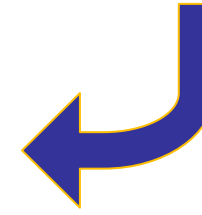
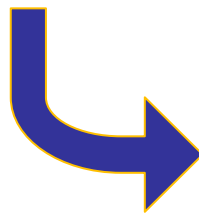




MEMS Gyro Evolution

Silicon Sensing is a joint venture between Atlantic Inertial Systems and Sumitomo Precision Products

Company



Silicon Sensing is a joint venture between Atlantic Inertial Systems and Sumitomo Precision Products



MEMS Gyro



Silicon Sensing is a joint venture between Atlantic Inertial Systems and Sumitomo Precision Products

Vibrating Structure Gyro Evolution



VSG 1
1985



VSG 2
1995



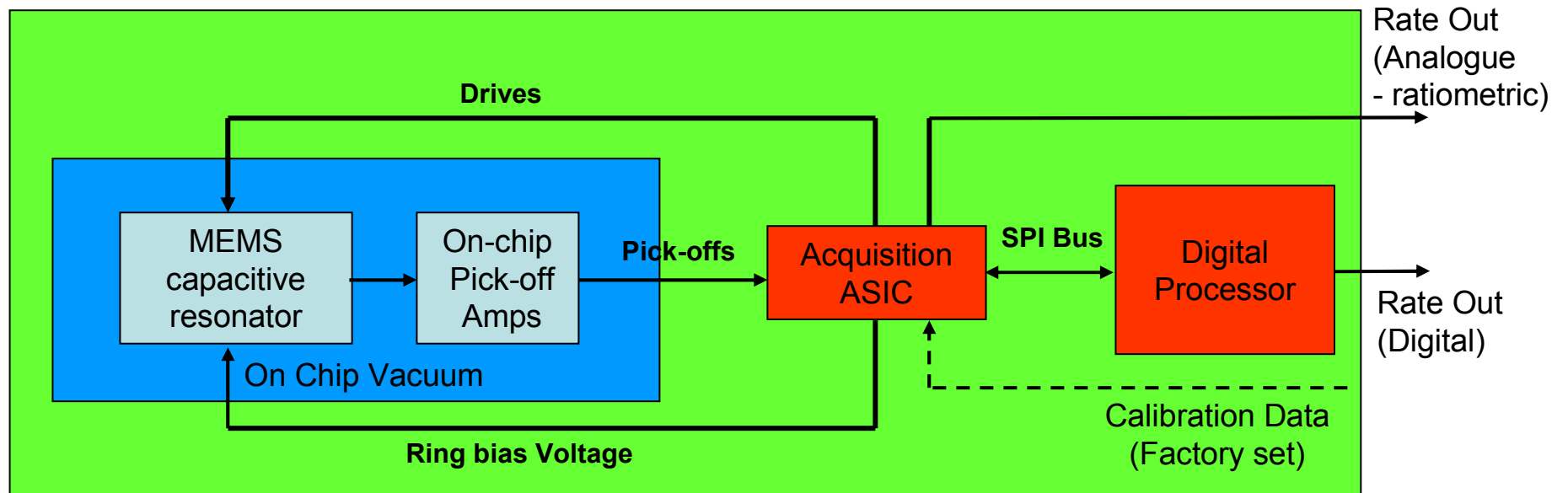
VSG 3
1998



VSG 4
2006

