

Key Features

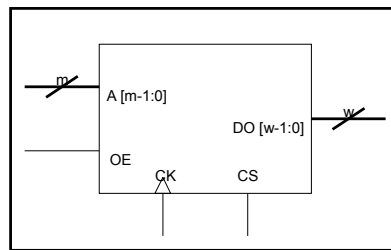
- Operating voltage range: 0.9V ~ 1.1V
- Operating junction temp. range: -40°C ~ 125°C
- Recommended operating ambient temp. range: 0°C ~ 85°C
- Minimum metal requirement: 6 metal layers
- Synchronous read operation
- Fully customized layout density per customer request
- Programming code by VIA1
- High density, available for 1.0V ± 10%
- Automatic power down to eliminate DC current
- Clocked address inputs and CS to ROM at CK rising edge
- Verilog / VHDL timing / simulation model generator
- SPICE netlist generator
- GDSII layout database
- Memory compiler preview UI (Memaker)
- BIST code supported
- Multi-block options for the best aspect ratio

General Description

The FSD0A_A_SP is a synchronous VIA1 programmable ROM. It is created according to UMC's 90nm 1P9M standard performance, low_K, logic process design rules and can be incorporated with Faraday's 90nm standard cells. Different combinations of words, bits, and aspect ratios can be used to generate the most desirable configurations.

By requesting the desired size and timing constraints, FSD0A_A_SP compiler is capable of providing suitable synchronous ROM layout instances in minutes. It automatically generates data sheets, Verilog behavioral simulation models, SCS or Viewlogic symbols, place & route models, and test patterns for use in the ASIC designs. The duty cycle length can be neglected as long as the setup / hold time and minimum high / low pulse widths are satisfied. This provides the flexibility of CK falling edge during each operation. Only one mask of VIA1 layer is needed to replace VIA1 coded ROM.

Symbol



Quick Reference

Maximum Capacity	2M bits
Maximum Words	128K
Minimum Words	512
Maximum Bits	128
Minimum Bits	1
Bit Increment	1
Aspect Ratio (Block Mux options)	1, 2, 4, 8

HEADQUARTERS

Hsinchu, Taiwan,
 Tel: 886-3-578-7888
 Fax: 886-3-578-7889
 twsales@faraday-tech.com

USA OFFICE

Sunnyvale, USA
 Tel: 1-408-522-8888
 Fax: 1-408-522-8889
 ussales@faraday-tech.com

EUROPE OFFICE

Hoofddorp, Netherlands
 Tel: 31-2356-20496
 Fax: 31-2356-36297
 eusales@faraday-tech.com

JAPAN OFFICE

Tokyo, Japan
 Tel: 81-3-5214-0070
 Fax: 81-3-5214-0076
 jpsales@faraday-tech.com

CHINA OFFICE

Shanghai, P. R. China
 Tel: 86-21-6406-7523
 Fax: 86-21-6406-5327
 cnsales@faraday-tech.com