

Digital1_CiA401

Electronic Datasheet Information

Version 1, revision 2

EDS for PCAN-MicroMod FD Digital 1

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PEAK-System Technik GmbH

www.peak-system.com

CANopen and CANopen FD I/O Module

PCAN-MicroMod FD Evaluation Board

Product Information

Property	Value
Vendor Name	PEAK-System
Vendor ID	0x00000175
Product Name	PCAN-MicroMod FD Digital 1
Product Code	0x48003083
Revision Number	0x00000001
Order Code	IPEH-003083

Commissioning Information

Property	Value
Node ID	0x00
Name	
Baudrate	125 kbps
Network Number	0
Network Name	
LSS Serial Number	0x00000000
CANopen Manager	No

PDO Configuration

Communication Parameters

PDO	COBID	Tx Type	Inhibit Time	Event Time	Sync Start
RPDO1	\$NODEID+0x200	255			
RPDO2	\$NODEID+0x00000300	255			
RPDO3	\$NODEID+0x00000400	255			
RPDO4	\$NODEID+0x80000500	255			
TPDO1	\$NODEID+0x40000180	255	1.0 ms	0 ms	
TPDO2	\$NODEID+0x40000280	255	50.0 ms	0 ms	
TPDO3	\$NODEID+0xC0000380	255	1.0 ms	0 ms	
TPDO4	\$NODEID+0xC0000480	255	1.0 ms	0 ms	

Mappings

PDO	Mappings
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RPDO1	[0x6200,0x01]	DOut Write 8-bit - DOut_0_7 (Unsigned8)
RPDO2	[0x6411,0x01]	AOut PWM Write 16-bit - AOut_PWM_0 (Integer16)
	[0x6411,0x02]	AOut PWM Write 16-bit - AOut_PWM_1 (Integer16)
	[0x6411,0x03]	AOut PWM Write 16-bit - AOut_PWM_2 (Integer16)
	[0x6411,0x04]	AOut PWM Write 16-bit - AOut_PWM_3 (Integer16)
RPDO3	[0x6411,0x05]	AOut PWM Write 16-bit - AOut_PWM_4 (Integer16)
	[0x6411,0x06]	AOut PWM Write 16-bit - AOut_PWM_5 (Integer16)
	[0x6411,0x07]	AOut PWM Write 16-bit - AOut_PWM_6 (Integer16)
	[0x6411,0x08]	AOut PWM Write 16-bit - AOut_PWM_7 (Integer16)
RPDO4	<no mapped entries>	
TPDO1	[0x6000,0x01]	DIn Read 8-bit - DIn_0_7 (Unsigned8)
TPDO2	[0x6401,0x01]	Aln Read 16-bit - Aln_0 (Integer16)
	[0x6401,0x02]	Aln Read 16-bit - Aln_1 (Integer16)
	[0x6401,0x03]	Aln Read 16-bit - Aln_2 (Integer16)
TPDO3	<no mapped entries>	
TPDO4	<no mapped entries>	

Object Dictionary

Overview

Index	Subindex	Name	Type	Access	Default Value
0x0002	0x00	INTEGER8	I8	WO	
0x0003	0x00	INTEGER16	I16	WO	
0x0004	0x00	INTEGER32	I32	WO	
0x0005	0x00	UNSIGNED8	U8	WO	
0x0006	0x00	UNSIGNED16	U16	WO	
0x0007	0x00	UNSIGNED32	U32	WO	
0x1000	0x00	Device Type	U8	RO	1
	0x01	Device Type 1	U32	RO	0x00070191
0x1001	0x00	Error Register	U8	RO	
0x1002	0x00	Manufacturer Status Register	U32	RO	
0x1003	0x00	Pre-Defined Error Field	U8	RW	0
	0x01	Pre-Defined Error Field 1	U32	RO	
	0x02	Pre-Defined Error Field 2	U32	RO	
	0x03	Pre-Defined Error Field 3	U32	RO	
	0x04	Pre-Defined Error Field 4	U32	RO	
0x1005	0x00	COB-ID SYNC	U32	CO	0x00000080
0x1008	0x00	Manufacturer Device Name	VisStr	RO	See description
0x1009	0x00	Manufacturer Hardware Version	VisStr	RO	See description
0x100A	0x00	Manufacturer Software Version	VisStr	RO	See description
0x1010	0x00	Store Parameters	U8	CO	4
	0x01	Save All Parameters	U32	RW	
	0x02	Save Communication Parameters	U32	RW	
	0x03	Save Application Parameters	U32	RW	
	0x04	Save Manufacturer Parameters	U32	RW	

