



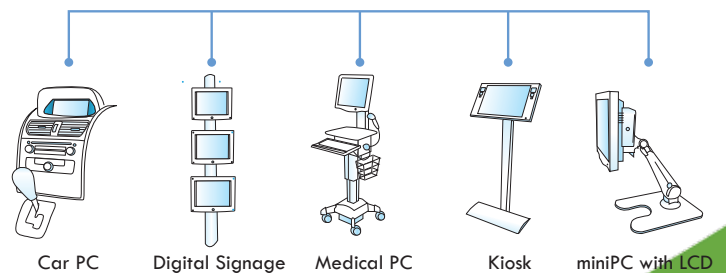
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DIGITAL ENGINE

There are a lot of different possibilities for the application of AOpen Digital Engine products, such as Car PC, kiosk, digital signage, medical systems, and industrial applications or just as stand alone application, where space is critical en the environment is harsh. The Digital Engine products are developed to have a low maintenance and operate on a near silent basis.

- Highly compact size 166mm x 157mm x 48mm.
- Low energy consumption – uses as little as 65 watts. (most desktop units use 275 to 400 watts)
- Low heat output – can fit into small areas and applications without overheating.
- Quiet – 25db. Able to be used in high traffic areas without distracting noise.

The best solution for commercial applications



Car PC

Digital Signage

Medical PC

Kiosk

miniPC with LCD

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- Supports Intel Core 2 Duo (Merom/Penryn) / Celeron socket P CPU
- Supports Dual Channel DDR-II 667/533MHz up to 4GB
- Supports one 2.5" S-ATA HDD and one slim optical drive
- Onboard Giga LAN, USB 2.0 (Front x2, Rear x2) Ports
- Onboard RS232 serial port
- Power in DC19V 90W adapter
- Supports miniCard slot



HDCP HDMI™

DE965-PRO		
Part Number	91.ADE01.I620	
EAN/JAN Code	471260-293291-2	
Housing Material	SECC t=0.8mm	
Housing Color	Black	
Dimension	WxHxD(mm)	166(W) x 48(H) x 157(D) mm
	WxHxD(inch)	6.54(W) x 1.89(H) x 6.18(D) inch
Volume(liters)	1.25L	
Weight(Kg/Pound)	1.22 kg / 2.68 pound (N.W.)	
CPU	Socket	Socket P
	Type	Support Intel Core 2 Duo, Celeron CPU (Santa Rosa & Santa Rosa Refresh)
	FSB	533/800 MHz
Chipset	NB	Intel GM965 Chipset
	SB	ICH8M
Memory	Dual Channel	Dual Channel
	Type	DDR II SO-DIMM x 2
	DDR	533/667
	Max Memory	4G (1)
Graphics	Chip	Intel GM965 onDie Intel GMA X3100
	VGA Port	x 2
	HDMI Port	x 1
Expansion Slot	mini Card Slot	x 1
Audio	Type	Realtek HD Audio Codec ALC662
	Channel	Stereo / 5.1 CH with HDMI
LAN	Realtek Gigabit Ethernet 10/100/1000	
USB 2.0	x 4 (2 (Rear), 2 (Front))	
Storage	ATA Connector	x 1 (for Slim Optical)
	S-ATA Connector	x 1 (for 2.5" HDD)
Security	Kensington Lock Hole	x 1 (Rear)
Storage Bay	Slot-in Slim ODD Bay	x 1
	2.5" SATA II HDD Bay	x 1
Front Panel IO	Power Button	x 1
	HDD indicator (blue)	x 1
	Power indicator (blue)	x 1
	USB 2.0 Port	x 2

