

# IDP-7000-04A Touch Display Module Datasheet



## 1 Introduction

The IDP-7000-04A is a smart display module featuring a 7" TFT LCD panel with an 800x480 resolution and support for 16.7 million colors, along with a capacitive touch interface. It integrates Bridgetek's Embedded Video Engine (EVE) Graphics Controller, the BT815, to provide rich, interactive, multi-touch user experiences. The module is powered by Bridgetek's FT903 System-On-Chip (SoC) microcontroller, known for its high integration and low power consumption.

Designed as an EVE-based display module, the IDP-7000-04A enables seamless control and monitoring, allowing users to render graphics, display information, and manage interactions effortlessly.

Unlike mobile devices that require frequent recharging, it can be installed in accessible locations and continuously powered via a Cat 5e cable.

### 1.1 Features

- Integrated FT903 32-bit RISC microcontroller with 100MHz system clock
- Built-in advanced BT815 graphics controller with display, touch, and audio functionality
- 7-inch high-brightness 800x480 resolution TFT LCD with support for capacitive 5-point touch
- Ambient light sensor for adaptive brightness control
- Integrated buzzer for audio notifications
- Two RJ45 Ports supporting RS485 Interface for data communication, allowing daisy chain to another IDP-7000-04A module
- Powered by a 9V-24V DC supply through the RJ45 port

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## 1.2 Typical Applications

- Home Automation Systems: Smart Thermostats, Lighting Control.
- Audio Equipment: Mixing Consoles, Hi-Fi Systems.
- Medical Devices: Portable Medical Monitors, Patient Monitoring Devices.
- Industrial Applications: Control Panels, Measurement Instrument.
- Automotive Interfaces: Infotainment Systems, Dashboards
- Consumer Electronics: Smart Speakers and Media Players, portable Gaming Consoles.
- Test and Measurement Equipment such as Oscilloscopes and Multimeters.
- ..... and many more.

## 2 Ordering Information and Package Content

Part No.	Description
IDP-7000-04A	Intelligent Display Product 7 inch with Enclosure

**Table 1 - Part Number/Ordering Information**

Description	
Hardware components	IDP-7000-04A Module
	M3 Screws (Arlington LV2 Wall Mounting) x4

**Table 2 - Package Content**

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## 3 Hardware Features

### 3.1 Module Overview

The IDP-7000-04A module features a 7-inch TFT LCD and CTP panel with dimensions of 192 mm (L) X 125.45 (W) X 26.4mm (T) and weighing 454g.



**Figure 1 - Front View of IDP-7000-04A Module**



**Figure 2 - Back View of IDP-7000-04A Module**

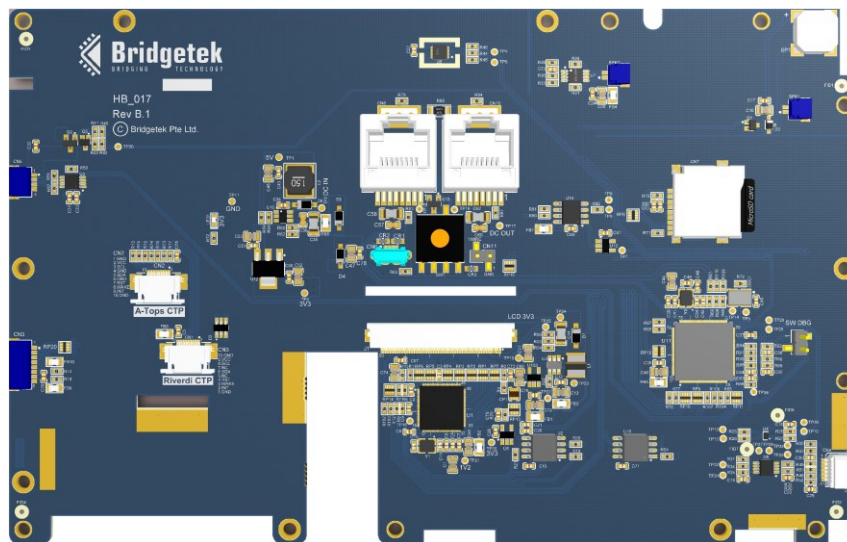
## 3.2 PCBA Profile

The IDP-7000-04A display module is made up of two boards:

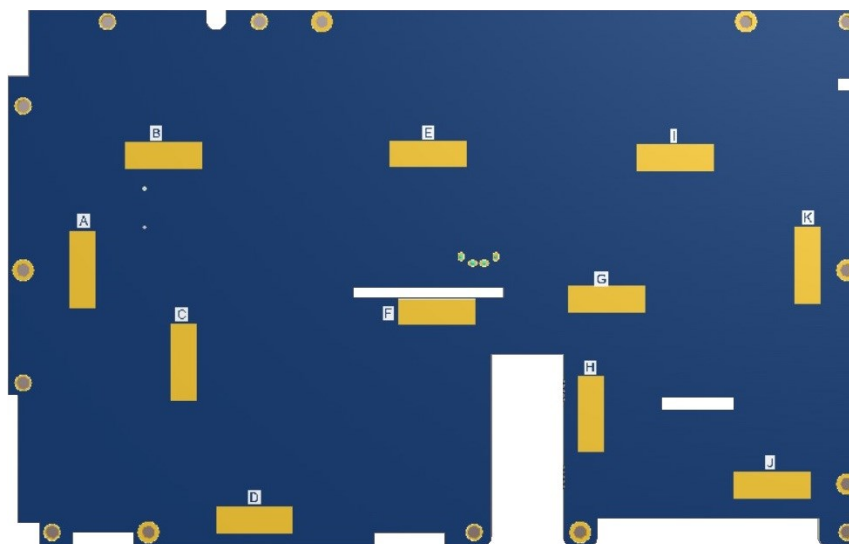
1. **Mainboard:** PCBA containing microprocessor and graphics controller ICs.
2. **Sensor Board:** PCBA containing reset button, microphone, ambient light sensor and smart RGB LED.

### 3.2.1 Mainboard

Dimensions of main board: 176.9mm (L) X 111.58mm (W) X 1.6mm (T) with maximum component height of approximately 13mm.



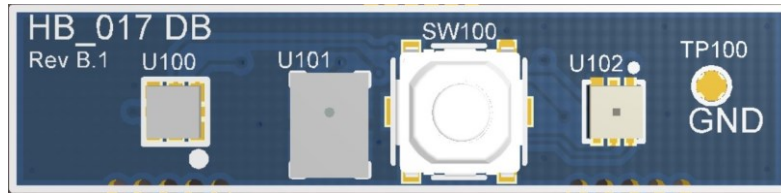
**Figure 3 - Mainboard PCBA Front View**



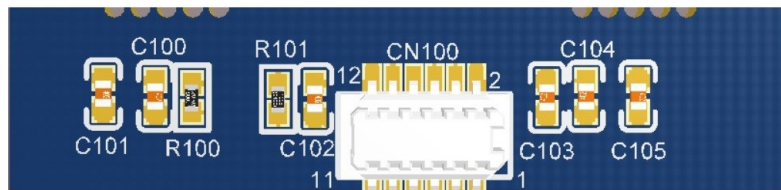
**Figure 4 - Mainboard PCBA Back View**

### 3.2.2 Sensor board

Dimensions of sensor board: 30mm (L) X 7mm (W) X 1.6mm (T) with maximum height of approximately 3.6mm (H).



