Overview

onoff TH10/16 is a Sonoff version that can monitor and set temperature and humidity through the APP eWeLink. Just as the name indicats, the new version Sonoff TH device supports two power supply specifications: 10A or 16A. Sonoff TH 10/16 supports presetting range for temperature or humidity, when the temperature or humidity of the environment falls into the range, it will automatically turn on or turn off connected devices.

The device supports connecting to three kinds of temperature and humidity sensors (AM2301, DS18B20, DHT11). Actually, Sonoff TH 10A/16A Sonoff TH 10A/16A can work as a Sonoff when without connecting to a sensor. But compared to Sonoff, Sonoff 10/16 is more safer, less radiation and in bigger size, easy operation. Most importantly, with the support of latest ewelink app, you can create chains of simple conditional statements(Smart Scene). This means you can use them with temperature and humidity sensors (AM2301, DS18B20, DHT11) to collect temperature and humidity data, while these data can be used to trigger ON/OFF other smart devices(Sonoff, Sonoff RF, Sonoff SV, Slampher, smart socket, etc.) under your account. This device is perfect to work with electric fan, air conditioner, humidifier. Please note that this version does not have 433MHz RF function.

We are selling two kinds of sensors: AM2301 and DS18B20. We've customize an interface for Sonoff TH10/TH16 to easily connect with the sensor, just plug and play. Note that the sensor should be plug into Sonoff TH before you power it up, don't plug or unplug the sensor in power on status. AM2301 is non-waterproff, while DS18B20 can work in water.

Features

Supports 90 ˜ 250V AC input

Support max 10A /16A input

Support fast configure SSID and password connection through APP

Support automatic connect to server, register and update status info.

Support tracking device status and timely remote control through APP

Support setting single/repeat/countdown timing tasks

Support real-time temperature and humidity displaying

Support 3 temperature and humidity sensors (AM2301, DS18B20, DHT11)

Support preset temperature and humidity range to turn on/off

WIFI Characteristics

802.11 b/g/n

- Built-in Tensilica L106 ultra-low power consumption 32-bit micro-MCU, dominant frequency support 80 MHz and 160 MHz, support RTOS
- Built-in TCP/IP protocol stack
- Built-in TR switch, balun, LNA, power amplifier and matching network
- Built-in PLL, voltage regulator and power supply management components, 802.11b mode +20 dBm output power
- A-MPDU&A-MSDU aggregation and 0.4μs guard interval
- WiFi @ 2.4 GHz, supports WPA / WPA2 safe mode
- Support cloud OTA upgrade
- Support STA/AP/STA + AP mode
- Standby power consumption is less than 1.0 mW (DTIM3)
- Other parameters are as follows

Category	Parameters	Description
Wireless Parameter	Wireless standard	802.11 b/g/n
	Frequency range	2.4GHz-2.5GHz (2400M-2483.5M)
Hardware Parameter	Data port	UART/I2C
		GPIO/PWM
	Operating voltage	3.0~3.6V(recommend 3.3V)
	Operating current	Average：80mA
	Operating temperature	0°C-40°C(32°F-104°F)
	Operating Humidity	5%-90%RH, Non-condensing
	PCBA size	89.1mm*45.0mm*1.2mm
Software Parameter	Wireless network mode	station/softAP/SoftAP+station

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Security mechanism	WPA/WPA2	
Encryption type	WEP/TKIP/AES	
Firmware upgration	Local serial programming/Cloud Upgrade/Host download programming	
Software development	Support secondary development	
Network protocols	IPv4, TCP/UDP/HTTP/FTP	
User configuration	cloud server, Android/iOS APP	

Specification

PCB_Size	89.1X45.0X1.2mm
Interface	DHT11/DS18B20/AM2301
Indicator LED	WiFi, on or off state

Electrical Characteristics

Characteristics	Symbol	Min	Typ	Max	Unit
Power supply voltage	AC	90	-	250	V
IMAX				10/16	A
POWER(10A/16A)			-	2200/3500	W

Hardware
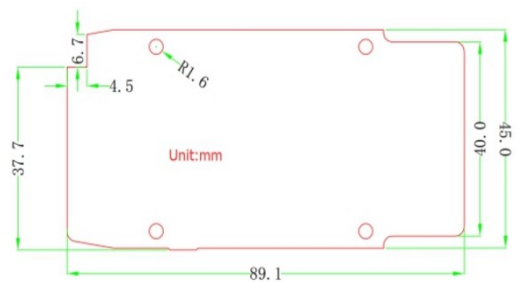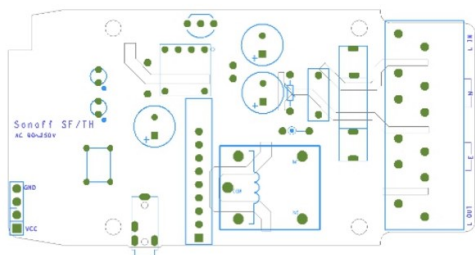
Warning Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.