



# **BDCOM**

Connecting a Better World

Boda data communication products

---

## Access point

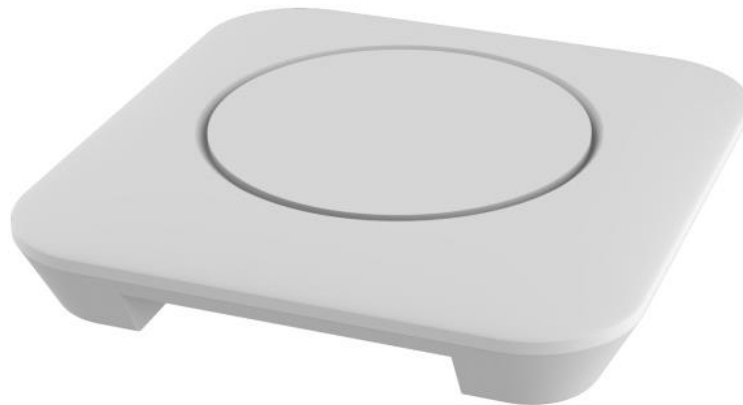
WAP2100-T751

## [Product Overview]

The BDCOM WAP2100-T751 is a WiFi 7 ceiling-mounted wireless AP product designed and launched by Shanghai BDCOM for high-density wireless scenarios such as enterprises, schools, hospitals, government institutions, hotels, smart buildings, convention centers, and stadiums.

The WAP2100-T751 adopts a high-performance RF chip design, offering high wireless throughput and strong concurrent access capabilities. Equipped with a built-in omnidirectional MIMO high-power antenna, it maximizes WLAN wireless coverage and eliminates signal dead zones.

The WAP2100-T751 supports both PoE (Power over Ethernet) and adapter power supply options. Its sleek and elegant design makes it suitable for ceiling installations in various environments, such as plasterboard and concrete ceilings. It is an excellent choice for building cost-effective wireless network solutions.



## 【 Key features 】

### High-Performance Wireless Solution

The WAP2100-T751 is built with a high-performance WiFi 7 wireless chip, supporting various wireless protocols such as 802.11a/b/g/n/ac/ax/be. It features high throughput and excellent stability. The device supports a combined 2.4GHz and 5GHz air interface bandwidth of up to 5100Mbps, accommodating up to 200 users with strong concurrent access capabilities.

The WAP2100-T751 supports wireless load balancing technology. In high-density access scenarios, it ensures balanced traffic distribution across multiple APs, preventing local congestion. Within a single AP, it reasonably allocates terminals

across the 2.4GHz and 5GHz spectrums. This ensures not only higher terminal capacity but also a better internet experience for each user.

### **Support for MLO Technology**

The WAP2100-T751 supports Multi-Link Operation (MLO) functionality, enabling the AP to establish multiple wireless RF links with terminals simultaneously. Depending on the usage scenario and air interface conditions, this feature enhances overall data transmission rates, reduces latency, and improves the reliability of data transfer..

### **Powerful Automatic Network Optimization**

The WAP2100-T751 supports a large number of users while offering carrier-grade network optimization features such as wired and wireless QoS, automatic terminal recognition, automatic channel selection, automatic power adjustment, and dynamic sensitivity control. These features provide enterprises with a convenient and efficient WLAN experience.

In conjunction with the WSC6100 series wireless controllers, it supports "one-click automatic optimization" and "background automatic optimization," enabling users to independently optimize their networks when wireless conditions change or user experience deteriorates, without waiting for vendor or dealer support.

### **Comprehensive Security Features**

The WAP2100-T751 offers multiple secure access options, including WEP, WPA, and WPA2, supports wireless IPS/IDS, Layer 2 user isolation, and centralized ACL control.

It integrates with the WSC6100 wireless AC and PALLAS cloud management platform, providing versatile and practical authentication features for devices such as computers, phones, and tablets, ensuring convenient user access.

The device also supports rogue AP detection and subsequent handling, wireless attack defense, and static black-and-white lists to reduce unauthorized user interference with the wireless network.

## User-Centric Design Optimizations

The WAP2100-T751 features controllable LED design: during nighttime, the operation LEDs can be turned off to avoid light disturbance, while during network inspections, all LEDs can be activated to enhance engineer efficiency. LED settings can be managed in bulk via the AC controller or toggled individually for each AP, offering great flexibility and convenience.

Both the AP body and its mounting bracket feature an ultra-thin design, and the network ports are recessed for a clean and seamless installation that integrates well with surrounding lighting and environments, ensuring aesthetics and tidiness.

