



## PC Scope PCS500



**Technical Doc**

Velleman Instruments  
**A division of Velleman® Components**

**Legen Heirweg 33  
9890 Gavere  
BELGIUM Europe**

**[www.vellemaninstruments.com](http://www.vellemaninstruments.com)**

**PCS500 TD1.0**

## Features

- general information :
  - inputs: 2 channels, 1 external trigger input
  - input impedance : 1 Mohm / 30pF
  - frequency response  $\pm 3\text{dB}$ : 0 Hz to 50 MHz
  - maximum input voltage : 100V (AC + DC)
  - input coupling : DC, AC and GND
  - Optical ISOLATED from computer
  - supply voltage : 9 - 10Vdc / 1000mA
- system requirements :
  - IBM compatible PC
  - Windows 95, 98, ME (Win2000 or NT possible)
  - SVGA display card (min. 800x600)
  - mouse
  - free printer port LPT1, LPT2 or LPT3
  - arithmetic coprocessor needed for spectrum analyser
  - CD Rom player

## Specifications

- transient recorder :
  - timescale : 20ms/Div to 2000s/Div
  - max record time : 9.4hour/screen
  - automatic storage of data
  - automatic recording for more than 1 year
  - max. number of samples : 100/s
  - min. number of samples : 1 sample/20s
  - markers for time and amplitude
  - zoom function
  - record and display of screens
  - data format : ASCII
- spectrum analyser :
  - frequency range : 0 .. 1.2kHz to 25MHz
  - linear or logarithmic timescale
  - operating principle : FFT (Fast Fourier Transform)
  - FFT resolution : 2048 lines
  - FFT input channel : CH1 or CH2
  - zoom function
  - markers for amplitude and frequency
- oscilloscope :
  - timebase : 20ns to 100ms per division
  - trigger source : CH1, CH2, EXT or free run
  - trigger edge : rising or falling
  - trigger level : adjustable in whole screen
  - step interpolation : linear or smoothed
  - markers for voltage and frequency
  - input sensitivity : 5mV to 15V/division with auto setup function
  - pre-trigger function
  - true RMS readout (only AC component)
  - record length: 4096 samples / channel
  - sampling frequency: Real time 1.25 kHz to 50 MHz
  - sampling frequency: Repetitive: 1 GHz (Equivalent Sampling Rate)

### In the Box:

PCS500 unit  
Two test leads  
PC parallel cable  
Getting started manual  
CD with software  
AC Adaptor



## Declaration of Conformity

We, Manufacturer

**Velleman Kit  
Legen Heirweg 33  
9890 Gavere  
Belgium**

declare that the product

**PCS500 Pc Scope**

if used according the instructions included with the unit meet the directives  
in accordance with 89/336/EEC-EMC Directive  
and

EN 55022 Limits and methods of measurement of radio interference characteristics of information  
technology equipment (CISPR22 limits)

EN 50082-1 Electromagnetic Compatibility - Generic immunity standard

IEC 1010-1 Safety requirements for equipment for measurement, control and laboratory use (\*)

(\*) if equipment used with safety measurement probe

FCC Part 15 Part B Unintentional radiators

**For the manufacturer**

Date: 04/04/2001

Signature:

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Name: Stephan Santens  
R&D manager

## Test Certificate in Compliance with the Device Safety Act

Certificate-no.: 60696-00-00

Certificate holder: Minwa Electronics Co., Ltd.  
15/F, B1k.A1-A4, Fortune Factory Bldg.  
40 Lee Chung Street  
Chai Wan, Hong Kong

Manufacturing site: Minwa Electronics Co., Ltd.  
Minwa Buji Industrial Park  
Buji, Po On, China

Product: Safety Isolating transformer for indoor use

Type: MD...D...

Description of product: Input : 230-240 V, 50 Hz, Class II  
Output: 1.5-33 VDC, 1200-20 mA, max 10.08 VA

Test report no.: 9935225-04 of 2 December, 1999

Tested according to: EN 61558-1:1997+A1:98  
EN 61558-2-6:1997  
IEC 61558-1:1997+A1:98  
IEC 61558-2-6:1997

Result: The above-designated device is in compliance with the judicial requirements of the device safety act or the currently accepted rules of technology as well as the work protection and accident prevention regulation and complies with §3 of the device safety act.

