HT46RB50 Thermometer

D/N：HA0107E

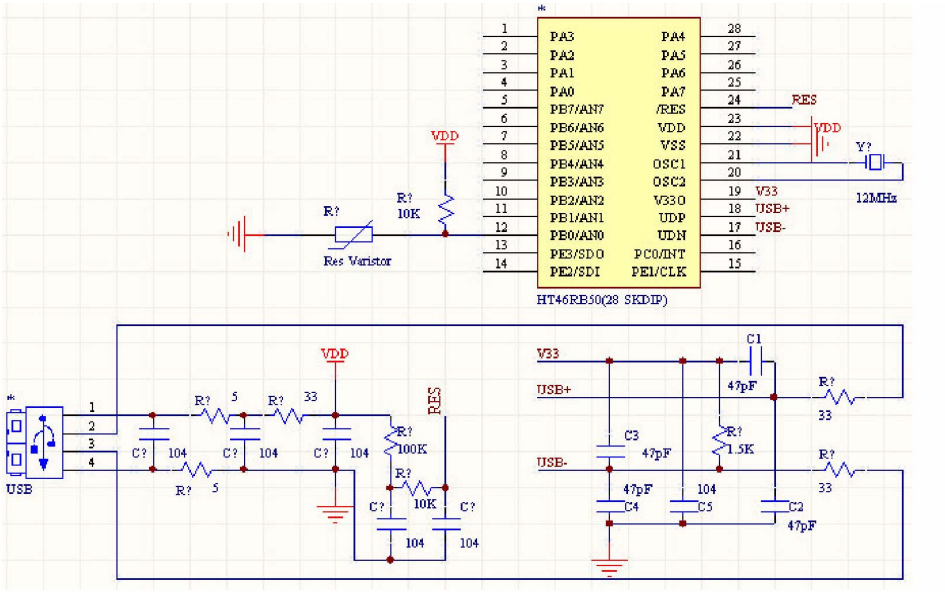
Introduction

This thermometer project uses the HT46RB50 microcontroller. One of the HT46RB50 A/D inputs is connected to an external thermistor. The internal AD can read the voltage due to the changing resistance on the thermistor and with suitable conversion the outside temperature can be determined.

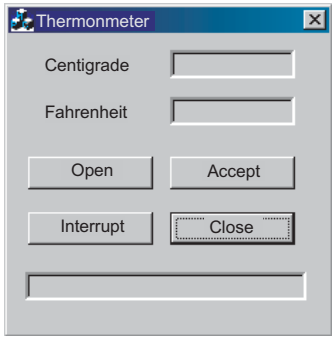
The project xxx control system provided USB HID device type driver subroutine.

- Uses USB control for transmission of data to the HT46RB50
- Uses the USB interrupt to transmit and receive data to and from the HT46RB50

Application Circuit



PC Display Interface



File Explanation

- MACRO.H
  This main file defines the engineering variables, common measurements and the macro definitions
- INITIATE.ASM
  This ASM file controls the register intialisation
- USB_ISR.ASM
  This ASM file is the USB interrupt service subroutine, when a USB interrupt occurs, the program will jump here
- USB_LIB.ASM
  This ASM file contains the read/write subroutines for the FIFO
- STANDARD_REQUEST.ASM
  This ASM file contains the 11 standard USB defined standard driver requests subroutine
- CLASS_REQUEST.ASM
  This ASM file contains the HID request subroutines
- DESCRIPTOR.ASM
  This ASM file contains the descriptor definitions
- INTERRUPT.ASM
  This ASM file contains the AD converter interrupt service routine and the TMR service routine

Control Display Interface

- Open
  Open the USB device
- Accept
  Accept the USB device data. Before accepting data ensure that the USB device is opened.
- Cut
  Close the USB device
- Close
  Close the display interface
- Centigrade
  Display the previous temperature, in Centigrade
- Fahrenheit
  Display the previous temperature, in Fahrenheit
- Status Bar
  Display the USB previous state