

To emBEdded OR NOT TO emBEdded



Beyond Limitation of Embedded PC Design



ICOP Technology, established in 1997, is the world leading manufacturer of industrial embedded computers, industrial embedded controllers, industrial motion controllers, and industrial panel PCs used in the automation of numerous control systems.

Products

Modules



- ETX
- COMExpress
- Qseven
- SMARC
- SOM-304/200/128

SBC



- PC/104
- 3.5" SBC
- 2.5"/Tiny
- ISA Half-size
- ITX Board

PPC



- 4.3"
- 5.7"
- 9"
- 10.4"
- 15"

Box PC



Flash Disk



Key Feature

-40 to 85°C

Long life supply

I/O Expandable

- SOM
- Panel PC

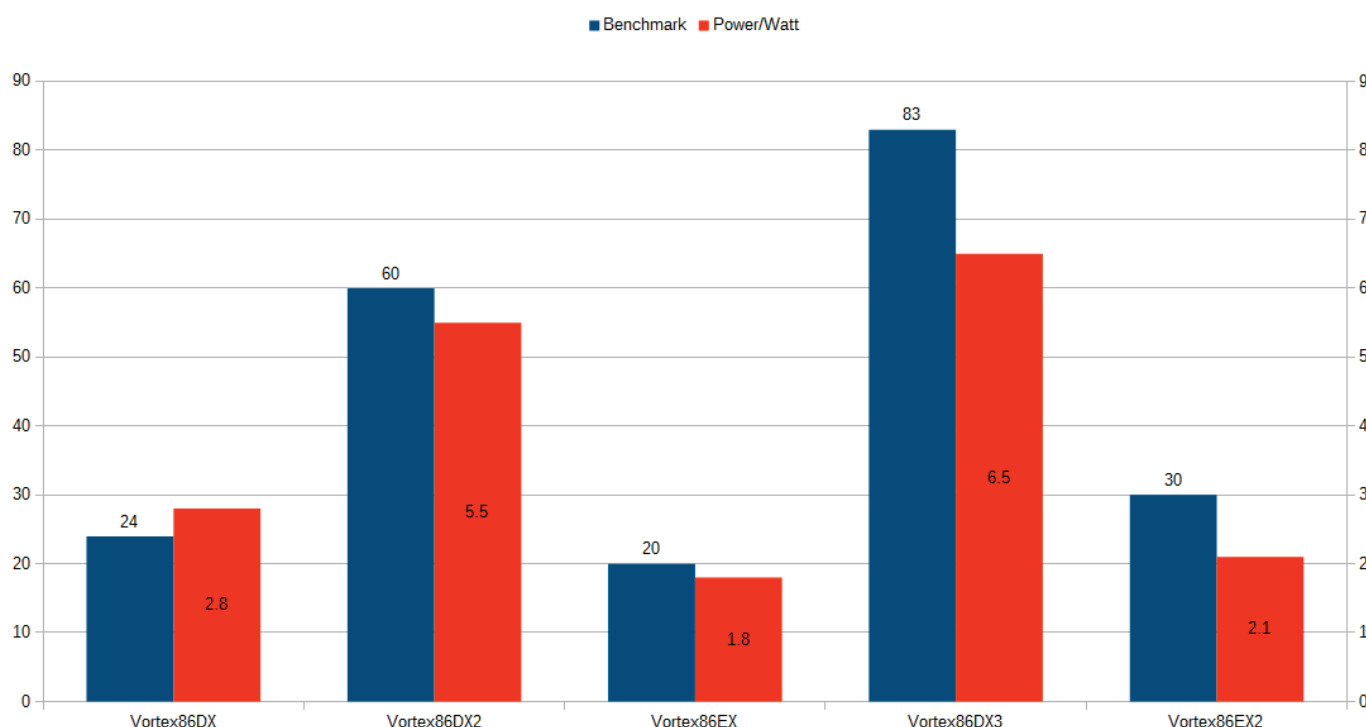
Legacy OS support

- Windows, Linux, VxWorks, QNX, RTOS, DOS

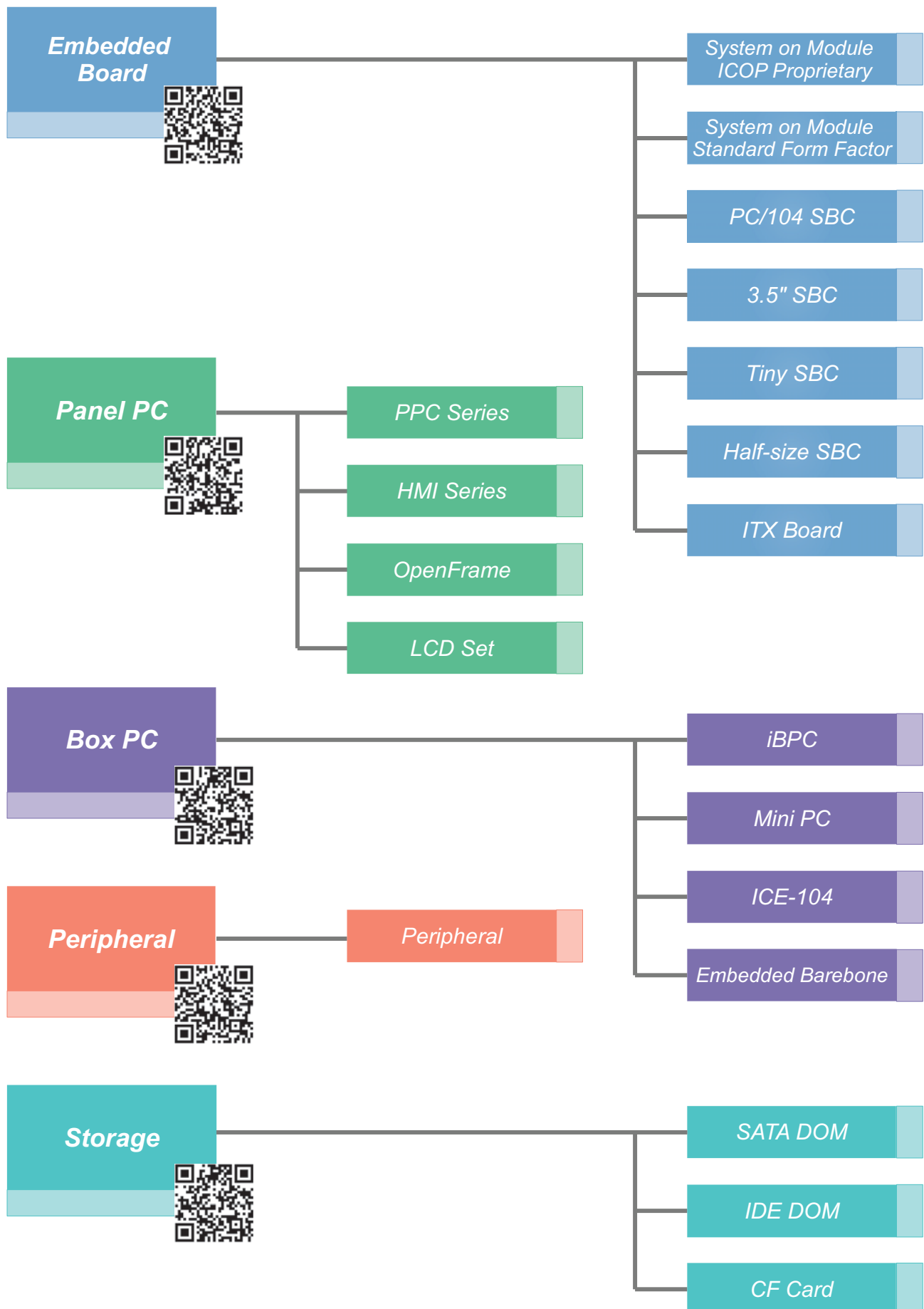
Fanless

EtherCAT Ready

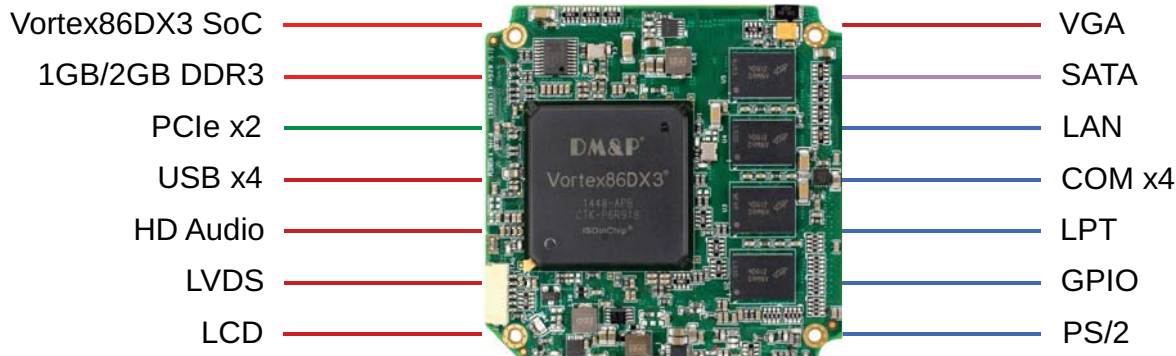
Benchmark & Power Consumption Index



Product Tree



SOM304

