



16首16和弦高端门铃音乐芯片DH6206

—— 选曲采用串行数据通讯功能

FEATURES 功能叙述:

一、 曲目

16 首和弦门铃声曲目:

- 1.叮咚、叮咚 2. 致爱丽丝 3. 西敏寺钟声 4. 梁祝 5. 小天鹅 6. 红河谷 7. 铁达尼克号 8. 土耳其进行曲 9. 小步舞曲 10. 恭喜你 11. 威廉尔逊序曲 12. 爱的罗曼史 13. 回忆 14. 小美人鱼 15. 绿袖子 16. 罗密欧与朱丽叶

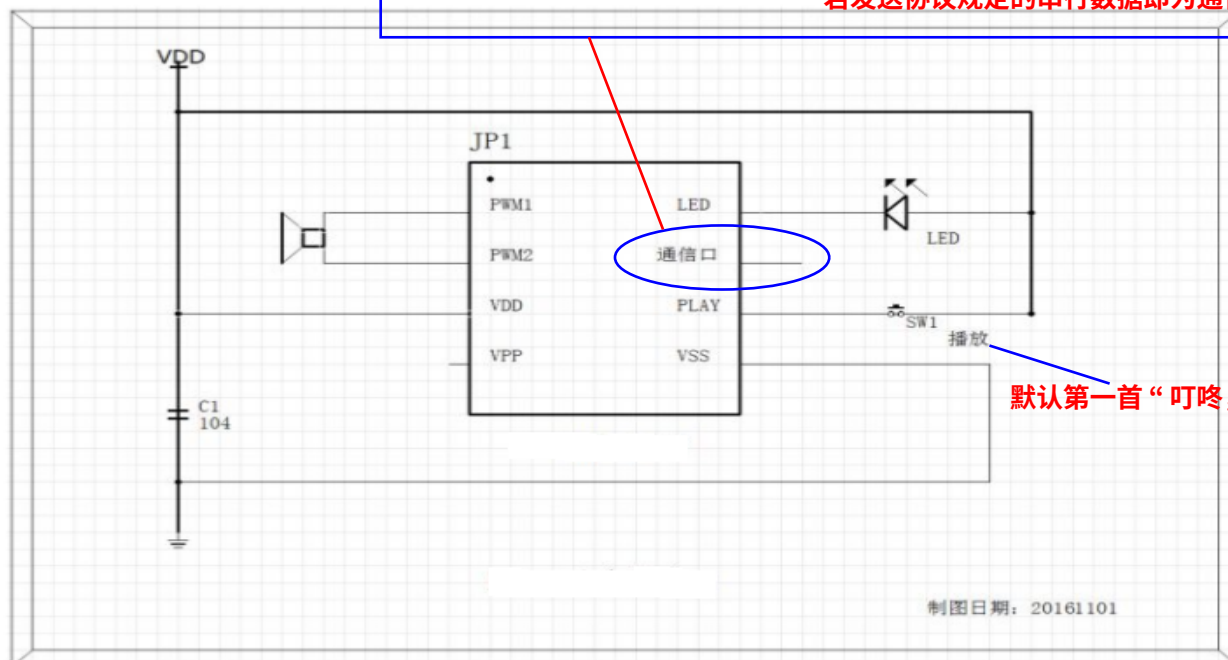
二、 按键控制:

A1: 播曲键。播放当前曲 (触发消抖时间为12mS)。

A2: 通信协议端口

A3 : BL 驱动 LED 3HZ 闪烁。

该口同时具备音量调整和通讯功能：接按键触发，即为4级音量调整功能；
若发送协议规定的串行数据即为通信口



制图日期: 20161101



8 ELECTRICAL SPECIFICATIONS

Characteristics	Symbol	Ratings
DC Supply Voltage	V_+	$< 7.0V$
Input Voltage Range	V_{IN}	$(V_{SS}-0.3V)$ to $(V_+ + 0.3V)$
Operating Temperature	T_A	$0^{\circ}C$ to $+70^{\circ}C$
Storage Temperature	T_{STO}	$-65^{\circ}C$ to $+150^{\circ}C$

Note: Stresses beyond those given in the Absolute Maximum Rating table may cause permanent damage to the device. For normal operational conditions, see DC Electrical Characteristics.

