

ATN 910C Product Brochure

Product Overview

ATN products focus on challenges to resources, costs, and services at the access layer in mobile network evolution. Adhering to the Huawei's industry-leading "Any Media", ATN products provide 2G/3G/LTE/4.5G-oriented mobile bearer solutions capable of sustainable evolution. The ATN 910C is a case-shaped device that provides multi-service access on the edge of the metropolitan area network (MAN). With the compact design (1 U in height), the ATN 910C supports 12x10GE ports. The device with 1U height has the highest 10GE density in the industry.

Product appearance



ATN 910C-A

- 4x10GE(SFP+)+8xFE/GE/10GE(SFP/SFP+)+16xFE/GE(SFP)
- Dual DC / AC / hybrid (Flexible Power Slots)



ATN 910C-B

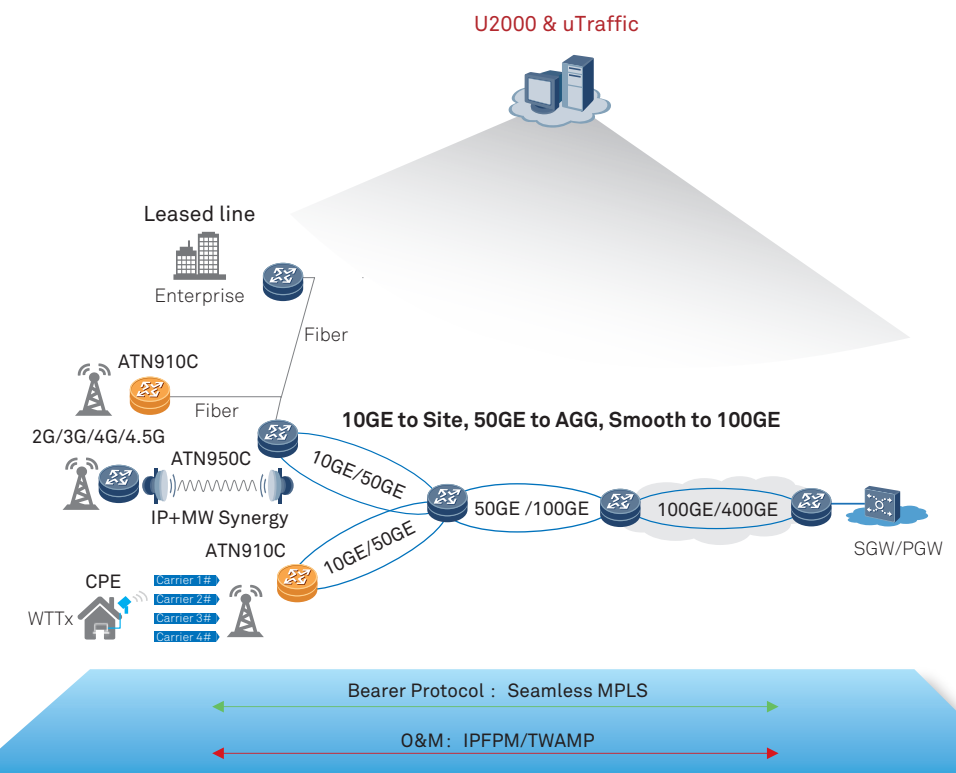
- 4x10GE(SFP+)+8xFE/GE/10GE(SFP/SFP+)+8xFE/GE(SFP)+8xFE/GE(RJ-45)
- Dual DC / AC / hybrid (Flexible Power Slots)



ATN 910C-D

- 4x10GE(SFP+)+8xFE/GE/10GE(SFP/SFP+)+8xFE/GE(RJ-45)+16E1
- Dual DC / AC / hybrid (Flexible Power Slots)

Application Scenarios



Products Highlight

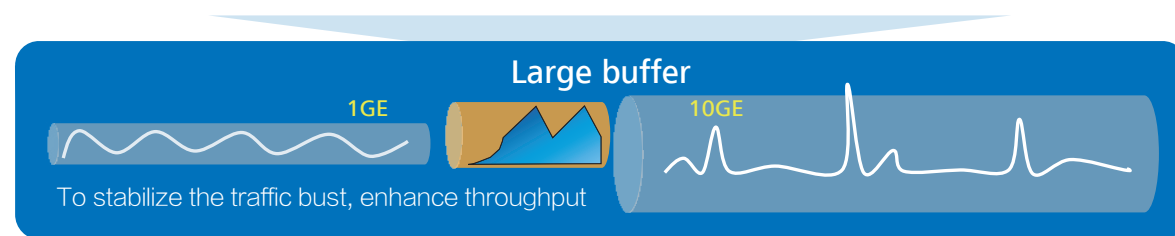
★ Large Capacity, High Performance

10GE to Site

The ATN 910C has switching capacity of 136Gbit/s including 10GE/GE/FE/E1 port. Meet the needs of the 4/4.5G network and fully compatible with the stock network to protect customer investment. It supports up to 12*10GE+16GE/FE. The device with 1U height has the highest 10GE density in the industry.

Large buffer, protecting devices from traffic congestion

The maximum cache of the device is 740MB, the maximum cache of per queue is 32MB, the large buffer can handle network traffic bursts, which improves user experience and prevents service quality deterioration from network congestion.



★ High-Quality Service, High-Reliability Network

Hardware Redundancy, Wide Temperature Range

The device use high-quality industrial components and advanced heat dissipation design. It can operate anywhere at temperatures ranging from -40°C to +65°C (-40°F to +149°F).

