strip-pinchoff-analysis-tutorial

August 20, 2020

1 Introduction

This notebook contain the data analysis functions to analyze the strip pinchoff test (see LSPE-STRIP-PR-001 1.0)

2 Imports and functions

[1]:
```
#import os
#os.chdir('/home/daniele/Documents/LSPE/testing_integration/system_level_tests/
↪striptease')
import striptease
from importlib import reload
reload(striptease)
from striptease import hdf5files
from striptease.pinchoff import PinchOffAnalysis
import numpy as np
import pylab as pl
import pickle
#from hdf5files import DataFile
import pdb
from astropy.time import Time
import matplotlib.colors as mcolors
```

3 Initialize data file

Here we point to the data file and store its information into a variable that we call here "my_data"

[45]:
```
# Specify the filename containing the data
fname = '/home/daniele/Documents/LSPE/testing_integration/system_level_tests/
↪pre_tests/strip-pinchoff/2020_05_06_02-27-50.h5'

# Initialize the class
my_data = striptease.hdf5files.DataFile(fname)
```

```python
# Read the file metadata
my_data.read_file_metadata()
```

This command is optional, you can run it if you want to check the tags that are present in the data file

[4]:
```python
# Display the tags
tags = my_data.tags
for t in tags:
    print(t.name)
```

```
BOARD_TURN_ON
PINCHOFF_IDSET_R0_HA3_100muA
PINCHOFF_IDSET_R0_HA2_100muA
PINCHOFF_IDSET_R0_HA1_100muA
PINCHOFF_IDSET_R0_HB3_100muA
PINCHOFF_IDSET_R0_HB2_100muA
PINCHOFF_IDSET_R0_HB1_100muA
PINCHOFF_IDSET_R0_HA3_4000muA
PINCHOFF_IDSET_R0_HA2_4000muA
PINCHOFF_IDSET_R0_HA1_4000muA
PINCHOFF_IDSET_R0_HB3_4000muA
PINCHOFF_IDSET_R0_HB2_4000muA
PINCHOFF_IDSET_R0_HB1_4000muA
PINCHOFF_IDSET_R0_HA3_8000muA
PINCHOFF_IDSET_R0_HA2_8000muA
PINCHOFF_IDSET_R0_HA1_8000muA
PINCHOFF_IDSET_R0_HB3_8000muA
PINCHOFF_IDSET_R0_HB2_8000muA
PINCHOFF_IDSET_R0_HB1_8000muA
PINCHOFF_IDSET_R0_HA3_12000muA
PINCHOFF_IDSET_R0_HA2_12000muA
PINCHOFF_IDSET_R0_HA1_12000muA
PINCHOFF_IDSET_R0_HB3_12000muA
PINCHOFF_IDSET_R0_HB2_12000muA
PINCHOFF_IDSET_R0_HB1_12000muA
PINCHOFF_IDSET_R1_HA3_100muA
PINCHOFF_IDSET_R1_HA2_100muA
PINCHOFF_IDSET_R1_HA1_100muA
PINCHOFF_IDSET_R1_HB3_100muA
PINCHOFF_IDSET_R1_HB2_100muA
PINCHOFF_IDSET_R1_HB1_100muA
PINCHOFF_IDSET_R1_HA3_4000muA
PINCHOFF_IDSET_R1_HA2_4000muA
PINCHOFF_IDSET_R1_HA1_4000muA
PINCHOFF_IDSET_R1_HB3_4000muA
PINCHOFF_IDSET_R1_HB2_4000muA
PINCHOFF_IDSET_R1_HB1_4000muA
```

```
PINCHOFF_IDSET_R1_HA3_8000muA
PINCHOFF_IDSET_R1_HA2_8000muA
PINCHOFF_IDSET_R1_HA1_8000muA
PINCHOFF_IDSET_R1_HB3_8000muA
PINCHOFF_IDSET_R1_HB2_8000muA
PINCHOFF_IDSET_R1_HB1_8000muA
PINCHOFF_IDSET_R1_HA3_12000muA
PINCHOFF_IDSET_R1_HA2_12000muA
PINCHOFF_IDSET_R1_HA1_12000muA
PINCHOFF_IDSET_R1_HB3_12000muA
PINCHOFF_IDSET_R1_HB2_12000muA
PINCHOFF_IDSET_R1_HB1_12000muA
PINCHOFF_IDSET_R2_HA3_100muA
PINCHOFF_IDSET_R2_HA2_100muA
PINCHOFF_IDSET_R2_HA1_100muA
PINCHOFF_IDSET_R2_HB3_100muA
PINCHOFF_IDSET_R2_HB2_100muA
PINCHOFF_IDSET_R2_HB1_100muA
PINCHOFF_IDSET_R2_HA3_4000muA
PINCHOFF_IDSET_R2_HA2_4000muA
PINCHOFF_IDSET_R2_HA1_4000muA
PINCHOFF_IDSET_R2_HB3_4000muA
PINCHOFF_IDSET_R2_HB2_4000muA
PINCHOFF_IDSET_R2_HB1_4000muA
PINCHOFF_IDSET_R2_HA3_8000muA
PINCHOFF_IDSET_R2_HA2_8000muA
PINCHOFF_IDSET_R2_HA1_8000muA
PINCHOFF_IDSET_R2_HB3_8000muA
PINCHOFF_IDSET_R2_HB2_8000muA
PINCHOFF_IDSET_R2_HB1_8000muA
PINCHOFF_IDSET_R2_HA3_12000muA
PINCHOFF_IDSET_R2_HA2_12000muA
PINCHOFF_IDSET_R2_HA1_12000muA
PINCHOFF_IDSET_R2_HB3_12000muA
PINCHOFF_IDSET_R2_HB2_12000muA
PINCHOFF_IDSET_R2_HB1_12000muA
PINCHOFF_IDSET_R3_HA3_100muA
PINCHOFF_IDSET_R3_HA2_100muA
PINCHOFF_IDSET_R3_HA1_100muA
PINCHOFF_IDSET_R3_HB3_100muA
PINCHOFF_IDSET_R3_HB2_100muA
PINCHOFF_IDSET_R3_HB1_100muA
PINCHOFF_IDSET_R3_HA3_4000muA
PINCHOFF_IDSET_R3_HA2_4000muA
PINCHOFF_IDSET_R3_HA1_4000muA
PINCHOFF_IDSET_R3_HB3_4000muA
PINCHOFF_IDSET_R3_HB2_4000muA
PINCHOFF_IDSET_R3_HB1_4000muA
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PINCHOFF_IDSET_R3_HA3_8000muA
PINCHOFF_IDSET_R3_HA2_8000muA
PINCHOFF_IDSET_R3_HA1_8000muA
PINCHOFF_IDSET_R3_HB3_8000muA
PINCHOFF_IDSET_R3_HB2_8000muA
PINCHOFF_IDSET_R3_HB1_8000muA
PINCHOFF_IDSET_R3_HA3_12000muA
PINCHOFF_IDSET_R3_HA2_12000muA
PINCHOFF_IDSET_R3_HA1_12000muA
PINCHOFF_IDSET_R3_HB3_12000muA
PINCHOFF_IDSET_R3_HB2_12000muA
PINCHOFF_IDSET_R3_HB1_12000muA
PINCHOFF_IDSET_R4_HA3_100muA
PINCHOFF_IDSET_R4_HA2_100muA
PINCHOFF_IDSET_R4_HA1_100muA
PINCHOFF_IDSET_R4_HB3_100muA
PINCHOFF_IDSET_R4_HB2_100muA
PINCHOFF_IDSET_R4_HB1_100muA
PINCHOFF_IDSET_R4_HA3_4000muA
PINCHOFF_IDSET_R4_HA2_4000muA
PINCHOFF_IDSET_R4_HA1_4000muA
PINCHOFF_IDSET_R4_HB3_4000muA
PINCHOFF_IDSET_R4_HB2_4000muA
PINCHOFF_IDSET_R4_HB1_4000muA
PINCHOFF_IDSET_R4_HA3_8000muA
PINCHOFF_IDSET_R4_HA2_8000muA
PINCHOFF_IDSET_R4_HA1_8000muA
PINCHOFF_IDSET_R4_HB3_8000muA
PINCHOFF_IDSET_R4_HB2_8000muA
PINCHOFF_IDSET_R4_HB1_8000muA
PINCHOFF_IDSET_R4_HA3_12000muA
PINCHOFF_IDSET_R4_HA2_12000muA
PINCHOFF_IDSET_R4_HA1_12000muA
PINCHOFF_IDSET_R4_HB3_12000muA
PINCHOFF_IDSET_R4_HB2_12000muA
PINCHOFF_IDSET_R4_HB1_12000muA
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PINCHOFF_IDSET_R5_HA2_100muA
PINCHOFF_IDSET_R5_HA1_100muA
PINCHOFF_IDSET_R5_HB3_100muA
PINCHOFF_IDSET_R5_HB2_100muA
PINCHOFF_IDSET_R5_HB1_100muA
PINCHOFF_IDSET_R5_HA3_4000muA
PINCHOFF_IDSET_R5_HA2_4000muA
PINCHOFF_IDSET_R5_HA1_4000muA
PINCHOFF_IDSET_R5_HB3_4000muA
PINCHOFF_IDSET_R5_HB2_4000muA
PINCHOFF_IDSET_R5_HB1_4000muA

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PINCHOFF_IDSET_R5_HA3_8000muA
PINCHOFF_IDSET_R5_HA2_8000muA
PINCHOFF_IDSET_R5_HA1_8000muA
PINCHOFF_IDSET_R5_HB3_8000muA
PINCHOFF_IDSET_R5_HB2_8000muA
PINCHOFF_IDSET_R5_HB1_8000muA
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PINCHOFF_IDSET_R5_HA2_12000muA
PINCHOFF_IDSET_R5_HA1_12000muA
PINCHOFF_IDSET_R5_HB3_12000muA
PINCHOFF_IDSET_R5_HB2_12000muA
PINCHOFF_IDSET_R5_HB1_12000muA
PINCHOFF_IDSET_R6_HA3_100muA
PINCHOFF_IDSET_R6_HA2_100muA
PINCHOFF_IDSET_R6_HA1_100muA
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PINCHOFF_IDSET_R6_HB2_100muA
PINCHOFF_IDSET_R6_HB1_100muA
PINCHOFF_IDSET_R6_HA3_4000muA
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PINCHOFF_IDSET_R6_HA1_4000muA
PINCHOFF_IDSET_R6_HB3_4000muA
PINCHOFF_IDSET_R6_HB2_4000muA
PINCHOFF_IDSET_R6_HB1_4000muA
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PINCHOFF_IDSET_R6_HA2_8000muA
PINCHOFF_IDSET_R6_HA1_8000muA
PINCHOFF_IDSET_R6_HB3_8000muA
PINCHOFF_IDSET_R6_HB2_8000muA
PINCHOFF_IDSET_R6_HB1_8000muA
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PINCHOFF_IDSET_R6_HA2_12000muA
PINCHOFF_IDSET_R6_HA1_12000muA
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PINCHOFF_IDSET_W3_HB2_100muA
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PINCHOFF_IDSET_W3_HA2_4000muA
PINCHOFF_IDSET_W3_HA1_4000muA
PINCHOFF_IDSET_W3_HB3_4000muA
PINCHOFF_IDSET_W3_HB2_4000muA
PINCHOFF_IDSET_W3_HB1_4000muA
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PINCHOFF_IDSET_W3_HA3_8000muA
PINCHOFF_IDSET_W3_HA2_8000muA
PINCHOFF_IDSET_W3_HA1_8000muA
PINCHOFF_IDSET_W3_HB3_8000muA
PINCHOFF_IDSET_W3_HB2_8000muA
PINCHOFF_IDSET_W3_HB1_8000muA
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PINCHOFF_TILE_R
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PINCHOFF_IDSET_V0_HA2_12000muA
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PINCHOFF_IDSET_V1_HB1_100muA
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PINCHOFF_IDSET_V1_HA2_4000muA
PINCHOFF_IDSET_V1_HA1_4000muA
PINCHOFF_IDSET_V1_HB3_4000muA
PINCHOFF_IDSET_V1_HB2_4000muA

