MYC-IM28X CPU Module

- 454MHz Freescale I.MX28 Series ARM926EJ-S Processors
- 128MB DDR2 SDRAM, 256MB Nand Flash, 128KB SPI Flash
- On-board Ethernet PHY
- Two 1.27mm pitch 80-pin SMT Female Connectors for Board-to-Board Connections
- Ready-to-Run Linux 2.6.35 System-on-Module
- Supports -40 to +85 Celsius Extended Temperature Operation for Industrial Applications

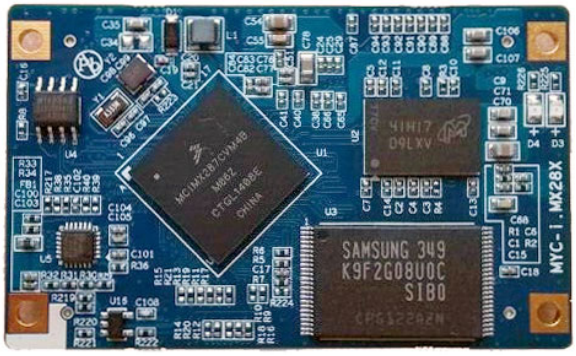

Figure 1-1 MYC-IMX28X Top-view

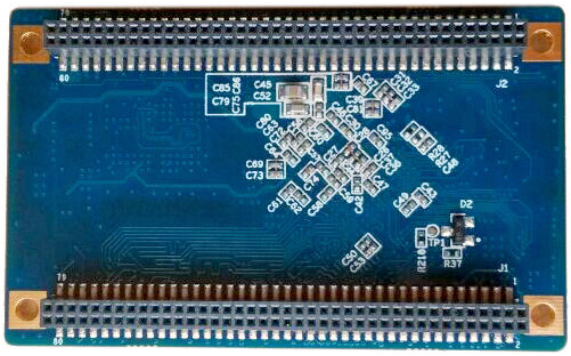

Figure 1-2 MYC-IMX28X Bottom-view

Measuring only 62mm by 38mm, the MYC-IMX28X is a low-cost and high-performance ARM embedded controller board based on Freescale i.MX28 family applications processor with ARM926EJ-S core and speeds of up to 454MHz. It integrates 128MB DDR2 SDRAM, 256MB Nand Flash, 128KB SPI Flash as well as one Ethernet PHY on board and has two 1.27mm pitch 80-pin SMT connectors to allow all the I/O signals brought in and out from the CPU Module for further expansion.

The MYC-IMX28X CPU Module is a ready-to-run system-on-module (SoM) which can be embedded into your next design for volume production or prototype. It can also come with MYIR own designed base board along with Linux software packages, document and other necessary cable accessories to enable rapid development based on this Freescale i.MX28 starter kit MYD-IMX28X.

MYIR offers the module with **Freescale i.MX283** or **i.MX287** ARM9 CPU by default; user can integrate a different **MYC-IMX28X** CPU module on the same base board, thus making two variants of i.MX28 evaluation boards.

- ***MYC-IMX283 CPU Module*** for Freescale ***i.MX283***
- ***MYC-IMX287 CPU Module*** for Freescale ***i.MX287***

Please get to know the difference for i.MX283 and i.MX287 from below table:

Function	i.MX283	i.MX287
UART	5	5
Debug UART	1	1
CAN	—	2
ETHERNET	1	2
LCD interface	YES	YES

High-speed ADC	1	1
LRADC	8	8
PWM	8	8
SD/SDIO/MMC	4	4
SPI	4	4
TOUCH SCREEN	YES	YES
USB 2.0	HS USB OTG x1	HS USB OTG x1
	HS USB Host x1	HS USB Host x1

Table 1-1 MYC-IMX28X Comparison

The MYD-IMX28X takes full features of the MYC-IMX28X module and has extended many peripherals and interfaces through headers and connectors including **1 x RS232, 1, Debug, 2 x USB ports, up to 2 x Ethernet, 2 x CAN, 1 x RS485, TF, Audio, LCD, JTAG, etc.** It can support -40 to +85 Celsius extended temperature operation and is ideal for smart gateways, human-machine interfaces (HMIs), handheld devices, scanners, portable medical, experimental education and more other industrial applications.

