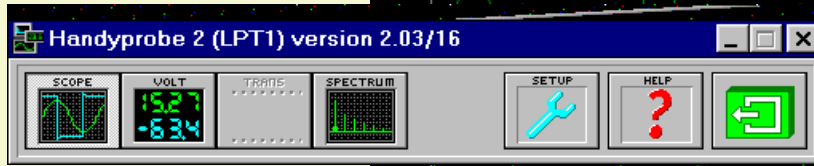
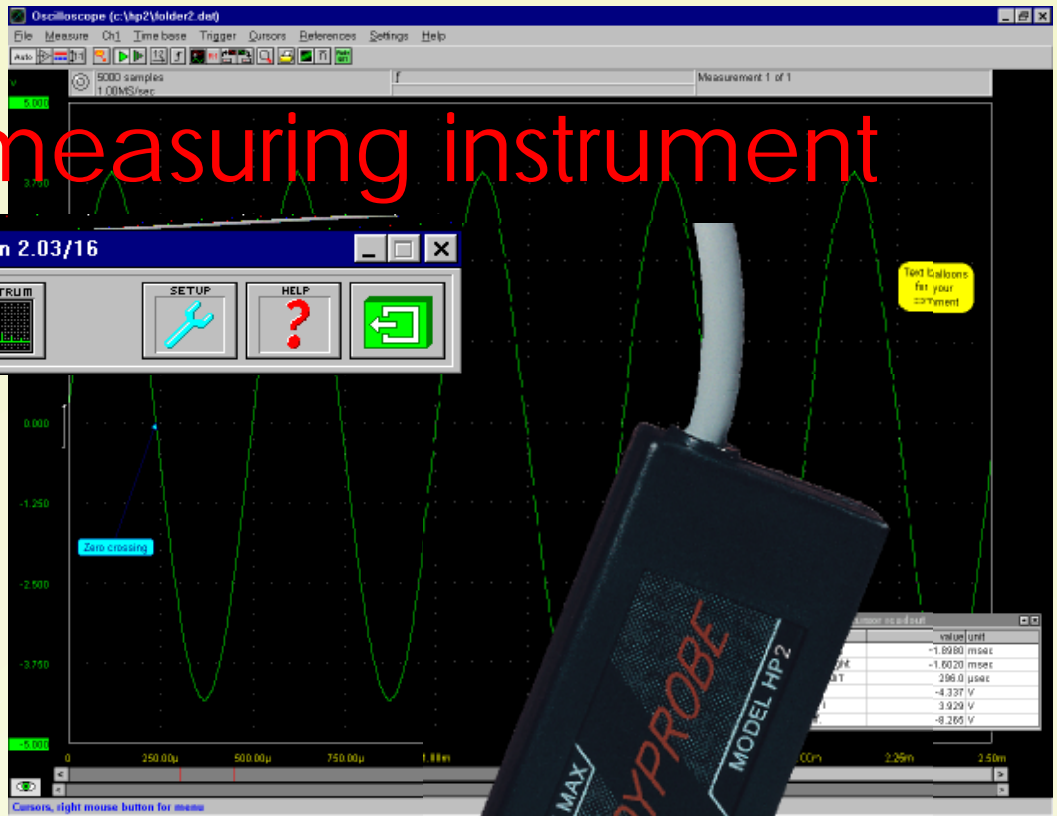


# Portable measuring instrument



- STORAGE OSCILLOSCOPE
- SPECTRUM ANALYZER
- VOLTMETER
- TRANSIENT RECORDER



## Performance

The Handyprobe model HP2 is the first 20 MHz measuring instrument without external power supply that is connected to a PC.

The "easy to learn" and "easy to use" Handyprobe is a new descendant of the TiePie "Plug in and measure" instruments.

## Software

The versatile software has a user-defined toolbar with which over 50 instrument settings quick and easy can be accessed. An intelligent auto setup allows the inexperienced user to perform measurements immediately. Through the use of a setting file the user has the possibility to save an instrument setup and recall it at a later moment. The setup time of the instrument is hereby reduced to a minimum.

Besides a setting file that contains all instrument settings, also the measured data and the reference signals can be saved in an easy way, or recalled, for evaluation or reporting.

## Auto setup

When a quick indication of the input signal is required, a simple click on the auto setup button will immediately give a good overview of the signal. The auto setup function ensures a proper setup of the time base, the trigger levels and the input sensitivities.

## Cursors

The sophisticated cursor read outs have 21 possible read outs. Besides the usual read outs like voltage and time, also quantities like rise time and frequency are displayed.