```
PINCHOFF_IDSET_V1_HB1_4000muA
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PINCHOFF_IDSET_V1_HA2_12000muA
PINCHOFF_IDSET_V1_HA1_12000muA
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PINCHOFF_IDSET_V1_HB2_12000muA
PINCHOFF_IDSET_V1_HB1_12000muA
PINCHOFF_IDSET_V2_HA3_100muA
PINCHOFF_IDSET_V2_HA2_100muA
PINCHOFF_IDSET_V2_HA1_100muA
PINCHOFF_IDSET_V2_HB3_100muA
PINCHOFF_IDSET_V2_HB2_100muA
PINCHOFF_IDSET_V2_HB1_100muA
PINCHOFF_IDSET_V2_HA3_4000muA
PINCHOFF_IDSET_V2_HA2_4000muA
PINCHOFF_IDSET_V2_HA1_4000muA
PINCHOFF_IDSET_V2_HB3_4000muA
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PINCHOFF_IDSET_V2_HB1_4000muA
PINCHOFF_IDSET_V2_HA3_8000muA
PINCHOFF_IDSET_V2_HA2_8000muA
PINCHOFF_IDSET_V2_HA1_8000muA
PINCHOFF_IDSET_V2_HB3_8000muA
PINCHOFF_IDSET_V2_HB2_8000muA
PINCHOFF_IDSET_V2_HB1_8000muA
PINCHOFF_IDSET_V2_HA3_12000muA
PINCHOFF_IDSET_V2_HA2_12000muA
PINCHOFF_IDSET_V2_HA1_12000muA
PINCHOFF_IDSET_V2_HB3_12000muA
PINCHOFF_IDSET_V2_HB2_12000muA
PINCHOFF_IDSET_V2_HB1_12000muA
PINCHOFF_IDSET_V3_HA3_100muA
PINCHOFF_IDSET_V3_HA2_100muA
PINCHOFF_IDSET_V3_HA1_100muA
PINCHOFF_IDSET_V3_HB3_100muA
PINCHOFF_IDSET_V3_HB2_100muA
PINCHOFF_IDSET_V3_HB1_100muA
PINCHOFF_IDSET_V3_HA3_4000muA
PINCHOFF_IDSET_V3_HA2_4000muA
PINCHOFF_IDSET_V3_HA1_4000muA
PINCHOFF_IDSET_V3_HB3_4000muA
PINCHOFF_IDSET_V3_HB2_4000muA
```

PINCHOFF_IDSET_V3_HB1_4000muA
PINCHOFF_IDSET_V3_HA3_8000muA
PINCHOFF_IDSET_V3_HA2_8000muA
PINCHOFF_IDSET_V3_HA1_8000muA
PINCHOFF_IDSET_V3_HB3_8000muA
PINCHOFF_IDSET_V3_HB2_8000muA
PINCHOFF_IDSET_V3_HB1_8000muA
PINCHOFF_IDSET_V3_HA3_12000muA
PINCHOFF_IDSET_V3_HA2_12000muA
PINCHOFF_IDSET_V3_HA1_12000muA
PINCHOFF_IDSET_V3_HB3_12000muA
PINCHOFF_IDSET_V3_HB2_12000muA
PINCHOFF_IDSET_V3_HB1_12000muA
PINCHOFF_IDSET_V4_HA3_100muA
PINCHOFF_IDSET_V4_HA2_100muA
PINCHOFF_IDSET_V4_HA1_100muA
PINCHOFF_IDSET_V4_HB3_100muA
PINCHOFF_IDSET_V4_HB2_100muA
PINCHOFF_IDSET_V4_HB1_100muA
PINCHOFF_IDSET_V4_HA3_4000muA
PINCHOFF_IDSET_V4_HA2_4000muA
PINCHOFF_IDSET_V4_HA1_4000muA
PINCHOFF_IDSET_V4_HB3_4000muA
PINCHOFF_IDSET_V4_HB2_4000muA
PINCHOFF_IDSET_V4_HB1_4000muA
PINCHOFF_IDSET_V4_HA3_8000muA
PINCHOFF_IDSET_V4_HA2_8000muA
PINCHOFF_IDSET_V4_HA1_8000muA
PINCHOFF_IDSET_V4_HB3_8000muA
PINCHOFF_IDSET_V4_HB2_8000muA
PINCHOFF_IDSET_V4_HB1_8000muA
PINCHOFF_IDSET_V4_HA3_12000muA
PINCHOFF_IDSET_V4_HA2_12000muA
PINCHOFF_IDSET_V4_HA1_12000muA
PINCHOFF_IDSET_V4_HB3_12000muA
PINCHOFF_IDSET_V4_HB2_12000muA
PINCHOFF_IDSET_V4_HB1_12000muA
PINCHOFF_IDSET_V5_HA3_100muA
PINCHOFF_IDSET_V5_HA2_100muA
PINCHOFF_IDSET_V5_HA1_100muA
PINCHOFF_IDSET_V5_HB3_100muA
PINCHOFF_IDSET_V5_HB2_100muA
PINCHOFF_IDSET_V5_HB1_100muA
PINCHOFF_IDSET_V5_HA3_4000muA
PINCHOFF_IDSET_V5_HA2_4000muA
PINCHOFF_IDSET_V5_HA1_4000muA
PINCHOFF_IDSET_V5_HB3_4000muA
PINCHOFF_IDSET_V5_HB2_4000muA

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PINCHOFF_IDSET_V5_HB1_4000muA
PINCHOFF_IDSET_V5_HA3_8000muA
PINCHOFF_IDSET_V5_HA2_8000muA
PINCHOFF_IDSET_V5_HA1_8000muA
PINCHOFF_IDSET_V5_HB3_8000muA
PINCHOFF_IDSET_V5_HB2_8000muA
PINCHOFF_IDSET_V5_HB1_8000muA
PINCHOFF_IDSET_V5_HA3_12000muA
PINCHOFF_IDSET_V5_HA2_12000muA
PINCHOFF_IDSET_V5_HA1_12000muA
PINCHOFF_IDSET_V5_HB3_12000muA
PINCHOFF_IDSET_V5_HB2_12000muA
PINCHOFF_IDSET_V5_HB1_12000muA
PINCHOFF_IDSET_V6_HA3_100muA
PINCHOFF_IDSET_V6_HA2_100muA
PINCHOFF_IDSET_V6_HA1_100muA
PINCHOFF_IDSET_V6_HB3_100muA
PINCHOFF_IDSET_V6_HB2_100muA
PINCHOFF_IDSET_V6_HB1_100muA
PINCHOFF_IDSET_V6_HA3_4000muA
PINCHOFF_IDSET_V6_HA2_4000muA
PINCHOFF_IDSET_V6_HA1_4000muA
PINCHOFF_IDSET_V6_HB3_4000muA
PINCHOFF_IDSET_V6_HB2_4000muA
PINCHOFF_IDSET_V6_HB1_4000muA
PINCHOFF_IDSET_V6_HA3_8000muA
PINCHOFF_IDSET_V6_HA2_8000muA
PINCHOFF_IDSET_V6_HA1_8000muA
PINCHOFF_IDSET_V6_HB3_8000muA
PINCHOFF_IDSET_V6_HB2_8000muA
PINCHOFF_IDSET_V6_HB1_8000muA
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PINCHOFF_IDSET_V6_HA2_12000muA
PINCHOFF_IDSET_V6_HA1_12000muA
PINCHOFF_IDSET_V6_HB3_12000muA
PINCHOFF_IDSET_V6_HB2_12000muA
PINCHOFF_IDSET_V6_HB1_12000muA
PINCHOFF_IDSET_W4_HA3_100muA
PINCHOFF_IDSET_W4_HA2_100muA
PINCHOFF_IDSET_W4_HA1_100muA
PINCHOFF_IDSET_W4_HB3_100muA
PINCHOFF_IDSET_W4_HB2_100muA
PINCHOFF_IDSET_W4_HB1_100muA
PINCHOFF_IDSET_W4_HA3_4000muA
PINCHOFF_IDSET_W4_HA2_4000muA
PINCHOFF_IDSET_W4_HA1_4000muA
PINCHOFF_IDSET_W4_HB3_4000muA
PINCHOFF_IDSET_W4_HB2_4000muA
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PINCHOFF_IDSET_W4_HB1_4000muA
PINCHOFF_IDSET_W4_HA3_8000muA
PINCHOFF_IDSET_W4_HA2_8000muA
PINCHOFF_IDSET_W4_HA1_8000muA
PINCHOFF_IDSET_W4_HB3_8000muA
PINCHOFF_IDSET_W4_HB2_8000muA
PINCHOFF_IDSET_W4_HB1_8000muA
PINCHOFF_IDSET_W4_HA3_12000muA
PINCHOFF_IDSET_W4_HA2_12000muA
PINCHOFF_IDSET_W4_HA1_12000muA
PINCHOFF_IDSET_W4_HB3_12000muA
PINCHOFF_IDSET_W4_HB2_12000muA
PINCHOFF_IDSET_W4_HB1_12000muA
PINCHOFF_TILE_V
PINCHOFF_IDSET_G0_HA3_100muA
PINCHOFF_IDSET_G0_HA2_100muA
PINCHOFF_IDSET_G0_HA1_100muA
PINCHOFF_IDSET_G0_HB3_100muA
PINCHOFF_IDSET_G0_HB2_100muA
PINCHOFF_IDSET_G0_HB1_100muA
PINCHOFF_IDSET_G0_HA3_4000muA
PINCHOFF_IDSET_G0_HA2_4000muA
PINCHOFF_IDSET_G0_HA1_4000muA
PINCHOFF_IDSET_G0_HB3_4000muA
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PINCHOFF_IDSET_G0_HA1_8000muA
PINCHOFF_IDSET_G0_HB3_8000muA
PINCHOFF_IDSET_G0_HB2_8000muA
PINCHOFF_IDSET_G0_HB1_8000muA
PINCHOFF_IDSET_G0_HA3_12000muA
PINCHOFF_IDSET_G0_HA2_12000muA
PINCHOFF_IDSET_G0_HA1_12000muA
PINCHOFF_IDSET_G0_HB3_12000muA
PINCHOFF_IDSET_G0_HB2_12000muA
PINCHOFF_IDSET_G0_HB1_12000muA
PINCHOFF_IDSET_G1_HA3_100muA
PINCHOFF_IDSET_G1_HA2_100muA
PINCHOFF_IDSET_G1_HA1_100muA
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PINCHOFF_IDSET_G1_HB1_100muA
PINCHOFF_IDSET_G1_HA3_4000muA
PINCHOFF_IDSET_G1_HA2_4000muA
PINCHOFF_IDSET_G1_HA1_4000muA
PINCHOFF_IDSET_G1_HB3_4000muA
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PINCHOFF_IDSET_G1_HB2_4000muA
PINCHOFF_IDSET_G1_HB1_4000muA
PINCHOFF_IDSET_G1_HA3_8000muA
PINCHOFF_IDSET_G1_HA2_8000muA
PINCHOFF_IDSET_G1_HA1_8000muA
PINCHOFF_IDSET_G1_HB3_8000muA
PINCHOFF_IDSET_G1_HB2_8000muA
PINCHOFF_IDSET_G1_HB1_8000muA
PINCHOFF_IDSET_G1_HA3_12000muA
PINCHOFF_IDSET_G1_HA2_12000muA
PINCHOFF_IDSET_G1_HA1_12000muA
PINCHOFF_IDSET_G1_HB3_12000muA
PINCHOFF_IDSET_G1_HB2_12000muA
PINCHOFF_IDSET_G1_HB1_12000muA
PINCHOFF_IDSET_G2_HA3_100muA
PINCHOFF_IDSET_G2_HA2_100muA
PINCHOFF_IDSET_G2_HA1_100muA
PINCHOFF_IDSET_G2_HB3_100muA
PINCHOFF_IDSET_G2_HB2_100muA
PINCHOFF_IDSET_G2_HB1_100muA
PINCHOFF_IDSET_G2_HA3_4000muA
PINCHOFF_IDSET_G2_HA2_4000muA
PINCHOFF_IDSET_G2_HA1_4000muA
PINCHOFF_IDSET_G2_HB3_4000muA
PINCHOFF_IDSET_G2_HB2_4000muA
PINCHOFF_IDSET_G2_HB1_4000muA
PINCHOFF_IDSET_G2_HA3_8000muA
PINCHOFF_IDSET_G2_HA2_8000muA
PINCHOFF_IDSET_G2_HA1_8000muA
PINCHOFF_IDSET_G2_HB3_8000muA
PINCHOFF_IDSET_G2_HB2_8000muA
PINCHOFF_IDSET_G2_HB1_8000muA
PINCHOFF_IDSET_G2_HA3_12000muA
PINCHOFF_IDSET_G2_HA2_12000muA
PINCHOFF_IDSET_G2_HA1_12000muA
PINCHOFF_IDSET_G2_HB3_12000muA
PINCHOFF_IDSET_G2_HB2_12000muA
PINCHOFF_IDSET_G2_HB1_12000muA
PINCHOFF_IDSET_G3_HA3_100muA
PINCHOFF_IDSET_G3_HA2_100muA
PINCHOFF_IDSET_G3_HA1_100muA
PINCHOFF_IDSET_G3_HB3_100muA
PINCHOFF_IDSET_G3_HB2_100muA
PINCHOFF_IDSET_G3_HB1_100muA
PINCHOFF_IDSET_G3_HA3_4000muA
PINCHOFF_IDSET_G3_HA2_4000muA
PINCHOFF_IDSET_G3_HA1_4000muA
PINCHOFF_IDSET_G3_HB3_4000muA
```

```
PINCHOFF_IDSET_G3_HB2_4000muA
PINCHOFF_IDSET_G3_HB1_4000muA
PINCHOFF_IDSET_G3_HA3_8000muA
PINCHOFF_IDSET_G3_HA2_8000muA
PINCHOFF_IDSET_G3_HA1_8000muA
PINCHOFF_IDSET_G3_HB3_8000muA
PINCHOFF_IDSET_G3_HB2_8000muA
PINCHOFF_IDSET_G3_HB1_8000muA
PINCHOFF_IDSET_G3_HA3_12000muA
PINCHOFF_IDSET_G3_HA2_12000muA
PINCHOFF_IDSET_G3_HA1_12000muA
PINCHOFF_IDSET_G3_HB3_12000muA
PINCHOFF_IDSET_G3_HB2_12000muA
PINCHOFF_IDSET_G3_HB1_12000muA
PINCHOFF_IDSET_G4_HA3_100muA
PINCHOFF_IDSET_G4_HA2_100muA
PINCHOFF_IDSET_G4_HA1_100muA
PINCHOFF_IDSET_G4_HB3_100muA
PINCHOFF_IDSET_G4_HB2_100muA
PINCHOFF_IDSET_G4_HB1_100muA
PINCHOFF_IDSET_G4_HA3_4000muA
PINCHOFF_IDSET_G4_HA2_4000muA
PINCHOFF_IDSET_G4_HA1_4000muA
PINCHOFF_IDSET_G4_HB3_4000muA
PINCHOFF_IDSET_G4_HB2_4000muA
PINCHOFF_IDSET_G4_HB1_4000muA
PINCHOFF_IDSET_G4_HA3_8000muA
PINCHOFF_IDSET_G4_HA2_8000muA
PINCHOFF_IDSET_G4_HA1_8000muA
PINCHOFF_IDSET_G4_HB3_8000muA
PINCHOFF_IDSET_G4_HB2_8000muA
PINCHOFF_IDSET_G4_HB1_8000muA
PINCHOFF_IDSET_G4_HA3_12000muA
PINCHOFF_IDSET_G4_HA2_12000muA
PINCHOFF_IDSET_G4_HA1_12000muA
PINCHOFF_IDSET_G4_HB3_12000muA
PINCHOFF_IDSET_G4_HB2_12000muA
PINCHOFF_IDSET_G4_HB1_12000muA
PINCHOFF_IDSET_G5_HA3_100muA
PINCHOFF_IDSET_G5_HA2_100muA
PINCHOFF_IDSET_G5_HA1_100muA
PINCHOFF_IDSET_G5_HB3_100muA
PINCHOFF_IDSET_G5_HB2_100muA
PINCHOFF_IDSET_G5_HB1_100muA
PINCHOFF_IDSET_G5_HA3_4000muA
PINCHOFF_IDSET_G5_HA2_4000muA
PINCHOFF_IDSET_G5_HA1_4000muA
PINCHOFF_IDSET_G5_HB3_4000muA
```

```
PINCHOFF_IDSET_G5_HB2_4000muA
PINCHOFF_IDSET_G5_HB1_4000muA
PINCHOFF_IDSET_G5_HA3_8000muA
PINCHOFF_IDSET_G5_HA2_8000muA
PINCHOFF_IDSET_G5_HA1_8000muA
PINCHOFF_IDSET_G5_HB3_8000muA
PINCHOFF_IDSET_G5_HB2_8000muA
PINCHOFF_IDSET_G5_HB1_8000muA
PINCHOFF_IDSET_G5_HA3_12000muA
PINCHOFF_IDSET_G5_HA2_12000muA
PINCHOFF_IDSET_G5_HA1_12000muA
PINCHOFF_IDSET_G5_HB3_12000muA
PINCHOFF_IDSET_G5_HB2_12000muA
PINCHOFF_IDSET_G5_HB1_12000muA
PINCHOFF_IDSET_G6_HA3_100muA
PINCHOFF_IDSET_G6_HA2_100muA
PINCHOFF_IDSET_G6_HA1_100muA
PINCHOFF_IDSET_G6_HB3_100muA
PINCHOFF_IDSET_G6_HB2_100muA
PINCHOFF_IDSET_G6_HB1_100muA
PINCHOFF_IDSET_G6_HA3_4000muA
PINCHOFF_IDSET_G6_HA2_4000muA
PINCHOFF_IDSET_G6_HA1_4000muA
PINCHOFF_IDSET_G6_HB3_4000muA
PINCHOFF_IDSET_G6_HB2_4000muA
PINCHOFF_IDSET_G6_HB1_4000muA
PINCHOFF_IDSET_G6_HA3_8000muA
PINCHOFF_IDSET_G6_HA2_8000muA
PINCHOFF_IDSET_G6_HA1_8000muA
PINCHOFF_IDSET_G6_HB3_8000muA
PINCHOFF_IDSET_G6_HB2_8000muA
PINCHOFF_IDSET_G6_HB1_8000muA
PINCHOFF_IDSET_G6_HA3_12000muA
PINCHOFF_IDSET_G6_HA2_12000muA
PINCHOFF_IDSET_G6_HA1_12000muA
PINCHOFF_IDSET_G6_HB3_12000muA
PINCHOFF_IDSET_G6_HB2_12000muA
PINCHOFF_IDSET_G6_HB1_12000muA
PINCHOFF_IDSET_W6_HA3_100muA
PINCHOFF_IDSET_W6_HA2_100muA
PINCHOFF_IDSET_W6_HA1_100muA
PINCHOFF_IDSET_W6_HB3_100muA
PINCHOFF_IDSET_W6_HB2_100muA
PINCHOFF_IDSET_W6_HB1_100muA
PINCHOFF_IDSET_W6_HA3_4000muA
PINCHOFF_IDSET_W6_HA2_4000muA
PINCHOFF_IDSET_W6_HA1_4000muA
PINCHOFF_IDSET_W6_HB3_4000muA
```

```
PINCHOFF_IDSET_W6_HB2_4000muA
PINCHOFF_IDSET_W6_HB1_4000muA
PINCHOFF_IDSET_W6_HA3_8000muA
PINCHOFF_IDSET_W6_HA2_8000muA
PINCHOFF_IDSET_W6_HA1_8000muA
PINCHOFF_IDSET_W6_HB3_8000muA
PINCHOFF_IDSET_W6_HB2_8000muA
PINCHOFF_IDSET_W6_HB1_8000muA
PINCHOFF_IDSET_W6_HA3_12000muA
PINCHOFF_IDSET_W6_HA2_12000muA
PINCHOFF_IDSET_W6_HA1_12000muA
PINCHOFF_IDSET_W6_HB3_12000muA
PINCHOFF_IDSET_W6_HB2_12000muA
PINCHOFF_IDSET_W6_HB1_12000muA
PINCHOFF_TILE_G
PINCHOFF_IDSET_B0_HA3_100muA
PINCHOFF_IDSET_B0_HA2_100muA
PINCHOFF_IDSET_B0_HA1_100muA
PINCHOFF_IDSET_B0_HB3_100muA
PINCHOFF_IDSET_B0_HB2_100muA
PINCHOFF_IDSET_B0_HB1_100muA
PINCHOFF_TILE_B
PINCHOFF_IDSET_B0_HB1_100muA
PINCHOFF_IDSET_B0_HA3_4000muA
PINCHOFF_IDSET_B0_HA2_4000muA
PINCHOFF_IDSET_B0_HA1_4000muA
PINCHOFF_IDSET_B0_HB3_4000muA
PINCHOFF_IDSET_B0_HB2_4000muA
PINCHOFF_IDSET_B0_HB1_4000muA
PINCHOFF_IDSET_B0_HA3_8000muA
PINCHOFF_IDSET_B0_HA2_8000muA
PINCHOFF_IDSET_B0_HA1_8000muA
PINCHOFF_IDSET_B0_HB3_8000muA
PINCHOFF_IDSET_B0_HB2_8000muA
PINCHOFF_IDSET_B0_HB1_8000muA
PINCHOFF_IDSET_B0_HA3_12000muA
PINCHOFF_IDSET_B0_HA2_12000muA
PINCHOFF_IDSET_B0_HA1_12000muA
PINCHOFF_IDSET_B0_HB3_12000muA
PINCHOFF_IDSET_B0_HB2_12000muA
PINCHOFF_IDSET_B0_HB1_12000muA
PINCHOFF_IDSET_B1_HA3_100muA
PINCHOFF_IDSET_B1_HA2_100muA
PINCHOFF_IDSET_B1_HA1_100muA
PINCHOFF_IDSET_B1_HB3_100muA
PINCHOFF_IDSET_B1_HB2_100muA
PINCHOFF_IDSET_B1_HB1_100muA
PINCHOFF_IDSET_B1_HA3_4000muA
```

