TB5HS-17E

802.11a/n/ac 5G industrial grade, long-distance, outdoor high-performance bridge

TDMA

Intelligent Rate Control

ACK Time-out Adjustment
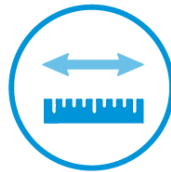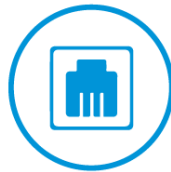
2x2 MiMo

High Throughput

Point-to-Multi-Point

Long Distance Coverage

Gigabit Ethernet

Hardware Watchdog

POE+

Release Notes

Date	Version Number	Editor	Change log	Remarks
2020-05-18	V1.0	Guifang	Create	
2020-09-26	V1.1	Guifang	Modify power consumption	

Product Feature

- Supports 802.11ac standard
- The highest transmission rate is 867Mbps
- Outdoor transmission distance: 0~5km
- External antenna, quick installation
- Built-in VTrans technology, including

  1) TDMA: eliminate the performance degradation caused by hidden terminals and maximize the wireless transmission efficiency

  2) Frequency (channel) expansion function: eliminate interference caused by the same frequency and adjacent frequency through more frequency selection

  3) Band width selection: by adjusting the channel width, the overlapping parts of spectrum can be avoided and the influence of interference by other channels can be reduced.

  4) AutoAck function: intelligently calculate the ACK value required for long-distance transmission to achieve the optimal performance at this distance

- Supports bridge and router modes. Network architecture can be flexibly deployed by adjusting the network mode of devices
- Intelligent QoS wireless multimedia optimization technology, providing high priority transmission levels for voice and video
- Supports firmware backup, the mechanism can prevent the device from stopping work in extreme conditions
- Supports web page management, making installation and maintenance of equipment more convenient
- Supports wireless controller (AC) management, realize remote centralized configuration and upgrade management
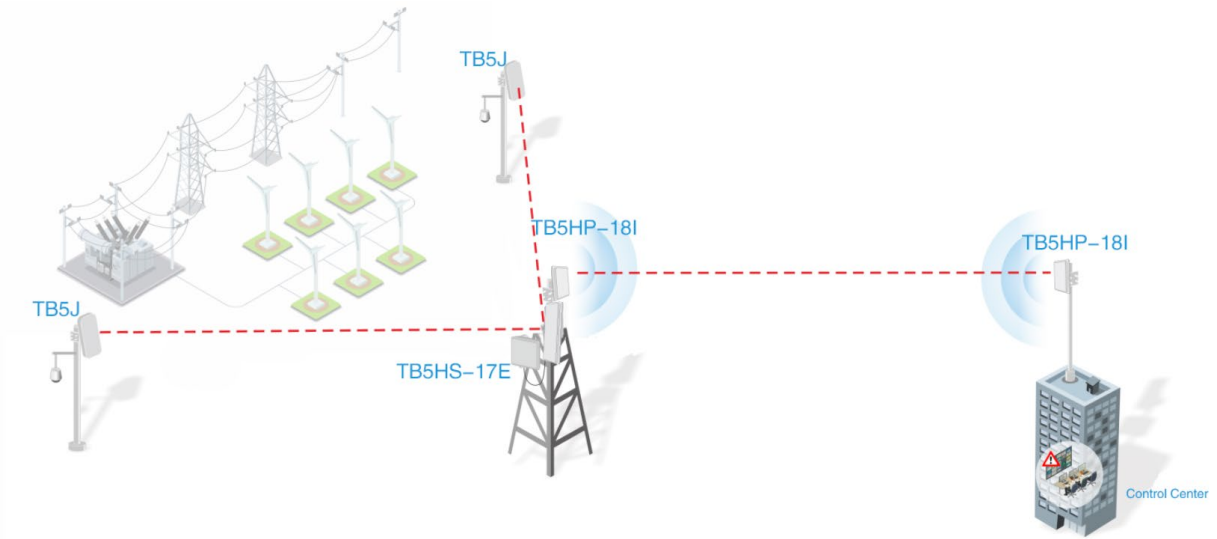- Supports 802.3at protocol (POE+)
- IP66

