COD 910ASI
Scrambler Crypton

Application:

COD910ASI is a multifunctional server of pay-TV services. It is designed for a joint operation with DVB-multiplexer and DVB-modulator.

Multiprogrammed transport stream, containing up up to 32 TV-programs could be fed to the input of COD910ASI.

Up to 16 programs can be encoded by the Conditional Access System Crypton. The encoded digital TV- programs can be grouped to the service packets containing a common list of subscribers and using the same scrambling key. There are up to 8 service packets available.

Subscriber service independently for each service packet addresses up to 256.000 of subscribers at the continuous 16,000,000-address space of Conditional Access System "Crypton".

Typical applications of COD910ASI are head-end stations of digital cable, MITRIS, MMDS- and LMDS- networks.

Scope:

- **Digital ASI input and output.** As input data by ASI interface COD910ASI receives a pre-generated and appropriately multiplexed DVB-stream. Such a solution allows minimizing the initial signal's quality loss and reducing the transition parts' quantity. The signal at the output of COD910ASI could be fed to the channel modulator supporting ASI interface.
- **Up to 32 digital TV and radio programs.** Input stream could be consisted of many programs. Up to 16 TV- and radio -programs that are to be integrated into the packets and scrambled could be selected during the system's configuration. The remaining programs (if there are any) would pass to the output of COD910ASI without any modification.
- **Up to 8 service packets.** Programs are packetized in arbitrary order by aid of a new feature provided in COD910ASI. Any quantity of digital programs could be inserted into each packet. Different packets are scrambled with various dynamic keys.
- **DVB-compatible scrambler.** The scrambler is a realization of a Common Scrambler Algorithm, described in DVB-CAS ETR-289 specification.
- **TCP/IP network.** Connection between COD910ASI and operator's control computer is done via equipment of TCP/IP networks.
- **Reliable software.** "Crypton DTV Master" software package allows controlling and monitoring the status of network devices in real time.

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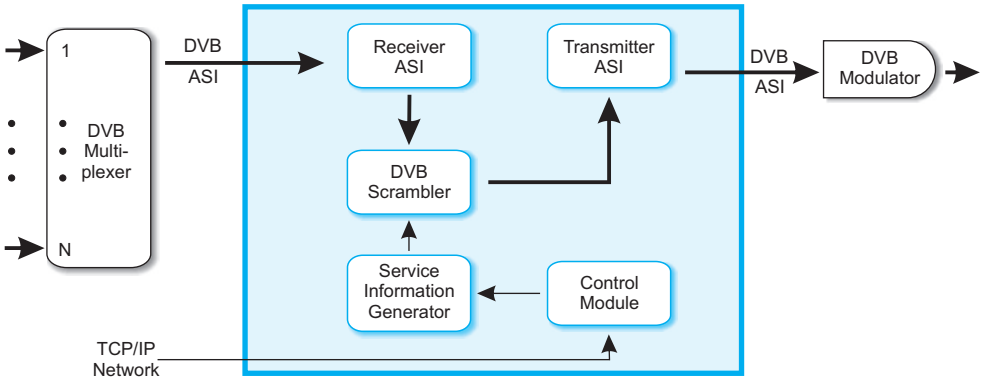
Скремблер Crypton

Functional block diagram COD910ASI:



Concise description of COD910ASI units:

ASI receiver. A special-purpose ASI signal receiver is used to convert input stream arriving at ASI interface into internal parallel interface.

DVB Scrambler. The scrambler used in COD910ASI is a DVB-compatible and complies with DVB-CAS ETR-289 specification. It generates a selective scrambling of digital TV- programs. The main purpose of scrambling is to exclude unauthorized viewing of the TV- programs.

Service information generator. Service Information Generator performs insertion of control messages, so the receiver may decide what to do with the selected TV-channel.

Control module. The Control Module is used for the following operational tasks: subscribers control, service packets generation, status information collection and so on.

ASI Transmitter. Special-purpose ASI signal receiver is used to convert output stream from internal parallel interface into ASI.

Technical characteristics

Input	**DVB ASI (in accordance with EN50083-9)** •Quantity: 1 multiplexed input (32 programs maximum) •Type: electric	•Rate: Up to 54 Mbps on each input •Connector: BNC
Processing	**Conditional access** •Built-in DVB-compliant scrambler •Conditional Access System "Crypton" corresponds to ETR-289, DVB Simulcrypt	•Maximum quantity of service packs being scrambled:8 •Maximum quantity of programs being scrambled: 16
Output	**DVB ASI (according to EN50083-9)** •Quantity: 1 •Type: electrical	•Output bitrate: 54 Mbs/sec •Connector: BNC
Control and monitoring	•Ethernet (TCP/IP)	•Software «CryptOn DTV Master»
Physical characteristics	**Size** •2U(19" rack) •93mm x 482,6mm x 336mm •3.65" x 19" x 13.25” •Weight: 3,9 kg	**Power** •90-260V AC 50/60 Hz •Power consumption: 45W max
Environmental conditions	**Operation** •Temperature 0 °C - +45 °C •Humidity: 5-85 % (non-condensing)	**Storage and transportation** •Temperature: -40 °C - +70 °C •Humidity: 0% - 85% (non-condensing)

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