CiTRANS 650 Small-sized Converged Optical Transport Platform

CITRANS 650 series include CITRANS 650 U2, CITRANS 650 U3, CITRANS 650 U5, and are intelligent optical transport platform devices which are based on POTN and developed by FiberHome Telecommunication. Read this chapter, to gain a quick overview of of CiTRANS 650 device.

1.1 Product Positioning

CiTRANS 650 is a compact POTN product launched to meet various flexible transport needs of access layer. It is compatible with MPLS-TP technology and OTN technology, and is targeted at the access or edge aggregation node of MAN to meet the full-service access requirements of operators.

Product Profile

CiTRANS 650 uses a unified VC/ODUK/Packet switching platform to provide customers with Ethernet, TDM, OTN, SAN, CPRI, video services, and other access services. The product supports multi-device stacking to realize the expansion of access services and channel number. At the same time, the product has perfect QoS mechanism, reliable service processing and operation and maintenance capabilities.

CITRANS 650 series products include CITRANS 650U2 DC, CITRANS 650U2 AC, CITRANS 650U3 and CITRANS 650U5. The external views of the four devices are shown in Table 1-1.

CiTRANS 650 series products support the expansion of access services and channel services through extended subframes. Devices supporting the extended subframe function include CiTRANS PRO and U3 WDM function subframe. The external view of the extended subframe is as shown in Table 1-2.

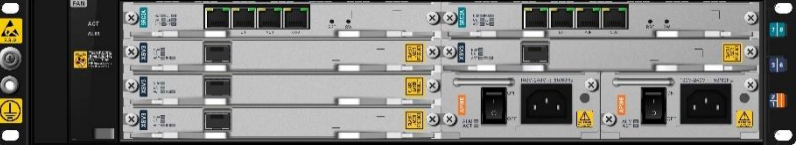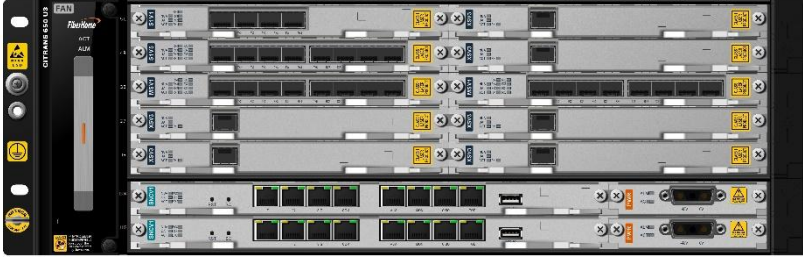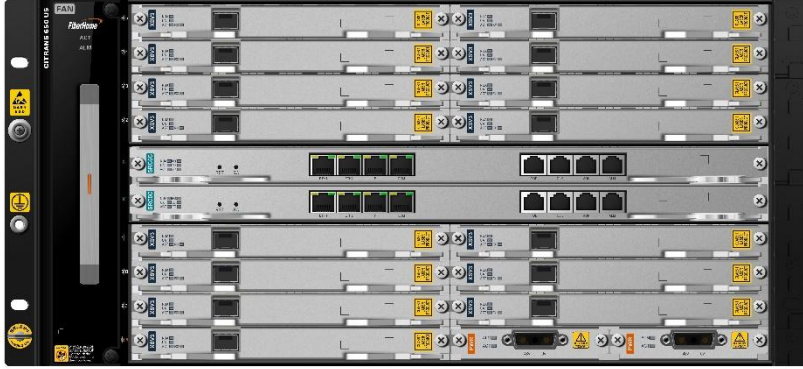TABLE 1-1   Schematic diagram of external view of U2, U3 and U5 devices
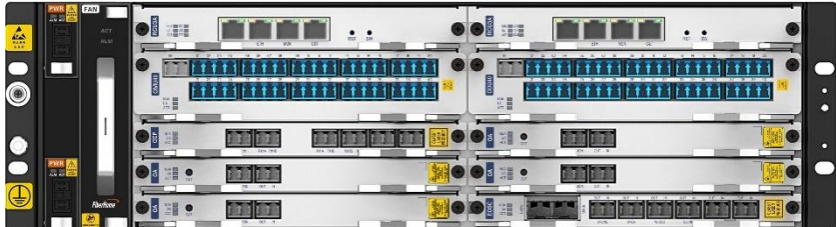
Product model	External view
CiTRANS 650U2 DC	
CiTRANS 650U2 AC	
CiTRANS650U3	
CiTRANS650U5	