**Figure 5 - Sensor Board Front View**



**Figure 6 - Sensor Board Back View**

### 3.2.3 Key Features

- ❖ 7-inch 800 x 480 TFT-LCD panel with capacitive touch panel
- ❖ Bridgetek BT815 EVE chip for graphics, touch, and audio control
- ❖ 16Mbyte NOR Flash for BT815 assets
- ❖ LED backlight driver integrated
- ❖ Bridgetek FT903 microcontroller
- ❖ 8Mbyte NOR Flash for FT903 data storage
- ❖ Micro-SD card socket
- ❖ Micro USB port for communication to FT903 MCU
- ❖ Two RJ45 ports for I/O supply and RS485 communication
- ❖ Built-in audio buzzer for sound notifications
- ❖ Built-in digital microphone
- ❖ Built-in ambient light sensor
- ❖ Built-in smart LED indicator
- ❖ ID switch for unique ID setting
- ❖ Hardware reset button

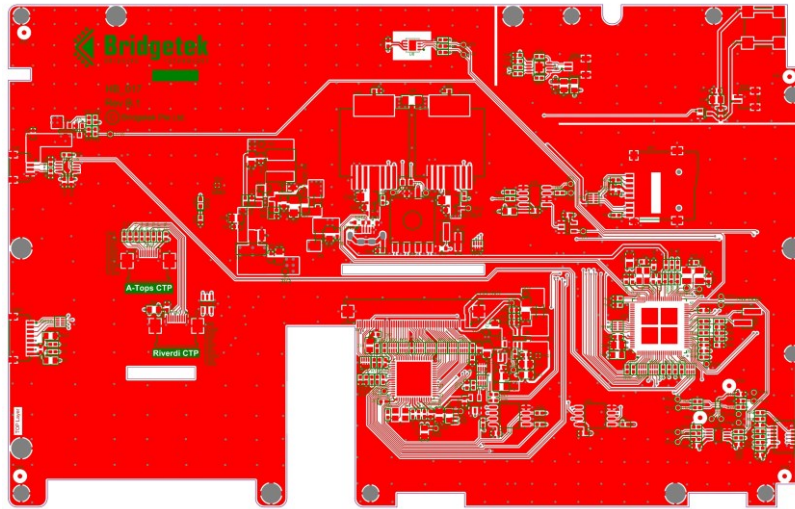
### 3.3 PCB Profile

Both printed circuit boards (PCBs) in the IDP-7000-04A module are designed with four layers, stacked as follows:

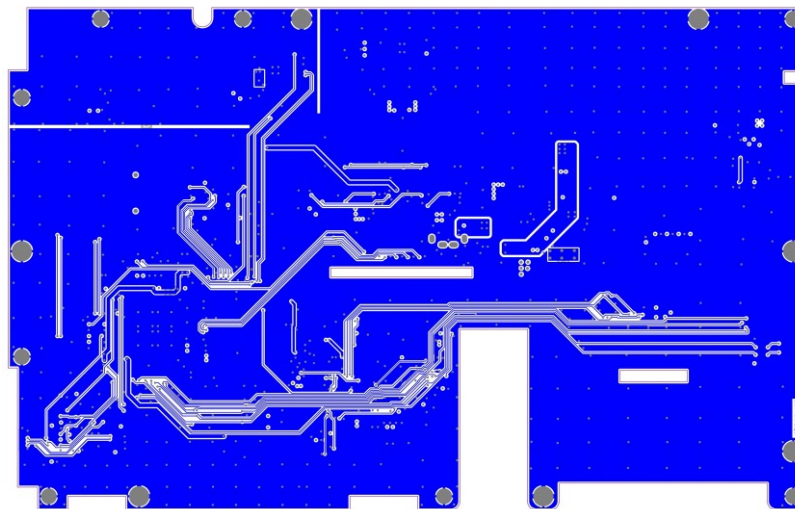
1. Layer 1: Routing & Component placement (Top)
2. Layer 2: Ground Plane
3. Layer 3: Power Plane
4. Layer 4: Routing & Component placement (Bottom)

Figure 7 - Main PCB Top Layer Figure 7 to Figure 10 illustrate the layout of these PCBs.





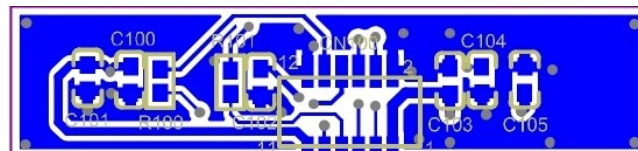
**Figure 7 - Main PCB Top Layer**



**Figure 8 - Main PCB Bottom Layer**



**Figure 9 - Sensor PCB Top Layer**



**Figure 10 - Sensor PCB Bottom Layer**

### 3.4 Connectors, Switches and Buttons

The following section provides details about the connectors, their pin configurations and the functions of the switches and buttons on the boards. Refer to Section [3.2](#) for connector locations.

- **CN2 – Capacitive Touch Panel Interface**

The 10-position 0.5mm pitch top-contact FFC connector provides support to LCD panels with capacitive touch function.

Pin No.	Name	Type	Description
1	GND	P	Ground
2	CTP3V3	P	Output 3.3V power supply
3	CTP_SCL	O	I2C serial bus, clock line
4	NC	NA	No connection
5	CTP_SDA	I/O	I2C serial bus, data line
6	NC	NA	No Connection
7	CTP_RST#	O	Reset output to CTP
8	WAKE	NA	No Connection
9	CTP_INT#	I	Interrupt input from CTP
10	GND	P	Ground

**Table 3 - CN2 Pinout**

- **CN3 – SPI Host Interface**

Pin No.	Name	Type	Description
1	S_CS2#	O	SPI chip select, active low
2	S_SCK	O	SPI clock output
3	S_MOSI	O	SPI master output, slave input
4	S_MISO	I	SPI master input, slave output
5	IRQ1	I	Interrupt input from external device
6	GND	P	Ground
7	RST1#	O	Reset output to external device
8	VDD_3V3	P	3.3V Output power supply

**Table 4 - CN3 Pinout**

- **CN4 – Sensor board Inter-Connector**

The 12-position, 0.8mm pitch right-angle header serves as an interconnect for the sensor board.

Pin No.	Name	Type	Description
1	VDD_3V3	P	3.3V Output power supply
2	GND	P	Ground
3	AML_SCL	O	I2C serial bus, clock line
4	AML_INT	I	Interrupt input from ambient light sensor
5	RESET#	I	Reset input to MCU

6	AMLSDA	I/O	I2C serial bus, data line
7	PDM_DAT	I	Microphone data line
8	PDM_CLK	O	Microphone clock line
9	LED_K	O	Smart LED clock line
10	LED_D	O	Smart LED data line
11	LED_5V	P	5V Output power supply
12	GND	P	Ground

**Table 5 - CN4 Pinout**

- **CN5 – LED Control Interface**

Pin No.	Name	Type	Description
1	LED_5V	P	5V Output power supply
2	LED_K2	O	Smart LED clock line
3	LED_D2	O	Smart LED data line
4	GND	P	Ground

**Table 6 - CN5 Pinout**

- **CN6 – Micro-USB Receptacle**

The micro-USB receptacle enables PC communication with FT903 MCU and device firmware debug and updates.

- **CN7 – Micro SD Card Connector**

Supports SPI communication mode with auto card detection.

- **CN8, CN10 – I/O Power Supply and RS485 Interface**

These RJ45 ports are interconnected, integrating input/output power supplies along with the RS485 communication interface.

Pin No.	Name	Type	Description
1	RS485_B/Z	I/O	Inverting receiver input and inverting driver output. Pin is an input if DE = 0; pin is an output if DE = 1
2	RS485_A/Y	I/O	Noninverting receiver input and noninverting driver output. Pin is an input if DE = 0; pin is an output if DE = 1.
3	NA	I	Pin shorted to 6
4	DC_IN/ DC_OUT	P	Input/ Output power supply
5	DC_IN/ DC_OUT	P	Input/ Output power supply
6	NA	I	Pin shorted to 3
7	GND	P	Ground
8	GND	P	Ground

**Table 7 - CN8, CN10 Pinout**

- **CN11 – One Wire Debugger Interface**

This 2-position, 2.54mm pitch header enables a one-wire half-duplex serial connection for accessing the FT903 memory-mapped address space.

Pin No.	Name	Type	Description
1	GND	P	Ground
2	DBG	I/O	For in-circuit debugging

**Table 8 - CN11 Pinout**

- **CN100 – Mainboard Inter-Connector**

The 12-position, 0.8mm pitch right-angle receptacle serves as an interconnect to the mainboard.

Pin No.	Name	Type	Description
1	D3V3	P	3.3V input power supply
2	GND	P	Ground
3	AML_SCL	I	Ambient light sensor I2C clock line
4	AML_INT	O	Ambient light sensor interrupt output, open drain
5	RSTn	O	Reset output signal
6	AML_SDA	I/O	Ambient light sensor I2C data line
7	MIC_DAT	O	Microphone data output
8	MIC_CLK	I	Microphone clock line
9	LED_CLK_1	I	RGB LED clock line
10	LED_DAT_1	I	RGB LED data line
11	D_5V	P	5V Output power supply
12	GND	P	Ground

**Table 9 - CN100 Pinout**

- **J1 – LCD Panel Interface**

This 50-position, 0.5mm pitch top-contact FPC connector is used for inter-connection to the 7-inch LCD panel. The manufacturer's part number for this connector is "62684-402100ALF."

