AirHMI 7" ADVANCED SERIES

AIR800X480S70_A

Overview

AirHMI is a Human Machine Interface （HMI） solution combining an onboard processor and memory touch display with AirHMI Editor software for HMI GUI project development. Using the AirHMI Editor software, you can quickly develop the HMI GUI by drag-and-drop components (button, label, image etc.) and C based instructions for coding how components interact at the display side. AirHMI HMI display connects to peripheral MCU via TTL Serial (5V, TX, RX ,GND) to provide event notifications that MCU can act on, the MCU can easily update progress and status back to AirHMI display utilizing instructions.

The Advanced series are more powerful compared to the Elementary series. The Advanced series support: built-in RTC, 7 digital GPIO (2 PWM optional), ADC, larger Flash capacity.

Package include:

*AirHMI AIR800X480S70_A HMI Display
*2mm x 4P power and TTL UART cable
*Power supply board

AirHMI Models

AirHMI Type	Advanced Series
AirHMI Models	AIR800X480S70_A (7 inch resistive touchscreen without enclosure)

Specifications

	Data	Description
Color	65K 65536 colors	16 bit 565, 5R-6G-5B
Layout size	181mm(L)×107.5mm(W)×6.7(H)	AIR800X480S70_A
Module Size	165mm(L)×100mm(W)×6mm(H)	
Active Area (A.A.)	154.08mm(L)×85.92mm(W)	
Resolution	800×480 pixel	Also can be set as 480×800
Touch type	Resistive	
Touches	> 1 million	
Backlight	LED	
Backlight lifetime (Average)	>30,000 Hours	
Brightness	350nit	

Electronic Characteristics

	Test Conditions	Min	Typical	Max	Unit
Operating Voltage		4,65	5	6,5	V
Operating Current	VCC=+5V, Brightness is 100%	–	620	–	mA
Power supply recommend	5V, 1.0A, DC				

Working Environment & Reliability Parameter

	Test Conditions	Min	Typical	Max	Unit
Working Temperature	5V, Humidity 60%	-20	25	70	℃
Storage Temperature		-30	25	80	℃
Working Humidity	25°C	10%	60%	90%	RH

Interfaces Performance

	Test Conditions	Min	Typical	Max	Unit
Serial Port Baudrate	Standard	600	9600	115200	bps
Output High Voltage (TXD)	IOH=1mA	3.0	5.0	Vin	V
Output Low Voltage(TXD)	IOL=-1mA		0.1	0.2	V
Input High Voltage(RXD)		3.0	5.0	Vin	V
Input Low Voltage(RXD)		-0.7	0.0	1.3	V
Serial Port Mode	5.0V TTL (3.3V optional)				
Serial Port	4Pin_2.00mm				
USB interface	NO				
SD card socket	Yes (FAT32 format), support maximum 32G Micro SD Card				
	* presence of *.tft file on microSD: socket is exclusive to upgrade AirHMI firmware/HMI design				
Extended IO	7 Digital extended GPIO (2 optional PWM)				
	IO1-IO7 support input, output and component binding event				
	* IO pin / ports are not exclusive, limit current draw to 1mA recommended				
	IO6-IO7 support PWM				
ADC	ADC1 internal GPIO connector				
Output Voltage	5.0V				
RTC	built-in RTC support (Battery type: CR2032)				

Memory Features

Memory Type	Test Conditions	Size	Unit
FLASH Memory		32	MB
RAM Memory		32	MB

Audio Features

Speaker	Parameter
Buzzer	