

# TY-6201A pro

## AX3000 Gigabit Dual Band Wi-Fi 6

### Router

Tianyi Comheart Confidential

## 1 Product introduction



TY-6201A PRO supports IEEE 802.11ax protocol (Wi-Fi6) and is a full gigabit dual band wireless router. The appearance design of the product adopts the traditional horizontal four antenna design and matches with the design elements of the racing car. The appearance is beautiful and generous

1) Hardware configuration: Broadcom WIFI6 chip platform BCM6756 ARM-A7 architecture quad core dominant frequency 1.7GHz

2) Product form: 1 WAN interface, 3 LAN interfaces, all supporting 1000/100/10 adaptation,

3) Wireless 2.4GHz maximum connection rate is 574Mbps, 5GHz maximum connection rate is 2402Mbps, and the total connection rate is 2976Mbps.

4) TY-6201A Pro with 5G adopts external FEM (PA+LNA), and 2.4G adopts internal FEM (PA+LNA), the wireless signal is very strong.

## 2 Product specifications

### 2.1 Product configuration table

|          |                   |                                                      |
|----------|-------------------|------------------------------------------------------|
| Hardware | Model             | TY-6201A Pro                                         |
|          | Product Name      | Gigabit Dual Band Wi-Fi 6 Router                     |
|          | CPU               | BCM6756 ( ARM-A7 ,quad-core, Frequency 1.7GHz)       |
|          | 2.4G Chip         | BCM6756 Inside                                       |
|          | 5G Chip           | BCM6756 Inside                                       |
|          | Wireless Protocol | Support 802.11 b/g/n/a/ac/ax                         |
|          | RAM               | DDR3 256MB                                           |
|          | ROM               | NAND 128MB                                           |
|          | PA\LNA            | 2.4G IPA , 5G EPA                                    |
|          | Modulation        | DBPSK/DQPSK/CCK/BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM |
|          | OFDMA             | Support                                              |
|          | MU-MIMO           | Support                                              |
|          | TWT               | Support                                              |
|          | Bandwidth         | 2.4G HT40   5G HT160                                 |
|          | LED               | Red\Green                                            |
|          | PCB Layer         | Layer4 1.2mm                                         |
|          | Ethernet          | WAN 1GE<br>LAN 3GE                                   |

|  |                      |                                                      |
|--|----------------------|------------------------------------------------------|
|  | Antenna              | 2.4G Gain 5dBi 2 External<br>5G Gain 5dBi 2 External |
|  | Operating bandwidth  | HT20\HT40\HT80\HT160                                 |
|  | Power specifications | 12V 1.0A                                             |
|  | Power consumption    | <12W                                                 |
|  | Weight               | 330g                                                 |
|  | Size                 | 190(L)X 115(W)X 38mm(H)                              |

## 2.2 Buttons and interfaces



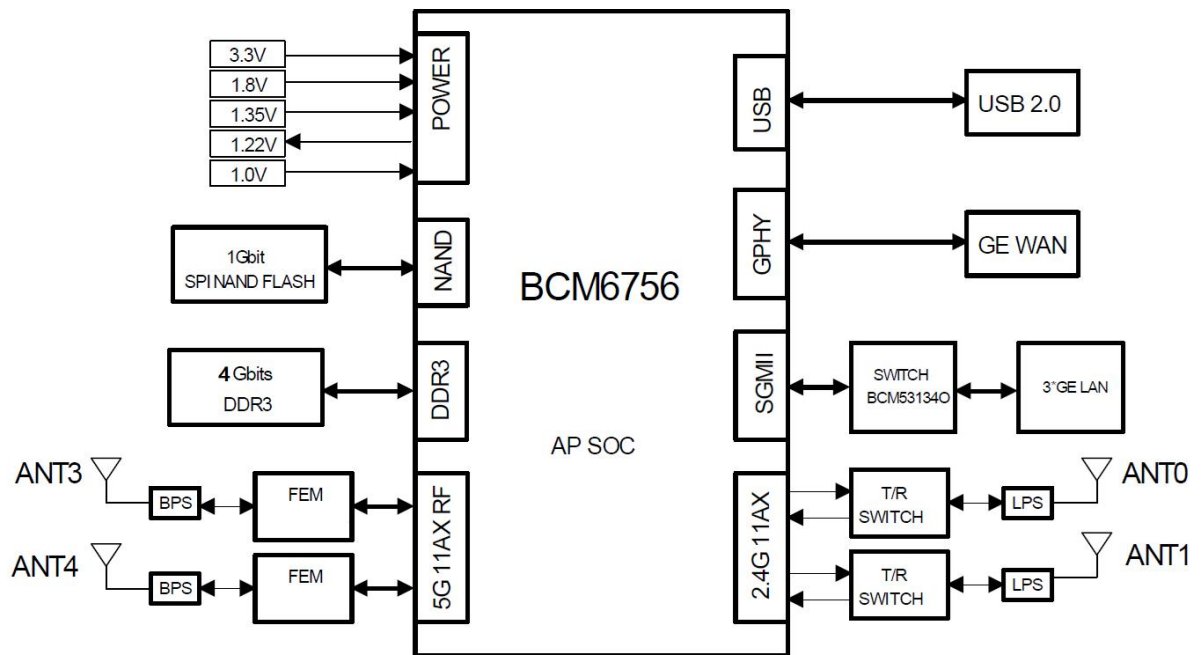
- WAN interfaces: 1, supporting 1000/100/10Mbps adaption