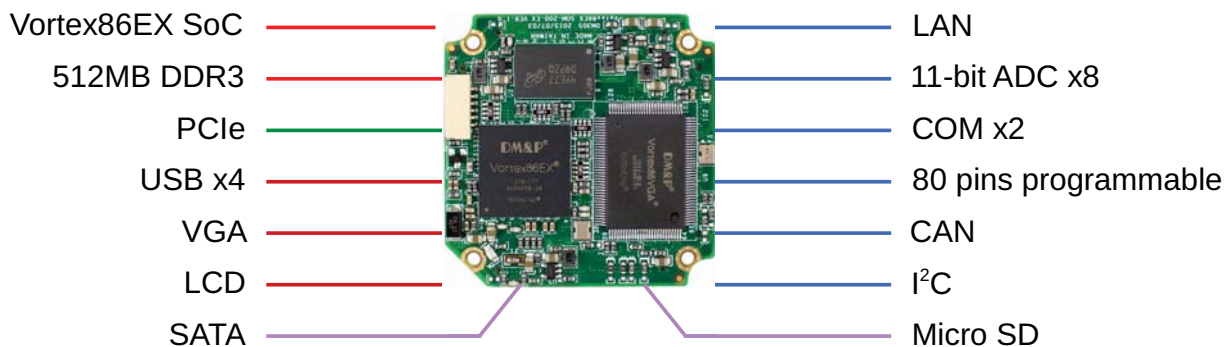


Power requirement: Single Voltage +5V
Dimensions: 70 X 70mm

PART NO.	CPU (MHz)	DRAM	COM	USB	SATA	IDE	VGA/ LCD	LAN	PCIe	ISA	GPIO
SOM304D375EINE1	1000	2GB	4	4	Yes	N/A	1/1	1	2	1	32-bit
SOM304D254EINE1-HS	800	1GB	4	4	Yes	N/A	1/1	1	2	1	32-bit
SOM304RD52VINE1	800	256MB	5	4	N/A	Yes	1/1	1	N/A	1	32-bit

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

SOM200



Power requirement: Single Voltage +5V@ 360mA
Dimensions: 52 X 52mm

PART NO.	CPU (MHz)	DRAM	USB	COM	VGA	PCI	PCIe	IDE	SATA	LAN	I ² C	CAN	11-bit ADC
SOM200EX43VGNE	400	512MB	2	2	1	N/A	N/A	N/A	1	1	1	1	1
SOM200EX43EGNE	400	512MB	2	2	N/A	N/A	1	N/A	1	1	1	1	1
SOM200RD52PCNE1	800	256MB	5	4	N/A	Yes	N/A	Yes	N/A	1	1	1	N/A

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

VEX-SOM



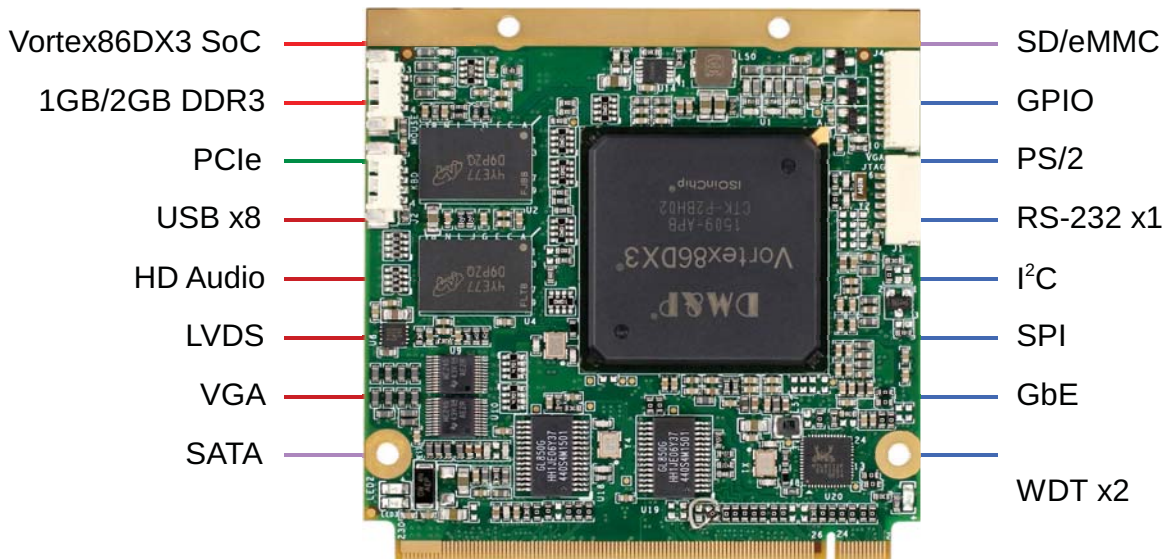
Power requirement: Single Voltage +5V @ 380mA
Dimensions: 45 X 28mm

