Product Data

PDA Remote PULSE – Wireless LAN based remote control for Brüel & Kjær PULSE

USES

- Wireless control of PULSE systems using a Pocket PC
- Online display of measurement results as well as cursor values on the remote control
- Monitoring of overloads on the PULSE measurement input channels via the remote control

FEATURES

- Wireless-LAN (WLAN) is used to connect to a PULSE-system
- Pocket PC controls the measurement (Start, Stop, Proceed, Save Measurement, Start Generator, Stop Generator, Autorange, Manual Trigger 1-3)
- Presentation of a selectable PULSE display on the Pocket PC
- Presentation of a selectable PULSE cursor values on the Pocket PC
- Monitoring of input channels and notification of overloads directly on the Pocket PC
- Speed optimized transfer of data with display update rates of up to 4Hz
- Runs on Microsoft Windows Mobile 2003 Pocket PC
- Choice of PULSE graphic displays directly on the Pocket PC
- Choice of the displayed cursor values in PULSE directly on the Pocket PC
- Autoscaling of the PULSE display Y-axis selectable directly from the PDA
- Displays available in landscape or portrait format, in both normal and full screen mode

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The radio (wireless LAN) remote control PDARemote PULSE supplies the ability to remotely control the Brüel & Kjær PULSE Multianalyzer as well as display measurement results on a Wireless LAN equipped Pocket PC.

The transmission of commands and display data is accomplished via a wireless LAN Network connection between the PULSE Measurement system and the controlling pocket PC. Data and display refresh rates of better than 2Hz are achieved via a speed optimized transmission setup.

The PDARemotePULSE is especially suited to incar measurements as well as noise source location/ mapping measurements using an intensity probe. Also the effect of changes in the controlling parameters of for example a plant on the measurement results in the case of large systems with distributed operating stations can be read directly from the Pocket PC independent of position.

PDARemote PULSE provides a selectable graphic displays with a choice of cursor values along with the display overload information for all input channels directly on the Pocket PC screen. A PC side server program works together with PULSE and ensures that all data transfer and display settings for the PDARemotePULSE are saved together with the PULSE project and as such are instantly available on the relaunching of the PULSE Project.


