



# EuroTech



Digital Technologies For  
Defence Applications



**EUROTECH**  
G R O U P

## Eurotech – DuraCOR-0482 Rugged System for Military and Tactical Applications

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**Eurotech Asia**



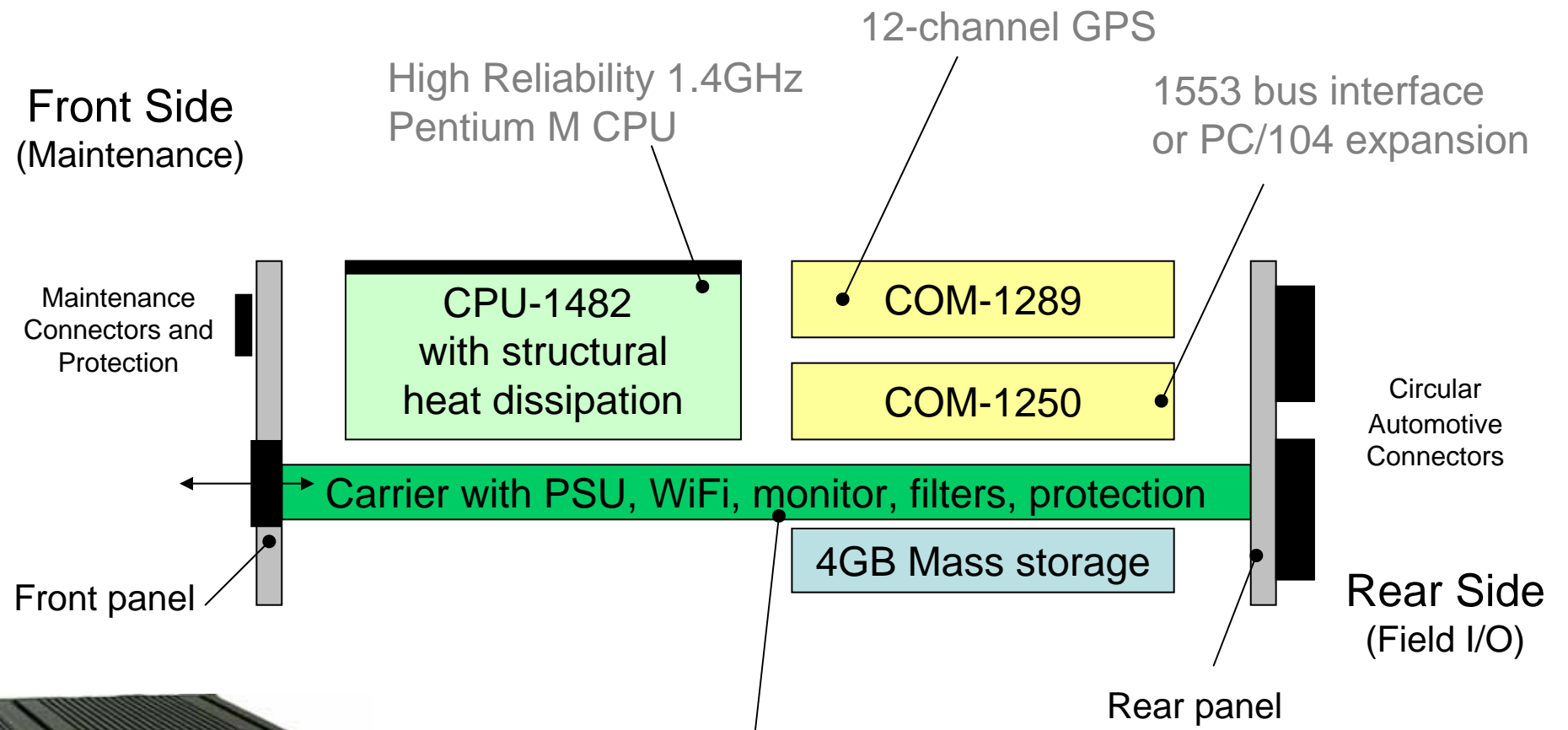
## **Advantages of Selecting DuraCOR Controller**

- Standard system combining rich I/O with field-proven PC platform
- Improved customer business focus and resource optimization
- Reduced time-to-market, risk and development cost
- Open PC architecture with standard OS reduces software risks and allows easy product differentiation
- Suitable for series of 100 → thousands, cost effective over complete product lifetime
- Product lifecycle management easy to handle with single source manufacturer of system hardware
- CPU and internal modules upgradeable as technology evolves
- No system NRE - final certification charges 20K Euro
- Maintenance and service agreements available for contract projects

