NEW TO THE INDUSTRY

THE MOST ADVANCED

FULL VMS SIGN

A full-colored screen saves 74.5% power!
Over any VMS on the market today

Latest Technology

- Power Saving
  Sleep Mode
  Second Optical
  Dual Voltage

- Reliability
  Double Dimming Sensor
  LED Level Error Detection
  Total IP65 with Temperature Differential Ventilation System
SL High Directivity

- LED lamps are supplied by Nichia, the world largest LED design and product manufacturer. Nichia’s LED product is of the best quality with long lifetime, high brightness, low energy consumption and stable endurance for harsh conditions.
- The SMD lamp and other components are manufactured in first welding process, avoiding component damage or life reduction result from high temperature by wave soldering.
- Modularized lens design. First layer processed with 3M waterproof glue. Second layer processed with anti-UV silicone. Excellent optical characteristic without negative effect by high or low temperature.
- Strong directivity within visual range. Due to the common application of downward and left and right angle of visibility to VMS, our NSS-DT20 is designed without upward angle of visibility to save energy and to reduce light pollution.

SD Voltage Divider

- Using separate voltage driving board to achieve energy-saving purpose: specific voltages are applied to different lamps.

For example: for red and yellow lamps, we supplied a total voltage of 3.8V with 1.8-2.2V as break-over voltage; For green and blue lamps, instead, we used another separate driver to provide 5v with 2.8-3.6V as break-over voltage for lamp.
SS Sleep Mode

- It is known that in the application of VMS product, only less than 40 percent area of entire screen is actually operating in working mode. A large number of unused integrated circuit chips are consuming energy. For general VMS product, in black area, an 8mA current will always flow in each IC output channel without sleep mode. For our NSS-VMS product, in the same blank area, only a 10uA current will flow in each channel under sleep mode.

A sample calculation for energy saving is showing as follows: For general VMS product, power consumption by each IC driver of 16 output channels will be: 16pin*0.008A*5V = 0.64W. For our NSS-VMS product, power consumption by IC driver is reduced to 16pin*0.000010A*5V = 0.0008W.

Our NSS-VMS product will save 0.64W/0.0008W = 800 times for every single IC driver!

ST Light Sensor

- Introducing our new light sensing design. We applied dual light sensing system for our LED display. Each side of front and back of the display has one digital photosensitive probe to ensure brightness wherever side sunlight will be from.

Compared to traditional analog photosensitive probe, our new digital probe has wider sensitivity range. Improved features are showed below:
  a) A wide input light range from 1lx to 65535lx;  
  b) Directly outputs value for digital brightness;  
  c) A high light sensitivity close to visual acuity.

Extra features:

- Our display uses aluminium housing with special coating process, ensuring high contrast under less than 0.4 reflectance and strong-sunlight exposition;
- Our VMS has thermal pressure ventilation design with totally-enclosed. When temperature and pressure rises inside box, the thermal pressure radiator ensures ventilation and guarantees IP65 protection.
# FVMS Full Variable Message Sign

![Module (Front)](image1)
![Module (Rear)](image2)
![Module (Side)](image3)

## Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>NSS-VMS-DT16-1R1G1B</th>
<th>NSS-VMS-DT20-1R1G1B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>NSS-VMS-DT16-1R1G1B</td>
<td>NSS-VMS-DT20-1R1G1B</td>
</tr>
<tr>
<td>Color configuration</td>
<td>Red, green and blue</td>
<td>Red, green and blue</td>
</tr>
<tr>
<td>Display Area</td>
<td>256(W) mm × 128 (H) mm</td>
<td>320 (W) mm × 160 (H) mm</td>
</tr>
<tr>
<td>Cabinet Size</td>
<td>1200 (W) mm × 1200 (H) mm</td>
<td>1080 (W) mm × 1080 (H) mm</td>
</tr>
<tr>
<td>Display Area</td>
<td>1024 (W) mm × 1024 (H) mm</td>
<td>960 (W) mm × 960 (H) mm</td>
</tr>
<tr>
<td>Cabinet Material</td>
<td>Aluminum alloy</td>
<td>Aluminum alloy</td>
</tr>
<tr>
<td>Weight</td>
<td>108kg</td>
<td>76kg</td>
</tr>
<tr>
<td>Viewi ng Angle</td>
<td>10°(H)/30°(V)</td>
<td>10°(H)/30°(V)</td>
</tr>
<tr>
<td>Dimming Level</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Communication</td>
<td>RS485/ RS232/ serial port/ GPRS/Internet options available via National controller</td>
<td></td>
</tr>
<tr>
<td>Electric Protection</td>
<td>Overload protection and Short circuit Protection</td>
<td>Overload protection and Short circuit Protection</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Back access</td>
<td>Back access</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-15°C~+65°C</td>
<td>-15°C~+65°C</td>
</tr>
<tr>
<td>Operating Relative Humidity</td>
<td>95%RH(Max.)</td>
<td>95%RH(Max.)</td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>IP65</td>
<td>IP65</td>
</tr>
<tr>
<td>Power Consumption (Max)</td>
<td>218W</td>
<td>180W</td>
</tr>
</tbody>
</table>

National Sign and Signal Co
301 S Armstrong Rd
Battle Creek, MI. 49037

Phone: 269-963-2817   E-Mail Sales@Nationalssc.com