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(54) **MANUFACTURABLE CONNECTORIZATION
PROCESS FOR OPTICAL CHIP-TO-CHIP
INTERCONNECTS**

(75) Inventors: **Steven Towle**, deceased, late of
Phoenix, AZ (US); by **Anna M.
George**, legal representative, Sunnyvale,
CA (US); **Daoqiang Lu**, Chandler, AZ
(US); **Henning Braunisch**, Chandler,
AZ (US)

(73) Assignee: **Intel Corporation**, Santa Clara, CA
(US)

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(58) **Field of Classification Search** 385/49,
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See application file for complete search history.

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Primary Examiner—Michelle Connelly-Cushwa

Assistant Examiner—Chris Chu

(74) *Attorney, Agent, or Firm*—Blakely, Sokoloff, Taylor &
Zafman LLP

(57) **ABSTRACT**

An apparatus comprising a substrate having a trench therein,
the trench extending to an edge of the substrate, a waveguide
array positioned in the trench, the waveguide array extend-
ing to the edge of the substrate, and a ferrule attached at or
near the edge of the substrate and spanning a width of the
waveguide array, the ferrule being directly in contact with a
surface of the waveguide array. A process comprising posi-
tioning a waveguide in a trench on a substrate, the
waveguide extending to an edge of the substrate, and attach-
ing a ferrule at or near the edge of the substrate, the ferrule
including a recess having a bottom, wherein the bottom is in
direct contact with a surface of the waveguide.

32 Claims, 8 Drawing Sheets

