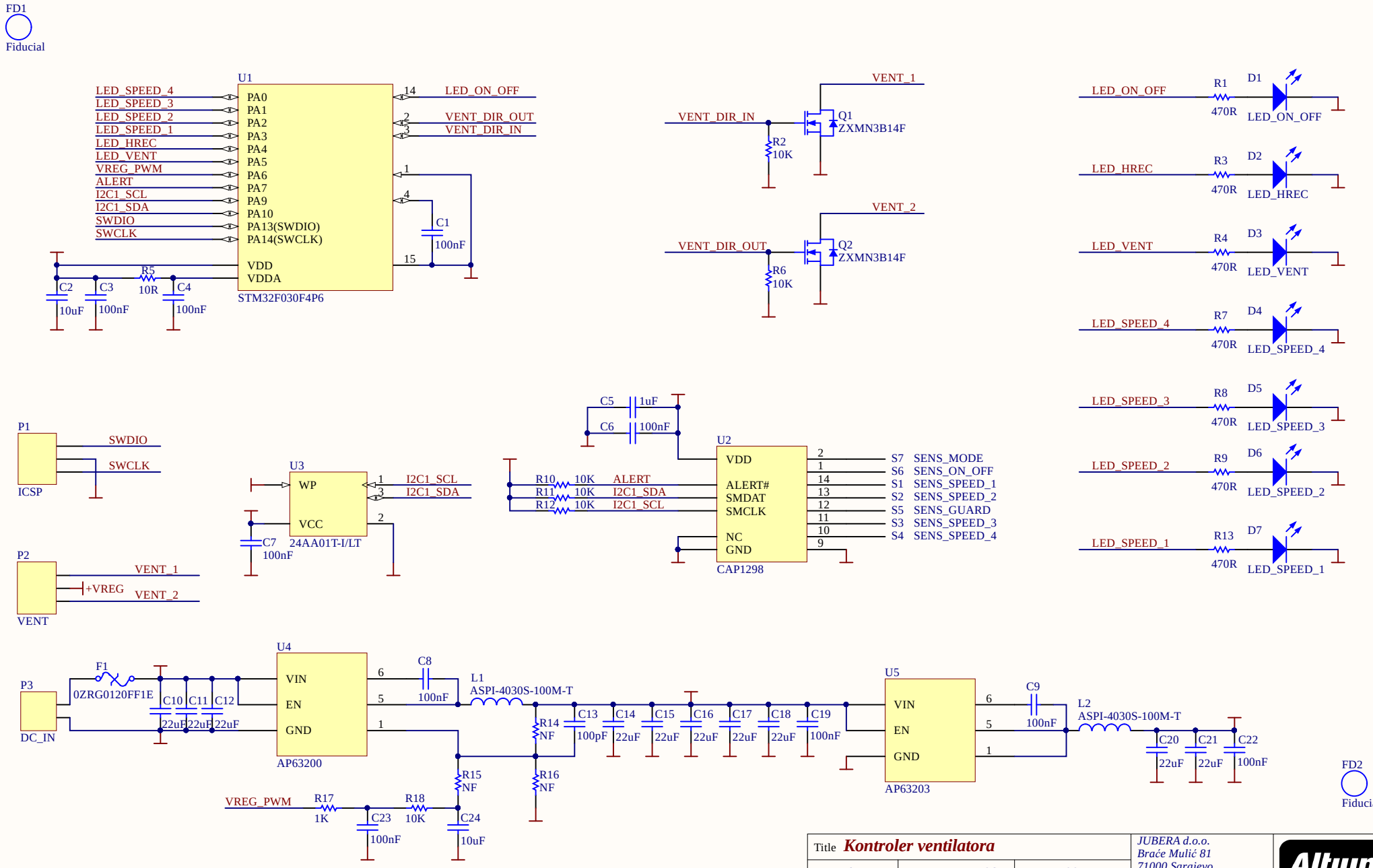
