

ANALYZE RF & BASEBAND

From RF to video, your digital TV « swiss knives »

	STANDARDS	CHARACTERISTICS							SOFTWARE OPTIONS				
		RF Input RF	ASI Input/Output ASI	IP Input/Output IP	SPI Input/Output SPI	1 PPS & 10 MHz Input 1PPS	GNSS Input GNSS	A/V Output A/V	Recorder Recorder	Player Player	RF Scope RF	T5 Analyzer T5	T2-MI Analyzer T2-MI
Measurement Receivers													
REFEREE II	DVB-T, DVB-T2 Lite, DVB-C, DVB-C2, ISDB-T/Tb*	•	•	•		•	•	•	•	•	•	•	•
Professional Receivers													
DIVICATCH RF-S/S2	DVB-S, DVB-S2	•	•	• ⁽¹⁾				•	•	•	•	•	•
DIVICATCH RF ISDB-T/TB	ISDB-T/Tb	•	•	• ⁽¹⁾				•	•	•	•	•	•
DIVICATCH RF-T/C T2/C2	DVB-T, DVB-T2 Lite, DVB-C, DVB-C2, ITU-J83 Annexes A, C	•	•	• ⁽¹⁾				•	•	•	•	•	•
DIVICATCH RF-C	DVB-C, ITU-J83 Annexes A, B, C	•	•	• ⁽¹⁾				•	•	•	•	•	•
Baseband Adapters													
DIVIDUAL ASI	Baseband DVB-T, DVB-T2 Lite, DVB-C, DVB-C2, DVB-S, DVB-S2		•	• ⁽¹⁾				•	•	•	•	•	•
DIVIDUAL ASI+SPI LVDS OR TTL	Baseband DVB-T, DVB-T2 Lite, DVB-C, DVB-C2, DVB-S, DVB-S2, ISDB-T/Tb, ATSC, DTMB		•	• ⁽¹⁾	•			•	•	•	•	•	•
DIVIDUAL ETI	Baseband DAB, DAB+, T-DMB		•							•	•		



In their «all options» package, our test devices can be shipped in max 48h



DIVISUITE IP

Pure Software Application (Fixed PC license, Floating server license)



⁽¹⁾ IP through the PC's Ethernet interface
A/V Output : H.265/HEVC, H.264/MPEG-4 AVC, MPEG-1/2, AAC, MP3...

*Contact us for availability



DIVISUITE BASE



TS Recorder
■ Bitrate, Log Files

TS Player over ASI

TS IP Forward over IP

A/V Output

■ H.265/HEVC, H.264/MPEG-4 AVC, MPEG-1/2, AAC, MP3...

COMMON FEATURES COMING AS A DEFAULT PACKAGE

Stream Overview

Bitrate graphs
Drag & Drop PID

Bitrate Alarms

Offline Analysis

Audio/Videodecoding
H.265/HEVC, H.264/MPEG-4 AVC, MPEG-1/2, AAC, MP3...

Record the analyzed TS to file format

Forward the analyzed TS to the PC's IP interface

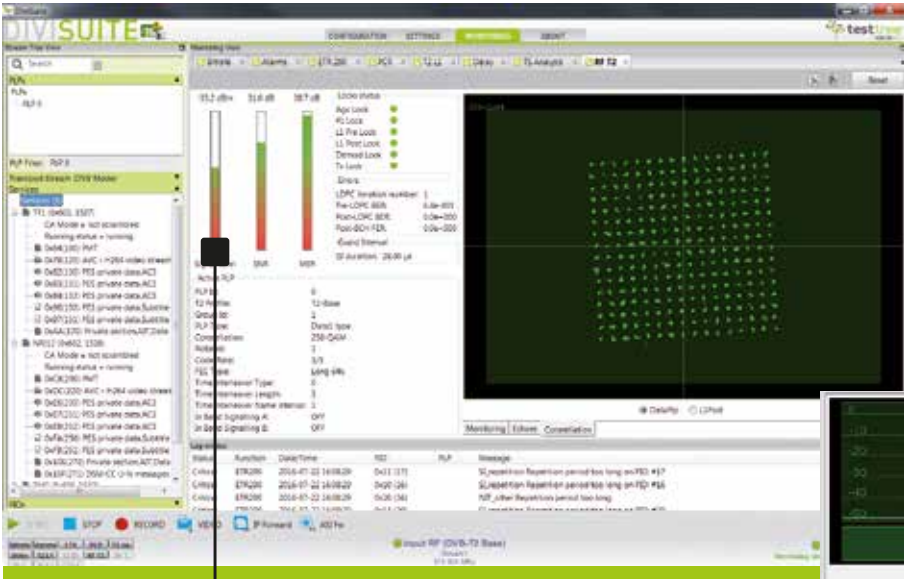
Play the analyzed TS over the ASI output