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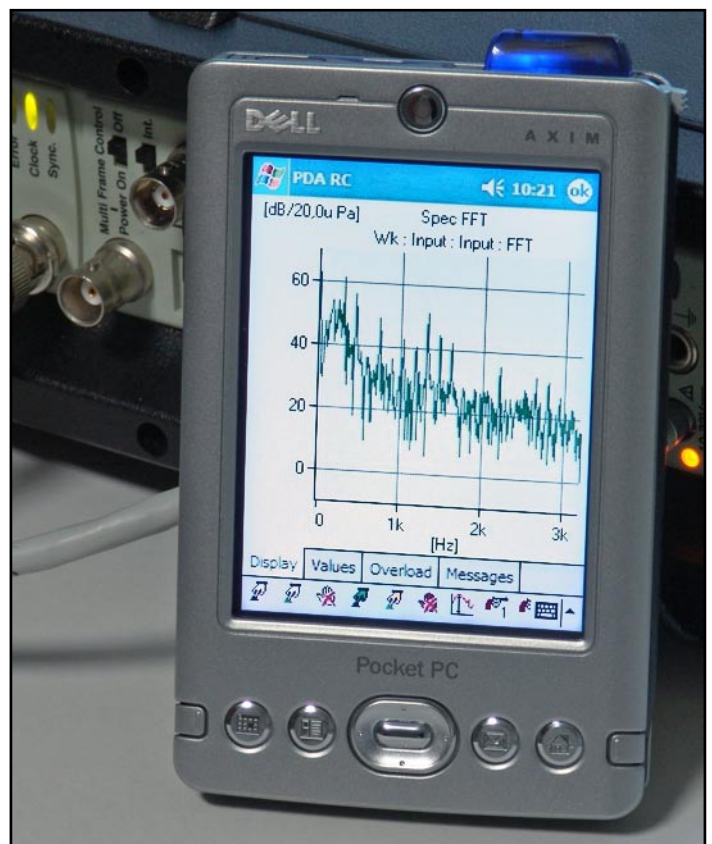
## Bi-directional Data Transfer over Wireless LAN
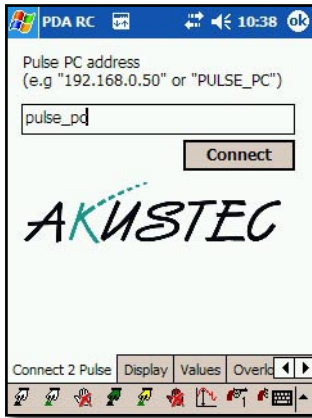
The connection between the pocket PC and the PULSE PC operates in both directions. This allows both the control of the PULSE system from the Pocket PC as well as the display of measurement results from PULSE on the Pocket PC. The communication between the pocket PC and PULSE is achieved via a TCP/IP protocol network connection. This means that the connection between the Pocket PC and the PULSE PC takes the form of a commonly available LAN network connection. However, the use of a Wireless LAN equipped Pocket PC allows wireless communication with another similarly equipped PC or a wireless LAN access point. The range of a Wireless LAN connection is up to 300meters and this can be easily extended by the use of the company network in conjunction with an access point allow communication anywhere on the company network.
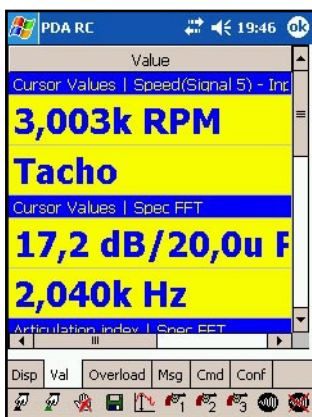
PULSE Displays
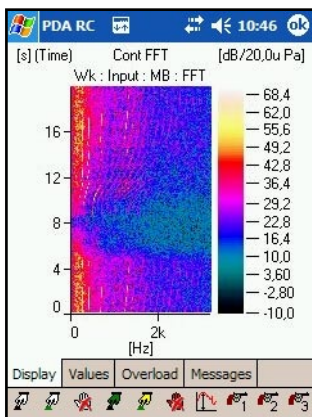
A selected PULSE display can be shown in a number of different ways on the Pocket PC. The display can be shown in both portrait and landscape formats. In both cases there is the option of using full screen mode on the Pocket PC. The display and the display modes are selectable directly from the Pocket PC.

