

MFP Multiplexer (Metric Feed Packets)



> XBT 538

XBT538 MFP Multiplexer is the head end main building block of the powerful SSBT regionalization system.

XBT538 MFP Multiplexer performs the following basic functions:

- GPS receiver capable of synchronizing internal time generators
- Metric Feed Packets generation
- Multiplexing of Metric Feed Packets and 4 transport streams selected between 11 physical inputs with PCR re-stamping
- Perform network adaptation to the final Fat Pipe output transport stream bit rate

Inputs to multiplexer are:

- 8 ASI transport streams
- 1 SPI connector for multiplexer extension
- 2 RTP clients for RTP/UDP encapsulated Transport Streams on 2 sockets on single ethernet port

Outputs from multiplexer are:

- 4 ASI transport streams carrying all the same MFP transport stream
- 1 RTP/UDP Server carrying encapsulated Transport stream
- 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



| 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 | |
| 1 IP address for RTP/UDP server | |
| 1 IP address for RTP/UDP client | |
| RTP protocol: ProMpeg cop3 with no FEC packet processing/generation | |

| 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 TTF | |
| 38 s typical warm start TTF | |
| 5 s typical hot start TTF | |
| <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 as per DVB-T standard | |

| SPI OUTPUT | |
|--|--|
| EN 500083-9 compliant | |
| DB25 female connector | |
| Maximum bit rate as per DVB-T standard | |

| 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 mA 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

- "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 SSB T N+1 system