SMART's Removable Flash Solutions
ATA Card XL

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SMART Modular Technologies' ATA Card XL Flash PC Cards are ideal for use in mobile and embedded computing, medical, automotive, and industrial applications. This industrial-grade RoHS-compliant product line is available in densities from 64MB to 32GB and is designed with the industry's best-in-class read and write speeds, satisfying the requirements of the ultra direct memory access (UDMA) protocol. Featuring high performance (24MB/s read/write) combined with low power (60mA read/write = 0.198W), SMART's industrial-grade ATA Card XL is particularly well suited for embedded applications, such as housing embedded code, embedded storage, and boot code.

The entire ATA Card XL Flash product line supports self-monitoring analysis and reporting technology (S.M.A.R.T.), which is designed to reduce field failures and unscheduled service maintenance operations. By providing an accurate forecast of the expected lifespan, S.M.A.R.T. enables a reliable monitoring application that efficiently supports the ATA Card XL Flash product in the field and guarantees a 24/7 service availability.

Product Family At-A-Glance

	Capacity	Performance Sequential
ATA Card XL		
CFA Compliant	64MB - 32GB	up to 24Mb/s Read (maximum) up to 12Mb/s Write (maximum)

Features

- PC Card Standard Release 8 Compliant
- Capacity Range 64MB to 32GB
- CIS (Card Information Structure) programmed into 256 Bytes of Attribute Memory
- Low Power Dissipation
  - High Performance Read Current: 60 mA
  - High Performance Write Current: 60 mA
  - Passive Mode: < 6 mA
- Supports Memory Mapped, I/O Mapped, and True IDE Interface Modes
- Supports up to:
  - IDE PIO Mode 6
  - IDE Multi-Word DMA Mode 4
  - IDE Ultra DMA Mode 5
  - PCMCIA Ultra DMA Mode 5
- Hardware RS-code ECC, 4 symbol/page
- Static Wear Leveling
- RoHS compliant
- Optional Industrial Temp Range -40°C to +85°C

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Specifications

	ATA Card XL	
Performance		
Read (maximum)	up to 24MB/s	
Write (maximum)	up to 12MB/s	
Host Interface Rate (maximum)	16MB/s	
Reliability		
MTBF	> 2,500,000 hours	
Data Reliability	1 in 1014 bits read	
Data Retention	10 years	
Endurance	>2,000,000 program/erase cycles	
Power		
Vcc	5.0V+10%	3.3V+5%
Read	80mA	60mA
Write	70mA	60mA
Idle	9mA	6mA
Environmental		
Shock	50G max. @ 11mS	
Vibration	15G peak to peak	
Operating Temperature - Commerciall Grade	0ºC to 70ºC	
Operating Temperature - Industrial Grade	-40ºC to +85ºC	
Storage temperature	-65ºC to 150ºC	
Humidity	5% to 95%	
Altitude	up to 80,000 ft.	
Physical		
Length	85.60 mm	
Width	54.00 mm	
Thickness	3.30 mm	
Weight	31.25 gm	

Ordering Information

Part Number	Density
Commercial Grade	
SG9PC128HYD1A	128MB
SG9PC256HYD1A	256MB
SG9PC512HYD2A	512MB
SG9PC1GHYD4A	1GB
SG9PC2GHYD9A	2GB
SG9PC4GHYD9A	4GB
SG9PC8GHYDBT	8GB
Industrial Grade	
SG9PC128HYD1AI	128MB
SG9PC256HYD1AI	256MB
SG9PC512HYD2AI	512MB
SG9PC1GHYD4AI	1GB
SG9PC2GHYD9AI	2GB
SG9PC4GHYD9AI	4GB
SG9PC8GHYDBTI	8GB

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