Cyclops

Yi-Fan Zhang

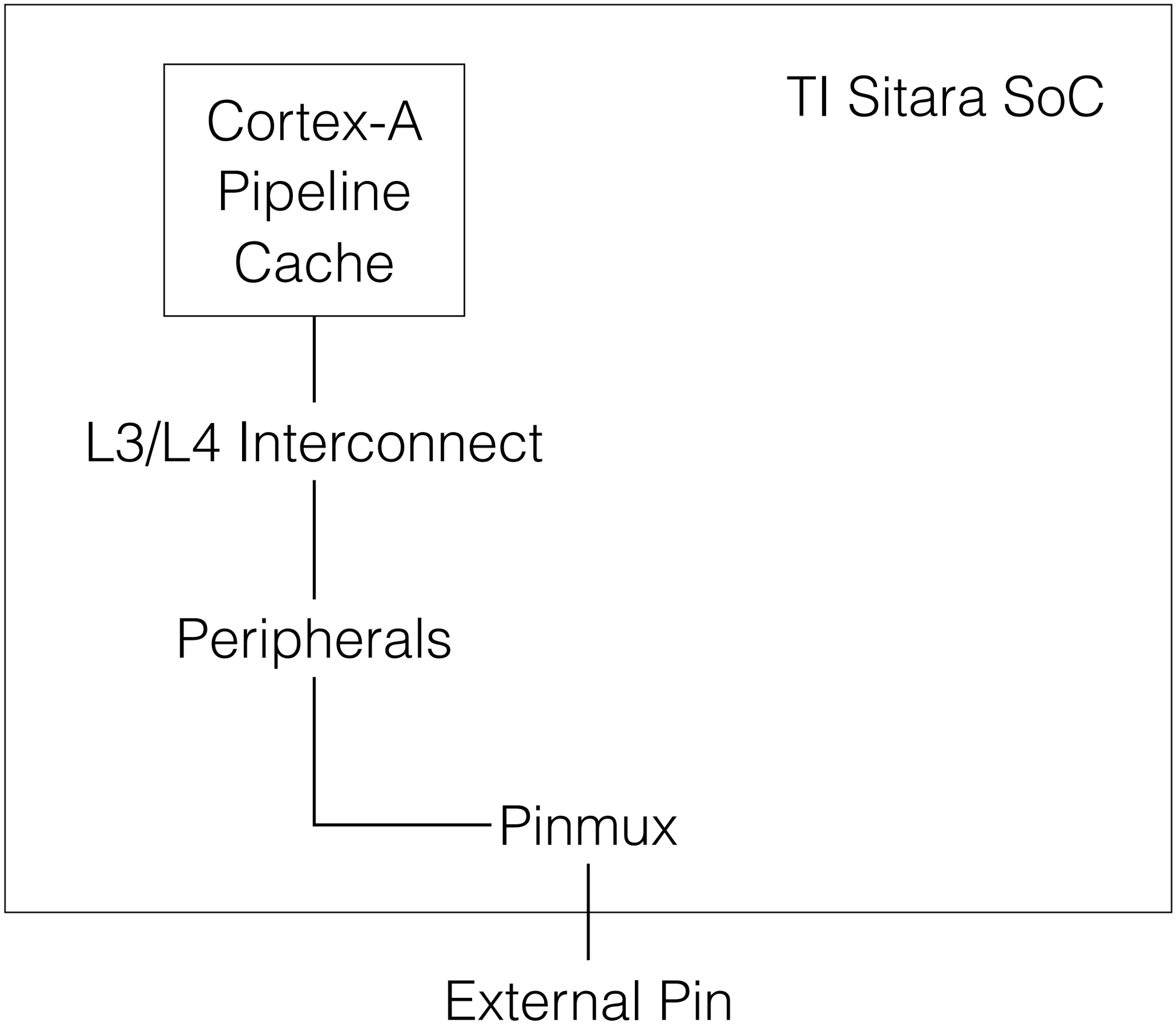
Cycle + Operations => Cyclops

