

Product Features

- *The CMMB Multiplexer option provides frame generation that is compliant with Mobile Multimedia Broadcasting specifications*
- *One or two frequencies, user configured - Upgradable to up to 6 frequencies*
- *Up to 160 services*
- *IPv4 and IPv6 support*
- *Control Information Table generation: NIT, CMCT, CSCT, SMCT, SSCT, ESG Basic Description Table, Urgent Broadcast Table and Conditional Access Table*
- *Bandwidth: 8 MHz*
- *Three modes of interleaving*
- *LDPC Code Rate: 1/2 and 3/4*
- *Internal GPS*
- *Optional Hot Swapping between main and backup multiplexers*

Product Description

Multiplexing is used to encapsulate multiple Audio, Video, and Data services and Control information in Multiplex Frames (MMB Part 1, 2).

The main functions of the multiplexer are: receive the incoming data; prepare control and service information tables; encapsulate the data in frames depending on the data type and classification criteria; schedule time slots maintaining appropriate FIFO levels; and distribute the multiplexed service and control tables as MPEG-2 TS packets to modulators through ASI interfaces.

The multiplexer can be used in two possible scenarios: at the Head-End as a central multiplexer of global services, simultaneously multiplexing one or two networks (1), or locally as a multiplexer of local content (2). The multiplexer is designed to satisfy the requirements in both scenarios and operate in either of them with minimal configuration.

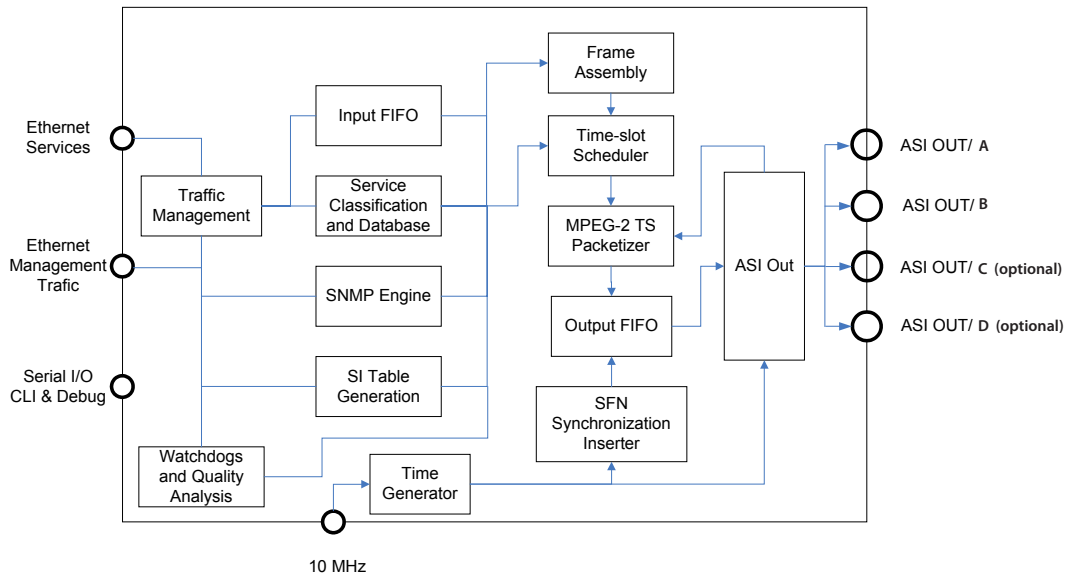


Standards Compliance

- *Mobile Multimedia Broadcasting Part 1: Framing Structure, Channel Coding and Modulation for Broadcasting Channel, CMMB*
- *Mobile Multimedia Broadcasting Part 2: Multiplexing, CMMB Technical Working Group*
- *Mobile Multimedia Broadcasting Part 3: ESG Guide*
- *Mobile Multimedia Broadcasting Part 4: Urgent Broadcast*
- *Mobile Multimedia Broadcasting Part 5: Data Broadcast*
- *Mobile Multimedia Broadcasting Part 6: Conditional Access*
- *Mobile Multimedia Broadcasting System Multiplexer Technical Requirement V2.10*
- *Mobile Multimedia Broadcasting System: Encryption & Authorization Multiplexing V2.01*
- *H.264 Final Draft, ISO/IEC 14496-10 AVC*
- *Internet Protocol, RFC 0760*
- *Internet Protocol, Version 6 (IPv6), RFC 2460*
- *User Datagram Protocol, IEN-88*
- *RTP: A Transport Protocol for Real-Time Applications, RFC 3550*
- *SDP Session Description Protocol, RFC 2327*
- *RTP Payload Format for H.264 Video, RFC 3984*
- *RTP Payload Format for AC-3 Audio, RFC 4184*
- *RTP Profile for Audio and Video Conferences with Minimal Control, RFC 1890*
- *ISO/IEC 13818-1*

CMMB Multiplexer

Model: UNA 7000



UNA 7000 - CMMB Multiplexer Block Diagram

Product Specifications

Signal Input

Input	Services
Interface	Ethernet 10/100/1000 Base-T (SVC)
Connector	RJ45

Signal Output

Output	CMMB Multiplexed Transport Stream
Interface	ASI
Connector	BNC (F), 75 ohm (x2) Optional 4 output configuration for Hot Swapping between main and backup units.

GPS Antenna

Connector	F-type (F), 75 ohm
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Monitoring Outputs

10 MHz - Clock Reference	Connector: BNC (F), High Impedance Frequency: 10 MHz Level: 10 dBm, ± 2.5 dB sinewave
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1 PPS - Time Reference	Connector: BNC (F), High Impedance Frequency: 1 PPS Level: TTL Trigger: Positive transition
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Control Interfaces

Front Panel	LCD display and cursor/ execute keys
Ethernet Interface (SVC)	Connector: RJ45 Speed: 10/100/1000 Base-T
USB Interface	Connector: USB Type B
Web Interface	Internet Explorer 6.0+ Connectors: Ethernet (SVC)
SNMP Control Interface	Connectors: Ethernet (SVC) MIB's are provided
CLI	Connector: USB (HyperTerminal) or Ethernet SVC (HyperTerminal or Telnet)
Remote Control (optional)	Connector: DB9 (F) Used for optional Hot Swapping between main and backup units. Normal Open, used for remote shutdown.



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Rear Panel

Product Specifications

Power Supply

Voltage	100 - 240 VAC
Frequency	50 - 60 Hz
Power Consumption	max. 45 VA

Mechanical

Size	1 U of 19" wide cabinet
Dimensions (W x H x D)	48.3cm x 4.39cm x 42.7cm (19" x 1.73" x 16.8")
Weight	6 kg (13 lbs.)

Environmental

Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-30°C to 70°C (-22°F to 158°F)
Relative Humidity (operating/storage)	max. 95%, non condensing
Cooling	Temperature controlled fan to assist natural convection

ETSI Compliance

Essential Requirement	Standard / Specification
R&TTE Directive 1995/5/EC	
Safety	EN 60950-1: 2001, A11: 2004 First Edition
Health	Not applicable. No antenna.
EMC	EN 301 489-1 V1.8.1

CE Compliance

This equipment is CE Compliant.

