



SECOSBC-A62

Developed for the industrial applications

UDOO

Tailored for the DIY

Processor	i.MX6S, i.MX6DL, i.MX6Q		i.MX6DL, i.MX6Q
Memory	Up to 2GB 64-bit interface DDR3L memory soldered down		Up to 1GB 64-bit interface DDR3L memory soldered down
Video interfaces	Optional HDMI connector		HDMI connector
	1 x Dual Channel or 2 x Single Channel 18- / 24-bit LVDS interface		18- / 24- bit Single Channel LVDS interface
	Dedicated I2C Touch screen connector		I2C Touch screen connector integrated on LVDS connector
	CSI Camera interface		
Mass Storage	SATA connector (only for i.MX6Q)		
	µSD Card Slot		
	Optional eMMC disc soldered onboard, up to 16GB		---
Boot possibilities	At choice from the µSD Card or from the embedded eMMC disc (selection made via jumper)		Only from the µSD Card
Networking	Gigabit Ethernet connector		
	Optional Wi-Fi module on internal USB connector		
USB	USB 2.0 Type A Dual Slot		
	USB 2.0 internal connector		
	Client mode only USB 2.0 port on micro B connector		Client / Host configurable USB 2.0 port on micro B connector (selection made via jumper)
Audio	Optional AC'97 Realtek ALC655 Audio Codec		AC'97 VIA VT 1613 Audio Codec
	Mic-in - Line-Out jacks		
Debug	Debug UART at TTL level on internal pin header (cost effective solution for mass production)		Micro-B USB connector (ideal solution for development, educational and makers communities)
	JTAG connection to i.MX6 processor for software tracing and debugging		

SECOSBC-A62

Developed for the industrial applications

UDOO

Tailored for the DIY

RTC	i.MX6 embedded RTC with external cabled battery + optional Low Power RTC with onboard battery	i.MX6 embedded RTC with external cabled battery	
Power and reset management	Power and reset pushbutton. Additional connector for remoting power and reset switches	Power and reset pushbutton onboard	
Power supply	+12VDC Power jack + internal connector		
Operating temperature	0°C ÷ +60° C (commercial temp.range) -40°C ÷ +85°C (industrial temp. range)	0°C ÷ +60° C	
Dimensions	110 x 86.5 mm (4.5" x 3.7")		
Expansion possibilities	Some i.MX6 processor's muxed pins are directly connected to a 32-pin header (J8) for direct connection of external peripherals or piggy-back adapter boards.	Arduino DUE compatible shield, allows the use of existing compatible devices on the market. Some of the pins can be managed by the Atmel SAM3x8E microcontroller (Arduino compatible) or by the i.MX6 embedded processor	
	Each single pin can be individually configured via software. The provided BSP groups these pins in logical groups (ports), described below. Using the configuration menu provided, it is possible to configure properly each logical port	Exclusive Atmel SAM3x8E managed I/Os: - 12 x Analog Inputs - 2 x DAC Outputs - 1 x UART (TTL Level)	
	<ul style="list-style-type: none">- Port #1: 1 x Digital GPIO- Port #2: 1 x SPI interface or 4 x digital GPIOs- Port #3: CAN_1 (TTL level) or 2 x digital GPIOs- Port #4: UART #4 (Tx, Rx, RTS, CTS) or 4 x digital GPIOs- Port #5: (1 x GPIO + SP-DIF) or 3 x digital GPIOs or (1 x I2C + 1 x GPIO)- Port #6: 4-bit SDIO interface or 6 x digital GPIOs or (3 x PWM outputs + 3 x digital GPIOs)- Port #7: 1 x I2C or 2 x digital GPIOs- Port #8: UART #1 (Tx, Rx) or 2 x digital GPIOs- Port #9: UART #5 (Rx, Tx) or 2 x digital GPIOs- Port #10: UART #5 (RTS,CTS) or 2 x digital GPIOs or CAN_2 (TTL level)	Shared Atmel SAM3x8E managed I/Os: <ul style="list-style-type: none">- 32 x digital GPIOs- 12 x PWM Outputs- 1 x CAN (TTL Level)- 3 x UARTs (TTL Level)- 1 x I2C interface	i.MX6 managed I/Os: <ul style="list-style-type: none">- Up to 54 digital GPIOs- 4 x PWM Outputs- 1 x CAN (TTL level)- 4 x UARTs (TTL level)- 1 x I2C interface- 3 x SPI- S/PDIF Audio- Digital Audio Interface- 8-bit SDIO interface- Watch Dog Timer- General Purpose Timer
	First CAN interface (CAN_1) can be optionally available with CAN transceiver on a dedicated connector. In that case, port #3 on J8 expansion connector will be disconnected.	Pinout configuration possibilities of Arduino Shield are described in the following documents:	
	<p>UART#1, UART#4 and UART#5 are hardware configurable with different interfaces.</p> <p>Possible factory configurations:</p> <ul style="list-style-type: none">- UART #1, UART#4 and UART#5 @ TTL level- UART #4 with RS-232 interface, UART#1 and UART#5 @TTL level- UART #4 with RS-232 interface, UART#1 with RS-485 interface and UART#5 @TTL level- UART #1 and UART #5 with RS-232 interface, UART#4 with RS-485 interface- UART #1 and UART #5 with RS-232 interface, UART#4 @ TTL level- UART #1 and UART #5 @ TT level, UART#4 with RS-485 interface. <p>Please notice that only UARTs at TTL level can be used also for the alternative options (i.e., GPIOs) on connector J8</p>	http://udoo.org/download/files/pinout/UDOO_pinout_alternate_table.pdf http://udoo.org/download/files/pinout/Udoo_pinout_diagram.pdf	