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The Retro Web S1366 PCI Local Bus Enhanced IDE and Fast I/O Controller User Manual

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USER MANUAL

MODEL: S1366

S1366 Enchanced PCIIDE & Fast 1/0 Controller is industry's first single card solution supporting all 1/0 functions for your high performance PCI systems.

Sl366 Enchanced PCI with Fast 1/0 has following features:

Dual /DE channel for disk drives and ATAP I /DE CD-ROM/Tape Mode 4 IDE supporting up to 16. 7 MB/second data transfer rate

- Two floppy ports for four floppy drives
- Tli10 high speed NSJ6550 compatiable_serial ports
- One versatile AT PRNIPS2/EPPIECP parallel port
- One ga1ne port
- IDE Toolkit utility software

S1366 PCI IDE & 1/0 controller; with the most innovated "T" \ paddle card, gives your customers the benifits of:

One more precious expansion slot

Lower cost than that of current two-card IDE and 110 solution (Jser-friendlier than the two-card IDE and 1/0 solution
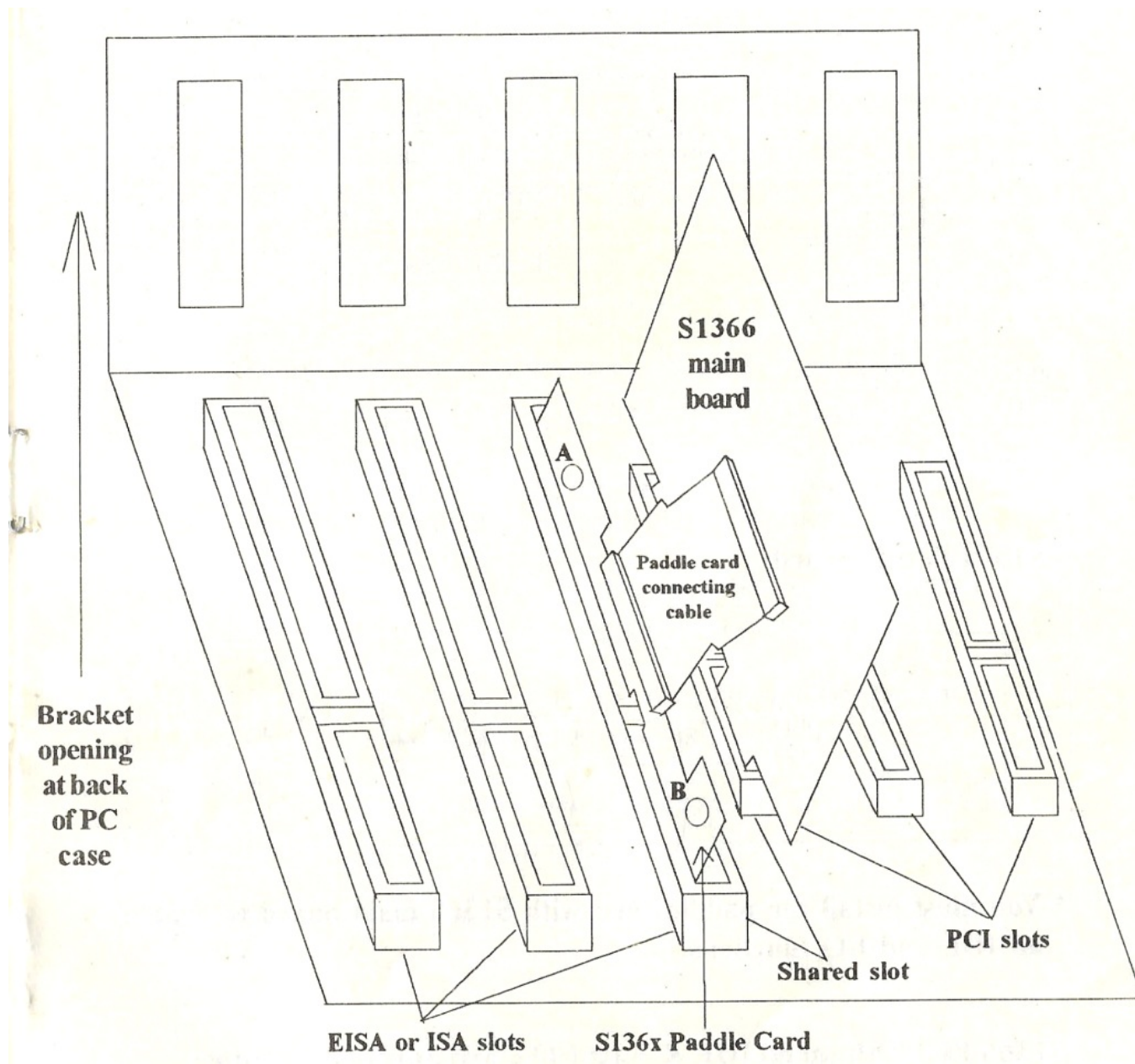
IDE ToolKit Features

