

**VCO (avsdvco\_1v8)**

**PRE-LAYOUT  
SIMULATION AND OUTPUT WAVEFORMS**

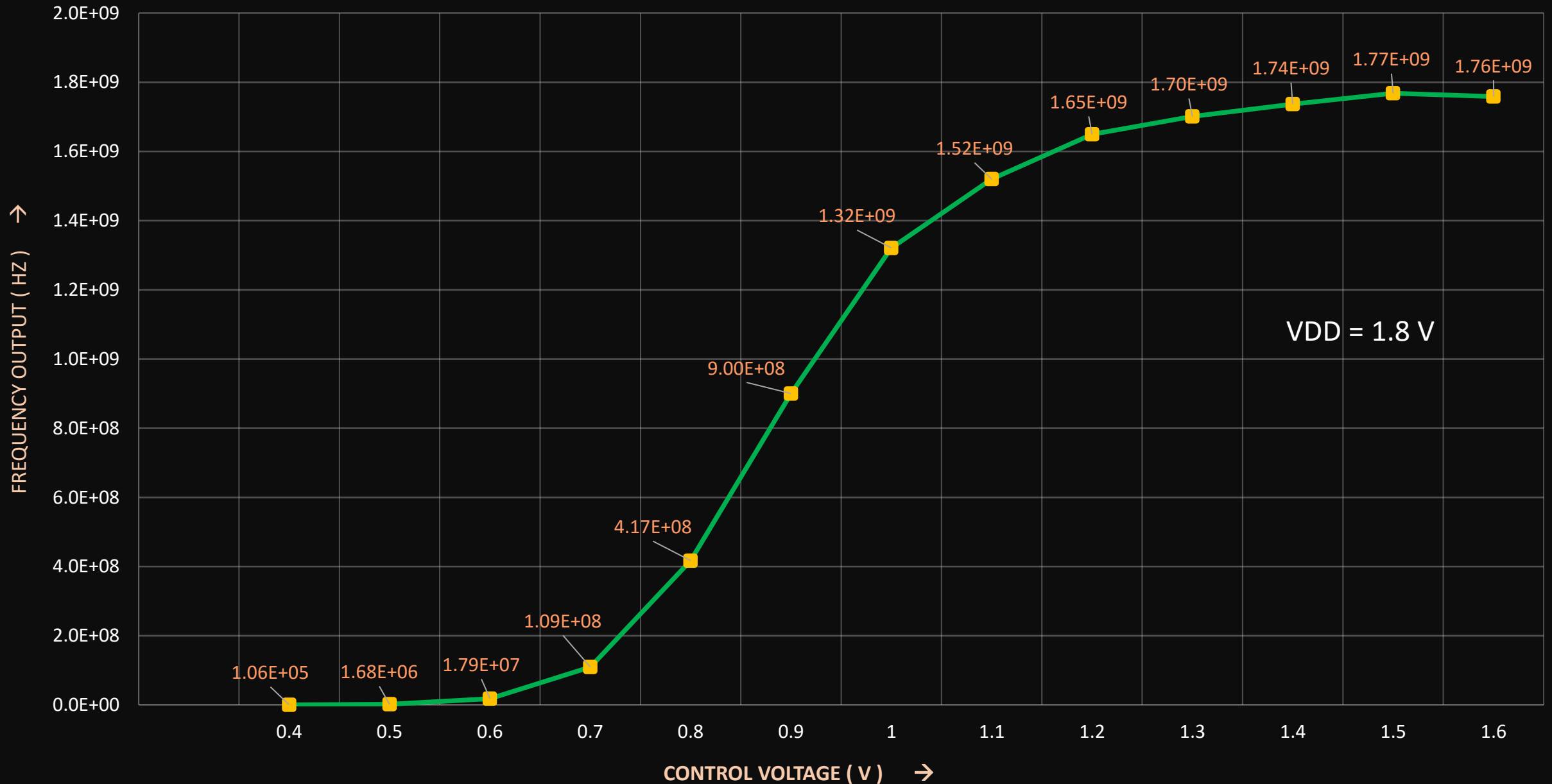
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## AVSDVCO\_1V8 PLOTS

