High Performance Computing Platforms Step5. High performance Calculation Units

IS/BS/MS

No.

Name

* **Please example two types adder architectures and fill the following table supposing the bit-width of operands is “N”, when “n” indicates the bit-grouping of carry skip.**

|  |  |  |  |
| --- | --- | --- | --- |
| Architecture | Logic levels | Max Fan-out | Cells |
|  |  |  |  |
|  |  |  |  |

* **Please design the 4-bit adder with ripple carry architecture, and draw the circuit schematic on gate-level.**
* **Please design another 4-bit adder to speed it up.**