

SOP for 15mtr system

Date : 23/11/2011.

I. Power on wall socket and AC distribution in the RACK (PC and Analog bin will be ON). Switch ON the instruments and do the following settings:

1. Signal generator for 200MHz , 0dbm CLOCK to iBOB and 10MHz REF. OUT(default o/p from the instrument rear side) to LO PIU. SET "Mod -->OFF and RF--> ON"
2. Wavetek signal generator for 1 PPS. SQUARE standard waveform , FREQ 1 Hz , Amplitude 1 Vp.

II. Power on the iBOB by switching on the power supply.

```
LOGIN as sandeep  passwd : sandeep123
[sandeep@sdippc ~]$
[sandeep@sdippc ~]$ su -l
Login as root  passwd : Root123
[root@sdippc ~]# cd /home/sandeep/backend_15m/IRU/
[root@sdippc ~]# source /usr/Xilinx/settings.sh
```

III. For programming the iBOB. Now not required to do. Presently loading the program from the PROM on iBOB after POWER-ON. So no need to connect the iBOB to PC's USB port .

```
[root@sdippc ~]# impact
esc window opened!!
Make sure green LED on JTAG adaptor...
Boundary Scan then right click Initialize chain
bypass (prom) then select bit file ../IRU/..lab or ../IRU/final. ..
right click .. Prog ok .. succeeded ...
```

IV. To set LO :

```
[root@sdippc IRU]# ./lo3fsw -f 277
```

V. Open another tab/window and set the directory.

```
[root@sdippc ~]# cd /home/sandeep/Sandeep/iBOB/digital_backend_15m/wb_200mhz_min1sec_acc
```

VI. Python Scripts for : initialization , plotting and data dumping for offline plotting using tax without PPS to iBOB (Presently PPS connected).

```
[root@sdippc wb_200mhz_min1sec_acc]# ./init_wb_poco.py example_wb_poco.conf
[root@sdippc wb_200mhz_min1sec_acc]#
./plot_wb_cross_dly_update_ack_ts.py example_wb_poco.conf -l
Data dumping for offline plotting using tax.
./plot_wb_cross_dly_update_dump_ack_ts.py example_wb_poco.conf -f <file_name>
```

VII. Python Scripts for : initialization , plotting and data dumping with PPS to iBOB .

```
./init_wb_poco_pps.py example_wb_poco_pps.conf
#Check for "All Done" message" If not switch OFF/ON the iBOB POWER SUPPLY.
./plot_wb_cross_dly_update_pps_ack_ts.py example_wb_poco_pps.conf -l
Data dumping for offline plotting using tax.
./plot_wb_cross_dly_update_dump_pps_ack_ts.py example_wb_poco_pps.conf -f <file_name>
```

VIII. For Offline Analysis

```
[root@sdippc wb_200mhz_min1sec_acc]# cd ../tax_prog_2Ant_V03_15m/
```

For plotting selfs.

```
[root@sdippc tax_prog_2Ant_V03_15m]#
```

```
./xtrgsb32 -v ../wb_200mhz_min1sec_acc/<file_name> -c 1,1000 -t 1,10000
```

For plotting Cross over time with C0 as ref.

```
[sandeep@sdippc IRU]$ ./xtrgsb32 -v /home/sandeep/backend_15m/IRU/15mtr_291111.dat1 -c 300 -t  
1,100000000 -n 1 -r C00
```

For plotting required records....

```
[sandeep@sdippc IRU]$ ./xtrgsb32 -v /home/sandeep/backend_15m/IRU/15mtr_291111.dat1 -c 10,1000,1 -t  
1,57,1,57 -n 1 -r C00
```

For plotting cross spectrum.

```
[sandeep@sdippc IRU]$ ./xtrgsb32 -v /home/sandeep/backend_15m/IRU/15mtr_291111.dat5 -c 10,1000,1 -t  
1,5,1,5 -n 1 -r C00
```