

4.3" G2C1 Projected Capacitive

Part Number: 51-0401-33

This module makes integration easy. Each unit comes with an LCD, controller board, backlight driver, and touch screen, integrated and ready to go. The module form factor is designed to ensure long-term product availability. Powered by the G2C1 controller it features:

- A wide range of input/output (I/O) ports including one RS-232 serial port, two high-speed RS-422/RS-485 ports, two USB 2.0 host ports, a CAN interface, 10/100 Ethernet, I2C, a CMOS serial port, and GPIO.
- WiFi is supported via a USB dongle for maximum flexibility.
- NXP i.MX28 454Mhz Processor. 128 MB DDR2 DRAM Onboard, 256 MB NAND Flash Onboard, A push-pull microSD card socket for additional storage. Modules have an audio beeper and battery-backed real-time clock.
- Ultra compact units combine a multi-function processor board and a 4.3-inch WQVGA (480 x 272) TFT color touch LCD.
- Competitive pricing for a popular display size (used by portable gaming systems, GPS navigation, and other hand-held devices).
- Good for handheld applications. Light, slim, and thin. Suitable for battery operation.
- Designed for long-term availability with a 10+ year processor life and a multi-sourced, industry standard LCD form factor.
- ESD and EMC results available to ease regulatory compliance testing.

Download mechanical drawings, panel specifications, controller and software reference manuals, and more at reachtech.com/products/touchscreen-display-modules/ 4-3-modules/51-0401-33/.



G2C1 Controller

- CPU: NXP i.MX28 454Mhz Processor
- Storage Capacity:
 - 128 MB DDR2 DRAM Onboard
 - 256 MB NAND Flash Onboard
- I/O Interface:
 - 10/100 Mbps Base-T Ethernet: Features low profile Molex Pico-SPOX (24AWG Compatible Crimps) and MAC / PHY Onboard
 - RS-232, RS-422/RS-485 (2), 3.3V CMOS Serial Ports
 - Two USB 2.0 (High Speed) Host Ports
 - One USB 2.0 (High Speed) On-The-Go (OTG)
 - One I2C Port
 - One CAN Port
 - 8-bit GPIO Port 5V Tolerant
 - Contact us for additional I/O options.
- Audio: Beeper

Software Features

- Linux Kernel 2.6.35 with Qt 4.8.4 and QtCreator IDE 2.8.0
- Samba File Server for easy file access from Windows
- UBIFS NAND Flash file system for speed and reliability
- USB Hotplug for module Host Ports
- SSH Server
- Ships with Serial Interface for QML Applications. See Application Notes to convert to Ethernet or CAN connection.
- Custom Linux Kernel Build Supported and Maintained by Reach. Contact us for your specific requirements.

Start with a Development Kit

Development Kits include everything you need to create a prototype quickly. When you are ready, move smoothly into production with off-theshelf display modules that offer 5-7 years availability as



a minimum. Order Part Number <u>52-0401-33</u> which includes module, cables, sample images, sample code, power supply, and technical support. Call 503-675-6464, or email <u>sales@reachtech.com</u> for more information or to order.

Find kit accessories at <u>reachtech.com/products/</u> touchscreen-display-modules/support/accessories/.

Reach Technology, part of Novanta, reserves the right to make changes in design or specification at any time and without notice.

LCD Display

- Display Type: 4.3" Diagonal TFT Color LCD
- Resolution: 480 x 272 WQVGA, 24-bit Color
- Orientation: Landscape, Portrait, 180° Flip
- Luminance (with touch): Typical 400 (cd/m²)
- Viewing Angles: 70/70 left/right, 50/70 up/down
- Backlight: LED
- Manufacturer: FEMA Electronics

Touchscreen

- Type: Glass/Glass
- · Controller: Included
- Cover (Décor) Glass: Optional
- Multi-touch: Hardware Supported; Software Contact Reach

Dimensions

• 4.65" W x 2.65" H x .522" D

Environmental/Regulatory

- Operating Temperature: -20 to 70° C; the LCD temperature range primarily limits this
- Storage Temperature: -30 to 80° C
- Humidity: Max 90%RH at 60° C; No Condensation
- EMI and ESD Test Results Available. See EMC Testing Results and ESD Testing Results.
- Passes FCC Class B Emissions without an enclosure (8-layer fully shielded PCB)
- Survives 27KV ESD (in an enclosure) to pass strict gaming commission standards
- Thermal, Mechanical, Vibration: Contact Reach
- RoHS 2 Compliant: Yes

Power Requirements

- Power Supply Voltage: +5VDC (5.15V for 5V USB Host Port Power Out)
- Power Consumption: Max 650mA/5VDC