U1 bq24210

1 VBUS	BAT 10
2 ISET	VDPM 9
3 VSS	$\overline{CHG}$ 8
4 VTSB	$\overline{EN}$ 7
5 TS	$\overline{PG}$ 6
	TAB 11

J1 1 2

D1 SMCJ6A
C1 10uF
C2 104
R1 1.2k
R2 0
R3 2k
R4 2k
D3 D4
R5 10k
R7 10k
GND

TP1
D2
C3 10uF
C13 104
R6 2k
J2 1 2
VCC_BAT

U2 TPS73633

1 IN	OUT 5
3 EN	
2 GND	NR/FB 4

VCC_BAT
C6 105
C7 104
VCC_3V3
C8 104
C14 104
C4 100uF
C5 10uF
C9 104
C10 104
C11 104
C12 104
VCC_3V3
GND

U3 STM32F101C8T6

10 PA0-WKUP	PB0 18
11 PA1	PB1 19
12 PA2	PB2/BOOT1 20
13 PA3	PA12 3
14 PA4	PA11 2
15 PA5	PB5 41
16 PA6	PB6 42
17 PA7	PB7 43
29 PA8	PB8 45
30 PA9	PB9 46
31 PA10	PB10 21
40 PB4/JNTRST	PB11 22
39 PB3/JTDO	PB12 25
34 PA13/JTMS/SWDIO	PB13 26
37 PA14/JTCK/SWCLK	PB14 27
38 PA15/JTDI	PB15 28
5 OSC_IN/PD0	PC13-TAMPER-RTC 2
6 OSC_OUT/PD1	PC14-OSC32_IN
	PC15-OSC32_OUT
44 BOOT0	
7 NRST	
1 VBAT	
24 VDD_1	VSS_1 23
36 VDD_2	VSS_2 35
48 VDD_3	VSS_3 47
9 VDDA	VSSA 8

CO2_HD CO2_RX CO2_TX
433_SET 433_RX 433_TX
TRST TDO TMS TCK TDI
R8 10k GND
433_AUX
5V_EN PG CLOSE OPEN

R9 10k,1%
R10 NC
C27 104
VCC_BAT
Y1 8M
C15 22pF
C24 22pF
R14 10k BOOT0
R15 10k RST
C26 100nF
VCC_3V3
Y2 32.768K
C16 10pF
C25 10pF
TP3

U4 TPS63020

9 L1	L2 7
8 L1	L2 6
11 VIN	VOUT 4
10 VIN	VOUT 5
12 EN	
1 VINA	
13 PS/SYNC	FB 3
	PG 14
2 GND	PGND 15

L1 1uH
VCC_BAT
5V_EN
C21 C22 C23 104
R11 1M
R12 110K
R13 1M
TP2
C17 C18 C19 C20 100uF
VCC_5V
GND
PG
TP4

VCC_3V3
R18 330
U5 A K 521
OPEN
R16 10k
VCC_5V
SQ1 PMOS
MOTOR_ON

VCC_3V3
R19 330
U6 A K 521
CLOSE
R17 10k
VCC_5V
SQ2 PMOS
MOTOR_FF
J6 1 2 3
GND

J4
CO2_HD	1
CO2_VOUT	2
	3
	4
CO2_RX	5
CO2_TX	6
CO2_PWM	7
GND VCC_5V

J5
GND	1
VCC_3V3	2
433_SET	3
433_RX	4
433_TX	5
433_AUX	6

J7 1 2

J3 JTAG
1	VCC_3V3
2	
3	TRST
4	RST
5	TDI
6	TDO
7	TMS
8	GND
9	TCK
10	GND

Title	
Size A3	Number	Revision
Date: 2016/3/10	Sheet of
File: E:\ ...\CO2391016.SchDoc	Drawn By:

C1 C13 C3 VBAT J2
TP1 BAT
C2 R6 D2
R1 R2 D3
R5 R3 D0
R7 U1 R4 D4

18650

J4 D1 TP3 C6 C7 PG C23 C21 C22 L1
5MHz C4 C5 TP4
U2 R13
C15 C25 C16 C11 C4
Y1 Y2 C14 C8 C19
C24 R15 R12 R11
C10 C26 R14 TP2
C12 5V
R9 J3
R10
R27 R8
J1 R19
C9
J5
J6 R17
U0 C2 R16
JTAG
U5 R18

