

Industrial Panel PCs & Displays

Our Rugged Industrial Panel PCs and Displays Empower Your Productivity



Our Rugged Industrial Panel PCs Empower Your Productivity

We provide diverse panel PCs with advanced display technologies to ensure stable performance in industrial environments. Equipped with our motherboard, this product family possesses high stability and reliability to fulfilling your various requirements in various industry fields.

Industrial Panel PCs & Displays Index

Fanless Touch Panel PC

K215P-TGU



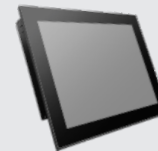
KS170-ADN



KS156-ADN



KS150-ADN



Size	Processor	Model Name	Page
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Expandable Touch Panel PC

TPC150-SD



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Modularized Touch Panel PC

KSM215-KH



KSM156-AL



KIT-ADN Series



KIT-M8M Series



Size	Processor	Model Name	Page
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	Intel Atom® Processor E3900	KSM215-AL	
19"	7th Gen Intel® Core™ Processor	KSM190-KH	P18
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	Intel® Atom® Processor E3900	KSM190-AL	
18.5"	7th Gen Intel® Core™ Processor	KSM185-KH	P19
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	Intel® Atom® Processor E3900	KSM185-AL	
17"	7th Gen Intel® Core™ Processor	KSM170-KH	P20
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	Intel® Atom® Processor E3900	KSM170-AL	
15.6"	7th Gen Intel® Core™ Processor	KSM156-KH	P21
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15"	7th Gen Intel® Core™ Processor	KSM150-KH	P22
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12.1"	Intel® Atom® Alder Lake-N Processors	KIT121P-ADN	P25
10.1"		KIT101P-ADN	
7"		KIT070P-ADN	
12.1"	NXP i.MX8M	KIT121P-M8M	P26
10.1"		KIT101P-M8M	
7"		KIT070P-M8M	

Industrial Display & Touch Display

IDP156-MS



Size	Processor	Model Name	Page
19"	-	IDP190-ME	P28
17"	-	IDP170-ME	
15.6"	-	IDP156-MS	
15"	-	IDP150-ME	
7"	-	IDP070-MS	

Application Specific Group

MDPi238



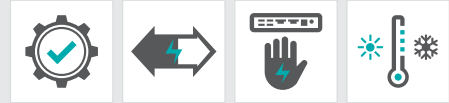
VP101-M8M



Size	Processor	Model Name	Page
Medical (Monitor)			
27"	-	MDPi270	P30
23.8"	-	MDPi238	
21.5"	-	MDPi215	
15.6"	-	MDP156	
In-vehicle			
10.1"	Intel® Atom® Processor E3800	VP101-BT	P31
	NXP i.MX8M	VP101-M8M	
7"	NXP i.MX8M	VP070-M8M	

Rugged Design

- Industrial-rated components with high MTBF over 100,000 hrs
- Extended operating temperatures
- High ESD protection for I/O ports
- Signal integrity measurement
- Wide range power design
- 100% Japanese-made solid capacitor
- Power hot plug protection for DC-in type SBC and Industrial Motherboards



Software Integration

- Embedded BIOS and OS customization services
- Windows licensing offerings
- Android, Linux distribution (Yocto/Ubuntu/CentOS/Debian)
- Embedded API
(Hardware Monitor, SMBus, I²C, Brightness Control, GPIO, Watchdog)
- Remote management utility

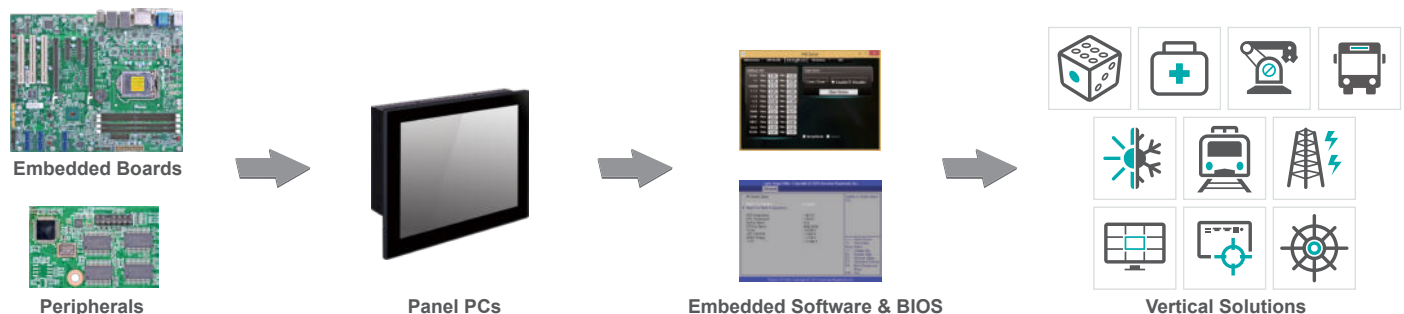


Embedded Total Solution

- Express customization service: 30 days (NRE cost: project based)
- Strict revision control
- Long product life cycle support
- High volume OEM/ODM production capabilities



We Provide a Total Solution Designed for Your Embedded Applications



x86



ARM



x86 & ARM Platform Support

- Supporting ARM platform (NXP series), and x86 platform (Intel® Core™ and Intel® Atom®) to fulfill different computing requirements
- Diverse operating system supports: Android, Windows, and Linux



Adaptive Display Platform

- Instantly building a solution by your demand: multiple-choice panel modules from 7" to 21.5", Intel® Core™ and Intel® Atom® box modules
- Lower ownership cost and higher upgraded capability with rugged design



Heavy-Duty



Bar Type



Fanless

Complete Panel Computing Solution

- Suited for diverse application scenarios: resistive & capacitive, high ingress protection, wide power input, and temperature resistance
- Product family includes: Fanless Panel PC, Heavy-Duty Panel PC, Bar Panel PC
- Sizes available from 7" to 42"

Fanless Touch Panel PC

Compact Design & Effective Computing



Features

We offer fanless industrial Panel PCs in compact design to satisfy various space-limited applications. Supporting x86 and ARM platform and embedded with rich I/O ports, the series is able to meet your different computing requirements. Certified with IP65 rating and powered by effective computing processors, light industrial Panel PCs are suited for home automation, kiosk, interactive information system, and healthcare computing solution.

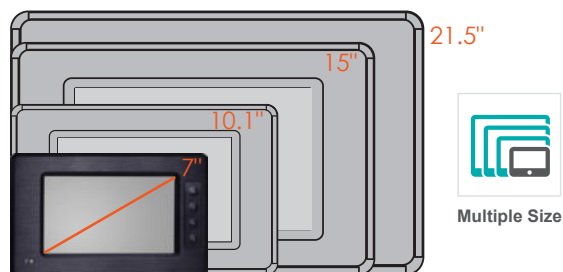
IP65 / IP66 Front Water Proof



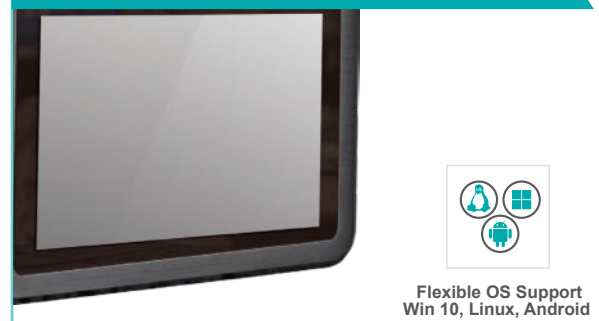
Fanless and Compact Design



Available in Several Sizes



Support Several Platforms and OS



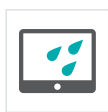


Fanless Touch Panel PC

KSX Series

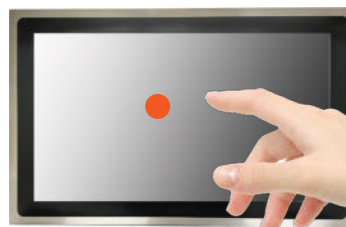
KSX series develops a full IP66 protective panel PC solution. KSX system is preventing the machine from dust accumulation and supports high-pressure water washing down with M12 connectors. It's highly designed for industrial applications including food, chemical and factory automation environments.

Full IP66 Protection



IP66 Rating

Projected Capacitive Touch



Available in Several Sizes



15.6"

21.5"



Multiple Size

Construction 304 stainless steel chassis



Waterproof M12 I/O ports





21.5"

21.5"

21.5"

Model Name		KS215P-TGU	KSX215P-EHL	KS215P-EHL
Platform		Intel® Core i	Intel® Celeron	Intel® Atom®
System	Processor	Intel® Core™ i5-1145GRE / Intel® Celeron® 6305E	Intel® Celeron J6413	Intel® Atom® x6425E / Intel® Atom® x6413E
	Socket	BGA1449	BGA1493	BGA1493
	Max. Speed	4.1GHz / 1.8GHz	3.0GHz	3.0GHz
	TDP	15W	10W	12W / 9W
	Cache	8M / 4M	1.5M	1.5M
	BIOS	AMI SPI 256Mbit	AMI SPI 128Mbit (support UEFI boot only)	AMI SPI 256Mbit (supports UEFI boot only)
Memory	Technology	Dual Channel DDR4 3200MHz	Dual Channel DDR4 3200MHz	Dual Channel DDR4 3200MHz
	Max. Capacity	64GB	32GB, 4GB built-in	32GB
	Socket	2 SODIMM	1 SODIMM	2 SODIMM
Display & Touch Screen	Display Type	21.5" PCAP TFT	21.5" PCAP TFT	21.5" PCAP TFT
	Max. Resolution	1920 x 1080	1920 x 1080	1920 x 1080
	Brightness	300 cd/m²	250 cd/m²	300 cd/m²
Graphics	Connector	1 DP++, 1 HDMI	-	1 DP++, 1 HDMI
Storage		1x 2.5" SATA 3.0 Drive Bay	128GB 3DTLC built-in	1x 2.5" SATA 3.0 Drive Bay
Expansion	Mini PCIe, M.2, PCIe, SIM	1 M.2 2242/2280 M Key, 1 M.2 2242/3042/3052 B Key, 1 M.2 2230 E Key	1 M.2 2242/2280/3052 B Key, 1 M.2 2230 E Key, 1 Nano SIM	1 M.2 2242/2280/3052 B Key, 1 M.2 2230 E Key, 1 Nano SIM
Audio	Audio Codec	Realtek ALC888	Realtek ALC888	Realtek ALC888
Ethernet	Controller	2 Intel® I211AT, 1 Intel® I225LM	2 Intel® I225LM	2 Intel® I225LM
LED	Indicators	Power	Power	Power
I/O	Ethernet	2 GbE, 1 2.5GbE	1 GbE (M12 8pin)	2 2.5GbE
	Serial	2 R-S232/422/485, 2 RS-232	1 RS-232/422/485 or RS-232 (M12 8pin)	2 RS-232/422/485, 2 RS-232
	USB	4 USB 3.2 Gen2, 1 USB Type-C	2 USB 2.0 (M12 8pin)	2 USB 3.2 Gen1, 2 USB 3.2 Gen2
	Display	1 DP++, 1 HDMI	-	1 DP++, 1 HDMI
	Audio	1 Line-out	-	1 Line-out
	DIO	-	-	-
	Buttons	Power Button	-	Power Button
	Wi-Fi Antenna	-	-	-
Power		9~36V DC-in	9~36V DC-in	9~36V DC-in
OS Support		Win10 IoT Enterprise & Linux	Win10 IoT Enterprise & Linux	Win10 IoT Enterprise & Linux
Mechanism	Construction	Plastic + Sheet Metal	304 Stainless steel chassis	Plastic + Sheet Metal
	IP Rating	IP65 Front Panel	Full IP66 & 69K	IP65 Front Panel
	Mounting	VESA Mount	VESA Mount	VESA / Panel Mount
	Dimensions (W x H x D)	521.8 x 323.8 x 61.1 mm	563 x 354 x 70 mm	521.8 x 323.8 x 54.1 mm
	Weight	7.4 kg	9.5 kg	7.0 kg
Environment	Operating Temp.	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C
	Relative Humidity	10% ~ 95% @ 40°C (non-condensing)	10% ~ 95% @ 40°C (non-condensing)	10% ~ 95% @ 40°C (non-condensing)



