aFRC616M4F-E2.1 is 2 chip solution (aFRC616 controller + 4M flash) recording module.
Support maximum 8 messages recorded by microphone in or line in.

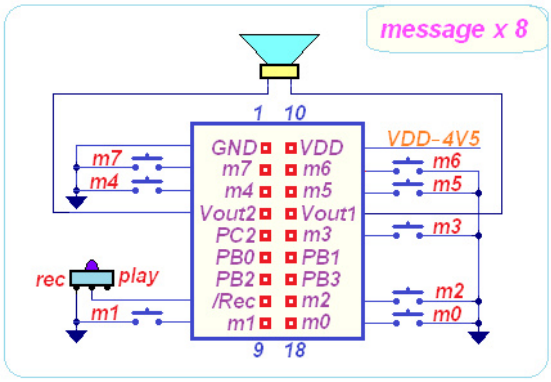
aFRC616M4F-E2.1 Recording Voice Module				
	1-fixed message	**2-fixed message**	**4-fixed message**	**8-fixed message**
Duration (sec./message)	**42”**	21”	10.6”	5.3”
Key mode	m0	m0,m1	m0,m1,m2,m3	m0,m1,m2,m3 m4,m5,m6,m7
Coding	8 bit , 12K sample rate			
Code no.	aFRC616M4 _ **E2.1**			
Operating Voltage	3.0V ~ 6.5V			

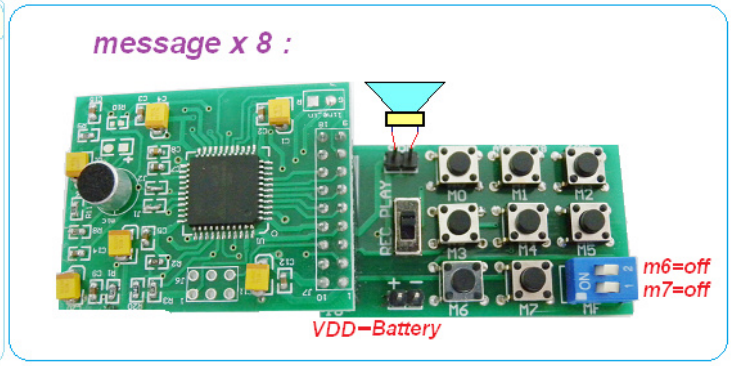
- **RECORDING VOICE MESSAGE :**

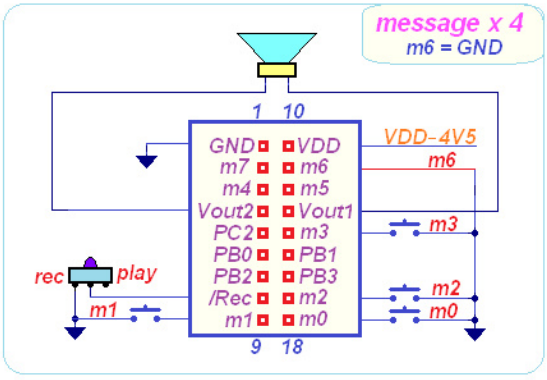
a. SLIDE SW. to [REC]
b. Start Record : [**Press and hold**] tact sw. (m0~m7) hear [BEEP] sound with LED on to start Recording message through Microphone
c. Stop Record : [**Release**] tact sw., hear [BEEP BEEP] sound with LED off to complete REC.

