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(54) **BI-DIRECTIONAL OPTICAL  
COMMUNICATION MODULES AND CABLES**

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(57) **ABSTRACT**

Apparatuses, devices, modules, cables, and systems are provided for bi-directional optical communication. An example module includes a substrate, a first band pass filter, a first optical transmitter, and a first optical receiver each supported by the substrate. The first optical transmitter is communicably coupled with the first band pass filter and configured to generate optical signals having a first wavelength. The first optical receiver is communicably coupled with the first band pass filter and configured to receive optical signals having a second wavelength. The first band pass filter passes optical signals received from the first optical transmitter having the first wavelength into an optical communication medium and directs optical signals received from the optical communication medium having the second wavelength into the first optical receiver.

