



TB5F

802.11a/n 5G Outdoor Wireless AP



TDMA



Intelligent
Rate Control



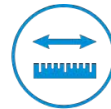
ACK Time-out
Adjustment



2x2 MiMo



High
Throughput



Long Distance
Coverage



PTP



PTMP



Gigabit
Ethernet



Hardware
Watchdog



POE+

Long Range, Robust Wireless Connection

Summary

TB5F is a powerful WiFi access and video/audio/data transmission device, enabling long-range, fast speed and robust wireless connections. Integrated creatcomm's VTrans technology, TB5F has the advantages of long-distance, high-throughput and so on.

VTrans technologies include TDMA, 5/10/20/40MHz bandwidth, intelligent rate control, Auto ACK Time-out adjust and so on. TDMA technology solves the problems of hidden-node problem in the 802.11 network. 5M/10M/20M/40MHz bandwidth can be flexibly configured by the users. Intelligent rate control algorithm can be adapted to quick channel quality variations. ACK time-out auto adjust can automatically detect the distances of the devices.

The longest transmission distance of TB5F is 0~5km, making it suitable for WiFi AP and point-to-multipoint communication. TB5F can be used in the following applications:

- Wireless video surveillance (free-way, city, police, oil pipeline, forest and etc.)
- Carrier wireless backhaul and rural area internet last-mile wireless solution
- Enterprise local area network inter-connection
- WiFi signal coverage and rural wireless coverage

Product Feature

- High performance 802.11n 2×2 MIMO chip
- Longest transmission distance: 0~5km. Max transmission throughput: 300Mbps
- Integrated VTrans technology
- Multi-hop technology support several devices to form a relay link, adapt to complicated terrestrial environment
- Support 5 operation modes: Access Point, Station, WDS Access Point, WDS Station, WDS Repeater
- Support point-to-point, point-to-multipoint connection
- Unique RF and antenna design enables long-range transmission
- Wireless multimedia optimization technology guarantees video/Traffic shaping
- Web based working scenario selection makes the installation and setting much easier
- Reliable POE power supply
- Web-based configuration, easy to use
- Waterproof housing and accessory kit protects against moisture, rain and dew

