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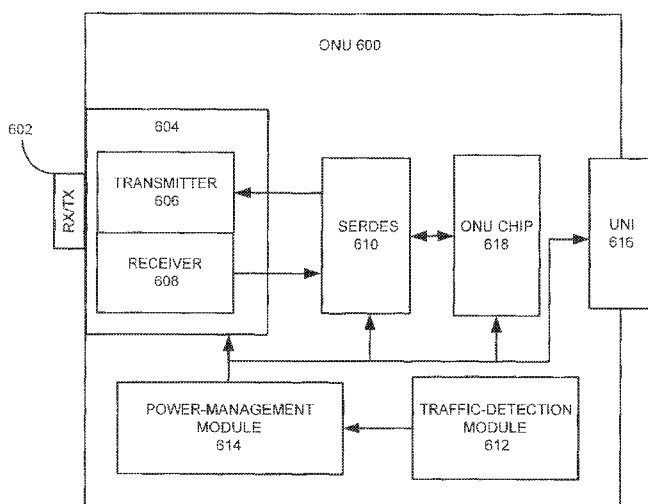


FIG. 6

(57) Abstract: One embodiment provides a system for power saving in an Ethernet Passive Optic Network (EPON). The system includes an optical line terminal (OLT), an optical network unit (ONU), a traffic-detection module configured to detect status of traffic to and from the ONU, and a power-management module configured to place the ONU in sleep mode based on the detected traffic status. The ONU includes an optical transceiver that includes an optical transmitter configured to transmit optical signals to the OLT and an optical receiver configured to receive optical signals from the OLT.

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## INTERNATIONAL SEARCH REPORT

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**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

H04B 10/13; H04B 10/08; H04J 14/00; H04L 12/44

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

Korean utility models and applications for utility models  
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; Keywords: PON, OLT, ONU, power saving, sleep

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2008-0212964 A1 (GAO HAI et al.) 04 September 2008 See abstract, Figs. 1,5, paragraph [15]-[38],[44]-[52]	1,7-10,12,18-21 ,23-26 2-6,11,13-17,22 ,27-32
X	JP 2008-113193 A (MITSUBISHI ELECTRIC CORP) 15 May 2008 See abstract, Figs. 1-2, paragraph [11]-[12],[17]-[19]	1,7-10,12,18-21 ,23-26
X	US 2006-0029389 A1 (CLEARY et al.) 09 February 2006 See abstract, Fig. 2, paragraph [26]-[35]	1,12,23
X	E Trojer, PE Eriksson, Power saving modes for GPON and VDSL2 See abstract, Figs. 2-3, ch. 2.2	1,12,23

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008-0212964 A1	04.09.2008	CN 100488207 C CN 1859438 A EP 1940051 A1 EP 1940051 A4 EP 1940051 B1 WO 2007-033602 A1	13.05.2009 08.11.2006 02.07.2008 06.05.2009 16.12.2009 29.03.2007
JP 2008-113193 A	15.05.2008	None	
US 2006-0029389 A1	09.02.2006	None	