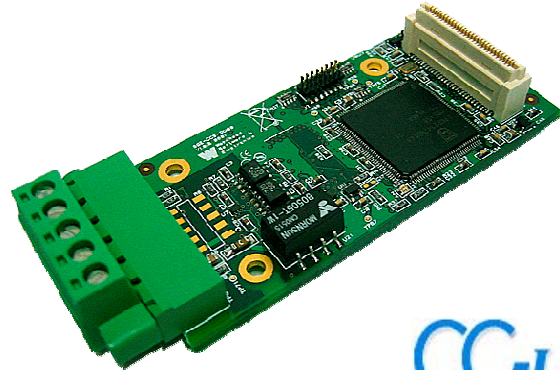




To get access and fast implementation of CC-Link into your machine becomes easier and less expensive.

SST™ CC-Link DC100CCS

Embedded Network Interface



CC-Link

Features

- One Common Interface for all ENI modules
- Very compact dimension (horizontal or vertical mounting)
- Simple integration with Direct DP-RAM Access
- Automatic or manual DP-RAM I/O configuration
- Possible storage of the network configuration in flash memory
- Independent of Operating Systems
- Lower engineering and integration costs
- Lower product and life cycle cost
- Up to 512 bytes Input and 512 bytes Output Data
- CC-Link Conformance Tested

Typical applications

- **Industrial PC Solutions**
 - ✓ Test Measurement,
 - ✓ PC based Control,
 - ✓ Operator Panel
- **Machine Tool Industry**
 - ✓ Robotic Application,
 - ✓ Embedded Control for small Devices
- **Building Automation**
 - ✓ Multiple Gateways, Alarm Center,
 - ✓ Elevator / Escalator Control,
 - ✓ Access Control / Data Collection

Member of CC-Link Partner Association



Overview

The BradCommunications™ SST™ DC100CCS module is an Embedded Network Interface (ENI) dedicated to OEMs who want to connect their systems to the CC-Link fieldbus. The SST™ DC100CCS ENI module benefits to machine builders and industrial PC manufacturers by significantly shortening the time to market for new systems.

The SST™ DC100CCS module is CC-Link conformance tested and supports CC-Link Slave specifications version 1.10; including all the standard CC-Link baud rates, 1 ~ 64 station number and up to 4 occupied stations.

The SST™ DC100CCS ENI module is connected with the motherboard through a simple 60 PIN connector. Therefore the integration is easy and inexpensive. As the wiring of the connector is always the same, only one hardware design is required in order to support different fieldbuses protocols (PROFIBUS, DeviceNet). The data exchange with the Host systems is carried out via an "easy to use" interface, having a 2kB dual-port memory. As the ENI module is equipped with its own embedded processor, all the communication is processed on the module, without any load on the Host system.

In order to support customer specific development, Woodhead Industries provides also a development and evaluation kit, including:

- 1 development board: USB v2.0 High Speed Adapter
- 1 CD-Rom including:
 - Hardware Reference Guide
 - DC100 Family Host Design Guide
 - DC100Kit USB-Carrier Development Board
 - DLL source available to speed up implementation on new host
 - Demo / Test software and source code available
 - Driver and APIs under Windows XP and source code to enable fast integration into specific OS (Linux, DOS, QNX, Vx-Works, etc)▲

BradCommunications™
from Woodhead Industries

Woodhead





Memory MAP

The 2kBytes Dual Port Memory (DP-RAM) allows a fast access to all Fieldbus data.

BLOCK_0 (Size 6 Bytes) Fieldbus Type & Variant Hardware ID & Sub-ID Card & Host Logical Interrupt
BLOCK_1 (Size 6 Bytes) Card Status Block
BLOCK_2 (Size 12 Bytes) Host Control Send/Receive Message
BLOCK_3 (Size 128 Bytes) Host Receive Message
BLOCK_4 (Size 128 Bytes) Host Send Message
BLOCK_5 (Size 700 Bytes) Fieldbus Specific Block
BLOCK_6 (Size 512 Bytes) Input Data
BLOCK_7 (Size 512 Bytes) Output Data
BLOCK_8 → 13 (Size 0 Byte) Reserved
BLOCK_14 (Size 2 Bytes) Interrupts Flags

Hardware Specifications

DC100CCS SPECIFICATIONS	
Bus Interface	8 bit, DC100
Host Connector	Proprietary technology (ISA Bus signals)
Processor	ARM7 Processor
Memory	16KB RAM and 128KB Flash
Interrupts	To Host Not supported, To Card supported
Dimensions (LxW)	90 X 40 mm
Consumption	1.5 W
Typical Current Drawn	+5V, ±5%, 200mA. +3.3V, ±5%, 80mA
Voltage Requirements	+5V and +3.3V from DC100 bus
Addressing: Memory	2KB DPRAM Window, access time: 25ns
Addressing: IO	None
Operating Temperature	0 deg C (32 deg F) to +55 deg C (131 deg F)
Storage Temperature	-40 deg C (-40 deg F) to +85 deg C (185 deg F)
Humidity	5% to 95% non-condensing
EMC Compliance	Yes (CE)
RoHS Compliance	Yes

NETWORK SPECIFICATIONS	
Protocol	CC-Link Slave version 1.10
Cable	Shielded 3 Cores CC-Link compliant cable
Bus Connector	<u>Standard:</u> CC-Link compliant 5 pin terminal block with/without screws. <u>On Request:</u> HE13 fieldbus header for connection to host card is available.
External Power	Nil
Isolation	500 Volts
Display Leds	ERR, RUN, SD and RD
Station Number	1 to 64
Occupied Stations	1 to 4
Data Rate	156K, 625K, 2.5M, 5M and 10M baud
CC-Link Conformance Tested	Yes

Hardware Development Kit



USB v2.0 Adapter Development Kit

Ordering information

Part Number	Description
SST-CCS-USB-KIT	BradCommunication™ SST™ DC100CCS Development Kit (USB Adapter + DC100CCS + CD-Rom)
DC100CCS-C-B10	BradCommunication™ SST™ DC100CCS module, CC-Link Slave, 5 pins connector with screw, Bulk of 10
DC100CCS-H-B10	BradCommunication™ SST™ DC100CCS module, CC-Link Slave, HE13 connector, Bulk of 10

Other related products

Part Number	Description
SST-CCS-PCU	BradCommunication™ SST™ CC-Link Slave interface card, PCI universal bus 3.3/5 V

BradCommunications™
from Woodhead Industries

Contact us: www.woodhead.com Reference Number: DW2007188 Date published: February 2007

North America: US +1 800 225 7724 – Canada +1 519 725 5136
Europe: France +33 2 32 96 04 20 – Germany +49 7252 94 96 0 – Italy +39 010 59 30 77
United Kingdom +44 1495 356300
Asia: China +86 21 5835 9885 – Singapore +65 6261 6533 – Japan +81 3 5791 4621

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