1. The UA5000 has carrier-class "triple-high" designs:
   - High-density system design, featuring high-density 64-line plain old telephone service (POTS) board, broadband and narrowband COMBO board
   - High-performance system design, with a backplane bandwidth reaching 100 Gbps, a time division multiplexing (TDM) exchanging capacity of 8K*8K, and a broadband exchanging capacity of 262.5 Gbps
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2. The UA5000 has powerful disaster recovery capabilities by supporting features such as auto-switching, dual-homing, upstream link, and emergency channel.

3. The UA5000 can be installed in various networks, including Layer 2/Layer 3, synchronous digital hierarchy (SDH), multi-service transmission platform (MSTP), direct-connecting optical fiber, Rapid Ring Protection Protocol (RRPP), Rapid Spanning Tree Protocol (RSTP), X passive optical network (xPON), and remote G.SHDSL-based twisted pair networks.

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5. The UA5000 provides fast Ethernet (FE/GE), Gigabit-capable passive optical network (GPON), and E1 uplink ports, and supports V5, H.248 and Session Initiation Protocol (SIP) protocols to seamlessly adapt to public switched telephone network (PSTN), next generation network (NGN) and IP multimedia subsystem (IMS) networks. With these features, the UA5000 supports smooth evolution of a PSTN to an NGN or IMS network by only software upgrade, with no need to replace hardware.

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7. The UA5000 supports high-density 64-line boards, doubling the user access density, requiring less equipment room space, and reducing site deployment costs.

8. The UA5000 has a built-in metallic loop test (MELT) function for fault locating. The MELT function supports concurrent testing for 64 lines, to improve the testing efficiency.

9. By Q4 2010, the UA5000 has witnessed a cumulative shipment of over 120 million ports to more than 70 countries and regions, serving 1/10 of the global families. Earlier in 2005, the UA5000 had won InfoVision prize issued by the international electro technical committee (IEC).

10. Huawei’s UA5000 multi-service access node (MSAN) access solution widely serves enterprise users and keeps ranking No.1 in the global access network (AN) markets. The solutions can be used for the access of power distribution services, high-speed passenger-dedicated railway services, and IP-based integrated services for large enterprises.

11. Huawei has mature experience in commercially using the UA5000 MSAN access solution in the enterprise information technology (IT) application area, aiming to build safe and reliable, energy-saving, easy operation and maintenance, and future-oriented information networks for IT Service.

12. Huawei UA5000 Access Solutions for Enterprise IT Application

Safe and reliable carrier-class device, flexible networking, building safe networks for enterprises

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User-friendly maintenance and comprehensive line assurance solutions, improving user satisfaction and reducing OM costs

- **Superior Customer Experience**
  - Line quality pre-qualification: The service provisioning is faster.
  - Line quality optimization: The bandwidth is increased by 32.9%, and the PTY line activation ratio is increased by 40%.
  - Accurate fault locating: A fault can be diagnosed within 30s. The precision ratio reaches 90% and rework ratio is decreased by 50%.

- **Stabler line quality:** Automatic diagnosis and active maintenance decrease the line fault ratio by 40%.
- **Stabler service quality:** Automatic analysis and optimization decrease the resync ratio to 20% of the original value.

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**Huawei UA5000 Access Solutions for Enterprise IT Application**

1. With a user-friendly maintenance interface, the fault diagnosis, alarm management, performance statistics collection, and number allocation using in the UA5000 become easier.
2. The UA5000 works with Huawei’s N2510 line assurance system to support more intelligent xDSL maintenance and quick fault location to improve line performance. The UA5000 has built-in line capture and testing functions to perform narrowband and broadband line tests.

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**All-weather series products to accommodate different network deployment requirements**

1. A series of UA5000 products with different specifications are available to meet different capacity requirements.

### Indoor cabinet

<table>
<thead>
<tr>
<th>Large-size</th>
<th>HABA</th>
<th>19” standard shelf, 16U high, 30 service slots, back maintain Narrowband: 960POTS (32-line cards), 1920POTS (64-line cards) Broadband: 960ADSL2+ COMBO: 960POTS960ADSL2+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-size</td>
<td>HABD</td>
<td>19” standard shelf, 10U high, 12 service slots, front maintain, master frame Narrowband: 384POTS (32-line cards), 768POTS (64-line cards) Broadband: 384ADSL2+ COMBO: 384POTS384ADSL2+</td>
</tr>
<tr>
<td>Medium-size</td>
<td>HABF</td>
<td>19” standard shelf, 10U high, 18 service slots front maintain, slave frame Narrowband: 576POTS (32-line cards), 1152POTS (64-line cards) Broadband: 576ADSL2+ COMBO: 576POTS576ADSL2+</td>
</tr>
<tr>
<td>Small-size</td>
<td>DNJ60A_V2</td>
<td>2U desktop equipment, 2 service slots, Narrowband: 64POTS (32-line cards), 128POTS (64-line cards)</td>
</tr>
</tbody>
</table>