SpcedIDE: a custom performance tuning utility that allows you to squeeze the maximum I/O throughput out of your motherboard and drives. Transfer rate speed gains of over 100% may be attained with certain drives.
ViewIDE: a utility for displaying information about the devices attached to your S 1366. View IDE displays t?e characteristics of your IDE drives, and allo,vs you to examine their capabilities. The DOS driver must be loaded in order to run ViewIDE.

Check ID E: a utility for probing the configuration of your S 1366 and finding out the geon1ctries of your IDE drives.

Disk Prep: a disk preparation utility which performs the functions of FDISK and 1nore. DiskPrep aliows you to add/delete partitions, low level format your drives, set the active partition, etc. You may use FDISK if you prefer.,

Correct S1366 Main Board & Paddle Card (required) Installaton Layout Example

A, B are large holes on paddle card. They are used for, (1) easy to unseat paddle card with hand and fingers; (2) holding paddle card with spacer bar against breaking loose from the slot

Packaging Checklist

- S 13 66 main board
- S 136x paddle card and 3″ cable
- IDE cable (3 heads 19″ long)
- FDD cable (5 heads 24″ long)
- COM2/Game bracket/connectors/cable assembly
- One software drivers diskette
- User's manual

S 13(,6 PCI Enhanced IDE & Fast 1/0 Main board

Board Diagram

CN3 COM2 2/1 9/10	2/1 **CN5 FDD Primary Connector** 33/34	2/1 **CN7 IDE Primary Channel** 39/40
	2/1 **CN6 FDD Secondary Connector** 33/34	2/1 **CN8 IDE Secondary Channel** 39/40

CN2

COM 1

CN4 **GAME** 9/1 16/8

P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 1 2 3

U3

PCI IDE & I/O
S1366-0x4-0x
Patent Pending
FCC ID: KAOS1363
Made in China

T11 T10 T9 T8 T7 T6 T5 T4 T3 T2 T1 T0
J11 J10 J9 J8 J7 J6 J5 J4 J3 J2 J1 J0

T12 J12

○ 1 +
○ 2
○ 3
○ 4 +

CN9

LED header
1-2 pri IDE
4-3 sec IDE

2/1 **PDL1 Only To Paddle Card** 40/39

J13 T13

CN1

PRN Port

U2

U1

S136x Paddle Card

S136xP-x

40
39

2
1

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*You must install the paddle card with S 1366 main board to enable all IDE and 1/0 functions.

S1366 PCI Enhanced IDE & Fast 1/0 Card Jumper Settings:

S 1366 is designed for "Plug aNd Play (PNP)". PCI compliant 1nother board's BIOS should perform all required S 1366 configurations automatically. In most cases, you do no_t need to change the jumpers. But for those special mother boards which can not successfully configure S 1366, following jumpers are used to (1) set your preferred initialization conditions, (2) solve compatiability problems.

