

AN6000T Series

Optical Line Terminal Equipment



Ultra-high Bandwidth

Backplane switching capacity up to 1 Tbit/s

High Reliability

Redundancy protection for core switch cards and power cards; inter-card and intra-card protection for service cards

Smooth Evolution

Good compatibility with cards, terminal devices and ODNs

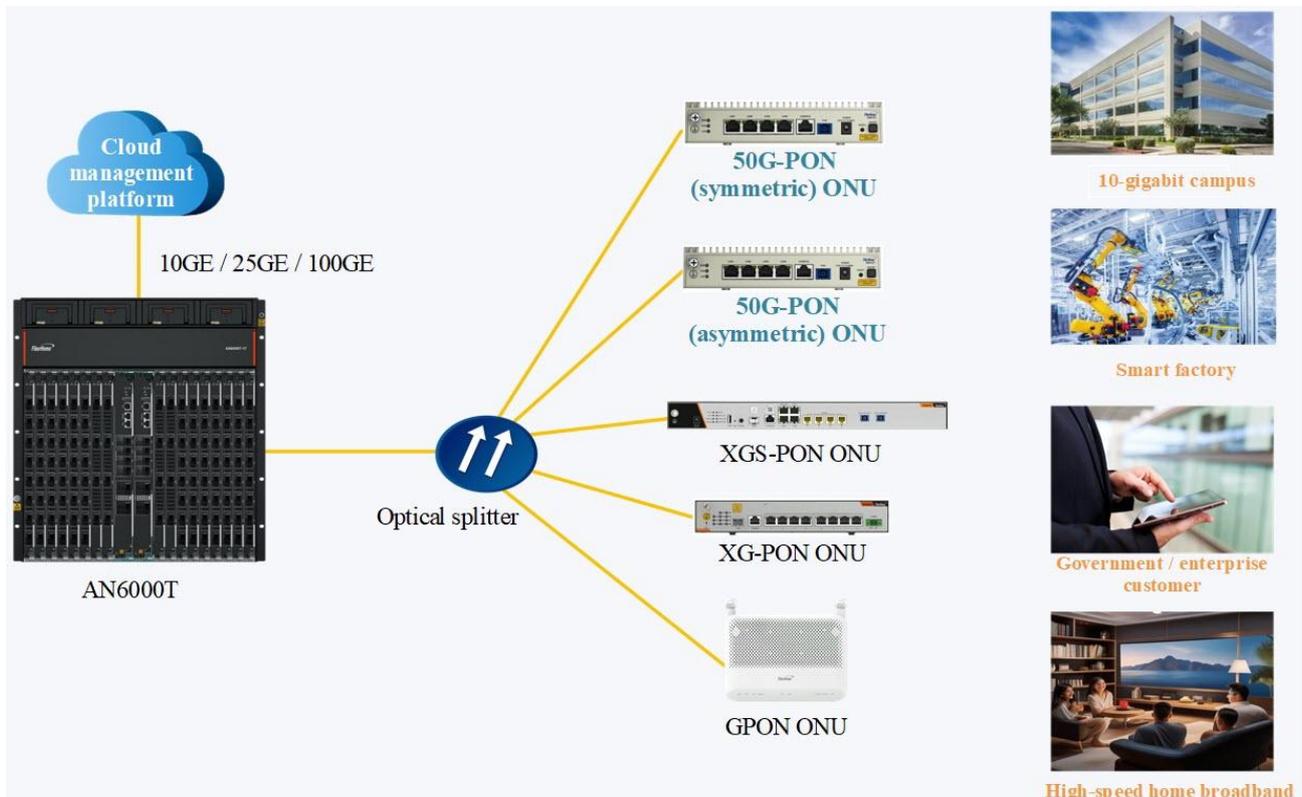
Energy Efficiency

Smart 5-level energy-saving mechanism, visualization of energy consumption

Overview

The AN6000T series are the next-generation intelligent optical line terminal equipment, featuring high bandwidth, enhanced reliability, energy efficiency, and intelligent management, comprehensively addressing the demands of 10-Gigabit access focusing on 50G PON applications.

The AN6000T series support multi-mode PON access and provides user interfaces for 50G PON, XGS-PON, XG-PON, 10G EPON, GPON, EPON, and P2P 10GE/GE. The upstream interfaces include 10GE, 25GE, and 100GE ones. The equipment supports flexible network configurations such as FTTH, FTTB, FTTC, FTTD, and POL, meeting diverse demands of 10G campuses, smart factories, government and enterprise customers, and high-speed home broadband.



