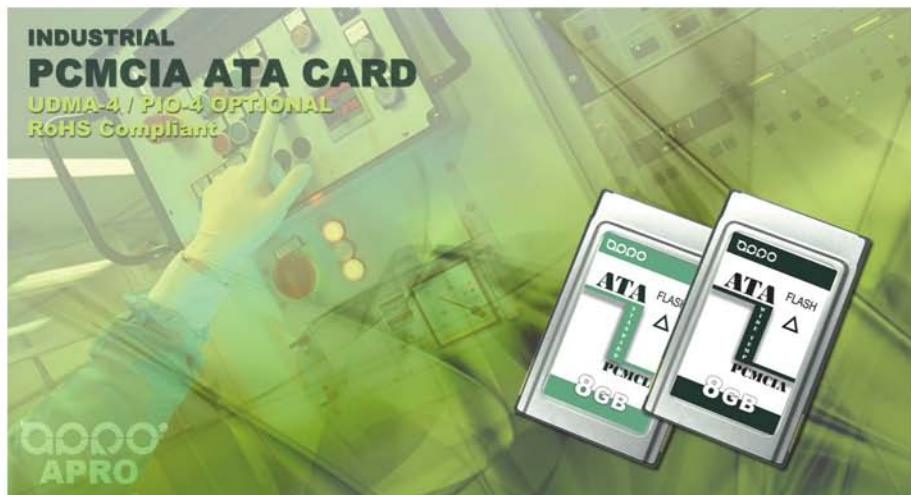


INDUSTRIAL PCMCIA ATA FLASH CARD



Standard casing supports operating temperature 0°C ~ 70°C	19
Standard casing supports operating temperature -40°C ~ 85°C	21
Part number decoder	23

Industrial PCMCIA ATA flash card supports operating temperature 0°C ~ 70°C

Features:

- NAND type SLC flash technology
- Card capacity from 16MB up to 8GB
- ATA interface and True IDE mode
- Support PIO-4 or UDMA-4 mode
- Performance up to 19.9MB/sec
- Operating temperature 0°C ~ 70°C
- 1 year warranty

Commercial Grade



Specifications:

◆ ATA PC Card Specification	ATAPI-5 and True IDE	
◆ Flash Technology	NAND type SLC flash based	
◆ Form-factor	PCMCIA type II	
● Connector	68 pins	
◆ System Performance		
● Data Transfer Mode	PIO-4 mode or UDMA-4 mode	
● Date Transfer Rate	16.6MB/sec / 66.6MB/sec	
● Sequential Read	19.9MB/sec (64MB file test)	
● Sequential Write	8.7MB/sec (64MB file test)	
● Average Access Time	0.7ms (estimated)	
◆ Environmental Specification		
● Operating Temperature	0°C ~ 70°C	
● Non-operating Temperature	-20°C ~ 80°C	
● Humidity	5% ~ 95% non-condensing	
● Acoustic Noise	0dB	
● Vibration	15 G, compliance to MIL-STD-810F	
● Shock	1,000G, compliance to MIL-STD-810F	
● Altitude	70,000 feet	
◆ Power Consumption		
● Power Requirement	+5V ± 10%	+3.3V + 5%
● Reading Mode	50 mA (Max.)	65 mA (Max.)
● Writing Mode	50 mA (Max.)	62 mA (Max.)
● Standby Mode	61.3 mA (Max.)	60.9 mA (Max.)
● Sleeping Mode	1 mA (Max.)	0.3 mA (Max.)



◆ Reliability	
● MTBF	> 1,000,000 hours
● ECC	Enhanced management per 4-bit ECC code
● Endurance	> 2,000,000 times; contributed by wear-leveling and advanced bad sector management algorithms
● Data Reliability	< 1 non-recoverable error in 10^{14} bits read
● Date Retention	10 years
◆ Physical Specification	
● Weight (MAX.)	43.0g
● Dimension	85.6 mm (W) * 54.0 mm (L) * 5.0 mm (H)
◆ Warranty	1 year

Part Number List:

Grade	Operating temperature supports 0°C ~ 70°C	
	PIO-4 mode	UDMA-4 mode
16MB	SPAF016S-DCSC-P	SPAF016S-DCSC-U
32MB	SPAF032S-DCSC-P	SPAF032S-DCSC-U
64MB	SPAF064S-DCSC-P	SPAF064S-DCSC-U
128MB	SPAF128S-DCSC-P	SPAF128S-DCSC-U
256MB	SPAF256S-DCSC-P	SPAF256S-DCSC-U
512MB	SPAF512S-DCSC-P	SPAF512S-DCSC-U
1GB	SPAF01GS-DCSC-P	SPAF01GS-DCSC-U
2GB	SPAF02GS-DCSC-P	SPAF02GS-DCSC-U
4GB	SPAF04GS-DCSC-P	SPAF04GS-DCSC-U
8GB	SPAF08GS-DCSC-P	SPAF08GS-DCSC-U

