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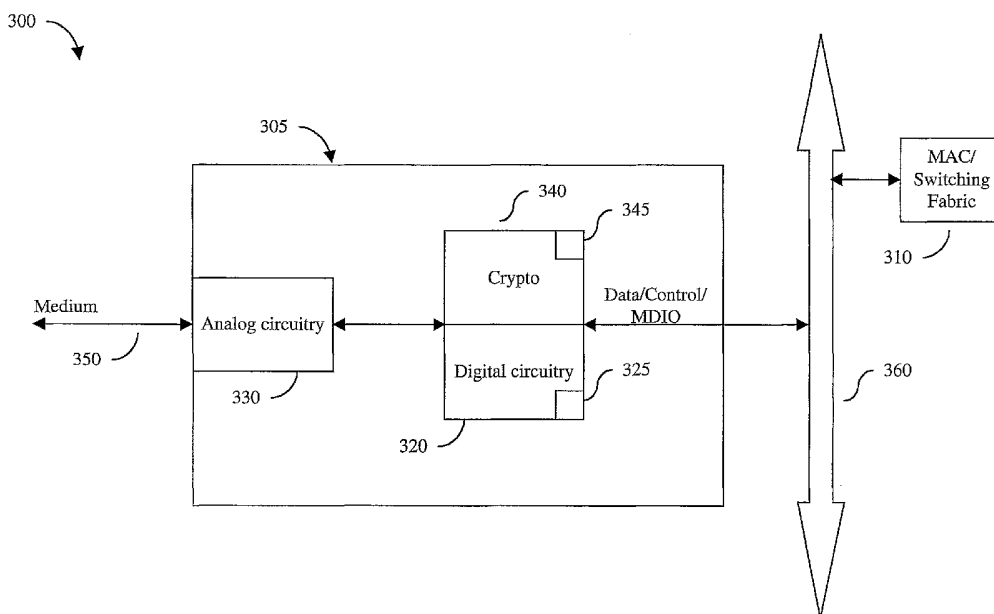
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(54) Title: METHOD AND APPARATUS OF COMMUNICATING SECURITY/ENCRYPTION INFORMATION TO A PHYSICAL LAYER TRANSCEIVER



(57) Abstract: An apparatus for providing link layer security in a Physical Layer Transceiver (PHY) (Fig. 3, 305) is disclosed. In one embodiment, the apparatus may comprise analog circuitry (Fig. 3, 330) configured to interface with a data transmission medium, digital circuitry (Fig. 3, 320) configured to interface with a Media Access Controller (MAC) (Fig. 3, 310); and a crypto engine (Fig. 3, 340) coupled to the digital circuitry. Single interface and multiple interface schemes are provided to control both PHY and crypto functions. Embodiments are disclosed where the PHY controls the crypto device, and where the crypto device controls the PHY.

WO 2005/034412 A3



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A. CLASSIFICATION OF SUBJECT MATTER

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 US CL : 713/151; 709/250; 380/255

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 713/151; 709/250; 380/255

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EAST [US PGPUB, USPAT, USOCR, EPO, JPO, DERWENT, IBM_TDB]

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,222,852 B1 (Gandy) 24 April 2001 (24.4.2001), Fig. 5	1-20
Y, P	US 2004/0030805 A1 (Fujimori et al) 12 February 2004 (12.2.2004), paragraph 0035, 0084 Fig. 7	1-20

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	"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
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