

3 Daughterboard connection

Four 12-pin male headers CN1, CN2, CN3 and CN4 are connected to the STM8S105C6T6 microcontroller. See the following tables for pin assignments.

Table 1. CN1 pinout

Pin number (Cn1)	Pin number (chip)	Pin name	Type	Main function	Alternate function
1	1	NRST	IO	Reset	
2	2	OSCIN/PA1	IO	Port A1	
3	3	OSCOU/PA2	IO	Port A2	
4	4	Vssio_1	S	I/O ground	
5	5	Vss	S	Digital ground	
6	6	VCAP	S	1.8V regulator capacitor	
7	7	Vdd	S	Digital power supply	
8	8	Vddio_1	S	I/O power supply	
9	9	PA3	IO	Port A3	
10	10	PA4	IO	Port A4	
11	11	PA5	IO	Port A5	
12	12	PA6	IO	Port A6	

Table 2. CN2 pinout

Pin number (Cn2)	Pin number (chip)	Pin name	Type	Main function	Alternate function
1	25	PE5	IO	Port E5	SPI master / slave
2	26	PC1/TS1	IO	Port C1	Timer 1 - channel 1 / UART2 synchronous clock
3	27	PC2/TS1_load	IO	Port C2	Timer 1 - channel2
4	28	PC3	IO	Port C3	Timer 1 - channel 3
5	29	PC4	IO	Port C4	Timer 1 - channel 4
6	30	PC5	IO	Port C5	SPI clock
7	31	Vssio_2	S	I/O ground	
8	32	Vddio_2	S	I/O power supply	
9	33	PC6	IO	Port C6	SPI master out / slave in
10	34	PC7	IO	Port C7	SPI master in / slave out
11	35	PG0	IO	Port G0	
12	36	PG1	IO	Port G1	

Table 3. CN3 pinout

Pin number (Cn3)	Pin number (chip)	Pin name	Type	Main function	Alternate function
1	13	Vdda	S	Analog power supply	
2	14	Vssa	S	Analog ground	
3	15	PB7	IO	Port B7	Analog input 7
4	16	PB6	IO	Port B6	Analog input 6
5	17	PB5	IO	Port B5	Analog input 5
6	18	PB4	IO	Port B4	Analog input 4
7	19	PB3	IO	Port B3	Analog input 3
8	20	PB2	IO	Port B2	Analog input 2
9	21	PB1	IO	Port B1	Analog input 1
10	22	PB0	IO	Port B0	Analog input 0
11	23	PE7	IO	Port E7	Analog input 8
12	24	PE6	IO	Port E6	Analog input 9(2)

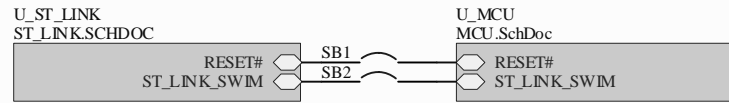
Table 4. CN4 pinout

Pin number (Cn4)	Pin number (chip)	Pin name	Type	Main function	Alternate function
1	37	PE3	IO	Port E3	Timer 1 – break Input
2	38	PE2	IO	Port E2	I2C data
3	39	PE1	IO	Port E1	I2C clock
4	40	PE0	IO	Port E0	Configurable clock output
5	41	PD0/LED	IO	Port D0	Timer 3 - channel 2
6	42	PD1/SWIM	IO	Port D1	SWIM data interface
7	43	PD2	IO	Port D2	Timer 3 - channel 1
8	44	PD3	IO	Port D3	Timer 2 - channel 2
9	45	PD4	IO	Port D4	Timer 2 - channel 1
10	46	PD5	IO	Port D5	UART2 data transmit
11	47	PD6	IO	Port D6	UART2 data receive
12	48	PD7	IO	Port D7	Top level interrupt



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Figure 11. STM8S-DISCOVERY



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STMicroelectronics			
Title: <i>STM8S-Discovery</i>			
Number: <i>MB867</i>	Rev: <i>A.1(PCB.SCH)</i>	Date: <i>5/6/2009</i>	Sheet <i>1</i> of <i>3</i>

