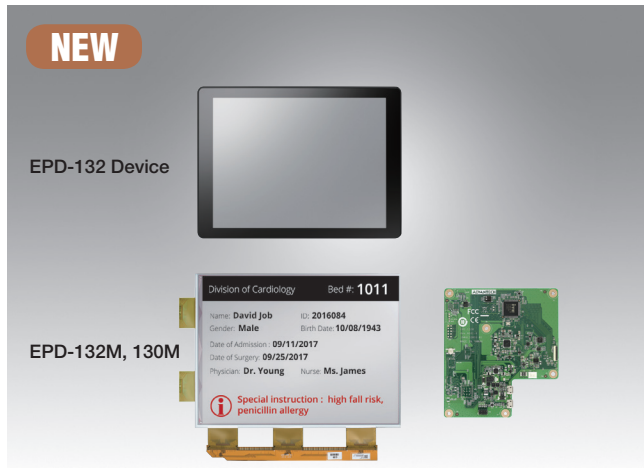


# EPD-132M, 130M, EPD-132 Device

## 13.3" ePaper Wifi Display Module and Device



### Features

- ARM Cortex-M4 Core Processor
- Supports IEEE 802.11b/g/n
- 13.3" ePaper panel display: EPD-132R for Red/Black/White ,EPD-132B for Black/White
- Multiple Control I/O : expansion pin header & I2C
- Supports operation temperatures of 0 ~ 40 °C (Red/Black/White), 0 ~ 50 °C (Black/White)
- High performance integrated system
- Supports over-the-air upgrade (OTA)

### Introduction

EPD132/130 supports the ultra-low power 2.4GHz RF wireless protocol integrated with 13.3" R/B/W, B/W EPD in an ARM Cortex-M4 processor. The module can support hospital, factory, warehouse and retail applications. With optimized power consumption and device management, your applications with low data rate requirements will benefit from long battery lifetimes across hundreds of device connections.

Advantech EPD132/130 provides multiple interfaces for application control which are highly integrated with the EPD driver and offer a low power consumption system. The model supports the WIFI/BLE software stack protocol, which can easily configure and then join the network. Data can be easily acquired and transformed into a different format to communicate with the ePaper Manager Server and then for other application services. System integrators can focus on application development and system management.

### EPD-132 Specifications

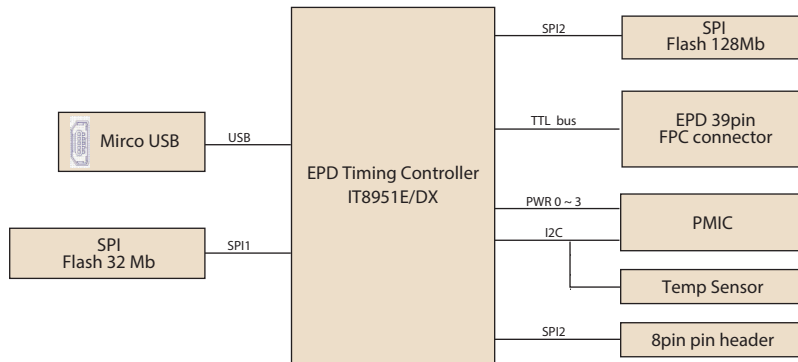
Computing System	MCU	ST 32-bit ARM Cortex-M4 Processor		
	Memory	RAM 256 KB		
Display	Screen Size	285.8 x 213.65 mm		
	Resolution	1600 x 1200 pixels		
Storage	Internal	ITE SPI Flash: 32Mb		
	External	BM22 SPI Flash: 128Mb		
Wireless Network	Standard	IEEE 802.11b/g/n and Bluetooth Low Energy		
	Frequency Band	2.4000-2.4840 GHz for Wi-Fi 2.4000-2.4835 GHz for BT		
	Channels	1-11 for Wi-Fi 0-78 for BT 2.1+EDR 0-39 for BLE		
	Transmit Power	Typ. 14 dBm at 802.11b CCK Mode 1M Typ. 12 dBm at 802.11g OFDM Mode 54M Typ. 12 dBm at 802.11n OFDM Mode MCS0 Typ. 5 dBm for BLE (class 1.5)		
	Receiver Sensitivity	Typ. -95dBm at 1 Mbps Typ. -75 dBm at 54 Mbps Typ. -89 dBm at MCS0 Typ. -89 dBm for BLE		
	Function	End node		
	Antenna connector	MHF		
System Interface	Antenna	PCB Antenna		
	Indicator Button	1 for Reset/ Page Change/Wake-up/Alert cancel		
I/O (on-board)	I2C	4pin Pin Header		
	FFC Connector1 (Alert)	LED/button daughter board		
	FFC Connector2 (FFC_GPIO)	10 port GPIO for system expansion		
	FFC Connector3 (CN8)	UART debug port		
	Switch	Factory mode setting		
	Micro USB (CN2)	USB to TCON (Timing Controller)		Interface for data to EPD
	EPD connector	39P for 13.3" (R/B/W or B/W ) & 9.7" EPD (R/B/W)		
Power	DC 5V	Micro USB (CN2) up to 0.9A/4.5 W in USB3.0 host Micro USB (CN3) up to 2A/10 W		Data transmission mode with power supply
	Power consumption	Standby: 18mA / 90mW Application: 0.25A / 1.25W		
Environment	Operational Temperature	0 ~ 40 °C (R/B/W) , 0 ~ 50 °C (B/W)		
	Non-Operational Temp.	-25 ~ 60 °C (R/B/W) , -25 ~ 70 °C (B/W)		
	Assembly Temperature	10 ~ 40 °C		
	Operating Humidity	5 ~ 85% Relative Humidity, non-condensing		
Housing Mechanical	Material Type	Metal (NCT)		
	Painting Type	SECC+ Painting		
	Dimension	240 x 322 x 60.5 mm/ 240 x 322 x 24 mm		
	Weight	1.3kg		
Physical Characteristics	Dimensions (W x H)	Panel: 285.8 x 213.65 mm PCBA: 108 x 122 x 3.9 mm		
	Weight	Panel: 0.12g PCBA: 0.17g		
Operating System	ThreadX v5.6			

