

VASAVI

DIGITAL TURNS TESTER & DIGITAL LCRTZ METER TURN-LS-LCRTZ



Inductance, Capacitance,
AC/DC Resistance,
Impedance,
Transformation Ratio
with winding polarity (TR JIG).

Simultaneous indication of
value & tan delta . Ideal for
testing Capacitors with high
resolution of tan delta & ESR.

Optional RS232C port for PC
control with control software
for MULTI-TESTING.

Specially designed for manufacturers and users of small transformers. Ideal for automatic and fool proof testing of toroidal coils, Energy meter CT's, Bobbin coils, small transformers like SMPS, Telecom, Pulse Transformers (HYBRID, POT CORE, RM-CORE) etc.

DIGITAL LCRTZ METER SPECIFICATIONS:

Measurement Freq.: 50, 100, 500HZ, 1K, 5K, 10 KHZ

Measure Mode: Series/Parallel EQ. Selectable.

Measurement Voltage: 0.1 V – 1.0 V RMS

4T or Kelvin Test: For eliminating lead resistance/inductance.

Display : Separate displays for simultaneous display of Value with Units and D.F./Q.F.:

0.5" LED Display : 4dgt -Value, 2dgt -Units 4 dgt - D.F./Q.F/P.A. Plus LED status indication.

Auto Ranging with Range-Hold facility.

Inductance (L): 0.1uH-200H

Capacitance(C): 0.1pF-2000uF

Res. (Rac) & Impedance (Z): 0.01 Ohm-200KOhm

Res. (Rdc): 0.01Ohm-20KOhm

Trans.Ratio & POLARITY: 0.001-1.0000 ($\pm 0.2\% \pm 1$ dgt @ 1KHZ $\pm 0.5\% \pm 1$ dgt @ OTHER) With TRJIG (Supplied on option)

Tan Delta (D.F.): 0.0001-9.999 ($\pm 0.0002 \pm 1\%$ rdg @ 1KHZ, $\pm 0.001 \pm 2\%$ rdg @ Other Freq.

Quality Factor (Q.F.): 0.001- 999 ($\pm 2\% \pm 0.1Q$ @ 1KHZ, $\pm 5\% \pm 0.5Q$ @ Other Freq. Q<100.0)

Power requirement : 230V $\pm 10\%$ 50 HZ AC MAINS

Unbalance Test (with PC control): This test calculates the percentage unbalance of the two tests. Unbalance of Inductance, Capacitance, Resistance and Impedance can be measured. If the individual readings are R1 and R2 then

$$\text{UNBALANCE} = \frac{(R1-R2) \times 100}{(R1+R2)}$$

TURNS TESTER ATTACHMENTS

Toroidal Turns Platforms: TTPT100: 5 T - 1000 T , TTPT1000: 500T-10000 T

Accuracy : $\pm 0.2\% \pm 0.5T$ for high and medium permeability cores at suitable test frequency. Internal Diameter must be able to pass a wire as thin as 0.2 mm. External Diameter as high as 200 mm. Test Frequency 50, 100, 500, 1, 5, 10 KHz.

The Platform has 2 connections for the coil and 2 for the probe wire. Measurement principle is based on dynamic comparison of the voltages across one turn and the coil. You will be able to get the polarity or winding indication with respect to the one turn reference. **Possible Tests:** Can test Turns, Inductance, Polarity, DC resistance at one go by PC control..

Turns test for non-toroidal coils or transformers: Test turns for any transformer or coil with core . The core can be EI,EE,UU, RM, POT etc. You must be able to pass any thin probe wire around the winding. The core must not have air gap.

