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United States Patent [19]  
Mizrahi

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- [54] DYNAMICALLY RECONFIGURABLE OPTICAL ADD-DROP MULTIPLEXERS FOR WDM OPTICAL COMMUNICATION SYSTEMS
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- [73] Assignee: Ciena Corporation, Linthicum, Md.
- [21] Appl. No.: 08/902,810
- [22] Filed: Jul. 30, 1997
- [51] Int. Cl.<sup>7</sup> ..... H04J 14/02
- [52] U.S. Cl. .... 359/124; 359/127; 359/128; 359/130
- [58] Field of Search ..... 359/124, 127, 359/128, 129, 130, 131; 385/37

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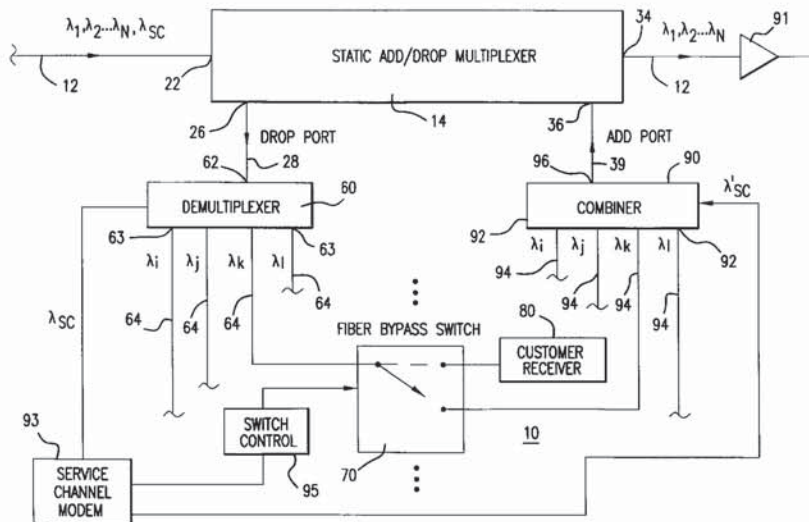
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[57] **ABSTRACT**

In an optical add/drop multiplexer, an optical switch is coupled to one or more outputs from a demultiplexer. Accordingly, a dropped optical channel can be switched between a receiver optical path for directing the dropped optical signal to an optical receiver and between a combiner optical path for routing the dropped optical channel back towards the optical transmission path, optionally passing the dropped optical channel through a remodulator. Alternatively, the optical switch routes the dropped optical channel towards an optical receiver while permitting a new optical channel to be routed to add port of the static add-drop multiplexer.