PINCHOFF_IDSET_B1_HA2_4000muA
PINCHOFF_IDSET_B1_HA1_4000muA
PINCHOFF_IDSET_B1_HB3_4000muA
PINCHOFF_IDSET_B1_HB2_4000muA
PINCHOFF_IDSET_B1_HB1_4000muA
PINCHOFF_IDSET_B1_HA3_8000muA
PINCHOFF_IDSET_B1_HA2_8000muA
PINCHOFF_IDSET_B1_HA1_8000muA
PINCHOFF_IDSET_B1_HB3_8000muA
PINCHOFF_IDSET_B1_HB2_8000muA
PINCHOFF_IDSET_B1_HB1_8000muA
PINCHOFF_IDSET_B1_HA3_12000muA
PINCHOFF_IDSET_B1_HA2_12000muA
PINCHOFF_IDSET_B1_HA1_12000muA
PINCHOFF_IDSET_B1_HB3_12000muA
PINCHOFF_IDSET_B1_HB2_12000muA
PINCHOFF_IDSET_B1_HB1_12000muA
PINCHOFF_IDSET_B2_HA3_100muA
PINCHOFF_IDSET_B2_HA2_100muA
PINCHOFF_IDSET_B2_HA1_100muA
PINCHOFF_IDSET_B2_HB3_100muA
PINCHOFF_IDSET_B2_HB2_100muA
PINCHOFF_IDSET_B2_HB1_100muA
PINCHOFF_IDSET_B2_HA3_4000muA
PINCHOFF_IDSET_B2_HA2_4000muA
PINCHOFF_IDSET_B2_HA1_4000muA
PINCHOFF_IDSET_B2_HB3_4000muA
PINCHOFF_IDSET_B2_HB2_4000muA
PINCHOFF_IDSET_B2_HB1_4000muA
PINCHOFF_IDSET_B2_HA3_8000muA
PINCHOFF_IDSET_B2_HA2_8000muA
PINCHOFF_IDSET_B2_HA1_8000muA
PINCHOFF_IDSET_B2_HB3_8000muA
PINCHOFF_IDSET_B2_HB2_8000muA
PINCHOFF_IDSET_B2_HB1_8000muA
PINCHOFF_IDSET_B2_HA3_12000muA
PINCHOFF_IDSET_B2_HA2_12000muA
PINCHOFF_IDSET_B2_HA1_12000muA
PINCHOFF_IDSET_B2_HB3_12000muA
PINCHOFF_IDSET_B2_HB2_12000muA
PINCHOFF_IDSET_B2_HB1_12000muA
PINCHOFF_IDSET_B3_HA3_100muA
PINCHOFF_IDSET_B3_HA2_100muA
PINCHOFF_IDSET_B3_HA1_100muA
PINCHOFF_IDSET_B3_HB3_100muA
PINCHOFF_IDSET_B3_HB2_100muA
PINCHOFF_IDSET_B3_HB1_100muA
PINCHOFF_IDSET_B3_HA3_4000muA

```
PINCHOFF_IDSET_B3_HA2_4000muA
PINCHOFF_IDSET_B3_HA1_4000muA
PINCHOFF_IDSET_B3_HB3_4000muA
PINCHOFF_IDSET_B3_HB2_4000muA
PINCHOFF_IDSET_B3_HB1_4000muA
PINCHOFF_IDSET_B3_HA3_8000muA
PINCHOFF_IDSET_B3_HA2_8000muA
PINCHOFF_IDSET_B3_HA1_8000muA
PINCHOFF_IDSET_B3_HB3_8000muA
PINCHOFF_IDSET_B3_HB2_8000muA
PINCHOFF_IDSET_B3_HB1_8000muA
PINCHOFF_IDSET_B3_HA3_12000muA
PINCHOFF_IDSET_B3_HA2_12000muA
PINCHOFF_IDSET_B3_HA1_12000muA
PINCHOFF_IDSET_B3_HB3_12000muA
PINCHOFF_IDSET_B3_HB2_12000muA
PINCHOFF_IDSET_B3_HB1_12000muA
PINCHOFF_IDSET_B4_HA3_100muA
PINCHOFF_IDSET_B4_HA2_100muA
PINCHOFF_IDSET_B4_HA1_100muA
PINCHOFF_IDSET_B4_HB3_100muA
PINCHOFF_IDSET_B4_HB2_100muA
PINCHOFF_IDSET_B4_HB1_100muA
PINCHOFF_IDSET_B4_HA3_4000muA
PINCHOFF_IDSET_B4_HA2_4000muA
PINCHOFF_IDSET_B4_HA1_4000muA
PINCHOFF_IDSET_B4_HB3_4000muA
PINCHOFF_IDSET_B4_HB2_4000muA
PINCHOFF_IDSET_B4_HB1_4000muA
PINCHOFF_IDSET_B4_HA3_8000muA
PINCHOFF_IDSET_B4_HA2_8000muA
PINCHOFF_IDSET_B4_HA1_8000muA
PINCHOFF_IDSET_B4_HB3_8000muA
PINCHOFF_IDSET_B4_HB2_8000muA
PINCHOFF_IDSET_B4_HB1_8000muA
PINCHOFF_IDSET_B4_HA3_12000muA
PINCHOFF_IDSET_B4_HA2_12000muA
PINCHOFF_IDSET_B4_HA1_12000muA
PINCHOFF_IDSET_B4_HB3_12000muA
PINCHOFF_IDSET_B4_HB2_12000muA
PINCHOFF_IDSET_B4_HB1_12000muA
PINCHOFF_IDSET_B5_HA3_100muA
PINCHOFF_IDSET_B5_HA2_100muA
PINCHOFF_IDSET_B5_HA1_100muA
PINCHOFF_IDSET_B5_HB3_100muA
PINCHOFF_IDSET_B5_HB2_100muA
PINCHOFF_IDSET_B5_HB1_100muA
PINCHOFF_IDSET_B5_HA3_4000muA
```

