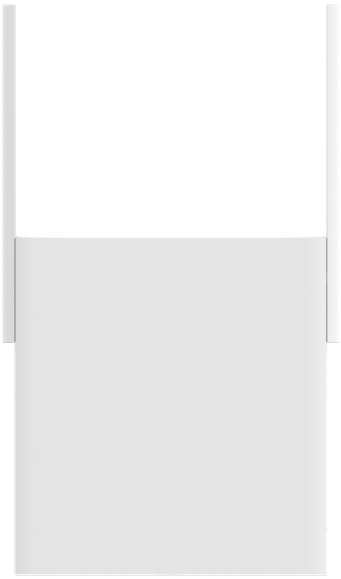
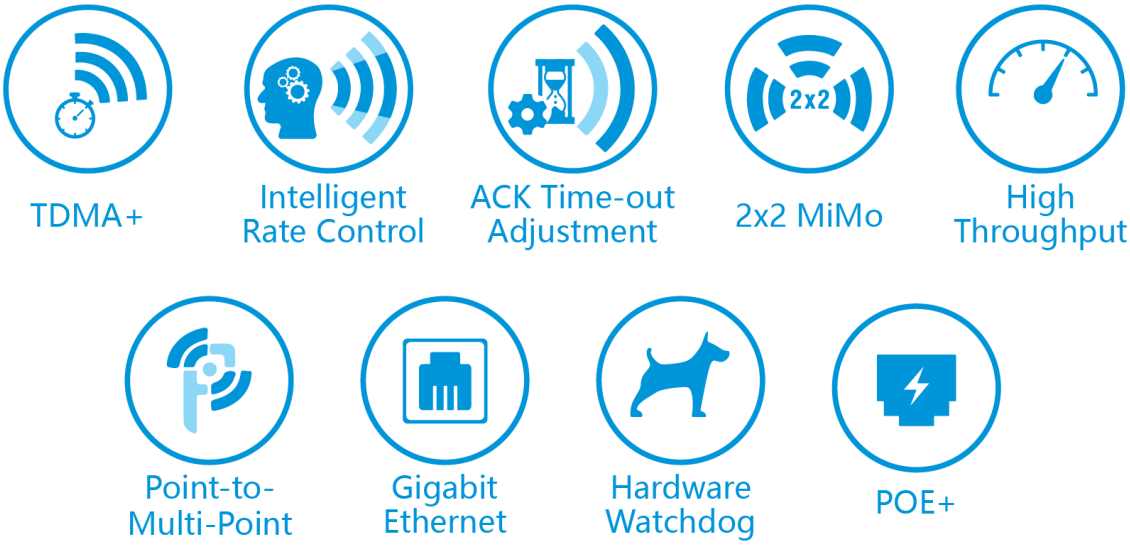


TB8K

802.11a/b/g/n/ac dual-band outdoor high-performance device



Release Notes

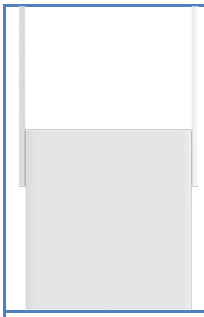
Date	Version Number	Editor	Change log	Remarks
2020-05-08	V1.0	Guifang	Create	
2020-11-19	V1.1	Guifang	Modify power consumption	

Product Feature

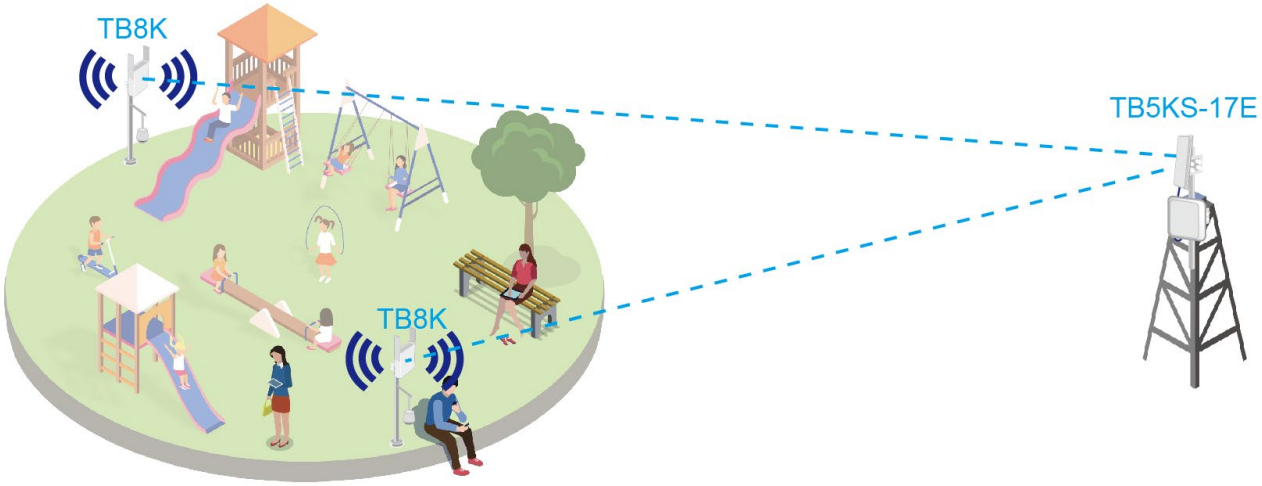
- Supports 802.11 a/b/g/n/ac standard
- The highest transmission rate is 867Mbps（5G） & 300Mbps (2.4G)
- 5G transmission distance: 0 ~ 5km, 2.4G coverage: 0 ~ 150m
- Integrated antenna, quick installation
- Built-in VTrans technology, including
- 1) TDMA+: eliminate the performance degradation caused 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

