

CONTAINER, CHASSIS, AND TRAILER TRACKING

ASSET TRACKING

# Cold Chain Gateway

Dual-Mode Communication for Continuous Real-Time Reefer Monitoring and Control

## Description

The **Cold Chain Gateway** is Powerfleet's cellular and optional satellite-backup, dual-mode communication device, for monitoring and remotely controlling refrigerated trailers and cargo.

The Cold Chain Gateway utilizes 4G/LTE cellular data as its primary two-way communication mode, with the option for global satellite communication from Iridium® as a backup. This ensures reliable transmission of critical data. The optional satellite backup provides continuous coverage in scenarios where there are cellular network issues, cross-border operations, or during natural disasters and extreme weather conditions.

The Cold Chain Gateway enables remote configuration of refrigeration units in real time and provides valuable operational data such as location, temperature set point(s), inlet and outlet air temperature(s), fuel level, and alarm events.

With instant notifications, it ensures compliance with food safety regulations and supports sustainable and efficient cold chain operations.

Furthermore, the Cold Chain Gateway, in conjunction with standalone wireless temperature sensors can monitor the status of the refrigeration unit controller. This offers a more cost-effective and streamlined solution for maintaining cargo within specified temperature range(s), eliminating the need for complete integration of a refrigeration unit controller.

Powerfleet's Cold Chain Gateway integrates with Unity, our SaaS-based fleet intelligence platform that ingests, processes, and consolidates data from every asset, vehicle, and person. Through advanced data intelligence, Unity unifies business operations.

## Key Features

- Remotely monitor and control refrigeration unit on/off, alarms, and sensors without the reefer trailer being connected to tractor power
- Seamless bi-directional integration with Carrier® Transicold and Thermo King® refrigeration units
- Independent wireless temperature sensing and detection of reefer controller on/off status, eliminating the need for expensive reefer controller integration
- View and alert on refrigeration and Independent temperature sensors
- View hitched/unhitched and door open/closed status
- GPS trailer location and movement tracking

- Dwell time reporting
- Geofencing for real-time arrival and departure times reporting
- Landmark reporting with fuel level capture upon arrival and departure
- Automated or desktop yard checks



**2-way leading refrigeration unit remote control/monitor**



**Commodity-based set point management and alerting**



**Commodity-based alarm with optional automated assignment**



## Designed to Revolutionize Your Logistics Operations

The **Cold Chain Gateway** offers a wide range of operations-relevant asset and reefer management features designed to revolutionize operations:

- Early issue identification & resolution
- Avoid commodity loss
- Adhere to compliance standards
- Increase productivity
- Lower operating costs
- Improve safety
- Reduce fuel consumption
- Achieve sustainability goals
- Drive continuous improvement
- Improve customer service

# Technical Specifications

## Communication

Cellular Technology	4G/LTE, 3G Fall back, EC21-A Modem LTE FDD: B2/B4/B12
Cellular Data Rates	Download 20 Mbps, Upload 15 Mbps
SIM	Mini (2FF) SIM Card Size
Satellite	Iridium Edge modem and satellite network

## BLE

BLE Technology	BLE 4.1 / 2.4GHz
----------------	------------------

## Global Positioning

Type	Internal Module SiRFstarIV, M10478-A3, 66 channels
Sensitivity	-165 dBm
TTF @ -130dB	Cold <27 Sec, Warm <10 Sec, Hot <1 Sec
Internal Antenna	Internal

## Inputs & Outputs

Inputs	Digital Input: 2 ports up to 4 ports (optional) Digital Output: 2 ports (Voltage level fixed) Analog input: 3 ch, 1-bit (Voltage range fixed) Serial Port (RS232): 1 COM Port up to 2 Ports (optional) Dallas One-Wire
--------	--

## Technical Specifications (cont'd)

### Interfaces

CAN	J1939
-----	-------

### Power

Input Voltage	10 – 16 VDC
Consumption	42.5 mA nominal @ 12 VDC
Low Voltage Cutoff	Reefer Voltage < 10 VDC (configurable)

### Environmental

Temp, operation	-30°C - +85°C
Temp, storage	-40°C to +85°C
Ingress Protection	IP67

### Certifications

Communication	FCC, CE
---------------	---------

### Size

Dimensions	118 mm x 133 mm x 36 mm
------------	-------------------------

### Installation

Connections	12-pin, male
-------------	--------------

## Technical Specifications (cont'd)

### Features

Movement	Built in 3-axis accelerometer ( $\pm 2/8g$ )
Geofence	100 On-board Geo-fences

Powerfleet (NASDAQ: PWFL; TASE: PWFL) is a global leader of internet of things (IoT) software-as-a-service (SaaS) solutions that optimize the performance of mobile assets and resources to unify business operations. Our data science insights and advanced modular software solutions help drive digital transformation through our customers' and partners' ecosystems to help save lives, time, and money. We help connect companies, enabling customers and their customers to realize more effective strategies and results. Powerfleet's tenured and talented team is at the heart of our approach to partnership and tangible success. The company is headquartered in Woodcliff Lake, New Jersey, with our Pointer Innovation Center (PIC) in Israel and field offices around the globe. For more information, please visit [www.powerfleet.com](http://www.powerfleet.com).