PAO-RXD → PAO-RXD
PAO-TXD ← PAO-TXD

VCC_WiFi_3V3

R65
100K
R-0603

VCC_MCU

R67
1K
R-0603

R66
100K
R-0603

R68
200K
R-0603

U9

TX0   2 3   PAO-TXD
Q19
S8050

TXD0 16

RXD0 15

RX0   3 S8050 2   PAO-RXD
Q20

TP35

1   RST
2   ADC
3   EN
4   PGIO16
5   PGIO14
6   PGIO12
7   PGIO13
8   VCC

TXD0 16
RXD0 15
PGIO5 14
PGIO4 13
PGIO0 12
PGIO2 11
PGIO15 10
GND 9

R85 0R
R-0603

TP36

R69
100K
R-0603

R70
1K
R-0603

TYWE3S

RESERVE8
RESERVE7
RESERVE6
RESERVE5
RESERVE4
RESERVE3
RESERVE2
RESERVE1

REV.	DESCRIPTION	DATE
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Size B	SC200-SC220-SC240-SC300	Rev 01
Date	Monday, December 11, 2017	sheet : 7 of 7

Schematic component labels:

- VCC_RF_3.0V
- R59 100K R-0603
- TP27
- Q16 SI2302DS-T1 SOT23
- RF-MCU
- R60 100K R-0603
- VCC_MCU
- RF-MCU
- PAO-RXD
- PAO-TXD
- VCC_WiFi_3V3
- 0R R-0603 R71
- VCC_RF_3.0V
- 0R R-0603 R77
- RESERVE8
- TP33
- C37 10uF/10V C-0603
- C38 0.1uF C-0603
- C35 NC C-0603
- VCC_MCU
- VCC_RF_3.0V
- R86 10K R-0603
- R61 10K R-0603
- R87 10K R-0603
- Q22 S8050
- PAO-RXD
- TP28
- TP29
- 0R R72 R-0603
- 0R
- 0R R-0603 R75 R74
- 0R R-0603 R76
- U8
  - 1 P34
  - 2 P35
  - 3 P36
  - 4 REST
  - 5 RXD
  - 6 TXD
  - 7 GND
  - 8 VCC
  - 14 ANT
  - 13 GND
  - 12 P15
  - 11 IRQ
  - 10 SWDCLK
  - 9 SWDIO
  - RFM2380F32-SMD
- 22NH L4 L-0603
- J5 RF 1
- C36 2.7pF C-0603
- TP30 TP31 TP32
- VCC_RF_3.0V
- R63 10K R-0603
- Q21 S8050
- PAO-TXD
- R64 10K R-0603
- R88 10K R-0603
- VCC_MCU
- RESERVE8 RESERVE7 RESERVE6 RESERVE5 RESERVE4 RESERVE3 RESERVE2 RESERVE1

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DARWING BY	CHECK BY	APPROVED BY

X-SENSE Technology Co., Ltd

Size B	SC200-SC220-SC240-SC300	Rev 01
Date	Monday, December 11, 2017	sheet : 6 of 7

BUZZER

EN_HBUZZER

EN_HBUZZER

BAT-3.0V

C34
0.1uF

L3
3.3mH+38mH

Q14
S8050

R56
6.04K

J4
BUZZER

BUZZER_W

BUZZER_R

BUZZER_B

TP47   TP25

EN_HBUZZER

R58   1K

Q15
S8050

R57 2R

TP48

TP23

TP49

TP24

TP50

TP26

J6

BUZZER_B   1
BUZZER_W   2
BUZZER_R   3

CON3

REV.	DESCRIPTION	DATE
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X-SENSE Technology Co., Ltd

Size B	SC200-SC220-SC240-SC300	Rev 01
Date	Monday, December 11, 2017	sheet : 5 of 7

