

HMI25 & HMI30

HMI Solutions based on ARM Cortex A8, Premium HMI and ASEM UBIQUITY



DIGITAL AUTOMATION TECHNOLOGIES

HMI Solutions - Highlights

- **ARM Cortex A8** - 1GHz processor
 - Freescale i.MX535
 - 32bit - 400 MHz system memory bus
 - Powerful GPU integrated
- **Front panel available in two different variants**
 - Aluminum
 - Aluminum TrueFlat
- **Smart memory system**
 - 256MB flash for O.S. and runtimes
 - 2GB eMMC (SSD) for projects and data
 - 512MB RAM for system
 - Removable SD/SDHC for data storage (only for HMI30)
- **Windows Embedded Compact 7 PRO** operating system
- **Premium HMI 3 visualization SW:** BASIC and ADVANCED runtime Win CE versions
- **ASEM UBIQUITY Remote Assistance SW:** Pro runtime



HMI Solutions - Highlights

- 16 mln colors LED backlight TFT LCD displays

HMI25

- 4,3" WQVGA 480x272
- 7" WVGA 800x480

HMI30

- 5,7" VGA 640x480
- 7" WVGA 800x480
- 8,4" SVGA 800x600
- 10,4" SVGA 800x600
- 12,1" SVGA 800x600
- 15" XGA 1024x768



HMI Solutions - Highlights

Entirely **designed**, **engineered** and **manufactured** by ASEM

- Maximum reliability and performances
- Low power consumption
- UL 508 listed component
- IP66 frontal protection rating - Enclosure type 4X (Indoor use only)
- Operating temperature 0÷50°
- 7/10 years lifecycle



HMI Solutions - Features

	HMI25	HMI30
LED backlight TFT LCD	4,3" W / 7" W	5.7" / 7" W / 8.4" / 10.4" / 12.1" / 15"
TOUCHSCREEN	Resistive technology - 4 wires	Resistive technology - 4/5 wires
FRONT PANEL	Aluminum / Aluminum TrueFlat	Aluminum / Aluminum True Flat
PROCESSOR	ARM Cortex A8 - Freescale i.MX535 1GHz	ARM Cortex A8 - Freescale i.MX535 1GHz
ROM	256MB NAND-Flash	256MB NAND-Flash
DRAM	512MB DDR3-800	512MB DDR3-800
MASS STORAGE	2GB eMMC (Solid State Disk)	2GB eMMC (Solid State Disk) SD/SDHC push-push external slot
LAN	1 x LAN 10/100	2 x LAN 10/100
USB	1 x USB 2.0	2 x USB 2.0
SERIAL	1xRS232/422/485 (MPI support up to 187Kb/s)	1xRS232/422/485 (MPI support up to 187Kb/s)
POWER SUPPLY UNIT	Input voltage 24VDC (18÷36V DC)	Input voltage 24VDC (18÷36V DC) MicroUPS (optional)
HMI SW	Premium HMI 3 BASIC / ADVANCED	Premium HMI 3 BASIC / ADVANCED
REMOTE ASSISTANCE SW	ASEM UBIQUITY WinCE PRO	ASEM UBIQUITY WinCE PRO
OPERATING SYSTEM	Win Embedded Compact 7 PRO	Win Embedded Compact 7 PRO
CERTIFICATION	cULus (UL-508) – Cert.n° E356364	cULus (UL-508) – Cert.n° E356364

