

# 0.15μm Synchronous High Density Dual-Port SRAM Compiler – FSB0G\_A\_SJ

## Key Features

- Operating voltage range: 1.35V ~ 1.65V
- Operating junction temp. range : -40°C ~ 125°C
- Recommended operating ambient temp. range: 0°C ~ 85°C
- Minimum metal requirement: 5 metal layers
- Synchronous read and write operations
- Standard performance device-based design
- Fully customized layout density
- Automatic power down mechanism to eliminate DC current
- Clocked address inputs and CSA(B) to RAM with CKA(B) rising edge
- Clocked WEA(B)N input pins to RAM with CKA(B) rising edge
- Clocked DIA(B) input pins to RAM with CKA(B) rising edge
- Byte write and word write operations available
- Verilog / VHDL timing / simulation model generator
- SPICE netlist generator
- GDSII layout database
- Memory compiler preview UI (Memaker)
- BIST code supported
- Column MUX options for the best aspect ratio

## General Description

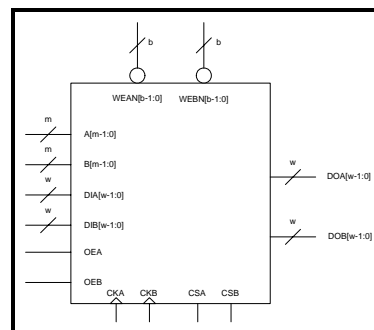
The FSB0G\_A\_SJ is a high density, dual-port SRAM. It is implemented according to UMC's 0.15μm 1P7M 1.5V Standard Performance (SP) logic process design rules and can be incorporated with Faraday's 0.15μm standard cells. Different combination of words, bits, and aspect ratios can be used to generate the most desirable configurations.

By requesting the desired size and timing constraints, the FSB0G\_A\_SJ compiler is capable of providing suitable synchronous RAM layout instances in minutes. It automatically generates data sheets, Verilog / VHDL behavioral simulation models, SCS or Viewlogic symbols, place & route models, and test patterns for use in ASIC designs. The length of duty cycle can be neglected as long as the setup / hold time and the minimum widths of high / low pulse are both satisfied. This allows the flexibility of a clock falling edge during each operation. Both word write and byte write operations are supported.

## Quick Reference

Maximum Capacity	512k bits
Maximum Words	8K
Minimum Words	32
Maximum Bits	256
Minimum Bits	1
Bit Increment	1
Aspect Ratio (Column Mux)	4, 8, 16

## Symbol



### 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