17"

15.6"

15.6"

Model Name		KS170-ADN	KS156P-TGU	KS156-ADN
Platform		Intel® Atom®	Intel® Core™ i	Intel® Atom® Intel® Core i™ (By Require)
System	Processor	Intel® Atom® x7425E Intel® Atom® x7213E	Intel® Core™ i5-1145GRE Intel® Celeron® 6305E	Intel® Atom® X7425e Intel® Atom® x7213E Intel® Processor N97 Intel® Core™ i3-N305 (By Require)
	Socket	BGA1493	BGA1449	x
	Max. Speed	3.4GHz	4.1GHz / 1.8GHz	3.60 GHz
	TDP	12W / 10W	15W	10W/12W
	Cache	6M	8M / 4M	6M
	BIOS	AMI SPI 256Mbit	AMI SPI 256Mbit	AMI SPI 256Mbit
Memory	Technology	Single Channel DDR5 4800MHz	Dual Channel DDR4 3200MHz	One 262-pin SODIMM up to 16G Single Channel DDR5 4800MHz
	Max. Capacity	16GB	64GB	16G
	Socket	1 SODIMM	2 SODIMM	1 SODIMM
Display & Touch Screen	Display Type	15" TFT	15.6" PCAP TFT	15.6" TFT LCD Panel
	Max. Resolution	1280 x 1024	1920 x 1080	1920 x 1080
	Brightness	350 cd/m²	400 cd/m²	500 (cd/m²)
Graphics	Connector	1 DP++, 1 HDMI	1 DP++, 1 HDMI	1 x DP++ , 1 x HDMI 2.0
Storage		1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 3.0 Drive Bay	1 x 2.5" SATA 3.0 Drive Bay
Expansion	Mini PCIe, M.2, PCIe, SIM	1 M.2 2242/3042/3052 B Key, 1 M.2 2240 E Key	1 M.2 2242/2280 M Key, 1 M.2 2242/3042/3052 B Key, 1 M.2 2230 E Key	1 x M.2 2242/3042/3052 B Key 1 x M.2 2230 E Key 1 x Nano SIM socket
Audio	Audio Codec	Realtek ALC888	Realtek ALC888	Realtek ALC888S
Ethernet	Controller	2 Intel® I226V	2 Intel® I211AT 1 Intel® I225LM	2 x Intel® I226V (10/100/1000/2500Mbps)
LED	Indicators	Power	Power	N/A
I/O	Ethernet	2 2.5GbE	2 GbE, 1 2.5GbE	2 x 2.5GbE
	Serial	2 RS-232/422/485, 2 RS-232	2 RS-232/422/485, 2 RS-232	"2 x RS-232/422/485 2 x RS-232"
	USB	3 USB 3.2 Gen2, 1 USB 2.0	4 USB 3.2 Gen2, 1 USB Type-C	3 x USB 3.2 Gen2 , 1 x USB 2.0
	Display	1 DP++, 1 HDMI	1 DP++, 1 HDMI	1 x DP++ , 1 x HDMI 2.0
	Audio	1 Line-out	1 Line-out	1 x line-out
	DIO	-	-	-
	Buttons	Power Button	Power Button	1 x Power Button
	Wi-Fi Antenna	-	-	-
Power		9~36V DC-in	9~36V DC-in	9-36V DC-in
OS Support		Win10 IoT Enterprise & Linux	Win10 IoT Enterprise & Linux	Windows 10 IoT Enterprise 64bit, Windows 11 . Linux
Mechanism	Construction	Aluminum Front Bezel + Sheet Metal	Plastic + Sheet Metal	Aluminum Front Bezel + Sheet Metal
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel Protection
	Mounting	VESA Mount	VESA Mount	VESA mount 100 x 100
	Dimensions (W x H x D)	TBD	392 x 256 x 58.7 mm	409 x 259 x 65.5 mm
	Weight	TBD	4.5 kg	6.2 Kg
Environment	Operating Temp.	0°C ~ 50°C	0°C ~ 50°C	0 ~ 50°C
	Relative Humidity	10% ~ 95% @ 40°C (non-condensing)	10% ~ 95% @ 40°C (non-condensing)	10 to 95% @ 40°C, non-condensing



15.6"



15.6"



15.6"

Model Name		KS156P-EHL	KS156-AL	KS156-BT
Platform		Intel® Atom®	Intel® Atom®	Intel® Atom®
System	Processor	Intel® Atom® x6425E Intel® Atom® x6413E	Intel® Atom® x5-E3940 Intel® Pentium® Processor N4200	Intel® Celeron® J1900
	Socket	BGA1493	BGA 1296	-
	Max. Speed	3.0GHz	2.5GHz / 1.8GHz	2.42GHz
	TDP	12W / 9W	9.5W / 6W	10W
	Cache	1.5M	2M	2M
	BIOS	AMI SPI 256Mbit (supports UEFI boot only)	Insyde SPI 64Mbit (supports UEFI boot only)	AMI SPI 64Mbit
Memory	Technology	Dual Channel DDR4 3200MHz	Dual Channel DDR3L 1867MHz	Single Channel DDR3L 1066MHz Dual Channel DDR3L 1333MHz
	Max. Capacity	32GB	8GB	4GB / 8GB
	Socket	2 SODIMM	2 SODIMM	1 SODIMM 2 SODIMM
Display & Touch Screen	Display Type	15.6" PCAP TFT	15.6" TFT Capacitive / 5-wire Resistive Touch	15.6" TFT Capacitive / Capacitive Touch Screen
	Max. Resolution	1920 x 1080	1366 x 768	1920 x 1080
	Brightness	400 cd/m²	400 cd/m²	400 cd/m²
Graphics	Connector	1 DP++, 1 HDMI	1 VGA, 1 HDMI	1 DVI-I
Storage		1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 2.0 Drive Bay, 1 mSATA (Shared by Mini PCIe Socket)
Expansion	Mini PCIe, M.2, PCIe, SIM	1 M.2 2242/2280/3052 B Key, 1 M.2 2230 E Key, 1 Nano SIM	1 Full-size Mini PCIe, 1 M.2 key	1 PCIe x1, 1 Mini PCIe, 1 SIM
Audio	Audio Codec	Realtek ALC888	Realtek ALC888 5.1-channel	Realtek ALC888
Ethernet	Controller	2 Intel® I225LM	2 Intel I210AT	2 Intel I210AT
LED	Indicators	Power	Power, HDD LED	Power, HDD LED
I/O	Ethernet	2 2.5GbE	2 GbE	2 GbE
	Serial	2 RS-232/422/485, 2 RS-232	2 RS-232/422/485	2 RS-232/422/485
	USB	2 USB 3.2 Gen1, 2 USB 3.2 Gen2	4 USB 3.2 Type A	1 USB 3.2, 2 USB 2.0
	Display	1 DP++, 1 HDMI	1 VGA, 1 HDMI	1 DVI-I
	Audio	1 Line-out	1 Line-out	1 Line-out
	DIO	-	-	-
	Buttons	Power Button	Power Button	Power Switch
	Wi-Fi Antenna	-	2 Holes	-
Power		9~36V DC-in	12V DC-in or 15~36V DC-in	19~24V DC-in
OS Support		Win10 IoT Enterprise & Linux	Win10 IoT & Fedora 24 & Linux	Win10 IoT
Mechanism	Construction	Plastic + Sheet Metal	Sheet Metal	Sheet Metal
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA / Panel Mount	Panel / VESA Mount	Panel / VESA Mount
	Dimensions (W x H x D)	392 x 256 x 51.7 mm	409.6 x 259.9 x 54 mm	409 x 259 x 65.5 mm
	Weight	4.1 Kg	6.17 kg	6.2 kg
Environment	Operating Temp.	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C (SSD)
	Relative Humidity	10% ~ 95% @ 40°C (non-condensing)	5% ~ 85% RH (non-condensing)	5% ~ 85% RH (non-condensing)



15"

15"

10.1"

Model Name		KS150-ADN	KS150-BT	KS101P-EHL
Platform		Intel® Atom®	Intel® Atom®	Intel® Atom®
System	Processor	Intel® Atom® x7425E Intel® Atom® x7213E	Intel® Atom® E3845 Intel® Atom® E3825	Intel® Atom® x6425E Intel® Atom® x6413E
	Socket	BGA1493	BGA 1170	BGA1493
	Max. Speed	3.4GHz / 3.2GHz	1.91GHz / 1.33GHz	3.0GHz
	TDP	12W / 10W	10W / 6W	12W / 9W
	Cache	6M	2M / 1M	1.5M
	BIOS	AMI SPI 256Mbit	AMI SPI 64Mbit	AMI SPI 256Mbit (supports UEFI boot only)
Memory	Technology	Single Channel DDR5 4800MHz	Single Channel DDR3L 1066MHz Dual Channel DDR3L 1333MHz	Single Channel DDR4 3200MHz
	Max. Capacity	16GB	4GB / 8GB	32GB
	Socket	1 SODIMM	1 SODIMM 2 SODIMM	1 SODIMM
Display & Touch Screen	Display Type	15" TFT	15" TFT Capacitive/ 5-wire Resistive TFT	10.1" PCAP TFT
	Max. Resolution	1024 x 768	1024 x 768	1280 x 800
	Brightness	300 cd/m²	250 cd/m²	500 cd/m²
Graphics	Connector	1 DP++, 1 HDMI	1 DVI-I	1 DP++, 1 VGA
Storage		1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 2.0 Drive Bay	1x 2.5" SATA 3.0 Drive Bay
Expansion	Mini PCIe, M.2, PCIe, SIM	1 M.2 2242/3042/3052 B Key, 1 M.2 2240 E Key	1 Full-size Mini PCIe	1 Mini-PCIe, 1 M.2 2230 E Key
Audio	Audio Codec	Realtek ALC888	Realtek ALC888	Realtek ALC888
Ethernet	Controller	2 Intel® I226V	2 Intel® I210	2 Intel® I225IT
LED	Indicators	Power	Power, HDD LED	Power
I/O	Ethernet	2 2.5GbE	2 GbE	2 GbE
	Serial	2 RS-232/422/485, 2 RS-232	3 RS-232/422/485, 1 RS-232	1 RS-232/422/485, 1 RS-232
	USB	3 USB 3.2 Gen2, 1 USB 2.0	1 USB 3.2, 2 USB 2.0	2 USB 3.2 Gen2, 2 USB 2.0
	Display	1 DP++, 1 HDMI	1 DVI-I	1 DP++, 1 VGA
	Audio	1 Line-out	1 Line-out	1 Line-out
	DIO	-	-	-
	Buttons	Power Button	Power Switch	Power Button
	Wi-Fi Antenna	-	-	-
Power		9~36V DC-in	12V DC-in	9~36V DC-in
OS Support		Win10 IoT Enterprise & Linux	Win7 & Win8 & Linux	Win10 IoT Enterprise, Linux
Mechanism	Construction	Aluminum Front Bezel + Sheet Metal	Aluminum Front Bezel	Aluminum Front Bezel
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA Mount	Panel / VESA Mount	VESA Mount
	Dimensions (W x H x D)	TBD	373 x 297 x 46.1 mm	294 x 193 x 48 mm
	Weight	TBD	3.8 kg	1.7 Kg
Environment	Operating Temp.	0°C ~ 50°C	-10°C ~ 60°C (SSD) / 0°C ~ 45°C (HDD)	-20°C ~ 65°C
	Relative Humidity	10% ~ 95% @ 40°C (non-condensing)	85% RH @ 60°C (with SSD) / 85% RH @ 45°C (with HDD)	10% ~ 95% @ 40°C (non-condensing)