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VSG 4 Gyro Configuration

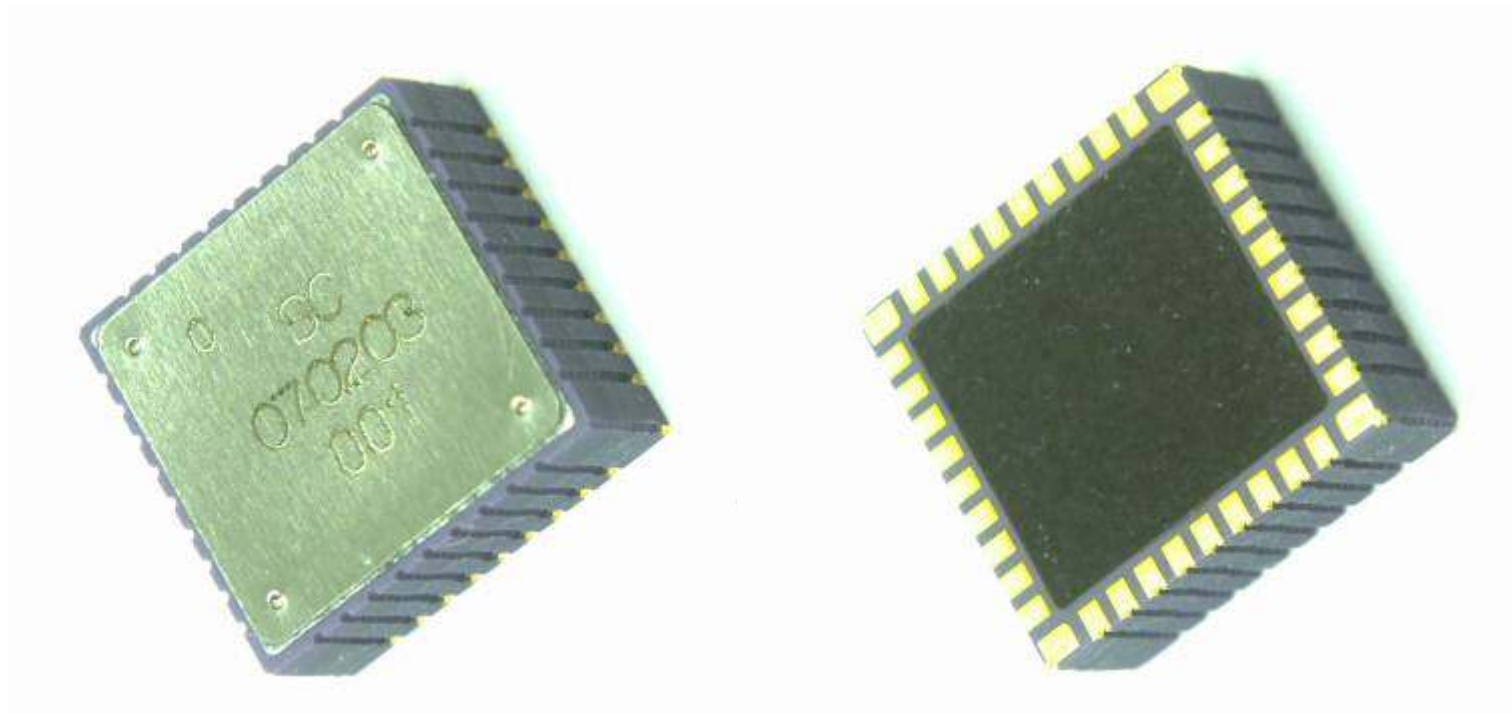


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VSG 4 Gyro Package

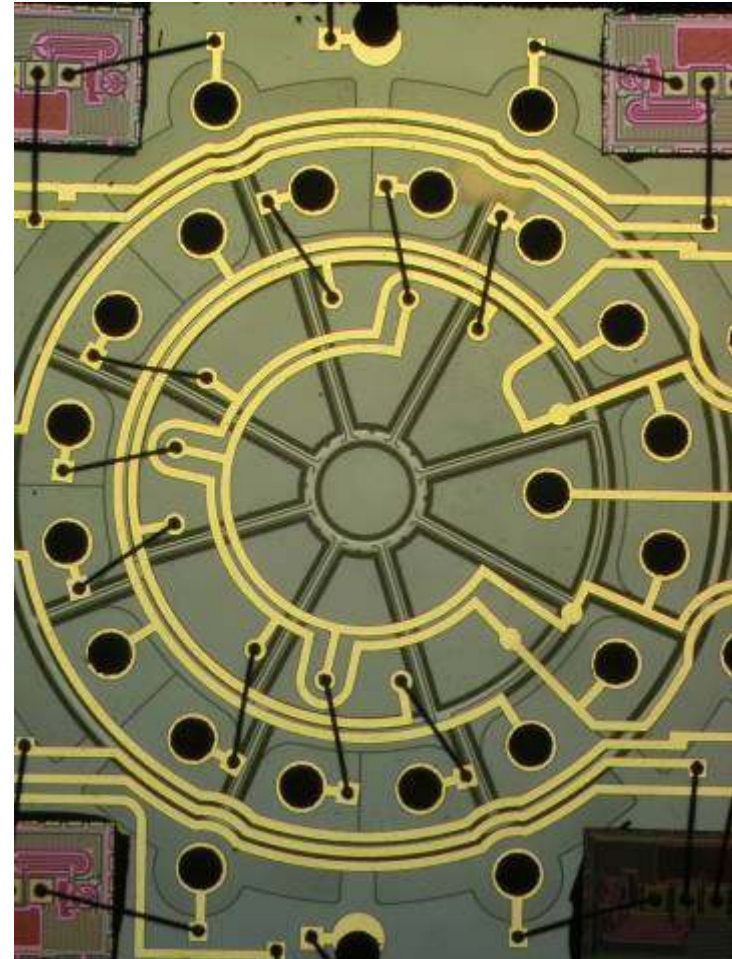
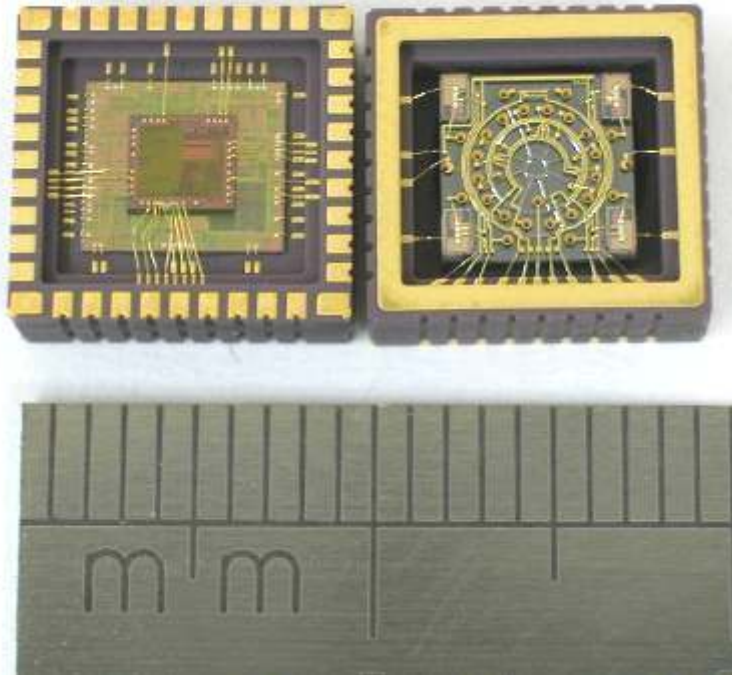
Top Side View