DE965-PRO				
Rear Panel IO	DC 19V Jack	x 1		
	VGA Port	x 2		
	HDMI Port	x 1		
	USB 2.0 Port	x 2		
	RJ45 LAN Jack	x 1		
	Legacy RS232 Serial Port (COM Port)	x 1		
	Audio Set	Line-Out	x 1	
		Mic-In	x 1	
	Upgrade for Antenna Port	x 1		
	Kensington Lock Hole	x 1		
CPU Thermal	Module	AOpen Thermal Module		
	Noise	27dB		
WatchDog Timer	1 ~ 255 SEC./ min			
Adapter	90W (19V, 4.74A) AC Adapter			
Input Voltage	AC 100 ~ 240V			
Environment				
MTBF	40,000hrs			
Operating Temperature	0 ~ 50°C (32 ~ 122°F)			
Storage Temperature	-30 ~ 65°C (-22 ~ 149°F)			
Relative Humidity	95% RH (50°C non-Condensing)			
Operating Vibration	0.5Grms, Random, 10~500Hz, X,Y,Z 3Axes, 0.5hr/Axis			
Non-Operating Vibration	2Grms, Random, 10~300Hz, X,Y,Z 3Axes, 1hr/Axis			
Operating Shock	8G, Half sine, 11ms duration			
Non-Operating Shock	50G, Half sine, 11ms duration			
Accessory				
AC Adapter	90W PWR Adapter	90.MF657.0010	x 1	
Power Cord	EU Power Cord	27.027A0.1830	x 1	
MPI-SATA	55.8E110.X220		x 1	
L Type Holder	60.ADED3.0010		x 1	
Utilities & Drivers CD	x 1 (52.ADE01.N030)			
Assembly Guide	x 1 (49.ADE01.0510)			

* Max hardware structure. System will not be detected to 4GB due to chipset limitation.

Can be embedded anywhere!!

DIGITAL ENGINE DE-945CD



- Supports Intel Core 2 Duo (Merom) / Core Duo / Core solo / Celeron M socket M CPU
- Supports Dual Channel DDR-II 667/533 MHz up to 4GB
- **Security BIOS protection by AOpen Trusted Platform Module(TPM V1.2)**
- Onboard Giga LAN, USB 2.0 (Front x2, Rear x2) Ports
- Onboard RS232 serial port
- Supports one 2.5" S-ATA HDD and one slim optical drive
- Power in DC19V 90W adapter



DE-945CD		
Part Number	91.ADE01.I480	
EAN/JAN Code	471260-293105-2	
Housing Material	SECC t=0.8mm	
Housing Color	Black	
Dimension	WxHxD(mm)	166(W) x 48(H) x 157(D) mm
	WxHxD(inch)	6.54(W) x 1.89(H) x 6.18(D) inch
Volume(liters)	1.25L	
Weight(Kg/Pound)	1.23 kg / 2.72 pound (N.W.)	
CPU	Socket	Socket M
	Type	Support Intel Core 2 Duo / Core Duo / Core Solo / Celeron M 4xx CPU
Chipset	FSB	533/667 MHz
	NB	Intel 945GM Chipset
Memory	SB	ICH7M
	Dual Channel	Dual Channel
Memory	Type	DDRII SO-DIMM x 2
	DDR	533/667
	Max Memory	4G (1)
Graphics	Chip	Intel 945GM onDie Intel GMA 950
	DVI Port	x 1
	VGA Port	x 1 (via DVI-to-VGA Y Cable)
	Multi-TV Out Port	x 1 (Composite + S-Video + YPbPr), Cable Optional
Expansion Slot	mini PCI Slot	x 1
Audio	Type	Realtek HD Audio Codec ALC888
	Channel	5.1 CH
LAN	Intel Gigabit Ethernet 10/100/1000	
USB 2.0	x 4 (2 (Rear), 2 (Front))	
IEEE 1394	x 1 (Rear)	
Storage	ATA Connector	x 1 (for Slim Optical)
	S-ATA Connector	x 1 (for 2.5" HDD)
Security	Trusted Platform Modules (TPM v1.2)	Yes
	Kensington Lock Hole	x 1 (Rear)
Storage Bay	Slot-in Slim ODD Bay	x 1
	2.5" SATA II HDD Bay	x 1
Front Panel IO	Power Button	x 1
	HDD indicator (blue)	x 1
	Power indicator (blue)	x 1
	USB 2.0 Port	x 2