## EPD-130 Specifications

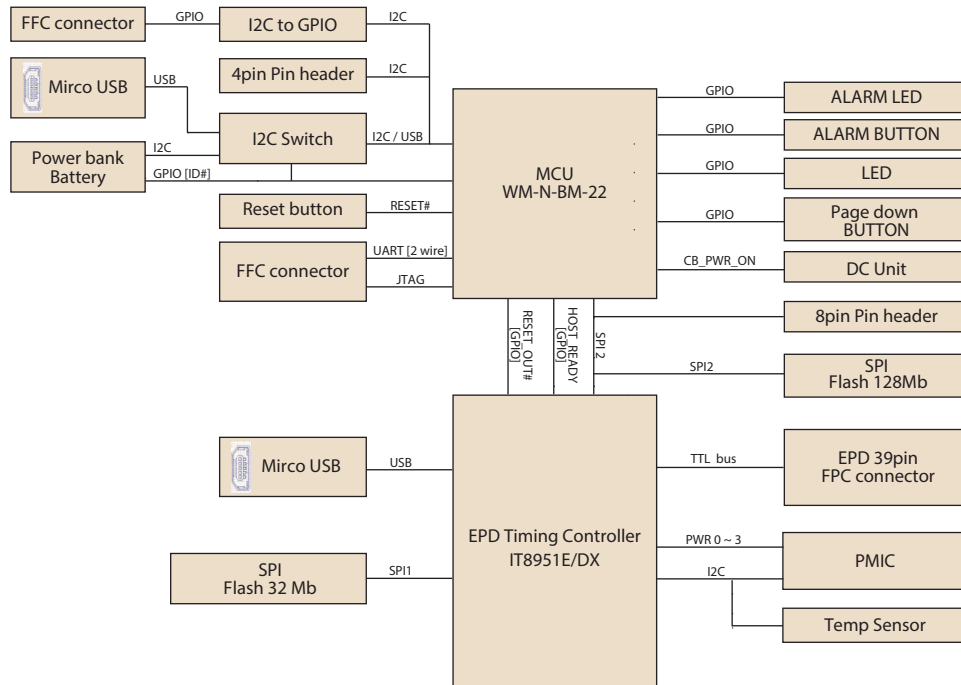
Display	Screen Size	285.8 x 213.65 mm	
	Resolution	1600 x 1200 pixels	
Storage	Internal	ITE SPI Flash: 32Mb	
	External	-	
I/O (on-board)	SPI	8pin Pin Header	
	Micro USB (CN2)	USB to TCON (Timing Controller)	Interface for data to EPD
	EPD connector	39P for 13.3" (R/B/W or B/W) & 9.7" EPD (R/B/W)	
Power	DC 5V	Micro USB (CN2) up to 0.9A/4.5 W in USB3.0 host Micro USB (CN3) up to 2A/10 W	Data transmission mode with power supply
	Operational Temperature	0 ~ 40 °C (R/B/W) , 0 ~ 50 °C (B/W)	
Environment	Non-Operational Temp.	-25 ~ 60 °C (R/B/W) , -25 ~ 70 °C (B/W)	
	Assembly Temperature	10 ~ 40 °C	
	Operating Humidity	5 ~ 85% Relative Humidity, non-condensing	
Physical Characteristics	Dimensions (W x H)	Panel: 285.8 x 213.65 mm PCBA: 108 x 122 x 3.9 mm	
	Weight	Panel: 0.12g PCBA: 0.17g	

## Board Diagram

### EPD-130M



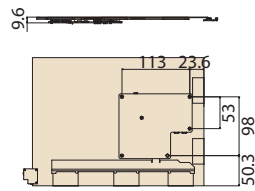
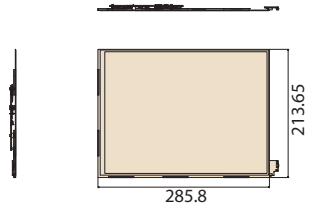
### EPD-132M



