Optics & Photonics

Indzawo Optic Connect

Custom Process for Low-Loss FTTR Using Planar Optical Waveguides





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Custom Process for Low-Loss FTTR Using Planar Optical Waveguides



Planar Lightwave Circuit (PLC) Splitters combine a silica glass waveguide process together with precision aligned fiber V-groove arrays to provide a reliable, low cost way to split light from one fiber ...



We report the lowest loss waveguides and highest Q integrated ring resonators, 1.77 dB/m loss and 15 million Q, fabricated with an anneal-free silicon nitride photonic low temperature process with ...



To address the demand for low-cost, low-loss, and environmentally friendly optical power dividers in short-range visible light communication (VLC) systems, a low-loss 1 × 2 Y-branch optical ...

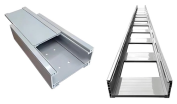


We describe the process and test and measurement results, and compare them with LPCVD nitride, and the potential for future use of this process technology.



This review paper covers the history of low-loss Si3N4 waveguide technology and a survey of worldwide research in a variety of device and applications as well as the status of Si3n4 foundries.

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	By using an unconventional air-clad waveguide geometry with 2300 nm × 4000 nm cross-section, we are able to significantly decrease the loss at higher wavelengths by more than two orders of mag ...
	We demonstrate for the first time, a uniform low temperature (<250 °C) process for fabricating both high-confinement thick and low-confinement thin ultra-low loss Silicon nitride waveguides.
	Low loss, high contrast planar optical waveguides based on low-cost CMOS compatible LPCVD processing
	In this paper an effective top-down route is developed to fabricate SiO 2 –HfO 2:Er 3+ planar waveguides with mechanical flexibility and low optical losses via RF-sputtering.

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