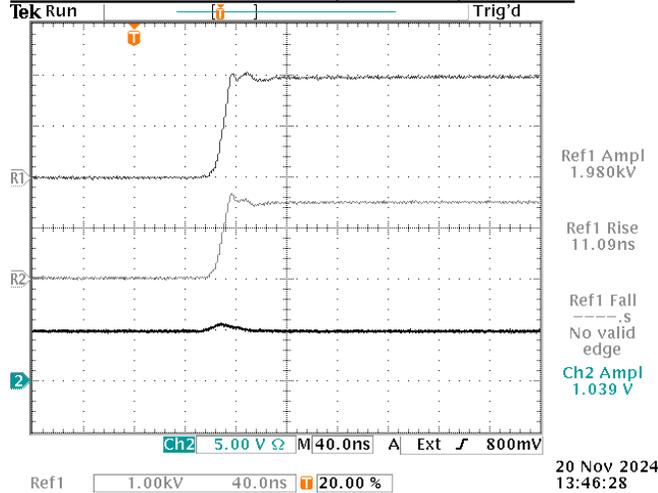


PERFORMANCE CHECKSHEET

Model: AVRQ-5-B-XHV-FPD-AC22-SO16W-ATA3
 Type: Common Mode Transient Immunity (CMTI) Test for Opto-Couplers
 S.N.: 14487
 Date: November 20, 2024

Minimum Rise Time Test, No DUT, Positive



a) Output Signal Amplitude: ± 1.5 to ± 2 kV

b) Rise Time (10%-90%): < 15 to > 50 ns

c) PRF: 1 Hz - 100 Hz

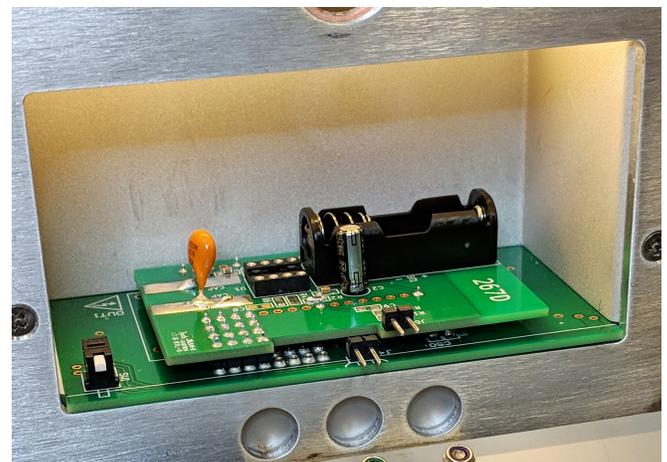
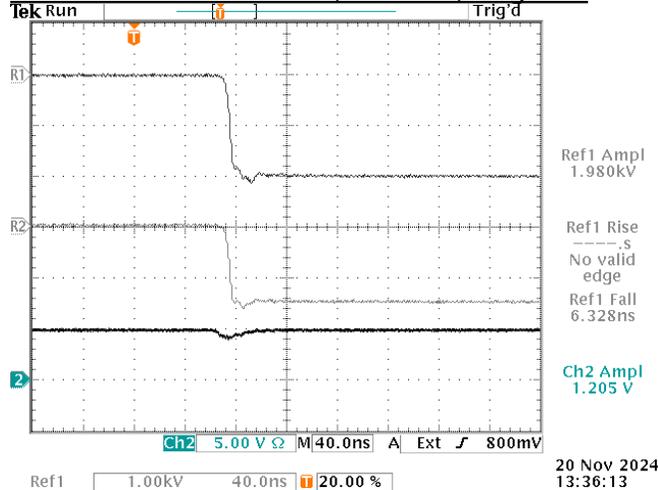
d) Jitter, Stability: OK

e) Prime Power: 100-240V AC, 50-60 Hz.

Top = +1.5 and +2.0 kV HV out (stored - with signal disconnected before recording logic waveform).