## **DuraCOR<sup>TM</sup> 0482-53 System Highlights**

- High Reliability 1,4GHz Pentium M procesor
- 512GB Disk-on-Module for OS, 4GB CF for data storage
- Integrated interfaces:
  - 6 isolated dig. inputs, 8 isolated dig. outputs , +5 - 30Vdc I/O levels
  - 12-channel parallel tracking GPS receiver – iTrax03
- Networking:
  - (Option) MIL-STD-1553 redundant interface with BC, RT, MT modes
  - 10/100Mbit Ethernet
- +8 - 36Vdc Universal vehicle compliant power supply
- Rugged and sealed I/O connectors
- Structural heat dissipation of CPU and power supply
- uC - based diagnostic monitoring system “Guardian”
- EMI filtering and protection for military vehicle installations
- Operating: -40 to +70°C, IP65 environmental protection

# DuraCOR™ 0482-53 System Construction



\*Actual System might differ from picture above

# DuraCOR™ 0482-53 System Connectors rear view



- M1 MIL-STD-26482 Connector**
- ❖ 5 isolated digital inputs
  - ❖ 8 isolated outputs
  - ❖ MIL-STD-1553 bus
  - ❖ 10/100Mbit Ethernet

**M3 MIL-STD-26482**  
Power Connector Vdc

- M2 MIL-STD-26482 Connector**
- ❖ 1 RS-232 serial port
  - ❖ 1 RS-232/422/485 serial port
  - ❖ 1 USB 2.0

TM  
**DuraCOR 0482-53 System Connectors**  
**front view**

4 User Programmable LED indicators



Service panel:  
CRT display interface  
PS/2 mouse and keyboard  
Reset button  
Guardian I2C-bus

