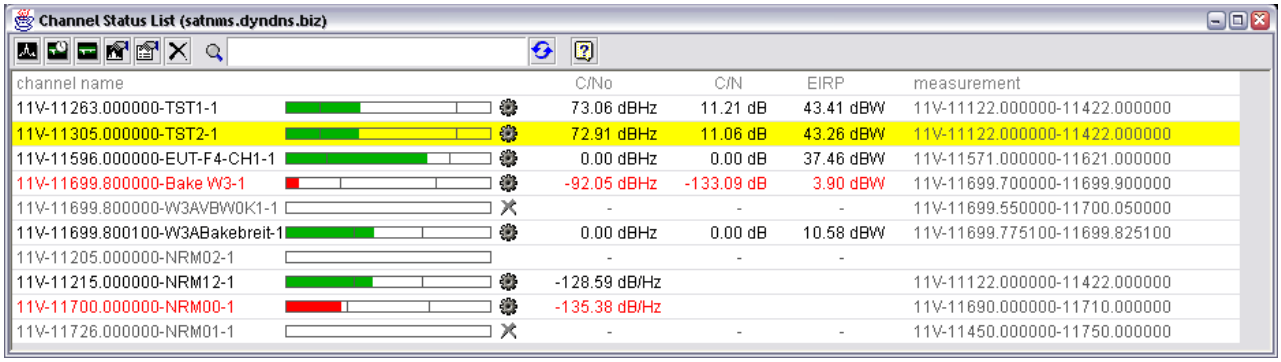
sat-nms CSM - Communication System Monitoring

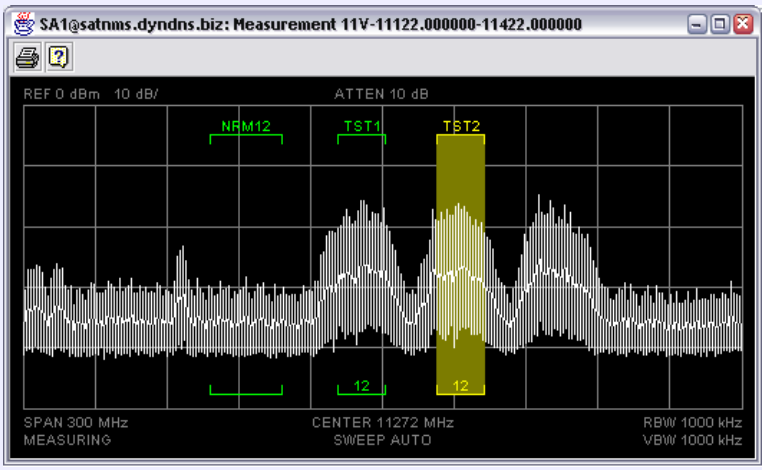
The ***sat-nms*** CSM Communication System Monitoring Module for the ***sat-nms*** NMS Network Management Software enables the operator to monitor the signal spectrum of defined satellite-links or -channels easily by means of a spectrum analyzer and to program a measurement sequence that verifies the levels of defined channels with cyclic measurements in the background. The ***sat-nms*** CSM Module can be integrated into a ***sat-nms*** NMS Network Management System or can operate as a stand-alone program.



The ***sat-nms*** CSM System measures signal levels and signal/noise ratios by analyzing the spectrum measurements of one or several spectrum analyzers. Multiple channels will be measured within one spectrum analyzer sweep. With software controlled RF switches in front of the spectrum analyzer, different antennas or frequency and polarization bands can be measured in one sequence.

From the measurement results, the software calculates downlink result values, taking into account the spectrum analyzer's resolution bandwidth, the channel bandwidth and calibration values stored in the system configuration. These results are:

C/N0	Ratio between average noise densities of the channel and noise reference measurement
C/N	C/N0 value multiplied with the channel bandwidth
EIRP	The satellite EIRP is estimated by multiplying the channel's average noise density with its bandwidth and then applying a calibration factor.



