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**Goldstein et al.**

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(54) **SYSTEM AND METHOD OF WAVELENGTH ADD/DROP MULTIPLEXING HAVING CLIENT CONFIGURABILITY**

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**Related U.S. Application Data**

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(51) **Int. Cl.**<sup>7</sup> ..... **H04J 14/00**; H04J 14/02;  
G02B 6/26; G02B 6/42

(52) **U.S. Cl.** ..... **398/45**; 398/51; 398/54;  
398/83; 385/17; 385/18

(58) **Field of Search** ..... 398/45, 51, 54,  
398/83, 82; 385/17, 18

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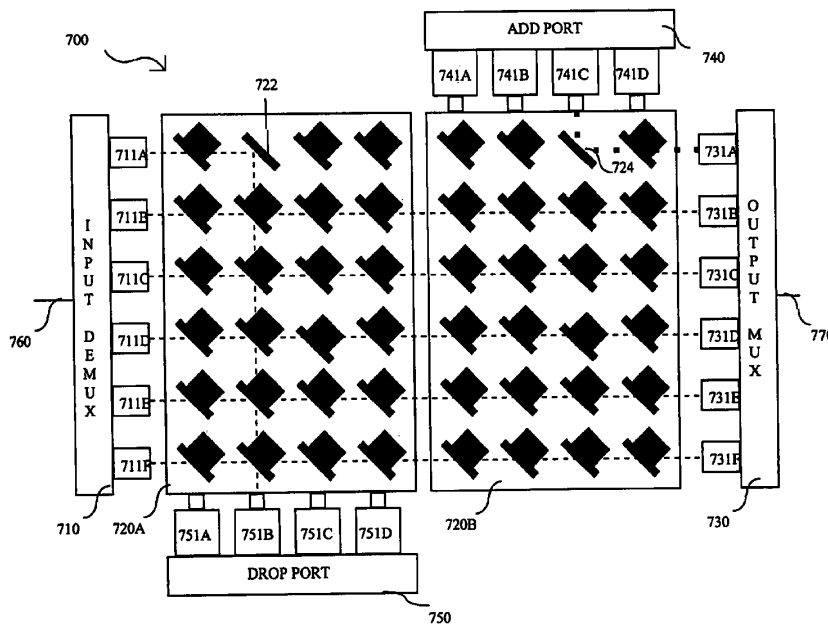
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*Primary Examiner*—M. R. Sedighian

(57) **ABSTRACT**

An optical carrier drop/add transmission system and method for adding a signal to multiplexed input optical signals conveyed by an optical multiplex input line. The multiplexed input optical signals are demultiplexed to provide isolated input optical signals to an optical switch matrix comprising switches in an array of lines and columns, the isolated input optical signals being inputted in a direction parallel to a line of switches in the optical switch matrix. The added optical signal is input in a direction parallel to a column in the optical switch matrix. An output line is selected and the switch that is on the column on which the added optical signal is inputted and on the selected output line is switched.

