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HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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## Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

## Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
- with information concerning incorporation by reference of missing parts and/or elements (Rule 20.6)

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

8 April 2010

## (54) Title: A PACKET STRUCTURE FOR A MOBILE DISPLAY DIGITAL INTERFACE

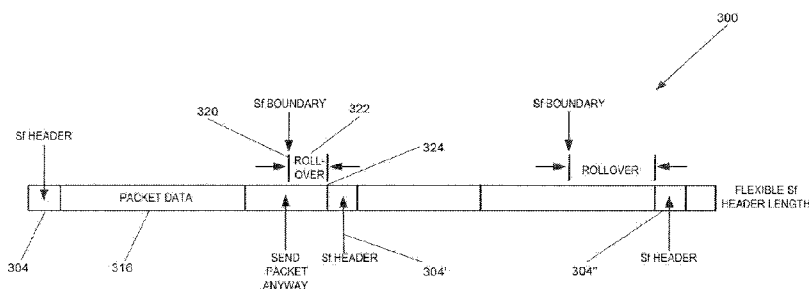


FIG. 4

(57) Abstract: A packet structure for a Mobile Display Digital Interface (MDDI) includes a flexible sub-frame length to efficiently transmit large packets. A windowless video stream packet avoids repetitive transmissions of video packets when some parameters are unchanged, saving bandwidth. An enhanced reverse encapsulation packet combines the feature of a separate round trip delay packet with a separate reverse encapsulation packet. A link freeze is used to halt a transmission of a data stream at any point in the transmission and resume the transmission by a host.

## INTERNATIONAL SEARCH REPORT

International application No

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## A. CLASSIFICATION OF SUBJECT MATTER

INV. H04W84/18 H04J3/06 G09G5/00

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)

H04J G09G H04N

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, 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. |
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| X         | WO 2005/091593 A (QUALCOMM INC [US];<br>ANDERSON JON JAMES [US]; STEELE BRIAN<br>[US]; WILEY G)<br>29 September 2005 (2005-09-29)                                                                  | 1, 5, 9,<br>25-48     |
| Y         | paragraph [0186] - paragraph [0187]<br>paragraph [0193]                                                                                                                                            | 2-4, 6-8,<br>10-12    |
| A         | paragraph [0197] - paragraph [0198]<br>paragraph [0203] - paragraph [0204]<br>paragraph [0214]<br>paragraph [0217]<br>paragraph [0223]<br>paragraph [0527]<br>figures 7-9, 11<br><br>-----<br>-/-- | 13-24,<br>49-51       |

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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

12 February 2010

Date of mailing of the international search report

18/02/2010

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## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2008/063109

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                                                                                                                  | Relevant to claim No. |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| X         | WO 2006/075891 A1 (SAMSUNG ELECTRONICS CO LTD [KR]; LEE IN-HYE [KR]; KIM YOUNG-CHAN [KR]) 20 July 2006 (2006-07-20)<br>abstract; figure 3<br>page 2, column 12<br>page 5, paragraph 37<br>page 5, paragraph 41<br>-----                                                                                             | 22-24                 |
| X         | WO 2004/111596 A2 (IBM [US]; IBM DEUTSCHLAND [DE]; SAALMUELLER DR JUERGEN [DE]; NEUMANN M) 23 December 2004 (2004-12-23)<br>page 4, paragraph 2 - page 5, paragraph 1<br>figures 3,4<br>page 10, paragraph 3<br>-----                                                                                               | 25-48                 |
| X         | US 2002/089517 A1 (LUDTKE HAROLD AARON [US] ET AL) 11 July 2002 (2002-07-11)<br>paragraph [0046]<br>paragraph [0053]<br>-----                                                                                                                                                                                       | 22-24                 |
| X         | WO 2006/112229 A1 (MATSUSHITA ELECTRIC IND CO LTD [JP]; NAKAMURA MIKA; TAOKA HIROKI) 26 October 2006 (2006-10-26)<br>abstract<br>- & US 2009/109207 A1 (NAKAMURA MIKA [JP] ET AL) 30 April 2009 (2009-04-30)<br>paragraph [0043]<br>paragraph [0045] - paragraph [0047]<br>paragraph [0059]<br>figures 1,3<br>----- | 49-51                 |
| Y         | EP 0 579 075 A (GEN INSTRUMENT CORP [US] GI CORP [US]) 19 January 1994 (1994-01-19)<br>column 7, line 45 - line 52<br>column 8, line 23 - line 39<br>column 8, line 49 - column 9, line 27<br>column 9, line 47 - column 10, line 13<br>figures 2-4<br>-----                                                        | 2-4, 6-8,<br>10-12    |
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|           | -/--                                                                                                                                                                                                                                                                                                                |                       |

## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2008/063109

## C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                                                                                                                                                                                  | Relevant to claim No. |
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| A         | JUN HANARI AND MANABU WATANABE ET AL:<br>"15.2: Development of an UXGA Display<br>System by a Digital Packet Video Link"<br>2001 SID INTERNATIONAL SYMPOSIUM - JUNE<br>3-8, 2001, SAN JOSE CONVENTION CENTER,<br>CALIFORNIA,<br>vol. XXXII, 3 June 2001 (2001-06-03), page<br>210, XP007007646<br>page 210, right-hand column - page 211,<br>left-hand column; figures 1,2<br>----- | 22-24                 |
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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2008/063109

### Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12

Flexible sub-frames with packet crossing sub-frame boundary  
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2. claims: 13-21

Windowless video data packet  
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3. claims: 22-24

Flexible video data packet  
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4. claims: 25-48

Reverse link encapsulation packet with measuring round trip delay and aligning byte count between the host and the client  
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5. claims: 49-51

Link freeze  
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/063109

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
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