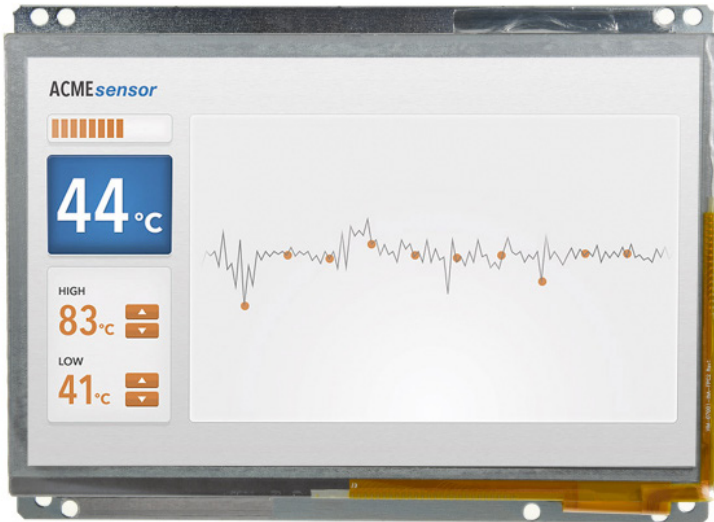


## 7" Display Module with Projected Capacitive Touch



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 wealth of I/O interfaces for connecting to other sections of a medical or industrial product. 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
<b>7" Wide</b>	<b>G2H2-7P</b> Full I/O version of G2H2 with 7" projected capacitive touch.

### Hardware Features

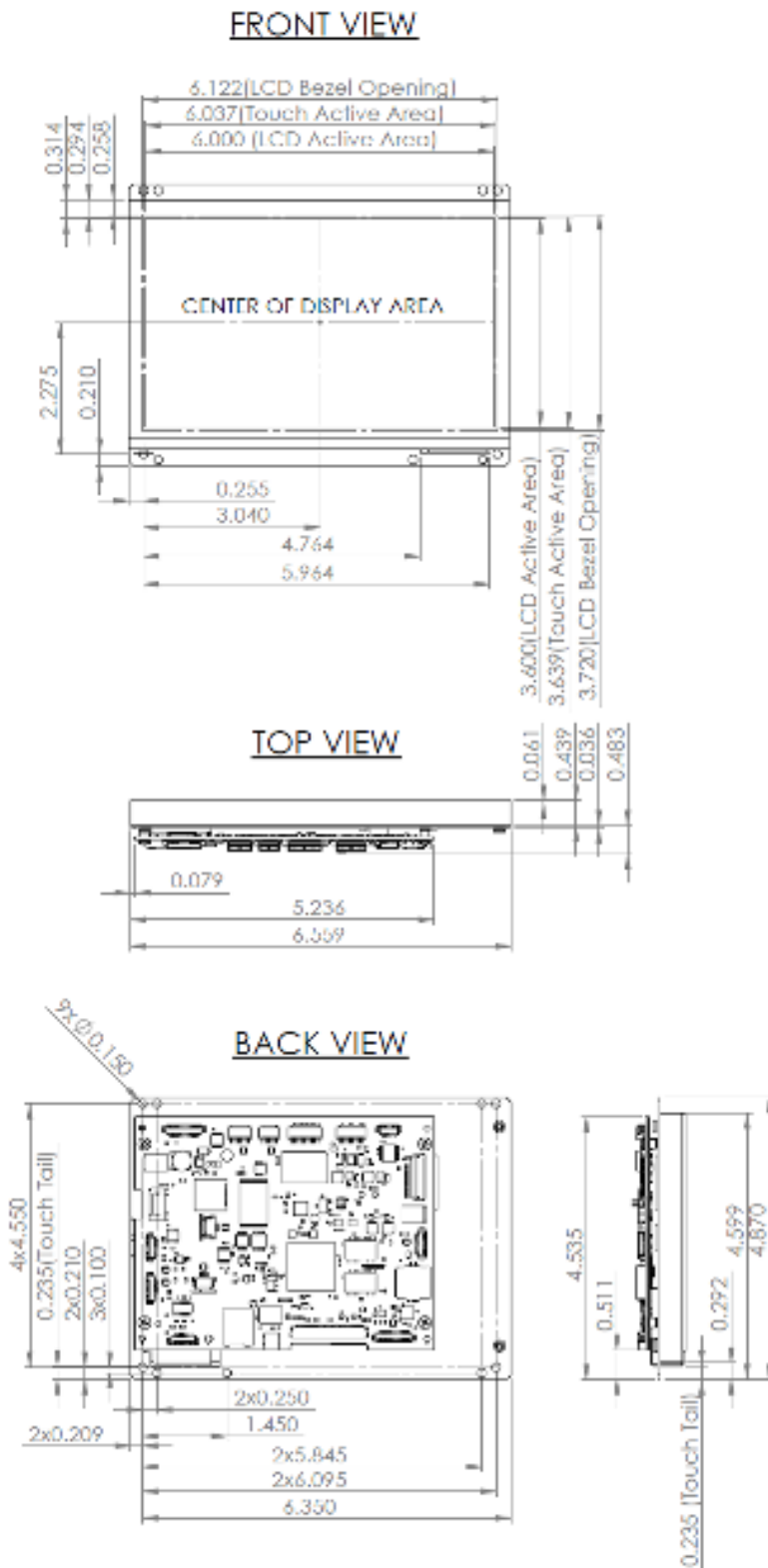
- WVGA (800 x 480) LCD with LED Backlight
- NXP i.MX 6Solo, 1.0 Ghz Processor with hardware video decoder and 3D graphics engine
- Wide range of input/output options including:
  - 10/100/1000 Mbps Base-T Ethernet: Features low profile Molex Pico-SPOX Connector (24 AWG Compatible)
  - One RS232 and One 3.3V CMOS Serial Port
  - One RS485
  - One USB 2.0 (High Speed) Host Port
  - One USB 2.0 (High Speed) On-The-Go (OTG) Host Port
  - One I2C Port
  - One CAN bus with Onboard Transceiver
  - 8-bit GPIO Port 5-V Tolerant
- Dedicated Linux Console Port
- 512 MB DDR3 DRAM Onboard
- 512 MB NAND Flash / 16 MB NOR Flash
- Micro SD Flash Card Socket
- Projected Capacitive (PCAP) Touchscreen
- Backlight Brightness Control
- Audio Speaker with Audio Codec with 1 Watt Audio Amplifier and Onboard Speaker

