



十速科技股份有限公司
tenx technology inc.

**Advance
Information**

TP6919

USB three-in-one

Application Note

**Tenx reserves the right to change or
discontinue this product without notice.**

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PRODUCT NAME

TP6919

TITLE

USB three-in-one Speaker & Keyboard & Touchpad mouse

APPLICATION NOTE

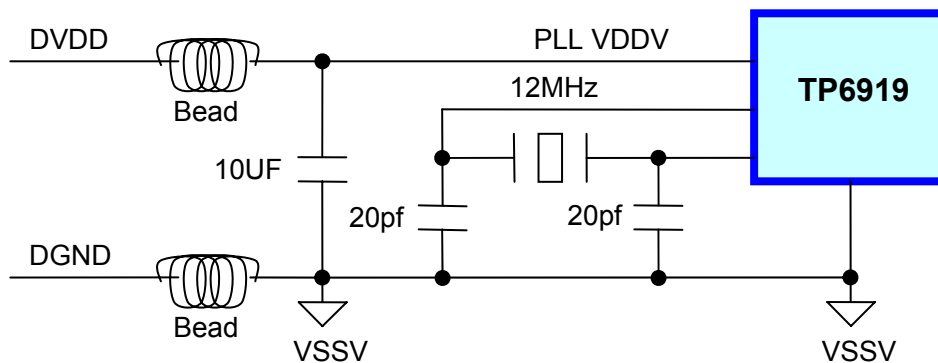
I. Applications

- USB speaker
- 144-key standard Keyboard
- Touchpad mouse
- Netbook
- Netbook Docking
- Notebook Docking