VCC_Smoke — VCC_Smoke

EN_Smoke_IR — EN_Smoke_IR

Smoke_OUT — Smoke_OUT

EN_Smoke_Test_IR — EN_Smoke_Test_IR

TP20 ADC_Signel
TP54 ADC_Signel

VCC_Smoke

R39 100K
C26 1nF
C25 100pF
R41 15K

R40 47K
C24 15pF
R42 2.7M 1%
GND

C27 10pF
R43 2.7M 1%
VCC_Smoke
R44 1.2M 1%

TP21 ADC_Signel
TP55 ADC_Signel
Smoke_OUT

VCC_MCU
R45 1K

C29 100uF/6.3V
GND

SmokeSencer
U7

FB2 FB
R47 NC
C31 NC
FB3 FB
R48 2.7M 1%
C32 10pF

3 + 8
2 -
1
U6A MCP6002I-SN
4 GND

6 - 4
5 +
7
8
U6B MCP6002I-SN
VCC_Smoke

R46 100R
C28 1nF

TP22
EN_Smoke_IR
R49 5.6K
Q11 S8050
R51 200K
C33 NC
Q12 S8050
R50 0.56R 1%
R52 100R 1%
R53 9.1R 1%
Q13 S8050
R54 1K
TP37
EN_Smoke_Test_IR
R55 200K

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Size B | SC200-SC220-SC240-SC300 | Rev 01
Date | Monday, December 11, 2017 | sheet :4 of 7

VCC_CO

VCC_CO → VCC_CO
EN_Test_CO → EN_Test_CO
CO_OUT → CO_OUT

R30
100K 1%

TP52

Q10
S8050

R31
10K

EN_Test_CO

TP18

C16   NC

R32   1.6M / 1%

VCC_CO

C17
1uF

C18   C19
0.1uF 1uF

GND

D2 LL4148 FB1   100MHZ   R33   1K / 1%

R34
100K 1%

TP19 TP53

R37   47K   CO_OUT

CO_P+

C21
100pF

R35
10K 1%

VCC_CO

C20 56pF   4 IN-   VDD 5

R36
2.49M /1%

C22
0.1uF

U4
TGS5042

CO_P- CO_P-

OUT   1

3 IN+   VSS 2

U5
SGM8040

R38
1k 1%

C23
56pF

VCC_MCU

R13 100K R-0603 MCU_REST
C10 1uF C-0603
R14 100R R-0603 Q6 S8050 C11 0.1uF C-0603
D1 1N4148 R15 47K R-0603

BAT-3.0V
Q7 S85503 R16 100K 1% R-0603 TP8 Battery_VOL_MCU
R18 100K 1% R-0603
R19 100R 1% R-0603 R20 10K 1% R-0603

ADC_BAT

TP9
Q9 S8050 R22 1K R-0603 Battery_DETECT_MCU

LED_R R25 120R R-0603 R LED_R_G
LED_G R24 120R R-0603 G
LED2

NTC_Power
C14 1nF C-0603 R28 100K 1% R-0603
NTC_OUT
C15 470pF C-0603 R29 NTC(100K/3950)

MCU
U3 STM8L052 LQFP48
48 RF-MCU
47 EN_Test_CO
46 CO_OUT
45 EN_HBUZZER
44 WIFI_POWER
43 PAO-RXD
42 PAO-TXD
41
40
39 VCC_MCU
38
37

1 PA0/SWIM SWIM
2 PA1/NRST MCU_REST
3 PA2/OSC_IN
4 PA3/OSC_OUT
5 PA4/COM0 L-COM1
6 PA5/COM1 L-COM2
7 PA6/COM2 L-COM3
8 PA7/SEG0 Test_KEY
9 VSS1/VSSA/
10 VDD
11 VDDA
12 VREF+

PE7 PE6 PC7/AN3 PC6/OSC32_OUT PC5/OSC32_IN PC4/AN4 PC3/TX PC2/RX VSS2 VDD2 PC1/SCL PC0/SDA

36 PD7/AN7
35 PD6/SEG20
34 PD5/SEG19
33 PD4/SEG18
32 PF0/AN24
31 PB7/SEG17
30 PB6/SEG16
29 PB5/SEG15
28 PB4/SEG14
27 PB3/SEG13
26 PB2/AN16 EN_Smoke_Test_IR
25 PB1/AN17 EN_Smoke_IR

