



All for better networking.

#### SHENZHEN TENDA TECHNOLOGY CO.,LTD.

Tenda Technology Bldg.Int' IE-City, #1001 Zhong Shan Yuan Rd.,Nanshan District,Shenzhen China.

E-mail:support@tenda.com.cn Tel:+86-755-2765 7098 Fax:+86-755-2765 7178 PC:518055





## **Tenda WISP Product Series**





### **About Tenda**

Founded in 1999, Tenda technology is the recognized leading supplier of networking devices and equipments. Tenda has committed to delivering easy-to-install and affordable networking solutions, offering innovative, cutting-edge products to realize people's intelligent life.

Innovation is the soul of Tenda technology. Tenda has two R&D centers, Shenzhen and Chengdu, with about 3000 employees; one Manufacture center, with about 3000 members and a new 120000 m2 manufacture base under construction.

Tenda products include home networking, business networking, switch, broadband CPE, gateway, powerlines, mobile broadband, IP camera etc. Excellent performance, steady signal, easy use and installation, top quality with competitive price are the common features of all Tenda products.

Based in Shenzhen, China, Tenda has expanded its business into the World market. Since 2007, Tenda has started launching its global branding strategy. Through worldwide distribution channels, Tenda distributes products to more than 100 countries around the world. At the same time, Tenda has a customer service team of up to more than 200 employees to solve problems for distributors and end customers in the world.

As the first home-grown router and wireless network device manufacturer in China, Tenda has overcome all kinds of difficulties. Combined R&D, manufacturing & sales together, Tenda adopts the latest technology and professional service system to establish reliable network to be professional high-tech company in the world.

## **Tenda WISP Product Series**

Tenda WISP Product Series is designed to provide excellent performance and cost-effective solutions for WISP Access and Wireless CCTV Surveillance Transmission. It consists of Basestation, CPEs and MIMO antenna. Each device equipped with powerful CPE Web UI and can be centralized management by CPE Assistant platform. It provides flexible product portfolio for PTP,P2MP and wireless CCTV surveillance tansmission application.

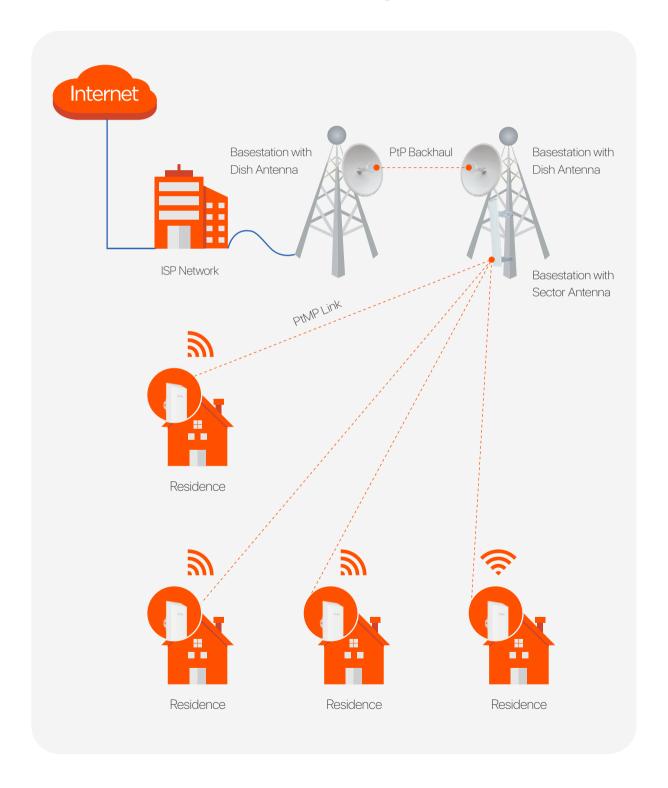
— Ethernet Cable



Dish Antenna

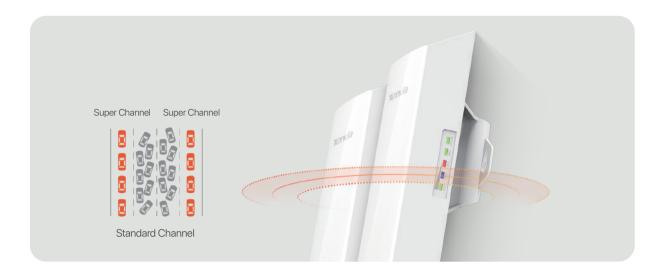


Sector Antenna



## **Super channel-Extended Frequency**

Adopt of Qualcomm chipset and special software mechanism optimization for radio driven architecture to offer extended frequency support. This feature is designed to help users get out of the congested, unlicensed 5GHz band and into clean spectrum. It can operate from 4.9–5.9GHz frequency.