Bottom Side View



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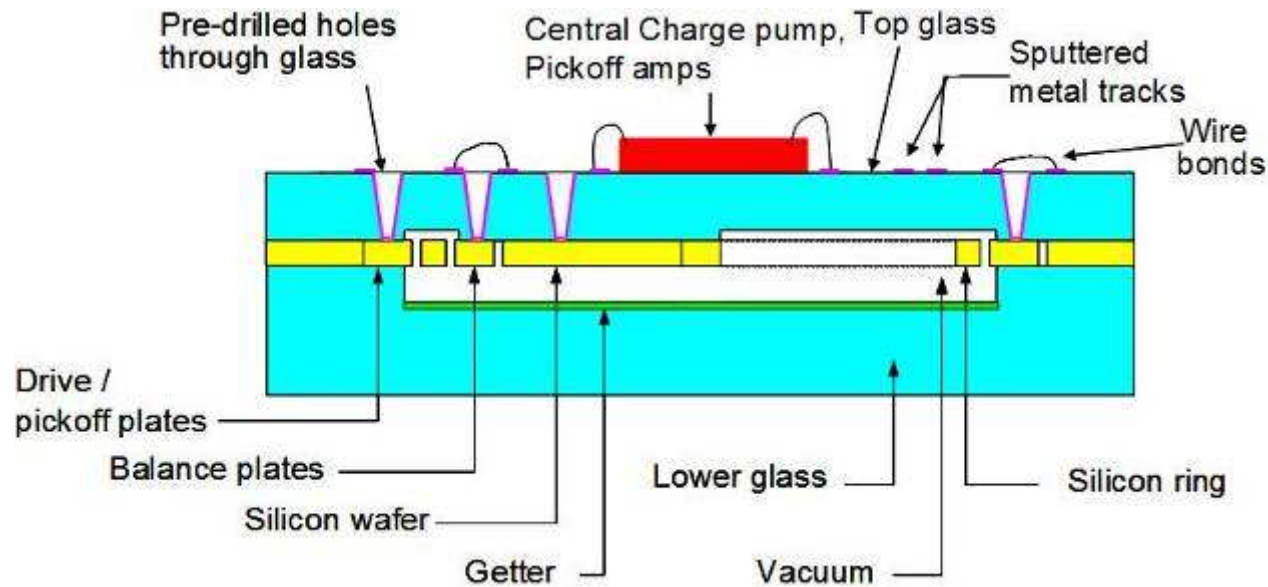
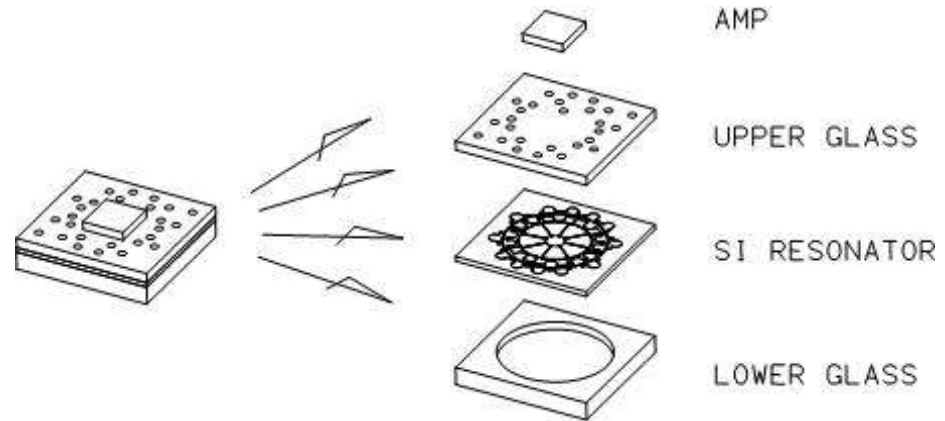
VSG 4



- VSG 4 Technology
- Complete single package digital gyro
- Multi chip ceramic package containing MEMS, ASIC and micro.

Silicon Sensing is a joint venture between Atlantic Inertial Systems and Sumitomo Precision Products

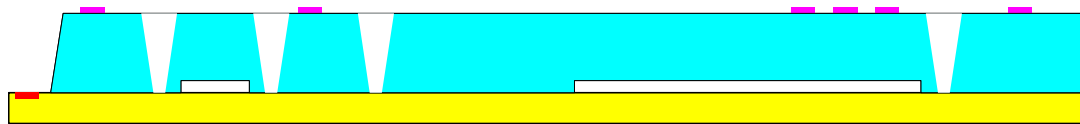
VSG 4 MEMS Structure



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Wafer Level Processing

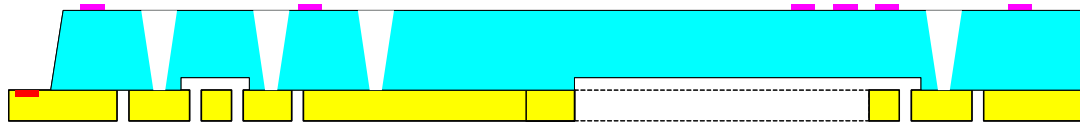
Deep Reactive Ion Etched, (DRIE) to form MEMS structure



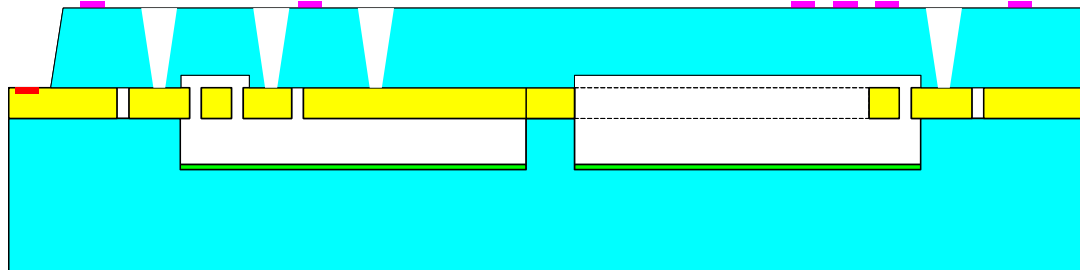
1st anodic bond - top glass to silicon wafer



