

WAVELENGTH ROUTING DEVICE

ABSTRACT

The present invention provides a wavelength routing device. The device includes: a primary circuit, and a secondary circuit, where the primary circuit includes N 2×2 wavelength switches, the secondary circuit includes two $N \times N$ wavelength routers, and each $N \times N$ wavelength router includes at least one 2×2 wavelength switch, where a value of N is 2^n , n being a positive integer; and an input port of each 2×2 wavelength switch in the primary circuit is connected to an input stage, an output port of each 2×2 wavelength switch is connected to an input port of an $N \times N$ wavelength router of the secondary circuit, and an output port of the $N \times N$ wavelength router of the secondary circuit is connected to an output stage. In the present invention, the primary circuit includes N 2×2 wavelength switches and the secondary circuit includes two $N \times N$ wavelength routers, which simplifies a topology of a wavelength routing device, and reduces a quantity of optical switch nodes in a wavelength routing device.

Figure 3