

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

FSD0K_A True 3.3V Generic I/O Cells

Key Features

- UMC's 90nm 1P9M Logic/Mixed Mode Low-K LL-RVT 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 LL-RVT 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 LL-RVT 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	0.005 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

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