

LDO Design Specifications

5T-OTA Design (Error Amplifier):

Specifications:

Vdd = 2V

Vin = 1.2V

Iss = 10uA

Note: All simulations are done on sky130pdk with tt corner at temp = 27C.

LDO Design (Error Amplifier 1st stage + PMOS Driver):

Specifications:

Vin = 2V (± 10% tolerance = 1.8V to 2.2V)

Vref = 1.2V

Vout = 1.8V (± 1% tolerance = 1.792V to 1.8005V)

Quiescent Current = 100uA

Slew rate <10V/us

ILoad = 10uA to 1mA

CLoad = 25pF (± 20% tolerance = 20pF to 30pF)

Note: All simulations are done on sky130pdk, with tt corner at temp = 27C.