PART NO.	CPU (MHz)	DRAM (DDR3)	COM	USB	SATA	PCIe	Onboard SPI Flash disk	LAN	11-bit ADC	I/O pins programmable
VEX-SOM	400	128MB	1	2	Yes	1	7.5MB	1	8	80

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

System on Module Standard Form Factor

Qseven

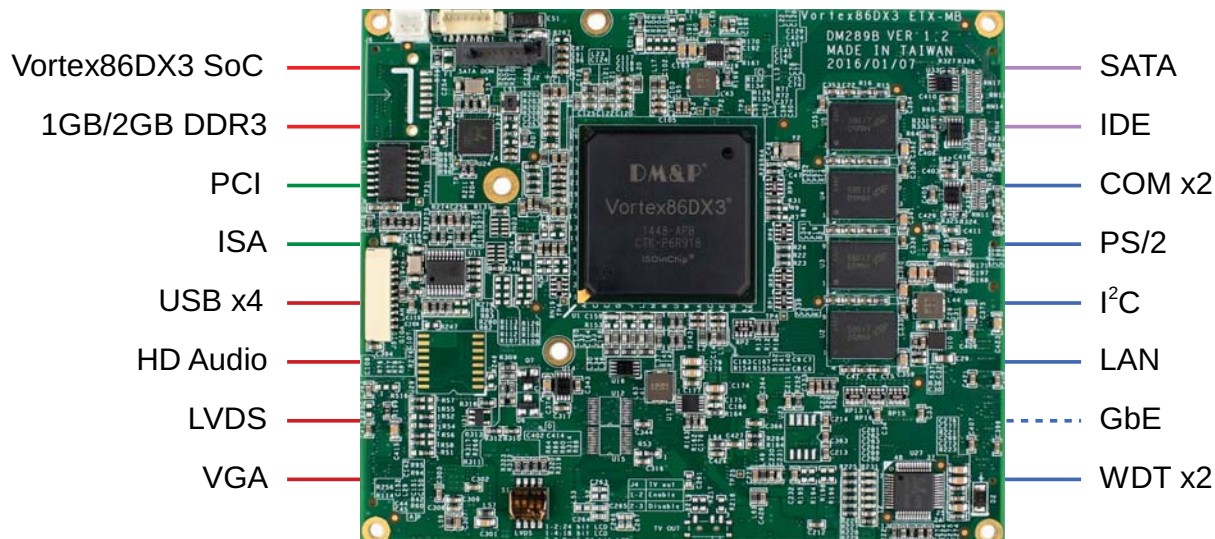


Power requirement: Single Voltage +5V
Dimensions: 70 X 70mm

PART NO.	CPU (MHz)	DRAM (DDR3)	USB 2.0/ USB 3.0	RS-232/ GbE	VGA/ LVDS	Audio	GPIO	SPI/ I²C	SD/ eMMC	LPC/SMB/ CANbus	SATA
VDX3-Q7-53S	800	512MB	8/0	1/1	Yes	Yes	8-bit	1/1	1/0	N/A	1
VDX3-Q7-74E	1000	1GB	8/0	1/1	Yes	Yes	8-bit	1/1	1/0	N/A	1
VDX3-Q7-75E	1000	2GB	8/0	1/1	Yes	Yes	8-bit	1/1	1/0	N/A	1

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

ETX



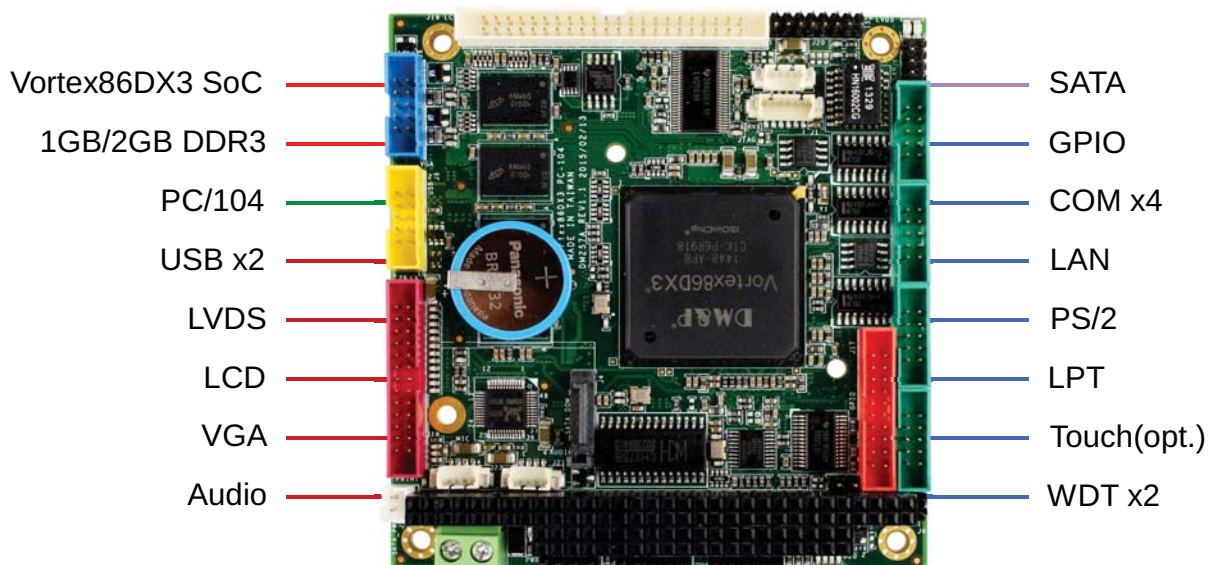
Power requirement: Single Voltage +5V@ 1.2A
Dimensions: 114 X 95mm

