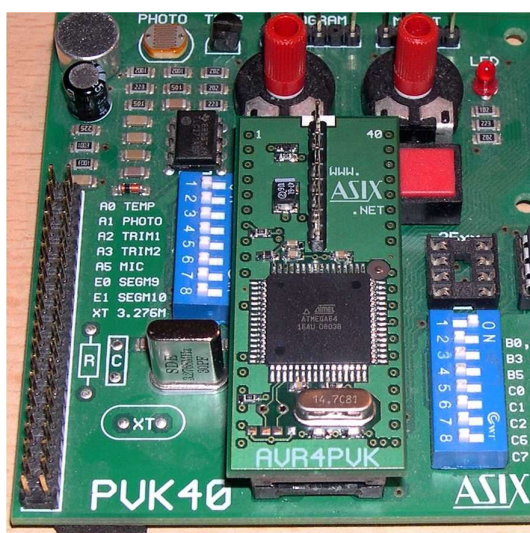




AVR4PVK

AVR module for the PVK40 development board User's Guide



Address:	ASIX s.r.o. Staropramenna 4 150 00 Prague Czech Republic
E-Mail:	sales@asix.net (sales inquiries, ordering) support@asix.net (technical support)
WWW:	tools.asix.net (development tools) www.asix.net (company website)
Tel.:	+420-257 312 378
Fax:	+420-257 329 116

TABLE OF CONTENTS

1. INTRODUCTION.....	3
2. USAGE.....	3
3. TECHNICAL SPECIFICATION.....	3
4. ISP CONNECTOR DESCRIPTION.....	4
5. AVR4PVK SCHEMATICS.....	4
6. MODULE PINOUT TABLE.....	5
7. REVISION HISTORY.....	6

Note: This document contains hyperlinks pointing to web pages on the Internet. If the links happen to be broken (point to non existing page), please download recent version of this manual from tools.asix.net.

Copyright © 1991-2008 ASIX s.r.o.

All trademarks used in this document are properties of their respective owners. This information is provided in the hope that it will be useful, but without any warranty. We disclaim any liability for the accuracy of this information. We are not responsible for the contents of web pages referenced by this document.

1. INTRODUCTION

AVR4PVK is an optional accessory to the PVK40 development board. It makes possible to use an ATmega64 microcontroller from the AVR family by Atmel with PVK40.

2. USAGE

The AVR4PVK module can be used very simply. Insert the AVR4PVK module to the 40-pin socket instead of used PIC processor so that pin 1 of the module will be interconnected with pin 1 of the socket. **Never insert it by contraries, it would destroy the module or the board!**

The ATmega64 processor may be programed using ISP connector placed on the module. See the ISP connector description [table](#). **Do not use the programming connector on the PVK40 board!**

If you are going to use the module on your own application board, be careful to connect your board correctly. See the module pinout description [table](#).

Notes:

- **For the first time the fuses are set so that the processor uses oscillator with external 14.7456 MHz crystal contained on the module.**
- **Be careful when programming the processor fuses. The processor may become not programmable with ISP interface if the fuses are set improperly. For example when the oscillator is set to clock source what is not connected to the processor.**
- **The 32 kHz crystal is not soldered on the module. If a user wants to solder it, it must be done from top side of the PCB.**