Valid until: 24 January, 2005

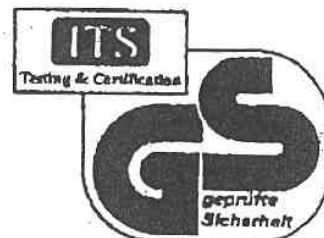
The certificate holder or his designated representative commit themselves to manufacture the product in accordance with the tested samples and to enable ITS to monitor the manufacturing process and the lawful use of the GS-designation.

This certificate becomes invalid if the holder does not meet the commitments described above or the requirements according to § 3 of the device safety act changes.

This type examination certificate gives the certificate holder the right to mark all devices that are identical to the above designated sample with the logo shown below.



Stuttgart, 24.01.2000



*J. A. Hecker*  
ITS Testing & Certification GmbH  
Kurt Baumann

# **PCS500-9 circuit diagrams**

**Input section**

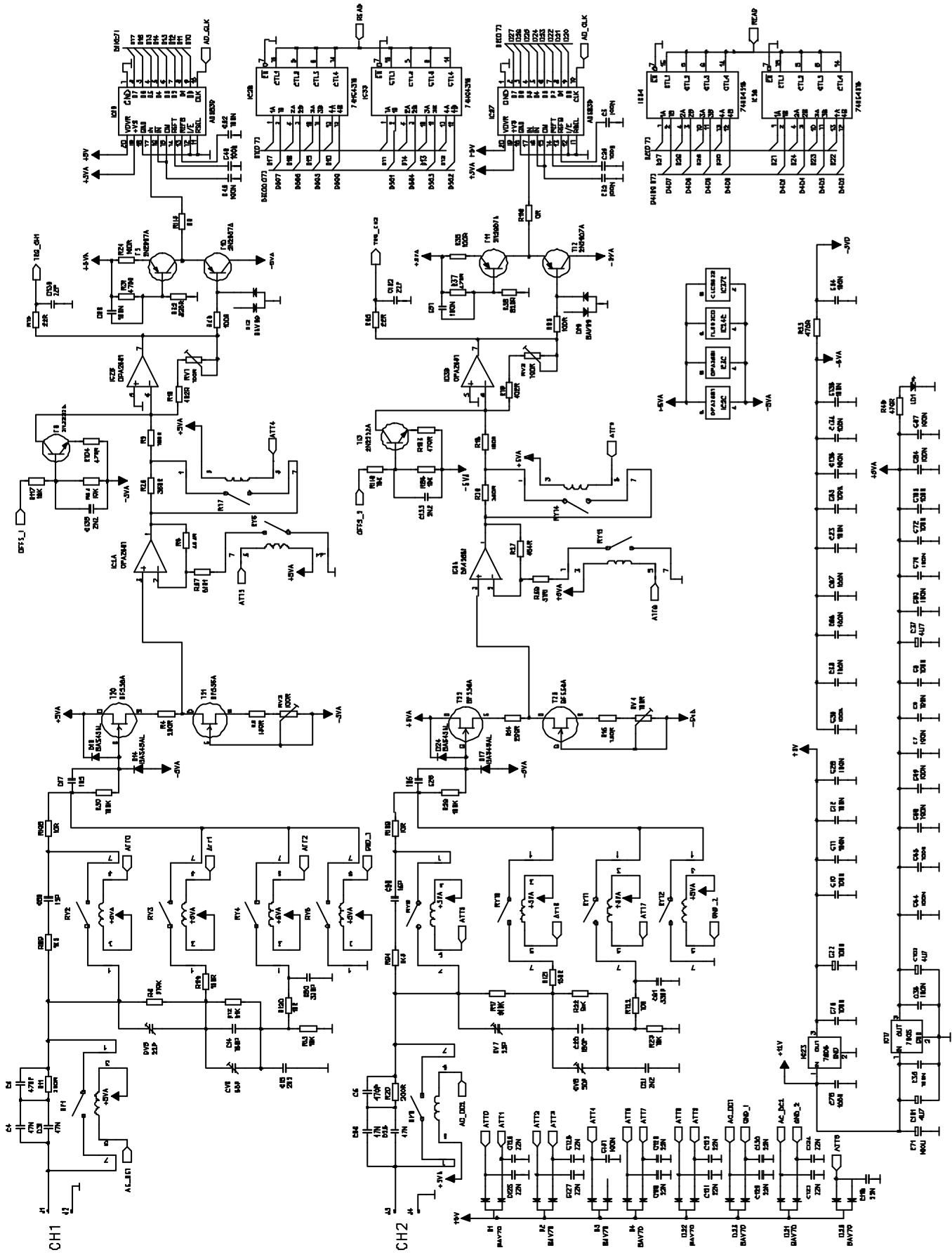
**Opto coupler section**

**Digital section**

**Trigger section**

**Power supply section**

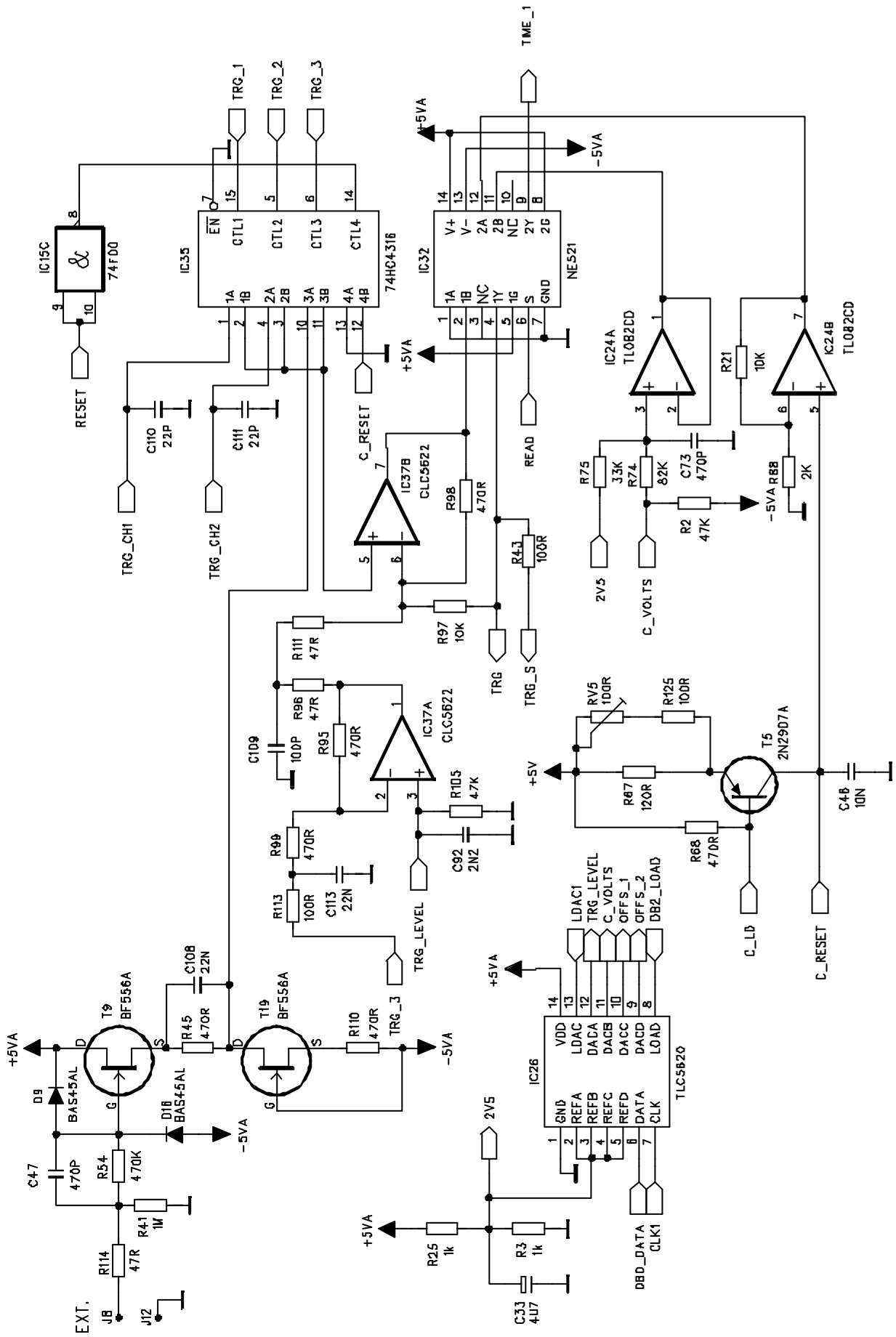
**Lay out**

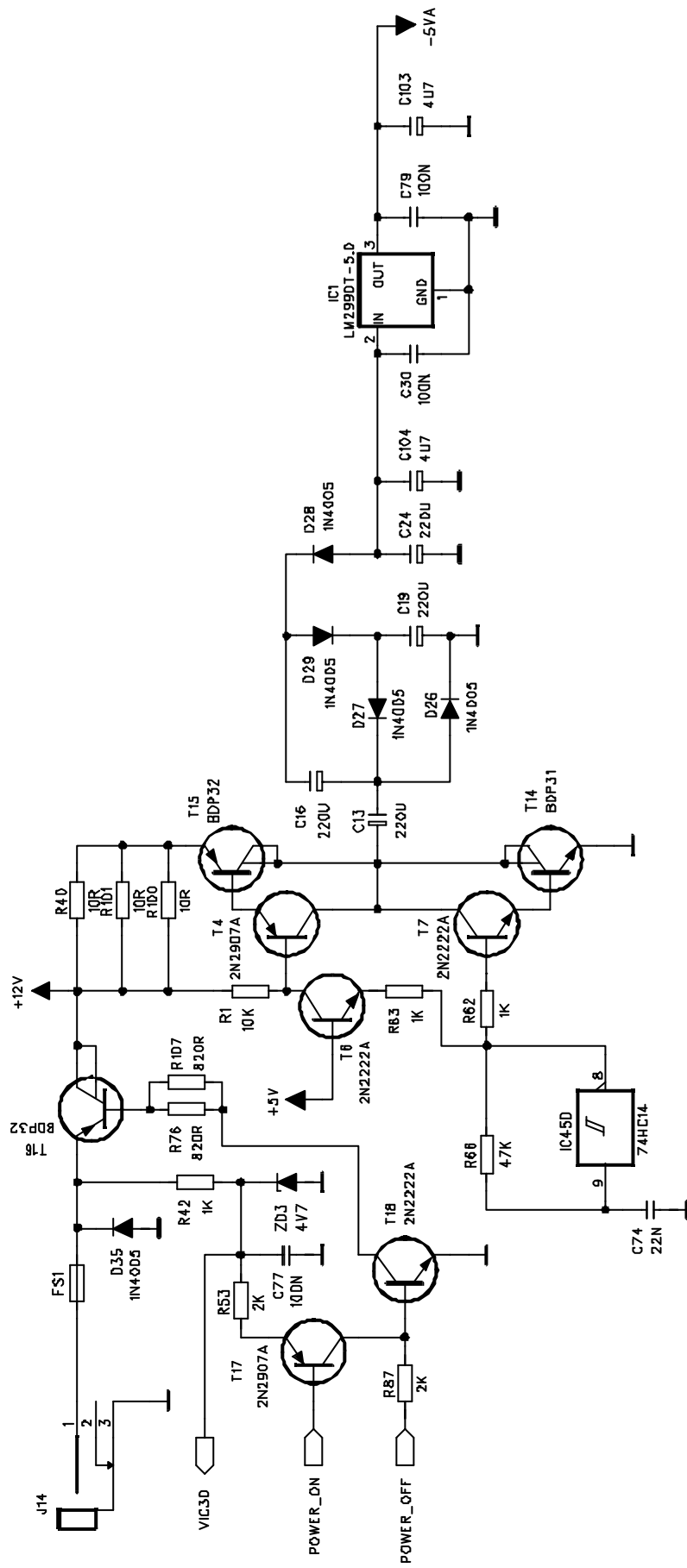












# VELLEMAN PPCS500-9

