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Johnson et al.

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(54) **SAS PAIRED SUBTRACTIVE ROUTING**

(56) **References Cited**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 366 days.

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(65) **Prior Publication Data**
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Related U.S. Application Data

(57) **ABSTRACT**

(60) Provisional application No. 61/191,037, filed on Sep. 5, 2008.

An input port is assigned to a SAS expander device. An output port is assigned to the SAS expander device. The output port and the input port are defined to be paired with each other as a primary subtractive port. Only a SAS initiator address is programmed in the route table of the SAS expander. An OPEN command is sent out the output port upon receiving the OPEN command into the input port if the DEST of the OPEN command is not a direct attached device of the SAS expander device and the DEST is not in the route table of the SAS expander device. An OPEN command is sent out the input port upon receiving the OPEN command into the output port if the DEST of the OPEN command is not a direct attached device of the SAS expander device and the DEST is not in the route table of the SAS expander device.

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(58) **Field of Classification Search** None
See application file for complete search history.

10 Claims, 16 Drawing Sheets

