

## Reference

### Resistor

```
Naming rule 1 (single resistor):
    value + R + size + tolerance
Naming rule 2 (resistor network):
    value + R + size + tolerance + count + circuit type
```

<b>Example 1:</b>	<b>Example 2:</b>
62D7R2F	220R2J4X
62D7R => 62.7 Ohm	220R => 220 Ohm
2 => 0402	2 => 0402
F => $\pm 1\%$ tolerance	J => $\pm 5\%$ tolerance
	4X => 4 isolated resistors

Tolerance	Size	Circuit type
B: $\pm 0.1\%$	1: 0201	X: isolated
C: $\pm 0.25\%$	2: 0402	B: bussed
D: $\pm 0.5\%$	3: 0603	
F: $\pm 1\%$	5: 0805	
G: $\pm 2\%$	6: 1206	
J: $\pm 5\%$	0: 1210	
K: $\pm 10\%$		
M: $\pm 20\%$		

## Capacitor

```
Naming rule 1 (ceramic caps):
    type + value + voltage rating + size + tolerance + dielectric
Naming rule 2 (electrolytic caps):
    type + value + voltage rating + size + tolerance + ESR
```

<b>Example 1:</b>	<b>Example 2:</b>
SCD1U10V2MX	ST330U6VD3M9
SC => SMT Ceramic	ST => SMT Tantalum
D1U => 0.1uF	330U => 330uF
10V => 10V voltage rating	6V => 6.3V voltage rating
2 => 0402	D3 => D3 package
M => $\pm 20\%$ tolerance	M => $\pm 20\%$ tolerance
X => X7R/X5R	9 => 9 mOhm ESR

Tolerance	Size	Type	Dielectric
B: $\pm 0.1\text{pF}$	1: 0201	SC: SMT Ceramic	X: X5R/X7R
C: $\pm 0.25\text{pF}$	2: 0402	ST: SMT Tantalum	N: NP0/COG
D: $\pm 0.5\text{pF}$	3: 0603	SA: SMT Aluminium Electrolytic	
F: $\pm 1\%$	5: 0805	SP: SMT Aluminium Polymer	
G: $\pm 2\%$	6: 1206		
J: $\pm 5\%$	0: 1210		
K: $\pm 10\%$			
M: $\pm 20\%$			

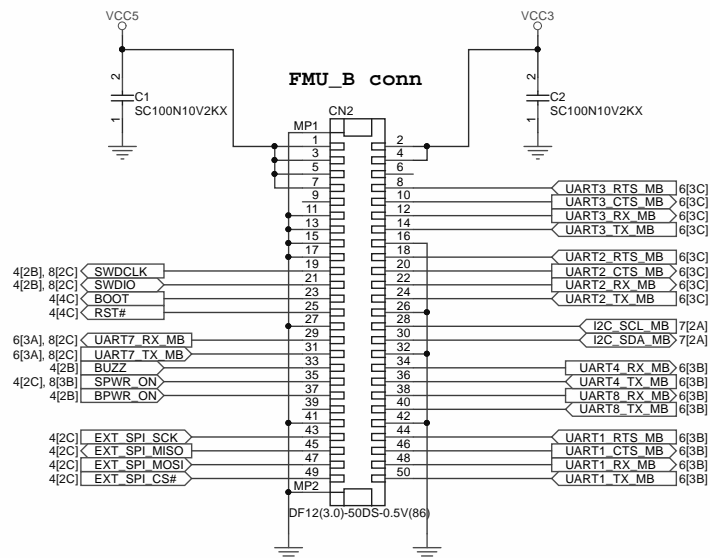
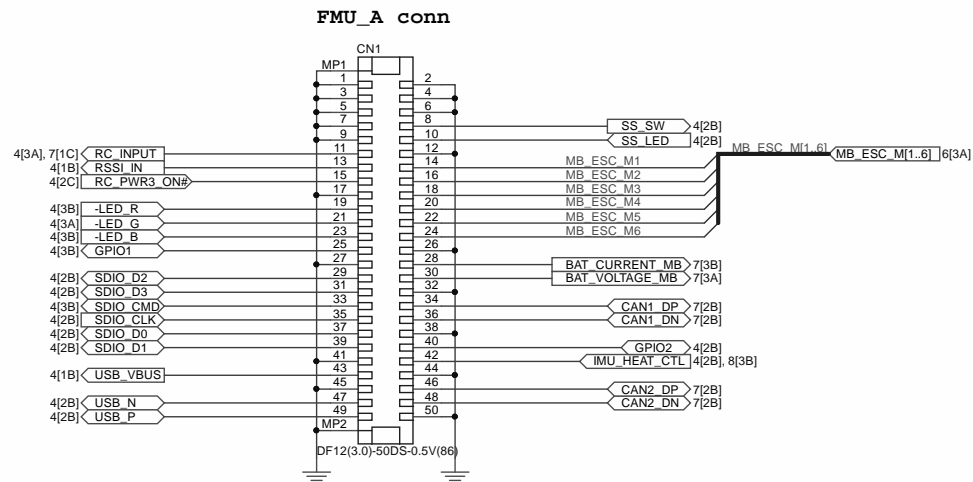
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# PTH for MB standoffs