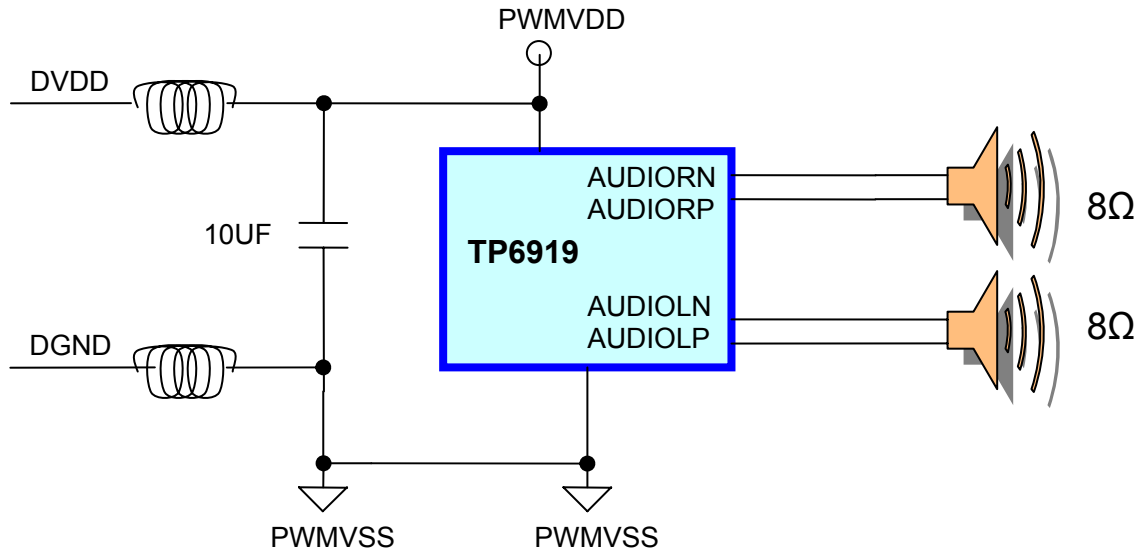
II. Guideline on Electrical Power

2.1 X'tal & PLL Circuit

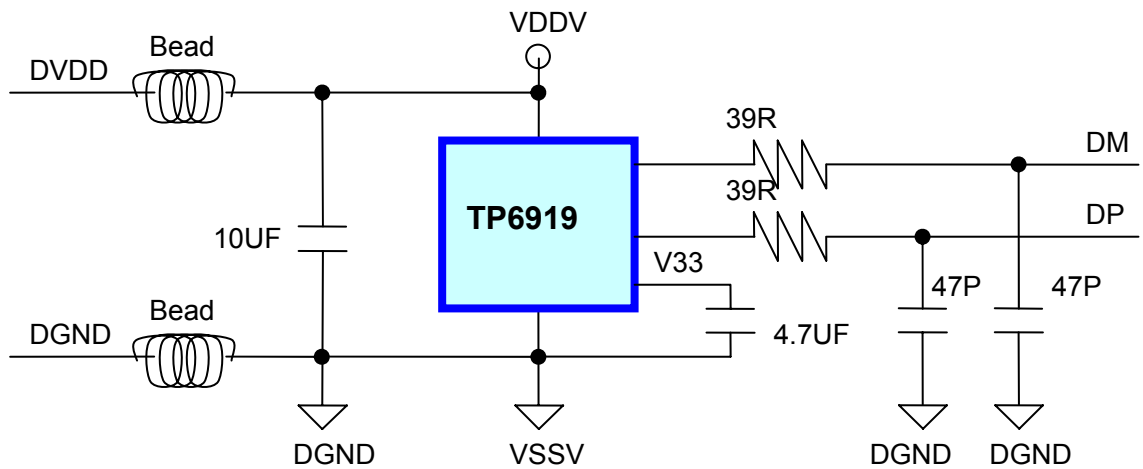
Noise on USB Power will cause phase jitter at the output of the PLL. To provide isolation from the noisy DVDD signals, VDDV / VSSV is brought to a pair of dedicated package pins.



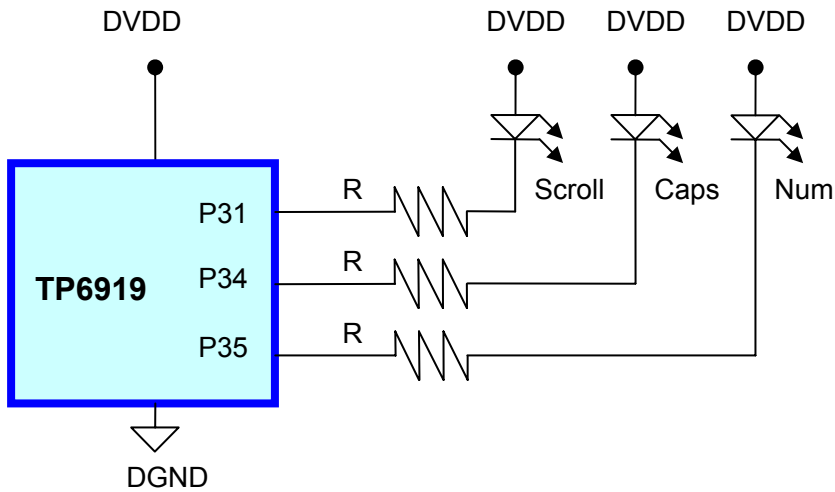
2.2 USB Bus Power connect PWMVDD for Class D Speaker



