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Intelligent Transport Critical Communication Emergency & Security



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The Public Address Amplifier PAA2191 is a compact and extremely powerful audio amplifier, that has four individually controllable audio channels. In comparison to the PAA2171, the device comes with a fully redundant design, which means that the audio lines of an amplifier no longer need to be interconnected over the car couplers to the neighboring car. The PAA2191 is controlled digitally via the LAN interface or as a fallback level via the analog UIC interface, which is prioritized.



Thanks to state-of-the-art system architecture, ErvoCom has succeeded to design the new PAA2191 in such a way that two audio amplifiers are integrated in one device, thus enabling full redundancy. This brings the decisive advantage that the audio circuits no longer need to be interconnected over the car couplers. In addition to increased audio quality, less interference and reduced wiring effort, the approval process for the railroad manufacturer is also massively simplified, since the TSI LOC&PAS is fulfilled by one device.

#### **Technical description**

The PAA2191 provides an audio output power of 2 x 25 watts (total 50W), so that a whole wagon can be served by one amplifier. The 2x2 audio channels can be controlled individually, so that the speaker levels for outside and inside passenger announcements or business- and normal class can be adjusted separately. In addition to the LAN interface, the amplifier also has a conventional UIC interface. This can be used for retrofit projects or as a communication fallback level. Due to the increasing number of electronic components, the space availability on rail vehicles is also shrinking. ErvoCom has considered this and has integrated the PAA2191 into an extremely compact housing. Furthermore, Wago X-COM connectors were used for easy installation of the device, which enable extremely fast and efficient installation and removal of the PAA2191.

Despite its slim design, the device has a wide-range voltage input (nominal +24 VDC to +110VDC), allowing all common railway battery voltages to be directly connected.

#### **Device Integration**

The PAA2191 is part of the ErvoCom PIS-Audio-System. Together with the RCSS2170 it provides a modern public address system for trains. Alternatively, the amplifier can also be connected via an API so that the system components can be easily integrated into an existing passenger information system solution.

## Advantages

- Wide range voltage input (+ 24 VDC to +110 VDC)
- Output power of 50W in total (2x 25W)
- Four individually controllable audio channels
- Full redundancy according to TSI LOC&PAS
- Control via LAN or UIC interface
- Very compact design allows easy vehicle integration
- Simple device installation and removal
- Can be integrated as SIP device into existing FIS solutions
- EN50155 and EN45545-2 conformity



### Contact

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