With the "Multiple Selection" option activated you can pre-select several PULSE displays and later toggle through these displays using a hardware key on the Pocket PC.
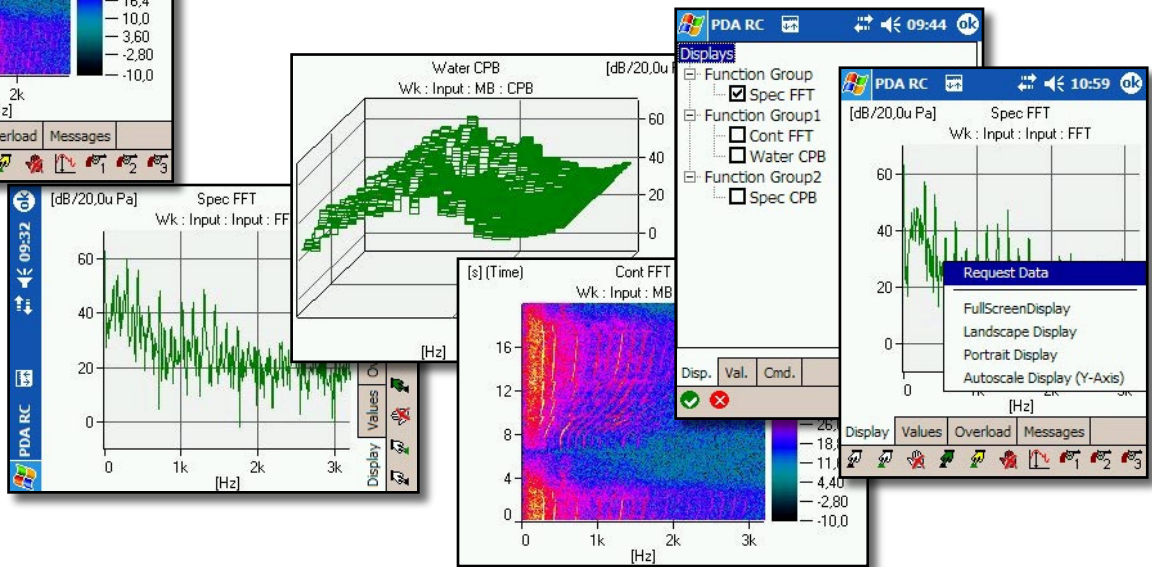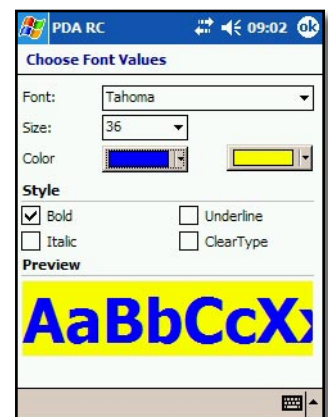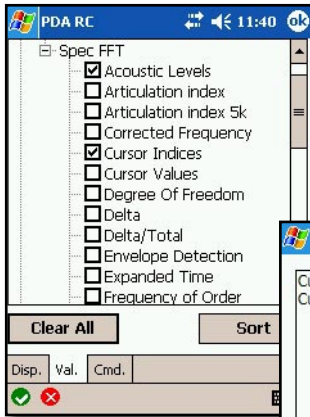
PULSE Cursor Values

Together with the displays that are available from PULSE, it is possible to display a range of cursor values, thanks to the PDARemotePULSE integrated server component inside of the PULSE software. These values are shown within their own display on the Pocket PC and continually updated in the same way as the displays.
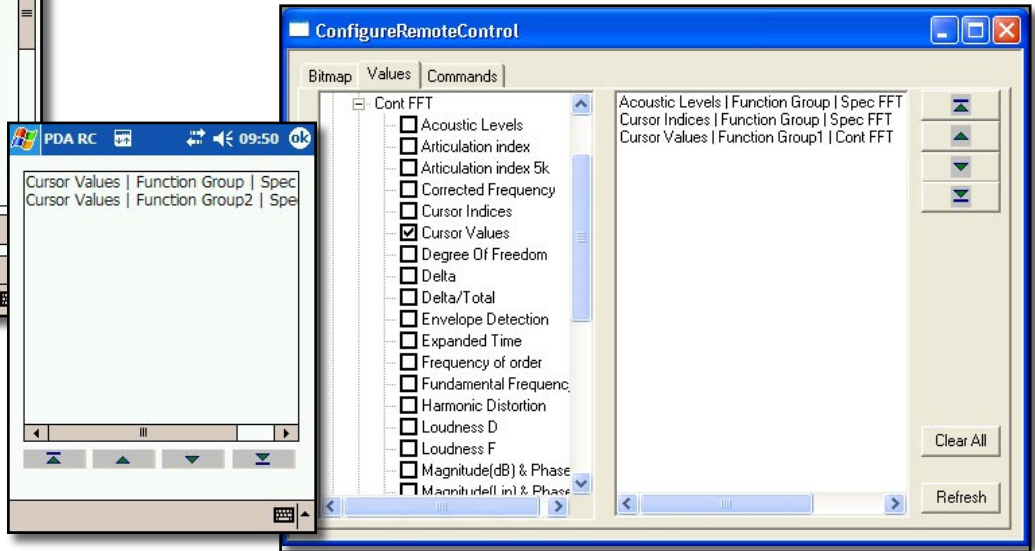
The cursor values can be sourced from the different displays running PULSE including those that are not shown on the Pocket PC.