0x1011	0x00	Restore Default Parameters	U8	CO	4
	0x01	Restore All Default Parameters	U32	RW	
	0x02	Restore Communication Default Parameters	U32	RW	
	0x03	Restore Application Default Parameters	U32	RW	
	0x04	Restore Manufacturer Default Parameters	U32	RW	
0x1014	0x00	COB-ID EMCY	U32	CO	\$NODEID+0x80
0x1015	0x00	Inhibit Time Emergency	U16	RW	0
0x1016	0x00	Heartbeat Consumer Time	U8	CO	3
	0x01	Heartbeat Consumer 1	U32	RW	0x00000000
	0x02	Heartbeat Consumer 2	U32	RW	0x00000000
	0x03	Heartbeat Consumer 3	U32	RW	0x00000000
0x1017	0x00	Producer Heartbeat Time	U16	RW	0
0x1018	0x00	Identity Object	U8	RO	3
	0x01	Vendor ID	U32	RO	0x00000175
	0x02	Product Code	U32	RO	0x48003083
	0x03	Revision number	U32	RO	0x00000001
0x1029	0x00	Error Behavior	U8	CO	3
	0x01	Communication Error	U8	RW	0
	0x02	Output Error	U8	RW	0
	0x03	Input Error	U8	RW	0
0x1030	0x00	Version Information	U8	RO	2
	0x01	Version Information 1	U32	RO	0x51500100
	0x02	Version Information 2	U32	RO	0x19100300
0x1031	0x00	Active Error History	U8	CO	5
	0x01	Error History Status	U32	RO	
	0x02	Error History Command	U16	RW	0x0000
	0x03	Error History Command Input	U16	RW	0x0000
0x1032	0x04	Error History Domain	Dom	RO	See description
	0x05	Error History Processing	U32	RW	
	0x00	Active Error List	U8	RO	0
	0x01	Error Event 1	U32	RO	
	0x02	Error Event 2	U32	RO	
	0x03	Error Event 3	U32	RO	
	0x04	Error Event 4	U32	RO	
0x1200	0x00	SDO Server Parameter	U8	CO	2
	0x01	COB-ID Client to Server	U32	CO	\$NODEID+0x600
	0x02	COB-ID Server to Client	U32	CO	\$NODEID+0x580
0x1400	0x00	Receive PDO 1 Communication	U8	CO	2
	0x01	COB-ID	U32	RW	\$NODEID+0x200
0x1401	0x02	Transmission Type	U8	RW	255
	0x00	Receive PDO 2 Communication	U8	CO	2
	0x01	COB ID	U32	RW	\$NODEID+0x00000300
	0x02	Transmission Type	U8	RW	255

0x1402	0x00	Receive PDO 3 Communication	U8	CO	2
	0x01	COB ID	U32	RW	\$NODEID+0x00000400
	0x02	Transmission Type	U8	RW	255
0x1403	0x00	Receive PDO 4 Communication	U8	CO	2
	0x01	COB ID	U32	RW	\$NODEID+0x80000500
	0x02	Transmission Type	U8	RW	255
0x1600	0x00	Receive PDO 1 Mapping	U8	RW	1
	0x01	Mapping 1	U32	RW	0x62000108
0x1601	0x00	Receive PDO 2 Mapping	U8	RW	4
	0x01	Mapping 1	U32	RW	0x64110110
	0x02	Mapping 2	U32	RW	0x64110210
	0x03	Mapping 3	U32	RW	0x64110310
	0x04	Mapping 4	U32	RW	0x64110410
0x1602	0x00	Receive PDO 3 Mapping	U8	RW	4
	0x01	Mapping 1	U32	RW	0x64110510
	0x02	Mapping 2	U32	RW	0x64110610
	0x03	Mapping 3	U32	RW	0x64110710
	0x04	Mapping 4	U32	RW	0x64110810
0x1603	0x00	Receive PDO 4 Mapping	U8	RW	0
	0x01	Mapping 1	U32	RW	0
0x1800	0x00	Transmit PDO 1 Communication	U8	CO	5
	0x01	COB-ID	U32	RW	\$NODEID+0x40000180
	0x02	Transmission Type	U8	RW	255
	0x03	Inhibit Time	U16	RW	10
	0x05	Event Timer	U16	RW	0
	0x00	Transmit PDO 2 Communication	U8	CO	5
0x1801	0x01	COB-ID	U32	RW	\$NODEID+0x40000280
	0x02	Transmission Type	U8	RW	255
	0x03	Inhibit Time	U16	RW	500
	0x05	Event Timer	U16	RW	0
	0x00	Transmit PDO 3 Communication	U8	CO	5
0x1802	0x01	COB ID	U32	RW	\$NODEID+0xC0000380
	0x02	Transmission Type	U8	RW	255
	0x03	Inhibit Time	U16	RW	10
	0x05	Event Timer	U16	RW	0
	0x00	Transmit PDO 4 Communication	U8	CO	5
0x1803	0x01	COB ID	U32	RW	\$NODEID+0xC0000480
	0x02	Transmission Type	U8	RW	255
	0x03	Inhibit Time	U16	RW	10
	0x05	Event Timer	U16	RW	0
	0x00	Transmit PDO 1 Mapping	U8	CO	5
0x1A00	0x01	Mapping 1	U32	RW	1
	0x00	Mapping 1	U32	RW	0x60000108
0x1A01	0x00	Transmit PDO 2 Mapping	U8	RW	3
	0x01	Mapping 1	U32	RW	0x64010110
	0x02	Mapping 2	U32	RW	0x64010210

