

ISP

The IoT Service Platform (ISP) is a web application that enables users to view and manipulate the P-IoT system. It features security management, device monitoring, intelligent analysis and etc.

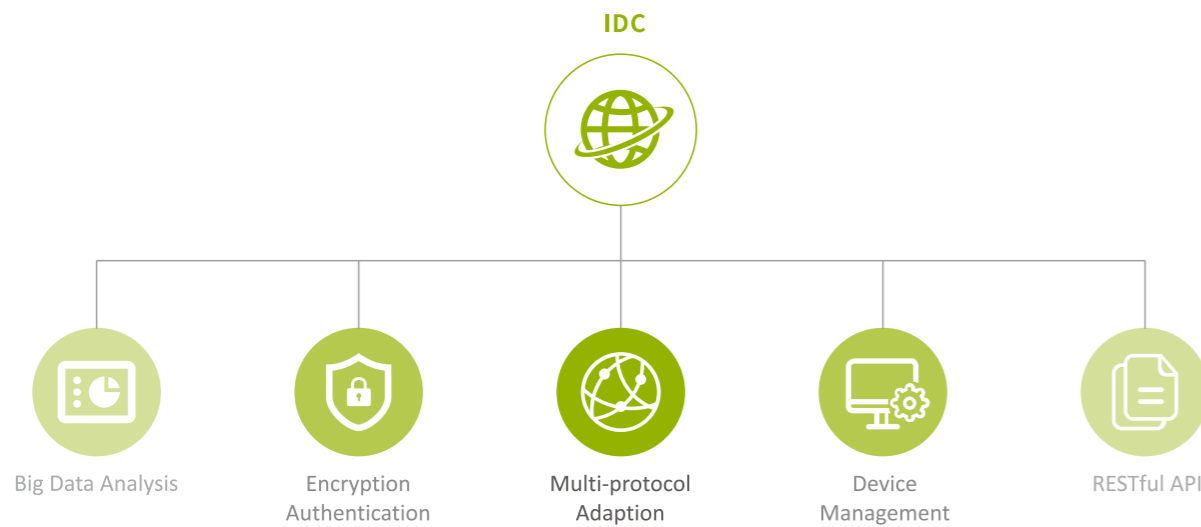
Highlights

- Monitoring of various sensors and devices, and license control
- Access to IDC to enable monitoring, statistics, forecast and etc
- Emergency-triggered alarm
- Access to video monitoring and voice dispatch



IDC

The IoT Data Center (IDC) consists of public gateway, private gateway, IoT Hub, Data Hub and etc. Located between the device layer and the application layer in the P-IoT system, the IDC enables data collection, data processing, storage, analysis and so on. In addition, the IDC provides open RESTful API standard interfaces to enable upper-layer business applications.



