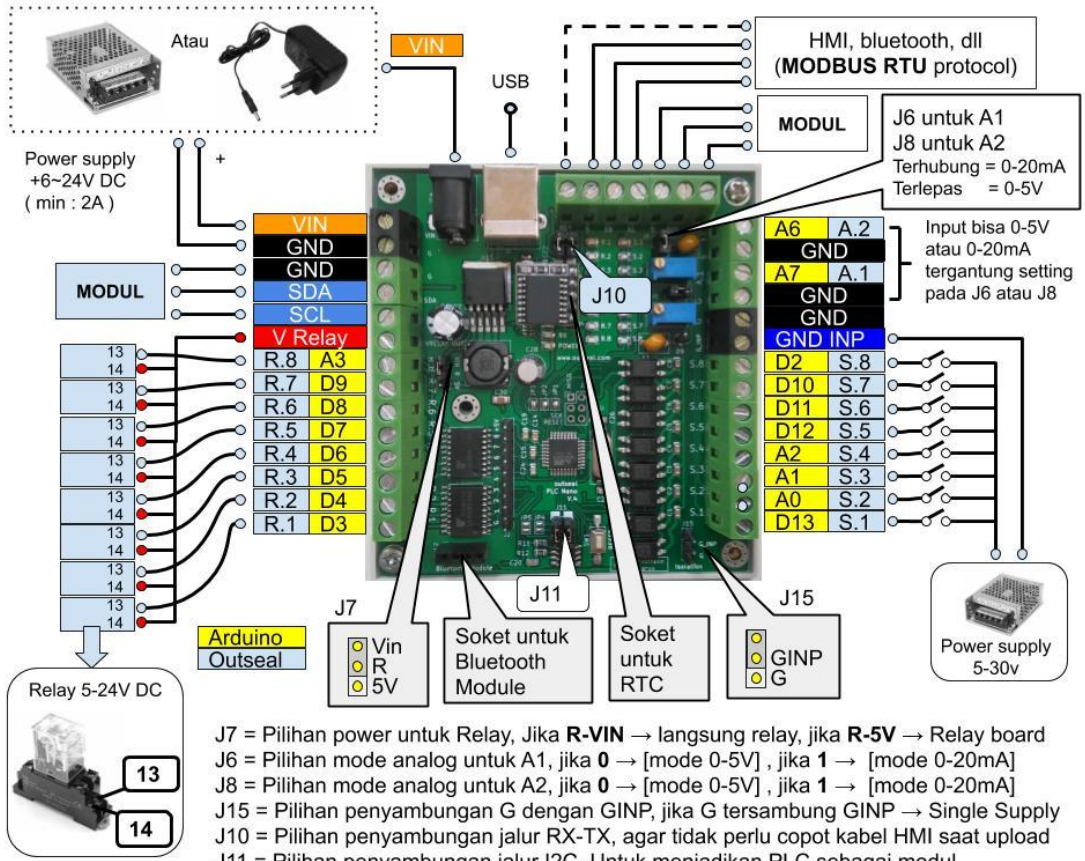
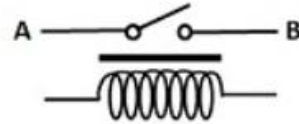


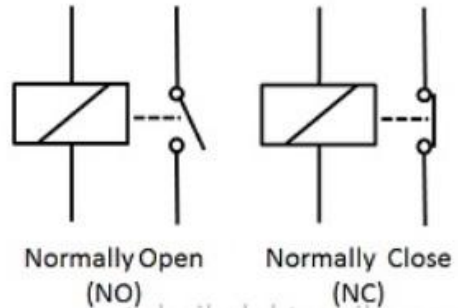
LAMPIRAN




Simbol Relay



atau



SONGLE RELAY

	<p>RELAY ISO9002</p>	<p>SRD</p>
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1. MAIN FEATURES

- Switching capacity available by 10A in spite of small size design for highdensity P.C. board mounting technique.
- UL,CUL,TUV recognized.
- Selection of plastic material for high temperature and better chemical solution performance.
- Sealed types available.
- Simple relay magnetic circuit to meet low cost of mass production.

APPLICATIONS

- Domestic appliance, office machine, audio, equipment, automobile, etc.
(Remote control TV receiver, monitor display, audio equipment high rushing current use application.)

