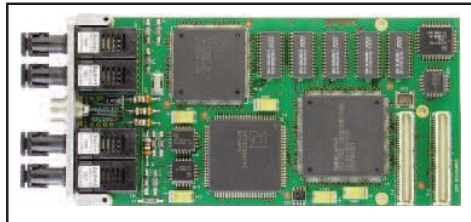


## ► FDDI and CDDI Adapters

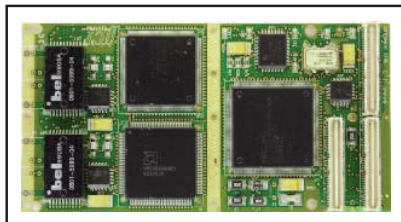
The Fibre Distributed Data Interface (FDDI) standard provides a 100 Mbit/s dual redundant network link with 4B/5B signalling over multimode fibre while the Copper Distributed Data Interface (CDDI) standard provides the same using MLT-3 signalling over Unshielded Twisted Pair (UTP) copper cabling.

FDDI and CDDI Adapters are available in the following range of industry standard compliant formfactors :

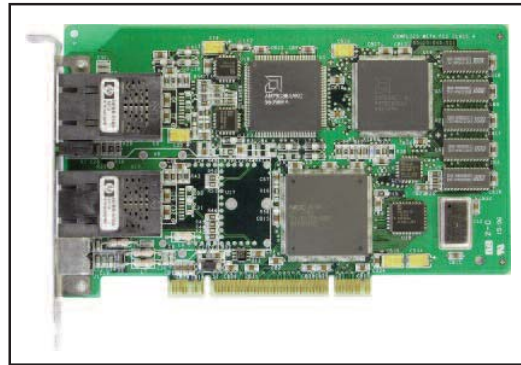
- Air-cooled FDDI and CDDI PMC adapter with front-panel I/O (IEEE Std 1386.1-2001)
- Conduction-Cooled CDDI PMC (CCPMC) adapter with rear panel I/O (ANSI/VITA 20-2001)
- Conduction-Cooled FDDI PMC adapter with front panel I/O (requires modification to host carrier)
- PCI-104 (PCI-104 v2.0)
- PCI (PCI Local Bus Specification Rev. 2.3)



**FDDI PMC**



**CDDI CCPMC**



**FDDI PCI**

### Architecture

The AMD Supernet 3 chipset is used to provide advanced features such as Synchronous Bandwidth Allocation (SBA) and End Station Support (ESS). The adapter has an advanced ASIC onboard that performs buffer management and PCI interfacing, thereby achieving high throughput.

### Features

- Dual-(DAS) or Single-(SAS) Attachment Station options available
- Optical Bypass Switch Control
- Fully software configurable

### Applications

- SAFENET applications
- Distributed real-time applications
- Vetronics applications
- Mission-critical applications
- SCADA applications



► **FDDI and CDDI Adapters**

<b>Bus Interface</b>	32 bit, 33 / 66 MHz Electrically : PCI Rev. 2.1, 3,3 V and 5,0 V signalling			
<b>I/O Addresses</b>	Automatically assigned to the slot by PCI Rev. 2.1 Plug-and-Play			
<b>Interrupts</b>	PCI INT A			
<b>Lan Controller</b>	AMD Supernet 3			
<b>Network Interface</b>	FDDI : ANSI X3T12, ANSI X3.139 and ANSI X39.5 CDDI: ANSI X3T9.5			
<b>Flash EPROM</b>	128 kBytes			
<b>I/O Options</b>	FDDI : Front-panel or rear facing I/O CDDI: Front-panel and PMC rear I/O options with various rear I/O pin assignments. Conduction-cooled version has rear I/O only.			
<b>Power Requirement</b>	5,0 V at 1,45 A			
<b>MTBF</b>	Figures according to MIL-HDBK-217F, Parts Stress Method			
	Ground, Mobile	Tj = 65 C	Ta = 45 C	20 000 hours
	Naval, Sheltered	Tj = 60 C	Ta = 40 C	28 000 hours
	Airborne, Inhabited Cargo	Tj = 75 C	Ta = 55 C	21 000 hours
<b>Optical Output Power</b>	<b>Min.</b>	<b>Typ.</b>	<b>Max.</b>	
62.5 / 125um NA = 0.275 Fiber	BOL	-19 dBm avg.	-16.8 dBm avg.	-14 dBm avg.
	EOL	-20 dBm avg.		
50 / 125um NA = 0.20 Fiber	BOL	-22.5 dBm avg.	-20.3 dBm avg.	-14 dBm avg.
	EOL	-23.5 dBm avg.		
<b>Software Drivers</b>	Various software drivers offered including for VxWorks, Linux, LynxOS, Solaris, DOS, OS/2, Windows (95, 98, NT, 2000, XP and 2003) operating systems as standard; others are costed options.			
<b>Supporting Software</b>	Hardware Diagnostics Program for DOS			
<b>Special Optional Services</b>	Synchronous Bandwidth Allocation (SBA) and End Station Support (ESS), Built-in Test (BIT), Network Time Protocol (NTP), Network Time Services (NTS).			
<b>Environmental Specifications</b>				
<b>Grade</b>	<b>Commercial</b>	<b>Industrial</b>	<b>Ruggedised</b>	
Temperature				
- Operating	0 C to +55 C	-15 C to +75 C	-40 C to + 85 C	
- Storage	-40 C to +85 C	-50 C to +85 C	-60 C to +125 C	
Humidity	0% - 90%	0% - 95%	0% - 95%	
Shock	N/A	30 g peak for 11 ms	40 g peak for 11 ms	
Vibration				
- Sine	2 g (peak) at 10 Hz to 100 Hz	10 g (peak) at 5 Hz to 2 kHz	10 g (peak) at 5 Hz to 2 kHz	
- Random	0,04 g²/Hz at 15 Hz to 2 kHz	0,1 g²/Hz at 15 Hz to 2 kHz	0,1 g²/Hz at 15 Hz to 2 kHz	

