Installation Instructions

for

8250 Ethernet Management Modules

(Feature Codes 3819 and 3788)

Microcode Version 4.30

Contents

Before Installation

Purpose

This Field B/M P/N 29H4498, provides a microcode update to Microcode Version 4.30 for 8250 Ethernet Management Modules

Machines affected
This EC, E27996, applies to 8250 feature codes 3819, 3788.

Requirements

1. For LOCAL Out-of-BAND download (loading via the RS232 port of the Management Module).

   You must have :

   - An IBM PC/AT or compatible with a 3.5 inch diskette drive.

   - An 80 column video monitor (monochrome or color).

   - 640K of available RAM on the PC .

   - A Null modem connection from the PC to the Management Module for local download.

     NOTE :

     Cable P/N 6323741, Adapter 58G4422, and Interposer 58G2861 that were received with your 8260 can be used to create the NULL MODEM connection.

   - IBM code diskette P/N 29H4500 is provided with this change.

   - the IBM Universal Code Download kit (Feature Code 3150)

2. For REMOTE Out-of-Band downloading you must have :

   - A PC with the same characteristics as for the LOCAL load

   - Two Asynchronous Modems and RS232 cables

     NOTE: It is recommended that you use a V32 modem to load at speed of 9600 Bps.

3. For Inband downloading please refer to :

   Chapter "Inband Download procedure" in this document.

   Chapter "Downloading Ethernet Management Modules " in *Ethernet Management Modules operations Guide*

Preparation

1. Familiarize yourself with the installation instructions before starting installation.

2. Familiarize yourself with the Universal Code Download kit. If not yet done, install UCDK using the Installation Instructions 80G3152.

3. Check all the items and count the parts listed on the B/M to be installed to determine that all the parts were received.

4. To secure the Diskette(s), you may want to build backup diskettes(s).

Line settings

The 8250/8260 feature factory defaults settings are:

- Speed: 9600 bps
- Parity: None
- Data bits: 8
- Stop bits: 1

Note: For connections at speeds other than 9600 bps, the 8250/8260 module terminal parameters will have to be changed to the desired speed. Refer to the appropriate *Installation and Operations Guide*, or *User's Guide*.

The ProComm procedure for line settings is as follows.

1. Press the "Alt-P" keys

2. Select combination 11:

   9600,N,8,1,COM1

3. Change the adapter address if it differs from "COM1" by selecting options 21, 22 or 23 for COM2, COM3 or COM4 respectively.

4. Save the changes by selecting option 24.

5. Quit the line settings procedure by pressing the "ESC" key.

Terminal Setup

After pressing the "Alt-S" keys, the Setup menu is displayed. Select option 2 to setup the terminal parameters as follows.

Terminal Emulation	VT100
Duplex	FULL
Flow Control	NONE
CR Translation (in)	CR Disables Carriage Return translation (executable code only)
CR Translation (out)	CR Disables Carriage Return translation (executable code only)

| **BS Translation** | NON-DEST |
| | No character deletion, move cursor only. |

BS Translation NON-DEST
No character deletion, move cursor only.

BS Key Definition BS
Keystroke sent by BS

Line Wrap OFF
Truncates lines with a length greater than 80 Characters.

Scroll ON

Break Length (ms) 350
Length of time for break condition.

Enquiry (Ctrl-E) OFF
No response to Ctrl-E (ENQ).

Installation time

Out of Band download time depends on number of bytes to be transfered. Usually you can compute an approximative time on a basis of 30K bytes per minute.

Installation

Safety
This update will be performed with the machine powered ON

- Review the **Safety Notices** delivered with the 8250 shipping group.

References

8250 Ethernet Management Modules Installation and Operations Guide

Procomm Reference Manual.

Details of Installation

Terminal Usage

Warning: Consider the following when using a terminal to manage this device:

- IBM recommends that you use VT-100 terminal emulation with this product.

- If you use an IBM 31XX terminal, make sure not to use the [SEND] key.

  Use the [RETURN] key instead.

General diskette(s) content(s) description

Each of the IBM distribution diskettes to use for out-of-band download of microcode consists of:

- One or more executable microcode file(s) (e.g. could be one for BOOT code, one for Flash)
- One or more command file(s) (xxxx.CMD) that encapsulate(s) a ProComm *SENDFILE XMODEM "filename"* command. (e.g. could be one for BOOT code, one for Flash)

Specific diskette content description

EMM Basic or Advance module, diskette (P/N 29H4500) contains the files:

- *EMMV430.BIN* EMM Basic or Advance module Flash microcode file

- *EMMV430.CMD* EMM Basic or Advance module Flash Command file

Out-of-Band Download Procedure:

1. Make a backup copy of IBM distribution diskette.

2. Establish the connection between your PC and the management module. Refer to the appropriate *Installation and Operations Guide*, or *User's Guide*.

