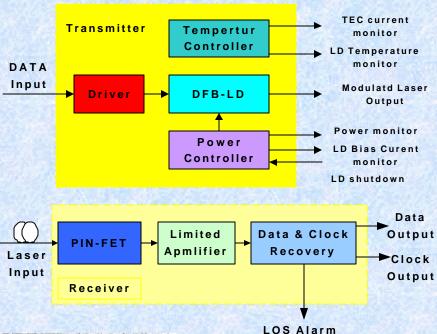


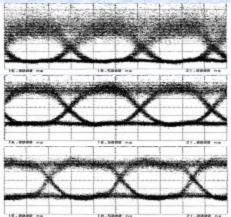
Nanyang Technological University Network Technology Research Centre



STM-16/OC-48 Transmitter and Receiver

The optimized directive Modulated 2.488Gb/s transmitter and directive receiver based on PIN-FET are designed for IP over WDM project, compile with ITU-T DWDM wavelength grid. The transmitter provides with the functions of TEC current monitoring, LD temperature monitoring, output laser power monitoring, LD bias current monitoring and LD controlled shutdown; The 3R receiver provides with the function of data and clock recovery and loss of signal alarm. The diagram of transmitter and receiver are displayed as following:





The left graph are the eye pattern of the transmitter and receiver pair at different transmission distance.

Our future work is to design EA(Electronic Absorptive) modulated and external modulated transmitter, for the application of long haul transmission system.

Investigators: Assoc. Prof. Lu Chao, Phone: 7904765, Email: eclu@ntu.edu.sg

Dr. Yang Xiufeng Dr. Wang Yixin,