

12.1" Display Module with Projected Capacitive Touch



Powered by the G2H2 controller, this general-purpose module incorporates an industrial panel with an integrated projected capacitive touch screen designed for applications that demand long-term availability. With an NXP i.MX 6Solo, 1.0 Ghz core 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
12.1" Wide	G2H2-12P Full-featured version of G2H2 with 12.1" projected capacitive touch.

Hardware Features

- WXGA (1280×800) LCD with LED Backlight
- NXP i.MX 6Solo, 1.0 Ghz processor with hardware video decoder, 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

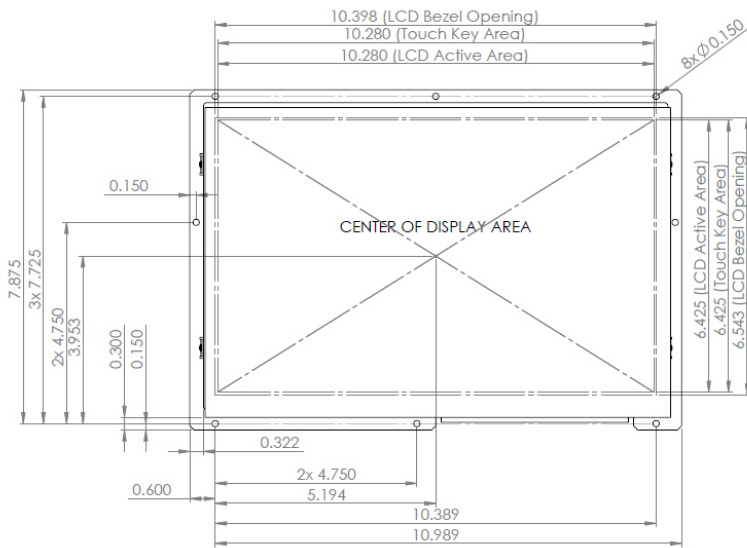
Software Features

- 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/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.

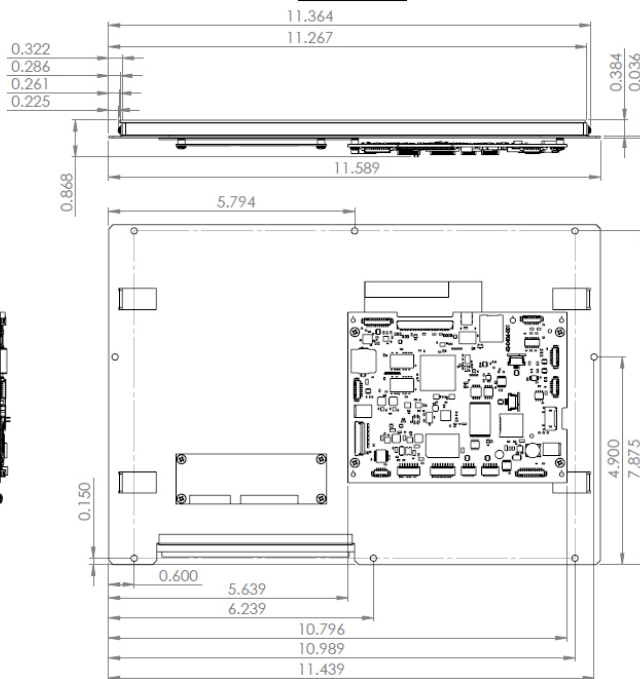
* [See App Notes for details.](#)

Mechanical Specifications

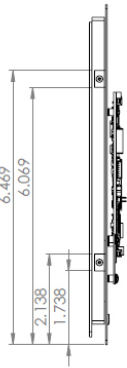
FRONT VIEW



TOP VIEW



BACK VIEW



Mechanical Specifications, 3D Mechanical Views, 2D DXF Mechanical Drawings, 3D Step Files can be found at <https://www.linuxtouchscreen.com/support/product-specific-documentation/51-0406-0D2/>.

Specifications

LCD

- IPS-like technology for consistent color over a wide viewing angle
- Contrast Ratio: Typical 800:1
- Luminance, with touchscreen: Typical 400 (cd/m²)
- Viewing Angles: Typical 85/85 left/right, Typical 85/85 up/down
- Backlight: White LED, 50,000 hours minimum

Projected Capacitive Touchscreen

- Surface Hardness \geq 7H

Mechanical

- Dimensions: 11.589" W x 8.025" H x 0.868" D
- Weight: 1,135 Grams

Power Requirements

- Power Supply Voltage: +12VDC \pm 10%
- Power Consumption: Max 1.32A

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

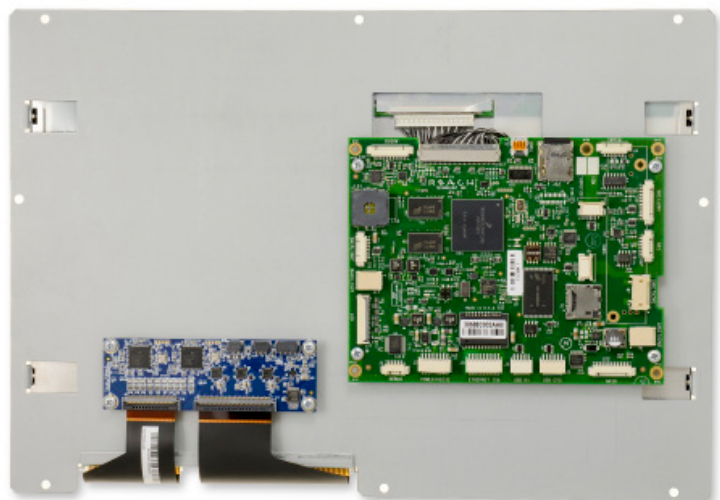
Product	Part Number	Price
12.1" (Model G2H2-12P) Display Module with Projected Capacitive Touch	51-0406-0D2	Contact Reach Sales (408-754-4176, sales@reachtech.com) for volume pricing.
Development Kit	52-0406-0D2	\$1,009

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@reachtech.com.

Accessories

Part Number	Description
23-0144-10	Cable, GPIO, 11pin PicoBlade, Flying Lead
23-0145-10	Cable, RS-485/RS-232, 7pin PicoBlade , 10in. Flying Lead
23-0146-10	Cable, CAN 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, I2C, 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
23-0178-18	Cable, G2C/G2H, Power 12VDC 2.1mm x 5.5mm, RS232 Y
30-0005-00	Power Supply; 12 Volt, 1.0A, 2.1mm
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



12.1" G2H2-12 P Display Module, back view

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