### Software Features

- Linux Kernel 3.10.17 with Qt 5.3.2 and QtCreator IDE 3.2.2
- 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, Ethernet\*, and CAN\*
- Custom Linux Kernel Build Supported and Maintained by Reach. [Contact us](#) for your specific requirements.

\* [See App Notes for details.](#)

## Mechanical Specifications



Mechanical Specifications, 3D Mechanical Views, 2D DXF Mechanical Drawings, 3D Step Files can be found for at <https://www.linuxtouchscreen.com/support/product-specific-documentation/51-0406-411/>.

## Specifications

### LCD

- Display Type: 7" Diagonal TFT Color LCD
- Resolution: 800 x 480 WVGA, 18-bit Color
- Dot Pitch: 0.191mm x 0.191mm
- Luminance, with touchscreen: Typical 610 (cd/m<sup>2</sup>)
- Viewing Angles: 80/80 left/right, 80/80 up/down
- Viewing Direction: 6 o'clock
- Software controlled brightness
- Backlight: White LED, min 35,000 hours

### 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 1.02" D
- Weight: 424 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

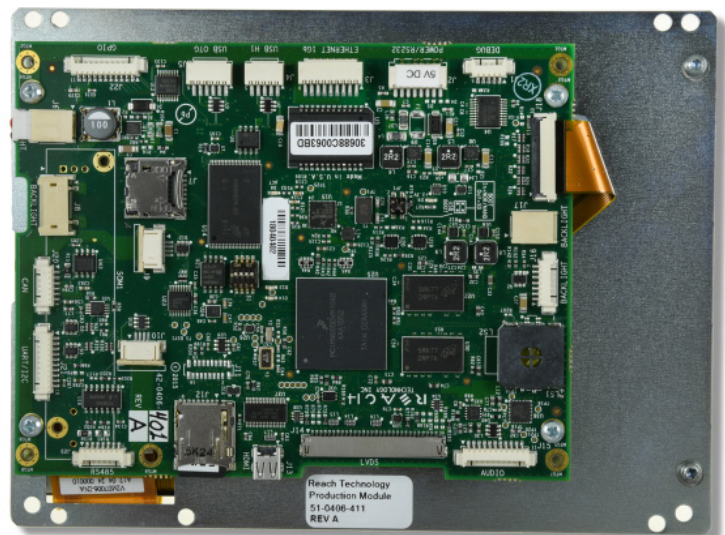
Product	Part Number	Price
7" (Model G2H2-7P) Display Module with Projected Capacitive Touch	51-0406-411	Contact Reach Sales (510-770-1417, <a href="mailto:sales@reachtech.com">sales@reachtech.com</a> ) for volume pricing.
Development Kit	52-0406-411	\$639

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

Order at [LinuxTouchscreen.com](http://LinuxTouchscreen.com), call Reach Sales at 510-770-1417, or email [sales@reachtech.com](mailto:sales@reachtech.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@reachtech.com](mailto:sales@reachtech.com) or 510-770-1417) for more information.