

Remote Monitoring Modem (RMM+) for ThermoKing MP-3000

- Real time container monitoring and tracking – anytime and anywhere
- Features built-in GPRS/GPS module for land based monitoring/tracking
- Bluetooth interface for fast wireless upload of controller software and log retrieval
- ISO 10368 Power Line interface for compliance with local reefer monitoring systems
- Easy installation as the MP-3000 RMM+ mounts directly on the backside of the controller

Description

The MP-3000 RMM+ is a remote communication device designed for refrigerated containers. The MP-3000 RMM+ combine industry standard ISO10368 communication with wireless technologies for fast data transfer, long distance communication and tracking.

When no local monitoring system is available, the MP-3000 RMM+ will via GPRS forward all exceptions such as alarms and power on/off events as they occur, and will provide full set of data at preset scheduled intervals to the Global Monitoring Server.

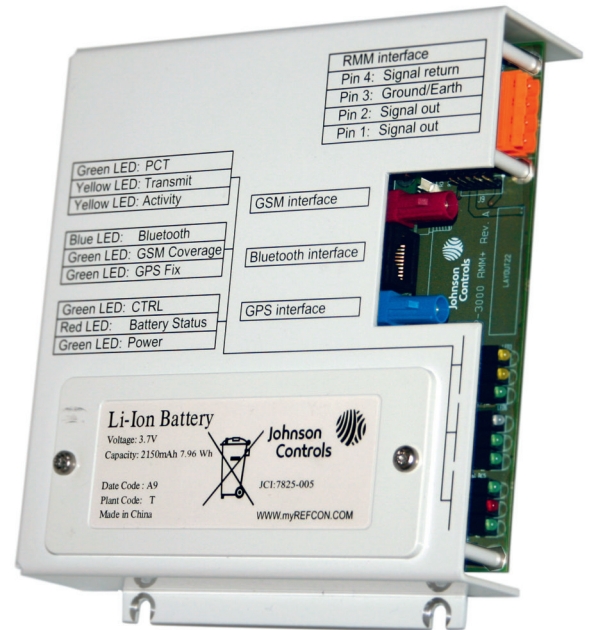
The Bluetooth interface allows for fast and wireless transfer of container firmware and data retrievals via the LogMan II device or container-to-container.

The MP-3000 RMM+ is further the key component in ISO 10368 power-line communication for monitoring and control of reefer containers onboard vessels or terminals. Each container equipped with an MP-3000 RMM+ is able to send data on its operating conditions and alarms to a local monitoring system, such as the REFCON system.

Besides monitoring, the MP-3000 RMM+ can be used to remotely control various reefer container functions, which include changing the setpoint, initiating PTI or defrost.

The MP-3000 RMM+ offers a number of important benefits, such as:

- Full transparency in the cooling chain
- Improved utilization of container fleet
- Reduced risk of potential cargo damage
- Reduction of operational cost due to less time-consuming manual inspections
- Minimize unexpected events such as container tampering, theft, diversion or holdups in transit.
- Improved safety of personnel
- Improve cargo documentation handling processes
- Optimization of MP-3000 operation with reduced risk of human errors
- Energy savings due to always updated MP-3000 software, which enables the MP-3000 to run the latest energy efficient programs



Applications

Enables MP-3000 for real time remote monitoring and tracking on vessels, in terminals and inland transportation

Centralized remote management of MP-3000 operating conditions, alarms, events, settings and positions.

Environmental Specifications:

Operating temperature	-20°C < T _{op} < 70°C
Shock	20G operating, 50G non-operating
Vibration	Random (20Hz to 2kHz)
Markings	EMC, LVD, RoHS
Radio Approvals	CE, FCC and IC

Interfaces:

Bluetooth 2.1+EDR short range wireless communication
QUAD band (850/900/1800/1900 MHz) GSM/GPRS and UMTS for long range wireless communication
ISO10368 compliant power line communication
32-channel fix embedded positioning system
RS232 interface toward host reefer container controller
Status LED's to indicate operating status
Mod-bus interface for external sensors
Digital input for optional door sensor

Hardware:

Serial FLASH for data and program storage, including controller firmware for automatic distribution
Inbuilt 3-axis motion sensor
Embedded SIM card
Self-contained rechargeable battery for container off-power operation

Software:

Over-the-Air firmware upgrade to apply new features
Immediate notification of controller alarms and container power ON/OFF events
Remote setting of scheduled transmission intervals and other communications rules
Internal hourly condition logging until transmission is established
Maximum operation in container power off mode: 120 days

Included items:

Installation instruction
Sticker "RMM+ modem installed"