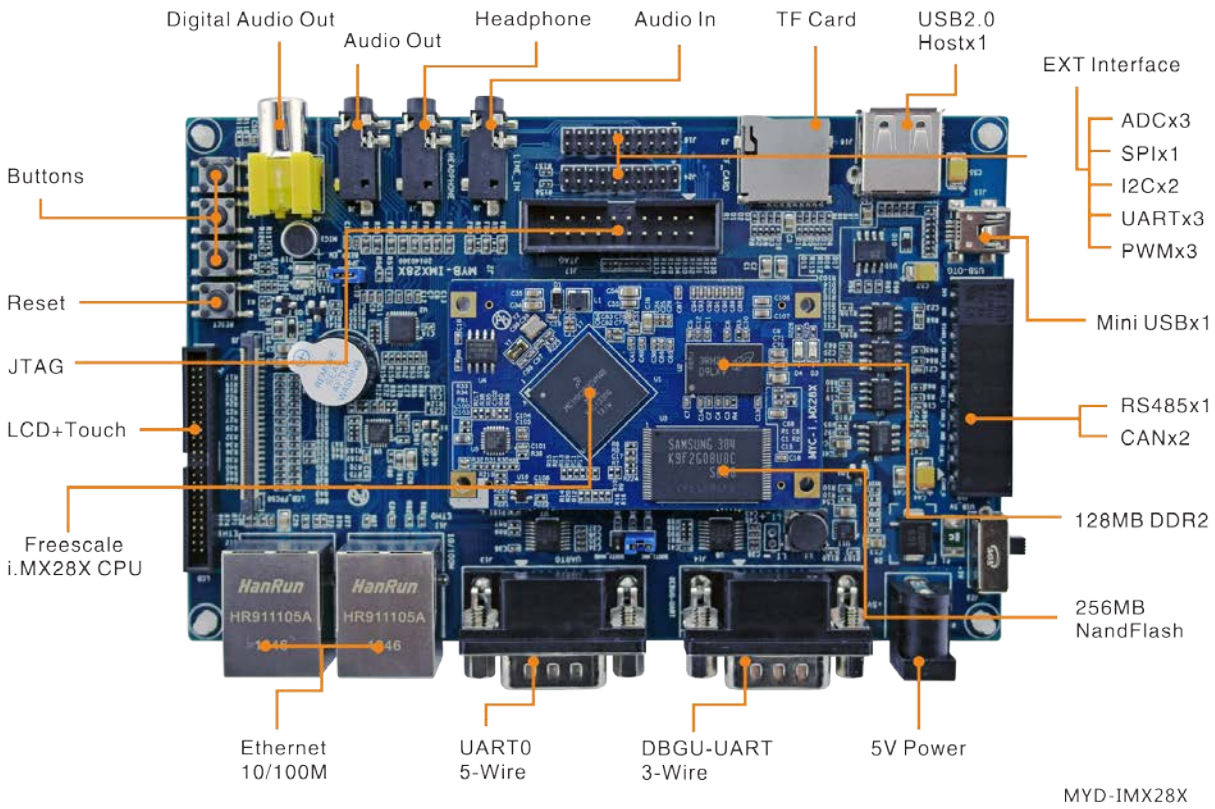

Figure 1-3 MYD-IMX28X Development Board

Hardware Specification

The i.MX28 is a low-power, high-performance applications processor optimized for the general embedded industrial and consumer markets. The core of the i.MX28 is Freescale's fast, power-efficient implementation of the ARM926EJ-S™ core, with speeds of up to 454 MHz.

The device is suitable for a wide range of applications, including the following:

- Human-machine interface (HMI) panels: industrial, home
- Industrial drive, PLC, I/O control display, factory robotics display, graphical remote controls
- Handheld scanners and printers
- Patient-monitoring, portable medical devices
- Smart energy meters, energy gateways
- Media phones, media gateways

The integrated power management unit (PMU) on the i.MX28 is composed of a triple output DC-DC switching converter and multiple linear regulators. These provide power sequencing for the device and its I/O peripherals such as memories and SD cards, as well as provide battery charging capability for Li-Ion batteries.

The i.MX28 processor includes an additional 128-Kbyte on-chip SRAM to make the device ideal for eliminating external RAM in applications with small footprint RTOS.

The i.MX28 supports connections to various types of external memories, such as mobile DDR, DDR2 and LV-DDR2, SLC and MLC NAND Flash.

The i.MX28 can be connected to a variety of external devices such as high-speed USB2.0 OTG, CAN, 10/100 Ethernet, and SD/SDIO/MMC.

Family Comparison				
Feature	**i.MX280**	**i.MX283**	**i.MX286**	**i.MX287**
Temp. ranges	-20°C to +70°C -40°C to +85°C	-20°C to +70°C -40°C to +85°C	-20°C to +70°C -40°C to +85°C	-40°C to +85°C
LCD	-	Y	Y	Y
Ethernet	X1	X1	X1	X2
L2 Switch	-	-	-	Y
CAN	-	-	X2	X2
SDIO*	X4	X4	X4	X4
SPI*	X4	X4	X4	X4
S/PDIF Tx	-	-	Y	Y
*** Represents maximum available. Some pins are shared with other interfaces**				

Table 1-2 i.MX28 Family Comparison

Mechanical Parameters

- Dimensions: 62mm x 38mm
- PCB Layers: 6-layer design
- Power supply: +3.3V
- Working temperature: -40~85 Celsius (industrial grade)