	0x03	Mapping 3	U32	RW	0x64010310
0x1A02	0x00	Transmit PDO 3 Mapping	U8	RW	0
	0x01	Mapping 1	U32	RW	0
0x1A03	0x00	Transmit PDO 4 Mapping	U8	RW	0
	0x01	Mapping 1	U32	RW	0
0x2018	0x00	MicroCANopen Identity Object	U8	CO	4
	0x01	Vendor Id	U32	CO	0x01455341
	0x02	Product Code	U32	RO	
	0x03	Revision number	U32	RO	
	0x04	EDS/XDD Version	U32	CO	0x00010002
0x2019	0x00	Hardware ID	U8	RO	4
	0x01	Hardware ID 1	U32	CO	
	0x02	Hardware ID 2	U32	CO	
	0x03	Hardware ID 3	U32	CO	
	0x04	Hardware ID 4	U32	CO	
0x2020	0x00	Maintenance	U8	RO	3
	0x01	Password	U32	WO	
	0x02	Command	U32	WO	
	0x03	Result	U8	RO	0x00
0x3001	0x00	Frequency Output 0	U8	CO	2
	0x01	Frequency	R32	RW	0.0
	0x02	Duty Cycle	R32	RW	0.0
0x3002	0x00	Frequency Output 1	U8	CO	2
	0x01	Frequency	R32	RW	0.0
	0x02	Duty Cycle	R32	RW	0.0
0x3100	0x00	DIn Pullup Pulldown	U8	RO	8
	0x01	DIn_0	U8	RW	0
	0x02	DIn_1	U8	RW	0
	0x03	DIn_2	U8	RW	0
	0x04	DIn_3	U8	RW	0
	0x05	DIn_4	U8	RW	0
	0x06	DIn_5	U8	RW	0
	0x07	DIn_6	U8	RW	0
	0x08	DIn_7	U8	RW	0
0x3201	0x00	DOut PWM Frequency	R32	RW	0.0
0x3202	0x00	DOut PWM Enable 8-bit	U8	RO	1
	0x01	DOut_PWM_Ena_0_7	U8	RWW	0x00
0x3203	0x00	DOut PWM Invert 8-bit	U8	RO	1
	0x01	DOut_PWM_Inv_0_7	U8	RWW	0x00
0x6000	0x00	DIn Read 8-bit	U8	RO	1
	0x01	DIn_0_7	U8	RO	
0x6002	0x00	DIn Polarity 8-bit	U8	RO	1
	0x01	DIn_0_7	U8	RWW	0
0x6020	0x00	DIn Read 1-bit	U8	RO	8
	0x01	DIn_0	Bool	RO	
	0x02	DIn_1	Bool	RO	
	0x03	DIn_2	Bool	RO	
	0x04	DIn_3	Bool	RO	
	0x05	DIn_4	Bool	RO	
	0x06	DIn_5	Bool	RO	