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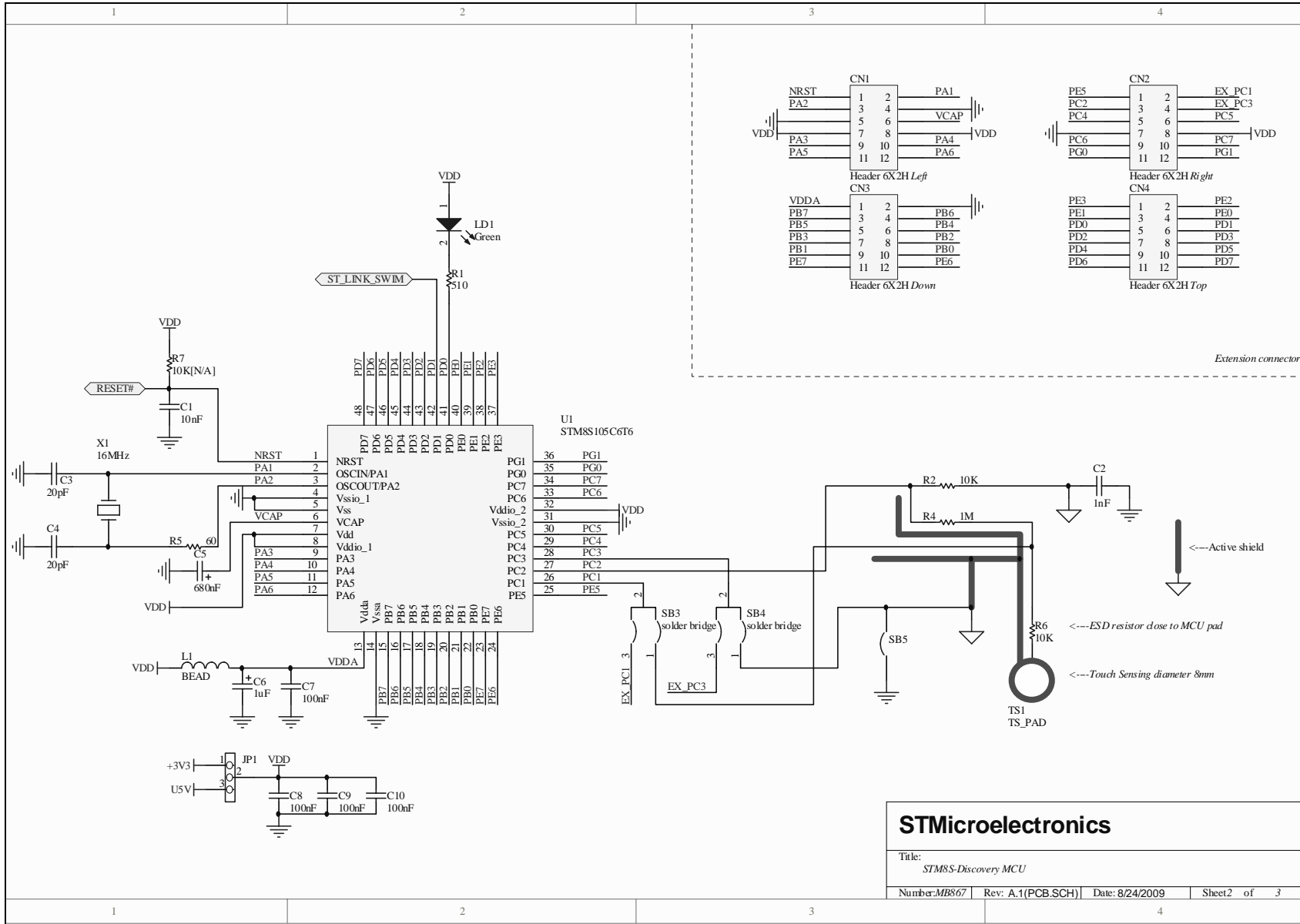
Electrical schematics



