and UART and I2C communication.
- The pixxiLCD embedded graphics displays are 100% compatible with the 4D Workshop4 IDE, which provides users with a wealth of options for programming and controlling their system.
- The pixxiLCD embedded graphics displays feature a standard 15-way, 0.5mm pitch ZIF socket interface which carries the UART, I/O, I2C, power, and reset signals to/from the display.

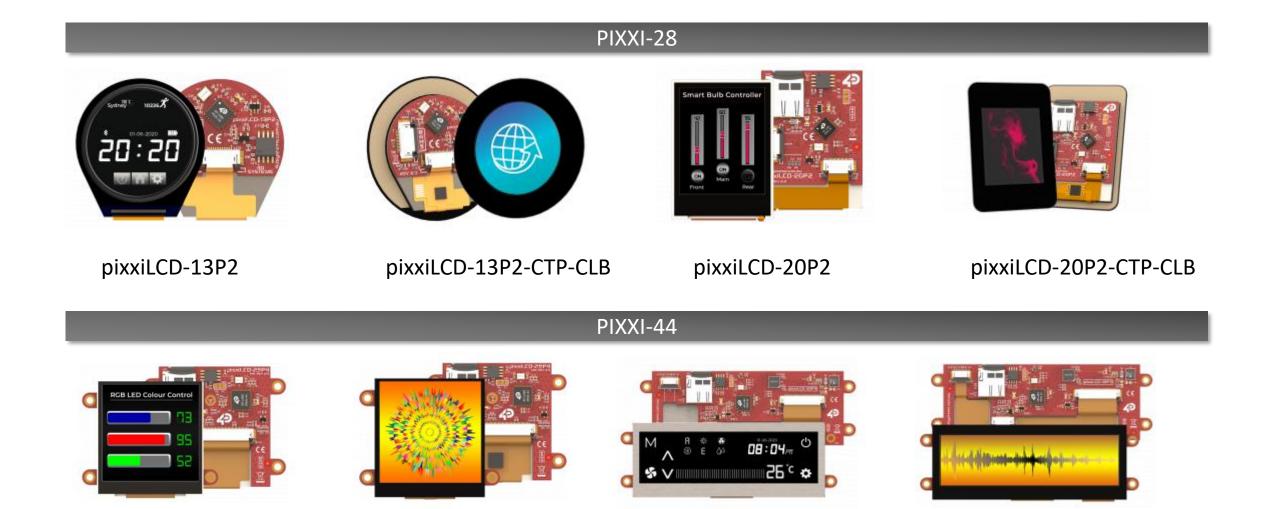
### Parts, Sizes, Features Comparison



Part Number	Controller	Size	Resolution	Touch	Special Remarks
pixxiLCD-13P2	PIXXI-28	1.3"	240x240	Non-Touch	Round Display, No microSD, 16 MB Serial Flash, IPS Display,
pixxiLCD-13P2-CTP-CLB	PIXXI-28	1.3"	240x240	Cap-Touch / CLB	Round Display, No microSD, 16 MB Serial Flash, IPS Display
pixxiLCD-20P2	PIXXI-28	2.0"	176x220	Non-Touch	uSD & 16MB Serial Flash included, TN Display,
pixxiLCD-20P2-CTP-CLB	PIXXI-28	2.0"	176x220	Cap-Touch / CLB	uSD and & 16MB Serial Flash included, TN Display,
pixxiLCD-25P2	PIXXI-44	2.5"	240x240	Non-Touch	Square Display, uSD & 16MB Serial Flash included, IPS Display
pixxiLCD-25P4-CTP	PIXXI-44	2.5"	240x240	Capacitive Touch	Square Display, uSD & 16MB Serial Flash included, IPS Display
pixxiLCD-39P4	PIXXI-44	3.9"	480x128	Non-Touch	Wide Display, uSD & 16MB Serial Flash included, IPS Display
pixxiLCD-39P4-CTP	PIXXI-44	3.9"	480x128	Cap-Touch	Wide Display, uSD & 16MB Serial Flash included, IPS Display