	0x07	DIn_6	Bool	RO	
	0x08	DIn_7	Bool	RO	
0x6200	0x00	DOut Write 8-bit	U8	RO	1
	0x01	DOut_0_7	U8	RWW	0x00
0x6202	0x00	DOut Polarity 8-bit	U8	RO	1
	0x01	DOut_0_7	U8	RWW	0x00
0x6206	0x00	DOut Error Mode 8-bit	U8	RO	1
	0x01	DOut_0_7	U8	RWW	0xFF
0x6207	0x00	DOut Error Value 8-bit	U8	RO	1
	0x01	DOut_0_7	U8	RWW	0x00
0x6208	0x00	DOut Filter Mask 8-bit	U8	RO	1
	0x01	DOut_0_7	U8	RWW	0xFF
0x6220	0x00	DOut Write 1-bit	U8	RO	8
	0x01	DOut_0	Bool	RW	0
	0x02	DOut_1	Bool	RW	0
	0x03	DOut_2	Bool	RW	0
	0x04	DOut_3	Bool	RW	0
	0x05	DOut_4	Bool	RW	0
	0x06	DOut_5	Bool	RW	0
	0x07	DOut_6	Bool	RW	0
	0x08	DOut_7	Bool	RW	0
0x6401	0x00	Aln Read 16-bit	U8	RO	3
	0x01	Aln_0	I16	RO	
	0x02	Aln_1	I16	RO	
	0x03	Aln_2	I16	RO	
0x6404	0x00	Aln Read Manufacturer-specific	U8	RO	1
	0x01	Vcc 12-bit	U16	RO	
0x6411	0x00	AOut PWM Write 16-bit	U8	RO	8
	0x01	AOut_PWM_0	I16	RWW	0
	0x02	AOut_PWM_1	I16	RWW	0
	0x03	AOut_PWM_2	I16	RWW	0
	0x04	AOut_PWM_3	I16	RWW	0
	0x05	AOut_PWM_4	I16	RWW	0
	0x06	AOut_PWM_5	I16	RWW	0
	0x07	AOut_PWM_6	I16	RWW	0
	0x08	AOut_PWM_7	I16	RWW	0

Device Type (0x1000, CANopen FD only)

Subindex	0x00
Name	Number of Entries
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1

Only valid for CANopen FD. In CANopen, this entry is the Device Type described in the following entry [1000h,1].

Subindex	0x01
Name	Device Type 1
Data Type	Unsigned32

Access	ReadOnly
Can be mapped	No
Default Value	0x00070191

Only valid for CANopen FD. In CANopen, this entry is at [1000h,0] and [1000h,1] doesn't exist.

Error Register (0x1001)

Subindex	0x00
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No

Manufacturer Status Register (0x1002)

Subindex	0x00
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No

Pre-Defined Error Field (0x1003, CANopen only)

Subindex	0x00
Name	Number of Errors
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0

Subindex	0x01
Name	Pre-Defined Error Field 1
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No

Subindex	0x02
Name	Pre-Defined Error Field 2
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No

Subindex	0x03
Name	Pre-Defined Error Field 3
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No

Subindex	0x04
Name	Pre-Defined Error Field 4
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No

COB-ID SYNC (0x1005)

Subindex	0x00
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Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	0x00000080

Manufacturer Device Name (0x1008)

Subindex	0x00
Data Type	Visible String
Access	ReadOnly
Can be mapped	No
Default Value	PCAN-MicroMod FD CiA 401

Manufacturer Hardware Version (0x1009)

Subindex	0x00
Data Type	Visible String
Access	ReadOnly
Can be mapped	No
Default Value	V2.00

Manufacturer Software Version (0x100A)

Subindex	0x00
Data Type	Visible String
Access	ReadOnly
Can be mapped	No

Store Parameters (0x1010)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	4

Subindex	0x01
Name	Save All Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No

Subindex	0x02
Name	Save Communication Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No

Subindex	0x03
Name	Save Application Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No

Subindex	0x04
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Name	Save Manufacturer Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No

Restore Default Parameters (0x1011)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	4

Subindex	0x01
Name	Restore All Default Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No

Subindex	0x02
Name	Restore Communication Default Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No

Subindex	0x03
Name	Restore Application Default Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No

Subindex	0x04
Name	Restore Manufacturer Default Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No

COB-ID EMCY (0x1014)

Subindex	0x00
Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	\$NODEID+0x80

Inhibit Time Emergency (0x1015)

Subindex	0x00
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	0

Heartbeat Consumer Time (0x1016)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	3

Subindex	0x01
Name	Heartbeat Consumer 1
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00000000

Subindex	0x02
Name	Heartbeat Consumer 2
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00000000

Subindex	0x03
Name	Heartbeat Consumer 3
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00000000

Producer Heartbeat Time (0x1017)

