SEL–0629

Aplicação de Microprocessadores I

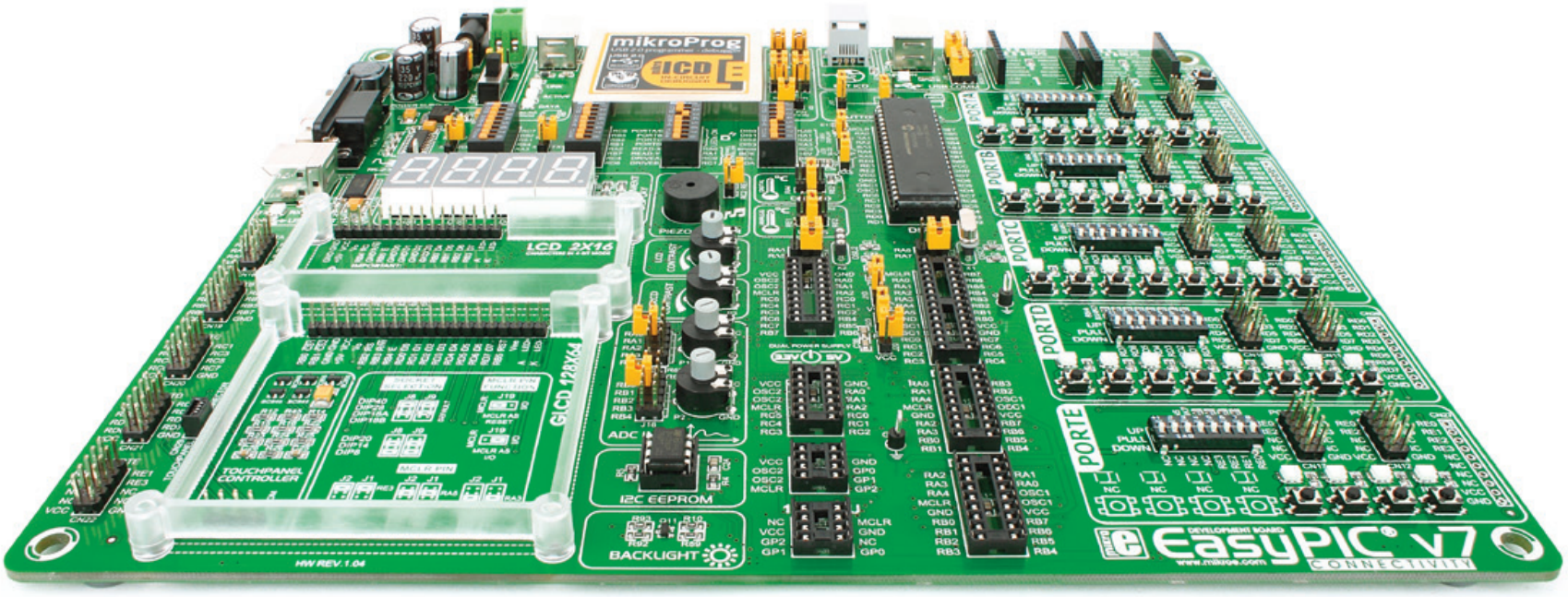
Aula 3
Kit Easy Pic v7

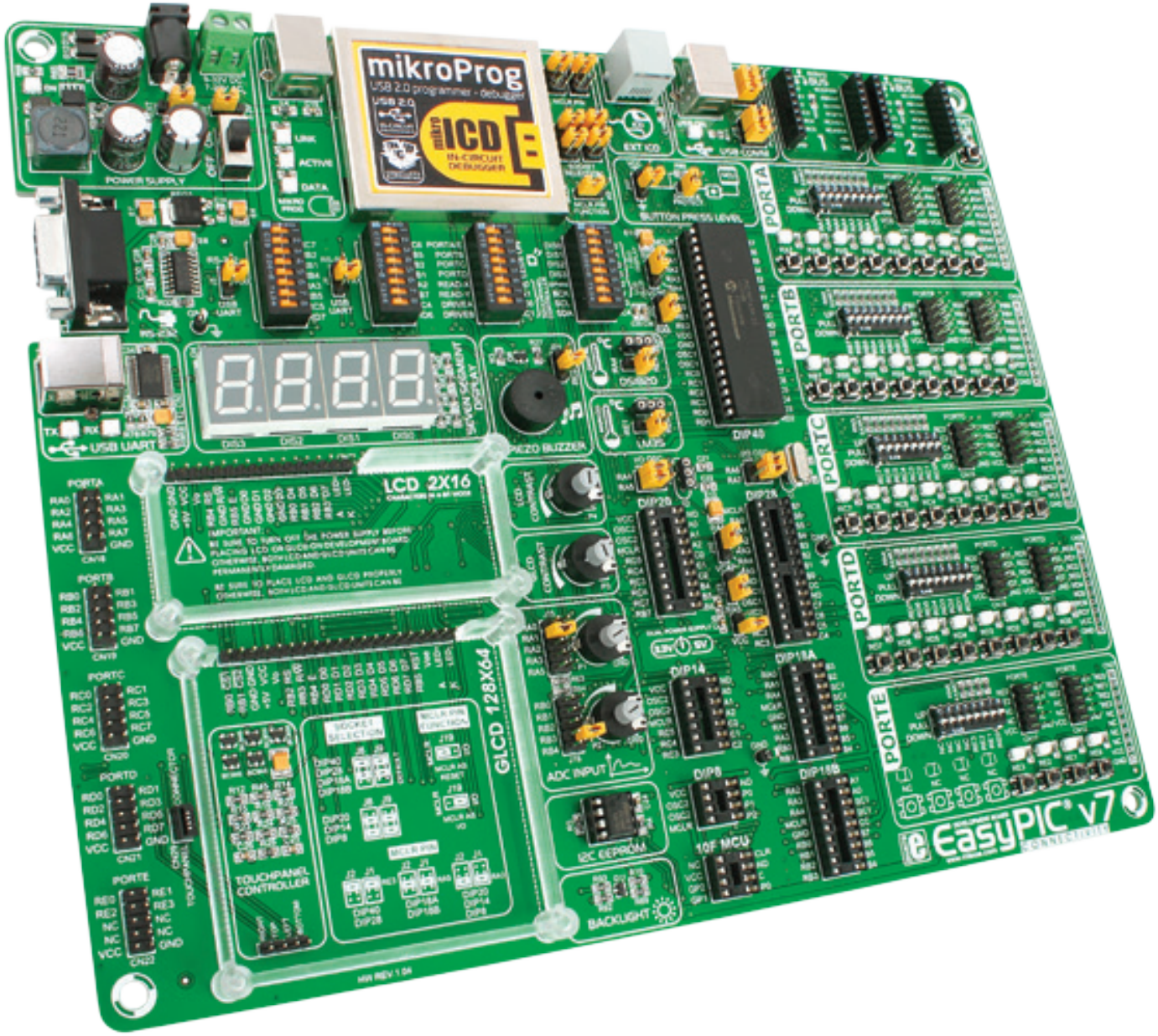
Marcelo Andrade da Costa Vieira

EasyPIC™ v7

connectivity

USER'S GUIDE




mikroProg
USB 2.0 programmer - debugger
mikro ICD
IN-CIRCUIT DEBUGGER
LCD 2X16
GLCD 128X64
EasyPIC v7
USB UART
PIEZO BUZZER
ADC INPUT
I2C EEPROM
10F MCU
BACKLIGHT
TOUCHPANEL CONTROLLER
PORTA
PORTB
PORTC
PORTD
PORTE