DRIE photo-resist



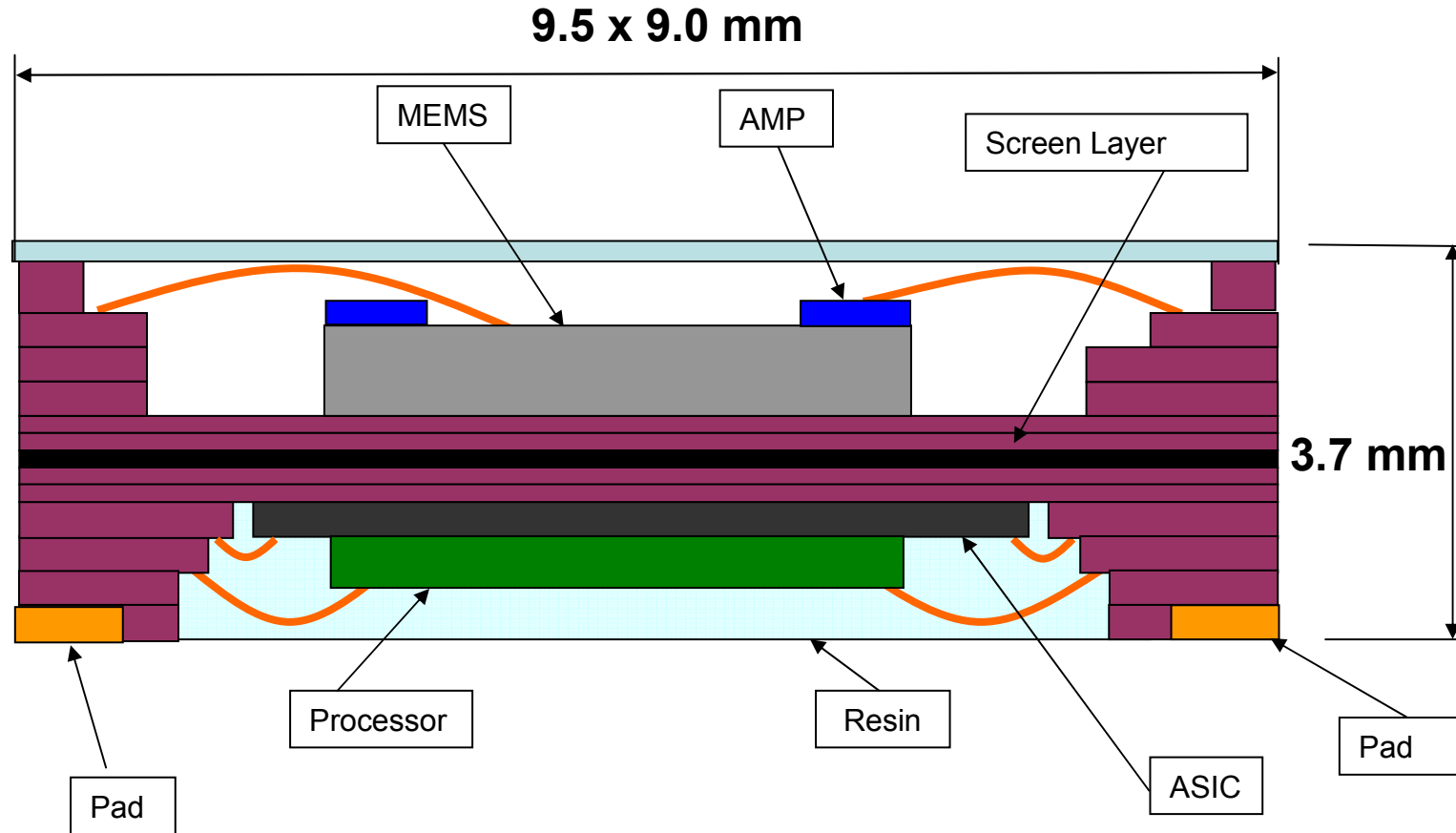
DRIE



**2nd anodic bond under vacuum - lower glass (with getter) to silicon wafer
Getter activation**

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Ceramic Package



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