

# Embedded Industrial Panel PC

12.1" Sheet-Metal Backpack Industrial Panel PC

**Model: HC121RPC**



The LFTouch embedded industrial panel PC is built for kiosks, machinery HMIs and self-service terminals. The enclosure combines a tempered glass front, aluminum-profile frame and a cold-rolled steel rear backpack (silver / black optional). It supports embedded, wall-mount, desktop and VESA arm installation, with floor-stand, hanging and adjustable mounts available as options.

## Highlights

### G+G 10-Point Capacitive Touch

Responsive projected-capacitive touch with over 50 million touches lifetime,  $\geq 6H$  surface hardness and  $\geq 85\%$  light transmittance — operated by finger or conductive stylus.

### Flexible Embedded Mounting

Sheet-metal backpack design for embedded cabinet installation, plus wall-mount, desktop and VESA arm options; floor-stand, hanging and adjustable mounts available.

### Power & Environment

12V 5A external power adapter, 0–50 °C operating and -10–60 °C storage temperature; wide-voltage module available as an option.

### Intel Core or Android Platform

Five Intel Core option tiers from 3rd Gen i3 up to 10th Gen i7, or an optional Android board (RK3288 / RK3568 / RK3576 / RK3588) with 1 TOPS NPU.

### Rich, Expandable I/O

1×LAN, 2×COM, 4×USB, VGA, LINE OUT and MIC as standard; LAN expandable to 2, COM to 6 (RS232/RS485), USB to 6, plus wide-voltage, GPIO, LPT and aviation-connector options.

### Customization Options

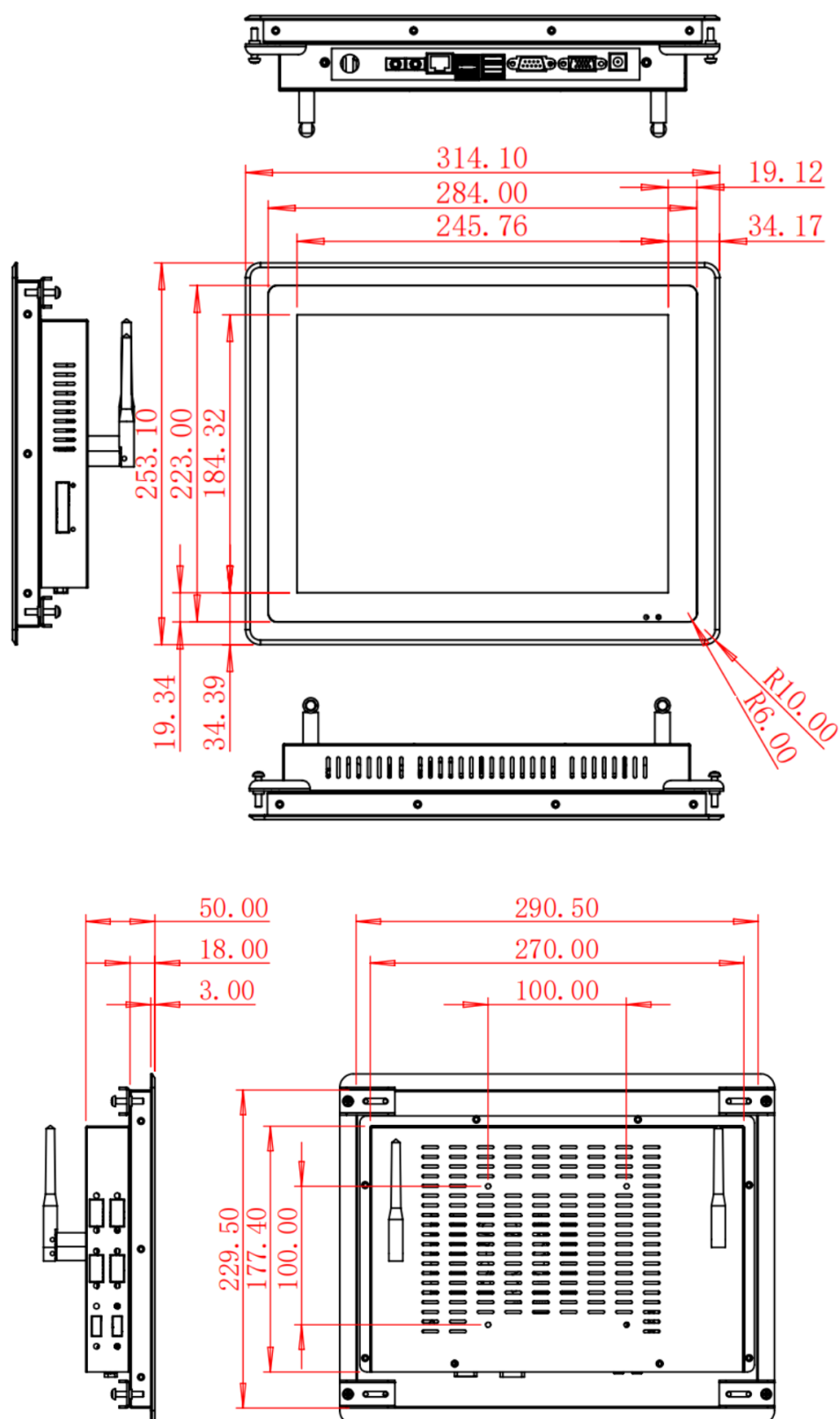
Custom colors and silk-screen logo, high-brightness display option, and memory / SSD upgrades across the range.

