EE-510 HIGH VOLTAGE

PRESENTED BY

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PROPER CENTRE-TAP RECTIFIER WITH RESISTIVE AND INDUCTIVE LOAD:.

Component used:
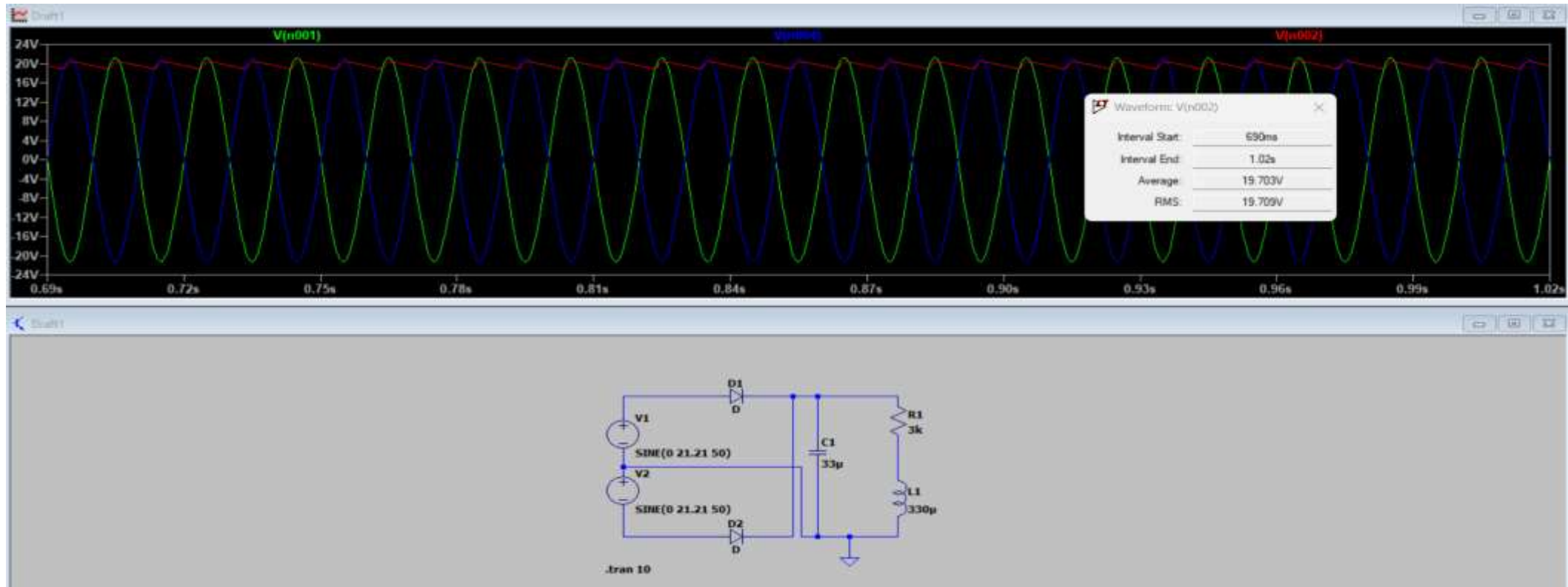
1-phase transformer 230v || 15-0-15v
Diode(1N4007)
Resistance 3Kilo ohm
Inductance 330 micro Henry
Filter capacitance 33 micro Farad,50V

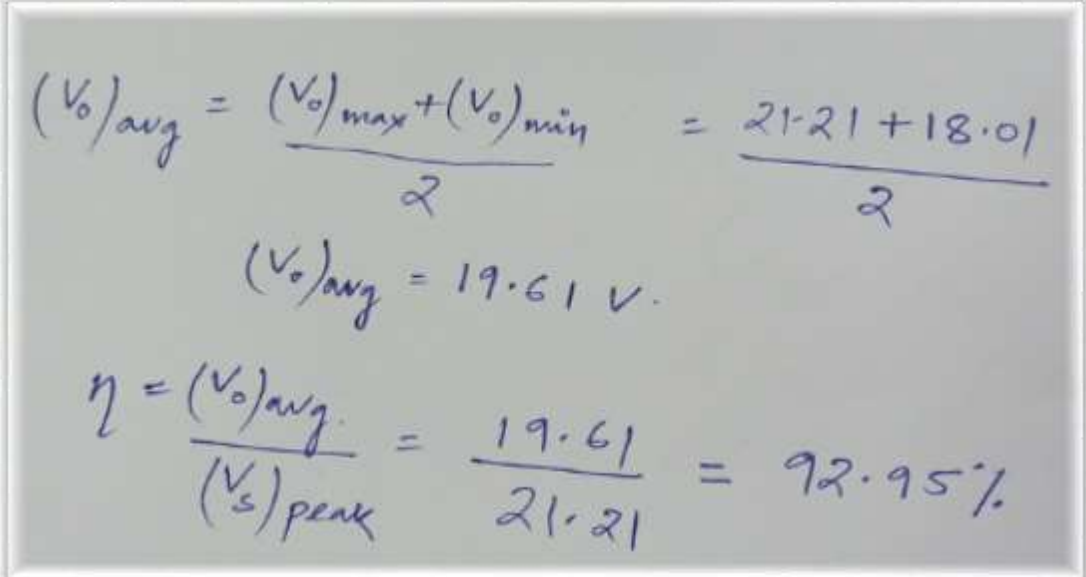# Simulation in LT-spice:

DSO Results:

Calculation:

Vin peak=15√2 V

$$\delta V = \frac{I}{4fc}$$

δV=1.6v

2δV=Ripple=3.2v

$\eta = \dfrac{Vout}{Vinpeak} = \dfrac{19.615}{21.21} * 100 = 92.95\%$

THANK YOU