[illegible]

The schematic diagram illustrates the connection of an LCD module. On the left, a 16-pin connector labeled J10 is connected to the LCD module pins. The connections are as follows:

- J10 Pin 1 to LCD Pin 1 (FSMC\_D0)
- J10 Pin 2 to LCD Pin 2 (FSMC\_D1)
- J10 Pin 3 to LCD Pin 3 (FSMC\_D0)
- J10 Pin 4 to LCD Pin 4 (FSMC\_D1)
- J10 Pin 5 to LCD Pin 5 (FSMC\_D2)
- J10 Pin 6 to LCD Pin 6 (FSMC\_D3)
- J10 Pin 7 to LCD Pin 7 (FSMC\_D4)
- J10 Pin 8 to LCD Pin 8 (FSMC\_D5)
- J10 Pin 9 to LCD Pin 9 (FSMC\_D6)
- J10 Pin 10 to LCD Pin 10 (FSMC\_D7)
- J10 Pin 11 to LCD Pin 11 (FSMC\_D8)
- J10 Pin 12 to LCD Pin 12 (FSMC\_D9)
- J10 Pin 13 to LCD Pin 13 (FSMC\_D10)
- J10 Pin 14 to LCD Pin 14 (FSMC\_D11)
- J10 Pin 15 to LCD Pin 15 (FSMC\_D12)
- J10 Pin 16 to LCD Pin 16 (FSMC\_D13)
- J10 Pin 17 to LCD Pin 17 (FSMC\_D14)
- J10 Pin 18 to LCD Pin 18 (FSMC\_D15)
- J10 Pin 19 to LCD Pin 19 (FSMC\_A0)
- J10 Pin 20 to LCD Pin 20 (FSMC\_A1)
- J10 Pin 21 to LCD Pin 21 (FSMC\_A2)
- J10 Pin 22 to LCD Pin 22 (FSMC\_A3)
- J10 Pin 23 to LCD Pin 23 (FSMC\_A4)
- J10 Pin 24 to LCD Pin 24 (FSMC\_A5)
- J10 Pin 25 to LCD Pin 25 (FSMC\_A6)
- J10 Pin 26 to LCD Pin 26 (FSMC\_A7)
- J10 Pin 27 to LCD Pin 27 (FSMC\_A8)
- J10 Pin 28 to LCD Pin 28 (FSMC\_A9)

On the right, a 28-pin connector labeled J12 is connected to the LCD module pins. The connections are as follows:

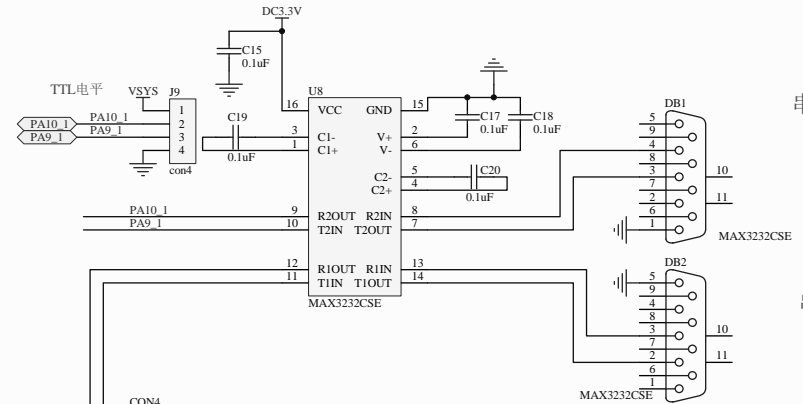
- J12 Pin 1 to LCD Pin 1 (FSMC\_D0)
- J12 Pin 2 to LCD Pin 2 (FSMC\_D1)
- J12 Pin 3 to LCD Pin 3 (FSMC\_D2)
- J12 Pin 4 to LCD Pin 4 (FSMC\_D3)
- J12 Pin 5 to LCD Pin 5 (FSMC\_D4)
- J12 Pin 6 to LCD Pin 6 (FSMC\_D5)
- J12 Pin 7 to LCD Pin 7 (FSMC\_D6)
- J12 Pin 8 to LCD Pin 8 (FSMC\_D7)
- J12 Pin 9 to LCD Pin 9 (FSMC\_D8)
- J12 Pin 10 to LCD Pin 10 (FSMC\_D9)
- J12 Pin 11 to LCD Pin 11 (FSMC\_D10)
- J12 Pin 12 to LCD Pin 12 (FSMC\_D11)
- J12 Pin 13 to LCD Pin 13 (FSMC\_D12)
- J12 Pin 14 to LCD Pin 14 (FSMC\_D13)
- J12 Pin 15 to LCD Pin 15 (FSMC\_D14)
- J12 Pin 16 to LCD Pin 16 (FSMC\_D15)
- J12 Pin 17 to LCD Pin 17 (FSMC\_A0)
- J12 Pin 18 to LCD Pin 18 (FSMC\_A1)
- J12 Pin 19 to LCD Pin 19 (FSMC\_A2)
- J12 Pin 20 to LCD Pin 20 (FSMC\_A3)
- J12 Pin 21 to LCD Pin 21 (FSMC\_A4)
- J12 Pin 22 to LCD Pin 22 (FSMC\_A5)
- J12 Pin 23 to LCD Pin 23 (FSMC\_A6)
- J12 Pin 24 to LCD Pin 24 (FSMC\_A7)
- J12 Pin 25 to LCD Pin 25 (FSMC\_A8)
- J12 Pin 26 to LCD Pin 26 (FSMC\_A9)
- J12 Pin 27 to LCD Pin 27 (FSMC\_A10)
- J12 Pin 28 to LCD Pin 28 (FSMC\_A11)

