

# IOT Intelligent Industrail Switch

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## OVERVIEW

Intelligent operation and maintenance box is a kind of comprehensive management equipment containing network transmission management, powersupply intelligent management, box management, etc. The box has real-time monitoring of the voltage and current of the box power supply, remote control of the power switch. Remote view network interface status, remote open/close network interface, monitor network traffic, monitor the status of external devices, monitor the working status of the box, environmental temperature and humidity and so on many functions, suitable for safe city, intelligent transportation, rail transportation, intelligent park, forest fire prevention and so on many applications scenarios



## CABINET STRUCTURE

Size	535*385*230 (H*W*D)
Material	High quality galvanized sheet, 1.2mm thickness
IP protection level	IP55
Environment	Working temperature: -40~+75°C Storage temperature: -40~+80°C
Weight	N.W.: 18.5KG; G.W. 20KG; V.W.24KG
Door lock	Triangulation lock
Cabinet door	Reinforcing ribs embedded and equipped with waterproof silicone strip
Bottom of the cabinet	1* 50mm inlet, 2*air intakes, including insect net

## CABINET DESCRIPTION

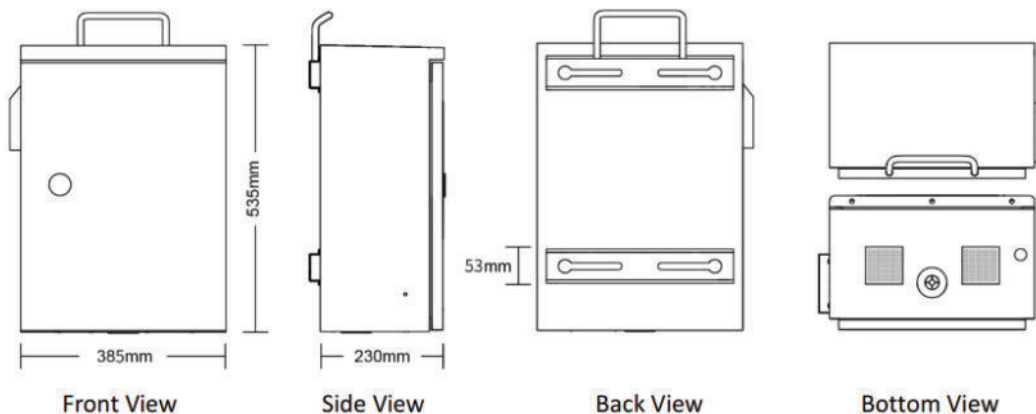
Processor	AM335x, memory 64K, 512M running memory, 1GHz processing frequency
Communication protocol	Integrated multi-protocol access, supports transparent transmission, MQTT, TCP/IP, UDP, HTTP, etc
Operation and maintenance	Support remote upgrade, maintenance, fault alarm, and other remote maintenance functions Real time monitoring of remote/local device status Support for remote online upgrades Support local alarm information and remote alarm storage Support log saving
Reliability	Built in watchdog, device failure self-healing
Management method	Web management Centralized management of network management platform (MQTT protocol)

**BUSINESS MODULE**

Main control unit	1*10/100Mbps LAN port, support MDI/MDIX, 2*RS232/2*RS485, CAN bus line, reset button, USB port, OLED screen, operation button	
Switching unit	8*10/100/1000M RJ45+ 2*1000M SFP, PoE optional, max 120W PoE support Support port management, VLAN, MAC address management, flow control, Jumbo frame, etc.	
4*channel DC12V power unit	- DC12V 4-channel output, 60W; - 4-way master control, support short circuit protection	
IO unit	DI input terminal	1* Box door status detection 1* Water inlet detection 1* Lightning strike times detection 1* SPD status detection 1* Reclosing communication
	DO output terminal	1* Cabinet alarm indicator 1* Cabinet running indicator 1* Fan output control 1* Cabinet LED light 1* Heater
Backplane	DC48V 2-channel input, AC220V 1-channel input, AC24V 1-channel input 7-card slots (1* main control, 1* IO slots, 5*Business slots) Backboard wiring, fool-free design	
Network Lightning protection	8 port gigabit lightning protection unit, 4KV/2KV	

**OPTIONAL FUNCTION**

Main control unit	4G, WIFI, GPS optional
IO unit	- 2 fans - Water immersion detection
Switching	4*10/100M RJ45+ 1*100M SFP, PoE optional, max 120W PoE support
DC12V power unit	- DC12V 4-channel main control, 60W, max support 5 units - DC12V 8-channel main control, 100W, max support 5 units
Wide voltage power unit	- DC12-48V, 6-channel, max support 5 units - AC24V, 6-channel, max support 5 units - AC36V, 6-channel, max support 5 units Support voltage, current, and power monitoring, single channel control
AC220V/110V power unit	AC220V/110V, 5-channel single control, each channel <2A, max support 5 units
Network Lightning protection	8*GE/4*FE port lightning protection unit, 4KV/2KV, max support 5 units



## OPERATION INSTRUCTION

### 1. Auto reclosing

- Equipped with functions such as over-current, short circuit protection, under-voltage/over-voltage protection, leakage protection, faulty memory, pre-closing detection, intelligent control, etc.
- Current selectable from 10 to 63A



### 2. Power unit for the cabinet

- Cabinet equipped with AC100-240V input DC48V output power unit, working temperature up to 70°C, capable of operating at a maximum temperature of 70°C and an altitude of 2000 meters environment.
- Current selectable from 2.1 to 7A



### 3. MCB breaker

The main switch of the box has an automatic tripping function in case of short circuit or leakage, with a current selection of 6A~125A



### 4. AC lightning protector (SPD)

Working voltage  $U_n$ ; 220V; Maximum continuous working voltage  $U_c$ ; 385V; Nominal discharge current  $I_n$ ; (8/20 $\mu$ s) 20KA; Maximum flow capacity  $I_{max}$ ; (8/20 $\mu$ s) 40KA; Voltage protection level  $U_p$ ; (8/20 $\mu$ s)  $\leq 1500V$ ; Working environment temperature- 40~+85°C , relative humidity  $\leq 95\%$  (25°C )



### 5. Socket (Different types optional)



### 6. Fan

DC24V intelligent temperature control fan, air volume 91.17CFM, 3000 ± 10% RPM



### 7. LED light

DC24V box lighting, power 2.5W, open the box door light on, close the box door light off



### 8. Running & Alarm Indicator

DC24V operation indicator light and alarm indicator light, with a power of 0.5W each. Green indicator: Running; red indicator: Alarm



## ORDER INFORMATION

PRODUCT	PART NUMBER
Intelligent IoT O&M Managed Switch 8*10/100/1000 Base-T and 2xSFP Without Ring	I IOT-MIIOT8GT-2SFP
Intelligent IoT O&M, Managed Switch 8*10/100/1000 Base-T and 2xSFP With Ring	I IOT-MIIOT8GTR-2SFP
Mini Gateway, Main-Mode, GPS, 4G/WiFi, 1*10/100MbpsRJ45 Port.	I IOT-MG-MM
Mini Gateway, Switching-Mode, 1*100 Base-X+4*10/100 Base-T, Port Managed, vlan, MAC	I IOT-MG-SM
Mini Gateway, Power-Mode, Total Power 90W, Single Power 30W	I IOT-MG-PM
Mini Gateway, IO-Mode, Door state, Water inlet detection status, Number of lightning strikes, Reclosing state	I IOT-MG-IOM
Mini Gateway, WIFI	I IOT-WIFI
Mini Gateway,4G+GPS, Support Thailand SIM Card	I IOT-4G-GPS