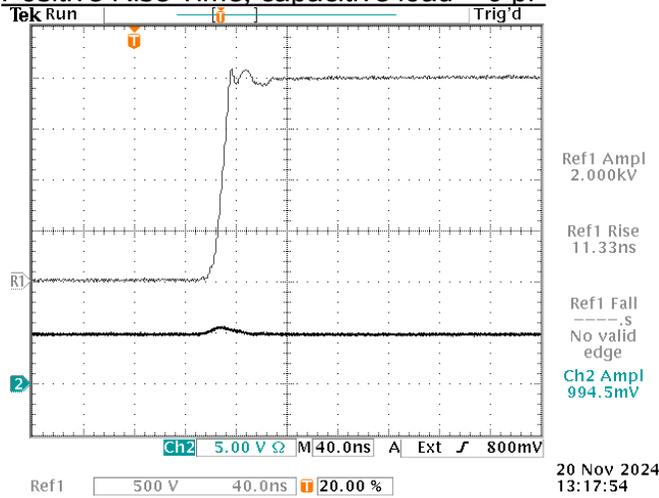
Bottom = Logic "A" out for +2 kV, VCC2 = +5V, using P6246, and no DUT, R2 = 1 k Ω . (This shows the parasitic capacitive coupling onto the Logic "A" out.)

Minimum Rise Time Test, No DUT, Negative

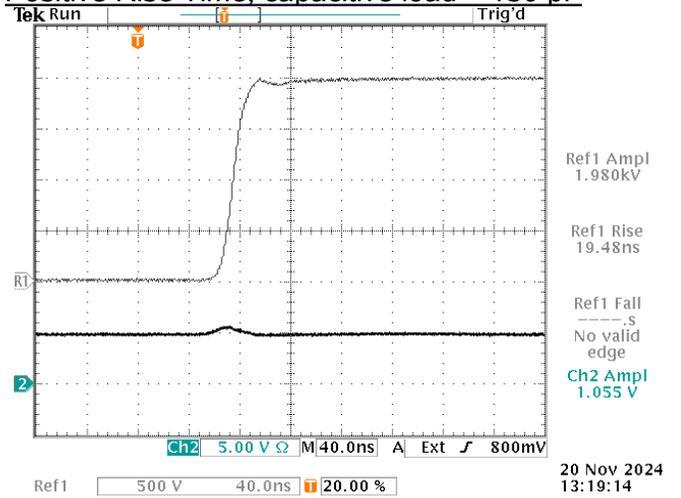


Daughterboard installed in positive position (with no DUT IC)

Positive Rise Time, capacitive load = 0 pF

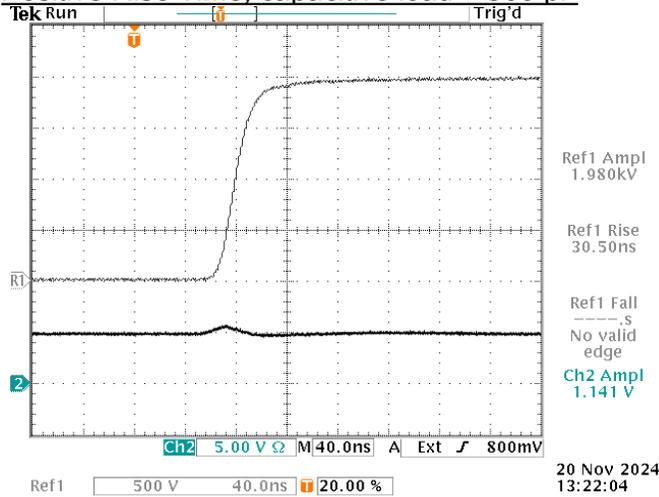


Positive Rise Time, capacitive load = 150 pF

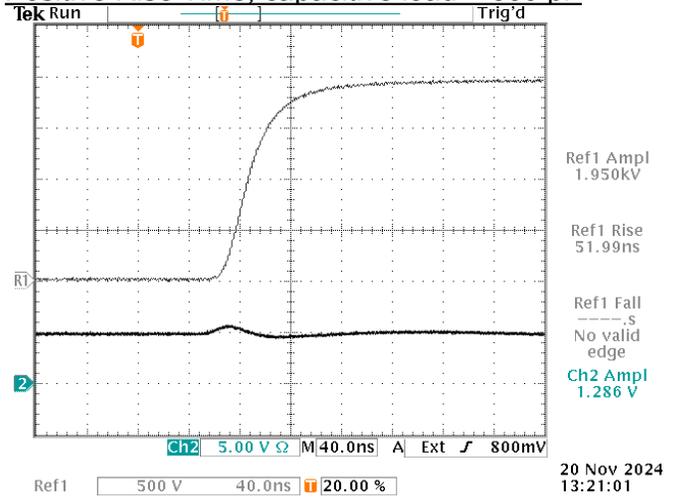


Top = HV out (stored - with signal disconnected before recording logic waveform)
 Bottom = Logic "A" out, VCC2 = +5V, using P6246 probe, and no DUT, R2 = 1 kΩ