PINCHOFF_IDSET_B5_HA2_4000muA
PINCHOFF_IDSET_B5_HA1_4000muA
PINCHOFF_IDSET_B5_HB3_4000muA
PINCHOFF_IDSET_B5_HB2_4000muA
PINCHOFF_IDSET_B5_HB1_4000muA
PINCHOFF_IDSET_B5_HA3_8000muA
PINCHOFF_IDSET_B5_HA2_8000muA
PINCHOFF_IDSET_B5_HA1_8000muA
PINCHOFF_IDSET_B5_HB3_8000muA
PINCHOFF_IDSET_B5_HB2_8000muA
PINCHOFF_IDSET_B5_HB1_8000muA
PINCHOFF_IDSET_B5_HA3_12000muA
PINCHOFF_IDSET_B5_HA2_12000muA
PINCHOFF_IDSET_B5_HA1_12000muA
PINCHOFF_IDSET_B5_HB3_12000muA
PINCHOFF_IDSET_B5_HB2_12000muA
PINCHOFF_IDSET_B5_HB1_12000muA
PINCHOFF_IDSET_B6_HA3_100muA
PINCHOFF_IDSET_B6_HA2_100muA
PINCHOFF_IDSET_B6_HA1_100muA
PINCHOFF_IDSET_B6_HB3_100muA
PINCHOFF_IDSET_B6_HB2_100muA
PINCHOFF_IDSET_B6_HB1_100muA
PINCHOFF_IDSET_B6_HA3_4000muA
PINCHOFF_IDSET_B6_HA2_4000muA
PINCHOFF_IDSET_B6_HA1_4000muA
PINCHOFF_IDSET_B6_HB3_4000muA
PINCHOFF_IDSET_B6_HB2_4000muA
PINCHOFF_IDSET_B6_HB1_4000muA
PINCHOFF_IDSET_B6_HA3_8000muA
PINCHOFF_IDSET_B6_HA2_8000muA
PINCHOFF_IDSET_B6_HA1_8000muA
PINCHOFF_IDSET_B6_HB3_8000muA
PINCHOFF_IDSET_B6_HB2_8000muA
PINCHOFF_IDSET_B6_HB1_8000muA
PINCHOFF_IDSET_B6_HA3_12000muA
PINCHOFF_IDSET_B6_HA2_12000muA
PINCHOFF_IDSET_B6_HA1_12000muA
PINCHOFF_IDSET_B6_HB3_12000muA
PINCHOFF_IDSET_B6_HB2_12000muA
PINCHOFF_IDSET_B6_HB1_12000muA
PINCHOFF_IDSET_W5_HA3_100muA
PINCHOFF_IDSET_W5_HA2_100muA
PINCHOFF_IDSET_W5_HA1_100muA
PINCHOFF_IDSET_W5_HB3_100muA
PINCHOFF_IDSET_W5_HB2_100muA
PINCHOFF_IDSET_W5_HB1_100muA
PINCHOFF_IDSET_W5_HA3_4000muA

```
PINCHOFF_IDSET_W5_HA2_4000muA
PINCHOFF_IDSET_W5_HA1_4000muA
PINCHOFF_IDSET_W5_HB3_4000muA
PINCHOFF_IDSET_W5_HB2_4000muA
PINCHOFF_IDSET_W5_HB1_4000muA
PINCHOFF_IDSET_W5_HA3_8000muA
PINCHOFF_IDSET_W5_HA2_8000muA
PINCHOFF_IDSET_W5_HA1_8000muA
PINCHOFF_IDSET_W5_HB3_8000muA
PINCHOFF_IDSET_W5_HB2_8000muA
PINCHOFF_IDSET_W5_HB1_8000muA
PINCHOFF_IDSET_W5_HA3_12000muA
PINCHOFF_IDSET_W5_HA2_12000muA
PINCHOFF_IDSET_W5_HA1_12000muA
PINCHOFF_IDSET_W5_HB3_12000muA
PINCHOFF_IDSET_W5_HB2_12000muA
PINCHOFF_IDSET_W5_HB1_12000muA
PINCHOFF_TILE_B
PINCHOFF_IDSET_Y0_HA3_100muA
PINCHOFF_IDSET_Y0_HA2_100muA
PINCHOFF_IDSET_Y0_HA1_100muA
PINCHOFF_IDSET_Y0_HB3_100muA
PINCHOFF_IDSET_Y0_HB2_100muA
PINCHOFF_IDSET_Y0_HB1_100muA
PINCHOFF_IDSET_Y0_HA3_4000muA
PINCHOFF_IDSET_Y0_HA2_4000muA
PINCHOFF_IDSET_Y0_HA1_4000muA
PINCHOFF_IDSET_Y0_HB3_4000muA
PINCHOFF_IDSET_Y0_HB2_4000muA
PINCHOFF_IDSET_Y0_HB1_4000muA
PINCHOFF_IDSET_Y0_HA3_8000muA
PINCHOFF_IDSET_Y0_HA2_8000muA
PINCHOFF_IDSET_Y0_HA1_8000muA
PINCHOFF_IDSET_Y0_HB3_8000muA
PINCHOFF_IDSET_Y0_HB2_8000muA
PINCHOFF_IDSET_Y0_HB1_8000muA
PINCHOFF_IDSET_Y0_HA3_12000muA
PINCHOFF_IDSET_Y0_HA2_12000muA
PINCHOFF_IDSET_Y0_HA1_12000muA
PINCHOFF_IDSET_Y0_HB3_12000muA
PINCHOFF_IDSET_Y0_HB2_12000muA
PINCHOFF_IDSET_Y0_HB1_12000muA
PINCHOFF_IDSET_Y1_HA3_100muA
PINCHOFF_IDSET_Y1_HA2_100muA
PINCHOFF_IDSET_Y1_HA1_100muA
PINCHOFF_IDSET_Y1_HB3_100muA
PINCHOFF_IDSET_Y1_HB2_100muA
PINCHOFF_IDSET_Y1_HB1_100muA
```

```
PINCHOFF_IDSET_Y1_HA3_4000muA
PINCHOFF_IDSET_Y1_HA2_4000muA
PINCHOFF_IDSET_Y1_HA1_4000muA
PINCHOFF_IDSET_Y1_HB3_4000muA
PINCHOFF_IDSET_Y1_HB2_4000muA
PINCHOFF_IDSET_Y1_HB1_4000muA
PINCHOFF_IDSET_Y1_HA3_8000muA
PINCHOFF_IDSET_Y1_HA2_8000muA
PINCHOFF_IDSET_Y1_HA1_8000muA
PINCHOFF_IDSET_Y1_HB3_8000muA
PINCHOFF_IDSET_Y1_HB2_8000muA
PINCHOFF_IDSET_Y1_HB1_8000muA
PINCHOFF_IDSET_Y1_HA3_12000muA
PINCHOFF_IDSET_Y1_HA2_12000muA
PINCHOFF_IDSET_Y1_HA1_12000muA
PINCHOFF_IDSET_Y1_HB3_12000muA
PINCHOFF_IDSET_Y1_HB2_12000muA
PINCHOFF_IDSET_Y1_HB1_12000muA
PINCHOFF_IDSET_Y2_HA3_100muA
PINCHOFF_IDSET_Y2_HA2_100muA
PINCHOFF_IDSET_Y2_HA1_100muA
PINCHOFF_IDSET_Y2_HB3_100muA
PINCHOFF_IDSET_Y2_HB2_100muA
PINCHOFF_IDSET_Y2_HB1_100muA
PINCHOFF_IDSET_Y2_HA3_4000muA
PINCHOFF_IDSET_Y2_HA2_4000muA
PINCHOFF_IDSET_Y2_HA1_4000muA
PINCHOFF_IDSET_Y2_HB3_4000muA
PINCHOFF_IDSET_Y2_HB2_4000muA
PINCHOFF_IDSET_Y2_HB1_4000muA
PINCHOFF_IDSET_Y2_HA3_8000muA
PINCHOFF_IDSET_Y2_HA2_8000muA
PINCHOFF_IDSET_Y2_HA1_8000muA
PINCHOFF_IDSET_Y2_HB3_8000muA
PINCHOFF_IDSET_Y2_HB2_8000muA
PINCHOFF_IDSET_Y2_HB1_8000muA
PINCHOFF_IDSET_Y2_HA3_12000muA
PINCHOFF_IDSET_Y2_HA2_12000muA
PINCHOFF_IDSET_Y2_HA1_12000muA
PINCHOFF_IDSET_Y2_HB3_12000muA
PINCHOFF_IDSET_Y2_HB2_12000muA
PINCHOFF_IDSET_Y2_HB1_12000muA
PINCHOFF_IDSET_Y3_HA3_100muA
PINCHOFF_IDSET_Y3_HA2_100muA
PINCHOFF_IDSET_Y3_HA1_100muA
PINCHOFF_IDSET_Y3_HB3_100muA
PINCHOFF_IDSET_Y3_HB2_100muA
PINCHOFF_IDSET_Y3_HB1_100muA
```

```
PINCHOFF_IDSET_Y3_HA3_4000muA
PINCHOFF_IDSET_Y3_HA2_4000muA
PINCHOFF_IDSET_Y3_HA1_4000muA
PINCHOFF_IDSET_Y3_HB3_4000muA
PINCHOFF_IDSET_Y3_HB2_4000muA
PINCHOFF_IDSET_Y3_HB1_4000muA
PINCHOFF_IDSET_Y3_HA3_8000muA
PINCHOFF_IDSET_Y3_HA2_8000muA
PINCHOFF_IDSET_Y3_HA1_8000muA
PINCHOFF_IDSET_Y3_HB3_8000muA
PINCHOFF_IDSET_Y3_HB2_8000muA
PINCHOFF_IDSET_Y3_HB1_8000muA
PINCHOFF_IDSET_Y3_HA3_12000muA
PINCHOFF_IDSET_Y3_HA2_12000muA
PINCHOFF_IDSET_Y3_HA1_12000muA
PINCHOFF_IDSET_Y3_HB3_12000muA
PINCHOFF_IDSET_Y3_HB2_12000muA
PINCHOFF_IDSET_Y3_HB1_12000muA
PINCHOFF_IDSET_Y4_HA3_100muA
PINCHOFF_IDSET_Y4_HA2_100muA
PINCHOFF_IDSET_Y4_HA1_100muA
PINCHOFF_IDSET_Y4_HB3_100muA
PINCHOFF_IDSET_Y4_HB2_100muA
PINCHOFF_IDSET_Y4_HB1_100muA
PINCHOFF_IDSET_Y4_HA3_4000muA
PINCHOFF_IDSET_Y4_HA2_4000muA
PINCHOFF_IDSET_Y4_HA1_4000muA
PINCHOFF_IDSET_Y4_HB3_4000muA
PINCHOFF_IDSET_Y4_HB2_4000muA
PINCHOFF_IDSET_Y4_HB1_4000muA
PINCHOFF_IDSET_Y4_HA3_8000muA
PINCHOFF_IDSET_Y4_HA2_8000muA
PINCHOFF_IDSET_Y4_HA1_8000muA
PINCHOFF_IDSET_Y4_HB3_8000muA
PINCHOFF_IDSET_Y4_HB2_8000muA
PINCHOFF_IDSET_Y4_HB1_8000muA
PINCHOFF_IDSET_Y4_HA3_12000muA
PINCHOFF_IDSET_Y4_HA2_12000muA
PINCHOFF_IDSET_Y4_HA1_12000muA
PINCHOFF_IDSET_Y4_HB3_12000muA
PINCHOFF_IDSET_Y4_HB2_12000muA
PINCHOFF_IDSET_Y4_HB1_12000muA
PINCHOFF_IDSET_Y5_HA3_100muA
PINCHOFF_IDSET_Y5_HA2_100muA
PINCHOFF_IDSET_Y5_HA1_100muA
PINCHOFF_IDSET_Y5_HB3_100muA
PINCHOFF_IDSET_Y5_HB2_100muA
PINCHOFF_IDSET_Y5_HB1_100muA
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PINCHOFF_IDSET_Y5_HA3_4000muA
PINCHOFF_IDSET_Y5_HA2_4000muA
PINCHOFF_IDSET_Y5_HA1_4000muA
PINCHOFF_IDSET_Y5_HB3_4000muA
PINCHOFF_IDSET_Y5_HB2_4000muA
PINCHOFF_IDSET_Y5_HB1_4000muA
PINCHOFF_IDSET_Y5_HA3_8000muA
PINCHOFF_IDSET_Y5_HA2_8000muA
PINCHOFF_IDSET_Y5_HA1_8000muA
PINCHOFF_IDSET_Y5_HB3_8000muA
PINCHOFF_IDSET_Y5_HB2_8000muA
PINCHOFF_IDSET_Y5_HB1_8000muA
PINCHOFF_IDSET_Y5_HA3_12000muA
PINCHOFF_IDSET_Y5_HA2_12000muA
PINCHOFF_IDSET_Y5_HA1_12000muA
PINCHOFF_IDSET_Y5_HB3_12000muA
PINCHOFF_IDSET_Y5_HB2_12000muA
PINCHOFF_IDSET_Y5_HB1_12000muA
PINCHOFF_IDSET_Y6_HA3_100muA
PINCHOFF_IDSET_Y6_HA2_100muA
PINCHOFF_IDSET_Y6_HA1_100muA
PINCHOFF_IDSET_Y6_HB3_100muA
PINCHOFF_IDSET_Y6_HB2_100muA
PINCHOFF_IDSET_Y6_HB1_100muA
PINCHOFF_IDSET_Y6_HA3_4000muA
PINCHOFF_IDSET_Y6_HA2_4000muA
PINCHOFF_IDSET_Y6_HA1_4000muA
PINCHOFF_IDSET_Y6_HB3_4000muA
PINCHOFF_IDSET_Y6_HB2_4000muA
PINCHOFF_IDSET_Y6_HB1_4000muA
PINCHOFF_IDSET_Y6_HA3_8000muA
PINCHOFF_IDSET_Y6_HA2_8000muA
PINCHOFF_IDSET_Y6_HA1_8000muA
PINCHOFF_IDSET_Y6_HB3_8000muA
PINCHOFF_IDSET_Y6_HB2_8000muA
PINCHOFF_IDSET_Y6_HB1_8000muA
PINCHOFF_IDSET_Y6_HA3_12000muA
PINCHOFF_IDSET_Y6_HA2_12000muA
PINCHOFF_IDSET_Y6_HA1_12000muA
PINCHOFF_IDSET_Y6_HB3_12000muA
PINCHOFF_IDSET_Y6_HB2_12000muA
PINCHOFF_IDSET_Y6_HB1_12000muA
PINCHOFF_IDSET_W1_HA3_100muA
PINCHOFF_IDSET_W1_HA2_100muA
PINCHOFF_IDSET_W1_HA1_100muA
PINCHOFF_IDSET_W1_HB3_100muA
PINCHOFF_IDSET_W1_HB2_100muA
PINCHOFF_IDSET_W1_HB1_100muA

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PINCHOFF_IDSET_W1_HA3_4000muA
PINCHOFF_IDSET_W1_HA2_4000muA
PINCHOFF_IDSET_W1_HA1_4000muA
PINCHOFF_IDSET_W1_HB3_4000muA
PINCHOFF_IDSET_W1_HB2_4000muA
PINCHOFF_IDSET_W1_HB1_4000muA
PINCHOFF_IDSET_W1_HA3_8000muA
PINCHOFF_IDSET_W1_HA2_8000muA
PINCHOFF_IDSET_W1_HA1_8000muA
PINCHOFF_IDSET_W1_HB3_8000muA
PINCHOFF_IDSET_W1_HB2_8000muA
PINCHOFF_IDSET_W1_HB1_8000muA
PINCHOFF_IDSET_W1_HA3_12000muA
PINCHOFF_IDSET_W1_HA2_12000muA
PINCHOFF_IDSET_W1_HA1_12000muA
PINCHOFF_IDSET_W1_HB3_12000muA
PINCHOFF_IDSET_W1_HB2_12000muA
PINCHOFF_IDSET_W1_HB1_12000muA
PINCHOFF_TILE_Y
PINCHOFF_IDSET_O0_HA3_100muA
PINCHOFF_IDSET_O0_HA2_100muA
PINCHOFF_IDSET_O0_HA1_100muA
PINCHOFF_IDSET_O0_HB3_100muA
PINCHOFF_IDSET_O0_HB2_100muA
PINCHOFF_IDSET_O0_HB1_100muA
PINCHOFF_IDSET_O0_HA3_4000muA
PINCHOFF_IDSET_O0_HA2_4000muA
PINCHOFF_IDSET_O0_HA1_4000muA
PINCHOFF_IDSET_O0_HB3_4000muA
PINCHOFF_IDSET_O0_HB2_4000muA
PINCHOFF_IDSET_O0_HB1_4000muA
PINCHOFF_IDSET_O0_HA3_8000muA
PINCHOFF_IDSET_O0_HA2_8000muA
PINCHOFF_IDSET_O0_HA1_8000muA
PINCHOFF_IDSET_O0_HB3_8000muA
PINCHOFF_IDSET_O0_HB2_8000muA
PINCHOFF_IDSET_O0_HB1_8000muA
PINCHOFF_IDSET_O0_HA3_12000muA
PINCHOFF_IDSET_O0_HA2_12000muA
PINCHOFF_IDSET_O0_HA1_12000muA
PINCHOFF_IDSET_O0_HB3_12000muA
PINCHOFF_IDSET_O0_HB2_12000muA
PINCHOFF_IDSET_O0_HB1_12000muA
PINCHOFF_IDSET_O1_HA3_100muA
PINCHOFF_IDSET_O1_HA2_100muA
PINCHOFF_IDSET_O1_HA1_100muA
PINCHOFF_IDSET_O1_HB3_100muA
PINCHOFF_IDSET_O1_HB2_100muA
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PINCHOFF_IDSET_01_HB1_100muA
PINCHOFF_IDSET_01_HA3_4000muA
PINCHOFF_IDSET_01_HA2_4000muA
PINCHOFF_IDSET_01_HA1_4000muA
PINCHOFF_IDSET_01_HB3_4000muA
PINCHOFF_IDSET_01_HB2_4000muA
PINCHOFF_IDSET_01_HB1_4000muA
PINCHOFF_IDSET_01_HA3_8000muA
PINCHOFF_IDSET_01_HA2_8000muA
PINCHOFF_IDSET_01_HA1_8000muA
PINCHOFF_IDSET_01_HB3_8000muA
PINCHOFF_IDSET_01_HB2_8000muA
PINCHOFF_IDSET_01_HB1_8000muA
PINCHOFF_IDSET_01_HA3_12000muA
PINCHOFF_IDSET_01_HA2_12000muA
PINCHOFF_IDSET_01_HA1_12000muA
PINCHOFF_IDSET_01_HB3_12000muA
PINCHOFF_IDSET_01_HB2_12000muA
PINCHOFF_IDSET_01_HB1_12000muA
PINCHOFF_IDSET_02_HA3_100muA
PINCHOFF_IDSET_02_HA2_100muA
PINCHOFF_IDSET_02_HA1_100muA
PINCHOFF_IDSET_02_HB3_100muA
PINCHOFF_IDSET_02_HB2_100muA
PINCHOFF_IDSET_02_HB1_100muA
PINCHOFF_IDSET_02_HA3_4000muA
PINCHOFF_IDSET_02_HA2_4000muA
PINCHOFF_IDSET_02_HA1_4000muA
PINCHOFF_IDSET_02_HB3_4000muA
PINCHOFF_IDSET_02_HB2_4000muA
PINCHOFF_IDSET_02_HB1_4000muA
PINCHOFF_IDSET_02_HA3_8000muA
PINCHOFF_IDSET_02_HA2_8000muA
PINCHOFF_IDSET_02_HA1_8000muA
PINCHOFF_IDSET_02_HB3_8000muA
PINCHOFF_IDSET_02_HB2_8000muA
PINCHOFF_IDSET_02_HB1_8000muA
PINCHOFF_IDSET_02_HA3_12000muA
PINCHOFF_IDSET_02_HA2_12000muA
PINCHOFF_IDSET_02_HA1_12000muA
PINCHOFF_IDSET_02_HB3_12000muA
PINCHOFF_IDSET_02_HB2_12000muA
PINCHOFF_IDSET_02_HB1_12000muA
PINCHOFF_IDSET_03_HA3_100muA
PINCHOFF_IDSET_03_HA2_100muA
PINCHOFF_IDSET_03_HA1_100muA
PINCHOFF_IDSET_03_HB3_100muA
PINCHOFF_IDSET_03_HB2_100muA
```