10.1"



7"



7"

Model Name		KS101-BT	KS070-AL	KS070-BT
Platform		Intel® Atom®	Intel® Atom®	Intel® Atom®
System	Processor	Intel® Atom® Processor E3845 Intel® Celeron® Processor J1900	Intel® Atom® x5-E3940 Intel® Celeron® Processor N3350	Intel® Atom® Processor E3845 Intel® Celeron® Processor J1900
	Socket	BGA1170	BGA 1296	BGA 1170
	Max. Speed	1.91GHz / 2.42GHz	1.8GHz / 2.4GHz	1.91GHz / 2.42GHz
	TDP	10W / 10W	9.5W / 6W	10W / 10W
	Cache	2M / 2M	2M / 2M	2M / 2M
	BIOS	AMI SPI 64Mbit	Insyde SPI 128Mbit (supports UEFI boot only)	AMI SPI 64Mbit
Memory	Technology	Single Channel DDR3L 1333MHz	Single Channel DDR3L 1866MHz	Single Channel DDR3L 1333MHz
	Max. Capacity	2GB / 4GB	8GB	2GB / 4GB
	Socket	Memory Down	1 SODIMM	Memory Down
Display & Touch Screen	Display Type	10.1" TFT LCD Panel with Capacitive Touch Screen	7" TFT Capacitive/Resistive Touch Screen	7" TFT LCD Panel with Capacitive Touch Screen
	Max. Resolution	1280 x 800	800 x 480	800 x 480
	Brightness	500 cd/m²	500 cd/m²	500 cd/m²
Graphics	Connector	1 HDMI	1 VGA, 1 DP++	1 HDMI
Storage		1x 2.5" SATA 2.0 Drive Bay, 1 micro SD (Opt.)	1 CFast	1x 2.5" SATA 2.0 Drive Bay, 1 micro SD (Opt.)
Expansion	Mini PCIe, M.2, PCIe, SIM	3 Mini PCIe, 1 SIM	1 Mini PCIe, 1 M.2 2242 B key	3 Mini PCIe, 1 SIM
Audio	Audio Codec	Realtek ALC886	Realtek ALC262	Realtek ALC886
Ethernet	Controller	2 Intel® I210AT	2 Intel® I211AT	2 Intel® I210AT
LED	Indicators	Power, HDD LED	-	Power, HDD LED
I/O	Ethernet	2 GbE	2 GbE	2 GbE
	Serial	4 RS-232/422/485, 1 RS-232	2 RS-232/422/485	4 RS-232/422/485
	USB	1 USB 3.2 Gen1, 3 USB 2.0	2 USB 3.2 Gen1, 2 USB 2.0	1 USB 3.2 Gen1, 3 USB 2.0
	Display	1 HDMI	1 VGA, 1 DP++	1 HDMI
	Audio	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in
	DIO	8-bit DIO	8-bit DIO (Opt.)	8-bit DIO
	Buttons	Power Button, Reset Button	Power Button	Power Button, Reset Button
	Wi-Fi Antenna	2 Holes	3 Holes	3 Holes
Power		16~24V DC-in	12V DC-in	16~24V DC-in
OS Support		Win7, Win 8.1 (Opt.), Win10, Linux	Win10 IoT Enterprise	Win7, Win 8.1 (Opt.), Win10, Linux
Mechanism	Construction	Aluminum Front Bezel	Sheet Metal	Aluminum Front Bezel
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	Panel / VESA Mount	Panel / VESA Mount	Panel / VESA Mount
	Dimensions (W x H x D)	294 x 193 x 48 mm	230 x 150 x 58.3 mm	208 x 156 x 48.1 mm (standard) 218.2 x 144 x 46.75 mm (open frame)
	Weight	1.7 kg	1.5 kg	2 kg
Environment	Operating Temp.	0°C ~ 60°C	-20°C ~ 55°C	0°C ~ 50°C
	Relative Humidity	5% ~ 90% RH (non-condensing)	5% ~ 85% RH (non-condensing)	5% ~ 85% RH (non-condensing)



7"



7"



5.7"

Model Name		KS070-M8M	KS070-FS	KS057R-FS
Platform		ARM	ARM	ARM
System	Processor	NXP i.MX 8M Dual	NXP i.MX6	NXP i.MX6
	Socket	-	-	-
	Max. Speed	1.3GHz	1.0GHz	1.0GHz
	TDP	-	-	-
	Cache	-	512KB	512KB
	BIOS	-	-	-
Memory	Technology	Single Channel LPDDR4 1600MHz	Single Channel DDR3L 1600MHz	Dual Channel DDR3 400MHz
	Max. Capacity	2GB / 4GB	2GB	1GB
	Socket	Memory Down	Memory down	Memory Down
Display & Touch Screen	Display Type	7" Projected Capacitive TFT	7" Projected Capacitive TFT	5.7" TFT LCD Panel with Resistive Touch Screen
	Max. Resolution	1024 x 600	1024 x 600	640 x 480
	Brightness	425 cd/m ²	425 cd/m ²	400 cd/m ²
Graphics	Connector	-	1 HDMI	1 HDMI
Storage		1 Micro SD, 16GB eMMC	1 Micro SD, 4GB eMMC	1 Micro SD, 8GB eMMC
Expansion	Mini PCIe, M.2, PCIe, SIM	1 M.2 3042/2242 B key, 1 M.2 2230 E key, 1 Nano SIM (Opt.)	1 Mini PCIe, 1 mSATA, 1 SIM	1 Mini PCIe
Audio	Audio Codec	SGTL5000	Realtek ALC262	-
Ethernet	Controller	AR8031	Atheros AR8033	1 Atheros AR8033, 1 LAN7500
LED	Indicators	Power	Status LED	-
I/O	Ethernet	1 GbE	1 GbE	2 GbE
	Serial	1 RS-485, 1 RS-232/422/485	1 RS-232/422/485, 1 RS-232	1 RS-485, 1 RS-232
	USB	2 USB 3.2 (type A)	2 USB 2.0 (type A), 1 OTG USB	2 USB 2.0 (type A)
	Display	-	1 HDMI	1 HDMI
	Audio	1 Line out	1 Line-out/Mic-in	-
	DIO	8-bit DIO	8-bit DIO	-
	Buttons	Power Switch	Power Switch	Reset Switch
	Wi-Fi Antenna	2 Holes	2 Holes	2 Holes
Power		12V DC	12~36V DC-in	12V DC
OS Support		Android 9.0, Yocto 4.3	Android 4.3	Yocto 1.8, Android 5.1.1 (Opt.)
Mechanism	Construction	Aluminum front bezel	Sheet Metal	Sheet Metal
	IP Rating	IP65 front panel	IP65 Front Panel	IP20 Front Panel
	Mounting	Panel / VESA / Din-rail (Opt.)	VESA / Panel Mount	Wall / Din-rail Mount
	Dimensions (W x H x D)	235 x 150 x 43.8 mm	235 x 150 x 43.8 mm	170.2 x 121 x 57.5mm
	Weight	1.2 kg	1.26 kg	1.05 kg
Environment	Operating Temp.	0°C ~ 60°C, -20~70°C (Opt.)	0°C ~ 60°C	-20°C ~ 60°C
	Relative Humidity	85% RH @ 65°C (non-condensing)	10% ~ 90% RH (non-condensing)	5% ~ 90% RH (non-condensing)

Expandable Touch Panel PC

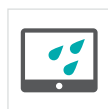
High Performance & Strong Scalability



Features

Powered by Intel® Core™ Desktop Processor, our TPC series is designed for high computing requirements. The various I/O interfaces and expandability makes it easier to increase functional add-ons required in your application scenario. Certified with IP65 and wide voltage support, these heavy industrial Panel PCs are suited for demanding applications in factory automation and other harsh environments.