PART NO.	CPU (MHz)	DRAM (DDR3)	VGA/ LVDS	ISA/LAN/ Audio	SATA	P_IDE/ S_IDE	LPT	FDD	PCI	USB	COM	I²C
VDX3-ETX-53IE	800	512MB	Yes	Yes	V	1/0	N/A	N/A	Yes	4	2	1
VDX3-ETX-74IE	1000	1GB	Yes	Yes	V	1/0	N/A	N/A	Yes	4	2	1
VDX3-ETX-75IE	1000	2GB	Yes	Yes	V	1/0	N/A	N/A	Yes	4	2	1

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

PC/104 SBC

VDX3-6754

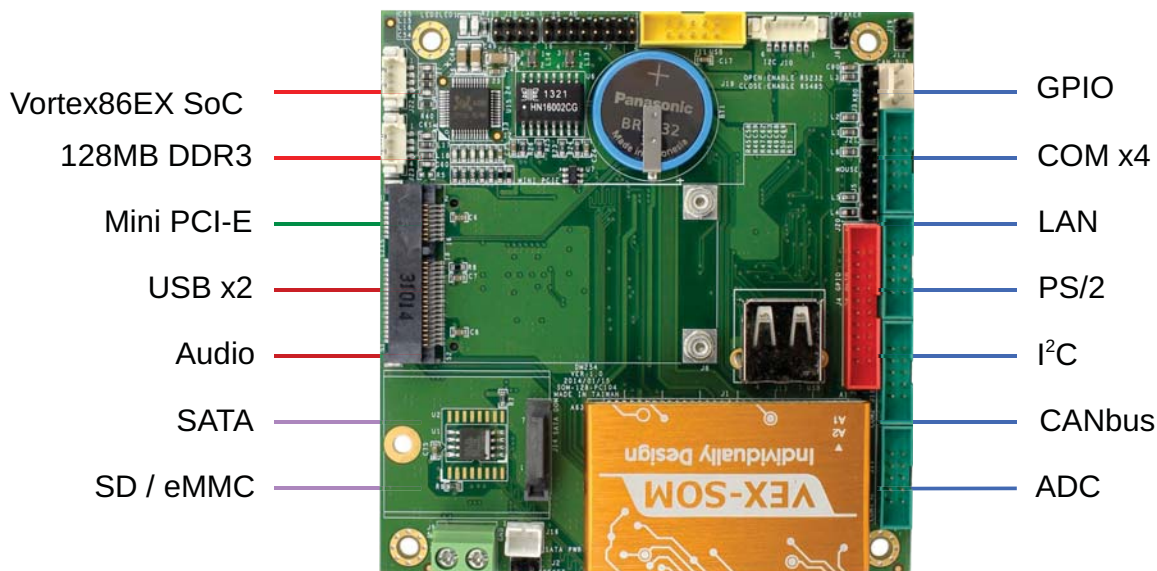


Power requirement: Single Voltage +5V@ 1.3A
Dimensions: 90 X 96mm

PART NO.	CPU (MHz)	DRAM	BUS	COM/USB	Display	LAN/LPT	GPIO	Storage	CAN	I ² C
VDX3-6755	1000	1GB/2GB	PC/104	3/2	VGA, LVDS	2/0	N/A	SATA	Opt.	N/A
VDX2-6554	800	512MB/1GB	PC/104	4/2	VGA, LVDS, TTL	1/1	16-bit	SATA	N/A	N/A
NAD11-103-SD	500	256MB	PC/104	4/4	VGA, LVDS, TTL	1/0	16-bit	SD	N/A	1

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

VEX-6254



Power requirement: Single Voltage +5V@ 400mA
Dimensions: 90 X 96mm

PART NO.	CPU (MHz)	DRAM (DDR3)	BUS	COM/USB	Display	LAN	Storage	ADC	SIM card
VEX-6253	400	128MB	X-ISA, Mini PCI-E	1/2	N/A	1	SATA	1	N/A
VEX-6253-3GE	400	128MB	X-ISA, Mini PCI-E	1/2	N/A	1	SATA, eMMC	1	1
VEX-6253-5S-S	400	128MB	x-ISA	5/2	N/A	1	SATA, SD	1	N/A
VEX-6252	400	128MB	Mini PCI-E	8/2	N/A	1	SATA, SD / eMMC	N/A	N/A

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

3.5" SBC

VDX3-6726

Vortex86DX3 SoC

1GB/2GB DDR3

PC/104

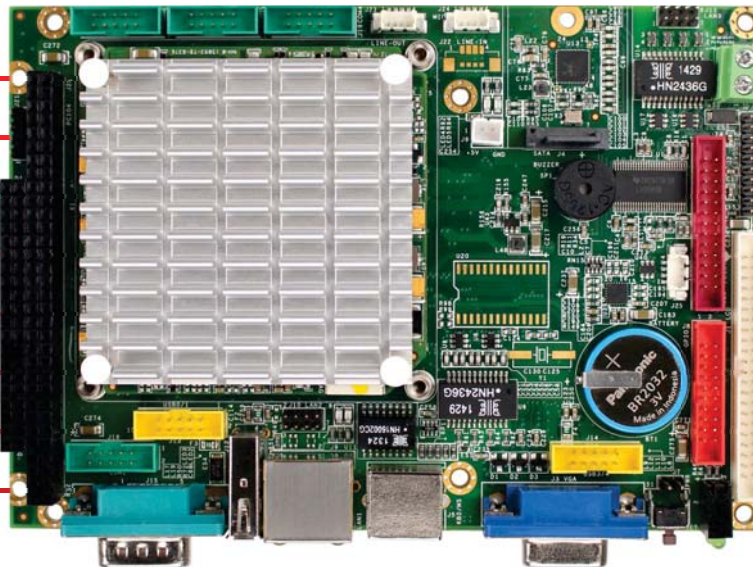
USB x4

LVDS

LCD

VGA

Audio



SATA

GPIO

COM x4

LAN x3

PS/2

LPT

Touch(Opt.)

