Experimental Trainer Kit for Verification of Circuit Laws and Network Theorems

KS/NET/THEOREM

- Verification of Ohm's Law.

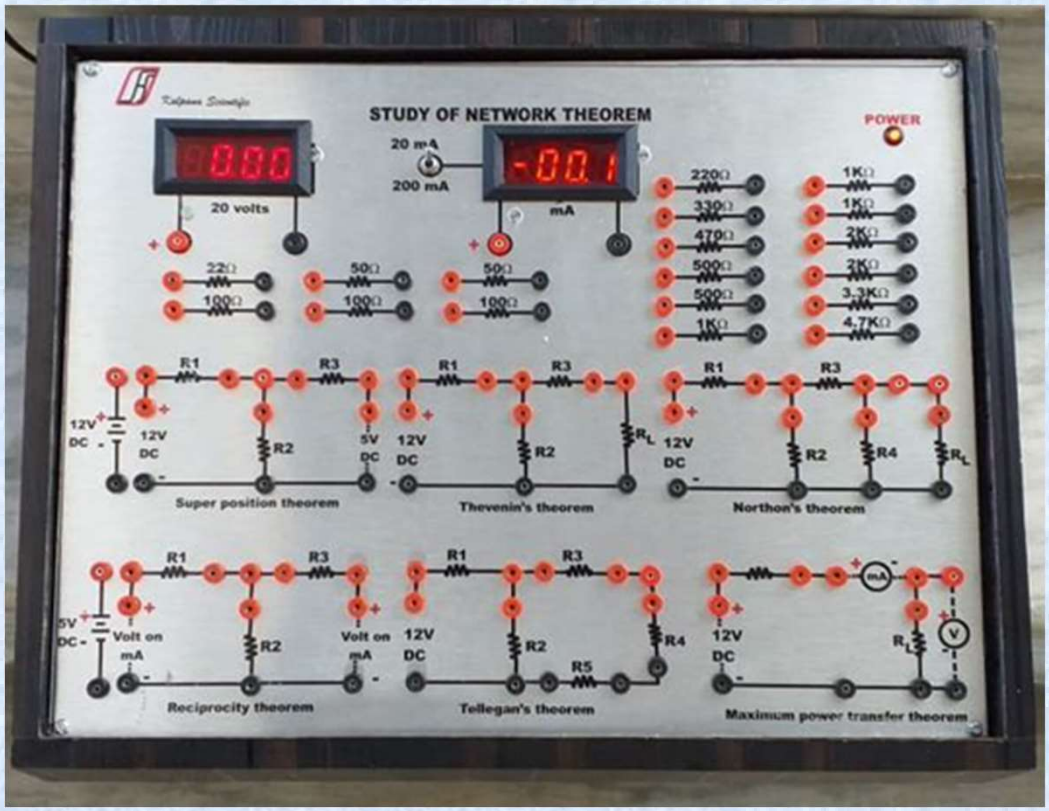
To draw the V-I characteristics for studying the D.C. behavior of the following : Ideal resistance.
Semiconductor diode.
Zener diode.
Thermistor (NTC Type).

- To verify Kirchoff's current law and voltage law.

Kirchoff's current law
Kirchoff's voltage law

- Verification of the series & parallel laws for resistance.

Series resistance
Parallel Resistance



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Kalpana Scientific Pvt.Ltd.
Konnagar, West Bengal-712235, India
Tel. 7679774297 website: www.kalpanascientific.com
Email id : kalpanascientifickolkata@gmail.com