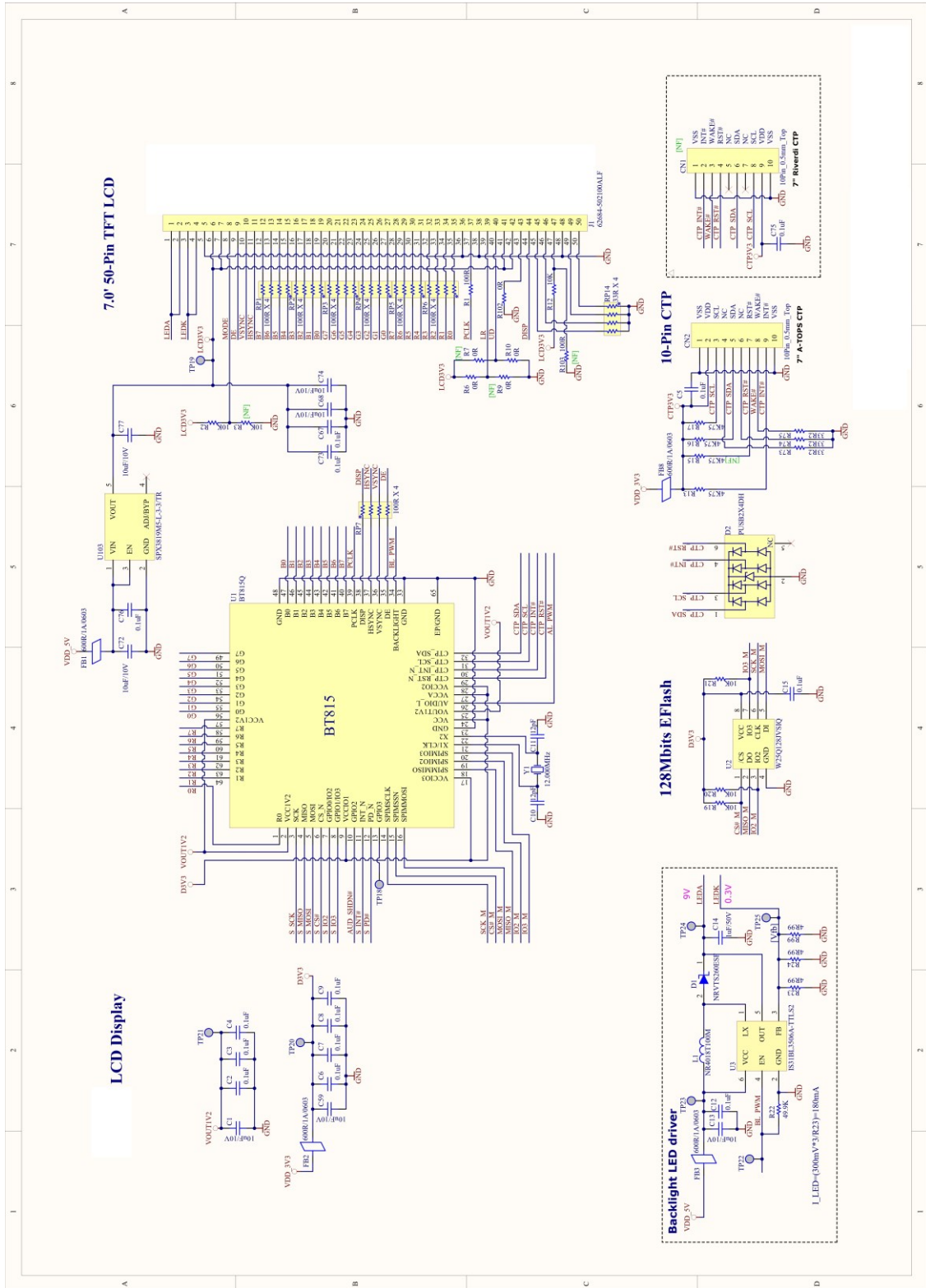
Pin No.	Name	Type	Description
1	LEDA	P	LED Anode
2	LEDA	P	LED Anode
3	LEDK	P	LED Cathode
4	LEDK	P	LED Cathode
5	GND	P	Ground
6	LCD3V3	P	3.3V Output power supply
7	LCD3V3	P	3.3V Output power supply
8	MODE	O	10K $\Omega$ pull-up to 3.3V
9	DE	O	Enable valid pixel data being sent to LCD
10	HSYNC	O	Horizontal sync signal to LCD
11	VSYNC	O	Vertical sync signal to LCD
12	B7	O	Blue channel intensity bit 7
13	B6	O	Blue channel intensity bit 6
14	B5	O	Blue channel intensity bit 5
15	B4	O	Blue channel intensity bit 4
16	B3	O	Blue channel intensity bit 3

17	B2	O	Blue channel intensity bit 2
18	B1	O	Blue channel intensity bit 1
19	B0	O	Blue channel intensity bit 0
20	G7	O	Green channel intensity bit 7
21	G6	O	Green channel intensity bit 6
22	G5	O	Green channel intensity bit 5
23	G4	O	Green channel intensity bit 4
24	G3	O	Green channel intensity bit 3
25	G2	O	Green channel intensity bit 2
26	G1	O	Green channel intensity bit 1
27	G0	O	Green channel intensity bit 0
28	R7	O	Red channel intensity bit 7
29	R6	O	Red channel intensity bit 6
30	R5	O	Red channel intensity bit 5
31	R4	O	Red channel intensity bit 4
32	R3	O	Red channel intensity bit 3
33	R2	O	Red channel intensity bit 2
34	R1	O	Red channel intensity bit 1
35	R0	O	Red channel intensity bit 0
36	GND	P	Ground
37	PCLK	O	Pixel clock to LCD
38	GND	P	Ground
39	LR	O	Connected to 3V3
40	UD	O	Connected to ground
41	LCD3V3	P	3.3V Output power supply
42	LCD3V3	P	3.3V Output power supply
43	NA	O	Connected to ground
44	DISP	O	Enable Display to LCD
45	NA	O	33Ω pull-down to ground
46	NA	O	33Ω pull-down to ground
47	NA	O	10KΩ pull-up to 3.3V
48	GND	P	Ground
49	NA	O	33Ω pull-down to ground
50	NA	O	33Ω pull-down to ground

**Table 10 - J1 Pinout**

- **SW1** is a 4-position rotary switch use for configuring a unique ID for the device.
- **SW100** is hardware reset button to reset FT903 MCU.

