

PanL35L(PD35L) Display Datasheet



1 Introduction

The PanL35L Display provides users an intuitive interface option to monitor and trigger control events. It is based on a 3.5 inch 320 x 240 pixel TFT LCD panel powered by Bridgetek's very own Embedded Video Engine (EVE) Graphic Controller chip that enables rich and intuitive GUI's displays. It also comes with built in buzzer and Wi-Fi module for wireless connectivity. The display is also furnished with a RGB LED strip light indicator where different color codes can be programmed to represent a certain application event. The display can be placed on any flat surface area. The PanL35L is powered by the included 5V Micro-USB adaptor and cable.

- Supports Wi-Fi 802.11b/g/n (2.4GHz), up to 150Mbps
- Built In Buzzer
- RGB LED Strip Indicator
- Micro USB Type B Port
- DC Power: 5V / 1A
- Operating temperature range : 0°C to +55°C
- FCC ID: 2AC7Z-ESPWROOM32D



1.1 Features

The PanL35L has the following features:

- Dual-Core 32-bit LX6 microcontroller (MCU)
- Built-in advanced FT813Q graphics controller with display, touch and audio functionality
- 3.5" high brightness TFT LCD (320*240 pixels)

2 Ordering Information

Part No.	Description
PD351002A	3.5" PanL Landscape LCD Display with Wi-Fi and Buzzer

Table 1 - PanL35L (PD35L) Display Part Number

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3 Specifications

PLATFORM	Microcontroller	32-bit RISC MCU
	Graphic Controller	FT813Q
DISPLAY	Display Size	3.5 inch TFT LCD Capacitive
	Number of Pixels	320 (RGB) x 240
	Active Display Area	70.08 (H) x 52.56 (V) mm
	Light Intensity (Brightness)	540 cd/m ²
	Display Colour	16.7M colors
	Viewing Angels	60°
FEATURES	Wi-Fi	2.4 GHz 802.11 b/g/n, up to 150Mbps
	Sound Alert	Buzzer
	Function Button	Multiple Function (See User Guide)
	Power Indicator	Green LED
	Application Indicator	RGB LED strip (See User Guide)
POWER PARAMETER	Input Voltage	5 VDC/1.0A
	DC connector	Micro USB type B
PHYSICAL CHARACTERISTICS	Color	Cool Grey
	Housing	Polycarbonates
	Dimensions	85 x 67.80 x 70.05 mm
	Weight	109g
ENVIRONMENTAL LIMITS	Operating Temperature	0 to 55°C
	Storage Temperature	0 to 70°C
	Ambient Relative Humidity	20 to 85% (non-condensing)
STANDARDS & CERTIFICATIONS	EMC (FCC/CE)	EN 55032:2015+AC:2016 Class B CISPR 32:2015+C1: 2016 Class B EN 55035:2017 FCC PART 15, Subpart B
	Radio Equipment Directive (RED)	EN 301 489-1 V2.2.0 EN 301 489-17 V3.2.0
	Safety (LVD)	IEC 62368-1:2014 EN 62368-1:2014 +A11:2017
	RF (FCC/CE)	EN 300 330 V2.1.1 EN 62311:2008 FCC PART 15, Subpart C (15.225)
PACKAGE CONTENTS	Hardware components	1x PanL35L 1x 5W microUSB-B Power Adapter 1x USB Charge Cable (1.2 meter) 2X Double Sided Adhesive Tapes for Rubber Foot
	Documentation	1x Quick Start Guide

Table 2 - PanL35L (PD35L) Display Specifications

4 Hardware Features



Figure 1.1 – PanL35L (PD35L) Display Front View

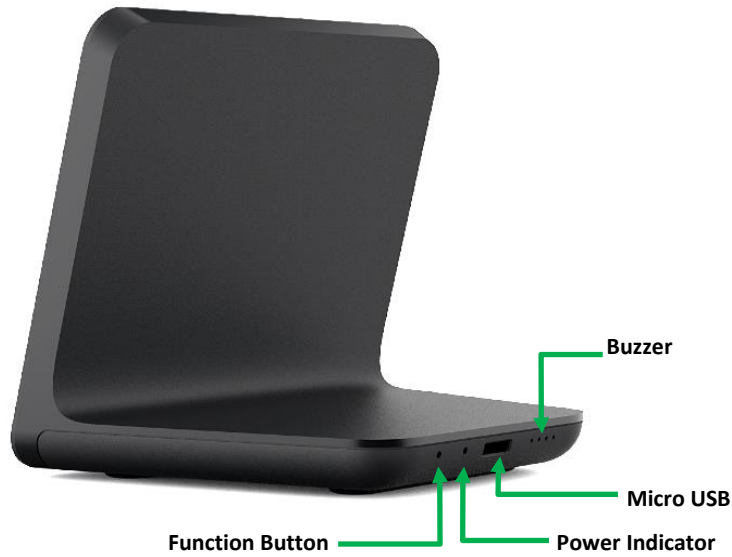


Figure 1.2 – PanL35L (PD35L) Display Rear View

4.1 Micro USB

The PanL35L receives power externally from power adapter at 5V/1A DC through the micro-USB power socket.

