# FUDA2 Multi-Touch Panel PC Series

Slim and Fan-less Projective Capacitive Touch Panel PC with Wide Temperature and Panel Mount Support Powered by Intel® Bay Trail Quad-core Processor

In IPC market, a robust and highly reliable Panel PC system is a must to ensure non-stop and stable operation on production line. By enhancing performance and power efficiency, FUDA2 Series is an ideal HMI solution for factory automation, CNC machine and food and beverage industry.

## Product Introduction

Powered by Intel® Atom™ platform, Bay Trail-I SoC processor E3845, which provides extended temperature and high I/O connectivity within 10W thermal design power (TDP), FUDA2 Panel PC is an ideal platform for applications like highly efficient and dedicated image signal processing with secure content delivery and visually appealing HMI thin clients.

Equipped with a high resolution panel and a sleek, responsive, multi-touch screen, FUDA2 Multi-Touch Panel PC comes with an IP65 rated front bezel and true-flat design. This allows the system to be operated in harsh environment. With its refined appearance, rugged mechanical chassis and multiple modular flexibility, FUDA2 Panel PC's application-oriented design provides customers an ideal HMI solution for factory automation applications.
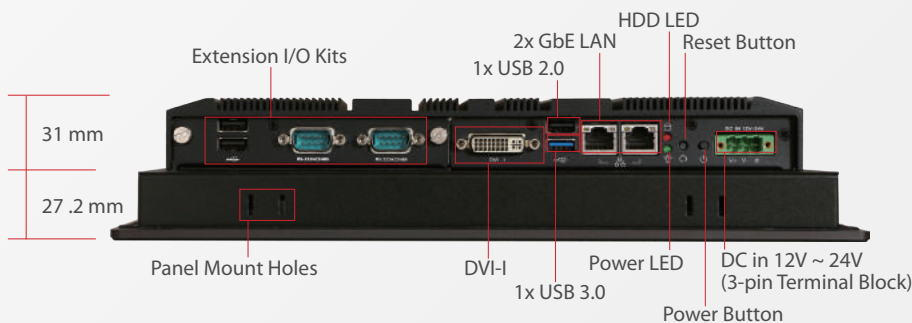
## ▌ Wide Operating Temperature Support with Fan-less Design

FUDA2 Panel PC takes advantage of Intel® Atom™ E3800 family to operate under extremely hot and cold conditions. Compared to most Panel PC in the market, the operating temperature of FUDA2 Panel PC can be as low as -25℃ or up to 70℃ in spite of its fan-less design. Moreover, the cable-less structure optimizes the thermal dissipation as well as makes it more durable in rugged environments.

70°C

-25°C

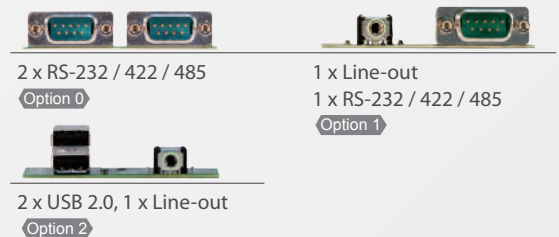## ▌ Flexible I/O for Industrial Environment

FUDA2 Panel PC features all required interfaces for industrial application: 12V ~ 24V DC input, dual LAN, multiple USB ports and RS-232/422/485 selectable in BIOS with auto-flow function. Different I/O extension kits can be chosen to serve different market demands.

Extension I/O Kits

HDD LED
2x GbE LAN
Reset Button
1x USB 2.0

31 mm

27 .2 mm

Panel Mount Holes
DVI-I
Power LED
DC in 12V ~ 24V
(3-pin Terminal Block)
1x USB 3.0
Power Button

* The picture of FUDA2-S1221

## I/O Options

### FUDA2 - S1021

2 x RS-232 / 422 / 485
Option 0

1 x Line-out
1 x RS-232 / 422 / 485
Option 1

2 x USB 2.0, 1 x Line-out
Option 2

### FUDA2 -S12/15/17/1921 & FUDA2-S1820

2 x USB 2.0
2 x RS-232 / 422 / 485
Option 0

1 x RS-232
2 x RS-232 / 422 / 485
Option 1

2 x USB 2.0, 1 x Line-out
1 x RS-232 / 422 / 485
Option 2
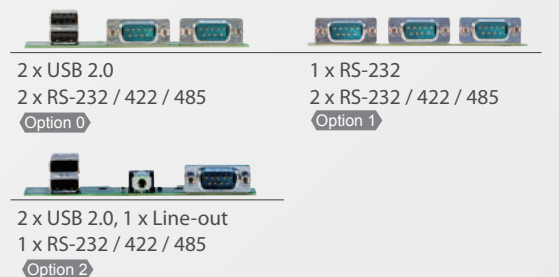
## ▌Projective Capacitive Touch Panel PC Becomes Popular in Factory Automation Application

