



EMITTER
ELECTRONICS
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PAS-100 / PAS-200

DIGITAL SIREN AMPLIFIER



Speakers and the handheld unit available as separate devices

Features and Benefits

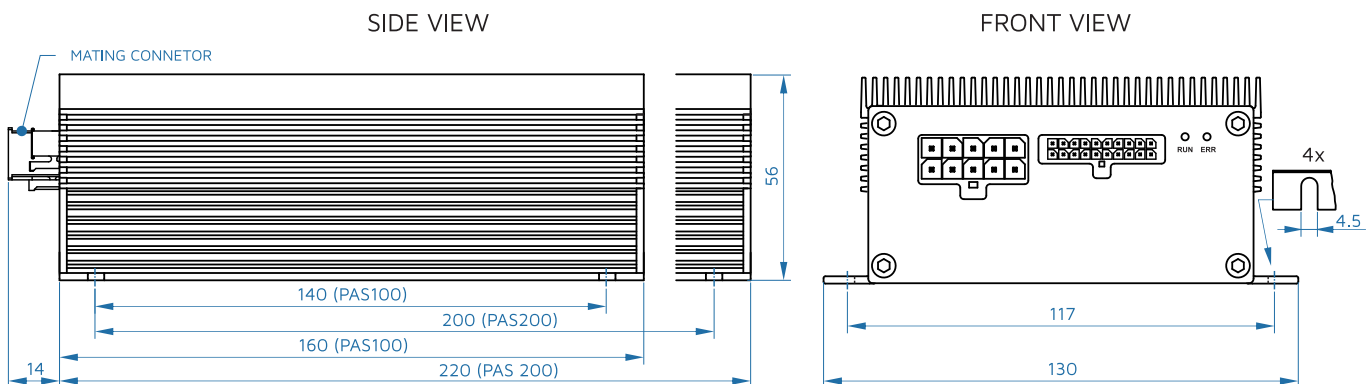
- 1 Power Amplifier with PA system
- 2 True RMS 100 W or 200 W (2x100 W)
- 3 Multi-voltage 8-32 VDC
- 4 Record'n'Play Function, optionally
- 5 Horn Ring Cycler
- 6 Full CAN Bus Control

The PA electronic Siren Amplifier **PAS-100/200** is designed to be used in Emergency vehicles such as ambulance, firefighting, police or other law enforcement vehicles. The amplifier is available in 100 W and also in 200 W version with two independent channels of 2x 100 W True RMS. It can provide a wide range of pre-programmed siren sounds that can be set according to the different country regulations and market needs. Incorporates radio broadcast - two radio inputs and PTT handheld unit with a public access (PA) override function - two mic. inputs.

