

## CANopenNXPSDK\_Mgr

### Electronic Datasheet Information

Version 1, revision 2

CANopen Library for NXP SDK - Manager Example

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### Product Information

Property	Value
Vendor Name	NXP Semiconductors BV
Vendor ID	0xAF0002DC
Product Name	CANopen NXP CiA 401 Manager
Product Code	0xCODE0001
Revision Number	0x20200420
Order Code	CODE0001

### Commissioning Information

Property	Value
Node ID	0x01
Name	CANopenMgr
Baudrate	500 kbps
Network Number	0
Network Name	
LSS Serial Number	0x00000000
CANopen Manager	Yes

### PDO Configuration

#### Communication Parameters

PDO	COBID	Tx Type	Inhibit Time	Event Time	Sync Start
RPDO1	\$NODEID+0x80000200	255			
RPDO2	\$NODEID+0x80000300	255			
TPDO1	\$NODEID+0x80000180	255	100.0 ms	500 ms	
TPDO2	\$NODEID+0x80000280	255	250.0 ms	1000 ms	

#### Mappings

PDO	Mappings
RPDO1	[0x6200,0x01] Write State 8 Output Lines - DigOutput8_1 (Unsigned8) [0x6200,0x02] Write State 8 Output Lines - DigOutput8_2 (Unsigned8) [0x6200,0x03] Write State 8 Output Lines - DigOutput8_3 (Unsigned8) [0x6200,0x04] Write State 8 Output Lines - DigOutput8_4 (Unsigned8)

RPDO2	[0x6411,0x01]	Write Analog Output 16-bit - AnalogOutput16_1 (Integer16)
	[0x6411,0x02]	Write Analog Output 16-bit - AnalogOutput16_2 (Integer16)
TPDO1	[0x6000,0x01]	Read State 8 Input Lines - DigInput8_1 (Unsigned8)
	[0x6000,0x02]	Read State 8 Input Lines - DigInput8_2 (Unsigned8)
	[0x6000,0x03]	Read State 8 Input Lines - DigInput8_3 (Unsigned8)
	[0x6000,0x04]	Read State 8 Input Lines - DigInput8_4 (Unsigned8)
TPDO2	[0x6401,0x01]	Read Analog Input 16-bit - AnalogInput16_1 (Integer16)
	[0x6401,0x02]	Read Analog Input 16-bit - AnalogInput16_2 (Integer16)

## Object Dictionary

### Overview

Index	Subindex	Name	Type	Access	Default Value
0x0001	0x00	BOOLEAN	Bool	CO	
0x0002	0x00	INTEGER8	I8	CO	
0x0003	0x00	INTEGER16	I16	CO	
0x0004	0x00	INTEGER32	I32	CO	
0x0005	0x00	UNSIGNED8	U8	CO	
0x0006	0x00	UNSIGNED16	U16	CO	
0x0007	0x00	UNSIGNED32	U32	CO	
0x1000	0x00	Device Type	U32	RO	
0x1001	0x00	Error Register	U8	RO	
0x1005	0x00	COB-ID SYNC	U32	RO	0x00000080
0x1008	0x00	Manufacturer Device Name	VisStr	RO	See description
0x1010	0x00	Store Parameters	U8	RO	0x04
	0x01	Save All Parameters	U32	RW	
	0x02	Save Communication Parameters	U32	RW	
	0x03	Save Application Parameters	U32	RW	
	0x04	Save Manufacturer Parameters	U32	RW	
0x1014	0x00	COB-ID EMCY	U32	RO	\$NODEID+0x80
0x1016	0x00	Consumer Heartbeat Time	U8	CO	0x0A
	0x01	Consumer HB Time	U32	RW	0x00010000
	0x02	Consumer HB Time	U32	RW	0x00020000
	0x03	Consumer HB Time	U32	RW	0x00030000
	0x04	Consumer HB Time	U32	RW	0x00040000
	0x05	Consumer HB Time	U32	RW	0x00050000
	0x06	Consumer HB Time	U32	RW	0x00060000
	0x07	Consumer HB Time	U32	RW	0x00070000
	0x08	Consumer HB Time	U32	RW	0x00080000
	0x09	Consumer HB Time	U32	RW	0x00090000
	0x0A	Consumer HB Time	U32	RW	0x000A0000
0x1017	0x00	Producer Heartbeat Time	U16	RW	333
0x1018	0x00	Identity Object	U8	CO	4
	0x01	Vendor Id	U32	CO	0xAF0002DC
	0x02	Product Code	U32	CO	0xC0DE0001

