

A single case

Power comparison - p3

- **Other energy consideration:**
- Two cache module introduced extra overhead for ctrl logic
- $\text{Cache_ctrl_overhead} = 0.0025w$

A single case

Power comparison

| | Traditional cache | Temporal/spatial split cache | Comparison |
|----------------|-----------------------------------|-----------------------------------|--------------------------|
| mem_power | 0.832W | 0.67W | > |
| cache_power | access_num x energy_per_access | access_num x energy_per_access | > (ignored in the paper) |
| extra_overhead | 0 | cache_ctrl_overhead(0.0025W) | < but pretty subtle |
| Sum | 0.832W | 0.6725W | > |

Conclusion: 0.16W power saving with same performance(hit rate)