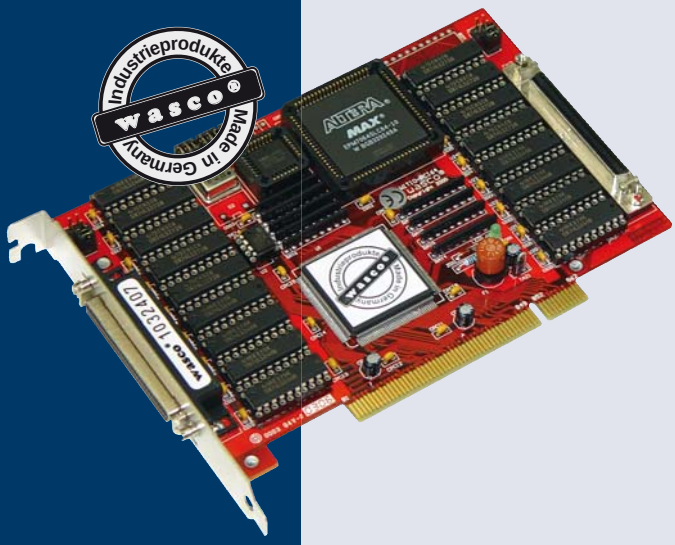
wasco®

WITIO-PCI64EXTENDED

Interrupt capable, Digital PCI I/O Board with 64 TTL Inputs, 64 TTL Outputs, Timer and Quartz Crystal



64 TTL inputs

64 TTL outputs

3 * 16-bit counter

quartz time based

interrupt capable

WITIO-PCI64EXTENDED features 64 digital inputs and 64 digital outputs, all of which are TTL compatible. The maximum loading capacity amounts to 20 mA. This board is suitable for input and output applications not requiring galvanic isolation. The internal data bus of this board is organized 32 bit, each reading or writing access to the inputs and outputs is implemented by double word access. You can trigger interrupts via eight out of the 64 inputs or time dependently via a timer chip combined with a quartz oscillator. Two 68-pin SCSI-II sockets enable connection to periphery. 32 inputs and 32 outputs are led to each of the two sockets. One of the sockets is mounted to the board's slot bracket, the other one is placed directly onboard. An optional available set of flat ribbon cable with appropriate connectors enables to connect to a SCSI-II socket with slot bracket.

SPECIFICATIONS

TTL Inputs
Channels: 64, TTL compatible
8 channels to be interrupt inputs

TTL Outputs
Channels: 64, TTL compatible
Loading capacity: I_{OH} - 20 mA 2,0 V min.
I_{OL} 20 mA 0,5 V max.

Timer
IC: 8254 or 71054
3 * 16-bit down counter
Counting frequency max. 8 MHz
Time dependent interrupt trigger
Pulse cycles derived from Quartz oscillator

Quartz oscillator
4 MHz

Connectors
2 * 68-pin SCSI-II socket

Bus System
32-bit PCI Bus (internal data access 32 Bit))

Power Consumption
+ 5V typ. 950 mA

Dimensions
157 mm x 106,7 mm (l x h)
4layer multilayer board

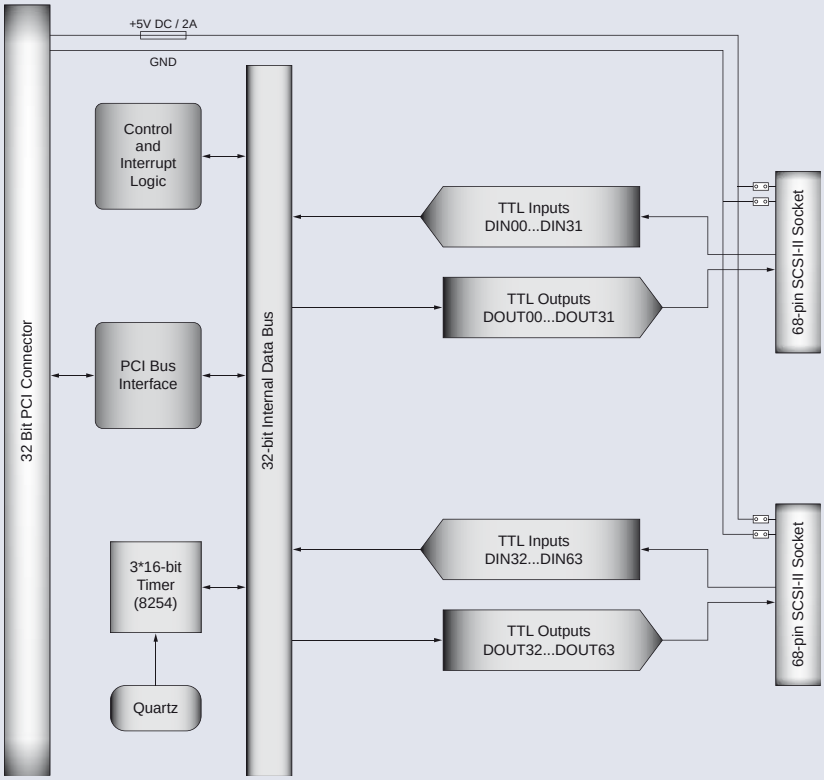
Other
Protection and control LED indicating power supply of timer and I/O components as well as of logic control.
All IC sockets with gold plated contacts

APPLICATIONS

On/off events
Detection of contact states
Binary data aquisition
Process control
Data aquisition of BCD coded instruments
Control of external optocouplers
Control of external power relays

