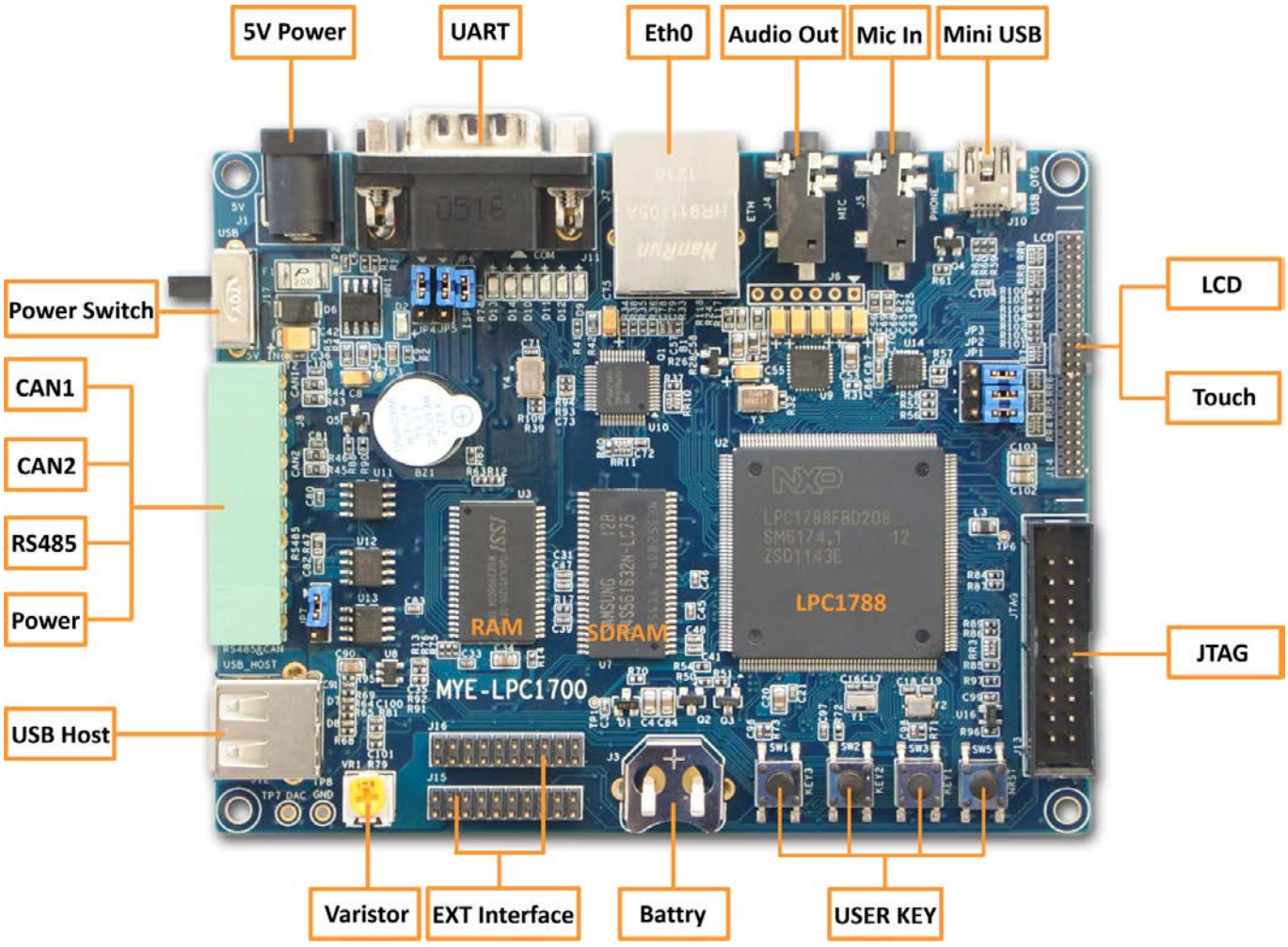
MYD-LPC1788 Development Board

The MYD-LPC1788 development board is a full-featured evaluation platform base on NXP LPC1788 which is an ARM Cortex-M3 microcontroller for embedded applications featuring a high level of integration and low power consumption at frequencies of 120 MHz. Features include 512 kB of flash memory, 96 kB of data memory, Ethernet, USB 2.0 Host/OTG/Device , 8-channel DMA controller, 5 UARTs, 2 CAN channels, 3 SSP/SPI, 3 I2C, I2S, 8-channel 12-bit ADC, 10-bit DAC, QEI, LCD controller, SD/MMC interface, motor control PWM, 4 general purpose timers, 6-output general purpose PWM, ultra-low power Real-Time Clock with separate battery supply, and up to 165 general purpose I/O pins.

