

IOT SOLUTION PACKAGE FOR REFRIGERATED CONTAINER

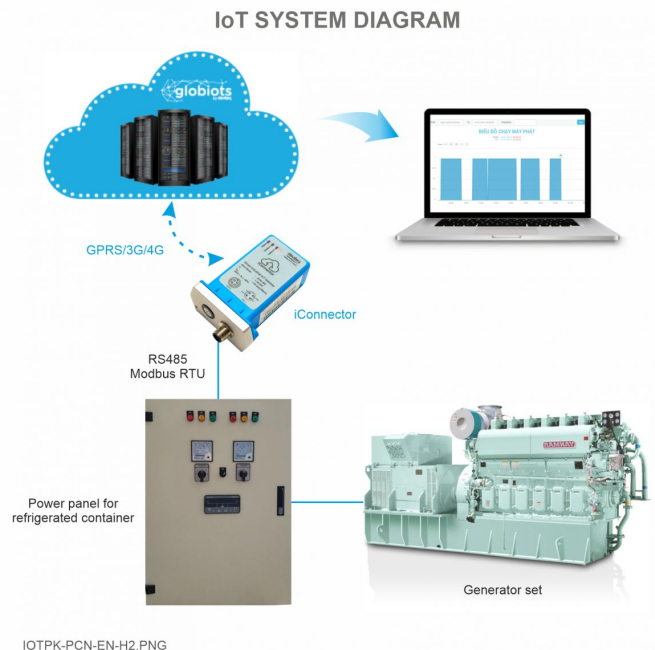
SKU: IOTPK-PCN



IoT solution package for refrigerated containers on barge is a hardware and software system which applies IoT technology to monitor power supply of refrigerated containers and generator set operation on barge. In addition to power supply monitoring on barge, this solution also is applied to monitor for cold container truck and cold container field. In this system, 3G iConnector IoT gateway connects to measurement device for current load of refrigerated containers and it transmits data to cloud server or on premise server for storing, analyzing, reporting, alarm, monitoring and managing the container power supply.

The IoT solution package assists to handle issue of faulty operation in supplying power to containers and provides reliable evidences to customer in case of spoiled goods. The package also calculates precisely transportation cost and reduces risk of spoiled transported goods. Moreover, the solution optimizes fleet coordination as well as promotes company brand name.

- ✓ **ANYWHERE, ANYTIME MONITORING**
The system automatically collect data 24/7 and monitor from any place on any device (desktop, laptop, tablet)
- ✓ **EASY UPGRADE AND EXPANSION**
The system could be upgraded functions, reports and expanded monitoring scope
- ✓ **QUICK SYSTEM DEPLOYMENT**
The deployment is implemented through two simple steps
- ✓ **INVESTMENT OPTIMIZATION**
The solution packages are designed to optimize cost and suitable for monitoring from few to large number of containers
- ✓ **CUSTOMIZED AND SPECIALIZED SOFTWARE**
Software interfaces are friendly, specialized, and customized
- ✓ **CONVENIENT DATA EXCHANGE**
The system pushes data to third-party software via API or csv file



SPECIFICATION

HARDWARE	
Measurement device for current load of container	Measure current load of each refrigerated container and convert signal to RS485 Modbus RTU signal.
iConnector IoT gateway	Transmit data from different current load device to cloud server or on premise server through 3G cellular network. Connect maximum 35 containers and monitor up to 70 parameters. 2MB internal memory, power 7..48 VDC, avg 200mA, IP 67 and GPS
Server	<p>Cloud server service or on premise server to install IoT Globiots software system. Server capacity depends on total monitored parameters, number of iConnector and expansion plan for near future. There are 3 types of server:</p> <ol style="list-style-type: none"> 1. Daviteq's cloud server: suitable for monitoring from some parameters to some thousand parameters, operated and maintained by Daviteq's IoT system specialists, backup operation with high reliability. 2. Daviteq's industrial server: industrial standard, durable, reliable, fanless server, operated in tough environment, place in any location, three types of server: NANO server for maximum 1000 parameter monitoring, MICRO server for max 2000 parameters, MINI server for max 6000 parameters. 3. Customer's available server: suitable for big customer, monitoring for some hundred parameters and strict security policy.
SOFTWARE	
IoT Globiots software system	<p>Collect and analyze data, visualize dashboard and report, notify alarm and event. Configure remotely system, iConnector, parameter, event, alarm, dashboard, report, and user authority. Send alarm, event by email, SMS. Push data to third-party software/application using API. Basic reports as below:</p> <ol style="list-style-type: none"> 1. Current power supply status for refrigerated container 2. Power supply historical report 3. Generator set operation historical report 4. Alarm, event list report during selected period

LOAD CURRENT MEASUREMENT DEVICE



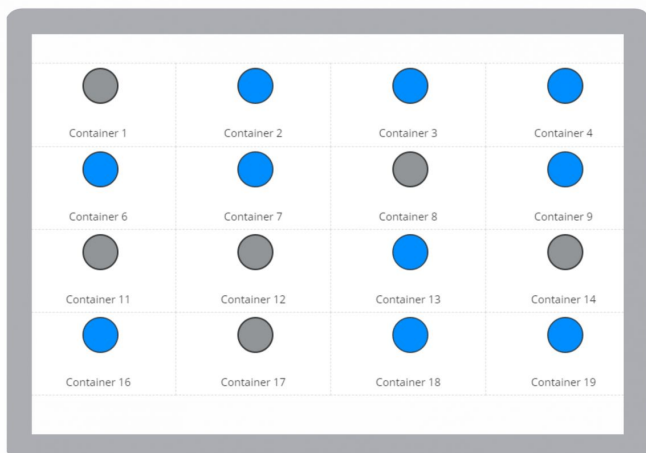
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iCONNECTOR IoT GATEWAY