Thanks to its robustness and easy operation, Panel PC with projective capacitive touch screen becomes a popular solution in the factory automation industry. With the latest touch screen technology, FUDA2 Multi-Touch Panel PC Series is responsive even when thick industrial gloves are worn and supports palm rejection. Moisture, contaminant, and cutting oil are common in an industrial environment, so it is important these materials don't cause any false actions to the machine. Last but not least, its excellent noise immunity makes it suitable in industrial application.

| Zoom | Pan | Rotate | Swipe | Scroll | Mulit-tap |
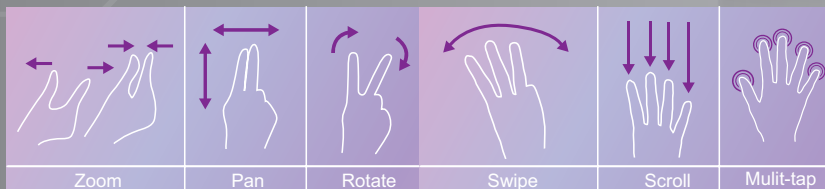
## ▌An Ideal HMI for Industrial Market

FUDA2 Multi-Touch Panel PC targets to apply in industrial environment. Designed to complied with UL 61010-2-201, which specifically addresses safety requirements and related verification tests for industrial control equipment, as well as the EMC directives for both industrial environment and information technology equipment like EN 55022, EN 55024, EN 61000-6-2, EN 61000-6-4, FUDA2 Multi-Touch Panel PC has proved itself an ideal HMI for industrial market by not only passing a variety of thorough and rigorous testing but also being verified by independent certified lab agent.

Water Proof

Oil Resistant

## Ordering Guide

| | |
|---|---|
| AL6-3222 | (R).ATO. FUDA2-S1021-0000-00.10.4" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC |
| AL6-3226 | (R).ATO. FUDA2-S1221-0000-00.12.1" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC |
| AL6-3227 | (R).ATO. FUDA2-S1521-0000-00.15" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC |
| AL6-3223 | (R).ATO. FUDA2-S1721-0000-00.17" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC |
| AL6-3209 | (R).ATO. FUDA2-S1921-0000-00.19" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC |
| AL6-3200 | (R).ATO. FUDA2-S1820-0000-02.18.5" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC |

## Product Features

intel Atom inside | Gloved Touch | Wide Temp. | Fan-less | P-CAP Touch | HDD/CF Easy ACCESS | Slim Panel | IP65 | Wide Voltage 12V-24V | VESA Mount | Panel Mount
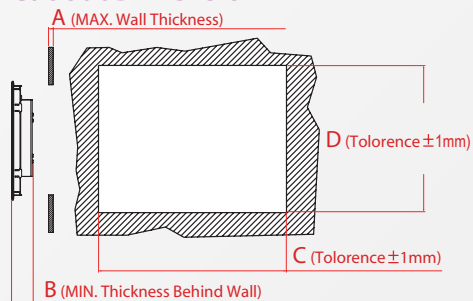
# Quick Selection Guide

FUDA2 Multi-Touch 10.4" / 12.1" / 15" / 17" / 19" / 18.5"