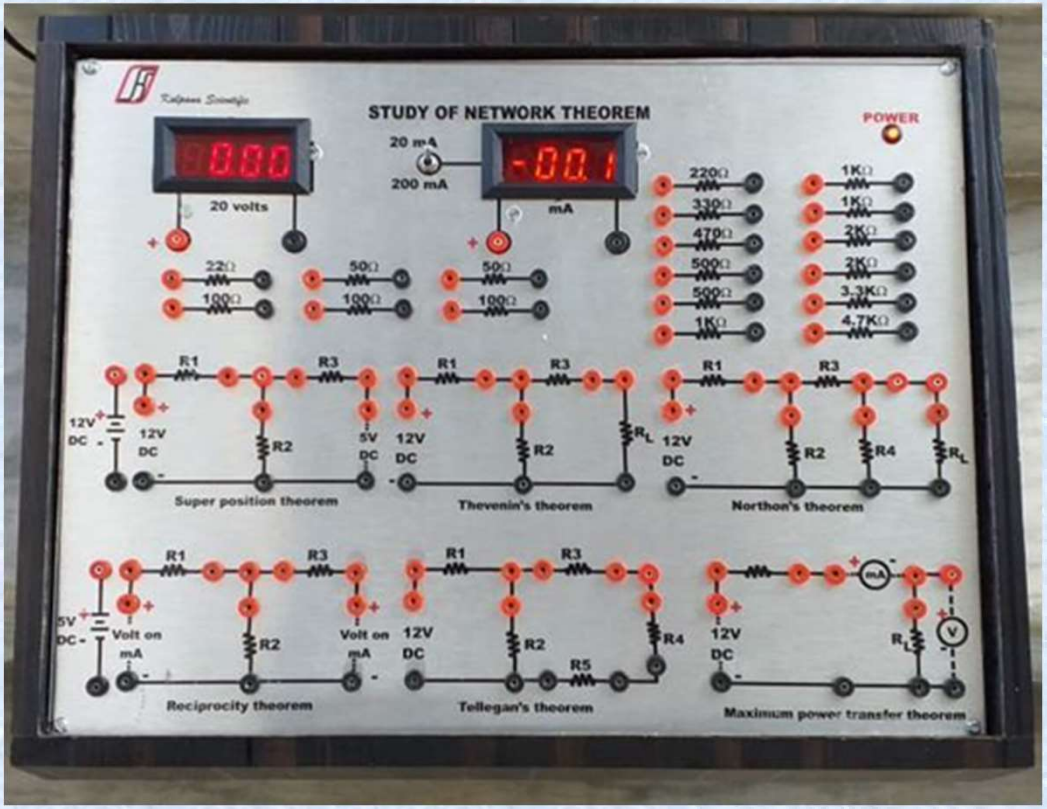
Kalpana Scientific

Experimental Trainer Kit for Verification of Circuit Laws and Network Theorems

KS/NET/THEOREM

- Verification of Superposition Theorem.
- Study of potential divider.
- Verification of Maximum Power Transfer Theorem.
- To verify Thevenin's Theorem and to find equivalent voltage source circuit.
- To verify Norton's Theorem and to find equivalent current source circuit.
- To verify the Reciprocity Theorem and to measure current in a branch containing voltage source after shifting it to some other branch.
- To study the design of a multimeters.

Designing a DC current meter
Multi range DC current meter
Designing a DC voltmeter
Multi range DC voltmeter
Designing OHM's meter



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Experimental Trainer Kit for Series-Parallel Resonance Studies in Circuits

