

## □ Description

MC8080 is a 80?PWM or**DAC** voice output with high quality speech ,input pin and 8 I/O pinsimple speech.

## □ Functions

- z MAX voice file : 700
- z MAX Groups : 64
- z MAX Step : 700
- z Signal step mute length 0.64 s ( 6k sample rate )
- z Operating Voltage range: 2.4V ~ 3.6V
- z Total Voice Duration : 80?(480K Samples)
- z Input pin : 4
- z I/O pin : 8
- z Voice output : PWM and DAC(PWM2)
- z Sequential Key : TG1 -> 32 Groups.  
                          TG2 -> 21 Groups.  
                          TG3~TG12-> 1 Group
- z Debounce time : 50 us or 10 ms
- z On/Off function : **only** for TG1 & TG2
- z Trigger mode (for all Input pins) :
  - A. Edge/Level
  - B. Hold/Unhold
  - C. Retrigger/Irretrigger
  
- z **Output status** (for each Output pin) :
  - A. Stand by Status.
  - B. Busy Low Active.
  - C. Busy High Active.
  - D. LED Flash at 6 Hz.
  - E. LED Flash at 3 Hz.

z **Play rate level:**

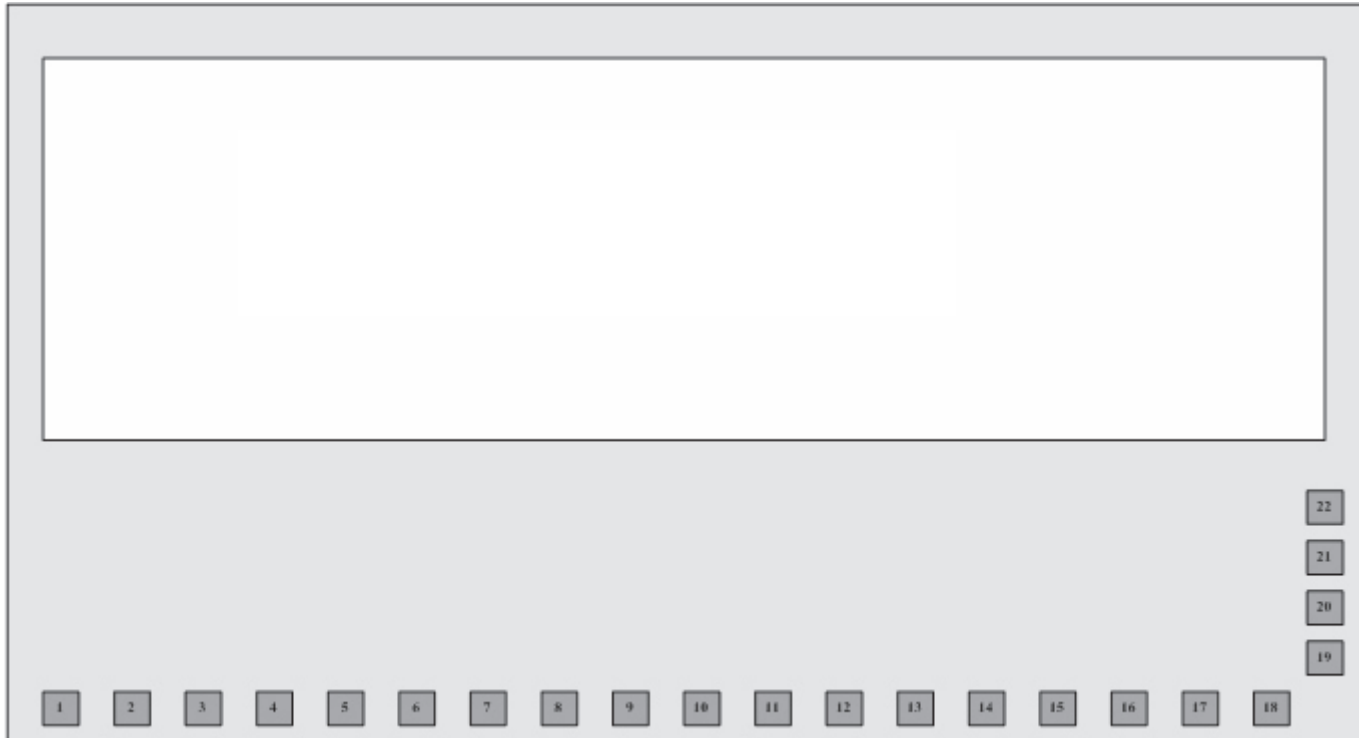
Sk080 can provide different play rate in one code as follow

Play rate(K)	Play rate(K)
3	6
3.2	6.4
3.31	6.85
3.42	7.38
3.55	8
3.69	8.72
3.84	9.6
4	10.66
4.17	12
4.36	13.71
4.57	16
4.8	19.2
5.05	24
5.33	
5.64	