Industrial PCMCIA ATA flash card supports operating temperature -40°C ~ 85°C

Features:

- NAND type SLC flash technology
- Card capacity from 16MB up to 8GB
- ATA interface and True IDE mode
- Data transfer supports PIO-4 and UDMA-4
- Performance up to 19.9MB/sec
- Operating temperature -40°C ~ 85°C
- 3 years warranty

Industrial Grade



Specifications:

◆ ATA PC Card Specification	ATAPI-5 and True IDE mode	
◆ Flash Technology	NAND type SLC flash based	
◆ Form-factor	PCMCIA type II	
● Connector	68 pins	
◆ System Performance		
● Data Transfer Mode	PIO-4 mode or UDMA-4 mode	
● Date Transfer Rate	16.6MB/sec	66.6MB/sec
● Sequential Read	19.9MB/sec (64MB file test)	
● Sequential Write	8.7MB/sec (64MB file test)	
● Average Access Time	0.7ms (estimated)	
◆ Environmental Specification		
● Operating Temperature	-40°C ~ 85°C	
● Non-operating Temperature	-50°C ~ 95°C	
● Humidity	5% ~ 95% non-condensing	
● Acoustic Noise	0dB	
● Vibration	15 G, compliance to MIL-STD-810F	
● Shock	1,000G, compliance to MIL-STD-810F	
● Altitude	70,000 feet	
◆ Power Consumption		
● Power Requirement	+5V ± 10%	+3.3V ± 5%
● Reading Mode	50 mA (Max.)	65 mA (Max.)
● Writing Mode	50 mA (Max.)	62 mA (Max.)
● Standby Mode	61.3 mA (Max.)	60.9 mA (Max.)
● Sleeping Mode	1 mA (Max.)	0.3 mA (Max.)



- ◆ **Reliability**
 - MTBF > 1,000,000 hours
 - ECC Enhanced management per 4-bit ECC code
 - Endurance > 2,000,000 times; contributed by wear-leveling and advanced bad sector management algorithms
 - Data Reliability < 1 non-recoverable error in 10^{14} bits read
 - Date Retention 10 years
- ◆ **Physical Specification**
 - Weight (MAX.) 43.0g
 - Dimension 85.6 mm (W) * 54.0 mm (L) * 5.0 mm (H)
- ◆ **Warranty** 3 years

Part Number List:

Grade	Operating temperature supports -40°C ~ 85°C	
	PIO-4 mode	UDMA-4 mode
16MB	WPAF016S-DISI-P	WPAF016S-DISI-U
32MB	WPAF032S-DISI-P	WPAF032S-DISI-U
64MB	WPAF064S-DISI-P	WPAF064S-DISI-U
128MB	WPAF128S-DISI-P	WPAF128S-DISI-U
256MB	WPAF256S-DISI-P	WPAF256S-DISI-U
512MB	WPAF512S-DISI-P	WPAF512S-DISI-U
1GB	WPAF01GS-DISI-P	WPAF01GS-DISI-U
2GB	WPAF02GS-DISI-P	WPAF02GS-DISI-U
4GB	WPAF04GS-DISI-P	WPAF04GS-DISI-U
8GB	WPAF08GS-DISI-P	WPAF08GS-DISI-U

Part Number Decoder

S	P	A	F	0	1	6	S	-	D	C	S	C	-	U
X	X	X	X	X	X	X	S		X	X	S	X		X
1	2	3	4	5	6	7	8		9	10	11	12		13

1 Temperature

S = Standard temperature (0 °C ~ 70 °C)

W = Wide temperature (-40 °C ~ 85 °C)

2 3 4 Product category

PAF = PCMCIA ATA card in plastic frame kit

5 6 7 Card capacity

016=16MB 032=32 MB 064=64 MB

128=128MB 256=256MB 512=512MB

01G=1GB 02G=2GB 04G=4GB

08G=8GB

8 The brand of flash controller

S = Controller brand

9 Controller model

D = 3S8873

10 Controller grading

C = Commercial grade

I = Industrial grade

11 The brand of flash memory

S = Samsung SLC NAND flash

12 Flash memory IC grading

C = Commercial grade

I = Industrial grade

13 Data transfer mode

P = PIO mode

U = UDMA mode