

CANopen_NXP_SDK_CiA401

Electronic Datasheet Information

Version 1, revision 2

CANopen Library for NXP SDK - CiA 401 generic IO Example

Created by CANopen Architect Mini version 8.25.5874

Created on 09-25-2019, 07:06PM by Pf

Modified on 06-13-2021, 01:08PM by Pf

Provided by Embedded Systems Academy

www.em-sa.com/nxp

Product Information

Property	Value
Vendor Name	NXP Semiconductors BV
Vendor ID	0xAF0002DC
Product Name	CANopen NXP CiA 401
Product Code	0xCODE0010
Revision Number	0x20201014
Order Code	CODE0010

Commissioning Information

Property	Value
Node ID	0x03
Name	VoiceCommands SLave
Baudrate	500 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+0x00000200	255			

Mappings

PDO	Mappings
RPDO1	[0x6100,0x01] VoiceCommands - VC_Command (Unsigned8) [0x6100,0x02] VoiceCommands - VC_Accuracy (Unsigned8)

Object Dictionary

Overview

Index	Subindex	Name	Type	Access	Default Value
-------	----------	------	------	--------	---------------

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	CO	0x00000191
0x1001	0x00	Error Register	U8	CO	
0x1002	0x00	Manufacturer Status Register	U32	RO	
0x1003	0x00	Pre-Defined Error Field	U8	RW	0x00
	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	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	
0x1011	0x00	Restore Parameters	U8	CO	0x04
	0x01	Save All Parameters	U32	RW	
	0x02	Restore Communication Parameters	U32	RW	
	0x03	Restore Application Parameters	U32	RW	
	0x04	Restore Manufacturer Parameters	U32	RW	
0x1014	0x00	COB-ID EMCY	U32	CO	\$NODEID+0x80
0x1015	0x00	Inhibit Time Emergency	U16	CO	100
0x1016	0x00	Consumer Heartbeat Time	U8	CO	0x03
	0x01	Consumer Heartbeat Time 1	U32	RW	0x000103E8
	0x02	Consumer Heartbeat Time 2	U32	RW	0x000203E8
	0x03	Consumer Heartbeat Time 3	U32	RW	0x000303E8
0x1017	0x00	Producer Heartbeat Time	U16	RW	1000
0x1018	0x00	Identity Object	U8	CO	4

	0x01	Vendor ID	U32	CO	0xAF0002DC
	0x02	Product Code	U32	CO	0xC0DE0010
	0x03	Revision number	U32	CO	0x20201014
	0x04	Serial number	U32	CO	
0x1019	0x00	SYNC counter overflow value	U8	RW	0
0x1400	0x00	Receive PDO Communication 1	U8	CO	0x05
	0x01	COB ID used by PDO	U32	RW	\$NODEID+0x00000200
	0x02	Transmission Type	U8	RW	255
	0x03	Inhibit Time	U16	RW	0
	0x05	Event Timer	U16	RW	0
0x1600	0x00	Receive PDO Mapping 1	U8	CO	0x02
	0x01	Mapping 1	U32	CO	0x61000108
	0x02	Mapping 2	U32	CO	0x61000208
0x5FFF	0x00	EmSA	VisStr	RO	See description
0x6100	0x00	VoiceCommands	U8	CO	0x02
	0x01	VC_Command	U8	RWW	
	0x02	VC_Accuracy	U8	RWW	

Device Type (0x1000)

Subindex	0x00
Data Type	Unsigned32
Access	Const
Can be mapped	No
Default Value	0x00000191

Error Register (0x1001)

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

Manufacturer Status Register (0x1002)

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

Pre-Defined Error Field (0x1003)

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

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

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

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

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

COB-ID SYNC (0x1005)

Subindex	0x00
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	CANopenLibNXPSDK CiA401 Example

Manufacturer Hardware Version (0x1009)

Subindex	0x00
Data Type	Visible String
Access	ReadOnly
Can be mapped	No
Default Value	Some NXP Evalboard

Manufacturer Software Version (0x100A)

Subindex	0x00
Data Type	Visible String
Access	ReadOnly
Can be mapped	No
Default Value	EmSA MCOP 7.10 2020-10-14

Store Parameters (0x1010)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const
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	

Restore Parameters (0x1011)

Subindex	0x00
Name	Highest Subindex
Data Type	Unsigned8
Access	Const

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	Restore Communication Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	
Subindex	0x03
Name	Restore Application Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	
Subindex	0x04
Name	Restore Manufacturer Parameters
Data Type	Unsigned32
Access	ReadWrite
Can be mapped	No
Default Value	