

VOICE RECORD/PLAYBACK MODULE 8-MESSAGES USING ISD1932 OR ISD1964

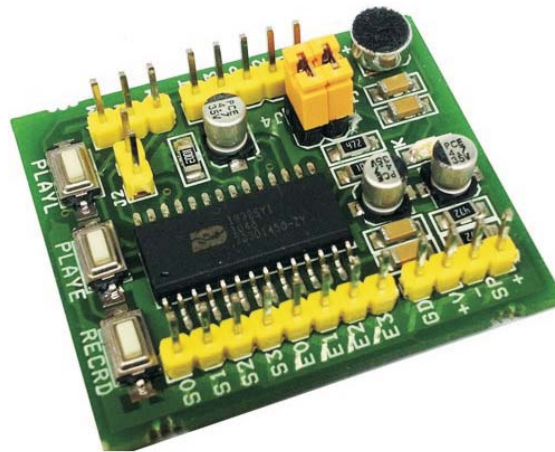
This Module has been designed around Nuvoton's ISD1900 ChipCorder® is the newest single-chip multiple-message record/playback series with dual operating modes (address trigger and direct trigger) and wider operating voltage ranging from 2.4V to 5.5V. The sampling frequency can be selected from 4 to 12 kHz via an external resistor, which also determines the duration from 10.6 to 32 seconds. These ICs are designed mostly for standalone applications, and of course, it can be used in conjunction with a microcontroller, if necessary.

The two operating modes are address trigger and direct trigger. While in address trigger mode, both record and playback operations are manipulated according to the start address and end address specified through the start address and end address pins. However, in direct trigger mode, the device can configure the memory up to as many as eight equal messages, pending upon the fixed message configuration settings. With the record or playback feature being pre-selected, each message can be randomly accessed via its message control pin.

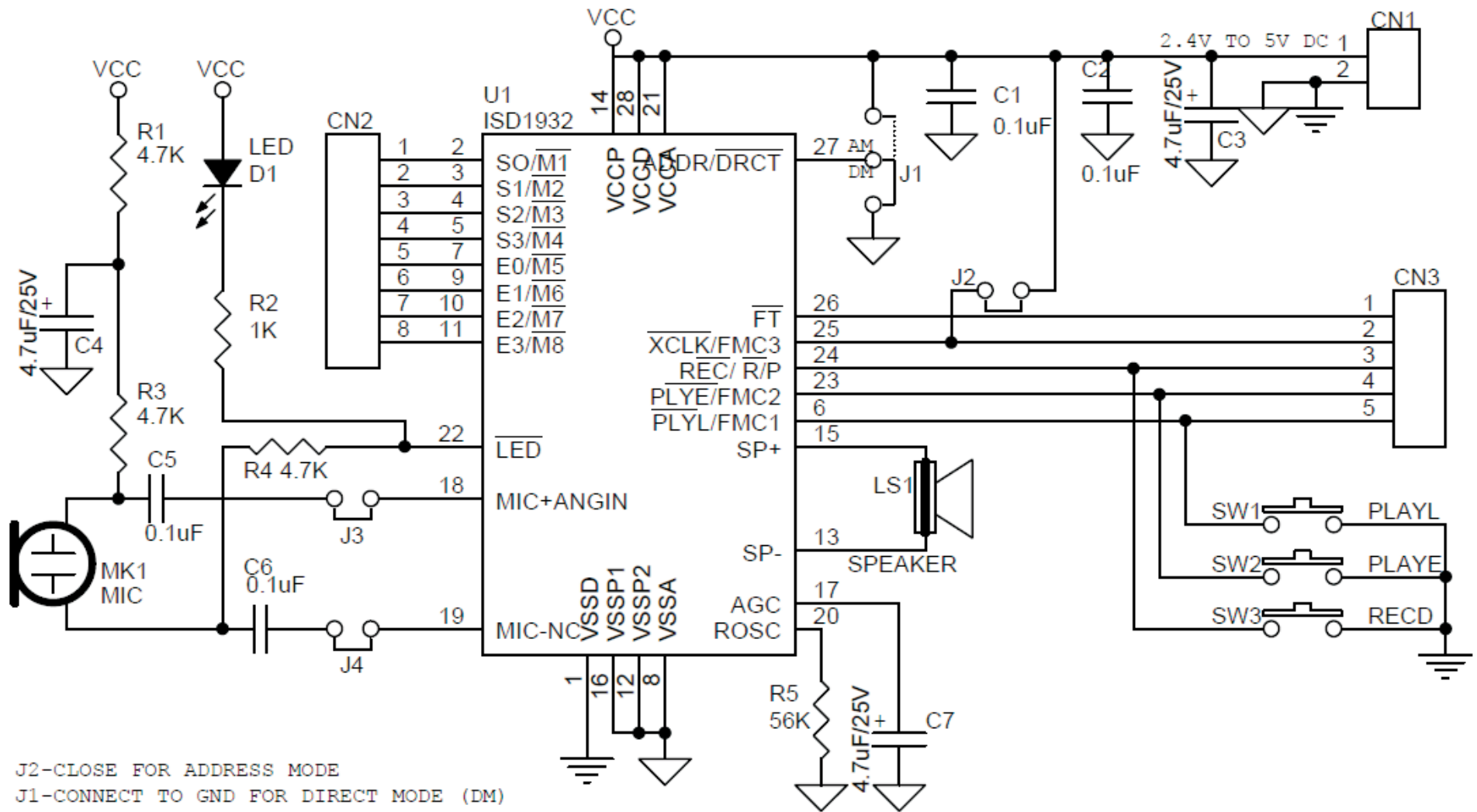
The device has a selectable differential microphone input with AGC feature or single-ended analog input, AnaIn, under feed-through mode. Its differential Class D PWM speaker driver can directly drive a typical speaker or buzzer.

