



HIGHNESSTM

One of a kind

EMBEDDED DISPLAY

12.1" EMBEDDED PANEL PC

IDE121XG001-xx



Release Date
21st May 2021

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HIGHNESS MICROELECTRONICS LTD.

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1. Technical Specification

Screen Size		12.1" diagonal
Active Area (H x V)		245.76 x 184.32 mm
Resolution		1024 x 768
Aspect Ratio		4:3
Pixel Pitch (H x V)		0.24 x 0.24 mm
Color		16.2M
Viewing Angle (H, V)		160°/ 160°
Luminance		500 cd/m ²
Contrast		700:1
Response Time		35 ms
Operating Temperature		-10° to +60° C
Storage Temperature		-20° to +70° C
Built in System		Processor- Quad Core Cortex-A17, up to 1.8GHz RAM- 2GB DDR3 1600MHz (4GB Max) Built in 8GB Internal Storage (32 Max) I/O Port: USB2.0, I2C, GPIO, IR Comm.: Serial, UART TTL
Operating System Support	Android	Lollipop, Marshmallow, Nougat & Oreo (Version)
	Linux	Linux (18.04) with kernel version 4.4.154
Supported Formats	Video Format	H.264, MPEG-4, MPEG-2, MPEG-1, H.263, AVI, MP4, DIV, TS, TP, TRP, MKV, MOV, DAT, ASF, WMV, RM, RMVB.
	Image Format	JPEG, PNG
	Music Format	MP3, MP2, WMA, WAV
Network		Wi-Fi (up to 100 Mbps) Ethernet (100-1000 Mbps) Bluetooth
Power Input		12V DC
Power Consumption		27W Max (Approx.)
Backlight Type		LED
Enclosure		Mild Steel / Aluminum
Mounting		VESA standard

2. Touch Screens (Optional)

2.1 Projected Capacitive Touchscreen

Touch Screen Type	Projected Capacitive (Multi Touch)
Input Method	Finger
Transparency	$\geq 80\%$ ($\pm 3\%$)
Haze	$< 3\%$
Surface Type	Antiglare
Operating Force	10-80 g
Durability	3,000,000 Touch at a Single Point
Hardness	$> 3H$
Capacitance	$< 5\text{ Nf}$
Supported OS	Linux & Android

2.2 Resistive Analog Touchscreen

Touch Screen Type	4/5 Wire Resistive
Interface	USB
Input Method	Stylus or Finger
Transparency	$\geq 85\%$ ($\pm 3\%$)
Haze	$< 3\%$
Surface Type	Antiglare
Operating Force	70-100 g
Durability	1,000,000 Touch at a Single Point
Hardness	$> 3H$
Supported OS	Linux

Model Numbers / Ordering Information

Model No.	Particulars	Details
IDE121XG001	Base Model	-
IDE121XG001-LN	Linux Base Model	With Linux OS
IDE121XG001-AD	Android Base Model	With Android OS
IDE121XG001-xx-PT	Touch Screens	Projected Capacitive Touch Screen
IDE121XG001-xx-RT		4 Wire Resistive Analog
IDE121XG001-xx-5RT		5 Wire Resistive Analog

(Manufacturer reserves the sole right to change the specifications without prior notice)
(Touch screen will reduce the original luminance of the LCD display)