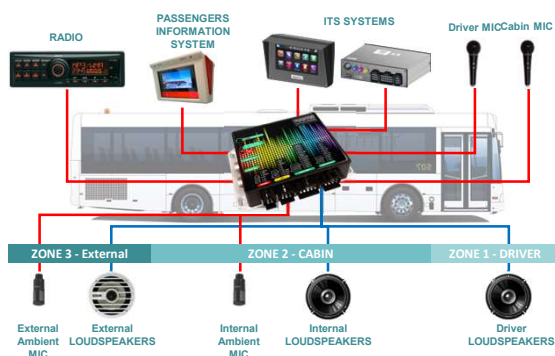# METATRONIX
Innovative Intelligent Transport Systems

AudioDSP

AudioDSP is an amplifier and audio dispatcher designed for Intelligent Transport System applications like Passengers Information System (P.I.S.), Next Stop Announcement (internal and external), Driver and Guide announcement, Multimedia Entertainment.

AudioDSP complies with ITxPT and EBSF requirements.

AudioDSP is based on DAP (Digital Audio Processor) managed by Metatronix Application Software and can be managed through the LAN interface.

- **FM radio/CD pass-through (2x stereo single ended or differential)**
- **Automatic Volume Control (Ambient noise compensation)**
  - Compensation made using the loudspeakers or dedicated microphones
  - Automatic volume control for external speakers (+5 dB)
  - Automatic volume control for internal speakers (+5 dB)
  - The output volume automatic control is available for ITS & Micro Sources
- **Micro amplification**
  - Driver Microphone amplification
  - Passenger Microphone amplification
- **ITS amplification with priority selection for:**
  - Passengers area
  - Drivers area
  - External area
- **Source management (dispatching)**
  - Audio input priority based on pre-configured rules
  - Audio output dispatching based on pre-configured rules

Technical data		
Dimensions	Approx. 175 x 134 x 40 mm	
Weight	Approx. 0,65 Kg	
Input voltage	9 to 36 VDC, Reverse polarity protection	
Operating voltage	24 Vdc	
Microphone Inputs	4 x input (Mono)	
	Input sensitivity	1mV
	Input impedance	200 Ω
	Frequency range	150 Hz - 6.5 kHz
Radio/media Audio Inputs	2 x Stereo Inputs (pass-through) Single-ended or differential	
ITS Audio Inputs	1 x Stereo Inputs	
	Input sensitivity	100mV - 1V
	Input impedance	> 10kΩ
	Frequency range	20Hz – 20kHz
	Type	Single ended, unbalanced
Nominal Power	2 x 20 W rms class-D Amplifier	
Output Impedance	4-8 Ohm	
Digital Input	6 x DI (Microphone PTT, Priority management, mute)	
Configuration	1 x PIN for Zone slector	
	1 x potentiometer for ITS volume setting	
Sound level	Automatic regulated with ambient noise (+5 dB)	
Environmental	Operating Temperature	-30° to +70° C, +80° for 30 min.
	Storage Temperature	-40° to +90° C
	Ambient Rel. Humidity	5 to 95% (non-condensing)
	Certification	E-mark ECE R10.05
	Compliance	EN 13149 parts, ITxPT
	Protection	IP 54

SOURCE	OUTPUT
Ampli Input1	Zone 1 (Driver) / Zone 1 + Zone 2
Ampli Input2	Zone 2 (Passengers)/ Not broadcasted
ITS Input	Passengers (Zone 2)
	Driver (Zone 1)
	External (Zone 3)
	Passengers (Zone 2) + External (Zone3)
Micro 1 (Driver)	Passengers (Zone 2)
Micro 2 (Passengers)	Passengers (Zone 2)

AudioDSP is an original equipment of buses certified by:

ITXPT
INFORMATION TECHNOLOGY for PUBLIC TRANSPORT

RADIO

PASSENGERS INFORMATION SYSTEM

ITS SYSTEMS

Driver MIC Cabin MIC

ZONE 3 - External   ZONE 2 - CABIN   ZONE 1 - DRIVER

External Ambient MIC   External LOUDSPEAKERS   Internal Ambient MIC   Internal LOUDSPEAKERS   Driver LOUDSPEAKERS

