

7" Display Module with Projected Capacitive Touch



Powered by the G2H2 controller, this general-purpose module incorporates a 7" WVGA industrial panel with an integrated touchscreen designed for applications that demand long-term availability. With an NXP i.MX 6Solo processor, the module offers a many I/O interfaces for connecting to other sections of a medical or industrial product including: 10/100/1000 Mbps Base-T Ethernet, RS232 serial port, high-speed USB 2.0 host port, and high-speed USB 2.0 On-The-Go Host/Device Port. It can be powered by an input of 5VDC. ESD and EMC test results are provided to ease regulatory compliance testing. Like all Reach products, these modules are designed for long-term availability with a 10+ year processor life and a multi-sourced, industry standard LCD form factor.

Size	Model
7" Wide	G2H2-7P Base I/O version of G2H2 with 7" projected capacitive touch.

Hardware Features

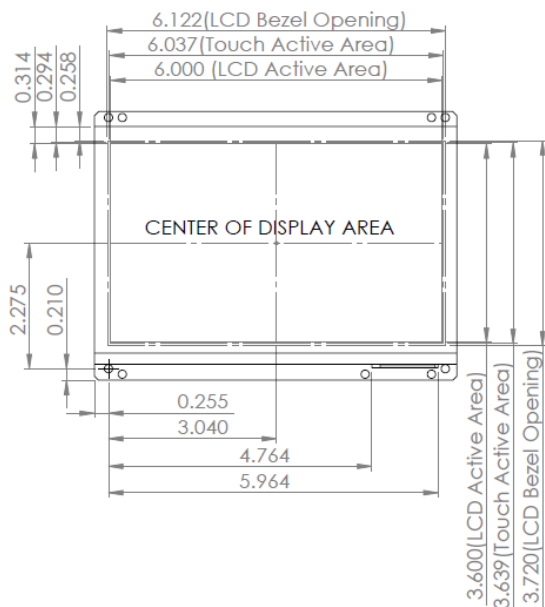
- WVGA (800 x 480) LCD with LED Backlight
- NXP i.MX 6Solo, 1.0 Ghz Processor with hardware video decoder and 3D graphics engine
- 10/100/1000 Mbps Base-T Ethernet, features low profile Molex Pico-SPOX Connector (24 AWG Compatible)
- RS232 Serial Port
- One USB 2.0 (High Speed) Host Port
- One USB 2.0 (High Speed) OTG Host/Device Port
- 8-bit GPIO Port 5-V Tolerant
- Dedicated Linux Console Port
- 512 MB DDR3 DRAM Onboard
- 512 MB NAND Flash / 16 MB NOR Flash
- microSD Flash Card Socket
- Projected Capacitive Touchscreen
- Backlight Brightness Control
- Onboard Beeper
- [Contact us](#) for additional I/O options such as RS485, 3.3 V CMOS, I2C, CAN, Audio Codec with 1 Watt Audio Amplifier and Onboard Speaker, and Real Time Clock.

Software Features

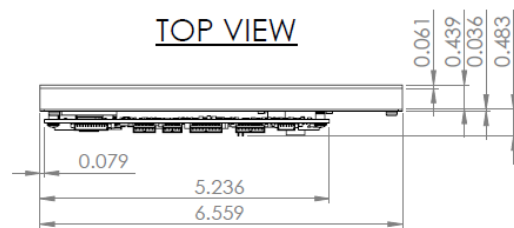
- Linux Kernel 3.10.17 with Qt 5.3.2 and QtCreator IDE 3.2.2
- Production quality Web Server (lighttpd) with CGI, PHP support
- Samba File Server for easy file access from Windows
- UBIFS NAND Flash file system for speed and reliability
- USB Hotplug for module Host Ports
- OpenSSH Server
- Interfaces for QML Applications: Serial and Ethernet
- Custom Linux Kernel Build Supported and Maintained by Reach. [Contact us](#) for your specific requirements.

Mechanical Specifications

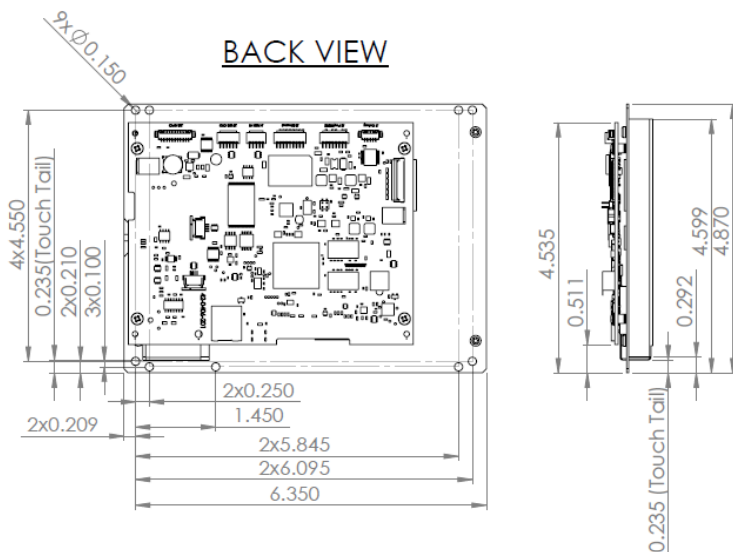
FRONT VIEW



TOP VIEW



BACK VIEW



Mechanical Specifications, 3D Mechanical Views, 2D DXF Mechanical Drawings, 3D Step Files can be found for each Display Module at LinuxTouchscreen.com/products/production-modules/7-modules/.

