

43558A ARM 7 Development Board serves as a 32 bit development Board and provides means for code development. This Board is designed for students to explore ARM architecture and supporting peripherals provide an ideal platform for extensive embedded development. The 43558A provides serial and USB connection both, that can be used to download and run code on any standard IDE and allows users to evaluate, prototype and create application specific designs.

Object

- 01 Study of ARM 7(LPC2148) Microcontroller architecture
- 02 Pin to pin study of MCU
- 03 Study of serial protocol(I2C/SPI)
- 04 Study of internal PWM
- 05 Study of Timer/Interrupt
- 06 Study of RTC
- 07 Study of internal ADC and DAC
- 08 Study of RTOS signal, semaphore, mutex, mailbox and priority scheduling
- 09 Interface various external MCM series modules

Features

- 01 LPC2148 (ARM7TDMI 32 Bit) MCU clocked at 12 MHz
- 02 Expansion connectors for plug in modules and prototyping area
- 03 8 kB to 40 kB of on-chip static RAM and 32 kB to 512 kB of onchip flash memory;128 bit wide interface/accelerator enables high-speed 60 MHz operation
- 04 On Board Flash download utility (programmer) for Philips Microcontrollers
- 05 USB & RS232 both interface given for programming
- 06 USB 2.0 Full-speed compliant device controller with 2 kB of endpoint RAM
- 07 LPC2146/48 provides 8 kB of on-chip RAM accessible to USB by DMA
- 08 Every pin is marked in order to make work easier
- 09 Master Reset/Restart Key for hardware reset
- 10 RTOS supported
- 11 On platform UART 0 and UART 1 Interface
- 12 On platform ADC (10 Bit) Interface
- 13 On platform 10-bit DAC provides variable analog output
- 14 On platform PWM Interface
- 15 On platform facility to connect JTAG debugger
- 16 On platform GPIO Connectors
- 17 60 MHz maximum CPU clock available from programmable on-chip PLL with settling time of 100 μs
- 18 On-chip integrated oscillator operates with an external crystal from 1 MHz to 25 MHz
- 19 Power saving modes include idle and Power-down
- 20 Input/Output & test points provided on platform
- 21 On platform four external interrupts interface



- 22 Self contained development platform with on platform DC Power Supply
- 23 CD with sample project code, Programmer software & useful documents

Technical Specifications

- 01 MCU : LPC2148
- 02 Crystal Frequency : 12 MHz
- 03 LEDs : 8 nos.
- 04 ADC : Two Internal 10 bit ADC
- 05 DAC : 10 Bit internal DAC
- 06 Interrupts : Four External Interrupts on platform
- 07 RTC : 3.3 Volt CMOS Battery
- 08 PWM : 3 nos. On platform
- 09 GPIO's : All GPIO Pins on platform
- 10 Communication : USB 2.0 Full speed device control interfaces
- 11 Serial Communication : Two RS-232 Port
- 12 Programmer : USB/Serial Port
- 13 Programmer Mode : Run/ISP Switch Selection
- 14 Baud Rate : 600 bps (for both USB/serial ports)
- 15 Interconnections : 2 mm Patch cords with FRC Cables
- 16 Learning Material :Theory, procedure, reference results etc
- 17 Dimensions (mm) : W 415 x H165 x D315
- 18 Power Supply : 230V + 10% AC, 50/60Hz
- 19 Weight : 1.5Kg (approximately)
- 20 Operating Conditions : 0-40 C, 80% RH

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 -----01 Nos.

Other Apparatus Required:

Tesca makes TCM Series (TCM-01 to TCM-16) extension module to interface with this board.

Note: Specifications are subject to change.