

ABSTRACT

The present application relates to an array waveguide grating. The array waveguide grating comprises an input coupler, a waveguide array and an output coupler, wherein the
5 waveguide array is coupled between the input coupler and the output coupler, and the waveguide array comprises a plurality of waveguides; the input coupler is used for allocating received optical signals to the plurality of waveguides, and the waveguides are used for guiding the allocated optical signals; and the output coupler is used for coupling the optical signals, which are transmitted on the plurality of waveguides. The input coupler has a first refractive index,
10 each waveguide has a second refractive index, and the output coupler has a third refractive index, wherein the first refractive index and the third refractive index are both greater than the second refractive index. The array waveguide grating can solve both the problem of an insertion loss of a star coupler being relatively high and the problem of a phase error being relatively large due to the roughness of a side wall of a waveguide, and insertion loss of the array waveguide
15 grating is relatively low.

FIG. 1