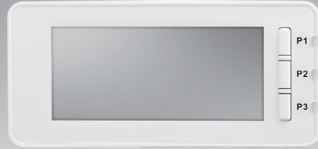# EPD-230, EPD-232

2.9" ePaper Solution Suite

NEW

Features

- ARM Cortex-M3 Core Processor
- Supported IEEE 802.15.4 / 2.4 G Networks
- 2.9" ePaper Panel Display
- Great for Low Power Consumption
- Multiple I/O Control with Three Buttons & Three LED
- Supported Temperature Range: 0 ~ 50 °C
- High Performance Integrated System with RTOS
- Supports Over-the-Air Upgrades upgrade (OTA)
- Solution with WISE-3240 Network Coordinator & ARK ePaper Manager Server

Introduction

EPD-230 , EPD-232 supports the ultra-low power 2.4GHz RF wireless protocol integrated with 2.9" EPD in an ARM Cortex-M3 processor. The module can support hospital, pharmacy, factory, warehouse and retail applications with optimal power consumption and device management. Your applications with low data rate requirements can achieve years long battery lifetimes and thousands of device connections.

The Advantech EPD-230 , EPD-232 provides multiple interfaces for application control which are highly integrated with the EPD driver and low power consumption system. EPD-230 , EPD-232 can auto-join network groups with the WISE-3240 IoT Router. Data can be easily acquired and transformed into a different format to communicate with ePaper Manager Server. System integrators can focus on application development and system management.

Specifications

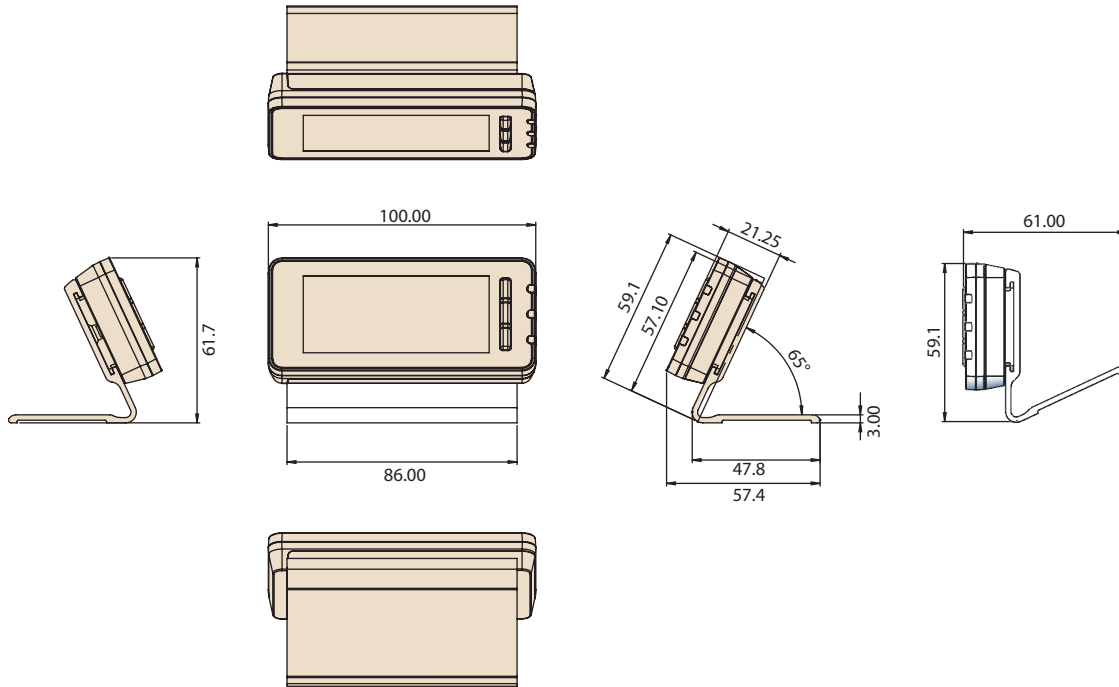|		
Computing System	MCU	TI 32-bit ARM Cortex-M3 Processor
	Memory	RAM 28KB
Display	Screen Size	79 x 36.7 mm
	Rresolution	296 x 128 pixels
	Color	EPD-230 for Black & White, EPD-232 for Red/Black/White
Storage	Internal	Flash: 128 KB
	External	SPI Flash: 256 KB
Network	Standard	IEEE 802.15.4
	Frequency Band	2.4-GHz
	Channels	11~26
	Channel Separation	5MHz
	Topology	Star network
	Transmit Power	-21dBm~ +5dBm
	Receiver Sensitivity	-100dBm
	RF Data Rate	250 Kbps
	Function	End node
	Antenna	On-board Antenna
Reference Signal Range		15~20m
Interface		LED x3 (Red, Green, Blue) Function Key x3
Power	Battery	CR2450 x4 (2480mAh)
Environment	Operational Temperature	B/W color: 0 ~ 50 °C ,R/B/W color: 0 ~ 40 °C
	Non-Operational Temp.	-25 ~ 60 °C
	Operating Humidity	5 ~ 80% Relative Humidity, non-condensing
Physical Characteristics	Dimensions (W x H)	79.0 x 36.7 mm
	Weight	80g with housing and battery
Operating System		RTOS
Certification	EMC	CE/FCC/NCC

