

» INTERPARLO «



INTERPARLO - Internet on Train Server

Application Ready Platform for WiFi and Passenger Infotainment

- » WiFi, UMTS, GSM, LTE, GPS interface options
- » Separate controllers supporting streaming applications
- » Modular, robust, switched CompactPCI® system



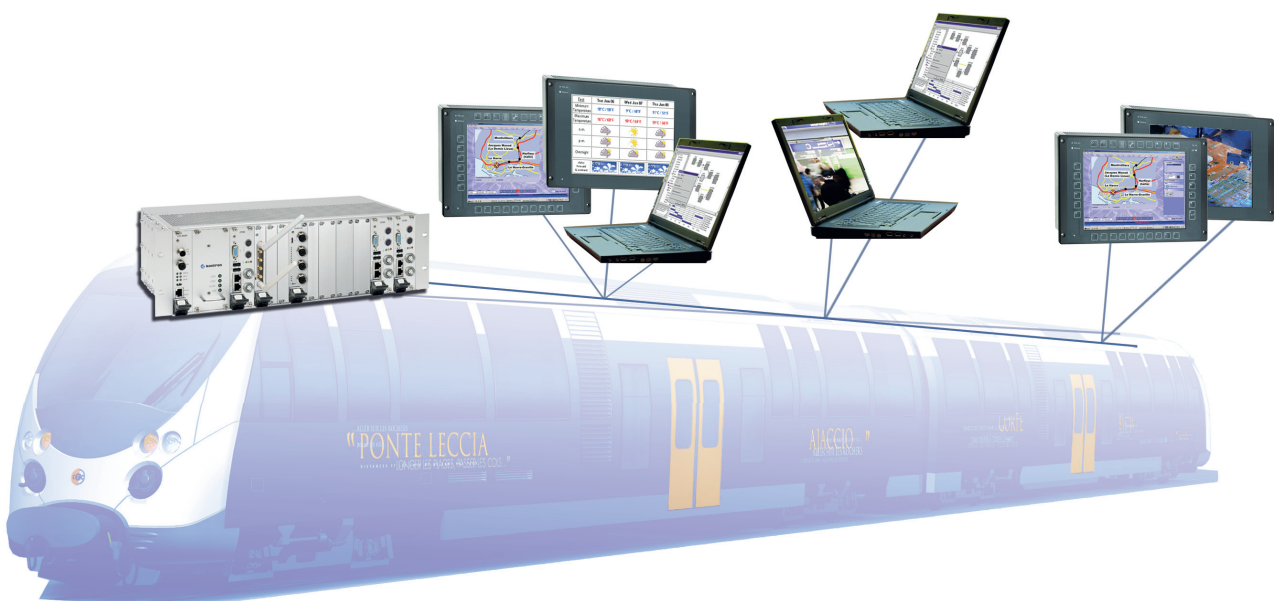
The modular universal Internet On Train platform is ideally suited for passenger infotainment services and any application where wireless communication is needed.

Your Benefits

- » "All in one": all hardware functions for Passenger Infotainment and WiFi connection in only one rack
- » Open for today's wireless communication options
- » Flexible for project adaptations
- » Enhanced lifetime program
- » Future updates of CPU or any hardware function
- » Open to incorporate future communication or networking standards
- » Local support and project management in your region
- » Kontron's global expertise as leading supplier
- » Minimized total cost of ownership

Total cost of ownership is consequently minimized

That's what INTERPARLO and KONTRON stand for: combining the many advantages of CompactPCI® with leading edge technology, and with the global presence and service of a leading supplier in the ECT and Transportation computer market. Consequently, this turns to your advantage, minimizing the total-cost-of-ownership through a long project life time.



Application Ready

INTERPARLO is made for the OEM who provides the entire solution and the train deployment. By use of the BASE platform and respective mounting options, the OEM has a readily equipped hardware platform to immediately start application development. A ready-to-

run sample image for Linux or Windows, and respective “getting-started” documentation, makes development comfortable from the very first. The system can be provided with conformal coating as option, for EN50155 compliancy and final deployment in trains.

Ready to run ...

... OEM's Applications for Passenger Service.

To increase the passengers' comfort, typical applications provide some welcome and safety information, general or dedicated travel informations, and continuous WIFI connections for email and audio/video channels via internet.



... OEM's Applications for improving Railways Operations.

Other applications may use the continuous connection from train to wayside, to improve internal operations: Punctuality, train maintenance efficiency, rolling stock availability, and staff communications. These applications may alternatively be placed in a Management System (TCMS) with a GSM-R access and Firewall. Ask Kontron for your TCMS solution.