## Product Specifications

| GENERAL                  |                                                                                                                                                                                                                                                                          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                    | HC121RPC                                                                                                                                                                                                                                                                 |
| Screen Size              | 12.1"                                                                                                                                                                                                                                                                    |
| Overall Dimensions       | 314.1×253.1×50                                                                                                                                                                                                                                                           |
| Cutout Dimensions        | 284×223 mm R10                                                                                                                                                                                                                                                           |
| Packing Dimensions       | 360×110×315 mm                                                                                                                                                                                                                                                           |
| Housing Material         | Tempered glass front, aluminum-profile sides, cold-rolled steel rear backpack (silver / black optional)                                                                                                                                                                  |
| WINDOWS SPECS (OPTIONAL) |                                                                                                                                                                                                                                                                          |
| CPU                      | Intel Core™ 3rd Gen i3-3217UE / i5-3317U; 4th Gen i3-4010U / i5-4200U / i7-4500U; 6th Gen i5-6200U / 8th Gen i7-8550U; 10th Gen i5-10210U / i7-10510U                                                                                                                    |
| Memory                   | 4GB DDR3L 1333MHz (upgradeable to 8GB / 16GB)                                                                                                                                                                                                                            |
| Storage                  | 64GB SSD (upgradeable to 128GB / 256GB / 512GB; optional additional 2.5" HDD)                                                                                                                                                                                            |
| Graphics / Network       | Intel HD Graphics integrated GPU; Realtek RTL8111F Gigabit Ethernet                                                                                                                                                                                                      |
| Operating System         | Windows 7 / 8.1 / 10, Linux                                                                                                                                                                                                                                              |
| Wi-Fi (Optional)         | Wi-Fi and Bluetooth (optional)                                                                                                                                                                                                                                           |
| 4G (Optional)            | 4G function (optional)                                                                                                                                                                                                                                                   |
| I/O Ports                | 1×LAN / 2×COM / 4×USB / 1×VGA / 1×LINE OUT / 1×MIC (LAN expandable to 2, COM to 6, USB to 6)                                                                                                                                                                             |
| Speaker                  | Built-in 2W speaker                                                                                                                                                                                                                                                      |
| ANDROID BOARD (OPTIONAL) |                                                                                                                                                                                                                                                                          |
| CPU                      | Quad-core 32-bit Cortex-A55, up to 2.0GHz; board options: RK3288 / RK3568 / RK3576 / RK3588                                                                                                                                                                              |
| GPU                      | ARM Mali-G52 2EE GPU; supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1; built-in high-performance 2D hardware acceleration                                                                                                                                         |
| NPU                      | 1 TOPS computing power                                                                                                                                                                                                                                                   |
| Memory                   | 2GB (optional 4GB / 8GB)                                                                                                                                                                                                                                                 |
| Storage                  | 16GB (optional 32GB / 64GB / 128GB)                                                                                                                                                                                                                                      |
| Multimedia               | Supports 4K@60fps H.265/H.264/VP9 video decoding, 1080P@100fps H.265/H.264 encoding, and 8MP ISP; supports HDR and dual-screen mirroring                                                                                                                                 |
| Display Interface        | HDMI 2.0 up to 4K@60Hz; MIPI-DSI up to 1200×1920; 1×dual-8 LVDS + backlight interface up to 1920×1080; 1×IR receiver, 1×red LED, 1×green LED                                                                                                                             |
| Peripheral Interfaces    | 10/100M auto-negotiation Ethernet; 2.4G Wi-Fi and BT 4.1; 4×USB 2.0 host, 1×USB 3.0, 1×USB OTG; 2×TTL serial ports (TTL/RS232 optional), 1×debug serial port; 1×I2C, 4×GPIO; speaker interface up to two 8Ω 5W speakers; 1×Mic input, 1×headphone output, 1×audio output |
| LCD PANEL                |                                                                                                                                                                                                                                                                          |
| Resolution               | 1024 × 768                                                                                                                                                                                                                                                               |
| Aspect Ratio             | 4:3                                                                                                                                                                                                                                                                      |
| Brightness               | 350 cd/m²                                                                                                                                                                                                                                                                |
| Viewing Angle            | Full viewing angle                                                                                                                                                                                                                                                       |
| Colors                   | 16.7M                                                                                                                                                                                                                                                                    |

