Advanced MEMS For RF and Millimeter Wave Communications

Fact Sheet

Project Information

AMICOM

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Project website

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1 January 2004

End date
31 October 2007

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FP6-IST

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€ 0

EU contribution
€ 5 499 124

Coordinated by
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE
France

Objective

The approach of the information society has resulted in a tremendous increase in the volume of wireless communication often giving rise to bottle-necks in the communication systems. To alleviate this congestion there is pressure to widen the allocated frequency bands up to millimetre wavelengths and to have terminals that are able to support many standards. It is understood that conventional components and solutions have limitations that will make it difficult to fulfil these requirements.

The last five years has seen the emergence of a technology, RF and microwave MicroElectroMechanical Systems (MEMS), that seeks to overcome these limitations. In this new technology mechanical and electrical functions are combined to improve the performance of existing devices, allow on-wafer device integration and the creation of completely new device systems called Advanced MEMSfor RF and Millimeterwave Communications "AMICOM".A consortium has been assembled that believes the merging MEMS technologies with 1Ctechnologies will lead to advanced

microsystems that can operate over very broad-bandfrequency ranges.

The microsystems will feature innovative functionalities, such as circuit redundancy, reconfigurability and power management. To realise this micro system concept, research and collaboration in many different fields is required including fabrication technology, materials, electromagnetics, mechanics, thermal and electrical modelling, characterisation, packaging and reliability. We believe that a Network of Excellence is the most appropriate vehicle with which to assemble and integrate the isolated competences that exist around Europe in this field.

In this way a powerful research body will be created that can compete with the United States and Japan. The idea is to give to the industrial partners access to a large and transparent body of European competence to help them to enhance their competitiveness.

Programme(s)

Topic(s)

Funding Scheme

NoE - Network of Excellence

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