



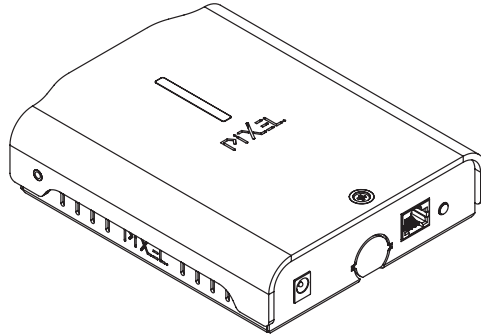
EM-4GEx/1L

User Guide

Rev: 1.0.2347.0

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Description



The EM-4GEx/1L is a wireless 4G gateway, with both Single and Dual SIM options, providing an FXS Phone Line interface, Built-in Battery Backup, and network Fall-Back via Automatic SIM switching (Dual SIM model). It is the perfect solution for providing a traditional analog line to your elevator's emergency phone dialler. This wall-mounted unit, designed for industrial use, is ideal for single-elevator installations, guaranteeing reliable voice communication with integrated fail-safe features ensuring you are always connected.


Features:

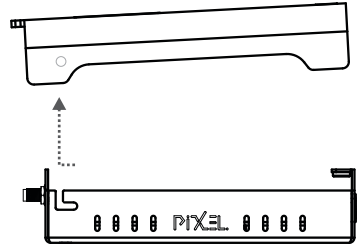
- Single & Dual SIM Options
- 4G VoLTE with 3G Fall-Back
- Built-in Battery Backup (8 hours talk-time)
- LED System & Network Status Indicators
- Configuration & Verification via SMS Commands
- Compatible with emFONE devices and all ACMA approved telephones
- Designed to Operate LINE Powered Telephones
- Transient Protection up to 5kV on FXS Interface Port
- Automatic Fault Notification via SMS & Relay Contact
- Compatible with Self Testing & Reporting in accordance to EN: 81-28
- Real-Time Monitoring & Fault Notification via Pixel Eliiot Cloud Platform


Models:

EM-4GEx/1L	AU/NZ Wireless Communication Gateway
EM-4GEx/1L-G	Global Wireless Communication Gateway


Installation

 Refer to Installation Overview Diagram (back page) before proceeding.



- 1 Unscrew the captive screw in the top cover.
- 2 To remove top cover, lift up on a slight angle (as shown), sliding forwards before removing.
- 3 Break out the bottom centre cable conduit entry.
- 4 Insert SIM Card(s), ensuring your preferred network provider is in SIM 1.
- 5 Connect the 4G Antenna.
- 6 Power the unit with the 12V DC Adapter provided & remove to operate on battery backup.
 -  Before proceeding ensure the proposed install location has optimum signal strength, refer to 'System LED indicators' SIG LED.
- 7 Power down the unit by holding down the RESET button for 5 seconds.
- 8 Mount the unit using the two M4 mounting holes on the back.
- 9 Connect the emergency phone dialler to the FXS Phone Line Interface port.
- 10 Re-attach top cover and re-power the unit with the 12V DC Adapter provided.
- 11 If using Pixel Mobile SIMs, the gateway will auto-detect its APN settings as per the table below. (*AU/NZ model Only*)

SIM Supplier	Network	Default APN
Pixel Mobile	Telstra	tesltra.internet
	Optus	om2moptus
	Vodafone	live.vodafone.com

 If the APN for your Network is not listed in the table above you **MUST** set a Custom APN. Please refer to SMS commands on the back page.

- 12 To finalize installation make an outgoing TEST call from your lift emergency phone dialler.

Specifications

Operating Voltage 12V DC (max)

Operating Current Idle: 0.16A, Charging: 0.95A (max)

4G Bands	LTE FDD	B1/B2/B3/B4/B5/B7/B8/B28 (B12/B13/B18/B19/B20/B25/B26)*
	LTE TDD	B40 (B38/B39/B41)*
	WCDMA	B1/B2/B5/B8 (B4/B6/B19)*
	GSM	B2/B3/B5/B8

* Additional global bands supported with global model (EM-4GEx/1L-G)

Battery Type 3.7V 3000mAh Li-Ion 18650 (2 Cells)

Battery Backup 8 Hours (Talk Time), 14 Hours (Standby)

FXS Port 48V DC, 30mA (up to 1000m max distance)

SIM Card(s) 2FF Standard SIM (25mm x 15mm)

Antenna 2dBi Omni, 50 Ohms, 1.5m Lead with SMA

Operating Temperature 0 - 50°C

Mounting Surface Wall Mounting

Dimensions (mm) 126.5(W) x 155(H) x 37(D)

System & Network Status LED Indicators

CPU		Green	System Running
SIG		Red	Searching Network
		Green	-60dbm To -82dbm Strong
		Orange	-83dbm To -92dbm Good
		Pink	-93dbm To -96dbm Fair to Poor
		Red	-97dbm To -112dbm Poor
ETH DT		Green	Ethernet Activity
		Orange	Ethernet Link
FXS		Blue	No Network (No FXS Voltage)
			On-Hook (Idle)
			Off-Hook (Dialling Out/On-Call)
			External Call (Dialling-In/Ringing)
BAT		Red	Batteries are In-Circuit
			Batteries not In-Circuit
CHG		Red	Charge In-Progress
FULL		Green	Charge Complete

Basic SMS Configuration & Verification Commands

Unlock to me <PIN>

Unlocks your gateway to allow configuration and verification of device settings.
Factory Default PIN = 123

Unlock to me 123

PIN Accepted:
You can now program the settings. I'll lock myself after 15 minutes or if you send "lock" to me. I'd suggest deleting your message to keep the PIN safe.

