

SESSION VII

HBT: High-Performance, Low-Volume,
and High-Volume, Low-Cost Applications
Chair: Craig Farley, Rockwell International

GaAs HBT technology has undergone rapid maturation in the last several years as its applications in rapidly developing telecommunications markets have exploded. Devices, technology and products are being driven by two distinct market forces: high performance parts for fiber optic communications systems with relatively small volumes and minimal price constraints, and low cost parts for transmission components in wireless handsets with exploding volumes and rapid price compression. These forces have driven several technology development paths in companies and universities around the world. The speakers in this session will report on their experience with HBT development in this context, including both AlGaAs- and InGaP-based device technologies. Topics include:

- Power HBTs for Digital Cellular Phones,
- Manufacturability of InGaP HBTs
- Passivation comparison for InGaP/GaAs HBTs,
- InGaP/GaAs HBTs with F_t and $F_{max} > 100$ GHz.