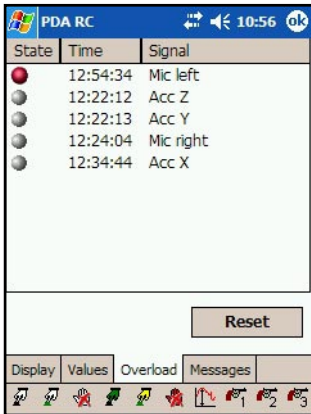Both the font and colour of the cursor values can be set in the display.

Configuration of cursor values is possible either at Pocket PC or PULSE PC.

Display of overload information from PULSE's measurement input channels

The Pocket PC logs the overload information from PULSE's input channels, displaying the results in a separate list. Not only the channel, but the time at which the overload occurred is shown. Recently overloaded channels are denoted by greyed icons until the channel is reset.
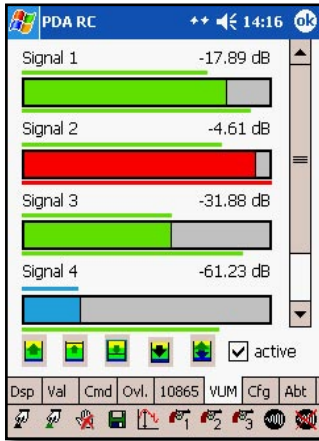
Control of the measurement from the Pocket PC
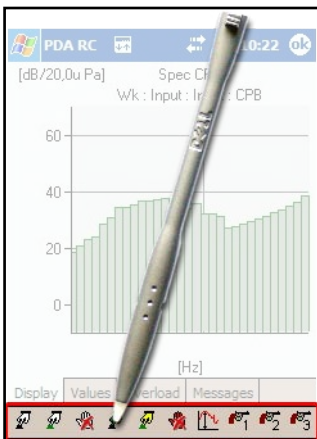
The PDARemotePULSE software communicates with the server software inside of PULSE to allow the control of measurements. The following buttons/functions are available in all displays:

- Start
- Proceed
- Stop
- Save Measurement
- Start Generator
- Stop Generator
- Activate Autorange
- Trigger 1, 2 and 3

Level Meter on PDA

A level meter display with min. and max indicators is also on the PDA available. To take care about the PC's system resources it is possible to de-activate this feature. To signal un-suited input ranges immediately, the colour of the level display changes depending on the level's range. For every channel the display shows the signal name and the level relative to the maximum input rang level.

Using the small buttons below the level bars it is possible to use the following functions:

- **Set Input Range to Max** – sets the input range to the maximum available for the input modules and channels in use
- **Step Up** – increases the input range for all channels by one step.
- **Step Down** – decreases the input range for all channels by one step.
- **Reset Max. and Min. Peak Indicators** – sets the narrow indicator bars on top and on the bottom of each signal's display to the current signal level.
- **Autorange Input Range to Headroom Level** – sets the max. peak input for all signals that have not been excluded from autoranging to a specified number of dB below Max. Input.

In addittion it is possible to increase or decrease the input range of each channel separately by one step using the "tap and hold" function on that channel's level bar.

