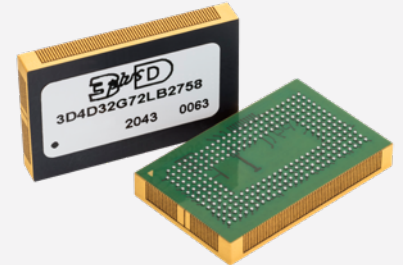


DDR4 MEMORY MODULES

High speed memories for defense and avionic markets

3D PLUS presents its compact DDR4 modules for applications requiring high-speed computing memory. Thanks to 3D PLUS proven stacking technology, DDR4 ruggedized modules offer high reliability in BGA packages for harsh environments.

These devices allow 2400 Mbps data transfer rates and provide more than 50% space saving on PCB.



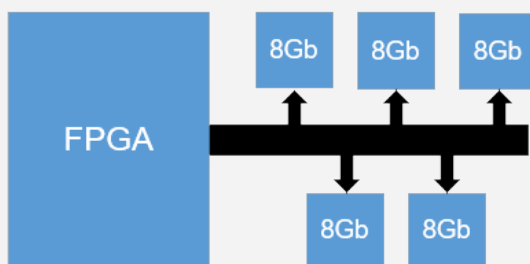
Key features:

- Density up to 32 Gbit
- Bus width: 32 and 72 bits
- Voltage 1.2V
- Data transfer: 2400 Mbps
- Address/Control termination included
- Decoupling capacitors included
- Available in Industrial and Military temperature range
- Compact BGA packages
- Long term supply continuity

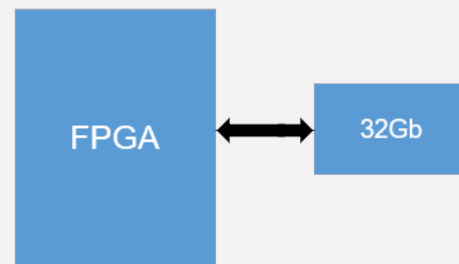
Key benefits:

- More than 50% space saving
- High reliability in harsh environment
- Full qualification at extended temperature
- Long term availability, EOL management for long term program

Architecture using COTS DDR4, 32Gbit x 72



Architecture using 3D PLUS DDR4, 32 Gbit x 72



COMING EVENTS

GLEX (GLOBAL SPACE EXPLORATION CONFERENCE)

ST. PETERSBURG, RUSSIA

14-18 JUNE 2021

Oral presentation: Camera Systems (J. BEZINE)

NSREC - VIRTUAL

16-23 JULY 2021

Poster presentation: Space DDR4 memories

SUCCESS STORY - OSIRIS REX



Image Credit: NASA/Goddard/University of Arizona

NASA's OSIRIS-REx spacecraft started its journey back to Earth on May 10th.

Launched on September 8th 2016, OSIRIS-REx reached Benu asteroid orbiter in 2018 and finally touched down Benu in October 2020 in order to collect a sample of the asteroid's surface.

3D PLUS supplied highly reliable NOR Flash and SDRAM memory modules for the mission. Our products provides a high density memory density and radiation protection.

The OSIRIS-REx return capsule is scheduled to land on Earth in September 2023.