| Model Name | FUDA2-S1021 | FUDA2-S1221 | FUDA2-S1521 | FUDA2-S1721 | FUDA2-S1921 | FUDA2-S1820 |
|---|---|---|---|---|---|---|
| **Display** | | | | | | |
| LCD Size | 10.4" | 12.1" | 15" | 17" | 19" | 18.5" (16:9) |
| Resolution | XGA 1024 x 768 | XGA 1024 x 768 | XGA 1024 x 768 | SXGA 1280 x 1024 | SXGA 1280 x 1024 | 1366 x 768 |
| Brightness | 450 cd/m$^2$ | 600 cd/m$^2$ | 450 cd/m$^2$ | 350 cd/m$^2$ | 350 cd/m$^2$ | 350 cd/m$^2$ |
| Contrast Ratio | 3000:1 | 700:1 | 700:1 | 1000:1 | 1000:1 | 1000:1 |
| Backlight | LED type | LED type | LED type | LED type | LED type | LED type |
| Touch Screen | Projected Capacitive Multi-Touch (10 points) | | | | | (2 points) |
| **System** | | | | | | |
| SoC | Intel® Atom™ Quad-core E3845 (1.91 GHz) | | | | | |
| Memory | DDR3L 1333/1600 SO-DIMM up to 8GB | | | | | |
| BIOS | AMI | | | | | |
| Graphics | Intel® Gen 7 Graphics | | | | | |
| LVDS | Single/Dual Channel 24-bit | | | | | |
| LAN Chipset | Dual Intel® 1210IT Gigabit Ethernet (Support Jumbo Frame) | | | | | |
| Audio | Realtek® High Definition Audio Codec | | | | | |
| Watchdog Timer | Programmable 1 ~ 255 sec | | | | | |
| Storage Device | 1 x 2.5" SATA HDD/ SSD, 1 x Compact Flash II up to 64GB, 1 x SD card | | | | | |
| OS | Windows 7/ Windows 8.1/ Windows 10/ Linux™ | | | | | |
| **I/O Interface** | | | | | | |
| Series Port | 2 x RS-232/422/485 (Expansion: Option 0) | | | | | |
| Display | 1x DVI-I | | | | | |
| USB | 1 x USB 2.0, 1 x USB 3.0 | 1 x USB 2.0, 1 x USB 3.0, 2 x USB 2.0 (Expansion: Option 0) | | | | |
| Ethernet | 2 x Gigabit Ethernet | | | | | |
| Others | 1 x SMA Antenna hole for WiFi/3G Solution | | | | | |
| Expansion | 1 x Half mPCIe socket<br>1 x RS-232/422/485,<br>1 x Line-out (Option 1)<br>1 x Line-out, 2 x USB 2.0 (Option 2) | 1 x Half-size Mini-PCIe socket<br>2 x RS-232/422/485, 1 x RS-232 (Expansion: option 1)<br>1 x RS-232/422/485, 1 x Line-out, 2 x USB 2.0 (Expansion: option 2) | | | | |
| **Mechanical** | | | | | | |
| Dimesion(mm)(WxDxH) | 282 x 238 x 57.3 mm | 305 x 260 x 58.2 mm | 384 x 310 x 56.6 mm | 437 x 375 x 63.2 mm | 480 x 400 x 60.4 mm | 467 x 293 x 63.4 mm |
| Mounting (mm) | VESA Mount 75 x 75, 100 x 100; Panel Mount | | | | | |
| Weight (Kg)(N) | 3.5 Kg | 3.9 Kg | 5.1 Kg | 6.5 Kg | 7.6 Kg | 7 Kg |
| Weight (Kg)(G) | 5.8 Kg | 6 Kg | 7.8 Kg | 9.8 Kg | 11.5 Kg | 10.3 Kg |
| **Power** | | | | | | |
| Power Supply | DC 12V ~ 24V input with 3-pin terminal block connector | | | | | |
| Consumption (Max) | 41W(12V); 40W(24V) | 34W(12V); 34W(24V) | 39W(12V); 38W(24V) | 47W(12V); 46W(24V) | 40W(12V); 42W(24V) | 43W(12V); 45W(24V) |
| Consumption (Min) | 15W(12V); 16W(24V) | 13W(12V); 14W(24V) | 16W(12V); 17W(24V) | 14W(12V); 15W(24V) | 20W(12V); 21W(24V) | 23W(12V); 23W(24V) |
| **Environmental** | | | | | | |
| OP /Storage Temp | -25°C ~ 70°C / -40°C ~ 85°C (20 ~ 90% non-condensing) | | | | | 0°C ~ 50°C /<br>-20°C ~ 60°C |
| Vibration | 1.0G(SD/CF/SSD) and 0.5G(HDD) , Power on & 2.16G, Packaged; 5~500Hz, IEC 60068-2-6 | | | | | |
| Shock | 15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27 | | | | | |
| Drop | Packaged with Carton 96.5cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard | | | | | |
| IP Protection | IP65 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard | | | | | |
| Certificate | UL/CE/FCC Class A | | | | | |

## Cut out Dimension



A (MAX. Wall Thickness)
D (Tolorence ±1mm)
C (Tolorence ±1mm)
B (MIN. Thickness Behind Wall)

## FUDA2 Multi-Touch

| | A (mm) | B (mm) | C (mm) | D (mm) | Mounting Kits (pcs) |
|---|---|---|---|---|---|
| FUDA2-S1021 | <10 | 52.5 | 265 | 222 | X 8 |
| FUDA2-S1221 | <10 | 52.4 | 289 | 244 | X 8 |
| FUDA2-S1521 | <7 | 50.6 | 367 | 293 | X 14 |
| FUDA2-S1721 | <8 | 57.4 | 420 | 358 | X 16 |
| FUDA2-S1921 | <7.8 | 52.6 | 463 | 383 | X 20 |
| FUDA2-S1820 | < 10.7 | 58.1 | 452 | 277 | X 16 |