

=====BGR Transient Analysis=====

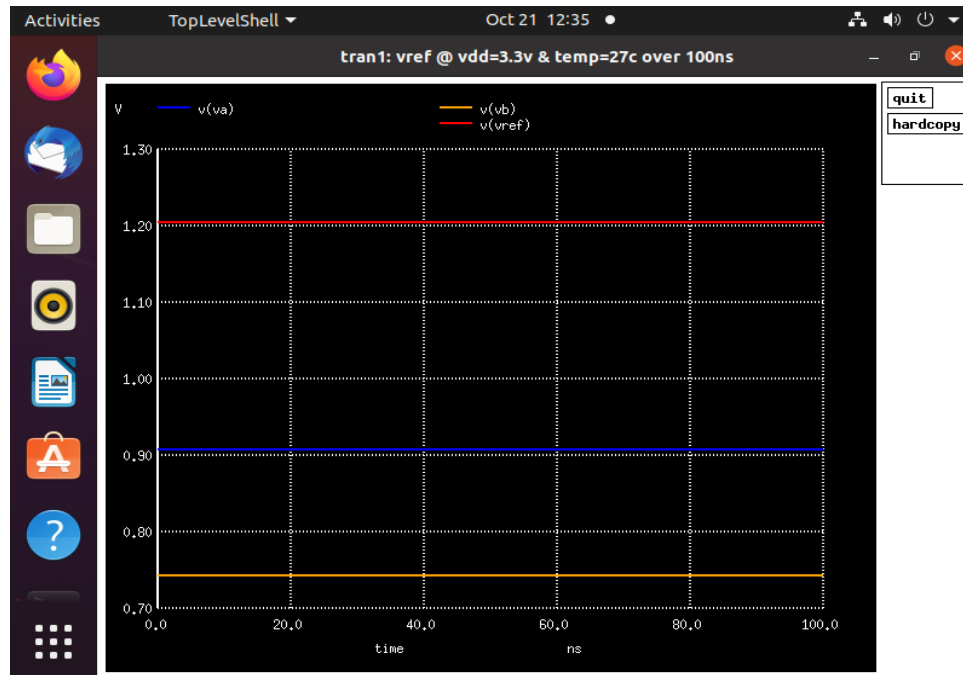


Figure 1: transient analyses

=====BGR VDD sweep=====

```
.dc Vdd1 2 4 0.1
.control
run
plot v(vref)
.endc
.end
waveform:
```

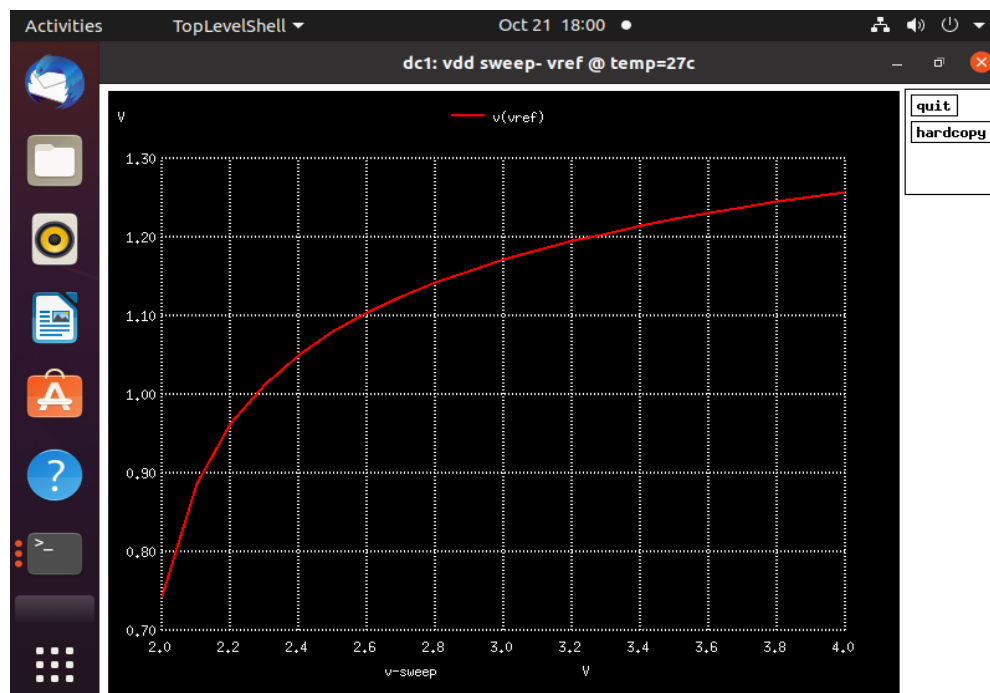
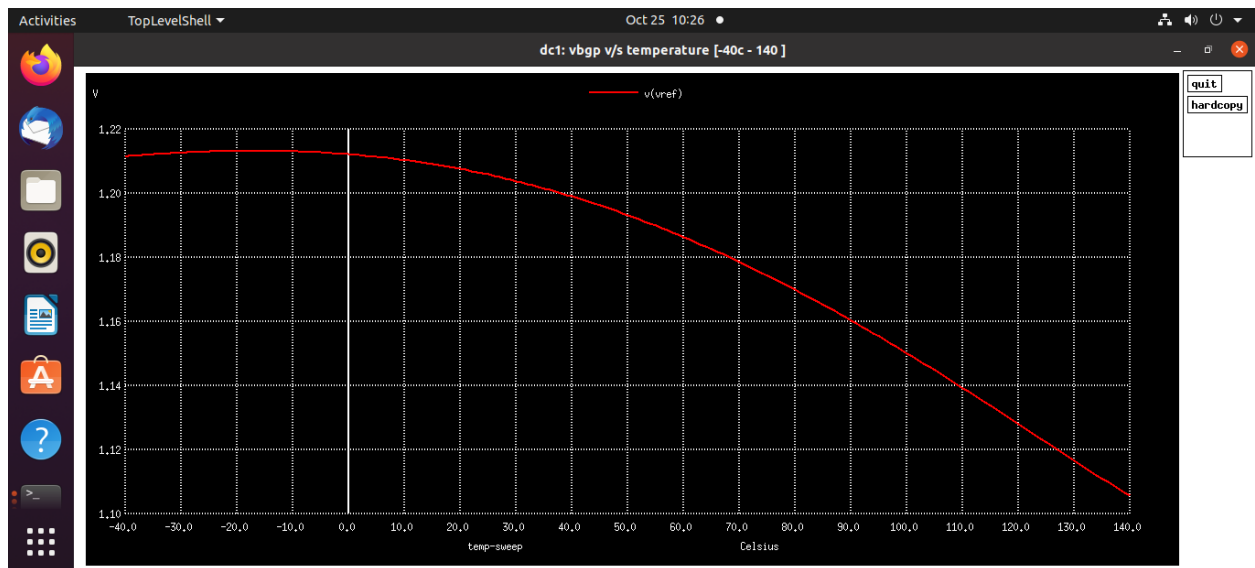