Processor

- Freescale i.MX283, i.MX287 Applications processor
  - Up to 454MHz ARM926EJ-STM core with 16KB/32KB I and D Cache
  - 128 kbytes of integrated low-power on-chip SRAM
  - 128Kbytes of integrated mask-programmable on-chip ROM
  - 1280 bits of on-chip one-time-programmable(OCOTP)ROM
  - 16-bit mobile DDR(mDDR)(1.8V),DDR2(1.8V)and LV-DDR2(1.5V),up to 205MHz DDR clock frequency with voltage overdrive
  - Support for up to eight NAND Flash memory devices with up to 20-bit BCH ECC

Memory

- 128MB DDR2 SDRAM
- 256MB Nand Flash
- 128KB SPI Flash

Peripherals and Signals Routed to Pins

- On-board Ethernet PHY
- One power indicator (Red LED)
- One user LED (Blue)
- Two 1.27mm pitch 2 x 40-pin SMT female expansion connectors can carry out interfaces below
  - Ethernet (two for i.MX287, one for i.MX283)
  - 2 x USB2.0 High-speed ports
  - Up to 6 x Serial ports (including one Debug port)
  - 1 x I2C
  - 2 x SPI
  - Up to 8 x ADC (one high-speed ADC, seven low-resolution ADC)
  - Up to 5 x PWM
  - 1 x SDIO

Signals Routed to Expansion Connectors

The MYC-IMX28X CPU Module has two 1.27mm pitch 2 x 40-pin SMT female expansion connectors (J1 & J2) to allow extension of all the controller signals and ports to the base board through headers and connectors, thus exposing more features of the Freescale i.MX28 ARM9 processor. Please refer to below table to know signals routed to the pins:

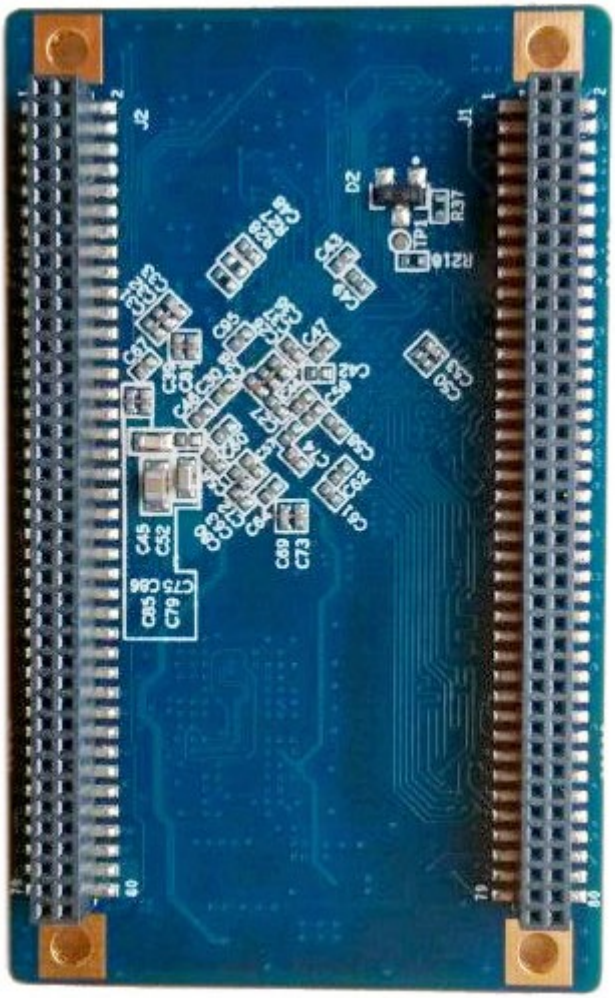

Figure 1-4 MYC-IMX28X CPU Module Bottom-view

	J1					J2		
NET0_TX-	1	2	GND		AUART0_CTS	1	2	AUART0_RX
NET0_TX+	3	4	NET0_A3V3		AUART0_RTS	3	4	AUART0_TX
NET0_RX-	5	6	NET0_LED2		SSP1_DATA0	5	6	SSP1_SCK
NET0_RX+	7	8	NET0_LED1		SSP1_DATA3	7	8	SSP1_CMD
GND	9	10	VDDXTAL		SSP3_MOSI	9	10	SSP3_SCK
RS485_CTS	11	12	RS485_RX		SSP3_MISO	11	12	SSP3_SS0
RS485_RTS	13	14	RS485_TX		FLASH_MOSI	13	14	FLASH_SCK
AUART2_CTS	15	16	AUART2_RX		FLASH_MISO	15	16	FLASH_SS0
AUART2_RTS	17	18	AUART2_TX		FLASH_SS2	17	18	FLASH_WP
AUART3_CTS	19	20	AUART3_RX		GND	19	20	GND
AUART3_RTS	21	22	AUART3_TX		SD_CMD	21	22	SD_SCK
NET1_INT	23	24	GND		SD_DETECT	23	24	SD_DATA0

