Flexem FPAD9 Series HMI

Model: FPAD916R001

Product Overview

FPAD9 series is Flexem's new-generation high-end IoT HMI. Based on Linux operating system, equipped with Intel X86 architecture high-performance processor, and large-capacity memory, it has a solid foundation for big data processing and efficient operation. With brand new configuration software, abundant configuration resources and templates, as well as powerful application features, it offers the users a flexible, innovative, and open-ended programming experience. Thin and light housing, flush-mounted installation and VESA installation make the device suitable for installation in any application environment. Multiple types of human-machine communication interfaces make itself a preferred choice for being a hosting information device.
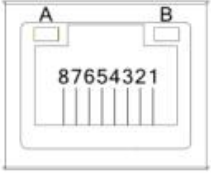
Product Appearance

Product Specifications

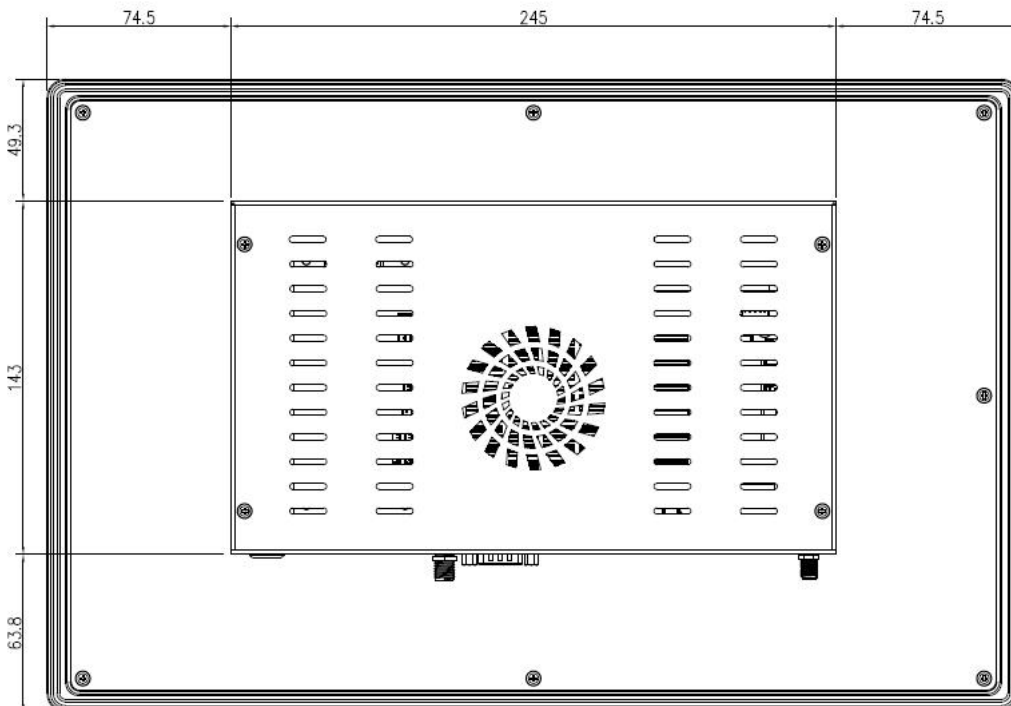|		
Hardware	Display	15.6" 16:9 TFT LCD
	LCD Viewing Angles (T/B/L/R)	85'/85'/85'/85'
	Resolution	1920×1080
	Colors	24-bit
	Brightness	250 cd/m²
	Backlight Type	LED
	LCD Lifetime	50000 hours
	Touch Panel	4-wire industrial resistive touchscreen
	CPU	Integrated Intel Celeron J3455 4-core 1.50 GHz processor, up to 2.30 GHz
	Memory	8 GB DDR3L, Support 1333/1600/1866 MHz
	Storage	128 GB, SATA SSD
	RTC	Built-in
	Ethernet	LAN1:RJ45, 10/100/1000 Mbps； LAN2:RJ45, 10/100/1000 Mbps
	USB Port	4 * USB3.0 (TYPE-A, Rear IO)； Explanation: RS485 communication can be achieved via applying USB-to-RS485 converter *1
	Display Port	2*HDMI (upright 90° TYPE-A): up to 3840x2160@30Hz
	Serial Port	1 * RS232 (COM1, Full lanes, DB9/M)
	Wi-Fi	Depend on the choice of the user
	Horn	Built-in
Software	Operating System	Linux
	Programming	FStudio Unified
Electrical Specifications	Rated Power	45 W
	Input Power	DC24V, working voltage range DC24V ± 20%
	Power Protection	Isolated power adaptor with lightning surge protection
	Power Interruption Tolerance	< 5 mS
	Certification	EN61000-6-2:2005, EN61000-6-4:2007 standards certified RoHS certified;Lighting surge:±1kV,Surge cluster:±2 kV; Contact ESD:4kV;Air ESD:8kV
Environmental Specifications	Operating Temperature	0 ~ 50℃
	Storage Temperature	-20 ~ 60℃
	UV Resistance	Operating in high UV environment is prohibited (e.g., in direct sunlight)
	Environmental	10 ~ 90% RH(non-condensing)

