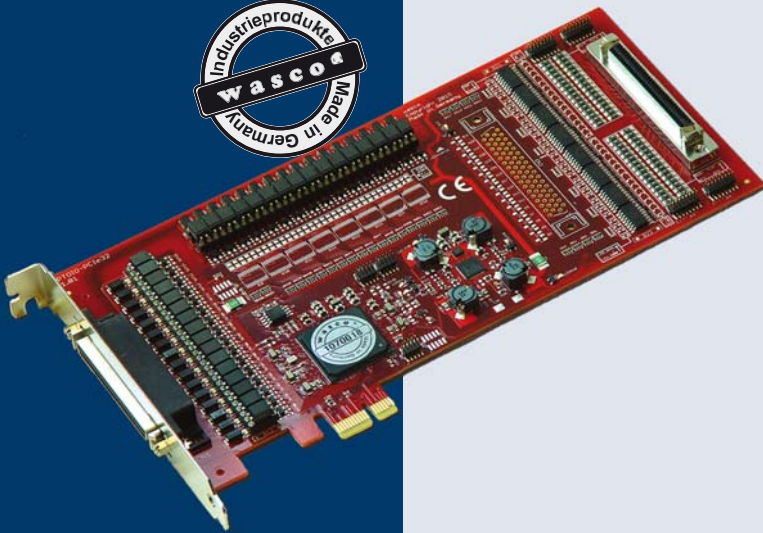


OPTOIO-PCIe32STANDARD

Digital PCIe I/O Interface Card with 32 Optocoupler Inputs,
32 Optocoupler Outputs and Board Identification



32 optocoupler inputs

32 optocoupler outputs

board identification

SPECIFICATIONS

The wasco® interface card OPTOIO-PCIe32STANDARD provides 32 digital inputs and 32 digital outputs, every single channel is galvanically isolated by optocouplers of high quality. All input optocouplers are bipolar. Special high-power output optocouplers manage a switching current of up to 150 mA.

Each input or output is equipped with additional protection diodes against harmful voltage peaks. You easily can adjust two different voltage ranges for each input channel individually by setting jumpers.

Output optocouplers are led to a 68-pin SCSI-II jack mounted to the board's slot bracket. Optocoupler inputs are fed to a 68-pin SCSI-II jack on the board. Optionally a special cable (set of female connector, flat ribbon cable and 68-pin female connector with slot bracket) is available, to relocate the connection to a slot of your PC casing.

Furthermore the card provides a jumper block for card identification. This enables you to differentiate between several identical cards in your system.

Pin assignment and input voltage ranges are identical with PCI bus card OPTOIO PCI32STANDARD. Therefore a switch to PCIe is easily to realise.

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Optocoupler Inputs

Optocoupler: LTV-244 or compatible
32 channels, optically isolated
Galvanic isolation also between every single channel with each two separate connections for each of the channels
Overvoltage protection by protection diodes
Two different input voltage ranges jumper selectable:

Range 1 high = 14..30 Volt
 low = 0..2 Volt
Range 2: high = 5..15 Volt
 low = 0..1 Volt

Input frequency: max. 10 kHz

Optocoupler Outputs

Optocoupler: 32 * PC853 or compatible Socket mounted
32 channels, optically isolated
Galvanic isolation also between every single channel with each two separate connections for each of the channels
Overvoltage protection by protection diodes
Output current max. 150mA
Output frequency ca 1 KHz
Voltage collector-emitter: max. 50V
Voltage emitter-collector: max. 0,1V

Board Identification

Jumper block with five pairs of contact pins

Connection plug

2*68-pin SCSI-II jack

Bus system

32-Bit PCIe Bus (16 Bit data access)

Dimensions of the Board

208 mm x 111 mm (l x b)
standard height, full length card
6-layer PCB

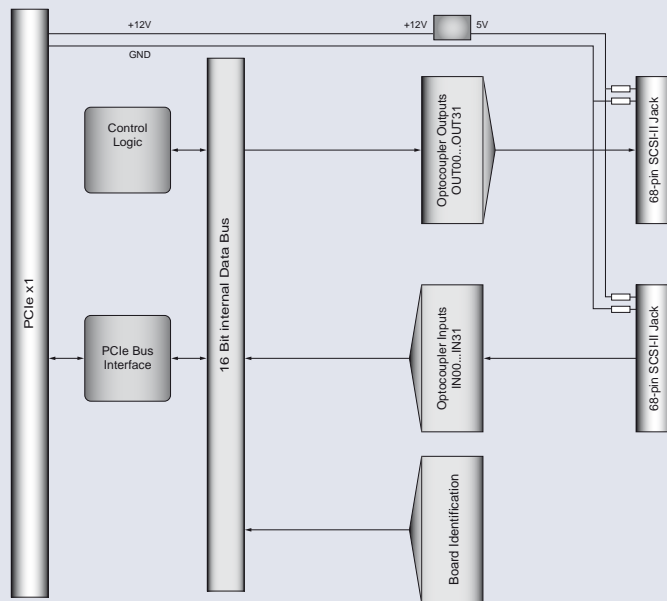
Other

Control LEDs indicating power supply

APPLICATIONS

On/off events
Identification of contact states
Binary data acquisition
Process control
Data acquisition of BCD coded instruments
Control of external power relays

BLOCK DIAGRAM



PIN ASSIGNMENT

Anode and cathode of each input optocoupler is led to a 68-pin SCSI-II jack CN1 for each channel individually. Collector and emitter are fed to a SCSI-II jack CN2 for each output channel individually. CN1 is mounted to the board's bracket, CN2 is accessible inside the computer only. To obtain optimal connections to periphery with strain relief optionally a flat ribbon cable is available (see „Suitable Accessories“).