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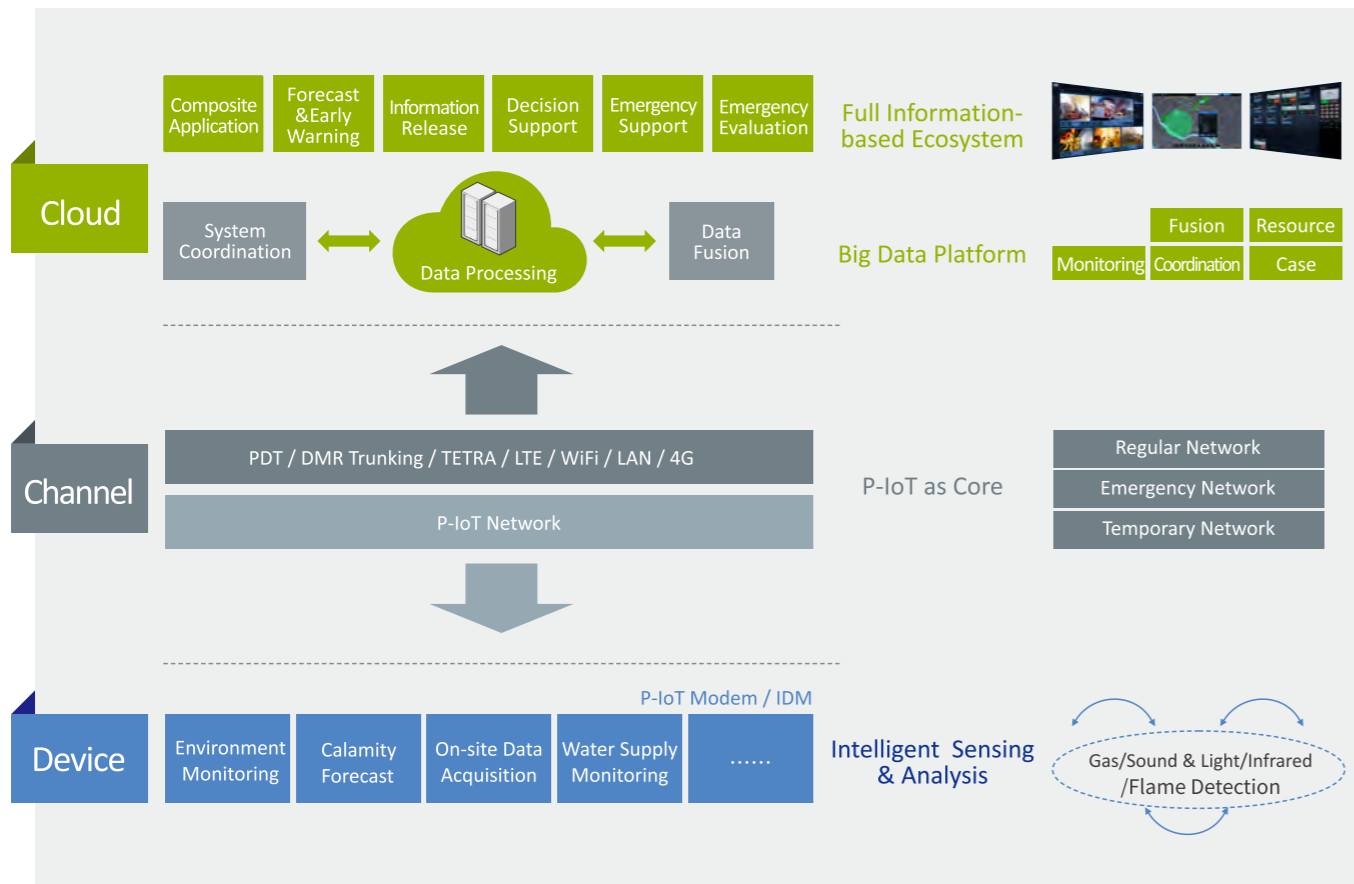
Hytera Private Internet of Things Solutions

Hytera Private Internet of Things (P-IoT) solution provides a highly reliable and secure communication channel of low latency with its proprietary wireless communication algorithms and protocols based on various private and public networks such as DMR/Tetra/LTE networks. At the IoT data center (IDC), a series of big data algorithms are used to extract and mine data values, providing customers with a complete set of data-based end-to-end intelligent services.



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P-IoT Ecosystem



Highlights



Maximized Network Utilization

Hybrid utilization of DMR/TETRA/WiFi/LAN/4G networks
Private-public mutual backup.



Guaranteed Timeliness

Priority-based resource allocation
Free channel reserved to avoid network congestion