Screen Capture
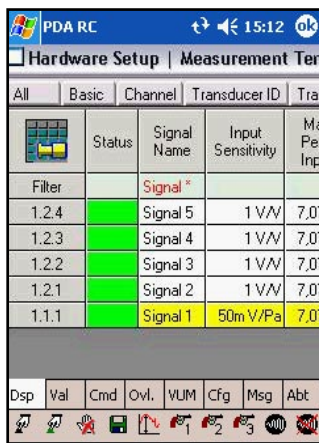
Screen Capture is used to transmit any PC display area instead a PULSE display to the Pocket PC. This way it is possible to receive additional information on the Pocket PC which are not available with classic PULSE displays. This can help to calibrate the system for example. The server component or the Pocket PC's pen or jog-key can be used to select the display area very comfortable. The size of the selection frame on the PC corresponds to the current Pocket PC's display size and takes fullscreen and/or landscape mode into account.
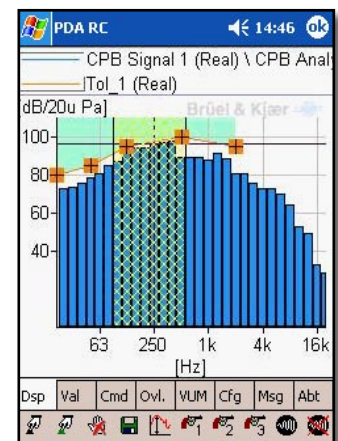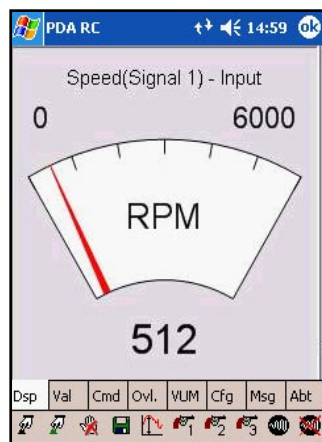
Configuration of the control GUI

Along with the option of controlling the measurement via the standard GUI controls of the PULSE system, PDARemotePULSE allows the setup of a dedicated GUI with just a few large buttons for the major controls. This makes it possible to operate PDARemotePULSE as a touch pad using ones fingers.

The arrangement of the buttons in 1, 2 or 3 colums is as well user selectable as their sequence.

In addition to this the first/top selected cursor value can be shown at the top of the user-configured GUI. This would for example allow the monitoring of engine speed while having the buttons for triggering actions/commands at your fingertips.
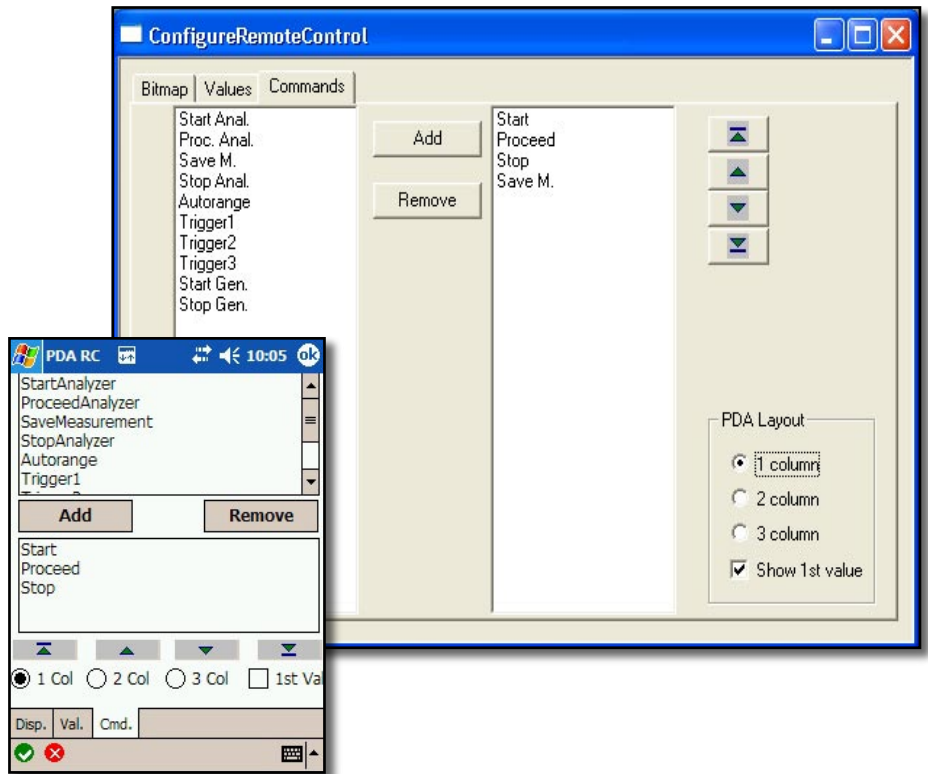
Cursor Operations