	J1					J2		
NET1__RST	25	26	NET_CLK		SD_DATA1	25	26	SD_DATA2
NET_MDC	27	28	NET_MDIO		SD_DATA3	27	28	USR_KEY1
NET1_RXD2	29	30	NET1_TXD2		USR_KEY2	29	30	USR_LED1
NET1_RXD3	31	32	NET1_TXD3		USR_LED2	31	32	GND
NET1_RXEN	33	34	NET1_TXEN		I2C0_SCL	33	34	USB1DM
GND	35	36	GND		I2C0_SDA	35	36	USB1DP
GPIO1_30	37	38	GPIO1_28		SPDIF	37	38	GND
LCD_RST	39	40	GPIO1_29		I2S_MCLK	39	40	USB0DM
LCD_EN	41	42	GPIO1_31		I2S_LRCLK	41	42	USB0DP
GND	43	44	LCD_HSYNC		I2S_BITCLK	43	44	GND
LCD_PCLK	45	46	LCD_VSYNC		I2S_SDATA0	45	46	DBG_TX
GND	47	48	GND		I2S_SDATA0	47	48	DBG_RX
LCD_D00	49	50	LCD_D01		GND	49	50	USB0_ID
LCD_D02	51	52	LCD_D03		HSADC0	51	52	LCD_BRIGHT
LCD_D04	53	54	LCD_D05		GND	53	54	PWM4
LCD_D06	55	56	LCD_D07		LRADC0	55	56	JTAG_TMS
LCD_D08	57	58	LCD_D09		LRADC1	57	58	JTAG_TCK
LCD_D10	59	60	LCD_D11		TOUCH_XR	59	60	JTAG_TDI
LCD_D12	61	62	LCD_D13		TOUCH_XL	61	62	JTAG_TDO
LCD_D14	63	64	LCD_D15		TOUCH_YD	63	64	JTAG_TRST
LCD_DISP	65	66	TOUCH_INT		TOUCH_YU	65	66	JTAG_RTCK
TOUCH_RST	67	68	RS485_DIR		TOUCH_LR	67	68	PSWITCH
VBUS1_EN	69	70	GPIO1_21		GND	69	70	SYS_RST
GPIO1_22	71	72	VBUS0_EN		VDDIO_3V3	71	72	GND
GND	73	74	GND		VDDIO_3V3	73	74	VDD4P2
CAN1_RX	75	76	CAN0_RX		GND	75	76	GND
CAN1_TX	77	78	CAN0_TX		VDD_5V	77	78	VDD_LI-ION
GPIO0_17	79	80	WDI		VDD_5V	79	80	VDD_LI-ION

Table 1-3 MYC-IMX28X PIN MAP

Pin	Name	BGA	Type	Description
J1-1	NET0_TX-	-	DIFF	NET0 PHY transmit negative output, 100 Ohm
J1-2	GND	-	GND	Ground
J1-3	NET0_TX+	-	DIFF	NET0 PHY transmit positive output, 100 Ohm
J1-4	NET0_A3V3	-	PWR	3.3V power supply for PHY
J1-5	NET0_RX-	-	DIFF	NET0 PHY receive negative output, 100 Ohm
J1-6	NET0_LED2	-	OUT	NET0 Status, active when the operating speed is 100Mbps.
J1-7	NET0_RX+	-	DIFF	NET0 PHY receive positive output, 100 Ohm
J1-8	NET0_LED1	-	OUT	NET0 Link LED, active whenever the device detects a valid link
J1-9	GND	-	GND	Ground
J1-10	VDDXTAL	C12	REF	Power output for MX oscillator.
J1-11	RS485_CTS	K5	I/O	Application UART1 clear to send / GPIO3_6
J1-12	RS485_RX	L4	I/O	Application UART1 RX data / GPIO3_4, Use for RS485
J1-13	RS485_RTS	J5	I/O	Application UART1 ready to send / GPIO3_7

