MB3A
BiSS to PC-LPT ADAPTER

ORDERING INFORMATION

| Type	Order Designation	Description / Options
BiSS to PC-LPT Adapter	MB3A	Protocol converter for connecting BiSS/SSI sensors to the LPT port on a PC
		Scope of delivery: ready-to-use adapter; LPT device driver (Win 98/ME, 2000/XP) and BiSS master PC software for downloading

DESCRIPTION

The BiSS to PC-LPT Adapter enables BiSS or SSI sensors to be connected to a PC easily and at low cost.

The parallel printer port is used as hardware link, whereas by software an SPI compatible data communication is emulated, granting a speedy measurement data transmission and the configuration of the adapter. Regarding the sensor side BiSS/SSI communication is carried out via differential RS422 lines, optionally via single ended signals when removing a jumper.

Technical Data

♦ Synchronously triggered measurement data collection from up to 3 BiSS sensors or one SSI encoder
♦ BiSS data rates up to 10 Mbit/sec., SSI up to 4 Mbit/sec.
♦ Protocol compatible with BiSS Master iC-MB3
♦ Connection to the PC parallel printer port
♦ Operates from a single 5 V voltage supplied via the sensor connection or solder terminals
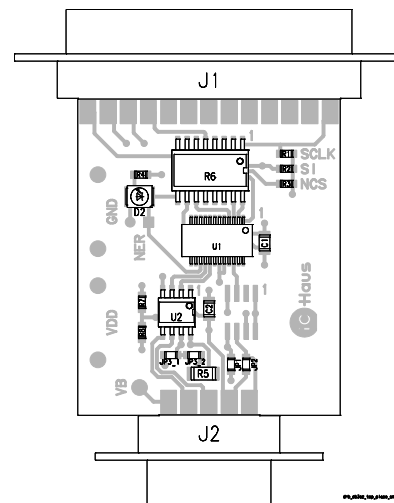
Size approx. 50 mm x 70 mm

BiSS Plug Pin Configuration J2 (9-pole SUB-D)

Pin	Name	Function
1	VB	not wired
2	MA +	Clock output P
3	MA −	Clock output N
4	VDD	+5 V Adapter supply voltage* (supply current ca. 90 mA)
5	MO −	+5 V High-level signal (Optional: master data output N)
6	GND	Ground (0V)
7	SL +	Data input P
8	SL −	Data input N
9	MO +	0 V Low-level signal (Optional: master data output P)

*) This operating voltage is supplied by iC-Haus demo boards.

Copyright © 2005, iC-Haus GmbH

www.ichaus.com

MB3A
BiSS to PC-LPT ADAPTER

PC Plug Pin Configuration J1 (25-pole SUB-D)

Pin	LPT Name	Signal	Function
1	nStrobe	ALE	Address latch enable Input
2	Data0	n/a	
...	...	...	
9	Data7	n/a	
10	nAck	n/a	
11	Busy	DB1-SO	SPI data output
12	PaperOut	EOT	End-of-transmission output
13	Select	NER	Error message (active low)
14	LineFeed	DB0-SI	SPI data input
15	nError	n/a	
16	nInitialize	NCS	Chip select input
17	nSelect	n/a	
18	GND	GND	Ground
...	...	...	...
25	GND	GND	Ground

Wiring circuit
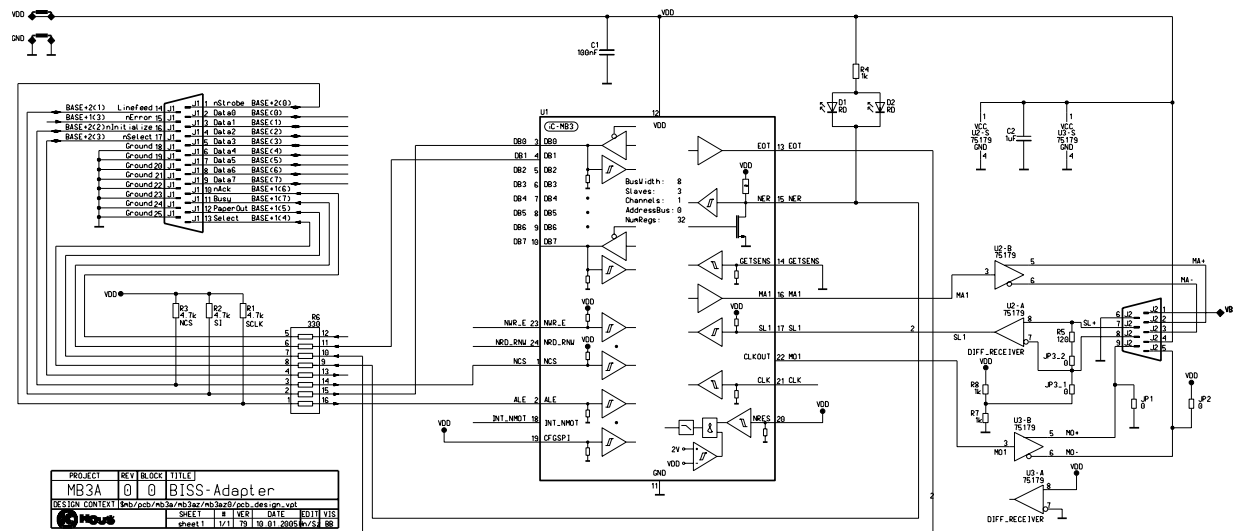
Fig. 1: MB3A schematic diagram. Jumper JP3_2 can be removed to enable single-ended SL line communication. (U3 is not assembled).