



EMMA MIP Inserter

EMMA MIP Inserter is a product designed for DVB-T and DVB-H SFN networks.

The product integrates a user friendly Website and a SNMP agent which allows the control over a TCP/IP network.

Up to 50 transmitters can be managed, for both DVB-T and DVB-H transport streams.

Standard Features

DVB-T and DVB-H compatible

GPS Synchronization (1PPS and 10MHz)

Hierarchical mode supported

EN 50083 compliant

TCP/IP remote access

Embedded Website

SNMP Agent (V1 and V2c)

Up to 50 transmitters

Log files

Alarms management

Relay outputs

Compatible with EMMA Transmitters Range

Overview

The EMMA MIP Inserter is a compact high performance DVB-T & DVB-H unit, addressing broadcasters who want to build Single Frequency Network (SFN).

Generally located just after a DVB multiplexer, it performs the computation and the insertion of the Mega frame Information Packet (MIP) in the MPEG-TS flow according to the ETSI recommendations TS 101 191 and EN 300744.

Signal processing

The EMMA MIP inserter supports all DVB-T and DVB-H modes (2k/4k/8k) with all channel bandwidths (5, 6, 7, 8 MHz). Thanks to the 2 ASI inputs and 2 ASI outputs, a single unit is able to perform the MIP insertion in non hierarchical mode as well as in hierarchical mode.

In non hierarchical mode:

- The 2 ASI inputs could be used for redundancy,
- The 2 ASI outputs generate the same signal.

In hierarchical mode:

- The 2 ASI inputs receive the 2 transport stream flows (HP & LP) coming from 2 DVB multiplexers,
- The 2 ASI outputs generate the HP and LP flows, ready to feed the modulator through a transport network.

GPS reference

The reference signals are processed (1 PPS and 10 MHz) coming from a GPS receiver in order to compute the time stamp information that are part of the MIP packet. The powerful management of the synchronization signals allows reliable operations even in case of a loss of reference signals and minimizes the resulting disturbances.

Control

The configuration can be done locally, using both the front panel display and a set of operating buttons.

Moreover, an embedded Website allows to control the unit remotely, using a standard Web browser over a TCP/IP network.

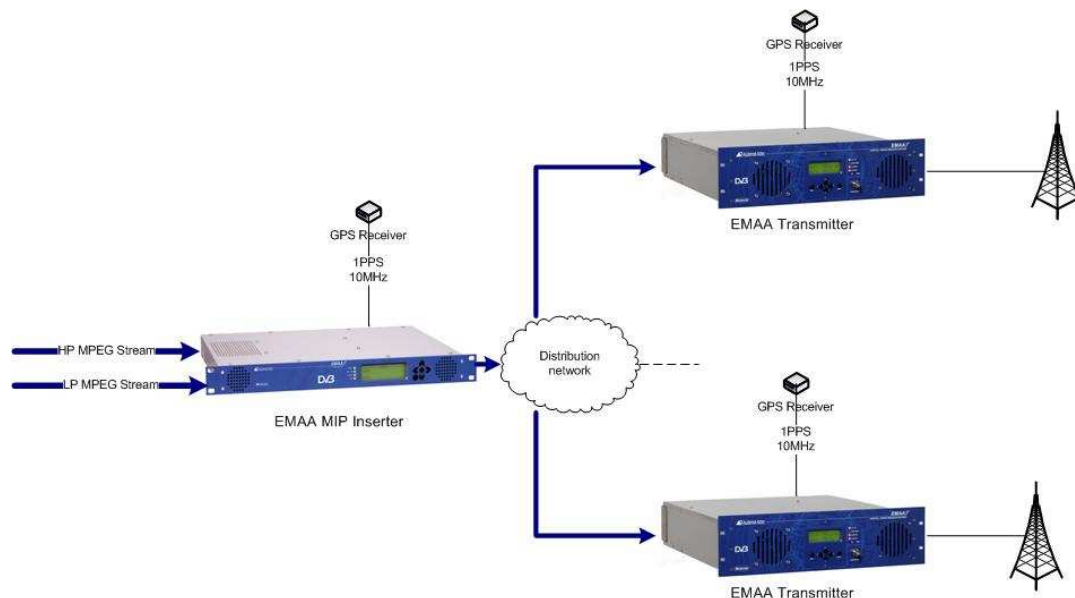
Alarms

With the build-in SNMP agent (compatible V1 and V2c), the MIP inserter is able to send alarms automatically to a central SNMP manager.

