TDC1004

Use TMC2023 for New Designs

Analog Output, Digital Correlator

64-Bit

The TRW TDC1004 is a 64-bit digital correlator with a current source analog output. The device consists of three 64-bit, independently-clocked shift registers capable of a shift speed of 15MHz and a parallel correlation rate of 10MHz.

Correlation takes place when two binary words are serially shifted into the A and B registers. The two words are continually compared, bit for bit by exclusive-NOR (XNOR) circuits. Each XNOR circuit controls a current source. The current output of each current source is then summed to produce the correlation current that is proportional to the degree of correlation.

The third 64-bit shift register (M register) is provided to allow the user to mask or selectively choose "no compare" bit positions.

Features

- 10MHz Correlator Speed
- 15MHz Shift Speed (Static Shift Registers)
- Current Output
- Mask Register
- TTL Compatible
- Available In 16 Lead Ceramic DIP
- Radiation Hard
- 700mW Power Consumption

Applications

- Image Comparison/Recognition
- Bit/Word Synchronization
- Key Word Detection
- Error Correction Coding
- Radar And Sonar

Correlators

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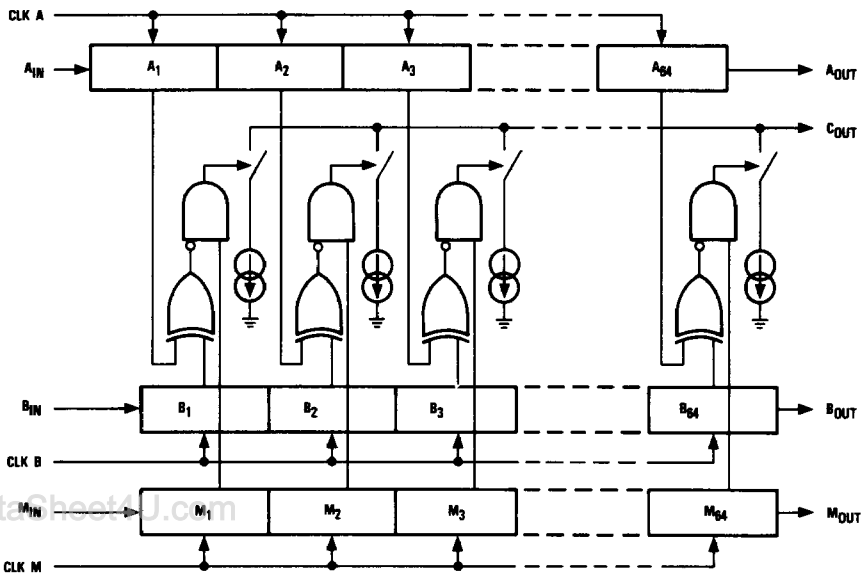
Functional Block Diagram



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