

Satmon Manager™

Satellite Transponder Analysis and Reports system

This system provides comprehensive analysis and reports of satellite transponder performance, focusing on key parameters such as Effective Isotropic Radiated Power (EIRP), Bandwidth, and Channel Power. It is designed to give engineers and operators clear insights into the health and efficiency of satellite communication links.



Key Features

Detailed Reports

Daily, weekly, monthly, and yearly reports for key parameters

- Channel Power
- Satellite EIRP
- Carrier-to-Noise Ratio (C/N)
- Carrier-to-Noise Density (C/NO)
- Noise Power (N) & Noise Density (NO)
- Spectrum Bandwidth (10dB, 3dB, 99%)

Graphical Analysis

Visualize trends and performance metrics over time with interactive charts.

Statistical Insights

Obtain statistical summaries including Min, Max, Average, and Standard Deviation for critical parameters.

Alerting & Thresholds

Track warning and alarm conditions to quickly identify and address potential issues.

Utility Tools

Utilize built-in tools for dB calculations, link budget analysis, and geographic data visualization.

Data Management

Easily import monitoring data into the system for analysis.

Technologies Used

- Backend PHP
- Database MySQL
- Frontend HTML5 / CSS3
- Interactivity JavaScript
- Data Visualization Chart.js
- Icons Font Awesome

Parameter	Specification
System Type	Satellite Transponder Monitoring and Analytics Platform
Supported Standards	DVB-S, DVB-S2, SCPC
Monitoring Parameters	EIRP (dBW), Channel Power (dBm/dBW), Bandwidth, C/N, C/NO, Noise Power & Noise Density
Channel Monitoring Capacity	up to 9 channels
Data Processing	Near real-time monitoring with integrated historical data analysis
Event Detection	Threshold-based detection with OK / Warning / Alarm classification
Event Logging	Timestamped logging for historical tracking
Filtering Options	Filter by time range, channel number, carrier name, event type, status, and standard
Signal Analysis	Trend analysis and anomaly identification for monitored parameters
Performance Indicators	Channel stability index, signal strength trends, and event frequency

Dashboard Modules

Module	Description
System Overview Dashboard	Displays overall system status, active channels, alerts, and key performance indicators
Channel Power Analytics	Visualizes channel power trends with statistical summaries (min, max, average, standard deviation)
Event Monitoring Dashboard	Lists real-time events including alarms, warnings, and OK states
Alert & Threshold Configuration	Configure warning and alarm thresholds for proactive maintenance