## Rich Management Features

The WAP2100-T751 supports a unified fat/thin AP design, allowing standalone configuration or integration with BDCOM's WSC6100 series wireless AC products. It supports management through CLI, Web, and SNMP.

The T751 can also integrate with the BDCOM PALLAS platform for unified cloud management of ACs, switches, routers, and security products, significantly improving operational and maintenance efficiency.

### 【 Hardware specifications 】

Product Specifications	BDCOM WAP2100-T751
Standard Network Ports	1 x 2.5G Ethernet port, backward compatible with Gigabit Ethernet (supports PoE) 1 x GE Ethernet port
Operating Frequency	2.4GHz and 5GHz
Wireless Protocols	802.11 a/b/g/n/ac/ax/be
Wireless MIMO	2.4GHz: MIMO 2x2 5.0GHz: MIMO 3x3 Total: 5 spatial streams across dual-band
Air Interface Speed	5100Mbps
Antenna Type	Built-in omnidirectional
RF Power	25dBm

Coverage Range	15–40 meters (subject to environmental factors)
Recommended Concurrent Users	Up to 200 active users with business traffic (may vary depending on the environment)
Additional Interfaces	1 x RST/LED switch
Power Supply Options	PoE input or 12V DC
Maximum Power Consumption	18W
Deployment Methods	Ceiling-mounted or placed on a flat surface
Device Dimensions	225 × 220 × 42 mm
Device Weight	480g
Operating Temperature	0°C to 50°C
Operating Humidity	10% to 95% (non-condensing)
Protection Rating	IP41

### [Software Features]

Operating Modes	<ul style="list-style-type: none"> <li>• Supports AP mode, Router mode, and Bridge mode</li> </ul>
IP Functions	<ul style="list-style-type: none"> <li>• Supports IPv4, DHCP, and NTP protocols</li> <li>• Supports static IP assignment, dynamic DHCP, and PPPoE dialing for address acquisition</li> </ul>
Wireless Management	<ul style="list-style-type: none"> <li>• Supports CAPWAP management protocol</li> <li>• Supports AC discovery via Option 43, DNS, etc.</li> <li>• Supports Layer 2 and Layer 3 networking between AC and AP</li> <li>• Supports AC and AP networking across NAT</li> <li>• Supports Layer 2 and Layer 3 user roaming</li> <li>• Supports clock synchronization, version synchronization, and configuration synchronization between AC and AP</li> </ul>
Wireless Access	<ul style="list-style-type: none"> <li>• Supports the 802.11 protocol family</li> <li>• Supports multi-SSID management, Chinese SSID, and SSID hiding</li> <li>• Supports unbinding of SSID and VLAN</li> <li>• Supports user limits and isolation based on SSID</li> <li>• Allows individual parameter template configuration for each SSID</li> <li>• Supports country code settings</li> </ul>
User Authentication	<ul style="list-style-type: none"> <li>• Supports local and cloud authentication</li> </ul>

	<ul style="list-style-type: none"> <li>• Supports various methods such as local accounts, SMS, WeChat, and vouchers</li> <li>• Supports user blacklists and whitelists</li> <li>• Controls user access time and bandwidth</li> </ul>
QoS	<ul style="list-style-type: none"> <li>• Supports 802.11e/WMM</li> <li>• Supports global traffic rate limiting</li> <li>• Supports traffic rate limiting based on AP, VLAN, and users</li> <li>• Supports load balancing based on wireless frequency bands and APs</li> </ul>
Wireless Optimization	<ul style="list-style-type: none"> <li>• Supports one-click automatic optimization and customizable wireless RF parameters</li> <li>• Comes preloaded with 8 wireless scenario templates and allows user-defined templates</li> <li>• Supports automatic background optimization without manual intervention</li> <li>• Supports 5GHz priority access and restrictions on low-rate users</li> </ul>
Security and Defense	<ul style="list-style-type: none"> <li>• Supports PSK authentication</li> <li>• Provides encryption with WEP, WPA, WPA2, and WPA3 protocols</li> <li>• Enables security filtering based on IP and MAC</li> <li>• Defends against DDoS and De-Auth attacks</li> <li>• Detects Rogue APs</li> </ul>
Value-Added Applications	<ul style="list-style-type: none"> <li>• Supports RTLS probing</li> <li>• Integrates with wireless location systems</li> </ul>
Management and Operations	<ul style="list-style-type: none"> <li>• Supports traditional device management via Telnet, SSH, Web, SNMP, and TR069</li> <li>• Offers diagnostic tools such as ping, tracer, and debug</li> <li>• Enables centralized AC management via CAPWAP</li> <li>• Supports unified cloud management via the PALLAS platform</li> <li>• Allows AP indicator lights to be toggled on/off</li> </ul>