



TALENTO TECNOLOGICO
IN EVOLUZIONE
Technological skill in evolution



The new ATX-SPII display

Meet the future.

Meet the ergonomcy.

Meet Standards.

Meet ATX-SPII newest MMI Technology.

The new ATX- SPII display is designed to meet all modern request in the railway market.

It is designed to best perform in the harsh rolling stocks environment.

Due to it's full customizability it can fit a wide range of requirements.

The module full fit EN50155 requirements, and goes beyond: you can use it in safety context due to his SAFETY functions module. Can reach up to -50° temperature storage, due to the available Heater Temp Extender.

In its maximum configuration, you have more than a simple MMI:

- 2 x Ethernet
- 2 x MVB
- 2 x CAN
- 2 x 485



Embedded Processor Unit

- CPU: INTEL ATOM E660 T @ 1.3GHZ
 - GMA600 @ 400 MHZ
 - 24KB/32KB CACHE L1
 - 512KB CACHE L2
- RAM memory: 1GBytes DDR2-800
- SSD: 4 GBytes
- BIOS Flash: 16 Mbit

Internal PORTS

- 1 Buzzer device @ 2800 HZ
- Temperature sensor $\pm 2^{\circ}\text{C}$ / -40°C \div $+125^{\circ}\text{C}$

External PORTS

- 2 USB type Host 2.0
- 1 USB type Device 2.0
- 2 Status LED RGB
- 1 Light sensor for brightness control manual/auto
- 2 Ethernet @ 10Base-T and 100Base-TX
- 1 Optocoupled channel #1 configured as: RS-422 or RS-485 Half Duplex @ 115200bps or CAN Bus @ 1MBit
- 1 Optocoupled channel #2 configured as: RS-422 or RS-485 Half Duplex @ 115200bps or CAN Bus @ 1MBit
- 1 channel #3 configured as RS-232C @ 115.2Kbps
- 32 x Stainless Steel Backlight (white & blue keyboard)

Display

- LCD size: 10.4"
- Resolution: 640x480 pixel
- Colors: 16M
- Luminance: 450cd/m2 typ.
- Contrast: 700:1 typ.

Temperature Range

- Operating Temperature: -30°C \div $+70^{\circ}\text{C}$ (EN-50155 T3)

IP GRADE

- IP 65 on front panel

Power Supply

- 16,8 Vdc \div 150 Vdc (EN 50155 S2 Class) & (FS 306158)
- Power consumption in base configuration : max 25W

Physical Data

- Front dimensions: mm 310x214
- Back dimensions: mm 280x205
- Depth: mm 80
- Front panel depth: mm 12

Basic Software

- LINUX Kernel 2.6
- QT and GDK graphic libraries

Approval / Compliances

- Governing Standard EN 50155 Railway Applications
- Environmental compliance: Environmental test: EN60068-2-1 Shock & Vibration: EN 61373 Fire / Smoke : EN 11170-3
- EMC (Electromagnetic Compatibility) EM compatibility : EN 50121-3-2 Elect. fast transient / Burst: 61000-4-4 Elect. Discharge : EN 61000-4-2 Radiated RF / EN field : EN 61000-4-3 Immunity : EN 61000-4-6

Options

- CPU: INTEL ATOM E680T @1.6 GHz
- Display 10.4" 800x600 - 450 cd/m2
- Display 10.4" 800x600 - 1200 cd/m2
- Display 10.4" 1024x768 up to 1000 cd/m2
- SSD: 8 GB
- Additional SATA SSD up to 32 GB
- 1 communication extension configurable as :
 - 2 MVB Bus I/F @ 1 Mbps IEC61375 EMD/ESD/OGF or
 - 2 Ethernet @ 10Base-T and 100Base-TX or
 - 2 ProfiBus @ 12 Mbps configured as Master or Slave
- Touch screen capacitive multi touch with 4 mm Anti-Vandalism glass
- Touch screen resistive 5 wire
- HD audio I/F with 5W RMS with 8 Ohm output
- Secondary video OUT VGA/LVDS
- Heater for -50°C storage
- UMTS or GSM-GPRS-HSDPA-GPS module
- WIFI IEEE 802.11 b,g,n module
- SAFETY functions module compliant with
 - EN 61508 - EN 50128 - EN 50129
- Windows XP embedded or Windows CE 6.0 instead of LINUX