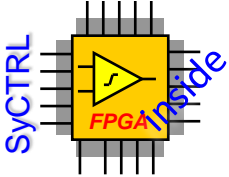
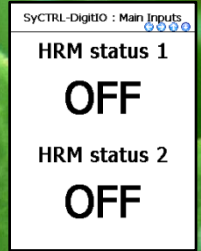
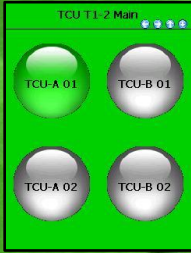


> Power Front End / PCDU Simulator



The PCDU simulator is used during AIT /AIV phases for representative powering of flight equipment. It simulates the powering that is provided through regulated or unregulated power buses.

As a baseline, it provides multi independent output power lines with standard over voltage and over current protection based on COTS items.

As options, it can be fitted with Clemessy's SyCTRL products:

- Second level over voltage / over current protection
- Latch Current Limiter
- Specific sensor simulation (thermistor, cell sample, switch, ...)

Offers and expertise



> Power Front End / PCDU Simulator



Offers and expertise

Function

- Controlled and secured power supply to spacecraft platform and / or instruments
- Power distribution unit
- Over-voltage, over-current, under-voltage, reverse-over-current protection
- Remote and local control mode
- Self test capability
- Safety loop signal management (Inhibit input & Fault output signals)
- Interface cable to spacecraft

Implementation

- Power provided by DC current source or solar array power supply
- Independent protection features based on SyCTRL
- Ethernet TCP/IP interface for remote control
- Windows man machine interface for local control
- 19" rack integrated.

Performance

- Maximum output voltage up to 150V
- Maximum output current up to 70A
- Protection reaction time: <math><50 \mu\text{sec}</math>

Used technology

- Agilent or XANTREX power supplies
- Clemessy's SyCTRL second level protection and TM/TC features
- LXI / GPIB interface with power supplies and electronic loads