PINCHOFF_IDSET_O3_HB1_100muA
PINCHOFF_IDSET_O3_HA3_4000muA
PINCHOFF_IDSET_O3_HA2_4000muA
PINCHOFF_IDSET_O3_HA1_4000muA
PINCHOFF_IDSET_O3_HB3_4000muA
PINCHOFF_IDSET_O3_HB2_4000muA
PINCHOFF_IDSET_O3_HB1_4000muA
PINCHOFF_IDSET_O3_HA3_8000muA
PINCHOFF_IDSET_O3_HA2_8000muA
PINCHOFF_IDSET_O3_HA1_8000muA
PINCHOFF_IDSET_O3_HB3_8000muA
PINCHOFF_IDSET_O3_HB2_8000muA
PINCHOFF_IDSET_O3_HB1_8000muA
PINCHOFF_IDSET_O3_HA3_12000muA
PINCHOFF_IDSET_O3_HA2_12000muA
PINCHOFF_IDSET_O3_HA1_12000muA
PINCHOFF_IDSET_O3_HB3_12000muA
PINCHOFF_IDSET_O3_HB2_12000muA
PINCHOFF_IDSET_O3_HB1_12000muA
PINCHOFF_IDSET_O4_HA3_100muA
PINCHOFF_IDSET_O4_HA2_100muA
PINCHOFF_IDSET_O4_HA1_100muA
PINCHOFF_IDSET_O4_HB3_100muA
PINCHOFF_IDSET_O4_HB2_100muA
PINCHOFF_IDSET_O4_HB1_100muA
PINCHOFF_IDSET_O4_HA3_4000muA
PINCHOFF_IDSET_O4_HA2_4000muA
PINCHOFF_IDSET_O4_HA1_4000muA
PINCHOFF_IDSET_O4_HB3_4000muA
PINCHOFF_IDSET_O4_HB2_4000muA
PINCHOFF_IDSET_O4_HB1_4000muA
PINCHOFF_IDSET_O4_HA3_8000muA
PINCHOFF_IDSET_O4_HA2_8000muA
PINCHOFF_IDSET_O4_HA1_8000muA
PINCHOFF_IDSET_O4_HB3_8000muA
PINCHOFF_IDSET_O4_HB2_8000muA
PINCHOFF_IDSET_O4_HB1_8000muA
PINCHOFF_IDSET_O4_HA3_12000muA
PINCHOFF_IDSET_O4_HA2_12000muA
PINCHOFF_IDSET_O4_HA1_12000muA
PINCHOFF_IDSET_O4_HB3_12000muA
PINCHOFF_IDSET_O4_HB2_12000muA
PINCHOFF_IDSET_O4_HB1_12000muA
PINCHOFF_IDSET_O5_HA3_100muA
PINCHOFF_IDSET_O5_HA2_100muA
PINCHOFF_IDSET_O5_HA1_100muA
PINCHOFF_IDSET_O5_HB3_100muA
PINCHOFF_IDSET_O5_HB2_100muA