Pin	Name	BGA	Type	Description
J1-14	RS485_TX	K4	I/O	Application UART1 TX data/ GPIO3_5, Use for RS485
J1-15	AUART2_CTS	H6	I/O	Application UART2 clear to send / GPIO3_10
J1-16	AUART2_RX	L4	I/O	Application UART2 RX data /GPIO3_8
J1-17	AUART2_RTS	H6	I/O	Application UART2 ready to send /GPIO3_11
J1-18	AUART2_TX	F5	I/O	Application UART2 TX data /GPIO3_9
J1-19	AUART3_CTS	L6	I/O	Application UART3 clear to send / GPIO3_14
J1-20	AUART3_RX	M5	I/O	Application UART3 RX data /GPIO3_12
J1-21	AUART3_RTS	K6	I/O	Application UART3 ready to send / GPIO3_15
J1-22	AUART3_TX	L5	I/O	Application UART3 TX data /GPIO3_13
J1-23	NET1_INT	-	IN	NET1 PHY Interrupt
J1-24	GND	-	GND	Ground
J1-25	NET1__RST	F3	OUT	NET1 PHY Reset
J1-26	NET_CLK	E2	CLK	Ethernet MDIO interface clock
J1-27	NET_MDC	G4	CLK	Management Data Clock output with MDIO
J1-28	NET_MDIO	H4	I/O	Ethernet MDIO interface data
J1-29	NET1_RXD2	J1	IN	NET1 RMII RX Data line 0
J1-30	NET1_TXD2	G1	OUT	NET1 RMII TX Data line 0
J1-31	NET1_RXD3	J2	IN	NET1 RMII RX Data line 1
J1-32	NET1_TXD3	G2	OUT	NET1 RMII TX Data line 1
J1-33	NET1_RXEN	J3	OUT	NET1 RMII RX Enable
J1-34	NET1_TXEN	J4	OUT	NET1 RMII TX Enable
J1-35	GND	-	GND	Ground
J1-36	GND	-	GND	Ground
J1-37	GPIO1_30	N1	I/O	Reserve, GPIO1_30
J1-38	GPIO1_28	L1	I/O	Reserve , GPIO1_28
J1-39	LCD_RST	M6	OUT	LCD Reset
J1-40	GPIO1_29	M1	I/O	Reserve , GPIO1_29
J1-41	LCD_EN	P5	OUT	LCD Enable
J1-42	GPIO1_31	N5	I/O	Reserve , GPIO1_31
J1-43	GND	-	GND	Ground
J1-44	LCD_HSYNC	K1	OUT	LCD horizontal sync
J1-45	LCD_PCLK	M4	CLK	LCD pixel clock/ Boot mode Enable
J1-46	LCD_VSYNC	P4	OUT	LCD vertical sync
J1-47	GND	-	GND	Ground
J1-48	GND	-	GND	Ground
J1-49	LCD_D00	K2	OUT	LCD data bit 0, Blue/ Boot mode pin 0
J1-50	LCD_D01	K3	OUT	LCD data bit 1, Blue/ Boot mode pin 1
J1-51	LCD_D02	L2	OUT	LCD data bit 2, Blue/ Boot mode pin 2
J1-52	LCD_D03	L3	OUT	LCD data bit 3, Blue/ Boot mode pin 3
J1-53	LCD_D04	M2	OUT	LCD data bit 4, Blue/ Boot mode pin 4
J1-54	LCD_D05	M3	OUT	LCD data bit 5, Green/ Boot mode pin 5
J1-55	LCD_D06	N2	OUT	LCD data bit 6, Green
J1-56	LCD_D07	P1	OUT	LCD data bit 7, Green
J1-57	LCD_D08	P2	OUT	LCD data bit 8, Green
J1-58	LCD_D09	P3	OUT	LCD data bit 9, Green

Pin	Name	BGA	Type	Description
J1-59	LCD_D10	R1	OUT	LCD data bit 10, Green
J1-60	LCD_D11	R2	OUT	LCD data bit 11, Red
J1-61	LCD_D12	T1	OUT	LCD data bit 12, Red
J1-62	LCD_D13	T2	OUT	LCD data bit 13, Red
J1-63	LCD_D14	U2	OUT	LCD data bit 14, Red
J1-64	LCD_D15	U3	OUT	LCD data bit 15, Red
J1-65	LCD_DISP	T3	OUT	LCD data bit 16, Used as Display on/off, Active low
J1-66	TOUCH_INT	R3	OUT	LCD data bit 17 / GPIO1_17 Used as LCD touch screen Interrupt
J1-67	TOUCH_RST	U4	OUT	LCD data bit 18 / GPIO1_18 Used as LCD touch screen reset
J1-68	RS485_DIR	T4	OUT	LCD data bit 19, controls the DE input of the RS-485 transceiver
J1-69	VBUS1_EN	R4	OUT	LCD data bit 20/ USB1 VBUS control
J1-70	GPIO1_21	U5	OUT	LCD data bit 21/GPIO1_21
J1-71	GPIO1_22	T5	OUT	LCD data bit 22/GPIO1_22
J1-72	VBUS0_EN	R5	OUT	LCD data bit 23/ USB0 VBUS control output
J1-73	GND	-	GND	Ground
J1-74	GND	-	GND	Ground
J1-75	CAN1_RX	M9	IN	CAN1 receive data
J1-76	CAN0_RX	L8	IN	CAN0 receive data
J1-77	CAN1_TX	M7	OUT	CAN1 transmit data
J1-78	CAN0_TX	M8	OUT	CAN0 transmit data
J1-79	GPIO0_17	N9	IN	GPIO0_17 / Reserved for NET Interrupt
J1-80	WDI	N8	OUT	Watchdog Timer Output from GPIO0_21 to CAT823
J2-1	AUART0_CTS	J6	I/O	Application UART0 clear to send / GPIO3_2
J2-2	AUART0_RX	G5	I/O	Application UART0 receive data /GPIO3_0
J2-3	AUART0_RTS	J7	I/O	Application UART0 request to send / GPIO3_3
J2-4	AUART0_TX	H5	I/O	Application UART0 transmit data / GPIO3_1
J2-5	SSP1_DATA0	D1	I/O	SPI1 Data 0/GPIO2_14
J2-6	SSP1_SCK	B1	I/O	SPI1 Clock / GPIO0_25
J2-7	SSP1_DATA3	E1	I/O	SPI1 Data 3/GPIO2_15
J2-8	SSP1_CMD	C1	I/O	SPI1 Cmd line/GPIO2_13
J2-9	SSP3_MOSI	C2	I/O	SPI3 Master-Out-Slave-In / GPIO2_25
J2-10	SSP3_SCK	A2	I/O	SPI3 Clock / GPIO2_24
J2-11	SSP3_MISO	B2	I/O	SPI3 Master-In-Slave-Out / GPIO2_26
J2-12	SSP3_SS0	D2	I/O	SPI3 CS0/GPIO2_27
J2-13	FLASH_MOSI	C3	I/O	SPI2 Master-Out-Slave-In, Used for SPI FLASH
J2-14	FLASH_SCK	A3	CLK	SPI2 Clock, Used for SPI FLASH
J2-15	FLASH_MISO	B3	IN	SPI2 Master-In-Slave-Out, Used for SPI FLASH
J2-16	FLASH_SS0	C4	I/O	SPI2 CS0, Used for SPI FLASH
J2-17	FLASH_SS2	D4	OUT	SPI2 CS2, use for SPI FLASH
J2-18	FLASH_WP	D3	OUT	SPI2 CS1, Used as SPI FLASH Write-protects
J2-19	GND	-	GND	Ground
J2-20	GND	-	GND	Ground
J2-21	SD_CMD	A4	OUT	SD Card CMD line
J2-22	SD_SCK	A6	CLK	SD Card clock line
J2-23	SD_DETECT	D10	IN	SD card detect