At the bottom, a DC3.3V power source is connected to the LCD module pins. The connections are as follows:

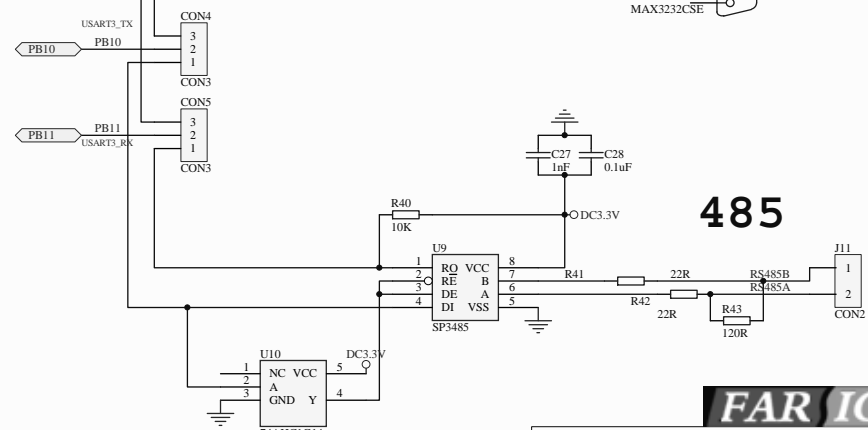
- DC3.3V to LCD Pin 19 (FSMC\_A0)
- DC3.3V to LCD Pin 20 (FSMC\_A1)
- GND to LCD Pin 21 (FSMC\_A2)

The LCD module is represented by a series of pins numbered 1 to 28. The connections are as follows:

- Pin 1: FSMC\_D0
- Pin 2: FSMC\_D1
- Pin 3: FSMC\_D0
- Pin 4: FSMC\_D1
- Pin 5: FSMC\_D2
- Pin 6: FSMC\_D3
- Pin 7: FSMC\_D4
- Pin 8: FSMC\_D5
- Pin 9: FSMC\_D6
- Pin 10: FSMC\_D7
- Pin 11: FSMC\_D8
- Pin 12: FSMC\_D9
- Pin 13: FSMC\_D10
- Pin 14: FSMC\_D11
- Pin 15: FSMC\_D12
- Pin 16: FSMC\_D13
- Pin 17: FSMC\_D14
- Pin 18: FSMC\_D15
- Pin 19: FSMC\_A0
- Pin 20: FSMC\_A1
- Pin 21: FSMC\_A2
- Pin 22: FSMC\_A3
- Pin 23: FSMC\_A4
- Pin 24: FSMC\_A5
- Pin 25: FSMC\_A6
- Pin 26: FSMC\_A7
- Pin 27: FSMC\_A8
- Pin 28: FSMC\_A9



串口2母口



485

**FAR IGH**

名称:	FS_STM32_USB_UART_CAN_485_NET		
设计:	FARSIGHT	版本:	V10.
日期:	20150109	网址:	dev.hqyj.com

