



Vortex86EX2 Vortex86DX3 Vortex86EX Vortex86DX2 Vortex86MXplus Vortex86DX Vortex86SX

Frequency	600 MHz (typ.)	1000 MHz (typ.)	400 MHz (typ.)	800 MHz (typ.)	933 MHz (typ.)	800 MHz (typ.)	300 MHz (typ.)
Core	Two (600+400 MHz)	Dual	Single	Single	Single	Single	Single
Process	65nm	40nm	90nm	90nm	90nm	90nm	130nm
FPU	Yes	Yes	Yes	Yes	Yes	Yes	N/A
L1 Cache	16KB C/D Cache	16KB C/D Cache	16KB C/D Cache	16KB C/D Cache	16KB C/D Cache	16KB C/D Cache	16KB C/D Cache
L2 Cache	128KB	256KB	128KB	256KB	256KB	256KB	N/A
BIOS Flash	N/A	8MB	N/A	2MB	2MB	2MB	256KB
DRAM Bus	16-bit DDR3 2GB Max. (2-bit ECC)	32-bit DDR3 2GB Max.	16-bit DDR3 1GB Max.	32-bit DDR2 2GB Max.	32-bit DDR2 1GB Max.	16-bit DDR2 1GB Max.	16-bit DDR2 512MB Max.
GPU	N/A (external PCI/Graphoc chip, Vortex86 VGA is available)	2D Engine, CRT/LCD, UMA, Dual Display	N/A	2D Engine, CRT/LCD, UMA	2D Engine, CRT/LCD	N/A	N/A
HD-Audio	Yes	Yes	Yes	Yes	Yes	N/A	N/A
WatchDog	2	2	1	2	2	2	2
PCI Bus	PCI + PCIe x 2	PCIe x 2	PCIe x 1	PCIe x 2	Yes	Yes	Yes
ISA Bus	Yes	Yes	x-ISA	Yes	N/A	Yes	Yes
LPC Bus	N/A	N/A	N/A	N/A	Yes	Yes	Yes
USB	USB 2.0 Host x 2	USB 2.0 Host x 4 USB 1.1 Client x 1	USB 2.0 Host x 2 USB 1.1 Client x 1	USB 2.0 Host x 4 USB 1.1 Client x 1	USB 2.0 Host x 4 USB 1.1 Client x 1	USB 2.0 Host x 4 USB 1.1 Client x 1	USB 2.0 Host x 4
Serial Port	10 max.	9 max.	10 max.	9 max.	3 max.	5 max.	5 max.
GPIO Port	128-bit max.	88-bit max.	80-bit max.	88-bit max.	40-bit max.	40-bit max.	40-bit max.
Ethernet (10/100Mbps)	2	1	1	1	1	1	1
SD/MMC	3	2	2	2	2	2	N/A
SATA/IDE	N/A	IDE + SATA	SATA	IDE + SATA	IDE	IDE	IDE
Parallel Port	1	1	1	1	1	1	1
CAN	2	0	1	0	0	0	N/A
I2C	2	2	1	2	2	2	2
SPI	2	2	1	2	2	1	1
ADC	12-bit x 16 chan.	11-bit x 8 chan.	11-bit x 8 chan.	N/A	N/A	N/A	N/A
Package Size	19 x 19 mm	31 x 31 mm	16 x 16 mm	31 x 31 mm	31 x 31 mm	27 x 27 mm	27 x 27 mm
Ambient Temp	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +85°C	-20 ~ +70°C	-40 ~ +85°C	-40 ~ +85°C