APPENDIX B

Peripherals Specifications

Introduction

This appendix provides details on the IGX 8 peripherals specifications.

Network Management Terminal

StrataView Terminal

A StrataView Plus workstation is required for managing an IGX network. Refer to the *StrataView Plus Installation Manual* for setup instructions and specifications for the StrataCom Network Management Terminal, one of which is required to provide network alarm, control, and statistics monitoring for an IGX operating system.

Control Terminal

Table B-1 lists the control terminals requirements.

Table B-1 Control Terminal Interface Requirements

Parameter	Requirement
IGX Port Used:	CONTROL terminal port on the SCM card is used to interface with a local control terminal.
Code:	Standard 7 or 8-bit ASCII; 1 or 2 stop-bits; even, odd or no parity.
Interface:	RS-232 DCE.
Data Rate:	All standard asynchronous data rates from 300 to 19200 bps, independently software-selectable.
Supported Terminals:	VT-100, or equivalent, recommended.
Cable Required:	Straight-through RS-232 cable.

Printer

The maintenance printer that is currently being shipped with the IGX is the Okidata Model 184.Refer to Table B-2 for interface requirements.

Table B-2 Printer Interface Requirements

IGX Port Used:	AUX port on the SCM card is used to interface with the maintenance printer.
Code:	Standard 8-bit ASCII; 8 data bits, 1 stop-bit, odd parity.
Interface:	RS-232 DCE.
Data Rate:	9600 baud.
Supported Printers:	Okidata 184.
Cable Required:	Straight-through RS-232 cable.

DIP Switch Settings for Okidata 184

DIP Switch A is an 8-section DIP switch located on the printer's main circuit board. Access to the configuration switches is made by sliding back the switch cover at the top, rear of the printer case. Set Switch A as indicated in Table B-3.

Table B-3 Switch A Settings—Okidata 184 Printer

Switch A	Setting	Description
1	Off	ASCII with non-slashed zero.
2	Off	
3	Off	
4	Off	11-inch paper.
5	On	
6	Off	No Auto Line Feed.
7	On	8- bit data.
8	Off	Enables front panel.

The High Speed Serial Interface DIP Switch consists of two DIP switches, SW1 and SW2, located on a serial-board that is attached to the printer's main board. Set switches 1 and 2 as indicated in Table B-4 and Table B-5.

Table B-4 Switch 1 Settings—Okidata 184 Printer

Switch 1	Setting	Description
1	On	Odd parity.
2	On	No parity.
3	On	8 data bits.
4	On	Ready/busy protocol.
5	On	Test select circuit.
6	On	Print mode.
7	On	Busy line selection.
8	On	DTR pin 2 enabled.

Table B-5 Switch 2 Settings—Okidata 184 Printer

Switch 2	Setting	Description
1	Off	Transmission speed = 9600 baud.
2	On	
3	On	
4	On	DSR active.
5	On	Buffer = 32 bytes.
6	On	Timing = 200 ms.
7	On	Space after power on.
8	Don’t care	Not used.

Modems

In general, a dial-out connection to a modem uses the AUX port of the IGX. A dial-in connection from a modem uses the CONTROL port of the IGX. Refer to Table B-6 for interface requirements.

Table B-6 Modem Interface Requirements

Parameter	Requirement
IGX Port Used:	CONTROL port on SCM card is used for auto-answer modem. AUX PORT on SCM card is used for auto-dial modem.
Code:	Standard 8-bit ASCII, 1 stop-bit, no parity.
Interface:	RS-232 DCE.
Cable:	Null modem cable.
Phone Lines:	Dedicated, dial-up business telephone line for ISC-to-IGX modem and auto-dial-to-ISC modem.
Data Rate:	All standard asynchronous data rates from 300 to 19200 bps, independently software-selectable.
Supported Modems:	Motorola Model V.34R 9600 baud modem.

Motorola V.34R IGX Dial-In/Out Configuration

IGX Auto-Answer

This is a setup in which the ISC can dial into the customer's IGX. Using the **cnfterm** command, set the IGX CONTROL port speed to 9600 bps. Using the **cnftermfunc** command, set the terminal type to VT100/StrataView. To program the modem, temporarily attach a terminal to the modem using a null modem cable. The modem EIA port will automatically match the 9600 bps setting of the terminal. Enter the commands listed in Table B-7 to set up the modem for proper operation.

Table B-7 Setting Up the Motorola V.34R Modem for Auto-Answer mode

Step	Command	Function
1.	AT&F&W	Reset to factory default and save.
2.	ATSØ=1	Enables Auto-Answer Mode (answer on first ring).
3.	ATL1	Modem speaker at low volume.
4.	AT*SM3	Enables automatic MNP error correction.
5	AT*DC0	Disables data compression.
6.	AT*FL0	Disables XON/XOFF flow control.
7.	AT&S1	Sets DSR to "normal".
8.	ATEØ	Disables local character echo.
9.	ATQ1	Disables result codes. (Modem will appear "dead.)
10.	AT&W	Saves current configuration settings in non-volatile memory.

IGX Auto-Dial

Using the **cnfterm** command, set the IGX Auxiliary port (AUX PORT) speed to 9600 bps and enable XON/XOFF flow control. Using the **cnftermfunc** command, select option 7, "Autodial Modem", enter the ISC-designated Network ID, and the ISC modem phone number. Attach a 9600 bps terminal to the modem using a cross-over cable and enter the following commands (Table B-8).

Table B-8 Setting Up the Motorola V.34R Modem for Auto-Dial mode

Step	Command	Function
1.	AT&F	Initializes factory defaults.
2.	ATL1	Modem speaker at minimum volume.
3.	AT*SM3	Enables automatic MNP error correction.
4	AT*DC0	Disables data compression.
5.	AT*SC1	Enables DTE speed conversion
6.	AT*FL1	Enables XON/XOFF flow control.
7.	AT*SI1	Enables 5-minute inactivity disconnect.
8.	AT&C1	DCD controlled by modem.

Step	Command	Function
9.	AT&D2	Modem disconnects when IGX toggles DTR.
10.	AT&V	Verifies entries.
11.	AT&W	Saves current settings to non-volatile memory.

Connect the modem to the IGX AUX PORT using the cable shown in Figure B-1. Ask StrataCom ISC to assist in testing the operation of the modem setup.

Modem Cables

The IGX Auto-Dial to ISC application (also called “call home”) and IGX Auto-Answer (call *from* StrataCom ISC) application use different modem cables. Figure B-1 shows the modem cable pinout for IGX Auto-Dial to ISC. Figure B-2 shows the modem cable pinout for IGX Auto-Answer (call from ISC).

Figure B-1 Cable Pinout for Customer to Auto-Dial ISC (Call Home)

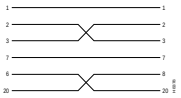

Figure B-2 Cable Pinout for Auto-Answer by Customer Modem