Connections for previous RPCs (AB01, ABO2 etc) are done as shown in figure 1 below.

![Fig 1](image1)

We wanted to remove the patch panel in between. Then the circuit will look like Fig 2. Here the $100\,\Omega$ is placed inside preamplifier board.

![Fig 2](image2)
With normal setup without Patch panel (AB03000, AB03001)
With Patch panel (AB03003, AB03004) as on Fig 1.
With Patch panel (AB03005, AB03007) For AB01

EDGE TRIGGER

trig’d auto
edge pelt state delay tv glitch
source External
adjust center
level -311.250 mV
noise rej off
coupling dc
holdoff
time 40.000 ns

2 10.0 mV/div
-20.0000 mV

2 10.0 mV/div
-20.0000 mV
With Patch panel (AB03008, AB03009) For AB03 assuming Characteristics
Impedance $Z = 90 \, \Omega$ ($R_1 = 60\, \Omega$, $R_2 = 75\, \Omega$)
With Patch panel (AB03010, AB03011) For AB03 assuming Characteristics
Impedance $Z = 80\,\Omega$ ($R_1 = 49\,\Omega$, $R_2 = 81\,\Omega$)
With Patch panel (AB03000, AB03X001) For AB03 assuming Characteristics
Impedance $Z = 70 \Omega$ ($R_1 = 37.4\Omega$, $R_2 = 93.5 \Omega$)
With No input signal

After that GI sheet is put above and below Amplifier box and found that noise level has reduced drastically.

On Board Patch Panel (Fig 2)
Assuming $Z = 70 \, \Omega$ ($R_1 = 37.4 \, \Omega$, $R_2 = 93.5 \, \Omega$) using GI sheets (Ch 1 = AB03 and Ch 2 = AB01)

With No Input Signal (Ch 1 = AB03 and Ch 2 = AB01)
Using \(R_1 = 100 \Omega, R_2 = 68 \Omega\) using GI sheets (Ch 1 = AB03 and Ch 2 = AB01)
On Board Patch Panel (Fig 2) using GI sheets (Ch 1 = AB03 and Ch 2 = AB01)

Assuming $Z = 80 \, \Omega$ Using $\Omega$ ($R_1 = 49 \, \Omega$, $R_2 = 81 \, \Omega$) using GI sheets (Ch 1 = AB03 and Ch 2 = AB01)
Assuming $Z = 90 \, \Omega$ Using $\Omega$ ($R_1 = 60\, \Omega$, $R_2 = 75 \, \Omega$) using GI sheets (Ch 1 = AB03 and Ch 2 = AB01)