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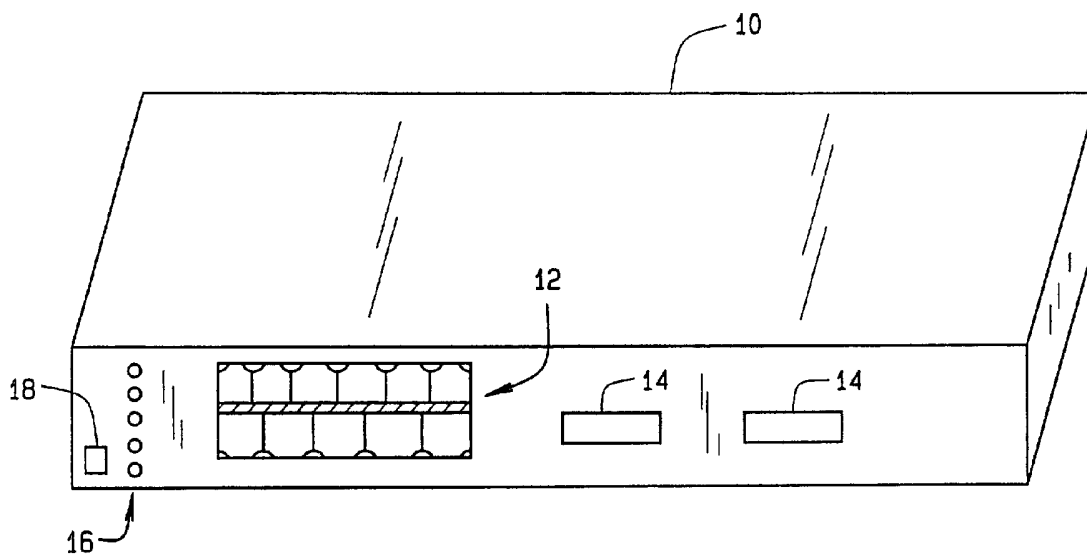
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- (74) Agents: HAYDEN, Scott et al.; General Electric Company, 3135 Easton Turnpike (W3C), Fairfield, CT 06828 (US).
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- (71) Applicant: GE CISCO INDUSTRIAL NETWORKS, INC. [US/US]; Route 29 North & Route 606, Charlottesville, VA 22911 (US).
- (72) Inventors: DANNER, Phillip, A.; 4980 Summer Lane, Earlysville, VA 22936 (US). RUCINSKI, Robert, A.; 2746 Jasmine Terrace, Charlottesville, VA 22911 (US). MCKEEL, Robert, A.; 1010 Still Meadows Crossing, Charlottesville, VA 22901 (US). ESTEP, William, B.; 2319 Ferndown Lane, Kewswick, VA 22947 (US). SCANLON, Paul, D.; 3510 Loftlands Drive, Earlysville, VA 22936 (US).
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(54) Title: ETHERNET SWITCH AND SYSTEM



(57) Abstract: An Ethernet switch (10) includes a plurality of ports (12), wherein the switch is configured to be operable within a temperature range of at least between approximately 0° C and approximately 60° C. The switch is further configured to be operable within a non-condensing humidity range of at least between approximately 10 % and approximately 95 %. The switch is further configured to support at least one of a virtual Local Area Network (VLAN), a Quality of Service (QoS), a Remote Monitoring (RMON), and a Spanning Tree, and the switch is configured to be upgradeable using a plug in device.



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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/34794

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 H04L12/24 H04L12/46 H04L12/44

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L

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

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, COMPENDEX, INSPEC, IBM-TDB

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01 08356 A (YU SHAOHUA ; WUHAN RES INST OF POSTS AND TE (CN)) 1 February 2001 (2001-02-01) abstract page 4, line 8 -page 6, line 14 page 61, line 20 -page 65, line 22 claims 22-24,65-67; figure 14 ---	1-31
X	WO 01 01637 A (ALLIED TELESYN INTERNAT CORP) 4 January 2001 (2001-01-04) abstract page 1, line 17 -page 4, line 14 page 6, line 6 -page 8, line 24 page 16, line 7 -page 20, line 7 claims 1,9,17; figures 1,5,6 --- -/--	1-31

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## ° Special categories of cited documents :

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- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- \* & \* document member of the same patent family

Date of the actual completion of the international search

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Niculiu, R

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 104 700 A (HADDOCK STEPHEN R ET AL) 15 August 2000 (2000-08-15) abstract column 1, line 24 -column 3, line 10 column 4, line 5 - line 51 column 7, line 60 -column 8, line 55 column 13, line 6 - line 29 claims 1,10,21,27-29; figures 1A,3,4 -----	1-31

## INTERNATIONAL SEARCH REPORT

Information on patent family members

Inter | Application No

PCT/US 02/34794

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0108356	A	01-02-2001	CN 1250294 A	12-04-2000
			AU 6146200 A	13-02-2001
			WO 0108356 A1	01-02-2001
			CN 1316146 T	03-10-2001
			US 2001043603 A1	22-11-2001
-----				
WO 0101637	A	04-01-2001	AU 5872900 A	31-01-2001
			EP 1190532 A1	27-03-2002
			JP 2003503899 T	28-01-2003
			WO 0101637 A1	04-01-2001
-----				
US 6104700	A	15-08-2000	AU 9208098 A	16-03-1999
			EP 1010279 A1	21-06-2000
			JP 2002519910 T	02-07-2002
			WO 9911003 A1	04-03-1999
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