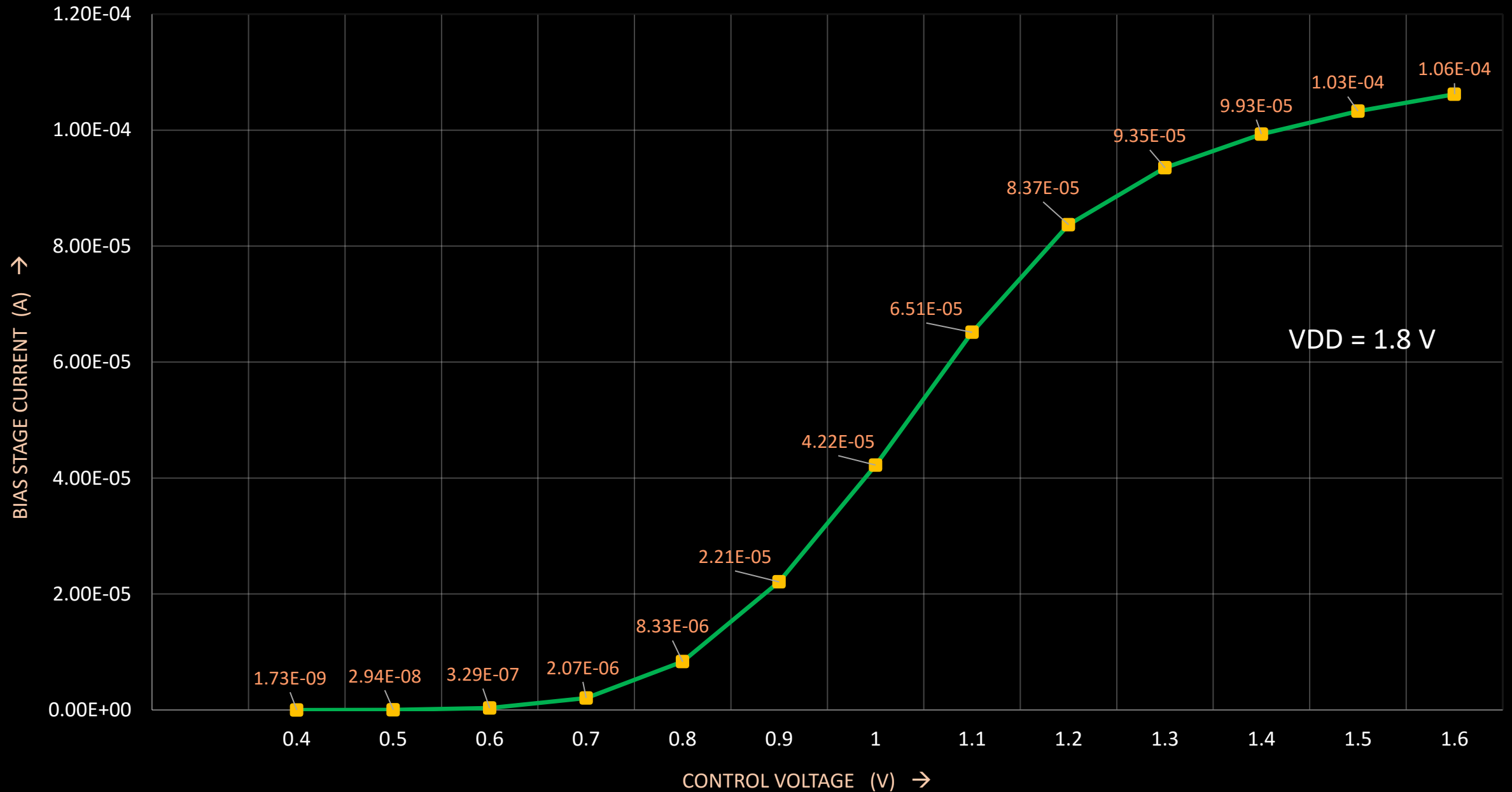
1. VCO OUTPUT FREQUENCY ( F\_OUT ) Vs CONTROL VOLTAGE ( VCTRL ) @ VDD = 1.8 V & TEMP = 27 °C
2. BIAS STAGE CURRENT Vs CONTROL VOLTAGE ( VCTRL ) @ VDD = 1.8 V & TEMP = 27 °C
3. VCO OUTPUT FREQUENCY ( F\_OUT ) Vs BIAS VOTAGE ( VDD ) @ VCTRL = 0.9 V & TEMP = 27 °C
4. TRANSIENT ANALYSIS ( AMPLITUDE Vs TIME ) @ VDD = 1.8 V , VCTRL = 0.9 V & TEMP = 27 °C