ORDERING INFORMATION

SRD	XX VDC	S	L	C
Model of relay	Nominal coil voltage	Structure	Coil sensitivity	Contact form
SRD	03 05 06 09 12 24 48 VDC	S:Sealed type	L:0.36W	A:1 form A
		F:Flux free type	D:0.45W	B:1 form B C:1 form C

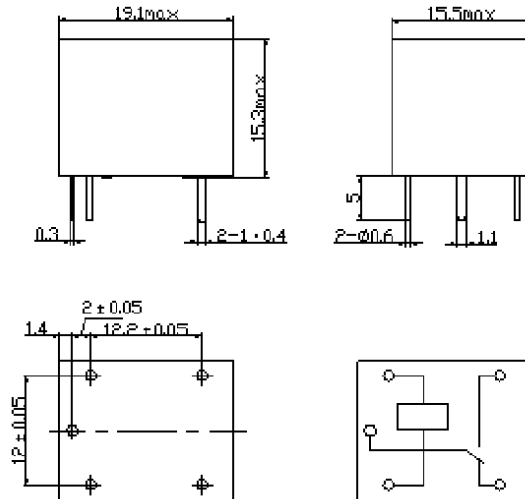
2. RATING

CCC	FILE NUMBER:CH0052885-2000	7A/240VDC
CCC	FILE NUMBER:CH0036746-99	10A/250VDC
UL /CUL	FILE NUMBER: E167996	10A/125VAC 28VDC
TUV	FILE NUMBER: R9933789	10A/240VAC 28VDC

5. DIMENSION(unit:mm)

DRILLING(unit: mm)

WIRING DIAGRAM



COIL DATA CHART (AT20°C)

Coil Sensitivity	Coil Voltage Code	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) ±10%	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max-Allowable Voltage (VDC)
SRD (High Sensitivity)	03	03	120	25	abt. 0.36W	75%Max.	10% Min.	120%
	05	05	71.4	70				
	06	06	60	100				
	09	09	40	225				
	12	12	30	400				
	24	24	15	1600				
	48	48	7.5	6400				
SRD (Standard)	03	03	150	20	abt. 0.45W	75% Max.	10% Min.	110%
	05	05	89.3	55				
	06	06	75	80				
	09	09	50	180				
	12	12	37.5	320				
	24	24	18.7	1280				
	48	48	10	4500	abt. 0.51W			

7. CONTACT RATING

Item	Type	SRD	
		FORM C	FORM A
Contact Capacity Resistive Load ($\cos\Phi=1$)		7A 28VDC 10A 125VAC 7A 240VAC	10A 28VDC 10A 240VAC
Inductive Load ($\cos\Phi=0.4$ L/R=7msec)		3A 120VAC 3A 28VDC	5A 120VAC 5A 28VDC
Max. Allowable Voltage		250VAC/110VDC	250VAC/110VDC
Max. Allowable Power Force		800VAC/240W	1200VA/300W
Contact Material		AgCdO	AgCdO

8. PERFORMANCE (at initial value)

Item	Type	SRD
Contact Resistance		100m Ω Max.
Operation Time		10msec Max.
Release Time		5msec Max.
Dielectric Strength		
Between coil & contact		1500VAC 50/60HZ (1 minute)
Between contacts		1000VAC 50/60HZ (1 minute)
Insulation Resistance		100 M Ω Min. (500VDC)
Max. ON/OFF Switching		
Mechanically		300 operation/min
Electrically		30 operation/min
Ambient Temperature		-25°C to +70°C
Operating Humidity		45 to 85% RH
Vibration		
Endurance		10 to 55Hz Double Amplitude 1.5mm
Error Operation		10 to 55Hz Double Amplitude 1.5mm
Shock		
Endurance		100G Min.
Error Operation		10G Min.
Life Expectancy		
Mechanically		10 ⁷ operations. Min. (no load)
Electrically		10 ⁵ operations. Min. (at rated coil voltage)
Weight		abt. 10grs.

Application

The breadth of the BCH8 contactor range satisfies the most application cases. BCH8 contactors can be combined with auxiliary control, protection and indication functions. The contactors are produced according to IEC61095(GB/T17885).

BCH8 contactors can be used to remote control applications in alternative networks:

- lighting, heating, ventilation, roller blinds, sanitary hot water
- mechanical ventilation systems, etc

Application

BCH8 contactors are available in two versions:

- Contactors without manually-operated
- Contactors with manually-operated.

