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A study on optimization for reliability and performance of athermal AWG module for 5G mobile

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Abstract

In this study, we developed an Athermal AWG module with silica PLC technology, which is used as an optical (demultiplexer) multiplexer in WDM (Wavelength Division Multiplexing) system.

Arrayed Waveguide Gratings (AWGs) significantly increase the transmission capacity of optical networks because wavelength division multiplexing (WDM) systems can multiplex many wavelengths into a single optical fiber.

96-channel (50 GHz-spacing) athermal AWG module and 17-channel (150 GHz-spacing) athermal AWG module were developed based on the new shape and patent of the temperature compensation board.

The developed AAWG module guaranteed 10 years or a longer life with sufficient communication quality performance and reliability verification that can be used in communication networks.

[사용언어: 한국어]