

**Application**

The variable message sign is a useful media to alert motoway users when there are abrupt changes in traffic patterns, road conditions, emergencies or special events. The application of VMS on the road can improve traffic flow while ensuring the safety of drivers and passengers. Variable message signs are ultra-bright and highly legible, with a variety of functions for many applications: lane closure, highway/tunnel construction, work zone, parking lot guidance, and etc.

**Specification**

<b>VMS Model</b>	<b>VMS20M-64x384-RGB</b>
Standard	EN 12966:2014, EN 12966-1:2005 +A1:2009
<b>Display Specifications</b>	
Pixel Pitch (mm)	20
LED Matrix	3in1 RGB SMD LED per pixel
LED Composition	SMD + Lens
Display Area (HxW mm)	1,280 X 7,680
Screen Resolution ( HxW pixels)	64 X 384
Basic LED Module Size (HxW mm)	160 X 320
Basic LED Module Dots (HxW pixels)	8 X 16
Quantity of LED Modules (HxW pcs)	8 X 24 = 192
Size of the whole VMS (HxW mm)	1,560 X 7,960
Display Color	Full Color
Font Support	Vietnamese/English (Unicode)
<b>Optical Characteristics</b>	
Conformity	EN12966 Compliance ( <b>L3/L3*/R3/C2/B6/T1/T2</b> )
Beam Width	EN12966 Class B6 (H: ±15°, V: -10°)
Luminance	EN12966 Class L3/L3* (Red: ≥ 3100 cd/m², Green: ≥ 3720 cd/m², Blue: ≥ 1240cd/m², Yellow: ≥ 7440 cd/m², White: ≥ 12400 cd/m²)
Contrast Ratio	EN12966 Class R3
Color	EN12966 Class C2
<b>Physical Characteristics</b>	
Cabinet Material	Aluminum
Enclosure surface	Powder coated for Exterior of the Cabinet
Power coated Color	Front Matte Black (RAL9005) + Back Sand Grey (RAL7042)
Working Temperature	T1,T2 (-25°C ~ + 60°C)
Humidity Range	99% RH
Mechanical Protection	IP 66
Maintenance	Back Maintenance
<b>Electronic Specifications</b>	
Working Voltage	110V~230V AC (50±1Hz)
LED lifespan	≥ 100,000 hrs
Max Power Consumption @12,400 nits	≤ 1450W
Average Power Consumption	≤ 558W
Brightness Control	100 levels Auto/Manual Control
Internal maintenance Lighting	Yes
Integrated watch-dog circuit	Yes
Internal temperature detection of VMS	Yes
Power error detection	Yes
Image sensor error detection	Yes
Pixel error detection	Yes
Detect open door	Yes
Network communication detection	Yes
API/SDK Support	Yes
Communication	RS232/RS485(DP9), Ethernet (2 x 10/100BASE-T/TX RJ-45)
Control Protocol	TCP/IP, NTCIP
Network Protocol	NAT, OSPF, IGMP, SMTP, SMTPS (Optional)
Secure Communication Protocol	GRE, IPSec, SSL (Optional)
<b>Job Reference</b>	

