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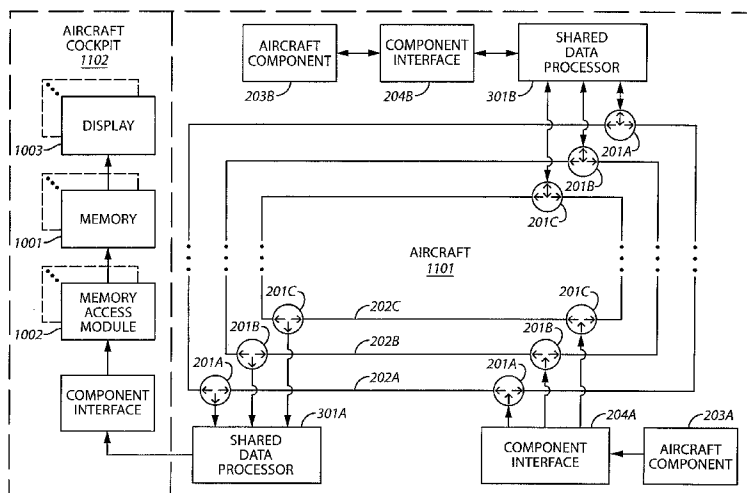
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- with international search report
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR HANDLING DATA AND AIRCRAFT EMPLOYING SAME



(57) Abstract: These teachings present triple data transport redundancy in the form of three data bus interfaces that are each designed and manufactured independently from one another and compatible with a common data handling protocol. This protocol can be one that includes no error correction. These interfaces can each couple to a corresponding first, second, and third data bus that may comprise optical data busses. Information gauges can be realized through use a memory that stores a plurality of images comprising views of an information gauge (or gauges) of interest showing a variety of different readings. Upon receiving information regarding a monitored parameter of interest (via, for example, the aforementioned data busses and data bus interfaces), this information can be used to address the stored information gauge view that corresponds to the present parameter value. That particular view can be recalled and displayed to thereby provide the corresponding information to a viewer.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
IPC(8) - G06F 13/00 (2008.01)  
USPC - 701/100  
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)  
USPC: 710/100

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
USPC: 710/ 1, 10, 15, 27, 100, 104; 709/208, 212, 223, 253; 326/30 (search term limited)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Electronic Databases Searched: PubWest (USPB, USPT, USOC, EPAB, JPAB), DialogPro, GoogleScholar  
Search Terms Used: fly-by-wire, avionics, aircraft, airplane, hardened, fault-tolerant, average, IEEE 1760, mil-std 1760, optical waveguide, optical film, polymer, ARINC, optical ring bus

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MALEKPOUR, M., "Fly-By-Light/Power-By-Wire Fault-Tolerant Fiber-Optic Backplane" Langley Research Center, April 2002 [retrieved 05 January 2008 (05.01.2008)] Retrieved from the Internet. <URL: <a href="http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20020044097_2002076988.pdf">http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20020044097_2002076988.pdf</a> > entire document especially Fig 1, 2, 3 and pg 10, para 1; pg 10, para 2; pg 15, para 2; pg 39	1-35
Y	US 5,255,880 A (LYLOC et al.) 26 October 1993 (26.10.1993) entire document especially col 2, ln 11-31, ln 47-48 and col 3, ln 2-3	1-30
Y	US 6,061,487 A (TOYAMA et al.) 09 May 2000 (09.05.2000) entire document especially Abstract; col 8, ln 23-24, col 9, ln 66-67	7 and 22
Y	US 5,533,188 A (PALUMBO) 02 July 1996 (02.07.1996) entire document especially Fig. 2, 5; col 6, ln 18-21 col 12, ln 7-9	8-15
Y	US 2006/0043242 A1 (BENSON) 02 March 2006 (02.03.2006) entire document especially Fig. 1, para [0014], [0020], [0029]	31-35

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search 05 January 2008 (05.01.2008)	Date of mailing of the international search report <b>02 APR 2008</b>
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