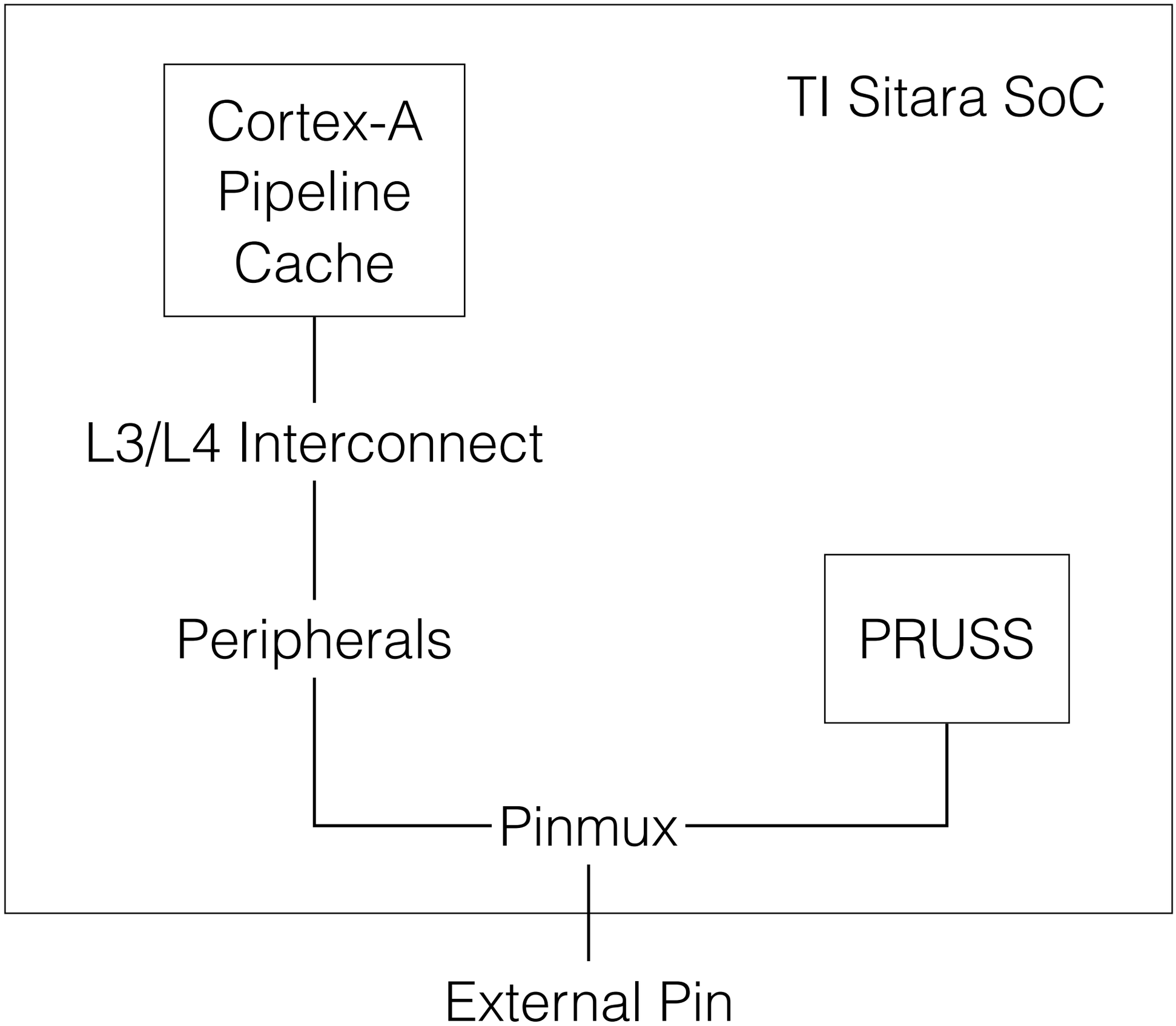
PL + Compiler + IDE => Cyclops

Make PRUs easy to use.

