



SMU

School of Engineering



Advanced Computer Architecture

CSE 8383

January 31 2006

Session 5



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Contents

- Arithmetic Operations
- Design of Multifunction Pipelines



Floating Point Multiplication

- Inputs (Mantissa₁, Exponent₁), (Mantissa₂, Exponent₂)
- Add the two exponents → Exponent-out
- Multiple the 2 mantissas
- Normalize mantissa and adjust exponent
- Round the product mantissa to a single length mantissa. You may adjust the exponent