IOTPK-PCN-EN-H4.PNG

CURRENT POWER SUPPLY STATUS OF REFRIGERATED CONTAINER



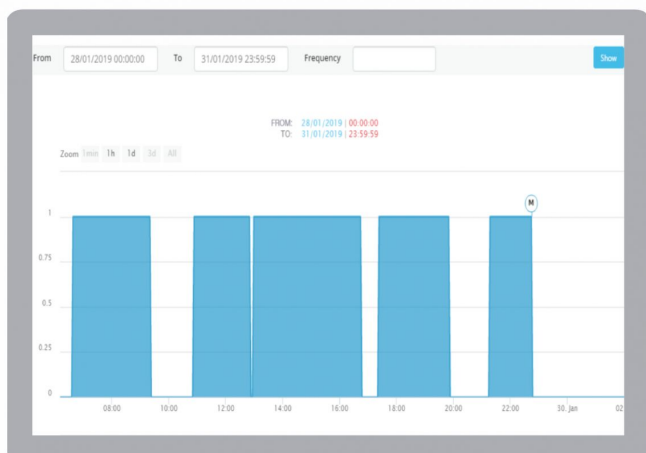
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POWER SUPPLY HISTORICAL REPORT



IOTPK-PCN-EN-H6.PNG

GENERATOR SET OPERATION HISTORICAL REPORT



IOTPK-PCN-EN-H7.PNG

ALARM, EVENT LIST REPORT

No.	Time	Date	Device Name	Event ID	Priority	Event Name	Status	Parameter	Parameter Value
1	22:46:57	29/01/2019		19	2	Máy phát dừng	FAIL	ICOMN-POWER (2300)	1.5
2	22:46:52	29/01/2019		9	2	Máy phát chạy	FAIL	ICOMN-POWER (2300)	2.3
3	22:46:49	29/01/2019		18	1	Container 8 không cấp điện	TRIP	T78-CONTAINER 8 (2017)	0
4	22:46:48	29/01/2019		15	1	Container 5 không cấp điện	TRIP	T75-CONTAINER 5 (2014)	0
5	22:46:47	29/01/2019		17	1	Container 7 không cấp điện	TRIP	T77-CONTAINER 7 (2016)	0
6	22:46:46	29/01/2019		14	1	Container 4 không cấp điện	TRIP	T74-CONTAINER 4 (2013)	0
7	22:46:45	29/01/2019		8	1	Container 8 cấp điện	TRIP	T78-CONTAINER 8 (2017)	1
8	22:46:44	29/01/2019		5	1	Container 5 cấp điện	TRIP	T75-CONTAINER 5 (2014)	1
9	22:46:43	29/01/2019		7	1	Container 7 cấp điện	TRIP	T77-CONTAINER 7 (2016)	1
10	22:46:42	29/01/2019		11	1	Container 1 không cấp điện	TRIP	T71-CONTAINER 1 (2010)	0

IOTPK-PCN-EN-H8.PNG

ORDERING INFORMATION

ITEM CODE	DESCRIPTION
STANDARD PACKAGE	
I. CT-0050-01	Current transformer, ring type, input maximum 50A, output maximum 5A
II. DPM383A-C	Power meter, panel mount, local display, 1% accuracy, RS485 Modbus RTU port
III. STHC-ISG02-NC/GPS	iConnector 3G Penta Band with GPS, internal antennas, with 02 relays, no M12 cables
IV. SERVER AND SOFTWARE	Select one of server + software or software only or cloud server based on number of monitored parameters
ISV-NANO-0100	Industrial NANO Globiots Server included software, 0100 parameters, can be upgraded to 1000 parameters
ISV-MICRO-0300	Industrial MICRO Globiots Server included software, 0300 parameters, can be upgraded to 2000 parameters
ISV-MINI-0500	Industrial MINI Globiots Server included software, 0500 parameters, can be upgraded to 6000 parameters
CS-PREGLOBIOTS-0100	Premium Globiots software package, 0100 Parameters, max 10 device(s), max 10 sub-account(s), max 11 user(s), unlimited emails for alarm/event, No SMS, upgradable to unlimited***
CS-CLOUDGLB-01Y-00XX	CloudGlobiots subscription for 1 year operation, unlimited both email and alarm/event, excluded SMS package
V ACCESSORIES	
SIMMOBI-3G	Mobifone Data SIM CARD, only SMS receiving mode. Only use with iConnector 3G
SIMMOBI-10K-01Y	12-month data plan for SIM CARD, unlimited data, GPRS/EDGE/UMTS/HSPA. Only use with iConnector 3G
BOX-XXYYZZ-OP-01	Plastic Box IP67, size based on number of monitored containers, PC/ABS, plastic lock and hinge, grey color. Including CB, power supply 35W
OPTIONS	
RS485-FM12-USB-1	RS485/USB multi-purpose Configuration cable with connector m12 male, female and flying leads, with Power adapter 12VDC/2.0A
CS-PREGLOBIOTS-0050	License for additional parameters of Premium Globiots software, 0050 Parameters, max 5 device(s), max 5 sub-account(s), max 5 user(s), unlimited emails for alarm/event, No SMS
CS-SMSVIE-MBF	SMS notification package, 100 SMS in Vietnam
FIRST-ANALYTIC-USER-1	01 user for advanced analysis and report