# Eurotech DuraCOR™ 0482 Typical Approvals

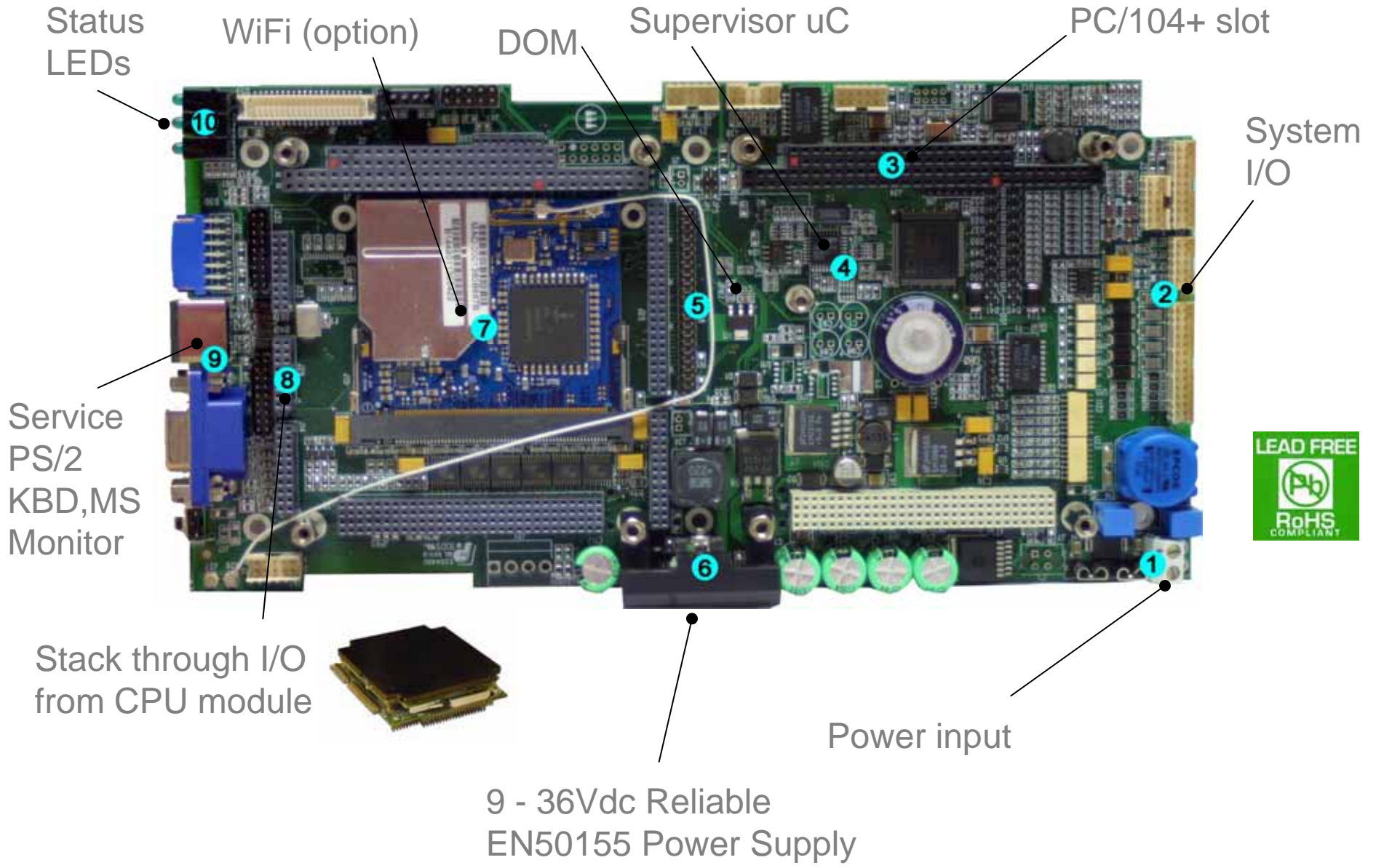
Subject	Standard followed	Restriction
<b>Climatic restrictions</b>		
Cololing	EN 50155 Section 2.1.2	(§ 10.2.3)
Dry heat	EN 50155 Section 2.1.2	(§ 10.2.4)
Storage temperature	EN 50155	(§ 10.2.14)
<b>Mechanical restrictions</b>		
Sinusoidal vibration	EN61373 (ed. 2000) Section 8	Category 1 Class B
Random vibration	EN61373 (ed. 2000) Section 9	Category 1 Class B
Shocks	EN61373 (ed. 2000) Section 10	Category 1 Class B
<b>Electrical restrictions</b>		
Power supply voltage interruption	EN 50155 Section 3.1.1.2	Class S2 : 0V for 10 ms
Power supply voltage switching	EN 50155 Section 3.1.3	Class C1 : 14,4V for 100 ms
Power supply over-voltage	EN 50155 Section 10.2.6.1	Voltage level 40V for 100ms
Sources	EN 50155 Section 10.2.6.2	Wave form A
Insulation resistance	EN 50155 Section 10.2.9	500Vac
<b>EMC restrictions</b>		
<b>Immunity test</b>		
Immunity	EN 50121-3-2 / EN 61000-4-2 ECE ONU reg.10	Electrostatic discharge immunity
Immunity	EN 50121-3-2 / EN 61000-4-3 ECE ONU reg.10	Radiated (electromagnetic field) immunity
Immunity	EN 50121-3-2 / EN 61000-4-4 ECE ONU reg.10	Fast transient/burst immunity
Immunity	EN 50121-3-2 / EN50155 ECE ONU reg.10	Surge immunity
Immunity	EN 61000-4-5 ECE ONU reg.10	Surge immunity
Immunity	EN 50121-3-2 / EN 61000-4-6 ECE ONU reg.10	Immunity to conducted disturbances
<b>Emission test</b>		
Emission	EN 50121-3-2 / EN 55011 ECE ONU reg.10	Conducted emission (Class A)
Emission	EN 50121-3-2 / EN 55011 ECE ONU reg.10	Radiated emission (Class A)
<b>Safety characteristics</b>		
<b>Applicable specifications</b>		
Safety	EN 60950	Essential constraints defined in the standard





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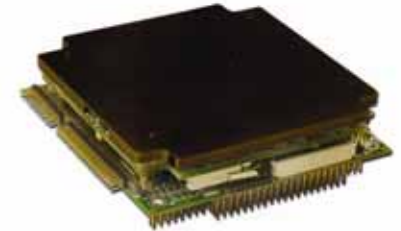
# DuraCOR™ System Carrier Structure



# DuraCOR<sup>TM</sup> High Reliability CPU

## Main Features

- Intel 1.4GHz High Reliability Pentium M processor
- Linux 2.6, QNX 6.2, VxWorks, WINCE5.0 compatible
- 512MB Onboard soldered DRAM
- **10/100Mbit Ethernet, CRT, LVDS, USB 2.0, two serial ports, EIDE, keyboard, PS/2, WDT, speaker, RTC, AC97 audio, EEPROM setup storage, Embedded BIOS with extensions**
- Heat spreader for **structural heat dissipation** to DuraCOR enclosure
- Power consumption 8W typical



**CPU-1482, PC/104+** 1.4GHz Pentium M single board computer with Ethernet and multi-port USB2.0

# DuraCOR<sup>TM</sup> Communications Interfaces

## COM-1250

- Dual redundant MIL-STD-1553 bus controller
- Supports BC, RT, MT operating modes
- UTMC Aeroflex SμMMIT 1553 controller chip
- Automatic message handling, message status, general status polling and interrupt capability
- -40 to +85C operating temperature