Pin	Name	BGA	Type	Description
J2-24	SD_DATA0	B6	IO	SD Card Data line 0
J2-25	SD_DATA1	C6	IO	SD Card Data line 1
J2-26	SD_DATA2	D6	IO	SD Card Data line 2
J2-27	SD_DATA3	A5	IO	SD Card Data line 3
J2-28	USR_KEY1	B5	IN	Key 1 Intput
J2-29	USR_KEY2	C5	IN	Key 2 Input
J2-30	USR_LED1	D5	OUT	User GPIO, use for LED1
J2-31	USR_LED2	B4	OUT	User LED2, use for LED2
J2-32	GND	-	GND	Ground
J2-33	I2C0_SCL	C7	I/O	I2C0 Clock/ GPIO3_24
J2-34	USB1DM	B8	DIFF	USB1 data minus, use for USB HOST,90 Ohm
J2-35	I2C0_SDA	D8	I/O	I2C0 Data line/ GPIO3_25
J2-36	USB1DP	A8	DIFF	USB1 data plus, use for USB HOST, 90 Ohm
J2-37	SPDIF	D7	OUT	The Sony-Philips Digital Interface Format (SPDIF) transmitter module transmits data according to the SPDIF digital audio interface standard (IEC-60958).
J2-38	GND	-	GND	Ground
J2-39	I2S_MCLK	G7	I/O	I2S master clock / GPIO3_20 / A UART4 request to send
J2-40	USB0DM	A10	DIFF	USB0 data minus, Used for USB OTG, 90 Ohm
J2-41	I2S_LRCLK	G6	I/O	I2S frame clock / GPIO3_21/ Application UART4 clear to send
J2-42	USB0DP	B10	DIFF	USB0 data plus, Used for USB OTG, 90 Ohm
J2-43	I2S_BITCLK	F7	I/O	I2S bit clock / GPIO3_22
J2-44	GND	-	GND	Ground
J2-45	I2S_DIN	E7	I/O	I2S transmit data / GPIO3_23 / UART4 transmit data
J2-46	DBG_TX	K7	OUT	Debug UART transmit data
J2-47	I2S_DOUT	E8	I/O	I2S receive data / GPIO3_26/PWM7
J2-48	DBG_RX	L7	IN	Debug UART receive data
J2-49	GND	-	GND	Ground
J2-50	USB0_ID	K8	I/O	USB0 connector identification signal/ GPIO3_18/ PWM3
J2-51	HSADC0	B14	Analog	High-speed Analog/Digital Converter Channel 0
J2-52	LCD_BRIGHT	E9	I/O	PWM3 / GPIO3_28. Used as PWM output to control the display brightness
J2-53	GND	-	GND	Ground
J2-54	PWM4	E10	I/O	PWM4/GPIO3_28
J2-55	LRADC0	C15	Analog	Low-Resolution Analog/Digital Converter Channel 0
J2-56	JTAG_TMS	D12	IN	JTAG Chain Test Mode Select signal
J2-57	LRADC1	C9	Analog	Low-Resolution Analog/Digital Converter Channel 1
J2-58	JTAG_TCK	E11	IN	JTAG Chain Test Clock signal
J2-59	TOUCH_XR	C8	Analog	LRADC2 / Touch Screen X+
J2-60	JTAG_TDI	E12	IN	JTAG Chain Test Data Input
J2-61	TOUCH_XL	D9	Analog	LRADC3 / Touch Screen X-
J2-62	JTAG_TDO	E13	OUT	JTAG Chain Test Data Output
J2-63	TOUCH_YD	D13	Analog	LRADC4 / Touch Screen Y-
J2-64	JTAG_TRST	D14	IN	JTAG Chain Test Reset
J2-65	TOUCH_YU	D15	Analog	LRADC5 / Touch Screen Y+
J2-66	JTAG_RTCK	E14	CLK	JTAG Chain Return Test Clock signal