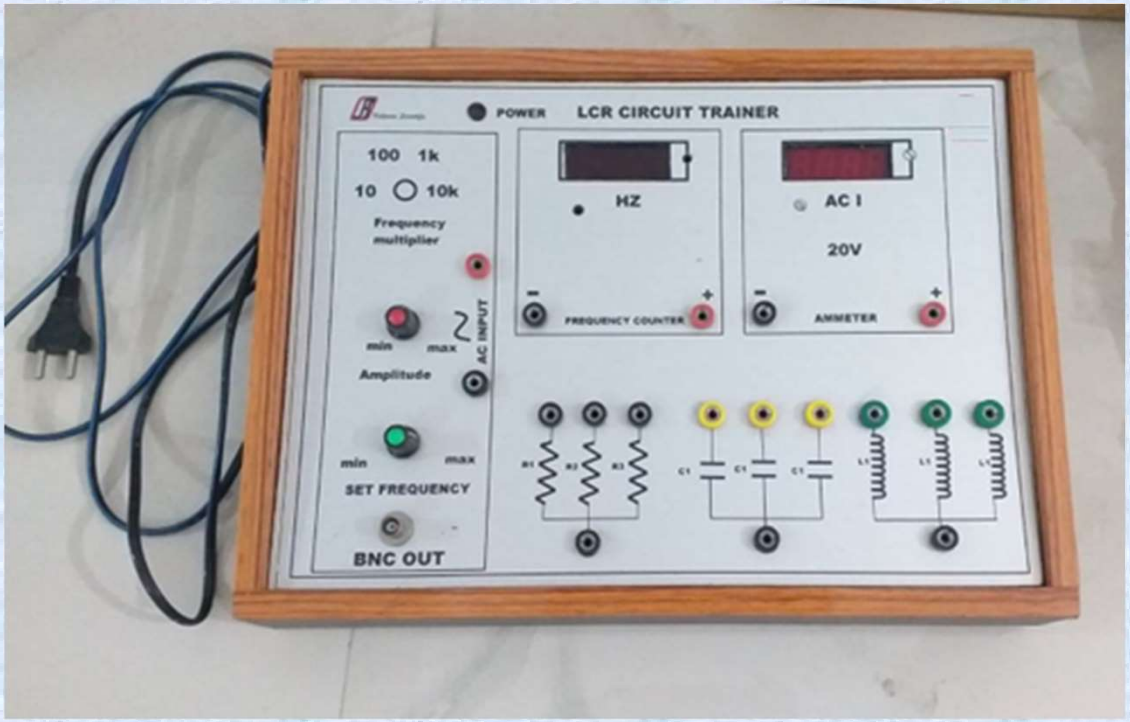
KS/NET/LCR

Series resonance for different values of resistance, capacitances, inductances and plotting of resonance curves.

Parallel resonance for different values of resistance, capacitances, inductances and plotting of resonance curves.

Measurement of Q for both series and parallel resonances.

Measurement of dielectric constant relative permittivity of a liquid.



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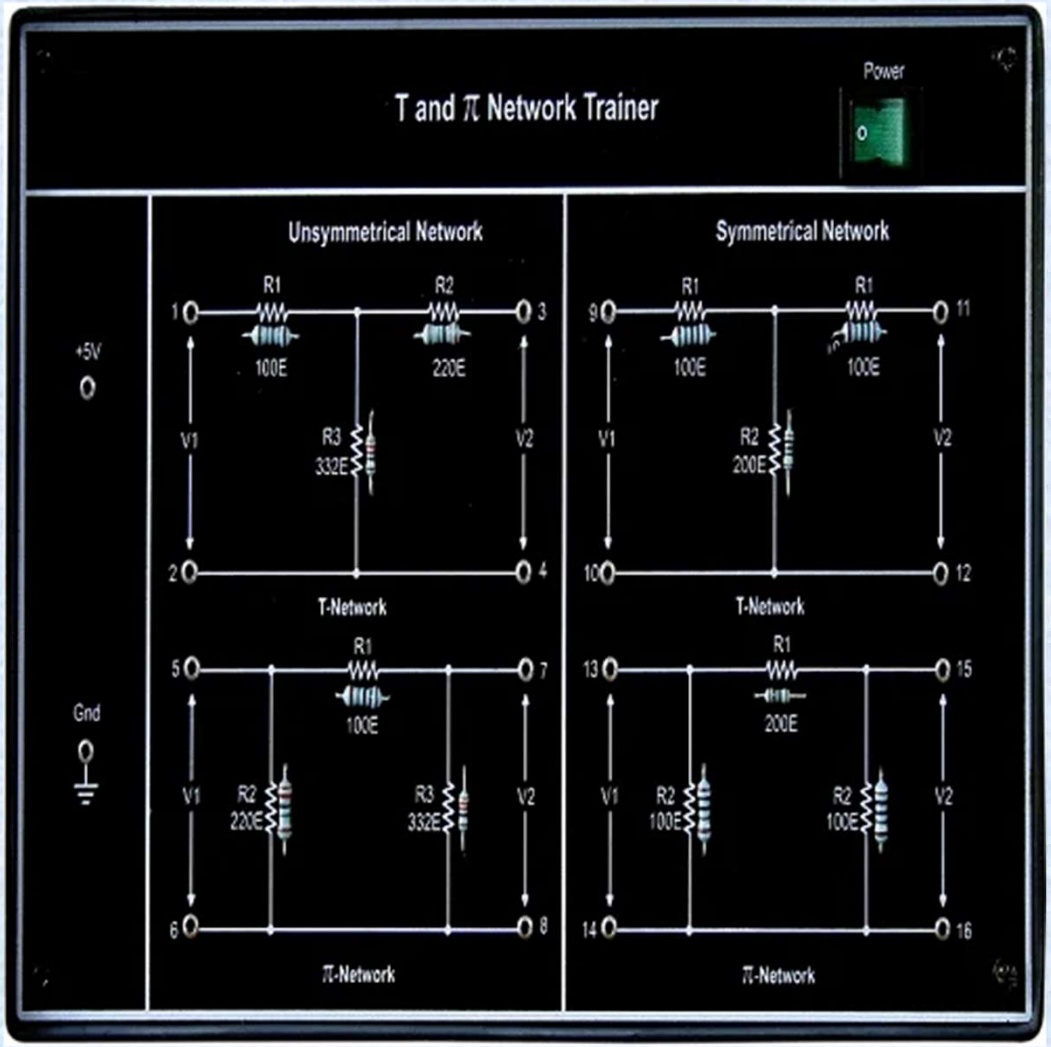
T and Pi Network Trainer Kit

