

# Interference Detection

## Shaping Satcom Link Diagnostics

### OVERVIEW

**LinkGuard™** is Paradise's patented technology for detecting in-band interference underneath satellite carriers while remaining on traffic. A spectrum graph shows the wanted carrier along with any unwanted interference (even if it is intermittent). All in-band interference will be detected, even from multiple simultaneous sources, including CW, radars, Wi-MAX, jammers and other modulated carriers.

### OPERATOR ALARMS

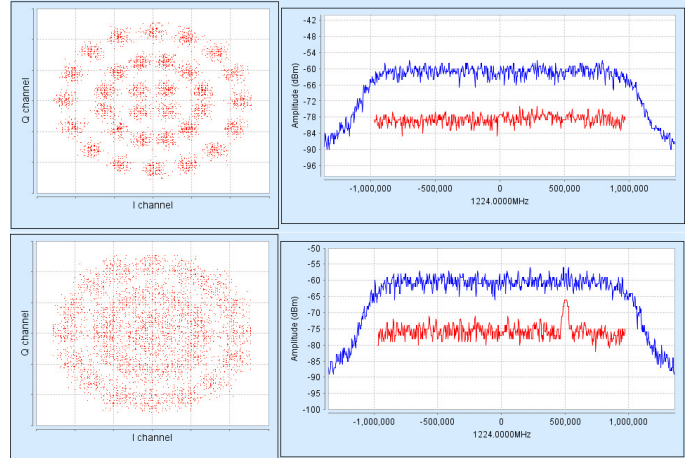
**LinkGuard™** allows a power spectral density threshold to be set, above which the modem will automatically alarm to indicate that significant interference has been detected. The alarm is accessible locally on the modem and remotely via a web browser, SNMP traps and physical contact relays. Automated 24x7 interference detection is therefore provided without the need for an operator to be present.

### INTERFERER POWER MONITORING

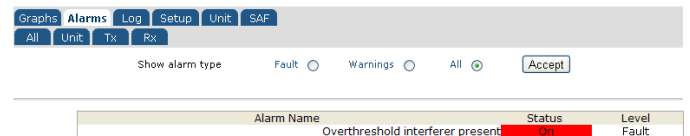
The power (estimated  $(N + I) / N$ ) of any interference is graphed over time. From this it can be seen whether interferers are intermittent and whether their power varies.

Along with power, the frequency and occupied bandwidth of interferers is also known. All of which is monitored for each modem independently.

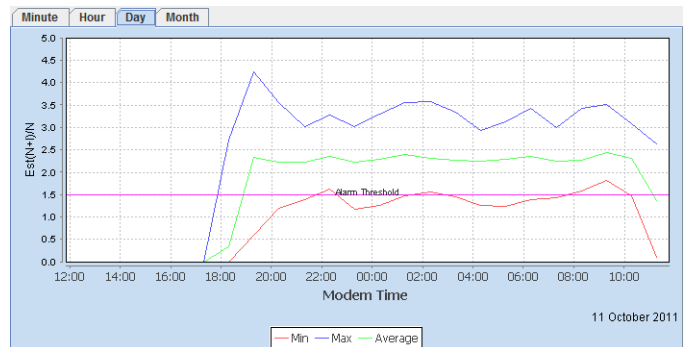
**LinkGuard™** is complimentary technology to DVB-CID, which is also supported.



**LinkGuard™ Signal-under-carrier Interference Detection** showing the effect of interferer on 32APSK service.



**LinkGuard™ Operator Alarm** giving 24x7 automated interference detection.



**Interferer Power Level Monitoring** showing the effect of interference over time.