Inherent Security

Triple encryption: node, link and end-to-end
Proprietary encryption algorithm



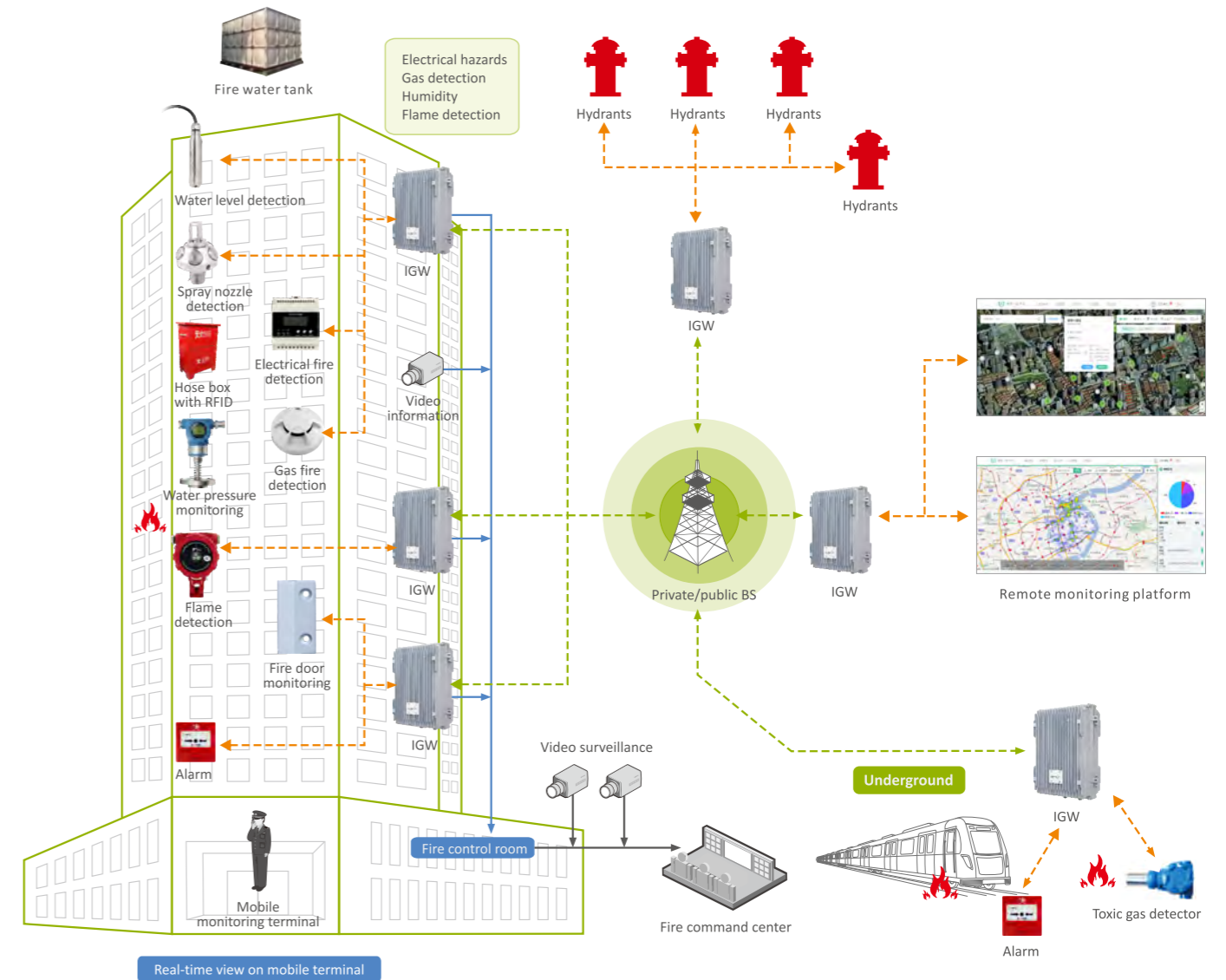
Superior Reliability

Adaptive QoS configuration
Critical mission assurance
Timeliness, reliability, stability

Smart Fire Solution

The Hytera Smart Fire Solution covers all aspects of urban fire control. It provides decision-making support for government agencies, fire equipment manufacturers and etc through analysis of acquired fire data.

Sensors are installed to monitor the water supply network, fire hydrants, and fire pools to guarantee fire water supply.