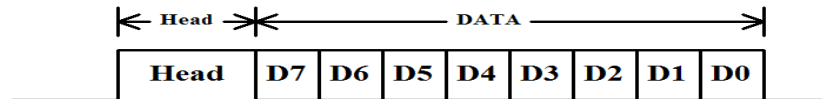
8.1 DC Characteristics (VDD = 3/4.5V (IOA ~ IOD), TA = 25°C)

Characteristics	Symbol	Limit			Unit	Test Condition
		Min.	Typ.	Max.		
Operating Voltage	VDD	2.0	-	5.5	V	
Operating Current	I_{OP}	-	1.5	-	mA	$F_{CPU} = 2MHz$ @ 3.0V, PWM output off
		-	2	-	mA	$F_{CPU} = 2MHz$ @ 4.5V, PWM output off
Standby Current	I_{STBY}	-	-	5	uA	VDD = 3.0V
		-	-	5	uA	VDD = 4.5V
GPIO Input High Level (IOA, IOB, IOC, IOD)	V_{IH}	0.5VDD	-	-	V	VDD = 4.5V
GPIO Input Low Level (IOA, IOB, IOC, IOD)	V_{IL}	-	-	0.5VDD	V	VDD = 4.5V
Output High Current (IOA, IOB, IOC, IOD)	I_{OH}	-	10	-	mA	VDD = 3.0V, $V_{OH} = 0.7 \cdot VDD$
		-	20	-	mA	VDD = 4.5V, $V_{OH} = 0.7 \cdot VDD$
Output Low Current (Normal)	I_{OL1}	-	10	-	mA	VDD = 3.0V, $V_{OL} = 0.3 \cdot VDD$
		-	20	-	mA	VDD = 4.5V, $V_{OL} = 0.3 \cdot VDD$
Output Low Current (High sink, by Body Option)	I_{OL2}	-	20	-	mA	VDD = 3.0V, $V_{OL} = 0.3 \cdot VDD$
		-	40	-	mA	VDD = 4.5V, $V_{OL} = 0.3 \cdot VDD$
Input Pull Low Resistor (IOA, IOB, IOC, IOD)	R_{L1}	-	200	-	Kohm	VDD = 3.0V, IO = 0V
		-	100	-	Kohm	VDD = 4.5V, IO = 0V
Input Pull Low Resistor (IOA, IOB, IOC, IOD)	R_{L2}	-	1000	-	Kohm	VDD = 3.0V, IO = 3.0V
		-	500	-	Kohm	VDD = 4.5V, IO = 4.5V
PWM Driver Current	I_{PWM}	-	180	-	mA	VDD = 3.0V, 8 Ohms load
		-	280	-	mA	VDD = 4.5V, 8 Ohms load
Frequency deviation by voltage drop	$\Delta F/F$	-1	-	+1	%	$\frac{F_{osc}(5.5v) - F_{osc}(2.4v)}{F_{osc}(3.0v)}$ $F_{CPU} = 2MHz$
Frequency lot deviation	$\Delta F/F$	-1	-	1	%	$\frac{F_{max}(3.0v) - F_{min}(3.0v)}{F_{max}(3.0v)}$ $F_{CPU} = 2MHz$ @ 3.0V (tentative)
		-1	-	1	%	$\frac{F_{max}(4.5v) - F_{min}(4.5v)}{F_{max}(4.5v)}$ $F_{CPU} = 2MHz$ @ 4.5V (tentative)

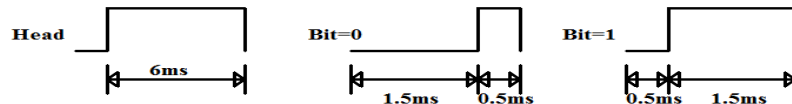


通信协议 格式定义:

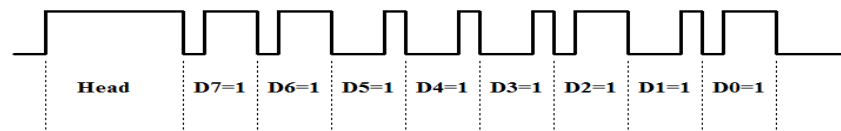
一 帧数据格式:



时间说明:



例子:发送代码0XC5 (B'1100 0101')



二, 数据命令功能定义说明

0X00 : 音乐 1 十六进制

0X01 : 音乐 2

⋮

0X0F : 音乐 16

0XE8: 有音乐+有闪灯

0XE9: 有音乐+无闪灯

0XEA: 无音乐+有闪灯

0XEB: 有音乐+灯常亮

0XF0: 音量 1

0XF1: 音量 2

0XF2: 音量 3

0XF3: 音量 4

0XF4: 音量 5

0XF5: 音量 6

0XF6: 音量 7

0XF7: 音量 8

0XF8: 有音乐+有闪灯

0XF9: 有音乐+无闪灯

0XFA: 无音乐+有闪灯

0XFB: 播放

0XFC: 下选

0XFD: 上选

0XFE: 音量

0XFF: STOP