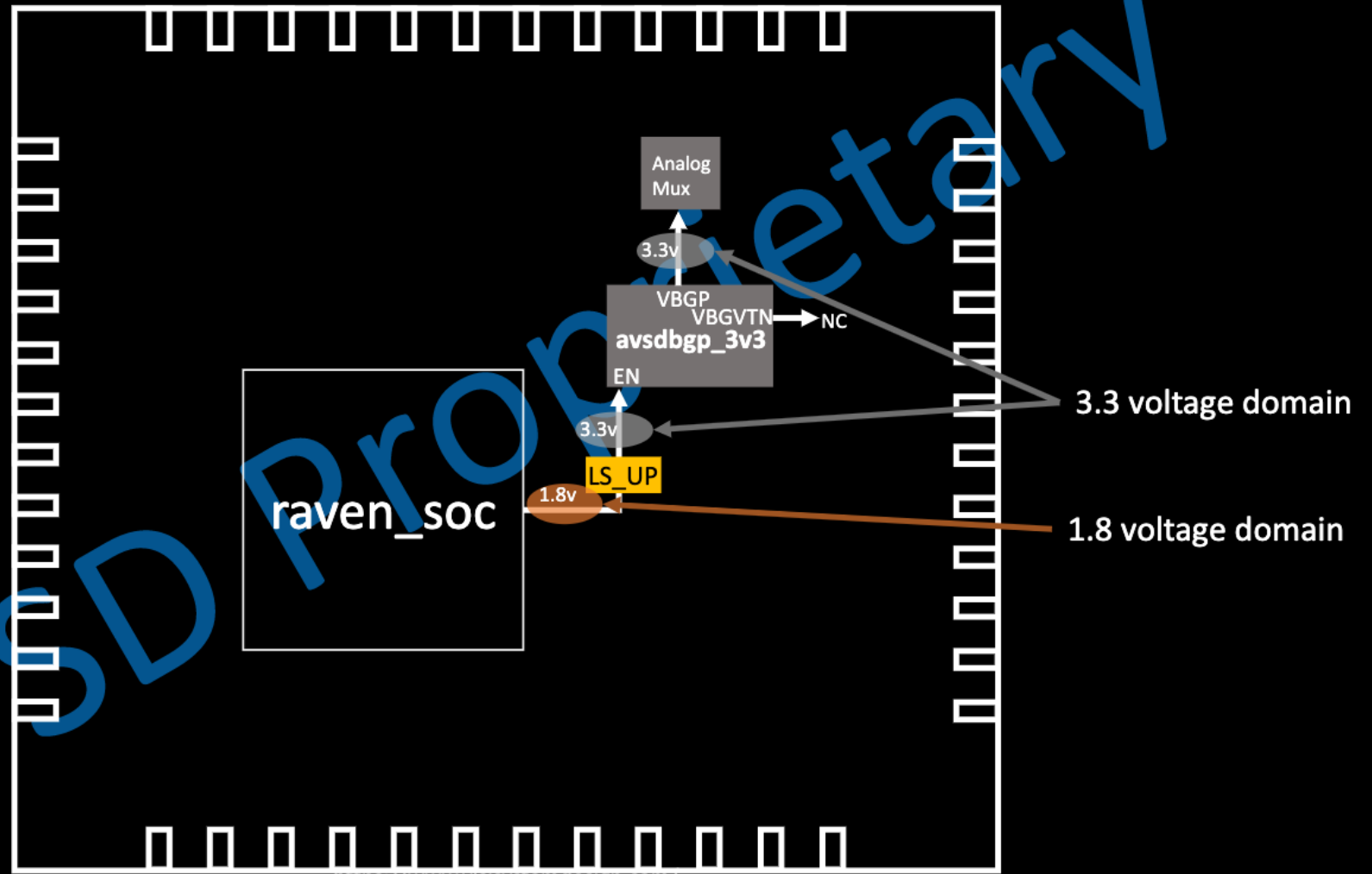


DISCLAIMER by VSD Corp. Pvt. Ltd.