HMI Solutions - Drivers & Fieldbuses

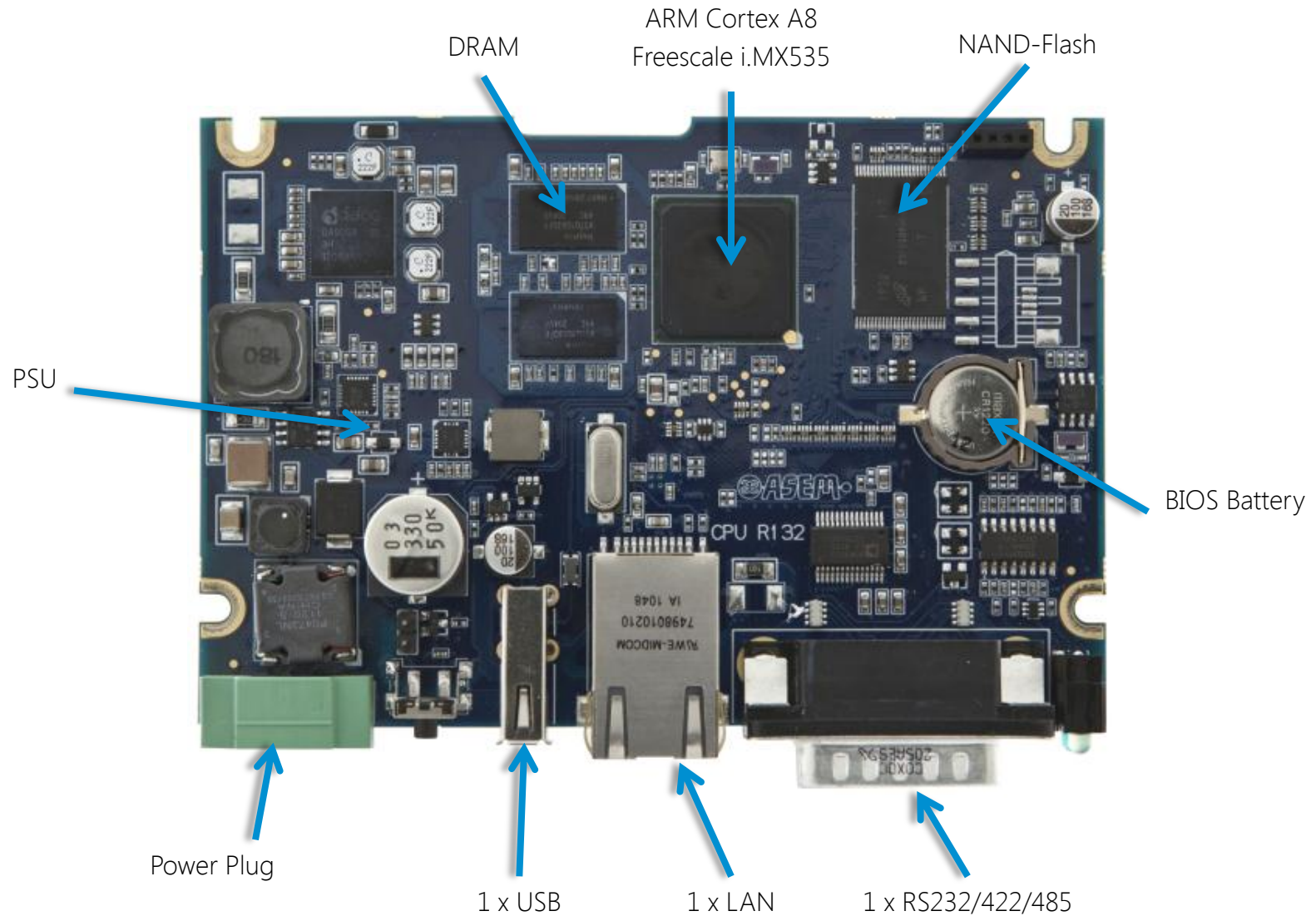
	Serial	Ethernet
ROCKWELL DF1 AND DATA HIGHWAY	<input checked="" type="checkbox"/>	
ROCKWELL ETHERNET IP		<input checked="" type="checkbox"/>
B&R PVI WITH PROTOCOL INA2000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BECKHOFF TWINCAT (ADS PROTOCOL)		<input checked="" type="checkbox"/>
GE FANUC SNP-X	<input checked="" type="checkbox"/>	
IBH SOFTECH		<input checked="" type="checkbox"/>
LENZE LECOM AB	<input checked="" type="checkbox"/>	
MITSUBISHI MELSEC FX	<input checked="" type="checkbox"/>	
MITSUBISHI MELSEC Q	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MODBUS RTU MASTER / SLAVE	<input checked="" type="checkbox"/>	
MODBUS TCP IP		<input checked="" type="checkbox"/>
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SAIA S-BUS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SCHNEIDER UNITELWAY SLAVE	<input checked="" type="checkbox"/>	
SIEMENS MPI PC ADAPTER	<input checked="" type="checkbox"/>	
SIEMENS S5 CPU (RS-232 TO CURRENT LOOP CONVERTER)	<input checked="" type="checkbox"/>	
SIEMENS S5 DK3864R	<input checked="" type="checkbox"/>	
SIEMENS S7 200 PPI	<input checked="" type="checkbox"/>	
SIEMENS S7 300/400 MPI	<input checked="" type="checkbox"/>	
SIEMENS S7 TCP 300/400/1200 (1)		<input checked="" type="checkbox"/>

(1) Communication with S7-1200 controllers is supported only with absolute addressing (no symbolic)

