Comparative Analysis of AWG Demultiplexer and Chirped FBG based Demultiplexer in WDM PON Network

Abstract

In Wavelength Division Multiplexing based Passive Optical Network (WDM-PON), multiple wavelength used to separate Optical Network Unit (ONU). Which actually increase the capacity of PON. WDM process can be dense and ultra-dense depending on channel spacing. In this paper we compare performance of Array Waveguide Grating Demultiplexer (AWG DEMUX) and Fiber Bragg Grating based Demultiplexer (FBG DEMUX) in dense and ultra-dense WDM at the data rate of 2.5 gbps. Optical fiber length used is 10 km. The maximum and minimum Q factor is compare and discussed. All the simulation were performed in optisystem 12.0.

References

Comparative Analysis of AWG Demultiplexer and Chirped FBG based Demultiplexer in WDM PON Network


Index Terms

Computer Science

Networks

Keywords

Passive Optical Network  Wavelength Division Multiplexing  Demultiplexer  Array

Wave Guide

Fiber Bragg Grating
Ultra Dense and Dense Wavelength Division Multiplexer.