BCH8-16 2P



BCH8-25 4P



BCH8-63 2P



BCH8-63 4P



BCH8-100 2P



BCH8-100 4P
4P



BCH8-25M 4P

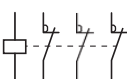


BCH8-63M 2P

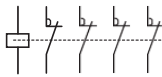


BCH8-63M

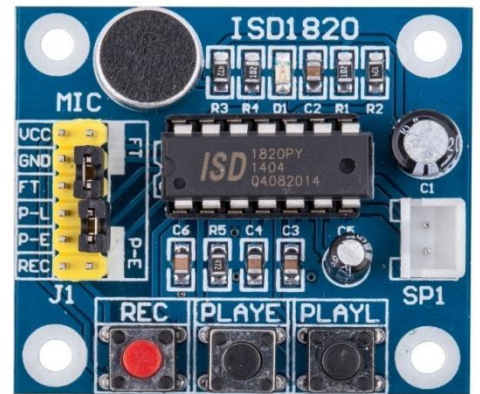


Type	Rating(In)		Control voltage (V AC)(50/60Hz)	Contact	Width in 9 mm modules
	AC-7a	AC-7b			
1P _{A1 A1 R1} A2 _{A2 R2}	16A	6A	24	1NO	2
	20A	7A	110		
	25A	9A	230	1NC	
2P					
_{A1 R1 R3} _{A2 R2 R4}	16A	6A	24	2NO	2
	20A	7A	110	1NO+1NC	
	25A	9A	230	2NC	
_{A1 R1} _{A2 R2}	32A	12A	24	2NO	4
	40A	18A	110	1NO+1NC	
	63A	25A	230	2NC	
_{A1} _{A2}	100A	-	24		6
			110	2NO	
			230		
3P					
_{A1} _{A2}	16A	6A	24	3NO	4
	20A	7A	110		
	25A	9A	230	3NC	
_{A1 R1 R3 R5}  _{A2 R2 R4 R6}	32A	12A	24	3NO	6
	40A	18A	110		
	63A	25A	230	3NC	

4P					
A1	16A	6A			
			24	4NO	
A2	20A	7A	110	4NC	4
	25A			2NO+2NC	
A1 R1 R3 R5 R7		9A	230	3NO+1NC	
A2 R2 R4 R6 R8	32A	12A	24	4NO	
	40A	18A		4NC	
A1 R1 R3			110	2NO+2NC	6
A2 R2 R4	63A	25A	230	3NO+1NC	
A1 R1					
A2 R2	100A	-	24		
			110	4NO	12
			230		



ISD1820 Voice Recorder User Guide



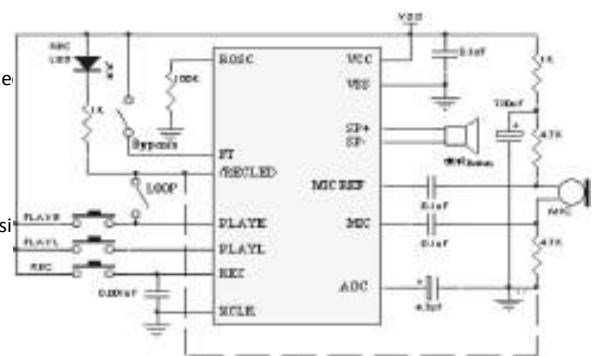
1 Introduction

Voice Record Module is base on ISD1820, which a multiple- message record/playback device.

It can offers true single- chip voice recording, no- volatile storage, and playback capability for 8 to 20 seconds. The sample is 3.2k and the total 20s for the Recorder. This module use is very easy which you could direct control by push button on board or by Microcontroller such as Arduino, STM32, ChipKit etc. Frome these, you can easy control record , playback and repeat and so on.

2 Feature

- Push-button interface, playback can be edge or level activate
- Automatic power-dwon mode
- On-chip 8Ω speakerdriver
- Signal 3V Power Supply
- Can be controlled both manually or by MCU
- Sample rate and duration changable by replacing a single resi
- Record up to 20 seconds of audio
- Dimensions: 38 x 42 mm

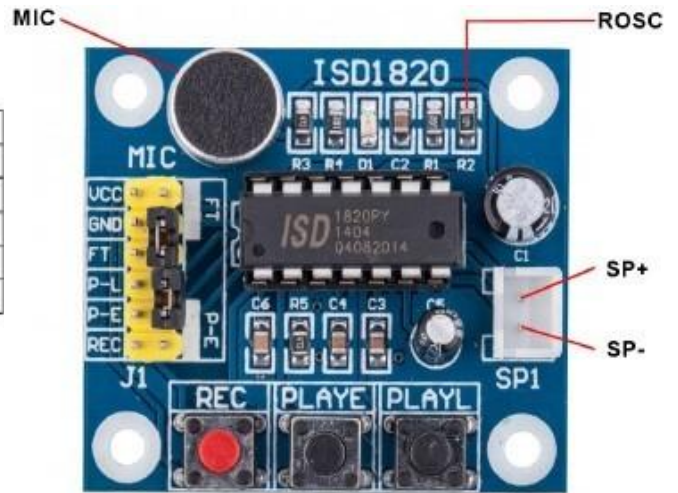


3 Application

Typical schematic list as follows.

If you want change record duration, an external resistor is necessary to select the record duration and sampling frequency, which can range from 8 – 20 seconds (4- 12kHz sampling frequency). The Voice Record Module of our provide default connect 100k resistor by short cap.

