

# KS156-AL

Atom

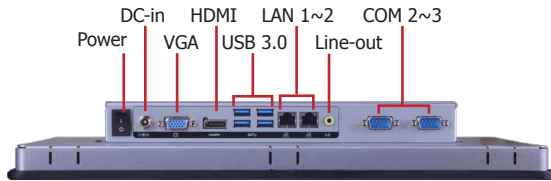


## Features

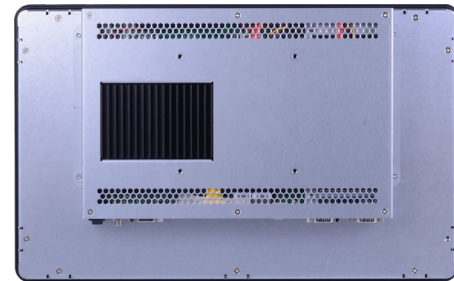
- 15.6" 1366x768 TFT LCD Panel with Touch Screen
- 1x 2.5" SATA drive bay
- IP65 Front Panel Protection
- VESA/Panel Mount
- Rich I/O: 2 LAN, 2 COM, 4 USB 3.0



## Panel

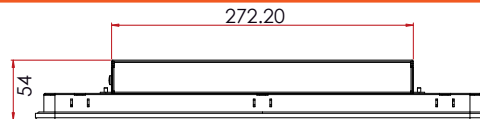


Bottom View



Rear View

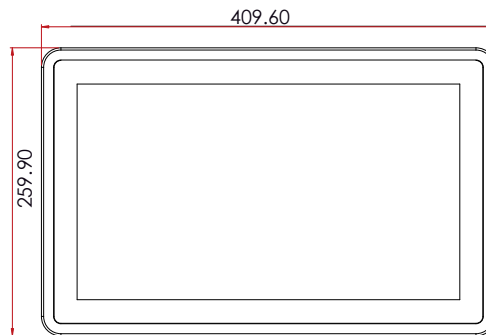
## Dimensions



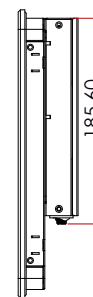
Top View



Left View



Front View



Right View

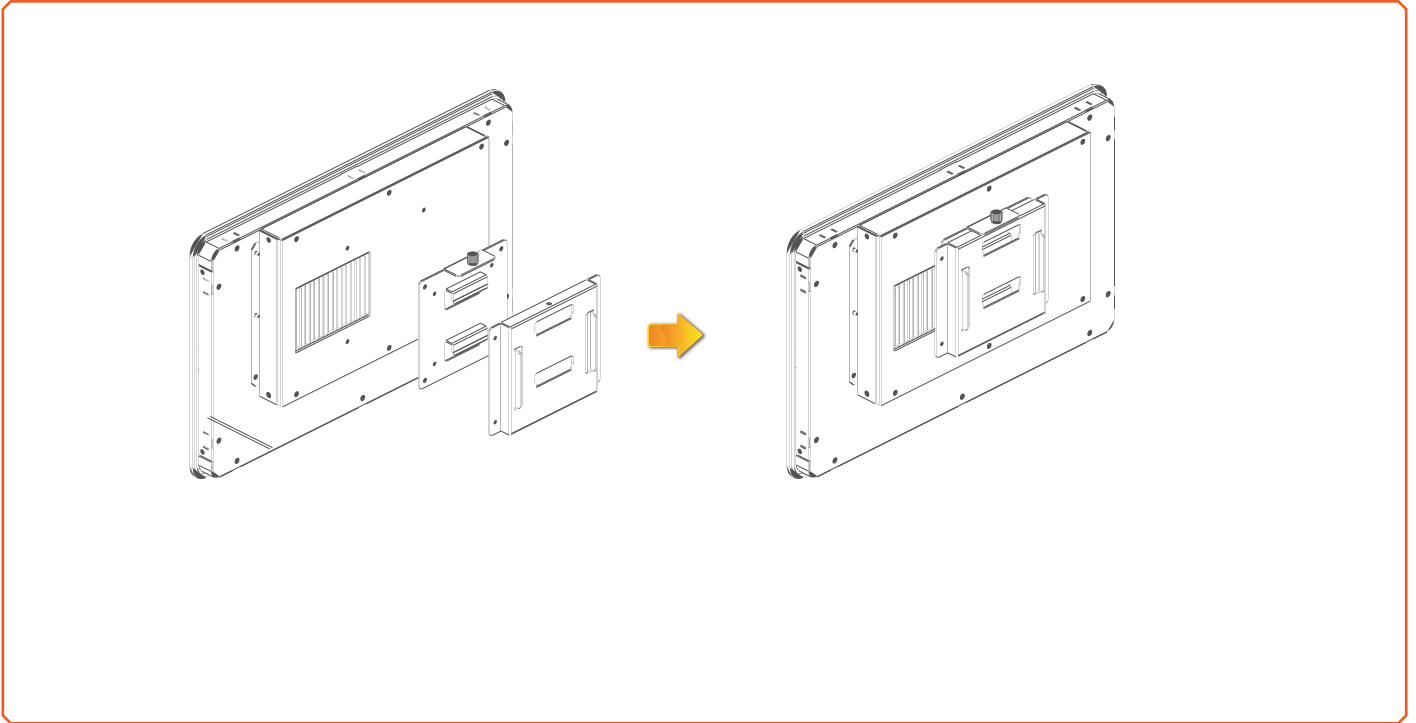


Bottom View

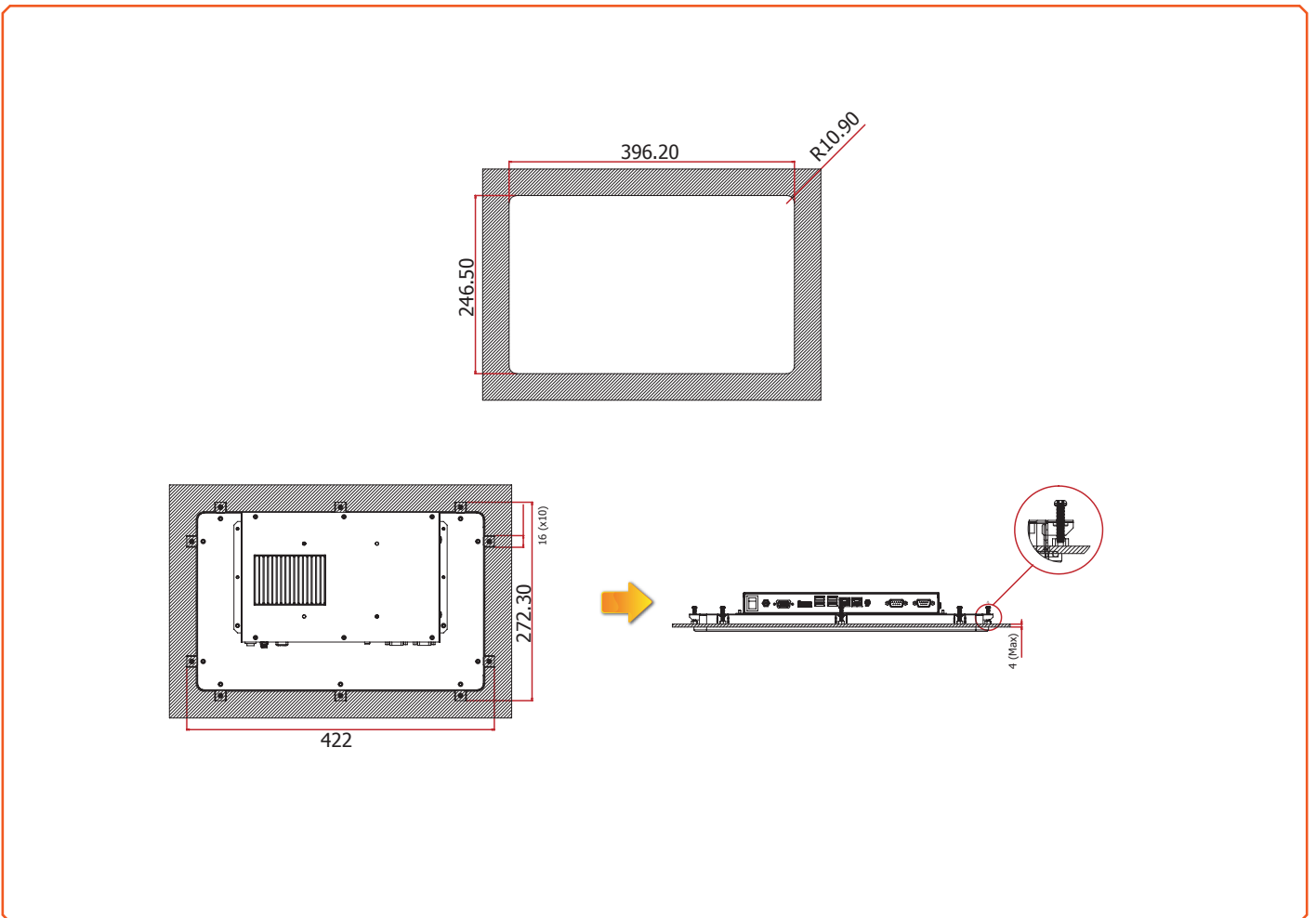
## Specifications

<b>SYSTEM</b>	<b>Processor</b>	Intel Atom® Processor E3900 Family, BGA 1296 Intel Atom® x5-E3940 Processor, Quad Core, 2M Cache, 1.6GHz (1.8GHz), 9.5W Intel® Pentium® Processor N4200, Quad Core, 2M Cache, 1.1GHz (2.5GHz), 6W
	<b>Memory</b>	Two 204-pin SODIMM up to 16GB Dual Channel DDR3L 1867MHz
	<b>BIOS</b>	Insyde SPI 64Mbit
<b>DISPLAY AND TOUCH SCREEN</b>	<b>Display</b>	15.6" 1366x768 TFT LCD Panel with Capacitive/5-Wire Resistive Touch Screen
	<b>Brightness</b>	400 cd/m <sup>2</sup>
	<b>Contrast</b>	500:1
	<b>Backlight Lifetime</b>	50,000 hours
<b>GRAPHICS</b>	<b>Controller</b>	Intel® HD Graphics
	<b>Feature</b>	OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H.265, VP8, VP9, MVC HW Encode: AVC/H.264, JPEG/MJPEG, HEVC/H.265, VP8, VP9, MVC
