

sat-nms IO-FEP2 – I/O Front-End-Processor

The **sat-nms** IO-FEP2 I/O Front-End-Processor is the second generation of the formerly **sat-nms** IO-FEP-E. It interfaces to any “low level” interface commonly used in satellite ground stations like equipment alarm contacts, waveguide- or coaxial-switches and other status signals. It provides opto-coupled in- and outputs and potential free relay output contacts. All these interfaces are monitored and controlled locally in the **sat-nms** IO-FEP2. The **sat-nms** IO-FEP2 can also perform automatic RF-inhibit of high power amplifiers (HPA) during the switch-over time of waveguide switches. With this feature the selective RF inhibit in an n:1 redundant configuration of only affected HPA’s is possible. If the waveguide switches used in the ground station do not provide the RF inhibit feature at all, the **sat-nms** IO-FEP2 takes care of the correct sequence in switching a waveguide switch if it is also connected to a HPA. The internal redundancy switching mode offers the possibility to use the **sat-nms** IO-FEP2 as stand-alone redundancy controller. As a new feature it is possible to monitor the power supply (voltage and the current) of up to 6 LNAs or LNBs. These alarms can also be used to trigger a redundancy switchover. Both functions can be activated via license codes.

In spite of extended functionality, the sat-nms IO-FEP2 needs 40% less space than the previous sat-nms IO-FEP-E.

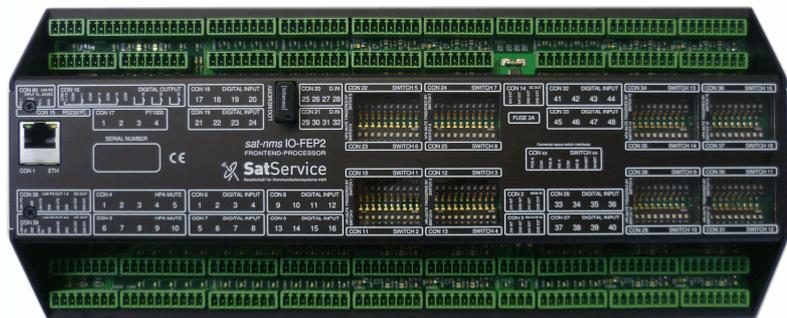
sat-nms IO-FEP2 is 100% pin compatible to sat-nms IO-FEP and sat-nms IO-FEP-E to ensure easy replacement.

The **sat-nms** IO-FEP2 can be used as stand-alone equipment via its web-based user interface, but interfaces also smoothly with the **sat-nms** MNC and **sat-nms** NMS

or any other Monitoring & Control and Network Management System either via Ethernet or serial interface. The web browser interface provides a user-friendly interface for local control.

The standard license provides 16 Opto-Coupler inputs, 16 digital outputs and 4 interfaces to monitor and control waveguide switches including the selective management of inhibit contacts of up to 10 HPAs. 6 of the digital outputs are relay contacts to operate up to 48V, the other 10 are PMOS outputs.

Via license codes the unit is able to provide up to 48 Opto-Coupler inputs and up to 16 input/output interfaces to monitor and control waveguide switches. A temperature controller option is available as a software option as well as the LNA/LNB power supply monitoring and the redundancy switching functionality.



Key Features

- Ethernet (SNMP, Modbus and HTTP), Web Browser and RS232 Interface
- Integrated Redundancy Switching Capability
- Up to 6 LNA/LNB power supply monitoring
- Up to 48 Digital Inputs
- 6 Relay Outputs & 10 PMOS Outputs
- Interfaces for up to 16 Waveguide Switches
- Supports RF Inhibit Contacts of Waveguide Switches and HPAs
- Temperature Measurement with external PT1000 Sensors
- Integrated Alarm/ Event Logging on USB Stick
- Interfaces to any higher Level M&C System
- NTP Server Interface also for redundant NTP Server Systems

Applications

- Monitoring of Alarm Contacts
- Control of Waveguide and Coaxial Switches
- Redundancy Switching with RF Inhibit of HPA’s
- Redundancy Switching of LNAs / LNBs

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