- **Bandgap (avbdbgp_3v3) spec sheet for 180nm tech node**
- **Original Specs from XFAB and Recreated by VSD Corp. Pvt. Ltd.**
- **To be used only for Educational purposes**
- **Please contact Kunal at kunalpghosh@gmail.com in case of any doubts**

Application Note for band-gap (avbdbgp_3v3)



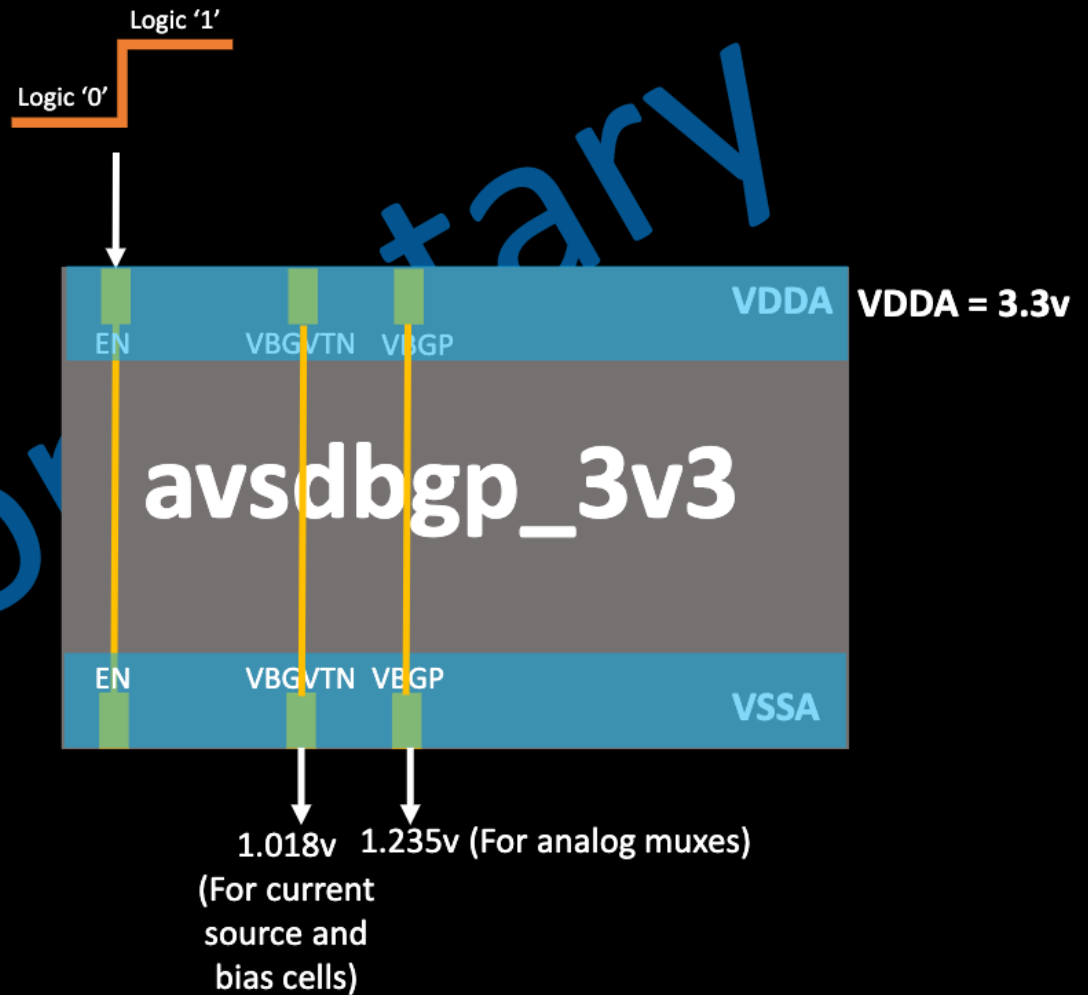
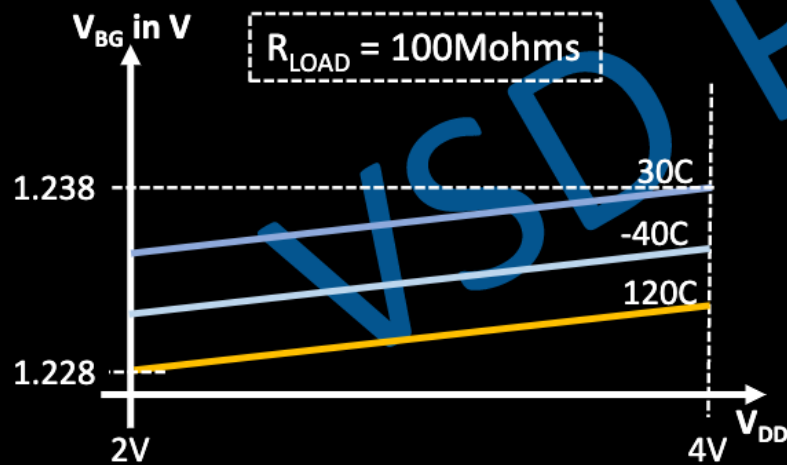
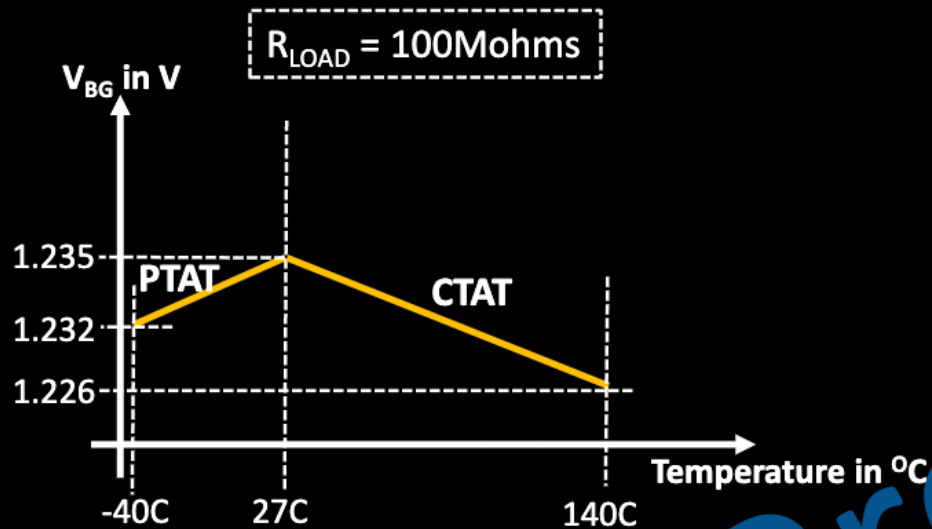
avbdbgp_3v3 preferred dimensions, pin locations and metal layers



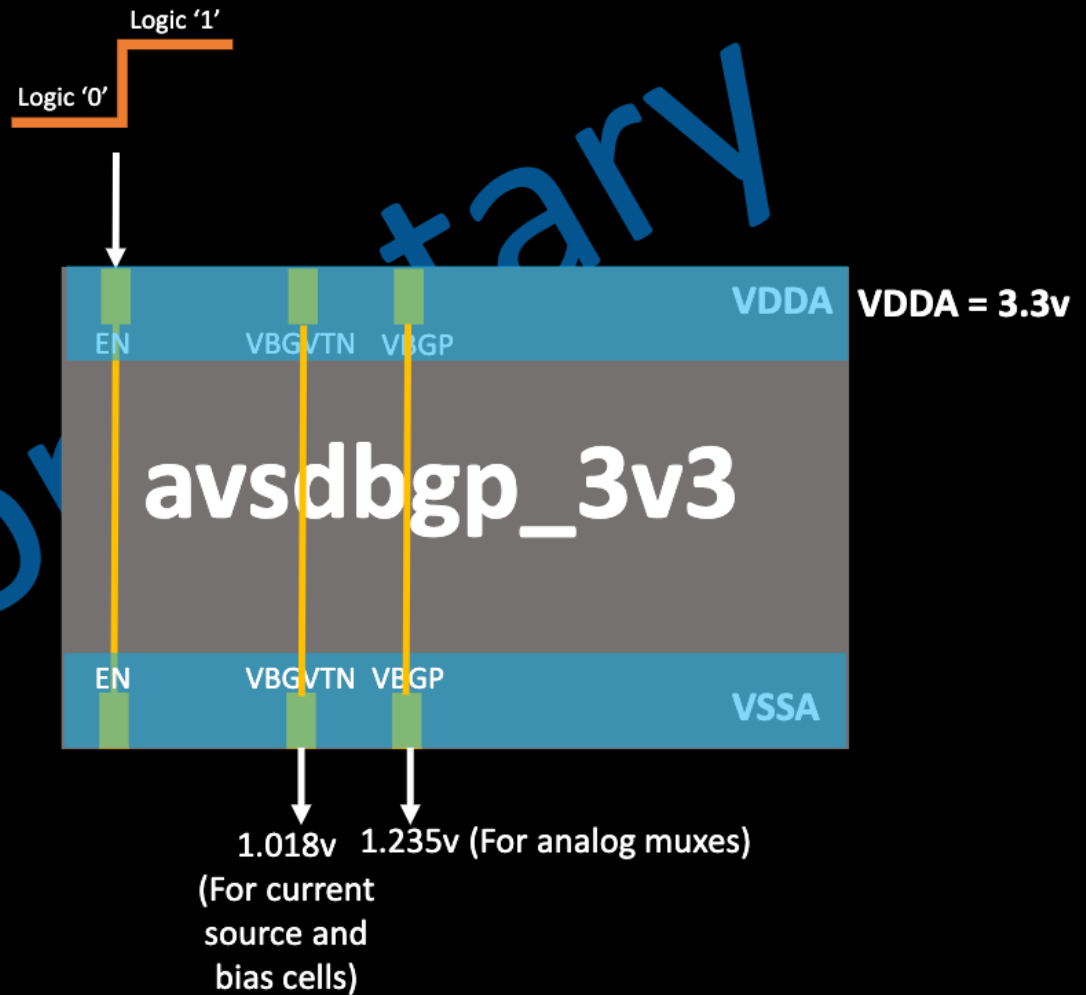
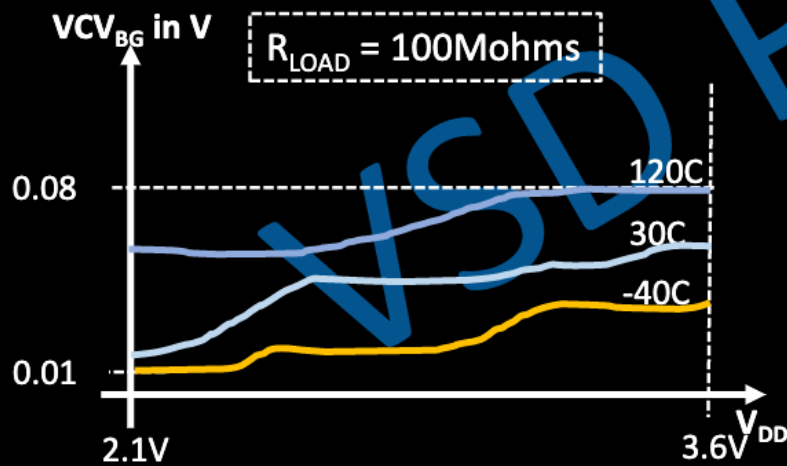
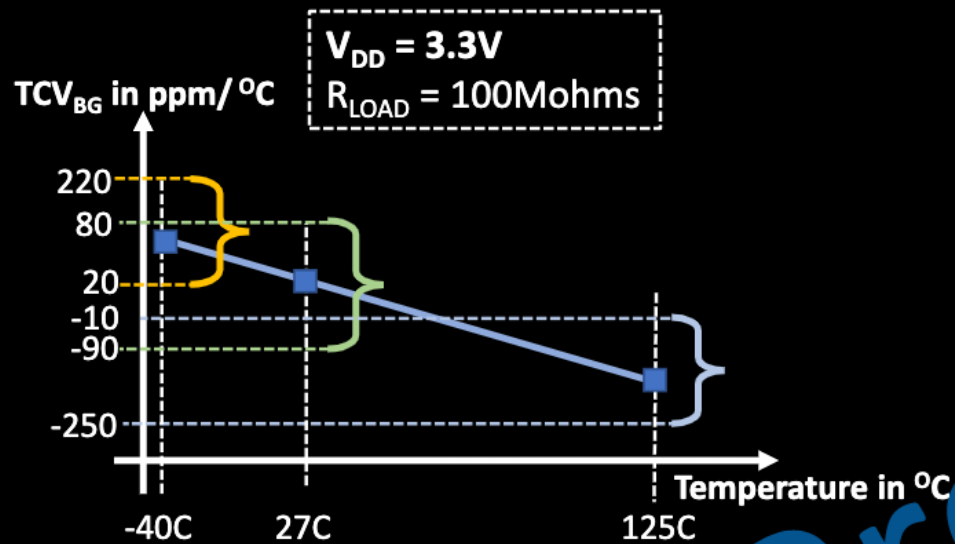
■ Signal pins – metal2 (0.38 μm x 0.8 μm)

