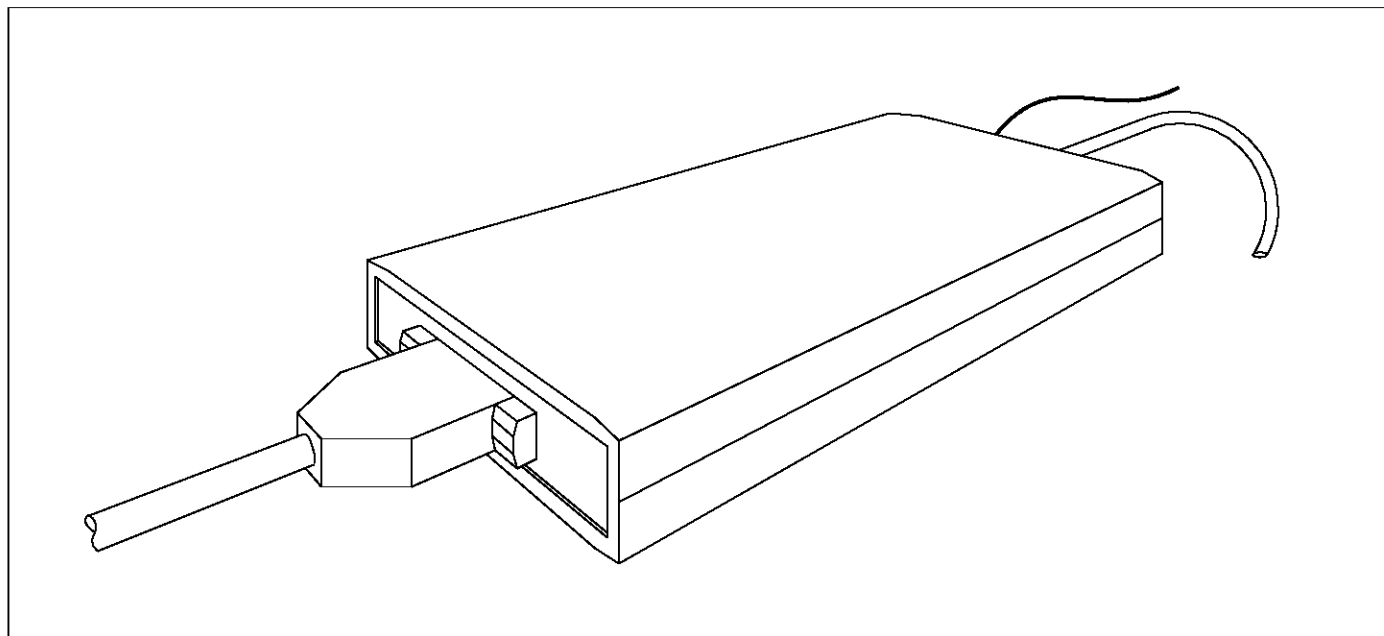


**PC PARALLEL PORT TO OS-LINK INTERFACE****PRODUCT INFORMATION****FEATURES**

- Desktop mounted parallel port to differential OS-Link interface
- Standard 25 way D-type parallel port connection
- Standard 26 way D-type differential OS-Link connection
- Plug top power supply
- Supports nibble, byte and EPP mode parallel port standards

**DESCRIPTION**

The ST20-PPI parallel port to OS-Link interface is a host interface to allow connection from a PC parallel port to any OS-Link based ST20 development board such as the ST20450-SAB. The interface plugs into any standard PC 25 way D-type parallel port. Supported parallel port modes are:

- Nibble mode
- Byte mode
- EPP mode

depending on which mode the host PC can support. Connection to the development target is via a differential OS-Link connector, as used on the IMS B300 and ST20450-Development Board. Once connected, the development target can be accessed with the standard ST20 Toolset using the MS Windows drivers supplied.

# 1 Introduction

The ST20-PPI parallel port to OS-Link interface is a host interface to allow connection from a PC parallel port to any OS-Link based ST20 development board such as the ST20450-SAB. The interface plugs into any standard PC 25 way D-type parallel port. Supported parallel port modes are:

- Nibble mode
- Byte mode
- EPP mode

depending on which mode the host PC can support. Connection to the development target is via a differential OS-Link connector, as used on the IMS B300 and ST20450-Development Board. Once connected, the development target can be accessed with the standard ST20 Toolset using the MS Windows drivers supplied.

# 2 Installation

## 2.1 Hardware Installation

The ST20-PPI has three connections: Parallel port; Differential OS-Link and Power supply. To install the hardware, the following steps should be followed:

- Plug the 25-way D-type of the parallel port cable built into the interface, into the parallel port of the PC
- Plug the target development system into the 26-way D-type using a differential OS-Link cable or the differential-to-single ended cable depending on the link interface available on the target board

**NOTE:** To comply with EMC regulations this cable must use shielded cable with shielded headshells at either end.

- Plug power supply cable into PSU socket of the interface
- Plug the power supply into the mains socket.
- Switch on the PC
- Switch on the power supply. The power LED on the interface should illuminate when the power supply is switched on

