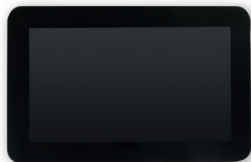




SYS-B08-7

Embedded Panel with 7" LCD display based on the NXP i.MX 6SoloX Processor

Smart, compact, industrial 7" touch system built for IoT



HIGHLIGHTS



CPU

NXP i.MX6SX SoloX Processor, Single core Cortex®-A9 @ 1GHz + Cortex®-M4 core @ 227MHz



GRAPHICS

Integrated Graphics Vivante GC400T, 2D and 3D HW accelerator



CONNECTIVITY

up to 2x Fast Eth; optional WiFi + BT LE



MEMORY

32-bit DDR3L memory soldered on-board, up to 1GB



MAIN FIELDS OF APPLICATION



Digital Signage - Infotainment



HMI



Home Automation



Industrial Automation



Info Kiosks



Industrial Internet of Things



Multimedia devices

FEATURES

Processor	NXP i.MX 6SoloX Processor, Single core Cortex®-A9 @ 1GHz + Cortex®-M4 core @ 227MHz	Other Interfaces	2 x I2C dedicated connectors (one reserved for Touch Screen) 6 analog inputs for A/D Conversion Programmable (*) expansion pin header connector, able to offer: • CSI interface input (PAL and NTSC formats supported) • Up to 20 GPIO • SPI interface • SPDIF Audio interface • I2S Audio interface • CAN interface (TTL level) • 5 x PWM • 3 x I2C • 3 x serial ports (2x RS-232 + 1xRS-485 interface)
Max Cores	1 + 1		Embedded Low Power RTC (*) Please note that some of these interfaces are factory options, other configurations are made via SW using the pin multiplexing possibilities of the i.MX6SX processor.
Memory	Soldered on-board DDR3L memory, 32-bit interface SYS-B08-BASIC/D: 512MB SYS-B08-FULL/D: 1GB		
Graphics	Integrated Graphics Vivante GC400T, 2D and 3D HW accelerator OpenGL ES 2.0, OpenGL ES 1.1, OpenVG 1.1 supported		
Video Interfaces	Single Channel 18-/24- bit LVDS connector + Touch Screen (I2C signals) 24-bit Parallel RGB Connector	Integrated Sensors	Optional 9-Axis Motion Sensors (Accelerometer, Magnetometer and Digital Gyroscope)
Video Resolution	LVDS: up to 1366x768 @60Hz, 24bpp RGB: up to 1920x1080p @60Hz, 24bpp		+12V _{DC} nominal voltage +3V _{DC} cabled Coin Cell Battery
Mass Storage	16MB NOR Quad-SPI Flash soldered onboard μSD Card slot SYS-B08-FULL/D: 8GB eMMC soldered onboard		
Networking	SYS-B08-BASIC/D: 1x Fast Ethernet RJ-45 connector SYS-B08-FULL/D: 2x Fast Ethernet RJ-45 connector + WiFi (802.11 b/g/n) +BT LE combo module + antenna onboard		
USB	1 x USB 2.0 OTG port 3 x USB 2.0 Host port on standard Type-A socket 1 x USB 2.0 Host port on internal pin header	Power Supply	Linux Yocto
Audio	I2S Audio interface on programmable pin header S/PDIF interface (In and Out) on programmable pin header	Operating System	
Serial Ports	1 x CAN Port reconfigurable as GPIO 2x RS-232 (Tx/RX signals only) + 1x RS-485 serial ports on expansion pin header	Operating Temperature*	
		Dimensions	

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

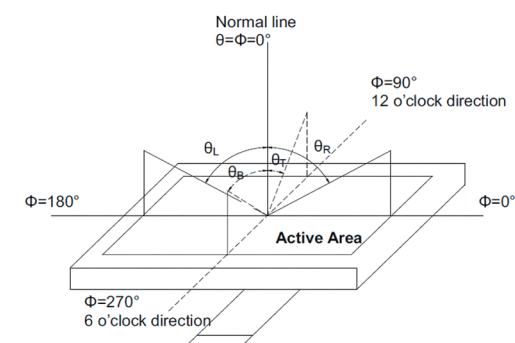
TFT LCD MODULE

Touchscreen specifications

- 5-point multitouch
- Asahi glass with hardness 1.2J at fall-drop condition as 100cm + 130g steel ball

LCD General specifications

Item	Specification
LCD size	7.0 inch (Diagonal)
Technology Type	a-Si TFT
Resolution	800*480 pixels
Module size (W*H*T)	189.55*121.39*6.50 mm
Active area (W*H)	154.08*85.92 mm
Pixel pitch	0.1926*0.1790
Interface Type	RGB
Backlight Type	LED

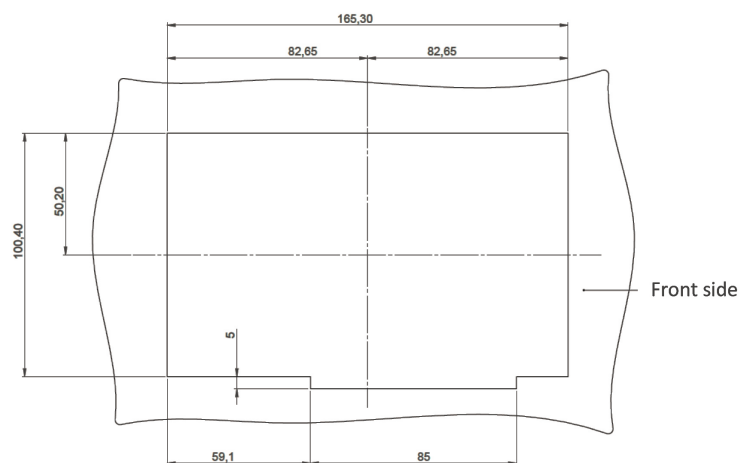


Optical specifications

Item	Symbol	Condition	Min	Typ	Max	Unit
Contrast ratio	CR	$\theta = 0^\circ$	400	500	-	---
Response time	Ton	25°C	-	10	20	Ms
	Toff		-	15	30	
View angles	θT	$CR \geq 10$	40	50	-	deg
	θB		60	70	-	deg
	θL		60	70	-	deg
	θR		60	70	-	deg
Luminance	L		-	500	-	cd/m ²
Uniformity	U		75	-	-	%

Required housing dimensions for the system (mm)

- Suggested thickness 3mm



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SECO:

[SYS-B08-BASIC/D](#) [SYS-B08-FULL/D](#)