

USBKeyboard for S1 [N]

Designed by Sasaji 2023 Rev. 0.1.1

Parts List

Parts Number	Parts Name	Qty.	Description	Usage
C2, C6, C8, C9	Ceramic Capacitor	4	0.1uF	Bypass
C1, C3	Ceramic Capacitor	2	1uF	Bypass
C4	Electrolytic Capacitor	1	10uF 10V~	Bypass
C5, C7	Electrolytic Capacitor	2	47uF 10V~	Bypass
C10	Electrolytic Capacitor	1	100uF 10V~	Bypass
C11, C12	Ceramic Capacitor	2	22pF	For clock
C13	Ceramic Capacitor	1	22pF	Noise Removal
D1, D3	LED (Red Color)	2	Rectangle 2 x 5 x 7mm	
D2	LED (Green Color)	1	Rectangle 2 x 5 x 7mm	
J2	USB A Connector	1	For circuit board	
R1, R3	Carbon Resistor	2	330Ω 1/4W	For Red LED
R2	Carbon Resistor	1	220Ω 1/4W	For Green LED
R5	Carbon Resistor	1	1kΩ 1/4W	Reset
R4	Carbon Resistor	1	10kΩ 1/4W	Pullup
R6, R7, R8, R9	Carbon Resistor	4	10kΩ 1/4W	Pulldown
SW1	Tact Switch	1	6 x 5mm Momentary	Reset
U1	Pic Microcontroller	1	PIC32MX230F064B ¹ DIP 28	
U2	LDO Regurator	1	5V → 3.3V / 100mA (LM2940,LP2950 etc.)	
Y1	Crystal	1	12MHz	
J1	Connector 8pins	1	JST XH 1 x 8pins 2.5mm pitch male	Connect between a cable and the board. * It's not necessary if connect a cable directly.
	Connector 8pins Housing	1	JST XH 1 x 8pins 2.5mm pitch female	
	Pins	8	For XH connector	
	DIN connector 8pins	1	8pins Type A male (MP-018 etc.)	Connect to a PC.
	Multicore Cable	1	8cores AWM24 or 26 Outer diameter is less than 6mm. ²	

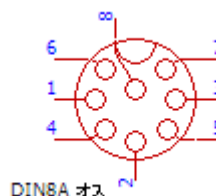
¹ You can use PIC32MX2xxFxxxB series.

² If the outer diameter is more than 6mm , it will not pass in a bush of a DIN connector.

Optional Parts

Parts Number	Parts Name	Qty.	Description	Usage
J3	Connector 6pins	1	Pinheader 1 x 6pins 2.54mm pitch	For PicKit
J4	Connector 4pins	1	Pinheader 1 x 4pins 2.54mm pitch	For UART
	IC Socket	1	DIP 28 300mil	
	Case	1	45 x 65mm (TAKACHI SW-65 etc.)	
	Screws	4	M2 x 8mm	
	Nuts	4		
	Washers	4		

DIN8pins male assign:



Web

There are this document and a CAD data on the web:

<http://s-sasaji.ddo.jp/bml3mk5/s1usbkb.htm#board>

or

<https://github.com/bml3mk5/USBKeyboard4S1>

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