DE-945CD			
Front Panel IO	Power Button	x 1	
	HDD indicator (blue)	x 1	
	Power indicator (blue)	x 1	
	USB 2.0 Port	x 2	
Rear Panel IO	DC 19V Jack	x 1	
	DVI Port	x 1	
	S-Video Out Port	x 1	
	USB 2.0 Port	x 2	
	IEEE 1394 Port	x 1	
	RJ45 LAN Jack	x 1	
	Legacy RS232 Serial Port (COM Port)	x 1	
	Audio Set	Line-In	x 1 (Line-In / SPDIF_Out)
		Line-Out	x 1
		Mic-In	x 1
Upgrade for Antenna Port	x 1		
Kensington Lock Hole	x 1		
CPU Thermal	Module	AOpen Thermal Module	
	Noise	26dB	
WatchDog Timer	1 ~ 255 SEC / min		
Adapter	90W (19V, 4.74A) AC Adapter		
Input Voltage	AC 100 ~ 240V		
Environment			
MTBF	40,000hrs		
Operating Temperature	0 ~ 50°C (32 ~ 122°F)		
Storage Temperature	-30 ~ 65°C (-22 ~ 149°F)		
Relative Humidity	95% RH (50°C non-Condensing)		
Operating Vibration	0.5Grms, Random, 10~500Hz, X,Y,Z 3Axes, 0.5hr/Axis		
Non-Operating Vibration	2Grms, Random, 10~300Hz, X,Y,Z 3Axes, 1hr/Axis		
Operating Shock	8G, Half sine, 11ms duration		
Non-Operating Shock	50G, Half sine, 11ms duration		
Accessory			
AC Adapter	90W PWR Adapter	90.MF657.0010 x 1	
Power Cord	EU Power Cord	27.027A0.1830 x 1	
MPI-SATA		55.8E110.X220 x 1	
DVI to DVI & D-Sub Y Cable		50.8EX07.0010 x 1	
L Type Holder		60.ADED3.0010 x 1	
Utilities & Drivers CD		x 1 (52.ADE01.N010)	
Assembly Guide		x 1 (49.ADE01.0020)	

* Max hardware structure. System will not detected to 4GB due to chipset limitation.

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DIGITALENGINE

DE-945FL

MÖDT



- Excellent fanless thermal design with natural air convection
- Supports Intel Core solo / Celeron M socket M CPU (CPU consumption ≤ 27W)
- Supports Dual Channel DDR-II 667/533 MHz up to 4GB
- **Security BIOS protection by AOpen Trusted Platform Module (TPM v1.2) New Feature**
- Onboard Giga LAN, USB 2.0 (Front x2, Rear x2) Ports
- Onboard RS232 series port
- Supports one 2.5" S-ATA HDD
- Power in DC 19V 65W adapter



- Excellent thermal design to rise extra 22% conduction effect for each fin with two heat pipes
- Optimum design for fin gap to apply highest natural air convection effect

- Excellent heat conduction design with the special graphite device to equalize the heat distribution



- Excellent thermal performance allow horizontal/vertical placement



DE-945FL		
Part Number	91.ADE01.1490	
EAN/JAN Code	471260-293104-5	
Housing Material	SECC t=0.8mm	
Housing Color	Black	
Dimension	WxHxD(mm)	166(W) x 48(H) x 157(D) mm
	WxHxD(inch)	6.54(W) x 1.89(H) x 6.18(D) inch
Volume(liters)	1.25L	
Weight(Kg/Pound)	1.16 kg / 2.56 pound (N.W.)	
CPU	Socket	Socket M
	Type	Support Intel Core Solo / Celeron M 4xx CPU
	FSB	533/667 MHz
Chipset	NB	Intel 945GM Chipset
	SB	ICH7M
Memory	Dual Channel	Dual Channel
	Type	DDR II SO-DIMM x 2
	DDR	533/667
	Max Memory	4G (1)
Graphics	Chip	Intel 945GM onDie Intel GMA 950
	DVI Port	x 1
	VGA Port	x 1 (via DVI-to-VGA Y Cable)
	Multi-TV Out Port	x 1 (Composite + S-Video + YPbPr), Cable Optional
Expansion Slot	mini PCI Slot	x 1
Audio	Type	Realtek HD Audio Codec ALC888
	Channel	5.1 CH
LAN	Intel Gigabit Ethernet 10/100/1000	
USB 2.0	x 4 (2 (Rear), 2 (Front))	
IEEE 1394	x 1 (Rear)	
Storage	ATA Connector	x 1 (for Slim Optical)
	S-ATA Connector	x 1 (for 2.5" HDD)
Security	Trusted Platform Modules (TPM v1.2)	Yes
	Kensington Lock Hole	x 1 (Rear)
	Storage Bay	2.5" SATA II HDD Bay x 1
Front Panel IO	Power Button	x 1
	HDD indicator (blue)	x 1
	Power indicator (blue)	x 1
	USB 2.0 Port	x 2

