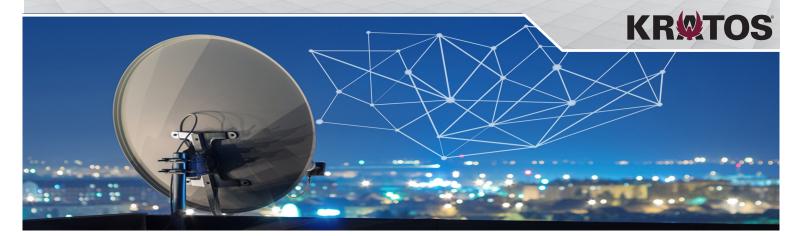
SatGuard - Real-Time VSAT Interference Monitoring Identify VSAT Terminals Causing Interference in Minutes



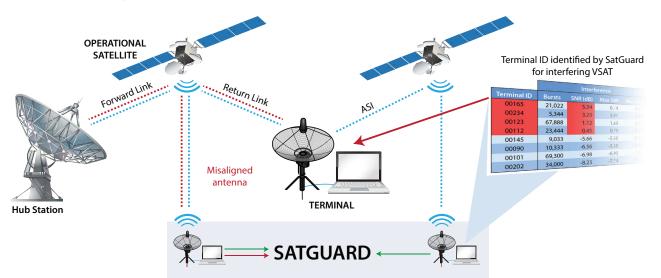
VSAT networks are one of the most challenging satellite environments to manage, especially with respect to interference. Terminals are often installed in remote locations or on moving vessels and correct installation is essential to minimize operational problems, prevent interference and maintain communications.

Misaligned or faulty VSAT terminals are one of the major causes of interference and resolving the issues can be complex, costly and time consuming for the service provider.

SatGuard is a VSAT monitoring solution that addresses this challenge by determining the terminals causing interference in a matter of minutes. SatGuard identifies the network terminal IDs causing interference. By providing this information to the VSAT network operator, the operator can initiate the necessary corrective steps to stop the interference (e.g. re-align the terminal or shut it down).

Key Features

- Monitor operational VSAT networks
- Identify VSAT terminals causing interference in minutes
- Report interfered power level for all terminals in the network
- Supports open standard and proprietary VSAT technologies
- Provides measurement of interference levels as low as – 15 dB below the noise floor. (Interference below this level does normally not cause interference and is not normally visible in the power spectrum)



SatGuard helps identify and resolve VSAT interference issues much faster.

Optimize Satellite Operations and Maximize Business Results

Quickly and easily determining the source of VSAT interference enables VSAT satellite operations to be significantly simplified and optimized. Operators can save valuable time as well as provide an improved experience to their customers.

SatGuard provides operators with key benefits including:

- Effective troubleshooting identify interference caused by VSAT terminals in minutes instead of weeks and months
- Optimize Workforce Productivity reduce costly staff time normally required to combat VSAT interference events
- · Improve Customer Satisfaction quickly resolve VSAT interference issues to ensure network uptime
- Assure Revenue minimize contract penalties and SLA credits

SatGuard Technical Specifications	
Inputs	Operational VSAT forward link (L-band) Operational VSAT return link (L-band) Interfered Link, ASI or XPI (L-band)
Outputs	List of: • VSAT Terminal ID (system dependent) • Interfered power level • Operational power level • Statistics
Interference power level measurement threshold	15 dB below the noise floor
Supported VSAT protocols	Comtech UHP DVB-RCS DVB-RCS2 Gilat SkyEdge 1 Gilat SkyEdge 2 Gilat SkyEdge 2C Hughes Network Systems IPoS Hughes Network Systems Jupiter iDirect iNFINITI iDirect Evolution iDirect Evolution iDirect Velocity ND Satcom SkyWan Newtec Sat3Play Polarsat VSATPlus3 Viasat LinkStar and LinkWay Other technologies may be supported upon request
Views	Spectrum of monitored links Interference level per terminal System configuration
Options	
PCMA (Paired Carrier Multiple Access)	Cancellation of up to 60 Msps forward link carrier (DVB-S2/S2X CCM/ACM up to 64APSK) allowing reception of the return link carriers transmitted in the same frequency segment as the forward link
HPX (High Power Cancellation)	Cancellation of up to 60 Msps forward link carrier (DVB-S2/S2X CCM/ACM up to 64APSK) in the interfered channel
Hardware	
Server Two Digitizers DVB-S/S2 receiver	Windows server (1 U) Kratos PSSRv2 Ayecka TC1Pro



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