INTERPARLO Internet On Train Server

The "All in One" Hardware Functions

Base Platform prepared for "All in one" Functions

The 19" base platform consists of a 84HP 3U industrial housing, a 24 to 110 VDC 100W power supply with power entry at frontside, and the main controller board of 4HP or 8HP. The processor Intel® Celeron®M with 1.06GHz and 512 MB RAM or alternatively, Intel® Atom with 1.6 GHz with 1 GB RAM, provides maximum performance at minimum power consumption. It comes with a CompactFlash card with a preinstalled ready-to-run Linux or Windows image. Four free slots, or three free slots in case of a 8HP CPU board, can be used to add project specific hardware functions. The platform requires at least natural convection cooling. If required, a fan tray is available as well. A power management module option enables power up or shut down via LAN, and monitoring of operating temperatures.

WiFi, UMTS, GSM, LTE, GPS Interface Options

In INTERPARLO, one or more 4HP carriers are equipped with modules providing WiFi and UMTS, GSM, GPRS, GPS. Marketavailable modules at customer's option, including LTE, can be supported.

Separate Controllers supporting Streaming Applications

Up to two additional system controllers are provided within the same rack. The controllers are placed on separate CompactPCI® busses, and have GbE network access to each other via an integrated switch as option. For streaming applications such as realtime transmission of media data for passenger information, the separate controllers provide the respective performance and mass storage. The System Controller board with Intel® Atom 1.6 GHz is of 8HP size and is equipped with a 2.5" SATA hard disk drive or a Solid State Disk. The drive shall be selected separately due to project requirements to quality and capacity.

Integrated Ethernet Switch

The Ethernet Switch option efficiently handles communication networks, for instance towards several intelligent IP based HMI and towards the train network. The switch is available with M12 connectors for Fast Ethernet on front, and provides access to the system controllers via backplane.



Custom Options

Thanks to the modular architecture, the platform can be extended for further applications which are often requested in the same train. Alternative system controllers out of Kontron's wide portfolio, or functions like MVB, RS485, or RAID Kit options for CCTV, can be provided on request.

Dedicated Project Management

Ask for a customized platform: A Kontron project manager is assigned for you. As a global company, Kontron has knowledgeable teams to support you in your region. Through your local project manager you have worldwide access to immense specialist know-how. Your project manager guides you securely through the entire design-in process to production-ready product by means of a precise gate project plan. This allows you to concentrate on your core business and still retain an overview and full control of development, documentation, and production, including unique test processes, systems and procedures.



