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### Mapping the ATA interface onto the SFF 68 pin connectors

It is useful to map the existing ATA functionality onto the specified PCMCIA type III device form factor. Note that this proposal recommends using the -IDE1 and -IDE2 signals described in the ATA Extension proposal.

One of the potential issues is the connectivity of SFF-ATA drives and PCMCIA cards. These devices share the same form factor and connector. This is a similar problem to that of the SFF mapping of the ATA to the high density 50 pin connector and the SFF mapping of SCSI to the high density 50 pin connector. The customer is ultimately required to match the basic interface type of the drive and the system. In the suggested connection scheme, care has been taken to match input and output requirements to minimize this risk.

If an SFF-ATA drive is attached to a PCMCIA socket, the following drive inputs will receive the following signal inputs:  
 ATA -IDE1 and -IDE2 will not be both driven low. If the SFF-ATA drive follows the proposed ATA Extension recommendations, the drive will go into deep sleep, and will not drive any outputs nor accept any inputs.  
 After power-on, -RESET will be held active low by the PCMCIA RESET signal.  
 CSEL will be driven by the PCMCIA A25 signal.  
 -DACK will be driven by the PCMCIA -REG signal.  
 -DASP and -PDIAG will float.

If a PCMCIA card is attached to an SFF ATA 68-pin connector, the following card inputs will receive the following signal conditions:  
 PCMCIA -OE and PCMCIA -WE will both be driven active low.  
 After power-on, PCMCIA RESET will be held active high by the SFF-ATA -RESET signal.  
 PCMCIA -BVD1 and -BVD2 may be pulled high or asserted low by another ATA drive's -DASP and -PDIAG signals.  
 PCMCIA -REG may be asserted by a system's DMA Acknowledge.  
 Most of the PCMCIA Address signals would float (except DA0, DA1, and DA2).

Also, as PCMCIA -OE is active, the PCMCIA card may drive the data bus with garbage when the system applies -CS1FX or -CS3FX. Depending on the PCMCIA card and system implementations, this may cause a bus conflict when the system is writing.