

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(10) 国际公布号
WO 2024/183451 A1

(43) 国际公布日
2024 年 9 月 12 日 (12.09.2024)

(51) 国际专利分类号:
H04Q 11/00 (2006.01)

(21) 国际申请号: PCT/CN2024/071289

(22) 国际申请日: 2024 年 1 月 9 日 (09.01.2024)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
2023 10246584.X 2023 年 3 月 6 日 (06.03.2023) CN

(71) 申请人: 华为技术有限公司 (HUAWEI TECHNOLOGIES CO., LTD.) [CN/CN]; 中国广东省深圳市龙岗区坂田华为总部办公楼, Guangdong 518129 (CN)。

(72) 发明人: 吴徐明 (WU, Xuming); 中国广东省深圳市龙岗区坂田华为总部办公楼, Guangdong 518129 (CN)。 郑刚 (ZHENG, Gang); 中国广东

省深圳市龙岗区坂田华为总部办公楼, Guangdong 518129 (CN)。 刘德坤 (LIU, Dekun); 中国广东省深圳市龙岗区坂田华为总部办公楼, Guangdong 518129 (CN)。 黄荣芳 (HUANG, Rongfang); 中国广东省深圳市龙岗区坂田华为总部办公楼, Guangdong 518129 (CN)。

(74) 代理人: 深圳市深佳知识产权代理事务所 (普通合伙) (SHENPAT INTELLECTUAL PROPERTY AGENCY); 中国广东省深圳市罗湖区南湖街道春风路庐山大厦 B 座 18C2、18D、18E、18E2, Guangdong 518001 (CN)。

(81) 指定国(除另有指明, 要求每一种可提供的国家保护): 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,

(54) Title: ACCESS METHOD, PON SYSTEM, FIRST ONU, AND OLT

(54) 发明名称: 接入方法、PON系统、第一ONU和OLT

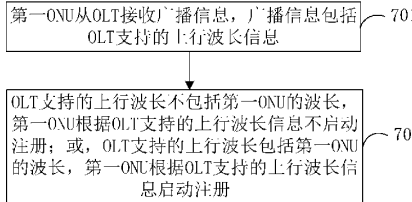


图 7

701 A first ONU receives broadcast information from an OLT, the broadcast information comprising uplink wavelength information supported by the OLT

702 When the uplink wavelength supported by the OLT does not comprise the wavelength of the first ONU, according to the uplink wavelength information supported by the OLT, the first ONU does not start registration; or when the uplink wavelength supported by the OLT comprises the wavelength of the first ONU, according to the uplink wavelength information supported by the OLT, the first ONU starts registration

(57) Abstract: The present application provides an access method, applied to the field of optical communications. The access method comprises the following steps: a first ONU receives broadcast information from an OLT, wherein the OLT is connected to a plurality of ONUs by means of an ODN, the plurality of ONUs comprise the first ONU, and the broadcast information comprises uplink wavelength information supported by the OLT; when an uplink wavelength supported by the OLT does not comprise the uplink wavelength of the first ONU, the first ONU does not start registration; and when the uplink wavelength supported by the OLT comprises the uplink wavelength of the first ONU, the first ONU starts registration. In the technical solution of the present application, by broadcasting, in a downlink direction, uplink wavelength information supported by a current OLT port, the situation that the ONU of which the uplink wavelength is not supported by the current OLT port is used to access a PON system can be avoided, thereby improving the reliability of optical communications.

WO 2024/183451 A1

[见续页]

LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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) 指定国(除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (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)。

本国际公布:
— 包括国际检索报告(条约第21条(3))。

(57) 摘要: 本申请提供了一种接入方法, 应用于光通信领域。接入方法包括以下步骤: 第一ONU从OLT接收广播信息。OLT通过ODN和多个ONU相连。多个ONU包括第一ONU。广播信息包括OLT支持的上行波长信息。当OLT支持的上行波长不包括第一ONU的上行波长时, 第一ONU不启动注册。当OLT支持的上行波长包括第一ONU的上行波长时, 第一ONU启动注册。在本申请的技术方案中, 通过在下行方向广播当前OLT端口支持的上行波长信息, 可以避免使用当前OLT端口不支持的上行波长的ONU接入PON系统, 从而提高光通信的可靠性。