
Interface Information

This printer can communicate with a computer through a serial interface, a usb interface, a Blue Tooth wireless interface, an IEEE 802.11B wireless interface. Interfaces may vary from unit to unit depending on which configuration is purchased.

This appendix provides information you may need for wiring your own interface cables or for programming computer-to-printer communications. Most users do not need the information in this appendix. This information is most useful to people who specify how to configure and install these printers. To simply connect your printer to your computer, follow “Connecting the Printer to Your Host System,” in the *Installation Guide*.

Removing the Connectivity Cover

To connect the printer through an IEEE 802.11B wireless interface , you must first remove the connectivity cover on the bottom side of the printer.



1. Locate connectivity cover on the bottom side of the printer.
2. Push the top of the connectivity cover slightly inward.
3. Pull the connectivity cover slightly downward and out.
4. Connect the desired Wireless LAN module

Serial Interface

Use the cable that comes with the printer or equivalent. If you prepare a cable separately, the cable connector at the printer side should be an equivalent that conforms to EIA standards.

The following table shows the pin assignments that are used.

Pin No.	Signal Name	Description
2	TXD (Transmit Data)	This line is for transmission of data from Printer to PC. The characteristics of the data transmitted are specified by the function menu. The only data that will be transmitted are XON (x'11') and XOFF (x'13') signals. CTS must be high for transmission to take place.
3	RXD (Receive Data)	This line is for receiving data from PC. The serial interface will not accept any data unless DSR is on.
4	RTS (Request to Send)	This line will be set high and will remain high after the serial interface finishes its Reset.
6	DTR (Data Terminal Ready)	This line will be set high after the serial interface finishes its Reset sequence. However if Ready/busy handshake protocol is selected, this line is used to indicate to PC whether or not Printer is ready to receive any more data.
7	DSR (Data Set Ready)	DSR is used as another method of providing data integrity. Data will not be accepted unless DSR is high.
8	CTS (Clear to Send)	This line will be monitored only if the XON/XOFF protocol is selected because CTS must be high in order for the serial interface to transmit data

Serial Options

The serial options for the computer and the printer must match. Use the printer control panel, the computer operating system, or your software to change options specified as “selectable.”

Transmission	Asynchronous, full duplex
Mode:	
Speed:	4800, 9600, 19200 or 38400 baud (selectable)
Data bits:	7 or 8 bits (selectable)
Parity bit:	Even, odd, or none (selectable)
Start bit:	1 bit
Stop bit:	1 or 2 bits (selectable)
Buffer control:	XON/XOFF (DC1/DC3) or DTR (Data Terminal Ready) (selectable)
Buffer size:	2K, 8K, 16K, 32K, or 64K bytes (selectable)

Buffer Control

Buffer control is a communication emulation used by the computer terminal and the printer to secure data transmission between the two devices. The buffer control ensures that the computer does not send information to the printer faster than the information can be processed in the printer. By telling the computer when the printer can receive data, the buffer control prevents the printer's buffer from overflowing.

This printer offers a choice of two different buffer controls for connection to a variety of computers: XON/XOFF and DTR. If your computer documentation does not recommend a particular buffer control, try DTR. The following table describes the buffer control.

NOTE: XON/XOFF is the default setting from the factory.

Buffer Control	Description
XON/XOFF (DC1/DC3)	When the printer is ready to receive data, it sends the XON (DC1) code (hex 11). When fewer than 255 bytes of space remain in the buffer (or when the printer is taken offline), the printer sends the XOFF (DC3) code (hex 13). (When the input buffer is configured for 256 bytes, the buffer limit is reduced from 255 bytes to 63 bytes.) The computer must stop transmitting data within 255 (63) characters of receiving the XOFF code, or information may be lost. If the paper runs out, the printer sends an NAK code (hex 15).
DTR	DTR is a hardware buffer control; that is, the Ready Out signal on the interface cable. (DTR) is used to control the flow of data rather than the transmission of a character code. When the printer is ready to receive data, DTR is high. When fewer than 255 (63) bytes of space remain in the buffer (or when the printer is taken offline), DTR is low. The computer must stop transmitting data within 255 (63) characters of DTR being low, or information may be lost.

USB Interface (Universal Serial Bus)

Features

Full compliance with the Universal Serial Bus Specification Revision 2.0.

USB Function Controller with two FIFO-based Endpoints:

One bidirectional Control Endpoint 0 (8 bytes)

One receive Endpoint 1 (1*64 bytes)

The signaling bit rate is 12 Mb/s (Full speed).

USB (Universal Serial Bus) Interface Pin Assignment

Pin No.	Signal
1	VBus
2	-Data(D-)
3	+Data(D+)
4	GND

Connector type

Printer side	Type B Receptacle
Cable side	Type B Plug

Bluetooth Wireless Interface

Communication System

Bluetooth Standard Version 1.2 conformity

Output Power

Bluetooth Power Class 2

Frequency

ISM band 2.4 GHz

Communication Range

Line-of-sight distance : Approximately 10m

This may vary depending on conditions including Obstacles between devices, signal quality, magnetic fields, static electricity, electromagnetic interference, software, operation system, reception sensitivity, and antenna performance.

IEEE 802.11B Wireless Interface (Option)

This interface is supplied as an adaptor that plugs into the 36-pin Amphenol type connector of the printer.

3.3V/2A power supply is prepared in MIP480 printer. If, when an external power supply is needed for the module, this power supply can be used.

Standards Conformance	Wireless standard IEEE802.11b
Data Transfer Rate	1M/2M/5M/11Mbps auto-detection
Frequency Range	ISM band 2.4GHz
Communication Range	Line-of-sight max. distance : Approximately 100m (indoors) This may vary depending on conditions including Obstacles between devices, signal quality, magnetic fields, static electricity, electromagnetic interference, software, operation system, reception sensitivity, and antenna performance.

Recommended module

Planex Communications Inc
Mini-PWF



LINDY Computer Connection Technology
Print Server - 802.11b WLAN (1 Parallel)

