STM32F103C-MINNI schematic (U1 STM32F103)

AMS1117
Vin Vout
GND

5V 3V3 L1 10mH VDDA VDDA
c1 10uF C2 0.1uF C3 10uF C4 0.1uF C10 0.1uF
GND
3V3 R1 1K D1 GND
R14 0 VBAT 3V3

3V3 3V3
R3 10K R4 10K R5 10K R6 10K R7 10K
3V3
P3
1 2
3 4
5 6
7 8
9 10
11 12
13 14
15 16
17 18
19 20
JTAG
JNTRST
JTDI
JTMS
JTCK
JTDO
NRST
R9 10K R10 10K
GND GND

5V P4
1
2
3
4
USART
TX
RX
GND

GND
R13 1.5k 3V3
P2
1
2
USBDP
USBDM
P1
5
4
3
2
1
USB
R11 22
R12 22
5V

C5 10F
C6 10pF
Y2 32768HZ
GND
C7 20pF
C8 20pF
Y1 8MHZ
GND

VBAT 1 PC13 2 PC14 3 PC15 4 PD0 5 PD1 6 NRST 7 8 VSSA 9 VDDA 10 PA0 11 PA1 12 PA2

U1 STM32F103
VBAT
PC13-TAMPER-RTC
PC14-OSC32_IN
PC15-OSC32_OUT
PD0 OSC_IN
PD1 OSC_OUT
NRST
VSSA
VDDA
PA0-WKUP
PA1
PA2

48 PB9 47 PB8 45 BOOT0 44 PB7 43 PB6 42 PB5 41 JNTRST 40 JTDO 39 JTDI 38 JTCK
VDD_3 VSS_3 PB9 PB8 BOOT0 PB7 PB6 PB5 PB4 PB3 PA15 PA14
3V3 GND

VDD_2 36 3V3
VSS_2 35 GND
PA13 34 JTMS
PA12 33 USBDP
PA11 32 USBDM
PA10 31 RX
PA9 30 TX
PA8 29 PA8
PB15 28 PB15
PB14 27 PB14
PB13 26 PB13
PB12 25 PB12

PA3 13 PA4 14 PA5 15 PA6 16 PA7 17 PB0 18 PB1 19 BOOT1 20 PB10 21 PB11 22 VSS_1 23 VDD_1 24
3V3 GND

3V3 R2 10K NRST
S1 C9 0.1uF
GND

P6
3
2
1
BOOT0
3V3 R15 10K BOOT0
GND

P7
3
2
1
BOOT1
3V3 R16 10K BOOT1
GND

3V3
C11 0.1uF C12 0.1uF C13 0.1uF
GND

P8
1 2
3 4
5 6
7 8
9 10
11 12
13 14
15 16
17 18
19 20
21 22
23 24
3V3 PA0 PA2 PA4 PA6 PB0 BOOT1 PB12 PB14 PA8 RX
VDDA PA1 PA3 PA5 PA7 PB1 PB10 PB11 PB13 PB15 TX
GND GND

P9
1 2
3 4
5 6
7 8
9 10
11 12
13 14
15 16
17 18
19 20
21 22
23 24
3V3 NRST PD0 PC14 VBAT PB8 PB7 PB5 JTDO JTCK USBDP
PD1 PC15 PC13 PB9 BOOT0 PB6 JNTRST JTDI JTMS USBDM 3V3
GND GND

Title STM32F103C-MINNI
Size A4 Number Revision V1.1
Date: 2013-2-27 Sheet of
File: D:\PCB \..\STM32.SchDoc Drawn By: HKL

Bill of Materials

STM32F103C-MINNI

Source Data From: STM32.PrjPcb

Project: STM32.PrjPcb

Variant: None

Creation Date: 2013-2-27   11:46:48

Print Date: 41332   41332.49088

Footprint	Comment	LibRef	Designator	Description	Quantity
AMS1117	Volt Reg	Volt Reg	AMS1117	Voltage Regulator	1
0805	10uF	Cap	C3	Capacitor	1
0805	Cap	Cap	c1, C2, C4, C5, C6, C7, C8, C9, C10, C1 C12, C13	Capacitor	12
LED-0805	LED0	LED0	D1	Typical INFRARED GaAs LED	1
0805	L1	Inductor	L1	Inductor	1
USB-SOCKET-T	Header 5	Header 5	P1	Header, 5-Pin	1
HDR1X2	Header 2	Header 2	P2	Header, 2-Pin	1
HDR2X10	Header 10X2	Header 10X2	P3	Header, 10-Pin, Dual row	1
HDR1X4	Header 4	Header 4	P4	Header, 4-Pin	1
HDR1X3	Header 3	Header 3	P6, P7	Header, 3-Pin	2
HDR2X12	Header 12X2	Header 12X2	P8, P9	Header, 12-Pin, Dual row	2
0805	Res1	Res1	R1, R2, R4, R5, R6, R7, R9, R10, R11, R12, R13, R15, R16	Resistor	13
0805	R3	Res1	R3	Resistor	1
0805	0	Res1	R14	Resistor	1
Key	SW-PB	SW-PB	S1	Switch	1
LQFP48_L	STM32F103	STM32F103	U1		1
XTAL-49S	8MHZ	XTAL	Y1	Crystal Oscillator	1
XTAL-3X8	32768HZ	XTAL	Y2	Crystal Oscillator	1
					43

Approved   **Notes**