Pin	Name	BGA	Type	Description
J2-67	TOUCH_LR	C14	Analog	LRADC6 / Touch Screen LR
J2-68	PSWITCH	A11	IN	The pin is used for chip power on or recovery.
J2-69	GND	-	GND	Ground
J2-70	SYS_RST	A14	IN	MYC-IMX28X global reset input, Active low
J2-71	VDDIO_3V3	-	PWR	3.3V Output form imx28 DCDC, Only use for imx28 I/O
J2-72	GND	-	GND	Ground
J2-73	VDDIO_3V3	-	PWR	3.3V Output form imx28 DCDC, Only use for imx28 I/O
J2-74	VDD4P2	A13	PWR	4.2V Regulated Output, Made by 4P2 LinReg when 5V only
J2-75	GND	-	GND	Ground
J2-76	GND	-	GND	Ground
J2-77	VDD_5V	E17	PWR	5Vpower supply, Form USB or DC
J2-78	VDD_LI-ION	B15	PWR	4.2V Li-ion Battery Power input
J2-79	VDD_5V	E17	PWR	5Vpower supply, Form USB or DC
J2-80	VDD_LI-ION	B15	PWR	4.2V Li-ion Battery Power input

Table 1-4 MYC-IMX28X Pin Description

Function Block Diagram

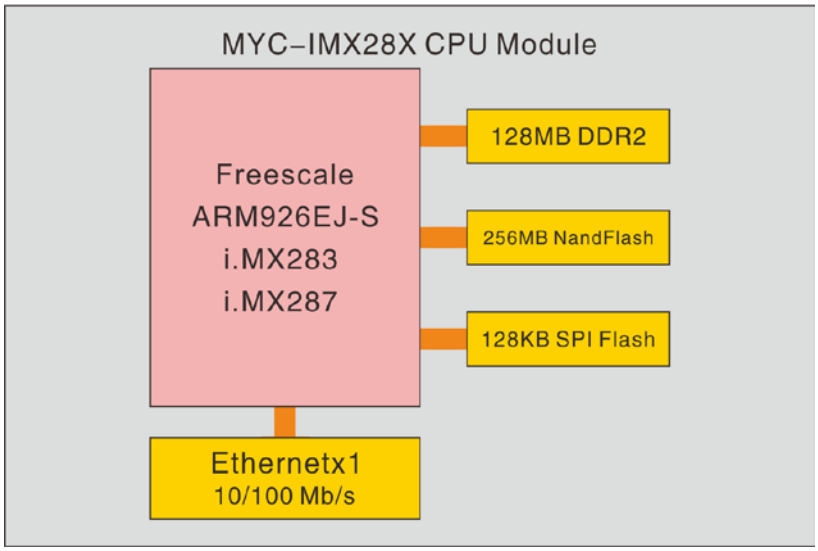

Figure 1-5 MYC-IMX28X Function Block Diagram

Dimension Chart of MYC-IMX28X

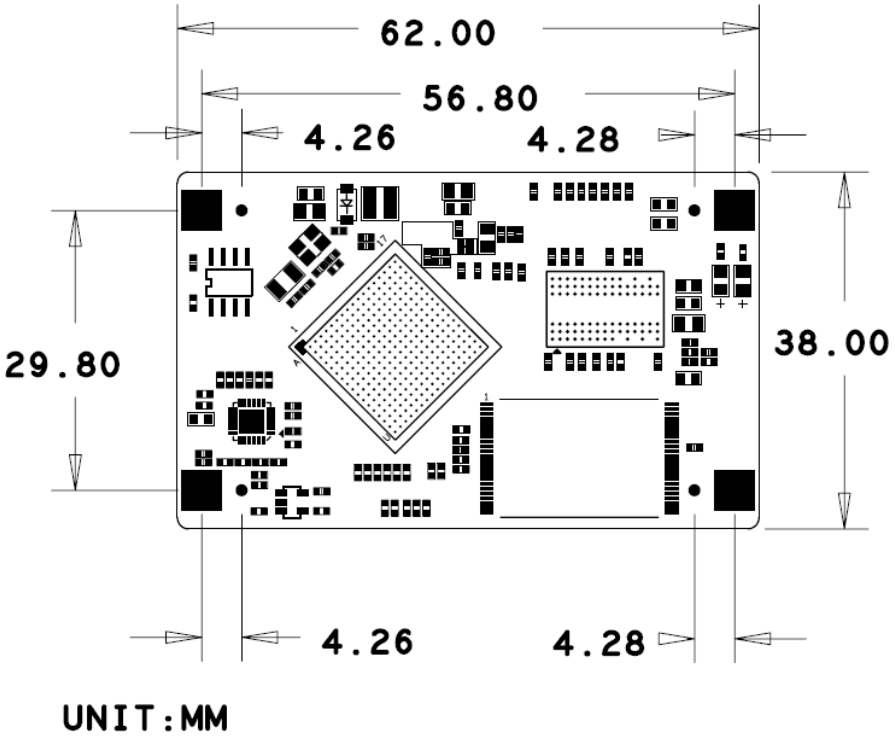

Figure 1-6 MYC-IMX28X Dimension Chart

Software Features

MYIR's MYC-IMX28X CPU module supports for Linux and is provided with software packages. Many peripheral drivers are in source code to help accelerate customers' designs with a stable and reliable hardware and software platform. The software features are summarized as below:

Category	Item	Description	Source Code Availability
Bootloader	U-boot	Responsible for system initialization and boot kernel, include TCPIP.	YES
	bootlets	Boot kernel	YES
Kernel	Linux 2.6.35	Designed for MYD-IMX28X hardware	YES
Drivers	USB Host	USB Host driver, support OHCI and EHCI	YES
	USB Device	USB Device driver	YES
	Ethernet	Ethernet driver	YES
	MMC/SD	MMC/SD driver	YES
	NAND Flash	NAND Flash/SmartMedia driver	YES
	I2C	I2C driver	YES
	SPI	SPI driver	YES
	Audio	SGTL5000 driver	YES
	LCD Controller	LCD driver, for 4.3 inch, 7 inch	YES
	RTC	RTC clock driver	YES
	TouchScreen	4-wire resistive touch screen driver	YES