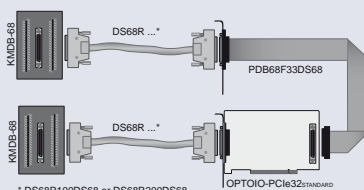
SCSI-II Jack
CN1

1	GND	34	Vcc
2	GND	35	Vcc
3	OUT31-	36	OUT31+
4	OUT30-	37	OUT30+
5	OUT29-	38	OUT29+
6	OUT28-	39	OUT28+
7	OUT27-	40	OUT27+
8	OUT26-	41	OUT26+
9	OUT25-	42	OUT25+
10	OUT24-	43	OUT24+
11	OUT23-	44	OUT23+
12	OUT22-	45	OUT22+
13	OUT21-	46	OUT21+
14	OUT20-	47	OUT20+
15	OUT19-	48	OUT19+
16	OUT18-	49	OUT18+
17	OUT17-	50	OUT17+
18	OUT16-	51	OUT16+
19	OUT15-	52	OUT15+
20	OUT14-	53	OUT14+
21	OUT13-	54	OUT13+
22	OUT12-	55	OUT12+
23	OUT11-	56	OUT11+
24	OUT10-	57	OUT10+
25	OUT09-	58	OUT09+
26	OUT08-	59	OUT08+
27	OUT07-	60	OUT07+
28	OUT06-	61	OUT06+
29	OUT05-	62	OUT05+
30	OUT04-	63	OUT04+
31	OUT03-	64	OUT03+
32	OUT02-	65	OUT02+
33	OUT01-	66	OUT01+
34	OUT00-	67	OUT00+

SCSI-II Jack
CN2

1	GND	34	Vcc
2	GND	35	Vcc
3	IN31-	36	IN31+
4	IN30-	37	IN30+
5	IN29-	38	IN29+
6	IN28-	39	IN28+
7	IN27-	40	IN27+
8	IN26-	41	IN26+
9	IN25-	42	IN25+
10	IN24-	43	IN24+
11	IN23-	44	IN23+
12	IN22-	45	IN22+
13	IN21-	46	IN21+
14	IN20-	47	IN20+
15	IN19-	48	IN19+
16	IN18-	49	IN18+
17	IN17-	50	IN17+
18	IN16-	51	IN16+
19	IN15-	52	IN15+
20	IN14-	53	IN14+
21	IN13-	54	IN13+
22	IN12-	55	IN12+
23	IN11-	56	IN11+
24	IN10-	57	IN10+
25	IN09-	58	IN09+
26	IN08-	59	IN08+
27	IN07-	60	IN07+
28	IN06-	61	IN06+
29	IN05-	62	IN05+
30	IN04-	63	IN04+
31	IN03-	64	IN03+
32	IN02-	65	IN02+
33	IN01-	66	IN01+
34	IN00-	67	IN00+

CONNECTION TECHNIQUE (APPLICATION EXAMPLES)



* DS68R100DS68 or DS68R200DS68 or DS68R500DS68

PROGRAMMING

The accompanying CD provides drivers for Windows (please visit www.wasco.de to monitor available s/w versions) and sample programs for Turbo-C®, Delphi, Borland C++, C++ Builder, Microsoft Visual Basic, VB.NET, C++ and C#.NET

SCOPE OF DELIVERY

Interface Card OPTOIO-PCIe32^{STANDARD}
German Manual (in English on request)
Driver and program examples on CD

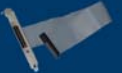
ORDER INFORMATION

OPTOIO-PCIe32^{STANDARD}
EDP No A-840600
I/O Card

SUITABLE ACCESSORIES

PDB68F33DS68 EDP No A-498600

Flat ribbon cable (approx. 33 cm) to relocate signals from CN2 to a 68-pin SCSI-II jack with slot bracket (please order 1 pc per plug)



DS68R500DS68 EDP No A-492800

Special twisted and shielded connection cable (approx. 5 m) to connect KMDB-68 or any other KM modules to a 68-pin SCSI-II jack



DS68R200DS68 EDP No A-492400

Special twisted and shielded connection cable (approx. 2 m) to connect KMDB-68 or any other KM modules to a 68-pin SCSI-II jack



DS68R100DS68 EDP No A-492200

Special twisted and shielded connection cable (approx. 1 m) to connect KMDB-68 or any other KM modules to a 68-pin SCSI-II jack



KMDB-68 EDP No A-494800

Terminal module with a 68-pin screw terminal block to connect to a 68-pin SCSI-II jack



For more detailed information about the here listed and other accessories we refer to the corresponding data sheets