



UFS – Universal Flash Storage

High Performance Mass Storage

Toshiba's Flash memories with an integrated controller provide error correction, wear leveling, bad-block management, etc. They have an interface compliant with JEDEC/UFS Version 2.1, eliminating the need for users to perform NAND-specific control. The new full duplex serial high speed interface offers superior performance.

FEATURES

- 32 GB – 256 GB
- BiCS Flash™ Technology (3D NAND)
- Conforms to JEDEC Version 2.1
- Integrated memory management:
 - Error correction code
 - Bad block management
 - Wear-leveling
 - Garbage collection
- Standard temperature range
- 153 ball BGA FBGA package
- High Speed Serial interface

ADVANTAGES

- High speed up to 1160 MB/sec
- Managed memory
- Package, interface, features, commands etc. are standard
- Utilizing high quality Toshiba BiCS Flash™ memory in combination with a Toshiba origin developed controller
- Produced in the world's largest, leading edge technology flash factory

CAPACITIES



BENEFITS

- Easy to integrate storage solution due to established standards
- Cost efficient design in
- Optimal relation between price, density and performance
- Reliable storage solution based on high quality NAND memory and optimized controller
- Extended production capacity to fulfil customers demand

APPLICATIONS

- Consumer Electronics
- Multimedia Applications
- Industrial Applications

SPECIFICATIONS

| FEATURES | UFS – UNIVERSAL FLASH STORAGE |
|---------------|--|
| Density | 32 GB – 256 GB |
| Technology | BiCS 3D NAND |
| JEDEC Version | 2.1 (UniPro 1.6 / M-PHY 3.0) |
| Temperature | -25 °C to 85 °C |
| Package | 153 ball FBGA (11.5 x 13 mm ²) |

UFS – PRODUCT LIST

| DENSITY | PART NUMBER | TECHNOLOGY | JEDEC STANDARD | TEMPERATURE | PACKAGE |
|---------|-----------------|--------------|----------------|-----------------|-------------------|
| 32 GB | THGAF8G8T23BAIL | BiCS 3D NAND | JEDEC 2.1 | -25 °C to 85 °C | 153FBGA 11.5 x 13 |
| 64 GB | THGAF8G9T43BAIR | BiCS 3D NAND | JEDEC 2.1 | -25 °C to 85 °C | 153FBGA 11.5 x 13 |
| 128 GB | THGAF8T0T43BAIR | BiCS 3D NAND | JEDEC 2.1 | -25 °C to 85 °C | 153FBGA 11.5 x 13 |
| 256 GB | THGAF8T1T83BAIR | BiCS 3D NAND | JEDEC 2.1 | -25 °C to 85 °C | 153FBGA 11.5 x 13 |