Alimentação

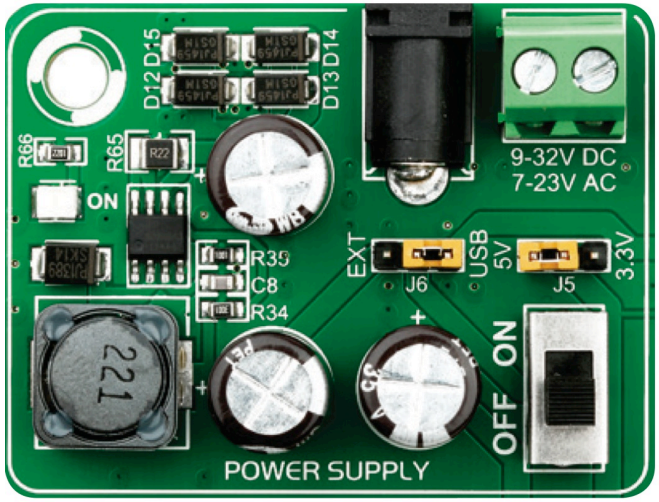
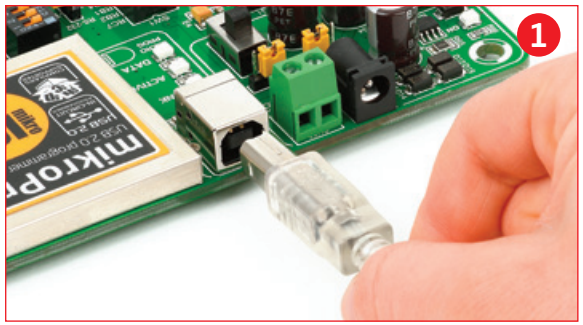
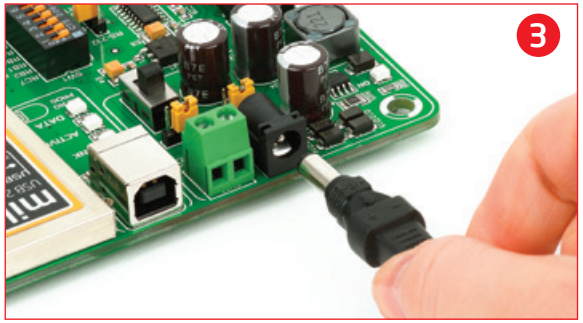
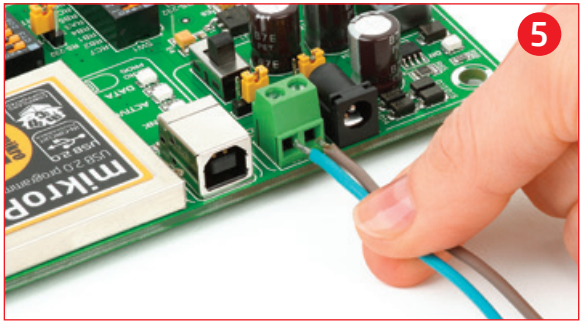


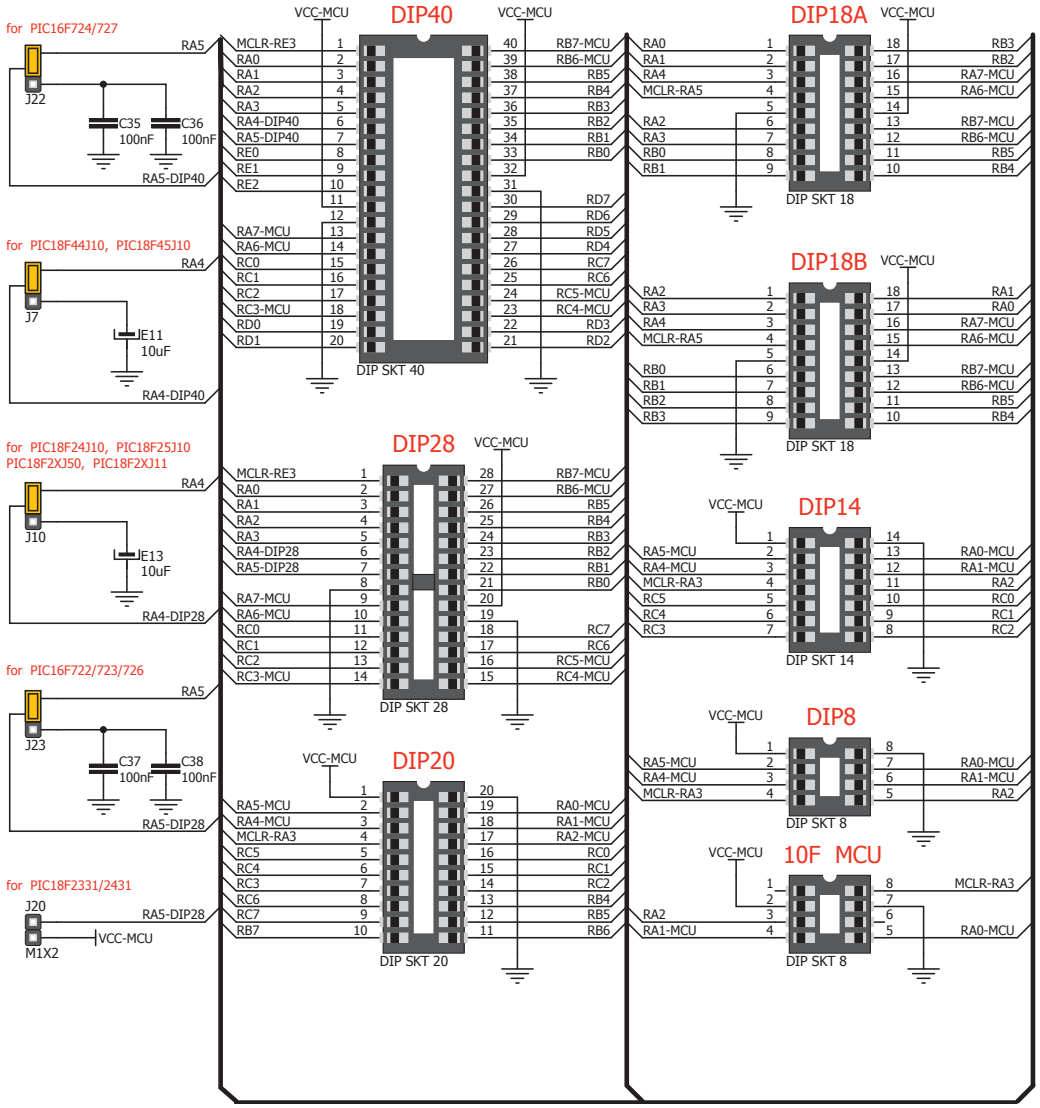
Figure 3-1: Dual power supply unit of EasyPIC™ v7







