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(54) **Title:** FLEXIBLE HYBRID INTERCONNECT CIRCUITS

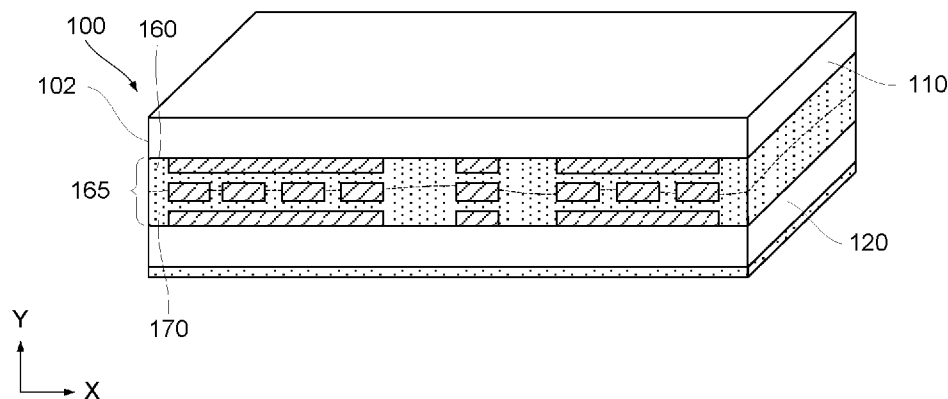


FIG. 1C

(57) **Abstract:** Provided are flexible hybrid interconnect circuits and methods of forming thereof. A flexible hybrid interconnect circuit comprises multiple conductive layers, stacked and spaced apart along the thickness of the circuit. Each conductive layer comprises one or more conductive elements, one of which is operable as a HF signal line. Other conductive elements, in the same and other conductive layers, form an electromagnetic shield around the HF signal line. Some conductive elements in the same circuit are used for electrical power transmission. All conductive elements are supported by one or more inner dielectric layers and enclosed by outer dielectric layers. The overall stack is thin and flexible and may be conformally attached to a non-planar surface. Each conductive layer may be formed by patterning the same metallic sheet. Multiple pattern sheets are laminated together with inner and outer dielectric layers to form a flexible hybrid interconnect circuit.



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 CPC (20130101) H05K 1/0218, H05K 1/0219, H01P 3/082
 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)
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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)
 Databases consulted: Esp@cenet, Google Patents, FamPat database

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5003273 A 26 Mar 1991 (1991/03/26) Entire Document	1-5,8-20
A	US 2016120021 A1 28 Apr 2016 (2016/04/28) Fig.3	1-20
A	US 2011121922 A1 26 May 2011 (2011/05/26) Entire Document	1-20
A	US 5675299 A 07 Oct 1997 (1997/10/07) Entire Document	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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