VALVE CO2_CON PANEL

433_MODEL

AGRO_Ver_1.0
2016-03-10

J7
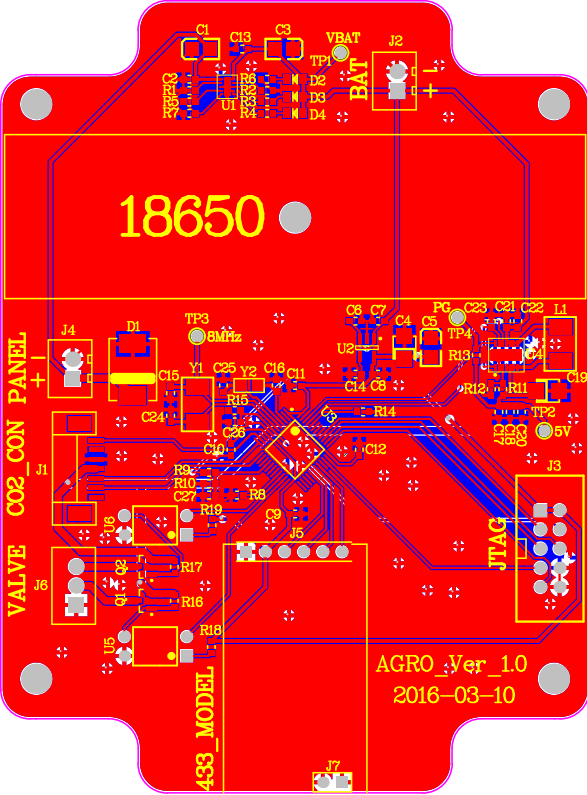
CO2_SENSOR_Brd_Ver_1.0

2016-03-10

J1

12 10 8 6 4 2 15 14

11 9 7 5 3 1 16 17
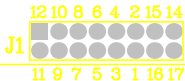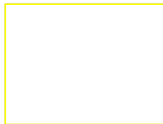
Comment	Description	Designator	Footprint	LibRef	Quantity
16V	Polarized Capacitor (Radial)	C1, C3, C5	C0805	Cap Pol1	3
Cap	Capacitor	C2, C7, C8, C9, C10, C11, C12, C13, C14, C23, C27	L0603	Cap	11
16V	Polarized Capacitor (Radial)	C4, C19	B-3528	Cap Pol1	2
0805S	Capacitor	C6, C17, C18, C20, C21, C22	L0603	Cap	6
Capacitor	Capacitor	C15, C16, C24, C25, C26	L0603	Cap	5
SMCJ6A	Schottky Diode	D1	DO214AB(SMC)	D Schottky	1
LED		D2, D3, D4	LED0805	LED	3
Header 2	Header, 2-Pin	J1, J2	XH2.54-2	Header 2	2
JTAG	Header, 10-Pin	J3	DC2.54-10	Header 10	1
CONNECTOR_7PIN		J4	PH1.25-7	CONNECTOR_7PIN	1
排母 2.54-1*6p	Header, 6-Pin	J5	HDR1X6	Header 6	1
Header 3	Header, 3-Pin	J6	XH2.54-3	Header 3	1
CONNECTOR_2PIN		J7	HDR1X2	CONNECTOR_2PIN	1
2.2uH	Inductor	L1	SM3521	Inductor	1
PMOS		Q1, Q2	SOT23	PMOS	2
Resistor	Resistor	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19	L0603	Res2	19
TP?		TP1, TP2, TP3, TP4	TP	Test Point	4
bq24210		U1	SON10	bq24210	1
TPS73633		U2	SOT23-5	TPS73633	1
STM32F101C8T6	STM32 ARM-based 32-bit MCU with 64 Kbytes Flash, 48-pin LQFP, Industrial Temperature	U3	LQFP48	STM32F101C8T6	1
TPS63020		U4	VSON14_3X4X05P	TPS63020	1
521	Optoisolator	U5, U6	DIP4-U	OPTOISO1	2
XTAL	Crystal Oscillator	Y1	SM3521	XTAL	1
XTAL	Crystal Oscillator	Y2	3015	XTAL	1