Figure 2: Vdd sweep

=====BGR TEMP sweep=====

```
.dc temp -40 140 1
.control
run
plot v(vref)
.endc
.end
```

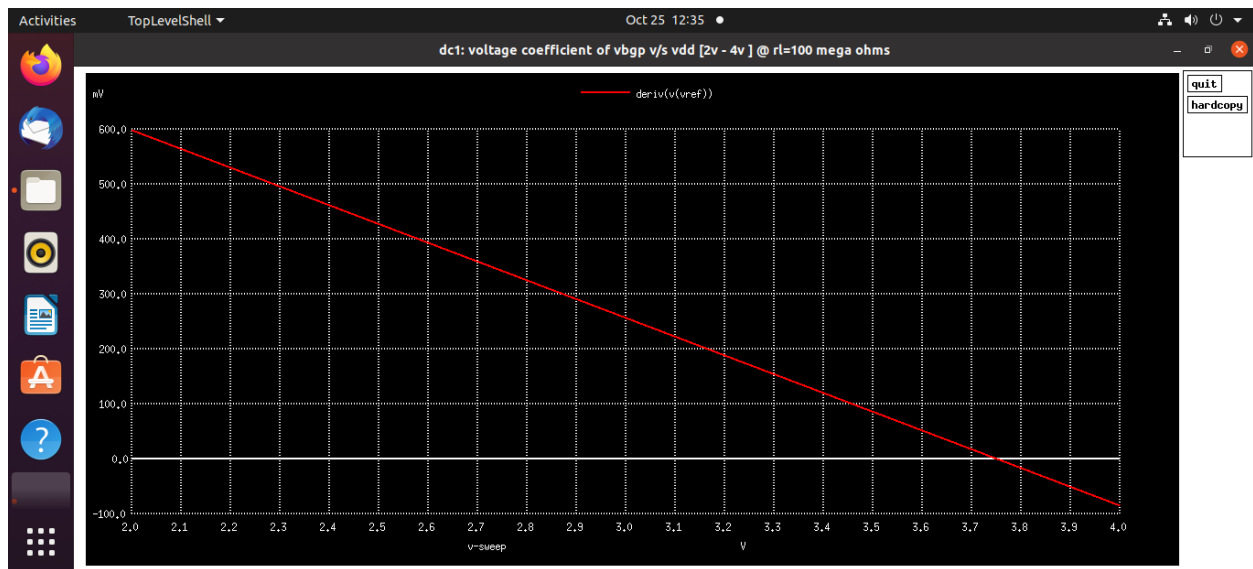
waveform:



=====BGR VC variation =====

```
.dc Vdd1 2 4 1
.control
run
plot deriv(v(vref))
.endc
.end
```

waveform:



=====BGR PPM variation =====

ppm variation: Temperature Coefficient of VBGP v/s Temperature [-40c - 140]

```
.dc temp -40 140 1
.control
run
plot deriv(v(vref))/1.2351
.endc
.end
```

waveform: