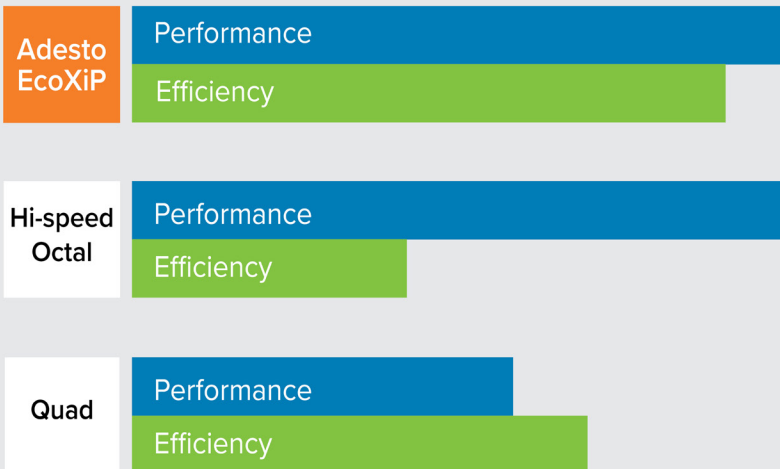# EcoXiP ATXP Series

High-performance low-power octal flash

Octal interface optimized for execute-in-place

Best Performance, Best Power

Adesto EcoXiP	Performance
	Efficiency
Hi-speed Octal	Performance
	Efficiency
Quad	Performance
	Efficiency

Performance
CoreMark® test on NXP's i.MX RT1050 with 8 instruction cache invalidations every ms to simulate task switching & interrupt handling.

Efficiency
CoreMark® score / power consumption

Best Performance
blazingly fast eXecute-in-Place (XiP)
As microcontrollers push the performance envelope and use cutting edge technologies, the cost to integrate internal flash quickly becomes prohibitive. With its blazingly fast performance and low power consumption, EcoXiP allows even time critical software to be executed directly out of non-volatile memory, reducing boot time and system cost.

Best power
high-efficiency low-power design
For all battery powered designs, power consumption is critical. Often this means sacrificing performance. EcoXiP's intelligent power management helps you simplify your design without the need for compromises. Special power saving modes and high efficiency read operations make EcoXiP perfect for any battery operated application.

Read While Write (RWW)
simplified OTA updates
Updating program code can be a tedious task. Once downloaded, then the system has to pause while it performs the update, before finally returning to normal operation. Read While Write (RWW) allows an update to be programmed in the background without any impact to the user. Once ready, the user can be prompted and the upgrade happens immediately. No wait, no fuss, better user experience and simple design.

Adesto™

www.adestotech.com

APPLICATIONS

- Instant on modules
- Industrial IoT
- Building automation
- Wearables

- Consumer devices
- Smart appliances
- Medical devices

- OTA intensive applications
- Network modules
- Audio subsystems

Density	Part Number	Speed	Quad	QPI DDR	OPI DDR	RWW
32Mbit	ATXP032	150MHz	•	•	•	
	ATXPO32B	150MHz	•	•	•	•
64Mbit	ATXP064	133MHz	•	•	•	
	ATXPO64B	133MHz	•	•	•	•
128Mbit	ATXP128	133MHz	•	•	•	
	ATXP128B	133MHz	•	•	•	•

Performance for the real world

Today's Internet of things (IoT), smart devices, and embedded processors demand high performance and instant-on capabilities while keeping power consumption to a minimum. eXecute in Place (XiP) technology is well suited to meet these needs. Adesto's EcoXiP takes this to the next level.

Specifically designed to work with cache controllers, EcoXiP dramatically reduces latency for cache misses. Unlike other octal flash solutions that sacrifice power consumption for high data rates, EcoXiP maintains low power operation by utilizing Adesto's proprietary technology.

EcoXiP offers the perfect solution for memory expansion in systems that don't have enough embedded flash or SRAM. With its high performance, even time-critical code can execute directly out of flash, eliminating the need to add expensive and power hungry external DRAM.
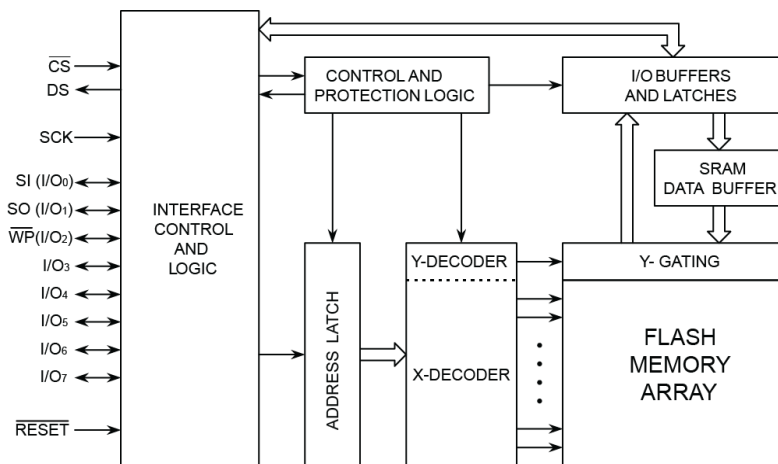
Technical Specifications

- eXecute in Place (XiP)
  - Instant-on capability
  - Lower system cost
- Reduced cache latency
  - Critical word first
  - Zero latency for additional cache lines
- Up to 266MBytes / sec
  - Octal DDR xSPI interface
  - Full JESD251 , JESD252, and JESD216D compatibility
- Low power consumption / high efficiency
  - Low read current
  - Variable strength I/O
  - Deep sleep / ultra-deep sleep modes
- Read While Write (RWW)
- Flexible erase and program architecture
  - Block erase: 4, 32, and 64KBytes
  - Byte / page program (1-256 bytes)
  - Suspend / resume, erase and program operations
- Hardware and software write protection
- 256 byte OTP security register
- 100K erase / program cycles
- 20 years data retention
- Single 1.8V supply
- Industrial temp range: -40°C to +85°C
- Pb / Halide-free / RoHS compliant

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Adesto Technologies](#):
  [ATXP032-CCUE-T](#) [ATXP032-CCUE-Y](#) [ATXP032-UUE-T](#) [ATXP128-UUE-T](#) [ATXP128-CCUE-T](#) [ATXP128-CCUE-Y](#) [ATXP032-DWF](#)