
Tuya Smart Gateway Product Specification (Model Number: THP10-Z)

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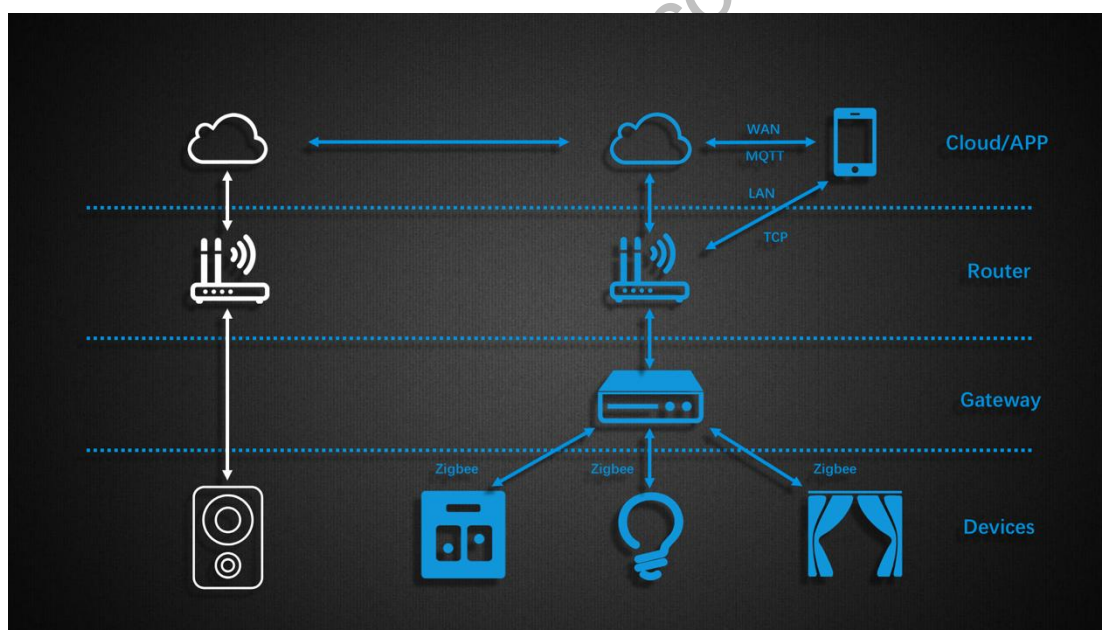
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1.0 Product Introduction