10 Claims, 5 Drawing Sheets



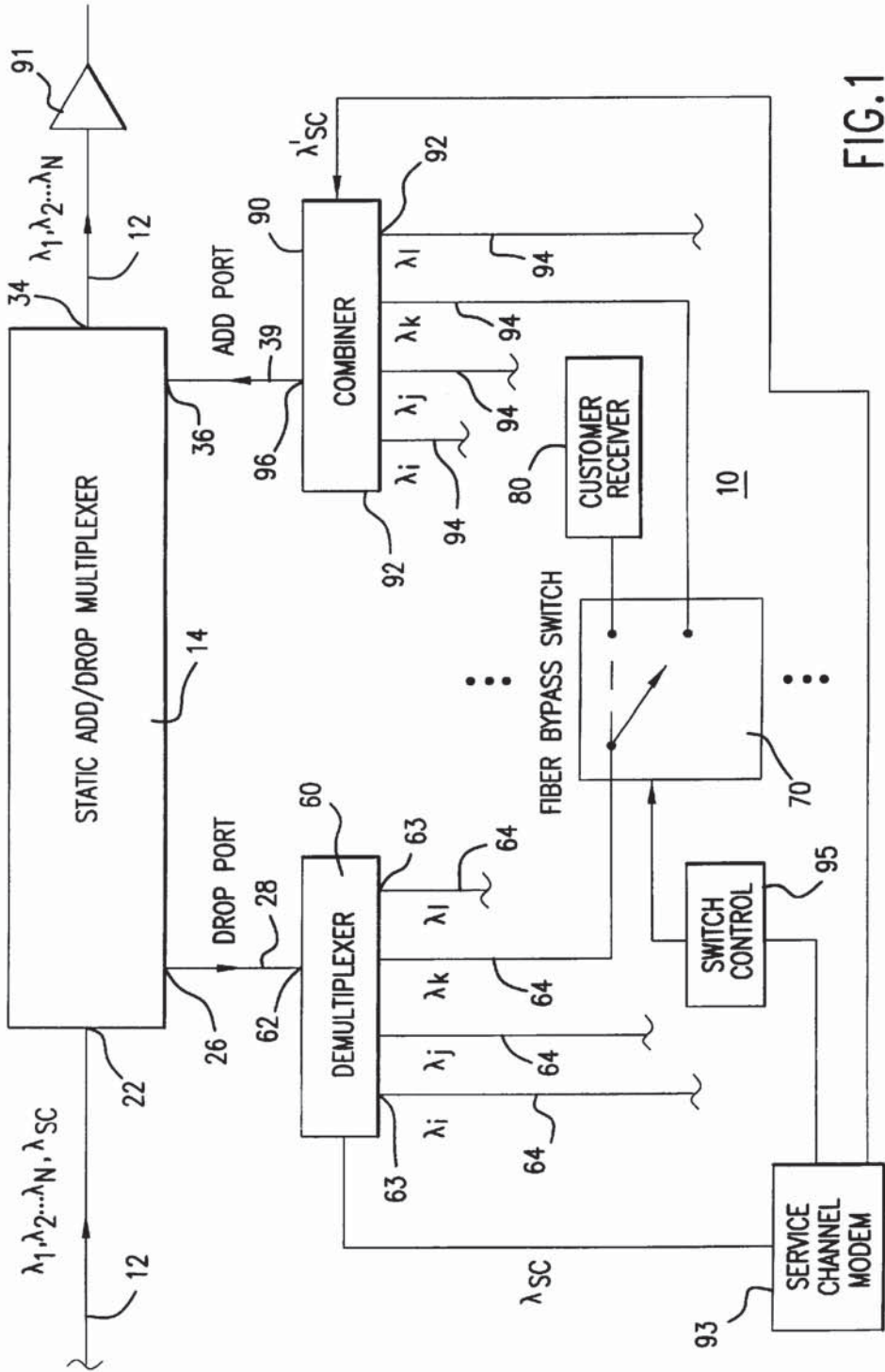


FIG. 1

