

SiPMT

Cable

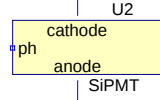
Amplifier

ADC

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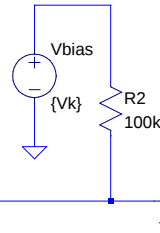
.tran 500ns
.ac dec 10 1k 1000Meg
.include SiPMT_model2.cir
.PARAM Vk = 70.8
.PARAM Vbd = 67.3
.PARAM Vt = 0.0

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Parameters for MPPC-S10362-33-25c

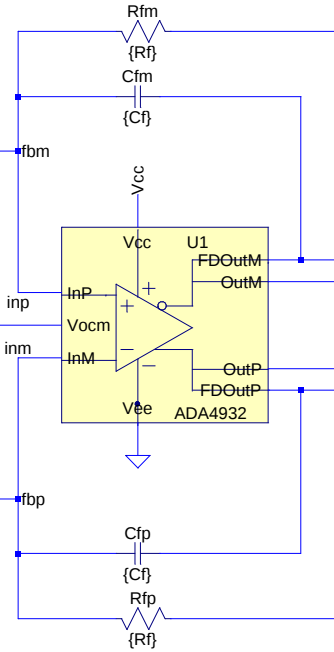
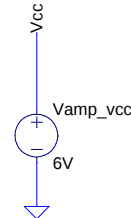
$C_d=15.4f$   $C_q=3.4f$   $C_g=59p$   $R_d=1k$   $R_q=268k$   $N_f=600$   $N_p=13800$   $I_{th}=30u$   $V_{bd}=\{V_{bd}\}$



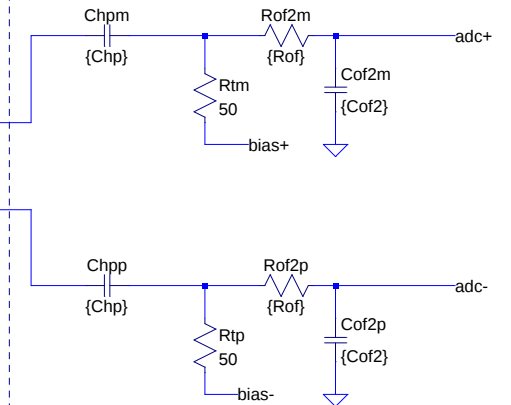
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.PARAM Rg = 50
.PARAM Rf = 2440
.PARAM Cf = 7.7pF
.PARAM Cpara = 5fF
.PARAM Cif = 30nF
.PARAM Cof1 = 45pF

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e.g LTM9007-14.  $V_{cm}=0.9V$ , input range ( $V_{in+} - V_{in-}$ ) = 1V



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.PARAM Cof2 = 183pF
.PARAM Chp = 300nF
.PARAM Rof = 100R
.PARAM Vfs = 0.5V

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Vfs = single-ended full-scale range.  
N.B. Differential voltage =  $2 \times$  single-ended