0x1400	0x03	Revision number	U32	CO	0x20200420
	0x04	Serial Number	U32	CO	
	0x00	Receive PDO Communication Parameter	U8	RO	2
0x1401	0x01	COB-ID	U32	RW	\$NODEID+0x80000200
	0x02	Transmission Type	U8	RW	255
	0x00	Receive PDO Communication Parameter	U8	RO	2
0x1600	0x01	COB-ID	U32	RW	\$NODEID+0x80000300
	0x02	Transmission Type	U8	RW	255
	0x00	Receive PDO Mapping Parameter	U8	CO	0x04
0x1601	0x01	PDO Mapping Entry	U32	RO	0x62000108
	0x02	PDO Mapping Entry	U32	RO	0x62000208
	0x03	PDO Mapping Entry	U32	RO	0x62000308
	0x04	PDO Mapping Entry	U32	RO	0x62000408
	0x00	Receive PDO Mapping Parameter	U8	RO	2
0x1800	0x01	PDO Mapping Entry	U32	RO	0x64110110
	0x02	PDO Mapping Entry	U32	RO	0x64110210
	0x00	Transmit PDO Communication Parameter	U8	RO	5
0x1801	0x01	COB-ID	U32	RW	\$NODEID+0x80000180
	0x02	Transmission Type	U8	RW	255
	0x03	Inhibit Time	U16	RW	1000
	0x05	Event Timer	U16	RW	500
	0x00	Transmit PDO Communication Parameter	U8	RO	5
0x1A00	0x01	COB-ID	U32	RW	\$NODEID+0x80000280
	0x02	Transmission Type	U8	RW	255
	0x03	Inhibit Time	U16	RW	2500
	0x05	Event Timer	U16	RW	1000
	0x00	Transmit PDO Mapping Parameter	U8	CO	0x04
0x1A01	0x01	PDO Mapping Entry	U32	RO	0x60000108
	0x02	PDO Mapping Entry	U32	RO	0x60000208
	0x03	PDO Mapping Entry	U32	RO	0x60000308
	0x04	PDO Mapping Entry	U32	RO	0x60000408
	0x00	Transmit PDO Mapping Parameter	U8	RO	2
0x5FFF	0x01	PDO Mapping Entry	U32	RO	0x64010110
	0x02	PDO Mapping Entry	U32	RO	0x64010210
0x6000	0x00	EmSA	VisStr	RO	See description
0x6000	0x00	Read State 8 Input Lines	U8	RO	8
	0x01	DigInput8_1	U8	RO	
	0x02	DigInput8_2	U8	RO	
	0x03	DigInput8_3	U8	RO	
	0x04	DigInput8_4	U8	RO	

