sat-nms PSM PowerSensor (C-, X- or Ku-Band)

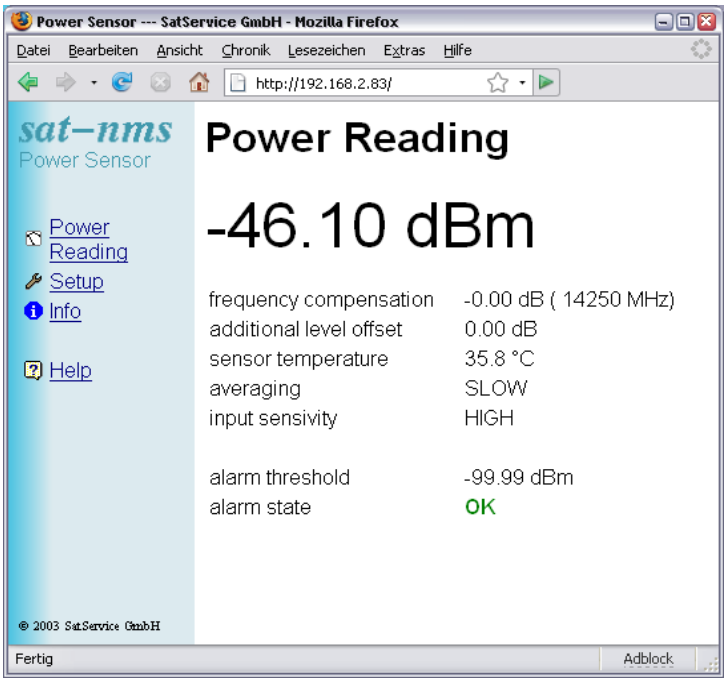
The ***sat-nms*** PSM PowerSensor manufactured by SatService GmbH is a measurement tool measuring the RF output power of Ku-Band or C-Band satellite communications signals and provides this information both, on a web-page via an internal web-server or as M&C output information for control systems.

The ***sat-nms*** PSM PowerSensor enables the ***sat-nms*** Software to perform a precise power measurement, even if the monitored and controlled SATCOM equipment, like TWT or SSPA amplifiers or converters, do not provide the necessary capabilities or do not have the required accuracy.

Applications including a transmit power control loop need to measure the transmit amplifier output power. While many amplifiers provide a built-in power sensor with adequate accuracy and resolution, some low-cost models do not. This power sensor is intended to be a supplement to such amplifiers or transceivers.

Key Features

- Small mechanical Dimensions
- Direct TCP/IP Interface at the Power Sensor
- TCP/IP based Design
- Ethernet Interface
- HTTP web-browser Interface
- Unlimited Number of Clients possible
- Relay Contact Output for Level Alarm
- Each ***sat-nms*** PSM PowerSensor is electronically calibrated for level and temperature Linearity and therefore provides excellent Level Accuracy
- Easily interfaces with MNC Systems from other Vendors via HTTP get requests on TCP/IP



Applications

- Power Measurements
- Pilot Measurement
- The ***sat-nms*** PSM can operate as a stand-alone solution or fits into the overall ***sat-nms*** NMS Network Management System Solution provided by SatService.

Contact Information

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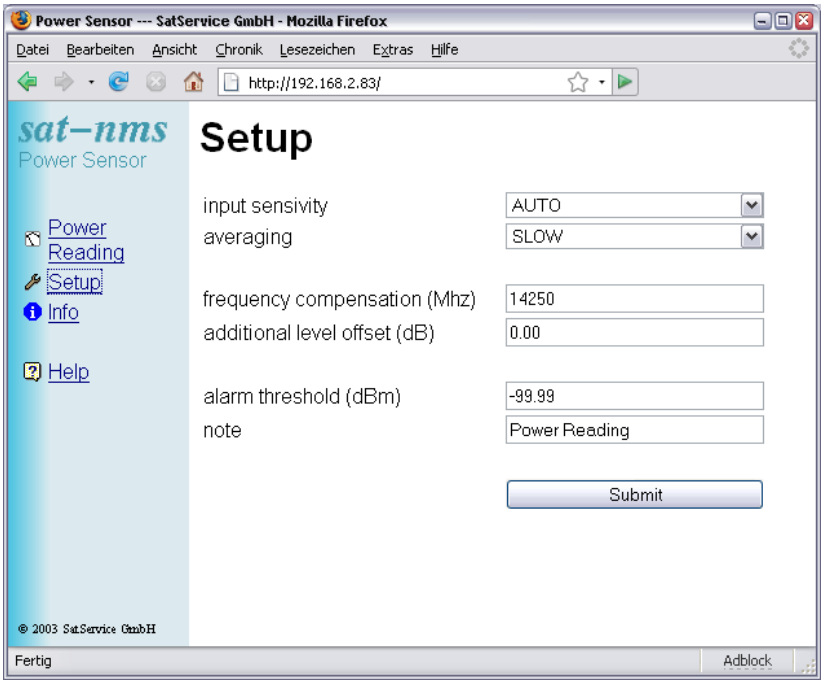
Technical Specification

RF Specification	
Input Frequency Range (to be defined at order)	5.8 to 6.6GHz (PSM-C) 7.9 to 8.4GHZ (PSM-X) 13.75 to 14.5GHz (PSM-Ku)
Input Connector	N male 50Ohm
Input Return Loss	> 16dB
Input Power Measurement Range	-15 to +15dBm
Resolution of Power Level	0,01dB
Linearity Failure	+/-0,1 dB
Absolute Accuracy	1 dB
Averaging Function selectable	High, Low, Auto

M&C Interface Specification	
Ethernet Interface for MNC and User Interface	10-Base-T
User Interface	Via any Web-Browser
MNC Interface for Remote Monitoring & Control	Via http GET Requests
Summary Fault Indication	Relay Contact
Level Alarm Indication	Relay Contact

Electrical and Mechanical Specification, Environmental Conditions	
Supply Voltage	22V to 28V unregulated DC / 200mA
Connector for 24V Supply and Alarm Contact	Binder Series 712 7PIN
Temperature Range	5° to 50° C
Humidity	Up to 90% non-condensing
Compact Module	185x60x35mm



Remote Control

The ***sat-nms*** PSM PowerSensor can be controlled remotely by a monitoring and control application through the TCP/IP interface. All communication with the ***sat-nms*** PSM PowerSensor is made 2 HTTP requests.

The ***sat-nms*** PSM PowerSensor implements the 'Hypertext Transfer Protocol' (HTTP, RFC-1945) both, for the user interface and for the MNC interface. All communication, even setting operational parameters, is done with HTTP GET requests. For the user interface, the ***sat-nms*** PSM PowerSensor replies to requests with HTML pages displaying the requested information in a web-browser. For the MNC interface, the ***sat-nms*** PSM PowerSensor replies to requests with one text line containing the information.

Sample of a command to read status	**http://10.0.0.1/read?fmt=txt**
Example of a parseable string	**dbms=-12.34&adcv=12345&temp=22.5&sens=LOW&tflt=OK**