IP65 Front Water Proof



IP65 Rating

Resistive or Projected Capacitive Touch



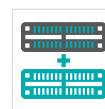
Resistive Touch

Rich I/O : Connectivity



Rich I/O Connectivity

Expandability: 2 PCI/PCIe Slots



Multiple Expansion



17"



15"

Model Name		TPC170-SD	TPC150-SD
Platform		Desktop	Desktop
System	Processor	7th/6th Gen Intel® Core™ Processor	7th/6th Gen Intel® Core™ Processor
	Socket	LGA 1151	LGA 1151
	Max. Speed	2.8 ~ 4.2GHz	2.8 ~ 4.2GHz
	TDP	47W / 65W	47W / 65W
	Cache	2M / 3M / 6M / 8M	2M / 3M / 6M / 8M
	Chipset	Intel® Q170	Intel® Q170
	BIOS	Insyde SPI 128Mbit	Insyde SPI 128Mbit
Memory	Technology	Dual Channel DDR4 1866 / 2133MHz	Dual Channel DDR4 1866 / 2133MHz
	Max. Capacity	32GB	32GB
	Socket	2 SODIMM	2 SODIMM
Display & Touch Screen	Display Type	17" PCAP/Resistive TFT	17" PCAP/Resistive TFT
	Max. Resolution	1280 x 1024	1024 x 768
	Brightness	350 cd/m²	300 cd/m²
Graphics	Connector	1 VGA, 1 DVI-I, 1 DP++	1 VGA, 1 DVI-I, 1 DP++
Storage		2x 2.5" SATA 2.0 Drive Bay	2x 2.5" SATA 2.0 Drive Bay
Expansion	PCIe, PCI	2 PCI or 2 PCIe x8	2 PCI or 2 PCIe x8
	Mini PCIe	1 Mini PCIe	1 Mini PCIe
Audio	Audio Codec	ALC888	ALC888
Ethernet	Controller	1 Intel® I211AT, 1 Intel® I219V	1 Intel® I211AT, 1 Intel® I219V
LED	Indicators	Power, HDD, Alarm LED	Power, HDD, Alarm LED
I/O	Ethernet (GbE)	2 GbE	2 GbE
	Serial	1 RS-232, 1 RS-232 (Opt.), 1 RS-232/422/485 (Opt.)	1 RS-232, 1 RS-232 (Opt.), 1 RS-232/422/485 (Opt.)
	USB	4 USB 3.2 Gen1, 3 USB 2.0	4 USB 3.2 Gen1, 3 USB 2.0
	Display	1 VGA, 1 DVI-I, 1 DP++	1 VGA, 1 DVI-I, 1 DP++
	Audio	1 Line-out (Opt.)	1 Line-out (Opt.)
	PS/2	1 mini-DIN-6	1 mini-DIN-6
	Buttons	Power Switch, Remote Power Switch	Power Switch, Remote Power Switch
Power		100-240VAC	100-240VAC
OS Support		Win7, Win10 IoT, Linux	Win7, Win10 IoT, Linux
Mechanism	Construction	Sheet Metal	Sheet Metal
	IP Rating	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA / Panel Mount	VESA / Panel Mount
	Dimensions (W x H x D)	404 x 363.8 x 98.9 mm	403 x 330 x 103.5 mm
	Weight	9.6 kg	10.87 kg
Environment	Operating Temp.	0°C ~ 50°C	0°C ~ 50°C
	Relative Humidity	10% ~ 90% @ 40°C (non-condensing)	10% ~ 90% @ 40°C (non-condensing)

Modularized Touch Panel PC

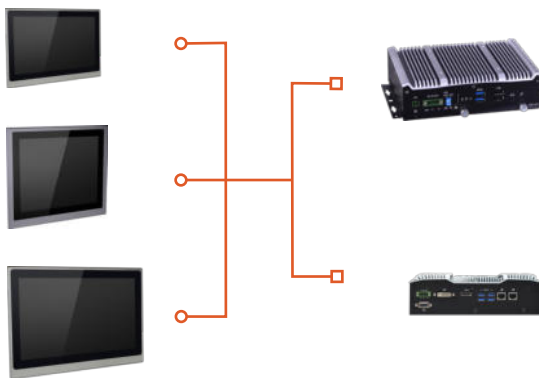
Modular Design & Easy Maintenance



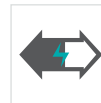
Features

Adaptive Display Platform (ADP) is an advanced configure solution for Panel PC. It is a flexible modular system that provides customers with easy maintenance, installation, and configuration. The concept of this platform is modular design, which means letting users combine their ideal displays and box PCs themselves. The components are interconnected, but user can separate and detach the components for repair and development. It will be much cheaper to upgrade certain modules instead of the whole unit.

Configure by Demand



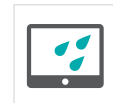
Rugged Design



Wide-voltage



Wide-temp



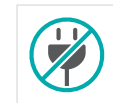
IP65 Rating



Anti-shock/vibration



Fanless

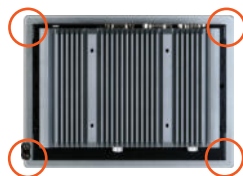


Cableless

Easy Installation & Maintenance



• Step 1



• Step 2

Upgrade Capability

- Brightness
- Resolution
- Panel Size
- Performance
- Function
- Connectivity





21.5"



21.5"



21.5"

Model Name		KSM215-KH	KSM215-SD	KSM215-AL
Platform		Mobile	Desktop	Atom
System	Processor	7th Gen Intel® Core™ Processor	6th Gen Intel® Core™ Processor	Intel® Atom® E3900
	Socket	BGA 1440	LGA 1151	BGA 1296
	Max. Speed	2.1~4.2GHz	2.7~3.4GHz	1.8~2.4GHz
	TDP	25W / 35W / 45W	35W	6W/9.5W
	Cache	3M / 6M / 8M	4M / 6M / 8M	2M
	Chipset	Intel® CM238/QM175	Intel® H110	-
	BIOS	Insyde SPI 32Mbit	Insyde SPI 128Mbit	Insyde SPI 128Mbit (supports UEFI support only)
Memory	Technology	Dual Channel DDR4 2400MHz	Dual Channel DDR4 1866/2133MHz	Single Channel DDR3L 1866MHz
	Max. Capacity	32GB	32GB	8GB
	Socket	2 SODIMM	2 SODIMM	1 SODIMM
Display & Touch Screen	Display Type	21.5" PCAP/Resistive TFT	21.5" PCAP/Resistive TFT	21.5" PCAP/Resistive TFT
	Max. Resolution	1920 x 1080	1920 x 1080	1920 x 1080
	Brightness	300 cd/m²	300 cd/m²	300 cd/m²
Graphics	Connector	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 VGA, 1 DVI, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D
Storage		1x 2.5" SATA 3.0 Drive Bay (RAID)	1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 3.0 Drive Bay (accessible), 1 mSATA (share by Mini PCIe)
Expansion	Mini PCIe, M.2, PCIe, SIM	2 Full-size Mini PCIe, 1 M.2 M Key 2280, SIM	2 Mini PCIe	2 Mini PCIe, 1 SIM
Audio	Audio Codec	Realtek ALC886	Realtek ALC888	Realtek ALC262
Ethernet	Controller	1 Intel® I211AT, 1 Intel® Intel® I219LM	1 Intel® I211AT, 1 Intel® I219V	2 Intel® I210IT
LED	Indicators	Power, Status, HDD	Power, HDD, Alarm	Power, HDD, Alarm LED
I/O	Ethernet (GbE)	2 GbE	2 GbE	2 GbE, Support Jumbo Frame, IEEE1588v2, WOL, PXE 802.3 af PoE (PSE), Individual Port 15.4W (Opt.)
	Serial	4 RS-232/422/485	4 RS-232/422/485	2 RS-232/422/485
	USB	4 USB 3.2 Gen1, 2 USB 2.0	4 USB 3.2 Gen1, 1 USB 2.0	2 USB 3.2 Gen1, 2 USB 2.0
	Display	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 DVI-I, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D
	Audio	1 Line-out, 1 Mic-in (Opt.)	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in
	DIO	-	-	4 x DI/4 x DO (10-pin terminal block) (Opt.)
	Buttons	Power, Reset	Power, Reset	Power Button, Reset Switch
	Wi-Fi Antenna	2 Holes	-	4 Holes
Power		9~36V DC-in	9~36V DC-in / 12V DC-in (Opt.)	12V/24V/48V DC-in or 24V DC-in (Opt.) or 9~48V DC-in (Opt.)
OS Support		Win10, Linux	Win7, Win10, Linux	Win10, Linux
Mechanism	Construction	Metal + Aluminum	Aluminum + SGCC	Aluminum Front Bezel
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA / Panel Mount	VESA / Panel Mount	VESA / Panel Mount
	Dimensions (W x H x D)	544.2 x 360.6 x 118 mm	544.2 x 360.6 x 118 mm	544.2 x 360.6 x 80.9 mm
	Weight	9.4 kg	9.4 kg	7 kg
Environment	Operating Temp.	0°C ~ 50°C (SSD/mSATA-mini/CFast card, with 0.7m/s air flow)	0°C ~ 60°C	0°C ~ 60°C
	Relative Humidity	5% ~ 95% RH (non-condensing)	5% ~ 90% RH (non-condensing)	5% ~ 95% RH (non-condensing)

*Populated by default



Model Name		KSM190-KH	KSM190-SD	KSM190-AL
Platform		Mobile	Desktop	Atom
System	Processor	7th Gen Intel® Core™ Processor	6th Gen Intel® Core™ Processor	Intel® Atom® E3900
	Socket	BGA 1440	LGA 1151	BGA 1296
	Max. Speed	2.1~4.2GHz	2.7~3.4GHz	1.8~2.4GHz
	TDP	25W / 35W / 45W	35W	6W / 9.5W
	Cache	3M / 6M / 8M	4M / 6M / 8M	2M
	Chipset	Intel® CM238/QM175	Intel® H110	-
	BIOS	Insyde SPI 32Mbit	Insyde SPI 128Mbit	Insyde SPI 128Mbit (supports UEFI support only)
Memory	Technology	Dual Channel DDR4 2400MHz	Dual Channel DDR4 1866/2133MHz	Single Channel DDR3L 1866MHz
	Max. Capacity	32GB	32GB	8GB
	Socket	2 SODIMM	2 SODIMM	1 SODIMM
Display & Touch Screen	Display Type	19" PCAP/Resistive TFT	19" PCAP/Resistive TFT	19" PCAP/Resistive TFT
	Max. Resolution	1280 x 1024	1280 x 1024	1280 x 1024
	Brightness	350 cd/m²	350 cd/m²	350 cd/m²
Graphics	Connector	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 VGA, 1 DVI, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D
Storage		1x 2.5" SATA 3.0 Drive Bay (RAID)	1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 3.0 Drive Bay (accessible), 1 mSATA (share by Mini PCIe)
Expansion	Mini PCIe, M.2, PCIe, SIM	2 Full-size Mini PCIe, 1 M.2 M Key 2280, SIM	2 Mini PCIe	2 Mini PCIe, 1 SIM
Audio	Audio Codec	Realtek ALC886	Realtek ALC888	Realtek ALC262
Ethernet	Controller	1 Intel® I211AT, 1 Intel® Intel® I219LM	1 Intel® I211AT, 1 Intel® I219V	2 Intel® I210IT
LED	Indicators	Power, Status, HDD	Power, HDD, Alarm	Power, HDD, Alarm LED
I/O	Ethernet (GbE)	2 GbE	2 GbE	2 GbE, Support Jumbo Frame, IEEE1588v2, WOL, PXE 802.3 af PoE (PSE), Individual Port 15.4W (Opt.)
	Serial	4 RS-232/422/485	4 RS-232/422/485	2 RS-232/422/485
	USB	4 USB 3.2 Gen1, 2 USB 2.0	4 USB 3.2 Gen1, 1 USB 2.0	2 USB 3.2 Gen1, 2 USB 2.0
	Display	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 DVI-I, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D
	Audio	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in
	DIO	-	-	4 x DI/4 x DO (10-pin terminal block) (Opt.)
	Buttons	Power, Reset	Power, Reset	Power Button, Reset Switch
	Wi-Fi Antenna	2 Holes	-	4 Holes
Power		9~36V DC-in	9~36V DC-in / 12V DC-in (Opt.)	12V/24V/48V DC-in or 24V DC-in (Opt.) or 9~48V DC-in (Opt.)
OS Support		Win10, Linux	Win7, Win10, Linux	Win10, Linux
Mechanism	Construction	Metal + Aluminum	Aluminum + SGCC	Aluminum Front Bezel
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA / Panel Mount	VESA / Panel Mount	VESA / Panel Mount
	Dimensions (W x H x D)	467 x 400 x 118 mm	467 x 400 x 118 mm	467 x 400 x 80.5 mm
	Weight	10 kg	10 kg	7.6 kg
Environment	Operating Temp.	-20°C ~ 50°C (SSD/mSATA-mini/CFast card, with 0.7m/s air flow)	-20°C ~ 70°C	-20°C ~ 70°C
	Relative Humidity	5% ~ 95% RH (non-condensing)	5% ~ 90% RH (non-condensing)	5% ~ 95% RH (non-condensing)