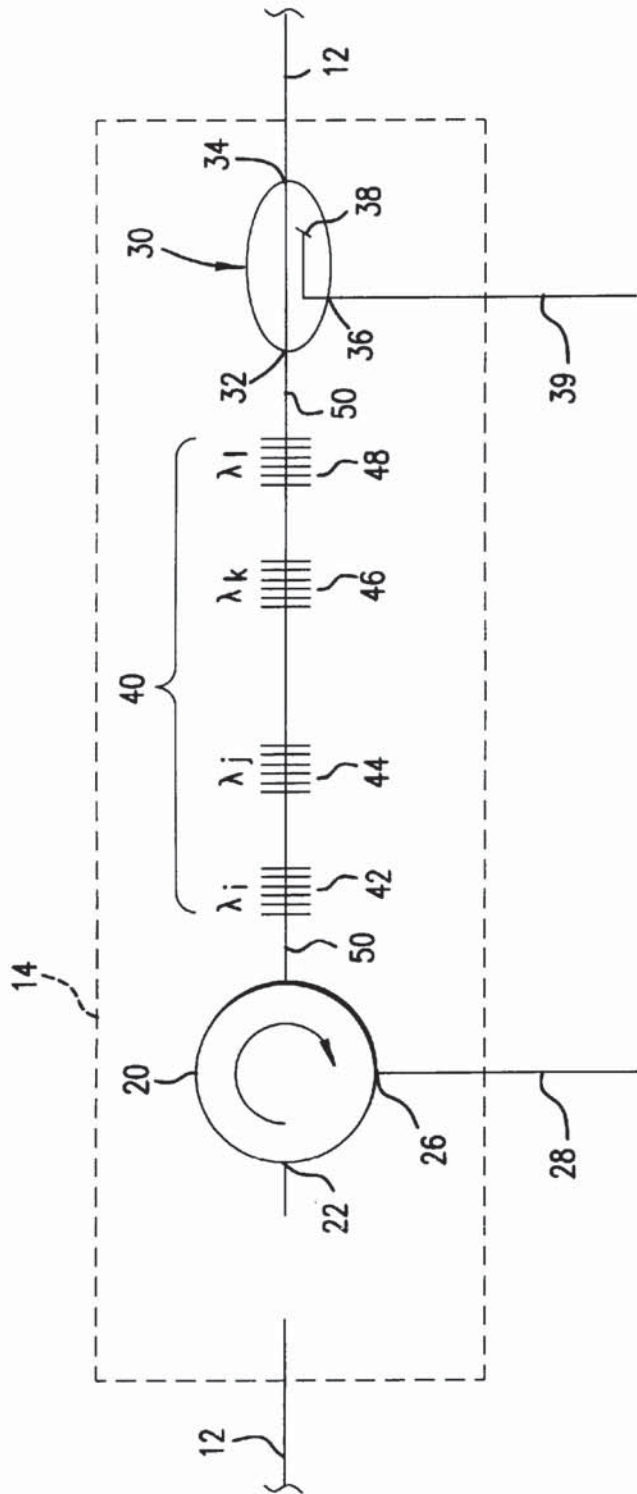


FIG. 2

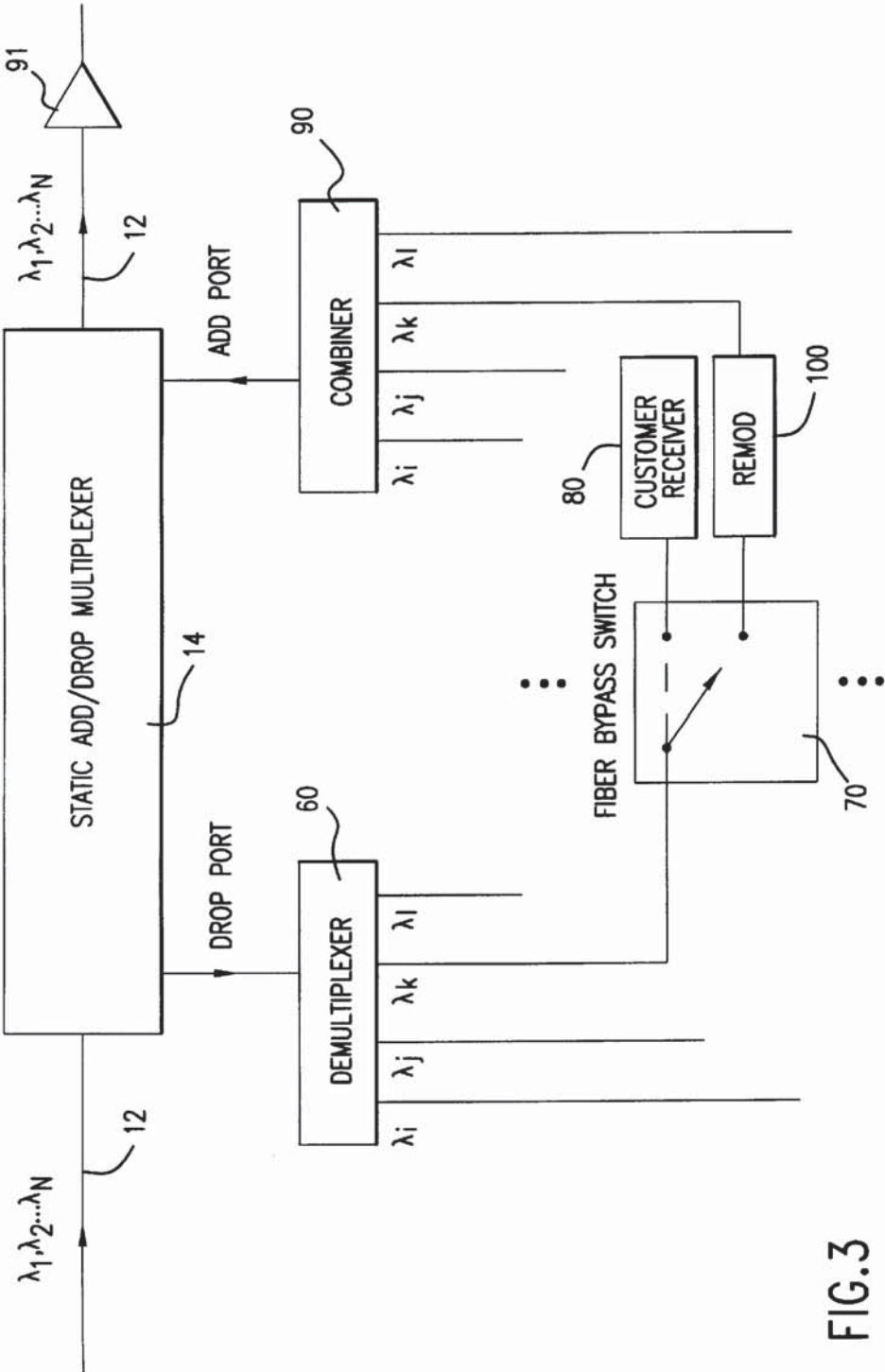


FIG. 3