■ VDDA pins on metal3 (291.04 μm x 3 μm)
■ VSSA pins on metal1 (291.04 μm x 5 μm)

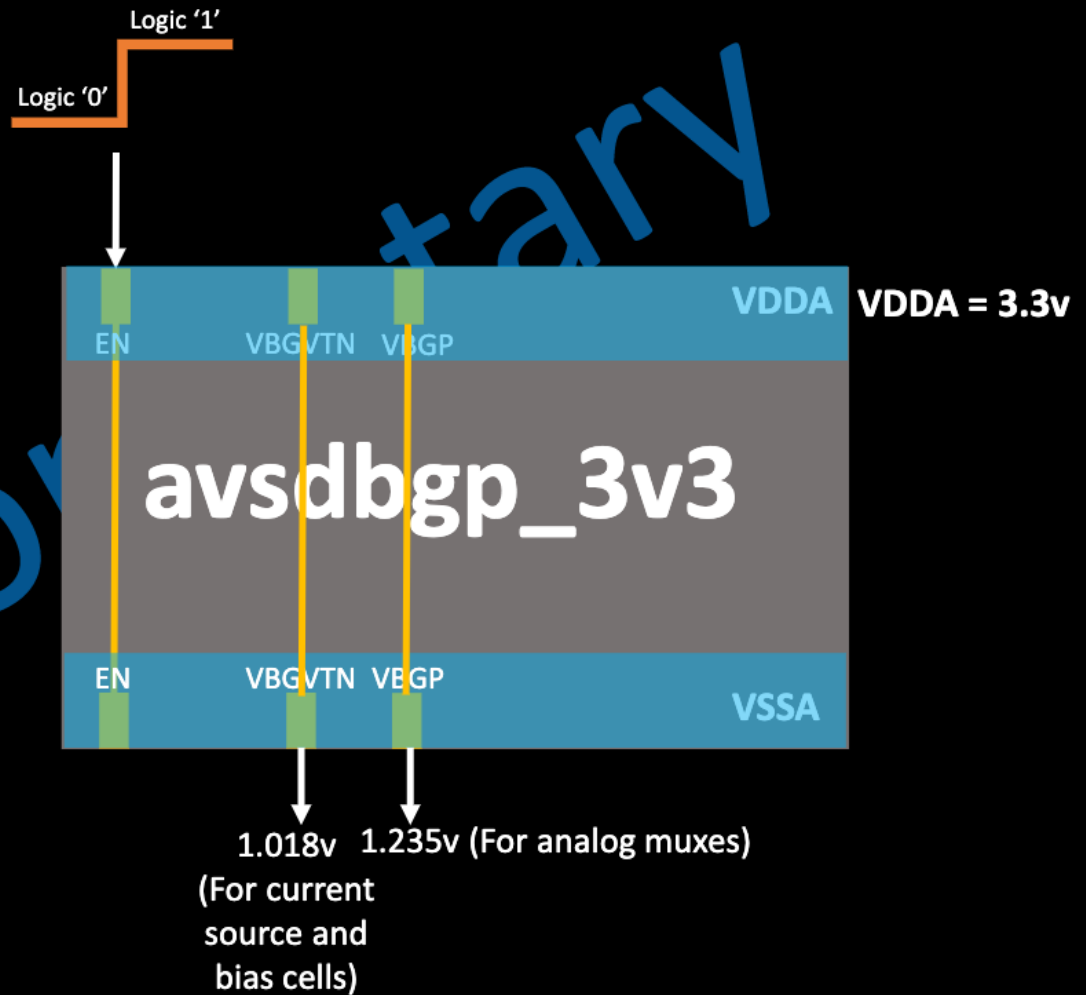
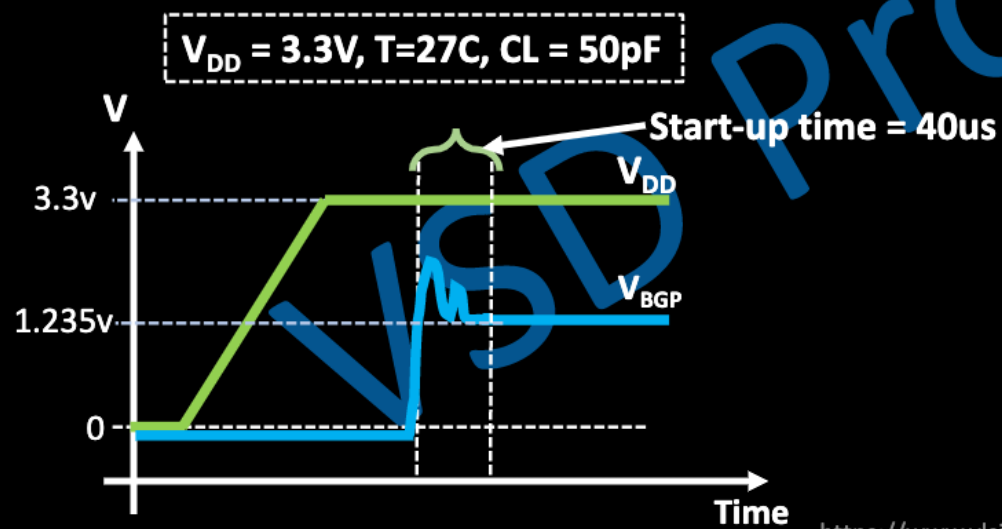
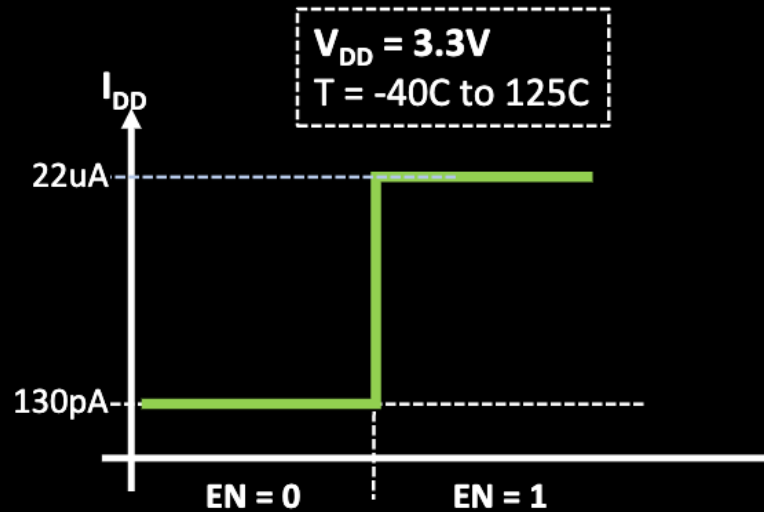
avbdbgp_3v3 operating modes



avbdbgp_3v3 operating modes



avbdbgp_3v3 operating modes



avbdbgp_3v3 plots and values needed

- 1) V_{BGP} vs Temperature (-40C to 140C) at $R_{LOAD} = 100\text{Mohms}$
- 2) V_{BGP} vs V_{DD} (2V to 4V) at $R_{LOAD} = 100\text{Mohms}$
- 3) Temperature Co-efficient of V_{BGP} vs Temperature (-40C to 140C) at $R_{LOAD} = 100\text{Mohms}$
- 4) Voltage Co-efficient of V_{BGP} vs V_{DD} (2V to 4V) at $R_{LOAD} = 100\text{Mohms}$
- 5) Report noise at VBGP terminal (expected 25uV rms)