



STEVAL-IFS017V1

Multiple-device temperature sensor and RTC demonstration board based on the STM32

Data brief

Features

- Multiple device temperature sensor
- USB powered
- RoHS compliant

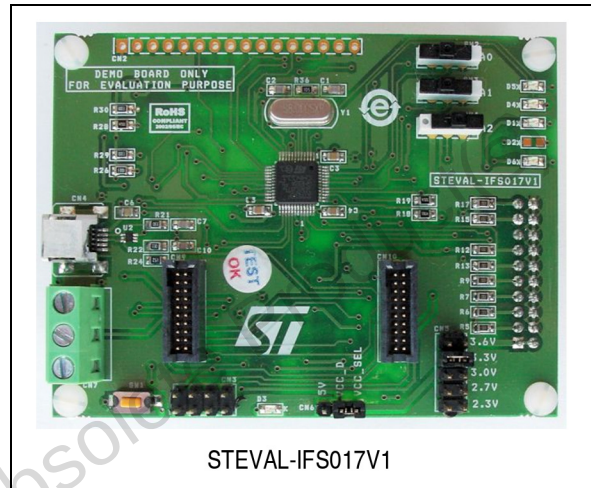
Description

The STEVAL-IFS017V1 demonstration board provides an evaluation platform for testing multiple temperature sensor and real-time clock (RTC) ICs from STMicroelectronics. The STEVAL-IFS017V1 acts as a motherboard based on the STM32 microcontroller, to which different daughter cards with temperature sensors and RTCs can be connected.

The temperature sensors supported by this system are: the STLM20, STTS424E02, STTS75, STDS75, STLM75, STCN75, STTS751, and STTS2002.

RTCs supported by this system are: the M41T82SM6, M41T83SQA6, M41T83SMY6.

The STEVAL-IFS017V1 demonstration board can operate in USB powered mode with a graphical user interface (GUI). The graphical user interface is used to access the registers and demonstrate the features of temperature sensors and RTCs.



STEVAL-IFS017V1

Figure 1. Schematic diagram (part 1)

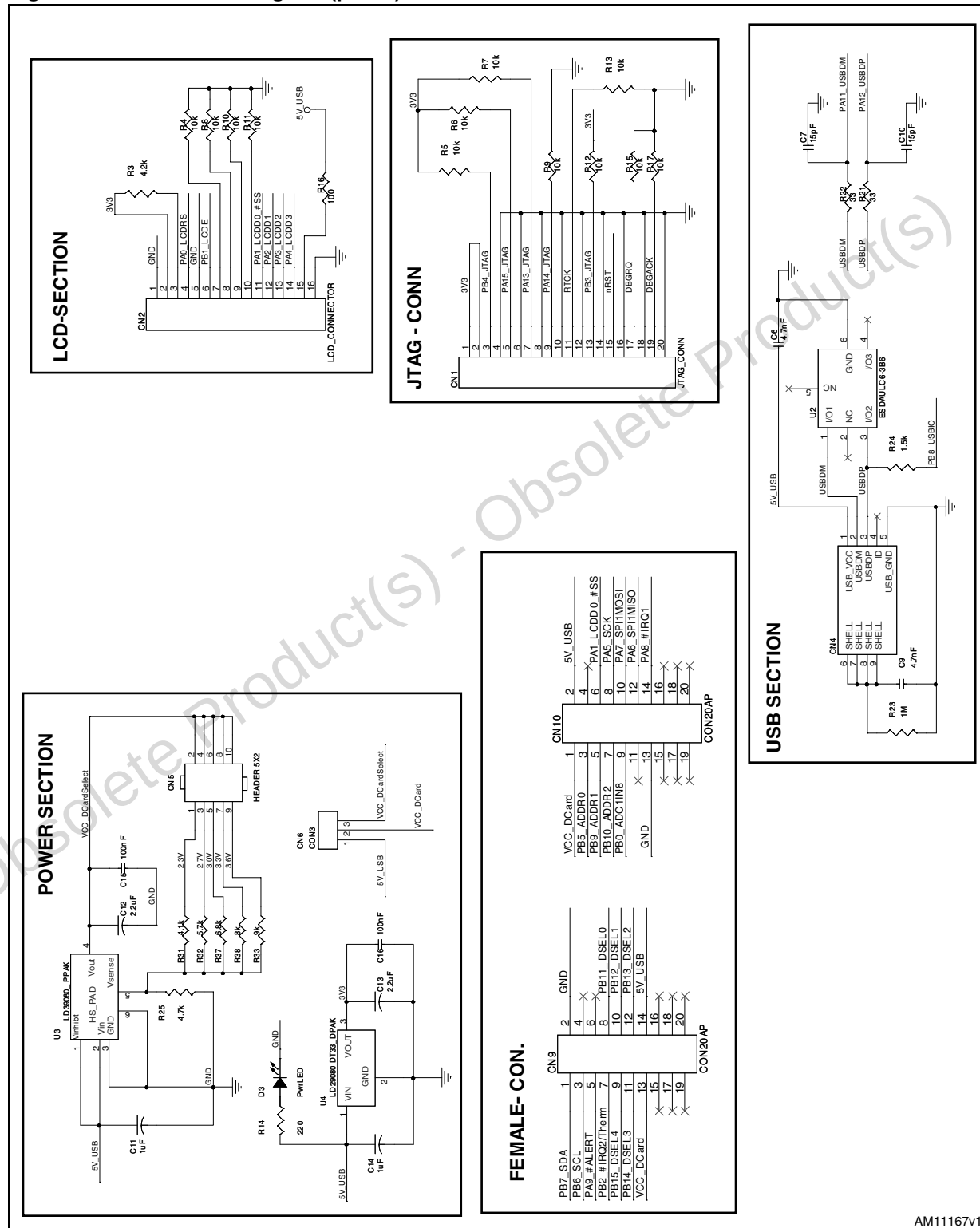
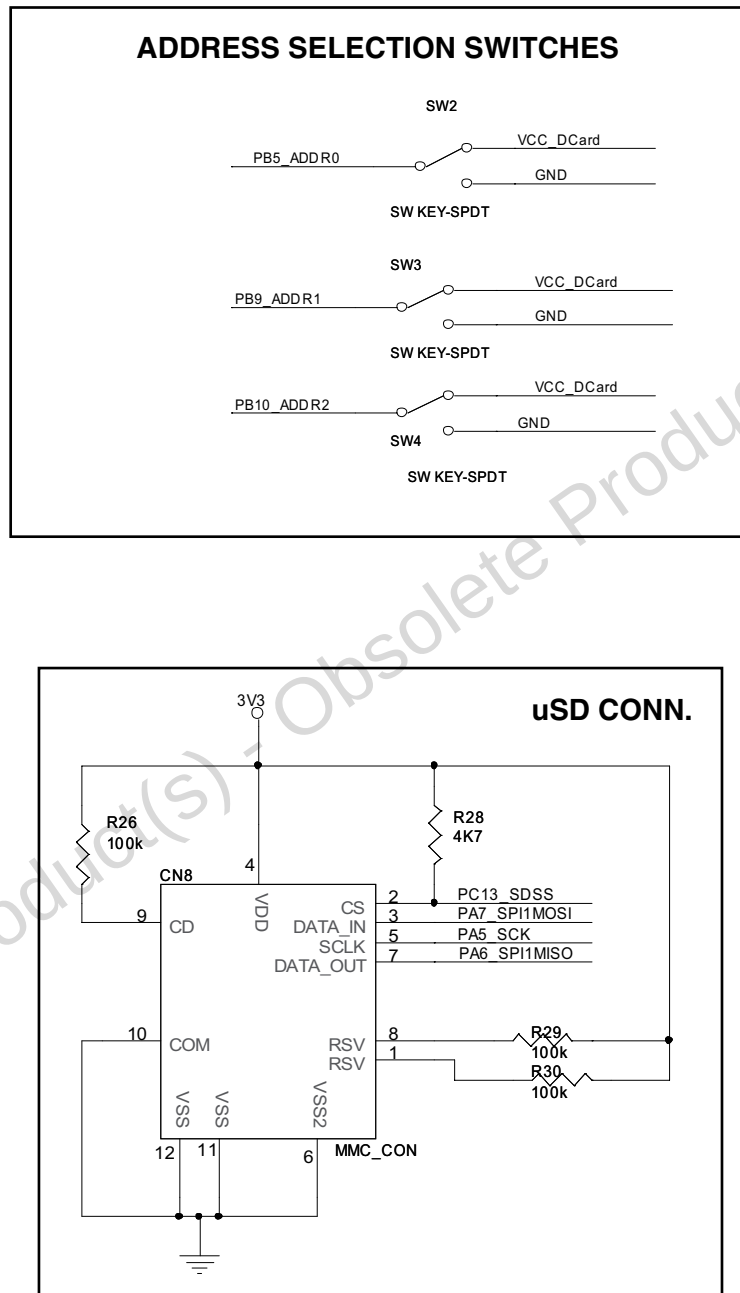


