

5.4 Dense Wavelength Division Multiplexing (DWDM)

- DWDM (Dense Wavelength Division Multiplexing) is a data transmission technology having very large capacity and efficiency.
- Multiple data channels of optical signals are assigned different wavelengths, and are multiplexed onto one fiber.
- DWDM system consists of transmitters, multiplexers, optical amplifier and demultiplexer. Fig. 5.6.1 shows typical application of DWDM system.
- DWDM uses single mode fiber to carry multiple light waves of different frequencies.
- DWDM system uses Erbium - Doped Fiber Amplifiers (EDFA) for its long haul applications, and to overcome the effects of dispersion and attenuation channel spacing of 100 GHz is used.