Subindex	0x00
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	0

Identity Object (0x1018)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	3

Subindex	0x01
Name	Vendor ID
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x00000175

Subindex	0x02
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Name	Product Code
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x48003083

Subindex	0x03
Name	Revision number
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x00000001

Error Behavior (0x1029)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	3

Subindex	0x01
Name	Communication Error
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

00h: Change to NMT state Pre-operational (only if currently in NMT state Operational)

01h: No change of the NMT state

02h: Change to NMT state Stopped

Subindex	0x02
Name	Output Error
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

00h: Change to NMT state Pre-operational (only if currently in NMT state Operational)

01h: No change of the NMT state

02h: Change to NMT state Stopped

Subindex	0x03
Name	Input Error
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No

Default Value	0
Low Limit	0
High Limit	2

00h: Change to NMT state Pre-operational (only if currently in NMT state Operational)

01h: No change of the NMT state

02h: Change to NMT state Stopped

Version Information (0x1030, CANopen FD only)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	2

Subindex	0x01
Name	Version Information 1
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x51500100

CiA 1301 Version: 1.0.(2) from 21 October 2019

Subindex	0x02
Name	Version Information 2
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x19100300

CiA 401 Version: 3.0.(0) from 03 June 2019, CiA 401-B/F not released yet

Active Error History (0x1031, CANopen FD only)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	5

Subindex	0x01
Name	Error History Status
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No

Subindex	0x02
Name	Error History Command
Data Type	Unsigned16
Access	ReadWrite

Can be mapped	No
Default Value	0x0000
Subindex	0x03
Name	Error History Command Input
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	0x0000
Subindex	0x04
Name	Error History Domain
Data Type	Domain
Access	ReadOnly
Can be mapped	No
Subindex	0x05
Name	Error History Processing
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No

Active Error List (0x1032, CANopen FD only)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	4
Subindex	0x01
Name	Error Event 1
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Subindex	0x02
Name	Error Event 2
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Subindex	0x03
Name	Error Event 3
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Subindex	0x04
Name	Error Event 4

Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No

SDO Server Parameter (0x1200, CANopen only)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	2

Subindex	0x01
Name	COB-ID Client to Server
Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	\$NODEID+0x600

Subindex	0x02
Name	COB-ID Server to Client
Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	\$NODEID+0x580

Receive PDO 1 Communication (0x1400)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	2

Subindex	0x01
Name	COB-ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0x200

Subindex	0x02
Name	Transmission Type
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	255

Receive PDO 2 Communication (0x1401)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8

Access	Const
Can be mapped	No
Default Value	2
Subindex	0x01
Name	COB ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0x00000300

Subindex	0x02
Name	Transmission Type
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	255

Receive PDO 3 Communication (0x1402)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	2

Subindex	0x01
Name	COB ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0x00000400

Subindex	0x02
Name	Transmission Type
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	255

Receive PDO 4 Communication (0x1403)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	2

Subindex	0x01
Name	COB ID
Data Type	Unsigned32
Access	ReadWrite

Can be mapped	No
Default Value	\$NODEID+0x80000500

Subindex	0x02
Name	Transmission Type
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	255

Receive PDO 1 Mapping (0x1600)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	1
Low Limit	0
High Limit	8

Subindex	0x01
Name	Mapping 1
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x62000108 [0x6200,0x01] DOut Write 8-bit - DOut_0_7 (Unsigned8)

Receive PDO 2 Mapping (0x1601)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	4
Low Limit	0
High Limit	8

Subindex	0x01
Name	Mapping 1
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x64110110 [0x6411,0x01] AOut PWM Write 16-bit - AOut_PWM_0 (Integer16)

Subindex	0x02
Name	Mapping 2
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x64110210

[0x6411,0x02] AOut PWM Write 16-bit - AOut_PWM_1 (Integer16)

Subindex 0x03
Name Mapping 3
Data Type Unsigned32
Access ReadWrite
Can be mapped No
Default Value 0x64110310

[0x6411,0x03] AOut PWM Write 16-bit - AOut_PWM_2 (Integer16)

Subindex 0x04
Name Mapping 4
Data Type Unsigned32
Access ReadWrite
Can be mapped No
Default Value 0x64110410

[0x6411,0x04] AOut PWM Write 16-bit - AOut_PWM_3 (Integer16)

Receive PDO 3 Mapping (0x1602)

Subindex 0x00
Name Highest Subindex
Data Type Unsigned8
Access ReadWrite
Can be mapped No
Default Value 4
Low Limit 0
High Limit 8

