### Main features

<table>
<thead>
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<tbody>
<tr>
<td>Type of sign</td>
<td>RGB matrix sign with doppler radar.</td>
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<tr>
<td>LED</td>
<td>LEDs with high luminous intensity and long life time.</td>
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<td></td>
<td>Special system to protect LEDs from temperature peaks that might happen during device operation.</td>
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<tr>
<td>Maintenance</td>
<td>Hardware is designed so that each part can be easily removed and replaced.</td>
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<tr>
<td>Brightness control</td>
<td><strong>Brightness could be:</strong></td>
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<tr>
<td></td>
<td>a) Automatically adjustable according to external illumination measured by light sensor.</td>
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<tr>
<td></td>
<td>b) Automatically adjustable according to actual day time using precise algorithm. Precise daytime brightness algorithm depends on geographical location where the sign is installed, taking into account daytime changing during whole year.</td>
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<td></td>
<td>c) Pre-adjusted or set from the system.</td>
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<tr>
<td>Temperature monitoring</td>
<td>The VMS equipped with sensor for continuously measuring the temperature inside the cabinet.</td>
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<td>Temperature monitoring and control system provides optimal working temperature and prevents condensation or component overheating.</td>
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<td></td>
<td>System also protects LEDs from temperature peaks that might happen during device operation.</td>
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<tr>
<td>Operation logs</td>
<td>Logs system provides a lot of information about working conditions. Logs are stored in VMS internal storage.</td>
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**Type of sign**
Your speed warning

**Dimension**
750 mm (H) x 1500 mm (W)

**Model**
TRS-RSD-RTNMF-P1V4-16x32-BT-LS
memory and could depend on implemented hardware: VMS reset, maximal and minimal temperature in the cabinet, cooling and heating system activation, messages displayed, malfunctions as - short circuit, open circuit and thermal error for each individual LED per each color, light sensor malfunction, overheating, communication errors.

Precise time when each log happens is also recorded in the VMS memory. VMS has real time clock with 2ppm precision.

Logs in sign memory could be used for maintenance, troubleshooting, statistic analyzing and system improvements.

**Interfaces**

- Serial RS232.
- Bluetooth communication.

Module integrated into the sign, anti vandal antenna and PC software which can be installed on tablet or laptop. Sign can communicate with tablet or laptop which has bluetooth communication.

**Power consumption**

- Maximum consumption: ~ 63W.
- Average consumption: ~ 30W.

**Power supply**

12VDC (solar).

**Mechanical features**

- **Housing dimensions (VxH)**: 750 mm x 800 mm.
- **Approximate weight**: ~ 20 kg.
- **Material**: Aluminum AlMg3, powder coated, resistant to aggressive atmosphere.
- **Housing colour**: Gray, RAL 9007.
- **Front colour**: Black, RAL 9005.
- **Physical performance**: T1, T2, T3 / P3 in accordance with EN12966.
- **Resistance to pollution**: D3 in accordance with EN12966.
- **Opening**: From the front side.

**Optical features**

- **LED protection**: UV resistant lenses for each LED.
- **LED currents**: Constant current LED drivers, stable luminance, independent of the mains voltage tolerances or of battery voltage.
Display features

Matrix field
Resolution (V x H): 16x32 pixels.
Pixel pitch: 20 mm.

Foil
YOUR SPEED and SPEED LIMIT captions are made of retro reflective foil – class II.

Operation
Sign measure the speed of approaching vehicles.
If vehicle speed is lower than predefined triggering speed sign will remain blank.
If vehicle speed is higher than predefined triggering speed but lower than predefined speed limit, sign will display measured speed and after that “smiley face” or some text message (e.g. THANK YOU...).
If vehicle speed is higher than predefined speed limit, sign will display measured speed and after that “frown face” or warning text message (e.g. SLOW DOWN).

Pixel composition
1 SMD LED.
Software

- The application provides maintenance function. User can check sign function without opening, (even from the car), read and download all logs. Maintenance function check proper operation of various hardware components:
  - Real time clock
  - Battery status
  - Solar charging
  - Light sensor function
  - Flash disk

- Tablet software for flashers activation on/off and choosing flashers working mode (always on, flashing etc.) with calendar function. One year calendar is stored into the sign memory. Each day can be divided into the several periods. This function is especially suitable for school areas.

Possible display scenario

![Possible display scenario](image)