# MICROSPACE RAILWAY COMPUTER SYSTEMS



**MPCR50R** The fan-free, Core2Duo, 19" rail computer EN50155

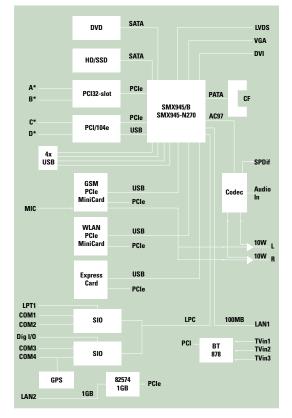
The MPCR50 has many interfaces (COMs, USB, LAN, Digital I/O, video input) and is expandable with PCI slots and PC/104express cards (e.g., CAN, measurement cards). For mass storage, a shock-absorbing, "hot plug" exchangeable SATA300 hard drive or SSD drive is built-in (a second drive is optionally available) The RTC battery is monitored and servicefriendly, being accessible from the front. For expansion there are optional GPS, GSM and WLAN as well as slots for CompactFlash and Express cards. The housing is made of rugged chromium steel with integrated passive, maintenance-free and fanless cooling. Customer specific functions such as Ring On Wake, GSM Wake, Event Wake Up or Wake On LAN can be realized using FPGA and a microcontroller. By means of a color LCD display and 6 function buttons, various security functions and system information (voltages, temperatures, error reports, POD diagnostics, operating log, RTC battery voltage) can be queried. An external 12V secondary battery can be connected to bridge power failures of the primary feed.

### **Applications**

- \_ Video server in railway vehicles, passenger entertainment, passenger safety
- \_ Expandable, e.g. with 8x COM, 8x LAN
- \_ For 24-110V galv. 1.5kV isolated rail power supply
- \_ EN50155, TX certified, M12 connectors



DIGITAL-LOGIC<sup>®</sup>, smartModule<sup>®</sup>, smartCore<sup>®</sup>Express, MICROSPACE<sup>®</sup> and MicroDesign are registered trademarks and are property of DIGITAL-LOGIC AG, Switzerland. All other brand names, trademarks and registered trademarks are property of their respective owners. All data is for informational purposes only, is subject to change, and is not guaranteed for legal purposes. Information in this document has been carefully checked and is believed to be accurate. However, no responsibility is assumed for inaccuracies.



\*A, B, C, D interfaces depend on the built-in PCI/104e cards or their respective slots

### **Ordering information**

Item	No.	Description
Option MPCR50/R WLAN	807414	MiniCard Intel 4965AGN with antenna cable
MPCR50 19"-Mountingkit	814617	
Option 32GB SSD	807417	SATA SLC 2.5"-SSD
Option 2. Drive removable	807419	with 80GB Harddisk SATA
Option MPCR50/R GPS	807412	GPS A1080 assembled with antenna cable
Option GSM GPRS/UMTS	807413	MiniCard Expr. assembled, GMS with antenna cable
Option MPCR50R 2xCAN isol	807415	Option: 2xCAN isolated PEAK CAN
MPCxx M12 Powerconnector	814690	M12-Plug with 2m cable for DC input 12-48VDC
MPCxxx RTC-Battery Kit	807470	Maintenancekit
MPCxx M12 USB to Std.USB	814691	M12-Plug with 2m cable to Standard USB connector
MPCxx M12 LAN to Std.LAN	814692	M12-Plug with 2m cable to Standard RJ45-LAN
Downgrade w. SMX945-N270	807404	Atom N270 with 1.6GHz, 2GB RAM assembled

©Copyright 2009: DIGITAL-LOGIC AG, Switzerland. All rights reserved. M: I datasheets I datasheets\_MCS\_10 I 814600DS\_E.pdf

PCI/104ex

Railway + 19" Rack

## **Technical data**

2x 1.5GHz

Core 2 Duo

Туре	MPCR50R-xxx
CPU	Intel® Pentium® Core™2 Duo/Atom
Chipset	Intel®945GM / N270
Memory	2GB
Hard drive	80GB 2.5" or 32GB SSD
CF	Ves
Video controller	Intel®945GM
CD/DVD	-
1 <sup>st</sup> video interface	QXGA
2 <sup>nd</sup> video interface	DVI
Resolution	2048 x 1536 (@ 75Hz)
TV input	BT878, 2 channel
Serial interface COM1	DB 9pol, RS232
Serial interface COM2	DB 9pol, RS232
Serial interface COM3	DB 9pol, RS232 (CAN)
Serial interface COM4	DB 9pol, RS232 (CAN)
Parallel interface	optional
USB V2.0 Standard	2x front
USB V2.0 M12	1x front
LAN Port A (with LAN boot)	10/100BASE-T (M12)
LAN Port B	1GB-LAN (RJ45)
Audio controller	AC97-2.3
Audio output	Stereo 2x 10W amplifier
Audio Input	Stereo Line
Options	WLAN, GSM-UMTS/GPRS
	CAN, IBIS, GPS
Digital input/output	4x opto output, 4x opto input
Remote power on/off	yes (ignition)
DC Voltage input (not isolated), V1248	8-58VDC/typ.40W
DC Voltage input (isolated 1.5kV), Ixx	24/36/48/72/110VDC/typ.40W
AC power supply	· ·
Expansion	2x PClexpress MiniCard,
	2x PCI/104express slot
	1x PCI ExpressCard slot
Power save function	Suspend/Resume, SoftOff, Instant On
Conformity	CE, FCC, e1, EN50155
Protection class	IP40
Size (W x L x H in mm)	480 x 132 x 250
Weight	6 kg
Housing	Chromium steel
Colour	chrome
Noise level	<20dB(A)
Operating temperature (with HD) T1	-25°C bis +55°C
Extended operating temperature (with SSD) TX	-40°C bis +85°C
Vibration/shock incl. HD/CD/DVD	1/10G
Vibration/shock incl. SSD	10G/150G
MTBF	60'000h
For operating systems	Vista, WIN XP, LINUX
Part no. MPCR50R-V1248	814600
Part no. MPCR50R-124	814601
Part no. MPCR50R-I36	814602
Part no. MPCR50R-148	814603
Part no. MPCR50R-172	814604
Part no. MPCR50R-I110	814605

Manufacturer:



DIGITAL-LOGIC | Nordstrasse 11/F | CH-4542 | Luterbach / Switzerland Phone +41 (0)32 681 58 00 | Fax +41 (0)32 681 58 01 sales@digitallogic.com | www.digitallogic.com

### Distribution:



