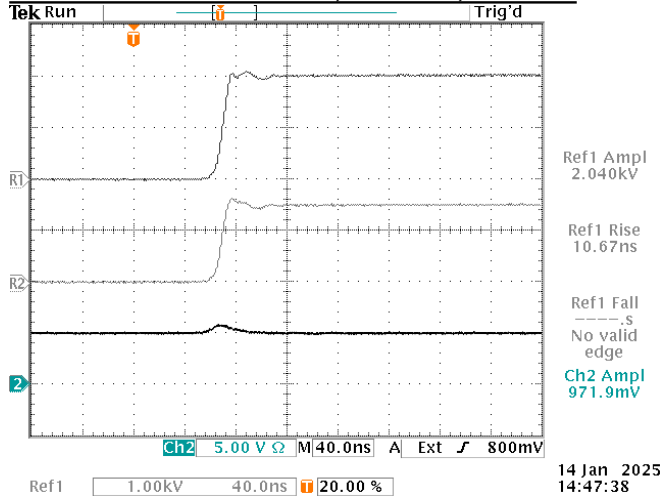


PERFORMANCE CHECKSHEET

Model: AVRQ-5-B-XHV-AC22
 Type: Common Mode Transient Immunity (CMTI) Test for Opto-Couplers
 S.N.: 14494
 Date: January 14, 2025

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

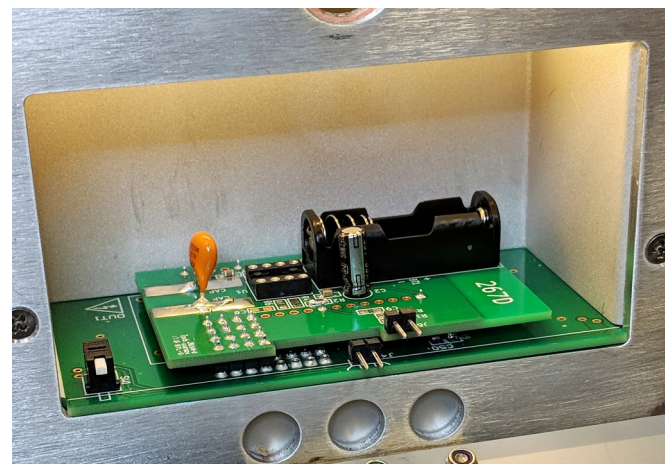
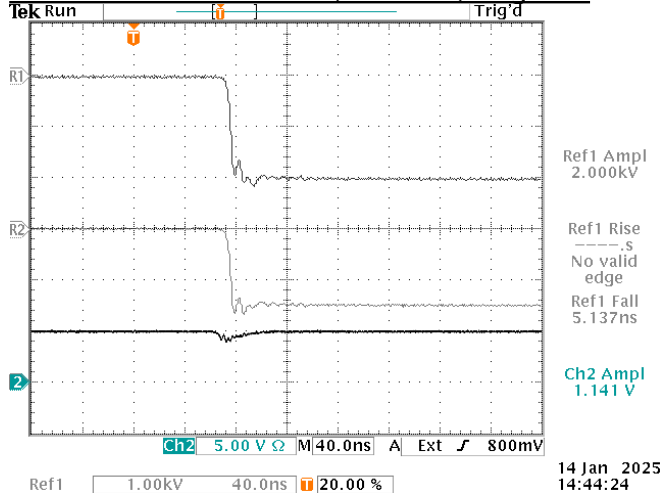
d) Jitter, Stability: OK

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).

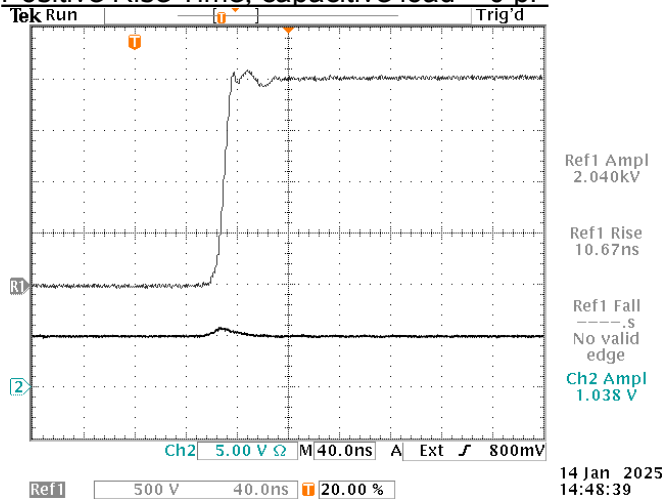
Bottom = Logic "A" out for +2 kV, VCC2 = +5V, using P6246, and no DUT, R2 = 1 k Ω . (This shows the parasitic capacitive coupling onto the Logic "A" out.)