*Wireless controller needs to be purchased separately

Accessory List

					
Device	Mount Bracket	Hoop	Desktop power supply	QIG	QC

Application Scenario



Specifications

Hardware	Dimensions(mm)	160x160x55mm
	Weight(kg)	0.48kg
	Installation	Pole mounting Diameter≤55mm
	Protection Level	IP66
	Antenna Gain	2.4G：3dBi 5G：17dBi
	Beam Width	2.4G：360° 5G：H 20°，V 20°
	Antenna Type	2.4G：Omnidirectional Antenna 5G：Directional Antenna
	Power Supply	48V POE+/DC 48V
	Max Power Consumption(W)	12W
	Average Power Consumption(W)	9W
	CPU	IPQ4028
	DDR & Memory	256MB DDR3L，32MB Flash
	Physical Interface	2*10/100/1000Mbps

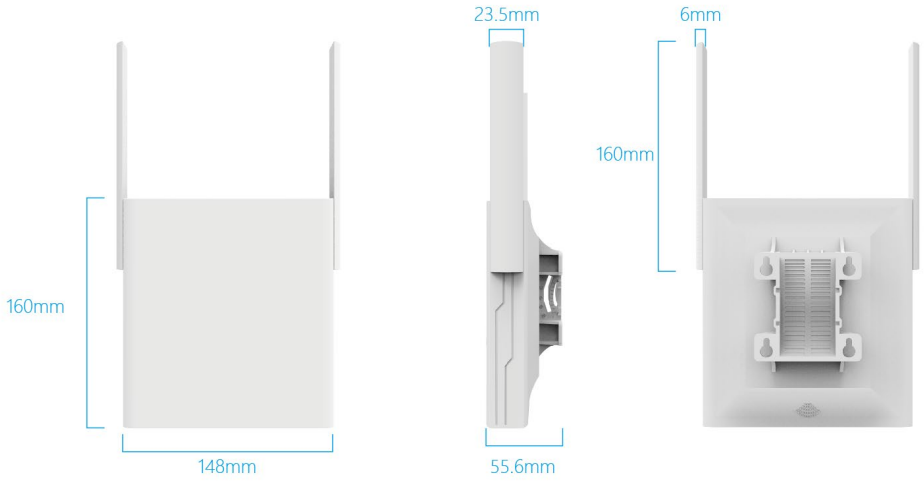
	Indicator Light	1*2.4G Work Indicator 1* 5G Work Indicator 3* Signal Strength Indicator
	Maximum Transmitted Power	2.4G：27dBm 5G：27dBm
	Working Temperature	-40℃~65℃
	Storage Temperature	-40℃~85℃
	Working Humidity	5%~95%RH Non-condensing
	Surge	POE/GE: CM 4KV , DM 2KV
	ESD Protection	Contact 6KV , Air 8KV
	Wind Survivability	134km/h
Software	Protocol	802.11a/b/g/n/ac
	Frequency	2.4G： 2412~2472MHz（China） 2412~2462MHz（United states） 2412~2472MHz（Most countries） Supported frequency range：2312~2732MHz（should depend on the local regulation.） 5G： 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： 4920~6060MHz（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

