

TFDx - Kingston

New Kingston SSDs - David Leong - PR Manager

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Founded in 1987

Privately held, based in Orange County, California

DRAM Solutions

NAND Flash Solutions

Gaming Solutions

Embedded Solutions

Testing Services

OEM and EMS Logistics

2016 Channel SSD Unit Market Share - 2nd

*Rich Canxxx

Many form factors - 2.5", 1.8", M2, etc

SSDs are everywhere

- PCs
- Commercial
- OEM
- DC Servers - Rapid growth market

NVMe is a PCIe Driver, not a form factor

PCIe and NVMe deliver far greater performance over SATA and SAS

FusionIO pioneered the approach of storage on PCIe

- Expensive
- proprietary drivers
- difficult to scale
- SPoF

Mainstream solutions

- affordable
- NVMe drivers in OS (PnP)
- Formfactors - HHHL, U.2 (2.5"), M.2 (replaced mSATA)

HHHL (AIC) card

- server / DC applications
 - high-end workstations
- U.2, 2.5"
- direct-attached, server backplane, just a bunch of flash (JBOF)
 - white box and OEM branded

M.2

- client applications
- notebook, desktop, workstations
- specialised systems

*Cameron

Kingston KC1000 NVMe SSD (240/480/960GB) - specs here - <https://www.kingston.com/us/ssd/consumer/SKC1000>

Kingston DCP1000 NVMe HHL (Add in Card) SSD - https://www.kingston.com/datasheets/DCP1000_us.pdf

28% over provisioning of the drives for endurance capability and write performance
7000MBs of bandwidth

85 - 90c per GB at the moment

1 Drive write per day (DWPD) over 3 years

Aggregate 4 SSDs under the heatsink, uses a switch

performance specs are based on the aggregate of these drives

PCIe switching to aggregate NVMe SSDs

This causes a slight hitch in performance

2.5" form factor will be around for a while - the key is serviceability