Figure 12. STM8S-DISCOVERY MCU

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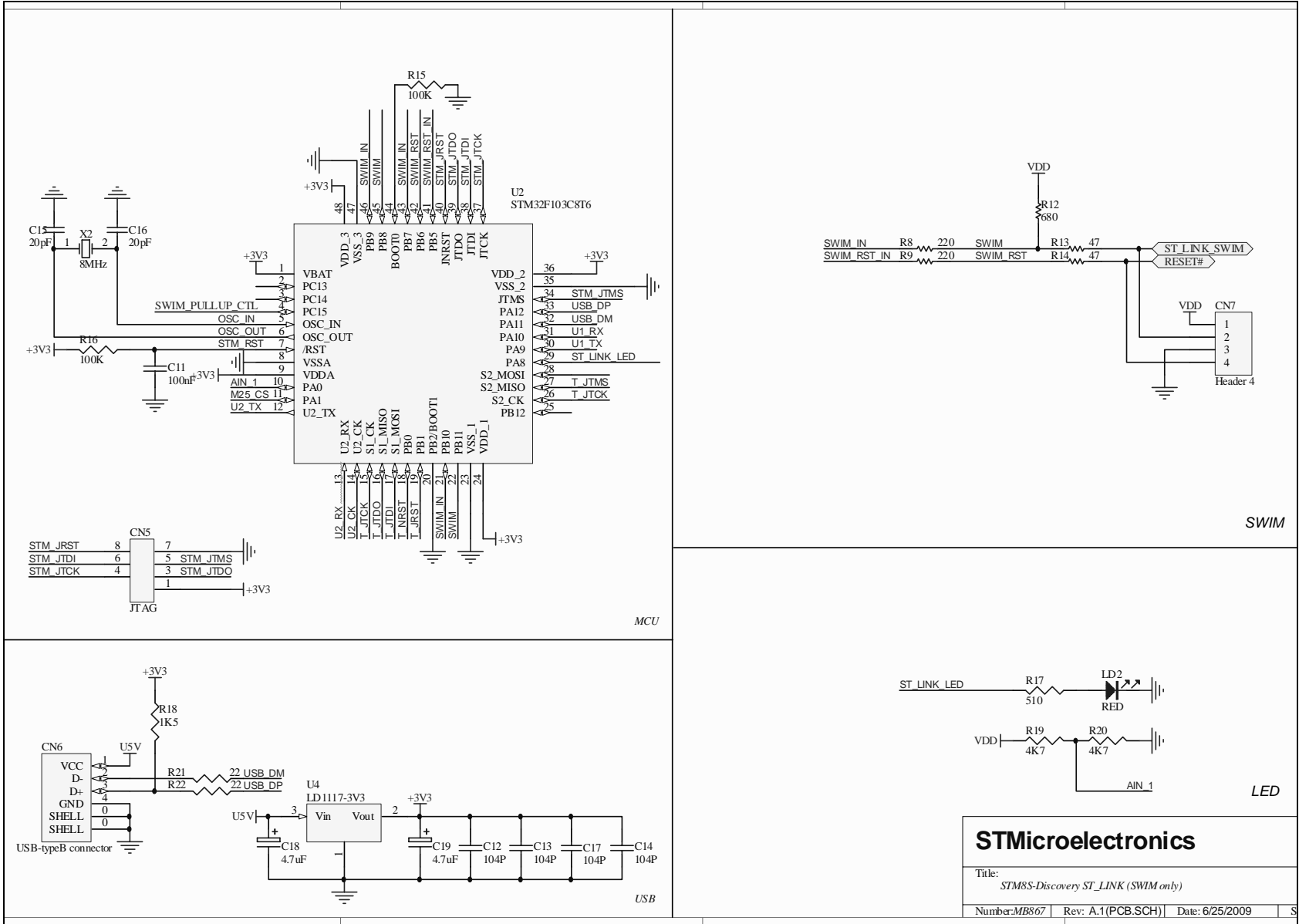
Electrical schematics



Figure 13. STM8S-DISCOVERY ST-LINK (SWIM only)

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STMicroelectronics			
Title: STM8S-Discovery ST_LINK (SWIM only)			
Number: MB867	Rev: A.1(PCB.SCH)	Date: 6/25/2009	S

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Electrical schematics