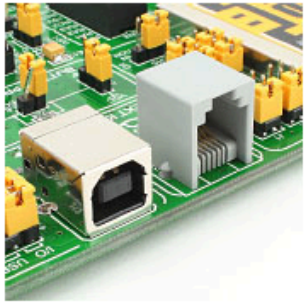
Microcontroladores



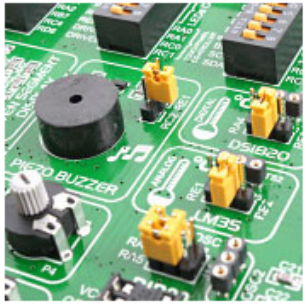
Gravação On-Board

Periféricos

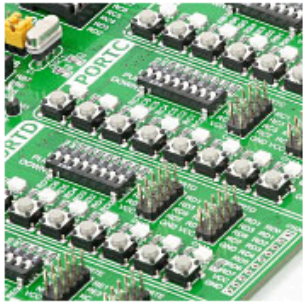
Special metal casing protects programmer module, and looks awesome, too.



ICD2 connector enables users to work with other programmers.

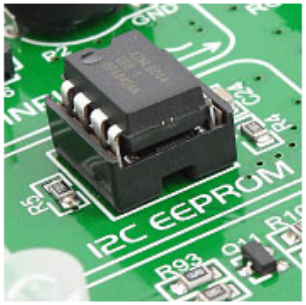


Now you have them both: digital and analog temperature sensors.

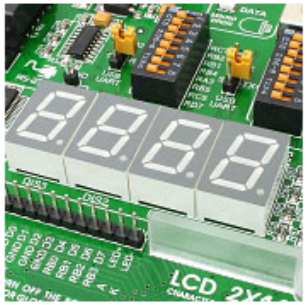


Why didn't we think of this earlier? Ports are grouped with their buttons and LEDs

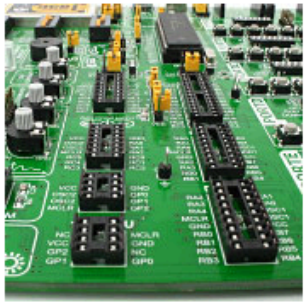
Write UART applications for laptops too. Besides RS-232, we also added USB-UART.



It's loaded with new modules: buzzer, LM35 temp sensor, I2C EEPROM and more...



It's back! 4 digit 7 segment display is now a part of EasyPIC v7.

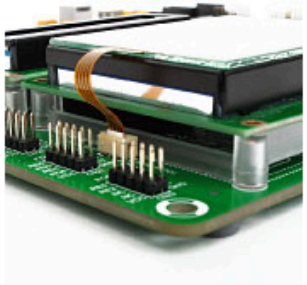


Every available PIC device in DIP packaging can fit on EasyPIC v7.