TI Sitara SoC

Cortex-A
Pipeline
Cache


TI Sitara SoC
Cortex-A
Pipeline
Cache
L3/L4 Interconnect
Peripherals
Pinmux
External Pin


TI Sitara SoC
Cortex-A
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PRUSS
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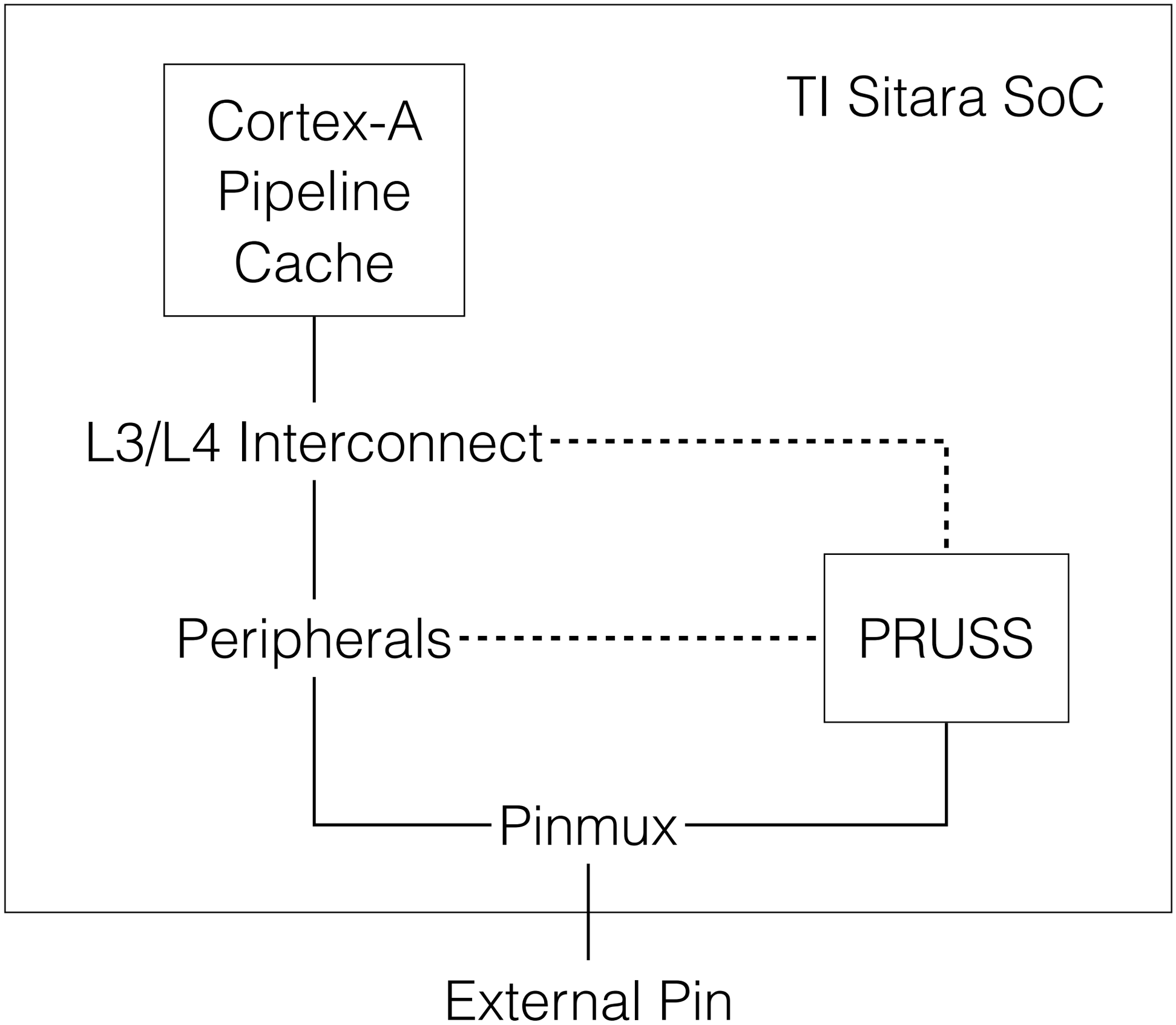
External Pin


