



PLAYOUT PROFESSIONAL

EiTV Playout Professional is a professional equipment of high availability focused for operation in generating broadcasters Digital TV fully compliant with the specifications of the Brazilian standard ISDB-TB or SBTVD.

The equipment offers the best cost-benefit relation since it integrates different functions which normally are done by specific equipments. The functions implementer EiTV Playout Professional performs the following functions:

- ▼ SI Server
- ▼ EPG Server
- ▼ Subtitles Server (Closed Caption)
- ▼ Data Server (Ginga/OAD/Logo)
- ▼ EWBS



Main Functions (Functions Implementer)

SI Server

- ▼ Multiplexing and generation of SI according to Brazilian Standard ABNT NBR 15603;
- ▼ Generation of information tables PAT, PMT, NIT, CAT, EIT, SDT, TDT, TOT, BIT, CDT, SDTT e AIT;
- ▼ Setting the timezone for automatic adjustment of time based on UTC;
- ▼ Configuration of the tables that will be generated in the transport stream;
- ▼ Number Configuration of virtual channel;
- ▼ Configuration of service id;
- ▼ Repetition Rate configuration of the tables in milliseconds;

EPG Server

- ▼ Multiplexing and generating EPG according to Brazilian Standard ABNT NBR 15603;
- ▼ Generation of H-EIT, M-EIT e L-EIT;
- ▼ Generation of EIT p / f and EIT scheduling for electronic program guide;
- ▼ Information about date, time, duration, title, subtitle and description of programs;
- ▼ EIT Descriptors (short event, parental rating, audio component, digital copy control, series descriptor, extended event descriptor);
- ▼ Automatic update of EIT tables based on XML file and FTP protocol;
- ▼ Graphic interface (WEB) for generation of events;
- ▼ Synchronization with external clock via NTP;
- ▼ Allows EPG incoming via USB and RJ45 interface;
- ▼ Works independently and simultaneously with multiple streams of EPG (independent video channels);
- ▼ Supports redundancy mode with single insertion events;

Subtitles Server (Closed Caption)

- ▶ Compliant with norms ABNT NBR 15606-1 e ARIB STD-B24 VOL1 PART 3;
- ▶ Generate real-time subtitle and superimpose character;
- ▶ Support for closed caption roll-up and pop-up;
- ▶ Signal input via:
 - ▶ Composite Video (NTSC/PAL-M);
 - ▶ Serial (CEA-608) from interface RS-232;
 - ▶ Ethernet (TCP/UDP);
 - ▶ HD-SDI (CEA-708) and SD-SDI (CEA-608);
- ▶ Configuration of PID and language output stream of closed caption (CC);
- ▶ Support the generation of multiple streams of simultaneous CC (HD, SD, 1SEG, multi-language) and independent sources;
- ▶ Generation of PTS for synchronization with the stream A / V;
- ▶ Real-time output stream multiplexed with CC via ASI interface;
- ▶ Works independently and simultaneously with several subtitle streams (video channels independent);

Data Server (Ginga/OAD)

- ▶ Data coding according to Brazilian Standard ABNT NBR 15606;
- ▶ Carousel generation of DSM-CC objects;
- ▶ Support applications GINGA-J and GINGA-NCL;
- ▶ Insert real-time carousel objects / data in the transport stream;
- ▶ Configuration of organization id and application id;
- ▶ Configuration option to auto start;
- ▶ Data Descriptors (association tag, component tag, carousel id, data broadcast id);
- ▶ AIT Descriptors (application signalling, transport protocol, application descriptor, control code);
- ▶ GINGA Descriptors (optional flags, document resolution, content ID, default version, language);
- ▶ Bitrate configuration of application transmission;
- ▶ Configuration of PIDs of AIT and data stream;
- ▶ Generation of Stream Events DSM-CC;
- ▶ Automatic updating of applications based on XML file and FTP protocol;
- ▶ Scheduling automatic transmission, start and stop applications via XML or via the graphical user interface EPG;
- ▶ Automatic scheduling of sending via XML Stream Events;
- ▶ Allows entry of interactivity interface via USB and RJ45;
- ▶ OAD: receptor software update by AIR;
- ▶ Carousel generation of DSM-CC data;
- ▶ Generations of tables SDTT, DII e DDB for OAD;
- ▶ Support two models of OAD: TS generated by the issuer and by the manufacturer;

EWBS

- ▶ Warning system when exists an emergency in a particular region of the country.
- ▶ The signal is transmitted in TMCC and TV's receivers are responsible for warning people of imminent danger.
- ▶ Displays a message on the screen as emergency Superimposed.

