

QD6580W/787/777 VL IDE Card



User's Manual

1. Features

- Fully compatible with VLSA Local Bus (VL-Bus) standard
- Operates up to 20MHz VL-Bus speed
- Two IDE channels with up to 4 IDEs (IDEs or IDEs CD-ROMs)
- Supports 32-bit and 16-bit LBA Host data transfer
- Read ahead FIFO and post write buffers improve IDE data throughput
- Fully supports bus-master IDE Mode 5
- Auto-sensing and setting IDE channel to get best performance easily
- Provides drivers for DOS, Windows 3.11 or VxD, OS/2 2.1 and Windows NT
- Supports pinless 1.5V 5-pin floppy drive
- One pin per pin
- Immediate or automatic power-on mode for power management
- Two high-speed 15550 compatible UARTs (COM1/COM2 & COM3/COM4 selectable) with 16-byte receive/transmit FIFO
- One parallel port at I/O address 03BC/03B0 (ECP) with additional bi-directional I/O capability and multi-mode selection (SPP/EPP/ECP) (IEEE 1284 compliant)

FOR QD6550W787

- 10MB/20MB/40MB/44MB Floppy format

FOR QD6550W777

- 10MB/20MB/40MB/44MB/48MB Floppy format

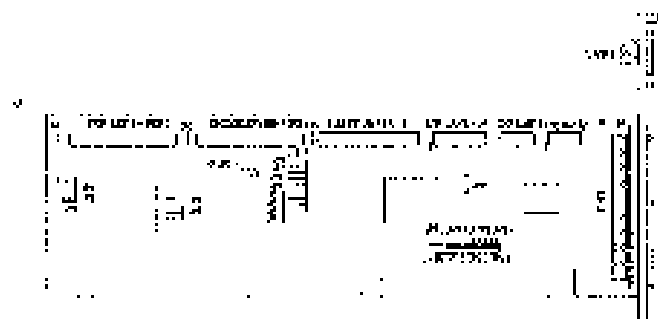


Figure 1 Diagram of QD6550W787-VL card

2. Jumper settings

2.1. VL80DR controller

Note: * represents default Jumper Setting

JP1		
	IDE0*	IDE1*
	Only disk peripheral(s) for Primary IDE port	Disk and/or non-disk peripheral for Primary IDE port

JP2		* Run CLK frequency from 30.8 MHz
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Before using QD6500/66/87 VL IDE card or QD6500/77/7 VL IDE card, make sure that the VL8 jumper settings of VL80 about 33MHz frequency is correct.

JP3		
	IDE Enable *	IDE Disable

JP4		IDE1ST * + Two IDE cards (PR1 : 1F601FXH, SEC : 17X01FXH)
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 OPEN + One IDE card (1FX01FXH)

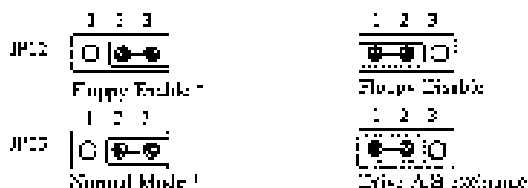
JP5		
	* Chip Register port 0EXH	0XXH

3. IDE LED + HD LED controller

Note: If a Non-disk peripheral (for example, LUS 0.2-0.004) is used, it is recommended to connect it to the secondary port and close JP4.

If you connect a IDE Hard Disk to the secondary port and use DOS or Windows, make sure that the Main Board BIOS support the secondary IDE port.

2.5 Floppy Diskette (JF12, JF13)



2.6 Audio port (JF14)



3. Software driver

3.1. Introduction

There are four drivers that come with the diskette :

1. QDOS80.SYS - DOS enhanced driver
2. QDOSFXL.SYS - WINDOWS 3.1 or 3.11 enhanced driver
3. QDOS80.A20 - DOS 2.1 enhanced driver
4. ATXDR.SYS - WINDOWS NT enhanced driver

3.2. DOS and WINDOWS driver installation

There is an installation program in the QDOS80 diskette. You can install the driver as follows :

1. Insert the diskette in drive A and change drive from C: to A:
2. Type the following command:

A: INSTALL <enter>

3. You will see the display on the screen:

Install DOS Driver (Y/N)

If you want to install DOS driver, please type 'Y', otherwise type 'N'.

4. Then you will be asked:

Insert QDOS Driver (Y/N).