INTERPARLO Internet On Train Server

Select your platform variant

Technical Information	
Base Platform	
Select 1 out of 2 variants	
CP-ASM3-84-M100DCWV-B1101-305-STD-MPRAIL	<p>Base system platform common features, with</p> <ul style="list-style-type: none"> » CP305, 4HP System Controller board with Intel® Atom 1.6 GHz, 512KB L2 Cache, 1 GB RAM, 4GB CompactFlash, universal PCI interface, Front I/O: 2xGB Ethernet, 2xUSB, VGA, LEDs
CP-ASM3-84-M100DCWV-B1101-307-STD-MPRAIL	<p>Base system platform common features, with</p> <ul style="list-style-type: none"> » CP307, 8HP, special heat sink for extended temperature, with Intel® Celeron M, 1.06 GHz, 1MB L2 Cache, 512 MB RAM, 4GB CompactFlash, Front I/O: 2xGB Ethernet, 2xUSB, VGA, LED's
Common features	<ul style="list-style-type: none"> » 84HP 3U industrial enclosure dedicated for Railway applications, requires natural convection cooling » PSU 100 W, 24...110 VDC, M-Type, 10 ms hold-up time, 12 HP » Power-In module on frontside 6HP » Four peripheral slots to 4HP main controller, three in case of 8HP » Prepared for integration of several functional modules (below) » Backplane prepared for Ethernet access to CPUs via Switch module (below)
Additional options	<ul style="list-style-type: none"> » Conformal Coating » Any choice of System controllers can be provided. Ask for recommendations out of the CP3002 and CP3003 series, featuring ultra-low-voltage or extended temperature! » On request: System & power management module, replacing the 6HP Power-In module: Power and Ethernet switch, temperature control, Fast Ethernet port via M12-D connector, Power input via M12-A connector, RS232 interface at RJ45 connector for management » Fan tray on request
Wireless Communication Module	
CP3-WIFIGSM	<ul style="list-style-type: none"> » 4HP carrier with WiFi MiniCard WPEA-110N (Supplier: Sparklan) and UMTS/GSM 3G MiniCard (Supplier: Sierra Wireless), including antennas » Alternative market available MiniCards for GPS, GSM, UMTS, LTE, WiFi on request
Additional options	<ul style="list-style-type: none"> » Conformal Coating » Additional carriers, for arbitrary free peripheral slots, each with 2 market available PCIe miniCards for GPS, GSM, GSM-R, UMTS, WiFi, LTE. Ask for your selection!
2 separate CPUs, Disks	
CP305-SA-1.6S-1-8R-E1X	<ul style="list-style-type: none"> » CP305, 8HP System Controller board with Intel® Atom 1.6 GHz, 512KB L2 Cache, 1 GB RAM, CF socket, universal PCI interface, Front I/O: 2xGbE, 4xUSB, VGA, DVI, COM, PS2, Reset button » Prepared for Ethernet access through Switch via backplane (see Switch mounting option) » The base system provides two secondary CompactPCI® busses for this purpose » Order 2.5" SATA-HDD or SSD separately, oder conformal coating separately
Additional option	<ul style="list-style-type: none"> » Conformal Coating » Any choice of 8HP System controllers can be provided. Ask! » HDD/SSD options: ask for your requirements!
Managed Ethernet Switch (Option)	
CP3923-4M-EX-C	<ul style="list-style-type: none"> » Fully managed layer 2/3 Ethernet switch » Leading edge technology based on BCM56226 » 4x 100 Mbit M12-d Ethernet connectors on front » 8x GB Ethernet ports on rear » Connection to all System Controller Boards via backplane. » Conformal coating included
General	
Software	<ul style="list-style-type: none"> » Support for Linux and Windows available
Temperature Range	<ul style="list-style-type: none"> » -40°C to +80°C at 100% performance depending on CPU and module options » EN50155/T1-TX as options
Compliance	<ul style="list-style-type: none"> » CompactPCI® Specification PICMG 2.0 Rev. 3.0 » Option: EN50155 (Railway), EN50121-3-2 (EMC, Railway)
Designed to meet	<ul style="list-style-type: none"> » Safety: IEC60950-1, EN60950-1, UL60950-1 » EMI/EMC: EN55022, EN55024, EN61000-6-2

Ordering Information

Article	Description
CP-ASM3-84-M100DCWV-B1101-305-STD-MPRAIL	» INTERPARLO Internet On Train Server: Base system with CP305. Coating as separate option
CP-ASM3-84-M100DCWV-B1101-307-STD-MPRAIL	» INTERPARLO Internet On Train Server: Base system with CP307. Coating as separate option
CP3-WIFIGSM	» 4HP carrier with WiFi MiniCard WPEA-110N (Supplier: Sparklan) and UMTS/GSM 3G MiniCard (Supplier: Sierra Wireless), including antennas. Coating as separate option » Selection and price of the MiniCards is subject to change to a successor
CP305-SA-1.6S-1-8R-E1X	» CP305, 8HP System Controller board with Intel® Atom 1.6 GHz, 512KB L2 Cache, 1 GB RAM, CF socket, universal PCI interface, Front I/O: 2xGbE, 4xUSB, VGA, DVI, COM, PS2, Reset button Order HDD or SSD separately. Coating as separate option
CP3923-4M-EX-C	» Managed Ethernet Switch, 8x GbE ports on rear, 4x M12-d Fast Ethernet ports on front; Conformal coating included
LIN-IMG-INSTALL-CPASM3MP	» Linux Sample Image for INTERPARLO and OBSERVO-X4 platforms with CP305 or CP307 as main CPU. Installation onto compactFlash of system item CP-ASM3-84-M100DCWV-B1101-305-STD-MPRAIL or CP-ASM3-84-M100DCWV-B1101-307-STD-MPRAIL
WXPE-IMG-INSTALL-CPASM3MP	» Windows XP Embedded Sample Image for INTERPARLO and OBSERVO-X4 platforms with CP305 or CP307 as main CPU. License label and Installation onto compactFlash of system item CP-ASM3-84-M100DCWV-B1101-305-STD-MPRAIL or CP-ASM3-84-M100DCWV-B1101-307-STD-MPRAIL

RELATED PRODUCT

EN50155 Display Computer (HMTR)

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. Featuring a 10.4" TFT display with touch panel or hardkeys and IP65 (splash guard), the HMTR is a perfect choice for Human Machine Interfaces (HMI) in harsh environments. With Fast Ethernet, serial interfaces, USB ports, CAN, and a Flash device socket, all necessary interfaces are present. Digital I/O, watchdog and temperature sensor, on board diagnostic and history storage, round up the comprehensive feature set.



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