

## SPEED Multiplexer Mobile

SPEED Multiplexer mobile is the most flexible and scalable solution for ATSC Mobile DTV presenting a complete list of features from Preprocessor of the Mobile Stream to aggregation of the legacy ATSC and mobile ATSC MH streams into your Transmitter.



> XBT 667 - Multiplexer Mobile



### Main Features

#### Preprocessor:

##### MH Preprocessor:

- Real Time multiplexes of Mobile A/V, Data and ESG
- Information editing function of FIC, TPC, Signaling generator (SMT, GAT, SLT, CIT and RRT)
- Internal generation of SSC IP packet for each ensembles for each parade
- Dedicated Gigabit port for ATSC-MH services
- Perform single and multiple ensemble
- Perform up to 16 parades and up to 32 ensembles
- Support all modes in the ATSC A/153 standard to calibrate the right quality-of video/number-of-channel ratio
- Output interleaved transport stream by multiplexing MHE packet MH PART (MH data) and Legacy ATSC
- Packet timing and PCR restamping for the legacy ATSC packets.



### INPUT TO MULTIPLEXER ARE:

- 1 ASI/SSI transport streams
- 1 GBe port for MH services

### OUTPUTS FROM MULTIPLEXER ARE:

- 4 ASI transport streams carrying all the same transport stream out

### 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
- GPS receiver capable of synchronizing internal time generators
- Internal file system accessible via TCP/IP and TFTP protocols for easy remote upgrade
- 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 Physical

### PHYSICAL

1U rack frame

#### Size:

W: 19,05"

H: 1,7"

Lbs: 8,81 (kg 4)

#### Size

D: 13,62"

### 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: US standard

### ASI INPUTS

EN 500083-9 compliant

BNC connectors 75 ohm

ATSC bit rate

### SSI INPUTS

EN 500083-9 compliant

BNC connectors 75 ohm

ATSC bit rate

### 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

Optional NTP client

### 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

### FRONT PANEL

4 x 20 alpha displays

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      |

### REMOTE CONTROL INTERFACES

|                     |   |
|---------------------|---|
| RS-232              | Dedicated DB9 connector                             |
|                     | Data only   |
|                     | Also available on remote control DB25 connector     |
| 230kbit             |   |
| 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 |

### 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