	0x05	DigInput8_5	U8	RO	
	0x06	DigInput8_6	U8	RO	
	0x07	DigInput8_7	U8	RO	
	0x08	DigInput8_8	U8	RO	
0x6200	0x00	Write State 8 Output Lines	U8	RO	8
	0x01	DigOutput8_1	U8	RWW	
	0x02	DigOutput8_2	U8	RWW	
	0x03	DigOutput8_3	U8	RWW	
	0x04	DigOutput8_4	U8	RWW	
	0x05	DigOutput8_5	U8	RWW	
	0x06	DigOutput8_6	U8	RWW	
	0x07	DigOutput8_7	U8	RWW	
	0x08	DigOutput8_8	U8	RWW	
0x6401	0x00	Read Analog Input 16-bit	U8	RO	2
	0x01	AnalogInput16_1	I16	RO	
	0x02	AnalogInput16_2	I16	RO	
0x6411	0x00	Write Analog Output 16-bit	U8	RO	2
	0x01	AnalogOutput16_1	I16	RWW	
	0x02	AnalogOutput16_2	I16	RWW	

#### Device Type (0x1000)

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

#### Error Register (0x1001)

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

#### COB-ID SYNC (0x1005)

Subindex	0x00
Data Type	Unsigned32
Access	ReadOnly
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	Micro CANopen Manager Demo

#### Store Parameters (0x1010)

Subindex	0x00
Name	Number of Entries
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	0x04

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

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

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

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

#### COB-ID EMCY (0x1014)

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

#### Consumer Heartbeat Time (0x1016)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const

Can be mapped	No
Default Value	0x0A
Subindex	0x01
Name	Consumer HB Time
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00010000
Subindex	0x02
Name	Consumer HB Time
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00020000
Subindex	0x03
Name	Consumer HB Time
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00030000
Subindex	0x04
Name	Consumer HB Time
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00040000
Subindex	0x05
Name	Consumer HB Time
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00050000
Subindex	0x06
Name	Consumer HB Time
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00060000
Subindex	0x07
Name	Consumer HB Time
Data Type	Unsigned32

Access	ReadWrite
Can be mapped	No
Default Value	0x00070000
Subindex	0x08
Name	Consumer HB Time
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00080000

Subindex	0x09
Name	Consumer HB Time
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x00090000

Subindex	0x0A
Name	Consumer HB Time
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	0x000A0000

#### Producer Heartbeat Time (0x1017)

Subindex	0x00
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	333

#### Identity Object (0x1018)

Subindex	0x00
Name	number of entries
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	0xAF0002DC

Subindex	0x02
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Name	Product Code
Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	0xCODE0001

Subindex	0x03
Name	Revision number
Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	0x20200420

Subindex	0x04
Name	Serial Number
Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	

#### Receive PDO Communication Parameter (0x1400)

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

Subindex	0x01
Name	COB-ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0x80000200

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

#### Receive PDO Communication Parameter (0x1401)

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



Default Value	2
Subindex	0x01
Name	COB-ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0x80000300

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

#### Receive PDO Mapping Parameter (0x1600)

Subindex	0x00
Name	Number of Entries
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	0x04

Subindex	0x01
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x62000108 [0x6200,0x01] Write State 8 Output Lines - DigOutput8_1 (Unsigned8)

Subindex	0x02
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x62000208 [0x6200,0x02] Write State 8 Output Lines - DigOutput8_2 (Unsigned8)

Subindex	0x03
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x62000308 [0x6200,0x03] Write State 8 Output Lines - DigOutput8_3 (Unsigned8)

Subindex	0x04
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x62000408 [0x6200,0x04] Write State 8 Output Lines - DigOutput8_4 (Unsigned8)

#### Receive PDO Mapping Parameter (0x1601)

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

Subindex	0x01
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x64110110 [0x6411,0x01] Write Analog Output 16-bit - AnalogOutput16_1 (Integer16)

Subindex	0x02
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x64110210 [0x6411,0x02] Write Analog Output 16-bit - AnalogOutput16_2 (Integer16)

#### Transmit PDO Communication Parameter (0x1800)

Subindex	0x00
Name	Number of Entries
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	5

Subindex	0x01
Name	COB-ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0x80000180

Subindex	0x02
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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	1000

Subindex	0x05
Name	Event Timer
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	500

#### Transmit PDO Communication Parameter (0x1801)

Subindex	0x00
Name	Number of Entries
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	5

