



FP6-IST

Network of Excellence

ACE



Antenna Centre of Excellence

Activity Area 2.1: Millimetre Wave and Submillimetre Wave Antennas and Integrated Antennas

Work Packages

- WP 2.1.1 Active Integrated Antennas
- WP 2.1.2 Passive Mm and Sub Mm Wave Antennas
- WP 2.1.3 Benchmarking Manufacturing Facilities
- WP 2.1.4 Design and Testing

Partners

- University of Birmingham, U.K. (Activity & WP 2.1.1 Leader)
- University of Rome, La Sapienza, Italy. (WP 2.1.2 Leader)
- Alcatel, France. (WP 2.1.3 Leader)
- University of Rennes, France. (WP 2.1.4 Leader)
- Ecole Polytechnique Federale de Lausanne, Switzerland.
- Technische Universitaet Darmstadt, Germany.
- Instituto Superior Técnico, Portugal.
- Helsinki University of Technology, Finland.
- Universite de Marne la Vallee, France.
- Universidad Polytechnica de Valencia, Spain.
- Universitaet Karlsruhe, Germany
- BAE Systems, U.K.

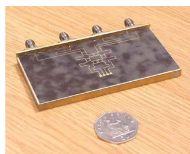
Achievements to Date

- Overview of the state of the art in millimeter wave and integrated antennas.
- Review of the state of the art in materials and manufacturing processes.
- Planning of a series of researcher exchanges of typically one or two months to spread expertise, to encourage collaboration and scope future longer term projects, supported by other European funding instruments.
- Specification of a series of antenna test cases that can be used to establish the state of the art in manufacturing in Europe.
- Compilation of an inventory of integrated and mm wave antenna design software and measurement facilities to enable sharing.

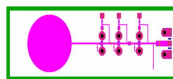
Future Plans

- Manufacture test cases to benchmark selected European manufacturing facilities
- Exchange researchers
- Share design and measurement facilities

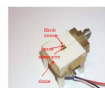
Partner interest



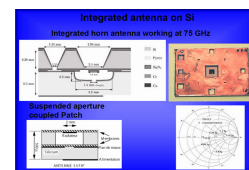
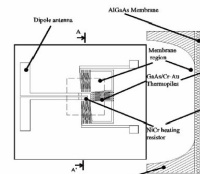
63GHz matrix fed array
University of Birmingham



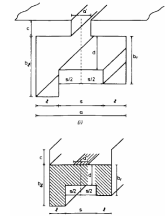
Active integrated antenna
University of Rennes



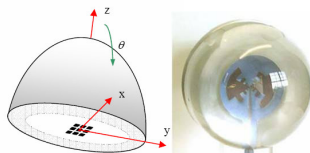
Micromachined integrated antenna
Technische Universitaet Darmstadt



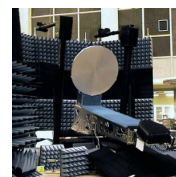
Micromachined antenna
Ecole Polytechnique Federale de Lausanne



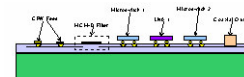
Leaky wave antennas
University of Rome, La Sapienza



Lens fed active antenna
Instituto Superior Técnico



MM wave measurement range
Helsinki University of Technology



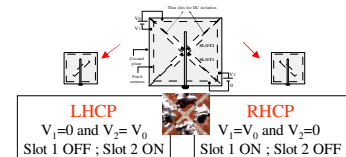
Proposed Q/V band
integrated antenna
Alcatel



Integrated antenna
Universidad Polytechnica de Valencia



MM wave shaped reflector
BAE Systems



Reconfigurable antenna
Universite de Marne la Vallee