KS/NET/T&Pi

Study and verification of Image Impedance of Unsymmetrical Tnetwork
Study and verification of Image Impedance of Unsymmetrical piNetwork
Study and verification of Characteristic Impedance of Symmetrical T-Network
Study and verification of Characteristic Impedance of Symmetrical pi-Network



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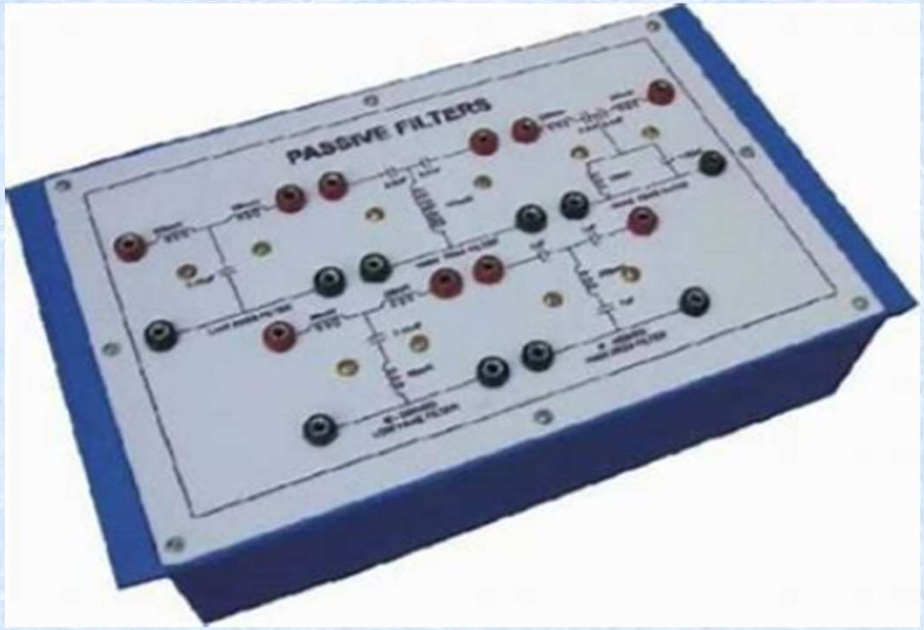
Kalpana Scientific

Experimental Trainer Kit for Passive Filters (Low Pass, High Pass and Band Pass Filter)

KS/NET/PASS-FIL

Low-Pass constant-K filter.
High-Pass constant-K filter.
Band-Pass constant-K filter.
Low-Pass M-Derived filter.
High-Pass M-Derived filter.



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Two Port Network Trainer Kit

Study of Z-Parameters of a Passive Two Port Network
Study of Y-Parameters of a Passive Two Port Network
Study of ABCD-Parameters of a Passive Two Port Network

KS/NET/TWO-PORT

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Kalpana Scientific

ISO 9001:2015 CERTIFIED

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Website: www.kalpanascientific.com Call: 7029894454