TI Sitara SoC
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PRUSS
Pinmux
External Pin

HDMI

PRUSS

SPI

Pinmux

Pin 12

UART

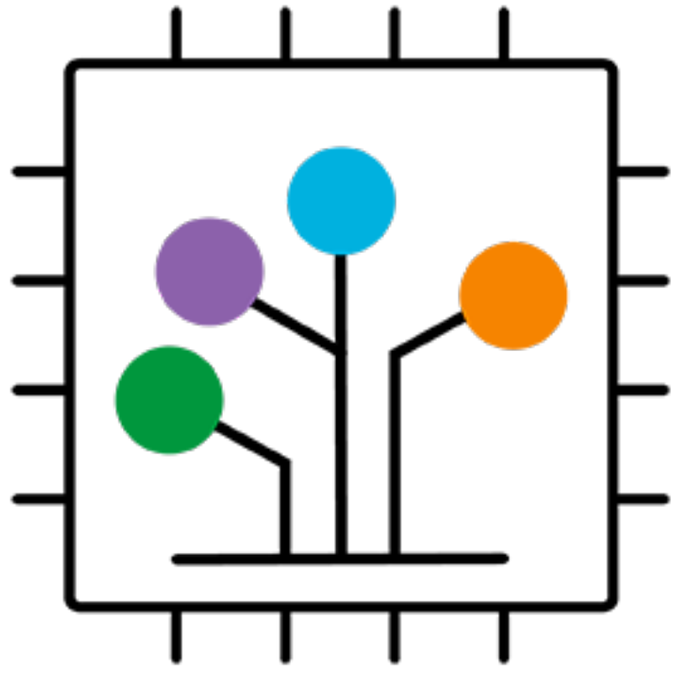
GPIO

I2C

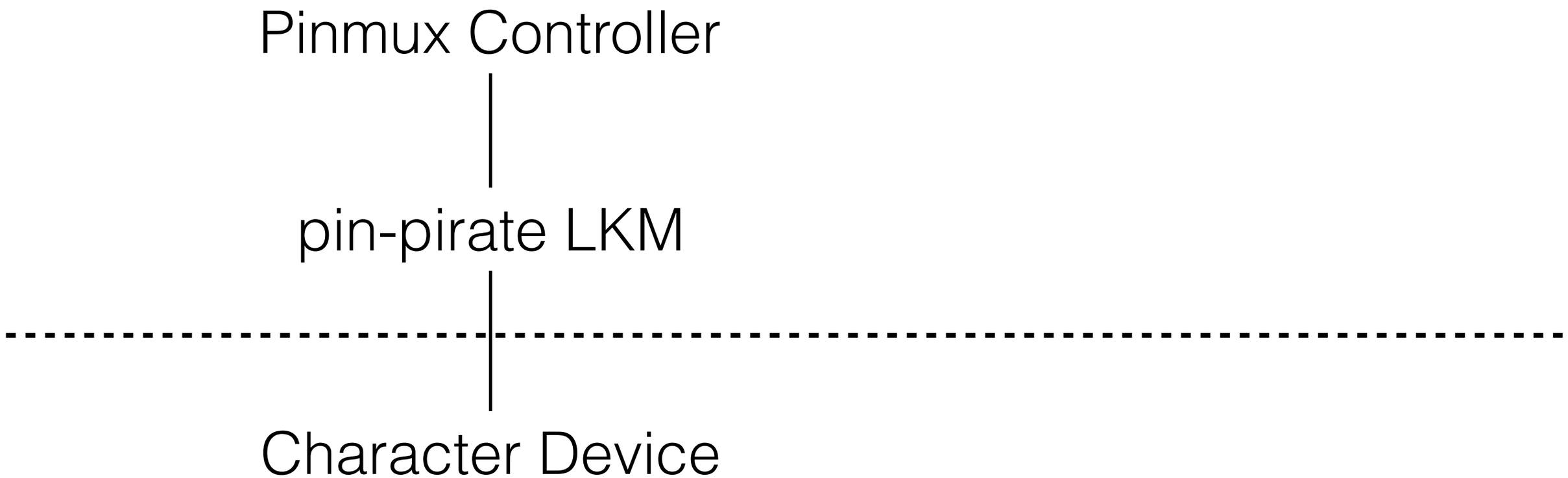
Pinmux

Pin 11

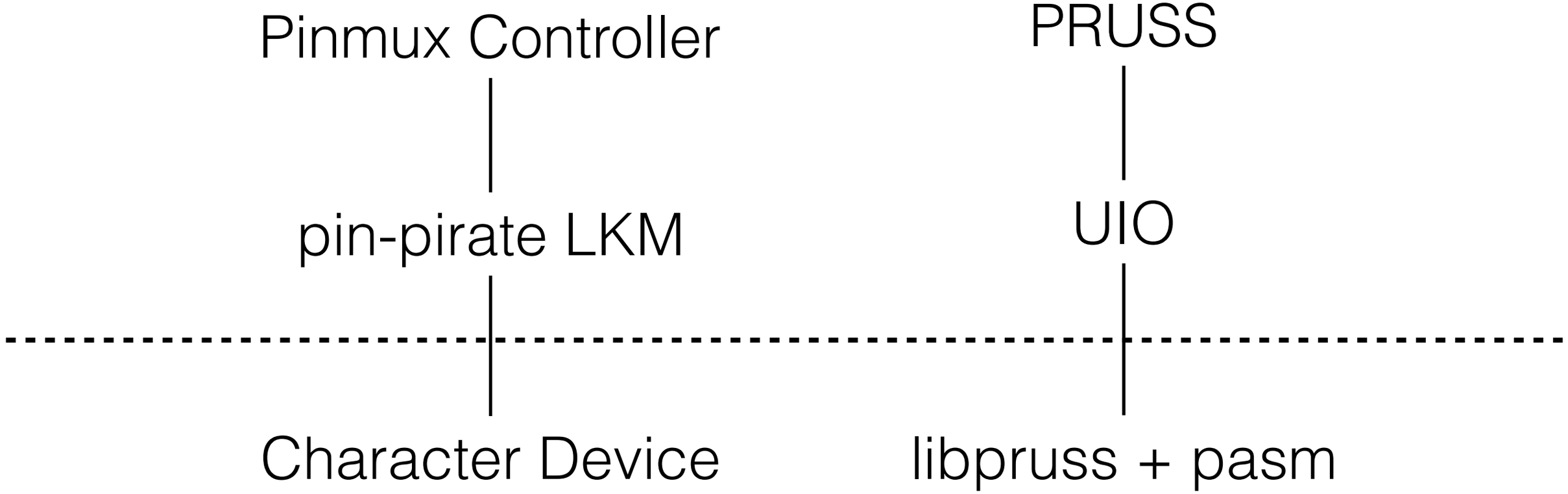
- Device Tree
  - Bone Cape Manager
  - Device Tree Overlays



- Unreliable and not suitable
  - Good for one time load
  - Kernel panics




```
echo 0x34 0x06 > /dev/pinpirate
```

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```

Pinmux Controller

pin-pirate LKM

Character Device

PRUSS

UIO

libpruss + pasm

```
echo 0x34 0x06 > /dev/pinpirate
```

pru_loader

web server

Browser

compiler + IDE

Pinmux Controller

pin-pirate LKM

Character Device

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PRUSS

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pru_loader

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Demo

References

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