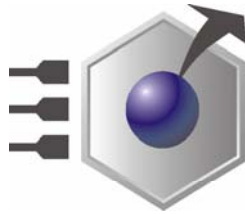


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An0019

COM-1265; I/O PORT MAP

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ABOUT THIS MANUAL

This application note contains information about the I/O port map of the COM-1265.



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Conventions

The following table lists conventions used throughout this guide.

Icon	Notice Type	Description
	Information note	Important features or instructions
	Warning	Information to alert you to potential damage to a program, system or device or potential personal injury

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Foreword

This Application note describes the working modality of the COM-1265 when it is used in add-on-mode (using the ISA BUSA).

The stand-alone mode is not described in this document.

The COM-1265 is based on the Kendin KS8995M chip. The programming of the chip can be performed either reading a configuration stored into the EEPROM, after the reset, or programming the registers writing the I/O spaces.

Addressing

The COM-1265 interfaces itself into the I/O space, starting from a base address and occupying 8 bytes. The base address is set using JP1 and JP2 jumpers, according to the following table:

JP1	JP2	Base Address
ON	ON	120h
ON	OFF	1A0h
OFF	ON	150h
OFF	OFF	1E0h

Working modalities

Performing a reset, the Jumper JP3 status allows to select the working modality of the board.

I2C mode : If JP3 is open (jumper disconnected) the board will work in I2C modality (after the reset the board will load the configuration from the EEPROM).

SPI mode : If JP3 is closed (jumper connected) the board will work in SPI modality (the register programming will be performed through the SPI interface).

A third working modality is foreseen. This one will allow to program the EEPROM only, in order to store the configuration.

Examples

1) How to program the EEPROM

In order to program the EEPROM you must follow these steps:

- Insert JP3 and reset the board (SPI mode)
- Write 55h in the offset 3h (this will disable the SPI and you will enter in the EEPROM programming modality)
- Program the EEPROM using the registers in the offset 02h (see further)

The EEPROM is now programmed.

-In order the chip Kendin KS8995M re-load the configuration, you must disconnect the JP3 jumper (I2C mode) and reset the board.

Note: writig 55h in the offset 3h you won't be able to use the SPI interface until the next reset of the board.

The reset can be performed closing JP4.

2) SPI programming:

To write:

- Write data in the offset 00h
- Write address in the offset 01h
- Write command (02h) in the offset 4h

To read:

- Write address in the offset 01h
- Write command (03h) in the offset 4h
- Read again (after at least 12us) data in the offset 3h

I/O Map

I/O Port		BASE_ADDR +00h	E2902_SPI_DATA	ResetValue:00h
Bit	Mode	Name	Description	
[0:7]	R/W	SPI_DATA	Data Byte to write through the SPI interface E1402_Control	
I/O Port		BASE_ADDR +01h	E2902_SPI_ADDR	ResetValue:00h
Bit	Mode	Name	Description	
[0:7]	R/W	SPI_ADDRESS	Address to write/read via SPI	
I/O Port		BASE_ADDR +02h	E2902_I2C	ResetValue:00h
Bit	Mode	Name	Description	
[0:1]	R/W	Bit 0 : I2C clock Bit 1 : I2C data Bit2(only read): I2C_SPI#	I2C Interface	

I/O Port BASE_ADDR +03h			E2902_READ_SPI	ResetValue:xx
Bit	Mode	Name	Description	
[0:7]	W	I2C_Enable	Enable the I2C interface to enter the EEPROM. In order to do that you must write 55h. The board must be set in SPI mode (JP3 inserted)	
[0:7]	R	SPI_DATAREAD	Data read after a reading command coming from the SPI interface	
I/O Port BASE_ADDR +04h			E2902_Control	ResetValue:00h
Bit	Mode	Name	Description	
[0:7]	R	Revision level	Revision of the programmable	
[0:7]	W	SPI command	SPI Interface commands: 2 for writing 3 for reading	
I/O Port BASE_ADDR +05h			E2902_Control	ResetValue:00h
Bit	Mode	Name	Description	
[0]	R/W	Relay command and state	Relay command and state	