TDC1022
Use TDC1032 for New Designs

Floating-Point Arithmetic Unit
22-Bit

The TDC1022 is a monolithic, 22-bit floating-point arithmetic unit. Its operands are two 22-bit floating-point numbers, each with a 16-bit two's complement significand and a two's complement 6-bit exponent. All data inputs and outputs, instruction bits, and controls are registered.

The TDC1022 allows parallel loading and outputting of data. Internal pipeline registers may be enabled to permit a throughput rate of 10MHz (100ns). Three-state output buffers are provided. All signals are TTL compatible.

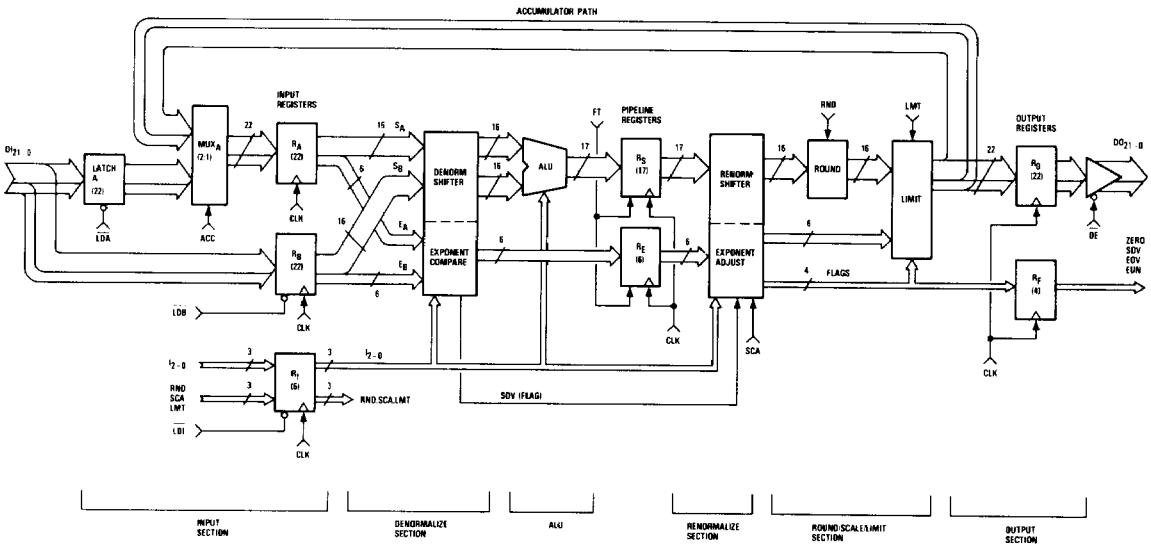
Features

- Two's Complement Floating-Point Operation
- 100ns Pipelined Cycle Time
- Dynamic Range Equivalent To 64-Bit Fixed-Point
- Parallel Data I/O Structure
- Selectable Pipelining
- Selectable Add/Accumulate Function
- Selectable Overflow/Underflow Characteristics
- Three-State TTL Outputs
- Available In 64 Lead DIP

Applications

- ALU In Array Processors
- Microprogrammed Signal Processors
- Conversion Between Fixed/Floating-Point Numbers
- Floating-Point Digital Filters And FFT's
- Geometric Transforms
- Image Processing

Functional Block Diagram



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