

# » HMITR «



## EN 50155 Compliant

- » Reliable and durable low power
- » Fanless and rugged design
- » Based on Intel® Atom™ Processor
- » Upgradable and scalable!

Thousands of these rugged and intelligent display devices are already in service. The HMI for transportation is used to keep the train driver informed about status regarding the train functionalities.

#### » Powerful and rugged

Heart of the robust, fanless and maintenance free system is a performance class Intel® Atom™ ensuring excellent processing power, low power consumption and the ability to operate in extended temperature ranges. The complete system is certified according to the EN50155 ensuring safe deployment in trains.

#### » Effective

Featuring a 10,4" TFT display with touch panel or hardkeys and IP65 (splash guard), a perfect choice for Human Machine Interfaces (HMI) in harsh environments. A comprehensive Feature set with Fast Ethernet, serial interfaces, USB ports, CAN, and a Flash device socket, all necessary interfaces are present. Features like digital I/O, watchdog and temperature sensor round up the comprehensive feature set.

#### » Service Friendly

A battery and fan less design supported by on board diagnostic and history storage, the HMITR fulfils current requirements to reduce the life cycle cost efficiently.

### Technical Information (preliminary)

<b>System Processor and onboard features</b>	<ul style="list-style-type: none"> <li>» Intel® Atom™ Next Gen</li> <li>» Real time clock, watchdog, temperature sensor</li> <li>» Passive cooling without fan</li> <li>» System Diagnostic Processor</li> </ul>
<b>System Memory</b>	<ul style="list-style-type: none"> <li>» 1GB DDR2 soldered</li> <li>» 16/32 GB SSD Flash device (option)</li> <li>» SD-card socket</li> </ul>
<b>System I/O</b>	<ul style="list-style-type: none"> <li>» 3x Fast Ethernet (2x M12-D, 1x RJ45)</li> <li>» 3x USB 2.0 (2x M12, 1x USB-A)</li> <li>» 4x Serial Interface RS232/422 (2x M12-A, 2x D-SUB9)</li> <li>» Digital 2xInput / 2xOutput port (D-SUB25)</li> <li>» CAN Layer2 (D-SUB9)</li> <li>» PCIe Minicard extension slots</li> <li>» Service panel with Ethernet, USB, SD-card &amp; SIM card socket</li> <li>» 4x Frontpanel status LEDs</li> </ul>
<b>Flat Panel</b>	<ul style="list-style-type: none"> <li>» 10,4" TFT color display, 800 x 600</li> <li>» LED backlight, automatic backlight control</li> <li>» Typ. 400 cd/m<sup>2</sup>, optionally 600 cd/m<sup>2</sup></li> <li>» Alternatively touch panel or UIC keyboard</li> <li>» Heating device</li> </ul>
<b>Power Supply</b>	72/110 V DC or 24 V DC, other voltages on request
<b>Power Consumption</b>	25 Watt typical; 50 Watt with active heater
<b>Common</b>	Dimensions : 310 W x 214 H x 95 D mm Weight : approx 3 kg MTBF : Display 70k h, Electronics > 150k h
<b>Software Support</b>	Linux® + QT embedded. Windows®XP/XPe, VxWorks®, QNX® (optional)
<b>Environmental</b>	Operating temp.: -20°C to +70°C Limited oper.: -30°C to -20°C / +70°C to +85°C Storage temp.: -30°C to +85°C Operating humidity: 0% to 90% non-condensing
<b>Certifications</b>	EN50155 Railway, EN50121-3-2 Railway EMC, EN61373 Railway Shock/Vibration, EN60950 Safety Designed to meet CEN TS 45545-1 Fire/Smoke

### Ordering Information

Article	Description
<b>HMITR-104-AK-T3-110</b>	10.4 inch Human Machine Interface Intel® Atom based with 32 Hardkeys, 110 V DC
<b>HMITR-104-AK-T3-24</b>	10.4 inch Human Machine Interface Intel® Atom based with 32 Hardkeys, 24 V DC
<b>HMITR-104-AT-T3-110</b>	10.4 inch Human Machine Interface Intel® Atom based with Touch, 110 V DC
<b>HMITR-104-AT-T3-24</b>	10.4 inch Human Machine Interface Intel® Atom based with Touch, 24 V DC

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