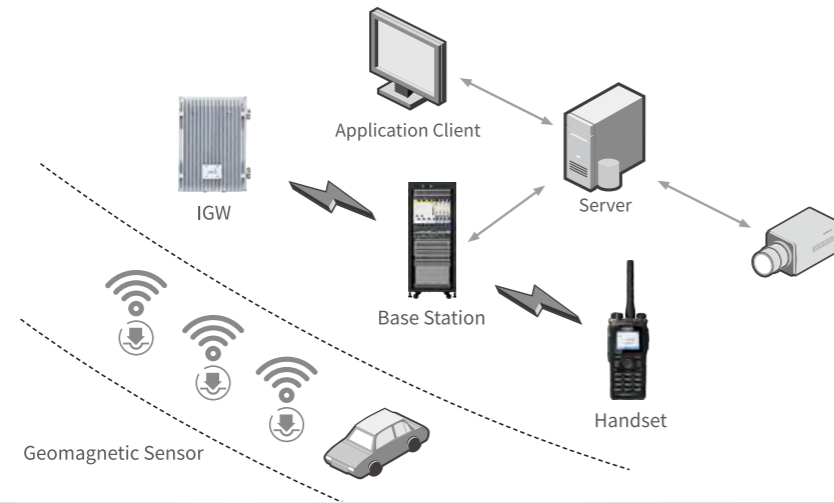


Highlights

Fireground monitoring / fire fighting device control / remote fire alarm / all-weather fire water system monitoring

Illegal Parking Detection Solution

Wireless geomagnetic sensors are placed under the road surface to detect vehicles parked above in real time. The detection data is uploaded to the management center through the private network. The Hytera Illegal Parking Detection Solution enables enhanced efficiency of traffic officers, alleviation of traffic jams and thus improved traffic safety.

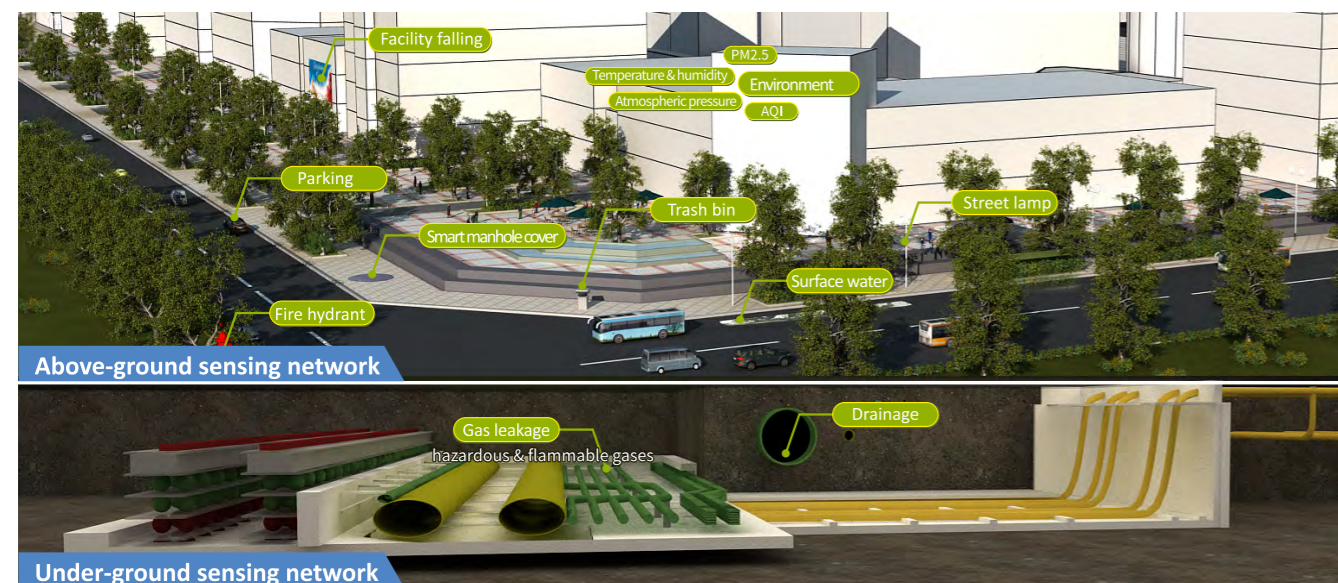


Highlights

No-parking road section management / monitoring policy management / traffic flow statistics and analysis / intelligent information push