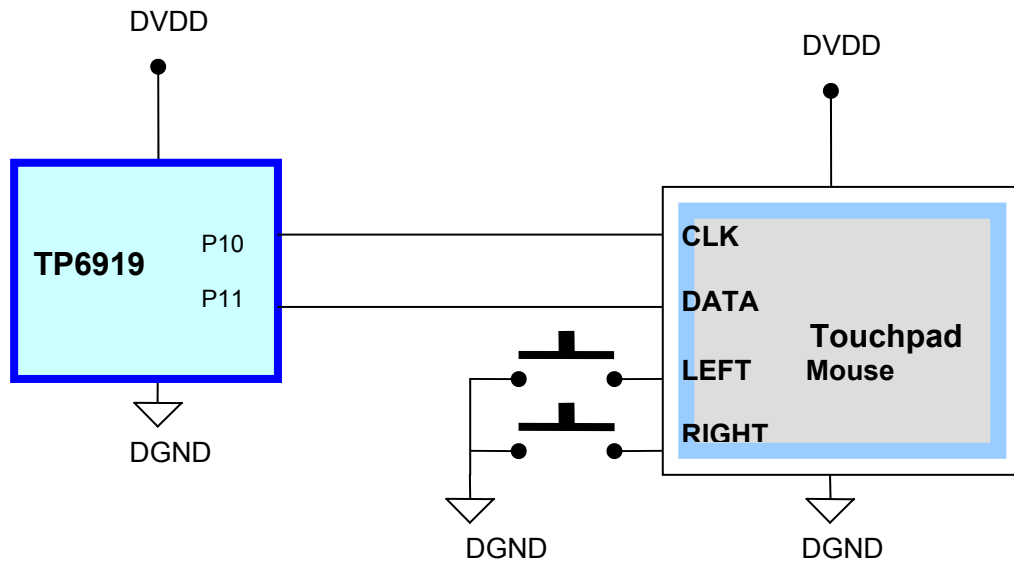
2-3. USB Full Speed Transceiver application circuit