Specifications

LCD

- Display Type: 7" Diagonal TFT Color LCD
- Resolution: 800 x 480 WVGA, 18-bit Color
- Luminance, with touchscreen: Typical 610 (cd/m²)
- Viewing Angles: 80/80 left/right, 80/80 up/down
- Viewing Direction: 6 o'clock
- Software controlled brightness
- Backlight: White LED, 35,000 hours typical

Projected Capacitive Touchscreen

- Surface Hardness \geq 7H

Ethernet Interface

- MAC / PHY: On-board
- Type: 10/100 Base-T
- Interface: Low Profile Molex Pico-SPOX (24AWG Compatible Crimps)

Mechanical

- Dimensions: 6.56" W x 4.87" H x 0.86" D
- Weight: 419 Grams

Power Requirements

- Power Supply Voltage: +5VDC (5.15V for 5V USB Host Port Power Out)
- Power Consumption: Max 970mA during boot with no devices attached

Environmental/Regulatory

- Operating Temperature: 0 to 70° C; Contact us for extended temperature.
- Storage Temperature: -30 to 80° C
- Humidity: Max 90%RH at 60° C; No Condensation
- EMI and ESD Test Results Available.
- Passes FCC Class B Emissions without an enclosure (8 layer fully shielded PCB)
- Thermal, Mechanical, Vibration: See Reliability Test section in panel specification.
- RoHS 2 Compliant: Yes

Ordering Information

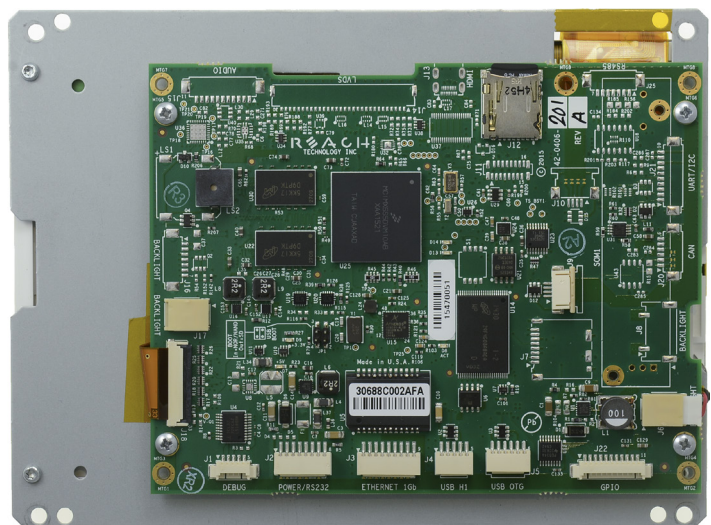
Product	Part Number	Price
7" (Model G2H2-7P) Display Module with Projected Capacitive Touch	51-0406-211	Contact Reach Sales (408-754-4176, sales@reachtch.com) for volume pricing.
Development Kit	52-0406-211	\$469

To get started order a Development Kit which comes with all the hardware, software, and full support.

Order at LinuxTouchscreen.com, call Reach Sales at 408-754-4176, or email sales@reachtch.com.

Accessories

Part Number	Description
23-0144-10	Cable, GPIO, 11pin PicoBlade, Flying Lead
23-0146-10	Cable, 6pin PicoBlade, 10 in. Flying Lead
23-0147-10	Cable, Power/Serial, 8pin Pico-SPOX, 10 in. Flying Lead
23-0148-12	Cable, Ethernet, RJ-45 plug into 9pin Pico-SPOX
23-0149-10	Cable, 10pin PicoBlade, 10 in. Flying Lead
23-0160-18	Cable, G2C/G2H, Power/RS232 Y
23-0161-72	Cable, G2C/G2H, USB RS232 to 5pin PicoBlade
23-0166-12	Cable, Pico-SPOX 5pin USB Type A Receptacle 12in
23-0167-12	Cable, Pico-SPOX 6pin USB Type 2.0 Type A Receptacle
23-0172-12	Cable, Audio, G2H2 to CUI Headphone Jack
30-0008-01	Power Supply; 5 Volt, 2.5A, 2.5mm
37-0008-01	USB to RS232 Adapter with cable
37-0010-01	Flash microSD Flash Card, 4GB, Class 4
37-0011-01	USB 2.0 Flash Memory Card Reader/Writer
37-0012-01	Cat5e Inline Female / Female Ethernet Coupler
37-0014-01	USB WiFi, Panda Ultra 802.11n 802.11b/g compatible Adapter



7" G2H2-7P Display Module, back view

Custom versions are available to volume customers; please contact Reach Sales (sales@reachtch.com or 408-754-4176) for more information.