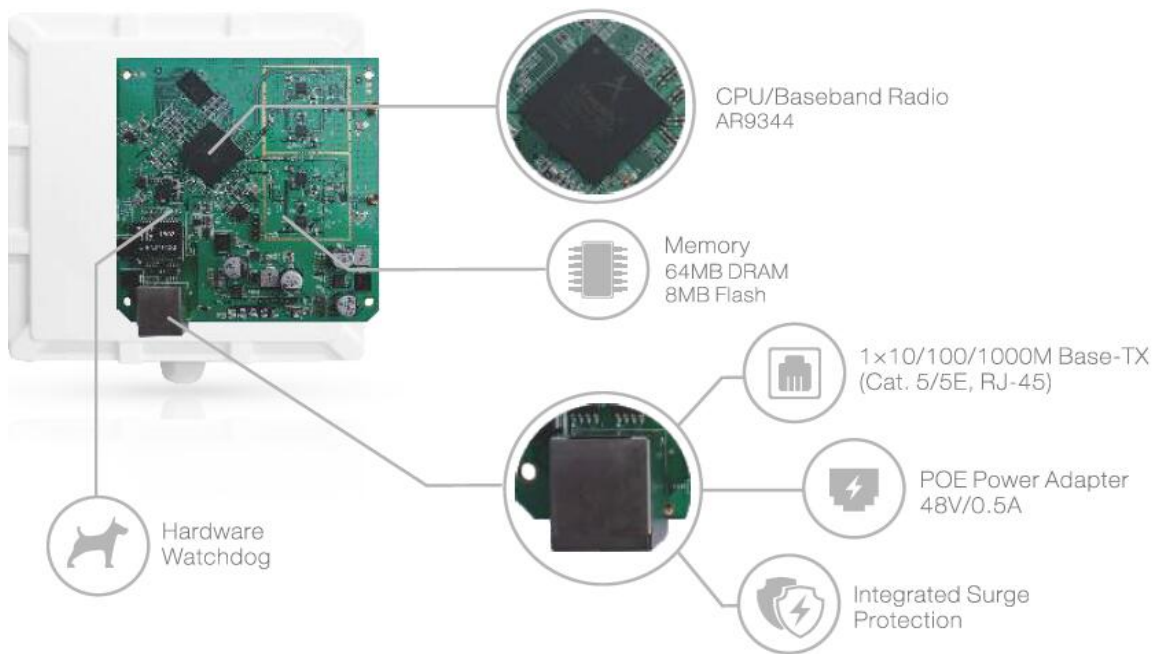
Product Introduction

Industrial Leading Design

The TB5F has the industrial leading technology, owing the performance capability of a wireless base station with only a small form factor, furthermore, it has very attractive low cost.

TB5F utilizes a series of advanced technologies such as TDMA, Multi-hop, MIMO and so on, all embedded in the integrated VTrans system, having the advantage of long transmission range, high data rate and robust transmission.

It can be used as WiFi AP or outdoor PTP, PTMP and Multi-hop topology. Therefore, TB5F is suitable for various applications like wireless video transmission, and wireless signal coverage.



VTrans Integrated System

- VTrans utilize the most advanced technologies
- TDMA technology, can solve the problems of hidden-node problem in the 802.11 network, improve PTMP performance and wireless bandwidth efficiency and noise immune performance.
- MIMO , can improves wireless data rate and signal quality.
- 5/10/20/40MHz bandwidth, can be flexibly configured by the users.
- Auto ACK Time-out adjust, can automatically detect the distances of the TB5F devices.
- Intelligent rate control algorithm can be adapted to quick channel quality variations.
- Config the WiFi as WAN or LAN port.



Convenient Relay System

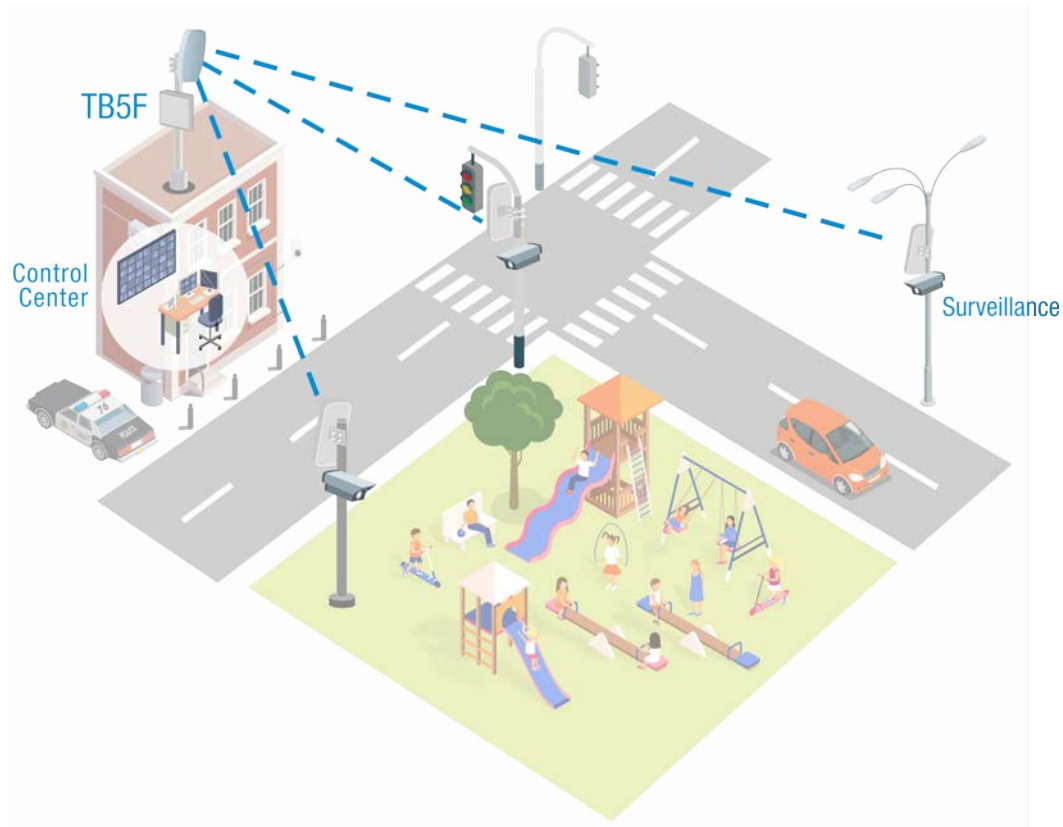
- Device can be configured as Relay topology between the origin and destination
- Without the need of line-of-sight, thus adapt to complicated terrestrial environment
- The transmission path doesn't need to be a straight line
- Relay devices can be set manually conveniently.

