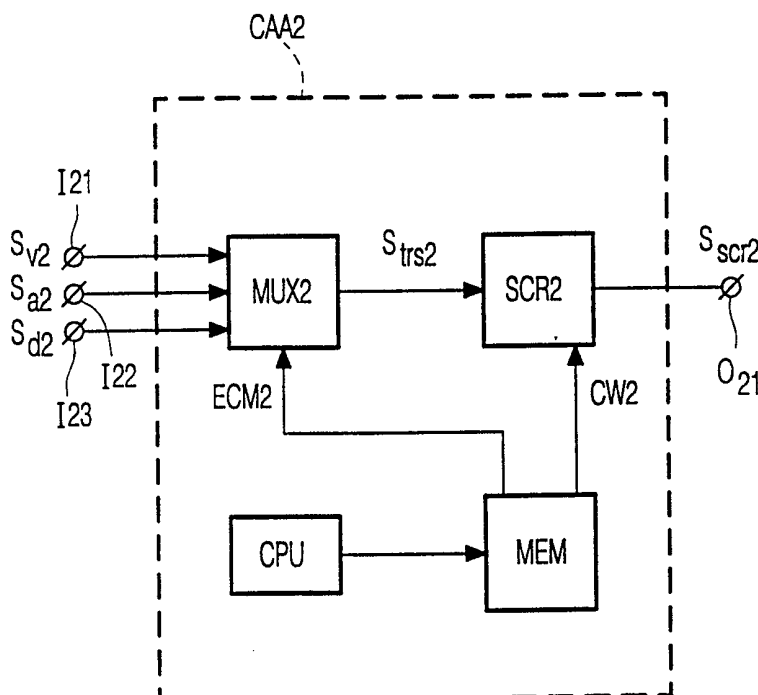




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(54) Title: CONDITIONAL ACCESS



(57) Abstract

Conditional access is used to prevent unauthorized use, for example, reception of signals. A conditional access apparatus performs a combination of scrambling and encryption to obtain these results. Known conditional access apparatuses use a control word generator to obtain the requested words, and an encrypter to encrypt the control words. The encrypted control words are sent together with the information to make descrambling possible at the receiving side. The invention proposes the use of a table of control words and encrypted control words as entitlement control words for realizing scrambling and descrambling.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER		
IPC6: H04N 7/173, H04N 7/167 According to International Patent Classification (IPC) or to both national classification and IPC		
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A	US 5420866 A (ANTHONY J. WASILEWSKI), 30 May 1995 (30.05.95), column 5, line 63 - column 6, line 36 --	1-4
A	WO 9738530 A1 (DIGCO B.V.), 16 October 1997 (16.10.97), page 3, line 25 - page 4, line 35 --	1-4
A	GB 2151886 A (BRITISH BROADCASTING CORPORATION), 24 July 1985 (24.07.85), abstract -- -----	1-4
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Information on patent family members

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PCT/IB 99/00037

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5420866 A	30/05/95	AU 687844 B AU 7220994 A CA 2186368 A,C JP 9511369 T WO 9526597 A	05/03/98 17/10/95 05/10/95 11/11/97 05/10/95
WO 9738530 A1	16/10/97	AU 2506397 A CA 2250833 A EP 0891670 A HR 970160 A	29/10/97 16/10/97 20/01/99 28/02/98
GB 2151886 A	24/07/85	NONE	