

S-LINK Data Sheet

This dummy Data Sheet exists for demonstration purposes only and does not describe a real S-LINK

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1.0 Description

This Data Sheet describes a **Duplex S-LINK** which uses the *EasyCom*TM chip-set from Acme Products as its physical medium.

This Data Sheet should be consulted in conjunction with the S-LINK Specification which can be found on World-Wide-Web at:

<http://www.cern.ch/HSI/s-link/>

2.0 Data Width Options

This S-LINK is of switchable width and can be operated in any of the following three modes:

- 32-bit,
- 16-bit,
- 8-bit.

3.0 Data Transfer Rate

This S-LINK has a maximum clock rate at the LSC (UCLK) of 66 MHz. The maximum rate at which data can be transferred to the LSC is therefore determined by the data width in which the S-LINK is operated. Data transfer rates are given in Table 1.

Operating Conditions

TABLE 1. Data Width and Data Transfer Rate

Data Width	Clock rate	Data Transfer Rate
32-bit	33 MHz	132 Mbytes/sec
16-bit	66 MHz	132 Mbytes/sec
8-bit	66 MHz	64 Mbytes/sec

4.0 Operating Conditions

S-LINK Operating conditions are given in Table 2.

TABLE 2. DC Electrical Characteristics: LSC and LDC

Symbol	Description	Min	Typical	Max	Units
I _{CC}	Current drawn by Link board		1.0	1.50	Amps
V _{CC}	Supply voltage	4.75	5.00	5.25	Volts
T _{OP}	Operating Temperature	10		50	°C

5.0 Timing Characteristics

The S-LINK timing characteristics are given in Table 3 and Table 4. For timing diagrams, consult the S-LINK Specification.

TABLE 3. Timing Characteristics: LSC

Symbol	Description	Min	Max	Units
t _{ENS-S}	Enable Set-up time	9		ns
t _{ENH-S}	Enable Hold time	1		ns
t _{DS-S}	Data Set-up time	9		ns
t _{DH-S}	Data Hold time	1		ns
t _{CLK-S}	Clock Cycle time	15	30	ns
t _{WFF-S}	Write Clock to Full Flag		12	ns

Optical Characteristics

TABLE 4. Timing Characteristics: LDC

Symbol	Description	Min	Max	Units
$t_{\text{ENS-D}}$	Enable Set-up time	9		ns
$t_{\text{ENH-D}}$	Enable Hold time	1		ns
$t_{\text{DS-D}}$	Data Set-up time	9		ns
$t_{\text{DH-D}}$	Data Hold time	1		ns
$t_{\text{CLK-D}}$	Clock Cycle time	15	30	ns

6.0 Optical Characteristics

This S-LINK is designed to be used with a standard SC connector (JIS-5973) and multimode optical fibre of fibre diameter 50/125 or 62.5/125 μm . In these conditions, its optical characteristics are given in Table 5

TABLE 5. Optical Characteristics

Symbol	Description	Min	Typical	Max	Units
	Link Length (50/125 μm)	0.002		2.0	km
	Link Length (62.5/125 μm)	0.002		0.70	km
OPB	Optical Power Budget			12	dB
BER	Bit Error Rate			10^{-12}	
	SC connector attenuation		0.25		dB

7.0 Finding and Printing this Document

This Dummy Data Sheet is maintained on World Wide Web. The most up-to-date version can always be found on:

<http://www.cern.ch/HSI/s-link/>

If you have a hard-copy of this Dummy Data Sheet, please check that the date on the front-page (top-left corner) matches the date on the WWW version.

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