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(71) Applicant: **Ciena Corporation**
Linthicum, MD 21090 (US)

(72) Inventors:
- **Meagher, Kevin S.**
  Bowie, Maryland 20716 (US)
- **Mateosky, John P.**
  West River, Maryland 20778 (US)
- **Surek, Steven A.**
  Leonardo, New Jersey 07737 (US)

(74) Representative: **Jeffrey, Philip Michael**
Frank B. Dehn & Co.
St Bride's House
10 Salisbury Square
London
EC4Y 8JD (GB)

(54) Byte-interleaving systems and methods for 100G optical transport enabling multi-level optical transmission

(57) The present invention provides byte-interleaving systems and methods for Optical Transport Unit N (OTUN) (i.e. Optical Transport Unit 4 (OTU4)) and 100Gb/s (100G) optical transport enabling multi-level optical transmission. The byte-interleaving systems and methods of the present invention support the multiplexing of sub-rate clients, such as 10Gb/s (10G) clients, 40Gb/s (40G) clients, etc., into two 50Gb/s (50G) logical flows, for example, that can be forward error correction (FEC) encoded and carried on a single wavelength to provide useful, efficient, and cost-effective 100G optical transport today. Signaling format support allows these two 50G logical flows to be forward compatible with an evolving OTU4 and 100G signaling format without waiting for optical and electronic technology advancement. Signaling format support also allows an evolving standard 100G logical flow (i.e. OTU4, 100Gb/s Ethernet (100GbE), etc.) to be carried as 2x50G logical flows, 4x25G logical flows, or other lower rate formats on a single wavelength.

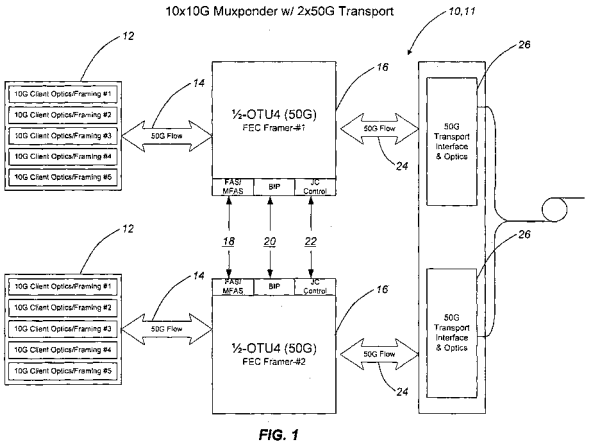

FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 08 25 3348

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	JOHN MCDONOUGH: "Moving standards to 100 Gbe and beyond" IEEE COMMUNICATIONS MAGAZINE, IEEE SERVICE CENTER, PISCATAWAY, US, vol. 45, no. 11, 1 November 2007 (2007-11-01), pages 6-9, XP011196611 ISSN: 0163-6804 * the whole document * -----	1-17	TECHNICAL FIELDS SEARCHED (IPC) H04J

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	9 November 2009	Carballo da Costa, E

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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09-11-2009

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82