Technical Compliance sheet of Experimental Kits for Electronics LAB

Sl. No	Item Name	Specifications	Make & Model No	Compliance (Yes/No)
1	**Experimental Trainer Kit for Verification of Circuit Laws and Network Theorems**	➢ Verification of Ohm's Law. ➢ To draw the V-I characteristics for studying the D.C. behavior of the following : • Ideal resistance. • Semiconductor diode. • Zener diode. • Thermistor (NTC Type). ➢ To verify Kirchoff's current law and voltage law. • Kirchoff's current law • Kirchoff's voltage law ➢ Verification of the series & parallel laws for resistance. • Series resistance • Parallel Resistance ➢ Verification of Superposition Theorem. ➢ Study of potential divider. ➢ Verification of Maximum Power Transfer Theorem. ➢ To verify Thevenin's Theorem and to find equivalent voltage source circuit. ➢ To verify Norton's Theorem and to find equivalent current source circuit. ➢ To verify the Reciprocity Theorem and to measure current in a branch containing voltage source after shifting it to some other branch. ➢ To study the design of a multimeters. • Designing a DC current meter • Multi range DC current meter • Designing a DC voltmeter	**Make : KALPANA SCIENTIFIC** **MODEL NO.:** KS/NET/THEOREM	Yes

		• Multi range DC voltmeter Designing OHM's meter		
2	**Experimental Trainer Kit for Series-Parallel Resonance Studies in Circuits**	➢ Series resonance for different values of resistance, capacitances, inductances and plotting of resonance curves. ➢ Parallel resonance for different values of resistance, capacitances, inductances and plotting of resonance curves. ➢ Measurement of Q for both series and parallel resonances. Measurement of dielectric constant relative permittivity of a liquid.	**Make : KALPANA SCIENTIFIC MODEL NO.:**KS/NET/LCR	Yes
3	**T and Pi Network Trainer Kit**	➢ Study and verification of Image Impedance of Unsymmetrical T-Network ➢ Study and verification of Image Impedance of Unsymmetrical pi-Network ➢ Study and verification of Characteristic Impedance of Symmetrical T-Network Study and verification of Characteristic Impedance of Symmetrical pi-Network	**Make : KALPANA SCIENTIFIC MODEL NO.:**KS/NET/T&Pi	Yes
4	**Experimental Trainer Kit for Passive Filters (Low Pass, High Pass and Band Pass Filter)**	➢ Low-Pass constant-K filter. ➢ High-Pass constant-K filter. ➢ Band-Pass constant-K filter. ➢ Low-Pass M-Derived filter. High-Pass M-Derived filter.	**Make : KALPANA SCIENTIFIC MODEL NO.:**KS/NET/PASS-FIL	Yes
5	**Two Port Network Trainer Kit**	➢ Study of Z-Parameters of a Passive Two Port Network ➢ Study of Y-Parameters of a Passive Two Port Network Study of ABCD-Parameters of a Passive Two Port Network	**Make : KALPANA SCIENTIFIC MODEL NO.:**KS/NET/TWO-PORT	Yes

Warranty: as per bid document.

Installation and demonstration will be provided.

ISO 9001:2015

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LIST OF SERVICE CENTRE

SL NO	LOCATION	ADDRESS
1	KOLKATA	A-33/2 BIDISHA HOUSING KONNAGAR , HOOGLY , WEST BENGAL-712235 MOB:7029894454
2	PUNE	A-104, NATURES BLESSINGS, GORHE BK, PUNE-411025 MOB:7679774297
4	AMBALA	BENGALI MOHALLA NEAR POST OFFICE AMBALA CANTT, HARYANA-133001

Name of application specialist /Service Engineer who have the technical competency to handle and Support the quoted product during the warranty period.

Name of the organization	Name of Contact Person	Contact No.
KALPANA SCIENTIFIC	DR. S.NEOGI, M.SC, M.TECH, Ph.D	7679774297
KALPANA SCIENTIFIC	DR. U.CHOWDHURY, M.SC, M.TECH, Ph.D	7029894454
KALPANA SCIENTIFIC	MRS. POUSHALI ROY, B.TECH, M.TECH	7718610048
KALPANA SCIENTIFIC	MR. SUSHOBHON PAL, BSc, MCA	9883267817
KALPANA SCIENTIFIC	MR. BHOLANATH SUTRADHAR, BSc	9064134925

Now we have three service centre in INDIA. During the warranty period, I/we shall provide free ,after sale service, and the replacement of any part(s) of the Equipment /Item or rectification of defects of work of the Equipment /Item will be free of cost. The replacement of the parts shall be arranged by us, at our own cost and responsibility during warranty period.

For KALPANASCIENTIFIC

KALPANA SCIENTIFIC DATE Rima Chaudhury

RUMACHOWDHURY,
PROPRIETOR
CALL: 7679774297
PLACE: KONNAGAR,
DATE:12.07.2024