U1
VCCIN
GND
J1
1 2
CON2

U2
LM2596
12v IN+ OUT+ 4 5v
2 IN- OUT- 3
GND GND
LM2596模块

S1
1 12v
2
3
5 6
4
SW-DPDT

JP3
1 2
3 4
5 6
7 8
9 10
GND 5v
HEADER 5X2

JP1
1 2
3 4
3v3 5 6
7 8
9 10
GND
HEADER 5X2

JP2
1 2
3 4
5 6 12v
7 8
9 10
GND
HEADER 5X2

电源部分

GND GND GND GND
J2 J3 J4 J5
12v 1 12v 1 12v 1 12v 1
2 2 2 2
relay1 3 relay2 3 relay3 3 relay4 3
CON3 CON3 CON3 CON3
继电器接口

WIFI
WIFI_TX 1 2 GND
3 4 IO2
RST 5 6 IO0
3v3 7 8 WIFI_RX
HEADER 4X2
WIFI模块

U3 MP3-TF_16P
5v 1 VCC BUSY 16
U1TX 2 RX USB- 15
U1RX 3 TX USB+ 14
4 DAC_R ADKEY_2 13
5 DAC_I ADKEY_1 12
J8 6 SPK_1 IO_2 11
1 2 GND 7 GND GND 10 GND
CON2 8 SPK_2 IO_1 9
MP3-TF_16P
MiniMP3-16P模块

U8
GND
5v 1 GND
2 3.3V
SDA 3 SDA
SCL 4 SCL
OLED GND-VCC
OLED显示

GND
J10
DATA 1
5v 2
3
CON3
DHT11模块

J6
CON20
1 21 VBAT 3v3 20 GND 3v3
DATA 2 22 C13 GND 19
3 23 C14 5v 18 5v
4 24 C15 B9 17
5 25 A0 B8 16
U2TX 6 26 A1 B7 15
U2RX 7 27 A2 B6 14
8 28 A3 B5 13
9 29 A4 B4 12
10 30 A5 B3 11
11 31 A6 A15 10 SCL
12 32 A7 A12 9 SDA
13 33 B0 A11 8 Relay4
WIFI_RX 14 34 B1 A10 7 U1RX
15 35 B10 A9 6 U1TX
WIFI_TX 16 36 B11 A8 5 A8
17 37 RST B15 4 B15
18 38 3v3 B14 3 Relay3
19 39 GND B13 2 Relay2
20 40 GND B12 1 Relay1
stm32c8t6
STM32C8T6最小系统板
J7 CON20

J9
U2TX 1
U2RX 2
GND 3
CON3
串口2

S2
A8 SW-PB
GND
S3
B15 SW-PB
独立按键

Title

Size A4
Number
Revision
Date: 2019/11/30
Sheet of
File: E:\智能宠物屋\硬件\最小系统+控制\HomeBox.SchDoc

