

SPARE Calibrations

Python scrip to build archives

```
import sys
import os
import shutil
import path
from glob import glob
from lfrcompliance.test_engine.testcontext import *
from lfrcompliance.test_engine.result_loader import *
OUTPUT_FOLDER=
"/run/media/jeandet/key64/OwnCloud/TESTS_LFR_SPARE_CALIBRATIONS/scripts/tests/inputs/"

files=glob.glob(OUTPUT_FOLDER+"TF*.output")

os.chdir("/home/jeandet/Documents/temp")
for file in files:
    res=ResultLoader(file)
    if len(res.PacketsRecords):
        print(res.PacketsRecords)
        archive=os.path.basename(file).split('_')[0]
        print(os.path.basename(file).split('_')[0])
        os.mkdir(archive)
        shutil.copy(res.PacketsRecords[0],archive+"/")
        shutil.copy(file,archive+"/")
        print(os.system("tar cv {} | 7z a -si -m0=LZMA2 -mx=9 -mmt=on -aoa -mfb=64 {}.tar.7z".
format(archive,archive)))
        shutil.rmtree(archive)
```

Transfer Function

1) Transfer Functions @F0

For the whole test we will use the following parameters:

- LFR mode= Normal Mode
- ASM period = 4s
- Snapshots period = 22s
- Input signal amplitude 1.4Vp

a) Low Frequencies and FFT frequencies

7 frequencies: from 12Hz to 84Hz with $\Delta f = 12\text{Hz}$

128 frequencies: from 96Hz to 12288Hz with $\Delta f = 96\text{Hz}$

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Channels	Parameters	Curves	data
B1 and B2	BIAS Work = 1 R0=R1=R2 = 1 SP0=SP1 = 0		Result files
B2 and B3	BIAS Work = 1 R0=R1=R2 = 1 SP0=SP1 = 0		Result files
B3 and BIAS1	BIAS Work = 1 R0=R1=R2 = 1 SP0=SP1 = 0		Result files
BIAS1 and BIAS2	BIAS Work = 1 R0=R1=R2 = 1		Result files

	SP0=SP1 = 0		
BIAS2 and BIAS3	BIAS Work = 1 R0=R1=R2 = 1 SP0=SP1 = 0		Result files
BIAS1 and BIAS4	BIAS Work = 1 R0=R1=R2 = 0 SP0=SP1 = 0		Result files
BIAS4 and BIAS5	BIAS Work = 1 R0=R1=R2 = 0 SP0=SP1 = 0		Result files
B1, B2, B3, BIAS1, BIAS2 ($\varphi = 90^\circ$), BIAS3 ($\varphi = 90^\circ$)	BIAS Work = 1 R0=R1=R2 = 1 SP0=SP1 = 1		Result files
B1, B2, B3, VHF1, VHF2, VHF3	BIAS Work = 0 R0=R1=R2 = 1 SP0=SP1 = 0		Result files

b) Frequencies > F0/2

24 frequencies: from 13056Hz to 30720Hz with $\Delta f = 768\text{Hz}$

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Channels	Parameters	Curves	data
B1, B2, B3, BIAS1, BIAS2 and BIAS3	BIAS Work = 1 R0=R1=R2 = 1 SP0=SP1 = 0		Result files
B1, B2, B3, BIAS1, BIAS4, BIAS5	BIAS Work = 1 R0=R1=R2 = 0 SP0=SP1 = 0		Result files
B1, B2, B3, BIAS1, BIAS2 ($\varphi = 90^\circ$) and BIAS3 ($\varphi = 90^\circ$)	BIAS Work = 1 R0=R1=R2 = 1 SP0=SP1 = 1		Result files
B1, B2, B3, VHF1, VHF2 and VHF3	BIAS Work = 0 R0=R1=R2 = 1 SP0=SP1 = 0		Result files
B1, B2, B3, VHF1, VHF2 ($\varphi = 90^\circ$) and VHF3 ($\varphi = 90^\circ$)	BIAS Work = 0 R0=R1=R2 = 1 SP0=SP1 = 1		Result files

2) Transfer Functions @F1

a) Low Frequencies

- LFR mode= SBM1
- ASM period = 32s
- Snapshots period = 32s
- Input signal amplitude 3Vp
- Step duration = 420s

10 frequencies: from 0.01Hz to 0.1Hz with $\Delta f = 0.01\text{Hz}$

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Channels	Parameters	Curves	data
B1, B2, B3, BIAS1, BIAS2 and BIAS3	BIAS Work = 1 R0=R1=R2 = 1		Result files

	SP0=SP1 = 0		
B1, B2, B3, BIAS1, BIAS4 and BIAS5	BIAS Work = 1 R0=R1=R2 = 0 SP0=SP1 = 0		"Result files":MISSING
B1, B2, B3, BIAS1, BIAS2 ($\varphi = 90^\circ$) and BIAS3 ($\varphi = 90^\circ$)	BIAS Work = 1 R0=R1=R2 = 1 SP0=SP1 = 1		"Result files":MISSING

