# QTERM-G58

## Ultra-Rugged, Handheld Graphic Human Machine Interface with Touch Screen, Battery and Optional Wireless


- 320x240 Color transflective sunlight-readable TFT LCD
- Analog resistive touch screen
- Rugged handheld ABS/polycarbonate case with elastomer overmold
- 24- or 40-key steel-dome membrane keypad; optional lighted keypad
- 4 or 5 programmable LEDs on keypad, plus shift and power LEDs
- Serial port software-configurable EIA-232, -422, -485
- USB device for access to 256 MB NAND mass storage
- 802.11b/g wireless Ethernet
- Memory - 16 MB SDRAM, 4 MB NOR flash, 256MB NAND flash
- NEMA-4
- 8 - 32 VDC input
- Battery- internal lithium-polymer rechargeable, 10+ hours active life
- Powerful Qlarity® object-based programming for easy application development
- Windows® programming, simulation and debugging environment
- -20 to 60 °C operating temperature (-20 to 55 °C with 802.11 b/g option)
- Realtime clock
- Programmable speaker and .wav audio decoder (optional)
- CE Certified
- RoHS Compliant
- Customizable logo and keypad (optional)

## QTERM-G58- The Ultra-rugged Handheld HMI Terminal

The QTERM®-G58 is an ultra-rugged handheld human machine terminal with a 89 mm (3.5") color sunlight readable touch screen display. It is battery powered and includes serial, USB and optional 802.11b/g.

Our rigorous engineering and qualification testing makes this unit suitable for mobile and handheld applications in the oil and gas, utilities, process control, agriculture, forestry and manufacturing industries.

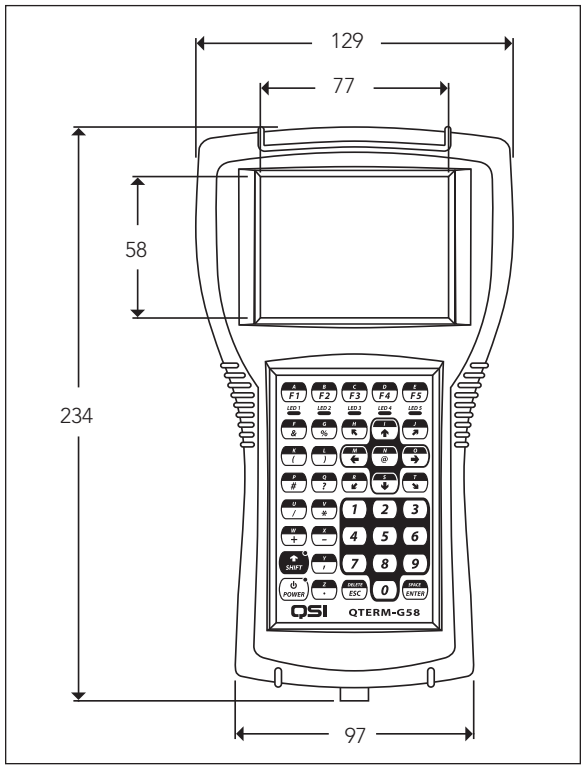
User input occurs through the analog resistive touch screen display as well as a rugged 24- or 40-key membrane keypad with steel domes. The standard keypad comes with four or five LEDs below the soft keys that can be used as status or alarm indicators. The standard keypad legends can be customized specifically for your application and with your logo.

Robust object-based programming with Qlarity® allows fast screen design and integration with your system requirements. Programming can be started immediately by downloading Qlarity Foundry® free from our website. QSI has brought its design and manufacturing expertise to customers worldwide for over 25 years. QSI Corporation is located at 2212 South West Temple #50, Salt Lake City, Utah 84115.