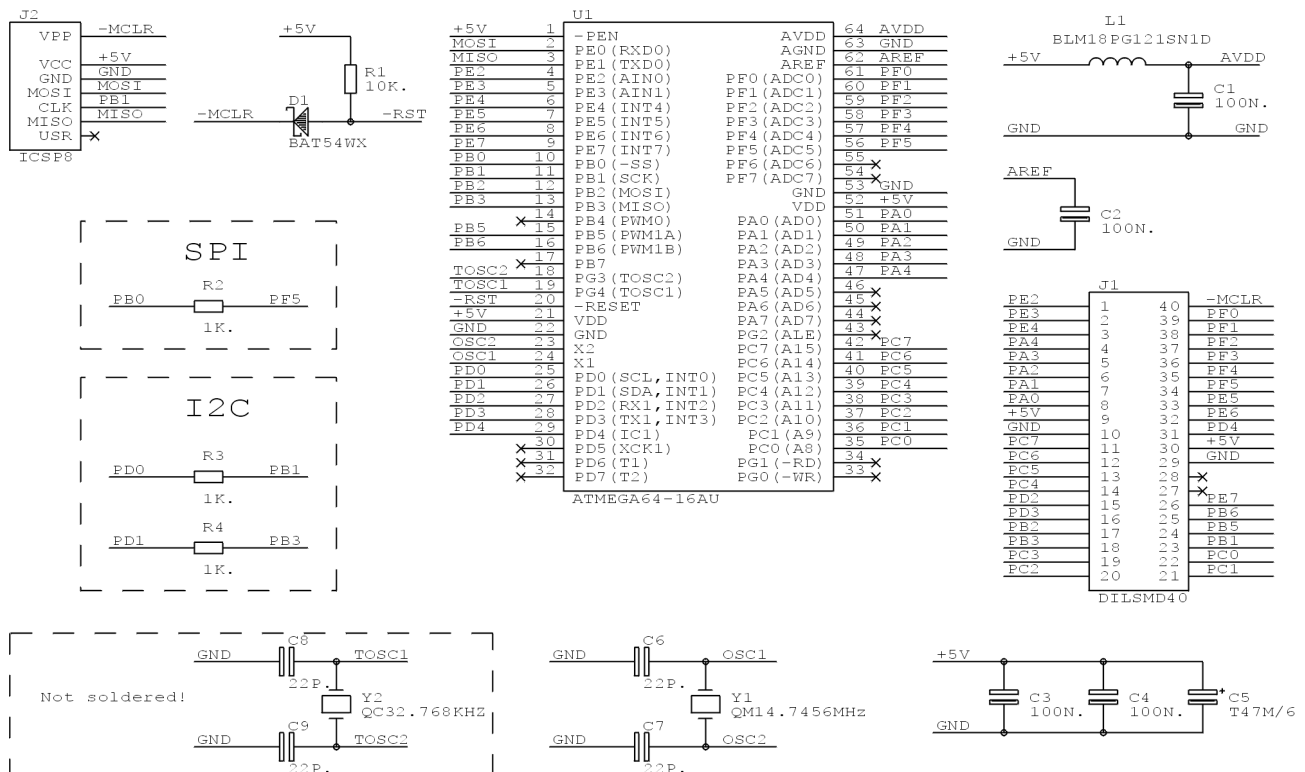
3. TECHNICAL SPECIFICATION

	<i>min.</i>	<i>typ.</i>	<i>max.</i>	
Supply voltage	4.5	5.0	5.5	V
Supply current with 14 MHz osc.		27		mA
Supply current with 1 MHz osc.		2.2		mA
Used crystal frequency		14.7456		MHz

4. ISP CONNECTOR DESCRIPTION

Pin number	Signal name
1	RESET
2	Not used - key
3	VDD
4	GND
5	MOSI
6	SCK
7	MISO
8	Not connected

5. AVR4PVK SCHEMATICS



6. MODULE PINOUT TABLE

<i>Pin number</i>	<i>AVR signal</i>	<i>PVK40 signal</i>
1	RESET	MCLR
2	PF0 (ADC0)	A0
3	PF1 (ADC1)	A1
4	PF2 (ADC2)	A2
5	PF3 (ADC3)	A3
6	PF4 (ADC4, TCK)	A4
7	PF5 (ADC5, TMS) ¹⁾	A5
8	PE5 (OC3C, INT5)	E0
9	PE6 (T3, INT6)	E1
10	PD4 (ICP1)	E2
11	VDD	+5V
12	GND	GND
13	Not used	OSC1
14	Not used	OSC2
15	PE7 (ICP3, INT7)	C0
16	PB6 (OC1B)	C1
17	PB5 (OC1A)	C2
18	PB1 (SCK) ¹⁾	C3
19	PC0 (A8)	D0
20	PC1 (A9)	D1
21	PC2 (A10)	D2
22	PC3 (A11)	D3
23	PB3 (MISO) ¹⁾	C4
24	PB2 (MOSI)	C5
25	PD3 (TXD1, INT3)	C6

<i>Pin number</i>	<i>AVR signal</i>	<i>PVK40 signal</i>
26	PD2 (RXD1, INT2)	C7
27	PC4 (A10)	D4
28	PC5 (A13)	D5
29	PC6 (A14)	D6
30	PC7 (A15)	D7
31	GND	GND
32	VDD	+5V
33	PA0 (AD0)	B0
34	PA1 (AD1)	B1
35	PA2 (AD2)	B2
36	PA3 (AD3)	B3
37	PA4 (AD4)	B4
38	PE4 (OC3B, INT4)	B5
39	PE3 (OC3A, AIN1)	B6
40	PE2 (XCK0, AIN0)	B7

Note: 1) Pins PB0, PD0 and PD1 of ATmega64 are interconnected with PF5, PB1 and PB3 via 1k Ω resistors. See the module [schematics](#).

7. REVISION HISTORY

<i>Date</i>	<i>Revision</i>	<i>Main changes</i>
2008-07-15	1.0	Initial version