- LAN interfaces: 1, supporting 1000/100/10Mbps adaption
- Button specifications: 1 reset button, 1 WPS button
- Power interface specification: 12V 1.0A, diameter 6.3mm, inner needle round head 2.1mm

### 2.3 LED

|             |                                                                   |
|-------------|-------------------------------------------------------------------|
| OFF         | Indicates that the power is not on                                |
| Red Flash   | Indicates that MESH networking failed                             |
| Red ON      | Indicates that the Internet is unavailable                        |
| Green Flash | Indicates that WPS code pairing or MESH networking is in progress |
| Green ON    | Indicates that the Internet is used normally                      |

## 2.4 Block diagram



## 3 Wi-Fi Specifications

| 2.4GHz (802.11ax, 2*2) |                                                   |
|------------------------|---------------------------------------------------|
| Standards              | IEEE802.11ax/IEEE802.11n/IEEE802.11g/IEEE 802.11b |
| TX. Power              | MCS7:19dBm                                        |

|                     |                                                     |
|---------------------|-----------------------------------------------------|
| RSSI                | MCS7:-74dBm                                         |
| Antenna             | Two (2) external 2.4G-band omni antennas 5dBi       |
| Connection rate     | 574Mbps                                             |
| 5GHz (802.11ax,2*2) |                                                     |
| Standards           | 5.0GHz: 802.11ax/802.11ac/IEEE 802.11n/IEEE 802.11a |
| TX. Power           | MCS9: 19dBm                                         |
| RSSI                | MCS11: 17dBm                                        |
| Antenna             | MCS9: -61dBm                                        |
|                     | MCS11: -54dBm                                       |
| Standards           | Two (2) external 5G band omni antennas 5dBi         |
| Connection rate     | 2402Mbps                                            |

## 4 Feature

| Function         | describe                                                 | Degree of support |
|------------------|----------------------------------------------------------|-------------------|
| Network Protocol | 802.1q/1p VLAN over RFC2684 bridge encapsulation         | Support           |
|                  | PPPoE                                                    | Support           |
|                  | PPPoE passthrough                                        | Support           |
|                  | PPPoE filtering of non-PPPoE packets between WAN and LAN | Support           |
|                  | Auto clean up of remote stalled PPP sessions at BRAS     | Support           |
|                  | IpoE                                                     | Support           |
|                  | Transparent bridging between all LAN and WAN interfaces  | Support           |
|                  | WAN to WAN blocking in bridgemode                        | Support           |
|                  | Ethernet as WAN                                          | Support           |
| network          | Full Cone NAT                                            | Support           |
|                  | DMZ Host                                                 | Support           |
| ALG              | FTP                                                      | Support           |
|                  | TFTP                                                     | Support           |
|                  | SIP                                                      | Support           |
|                  | RTSP                                                     | Support           |
|                  | H.323                                                    | Support           |

