

GENERAL DESCRIPTION

The PLC Measurement Tool is used to identify significant parameters of power line channels, among those:

- Channel attenuation transfer function, SNR < 90dB
- Complex transfer function (Phase and Magnitude)
- Joint time frequency analysis (JTFA) of acquired signal
- Network Input Vector Impedance $0.5\Omega - 3000\Omega \pm 5\%$
- Impulse response and Group delay

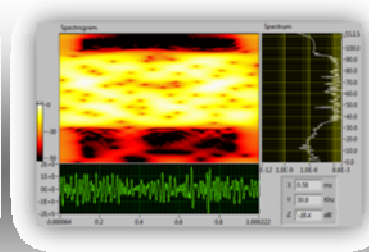
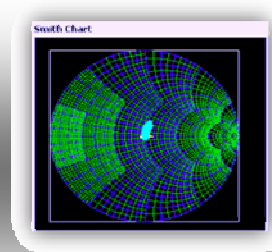
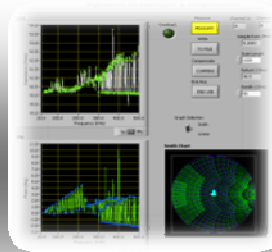
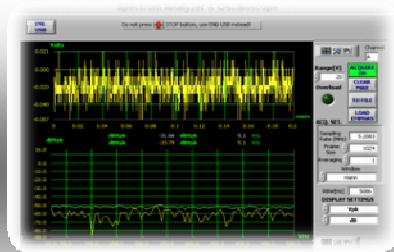
It uses a windows based computer with data analysis software in combination with a data acquisition card. Most of the measurements (except noise measurements) need a signal generator, which consists of a specially designed signal generator, providing the appropriate signals like sweep mode or digital PN (Pseudo Noise) sequence.

Signal Acquisition Probe

Resolution	8 up to 16 bits
Channels	2 x BNC + 1 external trigger + function generator
Voltage Ranges	$\pm 10\text{mV}$ to 20V in 11 ranges
Overload protection	$\pm 100\text{V}$
Input Impedance	$1\text{M}\Omega$
Max Sampling Rate	1Gs (8bit mode), 500Ms/s (12 bit mode), 125 Ms/s (14-15 bit mode), 62,5Ms/s (16 bit mode)
Bandwidth	60 MHz
Power Supply	5 V @ 1000 mA max. from 2xUSB port
Operating Temperature	0 °C to 50 °C
Output connector	USB V2

Signal Generator and Impedance Probe

Sweep Signal	10kHz – 500kHz (1kHz up to 10 MHz feasible on request) Output (20dBV Signal Level 10 Ohm)
Vector Impedance Complex Transfer Function	10kHz – 500 kHz ($1\Omega \dots 1000\Omega$) $\pm 2^\circ$ 10kHz – 500 kHz
Integrated Line Coupler	$230\text{VAC} \cdot \sqrt{3}$
Power Supply	Switching Power Supply Input 85 VAC – 265 VAC
Operating Temperature	0 °C to 50 °C





Cipunet@

**Lehmann Communications
Consulting**
Badener Str. 1
DE-79761 Waldshut-Tiengen

Phone: + 4977513098845
info@cipunet.com
<http://www.cipunet.com>

Cipunet Ltd

Flat 1504, 15/F., Block A
Worsted Mills Industrial Building,
31-39 Wo Tong Tsui Street,
Kwai Chung.
Hong Kong.

Phone: +8523421-2088
Fax: +8523528-5730
Joyce@cipunet.com
<http://www.cipunet.com>

RANGERS Rss Pvt Ltd

SCO 89-90, City Centre,
Sector 34A
Chandigarh - India
160022

Phone: +91 1724241111
info@cipunet.com
<http://www.cipunet.com>



MEASUREMENT TOOL



Lehmann Communications Consulting
/ Cipunet@
Badener Str. 1
DE-79761 Waldshut-Tiengen
Germany

Phone: +4977513098845
info@cipunet.com
<http://www.cipunet.com>