FAQ C6 IPC

Bios Settings

<table>
<thead>
<tr>
<th>Part</th>
<th>Version</th>
<th>Revision</th>
<th>Date</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>en</td>
<td>3.5.9.70</td>
<td>001</td>
<td>2019-01-01</td>
<td>Released</td>
</tr>
</tbody>
</table>

Content
Introduction.......................................................................................................................2
Access the BIOS....................................................................................................................2
BIOS Settings for IPC C6 Perform .......................................................................................3
  Area ‘Main’ ......................................................................................................................3
  Area ‘Advanced’ ...............................................................................................................4
  CPU Control ......................................................................................................................5
  Video settings ..................................................................................................................7
  Integrated devices ............................................................................................................8
  USB support .....................................................................................................................10
  Additional Areas ..............................................................................................................13
  Area ‘Exit’ ......................................................................................................................15
BIOS settings for IPC C6 Econ. ..........................................................................................16
  Area ‘Main’ ......................................................................................................................16
  Area ‘Advanced’ ...............................................................................................................18
  Dothan CPU Control Sub-Menu .........................................................................................21
    Processor Power Management C6 ECON (1Ghz Celeron) .............................................22
    Processor Power Management C6 BM2 (2Ghz Pentium M 760) ...................................22
  Video settings ..................................................................................................................23
  Additional areas ...............................................................................................................27
  Area ‘Exit’ ......................................................................................................................28
Disclaimer ...........................................................................................................................29
Introduction
As it is possible, that an IPC’s BIOS settings get relocated this guide is meant to provide a guideline, which settings are to be made in order to have the IPC set up as desired.

Access the BIOS
On all IPC systems, the BIOS can be accessed by pressing F2 during the Power-On-Self-Test on a connected keyboard.
BIOS Settings for IPC C6 Perform

Note: The settings were recorded from a Core2Duo system, XX.C6-A?1-D???, for systems based on a Celeron CPU (XX.C6.A?1-C???) the settings will slightly differ!

Area ‘Main’
Area 'Advanced'

![Image of BIOS Settings](image1)

![Image of BIOS Settings](image2)
CPU Control

It is essential, that the CPU's power management remains disabled. The second CPU core may remain enabled, however.
Video settings

For the use of the three different display types, choose the correct combination here. The VGA output is referred to as ‘CRT’, the DVI output is referred to as ‘EFP’ and the optional, build-in touchpanel is referred to as ‘LFP’. Choose a combination of up to two active hardware outputs.
Integrated devices

Here, all additional devices are configured. LAN 2, which is the default Ethernet port of the system, is activated here.
USB support

The internal USB root hub is configured here. Legacy USB support is recommended to remain disabled, but the feature has to be enabled whenever the system is supposed to boot from a USB key.
### National 311x SID Control Sub-Menu

<table>
<thead>
<tr>
<th>Serial Ports</th>
<th>Item Specific Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel port:</td>
<td>(Disabled)</td>
</tr>
<tr>
<td>Floppy disk controller:</td>
<td>(Disabled)</td>
</tr>
<tr>
<td>PS/2 Mouse</td>
<td>(Auto Detect)</td>
</tr>
<tr>
<td>Keyboard Delay:</td>
<td>(Enabled)</td>
</tr>
</tbody>
</table>

### Advanced

<table>
<thead>
<tr>
<th>Serial Ports</th>
<th>Item Specific Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial port A:</td>
<td>(Enabled)</td>
</tr>
<tr>
<td>Base I/O address:</td>
<td>(3F8)</td>
</tr>
<tr>
<td>Interrupt:</td>
<td>(IRQ 4)</td>
</tr>
<tr>
<td>Serial port B:</td>
<td>(Enabled)</td>
</tr>
<tr>
<td>Base I/O address:</td>
<td>(2F8)</td>
</tr>
<tr>
<td>Interrupt:</td>
<td>(IRQ 3)</td>
</tr>
<tr>
<td>Mode:</td>
<td>(Normal)</td>
</tr>
<tr>
<td>Serial port C:</td>
<td>(Disabled)</td>
</tr>
<tr>
<td>Serial port D:</td>
<td>(Enabled)</td>
</tr>
<tr>
<td>Base I/O address:</td>
<td>(2E8)</td>
</tr>
<tr>
<td>Interrupt:</td>
<td>(IRQ 11)</td>
</tr>
</tbody>
</table>
The automatic fan regulation may be enabled here. If this is done, the user may configure temperature limits of the regulation, e.g. a limit below which fans operate at 33% of their speeds and a band in which the fan speed linearly increases up to the maximum.

