

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
11 December 2003 (11.12.2003)

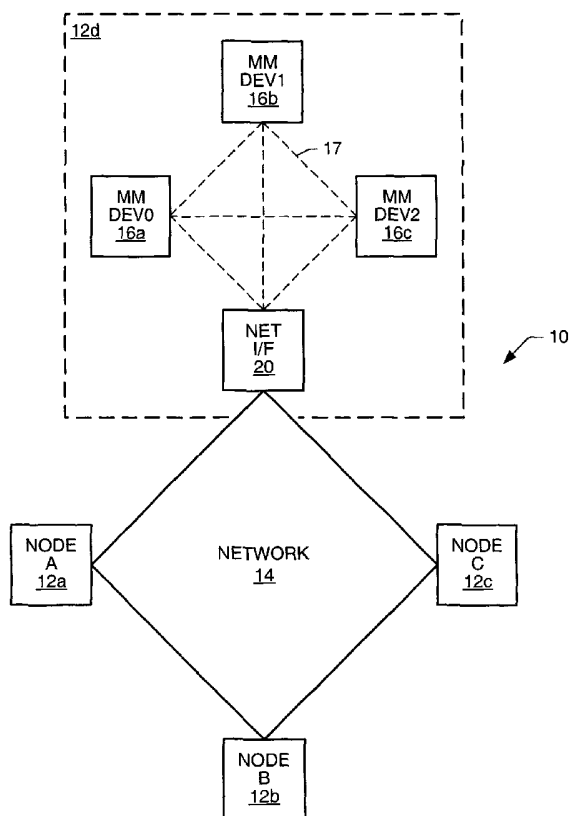
PCT

(10) International Publication Number
WO 2003/103242 A3

- (51) International Patent Classification⁷: **H04L 12/64**, 12/40
- (72) Inventors: **KNAPP, David, J.**; 3919 Westlake Drive, Austin, TX 78746 (US). **HO, Horace, C.**; 11205 Brista Way, Austin, TX 78726 (US).
- (21) International Application Number: PCT/US2003/016601
- (74) Agent: **DAFFER, Kevin, L.**; CONLEY ROSE, P.C., P.O. Box 684908, Austin, TX 78768-4908 (US).
- (22) International Filing Date: 28 May 2003 (28.05.2003)
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10/157,673 29 May 2002 (29.05.2002) US
10/157,097 29 May 2002 (29.05.2002) US
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
- (71) Applicant: **OASIS SILICON SYSTEMS** [US/US]; 1120 Capital of Texas Hwy S., Building 2, Ste. 100, Austin, TX 78746 (US).

[Continued on next page]

(54) Title: COMMUNICATION SYSTEM FOR SENDING DATA OF DISSIMILAR TYPE AND SIZE ACROSS CHANNELS FORMED WITHIN A LOCALLY SYNCHRONIZED BUS



(57) Abstract: A communication system, network interface and communication port is provided that includes a media local bus. The local bus is connected between a controller and one or more multimedia devices located within a node of the communication system. The controller periodically broadcasts addressing signals to the source devices to synchronize data transmission from those devices according to those addresses. Source devices will thereafter transmit a command which signifies the type of data being transmitted from that source device within the address channel. The channel is maintained and data is transmitted until the next address is sent from the controller. Each channel can be set up in a customized fashion to add flexibility in channel length and data types being transferred throughout the local bus without having to assign fixed and regimented time slots for those data types and for each device connected to the local bus. According to an alternative communication methodology, time slots can be dedicated to a particular data type. The local bus includes a signal line and one or more data lines. The data lines are used to send the time slots of data and the signal line is used to send the sync signal as well as one or more command signals per frame. The command signal corresponds to the beginning of a time slot and is used to signify a start of packet or a continuation of a packet for packetized data corresponding to that time slot. The sync signal and/or command signal can be as small as a single bit pulse, where the sync byte and command byte are contained within data information if, for example, the local bus uses multiple data conductors.



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

29 April 2004

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 03/16601

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L12/64 H04L12/40

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, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02 13461 A (DEN BERGH KAREL MARIA VAN) 14 February 2002 (2002-02-14) abstract page 2, line 20 - line 27 page 4, line 32 - page 5, line 1 page 5, line 14 - line 22 ---	1-32
A	EP 0 178 205 A (FRANCE ETAT) 16 April 1986 (1986-04-16) abstract ---	1-32
A	EP 0 883 263 A (GRUNDIG AG) 9 December 1998 (1998-12-09) abstract ---	1,12,26
A	US 4 593 282 A (HLUCHJY MICHAEL G ET AL) 3 June 1986 (1986-06-03) abstract -----	1,12,26

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *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
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

18 February 2004

Date of mailing of the international search report

25/02/2004

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

Mikkelsen, C

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/16601

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0213461	A	14-02-2002	BE 1013642 A3 AU 7619601 A WO 0213461 A2 CA 2418024 A1 EP 1308001 A2 US 2003190122 A1	07-05-2002 18-02-2002 14-02-2002 14-02-2002 07-05-2003 09-10-2003
EP 0178205	A	16-04-1986	FR 2570233 A1 DE 3577170 D1 EP 0178205 A1	14-03-1986 17-05-1990 16-04-1986
EP 0883263	A	09-12-1998	DE 19723529 A1 EP 0883263 A2	10-12-1998 09-12-1998
US 4593282	A	03-06-1986	CA 1220577 A1 DE 3473544 D1 EP 0122765 A2 JP 1846182 C JP 5057787 B JP 59200554 A	14-04-1987 22-09-1988 24-10-1984 25-05-1994 24-08-1993 13-11-1984