*Wireless controller needs to be purchased separately

Accessory List

Main device	Antenna	Brackets of device	Brackets of antenna

FeederX2	Desktop power supply	QIG	QC

Application Scenario

Specifications

Hardware	Dimensions(mm)	218x218x70mm
	Weight(kg)	1.38kg
	Installation	Pole mounting 30mm≤Diameter≤50mm
	Protection Level	IP66
	Antenna Gain	17dBi
	Beam Width	H：90°，V：8°
	Antenna mounting	Pole mounting 30mm≤Diameter≤50mm
	Antenna Dimensions (mm)	450x165x35mm
	Antenna Weight(kg)	0.96kg
	Power Supply	48V POE+
	Max Power Consumption(W)	10W

	Average Power Consumption(W)	8W
	CPU	QCA9557+QCA9882
	DDR & Memory	128MB DDR2,16MB Flash
	Physical Interface	1*10/100/1000Mbps
	Radio Interface	2*N type connector
	Maximum Transmitted Power	27dBm
	Working Temperature	-40℃~70℃
	Storage Temperature	-40℃~85℃
	Working Humidity	5%~95%RH Non-condensing
	Surge	POE/GE: CM 4KV, DM 2KV
	ESD Protection	Contact 4KV, Air 6KV
	Wind Survivability	150km/h
Software	Protocol	802.11a/n/ac
	Frequency	5180~5320MHz、5745~5825MHz（China） 5180~5320MHz、5500~5720MHz、5745~5825MHz（United States） 5160~5340MHz、5480~5720MHz、5745~5865MHz（India） 5160~5340MHz、5480~5720MHz、5745~5825MHz（United Arab Emirates） 5745~5805MHz（Indonesia） Supported frequency range：4920~6100MHz（should depend on the local regulation.） * The above frequencies need specific version support
	Operating Mode	AP, Station, WDS AP, WDS Station
	Security	WPA2-PSK, Hidden SSID, IP/MAC Filtering
	Network Mode	Bridge/ Router
	Management	Support Web/AC/SNMP
	Other	Timed restart，Support VLAN，QoS, Watchdog

RF Specification

	TX Power			Sensitivity		
	Date Rate	Avg. TX	Tolerance	Date Rate	Sensitivity	Tolerance
11a/n	6 Mbps	24dBm	+/- 2dBm	6 Mbps	-93dBm	+/- 2dBm
	54 Mbps	21dBm	+/- 2dBm	54 Mbps	-74dBm	+/- 2dBm
	HT20 MCS0(combination)	27dBm	+/- 2dBm	HT20 MCS0	-93dBm	+/- 2dBm
	HT20 MCS7(combination)	23dBm	+/- 2dBm	HT20 MCS7	-73dBm	+/- 2dBm

	HT40 MCS0(combination)	27dBm	+/- 2dBm	HT40 MCS0	-90dBm	+/- 2dBm
	HT40 MCS7(combination)	23dBm	+/- 2dBm	HT40 MCS7	-70dBm	+/- 2dBm
11ac	VHT20 MCS0(combination)	27dBm	+/- 2dBm	VHT20 MCS0	-92dBm	+/- 2dBm
	VHT20 MCS8(combination)	22dBm	+/- 2dBm	VHT20 MCS8	-70dBm	+/- 2dBm
	VHT40 MCS0(combination)	27dBm	+/- 2dBm	VHT40 MCS0	-90dBm	+/- 2dBm
	VHT40 MCS9(combination)	21dBm	+/- 2dBm	VHT40 MCS9	-66dBm	+/- 2dBm
	VHT80 MCS0(combination)	27dBm	+/- 2dBm	VHT80 MCS0	-87dBm	+/- 2dBm
	VHT80 MCS9(combination)	21dBm	+/- 2dBm	VHT80 MCS9	-62dBm	+/- 2dBm

* The combined power in the chart above is the result of tested single power plus 3dB