Subindex 0x01
Name Mapping 1
Data Type Unsigned32
Access ReadWrite
Can be mapped No
Default Value 0x64110510

[0x6411,0x05] AOut PWM Write 16-bit - AOut_PWM_4 (Integer16)

Subindex 0x02
Name Mapping 2
Data Type Unsigned32
Access ReadWrite
Can be mapped No
Default Value 0x64110610

[0x6411,0x06] AOut PWM Write 16-bit - AOut_PWM_5 (Integer16)

Subindex 0x03
Name Mapping 3
Data Type Unsigned32
Access ReadWrite
Can be mapped No
Default Value 0x64110710

[0x6411,0x07] AOut PWM Write 16-bit - AOut_PWM_6 (Integer16)

Subindex	0x04
Name	Mapping 4
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x64110810
	[0x6411,0x08] AOut PWM Write 16-bit - AOut_PWM_7 (Integer16)

Receive PDO 4 Mapping (0x1603)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	8

Subindex	0x01
Name	Mapping 1
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0 <invalid mapping>

Transmit PDO 1 Communication (0x1800)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	5

Subindex	0x01
Name	COB-ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0x40000180
High Limit	0xFFFFFFFF

Subindex	0x02
Name	Transmission Type
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	255

Subindex	0x03
Name	Inhibit Time
Data Type	Unsigned16
Access	ReadWrite

Can be mapped	No
Default Value	10

Subindex	0x05
Name	Event Timer
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	0

Transmit PDO 2 Communication (0x1801)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	5

Subindex	0x01
Name	COB-ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0x40000280
High Limit	0xFFFFFFFF

Subindex	0x02
Name	Transmission Type
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	255

Subindex	0x03
Name	Inhibit Time
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	500

Subindex	0x05
Name	Event Timer
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	0

Transmit PDO 3 Communication (0x1802)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const

Can be mapped	No
Default Value	5
Subindex	0x01
Name	COB ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0xC0000380

Subindex	0x02
Name	Transmission Type
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	255

Subindex	0x03
Name	Inhibit Time
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	10

Subindex	0x05
Name	Event Timer
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	0

Transmit PDO 4 Communication (0x1803)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	5

Subindex	0x01
Name	COB ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0xC0000480

Subindex	0x02
Name	Transmission Type
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	255

Subindex	0x03
Name	Inhibit Time
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	10

Subindex	0x05
Name	Event Timer
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	0

Transmit PDO 1 Mapping (0x1A00)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	1
Low Limit	0
High Limit	8

Subindex	0x01
Name	Mapping 1
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x60000108
	[0x6000,0x01] DIn Read 8-bit - DIn_0_7 (Unsigned8)

Transmit PDO 2 Mapping (0x1A01)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	3
Low Limit	0
High Limit	8

Subindex	0x01
Name	Mapping 1
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x64010110
	[0x6401,0x01] AIn Read 16-bit - AIn_0 (Integer16)

Subindex	0x02
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Name	Mapping 2
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x64010210 [0x6401,0x02] Aln Read 16-bit - Aln_1 (Integer16)

Subindex	0x03
Name	Mapping 3
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x64010310 [0x6401,0x03] Aln Read 16-bit - Aln_2 (Integer16)

Transmit PDO 3 Mapping (0x1A02)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	8

Subindex	0x01
Name	Mapping 1
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0 <invalid mapping>

Transmit PDO 4 Mapping (0x1A03)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	8

Subindex	0x01
Name	Mapping 1
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0 <invalid mapping>

MicroCANopen Identity Object (0x2018)

Subindex	0x00
Name	Highest Subindex

Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	4
Subindex	0x01
Name	Vendor Id
Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	0x01455341
Subindex	0x02
Name	Product Code
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Subindex	0x03
Name	Revision number
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Subindex	0x04
Name	EDS/XDD Version
Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	0x00010002

File Information:
 Bits 31-16: File Version
 Bits 15-0: File Revision

Hardware ID (0x2019)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	4
Subindex	0x01
Name	Hardware ID 1
Data Type	Unsigned32
Access	Const
Can be mapped	No

The Hardware ID entries together contain the unique 128-bit ID number that is also reported during identification with PEAK tools.