	PWM	PWM (Pulse Width Modulation) driver	YES
	UART	Serial driver	YES
	CAN	CAN driver	YES
	PMU	Power Management Unit river	YES
	GPIO	LED driver and GPIO input and output	YES
Demo	UART	UART test program	YES
	I2C	I2C test program	YES
	SPI	SPI Flashtest program	YES
	CAN	CAN communication experiment using canutils	YES
	NET	Socket-based network client / server program	YES
	SD Card	SD test program	YES
	LED&Key&Buzz	LED, Key and buzzer demo	YES
	RTC	RTC clock testing experiment	YES
	Audio	Audio play demo	YES
	LCD	Framebuffer colorbar based LCD test program	YES
	TouchScreen	Screen calibration test	YES
	Qt	Qt Kit and Qt demo	YES

Table 1-5 Software Features of MYC-IMX28X

Order Information

Item	Packing List
MYC-IMX283 CPU Module (Part No.: MYC-C283-256N128D-I)	➢ One MYC-IMX28X CPU Module ➢ One Product DVD **Add-on Options** ➢ MYD-IMX28X Development Board ➢ MY-LCD43TP 4.3-inch LCD Module ➢ MY-LCD70TP 7-inch LCD Module ➢ MY-LCD70TP-C 7-inch LCD Module ➢ MY-WF003U WiFi Module
MYC-IMX287 CPU Module (Part No.: MYC-C287-256N128D-I)	
MYD-IMX283 Development Board (Part No.: MYD-C283-256N128D-I)	
MYD-IMX287 Development Board (Part No.: MYD-C287-256N128D-I)	
MY-LCD43TP 4.3-inch LCD Module with resistive touch (Part No.: MY-TFT043RV2)	
MY-LCD70TP 7-inch LCD Module with resistive touch (Part No.: MY-TFT070RV2)	
MY-WF003U USB WiFi Module (Part No.: MY-WF003U)	
Remark: *1. For Price information, please contact MYIR.* *2. The boards of industrial grade can work in -40 to 85 Celsius.* *3. We accept custom design based on the MYC-IMX28X, whether reducing, adding or modifying the existing hardware according to customer's requirement.*	

MYiR™

MYIR Tech Limited

Room 04, 6th Floor, Building No.2, Fada Road, Yunli Smart Park,
Bantian, Longgang District, Shenzhen, Guangdong, China 518129
E-mail: sales@myirtech.com
Phone: +86-755-22984836
Fax: +86-755-25532724
Website: http://www.myirtech.com