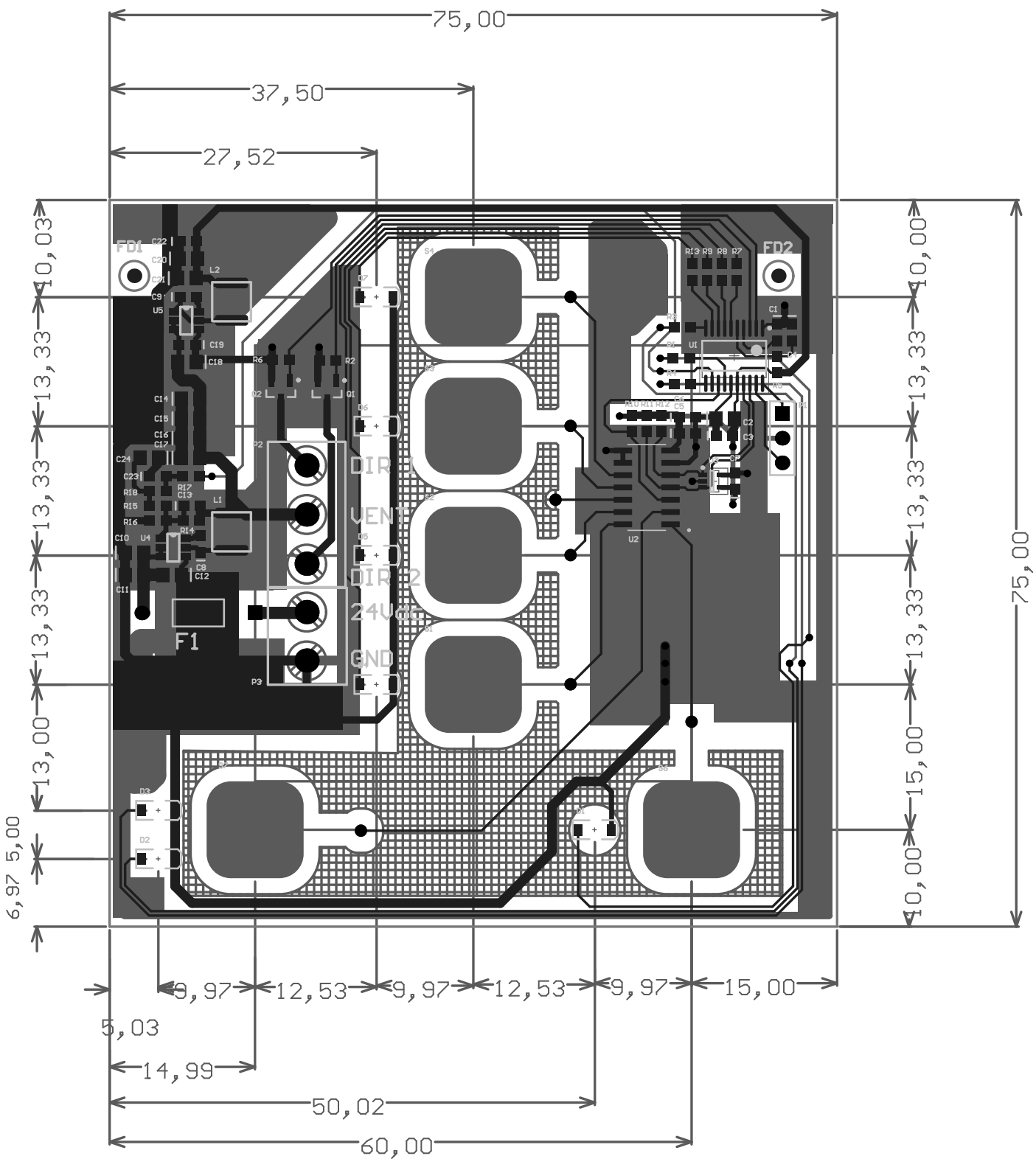