GLCD 128x64 and LCD 2x16 character displays are now closer together.

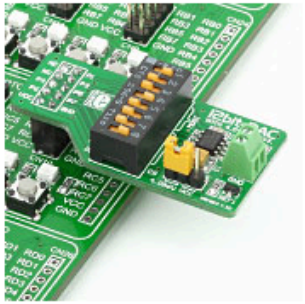
We added three additional GND pins for easier access of your oscilloscope probes.

Special plastic GLCD and LCD holders make sure that your displays securely fit in place.

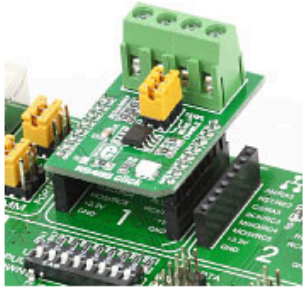


Another row of PORT headers available on the left side. Connectivity at its best.

Dual switching power supply allows the board to support both 3.3V and 5V devices.



Easily add extra boards using port headers. No soldering, just plug'n'play!



Two mikroBUS connectors enable you to use many additional boards.

Periféricos

Enabling ADC inputs

Botões e LEDs

Tri-state DIP switches, like **SW7** on **Figure 10-2**, are used to enable 4K7 pull-up or pull-down resistor on any desired port pin. Each of these switches has three states:

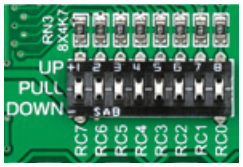


Figure 10-2: Tri-state DIP switch on PORTC

1. **middle position** disables both pull-up and pull-down feature from the PORT pin
2. **up position** connects the resistor in pull-up state to the selected pin
3. **down position** connects the resistor in pull-down state to the selected PORT pin.