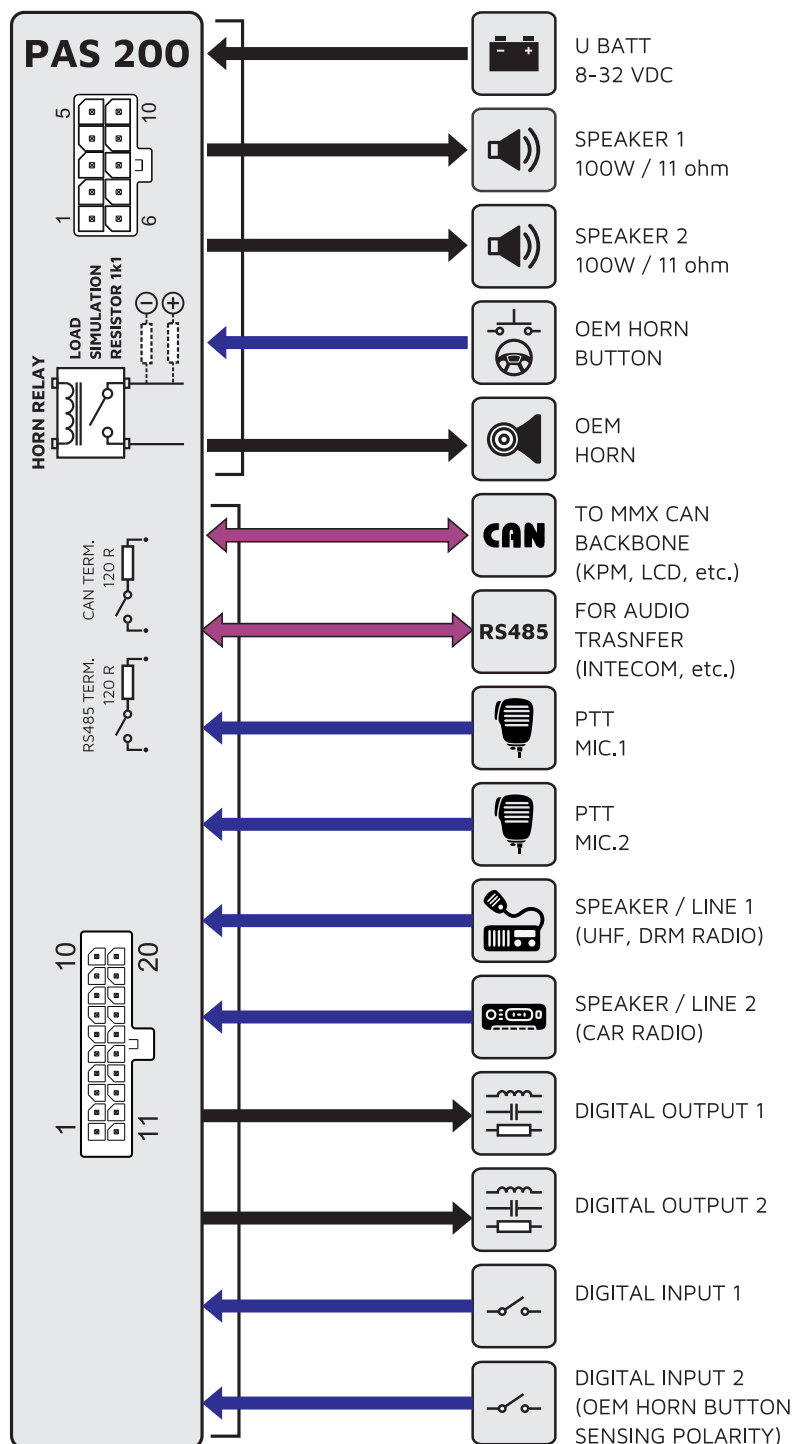
The siren sound can also be changed with the Ring horn button - Horn Ring Cycler function. It has an integrated OEM Horn Ring transfer Relay and load simulation resistor to avoid problems of displaying errors on vehicle's dashboard when the OEM Horn wire is cut. Optionally it can be supplied with extended memory used for Record'n'Play function. For additional functions, two digital high side outputs and inputs are available.

The PAS100/200 amplifier is a part of Emitter Electronics MMX family products and can be controlled by MMX LCD units, keypads or used together with customers CAN bus system.

As a special function, the Amplifier can transfer the sound via RS485 to other devices E.g. Intercom system etc



Block Diagram of all available amplifier functions:



POWER CONNECTOR Mega-Fit 2x5

PIN	DESCRIPTION
1	Battery +
2	GND (Battery -)
3	Speaker 1 Out +
4	Speaker 2 Out +
5	OEM Horn In
6	Battery +
7	GND (Battery -)
8	Speaker 1 Out -
9	Speaker 2 Out -
10	OEM Horn Out

SIGNAL CONNECTOR WR-MPC 2x10

PIN	DESCRIPTION
1	CAN H
2	RS485 A
3	Digital Output 1
4	Digital Input 1
5	Speaker/Line Input 1 +
6	Speaker/Line Input 2 +
7	Microphone PTT 1 Input
8	Microphone PTT 2 Input
9	Microphone Input 1 +
10	Microphone Input 2 +
11	CAN L
12	RS485 B
13	Digital Output 2
14	Digital Input 1
15	Speaker/Line Input 1 -
16	Speaker/Line Input 2 -
17	Microphone PTT 1 GND
18	Microphone PTT 2 GND
19	Microphone Input 1 -
20	Microphone Input 2 -

Ordering Codes

Product Code	Description	Status
PAS-100S	PA Siren Amplifier, Power 100W/11 ohm, CAN, 8-32 VDC, Standard version	Active
PAS-100F	PA Siren Amplifier, Power 100W/11 ohm, CAN, 8-32 VDC, Full version (record'n'play, RS485)	TBD
PAS-200S	PA Siren Amplifier, Hi-Power 200W/11 ohm, CAN, 8-32 VDC, Standard version	Active
PAS-200F	PA Siren Amplifier, Hi-Power 200W/11 ohm, CAN, 8-32 VDC, Full version (record'n'play, RS485)	TBD



For more options please contact the supplier.