Features

- Wider operating voltage from 2.4 to 5.5V
- Higher sampling frequency from 4kHz to 12kHz
- FT: converts MIC+ to ANAIN & feeds it to the speakers
- R/P: record/playback switch
- REC: level or edge recording
- PLAYE: edge-trigger, toggle on/off
- PLAYL: level playback or looping playback
- LED: LED output for recording
- NORM (Address Trigger) : variable message duration
- MODE: (Direct Trigger) : fixed message duration



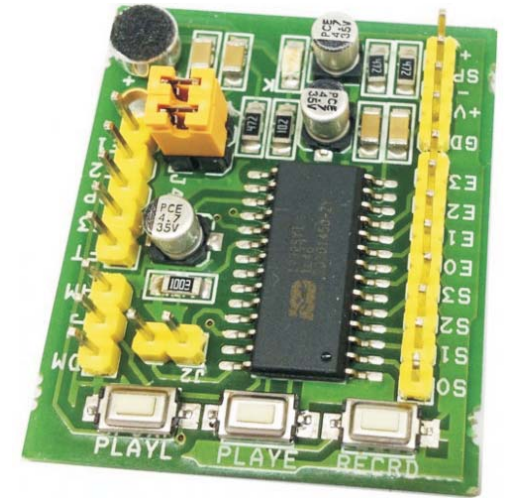
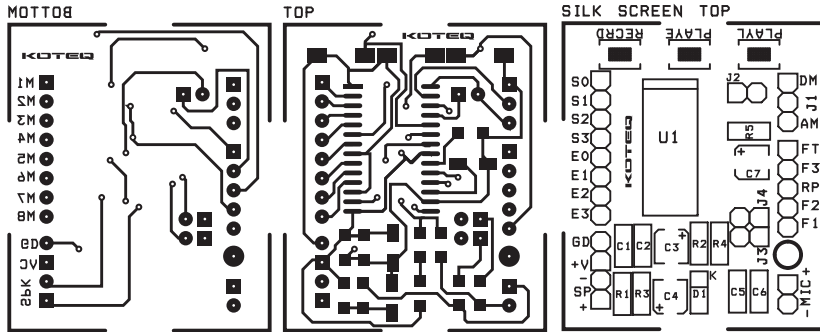
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J2-CLOSE FOR ADDRESS MODE
 J1-CONNECT TO GND FOR DIRECT MODE (DM)
 J1-CONNECT TO VCC FOR ADDRESS MODE (AM)
 J3 & J4 TO DESCONNECT THE ON BOARD MICROPHONE AND CONNECT EXTERNAL AUDIO SOURCE



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: Number of fixed message arrangement with respect to FMC1, FMC2 & FMC3.

FMC3	FMC2	FMC1	# of fixed messages ^[1]
0	0	0	1
0	0	1	2
0	1	0	3
0	1	1	4
1	0	0	5
1	0	1	6
1	1	0	7
1	1	1	8

FMC1,FMC2,FMC3 LOGIC CONFIGURATION TABLE FOR 1 TO 8 MESSAGES

BOM			
SR.	QNTY	REF	DESC
1	1	CN1	2 PIN HEADER
2	1	CN2	8 PIN HEADER
3	1	CN3	5 PIN HEADER
4	4	C1,C2,C5,C6	0.1uF
5	3	C3,C4,C7	4.7uF/25V
6	1	D1	LED SMD 1206
7	1	J1	3 PIN JUMPER & COLSURE
8	3	J2,J3,J4	2 PIN JUMPER & CLOSURE
9	1	LS1	2 PIN HEADER
10	1	MK1	CONDENSOR MICROPHONE
11	7	R1,R3,R4,	4.7K SMD 1206
12	1	R2	1K SMD1206
13	1	R5	56K SMD 1206
14	3	SW1,SW2,SW3	TACT SWITCH SMD
15	1	U1	ISD1932 SMD SO