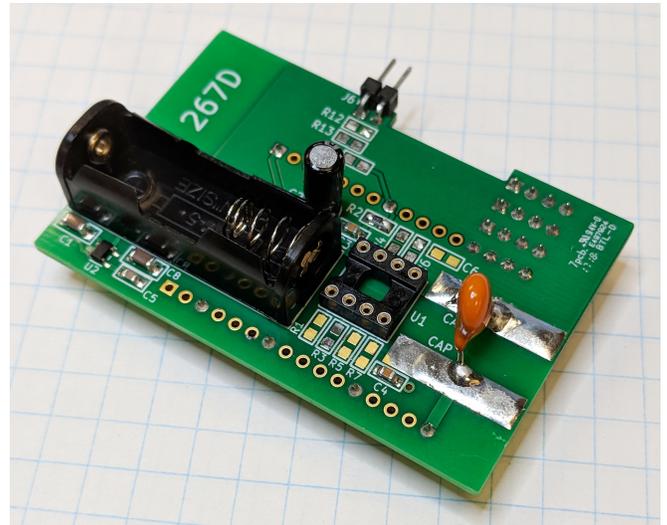
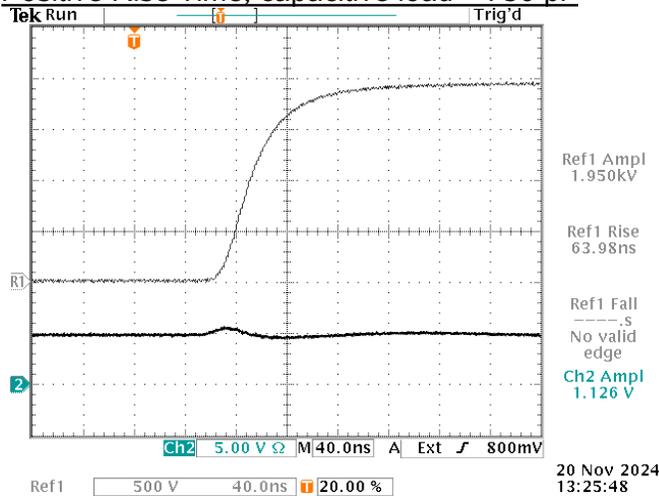
Positive Rise Time, capacitive load = 300 pF