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PINCHOFF_IDSET_O5_HB1_100muA
PINCHOFF_IDSET_O5_HA3_4000muA
PINCHOFF_IDSET_O5_HA2_4000muA
PINCHOFF_IDSET_O5_HA1_4000muA
PINCHOFF_IDSET_O5_HB3_4000muA
PINCHOFF_IDSET_O5_HB2_4000muA
PINCHOFF_IDSET_O5_HB1_4000muA
PINCHOFF_IDSET_O5_HA3_8000muA
PINCHOFF_IDSET_O5_HA2_8000muA
PINCHOFF_IDSET_O5_HA1_8000muA
PINCHOFF_IDSET_O5_HB3_8000muA
PINCHOFF_IDSET_O5_HB2_8000muA
PINCHOFF_IDSET_O5_HB1_8000muA
PINCHOFF_IDSET_O5_HA3_12000muA
PINCHOFF_IDSET_O5_HA2_12000muA
PINCHOFF_IDSET_O5_HA1_12000muA
PINCHOFF_IDSET_O5_HB3_12000muA
PINCHOFF_IDSET_O5_HB2_12000muA
PINCHOFF_IDSET_O5_HB1_12000muA
PINCHOFF_IDSET_O6_HA3_100muA
PINCHOFF_IDSET_O6_HA2_100muA
PINCHOFF_IDSET_O6_HA1_100muA
PINCHOFF_IDSET_O6_HB3_100muA
PINCHOFF_IDSET_O6_HB2_100muA
PINCHOFF_IDSET_O6_HB1_100muA
PINCHOFF_IDSET_O6_HA3_4000muA
PINCHOFF_IDSET_O6_HA2_4000muA
PINCHOFF_IDSET_O6_HA1_4000muA
PINCHOFF_IDSET_O6_HB3_4000muA
PINCHOFF_IDSET_O6_HB2_4000muA
PINCHOFF_IDSET_O6_HB1_4000muA
PINCHOFF_IDSET_O6_HA3_8000muA
PINCHOFF_IDSET_O6_HA2_8000muA
PINCHOFF_IDSET_O6_HA1_8000muA
PINCHOFF_IDSET_O6_HB3_8000muA
PINCHOFF_IDSET_O6_HB2_8000muA
PINCHOFF_IDSET_O6_HB1_8000muA
PINCHOFF_IDSET_O6_HA3_12000muA
PINCHOFF_IDSET_O6_HA2_12000muA
PINCHOFF_IDSET_O6_HA1_12000muA
PINCHOFF_IDSET_O6_HB3_12000muA
PINCHOFF_IDSET_O6_HB2_12000muA
PINCHOFF_IDSET_O6_HB1_12000muA
PINCHOFF_IDSET_W2_HA3_100muA
PINCHOFF_IDSET_W2_HA2_100muA
PINCHOFF_IDSET_W2_HA1_100muA
PINCHOFF_IDSET_W2_HB3_100muA
PINCHOFF_IDSET_W2_HB2_100muA
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PINCHOFF_IDSET_W2_HB1_100muA
PINCHOFF_IDSET_W2_HA3_4000muA
PINCHOFF_IDSET_W2_HA2_4000muA
PINCHOFF_IDSET_W2_HA1_4000muA
PINCHOFF_IDSET_W2_HB3_4000muA
PINCHOFF_IDSET_W2_HB2_4000muA
PINCHOFF_IDSET_W2_HB1_4000muA
PINCHOFF_IDSET_W2_HA3_8000muA
PINCHOFF_IDSET_W2_HA2_8000muA
PINCHOFF_IDSET_W2_HA1_8000muA
PINCHOFF_IDSET_W2_HB3_8000muA
PINCHOFF_IDSET_W2_HB2_8000muA
PINCHOFF_IDSET_W2_HB1_8000muA
PINCHOFF_IDSET_W2_HA3_12000muA
PINCHOFF_IDSET_W2_HA2_12000muA
PINCHOFF_IDSET_W2_HA1_12000muA
PINCHOFF_IDSET_W2_HB3_12000muA
PINCHOFF_IDSET_W2_HB2_12000muA
PINCHOFF_IDSET_W2_HB1_12000muA
PINCHOFF_TILE_O
PINCHOFF_IDSET_I0_HA3_100muA
PINCHOFF_IDSET_I0_HA2_100muA
PINCHOFF_IDSET_I0_HA1_100muA
PINCHOFF_IDSET_I0_HB3_100muA
PINCHOFF_IDSET_I0_HB2_100muA
PINCHOFF_IDSET_I0_HB1_100muA
PINCHOFF_IDSET_I0_HA3_4000muA
PINCHOFF_IDSET_I0_HA2_4000muA
PINCHOFF_IDSET_I0_HA1_4000muA
PINCHOFF_IDSET_I0_HB3_4000muA
PINCHOFF_IDSET_I0_HB2_4000muA
PINCHOFF_IDSET_I0_HB1_4000muA
PINCHOFF_IDSET_I0_HA3_8000muA
PINCHOFF_IDSET_I0_HA2_8000muA
PINCHOFF_IDSET_I0_HA1_8000muA
PINCHOFF_IDSET_I0_HB3_8000muA
PINCHOFF_IDSET_I0_HB2_8000muA
PINCHOFF_IDSET_I0_HB1_8000muA
PINCHOFF_IDSET_I0_HA3_12000muA
PINCHOFF_IDSET_I0_HA2_12000muA
PINCHOFF_IDSET_I0_HA1_12000muA
PINCHOFF_IDSET_I0_HB3_12000muA
PINCHOFF_IDSET_I0_HB2_12000muA
PINCHOFF_IDSET_I0_HB1_12000muA
PINCHOFF_IDSET_I1_HA3_100muA
PINCHOFF_IDSET_I1_HA2_100muA
PINCHOFF_IDSET_I1_HA1_100muA
PINCHOFF_IDSET_I1_HB3_100muA
```

PINCHOFF_IDSET_I1_HB2_100muA
PINCHOFF_IDSET_I1_HB1_100muA
PINCHOFF_IDSET_I1_HA3_4000muA
PINCHOFF_IDSET_I1_HA2_4000muA
PINCHOFF_IDSET_I1_HA1_4000muA
PINCHOFF_IDSET_I1_HB3_4000muA
PINCHOFF_IDSET_I1_HB2_4000muA
PINCHOFF_IDSET_I1_HB1_4000muA
PINCHOFF_IDSET_I1_HA3_8000muA
PINCHOFF_IDSET_I1_HA2_8000muA
PINCHOFF_IDSET_I1_HA1_8000muA
PINCHOFF_IDSET_I1_HB3_8000muA
PINCHOFF_IDSET_I1_HB2_8000muA
PINCHOFF_IDSET_I1_HB1_8000muA
PINCHOFF_IDSET_I1_HA3_12000muA
PINCHOFF_IDSET_I1_HA2_12000muA
PINCHOFF_IDSET_I1_HA1_12000muA
PINCHOFF_IDSET_I1_HB3_12000muA
PINCHOFF_IDSET_I1_HB2_12000muA
PINCHOFF_IDSET_I1_HB1_12000muA
PINCHOFF_IDSET_I2_HA3_100muA
PINCHOFF_IDSET_I2_HA2_100muA
PINCHOFF_IDSET_I2_HA1_100muA
PINCHOFF_IDSET_I2_HB3_100muA
PINCHOFF_IDSET_I2_HB2_100muA
PINCHOFF_IDSET_I2_HB1_100muA
PINCHOFF_IDSET_I2_HA3_4000muA
PINCHOFF_IDSET_I2_HA2_4000muA
PINCHOFF_IDSET_I2_HA1_4000muA
PINCHOFF_IDSET_I2_HB3_4000muA
PINCHOFF_IDSET_I2_HB2_4000muA
PINCHOFF_IDSET_I2_HB1_4000muA
PINCHOFF_IDSET_I2_HA3_8000muA
PINCHOFF_IDSET_I2_HA2_8000muA
PINCHOFF_IDSET_I2_HA1_8000muA
PINCHOFF_IDSET_I2_HB3_8000muA
PINCHOFF_IDSET_I2_HB2_8000muA
PINCHOFF_IDSET_I2_HB1_8000muA
PINCHOFF_IDSET_I2_HA3_12000muA
PINCHOFF_IDSET_I2_HA2_12000muA
PINCHOFF_IDSET_I2_HA1_12000muA
PINCHOFF_IDSET_I2_HB3_12000muA
PINCHOFF_IDSET_I2_HB2_12000muA
PINCHOFF_IDSET_I2_HB1_12000muA
PINCHOFF_IDSET_I3_HA3_100muA
PINCHOFF_IDSET_I3_HA2_100muA
PINCHOFF_IDSET_I3_HA1_100muA
PINCHOFF_IDSET_I3_HB3_100muA

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PINCHOFF_IDSET_I3_HB2_100muA
PINCHOFF_IDSET_I3_HB1_100muA
PINCHOFF_IDSET_I3_HA3_4000muA
PINCHOFF_IDSET_I3_HA2_4000muA
PINCHOFF_IDSET_I3_HA1_4000muA
PINCHOFF_IDSET_I3_HB3_4000muA
PINCHOFF_IDSET_I3_HB2_4000muA
PINCHOFF_IDSET_I3_HB1_4000muA
PINCHOFF_IDSET_I3_HA3_8000muA
PINCHOFF_IDSET_I3_HA2_8000muA
PINCHOFF_IDSET_I3_HA1_8000muA
PINCHOFF_IDSET_I3_HB3_8000muA
PINCHOFF_IDSET_I3_HB2_8000muA
PINCHOFF_IDSET_I3_HB1_8000muA
PINCHOFF_IDSET_I3_HA3_12000muA
PINCHOFF_IDSET_I3_HA2_12000muA
PINCHOFF_IDSET_I3_HA1_12000muA
PINCHOFF_IDSET_I3_HB3_12000muA
PINCHOFF_IDSET_I3_HB2_12000muA
PINCHOFF_IDSET_I3_HB1_12000muA
PINCHOFF_IDSET_I4_HA3_100muA
PINCHOFF_IDSET_I4_HA2_100muA
PINCHOFF_IDSET_I4_HA1_100muA
PINCHOFF_IDSET_I4_HB3_100muA
PINCHOFF_IDSET_I4_HB2_100muA
PINCHOFF_IDSET_I4_HB1_100muA
PINCHOFF_IDSET_I4_HA3_4000muA
PINCHOFF_IDSET_I4_HA2_4000muA
PINCHOFF_IDSET_I4_HA1_4000muA
PINCHOFF_IDSET_I4_HB3_4000muA
PINCHOFF_IDSET_I4_HB2_4000muA
PINCHOFF_IDSET_I4_HB1_4000muA
PINCHOFF_IDSET_I4_HA3_8000muA
PINCHOFF_IDSET_I4_HA2_8000muA
PINCHOFF_IDSET_I4_HA1_8000muA
PINCHOFF_IDSET_I4_HB3_8000muA
PINCHOFF_IDSET_I4_HB2_8000muA
PINCHOFF_IDSET_I4_HB1_8000muA
PINCHOFF_IDSET_I4_HA3_12000muA
PINCHOFF_IDSET_I4_HA2_12000muA
PINCHOFF_IDSET_I4_HA1_12000muA
PINCHOFF_IDSET_I4_HB3_12000muA
PINCHOFF_IDSET_I4_HB2_12000muA
PINCHOFF_IDSET_I4_HB1_12000muA
PINCHOFF_IDSET_I5_HA3_100muA
PINCHOFF_IDSET_I5_HA2_100muA
PINCHOFF_IDSET_I5_HA1_100muA
PINCHOFF_IDSET_I5_HB3_100muA
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```
PINCHOFF_IDSET_I5_HB2_100muA
PINCHOFF_IDSET_I5_HB1_100muA
PINCHOFF_IDSET_I5_HA3_4000muA
PINCHOFF_IDSET_I5_HA2_4000muA
PINCHOFF_IDSET_I5_HA1_4000muA
PINCHOFF_IDSET_I5_HB3_4000muA
PINCHOFF_IDSET_I5_HB2_4000muA
PINCHOFF_IDSET_I5_HB1_4000muA
PINCHOFF_IDSET_I5_HA3_8000muA
PINCHOFF_IDSET_I5_HA2_8000muA
PINCHOFF_IDSET_I5_HA1_8000muA
PINCHOFF_IDSET_I5_HB3_8000muA
PINCHOFF_IDSET_I5_HB2_8000muA
PINCHOFF_IDSET_I5_HB1_8000muA
PINCHOFF_IDSET_I5_HA3_12000muA
PINCHOFF_IDSET_I5_HA2_12000muA
PINCHOFF_IDSET_I5_HA1_12000muA
PINCHOFF_IDSET_I5_HB3_12000muA
PINCHOFF_IDSET_I5_HB2_12000muA
PINCHOFF_IDSET_I5_HB1_12000muA
PINCHOFF_TILE_I
PINCHOFF_IDSET_I5_HB1_12000muA
PINCHOFF_IDSET_I6_HA3_100muA
PINCHOFF_IDSET_I6_HA2_100muA
PINCHOFF_IDSET_I6_HA1_100muA
PINCHOFF_IDSET_I6_HB3_100muA
PINCHOFF_IDSET_I6_HB2_100muA
PINCHOFF_IDSET_I6_HB1_100muA
PINCHOFF_IDSET_I6_HA3_4000muA
PINCHOFF_IDSET_I6_HA2_4000muA
PINCHOFF_IDSET_I6_HA1_4000muA
PINCHOFF_IDSET_I6_HB3_4000muA
PINCHOFF_IDSET_I6_HB2_4000muA
PINCHOFF_IDSET_I6_HB1_4000muA
PINCHOFF_IDSET_I6_HA3_8000muA
PINCHOFF_IDSET_I6_HA2_8000muA
PINCHOFF_IDSET_I6_HA1_8000muA
PINCHOFF_IDSET_I6_HB3_8000muA
PINCHOFF_IDSET_I6_HB2_8000muA
PINCHOFF_IDSET_I6_HB1_8000muA
PINCHOFF_IDSET_I6_HA3_12000muA
PINCHOFF_IDSET_I6_HA2_12000muA
PINCHOFF_IDSET_I6_HA1_12000muA
PINCHOFF_IDSET_I6_HB3_12000muA
PINCHOFF_IDSET_I6_HB2_12000muA
PINCHOFF_IDSET_I6_HB1_12000muA
PINCHOFF_TILE_I
```