DE-945FL				
Rear Panel IO	DC 19V Jack	x 1		
	DVI Port	x 1		
	S-Video Out Port	x 1		
	USB 2.0 Port	x 2		
	IEEE 1394 Port	x 1		
	RJ45 LAN Jack	x 1		
	Legacy RS232 Serial Port (COM Port)	x 1		
	Audio Set	Line-In	x 1 (Line-In / SPDIF_Out)	
		Line-Out	x 1	
		Mic-In	x 1	
Upgrade for Antenna Port	x 1			
Kensington Lock Hole	x 1			
CPU Thermal	Module	AOpen Proprietary Fan Less Thermal Solution		
	Noise	20db		
WatchDog Timer	1 ~ 255 SEC./ min			
Adapter	65W (19V, 3.42A) AC Adapter			
Input Voltage	AC 100 ~ 240V			
Environment				
MTBF	40,000hrs			
Operating Temperature	5 ~ 40°C (41 ~ 104°F)			
Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)			
Relative Humidity	90% RH (40°C non-Condensing)			
Operating Vibration	0.5Grms, random, 10~500Hz, X,Y,Z 3Axes, 0.5hr/Axis			
Non-Operating Vibration	2Grms, random, 10~300Hz, X,Y,Z 3Axes, 1hr/Axis			
Operating Shock	8G, Half sine, 11ms duration			
Non-Operating Shock	50G, Half sine, 11ms duration			
Accessory				
AC Adapter	65W PWR Adapter	90.8EX57.0160	x 1	
Power Cord	EU Power Cord	27.027A0.1830	x 1	
MPI-SATA	55.8E110.X220		x 1	
DVI to DVI & D-Sub Y Cable	50.8EX07.0010		x 1	
Rubber Pad foot	47.ADE04.0010		x 1	
Utilities & Drivers CD	x 1 (52.ADE01.N010)			
Assembly Guide	x 1 (49.ADE01.0210)			

* Max hardware structure. System will not detected to 4GB due to chipset limitation.

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DIGITALENGINE DE896-FL



• Optimum design for fin gap to apply highest natural air convection effect



• Excellent heat conduction design with the special graphite device to equalize the heat distribution

- Excellent fanless thermal design with natural air convection
- VIA C7 1.5GHz CPU inside with VIA VT8237S chipset
- Supports DDR-II 667/533 MHz up to 2GB
- Onboard Giga LAN, USB 2.0 (Front x2, Rear x2) Ports
- Onboard RS232 series port
- Supports one 2.5" S-ATA HDD
- Power in DC19V 65W adapter



• Excellent thermal performance allow horizontal/vertical placement



DE896-FL		
Part Number	91.ADE01.8140	
EAN/JAN Code	471260-293223-3	
Housing Material	SECC t=0.8mm	
Housing Color	Black	
Dimension	WxHxD(mm)	166(W) x 48(H) x 157(D) mm
	WxHxD(inch)	6.54(W) x 1.89(H) x 6.18(D) inch
Volume(liters)	1.25L	
Weight(Kg/Pound)	1.07 kg / 2.36 pound (N.W.)	
CPU	Socket	VIA nano-BGA2 C7
	Type	VIA C7 1.5GMz CPU inside
	FSB	400 MHz
Chipset	NB	VIA CN896 Chipset
	SB	VIA VT8237S
Memory	Type	DDRII SO-DIMM x 1
	DDR	400/533/667
Graphics	Max Memory	2G
	Chip	VIA Chrome9 HC DX9 IGP
Expansion Slot	VGA Port	x 1
	mini PCI Slot	x 1
Audio	Type	Realtek HD Audio Codec ALC883
	Channel	5.1 CH
LAN	Realtek Gigabit Ethernet	
USB 2.0	10/100/1000	
Storage	S-ATA Connector	x 4 (2 (Rear), 2 (Front))
Security	Kensington Lock Hole	x 1 (Rear)
Storage Bay	2.5" SATA II HDD Bay	x 1
Front Panel IO	Power Button	x 1
	HDD indicator (blue)	x 1
	Power indicator (blue)	x 1
	USB 2.0 Port	x 2
Rear Panel IO	DC 19V Jack	x 1
	VGA Port	x 1
	USB 2.0 Port	x 2
	RJ45 LAN Jack	x 1

