3-COM Etherlink Plus Interface (260-5502) Settings Faxback Doc. # 5467 * For use in the Tandy 3000 Only (NOT the Tandy 3000HL) Requires a 16-bit bus Contains an 80186 CPU & buffer memory Default settings: Interrupt 3 I/O Add. 300H DMA channel 1 Recommended settings for the Tandy 3000: Interrupt 10, 11, 12, or 15 DMA channel 5, 6, or 7 Edit CONFIG.SYS to reflect new setting DEVICE=ETH505.SYS IRQ I/OBASE DMA (use the letter "x" for default) MS-DOS Ver. 03.20.02, 25-4103 (Tandy 3000), 25-4070 (Tandy 3000HL) Includes a new version of ANSI.SYS which must be used in CONFIG.SYS before running 3Com's menu-driven server setup. The SERVER (T3000) can be configured with up to 2-Meg Expanded Memory that meets the Lotus/Intel/Microsoft EMS specs. A Tandy 3000 with hard disk(s) should be equipped with an EtherLink Plus to provide optimum performance as a share server or other network server. Also, a Tandy 3000 with EtherLink Plus can be used as a workstation to provide a user with the best possible performance for intensive applications. The EtherLink Plus is not recommended for installation in a Tandy 3000 HL due to the HL's 8-bit DMA access. RECONFIGURING ETHERLINK BOARDS Reconfiguring a board means resetting the jumpers to change the DMA channel, Interrupt Level and I/O Base Address. FACTORY SETTINGS DMA Channel 1 Interrupt Level 1 I/O Base Address 300 H (uses addresses 300-30FH) The board uses 16 sequential I/O addresses, starting at the base address. CHANGING JUMPERS ON ETHERLINK PLUS The jumpers to configure the DMA channel, interrupt channel and base I/O address of the EtherLink Plus board are located near the connector at the bottom of the board. POSSIBLE CONFIGURATIONS (ASSY 1194) **_** Т

TIMDED	PERSONAL COMPUTER TYPES					
SETTINGS	PC, XT	AT 8 BIT SLOT	AT 16 BIT SLOT			
DMA Channel	1,2,3	0,1,2,3	5,6,7			
INT Channel	3,4,5,6,7,9	3,4,5,6,7,9,1	0,11,12,14,15			
I/O Base Address		0-3FFH				

NOTE: If you installed the EtherLink Plus board in an IBM AT or compatible, it is advisable to insert the board into a 16-bit slot and use the higher performance 16-bit DMA channels 5, 6, or 7.

Recommended settings for the Tandy 3000: Interrupt 10, 11, 12, or 15 DMA channel 5, 6, or 7 Edit CONFIG.SYS to reflect new setting DEVICE=ETH505.SYS IRQ I/OBASE DMA (use the letter "x" for default)

JUMPER DESCRIPTION

The I/O base address jumpers consist of a plastic block holding three pins. A plastic cover fits over the middle and one of the end pins, shorting them together. Changing the position of the jumper to fit over the middle and the other end pin will change its state.

The DMA channel and interrupt jumpers consist of several rows, each containing two pins. A plastic block fits over one row of two pins. Changing the position of the jumper to fit over another row of two pins will change its state.

CAUTION: Certain jumper blocks are placed close together on the board. Connecting two adjacent pins that are not on the same jumper block could cause the board to malfunction. Check to be sure that the jumpers are properly installed.

DMA CHANNEL JUMPERS

The DMA (Direct Memory Access) channel allows an EtherLink Plus board or other device such as a hard disk, to exchange information with a personal computer's central processing unit. Each board or device must use a unique DMA channel.

Two jumpers are required to select the DMA channel:

- >> To select the DMA request channel, move the jumper cover to fit over two of the pins in the rightmost group (toward the label REQ). You can select channel 1, 2, or 3. Refer to the table above for the channels you can select.
- >> To select the DMA acknowledge channel, move the jumper cover to fit over two of the pins if the leftmost group (toward the label ACK). You can

select channel 1, 2, or 3. Refer to the table above for the channels you can select.

>> Both jumpers must select the same DMA channel.

In Figure A-6 below, the jumpers are set for DMA channel 1.



DMA Channel Jumpers

INTERRUPT CHANNEL JUMPERS

An Interrupt Channel allows an EtherLink Plus board or another device, such as a printer, fixed disk, or keyboard, to interrupt the central processing unit of a personal computer. Interrupts allow the additional board or device to get attention from the central processing unit so information can be exchanged. No two boards or devices can use the same Interrupt Channel.

Only one jumper block is required to select the interrupt channel. In Figure A-3, below, the interrupt jumper is set for interrupt level 3.

0	0	0	0	0	0	0	0	0	X	0
0	0	0	0	0	0	0	0	0	X	0

INTERRUPT CHANNEL JUMPERS

I/O BASE ADDRESS JUMPERS

An I/O Base Address is the location through which information is exchanged between a personal computer's central processing unit and another device such as an EtherLink Plus board, or, for example, a printer connected to a communications port on an expansion board. No two devices can use the same I/O Base Address.

The EtherLink Plus board uses 16 I/O addresses, starting at the I/O base address selected. The I/O address bit and factory setting for each jumper is shown below:

TIMPER	L									
SETTINGS	9	8	7	6	5	4	3	2	1	0
POSSIBLE VALUES	1/0	1/0	1/0	1/0	1/0	1/0	0	0	0	0
FACTORY SETTINGS	1	1	0	0	0	0	0	0	0	0
HEX VALUE		3			0				0	

To change the base address, locate the jumper corresponding to the address bit you want to select.

- >> To set the address decoding logic to recognize a "1", place the jumper cover so that it fits over the center and upper pins on the jumper block.
- >> To set the logic to recognize a "0", place the jumper cover to fit over the center and lower pins.

The EtherLink Plus board can be set to select any I/O address block starting between 0 and 30FH, inclusive. In Figure A-4 below, the I/O Base Address is set for 300H.

x	I KX I	0	I XXX I		0	0	T XXX I	
0	XX	KX	XX	KX	0	0	XX	X X

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