FD1
Fiducial
U1
LED_SPEED_4
LED_SPEED_3
LED_SPEED_2
LED_SPEED_1
LED_HREC
LED_VENT
VREG_PWM
ALERT
I2C1_SCL
I2C1_SDA
SWDIO
SWCLK
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA9
PA10
PA13(SWDIO)
PA14(SWCLK)
VDD
VDDA
14
LED_ON_OFF
2
VENT_DIR_OUT
3
VENT_DIR_IN
1
4
15
C1
100nF
R5
10R
C2
10uF
C3
100nF
C4
100nF
STM32F030F4P6
VENT_1
VENT_DIR_IN
Q1
ZXMN3B14F
R2
10K
VENT_2
VENT_DIR_OUT
Q2
ZXMN3B14F
R6
10K
LED_ON_OFF
R1
470R
D1
LED_ON_OFF
LED_HREC
R3
470R
D2
LED_HREC
LED_VENT
R4
470R
D3
LED_VENT
LED_SPEED_4
R7
470R
D4
LED_SPEED_4
LED_SPEED_3
R8
470R
D5
LED_SPEED_3
LED_SPEED_2
R9
470R
D6
LED_SPEED_2
LED_SPEED_1
R13
470R
D7
LED_SPEED_1
P1
SWDIO
SWCLK
ICSP
P2
VENT_1
+VREG
VENT_2
VENT
U3
WP
VCC
1
3
2
I2C1_SCL
I2C1_SDA
C7
100nF
24AA01T-I/LT
C5
1uF
C6
100nF
U2
VDD
ALERT#
SMDAT
SMCLK
NC
GND
R10
10K
ALERT
R11
10K
I2C1_SDA
R12
10K
I2C1_SCL
2
1
14
13
12
11
10
9
S7
SENS_MODE
S6
SENS_ON_OFF
S1
SENS_SPEED_1
S2
SENS_SPEED_2
S5
SENS_GUARD
S3
SENS_SPEED_3
S4
SENS_SPEED_4
CAP1298
P3
DC_IN
F1
0ZRG0120FF1E
C10
22uF
C11
22uF
C12
22uF
U4
VIN
EN
GND
6
5
1
C8
100nF
AP63200
L1
ASPI-4030S-100M-T
R14
NF
C13
100pF
C14
22uF
C15
22uF
C16
22uF
C17
22uF
C18
22uF
C19
100nF
R15
NF
R16
NF
VREG_PWM
R17
1K
R18
10K
C23
100nF
C24
10uF
U5
VIN
EN
GND
AP63203
C9
100nF
L2
ASPI-4030S-100M-T
C20
22uF
C21
22uF
C22
100nF
FD2
Fiducial
Title
Kontroler ventilatora
Size: A4
Number: DE-250624
Revision: 001
Date: 28. 6. 2024.
Time: 20:14:34
Sheet * of *
File: D:\ProjektiOtvoreni\FreshAir\hw\DE-250624\DE-250624.SchDoc
JUBERA d.o.o.
Braće Mulić 81
71000 Sarajevo
Federacija BiH
Bosna i Hercegovina
Altium