Minimum Rise Time Test, No DUT, Negative

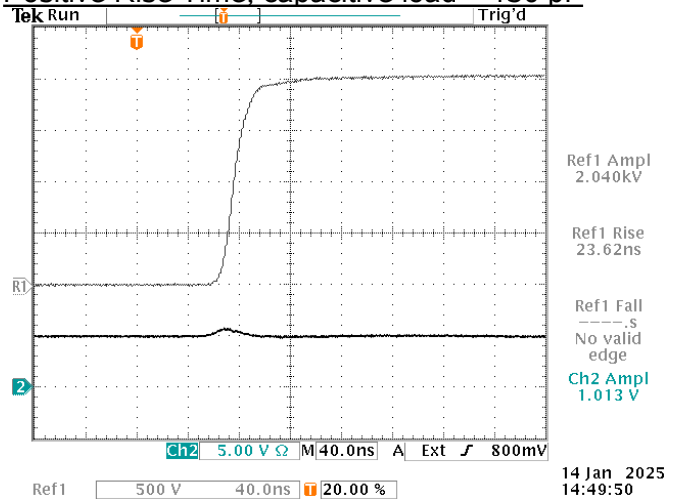


Daughterboard installed in positive position (with no DUT IC)

Positive Rise Time, capacitive load = 0 pF

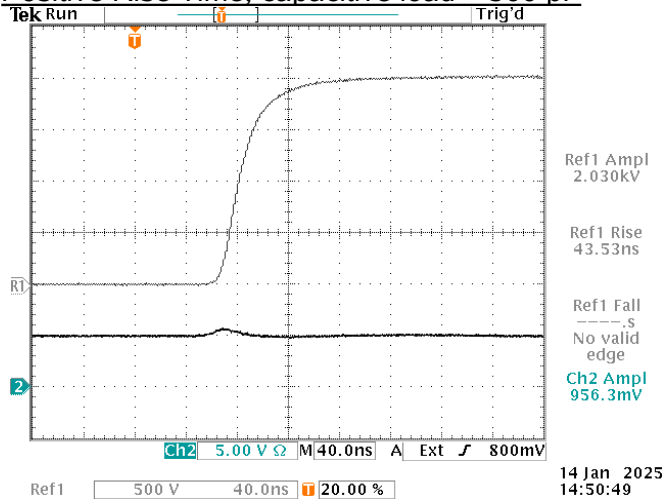


Positive Rise Time, capacitive load = 150 pF

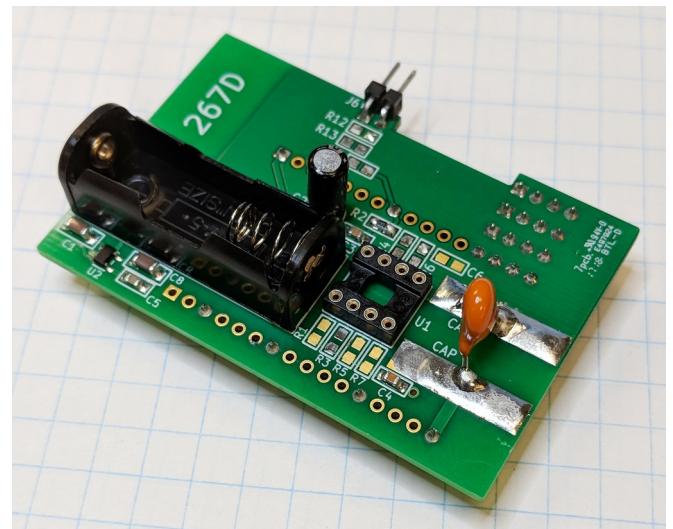
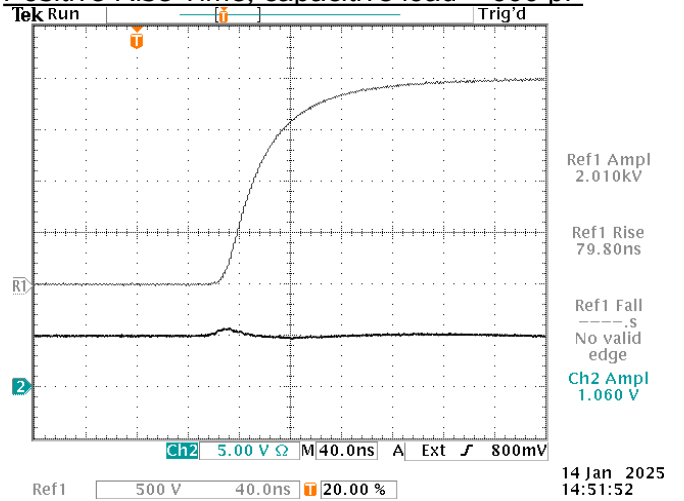


