

## First Laureate, Research & Development

- **Research Work Title:** Terabit POTN Transmission System
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### Abstract:

SINA POTN system is a very high-technology product and used in backbone, metro DWDM/OTN networks. This equipment is exploited in many areas, consisting of commercial telecommunication, electronic government infrastructure, media, carrier, and transportation networks as well as oil, gas, and power distribution industries networks.

SINA POTN system with the commercial name of ST6700- series is a packet OTN platform, capable of providing reliable OTN/DWDM backbone and long-haul transmission networks for variety of services. Transmission rates of 9.6Tbit/s by 100\*96G  $\lambda$  or 19.2Tb/s by 200\*96G  $\lambda$  can be utilized in point-to-point mesh and ring network topologies.

The system specifications are summarized as follows:

- Supporting line rates of 10G/100G/200G per each wavelength.
- Adopting coherent technology for high capacity long haul networks up to 2400km distance with no regeneration and low power consumption.
- Providing MUXPONDER feature to support any service with a rate down to 100Mbit/s up to 100Gbit/s service to optimize bandwidth efficiency.
- Integrated ROADMs to provide 9 degree optical cross connect and an end-to-end OTN/WDM transmission solution, large capacity and full transparent transmission network.
- High service and equipment level reliability by supporting 1 + 1 protection.
- Transmission of any IP based service and supporting layer 2.5/2 switching with powerful packet processing consisting Ethernet OAM, MPLS-TP and Carrier Ethernet core.

