A Scalable Manufacturing Methodology for Advanced Flexible Electronics

Tech ID: 25011 / UC Case 2014-286-0

TECHNOLOGY DESCRIPTION

Flexible Electronics present a growing opportunity for new low cost conformal electronic systems with a variety of applications, including wearable health monitoring, medical implant technology and a variety of consumer applications. To date, manufacturing FE circuits fell into one of two ends of the circuit design spectrum. At one extreme, one could build very simple prototype FE systems with simple circuit elements with no scalability and limited functionality. At the other end of the spectrum, wafer based processes allowed mass scalability and complex circuit functions, but at the typical cost of wafer based chip production. Presented here is a novel, non-wafer approach, to bond commercially available bare-die IC's directly into an FE environment, allowing the low cost and scalable production of very complex circuitry on a flexible substrate.

This work is currently under active development and partners are sought for both the further development and/or commercialization of this novel approach to Flexible Electronics manufacturing.

This work is patent pending with all rights available for commercial development.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	10,582,618	03/03/2020	2014-286

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OTHER INFORMATION

CATEGORIZED AS

- Semiconductors
  - Design and Fabrication
  - Materials
  - Processing and Production
- Sensors & Instrumentation
  - Biosensors
  - Medical
  - Other

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