4 Pinchoff analysis

4.1 Initialization steps

First we initialize the class and store its information into a variable that we call here "pchoff". Notice that we can specify a particular folder for output data produced by the procedure. If not specified the default folder is the current one, "./"

[46]:
```
pchoff = PinchOffAnalysis(my_data, output_folder='./output/')
```

In this case we want to add a tag in the tag list. Notice that only the tag list is affected, Not the tags in the file. This means that every change is lost when the session is over

[47]:
```
'''
In this dataset we lack the verification point tag, so we are
going to insert it for some time interval before the first
current setting
'''

'''
This gets start and end times for a given polarimeter and tag.
The tag, in this case, corresponds to the first current setting
'''
a = pchoff.get_times('R0','PINCHOFF_IDSET_R0_HB3_100muA')
start = a[0]
start_mjd = Time(start, format='mjd')
start_unix = start_mjd.unix

'''
Here we get tha data corresponding to 20 minutes of stable
acquisition. We start 25 minutes before the first current
setting and end 5 minutes before
'''
start_stable = Time(start_unix - 25*60., format='unix')
end_stable = Time(start_unix - 5*60., format='unix')
start_stable_mjd = start_stable.mjd
end_stable_mjd = end_stable.mjd

'''
Now we add the tag to this time interval. Notice that the change
is not permanent, the data file will not be changed
'''
pchoff.add_tag(start_stable_mjd,end_stable.mjd,\
               'PINCHOFF_VERIFICATION_1',\
               'Start of stable acquisition before pinchoff','End of stable␣
 ↪acquisition before pinchoff')
```

```
TAGS UPDATED:  Tag(id=58702, mjd_start=58975.45030452006,
```

mjd_end=58975.46419340895, name='PINCHOFF_VERIFICATION_1', start_comment='Start of stable acquisition before pinchoff', end_comment='End of stable acquisition before pinchoff')

4.2 Retrieving the instrument configuration

Now we get the full configuration of the instrument during the test. This means that for each step identified by a tag we retrieve bias voltages and currents for each amplifier of each polarimeter.

The configuration is saved into a dictionary and can be exported to a pickle file and a csv file. The pickle file is handy because it allows us to load the configuration if we want to rerun some parts of the analysis again avoiding this part that is particularly time-consuming

4.2.1 Extracting the instrument configuration from the data file

To extract the configuration we use the method `get_configuration`. It can be run on a single polarimeter, on a group of polarimeters or on all the tested polarimeters

For a single polarimeter

```
pinchoff_configuration = pchoff.get_configuration(['R0'])
```

Notice that the argument is a list also if we have only one element

For a group of polarimeters

```
pinchoff_configuration = pchoff.get_configuration(['R0','V1'])
```

For all the tested polarimeters

```
pinchoff_configuration = pchoff.get_configuration(pchoff.get_tested_polarimeters())
```

The method `get_tested_polarimeters` will return the list of all the polarimeter present in the data file

[7]:
```
pchoff.get_tested_polarimeters()
```

[7]:
```
array(['R0', 'R1', 'R2', 'R3', 'R4', 'R5', 'R6', 'W3', 'V0', 'V1', 'V2',
       'V3', 'V4', 'V5', 'V6', 'W4', 'G0', 'G1', 'G2', 'G3', 'G4', 'G5',
       'G6', 'W6', 'B0', 'B1', 'B2', 'B3', 'B4', 'B5', 'B6', 'W5', 'Y0',
       'Y1', 'Y2', 'Y3', 'Y4', 'Y5', 'Y6', 'W1', 'O0', 'O1', 'O2', 'O3',
       'O4', 'O5', 'O6', 'W2', 'I0', 'I1', 'I2', 'I3', 'I4', 'I5', 'I6'],
      dtype='<U2')
```

[ ]:
```
'''
Here we retrieve the configuration of all the tested polarimeters. This step
may take a long time (~ 1 hour or more)
'''
pinchoff_configuration = pchoff.get_configuration(pchoff.
 ↪get_tested_polarimeters())
```

4.2.2 Saving the configuration on an external file

Once we have retrieved the configuration we can save it in an external file. It can be a binary pickle file, a text csv file or both. The method to do this is `save_configuration`

```
pchoff.save_configuration(configuration_variable, file_name_root, save = 'both')   # saves bot
pchoff.save_configuration(configuration_variable, file_name_root, save = 'pickle') # saves onl
pchoff.save_configuration(configuration_variable, file_name_root, save = 'csv')    # saves onl
```

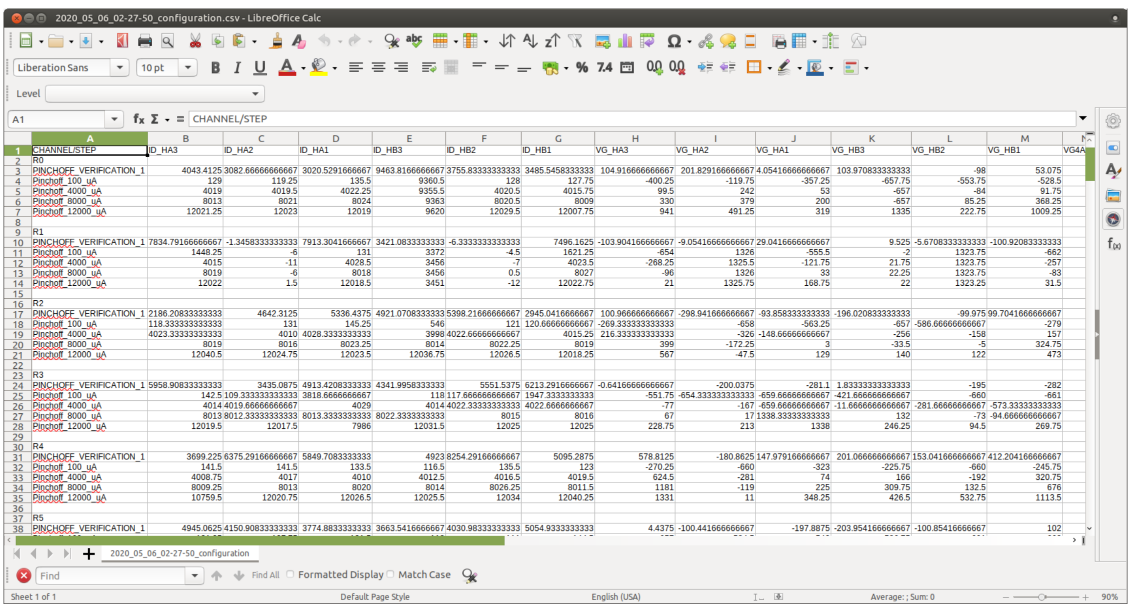
The `file_name_root` is a string containing the filename without the extension. See below for an example

[27]:
```
'''
Here we save the configuration both in pickle and csv format
'''
pchoff.
↪save_configuration(pinchoff_configuration,'2020_05_06_02-27-50_configuration')
```

Here we see an example of the produced `csv` file

[10]:
```
from IPython.display import Image
Image(filename='/home/daniele/Pictures/Shutter/
↪2020_05_06_02-27-50_configuration.csv - LibreOffice Calc_366.png')
```

[10]:



4.2.3 Loading the configuration from an external pickle file

`If we have saved the configuration in a pickle file we can retrieve it at any time with the pickle function pickle.load that assumes that you have previously` imported pickle with import pickle.

Notice that after having loaded the data we need to store it into the attribute pchoff.configuration (see below)

[48]:
```
'''
First load data
'''
file_id = open('/home/daniele/Documents/LSPE/testing_integration/
↪system_level_tests/striptease/output/2020_05_06_02-27-50_configuration.
↪pickle','rb')
pinchoff_configuration = pickle.load(file_id)
file_id.close()

'''
Then store it into the class attribute pchoff.configuration
'''
pchoff.configuration = pinchoff_configuration
```

Let us now look at the structure of the configuration dictionary

[15]:
```
'''
The first level keys correspond to the test tags. Here we show the first three
'''

list(pinchoff_configuration.keys())[0:3]
```

[15]:
```
['PINCHOFF_VERIFICATION_1',
 'PINCHOFF_IDSET_R0_HA3_100muA',
 'PINCHOFF_IDSET_R0_HA2_100muA']
```

[18]:
```
'''
The second level tags give, for each tag, the polarimeters.
'''

pinchoff_configuration['PINCHOFF_VERIFICATION_1'].keys()
```

[18]:
```
dict_keys(['R0', 'R1', 'R2', 'R3', 'R4', 'R5', 'R6', 'W3', 'V0', 'V1', 'V2',
'V3', 'V4', 'V5', 'V6', 'W4', 'G0', 'G1', 'G2', 'G3', 'G4', 'G5', 'G6', 'W6',
'B0', 'B1', 'B2', 'B3', 'B4', 'B5', 'B6', 'W5', 'Y0', 'Y1', 'Y2', 'Y3', 'Y4',
'Y5', 'Y6', 'W1', 'O0', 'O1', 'O2', 'O3', 'O4', 'O5', 'O6', 'W2', 'I0', 'I1',
'I2', 'I3', 'I4', 'I5', 'I6'])
```

[19]:
```
'''
Finally, for each tag and for each polarimeter we get a dictionary with the␣
↪full configuration during the time interval corresponding to the tag
'''
```

```
pinchoff_configuration['PINCHOFF_VERIFICATION_1']['R0'].keys()
```

[19]:
```
dict_keys(['TIME_START', 'TIME_END', 'ID0_SET', 'ID1_SET', 'ID2_SET', 'ID3_SET',
'ID4_SET', 'ID5_SET', 'VD0_SET', 'VD1_SET', 'VD2_SET', 'VD3_SET', 'VD4_SET',
'VD5_SET', 'VD0_HK', 'VD1_HK', 'VD2_HK', 'VD3_HK', 'VD4_HK', 'VD5_HK', 'VG0_HK',
'VG1_HK', 'VG2_HK', 'VG3_HK', 'VG4_HK', 'VG5_HK', 'ID0_HK', 'ID1_HK', 'ID2_HK',
'ID3_HK', 'ID4_HK', 'ID5_HK'])
```

[20]:
```
pinchoff_configuration['PINCHOFF_VERIFICATION_1']['R0']
```

[20]:
```
{'TIME_START': 58975.45030452006,
 'TIME_END': 58975.46419340895,
 'ID0_SET': 0.0,
 'ID1_SET': 0.0,
 'ID2_SET': 0.0,
 'ID3_SET': 0.0,
 'ID4_SET': 0.0,
 'ID5_SET': 0.0,
 'VD0_SET': 0.0,
 'VD1_SET': 0.0,
 'VD2_SET': 0.0,
 'VD3_SET': 0.0,
 'VD4_SET': 0.0,
 'VD5_SET': 0.0,
 'VD0_HK': 799.2333333333333,
 'VD1_HK': 794.3541666666666,
 'VD2_HK': 798.8416666666667,
 'VD3_HK': 799.975,
 'VD4_HK': 797.8583333333333,
 'VD5_HK': 797.4041666666667,
 'VG0_HK': 4.054166666666666,
 'VG1_HK': 53.075,
 'VG2_HK': 201.82916666666668,
 'VG3_HK': -98.0,
 'VG4_HK': 104.91666666666667,
 'VG5_HK': 103.97083333333333,
 'ID0_HK': 3020.5291666666667,
 'ID1_HK': 3485.545833333333,
 'ID2_HK': 3082.6666666666665,
 'ID3_HK': 3755.8333333333335,
 'ID4_HK': 4043.4125,
 'ID5_HK': 9463.816666666668}
```

4.3 Data analysis

4.3.1 Bias I-V curves

In this part we analyze data to produce I-V curves which are plotted and fitted with a linear and quadratic function. The method that is used is pchoff.plot_IV

```
fits = pchoff.plot_IV(polarimeters = 'All', filename = None, image = 'png')
```

In the example above the method will test all polarimeters and decide the filename where to write the results of the fits. Alternatively one can decide a list of polarimeters and a filename.