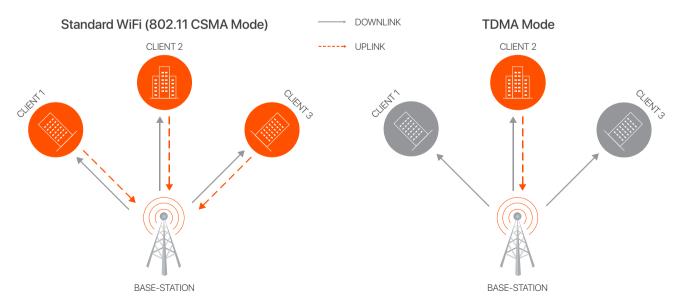


## **TD-MAX-Tenda TDMA proprietary protocol**

TD-MAX is Tenda TDMA (Time Division Multiple Access) proprietary protocol to improve performance and capacity for wireless WISP outdoor application Scenarios.

In outdoor environment, the CPE use highly directional antennas to connect to the Basestation from distances that can span several kilometers. the CPE can't sense each other, they become "hidden nodes" and cannot coordinate access to the wireless channel. Thus the Basestation experiences frequent collisions from stations transmitting simultaneously. As the network scales, these collisions build up exponentially, increasing latency and lowering throughput.

With TD-MAX, it coordinate all the data transmission and allocates time to active clients to provide greater noise immunity performance when compared to the conventional 802.11 CSMA/CA (Carrier Sense Multiple Access / Collision Avoidance) protocol.



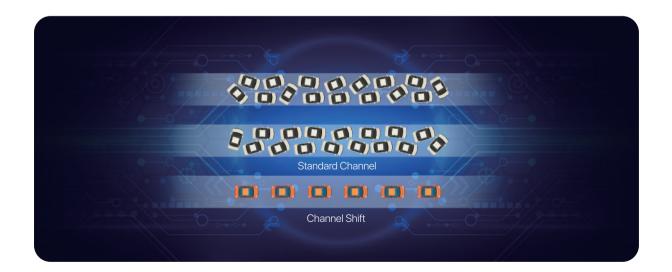
# 10/20/30/40MHz Channel Bandwidth for better throughput

Apply special optimization in software for register parameter to deliver 10/20/30/40MHz channel bandwidth option. It provides extra 10MHz and 30MHz channel bandwidth option to consumed according applycation scenarios. When you choose 30MHz channel bandwidth option, it can increase throughput for noisy environments. When you choose 10MHz channel bandwidth option, it can increase the number of available, non-overlapping channels, so networks can scale better.



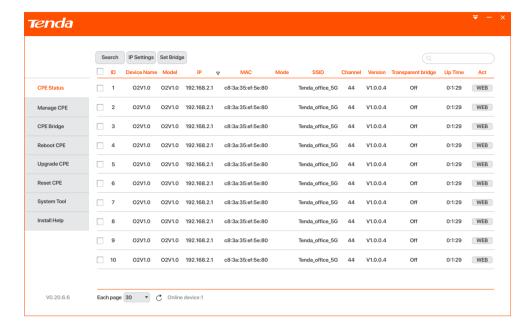
### Channel shift to avoid interferrence

Tenda WISP product Series provide Channel Shift feature to offset the central frequency 5MHz upper. It can avoid interference from nearby AP and deliver higher throughput.



## **CPE Assistant-Centralized Management Platform**

Equipped with centralized management software that helps users easily manage all the devices in their network from a single PC - CPE Assistant. Functions like device discovery, status monitoring, firmware upgrading, and network maintenance can be managed using CPE Assistant.



## **Multiple Application Scenarios**

### P2P Solution

The P2P solution can be used to create a wilress connecton up to multi kilometers for CCTV surveillance transmission and Internet share from one location to another location.





### **P2MP Solution**

The P2MP solution can be create for WISP Access for rural area, island area and CCTV surveillance transmission for factory,campus