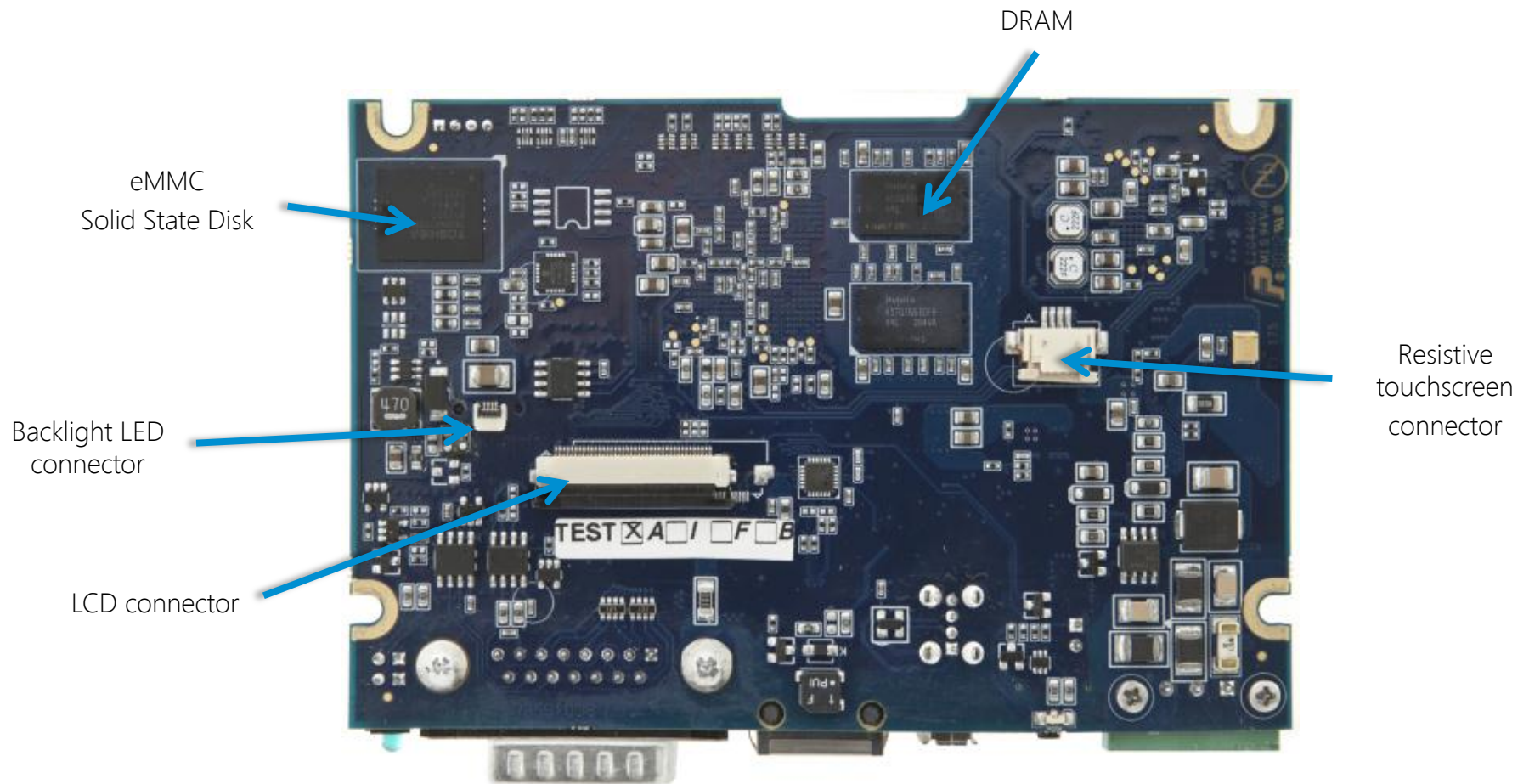
Hardware Features

HMI 25

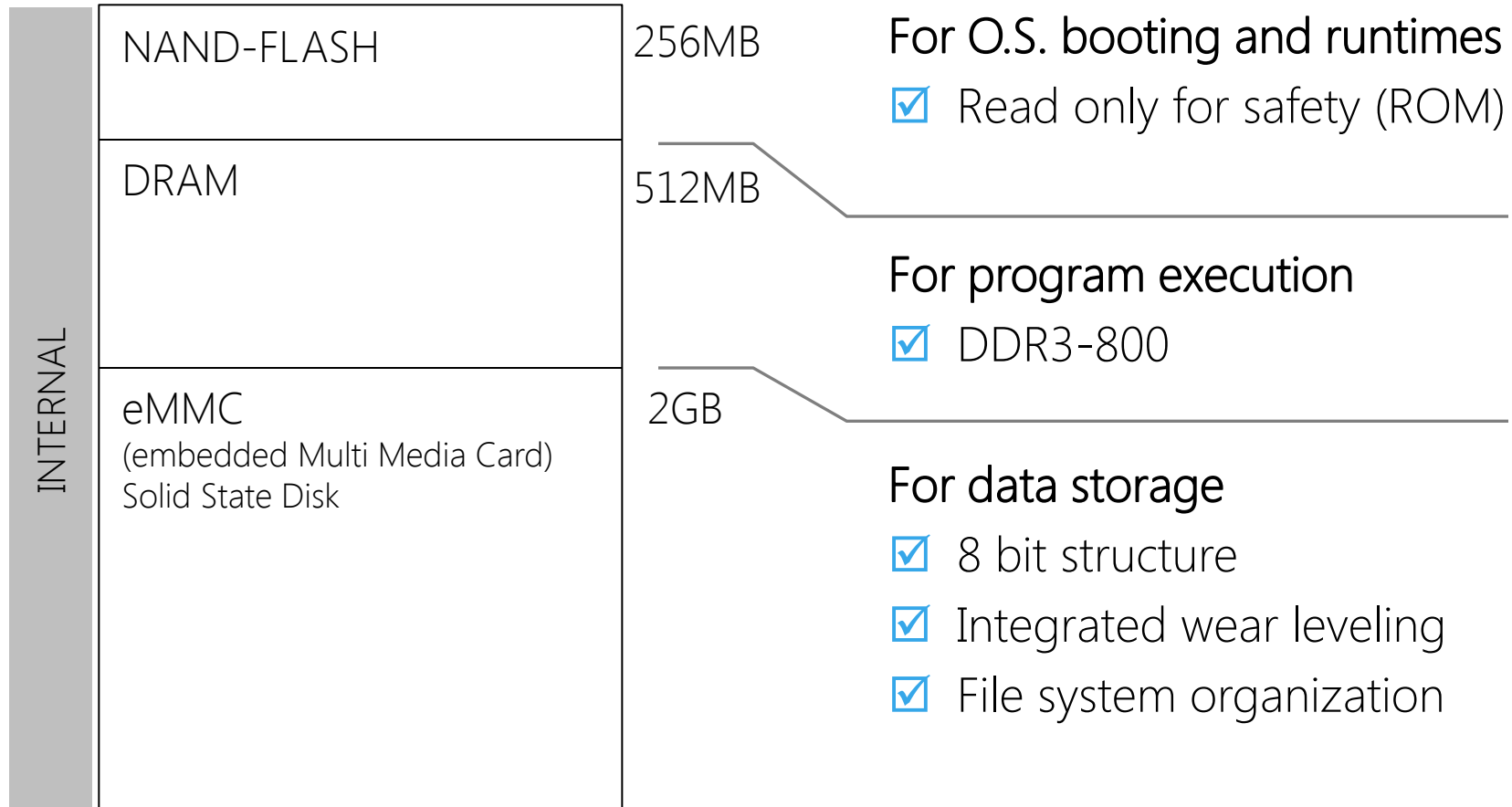
HMI25 - Motherboard R132 - TOP



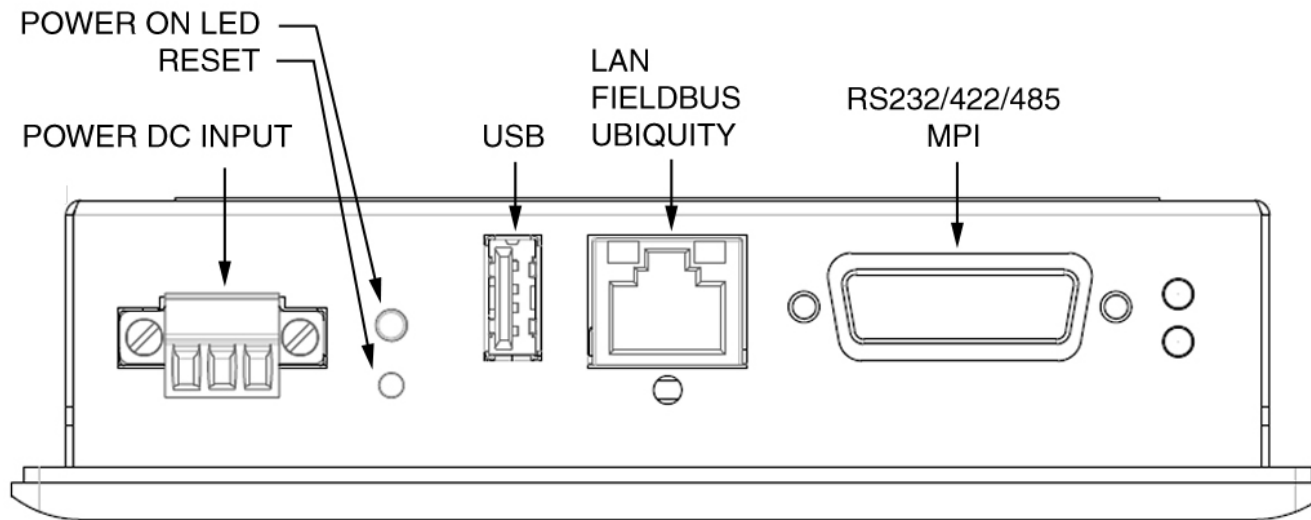
HMI25 - Motherboard R132 - BOTTOM



HMI25 - SMART memory system



HMI25 - External connectors & Interfaces



LAN

- 1 x LAN 10/100 Mbit/s (RJ45) suited for:
 - Automation network
 - Ethernet based fieldbuses
 - ASEM Ubiquity connection

SERIAL

- 1 x RS232/422/485 (DB15 male)
 - MPI compatibility up to 187Kb/s
 - Software programmable
 - Activity LEDs