## PIXXI-28 and PIXXI-44 Modules





pixxiLCD-39P4-CTP

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pixxiLCD-39P4

pixxiLCD-25P4-CTP

pixxiLCD-25P4

# **Detailed Features**



### **PIXXI-28 Modules**

- 32KB of Flash memory for user application code.
- 14KB of SRAM for user variables.
- Selectable 16MB Serial Flash memory chip for multimedia storage, data files, fonts, or for holding extra code functions (to expand the code storage of the processor)
- 3 General Purpose I/O pins for user interfacing, 2 of which are configurable as analogue inputs or as I2C.
- Master I2C port (maximum supported speed is fast I2C) for user application devices.
- UART port, Asynchronous hardware serial, with 300 to 2187500 baud, for interfacing to a Host or Slave device. The Serial port is also used for device programming.
- DOS compatible file access (FAT16 format) using uSD, as well as low-level access to card memory.
- Display full-colour images, animations, icons, and video clips.
- Supports all available Windows fonts.
- Free comprehensive Software Development Tools (Workshop4) provides drag-and-drop style and coding environments for rapid application development, upgradable to Workshop4 PRO for additional features.
- Standard 15-way, 0.5mm pitch ZIF socket interface which carries the UART, I/O, I2C, power, and reset signals to/from the display.
- Single 5.0 Volt Supply (4.0V to 5.5V range).
- RoHS, REACH and CE compliant.
- PCB is UL 94V-0 Flammability Rated

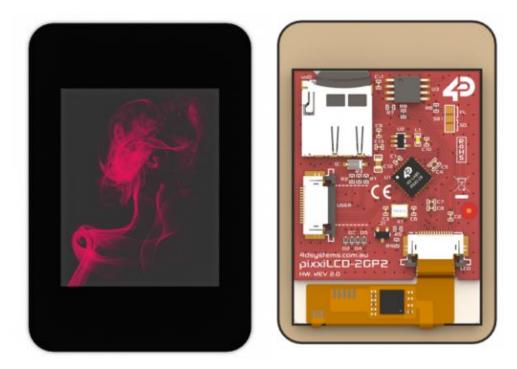
### **PIXXI-44 Modules**

- 32KB of Flash memory for user application code.
- 30KB of SRAM for user variables.
- Selectable 16MB Serial Flash memory chip for multimedia storage, data files, fonts, or for holding extra code functions (to expand the code storage of the processor)
- Selectable on-board push type micro-SD memory card connector for multimedia storage, data files, fonts and data logging purposes.
- 2 General Purpose I/O pins for user interfacing, 2 of which are configurable as analog inputs or as I2C.
- Master I2C port (maximum supported speed is fast I2C) for user application devices.
- UART port, Asynchronous hardware serial, with 300 to 2187500 baud, for interfacing to a Host or Slave device. The Serial port is also used for device programming.
- DOS compatible file access (FAT16 format) using uSD, as well as low-level access to card memory.
- Display full-colour images, animations, icons, and video clips.
- · Supports all available Windows fonts.
- Free comprehensive Software Development Tools (Workshop4) provides drag-and-drop style and coding environments for rapid application development, upgradable to Workshop4 PRO for additional features.
- Standard 15-way, 0.5mm pitch ZIF socket interface which carries the UART, I/O, I2C, power, and reset signals to/from the display.
- Single 5.0 Volt Supply (4.0V to 5.5V range).
- RoHS, REACH and CE compliant.
- PCB is UL 94V-0 Flammability Rated

### Part Numbers Explained



- Example: pixxiLCD-20P2-CTP-CLB
  - pixxiLCD pixxiLCD Display Range
  - 20 Display size (2.0")
  - P2 PIXXI-28 Processor
  - CTP Capacitive Touch Panel
  - CLB Cover Lens Bezel



### What's in the box?



### **Modules and Starter Kits**



#### pixxiLCD-20P2-CTP-CLB

- Display Module
- gen4-IB
- 15 to 30 way FFC Cable



#### SK-pixxiLCD-20P2-CTP-CLB

- pixxiLCD-20P2-CTP-CLB Display Module
- gen4-IB (Interface Board)
- 30 to 15-way FFC Cable
- 4GB Industrial microSD Card\*
- 4D-UPA (Universal Programming Adaptor)
- 5-way female to female cable with m to m header

\*not included with SK-pixxiLCD-13P2 & SK-pixxiLCD-13P2-CTP-CLB. This module does not have a microSD card holder

