ADVANTECH CO., LTD.

PCA-6154L

Device Type Single Board Computer

Processor CX 6X86L/CX 686MX/AM K5/AM K6/IDT C6/Pentium/Pentium MMX

Processor Speed 100/120/133/150/166/180/200/233/266/300MHz

Chip SetSISVideo Chip SetSIS

Maximum Onboard Memory 128MB (EDO supported), Unified Memory Architecture (UMA)

Cache 512KB (located on the CPU)

BIOS Award

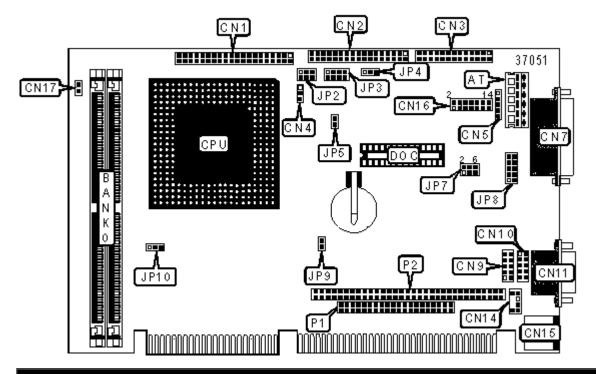
Dimensions 185mm x 122mm

I/O Options Floppy drive interface, IDE interface, parallel port, PS/2 mouse/keyboard

interface, serial interface, serial port, VGA port, USB interface, IR connector,

AT power connector, PC/104 connector (16-bit)

Data Bus 16-bit ISA



| CONNECTIONS | | | | | |
|------------------------|----------|-------------------------------|--------------------|--|--|
| Purpose | Location | Purpose | Location | | |
| AT power connector | AT | Keyboard interface | CN14 | | |
| IDE interface | CN1 | PS/2 mouse/keyboard interface | CN15 | | |
| Floppy drive interface | CN2 | Power interface LED | CN16/Pins 2, 4 & 6 | | |
| Parallel port | CN3 | Buzzer | CN16/Pins 5 & 7 | | |
| CPU Fan power | CN4 | Reset switch | CN16/Pins 11 & 12 | | |
| IR connector | CN5 | IDE interface LED | CN17 | | |
| VGA port | CN7 | Disk-on-Chip | DOC | | |

| USB interface | CN9 | PC/104 connector (8-bit) | P1 |
|------------------|------|---------------------------|----|
| Serial interface | CN10 | PC/104 connector (16-bit) | P2 |
| Serial port | CN11 | | |

| | USER CONFIGURABLE SETTINGS | | | | | | |
|---|-----------------------------------|-------|-------------------|--|--|--|--|
| | Function | Label | Position | | | | |
| » | Factory configured - do not alter | JP4 | Pins 2 & 3 closed | | | | |
| » | CMOS memory normal operation | JP5 | Open | | | | |
| | CMOS memory clear | JP5 | Closed | | | | |
| » | CPU clock optimization enabled | JP10 | Pins 2 & 3 closed | | | | |
| | CPU clock optimization disabled | JP10 | Pins 1 & 2 closed | | | | |

| CPU SPEED SELECTION (CX 6X86L) | | | | | | |
|--------------------------------|----------------|------------|-------------------|-------------------|----------------|----------------|
| CPU speed | Clock speed | Multiplier | JP2/Pins 1 & 2 | JP2/Pins 3 & 4 | JP2/Pins 5 & 6 | JP9/Pins 1 & 2 |
| 133MHz | 66MHz | 2x | Closed | Open | Open | Open |
| 150MHz | 75MHz | 2x | Closed | Open | Open | Closed |

| CPU SPEED SELECTION (CX 6X86MX) | | | | | | |
|---------------------------------|----------------|------------|-------------------|-------------------|----------------|----------------|
| CPU speed | Clock speed | Multiplier | JP2/Pins 1 & 2 | JP2/Pins 3 & 4 | JP2/Pins 5 & 6 | JP9/Pins 1 & 2 |
| 166MHz | 66MHz | 2.5x | Closed | Closed | Open | Open |

| | CPU SPEED SELECTION (AM K5) | | | | | | |
|-----------|-----------------------------|------------|-------------------|-------------------|----------------|----------------|--|
| CPU speed | Clock speed | Multiplier | JP2/Pins 1 & 2 | JP2/Pins 3 & 4 | JP2/Pins 5 & 6 | JP9/Pins 1 & 2 | |
| 100MHz | 66MHz | 1.5x | Open | Open | Open | Open | |
| 133MHz | 66MHz | 2x | Closed | Open | Open | Open | |
| 166MHz | 66MHz | 2.5x | Closed | Closed | Open | Open | |