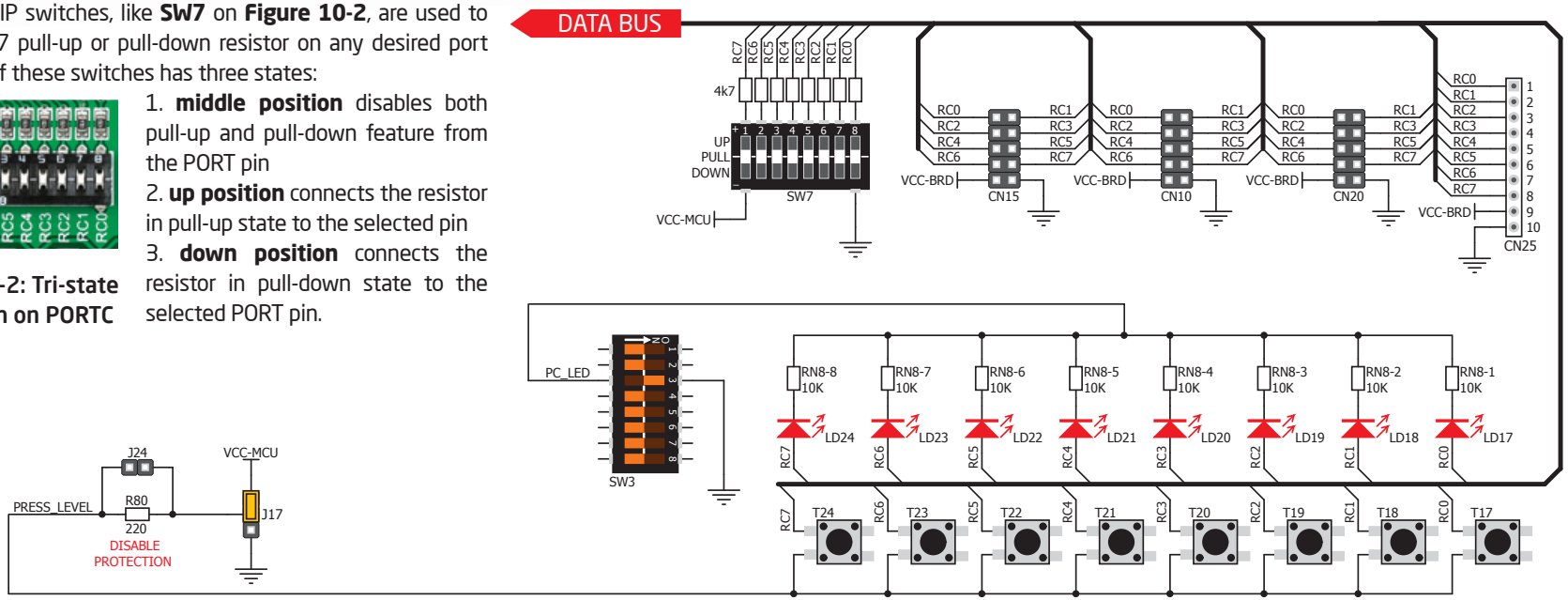
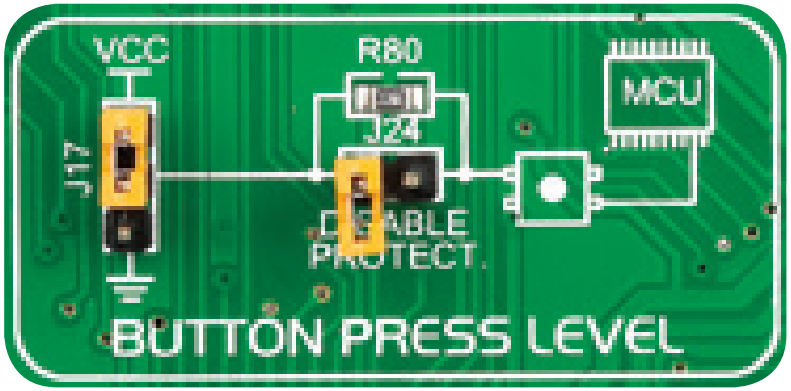
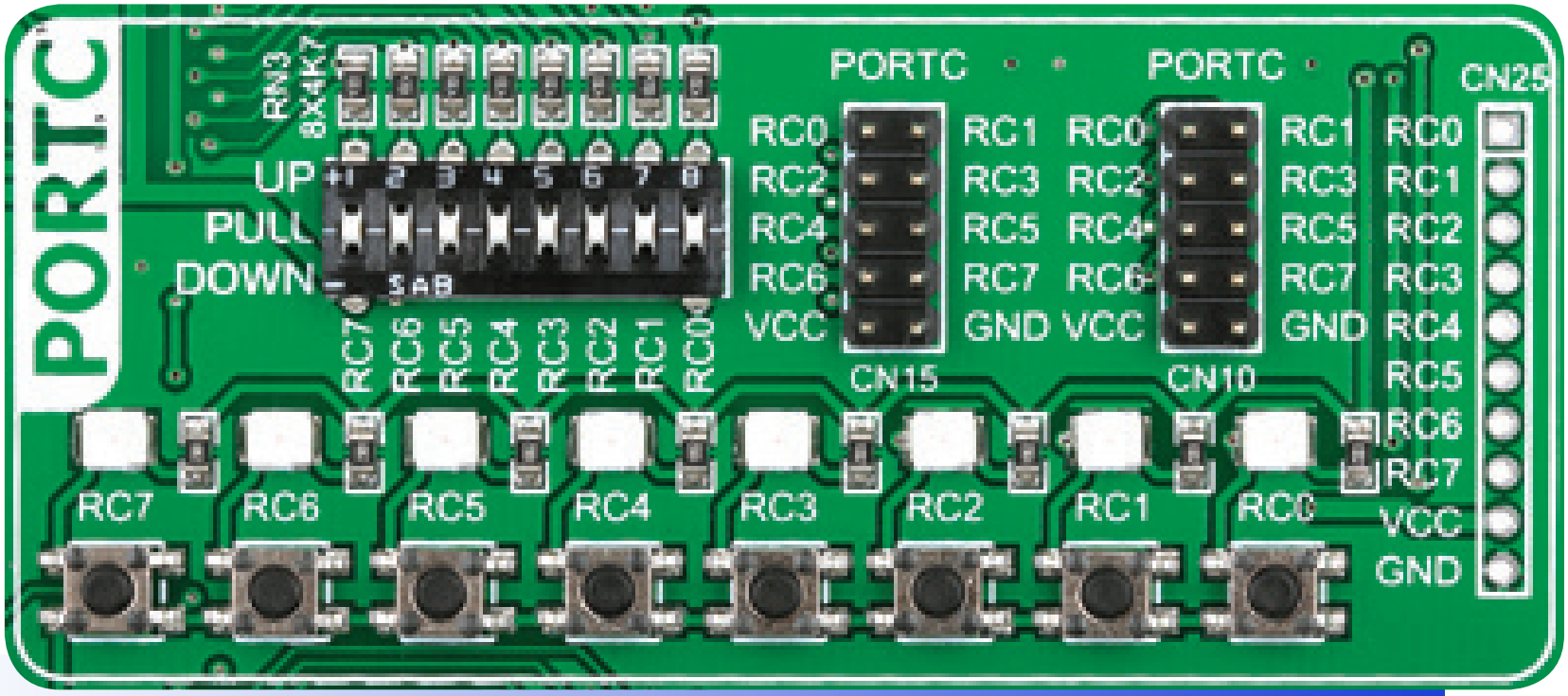
