



APPLICATIONS

- Headend/Encoder for single frequency networks in FM (Ideal for roadway or coverage area expansion)
- Encoding of audio and RDS data with time stamp insertion for synchronization

KEY BENEFITS

- Field Proven: Used Worldwide
- Extremely portable solution supported on industrial PC platforms (1RU,2RU, 4RU)
- Flexible and compact all in one box solution: Multi-encoding and multi-multiplexing solution
- Easy to use thanks to user friendly GUIs and straight forward architecture
- Integrated GPS Receiver (optional)
- Seamless 1+1 redundancy

2RU CONFIGURATION



4RU CONFIGURATION



TECHNICAL SPECIFICATIONS

INPUTS / OUTPUTS

With internal audio PCI board (hardware option):

Up to 2 either

- digital audio (48kHz)/MPX (192kHz) input on XLR connectors

or

- analog audio input on XLR connector

With external audio panel (hardware option)

4 x digital (balanced, 110Ω) or 4x analog (balanced, 600Ω) audio input on female XLR inputs

IP output for synchronous FM distribution on Ethernet 10/100 Base T – RJ45 connector:

Either

- ETI FM Multiplex over DCP output for transport of MPEG 1/2 Layer 2 encoded audio

or

- MPXA Multiplex over DCP output for transport of 192kHz sampled MPX

Optional: UECP for RDS data on Ethernet or RS232 DB9 connector with interfaces tailored to the RDS distribution system of the operator

CONTROL AND MONITORING

Remote control through a web server with user friendly GUI

SNMP Monitoring (MIB V2)

FEATURES

One box solution for Synchronous FM head end

Different industrial PC platforms on Windows OS available: 4RU, 2RU, 1 RU. Dual auto-range power supply, RAID Hard Disk Redundant System for 2RU and 4RU IPCs.

Multi-encoder for different audio contents

MFN and SFN operation (NTP client included)

Hardware Option: PCIe board with integrated GPS Receiver and NTP server for synchronization

SOFTWARE OPTIONS

IP distribution transport type: MPXA Multiplexer:

- MPX over IP with uncompressed audio
- or
- ETI FM Multiplexer: MPEG 1/2 Layer 2 encoded audio over IP

MPX formatter for creation of MPX from separated audio and RDS inputs

Additional MPEG ½ Layer 2 audio encoder

Basic RDS data encoder software

UECP over IP Input

Audio over IP Input (AES67, MP3 over RTP, others on demand)

ELECTRICAL

AC Input: 110-240 V, 50/60 Hz

MECHANICAL

Temperature Range:

- Operating: 0°C to 50°C
- Storage: -20°C to 70°C

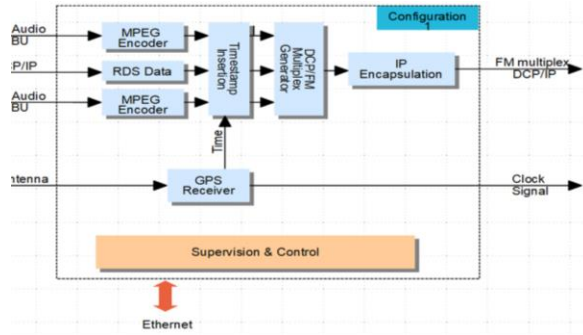
Humidity: 10% to 90% at 50°C

OPTIONAL AUDIO PANEL

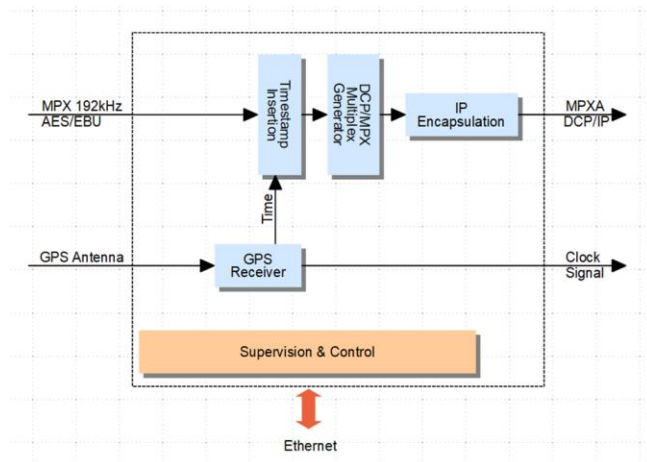


BLOCK DIAGRAMS

Audio Input and MPEG audio over IP transport (EDI)

