



90nm Low-K SP Logic 3.3V Generic I/Os

FSD0A_A True 3.3V Generic I/O Cells

Key Features

- UMC's 90nm 1P9M Logic/Mixed Mode Low-K SP Process
- 3.3V input, 3.3V output drive
- Output buffer with programmable drive strength from 2mA to 16mA with 2mA step
- Input buffer with programmable pull up resistance, pull down resistance, keeper, and Schmitt trigger
- Built-in Antenna diodes for all pins
- ESD Robustness and Latch-up immunity proven by Silicon

General Description

This library is tailored for UMC 90nm 1P9M Logic/Mixed Mode Low-K SP Process. All I/Os are equipped with a rich selection of programmable features capable of adapting to a wide variety of application environments. Two layout structures, both optimized for pad limited and core limited designs, are available to support each programmable feature or function.

Quick Reference

Characteristic		Description
Physical	Process	UMC 90nm 1P9M Logic/Mixed Mode Low-K SP Process
	Cell Width * Cell Height	33.6 μ m * 227.92 μ m (Staggered) 60.48 μ m * 142.80 μ m (In-line)
	Cell Layout Metal	M1, M2, M3, M4
	Power Ring Metal	M4 and above
	Layout resolution	0.01 μ m
Electrical	Recommended Operating Conditions	Power Supply Voltage Core: 1.08V ~ 1.32V I/O: 2.97V ~ 3.63V
		Junction Temperature: -40°C ~ 125°C
	Driving Strength	2mA~16mA by 2mA step
	Input Threshold	LVTTL
	Pull Up/Down resistance	75K Ohm

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