If you want to install WINDOWS driver, please type 'Y', otherwise type 'N'.

5. The drivers will be installed automatically. After installation, please reboot your system.
This installation program will modify the files CONFIG.SYS in DOS and SYSTEM.INI in WINDOWS. We can preserve their backup files as CONFIG.BAK and SYSTEM.BAK in their corresponding directories.

For more information, please read the README.TXT in the diskette.

3.3. DOS and WINDOWS driver installation

If you use to use other IDE card, the performance of QD6350 drive may be ineffective. You can install the driver as follows:

Insert the QD6350 drive in drive A and change drive C to A. Then enter the following:

A:\INSTALL.DOC<enter>

The driver will be removed automatically.

3.4. Special case installation

There are two options in the installation program. You may use them for some special cases. The using method is as follows:

A:\INSTALL.Option 1\Option 2

Option 1:

- S Support hard disk type with transfer rate from 3.8 to 4.4MB/s or higher
- M Support hard disk type with transfer rate from 4.4 to 5.5MB/s or higher
- N Support hard disk type with transfer rate from 5.5 to 6.7MB/s or higher
- F Support hard disk type with transfer rate that is higher than 6.7MB/s
- 1 For uninstalling the software driver(s)
- II For help information

Option 2:

- M For hard disk that supports multiple sectors read/write
- O Existing driver to support only single sector read/write
- N Using master/slave BIOS for disk driver support (S = 30)

Notes:

1. Usually the default installation does not use for options because the driver can configure most of the hard disks automatically. If the performance has little improvement after the driver installed, you can try to choose the options to get better performance according to your hard disk.
2. All the M can only be used without option 2.
3. If there is not your IDE Mode (transfer) in your master/slave BIOS CMOS SETUP program, you must set it as "Fastest" when you want to install DOS or WINDOWS drive, because the transfer strategy are different from transfer mode. But if you use option 1 and install the drivers, you can set this item of master/slave BIOS as "Enabled". At this time, the configuration is the the SYSTEMBIOS or WINDOWS is as following:
IDE0 Set Access = OFF
Device = Hard
Device = QD6350-10
4. If you set LBA mode in master/slave BIOS CMOS SETUP for hard disk drive whose size is greater than 128MB, you must run BIOS using this LBA mode. Otherwise, you can not use the LBA mode.
5. If you install IDE CD-ROM drive on the primary port and it does not work after installing QD6350 DOS driver, you can use option M to try again.

WARNING :

1. If you want to use the option to improve performance, you must ensure that the hard disk transfer rate is higher than that given by the option, otherwise the hard disk may lose its data.
2. If you use Windows 9x Workgroups 4.11, you can not enable the **Access** file Access Feature in Virtual Memory of Control Panel for Windows 386 after you have installed our Windows driver, because 32-bit File Access Feature uses a different file access method and it conflicts with our Windows driver. Otherwise, you must not install our Windows driver.

3.5. OS/2 2.1 enhanced driver installation

1. Copy the QDLIS00.ADD into the OS2 directory of your system.
2. Check if the following line exists in the CONFIG.SYS file of OS2 :

Device = QDLIS00.ADD

3. If the statement exists, please delete it.

3. Add the following statement into our CONFIG.SYS file:

Device = QDLIS00.ADD

4. Reboot your system.

3.6. WINDOWS NT enhanced driver installation

1. When you compare WINDOWS NT installation file, you will find a file named **CONTGYS12K43Z.X3P** and **QDLIS00E.NT** 3.5.1 may be **QDLIS00E12K43ZCONTGYS12K43Z.NT**. There is a file named **QDLIS00E.NT** in it.

Using :

Copy **ADDISK.SYS** AT YOUR OLD

to secure it.

2. Insert the diskette in drive A and type :

Copy **ADDISK.SYS**

to this subdirectory to replace the driver.

3. Keep windows and start the computer.

Appendix : Performance report

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Hardware config :	UMC-61 61.00M, 4MB Memory, 350K Celer, 13.57M VL VGA Card		
Testing program :	Process 252		
Disk type	486D01-80	486D02-05	486D03-00
Write speed ZI-E (KB/s) *	4061.8	4249.9	3810.2
Codex CF4540A	5112.1	5125.4	4380.6
Master 7445-01	4383.3	5135.6	4546.9
Master 7445-02	4341.3	4525.6	4518.9

Notes : * Indicates the 100% of disk type supports 100% of enhanced ZI-E Mode 3