Jumpers Definition:

Enhanced Two IDE Channels & Hard Disk Drive Control

* Ideal for Mode 3 or Mode 4 speedy hard drives
* ATAPIIDECD-ROMorTapeReady

J4	J3	Access IDE channels' I/O address
Open	Closed	Enable both PCI IDE channels (default)
Closed	Open	Disable both PCI IDE channels

J2	Open	Relocatable I/O address
	Closed	Fixed I/O address (defaut)

J7	Open	No secondary IDE channel legacy IRQ to ISA IRQ15
	Closed	Secondary IDE channel legacy IRQ to ISA IRQ15 (default)

J5	Open	No primary IDE channel legacy IRQ to ISA IRQ14
	Closed	Primary IDE channel legacy IRQ to ISA IRQ14 (defaut)

J8	Open	No buffered secondary IDE legacy IRQ to IRQ15 (default)
	Closed	Buffered secondary IDE legacy IRQ to ISA IRQ15

J6	Open	No buffered primary IDE legacy IRQ to IRQ14 (default)
	Closed	Buffered primary IDE legacy IRQ to ISA IRQ14

J12 J13	Open	No inverted secondary IDE IRQ to PCI bus INTB# (default)
	Closed	Inverted secondary IDE IRQ to PCI bus INTB#

T12 T13	Open	No inverted primary IDE IRQ to PCI bus INTA# (default)
	Closed	Inverted primary IDE IRQ to PCI bus INTA#

J9	Open	Native mode IDE IRQ not used (default)
	Closed	Native mode IDE IRQs to PCI INTA

J1	Open	FDD DSKCHG signal not intercepted (default)
	Closed	Enable FDD DSKCHG signal being intercepted

Floppy Disk Drive (FDD) Control (support two channels & 2.88MB/s)

P3	1-2	FDC Disable
	2-3	FDC Enable (default)

P2	1-2	Use I/O Address (370) for FDC
	2-3	Use I/O Adderss (3F0) for FDC (default)

P1	1-2	Media ID input in OS2 Enhanced Floppy mode
	2-3	Normal FDD DRATE out mode (default)

J11	Open	ISA AT printer port mode (default)
	Closed	Normal mode, FDD pin29 to GND

T1	Open	ISA AT printer port mode (default)
	Closed	PS2 bidirection compatiable mode

Parallel Port Control (supports all four PRN/PS2/ECP/EPP modes)

P9	P8	Printer Port I/O Address Assignment
1-2	1-2	Parallel Port 3 (3BC-3BE)
1-2	2-3	Parallel Port 2 (278-27F)
2-3	1-2	Disable Parallel Port
2-3	2-3	Parallel Port 1 (378-37F) (default)

T2	Open	No Interrupt 7 for Parallel Port
	Closed	Interrupt 7 for Parallel Port (default)

Serial Port Control (supports two NS16550 compatiable fast FIFO serial ports)

P5	P4	Serial Port 1 I/O Address Select
1-2	1-2	Disable Serial Port 1
1-2	2-3	COM2 at Address 2F8
2-3	1-2	COM3 at Address 3E8
2-3	2-3	COM1 at Address 3F8 (default)

T4	Open	No Interupt for Serial Port 1
	Closed	INT4 for Serial Port 1 (default)

P7	P6	Serial Port 2 I/O Address Select
1-2	1-2	Disable Serial Port 2
1-2	2-3	COM1 at Address 3F8
2-3	1-2	COM4 at Address 2E8
2-3	2-3	COM2 at Address 2F8 (default)

T5	Open	No Interupt for Serial Port 2
	Closed	INT3 for Serial Port 2 (default)

	Closed	INT3 for Serial Port 2 (default)

Game Port Control   (single channel only)

T6	Open	Game Port Disable
	Closed	Game Port Enabled (default)

T3	T2	Parallel Port Interrupt
Open	Open	no INT
Close	Open	INT 5
Open	Closed	INT 7 (default)

* Either serial port or parallel port may use INT5.