**MP3 部分**

**MP3 模块引脚定义:**

MP3 模块	引脚	功能
PB4	30	SO
PB5	29	SI
PA5	28	SCLK
PB0	23	XCS
RESET	3	XRESET
PE2	8	DREQ
PB1	13	XDCS/BSYNC
XTAL1	18	XTAL1
XTAL0	17	XTAL0
VCO	15	VCO
GPIO2/DCLK	9	GPIO2/DCLK
GPIO3/SDATA	10	GPIO3/SDATA
GPIO0	33	GPIO0
GPIO1	34	GPIO1
LEFT	39	LEFT
RIGHT	42	RIGHT
GBUF	44	GBUF
RCAP	46	RCAP
AVDD	38	AVDD
AVDD	43	AVDD
AVDD	45	AVDD
AGND	47	AGND
AGND	41	AGND
AGND	40	AGND
AGND	37	AGND
RX	26	RX
RX	27	RX
NC	11	NC
NC	12	NC
NC	25	NC
NC	35	NC
NC	36	NC

**MP3 模块内部连接:**

- DC3.3V 通过 EC10 (10uF/16V) 和 C30 (100nF) 滤波。
- AC2.5V 通过 AC2.5V 滤波。
- XTAL1 和 XTAL0 通过 Y1 (2.288MHz) 和 C37 (15pF) 连接。
- VCO 通过 C38 (15pF) 和 R52 (470R) 连接。
- GPIO0 通过 D5 (LED) 和 R54 (10K) 连接。
- GPIO1 通过 R54 (10K) 连接。
- AVDD 通过 C44 (1uF) 连接。
- AGND 通过 C47 (10nF), C48 (10nF), C49 (10nF) 连接。
- SPKL 和 SPKR 通过 C47 (10nF), C48 (10nF), C49 (10nF) 连接。
- AUG1 通过 C47 (10nF), C48 (10nF), C49 (10nF) 连接。

**外部接口:**

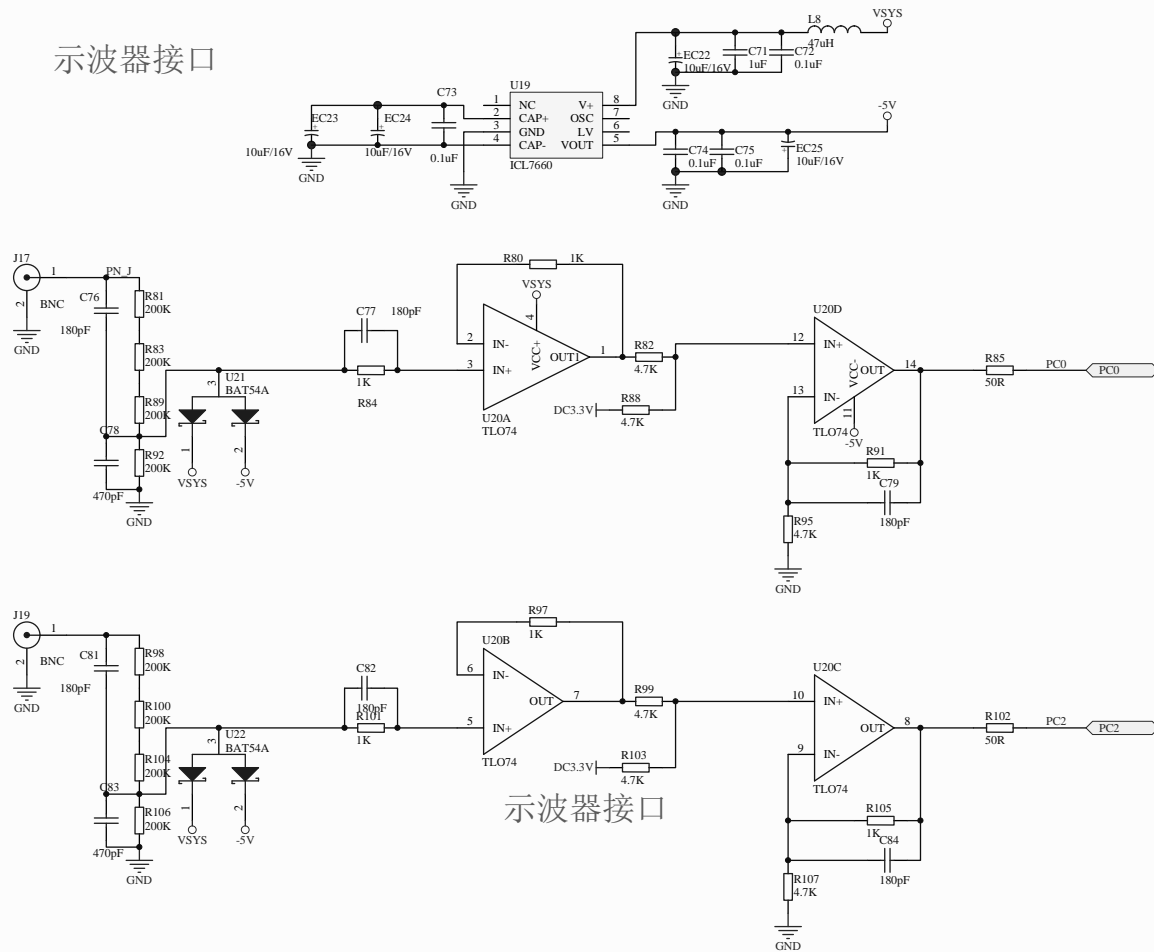
- CON6: OUTA+, OUTA-, CON2
- CON7: OUTB+, OUTB-, CON2
- CON8: SPKL, CON3
- CON9: SPKR, CON2