*Populated by default



Model Name		KSM185-KH	KSM185-SD	KSM185-AL
Platform		Mobile	Desktop	Atom
System	Processor	7th Gen Intel® Core™ Processor	6th Gen Intel® Core™ Processor	Intel Atom® E3900
	Socket	BGA 1440	LGA 1151	BGA 1296
	Max. Speed	2.1~4.2GHz	2.7~3.4GHz	1.8~2.4GHz
	TDP	25W / 35W / 45W	35W	6W / 9.5W
	Cache	3M / 6M / 8M	4M / 6M / 8M	2M
	Chipset	Intel® CM238/QM175	Intel® H110	-
	BIOS	Insyde SPI 32Mbit	Insyde SPI 128Mbit	Insyde SPI 128Mbit (supports UEFI support only)
Memory	Technology	Dual Channel DDR4 2400MHz	Dual Channel DDR4 1866/2133MHz	Single Channel DDR3L 1866MHz
	Max. Capacity	32GB	32GB	8GB
	Socket	2 SODIMM	2 SODIMM	1 SODIMM
Display & Touch Screen	Display Type	18.5" PCAP/Resistive TFT	18.5" PCAP/Resistive TFT	18.5" PCAP/Resistive TFT
	Max. Resolution	1366 x 768	1366 x 768	1366 x 768
	Brightness	450 cd/m²	450 cd/m²	450 cd/m²
Graphics	Connector	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 VGA, 1 DVI, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D
Storage		1x 2.5" SATA 3.0 Drive Bay (RAID)	1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 3.0 Drive Bay (accessible), 1 mSATA (share by Mini PCIe)
Expansion	Mini PCIe, M.2, PCIe, SIM	2 Full-size Mini PCIe, 1 M.2 M Key 2280, SIM	2 Mini PCIe	2 Mini PCIe, 1 SIM
Audio	Audio Codec	Realtek ALC886	Realtek ALC888	Realtek ALC262
Ethernet	Controller	1 Intel® I211AT, 1 Intel® Intel® I219LM	1 Intel® I211AT, 1 Intel® I219V	2 Intel® I210IT
LED	Indicators	Power, Status, HDD	Power, HDD, Alarm	Power, HDD, Alarm LED
I/O	Ethernet (GbE)	2 GbE	2 GbE	2 GbE, Support Jumbo Frame, IEEE1588v2, WOL, PXE 802.3 af PoE (PSE), Individual Port 15.4W (Opt.)
	Serial	4 RS-232/422/485	4 RS-232/422/485	2 RS-232/422/485
	USB	4 USB 3.2 Gen1, 2 USB 2.0	4 USB 3.2 Gen1, 1 USB 2.0	2 USB 3.2 Gen1, 2 USB 2.0
	Display	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 DVI-I, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D (Opt.)
	Audio	1 Line-out, 1 Mic-in (Opt.)	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in
	DIO	-	-	4 x DI/4 x DO (10-pin terminal block) (Opt.)
	Buttons	Power, Reset	Power, Reset	Power Button, Reset Switch
	Wi-Fi Antenna	2 Holes	-	4 Holes
Power		9~36V DC-in	9~36V DC-in / 12V DC-in (Opt.)	12V/24V/48V DC-in or 24V DC-in (Opt.) or 9~48V DC-in (Opt.)
OS Support		Win10, Linux	Win7, Win10, Linux	Win10, Linux
Mechanism	Construction	Metal + Aluminum	Aluminum + SGCC	Aluminum Front Bezel
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA / Panel Mount	VESA / Panel Mount	VESA / Panel Mount
	Dimensions (W x H x D)	472.06 x 314.15 x 102.8 mm	472.06 x 314.15 x 102.8 mm	472.1 x 314.1 x 80.9 mm
	Weight	8.1 kg	8.1 kg	5.7 kg
Environment	Operating Temp.	0°C ~ 50°C (SSD/mSATA-mini/CFast card, with 0.7m/s air flow)	0°C ~ 60°C	0°C ~ 60°C
	Relative Humidity	5% ~ 95% RH (non-condensing)	5% ~ 90% RH (non-condensing)	5% ~ 95% RH (non-condensing)

*Populated by default



Model Name		KSM170-KH	KSM170-SD	KSM170-AL
Platform		Mobile	Desktop	Atom
System	Processor	7th Gen Intel® Core™ Processor	6th Gen Intel® Core™ Processor	Intel® Atom® E3900
	Socket	BGA 1440	LGA 1151	BGA 1296
	Max. Speed	2.1~4.2GHz	2.7~3.4GHz	1.8~2.4GHz
	TDP	25W / 35W / 45W	35W	6W / 9.5W
	Cache	3M / 6M / 8M	4M / 6M / 8M	2M
	Chipset	Intel® CM238/QM175	Intel® H110	-
	BIOS	Insyde SPI 32Mbit	Insyde SPI 128Mbit	Insyde SPI 128Mbit (supports UEFI support only)
Memory	Technology	Dual Channel DDR4 2400MHz	Dual Channel DDR4 1866/2133MHz	Single Channel DDR3L 1866MHz
	Max. Capacity	32GB	32GB	8GB
	Socket	2 SODIMM	2 SODIMM	1 SODIMM
Display & Touch Screen	Display Type	17" PCAP/Resistive TFT	17" PCAP/Resistive TFT	17" PCAP/Resistive TFT
	Max. Resolution	1280 x 1024	1280 x 1024	1280 x 1024
	Brightness	350 cd/m²	350 cd/m²	350 cd/m²
Graphics	Connector	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 VGA, 1 DVI, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D
Storage		1x 2.5" SATA 3.0 Drive Bay (RAID)	1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 3.0 Drive Bay (accessible), 1 mSATA (share by Mini PCIe)
Expansion	Mini PCIe, M.2, PCIe, SIM	2 Full-size Mini PCIe, 1 M.2 M Key 2280, SIM	2 Mini PCIe	2 Mini PCIe, 1 SIM
Audio	Audio Codec	Realtek ALC886	Realtek ALC888	Realtek ALC262
Ethernet	Controller	1 Intel® I211AT, 1 Intel® Intel® I219LM	1 Intel® I211AT, 1 Intel® I219V	2 Intel® I210IT
LED	Indicators	Power, Status, HDD	Power, HDD, Alarm	Power, HDD, Alarm LED
I/O	Ethernet (GbE)	2 GbE	2 GbE	2 GbE, Support Jumbo Frame, IEEE1588v2, WOL, PXE 802.3 af PoE (PSE), Individual Port 15.4W (Opt.)
	Serial	4 RS-232/422/485	4 RS-232/422/485	2 RS-232/422/485
	USB	4 USB 3.2 Gen1, 2 USB 2.0	4 USB 3.2 Gen1, 1 USB 2.0	2 USB 3.2 Gen1, 2 USB 2.0
	Display	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 DVI-I, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D (Opt.)
	Audio	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in
	DIO	-	-	4 x DI/4 x DO (10-pin terminal block) (Opt.)
	Buttons	Power, Reset	Power, Reset	Power Button, Reset Switch
	Wi-Fi Antenna	2 Holes	-	4 Holes
Power		9~36V DC-in	9~36V DC-in / 12V DC-in (Opt.)	12V/24V/48V DC-in or 24V DC-in (Opt.) or 9~48V DC-in (Opt.)
OS Support		Win10, Linux	Win7, Win10, Linux	Win10, Linux
Mechanism	Construction	Metal + Aluminum	Aluminum + SGCC	Aluminum Front Bezel
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA / Panel Mount	VESA / Panel Mount	VESA / Panel Mount
	Dimensions (W x H x D)	404 x 363.8 x 102.8 mm	404 x 363.8 x 102.8 mm	404 x 363.8 x 80.9 mm
	Weight	7.8 kg	8.1 kg	5.4 kg
Environment	Operating Temp.	0°C ~ 45°C (SSD/mSATA-mini/CFast card, with 0.7m/s air flow)	0°C ~ 50°C	0°C ~ 50°C
	Relative Humidity	5% ~ 95% RH (non-condensing)	5% ~ 90% RH (non-condensing)	5% ~ 95% RH (non-condensing)

*Populated by default



15.6"



15.6"



15.6"

Model Name		KSM156-KH	KSM156-SD	KSM156-AL
Platform		Mobile	Desktop	Atom
System	Processor	7th Gen Intel® Core™ Processor	6th Gen Intel® Core™ Processor	Intel® Atom® E3900
	Socket	BGA 1440	LGA 1151	BGA 1296
	Max. Speed	2.1~4.2GHz	2.7~3.4GHz	1.8~2.4GHz
	TDP	25W / 35W / 45W	35W	6W / 9.5W
	Cache	3M / 6M / 8M	4M / 6M / 8M	2M
	Chipset	Intel® CM238/QM175	Intel® H110	-
	BIOS	Insyde SPI 32Mbit	Insyde SPI 128Mbit	Insyde SPI 128Mbit (supports UEFI support only)
Memory	Technology	Dual Channel DDR4 2400MHz	Dual Channel DDR4 1866/2133MHz	Single Channel DDR3L 1866MHz
	Max. Capacity	32GB	32GB	8GB
	Socket	2 SODIMM	2 SODIMM	1 SODIMM
Display & Touch Screen	Display Type	15.6" PCAP/Resistive TFT	15.6" PCAP/Resistive TFT	15.6" PCAP/Resistive TFT
	Max. Resolution	1366 x 768	1366 x 768	1366 x 768
	Brightness	400 cd/m²	400 cd/m²	400 cd/m²
Graphics	Connector	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 VGA, 1 DVI, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D
Storage		1x 2.5" SATA 3.0 Drive Bay (RAID)	1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 3.0 Drive Bay (accessible), 1 mSATA (share by Mini PCIe)
Expansion	Mini PCIe, M.2, PCIe, SIM	2 Full-size Mini PCIe, 1 M.2 M Key 2280, SIM	2 Mini PCIe	2 Mini PCIe, 1 SIM
Audio	Audio Codec	Realtek ALC886	Realtek ALC888	Realtek ALC262
Ethernet	Controller	1 Intel® I211AT, 1 Intel® Intel® I219LM	1 Intel® I211AT, 1 Intel® I219V	2 Intel® I210IT
LED	Indicators	Power, Status, HDD	Power, HDD, Alarm	Power, HDD, Alarm LED
I/O	Ethernet (GbE)	2 GbE	2 GbE	2 GbE, Support Jumbo Frame, IEEE1588v2, WOL, PXE 802.3 af PoE (PSE), Individual Port 15.4W (Opt.)
	Serial	4 RS-232/422/485	4 RS-232/422/485	2 RS-232/422/485
	USB	4 USB 3.2 Gen1, 2 USB 2.0	4 USB 3.2 Gen1, 1 USB 2.0	2 USB 3.2 Gen1, 2 USB 2.0
	Display	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 DVI-I, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D (Opt.)
	Audio	1 Line-out, 1 Mic-in (Opt.)	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in
	DIO	-	-	4 x DI/4 x DO (10-pin terminal block) (Opt.)
	Buttons	Power, Reset	Power, Reset	Power Button, Reset Switch
	Wi-Fi Antenna	2 Holes	-	4 Holes
Power		9~36V DC-in	9~36V DC-in / 12V DC-in (Opt.)	12V/24V/48V DC-in or 24V DC-in (Opt.) or 9~48V DC-in (Opt.)
OS Support		Win10, Linux	Win7, Win10, Linux	Win10, Linux
Mechanism	Construction	Metal + Aluminum	Aluminum + SGCC	Aluminum Front Bezel
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA / Panel Mount	VESA / Panel Mount	VESA / Panel Mount
	Dimensions (W x H x D)	407.3 x 277.3 x 97.92 mm	407.3 x 277.3 x 97.92 mm	407.3 x 277.3 x 76.1 mm
	Weight	8 kg	6.6 kg	4.2 kg
Environment	Operating Temp.	0°C ~ 50°C (SSD/mSATA-mini/CFast card, with 0.7m/s air flow)	0°C ~ 60°C	0°C ~ 60°C
	Relative Humidity	5% ~ 95% RH (non-condensing)	5% ~ 90% RH (non-condensing)	5% ~ 95% RH (non-condensing)