Smart Municipal Facilities Management Solution

Integrating IoT technology, the Hytera Smart Municipal Facilities Management Solution enables municipal administrative departments to share information on facilities including street lamps, roads, bridges, manhole covers and etc. It provides scientific decision-making basis for municipal management and makes the management of municipal facilities more scientific, standardized and automated.



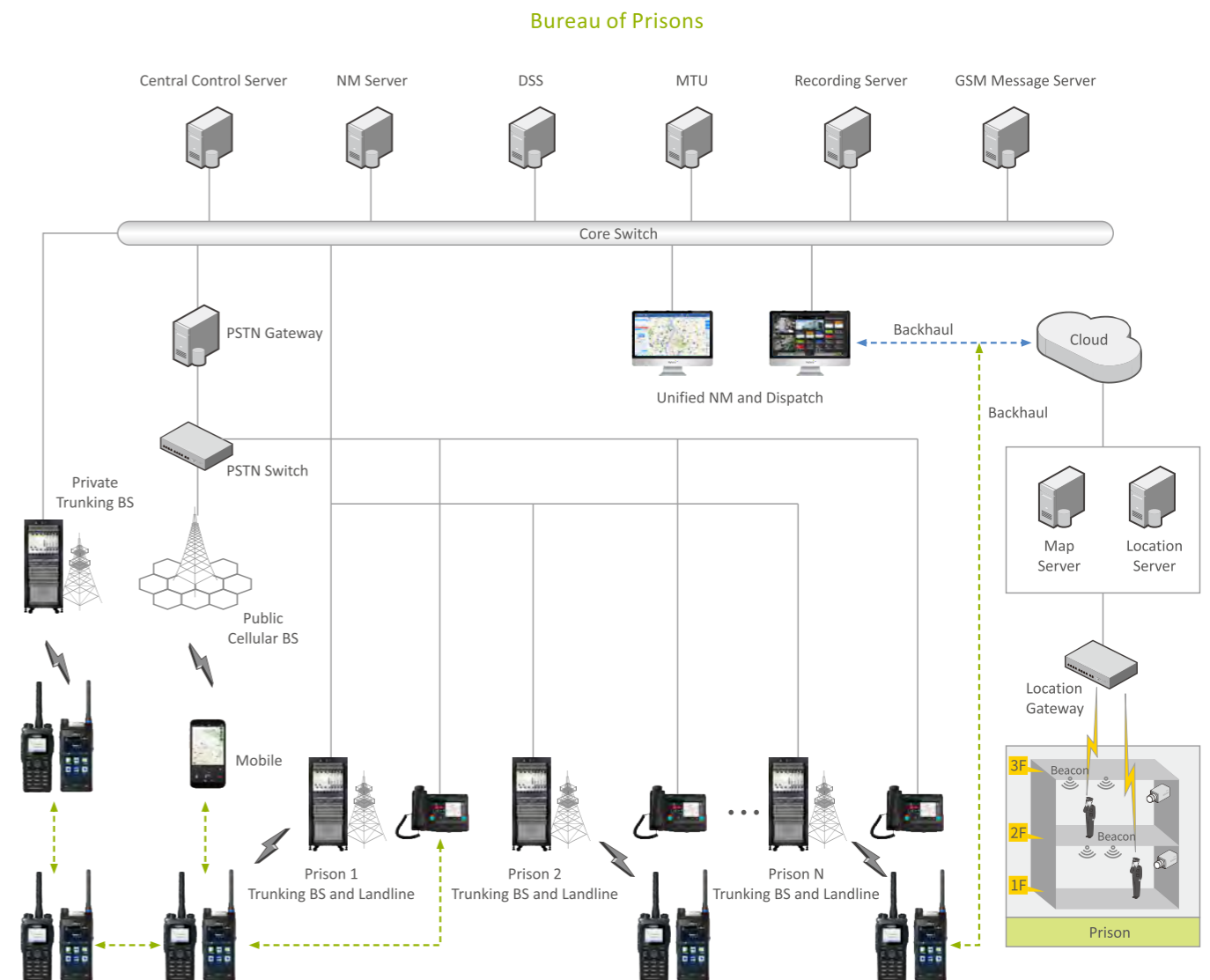
Highlights

Integrated sensing network / excellent platform scalability / wide coverage

Smart Prison Solution

With the Hytera smart cloud platform, the Smart Prison Solution integrates the 380MHz private voice network, video surveillance system, indoor positioning system, and peripheral warning systems deployed in the prisons. It realizes fast and flexible voice communication and real-time positioning of officers and prisoners, and enables the Bureau of Prisons to perform unified command and visual dispatch on prisons in various regions.

Through the establishment of an integrated policing management platform and the use of the IoT technology, it fully integrates and shares police information resources for prisons, realizing the in-depth integration of informationization and prison services, and building a pyramid-based management architecture featuring multiple systems interconnected and sharing with each other on one platform.



Highlights

Smart management and control platform / indoor positioning + alarm-triggered video / policing information sharing / visual dispatch / high integration / multi-subsystem fusion

IGW

The IoT gateway (IGW) allows data collected by sensors to flow to the IDC through channels such as MR/Tetra/3G/4G/WiFi/LAN networks and etc. These channels may be integrated and serve as backup for each other. The collection, aggregation and transfer of the data can be configured and managed through the network management system (NMS).