DE896-FL			
Rear Panel IO	Legacy RS232 Serial Port (COM Port)		x 1
	PS/2 Port		x 1
	Audio Set	Line-In	x 1
		Line-Out	x 1
		Mic-In	x 1
	Upgrade for Antenna Port		x 1
Kensington Lock Hole		x 1	
CPU Thermal	Module	AOpen Proprietary Fan Less Thermal Solution	
	Noise	20dB	
	WatchDog Timer	1 ~ 255 SEC./ min	
Adapter	65W (19V, 3.42A) AC Adapter		
Input Voltage	AC 100 ~ 240V		
Environment			
MTBF	40,000hrs		
Operating Temperature	0 ~ 50°C (32 ~ 122°F)		
Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)		
Relative Humidity	90% RH (45°C non-Condensing)		
Operating Vibration	0.5Grms, random, 10~500Hz, X,Y,Z 3Axes, 0.5hr/Axis		
Non-Operating Vibration	2Grms, random, 10~300Hz, X,Y,Z 3Axes, 1hr/Axis		
Operating Shock	8G, Half sine, 11ms duration		
Non-Operating Shock	50G, Half sine, 11ms duration		
Accessory			
AC Adapter	65W PWR Adapter	90.8EX57.0160	x 1
Power Cord	EU Power Cord	27.027A0.1830	x 1
MPI-SATA		55.8E110.X220	x 1
PS/2 Y Cable		50.ADE02.0010	x 1
Rubber Pad foot		47.ADE04.0010	x 1
Utilities & Drivers CD	x 1 (52.ADE01.N020)		
Assembly Guide	x 1 (49.ADE01.0310)		

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Holders

Model Name	LH01	LH02	ST01
Product Name	L Bracket	L Bracket	Vertical Stand
Mountability	Aopen Proprietary Dimension	Aopen Proprietary Dimension	Aopen Proprietary Dimension
Application	Horizontal Application Vertical Application	Horizontal Application Vertical Application	Vertical Application
Support Model	DE965-PRO	DE965-PRO	DE965-PRO
	DE-945CD	DE-945CD/FL	DE-945CD/FL
		DE896-FL	DE896-FL

Model Name	VM02	VM03	VM04
Product Name	LCD Back Mount Kit	LCD Back Mount Kit/w Cover	U Bracket
Mountability	VESA Standard	VESA Standard	VESA Standard
Application	To mount Digital Engine on the back of the display with 75 x 100mm VESA FDMI (Flat Display Mounting Interface) compliant holes.	To mount Digital Engine on the back of the display with 75 x 100mm VESA FDMI (Flat Display Mounting Interface) compliant holes. (with Cable Management)	To mount Digital Engine on the back of the Panel with 75 x 100mm VESA FDMI (Flat Display Mounting Interface) compliant holes.
Support Model	DE965-PRO	DE965-PRO	DE965-PROZ
	DE-945CD/FL	DE-945CD	DE-945CD
	DE896-FL		DE896-FL

Accessories

Model Name	TV Tuner Kit (DVBT)	802.11b/g Wireless kit	TV Tuner Kit (DVBT)	802.11b/g Wireless kit (Black)	ER01 Express Card Reader	SB01 CF to 2.5" SATA HDD Bridge Board	UB01 2 port USB Expansion Module
AOpen P/N	90.MA610.0020	90.MA658.0010	90.MA610.0320	90.8EX58.0020	90.ADE62.0010	91.MA601.0410	
EAN Code	471260-293322-3	471260-293023-9	471260-293320-9	471061-447186-3	471260-293491-6		
UPC Code		750519-17310-7		750519-14862-4			
Product Picture							
Slot	mini Card		mini PCI		USB	SATA	USB
Interface	PCIe		PCI				
Module Board	Analog / DVB-T TV Yuan Hybrid TV MiniCard (Analog TV includes PAL, SECAM, NTSC)	802.11b/g 54Mbps Wireless LAN PCI Express Mini Card	Analog / DVB-T TV Yuan Hybrid Mini PCI TV card (Analog TV includes PAL, SECAM, NTSC)	802.11b/g 54Mbps Wireless LAN Mini PCI Card	Utilize slim ODD space it can install this module to USB Express Card Reader for 3G/3.5G modem card or memory card reader	Utilize 2.5" HDD space it can install this bridge board to support Compact Flash card to be a HDD	Utilize slim ODD space it can install this module to support 2 extra USB ports
Support Model	DE965-PRO	DE965-PRO	DE-945CD	DE-945CD	DE965-PRO	DE965-PRO	DE965-PRO
			DE-945FL	DE-945FL	DE-945CD	DE-945CD	DE-945CD
			DE896-FL	DE896-FL		DE-945FL	
					DE-945CD	DE896-FL	