Portable Industrial Controller R&S PSP7

Mobile measurements and their control made to perfection

Maximum mobility
The R&S PSP7 makes measurements and their control mobile. Because of the instrument's compact size, its automatic test and measurement functionality can be used anywhere.

Switch on and go
The "switch on and go" principle has been applied to the R&S PSP7 just as it was to all previous Rohde & Schwarz process controllers. Operating system and comprehensive software can be factory-installed.

Optimal EMC
The R&S PSP7 keeps going even under extreme environmental conditions. Due to excellent shielding, the R&S PSP7 features extremely low emission and high immunity to interference, as well as shock and vibration resistance.

ROHDE&SCHWARZ

The multi-talented allrounder

Stationary or mobile use

The front-panel keypad and the integrated TFT display allow the controller to be used in a rack or in the field.

Mobile use
The front-panel keypad comprises a numeric block, preprogrammed function keys and a cursor block with spinwheel. All keys are fully integrated into Windows, so it is possible to control applications without an external keyboard. This is a great advantage for applications in production environments.

Compact size and independence from local AC supplies make the R&S PSP7 suitable for universal applications. It can be powered from diverse onboard networks – in vehicles, on ships or in aircraft.

Stationary use
Whenever necessary, an external keyboard and a monitor can be connected to the R&S PSP7 and run parallel to the front-panel keypad and the built-in display.

Always on the sunny side

Maximum mobility can only be achieved with full independence from the type of energy source.

Solar powering
The R&S PSP7 can be powered from a solar panel via the DC input connector.

DC powering
The R&S PSP7 accepts DC voltages from cars, ships or aircraft.

The software options in detail

Powerful hardware and software components

The R&S PSP7 comes with an IEC/IEEE bus fitted as standard. With the software option R&S PSP-K12 (Windows XP Embedded), the operating system as well as all the necessary drivers are already installed, so there are no time-consuming hardware and software installations. The option R&S PSP-K13 (NI Measurement Studio Full Development System with LabWindows/CVI) provides a comprehensive tool for software development.

Windows XP Embedded

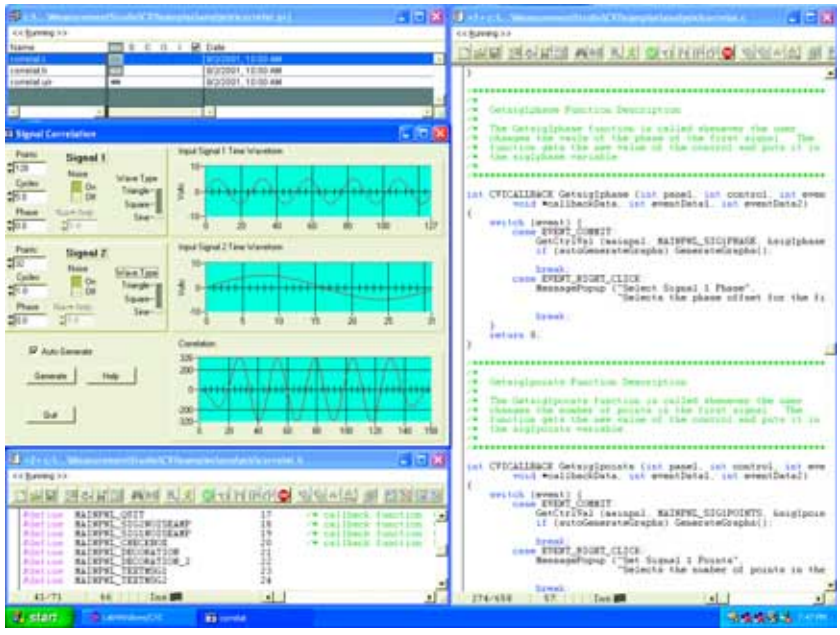
Windwos XP Embedded is based on the binary code of Windows XP Professional. This ensures unrestricted functionality and all the advantages of a modern operating system from Microsoft.

The embedded version of Windows XP can be used with all software applications that support the system application running on the R&S PSP7, including the use of office applications for evaluating the measurement results. [1)]

LabWindows/CVI [2)]

LabWindows/CVI from National Instruments is an interactive base for programming virtual instruments on the R&S PSP7 and is practically industry standard.

The visual tools for creating graphical user interfaces are an integral part of the C development environment which can be used to generate EXE programs and DLL files.



Interactive development and testing of measurement software is a prominent feature of LabWindows/CVI.

The software comes with a selection of device drivers and comprehensive analysis functions. With LabWindows/CVI, C source code can be generated in next to no time in order to communicate with measuring instruments via IEC/IEEE bus or serial interface.

Further information

For further information please contact your nearest Rohde & Schwarz representative or headquarters in Munich.

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1) Use as a standard desktop system is prohibited by Microsoft. The exact license conditions are contained in the End User License Agreement (EULA).

2) CVI = C for virtual instrumentation.

Customer benefits

Interfaces – the lifeline of a controller

Numerous interfaces such as 2 x serial, 1 x parallel, IEC/IEEE bus, PCMCIA, 2 x Ethernet and USB are the link to communication between the controller and the devices to be controlled.

Modular expansion

Despite its compact size, the R&S PSP7 incorporates everything you need for many measurement tasks. Should you require additional functions to solve special measurement problems, the R&S PSP7 can accommodate up to four additional long-format measurement cards.

Best of EMC characteristics

It is not by chance that the R&S PSP7 features excellent EMC characteristics. The instrument was developed and constructed strictly in compliance with EMC specifications, backed by the comprehensive know-how of Rohde & Schwarz.

Extensive filtering for the electronic components in conjunction with effective shielding and a novel design of the casing led to an industrial controller that can safely be employed even in the vicinity of highly sensitive receivers without impairing the measurement results.

