



Modular Embedded Development Platform 43558C serves as a 32 bit development platform and provide means for code development. This Development Platform based on ARM7TDMI Microcontroller (LPC2148) with 512KB on chip memory This platform is designed to explore ARM architecture and supporting peripherals, an ideal platform for extensive Embedded product development. The 43558C provides USB connection that can be used to download firmware, allows users to evaluate, prototype and create application specific designs.

Modular Embedded Development Platform

Features

- ARM7 Controller based on LPC 2148
- On board USB programmer
- USB 2.0 Full-speed compliant device controller with 2 kB of endpoint RAM
- Learning of USB Protocol like HID, CDC and MSD
- Master Reset/Restart Key for hardware reset
- RTOS supported (RTX, mC/OS-II)
- On board USB (UART0) and UART1 Interface
- On board Temperature Sensor
- On board 16X2 LCD Display
- On board 10-bit DAC provides variable analog output
- On board PWM and Interrupt
- On board facility to connect JTAG Programming and debugging
- All GPIO's are provided on 6 connectors (10X2)
- Wireless module adapter for optional - 2.4GHz ZigBee (Xbee) / Bluetooth /Wi-Fi connectivity
- Motor driver circuit for DC and Stepper Motor
- I2C and SPI Interface connector
- On board 8 LED
- On board 4X4 Hex keypad interface
- Inbuilt Real Time Clock with Battery holder
- On board switch
- 128 byte of I2C external EEPROM
- RS485 Interface connector
- Expansion connectors for plug in modules and prototyping area
- Controller module is detachable, user can use other controller as well

Object

01. Study of ARM7(LPC2148) Microcontroller architecture
02. Pin to pin study of MCU

Note: Specifications are subject to change.

03. Study and Interface serial protocol (I2C, SPI, UART)
04. Study and Interface internal PWM, Timer, Interrupt
05. Study and Interface LED and Temperature sensor
06. Study and Interface Internal Real Time Clock (RTC)
07. Study and Interface of EEPROM memory
08. Study of Internal ADC and DAC
08. Study and Interface of Stepper Motors
09. Study and Interface of 4X4 Hex keypad
10. Study and Interface 16X2 LCD
11. Study of RTOS signal, semaphore, mutex, mailbox and priority scheduling
12. Study and Interface various external MCXX series modules

Technical Specifications

MCU	:	LPC2148
External memory	:	EEPROM
Crystal Frequency	:	12 MHz
LEDs	:	8 nos.
ADC	:	14nos. Internal 10 bit ADC
DAC	:	10 Bit internal DAC
Interrupts	:	4 nos
Variable Supply	:	0-3.3 Volt
RTC	:	32.768KHz, 3.3V Battery
PWM	:	7 nos
Sensor	:	LM35
Display	:	16X2 LCD Display
Motor Drive	:	L293D 600mA (5-12V)
GPIO's	:	All GPIO Pins
Communication	:	USB 2.0 Full speed device control interfaces
Programmer	:	USB Interface
Programmer Mode	:	Run/ISP switch selection
Baud Rate	:	9600 bps (Default)
Interconnections	:	2 mm Patch chords with FRC Cables
Dimensions (mm)	:	W 326 x D 252 x H 52
Power Supply	:	110V - 260V AC, 50/60Hz
Weight	:	1.5Kg (approximately)
Operating Conditions	:	0-40° C, 80% RH
OS Support	:	Windows XP, 7 & 8 (32bit and 64 bit)
Included Accessories	:	USB cable, Mains cord, 2mm Patch cords, 20 Pin FRC cable, SMPS, Stepper motor.

Optional

1. Tesca makes TCM Series extension module to interface with this platform.

Note: Specifications are subject to change.