Positive Rise Time, capacitive load = 600 pF

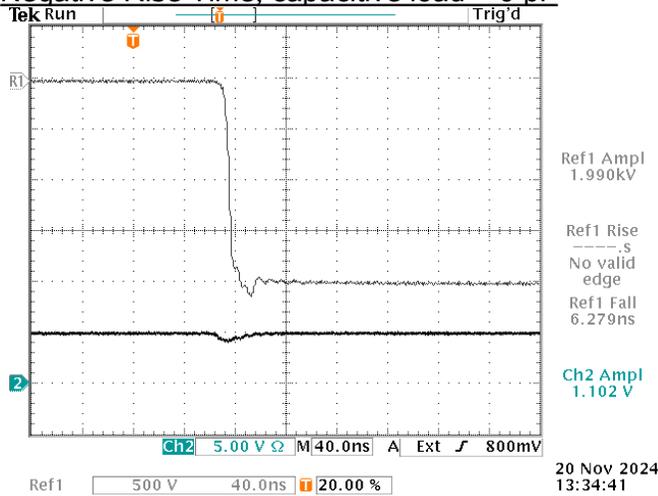


Positive Rise Time, capacitive load = 750 pF

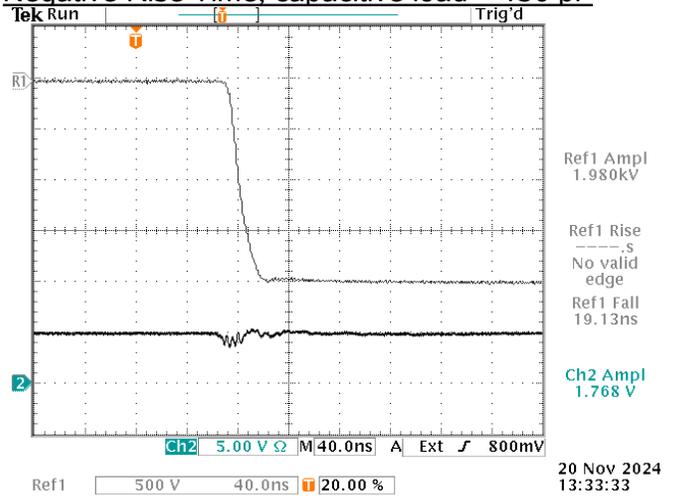


150 pF capacitor (orange) on daughterboard

Negative Rise Time, capacitive load = 0 pF

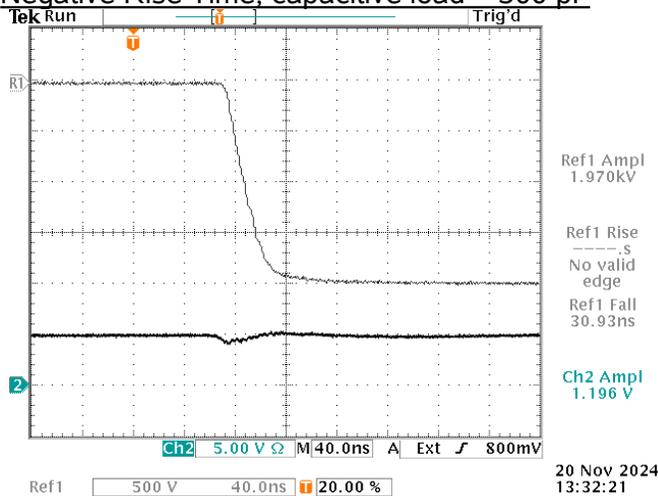


Negative Rise Time, capacitive load = 150 pF

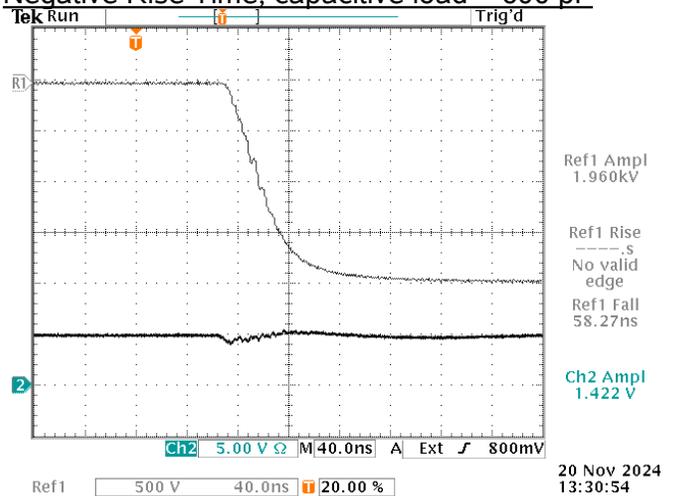


Top = HV out (stored - with signal disconnected before recording logic waveform)
 Bottom = Logic "A" out, VCC2 = +5V, using P6246 probe, and no DUT, R2 = 1 kΩ

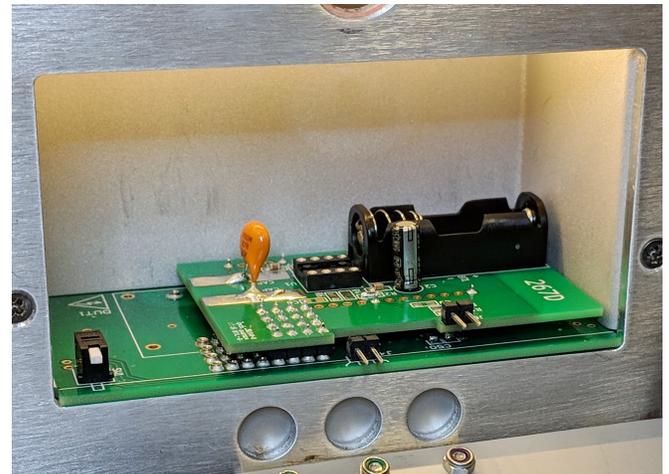
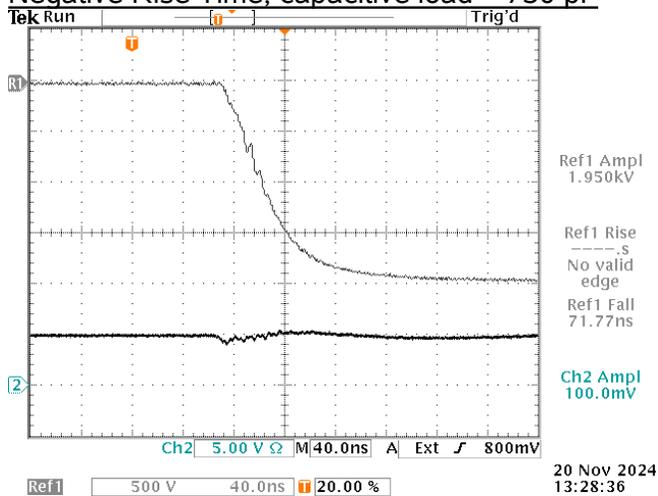
Negative Rise Time, capacitive load = 300 pF



