



Jazz juggles with low cost 130nm process

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Jazz Semiconductor, a niche wafer foundry, is to start offering a 130nm process using aluminum rather than copper for interconnects to enable key analog and RF functions to be integrated as low power logic with high-performance analog and RF circuitry. "RF System on Chip integration for low-cost wireless is a critical component of the growing portable and connected electronics markets. Jazz Semiconductor's 0.13 micron process platform provides an efficient option, enabling RF System on Chip integration," said Joanne Itow, managing director, Semico Research. "The follow-on 0.13 micron SiGe version will further enable circuit designers to achieve higher levels of integration at higher speeds."

The Jazz process uses a triple well for RF isolation, 5.6fF/um² MIM capacitors, varactors, low and high value precision resistors, and thick metal inductors for improved RF and analog performance.

The CA13 platform reuses key modules from Jazz's 0.35um and 0.18um platforms, provides six layers of metal, and can include high-performance modules such as SiGe NPNs, Vertical PNP, High-Voltage FETs and non-volatile memory, according to the company.

The roll-out of the CA13 platform precedes the release of the Jazz SBC13 Silicon Germanium (SiGe) BiCMOS technology that is based upon the RFCMOS process. The SBC13 technology includes a low-cost, 4 mask, SiGe bipolar NPN to combine all of the features of CA13 with the performance advantages of SiGe at low additional complexity.