The device is equipped dual power modules for high reliability, and uses 3 fans for heat dissipation. The power supply is flexible and reliable, and supports three modes of AC+DC, double AC and double DC

Fast fault-triggered switchover without user awareness

Hardware-based OAM reduces the detection interval to 3.3 ms, which ensures that a link failure can be detected within 10 ms and a fast switchover can be triggered. Various OAM protocols, such as Y.1731, RFC 2544 and BFD for everything, also ensure high-reliability running of the network.

End to end service protection

TE Hot Stand By / PW Redundancy Path 1:1 backup realizes double protection at tunnel level and service level. When the fault occurs, the switching time is <50ms, and the service is always online.

★ Agile O&M

E2E performance detection for fast fault location

The device support Y.1731, Two-Way Active Measurement Protocol (TWAMP) and IP flow performance measurement (IPFPM) for E2E performance detection which helps efficiently and accurately identify performance degradation. By collaborating with segment-by-segment detection and hop-by-hop measurement, faults can be rapidly demarcated and located.

- Y.1731 for Layer 2 services is used to implement end-to-end connectivity detection, loopback detection, and link trace. It also provides the test diagnosis and performance monitoring functions.
- TWAMP sends simulated service flows to detect the quality of the network, and is characterized by its easy deployment and good interoperability between different vendors.
- IPFPM measures and analyzes performance by marking IP packets, and is characterized by its high measurement accuracy. IPFPM can measure multi-node service flows on live networks (including native IP, L3VPN, L2VPN, Seamless MPLS) without affecting services.

Graphical O & M, visualized service quality

Pairing with the abundant OAM functions of the device the U2000 and uTraffic provides the following benefits:

- User-friendly graphical management windows for device management, service configuration, and routine maintenance
- Periodic online reports for the operation quality of E-line services in graphical format
- Portal management page for VIP E-line customers, allowing VIP customers to better maintain and monitor services and E-line networks

	Busy (%)	Delay (ms)	Jitter (ms)	Lost (%)
serviceA	90%	500	300	10
serviceB	60%	100	30	0.8
serviceC	20%	10	10	0.5

Visual service performance



Portal management page

★ Flexible Scalability for 5G Evolution

Segment Routing

Simplify tunnel technology, provide L2/L3 service more efficiently, maintain more easily. Support link and node protection with 100% highly FRR. It can also adjust the flow to improve the network load efficiency.

Better implement for SDN and evolution for future.

EVPN

A Layer2 network connection's VPN technology. By extending BGP protocol, It makes the process of MAC learning and releasing between different sites' Layer2 network from data layer to control layer. EVPN reduces the cost of network deployment, simplifies the service configuration and qualifies higher flow transmission and lower source consumption.

VxLAN

An virtual Ethernet based on physical IP network. By encapsulating broadcast packet using IP multicast, it can leap layer3 network and isolate physical and logic network. Users can lay out their own logic network without modifying the physical network. It makes the network expansible without physical position restriction. It is deployed flexibly, used with high efficiency, and can save link broadband.

Flex E

Flexible Ethernet comes from OIF (Optical Internetworking Forum), which proposed this Interface physical layer standard, is an interface technology about service isolating and network slice. It can divide some Eth ports binding together into different sub interfaces to provide more agile speed.

FlexE slice makes the network qualify the feature of not only single time slice, but also statistic multiplexing. Services between slices don't affect each other. It supports differential bearer service. To achieve network slice architecture, and bear unified all service.

Product Specifications



ATN 910C Specifications	
Dimensions (WxDxH)	• 442 mm x 220 mm x 44.45 mm (1U)
Switching capacity	• 136G

ATN 910C Specifications	
Interface capability	<ul style="list-style-type: none"> • ATN 910C-A:4x10GE+8xFE/GE/10GE+16xFE/GE(O) • ATN 910C-B:4x10GE+8xFE/GE/10GE+8xFE/GE(O)+ 8xFE/GE(E) • ATN 910C-D:4x10GE+8xFE/GE/10GE+8xFE/GE(E)+16E1
Power consumption	• 87 W (maximum), 69 W (typical)
Voltage	• DC: -48 V to -60V, AC: 100 V to 240 V
Weight	• 4.9 kg (dual-AC power supply), 4.7 kg (dual-DC power supply)
L2 features	<ul style="list-style-type: none"> • IEEE802.1q、IEEE802.1p、IEEE 802.3ad、IEEE 802.1ab • STP/RSTP/MSTP
L3 features	<ul style="list-style-type: none"> • OSPFv2/V3、RIPv2、IS-IS/IS-ISv6、BGPv4/BGPV4+、IPv4 ACL/Telnet、6VPE, and static route protocol • Dynamic ARP,static ARP,VLANIF interface and VxLAN,EVPN function
MPLS features	• Segment Routing,LDP, RSVP-TE, L2VPN(VPLS, HVPLS, and VLL), L3VPN, and seamless MPLS
Multicast	• IGMP v1/v2/v3、IGMP Snooping、Static Multicast Routing、PIM-SM/SSM、MBGP
QoS	• WRED, three-level HQoS, and queues of eight priorities per interface
Clock	• Atom GPS + 1588v2(G.8275.1) , 1588ATR(G.8275.2), 1588 ACR(G.8265.1), and synchronous Ethernet clock
OAM	• IPFPM、ETH OAM (EFM、CFM、Y.1731)、BFD、NQA、RFC 2544、Y.1564、TWAMP
O&M	• DHCP Plug &Play DCN Plug&Play
Temperature	• -40°C to +65°C
Humidity	• 5% RH to 95% RH, non-condensing

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HUAWEI TECHNOLOGIES CO.,LTD.
Huawei Industrial Base
Bantian Longgang
Shenzhen 518129,P.R.China
Tel: +86 755 28780808

www.huawei.com