



## AT-EthMux-AR20 series TDMOIP

# Product Overview

AT-EthMux-AR20 series TDMOIP is based on the IETF of PWE3 SAToP / **CESoPSN** agreement standard. The



equipment allows up to 16 E1 TDM data streams in L2TPv3/IPv4, UDP/IPv4, L2TPv3/IPv6, UDP/IPv6, MPLS (MFA-8) and METRO Ethernet (MEF-8) transmitted crystal in the network. LR20xx CESoPSN can ensure that the circuit simulation communication priority, the jitter and wander in line with the G.823/G.824, G.8261, and TDM specification. Built-in slot allocation circuit TSA, any time slots per E1 port group can be reorganized. Have the Processing capacity of Channel Associated Signaling. Provide network management which based on the WEB, SNMP-band, and the network management information comprehensive. CESoPSN has a high transmission efficiency, low propagation delay, clock recovery and high accuracy characteristics can be widely used, including the vast majority of backhaul and other applications.

AT-EthMux-AR20 series provide Ethernet optical port and Ethernet electrical ports both in the Ethernet side of the device, while 1/2/4/8/16 E1 interface at the WAN side.

# **Main Features**

Up to 16 independent E1 interfaces, each E1 interface supports for 75 ohm and 120 ohm optional;



E1 interface in line with G.703, G.704 standards; Comply with IETF PWE3 specifications, support the ITU-T Recommendation

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- Y.1413 and Y.1453, IETF RFC4553, RFC5086, MEF-8 and MFA 8.0.0;
- Provide one 100Mbps Ethernet optical port, two 10/100Mbps Ethernet electrical interface in AT-EthMux-AR20 10/LR2020/LR2040
- Provide one 1000Mbps Ethernet optical port, three 100/1000Mbps Ethernet electrical interface in AT-EthMux-AR20 80/LR2160, which is fully compatible with IEEE 802.3 standard. 4 Ethernet ports can be used as uplink port or the local data interface, and can be implemented by any electrical port;
- Support the rate limiting of Ethernet electrical port, the rates range from 64Kbps ~ 100Mbps when the minimum set unit 64kbps, and range of 100Mbps ~ 1Gbps when the minimum is 1Mbps;
- Built-in Layer 2 switching functionality on Ethernet, support for 802.1q, 802.1ad
  VLAN and 802.1p protocol;
- Support L2TPv3/IPv4, L2TPv3/IPv6, UDP/IPv4, UDP/IPv6, Metro Ethernet (MEF-8) and MPLS (MFA-8) and other protocols;
- Support ARP and RTP protocols;
- Synchronous E1 TDM port support adaptive clock recovery, and differential clock recovery, and system clock recovery and loopback clock recovery;
- The adaptive clock recovery accuracy is up to 12ppb;
- To structured E1, each E1 port including a TSA module, which can be used to assign any time slot, carry or not carry CAS signaling;
- To unstructured E1, each E1 port including a SAT module;
- Each E1 support packet loss and out-of-order packet compensation and processing technology, you can specify the compensation package contents;
- Each E1 support the package size of 1, 2, 4, 8 and 16 frames, each E1 support jitter buffer depth of 1 ~ 256ms;
- Adopt unique clock algorithm to restore stable frequency, low jitter and drift, in line with G.823 specifications;
- Anti-ability of packet loss, frequency hopping, frame synchronization protection;

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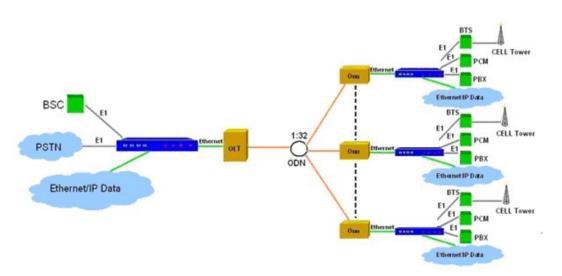
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- Support web server network management, remote monitoring, easy to operate and maintain;
- Support SNMP V1 and V2 Network Management Protocol;
- Support online upgrade of software and hardware of the local and remote device;
- Power redundancy, AC / DC can be chosen.

# **Applications**

AT-EthMux-AR20 series TDMOIP provide 1~16 Transparent E1 channel in Ethernet or IP network, for providing real-time services of voice, images. AT-EthMux-AR20 provide 1~16 channels of E1 over Ethernet to connect the base station controller, the PSTN access network equipment and other E1 terminal equipment. The two routers at two sides can share local Ethernet data by any GE port of. The internal QoS mechanisms can ensure the priority of E1 signal.

The typical application is shown in follow Figure:



(A) Typical applications in the GPON / EPON network

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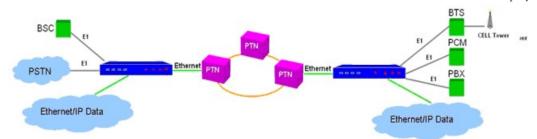
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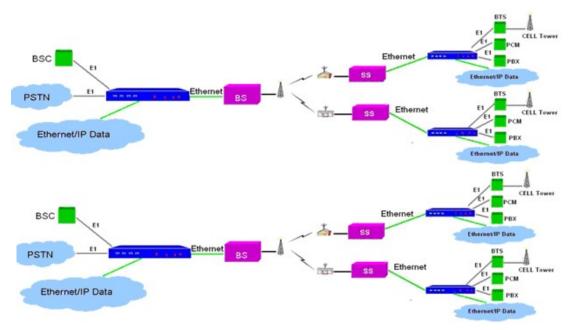
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(B) Typical applications in the PTN network



C ) Typical applications on the WIMAX network



(**D**) Typical applications on the WIMAX network

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