

SanDisk
Application Note

Differences Between PC Card ATA
and CompactFlash™



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Lit. No. 80-13-00072 Rev. 1.0 1/96

Printed in U.S.A.

Differences Between PC Card ATA and CompactFlash

Overview

CompactFlash (CF) is electrically equivalent to PC Card ATA, the mass storage interface defined by PCMCIA. The main differences between the two are the size of the cartridge and the number of pins on the connector. CF uses a 50 pin connector and PC Card ATA uses a 68 pin connector. Even though the CF connector has fewer pins than the PC Card ATA connector, there is no reduction in features because both CF and PC Card ATA connectors use less than 50 signals. Both connectors are made of the same materials, have the same physical pin to pin spacing and are highly reliable and rugged with 10,000 insertions supported. Table 1 below shows the differences between PC Card ATA and CF and Table 2 shows the pinout differences between PC Card ATA and CF. Figure 1 shows the pin orientation of PC Card ATA and CF.

Table 1 Differences between PC Card ATA and CF

	PC Card ATA	CompactFlash
Card Differences		
Physical Interface	68 Pins	50 Pins
Length	85.6 ± 0.20 mm	36.4 ± 0.15 mm
Width	54.0 ± 0.10 mm	42.8 ± 0.10 mm
Thickness	5.0 mm max	3.3 ± 0.20 mm (label to label)
Weight	33.0 grams typical	11.4 grams typical
Shock	1000 Gs	2000 Gs
Socket Differences		
PC Card ATA Mode	Mandatory	Mandatory
IDE Mode	Optional	Mandatory

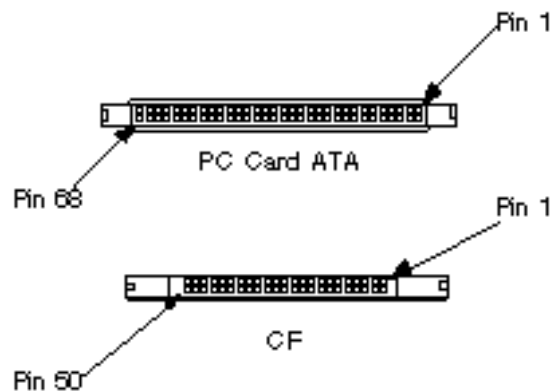


Figure 1 Pin Orientation of PC Card ATA and CF

Table 2 Pinout Differences between PC Card ATA and CF

	PC Card ATA	CompactFlash		PC Card ATA	CompactFlash
Pin 1	GND	GND	Pin 35	GND	-IOWR
Pin 2	D03	D03	Pin 36	-CD1	-WE
Pin 3	D04	D04	Pin 37	D11	-RDY/-BSY/-IREQ
Pin 4	D05	D05	Pin 38	D12	VCC
Pin 5	D06	D06	Pin 39	D13	-CSEL
Pin 6	D07	D07	Pin 40	D14	-VS2
Pin 7	-CE1	-CE1	Pin 41	D15	RESET
Pin 8	A10	A10	Pin 42	-CE2	-WAIT
Pin 9	-OE	-OE	Pin 43	-VS1	-INPACK
Pin 10		A09	Pin 44	-IORD	-REG
Pin 11	A09	A08	Pin 45	-IOWR	BVD2
Pin 12	A08	A07	Pin 46		BVD1
Pin 13		VCC	Pin 47		D08
Pin 14		A06	Pin 48		D09
Pin 15	-WE	A05	Pin 49		D10
Pin 16	-RDY/-BSY/-IREQ	A04	Pin 50		GND
Pin 17	VCC	A03	Pin 51	VCC	
Pin 18		A02	Pin 52		
Pin 19		A01	Pin 53		
Pin 20		A00	Pin 54		
Pin 21		D00	Pin 55		
Pin 22	A07	D01	Pin 56		
Pin 23	A06	D02	Pin 57	-VS2	
Pin 24	A05	WP\IOIS16	Pin 58	RESET	
Pin 25	A04	-CD2	Pin 59	-WAIT	
Pin 26	A03	-CD1	Pin 60	-INPACK	
Pin 27	A02	D11	Pin 61	-REG	
Pin 28	A01	D12	Pin 62	BVD2	
Pin 29	A00	D13	Pin 63	-STSCHG	
Pin 30	D00	D14	Pin 64	D08	
Pin 31	D01	D15	Pin 65	D09	
Pin 32	D02	-CE2	Pin 66	D10	
Pin 33	WP\IOIS16	-VS1	Pin 67	-CD2	
Pin 34	GND	-IORD	Pin 68	GND	