*Populated by default



Model Name		KSM150-KH	KSM150-SD	KSM150-AL
Platform		Mobile	Desktop	Atom
System	Processor	7th Gen Intel® Core™ Processor	6th Gen Intel® Core™ Processor	Intel® Atom® E3900
	Socket	BGA 1440	LGA 1151	BGA 1296
	Max. Speed	2.1~4.2GHz	2.7~3.4GHz	1.8~2.4GHz
	TDP	25W / 35W / 45W	35W	6W / 9.5W
	Cache	3M / 6M / 8M	4M / 6M / 8M	2M
	Chipset	Intel® CM238/QM175	Intel® H110	-
	BIOS	Insyde SPI 32Mbit	Insyde SPI 128Mbit	Insyde SPI 128Mbit (supports UEFI support only)
Memory	Technology	Dual Channel DDR4 2400MHz	Dual Channel DDR4 1866/2133MHz	Single Channel DDR3L 1866MHz
	Max. Capacity	32GB	32GB	8GB
	Socket	2 SODIMM	2 SODIMM	1 SODIMM
Display & Touch Screen	Display Type	15" PCAP/Resistive TFT	15" PCAP/Resistive TFT	15" PCAP/Resistive TFT
	Max. Resolution	1024 x 768	1024 x 768	1024 x 768
	Brightness	300 cd/m²	300 cd/m²	300 cd/m²
Graphics	Connector	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 VGA, 1 DVI, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D
Storage		1x 2.5" SATA 3.0 Drive Bay (RAID)	1x 2.5" SATA 3.0 Drive Bay	1x 2.5" SATA 3.0 Drive Bay (accessible), 1 mSATA (share by Mini PCIe)
Expansion	Mini PCIe, M.2, PCIe, SIM	2 Full-size Mini PCIe, 1 M.2 M Key 2280, SIM	2 Mini PCIe	2 Mini PCIe, 1 SIM
Audio	Audio Codec	Realtek ALC886	Realtek ALC888	Realtek ALC262
Ethernet	Controller	1 Intel® I211AT, 1 Intel® Intel® I219LM	1 Intel® I211AT, 1 Intel® I219V	2 Intel® I210IT
LED	Indicators	Power, Status, HDD	Power, HDD, Alarm	Power, HDD, Alarm LED
I/O	Ethernet (GbE)	2 GbE	2 GbE	2 GbE, Support Jumbo Frame, IEEE1588v2, WOL, PXE 802.3 af PoE (PSE), Individual Port 15.4W (Opt.)
	Serial	4 RS-232/422/485	4 RS-232/422/485	2 RS-232/422/485
	USB	4 USB 3.2 Gen1, 2 USB 2.0	4 USB 3.2 Gen1, 1 USB 2.0	2 USB 3.2 Gen1, 2 USB 2.0
	Display	1 VGA, 1 HDMI*/DVI, 1 HDMI*/DP++	1 DVI-I, 1 HDMI*/DP	1 DP++, 1 VGA*/DVI-D (Opt.)
	Audio	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in
	DIO	-	-	4 x DI/4 x DO (10-pin terminal block) (Opt.)
	Buttons	Power, Reset	Power, Reset	Power Button, Reset Switch
	Wi-Fi Antenna	2 Holes	-	4 Holes
Power		9~36V DC-in	9~36V DC-in / 12V DC-in (Opt.)	12V/24V/48V DC-in or 24V DC-in (Opt.) or 9~48V DC-in (Opt.)
OS Support		Win10, Linux	Win7, Win10, Linux	Win10, Linux
Mechanism	Construction	Metal + Aluminum	Aluminum + SGCC	Aluminum Front Bezel
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA / Panel Mount	VESA / Panel Mount	VESA / Panel Mount
	Dimensions (W x H x D)	387 x 320 x 118 mm	387 x 320 x 118 mm	387 x 320 x 80.5 mm
	Weight	7.7 kg	7.7 kg	5.3 kg
Environment	Operating Temp.	-20°C ~ 50°C (SSD/mSATA-mini/CFast card, with 0.7m/s air flow)	-20°C ~ 70°C	-20°C ~ 70°C
	Relative Humidity	5% ~ 95% RH (non-condensing)	5% ~ 90% RH (non-condensing)	5% ~ 95% RH (non-condensing)

*Populated by default

Modularized Touch Panel PC



12.1"



10.1"



7"

Model Name		KSM121-AL	KSM101-AL	KSM070-AL
Platform		Atom	Atom	Atom
System	Processor	Intel® Atom® E3900	Intel® Atom® E3900	Intel® Atom® E3900
	Socket	BGA 1296	BGA 1296	BGA 1296
	Max. Speed	1.8~2.4GHz	1.8~2.4GHz	1.8~2.4GHz
	TDP	6W / 9.5W	6W / 9.5W	6W / 9.5W
	Cache	2M	2M	2M
	Chipset	-	-	-
	BIOS	Insyde SPI 128Mbit (supports UEFI support only)	Insyde SPI 128Mbit (supports UEFI support only)	Insyde SPI 128Mbit (supports UEFI support only)
Memory	Technology	Single Channel DDR3L 1866MHz	Single Channel DDR3L 1866MHz	Single Channel DDR3L 1866MHz
	Max. Capacity	8GB	8GB	8GB
	Socket	1 SODIMM	1 SODIMM	1 SODIMM
Display & Touch Screen	Display Type	12.1" PCAP/Resistive TFT	10.1" PCAP/Resistive TFT	7" PCAP/Resistive TFT
	Max. Resolution	1024 x 768	1280 x 800	800 x 480
	Brightness	500 cd/m ²	350 cd/m ²	500 cd/m ²
Graphics	Connector	1 DP++, 1 VGA*/DVI-D	1 DP++, 1 VGA*/DVI-D	1 DP++, 1 VGA*/DVI-D
Storage		1x 2.5" SATA 3.0 Drive Bay (accessible), 1 mSATA (share by Mini PCIe)	1x 2.5" SATA 3.0 Drive Bay (accessible), 1 mSATA (share by Mini PCIe)	1x 2.5" SATA 3.0 Drive Bay (accessible), 1 mSATA (share by Mini PCIe)
Expansion	Mini PCIe, M.2, PCIe, SIM	2 Mini PCIe, 1 SIM	2 Mini PCIe, 1 SIM	2 Mini PCIe, 1 SIM
Audio	Audio Codec	Realtek ALC262	Realtek ALC262	Realtek ALC262
Ethernet	Controller	2 Intel® I210IT	2 Intel® I210IT	2 Intel® I210IT
LED	Indicators	Power, HDD, Alarm LED	Power, HDD, Alarm LED	Power, HDD, Alarm LED
I/O	Ethernet (GbE)	2 GbE, Support Jumbo Frame, IEEE1588v2, WOL, PXE 802.3 af PoE (PSE), Individual Port 15.4W (Opt.)	2 GbE, Support Jumbo Frame, IEEE1588v2, WOL, PXE 802.3 af PoE (PSE), Individual Port 15.4W (Opt.)	2 GbE, Support Jumbo Frame, IEEE1588v2, WOL, PXE 802.3 af PoE (PSE), Individual Port 15.4W (Opt.)
	Serial	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485
	USB	2 USB 3.2 Gen1, 2 USB 2.0	2 USB 3.2 Gen1, 2 USB 2.0	2 USB 3.2 Gen1, 2 USB 2.0
	Display	1 DP++, 1 VGA*/DVI-D (Opt.)	1 DP++, 1 VGA*/DVI-D (Opt.)	1 DP++, 1 VGA*/DVI-D (Opt.)
	Audio	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in	1 Line-out, 1 Mic-in
	DIO	4 x DI/4 x DO (10-pin terminal block) (Opt.)	4 x DI/4 x DO (10-pin terminal block) (Opt.)	4 x DI/4 x DO (10-pin terminal block) (Opt.)
	Buttons	Power Button, Reset Switch	Power Button, Reset Switch	Power Button, Reset Switch
	Wi-Fi Antenna	4 Holes	4 Holes	4 Holes
Power		12V/24V/48V DC-in or 24V DC-in (Opt.) or 9~48V DC-in (Opt.)	12V/24V/48V DC-in or 24V DC-in (Opt.) or 9~48V DC-in (Opt.)	12V/24V/48V DC-in or 24V DC-in (Opt.) or 9~48V DC-in (Opt.)
OS Support		Win10, Linux	Win10, Linux	Win10, Linux
Mechanism	Construction	Aluminum Front Bezel	Aluminum Front Bezel	Aluminum Front Bezel
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	VESA / Panel Mount	VESA / Panel Mount	VESA / Panel Mount
	Dimensions (W x H x D)	308 x 265.3 x 77.9 mm	275 x 212.3 x 72.9 mm	224 x 163.55 x 72.9 mm
	Weight	3.2 kg	2.4 kg	2.2 kg
Environment	Operating Temp.	-20°C ~ 70°C	-20°C ~ 70°C	-20°C ~ 70°C
	Relative Humidity	5% ~ 95% RH (non-condensing)	5% ~ 95% RH (non-condensing)	5% ~ 95% RH (non-condensing)

*Populated by default



Open Frame Panel PC

DFI's open frame fanless touch panel PC series is equipped with Intel-based and ARM-based processors; delivering low power consumption in an ultra slim housing as well as efficient fanless thermal solutions. The open frame panel PCs are also designed with wide voltage input, and extended operating temperature. Making this product line a perfect solution for human machine interface (HMI) and various applications in the harsh environment.

