DIVICATCH RF-S/S2

Your own world's finest Analyzer

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

The DiviCatch RF-S/S2 provides **real-time analysis** at different levels:
• **RF**: measures key RF signal parameters (Level, SNR, BER, PER) and indicates the modulation parameters and constellation.
• **MPEG-2 TS**: the 3 priority levels of ETSI TR 101 290 are implemented. Bitrate can be analyzed globally, by service, by PID. Alarm thresholds are customizable.
• **T2-MI**: complete multi-PLP analysis: T2 L1 pre/post signaling, PLP allocation (BB frame, TS, padding/overflow), T2 timestamp, BB frame, ISSY field, PLP extraction.
Baseband streams can be captured using the **ASI input** or the PC's **IP input**. File-based **offline analysis** is also available.
The alarm events and RF measurements (trends) 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 TS file **player** functionality allows to have an **ASI output** on the same device, which represents a real added value.

TestTree proposes a real-time analysis application, **DiviSuite**, running on **MS Windows**, connected to the DiviCatch S/S2 via **USB connectivity**, with customizable monitoring screens. The application integrates a video decoder enabling **real-time decoding** of all unencrypted services (**H.265/HEVC, 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 **TS recording** and **player** capabilities, offers a cost-effective test solution for field, lab or head-end applications.

CHARACTERISTICS

1x RF input for DVB-S/S2
1x ASI input/output
IP source analysis (from PC)
RF measurements: signal level, SNR, BER, PER
Graphical constellation display
PIDs and PSI/SI parsing, PCR graphs
ETSI TS 101 290 validation (priority 1, 2, 3)
Audio/Video player (H.265/HEVC, H.264/MPEG-4 AVC, MPEG-1/2, AAC, MP3...)
MPEG-2 TS record and playback
MPEG-2 TS over IP forward (PC's Ethernet interface selection)
Compatible MS Windows XP/Vista/7/8/10
USB self-powered, 160 g

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

APPLICATIONS

• R&D Streams or Signal Analysis
• DVB-S/S2 Broadcast Troubleshoot
• Installation & Maintenance Test Tool
• Portable Demonstration Setup
• Head-End/TX site analysis
• RF Reception Quality

KEY BENEFITS

• 4-in-1 product: RF + Baseband + Recorder + Player
• **Compact** (pocket size, **160 g**) and USB self-powered
• Receive live DVB-S/S2 signals, stream selection
• Allows antenna **LNB powering & configuration**
• **All modulation schemes supported** (from QPSK to 32APSK)
• CCM, VCM, ACM modes supported
• Assess the quality of reception & transmission
• Analyze/Validate MPEG-2 TS/T2-MI Layer in real-time
• Add your own table and specifications Analysis (PSI/SI,...)
• A must-have Lab Tool

TECHNICAL CHARACTERISTICS

RF	
Connector In	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	
Connector In/Out	1x BNC female - 75 Ω
Max bitrate	140 Mbps
USB	
Data connector	1x USB3 B-Type (USB2 compatible)
Auxiliary power connector	1x USB3 B-Type (USB2 compatible)
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	**160 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	DVB-S: QPSK 1 to 65Msps DVB-S2: QPSK 1 to 65Msps, 8PSK 1 to 60Msps, 16APSK 1 to 45Msps

RF MEASUREMENTS

All measurements are made in real-time

Graphical display	Constellation
Signal level	-90 to 0 dBm / 18 to 109 dBµV (0.1 dBm resolution)
CNR	0 to 25 dB (0.1 dB resolution)
Bit Error Rate (DVB-S)	Post-Viterbi
PER (DVB-S2)	

BASEBAND TRANSPORT MONITORING

MPEG-2 TS features analyzed in real-time from either source:
- RF or DVB-ASI through USB from the DiviCatch
- IP from the PC's Ethernet interface

Or analyzed offline from TS file source

ETSI TR 101 290: priorities 1, 2, 3

Service information
- PSI/SI table display for MPEG, DVB, BTS; including private tables
- Service components type and structure
- PID summary

T2-MI
- T2 L1 pre/post signaling: frame, cells, OFDM symbols, # FEC, interleaving, TI block size
- PLP allocation: BB frame padding, TS padding, TS overflow
- BB frame, ISSY field, T2 timestamp
- Single & Multi-PLP, PLP extraction

Bitrate monitoring
- Overall, by Service (Program), by PID

PCR Accuracy graphs

BASEBAND TRANSPORT PROCESSING

Audio/video decoding (unencrypted programs): stream display
- H.265/HEVC, H.264/MPEG-4 AVC, MPEG-1/2, AAC, MP3...

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

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

TS files playback:
- Loop/segment play modes
- Stream playlist handling, bitrate auto-detection with PCRs
- Null packet removal

ORDERING CODES

DiviCatch RF-S/S2	**DVB-S/S2 Pocket Analyzer** Shipped bundled with DiviSuite Base software for MS Windows XP/Vista/7/8/10		
Software options	**RF Scope**	RF Analysis	RF + TS Bundle
	TS Analyzer	MPEG-2 TS Analysis	
	T2-MI Analyzer	T2-MI Analysis	

48HMAX **SHIPMENT** | All Options Bundle (RF + TS + T2-MI)

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