Top = HV out (stored - with signal disconnected before recording logic waveform)
 Bottom = Logic "A" out, VCC2 = +5V, using P6246 probe, and no DUT, R2 = 1 kΩ

Positive Rise Time, capacitive load = 300 pF

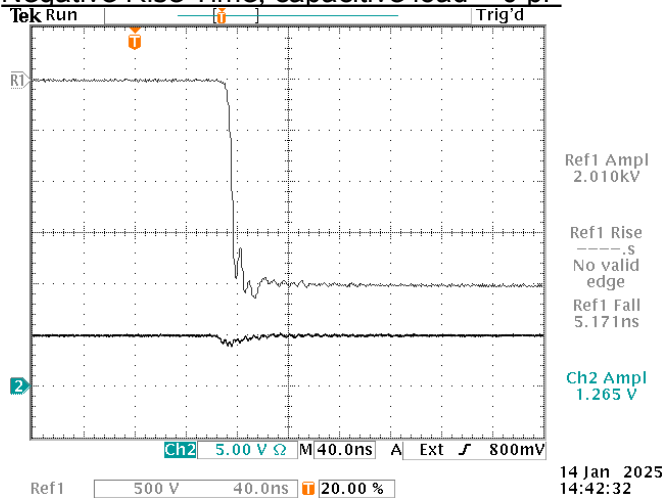


Positive Rise Time, capacitive load = 600 pF

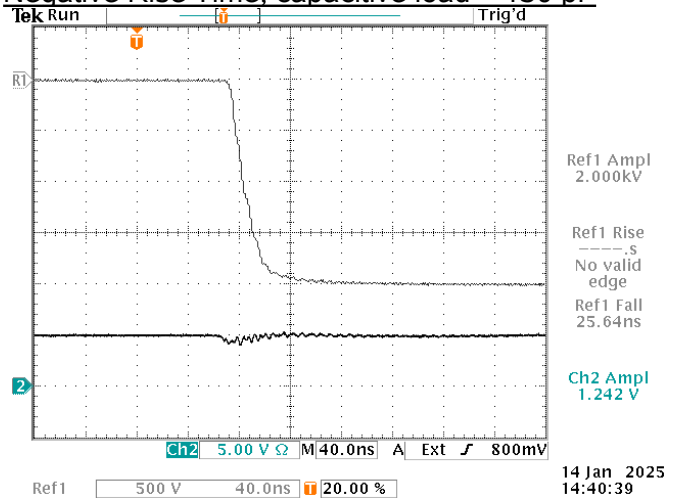


150 pF capacitor (orange) on daughterboard

Negative Rise Time, capacitive load = 0 pF

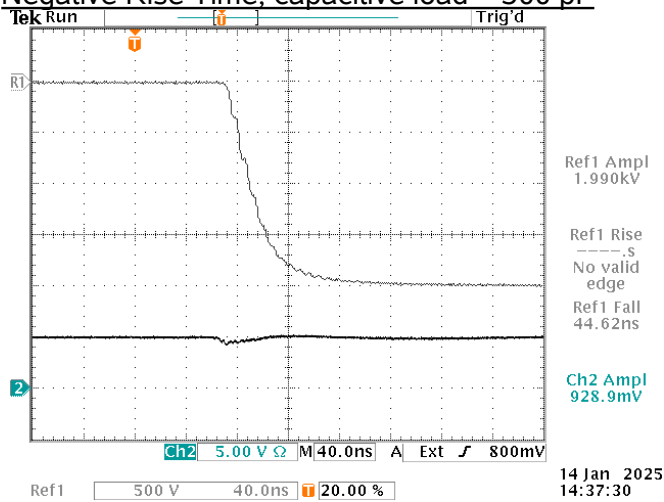


Negative Rise Time, capacitive load = 150 pF