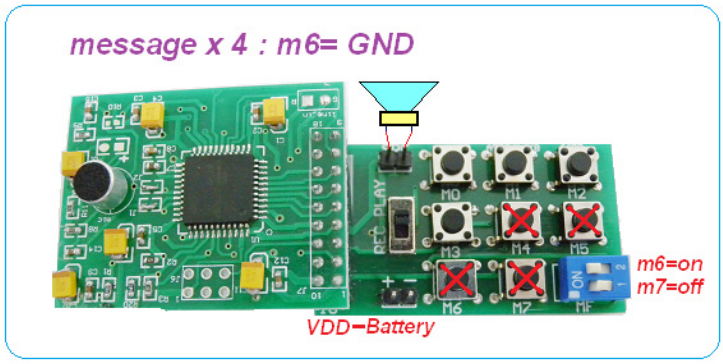
- **PLAY VOICE MESSAGE :**

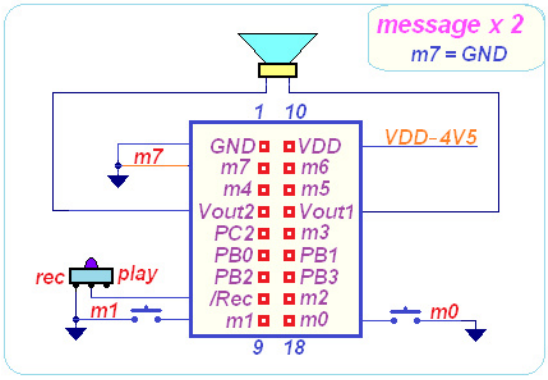
a. SLIDE SW. to [PLAY]
b. Start play : [**Press and leave**] tact sw. (m0~m7) to playing voice with LED on.
c. Stop play : After play finished, LED will off.

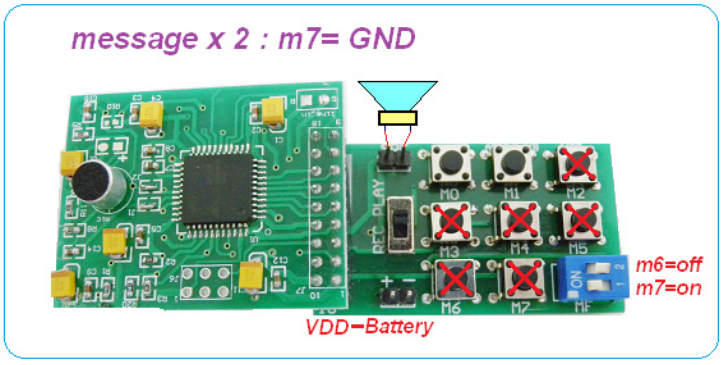

message x 8
1 10
GND VDD
m7 m6
m4 m5
Vout2 Vout1
PC2 m3
PB0 PB1
PB2 PB3
/Rec m2
m1 m0
9 18
VDD-4V5
m6
m5
m3
m2
m0
m7
m4
rec
play
m1

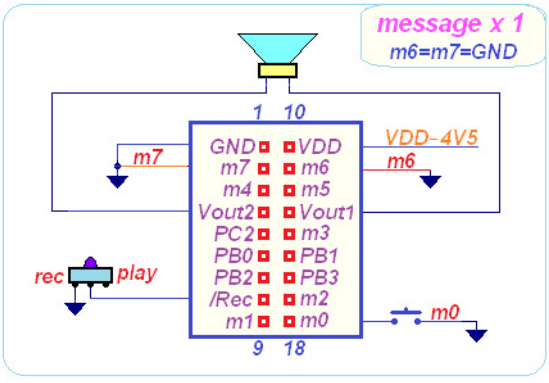

message x 8 :
m6=off
m7=off
VDD-Battery

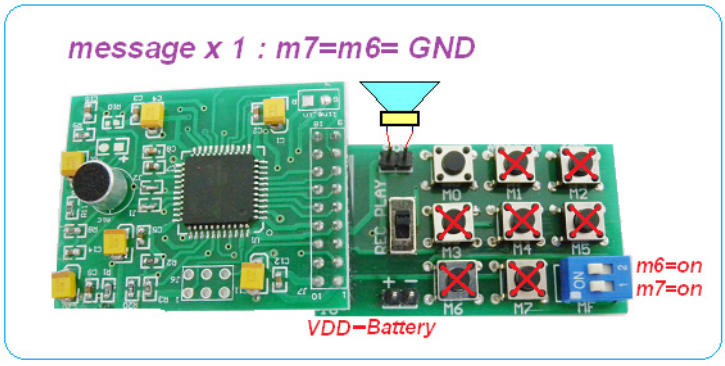

message x 4
m6 = GND
1 10
GND VDD
m7 m6
m4 m5
Vout2 Vout1
PC2 m3
PB0 PB1
PB2 PB3
/Rec m2
m1 m0
9 18
VDD-4V5
m6
m3
m2
m0
rec
play
m1

