We have developed a system LSI that integrates the main functions of the 10 G-EPON (10-Gigabit Ethernet Passive Optical Network) on a single chip. It enables construction of an IEEE standard next-generation optical access network to which migration from the current GE PON using the current optical distribution network is easy. It is a chipset whose main components are a compact and inexpensive OLT*1 and ONU*2, which enable 10 Gbit/s communication, 10 times as fast as even the FLET’S optical system that is currently in service.

**Overview**

- The OLT-LSI can accommodate both GE-PON ONU and 10 G-EPON ONU in the same system (handles dual rates)
- The ONU-LSI provides two modes, 10 G symmetrical upward and downward, and asymmetrical 10 G down with 1 G up
- Fast and efficient dynamic allocation of upward bandwidth by hardware and software combination
- Software sleep control reduces power consumption when the equipment is not being used
- VLAN*3 function allows flexible handling of diverse services

**Features**

- Increased speed and capacity of Internet services (for houses and condominium buildings)
- Network services for corporations
- Mobile backhaul network

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*1 OLT: Optical Line Terminal
*2 ONU: Optical Network Unit
*3 VLAN: Virtual Local Area Network