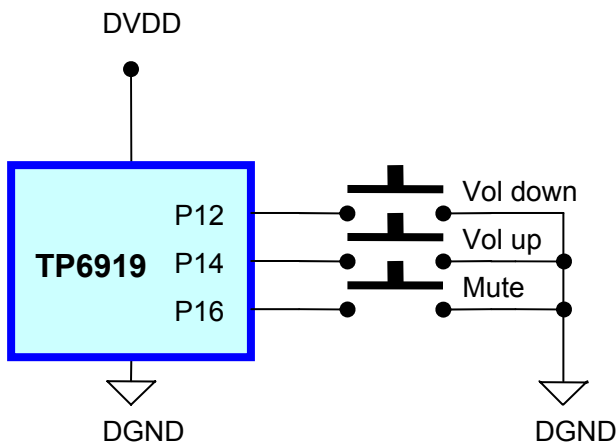
2-4. LED Indicators



2-5. Touchpad Mouse Pin Define

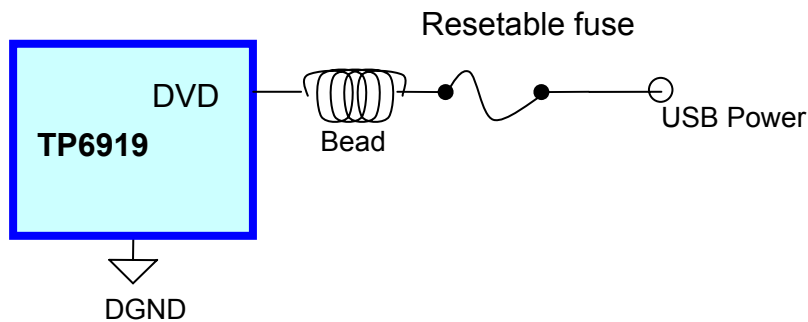


2-6. Speaker volume Button Pin Define



2-7. Over-current protection

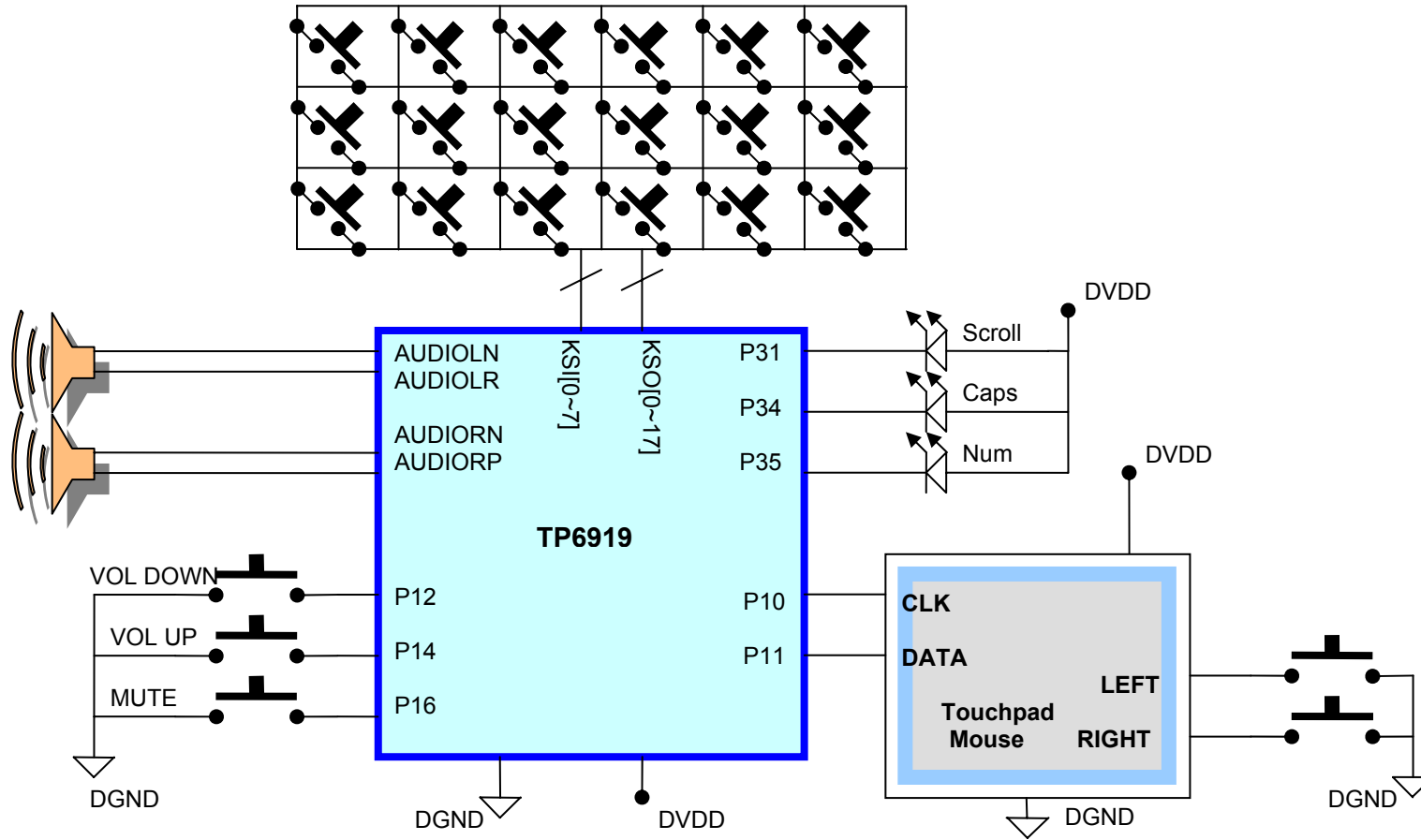
Prevent high freq voice and over volume to cause USB MCU (TP6919) to bring high high temperature, to make over current and IC broken.