# All Part Numbers





### **Display Modules**

- pixxiLCD-13P2
- pixxiLCD-13P2-CTP-CLB
- pixxiLCD-20P2
- pixxiLCD-20P2-CTP-CLB
- pixxiLCD-25P4
- pixxiLCD-25P4-CTP
- pixxiLCD-39P4
- pixxiLCD-39P4-CTP



### **Corresponding Starter Kits**

- SK-pixxiLCD-13P2
- SK-pixxiLCD-13P2-CTP-CLB
- SK-pixxiLCD-20P2
- SK-pixxiLCD-20P2-CTP-CLB
- SK-pixxiLCD-25P4
- SK-pixxiLCD-25P4-CTP
- SK-pixxiLCD-39P4
- SK-pixxiLCD-39P4-CTP

## **Typical Applications**



- General purpose low-cost embedded graphics.
- Elevator control systems
- Point of sale terminals.
- Electronic gauges and metres.
- Test and measurement and general-purpose instrumentation.
- Industrial control and Robotics.
- Automotive system displays.
- GPS/Sat-Nav systems.
- Medical instruments and applications.

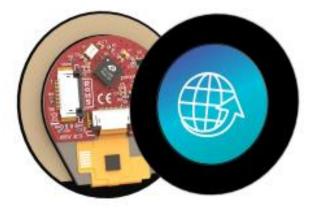
- Heart rate and Blood pressure monitors.
- Smart Home Automation display panels.
- Consumer appliance devices.
- Security and Access control panels.
- Air conditioner control panels.
- Lighting control panels.
- Vending machine panels.
- Power meter panels.
- Gaming equipment.
- And much more.

# 1.3" Round Display with PIXXI-28



#### pixxiLCD-13P2

- 1.3" IPS Display
- 240x240 pixels
- Non-Touch
- PIXXI-28 Processor
- MSRP: US\$ 29.95
- Product page <u>HERE</u>



#### pixxiLCD-13P2-CTP-CLB

- 1.3" IPS Display
- 240x240 pixels
- Capacitive-touch with Cover Lens Bezel
- PIXXI-28 Processor
- MSRP: US\$ 39.95
- Product page <u>HERE</u>.

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## 2.0" Display with PIXXI-28





#### pixxiLCD-20P2

- 2.0" TN Display
- 176x220 pixels
- Non-Touch
- PIXXI-28 Processor
- MSRP: US\$ 29.95
- Product page <u>HERE</u>



#### pixxiLCD-13P2-CTP-CLB

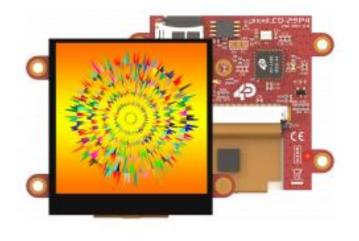
- 2.0" TN Display
- 176x220 pixels
- Capacitive-touch with Cover Lens Bezel
- PIXXI-28 Processor
- MSRP: US\$ 39.95
- Product page <u>HERE</u>.

# 2.5" Square Display with PIXXI-44



#### pixxiLCD-25P4

- 2.5" Square IPS Display
- 240 x 240 pixels
- Non-Touch
- PIXXI-44 Processor
- MSRP: US\$ 39.95
- Product page <u>HERE</u>



#### pixxiLCD-25P4-CTP

- 2.5" Square IPS Display
- 240 x 240 pixels
- Capacitive-touch
- PIXXI-44 Processor
- MSRP: US\$ 49.95
- Product page <u>HERE</u>.

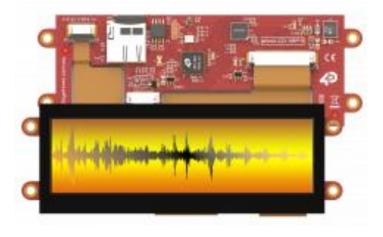
## 3.9" Wide display with PIXXI-44





#### pixxiLCD-39P4

- 3.9" Wide IPS Display
- 480 x 128 pixels
- Non-Touch
- PIXXI-44 Processor
- MSRP: US\$ 59.95
- Product page <u>HERE</u>



#### pixxiLCD-39P4-CTP

- 3.9" Wide IPS Display
- 480 x 128 pixels
- Capacitive-touch
- PIXXI-44 Processor
- MSRP: US\$ 69.95
- Product page <u>HERE</u>.

### For additional information



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