16-Channel, 100 GHz Colorless AWG for New Generation Optical Networks

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Abstract. We present design and optimization of a 16-channel, 100 GHz colorless arrayed waveguide gratings (AWGs) multiplexer/demultiplexer for new generation networks based on a hybrid configuration. The AWG was designed for a central wavelength of 1550 nm and simulated in the wavelength range between 1500 nm and 1600 nm. The AWG was designed using the specially developed standalone tool "AWG-Parameters". The AWG structure was created and simulated using Apollo Photonics' commercial design tool. The structure was further optimized, and all AWG designs were evaluated. Finaly, the calculated transmission parameters were compared with each other.

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