

DVB-RCS Forward and Return Link Analyser

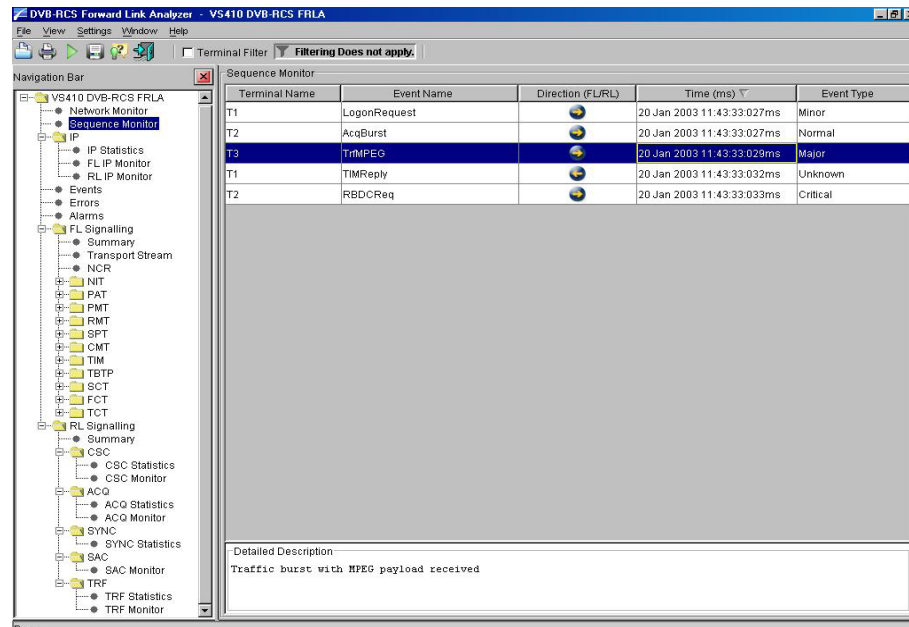
The VeriSat DVB-RCS Forward and Return Link analyser allows detailed inspection and logging of the interactive DVB-RCS protocol messages - “plug-and-play” with a user-friendly graphical interface. All RCS forward and return link messages and events are logged and may be inspected. It is the only tool available capable of decoding the RCS return link and forward link messages. The analyser is fully compliant with the DVB-RCS ETSI standard EN 301 790, and supports all the RCS options. The protocol information is captured and monitored in real-time. A wide range of display modes and logging capabilities allows the user to select an optimum analysis mode depending on current test and monitoring objectives. The captured forward and return link streams may be stored for further analysis offline or future reference. The user-friendly online help system offers the user additional protocol information and guidance of field values and table structures.

The VeriSat Forward and Return Link Analyser is an essential tool for RCS development and testing. Applications include most fields related to DVB-RCS system development and operations:

- Hub and terminal equipment development
- Protocol compliance testing
- RCS software development
- Integration testing and system deployment
- DVB-RCS application compliance testing
- Interoperability testing
- Operational network troubleshooting and monitoring
- Terminal installation and field support

VeriSat DVB-RCS Forward and Return Link Analyser highlights:

- Monitor and logging of all RCS-related events, procedures and alarms
- Extensive statistics of DVB-RCS signalling
- Operating platforms: Windows XP
- Forward link analyser functionality (as VeriSat Forward Link Analyser)
 - Decoding of SI tables and DVB-RCS messages, filtering options allow display of signalling for a single terminal or a selection of terminals based on field content filtering, i.e. MAC address
 - Monitor Eb/No, frequency and timing correction values and time slot resource allocation for the terminals based on forward link signalling information (CMT and TIM messages)
 - Protocol errors detected according to ETR 290 section 5
 - Generate reports documenting DVB-RCS tables, descriptors and message contents
 - Forward Link input options: DVB ASI, Ethernet (MPEG transport stream via Ethernet)
 - L-band receiver unit optional (stand-alone DVB-S receiver with DVB ASI output)
- Return Link analyser features
 - Alcatel Bell Space DVB-RCS burst demodulator (multichannel, 20 MHz bandwidth)
 - All RCS options supported: Viterbi-R/S, Turbo, MPEG, ATM
 - Demodulation and decoding of all DVB-RCS signalling and traffic
 - Nera hub version available
 - Ethernet return link interface offered at request



The VeriSat DVB-RCS Forward and Return Link Analyser Sequence Monitor screen.

VeriSat DVB-RCS Forward and Return Link Analyser Technical Specifications

Software

| | |
|---|---|
| Forward link SI tables and DVB-RCS messages | PAT, PMT, NIT, RMT, SPT, SCT, FCT, TCT, NCR, TBTP, TIM, CMT, MMT, TDT |
| Forward link descriptors | RCS content, Linkage, Satellite forward link, Satellite return link, Network layer info, Correction message, Logon initialise, ACQ assign, SYNC assign, Encrypted logon ID, Table update, Contention control, Correction control, Echo value, Forward Interaction Path, Return Interaction Path |
| Return link burst parameters | Frequency offset, timing offset, Es/No, decoding quality |
| Return link messages | Decoding of ACQ, CSC, SYNC, TRF (ATM or MPEG) |
| Return link MAC signalling | Decoding of prefix and mini-slot MAC methods |
| Analyse modes | Online mode – capturing and real-time analysis of incoming data Offline mode – analysis of stored transport streams |
| Display views | Summary view– displays summary information Monitor view - logging of events, tables and messages – numerous filter options Analyse view – detailed inspection of all fields in the table including descriptors User-friendly graphical interface Display of all tables relevant to DVB-RCS tables and messages Display detected PIDs and bandwidth used (including IP traffic PIDs) Detailed protocol and message content information for each table and message Event logging, reception of messages and tables are logged with time stamp Powerful filtering options IP traffic (broadcast, multicast, unicast, protocol, bandwidth) QoS traffic monitoring including statistics for capacity request, time slot allocation, RL bursts and IP packets including DIFFSERV tags |
| Configuration management | Storage of analyser configurations, recall of stored session parameters Selection of input source, setting of hardware input configurations, store and retrieve input source configurations |

Hardware

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|-----------------------|---|
| Forward link receiver | DVB ASI coaxial, DVB transport stream, BNC, 75 Ohm. L-band receiver (with DVB ASI output) can be delivered as an option. |
| Return link receiver | Alcatel Bell Space multichannel DVB-RCS burst demodulator supporting Viterbi, Turbo, MPEG, ATM with L-band interface. |

Options

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|------------------|---|
| L-band converter | DVB-S L-band to ASI converter unit (19” receiver unit with DVB-ASI output) |
| RSAT | Support for regenerative satellite tables |
| SNMP-D | Decoding of the RCS SNMP signalling options on the forward and return link. |
| FRLA-S2-MA | Support for DVB-S2 mode adaptation protocols (L.2 and L.3) |

Ordering information

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| VS410-DPC | Desktop PC version including burst demodulator and FRLA software |
| VS410-PPC | Portable PC version including burst demodulator and FRLA software |
| VS450-Nera | Desktop PC version, without burst demodulator |
| VS450-ABSp | This version is currently offered for use with Nera RCS Hubs and Alcatel Bell Space hubs/burst demodulators performing return link burst capturing. Decoding of other RCS burst demodulators can be offered in agreement with the RCS burst demodulator vendor at request. |
| VS470 | Windows PC software version, forward and return link streams are received via Ethernet. |

Revision 2.1

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