

DIVICATCH



DIVICATCH RF™

Your own world's finest Analyzer

DVB-S/S2

THE **DIVICATCH RF-S/S2** IS A POCKET ANALYZER CUMULATING DVB-S/S2 LIVE RECEPTION WITH MPEG-2 TS REAL-TIME ANALYSIS, RECORDING AND STREAM PLAYING.

The DiviCatch RF-S/S2 can **receive** DTH streams and all modes of satellite distribution links.

The product provides 3 levels of **real-time analysis**:

- **RF measurements**: key RF signal parameters (Level, SNR, BER...) for all mode codes and modulations in the DVB-S/S2 standard.
- **MPEG-2 TS**: the 3 priority levels of ETR290 are implemented. Bitrate can be analyzed globally, by service, by PID. Alarm thresholds are customizable.
- **T2-MI**: complete multi-PLP analysis: BB Frame, L1 Frame, pre and post signaling global and by PLP, T2 Frame composition, T2 timestamp. Baseband streams can be captured using the **ASI input** or the PC's **IP input**. File-based **off-line analysis** is also available.

The events and trends analyzed over time can be stored into **report files**.

In addition, the DiviCatch RF-S/S2 can be used as a **gateway** which retransmits **over ASI** or **IP** the baseband stream coming from the RF input. The **player** functionality allows to have an **ASI output** on the same device, which represents a real added value.

ENENSYS has implemented a new and very intuitive GUI, DiviSuite, which provides customizable monitoring screens. The application integrates a video decoder enabling **real-time decoding** of all unencrypted services (**H.264/MPEG-4 AVC, MPEG-1/2, AAC, MP3...**). It also features live stream capture capabilities for baseband multiplex **recording** into a TS file.

The DiviCatch RF-S/S2, a 4-in-1 product featuring both **RF** and **baseband** analysis, and both **recording** and **player** capabilities, offers a cost-effective test solution for field, lab or head-end applications.

CHARACTERISTICS

1 RF input for DVB-S/S2
1 ASI input/output
RF key measurements
ETSI TR 101 290 validation (ETR290)
PIDs, PSI/SI parsing
PCR graphs
Advanced MPEG-2 TS recording
IP source analysis (from PC)
IP Output (Ethernet interfaces selection)
Audio/Video player (H.264/MPEG-4 AVC, MPEG-1/2, AAC, MP3...)
Compatible MS Windows XP/Vista/7/8



- **TO TEST APPLICATIONS**
- **TO VALIDATE BOTH RF & BASEBAND**
- **TO ACHIEVE COST-EFFICIENCY ON BROADCAST NETWORKS**

APPLICATIONS

- Broadcast Test & Measures
- RF Reception Quality
- DVB-S/S2 Broadcast Troubleshoot
- Installation & Maintenance
- Head-End/TX site/off-air monitoring
- Portable Demonstration Setup
- R&D Streams or Signal Analysis
- Troubleshoot assistant

BENEFITS

- 4-in-1 product: RF + Baseband + Recorder + Player
- Compact (134.7 x 61.45 x 27 mm, **156 g**) and USB self-powered device
- Receive live DVB-S/S2 signals, stream selection
- Allows antenna LNB powering & configuration
- Analyze/Validate MPEG-2 TS/T2-MI Layer in real-time
- Assess the quality of reception & transmission
- All modulation schemes supported (from QPSK to 32APSK)
- CCM, VCM, ACM modes supported
- Add your own table and specifications Analysis (PSI/SI, PSIP...)



TECHNICAL CHARACTERISTICS

RF In	
Connector	1x F-type female - 75 Ω
Sensitivity	-80 to -5 dBm / 28 to 104 dBμV
Frequency range	950 to 2150 MHz (1 KHz resolution)
DVB-ASI In/Out	
Connector	1x BNC female - 75 Ω
Max bitrate	140 Mbps
USB	
Data connector	1x USB3 B-Type
Auxiliary power connector	1x USB3 B-Type
Power supply	
USB self-powered	Allows antenna LNB powering (up to 7W)
Environment	
Operating temperature	-20 to +55 °C / -4 to 131 °F
Physical	
Dimensions	135 x 62 x 27 mm / 5.3 x 2.4 x 1 in
Weight	156 g

MODE CODES

DVB-S	QPSK, puncture rates: 1/2, 2/3, 3/4, 5/6, 7/8
DVB-S2	CCM, VCM and ACM modes supported QPSK, code rates: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 8PSK, code rates: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 16APSK, code rates: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 32APSK, code rates: 3/4, 4/5, 5/6, 8/9, 9/10
Symbol rates	<ul style="list-style-type: none"> DVB-S: QPSK 1 to 65Msp/s DVB-S2: QPSK 1 to 65Msp/s, 8PSK 1 to 60Msp/s, 16APSK 1 to 45Msp/s

RF MEASUREMENTS

All measurements are made in real-time	
Signal level	-90 to 0 dBm / 18 to 109 dBμV (0.1 dBm resolution)
SNR	0 to 25 dB (0.1 dB resolution)
Bit Error Rate (DVB-S)	Post-Viterbi
PER (DVB-S2)	

BASEBAND TRANSPORT MONITORING

MPEG-2 TS/T2-MI features analyzed in real-time from either source:

- ASI or RF through USB from the DiviCatch
- IP through Ethernet from the PC

Or analyzed off-line from source:

- TS file

ETSI TR 101 290

- Priorities 1, 2 and 3

Service information

- PSI/SI table display for DVB
- PSIP table display for ATSC services
- PID Summary

Bitrate monitoring

- Overall, by Service (Program), by PID

PCR Jitter

- Overall Jitter and Jitter Accuracy graphs

SERVICES PROCESSING

MPEG-4/AVC, MPEG-1/2 services decoding (unencrypted programs):
video stream display

Recording of the entire multiplex (MPTS/SPTS) into a TS file

Real-time forward of the entire multiplex to ASI or IP (unicast or multicast) over UDP streaming

STREAM PLAYING

Offline TS file stream analysis

Loop/segment play modes

Stream play-list handling

Bitrate auto detection with PCRs

Null Packet Removal

ORDERING CODES

DiviCatch RF-S/S2

DVB-S/S2 Analyzer

Shipped bundled with DiviSuite

software for MS Windows XP/Vista/7/8

Providing stream overview, video decoding,

stream recording, stream player*

Options	RF Scope Plugin	RF Monitoring
	TS Analyzer Plugin	Transport Stream Analysis
	T2MI analyzer Plugin	T2-MI Analysis

*Contact us for availability