IGW Specifications

Item	Specification
P-IoT Network Mode (northbound)	Private: PDT/DMR/TEATRA/LTE Public: 3G/4G/WiFi/LAN
Max. Number of Nodes	1000
Frequency (southbound)	470-490MHz 490-510MHz
TX Power (northbound)	UHF1/UHF3/UHF5: 4W (high) UHF1/UHF3/UHF5: 1W (low) VHF: 5W (high), 1W (low)
TX Power (southbound)	17dBm
IP Rating	IP56
Dimensions (L x W x H)	316mm×223mm×115mm
Weight	5.7kg (excluding battery)
Power Supply	12-18VDC 100-240VAC
ESD	IEC 61000-4-2 (level 4) ±8kV (contact discharge) ±15kV (air discharge)
Working Temperature	-30 °C+60°C
Storage Temperature	-40 °C+85°C

IDM

The IoT data modem (IDM) is connected to end devices to enable them to access the P-IoT network through serial protocols such as RS232 and RS485. It features low power consumption design and supports sleep-wake up feature to save power.



Item	Specification
Standard Input Voltage	DC12V
Input Voltage Range	DC 9V~36V
Frequency	470~510MHz
Working Temperature	-40+85°C-40+185
Relative Humidity	95% (non-condensing)
ESD	(contact discharge) (air discharge)
IP Rating	IP56
Dimensions (L x W x H)	150x100x50mm
Sensor Input	Rs485 x 1 (at most 64 sensors can be connected simultaneously), RS232 x 1, analog signal x 4, switch quantity signal x 2

ILM

The IoT Link Module (ILM) can be directly installed in the end devices to enable them to wirelessly access the P-IoT network.



Item	Specification
Input Voltage	DC2.9~3.5V
Working Temperature	-40~+85°C(-40~+185)
Frequency	470~510MHz
Relative Humidity	95%(non-condensing)
ESD	IEC 61000-4-2 level 4±8kV(contact discharge) ±15kV(air discharge)
Dimensions (L x W)	20mmx30mm
Interface	UART、SPI

The above specifications are all tested according to the appropriate standards. Due to the continuous development of technology, the above indicators are subject to change without notice.