

Title (en)  
POINT-TO-MULTIPOINT PASSIVE OPTICAL NETWORK THAT UTILIZES VARIABLE-LENGTH PACKETS AND VARIABLE-LENGTH UPSTREAM TIME 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  
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Application  
**EP 01273990 A 20011116**

Priority  
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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.

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**G02B 1/00**

IPC 8 full level  
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