MATERION

Data Sheet

STT-MRAM Materials

High-purity thin film materials to enable STT-MRAM applications.

There is an increased demand for high-quality magnetic tunnel junction (MTJ) materials to support the expanding market for mobile platforms, mass storage, and other automotive and industrial applications. These materials are the cornerstone for the transition to STT-MRAM (Spin-Transfer Torque Magnetic Random-Access Memory) technology. As a global supplier of MTJ materials, Materion manufactures critical components for the advanced memory and data storage industry.

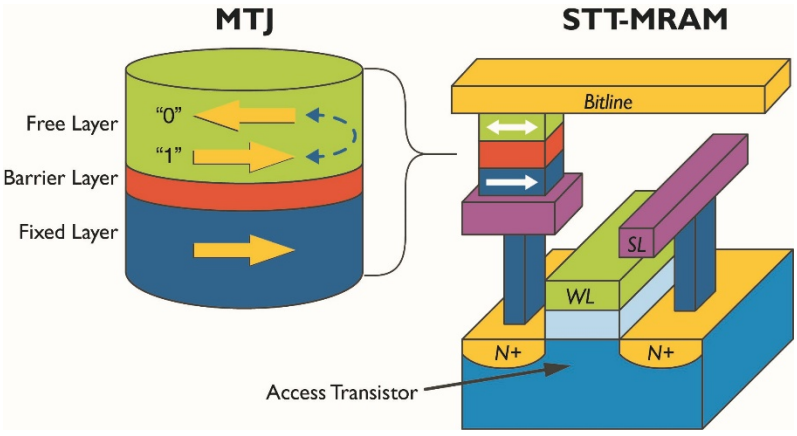
Materion produces the widest range of high purity thin film materials to meet STT-MRAM requirements. Our advanced vacuum casting technology and other processes produce alloys with very low oxygen impurity.

Vacuum Cast Alloys

- Cobalt and CoFe
- High purity, low oxygen FeCoB and CoFeB alloys
- FeCoB with >30% Boron
- Platinum and Palladium alloys
- Conflict-Free Tantalum
- Titanium, Zirconium, Tungsten, Molybdenum, Iron, Hafnium

Powder Metallurgy Alloys

- Magnesium Oxide (MgO) with density >99.7%
- Ruthenium
- Rhodium



BENEFITS

In addition to our unique materials and processes, we offer:

- Scalable from R&D to production
- Technical expertise in developing alloys
- Availability of local service
- Tight process controls for superior quality control
- Compatible with all standard OEMs

SPECIALIZED EXPERTISE

- Long-life Magnetic Targets
- Platinum and Palladium Alloys
- Precious and Valuable Metal Management
- Low Oxygen CoFeB Alloys
- High Purity Magnesium Oxide (MgO)
- Antiferromagnetic Materials

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