H.264 MPEG-4 AVC **H.265 HEVC**

DIVISUITE SOFTWARE OPTION



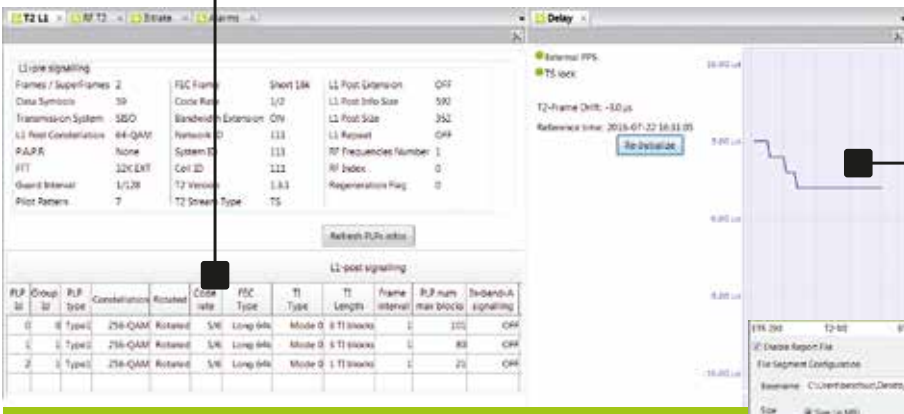
- Signal Quality: level, SNR, MER, BER
- Graphs, Report Files
- Modulation Parameters
- Constellation
- Channel Impulse Response
- SFN Synchronisation



Test the field RF Quality TX Echoes diagram

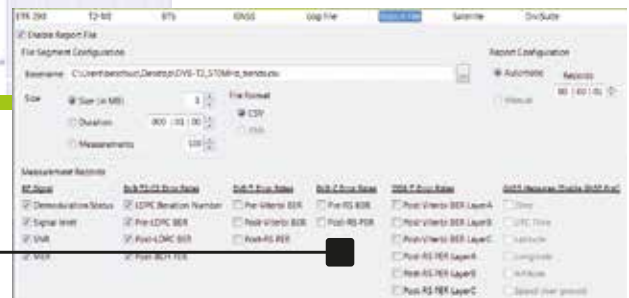


Validate the Modulator/TX RF Quality
Signal Quality measurement: level, SNR, MER, BER
Modulation parameters
Constellation
DVB-T2 L1 signaling



Validate SFN synchronization
SFN Drift
1 PPS & 10 MHz inputs

Modulator/TX endurance tests
Log & Report files
Save events and trend measurements

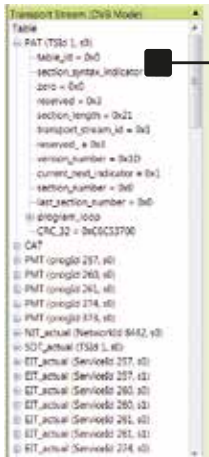


DIVISUITE SOFTWARE OPTION



- TS Standard: MPEG, DVB, ATSC 1.0, ISDB-T/Tb (BTS)
- PSI/SI Tables Decoding
- ETSI TR 101 290
- PCR Graphs
- ASI Network Delay

Transport Stream complete Analysis!



Validate PSI/SI Tables
Supported TS: MPEG, DVB, ATSC 1.0, ISDB-T/Tb
Add your own table analysis specification

Name	On	Off	Min (sec)	Max (sec)	Min (sec)	Max (sec)
1.1 TS_sync_loss	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
1.2 Smt_sync_error	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
1.3.a PAT_err_2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	300	50	3000	500
1.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
1.5.a PMT_err_2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	40	25000	500
1.6 PID_err_1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1000	1000	30000	1000

Validate ETSI TR 101 290 measurements
ETSI TR 101 290 Priority 1,2,3
Customized alarm thresholds
Log files

The main interface displays a 'Stream View' on the left with a tree of services and PIDs. The center features a 'Global Stream' section with a 'PCR' graph showing PCR accuracy over time. On the right, there is a 'Services analysis' table and a 'Services bitrate' pie chart. A log window at the bottom shows system messages.

Check regionalization
Service Plan

Check PCR
Drag & Drop PID containing PCR
PCR accuracy graphs

Advanced Service Analysis
Component type & structure
Component bitrates

DIVISUITE SOFTWARE OPTION



- T2 L1 pre/post signaling, PLP allocation (BB frame, TS, padding/overflow)
- **NEW** T2 timestamp, BB frame, ISSY field
- Single & Multi-PLP, PLP extraction

Validate your DVB-T2 Gateway!