|                    |                                                     |         |
|--------------------|-----------------------------------------------------|---------|
|                    | Port Triggering                                     | Support |
|                    | PPTP                                                | Support |
|                    | IPSec/VPN and IPSec/L2TP                            | Support |
| VPN                | IPSec                                               | Support |
|                    | L2TP                                                | Support |
|                    | PPTP                                                | Support |
| Firewall/Filtering | Status                                              | Support |
|                    | DoS                                                 | Support |
|                    | packet filtering                                    | Support |
|                    | LAN Side firewall                                   | Support |
| Parental control   | Time of day usage restriction                       | Support |
|                    | URI/URL Filtering                                   | Support |
| QoS                | IP/Bridge/802.1p                                    | Support |
|                    | Rate Control on upstream traffic                    | Support |
|                    | Support SP, WRR,WFQ priority VLAN stacking (Q-in-Q) | Support |
| Router             | RIP v1/v2                                           | Support |
|                    | Policy Routing                                      | Support |
| IGMP               | Proxy and snooping                                  | Support |
|                    | IGMP v2 and v3                                      | Support |
|                    | Support for IPv6                                    | Support |
| IPv6               | IPv6 Ready Logo Certified                           | Support |
|                    | IPv6 Firewall                                       | Support |
|                    | IPv6 capable apps                                   | Support |
| FS                 | SquashFS                                            | Support |
|                    | JFFS2                                               | Support |
|                    | tmpfs                                               | Support |
|                    | VFAT                                                | Support |
|                    | NTFS                                                | Support |
| DHCP server        | Support for multiple subnets                        | Support |
|                    | Static IP lease                                     | Support |
|                    | DHCP relay                                          | Support |
| DHCP Client        | DHCP client                                         | Support |
| Variable IP        | Second IP address on LAN interface                  | Support |
| DNS                | Built in DNS server                                 | Support |



|                   |                                                                                    |         |
|-------------------|------------------------------------------------------------------------------------|---------|
|                   | Caching previous requests                                                          | Support |
| <b>GUI</b>        | WEBUI                                                                              | Support |
| <b>TR-069</b>     | Digest Authentication, SSL and Basic Authentication, SSL and Digest Authentication | Support |
|                   | Auto-launch and exit-on-idle                                                       | Support |
|                   | TR-098                                                                             | Support |
|                   | TR-098 profile support                                                             | Support |
|                   | TR-111 (part 1)                                                                    | Support |
|                   | TR-140                                                                             | Support |
|                   | TR-104                                                                             | Support |
| <b>UPnP</b>       | Internet Gateway Device (IGDv1.0)                                                  | Support |
|                   | Finite(24 hour) duration of virtual server entries created using UPnP              | Support |
| <b>Security</b>   | Service access based on incoming interface and/or source IP address                | Support |
|                   | Automatic logout from CLI after inactivity                                         | Support |
| <b>Log</b>        | Log                                                                                | Support |
| <b>Diagnostic</b> | Ping                                                                               | Support |
|                   | Tracert                                                                            | Support |
| <b>Wireless</b>   | Support MCS 0-15 and MCS 32 modulation and coding rates                            | Support |
|                   | Support 20M and 40M channels                                                       | Support |
|                   | Support for STBC in both TX and RX                                                 | Support |
|                   | WEP encryption                                                                     | Support |
|                   | 802.11ax                                                                           | Support |
|                   | WPA/WPA2                                                                           | Support |
|                   | WPA-PSK/WPA2-PSK                                                                   | Support |
|                   | WPA3                                                                               | Support |
|                   | Mac Filter base on each SSID                                                       | Support |
|                   | Multiple SSID                                                                      | Support |
|                   | Support SSID hidden                                                                | Support |
|                   | SSID User Isolation                                                                | Support |
|                   | WPS                                                                                | Support |

|        |                                    |         |
|--------|------------------------------------|---------|
|        | Enable or disable WIFI through GUI | Support |
|        | Broadcom SmartMesh                 | Support |
|        | One Click MESH                     | Support |
|        | bandsteering                       | Support |
|        | 802.11k\802.11v\802.11r            | Support |
| Others | Dynamic DNS                        | Support |
|        | sntp time synchronization          | Support |
|        | ssh                                | Support |
|        | telnet                             | Support |
|        | DLNA Support                       | Support |
|        | Power Management                   | Support |

## 5 Environment

- Operating temperature: 0°C ~ 40°C
- Operating humidity: 10% ~ 90% RH
- Storage temperature: -10°C ~ 70°C
- Storage humidity: 5% ~ 95% RH