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(54) **Title:** FAULT-RESISTANT DIGITAL-CONTENT-STREAM AV PACKET SWITCH

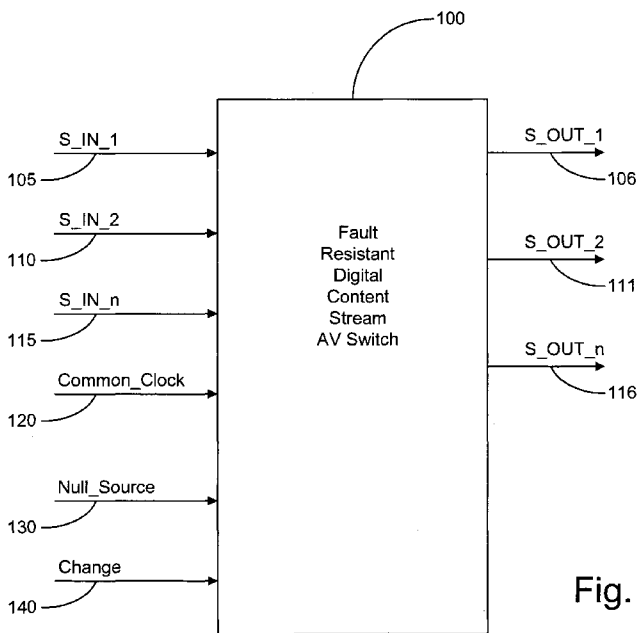


Fig. 1

(57) **Abstract:** An AV packet switch comprises a multiplexer system having multiple multiplexer input terminals and multiple multiplexer output terminals, a particular multiplexer input terminal capable to receive an input stream synchronized with a first clock signal, a particular multiplexer output terminal capable to receive the input stream from the particular multiplexer input terminal; and an output stream destination synchronizer coupled to the particular switch output terminal capable to synchronize the input stream with a destination's clock signal.

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**A. CLASSIFICATION OF SUBJECT MATTER*****H04N 5/44(2006.01)i, H04L 12/56(2006.01)i, H04L 12/28(2006.01)i***

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: H04N, G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS((KIPO internal) 'A V packet, stream, switch, sync, clock, multiplexer'

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	WO 01/89122 A2 (ENTERASYS NETWORKS, INC.) 22 November 2001 See whole document.	1-3,11,12,20 4-10,13-19
Y A	US 2006/0159209 A1 (HUNG-YUAN HSU, et al.) 20 July 2006 See whole document.	1-3,11,12,20 4-10,13-19
A	US 2005/0254480 A1 (KICHEON KIM) 17 November 2005 See abstract and Figures 1,2.	1-20
A	US 2006/0013263 A1 ((RONALD D. FELLMAN) 19 January 2006 See abstract and Figure 1.	1-20

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

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Information on patent family members

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**PCT/US2008/012304**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 01/89122 A2	22.11.2001	AU 2001-263303 A8	26.11.2001
		AU 2001-63303 A1	26.11.2001
		AU 2001-6330301 A	26.11.2001
		US 6754171 B1	22.06.2004
		WO 01-89122 A2	22.11.2001
		WO 01-89122 A3	14.08.2003
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US 2006/0159209 A1	20.07.2006	NONE	
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US 2005/0254480 A1	17.11.2005	NONE	
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