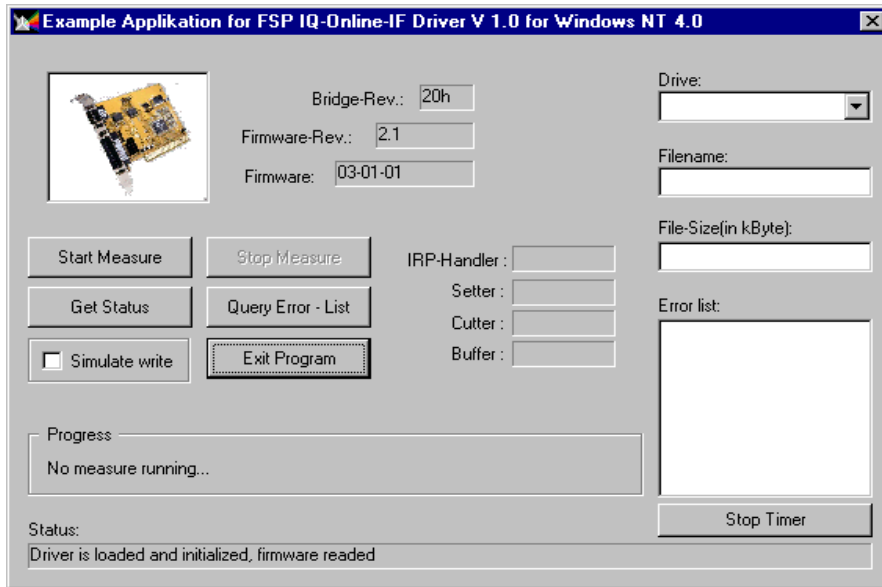


## LVDS Interface for I/Q Online Interface PTW-B9

PC plug-in card for connection of an LVDS I/Q online source to a PC

- ◆ FSP based, RF and IF performance derived from the spectrum analyzer
- ◆ Long time storage of digitized signals at lower rates on harddisk
- ◆ Short time storage of digitized signals at very high rates (FIFO, 128 kSamples)
- ◆ Driver for PC Operating Systems WindowsNT and Windows98SE
- ◆ Hardware usable under realtime conditions
- ◆ Robust transmission method with LVDS technology and a cable length up to 10 m



Screenshot of the simple application for performance test and board control.

The PTW-B9 is a PC plug-in card to connect an LVDS I/Q online source via PCI interface to a PC. The I/Q interface of an Rohde&Schwarz spectrum analyzer digitally transmits a signal in pairs of the two complex values I and Q. Each value is stored in one 32 Bit word with an accuracy of 13 Bit on the board's FIFO buffer memory. The PCI bus logic provides master functionality as well as burst functionality, which provides high data rates on the PCI bus.

On the connected PC a driver API is the interface to the application software. There is a dynamically linked library (DLL) available to use the functions in own programs.

### C++ example with FSP RSIB remote control

With the board an example source in C++ is delivered. This helps to set up own applications for signal processing. The application example also uses the remote control features of the analyzer via ethernet and RSIB. The calibration concept allows calibrated level measurements. The source code is under GPL (GNU Public License) which means the code can be used freely, changed and redistributed, if the new source is under GPL again.

An other application provides access to the driver API for driver and hardware verification.

**For more information and registration:**  
[www.iq-interface.rohde-schwarz.com](http://www.iq-interface.rohde-schwarz.com)

## Specifications

### Digital performance

Input	from LVDS with 2 x 13 Bits and data valid from FSP with 32 MHz clock.
Output:	Data rate on PCI bus depending on the PC architecture. PCI performance up to 80 MByte/s possible. With a 350 MHz Pentium II processor and a harddisk with UDMA access 2 Msample/s are achievable. Writing to RAM provides much higher data rates up to 8 Msample/s continuously.

### Interfaces

Digital input	50 pin SCSI high density connector for LVDS signals (small 50 pin SCSI)
PC connection	PCI Bus with 32 Bits at 33 MHz, 5 V power supply (3.3 V regulator onboard)

### Supported Operating Systems

MS WinNT 4.0 (preferred) and MS Win98SE. Support for new versions will follow. For support of other operating systems please ask the Rohde&Schwarz customer service.

### General data

Operation Temperature	0°C to +50°C
Storage Temperature	-40°C to +70°C
Power Consumption	1 W max.
Dimensions in mm	130 x 120

## Ordering information

LVDS Interface for I/Q Online Interface PTW-B9 1115.3850.02