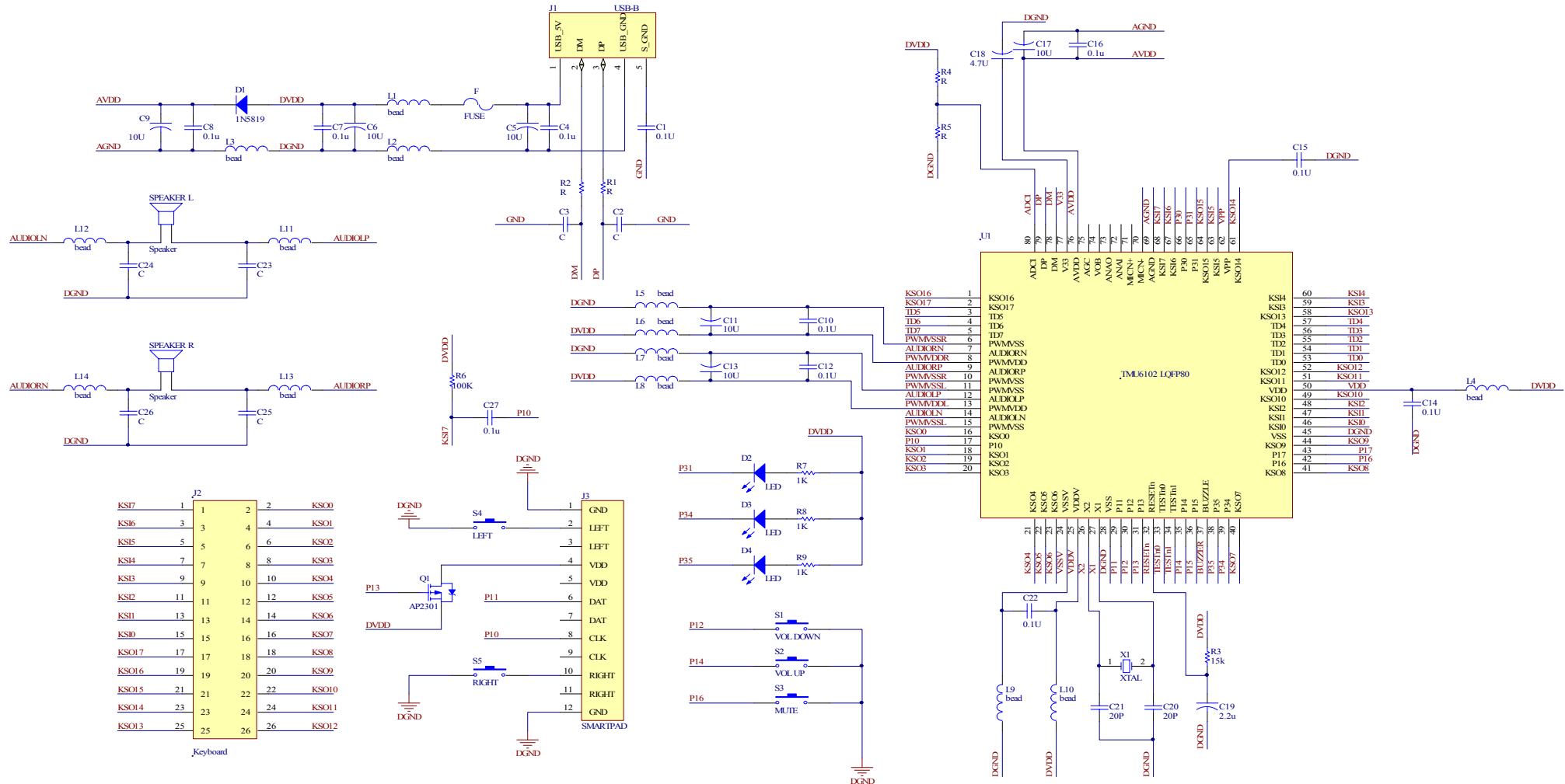
2-8. Keyboard Matrix Pin Define

	KSI0	KSI1	KSI2	KSI3	KSI4	KSI5	KSI6	KSI7
KSO0	Pause							
KSO1	Q	Tab	A	Esc	Z		~ `	1
KSO2	W	Caps	S	^	X			2
KSO3	E	F3	D	F4	C			3
KSO4	R	T	F	G	V	B	5	4
KSO5	U	Y	J	H	M	N	6	7
KSO6	I]}	K	F6	,<		=+	8
KSO7	O	F7	L		.>	Appl	F8	9
KSO8				SPACE	NUM		DEL	
KSO9		BACK			ENTER- L		F9	
KSO10				ALT-L				Printscreen
KSO11	P	[{	;:	“ ‘	\	/?	_ -	0
KSO12		L-WIN						F10/SCROLL
KSO13							F2/F12	
KSO14			PageUp ↑	Pagedown ↓	HOME ←	END →		
KSO15		SHIFT- L	SHIFT- R				F1/F11	Fn
KSO16							INS	
KSO17								

III. Sheet symbol



IV. USB Speaker & Keyboard & Circuit



Old version IC not support remote wakeup,new version can support the function.