Figure 2. Schematic diagram (part 2)



AM11168v1

MICROCONTROLLER-SECTION

Pinout:

Pin	Signal	Pin	Signal
1	VDD_1	25	PB12_DSEL1
2	VSS	26	PB13_DSEL2
3	VDD_2	27	PB14_DSEL3
4	VSS_2	28	PB15_DSEL4
5	PC14_ANTI_TAMP	29	PA9_#ALERT
6	PC14_OSC32_IN	30	PA8_#IRQ1
7	PC15_OSC32_OUT	31	PA10
8	PD0_OSC_IN	32	PA11_USBDM
9	PD1_OSC_OUT	33	PA12_USBDP
10	nRST	34	PA13_JTAG
11	VSSA	35	GND
12	VDDA	36	3V3
13	PA0_WKUP	37	PA14_JTAG
14	PA2	38	PA15_JTAG
15	PA3	39	PB3_JTAG
16	PA4	40	PB4_JTAG
17	PA5	41	PB5_ADDR0
18	PA6	42	PB6_SCL
19	PA7	43	PB7_SDA
20	PB2_#IRQ2/Therm	44	BOOT0
21	PB10_ADDR2	45	PB8_USBIO
22	PB11_DSEL0	46	PB9_ADDR1
23	GND	47	GND
24	3V3	48	VDD_3

Component Values:

- R1: 220Ω
- R2: 220Ω
- R34: 220Ω
- R35: 220Ω
- R36: 1MΩ
- C1: 20pF
- C2: 20pF
- C3: 100nF
- C4: 100nF
- C5: 100nF
- C8: 100nF

Connectors:

- CN3: 8-pin connector (1: 3V3, 2: PA5_SCK, 3: PB6_SCL, 4: PA6_SPI1MISO, 5: PB7_SDA, 6: PA7_SPI1MISO, 7: GND, 8: PB0_ADC1IN8)
- CN8: 8-pin connector (1: 3V3, 2: PA5_SCK, 3: PB6_SCL, 4: PA6_SPI1MISO, 5: PB7_SDA, 6: PA7_SPI1MISO, 7: GND, 8: PB0_ADC1IN8)

Other Components:

- D1, D2, D4, D5, D6: LEDs
- SW1: Push button
- Y1: 8MHz crystal

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
21-Feb-2012	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

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