



G7 BRIDGE

MONITOR EMPLOYEE SAFETY ANYWHERE

Portable Satellite & Cellular Base Station

The G7 Bridge is a portable base station that provides a satellite and cellular uplink for G7x and Loner 900 monitoring devices.

One G7 Bridge can link up to five G7x or Loner 900 devices. G7 Bridge communicates with devices through an industrial-quality 900 MHz radio link. The employee worn monitoring device can work up to 2 km away from the G7 Bridge, even inside complex facilities.

Through Iridium satellites or 3G cellular data, G7 Bridge communicates with the Safety Network. The transition to satellite communication is automatic when working beyond cellular networks, ensuring seamless monitoring. Equipped with GPS location technology, it provides your organization with a simple alternative to elaborate fleet management systems. G7 Bridge can mass-notify employees of the need to evacuate, connect workers to monitoring personnel via two-way messaging and account for teams on a real-time map, to best leverage available resources when help is needed.

The Safety Network monitors remote worker safety around-the-clock. It includes communication networks, our Monitoring Portal, your user account and monitoring devices. Through the Monitoring Portal, create and customize configuration profiles for G7 Bridge and connected G7x or Loner 900 devices.

G7 Bridge is self-powered and portable, allowing you to quickly move it from one vehicle to another, such as from a truck to an all-terrain vehicle. It has your team's back at all times, no matter their location.

Features



Portable



Weatherproof design



Dual mode
communications



900 MHz
communications



TeamAlert



Two-way Messaging



DETAILED SPECIFICATION (G7 Bridge)



G7x with G7 Bridge

Size & Weight

Size: 73mm x 107mm x 141mm (2.87" x 4.21" x 5.55")

Measurements do not include mount

Weight: 540 g (19.04 oz)

Buttons & Indicator Lights

Power button: Power on/off

Red light plus buzzer: Safety alert

Green SureSafe light: Blinking (powered), continuous (connected)

LCD Screen: Display menu, battery status, backhaul link status

Menu Navigation buttons: Up, Down, OK

User Notification

Indicators: Acoustic buzzer, indicator lights

LCD Screen: Display notifications/messages from backend

Wireless Communication

Radio: UMTS 800/850/900/1900/2100: Quad-band GSM/GPRS 850, 900, 1800, 1900: Iridium Satellite (1621 MHz); ISM band radio (915 MHz)

900 MHz Radio: Americas: 902-928 MHz Australian / New Zealand: 916-927 MHz, 1 Watt

Antenna: Internal

Location Technology

GPS Radio: 72 channel high sensitivity

GPS Accuracy: ~5 m (16 ft) outdoors, ~50 m (165 ft) indoors

GPS Real-time location turnaround time: ~20 seconds

Assisted GPS

900 MHz Radio Link Range

General use: up to 2 km

Hilltop to hilltop: 10+ km Terrain, foliage, and buildings will affect overall 900 MHz radio link

Alert Messages

Emergency/Low battery/Power off/Text messages

Mobile Messaging Methods

Remote messaging by email or SMS

Power & Battery

Rechargeable Li-ion battery: 6800 mAh capacity

Battery life: 50 hours @ 20°C (68°F), 44 hours @ -20°C (-4°F); 14 hours @ -40°C (-40°F); It is recommended that the hard wire kit is used anytime below -20°C

Charging connector: Micro USB

Environmental

Storage temperature: -30°C to 75°C (-22°F to 167°F)

Operating temperature: -40°C to 55°C (-40°C to 131°F)

Charging temperature: 0°C to 45°C (32°F to 113°F)

Ingress Protection: Designed to meet IP65

Regulatory Compliance

FCC, IC, RCM, RoHS

Contains: FCCID: XPYICGM5NNN, Q639603, 2361A-MLINK900

Device Requirements

Activated service plan, satellite communications require line-of-sight to sky, GPS for locating

Warranty

Two-year limited factory warranty

Wireless coverage & service plans

Cellular coverage: Nearly 150 countries

Satellite coverage: Global

900 MHz operation: ITU Region 2, Australia, New Zealand

Service plan options: Contact Blackridge

Live Web Application

Cloud-hosted safety monitoring web application is customizable for every customer requirement. Includes live map, employee address book, user roles, alert management, device configurations, alert setups and reporting





G7x



ALARMS DON'T SAVE PEOPLE.

PEOPLE SAVE PEOPLE.

The G7x uses 3G cellular and satellite networks to connect your team to real people. G7x confidently accounts for everyone's wellbeing and whereabouts in real-time to equip live monitoring personnel when someone needs a hand, in even the most remote locations.

The G7x system includes the G7x user-worn device and G7 Bridge portable satellite and cellular base station. Leveraging 3G and Iridium satellite networks, remote teams are wirelessly monitored by real people. Connectivity seamlessly transitions to satellite when cellular becomes unavailable, for true last-mile monitoring. G7x communicates with G7 Bridge through an industrial-quality 900 MHz radio link from up to 2 km away. G7 Bridge connects with the Safety Network and monitoring teams using available 3G or satellite connections.

G7x automatically watches over workers and calls for help even when the employee can't. All safety incidents are communicated to 24/7 monitoring personnel who can mobilize responders to an employee's exact location or trigger an evacuation in real-time. Constant connectivity and incident alerting provide critical insights and situational awareness for optimized emergency responses.