	Humidity	
	Vibration Endurance	10 ~ 25 Hz(X、Y、Z direction, 2G / 30 minutes)
	Cooling Method	Natural Cooling
Mechanical Specifications	Installation Method	Flush-mounted
	Protection Level	Front: IP65（with NEMA enclosure）, Rear: IP20
	Enclosure material	Non-ferrous alloys
	Cutout Dimensions	380mm×245mm
	Overall Dimensions	394mm×256mm×53.3mm
	Weight	About 2950g

Wiring Definition

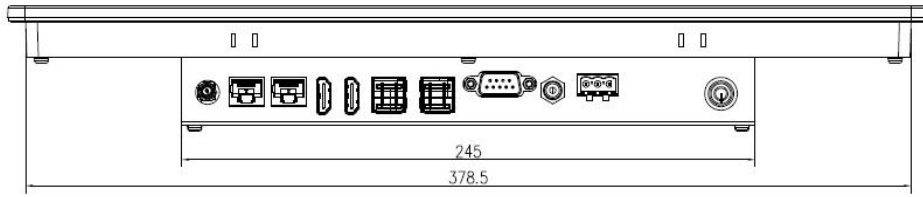| PowerSwitch		
	Power Switch	The FPAD'power supply can be disconnected by pressing this power switch. (Note: When the FPAD computer is turned on and working normally, this switch should not be frequently turned off to power off, which can cause system abnormalities.)

Power Terminal（Pin1~3 from left to right）		
	Pin1	DC24V
	Pin2	GND
	Pin3	FG

DC12V power adapter socket (spare)		
	Power adapter socket	Connect to the external power adapter plug (12V/5A power supply, threaded, rotatable lock fixed). Note:External power adapter, requires ≥ 60W

DB9 Port(COM1/COM3)		
	Pin1	
	Pin2	RxD (COM1 RS232)
	Pin3	TxD (COM1 RS232)
	Pin4	
	Pin5	GND
	Pin6	
	Pin7	
	Pin8	
	Pin9	

USB Host *4 Port		
	USB Type A 3.0	For peripheral devices, such as flash drive or bar code scanner, etc. RS485 communication can be achieved via applying USB-to-RS485 converter [1]
HDMI Port *2		
	HDMI 2.0a	HDMI output port,support 1080P display.
Ethernet port*2		
	RJ45	(see table below)
Antenna Port（Optional）		
	Antenna rocket	SMA antenna port

Pin	Definition	Pin	Definition		
1	MDI0_1+	5	MDI2_1-		
2	MDI0_1-	6	MDI1_1-		
3	MDI1_1+	7	MDI3_1+		
4	MDI2_1+	8	MDI3_1-		
A	Active LED	ACT: Twinkling Yellow / Only LINK: Lights Off / Stop: Lights Off	B	Speed LED	1000M: Turn Yellow / 100M: Turn Green / 10M: Lights Off

Dimension drawings

Embedded installation buckle(eigh

Cutout dimensions of flush-mounted installation: 380 mm * 245 mm