WDT x2

Power requirement: Single Voltage +5V@ 1.3A
Dimensions: 102 X 144mm

PART NO.	CPU (MHz)	DRAM	BUS	COM	USB	Display	LAN	GPIO	Storage	LPT	Audio
VDX3-6726	1000	1GB/2GB	PC/104	4	4	VGA, LVDS, TTL	3	16-bit	SATA	1	Yes
VDX2-6526	800	512MB/1GB	PC/104	4	4	VGA, LVDS, TTL	3	16-bit	SATA	1	Yes
VDX-6328RD-NF	800	256/512MB	PCI/104+	4	3	VGA, LVDS, TTL	1	16-bit	IDE, CF	1	Yes

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

VEX-6225

Vortex86EX SoC

512MB DDR3

Mini PCIe x3*

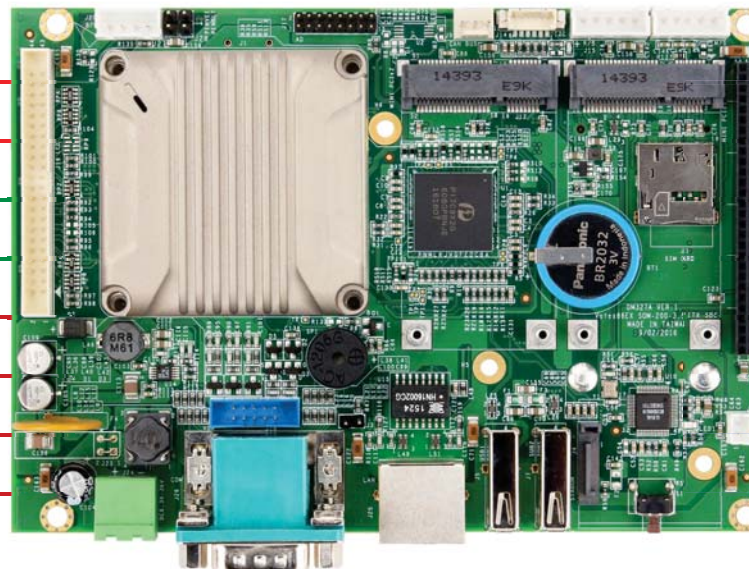
Expansion I/O Bus

USB x2

LVDS

LCD

VGA



SATA

Micro SD

COM x2

LAN

SIM Card

11-bit ADC x8

CAN

I2C

Power requirement: +12 – 24VDC Input
Dimensions: 102 X 144mm

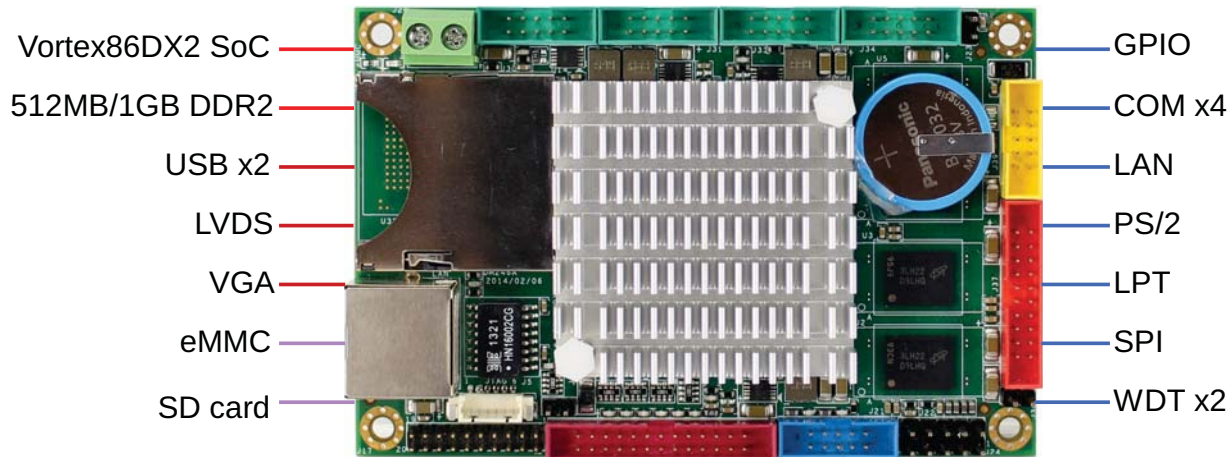
PART NO.	CPU (MHz)	DRAM (DDR3)	Mini PCIe	COM	USB	Display	LAN	SIM Card	Storage	CAN I2C	11-bit ADC	Expansion I/O
VEX-6225-43VE*	400	512MB	1	2	2	VGA LCD	1	1	SATA Micro SD	1/1	1	1
VEX-6225-43EE	400	512MB	3	2	2	N/A	1	1	SATA Micro SD	1/1	1	1

*Mini PCIe is only available for USB interface device

**Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

Tiny SBC

VDX2-6518



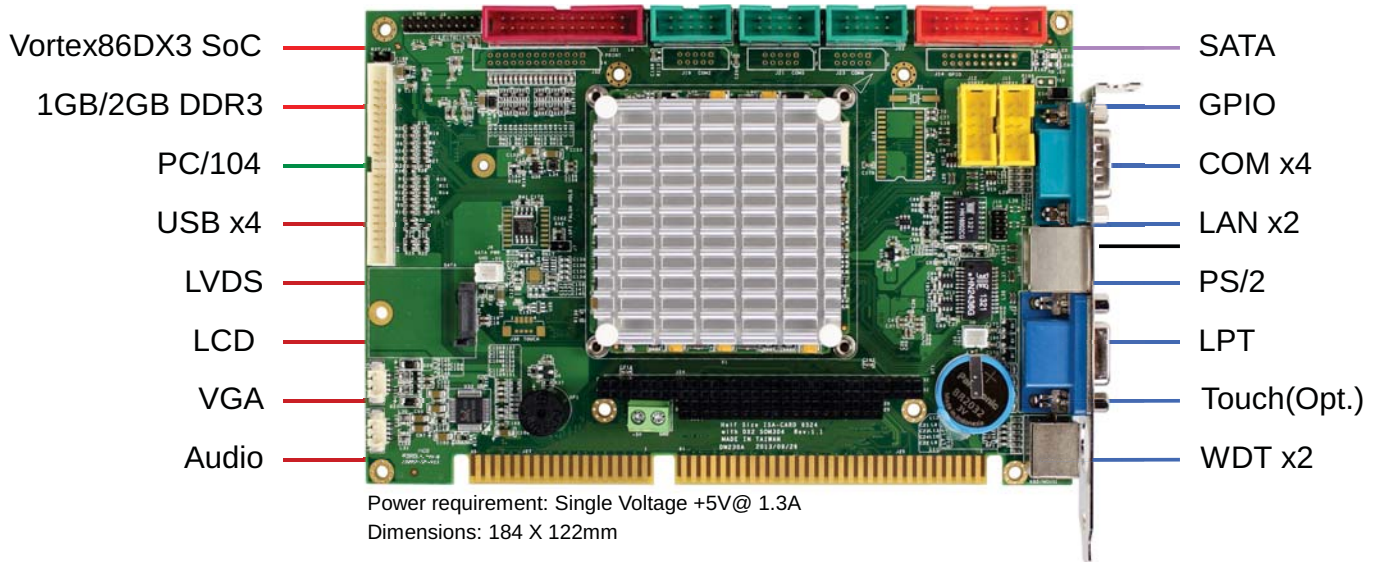
Power requirement: Single Voltage +5V@ 720mA
Dimensions: 100 X 66mm