## 4 Board Schematics



**Figure 11 - 7-inch TFT LCD Display**



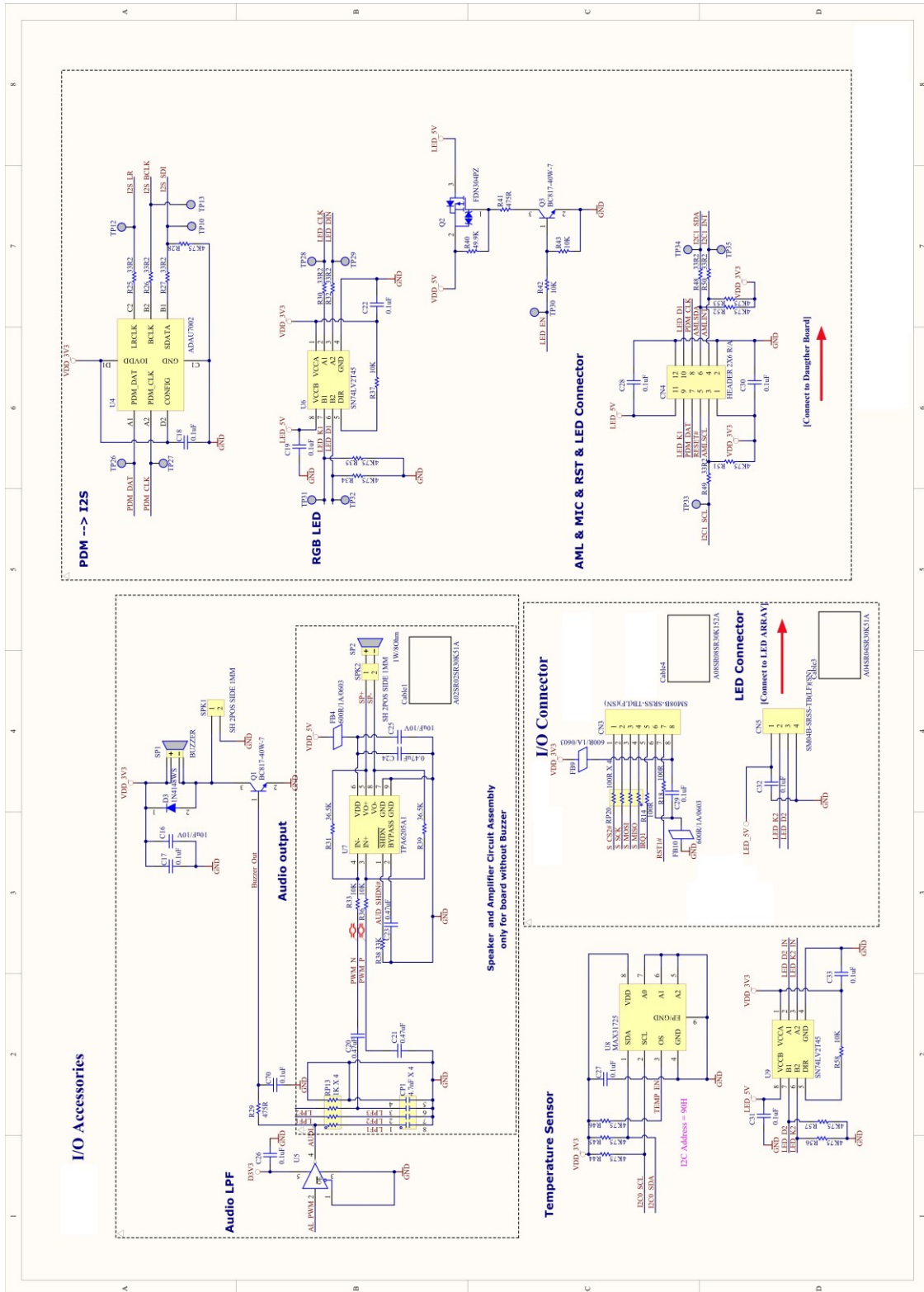


Figure 12 - I/O Accessories

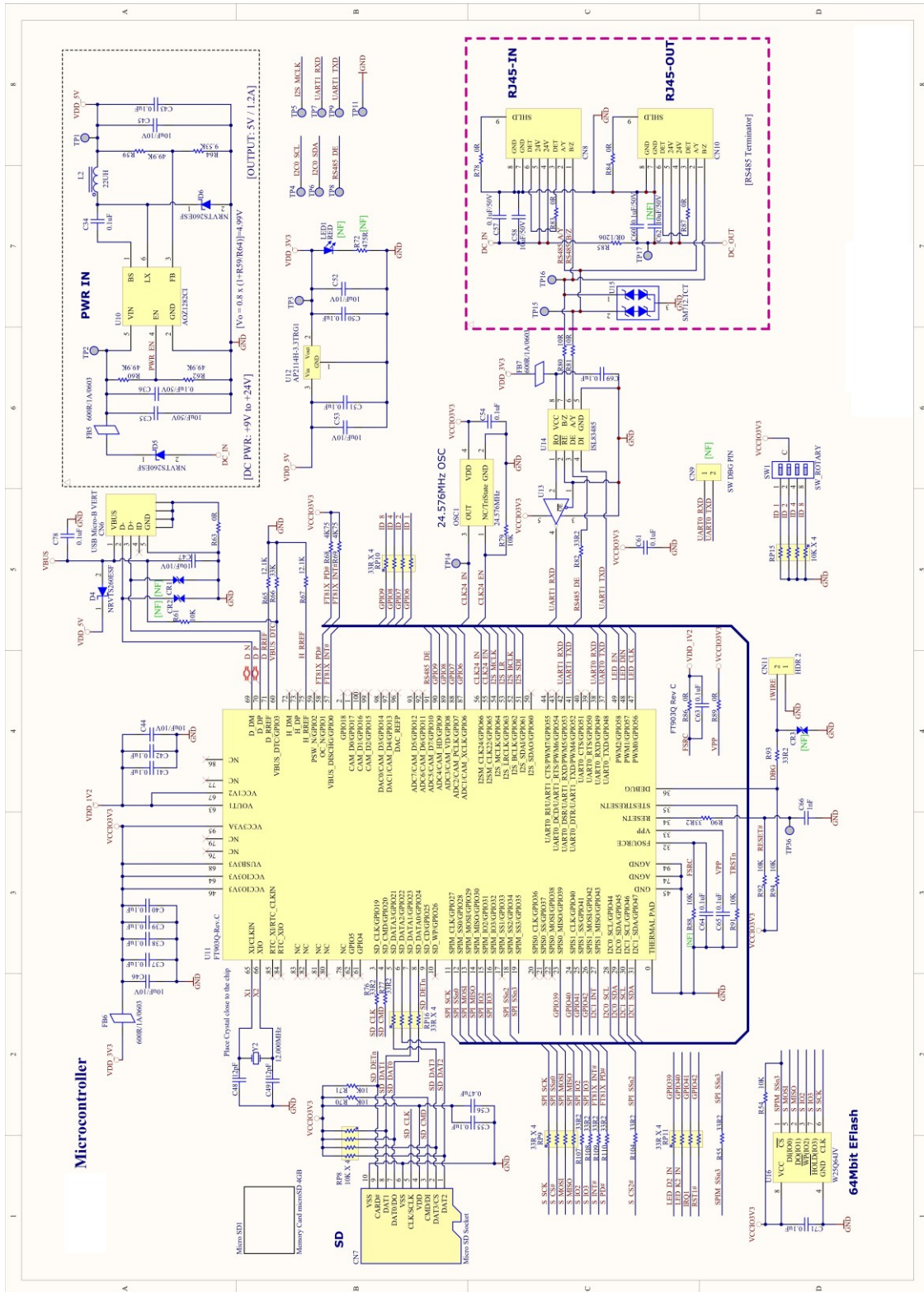
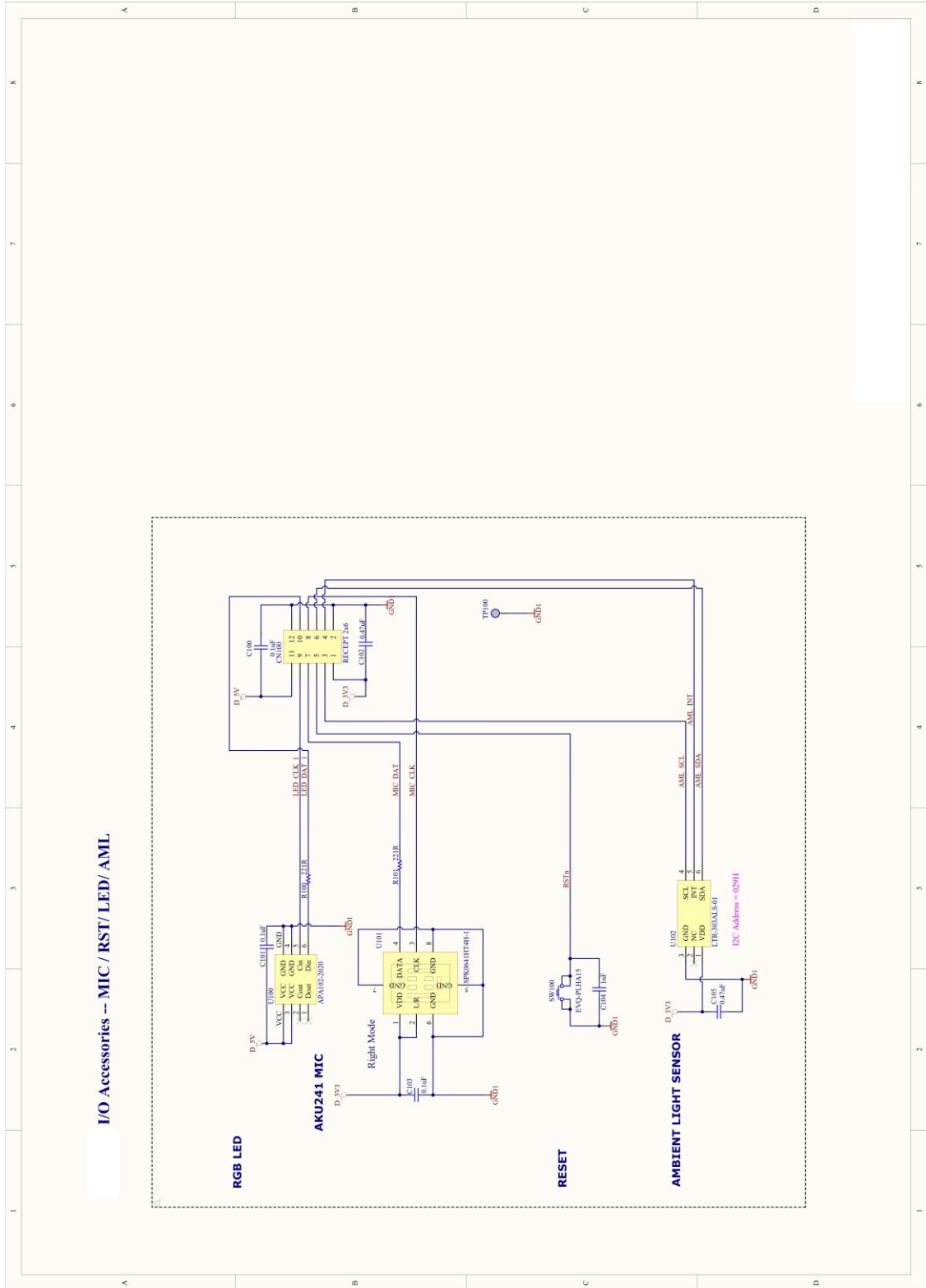