**10 Claims, 9 Drawing Sheets**



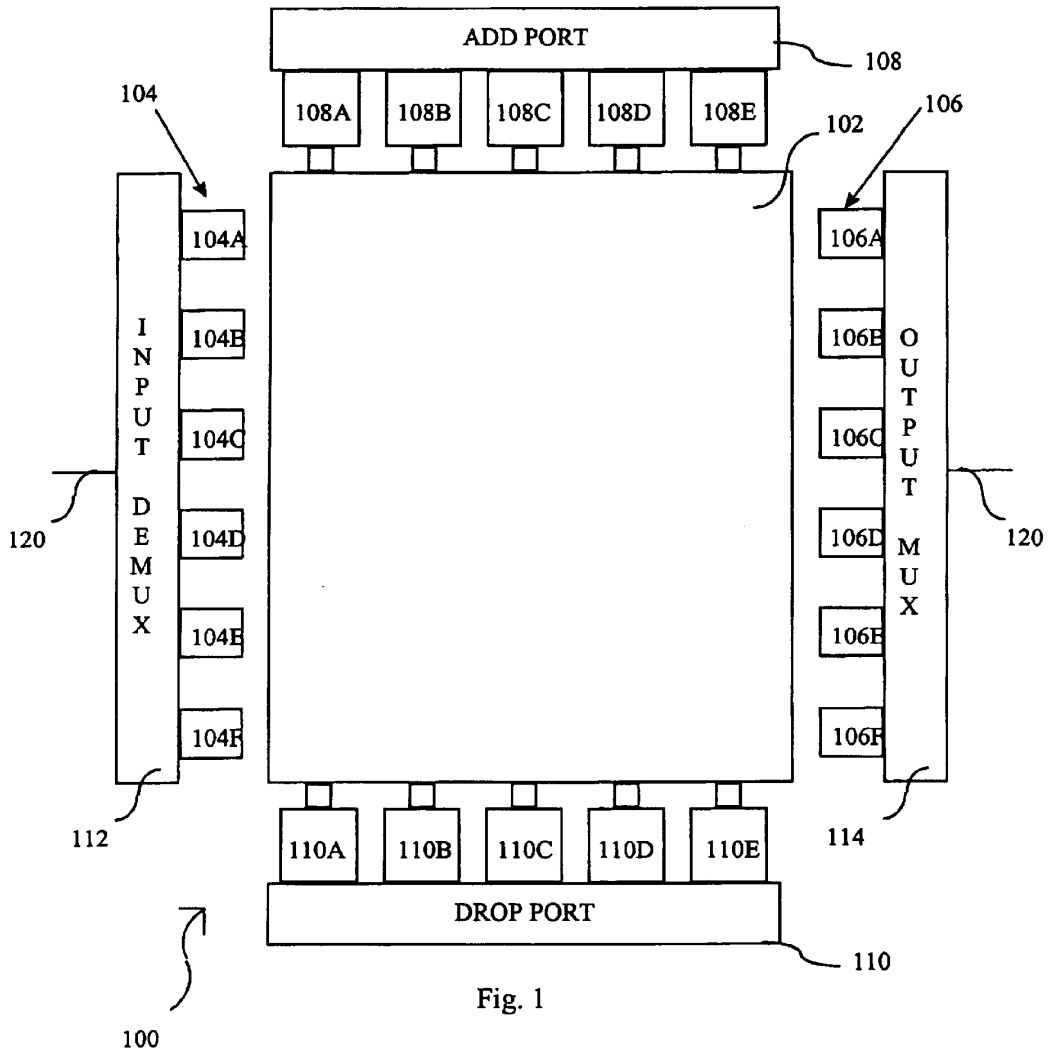


Fig. 1

