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| **Product Name :** | **Product Code :** |
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| Interactive PC Based Training Hardware Basic Set | LIM-CAT-L0072-00005 |

**Description :**

Interactive PC Based Training Hardware Basic Set

**Technical Specification :**

Interactive, PC based Training Hardware; Basic Set
The interactive PC training hardware consists of an interface which incorporates all inputs and outputs, switches, power and signal sources and measurement circuitry needed to perform blended learning experiments and an experiment unit to accommodate experiment cards. The Interface is connected to a PC (not part of this position) and controlled by interactive course software (separate positions).

Technical data:
32-bit processor or better with storage memory for measurements; USB interfaces, transfer rate 12 Mb/s of higher, WLAN/WIFI interface, 2.4 GHz, IEEE 802.11 b/g/n or better, Simultaneous connection of any number of Experimenters via serial bus system, High-quality and robust casing, Suitable for accommodating training panel frames for DIN A4 training panels, all connection of 2-mm/4mm safety measuring leads/plugs, LEDs for displaying status, Adjustable analogue output, +/-10 V, 0.2 A, DC – 5 MHz, via BNC and 2-mm sockets, min 4 Analog differential amplifier inputs with 10 MHz band up to 100 V, sampling rate 100 mega samples, min 9 measuring ranges, memory depth min 4 x 8 k x 10 bits, inputs via BNC (2x) or 2-mm sockets (4x), min 2 Analog inputs for current measurement, overcurrent-protected up to 5 A, sampling rate 250 kilo samples/s, 2 measuring ranges, resolution 12 bits, min 3 variable analogue outputs +/- 20V, 1 A, DC-150 Hz, 16-bit digital signal output, of which 8 bits are accessed via 2-mm sockets, TTL/CMOS, clock frequency 0 – 100 kHz, electric strength +/- 15 V.
16-bit digital signal input, of which 8 bits are accessed via 2-mm sockets, memory depth 16-bit x 2 k,

TTL/CMOS, sampling rate 0 – 100 kHz, electric strength +/- 15 V, min 8 Relays, 24 V DC/1 A, of which 4 are accessed via 2-mm sockets
Virtual instruments (meters and sources):
2 x Voltmeter VIs, 2 x Ammeter VIs: AC, DC, 9 ranges, 100 mV to 50 V, true RMS, AV;  1 x Power meter VI, 9 ranges, 100 mV to 50 V;  1 x VI with 8 relays, 1 x Multimeter VI: Multimeter display, 1 x 2-channel ammeter VI: AC, DC, 2 ranges, 300 mA and 3 A, TrueRMS, AV, 1 x 2-channel voltmeter VI: AC, DC, 9 ranges, 100 mV to 50 V, TrueRMS, AV, 1 Dual-channel oscilloscope: band width 10 MHz, 25-time ranges, 100 ns/div to 10 s/div, 9 ranges 20 mV/div to 10 V/div, trigger and pre-trigger, XY and XT modes, cursor function, addition and multiplication function; 1 x 4-channel oscilloscope VI: band width 10 MHz, 25 time bases, 100 ns/div to 10 s/div, 9 voltage ranges, 20 mV/div to 10 V/div, trigger and pre-trigger, XY and Xt modes, cursor function, addition and multiplication function for 2 channels; 1 x Spectrum Analyzer VI: 9 voltage ranges 100 mV to 50 V, input frequency range 3 Hz to 1 Mhz, time domain display; 1 x Bode-Plotter VI: 9 voltage ranges 100 mV to 50 V, frequency range 1 Hz - 5MHz, time domain display and locus diagram; 1 x Adjustable DC voltage VI 0 - 10 V; 1 x Function generator VI: 0.5 Hz - 5 MHz, 0 - 10 V, sine, square, triangular; 1 x Arbitrary Generator VI, 1 x Pulse Generator VI; 1 x VI with 16 digital outputs, 1 x VI with 16 x digital inputs, 1 x VI with 16 digital input/outputs. Display modes: binary, hex, decimal and octal numerals; 1 x Three-phase power supply VI, 0 - 150 Hz, 0 - 14 Vrms, 2 A; 1 x Adjustable DC power supply VI, 3 x (-20 V - +20 V), 2 A; 1 x Three-phase power supply VI with additional phase-shift and clock rate adjustment
Experiment Unit:
For coupling of experiment cards to the Interface or to other experiment modules via bus connections.
All data are requirements that can be exceeded.
Including accessories: ;  6 Shunt resistors: 2 x 1 ohm, 2 x 10 Ohm, 2 x 100 ohm for current measurement
Set of connection cables 2 mm (min 28 pcs) with different length and colours, Power supply, Power lead, USB cable, CD with basic software, Operating manual.