

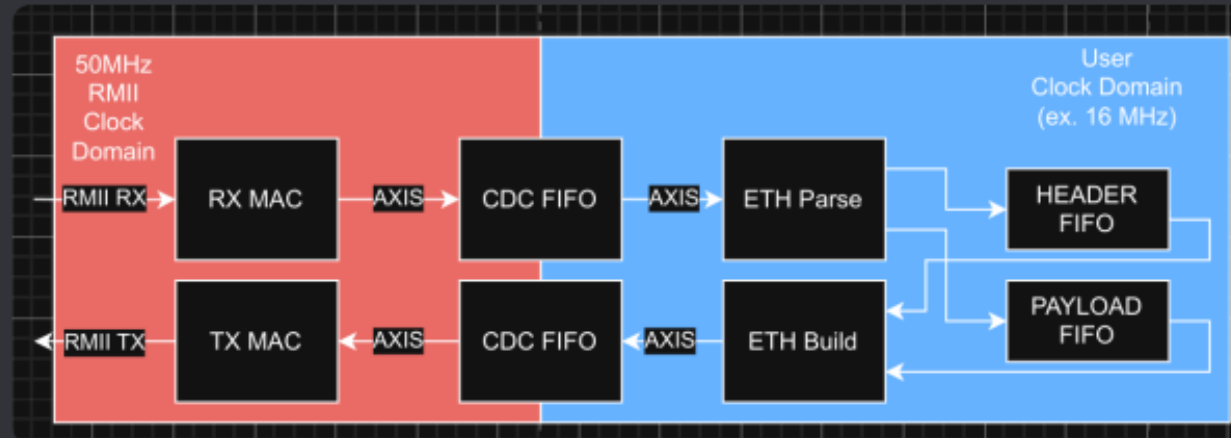
\*\*\*\*\*Default\*\*\*\*\*

## PipelineC Ethernet PMOD

02/17/25

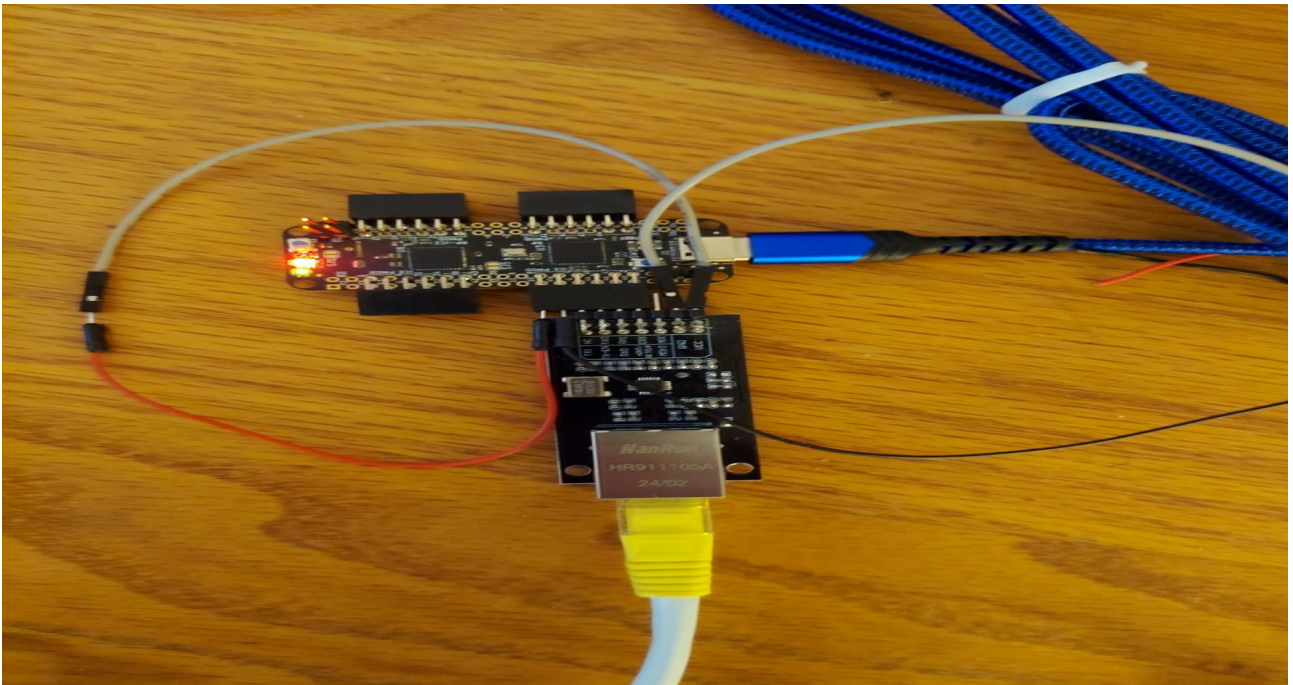
\*\*\*\*\*Default\*\*\*\*\*

