

TB5HP-18I

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





Long Distance Coverage



Gigabit Ethernet



Hardware Watchdog



POE+

Release Notes

Date	Version Number	Editor	Change log	Remarks
2020-05-22	V1.0	Guifang	Create	
2020-09-22	V1.1	Guifang	Modify power	
			consumption	

Product Feature

- Supports 802.11a/n/ac standard
- The highest transmission rate is 867Mbps
- Recommended distance: 0~5km
- Integrated 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

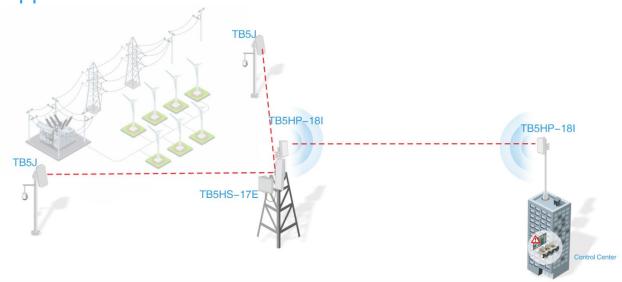
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*Wireless controller needs to be purchased separately

Accessory List



Application Scenario



Specifications

	iodiioi io			
	Dimensions(mm)	216x216x82mm		
	Weight(kg)	1.4kg		
	Installation	Pole mounting		
	IIIStaliation	30mm≤Diameter≤50mm		
	Protection Level	IP66		
	Antenna Gain	18dBi		
	Beam Width	H: 17°, V: 17°		
Hardware	Power Supply	48V POE+		
	Max Power	10W		
	Consumption(W)	1000		
	Average Power	8W		
	Consumption(W)	OVV		
	CPU	QCA9557+QCA9882		
	DDR & Memory	128MB DDR2,16MB Flash		
	Physical Interface	1*10/100/1000Mbps		
	Maximum Transmitted	27dBm		
	Power	2700111		
	Working Temperature	-40°C~70°C		
	Storage Temperature	-40°C~85°C		
	Working Humidity	5%~95%RH Non-condensing		
	Surge	POE/GE: CM 4KV , DM 2KV		
	ESD Protection	Contact 4KV , Air 6KV		
	Wind Survivability	150km/h		

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	Protocol	802.11a/n/ac		
Software		5180~5320MHz、5745~5825MHz(China)		
	Frequency	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	Sensitivit	Tolerance
				у	
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
VHT20 MCS0(combination)	27dBm	+/- 2dBm	VHT20 MCS0	-93dBm	+/- 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
	Date Rate 6 Mbps 54 Mbps HT20 MCS0(combination) HT20 MCS7(combination) HT40 MCS0(combination) VHT20 MCS0(combination) VHT20 MCS0(combination) VHT20 MCS8(combination) VHT40 MCS9(combination) VHT40 MCS9(combination) VHT40 MCS9(combination)	Date Rate Avg. TX 6 Mbps 24dBm 54 Mbps 21dBm HT20 MCS0(combination) 27dBm HT40 MCS7(combination) 27dBm HT40 MCS7(combination) 27dBm VHT20 MCS0(combination) 27dBm VHT20 MCS0(combination) 27dBm VHT20 MCS0(combination) 27dBm VHT40 MCS0(combination) 27dBm VHT40 MCS0(combination) 27dBm VHT40 MCS0(combination) 27dBm VHT40 MCS9(combination) 27dBm VHT80 MCS9(combination) 21dBm VHT80 MCS9(combination) 21dBm	Date Rate Avg. TX Tolerance 6 Mbps 24dBm +/- 2dBm 54 Mbps 21dBm +/- 2dBm HT20 MCS0(combination) 27dBm +/- 2dBm HT20 MCS7(combination) 23dBm +/- 2dBm HT40 MCS0(combination) 27dBm +/- 2dBm HT40 MCS0(combination) 27dBm +/- 2dBm VHT20 MCS0(combination) 27dBm +/- 2dBm VHT20 MCS0(combination) 27dBm +/- 2dBm VHT20 MCS8(combination) 27dBm +/- 2dBm VHT40 MCS0(combination) 27dBm +/- 2dBm VHT40 MCS9(combination) 27dBm +/- 2dBm VHT80 MCS9(combination) 21dBm +/- 2dBm VHT80 MCS9(combination) 27dBm +/- 2dBm	Date Rate Avg. TX Tolerance Date Rate 6 Mbps 24dBm +/- 2dBm 6 Mbps 54 Mbps 21dBm +/- 2dBm 54 Mbps HT20 MCS0(combination) 27dBm +/- 2dBm HT20 MCS0 HT20 MCS7(combination) 23dBm +/- 2dBm HT20 MCS7 HT40 MCS0(combination) 27dBm +/- 2dBm HT40 MCS0 HT40 MCS7(combination) 23dBm +/- 2dBm HT40 MCS0 HT40 MCS7(combination) 23dBm +/- 2dBm HT40 MCS7 VHT20 MCS0(combination) 27dBm +/- 2dBm VHT20 MCS0 VHT20 MCS8(combination) 22dBm +/- 2dBm VHT20 MCS8 VHT40 MCS0(combination) 27dBm +/- 2dBm VHT40 MCS0 VHT40 MCS9(combination) 27dBm +/- 2dBm VHT40 MCS9 VHT80 MCS9(combination) 27dBm +/- 2dBm VHT40 MCS9 VHT80 MCS9(combination) 27dBm +/- 2dBm VHT80 MCS9	Date RateAvg. TXToleranceDate RateSensitivit y6 Mbps24dBm+/- 2dBm6 Mbps-93dBm54 Mbps21dBm+/- 2dBm54 Mbps-74dBmHT20 MCS0(combination)27dBm+/- 2dBmHT20 MCS0-93dBmHT20 MCS7(combination)23dBm+/- 2dBmHT20 MCS7-73dBmHT40 MCS0(combination)27dBm+/- 2dBmHT40 MCS0-90dBmHT40 MCS7(combination)23dBm+/- 2dBmHT40 MCS7-70dBmVHT20 MCS0(combination)27dBm+/- 2dBmVHT20 MCS0-93dBmVHT20 MCS8(combination)22dBm+/- 2dBmVHT20 MCS8-70dBmVHT40 MCS0(combination)27dBm+/- 2dBmVHT40 MCS0-90dBmVHT40 MCS9(combination)21dBm+/- 2dBmVHT40 MCS9-66dBmVHT80 MCS0(combination)27dBm+/- 2dBmVHT80 MCS9-87dBmVHT80 MCS9(combination)21dBm+/- 2dBmVHT80 MCS9-62dBm

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

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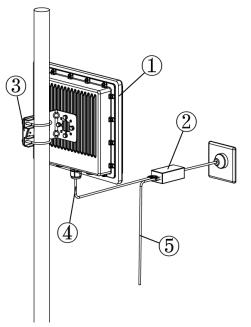
Dimensions



Interface



Installation



- 1. Wireless Transmission Device
- 2. POE Adaptor
- 3. Brackets of Device
- 4. The POE port of POE adaptor should connect to the POE port on the main device
- 5. 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