USB

- 1 x USB 2.0 Type-A (rear)
 - 500mA max
 - Software switch-off

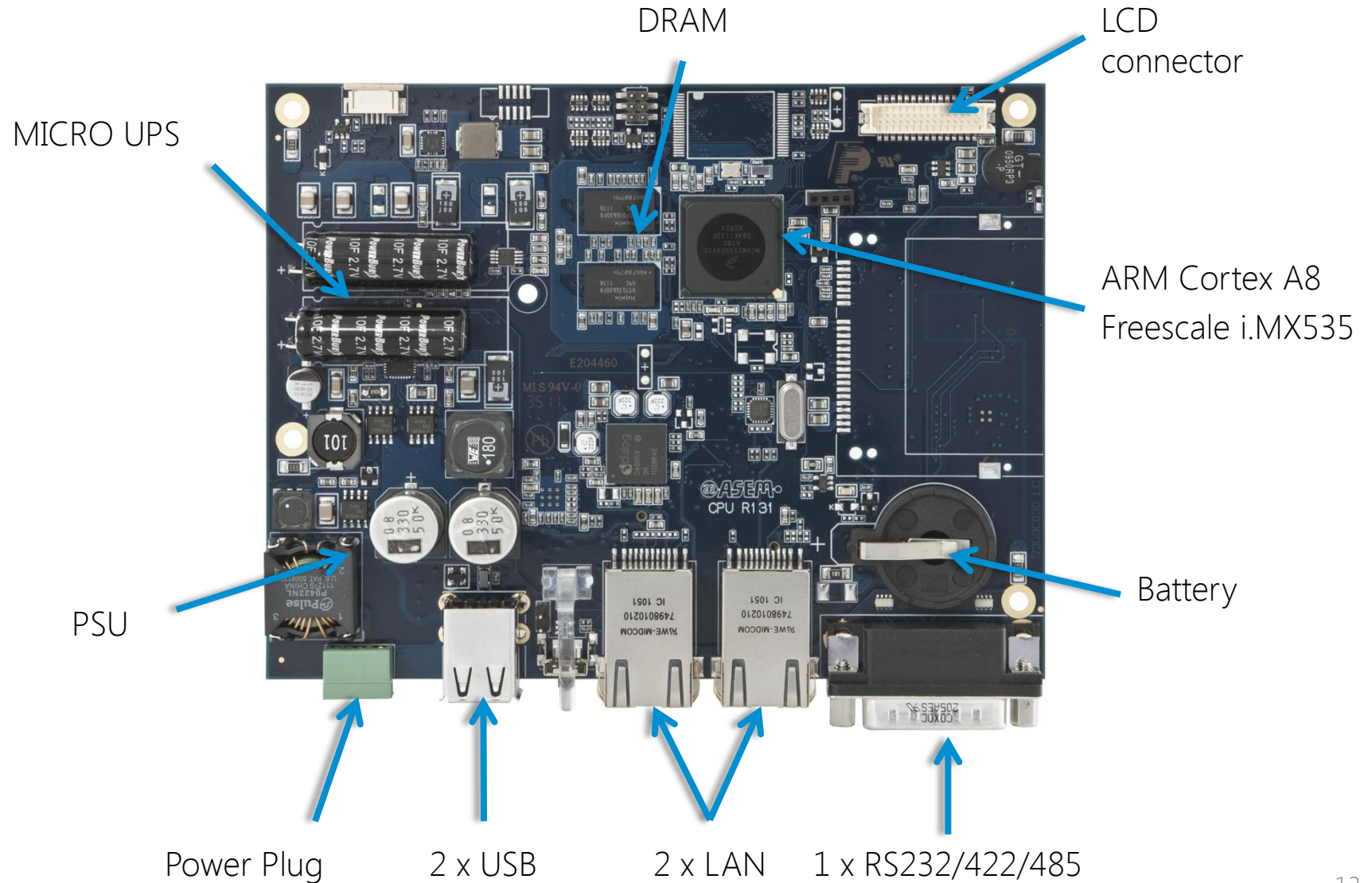
POWER INPUT

- Industrial connector
 - Input voltage 18÷36V DC
 - Overvoltage protection
 - Polarity inversion protection