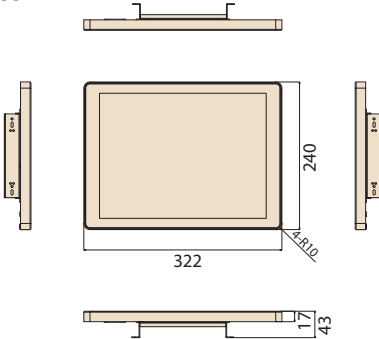
# EPD-132M,130M,EPD-132 Device

## Dimensions

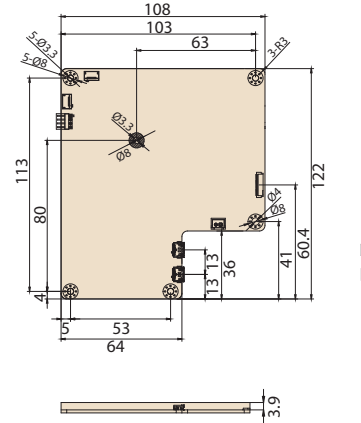
### EPD-132M ePaper Module



### EPD-132 Device



### Control Board



## Ordering Information

Part No.	Description
EPD-132R1AG-NSD01	13.3" Red/Black/White ePaper Wi-Fi display module solution in 2.4G
EPD-132B1AG-NSD01	13.3" Black/White ePaper Wi-Fi display module solution in 2.4G
EPD-130B1AG-NSD01	13.3" Black/White ePaper display module
EPD-130R1AG-NSD01	13.3" Red/Black/White ePaper display module
EPD-132R1AG-NSD11	EPD-132R1AG-NSD01 for 50 pcs module solution kit
EPD-132R1AG-NSD21	EPD-132R1AG-NSD01 for 100 pcs module solution kit
EPD-132R1AG-NSD31	EPD-132R1AG-NSD01 for 500 pcs module solution kit
EPD-132R1AG-NSD41	EPD-132R1AG-NSD01 for 1000 pcs module solution kit
EPD-132B1AG-NSD11	EPD-132B1AG-NSD01 for 50 pcs module solution kit
EPD-132B1AG-NSD21	EPD-132B1AG-NSD01 for 100 pcs module solution kit
EPD-132B1AG-NSD31	EPD-132B1AG-NSD01 for 500 pcs module solution kit
EPD-132B1AG-NSD41	EPD-132B1AG-NSD01 for 1000 pcs module solution kit
EPD-DK132R-FB01	13.3" Red/Black/White ePaper development kit for user wireless download image and control ePaper
EPD-DK132B-FB01	13.3" Black/White ePaper development kit for user wireless download image and control ePaper
EPD-132R2AG-NSD01	13.3" Red/Black/White ePaper Wi-Fi display system device in 2.4G
EPD-132B2AG-NSD01	13.3" Black/White ePaper Wi-Fi display system device in 2.4G

## Packing List

Model Name	Part No.	Description
EPD-132	EPD-DK132R-FS01	EPD-2250L x1pcs, EPD-132R system device x1pcs, WISE-3610W gateway x1pcs and micro-USB connector x1 pcs
EPD-132M	EPD-132B1AG-NSD01	1. 13.3" Black/White ePaper 2. ePaper Control Board with Wi-Fi (2.4G) control solution
EPD-132M	EPD-132R1AG-NSD01	1. 13.3" Red/Black/White ePaper 2. ePaper Control Board with Wi-Fi (2.4G) control solution
EPD-130M	EPD-130B1AG-NSD01	1. 13.3" Black/White ePaper 2. ePaper Control Board
EPD-130M	EPD-130R1AG-NSD01	1. 13.3" Red/Black/White ePaper 2. ePaper Control Board
EPD-132M	EPD-DK132R-FB01	ePaper display controller x1, 13.3" red, black and white ePaper x1, USB cable x2, 2.4G antenna x1, and ED22 x1
EPD-132M	EPD-DK132B-FB01	ePaper display controller x1, 13.3" black and white ePaper x1, USB cable x2, 2.4G antenna x1, and ED22 x1

- \* All E Ink Panel inspection criteria refer to E Ink CAS & Inspection standard document.
- \* Note: E Ink Recommend condition for storage:  
Temperature: 20 +10 degree C  
Humidity : 60% RH+10%RH, Non-condensing
- \* Note: If panel module has been put in low temperature between 0--25 degree C for a while, we recommend leaving it between 20 to 30 degree C for 4 days before assembly.

## Optional Accessories

Part No.	Description
1700029192-01	With micro-USB connector in 5 V/ 2A
1750008001-01	Wi-Fi dipole antenna, 5dBi 2.4/5GHz
1750006043-01	RF SMA cable, L=150mm
1750008816-01	Antenna magnetic base, L=100mm
1700015038	FPC Cable 10P-0.5mm 7.9cm for DCU2.0
1700029192-01	60cm Micro USB with 5P(M) for power report
9696053RS00	EPD-053R A101-1 daughter board with Switch and LED