In addition, EMMA MIP Inserter includes relays outputs which can be triggered by the alarms.

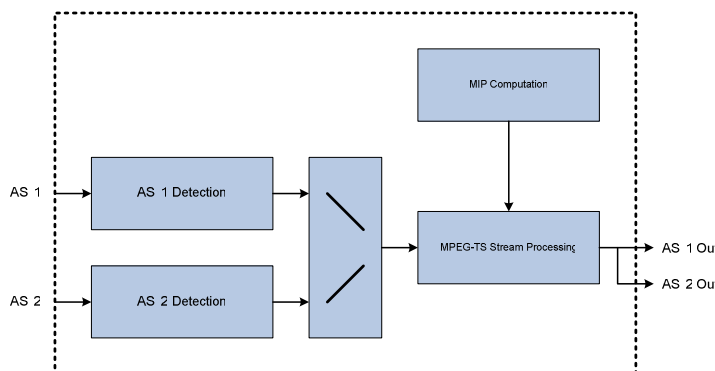


EMAA MIP Inserter

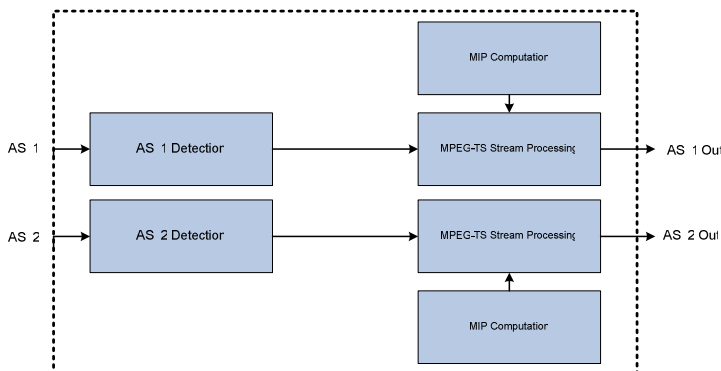


Example of installation with EMAA Transmitters

The EMAA MIP Inserter can be configured either in hierarchical or non hierarchical mode. The whole operation is controlled through a micro controller that manages the external control interface.



MPEG-TS Input processing in non hierarchical mode



MPEG-TS Input processing in hierarchical mode

Technical Specifications

TS Input

Bandwidths: 5/6/7/8 MHz
 Constellations: QPSK, 16-QAM, 64 QAM
 IFFT Modes: 2k/4k/8k
 Guard Intervals: 1/4, 1/8, 1/16, 1/32
 MPEG TS outputs: 188 or 204 bytes per packet format

Compliance

DVB Standards: TS 101 191 and EN 300 744

Hardware description

Size: 1U 19" rack (440 X 44 X 454 mm)
 Weight : ~ 7 Kg
 Power supply : 110V-240V

Communication protocols

HTTP, FTP, SNMP, SNTIP

Connectors

Power supply
 1 PPS (SMA with BNC adapter)
 10 Mhz (SMA with BNC adapter)
 COM0 (RS232)
 ASI 1 IN (SMA with BNC adapter)
 ASI 2 IN (SMA with BNC adapter)
 ASI 1 OUT (SMA with BNC adapter)
 ASI 2 OUT (SMA with BNC adapter)
 Network (10/100 Base T)
 Alarms (DB25)
 Aux. (USB)



contact@audemat-aztec.com - www.audemat-aztec.com

Head office:

20, avenue Neil Armstrong - F-33700 Bordeaux-Mérignac - FRANCE
 Tel: +33 (0)557 928 928 - Fax: +33 (0)557 928 929

US office:

1021 Ives Dairy Road, Suite #216 - Miami, Florida 33179 - USA
 Tel: +1(305) 249 3110 - Fax: +1(305) 249 3113

