Industry Leading Product Portfolio Breadth

Client Devices
- Notebook / desktop HDD
- Consumer electronics HDD
- Client SSD
- Embedded, components

Client Solutions
- Branded HDD
- Branded flash
- Removable products

Datacenter Devices
- Enterprise HDD
- Enterprise SSD

Datacenter Solutions
- Datacenter systems and platforms
- Related software and solutions

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Western Digital Research Center

Long history of world class research in data storage technologies

• Pioneer in data storage materials, devices, and systems
  – Heritage dates back to the IBM San Jose Research laboratory, founded in 1956
  – Hard-disk-drive division and related research actives were acquired by Hitachi in 2006 and integrated with Western Digital in 2015
  – Active work at the Western Digital Research Center includes emerging non-volatile memory devices, data storage architecture, and magnetic recording concepts

• State of the art facilities
  – Dedicated NVM clean room with PVD/ALD deposition, photo/e-beam lithography, and wafer processing capability.
  – Access to world class materials characterization lab for TEM/SEM, FIB, AFM, etc.
  – Resources for prototyping, device test, and modeling/simulations.

• Recent breakthroughs and demonstrations
  – Heat-assisted magnetic recording on 1 Tb/in2 bit pattern media, Nature Photonics 4, 484 (2010)
  – 3 million IOPS, 1.5 us latency phase change memory based PCIe SSD, Flash Memory Summit (2014)

• Current department accolades
  – 2015-2016: 65 publications, 40 patents filed
  – 3 APS Fellows, 1 IEEE Fellow, 1 AVS Fellow

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Fast Learning Cycles For Materials Characterization

Fast-Track Wafer Process For Materials Development

Automated Probe Station & Test Algorithms

Wafer Data & Yield Analysis

Use of FMR to Compare RL to FL Stability

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Delivering the possibilities of data

Contact information
Ricardo Ruiz
Western Digital
ricardo.ruiz@wdc.com