this is what the current design implements

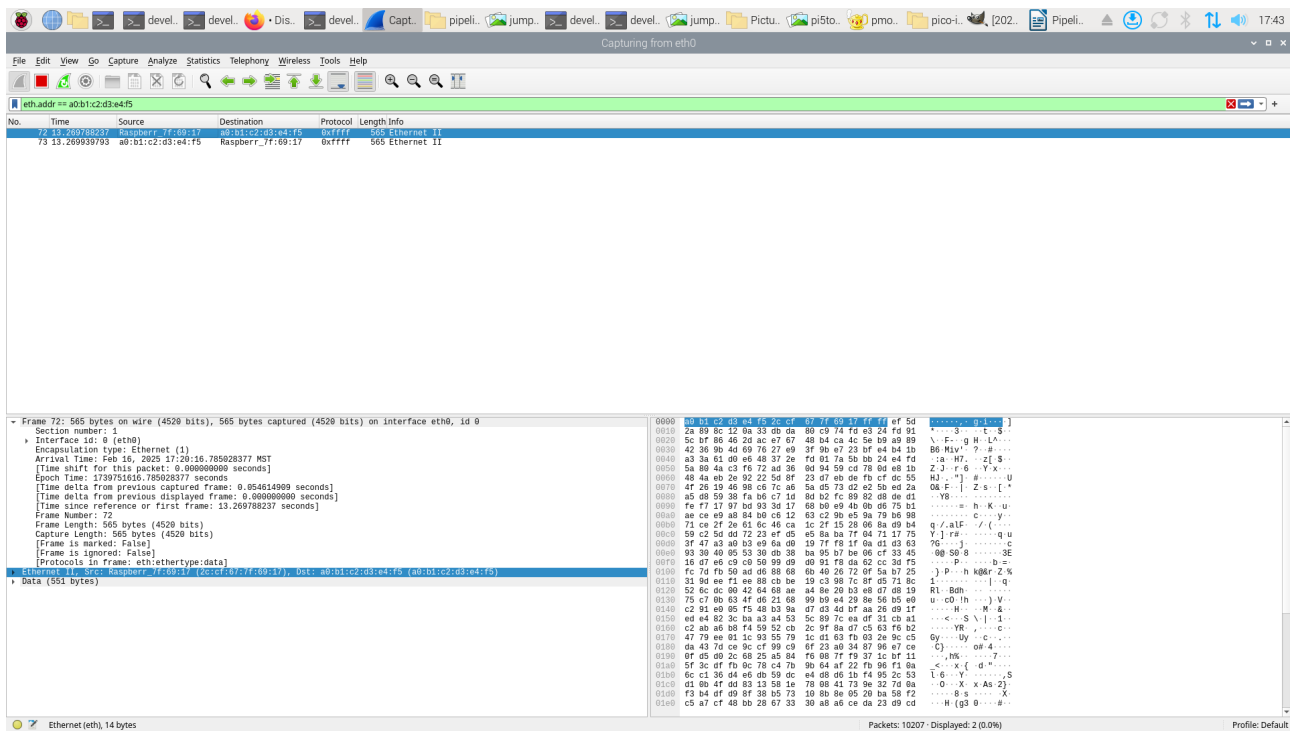


AXIS buses are 8b wide  
user clock could be as low as  $50M/4 = 12.5M$

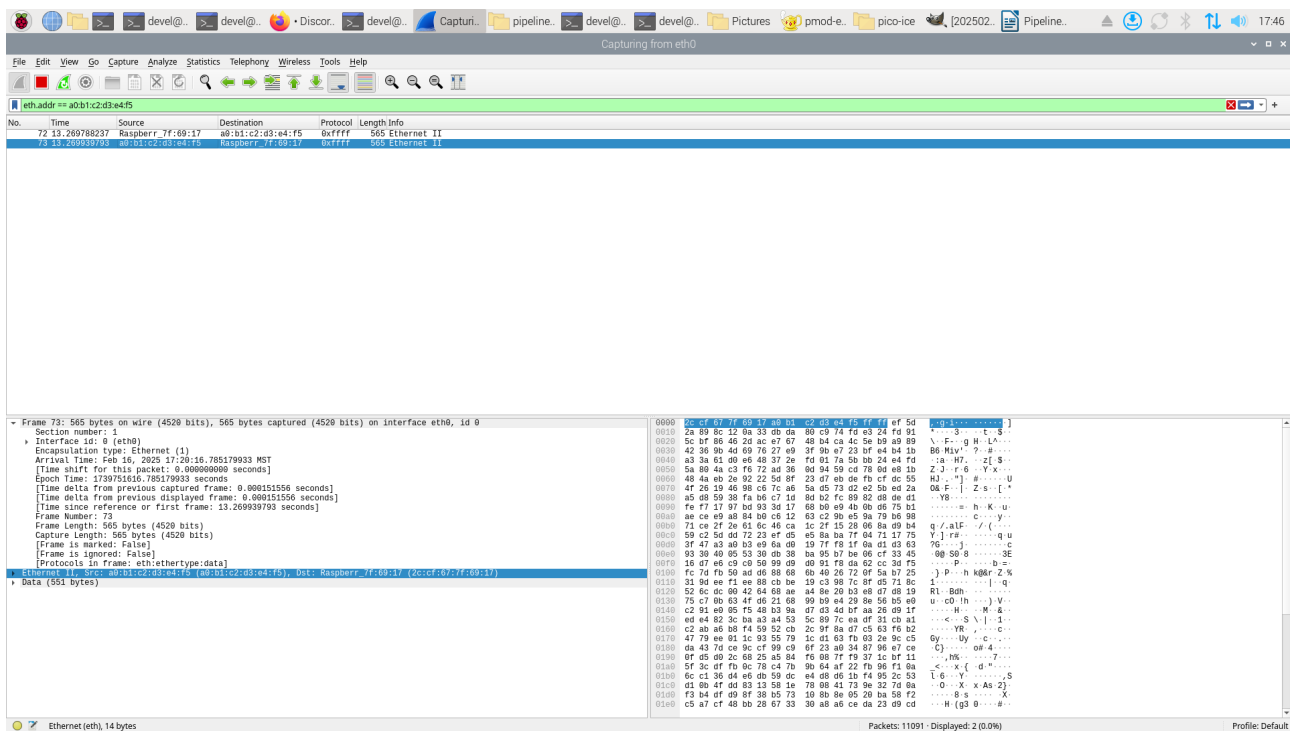
pico-ice Running gateway.bin provided by Discord user absurdfatalism. Led blink red.



```
raspberry-pi-5 devel@pi5-90:~/PipelineC/examples/arti/src/eth $ sudo ./loopback_test
```

