

RRCE-Z™

Reefer Monitoring Platform

DATASHEET

SIGNIFICANT FEATURES:

- Local wireless monitoring while on board vessel or terminal
- Uses short range RF to transmit data, 802.15.4
- Compatible with our WRAD based monitoring system for added flexibility
- Installed into existing reefer modem slot
- Monitors: Temperatures, Set-point, Alarms, Current/Voltage, etc.
- Controls: Set-point, Download, PTI, Defrost, Clock, Clear Alarms, etc.
- Conforms to IEEE 802.15.4 Standard



RTE offers the Refrigerated Shipping Industry the most complete and comprehensive line-up of Remote Reefer Monitoring Solutions available.

As part of the RRCE Family, RRCE-Z is based on a Hardware/Software platform that provides a common interface to controllers from different manufacturers.

RRCE-Z, in conjunction with RTE's GRASP 3.0 software, gives you the ability to monitor reefer containers in real-time with the following capabilities:

- Collection & Display of operating parameters- Temperature, CA Information, Power Information
- Clear text description of alarms using manufacturers code & text
- Downloads of: temperature, Events, Alarms, PTI, USDA logs, etc.
- Remote control of: Set-points, PTI, defrost, CA
- Graphical Bay/Yard View

RTE

SPECIFICATIONS:

Dimensions:	12.72"L x 5.50W x 2.00"H (322.9mm x 139.7mm x 50.8mm)
Weight:	1.00 LB (0.45kg)
Enclosure:	ABS Plastic, Yellow
Operating Temp:	-40 to 85C (-40 to 185F)
Storage Temp:	-65 to 150C (-85 to 302F)
Flammability:	UL94V-O
Input Voltage Range:	+18VAC to +36VAC
Current Draw:	100mA @ 24VAC
On-Board Fuse:	ATC5 *5A, Bladed Auto Fuse
Communications:	Dual Standard RS232
Input Voltages:	TxIN= -0.3V to (Vcc +0.3V) RxIN= +/- 15v
Output Voltages:	TxOUT= (V+, +0.3V) to (V-, 0.3V) RxOUT= -0.3V to (Vcc +0.3V)
Controller Types:	Carrier (ML2, ML2i, ML3) Daikin StarCool MHI York/Thermo King (MPC 2000, MPC3000) *Need RTE TK Adapter Board



SYSTEM COMPONENTS:

Wireless CCU - The wireless CCU provides an interface between RRCE-Z devices and the GRASP server. It is the main access point for RRCE-Z units and it generates an IEEE 802.15.4 wireless network, known as Zigbee, to establish connection between them. The wireless CCU can connect to the GRASP server via Ethernet (wires or Wifi), USB, RS232, or RS-485.

Wireless Repeaters - Used to extend the coverage of the wireless network. They communicate to the wireless CCU and the RRCE-Z units.

GRASP 3.0 - Monitoring and control software

Wireless CCU / Wireless Repeater

Dimensions*:	6.9"L x 4.46W x 14.886"H (175mm x 113mm x 378mm)
Input Voltage:	110/220/440VAC, 50-60Hz nominal
Enclosure:	Fiberglass, NEMA 4x water seal
Antenna Power:	4 dbi
Operating Frequency:	2.4 GHz

*Wireless CCU without optional Wifi antenna