

ISMUX-004

Providing market leading solutions.
Enabling the broadcaster to do more with less.



The ISMUX-004 multiplexer delivers in its output a BTS (Broadcast Transport Stream) generated from the combination of up to eight TS (Transport Streams) inputs. It performs PID filtering and remapping, besides enabling the transmission of interactivity**, closed caption** and EPG**.

The ISMUX controls transmission parameters, such as hierarchical layers settings – number of segments, convolutional code rate, modulation and time interleaving – guard interval and operation mode.

Features & Highlights

SI/PSI Tables Generator Software

Included software that generates the following essential SI/PSI tables: PAT, PMT, SDT, NIT, CAT and BIT. It has a friendly interface and communicates via Ethernet with the ISMUX. Allows, in certain cases, independent playout operation.

Integrated BTS Compressor and Decompressor (Exclusive)

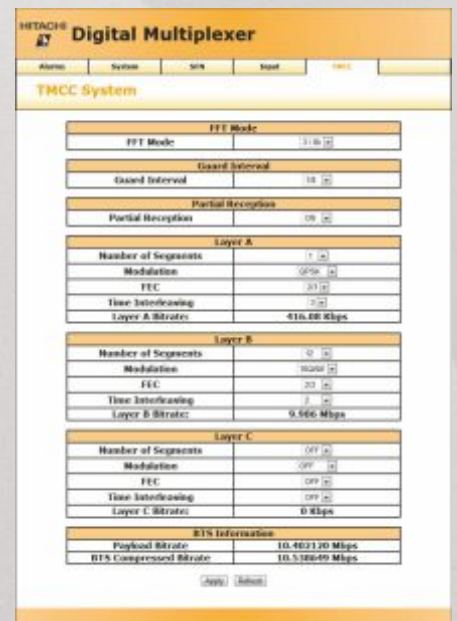
It has an integrated system for BTS compression and decompression, which enables BTS transport, without loss of useful information, using less bandwidth and 188 byte packets.

Integrated Satellite Receiver (Exclusive)

It has integrated (optional) satellite receiver, L-band, DVB-S/S2 standard, which enables the reception of a satellite signal, compressed TS or BTS. The signal received can be multiplexed with other streams or sent directly to the output.

SFN (Exclusive)

EXCLUSIVE: It allows SFN (Single Frequency Network) operation and management. It generates and transmits the necessary information to control each transmitter in the SFN network.



The ISMUX Multiplexer is implemented by dedicated hardware (FPGA) and has a friendly WEB configuration interface.



ISMUX-004 - ISDB-TB MULTIPLEXER

Highlights

- Developed for H.264 and MPEG-2;
- Allows interactivity transmission – GINGA**;
- Allows Closed Caption transmission**;
- Allows EPG transmission**;
- Follows the recommendations of brazilian standard (ABNT);
- Configuration via embedded WEB server / SNMP;
- Embedded BTS Compressor and Descompressor;
- 8 DVB-ASI inputs;
- Two configurable, independent ASI outputs: BTS, compressed BTS or decompressed BTS;
- PID filtering and remaping, up to 40 PIDs for each ASI port;
- Allows hierarchical transmission (up to 3 layers);
- PCR Correction;
- SFN network configuration up to 29 transmitters;
- Dedicated input for playout;
- Monitoring of signals through alarms.
- Test signals generation to test microwave and others equipment;
- Able to work in redundant transmission mode;
- Exclusive standalone software to generate system required tables (PAT, PMT, NIT, SDT, BIT e CAT).
- Stores system required tables (PAT, PMT, NIT, SDT, BIT and CAT) in case of playout shutdown.
- Ethernet (10/100 Base T) for equipment configuration;
- Dedicated Ethernet (10/100 Base T) interface to stream;
- Allows changing the virtual channel.

Includes

- Manual in english.

Options

- Satellite Receiver, DVB-S/S2 standard;
- Integrated GPS.

Important

- *The input rate must comply with the hierarchical layers configuration (ARIB STD-B31).
- **EPG, Closed Caption and Ginga only possible with use of optional playout.

