![SGS-THOMSON MICROELECTRONICS logo]

ST20-PPI

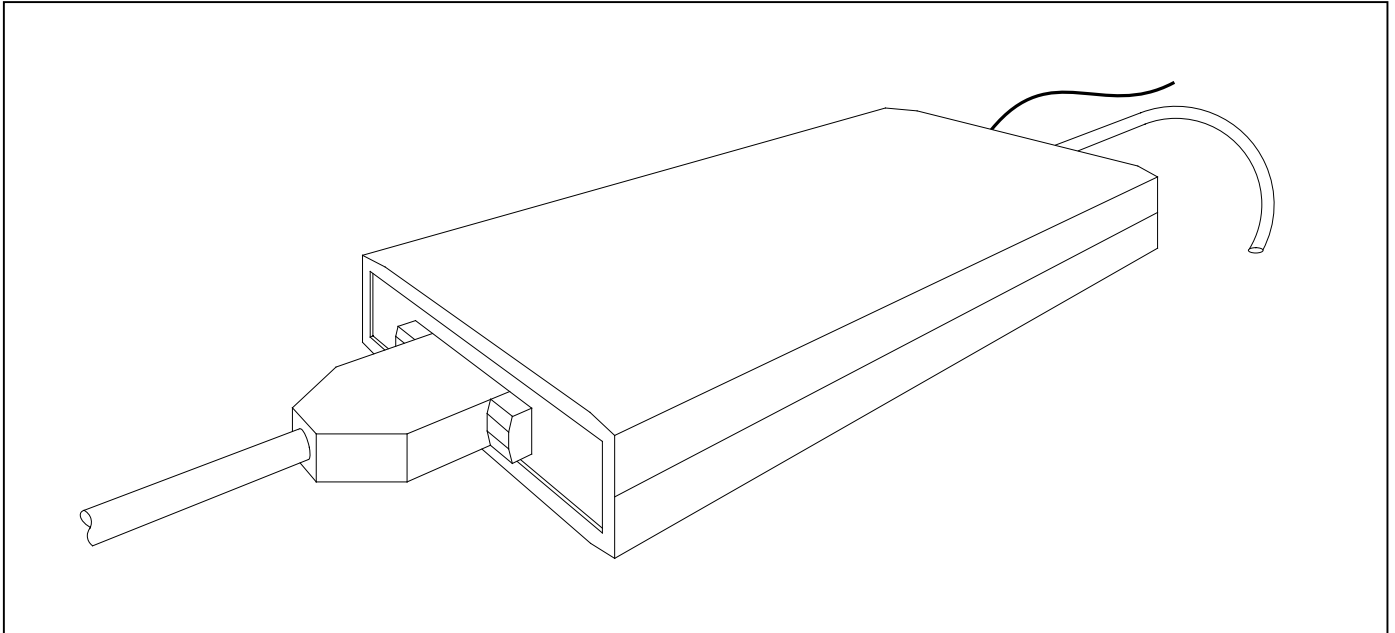## PC PARALLEL PORT TO OS-LINK INTERFACE

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

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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
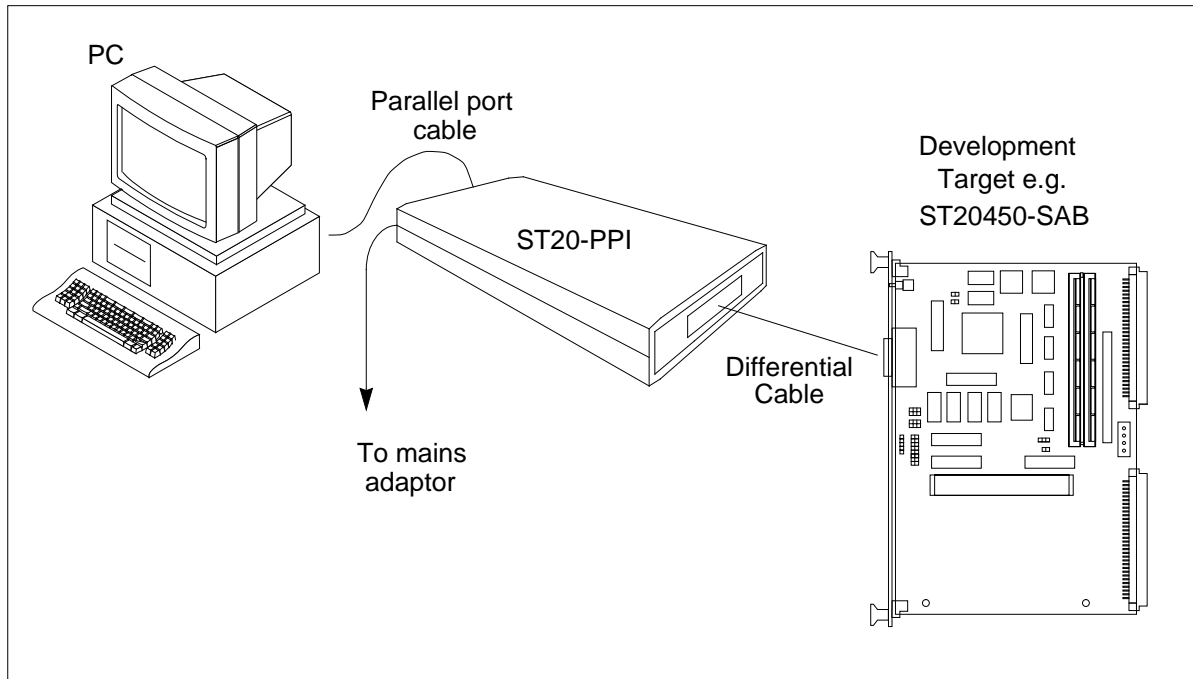
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Figure 2.1 ST20-PP1 connections

2.2 Software Installation

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

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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.
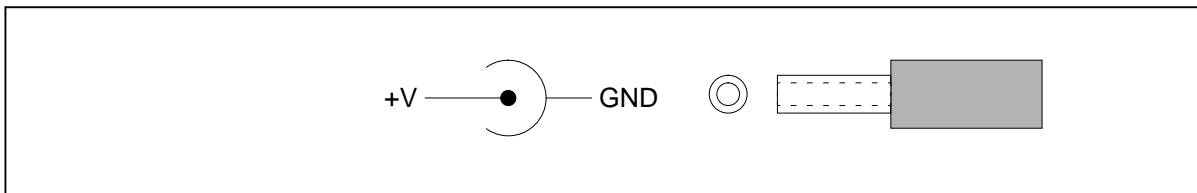
3.3 Parallel Port Connector

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

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

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