The image displays the PCB layout for the FS\_STM32\_MP3\_I2S module. The main board includes components such as DC3.3V regulators, capacitors (C21, C52, C90, C55, C56, C58, C59, C60, C61, C62, C64, C66, C67, C68), resistors (R63, R64, R76, R72, R73, R75), and connectors (J15, J16, J33, J34). The layout is divided into sections labeled 1 through 8. A detailed view of the speaker connection (J15) is shown, including the speaker (SPEAKER) and the connection to the MP3 module. A separate section for a radio receiver (收音机) is also shown, including its own components and connectors.

名称:	FS_STM32_MP3_I2S	
设计:	FARSIGHT	版本: V1.0
日期:	20150109	网址: dev.hqyj.com

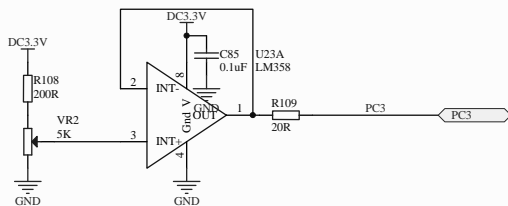
名称:	FS_STM32_MP3_I2S		
设计:	FARSIGHT	版本:	V1.0
日期:	20150109	网址:	dev.hqyj.com

## 示波器接口

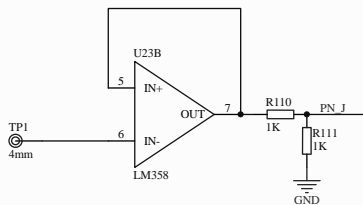


## 示波器接口

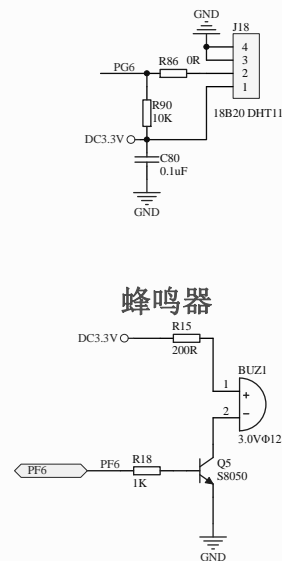
## ADC接口



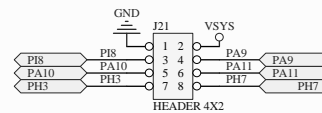
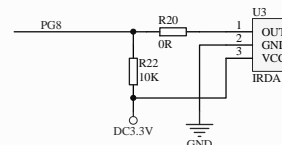
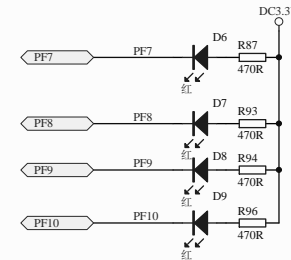
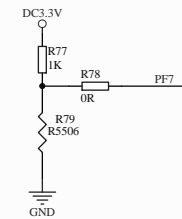
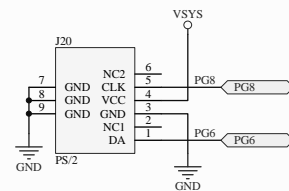
## 万用表接口



## 蜂鸣器



## 鼠标



**FAR IGH**

名称:	FS_STM32_ADC_LED_LIGHT_TEM_VOICE_Idra		
设计:	FARSIGHTR	版本:	V1.0
日期:	20150109	网址:	dev.hqyj.com