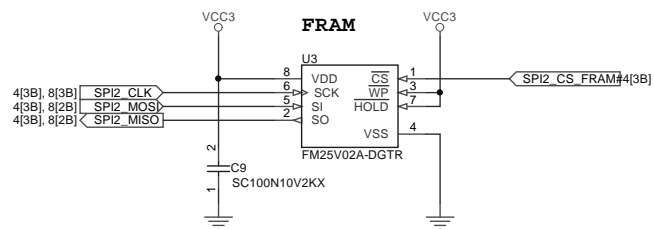


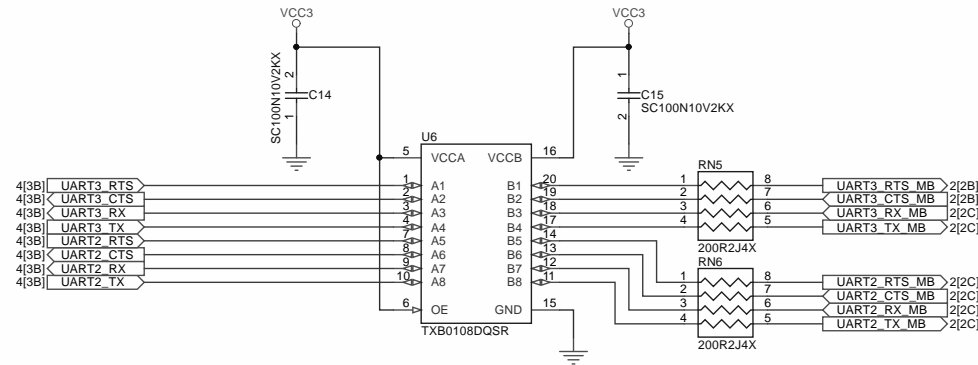
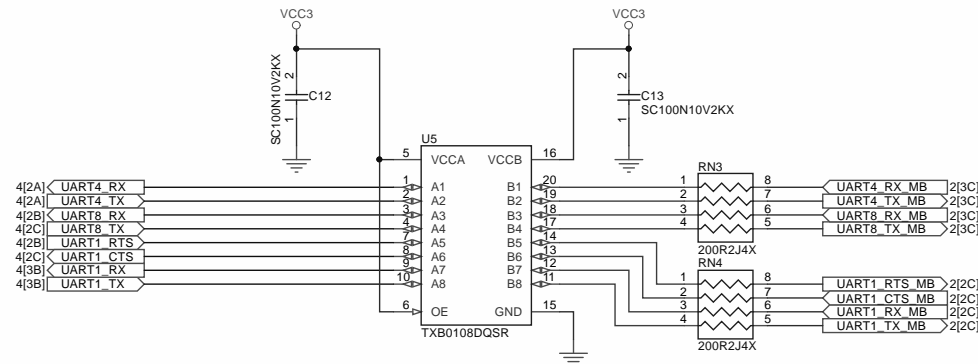
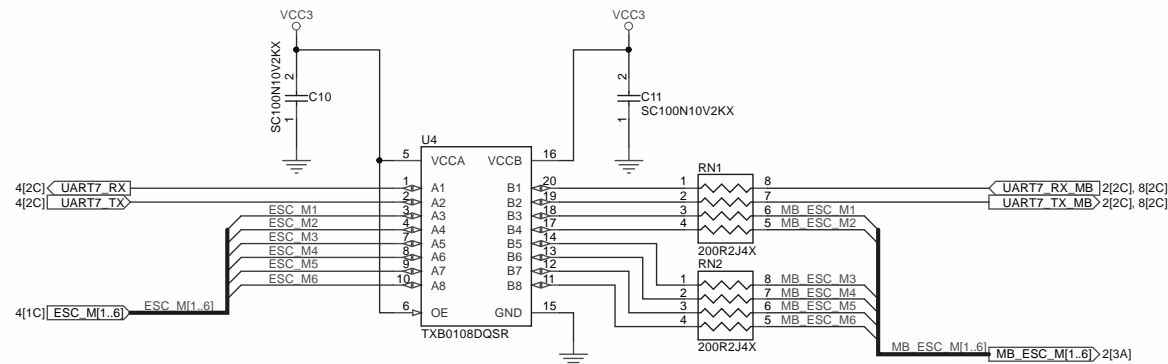
Project name: KAME_FMU		Title: Motherboard connectors	
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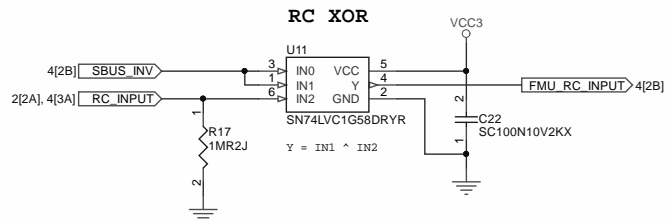
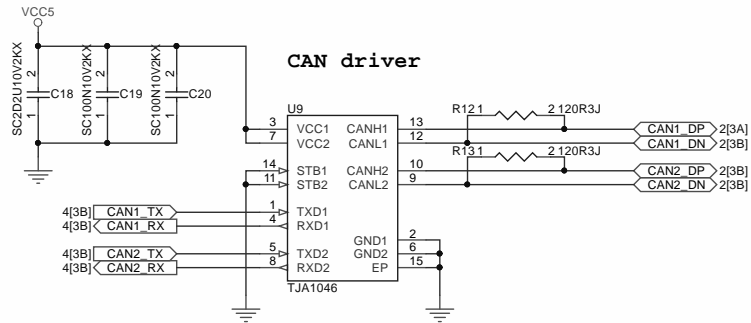
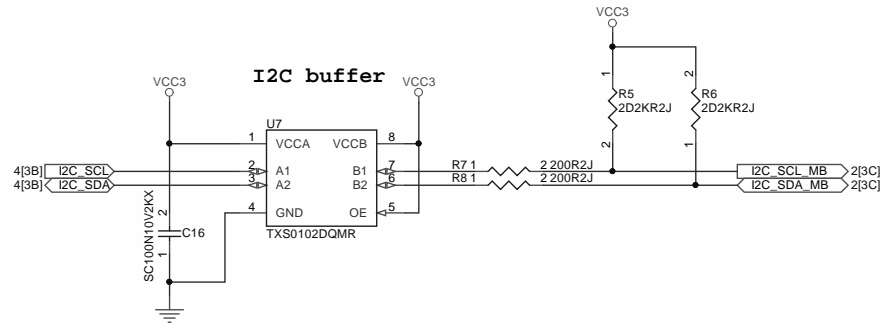
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Project name: KAME_FMU		Title: PWM/UART	
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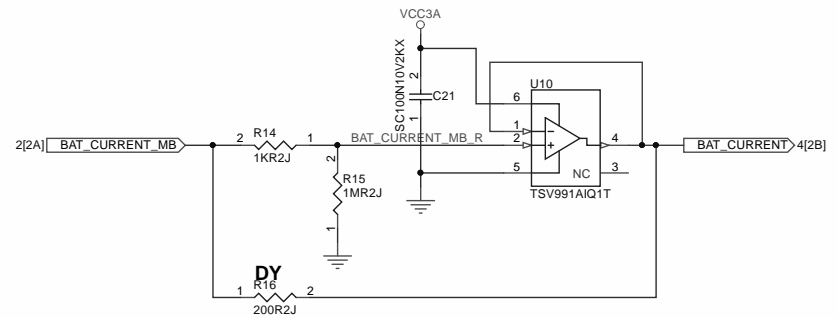