Enhanced Parallel Port Control for EPP/ECP Applications

P11	P10	Parallel Port Mode
1-2	1-2	ECP + EPP + PRN modes
1-2	2-3	ECP + PRN modes
2-3	1-2	EPP + PRN modes
2-3	2-3	PRN printer port mode only (default)

T11	T8	T10	T7	T9	ECP Mode Jumper Setting
Closed	Closed	Closed	Open	Open	In ECP Mode Use DMA3 (preferred)
Closed	Open	Open	Closed	Closed	In ECP Mode Use DMA 1
Open	Open	Open	Open	Open	Non ECP Mode (default)

Advanced Interrupt Select for Serial Ports

T3	T4	T5	Serial Port 1 COM 1/2/3	Serial Port 2 COM 2/1/4
Open	Closed	Closed	INT 4 (default)	INT 3 (default)
Open	Closed	Open	INT 4	no INT 3
Open	Open	Closed	no INT 4	INT 3
Open	T4 Pin1 to T5 Pin1 T4 Pin2 to T5 Pin2		INT 3	INT 4
Open	T4 Pin1 to T5 Pin1 Only		INT 5	INT 3
Open	T4 Pin2 to T5 Pin2 Only		no INT 3	INT 4
T3 Pin2 to T4 Pin2 Only		Closed	INT 4	INT 5
T3 Pin2 to T4 Pin2 Only		Open	no INT 4	INT 5

IDE Driver Utilities:

Following arc a list of current available drivers with S 1366 PCI IDE

– DOS/Windows 3.1/WFW 3. lx FastDisk drivers
– Netware 3.ix, 4.x drivers

– OS/2 2.x driver
– Window NT driver
– SCO Unix 3.2.4.x driver

Please, read the README files to get more detailed information before – install drivers.?

IDE Software Installation:

Insert driver diskette into drive A and type: A:INSTALL. The QuickIDE utility will guide you through ?he installation process step by step? it also modify your CONFIG.SYS in the root directory.

Drivers Installation:

Four FDD driver:
A driver S l366F4.COM is provided to enable SI366 accessing 4 FDD.
Please read README.FDC for installation instruction .

. DOS driver:
QuickIDE will automatically inst:'111 all required drivers to speed HD file transfer, to access 2nd channel IDE HD. To use 2nd IDE channel for ATAPI IDE CD-ROM or Tape drive, please use special drivers supplied by device's vendors.

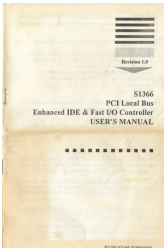### • Windows 3.1 FastDisk Driver:
QuickIDE will install the FastDisk driver into Windows' system directory.
This driver runs in protected mode and implements I/0 queuing . It will speed up your Windows applications also requires more than 2MB of system 1nemory to implement.

NetWare 3.1 x, 4.x Driver:

During the installation ofNetWare, you will be prompted to insert the CMD drivers diskette into the drive and specify the search path. 10/9/94

Infonnation presented in this publication has been carefully checked for reliability; however, no responsibility is assumed for inaccuracies. The information contained in this document is subject to change without notice.

Documents / Resources

The Retro Web S1366 PCI Local Bus Enhanced IDE and Fast I/O Controller [pdf] User Manual
S1366 PCI Local Bus Enhanced IDE and Fast I O Controller, S1366, PCI Local Bus Enhanced IDE and Fast I O Controller, Local Bus Enhanced IDE and Fast I O Controller, Bus Enhanced IDE and Fast I O Controller, Enhanced IDE and Fast I O Controller, IDE and Fast I O Controller, Fast I O Controller, I O Controller, Controller

References

- **User Manual**