Phone: +49.8071.9187.0
Fax: +49.8071.9187.40
www.messcomp.com/info@messcomp.com

Block Diagram



Pin Assignment

The digital inputs and outputs are led to two 68-pin SCSI-II sockets. CN1 is mounted to the board's slot bracket. CN2 is placed onboard and only accessible inside the PC on opening the casing. Optimal and easy connections with strain relief to periphery is to obtain by an optional available flat ribbon cable (see „Suitable Accessories")

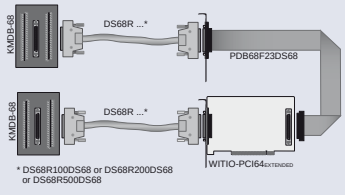
SCSI-II Socket CN1

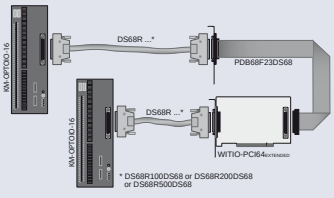
CN1 GND	67	34	CN1 VCC
CN1 GND	66	33	CN1 VCC
DOUT31	65	32	DOUT30
DOUT29	64	31	DOUT28
DOUT27	63	30	DOUT26
DOUT25	62	29	DOUT24
DOUT23	61	28	DOUT22
DOUT21	60	27	DOUT20
DOUT19	59	26	DOUT18
DOUT17	58	25	DOUT16
DOUT15	57	24	DOUT14
DOUT13	56	23	DOUT12
DOUT11	55	22	DOUT10
DOUT09	54	21	DOUT08
DOUT07	53	20	DOUT06
DOUT05	52	19	DOUT04
DOUT03	51	18	DOUT02
DOUT01	50	17	DOUT00
DIN31	49	16	DIN30
DIN29	48	15	DIN28
DIN27	47	14	DIN26
DIN25	46	13	DIN24
DIN23	45	12	DIN22
DIN21	44	11	DIN20
DIN19	43	10	DIN18
DIN17	42	9	DIN16
DIN15	41	8	DIN14
DIN13	40	7	DIN12
DIN11	39	6	DIN10
DIN09	38	5	DIN08
DIN07	37	4	DIN06
DIN05	36	3	DIN04
DIN03	35	2	DIN02
DIN01	34	1	DIN00

SCSI-II Socket CN2

CN2 GND	68	34	CN2 VCC
CN2 GND	67	33	CN2 VCC
DOUT63	66	32	DOUT62
DOUT61	65	31	DOUT60
DOUT59	64	30	DOUT58
DOUT57	63	29	DOUT56
DOUT55	62	28	DOUT54
DOUT53	61	27	DOUT52
DOUT51	60	26	DOUT50
DOUT49	59	25	DOUT48
DOUT47	58	24	DOUT46
DOUT45	57	23	DOUT44
DOUT43	56	22	DOUT42
DOUT41	55	21	DOUT40
DOUT39	54	20	DOUT38
DOUT37	53	19	DOUT36
DOUT35	52	18	DOUT34
DOUT33	51	17	DOUT32
DIN63	50	16	DIN62
DIN61	49	15	DIN60
DIN59	48	14	DIN58
DIN57	47	13	DIN56
DIN55	46	12	DIN54
DIN53	45	11	DIN52
DIN51	44	10	DIN50
DIN49	43	9	DIN48
DIN47	42	8	DIN46
DIN45	41	7	DIN44
DIN43	40	6	DIN42
DIN41	39	5	DIN40
DIN39	38	4	DIN38
DIN37	37	3	DIN36
DIN35	36	2	DIN34
DIN33	35	1	DIN32

Connection Technique (Application Examples)





Programming

Please find on accompanying CD drivers for DOS and Windows (for relating versions visit www.wasco.de/software), I/O support for LabVIEW® and example programs under DOS in Turbo-C®, Turbo-Pascal®, under Windows in Borland C++, Delphi, C++ Builder, Microsoft Visual Basic, VB.NET, C++ and C#.NET

Scope of Delivery

Interface Card WITIO-PCI64EXTENDED
German Manual
Driver and program examples on CD

Order Information

WITIO-PCI64EXTENDED **EDP No. A-461800**
I/O Card

Suitable Accessories

PDB68F23DS68 **EDP No. A-498500**
Flat ribbon cable (approx. 23 cm) to relocate signals from CN1 and CN2 to a 68-pin Sub-D socket with slot bracket (please order 1 pc per plug)

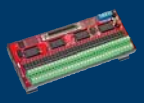
DS68R500DS68 **EDP No. A-492800**
Special twisted and shielded connection cable (approx. 5 m) to connect KMDB-68 or any other KM modules to a 68-pin SCSI-II jack

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

KMDB-68 **EDP No. A-494800**
Terminal module with a 68-pin screw terminal block to connect to a 68-pin SCSI-II jack

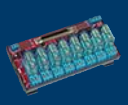
KM-OPTOIN-32 **EDP No. A-483600**
Optocoupler module with 32 isolated inputs (galvanic isolation for 32 TTL inputs)

KM-OPTOOUT-32 **EDP No. A-484600**
Optocoupler module with 32 isolated outputs for switching current up to 150 mA (galvanic isolation for 32 TTL outputs)



KM-PREL-16 **EDP No.A-485400**
Relay module with 16 isolated outputs for switching currents up to 2 A (galvanic isolation for TTL outputs, cascading of the modules is possible)

KM-REL-8 **EDP No. A-486200**
Relay module with eight isolated outputs for switching currents up to 5 A (galvanic isolation for TTL outputs, cascading of the modules is possible)



KM-VB-5 **EDP No. A-488200**
Connection module to cascade max. four KM modules or to connect max. four different KM modules to a 68-pin SCSI-II socket

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