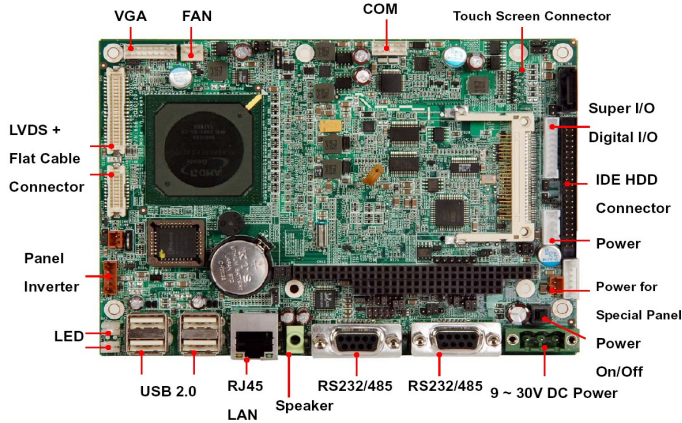


# OAK 2020

Fanless Panel EBC with AMD LX-800 processor  
LAN , USB , VGA , LVDS/TTL-LCD , Touch Screen , CF ,  
PC-104 , Mini-PCI , Audio , RS-232 / 485, Back-up SRAM



## Feature highlight

AMD LX-800	Fanless	DDR 400	TTL / LVDS	VGA	DC 9 ~ 30V
PC-104 expansion	Mini-PCI	Wireless LAN *	FE LAN	USB	Back-up SRAM
SATA	2.5" IDE	CF	RS-232/485	D-I/O	KB/MS
Audio	Touch screen	Linux	Windows	Win CE	ROHS

\* : Optional function

## Specification

### Fanless platform

- Low power low operation temperature
- Fanless platform without active cooling part failure problem

### Form Factor

- EPIC CPU board Compact size Chassis , Heavy-Duty Steel

### Dimension

- EPIC Compact size 165(W) X 115(D) mm

### Processor with North Bridge

- AMD LX-800- 500 Mhz Ultra low power Processor  
With 64KB I-cache / 64KB D-cache and 128KB L2 cache
- Integrate North bridge core logic inside

### South Bridge

- CS-5536 South bridge Multi-Function Chipset

### Memory

- High Reliable 266 / 400 Mhz DDR Memory  
One channel SD-DIMM socket , up to 1GB w/o ECC

### BIOS

- 512KB Award System BIOS

### ACPI function

- Software Power off ( ATX mode)
- Wake On LAN(S5)/ Keyboard(S1)/ Ring(S1)/ RTC alarm(S1)
- Suspend to RAM(S3)

### Linux Driver supports

- Watch-Dog Timer Driver
- System status LED control Driver
- Event Trigger Driver from Push Button

### Disk Drive Storage

- 1 SATA/ DMA 66/100 2.5" HDD Drive bay & 1 CF slot
- Selectable CF as Master + HDD as Slave  
Or Selectable HDD as Master + CF as Slave

### FE Ethernet

- 1 port of PCI I/F Realtek 8100(FE) LAN controller  
controller with RJ-45 connector
- Support MIDX media auto reverse function
- Support Boot from LAN function

### Wireless LAN support

- Optional support Mini-PCI 802.11 b/g/n Wireless LAN module

### Display support

- 1 DB-15 CRT VGA support 1920x1440x32 bpp at 85 HZ  
1600x1200x32 bpp at 100 HZ
- 1 Flat panel display support 18 bit LVDS interface  
There also support 24 bit or 18 bit TFT LCD interface.

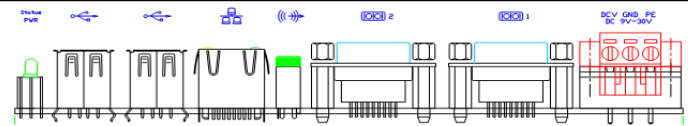
### Touch Screen controller

- Support 4/5 Resistor type touch screen

### Ordering Guide

Ordering No.	CPU	Memory	FE LAN	USB	TTL-LCD	LVDS-LCD	RS-232/485	Audio	Mini-PCI	SRAM
OAK 2020-122	LX-800	0 MB	1	4	24 & 18 bit	18 bit	2	1	1	256KB
OAK 2020-120	LX-800	0 MB	1	4	24 & 18 bit	18 bit	2	1	1	0 KB

Note : Embedded board block diagram please reference OAK 2010



### Expansion slot supports

- 1 Mini-PCI expansion slot
- 1 PC-104 expansion slot

### Multi-function Micro switch

- selectable function as: Reset / Event trigger / Power on/off

### Audio support

- 1 Speaker , 1 Line-in and 1 microphone

### Watchdog timer

- Software programmable WDT from 1 to 255 seconds

### Battery Back-up SRAM & Real Time Clock RAM

- 256K bytes battery back-up SRAM
- 256 bytes CMOS RAM built-in chipset

### External I/O supports

- 4 USB 2.0 connector
- 1 RJ-45 LAN connector
- 2 DB-9 RS-232/485 connector
- 1 Speaker connector
- 2 LED for power / storage / status information
- 1 switch for power on-off / Reset / Event trigger
- 1 DC power input connector- 5.0mm 1\*3 Din connector