Designator79

Designator76

S1

IN+

OUT+

U2

JP2

LM2596s

JP3

J1

JP1

IN-

OUT-

J10

J5

J9

J4

U4

WIFI

S2

J7

S3

J6

←1050.048 (mil)→

J8

U3

J2

16P-MiniMP3模块

Designator78

J3

J4

Designator77

J8
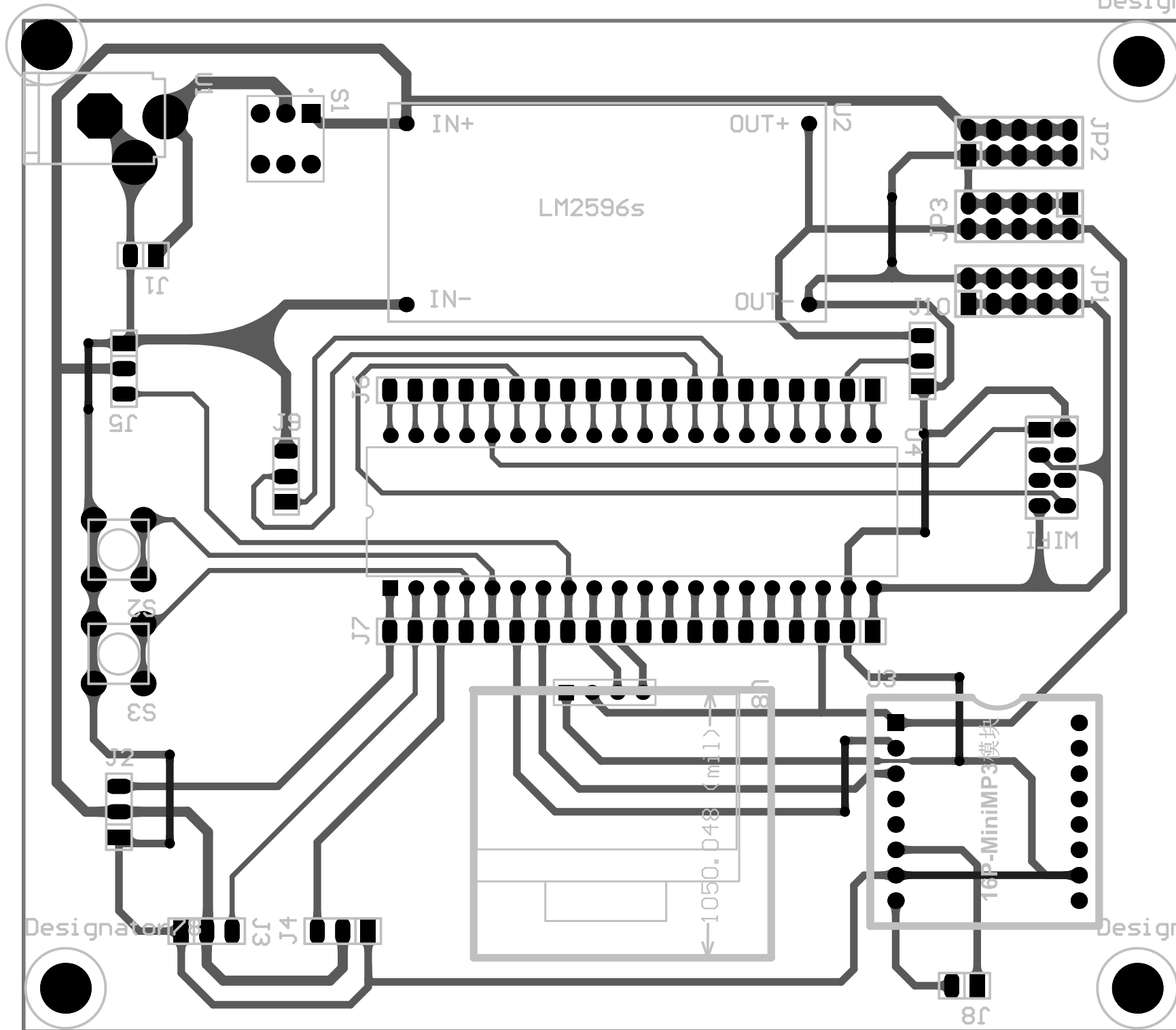
Comment	Description	Designator	Footprint	LibRef	Quantity
CON2	Connector	J1, J8	sip-2	CON2	2
CON3	Connector	J2, J3, J4, J5, J9, J10	sip-3	CON3	6
CON20	Connector	J6, J7	sip-20	CON20	2
HEADER 5X2		JP1, JP2, JP3	IDC-10	HEADER 5X2	3
SW-DPDT	单刀双掷开关	S1	SWITCH_B1	SW-DPDT	1
SW-PB		S2, S3	SWPB	SW-PB	2
VCCIN		U1	VCCIN	VCCIN	1
LM2596模块		U2	LM2596模块	LM2596模块	1
MiniMP3-16P模块		U3	MiniMP3模块	MiniMP3-16P模块	1
stm32c8t6	stm32c8t6	U4	DIP-40	stm32c8t6	1
OLED GND-VCC		U8	OLED-12864-0.96 模块	OLED GND-VCC	1
HEADER 4X2		WIFI	IDC-8	HEADER 4X2	1