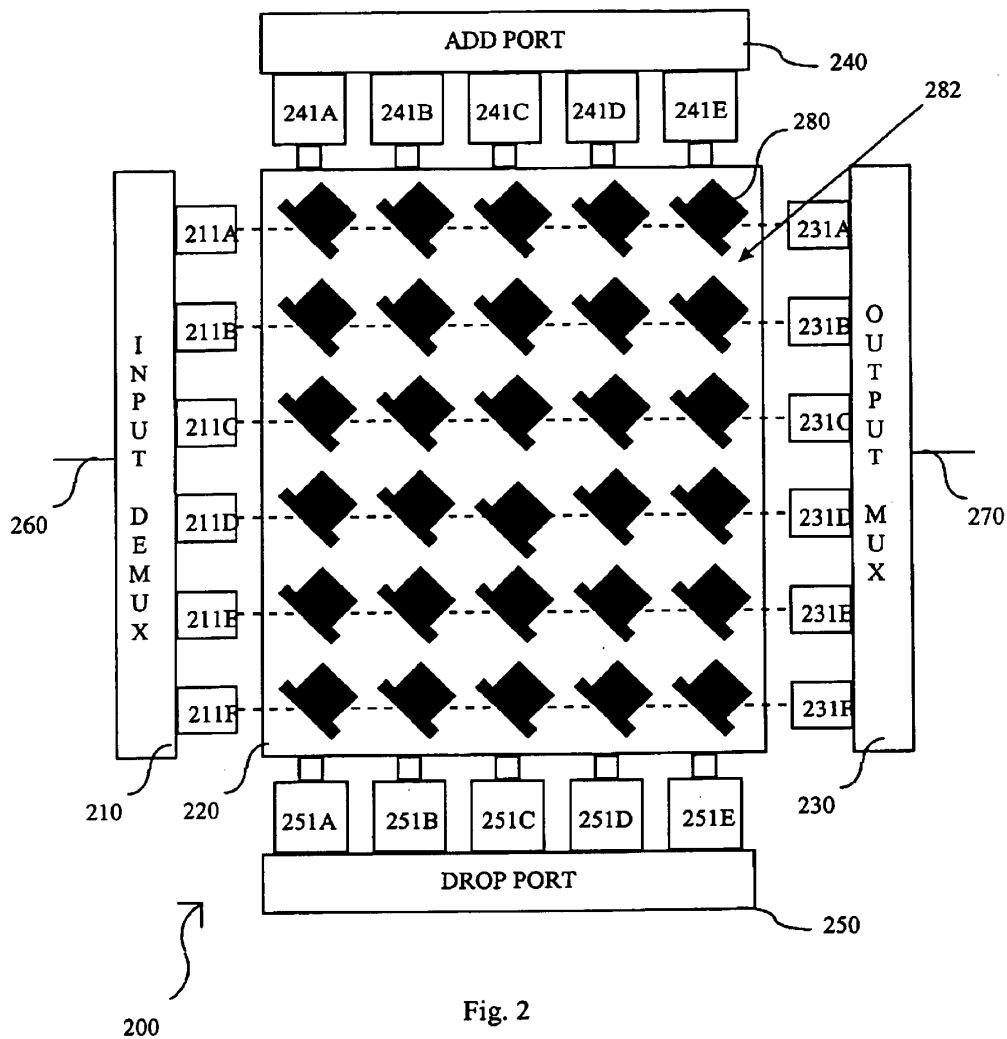


Fig. 2

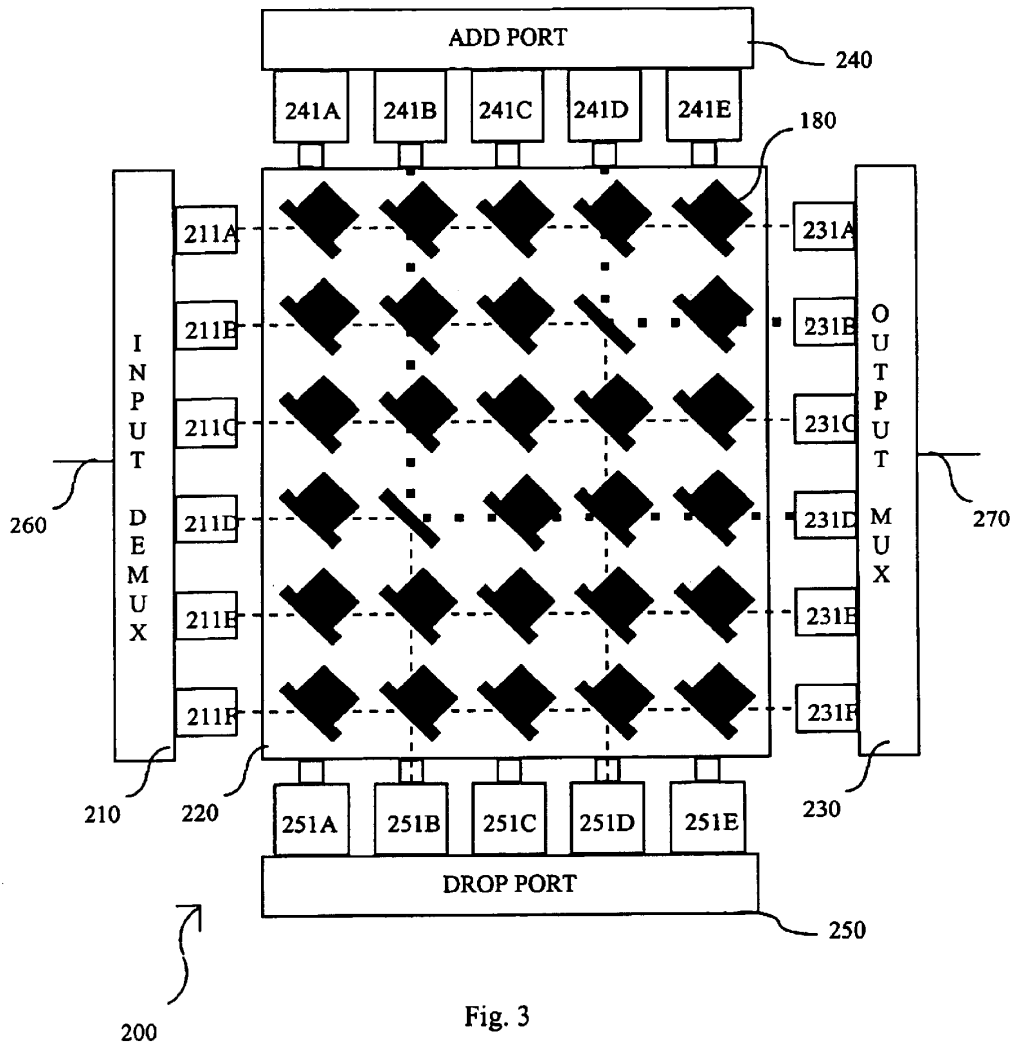