Technical Specifications

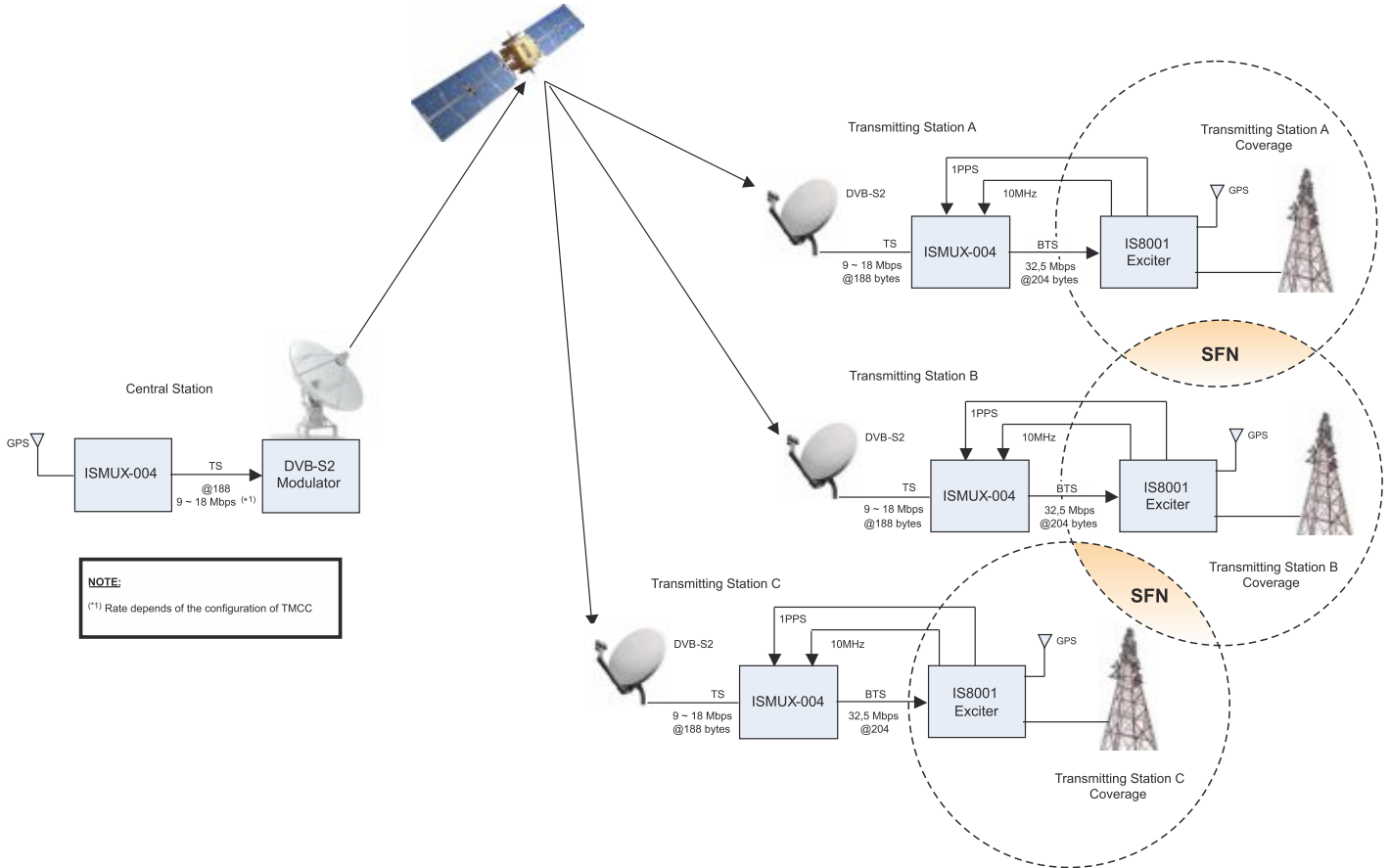
INPUTS	BNC CONNECTOR
TS	
Format	DVB-ASI 188/204 bytes continuous or burst mode
Input rate	up to 23,234Mbps*
Impedance	75Ω

INPUT	F CONNECTOR
RF	
Frequency	L-Band - 950 to 2250 MHz
Standard	DVB-S / DVB-S2
Modulation	QPSK (DVB-S) QPSK - 8PSK (DVB-S2)
LNB Power	+ 13 / +18 Volts

BTS OUTPUTS	
Signal type	DVB ASI
BTS Specifications	Data structure based on standard ARIB STD-B31 and ABNT NBR 15601:2007
Bit rate	512X4/63 Mbps (~32,508Mbps)
Impedance	75Ω
Connector	BNC
Numbers of outputs	02

GENERAL	
Power Supply (43-63Hz)	90 - 240Vac
Consumption	20W
Dimmensions (mm)	19" = 44(H) x 483(W) x 422(D)
Net weight	5,8kg

Application



Note:

Hitachi Kokusai Linear's BTS compression method allows DVB-S/S2 equipment to transparently decode the signal (Transport Stream). Hitachi Kokusai Linear doesn't guarantee that other manufacture's equipment will be able to restore the compressed BTS in order to allow for SFN networks (the compression algorithm is not defined under the ARIB or ABNT norms, and is a proprietary implementation of each manufacturer).

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