



*Front view of the device*

## PA Systems | Product family CURA

# IP PA System with integrated announcement device

The IP PA System with integrated announcement device is a compact and scalable PA system of the product line CURA. With this announcement device, up to 10 audio channels can be connected to a PA system and controlled via switching contacts. The available interfaces ports in a CURA unit can be supplemented by optional expansion modules.

## Functional Features

- Full digital signal processing
- 10 output channels, up to eight different announcements simultaneously
- Audio in- and outputs
- Digital in- and outputs
- Control and monitoring of announcements via IP network or digital inputs
- Priority management configurable
- Speech synthesis (TTS, multilingual) streaming and VoIP available
- Web-based configuration and diagnosis
- Power supply with 230 VAC and/or 48 VDC
- High availability, maintenance-free
- Qualified for railway application

## Technical Description

General Properties	
Range of application	IP Announcement Device as part of a PA system on railway stations
Power Supply	200 – 260 V AC / 100 – 130 V AC (selectable), 47 – 63 Hz and / or 46 – 53 V DC
Power consumption	max. 25 W standby: ca. 25 W
Dimensions (LxWxH)	483 x 320 x 44 mm 19 inches, 1 U
Weight	approx. 3 kg
Installation instructions	Installation in racks with 19 inches standard profile
Cable feed	Generally from back side Front side: USB-slot, network, 2nd network connection (optional)
Degree of protection	IP20
Temperature range	Operation: -5 °C ... +55 °C
Cooling	passive, fanless
Front side display elements	LED indicators: <ul style="list-style-type: none"> <li>voltage supply AC/DC</li> <li>operation</li> <li>voice alarm condition</li> <li>failures (intern and extern malfunctions, power supply malfunction)</li> </ul> Piezo buzzer
Front side operating elements	inspection of display elements alarm deactivation fault acknowledgement customer-specific functions
Extension slots	4 module slots, 3 of which are occupied <ul style="list-style-type: none"> <li>2x audio-Out module with 4 analog outputs</li> <li>module with 8 digital inputs and 8 digital outputs</li> </ul> retrofitable: <ul style="list-style-type: none"> <li>audio-In module, 4 analog inputs</li> <li>audio-Out module, 4 analog outputs</li> <li>module with 8 digital inputs and 8 digital outputs</li> </ul>
Compliance	CE, RoHS, electrical safety and EMC EN 50121-4 (railway application)

Interfaces	
AF inputs	2x audio input (onboard): <ul style="list-style-type: none"> <li>electrically symmetrical</li> <li>input sensitivity: 50 mV to 10 V, controlled electronically</li> <li>Input impedance selectable 600 Ω / 10 kΩ,</li> <li>e1x switchable 24 V phantom supply</li> <li>plug-in terminal</li> </ul>
AF output	2x audio output (onboard): <ul style="list-style-type: none"> <li>electrically symmetrical</li> </ul>

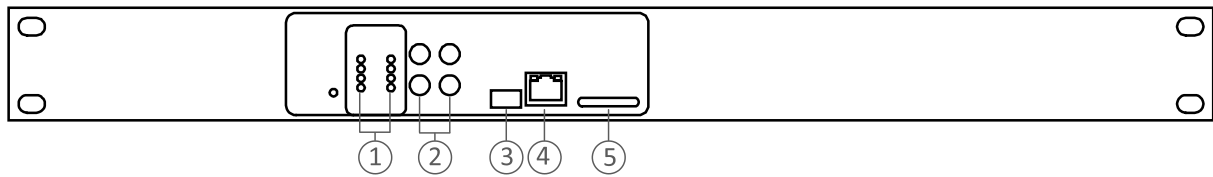
## Technical Description

	<ul style="list-style-type: none"> <li>output level: 0 dBu</li> </ul> <p>8x audio output (extension module):</p> <ul style="list-style-type: none"> <li>features like audio inputs of the mainboard</li> <li>output level: +8 dBu</li> </ul>
digital inputs	<p>2x digital inputs (onboard):</p> <ul style="list-style-type: none"> <li>potential-free</li> <li>0 V – 60 V input voltage range, threshold value: 12 V</li> <li>load &lt; 20 mA at 60 V</li> </ul> <p>8x digital inputs (onboard):</p> <ul style="list-style-type: none"> <li>features like digital inputs of the mainboard</li> </ul>
digital outputs	<p>2x digital outputs (onboard):</p> <ul style="list-style-type: none"> <li>potential-free</li> <li>make / brake contacts configurable,</li> <li>max. 60 V/1 A DC</li> </ul> <p>8x digital outputs (onboard):</p> <ul style="list-style-type: none"> <li>features like digital inputs of the mainboard</li> </ul>
Fault message contact	see digital outputs