Our promise – reliability and stability

Maximum reliability is a crucial factor in production as well as in mobile use. We at Rohde & Schwarz are very much aware of this factor, and all our products fully comply with the ISO 9001 standard.

All components used in the R&S PSP7 were developed and selected with long-term availability in mind so that servicing or expansion of the R&S PSP7 will be no problem even in many years' time – an advantage that is appreciated especially by production engineers and system planners. Furthermore, the R&S PSP7 has up to three temperature sensors making sure that the instrument never overheats.

All interfaces required for measurement tasks are clearly arranged on the rear of the R&S PSP7.

Specifications

CPU	Intel Pentium III, 700 MHz, mobile, or more powerful
Memory	256 Mbyte (standard), with R&S PSP-B2 expandable to 512 Mbyte, hard disk 20 Gbyte minimum, 3 1/2" disk drive (1.44 Mbyte)
Display	
Screen	LCD colour 8.4", anti-glare
Interfaces	
– internal –	
Available interfaces	3 x 16 bit, dimensions (L x H):
ISA	330 mm x 140 mm
ISA	330 mm x 140 mm
ISA	312 mm x 140 mm
ISA/PCI	1 x 16 bit or 32 bit, dimensions (L x H): 312 mm x 140 mm
– external –	
IEC/IEEE	IEEE488.2, compatible with NI TNT
Serial	2 x RS-232-C
Printer	Centronics LPT1 (ECP, EPP)
PCMCIA	release 2.0, type III, connector
Keyboard	5-pin DIN, 5-pin PS/2 for mouse and keyboard
USB	2 x USB 1.1
Ethernet	2 x 10/100 Mbit/s RJ45
Software	
Operating system	Windows XP Embedded (E) (optional)
Measurement software	LabWindows/CVI (optional)
Graphics	
With integrated LCD	VGA standard: 800 x 600 pixels
For external monitors	up to 1600 x 1200 pixels

General data

Rated temperature range	+5 °C to +45 °C
Operating temperature range	0 °C to +50 °C
Storage temperature range	–25 °C to +60 °C
Temperature loading	meets DIN EN 60068-2-1 and 60068-2-2 as well as MIL-T-28800D class 5
Relative humidity	95% at +40 °C meets DIN EN 60068-2-3
Mechanical resistance	
Vibration, sinusoidal	5 Hz to 150 Hz, max. 2 g at 55 Hz, 55 Hz to 150 Hz, 0.5 g constant meets DIN EN 60068-2-6 and 61010-1, MIL-T-28800D class 5
Vibration, random	10 Hz to 300 Hz, 1.2 g rms meets DIN EN 60068-64
Shock	40 g shock spectrum meets DIN EN 60068-2-27, MIL-STD-810D, method 516.3, and MIL-T-28800D class 3 and 5
Safety	complies with the requirements of the Low-Voltage Directive of EU meets DIN EN 61010-1: 1993 and DIN EN 60950: 1992
EMC	complies with the requirements of the EMC Directive of EU meets EN 61326-1: 1997, emission acc. to class B, immunity for operation in industrial environments
Quality standard	developed and manufactured to ISO 9001
Power supply	
AC supply	100 V to 120 V ±10%, 50 Hz to 400 Hz ±5% 220 V to 240 V ±10%, 50 Hz to 60 Hz ±5%
DC supply	10 V to 32 V
Dimensions (W x H x D)	412 mm x 198 mm x 380 mm
Weight	8 kg

Ordering information

Order designation		
Portable Industrial Controller	R&S PSP7	1099.6002.73
Accessories supplied	pocket guide, power cable, connector for external DC supply, driver CD (software options come with recovery/installation CD)	
Options		
(only in conjunction with R&S PSP7 ex factory)		
Windows XP Embedded (E)	R&S PSP-K12	1091.4700.32
Windows XP Embedded (E) + LabWindows/CVI from NI	R&S PSP-K13	1091.4800.32
Interfaces		
2nd IEC/IEEE Bus (AT GPIB, 488.2)	R&S PS-B4	1006.6207.04
TTL I/O Interface 40 I/O ports, 8 relays, 8 optocouplers, 3 timers	R&S PS-B11	1006.7303.02
TTL I/O Interface without relays, optocouplers and timers	R&S PS-B11	1006.7303.04
PC Card (PCMCIA) for SCSI Adapter	R&S PSP-B5	1134.8101.02
Memory		
PCMCIA Exchangeable Hard Disk 512 Mbyte (minimum)	R&S PSM-B9	1064.5700.02
256 Mbyte Memory Extension	R&S PSP-B2	1091.3640.04
Recommended extras		
Compact Keyboard with integrated trackball (370 mm x 138 mm x 19 mm)		
German, without swivel frame	R&S PSP-Z1	1091.4000.02
English, without swivel frame	R&S PSP-Z2	1091.4100.02
German, with swivel frame	R&S PSP-Z3	1091.4200.02
English, with swivel frame	R&S PSP-Z4	1091.4300.02
(other keyboards on request)		
TFT Monitor 17"	R&S PMC3	1082.6004.10
19" Adapter for R&S PSP7	R&S ZZA-S01	1105.6733.00
Mouse, Microsoft-compatible, serial	R&S PS-B1	1006.6359.02
External USB CD Burner	R&S PSP-B6	1134.8201.12
IEC/IEEE Bus Cable		
0.5 m	R&S PCK	0292.2013.05
1 m	R&S PCK	0292.2013.10
2 m	R&S PCK	0292.2013.20
4 m	R&S PCK	0292.2013.40

Certified Environmental System ISO 14001 REG. NO 1954

Certified Quality System ISO 9001 DQS REG. NO 1954

Printed in Germany 0602 (U we)

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