	<b>Display</b>	1 x VGA 1 x HDMI VGA: resolution up to 1920x1200 @ 60Hz HDMI: resolution up to 3840x2160 @ 30Hz
	<b>Dual Displays</b>	HDMI + VGA
<b>STORAGE EXPANSION</b>		1 x 2.5" SATA 2.0 Drive Bay
<b>AUDIO</b>	<b>Interface</b>	1 x PCIe x1 (Gen 2) 1 x M.2 1 x Full-size Mini PCIe (PCIe/USB) 1 x SIM Socket
	<b>Audio Codec</b>	Realtek ALC888 5.1-channel
	<b>Controller</b>	2 x Intel® I210AT PCIe (10/100/1000Mbps)
	<b>Indicators</b>	1 x Power LED 1 x HDD LED
<b>ETHERNET LED</b>	<b>Antenna Connectors</b>	2 x Antenna Hole for Wi-Fi or Cell Module
	<b>Ethernet</b>	2 x GbE (RJ-45) (10/100/1000Mbps)
	<b>Serial</b>	2 x RS-232/422/485 (DB-9)
	<b>USB</b>	4 x USB 3.0 (type A)
	<b>Display</b>	1 x VGA 1 x HDMI
	<b>Audio</b>	1 x Line-out
	<b>Buttons</b>	1 x Power Button
<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b>	System Reset, Programmable via Software from 1 to 255 Seconds
<b>POWER</b>	<b>Type</b>	12V DC 15V - 36V DC
	<b>Connector</b>	DC Jack
	<b>OS SUPPORT</b>	Windows 10 (64-bit) Yocto Project Fedora 24 (Intel Graphics Driver available) Ubuntu 16.04 (Intel Graphics Driver available)
<b>MECHANISM</b>	<b>Construction</b>	Sheet Metal
	<b>IP Rating</b>	IP65 Front Panel Protection
	<b>Mounting</b>	Panel/VESA Mount
	<b>Dimensions (W x H x D)</b>	409.6 mm x 259.9 mm x 54 mm (W x H x D)
	<b>Weight</b>	TBD