ROSC	Duration	Sample Rate	Bandwidth
80K Ω	8 secs	8. 0KHz	3. 4KHz
100K Ω	10 secs	6. 4KHz	2. 6KHz
120K Ω	12 secs	5. 3KHz	2. 3KHz
160K Ω	16 secs	4. 0KHz	1. 7KHz
200K Ω	20 secs	3. 2KHz	1. 3KHz



So the default record duration is 10s.

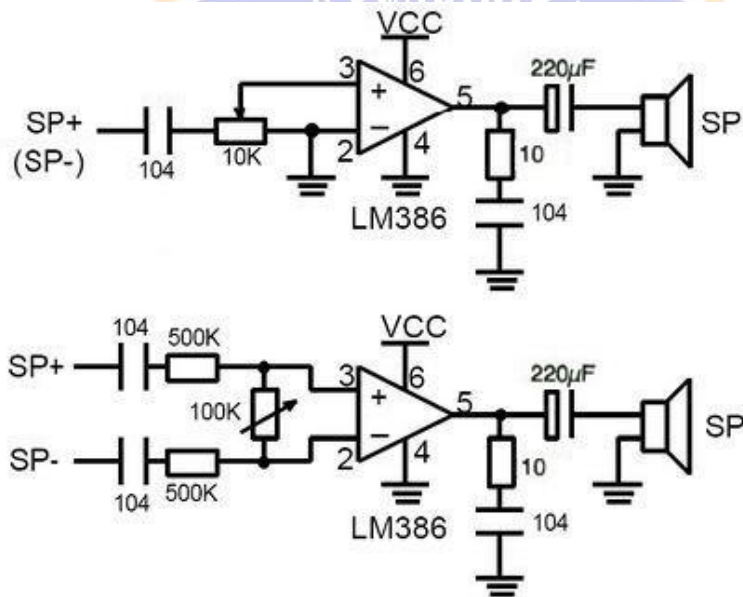
1. **VCC**– 3.3V powersupply
2. **GND**– Powerground
3. **REC**–The REC input is an active-HIGH record signal. The module starts recording whenever REC is HIGH. This pin must remain HIGH for the duration of the recording. REC takes precedence over either playback (PLAYL or PLAYE) signal.
4. **PLAYE**–Playback, Edge-activated: When a HIGH-going transition is detected on continues until an End-of-Message (EOM) marker is encountered or the end of the memory space is reached.
5. **PLAYL**–Playback, Level-activated, when this input pin level transits for LOW to HIGH, a playback cycle is initiated.
6. **Speaker Outputs**– The SP+ and SP- pins provide direct drive for loudspeakers with impedances as low as 8 Ω .
7. **MIC**– Microphone Input, the microphone input transfers its signals to the on-chip preamplifier.
8. **FT**– Feed Through: This mode enable the Microphone to drive the speaker directly.
9. **P-E**– Play the records endless!

Record Operate Guide

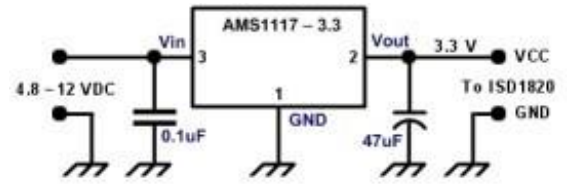
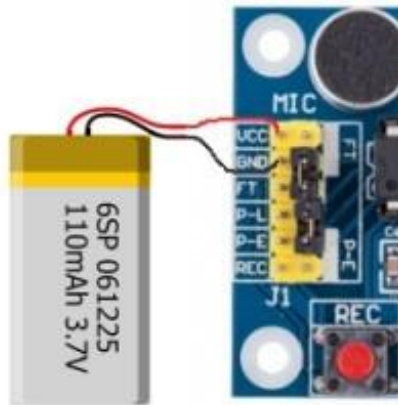
1. Push REC button then the RECLEd will light and keep push until record end.
2. Release the REC button.
3. Select Playback mode: PLAYE, just need push onetime, and will playback all of the record or power down; PLAYL, you need always push this button until you want to stop playback record or end; When short P-E jumper the record will playback time a time until jumper off or power down.
4. FT mode, when short FT jumper, that means all of you speak to MIC will direct playback to Speaker.

4 Power Amplifier Circuit

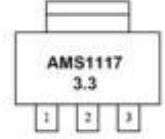
If you want extern power amplifier circuit to Speakers, you can use LM386, D2283, D2322, TA7368, MC34119 etc amplifier IC. Note, SP+ or SP- is you do not want to use, must vacant, do not connect to GND. Used LM386 power amplifier circuit as below:



5 Power supply



SOT-223 Top View



- 1- Ground
- 2- V_{out}
- 3- V_{in}