Additional Areas
After Power Failure: Power On

Sets the mode of operation if an AC/Power Loss occurs. The two modes are:

Enabled restores the previous power state before loss occurred.

Disabled keep the power off until the power button is pressed.

The Disabled choice turns of Resume on Modem Ring.

Boot priority order:
1: IDE 1:
2: USB HDD:
3: IDE 0: SPCF2049F3BKZSA-C-D0-513-3
4: 5: 6: 7:
8: Excluded from boot order:
   : IDE 1:
   : IDE 2:
   : IDE 3:
   : IDE 4:
   : USB FDC:
   : USB CDROM:
   : USB ZIP:

Item Specific Help

Keys used to view or configure devices:
Up and Down arrows select a device.
< and > moves the device up or down.
< or > specifies the device fixed or removable.
< exclude or include the device to boot.
<Shift + > enables or disables a device.
<1 - 4> Loads default boot sequence.
Area ‘Exit’

After any changes made in the BIOS, remember to quit the exit dialog using ‘Exit saving changes’. In contrast, if you are not sure, what you have changed or what the changes may affect, be sure to select ‘Exit discarding changes’!
BIOS settings for IPC C6 Econ

Area ‘Main’
Legacy USB support is recommended to remain disabled, but the feature has to be enabled whenever the system is supposed to boot from a USB key.
As the C6 Econ system is generally fanless, changing these setting will not have any effect at all.
Dothan CPU Control Sub-Menu

- Dothan CPU Control Sub-Menu
- MCH Control Sub-Menu
- Video (Intel IGD) Control Sub-Menu
- ICH Control Sub-Menu
- ACPI Control Sub-Menu
- I2P Control Sub-Menu

CK-410 Clock Chip:
Spread Spectrum Mode:

Item Specific Help

These items control various CPU parameters.
Processor Power Management C6 ECON (1Ghz Celeron)

It is essential, that the CPU's power management remains disabled.

Processor Power Management C6 BM2 (2Ghz Pentium M 760)
It is essential, that the CPU’s power management is set to “GV1/GV3 Only” For the device C6 BM2 (2Ghz Pentium M 760).

Video settings

The only valid combination for a C6 ECON is here ‘CRT + LFP-SDVO’; The VGA output is referred to as ‘CRT’, and the optional, build-in touchpanel is referred to as ‘LFP’
### PCI Express Control Sub-Menu

| PCI Express - Root Port 1: | Enabled |
| PCI Express - Root Port 2: | Auto |
| PCI Express - Root Port 3: | Disabled |
| PCI Express - Root Port 4: | Disabled |
| Root Port ASPM Support: | Disabled |

**Item Specific Help**

- **Control the PCI Express Port via this setup option.**
- **Disabled - Port always disabled.**
- **Auto - Only enable if card found.**
- **Note that if Root Port 1 is disabled, Root Ports 2-4 will be disabled as well.**

---

### ICH USB Control Sub-Menu

| Device 29, Function 0-3: | Enabled |
| Device 29, Function 1-3: | Enabled |
| Device 29, Function 2-3: | Enabled |
| Device 29, Function 3: | Disabled |
| USB 2.0 Support: | Enabled |

**Item Specific Help**

- **Control the listed USB Functions by setting the item to the desired value.**
Additional areas

![Image of BIOS setup utility](image1.png)

![Image of BIOS setup utility](image2.png)
Area ‘Exit’

After any changes made in the BIOS, remember to quit the exit dialog using ‘Exit saving changes’. In contrast, if you are not sure, what you have changed or what the changes may affect, be sure to select ‘Exit discarding changes’!
Disclaimer

KEB Automation KG reserves the right to change/adapt specifications and technical data without prior notification. Although the manual and the information contained in it is made with care, KEB does not accept responsibility for misprint or other errors or resulting damages. The marks and product names are trademarks or registered trademarks of the respective title owners.

The information contained in the technical documentation, as well as any user-specific advice in verbal or in written form are made to the best of our knowledge and information about the application. However, they are considered for information only without responsibility. This also applies to any violation of industrial property rights of a third-party.

Inspection of our units in view of their suitability for the intended use must be done generally by the user. Inspections are particular necessary, if changes are executed, which serve for the further development or adaption of our products to the applications (hardware, software or download lists). Inspections must be repeated completely, even if only parts of hardware, software or download lists are modified.

Application and use of our units in the target products is outside of our control and therefore lies exclusively in the area of responsibility of the user.