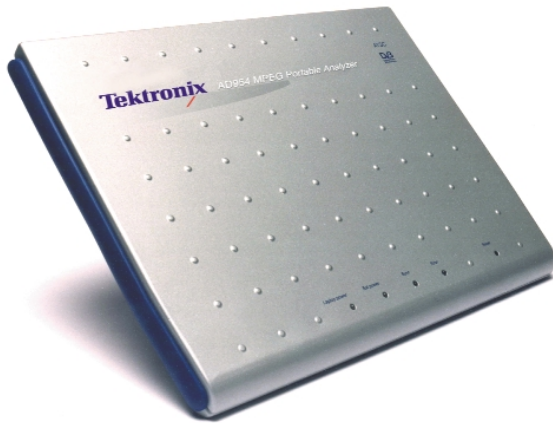


MPEG Portable Analyzer

► AD954



► Features & Benefits

Supports MPEG-2/DVB/ATSC Transport Streams Which Enables Testing to be Performed Anywhere in the World

Real Time Monitoring of Key Parameters Gives an Immediate Indication of Major Problems

Detailed Off Line Transport Stream Analysis Enables Full In-depth Analysis of the Transport Stream

Transport Stream Capture and Triggered Recording Provides the Capability to Send Streams Back to Base

ASI, SMPTE 310M, DVB Parallel Interfaces for Connection Anywhere in an MPEG-2 Network

Small, Light and Portable

Low Power Consumption

► Applications

Installation and Commissioning of DVB/ATSC Transmission Chains

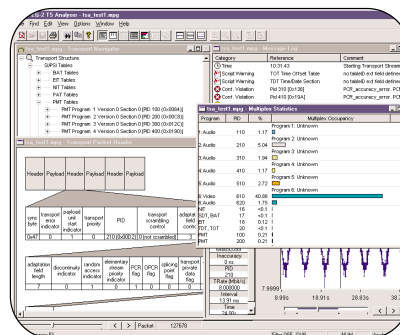
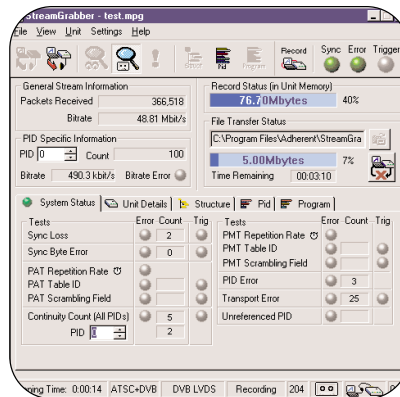
Testing and Debug of MPEG-2 Broadcast Equipment

Overview

The AD954 is a small, portable unit with enough power to debug MPEG-2 systems in the field. It interfaces with the Engineer's laptop computer running AD954 software to create a cost effective and simple analysis tool for use on the move.

The AD954 is designed for engineers who work in the field on compression equipment installation and service. For them it provides instant real-time analysis and recording as well as off-line analysis at the transport stream level. The AD954 works with the engineer's own laptop on which status information is provided by clear graphical displays.

The result is simple, in-the-field diagnosis and quality assurance.



MPEG Portable Analyzer

▶ AD954

Features

Real Time Monitoring

The AD954 performs real time monitoring of MPEG-2, DVB and ATSC transport streams. This gives "live" stream compliance status and highlights errant stream behavior.

DVB Testing

- ▶ AD954 provides real time monitoring of all the DVB defined first priority measurements^{*1}. It also gives status of the transport error indicator and detects unreferenced PIDs
- ▶ A real time view of the SI tables is provided

ATSC Testing

- ▶ In addition to the basic transport stream tests a real time view of the PSIP table is provided

PID Bit Rate Testing

- ▶ User selected PIDs may be tested to check whether their bit rate remains constant for a period of greater than 1 second. The multiplex occupancy is tested against user definable limits on either a per PID or per program basis. Installation engineers can thereby confirm that statistical multiplexers are functioning correctly

Recording

- ▶ AD954 can record up to 15 seconds of data at bit rates of 90 Mb/s
- ▶ Recording is initiated direct from the user interface
- ▶ Captured files can be examined in the field using Stream Analyzer software or sent back to research and development engineers for further analysis

Triggered Recording

- ▶ Recording can be triggered by a change in state of any one of the measurements made by the AD954, as defined by the user
- ▶ The trigger point can be defined to be any point in the recorded file
- ▶ Trigger settings can be maintained between sessions

Off Line Analysis

AD954 is supplied with Stream Analyzer software, providing:

Packet Display and Analysis

- ▶ Transport stream packet header interpretation
- ▶ Adaptation field information for individual packets
- ▶ Hexadecimal representation of transport stream packet header and payload information
- ▶ Location of a transport stream packet to match a particular condition in the packet header

Timing and Statistical Displays

- ▶ Statistical display of the components of the transport stream and their data rates on a program oriented basis
- ▶ Calculation and graphical display of the instantaneous and mean bit rate for each PID and for the entire transport stream from PCR time stamp values
- ▶ Calculation and graphical display of PCR information:
 - Repetition interval between successive PCRs on a PID by PID basis
 - Inaccuracy of each PCR on a PID by PID basis
- ▶ Display of MPEG-2 tables, DVB tables, Enhanced DVB SI and ATSC PSIP tables

^{*1} Ref: European Telecommunications Standards Institute, TR101290: Digital Video Broadcasting (DVB): Measurement Guidelines for DVB systems.

► Characteristics

Product Specifications

Network Interfaces – AD954 is compatible with a Pentium class laptop or higher running either Windows 95 or Windows NT operating systems. Connection is via a parallel port interface (ECP). To ensure optimum performance of real time monitoring we recommend that a PC with a performance equivalent to a Pentium 300 MHz unit running Windows 95/98 with 64 MB RAM or running Windows NT with 128 MB RAM is used with AD954.

Transport Stream Interfaces – DVB parallel. DVB ASI. SMPTE310M.

Performance

Storage Capacity – 192 MB.

Max Data Rate – 90 Mb/s.

Min Data Rate – 250 kb/s.

MPEG-2 Real Time Measurements

Measurement	Error No.**1
TS_sync_loss	1.1
Sync_byte_error	1.2
PAT_error	1.3
Continuity_count_error	1.4
PMT_error	1.5
PID_error	1.6
Unreferenced PID	3.4
Transport error	2.1

DVB Real Time Analysis

- SI Table checks*2
- MPEG-2 measurements as defined above
- PID bit rate measurement

ATSC Real Time Analysis

- PSIP Table checks*2
- Program Paradigm Error
- MPEG-2 Measurements as defined above
- PID bit rate measurement

Physical Characteristics

AD954

Dimensions	mm	in.
Width	290	11.42
Height	25	0.98
Depth	220	8.66
Weight (system unit)	kg	lb.
Net	1.3	2.87

*1 Error No. derived from references in TR101 290.

*2 The display of the complete SI/PSIP information in real time is dependent on the volume of SI in the stream being monitored, the performance of the PC and the performance of the parallel link.

► Ordering Information

AD954

Platform

AD954 Application software.

External power supply.

Options

The following cost options are available:

Opt. SA – TS analyzer for use with files of any size.

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