

CW-4811 CW-4814 CW-4818

TRANSPORT STREAM ANALYZER



With digital TV transmission, the signal of the TV program is converted into data, which are carried by the transport stream (TS). At generating or modifying (remultiplexing) transport streams, the most important step is the analysis of the transport stream, that is, checking up the structure, right arrangement and content of the data. For analysing, remultiplexing and scrambling the TS, CableWorld developed the CW-481x TRANSPORT STREAM ANALYZER family, which permit these jobs to be performed effectively and efficiently.

The members of the CW-481x series receive the input signal of one or more ASI inputs and feed it in the user's computer (notebook PC, desktop PC, 19" PC etc.). Investigating the data content occurs in the computer and the results are displayed on its screen. The software for operating the analyzer is free available for download at our web site (www.cableworld.hu) and can be studied even without the unit, prior to buying it.

The measuring techniques made on the transport stream will widely develop in the next years since the value added services, the pay TV systems etc. will raise more and more demands on analysers. CableWorld will cope with this challenge by offering always the latest software version at the web site.

The SW-4811 operating software permits the elementary level in-depth analysis of the data stream thus it can excellently be used for checking up the data streams of remultiplexers, scramblers, pay TV systems and new services as well as for developing and training purposes. The SW-4811 software is not yet suitable for continuous TS monitoring, error logging, operating switches in the case of errors, but the hardware is already prepared for these jobs.

The 19" x 1 HU unit receives the streams at one or more ASI inputs, depending on the type version. The inputs are selected from the PC. The SW-4811 controlling software of the analyzer runs in Windows XP Professional environment.



- Reception of the input signals at 1 ... 8 in ASI format inputs or from IP environment
- Analysis of the transport stream live or on data streams stored in file
- Micro level data content analysis down up to the bit and byte level
- Analysis of the Program Specific Information in breaking-down up to bit level
- Comprehensive analysis of the stream components, data rate measuring for any component
- Demonstration of the program components with tree structure, reproduction of both picture and sound
- Recording the data streams in files, storing the measured data in different formats

CableWorld Ltd., that used to develop and manufacture analogue television equipment, today develops equipment for digital television with a fully new approach, and endeavours to make the very complex digital technology comprehensible and manageable for the technicians involved.

The CW-481x TS Analyzer series consists of a simple hardware and a software package, which is being continuously developed and can even be developed by the user. The hardware is offered at a favourable price, the software is offered free of charge. For developing own software, our users can find all necessary information in the CW_Net_m.pdf file in our web site at www.cableworld.hu.

For operating the CW-481x TS Analyzer needed is also a computer, which can be the user's notebook PC, the central computer of the system or any other one. The requirements for the computer are given in the 'Software' page of the web site.

The first member of the software series, the SW-4811 was designed primarily for development, education and training purposes. We recommend its use for those, possessing already basic knowledge of digital television or going to acquire it.

The CW-481x hardware is suitable for performing many other jobs even without any change. For some of these jobs the pieces of software is being developed, but we reckon also with our users' joining in the process of software designing. The first version of the SW-4811 software consists of following modules:

- *Input selector control and data format setting*
- *Data analyser for 188, 204 and 256 Byte formats, completed with a PID tester*
- *PSI analyzer*
- *Program Map display*
- *Data rate analyzer, elementary stream analyzer*
- *Picture and sound reproducer*
- *PCR analyzer*
- *TS storing and loading*

The ASI inputs of the CW-481x Transport Stream Analyzer are of bridged type, thus the device can be inserted into the system without the need of further ASI outputs and further external units. The bridged outputs deliver regenerated ASI signals, improving the parameters of the ASI line. The inputs and outputs are insulated to avoid earth loops; occurrent earthing of the screening of the BNC to BNC connecting cables has to be designed and implemented individually.

TECHNICAL DATA

INPUT DATA

TS input 1 ... 8
 ASI acc. to TM 1449 Rec.1
 Input voltage min. 200 mV_(P-P)
 max. 880 mV_(P-P)
 Input impedance 75 Ω
 Input connector BNC socket (insulated)
 Input data rate max. 60 Mbit/sec
 (depending on the PC)

TS output 1 ... 8 (bridged outputs)
 Output voltage min. 800 mV_(P-P)
 Output impedance 75 Ω
 Output connector BNC socket (insulated)
 Number of outputs (with bridged outputs)
 CW-4811 1 ea
 CW-4814 4 ea
 CW-4818 8 ea

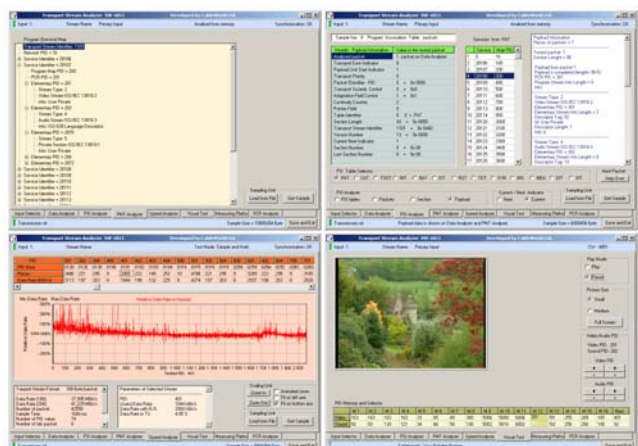
OUTPUT DATA

Data output
 CW-Net 100 Mbit/s
 Connector RJ-45 socket

GENERAL DATA

Mass approx. 4 kg
 Physical dimensions
 Width 483.0 mm
 Height 43.6 mm
 Depth 473.0 mm
 Service period continuous

Power requirements 230 V +10 ... -15 %
 50 / 60 Hz
 Power consumption max. 30 VA
 Operating temperature range +5 ... +40 °C
 Storage temperature range -25 ... +45 °C



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