## COM-1289

- 12-channel low power parallel tracking GPS
- Fastrax iTrax03 GPS receiver module
- iTrax or NMEA ASCII output protocols
- Serial port host interface, logical COM-port
- Software configurable set-up and operating mode
- -40 to +85C operating temperature



# DuraCOR<sup>TM</sup> Mass Storage

## Solid State Disk

- 512MB storage capacity – expandable upon request
- Storage of OS image and application software
- Solid state FLASH disk technology
- Identified as "Fixed Disk" – improved compatibility with OS
- Mechanically mounted on system carrier
- **Extended operating temperature range -40 ..+85C**



## Main Data Storage Disk (CF card)

- 4GB storage capacity
- Storage application data
- Solid state FLASH disk technology
- Removable by opening system
- **Extended operating temperature range -40 ..+85C**



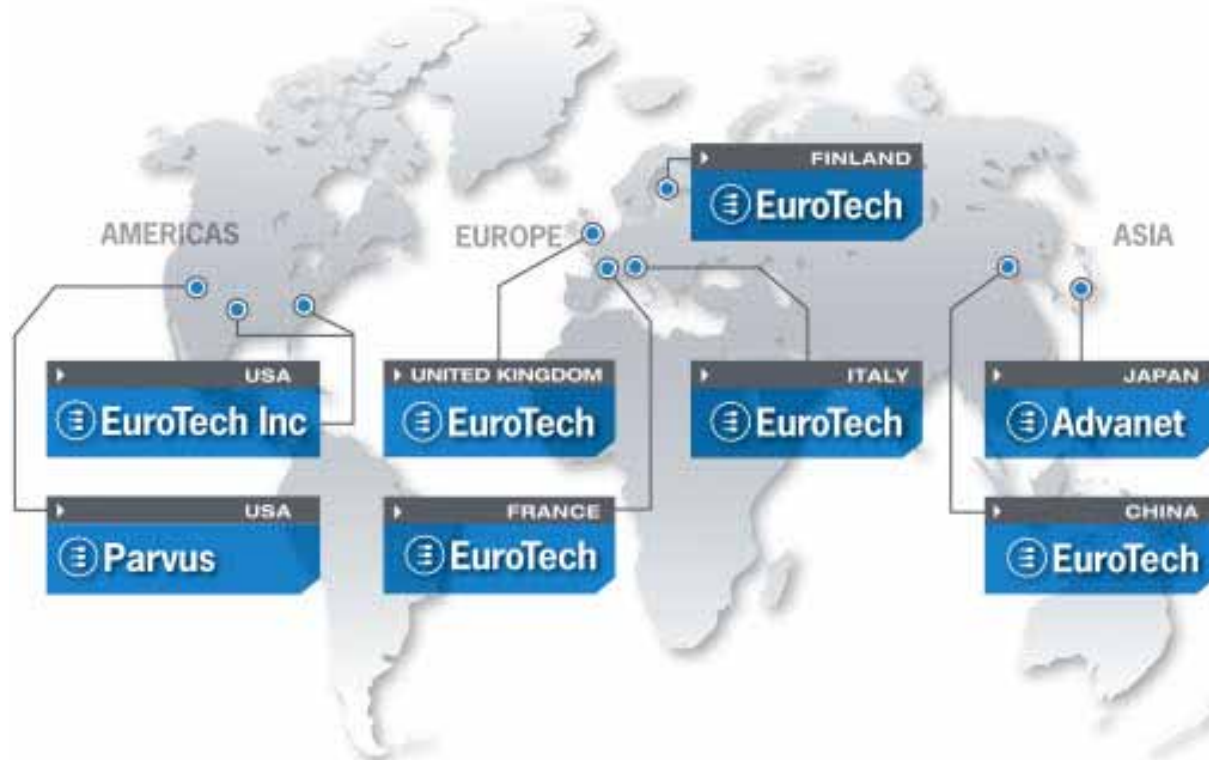
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The screenshot shows the EuroTech website homepage. At the top left is the EuroTech Group logo with the tagline "DIGITAL TECHNOLOGIES FOR A BETTER WORLD". To the right are navigation links for "Home", "Contact us", and "Sitemap". A utility bar contains "A+", "A-", "X", and an Italian flag. The main banner features the "Everyware™" logo over a blue background with a train. Below the banner are three navigation buttons: "PROFILE", "PRODUCTS", and "INVESTOR RELATIONS". The main content area is divided into four columns: "Eurotech WorldWide" with a world map, "Markets" listing "TMS" (Transportation, Mobility & Surveillance) and "ICN" (Industrial, Commercial & Networking), "Products" featuring the "DuraMAR 1000 Router" with an image, and "Latest News" with two news items dated 4/15/2008 and 3/28/2008.