Subindex	0x02
Name	Hardware ID 2
Data Type	Unsigned32
Access	Const
Can be mapped	No

Subindex	0x03
Name	Hardware ID 3
Data Type	Unsigned32
Access	Const
Can be mapped	No

Subindex	0x04
Name	Hardware ID 4
Data Type	Unsigned32
Access	Const
Can be mapped	No

Maintenance (0x2020)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	3

Maintenance and support command interface - use with care!

Subindex	0x01
Name	Password
Data Type	Unsigned32
Access	WriteOnly
Can be mapped	No

Writing the correct password is required to unlock the maintenance commands of the following entries. The password is given by technical support on request only.

Subindex	0x02
Name	Command
Data Type	Unsigned32
Access	WriteOnly
Can be mapped	No

Available commands:

0x41726C43 ("ClrA"): Clear activation data
0x43726C43 ("ClrC"): Clear configuration data

Commands are only effective after the password has been written into subindex 1 of this entry.

Subindex	0x03
Name	Result

Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	0x00

Available results:

0x00 : no result because no command was given

0x01 : command executed without error

0xFF : error when executing the command

Frequency Output 0 (0x3001)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	2

Subindex	0x01
Name	Frequency
Data Type	Real32
Access	ReadWrite
Can be mapped	Yes
Default Value	0.0
Low Limit	0.0
High Limit	20000.0

Frequency for the output in Hz, between 0-20 kHz. A value of 0 turns off the frequency output.

Subindex	0x02
Name	Duty Cycle
Data Type	Real32
Access	ReadWrite
Can be mapped	Yes
Default Value	0.0
Low Limit	0.0
High Limit	100.0

Duty cycle for the frequency output in %, between 0-100%.

Frequency Output 1 (0x3002)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	2

Subindex	0x01
Name	Frequency
Data Type	Real32

Access	ReadWrite
Can be mapped	Yes
Default Value	0.0
Low Limit	0.0
High Limit	20000.0

Frequency for the output in Hz, between 0-20 kHz. A value of 0 turns off the frequency output.

Subindex	0x02
Name	Duty Cycle
Data Type	Real32
Access	ReadWrite
Can be mapped	Yes
Default Value	0.0
Low Limit	0.0
High Limit	100.0

Duty cycle for the frequency output in %, between 0-100%.

[DIn Pullup Pulldown \(0x3100\)](#)

Subindex	0x00
Name	Number of Elements
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	8

Pull-up/pull-down resistors for DIn_0 through DIn_7 in subindexes 1-8:

0: no pull-up/pull-down (default)

1: pull-up

2: pull-down

Subindex	0x01
Name	DIn_0
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

Subindex	0x02
Name	DIn_1
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

Subindex	0x03
Name	DIn_2

Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

Subindex	0x04
Name	DIn_3
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

Subindex	0x05
Name	DIn_4
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

Subindex	0x06
Name	DIn_5
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

Subindex	0x07
Name	DIn_6
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

Subindex	0x08
Name	DIn_7
Data Type	Unsigned8
Access	ReadWrite
Can be mapped	No
Default Value	0
Low Limit	0
High Limit	2

DOut PWM Frequency (0x3201)

Subindex	0x00
Data Type	Real32
Access	ReadWrite
Can be mapped	No
Default Value	0.0
Low Limit	0.0
High Limit	20000.0

Frequency for digital outputs in PWM simulated analog output mode in Hz, between 0-20 kHz.

DOut PWM Enable 8-bit (0x3202)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1
Subindex	0x01
Name	DOut_PWM_Ena_0_7
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	No
Default Value	0x00

A set bit switches the output line to PWM mode at the frequency set in entry [3201h,0]. In this mode, it becomes a simulated analog output line that takes its duty cycle from the corresponding "Aout Write" entry.

DOut PWM Invert 8-bit (0x3203)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1
Subindex	0x01
Name	DOut_PWM_Inv_0_7
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	No
Default Value	0x00

A set bit inverts the PWM duty cycle for an output line in PWM mode so that it becomes [100% - the corresponding "Aout Write" value].