Specifications

POWER	
Supply Voltage	8-32 V DC
Current	<50 mA @ IDLE
PAS-100	max. 15 A + dig. outputs @ 12 V max. 7.5 A + dig. outputs @ 24 V
PAS-200	max. 30 A + dig. outputs @ 12 V max. 15 A + dig. outputs @ 24 V
Electrical Protection	Overvoltage, under-voltage, transients, reverse polarity by breaking external fuse, load dump, over-temperature
INTERFACES	
CAN	1x CAN, ISO 11898 2.0 A/B up to 1 Mbps, protocols SAE J1939, CAN open, free, etc. Baud rate 250 kbps (optional ≤ 1 Mbps)
CAN Termination	120 Ohm, configurable with internal DIP switch
El. Protection	Short to GND or Ub, allowable voltage on pins 0..32V
RS485	TIA/EIA 485, used for audio transfer, Baud rate ≤ 1 Mbps, optional
RS485 Termination	120 Ohm, DIP switch
El. Protection	Short to GND or Ub, allowable voltage on pins 0..32V
AUDIO I/O	
Inputs	
Microphone Level Input	2 x, differential or single ended input, 100 Hz .. 10 kHz @-3dB
PTT (Push To Talk) Input	2 x, active low logic, integrated pull-up resistor
Speaker/Line Level Input	2 x, differential or single ended input, 100 Hz .. 10 kHz @-3dB
Outputs	
Speaker Output PAS-100	1 x, RMS output power 100 W/ch @11 Ω, 100 Hz .. 10 kHz @-3dB
Speaker Output PAS-200	2 x, RMS output power 100 W/ch @11 Ω, 100 Hz .. 10 kHz @-3dB
El. Protection	Overload – short between pins, short to GND or Ub, over temperature
DIGITAL I/O	
Inputs	2 x, active high logic, integrated pull-down resistor
El. Protection	Short to GND or Ub, allowable voltage on pins 0..32V
Outputs	2 x, high side switch ≤ 2.2 A
El. Protection	Overload – short between pins, short to GND or Ub, over temperature

OEM HORN CONTROL	
Relay	Integrated, normally open contacts, 24 V:I ≤ 15 A, 12 V:I ≤ 30 A
OEM Horn Input	Voltage sensing, pull-down (optional pull-up) load simulation resistor
MISCELLANEOUS	
LED Diagnostics	1x green run LED on front panel, 1x red error LED on front panel
Monitoring	Internal sensing of supply voltages, CPU core and board temperature, watchdog functionality
ENVIRONMENT	
Temperature range	
Storage	From -40°C to +85°C
Operation	Ambient from -40 to +65°C, internal -40 to +105°C (at full load)
IP Class (IEC529)	IP2x
EMC	Designed to EN 61000-6-2, noise immunity Designed to EN 61000-6-4, radiation of interference Designed to ISO 7637-2 pulse immunity, load dump Designed to ECE-R10.5 noise immunity
ENCLOSURE	
Matting Connector	
Power Connector	Mega Fit 10-way dual row for cables 2.5 mm ² (14 AWG)
Signal Connector	WR-MPC3 20-way dual row for cables 0.5 mm ² (24-20 AWG)
Housing material	Aluminium housing - anodised
Mounting	4 screws M4 or tapping screws with max. diameter of 4.5 mm
SIZE AND WEIGHT	
Housing dimensions	W x H x D
PAS-100	105 x 48 x 160 mm
PAS-200	105 x 48 x 220 mm
Weight	
PAS-100	0,8 kg
PAS-200	1,1 kg

