XBT 525

DVB TS SFN Multiplexer

> XBT 525

XBT525 SFN Multiplexer is a dual multiplexer and a dual synchronous SFN adapter allowing easy creation of DVB–T/H SFN systems.

XBT525 MFP Multiplexer performs the following basic functions:

- GPS receiver capable of synchronizing internal time generators
- Megaframe Information Packets generation (2x – one for High Priority, other for Low priority) with internal carousel of functions
- Software interface for external carousel of MIP functions
- 16 Carousel of PSI/SI tables with variable bit rate(2x – one for High Priority, other for Low priority)
- Software interface to external PSI/SI tables generators
- Storage of internal carousels content
- Multiplexing (2x – one for High Priority, other for Low priority) of
    - Multiplex Information Packets
    - 4 transport streams selected between 10 physical inputs with PCR re-stamping
    - PSI/SI packets from carousels
- PID filtering and re-mapping on each logical input (4x2 - four for High Priority, other for Low priority)
- Network adaptation to the exact bit rate (2x – one for High Priority, other for Low priority) according to DVB-T/H RF parameters with PCR re-stamping
- Graphical display of input TS data based on SI/PSI analysis
- Option "8IN": Multiplexing of 8 logical inputs in a single output TS instead of 4 for 2 channels

Inputs to multiplexers are:

- 8 ASI Transport Streams (or 4 ASI for HP and 4 ASI for LP)
- 1 SPI connector for multiplexer extension
- 2 RTP clients for RTP/UDP encapsulated Transport Streams on 2 different sockets on single ethernet port

Outputs from multiplexers are:

- 4 ASI Transport Streams carrying 2High Priority Transport Stream and 2 Low Priority transport stream
- 2 RTP/UDP Server carrying encapsulated Transport Stream for High and Low Priority on 2 different IP address
- IGMP generation
- SPI output for system extension

As any multiplexer of the XBT family, it has built-in:

- Web server to dispatch a Java applet for interactive management
- Java applet tested on most popular browser
- Java applet downloadable for local execution
- SNMP server for remote control
- internal file system accessible via TCP/IP and TFTP protocols for easy remote upgrade
- ultra fast storage are for event system storage
- telnet server for access via character based terminals
- Geographical coordinates available
- Battery powered local time clock automatically synchronized to UTC
- 8 trap address for automatic alarm/monitoring

Main Features

Remote control interfaces

RS–232

- Dedicated DB9 connector
- Data only
- Also available on remote control DB25 connector
- 230400 bps

Relays

- 4 relays for alarm/info
- NO & NC contacts at connector
- Available on remote control DB25 connector

Opto couplers

- 4 opto couplers for command
- Internal floating current generator
- Common anode
- 2 mA max on current

Functions

- Default: 1 relay alarm/ok
- Option "N1": use relay and opto for SSBT N+1 system
- Option "ALG": use relay and opto according RAI specs

ScreenService

PHYSICAL

Rack frame	1U
Size	(W) 484 mm x (H) 45 mm x (D) 346 mm
Weight	4kg

POWER SUPPLY

90–270 VAC PFC corrected power supply

Nominal power 38 VA

Power factor: 0.95

Max inrush current 15A

M6 screw for extra ground connection

Power cord	Default - Italy
	Option "UK" - UK standard
	Option "DIN" - Germany and central Europe DIN connector
	Option "US" - US standard

ASI INPUTS

EN 500083-9 compliant

BNC connectors 75 ohm

Maximum bit rate 155 Mbit

SPI INPUT

EN 500083-9 compliant

DB25 female connector

Maximum bit rate 27 Mbytes

ETHERNET CONNECTION

10/100/1000 Mbit Ethernet connector

1 IP address for web server, management, SNMP server, Telnet, TFTP and remote update

2 IP address/port for RTP/UDP servers

2 IP address/port for RTP/UDP clients

RTP protocol: ProMpeg cop3 with no FEC packet processing/generation, selectable 90KHz/27MHz timestamps

GPS INPUT

TNC connector 50 ohm

Phantom power 3 Volt 50 mA short circuit protected

GPS L1

12 channel simultaneous operation

45 s typical cold start TTFF

38 s typical warm start TTFF

5 s typical hot start TTFF

<0.5 s reacquisition

Sensitivity Acquisition/Tracking –185dBW / –185dBW

30ns rms accuracy, <10ns resolution

ASI OUTPUT

EN 500083-9 compliant

BNC connectors 75 ohm

Maximum bit rate 155 Mbit

SPI OUTPUT

EN 500083-9 compliant

DB25 female connector

Maximum bit rate 27 Mbytes

FRONT PANEL

4 x 20 alpha displays

8 button navigation

Basic setup and status

REFERENCE INPUTS

10MHz	SMB connector
	1Vpp sine
	50 ohm terminated
	AC coupled
	Option "HIZ" available
1 sec PPS	SMB connector
	0.4 VIL
	1.7 VIH
	Dc coupled
	50 ohm terminated
	Option "HIZ" available

REFERENCE OUTPUTS

10MHz	SMB connector
	1Vpp sine
	50 ohm
	DC coupled
1 sec PPS	SMB connector
	0.2 VOL @ 64 mA IOL
	2.2 VOH @ 64 mwA IOH
	Dc coupled
	50 ohm capable

SOFTWARE

Java applet requires Java 6 Version 13 or more recent

Java applet tested on Safari, Internet Explorer, Mozilla

Browser will download automatically suitable version of Java if connected to internet

SNMP is version 1 compliant

MIB files included in CD

Available Options

- "8IN" – Multiplexing of 8 logical inputs in a single output TS instead of 4 for 2 channels
- "UK" – UK standard power cord
- "DIN" – Germany and central Europe DIN connector
- "US" – US standard power cord
- "HIZ" – 10MHz option "HIZ" available
- "HIZ" – 1 sec PPS option "HIZ" available
- "N1" – use relay and opto for SSBT N+1 system
- ALG" – use relay and opto according RAI specs