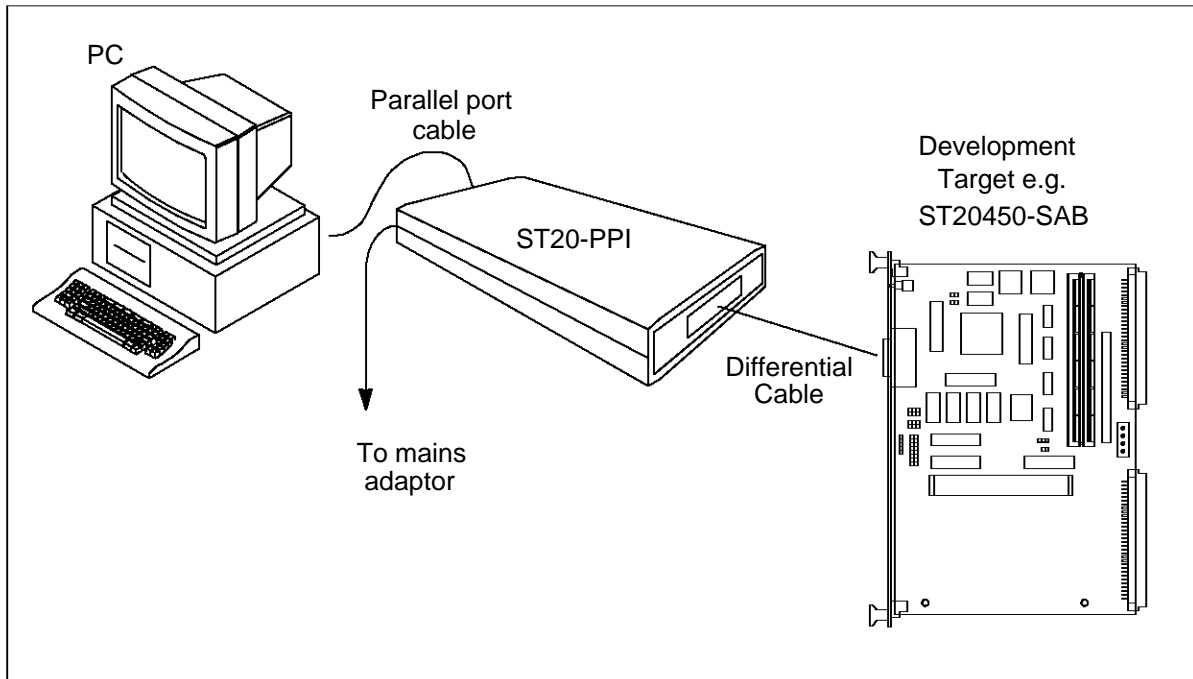


Figure 2.1 ST20-PP1 connections

## 2.2 Software Installation

For installation of the DLL and VxD drivers, please refer to the ST20 Toolset software installation documentation.

### 3 Connectors

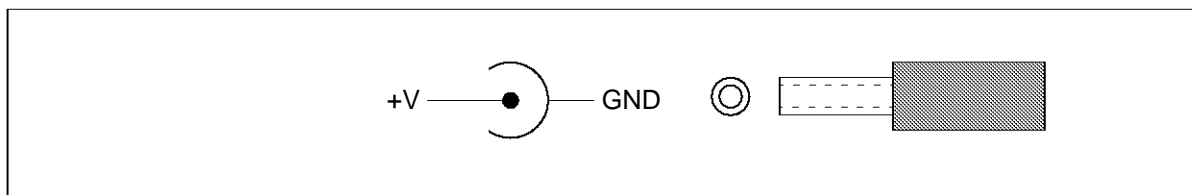
#### 3.1 Differential Link Connector

Pin	Description	Pin	Description
1	+notSSDownReset	14	GND
2	+notSSDownAnalyse	15	GND
3	+notSSDownError	16	GND
4	+notSSUpReset	17	GND
5	+notSSUpAnalyse	18	GND
6	+notSSUpError	19	-notSSDownReset
7	+LinkOut	20	-notSSDownAnalyse
8	+LinkIn	21	-notSSDownError
9	GND	22	-notSSUpReset
10	GND	23	-notSSUpAnalyse
11	GND	24	-notSSUpError
12	GND	25	-LinkOut
13	GND	26	-LinkIn

Table 3.1 26 way D-type connector

#### 3.2 Power Supply Connector

The ST20-PPI uses a 2.5mm power connector. The voltage range is 8-13V dc.



### 3.3 Parallel Port Connector

Pin	Description	Pin	Description
1	<b>notWRITE</b>	10	<b>D3-D7</b>
2	<b>D0</b>	11	<b>notWAIT</b>
3	<b>D1</b>	12	<b>D2-D6</b>
4	<b>D2</b>	13	<b>D1-D5</b>
5	<b>D3</b>	14	<b>notDATA</b>
6	<b>D4</b>	15	<b>D0-D4</b>
7	<b>D5</b>	16	<b>notINIT</b>
8	<b>D6</b>	17	<b>notADDR</b>
9	<b>D7</b>	18..25	<b>Ground</b>

Table 3.2 Parallel port connector pinout

## 4 Field Support

SGS-THOMSON Microelectronics Limited products are supported worldwide through Sales Offices and authorized distributors.

## 5 Ordering information

Description	Order Number
ST20-PPI Parallel Port to OS-Link Interface (US)	ST20-PPI/110
ST20-PPI Parallel Port to OS-Link Interface (European)	ST20-PPI/220
ST20-PPI Parallel Port to OS-Link Interface (UK)	ST20-PPI/UK

Table 5.1 Ordering information

---

Information furnished is believed to be accurate and reliable. However, SGS-THOMSON Microelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of SGS-THOMSON Microelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SGS-THOMSON Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of SGS-THOMSON Microelectronics.

© 1996 SGS-THOMSON Microelectronics - All Rights Reserved

IMS and DS-Link are trademarks of SGS-THOMSON Microelectronics Limited.



is a registered trademark of the SGS-THOMSON Microelectronics Group.

SGS-THOMSON Microelectronics GROUP OF COMPANIES

Australia - Brazil - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco -  
The Netherlands - Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A.