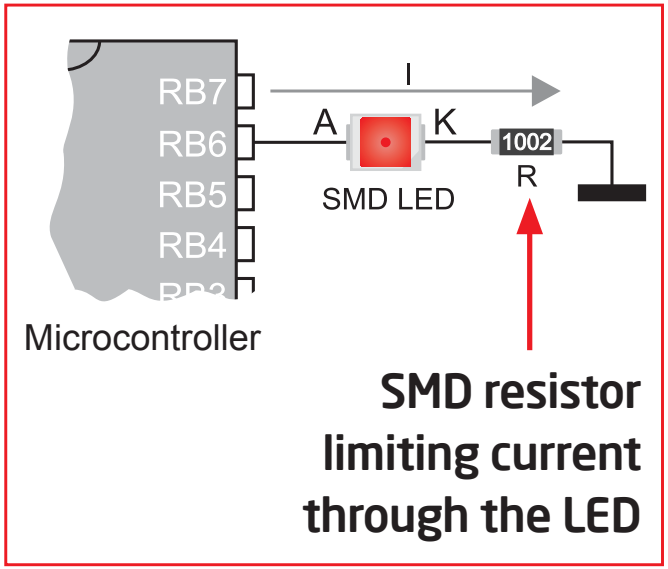
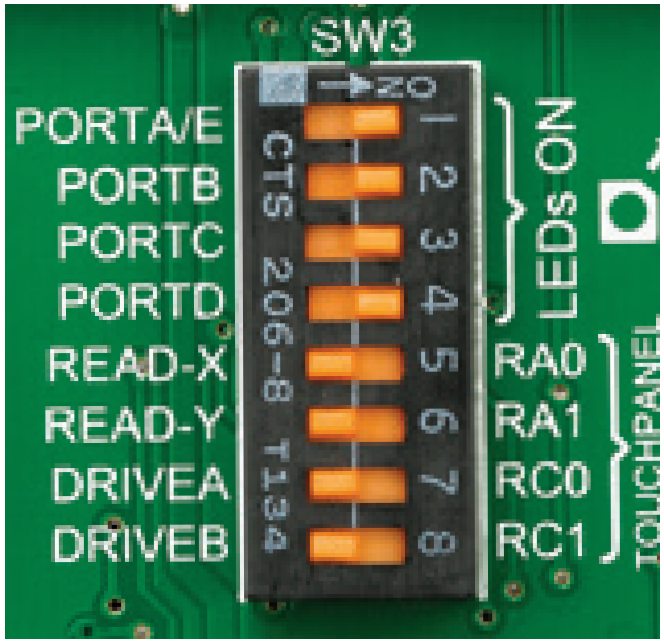


