Title (en)

POINT-TO-MULTIPOINT PASSIVE OPTICAL NETWORK THAT UTILIZES VARIABLE-LENGTH PACKETS AND VARIABLE-LENGTH UPSTREAM TINE SLOTS

Title (de)

PASSIVES OPTISCHES PUNKT-ZU-MEHRPUNKT-NETZWERK, DAS PAKETE VARIABLER LÄNGE UND AUFWÄRTS-ZEITSCHLITZE VARIABLER LÄNGE VERWENDET

Title (fr)

RESEAU OPTIQUE PASSIF POINT A MULTIPOINT UTILISANT DES PAQUETS VARIABLES EN LONGUEUR ET DES INTERVALLES DE TEMPS AMONT VARIABLES EN LONGUEUR

Publication

EP 1342106 A4 20041208 (EN)

Application

EP 01273990 A 20011116

Priority

- US 0143599 W 20011116
- US 71524800 A 20001117

Abstract (en)

[origin: WO02097476A2] A point-to-multipoint passive optical network transmits downstream data from an optical line terminal (OLT) to multiple optical network units (ONUs) in variable-length packets and upstream data from the ONUs to the OLT in variable-length packets utilizing time division multiplexing with variable-length time slots to avoid transmission collisions. In an embodiment, the system further includes a time slot controller in communication with the OLT and the ONUs for changing the length of the ONU-specific variable-length time slots in response to upstream traffic demand from the ONUs. In a further embodiment, the time slot controller includes logic for increasing the length of a first ONU-specific time slot in response to an increase in upstream traffic demand from a first ONU, the first ONU being one of the ONUs. In a further embodiment, the time slot controller includes logic for decreasing the length of a second ONU-specific time slot in response to the increase in the length of the first ONU-specific time slot. In an embodiment, the variable-length downstream packets and the variable-length upstream packets are formatted according to IEEE 802.3.

IPC 1-7

G02B 1/00

IPC 8 full level

H04J 3/00 (2006.01); **H04B 10/00** (2006.01); **H04B 10/20** (2006.01); **H04B 10/213** (2006.01); **H04J 14/00** (2006.01); **H04J 14/02** (2006.01); **H04J 14/08** (2006.01); **H04Q 11/00** (2006.01)

CPC (source: EP)

H04Q 11/0067 (2013.01); H04Q 11/0066 (2013.01); H04Q 2011/0064 (2013.01)

Citation (search report)

- [X] DAIL J E ET AL: "ADAPTIVE DIGITAL ACCESS PROTOCOL: A MAC PROTOCOL FOR MULTISERVICE BROADBAND ACCESS NETWORKS", IEEE COMMUNICATIONS MAGAZINE, IEEE SERVICE CENTER. PISCATAWAY, N.J, US, vol. 34, no. 3, 1 March 1996 (1996-03-01), pages 104 - 112, XP000557382, ISSN: 0163-6804 & EP 0713347 A2 19960522 - AT & T CORP [US] & US 5953344 A 19990914 - DAIL JAMES E [US], et al
- See references of WO 02097476A2

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EP1345468A3; US7437076B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

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