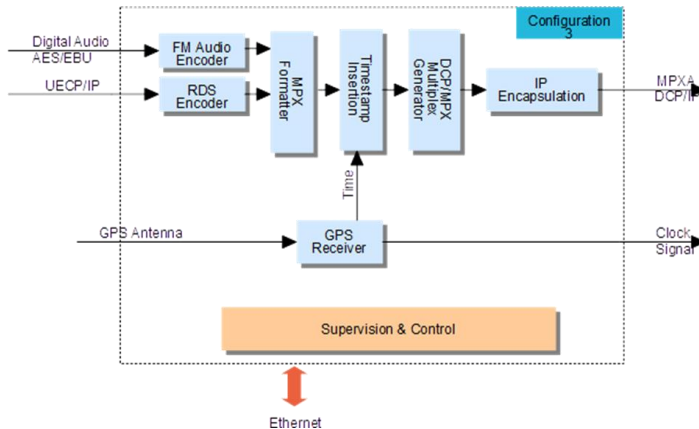


Digital MPX 192kHz Input and MPX over IP transport (MPXA)

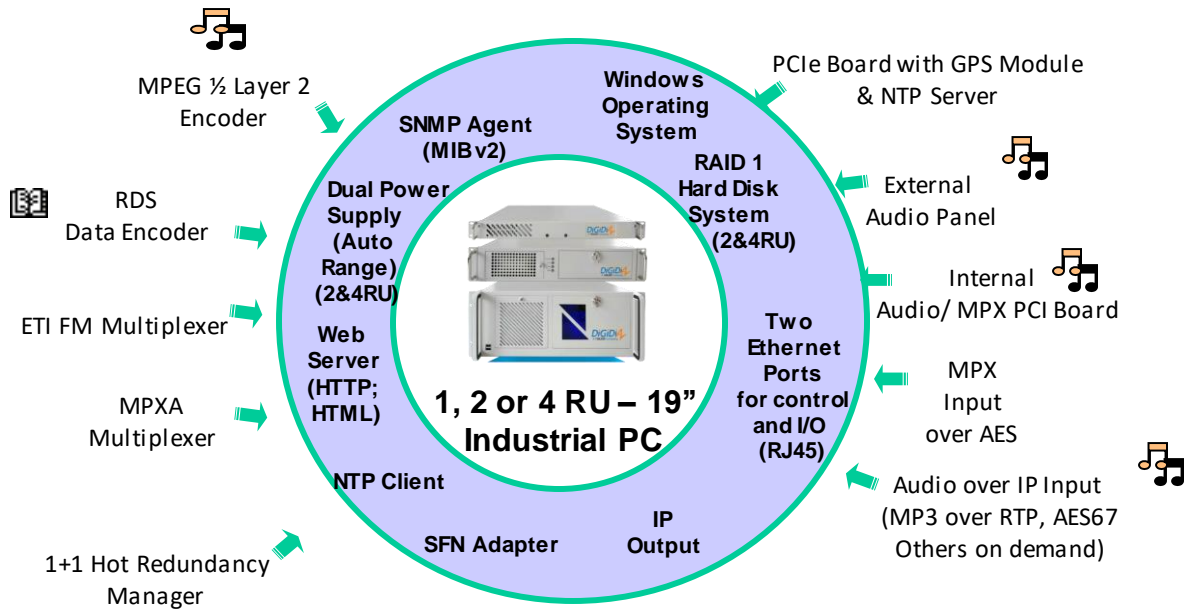


Digital Audio 48kHz and RDS Input with MPX over IP transport (MPXA)

(needs MPX Audio Formatting option)



CUSTOMIZE YOUR SYNCHRONOUS FM HEADEND



ORDERING INFORMATION

PC Platforms

~ OPT-IPC1RU	1RU Industrial PC Platform
~ OPT-IPC2RU	2RU Industrial PC Platform
~ OPT-IPC4RU	4RU Industrial PC Platform

ORDERING INFORMATION

HW Options

~ OPT-DUAL AUDIO	Internal Audio Board for up to 2 either digital audio or digital MPX or analog audio inputs
~ OPT-PANEL	Audio Panel (external 1RU hardware option, up to four analog or digital audio inputs)
~ OPT-GPSRX	PCIe board with GPS module and NTP server

IP Distribution Transport (select one of them)

~ OPT-SFM-MPXA MUX	MPX Transport over IP
~ OPT-SFM-ETI FM MUX	MPEG 1/2 Layer 2 Encoded Audio Transport over IP

SW Options

~ OPT-SFM-RDS INSERTER	RDS Inserter
~ OPT-SFM-ADDAUDIO	Additional Audio Encoder
~ OPT-SFM-MPXA GEN	Additional MPX over IP generators
~ OPT-SFM-MPXA FORMAT	MPX Audio Formatter (only if digital audio and RDS input)