

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 August 2006 (10.08.2006)

PCT

(10) International Publication Number
WO 2006/083467 A1

(51) International Patent Classification:
H04L 12/46 (2006.01) **H04L 12/56** (2006.01)

(21) International Application Number:
PCT/US2006/000126

(22) International Filing Date: 4 January 2006 (04.01.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/046,292 28 January 2005 (28.01.2005) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

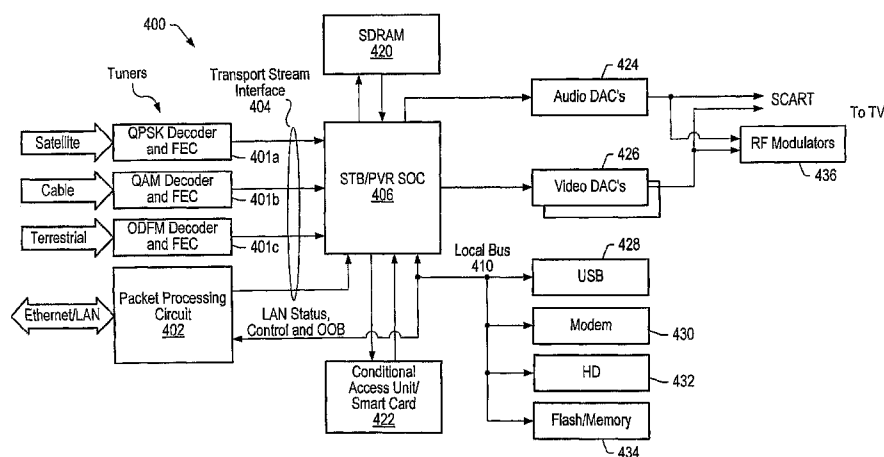
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

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.

(54) Title: HIGH SPEED ETHERNET MAC AND PHY APPARATUS WITH A FILTER BASED ETHERNET PACKET ROUTER WITH PRIORITY QUEUING AND SINGLE OR MULTIPLE TRANSPORT STREAM INTERFACES



(57) Abstract: In one embodiment, an audio-visual content delivery system, such as a set-top box/personal video recorder system, is configured to interface with a local area network (LAN). A packet processing circuit comprised in the system may be configured to filter and route Ethernet packet data received from the LAN to specific ports and/or queues without host processor intervention. The packet processing circuit may utilize a set of filter and routing mechanisms configurable in hardware to interpret various Internet Engineering Task Force (IETF) networking transport protocols, and may transfer the packet data in a format recognized by a variety of consumer subsystems, each of which may be coupled to the decoder. The packet processing circuit may be implemented as a semiconductor device, and may allow encapsulated application data, (encapsulated using standardized encapsulation techniques), to be routed to a plurality of different types of application sinks or processors, forming a point-to-point or multi-point serial or parallel data stream over a standard transport covering numerous levels of the ISO data communications stack.

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