The cursor of a display can be shifted with the help of the direction keys of the navigation jack in x and z-direction. That has also influence on the values of the cursor value dialog field, if the "Cursor Value" is indicated for this display. On the other hand, a cursor value of any display on this dialog field can be activated with the pen and be changed then with the direction keys.
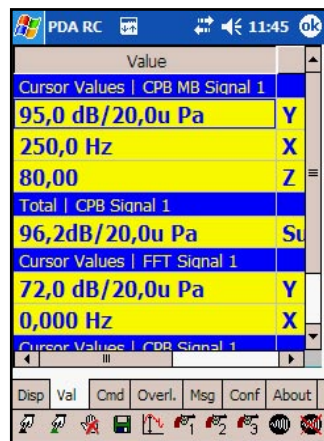
Additional Features


Hardware Buttons as Soft Keys

Up to 6 hardware buttons can be configured as soft keys for PULSE commands as with the CMD page. Using the keys is possible while any of the display pages is activated. In addition these buttons can also be configured to switch directly to one of the Pocke PC's display pages or to switch to "next display" or "previous display". This way you can switch display pages without using a pen.

Acoustical Feedback

PDARemotePulse gives an acoustical feedback on each command used either by the command bar, the „Cmd" page or the soft keys. This is done by playing a wave file. Acoustical feedback can be configured seperately for succeeded commands and for failed commands. For failed commands there is also a configurable time-out.

Time-out Values for the Network Connection

The software uses a multi-stage time-out scheme to deal with network transfer problems. Using wireless-LAN it may happen that the connection is lost because the Pocket-PC leaves the WLAN range. It may also be necessary to increase time-out values because of a slow connection (e.g. using a mobile phone to connect to a PULSE-PC via GSM and the internet).
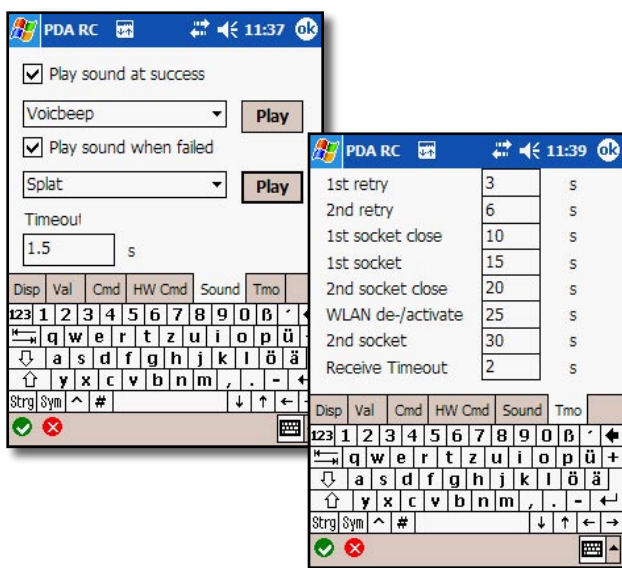
Ordering Information

Type AKPDARC PDARemotePulse software and Pocket PC with Wireless LAN

including:
Type AKPDARC-S	Server software for PC with PULSE system
Type AKPDARC-C	Client software for Windows Mobile 2003 Pocket PC with Wireless-LAN
Type AKPDARC-P	Pocket PC running Windows Mobile 2003 PocketPC and Wireless-LAN

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