

EPD-023

2.9" Wireless ePaper Display Module

NEW



Features

- ARM Cortex-M3 Core Processor
- Support IEEE 802.15.4 / 2.4 G networks
- 2.9" ePaper panel display
- Great for Low Consumption, up to 5 years life time
- Rich I/O control with 3 button & 3 LED
- Support temperature 0 ~ 50 °C
- High Performance integrated system with RTOS
- Support over-the-air upgrade (OTA)
- Available Case kit for various applications
- Available wall mount kit for various applications

Introduction

EPD-023 is the module which support ultralow power 2.4GHz RF wireless protocol integrated with 2.9" EPD in ARM Cortex-M3 processor. The module can support hospital ,pharmacy, factory, warehouse and retail application With optimization on the power consumption and device management, your applications with low data rate requirement can be achieved years battery lifetime and thousand devices connection.

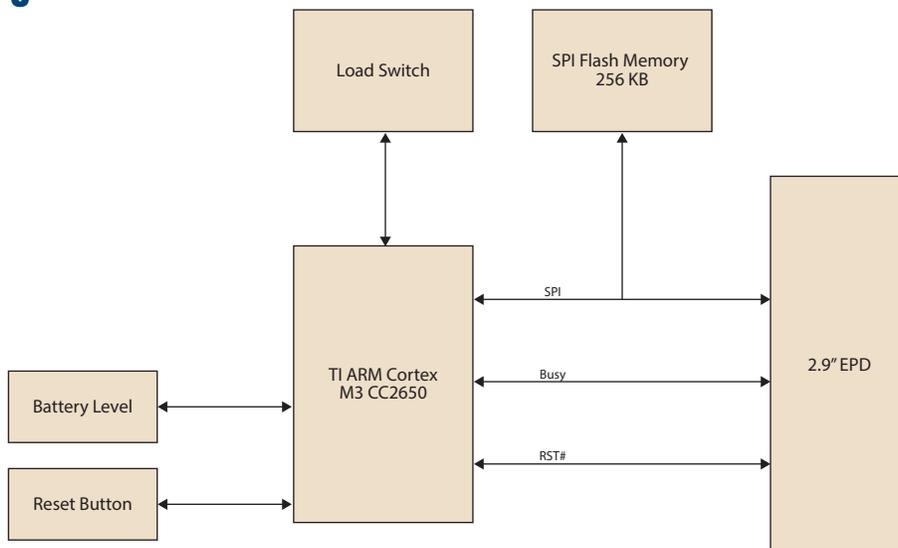
Advantech EPD-023 provide multi interface for application control which is highly integrated with EPD driver and low power consumption system. EPD-023 support Zigbee software stack protocol which can auto join and binding the network group with WISE-3240 IoT Router and WISE-3610Z IoT Gateway. Data can be quickly and easily acquired and transformed into a different format to communicate with ePaper Manager Server. System integration and End system 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
	Resolution	296 x 128 pixels
	Touch Type	-
Storage	Internal	Flash: 128 KB
	External	SPI Flash: 256 KB
Audio		-
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	
Interface		LED x3 Function Key x3
Power	Battery	CR2450 x4
Environment	Operational Temperature	B/W: 0 ~ 50 °C, R/B/W 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	TBD
Operating System		RTOS

* Note: The frequency support of other regions can be checked for further plan.

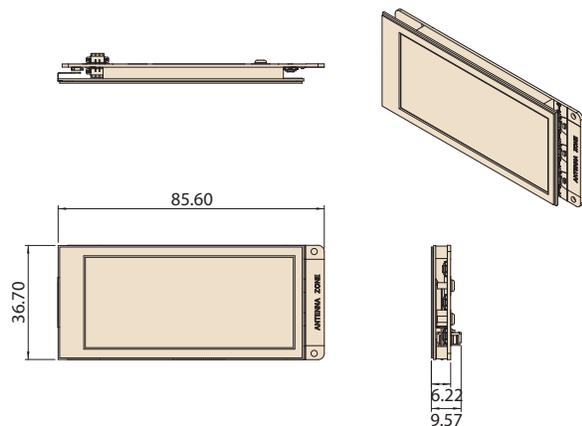
Board Diagram



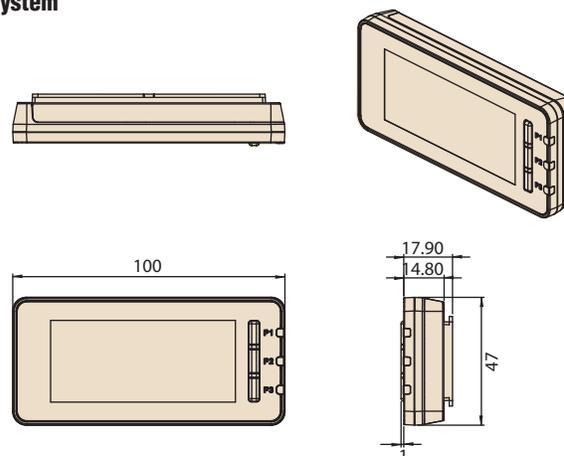
Dimensions

Unit: mm

Module-Panel



System



Ordering Information

Part No.	Description
EPD-023B1AG-NTC02	2.9" wireless ePaper display module
EPD-023B2AG-NTC02	2.9" Wireless ePaper displays system solution in 2.4G
EPD-023B2AG-NTC12	EPD-023B2AG-NTC02 for 50 pcs solution kit
EPD-023B2AG-NTC22	EPD-023B2AG-NTC02 for 100 pcs solution kit
EPD-023B2AG-NTC32	EPD-023B2AG-NTC02 for 500 pcs solution kit
EPD-023B2AG-NTC42	EPD-023B2AG-NTC02 for 3000 pcs solution kit

Packing List

Model Name	Part No.	Description
EPD-023B	EPD-023B1AG-NTC02	1. 2.9" Black/White ePaper 2. ePaper Control Board with IEEE802.15.4 (2.4G) wireless control solution
EPD-023B2	EPD-023B2AG-NTC02	2.9" Black/White ePaper IEEE802.15.4 (2.4G) system solution

* 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 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.

Optional Accessories

Part No.	Description
1760002692-01	4 pcs CR2450 battery