Datasheet

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Illuminator Decimator D4

Multi-site carrier monitoring solution

Illuminator is the latest Calian product that provides a multi-site carrier monitoring solution for Decimator D3 and D4 with centralized monitoring and control of your entire set of carriers
for the following analyses:

- Band Power
- Presence of a Carrier
- EIRP
- C/N
- SNR (D4 only)
- Center Frequency
- Carrier Power
- Alarm Mask

Illuminator makes best use of the D4 Spectrum Analyzers at remote sites, and it leverages your existing D3 Spectrum Analyzers in the field.

The main dashboard provides a quick, visual overview of the carrier monitoring (two sites shown in this sample):

Illuminator provides the following features:

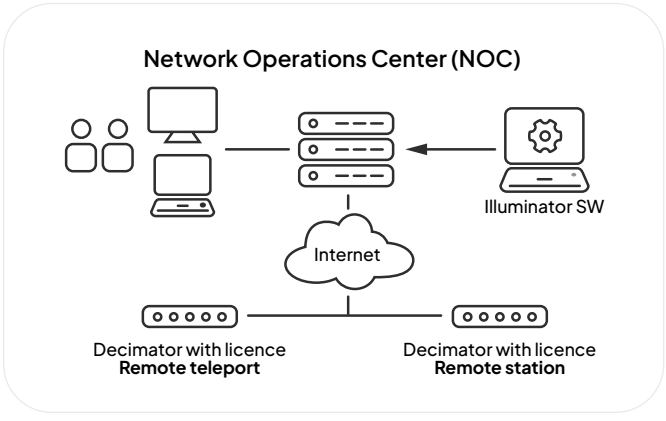
- View carriers at a glance
- Up to 100 carriers in a single window
- Colors indicate when carriers are in alarm
- Display updates in real-time as carriers are measured
- Zoom into a carrier to play back traces and view the trend plot
- The trace is displayed as an overlay on top of the multiple carrier display
- A trend plot is available to show the carrier power over time so you can quickly spot any power fluctuations
- Alarm lines indicate when the carrier power has crossed the threshold
- Review previous traces from the trend plot history
- Playback traces to determine whether the power change was sudden or gradual
- Overview of the carrier specifications like expected power and measurement parameters such as span or resolution bandwidth
- The display can be configured in multiple ways – show all carriers, show only alarmed carriers or show a custom list of carriers
- The most recently alarmed carrier is automatically moved to the top-left corner of the screen
- As carrier issues are resolved, the non-alarmed carriers are no longer shown on the display when the carrier reverts to a nominal state
- At-a-glance view of the alarmed carriers includes the duration of the alarm so it's clear whether it's a persistent or transient issue
- Focus on priority carriers by creating a custom list of carriers to display by selecting the carriers of interest from the monitoring plan

- The live display can be sized and configured to look good whether viewing on your monitor or on a large operations center screen
- Generate SNMP traps and e-mail alarm notifications
- Automated notifications occur while you watch the overview of all the live carriers
- Save pictures of the overall view or a particular carrier to PNG files
- Used to generate your carrier reports
- Can be emailed to external carrier stakeholders

What is the difference between Illuminator and the existing D3 Carrier Watch or D4 Spectator/Detector?

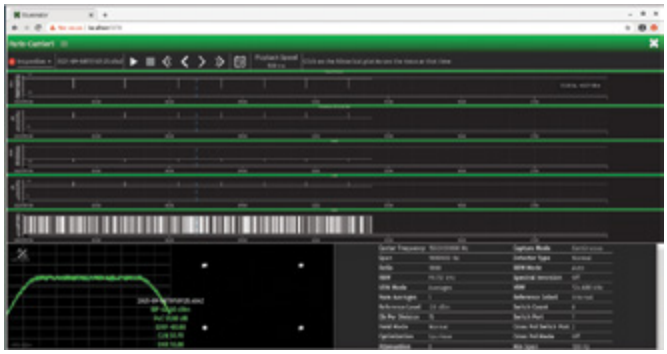
Illuminator adds central site monitoring and control of your carriers from an enterprise viewpoint. The D3 Carrier Watch or D4 Spectator/Detector products operate on a single Decimator. Meanwhile, Illuminator provides the same Spectator/Detector dashboard visual features to view your current results from multiple Decimators, and it allows you to analyze your long-term results for a particular carrier at any site. The single Decimator solutions have a list of measurements, each having a list of settings, with each measurement having a list of analyses that provide the pass/ fail criteria, all saved in a project file. Illuminator extends that project file and adds a site name for the Decimator, which allows for multiple sites and Decimators to be configured in a workspace.

What does the solution look like from a network perspective and how is Illuminator deployed?



The central site Illuminator product can be hosted in the cloud or privately hosted in your network. Each Decimator must be network accessible to the central site Illuminator software. There can be as many Decimators as you like, up to a practical limit of 20 sites.

How do I configure it?



If you are familiar with the D3 Carrier Watch or D4 Spectator single site solutions, configuration is almost the same. Here is the summary of the steps required to configure your Illuminator solution:

1. Create your measurements, one at a time, using the D3 or D4 UI's, just like before, specifying your center frequency, span, RBW, number of averages and add in the analyses you want to check on each measurement, for things like Band Power, C/N etc., along with the nominal value and the tolerance for each. After specifying all the measurements, save the project file to disk.
2. Load the project file into the Illuminator central site workspace you have created, specifying the IP address and remote port. This extracts all the measurements to be remotely measured in the central site view.
3. Add the subset of measurements you want to view on the dashboard.
4. Start carrier monitoring for that remote site.
5. Watch the results start arriving on the dashboard.
6. Look back on the history for a particular carrier of interest.

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