

HT46RB50 Thermometer

D/N : HA0107E

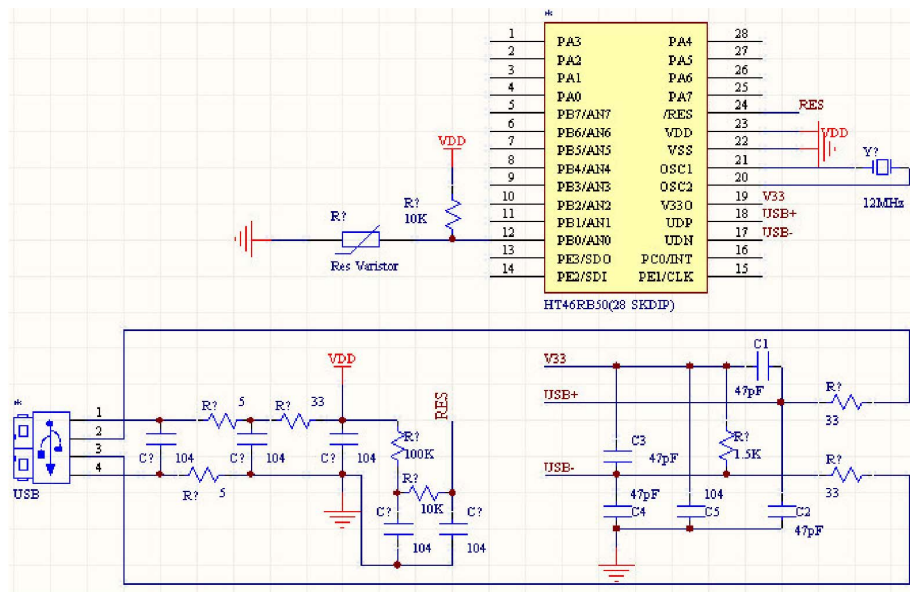
Introduction

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.

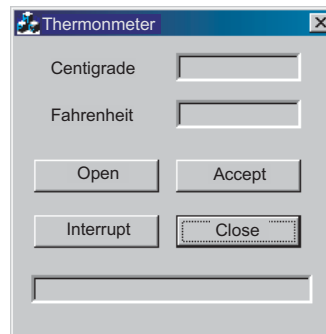
The project xxx control system provided USB HID device type driver subroutine.

- 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 initialisation
- **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