ARM Based solution



Powered by i.MX 8M Processor



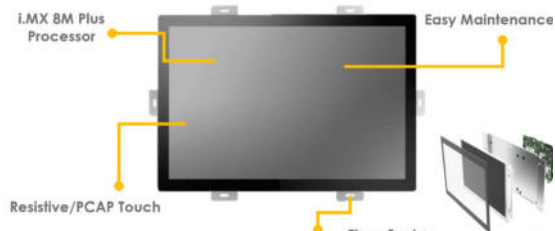
Easy Installation & Maintenance

i.MX 8M Plus Processor

Easy Maintenance

Resistive/PCAP Touch

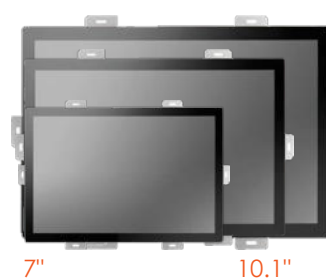
Time-Saving
Saving developing time to
deploy to market agily.



Projected Capacitive Touch



Available in Several Sizes



12.1"

7"

10.1"



Multiple Size



12.1"



10.1"



7"

Model Name		KIT121P-ADN	KIT101P-ADN	KIT070P-ADN
Platform		Intel® Atom®	Intel® Atom®	Intel® Atom®
System	Processor	Intel® Atom® Alder Lake-N Processors	Intel® Atom® Alder Lake-N Processors	Intel® Atom® Alder Lake-N Processors
	Max. Speed	2.7~3.4GHz	2.7~3.4GHz	2.7~3.4GHz
	BIOS	AMI SPI 256Mbit (supports UEFI boot only)	AMI SPI 256Mbit (supports UEFI boot only)	AMI SPI 256Mbit (supports UEFI boot only)
Memory	Technology	LPDDR5 4800 MHz	LPDDR5 4800 MHz	LPDDR5 4800 MHz
	Max. Capacity	8GB/16GB	8GB/16GB	8GB/16GB
	Socket	Memory Down	Memory Down	Memory Down
Display & Touch Screen	Display Type	12.1" TFT LCD	10.1" TFT LCD	7" TFT LCD
	Max. Resolution	1024 x 768	1280 x 800	800 x 480
	Brightness	500 cd/m²	500 cd/m²	500 cd/m²
Graphics	Connector	1 eDP/LVDS, 1 HDMI, 1 USB-C Alt. Mode	1 eDP/LVDS, 1 HDMI, 1 USB-C Alt. Mode	1 eDP/LVDS, 1 HDMI, 1 USB-C Alt. Mode
Storage		1 M.2 2242/2280 M key, 1 SATA 3.0, eMMC 32GB/64GB (Opt.)	1 M.2 2242/2280 M key, 1 SATA 3.0, eMMC 32GB/64GB (Opt.)	1 M.2 2242/2280 M key, 1 SATA 3.0, eMMC 32GB/64GB (Opt.)
Expansion	Mini PCIe, M.2, PCIe, SIM	1 M.2 2242/2280 M key, 1 M.2 2230 E Key, 1 M.2 3042/3052 B key	1 M.2 2242/2280 M key, 1 M.2 2230 E Key, 1 M.2 3042/3052 B key	1 M.2 2242/2280 M key, 1 M.2 2230 E Key, 1 M.2 3042/3052 B key
Audio	Audio Codec	ALC888S	ALC888S	ALC888S
Ethernet	Controller	2 Intel i226 (support TSN), 1 Intel i210 GbE	2 Intel i226 (support TSN), 1 Intel i210 GbE	2 Intel i226 (support TSN), 1 Intel i210 GbE
LED	Indicators	-	-	-
I/O	Ethernet	2 2.5GbE, 1 GbE	2 2.5GbE, 1 GbE	2 2.5GbE, 1 GbE
	Serial	3 RS-232/422/485, 2 RS-232	3 RS-232/422/485, 2 RS-232	3 RS-232/422/485, 2 RS-232
	USB	3 USB 3.2 type A, 1 USB-C 3.2	3 USB 3.2 type A, 1 USB-C 3.2	3 USB 3.2 type A, 1 USB-C 3.2
	Display	1 eDP/LVDS, 1 HDMI, 1 USB-C Alt. Mode	1 eDP/LVDS, 1 HDMI, 1 USB-C Alt. Mode	1 eDP/LVDS, 1 HDMI, 1 USB-C Alt. Mode
	Audio	Line-out, Mic-in	Line-out, Mic-in	Line-out, Mic-in
	DIO	1 COM/DIO port	1 COM/DIO port	1 COM/DIO port
	Buttons			
	Wi-Fi Antenna	-	-	-
Power		9~36V DC-in	9~36V DC-in	9~36V DC-in
OS Support		Win11, Linux Ubuntu 22.04	Win11, Linux Ubuntu 22.04	Win11, Linux Ubuntu 22.04
Mechanism	Construction	-	-	-
	IP Rating	-	-	-
	Mounting	-	-	-
	Dimensions (W x H x D)	312.9 x 226.25 x TBD mm	279.1 x 172.95 x TBD mm	203 x 118 x TBD mm
	Weight	TBD	TBD	TBD
Environment	Operating Temp.	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C
	Relative Humidity	5 to 90% RH (non-condensing)	5 to 90% RH (non-condensing)	5 to 90% RH (non-condensing)

*Populated by default



12.1"



10.1"



7"

Model Name		KIT121P-M8M	KIT101P-M8M	KIT070P-M8M
Platform		ARM	ARM	ARM
System	Processor	NXP i.MX 8M	NXP i.MX 8M	NXP i.MX 8M
	Socket	-	-	-
	Max. Speed	1.5GHz	1.5GHz	1.5GHz
	TDP	-	-	-
	Cache	-	-	-
	BIOS	-	-	-
Memory	Technology	Single Channel LPDDR4 3200MHz	Single Channel LPDDR4 3200MHz	Single Channel LPDDR4 3200MHz
	Max. Capacity	2GB	2GB	2GB
	Socket	Memory Down	Memory Down	Memory Down
Display & Touch Screen	Display Type	12.1" TFT LCD	10.1" TFT LCD	7" TFT LCD
	Max. Resolution	1024 x 768	1280 x 800	800 x 480
	Brightness	500 cd/m ²	500 cd/m ²	500 cd/m ²
Graphics	Connector	-	-	-
Storage		16GB eMMC on board	16GB eMMC on board	16GB eMMC on board
Expansion	Mini PCIe, M.2, PCIe, SIM	1 M.2 B key 3042/2242, 1 M.2 E Key 2240	1 M.2 B key 3042/2242, 1 M.2 E Key 2240	1 M.2 B key 3042/2242, 1 M.2 E Key 2240
Audio	Audio Codec	SGTL5000	SGTL5000	SGTL5000
Ethernet	Controller	AR8035	AR8035	AR8035
LED	Indicators	-	-	-
I/O	Ethernet	1 GbE	1 GbE	1 GbE
	Serial	1 RS-485	1 RS-485	1 RS-485
	USB	2 USB 3.2 Gen1 Type A, 1 Micro USB 2.0	2 USB3.1 Gen1 Type A, 1 Micro USB 2.0	2 USB3.1 Gen1 Type A, 1 Micro USB 2.0
	Display	-	-	-
	Audio	-	-	-
	DIO	-	-	-
	Buttons	-	-	-
	Wi-Fi Antenna	-	-	-
Power		12V DC-in / 9-48V DC-in (Opt.)	12V DC-in / 9-48V DC-in (Opt.)	12V DC-in / 9-48V DC-in (Opt.)
OS Support		Android 9.0 & Yocto 4.3	Android 9.0 & Yocto 4.3	Android 9.0 & Yocto 4.3
Mechanism	Construction	Aluminum	Aluminum	Aluminum
	IP Rating	-	-	-
	Mounting	Open frames	Open frames	Open frames
	Dimensions (W x H x D)	312.9 x 226.25 x 45.2 mm	279.1 x 172.95 x 43.6 mm	203 x 118 x 39.09 mm
	Weight	1.1 kg	1 Kg	0.7 kg
Environment	Operating Temp.	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C
	Relative Humidity	5% ~ 90% RH (non-condensing)	5% ~ 90% RH (non-condensing)	5% ~ 90% RH (non-condensing)

*Populated by default

Industrial Display & Touch Display

Multiple Sizes & High Brightness

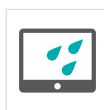


Industrial Display & Touch Display

IDP Series

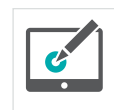
DFI provides an array of industrial-grade monitor series supporting multi-touch and Wifi display functions, which are suitable for harsh environments in various applications. The sizes are available covering from 7" to 21.5".

IP65 Front Water Proof



IP65 Rating

Resistive or Projected Capacitive Touch



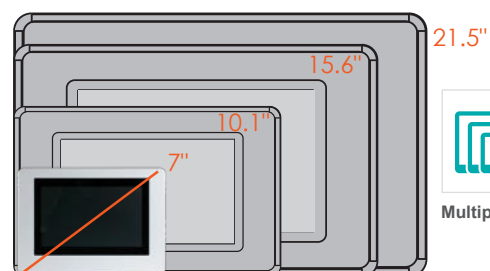
Resistive Touch

Modular Extend Display Module Support



Wifi Display Module

Available in Several Sizes



21.5"

15.6"

10.1"

7"



Multiple Size

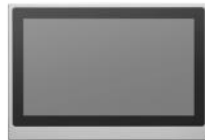


19"



17"

Model Name	IDP190-ME	IDP170-ME
Display Type	19" TFT LCD	17" TFT LCD
Max. Resolution	1280 x 1024	1280 x 1024
Brightness	250 cd/m ² (without Touch screen)	250 cd/m ² (without Touch screen)
Contrast Ratio	1000:1	1000:1
View Angle	170(H) / 160(V)	170(H) / 160(V)
Input Interface	VGA, HDMI, USB, DVI (Opt.), Audio, DC Jack	VGA, HDMI, USB, DVI (Opt.), Audio, DC Jack
Backlight Life	30,000 Hrs	30,000 Hrs
Power	AC Input 12V DC-IN	AC Input 12V DC-IN
Operating Temp.	0°C ~ 50°C	0°C ~ 50°C
Dimensions (W x H x D)	TBD	399.6 x 331 x 57 mm
External Display	-	-



15.6"



15"



7"

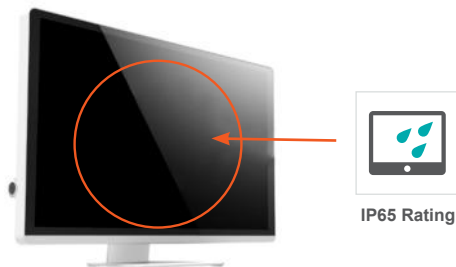
Model Name	IDP156-MS	IDP150-ME	IDP070-MS
Display Type	15.6" PCAP / Resistive TFT	15" TFT LCD	7" PCAP / Resistive TFT
Max. Resolution	1366 x 768	1024 x 768	800 x 480
Brightness	400 cd/m ²	300 cd/m ² (without Touch screen)	500 cd/m ²
Contrast Ratio	800:1	2500:1	400:1
View Angle	170(H) / 130(V)	176(H) / 176(V)	130(H) / 140(V)
Input Interface	VGA, DVI, HDMI, USB, Line-in	VGA, HDMI, USB, DVI (Opt.), Audio, DC Jack	VGA, DVI, HDMI, USB, COM, Line-in
Backlight Life	50,000 Hrs	50,000 Hrs	40,000 Hrs
Power	20V USB Type C VDC input / 12 to 24 VDC input with DC Jack	AC Input 12V DC-IN	20V USB Type C VDC input / 12 to 24 VDC input with DC Jack (Opt.)
Operating Temp.	0°C ~ 70°C	0°C ~ 50°C	0°C ~ 75°C / -40°C ~ 75°C (Opt.)
Dimensions (W x H x D)	407.3 x 227.3 x 56 mm	358.7 x 281.7 x 55 mm	224 x 163.55 x 43.6 mm
External Display	Wifi Display	-	Wifi Display



Application Specific Group

DFI Application Specific Group is a slim and stylish medical grade touch display, featuring P-CAP, various I/O, Full HD resolution, IEC / EN 60601-1 standard, and DICOM Part 14 compliance. It provides excellent medical image quality, color reproduction and image contrast to meet a variety of medical imaging segments such as clinical review or clinical consultant.

