

PCI GPS Board

## **FUNCTIONS**

GPS input 3 outputs : 2x1PPS, 1x1MHz Time accuracy : 1 ms regarding UT Windows DLL and Linux driver The SR1640 board provides high accuracy timing operations using a highly integrated GPS receiver.

 $(\pm 1 \mu s accuracy for UTC)$ 

If the GPS signal is lost, the board continues the time generation using its own embedded oscillator in « Free-running » mode. 20 MHz  $\pm$  10 ppm, oscillator.

The board is compliant with PCI 33 MHz, 5V standard, with "Target" type interface.

The board also provides a 1 PPS GPS, local 1 PPS (in phase with the 1 PPS GPS signal) and 1 MHz signal. Outputs are compliant with RS422 standard.

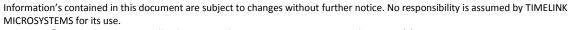
A dating input allows tagging external signal's transitions. Input is compliant with TTL or RS422.

The board can provide 1 interruption at each second (masking mode allowed)

Information's regarding : Time, Localisation, and Board status are available through PCI bus using a Windows DLL or Linux driver provided with the board.

The front face of the board holds the connectors :

- SMB for GPS antenna input
- SubD 9 pins for 1 PPS signal outputs







## SR1640 PCI GPS Board

	SPECIFICATIONS
Miscellaneous	1PPS GPS output : RS422 level, 200 ms duration. 1 PPS Local output : RS422 level, 200 ms duration. Ascending front synchronous with 1 PPS GPS. 1 PPS accuracy : $\pm$ 100 ns / UTC when the receiver is in Hold mode.
GPS	GPS, 12 satellites, L1 C/A code Different antennas and cables available on request 1 PPS GPS accuracy : ± 100 ns (Hold Mode, time receiver) Horizontal position accuracy : <8 m (90%) Altitude accuracy : <16 m (90%) Dynamic : speed 515 m/s, altitude : 18 Km, acceleration: 4G
Software	Windows NT, 2000, XP (DLL) and Linux driver The board provides time to the application software with an accuracy of 1 $\mu$ s, as well as a status word to check the time validity. Time could be read « in flight » and several applications must reach the board simultaneously.
Environment	Standard PCI « short card » format Operating Temperature: -40°C/+70°C
Order Reference	SR1640



Information's contained in this document are subject to changes without further notice. No responsibility is assumed by TIMELINK MICROSYSTEMS for its use.

FP0156B - © Copyright TIMELINK. All rights reserved..www.microsystemes.com. Phone:+33 (0)5 62 87 10 70