

GPIO for TSMC 28nm HPM/HPC/HPC+

Overview

The 1.8V general purpose I/O library and 3.3V/1.8V dual voltage IO with 1.8V device are provided for TSMC 28nm HPM/HPC/HPC+ process. And the SD3.0 IO and the I2C are supported.

Key Features

- Support 1.8V IO and 3.3V/1.8V dual voltage IO with 1.8V device
- Support SD Specifications 3.0 Interface
- Programmable Output drivability, weak pull-up/pull-down
- Minimized I/O size by optimized ESD structure
- High reliability of ESD protection with Dual diode & RC Triggered NMOS ESD structure

IO Lineup

IO	TSMC 28nm	Feature
3.3V/1.8V GPIO	●	<ul style="list-style-type: none"> • 3.3V & 1.8V dual voltage operation • AND input & 3-state output with 4-drivability selector
1.8V GPIO	●	<ul style="list-style-type: none"> • AND input & 3-state output with 4-drivability selector
SD3.0 IO (3.3V/1.8V)	●	<ul style="list-style-type: none"> • Compatible with SD Specifications 3.0, SDR104 & HS mode
I2C IO (2 PAD)	●	<ul style="list-style-type: none"> • Supported I2C modes: Standard-mode, Fast-mode, Fast-mode+ • 3.3V input tolerant

● Available

ESD Robustness

- HBM : 2000V
- CDM : 500V (peak current 8A)

**This IP is contract design IP. Please contact for detail.*