POE

Those features are suitable for outdoor long range applications:

- POE removes the need of device power supply
- POE enables remote reset of the device from power supply location
- Support standard 802.3at POE power supply

Application Scenario



Specifications

Hardware Specifications	
CPU/Baseband Radio	AR9344
Memory	64MB DRAM, 8MB Flash
Physical Interface	1x10/100M /1000MBase-TX (Cat. 5/5E, RJ-45)
Power Requirement	POE, Power Adapter 48V/0.5A

Software Specifications	
Protocol	802.11a/n, TDMA
Operation Mode	Access Point, Station, WDS Access Point, WDS Station, WDS Repeater
Networking	Bridge, Router
Operating Frequency	5745~5825MHz (More Non-standard channels are available, 4920~6100MHz)
Security	WPA/WPA2/802.1x, Hide SSID, IP/MAC Filtering
Configuration	Web-based configuration
Firmware Update	Firmware update via browser

Physical/Electrical/Environmental/Certification	
Enclosure Characteristics	Aluminum Die Casting
Working Temperature	-30°C to 75 °C
Storage Temperature	-40 °C to 85 °C
Working Humidity	5% to 95% typical
Dimensions	212x212x55 mm
Weight	5.6kg
Max Power Consumption	<=15W

Operation Frequency: 5475-5825 MHz							
TX power Specifications				RX sensitivity Specifications			
	Date Rate	Avg. TX	Tolerance		Data Rate	Avg. TX	Tolerance
11a	6~24Mbps	27dBm	+/- 2dB	11a	6~24Mbps	-94dBm	+/- 2dB
	36Mbps	26dBm	+/- 2dB		36Mbps	-80dBm	+/- 2dB
	48 Mbps	25dBm	+/- 2dB		48Mbps	-77dBm	+/- 2dB
	54 Mbps	24dBm	+/- 2dB		54 Mbps	-75dBm	+/- 2dB
11n	MCS0	27dBm	+/- 2dB	11n	MCS0	-96dBm	+/- 2dB
	MCS1	27dBm	+/- 2dB		MCS1	-95dBm	+/- 2dB
	MCS2	27dBm	+/- 2dB		MCS2	-92dBm	+/- 2dB
	MCS3	26dBm	+/- 2dB		MCS3	-90dBm	+/- 2dB
	MCS4	26dBm	+/- 2dB		MCS4	-86dBm	+/- 2dB
	MCS5	25dBm	+/- 2dB		MCS5	-83dBm	+/- 2dB
	MCS6	25dBm	+/- 2dB		MCS6	-77dBm	+/- 2dB
	MCS7	24dBm	+/- 2dB		MCS7	-72dBm	+/- 2dB
	MCS8	30dBm	+/- 2dB		MCS8	-95dBm	+/- 2dB
	MCS9	30dBm	+/- 2dB		MCS9	-93dBm	+/- 2dB
	MCS10	30dBm	+/- 2dB		MCS10	-90dBm	+/- 2dB
	MCS11	29dBm	+/- 2dB		MCS11	-87dBm	+/- 2dB
	MCS12	29dBm	+/- 2dB		MCS12	-84dBm	+/- 2dB
	MCS13	28dBm	+/- 2dB		MCS13	-79dBm	+/- 2dB
	MCS14	28dBm	+/- 2dB		MCS14	-78dBm	+/- 2dB
MCS15	27dBm	+/- 2dB	MCS15	-75dBm	+/- 2dB		

Ordering Information

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