<b>ENVIRONMENT</b>	<b>Operating Temperature</b>	0 to 50°C
	<b>Storage Temperature</b>	-30 to 70°C
	<b>Relative Humidity</b>	5 to 85% RH (non-condensing)
<b>STANDARDS AND CERTIFICATIONS</b>	<b>Shock</b>	OP: Half-sine, 3G @ 11ms Non-OP: Half-sine, 5G @ 11ms
	<b>Vibration</b>	OP: Random, 1Grms @ 5~500Hz, 30min Non-OP: Sweep sine, 3Grms @ 10~500Hz, 30min
	<b>Certifications</b>	TBD

▶ VESA Mounting



▶ Panel Mounting



### ▶ Ordering Information

Model Name	Part Number	Description
<b>KS156R-ALDC12-4200</b>	TBD	15.6" Panel PC, AL171, Intel Pentium® N4200, 12V DC-in, 5-Wire Resistive Touch
<b>KS156P-ALWD36-3940</b>	TBD	15.6" Panel PC, AL173, Intel Atom® E3940, 15-36V DC-in, Capacitive Touch
<b>KS156P-ALWD36-4200</b>	TBD	15.6" Panel PC, AL173, Intel Pentium® N4200, 15-36V DC-in, Capacitive Touch

### ▶ Optional Items

Optional Items	Part Number	Description
<b>mSATA</b>	638-701603-110G	mSATA Card, 16GB MLC, RoHS
	638-703203-100G	mSATA Card, 32GB MLC, RoHS
<b>Memory</b>	138-340001-109G	DDR3L SO-DIMM 204-pin, 4GB
<b>Wi-Fi</b>	761-110091-000G	Wi-Fi kit, RoHS
<b>Power Cord</b>	332-700010-201G	Power cord, Standards (USA), 1.8m, RoHS
<b>Power Adapter</b>	671-106012-000G	60W, 12V/5A, Level 6, RoHS
<b>Panel Mount</b>	TBD	Panel PC Panel Mount Kit, RoHS

### ▶ Packing List

• 1 KS156-AL Touch Panel PC
• 1 Poron foam
• 1 Chassis Panel Mount Bracket
• 1 Quick Installation Guide