| CPU speed | Clock speed | Multiplier | JP2/Pins 1 & 2 | JP2/Pins 3 & 4 | JP2/Pins 5 & 6 | JP9/Pins 1 & 2 |
|-----------|----------------|------------|-------------------|-------------------|----------------|----------------|
| 166MHz | 66MHz | 2.5x | Closed | Closed | Open | Open |
| 200MHz | 66MHz | 3x | Open | Closed | Open | Open |
| 233MHz | 66MHz | 3.5x | Open | Open | Open | Open |

| CPU SPEED SELECTION (IDT C6) | | | | | | |
|------------------------------|----------------|------------|-------------------|-------------------|----------------|----------------|
| CPU speed | Clock speed | Multiplier | JP2/Pins 1 & 2 | JP2/Pins 3 & 4 | JP2/Pins 5 & 6 | JP9/Pins 1 & 2 |
| 200MHz | 66MHz | 3x | Open | Closed | Open | Open |

| | CPU SPEED SELECTION (PENTIUM) | | | | | |
|-----------|-------------------------------|------------|-------------------|-------------------|----------------|----------------|
| CPU speed | Clock speed | Multiplier | JP2/Pins 1 & 2 | JP2/Pins 3 & 4 | JP2/Pins 5 & 6 | JP9/Pins 1 & 2 |
| 100MHz | 66MHz | 1.5x | Open | Open | Open | Open |
| 133MHz | 66MHz | 2x | Closed | Open | Open | Open |
| 166MHz | 66MHz | 2.5x | Closed | Closed | Open | Open |
| 200MHz | 66MHz | 3x | Open | Closed | Open | Open |

| CPU SPEED SELECTION (PENTIUM MMX) | | | | | | |
|-----------------------------------|----------------|------------|-------------------|-------------------|----------------|----------------|
| CPU speed | Clock speed | Multiplier | JP2/Pins 1 & 2 | JP2/Pins 3 & 4 | JP2/Pins 5 & 6 | JP9/Pins 1 & 2 |
| 166MHz | 66MHz | 2.5x | Closed | Closed | Open | Open |
| 200MHz | 66MHz | 3x | Open | Closed | Open | Open |
| 233MHz | 66MHz | 3.5x | Open | Open | Open | Open |

| DOC ADDRESS SELECTION | | | | | |
|-----------------------|--------------------------|--|--|--|--|
| Address | JP7 | | | | |
| Off | Open | | | | |
| CC00 - CDFF | Pins 3 & 4, 5 & 6 closed | | | | |
| D000 - D1FF | Pins 1 & 2, 5 & 6 closed | | | | |

| D400 - D5FF | Pins 5 & 6 closed |
|-------------|--------------------------|
| D800 - D9FF | Pins 1 & 2, 3 & 4 closed |
| DC00 - DDFF | Pins 3 & 4 closed |
| E000 - E1FF | Pins 1 & 2 closed |

| SERIAL PROTOCOL SETTING | | | | | | |
|-------------------------|--------|---|--|--|--|--|
| Protocol | | JP8/Pins 1 & 2 | | | | |
| » | RS-232 | Pins 1 & 2, 7 & 9, 11 & 12, 13 & 15, 17 & 18 closed | | | | |
| | RS-422 | Pins 3 & 4, 7 & 8, 10 & 12, 13 & 14, 16 & 18 closed | | | | |
| | RS-485 | Pins 5 & 6, 7 & 8, 10 & 12 closed | | | | |

| CPU VOLTAGE SELECTION | | | | | | | |
|-----------------------|----------------|----------------|----------------|----------------|--|--|--|
| Voltage | JP3/Pins 1 & 2 | JP3/Pins 3 & 4 | JP3/Pins 5 & 6 | JP3/Pins 7 & 8 | | | |
| 1.9v | Open | Open | Open | Open | | | |
| 2v | Closed | Open | Open | Open | | | |
| 2.2v | Open | Closed | Open | Open | | | |
| 2.3v | Closed | Closed | Open | Open | | | |
| 2.4v | Open | Open | Closed | Open | | | |
| 2.5v | Closed | Open | Closed | Open | | | |
| 2.6v | Open | Closed | Closed | Open | | | |
| 2.7v | Closed | Closed | Closed | Open | | | |
| 2.8v | Open | Open | Open | Closed | | | |
| 2.9v | Closed | Open | Open | Closed | | | |
| 3v | Open | Closed | Open | Closed | | | |
| 3.1v | Closed | Closed | Open | Closed | | | |
| 3.2v | Open | Open | Closed | Closed | | | |
| 3.27v | Closed | Open | Closed | Closed | | | |

| » | 3.3v | Open | Closed | Closed | Closed |
|---|-------|--------|--------|--------|--------|
| | 3.45v | Closed | Closed | Closed | Closed |