### Internal reserved I/O supports

- 1 24 bit TTL TFT LCD connector
- 1 18 bit TTL TFT LCD connector
- 1 18 bit LVDS TFT LCD connector
- 1 RS-232 2.54 mm, optional Transceiver/non-Transceiver
- One 4 / 5 wire Resistor type Touch Screen connector
- 1 Audio connector
- 1 VGA connector
- 1 digital I/O
- 1 KB/Mouse connector

### Power input

- DC input 9 ~ 30 V
- 1 DC power input connector- 5.0mm 1\*4 Din connector

### Power ON/OFF mode

- AT or ATX Power on/off mode

### Environment

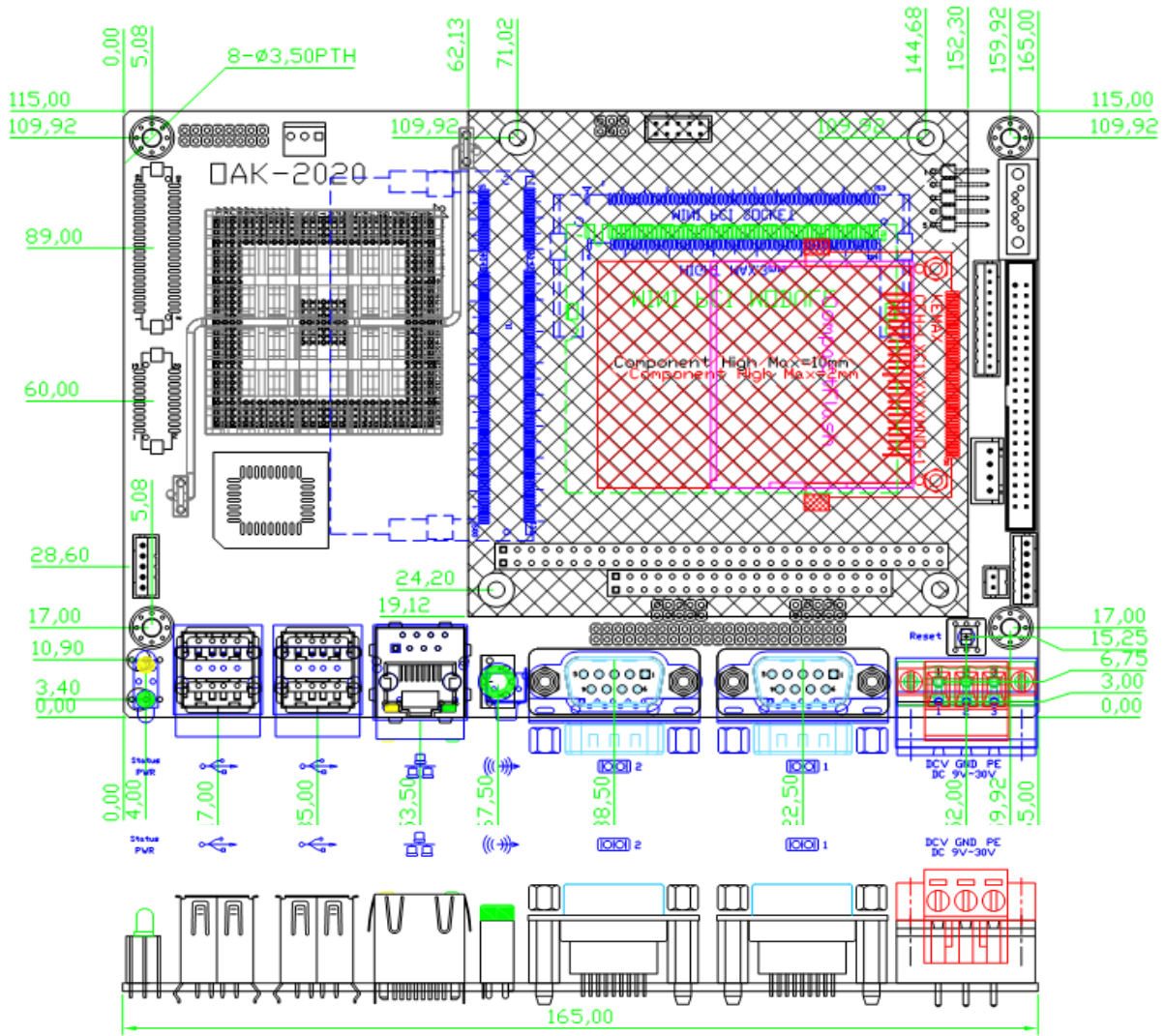
- Operation temperature : 0°C ~ 60°C
- Storage temperature : -20°C ~ 80°C
- Relative humidity : 10% ~ 90% ( Non-condensing)

### Certification

- CE Class A
- FCC Class A

Specification may change without notice

# OAK 2020 Mechanical Diagram



# OAK 2020 Block Diagram

