Eurotek
Broadcast Solutions

BOARD PLUG-IN EK-AMX/4
"ASI RE-MULTIPLEXER"

The EK-AMX/4 board is an FPGA based 6 to 1 TS Re-multiplexer with output Table Generation and Conditional Access Table (CA) management. The maximum input and output TS bit rate is 216 Mb/s and it is not dependent on the complexity of the incoming streams. The input TS come from external ASI or as well from others EK-MFR/2 internal cards (e.g: from a Eurotek A/V Codec or Demodulator). For each input an "Input Module" checks the input

bit rate and the presence of a correct TS and these informations are reported on the EK-AMX/4 Status menu. The "Pid Filter" and the "Pid Remap" modules allows to filter and remap the input packets in order to multiplex the input TSs and generating in this way the required output TS. By means of the "Pcr Restamp" module all the input PCR data are moreover correctly restamped.

The microprocessor programs the table generator using the SI table info from the incoming TSs. The multiplexed output TS is present on the internal EK-MFR/2 connections and on both ASI output BNC connectors moreover during a fault, or when the board is not powered up, the TS present on the ASI 1 input is carried out on the "OUT M" BNC connector. Basically the EK-AMX/4 can be used in Auto or Manual mode.

In "Auto" mode all the input packets are carried on the outputs and the EK-AMX/4 automatically generates the output tables also managing the Conditional Access descriptors. It is also possible to filter input packets by means the Eurotek Software Suite. In "Manual" mode, using the Eurotek Software Suite the user has the full control on the mux and through a simple drag & drop it is possible to build up the output TS from the input TSs.

Features

- 6 different TS input
- 2 different TS output
- Man/Auto Table Generation
- CA management
- TS Output up to 216Mb/s
- Complete web/SNMP management

Applications

- Head End Systems
- DTV, DVB-T, DVB-S
- Terrestrial and satellite TS router

TECHNICAL SPECIFICATION

Inputs	4 ASI + 2 internal (for each EK-AMX/4 board)
Input Stream type	ISO / IEC 13818-1
Outputs	2 ASI + 1 internal
Output Stream Type	ISO / IEC 13818-1 Compliant
Input ASI Bit-Rate	1-216 Mb/s
Max Output ASI Bit-Rate	216 Mb/s
Internal Bit-Rate	1-53,5 Mb/s
Performance / Overall jitter	ETR 101290
ASI i/o Reference	EN 50083-9
Max. Input cable length	200 m Belden 8281 except when in bypass mode
Power Consumption	7 W
Input / Output Connector	75Ω BNC female
Output SI TABLE t	Automatic/Manual/Freeze with Conditional Access management

BLOCK SCHEME