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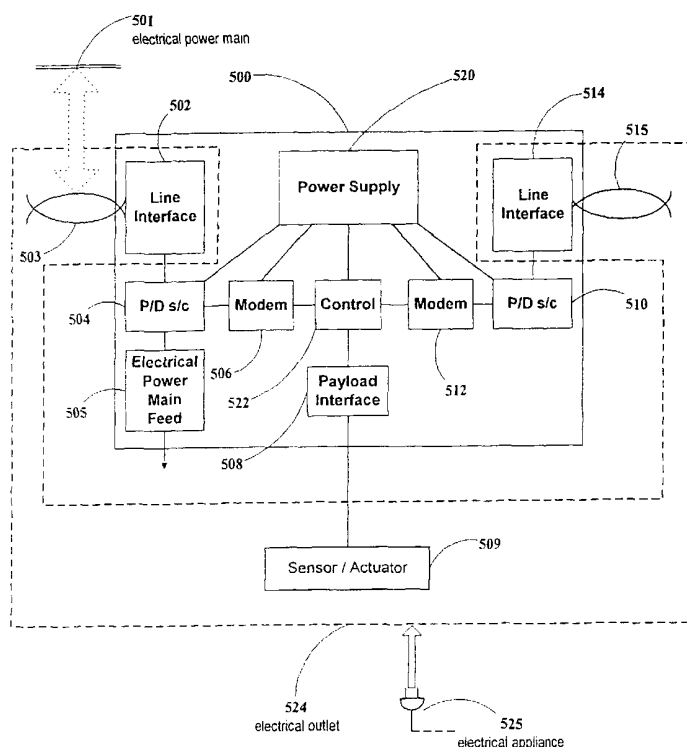
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(54) Title: LOCAL AREA NETWORK OF SERIAL INTELLIGENT CELLS



(57) Abstract: A serial intelligent cell (SIC) and a connection topology for local area networks using Electrically-conducting media. A local area network can be configured from a plurality of SIC's (500, 600, 700, 800, 900, 1006) interconnected so that all communications between two adjacent SIC's is both point-to-point and bidirectional. Each SIC can be connected to one or more other SIC's to allow redundant communication paths. Communications in different areas of a SIC network are independent of one another, so that, unlike current bus topology and star topology, there is no fundamental limit on the size or extent of a SIC network. Each SIC can optionally be connected to one or more data terminals, computers, telephones, sensors, actuators, etc., to facilitate interconnectivity among such devices. Networks according to the present invention can be configured for a variety of applications, including a local telephone system, remote computer bus extender, multiplexers, PABX/PBX functionality, security systems, and local broadcasting services. The network can use dedicated wiring, as well as existing wiring as the in-house telephone or electrical wiring.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04L 12/28

US CL : 370/293, 911

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)

U.S. : 370/293, 911

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 practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---------------|---------------------------------------------------------------------------------------------------------------------|------------------------------|
| X --- Y | US 5,311,114 A (SAMBAMURTHY et al.) 10 May 1994 (10.05.94), see figs. 1-2 & 5 and col. 7, line 38 - col. 9, line 3. | 1-3, 12-14, 19, 21, 28, & 31 |
| Y | US 5,311,593 A (CARMI) 10 May 1994 (10.05.94), see fig. 2. | 29-30 29-30 |

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

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