Subindex	0x01
Name	COB-ID
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	\$NODEID+0x80000280

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	2500

Subindex	0x05
Name	Event Timer
Data Type	Unsigned16
Access	ReadWrite
Can be mapped	No
Default Value	1000

#### Transmit PDO Mapping Parameter (0x1A00)

Subindex	0x00
Name	Number of Entries
Data Type	Unsigned8
Access	Const
Can be mapped	No
Default Value	0x04

Subindex	0x01
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x60000108 [0x6000,0x01] Read State 8 Input Lines - DigInput8_1 (Unsigned8)

Subindex	0x02
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x60000208 [0x6000,0x02] Read State 8 Input Lines - DigInput8_2 (Unsigned8)

Subindex	0x03
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x60000308 [0x6000,0x03] Read State 8 Input Lines - DigInput8_3 (Unsigned8)

Subindex	0x04
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x60000408 [0x6000,0x04] Read State 8 Input Lines - DigInput8_4 (Unsigned8)

#### Transmit PDO Mapping Parameter (0x1A01)

Subindex	0x00
Name	Number of Entries
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	2
Subindex	0x01
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x64010110 [0x6401,0x01] Read Analog Input 16-bit - AnalogInput16_1 (Integer16)
Subindex	0x02
Name	PDO Mapping Entry
Data Type	Unsigned32
Access	ReadOnly
Can be mapped	No
Default Value	0x64010210 [0x6401,0x02] Read Analog Input 16-bit - AnalogInput16_2 (Integer16)

#### EmSA (0x5FFF)

Subindex	0x00
Data Type	Visible String
Access	ReadOnly
Can be mapped	No
Default Value	EmSA <a href="http://www.em-sa.com">www.em-sa.com</a> , CANopen Architect Mini

#### Read State 8 Input Lines (0x6000)

Subindex	0x00
Name	Number of Elements
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	No
Default Value	8
Subindex	0x01
Name	DigInput8_1
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	Yes
Default Value	
Subindex	0x02
Name	DigInput8_2

Data Type	Unsigned8
Access	ReadOnly
Can be mapped	Yes
Default Value	

Subindex	0x03
Name	DigInput8_3
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	Yes
Default Value	

Subindex	0x04
Name	DigInput8_4
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	Yes
Default Value	

Subindex	0x05
Name	DigInput8_5
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	Yes
Default Value	

Subindex	0x06
Name	DigInput8_6
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	Yes
Default Value	

Subindex	0x07
Name	DigInput8_7
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	Yes
Default Value	

Subindex	0x08
Name	DigInput8_8
Data Type	Unsigned8
Access	ReadOnly
Can be mapped	Yes
Default Value	

#### Write State 8 Output Lines (0x6200)

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

Subindex	0x01
Name	DigOutput8_1
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	

Subindex	0x02
Name	DigOutput8_2
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	

Subindex	0x03
Name	DigOutput8_3
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	

Subindex	0x04
Name	DigOutput8_4
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	

Subindex	0x05
Name	DigOutput8_5
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	

Subindex	0x06
Name	DigOutput8_6
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	

#### Default Value

Subindex	0x07
Name	DigOutput8_7
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	

Subindex	0x08
Name	DigOutput8_8
Data Type	Unsigned8
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	

#### Read Analog Input 16-bit (0x6401)

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

Subindex	0x01
Name	AnalogInput16_1
Data Type	Integer16
Access	ReadOnly
Can be mapped	Yes
Default Value	

Subindex	0x02
Name	AnalogInput16_2
Data Type	Integer16
Access	ReadOnly
Can be mapped	Yes
Default Value	

#### Write Analog Output 16-bit (0x6411)

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

Subindex	0x01
Name	AnalogOutput16_1



Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	
Subindex	0x02
Name	AnalogOutput16_2
Data Type	Integer16
Access	ReadWriteWrite
Can be mapped	Yes
Default Value	