### Outdoor cabinet

| F02A | • 500W/6000D*1200D*1200D* | • support 2*HABA or 2*HABA+2*HABF |
| D1000 | • 1900W/5500D*1650D* | • support 2*HABD+1*HABF |
| M200 | • 550W/4000D/1800D* | • support 1*HABM |
| D500 | • 1550W/5500D/1650D* | • support 1*HABD+1*HABF |
| DNJ60A_V2 | • 436W/420D/986D* | • support 1*HABD |
| D200 | • 1250W/5500D/1200D* | • support 1*HABD |
Huawei UA5000 Access Solutions for Enterprise IT Application

Energy-saving design, environment-friendliness, helping enterprises save energy and reduce emission and increase their benefits

1. The UA5000 is the world’s first MSAN device complying with EU’s code of conduct on energy consumption of broadband device.
2. With optimized designs and the use of energy-efficient components, the power consumption of COMBO board and the ADSL board in the UA5000 reduces by 10% and that of the 64-line POTS board reduces by 20% on average.

Unique COMBO board design, a good assistant of reducing total cost operation (TCO)

1. The UA5000 provides a high-density 32-line COMBO board, which is a 3-in-1 board integrating the POTS, ADSL2+, and splitter functions. This not only helps carriers maximize return on the last-kilometer copper lines investment, but provides additional broadband service provisioning methods for enterprises.

2. With the energy-efficient designs, the power conversion efficiency of the power module increases by over 5% and the directly cuts power consumption of AC system by 5%.

3. Huawei’s patent digital switching module (DSM) algorithm is used, which makes the port power consumption fall by 40%. Specially, compared with the traditional U0 mode, the DSM L2 mode effectively slashes the port consumption by 50%.

4. In the UA5000, the fan speed can be adjusted intelligently and in this way, power consumption of fans can be lowered by over 50%.

System Specifications

- 250G backplane capacity
- 48G switching capacity (broadband), 8K*8K switching matrix (narrowband)
- Up to 8000 lines supported by a single system

Network Interfaces

- Comply with V5, H.248, SIP network protocols
- Support E1, T1/E1, and E1/G.703/G.704 upstream transmission
- Support RIPv2/OSPF/ISUP
- Support V.111/V.52, DDN, HDLC/PPP and E&M interface

Service Interfaces

- Narrowband services: POTS, ISDN BRI/PRI, E1, TDM G.SHDSL, V.35/V.24/V.28, E&M, 2w4w radio frequency, FXO/FXS/R2 PBX
- Broadband services: ADSL2+, VDSL2, ATM G.SHDSL, EFM G.SHDSL.bis, GE
- Support the 32-channel COMBO card and 64-channel POTS card

L2/L3 Features

- 4K VLAN, QinQ, VLAN Stacking
- Static route, RIP V2, OSPF, ARP Proxy, DHCP Relay, Super VLAN

Multicast Features

- Total 1024 multicast lines; up to 8 concurrent channels per port
- IGMP V2/V3, IGMP Proxy/Snooping, MVLAN
- Multicast rights control
- Fast leave, channel preview, multicast logging, and fast channel change (FCC)
- Multicast bandwidth management

Line Optimization

- Embedded line capture function and broadcast & narrowband testing functions
- OAM/OSPF, line assessment, fault diagnosis, and performance optimization

QoS

- 1024 ACL rules
- 8 priority queues and PQ/WRR scheduling
- 802.1p priority

Security & Reliability Features

- DHCP Option82/Option60/PPPoE+ BFD/LACP
- SNMP V1/V2/V3
- Firewall, black list, anti-MAC/IP/ICMP/DOS/Power Dialer

OAM Optimization

- Performance statistics
- ETH OAM
- Remote operations, remote fault locating, and remote acceptance
- Automatic database upgrade, in-service upgrade, and bulk upgrade
- Environment monitoring