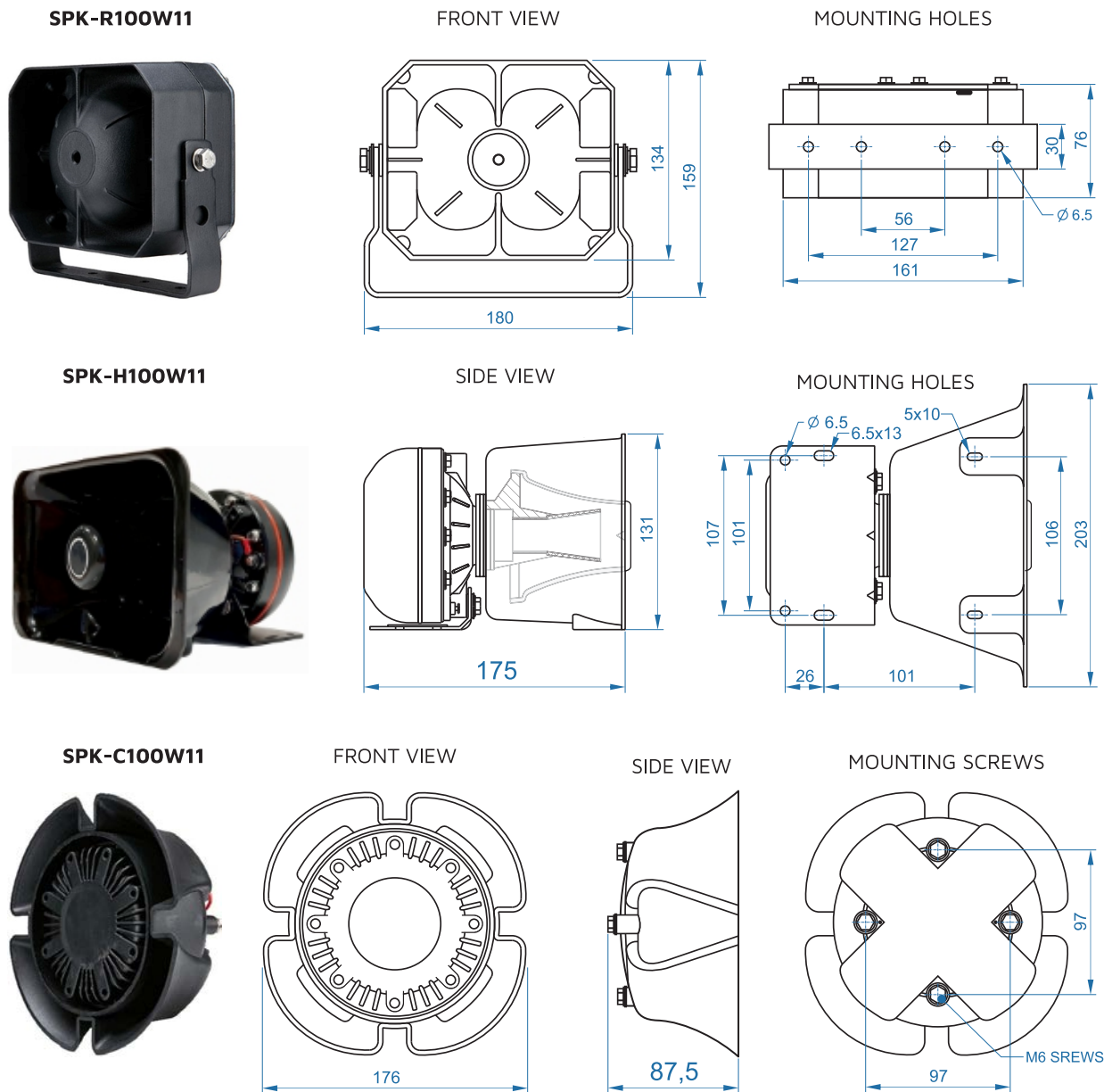
Handheld Mic Units

Product Code	Description	Picture	Status
HH-MIC1E-XLR-01	Handheld mic., electret condenser, PU coiled cable 0.5m, 5x0.8 mm ² with XLR connector		Standard
HH-MIC2-01	Handheld dynamic mic., Coiled cable 1.1m (max 1.6m)		TBA

Siren Speakers

Available are three types of powerful, heavy duty speakers, designed to withstand all weather conditions and to reproduce a clear voice. The Speakers are compatible with Emitter Electronics Sirens.

SPK -R100W11 and SPK-C100W11S speakers are super-thin and can be mounted on various mounting locations, as well as under the hood. On the contrary, the SPK-H100W11 speakers use a big horn and can be mounted in the bumper area, on the roof, near the light bar area, etc.



Specifications

Speaker Specifications	All types
Power	100 W
Impedance	11 Ohm
Sound frequency range	200-5.000 Hz
Sound compression level	>118 dB
Weight	Approx. 3 kg

Ordering Codes

Product Code	Description
SPK-R100W11	Speaker PA Super Thin, 100 W, 11 Ohm, >118 dB
SPK-C100W11	Speaker PA Circular, 100 W, 11 Ohm, >118 dB
SPK-H100W11	Speaker PA Horn, 100 W, 11 Ohm, >118 dB

For more options please contact the supplier.