Files

TF1aB1B2.tar.7z	6.88 MB	15/05/2016	Alexis Jeandet
TF1aB1B2B3BIA1BIA290BIA390.tar.7z	9.3 MB	15/05/2016	Alexis Jeandet
TF1aB2B3.tar.7z	6.95 MB	15/05/2016	Alexis Jeandet
TF1aB1B2B3V1V2V3.tar.7z	8.32 MB	15/05/2016	Alexis Jeandet
TF1aB3BIAS1.tar.7z	6.43 MB	15/05/2016	Alexis Jeandet
TF1aBIAS1BIAS2.tar.7z	6.53 MB	15/05/2016	Alexis Jeandet
TF1aBIAS1BIAS4.tar.7z	6.33 MB	15/05/2016	Alexis Jeandet
TF1aBIAS2BIAS3.tar.7z	6.51 MB	15/05/2016	Alexis Jeandet
TF1bB1B2B3BIAS1BIAS2BIAS3.tar.7z	1.07 MB	15/05/2016	Alexis Jeandet
TF1aBIAS4BIAS5.tar.7z	6.26 MB	15/05/2016	Alexis Jeandet
TF1bB1B2B3V1V290V390.tar.7z	1.18 MB	15/05/2016	Alexis Jeandet
TF1bB1B2B3BIAS1BIAS4BIAS5.tar.7z	1.02 MB	15/05/2016	Alexis Jeandet
TF1bB1B2B3BIAS1BIAS290BIAS390.tar.7z	1.22 MB	15/05/2016	Alexis Jeandet
TF1bB1B2B3V1V2V3.tar.7z	1.05 MB	15/05/2016	Alexis Jeandet
TF2aB1B2B3BIAS1BIAS2BIAS3.tar.7z	72.3 MB	15/05/2016	Alexis Jeandet
TF1aB1B2B3V1V2V3.tar.7z	8.26 MB	14/06/2016	Alexis Jeandet
TF2aB1B2B3BIAS1BIAS4BIAS5.tar.7z	143 MB	14/06/2016	Alexis Jeandet
TF2abisB1B2B3BIAS1BIAS2BIAS3.tar.7z	13.1 MB	14/06/2016	Alexis Jeandet
TF2aB1B2B3BIAS1BIAS290BIAS390.tar.7z	72 MB	14/06/2016	Alexis Jeandet
TF2bB1B2B3BIAS1BIAS2BIAS3.tar.7z	113 MB	14/06/2016	Alexis Jeandet
TF2bB1B2B3BIAS1BIAS4BIAS5.tar.7z	111 MB	14/06/2016	Alexis Jeandet
TF2bB1B2B3BIAS1BIAS290BIAS390.tar.7z	109 MB	14/06/2016	Alexis Jeandet
TF2bB1B2B3V1V2V3.tar.7z	107 MB	14/06/2016	Alexis Jeandet
TF3aB1B2B3BIAS1BIAS2BIAS3.tar.7z	12.7 MB	14/06/2016	Alexis Jeandet
TF3aB1B2B3BIAS1BIAS4BIAS5.tar.7z	12.4 MB	14/06/2016	Alexis Jeandet
TF3aB1B2B3BIAS1BIAS290BIAS390.tar.7z	11.5 MB	14/06/2016	Alexis Jeandet
TF2bB1B2B3V1V290V390.tar.7z	106 MB	14/06/2016	Alexis Jeandet
TF3abisB1B2B3BIAS1BIAS290BIAS390.tar.7z	7.97 MB	14/06/2016	Alexis Jeandet
TF3abisB1B2B3BIAS1BIAS2BIAS3.tar.7z	8.07 MB	14/06/2016	Alexis Jeandet
TF3aterB1B2B3BIAS1BIAS4BIAS5.tar.7z	1.44 MB	14/06/2016	Alexis Jeandet
TF3bB1B2B3BIAS1BIAS4BIAS5.tar.7z	16.6 MB	14/06/2016	Alexis Jeandet
TF3bB1B2B3BIAS1BIAS2BIAS3.tar.7z	18.1 MB	14/06/2016	Alexis Jeandet
TF3bB1B2B3BIAS1BIAS290BIAS390.tar.7z	16.3 MB	14/06/2016	Alexis Jeandet
TF3bB1B2B3V1V2V3.tar.7z	15.6 MB	14/06/2016	Alexis Jeandet
TF3bB1B2B3V1V290V390.tar.7z	15.9 MB	14/06/2016	Alexis Jeandet
TF4aB1B2B3BIAS1BIAS2BIAS3.tar.7z	16.6 MB	14/06/2016	Alexis Jeandet
TF4aB1B2B3BIAS1BIAS290BIAS390.tar.7z	16.3 MB	14/06/2016	Alexis Jeandet
TF4bB1B2B3BIAS1BIAS290BIAS390.tar.7z	6.8 MB	14/06/2016	Alexis Jeandet
TF4bB1B2B3BIAS1BIAS2BIAS3.tar.7z	7.83 MB	14/06/2016	Alexis Jeandet