Show your status

View gateway status, including Device ID, FXS Activity, Signal Strength, Network Carrier, Connected Band and the current APN setting for the connected SIM.

Show your status

Device ID: 4GE1L-123456
Slot 1 - PTE-FXS
Card Status: Idle
Slot 2 - PTE-4G:
Card Staus: Idle
Signal Strength: -59dBm
Network: Carrier Name
Band: LTE BAND 28
APN: internet
Ethernet Card: Detected

Set sim APN to <APN>

Configure a custom APN setting for your Single SIM gateway.

Set sim APN to yesinternet

Ok, I've set the APN to yesinternet

Set sim <loc> APN to <APN>

Configure a custom APN setting for your Dual SIM gateway.
Where <loc> is SIM slot number.

Set sim 1 APN to yesinternet

Ok, I've set the sim 1 4G APN to yesinternet

Show your settings

View your gateway settings such as Location, SMS reporting, receive(RX) and transmit(TX) speech audio levels, custom APN for each SIM slot, eLioT cloud reporting and the Ethernet IP adapter settings.

Show your settings

Location: Unknown
Report #: No one
DHCP: Disabled
NTP address: 1.au.pool.ntp.org
NTP timeout: 4
Audio: TX6 RX6
Report time(s): 3600
Hotline #: Disabled
Whitelist: Disabled
Auto answer device: alarm
Sim 1 APN: *If Custom APN Set
Sim 2 APN: *If Custom APN Set
reporting server: 0.0.0.0
IP address: 10.100.5.1
Subnet: 255.255.255.0
Gateway: 10.100.5.254
DNS: 8.8.8.8
MAC Address: 00:24:5C:00:00:00
Priority Switching is Disabled

Advanced Pixel Gateway SMS commands via product QR Code

Battery Backup Bank

Remove the Batteries & RESET the system when servicing the unit

System Battery Backup

8 Hours Talk Time
14 Hours Standby

Battery replacement required
3 years from install date

Front Case PIXEL Illumination

ON when input power supply is present

GPO Required

Input Power Supply DC Jack

12V DC Power Adapter (Included)

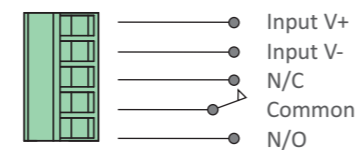
Input Protection Fuse

2A Slow Blow Fuse

Pixel P/N: SR-FUSESMD/2A

I/O Interface

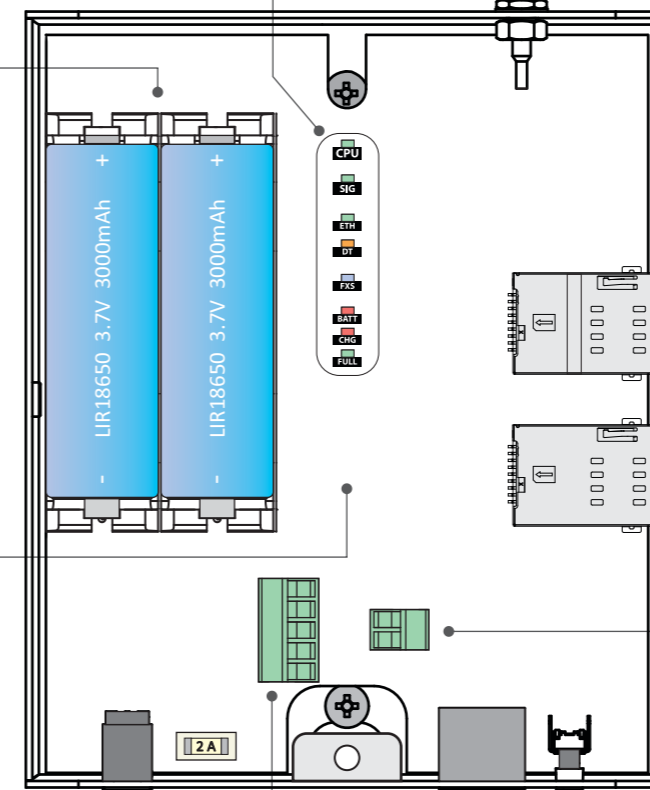
Opto-Isolated Input & Relay Output



Relay Output Contacts:

Normally Closed (N/C): No Network Connection

Normally Open (N/O): Network Connected



4G Antenna SMA Port

4G Antenna with Magnetic Base (Included)
Aerial can be extended up to a maximum of 8m
Pixel P/N: CB-LF195-08 (8m SMA Extension cable)

Insert SIM Card(s)

Not included, please visit Pixel Mobile at www.pixeltechnologies.com.au



Primary SIM



Secondary SIM

*Available on EM-4GE2-1L model

FXS Phone Line Interface

Connect to Analogue Phone Dialler

Reset Switch

System Reset/Battery Isolate
Press & HOLD for 5 sec

RJ-45 Ethernet Port

IP Address: 10.100.5.1
Firmware Updates Only

Cable Conduit Breakout Entry Ø 20mm



SCAN ME
To access product page on your tablet or smart phone

CE
RESPONSIBLE SUPPLIER
NUMBER: E5405

PIXEL
TECHNOLOGIES

EM-4GEx/1L

Date: 27-11-23

Installation Overview Diagram

Designed By: D.H

Revision: 1.0.2347.0

Sheet: 1/1