Press Release

Alcatel transfers advanced Indium Phosphide (InP) technology to OMMIC for development of new Microelectronic circuits

Paris, 1st December 2003 - Alcatel (Paris: CGEP.PA and NYSE: ALA) and OMMIC announced today that they are collaborating on the transfer of Alcatel's advanced Indium Phosphide (InP) Heterojunction Bipolar Transistor (HBT) technology to OMMIC's Industrial Clean Rooms at its centre in Limeil-Brévannes, France. This transfer will complete OMMIC's commercial portfolio of III-V technologies and will provide Alcatel's System designers with a qualified source to develop 40 Gbit/s transmission systems for core networks.

InP, now well established as the choice material for long wavelength (1.3 –1.6 µm) optoelectronic devices, is receiving an increasing interest for its potential in microelectronic applications, ranging from millimetre-wave space and terrestrial communication systems, to very high bit rate fiber transmission systems (e.g. 10 and 40 Gbit/s).

The InP HBT technology was developed by the Alcatel Research & Innovation Department in the framework of its studies into 40 Gb/s transmission. On top of the normal advantages of the conventional bipolar transistor (high current drive capability, very low threshold voltage dispersion…), this InP DHBT process (actually a Double Heterojunction Bipolar structure is used) offers an exceptionally high cut-off frequency (greater than 200 GHz) with a breakdown voltage higher than 5 V. Using this DHBT technology, Alcatel has already developed prototype chip sets at 40 Gbit/s that have shown excellent results including record breaking performances. These circuits include full rate D-type Flip-Flops for reshaping or decision circuits, multiplexer-drivers as well as Voltage Controlled Oscillators.

OMMIC, already known for its unique enhancement-depletion mode and high frequency power PHEMT and MHEMT technologies, will now be one of the first foundries in the world to be able to offers its customers access to a leading edge InP HBT process.

Marc Rocchi, COO and CTO of OMMIC commented "We are delighted that we are going to be able to offer to our customers this outstanding technology developed by Alcatel. OMMIC has based its business on being able to provide technologies with real advantages compared to our competitors. This new InP DHBT process fits in exactly with our strategy and technology roadmap and will maintain OMMIC's leadership in III-V processes."

Joëlle Gauthier, Vice-President of Alcatel Research & Innovation, declared that "To prepare the future deployment of 40 Gbit/s systems, Alcatel has to secure the industrial availability of all required technologies, and we feel InP DHBT is one of them. This is why OMMIC commitment to develop the InP DHBT process is very good news for us."

About OMMIC

OMMIC, a part of the Philips Group of Companies, is a leading supplier of MMIC circuits, Foundry Service and Epitaxial Wafers based on III-V materials. As a leader in advanced technologies, OMMIC provides its customers with cutting edge performance in Telecommunication Applications which include Base Stations, Fibre Optic Links and Satellite Payloads. The Epitaxial unit produces high volume 4” and 6” wafers for PHEMT and HBT Foundries.

About Alcatel

Alcatel provides end-to-end communications solutions, enabling carriers, service providers and enterprises to deliver content to any type of user, anywhere in the world. Leveraging its long-term leadership in telecommunications network equipment as well as its expertise in applications and network services, Alcatel enables its customers to focus on optimizing their service offerings and revenue streams. With sales of EURO 16.5 billion in 2002, Alcatel operates in more than 130 countries.

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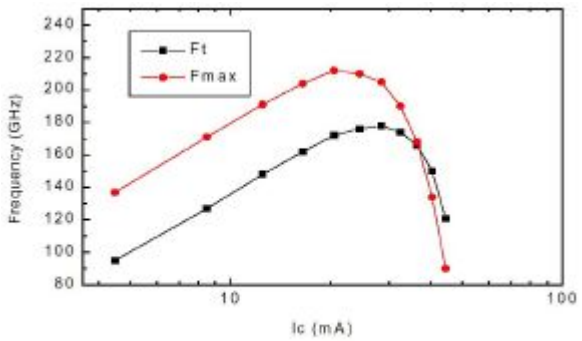
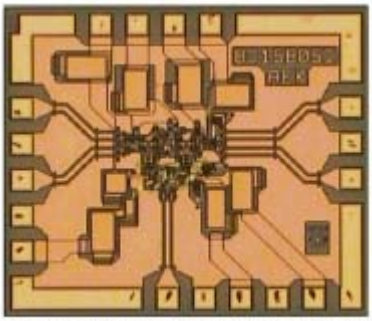
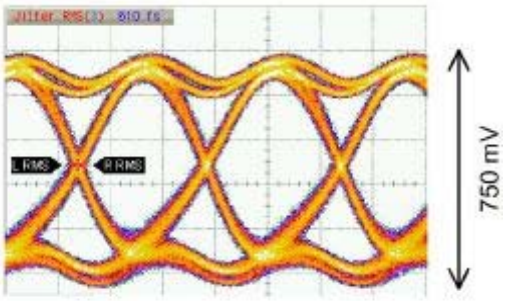


F_t and F_{max} for a 10x1.5 µm² device



Reshaper microphotograph (1.4x1.2 mm²)



Packaged 40 Gbit/s Reshaper Eye Diagram