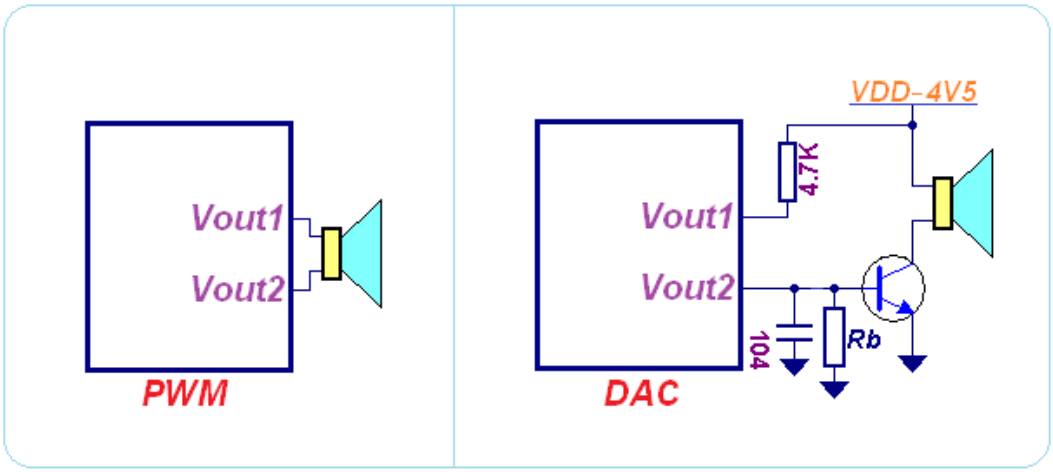

message x 4 : m6= GND
m6=on
m7=off
VDD-Battery

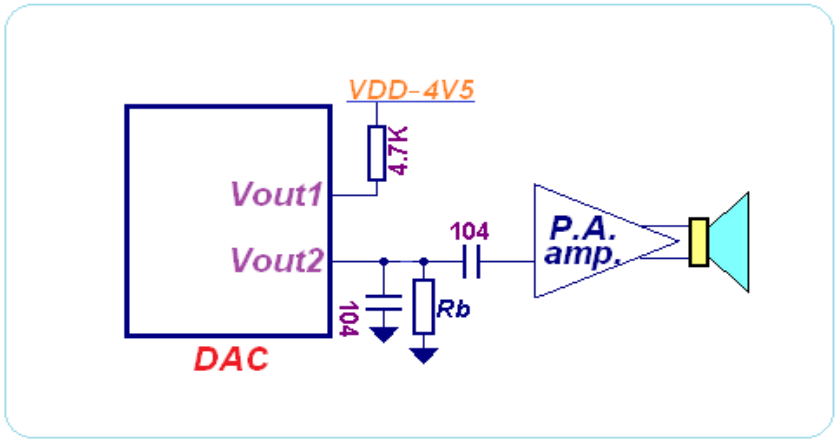

message x 2
m7 = GND
1 10
GND VDD
m7 m6
m4 m5
Vout2 Vout1
PC2 m3
PB0 PB1
PB2 PB3
/Rec m2
m1 m0
9 18
VDD-4V5
m0
m7
rec
play
m1