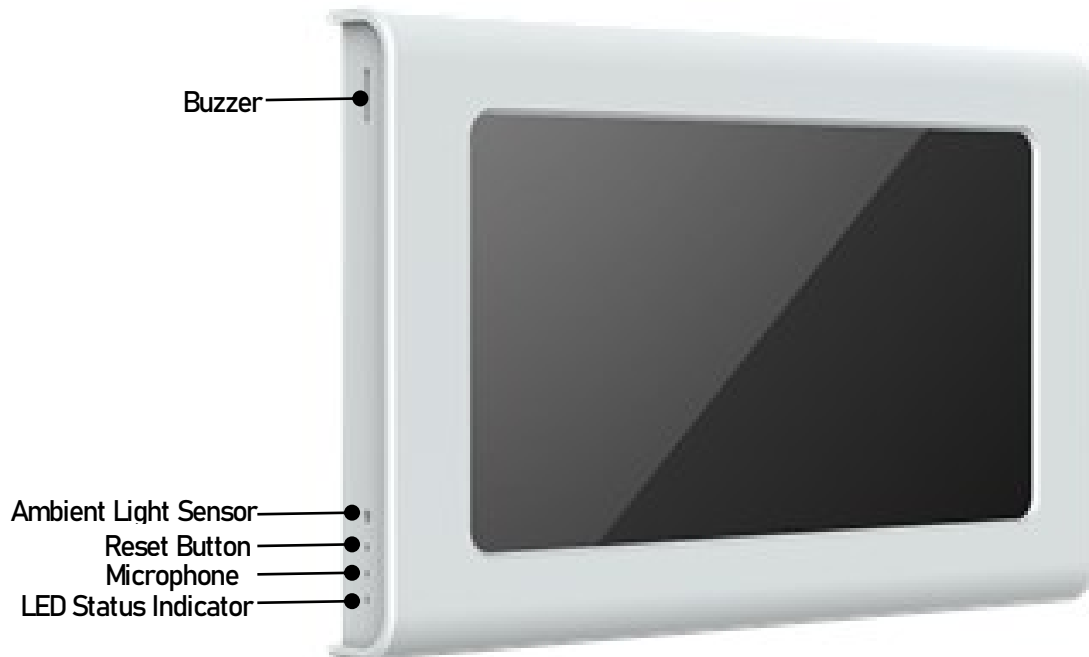
Figure 13 - MCU Controller



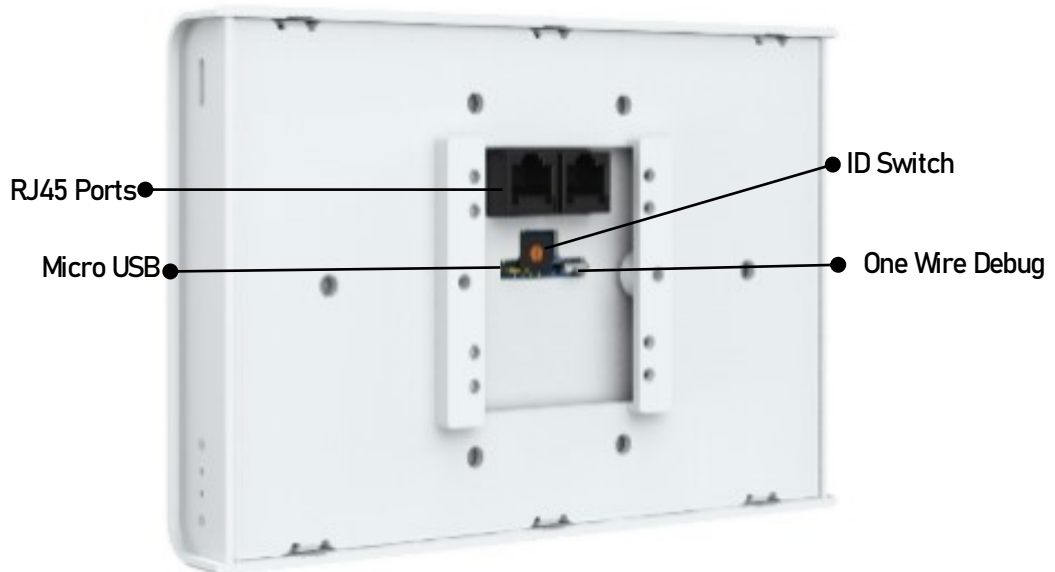


**Figure 14 - Sensor Board**

## 5 Device Description and Configuration



**Figure 15 - IDP-7000-04A Touch Display Front View**



**Figure 16 - IDP-7000-04A Touch Display Rear View**

## 5.1 Power Supply

The IDP-7000-04A display module receives power through the RJ45 port on its back and can also pass power directly from the input source. It supports an input voltage range of 9VDC to 24VDC, with a recommended minimum power supply of 6W.

## 5.2 Microcontroller

The display module is powered by the [FT903](#), a 32-bit RISC microcontroller from Bridgetek’s System-On-Chip series. It features:

- 32-bit FT32 core processor running at 100MHz
- 256kB on-chip flash memory
- 256kB on-chip shadow program memory
- 64kB of on-chip data memory
- OTP memory for security configuration
- USB 2.0 EHCI-compatible host controller supporting high-speed (480 Mbit/s), full-speed (12 Mbit/s), and low-speed (1.5 Mbit/s)
- USB 2.0 device controller supporting high-speed (480 Mbit/s) and full-speed (12 Mbit/s)

Bridgetek provides a free software toolchain to simplify the creation and downloading of .bin files. The [FT9xx-Toolchain](#) is available for download on the Bridgetek website.

## 5.3 Graphic Controller

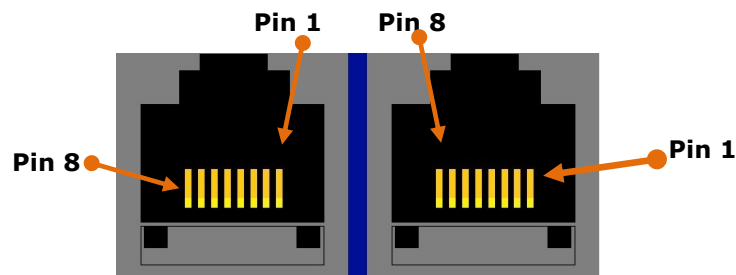
The IDP-7000-04A utilizes Bridgetek’s third-generation Advanced Embedded Video Engine (EVE) [BT815](#) for high-quality Human Machine Interfaces (HMIs), integrating graphic control, audio, and touch interface capabilities.

Bridgetek provides the [EVE Toolchains](#), an essential suite of tools for free, enabling developers to design impressive and highly responsive graphics user interfaces (GUIs) for EVE-based solutions. The toolchain contains the following tools:

- EVE Screen Designer
- EVE Screen Editor
- EVE Asset Builder

## 5.4 RJ45 Ports

### 5.4.1 Pin Definition



**Figure 17 - RJ45 Ports Pin orientation**

Pin Number	1	2	3,6	4,5	7,8
Function	RS485 B/Z	RS485 A/Y	Pins Connected	DC_IN/ OUT	GND

**Table 11 - RJ45 Ports Pin Function**

## 5.4.2 Powering and Communication

The RJ45 ports support both power and data transmission. Below are two methods for powering and communicating with the IDP-7000-04A module.