IP65 Front Water Proof



Certification and Regulatory

Design for safety / reliability / anti-bacterial



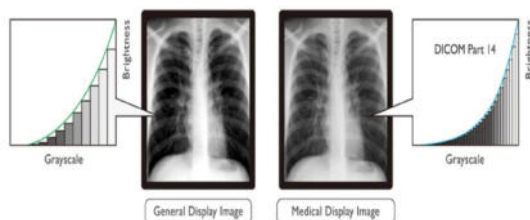
EMI IT & Medical, Safety - IT



Safety - Medical

IEC 60601-1
Compliance

DICOM Grayscale and Gamma Correction



Support Gamma 2.2
Gamma Correction (LUT 10bits)

Built-in Medical Level Power (Option)





27"



23.8"



21.5"



15.6"

Model Name		MDPi270	MDPi238	MDPi215	MDP156
Display	Display	27" TFT LCD	23.8" TFT LCD	21.5" TFT LCD	15.6" TFT LCD
	Max. Resolution	1920 x 1080 (4K Option)	1920 x 1080	1920 x 1080	1920 x 1080
	Luminance	300 nits	250 nits	350 nits	250 nits
	Contrast	3000:1	1000:1	1000:1	700:1
	View Angle	160(H) / 140(V)	178(H) / 178(V)	178(H) / 178(V)	-85~85(H) / -85~85(V)
	Color Depth	8 bits	6 bits + FRC	8 bits	6 bits
	Display Colors	16.7M	16.7M	16.7M	262K
	Response Time (ms)	12 (On/Off)	14 (GtG)	22 (On/Off)	30
	Backlight MTBF	30,000 hrs (Min.)	30,000 hrs (Min.)	50,000 hrs (Min.)	50,000 hrs (Min.)
Touch Screen	Type	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
	Touch Point	10	10	10	10
	Glass Coating	AG	AG	AG	N/A
	Interface	Combo (USB/RS232)	Combo (USB/RS232)	Combo (USB/RS232)	USB
Systems	Color Temperature	Neutral/Warm/Cool/User	Neutral/Warm/Cool/User	Neutral/Warm/Cool/User	9300/7500/6500/5800/sRGB/User
	Gamma Selection	Neutral/2.2/DICOM	Neutral/2.2/DICOM	Neutral/2.2/DICOM	OFF/1.8/2.0/2.2/2.4
	Gamma LUT (bits)	10	10	10	N/A
	OSD Languages	English/French/German/ Italian/Spanish/Japanese	English/French/German/ Italian/Spanish/Japanese	English/French/German/ Italian/Spanish/Japanese	English/Japanese
	Speaker	2 x 2W Speaker	2 x 2W Speaker	2 x 2W Speaker	2 x 2 Watt speaker
I/O Interface	VGA	1 VGA	1 VGA	1 VGA	1 VGA
	DP	1 DP1.2	1 DP1.2	1 DP1.2	N/A
	HDMI / DVI	1 HDMI 1.4 or DVI-D	1 HDMI 1.4 or DVI-D	1 HDMI 1.4 or DVI-D	1 HDMI
	Audio	1 Line-in	1 Line-in	1 Line-in	1 Line-in
	Power input	1 DC IN	1 DC IN	1 DC IN	1 DC IN
Power requirements	AC Input	External power adapter, 100 ~ 250V	External power adapter, 100 ~ 250V	External power adapter, 100 ~ 250V	DC 12V /3A, < 36 Watt
	Power Consumption	40W (Max)	40W (Max)	40W (Max)	10W typical, normal operation
Mechanical	Chassis Material	Plastic ABS	Plastic ABS	Plastic ABS	Plastic
	Color	White	White	White	White
	Dimension (W x H x D)	651 x 441 x 175 mm (with Stand) 651 x 402 x 69 mm (w/o Stand)	581 x 400 x 175 mm (with Stand) 581 x 360 x 69 mm (w/o Stand)	537 x 387 x 175 mm (with Stand) 537 x 339 x 69 mm (w/o Stand)	387.8 x 232.9 x 38.45 mm
	Weight	10.3 (with Stand) 8.4 (w/o Stand)	9.5 (with Stand) 7.7 (w/o Stand)	8.2 (with Stand) 6.5 (w/o Stand)	3.5 (w/o Stand)
	Mounting	100 x 100 mm VESA mount	100 x 100 mm VESA mount	100 x 100 mm VESA mount	75 x 75 mm VESA mount
	Operating Temperature	0°C ~ 40°C	0°C ~ 40°C	0°C ~ 40°C	0°C ~ 40°C
	Storage Temperature	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C
	Operating Humidity	30% ~ 75% (non-condensing)	30% ~ 75% (non-condensing)	30% ~ 75% (non-condensing)	5% ~ 95% (non-condensing)
Others	OSD	RotaryKnob buttons on the side edge Power On/Off, Menu	RotaryKnob buttons on the side edge Power On/Off, Menu	RotaryKnob buttons on the side edge Power On/Off, Menu	7 keys (Menu,Input,Power...)
Certification	Certification	cTUVus(60601 Ed3.1), CE(EN 60601-1, EN60601-1-2.), FCC-class B	cTUVus(60601 Ed3.1), CE(EN 60601-1, EN60601-1-2.), FCC-class B	cTUVus(60601 Ed3.1), CE(EN 60601-1, EN60601-1-2.), FCC-class B	CE, FCC, RoHS, UL60601
Protection	IP level	IP65 Rating Protection in front bezel & IPx1 in back cover	IP65 Rating Protection in front bezel & IPx1 in back cover	IP65 Rating Protection in front bezel & IPx1 in back cover	-

*Populated by default



10.1"



10.1"



7"

Model Name		VP101-BT	VP101-M8M	VP070-M8M
Platform		Atom	ARM	ARM
System	Processor	Intel® Atom® Processor E3800	NXP i.MX 8M Dual / Quad Cortex-A53	NXP i.MX 8M Dual / Quad Cortex-A53
	Socket	BGA 1170	-	-
	Max. Speed	1.33~1.91GHz	1.3GHz	1.3GHz
	TDP	10W	-	-
	Cache	2M / 1M	-	-
	BIOS	AMI SPI 64Mbit	-	-
Memory	Technology	Single Channel DDR3L 1333MHz	Single Channel LPDDR4 3200 MHz	Single Channel LPDDR4 3200 MHz
	Max. Capacity	2GB / 4GB	2GB / 4GB	2GB / 4GB
	Socket	ECC Memory Down	Memory Down	Memory Down
Display & Touch Screen	Display Type	10.1" TFT LCD Panel with Capacitive Touch Screen	10.1" PCAP TFT	7" PCAP TFT
	Max. Resolution	1280 x 800	1280 x 800	1024 x 600
	Brightness	500 cd/m²	1200 cd/m², 500 cd/m²	425 cd/m²
Graphics	Connector	1 HDMI, 1 VGA	-	-
Storage		1x 2.5" SATA 2.0 Drive Bay, 1 micro SD (Opt.), Onboard eMMC (Opt.)	16GB eMMC (Up to 64GB)	16GB eMMC (Up to 64GB)
Expansion	Mini PCIe, M.2, PCIe, SIM	3 Mini PCIe, 1 SIM	1 M.2 2242/3042 B Key, 1 M.2 2230 E Key, 1 Nano SIM	1 M.2 2242/3042 B Key, 1 M.2 2230 E Key, 1 Nano SIM
Audio	Audio Codec	Realtek ALC886	SGTL5000	SGTL5000
Ethernet	Controller	2 Intel® I210AT	AR8035	AR8035
LED	Indicators	Power, HDD LED	Power	Power
I/O	Ethernet	2 GbE	1 GbE	1 GbE
	Serial	4 RS-232/422/485, 1 RS-232	1 RS-232/422/485, 3 RS-232, 1 CAN Bus	1 RS-232/422/485, 1 RS-232, 1 CAN Bus
	USB	1 USB 3.2 Gen1, 3 USB 2.0	2 USB 3.2 Gen1, 1 OTG micro USB	2 USB 3.2 Gen1, 1 OTG micro USB
	Display	1 HDMI, 1 VGA	-	-
	Audio	1 Line-out, 1 Mic-in	1 x 3W Speaker	with Amplifier to support 2W speaker (Opt.) 1 Line-out, 1 Mic-in (internal header)
	Buttons	Power Button, Reset Button	1 Reset switch, 1 re-download switch	1 Reset switch
	Wi-Fi Antenna	2	-	-
Power		9~36V DC-in In-Vehicle Power Management Includes Ignition On/Off and System On/Off Delay Time Control	9~36V DC Power input, with ACC / IGN control	9~36V DC Power input, with ACC / IGN control
OS Support		Win7, Win10, Linux	Android 9.0 / Yocto 2.5 (Opt.)	Android 9.0 / Yocto 2.5 (Opt.)
Mechanism	Construction	Aluminum Front Bezel	Aluminum + SGCC	Aluminum + SGCC
	IP Rating	IP65 Front Panel	IP65 Front Panel	IP65 Front Panel
	Mounting	Panel / VESA Mount	Panel / VESA Mount	Panel / VESA Mount
	Dimensions (W x H x D)	294 x 193 x 65 mm	294 x 193 x 53 mm	235 x 150 x 54 mm
	Weight	1.7 kg	1.67 kg	2.9 kg
Environment	Operating Temp.	-20°C ~ 60°C	-20°C ~ 70°C	-20°C ~ 70°C
	Relative Humidity	5% ~ 85% RH (non-condensing)	10% ~ 90% RH (non-condensing)	10% ~ 90% RH (non-condensing)

*Populated by default