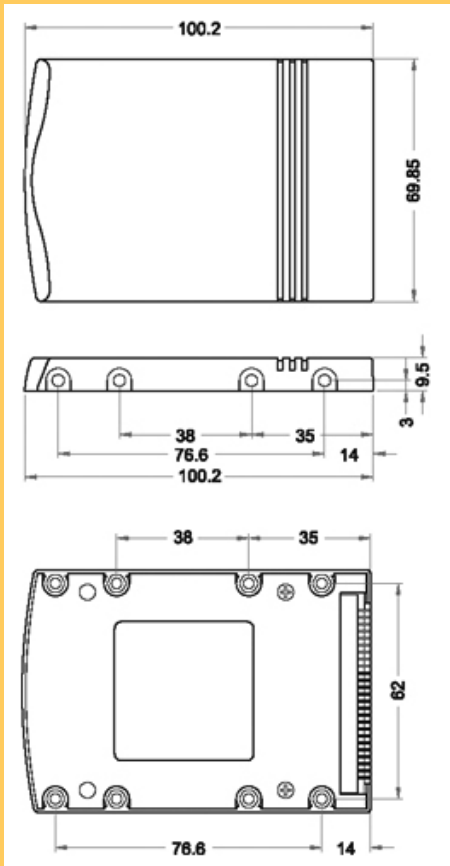## 2.5" IDE Flash Disk – 44 Pin Interface

The PCcardsdirect 2.5" Flash Disk IDE Drive combines 3S advanced Flash controller technology and NAND Type SLC flash memory. The PCcardsdirect2.5" Flash Disk Drive Drives are available with industrial operating temperature grade (-40ºC ~+85ºC) to fulfill various specialized applications in normal or harsh operating environments. With the great advantages of non-volatile and solid state, the 2.5" Flash Disk IDE Drives are ideal replacements of conventional hard disk drives. The industry standard ATA interface simplifies the integration of flash disk into almost any computing platform. No system modifications are required to place an IDE Flash Disk Drive in an existing application, making it easy to upgrade computing platform reliability to all solid state performance. PCcardsdirect's 2.5" Flash Disk IDE Drives are ideal solutions for critical applications which require long term supplies and consistent key components.

- ATA/True IDE Mode compatible
- Very low power consumption
- Very high performance
- Designed for Harsh Environments
- Automatic error correction and retry capabilities
- Supports power down commands and Auto Stand-by / Sleep Mode
- +5 V ±10 or +3.3 V ±5 operation
- Low weight
- Noiseless
- Standard IDE compatible
- Master/Slave Selectable
- MTBF > 1,000,000 hours
- Minimum 10,000 insertions
- Support O/S: Windows 31/95/98/Me, Windows NT/2000/XP/2003, WinCE, QNX, Linux, DOS and more
- Capacity: 16MB, 32MB, 64MB,128MB, 256MB, 512 MB, 1GB, 2GB,4GB.(unformatted)

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		Standard Temp	Industrial Temp
Temperature	**Operating & Non-operating:**	0ºC ~ +70ºC & -20ºC ~ +85ºC	-40ºC ~ +85ºC & -50ºC ~ +95ºC
Humidity	**Operating & Non-operating:**	5% ~ 95% non-condensing	
Vibration	**Operating & Non-operating:**	15G peak-to-peak maximum	
Shock	**Operating & Non-operating:**	1000 G maximum	
Altitude	**Operating & Non-operating:**	80,000 feet maximum	

DC Input Voltage (VCC) 100mV max. ripple (p-p)			3.3V±5%	5V±10%	3.3V±5%	5V±10%
+5V Current (Maximum average value)		**Sleeping Mode:**	< 200µA	< 500µA	< 200µA	< 500µA
Reading Mode:	< 25mA	< 50mA	< 200µA	< 500µA		
Writing Mode:	< 30mA	< 60mA	< 25mA	< 50mA		

Data Transfer Rate To/From Flash	20Mbytes /sec burst	
Data Transfer Rate To/From Host	16.6Mbytes /sec burst	
Maximum Performance	**Sequential Read**	8Mbytes / sec Max.
Sequential Write	6Mbytes / sec Max.	

MTBF	> 1,000,000 hours
	< 1 non-recoverable error in 10^{14} bits read
Data Reliability	< 1 erroneous correction in 10^{20} bits read
Wear-leveling Algorithms	Supportive
ECC Technology	4 bits Error Connection Code
Endurance	Greater than 1,000,000 cycles Logically contributed by Wear-leveling and advanced bad sector management
Data Retention	10 years