### **Method 1: Use of BRTSys LDS Bus USB Adaptor**

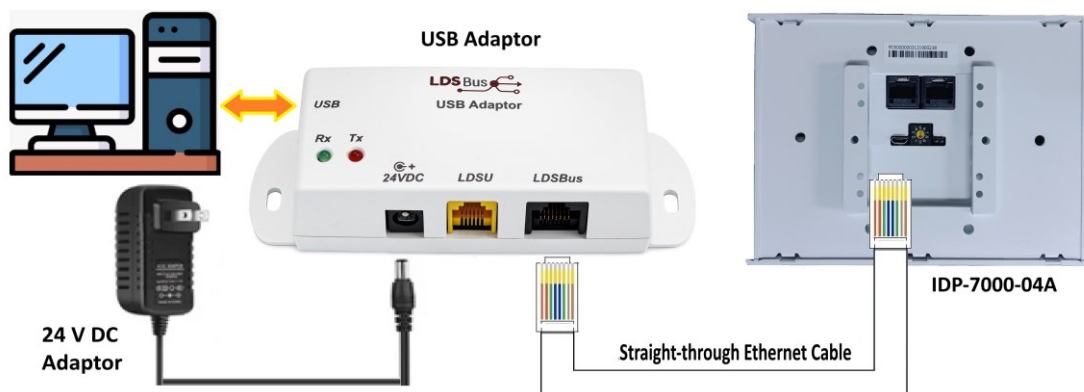
For development purposes, developers can use a BRTSys **LDS Bus USB Adaptor** designed for RS485 device applications. Refer to the purchase link below for the adaptor and an illustration in Figure 18.

- [BRTSys – LDS Bus USB Adaptor](#)



**Figure 18 - BRTSys LDS Bus USB Adaptor**

For connection details when using the adaptor, see Figure 19.



**Figure 19 - Connection to PC and Supply via LDS Bus USB Adaptor**

### **Method 2: Use of Power-over-Ethernet (PoE) Splitter**

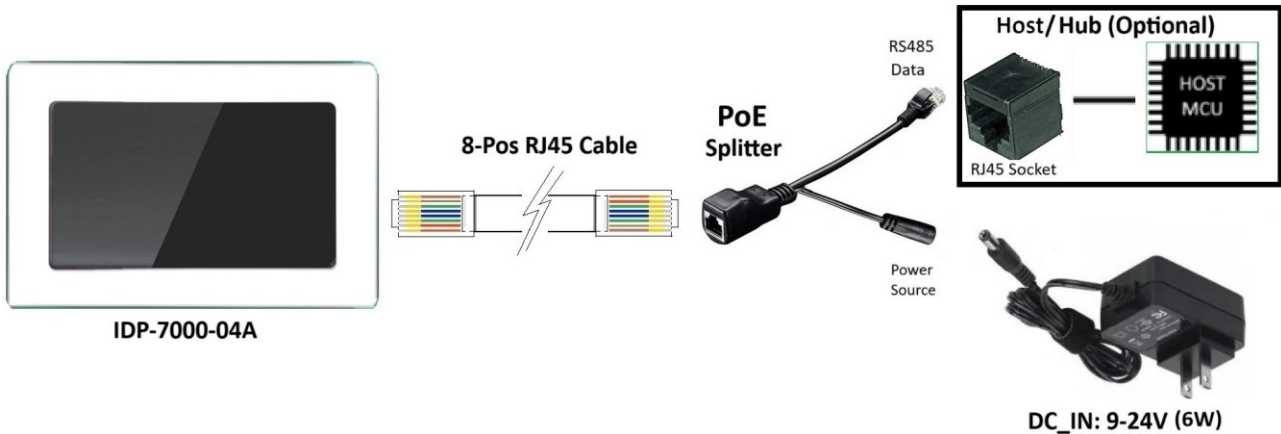
A **PoE splitter** can separate power and data, enabling connection to both a power source and a host controller. An illustration of the PoE splitter and purchase links are provided in Figure 20:

- [PoE Splitter - Digikey](#)
- [PoE Splitter- AliExpress](#)



**Figure 20 - PoE Splitter**

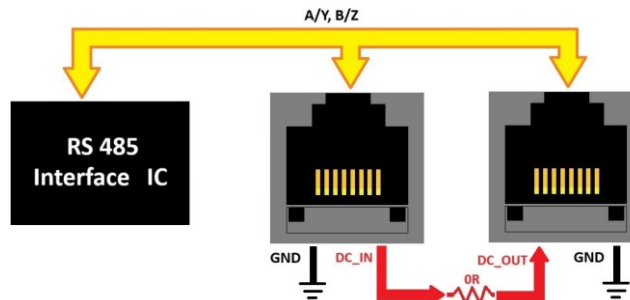
Refer to Figure 21 for connection details using a PoE splitter.



**Figure 21 - Connection to Host and Supply via PoE Splitter**

### 5.4.3 Port Connection

The RJ45 ports are interconnected, with their power lines shorted through a 0-ohm resistor and RS485 signals linked. When a power source or interface is connected to one port, it is automatically routed to the other. Refer to Figure 22 below for a simplified block diagram of the IDP-7000-04A's internal RJ45 connections.

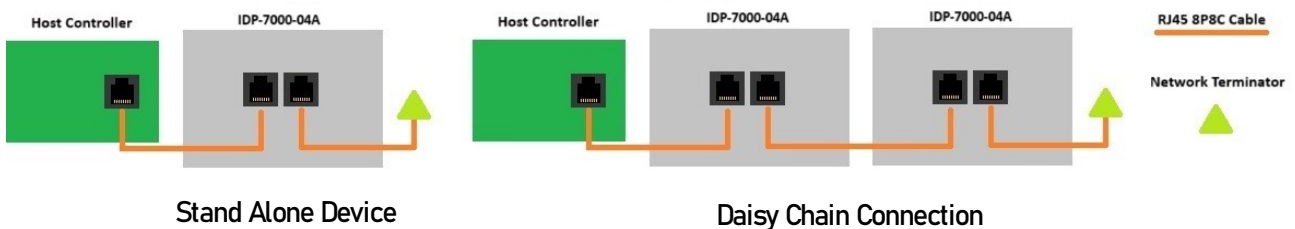


**Figure 22 - PCB Connections of RJ45 Ports**

**Caution:** Only one power source should be supplied at a time.

### 5.4.4 Port Termination

When used as a standalone device or as the last unit in a Daisy Chain configuration, attach the terminator to the last RJ45 port as illustrated in Figure 23.



**Figure 23 - Port Termination**

## 5.5 Integrated Smart RGB LED

A built-in smart RGB LED provides programmable status indications. Positioned on the module's side (**Error! Reference source not found.**), it operates using a 24-bit color signal controlled via clock and data inputs.

## 5.6 ID Switch

Located on the module's back (Figure 16), the ID switch enables custom configurations or the use of the default factory setting (zero). It facilitates device management in multi-device setups and boot mode configurations.

## 5.7 Reset Button

The module features a reset button on the side (**Error! Reference source not found.**). The reset function can be activated by pressing through the designated hole.

## 5.8 Micro USB

A micro USB connector serves as the USB communication interface for the FT903 microcontroller. For detailed setup instructions, refer to section 8 [Software Setup Information](#).

## 5.9 One Wire Debug

The module includes a one-wire debug function accessible via a 2-position header on the back (Figure 16), connecting to the microcontroller. This mode supports code, firmware, and bootloader downloads to the NOR flash. Refer to section 8 [Software Setup Information](#) for installation details.

## 5.10 Buzzer

The IDP-7000-04A display module includes an integrated buzzer circuit for event notifications.

## 5.11 Microphone

The IDP-7000-04A display module includes a built-in digital microphone for capturing audio signals. The microphone module and its acoustic opening are positioned on the side of the display module (see **Error! Reference source not found.**).

Data input of the microphone is converted by Analog Devices [ADAU7002](#) Pulse Density Modulation (PDM) to I<sup>2</sup>S/TDM format for recording by MCU.