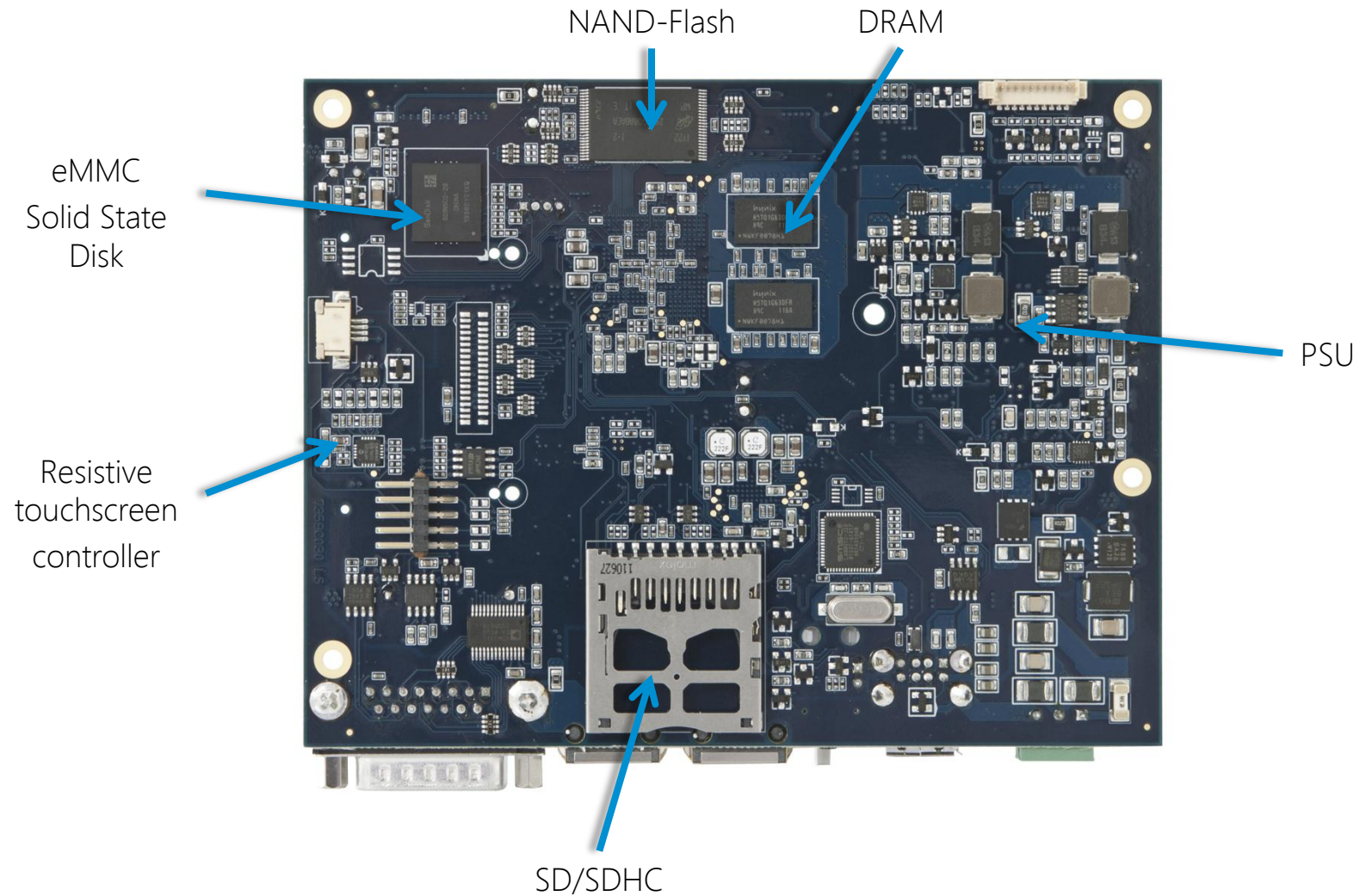
Hardware Features

HMI 30

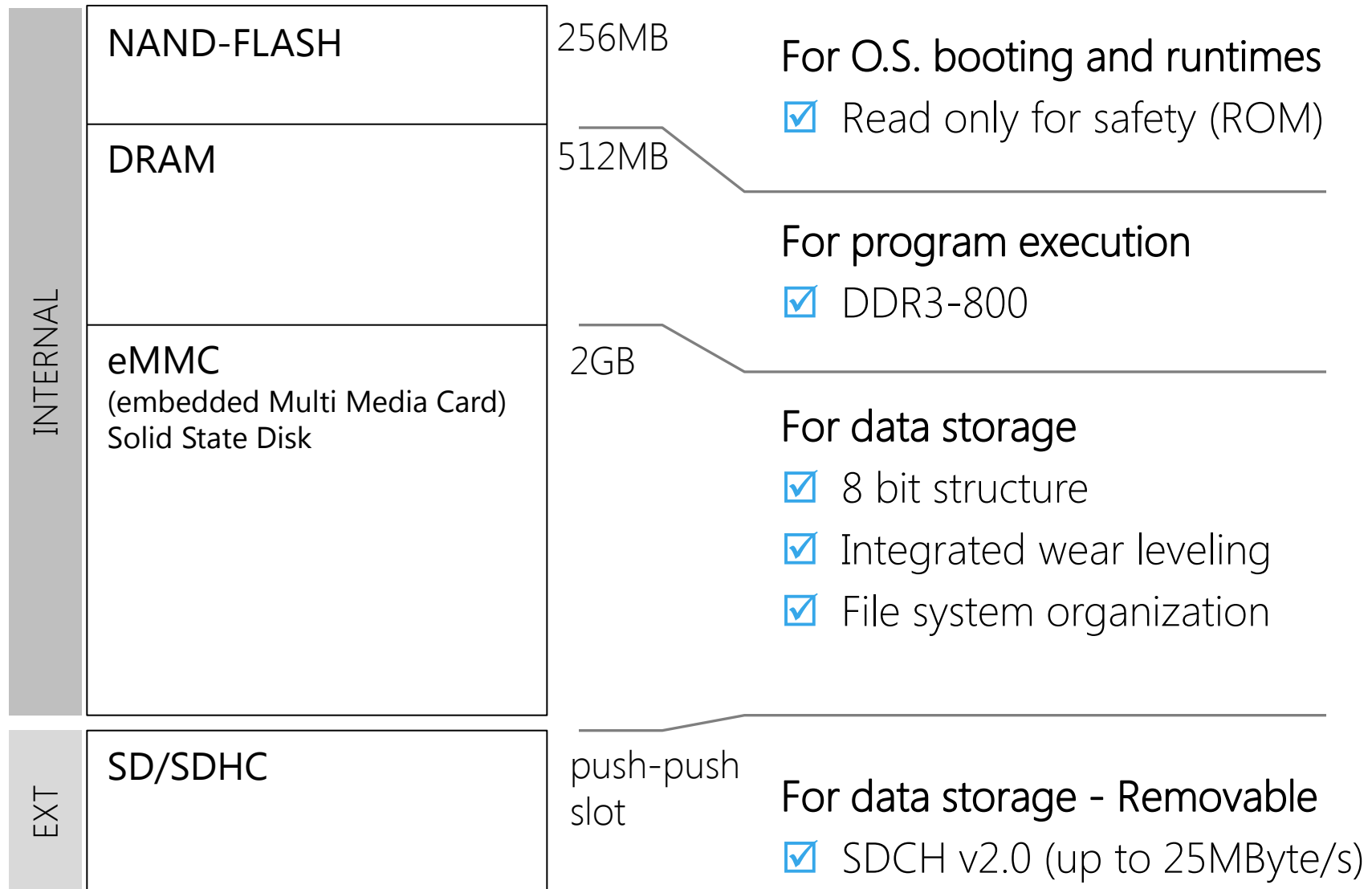
HMI30 family - Motherboard R131 TOP



HMI30 family - Motherboard R131 BOTTOM



HMI30 family - SMART memory system



HMI30 family - MicroUPS

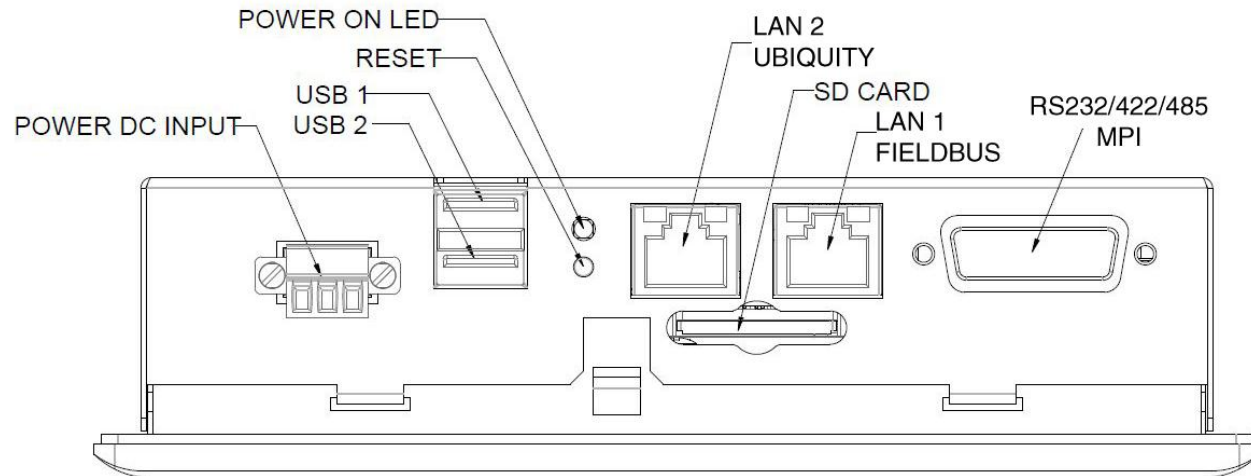
MicroUPS (option)

- Keeps power on during short interruption up to 500ms
- When re-powered, needs 1 minutes to rearm super-capacitors

Back-up procedure - Available starting from May 2013

- When minimum voltage threshold is reached **back-up process** starts:
 - An interrupt is generated
 - Data is saved
 - System is ready to be switched-off

HMI30 family - External connectors & Interfaces



LAN

- 2 x 10/100 Ethernet
 - 1 with IEEE1588 support for automation protocols
 - 1 for ASEM UBIQUITY or common Ethernet connection

