DIVICATCH RF ISDB-T/Tb

Your own world's finest Analyzer

ISDB-T/Tb

THE **DIVICATCH RF ISDB-T/Tb** IS A POCKET ANALYZER CUMULATING ISDB-T/TB LIVE RECEPTION WITH TRANSPORT STREAM REAL-TIME ANALYSIS, RECORDING AND STREAM PLAYING.

The product provides two levels of **real-time analysis**:
• **RF**: measures key RF signal parameters (Level, MER, SNR, BER) and indicates the modulation parameters (**TMCC, Layers A/B/C**), the constellation as well as the **Channel Impulse Response** (CIR).
• **Transport Stream**: the 3 priority levels of ETSI TR 101 209 are implemented. Bitrate can be analyzed globally, by service, by PID. Alarm thresholds are customizable. 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 ISDB-T/Tb 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 RF ISDB-T/Tb 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 ISDB-T/Tb, 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.

⬊ **TO TEST APPLICATIONS**

⬊ **TO VALIDATE BOTH RF & BASEBAND**

⬊ **TO ACHIEVE COST-EFFICIENCY ON BROADCAST NETWORKS**

CHARACTERISTICS

1x RF input for ISDB-T/Tb
1x ASI input/output
IP source analysis (from PC)
RF measurements: signal level, SNR, MER, BER per Layer A/B/C
Graphical constellation, Channel Impulse Response display
PIDs and PSI/SI parsing, PCR graphs
BTS analysis: IIP packet parsing, TMCC alarms
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...)
TS record and playback
TS over IP forward (PC's Ethernet interface selection)
Compatible MS Windows XP/Vista/7/8/10
USB self-powered, 160 g

APPLICATIONS

• R&D Streams or Signal Analysis
• ISDB-T/Tb Broadcast Troubleshoot
• Installation & Maintenance Test Tool
• Head-End/TX site/off-air analysis
• Portable Demonstration Setup

KEY BENEFITS

• 4-in-1 product: **RF + Baseband + Recorder + Player**
• **Compact** (pocket size, **160 g**) and USB self-powered
• Receive live ISDB-T/Tb signals
• Analyze/Validate TS Layer in real-time
• All modulation schemes supported (DQPSK, from QPSK to 64QAM)
• Add your own table and specifications Analysis (PSI/SI ...)

TECHNICAL CHARACTERISTICS

RF

Connector In	1x F-type female - 75 Ω
Sensitivity	-80 to -5 dBm / 28 to 104 dBµV
Frequency range	40 to 1000 Mhz
Channel bandwidth	6, 7 & 8 MHz
Modulation	DQPSK, from QPSK to 64QAM

DVB-ASI

Connector In/Out	1x BNC female - 75 Ω
Max bitrate	140 Mbps

USB Data connector   1x USB2 B-Type

Power supply   USB self-powered

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**

RF MEASUREMENTS

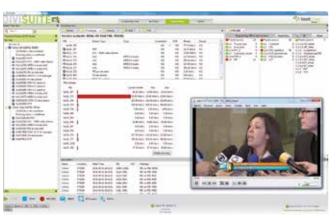**All measurements are made in real-time**

Graphical display	Constellation, Channel Impulse Response
Signal level	-90 to -5 dBm / 18 to 104 dBµV (0.1 dBm resolution)
SNR	0 to 40 dB (0.1 dB resolution)
MER	0 to 32 dB
BER	Post-Viterbi, Post-RS PER per Layer A/B/C

BASEBAND TRANSPORT MONITORING

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
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) 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 ISDB-T/Tb	**ISDB-T/Tb Pocket Analyzer** Shipped bundled with DiviSuite Base software for MS Windows XP/Vista/7/8/10
Software options	**RF Scope** RF Analysis **TS Analyzer** TS Analysis (includes BTS)

48HMAX **SHIPMENT**	All Options Bundle (RF + TS)

testtree™