Additional functions (Mux backup / main Remux)

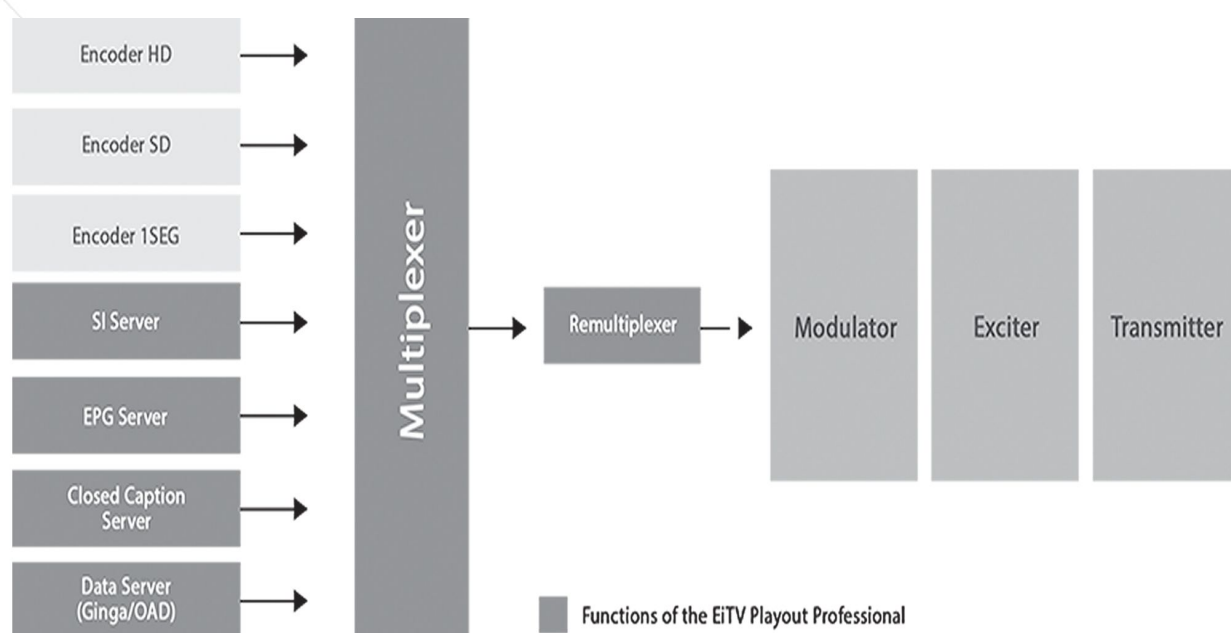
Multiplexer

- ▶ Multiplexing transport stream according to Brazilian Standard ABNT NBR 15603;
- ▶ Up to 4 independent ASI inputs for multiplexing real-time;
- ▶ Integration with external encoders via ASI inputs;
- ▶ Automatic Multiplexing A / V, SI, EPG, closed caption and object carousel;
- ▶ Filtering of PIDs, tables and regeneration of TS or BTS data in real time;
- ▶ TS or BTS Input in real time via ASI interface;

Remultiplexer

- ▶ TS re-multiplexing conforms to Brazilian Standard ABNT NBR 15601;
- ▶ Transport flow generation organized into hierarchical layers (layers A, B, C);
- ▶ Generation of IIP package (ISDB-T Information Packet);
- ▶ Generation of TMCC information (Transmission and Multiplexing Configuration Control);
- ▶ Configuration of transmission mode and guard interval;
- ▶ Configuration of segments, modulation, code rate and time interleaving of layers;
- ▶ Streaming content 1-SEG for partial reception;
- ▶ Configuration to enable emergency flag;
- ▶ Auto Sort of package for construction of OFDM frame;
- ▶ Signals generation for transmission HDTV, SDTV and Mobile TV;
- ▶ Option to input external reference clock of 10Mhz;
- ▶ BTS output in real time via ASI or SPI interface ;

Functions of the Equipment in a TV Station



Hardware Specifications

ASI/SDI Input Interfaces

- ▶ Physical Layer ASI: EN50083-9;
- ▶ Connectors DVB-ASI: 75-Ω BNC;
- ▶ Transmission Rate: 0...214 Mbps;
- ▶ Input Return Loss: > 17 dB;
- ▶ Error Free Cable Length: 300m max;
- ▶ Packet Size: 188 or 204;

ASI/SDI Output Interfaces

- ▶ Physical Layer ASI: EN50083-9;
- ▶ Connector DVB-ASI: 75-Ω BNC;
- ▶ Transmission Rate: 0...214 Mbps;
- ▶ Transmit Rate Resolution: < 1 bps;
- ▶ Transmit Rate Stability: < ±10 ppm;
- ▶ Burst Mode On/Off: yes;
- ▶ Maximum Jitter: 70 ns p-p;
- ▶ Packet Size: 188 or 204;

Equipment Photos



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