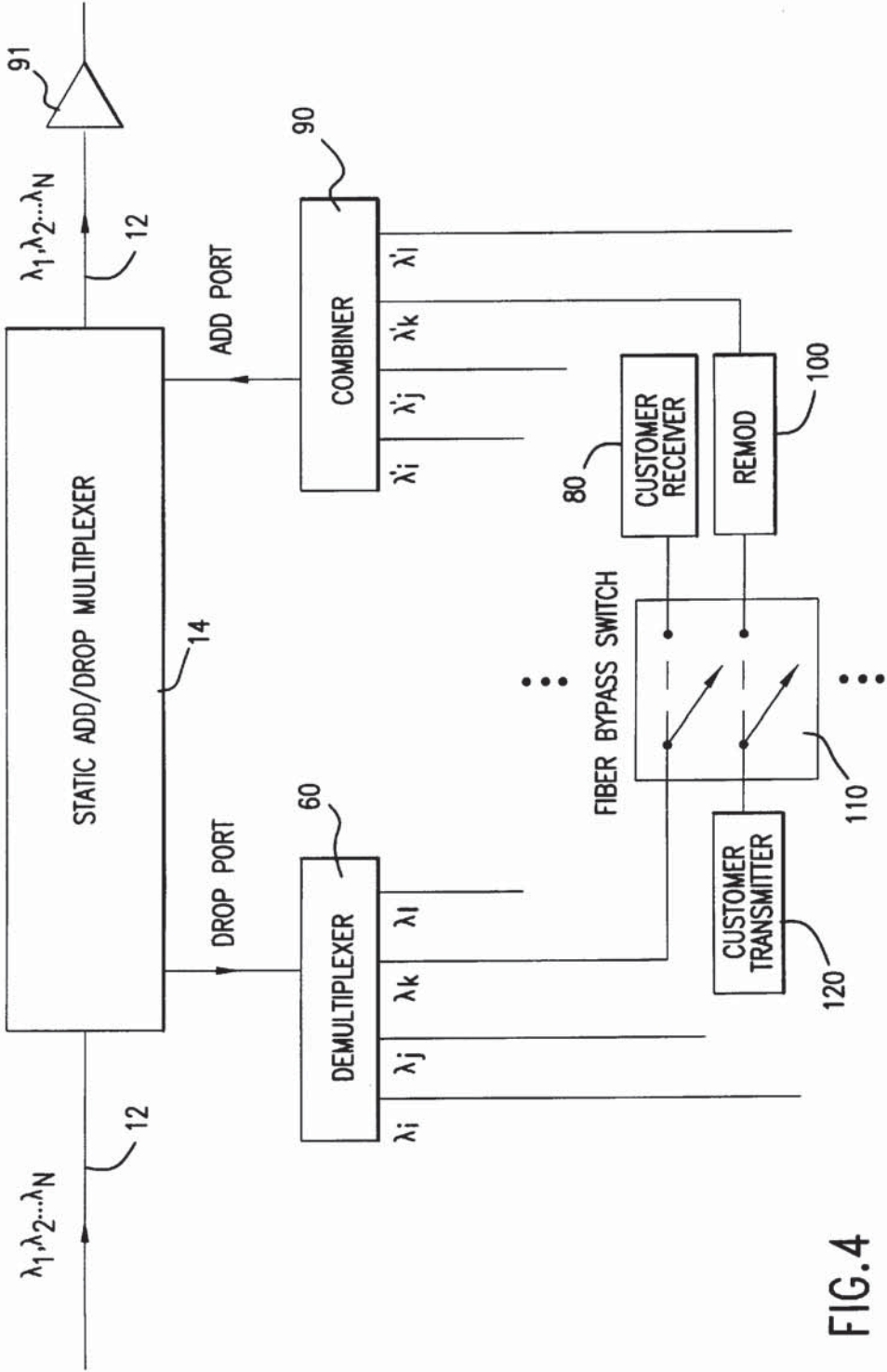


FIG. 4

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