SERIAL

- 1 x RS232/422/485 (DB15 male)
 - MPI compatibility up to 187Kb/s
 - Software programmable
 - Activity LEDs

USB

- 2 x USB 2.0 Type-A (rear)
 - 500mA max
 - Software switch-off

SD/SDHC slot - externally accessible (push-push)

POWER INPUT

- Industrial connector
 - Input voltage 18÷36V DC
 - Overvoltage protection
 - Polarity inversion protection

Software Features

HMI Solutions

HMI25 - Software highlights

- **Windows Embedded Compact 7 PRO**



- **Premium HMI 3 CE** runtimes
 - BASIC
 - ADVANCED



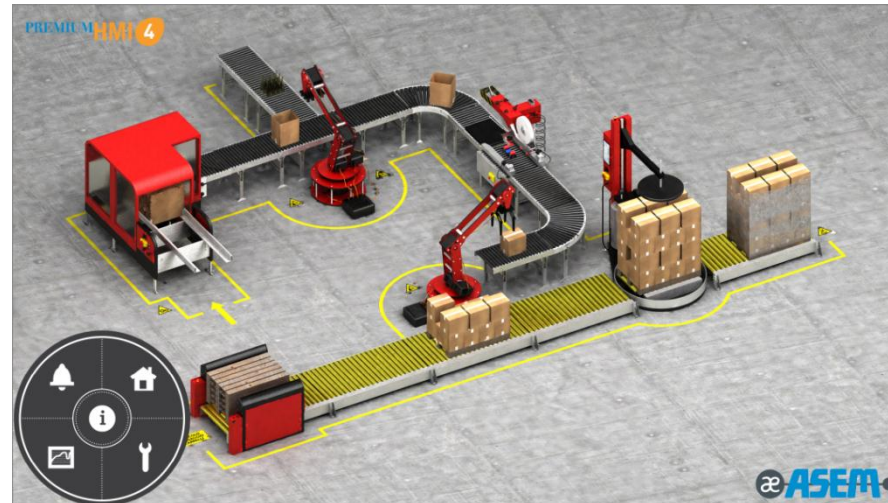
- **ASEM UBIQUITY CE** runtime
 - PRO



Premium HMI Highlights

- Unique development tool
- Projects transversality between ARM and X86 hardware platforms and between Win CE and Win 32/64 operating systems
- Automatic images resizing





