IDT™

9M Network Search
Engine (NSE) with 2 Port
AMCC XSC Interface

*Advanced
Information*
IDT75K62213

To request the full datasheet, please contact your local
IDT Sales Representative or call 1-800-345-7015

Introduction

As part of the IDT IP Co-Processor product family, IDT delivers high performance, feature-rich, easy-to-use, Network Search Engine (NSE) products. Using CAM (Content Addressable Memory) technology, IDT NSE products accelerate search functions for Access Control Lists (ACL), Flow Caching, and forwarding to improve performance in next generation networking equipment.
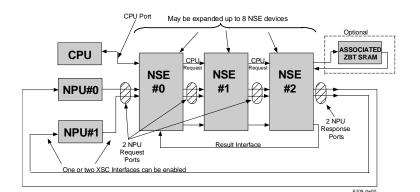
Device Description

The NSE 2 Port XSC interface is intended to work with any AMCC NPU with an external search co-processor interface (XSC). It will operate with multiple NPUs such as the nP3400 and nP7250, or can be used to satisfy the multiple XSC requirements of the nP7510. The 75K62213 is compliant with the XSC specification and the device may be optionally expanded up to eight devices deep providing 2 million entries of 32-bit width.

Features

- 128K x 64 Data and Mask cells
- Full Ternary Content Addressable Memory
- Advanced Database Management
  - 16 Selectable Databases
  - Programmable Width per Database
  - Lookup widths from 32 to 512 bits
  - Only the selected Database is powered
- Maintenance Support
  - Aging
  - Multi Hit Invalidate
  - Learn per Database
- Support for 128 Comparand Registers
- Pool of 32 (64-bit) Global Mask Registers
- Control and Management
  - 32-bit Host control port featuring glueless PPC interface
  - Capable of In-Band Control and Management
- Associated ZBT® SRAM glueless interface
- Parity generation/detection for NPU ports, SRAM I/F and NSE core
- Lowest Power per Application
- Synchronous Pipeline Operation
- Boundary Scan JTAG Interface
- 1.2V Core Supply and 3.3V I/O Supply

Figure 1.0 AMCC NPU Interface

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