VERITAS Engineering

Catalog
Of

Electronics Trainer with

Module Package

Brand: VERITAS

Model: VENT-2408

Picture: Electronics trainer with Module Package

Technical Specification

Features:

- Comprehensive measuring instrument with multi-meter, function generator, power supply all-in-one.

- It is possible to practice measuring the characteristics of each module of electronic circuit using measuring equipment.

- It has DC + 5V, ± 15V fixed voltage, DC variable power supply, AC variable power supply for analog and digital experiment.

- For safety, overload and short circuit protection circuit are attached to the power supply of main unit module.

- The main bodies are able to be docked or plugged and combine the training module.

- It provides required number of modules to cover all training concept in the specification.

- It is possible to configure the circuit by using breadboard, and to be mounted on the multi-experiment module or to be detachable to the main body.

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Basic Panel

The basic panel works as the main platform where other modules will be docked or plugged, consists of power supply for boards.

DC Circuit Experiment Module

Topic coverage:

Ohm's Law

Serial/Parallel Circuit

Kirchhoff's Law

Galvanometer

Wheatstone bridge

AC/DC Circuit Experiment Module

Topic coverage:

Capacitance

Inductance

RC/RL circuit

LC resonance (Series/Parallel)

AC/DC voltage measurement

AC/DC current measurement

Ohm's Law

Kirchhoff's Law

Series-parallel combination circuit

Thevenin's theorem

Newton's theorem

DC circuit (RC) and transient phenomenon

AC circuit (RC/RL/RLC)

Characteristics of transformer

Resonant circuit (series/parallel) and LC filter

Signal Conversion Circuit Experiment Module

Topic coverage:

A/D converter

D/A converter

F/V converter

V/F converter

Digital Logic Experiment Module

Topic coverage:

Diode Logic

AND gate

OR/XOR gate

Inverter

JK flip-flop

RS flip-flop

Counter

Shift register

Decoder

Encoder

Half adder/Full adder

Multiplexer/De-multiplexer

Diode circuit with voltage regulation module

Topic Coverage:

Bridge rectifier

Voltage regulator

Diode/Zener diode

Rectifier circuits

Filter circuits

Characteristics of transistor

Characteristics of LED

Oscillator Experiment Module

Topic coverage:

Phase shift oscillator

Colpitts oscillator

Hartley oscillator

Crystal oscillator

Semiconductor Circuit Experiment

Topic coverage:

Diode characteristics

Zener diode

NPN Transistor

PNP Transistor

J-FET characteristics

MOS-FET characteristics

SCR characteristics

TRIAC characteristics

OP-AMP Circuit Basics and Application Experiment

Topic coverage:

Amplifier biasing

Complementary Amplifier

Common emitter Amplifier

Darlington Amplifier

Inverting amplifier

Non-Inverting Amplifier

Differential Amplifier

Summing Amplifier

Push Pull Amplifier

Filter Circuit

Topic coverage:

Low pass filter,

High pass filter,

Band pass filter

Sensor Circuit Experiment

Topic coverage:

Temperature sensor circuit experiment,

Photoelectric sensor experiment,

Hall effect sensor circuit experiment

Humidity Sensor Circuit Experiment,

Gas Sensor Circuit Experiment

Pulse Circuit Module

Topic coverage:

Clipper circuit

Schmitt trigger

Bi-stable multivibrator

Mono-stable multivibrator

Breadboard Module

Topic coverage:

Voltage: DC 5V, -15V, +15V

Variable voltage

Variable resistor: 1kΩ

Toggle switch

LED indicator lamp

Digital I/O; Relay output (A)