4.2 Microcontroller

The device contains a dual-core 32-bit LX6 MCU.

4.3 Graphic controller

FT813Q is an Advanced Embedded Video Engine (EVE) with high resolution graphics and video playback.

Functionality includes graphic control, audio control, and touch control interface (Touch not enabled for PanL35L).

4.4 Buzzer

Trigger sound to user to signify an event.

4.5 Power Indicator

A green colour LED indicator to indicate the power status (ON/OFF) of PanL35L.

4.6 RGB LED Strip Light

The RGB LED Strip is a light indicator where different color codes are assigned to represent a certain application event. Please refer to the application User Guide for more details about the different color codes.

4.7 Function Button

To access different display functions of the PanL35L such as brightness/volume control or doing a factory reset. Please refer to the application User Guide for more details.

5 FCC Statements

PanL35L device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) These devices may not cause harmful interference, and
- (2) These devices must accept any interference received, including interference that may cause undesired operation.

NOTE: The equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a building installation. These equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF exposure guidelines, at least 20cm of separation distance between the PanL35L device and the user's body must be maintained at all times.

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and consider removing the no-collocation statement.

Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

6 Mechanical Dimensions

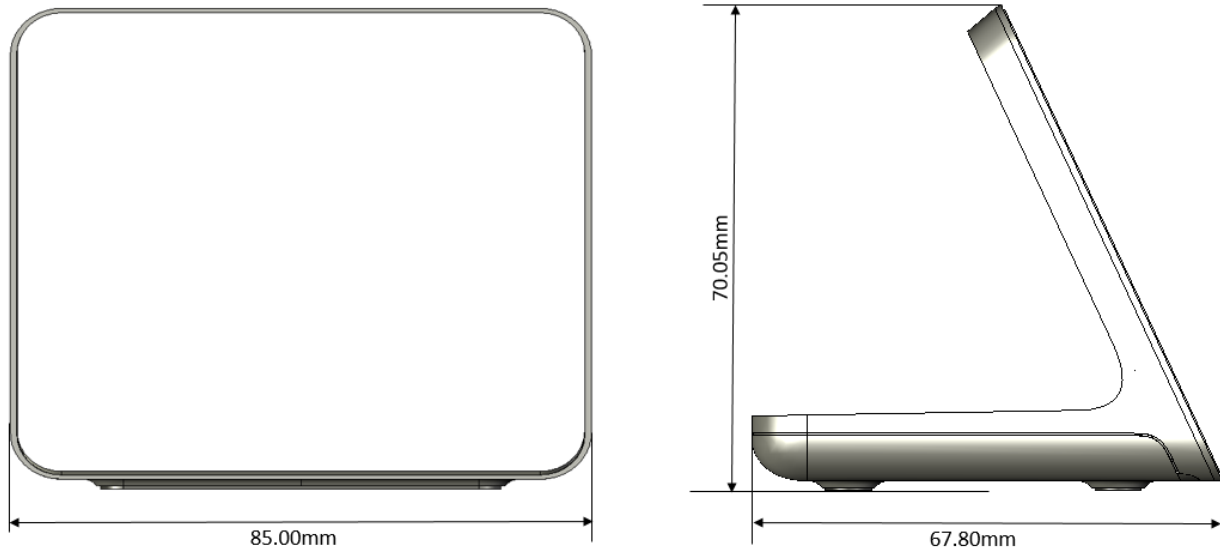


Figure 5.1 – PanL35L (PD35L) Display Dimensions

7 Contact Information

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Appendix A - References

Document References

NA

Acronyms and Abbreviations

Terms	Description
EVE	Embedded Video Engine
FCC	Federal Communications Commission
LCD	Liquid Crystal Display
LED	Light Emitting Diode
MCU	Micro Controller Unit
RGB	Red Green Blue
TFT	Thin Film Transistor
USB	Universal Serial Bus

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Appendix C – Revision History

Document Title: PanL35L (PD35L) Display Datasheet
Document Reference No.: BRT_000278
Clearance No.: BRT#152
Product Page: <https://panl.brtchip.com>
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Revision	Changes	Date
Version 1.0	Initial Release	2020-01-16