CSO –FFTS IF Processor User Manual

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0.1	25.11.07	Kasemann	All	new document

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1 Purpose

The purpose of this document is to provide the user with all necessary information to operate the IF processor servicing the new FFT Spectrometer manually.

2 Applicable documents

AD-01	CSO-MPI-DSD-01	CSO-IF processor Design Description
AD-02	CSO-MPI-ICD-01	CSO-IF processor SCPI commands
AD-03	CSO-MPI-MAN-02	CSO-FFTS User Manual
AD-04	CSO-MPI-DSD-02	CSO-FFTS Design Description
AD-05	CSO-MPI-TRE-01	Commissioning Report
AD-06	folder with: electrical diagrams & data sheets	

3 Switch on and off

To switch the unit *on* or *off*, push the main switch on the power supply for ca. 2 seconds.

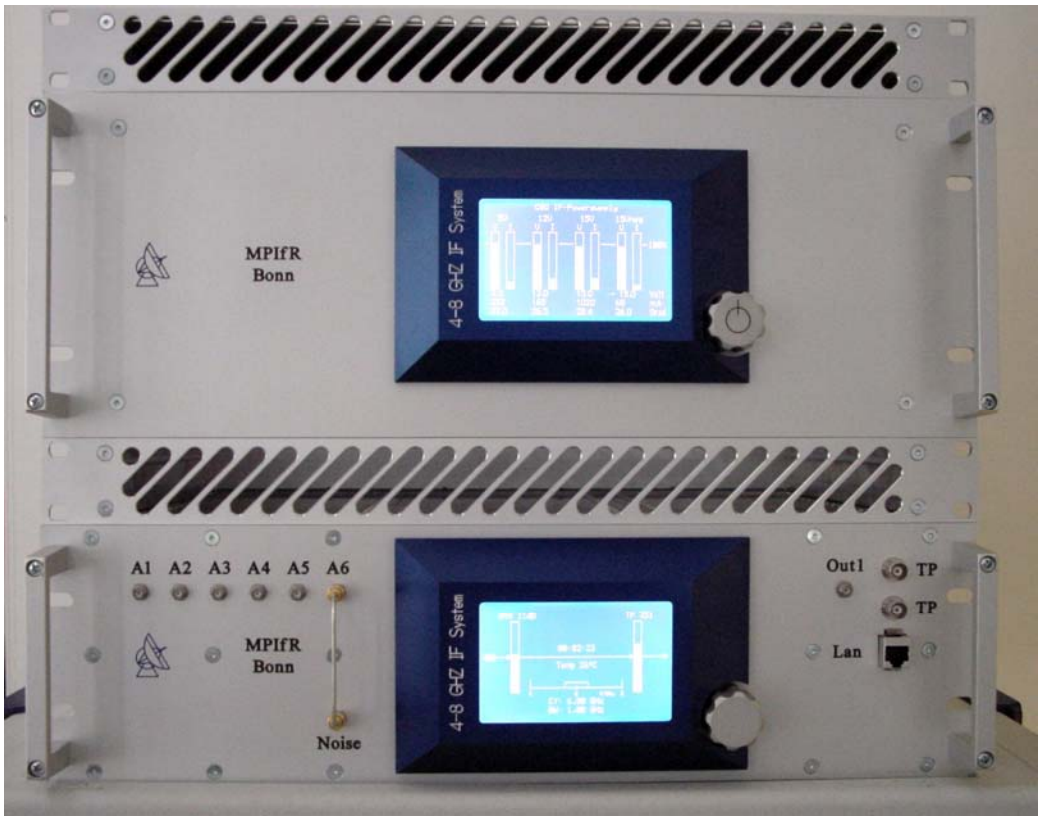

Fig. 1. Front-panel of the IF-processor (bottom) and the power supply (upper) Tthe front panel of the processor unit provides 6 input ports A1 to A6 (left) and 1 output port, plus a total power output channel and a LAN interface (right).

After the unit has been switched “on”, wait a few seconds for the display to appear.

Fig. 2: Start-up Display

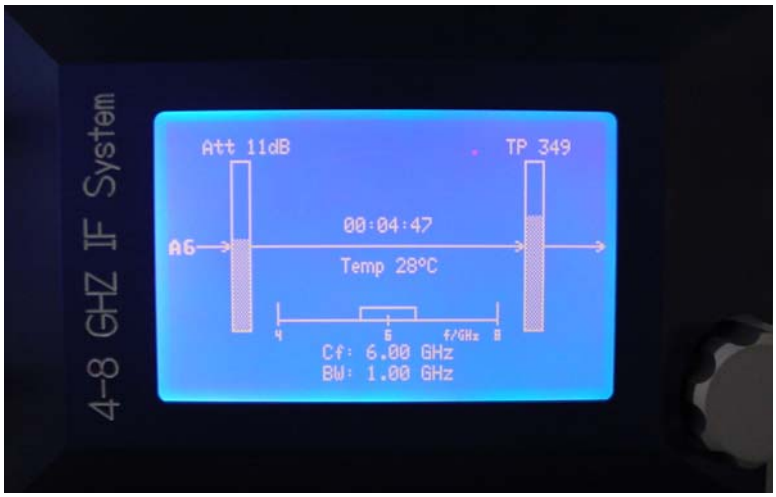

Fig. 3: Display during normal operation

4 Manual operation

The CSO-FFTS IF processor can be operated with the knob on the front panel. To activate manual operation, push the knob for 3 seconds.

Now you can modify the first parameter by rotating the knob CW or CCW. After the parameter is set to the desired value, push the knob again. Then by rotating the knob again, you can select and modify the next parameter and push again to set the value.

Fig. 4: CSO-IF processor display

The display shows all important information for operating the IF processor. The selected input port (A1 to A6) is displayed. The left bar graph visualizes the attenuator setting (the value of attenuation is printed on top of the graph). The right bar graph displays the actual total power level [max 500 = 5.0 Volt]; again the actual value is displayed on top of it. In addition, a time stamp is given, and the inside temperature of the unit. The location of the video band (input for the spectrometer), within the 4-8 GHz wide IF band, is shown. The center frequency (cf) and the bandwidth (bw) are printed.

Values, that can be selected, are:

1.	**"A1"**	**[A1 to A6]**
2.	**Att 10db**	**[0db to 20db]**
3.	**Cf: 6 GHz**	**[4.5 to 7.5 GHz]**
4.	**BW: 1.0 GHz**	**[0.5, 1.0 GHz]**

Warning: the operating temperature of the IF processor is monitored internally, and the unit will shutdown at temperatures of 50 deg. The power supply will start an acoustic alarm at temperatures above 50 deg and will shut off at 65 deg C.