Highlights

Ultra-high Bandwidth

- 1 Tbit/s backplane switching capacity
- High-density 50G PON access
- 100 Gbit/s upstream transmission per port

High Reliability

- Reliable hardware: redundancy protection for core switch cards, uplink cards, fan units, and power cards
- Reliable heat dissipation: fan zoning architecture ensuring that failure of a single fan does not affect operation of the entire system
- Reliable power supply: supporting up to 2+2 -48 V power supplies
- Reliable service: upstream cascade link protection, ring network protection, and downstream PON link protection

Smooth Evolution

- Compatible with service cards of FiberHome's previous generation of OLTs
- Compatible with existing terminal products
- Compatible with existing ODN networks
- Compatible with existing power facilities in the equipment room

Energy Efficiency

- Smart zoning and stepless speed adjustment for fans
- Automatic shutdown of idle high-speed interfaces
- Energy-saving of cards
- Energy-saving of ports
- Energy-saving of PON channels
- Visualization of energy consumption

Main Features

Access Features

GPON / XG(S)-PON / 50G-PON / EPON / 10G-EPON access

100GE / 25GE / 10GE / 2.5GE / GE access

Multicast

IGMP / MLD multicast	Snooping / Proxy mode
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Layer 2 Features

VLAN + MAC / SVLAN + CVLAN forwarding mode	Layer 2 isolation and loop detection
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Flexible service flow identification and flow-based processing (VLAN translation, rate limiting, etc.)

Layer 3 Features

IS-IS	Static routing
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ARP / ND proxy	VRF
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OSPF / OSPFv3	BGP / BGP4+
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DHCP relay	
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QoS

5-level HQoS	Traffic classification and shaping
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WRED	Flexible ACL rules and actions
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SP / SP + WRR queue scheduling, internal queue priority remapping, CoS remarking

Network Protection

Active/standby protection for uplink ports	Ring network protection protocols (MSTP, ERPS)
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Ethernet link aggregation and LACP, allowing cross-card protection groups	PON protection switching (Type B/C, single-homing and dual-homing)
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VRRP	BFD
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Security

Device account management and security enhancement	Account password security
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RADIUS / TACACS authentication	MAC_MOVE_DETECTED_ON_OLT
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Suppression of broadcast, multicast, and unknown packets	Subscriber line identifiers
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Protection against IP address spoofing	SM4 National Cryptographic Algorithm
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Device Management

System-wide package upgrade with automated version synchronization	Telemetry
netconf/yang	LLDP discovery protocol
Intelligent multi-level energy-saving	Environment monitoring

MPLS

MPLS CSPF	MPLS RSVP-TE
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SRv6

Segment Routing IPv6

Specifications

Item	Specification	
	AN6000T-17	AN6000T-15
Equipment dimensions (H × W × D)	Subrack without mounting ears: 554 mm × 493 mm × 287 mm Subrack with mounting ears: 554 mm × 530 mm × 287 mm	Subrack without mounting ears: 554 mm × 444 mm × 287 mm Subrack with mounting ears: 554 mm × 480 mm × 287 mm
Subrack weight	Subrack excluding fan units: 17.3 kg Subrack including fan units: 22.41 kg	Subrack excluding fan units: 16.3 kg Subrack including fan units: 21.5 kg
Max. input current	63 A	
Power supply mode	DC (2+2 redundancy)	
Operating voltage range	-38.4 V to -72 V	
Rated voltage	-48 V / -60 V	
Operating temperature	-40°C to 65°C	

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Operating relative humidity	5% to 95% (non-condensing)	
Relative humidity for storage	5% to 95% (non-condensing)	
Atmospheric pressure	70 kPa to 106 kPa	
Maximum bandwidth per slot	HSEA card: 500 Gbit/s	
Backplane bandwidth	1 Tbit/s	
Maximum IPv4 routing table entries of the system	65536	
Maximum IPv6 routing table entries of the system	16384	
Maximum ARP table entries of the system	131072	
System reliability	<ul style="list-style-type: none"> ● System availability with typical configuration: > 99.9999% ● Mean time between failures (MTBF) of the system: approx. 45 years <p>Note: The average repair time for the entire system is 2 hours. The parameters above are calculated based on typical configurations and are for reference only. The actual values may vary with the modules used.</p>	
Payload switching capacity of the core switch card	18.2 Tbit/s	
Number of uplink ports on core switch cards	8 × 10GE / 25GE + 4 × 100GE	
Maximum EPON ports of the system	272	240
Maximum GPON ports of the system	272	240
Maximum 10G EPON ports of the system	272	240
Maximum XG-PON ports of the system	272	240

Item	Specification	
	AN6000T-17	AN6000T-15
Maximum XG-PON & GPON Combo ports of the system	272	240
Maximum XGS-PON & GPON Combo ports of the system	272	240
Maximum 50G PON & XGS-PON & GPON Combo ports of the system	136	120
Maximum Agile-PON ports of the system	272	240
Maximum ONUs connected to the system	34816	30720
Maximum MAC addresses of the system	524288	524288
Maximum multicast subscribers of the system	34816	30720
Maximum transmission distance (PON port)	60 km	
Maximum upstream transmission distance	80 km	
Time for active-standby switching of core switch cards / uplink cards	< 50 ms	
Time for optical path protection switching (Type B / Type C)	< 50 ms	
Long-term packet loss rate	When the traffic accounts for 90% of the throughput, the 24-hour packet loss rate is 0.	

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