Key Features

- Support for multiple Spectrum Analyzers
- Multiple Channels per Analyzer
- User-friendly graphical Interface
- Access to recent Spectrum Plots without interrupting the Measurements
- Channel History Chart displays the stored Channel Levels
- Client-server-based Architecture with unlimited Number of Clients

Contact Information

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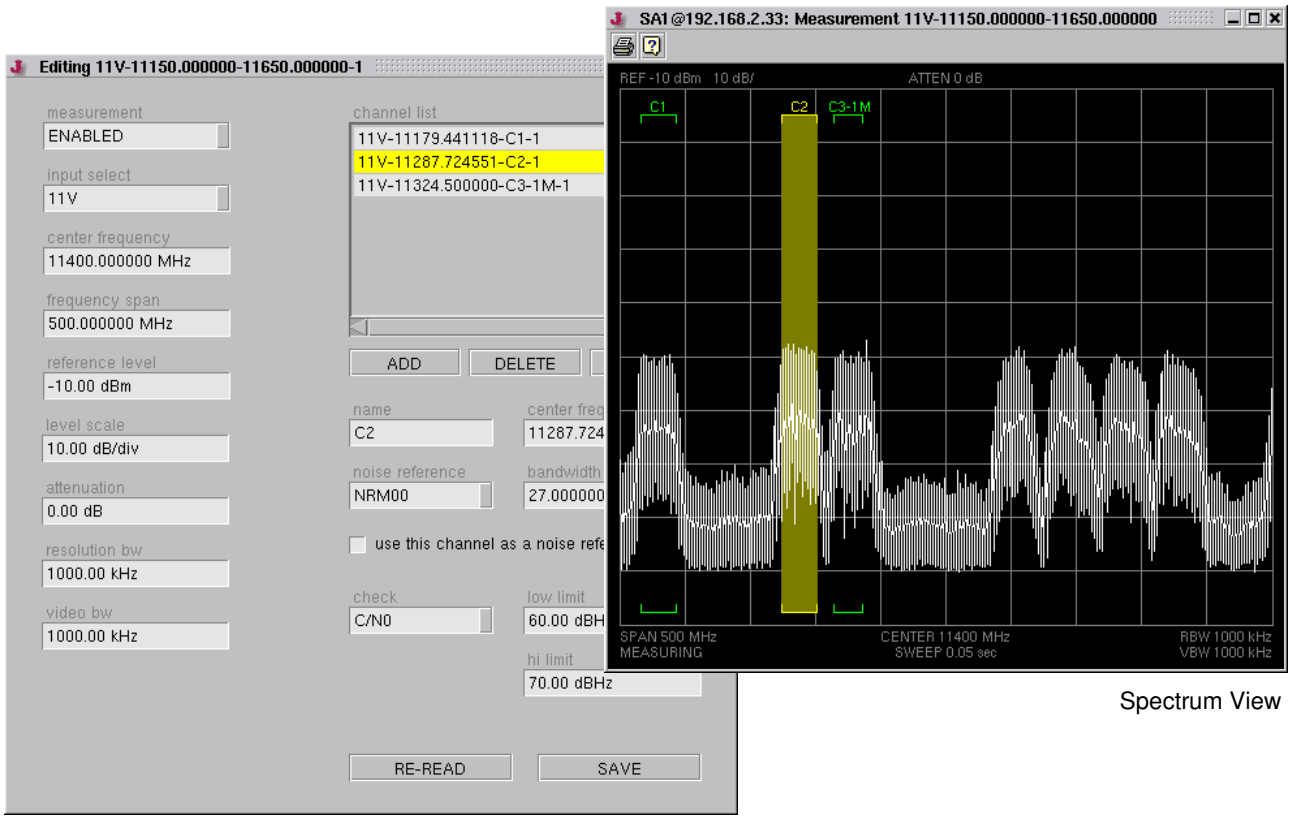
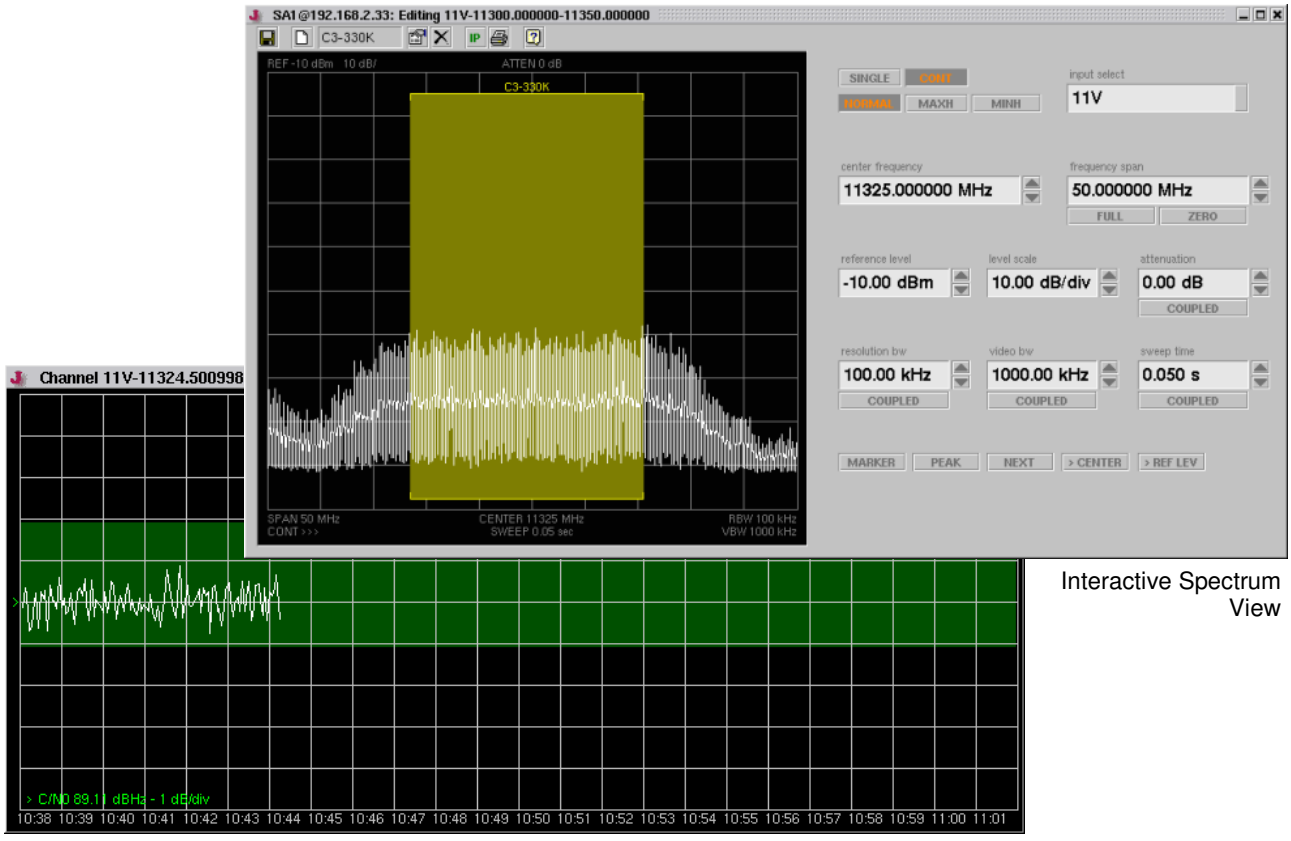
sat-nms CSM User Interface



Spectrum View

Measurement Properties



Interactive Spectrum View

Channel Live Spectrum