3. Start the ProComm software

4. After the terminal screen is displayed, press the "Alt-B" keys to specify the diskette unit on which will be mounted the distribution diskette (A or B generally). The drive address is entered in the "PATH" input field. For example **a:**

5. Insert the IBM distribution microcode diskette P/N 29H4500 in selected diskette drive.

6. Start the download out-of-band procedure that pertains to the Management module the terminal is connected to.

7. Upgrade the EMM Basic or Advance module Flash code

   - Enter the command **Maintain**

   - Enter the command **download out_of_band** to initiate the download of flash code to the EMM Basic or Advance module

   - When the management module is expecting the file to be sent (you may see the "Please initiate file transfer" prompt message):

     a. Press the "Alt-F5" key
     b. **you must select the EMMV430.CMD file** in order to initiate the download of the flash V4.2 on the EMM Basic or Advance module.
     c. File transfer progress will be indicated on the terminal until completion.
     d. At the end of the download the device will not reboot itself you must enter the command **BOOT** in order to reset it.

INBAND download procedure :

The EMM Basic or Advance module provides an inband download feature that allows you to update your EMM Basic or Advance module Boot/Flash EPROM using TFTP (Trivial File Transfer Protocol). TFTP allows the transfer of files to and from a remote machine. By using protocol, you can inband download new EMM Basic or Advance module software to a EMM Basic or Advance module from a remote network server. You must have a TFTP server on the network to perform this function. To download new EMM Basic or Advance module software to EMM Basic or Advance modules you must first tell the EMM Basic or Advance module the name of the TFTP server where the software resides and also the name of the file on the server. Verify that the TFTP server is able to PING the EMM Basic or Advance module.

Use the following procedure to perform an inband download:

1. Log into the EMM Basic or Advance module and issue SHOW DEVICE. For a download configuration, TRAP RECEIVE, DIAGNOSTICS and BEACON RECOVERY MUST   be disable. Be sure to write down initial config-uration to change back once download is complete.

2. Issue SHOW ALERT command. Verify all alerts are disabled. Be sure to write down initial configuration to change back once download is complete

3. Transfer the binary files from the diskette to a directory on your TFTP server. The floppy disk contains one binary file called EMMV430.BIN for the flash. If your server is running in a DOS environment, you must be in the directory that contains the .BIN file when you start the server.

4. Be sure to have running TFTP Daemon on your server.

5. Download order MUST be first BOOT, later FLASH whenever boot code is affected. In this case no BOOT.

6. Configure the TFTP parameters in the 8250 EMM Basic or Advance module by issuing the following management commands as shown:

    - 8250> set tftp file_name EMMV430.BIN

    - 8250> set tftp file_type Flash

    - 8250> set tftp server_ip_address x.x.x.x

    - 8250> clear tftp results

    - 8250> save tftp

   Note: This can be accomplished either by TELNETing to the EMM Basic or Advance module or by directly attaching to the EMM Basic or Advance module front panel serial port via and RS-232 connection.

7. Issue 'SAVE ALL' command

8. Issue 'RESET DEVICE' and then logon or telnet in the module.

9. PING EMM Basic or Advance module IP Address to ensure connectivity.

10. Issue the SHOW TFTP command as shown to verify the TFTP parameters previously set.

     8250>> SHOW TFTP

    - TFTP Variables:

    - TFTP Server IP Address: x.x.x.x(Ip adress of your server)

- TFTP File Name: EMMV430.BIN

- TFTP File Type: flash

- TFTP Result: CLEAR

11. Issue the DOWNLOAD INBAND command as shown to begin the download.

     You will see following display:

     8250>> download inband
     WARNING: Download will erase your current
     operational code.

12. Be sure you have the following to replace the software:

    - Network Management Module Software residing on a TFTP server accessible over the network.

    - The TFTP variables (See SHOW TFTP and SET TFTP) must be configured for the TFTP server to be used
       for the download.

13. If you are positive that you want to perform a network download, enter the 'download inband' command again
    within 10 seconds. Otherwise, the sequence will be aborted.

        8250>> download inband ENTER
     ----

14. Press the key sequence CTRL-R to redisplay the previous command within 10 seconds and press ENTER to
    begin the download process.
     Once the download process begins, do not press any keys or interfere to the process. The download takes 25 - 30
    seconds to complete and its progress is shown by a dotted line that lengthens on the screen.

     When the download completes successfully the following message is displayed and the EMM Basic or Advance
    module boots up under the new code.

     Download Successful....Programming Devices....Please Wait
     X Management Module (vx.xx)
     Copyright (c) 199x Chipcom Corporation

15. Press ENTER to see if you can logon into the module

        Password:
        Welcome to System Administrator mode
        8250>

16. Verify that the code is now the updated version with SHOW DEVICE command.

After installation

Labelling

After installation of the microcode, change the part number of the upgraded module(s) to the following new P/Ns:

- P/N 80G4028 for EMM Basic module FC 3819

- P/N 29H4487 for EMM Advance module FC 3788

Publication update

Add the provided Release Note P/N 29H4486 in your publication binder.

Parts disposition

not applicable

Machine Records

- Update the **MACHINE HISTORY, ETC.,** to reflect:

  E27996 as installed to the existing procedures.

- Report the installation and quality according to the existing procedures.