### Announcement device

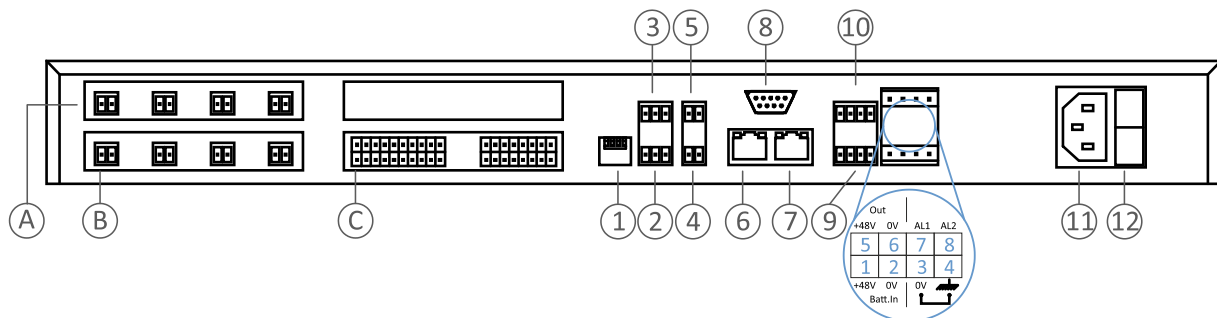
CPU	<p>Freescale i.MX6, 1 GHz, ARM Cortex-A9</p> <p>On customer request: Freescale i.MX6, 4x1 GHz, ARM Cortex-A9</p>
Memory	<p>512 MB RAM, 512 MB Flash, expandable with (micro) SD/SDHC/SDXC card on the front</p> <p>On customer request: 2 GB RAM + 2 GB Flash</p>
LAN	<p>1x RJ 45 (10/100/1000 MBit/s)</p> <p>On customer request: 2x RJ 45 (10/100/1000 MBit/s)</p>
Service interface	microUSB 2.0, front side
Network protocols	<p>Network: static/DHCP configuration, DNS, NTP</p> <p>Announcement assignments: JSON-RPC</p> <p>Live announcements: VoIP/SIP</p> <p>On customer request: other (customer-specific) network protocols</p>
Number of simultaneous announcements	max. 8

## Technical Description



- |   |                              |   |                    |
|---|------------------------------|---|--------------------|
| 1 | General status display       | 4 | Network connection |
| 2 | Control panel                | 5 | SD card slot       |
| 3 | microUSB, maintenance access |   |                    |

Figure 1 Connection designation of the front view



- |   |                 |   |                               |     |   |
|---|-----------------|---|-------------------------------|-----|---|
| A | Slot 4 (X1-X4)  | 1 | Characteristic AF In1, AF In2 | 9   | Dig. In 1+2                               |
| B | Slot 2 (X1-X4)  | 2 | AF In1                        | 10  | Dig. Out 1+2                              |
| C | Slot 1 (X1, X2) | 3 | AF In2                        | 11  | 230 V AC voltage                          |
|   |                 | 4 | AF Out 1                      | 12  | Power switch                              |
|   |                 | 5 | AF Out 2                      | 1/2 | DC power supply +48 V                     |
|   |                 | 6 | Audio bus In                  | 3/4 | Potential equalization, ground connection |
|   |                 | 7 | Audio bus Out                 | 5/6 | DC voltage output +48 V, max. 200 mA      |
|   |                 | 8 | reserved                      | 7/8 | Collective error alarm contact            |

Figure 2 Connection designation of the rear view

Order No.	
42.41001-0006 Cura – ASG	CURA Announcement Device (Type CURA 10)
<i>Extensions module:</i>	
42.41002-0011 Cura – 4AudioIn	4x Audio-In module
42.41002-0013 Cura – 8/8GPIO	module with 8 digital inputs and outputs
42.41002-0012 Cura - 4 AudioOut	4x Audio-Out module

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Warning: The colours shown do not necessarily correspond to the original colours!

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