PLP extraction/filter

The screenshot displays the DiviSuite T2-MI Analyzer interface. On the left, a tree view shows the PLP extraction process, with 'PLP 1 (Type1)' selected. The main window is divided into several sections:

- LL-pre signaling:** A table showing parameters like Frames / Superframes (2), FEC Frame (Short 16k), and L1 Post Extension (OFF).
- LL-post signaling:** A table with columns for PLP ID, Group ID, PLP type, Constellation, Rotated, Code rate, FEC Type, TI Type, TI Length, Frame interval, and PLP num max blocks. It lists three PLP entries.
- T2 frames statistics:** A dropdown menu showing options like Packet / Bitrate Allocation, T2 frames statistics, BB frames header, ISSY, and DVB-T2 timestamp. A table below shows statistics for P1 and P2.
- PLP statistics:** A table listing PLP names (PLP 1, PLP 2, PLP 3) and their respective TS bitrate, BB frame bitrate, FEC block size, and FEC block count.
- Log window:** A table showing critical events for ETR290, including Date/Time, PID, and PLP Message.
- Input file:** A section with a digital clock and buttons for ASI, IP, and File.
- Alarm settings:** A table with columns for Name, On/Off, and Mode, listing various alarms like Packet count, CRC32, Packet type, etc.
- Visualizations:** A pie chart and a bar chart showing data distribution.

Check T2-MI streams
T2 L1 pre/post signaling
ETSI TR 101 290 T2-MI alarms

Check T2 Frames
BB frame header
ISSY field
T2 timestamp

DIVISUITE SOFTWARE OPTION



- GNSS Receiver (GPS/GLONASS)
- Test Reports (Google Earth compliant)

Test the field coverage!

GNSS receiver enabled
Real-time measurement

The screenshot shows the DiviSuite software interface. On the left, there's a 'Monitoring View' with signal level bars for -13.0 dBm, 31.0 dB, and 36.0 dB. The center panel shows 'GNSS Status' with 'Internal GNSS Status: LOCKED', 'Satellites In View: 18', and 'Satellites In Used: 8'. On the right, 'GNSS Measures' shows date (2016/07/22), UTC Time (15:15:45), Latitude (N 48° 06' 30"), Longitude (W 1° 36' 48"), Altitude (43.0 m), and Speed over ground (0.00 km/h). A 'Log window' is open at the bottom, displaying a table of log entries.

Status	Function	Date/Time	PID	PLP	Message
Critical	ETR290	2016-07-22 17:16:19	0x2c (372)		PID on PID #172
Critical	ETR290	2016-07-22 17:16:19	0x2c (372)		PID on PID #372
Critical	ETR290	2016-07-22 17:16:19	0x174 (372)		PID on PID #372
Critical	Bitrate	2016-07-22 17:16:19	N/A		Overall bitrate (24.8822) went below
Critical	Bitrate	2016-07-22 17:16:19	N/A		Net bitrate (21.2075) went below 2-
Critical	ETR290	2016-07-22 17:16:18	0x2c (372)		PID on PID #172
Critical	ETR290	2016-07-22 17:16:18	0x2c (372)		PID on PID #572
Critical	ETR290	2016-07-22 17:16:18	0x174 (372)		PID on PID #372
Critical	Bitrate	2016-07-22 17:16:18	N/A		Overall bitrate (24.8822) went below
Critical	Bitrate	2016-07-22 17:16:18	N/A		Net bitrate (21.2071) went below 2-
Critical	ETR290	2016-07-22 17:16:17	0x2c (372)		PID on PID #172
Critical	ETR290	2016-07-22 17:16:17	0x2c (372)		PID on PID #572
Critical	ETR290	2016-07-22 17:16:17	0x174 (372)		PID on PID #372
Critical	Bitrate	2016-07-22 17:16:17	N/A		Overall bitrate (24.8822) went below
Critical	Bitrate	2016-07-22 17:16:17	N/A		Net bitrate (21.2145) went below 2-

Display results in Google Earth or Google Fusion Tables applications



The screenshot shows the 'Report Configuration' window in DiviSuite. It includes sections for 'File Segment Configuration', 'Report Configuration', and 'Measurement Results'. The 'Measurement Results' section has several checkboxes for parameters like 'Signal', 'Demodulation Status', 'Signal Level', 'DNR', 'MER', 'L2/L3 Error Rate', 'Pre-LDPC BER', 'Post-LDPC BER', 'Post-BCH BER', 'Pre-Interleaver BER', 'Post-Interleaver BER', 'Pre-Deinterleaver BER Layer A', 'Post-Deinterleaver BER Layer A', 'Pre-Deinterleaver BER Layer B', 'Post-Deinterleaver BER Layer B', 'Pre-Deinterleaver BER Layer C', 'Post-Deinterleaver BER Layer C', 'Date', 'UTC Time', 'Latitude', 'Longitude', 'Altitude', and 'Speed over ground'.

Generate Google Earth compliant files (KML)
Customize measured parameters