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**COLI et al.**(10) **Pub. No.: US 2024/0214075 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **SIGNALING ON A HIGH-SPEED DATA CONNECTOR****Publication Classification**(71) Applicant: **II-VI Delaware, Inc.**, Wilmington (DE)(72) Inventors: **Giuliano COLI**, Sunnyvale, CA (US);  
**Stephen T. NELSON**, Santa Clara, CA (US); **Henry M. DAGHIGHIAN**, Redwood City, CA (US)(51) **Int. Cl.****H04B 10/50** (2006.01)**H01R 12/71** (2006.01)**H04B 10/40** (2006.01)**H04B 10/60** (2006.01)(52) **U.S. Cl.**CPC ..... **H04B 10/501** (2013.01); **H01R 12/716**(2013.01); **H04B 10/40** (2013.01); **H04B****10/60** (2013.01)(21) Appl. No.: **18/599,643**(22) Filed: **Mar. 8, 2024****Related U.S. Application Data**

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(57)

**ABSTRACT**

An apparatus and method for signaling and transmitting data through an optical link is described. The apparatus may include a connector including a first plurality of contacts compatible with an enhanced SFP (SFP+) connector. The connector further includes an additional contact formed at a space adjacent to the first plurality of contacts. A tone generator couples to the additional contact to receive a first signal and to generate a first distinct tone indicative of the first signal for transmission via the additional contact. The method may include generating a first distinct tone indicative of a first signal providing control or status of an apparatus and transmitting or receiving a differential data signal over a portion of a first plurality of contacts compatible with an enhanced SFP (SFP+) connector. The first distinct tone is transmitted over the additional contact formed in a space adjacent to the first plurality of contacts.

