

MaxView®

Vision. Knowledge. Control.

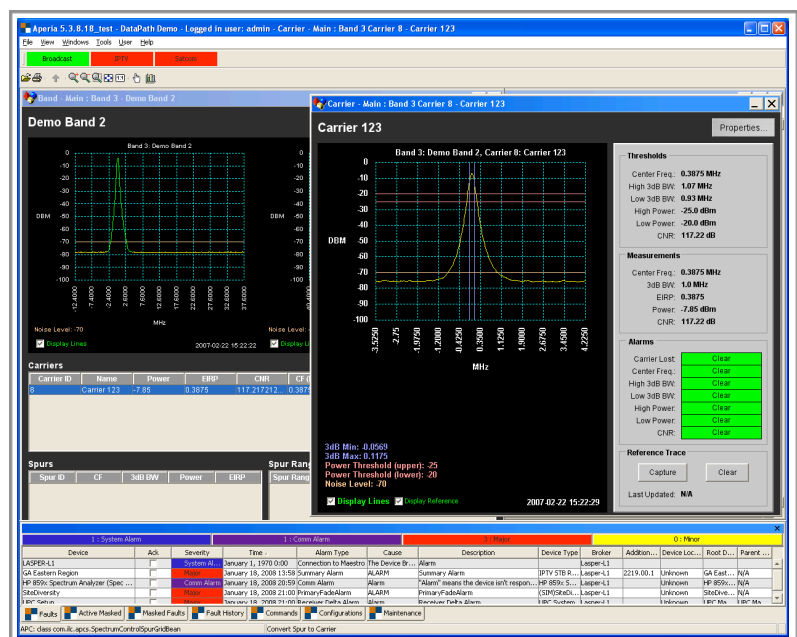


MaxView® CMS™ Carrier Monitoring System

Network operators at satellite earth stations, uplinks and teleports use MaxView® CMS™ to monitor and control RF spectrum usage. Available as a stand-alone system, or fully integrated into the MaxView network control system, MaxView CMS enables satellite service providers to automate satellite transmissions from spectrum planning to service activation and assurance.

MaxView CMS enables service providers to:

- Detect carriers and monitor their “vital stats” including center frequency, bandwidth, power levels and SNR
- Remotely view carrier spectrum
- Detect piracy and double illumination
- Correlate customer problem reports with carrier measurements
- Support multiple spectrum analyzers with one carrier monitoring system
- Control RF switch matrices to select and test many carriers with a single spectrum analyzer
- Meet service availability targets by minimizing transmission errors
- Automatically correct transmissions that are outside pre-defined “normal” parameters



Integrated Carrier Monitoring and Control

MaxView CMS automatically acquires and displays traces, locates spurs, generates alarms and logs the results to a database. By employing MaxView's equipment control functionality, users can also define automatic responses to alarms in order to correct power levels and bandwidth usage that exceed acceptable levels.

Define Expected Values for Center Frequency, Bandwidth, Power Levels and SNR

Users have complete control over system settings, alarm threshold parameters and which bands and carriers are polled at any one time. MaxView CMS measures transmission levels against these user-defined “normal” values.

Monitor and Report Spurious Carriers

MaxView CMS searches for a signal above the user-defined noise floor. If the measured Center Frequency matches one of the configured carriers, MaxView CMS identifies it as a carrier. Likewise, if the measured Power Level is above the power level defined for spurs, MaxView CMS identifies it as a spur and generates an alarm.

Automatically Manage Alarms

Users create supermacros in MaxView, that when triggered by an alarm from MaxView CMS, will automatically remotely control equipment to correct transmission parameters that exceed user-defined normal levels.

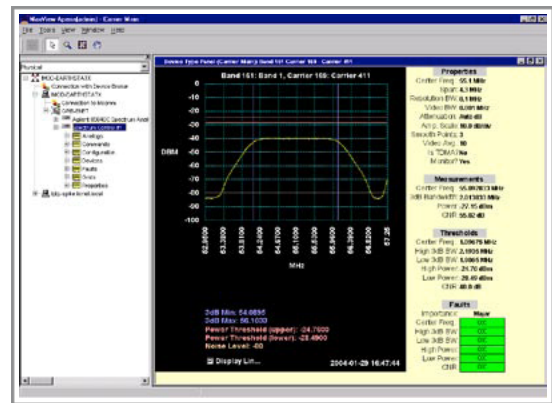
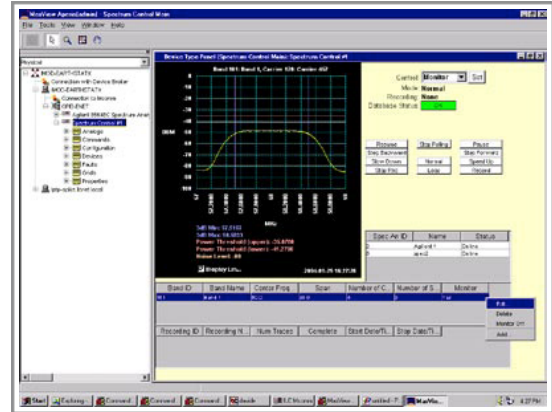
MaxView® CMS™ Carrier Monitoring System

Operation

MaxView CMS monitors and controls bands and carriers through spectrum analyzers to perform the following functions:

Primary Capabilities

- Automatically locate carriers
- Control RF switch matrixes to select and test carriers
- Scan each carrier to test Center Frequency, Power Level, Bandwidth and Signal-to-Noise Ratio (SNR)
- Calibrate frequency-related attenuation, spectrum shift and inversion
- Automatically perform Uplink Power Control (UPC)
- Compute Carrier-to-Noise Ratio (CNR) and Effective-Isotropic-Radiated-Power (EIRP)
- Detect spurious and unknown carriers
- Display spectrum analyzer traces
- Store traces for future analysis and playback of stored carriers
- Indicate and log alarms to a database
- Show alarms when user-definable tolerance ranges or levels are exceeded



Advanced Capabilities

- Tie into MaxView equipment control to adjust Center Frequency, Power Level, Bandwidth
- Tie into MaxView spectrum planning system to allocate bandwidth and automate spectrum usage
- Tie into MaxView Scenario booking and scheduling system to automate transmission execution

Universally Compatible

To conform to your system requirements, MaxView CMS interfaces with any brand spectrum analyzer (i.e., HP859X series, Agilent E44XX series, Anritsu, etc.).