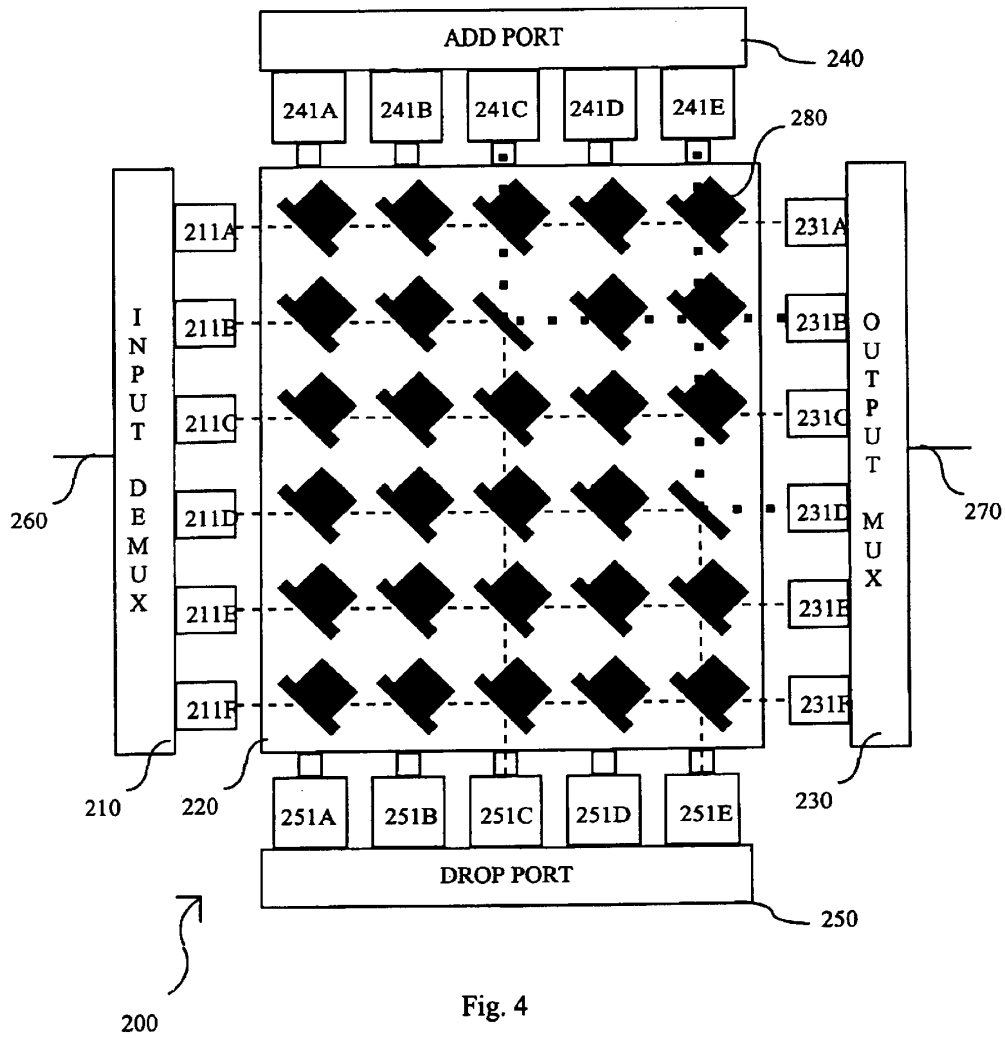


Fig. 3



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