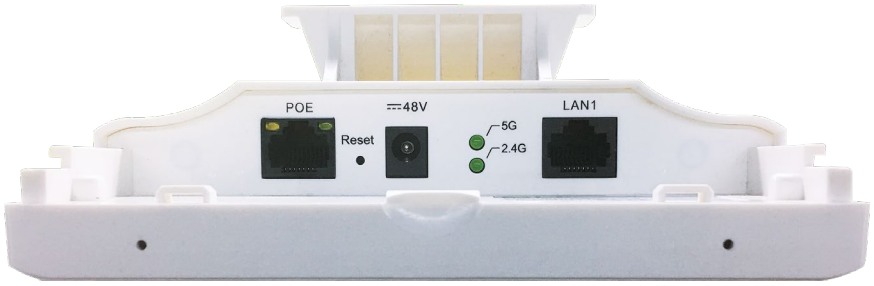
TX Power				Sensitivity		
	Date Rate	Avg. TX	Tolerance	Data Rate	Sensitivity	Tolerance
11b/g/n	1 Mbps	24dBm	+/- 2dBm	1 Mbps	-96dBm	+/- 2dBm
	11 Mbps	24dBm	+/- 2dBm	11 Mbps	-89dBm	+/- 2dBm
	6 Mbps	24dBm	+/- 2dBm	6 Mbps	-91dBm	+/- 2dBm
	54 Mbps	22dBm	+/- 2dBm	54 Mbps	-73dBm	+/- 2dBm
	HT20 MCS0(combination)	27dBm	+/- 2dBm	HT20 MCS0	-91dBm	+/- 2dBm
	HT20 MCS7(combination)	24dBm	+/- 2dBm	HT20 MCS7	-71dBm	+/- 2dBm
	HT40 MCS0(combination)	27dBm	+/- 2dBm	HT40 MCS0	-89dBm	+/- 2dBm
	HT40 MCS7(combination)	24dBm	+/- 2dBm	HT40 MCS7	-68dBm	+/- 2dBm
11a/n	6 Mbps	24dBm	+/- 2dBm	6 Mbps	-91dBm	+/- 2dBm
	54 Mbps	22dBm	+/- 2dBm	54 Mbps	-73dBm	+/- 2dBm
	HT20 MCS0(combination)	27dBm	+/- 2dBm	HT20 MCS0	-91dBm	+/- 2dBm
	HT20 MCS7(combination)	24dBm	+/- 2dBm	HT20 MCS7	-70dBm	+/- 2dBm
	HT40 MCS0(combination)	27dBm	+/- 2dBm	HT40 MCS0	-88dBm	+/- 2dBm
	HT40 MCS7(combination)	24dBm	+/- 2dBm	HT40 MCS7	-68dBm	+/- 2dBm
11ac	VHT20 MCS0(combination)	27dBm	+/- 2dBm	VHT20 MCS0	-91dBm	+/- 2dBm
	VHT20 MCS8(combination)	23dBm	+/- 2dBm	VHT20 MCS8	-67dBm	+/- 2dBm
	VHT40 MCS0(combination)	27dBm	+/- 2dBm	VHT40 MCS0	-87dBm	+/- 2dBm
	VHT40 MCS9(combination)	23dBm	+/- 2dBm	VHT40 MCS9	-64dBm	+/- 2dBm
	VHT80 MCS0(combination)	27dBm	+/- 2dBm	VHT80 MCS0	-85dBm	+/- 2dBm
	VHT80 MCS9(combination)	23dBm	+/- 2dBm	VHT80 MCS9	-60dBm	+/- 2dBm

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

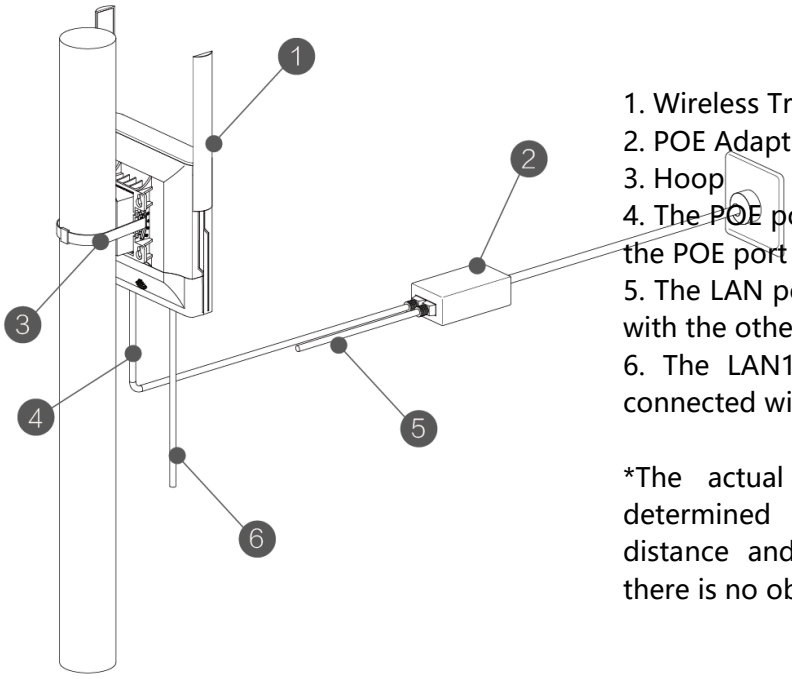
Dimensions



Interface



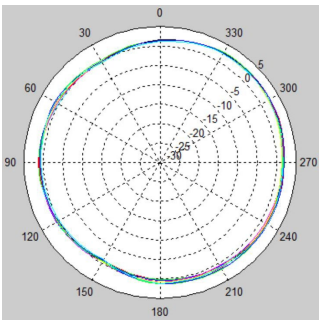
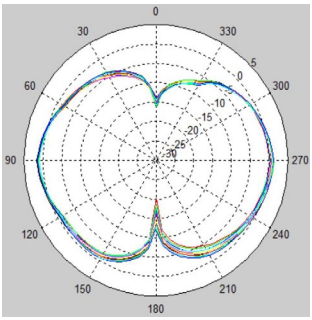
Installation



1. Wireless Transmission Device
2. POE Adaptor
3. Hoop
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
6. The LAN1 port on the main device 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

2.4G Horizontal	2.4G Vertical
	
5G Horizontal	**5G Vertical**