Dimensions

165mm

218mm

218mm

70mm

450mm

Interface

RF   POE   RF
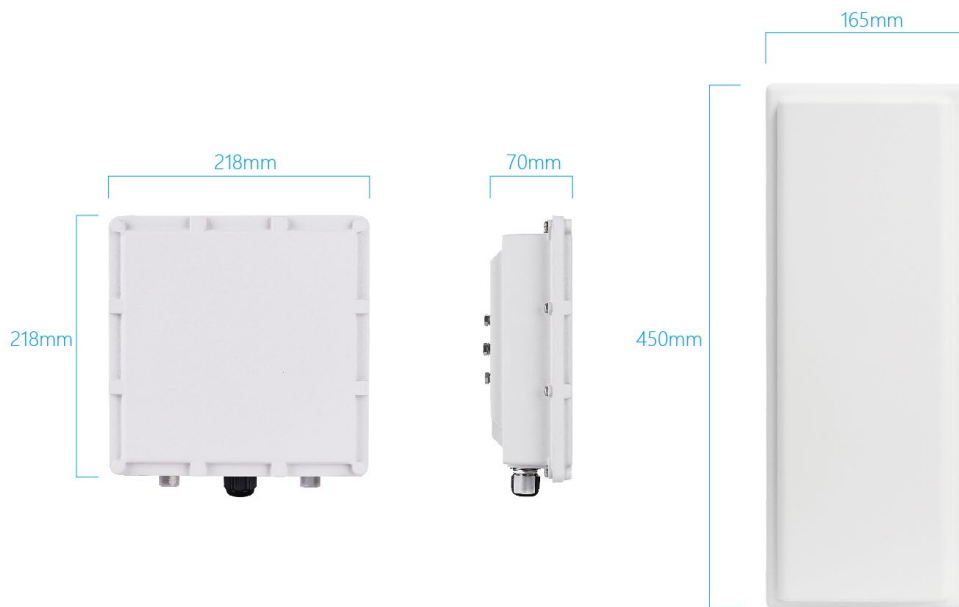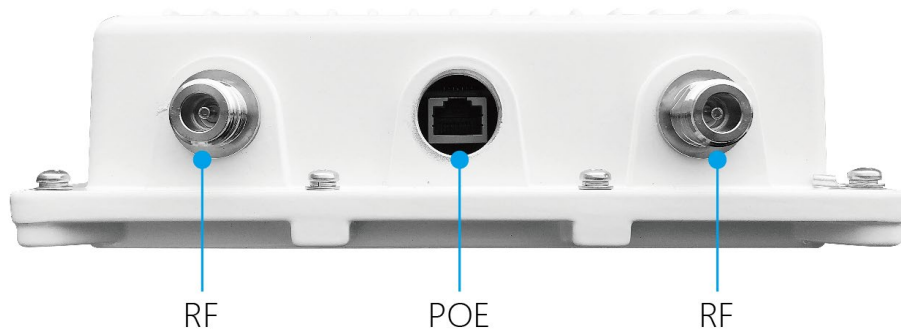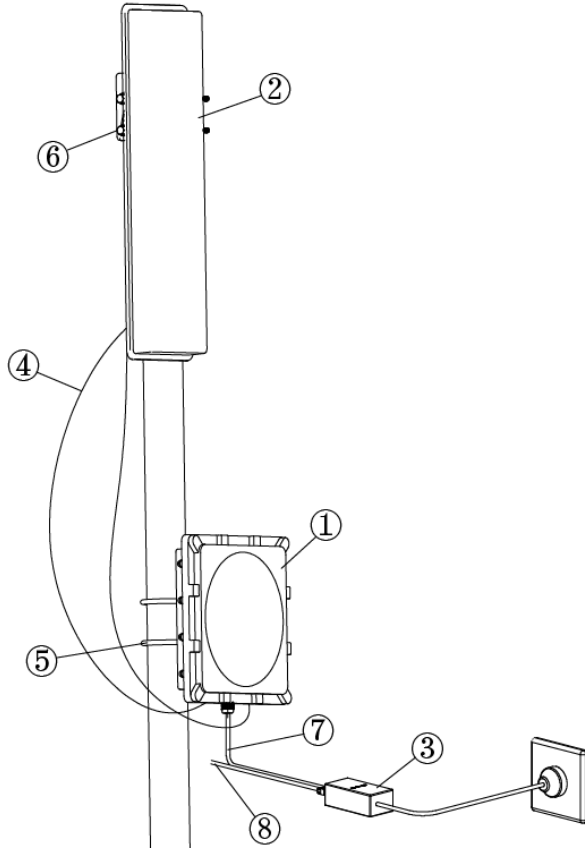
Installation

1. Wireless Transmission Device
2. Antenna
3. POE Adaptor
4. Feeder
5. Brackets of Device
6. Brackets of Antenna
7. The POE port of POE adaptor should connect to the POE port on the main device
8. The LAN port of POE adaptor can be connected with the other devices

*The actual installation height needs to be determined according to the transmission distance and the installation environment, and there is no obstruction between the two points.

Antenna Polar Plots

Horizontal	Vertical