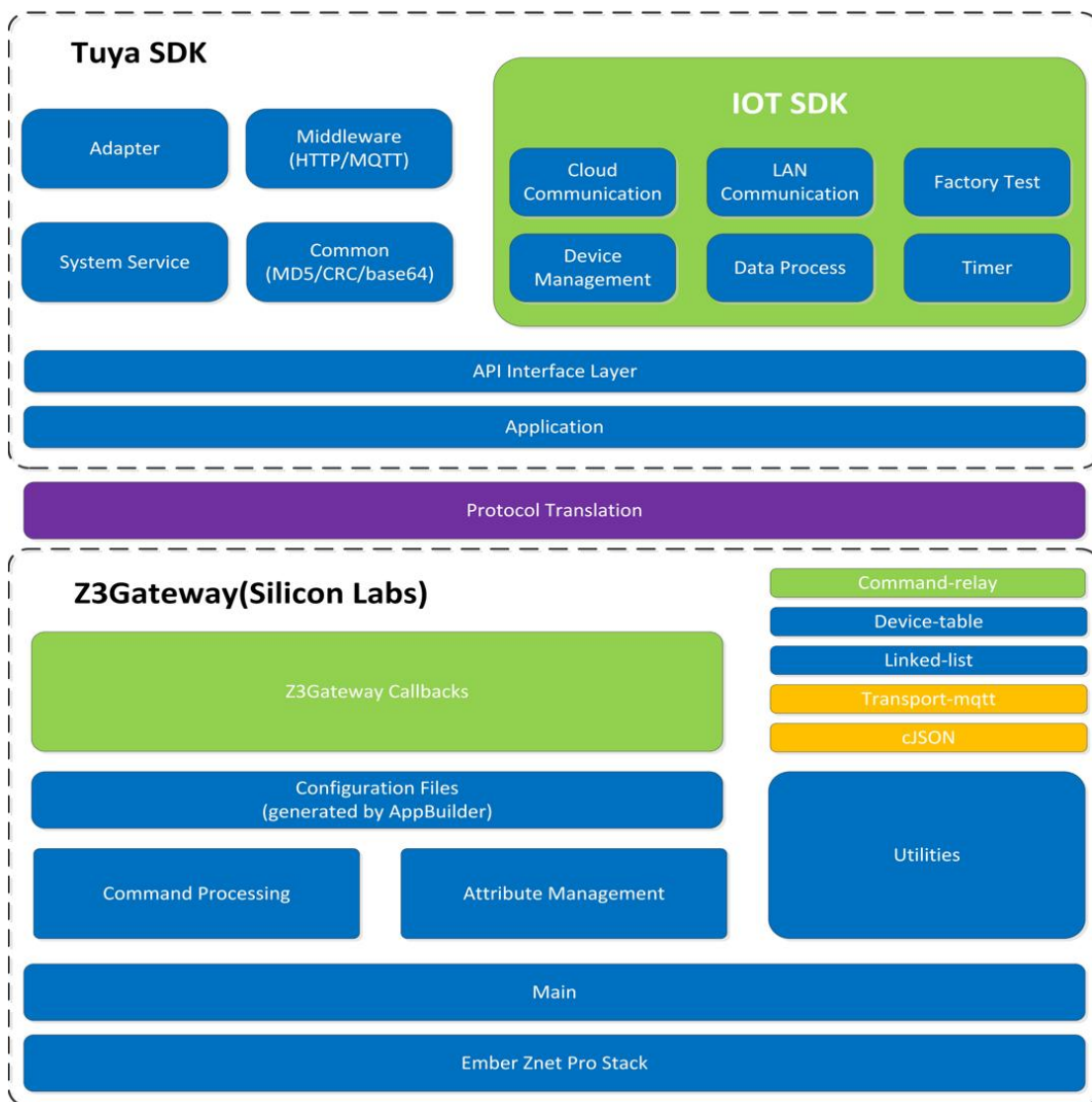
1.1 Abstract

Tuya smart gateway THP10-Z is a Zigbee gateway, which is the key device in Zigbee network. Zigbee devices join the network by using a Zigbee gateway, which to build the communication to the other Zigbee devices. The gateway needs to connect to a router by using a cable, which can realize the communication between Cloud and the APP. And by using APP, users can check and control Zigbee devices.

1.2 Application Flow Chart



1.3 System Block Diagram



2.0 Technical Data

2.1 Zigbee

Category	Parameters
Chip	EFR32MG1B232
Standard	IEEE 802.15.4
Frequency	2.4 ~ 2.485GHz
Maximum Output Power	19dBm
Dynamic Output Power	>35dB
Wide Open Transmission Distance	>300m
Frequency Tolerance	$\pm 15\text{ppm}$
Theoretical Transmission Speed	250kbps
Sensitivity of Reception	Typical Value -102dBm, PER<10%
Number of Channel	16
Code of Channel	11~26
Topology of Network	Support to Shape of Star/Tree/Net
Antenna	Default Antenna on PCB
Firmware Update	Support to OTA

2.2 Main System

Category	Parameters
Chip	RTL8196E
Main Frequency	400MHz
Chip Framework	MIPS
Operation System	Linux 3.10
Flash	128Mbit
DDR	256Mbit
USB	1 ↑ USBHost/Device, 1 ↑ USBPHY
UART	1 ↑ Debug, 1 ↑ Data
GPIO	16 ↑
WAN	A 10/100MEthernet Port (RJ45Port)
Timer	Two Hardware Timers, A Watch Dog
Indicator LED	A Power Indicator LED,A Network Indicator LED
Button	A Reset Button

2.3 Electrical Parameters

Category	Parameters
Adaptor	110V ~ 240VAC, 5V/1ADC
Working Voltage	1.8V ~ 3.3V
Operation Temperature	-10-55°C

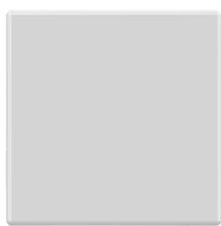
Operation Humidity	10%-90%RH (Non-condensing)
Storage Temperature	-20-60°C
Storage Humidity	5%-90%RH (Non-condensing)

2.4 Physical Characteristics

Category	Parameters
Size	95mmx 95mm x 23mm
Weight	

2.5 Product Appearance

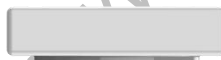




顶视图



左视图



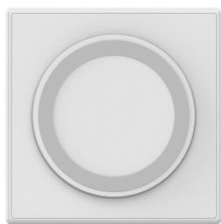
前视图



右视图



后视图



底视图

3.0 Product Functions

3.1 Zigbee Gateway

Support to Zigbee 3.0 Protocol, Can Add Zigbee Sub Devices;

3.2 Button and Indicator

Device Power Off:

Network Indicator and Network Distribution Indicator LED All off, invalid to press button;

Device in Operation:

1. When the cable is connected, network indicator LED on; when data in transmission, network indicator LED flash;
2. When the cable is disconnected, network indicator LED off;
3. When the gateway is activated, network distribution indicator LED off;
4. When the gateway is not activated, network distribution indicator LED on;

Long Network Distribution Mode:

1. Quick press the button (press time $\leq 5s$), device into long network distribution mode, network distribution indicator LED keep flashing for an hour, and flash interval is 500ms;
2. In long network distribution mode, quick press button again (press time $\leq 5s$), quit long network distribution mode, and the network distribution indicator LED off;

Engineering Mode:

In regular working mode, press button over 10 times in 10 seconds, device into engineering mode.

Reset to Default:

Press button over 5 seconds, network distribution LED keep on;

3.3 Firmware Upgrades

Support to Long-distance automatic upgrades and App selective upgrades.

3.4 Control Panel

Apply Gateway Panel Public Version;

3.5 APP

Support to Tuya common APP and OEM APP;

4.0 Product Package

4.1 Package Material

1. Gateway x1
2. Network Cable x1
3. Power Cable x1
4. Instruction Book x1
5. Certification of Qualification x1

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