The parameter image indicates the format of the output plots. In can be png (default), svg, pdf

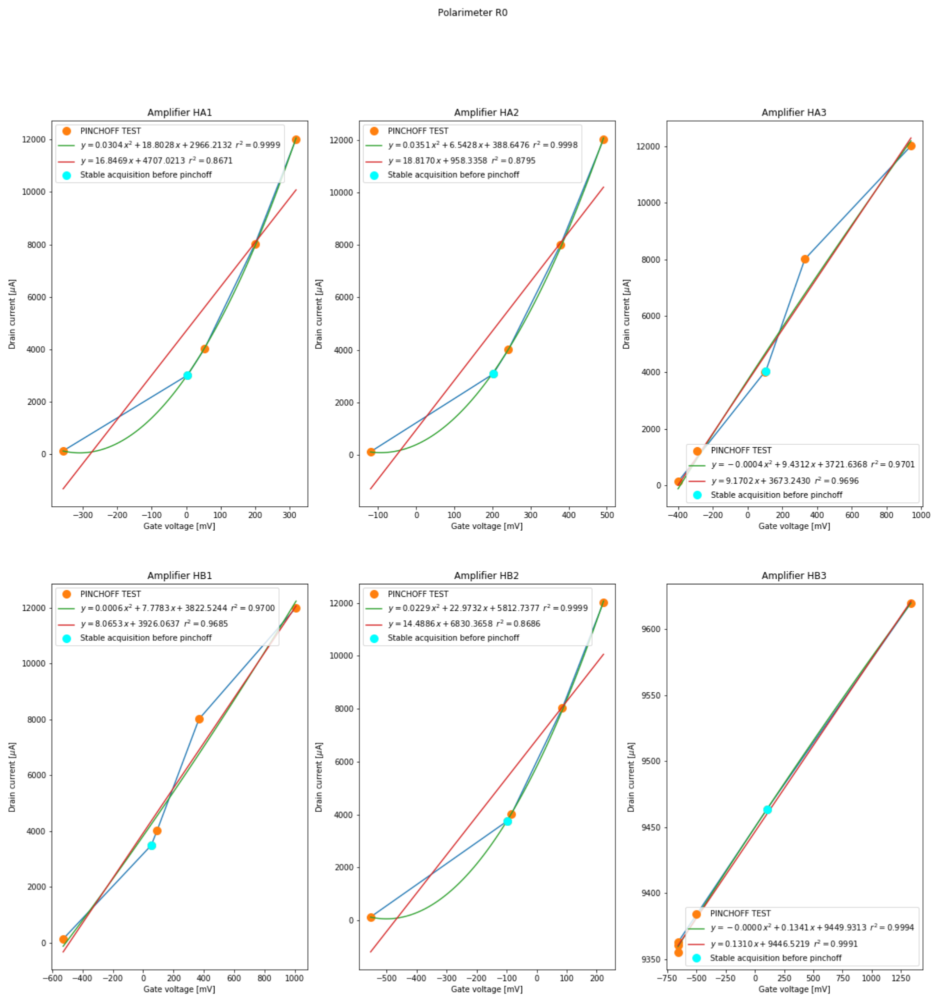
See the examples below for more information

[9]:
```
'''
Here we calculate I-V curves for the polarimeter B3 and output the plot in a␣
↪png file
'''
fits = pchoff.plot_IV(polarimeters = ['R0'], image = 'png')
```

[11]:
```
'''
Let us look at the generated plots
'''
from IPython.display import Image
Image(filename='./output/IVplot_R0.png')

'''
We see that, for each amplifier there are the I-V data and
the linear and quadratic fits, with equations displayed in the legend.
The stable acquisition point is indicated in cyan
'''
```

[11]:



[15]:
```python
'''
Let us look now at the content of the output (that we called 'fits'). The structure is simple:
First level keys: radiometer
Second level keys: amplifier
Third level keys: fits results

Results are organized as followin a tuple of two elements.
First element: tuple of two elements in which:
               First element -> best-fit parameters.
               Second element: covariance matrix.
Second element: R factor
'''
```

```
print(fits.keys())
print(fits['R0'].keys())
print(fits['R0']['HA1'].keys())
```

```
dict_keys(['R0'])
dict_keys(['HA1', 'HA2', 'HA3', 'HB1', 'HB2', 'HB3'])
dict_keys(['quadratic', 'linear'])
```

[32]:
```
print('Best fit parameters')
print(fits['R0']['HA1']['quadratic'][0][0])

print('')
print('Covariance matrix')
print(fits['R0']['HA1']['quadratic'][0][1])

print('')
print('R-factor')
print(fits['R0']['HA1']['quadratic'][1])
```

```
Best fit parameters
[3.04028281e-02 1.88028314e+01 2.96621318e+03]

Covariance matrix
[[ 3.77672006e-07  2.42970653e-05 -2.16247813e-02]
 [ 2.42970653e-05  1.93149213e-02 -2.16803731e+00]
 [-2.16247813e-02 -2.16803731e+00  2.20465157e+03]]

R-factor
0.9998915258877261
```

[ ]:
```
'''
This calculates fits and plots I-V curves for all polarimeters with images in␣
 ↪png format
'''
fits = pchoff.plot_IV(polarimeters = 'All', image = 'png')
```

4.3.2 Bias plots

In this part we analyze data to produce Vg and Id versus time plots for each polarimeter during the various steps in the procedure. The method that is used is pchoff.bias_plot

```
fits = pchoff.pchoff.bias_plot(polarimeters = 'All', image = 'png')
```

In the example above the method will test all polarimeters. The parameter image indicates the format of the output plots. In can be png (default), svg, pdf

See the examples below for more information

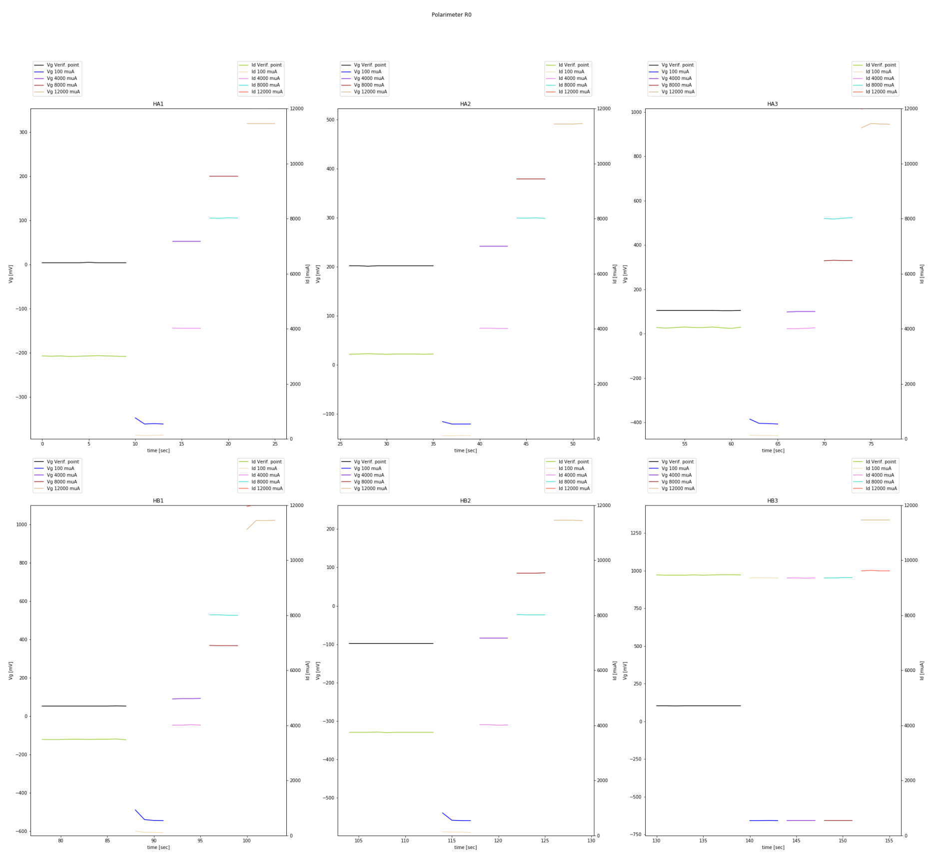
Important notice The time in the plots does not correspond to the true time in order to avoid gaps between one curve and another. It is just the consecutive index of the various samples

[54]:
```python
'''
Here we generate a bias plot for polarimeter B0 and output the plot in a png␣
↪file
'''

pchoff.bias_plot(polarimeters = ['R0'], image = 'png')
```

[56]:
```python
'''
Let us look at the generated plot
'''
from IPython.display import Image
Image(filename='./output/vg_id_timeplot_R0.png')
```

[56]:



[ ]:
```
'''
This calculates fits and plots I-V curves for all polarimeters with images in␣
 ↪png format
'''
pchoff.bias_plot(polarimeters = 'All', image = 'png')
```

4.3.3 Scientific data plots

In this part we analyze data to produce plots of scientific data versus time for each polarimeter during the various steps in the procedure. The method that is used is pchoff.sci_plot

```
fits = pchoff.pchoff.sci_plot(polarimeters = 'All', image = 'png')
```

In the example above the method will test all polarimeters. For each polarimeter we get six plots, one for each amplifier (remind that we are verifying the response to the change of the various amplifiers). In each plot we see eight plots: four plots with total power data (Q1, Q2, U1, U2) and four plots with demodulated data (Q1, Q2, U1, U2). The parameter image indicates the format of the output plots. In can be png (default), svg, pdf

See the examples below for more information

Important notice The time in the plots does not correspond to the true time in order to avoid gaps between one curve and another. It is just the consecutive index of the various samples

Other important notice The procedure is quite slow due to the large amount of data to be read. It may take a few minutes for each polarimeter

[59]:
```
'''
Here we generate a scientifica data plot for polarimeter R0 and output the plot␣
 ↪in a png file
'''

pchoff.sci_plot(polarimeters = ['R0'], image = 'png')
```

[61]:
```
'''
Let us look at the generated plot
'''
from IPython.display import Image
Image(filename='./output/_sciplot_R0_HA1.png')
```

[61]:

5 Other utilities

[62]:
```python
# Get the tested polarimeters

pchoff.get_tested_polarimeters()
```

[62]:
```
array(['R0', 'R1', 'R2', 'R3', 'R4', 'R5', 'R6', 'W3', 'V0', 'V1', 'V2',
       'V3', 'V4', 'V5', 'V6', 'W4', 'G0', 'G1', 'G2', 'G3', 'G4', 'G5',
       'G6', 'W6', 'B0', 'B1', 'B2', 'B3', 'B4', 'B5', 'B6', 'W5', 'Y0',
       'Y1', 'Y2', 'Y3', 'Y4', 'Y5', 'Y6', 'W1', 'O0', 'O1', 'O2', 'O3',
       'O4', 'O5', 'O6', 'W2', 'I0', 'I1', 'I2', 'I3', 'I4', 'I5', 'I6'],
      dtype='<U2')
```

[63]:
```python
# Get the tested currents for a given polarimeter and amplifier
```

```
pchoff.get_currents('B0','HB1')
```

[63]:
```
array(['100', '100', '4000', '8000', '12000'], dtype='<U5')
```

[64]:
```
# Get the various tags containing a given string

pchoff.get_subtags('PINCHOFF_IDSET_B0_HB1')
```

[64]:
```
['PINCHOFF_IDSET_B0_HB1_100muA',
 'PINCHOFF_IDSET_B0_HB1_100muA',
 'PINCHOFF_IDSET_B0_HB1_4000muA',
 'PINCHOFF_IDSET_B0_HB1_8000muA',
 'PINCHOFF_IDSET_B0_HB1_12000muA']
```

[65]:
```
# Translate the amplifier ID from HXY to and index running from 0 to 5

pchoff.amp_tag_translation['HA3']
```

[65]:
```
4
```