



Smart Display Modules for Raspberry Pi Compute Module 3



Make it beautiful. Your product deserves a stunning look. Your customers deserve the best user experience. They deserve PIQUE™.

It starts with a beautiful touchscreen. Bright whites and deep blacks. A full color gamut at every angle. Responsive to light and heavy touches, yet hard and rugged.

A high-performance CPU is important, but PIQUE adds a best-in-category GPU for snappy, responsive scrolling, navigation, and loading.

Software and product development should be a thing of beauty, too. That's why PIQUE leverages the Raspberry Pi so you can leverage a huge ecosystem of drivers, open-source software, and technical support.

Integration with your existing product is smooth and easy: a wide variety of I/O options with industrial connectors, support for industry-standard protocols like RS-232/485, I²C, SPI, USB, and Ethernet, a wide input voltage range, a slim, compact profile, and a protective metal shell with mounting screws for protection during assembly.

The PIQUE starter kit includes everything you need to get up and running immediately, including a preconfigured system image and the PIQUE Preinstalled Environment virtual machine. Royalty-free development using Electron is also supported.

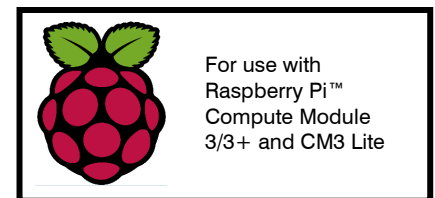
PIQUE is available now and additional options are coming soon. Contact The Circuit Foundry to order.

Applications:

- point of sale
- human-machine interface (HMI)
- test and measurement equipment
- vending
- security controls
- media players

Benefits:

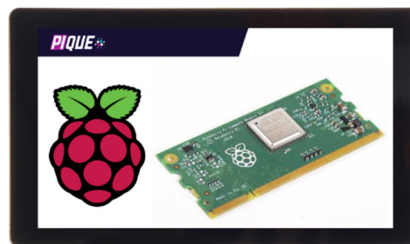
- convert prototypes to production instantly
- extensive driver/OS support
- industrial ratings and operating range
- flexible power supply options
- guaranteed availability until at least 2026



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PQ-156 15.6" Touchscreen



PQ-101 10.1" Touchscreen



PQ-070 7" Touchscreen

Digital Interfaces

USB	USB A 2.0 receptacles / 0.1" headers
I/O signals	20 available Pi GPIO pins
available peripherals	UART w/handshaking, SPI, I ² C, PWM
backlight brightness	driven by CM3 PWM or external circuit

Compute Module Support

supported modules	CM3, CM3L with microSD, CM3+ (8 GB, 16 GB, 32 GB, Lite)
boot devices	CM3/3+ EMMC*, microSD, USB memory stick
	* requires CM3 I/O board for EMMC programming

TFT LCD Display

display sizes (diagonal)	7.0", 10.1", 15.6"
available display resolutions	800×480, 1280×800, 1920×1080 pixels
brightness	adjustable via software from <1% to 100%

Touchscreen

technology	projected capacitance
touch inputs	5-10 simultaneous touches
design	oversized black décor glass

Electrical Specifications

input voltage	regulated 5 VDC +/- 5% (PQ-070 only) unregulated 9-36 VDC
current consumption	5-10W
operating temperature	-20°C to +70°C

Included Software

Linux System Image	Raspberry Pi OS Buster with additional shared objects, display and touchscreen drivers
Qt Open Source	precompiled Qt Open Source 5.15 and cross-compilation suite
Electron	preconfigured in PIQUE System Image
LVGL	included in Preinstalled Environment
Other	startup screen installer for customized splash screens on power up

For technical resources, see: <http://thecircuitfoundry.com/products/pique/support/index.html>