Our Future with Being Connected

IoT & Automotive with Flash Memory

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Making of IoT

Connected for Data Collection
Internet of Things Overview

- Cloud Computing
- Mobile Devices
- Maintain & Optimize

- Wearable
- Automotive
- IoT Device
- Data Mining & Analytics

Big Data Storage paves way for Artificial Intelligence & Deep learning
Not all IoT works!

In reality, IoT should make our lives more convenient and productive.

Automotive will be the most demanded IoT application.
Different Interfaces of Flash Storage for IoT

- Interface
  - JEDEC
  - SD Association
  - UFS
  - SERIAL
  - nvm EXPRESS
  - PCI EXPRESS
- Storage
  - NAND Flash
  - SSD
  - DRAM
  - NOR Flash
UFS “The” Next Storage Device in Cars

By 2025, On-board storage > 1TB
(by Daimler AG Mercedez-Benz @ 2017 Flash Memory Summit)

High Density Storage Transition from eMMC → UFS

In the next 3 years...
- UFS 3.0 with
- UniPro 1.8x
- MIPI M-PHY 4.x
- 3D TLC
Breakdowns of Flash Storage Solutions

3D NAND Era
Compared to planar process, 3D NAND flash has better advantages in terms of density, power consumption and cost.

Flash Controller
Capability of making a controller from scratch – Starting from IP design to firmware architecture.

System Design
Smaller form factors means more challenges for system designers – signal quality, thermal analysis and compact board design.

Add-on Values
Understand customer requirements and make something better – Customization brings out the best of flash storages.

IP Design  ASIC Design  Firmware Design
Who We Are & What We Do

We design flash memory controller.

We even design our own IP!

We build a strong relationship with NAND vendors.
What Makes Phison Different from Competitors

Traditional Controller Design House

Phison in-house high speed IPs are well-proven with our final solutions in market
Beyond mobile....

MIPI Alliance collaboration enables high speed interfaces & technology for the next generation