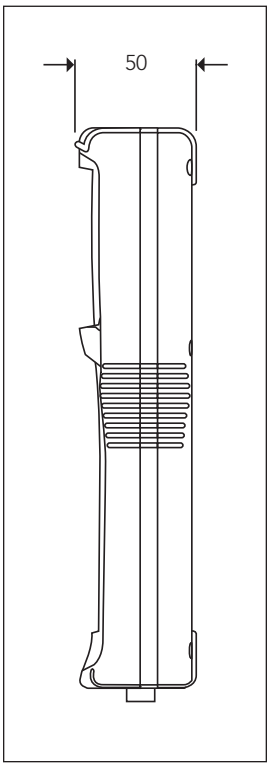
## QTERM-G58 Specifications

| Feature | Detail | Description |
|---|---|---|
| Display | Color | 320x240 Color transflective sunlight readable TFT LCD with Touch Screen |
| | Color depth | 262,144 colors (limited to 256 colors by Qlarity) |
| | Size / Dot Pitch | 89 mm (3.5") diagonal/0.2235 mm |
| | Lighting | LED 200 cd/m² typical. Brightness is software-controllable |
| Touch Screen | Type | 4-Wire analog resistive |
| Keypad | Number of keys | 24-key standard, 40-key optional |
| | Construction | Steel snap domes in membrane, 4 or 5 programmable LEDs, Power and Shift LEDs |
| | Lighting (optional) | Electroluminescent |
| | Legend customization (optional) | Prototype and custom legends are available |
| Interface | Serial multiport (optional) | Software-configurable EIA-232/422/485 serial multiprotocol port |
| | Baud rates | 600, 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200 |
| | Data formats | 8n1, 8e1, 8o1, 8n2, 7e1, 7o1, 7n2, 7e2, 7o2 |
| | Connector | Hirose HR30 12-pin sealed push-lock circular connector |
| | USB device | USB 2.0 full speed device port for mass storage access |
| Memory | Flash | 4 MB NOR |
| | RAM | 16 MB SDRAM, 256 MB internal NAND flash for mass storage |
| Wireless | 802.11 b/g | Dual Antenna |
| | Authentication | WEP, WPA, WP2 |
| | Encryption | WEP, PSK-TKIP, PSK-AES |
| | Modes | Infrastructure, Ad-hoc |
| Audio | Beep | Standard beep, software controllable in duration and pitch |
| | Speaker | Sealed 1 W 8 Ω speaker, 83 dB nominal at 100 mm, 1 W input power |
| | Audio decoder (optional) | Single channel digital decoder for .wav files |
| Housing | Handheld | ABS polycarbonate. Available in blue, gray or black with black overmolded elastomer boot |
| | UL | HB flame rating |
| | Size | 129x234x50 mm |
| | Mass | 665 g |
| Environmental | Sealing | NEMA-4 |
| | Temperature | Operating -20 to 60 °C (802.11 b/g option -20 to 55 °C) |
| | | Storage -30 to 70 °C |
| | Humidity | 0 to 95%, non-condensing |
| | Vibration | 5 to 2000 Hz, 4 g RMS |
| | Shock / Drop | 40 g, 11 ms, any axis / 1.5 m onto concrete |
| | Certifications | CE (EN60950, EN55022, EN55024), FCC Part 15, Subpart B, ICES-003 |
| Processor | Type | Atmel ARM9 200 Mhz |
| Realtime clock | Standard | Standard, battery-backed, 1 second resolution |
| Power | Standard | 8 to 32 VDC. Power switch on membrane keypad for full shutdown |
| | Battery power | Internal Lithium-polymer rechargeable battery pack |
| | Battery life | 10+ hours active life, 3 hours recharge time |
| Software | Terminal operating system | Qlarity® – Object-based programming language |
| | Development environment | Qlarity Foundry® – Windows® design environment |
| Accessories | Cables, etc. (sold separately) | Cable, HR30 to Blank, 3 m or 10 m. Programming Cable, HR30 to USB Type A plug, 2 m. Battery charging cable, 120 volt AC or 12 volt C vehicle lighter plug. Holster |

## QTERM-G58 Dimensions (mm)




Front View




Side View with Battery and/or WiFi

*QTERM-G58 housing dimensions shown in mm.*