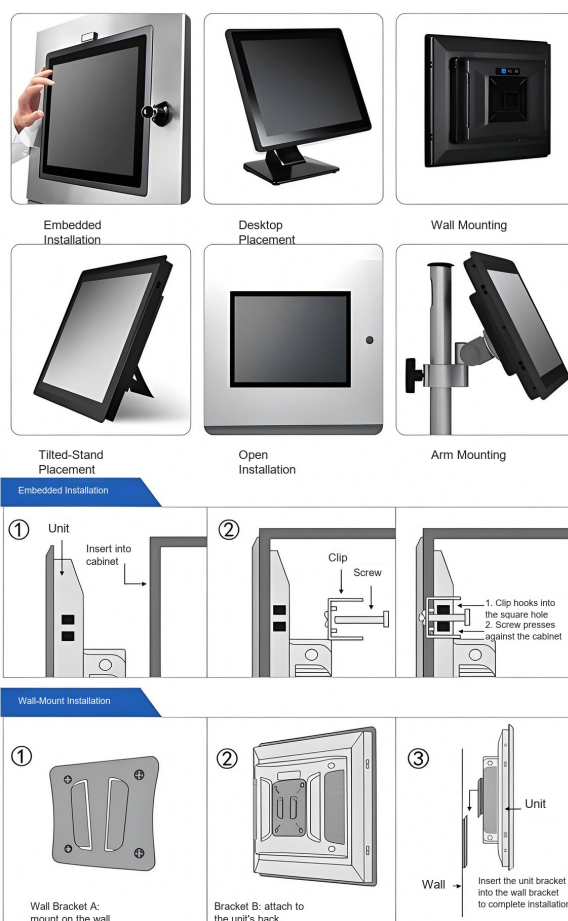
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| <b>Contrast Ratio</b>                 | 1000:1 (Typ.) (transmissive), 72% NTSC                                                                                                                       |
| <b>TOUCH SCREEN</b>                   |                                                                                                                                                              |
| <b>Touch Type</b>                     | G+G capacitive 10-point touch screen                                                                                                                         |
| <b>Input Method</b>                   | Operated by finger or conductive stylus                                                                                                                      |
| <b>Touch Life</b>                     | >50 million touches                                                                                                                                          |
| <b>Max Resolution</b>                 | 4096 × 4096                                                                                                                                                  |
| <b>Linearity Error</b>                | <2.5 mm                                                                                                                                                      |
| <b>Light Transmittance</b>            | ≥85%                                                                                                                                                         |
| <b>Surface Hardness</b>               | ≥6H                                                                                                                                                          |
| <b>ENVIRONMENT &amp; INSTALLATION</b> |                                                                                                                                                              |
| <b>Installation</b>                   | Embedded, wall-mount, desktop, VESA standard support arm                                                                                                     |
| <b>Power Supply</b>                   | 12V 5A external power adapter                                                                                                                                |
| <b>Operating Temperature</b>          | 0–50 °C                                                                                                                                                      |
| <b>Storage Temperature</b>            | -10–60 °C                                                                                                                                                    |
| <b>Operating Current</b>              | ≤5A                                                                                                                                                          |
| <b>UPGRADE OPTIONS</b>                |                                                                                                                                                              |
| <b>Memory</b>                         | Upgradeable to 4GB / 8GB / 16GB                                                                                                                              |
| <b>Storage</b>                        | SSD upgradeable to 128GB / 256GB / 512GB; optional additional 2.5" HDD                                                                                       |
| <b>Display</b>                        | High-brightness option available                                                                                                                             |
| <b>Appearance</b>                     | Custom colors / silk-screen logo                                                                                                                             |
| <b>Stand / Mount</b>                  | Optional floor stand, hanging mount, or adjustable mount                                                                                                     |
| <b>I/O Ports</b>                      | COM ports convertible from RS232 to RS485; additional COM, USB, LAN ports, wide-voltage module, aviation connector, LPT, GPIO and other interfaces available |
| <b>WHAT'S IN THE BOX</b>              |                                                                                                                                                              |
| <b>Accessories</b>                    | Industrial Panel PC × 1 · Power adapter × 1 · Power cord × 1 · Warranty card × 1 · User manual × 1                                                           |

