

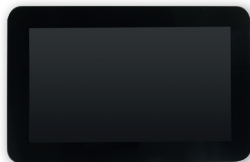
# Modular HMI



## 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



DEVELOPMENT SAMPLING PRODUCTION

### 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 <b>i.MX6SX SoloX</b> Processor, Single core Cortex®-A9 @ 1GHz + Cortex®-M4 core @ 227MHz		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)  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.
Max Cores	1 + 1		
Memory	Soldered on-board DDR3L memory, 32-bit interface <b>SYS-B08-BASIC/D:</b> 512MB <b>SYS-B08-FULL/D:</b> 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		Optional 9-Axis Motion Sensors (Accelerometer, Magnetometer and Digital Gyroscope)
Video Resolution	LVDS: up to 1366x768 @60Hz, 24bpp RGB: up to 1920x1080p @60Hz, 24bpp		
Mass Storage	16MB NOR Quad-SPI Flash soldered onboard μSD Card slot <b>SYS-B08-FULL/D:</b> 8GB eMMC soldered onboard		
Networking	<b>SYS-B08-BASIC/D:</b> 1x Fast Ethernet RJ-45 connector <b>SYS-B08-FULL/D:</b> 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		+12V <sub>DC</sub> nominal voltage +3V <sub>DC</sub> cabled Coin Cell Battery
Audio	I2S Audio interface on programmable pin header S/PDIF interface (In and Out) on programmable pin header		Linux Yocto
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		0°C ÷ +60°C
			<b>Dimensions</b> 189.60 x 121.40 x 28.20 mm

\*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.

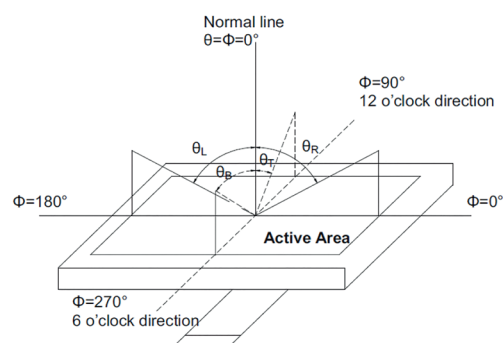


www.seco.com

## 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

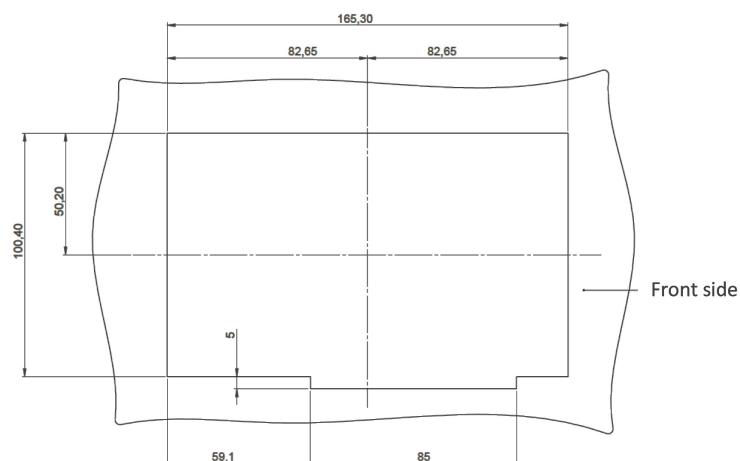
Item	Specification
LCD size	7.0 inch (Diagonal)
Technology Type	a-Si TFT
Resolution	800*480 pixels
Module size (W*H*T)	189.55*121.39*6.50 mm
Active area (W*H)	154.08*85.92 mm
Pixel pitch	0.1926*0.1790
Interface Type	RGB
Backlight Type	LED

### 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	$\theta_T$	$CR \geq 10$	40	50	-	deg
	$\theta_B$		60	70	-	deg
	$\theta_L$		60	70	-	deg
	$\theta_R$		60	70	-	deg
Luminance	L		-	500	-	cd/m <sup>2</sup>
Uniformity	U		75	-	-	%

### Required housing dimensions for the system (mm)

- Suggested thickness 3mm



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