



(51) International Patent Classification:

H04J 14/02 (2006.01) H04B 10/27 (2013.01)

(21) International Application Number:

PCT/US2021/048483

(22) International Filing Date:

31 August 2021 (31.08.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/123,368 09 December 2020 (09.12.2020) US

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(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

(54) Title: EFFICIENT PROTECTION SWITCHING IN WDM-PON

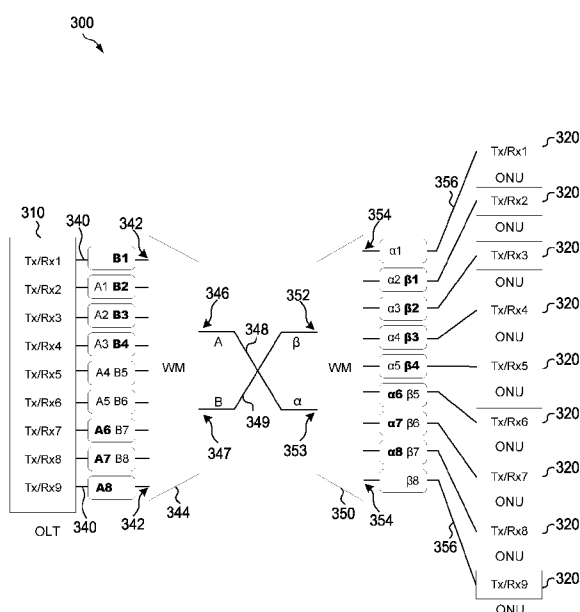


FIG. 3

(57) **Abstract:** An optical wavelength multiplexer having a second output port shifted by one channel relative to a first output port. Because of the shift, the wavelength multiplexer is able to select one of two different wavelengths on several of the channels to protect from failures in a feeder fiber or a transceiver. Thus, the wavelength multiplexer provides protection against failures within the passive optical network (PON).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *upon request of the applicant, before the expiration of the time limit referred to in Article 21(2)(a)*

(88) Date of publication of the international search report:

03 March 2022 (03.03.2022)

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2021/048483

A. CLASSIFICATION OF SUBJECT MATTER

INV. H04J14/02 H04B10/27

ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04J H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2020/063991 A1 (CLOUDMINDS SHENZHEN ROBOTICS SYSTEMS CO LTD [CN]) 2 April 2020 (2020-04-02) the whole document -----	1-30
X	US 9 768 862 B2 (MITSUBISHI ELECTRIC CORP [JP]) 19 September 2017 (2017-09-19) figures 1, 2A -----	1-30
A	US 2019/182569 A1 (GAO BO [CN]) 13 June 2019 (2019-06-13) paragraph [0089] -----	1-30



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"&" document member of the same patent family

Date of the actual completion of the international search

8 December 2021

Date of mailing of the international search report

04/01/2022

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2021/048483

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