## 6 Specifications

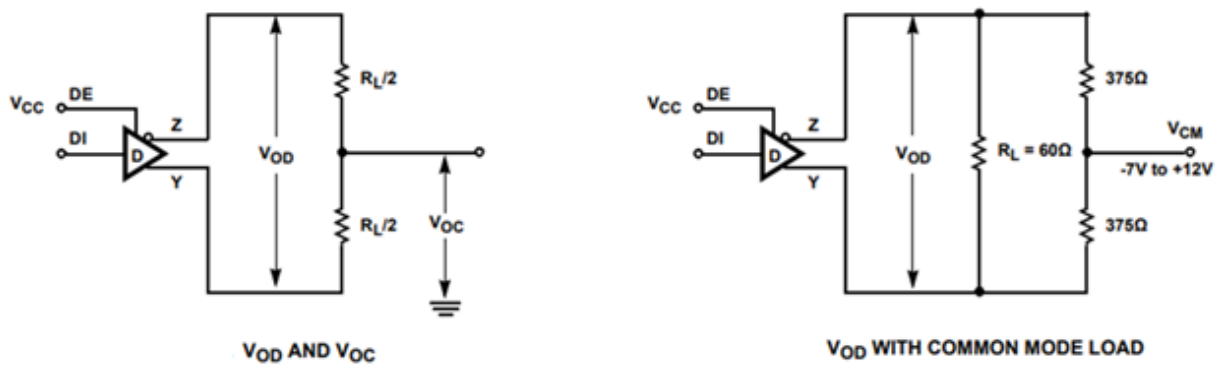
### 6.1 Electrical Specifications

Parameter		Min	Typ	Max	Unit
DC_IN	Input voltage range	9	24.0	28	V
DC_OUT	Output voltage range	-	DC_IN	-	V
Icc_12V	Operating current, DC_IN=12V: Normal *Note	-	320	-	mA
V <sub>OD1</sub>	Driver Differential VOUT (no load)	-	-	3.3	V
V <sub>OD2</sub>	Driver Differential VOUT (with load)				
	RL=100Ω (RS-422) (Figure 24)	2	2.7	-	V
	RL = 54Ω (RS-485) (Figure 24)	1.5	2.3	3.3	
	RL = 60Ω, -7V ≤ VCM ≤ 12V	1.5	2.6	-	
ΔV <sub>OD</sub>	Change in Magnitude of Driver Differential VOUT for Complementary Output States RL = 54Ω or 100Ω (Figure 24)	-	0.01	0.2	V
V <sub>OC</sub>	Driver Common-Mode VOUT RL = 54Ω or 100Ω (Figure 24)	-	1.8	3	V
ΔV <sub>OC</sub>	Change in Magnitude of Driver Common-Mode VOUT for Complementary Output States RL = 54Ω or 100Ω (Figure 24)	-	0.01	0.2	V
Temperature	Operating temperature	0	-	55	°C
	Storage temperature	0	-	70	

**Table 12 - Operating Voltage and Current**

**Note:** Measurement taken with the screen turned on.

#### Test Circuits



**Figure 24 - DC Driver Test Circuits**

### 6.2 Optical Specifications

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Brightness	Bp	$\theta=0^\circ$	-	420	-	Cd/m <sup>2</sup>

Uniformity	$\Delta Bp$		$\square=0^\circ$	75	-	-	%
Viewing Angle	3:00		$Cr \geq 10$	-	65	-	Deg
	6:00			-	65	-	
	9:00			-	65	-	
	12:00			-	65	-	
Contrast Ratio	Cr		$\theta=0^\circ$	300	500	-	-
Response Time	Tr +Tf		$\square=0^\circ$	-	10	-	ms
Color of CIE Coordinate	W	x	$\theta=0^\circ$ $\square=0^\circ$	-	0.28	-	-
		y		-	0.33	-	-
	R	x		-	0.51	-	-
		y		-	0.34	-	-
	G	x		-	0.31	-	-
		y		-	0.56	-	-
	B	x		-	0.15	-	-
		y		-	0.14	-	-
NTSC Ratio	S			50	60	-	%

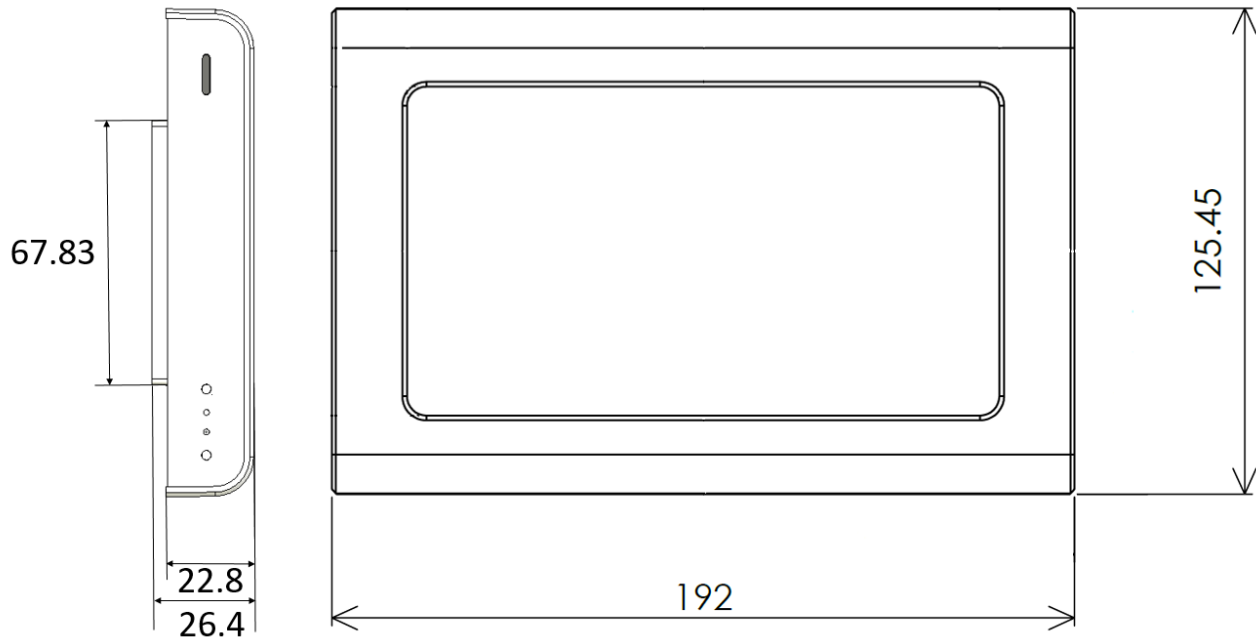
**Table 13 - Optical Specifications**

**Note:** The parameter is slightly changed by temperature, driving voltage and material.



## 7 Mechanical Dimensions and Mounting Guides

### 7.1 Dimensions



**Figure 25 - IDP-7000-04A Touch Display Dimensions**

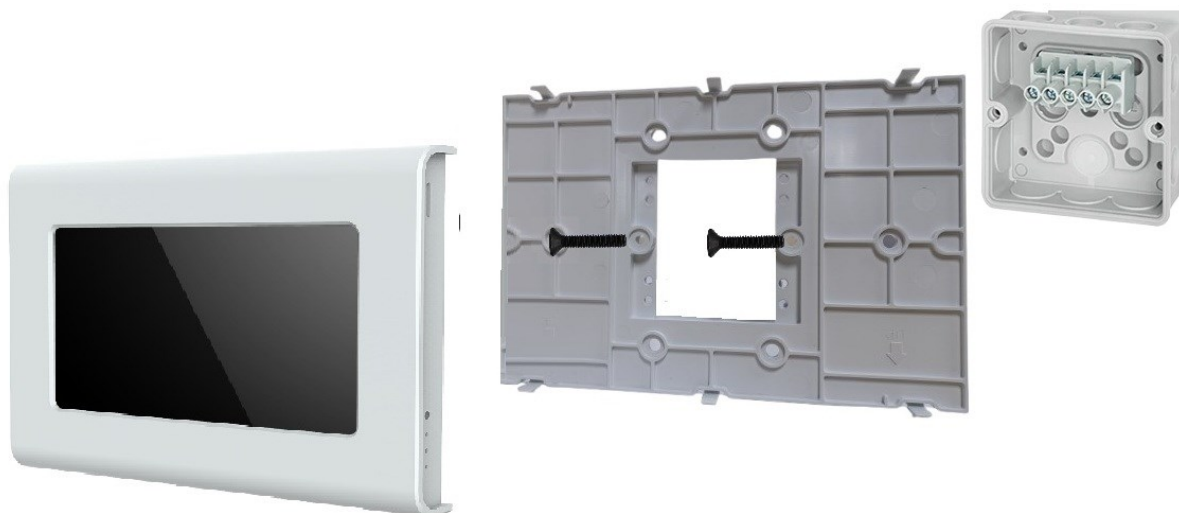
## 7.2 Mounting Guides

The following steps provide guidance on wall mounting the IDP-7000-04A module.

1. Secure the IDP-7000-04A back cover using one of the following methods:
  - Attach it to an Arlington LV2\* bracket with the provided self-tapping screws (3.5mm x 16mm, minimum length 12mm), refer to Figure 30.
  - Mount it onto a standard 86mm x 86mm x 40mm electrical junction box using screws (minimum length 12mm, maximum length 20mm, not included in package), refer to **Error! Reference source not found.**
2. Connect RJ45 8P8C cable and add a terminator, refer to Section [Error! Reference source not found.](#)
3. Install the front panel on back cover and secure the panel.