PART NO.	CPU (MHz)	DRAM (DDR2)	BUS	COM	USB	VGA	TTL	LVDS	LAN/ LPT	GPIO	Audio	IDE
VDX-6318RD	800	256/512MB	N/A	4	4	Yes	Yes	N/A	1/0	32	Yes	Yes
VDX-6316RD	800	256/512MB	x-ISA	2	2	N/A	N/A	N/A	0/1	32	N/A	Yes
VDX-6315RD	800	256/512MB	x-ISA	4	2	N/A	N/A	N/A	1/1	32	N/A	Yes
VDX-6314RD	800	256/512MB	x-ISA	4	2	Yes	N/A	Yes	1/0	16	Yes	Yes

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

Half-size SBC

VDX3-6724



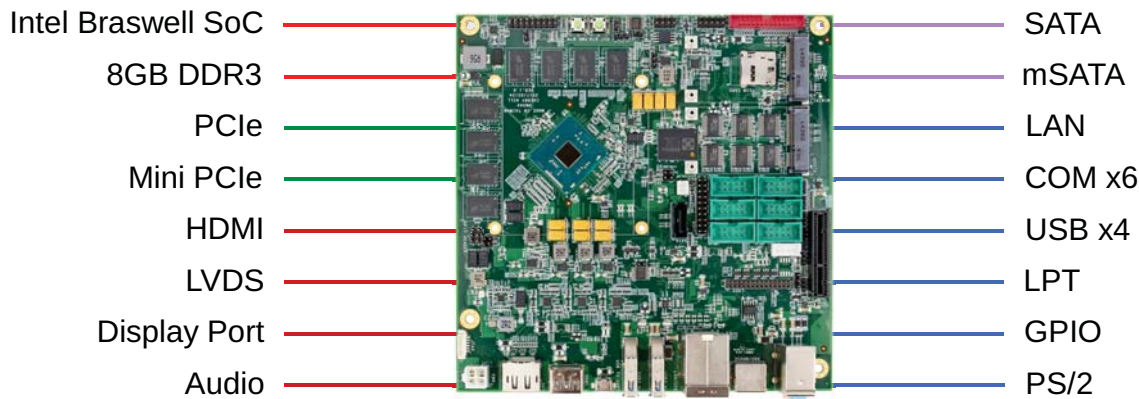
Power requirement: Single Voltage +5V@ 1.3A
Dimensions: 184 X 122mm

PART NO.	CPU (MHz)	DRAM	BUS	COM	USB	Display	LAN	GPIO	Storage	LPT	Audio
VDX3-6724-CF	1000	1GB/2GB	PC/104	4	4	VGA, LVDS, TTL	2	16-bit	SATA, CF	N/A	Yes
VDX2-6524	800	512MB/1GB	PC/104	4	4	VGA, LVDS, TTL	2	16-bit	SATA	1	Yes
VDX2-6524-CF	800	512MB/1GB	PC/104	4	4	VGA, LVDS, TTL	2	16-bit	SATA, CF	N/A	Yes
VDX-6324RD	800	256/512MB	PC/104	4	4	VGA, TTL	1	16-bit	IDE, CF	1	Opt.

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

ITX Board

Mini-ITX



Power requirement: Single Voltage +5V
170 X 170mm

PART NO.	CPU (GHz)	Number of Cores	DRAM (DDR3)	Bus	Display	Storage	Audio	LAN	COM	USB	I ² C	LPT/ GPIO
Intel-miniiTX	1.04	4	8GB	PCIe Mini PCIe	HDMI LVDS Display Port	SATA mSATA	Yes	1	6	4	2	Yes

*Operating Temp.: 0°C ~ +60°C

VDX3-EITX



Power requirement: +9V ~ +36V
Dimensions: 170 X 120mm

PART NO.	CPU (MHz)	DRAM (DDR3)	Storage	Display	LAN	USB	COM	DIO	CAN (Opt.)	Audio	Load dump test
VDX3-EITX	1000	1GB/2GB	SATA Compact Flash	VGA LVDS	2	6	4	1	1	MIC-In Line-Out	ISO7637-2 ISO16750-2

*Operating Temp.: -20°C ~ +70°C, -40°C ~ +85°C (Optional)

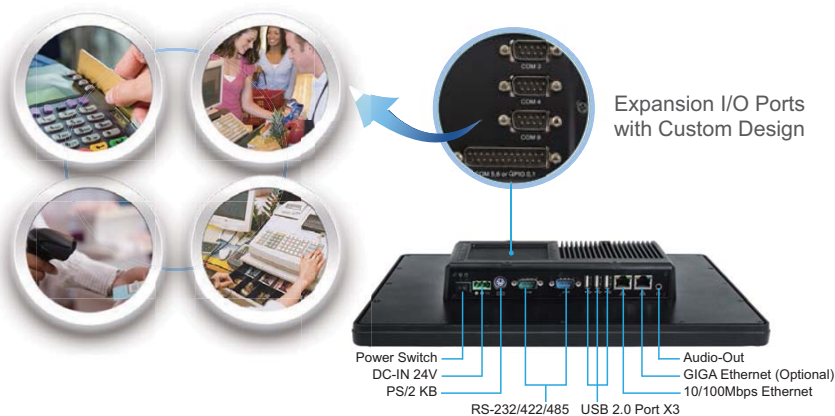
VDX3-PITX



Power requirement: Single Voltage +5V @ 1.5A
Dimensions: 100 X 72mm

PART NO.	CPU (MHz)	DRAM (DDR3)	Storage	Display	LAN	USB	GPIO	11-bit ADC	WDT
VDX3-PITX-7D5S	1000	2GB	Micro SD SATA(Optional)	VGA	1	4	8-bit (Up to 16-bit)	8	2

