

# DMI-510

10.4" RAILWAY INTELLIGENT HMI



**VDS Rail**  
The onboard networking  
company

The DMI-510 Railway Intelligent HMI is designed to provide a robust and versatile solution for rolling stock applications. With support for a wide range of operating voltage and a top-level mechanical enclosure, this Railway Intelligent HMI is ready for harsh environments and is compliant with EN50155. Options for several interfaces such as Ethernet, serial line and the support for industry standard operating systems make the DMI-510 capable of empowering many on-board applications.



## HIGHLIGHTS

- Rolling stock applications
- EN 50155 compliant
- Operational temperature  $-25^{\circ}\text{C} \div 70^{\circ}\text{C}$  according to EN50155 T3 Class
- Wide operating voltage range
- AMD Dual Core processors
- Automatic Brightness adjustment
- Standard interfaces available (Ethernet 10/100 Mbps, USB 2.0, ...)
- Rated IP65 on Front Panel
- Linux and Windows Embedded Supported
- Touch Screen (optional)

## Technical specifications

### Approvals/Compliance

Governing standard	EN50155 - Railway Applications (Electronic equipment used on rolling stock)
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### Approvals/Compliance (EMC)

Electromagnetic compatibility rolling stock apparatus	EN50121-3-2
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### Approvals/Compliance (ENVIRONMENT)

Environmental test	EN60068-2
Guidelines for fire protection - Evaluation of fire behaviour of materials	EN45545-2
Shock & Vibration	EN61373
Temperature range	$-25^{\circ}\text{C}/+70^{\circ}\text{C}$ (+85°C for 10 minutes according to EN50155 T3 class)

### Display

Colours	256K / 16.2M
Contrast	700 :1 (Typ)
Dimming	Max $\div 30$ cd/m <sup>2</sup>
Brightness	400 cd/m <sup>2</sup> (Typ)
Resolution	800x600 (SVGA)
Size	10.4"

### Embedded Processor Unit

CPU	AMD Dual Core GX210HA @ 1.0 GHz or equivalent
L2 Cache memory	1 MB / 512 KB
Flash memory	2 GB Disk on Module
RAM	1 GB
Input peripherals	USB
LAN	1xEthernet 10/100 Base-T port
Sensors	Brightness sensor
Speakers	Built-in, 2 Watt
Service port	USB 2.0 port
Serial port	RS232/RS422/RS485 ports

### KEYBOARD

	3-Keys brightness control keyboard
	8-keys user-programmable membrane keyboard

### Operating Systems

Operating system	Linux (Kernel 2.6.x)
Operating system 1	Windows Embedded

### Power Supply

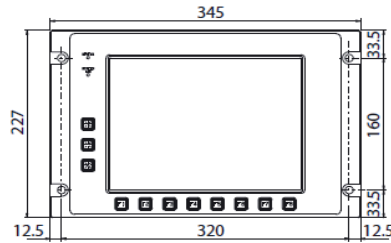
	24 Vdc
Nominal Voltages	72 Vdc
	96/110 Vdc

# DMI-510

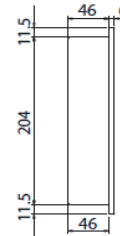
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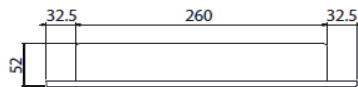
## Train Control Desk mounting



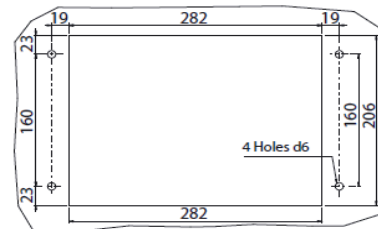
FRONT VIEW



SIDE VIEW



TOP VIEW



PANEL CUT OUT

## Train Control Desk mounting

<b>DM510M</b>	DMI-510 AMD Dual Core GX210HA@1.0GHz, 1GB RAM, 2GB SSD, 24Vdc, Membrane Keyboard
<b>DM510N</b>	DMI-510 AMD Dual Core GX210HA@1.0GHz, 1GB RAM, 2GB SSD, 72Vdc, Membrane Keyboard
<b>DM510P</b>	DMI-510 AMD Dual Core GX210HA@1.0GHz, 1GB RAM, 2GB SSD, 96/110Vdc, Membrane Keyboard
<b>DM510R</b>	DMI-510 INTEL Single Core E3815@1.46GHz, 1GB RAM, 2GB SSD, 24Vdc, Membrane Keyboard
<b>DM510S</b>	DMI-510 INTEL Single Core E3815@1.46GHz, 1GB RAM, 2GB SSD, 72Vdc, Membrane Keyboard
<b>DM510T</b>	DMI-510 INTEL Single Core E3815@1.46GHz, 1GB RAM, 2GB SSD, 96/110Vdc, Membrane Keyboard
<b>DM0064</b>	RS422, 2 wires optoisolated
<b>DM0065</b>	RS485, 4 wires optoisolated

<b>DM04FM</b>	4 GB Disk On Module
<b>DM08FM</b>	8 GB Disk On Module
<b>DMCA</b>	CAN BUS
<b>DM2ET</b>	2nd Ethernet 10/100 Mbps port
<b>DM02MM</b>	2 GB RAM
<b>DMOS01</b>	Windows Embedded OS (w/o License)
<b>DMOS02</b>	Linux (Kernel 2.6)
<b>DM0069</b>	2W2C power supply mating connector