The MYD-LPC1788 development takes full features of the NXP LPC1788 ARM Cortex-M3 microcontroller and exposes many peripherals including UARTs, USB, Ethernet, CAN, RS485, Audio, LCD and JTAG. The board has external 32MB SDRAM, 1MB SRAM, 2MB Nor Flash,256B EEPROM and 4MB SPI FLASH to enhance the memory capabilities.

The MYD-LPC1788 Development board can be used in various applications such as Metering, Lighting, Industrial networking, Alarm systems, White goods and Motor control.



MYD-LPC1788 Development Board

Features

Processor

- NXP LPC1788, ARM Cortex-M3 Microcontroller, working at 120MHz
  - 96 KB SRAM for code and data use
  - 512 KB ROM containing boot code and on-chip software drivers
  - 4KB EEPROM

External Memory

- 32MB SDRAM, 1MB SRAM, 2MB Nor Flash, 4MB SPI Data FLASH

Audio Interface

- Audio input
- Stereo audio output port

LCD/Touch screen

- Support 24-bit true color, resolution up to 1024 x 768 pixels
- 4.3" LCD Module with resolution 480 x 272 pixels
- 7" LCD Module with resolution 800 x 480 pixels
- 4-wire resistive touch screen

Data interface

- 1 x Serial port (select UART0 or UART2 by jumper)
- 1 x RS485 interface
- 1x Hi-speed USB HOST
- 1 x Mini USB OTG
- 1 x Ethernet interface
- 2 x CAN interfaces
- 20-pin JTAG interface

LED

- 1x Power indicator

Mechanical Parameters

- PCB Size: 115mm x 90mm
- PCB layers: 4-layer design
- Power supply: 5V/2A or USB Power supply
- Debug interface: 20-pin, 2.54mm JTAG connector

Sample Codes

- Sample codes for peripherals using Keil's MDK-ARM

Software Features

The MYD-LPC1788 Development Board is provided with sample codes bundle for the peripherals using Keil's MDK-ARM to help users evaluate the NXP LPC1788 ARM Cortex-M3 microcontroller.

No	Name	Description
1	ADC_Interrupt	ADC converting under Burst Mode
2	ADC_Polling	ADC converting under polling mode
3	CAN_Test	CAN Test
4	Crc_Demo	CRC Test
5	Dac_Dma	DMA data to DAC convert
6	Dac_SineWave	DMA data to DAC generating sin
7	DMA_Flash2Ram	GPDMA test, data from FLASH to RAM
8	Eeprom_Demo	Write data onLPC1788's EEPROM
9	Emc_NorFlashDemo	Read/write to NorFlash by EMC
10	Emc_SdramDemo	Read/write SDRAM by EMC interface
11	Emc_SramDemo	Read/write SRAM by EMC interface
12	GPIO_Interrupt	GPIO test
13	GPIO_LedBlinky	Led blinking
14	Nvic_VectorTableRelocation	Vector table relocation
15	Pwm_SingleEdge	6 channels generate PWM signal under single edge mode
16	Pwm_DualEdge	3 channels generate PWM signal under dual edge mode
17	Pwm_MatchInerrupt	PWM match under interrupt mode
18	PWR_Sleep	Fall into deep sleep mode and wake up by WWDT
19	PWR_DeepSleep	Fall into deep sleep mode and wake up
20	Emac_EasyWeb	A Web application running on LPC1788
21	Rtc_Alarm	RTC Test
22	SSP_Touchscreen	SSP interface read touch panel data
23	SSP_Flash	Read/write AT25DV321A by SSP interface
24	Systick_100msBase	System tick, interrupt by each 100ms
25	Timer_MatchInterrupt	Set time interval by time capture

26	Wdt_Interrupt	WDT trigger overtime and warning interrupt
27	Wdt_Reset	Reset event happen by WDT after setted time
28	Lcd_LQ043T3DX0A	Display a picture
29	Lcd_touch	Touch screen test
30	Mci_CidCard	Read SD card by MCI interface
31	Usb_MassStorage	USB Mass storage application
32	Usb_VirtualCom	Configure USB device as a stimulate COM port
33	I2C_Eeprom	Read/Write EEPROM via I2C
34	RS_485-Master & Slave	RS_485 communication between Master & Slave

Order Information (Product Item/Part No.)

MYD-LPC1788 Development Board/MYS-1788-16N32D-C

Packing List

- One MYD-LPC1788 Development Board
- One DB9-to-DB9 Serial cable
- One Net cable
- One USB cable
- One Product DVD
- 4.3-inch LCD/TSP (optional)
- 7-inch LCD/TSP (optional)

Contact Us

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