DIVIDUAL ASI+SPI

Baseband TS Analyzer

THE **DIVIDUAL ASI + SPI** IS A POCKET ANALYZER PROVIDING TRANSPORT STREAM (MPEG-2 TS, T2-MI, BTS) REAL-TIME ANALYSIS, RECORDING AND STREAM PLAYING, ON BOTH DVB-ASI AND DVB-SPI (LVDS OR TTL) CONNECTORS.

The DiviDual ASI+SPI provides **real-time analysis** at different levels:
• **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, T2 timestamp, BB frame, ISSY field, PLP extraction.
Baseband streams can be captured using the **DVB-ASI** or **DVB-SPI** inputs or the PC's **IP input**. **LVDS** or **TTL** levels are supported by the DVB-SPI adapter. File-based **offline analysis** is also available.

The TS file **player** functionality allows to have an **DVB-ASI** and **DVB-SPI outputs** 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 DiviDual ASI+SPI 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 DiviDual ASI+SPI (LVDS or TTL), a 3-in-1 product featuring **baseband analysis, recording** and **player** capabilities, offers a cost-effective test and stream player solution for lab or head-end applications.

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

CHARACTERISTICS

1x DVB-ASI input and 1x DVB-ASI output
1x DVB-SPI input/output(LVDS or TTL levels)
IP source analysis (from PC)
PIDs and PSI/SI parsing, PCR graphs
ETSI TR 101 290 validation (Priority 1, 2, 3)
T2-MI analysis: L1 pre & post signaling, T2 frame statistics, BB frame header, ISSY field, T2 timestamp
BTS analysis: IIP Packet parsing, TMCC alarms
PSIP table display for ATSC 1.0
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, 140 g

APPLICATIONS

- R&D Streams Analysis and Generation
- Installation & Maintenance Test Tool
- Portable Demonstration Setup

KEY BENEFITS

- 3-in-1 product: **Baseband Analyzer + Recorder + Player**
- **Compact** (pocket size, **140 g**) and USB self-powered
- Analyze/Validate T2-MI, BTS and MPEG-2 TS Layer in real-time
- Add your own table and specifications Analysis (PSI/SI, PSIP...)
- A must-have Lab Tool

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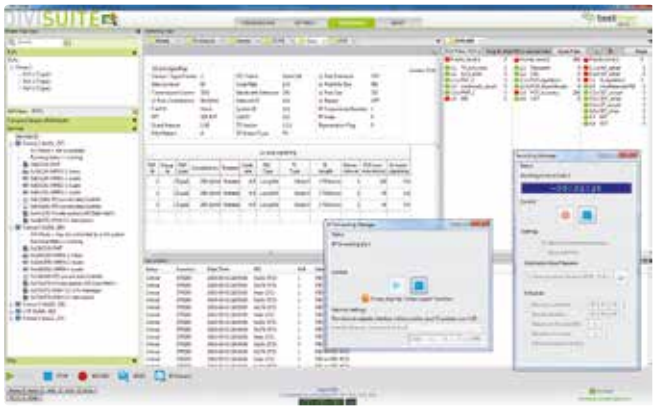
TECHNICAL CHARACTERISTICS

DVB-ASI	
Connector In	1 x BNC female - 75 Ω
Connector Out	1 x BNC female - 75 Ω
Max bitrate	140 Mbps
DVB-SPI	
Connector In/Out	1x D-Sub 25 female (LVDS or TTL)
Max bitrate	108 Mbps
USB Data connector	1 x USB2 B-Type
Power supply	USB self-powered
Environment	
Operating temperature	-20 to +55 °C / -4 to 131 °F
Physical	
Dimensions	115 x 62 x 27 mm / 4.5 x 2.4 x 1 in
Weight	**140 g**



BASEBAND TRANSPORT MONITORING

TS features analyzed in real-time from either source:
- DVB-ASI or DVB-SPI through USB from the DiviDual
- 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
- PSIP table display for ATSC 1.0 services
- 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

DiviDual ASI+SPI	**TS over DVB-ASI and DVB-SPI (LVDS or TTL) Analyzer, Recorder, Player** Shipped bundled with DiviSuite software for MS Windows XP/Vista/7/8/10
Software options	**TS Analyzer** TS Analysis **T2-MI Analyzer** T2-MI Analysis

testtree™

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