Negative Rise Time, capacitive load = 600 pF

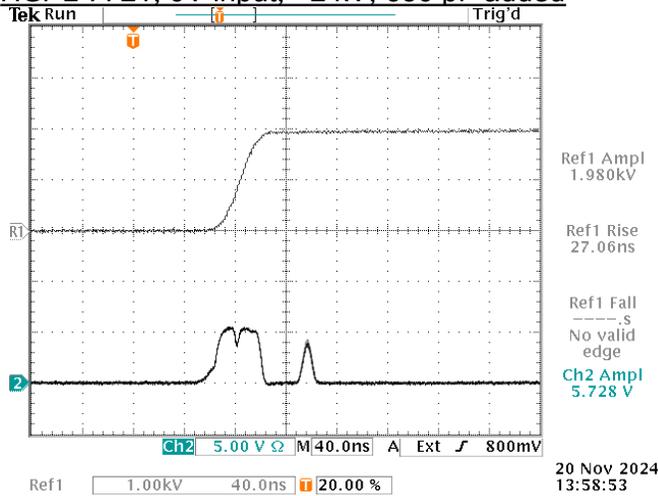


Negative Rise Time, capacitive load = 750 pF



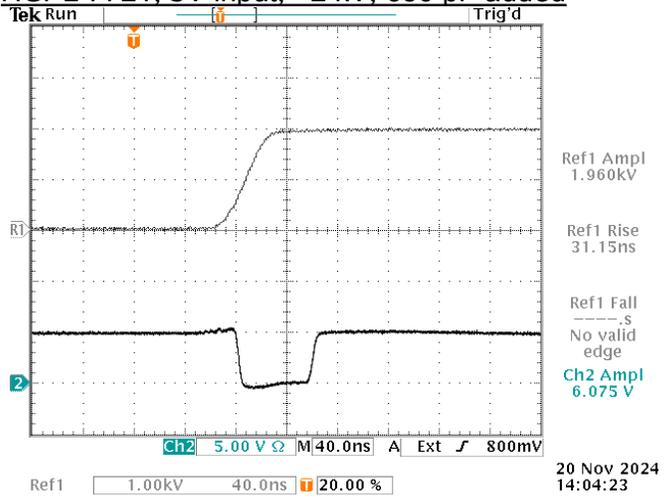
Daughterboard installed in negative position (with no DUT IC)

HCPL-7721, 0V input, +2 kV, 680 pF added



20 Nov 2024 13:58:53

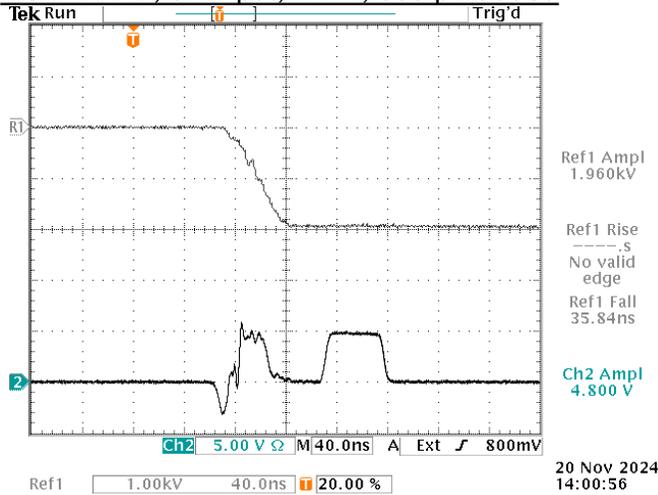
HCPL-7721, 5V input, +2 kV, 680 pF added



