APTER POWER
INDUSTRIAL AUTOMATION

MANUFACTURER-SOURCE TECHNICAL REFERENCE

ABB SDCS-COM-82

Product Reference

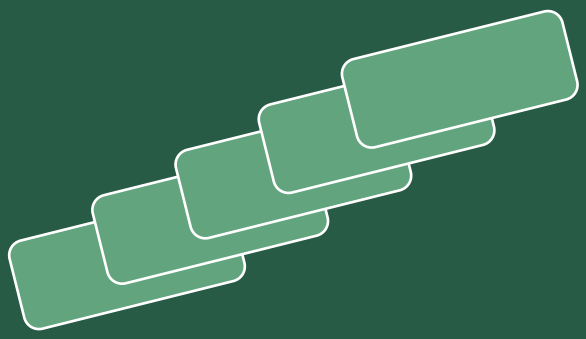

ABB DCS800 DDCS Optical Interface Board

DOCUMENT SCOPE

Independent Apter Power manual compiled only from the cited ABB manufacturer sources. No product photograph is included.

Product / lookup identity	ABB SDCS-COM-82
Reference number	SDCS-COM-82
Document basis	Published ABB product records, PDFs, and manuals listed on page 3

Product page

https://www.apterpower.com/ABB/sdcs-com-82

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Product role and published parameters

WHAT IT IS, WHAT IT DOES, AND WHERE IT FITS

ABB SDCS-COM-82 is an SDCS-COM-8 optical DDCS communication interface-board variant for ABB DCS800 DC drive systems. It exchanges drive signals and parameters as DDCS data sets through four optical transmit/receive channels, with a documented maximum of 4 Mb per channel. Channel 0 serves N-type fieldbus adapters, channel 1 supports AIMA-01 or FEA-01 I/O paths, channel 2 links master-follower drives, and channel 3 connects DriveWindow, IBA or a documented NETA alternative. Within its DCS800 host, it supports communications for ABB-documented DC-drive applications including rolling mills, mine hoists, extruders, mixers, cranes and material-handling systems.

Published field	Manufacturer-published value or verified identity note
Product Type	DDCS optical communication interface board
Host System	ABB DCS800 DC drives
Communication System	DDCS
Optical Channels	4, each with TxD and RxD
Maximum Data Rate	4 Mb per channel
Channel 0	N-type fieldbus adapter path; 5 Mb optical component
Channel 1	AIMA-01 or FEA-01 I/O adapter path

System function and signal path

01	Provides DDCS optical communication for a DCS800 drive.
02	Four optical Tx/Rx channels; ABB states maximum data transmission speed of 4 Mb per channel.
03	Channel 0: overriding control path for the SDCS-COM-8 family; on SDCS-COM-82 it is specifically for N-type fieldbus adapters and uses a 5 Mb optical component.
04	Channel 1: I/O extension path for AIMA-01 and FEA-01.

Applications, answers, and official sources

1. Metals
2. Mining
3. Rubber and plastics
4. Material handling

Frequently asked questions

What is the ABB SDCS-COM-82?	It is an SDCS-COM-8 optical interface-board variant used with ABB DCS800 drives to provide DDCS communication. Its channel 0 is intended for N-type fieldbus adapters.
Which drive family uses the SDCS-COM-82?	ABB documents the board for use together with the DCS800 drive.
What does each optical channel do?	Channel 0 links the overriding-control/fieldbus path and is for N-type adapters on SDCS-COM-82; channel 1 supports AIMA-01 or FEA-01 I/O expansion; channel 2 is for master-follower communication; channel 3 is for DriveWindow or...
How many optical channels are provided?	Four optical Tx/Rx channels are provided, with ABB specifying a maximum data transmission speed of 4 Mb for each channel.
How does SDCS-COM-82 differ from SDCS-COM-81?	The key documented distinction is channel 0: SDCS-COM-82 uses a 5 Mb optical component and is intended for N-type fieldbus adapters, while SDCS-COM-81 uses a 10 Mb channel-0 component for ABB PLC links. Other channel component...
What signals are exchanged over DDCS?	The DCS800 firmware manual describes DDCS data sets containing three 16-bit integer words representing signals or parameters; received control data changes drive RAM rather than FPROM.

Official ABB sources

DCS800 Hardware Manual	https://library.e.abb.com/public/647f732ff4684400a8bc2f063d44d3a8/3ADW000194R0811%20DCS800%20Hardware%20Manual%20us%20h.pdf
DCS800 Firmware Manual	https://library.e.abb.com/public/4deddc9fcac946ff90645717f7f19e79/3ADW000193R0801%20DCS800%20Firmware%20Manual%20e%20h.pdf
Product Life Cycle Statement - DCS800 Power Converter Modules	https://library.e.abb.com/public/1dd8cbd7791c49ccac1b9e672f08210d/LC_Statement_DCS800_revC.pdf
ABB DCS800 Technical Catalog	https://library.e.abb.com/public/e9e4650fae26496b848993c74c63f626/DCS800-PHTC01U-EN_REVO.pdf