## Schematics



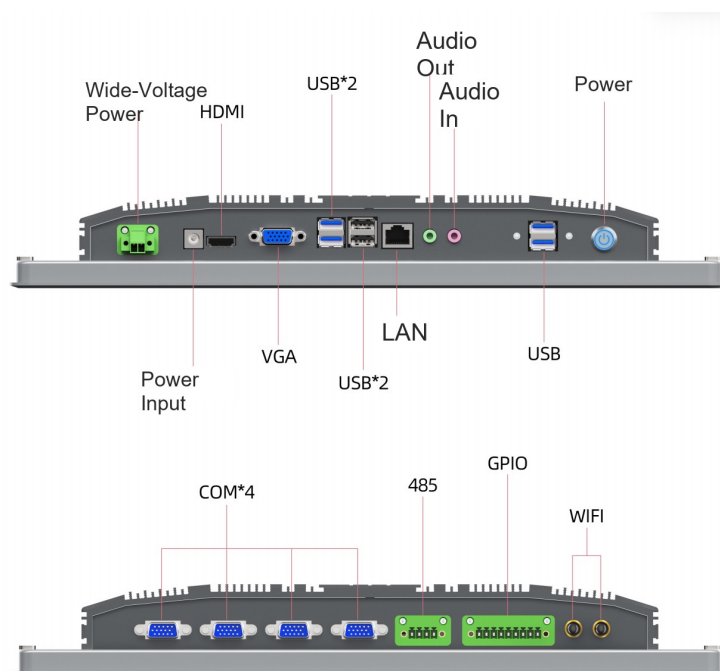
Dimension Drawings (Unit: mm)

## Installation Methods



Embedded / desktop / wall / tilted-stand / open / arm installation

## Terminal & I/O Interfaces



Standard I/O interface layout