

(21) Application No: **0521694.0**
(22) Date of Filing: **10.05.2004**
(30) Priority Data:
(31) **60470078** (32) **13.05.2003** (33) **US**
(86) International Application Data:
PCT/US2004/014441 En 10.05.2004
(87) International Publication Data:
WO2004/102403 En 25.11.2004

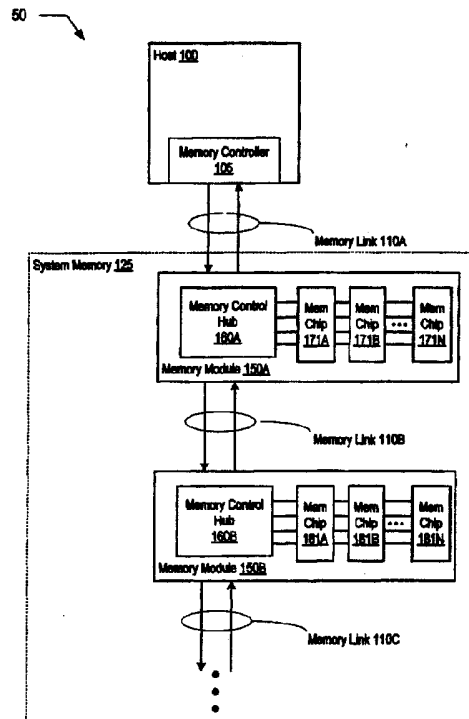
(51) INT CL:
G06F 13/16 (2006.01)
G06F 13/28 (2006.01)
G06F 13/42 (2006.01)
(52) UK CL (Edition X):
G4A AMX
(56) Documents Cited by ISA:
WO 2002/023353 A2 **US 5822766 A**
US 4604689 A
(58) Field of Search by ISA:
INT CL⁷ **G06F**
Other: **EPO-Internal**

(71) Applicant(s):
Advanced Micro Devices, Inc
(Incorporated in USA - Delaware)
One AMD Place, Mail Stop 68, Sunnyvale,
California 94088-34,
United States of America

(continued on next page)

(54) Abstract Title: **A system including a host connected to a plurality of memory modules via a serial memory interconnect**

(57) A system (50) including a host (100) coupled to a serially connected chain of memory modules (150A-B). In one embodiment, each of the memory modules includes a memory control hub (160) for controlling access to a plurality of memory chips (261) on the memory module. The memory modules are coupled serially in a chain to the host via a plurality of memory links (110). Each memory link may include an uplink (211) for conveying transactions toward the host and a downlink (212) for conveying transactions originating at the host to a next memory module in the chain. The uplink and the downlink may convey transactions using packets that include control and configuration packets and memory access packets. The memory control hub may convey a transaction received on a first downlink of a first memory link on a second downlink of a second memory link independent of decoding the transaction.



GB 2416056 A continuation

(72) Inventor(s):

**Stephen R Polzin
Frederick D Weber
Gerald R Talbot
Larry D Hewitt
Richard W Reeves
Shwetal A Patel
Ross V La Fetra
Dale E Gulick
Mark D Hummel
Paul C Miranda**

(74) Agent and/or Address for Service:

**Brookes Batchellor LLP
102-108 Clerkenwell Road, LONDON,
EC1M 5SA, United Kingdom**