Figure 10-3: Schematic of the single I/O group connected to microcontroller PORTC

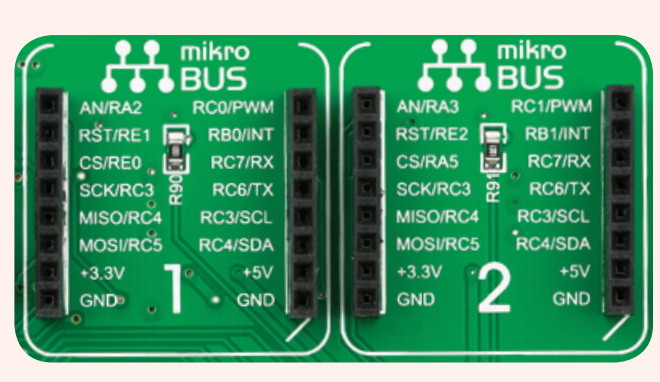

VCC
R80
J24
J17
MCU
DISABLE
PROTECT.
BUTTON PRESS LEVEL

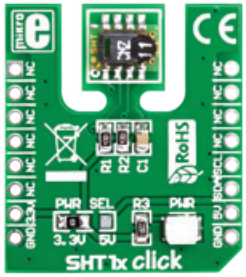

PORTC
RN3
8X4K7
UP
PULL
DOWN
SAB
RC7 RC6 RC5 RC4 RC3 RC2 RC1 RC0
PORTC
PORTC
RC0 RC1 RC2 RC3 RC4 RC5 RC6 VCC
RC1 RC3 RC5 RC7 GND
CN15
CN10
CN25
RC7 RC6 RC5 RC4 RC3 RC2 RC1 RC0
VCC
GND


RB7
RB6
RB5
RB4
I
A
K
1002
R
SMD LED
Microcontroller
SMD resistor
limiting current
through the LED

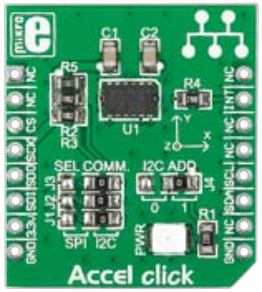

SW3
PORTA/E
PORTB
PORTC
PORTD
READ-X
READ-Y
DRIVEA
DRIVEB
LEDs ON
RA0
RA1
RC0
RC1
TOUCHPANEL
CTS 206-8 T134

Periféricos Extras

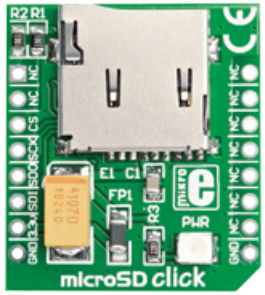




SHT1x click™

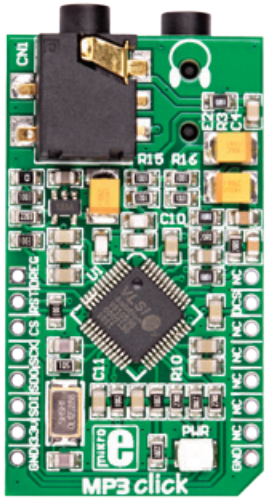


Acelerômetro



microSD click™

WiFi PLUS click™



MP3 click™

Matriz 8x8 LED

RTC

BlueTooth click™

Periféricos Extras

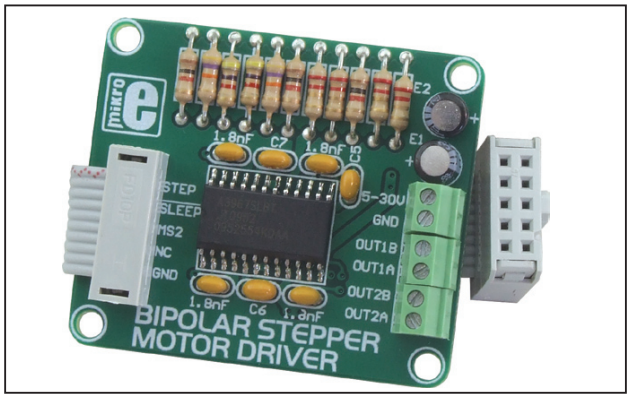


Figure 1: *Bipolar Stepper Motor Driver*

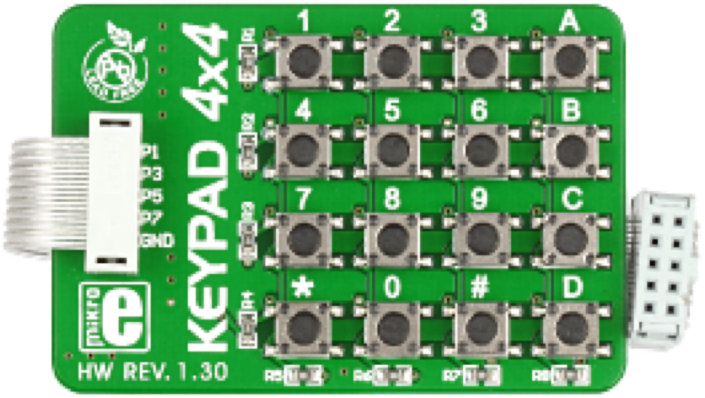


Figure 1: MICROPHONE AMP additional board

FIM