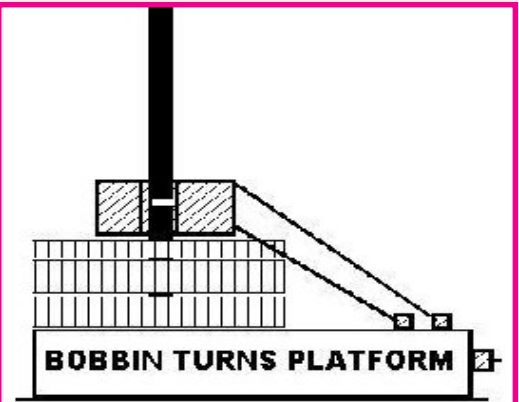
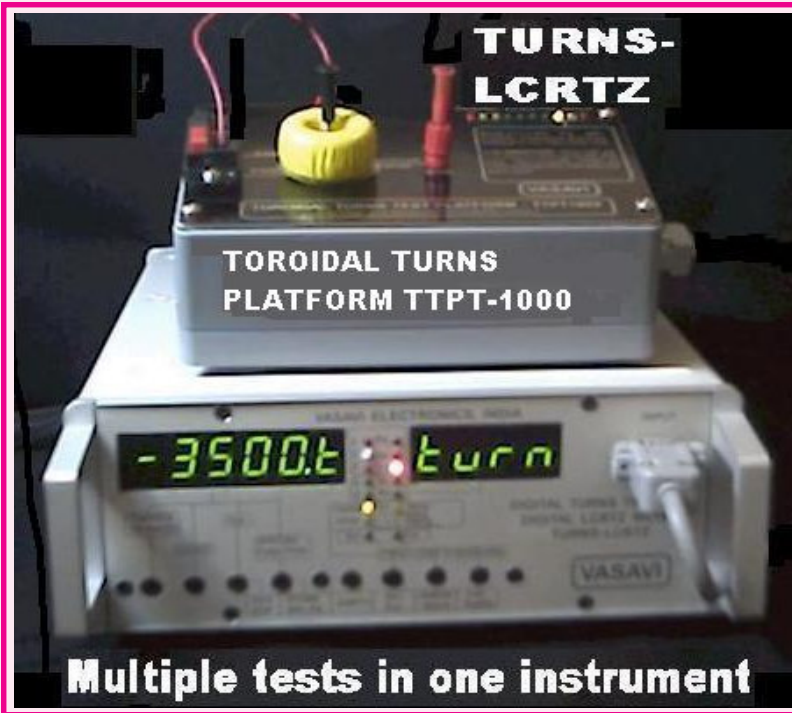
3 modes of testing Toroidal Coils: Mode-1: Turns and polarity with turns platform. Mode-2: Inductance / DC Resistance direct (without platform). Mode-3: Turns, Polarity, Inductance, Indication of Shorted turns and DC Resistance all at one go with PC control. Set limits for PASS/FAIL. Save the test data into database table.

Bobbin Turns Test Platform BTPT10000

Range: 1 T to 10,000T in 2 ranges. Accuracy: $\pm 0.5\% \pm 0.5T$. Coil : I.D. >11mm , O.D.< 60 mm , Ht < 80 mm

Calibration (Bobbin Turns test Platforms only): With master coil required for each type of coil.

Insert the coil in the vertical open probe and connect the wire ends to the 2 terminals. Calibration with master coil required as the pickup of the magnetic probe varies with geometry and placement.



Possible tests on Bobbin coils:
 Turns, Polarity, DC resistance and shorted turns with platform on individual basis or one go test with PC control. The shorted turns test is possible for <1000T. Can test DC resistance, Inductance without platform.

RS232C Control : (PC Control Software)

The instrument is controlled through external PC through RS232C port. The system software works on Windows platform. All the test results will be transferred to a **database files** with connected file name. The database table is compatible to fox-pro table. You can import these files to other softwares for creating graphs and other analysis.

S.L.No	TestName	MeasVal	DQPR	LowLimit	HighLimit
1	Rac 1-2	10.029 e		9.9	10.1
2	Rac 2-1	10.029 e		9.9	10.1
3	Rac 2-3	100.03 e		99.0	101.0
4	Rac 3-4	1.0016Ke		0.99	1.01
5	Rac 4-5	10.032Ke		9.9	10.1
6	Rac 5-6	10.022 e		9.9	10.1
7	Rac 6-7	100.44 e		99.0	101.0
8	Rac 7-8	1.0013Ke		0.99	1.01
9	Rac 8-9	9.997Ke		9.9	10.1
10	Rac 9-10	10.012 e		9.9	10.1
11	Rac 10-11	100.03 e		99.0	101.0
12	Rac 11-12	1.0014Ke		0.99	1.01
13	Rac 12-13	10.040Ke		9.9	10.1
14	Rac 13-14	10.011 e		9.9	10.1
15	Rac 14-15	100.00 e		99.0	101.0
16	Rac 15-16	1.0014Ke		0.99	1.01
17	Rac 16-17	9.998Ke		9.9	10.1
18	Rac 17-18	10.016 e		9.9	10.1
19	Rac 18-19	100.01 e		99.0	101.0
20	Rac 19-20	1.0014Ke		0.99	1.01
21	Rac 20-19	1.0012Ke		0.99	1.01

TEST OVER REPLACE COMPONENT AND Press/Click START TEST

User Friendly Menu driven software

The instrument not only tests and displays the results but also analyses the tested results against set limits on each parameter. Each test can be defined with different test parameters and different test conditions like Test frequency. After completing the tests as per defined procedure the results are dynamically displayed after each test on the monitor of the system.

Password Requirement: The control software expects two levels of users.

Level-1 user - Person with Password: A person who understands the transformer, its windings, drawings, specifications. This person will be provided with the password and will be able to access all menu items.

Level-2 user - Person without Password: This persons can select the test file, test the components and take reports.

Testing Multi-pin transformers at one go with Pause Option: You can test multipin component with this option. The system pauses before each test. Suppose that you have defined 10 tests with pause option. While testing, the display prompts you to press a key before each test. Before pressing the key change the input connections for the coming test. You need not to remember or note the test results for each test. The system consolidates all the defined tests , displays the tested results and also prompts you Go or NO GO based on limits entered for each parameter. Further you can also take a report on the printer if selected and connected.

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