

Capacitor information  
All 10uF capacitors on this sheet are tantalums and have 16V tolerance

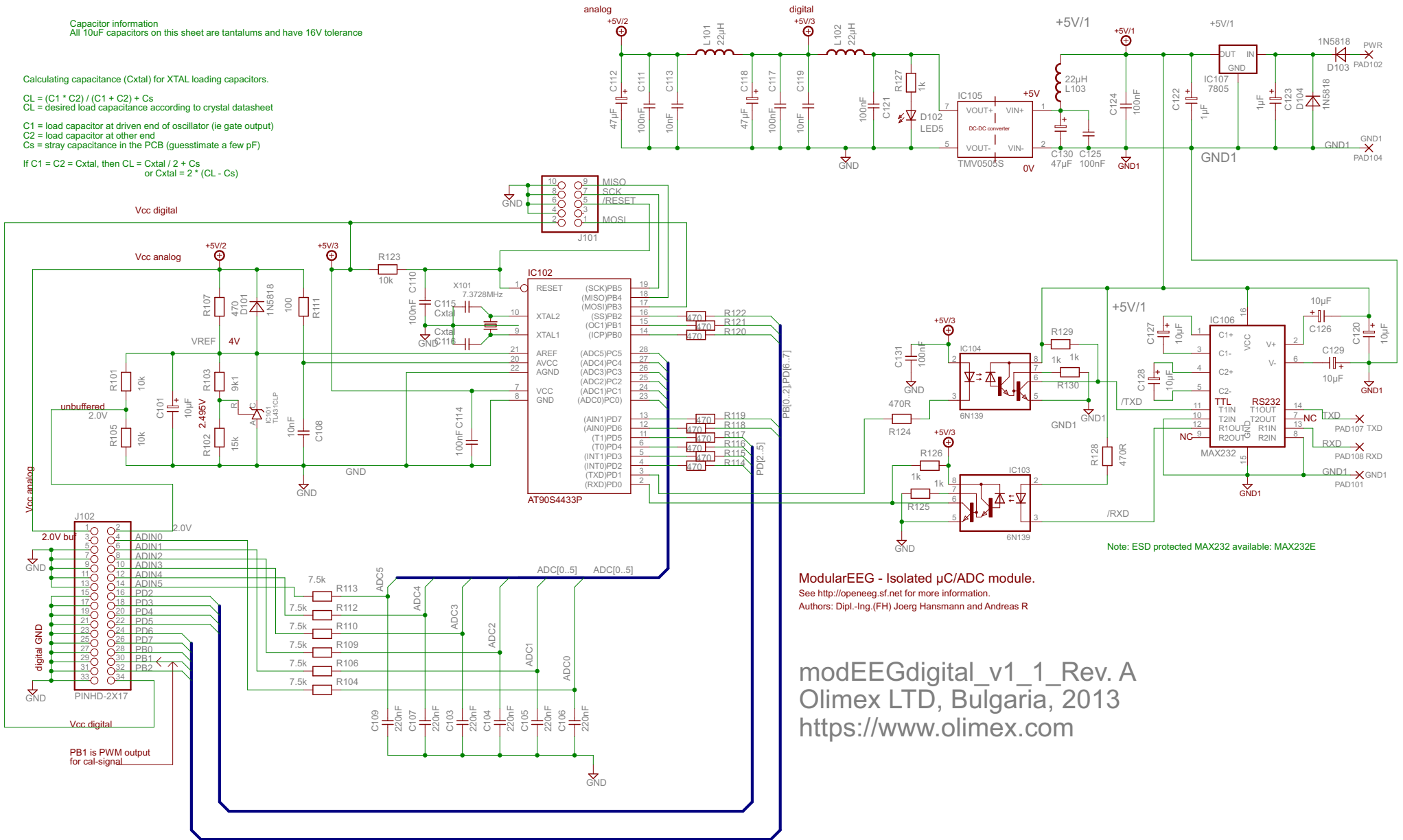
Calculating capacitance (Cxtal) for XTAL loading capacitors.

$CL = (C1 * C2) / (C1 + C2) + Cs$   
CL = desired load capacitance according to crystal datasheet  
C1 = load capacitor at driven end of oscillator (ie gate output)  
C2 = load capacitor at other end  
Cs = stray capacitance in the PCB (guesstimate a few pF)

If  $C1 = C2 = Cxtal$ , then  $CL = Cxtal / 2 + Cs$   
or  $Cxtal = 2 * (CL - Cs)$

If PWR = +5V, replace D103 and IC107 (7805) with wires across their inputs and outputs, and mount D104.

If PWR = +7V, mount D103 and IC107 as intended, but do not mount D104.



Note: ESD protected MAX232 available: MAX232E

ModularEEG - Isolated  $\mu$ C/ADC module.  
See <http://openeeg.sf.net> for more information.  
Authors: Dipl.-Ing.(FH) Joerg Hansmann and Andreas R

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<https://www.olimex.com>