* Note:
- The channel frequency selection can be supported by further plan.
- EPD Data Report and Wakeup behavior duration can be adjusted by different scenario from RESTful API
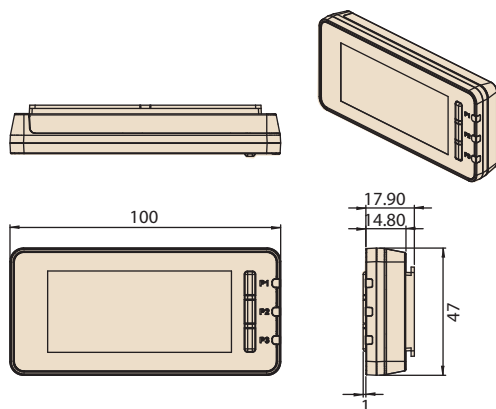- System bundles wireless modules; which need RED compliance

Dimensions

Unit: mm
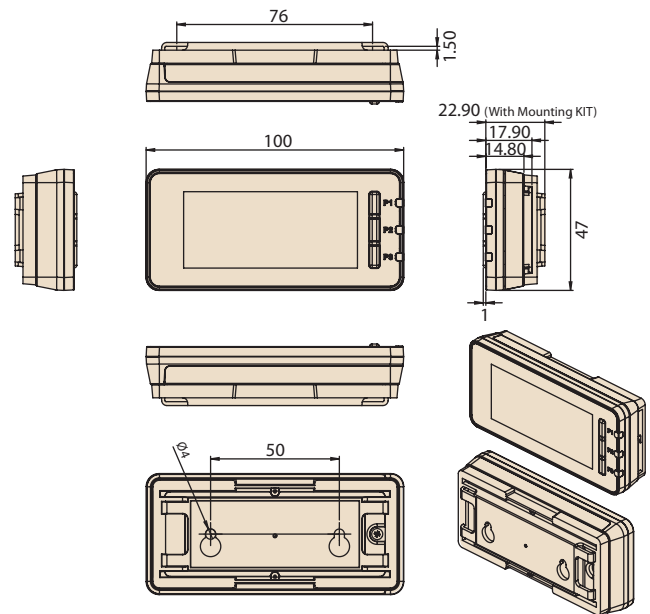
Device with Stand (1960110420T001)

100.00
61.7
86.00
21.25
59.1
57.10
65°
47.8
57.4
3.00
61.00
59.1

Device

100
100
17.90
14.80
47
1

Device with Bracket (1990036330T000)

76
1.50
22.90 (With Mounting KIT)
17.90
14.80
47
1
100
Φ4
50

Ordering Information

Model Name	Part No.	Description
EPD-230	EPD-230-001	2.9 black/white panel color ePaper display device solution in 2.4G.
	EPD-230-011	2.9 black/white panel color ePaper display device solution in 2.4G for 50pcs package.
EPD-232	EPD-232-001	2.9 red/black/white panel color ePaper display device solution in 2.4G.
	EPD-232-011	2.9 red/black/white panel color ePaper display device solution in 2.4G for 50pcs package.

Ubuntu development kit ordering information

	Part No.	Description
EPD device	EPD-230-001 EPD-230-011 EPD-232-001 EPD-232-011	2.9 " Wireless ePaper display device solution in 2.4G
Router	WISE-3240IOS-41A1E	Wireless EPD 2.4G WiFi Network IoT Router in industrial grade for Europe
	WISE-3240IOS-41A1J	Wireless EPD 2.4G WiFi Network IoT Router in industrial grade for Japan
	WISE-3240IOS-41A1N	Wireless EPD 2.4G WiFi Network IoT Router in industrial grade for North America
	WISE-3240IOS-41A1T	Wireless EPD 2.4G WiFi Network IoT Router in industrial grade for Taiwan
	WISE-3240IOS-41A1C	Wireless EPD 2.4G WiFi Network IoT Router in industrial grade for China
	WISE-3240IOS-41B1E	Wireless EPD 2.4G WiFi Network IoT Router in commercial grade for Europe
	WISE-3240IOS-41B1T	Wireless EPD 2.4G WiFi Network IoT Router in commercial grade for Taiwan
ePaper manager	ARK-1123H-EP2A2 for Entry	Ubuntu 18.4/128G SSD/8G RAM and build in ePaper Manager Software with 500 device licenses
	ARK-2250L-EP1A2 for Enterprise	Ubuntu 18.4/1T HD/16G RAM and build in ePaper Manager Software with 500 device licenses

Optional Accessories

Part No.	Description
1760002692-01	4 pcs CR2450 battery
1990036330T000	Wall Bracket
1990036333T000	Wall bracket Glue
1960110420T001	Bottom Frame for EPD-230 Liquid WHITE

Packing List

Model Name	Part No.	Description
EPD-230	EPD-230-001 EPD-230-011	2.9" Black/White ePaper device with battery
EPD-232	EPD-232-001 EPD-232-011	2.9" Red/Black/White ePaper device with battery

* All Eink 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 have been put in low temperature between 0--25 degree C for a while, we recommend to leave it between 20 to 30 degree C for 4 days before assembly.
* Note: WISE-3240 industrial grade supports wider range of operation temperature and storage temperature. Please request WISE-3240 specification for the reference.