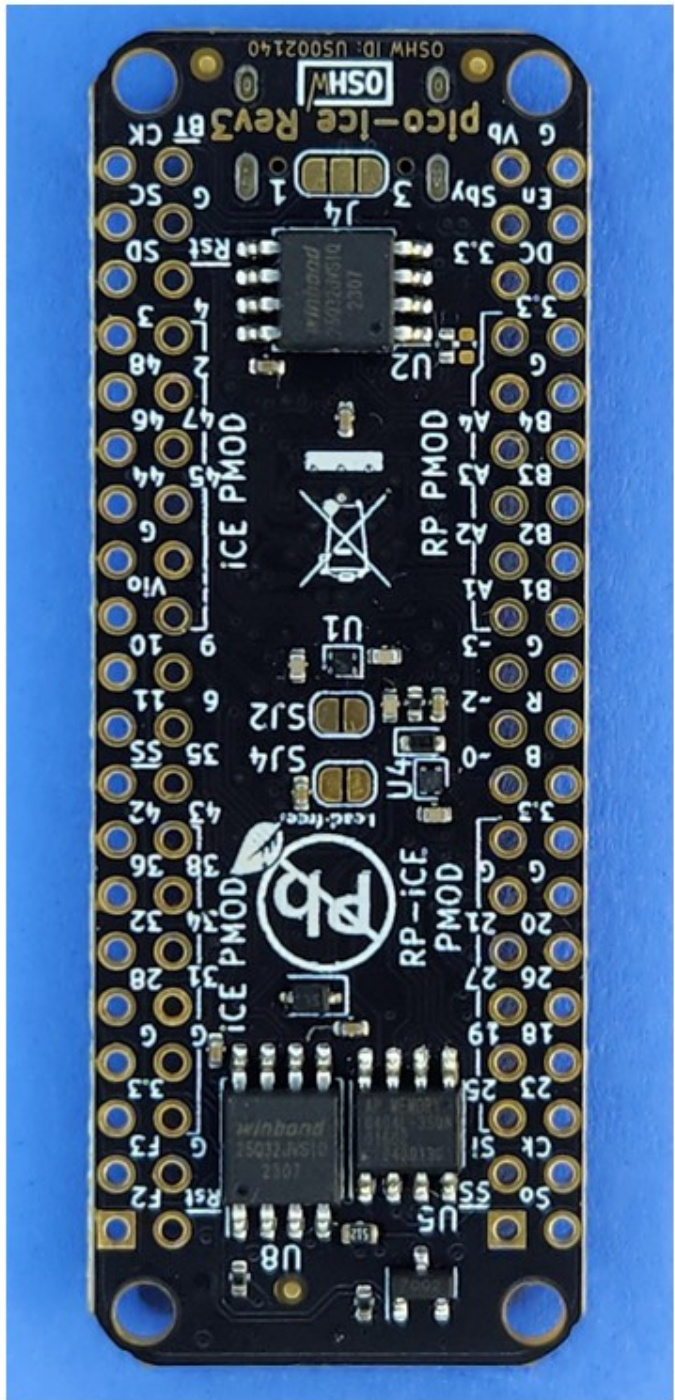
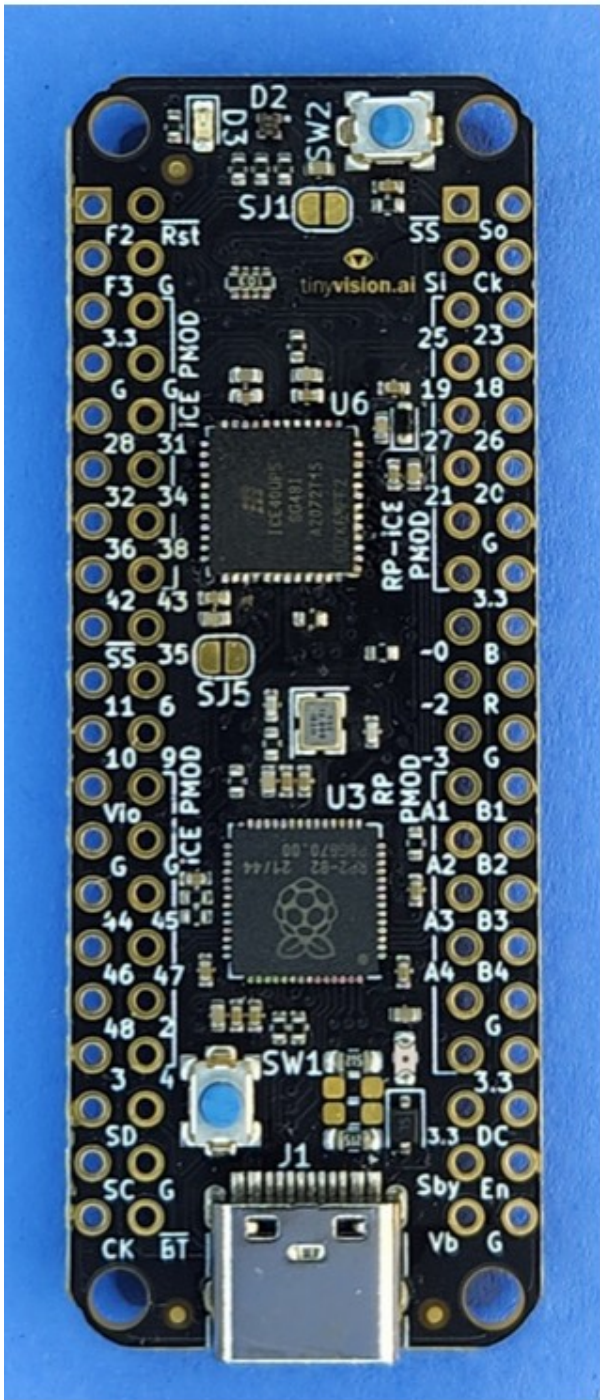