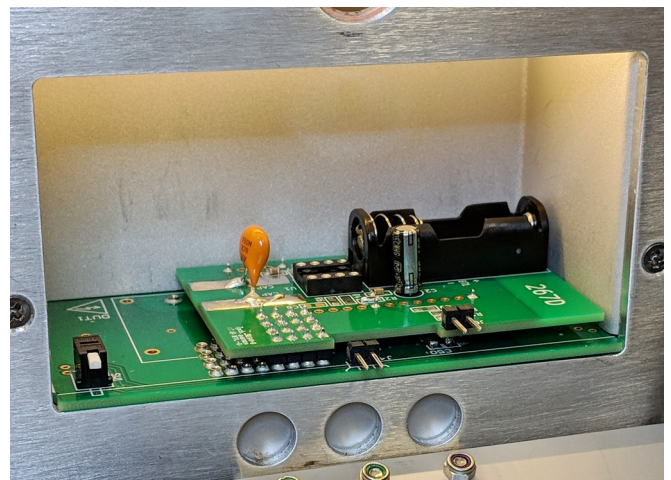
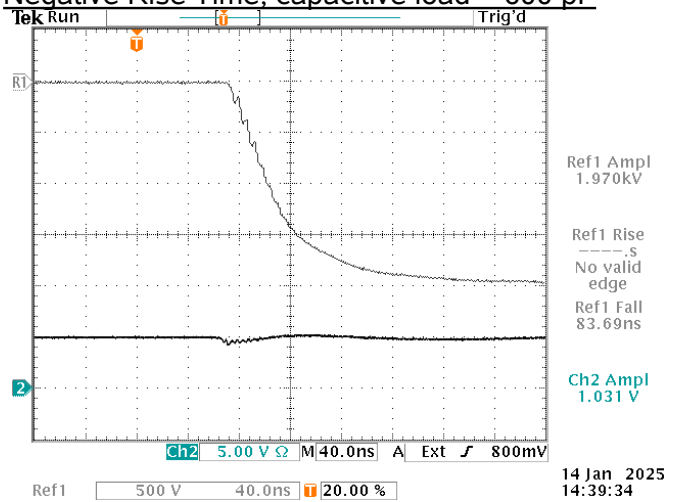


Top = HV out (stored - with signal disconnected before recording logic waveform)
 Bottom = Logic "A" out, VCC2 = +5V, using P6246 probe, and no DUT, R2 = 1 kΩ

Negative Rise Time, capacitive load = 300 pF

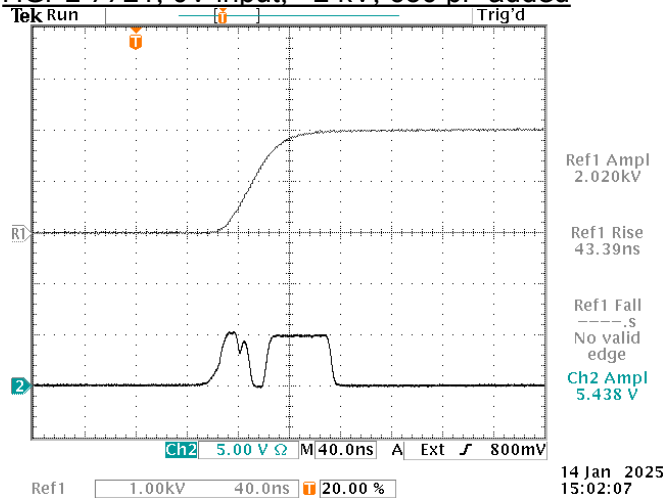


Negative Rise Time, capacitive load = 600 pF

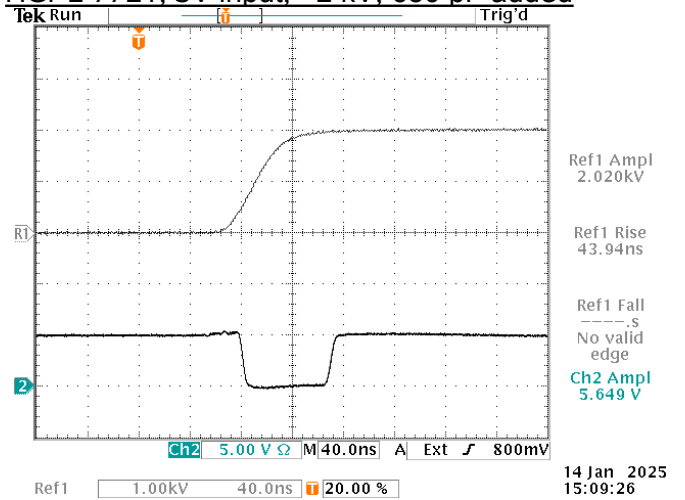


Daughterboard installed in negative position (with no DUT IC)