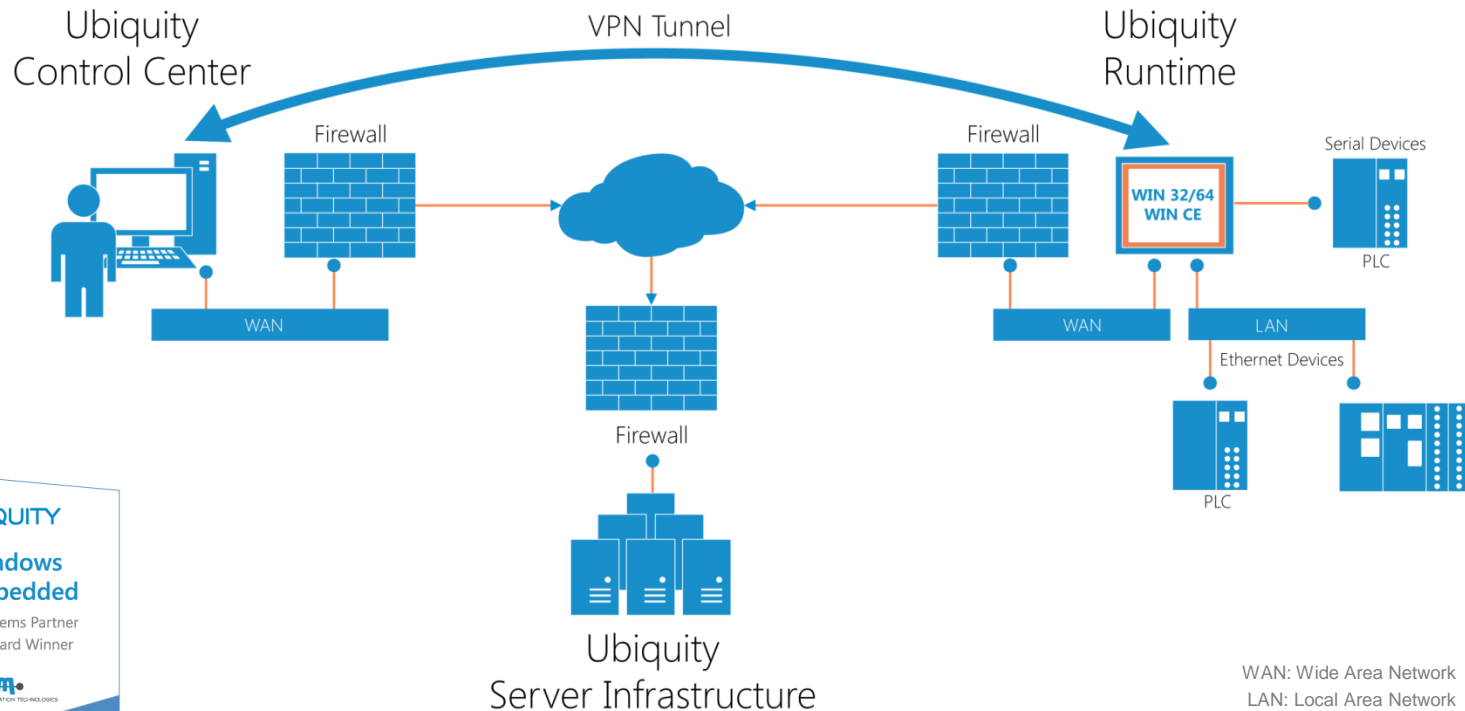
Features

- Data logging on relational and textual DB (CSV/XML)
- Networking with client/server architectures and father/child projects
- Modifications traceability on CFR21 Part 11 compatibles applications
- VB script and VB.NET with multithreading execution and online debugger
- Wide range of library symbols
- Multi protocol support with data transfer between communication channels
- OPC Client interface
- Report print on PDF and printer

	BASIC	ADVANCED
I/O BYTES (TAGS)	1.024	4.096
ALARMS	512	2.048
DATA LOGGERS ON DATABASE	Max 2	Unlimited
MULTI-DRIVERS	Max 2	Max 4
SMS/E-MAILS	No	Yes
WEB SERVER	No	Max 2 client connected
NETWORKING (NOT RAS)	Yes	Yes
CFR21 PART 11	Yes	Yes
VBA MULTITHREADING	Yes	Yes
SYNOPTICS	Yes	Yes
GRAPHIC LIBRARIES	Yes	Yes
POWER TEMPLATES	Yes	Yes
OPC FROM CLIENT (DATA ACCESS)	Yes	Yes
TEXT REPORTS	Yes	Yes
ACCELERATORS AND MENU	Yes	Yes
EVENTS HISTORY LOG	Yes	Yes
DYNAMIC LANGUAGE CHANGE	Yes	Yes
IL LOGIC (SOFTLOGIC)	Yes	Yes
ACTIVEX- OCX	Yes	Yes
DEBUGGER ONLINE/REMOTE	Yes	Yes
IP CAMERA	Yes	Yes
DYNAMIC TRENDS	Yes	Yes
HISTORY TRENDS, DATA ANALISYS	Yes	Yes
RECIPES	Yes	Yes

Ubiquity

The innovative software solution for remote assistance for Win 32/64 and Win CE environments that allows acting and operating on supervision and control systems in remote plants, cancelling distances and eliminating travel expenses.



WAN: Wide Area Network
LAN: Local Area Network



Remote Access Solution

Ubiquity is addressed to Machine Manufacturers, and allows acting onto remote supervision and control systems installed at customers, as if they were at their own site.

Distinctive features

- Proprietary VPN optimized for Industrial Communication
- Does not require additional hardware
- Simple and user-friendly interface
- SSL/TLS protocol encryption and use of certificates
- Automatic «Relay server» selection according to the shortest latency
- Multiple client runtime
- Easy setup, no network or IT expertise required

Possible remote activities

- Remote assistance
- Access, debug and programming of PLCs, HMIs and Automation devices
- Remote machine commissioning
- Application updates and maintenance
- Preventive and predictive maintenance
- Remote desktop, remote process viewer, file management, chat...

A unique solution for machine remote control that makes manufacturers save time and money.

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