

PS-POH

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Instructions to run the PS-POH test on the cards.

To prepare the tests configuration:

1. Download and compile a specific cmsph2_tusb repo with the File_refactor branch:
[Files · File_refactor · Patryk Szydlik / CMSPh2_TCUSB · GitLab \(cern.ch\)](#)
(It's not yet merged into new repository but it can freely replace the regular cmsph2_tusb)
2. Remember to rebuild the Ph2_ACF after building cmsph2_tusb
3. Download and build [cms tk ph2 / POWDER · GitLab \(cern.ch\)](#)
4. Configure your power supply in the *config/configRohdeSchwartz.xml*
5. *Make sure the power_supply server is running when executing tests*
6. Download and build [CMS OT Hybrids / TC Controller · GitLab \(cern.ch\)](#)
7. Prepare a special config for your test voltage channel (examples of MiddleCrate included)

To select the card in the crate:

1. Set working directory:
``/home/irene/Development/PSPOH/Ph2_ACF``
2. Set env variables with
``source setup.sh``
3. Set the correct firmware
`'fpgaconfig -c settings/PSPOH.xml -i ps_poh_280922_final.bin'`
4. Set correct voltage on the power supply (please don't burn anything)
5. Check available cards in the crate
``mux_setup -f settings/PSPOH.xml --mux_scan``
6. Configure a card on backplane X, slot Y
``mux_setup -f settings/PSPOH.xml --mux_configure X,Y``
7. Then you can check with ``lsusb`` that you can see the USB device:
``Bus XXX Device YYY: ID 10c4:87a0 Silicon Labs``
8. To disconnect the selected card
``mux_setup -f settings/PSPOH.xml --mux_disconnect``

To run the test procedure:

1. Change working directory to:
``/home/irene/Development/PSPOH/TC-controller``
2. Set env variables with

```
`source setup.sh`
```

3. Select the test card using **Ph2_ACF**
4. Find card USB bus (X) + dev (Y) numbers using **lsusb**. The USB device is the SiliconLabs one
5. Run the tests:

```
'pspoh_w_root_file -f ./config/configYourCrate.xml --useLoadVector --tc_File ./config/configPSPOH.xml  
--supplyStep 1 --supplyMin 8 --supplyMax 11 --hybridId <INSERT ID> --output <INSERT DIRNAME> --USBBus  
<INSERT BUS> --USBDev <INSERT DEV>'
```