*Operating Temp.: -20°C ~ +70°C



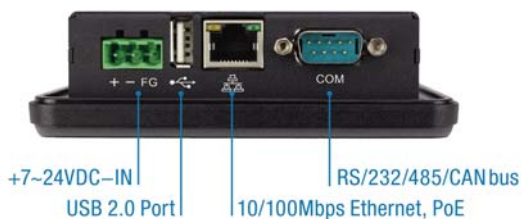
PPC Series

Model Name		PEX-057T	PEX-090T	PPC-090T	PPC-104T	PPC-150T
		PDX2-057T	PDX2-090T			
		PDX3-057T	PDX3-090T			
LCD Display	Size	5.7" VGA (640 x 480)	9" WSVGA (1024 x 600)	9" WSVGA (1024 x 600)	10.4" SVGA (800 x 600)	15" XGA (1024 x 768)
	Brightness	500 cd/m2	300 cd/m2	300 cd/m2	500 cd/m2	250 cd/m2
	Touch Screen Type	Analog Resistive				Analog Resistive /Capacitive Touch
CPU		Vortex86EX 400MHz Vortex86DX2 933MHz Vortex86DX3 1GHz		Vortex86DX2 933MHz Vortex86DX3 1GHz		
System Memory		1GB / 2GB Onboard		512MB / 1GB / 2GB Onboard		
Serial Port		RS-232/422/485 x 1		RS-232/422/485 x 2		
USB Port		USB Ports (Ver. 2.0) x 2		USB Ports (Ver. 2.0) x 3		
Ethernet		Integrated 10/100Mbps Ethernet		Integrated 10/100Mbps Ethernet / Giga Ethernet		
Internal Drive		Micro SD Slot (EX), optional for DX2 & DX3; Compact Flash Type I/II Slot (DX2 & DX3); 1GB/2GB Flash Onboard(optional for DX2 & DX3)		Compact Flash Type I/II Slot, SATA Slim, SD Slot (optional)		
Expansion I/O Port Support (optional)		No		PoE / COM x 5 / COM x 3 +16bit GPIO		
Power Requirement		+5VDC / +8VDC~+35VDC		+12VDC ~ +24VDC		
Power Consumption		20 W (Max.)		24 W (Max.)		
Operating Temperature		0~+50°C / -20°C~+60°C				
Storage Temperature		-30~+70°C				
Audio		HD Audio, Line-out x 1				
Dimensions (W x H x D) mm		152 x 112 x 33	236.6 x 146 x 35	242 x 156.5 x 44	273.4 x 219.8 x 49	354.8 x 280.3 x 55
Operating System		Linux, Win CE, Win XP, Win 7, Windows Embedded Standard				
Certificate		CE, FCC, VCCI, Vibration	CE, FCC, VCCI, Shock, Vibration, IP65 (Front Panel)			

PRTD-090T Series

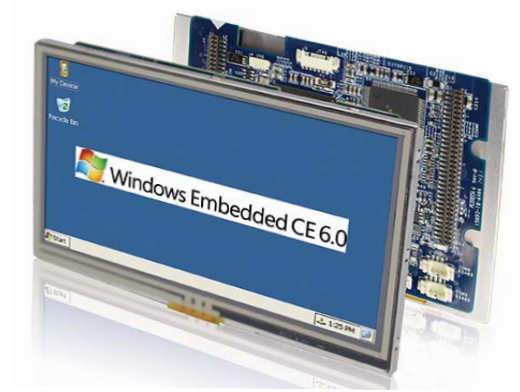


Hardware Specifications:				
LCD Display	Size	9" WSVGA (1024 x 600)	Audio	Line-out x 1
	Brightness	300 cd/m2	Power Requirement	+5VDC / +8VDC~+35VDC
	Touch Screen Type	Analog Resistive	Power Consumption	10 W (Max.)
CPU		RTD1195-1.2GHz Cortex-A7 Dual core	Operating Temperature	0°C ~ +60°C / -20°C ~ +70°C
System Memory		1GB / 2GB Onboard	Storage Temperature	-30°C ~ +70°C
Serial Port		RS-232 x 1	Dimensions (W x H x D) mm	236.6 x 146 x 35
USB Port		USB Port (Ver. 2.0) x 1, (Ver. 3.0) x 1	Operating System	Android 4.4.4
Ethernet		Giga Ethernet	Certificate	CE, FCC, VCCI, Shock, Vibration, IP65 (Front Panel)
Internal Drive		Micro SD slot, 8GB Flash Memory onboard (Android Pre-installed)		



HMI-043T Series

Hardware Specifications:				
LCD Display	Size	4.3" WQVGA (480 x 272)	HF RFID	Support (Optional)
	Brightness	280 cd/m2	Power Requirement	+7VDC ~ 24VDC
	Touch Screen Type	Analog Resistive	Power Consumption	12 W (Max.)
CPU		Vortex86EXm 400MHz	Operating Temperature	0°C ~ +50°C / -20°C ~ +60°C
System Memory		128MB / 256MB Onboard	Storage Temperature	-30°C ~ +70°C
Serial Port		RS-232/485/CANbus x 1 (Optional)	Dimensions (W x H x D) mm	116.4 x 94.4 x 34.3
USB Port		USB Port (Ver. 2.0) x 1	Operating System	Linux, Win CE, DOS
Ethernet		Intergrated10/100Mbps Ethernet, Support PoE/PD (Optional)	Certificate	CE, FCC, VCCI, Shock, Vibration, IP65 (Front Panel)
Internal Drive		SD Slot / 512MB or 8GB eMMC (Optional)		



HMI-043T Open Frame

Hardware Specifications:

LCD Display	Size	4.3" WQVGA (480 x 272)	Internal Drive	512MB / 8GB eMMC (Optional)
	Brightness	280 cd/m2	Digital I/O	8-bit GPIO x 1
	Backlight life	20,000 hrs	Power Requirement	+5VDC
	Contrast Ratio	450:1	Power Consumption	10 W (Max.)
	Touch Screen Type	Analog Resistive	Operating Temperature	-20°C ~ +60°C
CPU		Vortex86EXm 400MHz	Storage Temperature	-30°C ~ +70°C
System Memory		128MB / 256MB Onboard	Audio	HD Audio, Min-in x 1/ SPK-L, SPK-R Connector x 1
Serial Port		RS-232/485/CANbus x 1 (Optional)		
USB Port		USB Ports (Ver. 2.0) x 2	Dimensions (W x H x D) mm	105.5 x 67.2 x 13.6
Ethernet		Integrated 10/100Mbps Ethernet	Operating System	Linux, Win CE, DOS

