

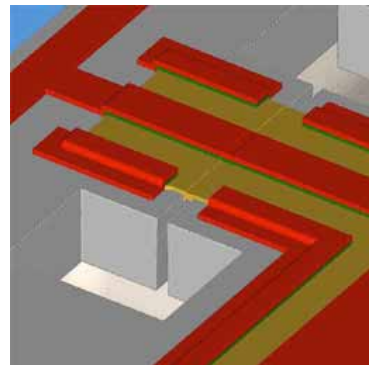
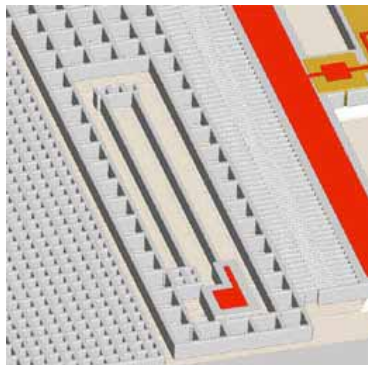


Custom Processes

The presence of a standard technology can greatly simplify the path to industrialization. MEMS fabless design-houses can design in a standard and well-known process as IC designers have been doing for many years in the CMOS platform. Despite a number of stable, well-characterized and accessible Multi-Project-Wafer processes for MEMS, a universal standard micro-machining process platform does not yet exist for MEMS, causing many companies to develop their own process.

What CAN be standardized are the way materials and processes are characterized. Single process blocks can be offered to external MEMS designers in the form of a virtual custom process step library. 3D solid models and layout template files can be created for custom technologies. Last but not least, parametric ARCHITECT schematic components can be pre-configured for certain processes. All this represents an excellent starting point, allowing MEMS designers to develop their MEMS projects more efficiently, for less cost.

Coventor's Process Design Kit Services partners with foundries to deliver a complete, verified, foundation library of custom CAD files designed for specific needs and is operational in just a few weeks. The PAK allows users to quickly start designing in a CoventorWare-centric design environment. For further information or related support questions, do not hesitate to contact your local Coventor sales representative or FoundryProgram@coventor.com



Virtual wafer processing: MEMulator creates a 3D MEMS model using the 2D design data and a calibrated process script. The tool can considerably simplify the creation of a MEMS layout for a designer who is using an X-FAB foundry process. It creates realistic images of the final MEMS device and allows a process specific design control already before the first mask creation and the first fab run. The pictures show Comb and mass structures of a MEMS device applying X-FAB's XM-SC process.

Source: XFAB

Other Information:

[MEMS Move Toward Standardization](#)
[High-Performance Integrated RF-MEMS](#)