Table 1-2 Schematic diagram of external view of extended subframe

Product model	External view
CiTRANSPRO	
U3WDM function subframe	

Network Application

CiTRANS 650 is mainly used in the access or edge aggregation node of MAN, as a multi-service convergence carrying platform, Aggregate services into the core/backbone network. The application of CiTRANS 650 in the network is shown in the following figure.
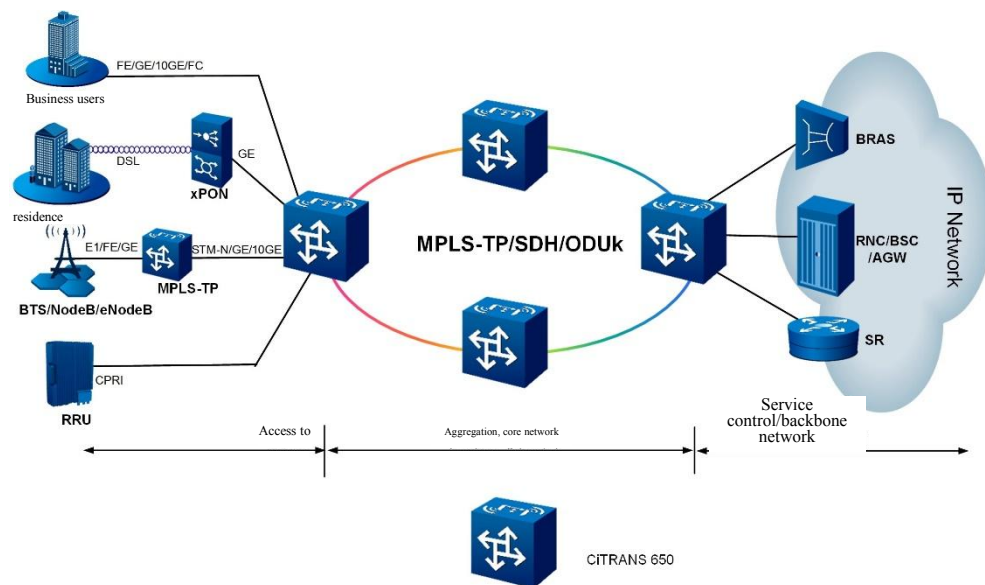
Figure 1-1 Application of CiTRANS 650 in network

1.2 Product Highlights

The CiTRANS 650 features powerful processing capability and rich functions.

Flexible service access and scheduling capabilities

◆ Support FE/GE/10/100GE, E1, STM-1/4/16/64, OTU1/2/2e/4 and other types of service interfaces, and meet the full service transport at 2M ~ 100G rate.
◆ Single subframe supports a maximum packet capacity of 640G, OTN capacity of 700G, SDH high-order capacity of 320G and SDH low-order capacity of 40G, and large-scale E1 access capability.
◆ Support unified scheduling of PKT, VC and ODUK, and single or hybrid networking of SDH/MSTP, PTN and OTN.
◆ Support LAN/WAN mode.

Perfect protection

◆ Provide rich network-level protections, and support LSP 1: 1, PW APS, Ethernet LAG, channel 1 +1 protection, line 1 +1 protection, SNCP, MSP, MSRP ring and other network-level protection, to fully guarantee the availability of the network.
◆ Provide perfect device-level protection, support 1+1 redundancy protection for power unit and main control and cross control unit, and TPS 1: N (N ≤ 4) protection of E1 unit.

Rich operation and maintenance functions

◆ Support rich OAM, to improve network operation and maintenance capability, quickly locate faults and reduce operation and maintenance costs.

◆ Support TWAMP measurement functions, monitor the connectivity, delay, jitter, packet loss rate and other service quality of end-to-end services, and provide data support for failure maintenance and quality evaluation of various services and network devices.

◆ Support SD function and realize hybrid networking with CiTRANS 690/680/660/640 and other devices.

◆ Support second-level traffic function and realize the value-added software function for operators.

◆ Support global time zone setting, alarm performance reporting and alarm inversion, and improve project maintainability.

◆ Support the configuration backward reading, which is convenient for future unified maintenance of the whole network through network administration.

◆ Support single unit and box serial number reading function, facilitate customers to trace and maintain materials in the future.

Green, energy-saving and easy to install

◆ With excellent hardware and structural design, it can effectively reduce power consumption, and it is low in carbon emission and energy efficient.

◆ With small size and high integration, it supports pluggable photoelectric modules, and has strong applicability.

◆ With flexible installation mode, it supports19-inch and ETSI 21-inch cabinet installation.