## Archive

Measured signals and instrument settings can be saved on disk. This enables the creation of a library of measured signals.

Text balloons can be added to a signal, for special comments. The (colour) print outs can be supplied with three common text lines (e.g. company info) in three lines with measurement specific information.



## Hardware

The Handyprobe has an 8 bit resolution and a maximum sampling speed of 20 MHz. The input range is 0.5 volt full scale to 400 volt full scale. The record length is 32K/64K samples. The Handyprobe is connected to the parallel printer port of a computer.

The minimum system requirement is a PC with a 486 processor and 8 Mbyte RAM available. The software runs in Windows 3.xx / 95 / 98 or Windows NT and DOS 3.3 or higher.

Measurement	Value (Unit)
True RMS	2.072 V
Peak-Peak	5.865 V
Mean	0.000 V
Maximum	2.933 V
Minimum	-2.933 V
dBm	46.326 dBm
Power	42.913 W
Crest	1.416
Frequency	162.963 Hz
Duty cycle	56.53 %
Rise time left	1.810 msec
Rise time right	1.810 msec
Sample time left	12.280 msec
Sample time right	85.910 msec
Sample time diff	73.630 msec
Cursor frequency	13.581 Hz
Voltage left	0.014 V
Voltage right	0.009 V
Voltage diff.	0.006 V
Slew rate left	59161E-03 V/us
Slew rate right	59215E-03 V/us

Accuracy, resolution, reliability and easy to use at affordable prices

# Handyprobe 2 technical specification

## SOFTWARE

### Oscilloscope

Bandwidth:	2 MHz
Sample rate maximum:	20, 10, 5, 2 or 1 MHz
Sample rate minimum:	400 sec.
Time base:	2 usec/div to 6 sec/div
Time base magnification	1 x to 50 x
Y-axis setting	drop and drag
Pre samples	0 to 32768
Post samples	0 to 32768
Trigger time out	0 to infinite sec.
Trigger input	channel, keyboard

### Spectrum analyzer

Frequency range:	10 MHz to 0.1 Hz
Frequency accuracy:	>0.1%
Amplitude axis:	linear / dB
Frequency axis:	linear, logarithmic octave bands, 1/3 octave bands
FFT Windows:	rectangle, Hanning, Hamming, Blackman, Bartlett
FFT points:	32768
Distortion calculations:	1 to 100 harmonics in dB or %
Averaging:	1 to 200 spectra
Measuring method:	normal, max mode

### True RMS voltmeter

Accuracy:	2% +/- 1 LSB
Display methods:	11 math functions available
Frequency range:	10 Hz to 5 MHz
Number of displays:	1 to 3 user selectable

### Transient recorder

Measure points:	1 to 32768
Measure time (between to points):	0.01 sec to 300 sec

### Cursor read out

Read outs:	True RMS, Peak-Peak, Mean, Maximum, Minimum, dBm, Power, Crest factor, Frequency, Duty cycle, Rise time left and right, slew rate left and right user selectable
Fonts:	background user selectable
Colours:	background user selectable

### Comment

User text:	three text lines for every print out
Comment text:	three special text lines
Text balloons:	user selectable text, colours and arrows

### Print out

Size:	full printer size (A4, A3)
Colours:	with black and white and colour support and cursors read outs

## HARDWARE

Sample rate:	1 MHz, 2 MHz, 5 MHz, 10 MHz or 20 MHz	Trigger resolution:	0.39% (8 bits)
Memory:	32 kWord	Pre triggering:	0 to 32768 samples (0 to 100%)
Input sensitivity:	0.5 to 400 volt full scale	Post triggering:	0 to 32768 samples (0 to 100%)
Resolution:	8 bits, 0.39%	Trigger delay:	0 to 32768 samples
Accuracy:	1 % $\pm$ 1 LSB	Power supply:	via printer port
Input impedance:	1 Mohm / 30 pF	Connection:	printer port
Input coupling:	AC / DC	Cable length:	1.8 meter (70 inch)
Analog bandwidth:	2 MHz	Ambient temperature:	15 °C to 25 °C (59 °F to 77 °F)
Trigger system:	digital, two trigger levels	Dimensions:	22 x 125 x 43mm (H X L x W)
Trigger level:	0 to 100% full scale	Weight:	260 gram (9.2 oz)

Ordering information: HP2-x (with x indicate the sample rate. 1=1MHz, 2=2MHz, 5=5MHz, 10=10MHz, 20=20MHz)

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