**Figure 26 - Arlington LV2 Mounting**



**Figure 27 - Electrical Junction Box Mounting**

*\*Arlington LV2 low voltage mounting bracket and electrical junction box are not part of the package. Electrical junction box screws not provided.*

## 8 Software Setup Information

### 8.1 Startup Test

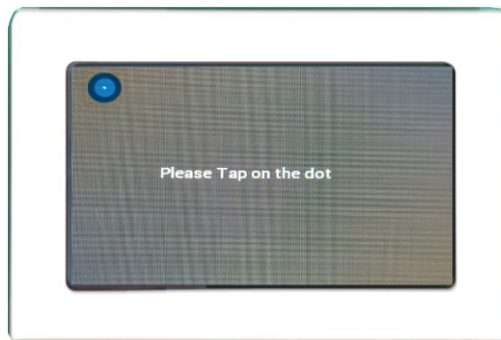
The device comes preloaded with default firmware stored in the integrated NOR-Flash. Follow these steps to perform an initial test of the set before flashing developers' own code.

#### **Step 1: Powering Up the Device**

Connect the device to power source via the RJ45 connector. For details, refer to section [5.4.2 Powering and Communication](#).

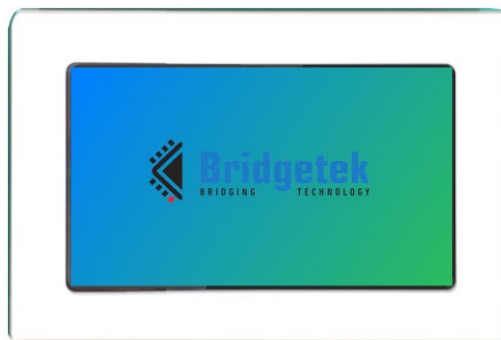
#### **Step 2: Touch Calibration**

When powered on, the display module's preloaded firmware will prompt the user to perform a touch calibration test, as shown in Figure 28. During calibration process, an audible beep tone will be activated. Complete the calibration as required for the application.



**Figure 28 - Touch Calibration**

Upon calibration, the Bridgetek company logo will be displayed as shown in Figure 29.



**Figure 29 - Bridgetek Logo**

Conducting this startup test ensures the device is operational before developers load their custom code.

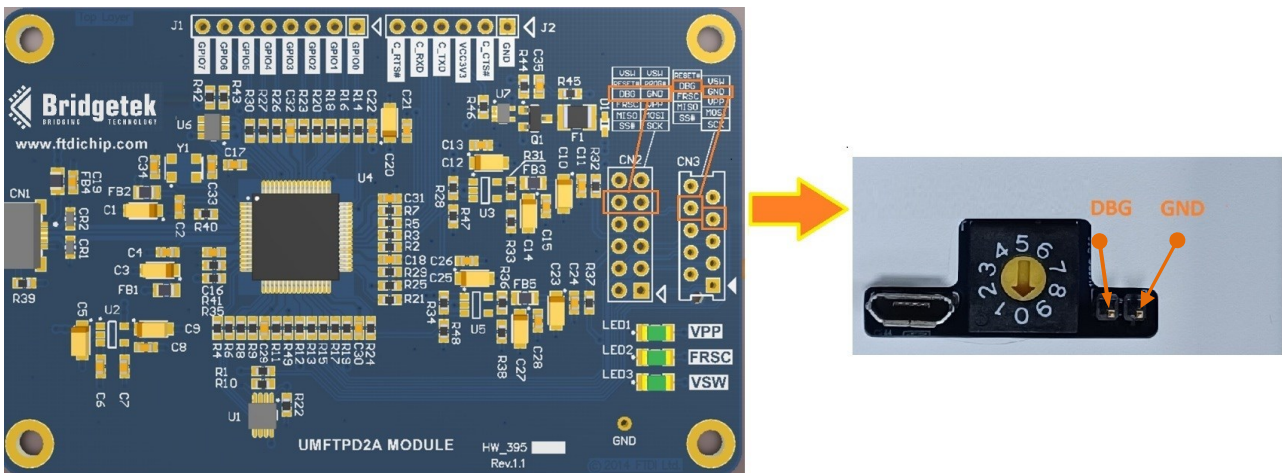
## 8.2 Firmware Download and Debugging Methods for FT903 MCU

There are two methods for downloading firmware and debugging with the FT903 MCU:

### **Method 1: One Wire Communication Mode**

This method requires additional hardware, specifically the UMFTPD2A programming module developed by Bridgetek, which supports downloading of firmware and debugging. For detailed information on the module and hardware pin definitions, refer to the [UMFTPD2A](#) link.

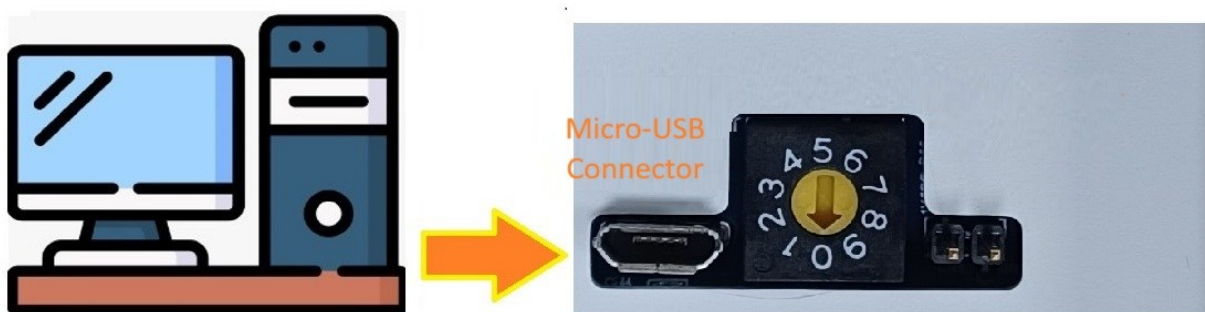
To establish the hardware connection, simply connect the **DBG** (CN2/CN3-8) and **GND** (CN2/CN3-7) pins from UMFTPD2A to the **One-Wire Debug** header pins of IDP-7000-04A display module, as shown in Figure 30.



**Figure 30 - One-Wire Debug Mode Hardware Connection**

### **Method 2: USB Communication Mode**

The USB-micro connector at the back of the module facilitates communication with the FT903 MCU. The application code can configure this USB port as either a **Device Firmware Upgrade (DFU)** port or a USB CDC serial port.



**Figure 31 - USB Mode Communication**

For more details, refer to the [FT9xx Programming-Debugging-and-Troubleshooting Guide](#).

### 8.3 Software Development Tools and Support

Bridgetek provides free and comprehensive software tools to simplify application development:

- **FT9XX Toolchain** - [Download here](#)
- **EVE Toolchain** - [Download here](#)

For example, projects, documentation, and additional support resources, please refer to the dedicated open-source repository:

<https://github.com/Bridgetek/>

## **9 Disclaimer Notice: Use of Third-Party Software or Websites**

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## 10 Warranty Statement

According to our after-sales policy, the warranty (if applicable) will be void under the following circumstances:

- The device has been damaged due to human factors, such as dropping, impact, water exposure, or unauthorized disassembly/modification
- The device has malfunctioned due to improper use, mishandling, or usage beyond its intended design.
- The device has been disassembled, repaired, or modified by unauthorized personnel.
- Any other conditions that do not comply with our warranty policy.

## 11 Contact Information

Refer to <https://brtchip.com/contact-us/> for contact information.

### **Distributor and Sales Representatives**

Please visit the Distribution Network – IC & Module (brtchip.com) page for the contact details of our distributor sales representative(s) in your country.

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## Appendix A - References

### Document References

[DS\\_FT903](#)

[DS\\_BT815](#)

### Acronyms and Abbreviations

Terms	Description
CTP	Capacitive Touch Panel
DFU	Device Firmware Upgrade
EVE	Embedded Video Engine
I/O	Input/Output
IC	Integrated Circuit
LCD	Liquid Crystal Display
LED	Light Emitting Diode
MCU	Microcontroller Unit
MIC	Microphone
NOR	NOT-OR
PCB	Printed Circuit Board
PCBA	Printed Circuit Board Assembly
RISC	Reduced Instruction Set Computer
RGB	Red, Green Blue
TFT	Thin Film Transistor
USB	Universal Serial Bus

## Appendix B - List of Figures and Tables

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## Appendix C – Revision History

Document Title: IDP-7000-04A Touch Display Module Datasheet  
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Product Page: <https://brtchip.com/product/idp-7000-04a>  
Document Feedback: [Send Feedback](#)

Revision	Changes	Date
Version 1.0	Initial Release	07-04-2025