□ **Sk080 Pad Location**

CHIP SIZE: 0( 0) (1910, 1890)μM

z The IC substrate should be connect to vss



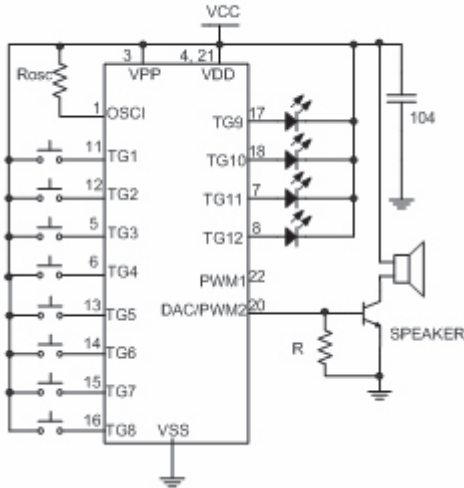
NO	PAD NAME	X	Y	NO	PAD NAME	X	Y
1	OSCI	-886	-878	12	TG2	62	-878
2	RSTN	-800	-878	13	TG5	148	-878
3	VPP	-714	-878	14	TG6	234	-878
4	VDD	-628	-878	15	TG7	320	-878
5	TG3	-542	-878	16	TG8	407	-878
6	TG4	-455	-878	17	TG9	493	-878
7	TG11	-369	-878	18	TG10	579	-878
8	TG12	-283	-878	19	VSS_P	888	-757
9	GND	-197	-878	20	PWM1	888	-671
10	TEST	-111	-878	21	VDD_P	888	-585
11	TG1	-24	-878	22	PWM2	888	-499

## □ Sk080 DC character

Item	Symbol	Min	Typ	Max	Unit	Condition
Operating voltage	VDD	2.4	3.0	3.6	V	
Standby current	I <sub>sb</sub>		1	5	uA	VDD=3V, no load
Operating current	I <sub>op</sub>		600		uA	VDD=3V, no load
Drive current of O	I <sub>od</sub>		5		mA	VDD=3V
Sink current of O	I <sub>os</sub>		10		mA	VDD=3V
Drive current of PWM	I <sub>od</sub>		200		mA	VDD=3V, VOUT=1.5V
Sink current of PWM	I <sub>os</sub>		200		mA	VDD=3V, VOUT=1.5V

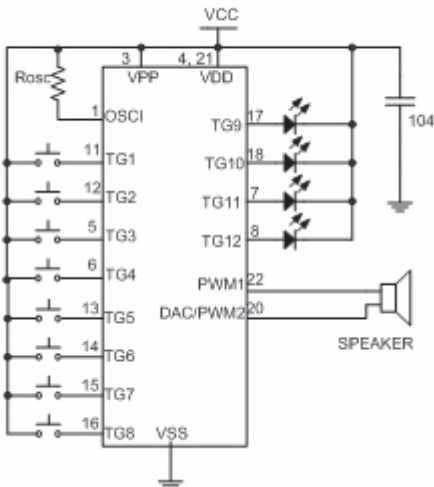
## □ Sk080 Application Circuit

### DAC APPLICATION



- Z System Power 2.4~3.6V
- Z DAC Output, Connected with 8050 & Resistor driving Speaker

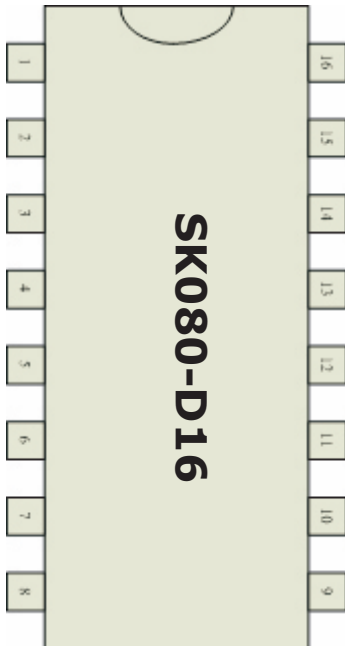
### PWM APPLICATION



- Z System Power 2.4~3.6V
- Z PWM1 & PWM2 directly drive Speaker

## □ Sk080 Package Information

### SK080-D16



PIN	NAME
1	TEST
2	TG1
3	TG2
4	VSS_P
5	PWM
6	VDD_P
7	PWM
8	GND
9	TG3
10	VDD
11	RST_N
12	OSCI
13	VPP
14	TG4
15	TG11
16	TG12

## □ Writer Mapping Description

Writer Pin: **RSTN, VDD, VPP, TG3, TG4, TG11, TG12, GND, TEST**

Write Board Revised from 2M Write Board --- Pin Assignment Reference

OTP Writer Power Board Pin Mapping Table			
DIP 48	PAD Name	SK080-D16	
10-RSTN	2-RSTN	11-RSTNN	
11-GND	9-VSS	8-VSS	
12-SCK	6-TG4	14-TG4	
13-CS	5-TG3	9-TG3	
14-VCC	4-VDD	10-VDD	
36-TEST	10-TEST	1-TEST	
37-VPP	3-VPP	13-VPP	
38-DI01	7-TG11	15-TG111	
39-DI02	8-TG12	16-TG12	

## □ Writer Board Slot Location