Board-Level FDDI & CDDI



► **FDDI and CDDI Adapters**

Physical Characteristics					
Formfactor		Dimensions	Mass		
PMC (IEEE Std 1386.1-2001)	FDDI	149,00 mm x 74,00 mm (+0,0 / -0,5 mm), conforming to CMC height envelope.	105 g +/- 10 g		
	CDDI		125 g +/- 10 g		
CCPMC (ANSI/VITA 20-2001)	FDDI	143,75 mm x 74,00 mm (+0,0 / -0,5 mm), conforming to VITA 20 height envelope	105 g +/- 10 g		
	CDDI		125 g +/- 10 g		
PCI-104 (PCI-104 v1.0)	FDDI	95,89 mm x 90,17 mm x 23,80 mm (+0,0 / -0,5 mm)	90 g +/- 10 g		
	CDDI		110 g +/- 10 g		
PCI (PCI Local Bus Specification Rev. 2.1)	FDDI	175,26 mm x 106,68 mm x 15,24 mm (+0,0 / -0,5 mm)	140 g +/- 10 g		
	CDDI		160 g +/- 10 g		
Part Designations					
Part Number	Formfactor	Grade	Attachment	Media	Connector
CCII/FDDI/PMC/DAS/ST/COM	PMC	Commercial	Dual	Fibre	ST
CCII/FDDI/PMC/DAS/ST/IND	PMC	Industrial	Dual	Fibre	ST
CCII/FDDI/PMC/DAS/ST/RGD	PMC	Ruggedised	Dual	Fibre	ST
CCII/FDDI/PMC/DAS/ST/CC	CCPMC	Conduction-Cooled	Dual	Fibre	ST
CCII/FDDI/PMC/DAS/SC/COM	PMC	Commercial	Dual	Fibre	SC (see Note)
CCII/FDDI/PMC/DAS/SC/IND	PMC	Industrial	Dual	Fibre	SC (see Note)
CCII/FDDI/PMC/DAS/SC/RGD	PMC	Ruggedised	Dual	Fibre	SC (see Note)
CCII/CDDI/PMC/DAS/HR10/COM	PMC	Commercial	Dual	Copper	HR10
CCII/CDDI/PMC/DAS/HR10/IND	PMC	Industrial	Dual	Copper	HR10
CCII/CDDI/PMC/DAS/HR10/RGD	PMC	Ruggedised	Dual	Copper	HR10
CCII/CDDI/PMC/DAS/BP/CC	CCPMC	Conduction-Cooled	Dual	Copper	Rear I/O
CCII/FDDI/PC104/DAS/ST/COM	PC-104	Commercial	Dual	Fibre	ST
CCII/FDDI/PC104/DAS/ST/IND	PC-104	Industrial	Dual	Fibre	ST
CCII/FDDI/PC104/DAS/ST/RGD	PC-104	Ruggedised	Dual	Fibre	ST
CCII/FDDI/PC104/DAS/RJ45/COM	PC-104	Commercial	Dual	Copper	RJ-45
CCII/FDDI/PC104/DAS/RJ45/IND	PC-104	Industrial	Dual	Copper	RJ-45
CCII/FDDI/PC104/DAS/RJ45/RGD	PC-104	Ruggedised	Dual	Copper	RJ-45
CCII/FDDI/PCI/DAS/SC/COM	32-bit PCI	Commercial	Dual	Fibre	SC
CCII/FDDI/PCI/SAS/SC/COM	32-bit PCI	Commercial	Single	Fibre	SC
CCII/CDDI/PCI/DAS/RJ45/COM	32-bit PCI	Commercial	Dual	Copper	RJ-45
CCII/CDDI/PCI/SAS/RJ45/COM	32-bit PCI	Commercial	Single	Copper	RJ-45

Note : At 10,5 mm, the SC connectors are taller than the PMC formfactor allows. This causes a slight mis-alignment of about 0,5 degrees, or 0,1 mm at the PMC connectors. Users are advised to establish whether this is a problem in their application, in which case we would recommend using FDDI adapters with ST connectors.