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



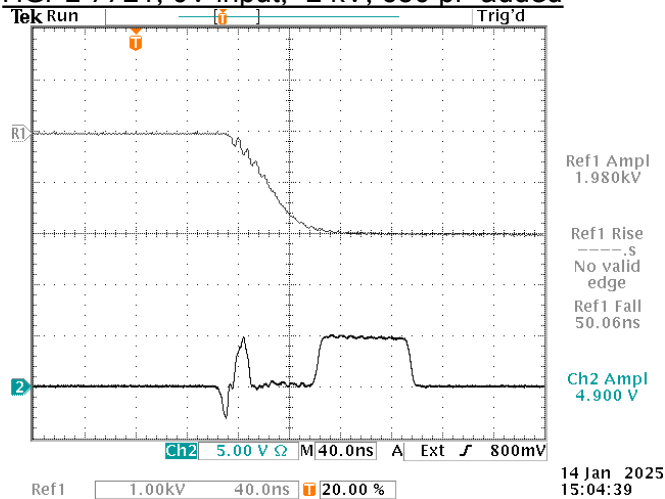
HCPL-7721, 5V input, +2 kV, 680 pF added



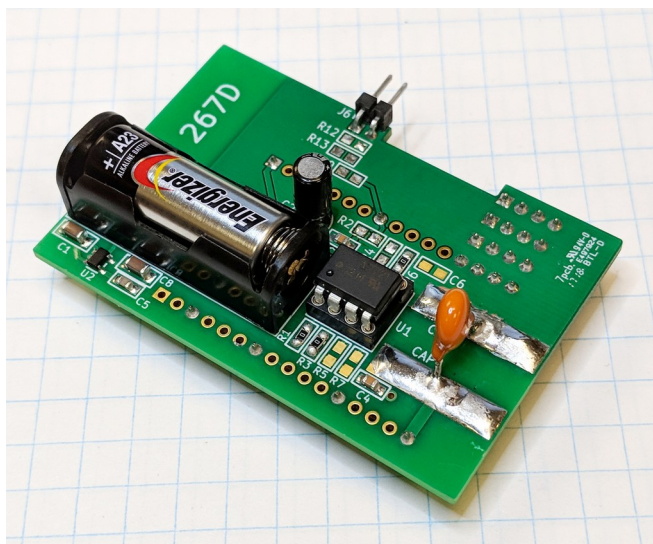
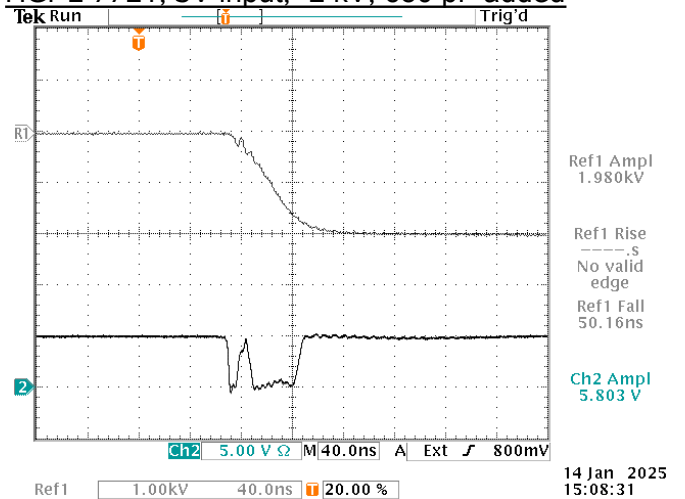
Top = high voltage pulse (stored - with signal disconnected before recording logic waveform).

Bot = Logic "A" out (with 0V input) using P6246.

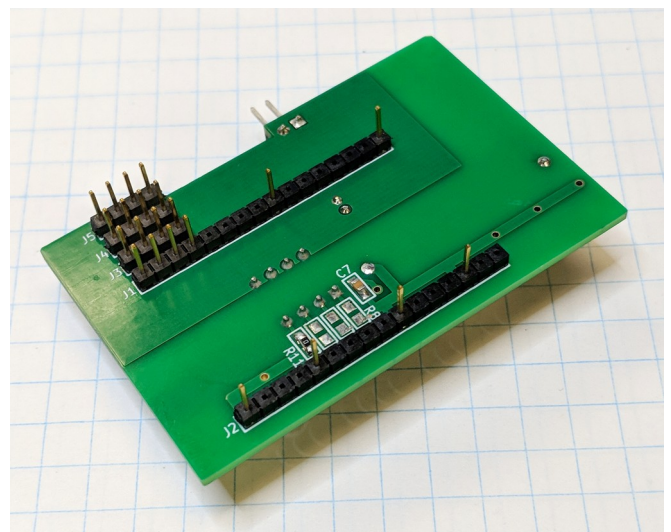
HCPL-7721, 0V input, -2 kV, 680 pF added



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



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



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