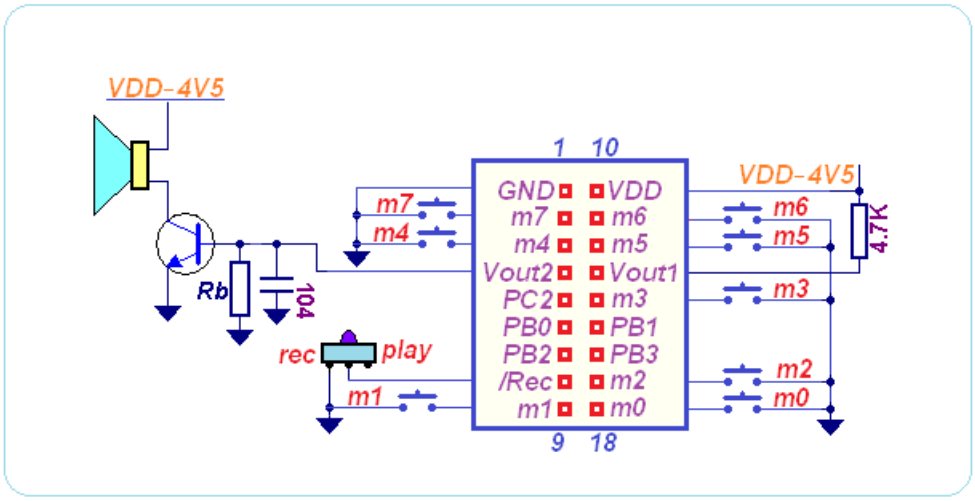

message x 2 : m7= GND
m6=off
m7=on
VDD-Battery


message x 1
m6=m7=GND
1 10
GND VDD
m7 m6
m4 m5
Vout2 Vout1
PC2 m3
PB0 PB1
PB2 PB3
/Rec m2
m1 m0
9 18
VDD-4V5
m6
m0
m7
rec
play