**Note :** 1 , 2 & 3 plots are performed for various transient analysis and values are plotted.

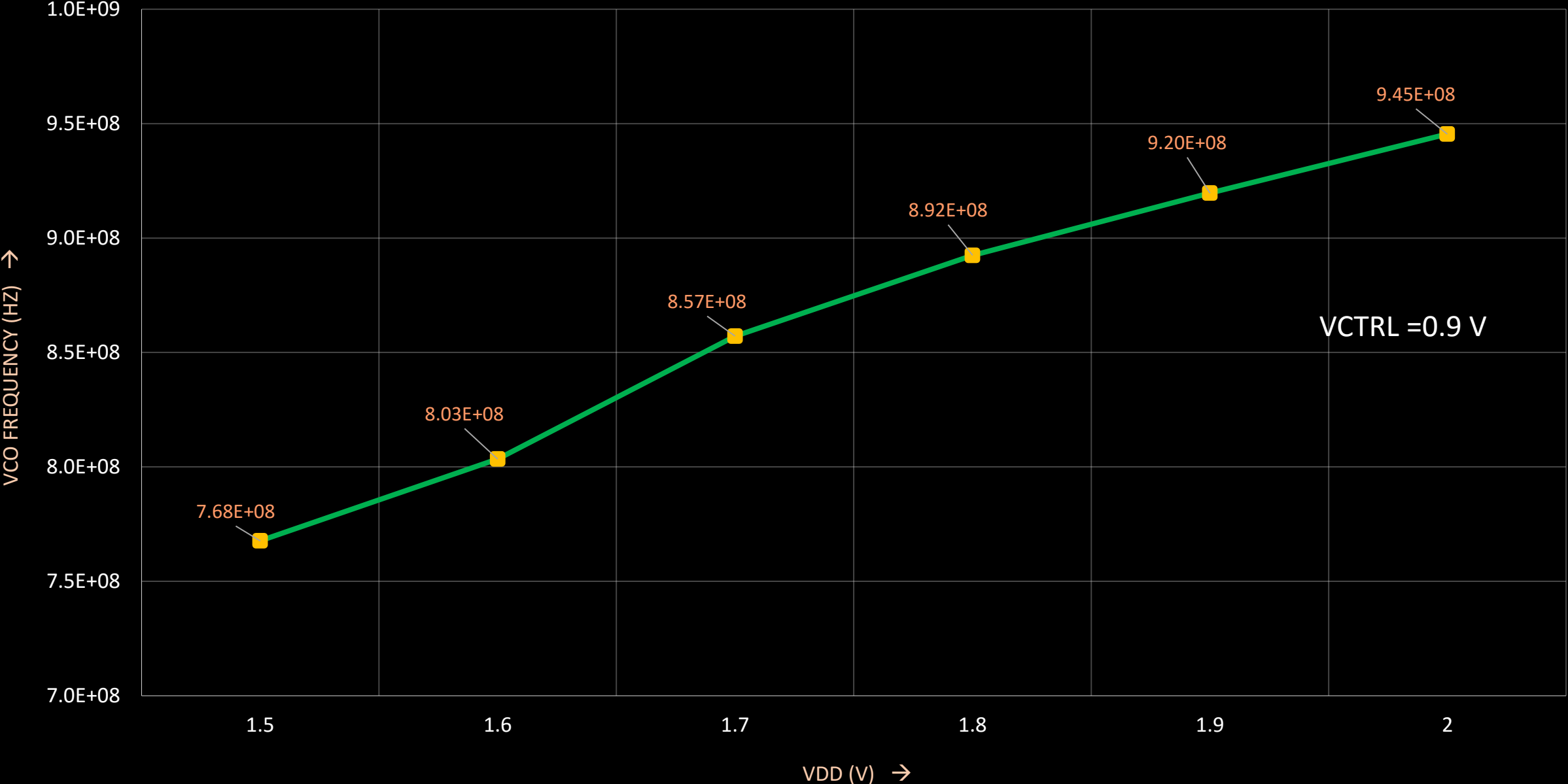
# 1) AVSDVCO\_1V8 OUTPUT FREQUENCY VS CONTROL VOLTAGE



## 2) AVSDVCO\_1V8 BIAS CURRENT VS CONTROL VOLTAGE



### 3) AVSDVCO\_1V8 OUTPUT FREQUENCY VS BIAS VOLTAGE



#### 4) AVSDVCO\_1V8 TRANSIENT ANALYSIS @ VCTRL = 0.9 V

tran2: avsd\_vco\_1v8 analysis @ 0.9 V



V

v(f\_out)

OUTPUT FREQUENCY = 900 MHz