Model	01	03	02	04	O6	В6
Photo						
Dimension	193.5*80*67.5mm	270*94.86*67.5mm	193.5*80*67.5mm	270*94.86*67.5mm	270*94.86*67.5mm	190*84*37mm
Frequency	2.4GHz	2.4GHz	5GHz	5GHz	5GHz	5GHz
Wireless Data Rate	300Mbps	150Mbps	300Mbps	300Mbps	433Mbps	300Mbps
Max Output Power	100mW(20dBm)	800mW(29dBm)	200mW(23dBm)	400mW(26dBm)	400mW(26dBm)	400mW(26dBm)
Max Transmit Range	500m	5km	2km	5km	10km	/
Standard&Protocol	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11a/n	IEEE 802.11a/n	IEEE 802.11a/n/ac	IEEE 802.11a/n
Interface	1*FE PoE/LAN Port	1*FE PoE/WAN/LAN Port 1*FE LAN Port	1*FE PoE/LAN Port	1*FE PoE/LAN Port	1*GE PoE/WAN/LAN Port	1*FE PoE/LAN Port
Antenna	8dbi Directional Antenna	12dbi Directional Antenna	12dbi Directional Antenna	14dbi Directional Antenna	16dbi Directional Antenna	2*RP-SMA
Antenna Beamwidth	Horizontal: 60° Vertical: 60°	Horizontal: 60° Elevation: 30°	Horizontal: 30° Vertical: 30°	Horizontal: 30° Vertical: 30°	Horizontal: 30° Elevation: 15°	/
Maximum Consumption	2.8W	6W	6.3W	9W	9W	9W
Lightning Protection	/	6kV	6kV	6kV	6kV	6kV
Weatherproof	IP65	IP64	IP65	IP64	IP64	IP65
Power Supply	9V 0.6A PoE Injector	12V 1A PoE Injector	12V 1A PoE Injector	24V 0.5A PoE Adapter	24V 0.5A PoE Adapter	24V 0.5A PoE Adapter
Operating Mode	AP/Station/WISP	AP/Station/Universal Repeater/WISP/Router /P2MP/Repeater	AP/Station/Universal Repeater/WISP/Router /P2MP/Repeater	AP/Station/Universal Repeater/WISP/Router /P2MP/Repeater	AP/Station/Universal Repeater/WISP/Router	AP/Station/Universal Repeater/WISP/Router /P2MP/Repeater
Transmission Power	Adjustable Power by 1dBm	Adjustable Power by 1dBm	Adjustable Power by 1dBm	Adjustable Power by 1dBm	Adjustable Power by 1dBm	Adjustable Power by 1dBm
TDMA	/	/	Support	Support	/	Support
Operating Temperature&Humidity	-30°C ~ 55°C, 10%~90% Non-condensing	-30 ℃ ~ 60 ℃, 10%~90% Non-condensing	-30°C ~ 60°C, 10%~90% Non-condensing	-30°C ~ 60°C, 10%~90% Non-condensing	-30°C ~ 60°C, 10%~90% Non-condensing	-30°C ~ 60°C, 10%~90% Non-condensing
Storage Temperature&Humidity	-40°C ~ 70°C, 10%~90% Non-condensing	-40°C ~70°C, 10%~90% Non-condensing	-40°C ~ 70°C, 10%~90% Non-condensing	-40 °C ~ 70 °C, 10%~90% Non-condensing	-40°C ~ 70°C, 10%~90% Non-condensing	-40 °C ~ 70 °C , 10%~90% Non-condensing
Certifications	FCC/CE/RoHS	FCC/CE/RoHS	FCC/CE/RoHS	FCC/CE/RoHS	FCC/CE/RoHS	FCC/CE/RoHS

Model	ANT12-5G360	ANT16-5G120	ANT19-5G120	ANT30-5G
Photo		İ		
Frequency Range	5150-5850MHz	5150-5850MHz	5150-5850MHz	5150-5850MHz
Gain	11-12dBi	15-16dBi	18-19dBi	29-30dBi
Polarization	Vertical & Horizontal	Vertical & Horizontal	Vertical & Horizontal	Vertical & Horizontal
Horizontal Beamwidth (6dB)	360°	120°	120°	12°
Vertical Beamwidth (6dB)	360°	120°	120°	12°
Elevation Beamwidth	13°	8°	4°	11°
Electrical Downtilt	0°	0°	0°	O°
Front-To-Back Ratio	1	>25dB	>25dB	>35dB
Isolation	>27dB	>30dB	>30dB	>30dB
VSWR	≤ 1.5Type; 2.0Max	≤ 1.5Type; 2.0Max	≤ 1.5Type; 2.0Max	≤ 1.5Type; 2.0Max
Maximum Power Per Port	50W	50W	50W	50W
Impedance	50Ω	50Ω	50Ω	50Ω
Antenna Dimensions	Ф65*450mm	380x150x20mm	740x150x20mm	Ф600*380mm
Mounting	Pole (D30-70mm)	Pole (D30-80mm)	Pole (D30-80mm)	Pole (D50-100mm)
Mechanical tilt capability	1	-15° to +15°	-15° to +15°	0-15°
Reflector Material	/	Aluminum	Aluminum	Aluminum
Connector Type	2-RPSMA	2-RPSMA	2-RPSMA	2-RPSMA