DIn Read 8-bit (0x6000)

Subindex	0x00
Name	Number of Elements
Data Type	Unsigned8

Access	ReadOnly
Can be mapped	No
Default Value	1

Subindex	0x01
Name	DIn_0_7
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	Yes

DIn Polarity 8-bit (0x6002)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1

Subindex	0x01
Name	DIn_0_7
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0

DIn Read 1-bit (0x6020)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	8

Subindex	0x01
Name	DIn_0
Data Type	Boolean
Access	ReadOnly
Can be mapped	No

Subindex	0x02
Name	DIn_1
Data Type	Boolean
Access	ReadOnly
Can be mapped	No

Subindex	0x03
Name	DIn_2
Data Type	Boolean
Access	ReadOnly
Can be mapped	No

Subindex	0x04
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Name	DIn_3
Data Type	Boolean
Access	ReadOnly
Can be mapped	No

Subindex	0x05
Name	DIn_4
Data Type	Boolean
Access	ReadOnly
Can be mapped	No

Subindex	0x06
Name	DIn_5
Data Type	Boolean
Access	ReadOnly
Can be mapped	No

Subindex	0x07
Name	DIn_6
Data Type	Boolean
Access	ReadOnly
Can be mapped	No

Subindex	0x08
Name	DIn_7
Data Type	Boolean
Access	ReadOnly
Can be mapped	No

DOut Write 8-bit (0x6200)

Subindex	0x00
Name	Number of Elements
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1

Subindex	0x01
Name	DOut_0_7
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0x00

DOut Polarity 8-bit (0x6202)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1

Subindex	0x01
Name	DOut_0_7
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0x00

DOut Error Mode 8-bit (0x6206)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1

Subindex	0x01
Name	DOut_0_7
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0xFF

DOut Error Value 8-bit (0x6207)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1

Subindex	0x01
Name	DOut_0_7
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0x00

DOut Filter Mask 8-bit (0x6208)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1

Subindex	0x01
Name	DOut_0_7
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0xFF

DOut Write 1-bit (0x6220)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	8

Subindex	0x01
Name	DOut_0
Data Type	Boolean
Access	ReadWrite
Can be mapped	No
Default Value	0

Subindex	0x02
Name	DOut_1
Data Type	Boolean
Access	ReadWrite
Can be mapped	No
Default Value	0

Subindex	0x03
Name	DOut_2
Data Type	Boolean
Access	ReadWrite
Can be mapped	No
Default Value	0

Subindex	0x04
Name	DOut_3
Data Type	Boolean
Access	ReadWrite
Can be mapped	No
Default Value	0

Subindex	0x05
Name	DOut_4
Data Type	Boolean
Access	ReadWrite
Can be mapped	No
Default Value	0

Subindex	0x06
Name	DOut_5
Data Type	Boolean
Access	ReadWrite
Can be mapped	No
Default Value	0

Subindex	0x07
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Name	DOut_6
Data Type	Boolean
Access	ReadWrite
Can be mapped	No
Default Value	0

Subindex	0x08
Name	DOut_7
Data Type	Boolean
Access	ReadWrite
Can be mapped	No
Default Value	0

[AIIn Read 16-bit \(0x6401\)](#)

Subindex	0x00
Name	Number of Elements
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	3

AIIn_0 through AIIn_2 are 12-bit left-aligned analog inputs sampled at 1 kHz with fixed measuring range 0-10 V.

Subindex	0x01
Name	AIIn_0
Data Type	Integer16
Access	ReadOnly
Can be mapped	Yes

Subindex	0x02
Name	AIIn_1
Data Type	Integer16
Access	ReadOnly
Can be mapped	Yes

Subindex	0x03
Name	AIIn_2
Data Type	Integer16
Access	ReadOnly
Can be mapped	Yes

[AIIn Read Manufacturer-specific \(0x6404\)](#)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	1

Subindex	0x01
Name	Vcc 12-bit

Data Type	Unsigned16
Access	ReadOnly
Can be mapped	Yes

AOut PWM Write 16-bit (0x6411)

Subindex	0x00
Name	Number of Elements
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	8

AOut_0 through AOut_7 control the PWM duty cycle for Dout PWM simulated analog outputs. from 0d=0% to 10000d=100%.

Subindex	0x01
Name	AOut_PWM_0
Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0
Low Limit	0
High Limit	10000

Subindex	0x02
Name	AOut_PWM_1
Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0
Low Limit	0
High Limit	10000

Subindex	0x03
Name	AOut_PWM_2
Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0
Low Limit	0
High Limit	10000

Subindex	0x04
Name	AOut_PWM_3
Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0
Low Limit	0
High Limit	10000

Subindex	0x05
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Name	AOut_PWM_4
Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0
Low Limit	0
High Limit	10000

Subindex	0x06
Name	AOut_PWM_5
Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0
Low Limit	0
High Limit	10000

Subindex	0x07
Name	AOut_PWM_6
Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0
Low Limit	0
High Limit	10000

Subindex	0x08
Name	AOut_PWM_7
Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	0
Low Limit	0
High Limit	10000