pico-ice with Ethernet pmod devel@pi5-90:~/PipelineC/examples/artysrc/eth \$ sudo  
./loopback\_test  
Test passed!



XX















[illegible]

The diagram illustrates the wiring for a Raspberry Pi 4B. It features two main columns of component headers on either side of the board, labeled 'OUTTER ROW' and 'INNER ROW'. A central vertical strip shows the corresponding pin numbers for each connection. The components are color-coded: purple for LEDs, red for power supply (3V3), black for ground (GND), and grey for other components like resistors and switches.

OUTTER ROW	INNER ROW	PIN	OUTTER ROW	INNER ROW
RP2040	iCE40		RP2040	iCE40
ICE12 FIO2	RP27 ~1	CRESET	RP9	ICE16 SS
ICE13 FIO3	GND		RP11	ICE17 SI
3V3	3V3		RP1	ICE25
GND	GND		RP3	ICE19
ICE28	ICE31		RP0	ICE27
ICE32	ICE34		RP2	ICE21
ICE36	ICE38		GND	GND
ICE42	ICE43		3V3	3V3
RP14	ICE37 SS	RP24 CK2	ICE35	ICE35
ICE11	ICE6	ICE6	ICE6	ICE6
ICE10 PB	ICE9	ICE9	ICE9	ICE9
VIO2	VIO2		VIO2	VIO2
GND	GND		GND	GND
ICE44	ICE45		ICE44	ICE45
ICE46	ICE47		ICE46	ICE47
ICE48	ICE2		ICE48	ICE2
ICE3	ICE4		ICE3	ICE4
SWDIO	RESET		SWDIO	RESET
SWCLK	GND		SWCLK	GND
RP25 CK3	USBBOOT		RP25 CK3	USBBOOT

A small, low cost board featuring:  
- a Raspberry Pi Pico processor (RP2040)

 RP2040 pin	 iCE40 pin	 Pmod 1: ICE Pmod	 Ground pin
 ~R ~G ~B: LED	 SS SCK SI SO: SPI	 Pmod 2: ICE Pmod	 Power pin