VLCD PE0/SEG1 PE1/SEG2 PE2/SEG3 PE3/SEG4 PE4/SEG5 PE5/AN23 PD0/AN22 PD1/COM3 PD2/AN20 PD3/AN19 PB0/AN18
13 14 15 16 17 18 19 20 21 22 23 24

LED_R LED_G Mute_KEY VCC_Smoke Smoke_OUT Battery_DETECT_MCU L-COM4 NTC_Power Battery_VOL_MCU NTC_OUT

VCC_MCU
C12 0.1uF C-0603 C13 0.1uF C-0603
VCC_MCU

LCD
LCD-XC-36X17.6MM LCD LED1
L-COM1 1
L-COM2 2
L-COM3 3
L-COM4 4
5
6
7
8 LCD_BL
9
10
11
12
13 14 LCD_VCC_3.0V

R17 120R R-0603
TP56
LCD_BL R21 1K R-0603 Q8 S8050 SOT23

LCD_POWER — LCD_POWER
VCC_Smoke — VCC_Smoke
EN_Smoke_IR — EN_Smoke_IR
Smoke_OUT — Smoke_OUT
EN_Smoke_Test_IR — EN_Smoke_Test_IR
EN_Test_CO — EN_Test_CO
CO_OUT — CO_OUT
EN_HBUZZER — EN_HBUZZER
RF-MCU — RF-MCU
PAO-RXD — PAO-RXD
PAO-TXD — PAO-TXD
WIFI_POWER — WIFI_POWER

VCC_MCU
R23 100K 1% R-0603
TP16 P-KEY
KEY1 Test_KEY
TP17 P-KEY
KEY2 Mute_KEY
KEY3
R27 100K 1% R-0603
KEY4
VCC_MCU

J2 1x4POS,SMT,1.25MM
6 GND TP10 GND
5 TP11
4 SWIM SWIN
3 MCU_REST MCU_REST
2 TP12
1 VCC_MCU VCC_MCU TP13

J3 1x3POS,SMT,1.25MM
TP39 TX
1 TP14 TX
2 PAO-TXD PAO-RXD
3 TP15 RX
4
5 TP42 RX
TP38 GND
TP41 GND

J7 1x3POS,SMT,1.25MM
1 PAO-TXD PAO-TXD
2 PAO-RXD PAO-RXD
3
4
5

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X-SENSE Technology Co., Ltd

Size B	SC200-SC220-SC240-SC300	Rev 01
Date	Monday, December 11, 2017	sheet : 2 of 7

REVISION HISTORY TABLE

CR123A
J1
BAT-RE

TP1
BAT+

BAT-
TP46 TP3

C1
1uF
C-0603

C2
0.1uF
C-0603

Q1
SI2301
BAT-3.0V

C3
22uF

U1 SGM6031-2.5
VIN PWM
EN FB
GND GND NC

R3
NC
R-0603

R2
0R
R-0603

L-SMT
L1 10uH

TP43 TP2
POWER-VCC_2.5V

C4
22uF
C-0805

C5
0.1uF
C-0603

R1
0R
R-0603

VCC_MCU

R4
0R
R-0603

VCC_CO

TP5
BAT-3.0V

LCD_VCC_3.0V

Q4
SI2301

TP51

R8
R-0603
100K

C6
22uF
C-0603

C7
0.1uF
C-0603

L2
4.7uH/2A

U2
SW VOUT
VCC
EN FB/NC
GND
SGM6603

R9
NC
R-0603

R10
NC
R-0603

TP45 TP6

C8
22uF
C-0603

C9
0.1uF
C-0603

VCC_WiFi_3V3

WIFI_POWER

10K R11
R-0603

Q5
S8050

VCC_RF_3.0V

BUZZER

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Size B	SC200-SC220-SC240-SC300	Rev 01
Date	Monday, December 11, 2017	sheet : 1 of 7