



ARM 7 Development Board OE-5004 is a 32-bit development platform and serves as a means for code development. This trainer is designed for students to explore ARM architecture and on-board supporting peripherals which provide an ideal platform for extensive embedded development. This trainer provides both the serial and USB connections which can be used to download and run a code on any standard IDE. This trainer allows users to evaluate, prototype and create application-specific designs.

#### OBJECT

- 01 Study and analysis of interfacing of LEDs
- 02 Study and analysis of interfacing of Switches
- 03 Study and analysis of interfacing of 16 x 2 Alphanumeric LCD
- 04 Study and analysis of interfacing of 12-bit Internal ADC
- 05 Study, analysis and programming for Transmission & Reception of data through UART 0
- 06 Study, analysis and programming for Transmission & Reception of data through UART 1
- 07 Study, implementation, analysis and interfacing of 4 x 4 matrix keypad

#### FEATURES

- 01 LPC2294 (ARM 7 TDMI 32 Bit) MCU clocked at 12MHz
- 02 Expansion connectors for plug-in modules and prototyping area
- 03 On-board Flash download utility (programmer) for Philips microcontrollers
- 04 Both USB & RS232 interface given for programming
- 05 Every pin is marked in order to make the work easier
- 06 Master Reset/Restart Key for hardware reset
- 07 On-board 16 x 2 Alphanumeric LCD Interface
- 08 On-board UART 0 and UART 1 Interface
- 09 On-board Switch Interface
- 10 On-board ADC (10 Bit) Interface
- 11 On-board 4 x 4 Matrix Keypad Interface
- 12 On-board I2C Interface

- 13 On-board facility to connect JTAG debugger
- 14 Input/Output & test points provided on-board
- 15 Self-contained trainer with on-board DC and AC power supply
- 16 CD with sample project code, Programmer software & useful documents
- 17 Exhaustive course & reference material

#### TECHNICAL SPECIFICATIONS

- |                               |                                                              |
|-------------------------------|--------------------------------------------------------------|
| 01 MCU                        | : LPC2294                                                    |
| 02 Crystal frequency          | : 12MHz                                                      |
| 03 LEDs                       | : 08 Nos.                                                    |
| 04 Switches                   | : 04 Nos.                                                    |
| 05 Keypad                     | : 4 x 4 Matrix Keypad                                        |
| 06 ADC                        | : 10 Bit Internal ADC                                        |
| 07 Display                    | : 16 x 2 Alphanumeric LCD                                    |
| 08 Serial communication       | : Two RS232 Port                                             |
| 09 Programmer                 | : USB/Serial port                                            |
| 10 Programmer mode selection: | : RUN/ISP Switch                                             |
| 11 Baud rate                  | : 9600 bps (for both USB & Serial port)                      |
| 12 Programmer unit            | : Ready to run programmer will program Philips flash devices |
| 13 Test points                | : 07 Nos.                                                    |
| 14 Interconnection            | : 2 mm patch cords and FRC cables                            |
| 15 Mains supply               | : 230V $\pm$ 10% 50Hz                                        |
| 16 Power consumption          | : 20V A (approximate)                                        |
| 17 Dimensions (mm)            | : W340 x H125 x D210                                         |
| 18 Weight                     | : 1.3kg (approximate)                                        |

#### LIST OF ACCESSORIES:

- 01 RS232 serial cable.....01 Nos.
- 02 USB cable.....01 Nos.
- 03 20 Pins FRC connector .....01Nos.
- 04 Patch cord 2 mm length 50cm.02 Nos.
- 05 Software CD.....01Nos.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

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