75,00
37,50
27,52
10,03
13,33
13,33
13,33
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13,00
6,97
5,00
10,00
13,33
13,33
13,33
15,00
10,00
75,00
FD1
FD2
F1
DIR1
VEN1
DIR2
24V
GND
9,97
12,53
9,97
12,53
9,97
15,00
5,03
14,99
50,02
60,00

Bill of Materials

Kontroler ventilatora

Source Data From: DE-250624.PrjPcb
Project: DE-250624.PrjPcb
Variant: None

Creation Date: 28. 6. 2024. 20:14:37
Print Date: 28-Jun-24 8:14:50 PM

Footprint	Comment	Value	Designator	Description	Quantity
0603	C0603	100nF, 100nF, 100nF, 1uF, 100nF, 100nF, 100pF, 100nF, 100nF, 100nF	C1, C3, C4, C5, C6, C7, C13, C19, C22, C23	Ceramic Chip Capacitor - Standard	10
0805	C0805	10uF, 22uF, 22uF, 22uF, 22uF, 22uF, 22uF, 22uF, 22uF, 22uF, 22uF, 10uF	C2, C10, C11, C12, C14, C15, C16, C17, C18, C20, C21, C24	Ceramic Chip Capacitor - Standard	12
0603	100nF	100nF	C8, C9	Ceramic Chip Capacitor - Standard	2
LED sa rupom	LED_ON_OFF		D1	Avago HSMW-C265	1
LED sa rupom	LED_HREC		D2	Avago HSML-C265	1
LED sa rupom	LED_VENT		D3	Avago HSMR-C265	1
LED sa rupom	LED_SPEED_4		D4	Avago HSMW-C265	1
LED sa rupom	LED_SPEED_3		D5	Avago HSMW-C265	1
LED sa rupom	LED_SPEED_2		D6	Avago HSMW-C265	1
LED sa rupom	LED_SPEED_1		D7	Avago HSMW-C265	1
PIN-W2/E2.8	0ZRG0120FF1E		F1	30 VDC 2 A Resettable Fuse - PPTC	1
ASPI-4030S	ASPI-4030S-100M-T		L1, L2	Wire Wound Magnetically Shielded SMD Power Inductor	2
HDR1X3	ICSP		P1	Header, 3-Pin	1
TERMINAL BLOK 3	VENT		P2	3 pinski terminal blok konektor	1
TERMINAL BLOK 2	DC_IN		P3	Terminal blok konektor 3,5 mm	1
SOT23_N	ZXMN3B14F		Q1, Q2	N-channel Enhancement Mode Vertical D-MOSFET	2
ERA-0603	470R		R1, R3, R4, R7, R8, R9, R13	Metal Film Thermosensitive Chip Resistor, 0.56 Ohm to 10k Ohm Range, 5% Tolerance, 0603 Size, 0.063 W	7
ERA-0603	10K		R2, R6, R10, R11, R12, R18	Metal Film Thermosensitive Chip Resistor, 0.56 Ohm to 10k Ohm Range, 5% Tolerance, 0603 Size, 0.063 W	6
ERA-0603	10R		R5	Metal Film Thermosensitive Chip Resistor, 0.56 Ohm to 10k Ohm Range, 5% Tolerance, 0603 Size, 0.063 W	1
ERA-0603	NF		R14, R15, R16	Metal Film Thermosensitive Chip Resistor, 0.56 Ohm to 10k Ohm Range, 5% Tolerance, 0603 Size, 0.063 W	3
ERA-0603	1K		R17	Metal Film Thermosensitive Chip Resistor, 0.56 Ohm to 10k Ohm Range, 5% Tolerance, 0603 Size, 0.063 W	1
SENSOR_PAD	SENS_SPEED_1		S1		1
SENSOR_PAD	SENS_SPEED_2		S2		1
SENSOR_PAD	SENS_SPEED_3		S3		1
SENSOR_PAD	SENS_SPEED_4		S4		1
SENSOR_PAD	SENS_GUARD		S5		1
SENSOR_PAD	SENS_ON_OFF		S6		1
SENSOR_PAD	SENS_MODE		S7		1
STM-TSSOP20_N	STM32F030F4P6		U1	ARM Cortex-M0 32-bit MCU, 16 KB Flash, 4 KB Internal RAM, 15 I/Os, 20-pin TSSOP, -40 to 85 degC, Tube	1
SOIC14	CAP1298		U2	8 chanel capacitive sensor ic	1
SC70-LT5_N	24AA01T-I/LT		U3	1Kbit, 400kHz, 2.5V, I2C Serial EEPROM, 5-Pin SC70, Industrial Temperature, Tape and Reel	1
TSOT-26	AP63200		U4	2A synchronous buck converter	1
TSOT-26	AP63203		U5	2A synchronous buck converter	1
					69

Approved **Notes**