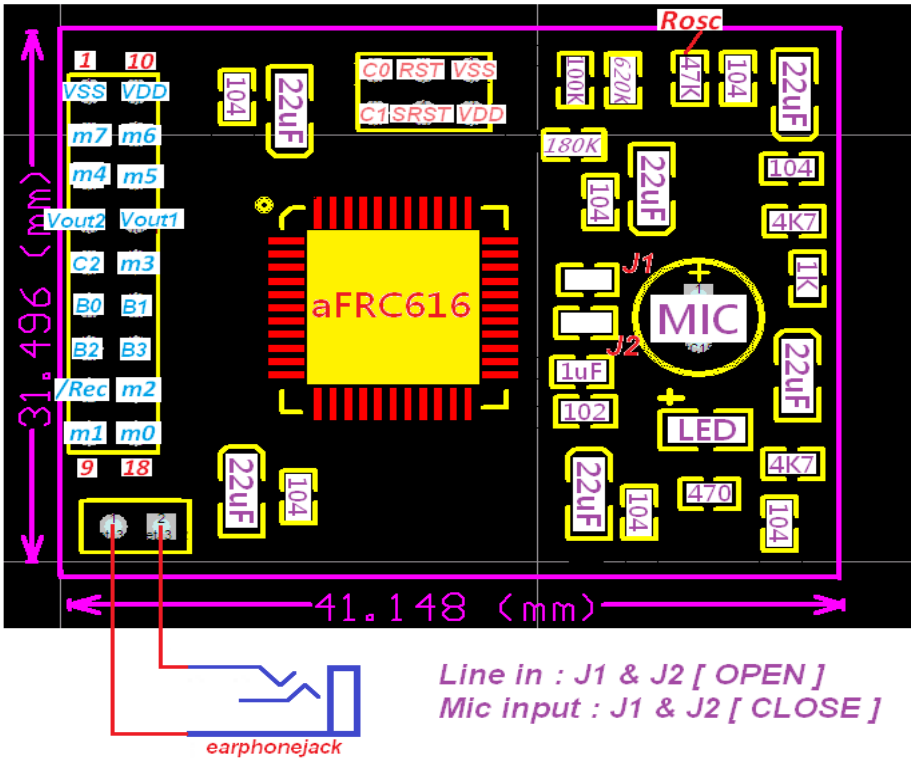

message x 1 : m7=m6= GND
m6=on
m7=on
VDD-Battery


Vout1
Vout2
PWM
VDD-4V5
4.7K
Vout1
Vout2
104
Rb
DAC

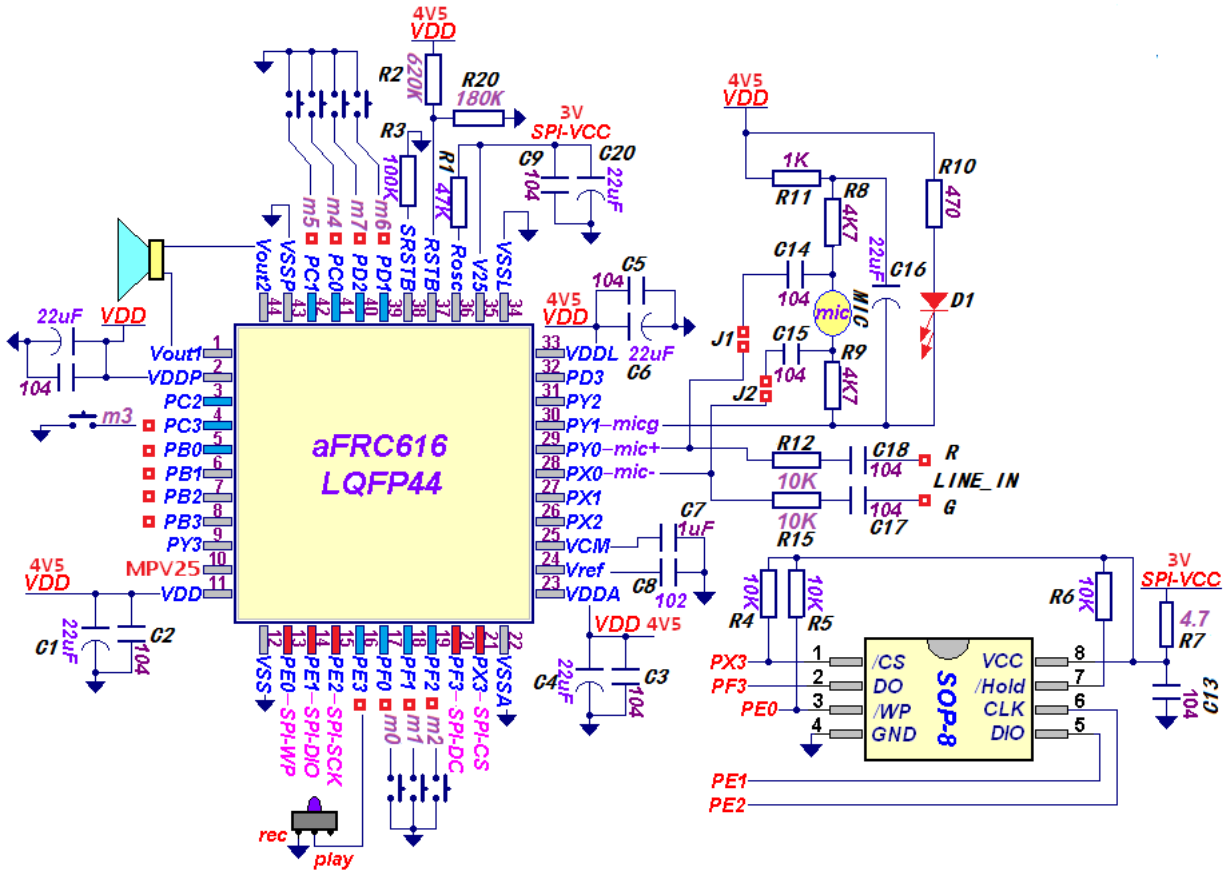

VDD-4V5
4.7K
Vout1
Vout2
104
104
Rb
DAC
P.A.
amp.


VDD-4V5
Rb
104
m7
m4
rec
play
m1
1
10
GND
m7
m4
Vout2
PC2
PB0
PB2
/Rec
m1
VDD
m6
m5
Vout1
m3
PB1
PB3
m2
m0
9
18
VDD-4V5
m6
m5
4.7K
m3
m2
m0

- **LINE IN & Adjust Rosc :**



APPLICATION CIRCUIT :



Oscillator Resistance Table					
Resistance	**Sampling Frequency**	**1-fixed message**	**2-fixed message**	**4-fixed message**	**8-fixed message**
189K	6K	85 sec	42 sec	21 sec	10.6 sec
147K	7K	73 sec	36 sec	18 sec	9 sec
115K	8K	64 sec	32 sec	16 sec	8 sec
95K	9K	56 sec	28 sec	14 sec	7. sec
76K	10K	51 sec	25 sec	12 sec	6 sec
60K	11K	46sec	23 sec	11 sec	5.8 sec
47K	**12K**	**42 sec**	**21 sec**	**10.6 sec**	**5.3 sec**

The Rosc default 47K ohm