20 Nov 2024 14:04:23

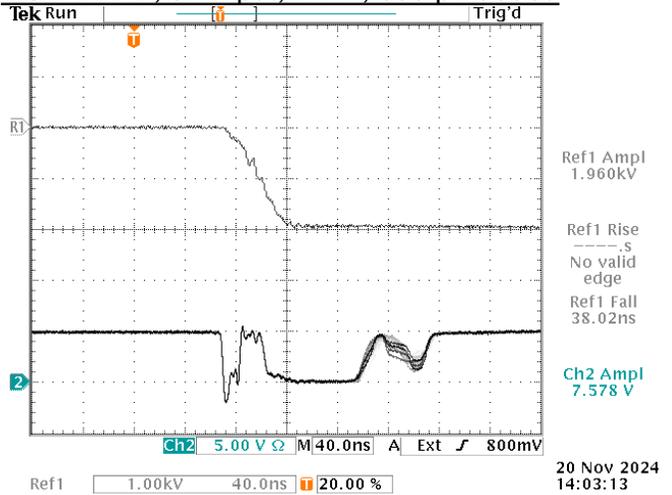
Top = high voltage pulse (stored - with signal disconnected before recording logic waveform).
 Bot = Logic "A" out (with 0V input) using P6246.

HCPL-7721, 0V input, -2 kV, 680 pF added

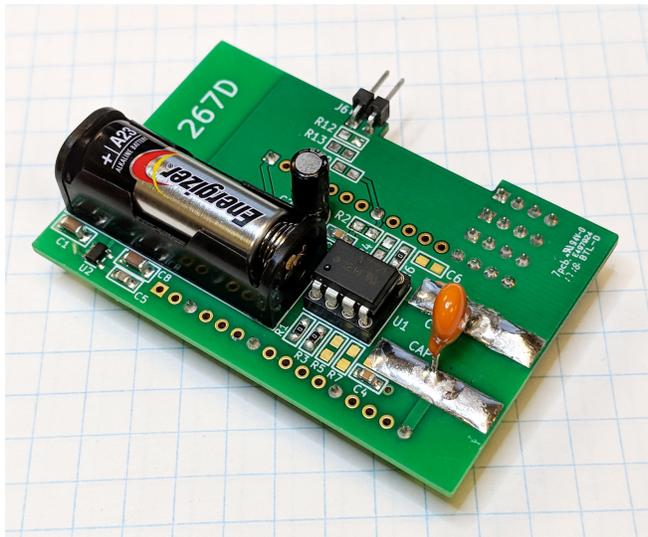


20 Nov 2024 14:00:56

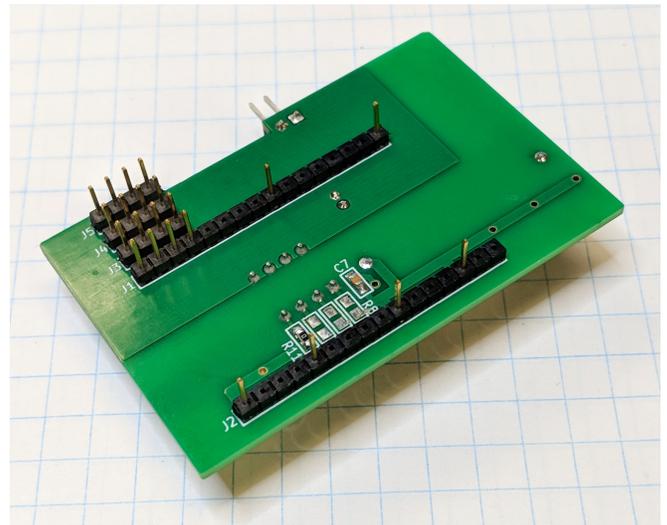
HCPL-7721, 5V input, -2 kV, 680 pF added



20 Nov 2024 14:03:13



Top side of daughterboard with HCPL-7721 configured for 5V bias.



Bottom side of daughterboard with HCPL-7721 configured for 5V bias.