MADE IN ITALY

INTELLIBUS
FLEETWEB

IATF 16949
Automotive

AudioDSPN

AudioDSPN is an amplifier and audio dispatcher designed for Intelligent Transport System applications like Passengers Information System (P.I.S.), Next Stop Announcement (internal and external), Driver and Guide announcement, Multimedia Entertainment.
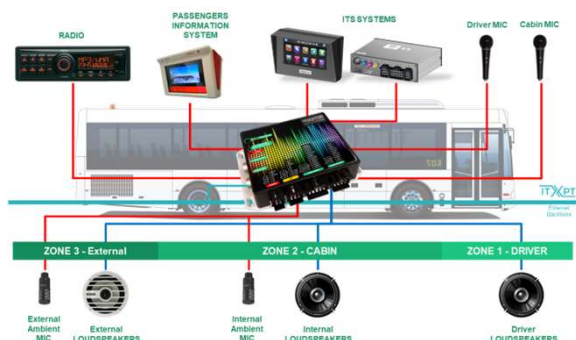**AudioDSPN** is labelled ITxPT.

AudioDSPN is based on DAP (Digital Audio Processor) managed by Metatronix Application Software and can be managed through the LAN interface.

- **FM radio/CD pass-through (2x stereo single ended or differential)**
- **Automatic Volume Control (Ambient noise compensation)**
  - Compensation made using the loudspeakers or dedicated microphones
  - Automatic volume control for external speakers (+5 dB)
  - Automatic volume control for internal speakers (+5 dB)
  - The output volume automatic control is available for ITS & Micro Sources
- **Micro amplification**
  - Driver Microphone amplification
  - Passenger Microphone amplification
- **ITS amplification with priority selection for:**
  - Passengers area
  - Drivers area
  - External area
- **Source management (dispatching)**
  - Audio input priority based on pre-configurated rules
  - Audio output dispatching based on pre-configurated rules
- **Management through Ethernet interface – NEW FEATURES**
  - Volume setting
  - Audio output selection
  - Zone priority selection
  - Integrated vocalizer for Next Stop Announcements
  - Digital audio streaming
  - ITxPT Module Inventory
  - VOIP for Driver voice communications

Technical data	
Dimensions	Approx. 175 x 134 x 40 mm
Weight	Approx. 0,65 Kg
Input voltage	9 to 36 VDC, Reverse polarity protection
Operating voltage	24 Vdc
Microphone Inputs	4 x input (Mono)
	Input sensitivity 1mV
	Input impedance 200 Ω
	Frequency range 150 Hz - 6.5 kHz
Radio/media Audio Inputs	2 x Stereo Inputs (pass-through) Single-ended or differential
ITS Audio Inputs	1 x Stereo Inputs
	Input sensitivity 100mV - 1V
	Input impedance > 10kΩ
	Frequency range 20Hz – 20kHz
	Type Single ended, unbalanced
Nominal Power	2 x 20 W rms class-D Amplifier
Output Impedance	4-8 Ohm
Digital Input	6 x DI (Microphone PTT, Priority management, mute)
Configuration	1 X M12 Mbps Ethernet connector
	1 x PIN for Zone slector
	1 x potentiometer for ITS volume setting
Sound level	Automatic regulated with ambient noise (+5 dB)
Environmental	Operating Temperature -30° to +70° C, +80° for 30 min.
	Storage Temperature -40° to +90° C
	Ambient Rel. Humidity 5 to 95% (non-condensing)
	Certification E-mark ECE R10.05
	Compliance EN 13149 parts, ITxPT
	Protection IP 54

SOURCE	OUTPUT
Ampli Input1	Zone 1 (Driver) / Zone 1 + Zone 2
Ampli Input2	Zone 2 (Passengers)/ Not broadcasted
ITS Input	Passengers (Zone 2)
	Driver (Zone 1)
	External (Zone 3)
	Passengers (Zone 2) + External (Zone3)
Micro 1 (Driver)	Passengers (Zone 2)
Micro 2 (Passengers)	Passengers (Zone 2)

AudioDSP is labelled

ITXPT
INFORMATION TECHNOLOGY
for PUBLIC TRANSPORT

RADIO — PASSENGERS INFORMATION SYSTEM — ITS SYSTEMS — Driver MIC — Cabin MIC

ZONE 3 - External — ZONE 2 - CABIN — ZONE 1 - DRIVER

External Ambient MIC — External LOUDSPEAKERS — Internal Ambient MIC — Internal LOUDSPEAKERS — Driver LOUDSPEAKERS

MADE IN ITALY

INTELLIBUS
FLEETWEB