



# Safe Environment Engineering

## Life•line Gateway (2015)

The Life•line Gateway bridges the data acquired from a meter's medium distance Life•line Interoperable Network Communicator (LINC) through cellular or MESH to any computer having Internet access.

This current Life•line Gateway offers a reduced size and weight half that of its prior version along with significantly improved (10x) cellular operation as a result of its enterprise class embedded radio.

The Life•line Gateway is sealed and operates on fully charged batteries for at least 10 hours or 20 hours with the optional Power Module. It can also operate as a local "Hot Spot" for wireless Wi-Fi equipped computers to gain access to the Internet.

Through the Gateway's MESH wireless architecture Gateway-to-Gateway data relaying is possible.



### Specifications

#### General

**Size:** 8.41" x 6.76" x 3.87" (18.9 x 17.2 x 9.8 cm)

**Weight:** 3.9lbs

#### Antennas:

Omni Directional, 2.4GHz, 5dBi, SMA  
Dipole Blade, 698-960/1700-2700MHz, 2/3dBi, SMA

**Antenna Connector:** Type SMA

#### Power:

AC 100-240V 50/60Hz 0.8A

DC 14V 2.0A

Optional Power Module

**Lights:** Power, Signal, Cellular, MESH Stat

#### Connector:

Sealed Ethernet LAN  
USB Cellular



Battery Capacity  
Status



#### MESH RADIO / Access Point

##### Radio Characteristics

**Radio:** IEEE 802.11b/g, 2.4 GHz

**Antenna Connector:** SMA

**Frequency:** 2.402-2.472 GHz / U.S. (varies with country)

**Modulation:** DSS, CCK, ODFM

**Max. RF Transmit Power:** 32 dBm +/- 2 dB

##### Receiver Sensitivity:

Varying between -93 dBm ±1 dB and -71 dBm ±1 dB

##### Network:

VLAN and QoS Support; Access Point; Bridge; Gateway; DHCP; NAT and Port Forwarding; Automatic Protocol Tunneling (APT).

##### Security:

Supports IEEE 802.11i: AES-CCMP and TKIP encryption, WPA-Personal/Enterprise, WPA2-Personal/Enterprise, 802.1x; 64/128-bit WEP; AES-256 encryption and HMAC-SHA1 authentication between Gateways; Access Control Lists; Compatible with Layer-2 and Layer-3 client/server and peer-to-peer security solutions; Compatible with Harris SecNet 54® encryption.

**Certification:** FCC Part 15 (USA), CE mark (Europe, Switzerland & Turkey), AS/NZS (Australia & New Zealand)

##### Power:

Input Voltage: 8-30 VDC

Power: 2.6 W @ 24 VDC typical (11.5 W @ 24 VDC peak)

**Temperature:** Operating -30 °C to 70 °C (-22 °F to 158 °F)

**Humidity:** 95% (non-condensing)



2<sup>nd</sup> Cell Card Inside

#### Wireless Broadband Router

##### Ports

One USB 2.0 for 4G/3G modems

One 10/100/1000 Ethernet LAN port

##### WAN Connection:

Integrated enterprise class, software defined – 3G & 4G Verizon/AT&T/Sprint/T-Mobile/Europe with multi-band LTE

##### WAN Redundancy and Load Balancing

Failover/Failback (4G/3G/Ethernet)

Load Balancing

WAN failure Detection via Ping Ethernet)

##### WAN Security:

NAT, SPI, ALG, Port Blocking, Service Filtering (FTP, SMTP, HTTP, RPL, SNMP, DNS, ICMP, NNTP, POP3, SSH), Protocol filtering, WAN ping (allow/ignore)

##### Intelligent Routing

UPnP, DMZ, Virtual Server/Port Forwarding, Routing Rules, Route Management, Content Filtering, Website Filtering, Local DHCP server, DHCP Client, DNS, DNS Proxy, ALGs: PPTP, L2TP, PPPoE pass-through, IPSec pass-through, FTP (passive), FTP (active), MAC Address Filtering, Dynamic DNS, Dynamic DNS

##### Supported Devices:

AT&T	Sierra Wireless AirCard USB 306	Novatel Wireless Ovation MC760 Sprint U760	LG VL600 VL600 4G LTE USB Modem
Huawei E181	Sierra Wireless AirCard USB 308 Shockwave	Sierra Wireless AirCard 595U	Novatel Wireless Ovation MC720 Verizon USB720
Huawei E1815 USB Connect 900	Sierra Wireless AirCard 313U USB Connect Momentum 4G (LTE)	Sierra Wireless Compass 597U Sprint 597 USB Modem	Novatel Wireless Ovation MC727 Verizon USB727
Huawei E368 Force 4G	Sierra Wireless AirCard 340U Beam	Sierra Wireless AirCard USB 598	Novatel Wireless Ovation MC760 Verizon USB760
LG Turbo LUU-2100TI USBConnect Turbo	SPRINT	Sierra Wireless 250U 3G/4G USB Modem 250U	Novatel Wireless Ovation MC551 551L 4G LTE USB Modem
LG AD600 USB Connect Adrenaline (LTE)	Feeney Wireless Skyus 3G	Ubee PXU1901	Pantech UM150
Novatel Wireless Ovation MC930D	Franklin Wireless CDU-680 Sprint U680	T-MOBILE (USA)	Pantech UM175
Novatel Wireless Ovation MC950D	Franklin Wireless U300 Sprint 3G/4G USB ModemU300	Huawei E1691 T-Mobile webConnect Jet USB (UMG1691)	Pantech UMW190V2 Verizon UMW190 Global Modem
Option ICON 322 AT&T USBConnect Quicksilver	Franklin Wireless U301 Sprint 3G/4G USB ModemU301	Huawei E181 T-Mobile webConnect USB (UMG181)	Pantech UMW190NCD Verizon UMW190 Global Modem
Option ICON 461 AT&T USBConnect Velocity	Franklin Wireless U600	Huawei E1831 T-Mobile webConnect Rocket USB	Pantech UML290 UML290 4G LTE USB Modem
Sierra Wireless AirCard 875U	Franklin Wireless S600C	Huawei E366 Jet 2.0	Pantech UML295
Sierra Wireless AirCard 881U USBConnect 881	Franklin Wireless U770 Plug-in-Connect Tri-Mode USB	ZTE MF691 webConnect Rocket 2.0 HSPA+	Sierra Wireless AirCard 595U
Sierra Wireless Compass 885 USBConnect Mercury	NETGEAR 341U	ZTE MF683 Rocket 3.0	Sierra Wireless AirCard USB 598
Sierra Wireless AirCard USB 305 USBConnect Lightning	Novatel Wireless Ovation MC720 Sprint U720	VERIZON	
Sierra Wireless Compass 888	Novatel Wireless Ovation MC727 Sprint U727	Feeney Wireless Skyus 3G	

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