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PS C:\Users\chang\Desktop\代码\Alpha2> iverilog -o core_tb.vvp core_tb.v core.v corelet.v mac_array.v mac_row.v mac_tile
.v mac.v l0.v ofifo.v sfu.v fifo_depth64.v fifo_mux_16_1.v fifo_mux_8_1.v fifo_mux_2_1.v sram_32b_w2048.v
PS C:\Users\chang\Desktop\代码\Alpha2> vvp core_tb.vvp
VCD info: dumpfile core_tb.vcd opened for output.
No.      0 execution completed.
No.      1 execution completed.
No.      2 execution completed.
No.      3 execution completed.
No.      4 execution completed.
No.      5 execution completed.
No.      6 execution completed.
No.      7 execution completed.
No.      8 execution completed.
```

```
===== PE Gating Statistics (kij=      8) =====
Sample PE[row1][col1] as representative:
  Execute cycles:      52
  Gated cycles:        30
  Gating ratio:        57%
=====
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===== PE Gating Functional Verification =====
[PASS] Gating logic triggered (gated_cycles =      30 > 0)
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```

```
[PASS] Gating logic triggered (gated_cycles =      30 > 0)
=====
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===== Gating Analysis =====
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[Cycle Statistics]
  Total execute cycles:      52
  Normal compute cycles:    22 (gating_a & gating_b = 1)
  Gated cycles:              30 (gating_a & gating_b = 0)
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[What happens during gated cycles]
- Multiplier inputs: held at last valid value
- Output: bypassed to c_q (skipping multiplier result)
- Multiplier internal switching: reduced (not zero)
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[Important Notes]
- Gating ratio      57% means      57% of cycles were gated
- This does NOT equal power reduction percentage!
- Actual power savings require synthesis + power analysis
- Tools needed: Design Compiler + PrimeTime PX / Innovus
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```
##### Verification Start during accumulation #####
1-th output featuremap Data matched! :D
2-th output featuremap Data matched! :D
3-th output featuremap Data matched! :D
4-th output featuremap Data matched! :D
5-th output featuremap Data matched! :D
6-th output featuremap Data matched! :D
7-th output featuremap Data matched! :D
8-th output featuremap Data matched! :D
9-th output featuremap Data matched! :D
10-th output featuremap Data matched! :D
11-th output featuremap Data matched! :D
12-th output featuremap Data matched! :D
13-th output featuremap Data matched! :D
14-th output featuremap Data matched! :D
15-th output featuremap Data matched! :D
16-th output featuremap Data matched! :D
##### No error detected #####
##### Project Completed !! #####
core_tb.v:473: $finish called at 2331000 (1ps)
```