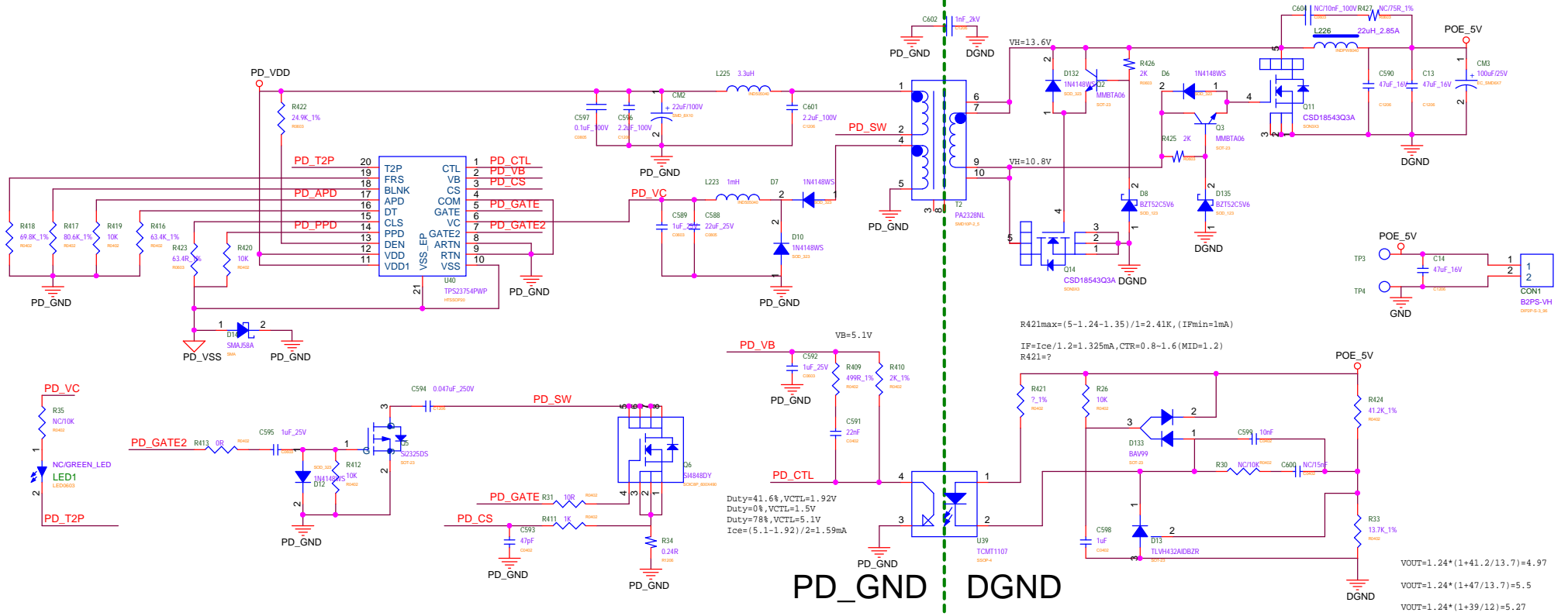
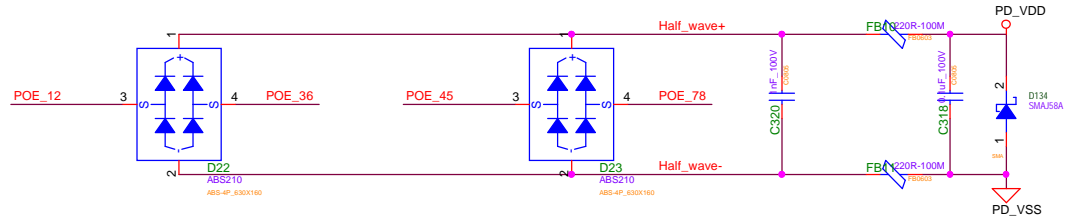


POE_36 << POE_36
 POE_12 << POE_12
 POE_78 << POE_78
 POE_45 << POE_45



$R421_{max} = (5 - 1.24 - 1.35) / 1 = 2.41K, (I_{Fmin} = 1mA)$
 $I_F = I_{ce} / 1.2 = 1.325mA, CTR = 0.8 - 1.6 (MID = 1.2)$
 $R421 = ?$

$Duty = 41.6\%, V_{CTL} = 1.92V$
 $Duty = 0\%, V_{CTL} = 1.5V$
 $Duty = 78\%, V_{CTL} = 5.1V$
 $I_{ce} = (5.1 - 1.92) / 2 = 1.59mA$

$V_{OUT} = 1.24 * (1 + 41.2 / 13.7) = 4.97$
 $V_{OUT} = 1.24 * (1 + 47 / 13.7) = 5.5$
 $V_{OUT} = 1.24 * (1 + 39 / 12) = 5.27$

