

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
02 January 2025 (02.01.2025)



(10) International Publication Number
WO 2025/007041 A1

(51) International Patent Classification:

G02B 6/35 (2006.01) G02F 1/313 (2006.01)
H04B 10/278 (2013.01)

(21) International Application Number:

PCT/US2024/036230

(22) International Filing Date:

28 June 2024 (28.06.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/511,427 30 June 2023 (30.06.2023) US
63/562,179 06 March 2024 (06.03.2024) 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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,

(54) Title: INTEGRATED OPTICAL CIRCUIT SWITCH DEVICES AND METHODS OF FABRICATING SAME

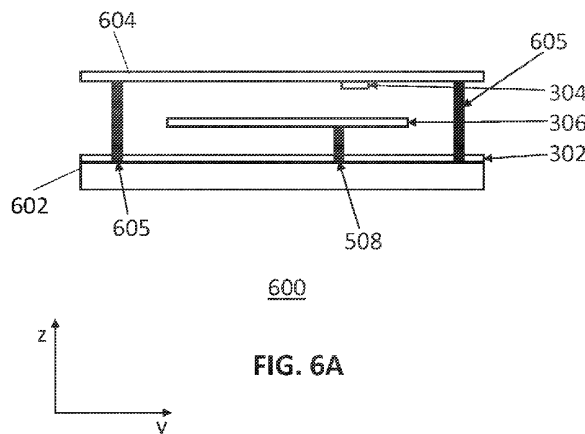


FIG. 6A

(57) Abstract: The present disclosure is directed to optical switch networks having optical switches that controllably reroute light between bus optical waveguides. An optical switch comprises a shunt optical waveguide disposed in a gap vertically between the first bus optical waveguide formed in a first waveguide layer and a second bus optical waveguide formed in a second waveguide layer and configured to moveably optically couple the first and second bus optical waveguides upon activation. The first waveguide layer and the optical switch are formed on a first substrate and the second waveguide layer is formed on a second substrate bonded to the first substrate, or mechanically supported by a plurality of anchors extending between the first and second substrates. The optical switch network includes sensors for identifying a failed optical switch and recovery optical waveguides and optical switches that provide recovery optical paths to bypass the failed optical switch.

[Continued on next page]

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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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))*