Open Frame Series

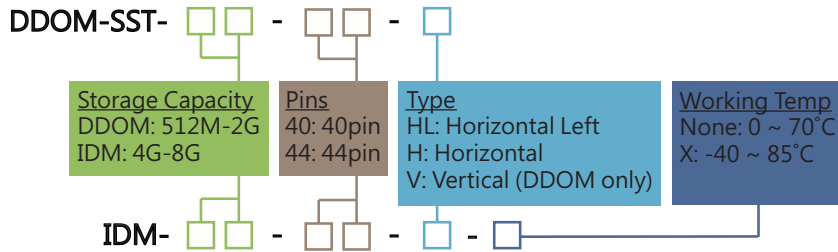


Hardware Specifications:

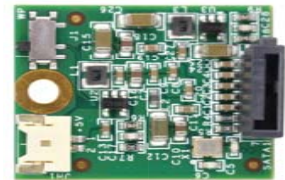
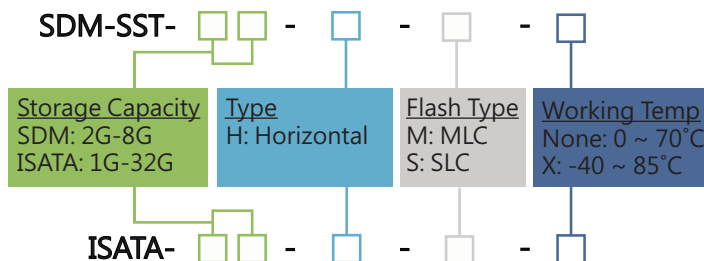
Model Name		VOX-065-TS	VOX-084-TS	VOX-104-TS	VOX-150-TS
LCD Display	Size	6.5" VGA (640 x 480)	8.4" SVGA (800 x 600)	10.4" SVGA (800 x 600)	15" XGA (1024 x 768)
	Brightness	800 cd/m2	250 cd/m2	400 cd/m2	350 cd/m2
	Backlight life	50,000 hrs	30,000 hrs	50,000 hrs	50,000 hrs
	Contrast Ratio	600:1	600:1	700:1	700:1
	Touch Screen Type	Analog Resistive			
Default SBC		VDX2-6526-512MB (933MHz) / VDX3-6726-1G (1GHz) Please contact the region sales base on different I/O combination			
Power Requirement		5VDC / 12VDC			
Power Consumption		24W (Max.)			
Operating Temperature		0 ~ +50 °C / -20 ~ +60 °C			
Dimensions (W x H x D) mm		190 x 145 x 41.9	230.4 x 150 x 29	303 x 204 x 45.5	368 x 278 x 45.5
Operating System		DOS, Linux, Win CE, Win XP, Win 7, Windows Embedded Standard			

Storage

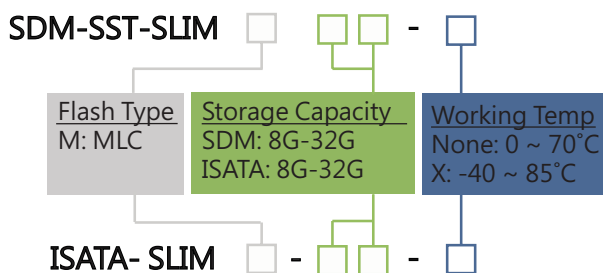
IDE DOM Series



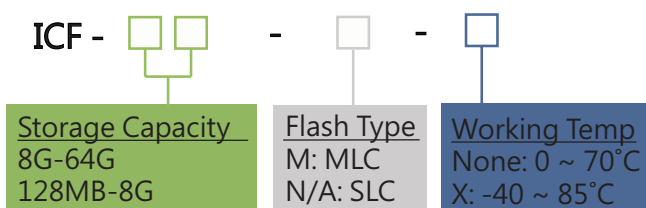
SATA DOM Series



SATA SLIM Series



iCF Card Series



Box PC

iBPC



Power requirement: +12 ~ 24VDC
Dimensions: 152 X 104 X 54mm

PART NO.	CPU (MHz)	DRAM (DDR3)	Mini PCIe*	Storage	Display	LAN	Audio	USB/COM	GPIO	CAN
iBPC-75GE	1000	2GB	1	SATA 2.5" HDD Rack	VGA LVDS	1	1	4/3	8-bit Isolated + 8-bit Standard	N/A
iBPC-75CE	1000	2GB	1	SATA 2.5" HDD Rack	VGA LVDS	1	1	4/3	8-bit Isolated	1
iBPC-75FE	1000	2GB	1	SATA	VGA LVDS	1	1	4/3	8-bit Isolated + 8-bit Standard	1

*Mini PCIe: USB + RS232 signal for 3G/4G Module

**Operating Temp.: -20°C ~ +70°C

EB-3362-I



Power requirement: +8 ~ +24VDC
Dimensions: 115 X 115 X 35mm

PART NO.	CPU (MHz)	DRAM (DDR3)	Mini PCIe	Storage	Display	LAN	USB	COM	GPIO	SIM Card Slot	Auto Power On
EB-3362-L2851C3P-I	1000	2GB	1	SD	VGA	2	4*	4	N/A	N/A	Support
EB-3362-C2G2SIM-I	1000	2GB	1	SATA SD	VGA	1	3	2	8-bit X2	1	Support
EB-3362-L2C2851G1E-I	1000	2GB	N/A	SATA	VGA	2	4*	3	8-bit	N/A	Support

*The internal USB interface is designed for wireless dongle only.

**Operating Temp.: -20°C ~ +70°C

VESA Mounting



DIN Rail support



Box PC

D-3362-I



Power requirement: +8 ~ 24VDC
Dimensions: 152 X 104 X 54mm

PART NO.	CPU (MHz)	DRAM (DDR3)	Storage	Display	LAN	USB	COM	GPIO	Auto Power on	DIN Rail
D-3362-852C2-I	1000	2GB	SATA SD(Internal)	VGA	2	3*	4	N/A	Support	Support
D-3362-851C1G2-I	1000	2GB	SATA SD(Internal)	VGA	2	3*	2	8-bit x2	Support	Support

*Internal USB port is for wireless dongle

**Operating Temp.: -20°C ~ +70°C

ICE-104



PART NO.	CPU (MHz)	DRAM	Display	Storage	LAN	USB	COM	GPIO	IP Rating	Power Requirements	Fanless Design
ICE-6754-DC	1000	1GB/2GB	VGA	SATA	1	2	3	YES	65 67(Optional)	DC AC(Optional)	YES
ICE-6354-DC	800	256/512MB	VGA	IDE	1	2	3	YES	65 67(Optional)	DC AC(Optional)	YES
ICE-6358-DC	800	256/512MB	VGA	IDE	2	2	2	YES	65 67(Optional)	DC AC(Optional)	YES

*Operating Temp.: -60°C ~ +80°C, -100°C ~ +80°C(Optional)