G7x delivers an exclusive, customizable and modular design. Gas detection is tailored to work environments with a selection of cartridges and sensors. Everything is completely customizable to meet the needs of every industry, application and scenario. Bump tests and calibration data is communicated automatically to the Monitoring Portal for real-time compliance visibility and reporting. Wireless connectivity ensures that each G7x is remotely configurable and firmware updates are automatic. From onset of an incident through to resolution, all activities are time-stamped for future reporting.

Features



Fall detection



No-motion detection



Messaging



Gas alarms



SOS alert



Check-in



GPS location



Indoor location



Satellite

DETAILED SPECIFICATION (G7x)

Standard G7 Safety Alert Features

All safety alerts are transmitted immediately to the Safety Network

Fall detection and No-motion detection: Tri-axis accelerometer, tri-axis gyro, software processing, configurable sensitivity, configurable time window (1-30 mins, or off) for no motion detection.

Emergency latch: Pull latch to trigger remote alert

Silent emergency: Press and hold latch to trigger remote alert

Low-battery: Configurable threshold

Worker check-in: Configurable timer (5-180 min, or off), automatic check-in when driving

Additional Safety Features Available with Gas Cartridges

All gas alerts are transmitted immediately to the Safety Network.

Time-weighted average (TWA)
Short-term exposure limit (STEL)
High gas alert
Low gas alert
Bump test and calibration notification
Bump test and calibration failure alert

Size & Weight

G7 with Standard Cartridge

Size: 64mm x 124mm x 27mm (2.52"x 4.88"x 1.06")
Weight: 162 g (5.7 oz)

G7 with Single-gas Cartridge

Size: 64mm x 128mm x 27mm (2.52"x 5.04"x 1.06")
Weight: 167 g (5.9 oz)

G7 with Quad-gas Cartridge

Size: 64mm x 150mm x 27mm (2.52"x 5.91"x 1.06")
Weight: 192 g (6.8 oz)

Single-gas and Quad-gas Sensor Options

H₂S, LEL, CO, O₂, NH₃

H₂S (Hydrogen Sulfide)

Sensor Type: Electrochemical
Lowest detection limit: 0.5 ppm
Upper detection limit: 50 ppm
Resolution: 0.1 ppm

LEL combustible

Sensor Type: Infrared
Lowest detection limit: ±4 %LEL
Upper detection limit: 100 %LEL
Resolution: 1 %LEL

CO (Carbon Monoxide)

Sensor Type: Electrochemical
Lowest detection limit: 1 ppm
Upper detection limit: 500 ppm
Resolution: 1 ppm

O₂ (Oxygen)

Sensor Type: Pumped electrochemical
Lowest detection limit: 0.1 %vol
Upper detection limit: 25.0 %vol
Resolution: 0.1 %vol

CO₂ (Carbon Dioxide)

Sensor Type: Infrared
Lowest detection limit: 50 ppm
Upper detection limit: 50000 ppm
Resolution: 50 ppm

NH₃ (Ammonia)

Sensor Type: Electrochemical
Lowest detection limit: 0.5 ppm
Upper detection limit: 100.0 ppm
Resolution: 0.1 ppm

User Interface

168 by 144 pixel graphical, high contrast, liquid crystal display with front lighting, menu system driven by a three-button keypad, power button (on/off), check-in button (check-in/silent emergency), emergency latch (send emergency alert)

User Notification

Green SureSafe Light®: Blinking (powered), continuous (connected)

Yellow top and front lights: Personal pending alarm and personal warning alarm

Red top and front lights: Remote alert communicated

Blue LiveResponse™ top and front lights: Monitoring team confirmation that alert has been acknowledged

Personal alarm indicators: speakers, LEDs and vibration motor

Speaker sound pressure level: ~90 dB @ 10 cm (~90 dB @3.94")

Voice calling: Speakerphone and phone modes (G7x model only)

G7x Wireless Radio

Works with G7 Bridge satellite base station
Radio: 902.0—928.0 MHz, 1 Watt
Antenna: Internal
Radio link range: 2 km (1.25mi) real-world

Wireless Updates

Device configuration changes: Yes
Device firmware upgrade over-the-air (FOTA): Yes



Location Technology

GPS Radio: 48-channel high sensitivity
Assisted-GPS: Yes
GPS Accuracy: ~5 m (16 ft) Outdoors
Indoor location technology: Location beacons
Location update frequency: G7X 10 sec and G7x 15 min

Power & Battery

Rechargeable Li-ion battery: 1250 mAh Li-ion
Battery Life: 18 hours continuous operation at 20° C (68° F)
Charge time: 4 hours

Environmental

Storage temperature: -30°C to 75°C (-22°F to 167°F)
Operating temperature: -20°C to 55°C (-4°F to 131°F)
Charging temperature: 0°C to 45°C (32°F to 113°F)
Ingress Protection: IP67

Approvals

SAR, RoHS, CE, RCM
FCC ID: W77G7X | **IC ID:** 8255A-G7X
Intrinsically Safe: Class I Division 1 Groups A, B, C, D, T4; Class I Zone 0 AEx ia IIC T4 Ga: Ex ia IIC T4 Ga
IECEX: Ex ib IIC T4 Gb 

Warranty

G7: two years
Cartridges: Lifetime
G7 complete plan: three years

Live Web Application

Cloud-hosted safety monitoring web application is highly customizable for every customer requirement, includes live map, employee address book, user roles, alert management, device configurations, alert set-ups and reporting

All specifications subject to change without notice