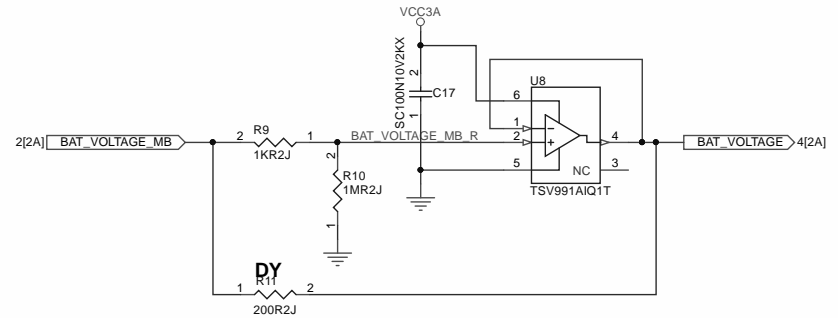
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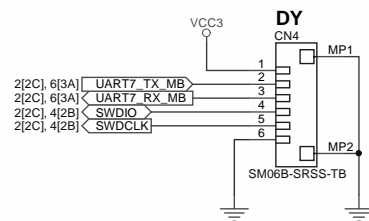
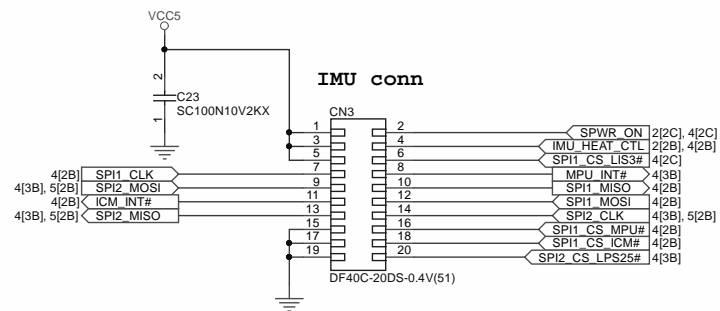
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## Analog buffers

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KAME FMU+IMU is a special-purpose microcontroller and sensor module, which is building on the work done by the following open-hardware projects:

- Pixhawk FMUv1 by @pixhawk: <https://github.com/pixhawk/Hardware/blob/master/README.md>, licensed under cc-by-sa-3.0
  - Cube by @ProfCNC: <https://github.com/profinc/The-Cube/tree/master/FMU>, licensed under cc-by-sa-3.0
  - Pixracer by @AUAV-OpenSource: <https://github.com/AUAV-OpenSource/FMUv4-PixRacer>, licensed under cc-by-sa-3.0
- KAME FMU+IMU is an open hardware design that is an evolution of the PixHawk, Pixracer, and Cube autopilot designs, licensed under the Creative Commons Attribution-ShareAlike 3.0 Unported (CC BY-SA 3.0) license.

Pull requests for fixes and relevant enhancements are welcome.

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